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NEC

UX5000



Software Feature Manual

P/N 0913201

Rev 3, May 2008

Printed in U.S.A.

1.0

Technical Support Web Site:
<http://www.necux5000.com>

This manual has been developed by NEC Unified Solutions, Inc. It is intended for the use of its customers and service personnel, and should be read in its entirety before attempting to install or program the system. Any comments or suggestions for improving this manual would be appreciated. Forward your remarks to:

NEC Unified Solutions, Inc.
4 Forest Parkway
Shelton, CT 06484
necunifiedsolutions.com

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Before Reading This Manual

This manual provides detailed information on the UX5000's features. If you don't know what the various features are, review the Table of Contents for this section and the manual's Index. After reviewing, turn back for the specifics.

Using This Manual

The features in this manual are in alphabetical order, like a dictionary. This section subdivides each feature definition into headings as follows:

The **Compatibility Chart** at the top of each feature shows you if the feature is available for each UX5000 and what UX5000 software is required.

Description tells what the feature is and describes its benefits. Along with the Description are the *Conditions* and *Default Setting*. Conditions provides the feature's operational limits (if any). Default Setting outlines how the feature works with the default programming. When initially installed, the UX5000 uses the default setting.

Programming explains the UX5000 programming that lets you customize the feature. Some features require programming; other's don't. If you decide to customize a feature, the programs are listed with some detail. Use the UX5000 Software Programming Manual, P/N 0913202, for complete information on each program.

Related Features presents the feature interaction.

Operation consists of instructions on how to use each feature.

◆ Read These Notes ◆

Simplifying Keypad Operation with One-Touch Keys...

A keypad user can access many features through Service Codes (e.g., Service Code *16 leaves a Message Waiting for a co-worker). To streamline the operation of their terminal, a keypad user can store these codes under One-Touch Programmable Function Keys. This provides one-button operation for almost any feature. To find out more, turn to the One-Touch Calling and One-Touch Serial Operation features.

Programmable Keys...

When reading an instruction using programmable keys, you will see a notation similar to (*PGM 15-07 or SC 89nn*). This means that the key requires function code nnn, and you can program this code through Program 15-07 or by dialing Service Code 851 or 852. Refer to the Programmable Function Keys feature for more information.

Using Handsfree...

The manual assumes each extension has Automatic Handsfree. This lets a user just press a line key or CALL key to answer or place a call. For extensions without Automatic Handsfree, the user must:

- Lift the handset or press SPK for Intercom dial tone
- Lift the handset or press SPK, then press a line key for trunk dial tone

About This Manual

- For Your Notes -

Table 1: Abbreviated and Post Dialing Service Codes

Abbreviated Service Codes ¹				
Code	Starting with an asterisk (*)		Starting with a pound sign (#)	
	For this feature. . .	When you are. . .	For this feature. . .	When you are. . .
* (+ ext. no.)	Directed Call Pickup	Picking up a call ringing or waiting at an extension	UX5000 Programming Password Protection	Entering the terminal programming mode
#	Group Call Pickup	Picking up a call ringing an extension in your own pickup group	Account Codes	Entering an Account Code from an SLT
0	Message Waiting	Answering a Message Waiting Request	Central Office Calls, Answering	Using Universal Answer to pick up a call ringing over the paging UX5000
1 (+ Zone 0-8)	Paging	Making a Combined Page	Conference	Adding a caller to a Conference from an SLT
2 (+ option)	Call Forwarding	Enabling a Call Forwarding option	Abbreviated Dialing	Dialing a Common Abbreviated dialing number
3 (+ trunk no.)	Forced Trunk Disconnect	Disconnecting a call in progress on a trunk	Flash	Flashing a trunk from an SLT
4	Call Forwarding, Off Premise, Selectable Display Messaging, Voice Response System (VRS)	Setting up Selectable Display Messaging, Off Premise Call Forwarding or Personal Greeting	Abbreviated Dialing	Dialing a Group Abbreviated Dialing number
5	Automatic Call Distribution (ACD)	Logging out of or on to an ACD Group	Last Number Redial	Using Last Number Redial
6 (+ orbit)	Park	Picking up a call parked in a UX5000 Park orbit (01-64)	Park	Parking a call in a UX5000 Park orbit (01-64)
7	Call Waiting / Camp On	Splitting (switching) between calls on an SLT	Abbreviated Dialing	Using Personal Abbreviated Dialing
8	Voice Mail	Calling your mailbox	Tandem Trunking (Unsupervised Conference)	Setting up an Unsupervised Conference
9	Not Used		Central Office Calls, Placing	Placing an outside call over a specific trunk

¹ Also see Tables 2 and 3.

Charts and Illustrations

Table 2: Abbreviated and Post Dialing Service Codes		
Single Digit Post Dialing Codes		
For this feature. . .		When you are. . .
1	Handsfree Answerback / Forced intercom Ringing	Changing the signaling mode of your outgoing Intercom call
2	Call Waiting / Camp On / Callback / Trunk Queuing	Camping on to or leaving a Callback at a busy extension or trunk
3-5	Not used	
6	Voice Over	Sending a Voice Over to a busy extension after hearing Busy/Ring tone
7	Off Hook Signaling	Sending off-hook signal tones to a busy extension
8	Voice Mail	Leaving a message in a co-worker's mailbox after calling their busy or unanswered extension
0	Message Waiting	Leaving a Message Waiting at a co-worker's busy or unanswered extension
#	Department Step Calling	Cycling to the next member of a Department Calling Group

Table 3: Service Codes by Number

Dial this Service Code. . . ¹	When you are. . .	For this feature. . .	Also see Function Key. . .
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
* + Enter Account Code + *	Entering an Account Code	Account Codes	-
**	Picking up a call ringing or waiting at another extension	Directed Call Pickup Voice Response System (VRS)	-
*#	Picking up a call ringing an extension in your own pickup group (except Ring Group calls)	Group Call Pickup	24
*0	Answering a Message Waiting request	Message Waiting	38
*1	Making a Combined Page	Paging	-
*2 + 0	Canceling Call Forwarding	Call Forwarding	16
*2 + 1 + Type (2-4)	Activating Personal Answering Machine Emulation	Voice Mail (Personal Answering Machine Emulation)	16
*2 + 2 + Destination + Type (2-4)	Activating Call Forwarding when Busy/Not Answered	Call Forwarding	16
*2 + 3 + Destination + Type (2-4)	Activating Call Forward Follow Me at the destination extension	Call Forwarding with Follow Me	16
*2 + 4 + Destination + Type (2-4)	Activating Call Forwarding Immediate	Call Forwarding	16
*2 + 6 + Destination + Type (2-4)	Activating Call Forwarding when Unanswered (delayed)	Call Forwarding	16
*2 + 7 + Destination + Type (2-4)	Activating Call Forwarding (Both Ringing)	Call Forwarding	16
*3 (After #9 + 001-200 + busy)	Disconnecting a call in progress on a trunk	Forced Trunk Disconnect	-
*4 + 3 + Message (01-20), or *4 + 3 + Hang up to cancel	Activating and canceling Selectable Display Messaging	Selectable Display Messaging	17
*4 + 6 + Trunk access code + Outside number, or *4 + 6 + Hold + Hang up to cancel	Forwarding your calls to an off-premise telephone number	Call Forwarding Off-Premise	17
*4 + 7 + Record message + # + Condition (2, 4, 6 or 7) + Destination + Type (2 or 3) or *4 + 7 + 3 to cancel	Recording, listening to or erasing a Personal Greeting or Park and Page	Voice Response System (VRS) (Personal Greeting)	17
*5	Logging out of or in to an ACD group	Automatic Call Distribution (ACD)	*10

Charts and Illustrations

Table 3: Service Codes by Number			
Dial this Service Code. . .¹	When you are. . .	For this feature. . .	Also see Function Key. . .
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
*6 + Orbit (01-64)	Picking up a call parked in a UX5000 Park orbit (01-64)	Park	*04 + orbit
*7	Splitting (switching) between calls on an SLT	Call Waiting / Camp On	-
*8	Calling your mailbox	Voice Mail	67
#	Step Calling through a Department Group	Department Step Calling	36
# * # *	Entering the UX5000 programming mode	UX5000 Programming Password Protection	-
# * # 9	Backing up UX5000 data	Maintenance	-
Hookflash + ## + Enter Account Code + Hookflash	Entering an Account Code at an SLT	Account Codes	-
#0	Using Universal Answer Code to pick up a call ringing over the paging UX5000	Central Office Calls, Answering	-
Hookflash + #1 + extension + hookflash twice	Activating Conference from a Single Line (500/2500) set	Conference	-
#2 + bin	Dialing a Common Abbreviated Dialing number	Abbreviated Dialing	27
#3	Flashing a trunk from an SLT	Flash	-
#4 + bin	Dialing a group Abbreviated Dialing number	Abbreviated Dialing	28
#5	Using Last Number Redial	Last Number Redial	-
#6 + orbit (01-64)	Parking a call in a UX5000 Park orbit (1-8, 01-32 or 01-64)	Park	*04 + orbit (1-64)
#7	Using Personal Abbreviated dialing	Abbreviated Dialing	-
#8	Setting up an Unsupervised Conference	Tandem Trunking (Unsupervised Conference)	-
#9 + 001 -200	Placing a call over a specific trunk	Central Office Calls, Placing	*01 + trunk (001-200)
0 (Off-hook)	Leaving a Message Waiting at a co-worker's busy or unanswered extension	Message Waiting	38

Table 3: Service Codes by Number

Dial this Service Code. . . ¹	When you are. . .	For this feature. . .	Also see Function Key. . .
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
1 (Off-hook)	Changing the signaling mode of your outgoing Intercom call	Handsfree Answerback/Forced Intercom Ringing	-
2 (Off-hook)	Camping On or leaving a Call-back for a busy extension or trunk	Callback/Camp On/Trunk Queuing	35
4 (On-hook)	Listening to the General Message	Voice Response System (VRS)	-
6 (On-hook)	Checking an extension's number	Voice Response System (VRS)	-
6 (Off-hook)	Sending a Voice Over to a busy extension after hearing Busy/Ring Tone.	Voice Over	48
7 (Off-hook)	Sending off-hook signal tones to a busy extension	Off Hook Signaling	33
8 (On-hook)	Listening for the time	Voice Response System (VRS)	-
9	Placing a call using ARS or Trunk Group Routing	Automatic Route Selection Trunk Group Routing	*02
100 + code + 0	Using Dial Block	Toll Restriction, Dial Block	-
101 + code + 0	A supervisor using Dial Block	Toll Restriction, Dial Block	-
102 + Group number (1-8 or 01-64)	Setting Automatic Transfer Setup for each Department Group	Transfer	-
103 + Group number (1-8 or 01-64)	Cancelling Automatic Transfer Setup	Transfer	-
104 + Group number (1-8 or 01-64) + mode + extension	Setting the destination for Automatic Transfer Setup for each Department Group	Transfer	-
105 + Group number (1-8 or 01-64)	Setting Delayed Transfer for each Department Group	Transfer	-
106 + Group number (1-8 or 01-64)	Cancelling Delayed Transfer	Transfer	-
107 + Group number (1-8 or 01-64)	Setting up DND for each Department Group	Transfer	-
108 + Group number (1-8 or 01-64)	Cancelling DND for each Department Group	Transfer	-
111	SLT Listening to the General Message	Voice Response System (VRS)	-

Charts and Illustrations

Table 3: Service Codes by Number

Dial this Service Code... ¹	When you are...	For this feature...	Also see Function Key...
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
112 + 3 to erase, 5 to listen or 7 to record	Recording, listening to or erasing the General Message	Voice Response System (VRS)	-
116 + 3 to erase, 5 to listen or 7 to record	Recording, listening to or erasing a VRS Message	Voice Response System (VRS)	-
118	Night Mode Switching for other group	Night Answer	
120	Common Cancelling Service Code	TBD	-
121	Print the SMDR Extension Accumulated printout	Station Message Detail Recording (SMDR)	-
122	Print the SMDR Group Accumulated printout	Station Message Detail Recording (SMDR)	-
123	Print the SMDR Account Code Accumulated printout	Station Message Detail Recording (SMDR)	-
882	Transferring a call to the VRS. This can also be used for routing ANI/DNIS to the VRS.	Transfer	-
126	Leaving a message at an extension, without first calling that extension	Hotel/Motel (Message Waiting)	-
127	Enabling DND at a room terminal	Hotel/Motel (Do Not Disturb)	-
128	Canceling DND at a room terminal	Hotel/Motel (Do Not Disturb)	-
129	Enabling DND for another room terminal	Hotel/Motel (Do Not Disturb)	-
130	Canceling DND at another room terminal	Hotel/Motel (Wake Up Call)	-
131	Setting up a Wake Up call for your own room terminal	Hotel/Motel (Wake Up Call)	-
132	Canceling a Wake Up Call for your own room terminal	Hotel/Motel (Wake Up Call)	-
133	Setting a Wake Up Call for another guest's room terminal	Hotel/Motel (Wake Up Call)	-
134	Canceling a Wake Up Call for another guest's room terminal	Hotel/Motel (Wake Up Call)	-

Table 3: Service Codes by Number

Dial this Service Code... ¹	When you are...	For this feature...	Also see Function Key...
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
135	Enabling Room to Room Call Restriction for a guest's room terminal	Hotel/Motel (Room to Room Call Restriction)	-
136	Disabling Room to Room Call Restriction for a guest's room terminal	Hotel/Motel (Room to Room Call Restriction)	-
137	Changing a room's terminal Toll Restriction (When Checked In) level	Hotel/Motel (Toll Restriction When Checked In)	-
138	Setting a room as checked in	Hotel/Motel (Room Status)	-
139	Setting a room as checked out	Hotel/Motel (Room Status)	-
140	Setting a room as available (clean) from the room's terminal	Hotel/Motel (Room Status)	-
141	Setting a room as available (clean) from another terminal	Hotel/Motel (Room Status)	-
142	Requesting a Room Status Print-out	Hotel/Motel (Room Status Printouts)	-
145 + trunk # + 1 (block) 145 + trunk # + 0 (enable)	To block/busy out outbound usage on a trunk with Trunk Port Disable.	Central Office Calls, Placing	-
150 + 0 (install) or 1 (remove)	Logging in (0) or logging out (1) for your Department Calling Group	Department Calling	
154	Enabling Conversation Record at an SLT set	Voice Mail	-
155	Logging out of or in to an ACD Group from an SLT	Automatic Call Distribution (ACD)	-
156	Activating Work Time from an SLT	Automatic Call Distribution (ACD)	*17
157	Canceling Work Time from an SLT	Automatic Call Distribution (ACD)	*17
158	Activating Rest Mode from an SLT	Automatic Call Distribution (ACD)	*13
159	Canceling Rest Mode from an SLT	Automatic Call Distribution (ACD)	*13

Charts and Illustrations

Table 3: Service Codes by Number			
Dial this Service Code. . .¹	When you are. . .	For this feature. . .	Also see Function Key. . .
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
Hookflash + 160	ACD Recording for SLT	Automatic Call Distribution (ACD)	-
163 + 6-digit code + line + phone number	Overriding Toll Restriction	Toll Restriction	-
166	Changing Toll Restriction for a checked in room	Hotel/Motel (Toll Restriction [Checked in])	-
167	Logging an agent into their ACD Group	Automatic Call Distribution (ACD)	-
168	Logging an agent out of their ACD Group	Automatic Call Distribution (ACD)	-
169	Supervisor assigning an agent into another ACD Group or changing an agent's status	Automatic Call Distribution (ACD)	-
170 + ACD Group	Changing your ACD Group assignment	Automatic Call Distribution (ACD)	-
172 + Line number (001-200)	Answering a call on a specific trunk	Central Office Calls, Answering Hold	
175	Monitoring a room's terminal	Hotel/Motel (Room Monitor)	-
177	Changing the COS of another extension. Must be allowed in Program 20-13-28.	Class of Service	-
178 + 0-9	Changing the language of a display terminal.	Alphanumeric Display / Maintenance	-
179 + 1 (set) or 0 (cancel)	Changing the ability for a second call with DID/DISA/DIL	Central Office Calls, Answering	-
189	Transferring an IP DECT call when out of range	IP DECT	-
800 + extension # + enter name + HOLD	Programming extension names	Name Storing	55
801 + zone (1-9 or 01-64) 801 + zone (0 or 00)	Making an Internal Zone Page Making an All Call Internal Page	Paging, Internal	21 + zone 22
802 + Door Box (1-4 or 1-8)	Placing a call to a Door Box	Door Box	-
803 + zone (1-4 or 1-8) 803 + zone (0)	Making an External Zone page Making an External All Call page	External Paging	19 + zone 20
804 + trunk group (1-8 or 1-9 or 001-200)	Placing an outside call over a trunk group	Central Office Calls, Placing	*02 + group

Table 3: Service Codes by Number

Dial this Service Code... ¹	When you are...	For this feature...	Also see Function Key...
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
807	Overriding Do Not Disturb or Call Forwarding	Call Forwarding Do Not Disturb	37
808	Stepping through a Department Group	Department Step Calling	36
809	Sending a Call Waiting tone to a busy extension	Call Waiting	33
810	Breaking into another extension's call	Barge In	-
811 + 1 (ICM) or 2 (trk) + tone (1-8)	Listening to the incoming ring choices	Selectable Ring Tones	-
812	Changing the signal type for calling an extension	Intercom	-
815	Saving a number (from SLT) or dialing a saved number	Save Number Dialed	30
818 + 1 818 + 2 818 + 3 818 + 4 818 + 5 818 + 6 818 + 7 818 + 8	Activating Day 1 Mode Activating Night 1 Mode Activating Midnight 1 Mode Activating Rest 1 Mode Activating Day 2 Mode Activating Night 2 Mode Activating Midnight 2 Mode Activating Rest 2 Mode	Night Service	09 + 1 09 + 2 09 + 3 09 + 4 09 + 5 09 + 6 09 + 7 09 + 8
820 + 1 (ICM) or 2 (trk) + tone (1-8)	Changing your extension's incoming ring tones	Selectable Ring Tones	-
821	Enabling Handsfree Answerback for incoming Intercom calls	Handsfree Answerback/Forced Intercom Ringing	-
822	Calling off-premise with a Door Box	Call Forwarding, Off-Premise Door Box	54
823	Enabling Forced Ringing for incoming Intercom calls	Handsfree Answerback/Forced Intercom Ringing	-
824	Enabling/disabling Dial Pad Confirmation Tone	Dialing Pad Confirmation Tone	-
825	Turning Background Music on and off	Background Music	04
827 + 1 or 2 + time, or 827 + 1 or 2 + 9999 to cancel	Checking, setting or canceling an alarm	Alarm	-
828 + hour + minutes	Setting the UX5000 Time	Time and Date	-

Charts and Illustrations

Table 3: Service Codes by Number			
Dial this Service Code. . .¹	When you are. . .	For this feature. . .	Also see Function Key. . .
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
829	Checking or changing ring volume	Volume Control	
830	Remote maintenance	-	-
832	Placing a call on Group Hold	Hold	-
833 + Line number (001-200)	Setting Automatic Trunk Forwarding (following Program 24-04-01 destination).	Call Forwarding, Off-Premise Transfer, Tandem Trunking	
834 + Line number (001-200)	Cancelling Automatic Trunk Forwarding when activated by service code 833.	Call Forwarding, Off-Premise Transfer, Tandem Trunking	
835 + Line number (001-200) + time mode (1-8)	Setting and cancelling Automatic Trunk Forwarding.	Call Forwarding, Off-Premise Transfer, Tandem Trunking	
840	UX5000 alarm message delete	-	-
847 + 0 (Cancel) 1 (Trk calls) 2 (Paging, ICM, Call Forward and transfers) 3 (All calls) 4 (Call Forwards)	Activating Do Not Disturb	Do Not Disturb	-
849	Placing a call on Exclusive Hold at a SLT set.	Hold	-
850	Camping On to an extension when calling into the UX5000 through the VRS	Voice Response System (VRS)	35
851 + key + code	Changing the function of a programmable key using 851 service codes	Programmable Function Keys	-
852 + key + code	Changing the function of a programmable key using 852 service codes	One-Touch Serial Operation	-
853 + bin + number + HOLD + Name + HOLD to store	Storing Common Abbreviated Dialing numbers	Abbreviated Dialing	-
854 + bin + number + HOLD + Name + HOLD to store	Storing Group Abbreviated Dialing numbers	Abbreviated Dialing	-
855 + One Touch bin (0-9) + code	Programming a One-Touch bin or Personal Speed Dial	One-Touch Dialing	-

Table 3: Service Codes by Number

Dial this Service Code. . . ¹	When you are. . .	For this feature. . .	Also see Function Key. . .
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
856	Answering a call ringing a terminal in your pickup group (except Ring Group calls)	Group Call Pickup	-
857	Parking a call or picking up a parked call at an extension	Park	-
859	Retrieving a call from Exclusive Hold at a SLT set.	Hold	-
860	DID ACD Access Code	Automatic Call Distribution (ACD)	-
862	Picking up a call from Group Hold	Hold	-
863	Joining a Meet Me Conference or Meet Me Page on an Internal Paging Zone (if your extension is in the group called)	Meet Me Conference Meet Me Paging	23 or 32
864 + zone paged (0-9 or 00-64)	Joining a Meet Me Conference or Meet Me Page if your extension is not in the group paged	Meet Me Paging	23 or 32
865 + zone (0-8)	Joining a Meet Me Conference or Meet Me Page on an External Paging Zone	Meet Me Conference Meet Me Paging	23 or 32
866	Using Network Message Lamp Control	CygniLink	-
868 + pickup group (1-8 or 1-9 or 01-64)	Answering a call ringing a terminal in another pickup group (except Ring Group calls)	Group Call Pickup	26 + group
869	Answering a call ringing a terminal in another pickup group if you don't know the group's number (except Ring Group Calls)	Group Call Pickup	25
870	Canceling a Callback request	Callback	-
871 + ext	Canceling Messages Waiting you have left at a specific extension	Message Waiting	-
873	Canceling all Messages Waiting you have left at other extensions	Message Waiting	-
875 + pswd (0000) + place outside call	Temporarily overriding an extension's Toll Restriction	Toll Restriction Override	-

Charts and Illustrations

Table 3: Service Codes by Number

Dial this Service Code... ¹	When you are...	For this feature...	Also see Function Key...
¹ Except where indicated, dial Service Code from Intercom dial tone (e.g., press idle CALL key first).			
876	Clearing number saved by Last Number Redial	Last Number Redial	-
880 + Relay (0-8)	Using the General Purpose Relay	Paging, External Night Service	51
881 + 00 (no tone), 01 (general) or 02 (holiday)	Changing the Music on Hold Tone	Music on Hold	-
882	Routing ANI/DNIS to the VRS. It can also be used when transferring to VRS.	Transfer Voice Response Service (VRS)	
883	Enabling the data communication auto-answer mode	Data Communications	-
884	Accessing the VRS	Voice Response Service (VRS)	-
885	Clearing the number saved by Save Number Redial	Save Number Redial	-
886	Turning off the E911 alarm.	E911	
890	Using Voice Over after calling a busy extension	Voice Over	48
894	Splitting between two calls on an SLT	Call Waiting	
899	Testing Callback operation for SLT	Callback	-

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code...¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
Abbreviated Dialing	853 + bin + number + HOLD + Name + HOLD to store	Storing Common Abbreviated Dialing numbers	-
	854 + bin + number + HOLD + Name + HOLD to store	Storing Group Abbreviated Dialing numbers	-
	#2 + bin	Dialing a Common Abbreviated Dialing number	27
	#4 + bin	Dialing a Group Abbreviated Dialing number	28
	#7 + bin	Using Personal Abbreviated Dialing	-
Account Codes	* + Enter Account code + *	Entering an Account Code	-
	Hookflash + ## + Enter account code + Hookflash	Entering an Account Code at an SLT	-
Alarm	827 + 1 or 2 + time, or 827 + 1 or 2 + 9999 to cancel	Checking, setting or canceling an alarm	-
Alphanumeric Display	178 + 0-9	Selecting the language to be used on display keysets.	-
Automatic Call Distribution (ACD)	*5	Logging out of or in to an ACD Group	*10
	155	Logging out of or in to an ACD Group from an SLT	
	156	Activating Work Time from an SLT	*17
	157	Canceling Work Time from an SLT	*17
	158	Activating Rest Mode from an SLT	*13
	159	Canceling Rest Mode from an SLT	*13
	Hookflash + 160	ACD Recording for SLT	-
	167	Allowing ACD Agent to log into a group	
	168	Allowing ACD Agent to log out of a group	
	169	Allowing supervisor to change agent's status	
	170 + ACD Group	Changing your ACD Group assignment	-
	860	DID ACD Access Code	-
Automatic Route Selection or Trunk Group Routing	9	Placing an call using Trunk Group Routing or Automatic Route Selection	*02
Background Music	825	Turning Background Music on and off	04
Barge In	810	Barging in on a busy co-worker's extension	34

Charts and Illustrations

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code... ¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
Call Forwarding	*2 + 0	Canceling Call Forwarding	16
	*2 + 7 + Destination + Type (2-4)	Activating Call Forwarding (Both Ringing)	16
	*2 + 6 + Destination + Type (2-4)	Activating Call Forwarding when Busy	16
	*2 + 2 + Destination + Type (2-4)	Activating Call Forwarding when Busy/ Not Answered	16
	*2 + 6 + Destination + Type (2-4)	Activating Call Forwarding when Unanswered (delayed)	16
	*2 + 7 + Destination + Type (2-4)	Activating Call Forwarding Follow Me	16
	*2 + 4 + Destination + Type (2-4)	Activating Call Forwarding Immediate	16
Call Forwarding Off-Premise	*4 + 6 + Trunk access code + Outside number, or *4 + 6 + Hold + Hang up to cancel	Forwarding your calls to an off-premise telephone number	17
	833 + Line number (001-200)	Setting Automatic Trunk Forwarding (following Program 24-04-01 destination).	-
	834 + Line number (001-200)	Cancelling Automatic Trunk Forwarding when activated by service code 833.	-
	835 + Line number (001-200) + time mode (1-8)	Setting and cancelling Automatic Trunk Forwarding.	-
Call Forwarding, Off-Premise Door Box	822	Calling off-premise with a Door Box	54
Call Forwarding/Do Not Disturb Override	807	Overriding an extension's Call Forward or DND setting.	37
Call Forwarding with Follow Me	*2 + 3 + Destination + Type (2-4)	Activating Call Forward Follow Me at the destination extension	16
Call Waiting / Camp On	*7 or 894	Splitting (switching) between calls on an SLT	-
Callback / Camp On / Trunk Queuing	2	Camping On or leaving a Callback for a busy extension or trunk	35
	870	Canceling a Callback request	-
	899	Testing Callback operation for SLT	-

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code... ¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
Central Office Calls, Answering / Hold	#0	Using Universal Answer to pick up a call ringing over the paging system	-
	172 + Line number (001-200)	Answering a call on a specific trunk	-
	179 + 1 (set) or 0 (cancel)	Changing the ability for a second call with DID/DISA/DIL	-
Central Office Calls, Placing	#9 + 001-200	Placing a call over a specific trunk	*01 + trunk (100-200)
	145 + trunk # + 1 (block) 145 + trunk # + 0 (enable)	To block/busy out outbound usage on a trunk with Trunk Port Disable.	-
	804 + trunk group (1-9 or 001-200)	Placing an outside call over a trunk group	*02 + group
Class of Service	177	Changing the COS of another extension. Must be allowed in Program 20-13-28.	-
Conference	Hookflash + #1 + extension + hookflash twice	Activating Conference from a Single Line (500/2500) set	1016
IP DECT	189	Transferring an IP DECT call when out of range	-
CygniLink	866	Using Network Message Lamp Control	-
Data Communications	883	Enabling the data connection auto-answer mode	-
	884	Disconnecting an active data call	-
Department Calling	150 + 0 (install) or 1 (remove)	Logging in (0) or logging out (1) for your Department Calling Group	46
Department Step Calling	#	Step Calling through a Department Group	36
Dial Pad Confirmation Tone	824	Enabling/disabling Dial Pad Confirmation Tone	-
Directed Call Pickup	** + ext.	Picking up a call ringing or waiting at an extension	-
Do Not Disturb	847 + 0 (Cancel) 1 (Trk calls) 2 (Paging, ICM, Call Forwards, and Transfers) 3 (All calls) 4 (Call Forwards)	Activating Do Not Disturb	-
Door Box	802 + Door Box (1-4 or 1-8)	Placing a call to a door Box	-
	822	A Door Box is forwarded off-premise	-

Charts and Illustrations

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code... ¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
E911	886	Turning off the E911 alarm	-
Flash	#3	Flashing a trunk from an SLT	-
Forced Trunk Disconnect	* 3 (after #9 + 1-8 or 001-200 + busy)	Disconnecting a call in progress on a trunk	-
Group Call Pickup	*#	Picking up a call ringing an extension in your own pickup group (except Ring Group calls)	24
	868 + pickup group (1-8 or 1-9 or 01-64)	Answering a call ringing a terminal in another pickup group	26 + group
	869	Answering a call ringing a terminal in another pickup group if you don't know the group's number (except Ring Group calls)	25
Handsfree Answerback/Forced Intercom Ringing	1 (Off-hook)	Changing the signaling mode of your outgoing Intercom call	-
	821	Enabling Handsfree Answerback for incoming Intercom calls	-
	823	Enabling Forced Ringing for incoming Intercom calls	-
Hold	832	Placing a call on Group Hold	-
	849	Placing a call on Exclusive Hold at a SLT set	-
	859	Retrieving a call from Exclusive Hold at a 2-Button terminal	-
	862	Picking up a call from Group Hold	-
Hotel/Motel (Message Waiting)	126	Leaving a message at an extension, without first calling that extension	-
Hotel/Motel (Do Not Disturb)	127	Enabling DND at a room terminal	-
Hotel/Motel (Do Not Disturb)	128	Canceling DND at a room terminal	-
Hotel/Motel (Do Not Disturb)	129	Enabling DND for another room terminal	-
Hotel/Motel (Do Not disturb)	130	Canceling DND at another room terminal	-
Hotel/Motel	175	Monitoring a room's terminal	-

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code... ¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
Hotel/Motel (Wake Up Call)	131	Setting a Wake Up Call or your own room terminal	-
Hotel/Motel (Wake Up Call)	132	Canceling a Wake Up Call for your own room terminal	-
Hotel/Motel (Wake Up Call)	133	Setting a Wake Up Call for another guest's room terminal	-
Hotel/Motel (Wake Up Call)	134	Canceling a wake Up Call for another guest's room terminal	-
Hotel/Motel (Room to Room Call Restriction)	135	Enabling Room to Room Call Restriction for a guest's room terminal	-
Hotel/Motel (Room to Room Call Restriction)	136	Disabling Room to Room Call Restriction for a guest's room	-
Hotel/Motel (Toll restriction [When Checked In])	137	Changing a room's terminal Toll Restriction (When Checked In) level	-
Hotel/Motel (Room Status)	138	Setting a room as checked in	-
Hotel/Motel (Room Status)	139	Setting room as checked out	-
Hotel/Motel (Room Status)	140	Setting a room as available (clean) from the room's terminal	-
Hotel/Motel (Room Status)	141	Setting a room as available (clean) from another terminal	-
Hotel/Motel (Room Status Printouts)	142	Requesting a Room Status Printout	-
Hotel/Motel (Toll Restriction [When Checked In])	166	Changing a room's terminal Toll Restriction level (when checked in)	-
Intercom	812	Changing the signal type for calling an extension	-
Last Number Redial	#5	Using Last Number Redial	-
	876	Clearing number saved by Last Number Redial	-
Maintenance	# * # 9	Backing up UX5000 data	-
	178 + 0-9	Displaying the language the terminal is using	-

Charts and Illustrations

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code... ¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
Meet Me Conference Meet Me Paging	863	Joining a Meet Me Conference or Meet Me Page on an Internal Paging Zone (if your extension is in the group called)	23 (Meet Me Paging) or 32 (Meet Me Conference)
	864 + zone paged (0-9 or 00-64)	Joining a Meet Me Conference or Meet Me Page if your extension is not in the group paged	-
	865 + zone (0-8)	Joining a Meet Me conference or Meet Me Page on an External Paging Zone.	-
Message Waiting	0 (Off-hook)	Leaving a Message Waiting at a co-worker's busy or unanswered extension	38
	*0	Answering a Message Waiting request	38
	871 + ext	Canceling Messages Waiting you have left at a specific extension	-
	873	Canceling all Messages Waiting you have left at other extensions	-
Music on Hold	881 + 00 (no tone), 01 (general) or 02 (holiday)	Changing the Music on Hold Tone	-
Name Storing	800 + enter name + HOLD	Programming extension names	55
Night Service	118	Night Mode Switching for other group	
	818 + 1	Activating Day 1 Mode	09 + 1
	818 + 2	Activating Night 1 Mode	09 + 2
	818 + 3	Activating Midnight 1 Mode	09 + 3
	818 + 4	Activating Rest 1 Mode	09 + 4
	818 + 5	Activating Day 2 Mode	09 + 5
	818 + 6	Activating Night 2 Mode	09 + 6
	818 + 7	Activating Midnight 2 Mode	09 + 7
818 + 8	Activating Rest 2 Mode	09 + 8	
Off Hook Signaling	7 (Off-hook) or 809	Sending off-hook signal tones to a busy extension	33
One-Touch Dialing	855 + One-Touch bin (0-9) + code	Programming a One-Touch bin number or Personal Speed Dial	-
Paging, Combined	*1 + Zone (1-8)	Making a combined zone page.	19 + zone
	*1 + Zone (0)	Making a combined All Call page.	20
Paging, External	803 + zone (1-8)	Making an external zone page	19 + zone
	803 + zone (0)	Making an external All Call page	20
Paging, External Night Service	880 + relay number (0-8)	Activating the general purpose relay.	51

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code... ¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
Paging, Internal	801 + zone (1-8, 1-9 or 01-64)	Making an Internal Zone Page	21 + zone or 22
	801 + zone (0 or 00)	Making an internal All Call Page	
Park	#6 + orbit (01-64)	Parking a call in a UX5000 Park orbit (01-64)	*04 + orbit
	*6 + orbit (01-64)	Picking up a call parked in a UX5000 Park orbit (01-64)	*04 + orbit
	857	Parking a call or picking up a parked call at an extension	-
Programmable Function Keys	851 + key + code	Changing the function of a programmable key using 851 service codes	-
	852 + key + code	Changing the function of a programmable key using 852 service codes	-
Save Number Dialed	815	Saving a number (from SLT) or dialing a saved number	30
	885	Clearing the number saved by Save Number Redial number	-
Selectable Display Messaging	*4 + 3 + message (01-20), or *4 + 3 + Hang up to cancel	Activating and Canceling Selectable Display Messaging	17
Selectable Ring Tones	811 + 1 (ICM) or 2 (Trk) + tone (1-8)	Listening to the incoming ring choices	-
	820 + 1 (ICM) + 2 (Trk) + tone (1-8)	Changing your extension's incoming ring tones	-
UX5000 Programming Password Protection	# * # *	Entering the UX5000 programming mode	-
Station Message Detail Recording	121	Print the SMDR Extension Accumulated printout	-
	122	Print the SMDR Group Accumulated printout	-
	123	Print the SMDR Account Code Accumulated printout	-
Tandem Trunking (Unsupervised Conference)	#8	Setting up an Unsupervised Conference	-
Time and Date	828 + hour + minutes	Setting the UX5000 Time	-
Toll Restriction, Dial Block	100 + code + 0	Using Dial Block	-
	101 + code + 0	A supervisor using Dial Block	-

Charts and Illustrations

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code... ¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
Toll Restriction Override	875 + pswd (0000) + place outside call	Temporarily overriding an extension's Toll Restriction	-
	163 + digit code + line + telephone number	Overriding Toll Restriction	-
Transfer Call Forwarding, Off-Premise Tandem Trunking	833 + Line number (001-200)	Setting Automatic Trunk Forwarding (following Program 24-04-01 destination).	
	834 + Line number (001-200)	Cancelling Automatic Trunk Forwarding when activated by service code 833.	
	835 + Line number (001-200) + time mode (1-8)	Setting and cancelling Automatic Trunk Forwarding.	
	102 + Group number (1-8 or 01-64)	Setting Automatic Transfer Setup for each Department Group	-
	103 + Group number (1-8 or 01-64)	Cancelling Automatic Transfer Setup	-
	104 + Group number (1-8 or 01-64) + mode + extension	Setting the destination for Automatic Transfer Setup for each Department Group	-
	105 + Group number (1-8 or 01-64)	Setting Delayed Transfer for each Department Group	-
	106 + Group number (1-8 or 01-64)	Cancelling Delayed Transfer	-
	107 + Group number (1-8 or 01-64)	Setting up DND for each Department Group	-
	108 + Group number (1-8 or 01-64)	Cancelling DND for each Department Group	-
	124 + Extension number	Transferring a call into an existing call.	-
	882	Transferring a call to the VRS. This can also be used for routing ANI/DNIS to the VRS.	
Trunk Group Routing or Automatic Route Selection	9	Placing a call using Trunk Group Routing or Automatic Route Selection	*02
Trunk Queuing	2 (Off-hook)	Camping on to or leaving a Callback at a busy trunk	35
Voice Mail	8 (Off-hook)	Leaving a message in a co-worker's mailbox after callback their busy or unanswered extension	-
Voice Mail	*2 + 1 + Type (2-4)	Activating Personal Answering Machine Emulation	-

Table 4: Service Codes by Feature			
For this feature...	Dial this Service Code... ¹	When you are...	Also see Function Key...
¹ Except where indicated, dial Service code form Intercom dial tone (e.g., press idle CALL key first).			
	*8	Calling your mailbox	67
	154	Enabling Conversation Record at SLT set	-
Voice Over	6 (Off-hook) or 890	Sending a Voice Over to a busy extension after hearing Busy/Ring tone	48
Voice Response System (VRS)	** + ringing ext.	Picking up a call ringing another extension for Directed Call Pickup or VRS Park and Page.	-
	*4 + 7 + Record message + # + Condition (2, 4,6 or 7) + Destination+ Type (2 or 3). or *4 + 7 + 3 to cancel	Recording, listening to or erasing a Personal Greeting or Park and Page	17
	4 (On-hook)	Listening to the General Message	-
	6 (On-hook)	Checking an extension's number	-
	8 (On-hook)	Listening for the time	-
	111	SLT listening to the General Message	-
	112 + 3 to erase, 5 to listen or 7 to record	Recording, listening to or erasing the General Message	-
	116 + 3 to erase, 5 to listen or 7 to record	Recording, listening to or erasing a VRS Message	-
	850	Camping On to an extension when calling into the UX5000 through the VRS	-
	882	Transferring a call to the VRS. This can also be used for routing ANI/DNIS to the VRS.	-
Volume Control	884	Accessing the VRS	-
	829	Checking or changing ring volume	-
	120	Common Cancelling Service Code	-

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Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Abbreviated Dialing	Code: 27 Operation: Press key + bin + Line or CALL	Dialing a stored Common Abbreviated Dialing number	None	#2 + bin
	Code: 28 Operation: Press key + bin + Line or CALL key	Dialing a stored Group Abbreviated Dialing number	None	# 4 + bin
Account Codes	Code: 50 Operation: Press key + Dial Account Code	Entering Account Codes	None	*
Automatic Call Distribution (ACD)	Code: *10 Operation: Press key to log in Press key + 1 to log out or 0 to cancel	Basic Operation Logging in or out of an ACD Group	On red when logged in Off when logged out	*5
	Code: *11 Operation: Press key	Turning ACD Call Recording on or off	On red when recording Off when not recording	160
	Code: *12 Operation: Press key	Emergency Call Placing or receiving an Emergency Call	On while calling your supervisor or after being answered by your supervisor Flashing fast at the supervisor while ringing	-
	Code: *13 Operation: Press key	Rest Mode Enabling/disabling Rest Mode	On red when Rest Mode enabled Off when Rest Mode disabled	-
	Code: *14 Operation: Press key + Press 1 (Yes) or 2 (No)	Out of Service Taking an ACD Group out of Service (for Group Supervisors only), or Taking all ACD Groups out of service (for System Supervisors only)	On red when the group is out of service.	-
	Code: *15 Operation: Call busy ACD agent + Press key	Terminal Monitor Monitoring an ACD Agent's conversation	On red while monitoring Off when not monitoring	-

Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Automatic Call Distribution (ACD) (cont.)	Code: *16 Operation: Press key to put agent on hold. Press key again + 1 to hang up agent or 0 to bring agent back into call.	Switching (splitting) between an ACD Agent and their outside caller after answering an emergency call	On red while the agent is on hold	-
	Code: *17 Operation: Press key	Working Time Enabling/disabling Work Time	On when Work Time enabled, Flashing while on a call if Auto Work Time enabled Off when Work Time disabled	-
	Code: *18 + ACD Group Operation: Press key	ACD Overflow Control Overflowing ACD calls to another group	On when enabled, Slow flash when disabled	-
	Code: *19 Operation: Press key while on hook + Vol Up or Vol Down to scroll	Queue Status Check When in an ACD group, check the status of the queue groups	None	-
Background Music	Code: 04 Operation: Press key	Turning Background Music on or off	None	825
Barge In	Code: 34 Operation: Call ext + Press key	Barging In on a co-worker's conversation	None	810
Call Coverage	Code: *03 + ext. Operation: Press key	Placing or answering a call to your co-worker's extension	Slow Flash red when ringing, On red when busy	-
Call Forwarding, Both Ring	Code: 14 Operation: Press key + Dest. Extension	Call Forwarding Both Ring to extension	Slowly flashes red	*2 + 7
Call Forwarding, Busy	Code: 11 Operation: Press key + Dest. Extension	Call Forwarding Busy to extension or Voice Mail	Slowly flashes red	*2 + 2
Call Forwarding, Busy/No Answer	Code: 13 Operation: Press key + Dest. Extension	Call Forwarding Busy/No Answer to extension or Voice Mail	Slowly flashes red	*2 + 2
Call Forwarding, Device	Code: 17 Operation: Press key + type	Call Forwarding Device to a device or Voice Mail	Slowly flashes red	*4

Charts and Illustrations

Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Call Forwarding, External by Door Box	Code: 54 Operation: Press key + Dest. Number	Externally Call Forwarding Door Box calls	Slowly flashes red	*4
Call Forwarding, Follow Me	Code: 15 Operation: Press key + Dest. Extension	Call Forwarding Follow Me to extension or Voice Mail	Slowly flashes red	*2 + 3
Call Forwarding, Immediate	Code: 10 Operation: Press key + Dest. Extension	Call Forwarding Immediate to extension or Voice Mail	Slowly flashes red	*2 + 4
Call Forwarding, No Answer	Code: 12 Operation: Press key + Dest. Extension	Call Forwarding No Answer to extension or Voice Mail	Slowly flashes red	*2 + 6
Call Forwarding, Off-Premise	Code: 17 Operation: Press key + device type code + requested data (depends on device selected).	Setting up Call Forwarding Off-Premise, Selectable Display Messaging, VRS Park and Page and VRS Personal Greeting	Slowly flashes red	*4
Call Forwarding, Station	Code: 16 Operation: Press key + Dest. Extension	Call Forwarding Station to extension or Voice Mail	Slowly flashes red	*2
Call Forwarding / Do Not Disturb Override	Code: 37 Operation: Call extension + Press key	Overriding an extension's Call Forwarding or Do Not Disturb	None	-
Callback / Camp On/ Trunk Queuing	Code: 35 Operation: Call busy extension or access busy trunk + Press key	Leaving a Call back request at a busy extension, Camping On to a busy extension, or Queuing for a busy trunk	On red when activated	2
Call Redirect	Code: 49 + extension or voice mail Operation: Press key	Redirect a ringing call to the predefined destination	On red when activated	-
Caller ID	Code: 08 Operation: Press key	Monitoring missed calls using the Call History key.	Flashing when a new missed call is added to the call log	-
Caller ID Private Call Refusal	Code: 86 Operation: Press key	Using the Call Refuse feature for 'private' trunk calls.	Slow blink red when active	
Caller ID Call Refusal	Code: 87 Operation: Press key	Using the Call Refuse feature for trunk calls.	Slow blink red when active	

Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Central Office Calls	Code: *01 + Trunk number (001-200) Operation: Press key	Pressing a line key to place or answer a trunk call (where trunks are 001-200)	On green when seized, on red when in use (by other party), Slow Flash green when ringing, Hold flash when on Hold	#9
Conference	Code: 07 Operation: Set up call + Press key + set up call to add + Press key twice	Setting up a Conference or a Meet Me Conference	On red during setup	#1
Conference, Voice Call	Code: 32 Operation: Set up trunk call + Press key	Setting up a Voice Call Conference	None	-
CygniLink	Code: *06 + network (01-50) Operation: Press key	Accessing a networked trunk	None	-
Data Communications	Code: 66 Operation: Press key + ext or outside number	Placing a data call	On red when call set up	-
Department Calling	Code: 46 Operation: Press Key	Logging in or logging out of your Department Calling Group	On when removed, Off when installed	150
	Code: 58 + Department Group (01-64) Operation: Press key	Setting Immediate Forwarding for a Department Group	Flashes	-
	Code: 59 + Department Group (01-64) Operation: Press key	Setting Ring-No-Answer Forwarding for a Department Group	Flashes	-
	Code: 60 + Department Group (01-64) Operation: Press key	Setting DND Forwarding for a Department Group	Flashes	-
Department Step Calling	Code: 36 Operation: Dial busy ext + Press key	Step Calling through a Department Group for an idle member	None	#
Direct Station Selection / One-Touch Calling	Code: 01 Operation: Press key + dest. ext. or outside tel. # + HOLD	Calling an extension or outside number using a DSS key	Off = extension idle On = extension busy Flashing = DND	-
Do Not Disturb	Code: 03 Operation: Press key + code (0-4)	Setting your terminal in DND	DND key on red	-

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Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Do Not Disturb/Call Forward Override	Code: 37 Operation: Press key	Calling an extension which is in DND or Call Forwarded	None	-
General Purpose Relay	Code: 51 + relay number Operation: Press key	Activating the general purpose relay	On when active	-
Group Call Pickup	Code: 24 Operation: CALL + Press key	Answering a call ringing another terminal in your Pickup Group	None	*#
	Code: 25 Operation: CALL + Press key	Answering a call ringing a terminal in another Pickup Group - if you don't know the group number	None	869
	Code: 26 + Pickup Group (1-8 or 1-9 or 01-64) Operation: CALL + Press key + Pkup Group	Answering a call ringing a terminal in a specific Pickup Group	None	868
Handset Cutoff	Code: 40 Operation: Press key	Cutting off the handset transmission while on a call	On when feature active (no transmission on handset)	-
Headset Operation	Code: 05 Operation: Press key	Enabling or disabling Headset Operation	On red when activated	834
Hold	Code: 44 Operation: Place or answer call + Press key	Putting a call on System Hold (if your terminal's Hold key is reassigned)	None	-
	Code: 45 Operation: Place or answer call + Press key	Putting a call on Exclusive Hold	None	-
Hotline	Code: 01 + dest. ext Operation: Press key	Placing a call to your Hotline partner	Full BLF (red) for covered ext.	-
ISDN	Code: 63 Operation: Press key	Placing an outgoing ISDN call without Caller ID	On red when active	-
Loop Keys	Code: *05 + 0 (Incoming), 1 (Outgoing) or 2 (Both Ways) + 000 (All trunk groups incoming or ARS outgoing) or Trunk group (001-100). Operation: Press Key	Placing or answering a trunk call	Flashing red when ringing On green when in use Flashing green when on hold	-
Meet Me Conference (Also see Conference)	Code: 32 Operation: Press key	Joining a Meet Me Conference	None	863 or 864

Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Meet Me Paging	Code: 23 Operation: Press key	Joining a Meet Me Page	None	863 or 864
Memo Dial	Code: 31 Operation: <u>Store:</u> While on call, press key + number to store <u>Use:</u> Press Key + Call or line <u>Erase:</u> CALL + Press key	Storing, using or checking a Memo dial number	None	-
Message Waiting	Code: 38 Operation: Leave message: Call ext + Press key OR Answer message: Press key	Answering/Leaving a Message Waiting	None	*0
Microphone Cutoff	Code: 02 Operation: Set up call + Press key	Using Microphone Cutoff	On red when activated	-
Multiple Directory Numbers	Code: *03 + ext. or dept group Operation: Press key	Placing or answering a call to your virtual (phantom) extension	Slow Flash red when ringing, On red when busy	-
Name Storing	Code: 55 Operation: Press key + ext # + name + HOLD	Entering a name for the extension to be displayed on terminals	None	800
Night Service	Code: 09 + mode (0, 1-4 or 1-8) Operation: Press key	Activating the Day/Night Mode	On red when activated	818 + + 0
Off Hook Signaling	Code: 33 Operation: Call ext. and receive busy + Press key	Signaling a busy extension	None	7
Paging, External	Code: 19 + zone (1-8) Operation: Press Key	Making an external zone page	On red when activated	803 + zone
	Code: 20 Operation: Press key	Making an external All Call page	On red when activated	803 + 0
Paging, Internal	Code: 21 + zone (1-8, 1-9 or 01-64) Operation: Press key	Broadcasting to an Internal Paging Zone	On red when activated	801 + zone
	Code: 2 Operation: Press key	Broadcasting to all Internal Paging zones	On red when activated	801 + 0 or 00

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Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Park	Code: *04 + orbit (1-9 or 01-64) Operation: Place or answer call + Press key	Placing a call into or retrieving a call from a Park Orbit	Fast flash when orbit is busy (green at originator, red at others)	#6 (Park) *6 (pickup)
Repeat Redial	Code: 29 Operation: Place call and press key	Activating Repeat Redial while on a call	Fast Flash while UX5000 waits to redial	-
Reverse Voice Over	Code: 47 + dest. ext. Operation: Press and hold key	Initiating Reverse Voice Over	Full BLF red	-
Room Monitor	Code: 39 Operation: Press key at destination & source + ext	Activating Room Monitor	Dest. Fast Flash red, Source Hold Flash red	-
Save Number Dialed	Code: 30 Operation: <u>Save:</u> Place call + Press key <u>Redial:</u> Line or CALL + Press key	Saving, redialing or checking a saved number	None	-
Secretary Call (Buzzer)	Code: 41 + sec. ext Operation: Press key	Calling your secretary (using the buzzer)	On red at source Fast Flash red at destination	-
Secretary Call Pickup	Code: 42 + boss ext Operation: Press key	A secretary picking up a call ringing your boss's extension	On red when activated	-
Selectable Display Messaging	Code: 18 Operation: Press key + additional data if needed	Setting up Call Forwarding Off-Premise, Selectable Display Messaging, VRS Park and Page and VRS Personal Greeting	Flashes red when activated	*4
Serial Call	Code: 43 Operation: Trk call + Hold + ext + Press key	Placing a Serial Call to a co-worker	None	-
Step Call	Code: 36 Operation: Press key	Stepping through a department group	None	#
Tandem Ringing	Code: 80 Operation: Press key + 1 or 0	Setting the Tandem Ring option	On red when active	-
Tandem Trunking	Code: 81 + trunk number (001-200) Operation: Press key	Setting the Automatic Transfer-to-Transfer feature for a trunk	Flashes red when active	-

Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Transfer	Code: 06 Operation: Establish call + Hold + Ext + Press key	Transferring a call	None	-
Trunk Group Routing	Code: *05 Operation: Press key	Accessing a trunk using Trunk Group Routing	On red when active	9
Trunk Groups	Code: *02 + Trk group (1-9 or 001-100) Operation: Press key	Using a trunk group key to access a Trunk Group	On red when active	804
Trunk Queuing	Code: 35 Operation: Hear busy tone for Trk + Press key	Camping On or Queuing for a trunk	On red while camped on	2
VoIP	Code: 82 Operation: Press key	Monitoring missed calls for an IP terminal using the Call History key.	Flashing when a new missed call is added to the call log	-
Voice Response System (VRS) (Park and Page) (Personal Greeting)	Code: 17 Operation: Press key + device type code + requested data (depends on device selected).	Setting up Call Forwarding Off-Premise, Selectable Display Messaging, VRS Park and Page and VRS Personal Greeting	Flashes red	*4
Voice Response System (VRS)	Code: 94 Operation: Press key	Manually using the Call Attendant to intercept calls	Stutter flash red when set for busy, Fast Flash when set for no answer, or On red when set for busy/no answer	-

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Table 5: Function Key Codes by Features

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

For this feature...	Use this key...	When your are...	Key Lamp Status	Also See Srvc Code
Voice Mail	Code: 68 + code (0-2) Operation: Press key	Using Voice Mail Service	Flashes slowly when monitoring	-
	Code: 69 + 0 Operation: Press key	Using the ACI as a destination for Conversation Record	On red when recording	-
	Code: 77 + extension or Message Center number Operation: Press key	Calling Voice Mail or leaving a message	Flashes green on your key for your messages or flashes red for the Message Center	*8 or 8
	Code: 78 Operation: Set up call + Press key	Using Voice Mail Record	Slow Flash red when active	-
	Code: 79 + extension or pilot number Operation: Press key	Using the in-skin voice mail to answer calls	<ul style="list-style-type: none"> • On red when active for all calls • Flashes fast when active for no answer calls • Stutter blink when active for busy calls • Slow blink when active for busy/ no answer calls 	-
Voice Over	Code: 48 Operation: Hear Off-Hook Signaling tone + Press key	Initiating or responding to Voice Over	On red when responding Hold Flash red when listening	6

Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: 01 + dest. ext. or outside tel # + HOLD Operation: Press key	Direct Station Selection, Hotline, One-Touch Calling	Calling an extension or outside number using a DSS key	Off = extension idle On = extension busy Flashing = DND	-
Code: 02 Operation: Set up call + Press key	Microphone Cutoff	Using Microphone Cutoff	On red when activated	-
Code: 03 Operation: Press key	Do Not Disturb	Activating DND	On red when activated	-
Code: 04 Operation: Press key	Background Music	Turning BGM on or off	On red when activated	825
Code: 05 Operation: Press key	Headset Operation	Enabling or disabling Headset Operation	On red when activated	834
Code: 06 Operation: Establish call + Hold + Ext + Press key	Transfer	Transferring a call	None	-
Code: 07 Operation: Set up call + Press key + set up call to add + Press key twice	Conference	Setting up a conference or a Meet Me Conference	On red during setup	#1
Code: 08 Operation: Press key	Caller ID	Monitoring missed calls using the Call History key.	Flashing when a new missed call is added to the call log	-
Code: 09 + mode (0, 1-8) Operation: Press key	Night Service	Activating the Day/Night Mode	On red when activated	818 + mode (1-4 or 1-8)
Code: 10 Operation: Press key + Dest. Ext.	Call Forwarding, Immediate	Call Forwarding to extension or Voice Mail	Slowly flashes red	*2 + 4
Code: 11 Operation: Press key + Dest. Ext.	Call Forwarding, Busy	Call Forwarding to extension or Voice Mail	Slowly flashes red	*2 + 2

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Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: 12 Operation: Press key + Dest. Ext.	Call Forwarding, No Answer	Call Forwarding to extension or Voice Mail	Slowly flashes red	*2 + 6
Code: 13 Operation: Press key + Dest. Ext.	Call Forwarding, Busy/No Answer	Call Forwarding to extension or Voice Mail	Slowly flashes red	*2 + 2
Code: 14 Operation: Press key + Dest. Ext.	Call Forwarding, Both Ring	Call Forwarding to extension	Slowly flashes red	*2 + 7
Code: 15 Operation: Press key + Dest. Ext.	Call Forwarding, Follow Me	Call Forwarding to extension or Voice Mail	Slowly flashes red	*2 + 3
Code: 16 Operation: Press key + Dest. Ext.	Call Forwarding, to Station	Call Forwarding to extension or Voice Mail	Slowly flashes red	*2
Code: 17 Operation: Press key + device type code + requested data (depends on device selected).	Call Forwarding, to Device Off-Premise Selectable Display Messaging Voice Response System (VRS) (Park and Page) Voice Response System (VRS) (Personal Greeting)	Setting up Call Forwarding Off-Premise, Selectable Display Messaging, VRS Park and Page and VRS Personal Greeting	Flashes red	*4
Code: 18 + message number (01-20) Operation: Press key + additional data if needed	Selectable Display Messaging	Setting up Call Forwarding Off-Premise, Selectable Display Messaging, VRS Park and Page and VRS Personal Greeting	Flashes red when activated	*4
Code: 19 + zone (1-8) Operation: Press key	Paging, External	Broadcasting to an External Paging Zone	On red when activated	803 + zone
Code: 20 Operation: Press key	Paging, External	Broadcasting to all External Paging Zones	On red when activated	803 + 0
Code: 21 + zone (1-8, 1-9 or 01-32) Operation: Press Key	Paging, Internal	Broadcasting to an Internal Paging Zone	On red when activated	801 + zone

Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: 22 Operation: Press key	Paging, Internal	Broadcasting to all Internal Paging Zone	On red when activated	801 + 0 or 00
Code: 23 Operation: Press key	Meet Me Paging	Joining a Meet Me Page	None	863, 864, or 865
Code: 24 Operation: CALL + Press Key	Group Call Pickup	Answering a call ringing another terminal in your Pickup Group	None	*#
Code: 25 Operation: CALL + Press key	Group Call Pickup	Answering a call ringing a terminal in another Pickup Group - if you don't know the group number	None	869
Code: 26 + Pickup Group (1-8 or 1-9 or 01-64) Operation: CALL + Press key + Pickup Group	Group Call Pickup	Answering a call ringing a terminal in a specific Pickup Group	None	868
Code: 27 Operation: Press key + bin + Line or CALL key	Abbreviated Dialing	Dialing a stored Common Abbreviated Dialing number	None	#2 + bin
Code: 28 Operation: Press key + bin + Line or CALL key		Dialing a stored Group Abbreviated Dialing number	None	#4 + bin
Code: 29 Operation: Place call + Press key	Repeat Redial	Activating repeat redial while on a call	Fast Flash while UX5000 waits to redial	-
Code: 30 Operation: <u>Save:</u> Place call + Press key <u>Redial:</u> Line or CALL + Press key	Save Number Dialed	Saving, redialing or checking a saved number	None	815

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Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: 31 Operation: <u>Store:</u> While on call, Press key + number to store <u>Use:</u> Press key + CALL or line <u>Erase:</u> CALL + Press key	Memo Dial	Storing, using or checking a Memo Dial number	None	-
Code: 32 Operation: Set up trunk call + Press key OR Press key	Conference, Voice Call OR Meet Me Conference (Also see Conference)	Setting up a Voice Call Conference OR Joining a Meet Me Conference	None	863, 864, or 865
Code: 33 Operation: Call ext. and receive busy + Press key	Off Hook Signaling	Signaling a busy extension	None	7 or 809
Code: 34 Operation: Call ext + Press key	Barge In	Barging In on a co-worker's conversation	None	810
Code: 35 Operation: Call busy extension or access busy trunk + Press key	Callback / Camp On / Trunk Queuing	Leaving a Callback request at a busy extension, Camping On to a busy extension, Queuing for a busy trunk	On red when activated	2 or 850
Code: 36 Operation: Dial busy ext + Press key	Department Step Calling	Step Calling through a Department Group for an idle member	None	# or 808
Code: 37 Operation: Call extension + Press key	Call Forwarding / Do Not Disturb Override	Overriding an extension's Call Forwarding or Do Not Disturb	On red when activated	807
Code: 38 Operation: Leave message: Call ext + Press key OR Answer message: Press key	Message Waiting	Answering/Leaving a Message Waiting	None	*0 or 0
Code: 39 Operation: Press key at destination and source + ext	Room Monitor	Activating Room Monitor	Fast Flash red at destination, Hold Flash red at source	-

Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: 40 Operation: Press key	Handset Cutoff	Cutting off the handset transmission while on a call	On when feature active (no transmission on handset)	-
Code: 41 + sec. ext. Operation: Press key	Secretary Call	Calling your secretary (using the buzzer)	On red at source Fast Flash red at destination	-
Code: 42 + boss ext. Operation: Press key		A secretary picking up a call ringing your boss's extension.	On red when activated	-
Code: 43 Operation: TRK call + Hold + ext + Press key	Serial Call	Placing a Serial Call to a co-worker	None	-
Code: 44 Operation: Place or answer call + Press key	Hold	Putting a call on System Hold (if hold key is reassigned)	None	-
Code: 45 Operation: Place or answer call + Press key		Putting a call on Exclusive Hold	None	-
Code: 46 Operation: Press key	Department Calling	Logging in or logging out of your Department Calling Group	On when removed, Off when installed	150
Code: 47 + dest. ext. Operation: Press and hold key	Reverse Voice Over	Initiating Reverse Voice Over	Full BLF red	-
Code: 48 Operation: Hear Off-Hook Signaling tones + Press key	Voice Over	Initiating or responding to Voice Over	On red when responding Hold Flash red when listening	6 or 890
Code: 49 + ext or voice mail number Operation: Press key	Call Redirect	Redirecting an incoming call to an extension or voice mail	On red when activated Flashes when in DND/Call Forward	-
Code: 50 Operation: Press key	Account Codes	Entering Account Codes	None	* or ##
Code: 51 + relay number Operation: Press key	General Purpose Relay	Activating the general purpose relay	On when active	880

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Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: 54 Operation: Press key	Call Forward, Off-Premise	Forwarding a Door Box call to an external phone number	On red when activated	822
Code: 55 Operation: Do not lift handset + Press key + Enter extension number + Enter name + Press HOLD	Name Storing	Changing the name displayed on your display terminal	None	800
Code: 56 Operation: Press key	Alphanumeric Display	Using the General Purpose LED to set a status.	On red or on green, depending on code used	-
Code: 57 Operation: Press key	Alphanumeric Display	Using the General Purpose LED to display a status.	On red or on green, depending on code used	-
Code: 58 + Department Group (01-64) Operation: Press key	Department Calling	Setting Immediate Forwarding for a Department Group	Flashes	-
Code: 59 + Department Group (01-64) Operation: Press key	Department Calling	Setting Ring-No-Answer Forwarding for a Department Group	Flashes	-
Code: 60 + Department Group (01-64) Operation: Press key	Department Calling	Setting DND Forwarding for a Department Group	Flashes	-
Code: 63 Operation: Press key	ISDN	Placing an outgoing ISDN call without Caller ID	On red when active	-
Code: 66 Operation: Press key + ext or outside number	Data Communications	Setting up a Data Call	On red when call set up	-
Code: 68 + 0-2 Operation: Press key	Voice Mail	Using Voice Mail Service	Flashes slowly when monitoring	-
Code: 69 + 0 Operation: Press key	Voice Mail	Using the ACI as a destination for Conversation Record	On red when recording	-

Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: 77 + extension or Message Center number Operation: Press key		Calling Voice Mail or leaving a message	Flashes green on your key for your messages or flashes red for the Message Center	*8 or 8
Code: 78 Operation: Press key		Using Conversation Record	Flashes red when recording	-
Code: 79 + extension or pilot number Operation: Press key	Voice Mail, In-Skin Automated Attendant	Using the in-skin voice mail to answer calls	<ul style="list-style-type: none"> • On red when active for all calls • Flashes fast when active for no answer calls • Stutter blink when active for busy calls • Slow blink when active for busy/ no answer calls 	-
Code: 80 Operation: Press key + 1 or 0	Tandem Ringing	Setting the Tandem Ring option	On red when active	-
Code: 81 + trunk number (001-200) Operation: Press key	Tandem Trunking	Setting the Automatic Transfer-to-Transfer feature for a trunk	Flashes red when active	-
Code: 82 Operation: Press key	VoIP	Monitoring missed calls for an IP terminal using the Call History key.	Flashing when a new missed call is added to the call log	-
Code: 86 Operation: Press key	Caller ID	Using the Call Refuse feature for 'private' trunk calls.	Slow blink red when active	-
Code: 87 Operation: Press key	Caller ID	Using the Call Refuse feature for trunk calls.	Slow blink red when active	-

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Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: 88 Operation: Press key	DID	Changing time patterns for a DID	<ul style="list-style-type: none"> • Pattern 1=LED off • Pattern 2=LED on • Pattern 3=Slow flash • Pattern 4=Fast flash • Pattern 5=Off 	-
Code: 94 Operation: Press key	Voice Response System (VRS)	Manually using the Call Attendant to intercept calls	Stutter flash red when set for busy, Fast Flash when set for no answer, or On red when set for busy/no answer	-
Code: *01 + Trunk number (001-200) Operation: Press key	Central Office Calls	Pressing a line key to place or answer a trunk call (where trunks are 001-200)	On green when seized, on red when in use (by other party), Slow Flash green when ringing, Hold flash when on Hold	#9
Code: *02 + Trk group (1-9 or 001-100) Operation: Press key	Trunk Groups	Using a trunk group key to access a Trunk Group	On red when active	804
Code: *03 + ext. or department group Operation: Press key	Multiple Directory Numbers/Call Coverage	Multiple Directory Number: Placing or answering a call from your virtual (phantom) extension or Call Coverage: Placing or answering a call to your co-worker's extension	Slow Flash red when ringing, On red when busy	-
Code: *04 + orbit (01-64) Operation: Place or answer call + Press key	Park	Placing a call into or retrieving a call from a Park Orbit	Fast Flash when orbit is busy (green at originator, red at others)	#6 (Park) *6 (pickup)

Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: *05 + 0 (Incoming), 1 (Outgoing) or 2 (Both ways) + 000 (All trunk groups incoming or ARS outgoing) or Trunk group (001-100) Operation: Press key	Loop Keys, Trunk Group Routing	Placing or answering a trunk call	Flash red when ringing, On green when in use, Flash green when on hold	-
Code: *06 + Network number (1-50) Operation: Press key	CygniLink	Accessing a networked trunk	None	-
Code: *10 Operation: Press key to log in Press key + 1 to log out or 0 to cancel	Automatic Call Distribution (ACD)	Basic Operation Logging in or out of an ACD Group	On red when logged in Off when logged out	*5
Code: *12 Operation: Press key		Emergency Call Placing or receiving an Emergency Call	On while calling your supervisor or after being answered by your supervisor Flashing fast at the supervisor while ringing	-
Code: *13 Operation: Press key		Rest Mode Enabling/disabling Rest Mode	On red when Rest Mode enabled Off when Rest Mode disabled	-
Code: *14 Operation: Press key + Press 1 (Yes) or 2 (No)		Out of Service Taking an ACD Group out of service (for Group Supervisors only), or Taking all ACD Groups out of service (for System Supervisors only)	On red when a group is out of service	-
Code: *15 Operation: Call busy ACD agent + Press key		Terminal Monitor Monitoring an ACD Agent's conversation	On red while monitoring, Off when not monitoring	-

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Table 6: Function Key Codes by Number

To program a key, press CALL, dial 851 (for 2-digit codes) or 852 (for 3-digit codes), press the key and enter the code (e.g., 48 for Voice Over).

Use this key...	For this feature...	When you are...	Key Lamp Status	Also see Srvc Code
Code: *16 Operation: Press key to put agent on hold. Press key again + 1 to hang up agent or 0 to bring agent back into call.	Automatic Call Distribution (ACD) (cont.)	Supervisor Split Switching (splitting) between an ACD Agent and their outside caller after answering an emergency call	On while agent is on hold	-
Code: *17 Operation: Press Key		Work Time Enabling/disabling Work Time	On when Work Time enabled, Flashing (while on a call) if Auto Work time enabled Off when Work Time disabled	-
Code: *18 + ACD Group Number Operation: Press key		Enabling ACD overflow	On red when activated Slowly flashes red when disabled	-
Code: *19 Operation: Press key while on hook + Vol Up or Vol Down to scroll		Queue Status Check Viewing the ACD Queue Status of each ACD group	None	-

Table 7: System Number Plan/Capacities		
System Type:	UX5000 Capacity	
System		
Analog Caller ID Detector	64	
Classes of Service	15	
Conference Bridge Groups	4	
Day/Night Mode Numbers	8	
Day/Night Service Patterns	32	
Dial Tone Detector DTMF Receiver	48 or 64 w/EXIFU-B1 Mounted	
Network Nodes: • CygniLink • AspireNet	16 50	
System Ports (trunks and analog/digital/IP extensions)	200 trunks and 512 extensions * Chassis must be networked to reach max.	
Toll Restriction Classes	15	
Verifiable Account Code Table	2000	
Trunk		
Trunk Port Number	1-200 * A CCPU without a MEMDB, the trunks count toward the total number of allowed hardware ports (64).	
Trunk Ports (Total)	<u>19" Chassis x 4</u>	<u>Networked Chassis</u>
• Analog Trunks	184	200
• BRI Trunk Ports	184	200
• T1/PRI Trunk Ports	200	200
• E&M Analog Trunk Ports	92	200
• DID Analog Trunk Ports	92	200
• VoIP Trunk Ports	128	128
BRIU Logical Ports	T-Bus: 1-200 S-Bus: 1-256	
COIU: • Physical Ports • Logical Ports	01-08 0-200	
DIOPU: • Physical Ports • Logical Ports	01-04 LD Trunk: 0-200 OPX: 0-256	
PRIU Logical Ports	T-Bus: 1-200 S-Bus: 1-256	

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Table 7: System Number Plan/Capacities	
System Type:	UX5000 Capacity
TLIU: • Physical Ports • Logical Ports	01-04 0-200
VOIPDB: • Physical Ports • Logical Ports	001-128 0-200
DID Translation Tables	20
DID Translation Table Entries	2000
DISA • Classes of Service • Users	15 1-15
Ring Groups	1-100
Tie Line Classes of Service	15
Tie Line Toll Restriction Classes	15
Trunk Access Maps	1-200
Trunk Group Numbers	1-100
Trunk Routes	1-100
Extension	
Telephone Extension Port Numbers • Keysets • Single Line Phones/Analog Devices • VoIP Extensions • IP DECT	1-384 (1-384) (1-384) (1-512) ⁵ 001-512 (manual select) ⁵ 385-512 (auto select) ⁵
	* A CCPU without a MEMDB, the trunks count toward the total number of allowed hardware ports (64).
ESIU • Physical Ports • Logical Ports -Tone Ringer (2PGDAD) -Door Box (2PGDAD) -Analog I/F (2PGDAD) -ACI (2PGDAD) -APR for B2 Mode	01-16 1-8 1-8 1-96 1-96 193-512 (descending order)
SLIU • Physical Ports • Logical Ports	01-16 1-256
Telephone Extension Number Range	301-499 5000-5312

Table 7: System Number Plan/Capacities	
System Type:	UX5000 Capacity
Virtual Extension Ports	256
Virtual Extension Port Numbers	001-256
Virtual Extension Number Range	Undefined
2PGDAD Modules	512
ADA (Recording Jack) Adapters	512 (104 max. with digital terminals/ 512 max with IP terminals)
Door Boxes	8
Door Box Numbers	1-8
DSS Consoles Numbers • 16-Button DLS Consoles, Maximum Installed • 60-Button DSS Consoles, Maximum Installed	8 512 (384 max. with digital terminals / 512 max. with IP terminals) 32
Operator Access Number	0
Operator Extension	1-8
Ringdown Assignments	512
SLT Adapters	<ul style="list-style-type: none"> • 32 (9.5" Chassis) • 80 (19" Chassis) • 96 (19" Chassis x 2) • 368 (19" Chassis x 4) • 512 (Networked)
Voice Mail Master Numbers	301-499, 5000-5312

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Table 7: System Number Plan/Capacities	
System Type:	UX5000 Capacity
Abbreviated Dialing	
Abbreviated Dialing Groups	64
Abbreviated Dialing Bins	0-1999
Abbreviated Dialing Table-Common	1000
ACD	
ACD Groups	64
ACD Agent Extensions	512
ACI	
ACI Groups	16
ACI Ports	96
Automated Attendant	
VRS Message Numbers	1-100
Bluetooth Adapters	
BCH - Bluetooth Cordless Handset	16
BHA - Bluetooth Hub Adapter	16
Conference	
Conference Circuits	64 - maximum (32 Parties Per Conference)
Data Communication Interfaces	
APR Software Port Numbers	193-512
APA Adapters-Aspire Version	192 (only on Aspire phones)
APR Adapters-UX5000 Version	32
CTA or CTU Adapters-Aspire Version	128 (only on Aspire phones)
CTE	128
Module Extension Number Range	301-499, 5000-5312
Department and Pickup Groups	
Department (Extension) Group Numbers	1-64
Department (Extension) Group Number Range	301-499, 5000-5312
Call Pickup Group Numbers	1-64

Table 7: System Number Plan/Capacities	
System Type:	UX5000 Capacity
Hotline	
Internal Hotline	512
External Hotline	512
Paging and Park	
Internal Page Group Numbers	0, 1-9 or 01-64
External Page Group Numbers	0, 1-8
External Speakers	9
• CCPU	(1)
• PGDAD Module	(1-8)
Park Group Numbers	1-64
Park Orbits	1-64
Power Failure Adapters	
PSA (Power Failure) Adapters	<ul style="list-style-type: none"> • 16 (9.5" Chassis) • 40 (19" Chassis) • 88 (19" Chassis x 2) • 184 (19" Chassis x 4) • 200 (Networked)
SMDR	
SMDR Ports	1-8
VRS	
VRS (on DSP Daughter Board)	1
VRS Channels	16 (shared with voice mail)
VRS Attendant Messages	3
VRS Recordable Messages	100
Voice Mail	
Ports for UX IntraMail	4-16
Ports for UX Mail	4-16

Charts and Illustrations

Table 7: System Number Plan/Capacities	
System Type:	UX5000 Capacity
VoIP	
VoIP Extensions	512
Gigabit Adapters	512
IP Phones	512
RAS Unicast Ports	0-65535
Call Signaling Ports	0-65535
NGT Signal Receive Ports	0-65535
IP Call Procedure Port	0-65535
H.323 Alias Addresses	1-6
Note:	
Extension numbers can be three or four digits long. See Flexible System Numbering.	

Table 8: UX5000 Password

Table 8: UX5000 Password	
Passwords	
User Password for setting Toll Restriction Override and Changing Class of Service using a service code	0000
Programming Passwords	
Level 2 (IN) PCPro/WebPro User Name:	12345678 UX5000
Level 3 (SA) PCPro/WebPro User Name:	0000 ADMIN1
Level 4 (SB) PCPro/WebPro User Name:	9999 ADMIN2
Level 5 (UA) UserPro UA Level User Name:	1111 USER1
Level 6 (UB) UserPro UB Level User Name:	1111 xxxxxxx (Ext. Number)
Programming Password Users	8

Charts and Illustrations

Table 9: UX5000 Tone Patterns

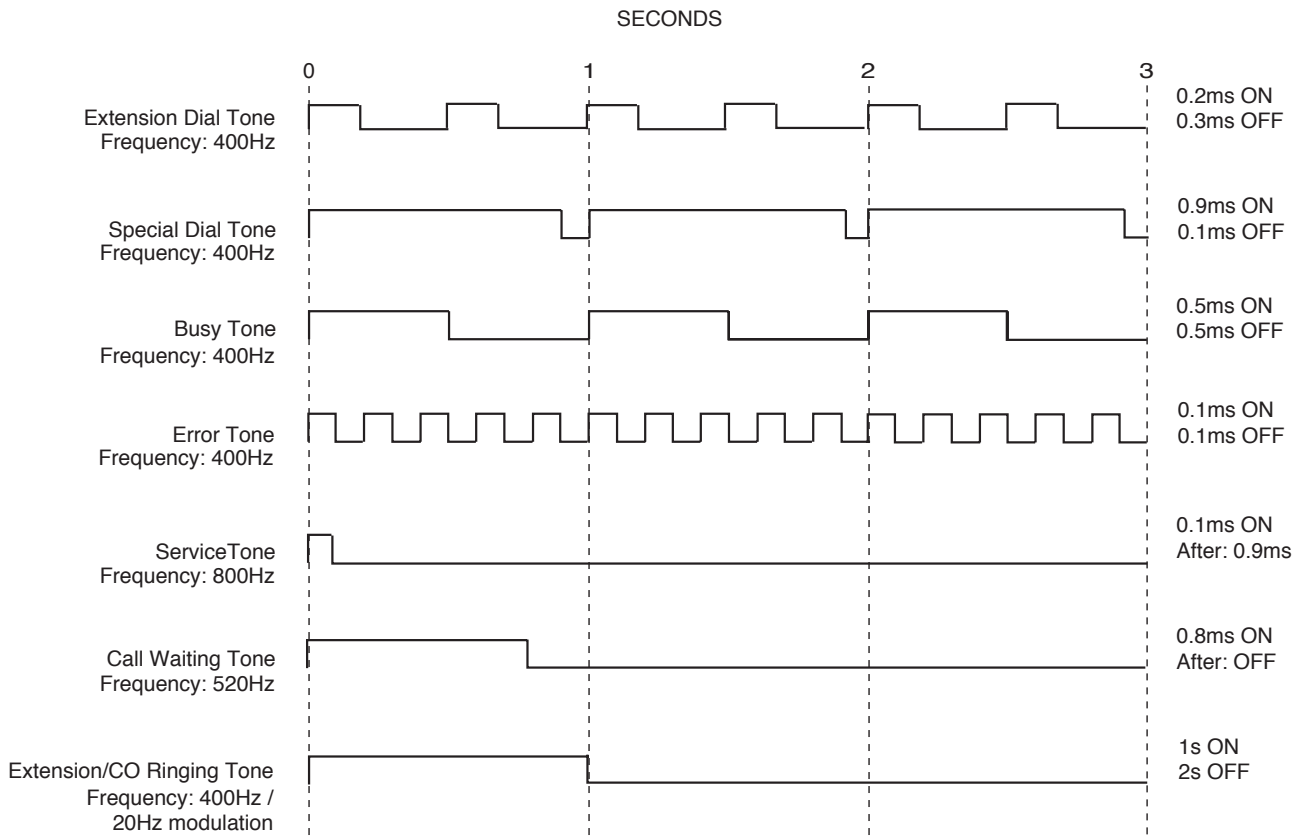
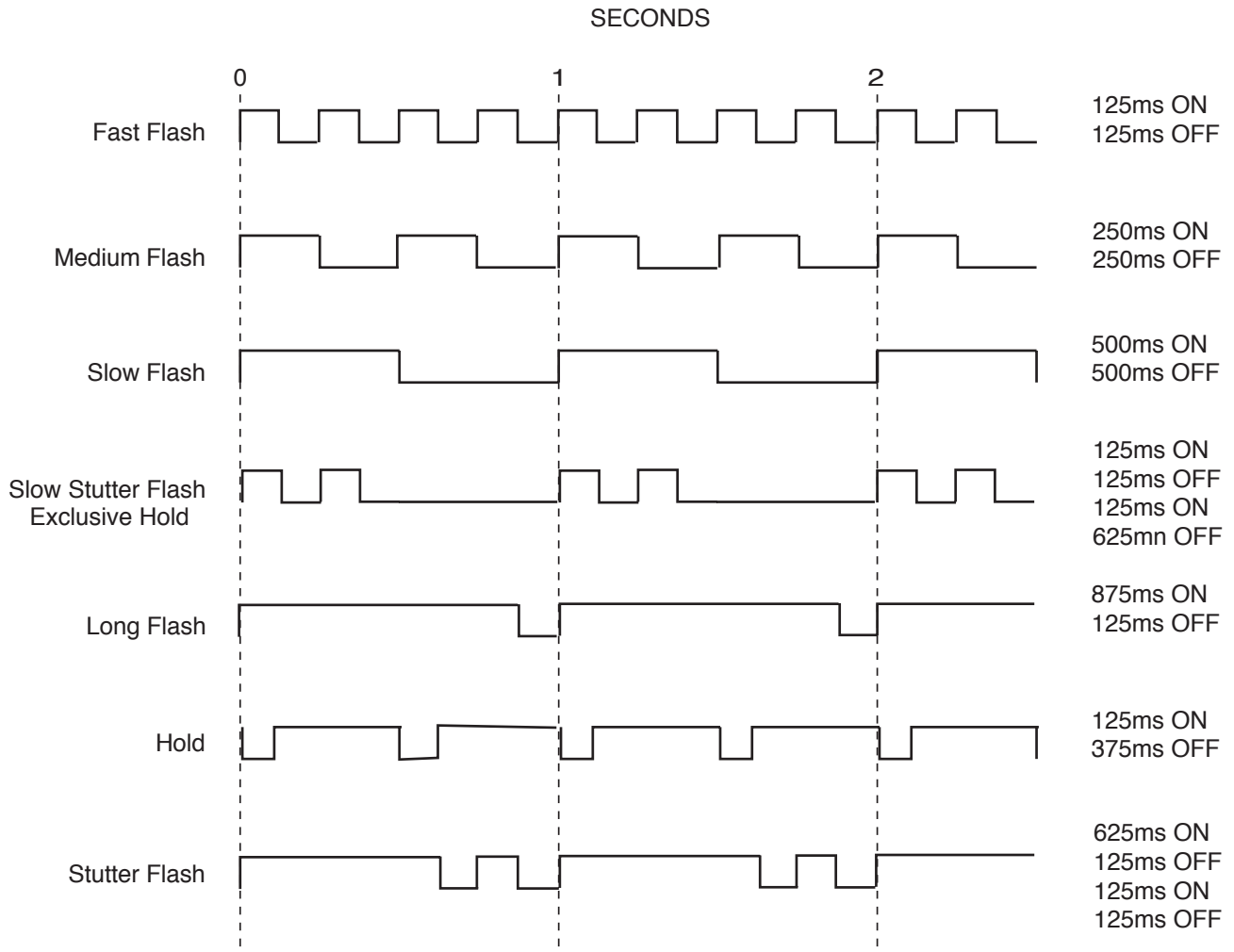


Table 10: UX5000 Flash Rates

Keyset / Direct Station Selection (DSS) Consoles



Charts and Illustrations

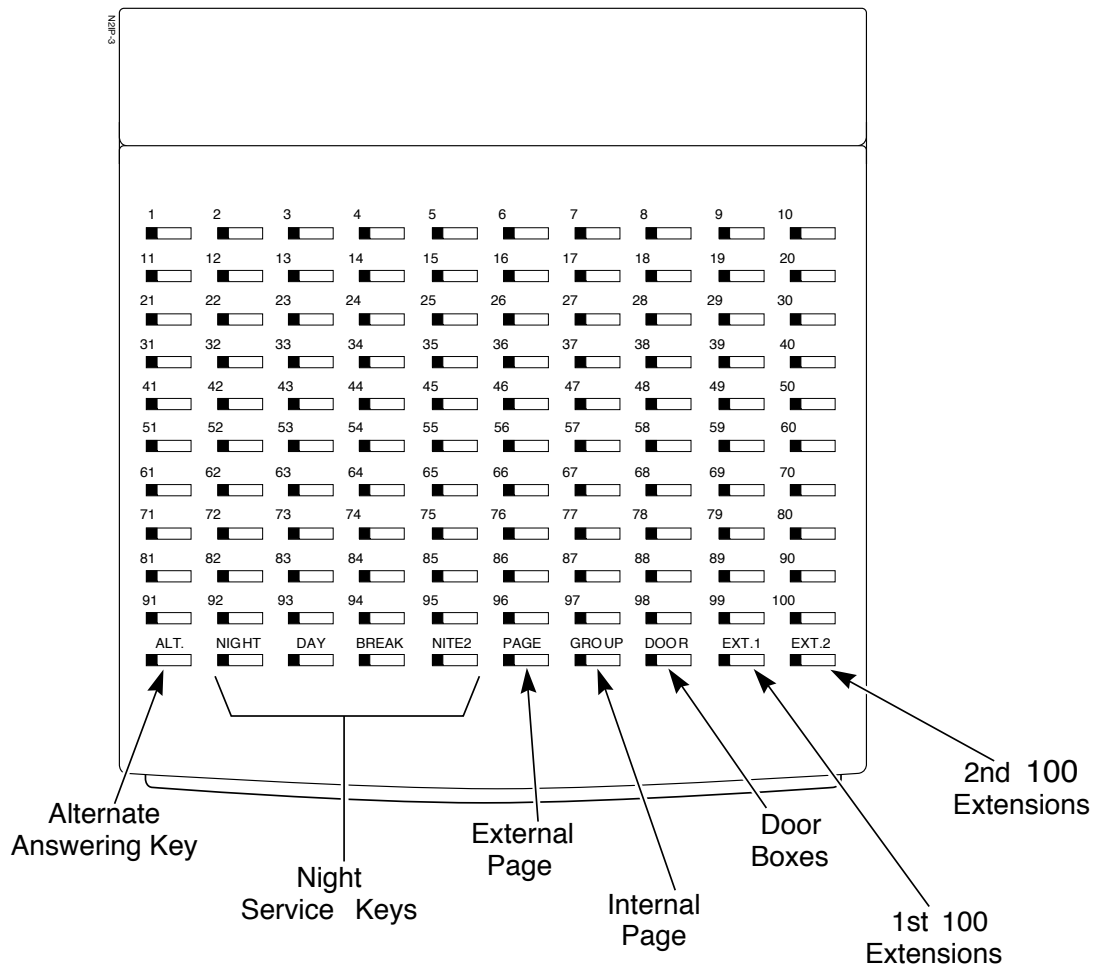


Figure 1: Aspire 110-BUTTON DSS CONSOLE

Feature Availability

- Available.
- 2000 bins available (0000-1999) for Common and Group Abbreviated Dialing. Up to 64 Abbreviated Dialing Groups available.
- 10 bins available (1-9, 0) for Personal Abbreviated Dialing.

Description

Abbreviated Dialing gives an extension user quick access to frequently called numbers. This saves time, for example, when calling a client with whom they deal often. Instead of dialing a long telephone number, the extension user just dials the Abbreviated Dialing code.

There are three types of Abbreviated Dialing: Common, Group and Personal. All co-workers can share the Common Abbreviated Dialing numbers. All co-worker's in the same Abbreviated Dialing Group can share the Group Abbreviated Dialing numbers. Personal Abbreviated Dialing numbers are available only at a user's own extension. The UX5000 has 2000 Abbreviated Dialing bins that you can allocate between Common and Group Abbreviated Dialing. (The Group bins are assigned in groups of 10.) Personal Abbreviated Dialing allows up to 10 bins in which you can store numbers or functions.

Each Abbreviated Dialing bin can store a number up to 24 digits long.

Common and Group Abbreviated Dialing

When placing an Abbreviated Dialing call, the UX5000 normally routes the call through Trunk Group Routing or ARS (whichever is enabled). Or, the user can preselect a specific trunk for the call. In addition, the UX5000 can optionally force Common Abbreviated Dialing numbers to route over a specific Trunk Group. User pre-selection always overrides the UX5000 routing.

Common Bins Limited to 1000 with Dial Key or #2 Service Code

Though there are 2000 Abbreviated Dialing bins available in the UX5000, once programmed, these bins can currently only be dialed using the Directory Dial feature (Press Directory Dialing Soft Key + ABB Soft Key + Use arrow keys to locate number or enter the Abbreviated Dial bin name + CALL or SPK to place call.)

The DIAL key and service code #2 operations are not available for any 4-digit Abbreviated Dial common bin number.

DSS Key Chaining

DSS key chaining allows an extension user with DSS keys to chain to an Abbreviated Dialing number stored under a DSS key. The stored number dials out (chains) to the initial call. This can, for example, simplify dialing when calling a company with an Automated Attendant. You can program the bin for the company number under one DSS key (e.g., #200) and the client's extension number under the other (e.g., 400). The user presses the first key to call the company, waits for the Automated Attendant to answer, then presses the second key to call the client (extension 400). See Programming below for additional details.

The user can also chain to an Abbreviated Dialing number dialed manually, from a Programmable Function Key.

Abbreviated Dialing

Storing a Flash

To enhance compatibility with connected Centrex and PBX lines, an Abbreviated Dialing bin can have a stored Flash command. For example, storing 9 Flash 926 5400 will cause the UX5000 to dial 9, flash the line and then dial 926 5400. The Flash can be stored by the user from their terminal or by the system administrator during UX5000 programming.

Using a Programmable Function Key

To streamline frequently-called numbers, an Abbreviated Dialing Programmable Function Key can also store an Abbreviated Dialing bin number. When the extension user presses the key, the terminal automatically dials out the stored number. This provides true one-touch calling via a terminal's function keys.

Personal Abbreviated Dialing

Personal Abbreviated Dialing gives a keyset user quick access to extensions, trunks and selected UX5000 features. This saves users time when accessing co-workers, clients and features they use most often. When used in combination with a Programmable Function Key, a user can have one-button access to stored telephone numbers or features. An extension user can define Personal Abbreviated Dialing bins for:

- **Direct Station Selection** - quick access to extensions
- **Abbreviated Dialing** - quick access to stored Common/Group Abbreviated Dialing numbers or to locally stored numbers (up to 24 digits long)
- **Trunk Calling** - quick access to trunks or trunk groups
- **Service Codes** - quick access to specific Service Codes

When using Programmable Function Keys for Personal Abbreviated Dialing, an extension user can chain dial. For example, a user can store the number for a company's Automated Attendant in key 13 and employee extension numbers in keys 14-18. The user presses key 13 to call the company, then one of keys 14-18 to ring the employee to which they want to speak.

An extension user or system administrator can optionally store a Flash command with a Personal Abbreviated Dial bin number. The stored Flash may be helpful to access features of the connected telco, PBX or Centrex.

Conditions

- The total number of both Common and Group Abbreviated dial bins cannot exceed 2000;

Default Setting

Available. There are no Group Abbreviated Dialing bins assigned.

Programming

- **11-10-04 : Service Code Setup (for System Administrator) - Storing Common Abbreviated Dialing Numbers**
If required, change the service code (853) used to store Common Abbreviated Dialing numbers.
- **11-10-05 : Service Code Setup (for System Administrator) - Storing Group Abbreviated Dialing Numbers**
If required, change the service code (854) used to store Group Abbreviated Dialing numbers.
- **11-11-56 : Service Code Setup (For Setup/Entry Options) - Telephone Book Lock Service**
Specify the service code for an extension to lock or unlock their Telephone Book.

- **11-12-10 : Service Code Setup (For Service Access) - Common/Extension Abbreviated Dialing**
Specify the service code for an extension to use Common Abbreviated Dialing (#2).
- **11-12-11 : Service Code Setup (For Service Access) - Group Abbreviated Dialing**
Specify the service code for an extension to use Group Abbreviated Dialing (#4).
- **11-12-40 : Service Code Setup (For Service Access) - Personal Abbreviated Dialing**
Specify the service code for an extension to use Personal Abbreviated Dialing (#7).
- **13-01-01 : Abbreviated Dialing Function Setup - Abbreviated Dialing Auto Outgoing Call Mode**
Determine if dialing an Abbreviated Dialing number will dial an outside number (seizing a trunk as defined in Program 13-05) or an Intercom number (0=trunk dialing mode, 1=extension dialing mode).
- **13-01-03 : Abbreviated Dialing Function Setup - Common Abbreviated Dialing Bins**
Designate the bins the UX5000 will use for Common Abbreviated Dialing. When using 4-digit bins (1000-2000), remember that these must be dialed using the keyset's Soft Keys.
- **13-02-01 : Group Abbreviated Dialing Bins**
Designate the bins (1-64) the UX5000 will use for Group Abbreviated Dialing or ACD Overflow. The UX5000 assigns the group numbers in sets of 10 (start bin: xxx0 - end bin: xxx9). There must be bins available and cannot overlap the Common Abbreviated Dialing bins assigned in Program 13-01-01.
- **13-03-01 : Abbreviated Dialing Groups for Extensions**
Assign Abbreviated Dialing groups (1-64) to extensions.
- **13-04-01 : Abbreviated Dialing Number and Name - Abbreviated Dialing Data**
For each bin (0-1999 for Common and Group Abbreviated Dialing or 0-999 for DID transfer) enter the destination number (1-9, 0, *, #, P = Pause [Line key 1], R = Flash [Line key 2], or @=Additional Digit for ISDN [Line key 3]).
For ANI/DNIS - for each bin (0-1999), enter the incoming ANI/DNIS numbers (1-9, 0, *, #).
For Caller ID Flexible Ringing - for each bin (0-1999) enter the incoming Caller ID number (1-9, 0 *, #) to which the number should be matched.
(24 digits maximum)
- **13-04-02 : Abbreviated Dialing Number and Name - Name**
For each bin (0-1999) enter the Common and Group Abbreviated Dialing names (12 digits max.).
- **13-04-03 : Abbreviated Dialing Number and Name - Transfer Mode**
For each bin (0-1999), enter the Caller ID or ANI/DNIS transfer mode (0=not defined, 1=internal dial, 2=incoming ring group).
- **13-04-04 : Abbreviated Dialing Number and Name - Destination Number**
For each bin (0-1999 for Caller ID matching and ANI/DNIS routing), enter the destination number (If Program 13-04-04 = 1, enter an internal number up to 24 digits [0-9, *, #, P = Pause, R = Flash, or @ = Additional Digit for ISDN] or if Program 13-04-04 = 2, enter the ring group (1-100). For each bin number (0-1999 for ACD Overflow), enter the destination number up to 24 digits [0-9, *, #, P = Pause, R = Flash, or @ = Additional Digit for ISDN).
- **13-04-05 : Abbreviated Dialing Number and Name - Incoming Ring Pattern**
Enter the Caller ID incoming ring pattern (0-9, 0 = normal pattern, 1-4 = tone patterns 1-4, 5-9 = scale patterns 1-5) for each bin number (0-1999) used for Caller ID Flexible Ringing.
- **13-05-01 : Abbreviated Dialing Trunk Group**
To use a specific trunk group (1-100) for an Abbreviated Dial number, enter the group number. If Program 13-01-01 = 1, enter the routing option for each Common Abbreviated Dialing number; enter a "9" to use ARS or Trunk Group Routing, or to use a specific Trunk Group, enter the group number. Note: Pre-selecting a trunk when dialing an ABB number overrides this setting.

Abbreviated Dialing

- **14-02-06 : Analog Trunk Data Setup - Pause Time**
Enable(1) or disable (0) the UX5000s ability to pause after dialing the first digit (trunks : 1-200).
- **15-02-04 : Multi-Line Terminal Basic Setup - Abbreviated Dialing DIAL Key Control**
Assign the extensions' DIAL key for either Common (0) or Group (1) Abbreviated Dialing.
- **15-02-22 : Multi-Line Terminal Basic Setup - Abbreviated Dialing DIAL Key Control**
Assign the extensions' DIAL key for either Common (0) or Group (1) Abbreviated Dialing.
- **15-02-23 : Multi-Line Terminal Basic Setup - Abbreviated Dialing Preview Mode**
When an abbreviated number is dialed, determine whether it should be previewed (0) or dialed immediately (1).
- **15-07-01 : Programming Function Keys**
Assign a function key for Common Abbreviated Dialing (code 27) or Group Abbreviated Dialing (code 28). You can program the key as either a general Abbreviated Dialing key or you can choose to store a bin number with the function key. This key would then always dial the associated bin number. If storing a bin number along with the code, do not store 0, 00 or 000. To bypass entering a bin number, press HOLD (HOLD is also required if programming the function key using the service code 851). Also, service codes can be assigned to Programmable Function Keys (01 + service code).
If required, define a Programmable Function Key for One-Touch Calling of an outside telephone number by defining the key as a One-Touch key (01) + trunk access code + the telephone number.
- **15-14-01 : Programmable One-Touch Keys**
Set the functions of an extension's One-Touch bin numbers.
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to an extension for each night mode (1-8).
- **20-07-04 : COS Options (Administrator Level) - Storing Abbreviated Dialing Entries**
In an extension's COS (1-15), allow (1) or prevent (0) the storing of Abbreviated Dialing entries (codes 853 and 854). Preventing this option will also prevent the user's display from showing the telephone number. This can be used when you want to prevent account codes from being displayed.
- **20-08-03 : COS Options (Outgoing Call Service) - Common Abbreviated Dialing**
In an extension's COS (1-15), enable (1) or disable (0) Common Abbreviated Dialing.
- **20-08-04 : COS Options (Outgoing Call Service) - Group Abbreviated Dialing**
In an extension's Class of Service (1-15), enable (1) or disable (0) Group Abbreviated Dialing.
- **20-14-04 : Class of Service Options for DISA/E&M**
Enable (1) or disable (0) common Abbreviated Dialing for each DISA/tie line Class of Service (1-15).
- **30-03-01 : DSS Console Key Assignment**
Assign an Abbreviated Dialing Service Code (27 or 28) plus a two-digit bin number to a DSS Console key. For DSS Console Chaining, assign a DSS Console key as a DSS/One-Touch Key (01) then add the additional data.
When programming a feature within a One-Touch Key, refer to the feature's description for additional programming options.
- **80-03-01 : DTMF Tone Receiver Setup**
- **80-04-01 : Call Progress Tone Detector Setup**
If required, modify the criteria for dial tone detection and call progress tone detection for outgoing Abbreviated Dialing calls.
- **81-01-16 : COIU Initial Data Setup - Pause Time**
If Abbreviated Dialing numbers include a pause, the UX5000 uses this timer to determine the length of the pause. This timer is enabled/disabled in Program 14-02-06.

Related Features

Account Codes

Abbreviated Dialing bins can contain stored Account Codes.

Automatic Route Selection

For UX5000s with Automatic Route Selection, ARS selects the trunk for the call unless the user preselects.

Call Forwarding / Call Forwarding, Off-Premise

Abbreviated Dialing numbers can be used as a Call Forward destination.

Caller ID

Flexible Ringing can reject or reroute calls based on a match with an Abbreviated Dialing number.

Central Office Calls, Placing

A user can implement Abbreviated Dialing only if their extension has outgoing access to trunks.

Dial Tone Detection

Refer to this feature for the specifics on how the UX5000 handles Dial Tone Detection.

Direct Station Selection (DSS) Console

Abbreviated Dialing bins can be defined for DSS keys using Programmable Function Key options and service codes.

Directory Dialing

The name in the Abbreviated Dialing bin is used for the Directory Dialing feature.

One-Touch Calling

An extension can use a One-Touch bin number for Abbreviated Dialing operation.

PBX Compatibility

If you enter a PBX trunk access code in an Abbreviated Dialing bin, the UX5000 automatically inserts a pause after the bin.

Programmable Function Keys

Function keys simplify Abbreviated Dialing operation.

Single Line Terminals / IP DECT / Cordless II / Cordless Lite II / DISA / OPX / Tie Lines

These types of users can only dial Common and Group Abbreviated Dialing numbers.

Soft Keys

You can access the Abbreviated Dialing (defining and dialing) options through the Soft Keys.

Tandem Trunking

Automatic Tandem Trunking can be used to transfer a call to an Abbreviated Dialing number.

Toll Restriction

Toll Restriction may prevent a user from using a stored Abbreviated Dialing number.

Trunk Group Routing

Unless a user preselects a trunk, Trunk Group Routing selects the trunk Abbreviated Dialing uses for trunk calls.

Abbreviated Dialing

Operation

To store an Abbreviated Dialing number (display terminals only):

1. Press idle CALL key and dial 853 (for common) or 854 (for group).
OR
1. With an idle display keypad, press the PROG Soft Key, then the ↓ Soft Key, press the ABB Soft Key. If there are Group ABB bins defined, select either the ABBc (common) or ABBg (group) Soft Key.
2. Dial common or group storage code (000-999).
Initially, there are 1000 Common Abbreviated Dialing codes. There are Group Abbreviated Dialing codes only if you define them in programming.
When using 4-digit bins, the storage codes/bin numbers are 0000-1999.
3. Dial telephone number you want to store (up to 24 digits).
*Valid entries are 0-9, # and *. To enter a pause, press MIC. To store a Flash, press FLASH.*
4. Press HOLD.
5. Enter the name associated with the Abbreviated Dialing number.

Key for Entering Names	
When entering names in the procedures below, refer to this chart. Names can be up to 12 digits long.	
Use this keypad digit . . .	When you want to . . .
1	Enter characters: 1 @ [¥] ^ _ ` { } → ← Á À Â Ã Ä Ç È É Ê Ì Ó Ô
2	Enter characters A-C, a-c, 2.
3	Enter characters D-F, d-f, 3.
4	Enter characters G-I, g-i, 4.
5	Enter characters J-L, j-l, 5.
6	Enter characters M-O, m-o, 6.
7	Enter characters P-S, p-s, 7.
8	Enter characters T-V, t-v, 8.
9	Enter characters W-Z, w-z, 9.
0	Enter characters: 0 ! “ # \$ % & ’ () ô o ú å ä ö ü α ε θ
*	Enter characters: * + , - . / : ; < = > ? π Σ σ Ω ∞ ϕ ε
#	# = Accepts an entry (only required if two letters on the same key are needed - ex: TOM). Pressing # again = Space. (In UX5000 programming mode, use the right arrow soft key instead to accept and/or add a space.)
CONF	Clear the character entry one character at a time.
CLEAR	Clear all the entries from the point of the flashing cursor and to the right.

6. Press HOLD
7. Press SPK to hang up.

To dial a Common Abbreviated Dialing number:

Four-digit bin numbers must be dialed using the keyset's Soft Keys.

3-Digit Bin Numbers Only

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial #2 (000-999).
OR
Press DIAL key.
OR
Press Common Abbreviated Dialing key (PGM 15-07 or SC 851: 27).
To preselect, press a line key in step 1 (instead of CALL) before pressing the DIAL or Abbreviated Dialing key).
3. Dial Common Abbreviated Dialing storage code (000-999).
The stored number dials out.
Unless you preselect, Trunk Group Routing selects the trunk for the call. The UX5000 may optionally select a specific Trunk Group for the call.
If you have a DSS Console, you may be able to press a DSS Console key to chain to a stored number.

Abbreviated Dialing

4-Digit Bin Numbers

1. With an idle display keyset, press the DIR Soft Key.
2. Select either the ABBc (common) or ABBg (group) Soft Key.
3. Use the ↑ or ↓ to locate the number you wish to call.
4. Press the DIAL Soft Key.

The stored number dials out.

To store a Common Abbreviated Dialing number under a Programmable Function Key:

1. At keyset, press idle CALL key.
2. Dial 851.
3. Press the key which is to store the number.
4. Dial 01.
5. Dial #2 + the 3-digit bin number (000-999) to be stored.
Four-digit bin numbers can not be stored with this function.
6. Press HOLD.
7. Press SPK to hang up.

To dial a Common Abbreviated Dialing number under a Programmable Function Key:

1. At keyset, press idle CALL key.
2. Press the key which has the stored number to be dialed.
The number seizes an outside line and dials out.

To dial a Group Abbreviated Dialing number:

3-Digit Bin Numbers Only

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial #4 (000-999).
OR
Press DIAL key.
OR
Press Group Abbreviated Dialing key (PGM 15-07 or SC 851: 28).
To preselect, press a line key in step 1 (instead of CALL) before pressing the DIAL or Abbreviated Dialing key)
3. Dial the Group Abbreviated Dialing code (000-999).
The stored number dials out.
Unless you preselect, Trunk Group Routing selects the trunk for the call.
If you have a DSS Console, you may be able to press a DSS Console key to chain to a stored number.

4-Digit Bin Numbers

1. At keyset, press the DIR Soft Key.
2. Press the ABB Soft Key, then the ABBg Soft Key.
3. Use the ↑ or ↓ to locate the number you wish to call.
4. Press the DIAL Soft Key.

The stored number dials out.

To check your stored Abbreviated Dialing numbers (display terminal only):

1. Press CHECK.
2. For Common Abbreviated Dialing, press DIAL.
Dial the Abbreviated Dialing Code (e.g., common code 001).
*If the entire stored number is too long for your terminal's display, press * to see the rest of it.*
OR
For Group Abbreviated Dialing, press the Group Abbreviated Dialing key.
OR
For Common Abbreviated Dialing key, press the Common Abbreviated Dialing key.
3. Press CLEAR.
To display additional numbers, repeat from step 1.

Personal Abbreviated Dialing

To program a Bin for Personal Abbreviated Dialing:

1. Press idle CALL key or lift the handset and dial 855.
2. Dial the bin number (1-9, 0) you want to program.
3. Dial general trunk access code (9).
OR
Dial Specific Trunk Service Code (#9) plus the trunk number (e.g., 005).
OR
Dial Trunk Group Service Code (804) plus the trunk group number (e.g., 1).
4. Dial number you want to store.
The total of the digits stored in steps 3 and 4 cannot exceed 24.
*Valid entries are 0-9, # and *. To enter a pause, press MIC. To store a Flash, press FLASH.*
5. Press HOLD.
6. Enter the name associated with the key you are programming.
7. Press HOLD.
8. Press SPK or hang up.

To dial a Personal Abbreviated Dialing number:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial #7.
3. Dial the Personal Abbreviated Dialing storage code (0-9).
The stored number dials out.

Account Codes

Feature Availability

- Available.

Description

Account Codes are user-dialed codes that help the system administrator categorize and/or restrict trunk calls. The UX5000 has three types of Account Codes:

- **Optional Account Codes**
Optional Account Codes allow a user to enter an Account Code while placing a trunk call or anytime while on a call. This type of Account Code is optional; the UX5000 *does not* require the user to enter it.
- **Forced Account Codes**
Forced Account Codes *require* an extension user to enter an Account Code every time they place a trunk call. If the user doesn't enter the code, the UX5000 prevents the call. As with Optional Account Codes, the extension user can elect to enter an Account Code for an incoming call. However, the UX5000 does not require it. *Forced Account Codes does not block 1-800, 1-888 and emergency assistance (911) calls.*

Once set up in UX5000 programming, you can enable Forced Account Codes on a trunk-by-trunk basis. In addition, Forced Account Codes can apply to all outside calls or just long distance calls. Forced Account Codes for toll calls restricts calls according to the following chart:

Number of Digits Dialed	If first digit is not 1	If first digit is 1
1-3	Not allowed	Not allowed
4-7	Allowed - does not require Account Code	Allowed - requires Account Code
More than 7 ¹	Allowed - requires Account Code	Allowed - requires Account Code
800 and 888	Allowed - requires Account Code	Allowed - does not require Account Code
011 (International)	Allowed - requires Account Code	N/A
911	Allowed - does not require Account Code	N/A

¹ If you change the local call length in Toll Restriction, this value changes accordingly.

Timer Allows for Forced Account Code Interdigit Timer

Programming allows the adjustment of the interdigit timer used for Forced Account Codes. The UX5000 will use the time set in **Program 21-01-04 : System Options for Outgoing Calls - Dial Tone Detection Time** for the interval the UX5000 will wait for a user to enter a Forced Account Code when using a trunk access code (ex: 9) or F-Routing. By default, this option is set to 5 (Entries: 0-64800 seconds).

- **Verified Account Codes**

With Verified Account Codes, the UX5000 compares the Account Code the user dials to a list of up to 2000 pre-programmed codes. If the Account Code is in the list, the call goes through. If the code dialed is not in the list, the UX5000 prevents the call. Verified Account Codes can be from 3-16 digits long using the characters 0-9 and #. During programming, you can use “wild cards” to streamline entering codes into UX5000 memory. For example, the entry 123W lets users dial Verified Account Codes from 1230 through 1239.

Operator Notification

To prevent Account Code abuse, the UX5000 can notify the operator each time an Account Code violation occurs. This can happen if the user fails to enter an Account Code (if Forced) or enters a Verified Account Code that is not in the list. The notification is an automatic Intercom call to the attendant and a “*RESTRICT*” message in the operator’s display. (If the attendant fails to enter a valid Account Code, the UX5000 drops the call.)

Account Codes for Incoming Calls

The UX5000 can control the ability of extension users to enter Account Codes for incoming calls. When this option is enabled, a user can dial * while on an incoming call, enter an Account Code, and then dial * to return to their caller. If the option is disabled, any digits the user dials after answering an incoming call outdial on the connected trunk.

Hiding Account Codes

Account Codes can be optionally hidden from a terminal’s display. This would prevent, for example, an unauthorized co-worker from obtaining a Verified Account Code by watching the display and making note of the digits that dial out. When hidden, the Account Code digits show as the character “*” on the terminal’s display.

Account Code Capacity

Account Codes print along with the other call data on the SMDR record after the call completes. Account Codes can be 1-16 digits in length using 0-9 and #. Verified Account Codes can be from 3-16 digits long.

Redialed Numbers Do Not Contain Account Codes

When using the Last Number Redial, Save or Repeat Dial features, the UX5000 will not retain Account Code information. Any number redialed with these features, the user will need to reenter an Account Code.

Note:

If a user enters *12345*203 926 5400*67890*, if the Last Number Redial feature is used, the UX5000 dials the number as 203 926 5400*67890*. The *67890* is not treated as an Account Code.

Account Codes

Conditions

- If a user enters a code that exceeds the 16 digit limit, the UX5000 ignores the Account Code entry.
- If the UX5000 has Account Codes disabled, the digits dialed (e.g., *1234*) appear on the SMDR report as part of the number dialed.
- Do not use an asterisk within a PBX access code when using Account Codes. Otherwise, after the *, the trunk will stop sending digits to the central office.

Default Setting

Account Codes are disabled.

Programming

- **14-01-11 : Basic Trunk Data Setup - Account Code**
Enable (1) or disable (0) Account Codes for each trunk.
⇨ Trunks: 1-200
- **15-07-01 : Programming Function Keys**
Assign a function key as an Account Code key (code 50), for Common Abbreviated Dialing (code 27) or Group Abbreviated Dialing (code 28). You can program the key as either a general Abbreviated Dial key or you can choose to store a bin number with the function key. This key would then always dial the associated bin number. If storing a bin number along with the code, do not store 0, 00 or 000. To bypass entering a bin number, press HOLD (HOLD is also required if programming the function key using the service code 851). Use this key instead of the dial pad to enter the * before and after the Account Code.
- **15-14-01 : Programmable One-Touch Keys**
Assign One-Touch keys to dial the Account code, Common Abbreviated Dialing (code #2) or Group Abbreviated Dialing (code #4). You can program the key as either a general Abbreviated Dial key or you can choose to store a bin number with the One-Touch key. This key would then always dial the associated bin number.
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to an extension for each night mode (1-8).
- **20-08-03 : Class of Service Options (Outgoing Call Service) - Common Abbreviated Dial**
In an extension's Class of Service (1-15), enable (1) or disable (0) Common Abbreviated Dialing.
- **20-08-04 : Class of Service Options (Outgoing Call Service) - Group Abbreviated Dial**
In an extension's Class of Service (1-15), enable (1) or disable (0) Group Abbreviated Dialing.
- **20-13-20 : Class of Service Options (Supplementary Service) - Account Code/Toll Restriction Operator Alert**
When a call is attempted without entering an account code when forced or verifiable account codes are used, determine if the operator should be notified (0=disable, 1=enable).
- **20-17-01 : Operator's Extension**
If Program 20-13-20 is set to notify the operator, make sure the operator's extension is defined in this program.
- **21-01-04 : System Options for Outgoing Calls - Forced Account Code Inter-Digit Time**
Adjust the interval the UX5000 will wait for a user to enter a Forced Account Code when using a trunk access code (ex: 9) or F-Routing. By default, this option is set to 5 (Entries: 0-64800 seconds).
- **21-04-01 : Toll Restriction Class for Extensions**
Use this option to assign a Toll Restriction Class (1-15) to an extension for each night mode (1-8).

- **30-03-01 : DSS Console Key Assignment**

Assign a DSS Console key as an Account Code key (code 50), for Common Abbreviated Dialing (code 27) or Group Abbreviated Dialing (code 28). You can program the key as either a general Abbreviated Dial key or you can choose to store a bin number with the function key. This key would then always dial the associated bin number. If storing a bin number along with the code, do not store 0, 00 or 000.
- **35-05-01 : Account Code Setup - Account Code Mode**

For each Class of Service (1-15) use this option to select the Account Code Mode. The options are:

 - 0 Account Codes disabled. (Any codes you enter dial out as part of your initial call.)
 - 1 Account Codes optional (not required).
 - 2 Account Codes required (forced) but not verifiable.
 - 3 Account Codes required (forced) and verifiable.
- **35-05-02 : Account Code Setup - Forced Account Code Toll Call Setup**

For each Class of Service (1-15), enter 1 in this option to enable Forced Account Codes for just toll calls. Enter 0 to enable Forced Account Codes for local and toll calls. With this option enabled, local calls will have Optional Account Codes. If a user needs to dial * as part of post-dialing digits, The * must be pressed three times (twice for the expected account code entry and the third as the post-dialing digit).
- **35-05-03 : Account Code Setup - Account Codes for Incoming Calls**

For each Class of Service (1-15), enter 1 in this option to enable Account Codes for incoming calls. Enter 0 to disable Account Codes for incoming calls. If disabled, any codes you enter dial out on the connected trunk.
- **35-05-04 : Account Code Setup - Hiding Account Codes**

For each Class of Service (1-15), enter 1 to have the UX5000 hide Account Codes on an extension's display as they are entered. Enter 0 to have the Account Codes displayed.
- **35-06-01 : Verified Account Code Table**

Use this option to enter data into the Verified Account Code Table. You can enter up to 2000 codes from 3-16 digits in length. For a wild card, press the Line 1 key when using terminal programming. In PCPro and WebPro, press the @ key instead.

Related Features

Abbreviated Dialing

Abbreviated Dialing bins can contain stored Account Codes.

Automatic Route Selection

ARS can force a user to enter an Authorization Code prior to using a certain route. The UX5000 verifies the ARS Authorization Code dialed against the ARS Authorization Code list (Program 44-03).

Central Office Calls, Answering

Set up various options to answer incoming calls.

Central Office Calls, Placing

Set up various options to placing incoming calls.

DSS Station Selection (DSS) Console

Assign function keys as Account code access and Abbreviated Dialing keys.

PBX Compatibility

When using Account Codes, do not use an asterisk within a PBX access code. Otherwise, after the *, the trunk would stop sending digits to the central office.

Account Codes

Programmable Function Keys

Assign function keys as Account Code access, Abbreviated Dialing keys, DSS keys, and if an extension can program their own Programmable Function keys.

To simplify Account Code entry, store the Account Code (e.g., *1234*) in a One-Touch Programmable Function Key. Just press the key instead of dialing the codes.

Station Message Detail Recording

Account Codes appear on the SMDR report (even if they are hidden on the terminal's display).

Operation

To enter an Account Code any time while on a trunk call:

The outside caller cannot hear the Account Code digits you enter.

You can use this procedure if your UX5000 has Optional Account Codes enabled. You may also be able to use this procedure for incoming calls.

This procedure is not available at SLTs.

1. Dial *.
OR
Press your Account Code key (PGM 15-07 or SC 851: code 50).
2. Dial your Account Code (1-16 digits, using 0-9 and #).
If Account Codes are hidden, each digit you dial will show an "" character on the terminal's display.*
3. Dial *.
OR
Press your Account Code key (PGM 15-07 or SC 851: code 50).

To enter an Account Code before dialing the outside number:

If your UX5000 has Forced Account Codes, you must use this procedure. If it has Verified Account Codes, you can use this procedure instead of letting the UX5000 prompt you for your Account Code. You may also use this procedure if your UX5000 has Optional Account Codes.

If your UX5000 has Verified Account Codes enabled, be sure to choose a code programmed into your Verified Account Code list.

1. Access trunk for outside call.
*You can access a trunk by pressing a line key or dialing a code (except 9). Refer to **Central Office Calls, Placing** (page 191) for more information.*
2. Dial *
OR
Press your Account Code key (PGM 15-07 or SC 851: code 50)
3. Dial your Account Code (1-16 digits, using 0-9 and #).
If you make an incorrect entry, your UX5000 may automatically alert the operator. If Account Codes are hidden, each digit you dial will show an "" character on the terminal's display.*

4. Dial *.
OR
Press your Account Code key (PGM 15-07 or SC 851: code 50)
5. Dial the number you want to call.
*If you hear “stutter dial tone after dialing the number, ARS is requesting that you enter an ARS Authorization Code. Refer to **Automatic Route Selection** (page 111) for more information.*

To dial an outside number and let your UX5000 tell you when an Account Code is required:

1. Access a trunk and dial the number you want to call.
*If you hear “stutter dial tone after dialing the number, ARS is requesting that you enter an ARS Authorization Code. Refer to **Automatic Route Selection** (page 111) for more information.*
2. Wait for your call to go through.
OR
If you hear “Please enter an Account Code,” and your display shows ENTER ACCOUNT CODE:
 - Dial *.
OR
Press your Account Code key (PGM 15-07 or SC 851: code 50)
 - Dial your Account Code (1-16 digits, using 0-9 and #).
If Account Codes are hidden, each digit you dial will show an “” character on the terminal’s display.*
 - Dial *.
OR
Press your Account Code key (PGM 15-07 or SC 851: code 50)

Account Codes

To enter an Account Code for an incoming call:

This procedure is not available at SLTs.

1. Answer incoming call.

If Account Codes for Incoming Calls is disabled, the following steps will dial digits out onto the connected trunk.

2. Dial *.
3. Enter the Account Code.

You can enter any code of the proper length. Incoming Account Codes cannot be Forced or Verified.

4. Dial *.

To enter an Account Code while placing a trunk call:

If your UX5000 has Forced Account Codes, you must follow this procedure.

1. Access trunk for outside call.

You can access a trunk by pressing a line key or dialing a code. Refer to Central Office Calls, Placing for more information.

With Forced Account Codes, you hear, "Please enter an Account Code." Your display shows: ENTER ACCOUNT CODE.

2. Dial *.
3. Dial your Account Code (1-16 digits, using 0-9 and #).
4. Dial *

*If the UX5000 has Forced Account Codes and you don't enter a code, your call cannot go through. You can, however, dial ** to bypass Forced Account Code entry.*

5. Dial number you want to call.

If you hear "stutter" dial tone after dialing the number, ARS is requesting you to enter an ARS Authorization Code. Refer to the Automatic Route Selection feature for more information on ARS Authorization Codes.

To enter an Account Code at a single line set:

1. Access trunk for outside call.

You can access a trunk by dialing a code. Refer to Central Office Calls, Placing for more information.

With Forced Account Codes, you hear, "Please enter an Account Code." Your display shows: ENTER ACCOUNT CODE.

2. Dial *.
3. Enter Account Code (1-16 digits).
4. Dial *.
5. Dial number you want to call.

If you hear "stutter" dial tone after dialing the number, ARS is requesting you to enter an ARS Authorization Code. Refer to the Automatic Route Selection feature for more information on ARS Authorization Codes.

Feature Availability

- Available.

Description

Alarm lets a keyset extension work like an Alarm clock. An extension user can have Alarm remind them of a meeting or an appointment. There are two types of Alarms:

- Alarm 1 (sounds only once at the preset time)
- Alarm 2 (sounds every day at the preset time)

Conditions

Single line sets will ring and Music on Hold will be heard when the alarm sounds.

Default Setting

Alarm is enabled.

Programming

- ◆▶ **11-11-12 : Service Code Setup (for Setup/Entry Operation) - Alarm Clock**
Specify the service code (default: 827) for an extension to set or cancel their terminal alarm.
- ◆▶ **15-07-01 : Programmable Function Keys**
Assign a function key for Alarm setting and canceling (01 + 827).
- ◆▶ **15-14-01 : Programmable One-Touch Keys**
Assign a one-touch bin number for Alarm setting and canceling (827).
- ◆▶ **20-01-06 : System Options - Alarm Duration**
Set the duration of the Alarm signal (0-64800 seconds).
- ◆▶ **30-03-01 : DSS Console Key Assignment**
Assign a DSS console key as a key for Alarm setting and canceling (01 + 827).

Related Features

Programmable Function Keys

Assign function keys as access to Alarm setting/canceling and if an extension can program their own Programmable Function Keys.

Soft Keys

Soft Keys can be used to access this feature.

Alarm

Operation

To set the alarm:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial 827.
3. Dial alarm type (1 or 2).
Alarm 1 sounds only once. Alarm 2 sounds each day at the preset time.
4. Dial the alarm time (24-hour clock).
For example, for 1:15 PM dial 1315.
A confirmation tone will be heard if the alarm has been set. If the alarm was not set, an error tone will be heard instead.
5. At keyset, press SPK to hang up.
OR
At single line set, hang up.

To silence an alarm:

1. At keyset, press CLEAR.
OR
At single line set, lift handset.
The single line set user will hear Music on Hold when the handset is lifted.

To check the programmed alarm time:

1. Press CHECK.
2. Dial 827.
3. Dial alarm type (1 or 2).
The programmed time displays.
4. Press CLEAR.

To cancel an alarm:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial 827.
3. Dial alarm type (1 or 2).
4. Dial 9999.
5. At keyset, press SPK to hang up.
OR
At single line set, hang up.

Refer to the Maintenance (page 378) for information on this feature.

Alphanumeric Display

Feature Availability

- Available.

Description

Multibutton display terminals have an alphanumeric display that provides various feature status messages. The size of the display varies depending on the keyset model and the display size selected (normal or double height). For example, the Sophisticated IP terminal can provide a 4-line, 28 character per line or a 3-line, 28 character per line display at the double-height setting. These messages help the display terminal user process calls, identify callers and customize features. Refer to the table below for a listing of the various display types available:

Terminal	Number of Rows	Number of Columns
IP-CTS	4 rows (normal) / 3 rows (double)	28
Enhanced IP	4 rows (normal) / 3 rows (double)	28
Value IP	3 rows (normal)	24
Enhanced Digital	4 rows (normal)	24
Value Digital	3 rows (normal)	24

General Purpose LED

If required, General Purpose LED Operation keys can be assigned. These Programmable Function Keys can be used to light an LED on a keyset (for example, in a doctor's office, to let the doctor know a patient is ready to be seen). Code 56 is programmed on the keyset which should set the status, and code 57 is programmed on the keyset which should display the lit LED. A key can display as light solid red or solid green, or by pressing once it's lit solid red and pressing the key again it's lit solid green.

Conditions

- The contrast is not adjustable when the terminal has background music enabled.
- The display contrast is adjusted automatically based on the ambient temperature around the terminal.
- Any feature which can be activated at an extension will affect what is shown on a display.

Default Setting

Enabled for all display terminals.

Programming

- **11-11-13 : Service Code Setup (for Setup/Entry Operation) - Display Language Selection for Keyset**
If needed, redefine the service code used to select the language for display keysets (default: 178).
- **11-11-63 : Service Code Setup (for Setup/Entry Operation) - Double Height Characters**
Assign the service code used for displaying double height characters on the UX5000 keyset.
- **11-11-64 : Service Code Setup (for Setup/Entry Operation) - Reverse Display**
Assign the service code used for reversing the LCD display on the UX5000 keyset.

- **14-01-01 : Basic Trunk Data Setup - Trunk Name**
Program the names for the UX5000 trunks (1-200).
- **15-01-01 : Basic Extension Data Setup - Extension Name**
Program the names for the UX5000 extensions.
- **15-02-01 : Multi-Line Terminal Basic Data Setup - Display Language Selection**
Select the language to be displayed on a keyset's display (0 = Japanese, 1 = English, 2 = German, 3 = French, 4 = Italian, 5 = Spanish, 6 = Dutch, 7 = Portuguese, 8 = Norwegian, 9 = Danish, 10 = Swedish, 11 = Turkish, 12 = Latin American Spanish).
- **15-02-18 : Multi-Line Terminal Basic Data Setup - Power-Saving Mode**
Enable (1) or disable (0) the power saving mode for the console. The brightness of the LEDs will be lowered by 50% based on the activation time in Program 20-02-10. When used with a DSS Console, the power-saving mode is synchronized with both the terminal and the console. Both units must be idle for the defined time before the power-saving mode is activated.
- **15-02-44 : Multi-Line Terminal Basic Data Setup - Reversing Display Indication**
For the UX5000 keysets, determine if the display should indicate as black text on a light background (normal) or reversed with light text on a black background (1).
- **15-02-45 : Multi-Line Terminal Basic Data Setup - Double Height Display**
Determine if the height of a line on the UX5000 display keyset should be doubled (0 = Normal Display, 1 = Double Height Character Indication of Calendar (Date/Time) Line, 2 = Double Height Character Indication of Status/Extension Display Line).
- **15-02-46 : Multi-Line Terminal Basic Data Setup - Backlight Duration**
Determine how long the backlight will be displayed on the UX5000 terminal keys once the terminal is in an active state (0 = Always On, 1 = 5 Seconds, 2 = 10 Seconds, 3 = 15 Seconds, 4 = 30 Seconds, 5 = 60 Seconds).
- **15-07-01 : Programmable Function Keys**
If required, assign General Purpose LED Operation keys (codes 56 and 57). Code 56 is programmed on the keyset which should set the status, and code 57 is programmed on the keyset which should display the lit LED. (Additional key data: 001-100 [lights red], 101-200 [lights green], 201-300 [lights red when pressed once or lights green when pressed twice]).
- **15-20-01 : LCD Line Key Name Assignment**
When using a Desi-Less keyset (P/N 0910056, 0910058, 0910076, 0910078) or Desi-Less LK/LCU Unit (P/N 0910108, 09100110, 0910112, 0910114), use this program to define the names associated with the function keys.
- **20-02-10 : System Options for Multi-Line Terminals - Time Before Shifting to Power-Saving Mode**
When the Power Saving Mode is enabled for an extension in Program 15-02-18, use this option to determine when the mode is activated (0 = Power-Saving Mode Off, 1 = 1 minutes, 2 = 2 minutes, 3 = 4 minutes, 4 = 8 minutes, 5 = 16 minutes, 6 = 32 minutes, 7 = 64 minutes).
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to an extension for each night mode (1-8).
- **20-11-08 : Class of Service Options (Hold/Transfer Service) - Transfer Display**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's incoming Transfer pre-answer display.

Alphanumeric Display

Related Features

None

Operation

Display is automatic if enabled in programming.

To Change Displayed Language:

1. At keyset, dial 178.
2. Enter the language number (00-14) which should be displayed.
3. Press SPK to hang up.

To Add a General Purpose LED:

1. At keyset, press the General Purpose LED On/Off key (PGM 15-07 or SC 851: code 56) to light the key.
To turn off the LED, press the General Purpose LED On/Off key (PGM 15-07 or SC 851: code 56) key again.
The LED color depends on the key's definition. It can be red, green, or red when the key is pressed once - green when the key is pressed twice.
2. Any keyset with the General Purpose LED key (PGM 15-07 or SC 851: code 57) defined with the same will code as the activating keyset will light.

To Change the Display Contrast:

1. At an idle keyset, press the Volume Up key to darken the display or press the Volume Down key to lighten the display.
The terminal must be idle and Background Music must be turned off.

To Reverse the UX5000's LCD Display:

1. From a UX5000 display keyset, dial the service code defined in 11-11-64.
The LCD display reverses from a light background to a dark background or vice versa.
2. Press SPK to hang up.

To Double the UX5000's Display Characters:

1. From a UX5000 display keyset, dial the service code defined in 11-11-63 + 0, 1 or 2.
0 = Normal Display, 1 = Double Height Character Indication of Calendar (Date/Time) Line, 2 = Double Height Character Indication of Status/Extension Display Line.
The LCD characters double in height.
2. Press SPK to hang up.

Analog Communications Interface (ACI)

Feature Availability

- Available - 96 ACI software ports (48 PGDAD modules max. when used for ACI ports) and 16 ACI Department Groups.

Description

The Analog Communications Interface (ACI) feature uses a PGDAD module to provide two analog ports (with associated relays) for Music on Hold, External Paging or auxiliary devices such as tape recorders and loud bells. The UX5000 allows up to 48 PGDAD modules (when used for ACI ports), for a maximum of 96 analog ports. Each PGDAD module requires an unused port on an ESIU blade.

- **Music on Hold**

You can connect up to two customer-provided Music on Hold music sources to a PGDAD module. This lets you add additional music sources if the external source on the CPU blade or the internal source are not adequate. By using PGDAD modules, you could even have a different music source for each trunk.

When the UX5000 switches the ACI analog port to a trunk on Hold, the PGDAD relay associated with the ACI analog port closes. You can use this capability to switch on the music source, if desired.

Extension users can dial the ACI analog port extension number and listen to the connected music source. The PGDAD relay associated with the port closes when the call goes through.

For Music on Hold, connect the music source to the PGDAD module. Connect the music source control leads to the CTL (control relay) jack. Refer to the Hardware Manual for additional details.

- **External Paging**

An ACI analog port can also be an External Page output. When connected to customer-provided External Paging equipment, the ACI port provides External Paging independent of the UX5000 CCPU external paging input. To use the External Paging, an extension user just dials the ACI analog port extension number and makes the announcement. The UX5000 broadcasts the announcement from the ACI analog port and simultaneously closes the associated PGDAD relay. You can use the relay closure to control the External Paging amplifier, if required.

This external paging zone is not included in external all call paging or combination paging (internal and external).

For External Paging, connect the Paging amplifier to the PGDAD jack. Connect the amplifier control leads to the CTL (control relay) jack. Refer to the Hardware Manual for additional details.

- **Auxiliary Device Control**

The PGDAD module can control a customer-provided tape recorder. When an extension user dials the ACI analog port extension number, they can automatically start the recorder and activate the record function. When the user hangs up, the recording stops and the tape recorder turns off. For tape recording, connect the tape recorder AUX input jack to the PGDAD jack. Connect the recorder control leads (if available) to the CTL (control relay) jack. Refer to the Hardware Manual for additional details.

Analog Communications Interface (ACI)

By using Department Calling, you can arrange multiple tape recorders into a pool. When an extension user dials the Department Group pilot number, they reach the first available tape recorder in the pool.

The relays in the PGDAD module can optionally control customer-provided external ringers (loud bells) and buzzers. When an extension user dials the ACI analog port extension number, the associated PGDAD relay closes and activates the ringer. You could use this capability to control an emergency buzzer for a noisy machine shop floor, for example.

- **ACI Call Recording**

ACI Call Recording allows you to use a recording device connected to a PGDAD module to manually or automatically record calls. The recording device is typically a customer-provided tape recorder. You can set up ACI Call Recording to output to a single ACI port/recording device or to a pool of ACI ports/devices. With a single device, all calls are stored in a centralized location. With a pool of devices, you'll be sure to have a port available for recording - even in peak traffic periods. You can set up automatic recording on a per trunk or manually on a per extension basis.

When set up for manual recording, the user presses the ACI Conversation Record key (Service Code 851 + 69 + 0) to begin recording the call from that point. When set up for automatic recording, ACI Call Recording starts automatically as soon as the user places or answers their call. The UX5000 can be programmed to record all *incoming* trunk calls which ring an extension. This includes the following trunk types:

- Central Office calls programmed to ring the extension.
- Direct Inward Dialing (DID)
- Direct Inward Line (DIL)
- Direct Inward System Access (DISA)
- Tie lines

The UX5000 can also be programmed to record *outgoing* trunk calls, however, this is only possible using E&M tie lines, PRI or BRI trunks.

ACI Call Recording is not available for intercom calls, transferred calls, or calls placed on hold and answered by an extension with Call Recording enabled. To manually record any type of call (transferred, ICM, outgoing CO trunk, etc.), use the Voice Mail Conversation Record key (Service Code 851 + 78).

Physical Ports and Software Ports

Each PGDAD module consists of a physical port for connection to the UX5000 and two logical ports. For programming purposes, the ports are also called software ports. The physical port connects to a station position on a ESIU blade. During installation, the first PGDAD module you set up is physical port 1; the second PGDAD module is physical port 2, etc. Each PGDAD module has two software ports, which are numbered independently of the physical ports. Normally, the first PGDAD module set up has software ports 1-2; the second PGDAD module has software ports 3-4, etc. There are a total of 96 software ports (48 PGDAD modules x 2 ports each). During programming, you assign ACI extension numbers and Department Group options to PGDAD software ports, not physical ports. During installation, you connect equipment to the jacks on the PGDAD module that correspond to the software port. Refer to the UX5000 Hardware Manual for more installation details.

Conditions

The devices connected to the PGDAD module must be compatible with the specifications below. Refer to the UX5000 Hardware Manual for additional details.

Analog Communications Interface (ACI)

PGDAD/ACI Interface Specifications	
Relay Contacts	
Maximum Contact Ratings	30 V DC @ 60 mA
	90 V AC @ 10 mA
Minimum Application Load	1 V DC @ 1 mA
Audio/Music Input	
Input Impedance	47 K Ohms @ 1 KHz
Audio/Paging Output	
Output Impedance	600 Ohms @ 1 KHz
Maximum Output	+ 8 dBm

Default Setting

No PGDAD modules programmed.

Programming

- **10-03-01 : Blade Setup - Terminal Type (Circuit 1)**
10-03-06 : Blade Setup - Terminal Type (Circuit 2)
The circuit should be assigned a type “9” for ACI or type “7” for an external ringer.
- **10-05-01 : General Purpose Relay Setup**
Define which relay circuits (5-8) on the 2PGDAD Module are used for General Purpose Relays. Also refer to Program 10-21-05 for the CCPU relay assignments.
- **10-07-01 : Conversation Record Circuits**
Assign the number of conversation record circuits.
- **10-21-05 : CCPU Hardware Setup - General Purpose Relay on CCPU**
Select which relay (1 = Relay 1 on CCPU or 2 = Relay 2 on CCPU) is to be used for the general purpose relay on the CCPU (CN10).
- **10-41 : General Purpose Contact Detector Setup**
Specify the circuit number used on a 2PGDAD as a contact detection circuit.
- **11-06-01 : ACI Extension Numbering**
Assign extension numbers to ACI software ports (1-96). Select a number outside of the normal extension number range.
- **11-08-01 : ACI Group Pilot Number**
Assign pilot numbers to ACI groups (1-16). When a user dials the pilot number, they reach an available ACI software port within the group.
- **11-12-50 : Service Code Setup (For Service Access) - General Purpose Relay**
Specify the service code to be used for toggling the relay open and closed (Default: 880).

Analog Communications Interface (ACI)

- **14-08-02 : Music on Hold Source for Trunks - Source Port Number**
If the MOH type is “2” in Program 14-08-01, for each trunk enter the ACI source port number (1-96).
- **14-09-01 : ACI Conversation Recording Destination for Trunks - ACI Recording Destination Extension Number**
Use this option to assign the ACI Call Recording destination on a per trunk basis. The destination can be an ACI port’s extension number (assigned in Program 11-06-01) or an ACI Department Group pilot number (assigned in Program 11-08-01). If destinations are assigned in Programs 14-09 and 15-12, the destination in Program 15-12 will be followed.
- **14-09-02 : ACI Conversation Recording Destination for Trunks - ACI Automatic Recording for Incoming Call**
Determine whether a trunk should be automatically recorded when an incoming call is received (0=off, 1=on).
- **14-09-04 : ACI Conversation Recording Destination for Trunks - ACI Automatic Recording for Outgoing Call**
Determine whether a trunk should be automatically recorded when an outgoing call is initiated (0=off, 1=on).
- **15-07-01 : Programmable Function Keys**
If required, program an ACI Conversation Record Key (code 69 + 0). This key allows an extension user to press the key to manually record a call to the ACI.
Also assign a General Purpose Relay key (51 + relay no [1-8]) and/or an ACI access key (01 + ACI extension number).
- **15-12-01 : Conversation Recording Destination for Extensions - ACI Recording Destination Extension Number**
Use this option to assign the ACI Call Recording destination on a per extension basis. The destination can be an ACI port’s extension number (assigned in Program 11-06) or an ACI Department Group pilot number (assigned in Program 11-08). If destinations are assigned in Programs 14-09 and 15-12, the destination in Program 15-12 will be followed.
- **15-12-02 : Conversation Recording Destination for Extensions - ACI Automatic Recording for Incoming Call**
Determine whether an extension should be automatically recorded when an incoming call is received (0=off, 1=on).
- **15-12-04 : Conversation Recording Destination for Extensions - ACI Automatic Recording for Outgoing Call**
Determine whether an extension should be automatically recorded when an outgoing call is received (0=off, 1=on).
- **30-03-01 : DSS Console Key Assignment**
If required, program an ACI Conversation Record Key (code 69 + 0). This key allows an extension user to press the key to manually record a call to the ACI.
Also assign a General Purpose Relay key (51 + relay no [1-8]) and/or an ACI access key (01 + ACI extension number).
- **31-05-01 : Universal Night Answer**
For trunks which ring an external ringer connected to a 2PGDAD module, set the trunks to ring “1”. When programming, the zones on the PGDAD adapter are numbers 1-8. The CCPU’s zone is number 9.
- **33-01-01 : ACI Port Type Setup**
Set each ACI software port (1-96) for input (1) or input/output (2). Use input ports for Music on Hold sources. Use output ports for External Paging/ringer control.
- **33-02-01 : ACI Department Calling Group**
Assign ACI software ports (1-96) to ACI Department Groups (1-16). This lets ACI callers connect to ACI software ports by dialing the group’s pilot number (set in Program 11-08).

Related Features

Automatic Call Distribution (ACD)

ACD agents which are logged on can be recorded.

Background Music

ACI software ports cannot be Background Music music sources.

Direct Station Selection (DSS) Console

Assign function keys as access to ACIs and general purpose relays.

Door Box

If a 2PGDAD circuit is used for ACI, it can not be used for a Door Box.

Music on Hold

Assign ACI ports for Music on Hold inputs.

One-Touch Calling

An extension can have One-Touch bin numbers for ACI software ports. This gives the extension user:

- Quick access to external music
- Quick External Paging
- Quick loud ringer control

Paging, External

ACI software ports can provide External Paging with control, independent of the External Paging circuits on the CPU blade. If a 2PGDAD circuit is used for ACI, it can not be used for External Page.

Programmable Function Keys

Assign function keys as access to ACIs and general purpose relays, and if an extension can program their own Programmable Function Keys.

Soft Keys

Soft keys can be used to access this feature.

Analog Communications Interface (ACI)

Operation

To call an ACI software port:

1. Press idle CALL key.
2. Dial ACI software port extension number.
OR
Dial ACI Department Group extension number.
OR
Press One-Touch Programmable Function Key for ACI extension or Department Group.

After you call an ACI software port:

- If the port is set for input (Program 33-01-01=1) and a music source is connected, you hear music.
OR
- If the port is set for output (Program 33-01-01=2) and External Paging is connected, you can page into the external zone.
OR
- If the port is set for output (Program 33-01-01=2) and a loud ringer is connected, you activate the loud ringer.

To manually record a call an ACI software port:

1. While on a call, press the ACI Conversation Record Key (PGM 15-07 or SC 851: 69 + 0).
The key's LED will be lit when recording.
2. To stop recording, press the ACI Conversation Record Key once again.
The key's LED will be off when recording has stopped.

Feature Availability

- Available.

Description

With the UX5000, Aspire digital keysets, 24-Button and 110-Button DSS Consoles, and some of the phone adapters (ex: APR, APA, etc.) can be used on the UX5000 communications server.

Each Aspire keyset, console or adapter would have the same load factor as when used on the Aspire system. Refer to the Aspire Hardware Manual (P/N 0893100) for a chart with the load factor information.

The following Aspire hardware is supported on the UX5000 communications server:

Keysets/Consoles:

- 2-Button Telephone - Black (P/N 0890047)
- 2-Button Telephone - White (P/N 0890048)
- 22-Button Handsfree Non-Display Telephone - Black (P/N 0890041)
- 22-Button Handsfree Non-Display Telephone - White (P/N 0890042)
- 22-Button Handsfree Display Telephone - Black (P/N 0890043)
- 22-Button Handsfree Display Telephone - White (P/N 0890044)
- 34-Button Handsfree Display Telephone - Black (P/N 0890045)
- 34-Button Handsfree Display Telephone - White (P/N 0890046)
- 34-Button Super Display Telephone - Black (P/N 0890049)
- 34-Button Super Display Telephone - White (P/N 0890050)
- 24-Button DLS Console - Black (P/N 0890053)
- 24-Button DLS Console - White (P/N 0890054)
- 110-Button DSS Console - Black (P/N 0890051)
- 110-Button DSS Console - White (P/N 0890052)

Cordless Telephones and Options:

- Analog Cordless Phone SLT DTR-1R-2 (BK) (5.8 GHz) (P/N 730093)
- NEC Cordless II Telephone (P/N 730088)
- NEC Cordless Lite II Telephone (P/N 730087)

Peripherals

- APR (Analog Interface with Ringing) Adapter (P/N 0890056)
- APA (Analog Interface without Ringing) Adapter (P/N 0890057)
- 2PGDAD Module (for Door Box/Page/ACI) (P/N 0891027)
- Door Box (P/N 922450)



Aspire Telephones

The following Aspire hardware is **NOT** supported on the UX5000 communications server:

- Aspire Wireless Base Station (P/N 780136)
- Aspire Wireless Handset with Battery (P/N 780004)
- 4-Button Aspire IP Phone - Black (P/N 0890072)
- 34-Button Aspire IPPhone - Black (P/N 0890065)
- 34-Button Aspire IPPhone - Black (P/N 0890073)
- IP Adapter (IP) (P/N 0890060)
- In-Line Power Adapter (ILPA) (P/N 780122)
- Power Failure Adapter for IP Telephone (PSA) (P/N 0890067)
- Recording Adapter for IP Telephone (ADA2) (P/N 0890066)

Conditions:

- As the UX5000 keysets can provide up to 28-character displays and the Aspire keysets provide 24-character displays, the Aspires phones will not indicate any characters over the 24-character limit.
- Keypad features not available on the Aspire (such as Reverse Display, Double-Height Characters, and Backlight) are not available on the Aspire keysets.
- The following UX5000 keysets can be used on the Aspire system as well. **Note: Only the items indicated below are compatible on the Aspire.**
 - Digital 12-Button Display (P/N 0910044 or 0910046) with Retro Keypad (P/N 0910102)
 - Digital 24-Button Display (P/N 0910048 or 0910050) with Retro Keypad (P/N 0910102)

Default Setting

Enabled

Programming

Programming is the same as the UX5000 keysets. Refer to the particular feature for details.

Operation

Operation is the same as the UX5000 keysets. Refer to the particular feature for details.

Feature Availability

- Available.

Description

Attendant extensions can have up to 32 incoming calls queued before additional callers hear busy tone. This helps minimize call congestion in UX5000s that use the attendant as the overflow destination for unanswered calls. For example, you can program Direct Inward Lines and Voice Mail calls to route to the attendant when their primary destination is busy. With Attendant Call Queuing, these unanswered calls would normally “stack up” for the attendant until they can be processed.

The 32 call queue total includes Intercom, DISA, DID, DIL, tie line and transferred calls. If the attendant doesn't have an appearance for the queued call, it waits in line on a CALL key. If the attendant has more than 32 calls queued, an extension can Transfer a call to the attendant only if they have Busy Transfer enabled.

Attendant Call Queuing is a permanent, non-programmable UX5000 feature.

Conditions

None

Default Setting

Enabled.

Programming

- **20-17-01 : Operator's Extension**
Assign the operator (attendant's) extension.
- **24-02-01 : System Options for Transfer - Busy Transfer**
Prevent (0) or allow (1) extensions to Transfer calls to an attendant that has more than 32 calls in queue.

Related Features

Call Forwarding / Personal Greeting

Forwarding when unanswered or busy can only occur at the attendant if there are more than 32 calls in queue.

Operation

None

Automatic Call Distribution (ACD)

Feature Availability

- Available with ACD Software License - 64 ACD Groups and 512 ACD Agents.
- For more information, refer to the ACD Manual (P/N 0913202).

Description

Automatic Call Distribution (ACD) uniformly distributes calls among member agents of a programmed ACD Group. When a call rings into an ACD Group, the UX5000 automatically routes the call to the agent that has been idle the longest. Automatic Call Distribution is much more sophisticated and comprehensive than Department Calling and other group services - it can accurately judge the work load at each agent and distribute calls accordingly. The UX5000 allows up to 64 ACD Groups and 512 ACD agents.

You can put any agent in any group. In addition, an agent can be in more than one group. This allows, for example, a Technical Service representative to answer Customer Service calls at lunch time when many of the Customer Service reps are unavailable.

The ACD Master Number is the “extension number” of the whole group. Calls directly ringing or transferred to the ACD Master number enter the group and are routed accordingly. Although the masternumbercanbeanyvalidextensionnumber

normal extension range.

Automatic Call Distribution operation is further enhanced by:

- **ACD Call Queuing**
When all agents in an ACD Group are unavailable, an incoming call will queue and cause the Queue Status Display to occur on the ACD Group Supervisor’s display. The display helps the supervisor keep track of the traffic load within their group. The Queue Status Displays shows:
 - The number of calls queued for an available agent in the group.
 - The trunk that has been waiting the longest, and how long it has been waiting.

For each ACD Group, you can set the following conditions:

- The number of trunks that can wait in queue before the Queue Status Display occurs.
- How often the time in queue portion of the display reoccurs.
- If the supervisor should hear a Queue Alarm whenever the time in queue portion reoccurs. This alarm is a single beep tone that reminds the supervisor to check the condition of the queue.

- **ACD Overflow**

ACD Group as Overflow Destination

The UX5000 can transfer an overflow call to a specific ACD Group, to voice mail using Program 41-09, an off-premise number (using a programmed Abbreviated Dial number) or incoming ring group. When **Program 41-08-02 : ACD Overflow Destination has the ACD Overflow Destination** set to '65', the UX5000 will overflow the call to the ACD Group programmed in Program 41-09. (The UX5000 will not allow you to program an ACD group with that ACD group as the overflow.) If, while the call is ringing, the extension to which the call was transferred becomes available, both the extension and the overflow ACD group will ring.

Notes:

- When using Off-Premise Overflow transfer and if all trunks are busy, the UX5000 will set the ACD Overflow Timer again and wait to retry. When this occurs, the queue information of this call will be set to the oldest queue.

Automatic Call Distribution (ACD)

- Once the Overflow call has successfully transferred to the Off-Premise or ring group, the call is removed from the retry queue.
- Once the Overflow call has successfully transferred to the Off-Premise or ring group, the UX5000 will notify the ACD-MIS that the call was abandoned by the caller.
- If the user programmed Overflow Transfer to the ring group which is used by the other ACD group, the UX5000 will notify ACD-MIS with new call information. Therefore, the ACD-MIS will count the transferred call as new call.

Option for Counting Overflow Calls in ACD MIS Software

An option is available for use with ACD MIS (such as inDepth Lite/inDepth/inDepth+) software to count overflow calls. When the number of queued ACD overflow calls exceeds the limit and a busy tone is sent to the caller, the UX5000 programming will determine if the call is counted in the ACD MIS software.

- **ACD Overflow (With Announcements)**

ACD offers extensive overflow options for each ACD Group. For example, a caller ringing in when all agents are unavailable can hear an initial announcement (called the 1st Announcement). This announcement can be a general greeting like, “Thank you for calling. All of our agents are currently busy helping other customers. Please stay on the line and we will help you shortly.” If the caller continues to wait, you can have them hear another announcement (called the 2nd Announcement) such as, “Your business is important to us. Your call will be automatically answered by the first available agent. Please stay on the line.” If all the ACD Group’s agents still are unavailable, the call can automatically overflow to another ACD Group or the Voice Mail Automated Attendant. If all agents in the overflow ACD Group are busy, Lookback Routing automatically ensures that the waiting call will ring into the first agent in either group that becomes free.

You can assign an ACD Group with any combination of 1st Announcement, 2nd Announcement and overflow method. You can have, for example, a Technical Service group that plays only the 2nd Announcement to callers and then immediately overflows to Voice Mail. At the same time, you can have a Customer Service group that plays both announcements and does not overflow.

With the use of ACD Overflow and a VRS, you also have the option of providing a Queue Depth Announcement. With this option enabled, your callers will know where they stand in line while waiting for an available agent.

ACD Announcements can be used with IntraMail when the “quiet hang up” option is used. This will allow the message to play, but will suppress the “good bye” heard with other mailboxes.

The voice mail can also provide the ACD overflow announcements in UX5000s that do not have VRS available. When a caller queues for an available agent, designated Voice Mail ACD Announcement Mailboxes provide the overflow messages.

Automatic Call Distribution (ACD)

- **Escape from Queue**

This option requires a VRS or voice mail.

An option is available for ACD callers when the VRS or voice mail provides the announcements for an ACD queue. When a caller is waiting in the ACD queue for an available agent, the UX5000 can allow the user to dial a single digit code to exit the queue and be transferred to a defined destination. This option can be set to allow the user to dial out during the delay announcement or within a set time after the announcement finishes. After listening to this type of announcement, they can either wait in queue or dial a digit for an alternate destination. The destination is typically the operator, a mailbox or an extension. In order for this option to work, a VRS must be installed in the UX5000 and it must be providing the ACD announcements or the voice mail's Call Routing Mailbox must be used to provide the ACD announcements.

Notes:

- VRS or voice mail's Call routing Mailbox must be used to provide the queue announcements.
- This feature is not available with ACI announcements. When internal voice mail is used, the delay announcements will be provided, but the caller will not be able to escape the queue.
- If there are no DTMF receivers available at the time the caller presses the single digit code, the UX5000 will retry after the next delay message.
- The Escape From Queue feature is disabled if Programs 41-14-14 and 41-14-15 are both set to "0".
- This feature will only allow the Escape From Queue single digit code to be dialed. Any other numbers dialed will be ignored and the call will stay in queue.

- **Agent Log In and Log Out Services**

An ACD Agent can log in and log out of their ACD Group. While logged in, the agent is available to receive ACD Group calls. When logged out, the agent is excluded from the group's calls. The programmable keys and alphanumeric display on an agent's terminal show at a glance when they are logged in or logged out.

- **Agent Identity Code (AIC)**

An Agent Identity Code (AIC) allows ACD agents to log in any extension without setting Program 41-02 (AIC Log In). Using AIC, ACD agents can also log in to multiple ACD groups at the same time (up to 64 ACD Groups). The UX5000 will also allow all extensions (up to the communications server maximum) to log in using the same AIC code. AIC and ACD groups for each work period (mode pattern number) can be set in Program 41-18 as shown in the following example.

Table #	AIC	Operation Group	Mode Pattern Number							
			1	2	3	4	5	6	7	8
1	789	1	1	1	-	-	-	-	-	-
2	789	1	2	1	-	-	-	-	-	-
3	789	1	16	1	-	-	-	-	-	-
4	567	10	10	10	10	10	10	10	10	10
5	678	2	2	2	2	2	2	2	2	2
6	678	2	3	3	3	3	3	3	3	3
7	678	2	5	5	5	5	5	5	5	5

Automatic Call Distribution (ACD)

With this example, ACD will work as follows:

Example 1: Log In with AIC 789

- During Mode Pattern 1, ACD agents will belong to ACD groups 1, 2, and 16 at the same time.
- During Mode Pattern 2, ACD agents will belong to only ACD group 1.
- During Mode Pattern 3-8, ACD agents will not belong to any ACD group and the ACD extensions will work as normal extensions.

Example 2: Log In with AIC 567

- During Mode Patterns 1-8, ACD agents will belong to only ACD group 10.

Example 3: Log In with AIC 678

- During Mode Patterns 1-8, ACD agents will belong to ACD groups 2, 3 and 5 at the same time.

AIC log on/log off operations are supported. The UX5000 P Commands will indicate which ACD Group is being logged onto when an AIC code is entered. Also when an agent logs off, there will be a multiple log of events, one log off event for each previous ACD log on event.

- **Multiple Agent Log In**

ACD agents can log their extension in using multiple AICs (up to 3). The UX5000 will also allow all extensions (up to the UX5000 maximum) to log in using the same AIC code. For example, even if ACD agent “A” logs in extension 350 with AIC 789, ACD agent “B” can also log in to extension 351 with AIC 789 at the same time. Using the example setup above, ACD will work as follows:

Example 1: Log In with AIC 789 and 568

- During Mode Pattern 1, ACD agents will belong to ACD groups 1, 2, 10 and 16 at the same time.
- During Mode Pattern 2, ACD agents will belong to ACD groups 1 and 10.
- During Mode Pattern 3-8, ACD agents will belong to only ACD group 10.

Example 2: Log In with AIC 789, 568 and 678

- During Mode Pattern 1, ACD agents will belong to ACD groups 1, 2, 3, 5, 10 and 16 at the same time.
- During Mode Pattern 2, ACD agents will belong to ACD groups 1, 2, 3, 5 and 10.
- During Mode Pattern 3-8, ACD agents will belong to only ACD groups 2, 3, 5 and 10.

In addition to an agent logging in with multiple AIC codes, ACD agents can log in to multiple ACD groups at the same time (up to 64 ACD Groups). AIC and ACD groups for each work period (mode pattern number) can be set in Program 41-18.

Some conditions with Multiple Agent Log In:

- ACD agents cannot log in to the system supervisor or group supervisor’s extension.
- In order to log in with AIC, the extension should be set to AIC Log In mode in Program 41-17.
- If the extension is set to AIC log in mode in Program 41-17, the UX5000 will ignore the setting of Program 41-02 for the extension.
- A supervisor cannot log out an agent logged in by an AIC code.

Automatic Call Distribution (ACD)

- **Emergency Call**

If an ACD Agent needs assistance with a caller, they can place an Emergency Call to their ACD Group Supervisor. Once the supervisor answers the Emergency Call, they automatically monitor both the ACD Agent and the caller. If the agent needs assistance, the supervisor can join in the conversation. Emergency Call can be a big help to inexperienced ACD Agents that need technical advice or assistance with a difficult caller. The supervisor can easily listen to the conversation and then “jump in” if the situation gets out of hand.

- **Enhanced DSS Operation**

A programmed extension user can use their DSS Console to monitor the status of the ACD Agents within a group. The DSS Console is an essential tool for supervisors. The console key flash rates tell the supervisor at a glance which of the group’s agents are:

- Logged onto the group (i.e., in service)
- Logged out of the group (i.e., out of service)
- Busy on a call
- Placing an Emergency Call to the supervisor
- Not available or installed

The ACD Supervisor can also use their console for placing and transferring calls - just like any other extension user.

- **Flexible Time Schedules**

An ACD Work Schedule lets you divide a day into segments (called Work Periods) for scheduling the activity in your ACD Groups. You can set up four distinct Work Schedules, with up to eight Work Periods in each Work Schedule. Each day of the week has one Work Schedule, but different days can share the same schedule. For example, your Monday through Friday Work Schedule could consist of only two Work Periods. Work Period 1 could be from 8:00 AM to 5:00 PM - when your business is open. Work Period 2 could be from 5:00 PM to 8:00 AM - which covers those times when your business is closed.

- **Headset Operation (With Automatic Answer)**

An ACD Agent or ACD Group Supervisor can utilize a customer-provided headset in place of the handset. The headset conveniently frees up the user’s hands for other work and provides privacy while on the call. In addition, an ACD Agent with a headset can have Automatic Answer. This allows an agent busy on a call to automatically connect to the next waiting call when they hang up.

- **Incoming Call Routing**

Incoming trunk calls can automatically route to specific ACD Groups. These types of calls ring directly into the ACD Group without being transferred by a co-worker or the Automated Attendant.

- **Rest Mode**

Rest Mode temporarily logs-out an ACD agent’s terminal. There are two types of Rest Mode:-

- **Manual Rest Mode**

An ACD Agent can enable Manual Rest Mode anytime they want to temporarily log out of the ACD Group. They might want to do this if they go to a meeting or get called away from their work area. While logged out, calls to the ACD Group will not ring the agent’s terminal.

Automatic Call Distribution (ACD)

- **Automatic Rest Mode**

When an ACD Group has Automatic Rest Mode, the UX5000 will automatically put an agent's terminal in Rest Mode if it is not answered. This ensures callers won't have to wait while ACD rings an extension that won't be answered. For keysets, the UX5000 enables Automatic Rest Mode for all terminals with Rest Mode keys. For SLTs, you must set an option in programming to enable Automatic Rest Mode. If an agent's terminal is placed into Rest Mode because a call is not answered, the agent will need to manually cancel Rest Mode in order to log back into the ACD group.

With a Rest Mode key programmed on an ACD agent's terminal, when the agent is in rest mode, the key will be lit. If the Rest Mode key is pressed while an agent is on a call, the key will flash to indicate a pre-Rest Mode status. When the current call is finished, the agent's terminal will be in rest mode. The agent can place intercom calls or receive direct incoming calls while in Rest Mode. The ability to receive incoming intercom calls is defined in UX5000 programming for each ACD group. Note that an ACD System Supervisor cannot be placed in Rest Mode.

● **Supervisor, ACD Group**

You can designate an extension in an ACD Group to be the group's supervisor. Once assigned as an ACD Group Supervisor, the user can:

- Take the entire ACD Group out of service.
- Check the log out status of each agent after the group taken down.
- Restore the ACD Group to service.

During programming, you can choose one of three modes of operation for each ACD Group supervisor:

- Supervisor's extension cannot receive calls to the ACD Group.
- Supervisor's extension can only receive ACD Group calls during overflow conditions.
- Supervisor's extension receives calls just like any other ACD Group agent (mode 2).

An ACD Group can have only one supervisor. In addition, an extension can be a supervisor for only one ACD Group.

● **Supervisor, ACD System**

You can designate an extension as an ACD System Supervisor. Once assigned as an ACD System Supervisor, the user can:

- Take the all the UX5000's ACD Groups out of service simultaneously
- Check the log out status of each agent after the groups are taken down.
- Restore all the ACD Groups to service simultaneously.

The UX5000 can have only one ACD System Supervisor.

● **Work Time**

Work Time temporarily busies-out an ACD agent's terminal so they can work at their desk uninterrupted. This gives the agent time to fill out important logs and records as soon as they are finished with their call. There are two types of Work Time:

- **Manual Work Time**

An ACD Agent can enable Manual Work Time any time they need to work at their desk undisturbed. You might prefer this Work Time mode if an agent only occasionally has to fill out follow-up paper work after they complete their call. When the agent is through catching up with their work, they manually return themselves to the ACD Group.

Automatic Call Distribution (ACD)

- Automatic Work Time

The UX5000 implements Automatic Work Time for the agent as soon as they hang up their current call. This is helpful in applications (such as Tech Service groups) where follow-up paperwork is a requirement for every call. When the agent is done with their work, they manually return themselves to the ACD Group.

● ACD Group Call Coverage Keys

To help cover calls during peak periods, a keyset can have Call Coverage keys for ACD Groups by assigning the ACD master number to the Call Coverage key. When a call rings into a covered ACD Group, it rings the appropriate ACD Group Call Coverage key, allowing users to pick up incoming ACD calls. The key can ring immediately, after a delay or just flash. The Call Coverage key also facilitates one-button Transfer for an ACD Group. The covering extension does not have to be a member of the ACD Group.

ACD Call Coverage Key LED Pattern	Status
Off	There is no incoming call to the ACD group.
Flashing Red	Incoming call(s) are ringing the ACD group.

● Hotline Key Shows Agent Status

An extension's Hotline keys provide the "normal" Busy Lamp Field (BLF) for co-workers and a unique BLF for ACD Agents. Similarly to the supervisor's DSS Console BLF, the unique BLF shows when the covered agent is in service, out of service or busy on a call. This enhanced BLF gives a department manager, for example, ACD Group monitoring capabilities without having to become a supervisor with a DSS Console.

Hotline gives a keyset user one-button calling and Transfer to another extension (the Hotline partner). Hotline helps co-workers that work closely together. The Hotline partners can call or Transfer calls to each other just by pressing a single key. Enhanced for ACD applications, Hotline provides a unique Busy Lamp Field for ACD agents as well as a BLF for co-workers that are not ACD agents. The charts below show both sets of BLF indications.

BLF For ACD Agents	
When the key is . . .	The ACD Agent is . . .
Off	Idle and is not an ACD Agent
On	Busy
Double Wink Off	Making an Emergency Call
Wink Off	Logged off or not installed
Double Wink On	Logged on

BLF For Co-Workers That Are Not ACD Agents	
When the key is . . .	Your co-worker is . . .
Off	Idle
On	Busy or ringing
Fast	Flash In Do Not Disturb — All calls (option 3) or Intercom calls (option 2)

Automatic Call Distribution (ACD)

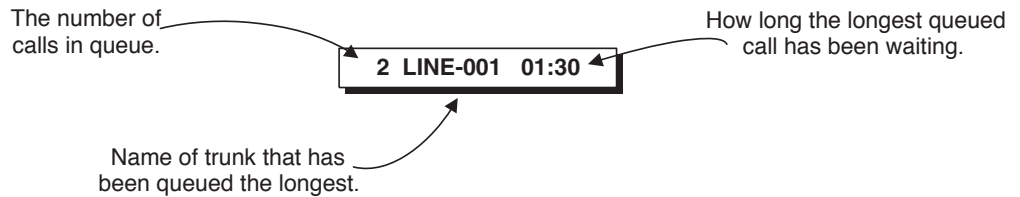
- **Enhanced Supervisor Options**

An ACD supervisor can individually assign extensions to ACD Groups, and set an agent's status once assigned. This provides the supervisor with tremendous flexibility to reassign agents as work loads vary.

- **Queue Status Display with Scrolling**

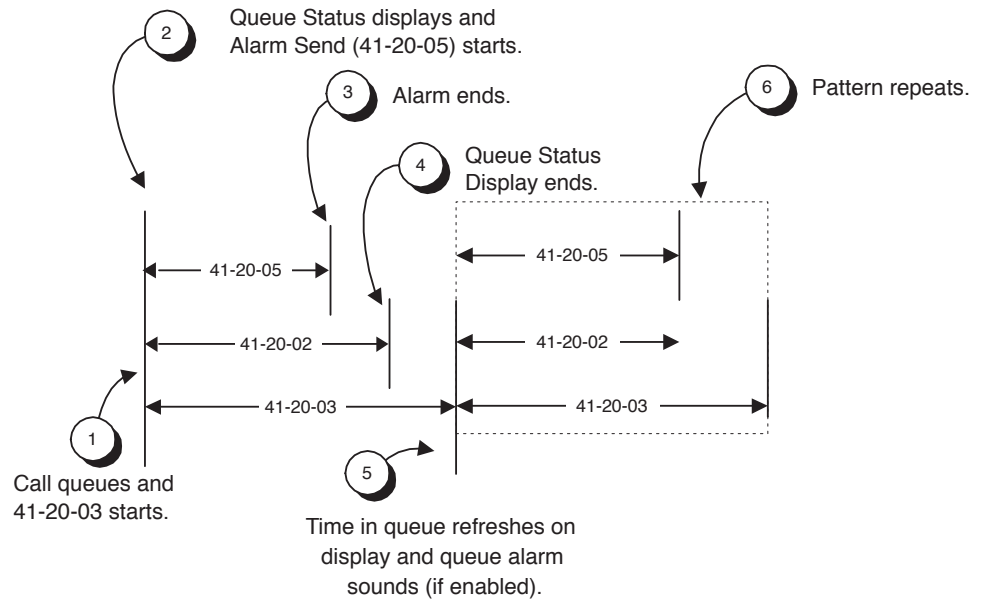
When all agents in an ACD Group are unavailable, an incoming call will queue and cause the Queue Status Display to occur on the ACD Group Supervisor and/or agent's display (based on the Class of Service). The display helps the supervisor keep track of the traffic load within their group. In addition, any display keyset can have a Queue Status Display Check programmable function key. The keyset user can press this key any time while idle, and using the VOL ▲ and VOL ▼, scroll through the Queue Status Displays of all the ACD Groups. The Queue Status Displays shows (see the Queue Status Display illustration below):

- The number of calls queued for an available agent in the group.
- The trunk that has been waiting the longest, and how long it has been waiting.



For each ACD Group, you can set the following conditions:

- The number of trunks that can wait in queue before the Queue Status Display occurs.
- How often the time in queue portion of the display reoccurs (see the Queue Status display Timing illustration below).
- Queue Status Display holding time.
- Queue Status Alarm enable/disable.
- Queue Status Alarm sending time.



Automatic Call Distribution (ACD)

When Logged Out of ACD Group

When ACD agents are logged out and a call is placed into the ACD queue, the terminals of the logged out agents will display the Queue Status and hear the alarm according to the settings defined in UX5000 programming. Pressing the Queue Status Display Programmable Function key will return the terminal to idle until the timer in Program 41-20-03 expires again.

Notes:

(A.) Do not use both 41-15 and 41-20 to set the ACD queue alarm. Select either one or the other for the UX5000 to follow.

Feature	Available in Program 41-15	Available in Program 41-20
Queue Status Display	---	Yes
Queue Status Display Time	---	Yes
Alarm	Yes	Yes
Alarm Send Time	Program 41-15-02 determines the length/interval of the alarm.	Yes
Interval Time of Queue Status Display		Yes
Class of Service	---	Yes
Timing of alarm and display queue status	Alarm triggered after the number of calls in Program 41-15-01 is exceeded.	Alarm triggered after the number of calls in Program 41-20-01 is exceeded. Then follows Program 41-20-03 timing for displaying status.

(B.) If a terminal is not idle, it cannot use the Queue Status Display Programmable Function key.

(C.) The Queue Status Display is not shown and the Queue Alarm is not heard by ACD agents those in Off-Duty mode.

(D.) In order to scroll through the ACD groups queue status, the Queue Status Display Programmable Function key must be used. You cannot scroll when the Queue Status Display appears due to an alarm condition.

(E.) If the Queue Status display and alarm are active and the queued called is answered/disconnected, the display and alarm will continue until the timers in Program 41-02-02 and 41-20-05 expire.

(F.) When an overflowed call is in queue, the call will be included in its original ACD group's queue and not in the group's queue to which it overflowed.

(G.) The Queue Status is not displayed on a supervisor's terminal based on the settings in Programs 41-02-xx. The supervisor must use the Queue Status Display Programmable Function key to view the queue.

- **Programmable Wrap-up Timer**

When an agent finishes their call, the UX5000 automatically starts a wrap-up timer and blocks any ACD calls to the agent. This gives them time to complete important logs and records before a new call comes in. When the timer expires, the UX5000 returns the agent to the ACD Group to handle new callers.

- **inDepth Lite, inDepth and inDepth+**

inDepth Lite, inDepth and inDepth+ are Windows-based Management Information Systems that work with the UX5000's built-in ACD. These ACD/MIS systems enhance the UX5000 with real time statistics and reports on ACD Group traffic patterns and usage. Refer to the *inDepth Lite*, *inDepth* and *inDepth+* feature for more details.

Automatic Call Distribution (ACD)

Using CVM and Multiple Sources for Announcements

Each delay message can separately be assigned to use the ACI, VRS, local voice mail, or centralized voice mail. The voice mail sources can be from an external voice mail, the UX5000 Mail or IntraMail.

Note the following conditions with this feature:

- When using the CVM for announcement message, if the voice mail is located in the local UX5000, the programming should still be entered as for a CVM and not a local voice mail.
- If the message source for the first announcement is not set and all the ACD agents are busy, a caller will continue to hear ring back tone even after the message start time.
- If the message source for the second announcement is not set and all the ACD agents are busy, the following will occur:
With Program 41-08-08 set to VMI or CVM and Program 41-08-09 set to ACI or VRS
 After the first message is sent, the defined interval tone (RBT, MOH, BGM) for the first announcement message is heard. This tone will continue to be heard until an ACD terminal becomes free.
- If the message source for the second announcement is not set and all the ACD agents are busy, the following will occur:
With Program 41-08-08 set to VMI and Program 41-08-09 set to CVM
OR
Program 41-08-08 set to CVM and Program 41-08-09 set to VMI
 After the 1st message is sent, the second message is sent from the source of the first message.

The table below indicates the required programs when setting Delay Announcements using different sources for the first and second announcements.

2 nd Announcement Source	1st Announcement Source			
	ACI	VRS	Local Voice Mail	CVM
ACI	41-10	41-11: 01, 02, 03, 06 22-01-11 41-10: 02, 05	41-19: 01, 02, 03, 06, 08 41-10: 02, 05	41-19: 01, 02, 03, 06, 08 41-10: 02, 05
VRS	41-10: 01, 03 41-11: 04, 05, 06, 07 22-01-11	41-11 22-01-11	41-19: 01, 02, 03, 06, 08 41-11: 04, 05, 06, 07 22-01-11	41-19: 01, 02, 03, 06, 08 41-11: 04, 05, 06, 07 22-01-11
VMI	41-10: 01, 03 41-19: 01, 04, 05, 06, 08	41-11: 01, 02, 03, 06 22-01-11 41-19: 01, 04, 05, 06, 08	41-19	41-19
CVM	41-10: 01, 03 41-19: 01, 04, 05, 06, 07, 08	41-11: 01, 02, 03, 06 22-01-11 41-19: 01, 04, 05, 06, 08	41-19	41-19

For more on Automatic Call Distribution, refer to the ACD Manual (P/N 0913202).

Conditions

Refer to the ACD Manual (P/N 0913202) for complete programming details.

Default Setting

Refer to the ACD Manual (P/N 0913202) for complete programming details.

Automatic Call Distribution (ACD)

Programming

Refer to the ACD Manual (P/N 0913202) for complete programming details.

- **10-20-01 : LAN Setup for External Equipment - TCP Port, External Device 2**
Define the TCP port (0-65535) for communicating to external ACD equipment.
- **10-20-01 : LAN Setup for External Equipment - TCP Port, External Device 10**
Define the TCP port (0-65535) for communicating with the ACD Agent control.
- **10-20-03 : LAN Setup for External Equipment - Keep Alive Time**
Define the keep alive time (1-255 seconds) for communicating to external equipment.
- **11-13-01 - 11-13-13 : Service Code Setup (For ACD)**
If required, customize the service codes which are used with the ACD feature.
Note that when using service code 169 to change an agent's ACD group, the supervisor must enter a 2-digit number for the group. For example, to change to ACD group 4, the entry would be '169 04'.
- **11-17-01 : ACD Group Pilot Number**
Assign the ACD Master Number (up to 8 digits) for each ACD Group (1-64). This is the number users dial to transfer calls to the ACD Group. This will also be the number used for a Call Coverage key.
- **15-02-21 : Multi-Line Terminal Basic Data Setup, Virtual Extension Access Mode**
Determine whether an extension's Virtual Extension/Call Coverage key should be as a DSS key to the extension and for receiving calls (0), answering incoming calls and ability to place outgoing ICM or CO calls (1), or just receiving incoming calls (2).
- **15-07-01 : Programmable Function Keys**
Assign ACD Programmable Function Keys as required for each agent.
- **15-08-01 : Incoming Virtual Extension Ring Tone Setup**
Assign a ring tone range to incoming ACD Call Coverage keys.
- **15-09-01 : Virtual Extension Ring Assignment**
Individually program an extension's Multiple Directory Number function keys to either ring (1) or not ring (0).
- **15-11-01 : Virtual Extension Delayed Ring Assignment**
Individually program an extension's Multiple Directory Number keys for Delayed Ringing (1) or Immediate Ringing (0). Also see Program 20-04-03 below.
- **20-04-03 : System Options for Virtual Extensions - Call Coverage Delay Interval**
Multiple Directory Number/Call Coverage keys set for Delayed Ringing (see Program 15-11 above) ring the covering extension after this interval (0-64800).
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to each extension for each night mode (1-8).
- **20-13-06 : Class of Service Options (Supplementary Service) - Automatic Off Hook Signaling**
In an extension's Class of Service (1-15), disable (0) the ability for a busy extension to automatically receive off hook signals if the ACD Monitor feature is to be used by an extension.
- **20-13-33 : Class of Service Options (Supplementary Service) - ACD Supervisor's Position Enhancement**
This option must be enabled in order for the supervisor to use service codes in Program 11-13-10 through 11-13-13.
- **20-13-39 : Class of Service Options (Supplementary Service), ACD Queue Status Display**
Enable (1) or disable (0) the ACD Queue Status Display for an extension's Class of Service (1-15). Any extension which has this option enabled will also hear the queue alarm.

Automatic Call Distribution (ACD)

- **22-01-11 : System Options for Incoming Calls - VRS Waiting Message Interval Time**
The Delayed Announcement Messages (1st and 2nd) repeat after this interval expires. For each ACD group (01-64), set the timer for the interval between the Delayed Messages (0-64800 seconds).
- **30-01-01 : DSS Console Operating Mode**
Set the mode of the UX5000's DSS Consoles. The available options are Regular (Business) Mode (0), Hotel Mode (1), ACD Monitor Mode (2), and Business/ACD Mode (3). Lamping status for ACD agents and non-ACD agents require this option be set to "3". Otherwise, ACD agents and non-ACD agents do not both appear on the same console type. For ACD agent's lamping status, a DSS Console must be programmed as an ACD console. For non-ACD agents, the console must be programmed as business console.
- **30-02-01 : DSS Console Extension Assignment**
Designate the DSS Console installations (i.e., the extensions that have DSS Consoles connected to them and/or used as Alternate Attendants). Note: A maximum of 4 DSS Consoles can be assigned to the same extension.
⇨ DSS Consoles: 1-32
- **30-03-01 : DSS Console Key Assignment**
Customize DSS Console keys to function as DSS keys, Service Code keys, Programmable Function keys, and One-Touch Calling keys. The key (when defined as a DSS/One-Touch key [code 01]) can have any function up to 4 digits long (e.g., extension number or service code). The function information (such as extension number or service code) would then be entered as the additional data.
- **30-05-04 : DSS Console Lamp Table, ACD Agent Busy**
30-05-05 : DSS Console Lamp Table, Out of Schedule
30-05-06 : DSS Console Lamp Table, ACD Agent Log Out
30-05-07 : DSS Console Lamp Table, ACD Agent Log In
30-05-08 : DSS Console Lamp Table, ACD Agent Emergency
The BLF for an ACD Agent's Hotline key follow the lamping defined in these programs.
- **40-07-01 : Voice Prompt Language Assignment for VRS**
Specify the language to be used for the VRS prompts. Although the UX5000 allows this option to be changed in programming, the language will only change if the DSPDB has the firmware which provides the newly selected language.
- **41-01-01 : System Options for ACD - System Supervisory Extension**
Define the UX5000 options for the ACD feature.
- **41-01-01 : System Options for ACD - System Supervisor Extension**
Select the extension which will be used as the ACD system supervisor.
- **41-01-02 : System Options for ACD - Login ID Code Digit**
Define the number of digits for the ID code when logging in (0-20, 0=no ID).
- **41-01-03 : System Options for ACD - ACD MIS Connection Port**
Select "3" to allow the connection port to communicate through the LAN port on the CCPU.
- **41-01-04 : System Options for ACD - P Command Output for Busy Status**
When the number of queued ACD overflow calls exceeds the limit and a busy tone is sent to the caller, determine if the call is counted (0) or not (1) in the ACD MIS software.
- **41-02-01 : ACD Group and Agent Assignments**
For each ACD extension number, assign an ACD Group (1-64). An ACD Group number is assigned to each Work Period number (1-8). Do not use this program when using the AIC log in mode. Program 41-18-01 is used instead.
- **41-03-01 : Incoming Ring Group Assignments for ACD Group - ACD Group Number**
For each incoming trunk ring group set up in Program 22-05, designate into which ACD Group (1-64) the trunks should ring for each of the eight Work Periods.
⇨ Ring Groups: 1-100

Automatic Call Distribution (ACD)

- **41-03-02 : Incoming Ring Group Assignments for ACD Group - Night Announcement Service**

For each incoming trunk ring group (1-100) set up in Program 22-05, determine if the Night Announcement Service should be enabled (1) or disabled (0). If this is enabled, make sure to define the message in Program 41-12, otherwise, the caller will hear ringing, but it will not ring any agent or it may ring logged out agents.
- **41-03-03 : Incoming Ring Group Assignments for ACD Group - Priority Data**

Determine whether an incoming call to a trunk ring group should follow a priority assignment (0=normal, 1-7 [1=lowest priority, 7=highest priority]).
- **41-04-01 : ACD Group Supervisor - Group Supervisor Extension**

For each ACD Group (1-64), assign the group's supervisor extension. An ACD Group can have only one supervisor. In addition, an extension can be a supervisor for only one ACD Group.
- **41-04-02 : ACD Group Supervisor - Operating Type**

For each ACD Group (1-64), assign the operating mode for the supervisor (0 = Supervisor's extension does not receive ACD Group calls, 1 = Supervisor's extension receives ACD Group overflow calls only, 2 = Supervisor's extension receives ACD Group calls just like all other agents). The call then follows the timer in Program 41-14-10 to determine when the call is transferred.
- **41-05-01 : ACD Agent Work Schedules**

Set up the Work Schedules for ACD Agents and Groups. For each ACD Work Schedule (1-4), designate the start and stop times for each of the eight Work Periods. Once you set up the schedules in this program, assign them to days of the week in Program 41-07. (This is the same program used by the Trunk Work Schedules.)
- **41-06-01 : Trunk Work Schedules**

Set up the Work Schedules for trunks. For each Work Schedule (1-4), designate the start and stop times for each of the eight Work Periods. Once you set up the schedules, assign them to days of the week in Program 41-07. (This is the same program used by the ACD Agent Work Schedules.)
- **41-07-01 : ACD Weekly Schedule Setup**

Assign the four Work Schedules (1-4) to days of the week (1=Sunday, 7=Saturday). The assignments you make in this program apply to both the ACD Agent Work Schedules (Program 41-05) and the Trunk Work Schedules (Program 41-06).
- **41-08-01 : ACD Overflow Options - Overflow Operation Mode**

For each ACD Group (1-64), assign the overflow mode (0-9). Each ACD Group can have unique overflow options.
- **41-08-02 : ACD Overflow Options - ACD Overflow Destination**

For each ACD Group (1-64), assign the destination ACD group (1-64) or option (65=overflow table in Program 41-09, 66=Voice Mail Integration (in-skin voice mail), 67=Off Premise (see Program 41-08-05), 68=Incoming Ring Group (see Program 41-08-06).
- **41-08-03 : ACD Overflow Options - Delay Announcement Source Type**

For each ACD Group (1-64), assign the announcement message types (0=ACI, 1=VRS, 2=VMI, 3=CVM, 4=Flexible). Delay announcement functions are not available for ACD pilot number call. Each ACD Group can have unique overflow options. If multiple sources are required, an entry of "4" (Flexible) is required. the UX5000 will then refer to Programs 41-08-08 and 41-08-09.
- **41-08-04 : ACD Overflow Options - ACD Overflow Transfer Time**

For each ACD Group (1-64), assign the overflow transfer time (0-64800 seconds).
- **41-08-05 : ACD Overflow Options - Abbreviated Dial Area When Overflow)**

This program defines which Abbreviated Dial dial to use when Program 41-08-02 is programmed with an entry of '67'.
Entries: 0 – 1999 (Abbreviated dial areas)

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- **41-08-06 : ACD Overflow Options - Incoming Ring Group When Overflow**
This program defines which incoming Ring Group to use when Program 41-08-02 is programmed with an entry of '68'.
Entries: 1 – 100 (Incoming Ring Group)
- **41-08-08: ACD Overflow Options - First Delay Announcement Source Type**
If Program 41-08-03 is defined as "4" (Flexible), select the source for the first delay announcement (0=ACI, 1=VRS, 2=VMI (local voice mail), 3=CVM (centralized voice mail)). When using the ACI, define the delay announcement items in Program 41-10. With the VRS, use Program 41-11, and if either local voice mail or centralized voice mail is selected, define the voice mail delay announcement items in Program 41-19. This entry is ignored unless Program 41-08-03 is set to "4".
- **41-08-09: ACD Overflow Options - Second Delay Announcement Source Type**
If Program 41-08-03 is defined as "4" (Flexible), select the source for the second delay announcement (0=ACI, 1=VRS, 2=LVM (local voice mail), 3=CVM (centralized voice mail)). When using the ACI, define the delay announcement items in Program 41-10. With the VRS, use Program 41-11, and if either local voice mail or centralized voice mail is selected, define the voice mail delay announcement items in Program 41-19. This entry is ignored unless Program 41-08-03 is set to "4".
- **41-09-01 : ACD Overflow Table Setting**
Define the ACD group (01-64) to which a call will be transferred when overflow occurs and its priority (1-7). If, while the call is ringing, the extension to which the call was transferred becomes available, both the extension and the overflow ACD group will ring.
- **41-10-01 : PGDAD Delay Announcement - 1st Delay Announcement PGDAD Port Number**
For each ACD group (01-64), define the PGDAD port number (0-96) to be used for the first delay announcement. This program is activated when the delay announcement source and options are assigned as PGDAD in Program 41-08.
- **41-10-02 : PGDAD Delay Announcement - 2nd Delay Announcement PGDAD Port Number**
For each ACD group (01-64), define the PGDAD port number (0-96) to be used for the second delay announcement. This program is activated when the delay announcement source and options are assigned as PGDAD in Program 41-08.
- **41-10-03 : PGDAD Delay Announcement - 1st Delay Announcement Connection Timer**
For each ACD group (01-64), set the timer the UX5000 waits before playing the first delay announcement (0-64800 seconds).
- **41-10-04 : PGDAD Delay Announcement - 2nd Delay Announcement Connection Timer**
For each ACD group (01-64), set the timer the UX5000 waits before playing the second delay announcement (0-64800 seconds).
- **41-10-05 : PGDAD Delay Announcement - 2nd Delay Announcement Sending Duration**
For each ACD group (01-64), set the timer for the 2nd Delay announcement (0-64800 seconds). Once this timer expires, the call will disconnect. To keep the call in queue, set this timer to "0".
- **41-11-01 : VRS Delay Announcement - Delay Message Start Timer**
For each ACD group (01-64), determine how long the UX5000 waits before playing the delay Message. This program is activated when the delay announcement source and options are assigned as VRS in Program 41-08.
- **41-11-02 : VRS Delay Announcement - 1st Delay Message Number**
For each ACD group (01-64), assign the VRS message number to be used as the message source for the 1st Delay Announcement Message (0-49). This program is activated when the delay announcement source and options are assigned as VRS in Program 41-08.
- **41-11-03 : VRS Delay Announcement - 1st Delay Message Sending Count**
For each ACD group (01-64), determine the 1st Delay Message Sending Count (0-255).

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- **41-11-04 : VRS Delay Announcement - 2nd Delay Message Number**
For each ACD group (01-64), assign the VRS message number to be used as the message source for the 2nd Delay Announcement Message (0-49). This program is activated when the delay announcement source and options are assigned as VRS in Program 41-08.
- **41-11-05 : VRS Delay Announcement - 2nd Delay Message Sending Count**
For each ACD group (01-64), determine the 2nd Delay Message Sending Count (0-255)
- **41-11-06 : VRS Delay Announcement - Tone Kind at Message Interval**
For each ACD group (01-64), determine what the caller should hear between messages (0=ring back, 1=MOH, 2=BGM).
- **41-11-07 : VRS Delay Announcement - ACD Forced Disconnect Time After 2nd Delay Message**
For each ACD group (01-64), assign how long the UX5000 should wait after the end of the VRS delay message before disconnecting (0-64800).
- **41-11-08 : VRS Delay Announcement - Queue Depth Announcement**
For each ACD group (01-64), with a VRS installed, determine if the Queue Depth Announcement should be played to callers waiting in queue (0=Disable, 1=After 1st Only, 2=After 2nd Only, 3=After 1st and 2nd). The played message ("You are caller number (x).") is a fixed message and it cannot be changed.
- **41-12-01 : Night Announcement Setup - Night Announcement Source Type**
Define the night announce voice resource (0=ACI, 1=VRS) for each ACD group (01-64). Night announcement availability depends on the setting in Program 41-03-02. The night announcement function is not available for ACD pilot number call.
- **41-12-02 : Night Announcement Setup - Night Announcement ACI Port Number**
If Program 41-12-01 is set to '0', define the port number for the ACI night announce voice resource for each ACD group (01-64).
- **41-12-03 : Night Announcement Setup - ACD Night Announce Sending Time**
Define the night announce sending time (0-64800) for each ACD group (01-64).
- **41-13-01 : VRS Night Announcement - VRS Message Number**
For each ACD Group (01-64), define the VRS message number (0-48) to be used as the night announcement. This program is activated when the night announcement source is assigned as VRS in Program 41-12-01.
- **41-13-02 : VRS Night Announcement - Tone Kind at Message Interval**
For each ACD Group (01-64), define what the caller will hear between the night announcements (0=ring back tone, 1=MOH, 2=BGM).
- **41-14-01 : ACD Options - Emergency Call Operation Mode**
Set the Emergency Call Operation Mode (0=Call system supervisory extension when group supervisory extension is busy, 1=No call to system supervisory extension when group supervisory extension is busy) for ACD Groups (01-64). Note that the supervisor must be logged in and have an Emergency Key programmed. By pressing the key once, the supervisor can monitor the call - pressing twice barges in on the call.
- **41-14-02 : ACD Options - Wrap Up Mode**
Set the Wrap Up Mode option (0=After wrap up mode key is pressed, 1=After call is finished automatically) for ACD Groups (01-64). Use Program 15-07 to assign an ACD Wrap-Up Mode key (*17) to ACD agents.
- **41-14-03 : ACD Options - ACD Priority for Overflow Calls**
Set the priority for overflow calls (0=own group priority, 1=priority set by Program 41-03-03) for ACD Groups (01-64).
- **41-14-04 : ACD Options - Automatic Answer in Headset Mode**
Set the Automatic Answer option (0=off, 1=on) for the headset mode for ACD Groups (01-64).

Automatic Call Distribution (ACD)

- **41-14-06 : ACD Options - Transfer to ACD Extension With 2nd Delay Announcement**
For each ACD Group (01-64), determine whether an outside caller should hear a final announcement [ex: the company closed] (1) or whether the caller should be placed back into queue for the ACD group (0).
- **41-14-07 : ACD Options - Automatic Off Duty**
For each ACD Group (01-64), determine whether or not a keyset automatically changes to off-duty mode (0=not changed, 1=changed automatically). The keyset must have an Off-Duty key assigned (Program 15-07-01 or SC 852: *13).
- **41-14-08 : ACD Options - ACD Off Duty Mode**
For each ACD Group (01-64), determine whether or not an agent can receive an internal call in off-duty mode (0=can not receive, 1=can receive).
- **41-14-09 : ACD Options - Automatic Wrap Up End Time**
For each ACD Group (01-64), set how long the UX5000 waits before automatically ending wrap up time (0=disabled or 1-64800 seconds).
- **41-14-10 : ACD Options - ACD Answer of Incoming Call/No Answer Skip Time**
For each ACD Group (01-64), set how long a call into the ACD Group will ring an idle extension before routing to the next agent (0=disabled or 1-64800 seconds). This timer must be greater than Program 20-04-03 : Delay Ring Timer for the ACD Call Coverage Key with delayed ringing to work.
- **41-14-12 : ACD Options - Start Headset Ear Piece Ringing (SLT)**
For each ACD Group (01-64), set how long the UX5000 waits before starting headset ear piece ringing for single line sets (0=disabled or 1-64800 seconds).
- **41-14-13 : ACD Options - ACD Queue 1-Digit Assignment**
For each ACD Group (01-64). define the options for escaping from queue.
Single Digit Code : 1-9, 0 *, #
Destination Type : 0=None, 1=Extension or Voice Mail, 2 = Incoming Ring Group, 3 = Abbreviated Dial Bin, 4 = ACD Group
 - If the Destination Type is set to call an extension, if the extension is busy at the time the caller presses the single digit code, the call will stay in queue.
 - If the Destination Type is set to call an Abbreviated Dial number and all trunks are busy, the UX5000 will automatically retry every 5 seconds. This is a fixed timer and can not be changed.
If a trunk becomes available within the 5 seconds, the UX5000 waits until the timer expires before seizing the trunk.
 - If the Destination Type is set to transfer to an extension number, if the destination extension is set for Call Forwarding, the Call Forwarding will be ignored.
 - If the Destination Type is set to transfer to the voice mail, create a separate voice mail box for each ACD pilot number (Program 11-17). The caller will be transferred to the voice mail box for that group.**Destination Number : If 1 selected as type:** extension number or voice mail pilot number (8 digits max.), (entering the voice mail pilot number allows for integration into the Queue's pilot number voice mailbox).
If 2 selected as type: Incoming Ring Group Number (001-100)
If 3 selected as type: Speed Dial Bin (speed dial destination must be outgoing trunk call only - no intercom calls)
If 4 is selected as type: ACD Group Number (01-64)
- **41-14-14 : ACD Options - DTMF Detector Assignment**
For each ACD Group (01-64), determine whether the DTMF should be detected during the Delay Announcement (1) or after the Delay Announcement has finished (0). By default, this option is set to "1" (during Delay Announcement). If this program and Program 41-14-15 are both set to "0", the Escape From Queue feature is disabled. If this program is set to "1", Program 41-14-15 is ignored. The DTMF tone will only be detected while the Delay Announcement is playing.

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- **41-14-15 : ACD Options - DTMF Detect Time After Delay Announcement**
For each ACD Group (01-64), determine how long the UX5000 allows the user to dial the Escape From Queue code defined in 41-14-13 after the Delay Announcement (0-64800 seconds). Once this timer expires, the user will not be able escape from queue until the next announcement plays. This program is used when Program 41-14-14 is set to "0" and applies to both 1st and 2nd Delay Announcements. If this program and Program 41-14-14 are both set to "0", the feature is disabled.
- **41-15-01 : ACD Queue Alarm Information - ACD Queue Alarm**
For each ACD Group (01-64), determine the number of calls required in queue to activate the alarm (0-200). *Do not use this program* if the alarm options are defined in Program 41-20-01 through 41-20-05.
- **41-15-02 : ACD Queue Alarm Information - Alarm Interval**
For each ACD Group (01-64), determine the interval for displaying the alarm information (0-64800 seconds). *Do not use this program* if the alarm options are defined in Program 41-20-01 through 41-20-05.
- **41-16-01 : ACD Threshold Overflow - Number of Calls in Queue**
For each ACD group (01-64), define the maximum number of calls in ACD queue (0=no limit, 1-200) before the call overflows.
- **41-16-02 : ACD Threshold Overflow - Operation Mode for ACD Queue**
For each ACD group (01-64), determine how the UX5000 handles ACD calls when the maximum number of ACD calls in queue has been reached (0=longest waiting call is transferred, 1=last waiting call is transferred, 2=busy signal sent).
- **41-17-01 : ACD Login Mode Setup**
Define the ACD login mode (0=normal, 1=AIC) for each extension.
If set to '0':
 - Program 41-02-01 is used.
 - Note that a supervisor can not log in/out an AIC member as they are not normal ACD agents.
 - Service codes for log-in/log-out must be defined in Programs 11-13-08 and 11-13-09.If set to '1':
 - Program 41-18-01 is used.
 - Note that a supervisor can not log in/out an AIC member as they are not normal ACD agents.
 - Agents log in/out using codes set in Program 11-13-08 and 11-13-09 or using the ACD Log In/Out Programmable Function Key (Program 15-07-01 or SC 852: *10). Agents do not log in or out using Program 11-13-01 code (*5 and *51).
- **41-18-01 : ACD Agent Identity Code Setup - ACD Agent Identity Code**
For each AIC Table (001-512), define the ACD Agent Identity Code (AIC) (4 digits).
- **41-18-02 : ACD Agent Identity Code Setup - Default ACD Group Number**
For each AIC Table (001-512), define the default ACD group number (0=no setting, 1-64).
When using the AIC mode, this entry determines which ACD group settings in Program 41-14-xx will be followed. (ex: An agent logged into multiple groups using an AIC code with this entry set to "1" will follow the ACD options in Program 41-14-xx for group 1.)
- **41-18-03 : ACD Agent Identity Code Setup - ACD Group Number in Mode 1**
For each AIC Table (001-512), define the ACD group number (0=no setting, 1-64) in mode 1.
- **41-18-04 : ACD Agent Identity Code Setup - ACD Group Number in Mode 2**
For each AIC Table (001-512), define the ACD group number (0=no setting, 1-64) in mode 2.
- **41-18-05 : ACD Agent Identity Code Setup - ACD Group Number in Mode 3**
For each AIC Table (001-512), define the ACD group number (0=no setting, 1-64) in mode 3.
- **41-18-06 : ACD Agent Identity Code Setup - ACD Group Number in Mode 4**
For each AIC Table (001-512), define the ACD group number (0=no setting, 1-64) in mode 4.
- **41-18-07 : ACD Agent Identity Code Setup - ACD Group Number in Mode 5**
For each AIC Table (001-512), define the ACD group number (0=no setting, 1-64) in mode 5.

Automatic Call Distribution (ACD)

- **41-18-08 : ACD Agent Identity Code Setup - ACD Group Number in Mode 6**
For each AIC Table (001-512), define the ACD group number (0=no setting, 1-64) in mode 6.
- **41-18-09 : ACD Agent Identity Code Setup - ACD Group Number in Mode 7**
For each AIC Table (001-512), define the ACD group number (0=no setting, 1-64) in mode 7.
- **41-18-10 : ACD Agent Identity Code Setup - ACD Group Number in Mode 8**
For each AIC Table (001-512), define the ACD group number (0=no setting, 1-64) in mode 8.
- **41-19-01 : Voice Mail Delay Announcement - Delay Message Start Timer**
For each ACD group (01-64), determine how long the UX5000 waits before playing the Delay Message (0-64800 seconds).
- **41-19-02 : Voice Mail Delay Announcement - Mailbox for 1st Announcement Message**
For each ACD group (01-64), assign voice mail ACD Announcement Mailbox as the message source for the 1st Announcement Message. This option is only applicable to ACD Overflow Modes 1, 4, 5 and 9 (source 0/type2). Use Program 41-08 to set up the ACD overflow options.
- **41-19-03 : Voice Mail Delay Announcement - 1st Delay Message Sending Count**
For each ACD group (01-64), determine the 1st Delay Message Sending Count (0-255). This entry must be set to 1 or higher in order for the message to play.
- **41-19-04 : Voice Mail Delay Announcement - Mailbox for 2nd Announcement Message**
For each ACD group (01-64), assign voice mail ACD Announcement Mailboxes as the message source for the 2nd Announcement Message. This option is only applicable to ACD Overflow Modes 1, 4, 5 and 9 (source 0/type2). Use Program 41-08 to set up the ACD overflow options.
- **41-19-05 : Voice Mail Delay Announcement - 2nd Delay Message Sending Count**
For each ACD group (01-64), determine the 2nd Delay Message Sending Count (0-255). This entry must be set to 1 or higher in order for the message to play.
- **41-19-06 : Voice Mail Delay Announcement - Tone Kind at Message Interval**
For each ACD Group (01-64), define the what the caller will hear between the messages (0=ring back tone, 1=MOH, 2=BGM). Currently, calls in the ACD queue will only hear MOH if the music is from the CPU. It will not work if the MOH is connected to an ACI. Incoming callers which have not been put into queue, however, can hear the MOH from any source.
- **41-19-07 : Voice Mail Delay Announcement - ACD Forced Disconnect Time After 2nd Announcement**
For each ACD group (01-64), assign how long the UX5000 should wait after the end of the ACD delay message before disconnecting (0-64800).
- **41-19-08 : Voice Mail Delay Announcement - Delayed Message Interval Time**
For each ACD group (01-64), set the timer for the interval between the Delayed Messages (0-64800 seconds).
- **41-20-01 : ACD Queue Status Display Settings, Number of Calls in Queue**
Set the number of calls that can accumulate in the ACD queue before the Queue Status Display (and optional queue alarm) occurs (0=no display, 1-200).
- **41-20-02 : ACD Queue Status Display Settings, Queue Status Display Time**
Set how long a the Queue Status display remains on the terminal's display (0-64800 seconds).
- **41-20-03 : ACD Queue Status Display Settings, Queue Status Display Interval**
Set the interval that refreshes the Queue Status Alarm time in queue display and causes the optional queue alarm to occur on terminals active on a call, logged out, or in wrap-up (0-64800 seconds).
- **41-20-04 : ACD Queue Status Display Settings, ACD Call Waiting Alarm**
Enable (1) or disable (0) the queue alarm (Default=0).
- **41-20-05 : ACD Queue Status Display Settings, ACD Call Waiting Alarm Send Time**
Set how long the Call Waiting Alarm should sound (0-64800 seconds).

Automatic Call Distribution (ACD)

Related Features

Call Forwarding / Tandem Ringing

These features will not work for ACD extensions while the agent is logged in.

Direct Inward Dialing (DID)

If defined in Program 22-11-03, DID calls in queue will display the trunk name with the Queue Status feature.

Direct Station Select (DSS) Console

Lamping status for ACD agents and non-ACD agents do not both appear on the same console type. For ACD agent's lamping status, a DSS Console must be programmed as an ACD console in Program 30-01-01. For non-ACD agents, the console must be programmed as business console.

Night Service

When Program 12-07-01 is customized, an agent's display will not indicate the WAIT ACD LOGIN status, however an agent may still log in.

Voice Mail

Conversation Recording is programmed on a system-wide basis - it is not ACD feature specific.

Refer to the ACD Manual (P/N 0913202).

Operation

Transferring Calls to an ACD Group

To Transfer a call to an ACD Group:

1. At keyset or DSL, press HOLD.
OR
At SLT, hookflash
You hear Transfer dial tone.
2. Dial ACD Group Master Number.
You can press a defined One-Touch Programmable Function Key for the master instead.
3. Hang up.

Transferring Trunk Calls to the ACD Master (Program 15-02-21 = 0):

Only analog, ISDN, or H.323 trunk calls can be transferred.

1. While on an outside call, press HOLD.
2. Press the ACD Call Coverage key.
*The ACD Call Coverage key must be defined as a DSS key in Program 15-02-21.
The ACD Call Coverage key must be off (idle) in order to transfer the call.*
3. Hang up.
The call is transferred to the ACD group.

Answering Outside Calls that Ring Your ACD Group

To answer an outside call that rings your ACD Group:

DISA, DID and tie trunks can ring an ACD master number directly. Other trunk types can ring ACD Groups if set up in programming. Trunks can also be transferred to ACD master numbers.

1. Lift handset.
2. If you don't automatically answer the call, press the flashing line key.

Automatic Call Distribution (ACD)

Agent Log In and Log Out

To log your extension into the ACD Group:

Keypad

Your display shows: WAIT ACD LOGIN. If Program 12-07-01 has a customized Day/Night mode message defined, the ACD agent's display will not indicate the WAIT ACD LOGIN status (however, the agent may still log in using the following procedure).

1. Press idle CALL key.
2. Dial *5.

You hear confirmation tone.

OR

Press ACD Log On/Off key (PGM 15-07-01 or SC 852: code *10).

You hear a single beep.

Your display will show the ACD Group to which you are logged in.

If your UX5000 has ACD Identification Codes enabled, enter it now.

DSL or SLT

1. Lift handset.
2. Dial *5.

You hear confirmation tone.

If your UX5000 has ACD Identification Codes enabled, enter it now.

To log your extension out of an ACD Group:

Keypad

Your display shows the ACD Group to which you are logged in.

1. Press idle CALL key.
2. Dial *5.

OR

Press ACD Log On/Off key (PGM 15-07-01 or SC 852: code *10).

Your display shows: ACD LOGOUT (1:Yes, 0:No)

3. Dial 1 to log out.

*You hear confirmation tone (if you dialed *5) or a single beep (if you pressed the ACD Log On/Log Off key).*

OR

Dial 0 to cancel the log out and return to the group.

DSL

1. Lift handset.
2. Dial *5.
3. Dial 1 to log out.

You hear confirmation tone.

OR

Dial 0 to cancel the log out and return to the group.

SLT

1. Lift handset.
2. Dial 155.

Automatic Call Distribution (ACD)

AIC Agent Log In

To log in:

Keypad

1. Press the ACD Log In/Log Out key (Program 15-07 or SC 852: *10).
OR
1. Press CALL key and dial the AIC Log In service code (Program 11-13-08).
2. If the agent log in code is used (as with inDepth/inDepth+), enter the agent log in code (the number of digits to be entered is determined by Program 41-01-02). Otherwise, skip to Step 3.
3. Dial the Agent Identity Code (AIC) (up to 4 digits) defined in Program 41-18-01.
The ACD Log In/Log Out key lights.

To log out (for single or multiple agent log ins):

Keypad

All AIC log ins become invalid.

1. Press the ACD Log In/Log Out key (Program 15-07 or SC 852: *10).
2. Dial 1 to accept.
OR
1. Press CALL key and dial the AIC Log Out service code (Program 11-13-09).
The ACD Log In/Log Out key goes out.

SLT

All AIC log ins become invalid.

1. Lift the handset.
2. Dial the AIC Log Out service code (Program 11-13-09).
OR
1. To log out of an ACD group without using AIC: Lift the handset.
2. Dial the ACD Log Out service code 155 (Program 11-13-02).

Automatic Call Distribution (ACD)

Multiple Agent Log In

To log in:

Keyset

1. Press the ACD Log In/Log Out key (Program 15-07 or SC 852: *10).
2. Dial 0 to cancel the log out option.
3. Dial the Agent Identity Code (AIC) (up to 4 digits).

The ACD Log In/Log Out key lights.

OR

1. Press CALL key and dial the AIC Log In service code (Program 11-13-08).
2. Dial the Agent Identity Code (AIC) (up to 4 digits).

The ACD Log In/Log Out key lights.

SLT

Follow Steps 1-3 to log in with additional AICs (up to 3) at any time.

1. Lift the handset and dial the AIC Log In service code (Program 11-13-08).
2. Dial the log in code (up to 20 digits).
This step is not required if the ID code is disabled in Program 41-01-02.
3. Dial the first Agent Identity Code (AIC) (up to 4 digits).

You will hear a confirmation tone.

When immediately logging in with additional AICs.

4. For second agent log: Dial the second Agent Identity Code (AIC) (up to 4 digits).
You will hear a confirmation tone.
5. For third agent log: Dial the third Agent Identity Code (AIC) (up to 4 digits).
You will hear a confirmation tone.

Automatic Call Distribution (ACD)

Changing ACD Group Assignment

To change your ACD Group Assignment:

1. Log out of your ACD Group (see the instructions above).
2. Press idle CALL key.
3. Dial 170.
4. Dial the number of the ACD Group (1-64) into which you want to log.
You hear confirmation tone.
5. Log into the new ACD Group (see the instructions above).

Using the Headset with Automatic Answer for ACD Agents:

1. With the keyset in an idle state, press the Check key.
2. Press the Headset key (PGM 15-07 or SC 851: 05) twice.
3. Press the Clear key to return the display to idle.
*The Headset key blinks when Automatic Headset is activated.
To cancel Automatic Headset, repeat these steps.*

Answering Incoming ACD Calls with a Call Coverage Key:

1. Press the flashing ACD Call Coverage key (PGM 15-07 or SC 851: *03 + ACD Master number).
Ringling calls are answered in the following priority:
 - Ringling call which has heard the ACD Delayed message.
 - Ringling call which has not heard the ACD Delayed message.
 - Calls in queue (follows ACD overflow priority set in Program 41-14-03).

A Supervisor can monitor an ACD call:

1. When an ACD agent is on an outside call, the supervisor presses the Monitor key (PGM 15-07 or SC 852: *15).
The call is heard by the supervisor, but cannot participate in the call. If participation is required, use the Barge In feature instead.
2. To cancel the call monitoring, press the Monitor key again.

Automatic Call Distribution (ACD)

Queue Status Display

When Logged Into ACD Group

1. With an idle keyset, press the Queue Status Display Programmable Function Key (Code: *19).
The display indicates the number of calls in queue, the trunk name, and the length of time the call has been waiting.
When the Queue Status Display key is pressed, the queue status of the extension's group is displayed. When the extension is not in an ACD group, the Queue Status of group 1 is displayed instead.
When an agent logs in using an AIC code, the Queue Status of the default ACD group defined in Program 41-18-02 is displayed.
2. Press the VOL UP and VOL DOWN to scroll through the Queue Status Displays of all the ACD Groups.
3. Press the CLEAR key to return the terminal to an idle state.

When Logged Out of ACD Group

When ACD agents are logged out and a call is placed into the ACD queue, the terminals of the logged out agents will display the Queue Status and hear the alarm according to the settings defined in UX5000 programming.

Pressing the Queue Status Display Programmable Function key will return the terminal to idle until the timer in Program 41-20-03 expires again.

Rest Mode/Off-Duty Mode

To set the manual Rest Mode/Off-Duty Mode:

Keyset

1. With the keyset in an idle state, press the ACD Rest Mode key (PGM 15-07 or SC 852: *13).
The ACD Rest Mode key lights. If the Rest Mode key is pressed while the agent is on an active call, the key will flash until the agent hangs up.
This operation is not available for the System Supervisor.

Single Line Terminal

1. Lift the handset and dial 158.
A fast busy is heard.
To set Pre-Rest Mode (while on a call), press the hookflash and then dial 158. Press the Hookflash again to return to the outside party. Rest Mode will begin once the call is completed.
2. Hang up.

Automatic Call Distribution (ACD)

To cancel the manual Rest Mode/Off-Duty Mode:

Keypad

1. Press the ACD Rest Mode key (PGM 15-07 or SC 852: *13).
The ACD Rest Mode key light goes off.

Single Line Terminal

1. Lift the handset.
A fast busy is heard.
2. Dial 159.
3. Hang up.

Refer to the ACD Manual (P/N 0913202) for additional operations.

Automatic Release

Feature Availability

- Available.

Description

Automatic Release drops the line circuit when an outside party abandons the call. For this feature to work with Loop Start trunks, the CO/PBX providing the outside line must provide a timed disconnect signal. Automatic Release is normally provided on Ground Start, DID, ISDN, and Tie Line trunks.

Conditions

- Automatic Release on ISDN trunks is provided by the protocol.
- When an outside line is accessed using a dedicated line key, the LED associated with the line key goes off when Automatic Release occurs.
- This feature functions while a call is in progress, on hold, or in a conference.
- This feature applies to all ICM type calls in progress, holding or parked.
- When Automatic Release occurs and the terminal is in handsfree mode, the Speaker key automatically turns off. If using the handset, the station is set to idle when the handset goes on-hook.

Default Settings

None

Programming

- **14-02-09 : Analog Trunk Data Setup - Busy Tone Detection**
For each trunk, determine if the line uses busy tone detection (0 = Disable, 1 = Enable).
- **14-02-14 : Analog Trunk Data Setup - Loop Start/Ground Start**
For each trunk, determine if it should be a Loop Start (0) or Ground Start (1) trunk.

Related Features

Central Office Calls, Answering / Central Office Calls, Placing

Set up other options for trunk calls (e.g., unassign line keys, adjust gains, ARS access key, loop keys, etc.).

Operation

None

Feature Availability

- Available.

Description

Automatic Route Selection (ARS) provides call routing and call restriction based on the digits a user dials. ARS gives the UX5000 the most cost-effective use of the connected long distance carriers.

ARS is an on-line call routing program that you can customize (like other UX5000 options) from a display terminal. ARS accommodates 400 call routing choices - without a custom-ordered rate structure database. With ARS, you can modify the UX5000's routing choices quickly and easily. This is often necessary in today's telecommunications world where the cost structure and service choices frequently change.

The ARS feature can add or delete digits and route calls according to pre-determined levels. When UX5000s are networked together by a tie line, the networked systems can be called by a system number and a user's extension number, just an extension number, or by using a trunk access code.

ARS Feature Summary

ARS provides:

- **Call Routing**
ARS can apply up to 24-digit analysis to every number dialed. For programming, ARS provides separate 8-digit and 24-digit tables. Each table can have up to 250 numbers.
- **Dialing Translation (Special Dialing Instructions)**
ARS can automatically execute stored dialing instructions (called Dial Treatments) when it chooses a route for a call. The UX5000 allows up to 15 Dial Treatments. The Dial Treatments can:
 - Automatically insert or delete a leading 1
 - Insert or delete an area code (NPA)
 - Add digits (such as a dial-up OCC number), pauses and waits to the dialing sequence
 - Require the user to enter an authorization code when placing a call (refer to Program 44-03).
- **Time of Day Selection**
For routing purposes, ARS provides ten different day selections (called Time Schedule Patterns). Each Time Schedule Pattern can provide up to 20 time intervals which are assigned to one of the eight day/night modes. The Time Schedule Patterns are then assigned to a day of the week (Monday-Friday, Saturday, Sunday or Holiday).
- **Hierarchical Class of Service Control**
ARS allows or denies call route choices based on an extension's ARS Class of Service. This allows lower Classes of Service (e.g., 1) to access routes unavailable to higher Classes of Service (e.g., 16). The UX5000 provides up to 16 (0=unrestricted, 1~16) ARS Classes of Service.
- **Separate Routing for Selected Call Types**
To provide unique control, you can program separate routing instructions for:
 - Directory assistance (411, 1411 and 555) calls
 - Emergency (911) calls
- **Separate Routing for Equal Access (1010XXX) Calls**
Choose different routing for directly-dialed (1010XXX + 1) and operator-assisted (1010XXX + 0) Equal Access calls.

Automatic Route Selection

Basic ARS Operation

When a user places an outside call, ARS analyzes the digits dialed and assigns one of 64 Selection Numbers to the call. The Selection Number chosen depends on which digits the user dialed. ARS then checks the time of day, the day of week and the extension's ARS Class of Service. Based on these call routing options, ARS selects a trunk group for the call and imposes the Dial Treatment instructions (if any).

Class of Service Option Allows Outgoing Calls to Not Follow Access Map

Using this option allows an extension's Class of Service to be set so that ARS does not follow the trunk access map settings (Program 14-07-01 and 15-06-01). The feature allows an extension user to have CO line keys on their terminal which allow incoming access only. The user would only have outgoing access on the CO lines when using ARS to place a call.

Class of Service Matching

With the ARS Class of Service Match Access feature, you can determine whether the UX5000 should allow a call based on the COS assigned to the Dial Analysis Table (Program 26-02). This change can be used to create a tenant-like application. It will then use the trunk group defined in the Additional Entry in Program 26-02-03 to place the outgoing call.

When this feature is enabled, the calls will be routed in sequential order, and will forward provided the Class of Service for the trunk groups match.

For this feature the UX5000 option, **Program 26-01-06 : Automatic Route Selection Service, COS Match Access**, is used.

The examples below use the following UX5000 programming:

Program 26-02 for Dial Analysis Table for ARS set as:

Table No.	Program 26-02-01 Dial	Program 26-02-02 Service Type	Program 26-02-03 Add Data	Program 26-02-04 ARS COS
1	203@@@@@	1: Route to trunk group	3 (Group 3)	5
2	214@@@@@	1: Route to trunk group	1 (Group 1)	4
197	@@@@@@@@	1: Route to trunk group	2 (Group 2)	4
198	@@@@@@@@	1: Route to trunk group	3 (Group 3)	3
199	@@@@@@@@	1: Route to trunk group	2 (Group 2)	2
200	@@@@@@@@	1: Route to trunk group	1 (Group 1)	1

Program 12-02 for Automatic Night Service Patterns as:

Time Pattern No.	Program 12-02-01 Start Time	Program 12-02-02 End Time	Program 12-02-03 Operation Mode
1	00:00	08:30	2 (Night)
2	08:30	17:00	1 (Day)
3	17:00	00:00	2 (Night)

Automatic Route Selection

Program 26-04 for ARS Class of Service as:

	Ext. 301	Ext. 302	Ext. 401	Ext. 402
Mode 1(Day)	1	2	3	3
Mode 2(Night)	1	4	3	5

Program 26-01-03 for ARS Misdialed Number Handling as: 1 (Warning Tone)

With Program 26-01-06: ARS COS Match Access disabled (set to '0'):

- If at 9:00 AM, each extension dialed '9+(203)926-5400'
All Extension would use Trunk Group 3
- If at 9:00 AM, each extension dialed '9+(214)262-2000'
All Extension would use Trunk Group 1
- If at 6:00 PM, each extension dialed '9+(203)926-5400'
All Extension would use Trunk Group 3
- If at 6:00 PM, each extension dialed '9+(214)262-2000'
Extension 301, 302 and 401 would use Trunk Group 1
Extension 402 would not be able to dial out as the COS is lower

With Program 26-01-06: ARS COS Match Access enabled (set to '1'):

- If at 9:00 AM, each extension dialed '9+(203)926-5400'
Extension 301 would use Trunk Group 1
Extension 302 would use Trunk Group 2
Extension 401, 402 would use Trunk Group 3
- If at 9:00 AM, each extension dialed '9+(214)262-2000'
Extension 301 would use Trunk Group 1
Extension 302 would use Trunk Group 2
Extension 401, 402 would use Trunk Group 3
- If at 6:00 PM, each extension dialed '9+(203)926-5400'
Extension 301 would use Trunk Group 1
Extension 302 would use Trunk Group 2
Extension 401, 402 would use Trunk Group 3
- If at 6:00 PM, each extension dialed '9+(214)262-2000'
Extension 301, 302 would use Trunk Group 1
Extension 401 would use Trunk Group 3
Extension 402 would not be able to dial out as the COS does not match

Automatic Route Selection

Alternate Carrier Access for ISDN Trunks

An option is available which allows the UX5000 to provide a Transit Network Selection information element for ARS calls using ISDN trunks. This information element identifies a requested transit network. This function is valid only for outbound calls by ISDN trunk.

Local calls do not need Network Selection information since they will be handled by the local exchange carrier (ILEC). If this is the case, ARS is able to distinguish between local and long distance calls and add the Transit Network Selection information element when required.

This option would apply to both PRI and BRI ISDN trunks. If the trunk in the used in **Program 26-02 : Dial Analysis Table for ARS/LCR** is not an ISDN trunk, this code in the dial treatment will be ignored.

The examples below use the following UX5000 programming:

➤ **Program 26-02 for Dial Analysis Table for ARS/LCR set as:**

Table No.	Program 26-02-01 Dial	Program 26-02-02 Service Type	Program 26-02-03 Add Data	Program 26-02-04 ARS COS	Program 26-02-05 Dial Treatment
1	203@@@@@	1:TRG	1(Group 1)	0	1
2	@@@@@	1:TRG	1(Group 1)	0	0

➤ **Program 26-03-01 for ARS Dial Treatments set as:**

Table No. 1 - Dial Treatment: AIRE

➤ **Program 26-11-01 for Transit Network ID Table set as:**

Table No. 1 - Transit Network ID: 0288

Example: If an extension dialed '9+(203)925-5400', the setup message will contain the Transit Network Selection IE with Network ID 0288.

Example: If an extension dialed '9+(214)262-2000', the setup message will not contain the Transit Network Selection IE.

Conditions

- Do not use ARS behind a Centrex/PBX if Centrex features are used.
- ARS is intended for areas that use the North American Number Plan (NANP).
- Line keys, outgoing loop keys, outgoing trunk group keys, dialing 804+trunk group, dialing #9+trunk number, and abbreviated dial numbers assigned to a certain trunk group can all be used to by-pass ARS.
- An entry of '0' in the ARS Table COS will only match the terminal's COS '0'.

Default Setting

ARS is not programmed.

Programming

➤ **11-01-01 : System Numbering**

Set the UX5000's internal (Intercom) numbering plan. The numbering plan assigns the first and second digits dialed and affects the digits an extension user must dial to access other extensions and features, such as service codes and trunk codes. If the default numbering plan does not meet the site requirements, use this program to tailor the UX5000 numbering to the site.

- **11-09-01 : Trunk Access Code**
Specify the digit(s) used to access ARS (normally 9).
- **11-09-02 : Trunk Access Code - Alternate Trunk Route Access Code**
Specify the additional trunk access codes. When a user dials the Alternate Trunk Route Access Code, the UX5000 routes their call to the Altrnate Trunk Route.
- **14-05-01 : Trunk Groups**
Program trunks of the same carrier type into the same trunk group (1-100).
- **14-07-01 : Trunk Access Map Setup**
Set up the Trunk Access Maps (1-200). This sets the access options for trunks.
- **15-06-01 : Trunk Access Map for Extensions**
Assign Trunk Access Maps (1-200) to extensions for each night mode (1-8).
- **15-07-01 : Programmable Function Keys**
For extensions which should not bypass ARS, either remove line keys (code *01 + trunk number), trunk group keys (code *02 + group), loop keys (1 [outgoing only] or 2 [both ways]) or make proper entries in Programs 14-07, 15-06, 20-06, and 20-08-17 to match the required settings.
- **15-13-01 : Loop Keys**
Assign trunk groups (1-100) for outgoing loop keys (0=ARS).
- **20-03-04 : System Options for Single Line Terminals - Dial Sending Start Time for SLT or ARS**
When ARS or an analog extension user accesses a trunk and dials an outside call, the UX5000 waits this interval before outdialing the first digit (0-64800 seconds).
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to an extension for each night mode (1-8).
- **20-08-17 : Class of Service Options (Outgoing Call Service), ARS Override of Trunk Access Map**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to override the trunk access map programming (Program 14-07-01 and 15-06-01) for outgoing calls.
- **26-01-01 : Automatic Route Selection Service - ARS Service**
Enable (1) or disable (0) ARS.
- **26-01-02 : Automatic Route Selection Service - Network Outgoing Inter-Digit ARS Timer**
With CygniLink, this timer (0-64800 msec.) replaces 20-03-04 when determining if all network protocol digits have been received. If ARS is enabled at Site B, this timer can be programmed for 5 (500 msec) at Site A. If ARS is disabled and Site B is using F-Route for outbound dialing, this timer should be programmed for 30 (3 seconds) at Site A.
- **26-01-03 : Automatic Route Selection Service - ARS Misdialed Number Handling**
If a user dials a number not programmed in ARS, this option determines if the UX5000 should route over trunk group 1 (0) or play error tone (1).
- **26-01-06 : Automatic Route Selection Service - ARS COS Match Access**
With the ARS Class of Service Match Access feature, you can determine whether the UX5000 should allow a call based on the COS assigned to the Dial Analysis Table (Program 26-02). This change can be used to create a tenant-like application. It will then use the trunk group defined in the Additional Entry in Program 26-02-03 to place the outgoing call.

When this feature is enabled (1), the calls will be routed in sequential order, and will forward provided the Class of Service for the trunk groups match (0 = Disabled, 1=Enabled).

Automatic Route Selection

➤ 26-02-01 : Dial Analysis Table for ARS/LCR - Dial

Enter the digits (16 digits maximum: 1-9, 0 * #, @; 400 separate entries) for the Dial Analysis Table which will be analyzed by ARS/LCR. This table will be checked after any programmed F-Route operations have completed. The UX5000 will then refer to Program 26-02-02 and 26-02-03 to determine the routing for the call. To enter a wild card/don't care digit, press Line Key 1 to enter an @ symbol. *It is important to remember that the UX5000 checks the table numbers in numerical order.* This means that entries for specific numbers should be entered first (such as your local area codes), then enter the items containing wild card digits. If the UX5000 sees an entry of "2@@" then any table entries which follow will be ignored.

For example, if 268, 269, and 270 are local exchanges, these would be the first three table entries which would route according to the settings made in Program 26-02-02 and 26-02-03 for each of the table entries. If the next entry is "2@@", then the UX5000 checks no further in this program and routes all other "2xx" numbers according to the entries made in Program 26-02-02 and 26-02-03 for this table entry.

➤ 26-02-02 : Dial Analysis Table for ARS - Service Type

For each Dial Analysis Table (1-200), select '0' for no ARS, '1' for *Service Type 1 - Route to Trunk Group Number* to have the number route to a trunk group [Refer to Program 26-02-03] or '2' for *Service Type 2 - F-Route Selected* to have the dialed number controlled by the F-Route table. If Service Type 2 is selected and F-Route operation is on, the F-Route table used is determined by Program 44-04. If F-Route operation is off, the routing is determined by Program 44-05.

➤ 26-02-03 : Dial Analysis Table for ARS - Additional Data / Service Number

For each Dial Analysis Table (1-400), if Service Type 1 was selected in Program 26-02-02, enter the trunk group number (0=no route, trunk groups 1-100).

➤ 26-02-04 : Dial Analysis Table for ARS - ARS Class of Service

For each Dial Analysis Table (1-400), set the Automatic Route Selection (ARS) Class of Service (0-16).

➤ 26-02-05 : Dial Analysis Table for ARS - Dial Treatment

For each Dial Analysis Table (1-400), set the Automatic Route Selection (ARS) Dial Treatment (0-15) to be used.

➤ 26-03-01 : ARS Dial Treatments

Assign the Dial Treatments (1-15) for automatic ARS dialing translation. Assign Dial Treatments to Service Numbers (Trunk Groups) in Program 26-02. The ARS Dial Treatment options are:

- **3** - Delete the NPA if dialed as part of the initial call. This requires at least 8 digits in the ARS table (Program 26-02-01).
- **2** - Delete the leading digit if dialed as part of the initial call. This requires at least 8 digits in the ARS table (Program 26-02-01).
- **1** - Add a leading 1 if not dialed as part of the initial call. This requires at least 8 digits in the ARS table (Program 26-02-01).
- **INPA** - Insert the NPA specified by NPA.
- **DNN** - Outdial the NN number of digits or execute the code that follows. For example, D041234 out-dials 124. Valid entries are 0-9, #, *, Wnn (wait nn seconds) and P (pause). Each digit code counts as a digit. So for example, if a P was added for a pause, the entry would look like: D05P1234. This Dial Treatment can only be added from terminal programming.
- **Wnn** - Wait nn seconds.
- **P** - Pause in analog trunk.
- **R** - Redial the initially dialed number, including any modifications
- **E** - End of Dial Treatment. All Dial Treatments must end with the E code.
- **X** - When ARS is enabled, X must be entered in the Dial Treatment in order for the UX5000 to output the extension number of the call's originator to the black box for the E911 feature.
- **An** - Alternate Carrier Access (n = 1 ~ 4). The numeric digit instructs the UX5000 to insert a Transit Network Selection information element in the SETUP message and also identifies which code in Program 26-11 will be included in the information element.

- **26-04-01 : ARS Class of Service**
Set an extension's ARS Class of Service (0-16) for each night mode (1-8). Automatic Route Selection uses ARS Class of Service when determining how to route an extension's calls.
- **26-11-01 : Transit Network ID Table**
Enter up to four Transit Network ID Codes, each being 4 numbers long (Entries: 0-9).
- **30-03-01 : DSS Console Key Assignment**
On DSS consoles which should not bypass ARS, either remove line keys (code *01 + trunk number), trunk group keys (code *02 + group), loop keys (1 [outgoing only] or 2 [both ways]) or make proper entries in Programs 14-07, 15-06, 20-06, and 20-08-17 to match the required settings.
- **44-01-01 : System Options for ARS/F-Route**
Select whether the ARS/F-Route feature should use the time schedule (0=not used, 1=used). If this option is set to '0', the F-Route table selected is determined only by the digits dialed without any relation to the day or time of the call. If this option is set to '1', the UX5000 first refers to Program 44-10. If there is a match, the pattern defined in that program is used. If not, the F-Route pattern in Program 44-09 and time setting in Program 44-08 are used.
- **44-02-01 : Dial Analysis Table for ARS/F-Route Access - Dial**
For each Dial Analysis Table (1-120), set the Dial digits for the Pre-Transaction Table for selecting ARS/F-Route (8 digits max: 1-9, 0 * #, @). To enter a wild card/don't care digit, press Line Key 1 to enter an @ symbol.
- **44-02-02 : Dial Analysis Table for ARS/F-Route Access - Service Type**
For each Dial Analysis Table (1-120), set the Service Type (0-3) for the Pre-Transaction Table for selecting ARS/F-Route (0=No setting, 1=Extension Call, 2=ARS/F-Route Table, 3=Dial Extension Analyze Table).
- **44-02-03 : Dial Analysis Table for ARS/F-Route Access - Additional Data**
If a Service Type is selected in Program 44-02-02, for each Dial Analysis Table (1-120), set the additional data, if required, for the Pre-Transaction Table for selecting ARS/F-Route (24 digits max: 1-9, 0 * #, @). To enter a wild card/don't care digit, press Line Key 1 to enter an @ symbol.
- **44-02-04 : Dial Analysis Table for ARS/F-Route Access - Dial Tone Simulation**
For each Dial Analysis Table (1-120), determine if the Dial Tone Simulation is on (1) or off (0) for the Pre-Transaction Table for selecting ARS/F-Route. If enabled, this option sends dial tone to the calling party once the routing is determined. This may be required if the central office at the destination does not send dial tone.
- **44-03-01 : Dial Analysis Extension Table - Dial**
For each Dial Analysis Extension Table (1-4), set the Dial digits (24 digits max: 1-9, 0 * #, @) to be used for each Dial Extension Analysis Table (1-250). When Program 44-02-02 is set to type "3", this program sets the dial extension analysis table. These tables are used when the analyzed digits must be more than 8 digits. To enter a wild card/don't care digit, press Line Key 1 to enter an @ symbol.
- **44-03-02 : Dial Analysis Extension Table - Table Number**
When dialed digits match the setting in Program 44-03-01, for each Dial Analysis Extension Table (1-4), select the ARS/R-Route table number (0-500) to be used for each Dial Extension Analysis Table (1-250).
- **44-03-03 : Dial Analysis Extension Table - Table Number (251)**
If the received digits are not identified in tables 1-250, the F-Route selection table number (0-500) defined in table 251 is used.
- **44-03-04 : Dial Analysis Extension Table - Next Table Number**
If the received digits do not match the digits set in tables 1-250, table number 252 is used refer to the next Extension Table Area (1-4) to be searched.

Automatic Route Selection

- **44-04-01 : ARS/F-Route Selection for Time Schedule**
Assign each ARS/F-Route Selection number (1-500) to an ARS/F-Route table number for each ARS/F-Route time mode. There are 8 time modes for ARS/F-Route Access.
- **44-05-01 : ARS/F-Route Table - Trunk Group Number**
For each ARS/F-Route table (1-500) and for each priority number (1-4), enter the trunk group number to be used (0 = No setting, 1-100, 101-150 = Networking, 255 = Extension Call).
- **44-05-02 : ARS/F-Route Table - Delete Digits**
For each ARS/F-Route table (1-500) and for each priority number (1-4), enter the number of digits to be deleted (0-255) from the dialed number.
- **44-05-03 : ARS/F-Route Table - Additional Dial Number Table**
For each ARS/F-Route table (1-500) and for each priority number (1-4), enter the table number (defined in Program 44-06) for additional digits to be dialed (0-1000).
- **44-05-04 : ARS/F-Route Table - Beep Tone**
For each ARS/F-Route table (1-500) and for each priority number (1-4), select whether or not a beep is heard if a lower priority trunk group is used (0=no beep, 1=beep).
- **44-05-05 : ARS/F-Route Table - Gain Table Number for Internal Call**
For each ARS/F-Route table (1-500) and for each priority number (1-4), select the gain table number to be used for internal calls (0-500).
- **44-05-06 : ARS/F-Route Table - Gain Table Number for Tandem Connections**
For each ARS/F-Route table (1-500) and for each priority number (1-4), select the gain table number to be used for tandem connection (0-500).
- **44-05-07 : ARS/F-Route Table - ARS Class of Service**
For each ARS/F-Route table (1-500) and for each priority number (1-4), select the Class of Service to be used for ARS (0-16). An extension's ARS COS is determined in Program 26-04-01.
- **44-05-08 : ARS/F-Route Table - Dial Treatment**
For each ARS/F-Route table (1-500) and for each priority number (1-4), select the Dial Treatment to be used (0-15). The Dial Treatments are defined in Program 26-03-01.
- **44-06-01 : Additional Dial Table**
If an Additional Dial Number Table is entered in Program 44-05-03, define the additional dial table (1-1000) to add digits in front of the dialed ARS/F-Route number (24 digits max: 1-9, 0 * #, Pause). To enter a wild card/don't care digit, press Line Key 1 to enter a P (pause) symbol.
- **44-07-01 : Gain Table for ARS/F-Route Access - Incoming Transmit**
44-07-02 : Gain Table for ARS/F-Route Access - Incoming Receive
44-07-03 : Gain Table for ARS/F-Route Access - Outgoing Transmit
44-07-04 : Gain Table for ARS/F-Route Access - Outgoing Receive
For each gain table (1-500), set the gain type (1-63). If an extension dials ARS/F-Route number;
 - The Extension Dial Gain Table is activated, which is assigned in Program 44-05.
 - The Extension Dial Gain Table follows "Outgoing transmit" and "Outgoing receive" settings.
If the incoming call is transferred to another line using ARS/F-Route;
 - The Tandem Gain Table is activated, which is assigned in Program 44-05.
 - The Tandem Gain Table follows the "Incoming transmit" and "Incoming receive" settings for incoming line, and "Outgoing transmit" and "Outgoing receive" settings for the outgoing line.
For ARS/F-Route calls, the codec gains defined in Program 14-01-02 and 14-01-03 are not activated.
- **44-08-01 : Time Schedule for ARS/F-Route**
Define the daily pattern of the ARS/F-Route feature. ARS/F-Route has 10 time patterns. These patterns are used in Program 44-09 and 44-10. The daily pattern consists of 20 time settings.

- **44-09-01 : Weekly Schedule for ARS/F-Route**
Define a weekly schedule for using ARS/F-Route (day numbers 1-7 (1=Sun, 7=Sat), pattern numbers 1-10). The pattern number is defined in Program 44-08-01.
- **44-10-01 : Holiday Schedule for ARS/F-Route**
Define a yearly schedule for ARS/F-Route. This schedule is used for setting special days such as national holidays (pattern numbers 1-10). The pattern number is defined in Program 44-08-01.
- **80-03-01 : DTMF Tone Receiver Setup**
Use Items 11-32 to set the criteria for dial tone detection for outgoing ARS calls.

Related Features

Abbreviated Dialing

Abbreviated Dialing may bypass ARS routing.

Central Office Calls, Placing

Set up other options for outgoing calls (e.g., unassign line keys, adjust gains, ARS access key, loop keys, etc.).

CygniLink

IP terminals can use ARS COS Matching to call local authorities in case of an emergency (refer to the CygniLink manual (P/N 0913207)).

Dial Tone Detection

Refer to this feature for the specifics on how the UX5000 handles Dial Tone Detection.

Direct Inward Dialing (DID)

Automatic transferring of an incoming DID call to an abbreviated dialing bin may bypass ARS.

Directory Dialing

Since Directory Dialing uses abbreviated dialing bins, this feature may bypass ARS.

E911 Compatibility

If there is no PBX access code is entered in the Dial Treatment, the UX5000 will still be able to dial 911. If an entry of 911 is programmed in ARS, but ARS is turned off, 911 calls still attempt to route using ARS.

Privacy Release

Since Privacy Release requires trunk keys, this feature may bypass ARS.

Private Line

A Private line may bypass ARS.

Toll Restriction

Toll Restriction overrides ARS.

Trunk Groups

Accessing trunk groups may bypass ARS.

Trunk Group Routing

A UX5000 with Automatic Route Selection cannot also have Trunk Group Routing.

Trunk Queuing/Camp On

With ARS installed, Trunk Queuing automatically queues for the least costly route. The UX5000 automatically redials the queued call when the extension user lifts the handset.

Automatic Route Selection

Operation

To place a call using ARS:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
You'll hear normal Intercom dial tone.
2. Dial 9.
You'll hear a second, "stutter" dial tone.
3. Dial the outside number.
If you hear another "stutter" dial tone, you must enter your extension's ARS Authorization Code.

Feature Availability

- Available.

Description

Background Music (BGM) sends music from a customer-provided music source to speakers in key-sets. If an extension user activates it, BGM plays whenever the user's extension is idle.

Conditions

- Background Music requires a customer-provided music source connected to the CCPU's CN8 or CN9 connector. Refer to the UX5000 Hardware Manual.

Default Setting

Not installed.

Related Features

Music on Hold

The UX5000 can broadcast music to callers on Hold.

One-Touch Keys

Assign a One-Touch bin for BGM on/off.

Paging, External

Set up other required programs for external paging.

Programmable Function Keys

Assign a function key for BGM on/off and if an extension can program their own Programmable Function keys.

Single Line Terminals

Background Music is not available on single line terminals.

Background Music

Programming

- **10-21-04 : CPU Hardware Setup - External Source Input/Output Selection on CCPU**
Specify the functions for the input and output of the CN8 and CN9 connectors on the CCPU for an external music source (0=External Speaker (CN8)/External MOH (CN9), 1=External Speaker (CN8)/BGM Source (CN9), 2=BGM Source (CN8)/External MOH (CN9).
- **10-21-05 : CPU Hardware Setup - General Purpose Relay on CCPU**
Select which relay is to be used for the general purpose relay on the CCPU (CN10). (0 = Off, 1 = Relay 1 on CCPU, 2 = Relay 2 on CCPU)
- **11-11-18 : Service Code Setup (for Setup/Entry Operation) - BGM On/Off**
Specify the service code (default: 825) used by an extension to toggle BGM on and off.
- **15-07-01 : Programmable Function Keys**
Assign a function key for BGM on/off (code: 04) to extensions.
- **15-14-01 : One-Touch Key Assignment**
Assign a One-Touch bin for BGM on/off (code: 04) to extensions.
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to an extension for each night mode (1-8).
- **20-13-30 : Class of Service Options (Supplementary Service) - Background Music**
In an extension's Class of Service (1-15), allow (1) or prevent (0) an extension from turning Background Music on and off.
- **31-08-01 : BGM on External Paging**
Set the Background Music option for each External Page zone (1-9). If enabled, the UX5000 will play BGM over the zone when it is idle (0=disable, 1=enable).

Operation

To turn Background Music on or off:

1. Press idle CALL key.
2. Dial 825.
3. Press SPK to hang up.

Feature Availability

- Available.

Description

Barge In permits an extension user to break into another extension user's established call, including Conference calls. This sets up a Conference-type conversation between the intruding extension and the parties on the initial call. With Barge In, an extension user can get a message through to a busy co-worker right away. If allowed in an extension's Class of Service, multiple users can barge into the same call (up to 32 callers maximum).

There are two Barge In modes: Monitor Mode (Silent Monitor) and Speech Mode. With Monitor Mode, the caller Barging In can listen to another user's conversation but cannot participate. With Speech Mode, the caller Barging In can listen and join another user's conversation.

Silent Monitor on Barge In to Conference

A system-wide option is available which can allow users barging into a conference call to perform a Silent Monitor. The Barge In feature must be programmed for the user, including Program 20-13-10. This program is only available through terminal programming and it is recommended not to change this option unless required.

CAUTION

The use of monitoring, recording, or listening devices to eavesdrop, monitor, retrieve, or record telephone conversation or other sound activities, whether or not contemporaneous with transmission, may be illegal in certain circumstances under federal or state laws. Legal advice should be sought prior to implementing any practice that monitors or records any telephone conversation. Some federal and state laws require some form of notification to all parties to a telephone conversation, such as using a beep tone or other notification methods or requiring the consent of all parties to the telephone conversation, prior to monitoring or recording the telephone conversation. Some of these laws incorporate strict penalties.

Conditions

Barge In to an extension with Handset Transmission Cutoff activated will deactivate the mute and it must be reactivated after the Barge In has been completed.

Default Setting

Disabled

Programming

- **11-12-08 : Service Code Setup (for Service Access) - Barge In**
Determine what the service code should be for an internal party to use the Barge In feature (default=810).
- **11-16-02 : One-Digit Service Code Setup - Barge In**
Use this option to set up Item 02 for single digit Barge In. For example, you can assign Item 02 to use digit 5 for Barge In. This would allow you to program a function key with an extension number plus the Barge In code (i.e., 305 5). This allows one-touch access to the Barge In feature for extension 305. If you undefine a service code, *be careful when you change this item that you don't inadvertently disable any essential dialing function (such as Voice Mail or Message Waiting)*.
- **15-07-01 : Programming Function Keys**
Assign a function key for Barge In (code 34).
- **15-14-01 : One-Touch Key Assignment**
Assign a One-Touch bin number for Barge In (code: 810) to extensions.
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to an extension for each night mode (1-8).
- **20-13-10 : Class of Service Options (Supplementary Service) - Barge In Mode**
In an extension's Class of Service (1-15), enable the Barge In Speech Mode (0) or Monitor Mode (1) at the initiating extension (i.e., Barge In initiator).
- **20-13-15 : Class of Service Options (Supplementary Service) - Barge In, Initiate**
In an extension's Class of Service (1-15), enable (1) or disable (0) Barge In at the initiating extension (i.e., Barge In initiator).
- **20-13-16 : Class of Service Options (Supplementary Service) - Barge In, Receive**
In an extension's Class of Service (1-15), enable (1) or disable (0) Barge In at the receiving extension (i.e., Barge In receive).
- **20-13-17 : Class of Service Options (Supplementary Service) - Barge In Tone/Display**
In an extension's Class of Service (1-15), enable (1) or disable (0) the Barge In Tone. If disabled, this also turns off the Barge In display at the called extension.
- **20-13-32 : Class of Service Options (Supplementary Service) - Multiple Barge In**
In an extension's Class of Service (1-15), deny (1) or allow (0) the extension's ability to have multiple user's Barge In to their conversation.
- **20-14-11 : Class of Service Options for DISA/E&M - DISA/Tie Trunk Barge In**
For each DISA/tie trunk Class of Service (1-15), use this option to enabled (1) or disable (0) a DISA or tie trunk user from using the Barge In feature with the service code defined in Program 11-12-08.
- **20-18-07 : Service Tone Timer - Intrusion Tone Repeat Time**
After a user Barges In, the UX5000 repeats the Barge In tone after this interval. Normally, you should disable this timer by entering 0. (This timer also affect any other types of call interruption features, such as Voice Mail Conversation Recording, Voice Over, etc.)
- **21-01-03 : System Options for Outgoing Calls - Trunk Interdigit Time (External)**
Program how long an extension must wait before using the Barge In feature can be used on a call (this timer waits until this timer expires before putting a call in a talk state). This timer also affects Voice Over.
- **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key as a Barge In key (code 34) or service code key (01 + 810).

Related Features

Conference

An extension user can Barge In (either silent or speech mode) on a Conference.

Direct Inward System Access (DISA)

Set up DISA trunks to barge into an extension.

Do Not Disturb

Barge In cannot be used on an extension which is on a call and in DND unless DND Override is allowed.

Hold

With Program 20-13-10 set to “0”, a call which has been barged into can be placed on Hold by the originator of the outside call. Both the outside caller and the extension which barged into the call are placed on Hold. However, if the originator presses Hold then hangs up, the extension which barged into the call is dropped while the outside caller immediately recalls the originator.

Intercom

An extension user cannot Barge In on an Intercom call if one of the Intercom callers is using Handsfree Answerback. Both Intercom parties must have lifted the handset or pressed SPK.

Microphone Cutoff

If the Handset Transmission Cutoff function key is activated (Programmable Function Key code 40), when another user barges in on the extension with Handset Transmission Cutoff activated, the mute function will be turned off. It cannot be reactivated until the barge in has been completed. Then, the user can press the Handset Transmission Cutoff function key again in order to turn the mute feature back on.

Networking

Barge In can be used on networked extensions.

Off Hook Signaling

If the UX5000 has Automatic Off Hook Signaling, an extension user can Barge In on an Intercom call only if the second extension appearance is busy or ringing.

One-Touch Keys

Assign a One-Touch bin number for Barge In.

Park

With Program 20-13-10 set to “1”, a call which has been barged into can be placed in Park by the originator of the outside call, but only the outside caller is placed in Park. The extension which barged into the call is dropped.

Programmable Function Keys

Function keys simplify Barge In operation.

Soft Keys

Soft keys can be used to access this feature prior to calling a busy extension.

Barge In

Operation

To Barge In after calling a busy extension:

*The call must be set up for about 10 seconds before you can Barge In.
Listen for busy/ring or busy tone.*

1. Call busy extension.
2. Press Barge In key (PGM 15-07 or SC 851: 34).
OR
Dial 810.

To Barge in without first calling the busy extension:

1. Press idle CALL key.
2. Dial 810.
OR
Press Barge In key (PGM 15-07 or SC 851: 34).
3. Dial busy extension.

To Barge In to a Conference Call:

1. Pick up the handset or press SPK and dial the service code (810=default).
If the terminal doesn't have the proper COS, a warning tone is sent. After the user hangs up, the UX5000 will automatically place a Callback to the extension.
2. Dial the extension number of a terminal within a Conference call.
When a new call is added to the conference, an intrusion tone is heard by all parties in the Conference, depending on UX5000 programming, and all display keysets show the joined party. If a Conference is not possible:
 - the extension user will hear a warning tone
 - the DISA user will be rerouted to the defined ring groupOR
 - the tie line user will hear a busy tone.

Please refer to the Multiple Directory Numbers / Call Coverage (page 417) for information on this feature.

Call Duration Timer

Feature Availability

- Available.

Description

Call Duration Timer lets a keyset user time their trunk calls on the terminal display. This helps users that must keep track of their time on the terminal. For incoming trunk calls, the Call Timer begins as soon as the user answers the call. For outgoing trunk calls, the Call Timer starts about 5 seconds after the user dials the last digit.

Conditions

None

Default Setting

Enabled.

Programming

- ◆ **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ◆ **20-13-36 : Class of Service Options (Supplementary Service) - Call Duration Timer**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's Call Timer.
- ◆ **21-01-03 : System Options for Outgoing Calls - Trunk Interdigit Time (External)**
The UX5000 waits for this timer to expire before starting the Call Timer.

Related Features

Central Office Calls, Answering

Set up various options to answer incoming trunks.

Central Office Calls, Placing

Set up various options to access outgoing trunks.

Multiple Directory Numbers/Call Coverage Keys

Set up various options to access outgoing trunks.

Private Line

Set up various options for private lines.

Operation

To time your trunk calls:

1. Place trunk call.

The timer starts automatically if enabled in programming.

Feature Availability

- Available.

Description

Call Forwarding permits an extension user to redirect their calls to another extension. Call Forwarding ensures that the user's calls are covered when they are away from their work area. The types of Call Forwarding are:

- **Call Forwarding when Busy or Not Answered**
Calls to the extension forward when busy or not answered.
- **Call Forwarding Immediate**
All calls forward immediately to the destination, and only the destination rings.
- **Call Forwarding with Both Ringing**
All calls forward immediately to the destination, and both the destination and the forwarded extension ring (not for Voice Mail).
- **Call Forwarding when Unanswered**
Calls forward only if they are unanswered (Ring No Answer).
- **Call Forwarding Follow Me**
Refer to **Call Forwarding with Follow Me** (page 151) for more.
- **Personal Answering Machine Emulation**
Allows the extension to emulate an answering machine. Refer to "Voice Mail" for more.

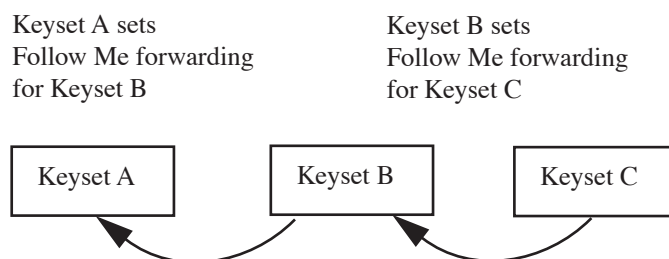
Call Forwarding will reroute calls ringing an extension, including calls transferred from another extension. The extension user must enable Call Forwarding from their terminal. To redirect calls while a user is at another terminal, use "Call Forwarding with Follow Me".

Activating Call Forwarding While On a Call

A keyset user can activate or deactivate Call Forwarding while on a call if the terminal has a Call Forward Programmable Function Key programmed (15-07-01 or SC: 851 16). Activating Call Forwarding while on a call works only for Call Forward to Station key (Code: 16). Other Call Forward keys (Code: 10-15, 17) do not work while on a call. This option cannot be enabled while the user is hearing a confirmation or warning tone.

This option is not available for single line terminals.

When Call Forward Follow Me is set up in a chain, forwarding cannot be canceled by the middle keyset (as shown in the example below) while on a call.



Call Forwarding

Conditions

- Normally, the UX5000 does not allow the chaining of Call Forwards. For example, extension 316 forwards to 318, and 318 in turn forwards to 320. Calls to 316 route to 318. Calls to 318 route to 320. The UX5000 does allow a single chain, however, if the second extension in the chain is forwarded off-premise (*46 + trunk access code + destination telephone number).
- Call Forwarding an extension in a Department Group will prevent that extension from receiving Department Pilot Calls.
- If a Programmable Function key is not defined for Call Forwarding (10 - 17), the DND key flashes to indicate that the extension is call forwarded.
- Ring Groups do not follow Call Forward to voice mail.
- Multiple Directory and Call Coverage Key calls do not follow Call Forwarding, but can use fixed or off-premise forwarding.

Default Setting

Enabled.

Programming

- **11-11-01 : Service Code Setup (for Service Access) - Call Forward, Immediate**
11-11-02 : Service Code Setup (for Service Access) - Call Forward, Busy
11-11-03 : Service Code Setup (for Service Access) - Call Forward, No Answer
11-11-04 : Service Code Setup (for Service Access) - Call Forward, Busy/No Answer
11-11-05 : Service Code Setup (for Service Access) - Call Forward, Both Ring
11-11-06 : Service Code Setup (for Service Access) - Call Forward, Select Option
11-11-07 : Service Code Setup (for Service Access) - Call Forward, Follow-Me
Determine what service codes should be used for the different Call Forward options.
- **15-07-01 : Programming Function Keys**
Assign a function key for Call Forwarding setup code (code 10 - 17).
- **15-14-01 : One-Touch Key Assignment**
Assign a One-Touch bin number for the various Call Forward codes.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-11-01 : Class of Service Options (Hold/Transfer Service) - Call Forwarding (Immediate)**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to set immediate Call Forwarding.
- **20-11-02 : Class of Service Options (Hold/Transfer Service) - Call Forwarding (When Busy)**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to set Call Forwarding when Busy.
- **20-11-03 : Class of Service Options (Hold/Transfer Service) - Call Forwarding (When Unanswered)**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to set Call Forwarding when Unanswered.
- **20-11-04 : Class of Service Options (Hold/Transfer Service) - Call Forwarding (Both Ringing)**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to set Call Forwarding with Both Ringing.

- **20-14-10 : Class of Service Options for DISA/E&M - Call Forward Setting by Remote Via DISA**
For each DISA Class of Service (1-15), enable (1) or disable (0) the ability for a DISA caller to use the Call Forward Setting by Remote via DISA option.
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **24-02-03 : System Options for Transfer - Delayed Call Forwarding Time**
Set the Delayed Call Forwarding interval (0-64800 seconds). For an unanswered call, Call Forwarding when Unanswered occurs after this interval.
- **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key to access the Call Forwarding options (codes 10-17).

Related Features

Call Forwarding, Fixed

Fixed Call Forwarding is a permanent type of forwarding that automatically reroutes calls under certain condition - without any user action. User entered Call Forwarding overrides Fixed Call Forwarding.

Call Forwarding, Off-Premise

An extension user can forward their calls to an off-premise location.

Call Forwarding with Follow Me

While away from their desk, a user can redirect their calls to a co-worker's extension.

Call Forwarding/Do Not Disturb Override

Override Call Forwarding or DND at another extension.

Central Office Calls, Answering

When a call is transferred because of Call Forwarding No Answer, Call Forwarding Busy, or DND, the Reason for Transfer option can display to the transferred extension why the call is ringing to their terminal.

Class of Service

The Timer Class of Service may affect a call.

Department Calling

An extension user can forward their calls to a Department number.

Direct Inward System Access (DISA)

Set up DISA trunks to allow incoming DISA calls to call forward to an extension.

Direct Station Selection (DSS) Console

A DSS key will only indicate a Call Forwarding indication for extensions forwarded with Personal Answering Machine Emulation (*2 + 1) or Immediate Call Forwarding (*2 + 4).

Do Not Disturb

If an extension user activates DND option 4, the UX5000 prevents other extensions from forwarding calls to them. If an extension already receiving forwarded calls activates DND option 4, callers to the forwarded extension hear DND tone.

Calls to extensions with DND active do not follow Call Forwarding programming. DIL calls will ring an idle Department Group member, then follow 22-08 programming then 22-05 programming.

Call Forwarding

One-Touch Calling

One-Touch bin numbers can be used to access various Call Forwarding service codes.

Programmable Function Keys

Function keys simplify Call Forwarding operation.

Soft Keys

Soft keys can be used to access this feature.

Operation

To activate or cancel Call Forwarding:

1. Press idle CALL key (or lift the handset) + Dial *2.
OR
Press Call Forwarding key (PGM 15-07 or SC 851: code 16).
2. Dial Call Forwarding condition:
1 = Personal Answering Machine Emulation (then skip to step 4 - refer also to "Voice Mail").
2 = Busy or not answered
4 = Immediate
6 = Not answered
7 = Immediate with simultaneous ringing (not for Voice Mail)
0 = Cancel
3. Dial destination extension, Voice Mail master number or press Voice Mail key.
4. Dial Call Forwarding type:
2 = All calls
3 = Outside calls only
4 = Intercom calls only

When you enable Call Forwarding, your Call Forwarding key flashes slowly. If you don't have a Call Forwarding key, DND flashes slowly.

Your DND or Call Forwarding (Station) Programmable Function Key flashes when Call Forwarding is activated.

OR

1. Press Call Forwarding key.
PGM 15-07 or SC 851: code 10 for Forward All Calls Immediately
PGM 15-07 or SC 851: code 11 for Forward when Busy
PGM 15-07 or SC 851: code 12 for Forward when Unanswered
PGM 15-07 or SC 851: code 13 for Forward Busy/No Answer
PGM 15-07 or SC 851: code 14 for Forward with Both Ringing
PGM 15-07 or SC 851: code 15 for Follow Me
PGM 15-07 or SC 851: code 16 for Forward to Station (forward type is selected at the time the option is set by the user)
PGM 15-07 or SC 851: code 17 for Forward to Device
OR
Dial the Call Forwarding service code (11-01-01 - 11-11-05, or 11-11-07)
2. Dial 1 plus extension to enable; dial 0 to disable.
Once you activate Call Forwarding, only your Call Forwarding destination can place an Intercom call to you.
3. Dial destination extension, Voice Mail master number or press Voice Mail key.
You'll hear stutter dial tone when placing a new call.
Your Call Forwarding Programmable Function Key flashes when Call Forwarding is activated.

OR

1. For Selectable Display Messaging, press Call Forwarding to Device key (PGM 15-07 or SC 851: code 17 for Forward to Device).
2. Dial 3 + Message number (01-20).
Use VOL ▲ or VOL ▼ to scroll through the messages.
3. (Optional for messages 1-8 and 10)
Dial the digits you want to append to the message.
*You can append messages 1-8 and 10 with digits (e.g., the time when you will be back).
You enter the time in 24-hour format, but it displays in 12-hour format.*
4. Press SPK to hang up.
Intercom calls to extensions with Selectable Display Messaging set will receive a DND signal and receive the display message on their terminal's display instead of ringing the extension based on the setting in Program 20-01-02.
To allow calls to ring through and have the message displayed on the calling extension's display, cancel DND by pressing DND + 0.

To Activate/Cancel Call Forwarding While on a Call:

Prior to being on an active call:

1. Set Call Forwarding using the Call Forwarding key (PGM 15-07 or SC 851: code 16).
Call Forwarding key + Call Forward condition (1, 2, 4, 6, 7) + extension number + Call Forwarding type (2-4).
 2. Cancel Call Forwarding using the Call Forwarding key.
Call Forwarding key + 0.
-
1. While on the call, press the Call Forwarding key.
Pressing the key will reactivate the Call Forwarding programming used in Step 1 above.

Call Forwarding, Centrex

Feature Availability

- Available.

Description

With this feature, *when the UX5000 is using all centrex trunks*, an extension can be forwarded to a destination using a Centrex/PBX line. (*With this feature set, all forwarded calls will have the line flashed, so the UX5000 must use only Centrex trunks.*) Forwarding can be set for a keyset, SLT or virtual extension user. The Call Forward can be set manually using a service code (Program 11-11-61) or through UX5000 programming (Program 24-08-01, 24-08-02, and 24-08-03). Only Call Forward Immediate, Busy, No Answer, or Busy/No Answer can be used with Centrex lines.

Incoming calls from the COIU blade must be set to DIL (Program 22-02-01) to the extension or a call can be transferred to the extension. Analog lease lines, analog and digital/PRI DID trunks, and SIP trunks cannot be used with this feature.

Direct Inward Line (DIL)

Trunks which are set for DIL to an extension can follow the Call Forwarding with Centrex setting. With no answer, the timer in Program 24-02-03 is followed to determine when the call should be forwarded. When the timer expires, the UX5000 answers the call and sends a hookflash to the trunk. After the timer in Program 21-01-06 expires, the UX5000 dials the forwarded number. Then, after the timer in Program 21-01-06 expires again, the trunk goes on hook, completing the forward.

Transfer

If an extension user transfers a trunk call to an extension with Call Forwarding with Centrex set, a hookflash and the destination digits are set to the Centrex trunk. The transferring extension user will hear ringback tone from the CO and must hang up in order to complete the transfer. A call transferred over a Centrex trunk cannot be retrieved. The UX5000 will follow the timers in Program 24-02-03 and 21-01-06 for when to transfer and the pause to be inserted before dialing.

When transferring a call to an extension which has set Call Forward with Centrex, forward will not complete until the transferring extension goes on hook. This means that with an Automated Attendant transferring a call, Unscreened Transfer must be used.

When a call is transferred to an extension which has the Call Forwarding with Centrex set, only Immediate and Busy forwarding is available and the transfer must be an unscreened transfer in order to follow the forwarding.

Conditions

- *With this feature set, all forwarded calls will have the line flashed, so the UX5000 must use only Centrex trunks.*
- Call Forward Both Ring is not supported with Call Forward with Centrex - only Immediate, Busy, No Answer, Busy/No Answer is supported.
- This feature cannot be set using the Programmable Function Keys or Soft Keys.
- When setting Call Forward using Call Forward Soft Key operation, the forward destination of both internal and external incoming calls become the same. However, this data isn't saved in the Centrex Call Forward Destination.
- When Call Forward with Centrex is set, but the destination number defined in Program 24-08-02 or Program 24-08-03 is incorrect, an incoming DIL to the forwarded extension will try the number, the UX5000 will then recall the number again, causing a Call Loop.

- If both Call Forward with Centrex and Call Forward Off-Premise are set, Call Forward with Centrex will take priority.
- If Call Forward with Centrex is set for busy condition and the user sets the busy/no answer condition, both busy and no answer calls are forwarded. If Call Forward with Centrex is set for busy/no answer condition and the user sets the busy condition, both busy and no answer calls are still forwarded. The user would need to cancel the busy/no answer setting before only busy calls would forward.
- There is no BLF indication that Call Forward with Centrex is enabled.
- Incoming calls must be set to DIL (Program 22-02-01) to the extension or a call can be transferred to the extension.
- Analog lease lines and analog DID trunks cannot be used with this feature.
- When a UX5000 is connected to a PBX system and it uses a trunk defined as "Behind PBX" in Program 14-04-01 to place the Call Forward, it is strongly recommended that the PBX/Centrex system have immediate dial enabled (not store and forward). If the UX5000 is used as the PBX, this would mean **Program 20-03-03 : System Options for Single Line Terminals - SLT DTMF Dial to Trunk Lines** is set to "1" (dial the digits immediately). Refer to Program 20-03-03 above for further details.
- When a call is transferred to an extension which has the Call Forwarding with Centrex set, only Immediate and Busy forwarding is available and the transfer must be an unscreened transfer in order to follow the forwarding.

Default Setting

Enabled.

Programming

- **11-11-61 : Service Code Setup (for Setup/Entry Operation) - Set/Cancel Call Forward with Centrex**
This program assigns the service code to be used to set or cancel each Call Forward type for Centrex. Up to 8 digits can be assigned.
- **20-03-03 : System Options for Single Line Terminals - SLT DTMF Dial to Trunk Lines**
Required only if an UX5000 is used as the PBX/Centrex system.
When a UX5000 is connected to a PBX system and it uses a trunk defined as "Behind PBX" in Program 14-04-01 to place the Call Forward, it is strongly recommended that the PBX/Centrex system have immediate dial enabled (not store and forward). If the UX5000 is used as the PBX, this would mean that this option is set to "1" (dial the digits immediately). The PBX system will not be able to determine whether the analog port connection is from a single line set or a trunk set for "Behind PBX" in another system. The UX5000 will release the CO port to the PBX after the interdigit timer expires and if the digits are stored first and then sent, all the digits may not be received before the timer expires. This would prevent the Call Forward from being completed.
- **20-11-14 : Class of Service Options (Hold/Transfer Service) - Trunk to Trunk Transfer Restriction**
When the forwarded destination is an outside number, the Trunk to Trunk Transfer Restriction must be turned off (set to '1') for the extension's Class of Service.
- **24-08-01 : Call Forwarding with Centrex - Forwarding Type**
Use this program to define the type of Call Forwarding for Centrex for each extension required (0 = Call Forward off, 1 = Call Forward No Answer, 2 = Call Forward Immediate, 3 = Call Forward Busy/No Answer, 4 = Call Forward Busy).

Call Forwarding, Centrex

- **24-08-02 : Call Forwarding with Centrex - Immediate/No Answer Destination**
When Call Forward Immediate or No Answer is set, this program is used to store the destination number (up to 24 digits) using the Centrex line. This program can also be used to set a Call Forward destination using a Centrex line for virtual extensions. A number can be entered in programming or a user can use the service code in Program 11-11-61 to enter a destination number.
- **24-08-03 : Call Forwarding with Centrex - Busy Destination**
When Call Forward Busy is set, this program is used to store the destination number (up to 24 digits) using the Centrex line. This program can also be used to set a Call Forward destination using a Centrex line for virtual extensions. To set Call Forwarding with Centrex, a number can be entered in programming or, for non-virtual extensions, a user can set up forwarding using the service code in Program 11-11-61.

Related Features

Call Forward, Off-Premise

If both Call Forward with Centrex and Call Forward Off-Premise are set, Call Forward with Centrex will take priority.

Central Office Calls, Answering

Analog lease lines, analog and digital/PRI DID trunks, and SIP trunks cannot be used with this feature.

Direct Inward Line

Incoming calls from the COIU blade must be set to DIL (Program 22-02-01) to the extension or a call can be transferred to the extension.

Operation

Set Call Forward Using a Centrex Trunk:

Setting Call Forward With Centrex for a virtual extension must be done in UX5000 programming using Programs 24-08-01 and 24-08-02 or 24-08-03. The service code cannot be used.

1. Press SPK.
2. Dial the Call Forward with Centrex Service Code (defined in 11-11-61).

The display indicates:

CTX_CF

1: SET 0: CANCEL

3. Press 1 to set the Call Forward.
4. Dial the Call Forward type - 1 = immediate, 2 = busy, 3 = no answer, 4 = busy/no answer.
5. Dial the destination number.

When using an outside number as the destination, be sure to include the Centrex code (Program 21-06-08)/line access code (Program 11-09-01) prior to the telephone number.

6. Press HOLD.

The destination number is then stored in Program 24-08-02 and/or Program 24-08-03. A confirmation tone is heard.

7. Press SPK.

There is no BLF indication that Call Forward with Centrex is enabled.

Cancel Call Forward Using a Centrex Trunk:

1. Press SPK.
2. Dial the Call Forward with Centrex Service Code (defined in 11-11-61).

3. Press 0 to cancel the Call Forward.

The destination number in Program 24-08-02 and/or Program 24-08-03 is deleted.

4. Press SPK.

Call Forwarding, Fixed

Feature Availability

- Available.

Description

Fixed Call Forwarding is a type of forwarding that is *permanently* in force at an extension. Calls to an extension with Fixed Call Forwarding enabled automatically reroute - without any user action. Unlike normal Call Forwarding (which is turned on and off by extension users), Fixed Call Forwarding is set by the administrator in UX5000 programming. Fixed Call Forwarding complements Voice Mail, for example. The administrator can program Fixed Call Forwarding to send a user's unanswered calls to their Voice Mail mailbox. Each individual user no longer has to manually set this operation.

In UX5000 programming, the administrator can set the Fixed Call Forwarding destination and type for each extension and virtual extension. The forwarding destination can be an on- or off-premise extension or Voice Mail. The Fixed Call Forwarding types are:

- Fixed Call Forwarding with Both Ringing (Program 24-06 Option 1)
- Fixed Call Forwarding when Unanswered (Program 24-06 Option 2)
- Fixed Call Forwarding Immediate (Program 24-06 Option 3)
- Fixed Call Forwarding when Busy or Unanswered (Program 24-06 Option 4)
- Fixed Call Forwarding Off-Premise (Program 24-07)

Fixed Call Forwarding reroutes the following types of incoming calls:

- Ringing intercom calls from co-worker's extensions
- Calls routed from the Voice Mail
- Direct Inward Lines
- DISA, DID and tie line calls to the forwarded extension
- Transferred calls

Fixed Call Forwarding Chaining

Fixed Call Forward Chaining allows Fixed Call Forwards to loop from one extension to the next. For example, you could have the chain 301 → 302 → 303 → 304 set up for Fixed Call Forwarding when Busy. If extension 301 is busy, calls to 301 route to 302. If 302 is also busy, the calls route to 303 and so on. Chaining allows you to set up very basic hunting between co-workers.

Keep the following in mind when setting up Fixed Call Forwarding Chaining:

- If Fixed Call Forwarding Chaining forms a complete Call Forwarding loop (i.e., 301 → 302 → 303 → 301), the UX5000 rings the last extension in the chain (303). It does not complete the loop.
- If Fixed Call Forwarding Chaining finds an extension with user-implemented Call Forwarding in the middle of a chain, it rings that extension. It does not continue routing to the other extensions in the chain.
- If one of the extensions in a Fixed Call Forwarding chain has its fixed option set for Both Ringing (1), the UX5000 rings that extension. It does not continue routing to the other extensions in the chain.

- If **Program 24-07-01 : Fixed Call Forwarding Off-Premise** is used to set the off-premise forwarding, Call Forward Chaining will not work to call the outside number. The option must be set manually (*4 + 6 + trunk access code + outside number + HOLD). It will, however, ring the extension which is forwarded off-premise. For example, Extension 302 is forwarded off-premise (using Fixed Call Forward program 24-07-01) and Extension 305 is forwarded to extension 302. Any calls to 305 will ring extension 302, but not call the outside number programmed in 24-07-01 for the extension.

This prevents chain forwarding for virtual extensions which are forwarded off-premise as they cannot be programmed manually.

- The receiving extension's display shows:

STA AAA	AAA is the extension that initially placed the call.
TRANSFER<< STA BBB	BBB is the first extension in the Fixed Call Forwarding chain.

Conditions

- Call Forwarding an extension in a Department Group will prevent that extension from receiving Department Pilot Calls.
- Multiple Directory and Call Coverage Key calls follow the Call Forwarding of the Multiple Directory/Call Coverage key assigned extension number, not the extension which has the key.
- Ring Group calls do not follow Call Forward to voice mail.

Default Setting

Disabled.

Programming

- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **24-02-03 : System Options for Transfer - Delayed Call Forwarding Time**
Set the Delayed Call Forwarding interval (0-64800 seconds). For an unanswered call, Fixed Call Forwarding When Unanswered occurs after this interval.
- **24-06-01 : Fixed Call Forwarding**
For an extension, assign the Fixed Call Forwarding Type (0-4) and the destination extension. Available types are:
 - 0 = Fixed Call Forwarding off
 - 1 = Fixed Call Forwarding with Both Ringing (do not use for Voice Mail ports)
 - 2 = Fixed Call Forwarding when Unanswered
 - 3 = Fixed Call Forwarding Immediate
 - 4 = Fixed Call Forwarding when Busy or Not Answered
- **24-07-01 : Fixed Call Forwarding Off-Premise**
For each extension, assign the Fixed Call Forwarding Off-Premise telephone number (up to 24 digits). Be sure to include the trunk access code.

Call Forwarding, Fixed

Related Features

Alphanumeric Display

When a call is Fixed Call Forwarded, the display at the destination shows from which extension the call was routed.

Call Forwarding

User entered Call Forwarding overrides Fixed Call Forwarding.

Call Forwarding, Off-Premise

An extension user can forward their calls to an outside telephone number.

Call Waiting/Camp On

Call Forwarding affects which extension the Call Waiting is issued.

Callback

Call Forwarding affects for which extension the callback is left.

Class of Service

The Timer Class of Service may affect a call.

Do Not Disturb

Calls to extensions with DND active do not follow Call Forwarding programming. DIL calls will ring an idle Department Group member, then follow 22-08 programming then 22-05 programming.

Multiple Directory Numbers

Calls to virtual extensions follow the Fixed Call Forwarding assignment of their virtual port.

Operation

None

Feature Availability

- Available.
- DSL sets can be used.

Description

Off-Premise (OPX) Call Forwarding allows an extension user to forward their calls to an off-site location. By enabling OPX Call Forwarding, the user can stay in touch by having the UX5000 forward their calls while they are away from the office. The forwarding destination can be any phone number the user enters, such as a car phone, home office, hotel or meeting room. Off-Premise Call Forwarding can route the off-site phone number over a specific trunk or through a trunk group, Automatic Route Selection or Trunk Group Routing.

Off-Premise Call Forwarding reroutes the following types of incoming calls:

- Ringing intercom calls from co-worker's extensions
- Calls routed from the Voice Mail ¹
- Direct Inward Lines ¹
- DISA, DID and tie line calls to the forwarded extension ¹
- Transferred calls ¹

OPX Call Forwarding does not reroute Call Coverage keys, Multiple Directory Number keys, or Ring Group calls (i.e., trunk ringing according to Ring Group assignments made in Programs 22-04 and 22-05). Ring Group calls may be forwarded off-premise using voice mail's Call Routing, a dial action table can be created to forward calls to an outside number or Abbreviated Dial number (enter #2001PP with 001 being the # to which the call is forwarded) on timeout using UTRF.

Off-Premise Call Forward for Door Boxes

Off-Premise Call Forwarding allows Door Box callers to be transferred automatically to the pre-programmed external party. The destination telephone number is stored in the Common Abbreviated Dial area. This feature may be used in case a co-worker is out of the office. All incoming calls for their extension will be automatically transferred to their external number (example: cell phone). Off-Premise Call Forward for Door Boxes can be transferred to the external party through *ISDN lines only*.

Trunk-to-Trunk Off-Premise Call Forwarding

Use Trunk-to-Trunk Forwarding to automatically forward an incoming trunk call to an outside location. The forwarding destination can be stored in an Abbreviated Dial bin. This feature can be used for trunks which are defined as normal (0) or DID (3) in Program 22-02 : Incoming Call Trunk Setup.

1. Off-Premise Call Forwarding can reroute an incoming trunk call only if the outgoing trunk selected has disconnect supervision enabled (see Programming below).

Call Forwarding, Off-Premise

Conditions

- Call Forwarding Off-Premise requires either loop start trunks with disconnect supervision or ground start trunks.
- The trunk access code and the outside telephone number combined cannot exceed 24 digits.
- Normally, the UX5000 does not allow the chaining of Call Forwards. For example, extension 316 forwards to 318, and 318 in turn forwards to 320. Calls to 316 route to 318. Calls to 318 route to 320. The UX5000 does allow a single chain, however, if the second extension in the chain is forwarded off-premise (*46 + trunk access code + destination telephone number).
- Call Forwarding an extension in a Department Group will prevent that extension from receiving Department Pilot Calls.
- If a Programmable Function key is not defined for Call Forwarding (10 - 17), the DND key flashes to indicate that the extension is call forwarded.

Default Setting

Disabled.

Related Features

Call Forwarding, Fixed

Fixed Call Forwarding can automatically forward an extensions calls to an outside number.

Call Waiting/Camp On

Call Forwarding affects which extension the Call Waiting is issued.

Callback

Call Forwarding affects which extension receives the Callback request.

Central Office, Call, Placing

Set up various options to access outgoing trunks.

CygniLink

Call Forwarding Off-Premise does not currently work with CygniLink.

Department Calling

Set up up various Department Group options.

Direct Inward Dial (DID)

DID calls to an extension with Off-Premise Call Forwarding set will not recall if there is no answer.

Direct Inward System Access (DISA)

Set up DISA trunks to allow incoming DISA calls to forward to an extension.

Direction Station Selection (DSS) Console

Assign function keys as access to various Off-Premise Call Forwarding service codes.

Do Not Disturb

Calls to extensions with DND active do not follow Call Forwarding programming. DIL calls will ring an idle Department Group member, then follow 22-08 programming then 22-05 programming.

Door Box

Door Boxes must be programmed in order for the calls to be transferred off-premise.

Multiple Directory Numbers/Call Coverage Keys

Multiple Directory Numbers/Call Coverage Keys can be forwarded off-premise.

Night Service

Set up Night Service options which could affect Off-Premise Call Forwarding.

One-Touch Calling

One-Touch bin numbers can be used to access various Off-Premise Call Forwarding service codes.

Ring Groups

Ring Group calls do not follow Off-Premise Call Forwarding programming. However, using the voice mail's Call Routing, a dial action table can be created to forward calls to an outside number or Abbreviated Dial number (enter #2001PP with 001 being the # to which the call is forwarded) on timeout using UTRF.

Soft Keys

Soft keys can be used to access this feature.

Tandem Trunking (Unsupervised Conference)

Various Tandem Trunking options can affect how central office calls are conferenced together.

Toll Restriction

The outside number OPX Call Forwarding dials can only be a number normally allowed by the forwarded extension's Toll Restriction.

Programming

- **10-09-01 : DTMF and Dial Tone Circuit Setup**
Allocate the circuits on the CPU blades for either DTMF receiving or dial tone detection.
- **11-10-04 : Service Code Setup (for System Administrator) - Storing Common Abbreviated Dialing Numbers**
Assign the service code to be used for programming Common Abbreviated Dialing (853 by default).
- **11-10-05 : Service Code Setup (for System Administrator) - Storing Group Abbreviated Dialing Numbers**
Assign the service code to be used for programming Group Abbreviated Dialing (854 by default).
- **11-10-18 : Service Code Setup (for System Administrator) - Off-Premise Call Forward by Door Box**
Assign the service code to be used for Off-Premise Calling Forwarding by a Door Box (822 by default).
- **13-04-01 : Abbreviated Dialing Number and Name**
Enter the Common and Group Abbreviated Dialing numbers and names which are to be used for Trunk-to-Trunk Forwarding.
- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
Customize the transmit codec gain level (1-63) for multi-line Conference or transferred calls.
- **14-01-05 : Basic Trunk Data Setup - Receive Gain Level for Conference and Transfer Calls**
Customize the receive codec gain level (1-63) for multi-line Conference or transferred calls.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**
Enable (1) trunk-to-trunk transfer with loop supervision for each trunk that should be able to use Call Forwarding Off-Premise.
- **15-07-01 : Programmable Function Keys**
For one-touch access to the Call Forwarding Device setup code (01 + *4), assign a function key for Call Forwarding (Device).
For Off-Premise Call Forwarding by a Door Box, assign a function key (54) if required.

Call Forwarding, Off-Premise

- **15-14-01 : One-Touch Key Assignments**
Assign a One-Touch bin number for the Off-Premise Call Forward code (code: *46) or Call Forwarding Off-Premise by Door Box activate/deactivate code (default: 822).
- **20-06-01 : Class of Service for Extensions**
Assign Class of Service (1-15) to an extension for each night mode (1-8).
- **20-07-04 : Class of Service Options (Administrator Level) - Storing Abbreviated Dialing Entries**
In an extension's COS (1-15), allow (1) or prevent (0) the storing of Abbreviated Dialing entries (codes 853 and 854).
- **20-11-12 : Class of Service Options (Hold/Transfer Service) - Call Forwarding Off-Premise**
In an extensions Class of Service (1-15), enable (1) or disable (0) setting up Call Forwarding Off-Premise at the extension.
- **20-14-10 : Class of Service Options for DISA/E&M - Call Forward Setting by Remote Via DISA**
For each DISA Class of Service (1-15), enable (1) or disable (0) the ability for a DISA caller to use the Call Forward Setting by Remote Via DISA option.
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer, outgoing from trunk, Tandem Trunking) (0-64800).
- **25-07-07 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Warning Tone Time**
Determine the length of time a DISA caller or any trunk-to-trunk (such as Tandem Trunking) conversation can talk before the Long Conversation tone is heard (0-64800 seconds).
- **25-07-08 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Disconnect**
This timer determines how long the UX5000 will wait before disconnecting a DISA or any trunk-to-trunk (such as Tandem Trunking) call after the Long Conversation tone is heard (0-64800 seconds).
- **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key for the Off-Premise Call Forwarding (code 01 + *46) or Call Forwarding Off-Premise by Door Box activate/deactivate code (01 + 822).
- **32-01-03 : Door Box Timers - Off-Premise Call Forward by Door Box Disconnect Timer**
Define the conversation period for an Off-Premise Call Forward by Door Box call. When this timer expires, the caller will hear busy tone for 3 seconds (fixed timer) and the call will then be disconnected (0-64800).

Trunk-to-Trunk Forwarding - Normal (0) Trunks *(in addition to above programming)*

- **11-10-06 : Service Code Setup (for System Administrator) - Setting the Automatic Trunk Forwarding**
Customize the service code to be used to set Automatic Trunk Forwarding (default: 833).
- **11-10-07 : Service Code Setup (for System Administrator) - Cancel the Automatic Trunk Forwarding**
Customize the service code to be used to cancel Automatic Trunk Forwarding (default: 834).
- **11-10-08 : Service Code Setup (for System Administrator) - Automatic Trunk Forwarding Destination**
Customize the service code to be used to set the destination for the Automatic Trunk Forwarding feature (default: 835).

- **13-01-01 : Abbreviated Dialing Function Setup - Abbreviated Dialing Auto Outgoing Call Mode**

Determine if dialing an Abbreviated Dialed number will dial an outside number (seizing a trunk as defined in Program 13-05) or an Intercom number (0=trunk dialing mode, 1=extension dialing mode).
- **13-04-01 : Abbreviated Dialing Number and Name - Abbreviated Dialing Data**

Enter the Common and Group Abbreviated Dialing numbers which are to be used for Trunk-to-Trunk Forwarding.
- **13-04-02 : Abbreviated Dialing Number and Name - Name**

For each bin (0-1999) enter the Common and Group Abbreviated Dialing names (12 digits max.).
- **13-05-01 : Abbreviated Dialing Trunk Group**

To send an Abbreviated Dial number over a specific trunk group, for each bin (0-1999), enter the group number. If Program 13-01-01 = 1, enter the routing option for each Common Abbreviated Dialing number; enter a "0" to use ARS or Trunk Group Routing or to use a specific Trunk Group, enter the number.
When using Off-Premise Call Forwarding for Door Boxes, specify the trunk group containing ISDN trunks (ISDN trunks are required in order for the forwarding to work.)
- **20-06-01 : Class of Service for Extensions**

Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-05 : Class of Service Options (Administrator Level) - Automatic Trunk-to-Trunk Forwarding**

Enable (1) or disable (0) an extension's ability to use the Trunk-to-Trunk Forwarding service codes.
- **21-03-01 : Trunk Group Routing for Trunks**

If incoming trunk calls are automatically routed to an outgoing trunk, assign Program 14-06 routes to the incoming trunks for each night mode (1-8).
⇨ Trunk Routing Tables 1-100, Trunk Groups 1-200, Network ID 101-150, Another Route 1001-1100
- **24-04-01 : Automatic Trunk-to-Trunk Transfer Target Setup**

Assign the Abbreviated Dialing number bin (0-1999) to a trunk for each night mode (1-8) which should be used as the destination of the Automatic Trunk-to-Trunk Forwarding.
⇨ Trunks 001-200

Trunk-to-Trunk Forwarding - Trunk Forwarding by Department Groups (in addition to above programming)

Refer to Department Calling for additional Department Group programming.

- **11-07-01 : Department Group Pilot Numbers**

Assign pilot numbers to the Extension (Department) Groups you set up in Program 16-02.
⇨ Department Groups 1-64
- **11-11-25 : Service Code Setup (for Setup/Entry Operation) - Setting the Automatic Trunk Forwarding for Department Groups**

Customize the service code to be used to set the Automatic Trunk Forwarding feature for a Department Group (default: 102).
- **11-11-26 : Service Code Setup (for System Administrator) - Cancel the Automatic Trunk Forwarding for Department Groups**

Customize the service code to be used to cancel the Automatic Trunk Forwarding feature for a Department Group (default: 103).

Call Forwarding, Off-Premise

- **11-11-27 : Service Code Setup (for System Administrator) - Automatic Trunk Forwarding Destination for Department Groups**
Customize the service code to be used to set the destination for the Automatic Trunk Forwarding feature for a Department Group (default: 104).
- **15-07-01 : Programming Function Keys**
Assign an Automatic Forwarding at Department Group key (58) or a Delayed Forwarding at Department Group key (59) for an extension user.
- **16-02-01 : Department Group Assignment for Extensions**
Assign extensions to Department Groups (1-64) and set the priority assignment.
⇨ Department Groups 1-64
- **20-11-17 : Class of Service Options (Hold/Transfer Service) - Department Group Trunk-to-Trunk Forwarding**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension within a Department Group's ability to use the Trunk-to-Trunk Forwarding service codes.
- **24-05-01 : Department Group Transfer Target Setup**
Assign the Abbreviated Dialing number bin (0-1999) which should be used as the destination of the Department Group's Trunk-to-Trunk Forwarding.

Trunk-to-Trunk Forwarding - DID (3) Trunk Forwarding Using DID Translation Table (in addition to above programming)

Refer to Direct Inward Dialing (DID) for additional DID programming.

- **22-11-05 : DID Translation Table Number Conversion - Transfer Destination 1**
22-11-06 : DID Translation Table Number Conversion - Transfer Destination 2
For each DID Translation Table entry (1-2000), specify the first and second Transfer Destinations if the callers receives a busy or no answer (action defined in 22-11-04).
(Destination Options: 0 = No setting, 1-100 = Incoming Group, 102 = In-Skin/External Voice Mail, 103=Centralized Voice Mail, 01-264 = Department Group, 400 = DID, 401 = DISA, 1000-1999 = Abbreviated Number (000-999))
If the Transfer Destinations are busy or receive no answer, those calls are transferred to the final transfer destination (Program 22-10).

Operation

To activate Call Forwarding Off-Premise

1. At keyset, press idle CALL key + Dial *4.
OR
Press Call Forward (Device) key (PGM 15-07 or SC 851: 17)
OR
At SLT, lift handset Dial *4.
2. Dial 6 + trunk access code.
Trunk access codes are 9 (ARS/Trunk Group Routing), 804 + Line Group (UX5000 S/M/L: 1-9, 01-99 or 001- 100) or #9 + Line number (e.g., 05 or 005 for line 5).
3. Dial the outside number to which your calls should be forwarded.
4. (Keyset only) Press HOLD.
5. Press SPK (or hang up at SLT) to hang up if you dialed *4 in step 1.
Your DND or Call Forwarding (Device) Programmable Function Key flashes.

To cancel Call Forwarding Off-Premise

1. At keyset, press idle CALL key + Dial *4.
OR
Press Call Forward (Device) key (PGM 15-07 or SC 851: 17)
OR
At SLT, lift handset and dial *4.
2. Dial 6 + HOLD.
3. Press SPK (or hang up at SLT) to hang up if you dialed *4 in step 1.
Your DND or Call Forwarding (Device) Programmable Function Key stops flashing.

To set Call Forward to an Abbreviated Dialing bin:

1. Press Call Forwarding key.
PGM 15-07 or SC 851: code 10 for Forward All Calls Immediately
PGM 15-07 or SC 851: code 11 for Forward when Busy
PGM 15-07 or SC 851: code 12 for Forward when Unanswered
PGM 15-07 or SC 851: code 13 for Forward Busy/No Answer
PGM 15-07 or SC 851: code 14 for Forward with Both Ringing
PGM 15-07 or SC 851: code 15 for Follow Me
PGM 15-07 or SC 851: code 16 for Forward to Station (forward type is selected at the time the option is set by the user)
PGM 15-07 or SC 851: code 17 for Forward to Device
OR
Dial the Call Forwarding service code (11-01-01 - 11-11-05, or 11-11-07).
2. Dial 1 plus extension to enable; dial 0 to disable.
Once you activate Call Forwarding, only your Call Forwarding destination can place an Intercom call to you.
3. Dial #2 + Abbreviated Dial bin.
*You'll hear stutter dial tone when placing a new call.
Your Call Forwarding Programmable Function Key flashes when Call Forwarding is activated.*
4. Press SPK or hang up.

Call Forwarding, Off-Premise

To cancel Call Forward to an Abbreviated Dialing bin:

1. Press Call Forwarding key.
 - PGM 15-07 or SC 851: code 10 for Forward All Calls Immediately
 - PGM 15-07 or SC 851: code 11 for Forward when Busy
 - PGM 15-07 or SC 851: code 12 for Forward when Unanswered
 - PGM 15-07 or SC 851: code 13 for Forward Busy/No Answer
 - PGM 15-07 or SC 851: code 14 for Forward with Both Ringing
 - PGM 15-07 or SC 851: code 15 for Follow Me
 - PGM 15-07 or SC 851: code 16 for Forward to Station (forward type is selected at the time the option is set by the user)
 - PGM 15-07 or SC 851: code 17 for Forward to Device

OR

Dial the Call Forwarding service code (11-01-01 - 11-11-05 or 11-11-07).
2. Dial 0 to disable.
3. Press SPK or hang up.

Off-Premise Call Forwarding for Door Boxes:

*These operations are performed at the Door Box Ringing Extension only.
ISDN trunks must be used to forward Door Boxes off premise.*

To activate Call Forwarding Off-Premise by Door Box

1. At keyset, press idle CALL key + Dial 822.
 - OR**
 - Press Call Forward (Device) key (PGM 15-07 or SC 851: 54)
 - OR**
 - At SLT, lift handset + Dial 822.
2. Dial the Door Box number (1-8).
3. Dial the Abbreviated Dialing number to which the calls should be forwarded.
4. Press SPK (or hang up at SLT) to hang up.

Your DND or Off-Premise Call Forwarding Programmable Function Key lights.

To cancel Call Forwarding Off-Premise

1. At keyset, press idle CALL key + Dial 822.
 - OR**
 - Press Call Forward (Device) key (PGM 15-07 or SC 851: 54)
 - OR**
 - At SLT, lift handset and dial 822.
2. Dial 0.
3. Press SPK (or hang up at SLT) to hang up.

Your DND or Off-Premise Call Forwarding Programmable Function Key goes out.

Trunk-to-Trunk Forwarding

Method 1:

Set the Destination and Forward the Line:

1. Lift the handset.
2. Dial 835.
3. Dial trunk port number (1-8, 01-64 or 001-200) to be defined.
4. Select the time mode (1-8) to be defined.
5. Enter the telephone number which should be the destination of the forwarded trunk.
The number will be stored in the Abbreviated Dial bin number assigned in Program 24-04-01. This entry will overwrite any existing number defined in the bin.
6. Press HOLD to accept the entry.
7. Press HOLD again.
8. Repeat from Step 3 to define another time mode entry or press SPK to hang up.

Cancel the Line Forwarding:

1. Lift the handset.
2. Dial 835.
3. Dial trunk port number (1-8, 01-64 or 001-200) to be defined.
4. Select the time mode (1-8) to be defined.
5. Press the CLEAR key.
6. Press SPK to hang up.

Method 2 (follows the pre-defined destination in Program 24-04-01):

Set Automatic Trunk Forwarding:

The Abbreviated Dial bin must be defined in 13-04-01 in order for the line to forward.

1. Lift the handset.
2. Dial 833.
3. Dial trunk port number to be used (1-8, 01-64 or 001-200).
4. Press SPK to hang up.

Cancel Automatic Trunk Forwarding:

1. Lift the handset.
2. Dial 834.
3. Dial trunk port number to be used (1-8, 01-64 or 001-200).
4. Press SPK to hang up.

Call Forwarding, Off-Premise

Department Group Line Forwarding

Method 1:

Set the Destination and Forward the Line:

1. Lift the handset.
2. Dial 104.
3. Dial the Department Group number (01-64) to be defined.
4. Select the time mode (1-8) to be defined.
5. Enter the telephone number which should be the destination of the forwarded trunk.
The number will be stored in the Abbreviated Dial bin number assigned in Program 24-04-01. This entry will overwrite any existing number defined in the bin.
6. Press HOLD to accept the entry.
7. Repeat from Step 3 to define another time mode entry or press SPK to hang up.

Cancel the Line Forwarding:

1. Lift the handset.
2. Dial 104.
3. Dial the Department Group number (01-64) to be defined.
4. Select the time mode (1-8) to be defined.
5. Press the CLEAR key.
6. Press SPK to hang up.

Method 2 (follows the pre-defined destination in Program 24-05-01):

Set Automatic Trunk Forwarding:

The Abbreviated Dial bin must be defined in 13-04-01 in order for the line to forward.

1. Lift the handset.
2. Dial 102.
3. Dial the Department Group number (01-64) to be defined.
4. Press SPK to hang up.

Cancel Automatic Trunk Forwarding:

1. Lift the handset.
2. Dial 103.
3. Dial the Department Group number (01-64) to be defined.
4. Press SPK to hang up.

Feature Availability

- Available.

Description

While at a co-worker's desk, a user can have Call Forwarding with Follow Me redirect their calls to the co-worker's extension. This helps an employee who gets detained at a co-worker's desk longer than expected. To prevent losing important calls, the employee can activate Call Forwarding with Follow Me from the co-worker's terminal.

Call Forwarding with Follow Me reroutes calls from the destination extension. To reroute calls from the initiating (forwarding) extension, use Call Forwarding.

Conditions

- Call Forwarding an extension in a Department Group will prevent that extension from receiving Department Pilot Calls.
- If a Programmable Function key is not defined for Call Forwarding (10 - 17), the DND key flashes to indicate that the extension is call forwarded.

Default Setting

Enabled for internal users. Disabled for DISA callers.

Programming

- **11-11-06 : Service Code Setup (for Service Access) - Call Forward, Select Option**
11-11-07 : Service Code Setup (for Service Access) - Call Forward, Follow-Me
Determine what service codes should be used for the different Call Forward options.
- **15-07-01 : Programming Function Keys**
Assign a function key for one-touch access to the Call Forwarding (Follow me) setup code (code 15).
- **15-14-01 : One-Touch Key Assignments**
Assign a One-Touch bin number for the various Call Forwarding codes.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-11-01 : Class of Service Options (Hold/Transfer Service) - Call Forwarding with Follow Me**
In an extension's Class of Service (1-15), allow (1) or prevent (0) the setting of Call Forwarding with Follow Me.
- **20-14-10 : Class of Service Options for DISA/E&M - Call Forward Setting by Remote Via DISA**
For each DISA Class of Service (1-15), enable (1) or disable (0) the ability for a DISA caller to use the Call Forward Setting by Remote Via DISA option.
- **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key for the Call Forwarding Follow Me (code 15).

Call Forwarding with Follow Me

Related Features

Call Waiting/Camp On

Call Forwarding affects which extension the Call Waiting is issued.

Callback

Call Forwarding affects which extension receives the Callback request.

Direct Inward System Access (DISA)

Set up DISA trunks to allow incoming DISA calls to forward to an extension.

Direct Station Selection (DSS) Console

Assign a function key as access the Call Forwarding Follow Me service code.

Do Not Disturb

Calls to extensions with DND active do not follow Call Forwarding programming. DIL calls will ring an idle Department Group member, then follow 22-08 programming then 22-05 programming.

One-Touch Calling

One-Touch bins can be used to access the Call Forwarding Follow Me service code.

Programmable Function Keys

Function keys simplify Call Forwarding with Follow Me operation.

Soft Keys

Soft keys can be used to access this feature.

Operation

To activate Call Forward Follow Me:

1. At a keyset other than your own, press idle CALL key and dial *2.
OR
Press Call Forward (Station) key (PGM 15-07 or SC 851: 15).
OR
At SLT other than your own, lift handset and dial *2.
2. Dial 3 + Dial your own extension number (i.e., the source).
3. Dial Call Forwarding Type:
2 = All Calls
3 = Outside calls only
4 = Intercom calls only
4. SPK (or hang up at SLT) if you dialed *2 in step 1.
Your Call Forwarding (Station) Programmable Function Key flashes when Call Forwarding is activated.

To cancel Call Forward Follow Me:

1. At keyset, press idle CALL key and dial *2.
OR
Press Call Forward (Station) key (PGM 15-07 or SC 851: 15).
OR
At SLT, lift handset and dial *2.
2. Dial 0.
3. SPK (or hang up at SLT) if you dialed *2 in step 1.
Your Call Forwarding (Station) Programmable Function Key goes out.

Call Forwarding/Do Not Disturb Override

Feature Availability

- Available.

Description

An extension user can override Call Forwarding or Do Not Disturb at another extension. This is helpful, for example, to dispatchers and office managers that always need to get through.

Conditions

None

Default Setting

Disabled.

Programming

- ◆▶ **11-12-01 : Service Code Setup (for Service Access) - Call Forwarding / Do Not Disturb Override**
Customize the Service Code which is to be used for Call Forwarding/DND Override (default: 807). This code is only available if you disable the voice mail Single Digit dialing code in Program 11-16-09.
- ◆▶ **11-16-06 : Single Digit Service Code Setup - DND/Call Forward Override**
Customize the one-digit Service Code used for DND/Call Forward Override.
- ◆▶ **15-07-01 : Programming Function Keys**
Assign a function key for Call Forwarding/Do Not Disturb Override (code 37).
- ◆▶ **15-14-01 : One-Touch Key Assignments**
Assign a One-Touch bin number to dial the Call Forwarding/Do Not Disturb Override code (807).
- ◆▶ **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ◆▶ **20-13-04 : Class of Service Options (Supplementary Service) - Call Forwarding/DND Override**
In an extension's Class of Service (1-15), enable (1) or disable (0) the ability to initiate Call Forwarding/DND Override.
- ◆▶ **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key to access Call Forwarding/Do Not Disturb Override (code 37).

Call Forwarding/Do Not Disturb Override

Related Features

Direct Station Selection (DSS) Console

Assign a function key to access the Call Forwarding/DND Override service code.

One-Touch Calling

One-Touch bin numbers can be used to access the Call Forwarding/DND Override service code.

Programmable Function Keys

Function keys simplify Call Forwarding/DND Override operation.

Soft Keys

Soft keys can be used to access this feature.

Operation

To override an extension's Call Forwarding or Do Not Disturb:

1. Call the forwarded or DND extension.
2. Press Override key (PGM 15-07 or SC 851: 37).

Please refer to Group Call Pickup (page 325) for information on this feature.

Call Redirect

Feature Availability

- Available.

Description

Call Redirect allows a keyset user to transfer a call to a pre-defined destination (such as an operator, voice mail, or another extension) without answering the call. This can be useful if you are on a call and another rings in to your extension. By pressing the Call Redirect key, the call is transferred, allowing you to continue with your current call.

This feature works with the following types of calls:

- Normal trunk call
- DID
- DISA
- DIL
- E&M
- ICM (ringing calls only)

The following types of calls *cannot* be redirected with the feature:

- ACD
- Transferred
- Department Group (all ring mode)
- Door Box
- Virtual Extension
- ICM (voice announce)

Conditions

- After pressing the Call Redirect key, the call will not recall the extension.
- The pre-defined destination has to be an extension number or voice mail pilot number.

Default Setting

Enabled.

Programming

- **15-07-01 : Programmable Function Keys**
Assign a function key for Call Redirect (code 49 + destination extension number).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-11-16 : Class of Service Options (Hold/Transfer Service) - Call Redirect**
In an extension's Class of Service (1-15), enable (1) or disable (0) a keyset user's ability to transfer a call to a pre-defined destination (such as an operator, voice mail, or another extension) without answering the call

Related Features

In addition to the following, see the Description section above.

Direct Station Selection (DSS) Console

Assign a function key as a Call Redirect key.

Operation

To redirect a ringing call:

1. With an incoming call ringing your extension, press the Call Redirect key (Program 15-07 or SC 851: 49 + Destination Extension Number) without lifting the handset or pressing the CALL keys.

Call Waiting / Camp On

Feature Availability

- Available.

Description

With Call Waiting, an extension user may call a busy extension and wait in line (Camp-On) without hanging up. When the user Camps-On, the UX5000 signals the busy extension with two beeps indicating the waiting call. The call goes through when the busy extension becomes free. Call Waiting helps busy extension users know when they have additional waiting calls. It also lets callers wait in line for a busy extension without being forgotten.

Conditions

Multiple Directory Number (virtual extension) keys do not support Call Waiting/Camp On Programmable Function keys (code 35).

Default Setting

Enabled.

Programming

- **11-12-04 : Service Code Setup (for Service Access) - Set Camp-On**
Customize the Service Code which is to be used for setting Camp-On (default: 850). This service code can only be used if the single digit post dialing code (Program 11-16-09) is removed or changed.
- **11-12-05 : Service Code Setup (for Service Access) - Cancel Camp-On**
Customize the Service Code which is to be used for cancelling Camp-On (default: 870).
- **11-12-47 : Service Code Setup (for Service Access) - Call Waiting Answer / Split Answer for SLT**
If required, use this program to change the code users dial to Split while on a call (default: 894).
- **11-16-05 : Single Digit Service Code Setup - Camp-On**
Customize the one-digit Service Code used for setting Camp-On (default: 2).
- **15-07-01 : Programming Function Keys**
Assign a function key for Camp-On (code 35). This key is also the Callback key.
- **15-14-01 : One-Touch Key Assignments**
Assign a One-Touch bin number to dial the Camp-On code (default: 2) or the Cancel Camp-On code (default: 870).
- **20-01-08 : System Options - Trunk Queuing Callback Time**
Set the Trunk Queuing callback time (default: 15, entries: 0-64800 seconds). A Trunk Queuing Callback will ring an extension for this interval.
- **20-01-09 : System Options - Callback/Trunk Queuing Cancel Time**
The UX5000 cancels an extension's Callback or Trunk Queuing request after this interval (default: 64800 seconds, entries: 0-64800 seconds).
- **20-03-01 : System Options for Single Line Terminals**
Set the mode used to answer a camped-on trunk call (0=hookswitch, 1=hookswitch plus service code 894, by default).

- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to an extension for each night mode (1-8).
- **20-13-35 : Class of Service Options (Supplementary Service) - Block Camp-On**
In an extension's Class of Service, use this option to enable (1) or disable (0) an extension's ability to block callers from dialing 2 to Camp On.
- **20-15-09 : Ring Cycle Setup**
If required, change the ring cycle for Callback and Transferred calls.
- **20-18-06 : Service Tone Timer - Call Waiting Tone Timer**
Use this option to set the interval (0-64800 seconds) between Call Waiting tones. This timer also sets the interval between Off Hook Signaling alerts.
- **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key for Camp-On code (default: 35) or the Cancel Camp-On code (default: 01 + 870).

Related Features

Call Forwarding

Call Forwarding affects which extension the Call Waiting is issued.

Callback

If an extension user Camps-On and then hangs up, the UX5000 converts the Camp On to a Call-back.

Direct Station Selection (DSS) Console

Assign a function key to access different Camp-On codes.

Do Not Disturb

Call Waiting may not be issued to extensions in the DND mode.

Dual Line Appearance/Off Hook Signaling

If an extension busy on a call has Off Hook Signaling, an incoming Intercom calls rings the idle second line appearance.

Off Hook Signaling

The Off Hook Signaling Enhancements give an extension the ability to block a caller from dialing 804 to Camp On and/or DID callers from automatically camping on.

One-Touch Calling

One-Touch bin numbers can be used to access different Camp-On codes.

Programmable Function Keys

Function keys simplify Call Waiting/Camp On operation.

Soft Keys

Soft keys can be used to access this feature.

Transfer

An extension user may be able to Transfer a call to a busy extension.

Trunk Queuing/Camp-On

Trunk Queuing lets an extension user Camp-On to a trunk. Set the options to allow or prevent call waiting on a busy trunk.

Operation

To Camp-On to a busy extension:

1. Call busy extension.
2. Dial 2 or press Camp-On key (PGM 15-07 or SC 851: 35).
3. Do not hang up.

To Camp-On to a trunk, see Trunk Queuing.

To cancel a Camp-On request:

1. Hang up.
2. At keyset, press idle CALL key and dial 870.
OR
At keyset, press Camp-On key (PGM 15-07 or SC 851: 35).
OR
At single line set, lift handset and dial 870.

To Split (answer a waiting call) at a single line terminal:

Listen for Camp On beep.

1. Hookflash and dial 894.
To repeatedly split between the two calls.

Feature Availability

- Available.

Description

When an extension user calls a co-worker that is busy or doesn't answer, they can leave a Callback request for a return call. The user does not have to repeatedly call the unanswered extension back, hoping to find it idle.

The UX5000 processes Callback requests as follows:

1. Caller at extension A leaves a Callback at extension B.
Caller can place or answer additional calls in the mean time.
2. When extension B becomes idle, the UX5000 rings extension A. This is the Callback ring.
3. Once caller A answers the Callback ring, the UX5000 rings (formerly busy) extension B.
If caller A doesn't answer the Callback ring, the UX5000 cancels the Callback.
4. As soon as caller B answers, the UX5000 sets up an Intercom call between A and B.

Callback Automatic Answer determines how an extension user answers the Callback ring. When Callback Automatic Answer is enabled, a user answers the Callback ring when they lift the handset. When Callback Automatic Answer is disabled, the user must press the ringing line appearance to answer the Callback ring.

When leaving a Callback request for an extension which does not answer, the Callback will not be processed until the user at the destination extension lifts/replaces their handset.

Conditions

- An extension can leave only one Callback request at a time.
- Multiple Directory Number (virtual extension) keys do not support Call Waiting/Camp On Programmable Function keys (code 35).

Default Setting

Enabled.

Programming

- **11-12-04 : Service Code Setup (for Service Access) - Set Camp-On**
Customize the Service Code which is to be used for setting Camp-On/Callback (default: 850). This service code can only be used if the single digit post dialing code (Program 11-16-09) is removed or changed.
- **11-12-05 : Service Code Setup (for Service Access) - Cancel Camp-On**
Customize the Service Code which is to be used for cancelling Camp-On/Callback (default: 870).
- **11-12-47 : Service Code Setup (for Service Access) - Call Waiting Answer / Split Answer for SLT**
If required, use this program to change the code users dial to Split while on a call (default: 894).
- **11-16-05 : Single Digit Service Code Setup - Camp-On**
Customize the one-digit Service Code used for setting Camp-On/Callback (default: 2).

Callback

- **15-02-11 : Multi-Line Terminal Basic Data Setup - Callback Automatic Answer**
Enable (1) or disable (0) Callback Automatic Answer.
- **15-07-01 : Programming Function Keys**
Assign a function key for Callback (code 35). This key is also the Camp-On key.
- **15-14-01 : One-Touch Key Assignments**
Assign a One-Touch bin number to dial the Camp-On/Callback code (default: 2) or the Cancel Camp-On/Callback code (default: 870).
- **20-01-07 : System Options - Callback Ring Duration Time**
Set the duration of the Callback ring (0-64800 seconds).
- **20-01-09 : System Options - Callback/Trunk Queuing Cancel Time**
The UX5000 cancels Callback and Trunk Queuing requests after this interval (0-64800 seconds).
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key for Camp-On/Callback code (default: 35) or the Cancel Camp-On/Callback code (default: 01 + 870).

Related Features

Call Forwarding

Call Forwarding affects which extension the Callback is issued.

Call Waiting (Camp-On)

If an extension user initiates a Callback but does not hang up, their extension Camps-On to the busy extension.

Class of Service

The Timer Class of Service may affect a call.

Direct Station Selection (DSS) Console

Assign a function key to access different Camp-On/Callback codes.

Do Not Disturb

Callbacks may not be issued to extensions in the DND mode.

One-Touch Calling

One-Touch bin numbers can be used to access different Camp-On/Callback codes.

Programmable Function Keys

Function Keys simplify Callback operation.

Soft Keys

Soft keys can be used to access this feature.

Trunk Queuing/Camp-On

Trunk Queuing lets an extension user sets Camp-On/Callback to a trunk. Set the options to allow or prevent Callback on a busy trunk.

Operation

To place a Callback:

1. Call unavailable (busy or unanswered) extension.
2. Dial 2 or press Callback key (PGM 15-07 or SC 851: 35).
3. Hang up.
4. Lift handset when busy extension calls you back.

If the unavailable extension was unanswered (not busy), the Callback goes through after your co-worker uses their terminal for the first time.

If you have Callback Automatic Answer, you automatically place a call to the formerly busy extension when you lift the handset. If you don't have Callback Automatic Answer, you must press the ringing line appearance to place the call.

To cancel a Callback:

1. At keyset, press idle CALL key and Dial 870.
OR
At keyset, press Camp-On key (PGM 15-07 or SC 851: 35).
OR
At single line set, lift handset and dial 870.

To test Callback at your single line terminal:

1. Lift the handset.
2. Dial 899.
3. Hang up.
4. When the terminal rings, lift the handset.
You hear synthesized Music on Hold.
5. Hang up.

Feature Availability

- Available - 64 resources available on the CPU for Caller ID (also used for DTMF receivers and Call Progress Tone Detection).

Description

Caller ID allows a display keyset to show an incoming caller's telephone number (called the Directory Number or DN) and optional name. The Caller ID information is available as pre-answer display. With the pre-answer display, the user previews the caller's number before picking up the ringing line. If Caller ID is enabled in the UX5000, a user can check the Caller ID for a parked call using their Park key and possibly the Flash key (depending on programming). Refer to the table on the following page for the available Caller ID displays.

Second Call Display

While busy on a call, the terminal display can show the identity of an incoming trunk or Intercom call. For incoming trunk calls, the display will show the Caller ID or ANI data or the trunk's name if Caller ID or ANI are not installed. (See the T1 Trunking feature on page 544 for more on ANI compatibility.) For incoming Intercom calls, the display will show the calling extension's name.

Caller ID supports the telco's Called Number Identification (CNI) and Called Number Delivery (CND) service, when available. These services provide the Caller ID information (i.e., messages) between the first and second ring burst of an incoming call. There are two types of Caller ID message formats currently available: Single Message Format and Multiple Message Format. With Single Message Format, the telco sends only the caller's phone number (DN). The DN is either 7 or 10 digits long. In Multiple Message Format, the telco sends the DN and the caller's name. The DN for this format is also 7 or 10 digits long, and the name provided consists of up to 15 ASCII characters.

Terminal's display can show up to 12 Caller ID digits (for non-ACD calls).

Once installed and programmed, Caller ID is enabled for all types of trunk calls, including:

- Ring Group calls
- Calls transferred from another extension
- Calls transferred from Voice Mail (unscreened)
- Direct Inward Lines (DILs)

Caller ID temporarily stores 50 calls (total of abandoned and answered/unanswered). New calls replace old calls when the buffer fills.

Temporary Memory/Caller ID History

An unanswered call will cause the Call History key (PGM 15-07 or SC 851: 08) to flash, indicating a new call has been placed in the temporary memory. If enabled in programming, the terminal's display will show "CHECK LIST".

This Caller ID data from the temporary memory can be saved in Abbreviated Dial bins, One-Touch bin numbers, or in the Central Telephone Book making them available for placing future calls.

The UX5000 provides the ability to add or delete Caller ID digits to a number within the Caller ID History. This feature is available to any display keyset user which has Caller ID enabled (Programs 15-02-15 and 20-09-02) and has a Caller ID Log History key (Program 15-07-01, code 08).

In addition, this feature can be set up to provide an Add/Delete option for area codes within the Caller ID History.

Caller ID Displays				
Abbreviation		Description		
Absence code		Absence Reason Code P displays as PRIVATE Absence Reason Code O displays as NO CALLER INFO		
CID-num CID-name Trunk name		Caller ID number (Provided by telco) Caller ID name (Provided by telco) Trunk name provided by UX5000 (Program 14-01-01)		
NN:NN:NN HH:MM:SS YY:MM:DD		UX5000's Call Timer display UX5000 Time UX5000 Date		
Conditions	Row	Pre-Answer Display	Post-Answer Display	Display When Reviewing
With Caller ID name and number	1	Trunk name	Trunk name	CID-name
	2	CID-num CID-name	CID-num CID-name	YY:MM:DD HH:MM:SS
With Caller ID number Without Caller ID name With name absence code	1	Trunk name	Trunk name	CID-num
	2	CID-num	CID-num	YY:MM:DD HH:MM:SS
Without Caller ID number With Caller ID name With number absence code	1	Trunk name	Trunk name	CID-name
	2	CID-name	CID-name	YY:MM:DD HH:MM:SS
Without Caller ID number Without Caller ID name With number & name absence codes	1	Trunk name	Trunk name	No Entry
	2	Name Absence Code	Name Absence Code	
Without Caller ID number Without Caller ID name Without number absence code	1	Trunk name	Trunk name	No Entry
	2	Ringing	Ringing	

Outputting Caller ID Data

The UX5000 includes the Caller ID data on the SMDR report. The report provides the incoming call's DN in the DIALED NUMBER field. The CLASS field shows PIN (just like all other incoming calls).

Caller ID Digits to Voice Mail

A Caller ID/ANI trunk can send Remote Log-On Protocol with Caller ID digits to the voice mail. When a trunk '001' receives the Caller ID as '12345', the protocol becomes '***60001*12345*'.

Display Reason for No Caller ID Information

With Caller ID enabled, the UX5000 will provide information for analog calls that do not detect the Caller ID information. If the Caller ID information is restricted, the terminal display will show "PRIVATE". If the UX5000 is not able to provide Caller ID information because telco information is not detected, then the display will show "NO CALLER INFO".

Calling Party Number Information

When using the IP DECT terminal, the UX5000 can provide the Caller ID information for an external call if it is provided by the telco.

Option to Enable Caller ID Name for SLT

UX5000 programming provides an option for single line terminals to display Caller ID.

Caller ID Sender Queuing

The UX5000 can provide Caller ID (calling party number) to a single line terminal which has a display. The UX5000 can queue the incoming call to the single line terminal if the UX5000 Caller ID sender resources are busy using Program 20-19-05.

While an incoming call is waiting in queue, if the SLT user lifts their handset, they will hear silence (no dial tone) and can not dial out. When the SLT user goes back on hook, the UX5000 immediately sends the queued call to the SLT without Caller ID.

Option Available for FSK or DTMF Type from Analog Trunk

An option (Program 14-02-16) is available for the Caller ID which allows you to select the type of Caller ID signal from an analog trunk - FSK or DTMF.

Flexible Ringing by Caller ID

The Flexible Ringing by Caller ID feature provides several different options for rerouting calls based on the Caller ID received.

- **Reject/Reroute "Private" Caller ID Calls**
When an analog or ISDN trunk call is received with "Private" Caller ID information, the UX5000 can reject the call by playing a VRS message or it can route the call to an alternative extension or incoming ring group programmed in Program 22-18-01.
- **Reject/Reroute Based on Entry in ABB Table**
When an analog, ISDN or IP trunk call is received with regular Caller ID information, the UX5000 can reject the call by playing a VRS message if the Caller ID number matches the ABB group number programmed in Program 22-16-01 and ABB entry in Programs 13-02-01 and 13-04-01.

The analog, ISDN or IP trunk call can also be routed to an alternative extension or incoming ring group if the Caller ID number matches the common ABB table (Program 13-04).

This option can block calls on all trunks or it can be set on a per-trunk basis.

Refer to **Central Office Calls, Answering** (page 179) for the required programming for this feature.

Conditions

- To have pre-answer Caller ID from the voice mail, the call must be an unscreened transfer.
- Caller ID resources are provided by the CCPU.

Flexible Ringing by Caller ID Matching:

- The UX5000 compares the Caller ID and programmed ABB dial and allows/denies as indicated below.

Caller ID	ABB Dial	Result
2039261111	2039261111	Matched
2039261111	20392611119	Matched
2039261111	203	Matched
9261111	2039261111	Unmatched
2039261111	9261111	Unmatched

- The ABB dial table is searched from the starting number and the first match result is used.

- The maximum number of VRS message channels that can be used simultaneously is 16. These channels are also shared with the voice mail.
- With ISDN trunks, the unrestricted digital call can not use this feature.
- This feature does not work with incoming trunk calls via networking (from the other system). In this case, the refuse/routing program must be programmed in the system that has those trunks. Routing to the other system's extension is available.
- When Program 13-04 is used, it will override the setting in Program 22-02-01 : Incoming Call Trunk Setup.
- Program 13-04 will follow Common or Group Abbreviated Dial numbers.

Default Setting

Disabled.

Programming

- **10-09-01 : DTMF and Dial Tone Circuit Setup**
Allocate the circuits (1-16 or 1-64) on the CPU blade for either DTMF receiving or dial tone detection (0 = Common use, 1 = Extension only, 2 = Trunk only).
- **11-10-04 : Service Code Setup (for System Administrator) - Storing Common Abbreviated Dialing Numbers**
Specify the service code for programming Common Abbreviated Dial (default: 853).
- **11-10-05 : Service Code Setup (for System Administrator) - Storing Group Abbreviated Dialing Numbers**
Specify the service code for programming Group Abbreviated Dial (default: 854).
- **11-10-32 : Service Code Setup (for System Administrator) - Set Private Call Refuse**
Define the service code to be used to set the "Private" call refusal for the trunks which are programmed in Program 14-01-27 to 1.
- **11-10-33 : Service Code Setup (for System Administrator) - Enter Caller ID Refuse**
For keysets only, define the service code to be used to add or delete the Caller ID numbers to be refused.
- **11-10-34 : Service Code Setup (for System Administrator) - Set Caller ID Refuse**
Define the service code to be used to enable/disable the Caller ID call refusal for the trunks which are programmed in Program 14-01-27 to 1.
- **13-01-03 : Abbreviated Dialing Function Setup - Number of Common Abbreviated Dialing Bins**
Designate the bins the UX5000 will use for Common Abbreviated Dialing. When using 4-digit bins (1000-2000), remember that these must be dialed using the keyset's Soft Keys.
- **13-02-01 : Group Abbreviated Dialing Bins**
Assign bins to the Abbreviated Dialing group (1-64) to be used for the Caller ID Refusal feature.
- **13-04-01 : Abbreviated Dialing Number and Name - Abbreviated Dialing Data**
Enter the incoming Caller ID number (0-9, *, #), up to 24 digits, for each bin number (0-1999) used for the Flexible Ringing by Caller ID feature.
- **13-04-03 : Abbreviated Dialing Number and Name - Transfer Mode**
When using Flexible Ringing by Caller ID, use this program to determine how the incoming call should be handled (0=not defined, 1=rings an internal number, or 2=rings an incoming ring group).

- **13-04-04 : Abbreviated Dialing Number and Name - Destination Number**

When using Flexible Ringing by Caller ID, if Program 13-04-03 is set to 1 or 2, then determine the number or ring group to be dialed. With internal dial (1), enter the digits to be dialed (up to 24 including 0-9, *, #, P, R, @). With the ring group (2), enter the ring group to which the call should be sent.

⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **13-04-05 : Abbreviated Dialing Number and Name - Incoming Ring Pattern**

Determine the ring pattern to be used (0 = normal pattern, 1-4 = tone pattern 1-4, 5-9 = scale pattern 1-5) for Caller ID Refusal. The definition of the tone pattern is the same as Program 22-03.
- **14-01-20 : Basic Trunk Data Setup - Block Outgoing Caller ID**

For each trunk, allow (1) or prevent (0) the UX5000 from automatically blocking outgoing Caller ID information when a user places a call. If allowed (i.e., block enabled), the UX5000 automatically inserts the Caller ID block code *67 (defined in Program 14-01-21) before the user dialed digits (this requires Program 20-08-15 to be enabled). If prevented (i.e., block disabled), the UX5000 outdials the call just as it was dialed by the user.
- **14-01-21 : Caller ID Block Code**

For each trunk, enter the code, up to 8 digits, that should be used as the Caller ID Block Code. This code is automatically inserted before dialed digits if Program 14-01-20 and 20-08-15 are set to '1'.
- **14-01-22 : Basic Trunk Data Setup - Caller ID to Voice Mail**

For each trunk, enable (1) or disable (0) the UX5000's ability to send the Caller ID digits to voice mail.
- **14-01-27 : Basic Trunk Data Setup - Caller ID Refuse Setup**

This program defines if the UX5000 rejects a trunk call (0=does not reject the call, 1 = rejects the call) and plays a VRS message based on the Caller ID information received. This option is set on a per trunk basis.
- **14-01-30 : Basic Trunk Data Setup - Flexible Ringing by Caller ID Per Trunk**

This option can be used to block the Flexible Ringing by Caller ID feature on a per trunk basis. Setting this option to "1" enables the feature for the trunk, while "0" disables the feature. By default, this option is set to "1" for all trunks.
- **14-02-10 : Analog Trunk Data Setup - Caller ID**

For each trunk, enable (1) or disable (0) a trunk's ability to receive Caller ID name/number information. If this option is set to '1', the UX5000 will suppress ringing and lamping for trunk calls for the first ring in order to receive the Caller ID information.
- **14-02-16 : Analog Trunk Data Setup - Caller ID Type**

For each trunk, select the type of Caller ID signal from an analog trunk - FSK (0) or DTMF (1). By default, this option is set to "0" (FSK).
- **15-02-08 : Multi-Line Terminal Basic Data Setup - Automatic Handsfree**

Use this option to set whether pressing a key accesses a One-Touch Key (1) or if it pre-selects the key (0).
- **15-02-15 : Multi-Line Terminal Basic Data Setup - Storage of Call for Answered Call**

Select whether an answered call should be included in the Call History Log (1) or not (0).
- **15-02-34 : Multi-Line Terminal Basic Data Setup - Call History Call Type**

Use this option to determine if a Call History key should be used to display only missed trunk calls (0) or if both missed extension and trunk calls should be logged (1).

- **15-03-09 : Single Line Terminal Basic Data Setup - Caller ID Function-For External Module**

Enable (1) or disable (0) the Caller ID FSK signal for an external Caller ID module or a 3rd party vendor phone with Caller ID display. If voice mail is used, this setting must be disabled or the UX5000 integration codes for disconnect will be incorrect. For Caller ID Sender Queuing, set this option to "1".
- **15-03-10 : Single Line Terminal Basic Data Setup - Caller ID Name**

Determine if a SLT extension user's terminal should display the Caller ID name (0 = Disable, 1 = Enable).
- **15-07-01 : Programmable Function Keys**

Assign an Outgoing Call Without Caller ID (ISDN) function key (63), a Caller ID Log History key (08), an enable/disable "Private" call refusal key (86) or an enable/disable Caller ID number refusal key (87), if needed.
- **15-14-01 : One-Touch Key Assignment**

Assign a One-Touch bin number to dial the Caller ID Block code (default: *67) to extensions.
- **20-01-03 : System Options - DSP Sender Resource Selection**

Set the DSP Sender Resource Selection to "1" (Caller ID Sender) when using the Caller ID Sender Queuing feature.
- **20-02-08 : System Options for Multi-Line Terminals - LCD Display Holding Time**

This timer determines how long a user's display will show Caller ID for a second incoming call (0-64800 seconds).
- **20-02-15 : System Options for Multi-Line Terminals - Caller ID Display Mode**

Aspire System with i-Series Telephones Only: Determine how the Caller ID should be displayed for all i-Series telephones when an incoming call is received. Once the call is answered, the first line will indicate the trunk number and caller timer (if enabled).
0 = Displays the line number on line one and the Caller ID name and number on line 2.
1 = Line 1 displays Caller ID number, Line 2 displays Caller ID name
2 = Line 1 displays Caller ID name, Line 2 displays Caller ID number
- **20-02-18 : System Options for Multi-Line Terminals - Caller ID Display Time**

Use this option to determine how long a Caller ID record will be displayed on the terminal's display when reviewing the Caller ID calls (0-64800).
- **20-06-01 : Class of Service for Extensions**

Assign Class of Service (1-15) to extensions for each night mode (1-8).
- **20-07-04 : Class of Service Options (Administrator Level) - Storing Abbreviated Dialing Entries**

In an extension's Class of Service (1-15), allow (1) or prevent (0) the storing of Abbreviated Dialing entries (codes 853 and 854). Preventing this option will also prevent the user's display from showing the telephone number. This can be used when you want to prevent account codes from being displayed.
- **20-07-24 : Class of Service Options - Set/Cancel Private Call Refuse**

In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to use the Private Call Refuse service code or function key.
- **20-07-25 : Class of Service Options - Set/Cancel Caller ID Refuse**

In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to use the Caller ID Refuse service code or function key.
- **20-08-15 : Class of Service (Outgoing Call Service) - Block Outgoing Caller ID**

Allow (1) or prevent (0) a user's Class of Service from automatically blocking outgoing Caller ID information when a call is placed. If allowed (i.e., block enabled), the UX5000 automatically inserts the Caller ID block code *67 (defined in Program 14-01-21) before the user dialed digits (this requires Program 20-08-15 to be enabled). If prevented (i.e., block disabled), the UX5000 outdials the call just as it was dialed by the user.

- **20-09-02 : Class of Service Options (Incoming Call Service) - Caller ID Display**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to display incoming Caller ID name/number information.
- **20-09-03 : Class of Service Options (Incoming Call Service) - Sub Address Identification**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to display the Caller Sub-Address.
- **20-09-04 : Class of Service Options (Incoming Call Service) - Notification of Incoming Call List Existence**
In an extension's Class of Service (1-15), determine whether or not the CHECK LIST message is displayed to indicate a missed call (0=off, 1=on).
- **20-13-06 : Class of Service Options (Supplementary Service) Automatic Off-Hook Signal**
In order for a display terminal to show Caller ID information for a second incoming call, must be enabled (1).
- **20-19-01 : System Options for Caller ID - Caller ID Display Formatting**
Determine whether the first 10 digits (0) or last 10 digits (1) should be displayed when Caller ID exceeds 10 digits.
- **20-19-02 : System Options for Caller ID - Caller ID Wait Timer**
Determine how long (0-30 seconds) an incoming CO call should wait for Caller ID information from telco before the UX5000 connects the call.
- **20-19-03 : System Options for Caller ID - Edit Caller ID**
Enable (1) or disable (0) the UX5000's ability to add the trunk access code to the stored Caller ID information. If Caller ID Edit Mode is disabled (0), no trunk access code will be added to the Caller ID. If this option is enabled (1), the trunk access code entered in Program 10-02-05 will be added to the beginning of the Caller ID.
- **20-19-05 : System ID Options for Caller ID - Caller ID Sender Queuing Timer**
With the Caller ID Sender Queuing option, determine how long an incoming call will wait in queue for a DSP resource to become available (0-64800 seconds). If a resource becomes available during this time, the call will immediately ring the SLT with Caller ID. If the timer expires before a resource becomes available, then the UX5000 rings the single line terminal without Caller ID (until the timer expires, the SLT will not ring). If the queuing timer is set to "0", the UX5000 does not queue the incoming call.
- **20-19-07 : System Options for Caller ID - Long Distance Code**
Use this option to define the digit(s) (up to 2) required for dialing a long distance number. For example in the number "1-203-926-5400", "1" is the long distance code.
- **20-19-08 : System Options for Caller ID - Area Code**
This option is used to define the area code (6 digits max) which will be deleted when using the Edit Caller ID List feature to edit a number.
- **20-20-01 : Message Setup for Non-Caller ID Data - Private Call**
Enter the text (up to 24 alphanumeric characters) to be displayed for Caller ID when a user receives a call which is classified as a private call.
- **20-20-02 : Message Setup for Non-Caller ID Data - Out of Service Area**
Enter the text (up to 24 alphanumeric characters) to be displayed for Caller ID when a user receives a call which is classified as a an out-of-service area call.
- **20-20-03 : Message Setup for Non-Caller ID Data - Call Information with Error**
Enter the text (up to 24 alphanumeric characters) to be displayed for Caller ID when a user receives a call which is classified as a call with a CID error.
- **22-16-01 : Private Call Refuse Target Area Setup**
This program defines the ABB group number for Private Call Refuse (0 = No Setting or ABB Group Number)
⇨ ABB Group Number 1 – 64

- **22-18-01 : Private Call Assignment Setup - Transfer Mode**
When using Flexible Ringing by Caller ID, use this program to determine whether the call plays the VRS message (0), rings an internal number (1), or rings an incoming ring group (2) for a “Private” call.
- **22-18-02 : Private Call Assignment Setup - Transfer Mode**
If Program 22-18-01 is set to 1 or 2, use this program to determine the number or ring group to be dialed. With internal dial (1), enter the digits to be dialed (up to 24 including 0-9, *, #, P, R, @). With the ring group (2), enter the ring group to which the call should be sent.
⇨ Ring Groups: 1=100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-18-03 : Private Call Assignment Setup - Incoming Ring Pattern**
Determine the ring pattern to be used (0 = normal pattern, 1-4 = tone pattern 1-4, 5-9 = scale pattern 1-5) for a “Private” Caller ID call. The definition of the tone pattern is the same as Program 22-03.
- **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key as an Outgoing Call Without Caller ID (ISDN) function key (63), a Caller ID Log History key (08), an enable/disable “Private” call refusal key (86) or an enable/disable Caller ID number refusal key (87), if needed. Also service codes can be assigned to DSS Console keys (01 + service code).
- **80-02-01 : DTMF Tone Setup - Duration**
80-02-02 : DTMF Tone Setup - Pause
With Program 14-01-20 set to 1 and Program 14-02-10 set to 1, if the Caller ID block code *67 is being sent too quickly for the telco to recognize, lengthen the pause and duration time for the DTMFs.
- **81-01-04 : COIU Initial Data Setup - Ringing Signal Detection Minimum Time**
If trouble is experienced receiving Caller ID, try reducing the ringing signal detection timer (for example, set it to 6). Note, however, that this may cause false ring detections.
- **81-01-12 : COIU Initial Data Setup - Caller ID Detection Time**
Select the Caller ID detection time. If an entry other than "0" is made, the actual waiting time is the value x 64ms. For example, if the timer is set to 46, the COIU waits 46 x 64ms = 2944ms). If a problem exists with Caller ID displaying, the recommended entry to try first would be "46". (0 = COIU waits 500ms from end of first ring to beginning of FSK signal for Caller ID, 1 - 255 = The COIU waits for the Caller ID FSK signal from when the first ring pulse was detected.)

Related Features

Abbreviated Dialing / Central Telephone Book / One-Touch Calling

Caller ID information can be stored in Abbreviated Dialing, Central Telephone Book, or One-Touch bins.

Automatic Route Selection

ARS can block outgoing Caller ID information on a call-by-call basis. To do this, insert the Caller ID block code (e.g., *67) in the ARS Dial Treatments.

Conference, Voice Call/Privacy Release

Trunks with Privacy Release enabled will display Caller ID until the call is answered. To view it after the call has been picked up, press the line key, though this sets the call to private mode. To keep the call on Privacy Release, press the CHECK + CLEAR key.

Cordless II/Cordless Lite II Terminals

Caller ID can be displayed for incoming calls, as well as transferred calls. However, the Call History key will not work when paired with a keyset and the Desk/Cordless button is used.

Direct Station Selection (DSS) Console

Assign function keys for various Caller ID options.

Multiple Directory Numbers / Call Coverage

Call Coverage keys can receive Caller ID.

One-Touch Calling

Assign a One-Touch bin number to dial the Caller ID Block code if required.

Park

An extension user can display the Caller ID information for a call in Park if Automatic Hands-free in Program 15-02-08 is set to "0" (pre-select).

Soft Keys

Soft Keys can be used to access the CID list.

Station Message Detail Recording

Caller ID information outputs on the SMDR report.

T1 Trunking (with ANI/DNIS Compatibility)

ANI/DNIS can use the Caller ID tables for routing. Refer to **T1 Trunking (with ANI/DNIS Compatibility)** (page 544) for more.

Voice Mail

The UX5000 can send Caller ID digits to the voice mail if allowed in Program 14-02-10.

Operation

DISPLAYING THE INCOMING NUMBER

To display the name/number of an incoming call only lamping your terminal:

Without Automatic Handsfree on Incoming Line/Loop Key Calls (Program 15-02-08=0)

1. Do not lift the handset.
2. Press line/loop key.
*If the Caller ID data includes the name, you can scroll left and right by pressing * and #.*
3. Lift handset or press SPK to answer the call.

OR

With Automatic Handsfree on Incoming Line/Loop Key Calls (Program 15-02-08=1)

1. Do not lift the handset.
2. Press FLASH plus the flashing line key.

DISPLAYING CALLER ID FOR A CALL IN PARK

To display Caller ID for a call in Park:

With Program 15-02-08 set to "0" (pre-select) for this feature.

1. *With Program 15-02-08 set to "0" (pre-select) :* With a call in Park, press the PARK key. (PGM 15-07 or SC 852: *04).
OR
With Program 15-02-08 set to "1" (one touch): With a call in Park, press FLASH then the PARK key (PGM 15-07 or SC 852: *04).

STORING A NUMBER

To store a Caller ID number in an Abbreviated Dial bin:

1. With a keyset in an idle condition the display shows:

```

1-01 FRI 09:00AM
301          STA 301
LIST DIR ICM PROG
    
```

2. Press the LIST Soft Key. The display shows:

```

LIST●MENU
Redial CID
    
```

3. Press the CID Soft Key (Caller ID). The display shows:

```

##:          xxxxxxxxxxxxxx
          mm-dd hh:mm
↑           ↓   Store  DEL
    
```

= List Number
 xx = Caller ID number
 mm-dd hh:mm = incoming date and time
 ↑ = Preview List
 ↓ = Next List
 Store = Store in List
 DEL = Delete from List

4. Press the STORE Soft Key. The display shows:

```

##:          xxxxxxxxxxxxxx
          mm-dd hh:mm
STA  Abb  TELBK
    
```

= List Number
 xx = Caller ID number
 mm-dd hh:mm = incoming date and time
 STA = Store in a Station Abbreviated dial bin
 ABBc = Store in Common Abbreviated Dial bin
 ABBg = Store in Group Abbreviated Dial bin

5. Press the ABB Soft Key. Then, you may need to select either the ABBC or ABBG Soft Key (if Group Abbreviated Dial bins are defined). The display shows:

```

Store to ABB:xxxxxx
ENTER BIN
    
```

6. Dial the Abbreviated Dial bin in which the number is to be stored. If you press HOLD, the next available Abbreviated Dial bin will be used. The display shows:

```

ABB ####:
          xxxxxxxxxxxxxx
    
```

If all Abbreviated Dial bins are used, the display shows "TABLE IS FULL".

7. Press HOLD. The display shows:

```

ABB ####
-
    
```

Caller ID

8. Enter the name to be associated with the stored number.

Key for Entering Names	
When entering names in the procedures below, refer to this chart. Names can be up to 12 digits long.	
Use this keypad digit . . .	When you want to . . .
1	Enter characters: 1 @ [¥] ^ _ ` { } → ← Á À Â Ã Ä Ç È É Ê Ì Ó Ô
2	Enter characters A-C, a-c, 2.
3	Enter characters D-F, d-f, 3.
4	Enter characters G-I, g-i, 4.
5	Enter characters J-L, j-l, 5.
6	Enter characters M-O, m-o, 6.
7	Enter characters P-S, p-s, 7.
8	Enter characters T-V, t-v, 8.
9	Enter characters W-Z, w-z, 9.
0	Enter characters: 0 ! “ # \$ % & ’ () ô o ú å ä ö ü α ε θ
*	Enter characters: * + , - . / : ; < = > ? π Σ σ Ω ∞ φ ε
#	# = Accepts an entry (only required if two letters on the same key are needed - ex: TOM). Pressing # again = Space. (In UX5000 programming mode, use the right arrow soft key instead to accept and/or add a space.)
CONF	Clear the character entry one character at a time.
CLEAR	Clear all the entries from the point of the flashing cursor and to the right.

9. Press HOLD. The display shows:

```

SET ABB

```

10. Press SPK.

The terminal returns to an idle condition.

To store a Caller ID number in a station Abbreviated Dial bin:

1. With a keyset in an idle condition the display shows:

```

1-01 FRI 09:00AM
301          STA 301
LIST DIR ICM PROG

```

2. Press the LIST Soft Key. The display shows:

```

LIST●MENU
  

Redial CID

```

3. Press the CID Soft Key (Caller ID). The display shows:

##:	XXXXXXXXXXXXXX
	mm-dd hh:mm
↑	↓
	Store DEL

= List Number
 xx = Caller ID number
 mm-dd hh:mm = incoming date and time
 ↑ = Preview List
 ↓ = Next List
 Store = Store in List
 DEL = Delete from List

4. Press the STORE Soft Key. The display shows:

##:	XXXXXXXXXXXXXX
	mm-dd hh:mm
STA	Abb TELBK

= List Number
 xx = Caller ID number
 mm-dd hh:mm = incoming date and time
 STA = Store in a Station Abbreviated dial bin
 ABBc = Store in Common Abbreviated Dial bin
 ABBg = Store in Group Abbreviated Dial bin

5. Press the STA Soft Key. The display shows:

Store to
ENTER BIN

6. Dial the bin number in which the number is to be stored or dial 1-9, 0. If you press HOLD, the next available bin will be used. The display shows:

KEY ##:	XXXXXXXXXXXXXX
	XXXXXXXXXXXXXX

If all bins are used, the display shows "TABLE IS FULL".

7. Press HOLD. The display shows:

KEY ##	XXXXXXXXXXXXXX
	-

8. If required, enter the name to be associated with the stored number.

Key for Entering Names	
When entering names in the procedures below, refer to this chart. Names can be up to 12 digits long.	
Use this keypad digit . . .	When you want to . . .
1	Enter characters: 1 @ [¥] ^ _ ` { } → ← Á À Â Ã Ä Ç È É Ê Ì Ó 0
2	Enter characters A-C, a-c, 2.
3	Enter characters D-F, d-f, 3.
4	Enter characters G-I, g-i, 4.
5	Enter characters J-L, j-l, 5.
6	Enter characters M-O, m-o, 6.
7	Enter characters P-S, p-s, 7.
8	Enter characters T-V, t-v, 8.
9	Enter characters W-Z, w-z, 9.
0	Enter characters: 0 ! “ # \$ % & ’ () ô o ú å ä ö ü α ε θ
*	Enter characters: * + , - . / : ; < = > ? π Σ σ Ω ∞ ϕ ε
#	# = Accepts an entry (only required if two letters on the same key are needed - ex: TOM). Pressing # again = Space. (In UX5000 programming mode, use the right arrow soft key instead to accept and/or add a space.)
CONF	Clear the character entry one character at a time.
CLEAR	Clear all the entries from the point of the flashing cursor and to the right.

9. Press HOLD. The display shows:

KEY PROG	STA

10. Press SPK.

The terminal returns to an idle condition.

Temporary Memory / Call History

An unanswered call will cause the Call History key (PGM 15-07 or SC 851: 08) to flash, indicating a new call has been placed in the temporary memory. If enabled in programming, the terminal’s display will show “CHECK LIST”.

If the UX5000 is reset or loses power, the call history is cleared.

1. Press the Call History key (PGM 15-07 or SC 851: 08) or press the LIST Soft Key and CID.
The last addition to the list is displayed.
2. Press the ARROW DOWN Soft Key to scroll through the list of numbers in memory.
3. Press the DEL Soft Key to delete the entry and scroll to the next entry.
4. The Call History key will remain on as long as entries remain in memory.
5. To place a call back to a number in the temporary memory list, with the number to be dialed displayed, press a line, loop or CALL key.

The outgoing call is placed.

Add/Delete Digits to Temporary Memory / Call History

1. Press the Caller ID Log History key (Program 15-07-01 or SC 851 + 08) or press the LIST - CID Soft Key to view the Caller ID list.
2. Use the up and down arrow Soft Keys to display the Caller ID to be edited.
3. Press the HOLD key.
4. *If Program 20-19-08 is not defined (no entry)*, the display shows:

```

EDIT MODE
                2035551234
<- CNCL DEL ->

```

- The flashing digit indicates the cursor location. Using the left and right arrow Soft Keys to move the cursor to the location where digits are to be added to deleted.
- **To Delete Digits:** Press the DEL Soft Key.
- **To Add Digits:** Using the dial pad, press the digits to be added to the right of the cursor.

OR

If Program 20-19-08 is defined, the display shows:

```

EDIT MODE
                2035551234
A_1 D_1 D_AC D1AC

```

- **Pressing A_1 Soft Key:** Adds the Long Distance code defined in Program 20-19-07 to be beginning of the displayed number.
 - **Pressing D_1 Soft Key:** Deletes the Long Distance code defined in Program 20-19-07 from the beginning of the displayed number.
 - **Pressing D_AC Soft Key:** Deletes the Area Code defined in Program 20-19-08 from beginning of the displayed number.
 - **Pressing D_1AC Soft Key:** Deletes the Long Distance code and Area Code defined in Program 20-19-07 and 20-19-08 from the beginning of the displayed number.
5. You can dial the changed number without saving by selecting a line/loop key or can save the changes by pressing the SAVE. To undo the changes made, press the UNDO Soft Key.

Pressing the CHECK or CLEAR key will also cancel the edit.

CHECKING YOUR ANSWERED/UNANSWERED CALLER ID CALLS

To review the last 50 outside calls your extension received:

1. From an idle keyset, press the LIST soft key.
2. Press the CID soft key.
3. *If deleting just one number*, scroll to the number.
If deleting all numbers in the Caller ID list, skip to Step 4.
4. Press the DEL soft key. The display shows:

01:	SMITH JOHN
*	11-14 13:45
One	ALL

5. *If deleting just one number*, press the ONE soft key.
If deleting all numbers in the LND list, press the ALL soft key.
6. When deleting all numbers in the Caller ID list, the display then prompts for a confirmation. Press the YES soft key to delete all the numbers, or press the NO soft key to return to the previous display.
7. Press the CLEAR key to return the terminal to an idle state, or it will return to an idle state after approximately 30 seconds.

Feature Availability

- Available - Capacity depends on the number of blades installed and the system port licensing (max: = 200 trunks).

Description

The UX5000 provides flexible routing of incoming CO (trunks) calls to meet the exact site requirements. This lets trunk calls ring and be answered at any combination of UX5000 extensions. For additional information on making trunk ring, refer to the Ring Group feature.

Delayed Ringing

Extensions in a Ring Group can have delayed ringing for trunks. If the trunk is not answered at its original destination, it rings the DIL No Answer Ring Group (this ring group applies to DIL or non-DIL trunks). This could help a secretary that covers calls for their boss. If the boss doesn't answer the call, it rings the secretary's terminal after a programmable interval.

Clear Down / Automatic Release

When on a speakerphone call only, when an outside caller hangs up, the UX5000 will return the keyset to an idle condition. The user does not have to press the SPK key to hang up. This feature is automatic and no programming is required. Refer to the **Automatic Release** (page 110) feature for details.

Codec Filter Data Setup Program

When **Program 81-07-01 : Codec Filter Setup for Analog Trunk Ports** is set to "4 - Specified Data", the UX5000 will use the settings in **Program 81-09 : COIU Codec Filter Data Setup**.

These values should not be changed from their default settings unless directed by NEC'S Technical Service department.

The side tone of the COIU is adjusted using all 16 values, however, special software is required in order to compute these values. The setting is not proportional to the gain level. To change these values, contact NEC's Technical Service department for assistance.

Display Reason for Transfer

When incoming DID, DISA, DIL or ISDN calls are transferred to another extension or ring group due to a Call Forward or DND setting, the reason for the transfer can be displayed on the terminal receiving the transferred call. The extension user can then recognize why they are receiving the call. This feature requires a display terminal in order to view the message.

Flexible Ringing by Caller ID

The Flexible Ringing by Caller ID feature provides several different options for rerouting calls based on the Caller ID received.

- **Reject/Reroute "Private" Caller ID Calls**

When an analog or ISDN trunk call is received with "Private" Caller ID information, the UX5000 can reject the call by playing a VRS message or it can route the call to an alternative extension or incoming ring group programmed in Program 22-18-01.

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- **Reject/Reroute Based on Entry in ABB Table**

When an analog, ISDN or IP trunk call is received with regular Caller ID information, the UX5000 can reject the call by playing a VRS message if the Caller ID number matches the ABB group number programmed in Program 22-16-01 and ABB entry in Programs 13-02-01 and 13-04-01.

The analog, ISDN or IP trunk call can also be routed to an alternative extension or incoming ring group if the Caller ID number matches the common or group ABB table (Program 13-04).

This option can block calls on all trunks or it can be set on a per-trunk basis.

Programming Examples for Flexible Ringing by Caller ID:

- To refuse the “Private” Caller ID incoming call:
Program 14-01-27: 1 (reject)
Program 20-07-24: 1 (Enable for COS)
Program 22-18-01: 0 (no transfer)
Program 40-10-06: 2 (VRS message 2)
Then turn on the Private Call Refuse mode using the service code (Program 11-10-32) or Programmable Function Key (code 86).
- To transfer the “Private” Caller ID incoming call to extension 301 as ring pattern 2:
Program 14-01-27: 1 (reject)
Program 22-18-01: 1 (extension number)
Program 22-18-02: 301 (extension 301)
Program 22-18-03: 2 (ring pattern 2)
Then turn on the Private Call Refuse mode using the service code (Program 11-10-32) or Programmable Function Key (code 86).
- To transfer the “Private” Caller ID incoming call to incoming ring group 2 as ring pattern 3:
Program 14-01-27: 1 (reject)
Program 22-18-01: 2 (incoming ring group)
Program 22-18-02: 2 (group 2)
Program 22-18-03: 3 (ring pattern 3)
Then turn on the Private Call Refuse mode using the service code (Program 11-10-32) or Programmable Function Key (code 86).
- To reject the call with “2039261111” Caller ID incoming call:
Program 14-01-27: 1 (reject)
Program 20-07-25: 1 (Enable for COS)
Program 22-16: 64 (ABB group 64)
Program 13-02; Group 64: 1000 - 1099
Program 13-04-01; Table 1000: 2039261111
Then turn on the Caller ID Refuse mode using the service code (Program 11-10-34) or Programmable Function Key (code 87).
- To transfer the call with “2039261111” Caller ID incoming call to extension 301 as ring pattern 1:
Program 13-04-01: 2039261111
Program 13-04-03: 1 (extension number)
Program 13-04-04: 301 (extension 301)
Program 13-04-05: 1 (tone pattern 1)

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- To transfer the call with “2039261111” Caller ID incoming call to incoming ring group 2 as ring pattern 2:
Program 13-04-01: 2039261111
Program 13-04-03: 2 (incoming ring group)
Program 13-04-04: 2 (group 2)
Program 13-04-05: 2 (tone pattern 2)

Notes:

- Caller ID Matching
The UX5000 compares the Caller ID and programmed ABB dial and allows/denies as indicated below.

Caller ID	ABB Dial	Result
2039261111	2039261111	Matched
2039261111	20392611119	Matched
2039261111	203	Matched
9261111	2039261111	Unmatched
2039261111	9261111	Unmatched

- The ABB dial table is searched from the starting number and the first match result is used.
- The maximum number of VRS message channels that can be used simultaneously is 16. These channels are also shared with the voice mail.
- With ISDN trunks, the unrestricted digital call can not use this feature.
- This feature does not work with incoming trunk calls via networking (from the other system). In this case, the refuse/routing program must be programmed in the system that has those trunks. Routing to the other system’s extension is available.
- When Program 13-04 is used, it will override the setting in Program 22-02-01 : Incoming Call Trunk Setup.
- Program 13-04 will follow Common or Group Abbreviated Dial numbers.

Sidetone Volume Setup

An option is available to allow the the change of the keyset side tone volume. There are two levels, based on whether the connected trunk is a digital trunk or analog trunk.

Universal Answer

Universal Answer allows an employee to answer a call by going to any keyset and dialing a unique Universal Answer code. The employee doesn’t have to know the trunk number or dial any other codes to pick up the ringing trunk. You’ll normally set up Universal Answer along with Universal Night Answer (see “Night Service”). When a Universal Night Answer call rings the External Paging, an employee can answer the call from the first available terminal. You might also want to use Universal Answer in a noisy warehouse or machine shop where the volume of normal terminal ringing is not adequate. After hearing the ringing over the Paging, an employee can then easily pick up the call from a shop terminal. See “Night Service” for more on Universal Night Answer.

The Automatic Answer of Universal Answer Calls option (Program 20-10-07) determines whether or not the extension has the Auto Answer feature for ringing calls. This option allows a user to simply lift the handset to answer a ringing call; they no longer need to dial the service code.

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Conditions

An extension's Toll Restriction may be ignored by the UX5000 if the extension dials after answering an incoming call (e.g., pressing Flash, the outside party hangs up and the Telco returns dial tone or an idle state along with allowing outgoing calls, the Telco detects the end of the call and returns to an idle status, a user seizes the trunk within a second or two after this status change but before the terminal stops ringing, etc.) and either receives a new outside dial tone or if the Telco does not return dial tone but will allow dialing an outside number. The following is an explanation of how individual extension Program 15-01-05 and UX5000 Programs 21-01-15, 21-01-16 and 21-01-17 work under the above conditions.

1. If Program 21-01-15 is disabled, Toll Restriction is ignored.
2. If Program 21-01-15 is enabled but Program 15-01-05 is disabled, Toll Restriction is ignored.
3. If both Programs 21-01-15 and 15-01-05 are enabled, Toll Restriction is ignored, however, the extension user can only dial the number of digits entered in Program 21-01-17.
4. If Program 21-01-15 is enabled and the Telco does not return dial tone but allows dialing, Toll Restriction is ignored. however, the extension user can only dial the number of digits entered in Program 21-01-17 regardless of the setting of Program 15-01-05 but only has the time entered in Program 21-01-16 to dial.

Default Setting

Enabled.

Programming

- **10-03-03 : Blade Setup, For SLIU Unit - Transmit Codec Gain Type**
10-03-04 : Blade Setup, For SLIU Unit - Receive Codec Gain Type
Customize the transmit and receive levels (1-63) of the Codec Gain Types for 500/2500 type single line terminals.
- **10-08-01 : Pre-Ringing Setup**
Enable (1) or disable (0) pre-ringing for outside calls. This setting affects all UX5000 trunks.
- **11-10-04 : Service Code Setup (for System Administrator) - Storing Common Abbreviated Dialing Numbers**
Specify the service code for programming Common Abbreviated Dial (default: 853).
- **11-10-05 : Service Code Setup (for System Administrator) - Storing Group Abbreviated Dialing Numbers**
Specify the service code for programming Group Abbreviated Dial (default: 854).
- **11-10-32 : Service Code Setup (for System Administrator) - Set Private Call Refuse**
Define the service code to be used to set the "Private" call refusal for the trunks which are programmed in Program 14-01-27 to 1.
- **11-10-33 : Service Code Setup (for System Administrator) - Enter Caller ID Refuse**
For keysets only, define the service code to be used to add or delete the Caller ID numbers to be refused.
- **11-10-34 : Service Code Setup (for System Administrator) - Set Caller ID Refuse**
Define the service code to be used to enable/disable the Caller ID call refusal for the trunks which are programmed in Program 14-01-27 to 1.
- **11-11-13 : Service Code Setup (for Setup/Entry Operation) - Display Language Selection for Keypad**
Select the service code which can be used at an extension to change the displayed language on a keypad's display (default: 178).

- **11-11-20 : Service Code Setup (for Setup/Entry Operation) - Changing Incoming CO and ICM Ring Tones**
Specify the service code (default: 820) to be used by an extension user to set both the incoming Intercom and Trunk ring tone at their extension.
- **11-11-21 : Service Code Setup (for Setup/Entry Operation) - Check Incoming Ring Tones**
Specify the service code (default: 811) to be used by an extension user to check both the incoming Intercom and Trunk ring tone at their extension.
- **11-11-37 : Service Code Setup (for Setup/Entry Operation) - Adjusting Ring Volume**
If required, change the service code used to adjust the ringing volume for CO and ICM calls (829).
- **11-12-30 : Service Code Setup (for Service Access) - Specified Trunk Answer**
If required, redefine the service code used to answer a specific trunk which is either ringing or on hold (default: 172).
- **11-12-43 : Service Code Setup (for Service Access) - Universal Answer**
If required, redefine the service code used for the Universal Answer feature (default: #0).
- **11-15-09 : Service Code setup, Administrative (for Special Access) - Transfer to Trunk Ring Group Code**
Select the service code which can be used at an extension to transfer a trunk call to a pre-programmed ring group.
- **13-01-01 : Abbreviated Dialing Function Setup - Abbreviated Dialing Auto Outgoing Call Mode**
With the Caller ID Flexible Routing feature, if this option is set to "1" (extension outgoing mode), any Abbreviated Dial number would need to have a trunk access code (e.g., 9) in order to complete and outside call.
- **13-04-03 : Abbreviated Dialing Number and Name - Transfer Mode/Destination Number**
When using Flexible Ringing by Caller ID, use this program to determine how the incoming call should be handled (0=not defined, 1=rings an internal number, or 2=rings an incoming ring group).
If this option is set to 1 or 2, then determine the number or ring group to be dialed. With internal dial (1), enter the digits to be dialed (up to 24 including 0-9, *, #, P, R, @). With the ring group (2), enter the ring group to which the call should be sent.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **13-04-05 : Abbreviated Dialing Number and Name - Incoming Ring Pattern**
Determine the ring pattern to be used (0 = normal pattern, 1-4 = tone pattern 1-4, 5-9 = scale pattern 1-5) for Caller ID Refusal. The definition of the tone pattern is the same as Program 22-03.
- **14-01-02 : Basic Trunk Data Setup - Transmit Codec Gain Type**
14-01-03 : Basic Trunk Data Setup - Receive Codec Gain Type
Customize the transmit and receive levels (1-63) of the Codec Gain Types for each trunk (1-200).
- **14-01-27 : Basic Trunk Data Setup - Caller ID Refuse Setup**
This program defines if the UX5000 rejects a trunk call (0=does not reject the call, 1 = rejects the call) and plays a VRS message based on the Caller ID information received. This option is set on a per trunk basis (1-200).
- **14-01-30 : Basic Trunk Data Setup - Flexible Ringing by Caller ID Per Trunk**
This option can be used to block the Flexible Ringing by Caller ID feature on a per trunk basis. Setting this option to "1" enables the feature for the trunk, while "0" disables the feature. By default, this option is set to "1" for all trunks.
- **14-02-02 : Analog Trunk Data Setup - Ring Detect Type**
For each trunk (1-200), enable delayed ringing (0) or immediate ringing (1).

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- **14-05-01 : Trunk Groups**
For Universal Answer and loop keys, assign trunks to trunk groups. For Universal Answer, go to Program 14-06 below to set up Trunk Group Routing.
⇨ Trunks 1-200, Trunk Groups 1-100
- **14-06-01 : Trunk Group Routing**
For Universal Answer, set up trunk routes and then go to Program 23-03 below to assign the trunk routes to extensions. An extension user can use Universal Answer to answer a call if the ringing trunk is in its assigned route.
⇨ Trunks 1-200, Trunk Group Routes 1-100
- **14-07-01 : Trunk Access Map Setup**
Set up the Trunk Access Maps. This sets the access options for trunks. Ring Group programming overrides Access Map programming.
⇨ Trunks 1-200, Trunk Access Maps 1-200
- **15-01-05 : Basic Extension Data Setup - Restriction for Outgoing Disable on Incoming Line**
Enable (1) or disable (0) supervised dial detection for an extension. Refer to the Condition section for further information.
- **15-02-01 : Multi-Line Terminal Basic Data Setup**
Select the language which should be used on a keyset's display (0 = Japanese, 1 = English, 2 = German, 3 = French, 4 = Italian, 5 = Spanish, 6 = Dutch, 7 = Portuguese, 8 = Norwegian, 9 = Danish, 10 = Swedish, 11 = Turkish, 12 = Latin American Spanish).
- **15-02-02 : Multi-Line Terminal Basic Data Setup - Trunk Ring Tone**
Assign an incoming trunk ring tone/pitch (1-8) to the extension. Trunks ring extensions according to the Ring Tone Range selected in 22-03 and the settings made with either Service Code 820 or Program 15-02-02.
- **15-02-10 : Multi-Line Terminal Basic Data Setup - Ringing Line Preference for Trunk Calls**
Enable Idle (0) or Ringing (1) Line Preference for trunk calls. See the Line Preference feature (page 369) for interactions.
- **15-02-22 : Multi-Line Terminal Basic Data Setup, Multiple Incoming From Intercom and Trunk**
When this option is set to '0' (disabled), incoming calls to an extension will indicate on any Hotline keys for that extension as solid (busy). When this option is set to '1' (enabled), lamping is determined by the setting of Program 22-01-01 Incoming Call Priority. If set to trunk priority (1), the Hotline key will lamp solid when a trunk call rings in. If set to intercom priority (0), the Hotline key will not lamp for incoming trunk calls, but will lamp solid for intercom calls.
- **15-03-03 : Single Line Terminal Basic Data Setup - Terminal Type**
Enter 1 for this option to allow a single line port to receive DTMF tones after the initial call setup. Enter 0 to have the port ignore DTMF tones after the initial call setup. For Voice Mail, always enter 1 (e.g., receive DTMF tones).
- **15-06-01 : Trunk Access Map for Extensions**
Assign Trunk Access Maps to extensions for each night mode (1-8).
⇨ Trunk Access Maps 1-200
- **15-07-01 : Programming Function Keys**
To have outside calls ring specific keys, assign trunks to line keys (code *01 + trunk). You can also program function keys as trunk group or loop keys (*02 or *05). For additional loop key data, in Program 15-13 enter 0 (incoming only), 1 (outgoing only) or 2 (both ways). Use a Call Redirect key (49 + destination extension) to allow a user to transfer a call to another extension or voice mail without answering the call.
Also, if needed, define keys for Private Call Refuse (86) or Caller ID Refuse (87) keys. When either of these keys is enabled by the user, "Private" or "Caller ID Number Refusal" will be activated for the trunks set to "1" in Program 14-01-27.

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- **15-13-01 : Loop Keys - Outgoing**
Assign trunk groups for outgoing loop keys (0=ARS or Dial 9, Trunk Groups 1-100).
- **15-13-02 : Loop Keys - Incoming**
Assign trunk groups for incoming loop keys (0=all Trunk Groups, Trunk Groups 1-100).
- **20-02-09 : System Options for Multi-Line Terminals - Disconnect Supervision**
Enable (1) disconnect supervision for the UX5000.
- **20-06-01 : Class of Service for Extensions**
For Universal Answer, assign a Class of Service (1-15) to an extension for each night mode (1-8) that enables Program 20-10-07.
- **20-07-24 : Class of Service Options - Set/Cancel Private Call Refuse**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to use the Private Call Refuse service code or function key.
- **20-07-25 : Class of Service Options - Set/Cancel Caller ID Refuse**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to use the Caller ID Refuse service code or function key.
- **20-10-07 : Class of Service Options (Answer Service) - Automatic Answer of Universal Calls**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to use Auto-Answer to pick up Universal Answer calls. This allows a user to simply pick up the handset instead of dialing a service code.
- **20-13-13 : Class of Service Options (Supplementary Service) - Continued Dialing**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to use Continued Dialing which allows DTMF signal sending while talking on extension.
- **20-13-23 : Class of Service Options (Supplementary Service) - Display the Reason for Transfer**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to display the Reason for Transfer message.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **21-01-15 : System Options for Outgoing Calls - Outgoing Disable on Incoming Line**
Enable (1) or disable (0) the Outgoing Disable on Incoming Line feature. Refer to the Condition section for further information.
- **21-01-16 : System Options for Outgoing Calls - Supervise Dial Detection Timer**
With the Outgoing Disable on Incoming Line feature, if dial tone is not detected after the extension answers an incoming line, the UX5000 determines the call is unable to complete and releases the DTMF receiver (0-64800 Seconds). Refer to the Condition section for further information.
- **21-01-17 : System Options for Outgoing Calls - Restriction Digit in Outgoing Disable on Incoming Line**
With the Outgoing Disable on Incoming Line feature, determine the number of digits (0-9) to be dialed before the call should be disconnected. Refer to the Condition section for further information.
- **22-01-01 : System Options for Incoming Calls, Incoming Call Priority**
Use this option to determine if intercom calls or trunk calls have answer priority when both are ringing simultaneously (0=intercom call priority, 1=trunk call priority). Refer to Program 15-02-22 for lamping conditions.

Central Office Calls, Answering

- **22-01-02 : System Options for Incoming Calls - Incoming Call Ring No Answer Alarm**
Enable (1) or disable (0) the Incoming Call RNA Alarm. If enabled, the ring cadence will change for a call that rings longer than the interval set in Program 22-01-03.
- **22-01-03 : System Options for Incoming Calls - Ring No Answer Alarm Time**
Set the Ring No Answer Alarm interval (0-64800 seconds). If a trunk rings a keyset longer than this interval, the UX5000 changes the ring cadence.
- **22-01-04 : System Options for Incoming Calls - DIL No Answer Time**
If an incoming trunk call rings longer than this interval (0-64800 seconds), it reroutes to the Ring Group set in Program 22-08.
- **22-02-01 : Incoming Call Trunk Setup**
Select the trunk type (0=normal, 1=VRS, 2=DISA, 3=DID, 4=DIL, 5=E&M tie line, 6=delayed DID, 7=ANI/DNIS, 8=Mode DID) for each trunk at each time mode (1-8).
For additional required and optional programs, refer to the following:
Trunk Type 1 or 6 = **Voice Response System (VRS)** (page 607)
Trunk Type 2 = **Direct Inward System Access (DISA)** (page 281)
Trunk Type 3 or 8 = **Direct Inward Dialing (DID)** (page 268)
Trunk Type 4 = **Direct Inward Line (DIL)** (page 277)
Trunk Type 5 = **Tie Lines** (page 560)
- **22-03-01 : Trunk Ring Tone Range**
Assign Ring Tone Ranges to trunks. Customize the tones within each Ring Tone Range in Program 82-01. Trunks ring extensions according to the Ring Tone Range selected in Program 22-03 and the settings made with either Service Code 820 or Program 15-02-02.
- **22-04-01 : Incoming Extension Ring Group Assignment**
To have extensions ring immediately for trunks when Program 22-02 has an entry of “0” or when Program 22-02 has an entry of “0” or “4” for no answer, assign extensions to ring groups then assign the ring groups to the trunks in Programs 22-05 for immediate ring and program 22-08 for no answer for each night mode (1-8).
For each extension in the Ring Group, indicate in Program 22-06 if trunks should ring (1) or not ring (0) for any Ring Group the extension is assigned.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-05-01 : Incoming Trunk Ring Group Assignment**
To have the trunks ring extensions, assign trunks to a Ring Group for each trunk for each night mode (1-8) which has an entry of “0” in Program 22-02 or any trunk which should be part of the Transfer to Ring Group option. The incoming ring group assignment set in Program 41-03-01 overrides the setting in this program.
- **22-06-01 : Normal Incoming Ring Mode**
Indicate for each night mode (1-8) whether the extensions should ring (1) or not ring (0) for any Ring Group the extension is assigned to in 22-04.
- **22-07-01 : DIL Assignment**
For each trunk which has an entry of “4” in Program 22-02, assign the destination extension or Department Call Group pilot number (as assigned in 11-07-01) for each DIL incoming trunk for each night mode (1-8).
- **22-08-01 : DIL/IRG No Answer Destination**
If an incoming trunk call rings longer than the DIL No Answer Time (Program 22-01-04), it routes to the destination you specify in this option. Determine if the destination should be a Ring Group, In-Skin/External Voice Mail, or Central Voice Mail. You make a separate entry for each night mode (1-8).
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-16-01 : Private Call Refuse Target Area Setup**
This program defines the ABB group number for Private Call Refuse (0 = No Setting or ABB Group Number)
⇨ ABB Group Number 1 – 64

- **22-18-01 : Private Call Assignment Setup - Transfer Mode**

When using Flexible Ringing by Caller ID, use this program to determine whether the call plays the VRS message (0), rings an internal number (1), or rings an incoming ring group (2).
- **22-18-02 : Private Call Assignment Setup - Transfer Mode**

If Program 22-18-01 is set to 1 or 2, use this program to determine the number or ring group to be dialed. With internal dial (1), enter the digits to be dialed (up to 24 including 0-9, *, #, P, R, @). With the ring group (2), enter the ring group to which the call should be sent.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-18-03 : Private Call Assignment Setup - Incoming Ring Pattern**

Determine the ring pattern to be used (0 = normal pattern, 1-4 = tone pattern 1-4, 5-9 = scale pattern 1-5) for a “Private” Caller ID call. The definition of the tone pattern is the same as Program 22-03.
- **23-03-01 : Universal Answer/Auto Answer**

For Universal Answer, assign trunk routes set in Program 14-06 to extensions. An extension user can use Universal Answer to answer a call if the ringing trunk is in its assigned route.
⇨ Trunk Group Routes 1-100
- **30-03-01 : DSS Console Key Assignment**

If required, assign DSS Console keys for service codes to set both the incoming Intercom and trunk ring tone at their extension (01 + 811), to check both the incoming Intercom and trunk ring tones at their extension (01 + 820), to answer a specific trunk which is either ring or on hold (01 + 172) and used for the Universal Answer feature (01 + #0).
- **40-10-06 : Voice Announcement Service Option - Set VRS Message for Private Call Refuse**

Use this option to assign the VRS message number to be played when Private Call Refuse is enabled for a call with “Private” Caller ID information (0 = Does not play message, 1-49 = VRS message number to play).
- **40-10-07 : Voice Announcement Service Option - Set VRS Message for Caller ID Refuse**

This item assigns the VRS message number to be used as the Caller ID Refuse message when the Caller ID number matches the entry in Program 22-16 (0 = Does not play message, 1-49 = VRS message number to play).

Central Office Calls, Answering

➤ **81-09-01 : COIU Codec Filter Data Setup**

The UX5000 will use the settings in this program when **Program 81-07-01 : Codec Filter Setup for Analog Trunk Ports** is set to "4 - Specified Data". These values should not be changed from their default settings unless directed by NEC's Technical Service department.

The side tone of the COIU is adjusted using all 16 values, however, special software is required in order to compute these values. The setting is not proportional to the gain level. To change these values, contact NEC's Technical Service department for assistance.

➤ **82-01-01 : Incoming Ring Tone**

Customize the ring tones within each Ring Tone Range. Assign Ring Tone Ranges to trunks in Program 22-03. Trunks ring extensions according to the Ring Tone Range selected in Program 22-03 and the user settings made with Service Code 820.

➤ **82-08-01 : Sidetone Volume Setup**

Use this program to adjust of the keyset side tone volume. There are two levels, based on whether the connected trunk is a digital trunk or analog trunk.

➤ **82-09-01 : SLIU Codec Filter Data Setup**

The UX5000 will use the settings in the new **Program 82-09 : SLIU Codec Filter Data Setup** when **Program 82-07-01 : Codec Filter Setup for Analog Station Ports** is set to "4 - Specified Data". These values should not be changed from their default settings unless directed by NEC's Technical Service department.

The side tone of the COIU is adjusted using all 16 values, however, special software is required in order to compute these values. The setting is not proportional to the gain level. To change these values, contact NEC's Technical Service department for assistance.

Related Features

Automatic Call Distribution (ACD)

The incoming ring group assignment programmed in 41-03-01 overrides the setting in Program 22-05-01.

Central Office Calls, Answering Call Forward/DID/DIL/DISA/Do Not Disturb/ISDN

The Reason for Transfer option should be set for each type of trunk which will use the Reason for Transfer message.

Class of Service

The Timer Class of Service may affect a call.

Directed Call Pickup/Group Call Pickup

Using these features, ringing calls can be picked up regardless of access map programming.

Direct Inward Line

Direct Inward Lines ring an extension directly, without Ring Group or Access Map programming.

Direct Station Selection (DSS) Console

Assign function keys as access to various service codes.

Group Call Pickup

A user can activate Group Call Pickup to intercept a trunk call ringing another extension.

Line Preference

An extension user can answer an outside call just by lifting the handset.

Long Conversation Cutoff/Warning Tone for Long Conversation

Long Conversation Cutoff can disconnect incoming and outgoing CO calls after a set time period. Using the Warning Tone for Long Conversation feature allows users on outgoing calls to hear a warning tone prior to the call disconnecting.

Loop Keys

Loop keys simplify answering central office calls.

Microphone Cutoff

In order to mute the handset transmitter, set up a Microphone Cutoff Programmable Function Key.

Name Storing

Program a name for a trunk. This makes it easier to identify the incoming call.

Night Service

Use Universal Answer to pick up Universal Night Answer calls.

Off Hook Signaling

If a keyset's first channel (CALL1) is busy, an incoming call always signals the idle second channel (CALL2) if available.

Paging, External

Only trunks defined as 'normal' in Program 22-02-01 will ring external page speakers.

Programmable Function Keys

Line keys and loop keys simplify answering outside calls.

Selectable Text Messaging

If the Absent text message has been set by the originating extension, the destination extension will display the assigned text message instead of the Reason for Transfer message.

Tandem Trunking (Unsupervised Conference)

Various Tandem Trunking options can affect how central office calls are conferenced together.

Transfer

Assign various transfer options including transfer to a ring group.

Trunk Groups

Use trunk group programming for Loop Keys and Universal Answer.

Trunk Group Routing

Trunk Group Routing sets how incoming calls will be answered when using Universal Answer.

Central Office Calls, Answering

Operation

To answer an incoming trunk call:

1. Lift handset.
2. At keyset, press flashing line key.
If you don't have a line or loop key for a trunk call ringing your terminal, it rings an idle CALL key.
If you have Ringing Line Preference, lifting the handset answers the call.
You can dial after answering the call. This allows you, for example, to respond to computer-generated incoming calls.
OR
 1. If you know the specific line number, dial 172 + Line number (001-200).

To use Universal Answer to answer a call ringing over the Paging system:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
Depending on UX5000 programming, this may answer the call and you can skip Step 2.
2. Dial #0.
If you hear error tone, your extension's Class of Service prevents Universal Answer.

To listen to the incoming trunk ring choices (keyset only):

1. Press idle CALL key.
2. Dial 811 + 2.
3. Select the ringing (1-8) and tone range (1-4) you want to check.
4. Go back to step 3 to listen to additional choices or press SPK to hang up.

To change the pitch of your incoming trunk ring (keyset only):

1. Press idle CALL key.
2. Dial 820 + 2.
3. Select the ringing (1-8).
4. Press SPK to hang up.

Feature Availability

- Available - Capacity depends on the number of blades installed and the system port licensing (max: = 200 trunks).

Description

The UX5000 provides flexibility in the way each extension user can place outgoing trunk calls. This lets you customize the call placing options to meet site requirements and each individual's needs. A user can place a call by:

- Pressing Line Keys or "Loop Keys"
- Pressing a Trunk Group (i.e., loop) key
- Pressing a Trunk Group Routing (dial 9) key
- Dialing a code for a specific trunk (#9 + the trunk number)
- Dialing a code for a Trunk Group (804 + group number)
- Dialing a code for Trunk Group Routing or ARS (9)
- Dialing an Alternate Trunk Route Access Code (which you must define)

Trunk Port Disable

The UX5000 provides a service code (Default: 145) which can be used by an extension user to block a trunk for outgoing calls. The user which busied out the trunk will still have access to it. All other users will be blocked from seizing it to place an outgoing call. The trunk, however, can still be answered by any users programmed with the trunk access.

Clear Down / Automatic Release

When on a speakerphone call only, when an outside caller hangs up, the UX5000 will return the keyset to an idle condition. The user does not have to press the SPK key to hang up. This feature is automatic and no programming is required. Refer to the **Automatic Release** (page 110) feature for details.

Codec Filter Data Setup Program

When **Program 81-07-01 : Codec Filter Setup for Analog Trunk Ports** is set to "4 - Specified Data", the UX5000 will use the settings in **Program 81-09 : COIU Codec Filter Data Setup**.

These values should not be changed from their default settings unless directed by NEC'S Technical Service department.

The side tone of the COIU is adjusted using all 16 values, however, special software is required in order to compute these values. The setting is not proportional to the gain level. To change these values, contact NEC's Technical Service department for assistance.

Sidetone Volume Setup

An option is available to allow the the change of the keyset side tone volume. There are two levels, based on whether the connected trunk is a digital trunk or analog trunk.

Central Office Calls, Placing

Conditions

- The UX5000 provides analog trunk CO service via COIU blades. COIU blades can connect to either loop start or ground start CO lines. Refer to the UX5000 hardware manual for additional details.
- Analog Trunk (COIU) blades do not require circuit type programming.

Default Setting

Enabled.

Programming

- **10-03-03 : Blade Setup, For SLIU Unit - Transmit Codec Gain Type**
10-03-04 : Blade Setup, For SLIU Unit - Receive Codec Gain Type
Customize the transmit and receive levels (1-63) of the Codec Gain Types for 500/2500 type single line terminals.
- **11-01-01 : System Numbering**
Set up a Service Code for Alternate Trunk Route Access and, if required, change the single-digit Trunk Access code (default: 9).
- **11-09-01 : Trunk Access Code**
If required, change the single-digit Trunk Access Code (normally 9). If you change this code, you must also review the settings in 11-01 for the new code selected.
- **11-09-02 : Trunk Access Code - Alternate Trunk Route Access Code**
Assign the Service Code set up in 11-01 for Alternate Trunk Route Access.
- **11-11-13 : Service Code Setup (for Setup/Entry Operation) - Display Language Selection for Keypad**
Select the service code which can be used at an extension to change the displayed language on a keypad's display (default: 178).
- **11-12-14 : Service Code Setup (for Service Access) - Trunk Group Access**
To simplify placing calls, assign function keys for placing trunk calls: Trunk Group Routing/dial 9 keys (code 804).
- **14-01-01 : Basic Trunk Data Setup - Trunk Name**
To make identifying calls easier, assign a name to each trunk.
- **14-01-02 : Basic Trunk Data Setup - Transmit Codec Gain Type**
14-01-03 : Basic Trunk Data Setup - Receive Codec Gain Type
Assign a Codec Gain Type (1-63) to each trunk. This sets the amount of gain (amplification) for the selected trunk.
- **14-01-07 : Basic Trunk Data Setup - Outgoing Calls**
For each trunk, allow (1) or prevent (0) outgoing calls.
- **14-01-10 : Basic Trunk Data Setup - DTMF Tones for Outgoing Calls**
For each trunk, enable (1) or disable (0) DTMF tones for outgoing trunk calls. This setting is not affected by the Dial Pad Confirmation Tone setting (CALL + 824).
- **14-02-05 : Analog Trunk Data Setup - Dial Tone Detection for Directly Accessed Trunk**
Use this option enable (1) or disable (0) dial tone detection for directly accessed trunks. If disabled, the UX5000 outdials on the trunks without monitoring for dial tone.
If there are no DSP resources, this program will be ignored.

- **14-02-11 : Analog Trunk Data Setup - Next Trunk in Rotary if No Dial Tone**

Use this option to enable (1) or disable (0) the UX5000's ability to skip over a trunk if dial tone is not detected. This option pertains to calls placed using Loop Keys, Speed Dial, ARS, Last Number Redial or Save Number dialed. It does not pertain to line key or Direct Trunk Access calls.

If there are no DSP resources, this program will be ignored.
- **14-02-14 : Analog Trunk Data Setup - Loop Start/Ground Start**

Select loop start (0) or ground start (1) for the trunk.
- **14-05-01 : Trunk Groups**

Assign trunks to Trunk Groups. You can also assign the outbound priority for trunks within the group. When users dial up the trunk group, they seize the trunks in the order you specify in the outbound priority entry.
- **14-06-01 : Trunk Group Routing**

Set up an outbound routing table for the trunk groups you assigned in Program 14-05. When users dial 9, the UX5000 routes their calls in the order (priority) you specify.

⇨ Trunk Routing Table 1-100
- **14-07-01 : Trunk Access Map Setup**

Set up the Trunk Access Maps. This sets the access options for trunks.
- **15-02-01 : Multi-Line Terminal Basic Data Setup**

Select the language which should be used on a keyset's display (0 = Japanese, 1 = English, 2 = German, 3 = French, 4 = Italian, 5 = Spanish, 6 = Dutch, 7 = Portuguese, 8 = Norwegian, 9 = Danish, 10 = Swedish, 11 = Turkish, 12 = Latin American Spanish).
- **15-02-08 : Multi-Line Terminal Basic Setup - Automatic Handsfree**

Determine whether or not an extension should have automatic handsfree by pressing a line or one-touch key (1) or if this operation only preselects a line or one-touch key for use (0).
- **15-03-03 : Single Line Terminal Basic Data Setup - Terminal Type**

Enter 1 for this option to allow a single line port to receive DTMF tones after the initial call setup. Enter 0 to have the port ignore DTMF tones after the initial call setup. For Voice Mail, always enter 1 (e.g., receive DTMF tones).
- **15-06-01 : Trunk Access Map for Extensions**

Assign Trunk Access Maps to extensions for each night mode (1-8).

⇨ Trunk Access Maps 1-200
- **15-07-01 : Programming Function Keys**

To simplify placing calls, assign function keys for placing trunk calls: Line keys (code *01 + trunk), Trunk Group keys (code *02 + group), Loop keys (code *05 + enter 0 (incoming only), 1 (outgoing only) or 2 (both ways)). Also service codes can be assigned to function keys (01 + service code).
- **15-13-01 : Loop Keys - Outgoing**

Assign trunk groups for outgoing loop keys (0=ARS or Dial 0, Trunk Groups 1-100).
- **15-13-02 : Loop Keys - Incoming**

Assign trunk groups for incoming loop keys (0=all Trunk Groups, Trunk Groups 1-100).
- **20-02-06 : System Options for Multi-Line Terminals - Preselection Time**

Set the preselection interval (0-64800 seconds). When a keyset user preselects a line key, the UX5000 remembers the preselection for this interval.
- **20-02-09 : System Options for Multi-Line Terminals - Disconnect Supervision**

Enable (1) disconnect supervision for the UX5000.
- **20-06-01 : Class of Service for Extensions**

Assign a Class Of Service (1-15) to extensions for each night mode (1-8).
- **20-08-02 : Class of Service Options (Outgoing Call Service) - Trunk Calls**

In an extension's Class of Service (1-15), enable (1) or disable (0) trunk calling.

Central Office Calls, Placing

- **20-13-13 : Class of Service Options (Supplementary Service) - Continued Dialing**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to use Continued Dialing which allows DTMF signal sending while talking on extension.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **21-01-03 : System Options for Outgoing Calls - Trunk Interdigit Time (External)**
The UX5000 waits for this timer to expire before placing the call in a talk state (Call Timer starts after timer expires, Voice Over and Barge-In are not allowed until after timer expires). If set to "0", Voice Over and Barge In will not work for external calls. This timer affects CO and PRI outdialing. (0-64800 Seconds)
- **21-01-15 : System Options for Outgoing Calls - Outgoing Disable on Incoming Line**
Enable (1) or disable (0) the Outgoing Disable on Incoming Line feature.
- **21-01-16 : System Options for Outgoing Calls - Supervise Dial Detection Timer**
With the Outgoing Disable on Incoming Line feature, if dial tone is not detected after the extension answers an incoming line, the UX5000 determines the call is unable to complete and releases the DTMF receiver (0-64800 Seconds).
- **21-01-17 : System Options for Outgoing Calls - Restriction Digit in Outgoing Disable on Incoming Line**
With the Outgoing Disable on Incoming Line feature, determine the number of digits (0-9) to be dialed before the call should be disconnected.
- **21-02-01 : Trunk Group Routing for Extensions**
Assign Program 14-06 routes to extensions.
⇨ Trunk Group Routes 1-100
- **21-15-01 : Alternate Trunk Route for Extensions**
Designate the trunk route accessed when a user dials the Alternate Trunk Route Access Code. Refer to "Trunk Group Routing" to set up outbound routing.
⇨ Trunk Group Routes 1-100
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer, outgoing from trunk, Tandem Trunking) (0-64800).
- **81-01-01 : Analog Trunk Data Setup**
Review the Analog Trunk Timers for compatibility with the connected telco.
- **81-09-01 : COIU Codec Filter Data Setup**
The UX5000 will use the settings in this program when **Program 81-07-01 : Codec Filter Setup for Analog Trunk Ports** is set to "4 - Specified Data". These values should not be changed from their default settings unless directed by NEC'S Technical Service department.

The side tone of the COIU is adjusted using all 16 values, however, special software is required in order to compute these values. The setting is not proportional to the gain level. To change these values, contact NEC's Technical Service department for assistance.
- **82-08-01 : Sidetone Volume Setup**
Use this program to adjust of the keyset side tone volume. There are two levels, based on whether the connected trunk is a digital trunk or analog trunk.

➔ **82-09-01 : SLIU Codec Filter Data Setup**

The UX5000 will use the settings in the new **Program 82-09 : SLIU Codec Filter Data Setup** when **Program 82-07-01 : Codec Filter Setup for Analog Station Ports** is set to "4 - Specified Data". These values should not be changed from their default settings unless directed by NEC'S Technical Service department.

The side tone of the COIU is adjusted using all 16 values, however, special software is required in order to compute these values. The setting is not proportional to the gain level. To change these values, contact NEC's Technical Service department for assistance.

Related Features

Automatic Route Selection

The UX5000 can automatically select the correct type of line to use based on the number dialed and the time.

Class of Service

The Timer Class of Service may affect a call.

Dial Pad Confirmation

If this feature is disabled, tones will still be heard when placing outgoing calls and when ARS outdials.

Dial Tone Detection

Refer to this feature for the specifics on how the UX5000 handles Dial Tone Detection.

Handsfree

With Automatic Handsfree, an extension user can press a line key to place a trunk call without first lifting the handset or pressing SPK. Users without Automatic Handsfree can preselect a line key before lifting the handset or pressing SPK.

Long Conversation Cutoff/Warning Tone for Long Conversation

Long Conversation Cutoff can disconnect incoming and outgoing CO calls after a set time period. Using the Warning Tone for Long Conversation feature allows users on outgoing calls to hear a warning tone prior to the call disconnecting.

Loop Keys

Loop keys simplify placing Central Office Calls.

Microphone Cutoff

In order to mute the handset transmitter, set up a Microphone Cutoff Programmable Function Key. The MIC key will only mute the handsfree microphone.

Programmable Function Keys

Line keys and loop keys simplify placing outside calls.

Toll Restriction

An extension's Toll Class of Service may prevent them from dialing certain numbers.

Trunk Group Routing

Trunk Group Routing sets outbound call routing options for users that dial the Trunk Group Routing code (9) for trunk calls.

Trunk Groups

Use trunk group programming to set the order in which users access trunks within a specific trunk group.

Central Office Calls, Placing

Operation

To place a call over a trunk group:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial 804.
3. Dial line group number (1-9 or 001-100).
4. Dial number.
OR
1. At keyset, press trunk group key (PGM 15-07 or SC 851: *02 + group).
Also see the "Loop Keys" feature.
2. Dial number.

To place a call using Trunk Group Routing:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial 9.
If your UX5000 has an Alternate Trunk Route Access code, you may dial that instead.
3. Dial number.
OR
1. At keyset, press Trunk Group Routing key (PGM 15-07 or SC 852: *05).
Also see the "Loop Keys" feature.
2. Dial number.

To place a call over a specific trunk:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial #9.
3. Dial line number (e.g., 005 for line 5).
4. Dial number.
OR
1. At keyset, press line key (PGM 15-07 or SC 852: *01 + 001 to 200).
Also see the "Loop Keys" feature.
2. Dial number.

Central Telephone Book

Feature Availability

- Available.

Description

The Central Telephone Book feature provides each display keyset user up to two personal telephone books which can be used to store numbers. The UX5000 allows multiple extensions to be assigned the same telephone book - this allows users to share commonly used numbers.

- Up to 100 books of 300 entries can be stored.
- The Telephone Books can be password protected.
- Numbers can be stored using Last Number Dialed and Caller ID

The following key operation can be used with the Telephone Book:

- HOLD button - User can enter the data. (same as the Abbreviated Dial input)
- DIAL button - User can input the character: @ (same as the Abbreviated Dial input)
- MIC button - User can input the character: P (same as the Abbreviated Dial input)
- FLASH button - User can change the input mode or input the character: R. (same as the Abbreviated Dial input)
- EXIT button - User can finish the telephone book operation.
- CONF button - User can delete the characters (same as the Abbreviated Dial input) or the user returns back one page.
- VOL UP button/Navigation Pad VOL UP - User can change the edit item or page OR the user can start a search.
- VOL DOWN button/Navigation Pad VOL DOWN - User can change the edit item or page OR the user can start a search.
- SOFT KEY button - User can select the function.
- Dial pad - User can input the data or select list.
- Navigation Pad Right Arrow - User can access the menu for Central Telephone Book or move the cursor to the right.
- Navigation Pad Left Arrow - User can move the cursor to the left.

Conditions

If the UX5000 is cold started, the Central Telephone Book is initialized and the information erased.

Default Settings

Enabled

Programming

- **11-11-56 : Service Code Setup (for Setup/Entry Operation) - Telephone Book Lock Service**
Using the service code defined in this option, users can change the UX5000 Telephone Book lock status.
- **13-07-01 : Telephone Book Number and Name - Dial Data**
Use this program to store the dialing data for each Telephone Book. Up to 300 entries can be made in each Telephone Book.
⇨ Telephone Books: 1-100, Memory Number: 0-299
- **13-07-02 : Telephone Book Number and Name - Name**
Use this program to store a name to a memory number assigned in each Telephone Book. A maximum of 12 characters is allowed (permitted entries: 1-9, 0, *, #, P,R,@). Up to 300 entries can be made in each Telephone Book.
⇨ Telephone Books: 1-100, Memory Number: 0-299
- **13-07-04 : Telephone Book Number and Name - Group Number**
Use this program to assign each Telephone Book to a group number (1-20).
- **13-08-01 : Telephone Book System Name**
Define the name of the system Telephone Book. This entry can be up to 6 characters.
- **13-09-01 : Telephone Book Group Name**
Use this program to define the name of the system Telephone Book group. This entry can be up to 8 characters.
⇨ Telephone Books: 1-100, Group Number: 1-20
- **13-10-01 : Telephone Book Routing**
This program defines the dial routing of the system Telephone Book group. When an outside call is placed, the UX5000 follows Program 14-06-01.
⇨ Telephone Books: 1-100, Outgoing Mode: 0 = External Outgoing, 1 = Internal Outgoing
- **15-19-01 : System Telephone Book Setup for Extension - Telephone Book Number 1**
Assign the first Telephone Book to each extension. The UX5000 allows multiple extensions to be assigned the same telephone book - this allows users to share commonly used numbers.
⇨ 0-100
- **15-19-02 : System Telephone Book Setup for Extension - Telephone Book Number 2**
Assign the second Telephone Book to each extension. The UX5000 allows multiple extensions to be assigned the same telephone book - this allows users to share commonly used numbers.
⇨ 0-100
- **15-19-06 : System Telephone Book Setup for Extension - Locking Telephone Book**
For each extension, determine if the Telephone Book should be locked (1) or unlocked (0) by default. A user can unlock the Telephone Book using the service code defined in Program 11-11-56.
- **15-19-07 : System Telephone Book Setup for Extension - Telephone Book Password**
For each extension, assign the 4-digit Telephone Book password (0000-9999 (must be 4 digits)).

Related Features

Abbreviated Dialing

Each extension user can also store numbers in their Central Telephone Book for quick access to outside numbers.

Operation

New Registration

Registration allows the user to enter new data into the telephone book.

1. From an idle keyset, press the PROG Soft Key, then press the DOWN ARROW Soft Key.
*When the keyset provides a Navigation Pad, the keyset does not need to be idle to access the Central Telephone Book. You can access the menu by pressing the DIR Navigation Pad (right).
TELBK is displayed on Soft Key 2.*

2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST	2:SEARCH		
3:SETTING	4:DeleteAll		
1:	2:	3:	4:

3. Press Soft Key 1 for Registration.
Pressing the CONF key from this screen on will back up the view to the previous screen.
4. *If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02:*
Press Soft Key 1 or 2 to select the Telephone Book to register new data.

[REGIST DATA]
TLBK1 TLBK2

By default, the user will search by name (indicated by the [A] in the upper right-hand corner of the display. Soft Key 1 will step through the different search options (numbers, Kana, alpha). To search by number, press the NUM soft key - the [A] changes to [1].

5. Input the name (up to 12 digits) and press the HOLD button.

TLBK1:INPUT NAME [A]
<
NUM ← →

TLBK1:INPUT NAME [A]
ABC <
NUM ← →

6. Using the dial pad, select the Group number.

TLBK1:SELECT GROUP
1:GROUP1 2:GROUP2
3:GROUP3 4:GROUP4

7. Enter the number to be stored and press HOLD.

TLBK1:INPUT NUMBER
ABC
2035551234

8. Enter the bin number where the telephone number is to be stored and press HOLD.
The next available bin number is automatically displayed.

TLBK1:REGIST MEMORY	>000
[0- 299]	

- The display indicates the bin number as registered with the following display. This display will remain for approximately 3 seconds or you can press the CONF button to continue.

```
MEMORY:000 REGISTERED
REGISTERED DATA 1/300
```

Name Search

A user can search the Central Telephone Book by name.

- From an idle keyset, press the PROG Soft Key, then press the DOWN ARROW Soft Key.
When the keyset provides a Navigation Pad, the keyset does not need to be idle to access the Central Telephone Book. You can access the menu by pressing the DIR Navigation Pad (right).

TELBK is displayed on Soft Key 2.

- Press the TELBK Soft Key. The display indicates the following:

```
1:REGIST      2:SEARCH
3:SETTING    4>DeleteAll
1:           2:           3:           4:
```

- Press Soft Key 2 for Search.
Pressing the CONF key from this screen on will back up the view to the previous screen.
- If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02:*
Press Soft Key 1 or 2 to select the Telephone Book to search.

```
[SEARCH TELBOOK]
```

```
TLBK1  TLBK2
```

```
TLBK1:SEARCH NAME [A]
```

```
<
```

```
NUM  MENU  ←  →
```

By default, the user will search by name (indicated by the [A] in the upper right-hand corner of the display. Soft Key 1 will step through the different search options (numbers, Kana, alpha). To search by number, press the NUM soft key - the [A] changes to [1].

- Enter the search characters.

```
TLBK1:SEARCH NAME [A]
```

```
ABC <
```

```
NUM  MENU  ←  →
```

- Press the Volume Up or Volume Down keys to search.

```
1:ABC      2:ABC2
3:ABC3     4:ABC4
92035551234
```

Central Telephone Book

7. To dial the selected name, press the CALL or SPK key. OR,
To view the detail of the flashing item, press the HOLD key. You can then press the CALL or SPK key to dial the number.

Pressing the item number on the dial pad selects an item.

Pressing the CONFkey will back up the view to the previous screen.

[0] TEL1
92035551234
G:Group 01 CHG DEL.

Group Search

A user can search the Central Telephone Book by group name.

1. From an idle keyset, press the PROG Soft Key. then press the DOWN ARROW Soft Key.
When the keyset provides a Navigation Pad, the keyset does not need to be idle to access the Central Telephone Book. You can access the menu by pressing the DIR Navigation Pad (right).

TELBK is displayed on Soft Key 2.

2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST	2:SEARCH		
3:SETTING	4>DeleteAll		
1:	2:	3:	4:

3. Press Soft Key 2 for Search.

Pressing the CONF key from this screen on will back up the view to the previous screen.

4. *If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02:*

Press Soft Key 1 or 2 to select the Telephone Book to search.

[SEARCH TELBOOK]
TLBK1 TLBK2
TLBK1:SEARCH NAME [A]
<
NUM MENU ← →

By default, the user will search by name (indicated by the [A] in the upper right-hand corner of the display. Soft Key 1 will step through the different search options (numbers, Kana, alpha). To search by number, press the NUM soft key - the [A] changes to [1].

5. Press Soft Key 2 for Menu.

[SEARCH MENU]
NAME GRP NUM MEM

6. Press Soft Key 2 for Group.

TLBK1:SEARCH GROUP	
1:Group 01	2:Group 02
3:Group 03	4:Group 04

- 7. Using the dial pad, select the group to search, then press HOLD.

1:ABC 2:ABC2
3:ABC3 4:ABC4
92035551234

- 8. Press the Volume Up or Volume Down keys to search.

1:ABC 2:ABC2
3:ABC3 4:ABC4
92035551234

- 9. To dial the selected name, press the CALL or SPK key. OR, To view the detail of the flashing item, press the HOLD key. You can then press the CALL or SPK key to dial the number.

Pressing the item number on the dial pad selects an item.
Pressing the CONF key from this screen on will back up the view to the previous screen.

[0] TEL1
92035551234
G:Group 01 CHG DEL.

Telephone Number Search

A user can search the Central Telephone Book by number.

- 1. From an idle keyset, press the PROG Soft Key. then press the DOWN ARROW Soft Key. When the keyset provides a Navigation Pad, the keyset does not need to be idle to access the Central Telephone Book. You can access the menu by pressing the DIR Navigation Pad (right).

TELBK is displayed on Soft Key 2.

- 2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST 2:SEARCH
3:SETTING 4>DeleteAll
1: 2: 3: 4:

- 3. Press Soft Key 2 for Search. Pressing the CONF key from this screen on will back up the view to the previous screen.
- 4. If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02: Press Soft Key 1 or 2 to select the Telephone Book to search.

[SEARCH TELBOOK]
TLBK1 TLBK2

TLBK1:SEARCH NAME [A]
<
NUM MENU ← →

- 5. Press Soft Key 2 for Menu.

[SEARCH MENU]
NAME GRP NUM MEM

Central Telephone Book

6. Press Soft Key 3 for Number.

```
TLBK1:SEARCH NUMBER
MENU
```

7. Enter the search number(s).

At least one digit must be entered before the search can be done.

```
TLBK1:SEARCH NUMBER
9203
MENU
```

8. Press the Volume Up or Volume Down keys to search.

```
1:ABC          2:ABC2
3:ABC3        4:ABC4
92035551234
```

9. To dial the selected name, press the CALL or SPK key. OR,
To view the detail of the flashing item, press the HOLD key. You can then press the CALL or SPK key to dial the number.

Pressing the item number on the dial pad selects an item.

Pressing the CONF key from this screen on will back up the view to the previous screen.

```
[ 0]          TEL1
92035551234
G:Group 01  CHG  DEL.
```

Search Memory

A user can search the Central Telephone Book by memory number.

- 1. From an idle keyset, press the PROG Soft Key. then press the DOWN ARROW Soft Key.
When the keyset provides a Navigation Pad, the keyset does not need to be idle to access the Central Telephone Book. You can access the menu by pressing the DIR Navigation Pad (right).
TELBK is displayed on Soft Key 2.

- 2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST	2:SEARCH
3:SETTING	4>DeleteAll
1:	2: 3: 4:

- 3. Press Soft Key 2 for Search.
Pressing the CONF key from this screen on will back up the view to the previous screen.
- 4. *If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02:*
 Press Soft Key 1 or 2 to select the Telephone Book to search.

[SEARCH TELBOOK]
TLBK1 TLBK2
TLBK1:SEARCH NAME [A]
<
NUM MENU ← →

- 5. Press Soft Key 2 for Menu.

[SEARCH MENU]
NAME GRP NUM MEM

- 6. Press Soft Key 4 for Memory.

TLBK1:SEARCH MEMORY
>
MENU [0- 299]

- 7. Enter the memory number to be searched.
At least one digit must be entered before the search can be done.

TLBK1:SEARCH MEMORY
> 0
MENU [0- 299]

- 8. Press the Volume Up or Volume Down keys to search.

[0] TEL1
92035551234
G:Group 01 CHG DEL

- 9. To dial the selected name, press the CALL or SPK key.
Pressing the CONF key will back up the view to the previous screen.

Central Telephone Book

Delete All Data

A user can delete *all* the Central Telephone Book information using the following steps.

1. From an idle keyset, press the PROG Soft Key. then press the DOWN ARROW Soft Key.
TELBK is displayed on Soft Key 2.

2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST	2:SEARCH		
3:SETTING	4>DeleteAll		
1:	2:	3:	4:

3. Press Soft Key 4 for Delete All.

Pressing the CONF key from this screen on will back up the view to the previous screen.

4. *If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02:*
Press Soft Key 1 or 2 to select the Telephone Book to search.

[DELETE DATA]

TLBK1 TLBK2

TLBK1:DELETE ALL DATA
INPUT PWD:4DIGIT
<

5. Enter the 4-digit password assigned in Program 15-09-07 or through the "Setting" menu in the Central Telephone Book Soft Key menu.

TLBK1:DELETE ALL DATA
DELETE ALL TELBOOK DATA?
Yes No

6. Press Soft Key 3 (Yes) to delete all the entered data, or press Soft Key 4 (No) to back up. Pressing Soft Key 3 will then display the following:

DELETED ALL TELBOOK DATA

[DELETE DATA]

TLBK1 TLBK2

7. Press the CONF key to back up the view to the previous screen.

Change the Telephone Book Data

A user can change the Central Telephone Book data.

- 1. From an idle keyset, press the PROG Soft Key. then press the DOWN ARROW Soft Key. TELBK is displayed on Soft Key 2.

- 2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST 2:SEARCH
3:SETTING 4>DeleteAll
1: 2: 3: 4:

- 3. Press Soft Key 2 for Search. Pressing the CONF key from this screen on will back up the view to the previous screen.

- 4. If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02: Press Soft Key 1 or 2 to select the Telephone Book to search.

[SEARCH TELBOOK]
TLBK1 TLBK2
TLBK1:SEARCH NAME [A]
<
NUM MENU <- ->

- 5. Press Soft Key 2 for Menu.

[SEARCH MENU]
NAME GRP NUM MEM

- 6. Press the appropriate Soft Key to search by Name, Group, Number, or Memory Number. (Refer to the operations above for details on the specific steps for the option you select.)
7. Locate the entry to be changed and press HOLD to display the details of the entry.

[0] TEL1
92035551234
CHG DEL. Dial

- 8. Press the CHG Soft Key 1 for Change.

TLBK1 :CHANGE DATA
N:ABC
G:Group 01

- 9. To change the name, press HOLD and enter the new name. Press HOLD. You can now change the group or memory number or press CONF to exit.
To change the memory number, press the Up key on the Navigation Pad, and at the ENTER REGIST MEMORY display, press HOLD. Select the new memory number to be used for the number and press HOLD. Press Soft Key 3 to overwrite the current information or press Soft Key 4 to cancel and allow you to select a new memory number. You can now select a new entry to edit or press CONF to exit.
To change the group and memory number, press the Right key on the Navigation Pad, press HOLD, then using the dial pad, select the group number to be assigned. The display flashes the saved telephone number - press HOLD. You can now change the telephone number, then press HOLD. At the ENTER REGIST MEMORY display, press HOLD. Select the new memory number to be used for the number and press HOLD. Press Soft Key 3 to overwrite the current information or press Soft Key 4 to cancel and allow you to select a new memory number. You can now select a new entry to edit or press CONF to exit.

Central Telephone Book

Delete an Entry in the Telephone Book

A user can delete one entry in the Central Telephone Book.

1. From an idle keyset, press the PROG Soft Key, then press the DOWN ARROW Soft Key.
TELBK is displayed on Soft Key 2.

2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST	2:SEARCH		
3:SETTING	4>DeleteAll		
1:	2:	3:	4:

3. Press Soft Key 2 for Search.

Pressing the CONF key from this screen on will back up the view to the previous screen.

4. *If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02:*
Press Soft Key 1 or 2 to select the Telephone Book to search.

[SEARCH TELBOOK]

TLBK1 TLBK2

TLBK1:SEARCH NAME [A]
<
NUM MENU ← →

5. Press Soft Key 2 for Menu.

[SEARCH MENU]

NAME GRP NUM MEM

6. Press the appropriate Soft Key to search by Name, Group, Number, or Memory Number. (Refer to the operations above for details on the specific steps for the option you select.)
7. Locate the entry to be changed and press HOLD to display the details of the entry.

[0] TEL1
92035551234
CHG DEL. Dial

8. Press the DEL Soft Key 2 for Delete.

TLBK1 :DELETE DATA
DELETE DATA?
Yes No

9. Press Soft Key 3 (Yes) to delete the record or press Soft Key 4 (No) to cancel the deletion process. Pressing Yes displays the following:

DELETE COMPLETE!

10. Press CONF as needed to exit out of the displays or press CLEAR to return the terminal to an idle state.

Registering Caller ID to the Central Telephone Book

While reviewing the Caller ID list, a user can add a record into the Central Telephone Book with the following operation. This function can only be performed if the Central Telephone Book is unlocked.

1. From an idle keyset, press Soft Key 1 for List.
2. Press Soft Key 2 for CID.
3. Use the Arrow Up and Arrow Down Soft Keys to display the desired Caller ID record.
4. Press Soft Key 3 for Store.
5. Press Soft Key 3 for TELBK.

01:	ABC1
*	MM-DD HH:TT
OneT	Abb TELBK

6. *If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02:*
Press Soft Key 1 or 2 to select the Telephone Book in which the number should be stored.

01:	ABC1
*	MM-DD HH:TT
TLBK1	TLBK2

7. To enter/change the name, press HOLD and enter the new name. Press HOLD.
8. To enter the group number, press HOLD, then using the dial pad, select the group number to be assigned. The display flashes the saved telephone number - press HOLD. You can now change the telephone number, then press HOLD. At the ENTER REGIST MEMORY display, press HOLD. Select the new memory number to be used for the number and press HOLD. If the memory number selected was already defined, press Soft Key 3 to overwrite the current information or press Soft Key 4 to cancel and allow you to select a new memory number. You can now select a new entry to edit or press CONF to back up the displayed window.

Central Telephone Book

Registering a LND to the Central Telephone Book

While reviewing the Last Number Dialed (LND) list, a user can add a record into the Central Telephone Book with the following operation. This function can only be performed if the Central Telephone Book is unlocked.

1. From an idle keyset, press Soft Key 1 for List.
2. Press Soft Key 1 for Redial.
3. Use the Arrow Up and Arrow Down Soft Keys to display the desired LND record.
4. Press Soft Key 3 for Store.
5. Press Soft Key 3 for TELBK.

REDIAL-01
* 2035551234
OneT Abb TELBK

6. *If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02:*
Press Soft Key 1 or 2 to select the Telephone Book in which the number should be stored.

REDIAL-01
* 2035551234
TLBK1 TLBK2

7. To enter/change the name, press HOLD and enter the new name. Press HOLD.
8. To enter the group number, press HOLD, then using the dial pad, select the group number to be assigned. The display flashes the saved telephone number - press HOLD. You can now change the telephone number, then press HOLD. At the ENTER REGIST MEMORY display, press HOLD. Select the new memory number to be used for the number and press HOLD. If the memory number selected was already defined, press Soft Key 3 to overwrite the current information or press Soft Key 4 to cancel and allow you to select a new memory number. You can now select a new entry to edit or press CONF to back up the displayed window.

SETTINGS

Changing the Group Name

1. From an idle keyset, press the PROG Soft Key. then press the DOWN ARROW Soft Key. TELBK is displayed on Soft Key 2.

2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST	2:SEARCH
3:SETTING	4>DeleteAll
1:	2: 3: 4:

3. Press Soft Key 3 for Setting. Pressing the CONF key from this screen on will back up the view to the previous screen.

[SETTING]
GrpNameEdit LOCK PWD

4. If 2 Telephone Books are defined in Program 15-19-01 and 15-19-02: Press Soft Key 1 or 2 to select the Telephone Book to edit.

[SELECT TELBK]
TLBK1 TLBK2

5. Press Soft Key 1 for Group Name Edit.

6. Using the dial pad, select the Group number.

TLBK1:SELECT GROUP
1:GROUP1 2:GROUP2
3:GROUP3 4:GROUP4

7. Enter the new name to be stored and press HOLD.

TLBK1:GRP NAME [A]
Group 01<
NUM ← →

8. The display indicates "REGISTERED!" then returns to the Select Group display.

TLBK1:SELECT GROUP
1:GROUP1 2:GROUP2
3:GROUP3 4:GROUP4

9. You can now edit another group name, press CONF to return to the previous menu display, or press CLEAR to exit.

Central Telephone Book

Locking/Unlocking a Telephone Book

Locking a Telephone Book will prevent any changes to it until the book is unlocked.

1. From an idle keyset, press the PROG Soft Key, then press the DOWN ARROW Soft Key.
TELBK is displayed on Soft Key 2.

2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST	2:SEARCH		
3:SETTING	4>DeleteAll		
1:	2:	3:	4:

3. Press Soft Key 3 for Setting.

Pressing the CONF key from this screen on will back up the view to the previous screen.

[SETTING]
GrpNameEdit LOCK PWD

4. Press Soft Key 3 for Lock.

5. If the Telephone Book is unlocked:

[LOCK TELBOOK]
INPUT PWD:4DIGIT
<

If the Telephone Book is locked:

[UNLOCK TELBOOK]
INPUT PWD:4DIGIT
<

6. Enter the password as defined Program 15-19-07 (default: 0000).

If the Telephone Book is locked:

THE TELBOOK IS LOCKED

If the Telephone Book is unlocked:

THE TELBOOK IS UNLOCKED

7. You can now press CONF to return to the previous menu display or press CLEAR to exit.

Lock/Unlock a Telephone Book Using a Service Code

1. Press the CALL key.
2. Enter the Lock Telephone Book service code (Program 11-11-56).
3. Enter the destination extension number.
4. Enter the extension's password defined in Program 15-19-07.

Edit the Password for Locking/Unlocking a Telephone Book

Locking a Telephone Book will prevent any changes to it until the book is unlocked. This operation changes the password a user would enter to lock/unlock the Telephone Book.

1. From an idle keyset, press the PROG Soft Key, then press the DOWN ARROW Soft Key.
TELBK is displayed on Soft Key 2.

2. Press the TELBK Soft Key. The display indicates the following:

1:REGIST	2:SEARCH		
3:SETTING	4>DeleteAll		
1:	2:	3:	4:

3. Press Soft Key 3 for Setting.
Pressing the CONF or FEATURE key from this screen on will back up the view to the previous screen.

[SETTING]
GrpNameEdit LOCK PWD

4. Press Soft Key 4 for Password.
5. Using the dial pad, enter the current password as defined Program 15-19-07 (default: 0000).

[CHANGE PWD]
INPUT PWD:4DIGIT
**** <

6. Enter the new 4-digit password.

[CHANGE PWD]
INPUT NEW PWD:4DIGIT
**** <

7. The display indicates NEW PASSWORD IS SET and then returns to the following display:

[SETTING]
GrpNameEdit LOCK PWD

8. You can now press CONF to return to the previous menu display or press CLEAR to exit.

Class of Service

Feature Availability

- Available - 15 Classes of Service..

Description

Class of Service (COS) sets various features and dialing options (called items) for extensions. The UX5000 allows any number of extensions to share the same Class of Service. An extension can have a different Class of Service for each of the Night Service modes. This lets you program a different set of dialing options for daytime operation, nighttime operation and even during lunch breaks. An extension's Class of Service can be changed in UX5000 programming or via a Service Code (normally 177).

A Class of Service program is available for some of the timers which affect only the extensions and trunks which are assigned to use the timer Class of Service. Each timer Class of Service has 15 different classes (01-15), plus the option to use the system-wide timer (0).

Conditions

Before assigning a new COS, make sure the new COS matches the old COS or you may enable options which the extension should not have or remove options which it should have.

Default Setting

- The attendant (extension 301) has Class of Service 15 in all Night Service modes. All other extensions have Class of Service 1 in all Night Service modes.
- See the **Charts and Illustrations** (page 3) for the default settings of the individual options.

If changing Class of Service via Service Code:

- An extension can use Service Code 177 to change another extension's Class of Service (Program 20-13-28 = 1).
- An extension automatically blocks another extension's attempt to change their Class of Service via Service Code 177 (Program 20-13-28 = 0).
- The default Service Code for this option is 177 (Program 11-11-24 = 177).

Timer Class of Service:

- All extensions and trunks set to Class of Service "0".

Programming

- **11-11-24 : Service Code Setup (for Setup/Entry Operation) - Change Extension Class of Service**

If required, use this option to change the Service Code (default: 177) a user dials to change an extension's Class of Service.
 - **20-06-01 : Class of Service for Extensions**

Assign a Class Of Service to extensions (1-15) for each night mode (1-8). Any Class of Service assignments you change using Service Code 177 (see above) automatically update this program.
 - **20-07 through 20-14 : Class of Service Options**

Set the options in a Class of Service.
 - **20-29-01 : Timer Class for Extensions**

Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
 - **20-30-01 : Timer Class for Trunks**

Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
 - **20-31-01 : Timer Data**

Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
 - **42-02-01 : Hotel/Motel Terminal Setup**

Assign an extension as either a normal (0) or Hotel (1) type of extension
 - **42-03-01 : Class of Service Setup (Hotel/Motel)**

For each Class of Service (1-15), enable (1) or disable (0) each of the Hotel COS options (1-13). For Hotel-type extensions (Program 42-02-01), use Program 20-06 to assign the Hotel COS options to an extension along with the normal extension COS options (Programs 20-07 through 20-13).
- If changing Class of Service via Service Code:**
- **20-13-28 : Class of Service Options (Supplementary Service) - Allow Station COS to be Changed**

Use this option to permit (1) or block (0) another extension from changing this extension's Class of Service via Service Code 177.

Class of Service

Class of Service Options (Administrator Level), Program 20-07					
Item No.	Item	Input Data	Default		Related Program
			COS 01-14	COS 15	
01	Manual Night Service Enabled Turn off or on an extension's ability to use manual Night Service Switching	0 = Off 1 = On	0	1	11-10-01
02	Changing the Music on Hold Tone Turn off or on an extension's ability to change the Music on Hold tone	0 = Off 1 = On	0	1	11-10-02
03	Time Setting Turn off or on an extension's ability to set the Time via Service Code 828.	0 = Off 1 = On	1	1	11-10-03
04	Storing Abbreviated Dialing Entries Turn off or on an extension's ability to store Common or Group Abbreviated Dialing numbers.	0 = Off 1 = On	1	1	11-10-04
05	Set/Cancel Automatic Trunk-to-Trunk Forwarding Turn off or on an extension's ability to use the Trunk-to-Trunk Forwarding service codes.	0 = Off 1 = On	0	0	11-10-06 11-10-07 11-10-08
06	- Not Used -				
07	- Not Used -				
08	- Not Used -				
09	- Not Used -				
10	Programmable Function Key Programming (Appearance Level) Turn off or on an extension's ability to program their Appearance function keys using Service Code 852 (by default).	0 = Off 1 = On	1	1	20-13-18
11	Forced Trunk Disconnect (analog trunk only) Turn off or on an extension's ability to use Forced Trunk Disconnect.	0 = Off 1 = On	0	1	
12	Trunk Port Disable Turn off or on an extension's ability to busy out a trunk. using Service Code 145. The user which busied out the trunk will still have access to the trunk for placing outgoing calls. All other users will be blocked from seizing the trunk to place an outgoing call. The trunk, however, can still be answered by any users programmed with the trunk access.	0 = Off 1 = On	0	1	11-10-27
13	VRS Record Turn off or on an extension's ability to record, erase and listen to VRS messages.	0 = Off 1 = On	0	1	

Class of Service Options (Administrator Level), Program 20-07					
Item No.	Item	Input Data	Default		Related Program
			COS 01-14	COS 15	
14	VRS General Message Listen Turn off or on an extension's ability to dial 4 or Service Code 111 and listen to the General Message	0 = Off 1 = On	0	1	11-10-21
15	VRS General Message Record Turn off or on an extension's ability to dial Service Code 112 and record, listen to or erase the General Message	0 = Off 1 = On	0	1	11-10-22
16	- Not Used -				
17	- Not Used -				
18	SMDR printout accumulated extension data	0 = Off 1 = On	0	1	11-10-23
19	SMDR printout accumulated STG data	0 = Off 1 = On	0	1	11-10-24
20	SMDR printout accumulated account code data	0 = Off 1 = On	0	1	11-10-25
21	IP DECT Registration by Service Code Turn off or on an extension's ability to register or unregister an IP DECT handset using the service codes defined in Program 11-10-30 and 11-10-31.	0 = Off 1 = On	0	0	11-10-30 11-10-31
24	Set/Cancel Private Call Refuse Turn on (1) or off (0) an extension's ability to use the Private Call Refuse service code or function key.	0 = Off 1 = On	0	0	11-10-32
25	Set/Cancel Caller ID Refuse Turn on (1) or off (0) an extension's ability to use the Caller ID Refuse service code or function key.	0 = Off 1 = On	0	0	11-10-33 11-10-34
26	DID Mode Switching Turn on (1) or off (0) an extension's ability to manually change the time pattern for a DID Conversion Table.	0 = Off 1 = On	0	0	11-10-35
30	Date Setting Turn on (1) or off (0) an extension's ability to change the date for the UX5000	0 = Off 1 = On	1	1	11-10-41

Class of Service

Class of Service Options (Outgoing Call Service), Program 20-08					
Item No.	Item	Input Data	Default		Related Program
			COS 01-14	COS 15	
01	Intercom Calls Turn off or on Intercom calling for the extension.	0 = Off 1 = On	1	1	
02	Trunk Calls Turn off or on outgoing trunk calling for the extension.	0 = Off 1 = On	1	1	
03	Common Abbreviated Dialing Turn off or on the ability for an extension to dial Common Abbreviated Dialing numbers.	0 = Off 1 = On	1	1	
04	Group Abbreviated Dialing Turn off or on the ability for an extension to dial Group Abbreviated Dialing numbers.	0 = Off 1 = On	1	1	
05	Dial Number Preview Turn off or on an extension's ability to use Dial Number Preview.	0 = Off 1 = On	1	1	
06	Toll Restriction Override Turn off or on Toll Restricting Override (Service Code 875).	0 = Off 1 = On	0	0	21-01-07, 21-07
07	Repeat Redial Turn off or on an extension's ability to use Repeat Redial.	0 = Off 1 = On	1	1	
08	Toll Restriction Dial Block Turn off or on an extension's ability to use Dial Block.	0 = Off 1 = On	0	0	
09	Hotline/Extension Ringdown Turn off or on Ringdown Extension for extensions with this COS.	0 = Off 1 = On	0	0	
10	Switching from Handsfree Answerback to Forced Intercom Ringing Turn off or on an extension's ability to force Handsfree Answerback or Forced Intercom Ringing for outgoing Intercom calls.	0 = Off 1 = On	1	1	
11	Protect ICM Call Mode Switching by Caller When an extension is set to ring mode for ICM calls, enabling this option prevents callers from changing the call to voice announce mode.	0 = Off 1 = On	0	0	
12	Department Group Step Calling Turn off or on an extension's ability to use Department Group Step Calling	0 = Off 1 = On	1	1	
13	ISDN CLIP Determine if the ISDN calling line identity presentation and screening indicators are to be allowed.	0 = Off 1 = On	0	0	

Class of Service Options (Outgoing Call Service), Program 20-08					
Item No.	Item	Input Data	Default		Related Program
			COS 01-14	COS 15	
14	Call Sub-Address Information	0 = Off 1 = On	0	0	
15	Block Outgoing Caller ID Turn off or on the UX5000's ability to automatically block outgoing Caller ID information when a user places a call. If this option is on, the UX5000 automatically inserts the Caller ID block code *67 (defined in Program 14-01-21) before the user's dialed digits.	0 = Off 1 = On	0	0	14-01-20 14-01-21
16	Display E911 Dialed Extension Name and Number Turn off or on an extension's ability to display the name and number of the extension that dialed 911.	0 = Off 1 = On	0	0	
17	ARS Override of Trunk Access Map Turn off or on an extension's ability to override the trunk access map programming for outgoing calls.	0 = Off 1 = On	0	0	
20	Hot Keypad Turn off or on an extension's ability to use the Hot Keypad feature which allows a user to start dialing a number on the keypad without having to press the SPK key.	0 = Off 1 = On	0	0	

Class of Service Options (Outgoing Call Service), Program 20-09					
Item No.	Item	Input data	Default		Related Program
			COS 01-14	COS 15	
01	Second Call for DID/ DISA/ DIL/ E&M Turn off or on the extension's ability to receive a second call from a DID, DISA, DIL, or tie line caller. <i>Note:</i> With this option set to '1', the destination extension must be busy in order for a second DNIS caller to ring through. If the destination extension does not have a line or loop key available for the second call and a previous call is ringing the extension but has not yet been answered, the second caller will hear busy regardless of this program's setting.	0 = Off 1 = On	0	0	
02	Caller ID Display Turn off or on the Caller ID display at an extension.	0 = Off 1 = On	0	0	15-02-08
03	Sub Address Identification Define whether an extension displays the Caller Sub-Address.	0 = Off 1 = On	0	0	
04	Notification for Incoming Call List Existence Determine whether an extension's display will show "Check List" when an incoming call has been missed by a user.	0 = Off 1 = On	0	0	20-09-02

Class of Service

Class of Service Options (Outgoing Call Service), Program 20-09					
05	Setting Handsfree Answerback or Forced Intercom Ringing Turn off or on an extension's ability to enable Handsfree Answerback or Forced Intercom Ringing for their incoming Intercom calls.	0 = Off 1 = On	1	1	11-11-15 11-11-16
06	Incoming Time Information Display If this option is set to "1", the Incoming Call Time is displayed on the keyset's LCD while the terminal is ringing.	0 = Off 1 = On	0	0	

Class of Service Options (Answer Service), Program 20-10				
Item No.	Item	Input Data	Default	
			COS 01-14	COS 15
01	Group Call Pickup (Within Group) Turn off or on Group Call Pickup for calls ringing an extension's own Pickup Group as well as ring group calls (Service Code *#).	0 = Off 1 = On	1	1
02	Group Call Pickup (Another Group) Turn off or on Group Call Pickup for calls ringing outside a group (Service Code 869).	0 = Off 1 = On	1	1
03	Group Call Pickup for Specific Group Turn off or on Group Call Pickup for a specific group using service code 868.	0 = Off 1 = On	1	1
04	Group Call Pickup Turn off or on an extension's ability to pick up a call ringing into a Pickup Group (Service Codes *# and 856).	0 = Off 1 = On	1	1
05	Directed Call Pickup for Own Group Turn off or on Directed Call Pickup for calls ringing an extension's own Pickup Group (Service Code 856).	0 = Off 1 = On	1	1
06	Meet Me Conference and Paging Turn off or on an extension's ability to use Meet Me Conference and Paging.	0 = Off 1 = On	1	1
07	Automatic Answer of Universal Calls Turn off or on an extension's ability to use Universal Auto Answer (no service code required).	0 = Off 1 = On	0	0
08	Auto Off-Hook Answer for Call Coverage Keys Turn off or on an extension's ability to answer an incoming call on a Call Coverage Key simply by lifting the handset.	0 = Off 1 = On	0	0

Class of Service Options (Answer Service), Program 20-11				
Item No.	Item	Input Data	Default	
			COS 01-14	COS 15
01	Call Forward Immediate Turn off or on an extension's ability to initiate Call Forwarding Immediate.	0 = Off 1 = On	1	1
02	Call Forward When Busy Turn off or on an extension's ability to use Call Forward When Busy.	0 = Off 1 = On	1	1
03	Call Forwarding When Unanswered Turn off or on an extension's ability to use Call Forward When Unanswered.	0 = Off 1 = On	1	1
04	Call Forwarding (Both Ringing) Turn off or on an extension's ability to activate Call Forwarding with Both Ringing.	0 = Off 1 = On	1	1
05	Call Forwarding with Follow Me Turn off or on an extension's ability to initiate Call Forwarding with Follow Me.	0 = Off 1 = On	1	1
06	Unscreened Transfer Turn off or on an extension's ability to use Unscreened Transfer.	0 = Off 1 = On	1	1
07	Transfer Without Holding Turn off or on an extension's ability to use Transfer Without Holding.	0 = Off 1 = On	0	0
08	Transfer Information Display Turn off or on an extension's incoming Transfer pre-answer display.	0 = Off 1 = On	1	1
09	Group Hold Initiate Turn off or on an extension's ability to initiate a Group Hold.	0 = Off 1 = On	1	1
10	Group Hold Answer Turn off or on an extension's ability to pick up a call on Group Hold	0 = Off 1 = On	1	1
11	Automatic On Hook Transfer Turn off or on an extension's ability to use Automatic On Hook Transfer	0 = Off 1 = On	1	1
12	Call Forwarding Off-Premise Turn off or on an extension's ability to set up Call Forwarding Off-Premise for their terminal.	0 = Off 1 = On	0	0
13	Operator Transfer After Hold Callback Turn off or on an extension's ability to have a call which recalls from hold transfer to the operator.	0 = Off 1 = On	0	0
14	Trunk to Trunk Transfer Restriction Turn off or on the Trunk-to-Trunk Transfer Restriction option. If enabled, trunk-to-trunk transfer is not possible.	0 = Off 1 = On	0	0

Class of Service

Class of Service Options (Answer Service), Program 20-11				
Item No.	Item	Input Data	Default	
			COS 01-14	COS 15
15	VRS Personal Greeting Turn off or on an extension's ability to dial Service Code *4 7 to record, listen to or erase the Personal Greeting Message.	0 = Off 1 = On	1	1
16	Call Redirect Turn off or on a keyset user's ability to transfer a call to a pre-defined destination (such as an operator, voice mail, or another extension) without answering the call.	0 = Off 1 = On	0	0
17	Set/Cancel Department Group Trunk-to-Trunk Forwarding Turn off or on an extension user's ability to set Trunk-to-Trunk Forwarding for a Department Group.	0 = Off 1 = On	1	1
18	No Recall Allow (0) or deny (1) answered Transferred calls from recalling the originating extension.	0 = Allow 1 = Deny	0	0
19	Normal/Extended Park Determine if an extension's Class of Service should allow either a normal or extended Park.	0 = Normal 1 = Extended	0	0
20	No Callback Turn off or on an extension's ability to receive Callbacks.	0 = Off 1 = On	0	0
21	Restriction for Tandem Trunking on Hang Up Allow (0) or deny (1) an extension users's ability to set up a tandem/conference call automatically when they hang up.	0 = Allow 1 = Deny	0	0
26	Personal Park at Another Extension Turn off or on an extension's ability to place a call at a co-worker's extension using Personal Park .	0 = Off 1 = On	0	0
27	Automatic Park Search Turn off or on an extension's ability to automatically Park a call in the first available orbit.	0 = Off 1 = On	1	1

Class of Service Options (Supplementary Service), Program 20-13					
Item No.	Item	Input Data	Default		Related Programs
			COS 01-14	COS 15	
01	Long Conversation Alarm Turn off or on the Warning Tone for Long Conversation (not for SLTs)	0 = Off 1 = On	0	0	
02	Long Conversation Cutoff (Incoming) Turn off or on an extension's ability to use Long Conversation Cutoff for incoming calls.	0 = Off 1 = On	0	0	

Class of Service Options (Supplementary Service), Program 20-13					
Item No.	Item	Input Data	Default		Related Programs
			COS 01-14	COS 15	
03	Long Conversation Cutoff (Outgoing) Turn off or on an extension's ability to use Long Conversation Cutoff for outgoing calls.	0 = Off 1 = On	0	0	
04	Call Forwarding/DND Override Turn off or on an extension's ability to use Call Forwarding/DND Override.	0 = Off 1 = On	1	1	
05	Intercom Off Hook Signaling Turn off or on an extension's ability to receive off hook signals.	0 = Off 1 = On	1	1	
06	Automatic Off Hook Signaling Allows a busy extension to manually (0) or automatically (1) receive off hook signals.	0= Manu- ally 1= Auto- mati- cally	1	1	
07	Message Waiting Turn off or on an extension's ability to leave Message Waiting.	0 = Off 1 = On	1	1	
08	Conference Turn off or on an extension's ability to initiate a conference or Meet Me Conference	0 = Off 1 = On	1	1	
09	Privacy Release Turn off or on an extension's ability to initiate a Voice Call Conference	0 = Off 1 = On	1	1	
10	Barge In Mode Enables the extension's Barge In to be speech mode (0) or Monitor mode (1).	0=Speec h 1=Moni- tor	0	0	
11	Room Monitor, Initiating Extension Turn off or on an extension's ability to initiate Room Monitor	0 = Off 1 = On	0	0	
12	Room Monitor, Extension Being Monitored Turn off or on an extension's ability to be monitored	0 = Off 1 = On	0	0	
13	Continued Dialing Turn off or on an extension's ability to use Continued Dialing which allows DTMF signal sending while talking on extension.	0 = Off 1 = On	1	1	
14	Department Calling Turn off or on an extension's ability to call a Department Group.	0 = Off 1 = On	1	1	

Class of Service

Class of Service Options (Supplementary Service), Program 20-13					
Item No.	Item	Input Data	Default		Related Programs
			COS 01-14	COS 15	
15	Barge In, Initiate Turn off or on Barge In at the initiating extension.	0 = Off 1 = On	0	0	
16	Barge In, Receive Turn off or on Barge In at the receiving extension.	0 = Off 1 = On	0	0	
17	Barge In Tone/Display Use this option to turn off or on the Barge In tone. If on, callers hear an alert tone and their display indicates the Barge In when another extension barges into their conversation. If off, there is no alert tone or display indication.	0 = Off 1 = On	1	1	
18	Programmable Function Key Programming (General Level) Turn off or on an extension's ability to program their General function keys using Service Code 851 (by default). (Refer to Program 20-07-10 for Service Code 852.)	0 = Off 1 = On	1	1	
19	Selectable Display Messaging Turn off or on an extension's ability to use Selectable Display Messaging.	0 = Off 1 = On	1	1	
20	Account Code/Toll Restriction Operator Alert Turn off or on operator alert when an extension improperly enters an Account Code or violates Toll Restriction.	0 = Off 1 = On	0	0	
21	Extension Name Turn off or on an extension's ability to program its name.	0 = Off 1 = On	1	1	
22	Busy Status Display Turn off or on the ability to display the detail state of called party.	0 = Off 1 = On	0	0	
23	Display the Reason for Transfer Select whether an extension should display the reason a call is being transferred to their extension (Call Forward Busy, Call Forward No Answer, DND).	0 = Off 1 = On	0	0	
24	Privacy Release by Pressing Line Key Turn off or on a user's ability to press a line key to barge into an outside call. The Barge In feature must be enabled if this option is to be used.	0 = Off 1 = On	0	0	
25	- Not Used -	-	0	0	
26	Group Listen Turn off or on an extension's ability to use Group Listen.	0 = Off 1 = On	1	1	

Class of Service Options (Supplementary Service), Program 20-13					
Item No.	Item	Input Data	Default		Related Programs
			COS 01-14	COS 15	
27	Busy on Seizing Virtual Extension If set to '1', you can call a busy extension which is talking on a virtual extension key. Program 20-13-06 (Call Waiting) must be set to off for this option to work.	0 = Off 1 = On	1	1	
28	Allow Class of Service to be Changed Turn off or on the ability of an extension's COS to be changed via Service Code 177.	0 = Off 1 = On	0	0	
29	Paging Display Turn off or on an extension's ability to display paging information.	0 = Off 1 = On	1	1	
30	Background Music In an extension's Class of Service, turn off or on an extension from turning Background Music on and off.	0 = Off 1 = On	1	1	
31	Connected Line Identification (COLP)	0 = Off 1 = On	0	0	
32	Deny Multiple Barge Ins Turn off or on the extension's ability to have multiple user's Barge In to their conversation.	0 = Off 1 = On	0	0	
33	ACD Supervisor's Position Enhancement This option must be on in order for the operator to use service codes in Program 11-13-10 through 11-13-13.	0 = Off 1 = On	0	0	11-13-10 ~ 11-13-13
34	Block Manual Off Hook Signaling Turn off or on an extension's ability to block off-hook signals manually sent from a co-worker.	0 = Off 1 = On	0	0	
35	Block Camp On Turn off or on an extension's ability to block callers from dialing 2 to Camp On.	0 = Off 1 = On	0	0	
36	Call Duration Timer In an extension's Class of Service, turn off or on an extension's Call Timer. The UX5000 waits until the interdigit timer (Program 21-01-01) expires before beginning this timer.	0 = Off 1 = On	0	0	
37	- Not Used -	-	0	0	
38	Headset Ringing In an extension's Class of Service, turn off or on an extension's ability to use the Headset ringing.	0 = Off 1 = On	0	0	
39	ACD Queue Status Display Turn off or on the ACD Queue Status Display for an extension's Class of Service. Any extension which has this option enabled will also hear the queue alarm.	0 = Off 1 = On	0	0	

Class of Service

Class of Service Options (Supplementary Service), Program 20-13					
Item No.	Item	Input Data	Default		Related Programs
			COS 01-14	COS 15	
40	Do Not Disturb This option will allow or prevent the user from being able to use the Do Not Disturb feature.	0 = Off 1 = On	1	1	11-11-08 15-07-03
46	Remote Conference Enable (1) or disable (0) an extension's ability to place an intercom call to join a Remote Conference call.	0 = Off 1 = On	1	1	11-19 20-34

Class of Service Options (DISA/E&M Service), Program 20-14				
Item No.	Item	Input Data	Default	
			COS 01-14	COS 15
01	First Digit Absorption For tie lines, enable or disable the ability to absorb (ignore) the first incoming digit. Use this to make the tie trunk compatible with 3- and 4-digit tie line service. This option does not apply to DISA.	0 = Off 1 = On	0	0
02	Trunk Group Routing/ARS Access This option enables or disables a DISA or tie trunk caller's ability to dial 9 for Trunk Group Routing or Automatic Route Selection (ARS).	0 = Off 1 = On	0	0
03	Trunk Group Access This option enables or disables a DISA or tie trunk caller's ability to access trunk groups for outside calls (Service Code 814).	0 = Off 1 = On	0	0
04	Common Abbreviated Dialing This option enables or disables a DISA or tie trunk caller's ability to use the UX5000's Common Abbreviated Dialing.	0 = Off 1 = On	0	0
05	Operator Calling This option enables or disables a DISA or tie trunk caller's ability to dial 0 for the UX5000 operator.	0 = Off 1 = On	0	0
06	Internal Paging This option enables or disables a DISA or tie trunk caller's ability to use the UX5000's Internal Paging.	0 = Off 1 = On	0	0
07	External Paging This option enables or disables a DISA or tie trunk caller's ability to use the UX5000's External Paging.	0 = Off 1 = On	0	0
08	Direct Trunk Access This option enables or disables a DISA or tie trunk caller's ability to use Direct Trunk Access (Service Code 815).	0 = Off 1 = On	0	0

Class of Service Options (DISA/E&M Service), Program 20-14				
Item No.	Item	Input Data	Default	
			COS 01-14	COS 15
09	Forced Trunk Disconnect <Not for ISDN T-point> This option enables or disables a tie trunk caller's ability to use Forced Trunk Disconnect (Service Code *26). This option is not available to DISA callers.	0 = Off 1 = On	0	0
10	Call Forward Setting by Remote Via DISA Enable or disable a DISA callers ability to use the Call Forward service codes (Programs 11-11-01 through 11-11-05).	0 = Off 1 = On	0	0
11	DISA/Tie Trunk Barge In This option enables or disables a DISA or tie trunk caller's ability to use the Barge In feature.	0 = Off 1 = On	0	0

Class of Service Timer Data, Program 20-31					
Item	Default: Class 0 Follows Program	Type	Timer	Default	Input Data
01	20-01-08	Extension Timer Class of Service	Trunk Queuing Callback Duration Time Trunk Queuing callback rings an extension for this interval.	15	0-64800
02	20-01-09	Extension Timer Class of Service	Callback / Trunk Queuing Cancel Time The UX5000 cancels an extension's Callback or Trunk Queuing request after this interval.	64800	0-64800
03	20-04-03	Extension Timer Class of Service	Call Coverage Delay Interval Time (Virtual Extension Key) If Call Coverage Keys are set for Delayed Ringing (Program 15-11), the call rings the covering extension after this interval.	10	0-64800
04	21-01-02	Extension Timer Class of Service and Trunk Timer Class of Service	Intercom Interdigit Time When placing Intercom calls, users must dial each digit within this interval.	10	0-64800
05	21-01-03	Extension Timer Class of Service and Trunk Timer Class of Service	Trunk Interdigit Time When placing CO calls, users must dial each digit within this interval.	5	0-64800
06	21-01-09	Extension Timer Class of Service	Hotline Time Start Time A Ringdown extension automatically calls its programmed destination after this interval.	5	0-64800

Class of Service

Class of Service Timer Data, Program 20-31					
Item	Default: Class 0 Follows Program	Type	Timer	Default	Input Data
07	22-01-03	Trunk Timer Class of Service	Ring No Answer Alarm Time If a trunk rings a key terminal longer than this interval, the UX5000 changes the ring cadence. This indicates to the user that the call has been ringing too long.	60	0-64800
08	22-01-04	Trunk Timer Class of Service	DIL/Incoming Ring Group No Answer Time A DIL that rings its programmed destination longer than this interval diverts to the DIL No Answer Ring Group (set in Program 22-08).	0	0-64800
09	22-01-06	Trunk Timer Class of Service	DID Ring-No-Answer Time In UX5000s with DID Ring No Answer Intercept, this interval sets the Ring No Answer time. This interval is how long a DID call rings the destination extension before rerouting to the intercept ring group.	20	0-64800
10	24-01-01	Extension Timer Class of Service and Extension's Class of Service	Hold Recall Time (Non exclusive Hold) A call on Hold recalls the extension that placed it on Hold after this interval.	90	0-64800
11	24-01-02	Extension's Class of Service	Hold Recall CallBack Time (Non exclusive Hold) A trunk recalling from Hold an extension for this interval.	30	0-64800
12	24-01-03	Extension Timer Class of Service and Extension's Class of Service	Exclusive Hold Recall Time A call on Hold recalls the extension that placed it on Hold after this interval.	90	0-64800
13	24-01-04	Extension's Class of Service	Exclusive Hold Recall Callback Time An Exclusive Hold Recall rings an extension for this interval. If not picked up, the call goes back on non-exclusive Hold.	30	0-64800
14	24-01-06	Extension Timer Class of Service and Extension's Class of Service	Park Hold Time – Normal A call left parked longer than this interval recalls the extension that initially parked it.	90	0-64800
15	24-02-03	Extension Timer Class of Service	Delayed Call Forwarding Time If activated at an extension, No Answer Call Forwarding occurs after this interval.	10	0-64800

Class of Service Timer Data, Program 20-31					
Item	Default: Class 0 Follows Program	Type	Timer	Default	Input Data
16	24-02-04	Extension Timer Class of Service and Extension's Class of Service which performed the blind transfer	<p>Transfer Recall Time A blind transferred call recalls to the extension that initially transferred it after this interval.</p>	30	0-64800
17	25-07-02	Trunk Timer Class of Service	<p>DID/DISA No Answer Time (Disconnect or IRG or VM) After this interval expires, the call follows the programmed Ring No Answer routing (set in Program 25-04).</p>	30	0-64800
18	25-07-03	Trunk Timer Class of Service	<p>Disconnect after Re-transfer to IRG Disconnect after re-transfer to Incoming Ring Group.</p>	60	0-64800
19	25-07-07	Trunk Timer Class of Service	<p>Long Conversation Warning Tone Time (Trunk to Trunk) Determine the length of time trunk-to-trunk conversation can talk before the Long Conversation tone is heard.</p>	180	0-64800
20	25-07-08	Trunk Timer Class of Service	<p>Long Conversation Disconnect (Trunk to Trunk) This timer determines how long the UX5000 will wait before disconnecting a trunk-to-trunk conversation call after the Long Conversation tone is heard.</p>	10	0-64800
21	25-07-09	Trunk Timer Class of Service	<p>DISA Internal Paging Time This is the maximum length of an Internal Page placed by a DISA caller. If the Page continues longer than this interval, the UX5000 terminates the DISA call. Use for analog trunks only.</p>	30	0-64800
22	25-07-10	Trunk Timer Class of Service	<p>DISA External Paging Time This is the maximum length of an External Page placed by a DISA caller. If the Page continues longer than this interval, the UX5000 terminates the DISA call. Use for analog trunks only.</p>	30	0-64800
23	31-01-02	Extension Timer Class of Service and Trunk Timer Class of Service	<p>Page Announcement Duration This timer sets the maximum length of External Page announcements. <i>Not used for analog trunks (use item 22 above instead).</i></p>	1200	0-64800

Class of Service

Related Features

Refer to specific features for desired Class of Service option.

Hotel/Motel

Assign other various Hotel/Motel options.

Night Service

An extension can have a different Class of Service for each Night Service mode: Day 1, Night 1, Midnight 1, Rest 1, Day 2, Night 2, Midnight 2, or Rest 2.

Operation

To change an extension's Class of Service (via Service Code 177):

1. Press idle CALL key.
2. Dial 177.
3. Dial the extension number you want to change.
You see: MODE1:nn
Press HOLD to leave the current value unchanged.
The extension you dial may be set to block your attempt to change their Class of Service.
4. Enter the Day 1 Mode Class of Service for the extension you selected in step 3 and press HOLD.
You see: MODE2:nn
Press HOLD to leave the current value unchanged.
5. Enter the Night 1 Mode Class of Service for the extension you selected in step 3 and press HOLD.
You see: MODE3:nn
Press HOLD to leave the current value unchanged.
6. Enter the Midnight 1 Mode Class of Service for the extension you selected in step 3 and press HOLD.
You see: MODE4:nn
Press HOLD to leave the current value unchanged.
7. Enter the Rest 1 Mode Class of Service for the extension you selected in step 3 and press HOLD.
You see: MODE5:nn
Press HOLD to leave the current value unchanged.
8. Enter the Day 2 Mode Class of Service for the extension you selected in step 3 and press HOLD.
You see: MODE6:nn
Press HOLD to leave the current value unchanged.
9. Enter the Night 2 Mode Class of Service for the extension you selected in step 3 and press HOLD.
You see: MODE7:nn
Press HOLD to leave the current value unchanged.

10. Enter the Midnight 2 Mode Class of Service for the extension you selected in step 3 and press HOLD.
You see: MODE8:nn
Press HOLD to leave the current value unchanged.
11. Enter the Rest 2 Mode Class of Service for the extension you selected in step 3 and press HOLD.
You see: ICM DIAL
12. Go to step 3 and enter another extension number.
OR
Press SPK to hang up.

Computer Telephony Integration (CTI) Applications

Feature Availability

- Available.

Description

Computer Telephony Integration (CTI) applications automate your office with TAPI compatibility and external PC control. CTI puts your communications server on the cutting edge of modern office productivity with:

Database Lookup

Provided through Caller ID and TAPI-compatible third-party software (such as ACT!), Database Lookup displays your caller's account information before their call is even answered.

Conditions

None

Default Setting

None

Related Features

TAPI Compatibility

See this feature for the details on TAPI services provided by the UX5000 and the TAPI driver.

Operation

None

Feature Availability

- Available - CCPU provides 2 blocks of 32 conference circuits, allowing each block to have any number conferences with any number of internal or external parties conferenced as long as the total number of conference channels used does not exceed the block's limit of 32.

Description

Conference lets an extension user add additional inside and outside callers to their conversation. With Conference, a user may set up a multiple-party telephone meeting without leaving the office. The UX5000 CCPU provides 2 blocks of 32 Conference circuits, allowing each block to have any number of internal or external parties conferenced up to the block's limit of 32. This means that one extension can Conference up to 31 internal and/or external parties together (the originator would be the 32nd party reaching the maximum of 32). While this Conference call is active, another user can use the second block of Conference circuits to make the same type of call.

Each block of Conference circuits can have multiple Conference calls, providing there are Conference circuits available. It is not restricted to one Conference per block.

With the Conference feature, a user can:

- Add another party while in an active Conference call.
- Break up a Conference call by pressing Hold.
- Drop a trunk or trunks from the Conference.

Split (From Conference)

Split allows a user to alternate (i.e., switch) between their callers in Conference. This will allow a dispatcher, for example, to control a telephone meeting between themselves, a customer and a service technician. The dispatcher can meet together with all parties, privately set up a service strategy with the technician and then meet again to set the schedule.

Split cycles through the Conference in the same order in which the Conference was initially set up. If a user places an outside call, conferences extension 302 followed by extension 303, Split will cycle from the trunk, to 302 and finally to 303. The Split cycle then repeats.

Barge Into Conference

If a user's extension has Barge In capability enabled, they can also Barge In on an established Conference. This permits, for example, an attendant or supervisor to join a Conference in an emergency. It also allows a co-worker to leave a conference -- and then rejoin the telephone meeting when it is convenient to do so.

Automatic Conference on Hang Up

A Class of Service option is available which will allow or deny an extension user from automatically setting up a Conference/Tandem Trunking call upon hanging up the terminal.

Conference

Transfer Call Into Conference

An extension with Barge In capability can Transfer a call into an existing Conference. This would allow, for example, an attendant to locate co-workers and then Transfer them into an existing telephone meeting. There is no need for the attendant to locate all the parties at the same time and sequentially add them into the Conference.

Change CONF to a Transfer Key

An option is available which allows an extension's CONF key to be programmed for Conference or for Transfer. When set for Transfer, the user places a call on hold, dials the extension to which it should be transferred, the user presses the CONF key. The call is then transferred. When set for Conference, with an active call, the user presses the CONF key, places a second call, then presses the CONF key twice. All the calls are then connected.

Conditions

- Multiple Directory Number (virtual extension) keys do not support Conference Programmable Function keys nor can they be used to add a call to a Conference. However, a user can dial the virtual extension number and add the call to the Conference in that way.
- In order for single line terminals connected to an APR adapter to establish a conference call or to split between two calls, it must use the second channel of the digital port (Program 10-03-06/07).

Default Setting

Enabled.

Programming

In order to use the Conference feature, the Intercom, Central Office Calls, Placing and Central Office Calls, Answering features should be checked for other required and optional programming along with their related features.

- **10-03-03 : Blade Setup, For SLIU Unit - Transmit Codec Gain Type**
10-03-04 : Blade Setup, For SLIU Unit - Receive Codec Gain Type
Customize the transmit and receive levels (1-63) of the Codec Gain Types for 500/2500 type single line terminals.
- **10-07-01 : Conversation Record Circuits**
Determine if there are conference circuits available, that not all have been assigned as conversation record circuits.
- **11-12-08 : Service Code Setup (for Service Access) - Barge In**
If required, use this program to change the code users dial to Barge In to a Conference call. This code is normally 810.
- **11-12-47 : Service Code Setup (for Service Access) - Call Waiting Answer / Split Answer for SLT**
If required, use this program to change the code users dial to Split while on a Conference call. This code is normally 894.
- **11-12-58 : Service Code Setup (for Service Access) - Transfer Into Conference**
If required, change the service code used to transfer a call into a Conference call (default: 124).
- **11-16-02 : Program 11-16 : One-Digit Service Code Setup - Barge In**
If required, use this program to define the single digit service code users dial to Barge In to a Conference call.

- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
Codec gain set at 0 dB (14-01-04 = 32) can be used to set the codec gain type for multi-line Conference calls.
- **15-02-24 : Multi-Line Terminal Basic Data Setup, Conference Key Mode**
This option allows an extension's CONF key to be programmed for Conference or for Transfer. When set for Transfer (1), the user places a call on hold, dials the extension to which it should be transferred, the presses the CONF key. The call is then transferred. When set for Conference (0), with an active call, the user presses the CONF key, places a second call, then presses the CONF key twice. All the calls are then connected.
- **15-07-01 : Programming Function Keys**
Assign a function key for Conference (code 07).
- **20-02-09 : System Options for Multi-line Terminals - Disconnect Supervision**
Enable (1) disconnect supervision for the UX5000.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-11-21 : Class of Service Options (Hold/Transfer Service) - Restriction for Tandem Trunking on Hang Up**
In an extension's Class of Service (1-15), allow (0) or deny (1) an extension user's ability to set up a tandem call automatically when they hang up. By default, this option is allowed (0).
- **20-13-08 : Class of Service Options (Supplementary Service) - Conference**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to initiate a Conference.
- **20-13-10 : Class of Service Options (Supplementary Service) - Barge In Mode**
In an extension's Class of Service (1-15), set whether an extension should be able to Barge In to a call and talk (1) or just monitor the call (0). This also determines whether Barge In on a Conference call is in speech or monitor mode.
- **20-13-15 : Class of Service Options (Supplementary Service) - Barge In Initiate**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to Barge In to a call.
- **20-13-16 : Class of Service Options (Supplementary Service) - Barge In Receive**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to receive a Barge In on a call.
- **20-14-11 : Class of Service Options For DISA/E&M - DISA/Tie Trunk Barge In**
Determine if DISA and tie trunk users should have the ability to dial a service code to Barge In to a Conference call (0=disabled, 1=enabled).
- **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key for Conference (code 07).

Related Features

Barge In

Users can Barge In on a Conference call if allowed in programming.

Central Office Calls, Placing

Define the outgoing call options for each trunk and user.

Conference, Voice Call

Set up a Conference with a co-worker in your immediate work area.

Direct Inward System Access (DISA) / Tie Lines

DISA and tie line users may use the Barge In feature on a Conference call if they know the service code and are permitted in their DISA/Tie Line Class of Service.

Direct Station Selection (DSS) Console

Assign DSS consoles to extensions to allow programming keys as trunk keys, among other options.

Long Conversation Cutoff/Warning Tone for Long Conversation

Long Conversation Cutoff can disconnect incoming and outgoing central office calls after a set time period. Using the Warning Tone for Long Conversation feature allows users on outgoing calls to hear a warning tone prior to the call disconnecting.

Meet Me Conference

Meet Me Conference lets an extension user set up a Conference via Paging.

Meet Me Paging

Meet Me Paging lets an extension user set up a two-party meeting via Paging.

Multiple Directory Numbers/Call Coverage

Multiple Directory Number (virtual extension) keys do not support Conference Programmable Function keys nor can they be used to add a call to a Conference.

Night Service

Set up Night Service options which could affect Conference calls.

One-Touch Calling

One-Touch bin numbers can be used to access service codes.

Programmable Function Keys

In order for keyset to have Conference, it must have a Conference function key if the CONF key is reassigned as a Transfer key.

Tandem Trunking

A user can set up an Unsupervised Trunk-to-Trunk Conference and then drop out of the call, allowing the remaining parties to continue the conversation.

Transfer

You can optionally program the CONF (TRF) key for Transfer. In this case, the keyset must have a Conference function key. The UX5000 also allows a call to be transferred into a Conference call.

Voice Mail

The Conversation Record function key will now work for Conference calls.

Operation

To establish a Conference:

Keypad

1. Establish Intercom or trunk call.
2. Press CONF or Conference key (PGM 15-07 or SC 851: 07).
3. Dial extension you want to add.
OR
Access outside call
OR
Retrieve call from Park orbit.
*To get the outside call, you can either press a line key or dial a trunk/trunk group code.
You can optionally go back to step 2 to add more parties to your Conference.*
4. When called party answers, press CONF or Conference key twice.
*If you cannot add additional parties to your Conference, you have exceeded the UX5000's Conference limit.
If the call being added is busy/unanswered:
With an outside call and line/loop keys: Press the line/loop key for a call previously added to the Conference. Press CONF twice to re-establish the Conference call. The unwanted call is dropped.
Adding an Intercom call to a Conference call: Press the CNCL soft key on the display keypad then press the BEGIN soft key or the CONF key to re-establish the Conference. If using a non-display terminal, press the CONF key twice.*
5. Repeat steps 2-4 to add more parties.

Single Line Set / 2-Button Terminal

1. Establish Intercom or trunk call.
2. ***Single Line Set***
Hookflash and dial #1.
2-Button Terminal
Press HOLD and dial #1.
3. Dial extension you want to add.
OR
Access trunk call.
OR
Retrieve call from Park orbit.
4. ***Single Line Set***
Hookflash and repeat step 3 to add more parties.
OR
Hookflash twice to set up the Conference.
2-Button Terminal
Press HOLD and repeat step 3 to add more parties.
OR
Press HOLD twice to set up the Conference.
If you cannot add additional parties to your Conference, you have exceeded the UX5000's Conference limit.

Conference

To Split (alternate) between the parties in Conference:

Keypad

1. Press CONF (TRF) or Conference key (PGM 15-07 or SC 851: 07).
2. Dial Split service code (894).

*Repeat this procedure to alternate between the remaining parties in the Conference.
Press CONF or Conference key twice to set up the Conference again.*

Single Line Set

1. Hookflash and dial 894.

*Repeat this procedure to alternate between the remaining parties in the Conference.
Hookflash twice to set up the Conference again.*

To drop an outside call from the Conference:

1. Press HOLD to place the Conference call on Hold.
2. Hang up.

The lines involved in the Conference will ring back separately to the terminal.

3. Answer and disconnect the unwanted outside call.
4. To re-establish the Conference, answer the remaining call pressing CONF after each call is answered. Press CONF twice when all calls have been answered.

To exit a Conference without affecting the other parties *when another ICM user is part of the Conference:*

If there is no other ICM user included in the Conference, in order to exit without disconnecting the outside parties, you will need to use Tandem Trunking (refer to page 547).

1. Hang up.

If you press Hold while on a call with two outside callers, the outside callers hear Music on Hold.

To Barge In to Conference Call:

1. Pick up the handset or press SPK and dial the service code (810=default).
If the terminal doesn't have the proper COS, a warning tone is sent. After the user hangs up, the UX5000 will automatically place a Callback to the extension.
2. Dial the extension number or press a DSS key of a terminal within a Conference call.
When a new call is added to the conference, an intrusion tone is heard by all parties in the Conference, depending on UX5000 programming, and all display keysets show the joined party. If a Conference is not possible:
 - the extension user will hear a warning tone
 - the DISA user will be rerouted to the defined ring group*OR*
 - the tie line user will hear a busy tone.*OR*

Not available for DISA or tie line trunks:

1. Dial the extension number of the internal party.
2. Dial the single digit service code.
Instead of the single digit service code, the service code 810 can also be dialed at this point.

To Transfer a Call Into a Conference:

1. While on a call, press HOLD.
2. Dial the Transfer to Conference service code (default=124).
If the terminal doesn't have the proper COS, a warning tone is sent. After the user hangs up, the UX5000 will automatically place a Callback to the extension.
The display shows "Transfer to Conf. ICM Dial".
3. Dial the extension number or press a DSS key of a terminal within a Conference call.
If an error tone is heard, Barge In is not enabled for the extension and the call will not go through. Retrieve the call by pressing the flashing line or CALL key or hang up and the call will recall the extension.
When the call is transferred into the Conference, an intrusion tone is heard by all parties in the conference, depending on the entries in Program 20-13-17 and Program 80-01, and all display keysets will show the joined party.
To cancel the transfer, press the flashing line or CALL key to retrieve the call.
4. Hang up.

Break Up the Conference But Retain the Trunk Calls

1. While on an active Conference call, press HOLD.
2. Select the line or loop key of the caller you wish to talk to.
Any intercom calls which were involved in the Conference will be disconnected.

Dropping a Party From the Conference

1. While on an active Conference call, press the line/loop key of the party to retain. This action will retain any intercom calls involved in the Conference.

Conference, Remote

Feature Availability

- Available - CCPU provides 2 blocks of 32 conference circuits, allowing each block to have any number conferences with any number of internal or external parties conferenced as long as the total number of conference channels used does not exceed the block's limit of 32.

Description

The Remote Conference feature enhances the Conference feature by allowing outside parties to dial a Remote Conference pilot number and a Conference Group number to connect to a Conference call.

The conference circuits on the CCPU are used to join each party to the conference. A maximum of 32 conference participants is possible for one Conference. However, the conference call cannot be split over the CCPU's conference blocks. This could limit the number of participants if other conference circuits are in use.

A maximum of 4 simultaneous Remote Conference calls is possible. The conference call is password protected so that any user joining the conference would be required to enter a password before being connected.

- One terminal or trunk needs one conference channel to participate in the conference.
- The conference call cannot be split over the CPU's two conference blocks, limiting the number of conference participants to 32.

Default Setting

Not defined.

Programming

- **11-19-01 : Remote Conference Pilot Number Setup**
Assign the pilot number (up to 8 digits) to be used for the Remote Conference. This is the number that outside parties will call in order to connect to a conference. (*Default: none*)
- **14-01-02 : Basic Trunk Data Setup - Transmit Codec Gain Type**
The option sets the amount of transmit gain (signal amplification) for the trunk being programmed (input 1-63 (-15.5dB ~ +15.5dB in .5dB intervals)).
- **14-01-03 : Basic Trunk Data Setup - Receive Codec Gain Type**
The option sets the amount of receive gain (signal amplification) for the trunk being programmed (input 1-63 (-15.5dB ~ +15.5dB in .5dB intervals)).
- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
The option sets the amount of transmit gain (signal amplification) for the trunk being programmed when it's part of an Unsupervised Conference or transferred (input 1-63 (-15.5dB ~ +15.5dB in .5dB intervals)).
- **14-01-05 : Basic Trunk Data Setup - Receive Gain Level for Conference and Transfer Calls**
The option sets the amount of receive gain (signal amplification) for the trunk being programmed when it's part of an Unsupervised Conference or transferred (input 1-63 (-15.5dB ~ +15.5dB in .5dB intervals)).
- **14-02-09 : Analog Trunk Data Setup - Busy Tone Detection**
Enable (1) this option to allow analog trunks which can not detect disconnecting to be released at the end of the conference.
- **20-01-03 : System Options - DSP Sender Resource Selection**
If this option is set to "1" for the Caller ID Sender Queuing feature, the maximum number of channels available is 32.
- **20-13-46 : Class of Service Options (Supplementary Service) - Remote Conference**
For each Class of Service (01-15), determine whether an extension should be able to place an intercom call to join a Remote Conference call (0=disabled, 1=enabled).
- **20-34-01 : Remote Conference Group Setup - Conference Name**
For each conference group, enter the name (up to 12 characters) displayed at the time of a Remote Conference. This entry will display on the keyset LCD.
⇨ Conference Group 1-4
- **20-34-02 : Remote Conference Group Setup - Password**
For each conference group, define the 4-digit password of a Remote Conference.
⇨ Conference Group 1-4
- **20-34-03 : Remote Conference Group Setup - Maximum Participants**
For each conference group, define the maximum number of participants of a Remote Conference (0-32).
⇨ Conference Group 1-4
- **20-34-04 : Remote Conference Group Setup - Maximum Conference Duration**
For each conference group, define the maximum duration of a Remote Conference. When this time passes, the conference is disconnected by the UX5000 (0-64800 seconds).
⇨ Conference Group 1-4
- **20-34-05 : Remote Conference Group Setup - End Tone Alert Time**
For each conference group, determine how long prior disconnecting a Remote Conference call (based on the maximum conference duration above) the UX5000 should send out a beep. This is used to warn the conference participants of the pending disconnect (0-64800 seconds).
⇨ Conference Group 1-4

Conference, Voice Call/Privacy Release

Feature Availability

- Available - CCPU provides 2 blocks of 32 conference circuits, allowing each block to have any number conferences with any number of internal or external parties conferenced as long as the total number of conference channels used does not exceed the block's limit of 32.

Description

Voice Call Conference lets extension user's in the same work area join in a trunk Conference. To initiate a Voice Call Conference, an extension user just presses the Voice Call Conference key and tells their co-workers to join the call. The UX5000 releases the privacy on the trunk, and other users can just press the trunk's line key to join the call.

Voice Call Conference does not use the UX5000 features to announce the call. The person initiating the Voice Call Conference just announces it "through the air."

Privacy Mode Toggle Option

The Privacy Mode Toggle option allows an extension user to quickly change an outside call from the non-private mode to the private mode. This would help a workgroup supervisor, for example, that needed to quickly monitor any group member's call. If the supervisor wanted to make a "secure" call, however, they could quickly switch the line's mode and be assured that their call would not be monitored. If the outside call is on a line key, the user just presses the line key to switch modes. If the call is on a loop key, the user presses their Privacy Release function key instead.

For UX5000s using the Privacy Mode Toggle option, trunks initially have the privacy released. If privacy is desired for a trunk, use the toggle option or press the Privacy Release function key to switch modes.

Conditions

- Each block assigned in Program 10-07 for Conversation Recording reduces the number of blocks available for Conference.
- Multiple Directory Number (virtual extension) keys do not support Voice Call Conference Programmable Function keys.

Default Setting

Disabled.

Programming

- ➔ **10-07-01 : Conversation Record Circuits**
Determine if there are conference circuits available, that not all have been assigned as conversation record circuits.
- ➔ **14-01-19 : Basic Trunk Data Setup - Privacy Mode Toggle Option**
Determine if a trunk should be able to be toggled to a private/non-private line (0=disabled, 1=enabled). This option is not required for Voice Call Conference.
- ➔ **15-07-01 : Programming Function Keys**
Assign a function key for the users to set up Voice Call Conference (code 32) and line keys (*01 + trunk number) on the terminals of the invited co-workers.
- ➔ **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ➔ **20-13-09 : Class of Service Options (Supplementary Service), Privacy Release**
In an extension's COS (1-15), enable (1) or disable (0) an extension's ability to use Privacy Release allowing for a Voice Call Conference. The trunk must be programmed to allow this feature in Program 14-01-19.
- ➔ **20-13-17 : Class of Service Options (Supplementary Service), Barge In Tone/Display**
In an extension's COS (1-15), enable (1) or disable (0) the tone the user hears when the Voice Call Conference feature is used. The person on the call will not hear the barge-in tone if disabled (the person intruding will hear a beep when barging in). If enabled, both extension users hear the tone. (Note that this option is also used for Barge In.)
- ➔ **30-03-01 : DSS Console Key Assignment**
Assign a DSS Console key for the users to set up Voice Call Conference (code 32) and line keys (*01 + trunk number) on the terminals of the invited co-workers.
- ➔ **31-01-04 : System Options for Internal/External Paging - Privacy Release Time**
Set the interval (0-64800 seconds) users have to join a Voice Call Conference after it is announced. (Note that this interval is also used for Meet Me Conference.)

Conference, Voice Call/Privacy Release

Related Features

Caller ID

With Caller ID enabled, a call with Privacy Release will show the Caller ID until the call is answered. It can be viewed again by pressing the line key, though this sets the call to Private mode. To keep the call on Privacy Release, press the CHECK + CLEAR key.

Conference

Set up a multiple-party terminal meeting without leaving the office.

Direct Station Selection (DSS) Console

Assign DSS Console keys for access to required options (such as Account Codes, Abbreviated Dial, etc.)

Programmable Function Keys

Voice Call Conference requires a Voice Call Conference function key and line keys.

Single Line Terminals

This feature is not available at single line terminals.

Operation

To join a Voice Call Conference (if invited):

1. After Conference request, press indicated line key.
A "CONF" indication is displayed on both terminals.

To exit a Voice Call Conference without affecting the other parties:

1. Press SPK to hang up.

Feature Availability

- Available.

Description

Continued Dialing allows an extension user to dial a call, wait for the called party to answer and then dial additional digits. This helps users that need services like Voice Mail, automatic banking and Other Common Carriers (OCCs).

There are two types of Continued Dialing:

- **Continued Dialing for Intercom Calls**
Depending on an extension's Class of Service, a keyset user may be able to dial additional digits after their Intercom call connects. In UX5000s with Voice Mail, for example, Continued Dialing lets extension users dial the different options after the Voice Mail answers. Without Continued Dialing, extension users cannot access these Voice Mail options.
- **Continued Dialing for Trunk Calls**
Continued Dialing gives a user access to outside services like automatic banking, an outside Automated Attendant, bulletin boards and Other Common Carriers (OCCs). After the outside service answers, the user can dial digits for whatever options the services allow. Without Continued Dialing, the UX5000's Toll Restriction will cut off the call after a specific number of dialed digits. See Programming below for additional information.

NOTICE

Continued Dialing may make the UX5000 more susceptible to toll fraud.

Conditions

None

Default Setting

Enabled.

Continued Dialing

Programming

In order to use the Continued Dialing feature, the Intercom, Central Office Calls, Placing and Central Office Calls, Answering features should be checked for other required and optional programming along with their related features.

- **15-03-03 : Single Line Terminal Basic Data Setup - Terminal Type**
Enable (1) or disable (0) DTMF tones to pass through 2500 type devices after the call has been answered. For voice mail ports, this option *must* be set to “1”.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-13-03 : Class of Service Options (Supplementary Service) - Outgoing Long Conversation Cutoff**
In an extension’s Class of Service (1-15), enable (1) or disable (0) an extension’s ability to use Long Conversation Cutoff.
- **20-13-13 : Class of Service Options (Supplementary Service) - Continued Dialing**
In an extension’s Class of Service (1-15), enable (1) or disable (0) an extension’s ability to use Continued Dialing for Intercom calls to 2500-type devices after the call has been answered. This should be set to “1” if voice mail is installed.
- **21-04-01 : Toll Restriction Class for Extensions**
Assign a Toll Restriction Class (1-15) to an extension for each night mode (1-8 and the power failure mode 9).
- **21-05-04 : Toll Restriction Class - Maximum Number of Digits Table Assignment**
Assign Program 21-06-03 entries (0-4) to each Toll Restriction class (1-15).
- **21-06-03 : Toll Restriction Table Data Setup - Maximum Number Digits Table Assignment**
For each table, enter the maximum number of digits (4-30).

Related Features

Central Office Calls, Placing

Set up the various outgoing call options.

Long Conversation Cutoff/Warning Tone for Long Conversation

Long Conversation Cutoff can disconnect incoming and outgoing CO calls after a set time period. Using the Warning Tone for Long Conversation feature allows users on outgoing calls to hear a warning tone prior to the call disconnecting.

Pulse to Tone Conversion

Users can place calls to services over Dial Pulse trunks - and then dial DTMF digits after the service answers.

Toll Restriction

The ability to use Continued Dialing on trunk calls is set by Toll Restriction programming.

Operation

To use Continued Dialing:

1. Place Intercom or trunk call.
2. Continue dialing after call connects.

Toll Restriction and Class of Service programming may limit Continued Dialing.

Feature Availability

- Available.

Description

The UX5000 supports a Cordless DECT terminal. The DTL-8R-1 Cordless DECT terminal is a 1.9G DECT 6.0 digital cordless terminal that provides mobility, flexibility and convenience for those who spend much of the work day away from their desk. Supporting up to 6 Repeaters allows for further increase of the range and mobility of the cordless handset. Fully integrated with the communications server, the DTL-8R-1 Cordless DECT offers many standard features such as Park, Do Not Disturb, Hot-line, Voice Over and Voice Mail. Normally paired with a companion keyset for improved 1-button call coverage capabilities, the DTL-8R-1 Cordless DECT will also work as a stand-alone terminal.



This terminal provides 5 channels which will change automatically to find the best reception for a call.

Complemented by 4 fully programmable function keys (with LEDs) and 4 one-touch keys, the DTL-8R-1 Cordless DECT achieves a whole new level of convenience and mobility. An easy-to-read LCD display, volume controls, a rechargeable nickel-metal hydride battery pack and a handy belt clip round out the elegant and affordable DTL-8R-1 Cordless DECT Phone.

The base unit provides a “Cordless” and “Desk” button which allows the one extension port to switch from the Cordless DECT to an attached UX5000 keyset. The terminals must be in an idle state when the button is pressed, otherwise any active call will be disconnected.

Privacy

Cordless telephones are radio devices. Communications between the handset and base of the cordless telephone are accomplished by means of radio waves which are broadcast over the open airways. Because of the inherent physical properties of radio waves, communication can be received by radio receiving devices other than your own telephone unit, consequently, any communications using the cordless telephone may not be private.

Refer to the Dterm Cordless DECT Owner’s Manual (P/N INT-2070 (DECT)) for installation and setup information.

Department Calling

Feature Availability

- Available - 64 Department Groups.

Description

With Department Calling, an extension user can call an idle extension within a preprogrammed Department Group by dialing the group's pilot number. The call would ring the first available extension in the group. For example, this would let a caller dial the Sales department just by knowing the Sales department's pilot number. The caller would not have to know any of the Sales department's extension numbers.

There are two types of routing available with Department Calling: Priority Routing and Circular Routing. With Priority Routing, an incoming call routes to the highest priority extensions first. Lower priority extensions ring only if all higher priority extensions are busy. With Circular Routing, each call rings a new extension (with circular routing, a new call will ring the extension which has been idle the longest in the group). The ringing order is based on an extension's priority. In a Department Group with extensions 310 (Priority 1), 311 (Priority 2) and 312 (Priority 3)

- The first call rings 310.
- The second call rings 311.
- The third call rings 312.
- The fourth call rings 310 and the cycle repeats.

Note: When programming, the high priority extensions have low priority numbers. For example, priority 1 has a higher priority than priority 10.

Enhanced Hunting

Department Calling provides expanded hunting capabilities. Hunting sets the conditions under which calls to a Department Group pilot number will cycle through the members of the group. The hunting choices are:

- **Busy**
A call to the pilot number will hunt past a busy group member to the first available extension.
- **Not answered**
A call to the pilot number will cycle through the idle members of a Department Calling group. The call will continue to cycle until it is answered or the calling party hangs up. If the Department Group has Priority Routing enabled, and the highest priority member is busy, the call will not route.
- **Busy or not answered**
A call to the pilot number will cycle through the idle members of a Department Calling group. The call will continue to cycle until it is answered or the calling party hangs up. Calls into groups with Priority Routing and Circular Routing route identically.
- **Simultaneous ringing**
All idle members of the Department Group ring simultaneously. Calls do not cycle between group members.

If all members of the Department Group are busy, an incoming or transferred call to the group's pilot number will queue for an available member. Each group has a queue that can hold any number of waiting calls. If a display terminal is waiting in queue, the user will see: *WAITING (group name)*. If a transferred call in queue is an outside call, and the UX5000 has DSP daughter board installed with the VRS, the queued caller will hear, "Please hold on. All lines are busy. Your call will be answered when a line becomes free."

The UX5000 prevents hunting to a Department Group extension if it is:

- Busy on a call
- In Do Not Disturb
- Call Forwarded

Overflow Routing

Department Calling also provides overflow routing for extensions within the group. If a user directly dials a busy extension within a Department Group, the UX5000 can optionally route the call to the first available group member.

User Log Out/Log In

An extension user can log out and log in to a Department Calling Group. By logging out, the user removes their extension from the group. Once logged out, Department Calling bypasses their extension. When they log back in, Department Calling routes to their extension normally. All users can dial a code to log in or log out of their Department Calling Group. A keyset can optionally have a function key programmed for one-button log in and log out operation.

Call Restriction Between Groups Added

An option is available to prevent calling between certain Department Groups. This restricts calls to the extension numbers as well as the Department Group number. After calling a restricted extension number, the user will hear a warning tone or a message "The number you have dialed is not in service." if the VRS is installed.

An extension user in one Department Group, however, can use an extension in a restricted Department Group as the destination extension when using the Call Forwarding feature.

This restriction option does not apply to secondary Department Groups (defined in Program 16-03-01).

Conditions

- When a DIL rings to a Department Group, the DIL may follow overflow programming (Programs 22-05 and 22-08).
- If an extension has Call Forwarding set, the UX5000 will not hunt to the forwarded extension.
- Department All Ring does not apply to secondary department groups.

Default Setting

Disabled.

Department Calling

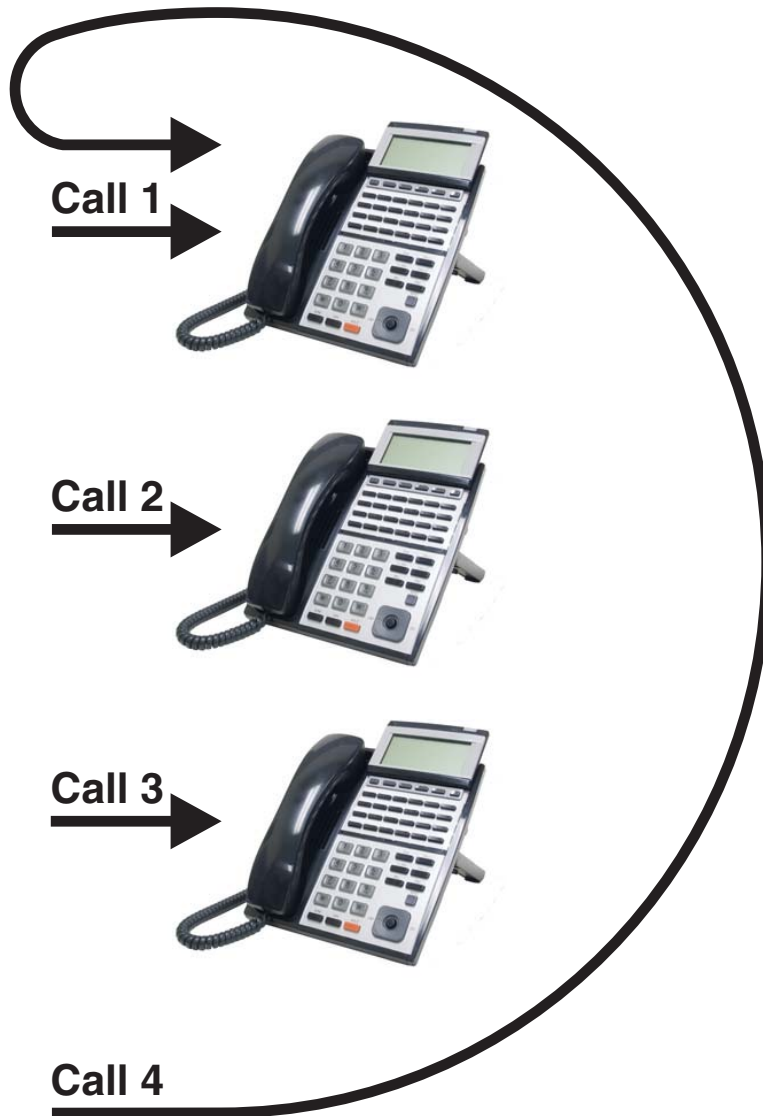
Description (Cont'd)

Priority Routing



Description (Cont'd)

Circular Routing



Programming

- **10-09-01 : DTMF and Dial Tone Circuit Setup**
If the automatic transfer for ICM and transferred calls to Department Groups feature is used and if dial tone detection is enabled, be sure to allocate at least one circuit for dial tone detection (type 0 or 2).
- **11-07-01 : Department Group Pilot Numbers**
Assign pilot numbers to the Extension (Department) Groups you set up in Programs 16-01, 16-02, and 16-03.
⇨ Department Groups 1-64
- **11-11-25 : Service Code Setup (for Setup/Entry Operation) - Automatic Transfer Setup for Each Department Group**
Use this option to set the service code (default=102) to activate immediate automatic transfer for ICM and transferred calls to Department Groups.
- **11-11-26 : Service Code Setup (for Setup/Entry Operation) - Automatic Transfer Cancellation for Each Department Group**
Use this option to set the service code (default=103) to deactivate immediate automatic transfer for ICM and transferred calls to Department Groups.
- **11-11-27 : Service Code Setup (for Setup/Entry Operation) - Destination of Automatic Transfer for Each Department Group**
Use this option to set the service code (default=104) for setting the destination for immediate automatic transfer for ICM and transferred calls to Department Groups.
- **11-11-28 : Service Code Setup (for Setup/Entry Operation) - Delayed Transfer for Each Department Group**
Use this option to set the service code (default=105) for setting the delayed transfer destination Department Group.
- **11-11-29 : Service Code Setup (for Setup/Entry Operation) - Delayed Transfer Cancellation for Each Department Group**
Use this option to set the service code (default=106) for cancelling the delayed transfer destination Department Group.
- **11-11-30 : Service Code Setup (for Setup/Entry Operation) - DND Setup for Each Department Group**
Use this option to set the service code (default=107) for setting the DND feature for a Department Group.
- **11-11-31 : Service Code Setup (for Setup/Entry Operation) - DND Cancellation for Each Department Group**
Use this option to set the service code (default=108) for cancelling the DND feature for a Department Group.
- **11-11-35 : Service Code Setup (for Setup/Entry Operation) - Pilot Group Withdrawing**
Use this option to set the service code (default: 150) for a Department Group extension user to log out/in of their assigned Department Group.
- **11-12-09 : Service Code Setup (for Service Access) - Changed to STG All Ring**
Use this option to set the service code for ringing all members of a Department Group. This option does not work with DIL trunks.
- **11-12-35 : Service Code Setup (for Service Access) - Direct Call Pickup Own Group**
Use this option to set the service code (default: 857) for a Department Group extension to pick up a call ringing another extension in the same Department Group.
- **11-16-10 : Single Digit Service Code Setup - STG All Ring Mode**
Assign the Single Digit (post-dialing) Service Code for All Member Ring.

- **14-01-07 : Basic Trunk Data Setup - Outgoing Calls**
If the automatic transfer for ICM and transferred calls to Department Groups feature is used, for each trunk to be used for this feature, allow (1) or prevent (0) outgoing calls.
- **14-02-06 : Analog Trunk Data Setup - Pause Time**
If the automatic transfer for ICM and transferred calls to Department Groups feature is used, for each trunk to be used for this feature enable/disable the UX5000's ability to pause after dialing the first digit.
- **14-02-11 : Analog Trunk Data Setup - Next Trunk in Rotary if No Dial Tone**
If the automatic transfer for ICM and transferred calls to Department Groups feature is used, for each trunk to be used for this feature, use this option to enable (1) or disable (0) the UX5000's ability to skip over a trunk if dial tone is not detected.
- **14-05-01 : Trunk Groups**
If the automatic transfer for ICM and transferred calls to Department Groups feature is used, assign trunks to be used for this feature into trunk groups. You can also assign the outbound priority for trunks within the group.
- **14-06-01 : Trunk Group Routing**
If the automatic transfer for ICM and transferred calls to Department Groups feature is used, set up an outbound routing table for the trunk groups to be used for this feature you assigned in Program 14-05.
- **15-07-01 : Programming Function Keys**
Assign a Department Calling key (46) so extension users can install or remove themselves from the Department Calling Group. Additional keys can also be assigned for Department Group features: immediate calling destination (58), delayed calling destination (59), DND destination (60), Call Pickup for Another Group (25), and Call Pickup for a Specified Group (26). Also service codes can be assigned to function keys (01 + service code).
- **15-14-01 : One-Touch Key Assignments**
Assign a One-Touch bin number to call a department, install (150 + 0) or remove (150 + 1) themselves from the Department Calling Group. Additional keys can also be assigned for Department Group features activate (105) or cancel (103) immediate automatic transfer (102), set the immediate calling destination (104), activate (105) or cancel (106) delayed automatic transfer, set (107) or cancel (108) DND for a Department Group, set and cancel ringing all members of a Department Group and assign the single digit (post-dialing) service code for All Member Ring. These features can also be defined as a One-Touch Programmable Function Key.
- **16-01-01 : Department Group Basic Data Setup - Department Name**
Assign a name to the Extension (Department) Groups you set up in Program 16-02.
⇨ Department Groups 1-64

Department Calling

- **16-01-02 : Department Group Basic Data Setup - Department Calling Cycle**
Set the routing cycle for calls into a department (i.e., when a user dials the department pilot number). The UX5000 can ring the highest priority extension available (Priority Routing, 0) or cycle in circular order to a new idle extension for each new call (Circular Routing, 1).
⇨ Department Groups 1-64
- **16-01-03 : Department Group Basic Data Setup - Department Routing When Busy**
Set how the UX5000 routes an Intercom call to a busy Department Group member. The caller can hear busy tone (0) or overflow to the first available Department Group member (1). This option is for Intercom calls to an extension, not a pilot number.
⇨ Department Groups 1-64
- **16-01-04 : Department Group Basic Data Setup - Hunting Mode**
Set if an unanswered call should hunt once stopping at the last member tried (0) or continually hunt through the idle members (1).
⇨ Department Groups 1-64
- **16-01-05 : Department Group Basic Data Setup - Department Group All Ring Mode Operation**
Set if all members of the group should ring automatically (1) or through the use of the service code defined in Program 11-12-09 (0). Selecting automatic will override the settings of Programs 16-01-02, 16-01-03 and 16-01-04. This option does not apply to Secondary Department Groups (Program 16-03-01).
⇨ Department Groups 1-64
- **16-01-07 : Department Group Basic Data Setup - Call Recall Restriction for STG**
Enable (0) or disable (1) the ability for a transferred call to an idle Department Group which is not answered or a DIL to either a busy or idle Department Group should recall.
⇨ Department Groups 1-64
- **16-01-08 : Department Group Basic Data Setup - Queuing for Department Group Calls**
To have Department Group calls queue when busy, set this entry to "1" (0=no queuing, 1=queuing) for a Department Group.
This program allows entries of 1-32, however, the UX5000 accepts any entry other than "0" as to allow queuing.
- **16-01-09 : Department Group Basic Data Setup - Department Hunting No Answer Time**
Set how long (0-64800 seconds) a call will ring an idle Department Group extension before hunting occurs.
⇨ Department Groups 1-64
- **16-01-10 : Department Group Basic Data Setup - Hunt Type**
Set the type of hunting for each Department Group:
0- No queuing
1- Hunting When Busy
2- Hunting When Not Answered
3- Hunting When Busy or No Answer
⇨ Department Groups 1-64
- **16-02-01 : Department Group Assignment for Extensions**
Assign extensions to Department Groups and set the priority assignment.
⇨ Department Groups 1-64, Priority 1-64
- **16-03-01 : Secondary Department Group Assignment for Extensions**
Use this program to assign extensions to multiple Department Groups and set the priority assignment. Each Secondary Department Group can have up to 16 extensions assigned.
⇨ Department Groups 1-64
- **16-04-01 : Call Restriction Between Department Group**
For each Department Group, enter the Department Group numbers which should be restricted. Up to 8 different groups can be defined for each Department Group. This restriction will apply to any extension within the Department Group (including the operator).
⇨ Department Groups 1-64

- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-10-05 : Class of Service Options (Answer Service) - Direct Call Pickup Own Group**
In an extension's Class of Service (1-15), allow (1) or prevent (0) a department group extension from pickup up a call ringing another extension in the same Department Group.
- **20-11-17 : Class of Service Options (Hold/Transfer Service) - Set/Cancel Department Group Trunk-to-Trunk Forwarding**
In an extension's Class of Service (1-15), allow (1) or prevent (0) an extension from using the immediate automatic transfer of ICM and transferred calls to the Department Groups feature.
- **20-13-14 : Class of Service Options (Supplementary Service) - Department Calling**
In an extension's Class of Service (1-15), allow (1) or prevent (0) extensions from receiving Department Calls when the pilot number is dialed.
- **21-01-02 : System Operation for Outgoing Service - Internal Call Inter-Digit Time**
If the single-digit hotel dialing option is required, set how long it will take (0-64800 seconds) the UX5000 to call the programmed extension after a Hotel extension dials the single digit.
- **21-03-01 : Trunk Group Routing for Trunks**
If the automatic transfer for ICM and transferred calls to Department Groups feature is used, assign the routes set in program 14-06 to be used for this feature to trunks for each night mode (1-8).
 - ⇨ Trunk Routing Tables 1-100, Trunk Groups 1-100, Network ID 101-150, Another Route 1001-1100
- **22-01-04 : System Options for Incoming Calls - DIL No Answer Time**
Set the DIL to Department Group busy or idle overflow time (0-64800 seconds).
- **22-02-01 : Incoming Call Trunk Setup**
If you want a trunk to be a DIL to a Department Group, assign Service Type 4 for each Night Service mode (1-8). Also see Program 22-07 below.
- **22-04-01 : Incoming Extension Ring Group Assignment**
To have DIL Department calls to busy or idle Department Groups overflow, assign extensions to ring groups. For each extension in the Ring Group, indicate in Program 22-06 if extensions should ring (1) or not ring (0) for any ring group the extension is assigned.
 - ⇨ Ring Groups 1-100
- **22-06-01 : Normal Incoming Ring Mode**
Indicate for each night mode (1-8) whether an extension should ring (1) or not ring (0) for any ring group the extension is assigned to in Program 22-04.
 - ⇨ Ring Groups 1-100
- **22-07-01 : DIL Assignment**
For each trunk assigned Service Type 4 in 22-02 above and for each night mode (1-8), assign the DIL destination as the Department Group pilot number (as assigned in Program 11-07-01).
- **22-08-01 : DIL/IRG No Answer Destination**
If DIL Department calls to busy or idle Department Group overflow is desired and the call rings longer than the DIL No Answer Time (Program 22-01-04), it routes to the destination you specify in this option for each night mode (1-8), Determine if the destination should be a Ring Group, In-Skin/External Voice Mail, or Centralized Voice Mail.
 - ⇨ Ring Groups 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **24-02-05 : System Options for Transfer - Transfer to Busy Department Group Recall Timer**
After a trunk is unscreen transferred to a busy Department Group, this timer will start. If the call is not answered, it will recall the originator. Determine how long the call should ring before recalling (0-64800 seconds).

Department Calling

- **24-02-08 : System Options for Transfer - Delayed Transfer Timer for All Department Groups**
Determine how long a call should ring a Department Group before transferring the call (0-64800 seconds).
- **24-05-01 : Department Group Transfer Target Setup**
Assign the Abbreviated Dialing bin to each Department Group for each night mode (1-8) to hold the destination for the immediate automatic transfer of ICM and transferred calls to the Department Group feature.
- **35-04-01 : SMDR Port Assignment for Department Groups**
Assign the SMDR port for each Department Group. For each Department Group, select the SMDR port to which the outgoing SMDR information should be sent.
⇨ Department Groups 1-64, SMDR Ports 1-8
- **42-02-01 : Hotel Terminal Setup**
Assign an extension as either a normal (0) or Hotel (1) type of extension.
- **42-04-01 : Hotel Mode One-Digit Service Codes**
For the Department Group, assign the destination number (8 digits max.) for each single digit (0-9, *, #) when a Hotel-type terminal dials from an intercom dial tone. Use Program 42-02-01 to set the terminal as a Hotel-type and use Program 21-01-02 to set how long it will take the UX5000 to call the programmed extension after a Hotel extension dials the single digit.
⇨ Department Groups 1-64

Related Features

Abbreviated Dialing

Assign Abbreviated Dialing bins to be used for Automatic Department Group Transfer and other options.

Automatic Call Distribution (ACD)

Set up hunting as required for ACD.

Call Forwarding

Extensions within a Department Group which have Call Forwarding enabled will not be included in the call hunt. The extension to which the user is forwarded will not receive the hunted calls.

Call Forwarding, Off-Premise

A Department Group can have Off-Premise Call Forwarding enabled for the pilot number. However, trunk-to-trunk off-premise forwarding cannot be used with DIL trunks - only normal and DID trunks (as defined in Program 22-02-01).

Central Office Calls, Placing

Set up various options to access outgoing trunks.

Class of Service

Allow or prevent an extension from using and/or programming Abbreviated Dial bins.

Department Step Calling

Easily step call to an idle Department Group member if the member called is busy.

Direct Inward Dialing (DID)

Assign Abbreviated Dialing bins to be used for incoming DID to outgoing trunk no answer transfer.

Direct Inward Line (DIL)

Simultaneous ringing for Department Groups with DIL trunks does not work - only one extension will ring at a time.

Hotel/Motel

Assign other various Hotel/Motel options.

Multiple Directory Numbers / Call Coverage

A virtual extension can be programmed allowing a Call Coverage key to receive multiple calls which can camp on to the extension - no analog port is required.

Station Message Detail Recording (SMDR)

Assign various options for each SMDR output port.

Transfer

An extension user can Transfer a call to a Department Group master number. If unanswered, the call will recall the transferring extension after the Transfer Recall Time (Program 24-02-04).

Voice Mail

Voice mail uses one Department Group for voice mail.

Voice Response System (VRS)

Refer to the VRS feature for details on using VRS overflow.

Operation

To call a department:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial department's extension number.
The UX5000 routes the call to the first free terminal in the department.
3. **Optional:** To manually ring all members of the group, dial the single digit service code assigned for All Member Ring (Program 11-16-10).

To log out of your Department Group:

While you are logged out, Department Calling cannot route calls to your extension.

1. Press idle CALL key.
2. Dial 150 + 1.
OR
1. Press Department Calling Log In key (PGM 15-07 or SC 851: 46).
The key lights while you are logged out.

To log back in to your Department Group:

While you log back in, Department Calling will route calls to your extension.

1. Press idle CALL key.
2. Dial 150 + 0.
OR
1. Press Department Calling Log In key (PGM 15-07 or SC 851: 46).
The key goes out when you log back in.

Department Calling

Department Group Line Forwarding

Method 1:

Set or Change the Destination and Forward the Line:

1. Lift the handset.
2. Dial 104.
3. Dial the Department Group number (01-64) to be defined.
4. Select the time mode (1-8) to be defined.
5. Enter the telephone number which should be the destination of the forwarded trunk.
The number will be stored in the Abbreviated Dial bin number assigned in Program 24-04-01. This entry will overwrite any existing number defined in the bin.
6. Press HOLD to accept the entry.
7. Repeat from Step 3 to define another time mode entry or hang up.

Cancel the Line Forwarding:

1. Lift the handset.
2. Dial 104.
3. Dial the Department Group number (01-64) to be defined.
4. Select the time mode (1-8) to be defined.
5. Press the CLEAR key.
6. Hang up.

Method 2 (follows the pre-defined destination in Program 24-05-01):

Set Automatic Trunk Forwarding:

The Abbreviated Dial bin must be defined in 13-04-01 in order for the line to forward.

1. Lift the handset.
2. Dial 102.
3. Dial the Department Group number (01-64) to be defined.
4. Hang up.

Cancel Automatic Trunk Forwarding:

1. Lift the handset.
2. Dial 103.
3. Dial the Department Group number (01-64) to be defined.
4. Hang up.

Delayed Transfer:

Set the Destination for a Department Group With No Answer:

1. Lift the handset.
2. Dial 105.
3. Dial the Department Group number (01-64) to be defined.
4. Hang up.

Cancel the Delayed Transfer for a Department Group:

1. Lift the handset.
2. Dial 106.
3. Dial the Department Group number (01-64) to be defined.
4. Hang up.

Department Calling

- For Your Notes -

Feature Availability

- Available.

Description

After calling a busy Department Calling Group member, an extension user can have Department Step Calling quickly call another member in the group. The caller does not have to hang up and place another Intercom call if the first extension called is unavailable. Department Step Calling also allows an extension user to cycle through the members of a Department Group.

Conditions

None

Default Setting

Enabled.

Programming

- **11-12-07 : Service Code Setup (for Service Access) - Step Call**
If required, customize the Step Call service code to be used by an extension user (default: 808).
- **11-16-01 : Single Digit Service Code Setup**
If required, use this option to change the Department Step Calling Single Digit Service Code.
- **15-07-01 : Programmable Function Keys**
Assign a function key Department Step Calling (code 36).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-08-12 : Class of Service Options (Outgoing Call Service) - Department Step Calling**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to use Department Step Calling.

Related Features

Department Calling

An extension user can call an idle extension within a preprogrammed Department Group by dialing the group's pilot number. Department Calling also provides overflow routing for extensions within the group - which simulates Step Calling.

Programmable Function Keys

Function keys simplify Department Step Calling operation.

Department Step Calling

Operation

To make a Step Call:

You step through Department Groups set in Program 16-02.

1. Place call to busy Department Group member.
OR
Place call to Department Group pilot number.
2. Dial #.
OR
Press Step Call key (PGM 15-07 or SC 851: 36).
3. Repeat step 2 to call other Department Group members.

Feature Availability

- Available.

Description

Dialing Number Preview lets a display keyset user dial and review a number before the UX5000 dials it out. Dialing Number Preview helps the user avoid dialing errors.

Conditions

- An extension user cannot edit the displayed number.
- This feature cannot be used when Hot Keypad is enabled.

Default Setting

Enabled.

Programming

- ◆ 20-06-01 : **Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ◆ 20-08-05 : **Class of Service Options (Outgoing Call Service) - Dial Number Preview**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to use Dial Number Preview.

Related Features

Central Office Calls, Placing

In order to place an outgoing call, an extension user must have outgoing access to a line, loop or trunk group key.

Dial Number Preview

Operation

To use Dial Number Preview to place a call (keyset only):

1. Do not lift the handset or press a CALL key.
2. *To preview any number*, dial the number you wish to call.
To preview an Abbreviated Dial number, press DIAL and dial the Abbreviated Dial bin number you want to call.
The number displays.
3. To dial out the displayed trunk number, press a line/loop/trunk group key.
If the previewed number as a trunk access code (e.g., 9), you can press CALL instead.
OR
To dial out the displayed Intercom number, press a CALL key.
OR
To cancel the number without dialing it out, press HOLD.

Feature Availability

- Available.

Description

For an extension with Dial Pad Confirmation Tone enabled, the user hears a beep each time they press a key. This is helpful for Intercom calls and Dial Pulse trunk calls, since these calls provide no Call Progress tones.

Conditions

If the Dial Pad Confirmation Tones are disabled, tones will still be heard once a trunk is seized or when ARS outdials.

Default Setting

Disabled

Programming

- ◆▶ **11-11-19 : Service Code Setup (for Setup/Entry Operation) - Key Touch Tone On/Off**
If required, change the service code enabling or disabling the Key Touch Tone (default: 824).

Related Features

Single Line Terminals

Dial Pad Confirmation Tone does not apply to single line terminals.

Operation

To enable/disable Dial Pad Confirmation Tone:

1. Press idle CALL key.
2. Dial 824.

Dial Tone Detection

Feature Availability

- Available.

Description

If a trunk has Dial Tone Detection enabled, the UX5000 monitors for dial tone from the telco or PBX when a user places a call on that trunk. If the user accesses the trunk directly (by pressing a line key or dialing #9 and the trunk's number), the UX5000 will drop the trunk if dial tone does not occur. If the user access the trunk via a Trunk Group (by dialing a trunk group code or automatically through a feature like Last Number Redial), the UX5000 can drop the trunk or optionally skip to the next trunk in the group. Refer to the chart under Programming below for more.

Dial Tone Detection is available for the following features:

- Automatic Route Selection
- Abbreviated Dialing
- Central Office Calls, Placing
- Last Number Redial
- Loop Keys (outbound)
- Save Number Dialed
- T1 Trunking (with ANI/DNIS Compatibility)
- Tie Lines
- Trunk Group Routing
- Trunk Groups

Conditions

Default Setting

Disabled for manually dialed calls; enabled for automatically dialed calls.

Programming

Dial Tone Detection Program Interaction			
Method	14-02-05	14-02-11	Result if dial tone not present . . .
Press a line key OR Dial #9 + Trunk number	0	0	Trunk hangs (does not disconnect)
	0	1	Trunk hangs (does not disconnect)
	1	0	Trunk drops
	1	1	Trunk drops
Dial a Trunk Group code OR Automatically through a feature	0	0	Trunk hangs (does not disconnect)
	0	1	Trunk reroutes after time-out
	1	0	Trunk drops
	1	1	Trunk reroutes after time-out

- **10-09-01 : DTMF and Dial Tone Circuit Setup**
 If dial tone detection is enabled, be sure to allocate at least one circuit for dial tone detection (type 0 or 2). The CCPU blade has 32 circuits initially. With an EXIFU installed, an additional 64 circuits are provided.
 (Circuit 01-08: 1 (Extension only), 09-32: 2 (Trunk only), 97-160: 0 (Common use) [requires EXIFU]. Resources 33-96 are not used/dummy ports.)
- **14-02-05 : Analog Trunk Data Setup - Dial Tone Detection for Directly Accessed Trunks**
 Enable (1) or disable (0) dial tone detection for manually dialed trunk calls. This option only pertains to calls placed using line keys or Direct Trunk Access.
If there are no DSP resources, this program will be ignored.
- **14-02-11 : Analog Trunk Data Setup - Next Trunk in Rotary if No Dial Tone**
 If enabled, the UX5000 will skip over a trunk if dial tone is not detected. This option pertains to calls placed using Loop Keys, Abbreviated Dial, ARS, Last Number Redial or Save Number Dialed. It does not pertain to line key or Direct Trunk Access calls.
- **21-01-05 : System Options for Outgoing Calls - Dial Tone Detection Timer**
 If dial tone detection is enabled, the UX5000 will wait this interval for the telco to return dial tone. When this interval expires, the UX5000 assumes dial tone is not present. To disable this timer (and have the UX5000 wait continuously), enter 0.
- **80-03-01 : DTMF Tone Receiver Setup**
80-04-01 : Call Progress Tone Detector Setup
 Use these programs to set the criteria for dial tone detection and call progress tone detection.

Related Features

See *Description* above.

Operation

Dial Tone Detection is automatic if enabled in programming.

Direct Inward Dialing (DID)

Feature Availability

- Available - 20 DID Translation Tables can be divided between 2000 entries.

Description

Direct Inward Dialing (DID) lets outside callers directly dial UX5000 extensions. DID saves time for callers who know the extension number they wish to reach. To place a DID call, the outside caller dials the local exchange (NNX) and additional digits to ring the UX5000 terminal extension. For example, DID number 926-5400 can directly dial extension 400. The caller does not have to rely on attendant or secretary call screening to complete the call.

Note: Direct Inward Dialing requires DID service from telco. DID trunks are used for incoming calls only and are not used for outgoing calls.

In addition to direct dialing of UX5000 extensions, DID provides:

- DID Dialed Number Translation
- Flexible DID Service Compatibility
- DID Intercept
- DID Camp-On
- DID Routing through the VRS
- Delayed DID
- DID Intercept Destination for each DID Number

DID Dialed Number Translation

DID allows different tables for DID number translation. This gives you more flexibility when buying DID service from telco. If you can't buy the exact block of numbers you need (e.g., 301-556), use the translation tables to convert the digits received. For example, a translation table could convert digits 501-756 to extension numbers 301-556.

The UX5000 has 2000 DID Translation Table entries that you can allocate among the 20 DID Translation Tables. There is one translation made in each entry. For a simple installation, you can put all 2000 entries in the same table. For more flexibility, you can optionally distribute the 2000 entries among the 20 tables.

In addition to number conversion, each DID Translation Table entry can have a name assigned to it. When the DID call rings the destination extension, the programmed name displays.

Flexible DID Service Compatibility

You can program the UX5000 to be compatible with three and four digit DID service. With four digit service, the telco sends four digits to the UX5000 for translation. With three digit service, the telco sends three digits to the UX5000 for translation. Be sure to program your UX5000 for compatibility with the provided telco service. For example, if the telco sends four digits, make sure you set up the translation tables to accept the four digits.

The UX5000 is compatible with Dial Pulse (DP) and DTMF DID signaling. DID trunks can be either wink start or immediate start.

DID Intercept

DID Intercept automatically reroutes DID calls under certain conditions. There are three types of DID Intercept:

- **Vacant Number Intercept**
If a caller dials an extension that does not exist or mis-dials, Vacant Number Intercept can reroute the call to the programmed DID Intercept extension ring group or Voice Mail. Without Vacant Number Intercept, the caller hears error tone after mis-dialing.
- **Busy Intercept**
Busy Intercept determines DID routing when a DID caller dials a busy extension. If Busy Intercept is enabled, the call immediately routes to the programmed DID Intercept extension ring group or Voice Mail. If Busy Intercept is disabled, the call follows DID Camp-On programming (see below).
- **Ring-No-Answer Intercept**
Ring-No-Answer Intercept sets the routing options for DID calls that ring unanswered at the destination extension. With Ring-No-Answer Intercept enabled, the unanswered call reroutes to the DID Intercept extension ring group or Voice Mail after the DID Ring-No-Answer Time interval. If Ring-No-Answer Intercept is disabled, the unanswered call rings the destination until the outside caller hangs up.

DID Camp-On

DID Camp-On sets what happens to DID calls to busy extensions when you have Busy Intercept disabled. With DID Camp-On enabled, a call to a busy extension camps-on for the DID Ring No Answer Time interval. It then diverts to the programmed DID Intercept extension ring group or Voice Mail. Without DID Camp-On, the caller to the busy extension just hears busy tone.

Direct Inward Dialing (DID)

Delayed DID

Delayed DID allows a user a pre-programmed amount of time to answer a call. If the call is not answered within this time period, the UX5000 automatically answers the call. An outside party will hear music, or dial tone according to the following conditions:

- If a customer-provided audio system (example: tape recorder) is connected, an error message or music can be played for the caller.
- If there is no equipment connected for an announcement, the UX5000 sends a unique dial tone to the outside caller.

This feature is not available for the normal incoming call on ISDN trunks.

DID Intercept Destination for Each DID Number

With this feature the UX5000 allows you to program a DID Intercept destination for a DID number which receives no answer or busy call. The UX5000 can be programmed to use a trunk ring group, or the voice mail as the programmed destination. Each vacant number intercept for a DID number can have two destinations. The first destination is for an invalid DID number, busy or no answer extension. The second destination is for a no answer trunk ring group.

For busy or no answer intercept calls, a third destination can be defined in Program 22-12. If the first and third destinations are programmed but the second destination is not, the incoming call goes to the third destination after the first destination. If the first and second destinations are not programmed, but the third destination is, the call goes directly to the third destination.

This feature works for DID trunks with a trunk service type 1 in Program 22-02. Other types of trunks may use the DID table, but the DID intercept feature is not supported.

With the DID Intercept for each DID number feature, when the primary destination (Program 22-11-05) is set to Voice Mail, the Voice Mail protocol is:

1. Busy Intercept = Forward Busy
2. Ring-No-Answer Intercept = Forward RNA

When the secondary destination (Program 22-11-06) is set to Voice Mail, the Voice Mail protocol is based on the first destination's routing. When the incoming call is forwarded to the first destination by a busy intercept, the Voice Mail protocol will be that it forwards busy calls. When the incoming call is routed to the first destination by a ring-no-answer intercept, the protocol will be that it forwards ring-no-answer. The Voice Mail will transfer the calls to the mailbox number defined in Program 22-11-02.

Note: Any valid DID number must be entered in the DID table (Program 22-11). If a valid DID number is not entered, there will be no ring destination for any incoming calls to that number (the calls will not ring any extension in the UX5000).

Call by Time Schedule Feature Added

For every DID number programmed, the DID Call by Time Schedule feature allows each of the 8 different time patterns (defined in Program 22-17) to be assigned a different destination, following the DID conversation table in Program 22-11. This time pattern can also be selected manually, using a service code. The time pattern used for this option is separate from the 8 day/night time modes defined in Program 12-02.

Notes:

- When the time pattern is changed manually, the following conditions apply:
 - Manually selecting the time pattern temporarily overrides the entries in Program 22-17. However, when a time pattern changes with the time schedules in Program 22-17, the pattern applied by the manual change is cancelled.
 - If the time pattern is manually selected and the UX5000 is reset, once the UX5000 restarts, the manually selected time pattern is still in affect.
- When a time pattern is set from 00:00 to 00:00 and Program 22-11 is defined, the UX5000 will always follow the setting in Program 22-11. To prevent the UX5000 from using Program 22-11, it must be undefined.
- If the destination defined in Program 22-17 is not found, the UX5000 then checks the setting in Program 22-11.
- If an incoming DID call is unanswered/busy, it will follow the entries in Program 22-12 and 22-13 for the trunk group based on the time the no answer/busy indication was received.

SMDR Includes Dialed Number

The SMDR report can optionally print the trunk's name (entered in UX5000 programming) or the number the incoming caller dialed (i.e., the dialed DID digits). This gives you the option of analyzing the SMDR report based on the number your callers dial. (This option also applies to an ISDN trunk as well.)

Federal Communications Commission DID Requirements

Allowing this equipment to operate in a manner that does not provide proper answer supervision signaling is in violation of Part 68 rules.

This equipment returns answer supervision to the Public Switched Telephone Network when the DID trunk is:

- Answered by the called station
- Answered by the attendant
- Routed to a recorded announcement that can be administered by the CPE user
- Routed to a dial prompt

This equipment returns answer supervision on all DID calls forwarded back to the Public Switched Telephone Network. Permissible exceptions are when:

- A call is unanswered
- A busy tone is received
- A reorder tone is received

Conditions

- Analog DID requires the installation of a 4DIOPU blade (provides four DID ports). Depending on programming, the UX5000 may assign both trunk and extension ports (if OPX is selected in Program 10-03-01) when this blade is installed.
- DID service must be purchased from your local telephone company.

Direct Inward Dialing (DID)

- DID Intercept for each DID number works for DID trunks with a trunk service type 3 in Program 22-02. Other types of trunks may use the DID table, but the DID intercept feature for each DID number is not yet supported.
- T1 or PRI DID requires a T1/PRI blade (1PRIU).

Default Setting

Disabled.

Programming

- **10-03-01 : Blade Setup - LD/OPX Assignment**
Set the function of the DIOPU blade port for DID (0) or OPX trunk (1).
- **10-09-01 : DTMF and Dial Tone Circuit Setup**
If the UX5000 has DTMF DID trunks, be sure to reserve at least one circuit for analog trunk DTMF reception (type 0 or 2). *There must be an available receiver for each DTMF DID trunk.*
 - Use the following as a guide when allocating DTMF receivers:
 - In light traffic sites, allocate one DTMF receiver for every 10 devices that use them.
 - In heavy traffic sites, allocate one DTMF receiver for every five devices that use them.
- **11-10-35 : Service Code Setup (For Administrator) - DID Mode Switching**
Assign the service code to be used by a keyset or SLT user to manually change the time pattern for a DID number.
- **14-05-01 : Trunk Groups**
Put DID trunks in the same trunk group (other than group 1). If you have several types of DID trunks, put each type in a separate trunk group.
- **15-07-01 : Programmable Function Keys**
You can assign line or loop keys for DID trunks. Without line keys, DID calls ring line appearance (CALL) keys.
In addition, assign a key for DID Mode Switching (88 + Program 22-17 table number). This key can be used to manually change the time pattern for a DID number. The following LED indications are used with the key:
Pattern 1 = LED off, Pattern 2 = LED on, Pattern 3 = slow flash, Pattern 4 = fast flash, Patterns 5-8 = off
⇨ Trunks 1-200
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-26 : Class of Service Options (Administrator Level) - DID Mode Switching**
For each Class of Service, enable (1) or disable (0) an extension's ability to manually change the time pattern for a DID Conversion Table.
- **20-09-01 : Class of Service Options (Incoming Call Service) - Second Call for DID/ DISA/ DIL/ E&M**
Enable (1) or disable (0) an extension's ability to receive a second call from a DID, DISA, DIL, or tie line caller.
- **20-13-23 : Class of Service Options (Supplementary Service) - Display the Reason for Transfer**
Enable (1) or disable (0) an extension's ability to display the reason (Call Forward, Busy, No Answer or DND) a VRS, DID, DISA, or ISDN call is being transferred to their extension.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.

- **20-31-01 : Timer Data**

Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **21-01-02 : System Options for Outgoing Calls - Intercom Interdigit Time**

Set the time-out interval for DID callers that don't dial. After this interval, the DID call routes according to Vacant Number Intercept programming.
- **22-01-06 : System Options for Incoming Calls - DID Ring-No-Answer Time**

Set the DID Ring-No-Answer (RNA) Intercept interval (0-64800 seconds). In UX5000s with RNA Intercept, the DID call rings the destination extension for this interval and then rings Intercept Ring Group.
- **22-02-01 : Incoming Call Trunk Setup**

For each Night Service Mode, enter service type 3 when the trunk should be a DID trunk. When the DID Call by Time Schedule feature is to be used, enter the trunk type as "8" (Mode DID/DID Call by Time Schedule).
- **22-04-01 : Incoming Extension Ring Group Assignment**

Assign extensions to Ring Groups. Calls ring the extensions according to programming in 22-06.
- **22-09-01 : DID Basic Data Setup - Expected Number of Digits**

For each trunk group (1-100), enter the number of digits the table expects to receive from the CO (8 maximum). For example, for a table used with 3-digit DID service, enter 3.
- **22-09-02 : DID Basic Data Setup - Received Vacant Number Operation**

Selectively enable (1) or disable (0) Vacant Number Intercept based on each DID Translation Database (Program 22-11-01 and 22-11-02).
- **22-10-01 : DID Translation Table Setup**

Assign the start and end range of DID Translation Table entries (1-2000) to each DID Translation Table (1-20).
- **22-11-01 : DID Translation Table Number Conversion - Received Number**

For each DID Translation Table entry (1-2000), specify the digits received by the UX5000 (eight max.).
- **22-11-02 : DID Translation Table Number Conversion - Target Number**

For each DID Translation Table entry (1-2000), specify the extension the UX5000 dials after translation (24 digits max.).
- **22-11-03 : DID Translation Table Number Conversion - Dial-In Name**

For each DID Translation Table entry (1-2000), specify the name that should show on the dialed extension's display when it rings (twelve characters max.).
- **22-11-04 : DID Translation Table Number Conversion - Transfer Operation Mode**

For each DID Translation Table entry (1-2000), specify the condition required to transfer to the call to the destination defined in 22-11-05 and 22-11-06.
- **22-11-05 : DID Translation Table Number Conversion - Transfer Destination 1**

22-11-06 : DID Translation Table Number Conversion - Transfer Destination 2

For each DID Translation Table entry (1-2000), specify the first and second Transfer Destinations if the callers receives a busy or no answer (action defined in 22-11-04).
(Destination Options: 0 = No setting, 1-100 = Incoming Group, 102 = In-Skin/External Voice Mail, 103=Centralized Voice Mail, 201-264 = Department Group, 400 = DID, 401 = DISA, 1000-1999 = Abbreviated Number (000-999))

If the Transfer Destinations are busy or receive no answer, those calls are transferred to the final transfer destination (Program 22-10).
- **22-11-07 : DID Translation Table Number Conversion - Call Waiting**

For each DID Translation Table entry (1-2000), specify whether Call Waiting should be allowed (0=disable, 1=enable).

Direct Inward Dialing (DID)

- **22-11-08 : DID Translation Table Number Conversion - Maximum Number of Calls**
For each DID Translation Table entry (1-2000), specify the maximum number of DID calls (0=unlimited, 1-200).
- **22-11-09 : DID Translation Table Number Conversion - MOH Source**
For each DID Translation Table entry (1-2000), specify the source of music to be used for DID trunks (0=IC/MOH port, 1=BGM port, 2=ACI port).
- **22-11-10 : DID Translation Table Number Conversion - ACI Music Source Port**
For each DID Translation Table entry (1-2000), if item 2 is selected in 22-11-09, specify the port to be used for the source of music heard on DID trunks.
- **22-11-11 : DID Translation Number Conversion, Ring Group Transfer**
Enable (1) or disable (0) each conversation tables' ability to follow the Ring Group programming defined in **Program 22-12-01 : DID Intercept Ring Group**. If **Program 22-11-05 : DID Translation Number Conversion, Transfer Destination Number 1** and **Program 22-11-06 : DID Translation Number Conversion, Transfer Destination Number 2** are set, the priority of transferring will be in this order: Program 22-11-05 then Program 22-11-06 then if Program 22-11-11 is enabled, Program 22-12-01.
- **22-12-01 : DID Intercept Ring Group**
For each DID Translation Table, program the DID Intercept destination. The destination can be a Ring Group, In-Skin/External Voice Mail, or Centralized Voice Mail. This program is used when there is no destination programmed in Program 22-11-05. It is unrelated to Program 22-11-06 and 22-11-07.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-13-01 : DID Trunk Group to Translation Table Assignment**
Assign the DID trunk groups to translation tables. If all the DID trunks use the same type of DID service, you may have only one DID trunk group and one DID Translation Table (with many entries).
⇨ Trunk Groups: 1-100
- **22-17-01 : DID Conversion Table Area Setup for Time Pattern Mode**
This program is used to define the times and DID Conversion Table (Program 22-11) for each DID time pattern (1-8) when using the Call by Time Schedule feature. Start from 00:00 and be sure to set up the input so the last entry of the time pattern is set to end at 00:00 (Entries: Start Time = 0000 - 2359, End Time = 0000 - 2359, DID Conversation Table Number: 0 - 2000).
- **25-01-01 : VRS/DISA Line Basic Data Setup - VRS/DISA Dial-In Mode**
Determine whether the UX5000 should use option 0 (Extension number/Service code specify) or option 1 (Use dial conversion table) for calls.
- **25-01-03 : VRS/DISA Line Basic Data Setup - VRS/DISA Transfer Alarm**
Determine whether the UX5000 should use option 0 (Normal) or option 1 (Alarm) for calls.
- **25-02-01 : VRS/DISA VRS Message**
For each trunk port and each night mode, select the message source (0=No Message, 1=VRS, 2=ACI, 3=SLT), assign the VRS message number to be used as the Automated Attendant Message for each trunk which is assigned - VRS/DISA (With VRS=01-48 [VRS message number], With ACI=1-4 or 01-16 [ACI group number], With SLT=1-8 or 01-64 [Department Group number]).
- **25-03-01 : VRS/DISA Transfer Ring Group With Incorrect Dialing**
For each trunk port, set what happens to a call when the DISA or Automated Attendant caller dials incorrectly or waits too long to dial. The call can either disconnect (0) or Transfer to an alternate destination (a ring group, In-Skin/External, Centralized). When setting the DISA and DID Operating Mode, you make an entry for each Night Service mode .

- **25-04-01 : VRS/DISA Transfer Ring Group With No Answer/Busy**

For each trunk port, set the operating mode of each DISA trunk. This sets what happens to the call when the DISA or Automated Attendant caller calls a busy or unanswered extension. The call can either disconnect (0) or Transfer to an alternate destination (a ring group, In-Skin/External, Centralized). When setting the DISA and DID Operating Mode, you make an entry for each Night Service mode.

 - ⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
 - ⇨ Trunks 1-200, Night Service Time Mode 1-8
- **25-07-02 : System Timers for VRS/DISA - VRS/DISA No Answer Time**

A VRS/DISA caller can ring an extension for this interval before the UX5000 sets the call as a Ring No Answer. After this interval expires, the call follows the programmed Ring No Answer routing (set in Program 25-03 and 25-04) (0-64800).
- **25-07-04 : System Timers for VRS/DISA - Calling Time to Automatic Answering Terminal Set**

Set the answering waiting time of the automatic answering extension when an incoming DID trunk call is received (0-64800).
- **25-07-05 : System Timers for VRS/DISA - Duration Time for Guidance Message by Automatic Answering Terminal Set**

Set the announcement time of the automatic answering extension after which in incoming DID trunk caller is disconnected (0-64800).
- **25-07-06 : System Timers for VRS/DISA - Duration Time for Guidance Message by ACI**

Set the announcement time by the ACI after which an incoming DID trunk caller is disconnected (0-64800).
- **25-07-11 : System Timers for VRS/DISA - VRS/DISA Answer Delay Timer**

Set up the interval time the UX5000 will wait after receiving an incoming VRS/DISA call until the UX5000 will automatically answer the call (0-64800).
- **25-07-13 : System Timers for VRS/DISA - VRS/DISA Busy Tone Interval**

If a DISA caller dials a busy extension (and Program 25-04-01 = 0), the UX5000 plays busy tone for this interval before disconnecting (0-64800).
- **25-07-14 : System Timers for VRS/DISA - Delayed DID Answer Timer**

Assign the delay time from switching from a normal incoming status to DID mode. If this time is set to '0', the call will switch to DID mode immediately (0-64800).
- **30-03-01 : DSS Key Assignment**

For DSS Consoles, assign a key for DID Mode Switching (88 + Program 22-17 table number). This key can be used to manually change the time pattern for a DID number. The following LED indications are used with the key:

Pattern 1 = LED off, Pattern 2 = LED on, Pattern 3 = slow flash, Pattern 4 = fast flash, Patterns 5-8 = off
- **34-01-01 : E&M Tie Line Basic Setup - DID/E&M Start Signaling**

Set the start signaling mode for DID and tie trunks. DID and tie trunks can use either immediate start or wink start signaling (0=2nd dial tone, 1=Wink, 2=Immediate, 3=Delay).
- **34-01-02 : E&M Tie Line Basic Setup - DID/E&M Incoming Signaling Type**

Enter 0 if DID trunk is Dial Pulse (DP). Enter 1 if DID trunk is DTMF.
- **80-03-01 : DTMF Tone Receiver Setup**
- **80-04-01 : Call Progress Tone Detector Setup**

If required, modify the criteria for dial tone detection and call progress tone detection to set the DTMF criteria for DTMF DID calls.
- **81-02-01 : DIOPU Initial Data Setup**

Make sure the DID Trunk Timer settings are compatible with your local telco.

Direct Inward Dialing (DID)

Related Features

Central Office Calls, Answering

When a call is transferred because of Call Forwarding No Answer, Call Forwarding Busy, or DND, the Reason for Transfer option can display to the transferred extension why the call is ringing to their terminal.

Class of Service

The Timer Class of Service may affect a call.

Direct Inward Line (DIL)

DILs also provide a way for outside callers to dial a UX5000 extension, virtual extension or Department Group directly.

Direct Inward System Access (DISA)

DISA also allows outside callers to dial UX5000 extensions directly.

Off Hook Signaling

The Off Hook Signaling provide DID calls with signaling options. Refer to this feature for the specifics.

Paging, External

DID trunks will not ring external page speakers. Only trunks defined as “normal” in Program 22-02-01 will ring external page speakers.

Programmable Function Keys

To simplify answering DID calls, assign function keys as line keys for the DID trunks.

Station Message Detail Recording

SMDR can print trunk port names or received dialed number for ANI/DNIS or DID trunks. If enabled, DNIS digits can be printed on the SMDR reports instead of the trunk name.

Transfer

Transferred calls on DISA, DID, DIL, ISDN trunks, or from the VRS can display the reason a call is being transferred (Call Forward, Busy, No Answer, or DND).

Operation

DID calls ring extensions like normal trunk calls.

Manually Changing a Time Pattern

1. Press DID Mode Switch key (PGM 15-07 or SC 851: 88) or dial the service code (defined in Program 11-10-35).
2. Enter the DID Conversation Table Number (1-100).
3. Enter the time pattern to be assigned (1-8).

Feature Availability

- Available - Capacity depends on the number of blades installed and the system port licensing. (max. 200 trunks, 64 Department Groups, 256 extensions, and 256 virtual extensions)

Description

A Direct Inward Line (DIL) is a trunk that rings an extension, virtual extension or Department Group directly. Since DILs only ring one extension or group (i.e., the DIL destination), employees always know which calls are for them. For example, a company operator can have a Direct Inward Line for International Sales Information. When outside callers dial the DIL's phone number, the call rings the operator on the International Sales line key. The DIL does not ring other extensions.

DIL Delayed Ringing

Extensions in a Ring Group can have delayed ringing for another extension's DIL. If the DIL is not answered at its original destination, it rings the DIL No Answer Ring Group. This could help a Technical Service department, for example, that covers calls for a Sales Support department. If the Sales Support calls are not answered, they ring into the Technical Service department.

Conditions

- If unanswered, a DIL without delayed ringing rings an extension until the outside party hangs up.
- If a DIL rings a Department Group and all agents are busy, the UX5000 routes the call as follows:
 1. The trunk rings the overflow destination assigned in 22-08.
 2. If there is no 22-08 assignment, the call rings according to the Ring Group assignments in 22-04 and 22-05.
 3. If none of the destinations in steps 1-2 above are available, the call continues to ring until a destination becomes free.
- The DIL follows call forwarding programming, even to voice mail.

Default Setting

Disabled.

Direct Inward Line (DIL)

Programming

- **14-07-01 : Trunk Access Map Setup**
Set up the Trunk Access Maps. All extensions should have at least Hold access to the DIL (entry 3).
- **15-06-01 : Trunk Access Map for Extensions**
Assign Trunk Access Maps to extensions.
⇨ Trunk Access Maps 1-200
- **15-07-01 : Programmable Function Keys**
To have the DIL ring a key, program a line key for the DIL trunk.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-09-01 : Class of Service Options (Incoming Call Service) - Second Call for DID/ DISA/ DIL/ E&M**
Enable (1) or disable (0) an extension's ability to receive a second call from a DID, DISA, DIL, or tie line caller.
- **20-13-23 : Class of Service Options (Supplementary Service) - Display the Reason for Transfer**
Enable (1) or disable (0) an extension's ability to display the reason (Call Forward, Busy, No Answer or DND) a VRS, DID, DISA, or ISDN call is being transferred to their extension.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **22-01-04 : System Options for Incoming Calls - DIL No Answer Time**
Set the DIL No Answer Time (0-64800 seconds). If DIL Delayed Ringing is set in program 22-08, this option sets the DIL Delayed Ring interval.
- **22-02-01 : Incoming Call Trunk Setup**
Assign each DIL Service Type 4. Make an entry for each Night Service mode.
- **22-04-01 : Incoming Extension Ring Group Assignment**
Assign the extensions that should receive the overflow to the ring group programmed in 22-08. Set the ringing in Program 22-06 (0=trunks don't ring [just flash line keys], 1=trunks ring).
- **22-07-01 : DIL Assignment**
Set the destination extension number for each DIL - for each Night Service mode. The destination can be an extension port, virtual extension number, or Department Group pilot number (as assigned in 11-07-01).
- **22-08-01 : DIL/IRG No Answer Destination**
For each DIL with delayed ringing, enter the DIL No Answer Ring Group. An unanswered DIL rings this group after the DIL No Answer Time. Make an entry for each Night Service mode.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail

Related Features

Call Forwarding

Call Forwarding reroutes DILs.

Central Office Calls, Answering

When a call is transferred because of Call Forwarding No Answer, Call Forwarding Busy, or DND, the Reason for Transfer option can display to the transferred extension why the call is ringing to their terminal.

Central Office Calls, Placing

You can place DILs in trunk groups to make outgoing DIL calls easier.

Class of Service

The Timer Class of Service may affect a call.

Department Calling

A DIL can have an Extension (Department) Group as its destination.

Do Not Disturb

If a DIL's destination extension is in DND, an incoming call rings according to Ring Group programming (22-08 then 22-05).

Group Call Pickup

A user can activate Group Call Pickup to intercept a DIL ringing another extension.

Name Storing

Program a name for a DIL. This makes it easier to identify the incoming call.

Off Hook Signaling

If a keyset's first channel is busy, a DIL always signals the idle second channel if available. If the second channel already has a call waiting, DIL waits in line for a channel to become free. The outside caller hears ringback tone while this occurs.

Paging, External

DIL trunks will not ring external page speakers. Only trunks defined as "normal" in Program 22-02-01 will ring external page speakers.

Private Line

To simulate Private Line operation, create a unique Access Map for the DIL that allows full access only for the destination. Give all other extensions only Hold access.

Programmable Function Keys

If an extension has a line key for a DIL, the call will ring the key. If not, the call rings an available line appearance. For other extensions, the DIL indicates as busy.

Ring Groups

A DIL will ring its assigned extension without Ring Group programming. A DIL only rings its assigned extension. It will not ring other extensions in a Ring Group.

Transfer

Transferred calls on DISA, DID, DIL, ISDN trunks, or from the VRS can display the reason a call is being transferred (Call Forward, Busy, No Answer, or DND).

Direct Inward Line (DIL)

Operation

To answer a call on your Direct Inward Line:

1. Lift handset.
2. At keyset, press flashing line key for DIL.
If you don't have a line key for the DIL, the DIL rings an idle CALL key.
If you have Ringing Line Preference, lifting the handset answers the call.
If you don't answer the call, it may ring other extensions (i.e., the DIL No Answer Ring Group).

To place a call on your Direct Inward Line:

1. Lift handset.
2. At keyset, press line key for DIL
OR
Dial #9 and the DIL trunk number (e.g., 005).
OR
Dial 804 and the DIL trunk group number (e.g., 05).
OR
Dial 9 for Trunk Group Access
3. Dial number.

Direct Inward System Access (DISA)

Feature Availability

- Available - 15 users, 15 DISA Classes of Service.

Description

DISA permits outside callers to directly dial extensions, trunks and selected features. This could help an employee away from the office that wants to directly dial co-workers or use the company's trunks for long distance calls. To use DISA, the employee:

- Dials the telephone number that rings the DISA trunk
- Waits for the DISA trunk to automatically answer with a unique dial tone
- Dials the 6-digit DISA password (access code)
- Waits for a second unique dial tone
- Accesses a trunk, uses a selected feature or dials a extension

DISA calls ring extensions like other outside calls. If an extension has a line key for the DISA trunk, the call rings that key. If the extension does not have a line key, the call rings an idle CALL key.

You can set DISA operation differently for each Night Service mode. For example, a trunk can be a normal trunk during the day and a DISA trunk at night. You can also set the routing for DISA trunks when the caller dials a busy or unanswered extension, dials incorrectly or forgets to dial.

DISA Class of Service

DISA Class of Service provides features and dialing restrictions for DISA callers. This allows you to control the capabilities of the DISA callers dialing into your UX5000. When a DISA caller first accesses the UX5000, they must enter a DISA password before proceeding. The UX5000 associates the password entered with a specific user number, which in turn has a Class of Service. If the Class of Service allows the action (such as making outgoing trunk calls), the call goes through. If the DISA Class of Service doesn't allow the action, the UX5000 prevents the call. The DISA Class of Service options are:

- **Trunk Group Routing/ARS Access**
When a DISA caller dials into the UX5000, they may be able to dial 9 and place outside calls. Any toll charges are incurred by the UX5000. The call follows the UX5000's Trunk Group Access or Automatic Route Selection - whichever is enabled.
- **Trunk Group Access**
DISA callers may be able to access a specific trunk group for outgoing calls through the UX5000. To access a Trunk Group, the user dials Service Code 804 followed by the Trunk Group number (e.g., 1). This allows the DISA caller to place an outgoing call over the selected group. Trunk Group Access bypasses the UX5000's Trunk Group Routing/ARS/Trunk Access Maps. As with dial 9 access, any toll charges are incurred by the UX5000. Also see Direct Trunk Access below.

Direct Inward System Access (DISA)

- **Common Abbreviated Dialing**
The UX5000's Common Abbreviated Dialing bins may be available to DISA callers. This could save the DISA caller time when dialing.
- **Operator Calling**
A DISA caller may be able to dial 0 for the UX5000's operator.
- **Paging**
Internal and External Paging may be available to DISA callers. This allows co-workers in adjacent facilities, for example, to broadcast announcements to each other.
- **Direct Trunk Access**
DISA callers may be able to select a specific trunk for outgoing calls through the UX5000. To directly access a trunk, the user dials Service Code #9 followed by the trunk's number (e.g., 001). This allows the DISA caller to place an outgoing call over the selected trunk. Direct Trunk Access bypasses the UX5000's Trunk Group Routing/ARS/Trunk Access Maps. As with dial 9 access, any toll charges are incurred by the UX5000. Also see Trunk Group Access above.
- **Call Forward**
DISA callers may be able to set Call Forwarding to redirect an extension's calls to another extension. Call Forwarding ensures that the user's calls are covered when they are away from their work area.
- **DISA/Tie Trunk Barge In**
The DISA/Tie Trunk Barge In option allows a tie line caller to break into another extension's established call. This sets up a three-way conversation between the intruding party and the two parties on the initial call.

DISA Toll Restriction

The digits a DISA caller dials for an outgoing call may be subject to the UX5000's Toll Restriction. For example, Toll Restriction can prevent users from dialing a 1-900 service. When an incoming DISA caller tries to use UX5000 trunks to dial 1-900, Toll Restriction will deny the call.

DISA Operating Modes

The DISA Operating Modes determine what happens when a DISA caller forgets to dial, calls a busy or unanswered extension or dials incorrectly. The UX5000 can either drop the call or send it to a preset Ring Group (called a the DISA Transfer Destination).

Warning Tone for Long DISA Calls

You can set up the UX5000 to provide a warning tone to DISA callers that have been on a call too long. The warning tone can be just a reminder (which the caller can ignore) or can be followed by a forced disconnect of the call. When the DISA caller hears the warning tone, they have the option of dialing a code to continue the conversation or disconnect.

Direct Inward System Access (DISA)

Trunk Disconnect Continue/Disconnect Codes Added

With **Program 24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer** or **Program 25-07-08 : System Timers for VRS/DISA - DISA Long Conversation Disconnect** enabled, users can be provided with the option to use a Continue or Disconnect service code. The Continue service code will extend the conversation a programmed length of time. If the user enters the Disconnect service code, the call will be disconnected immediately.

Example:

The following example indicates how a call will be handled with the UX5000 programmed as follows:

- Program 14-01-25: 1
 - Program 20-28-01: #
 - Program 20-28-02: No setting
 - Program 20-28-03: 180
 - Program 24-02-07: 600 (Only used with Tandem Trunking)
 - Program 24-02-10: 30 (Only used with Tandem Trunking)
 - Program 25-07-07: 600 (Only used with DISA)
 - Program 25-07-08: 30 (Only used with DISA)
1. An external call connects to an external number (either by transferring with Tandem Trunking or by DISA caller).
 2. After 10 minutes (Tandem Trunking = Program 24-02-07 or DISA = Program 25-07-07), a warning tone is heard and the user dials "#" (Program 20-28-01) to extend the conversation.
 3. After 3 minutes (Program 20-28-03), the warning tone is heard again. After 30 seconds (Tandem Trunking = Program 24-02-10 or DISA = Program 25-07-08), the call is disconnected.

Remote Feature Setup with DTMF

An option may be available which can be used to remotely set various UX5000 functions for the specified extension by dialing the extension number and service code using a DISA line. This option is available for keysets, single line terminals, and IP terminals.

Direct Inward System Access (DISA)

The following features can be set using service codes with this option:

Function Name	Default Service Code	Description
Day / Night Mode Switching for own Night Group (Program 11-10-01)	818	Change the Operation Mode for each Night Group
Setting the Automatic Trunk Transfer for each Trunk (Program 11-10-06)	833	Set the Automatic Trunk Transfer for each Trunk
Canceling the Automatic Trunk Transfer for each Trunk (Program 11-10-07)	834	Cancel the Automatic Trunk Transfer for each Trunk
Setting the destination for Automatic Trunk Transfer (Program 11-10-08)	835	Register the destination telephone number for Automatic Trunk Transfer. With the Remote Feature Setup, after dialing the destination telephone number, *# must be entered (ex: 2035551234 *#).
VRS - Record / Erase Message (Program 11-10-20)	116	Record / Playback / Erase VRS Messages
VRS - General Message Playback (Program 11-10-21)	111	Playback General Message
VRS - Record / Erase General Message (Program 11-10-22)	112	Record / Playback / Erase General Message
Call Forward - Immediate (Program 11-11-01)	-	Set/Cancel Call Forward Immediate (Service Code + 1 <Set> / 0 <Cancel> + Transferred Destination Extension Number)
Call Forward - Busy (Program 11-11-02)	-	Set/Cancel Call Forward when Busy (Service Code + 1 <Set> / 0 <Cancel> + Transferred Destination Extension Number)
Call Forward - No Answer (Program 11-11-03)	-	Set/Cancel Call Forward when No Answer during pre-assigned period (Service Code + 1 <Set> / 0 <Cancel> + Transferred Destination Extension Number)
Call Forward - Busy/No Answer (Program 11-11-04)	-	Set/Cancel Call Forward when No Answer during pre-assigned period (Service Code + 1 <Set> / 0 <Cancel> + Transferred Destination Extension Number)
Call Forward - Both Ring (Program 11-11-05)	-	Set/Cancel Call Forward Both Ring (Service Code + 1 <Set> / 0 <Cancel> + Transferred Destination Extension Number)
Call Forward - Follow Me (Program 11-11-07)	-	Set/Cancel Call Forward - Follow Me (Service Code + 1 <Set> / 0 <Cancel> + Appropriate Extension Number)
DND (Do Not Disturb) (Program 11-11-08)	847	Set/Cancel DND (Service Code + 0 <Cancel> / 1 <External Call> / 2 <Internal Call> / 3 <All Call> / 4 <CFW Transferred Call>)

The DISA feature must be enabled for this function.

Direct Inward System Access (DISA)

Notes:

- While the outside caller is setting the function via DISA, no one can use the extension which is being set.
- The outsider caller can not set/cancel a function via DISA when the selected extension is being used except during incoming ringing (including incoming ACD calls). If the extension is busy, the call will be terminated.
- The VRS is required to send the fixed messages heard during the feature setup, but the feature can be used without the prompts.

Conditions

- The DISA caller must use a 2500 type (DTMF) terminal. DISA is compatible with calling devices that meet the DTMF signaling requirements of EIA Specification RS-464. DISA trunks must be ground start or supervised loop start.
- The Continue/Disconnect code must be DTMF.
- With an analog trunk, the Continue/Disconnect code may work using DTMF sounds from the opposite side trunk. With an ISDN trunk, Program 14-01-25 must be enabled to detect the Continue/Disconnect code.
- The Continue/Disconnect code is not accepted while dialing a trunk.
- Continue/Disconnect codes will not work if all DTMF receivers are busy.
- When used with the Networking feature, both systems must be programmed the same.

Default Setting

Disabled.

Direct Inward System Access (DISA)

Programming

- **10-09-01 : DTMF and Dial Tone Circuit Setup**

Reserve at least one circuit for DTMF reception (entry 0 or 2).

 - Use the following as a guide when allocating DTMF receivers:
 - In light traffic sites, allocate one DTMF receiver for every 10 devices that use them.
 - In heavy traffic sites, allocate one DTMF receiver for every five devices that use them.
- **11-01-01 : System Numbering**

Set up a Service Code for Alternate Trunk Route Access.
- **11-09-02 : Trunk Access Code - Alternate Trunk Route Access Code**

Assign the Service Code set up in 11-01 for Alternate Trunk Route Access.
- **11-15-13 : Service Code Setup, Administrative (for Special Access) - Function Setting via DISA**

Define the service code (up to 8 digits) an outside caller dials when on a DISA line in order to access certain UX5000 features.
- **14-01-02 : Basic Trunk Data Setup - Transmit Codec Gain Type**
14-01-03 : Basic Trunk Data Setup - Receive Codec Gain Type

Customize the codec gains (transmit and receive levels 1-63) for DISA trunks.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**

If DISA caller can place outgoing calls through the UX5000 (see Program 20-14), enable (1) trunk-to-trunk transfer with loop supervision for the DISA trunk. If DISA caller cannot use the UX5000's trunks for outgoing calls, enter 0 to disable.
- **20-01-05 : System Options - DTMF Receiver Active Time**

After answering the call, the UX5000 attaches a DTMF receiver to the DISA trunk for this interval (0- 64800 seconds).
- **20-06-01 : Class of Service for Extensions**

Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-09-01 : Class of Service Options (Incoming Call Service) - Second Call for DID/ DISA/ DIL/ E&M**

Enable (1) or disable (0) an extension's ability to receive a second call from a DID, DISA, DIL, or tie line caller.
- **20-13-23 : Class of Service Options (Supplementary Service) - Display the Reason for Transfer**

Enable (1) or disable (0) an extension's ability to display the reason (Call Forward, Busy, No Answer or DND) a VRS, DID, DISA, or ISDN call is being transferred to their extension.
- **20-14-01 - 20-14-11 : Class of Service Options for DISA/E&M**

Enable (1) or disable (0) the following options for each DISA Class of Service (1-15).

 - First Digit Absorption (Item 1)
 - Trunk Group Routing/ARS Access (Item 2)
 - Trunk Group Access (Item 3)
 - Common Abbreviated Dialing (Item 4)
 - Operator Calling (Item 5)
 - Internal Paging (Item 6)
 - External Paging (Item 7)
 - Direct Trunk Access (Item 8)
 - Forced Trunk Disconnect (Item 9)
 - Call Forward Setting by Remote Via DISA (Item 10)
 - DISA/Tie Trunk Barge In (Item 11)

Direct Inward System Access (DISA)

- **20-30-01 : Timer Class for Trunks**

Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**

Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **21-15-01 : Alternate Trunk Route for Extensions**

Designate the trunk route accessed when a user dials the Alternate Trunk Route Access Code. Refer to “Trunk Group Routing” to set up outbound routing.
- **22-01-11 : System Options for Incoming Calls - VRS Waiting Message Interval Time**

Setup the sending duration time of the Auto - Attendant & Queuing. The message is repeatedly sent out within the specified time (0-64800 seconds).
- **22-02-01 : Incoming Call Trunk Setup**

For DISA operation, set the trunk service type to 2. You can have a different service type for each Night Service mode.
- **22-04-01 : Incoming Extension Ring Group Assignment**

Assign the extensions that should receive the overflow. Set the ringing in Program 22-06 (0=trunks don't ring [just flash line keys], 1=trunks ring).
- **25-01-01 : VRS/DISA Line Basic Data Setup - VRS/DISA Dial-In Mode**

Select whether the DISA trunk will use the Extension number/Service code specify (0) or the Dial Conversion Table (1).
- **25-01-02 : VRS/DISA Line Basic Data Setup - DISA User ID**

Select whether or not the DISA User ID is to be used (0=disable, 1=enable).
- **25-01-03 : VRS/DISA Line Basic Data Setup - VRS/DISA Transfer Alarm**

Select whether the DISA transfer alarm should be used (0=normal, 1=alarm).
- **25-03-01 : VRS/DISA Transfer Ring Group With Incorrect Dialing**

Set the operating mode of each DISA trunk. This sets what happens to the call when the DISA caller dials incorrectly. The call can either disconnect (0), transfer to an alternate ring group destination, or transfer to In-Skin/External Voice Mail, or Centralized Voice Mail.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **25-04-01 : VRS/DISA Transfer Ring Group With No Answer/Busy**

Set the operating mode of each DISA trunk. This sets what happens to the call when the DISA caller calls a busy or unanswered extension. The call can either disconnect (0), transfer to an alternate ring group destination, In-Skin/External Voice Mail, or Centralized Voice Mail.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **25-07-01 : System Timers for VRS/DISA - DISA Dial Tone Time**

After answering the DISA trunk, the UX5000 waits this interval (0-64800 seconds) for the caller to dial the first digit of the password. If the caller fails to dial within this interval, the UX5000 drops the call.
- **25-07-02 : System Timers for VRS/DISA - VRS/DISA No Answer Time**

A DISA caller can ring an extension for this interval (0-64800 seconds) before the UX5000 sets the call as a Ring No Answer. After this interval expires, the call follows the programmed Ring No Answer routing (see Program 25-04 below).
- **25-07-07 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Warning Tone Time**

Determine the length of time a DISA caller or any trunk-to-trunk (such as Tandem Trunking) conversation can talk before the Long Conversation tone is heard (0-64800 seconds).

Direct Inward System Access (DISA)

- **25-07-08 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Disconnect**

This timer determines how long the UX5000 will wait before disconnecting a DISA or any trunk-to-trunk (such as Tandem Trunking) call after the Long Conversation tone is heard (0-64800 seconds).
- **25-07-09 : System Timers for VRS/DISA - DISA Internal Paging Time**

This is the maximum length of an Internal Page placed by a DISA caller. If the Page continues longer than this interval (0-64800 seconds), the UX5000 terminates the DISA call.
- **25-07-10 : System Timers for VRS/DISA - DISA External Paging Time**

This is the maximum length of an External Page placed by a DISA caller. If the Page continues longer than this interval (0-64800 seconds), the UX5000 terminates the DISA call.
- **25-07-13 : System Timers for VRS/DISA - VRS/DISA Busy Tone Interval**

If a DISA caller dials a busy extension (and Program 25-04 = 0), the UX5000 plays busy tone for this interval before disconnecting.
- **25-08-01 : DISA User ID Setup**

For each DISA user, set the 6-digit password.
- **25-09-01 : Class of Service for DISA Users**

Assign a DISA Class of Service for each user. *The DISA Class of Service cannot be 0.* You cannot use the 20-xx-xx and 42-xx-xx programs to assign Class of Service to DISA trunks (15 users, with one password and DISA Class of Service (1-15) for each user).
- **25-10-01 : Trunk Group Routing for DISA**

Use this program to assign the Trunk Group Route chosen when a user places a DISA call into the UX5000 and dials 9. Set Trunk Group Routing in Program 14-06. If the UX5000 has ARS, dialing 9 accesses ARS. The route chosen is based on the DISA Class of Service, which is determined by the password the caller dials.
⇨ Trunk Group Routes: 1-100
- **25-11-01 : DISA Toll Restriction Class**

If the UX5000 uses Toll Restriction, enter a Toll Restriction Class (1-15) for each DISA user (1-15). The UX5000 uses the Toll Restriction Class you enter in Program 21-05. The Toll Restriction Class assigned to a DISA call is based on the DISA Class of Service, which is determined by the password the caller dials. You cannot use Program 21-04 to assign Toll Restriction to DISA trunks.
- **25-12-01 : Alternate Trunk Group Routing for DISA**

Assign the trunk route that DISA Caller's access if they dial the Alternate Trunk Route Access Code. Refer to "Central Office Calls, Placing" for more on setting up Alternate Trunk Route Access.
- **80-03-01 : DTMF Tone Receiver Setup**
- **80-04-01 : Call Progress Tone Detector Setup**

If required, modify the criteria for dial tone detection and call progress tone detection for DTMF tones for inbound DTMF DISA calls.

Trunk Disconnect Continue/Disconnect Codes

- **14-01-25 : Basic Trunk Data Setup - Continue/Disconnect Trunk-to-Trunk Conversation**

When Program 24-02-10 is set to disconnect a trunk after the defined time, determine whether or not a user should have the ability to use the continue/disconnect code (**Entries:** 0 = Disabled, 1 = Enabled).
- **20-28-01 : System Option Setup - Conversation Continue Code**

When Program 14-01-25 is enabled, determine the 1-digit code the user should dial (0 - 9, *, #) to extend the conversation length for the time defined in 20-28-03. If the Continue and Disconnect codes are programmed the same (e.g., #), the UX5000 will follow the "Continue" operation. Using the Continue code before the warning tone is heard has no action.

Direct Inward System Access (DISA)

- **20-28-02 : System Option Setup - Conversation Disconnect Code**
When Program 14-01-25 is enabled, determine the 1-digit code the user should dial (0 - 9, *, #) to immediately disconnect their call. Using the Disconnect code before the warning tone is heard will disconnect the call.
- **20-28-03 : System Option Setup - Conversation Extend Time**
When Program 14-01-25 is enabled, determine the length of time a call will be extended (0 - 64800 seconds) when the user dials the Continue code (defined in 20-28-01).
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer/Tandem Trunking). When this timer expires, a warning tone is heard. If Program 24-02-10 is set, the conversation disconnects after that timer expires. This timer is set again when the external digit timer expires. One of the trunks used must be an analog trunk (or leased line). **Entries:** 0 - 64800 (seconds)
- **24-02-10 : System Options for Transfer - Trunk-to-Trunk Transfer Disconnect Timer**
Determine how long a conversation will continue (0 - 64800 seconds) once the timer in Program 24-02-07 expires. If this option is set to "0", the conversation will be disconnected immediately. This program has no affect if Program 24-02-07 is set to "0". One of the trunks used must be an analog trunk (or leased line).
- **25-07-07 : System Timers for VRS/DISA - DISA Long Conversation Warning Tone Time**
Determine the length of time a DISA caller can talk before the Long Conversation tone is heard (0-64800 seconds). If Program 25-07-08 is set to "0", the call is disconnected once the timer expires. This timer is set again when the external digit timer expires.
Note: If this option is set to "0", the settings in Program 24-02-07 and 24-07-10 are followed - not 25-07-07 and 25-07-08.
- **25-07-08 : System Timers for VRS/DISA - DISA Long Conversation Disconnect Timer**
This timer determines how long the UX5000 will wait (0 - 64800 seconds) before disconnecting a DISA call after the Long Conversation tone is heard. This program has no affect if Program 25-07-07 is set to "0".
- **80-01-01 : Service Tone Setup , Tone 35 - 1 Second Signal Tone**
If required, adjust the warning tone heard by the user when Program 24-02-07 or 25-07-07 expires.

Related Features

Automatic Route Selection

In a UX5000 with ARS enabled:

When a DISA caller dials 9 for an outside call (if allowed), the UX5000 routes the call via ARS.

In a UX5000 with ARS disabled:

When a DISA caller dials 9 for an outside call (if allowed), the UX5000 uses the routes programmed for Trunk Group Routing.

Central Office Calls, Answering

When a call is transferred because of Call Forwarding No Answer, Call Forwarding Busy, or DND, the Reason for Transfer option can display to the transferred extension why the call is ringing to their terminal.

Class of Service

The Timer Class of Service may affect a call.

Direct Inward Dialing (DID) / Direct Inward Line (DIL) / Voice Response System (VRS)

These features also allow outside callers to directly access extensions.

Long Conversation Cutoff

Long conversation cutoff is controlled separately for DISA and tie lines.

Direct Inward System Access (DISA)

Tandem Trunking (Unsupervised Conference)

Tandem Trunking also used the Continue/Disconnect codes DISA uses.

Transfer

Transferred calls on DISA, DID, DIL, ISDN trunks, or from the VRS can display the reason a call is being transferred (Call Forward, Busy, No Answer, or DND).

Operation

To place a DISA call into the UX5000 (from any 2500 type terminal):

1. Dial the telephone number that rings the DISA trunk.
2. Wait for the DISA trunk to automatically answer with a unique dial tone.
3. Dial the 6-digit DISA password (access code).
4. Wait for a second unique dial tone.
5. Dial an extension (301-556).
OR
Dial 9 for Trunk Group Routing or ARS.
OR
Dial Alternate Trunk Route Access Code (if enabled).
OR
Dial 804 + a trunk group number (1-100) for an outside call.
OR
Dial #9 + a trunk number (01-64 or 001-200) for an outside call.
OR
Dial #2 + Common Abbreviated Dialing bin number.
OR
Dial 0 for the operator.
OR
Dial 801 + an Internal Paging Zone number (0, 1-9, 00, 01-64).
OR
Dial 803 + an External Paging Zone number (1-8 or 0 for All Call).
OR
Dial 810 + a busy extension number to barge in to a call.

To forward an extension's calls using a DISA call into the UX5000 (from any 2500 type terminal):

1. Dial the telephone number that rings the DISA trunk.
2. Wait for the DISA trunk to automatically answer with a unique dial tone.
3. Dial the 6-digit DISA password (access code).
4. Wait for a second unique dial tone.
5. Dial the Call Forward service code (as defined in Program 11-11-01 through 11-11-05).
6. Dial the number of the extension to be forwarded.
7. Dial "1" to set Call Forwarding or "0" to cancel Call Forwarding.
8. Dial the extension number to which the calls will be forwarded.

Direct Inward System Access (DISA)

To use the Continue code to extend a DISA call:

1. An external call connects to an external number a by DISA caller.
2. After the programmed time (Program 25-07-07), a warning tone is heard and the user dials the Continue code (Program 20-28-01) to extend the conversation.
3. After the programmed time (Program 20-28-03), the warning tone is heard again. After the programmed time (Program 25-07-08), the call is disconnected.

Remote Feature Setup with DTMF

This feature can be used without having a VRS installed. However, without a VRS, the caller will not hear any messages as indicated below.

1. An outside caller dials in on a UX5000 DISA trunk.
2. The UX5000 answers the call.
3. The outside caller dials the Remote Feature Setup service code defined in 11-15-13 (default: no entry).

The caller hears "Please dial the extension number".

If an incorrect extension number is dialed, the caller hears "That is an invalid entry. Please dial the extension number."

4. Dial the extension number for which a feature is to be activated/deactivated.
*The caller hears "Please enter the required service code".
If an incorrect service code is dialed, the caller hears "That is an invalid entry. Please enter the required service code."*
5. The outside caller can now dial the service code for the feature to be activated/deactivated.
*When the function setting via DISA has succeeded, the caller hears the fixed message "The setting has been activated".
The LCD indication at the extension changes in accordance with the set function.*

Direct Station Selection (DSS) Console

Feature Availability

- Available - 32 60-Button or Aspire 110-Button Consoles combined maximum. A digital extension can have up to 32 UX5000 60-Button DSS Consoles installed, while an IP terminal can have only 1 UX5000 60-Button DSS Console installed.

Description

The 60-Button DSS Consoles (P/N 0910094 or 0910096) give a keyset user a Busy Lamp Field (BLF) and one-button access to extensions, trunks and UX5000 features. This saves time for users that do a lot of call processing (e.g., operators or dispatchers). The DSS Console simplifies:

- Calling extensions and Door Boxes
Consoles can be used to allow a non-ACD DSS console to lamp indicating the status of both non-ACD agents as well as ACD agents.
- Placing, answering and transferring outside calls
- Making an External or Internal Page
- Switching the Night Service mode
- Activating DSS Console Alternate Answer

The DSS Console also provides DSS Console Alternate Answer. This lets a keyset user with a DSS Console quickly reroute their calls to a co-worker. When the user places their console off-duty (by pressing the ALT. key), their calls route automatically to the programmed co-worker. Transferred and dial "0" calls ring both DSS Consoles. Central office calls ring both consoles.

You can also program the DSS Console keys to store Service Codes codes (up to 29 digits long). This provides the DSS Console user with many of the features available on Programmable Feature Keys. The DSS Console keys can optionally store additional associated digits after the Service Code. For example, storing 8141 under a DSS Console key accesses Trunk Group 1 when the console user presses the key.

The maximum number of DSS Consoles allowed per UX5000 is 32 (these can be either 60-Button or Aspire 110-Buttons Consoles or any combination of both). The consoles can be installed on digital keysets or IP keysets. ***When installing the 60-Button DSS Console for use with a digital keyset, the console is connected to a digital port. When installing the console for use with an IP keyset, it is connected to the bottom of the IP keyset.***

Each UX5000 60-Button DSS Console can be set to display two different ranges of extensions using the Page Switching key (Program 30-03-01, code: 95).

Conditions

- Changing flash patterns for DSS Consoles will also change them for Hotline keys.
- A warm reboot of the UX5000 will change the console display to the Extension range 1 indications. If the console is unplugged and plugged back in, the display displays the previous indication/range - except for Wake Up Calls when in Hotel/Motel mode. Wake Up Call displays will only update for new calls.
- Except when in Hotel/Motel mode, the fixed keys (ALT, Night, Day, Break, Nite2, Page, Group, Door, Ext.1, Ext.2) of a 110-button DSS console are not used and will be ignored if pressed.
- When displaying the Extension range 2 on an Aspire 110-button DSS console, if the Page, Group, or Door key is pressed in Hotel/Motel mode, the console will display the Extension Range 1 keys for Message Waiting, Wake Up Call, and Room Status.

Direct Station Selection (DSS) Console

- There is no Extension range 2 for the Hotel/Motel modes: Message Waiting, Wake Up Call, and Room Status. If the range is switched, it will change to display the Extension range 2 ICM indications.
- **When installing the 60-Button DSS Console for use with a digital keyset, the console is connected to a digital port. When installing the console for use with an IP keyset, it is connected to the bottom of the IP keyset.**
- An IP terminal can have either a 60-Button DSS Console installed or a 16DLS - it cannot have both devices connected. A digital terminal can have a 16DLS attached as well as any number of 60-Button DSS Consoles (up to the system maximum).

Default Setting

- No DSS Consoles assigned (in Program 30-02).
- UX5000 60-Button DSS Console key range 1 defined as ports 1-60. Extension range 2 has no entries.
- Once a DSS Console is enabled, the console's keys are DSS keys (Program 30-03).
- The UX5000 60-Button DSS Console keys are defined as follows, by default, based on the operation mode selected in Program 30-01-01.

Operation Mode (Program 30-01)	Key Number	Function Indication	LED
Business Mode	1-60	ICM	Red
Hotel Motel	1-60	ICM	Red
ACD Mode	1-60	ACD Status	Red
Business/ACD Mode	1-60	ACD Status / ICM	Red

Programming

- **10-03-01 : Blade Setup**
The UX5000 automatically assigns the terminal type (10) for the port which has a DSS console installed.
- **11-11-19 : Service Code Setup (for Setup/Entry Operation) - Key Touch Tone On/Off**
If required, adjust the service code used to activate the touch tone when a key is pressed (824). This feature will only work when DSS Consoles are associated with UX5000 digital keysets and IP terminals.
- **15-02-08 : Multi-Line Terminal Basic Setup, Automatic Handsfree**
Set to '1' in order for a DSS Console to have one-touch operation. If set to '0', the user will need to lift the handset before pressing a DSS key in order for the call to complete.
- **15-07-01 : Programmable Function Keys**
Assign function keys to the Line Key Unit. Consider adding keys 95 - Page Switching Key, 98 - Message Waiting Indication, and 99 Alternate Key to the console. Refer to Program 30-03-01 to assign function keys to DSS consoles.
- **15-02-18 : Multi-Line Terminal Basic Data Setup - Power-Saving Mode**
Enable (1) or disable (0) the power saving mode for the UX5000 console. The brightness of the LEDs will be lowered by 50% based on the activation time in Program 20-02-10. When used with a DSS Console, the power-saving mode is synchronized with both the terminal and the console. Both units must have this option enabled and both must be idle for the defined time before the power-saving mode is activated.
This function only works for UX5000 consoles. Consoles for other UX5000s do not provide this feature.

Direct Station Selection (DSS) Console

- **15-05-22 : IP Terminal Basic Data Setup - DSS Console Assignment**
When an IP terminal is to use a DSS Console, assign the console number (01-32) using this option. This program must also be used to delete the association between an IP terminal and a console. Refer to Program 30-02 when associating with a digital keyset.
- **20-02-10 : System Options for Multi-Line Terminals - Time Before Shifting to Power-Saving Mode**
When the Power Saving Mode is enabled for an extension in Program 15-02-18, use this option to determine when the mode is activated (0 = Power-Saving Mode Off, 1 = 1 minutes, 2 = 2 minutes, 3 = 4 minutes, 4 = 8 minutes, 5 = 16 minutes, 6 = 32 minutes, 7 = 64 minutes).
- **20-02-03 : System Options for Multi-Line Terminals - BLF Control and 20-13-06 : Class of Service Options (Supplementary Service) - Automatic Off Hook Signaling**
These programs set the conditions under which a Hotline, Reverse Voice Over or DSS Console key indicates that an extension is busy. With condition 1 in the following chart, the BLF LED is on only when both extension line appearances are busy. In conditions 2-4, the BLF LED is on when one line appearance is busy.

	Program 20-02-03	Program 20-13-06	BLF ¹ Status	Busy Status
1	1	0	On	Yes
2	1	1	On	Yes
3	0	0	On	Yes
4	0	1	Off	No

¹ BLF is on for extension receiving a voice announced Intercom call

- **20-06-01 : Class of Service for Extensions**
Assign Class of Service (1-15) to extensions for each night mode (1-8).
- **20-17-01 : Operator's Extension - Operator's Extension Number**
Define the extension numbers which are to be used as operators.
- **20-17-02 : Operator's Extension - Operator Console Mode**
Determine if the operator's keyset will act as a normal keyset (0) or if keys 13-24 will be used for Personal Park of outside calls (1).
- **30-01-01 : DSS Console Operating Mode**
Set the mode of the UX5000's DSS Consoles. The available options are Regular (Business) Mode (0), Hotel Mode (1), ACD Monitor Mode (2), and Business/ACD Mode (3). Lamping status for ACD agents and non-ACD agents require this option be set to "3" (ACD calls take a higher priority). For ACD agent's lamping status, a DSS Console must be programmed as an ACD console. For non-ACD agents, the console must be programmed as business console.
- **30-02-01 : DSS Console Extension Assignment**
For each DSS Console installed, designate the digital extension to be used with that console. Refer to Program 15-05-22 when associating with an IP terminal.
- **30-03-01 : DSS Console Key Assignment**
Customize DSS Console keys to function as DSS keys, Service Code keys, and Programmable Function Keys. The key (when defined as a DSS/One-Touch key [code 01] can have any function up to four digits long (e.g., extension number or Service Code). The function information (such as extension number or Service Code) would then be entered as the additional data. Consider adding keys 95 - Page Switching Key (on DSS keys 55-60 only), 98 - Message Waiting Indication, and 99 Alternate Key to the console.
If the console is to be used for Hotel/Motel, define a key for code 92 (Wake-Up Call), 93 (Room Status), plus assign extension/room DSS keys as needed.
If the Alternate Key is deleted while the feature is activated, the feature will be cancelled and all calls will revert back to the original console.

Direct Station Selection (DSS) Console

If the Page Switching key is deleted while the second range of extensions is displayed, the console will revert back to display the range 1 extensions.

When using multiple DSS consoles with one terminal, each console must be defined.

- **30-04-01 : Alternate DSS Console Extension Assignment**
If the console should have Alternate Answering, use this program to assign the Alternate Answering Destination. That extension must be programmed with a DSS, but it does not actually need a DSS installed.
- **30-05-01 : DSS Console Lamp Table**
If required, use this program to customize the UX5000's DSS Console flash rates. This table also affects DSS/Hotline key lamping for keysets. Any changes are applied system-wide.
- **30-10-01 : DSS Console IP Terminal Setup**
Use this option to display the MAC address of the terminal for the DSS console connected with the SIP multi-line terminal.

1 Related Features

Abbreviated Dialing

A user can use the One-Touch Programmable Function Key (code 01) to have DSS Console keys for Personal Speed Dial as well as common and group Abbreviated Dialing.

Automatic Call Distribution (ACD)

A non-ACD DSS console can lamp indicating the status of both non-ACD agents as well as ACD agents when using Program 30-05-01. ACD lamping takes priority over the basic extension lamping.

Call Forwarding

A DSS key will only indicate a Call Forwarding indication for extensions forwarded with Personal Answering Machine Emulation (*2 + 1) or Immediate Call Forwarding (*2 + 4).

Central Office Calls, Answering and Placing

A DSS Console can have line keys for placing and answering calls.

Door Box

The DSS Console provides one-touch calling and a Busy Lamp Field for Door Boxes when defined in Program 30-03-01. Refer to the Door Box Feature when programming Door Boxes.

One-Touch Calling

Like One-Touch access, a user can have DSS Console keys for Direct Station Selection, Trunk Calling, Personal Speed Dial, Abbreviated Dialing, and Service Code access.

Paging, External and Internal

The DSS Console provides one-touch External and Internal Page zone access when defined in Program 30-03-01. Refer the External Paging and Internal Paging features when programming Paging.

Programmable Function Keys

You can program the DSS Console keys with service codes to provide the functions of many of the Programmable Function keys. The stored service code can be up to three digits long, but it can have additional option codes added (e.g. to set Immediate Call Forward for all calls, *2 + 4 + ext # + 2).

VoIP

A DSS Console can be associated with an IP terminal. Use Program 15-05-22 to associate or delete the DSS Console with a terminal. (It can not be deleted by unplugging the console.)

Direct Station Selection (DSS) Console

Operation

Calling an extension from your DSS Console:

1. Press the desired DSS Console key.
If the call voice-announces, you can make it ring by dialing 1.
If you don't have Handsfree, you must lift handset to speak.

Extension Busy Lamp Field	
Business Mode:	
When the DSS key is <i>Red</i> and...	The assigned extension is...
On	Busy on a call, Line Ringing, call on hold or recalling, or has message
Off	Idle
Flashing Fast	In Do Not Disturb or Call Forwarding Immediate is set
Page Switching Key: Flashing Slow	Using the Page Switching key, the console is displaying the second level of extensions.
Message Waiting Key: On	The console is displaying extensions which have Message Waiting indications.

Direct Station Selection (DSS) Console

<p>Hotel Mode:</p> <p style="text-align: center;">When the DSS key is <i>Red</i> and...</p> <p style="text-align: center;">On</p> <p style="text-align: center;">Off</p> <p style="text-align: center;">Flashing Fast</p> <p><u>Message Waiting</u></p> <p style="text-align: center;">When the DSS key is...</p> <p style="text-align: center;">On</p> <p style="text-align: center;">Off</p> <p><u>Wake Up</u></p> <p style="text-align: center;">When the DSS key is...</p> <p style="text-align: center;">On</p> <p style="text-align: center;">Flashing Fast</p> <p style="text-align: center;">Off</p> <p style="text-align: center;"><i>Pressing the key toggles the function on/off.</i></p> <p><u>Room Status</u></p> <p style="text-align: center;">When the DSS key is...</p> <p style="text-align: center;">On</p> <p style="text-align: center;">Flashing Fast</p> <p style="text-align: center;">Flashing Slow</p> <p style="text-align: center;">Flashing Medium</p> <p style="text-align: center;">Off</p> <p style="text-align: center;"><i>Pressing the key toggles the function on/off.</i></p>	<p style="text-align: center;">The assigned extension is...</p> <p style="text-align: center;">Busy on a call, Line Ringing, call on hold or recalling, or has message</p> <p style="text-align: center;">Idle</p> <p style="text-align: center;">In Do Not Disturb or Call Forwarding Immediate is set</p> <p style="text-align: center;">The assigned extension has...</p> <p style="text-align: center;">A new message</p> <p style="text-align: center;">No messages</p> <p style="text-align: center;">The assigned extension has...</p> <p style="text-align: center;">Wake Up Call set</p> <p style="text-align: center;">No answer on Wake Up Call</p> <p style="text-align: center;">No Wake Up Call Set</p> <p style="text-align: center;">The assigned extension is/needs...</p> <p style="text-align: center;">Checked In and Clean</p> <p style="text-align: center;">Inspection</p> <p style="text-align: center;">Maid Required</p> <p style="text-align: center;">Maid in Room</p> <p style="text-align: center;">Checked Out (Clean and Available)</p>
<p>ACD:</p> <p style="text-align: center;">When the DSS key is <i>Red</i> and...</p> <p style="text-align: center;">On</p> <p style="text-align: center;">Stutter Flashing</p> <p style="text-align: center;">Long Flashing</p> <p style="text-align: center;">Slow Stutter Flashing</p> <p style="text-align: center;">Off</p>	<p style="text-align: center;">The assigned ACD agent is ...</p> <p style="text-align: center;">Busy / Wrap Up</p> <p style="text-align: center;">Emergency Call</p> <p style="text-align: center;">Logged Out / Off Duty</p> <p style="text-align: center;">Logged In</p> <p style="text-align: center;">Normal Extension</p>

Direct Station Selection (DSS) Console

Business/ACD Mode:	
When the DSS key is <i>Red</i> and...	The assigned extension is...
On	Busy / Wrap Up
Stutter Flashing	Emergency Call
Long Flashing	Logged Out / Off Duty
Slow Stutter Flashing	Logged In
Fast Flashing	In Do Not Disturb or Call Forwarding Immediate is set
On	Busy on a call, Line Ringing, on Hold, or has message
Off	Idle

Answering a trunk call from your DSS Console:

1. Press flashing DSS Console key assigned to trunk.
If you don't have Handsfree, you must lift the handset to speak.

Parking an outside call when using a keyset as an operator's terminal (Program 20-17-02 set to "1"):

1. Press the ringing line/loop key.
2. Place the call in Personal Park by pressing an available Park key (13-24).
To pick up the call, press the flashing Personal Park key.
With this program set to "1", pressing CHECK and keys 13-24 to verify the keys programming, the display will not indicate any function.

Transferring a call using your DSS Console:

1. Place or answer call.
If you are on an Intercom call, press HOLD before going to the next step.
2. Press DSS key for extension that will receive transfer.
You cannot Transfer to an extension that is busy or in Do Not Disturb.
3. (Optional) Announce call.
If called party doesn't want the call, press flashing line or CALL key to retrieve it.
4. Press SPK to hang up.

Using the Page Switching key from your DSS Console:

1. Press the Page Switching key (Program 30-03-01: Code 95) to display the second level of extension numbers on the console.
2. Press the Page Switching key again to display the first level of extensions.

Direct Station Selection (DSS) Console

Display Message Waiting Indications from your DSS Console:

1. Press the Message Wait key (Program 30-03-01: Code 98) to display extensions with Message Wait indications.
2. Press the Message Wait key again to return to the normal extension status display.

Activating DSS Console Alternate Answer:

This feature cannot be used with the Aspire 110-Button DSS Console.

1. Press ALT.

The ALT key lights on each related DSS Console.

With Alternate Answer enabled, an incoming call will ring both consoles.

Alternate Answer Busy Lamp Field	
When the ALT key is...	Alternate Answer is...
On	Enabled
Off	Disabled

2. To deactivate Alternate Answer, press the ALT key again.

Using a DSS Console key as a One-Touch or Programmable Function Key:

A user can have DSS Console keys programmed as One-Touch Keys. These keys can be used for Direct Station Selection, Trunk Calling, Personal Speed Dial, Abbreviated Dialing, and Service Code access. The stored service code cannot be longer than three digits.

1. Press DSS Console key for function.

For example, you can forward your calls by pressing DSS Key + 1 + destination. Your DSS key must have been previously programmed for the Call Forward feature.

Directed Call Pickup

Feature Availability

- Available.

Description

Directed Call Pickup permits an extension user to intercept a call ringing another extension. This allows a user to conveniently answer a co-worker's call from their own terminal. With Directed Call Pickup, an extension user can pick up:

- Trunk calls (i.e., Ring Group calls)
- Direct Inward Lines
- Transferred trunk calls
- Transferred Intercom calls
- Ringing and voice-announced Intercom calls

Conditions

- An extension can use Directed Call Pickup to intercept calls to which it is denied access in Programs 14-07 and 15-06.

Default Setting

Enabled.

Programming

- **11-12-30 : Service Code Setup (for Service Access) - Specified Trunk Answer**
If required, redefine the service code used to answer a specific trunk which is either ringing or on hold (default: 172).
- **20-10-05 : Class of Service Options (Answer Service) - Directed Call Pickup for Own Group**
Enable (1) or disable (0) an extension's ability to use Directed Call Pickup for calls ringing their own group.

Related Features

For other features which let you cover a co-worker's calls, refer to:

- Department Calling
- Group Call Pickup
- Hotline
- Multiple Directory Numbers
- Secretary Call Pickup

Hold/Transfer

Calls which were on hold or transferred which recall the extension can be answered using Directed Call Pickup.

Park

Personal Park also uses the Directed Call Pickup code.

Voice Mail

Voice Mail Park and Page also uses the Directed Call Pickup code.

Operation

To use Directed Call Pickup to intercept a call to a co-worker's extension:

1. At keyset, press idle CALL key.
OR
At single line set, lift handset.
2. Dial **.
3. Dial number of extension whose call you want to intercept.

If more than one call is coming in, the UX5000 sets the priority for which call it will answer first.

If you know the specific line number which is ringing, you can dial 172 + Line number (001-200). With this option, you must be allowed access to the trunk in Programs 14-07 and 15-06.

Directory Dialing

Feature Availability

- Available.

Description

Directory Dialing allows a display keyset user to select a co-worker or outside call from a list of names, rather than dialing the phone number. There are four types of Directory Dialing:

- **Abbreviated Dialing** (includes a sub-menu for **ABBc - Common** and **ABBg - Group**)
- **EXT.** - Co-worker's extensions
- **STA** - Personal Abbreviated Dialing (One-Touch Keys)
- **TELBK** - Central Telephone Book

Conditions

- Directory Dialing sorts and searches directory names in alphabetical order (based on all of the characters entered of the name) when the UX5000 starts up or reboots. In addition, the UX5000 will re-sort extension names when:
 - You change Program 15-01-01 (Extension Numbers and Names).
 - Any user dials 800 and changes their extension's name.
- Directory Dialing follows all the programmed options and conditions for Abbreviated Dialing, Intercom Calling and One-Touch Calling.

Default Setting

Enabled.

Programming

- ◆ 21-01-02 : **System Options for Outgoing Calls - Intercom Interdigit Time**
When the Directory Dialing display is at a point of being able to dial an outbound call (for example, indicating an Abbreviated Dialing number on the display), if a user waits longer than this interval before seizing a line or pressing a CALL key to place the call, the Directory Dialing display is automatically canceled.

Related Features

Soft Keys

Using the Directory Dialing Soft Keys, the FLASH key can toggle the language display from English to Japanese.

Operation

To use Directory Dialing from a display keypad:

1. Do not lift handset or press SPK.
2. Press Directory Dialing Soft Key.
3. Press Soft Key for Directory Dialing type:
ABB = Abbreviated Dialing menu
EXT = Co-worker's extension number
STA = Station retrieval menu
TELBK = Central Telephone Book menu
Directory Dialing follows any feature restrictions that your UX5000 may have enabled. For example, if your extension cannot normally use Common Abbreviated Dialing, Directory Dialing can't access it either.
4. Dial letter/number range for the party you want to call (e.g., dial 2 for A, B, C or 2).
*You can enter several letters to help narrow the search.
Press # to enter additional letters on the same key (ex: TOM = 8666#6).*
5. Press the Down Arrow Soft Key to jump to that section.
6. Press Volume ▲ or ▼ to scroll through the list.
If you wait too long between your selections, Directory Dialing automatically cancels.
7. Lift handset or press DIAL, CALL1 or SPK to place the selected call.
If you selected an outside call, the call will route according to your UX5000's Trunk Group Routing/ARS setup.

To cancel Directory Dialing:

1. Press CLEAR.

Display Messaging, Selectable

Please refer to [Selectable Display Messaging](#) (page 515) for information on this feature.

Distinctive Ringing, Tones and Flash Patterns

Feature Availability

- Available.

Description

Distinctive Ringing, Tones and Flash Patterns provide extension users with audible and visual call status signals. This lets users tell the types of calls by listening to the ringing/tones and watching the keys. It also helps users monitor the progress of their calls. In addition, Distinctive Ringing lets keyset users customize their Intercom and trunk call ringing. This is helpful for users that work together closely. For example, if several co-workers set their keysets to ring at different pitches, the co-workers can always tell which calls are for them.

You can also customize the tones the UX5000 uses for splash tone, confirmation tone, trunk ring tone, Intercom ring tone and Alarm ring tone. Refer to the chart below and the Programming section for more details.

Distinctive Ringing, Tones and Flash Patterns	
Program	Description
80-01 : Service Tone Setup	Set the frequency of the UX5000's splash tone. This is the tone the UX5000 uses, for example, to alert the user of an incoming voice-announced Intercom call.
82-01 : Incoming Ring Tone	Set the trunk ring tones, which are the tones a user hears when a trunk rings an extension.
82-01 : Intercom and Alarm Ring Tone	Set the Intercom and External Alarm Sensor ring tones.
82-03 : DSS Console LED Pattern Setup and 30-05 : DSS Console Lamp Table	Set the DSS and Hotline key flash rates for busy, idle, DND, ACD Agent status, and hotel options.

Conditions

None

Default Setting

Enabled.

Distinctive Ringing, Tones and Flash Patterns

Programming

- **15-02-02 : Multi-Line Terminal Basic Data Setup - Trunk Ring Tone**
From the range specified in Program 22-03, select the keyset extension's trunk ring tone.
- **15-02-03 : Multi-Line Terminal Basic Data Setup - Extension Ring Tone (Pitch)**
Select the extension's intercom ring tone.
- **22-03-01 : Trunk Ring Tone Range**
Set the ring tone pattern (1-8) for each trunk.
- **80-01-01 : Service Tone Setup**
Customize the UX5000's basic tones and UX5000 service tones.
- **82-01-01 : Incoming Ring Tone**
Customize the trunk ring tones (i.e., the tones a user hears when a trunk rings an extension). If desired, change the Intercom and External Alarm Sensor ring tones.
- **82-03-01 : DSS Console LED Pattern Setup**
Customize the DSS and Hotline key flash patterns.

Related Features

Multiple Directory Numbers/Call Coverage

Set up ring tones for Multiple Directory Numbers and Call Coverage keys.

Single Line Terminals

Single line terminal users cannot listen to or change the pitch of their terminal's incoming ring.

Operation

To listen to the incoming ring choices (keyset only):

1. Press idle CALL key.
2. Dial 811.
3. Dial 1 to check ringing for Intercom calls.
OR
Dial 2 to check ringing for trunk calls.
4. For Intercom calls, select the pitch you want to check (1-8).
OR
For trunk calls, select the pitch (1-8) and the tone (1-4) you want to check.
Refer to Table 1-7 for the four Trunk Ring Tone Ranges and the selections within each range.
5. Go back to step 4 to listen to additional choices or press SPK to hang up.

To change the pitch of your incoming ring (keyset only):

1. Press idle CALL key.
2. Dial 820.
3. Dial 1 to change ringing for Intercom calls.
OR
Dial 2 to change ringing for trunk calls.
4. Select the pitch (1-8).
5. Press SPK to hang up.

Feature Availability

- Available.

Description

Do Not Disturb blocks incoming calls and Paging announcements. DND permits an extension user to work by the terminal undisturbed by incoming calls and announcements. The user can activate DND while their terminal is idle or while on a call. Once activated, incoming trunk calls still flash the line keys. The user may use the terminal in the normal manner for placing and processing calls.

There are five Do Not Disturb options available at each extension:

- 1 = Incoming trunk calls blocked
- 2 = Paging, incoming Intercom, Call Forwards and transferred trunk calls blocked
- 3 = All calls blocked
- 4 = Incoming Call Forwards blocked
- 0 = Do Not Disturbed canceled

Keypad users are able to activate or deactivate Do Not Disturb while on a call. This option is not available for single line terminals.

Conditions

- If there is no Call Forwarding key (Program 15-07: 10 - 17), the DND key will blink when the extension is forwarded.
- Multiple Directory Number (virtual extension) keys do not support DND Programmable Function keys.

Default Settings

Enabled for all extensions.

Programming

- ◆ **11-12-01 : Service Code Setup (for Service Access) - Call Forwarding/DND Override**
In order to use the DND Override service code if voice mail is installed, the single digit service code (11-16-09) must be deleted or changed as it conflicts with the DND Override code.
- ◆ **11-16-06 : Single Digit Service Code Setup - DND/Call Forward Override**
If a single digit service code is to be used, assign an available code number.
- ◆ **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ◆ **20-13-04 : Class of Service Options (Supplementary Service) - Call Forward/DND Override**
Determine whether or not an extension should be able to override DND (0=denied, 1=allowed).
- ◆ **20-13-40 : Class of Service Options (Supplementary Service) - Do Not Disturb**
This option will allow (1) or prevent (0) the user from being able to use the Do Not Disturb feature).

Do Not Disturb

Related Features

Call Forwarding

Calls to extensions with DND active do not follow Call Forwarding programming. DIL calls will ring an idle Department Group member, then follow 22-08 programming then 22-05 programming. If an extension user activates DND option 4, the UX5000 prevents other extensions from forwarding calls to them. If an extension already receiving forwarded calls activates DND option 4, callers to the forwarded extension hear DND tone.

Call Forwarding/Do Not Disturb Override

An extension user can override Call Forwarding or Do Not Disturb at another extension.

Central Office Calls, Answering

When a call is transferred because of Call Forwarding No Answer, Call Forwarding Busy, or DND, the Reason for Transfer option can display to the transferred extension why the call is ringing to their terminal.

Direct Inward Line (DIL)

DND modes 1-3 will cause calls to follow 22-08 programming then 22-05 programming even if the extension is forwarded.

Distinctive Ringing, Tones and Flash Patterns

Set up DND flash patterns for DSS and Hotline keys.

Operation

To activate or deactivate Do Not Disturb while your extension is idle:

Keyset

1. Do not lift the handset.
2. Press DND key.
OR
Press idle CALL key and dial 847.
3. Dial the DND option code.
0 = Cancel DND
1 = Incoming trunk calls blocked
2 = Paging, incoming Intercom, Call Forwards and transferred trunk calls blocked
3 = All calls blocked
4 = Call Forwards blocked

Single Line Terminal

1. Lift handset.
2. Dial 847.
3. Dial the DND option code.
0 = Cancel DND
1 = Incoming trunk calls blocked
2 = Paging, incoming Intercom, Call Forwards and transferred trunk calls blocked
3 = All calls blocked
4 = Call Forwards blocked

Feature Availability

- Available - 8 Door Boxes and 6 Chime Tones.

Description

The Door Box is a self-contained Intercom unit typically used to monitor an entrance door. A visitor at the door can press the Door Box call button (like a door bell). The Door Box then sends chime tones to all extensions programmed to receive chimes. To answer the chime, the called extension user just lifts the handset. This lets the extension user talk to the visitor at the Door Box. The Door Box is convenient to have at a delivery entrance, for example. It is not necessary to have company personnel monitor the delivery entrance; they just answer the Door Box chimes instead. Any number of UX5000 extensions can receive Door Box chime tones.

Each Door Box has a pair of normally open relay contacts that can connect to an electric door strike. Use these contacts to remotely control the entrance door. After answering the Door Box chimes, a keyset user can press FLASH to activate the Door Box contacts. This in turn releases the electric strike on the entrance door. The device connected to the Door Box contacts cannot exceed the contact ratings shown in the table below:

Door Box Specifications	
Contact Configuration	Normally Open
Maximum Load	60mA @30 VDC 10mA @90 VDC
Maximum Initial Contact Resistance	50mOhms

The communications server can have up to eight Door Boxes.

Conditions

- Each channel in the 2PGDAD has a jumper which must be set for Door Box operation. Refer to the UX5000 hardware manual for additional details.
- There is no off-hook ringing for Door Boxes. If an extension user is on the terminal, the CALL2 key will flash, but no ringing will be heard.

Default Setting

Disabled.

Programming

- ➔ **10-03-01 : Blade Setup - Channel 1 Terminal Type**
10-03-06 : Blade Setup - Channel 2 Terminal Type
The terminal type should be assigned type "8" for Door Box usage.
- ➔ **10-05-01 : General Purpose Relay Setup**
Define which Relay circuits (5-8) on a 2PGDAD Adapter are used for General Purpose Relay. Refer to Program 10-21-05 for the CCPU relay.

Door Box

- **10-21-05 : CPU Hardware Setup - General Purpose Relay on CPU**
Select if the CCPU's relay switch (CN10) is used and which relay should be used (0=Not Used, 1=Relay 1, 2=Relay 2). Refer to Program 10-05-01 for PGDAD Module relay assignments.
- **15-07-01 : Programmable Function Keys**
Assign a function key to call a specific Door Box (code 97 + Door Box 1-8) if needed.
- **32-01-01 : Door Box Timers - Door Box Answer Time**
Set the interval within which a user must answer the Door Box chimes.
- **32-01-02 : Door Box Timers - Door Lock Cancel Time**
Set the length of time the Door Box strike stays open when the single line user hook flashes or keyset user presses Flash.
- **32-02-01 : Door Box Ring Assignments**
Determine which Door Boxes should ring which extensions by entering the extension number. Each Door Box can be programmed to ring up to 32 extensions and an extension can be programmed to ring for multiple Door Boxes.
⇨ Door Boxes 1-8
- **32-03-01 : Door Box Basic Setup - Chime Pattern**
Set the chime pattern (0-6) for each Door Box.
- **32-03-02 : Door Box Basic Setup - Codec Transmit Gain Setup**
32-03-03 : Door Box Basic Setup - Codec Receive Gain Setup
Select the codec gain types (1-63) each Door Box.
⇨ Door Boxes 1-8
- **80-01-01 : Service Tone Setup - Tones 19-24**
Adjust the Door Box chimes if necessary. After changing this program, a UX5000 restart is required for any changes to take affect.

Related Features

Call Forwarding, Off-Premise

Off-Premise Call Forwarding will work for ISDN lines.

Paging, External

If a 2PGDAD circuit has a Door Box connected, you cannot use that circuit for External Paging.

Single Line Terminals, Analog 500/2500 Sets

Door Boxes can ring 2500-type single line terminals if allowed in programming.

Operation

To call a Door Box:

Keyset

1. Press idle CALL key.
2. Dial 802.
3. Dial Door Box Number (1-8).

Single Line Terminal

1. Lift handset.
2. Dial 802.
3. Dial Door Box Number (1-8).

To activate the Door Box strike:

Keyset

1. While talking to the Door Box, press the Flash key.

Single Line 500/2500 Terminal

1. While talking to the Door Box, hookflash.

To answer a Door Box chime:

1. Lift handset.

If you are busy on a call, the CALL2 will flash, but there is no off-hook ringing. You can place your active call on hold and answer the Door Box call.

Dual Line Appearance

Feature Availability

- Available.

Description

Each keyset has two line appearance keys (CALL1 and CALL2) for placing and answering calls. These line appearance keys, assigned to the extension's number, simplify operations for busy users. For example, the user can easily process a new call on one appearance with a call in progress on the other.

Conditions

Normally, both line appearances must be busy to return a busy signal to the caller, however, check any incoming features for specific interactions.

Default Setting

Enabled.

Programming

- ➔ **20-13-06 : Class of Service Options (Supplementary Service) - Automatic Off Hook Signaling**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to automatically send Off Hook Signals while busy on a handset call. Setting this option to "0" will prevent Intercom calls from ringing the CALL2 key - instead the caller will hear a busy signal.

Related Features

Distinctive Ringing, Tones and Flash Patterns

Set up busy and idle extension flash patterns for DSS and Hotline keys.

Off Hook Signaling

Off Hook Signaling rings an extension's second line appearance when the first appearance is busy.

Operation

None

Feature Availability

- Available.
- IP terminals using the Lock button must be programmed to allow emergency numbers (such as 911) to be dialed. Refer to the Operation section of this feature for details.

Description

IMPORTANT - PLEASE NOTE THE FOLLOWING!

1. **All local trunks or the trunk connected to external 911 equipment must be put into the E911 route.** By placing all the local trunks into the E911 route, this assures that any user may make a call to 911.
2. **When ARS is NOT enabled and the UX5000 allows trunk access by dialing '9'**, single line terminals will disregard Program 20-03-03 - System Options for Single Lines Terminals - SLT DTMF Dial to Trunk Lines. This will prevent the UX5000 from connecting to a trunk until all the digits are dialed. This can be avoided by using either '8' or '9x' (but not '91') as the trunk access code. Be aware that this change will require additional programming changes.
3. **When using external E911 equipment**, do not allow analog single line terminals to directly access trunks. When an analog SLT directly accesses a trunk (#9 xxx) and dials 911, the UX5000 will not follow the 911 routing. If your UX5000 is connected to external E911 equipment, the UX5000 will not route the call to that equipment.
4. **Do not use an asterisk within a PBX access code if the Account Code feature is used.** With the Account Code feature enabled, if an asterisk is used within the access code, the trunk stops sending digits to the central office after the * is sent.
5. **Finally, but most important, TEST - TEST - TEST!!** Due to the nature of the E911 feature, it is imperative that when programming this, or any other feature, to be aware of the consequences. Make sure to test the extensions with the E911 feature to confirm that other features will not prevent the call from being completed. When using external equipment, make sure the dial treatment tables are working properly.

E911 Compatibility ensures that emergency calls always get through. If an emergency occurs, a user simply goes to any terminal, lifts the handset and dials 911. The UX5000's built-in E911 compatibility places the emergency call even if the user forgets to dial an access code or press a line key. The E911 capabilities include:

- **Attendant Notification**
The attendant receives a notification each time a co-worker dials an emergency 911 call. This notification is the co-worker's name and number display optionally accompanied by an audible alarm. Notification occurs regardless of whether the attendant is idle or busy on a call. You can optionally extend this capability to other supervisory extensions as well.
- **Emergency Routing**
When an extension user dials 911, the UX5000 can automatically find a trunk for the call. The UX5000 can choose a route to which the user normally does not have access. If all normal routes are busy, the UX5000 can even disconnect an active call and place the emergency call. E911 Compatibility uses the flexibility of the Automatic Route Selection Call Route Options to route 911 emergency calls (even in UX5000s in which ARS is not enabled).
 - **E911 Outgoing Dialing**

E911 Compatibility

The E911 calls follow the trunk group route programming. It is possible to use the flexibility of the Automatic Route Selection Call Route Options for additional routing options.

- **Forced Disconnect Follows Timer to Disconnect Call**

When all lines in the programmed route are busy and the UX5000 must drop a call in order to place a 911 call, the UX5000 will wait the amount of time set in Program 81-01 before disconnecting the call.

- **Compatibility with Customer Provided E911 Equipment**

The UX5000 can automatically send a 911 call to customer-provided E911 equipment (such as the Proctor 911 ANI-LINK System II). The E911 equipment will dial emergency service and provide the caller's extension number to the emergency personnel. When using this type of equipment, the UX5000 must be programmed to send E911 calls to the trunk connected to the E911 box. This is done by assigning the trunk to the E911 trunk group and using ARS to route all 911 calls to that port. The Dial Treatment must then be set to send the extension number and '911' to that port. This is usually accomplished using XRE in the Dial Treatment, but check the requirements of your E911 box.

- **Calling Party Identification**

With ISDN installed, the UX5000 can provide the calling party's telephone number and extension number. No additional customer-provided 911 equipment is required.

Uninstalled Trunks in Trunk Group Prevent Call from Dialing Out

By UX5000 default, all trunks in **Program 14-05-01 : Trunk Group** are in group 1. When placing a 911 call, the UX5000 will try to access the trunks defined in the group. If the trunks do not exist, the call will not dial out. In order for E911 to function correctly, remove any uninstalled trunks from the trunk group.

The UX5000 software will be changed in a future release to ignore trunks which have no voltage present on the blade.

If Program 21-01-12 : System Options for Outgoing Calls, Dial 911 Routing Without Trunk Access is set to "0" (trunk access code required), when using the Dial Number Preview feature and dialing 9+911, if all trunks are busy, the user will hear a busy signal and the call will not dial out.

If option 21-01-12 is set to "1" (trunk access code not required) and using Dial Number Preview, 911 is dialed, the UX5000 will disconnect a trunk and dial the call.

Dial Number Preview is when a telephone number is first dialed (previewing the number in the display) then pressing the CALL or line key to place the call.

Networked IP Terminals Can Follow ARS Class of Service Matching to Call Local Authorities

When using IP terminals at a remote site (Site B) which are registered to the main system (Site A), you can use the ARS Class of Service Matching feature to route 911 calls to the local authorities at a remote location. Without this programming, since the terminals are registered to the main site, when 911 calls are placed by IP terminals, the local authorities at the main site (Site A) would be called.

Conditions

If Program 21-01-10 is programmed with an entry other than “0”, a call will not have a talk path unless the user dials at least the number of digits entered in this option when placing an out going call. This means that an entry of 4 or higher in this program will cause a problem when dialing 911. Since it is only a 3-digit number, the call will not have a talk path, preventing the emergency dispatcher from hearing the caller. It is recommended that this option be kept at its default setting of “0” to prevent any problems with dialing 911.

Default Setting

Disabled.

Programming

- **11-12-56 : Service Code Setup (for Service Access) - E911 Alarm Shut Off**
Select the Service Code (normally 886) that an extension user can dial to shut off the E911 Alarm Ring.
- **14-05-01 : Trunk Groups**
Assign the outbound trunks you want to use for E911 service to the same Trunk Group. Remove any uninstalled trunks from the trunk group in order to prevent an unused trunk from being seized to place a 911 call.
⇨ Trunk Groups: 1-100
- **14-06-01 : Trunk Group Routing**
Set up an outbound routing table for trunk groups assigned in Program 14-05. This program and Program 21-02 are the minimum required if E911 must seize a line to dial.
⇨ Trunk Group Routes: 1-100
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service to an extension (1-15).
- **20-08-16 : Class of Service Options (Outgoing Call Service - Display E911 Dialed Extension Name and Number**
In an extension’s Class of Service (1-15), enable (1) or disable (0) the extension’s ability to display the name and number of the extension that activated E911 service. If disabled (0), the E911 Alarm (set in 21-01-13 below) will never occur.
- **21-01-10 : System Options for Outgoing Calls - Dial Digits for Toll Restriction Path**
If this is programmed with an entry other than “0”, a call will not have a talk path unless the user dials at least the number of digits entered in this option when placing an out going call. This means that an entry of 4 or higher in this program will cause a problem when dialing 911. Since it is only a 3-digit number, the call will not have a talk path, preventing the emergency dispatcher from hearing the caller. It is recommended that this option be kept at its default setting of “0” to prevent any problems with dialing 911.
- **21-01-12 : System Options for Outgoing Calls - Dial 911 Routing Without Trunk Access**
If enabled (1), an extension user can dial 911 without first dialing a trunk access code or pressing a line key. If disabled (0), an extension user must dial a trunk access code (e.g., 9) or press a line key before dialing 911. If enabled, dialing 9+911 will still dial out.
- **21-01-13 : System Options for Outgoing Calls - Alarm Ring Timer (E911)**
Use this option to set the duration of the E911 Alarm Ring Time (0-64800 seconds). If set for 0, the E911 Alarm will not ring.
- **21-02-01 : Trunk Group Routing for Extensions**
Assign the routes set in Program 14-06 to extensions. This program and Program 14-06 are the minimum required if E911 must seize a line to dial.
⇨ Trunk Groups: 1-100

E911 Compatibility

➤ **81-01-14 : COIU Initial Data Setup - Hookflash 1**

81-01-15 : COIU Initial Data Setup - Hookflash 2

Program the length of time the UX5000 should wait before disconnecting a call in an Emergency Call forced trunk disconnect situation. The item to be programmed depends on the entry in 14-02-04.

Related Features

Automatic Route Selection

Refer to the ARS feature for more information on setting up Selection Numbers, Dial Treatments, Call Route Options and Work Periods.

Central Office Calls, Placing

If trunk access codes are not required in programming (21-01-12) for E911, if a user dials the trunk access code prior to 911, the call will still go through.

Networking / VoIP

Networked IP terminals can be programmed to follow ARS COS Matching in order for 911 calls to seize a local line to call the site's local authorities (and not the networked site's).

T1 Trunking (with ANI/DNIS Compatibility)

With PRI trunks, set up the UX5000 so the caller's extension number is sent to the 911 center.

Operation

Programming the IP Terminal for the 911 Dialing When Lock Feature Activated

The Lock button on the IP terminals will provide a user with the ability to prevent calls on their phone while away from their desk. This will prevent all calls from being dialed - including 911. In order to allow anyone to dial 911 from a locked IP terminal, each terminal must be set up to override the lock function. Each IP terminal can have up to 3 emergency numbers defined which can be dialed when a terminal is locked. Perform the following steps on any IP terminal which may be used to dial an emergency number.

1. Enter the terminal's program mode by pressing **HOLD CONF * #**.
2. At the log-in screen, enter the user name (default: ADMIN) and password (default: 6633222) and press the OK Soft Key.
3. Press Soft Key 6 for "Application Setting".
4. Press Soft Key 5 for "Emergency Call".
5. Press Soft Key 1, 2 or 3 for the emergency number entry.
6. Dial the emergency number to be allowed (ex: 911).
7. Press Soft Key 4 for "OK" to complete.
8. Continue pressing Soft Key 4 to exit (Exit-Exit-Save). The terminal will reset automatically.



! Important !

Once a locked terminal is used to dial an emergency number, the terminal will be unlocked until the Lock button is pressed again.

To place an emergency 911 call:

When Dial 911 Routing Without Trunk Access is enabled . . .

1. Go to any terminal.
2. Lift handset or press idle CALL key.
3. Dial 911.

When Dial 911 Routing Without Trunk Access is disabled . . .

1. Go to any terminal.
2. Lift handset or press idle CALL key.
3. Dial a trunk access code (e.g., 9) or press a line key.
4. Dial 911.

To turn off the E911 Alarm at your terminal:

1. Lift handset or press idle CALL key.
2. Dial 886the E911 Alarm service code (no setting be default in Program 11-12-56).

The alarm goes off.

OR (if you have a display terminal)

1. Press CLEAR once to turn off the alarm.
2. Press CLEAR again to clear the alarm display.

Flash

Feature Availability

- Available.

Description

Flash allows an extension user to access certain CO and PBX features by interrupting trunk loop current. Flash lets an extension user take full advantage of whatever features the connected telco or PBX offers. You must set the Flash parameters for compatibility with the connected telco or PBX.

Conditions

The UX5000 does not provide a ground flash.

Default Setting

Enabled.

Programming

- **14-02-03 : Analog Trunk Data Setup - Flashing/Grounding**
Make sure this item is set for open loop Flash (0).
- **14-02-04 : Analog Trunk Data Setup - Flash for Timed Flash or Disconnect**
For each trunk, indicate if Flash is for Flash (0) or open loop disconnect (1).
- **15-02-05 : Multi-Line Terminal Basic Data Setup - Transfer Key Operation Mode**
If the CONF key should access Flash, enter 2. Otherwise, enter 0 or 1.
- **15-02-24 : Multi-Line Terminal Basic Data Setup - Conference Key Mode**
This option allows an extension's CONF key to be programmed for Conference or for Transfer.
- **15-03-04 : Single Line Terminal Basic Data Setup - Flashing**
In a single line (500/2500 type) terminal's Class of Service, enable (1) or disable (0) the ability to hookflash for UX5000 feature access.
- **81-01-14 : COIU Initial Data Setup - Hookflash 1**
Set the Flash duration (16-4080mS) for analog trunk (COIU blade) circuits.
- **81-01-15 : COIU Initial Data Setup - Hookflash 2**
Set the open loop disconnect duration (16-4080mS) for analog trunk (COIU blade) circuits.

Related Features

PBX Compatibility

If the UX5000 is behind a PBX, Flash normally gives the extension user access to many PBX features.

Toll Restriction

The UX5000 applies Toll Restriction (if applicable) to the number a user dials after flashing a trunk.

Voice Mail

If voice mail ports are to flash outside calls, change the Single Line Flash Service Code (11-12-42). Dialing “#” from voice mail ports lights the Message Waiting lamp.

Operation

To flash the trunk you are on:

Keyset

1. Press FLASH.

Single Line Set

1. Hookflash.
2. Dial #3.

Digital Single Line Set

1. HOLD.
2. Dial #3.

Flexible System Numbering

Feature Availability

- Available.

Description

Flexible System Numbering lets you reassign the UX5000's port-to-extension assignments. This allows an employee to retain their extension number if they move to a different office. In addition, factory technicians can make comprehensive changes to your UX5000's number plan. You can have factory technicians:

- Set the number of digits in internal (Intercom) functions. For example, extension numbers can be up to eight digits long.
- Change your UX5000's Service Code numbers
- Assign single digit access to selected Service Codes

You can also use Flexible System Numbering to change the UX5000's Trunk Group Routing code. Although the default code of 9 is suitable for most applications, you can alter the code if needed.

For more information on the UX5000s standard numbering, refer to Tables 1, 2, 3, 4 and 6 at the beginning of this section.

The UX5000 provides a completely flexible system numbering plan. Refer to the chart below and the Programming section for more details.

Flexible System Numbering	
Program	Description
11-01 : System Numbering	Set the UX5000's internal (Intercom) numbering plan. The numbering plan includes the digits an extension user must dial to access features and other extensions.
11-09-01 : Trunk Access Code	Assign the single-digit trunk access code (normally 9). This is the code users dial to access Automatic Route Selection or Trunk Group Routing.
11-10 : Service Code Setup (for System Administrator) 11-11 : Service Code Setup (for Setup/Entry Operation) 11-12 : Service Code Setup (for Service Access) 11-13 : Service Code Setup (for ACD) 11-14 : Service Code Setup (for Hotel) 11-15 : Service Code Setup, Administrative (for Hotel)	Customize the Service Codes.
11-16 : Single Digit Service Code Setup	Assign the Single Digit Service Codes. these are the post-dialing codes a user can dial after placing an Intercom call to a co-worker.

Conditions

- Programming follows a terminal's extension number, not the port number in most cases. If you relocate a terminal, you may need to change additional programming.
- If the extension numbering plan is changed from '3xx' to '2xx', and you would like to consecutively press two DSS keys without toggling the hookswitch, Program 11-16-05 must be removed. If not, pressing the second DSS key will actually camp you on to the first extension.
- Since making changes in Program 11-01 does not automatically make any other changes in any other program, changing the number plan after the UX5000 is in operation may cause problems in the following programs:

11-01 Type 2 (Extension Number)				11-01 Type 1 (Service Codes)		
11-02	11-08	15-12	22-11	11-10	11-14	21-11
11-04	11-17	16-01-01	25-06	11-11	11-15	30-03
11-06	15-01-01	15-14	30-03	11-12	15-07	
11-07	15-07	21-11		11-13	15-14	

- Any feature which requires dialing a code or extension number can be affected.

Default Setting

Extensions are numbered consecutively (Program 11-02 and 11-04) from:

- 301-499 (ports 001-199), 5000 (port 200) to 5312 (port 512)

Refer to Table 7, "System Number Plan/Capacities," on page 43 for the UX5000's default numbering plan.

Programming

- **11-01-01 : System Numbering**
Customize the UX5000's internal (Intercom) numbering plan.
- **11-02-01 : Extension Numbering**
Assign extension numbers to extension ports. The terminal's programming identity follows the port number - not the extension number.
- **11-09-01 : Trunk Access Code**
Assign the single-digit trunk access code (normally 9) for ARS/Trunk Group Routing.
- **11-10-01 : Service Code Setup (for System Administrator)**
11-11-01 : Service Code Setup (for Setup/Entry Operation)
11-12-01 : Service Code Setup (for Service Access)
11-13-01 : Service Code Setup (for ACD)
11-14-01 : Service Code Setup (for Hotel)
11-15-01 : Service Code Setup, Administrative (for Hotel)
Customize the Service Codes.
- **11-16-01 : Single Digit Service Code Setup**
Assign the Single Digit (post-dialing) Service Codes.

Flexible System Numbering

Related Features

None

Operation

Refer to Tables 1-7 at the beginning of this section.

Feature Availability

- Available.

Description

Forced Trunk Disconnect allows an extension user to disconnect (release) another extension's active outside call. The user can then place a call on the released trunk. Forced Trunk Disconnect lets a user access a busy trunk in an emergency, when no other trunks are available. Maintenance technicians can also use Forced Trunk Disconnect to release a trunk on which there is no conversation. This can happen if a trunk does not properly disconnect when the outside party hangs up.

CAUTION

Forced Trunk Disconnect abruptly terminates the active call on the line. Only use this feature in an emergency and when no other lines are available.

Conditions

This feature only works on analog trunk. ISDN trunks do not have the Forced Trunk Disconnect available.

Default Setting

COS1 = Enabled.
COS 2 - 15 = Disabled.

Programming

- > **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- > **20-07-11 : Class of Service Options (Administrator Level) - Forced Trunk Disconnect**
In an extension's Class of Service (1-15), enable (1) or disable (0) the ability to use Forced Trunk Disconnect.

Related Features

Central Office Calls, Placing

A user can use Forced Trunk Disconnect only for trunks to which it would normally have access.

Forced Trunk Disconnect

Operation

To disconnect a busy trunk:

Keyset

1. Press line key for trunk.
OR
Dial trunk access code (#9 + trunk number).
You hear busy tone. Trunk numbers are 001-200.
2. Dial *3.
*You hear confirmation beeps as the UX5000 disconnects the trunk.
You can now place a call on the free trunk.*
3. Press line key for the trunk disconnected in Step 2.
OR
Dial the trunk access code (#9 + trunk number) for the trunk disconnected in Step 2.

Single Line Terminal

1. Dial trunk access code (#9 + trunk number).
You hear busy tone. Trunk numbers are 001-200.
2. Dial *3.
You hear confirmation beeps as the UX5000 disconnects the line.
3. Hookflash.
You can now place a call on the free line.
4. Dial the trunk access code (#9 + trunk number) for the trunk disconnected in Step 2.

Feature Availability

- Available - 64 Call Pickup Groups.

Description

Group Call Pickup allows an extension user to answer a call ringing an extension in a Pickup Group. This permits co-workers in the same work area to easily answer each other's calls. The user can intercept the ringing call by dialing a code or pressing a programmed Group Call Pickup key. If several extensions within the group are ringing at the same time, Group Call Pickup intercepts the call based on the extension's priority within the Pickup Group.

With Group Call Pickup, a user can intercept the following types of calls:

- A call ringing the user's own pickup group
- A call ringing another pickup group when the user knows the group number
- A call ringing another pickup group when the user doesn't know the group number

Conditions

- A Call Pickup Group cannot have an associated name.
- In order to enter a 2-digit Call Pickup Group, at least one extension must be assigned to a 2-digit group.

Default Setting

Enabled.

Programming

- **15-07-01 : Programmable Function Keys**
Assign Group Call Pickup keys:
 - Code 24 for an extension's own Pickup Group and ring group calls (Service Code *#)
 - Code 25 for a terminal ringing in another Pickup Group (Service Code 869)
 - used when the caller doesn't know the group number
 - Code 26 (+ group) for a terminal ringing in another specific Pickup Group (Service Code 868)
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service to an extension (1-15).
- **20-10-01 : Class of Service Options (Answer Service) - Group Call Pickup Within Group**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to pick up calls ringing their pickup group (Service Code *#).
- **20-10-02 : Class of Service Options (Answer Service) - Group Call Pickup from Another Group**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to pick up calls ringing terminals that are not in their pickup group (Service Code 869).
- **20-10-03 : Class of Service Options (Answer Service) - Group Call Pickup for Specific Group**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to pick up calls ringing a specific group (Service Code 868).

Group Call Pickup

- **20-10-04 : Class of Service Options (Answer Service) - Group Call Pickup**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to use Group Call Pickup.
- **20-10-05 : Class of Service Options (Answer Service) - Directed Call Pickup for Own Group**
Enable (1) or disable (0) an extension's ability to use Directed Call Pickup for calls ringing their own group.
- **23-02-01 : Call Pickup Groups**
Assign extensions to Pickup Groups. Also, use this option to assign an extension's priority within a Pickup Group (Priority Number 1-999). In order to enter a 2-digit Call Pickup Group, at least one extension must be assigned to a 2-digit group.
⇨ Call Pickup Groups 1-9 or 01-64

Related Features

Central Office Calls, Answering

Users can pickup of calls regardless of their access map programming.

Directed Call Pickup

Directed Call Pickup provides another way of answering a co-worker's call.

Hold / Park

Group Call Pickup can not be used to answer calls recalling from Hold or Park.

Multiple Directory Numbers / Call Coverage

Group Call Pickup keys can not be used to answer calls ringing Multiple Directory Number or Call Coverage keys.

Programmable Function Keys

Function keys simplify Group Call Pickup operation.

Operation

To answer a call ringing another terminal in your Pickup Group:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. (Keyset only) Press Group Call Pickup key (PGM 15-07 or SC 851: 24).
OR
Dial 856 or *#. *Service Code *# can pick up any call in the group, plus any Ring Group calls. Service Code 856 cannot pick up Ring Group calls.*

To answer a call ringing a terminal in another Pickup Group when you don't know the group number:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. (Keyset only) Press Group Call Pickup key (PGM 15-07 or SC 851: 25).
OR
Dial 869.

To answer a call ringing a terminal in another Pickup Group when you know the group number:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. (Keyset only)
Press Group Call Pickup key (PGM 15-07 or SC 851: 26 + group).
OR
Dial 868 and the group number (1-9 or 01-64).

Group Listen

Feature Availability

- Available.

Description

Group Listen permits a keyset user to talk on the handset and have their caller's voice broadcast over the terminal speaker. This lets the keyset user's co-workers listen to the conversation. Group Listen turns off the keyset's Handsfree microphone so the caller does not pick the coworker's voices during a Group Listen.

Conditions

None

Default Setting

Disabled.

Programming

- ◆▶ **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ◆▶ **20-13-26 : Class of Service Options (Supplementary Service) - Group Listen**
In an extension's Class of Service (1-15), enable (1) or disable (0) the ability to activate Group Listen.

Related Features

Headset Operation

An extension in the headset mode cannot use Group Listen.

Single Line Terminals

Group Listen is not available to single line terminals.

Operation

To initiate Group Listen:

1. Place or answer call using the handset.
2. Press SPK twice (but do not hang up).

SPK flashes slowly.

You can talk to the caller through your handset. Your co-workers hear your caller's voice over your terminal's speaker.

When you press SPK once, you turn your Speakerphone on and your handset off. The second press turns on Group Listen. Pressing the SPK key a third time cancels the Group Listen feature.

To Talk Handsfree after initiating Group Listen:

1. Hang up the handset.

To cancel Group Listen (without hanging up your call):

1. Do not hang up.
2. Press flashing SPK.

You can talk to your caller over your handset. Your co-workers can no longer hear your caller's voice.

Handsfree and Monitor

Feature Availability

- Available.

Description

Handsfree allows a keyset user to process calls using the speaker and microphone in the terminal (instead of the handset). Handsfree is a convenience for workers who don't have a free hand to pick up the handset. For example, a terminal operator could continue to enter data with both hands while talking on the terminal.

The UX5000 provides three variations of Handsfree operation:

Handsfree	User can place and answer calls by pressing SPK instead of using the handset.
Automatic Handsfree	User can press a line or line appearance key without first lifting the handset or pressing SPK. An extension can have Automatic Handsfree for just outgoing calls or both outgoing calls and incoming line/loop key calls. Automatic Handsfree can also be used with the Call Coverage or Park features. Normally, extensions without speaker-phones should have Automatic Handsfree for outgoing calls only.
Monitor	User can place a call without lifting the handset, but must lift the handset to speak.

Conditions

Default Setting

Enabled.

Programming

- **15-02-08 : Multi-Line Terminal Basic Data Setup - Automatic Handsfree**
Use this option to set whether pressing a key accesses a One-Touch Key (1) or if it pre-selects the key (0).
- **15-02-16 : Multi-Line Terminal Basic Data Setup - Handsfree Operation**
Enable (1) or disable (0) an extensions ability to use the speakerphone on **outside** calls. Users can hear the conversation, but cannot respond handsfree.
- **20-06-01 : Class of Service for Extensions**
Assign Class of Service (1-15) to extensions for each night mode (1-8).
- **20-02-12 : System Options for Multi-Line Terminals - Forced Intercom Ringing**
Set the default mode for Intercom signaling (0=voice-announce, 1=signal/ringing). Once a user manually sets the mode for their keyset using service codes 821 or 823, this entry is ignored for that extension.
- **20-09-05 : Class of Service Options (Incoming Call Service) - Setting Handsfree Answerback or Forced Intercom Ringing**
Allow (1) or prevent (0) an extension from enabling Handsfree Answerback or Forced Intercom Ringing for their incoming Intercom calls

Related Features

Central Office Calls, Answering / Central Office Calls, Placing

Extensions should be programmed for incoming and outgoing access, ringing, etc.

Handsfree Answerback

Answer Intercom calls without lifting the handset - just speak toward the terminal.

Microphone Cutoff

For privacy, mute the terminal's microphone while on a call.

Single Line Terminals

Handsfree and Monitor are not available to single line terminals.

Prime Line Selection

Prime Line Selection affects how incoming and outgoing calls are handled and thus determines what happens when the user presses the SPK key.

Operation

To talk Handsfree:

1. Press SPK, CALL key or line key.
2. Place call.
3. Speak toward terminal when called party answers.

To change a handset call into a Handsfree call:

1. Press SPK.
2. Press SPK to hang up.

To change a Handsfree call into a handset call:

1. Lift handset.

Handsfree Answerback/Forced Intercom Ringing

Feature Availability

- Available.

Description

Handsfree Answerback permits an extension user to respond to a voice-announced Intercom call by speaking toward the terminal, without lifting the handset. Like Handsfree, this is a convenience for workers who don't have a free hand to pick up the handset.

Conditions

Handsfree Answerback does not require a Speakerphone.

Default Setting

Enabled.

Programming

- **11-11-15 : Service Code Setup (for Setup/Entry Operation) - Enable Handsfree Incoming Intercom Calls**
If required, change the service code used for setting an extension to voice announce for incoming ICM calls (default: 821).
- **11-11-16 : Service Code Setup (for Setup/Entry Operation) - Force Ringing of Incoming Intercom Calls**
If required, change the service code used for setting an extension to forced ringing for incoming ICM calls (default: 823).
- **11-12-06 : Service Code Setup (for Service Access) - Switching of Voice Call and Signal Call**
If required, change the service code used for toggling an outgoing ICM call between a voice call and signal call (default: 812). Program 11-16-09 (Single Digit Voice Mail code) must be deleted or changed from the default entry of "8" for this service code to work.
- **20-02-12 : System Options for Multi-Line Terminals - Forced Intercom Ringing**
Set the default mode for Intercom signaling (0=voice-announce, 1=signal/ringing). Once a user manually sets the mode for their keyset using service codes 821 or 823, this entry is ignored for that extension.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-08-10 : Class of Service Options (Outgoing Call Service) - Switching from Handsfree Answerback to Forced Intercom Ringing**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to toggle between Handsfree Answerback and Forced Intercom Ringing for outgoing Intercom calls (dial 1 or Service Code 812).
- **20-09-05 : Class of Service Options (Incoming Call Service) - Setting Handsfree Answerback/Forced Intercom Ringing**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to set Handsfree Answerback (Service Code 821) and Forced Intercom Ringing (Service Code 823) for incoming Intercom calls.

Handsfree Answerback/Forced Intercom Ringing

Related Features

Handsfree and Monitor

A keyset user can process calls using the speaker and microphone in the terminal (instead of the handset).

Microphone Cutoff

With Microphone Cutoff enabled, Handsfree Answerback callers to an extension hear a single beep (instead of two).

Single Line Terminals

Incoming Intercom calls always ring single line terminals.

Operation

To enable Handsfree Answerback for your incoming Intercom calls:

1. Press idle CALL key.
2. Dial 821.
3. Press SPK to hang up.

This changes how a normal ICM call is received. The originating extension may still be able to change the call to Forced Intercom Ringing.

To enable Forced Intercom Ringing for your incoming Intercom calls:

1. Press idle CALL key.
2. Dial 823.
3. Press SPK to hang up.

This changes how a normal ICM call is received. The originating extension may still be able to change the call to Handsfree Answerback.

To change the way your Intercom call signals the extension you are calling:

1. Dial 1.

If ringing, your call voice-announces. If voice-announced, your call starts to ring the destination. This option is also available at single line terminals.

Headset Operation

Feature Availability

- Available.

Description

A keyset user can utilize a customer-provided headset in place of the handset. Like using Handsfree, using the headset frees up the user's hands for other work. However, Headset Operation provides privacy not available from Handsfree.

An extension with a headset has two options for when it appears busy to incoming callers. The headset extension can be:

- Busy to incoming callers when only one extension appearance is busy (i.e., Off-Hook Signaling prevented)
OR
- Busy to incoming callers only when both extension appearances are busy (i.e., Off Hook Signaling allowed)

As the headset plugs into a separate jack on the bottom of the terminal, the handset can still be connected to the terminal. This provides you with the option to use the handset, headset or the speakerphone for calls. Depending on the method used to activate the headset mode, you can either use the headset on a call-by-call basis or any calls placed/answered will automatically be in headset mode:

- Call-by-Call Basis: Press only the Programmable Function Key to answer/disconnect each call [defined in Program 15-07-01, code 05]
With this option, the handset and speakerphone can also be used at any time to answer/place calls.
- Automatic Headset Mode: Enable Headset mode by entering the Headset service code defined in (11-11-65).
With this option, the handset can also be used at any time to answer/place calls. The speakerphone will not function except for handsfree answerback on incoming intercom calls.

All Plantronics Polaris headsets should be compatible. Examples are:

Plantronics Polaris Headsets:	Part Number
Polaris SupraPlus/NC-M (monaural with noise canceling transmitter)	750643
Polaris SupraPlus/NC-B (binaural with noise canceling transmitter)	750645
Polaris SupraPlus/VT-M (monaural with voice tube transmitter)	750644
Polaris Encore/VT-M (monaural with voice tube transmitter)	750634
Polaris Encore/NC-B (binaural with noise canceling transmitter)	750635
Polaris Tristar/VT-M (monaural with noise canceling transmitter)	750630
Polaris Mirage/VT-M (monaural with voice tube transmitter)	750631

Headset Operation for SLT Headset Operation

The ability for single line terminal users to use the Headset feature has been added. When a single line terminal with a headset receives an incoming call, the UX5000 can let the SLT user know of the incoming call by a notification tone in their headset.

Notes:

- This feature is only applicable when the SLT is set in headset mode and the UX5000 allows the headset ringing with their class of service.
- If a SLT with headset ringing condition goes on hook, the SLT will ring normally.

- A SLT user with a headset should not be allowed to automatically seize a trunk (Line Preference) on an off-hook condition as the terminal would never go idle.
- If a SLT is set for the Ringdown feature, the headset mode is NOT available. But, if the Ringdown call start time is equal to or more than the headset ringing start time, the Headset feature, and not the Ringdown feature, is available.
- Caller ID should be disabled for the SLT when then Headset feature is to be used (Program 15-03-09 and 15-03-10 set to "0"). Otherwise, the terminal will only beep twice with an incoming call. In addition, the terminal will not receive the Caller ID information when the Headset feature is used.

Conditions

- While using the headset with the Programmable Function Key, the Headset function key becomes a release (disconnect) key and no dial tone is heard from the speaker. With a keyset, if the Headset Mode service code is used (Program 11-11-65), then the SPK key can also be used to answer and disconnect calls.
- While the headset mode is active, the hook switch is not functional.

Default Setting

Disabled.

Programming

- **11-11-43 : Service Code Setup (for Setup/Entry Operation) - SLT Headset Mode Switching**
Assign the service code for headset mode switching when using a single line terminal (Default: 188).
- **11-11-65 : Service Code Setup (for Setup/Entry Operation) - Keyset Headset Mode Switching**
Assign the service code for headset mode switching when using a keyset terminal (Default: no entry). This allows the SPK key to be used to answer/disconnect calls.
- **15-02-41 : Multi-Line Terminal Basic Setup - Incoming Ring Setup with Headset**
For UX5000 keyset only:
When using a headset on a UX5000 keyset, determine if the ringing should be heard through the terminal speaker (0) or the headset (1).
- **15-02-42 : Multi-Line Terminal Basic Setup - Off-Hook Ring Setup with Headset**
For UX5000 keyset only:
When using a headset on a UX5000 keyset, determine if the off-hook ringing should be heard through the terminal speaker (0) or the headset (1).
When this setting is 0, Program 15-02-12 is followed.
- **15-02-43 : Multi-Line Terminal Basic Setup - Headset Ring Duration**
For UX5000 keyset only:
Determine how long a call will ring the headset before changing to a keyset ring (0 = Not Switched to Speaker Ring, 1 = 10 seconds, 2 = 20 seconds, 3 = 30 seconds, 4 = 40 seconds, 5 = 50 seconds, 6 = 1 minute).
- **15-07-01 : Programmable Function Keys**
Assign a function key for Headset operation (code 05).

Headset Operation

- **20-02-05 : System Options for Multi-Line Terminals - Headset Busy Mode**
Set the conditions under which a headset extension is busy to incoming callers:
 - The Headset extension is busy to incoming callers when **only one** extension appearance is busy (0).
OR
 - Headset extension is busy to incoming callers only when **both** extension appearances are busy (1).When using a headset, this program must be set to “1” to allow voice overs to be received.
- **20-02-12 : System Options for Multi-Line Terminals - Forced Intercom Ringing**
Set the default mode for Intercom signaling (0=voice-announce, 1=signal/ringing). Once a user manually sets the mode for their keyset using service codes 821 or 823, this entry is ignored for that extension.
- **20-03-06 : System Options for Single Line Terminal - Headset Start Time (for SLT)**
Define the headset start time (0-64800). This timer starts when a SLT user goes off hook and is only listening to intercom dial tone. Without an active call, when the timer expires, the UX5000 will set the SLT to idle (ICM dial tone is stopped until the hookswitch is press/released).
- **41-14-04 : ACD Options - Automatic Answer in Headset Mode**
With ACD and a keyset terminal, enable (1) or disable (0) a user’s ability to automatically answer calls as they ring in while in headset mode.
- **41-14-12 : ACD Options - Headset Start Time (for ACD SLT)**
With ACD and a SLT terminal, define the headset start time (0-64800). This timer starts when a SLT user goes off hook and is only listening to intercom dial tone. Without an active call, when the timer expires, the UX5000 will set the SLT to idle (ICM dial tone is stopped until the hookswitch is press/released).
- **80-01-01 : Service Tone Setup - Tone 57, Headset Ear Piece Ringing Tone**
Customize the UX5000’s basic tone for the headset ringing if required.

Related Features

Caller ID

Caller ID should be disabled for the SLT when the Headset feature is to be used. Otherwise, the terminal will only beep twice with an incoming call. In addition, the terminal will not receive the Caller ID information when the Headset feature is used.

Handsfree Answerback/Forced Intercom Ringing

An extension with a headset can still receive voice-announced Intercom calls and respond Handsfree.

Programmable Function Keys

A Headset Function key is used to answer or place a call in headset mode.

Ringdown Extension, Internal/External

If a SLT is set for the Ringdown feature, the headset mode is NOT available. But, if the Ringdown call start time is equal to or more than the headset ringing start time, the Headset feature, and not the Ringdown feature, is available.

Single Line Terminals

Single line terminals can use the Headset feature.

Operation

To enable the headset:

1. Plug in the headset into the headset jack on the back of the terminal.
2. Program a Headset key (PGM 15-07 or SC 851: 05) and/or define a Headset service code (Program 11-11-65).

To use the headset on a call-by-call basis:

1. Press the Headset key. The Headset key lights when you're on a call.
To disconnect, press the Headset key again.
You can still use the handset or speakerphone for calls or respond to voice-announced Intercom calls with the headset plugged in. The headset only activates when the Headset key is pressed.
 - Answer a ringing call by pressing the Headset key.
OR
 - Press the Headset key and then a line key to make a trunk call.
OR
 - Press the Headset key to get Intercom dial tone
OR
 - If on a headset call, press the Headset key to hang up.

To use the headset automatically for all calls:

1. Enable Headset mode by entering the Headset service code defined in (11-11-65).
With this option, the handset can also be used at any time to answer/place calls. The speakerphone will not function except for handsfree answerback on incoming intercom calls.
If a Headset key (PGM 15-07 or SC 851:05) is programmed, the Headset key lights when you're on a call.
 - Answer a ringing call by pressing the SPK or Headset key.
OR
 - Press the SPK or Headset key and then a line key to make a trunk call.
OR
 - Press the SPK or Headset key to get Intercom dial tone.
OR
 - Hang up a call by pressing the SPK or Headset key.

Using the Headset with Automatic Answer on a Keypad for ACD Agents:

1. With the keypad in an idle state, press the Check key.
2. Press the Headset key (PGM 15-07 or SC 851: 05) twice.
3. Press the Clear key to return the display to idle.
The Headset key blinks when Automatic Headset is activated.
To cancel Automatic Headset, repeat these steps.

Headset Operation

ANALOG SINGLE LINE TERMINALS

To enable the headset mode:

1. Unplug the terminal handset.
2. Plug in the headset.
3. Off hook and dial the Headset service code (Program 11-11-43).
You will hear a single beep.
4. On hook.

To disable the headset mode:

1. Unplug the headset.
2. Plug in the terminal handset.
3. Off hook and dial the Headset service code (Program 11-11-43).
You will hear two beeps.
4. On hook.

To be in an Off Hook Idle Condition (Waiting for incoming call):

1. Off hook.
*You hear internal dial tone then silence after Program 20-03-06 timer expires.
In this "Off Hook Idle Condition" condition, the SLT can receive an incoming call.
However, the SLT can NOT dial in this condition. The SLT will be indicated on a DSS console as being idle (LED lights off).*

To answer an incoming call when the headset rings:

- You hear ringing in the headset.*
1. Hookflash (or press the Flash key if available) to answer the call.
OR
On hook and off hook to answer the call.

To disconnect a call:

1. While on a conversation, on hook to disconnect the call.

To make an internal / outgoing call with off hook idle condition:

1. Hookflash (or press the Flash key if available).
OR
On Hook and Off Hook.
You hear internal dial tone.
2. Dial the internal call number.
OR
Dial trunk access code and destination number.

Feature Availability

- Available.

Description

Hold lets an extension user put a call in a temporary waiting state. The caller on Hold hears silence or Music on Hold, not conversation in the extension user's work area. While the call waits on Hold, the extension user may process calls or use a UX5000 feature. Calls left on Hold too long recall the extension that placed them on Hold. There are four types of Hold:

- **System Hold**
An outside call a user places on Hold flashes the line key (if programmed) at all other keysets. Any keyset user with the flashing line key can pick up the call.
- **Exclusive Hold**
When a user places a call on Exclusive Hold, only that user can pick up the call from Hold. The trunk appears busy to all other keysets that have a key for the trunk. Exclusive hold is important if a user doesn't want a co-worker picking up their call on Hold.
- **Group Hold**
If a user places a call on Group Hold, another user in the Department Group can dial a code to pick up the call. This lets members of a department easily pick up each other's calls.
- **Intercom Hold**
A user can place an Intercom call on Hold. The Intercom call on Hold does not indicate at any other extension.

With Automatic Hold enabled (Program 15-02-07), when the user is on an *outside call using the handset*, the user can press a flashing line/loop key to answer an incoming call without disconnecting their first call. The first caller is automatically placed on hold. This feature does not work using handsfree or when the user is on an ICM and presses a flashing line/loop key (the ICM call is disconnected).

Hold Recall to Operator

Hold Recall to Operator enhances how the UX5000 handles calls that have been left on hold too long. With Hold Recall to Operator:

- A trunk call recalls the extension that placed it on Hold after the Hold/Exclusive Hold Recall time.
- The recalling trunk will ring the extension that placed it on Hold for the Hold/Exclusive Hold Recall Callback Time.
- After the Hold/Exclusive Hold Recall Callback Time, the trunk call will ring the operator.

Hold Recall to Operator applies to trunk calls placed on System Hold, Exclusive Hold and Group Hold. It does not apply to Intercom calls.

Conditions

The called extension must lift the handset or press the SPK key before the call can be placed on hold.

Default Setting

- Hold Enabled
- Automatic Hold Disabled.

Programming

- **11-12-30 : Service Code Setup (for Service Access) - Specified Trunk Answer**
If required, redefine the service code used to answer a specific trunk which is either ringing or on hold (default: 172).
- **11-12-33 : Service Code Setup (for Service Access) - Group Hold**
If required, redefine the service code used to answer a specific trunk which is either ringing or on hold (default: 832).
- **11-12-34 : Service Code Setup (for Service Access) - Answer for Group Hold**
If required, redefine the service code used to answer a specific trunk which is either ringing or on hold (default: 862).
- **14-01-16 : Basic Trunk Data Setup - Forced Release of Held Call**
Enable (1) or disable (0) Forced Release of Held Call.
- **14-07-01 : Trunk Access Map Setup**
Set up the Trunk Access Maps. This sets the access options for trunks on Hold.
⇨ Trunk Access Maps 1-200
- **15-02-06 : Multi-Line Terminal Basic Data Setup - Hold Key Operating Mode**
Set the function of the extension's HOLD key: System (0), Exclusive (1), or Park (2) Hold. When set as a Park Hold, there must be at least one Park key (*04 + park orbit number) programmed on the keyset.
- **15-02-07 : Multi-Line Terminal Basic Data Setup - Automatic Hold for CO Line**
Determine whether an extension will use Automatic Hold for CO calls (0) or if the call should disconnect (1).
- **15-06-01 : Trunk Access Map for Extensions**
Assign Trunk Access Maps to extensions.
⇨ Trunk Access Maps 1-200
- **15-07-01 : Programmable Function Keys**
Assign a function key for Exclusive Hold (code 45). If an extension has its fixed Hold key reassigned (in Program 15-02-06), assign a function key for System Hold (code 44).
- **16-02-01 : Department Group Assignment for Extensions**
Assign extensions to Department Groups.
⇨ Department Groups 1-64
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-11-09 : Class of Service Options (Hold/Transfer Service) - Group Hold Initiate**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to initiate Group Hold (Service Code 832).
- **20-11-10 : Class of Service Options (Hold/Transfer Service) - Group Hold Answer**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to pick up a call placed on Group Hold (Service Code 862).
- **20-11-13 : Class of Service Options (Hold/Transfer Service) - Hold Recall to Operator**
Enable (1) or disable (0) Hold Recall to Operator. If enabled, a call recalling an extension longer than the Hold/Exclusive Hold Recall Callback Time will recall the operator (normally 301). If disabled, the call will continually recall the extension that placed it on Hold.
- **20-17-01 : Operator's Extension**
Assign an operator's extension number if Hold Recall to Operator will be used.

- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **24-01-01 : System Options for Hold - Hold Recall Time**
Set the Hold Recall Time (0-64800 seconds). A call on Hold recalls the extension that placed it on Hold after this interval.
- **24-01-02 : System Options for Hold - Hold Recall Callback Time**
Set the Hold Recall Callback Time (0-64800 seconds). A trunk recalling from Hold rings an extension for this interval.
- **24-01-03 : System Options for Hold - Exclusive Hold Recall Time**
Set the Exclusive Hold Recall Time (0-64800 seconds). A call on Exclusive Hold recalls the extension that placed it on Hold after this interval.
- **24-01-04 : System Options for Hold - Exclusive Hold Recall Callback Time**
Set the Hold Recall Time (0-64800 seconds). A trunk recalling from Hold rings an extension for this interval. If still unanswered, the call changes to System Hold.
- **24-01-05 : System Options for Hold - Forced Release of Held Calls Interval**
Set the Forced Release of Held Calls interval (0-64800 seconds). If enabled in Program 14-01-16, the UX5000 disconnects a call if on Hold longer than this interval.

Related Features

Class of Service

The Timer Class of Service may affect a call.

Music on Hold

Callers on Hold hear Music on Hold, if programmed.

Programmable Function Keys

An extension can have function keys for System Hold and Exclusive Hold.

Single Line Terminals

Analog single line terminals can only use Exclusive Hold and Group Hold.

Hold

Operation

System Hold

To place an outside call on System Hold (Keypad Terminal Only):

1. Press HOLD.

A line/loop/CALL key flashes slowly while on Hold; flashes fast when recalling.

To pick up an outside call on System Hold:

Keypad Terminals

1. Press flashing line/loop/CALL key.
OR

1. If you know the specific line number, dial 172 + Line number (001-200).

Exclusive Hold

To place an outside call on Exclusive Hold:

Keypad Terminals

1. Press Exclusive Hold key (PGM 15-07 or SC 851: 45).

A line/loop/CALL key flashes slowly while on Hold, flashes fast when recalling.

Single Line Terminal

1. Hookflash.
2. Dial 849.

To pick up an outside call on Exclusive Hold:

Keypad Terminals

1. Press flashing line/loop/CALL key.

Single Line Set

1. Dial 859.

Park Hold

To place an outside call into a Park orbit (Keypad Terminal Only):

1. Press HOLD.

*At least one Park key (*04 + orbit) must be defined on the terminal. A line/loop/CALL key flashes slowly on other keysets while on Hold; flashes fast when recalling.*

Group Hold

To place a call on Hold so anyone in your Department Group can pick it up:

Keypad Terminals

1. Press HOLD.
2. Dial 832.
3. Press SPK to hang up.

Single Line Terminal

1. Hookflash.
2. Dial 832.
3. Hang up.

To pick up a call on Group Hold:

Keypad Terminals

1. Press idle CALL key.
2. Dial 862.

Single Line Terminal

1. Lift handset.
2. Dial 862.

Intercom Hold

To place an Intercom call on Intercom Hold:

Keypad Terminals

1. Press HOLD.
The CALL key flashes.
2. Press SPK to hang up.

Single Line Terminal

1. Hookflash.
2. Do not hang up.

To pick up an Intercom call on Intercom Hold:

Keypad Terminals

1. Press SPK.
2. Press flashing CALL key.

Single Line Terminal

1. Hookflash.

Hot Keypad

Feature Availability

- Available.

Description

This software is enhanced with the Hot Keypad feature. This feature allows a user simply start dialing a desired number on the keypad of an idle keyset. There is no need to press the Speaker key first when this option is enabled.

This feature can be used for ICM, outgoing calls, service codes, etc., as long as 2 or more digits are dialed. This option can be used with F-Routing or ARS as well.

The dialing operation with this option enabled is the same as previous operation - except there is no need to press SPK first. (Outside calls would require a trunk access code to be dialed prior to the telephone number.)

Conditions

- When both the Hot Keypad and VRS Fixed Message features are enabled, the VRS Fixed Message feature will not work.
- The Hot Keypad feature takes a higher priority than preset dialing features when both are allowed.
- With this option enabled for IP keyset users, the terminal will not be able to access IP terminal programming (HOLD + CONF + * + #).

Default Setting

Disabled

Programming

- ◆ 20-08-20 : Class of Service Option (Outgoing Call Service) - Hot Keypad
To enable the Hot Keypad option, set this program to "1". To disable, set to "0".

Related Features

Central Office Calls, Outgoing / Intercom

The Hot Keypad feature can be used to place intercom calls or outgoing central office calls.

Voice Reponse System

When both the Hot Keypad and VRS Fixed Message features are enabled, the VRS Fixed Message feature will not work.

Operation

1. *Without* pressing SPK, dial the desired CO (including the trunk access code, ex: 9) or ICM number on the dial pad.
The number dials out.

Feature Availability

- Available.

Description

The UX5000 can provide comprehensive hotel/motel services in addition to the features normally available to business users. Hotel/Motel features include:

- **Do Not Disturb**
A guest can enable and disable Do Not Disturb for their room terminal. In addition, a hotel/motel employee with a keyset can enable and disable Do Not Disturb for a specific room terminal. Do Not Disturb (DND) blocks the room terminal's incoming calls and Paging announcements.
- **DSS Console Monitoring**
Your DSS Console provides unique one-touch room monitoring capabilities. Just press a button on your DSS Console to check a room's status. Or, see at a glance which rooms have Wake Up Calls set or messages waiting. In addition, you can still use your console for business mode features.
- **Flexible Numbering Plan**
To simplify dialing guests and services in your facility, customize your UX5000 to have room numbers match each terminal's extension number. For example, if the rooms on the first floor are numbered 100-120, the corresponding room extensions can also be 100-120.
- **Message Waiting**
A hotel/motel employee with a keyset can send a Message Waiting to a room terminal. The message lamp on the room terminal flashes until the guest answers the Message Waiting. (The DSS Console can show all the rooms that have messages waiting.)
- **PMS Integration**
The UX5000, in combination with a PMS Interface Box (PMS-U10), can support third-party PMS applications. The PMS-U10 serves as a gateway between the PMS applications and compatible voice mails. Through the exchange of room status and guest services messages, PMS Integration automates many lodging management tasks, such as check-in, check-out, room status and room Roll Restriction.
- **Room-to-Room Calling Restriction**
Prevent guests in one room from calling guests in another — a hotel/motel employee with a keyset can enable and disable room- to-room calling.
- **Room Status**
To better manage room usage, an employee with a keyset can change the status of a room terminal, including:
 - Checked In
 - Checked Out
 - Maid Required
 - Maid in Room

- **Room Status with Printout**

An employee's DSS Console can indicate the status of the hotel/motel rooms. Optionally, a printer connected to a LAN can print out room status reports to provide more detailed information:

 - Room Status (occupied, available, ready and to be cleaned)
 - Room Telephone Call and Toll Restriction Information
 - Do Not Disturb and Clean Up Extension List
 - Message Waiting Report
 - Wake-up Call No-Answer Report
- **Single Digit Dialing**

Single Digit Dialing gives guests one-touch access to important Hotel/Motel services. They can just lift the handset and press a single key for:

 - Extensions such as the front desk, reservation services, housekeeping or the maitre d' of the restaurant.
 - Feature Access Codes for one button access to selected features and outside lines.
 - Voice Mail, so guests can leave requests even when service providers are unavailable.
 - A Department Calling Group allowing, for example, guests to reach the first available agent in the reservation desk group.
- **Toll Restriction (When Checked In)**

An employee can change the Toll Restriction for a guest's terminal. For example, the receptionist can enable long distance calling for each room terminal as the guests check in.
- **Wake Up Call**

A guest can set or cancel a wake-up call request. A hotel/motel employee with a keyset can also set or cancel a wake-up call for a room terminal.

PMS Integration Available

With the use of a PMS Interface Box (PMS-U10), the UX5000 can support third-party PMS applications. The PMS-U10 serves as a gateway between the PMS applications and the compatible voice mails. Through the exchange of room status and guest services messages, PMS Integration automates many lodging management tasks such as check-in, check-out, room status and room Toll Restriction.

In addition any voice mail used must be licensed for the Hotel feature and have PMS enabled. Refer to the appropriate voice mail installation manual for information on configuring the voice mail.

Hardware Requirements

- UX5000 with a Hospitality License

After activating the license in WebPro or PCPro, the UX5000 must be reset.
- PMS Interface Box (PMS-U10)
- Compatible Voice Mail
- 3rd-Party Hospitality System

Compatible with hospitality systems based on Hitachi PMS protocol. Note that some functionality implemented or implied by the Hitachi protocol may not be supported.

For additional information on Hotel/Motel features, refer to the Hotel/Motel Manual (P/N 0913208).

Conditions

Refer to the Hotel/Motel Manual (P/N 0913208).

Default Setting

Refer to the Hotel/Motel Manual (P/N 0913208).

Programming

Refer to the Hotel/Motel Manual (P/N 0913208).

Related Features

Room Monitor

Room Monitor allows both keyset users and single line terminal users to monitor the activity at another extension.

Operation

Refer to the Hotel/Motel Manual (P/N 0913208).

Hotline

Feature Availability

- Available - 512 Internal Hotline extensions.

Description

Hotline gives a keyset user one-button calling and Transfer to another extension (the Hotline partner). Hotline helps co-workers that work closely together. The Hotline partners can call or Transfer calls to each other just by pressing a single key.

In addition, the Hotline key shows the status of the partner's extension

When the key is . . .	The extension is . . .
Off	Idle
On	Busy or ringing
Fast Flash	DND - All calls (option 3) or Intercom calls (option 2)

Conditions

An extension user cannot use Hotline to pick up a call ringing their partner's extension.

Default Setting

Disabled.

Programming

- ◆➤ **15-07-01 : Programmable Function Keys**
Assign a function key for Hotline (code 01 + partner's extension number).
- ◆➤ **15-02-22 : Multi-Line Terminal Basic Data Setup, Multiple Incoming From Intercom and Trunk**
When this option is set to '0' (disabled), incoming calls to an extension will indicate on any Hotline keys for that extension as solid (busy). When this option is set to '1' (enabled), lamping is determined by the setting of Program 22-01-01 Incoming Call Priority. If set to trunk priority (1), the Hotline key will lamp solid when a trunk call rings in. If set to intercom priority (0), the Hotline key will not lamp for incoming trunk calls, but will lamp solid for intercom calls. This lamping is only applicable when the Hotline extension is a member of a trunk ring group. If the Hotline extension is the destination of a DIL, transfer, call forward, etc., the lamping will be solid.

- **20-02-03 : System Options for Multi-Line Terminals - BLF Control and 20-13-06 : Class of Service Options (Supplementary Service) - Automatic Off Hook Signaling**
Programs 20-02-03 and 20-13-06 set the conditions under which a Hotline, Reverse Voice Over or DSS Console key indicates that an extension is busy. With condition 1 in the following chart, the BLF LED is on only when both extension line appearances are busy. In conditions 2-4, the BLF LED is on when one line appearance is busy.

	Program 20-13-06	Program 20-02-03	BLF ¹ Status	Busy Status
1	1	0	Off	No
2	1	1	On	Yes
3	0	0	On	Yes
4	0	1	On	Yes

¹ BLF is on for extension receiving a voice announced Intercom call.

- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service to an extension (1-15).
- **22-01-01 : System Options for Incoming Calls, Incoming Call Priority**
Use this option to determine if intercom calls or trunk calls have answer priority when both are ringing simultaneously (0=intercom call priority, 1=trunk call priority). Refer to Program 15-02-22 for lamping conditions.
- **30-05-01 : DSS Console Lamp Table**
If required, use this program to customize the UX5000's DSS Console flash rates. This table also affects DSS/Hotline key lamping for keysets.

Related Features

Distinctive Ringing, Tones and Flash Patterns

Set up flash patterns for DSS and Hotline keys.

Direct Station Selection

Assign Hotline keys to the DSS consoles.

Do Not Disturb

Hotline does not override Do Not Disturb.

Handsfree Answerback/Forced Intercom Ringing

Hotline always follows the Handsfree Answerback/Forced Intercom Ringing mode set at the called extension. The Hotline caller can override the setting, if desired.

Hotline, External

External Hotline will automatically dial a telephone number or Common Abbreviated Dialing number when the handset is lifted.

Off Hook Signaling

If the partner's extension is busy, Hotline does not automatically activate Off Hook Signaling.

One-Touch Keys

Assign Hotline keys for service codes.

Programmable Function Keys

A Hotline is a uniquely programmed function key.

Hotline

Operation

To place a call to your Hotline partner:

1. Press Hotline key (PGM 15-07 or SC 851: 01 + partner's extension number + HOLD).
You can optionally lift handset after this step for privacy.

To transfer your outside call to your Hotline partner:

1. Press Hotline key.
2. Announce call and hang up.
OR
Hang up to have the call wait at your Hotline partner unannounced.
If unanswered, the call recalls like a regular transferred call.

To answer a call from your Hotline partner:

1. If you hear two beeps, speak toward terminal.
OR
1. If your terminal rings, lift handset.

Refer to the Ringdown Extension, Internal/External (page 500) for information on this feature.

Feature Availability

- Available.

Description

Intercom gives extension users access to other extensions. This provides the UX5000 with complete internal calling capability.

Handsfree Answerback/Forced Intercom Ringing

Handsfree Answerback permits an extension user to respond to a voice-announced Intercom call by speaking toward the terminal, without lifting the handset. Like Handsfree, this is a convenience for workers who don't have a free hand to pick up the handset. Refer to **Handsfree Answerback/Forced Intercom Ringing** (page 332) for more.

Busy Status Display

When a display keyset user places an Intercom call to a busy extension, the details of the busy status (who is talking to the extension or which line is in use by the extension) can be displayed. The details of the trunk's busy status (the extension using the line) can be displayed after trying to access the trunk. This feature provides a user information which can determine whether they should use the Barge-In feature for the extension or trunk. This information automatically displays for a keyset once programmed.

Conditions

Preventing ICM calls does not affect dialing other service codes, including 911.

Default Setting

Enabled.

Programming

For Intercom . . .

- **11-11-13 : Service Code Setup (for Setup/Entry Operation) - Display Language Selection for Keypad**
Select the service code which can be used at an extension to change the displayed language on a keypad's display (default: 178).
- **11-11-37 : Service Code Setup (for Setup/Entry Operation) - Adjusting Ring Volume**
If required, change the service code used to adjust the ringing volume for CO and ICM calls (829).
- **15-02-01 : Multi-Line Terminal Basic Data Setup - Display Language Selection**
Select the language which should be used on a keypad's display (0 = Japanese, 1 = English, 2 = German, 3 = French, 4 = Italian, 5 = Spanish, 6 = Dutch, 7 = Portuguese, 8 = Norwegian, 9 = Danish, 10 = Swedish, 11 = Turkish, 12 = Latin American Spanish, 13 = Romanian, 14 = Polish).
- **15-02-09 : Multi-Line Terminal Basic Data Setup - Ringing Line Preference for Intercom Calls**
Use this option to select between Idle and Ringing Line Preference for Intercom calls. (0 = Idle (off), 1 = Ringing (on)).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).

- **20-08-01 : Class of Service Options (Outgoing Call Service) - Intercom Calls**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to place Intercom calls.
- **20-08-11 : Class of Service Options (Outgoing Call Service) - Protect ICM Call Mode Switching by Caller**
When an extension is set to ring mode for ICM calls, enabling this option prevents callers from changing the call to voice announce mode (disable=0, enable=1).
- **20-11-07 : Class of Service Options (Hold/Transfer Service) - Transfer Without Holding**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to Transfer a call without holding. If the Busy Status Display feature is to be used, this option should be set to "0".
- **20-13-22 : Class of Service Options (Supplementary Service) - Busy Status Display**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to use the Busy Status Display feature.
- **20-17-01 : Operator's Extension**
Assign the operator's extension.
- **20-18-01 : Service Tone Timer - Extension Dial Tone Time**
Set the Extension Dial Tone Time (0-64800 seconds). After getting Intercom dial tone, a key-set user has this interval to dial the first digit of the Intercom call.
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **21-01-02 : System Options for Outgoing Calls - Intercom Interdigit Time**
Set the Intercom Interdigit Time (0-64800 seconds). When placing Intercom calls, users must dial each digit within this interval.
- **82-01-01 : Incoming Ring Tone - Intercom Ring Tone**
Customize the Intercom ring tone.

For Handsfree Answerback/Forced Intercom Ringing . . .

- **20-02-12 : System Options for Multi-Line Terminals - Forced Intercom Ringing**
Set the default mode for Intercom signaling (0=voice-announce, 1=signal/ringing). Once a user manually sets the mode for their keyset using service codes 821 or 823, this entry is ignored for that extension.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-08-10 : Class of Service Options (Outgoing Call Service) - Switching from Handsfree Answerback to Forced Intercom Ringing**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to toggle between Handsfree Answerback and Forced Intercom Ringing for outgoing Intercom calls (dial 1 or Service Code 812).

- **20-09-05 : Class of Service Options (Incoming Call Service) - Setting Handsfree Answerback/Forced Intercom Ringing**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to set Handsfree Answerback (Service Code 821) and Forced Intercom Ringing (Service Code 823) for incoming Intercom calls.
- **20-13-06 : Class of Service Options (Supplementary Service) - Automatic Off Hook Signaling**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to automatically send Off Hook Signals while busy on a handset call. Setting this option to "0" will prevent Intercom calls from ringing the CALL2 key - instead the caller will hear a busy signal.
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **80-01-01 : Service Tone Setup - Tone 28, Speaker Monitor Tone**
This tone changes the tone the originator of an ICM call hears. (The tone cannot be changed for what is heard by the user when receiving an ICM call.)

Related Features

Class of Service

The Timer Class of Service may affect a call.

Handsfree Answerback/Forced Intercom Ringing

Intercom calls can ring or be voice-announced at the called extension.

Intercom Abandoned Call Display

Intercom Abandoned Call Display remembers the last five Intercom calls to an extension.

Line Preference

Ring Line Preference can automatically answer ringing Intercom or trunk calls when the user lifts the handset.

Name Storing

An extension can have a name assigned that identifies the extension to callers.

Off Hook Signaling

This feature setting can determine how Intercom calls ring a busy extension.

Operation

To place an Intercom call:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial extension number (or 0 for your operator).
Your call may voice-announce or ring the called extension. Dial 1 to change the way your call alerts the called extension.
If the extension you call is busy or doesn't answer, you can dial another extension without hanging up.

To answer an Intercom call:

1. If you hear two beeps, speak toward terminal.
Your terminal picks up your voice.
OR
If your terminal rings, lift handset.

To check your extension's data (Keyset Only):

1. Press CHECK.
2. Press CALL1.
Your display shows your terminal's extension number, port number and extension/Department Group.
You can also check any other extension numbers information y pressing CHECK + the extension number.
3. Press CLEAR to return the normal time/date display.

To change how Intercom calls ring your extension:

1. Press the CALL key or lift the handset.
2. Dial 823 to have calls ring your extension
OR
3. Dial 821 to have calls voice announce to your extension.

Intercom Abandoned Call Display

Feature Availability

- Available.

Description

Intercom Abandoned Call Display shows a display keyset user a list of Intercom calls placed to them that they did not answer. This is a convenience if a user has to temporarily leave their desk. When they return, they can display the list to find out who called while they were out.

Conditions

Intercom Abandon Call Display remembers the last five Intercom calls to an extension.

Default Setting

Enabled.

Programming

None

Related Features

Intercom

Intercom gives extension users access to other extensions.

Operation

To display the list of Intercom calls you did not answer.

1. Press CHECK.
2. Press CALL2.
Repeatedly press CALL2 until no more calls display.
3. Press CLEAR to return to the normal Time and Date display.

Feature Availability

- Available - 120 wireless terminals maximum.

Description

The IP DECT Handset provides:

- Single Line Telephone Operation
- Unified Design with Desktop Terminal
- Fast Speed WLAN (802.11b/g)
- Authentication (EAP-TLS/PEAP)
- Encryption (WEP/TKIP)
- 8 Function Buttons
- Menu / Soft Key Operation
- Full-Dot Monochrome LCD with Backlit
- Ten-Key with Backlit
- MW Lamp

Refer the IP DECT Terminal manual and user guide for complete installation and setup information.

ISDN Compatibility

Feature Availability

- PRI Available.

Description

!! Important !!

Always check with your NEC's Technical Service Representative before setting up your ISDN application. Working together will ensure maximum compatibility and reliable ISDN performance.

Primary Rate Interface (PRI)

Flexible Transfer Feature

This combination tie line/DISA-type function provides the ability for an extension user to:

- call out on a virtual S-Bus extension and loop back into the UX5000 on a virtual T-Bus trunk without the need for a PRI blade.
OR
- call out on a virtual T-Bus trunk and loop back into the UX5000 on a virtual S-Bus extension without the need for a PRI blade.

The Flexible Transfer feature provides a virtual ISDN trunk or ISDN station. When this feature is enabled, virtual trunk ports (ISDN trunk) and virtual extensions ports (ISDN station) are created. No PRI blade or open slot in the chassis is required to use this virtual PRI loop back ability. Therefore, the user can save costs for 2 PRIU blades and save 2 blade slots in the UX5000.

The user interface for the virtual ISDN trunks and virtual ISDN extensions ports are the same as real trunks and extensions.

This feature can be used, for example, to allow for transferring a call across a network to an ACD pilot number. It can also be used to allow voice mail to transfer calls to ring groups - locally or across the network.

The following table compares program options with Program 10-03 (with a PRI blade) and Program 10-42 (without a PRI blade using the Flexible Transfer feature).

Item	Program 10-03 for PRI	Program 10-42 for Flexible Transfer
01	ISDN Line Mode	N/A
02	Logical Port No.	Trunk: Program 10-42-02 Station: Program 10-42-03
03	CRC Multi-Frame(CRC4)	N/A
04	Layer 3 Timer Type	Program 10-42-04
05	Calling Party Number	Program 10-42-05
06	Transmit Pulse Shape	N/A
07	S-Point DID Digits	Program 10-42-06
08	Dial Sending Mode	Overlap Sending always used.
09	Dial Information Element	Called Party Number always used.
10	Master/Slave System	N/A
11	Networking System No.	N/A

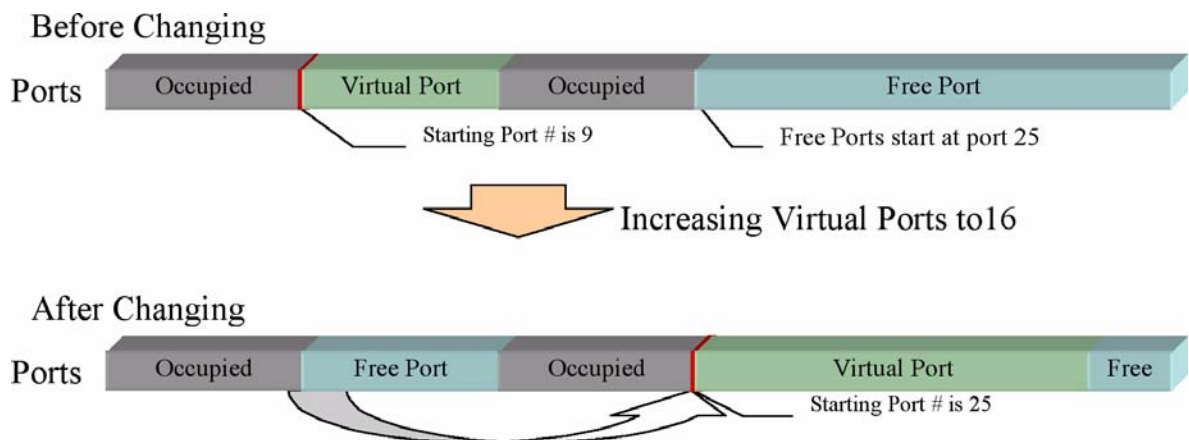
Item	Program 10-03 for PRI	Program 10-42 for Flexible Transfer
12	Short/Long-Haul	N/A
13	Loss-Of-Signal Detection Limit	N/A
14	Service Protocol for S-Point	N/A (This setting should be available for connecting S-Bus terminal)
15	Call Busy Mode for S-Point	Program 10-42-07
16	Two B-Channel Transfer for PRI Service	N/A
17	ISDN Line Ringback Tone	Ringback tone will always be local tone.
18	Type of Number	This setting is for outgoing calls to the Network. It is not needed with the Flexible Transfer feature.
19	Numbering Plan Identification	This setting is for outgoing call to Network. It is not needed with the Flexible Transfer feature.

Port Assignment

Once the number of virtual loop back ports is defined in Program 10-42-01, the trunk and extension ports are assigned automatically. The UX5000 takes the next available group of consecutive ports and these are reserved in sets of 2. This could result in a dead/unused port if the number of ports defined in Program 10-42-01 is an odd number. For example, if 5 ports are programmed in Program 10-42-01, the UX5000 actually reserves 6 ports.

The assigned ports (trunk and extension) will be freed when Program 10-42-01 is set to 0 or reduced. If there is an established call(s) using a virtual PRI loop back when this program is changed, these calls will automatically be dropped.

In the following case, the starting port number may be changed after additional ports are entered in Program 10-42-01.



ISDN Compatibility

Operation

The same operation and appearance (number / name display, LED indications on terminals) are the same as the loop back operation using a physical PRIU blade and connection. The only exception is with the VRS Queue Messaging during Alerting status.

With the VRS Queue Messaging during Alerting status, when using a physical PRIU blade and connection, a CONNECT message is sent when starting a VAU message when an ISDN trunk has not sent a CONNECT message.

With the Flexible Transfer feature and virtual loop back, at this point a PROGRESS message will be sent instead of the CONNECT message. A CONNECT message will be sent when the extension users answer a call.

Using the Flexible Transfer feature, the UX5000 supports many features, such as:

- Internal SMDR
- Internal Toll Restriction
- Internal ACD
- Internal (DID) Routing Table
- Internal Night Service
- Internal Ring Groups
- Above features available via networking
- in addition to many other features

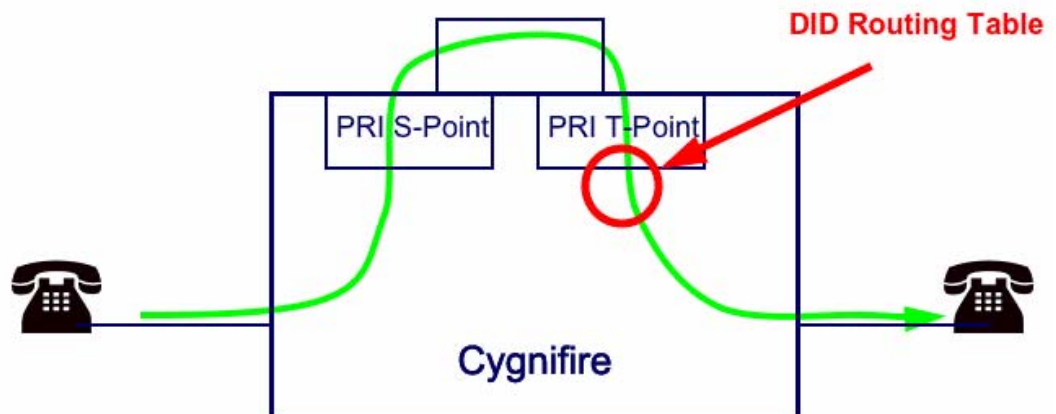
Establish a Call

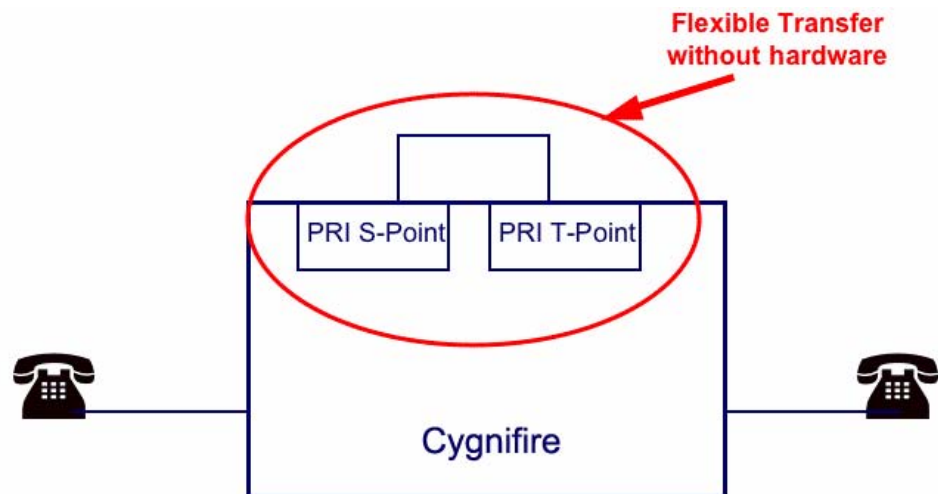
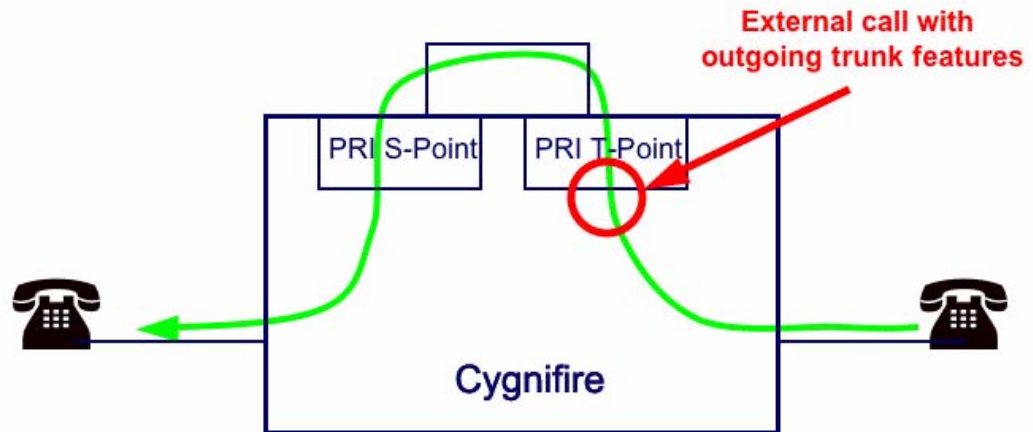
- S-Point Ports can be called with
 - S-Point Port Number (+DID Digits)
 - S-Point Department Group Number (+DID Digits)
- T-Point Ports can be seized with
 - Direct Trunk selection
 - Trunk Group Access
 - Trunk Group Routing
 - F-Routing
 - Any other Trunk access procedure

Combination with Other Features

- SMDR
 - Internal Calls through the Loop are Reported
 - Seize a virtual Trunk and dial any internal Number
 - Call a S-Point Port that is routed via a Trunk to a target
- Toll Restriction / Automatic Trunk Seizure
 - Set automatic Trunk seizure (loop-back Trunks)
 - Prohibit any internal Calls in the Class of Service
 - Use the Toll restriction for any Call (also internal)
- Call Forward
 - Set a CFW to the S-Point Number + DID
 - Use the DID Conversion Table to point to the Target

- DID
 - Point a DID target to an S-Point loop-back Port
 - Use the full flexibility of the DID Routing Table after DID
 - Overflow Busy / No Answer
 - Ring Groups
 - External Targets
 - SMDR will report the DID Selection
 - Chain different DID Trees
- Night Service
 - Night Service can use different DID Conversion Tables
 - Consider to use Night Service Groups for the Virtual loop-back
- F-Routing
 - F-Routing is the most flexible way to:
 - Access Trunks
 - Modify Dial Informations
- ACD
 - Place a Call to a S-Point Port
 - The DID Conversion allows to place the call into ACD
 - Internal Calls can ring ACD Groups
- Ring Groups / Queue Messages
 - Place a call to a S-Point Port
 - Use Ring Groups as Target in the Conversion Table
 - Use Queue Messages for those Ring Groups





With this feature, the following conditions apply:

- The feature will not be activated if the port assignment procedure fails to allocate the number of consecutive trunk ports and extension ports.
- The user cannot change UX5000 data in Program 10-03. S-point DID digits for Virtual S-point ports can be defined in Program 10-42. The other setting in Program 10-03 will be run with default value.
- Virtual Loop Back PRI ports cannot be blocked. These ports are always available.
- Assigned port numbers can be confirmed in Program 10-42-02 and 10-42-03. PCPro will indicate this information in the slot configuration as well, however, with WebPro, the only indication will be in 10-42-02/03.
- Though assigned virtual ports are the same as PRI ports in the UX5000, these ports can be used in the non-licensed UX5000. Because these ports do not require the hardware.
- Program 90-39 can be used to reset all of the Virtual Loop Back ports. All connected calls will be dropped when this program is executed.

Conditions

Refer to the ISDN-BRI Manual (P/N TBD) and ISDN-PRI Manual (P/N 0913212) for the specifics.

Default Setting

None

Programming

Refer to the ISDN-BRI Manual and ISDN-PRI Manual (P/N 0913212) for the specifics.

- ◆▶ **10-03-21 : Blade Setup - PRI Setup - Number of Ports**
Select the number of ports the blade should be assigned. With PRI, the "B" channels are used - the "D" channel is not. (0 = Auto, 1 = 4 Ports, 2 = 8 Ports, 3 = 12 Ports, 4 = 16 Ports, 5 = 20 Ports)
The slot must be reset in Program 90-05-01:Menu 2 when the ports are reassigned. A system reset can also be done to reset the blade.
- ◆▶ **10-39-01 : T1 Fraction Setup**
Enable (1) or disable (0) the fractional usage of the T1/PRI blade.
- ◆▶ **10-51-01 : PRI/T1 Selection for 1PRIU Blade**
Select if the 1PRIU blade is to be used for PRI (0) or T1 (1).
- ◆▶ **11-02-01 : Extension Numbering**
For the Flexible Transfer feature, each extension port must have a number assigned.
- ◆▶ **11-07-01 : Department Group Pilot Numbers**
For the Flexible Transfer feature, assign an internal pilot number to the Department Group.
- ◆▶ **14-05-01 : Trunk Group**
For the Flexible Transfer feature, assign all loop back ports to a dedicated trunk group (1-100).
- ◆▶ **16-02-01 : Department Group Assignment for Extensions**
For the Flexible Transfer feature, assign each port to a Department Group (1-64).
For the Flexible Transfer feature, set all loop back ports to DID (3).
- ◆▶ **22-09-01 : DID Basic Data Setup - Expected Number of Digits**
For the Flexible Transfer feature, set the DID receive digits according to the S-Point setup.
- ◆▶ **22-10-01 : DID Translation Table Setup**
Assign the start and end range of DID Translation Table entries (1-2000) to each DID Translation Table (1-20).
- ◆▶ **22-13-01 : DID Trunk Group to Translation Table Assignment**
Assign the DID trunk groups to translation tables. If all the DID trunks use the same type of DID service, you may have only one DID trunk group and one DID Translation Table (with many entries).
⇔ Trunk Groups: 1-100
- ◆▶ **90-39-01 : Virtual Loop Back Reset**
Use this program when it is necessary to reset all of the Virtual Loop Back ports. All connected calls will be dropped when this program is executed.

ISDN Compatibility

Related Features

Forced Trunk Disconnect

This feature only works on analog trunk. ISDN trunks do not have the Forced Trunk Disconnect available.

Transfer

Transferred calls on DISA, DID, ISDN trunks, or from the VRS can display the reason a call is being transferred (Call Forward, Busy, No Answer, or DND).

Networking

Trunk-to-Trunk transfer of ISDN PRI calls will work only when the two trunks are in the same system.

Operation

Refer to the ISDN-BRI Manual (P/N TBD) and ISDN-PRI Manual (P/N 0913212) for the specifics.

Feature Availability

- Available.

Description

Last Number Redial allows an extension user to quickly redial the last number dialed. For example, a user may quickly recall a busy or unanswered number without manually dialing the digits.

Last Number Redial saves in UX5000 memory the last 24 digits a user dials. The number can be any combination of digits 0-9, # and *. The UX5000 remembers the digits regardless of whether the call was answered, unanswered or busy. The UX5000 normally uses the same trunk group as for the initial call. However, the extension user can preselect a specific trunk if desired.

Conditions

Redial List requires the use of a display terminal. Non-display and single line terminals can not use this feature.

Default Setting

Enabled.

Programming

- **11-12-12 : Service Code Setup (for Service Access) - Last Number Dial**
Assign a service code (#5) to use Last Number Dial.
- **11-12-17 : Service Code Setup (for Service Access) - Clear Last Number Dialing Data**
Assign a service code (876) to clear the Last Number Dial.

Related Features

Automatic Route Selection

When using Automatic Route Selection, ARS selects the trunk for the call unless the user preselects.

Repeat Redial

The UX5000 can periodically redial an unanswered trunk call.

Save

A user can save the number of an outgoing call to be accessed at a later time.

Last Number Redial

Operation

To redial your last call:

1. Without lifting the handset, press LND.
The last dialed number is displayed.
2. To redial the last number, press #.
OR
Search for the desired number from the Redial List by pressing the LND or VOLUME ▲ or VOLUME ▼ keys.
3. Lift the handset or press SPK to place the call.
The UX5000 automatically selects a trunk from the same group as your original call and dials the last number dialed.
OR
 1. At keyset, press idle line key (optional).
The UX5000 automatically selects a trunk from the same group as your original call.
 2. Press LND.
OR
 1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
 2. Dial #5.
The UX5000 automatically selects a trunk from the same group as your original call and dials the last number dialed.

To check the number saved for Last Number Redial:

1. Press LND.
The stored number displays. The stored number dials out if you:
 - Lift the handset,
 - Press an idle line key,
 - Press an idle CALL key, or
 - Press SPK
2. Press CLEAR.

To erase all the stored numbers:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 876.

To erase one or all LND numbers:

1. From an idle keyset, press the LIST soft key then press the REDIAL soft key.
OR
From an idle keyset, press LND.
2. *If deleting just one number*, scroll to the number.
If deleting all numbers in the LND list, skip to Step 3.
3. Press the DEL soft key. The display shows:

REDIAL-01	2035551234
One	All

4. *If deleting just one number*, press the ONE soft key.
If deleting all numbers in the LND list, press the ALL soft key.
5. When deleting all numbers in the LND list, the display then prompts for a confirmation. Press the YES soft key to delete all the numbers, or press the NO soft key to return to the previous display.
6. Press the CLEAR key to return the terminal to an idle state, or it will return to an idle state after approximately 30 seconds.

Feature Availability

- Available.

Description

Certain features are allowed based on licensing. Contact UBSD's Customer Support for complete details on the required licenses and their associated part numbers.

Conditions

The UX5000 must be reset after activating a license before it can take affect.

Default Setting

Licensing for each feature must be enabled.

Programming

- **10-47-01 : Terminal License Server Setup - TCP Port**
Define the TCP port number for the license server (0-65535).
- **10-47-02 : Terminal License Server Setup - TCP Keep Alive Timer**
Define the keep alive timer for the TCP port (1-255 seconds).
- **10-48-01 : License Activation - Software Code**
Enter the software key code (up to 16 digits maximum).
- **10-48-02 : License Activation - Validation Code**
Enter the validation code (up to 8 digits).
- **10-48-03 : License Activation - Feature Code**
Enter the feature code (up to 7 digits).
- **10-49-01 : License File Activation**
This command preserves the file issued from the license server onto a USB thumb drive, and turns on a formal license from a USB thumb drive.
- **10-50-01 : License Information - Number of Licenses**
This option displays the number of licenses.
- **10-50-02 : License Information - License Quantity**
This option displays the number of licenses.
- **10-50-03 : License Information - Number of Free Licenses**
This option displays the number of free licenses.
- **10-50-04 : License Information - Remaining Days for Free Licenses**
This option displays the number of days remaining for any free licenses.
- **90-55-01 : Free License Activation**
This option is used to activate the free license for the system. This will only enable the feature for 60 days. This allows enough time to obtain a full license for the feature.

Feature Availability

- Available.

Description

Line Preference determines how a keyset user places and answers calls. There are two types of Line Preference: Incoming Line Preference and Outgoing Line Preference.

Incoming Line Preference

Incoming Line Preference establishes how a keyset user answers calls. When a call rings the keyset, lifting the handset answers either the ringing call (for **Ringing Line Preference**) or seizes an idle line (for **Idle Line Preference**). The idle line can provide either Intercom or trunk dial tone (see Outgoing Line Preference below). Ringing Line Preference helps users whose primary function is to answer calls (such as a receptionist). Idle Line Preference is an aid to users whose primary function is to place calls (such as a telemarketer).

Outgoing Line Preference

Outgoing Line Preference sets how a keyset user places calls. If a keyset has Outgoing Intercom Line Preference, the user hears Intercom dial tone when they lift the handset. If a keyset has Outgoing Trunk Line Preference, the user hears trunk dial tone when they lift the handset. Outgoing Line Preference also determines what happens at extensions with Idle Line Preference. The user hears either trunk (“dial 9”) or Intercom dial tone.

Auto-Answer of Non-Ringing Lines

With Auto-Answer of Non-Ringing Lines, an extension user can automatically answer trunk calls that ring other extensions (not their own). This would help a user that has to answer calls for co-workers that are away from their desks. When the user lifts the handset, they automatically answer the ringing calls based on Trunk Group Routing programming. The extension user’s own ringing calls, however, always have priority over calls ringing other co-worker’s extensions.

Conditions

If a keyset extension has more than one call ringing its line keys, Ringing Line Preference answers the calls on a first-in first-answered basis.

Default Setting

Enabled.

Programming

- ◆ 14-05-01 : Trunk Groups
For Auto-Answer of Non-Ringing Lines, assign trunks to trunk groups. This is part of Trunk Group Routing programming.
⇨ Trunks 1-200
- ◆ 14-06-01 : Trunk Group Routing
For Auto Answer of Non-Ringing Lines, program the Trunk Group Routing table. Auto Answer uses this table to determine the answer sequence for ringing calls.
⇨ Trunk Groups 1-100

Line Preference

- **14-07-01 : Trunk Access Map Setup**
For Outgoing Line Preference and Auto-Answer of Non-Ringing Lines, set up the Trunk Access Maps.
⇨ Trunk Access Maps 1-200
- **15-01-02 : Basic Extension Data Setup - Outgoing Trunk Line Preference**
Enable (1) or disable (0) Outgoing Trunk Line Preference for extensions.
- **15-02-09 : Multi-Line Terminal Basic Data Setup - Ringing Line Preference for Intercom Calls**
Enable Idle (0) or Ringing (1) Line Preference for Intercom calls. See the table below for interaction.
- **15-02-10 : Multi-Line Terminal Basic Data Setup - Ringing Line Preference for Trunk Calls**
Enable Idle (0) or Ringing (1) Line Preference for trunk calls. See the table below for interaction.

Program		Ringing Intercom Call	Ringing Trunk Call	Lifting the handset
15-02-09 (Intercom Preference)	15-02-10 (Trunk Preference)			
0	0	X	X	Seizes idle line appearance.
0	0	X	-	Seizes idle line appearance.
0	0	-	X	Seizes idle line appearance.
0	1	X	X	If Program 22-01-01 is 1, answers ringing trunk. If Program 22-01-01 is 0, seizes idle line appearance.
0	1	X	-	Seizes idle line appearance.
0	1	-	X	Answers ringing trunk.
1	0	X	X	If Program 22-01-01 is 1, seizes idle line appearance. If Program 22-01-01 is 0, answers Intercom call.
1	0	X	-	Answers ringing line appearance.
1	0	-	X	Seizes idle line appearance.
1	1	X	X	If Program 22-01-01 is 1, answers ringing trunk. Intercom call then rings second line appearance. If Program 22-01-01 is 0, answers ringing line appearance.
1	1	X	-	Answers ringing Intercom call (Line appearance).
1	1	-	X	Answers ringing trunks.

Note: Program 22-01-01 sets Intercom (0) or trunk (1) call priority.

- **15-06-01 : Trunk Access Map for Extensions**
For Outgoing Line Preference and Auto-Answer of Non-Ringing Lines, assign trunk Access Maps to extensions.
⇨ Trunk Access Maps 1-200

- ➔ **20-10-07 : Class of Service Options (Answer Service) - Automatic Answer of Universal Calls**
Enable (1) or disable (0) an extension's ability to use Universal Auto Answer for non-ringing lines.
- ➔ **22-01-01 : System Options for Incoming Calls - Incoming Call Priority**
Determine if ringing Intercom calls (0) or ringing trunk calls (1) should have answer priority. See the table above for interaction.
- ➔ **22-04-01 : Incoming Extension Ring Group Assignment**
Assign extensions to ring groups. Auto-Answer for Non-Ringing Lines only works for trunks that do not ring an extension.
⇨ Ring Groups: 1-100
- ➔ **22-05-01 : Incoming Trunk Ring Group Assignment**
Assign trunks to ring groups. Auto-Answer for Non-Ringing Lines only works for trunks that do not ring an extension.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- ➔ **23-03-01 : Universal Answer/Auto Answer**
For each extension, select the route that it will use for Auto-Answer for Non-Ringing Lines. The routes correspond to the Trunk Group Routing table set in Program 14-06.
⇨ Trunk Group Routes 1-100

Related Features

Direct Inward Line

DILs do not affect Incoming Line Preference operation.

Ring Groups

Trunks ring extensions according to Ring Group programming.

Trunk Group Routing

If an extension gets trunk dial tone when the user lifts the handset, the UX5000 uses the "dial 9" routing to select the trunk.

Operation

To answer a ringing call if your terminal has Ringing Line Preference:

1. Refer to the chart on the previous page.

To place a call if your terminal has Outgoing Line Preference:

1. Refer to the chart on the previous page.

Long Conversation Cutoff

Feature Availability

- Available.

Description

For incoming and outgoing central office calls, each trunk can be programmed to disconnect after a defined length of time. The timer begins when the trunk is seized and disconnects the call after the timer expires.

When used with the Warning Tone for Long Conversation feature, the UX5000 can provide a warning tone on outgoing trunks calls before the call is disconnected. This tone is not available to analog single line terminal users.

Conditions

- The Warning Tone for Long Conversation feature can also provide tones for long call.

Default Setting

Disabled.

Programming

Outgoing Trunks

- **14-01-14 : Basic Trunk Data Setup - Long Conversation Cutoff**
Enable (1) or disable (0) a trunk's ability to disconnect incoming and outgoing central office calls automatically.
- **14-01-15 : Basic Trunk Data Setup - Long Conversation Alarm Before Cut Off**
Enable (1) or disable (0) the Long Conversation Alarm for each trunk. If the Warning Tone for Long Conversation tones are used (Program 20-21-01/02), these tones will also be heard (depending on the timing set before the cut-off).
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to extensions.
- **20-13-03 : Class of Service Options (Supplementary Service) - Long Conversation Cutoff (Outgoing)**
Enable (1) or disable (0) an extension's class of service from using Long Conversation Cutoff for outgoing calls.
- **20-21-04 : System Options for Long Conversation - Long Conversation Cutoff for Outgoing Calls**
Enter the time the UX5000 will wait before disconnecting outgoing trunks (0-64800 seconds).

Incoming Trunks

- **14-01-14 : Basic Trunk Data Setup - Long Conversation Cutoff**
Enable (1) or disable (0) a trunk's ability to disconnect incoming and outgoing central office calls automatically.
- **14-01-15 : Basic Trunk Data Setup - Long Conversation Alarm Before Cut Off**
Enable (1) or disable (0) the Long Conversation Alarm for each trunk. If the Warning Tone for Long Conversation tones are used (Program 20-21-01/02), these tones will also be heard (depending on the timing set before the cut-off).

Long Conversation Cutoff

- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to extensions.
- **20-13-02 : Class of Service Options (Supplementary Service) - Long Conversation Cutoff (Incoming)**
Enable (1) or disable (0) an extension's class of service from using Long Conversation Cutoff for incoming calls.
- **20-21-03 : System Options for Long Conversation - Long Conversation Cutoff for Incoming Calls**
Enter the time the UX5000 will wait before disconnecting incoming trunks (0-64800 seconds).

DISA Trunks

- **14-01-17 : Basic Trunk Data Setup - Trunk-to-Trunk Warning Tone for Long Conversation Alarm**
Determine whether DISA callers should hear the Warning Tone for Long Conversations for CO calls placed (0=disabled, 1=enabled).
- **14-01-25 : Basic Trunk Data Setup - Continue/Disconnect Trunk-to-Trunk Warning Conversation**
With a DISA trunk set to disconnect after the warning tone, determine whether DISA callers should be able to use the continue/disconnect codes (0=disabled, 1=enabled).
- **20-28-01 : System Option for Trunk-to-Trunk Conversations - Conversation Continue Code**
With a DISA trunk set to disconnect after the warning tone, enter a single digit Continue Code to be used to immediately disconnect or continue an outside call (0-9, * or # are accepted entries).
- **20-28-02 : System Option for Trunk-to-Trunk Conversations - Conversation Disconnect Code**
With a DISA trunk set to disconnect after the warning tone, enter a single digit Disconnect Code to be used to immediately disconnect or continue an outside call (0-9, * or # are accepted entries).
- **20-28-03 : System Option for Trunk to Trunk Conversations - Continue Time**
When the Continue Code is used for a DISA call (as defined in Program 20-28-01), enter the time a call will be extended (0-64800 seconds).
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **25-07-07 : System Timers for VRS/DISA - DISA Conversation Warning Tone Time**
Determine the length of time the UX5000 should wait before the Warning Tone is heard by DISA callers (0-64800 seconds). If an outside call is transferred or forwarded off-premise using an outside trunk, this timer starts immediately. This will occur if either trunk involved in the call is programmed for the Warning Tone (Program 14-01-17).
- **25-07-08 : System Timers for VRS/DISA - DISA Long Conversation Disconnect**
Determine how long after the Warning Tone is heard the UX5000 will wait before disconnecting DISA calls - unless the Continue code is entered (Program 20-28-02).

Long Conversation Cutoff

Related Features

Central Office Calls, Answering/Central Office Calls, Placing

Long Conversation Cutoff can disconnect incoming and outgoing CO calls after a set time period.

Direct Inward System Access (DISA)/Tie Lines

Long conversation cutoff is controlled separately for DISA and tie lines.

Warning Tone for Long Conversation

Using the Warning Tone for Long Conversation feature allows users on outgoing calls to hear a warning tone prior to the call disconnecting.

Operation

Feature is automatic once programmed.

Feature Availability

- Available.

Description

Loop keys are uniquely programmed function keys that simplify placing and answering trunk calls. There are three types of loop keys: Incoming Only, Outgoing Only and Both Ways.

- **Incoming Only Loop Keys**
Incoming Only loop keys are for answering trunk calls. An extension can have an incoming loop key for a specific trunk group (fixed) or a “catch all” loop key for any trunk group (switched). Fixed loop keys allow an extension user to tell the type of call by the ringing key. Switched loop keys are ideal for an extension with a large number of feature keys. In addition, switched loop keys are a destination for any trunk not on a line key or fixed loop key. Without a switched loop key, calls not appearing on a line key or fixed loop key will ring only the CALL key. Incoming Only loop keys also receive Transferred trunk calls.
- **Outgoing Only Loop Keys**
Outgoing Only loop keys are for placing trunk calls. An extension can have outgoing loop keys for a specific trunk group or for ARS access. When a user presses the loop key, they get dial tone from the first available trunk in the group (or from ARS if programmed). Outgoing Only loop keys help ensure that an extension will always have a key available for placing calls.
- **Both Ways Loop Keys**
Both Ways loop keys combine the functions of both Incoming Only and Outgoing Only loop keys. Both Ways loop keys work well for extension users that handle a moderate amount of calls and don't separate keys for incoming and outgoing calls. Both Ways loop keys also receive Transferred trunk calls.

An extension can have many loop keys - of any type. You can program an operator, for example, with four loop keys for incoming calls and four for outgoing calls.

Once a loop key call is set up, the user can handle it like any other trunk call. For example, the user can place the call on Hold, Transfer it to a co-worker or send it to a Park Orbit.

An incoming call will ring the first available loop key, beginning with the lowest numbered key. If keys 1-3 are loop keys, for example, the first incoming call rings key 1. If key 1 is busy, the next call rings key 2. If keys 1 and 2 are busy, the next call rings key 3. If all three keys are busy, additional incoming calls queue for the first available key. The terminal display will show “WAITING - LOOP KEY” if the user presses a loop key when there are additional calls waiting.

Conditions

None

Default Setting

Disabled.

Programming

- **14-05-01 : Trunk Groups**
Assign trunks to trunk groups. In general, loop keys access trunks within specific trunk groups.
⇨ Trunk Groups: 1-100
- **14-07-01 : Trunk Access Map Setup**
Set up the Trunk Access Maps. For example, if an extension's loop key is for incoming and outgoing, make sure the Trunk Access Map allows incoming and outgoing access. Also see Program 15-06 below.
- **15-06-01 : Trunk Access Map for Extensions**
Assign Trunk Access Maps to extensions. Also see Program 14-07 above.
- **15-07-01 : Programmable Function Keys**
Program function keys as trunk group/loop keys (*02 or *05). For additional data, enter 0 (incoming only), 1 (outgoing only) or 2 (both ways). Use Programs 15-13-01 or 15-13-02 to define the trunk groups used.
- **15-13-01 : Loop Keys - Outgoing**
Assign trunk groups for outgoing loop keys (0=ARS, Trunk Groups 1-100). Selecting "0" for ARS should only be used when ARS is enabled in Program 26-01-01 or it could cause the loop key to lock up.
- **15-13-02 : Loop Keys - Incoming**
Assign trunk groups for incoming loop keys (0=all Trunk Groups, Trunk Groups 1-100).
- **20-07-10 : Class of Service Options (Administrator Level), Programmable Function Key Programming (Appearance Level)**
If an extension should be able to use Programmable Functions Keys to program a loop key, enable this option in the user's Class of Service (1-15).
- **22-04-01 : Incoming Extension Ring Group Assignment**
Assign extensions to Ring Groups. An incoming loop key will ring only for those trunks programmed to ring. Also see Program 22-05.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-05-01 : Incoming Trunk Ring Group Assignment**
Assign trunks to Ring Groups. An incoming loop key will ring only for those trunks programmed to ring. Also see Program 22-04 above.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail

Related Features

Automatic Route Selection (ARS) / Central Office Calls, Answering / Central Office Calls, Placing

Program incoming and outgoing access and routing options.

Off Hook Signaling

If enabled, a user hears Call Waiting beeps if additional calls are waiting behind a loop key.

Programmable Function Keys

If you have a line and loop key for the same trunk, the line key has precedence. An incoming call rings the line key, not the loop key. When you press the loop key for an outgoing call, the line key lights.

Ring Groups

Trunks ring terminals according to their Ring Group assignments (Programs 22-04 and 22-05).

Direct Inward Dialing (DID) / Direct Inward Line (DIL) / Direct Inward System Access (DISA) / Tie Lines

Transferred DID, DIL, DISA and tie line calls do not require ring group programming.

Operation

To place a call on a loop key:

1. Press outgoing or both ways loop key.
You hear dial tone and the key lights green.
2. Dial number.

To answer a call on a loop key:

Listen for ringing a look for a flashing loop key.

1. Press loop key.
*The key lights green and you connect to the call.
If there are additional calls waiting to be answered, your display shows:
[WAITING - LOOP KEY]*

To program a loop key:

1. Press the SPK key.
2. Dial 852.
3. Press the key you want to program as a loop key.
4. Dial *05.
5. Dial the loop key type:
 - 0 = Incoming only
 - 1 = Outgoing only
 - 2 = Both ways (incoming and outgoing)
6. Dial the loop key routing option for incoming, outgoing, or incoming and outgoing calls:
 - 000 = Trunk Group Routing or ARS (if installed)
 - 001-200 = Trunk Groups
If you selected option 2 in step 5 above, enter the incoming Trunk Group followed by the outgoing Trunk Group.
7. Press SPK to hang up.

Feature Availability

- Available.

Description

The UX5000 provides several features to help maintain the UX5000 database, for backup, and system analysis.

- System Backup/Restore Files
- PCPro / WebPro / UserPro
- Remote Maintenance
- Alarm Reports
- System Log/DIM
- Self Test
- Traffic Reports
- Blade Software Block

System Backup/Recovery

UX5000 programming allows up to 5 backup/restore points to be saved. These files are saved in the flash memory on the CCPU. This data is used for recovering data if required.

Database Maintenance Using PCPro/WebPro

In addition to the TelPro (keyset) programming, the UX5000 provides the ability to use a PC to access UX5000 programming. The Windows-based PCPro and the HTML-based WebPro allows you to:

- Edit the terminal programming options from a remote location.
The PCPro application requires changes to be uploaded to the UX5000 before they take affect. The WebPro application applies the changes as soon as the APPLY or OK icon is clicked.
- Access UX5000 maintenance functions (like reports and tests) as well as:
 - Slot Control (possible with terminal programming or WebPro access)
Allows the blade slots to be deleted or reset
 - Trunk Control (possible with terminal or PCPro programming or WebPro access)
Allows the trunks to be blocked so no new additional calls can be made on the blade
 - Extension Control (possible with terminal programming or WebPro access)
Allows hard or soft reset for each extension
 - System Reset (possible with terminal programming or WebPro access)
Allows the UX5000 to be reset

In addition, PCPro allows you to:

- Save your programming to your PC's hard disk - then upload it via a LAN (Local Area Network) or USB connection.
- Download the existing programming in the UX5000 via a LAN or USB connection - and save it to your PC's hard disk.
- Set up a default database with the settings you use most often.

- Create a unique database for each UX5000 you have installed. Since you save the site-specific data to your PC's hard disk, you can easily retrieve a customer's programming if something goes wrong.

Programming access may be restricted based on the type of program entry used and if other users are connected to the UX5000 for programming purposes.

- PC Pro: Only one user allowed access to the UX5000 programming at a time.
- WebPro: Up to 4 WebPro or TelPro users can be connected at the same time.
- TelPro: Up to 4 TelPro or WebPro users can be connected at the same time.

Refer to the UX5000 Software Programming Manual, P/N 0913202, for details on accessing the UX5000 using TelPro or, with PCPro or WebPro, check the PCPro/WebPro Installation Manual for additional details.

UserPro: End-User Programming with Web Browser

A programming option is available to allow a user to adjust only the user level UX5000 programs. Similar to the WebPro application, a user would connect with an internet browser to the UX5000. Two password levels are supported, based on the user name and password used at the sign-in, which determine the programs which can be accessed.

Mode 1 is the UA (User Programming Administrator) mode. This level allows all of the user-programmable options to be changed. The password access for this level is set up in **Program 90-02-01 : Setting the Programming Password**.

Mode 2 is the UB (User Programming) mode. This level allows a user to change only the UX5000 data pertaining to their extension. The password access for this level is set up in **Program 90-28-01 : User Programming Password Setup** and is defined for each extension user required.

Remote Maintenance

This feature requires the installation of an MEMDB on the CCPU.

The Remote Maintenance feature allows an administrator to update a remote UX5000 using either software downloaded from a connected server or from a PC connected via PCPro.

This can either be performed manually or by a UX5000 timer.

When updating the software for remote UX5000s, the main UX5000 software must first be updated. The remote UX5000s can then be updated using the LAN connection to the main UX5000 or it can be updated using the PCPro application.

Maintenance

Extension Data Swap Function Added

The UX5000 provides the ability to swap an extension's programming to another extension number. The following extension-based programs will be swapped:

Refer to Secure Set Relocation feature below for additional options.

Program No.	Program Name
11-02	Extension Numbering
15-01	Extension Basic Data Setup (include Virtual Extension)
15-02	Multi-Line Terminal Basic Data Setup
15-03	Single Line Terminal Basic Data Setup
15-04	PHS Terminal Basic Data Setup
15-06	Trunk Access Map for Extension
15-07	Programmable Function Key
15-08	Incoming Virtual Extension Ring Tone Setup
15-09	Virtual Extension Ring Assignment
15-10	Incoming Virtual Extension Ring Tone Order Setup
15-11	Virtual Extension Delayed Ring Assignment
15-12	Conversation Recording Destination for Extension
20-06	Class of Service for Extension
21-02	Trunk Group Routing for Extensions
21-04	Toll Restriction Class for Extensions
21-07	Toll Restriction Override Password Setup
21-11	Hotline Assignment
23-02	Call Pickup Group
23-03	Ringing Line Preference
23-04	Ringing Line Preference for Virtual Extensions
24-03	Park Group Assignment
31-02	Internal Paging Group Assignment

Keep the following items in mind when using the Extension Data Swap function:

- Any user-defined programming stored in the SRAM will not be swapped (for example, Call Forward set up, Selectable Display Messaging, etc.).
- ***The extensions to be swapped must be idle*** while the swap is performed, or an "Invalid" error message will be received.
- Data for virtual extension's cannot be swapped.
- When a swap is performed, the following actions are executed for the swapped extensions.
 - Camp On Clear (Program 11-12-05)
 - Common Cancel (Program 11-12-37)
 - Last Number Redial Clear (Program 11-12-17)
 - Saved Number Clear (Program 11-12-18)
 - Incoming History data is deleted.

- **Using Program 92-04-01 will also swap the order in which these extensions are displayed in all extension-related programs.** This means that the UX5000 will no longer display all the extension numbers from low to high. For example, if port 2 and 6 were swapped, when viewing the extensions in 15-02-01, the extensions will display in the following order: 301, 306, 303, 304, 305, 302.
- When swapping IP extensions, the terminals will automatically reset once swapped.

Extension Data Swap by Service Code / Secure Set Relocation

The UX5000 provides the ability to swap an extension's programming to another extension number using **Program 92-04-01 : Extension Data Swap**.

The extension data can be swapped using a service code as well. With this option, the user must enter a 4-digit password (fixed at 4 digits) in order to complete the swap.

The following extension-based programs will be swapped:

Program No.	Program Name
11-02	Extension Numbering
12-05	Night Mode Group Assignment for Extensions
13-03	Abbreviated Dialing Group Assignment for Extensions
15-01	Extension Basic Data Setup (include Virtual Extension)
15-02	Multi-Line Terminal Basic Data Setup
15-03	Single Line Terminal Basic Data Setup
15-06	Trunk Access Map for Extension
15-07	Programmable Function Key
15-08	Incoming Virtual Extension Ring Tone Setup
15-09	Virtual Extension Ring Assignment
15-10	Incoming Virtual Extension Ring Tone Order Setup
15-11	Virtual Extension Delayed Ring Assignment
15-12	Conversation Recording Destination for Extension
15-13	Loop Keys
15-14	Programmable One-Touch Keys
16-02	Department Group Assignment for Extensions
20-06	Class of Service for Extension
21-02	Trunk Group Routing for Extensions
21-04	Toll Restriction Class for Extensions
21-07	Toll Restriction Override Password Setup
21-10	Dial Block Restriction Class Per Extensions
21-11	Hotline Assignment
21-13	ISDN Calling Party Number Setup for Extensions
21-15	Individual Trunk Group Routing for Extensions
21-18	IP Trunk Calling Party Number Setup for Extensions
21-19	IP Trunk (SIP) Calling Party Number Setup for Extensions

Maintenance

Program No.	Program Name
21-20	SIP Trunk Call Discernment Setup for Extensions
22-04	Incoming Extension Ring Group Assignment
22-06	Normal Incoming Ring Mode
23-02	Call Pickup Group
23-03	Ringing Line Preference
23-04	Ringing Line Preference for Virtual Extensions
24-03	Park Group Assignment
24-06	Fixed Call Forwarding
24-07	Fixed Call Forwarding Off-Premise
26-04	ARS Class of Service
26-07	Not used in U.S.
31-02	Internal Paging Group Assignment
41-02	ACD Group and Agent Assignments
41-17	ACD Login Mode Setup
42-02	Hotel/Motel Terminal Setup
92-05	Password for Extension Data Swap

Secure Set Relocation Conditions

- Any user-defined programming stored in the SRAM will not be swapped (for example, Call Forward set up, Selectable Display Messaging, etc.).
- The extensions to be swapped must be idle while the swap is performed, or an "Invalid" error message will be received.
- Data for virtual extension's cannot be swapped.
- When a swap is performed, the following actions are executed for the swapped extensions.
 - Camp On Clear (Program 11-12-05)
 - Common Cancel (Program 11-12-37)
 - Last Number Redial Clear (Program 11-12-17)
 - Saved Number Clear (Program 11-12-18)
 - Incoming History data is deleted.
- Using this option will also swap the order in which these extensions are displayed in all extension-related programs . This means that the UX5000 will no longer display all the extension numbers from low to high. For example, if port 2 and 6 were swapped, when viewing the extensions in 15-02-01, the extensions will display in the following order: 301, 306, 303, 304, 305, 302.
- When swapping IP extensions, the terminals will automatically reset once swapped.

Alarm Reports

The UX5000 logs various errors and information about the operation which can be used to determine the cause of a problem (up to 100 individual alarms are stored, then oldest data is deleted to allow for new information to be stored). The UX5000 can indicate the errors using one of the following methods:

- On a keyset's display
- Output information to a PC via the COM port, the RS-232C port using a CTA Adapter (the CTA Adapter must be connected to an Aspire keyset) or PC terminal connected using Telnet
- Send the data via EMail
- PCPro's Alarm Report
- UX5000-SNMP Manager
- Save the information to a USB thumb drive
- CCPU LED lights when alarm generated

When an alarm is displayed using the CygniLink feature, as the alarm information is shared between UX5000s, the display will indicate the CygniLink system ID as part of the alarm notification. Each linked communications server can have a display terminal defined (for a maximum of 50). For example:

```
SID:XX-### MM/DD HH:MM  
SMDR # full
```

SID:XX = System ID xx

XXX = Alarm Number

MM/DD HH:MM = Month, Date, Hour and Minute When Alarm Generated

Sample Report Through RS-232C / CTA Port:

<< Alarm Report >>										08/20/2007 14:12	PAGE 001
LVL	NO	STAT	DATE	TIME	ITEM	UNIT	SLT	PRT	PARAMETER		
MIN	0002	ERR	2007/8/20	11:34	PKG Installation	VOIPU	6	0			
MAJ	8	ERR	2007/8/20	13:47	Memory Backup Bat	none	0	0			
MIN	0051	WAR	2007/8/20	15:34	System Data Change	none	0	0			

Conditions

- There are two versions of UX5000 software files - one when no MEMDB is installed on the CCPU and one with the MEMDB installed. The UX5000 will prevent the incorrect version of software from being loaded into the UX5000 (i.e., with no MEMDB installed, you will not be able to load the MEMDB version of software).

Default Setting

Enabled.

Programming

System Maintenance

- **10-12-01 : CPU (FEC1) Network Setup - IP Address**
Enter the IP address of the UX5000 CPU (FEC1).
- **10-44-01 : CPU (FEC2) Network Setup - IP Address**
Enter the IP address of the UX5000 CPU (FEC2).
- **11-11-13 : Service Code Setup (for Setup/Entry Operation) - Display Language Selection for Keypad**
Define the service code to be used to change the language shown on display keysets (default: 178).
- **11-15-01 : Service Code Setup, Administrative (for Special Access) - Remote Maintenance**
Set the service code used in the dial-up number when using the USB port for PCPro or WebPro (default: 830).
- **11-15-03 : Service Code Setup, Administrative (for Special Access) - Backup Data Save**
This option will save the user's soft key settings (extension's programmed Call Forwards, DND, etc.). It is recommended to use this feature before upgrading the UX5000 software.
- **20-01-12 : System Options - TelPro/WebPro Automatic Logout Timer**
For each extension, determine how long the UX5000 waits (1-86400 seconds) with no communication between the user and the UX5000 before logging the user out of programming. This option affect both terminal programming and WebPro (default: 900 [15 minutes]).
- **20-01-13 : System Options - User Programming Language Mode**
For each extension, set the language to be displayed when a user logs into the UX5000 (0:English, 1:German, 2:French, 3:Italian, 4:Spanish, 5:Dutch, 6:Portuguese, 7:Norwegian, 8:Danish, 9:Swedish).
- **90-02-01 : Setting the Programming Password**
Set the user name and password level. User levels range from 1-8.
- **90-03-01 : Save Data**
Save the programmed data on the SRAM and Flash ROM to a USB thumb drive installed on the CCPU.
- **90-04-01 : Load Data**
Load the saved UX5000 data from a USB thumb drive installed on the CCPU to the SRAM and Flash ROM in the UX5000.
- **90-05-01 : Slot Control**
Reset (Menu 1), delete/uninstall (Menu 2), circuit boards (slots 1-16) as needed through either terminal programming or WebPro access.
- **90-06-01 : Trunk Control**
Busy Out (0) lets you block a blade from placing outgoing calls. Once busied out, none of the ports on the blade can be used for new calls. Existing calls, however, are not disconnected. Release the Busy Out state by entering "1" for the trunk. This option is available through terminal programming, PCPro or WebPro access.
- **90-07-01 : Extension Control**
Perform a hardware (1) or software (2) reset on a particular extension as needed through either terminal programming or WebPro access.
- **90-08-01 : System Reset**
Perform a UX5000 reset as needed through either terminal programming or WebPro access.
- **90-26 : Program Access Level Setup**
Define the password access level (1-4) required to change a UX5000 program.

- **99-01-56 : MF Options - TelPro Operation Mode Setting (Aspire Keypad Only)**
This option is used to change the operational mode of terminal programming (key operation and cursor initial position) to the UX5000 mode (0 = MIC key used to exit program option and cursor on first line) or to change to the Aspire mode (1 = MSG key used to exit program option and cursor on second line).
Note: Changing this option when UX5000 keysets are used for programming will cause difficulties in programming as there is no MSG key which is required to escape from a program option (the HOLD key must be continually pressed until all options of the program have been scrolled through).
- **99-01-69 : MF Options - Terminal Programming Initial Cursor Position**
Determine the location of the cursor when in the terminal program mode. Selecting UX5000 Mode (0) will place the cursor on the first line, selecting Aspire Mode (1) will place the cursor on the second line.

System Alarm Reports

Basic Programming

- **90-10-01 : System Alarm Setup - Alarm Type**
Assign a status to system alarms (001-100). You can designate an alarm as Major or Minor (0=no notification, 1=major alarms displayed, 2=minor alarms displayed).
- **90-10-02 : System Alarm Setup - Report**
This program assigns whether or not the alarm is displayed to a key terminal and whether or not the alarm information is reported to the pre-defined destination (0=no report, 1=report).
- **90-12-05 : System Alarm Output - Clear All Alarm Reports**
Entering 1 will clear all alarm reports.
- **90-12-06 : System Alarm Output - Output Mode**
Select either manual (0) or automatic (1) alarm reports.
- **90-24-01 - 90-24-04 : System Alarm Report Notification Time Setup**
Set the month (00=disabled, 01-12), day (00-31), hour (00-23), and minute (00-59) that the alarm report should print. Up to 12 time settings can be programmed (01-12). This report will indicate both major and minor alarms.
- **90-50-01 : System Alarm Report - System Alarm Display Terminal**
For each network (1-50), assign the display keypad's extension number that should receive system alarms.

Printing Reports - in addition to the Basic Programming above

- **90-12-01 : System Alarm Output - Output Port Type**
Define the output port to be used as the output for system alarm report (0=no setting, 5=USB Thumb Drive). The UX5000 can have up to 50 reports.
- **90-52-01 : System Alarm Output - Save All Alarm Reports**
Entering 1 will output/save all alarm reports.
- **90-52-02 : System Alarm Output - Save All New Alarm Reports**
Entering 1 will output/save all new alarm reports.
- **90-53-01 : Clear System Alarm Reports**
Entering 1 will clear all alarm reports.

Maintenance

Emailing Reports - in addition to the Basic Programming above

- **10-12-01 : CPU (FEC1) Network Setup - IP Address**
Select the IP address for the IP connection (default: 172.16.0.10). A static IP address is required by the CPU (FEC1). The UX5000 must be reset in order for the change to take effect.
- **10-12-02 : CPU (FEC1) Network Setup - Subnet Mask**
Select the Subnet Mask to be used by the IP server (default: 255.255.0.0).
- **10-12-03 : CPU (FEC1) Network Setup - Default Gateway**
If required, select the default gateway IP address to be used when using a router (default: 0.0.0.0).

Extension Data Swap/Secure Set Relocation

- **11-15-12 : Service Code Setup, Administrative (for Special Access) - Extension Data Swap**
Define the service code (up to 8 digits) to be used with the Extension Data Swap feature. By default, there is no entry.
- **20-13-42 : Class of Service Options (Supplementary Service) - Extension Data Swap**
Determine if the Extension Data Swap feature is allowed for a user's COS with the defined service code and password. This program can be used to enable (1) or disable (0) this option for an extension user.
- **92-04-01: Extension Data Swap**
Enter the two extension numbers which should be swapped. After pressing HOLD, the UX5000 data for the programs listed in the table above will be swapped. Any user-defined programming stored in the SRAM will not be swapped (for example, Call Forward set up, Selectable Display Messaging, etc.).
- **92-05-01 : Password for Extension Data Swap**
This program defines the 4-digit password to be used by each extension when using the Extension Data Swap feature using a service code (Entries: 0 - 9, *, # [Fixed at 4 digits])

Related Features

CygniLink

The alarm reports will provide the system ID number (SID) and the alarms reports can be shared between networked system when a secondary link is used to another system. However, if this link is broken, the ability to refer to the primary system's alarm report is lost.

Operation

To check your extension's data (Keypad Only):

1. Press CHECK.
2. Press CALL1.

Your display shows your terminal's extension number, port number and extension/Department Group.

You can also check any other extension numbers information by pressing CHECK + the extension number.

3. Press CLEAR to return the normal time/date display.

To perform an extension swap using Secure Set Relocation:

1. From one of the terminals which is to be swapped, dial the Extension Data Swap service code (defined in Program 11-15-12).
If the password is not set in Program 92-05, a warning tone is heard.
If VRS is installed in the UX5000, the message "The number you have dialed is not in service" is heard.
2. Dial the 4 digit password.
*The password is displayed as * (asterisk).*
If an incorrect password is entered, a warning tone is heard.
3. Dial the extension number which is to be swapped.
If an incorrect number is dialed, a warning tone is heard.
4. A confirmation tone is heard if the swap is completed.
If it is not possible to swap the extension data, a warning tone is heard.

Meet Me Conference

Feature Availability

- Available - CCPU provides 2 blocks of 32 conference circuits, allowing each block to have any number of internal or external parties conferenced up to the block's limit of 32.

Description

With Meet Me Conference, an extension user can set up a Conference with their current call and up to 31 other internal or external parties, for a total of 32 participants. Each party joins the Conference by dialing a Meet Me Conference code. Meet Me Conference lets extension users have a telephone meeting -- without leaving the office.

Conditions

- Each block assigned in Program 10-07 for Conversation Recording reduces the number of blocks available for Conference, Recording, ACD Agent Auto Call Recording, and ACD Supervisor Monitor.

Default Setting

Enabled.

Programming

Note: For additional programming for Paging, refer to the Paging External and Paging Internal features.

- **10-07-01 : Conversation Record Circuits**
The number of circuits assigned as Conversation Record circuits limits the number of available Conference circuits. Make sure there are circuits available for Conference.
- **15-07-01 : Programmable Function Keys**
Assign function keys for Conference (code 07), External Zone Paging (code 19 + zone), External All Call Paging (code 20), Internal Zone Paging (code 21 + zone) and Meet Me Conference/Paging Pickup (code 23).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-10-06 : Class of Service Options (Answer Service) - Meet Me Conference and Paging**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to initiate a Meet Me Conference or Meet Me Page.
- **31-01-04 : System Options for Internal/External Paging - Privacy Release Time**
Set the Privacy Release Time (0-64800 seconds). Once the user initiates Meet Me Conference, the UX5000 waits this interval for the Paged party to join the conversation.

Related Features

Conference

An extension user can also use other types of Conferences to join callers together.

Meet Me Paging

An extension user can have a telephone meeting with a co-worker on a Page zone.

Programmable Function Keys

Meet Me Conference requires a Conference key. In addition, Internal and External Paging keys simplify Meet Me Conference operation.

*1#1*1 **Meet Me Internal Conference:**

To make a Meet Me Internal Conference:

Keypad

1. While on a call, press Conference key (PGM 15-07 or SC 851: 07).
2. Dial 801 and the Internal Paging Zone code (0-9 or 00-64).
OR
Dial *1 and the Combined Paging Zone code 1-8 (for Internal/External Zones 1-8) or 0 (for Internal/External All Call).
3. Announce the zone.
4. When co-worker answers your page, press the Conference key twice.
5. Repeat steps 1-4 for each co-worker you want to add.

Single Line Terminal

1. While on a call, hookflash and dial #1.
2. Dial 801 and the Internal Paging Zone code (0-9 or 00-64).
OR
Dial *1 and the Combined Paging Zone code 1-8 (for Internal/External Zones 1-8) or 0 (for Internal/External All Call).
3. Announce the zone.
4. When co-worker answers your page, press the hookflash twice.
5. Repeat steps 1-4 for each co-worker you want to add.

To join a Meet Me Internal Conference:

1. At keypad, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 863 (if your extension is in the zone called).
OR
Dial 864 and the zone number (if your extension is not in the zone called).
OR
Press the Meet Me Conference/Paging Pickup key (PGM 15-07 or SC 851: 23) if your extension is in the zone called.

Meet Me Paging

Feature Availability

- Available.

Description

Meet Me Paging allows an extension user to Page a co-worker and privately meet with them on a Page zone. The Paging zone is busy to other users while the meeting takes place. While the co-workers meet on the zone, no one else can hear the conversation, join in or make an announcement using that zone. Meet Me Paging is a good way to talk to a co-worker when their location is unknown. If the co-worker can hear the Page, they can join in the conversation.

Conditions

- External paging requires a 2PGDAD module be installed in the UX5000.

Default Setting

Enabled.

Programming

Note: For additional programming information on Paging, refer to the Paging External and Paging Internal features.

- ➔ **15-07-01 : Programmable Function Keys**
Assign function keys for External Zone Paging (code 19 + zone), External All Call Paging (code 20), Internal Zone Paging (code 21 + zone) or Meet Me Conference/Paging Pickup (code 23).
- ➔ **20-06-01: Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ➔ **20-10-06 : Class of Service Options (Answer Service) - Meet Me Conference and Paging**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to initiate a Meet Me Conference or Meet Me Page.

Related Features

Meet Me Conference

An extension user can set up a Conference with their current call and up to 31 other inside parties.

Meet Me Paging Transfer

With Meet Me Paging Transfer, a user can page a co-worker and have the call automatically transfer when the co-worker answers the page.

Paging, Internal / Paging, External

An extension's access to internal and external page zones affects the Meet Me Paging feature.

Programmable Function Keys

Internal and External Paging keys simplify Meet Me Paging operation.

Operation

Meet Me External Page

To make a Meet Me External Page:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 803 and the External Paging Zone code (1-8 or 0 for All Call).
OR
Dial *1 and the Combined Paging Zone code 1-8 (for Internal/External Zones 1-8) or 0 (for Internal/External All Call).
3. Announce the zone.
OR
1. At keyset, press the External Paging Zone key (PGM 15-07 or SC 851: 19 + zone & 20).
2. Announce the zone.

To join a Meet Me External Page:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 865.
3. Dial the announced External Paging Zone (0-8).
You connect to the other party.

Meet Me Internal Page

To make a Meet Me Internal Page:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 801 and dial the Internal Paging Zone code (0-9, 00-32 or 00-64).
OR
Dial *1 and the Combined Paging Zone code 1-8 (for Internal/External Zones 1-8) or 0 (for Internal/External All Call).
3. Announce the zone.
OR
1. At keyset, press the External Paging Zone key (PGM 15-07 or SC 851: 19 + zone & 20).
2. Announce the zone.

Meet Me Paging

To join a Meet Me Internal Page:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 863 (if your extension is in the zone called).
OR
Dial 864 and the zone number (if your extension is not in the zone called).
OR
Press the Meet Me Conference/Paging Pickup key (PGM 15-07 or SC 851: 23) if your extension is in the zone called.

Feature Availability

- Available.

Description

If a user wants to Transfer a call to a co-worker but they don't know where the co-worker is, they can use Meet Me Paging Transfer. With Meet Me Paging Transfer, the user can Page the co-worker and have the call automatically Transfer when the co-worker answers the Page. Since Meet Me Paging Transfer works with both Internal and External Paging, a call can be quickly extended to a co-worker anywhere in the facility.

Conditions

- External paging requires a 2PGDAD module be installed in the UX5000.

Default Setting

Enabled.

Programming

Note: For additional programming information on Paging, refer to the Paging External and Paging Internal features.

◆→ **15-07-01 : Programmable Function Keys**

Assign function keys for External Zone Paging (code 19 + zone), External All Call Paging (code 20), Internal Zone Paging (code 21 + zone) and Meet Me Conference/Paging Pickup (code 23).

◆→ **20-06-01 : Class of Service for Extensions**

Assign a Class Of Service (1-15) to an extension for each night mode (1-8).

◆→ **20-10-06 : Class of Service Options (Answer Service) - Meet Me Conference and Paging**

In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to initiate a Meet Me Paging Transfer.

Meet Me Paging Transfer

Related Features

Meet Me Conference

An extension user can set up a Conference with their current call and up to 31 other inside parties.

Meet Me Paging

An extension user can Page a co-worker and meet with them on a Page zone.

Paging, External

With External Paging, an extension user can broadcast an announcement over Paging equipment connected to external Paging zones.

Paging, Internal

Internal Paging lets extension users broadcast announcements to other keysets.

Programmable Function Keys

Function keys simplify Meet Me Paging Transfer operation.

Operation

Meet Me External Paging Transfer

To make a Meet Me External Paging Transfer:

1. At keyset, while on a call, press HOLD.
OR
At single line terminal, while on a call, hookflash.
2. Press the External Paging Zone key (PGM 15-07 or SC 851: 19 + zone & 20).
OR
Dial 803 and the External Paging Zone code (1-8 or 0 for All Call).
OR
Dial *1 and the Combined Paging Zone code 1-8 (for Internal/External Zones 1-8) or 0 (for Internal/External All Call).
3. Announce the call.
4. When Paged party answers, hang up to Transfer the call to them.

To join a Meet Me External Paging Transfer:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 865.
3. Dial the announced External Paging Zone (0-8).
You connect to the Paging party.
4. Stay on the line.
After the Paging party hangs up, you connect to the transferred call.

Meet Me Internal Paging Transfer

To make a Meet Me Internal Paging Transfer:

1. At keyset, while on a call, press HOLD.
OR
At single line terminal, while on a call, hookflash.
2. Press Internal Paging Zone key (PGM 15-07 or SC 851: 20 + zone).
OR
Dial 801 and the Internal Paging Zone code (0-9 or 00-64).
OR
Dial *1 and the Combined Paging Zone code 1-8 (for Internal/External Zones 1-8) or 0 (for Internal/External All Call).
3. Announce the call.
4. When Paged party answers, hang up to Transfer the call to them.
The answering party connects to the trunk call when you hang up.

To join a Meet Me Internal Paging Transfer:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 863 (if your extension is in the zone called).
OR
Dial 864 and the zone number (if your extension is not in the zone called).
OR
Press the Meet Me Conference/Paging Pickup key (PGM 15-07 or SC 851: 23) if your extension is in the zone called.
3. Stay on the line.
After the Paging party hangs up, you connect to the transferred call.

Memo Dial

Feature Availability

- Available.

Description

While on an outside call, Memo Dial lets a display keyset user store an important number for easy redialing later on. The terminal can be like a notepad. For example, a user could dial Directory Assistance and ask for a client's telephone number. When Directory Assistance plays back the requested number, the caller can use Memo Dial to jot the number down in the teleterminal's memory. They can quickly call the Memo Dial number after hanging up.

When a user enters a Memo Dial number, the dialed digits do not output over the trunk. Dialing Memo Dial digits does not interfere with a call in progress.

Conditions

When Memo Dial calls out, it outdials the entire stored number. Memo Dial does not automatically strip out trunk or PBX access codes if entered as part of the stored number.

Default Setting

Disabled.

Programming

- ◆▶ **15-07-01 : Programmable Function Keys**
Assign a function key for Memo Dial (code 31).

Related Features

Central Office Calls, Placing

A user's outgoing dialing options affect how a Memo Dial call is placed.

Last Number Redial

Quickly redial the last outside number dialed.

Save Number Dialed

Save the last outside number dialed.

Single Line Terminals

Memo Dial is not available at single line terminals.

Operation

To store a number while you are on a call:

1. While on a call, press Memo Dial key (PGM 15-07 or SC 851: 31).
2. Dial number you want to store.
3. Press Memo Dial key again and continue with conversation.

To call a stored Memo Dial number:

1. Do not lift the handset.
2. Press Memo Dial key (PGM 15-07 or SC 851: 31).
3. Press idle CALL key.

The stored number dials out only if you store a trunk access code before the number.

OR

Press line key.

The stored number dials out.

To check to see the stored Memo Dial number:

1. Do not lift handset.
2. Press Memo Dial key (PGM 15-07 or SC 851: 31).

The stored number displays.

To cancel (erase) a stored Memo Dial number:

1. Press idle CALL key.
2. Press Memo Dial key (PGM 15-07 or SC 851: 31).

Message Waiting

Feature Availability

- Available.

Description

An extension user can leave a Message Waiting indication at a busy or unanswered extension requesting a return call. The indication is a flashing MW lamp at the called extension and a steadily lit MW lamp on the calling extension. Answering the Message Waiting automatically calls the extension which left the indication. Message Waiting ensures that a user will not have to recall an unanswered extension. It also ensures that a user will not miss calls when their extension is busy or unattended. Additionally, Message Waiting lets extension users:

- View and selectively answer messages left at their extension (display keyset only)
- Cancel all messages left at their extension
- Cancel messages they left at other extensions

An extension user can leave Messages Waiting at any number of extensions. Also, any number of extensions can leave a Message Waiting at the same extension. **Single Line Terminal MW Indication Option**

An option is available for analog single line terminals which provide a display. When a user leaves a Message Waiting for a SLT which has a display, **Program 15-03-13 : Single Line Terminal Basic Data Setup - MW Signal Type** is used to determine whether the SLT user will see a MW LED indication or if the Caller ID will be used to display the call. In addition, if a Message Waiting or Voice Mail message is left at a SLT, **Program 15-03-17 : Single Line Terminal Basic Data Setup - Dial Ton Select** can be used to provide an initial stutter dial tone (three beeps then normal dial tone) when the SLT handset is lifted.

Default Setting

Enabled.

Programming

- **11-10-16 : Service Code Setup (for System Administrator) - Leaving Message Waiting**
11-11-09 : Service Code Setup (for Setup/Entry Operation) - Answer Message Waiting
11-11-10 : Service Code Setup (for Setup/Entry Operation) - Cancel All Messages Waiting
11-11-11 : Service Code Setup (for Setup/Entry Operation) - Cancel Message Waiting
11-12-37 : Service Code Setup (for Service Access) - Common Canceling Service Code
11-16-07 : Single Digit Service Code Setup - Message Waiting
If necessary, customize the service codes used for these features.
- **15-02-28 : Multi-Line Terminal Basic Data Setup - Message Wait LED**
This option allows you to select whether the Message Wait LED located at the top of the keyset will flash green (0) or red (1) when a Message Wait indication is flashing. Note that if this LED is also used for voice mail indications (no Programmable Function Key programmed for voice mail), if there are both voice mail messages and Message Wait indications, the color set for Message Wait will override the color used for voice mail indications (red).
- **15-02-35 : Multi-Line Terminal Basic Data Setup - Message Waiting Lamp Cycle for Calling Extension**
This program can select the MW lamp LED cycle (1-7) when you send a Message Wait to an extension.

- **15-02-36 : Multi-Line Terminal Basic Data Setup - Message Waiting Lamp Cycle for Called Extension**
This program can select the MW lamp LED cycle (1-7) when you receive a Message Wait indication.
- **15-02-38 : Multi-Line Terminal Basic Data Setup - Voice Mail Message Waiting Lamp Cycle**
Use this option to select the Message Waiting lamp LED cycle (1-7) when you have new voice mail messages.
- **15-03-09 : Single Line Terminal Basic Data Setup - Caller ID Function - For External Module**
In order to get a third party SLT to show Caller ID Message Waiting, this option must be set to "1". Also refer to Programs 15-03-10 and 15-03-11. For only a Message Waiting LED indication, set this option to "1" and set 15-03-13 to "0".
- **15-03-10 : Single Line Terminal Basic Data Setup - Caller ID Name**
Determine if an extension user's terminal should display the Caller ID name (0=disable, 1=enable).
- **15-03-11 : Single Line Terminal Basic Data Setup - Caller ID Type**
This option allows you to set the type of Caller ID - FSK (0) or DTMF (1) - received by a SLT.
- **15-03-13 : Single Line Terminal Basic Data Setup - MW Signal Type**
An option is available for analog single line terminals which provide a display. When a user leaves a Message Waiting for a SLT which has a display, this option is used to determine whether the SLT user will see a MW LED indication (0) or if the Caller ID will be used to display the call (1).
- **15-03-17 : Single Line Terminal Basic Data Setup - Dial Tone Select**
When an SLT user has received a Message Waiting or Voice Mail message, this option allows the UX5000 to provide an initial stutter dial tone (three beeps then normal dial tone) when the SLT handset is lifted. This program has two options: *Normal Dial Tone (0)* and *New Dial Tone (1)*. By default, this option is set to 0 for all extensions.
- **15-07-01 : Programmable Function Keys**
Assign a function key for Message Waiting (code 38).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-13-07 : Class of Service Options (Supplementary Service) - Message Waiting**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to leave Messages Waiting.
- **24-02-05 : System Options for Transfer - Message Wait Ring Interval Timer**
For SLTs without message waiting lamps, this timer determines the amount of time between intermittent ringing. If this timer is set to '0' then the UX5000 rings once.
- **80-01-01 : Service Tone Setup - Tone 53, Message Wait Dial Tone**
If the default tone is not acceptable for the Message Wait Dial Tone, a new tone can be assigned.

Related Features

Handsfree Answerback/Forced Intercom Ringing

When a user responds to a Message Waiting, the UX5000 does not cancel the Message Waiting indication if the called party uses Handsfree Answerback. The UX5000 cancels the indication only if the called party lifts the handset or presses SPK.

Hotel/Motel

With the Hotel/Motel set up, an employee with a keyset can send a Message Waiting to a room terminal if allowed in UX5000 programming.

Message Waiting

Programmable Function Key

A Message Waiting key simplifies this feature's operation.

Operation

To leave a Message Waiting:

1. Call busy or unanswered extension.
2. Dial 0 or press Message Waiting key (PGM 15-07 or SC 851: 38)
3. Hang up.

With keyset terminals, the MW LED lights.

To answer a Message Waiting:

When you have a message, your MW LED flashes fast for keysets.

1. At a keyset, press idle CALL key and dial *0.

OR

Press Message Waiting key (PGM 15-07 or SC 851: 38).

OR

At single line terminals, lift the handset and dial *0.

If the called extension doesn't answer, dial 0 or press your Message Waiting key to automatically leave them a message.

Normally, your MW LED goes out. If it continues to flash, you have new messages in your "Voice Mail" mailbox or a new "General Message". Go to "To check your messages" below.

To cancel all your Messages Waiting:

This includes messages you have left for other extensions and messages other extension have left for you.

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 873.
3. Hang up.

To cancel the Messages Waiting you have left at a specific extension:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 871.
3. Dial number of extension you don't want to have your messages.
4. Hang up.

To check your messages:

1. Press CHECK
2. Dial *0.

You can have any combination of the message types in the table below on your terminal.

If you see . . .	You have . . .
VOICE MESSAGE n MESSAGE	New messages in your Voice Mail mailbox
CHECK MESSAGE VRS GENERAL MESSAGE	A General message in Voice Mail that has not been heard.
CHECK MESSAGE (name)	Message Waiting requests left at your terminal by your co-workers.

3. Press the Navigation Pad up or down to scroll through your display.
4. When you find the message you want to answer, press CALL1. You'll either:
 - Go to your Voice Mail mailbox.
 - Listen to the new General Message.
 - Automatically call the extension that left you a Message Waiting.

MH250 Wireless IP DECT Terminal

Feature Availability

- Available.

Description

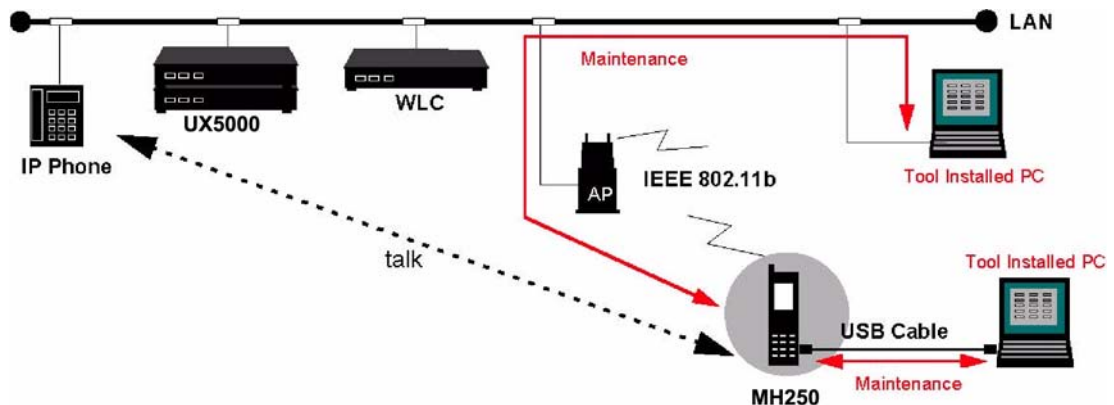
MH250 is a wireless IP terminal set that complies with IEEE 802.11b specifications. MH250 has the following features:

- Single line terminal PCS/PHS equivalent features by connecting with UX5000 and WLAN.
- MH250 dedicated features such as Short Message, Presence (Note), Phone Book, Call Log, Speed Dial, and Courtesy Mode.
- Easy maintenance by using a suite of GUI based tools are also available. For example, the firmware of MH250 can be updated by using one of the tools - Update Tool. You can run the tools on your PC, which is connected to the terminal via a USB cable or via LAN.



Note: While the MH250 terminal can be configured to support Presence functionality, it is important that the Presence server also supports NEC Extended SIP. Please refer to your specific Presence Server Documentation.

The following shows a system configuration that is composed of MH250 and the related equipment. To use MH250, the related equipment must be installed and configured properly in advance. For easy maintenance, a suite of useful maintenance tools are also available. Note that the tools can be used either via WLAN or via USB.



Refer the Wireless IP Terminal manual and user guide for complete installation and setup information.

Conditions

None

Default Setting

Enabled.

Operation

The current operation of the MH250 terminals provide the same functionality as a standard SIP single line terminal.

Microphone Cutoff

Feature Availability

- Available.

Description

Microphone Cutoff lets a keyset user turn off their terminal's handsfree or handset microphone at any time. When activated, Microphone Mute prevents the caller from hearing conversations in the user's work area. The user may turn off the microphone while their terminal is idle, busy on a call or ringing. The microphone stays off until the user turns it back on.

Conditions

Barge In to an extension with Handset Transmission Cutoff activated will deactivate the mute and it must be reactivated after the Barge In has been completed.

Default Setting

Enabled (using MIC key).

Programming

➤ 15-07-01 : Programmable Function Keys

If an extension needs handset microphone cutoff, program a Handset Transmission Cutoff key (code 40). To program a Mic Cutoff key, use code 02 as the entry. The Mic Cutoff key will mute conversation on a handsfree call, while the Handset Transmission Cutoff key will mute the handset transmission on a non-handsfree or handsfree call.

➤ 20-02-11 : System Options for Multi-Line Terminals - Handsfree Microphone Control

Use this option to set the default setting for a keyset's Handsfree microphone. If set to 0, a user can place a call Handsfree without lifting the handset. If set to 1, a user can place a call Handsfree but must lift the handset to talk or press their MIC key.

Related Features

Barge In

If the Handset Transmission Cutoff function key is activated (Programmable Function Key code 40), when another user barges in on the extension with Handset Transmission Cutoff activated, the mute function will be turned off. It cannot be reactivated until the barge in has been completed. Then, the user can press the Handset Transmission Cutoff function key again in order to turn the mute feature back on.

Handsfree Answerback/Forced Intercom Ringing

Microphone Cutoff does not operate if the user calls another extension and the called extension responds without lifting the handset or pressing SPK. With Microphone Cutoff enabled, Handsfree Answerback callers to an extension hear a single beep (instead of two).

Programmable Function Keys

Handset Microphone Cutoff requires a uniquely programmed function key.

Single Line Terminals

Single line terminals cannot use Microphone Cutoff.

Operation

To mute your terminal's handset or Handsfree microphone while on a call:

1. Press MIC or the Mic Programmable Function Key (PGM 15-07 or SC 851: 02).

This only turns off the Handsfree microphone.

OR

- Press Microphone Cutoff key (PGM 15-07 or SC 851: 40).

This turns off both the handset and Handsfree microphone.

To turn your terminal's microphone back on:

1. Press MIC or the Mic Programmable Function Key (PGM 15-07 or SC 851: 02).

Use MIC only if you pressed it initially to turn off your Handsfree microphone.

OR

- Press Microphone Cutoff key (PGM 15-07 or SC 851: 40).

Use the Microphone Cutoff key only if you pressed it initially to turn off your handset or Handsfree microphone.

Mobile Extension

Feature Availability

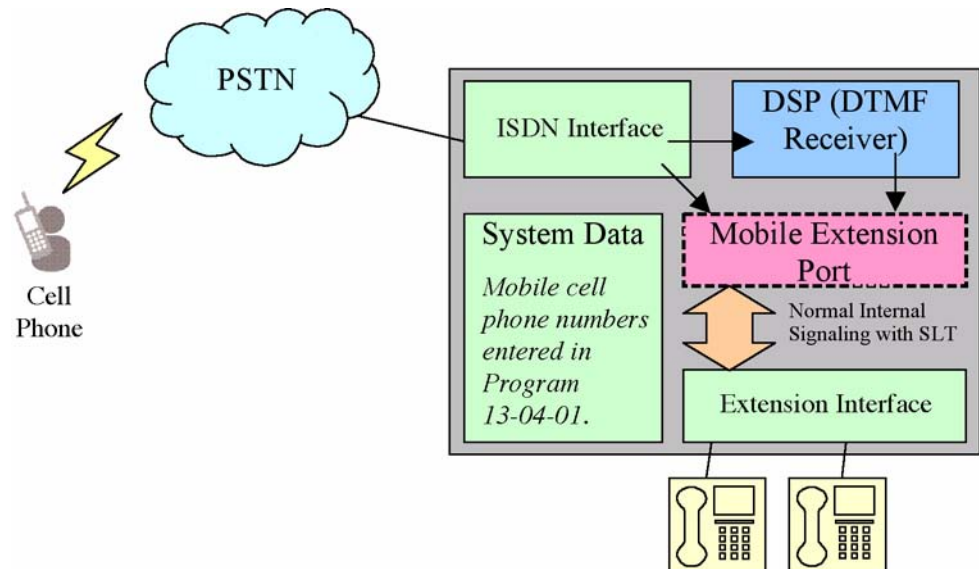
- Available.

Description

**Currently, this feature is only released using PRI or SIP trunks.
Analog trunk usage may be available in a future release.**

A mobile extension is an external terminal (preferably a mobile phone) linked to the UX5000 via a Proxy Port in order to operate as an internal SLT extension. The extension sends DTMF signals to the UX5000 allowing access to the UX5000 features. A registered Mobile Extension uses 1 analog port (ports are reserved in groups of 4), however, **no** blade support (analog or digital) is required. In addition, the Mobile Extension port must be an unequipped extension port on the UX5000 - no physical keyset is required on the UX5000.

Note: A mobile extension cannot be used as a voice mail port.



The number of Mobile Extensions per UX5000 is based on the number of extension ports in the UX5000. For smaller systems, it is important to remember that the number of Mobile Extension ports = 25% of physical ports (8 ports allows for 2 Mobile Extension entries).

This restriction is based on the number of ports which could be required to call the mobile extension (for example: 1 port for an Cygnifier keyset, 1 port for the Mobile Extension, and 1 or 2 trunk ports - depending on whether the call being sent to the Mobile Extension is an intercom call or an outside caller).

With larger systems (64 ports and higher), the limitation is basically limited only by available unequipped extension ports.

In the event of the limit being reached, the Mobile Extensions will be able to be added in programming, but will give the indication of an invalid dial entry when called.

This feature can currently be used with ISDN PRI trunks or SIP trunks.

Note: In order to provide a proper disconnect, Disconnect Supervision is required for the trunks used for this feature.

The Mobile extension's internal extension number (Proxy Port) is linked to an abbreviated dial bin to provide integration.

Note: If all external trunks are busy when a call is made to the mobile extension, ring-back tone is presented giving the impression the phone is ringing.

A DID is directed to the Mobile Extension's internal extension number (Proxy Port) and, in order to provide internal dial tone to the Mobile Extension, the incoming CLI of the Mobile Extension must match the number in the Abbreviated Dial bin. Once internal dial tone is presented, the operation is similar to an SLT lifting its handset.

In the absence of DID's, the VRS can be used to transfer the Mobile Extension call to the Mobile Extension extension number. This will provide internal dial tone providing the CLI is presented and matches the number in the associated Abbreviated Dial bin.

Alternatively, if CLI routing is enabled, the relevant Abbreviated Dial bin could be 'transferred' to the Mobile Extension proxy port which would then provide internal dial tone.

Features

The features available from a Mobile Extension are listed below. As the Mobile Extension is based on an SLT port, the service codes used are as per an SLT port. Any feature not listed should be assumed to be not supported:

- Hold
- Transfer
- Incoming Ring Group member
- Department Group member
- DID
- Toll Restriction
- Class of Service
- DSS Keys

Though DSS keys are available for the Mobile Extension, they cannot provide an exact indication of busy status if, for example, the Mobile Extension is active on a call not linked to the UX5000.

The following service codes are supported:

Type Incoming Feature	Program	Code	Set By Mobile Extension	Set to Mobile Extension
Day/Night Mode Switching	11-10-01	818	Yes	
Night Mode Switching (other group)	11-10-12	118	Yes	
Call Forward - Immediate	11-11-01	No Setting	Yes	Yes
Call Forward - Busy	11-11-02	No Setting	Yes	Yes
Call Forward - No Answer	11-11-03	No Setting	Yes	Yes
Call Forward - Busy/No Answer	11-11-04	No Setting	Yes	Yes
Call Forward - Both Ring	11-11-05	No Setting	Yes	Yes
Call Forward - Select Option (Answering Machine Emulation not available)	11-11-06	*2	Yes	
Call Forward - Follow Me	11-11-07	No Setting	Yes	Yes
DND	11-11-08	847	Yes	

Mobile Extension

Type Incoming Feature	Program	Code	Set By Mobile Extension	Set to Mobile Extension
Message Waiting - Answer	11-11-09	*0	Yes	
Message Waiting - Cancel All	11-11-10	873	Yes	
Automatic Transfer Setup per Extension Group	11-11-25	102	Yes	
Automatic Transfer Cancellation per Extension Group	11-11-26	103	Yes	
Delayed Transfer per Extension Group	11-11-28	105	Yes	
Delayed Transfer Cancellation per Extension Group	11-11-29	106	Yes	
DND Setup per Extension Group	11-11-30	107	Yes	
DND Cancellation per Extension Group	11-11-31	108	Yes	
Pilot Group Withdrawing<	11-11-35	150	Yes	
One Touch Dial Number Entry (dial *0 to hang up)	11-11-39	855	Yes	
VAU/Off-Premise Call Forwarding (common cancelling code (120) required to cancel)	11-11-40	*4	Yes	
Automated Attendant (DSPDB) - not used in the U.S.	11-11-44	No Setting	Yes	
DND/Call Forward Override Call (Bypass Call)	11-12-01	807	Yes	Yes
Conference	11-12-02	#1	Yes	
Override Off-hook Signalling	11-12-03	809	Yes	
Enable Camp-on	11-12-04	850	Yes	Yes
Disable Camp-on	11-12-05	870	Yes	Yes
Voice Call & Signal Call Switching	11-12-06	812	Yes	
Step Call	11-12-07	808	Yes	Yes
Barge-In	11-12-08	810	Yes	Yes
Enable Extension Group to All Ring	11-12-09	No Setting	Yes	
Common/Station Speed Dialling	11-12-10	#2	Yes	
Group Speed Dialling	11-12-11	#4	Yes	
Trunk Group Access	11-12-14	804	Yes	
Specified Trunk Access	11-12-15	805	Yes	
Trunk Access via Networking	11-12-16	No Setting	Yes	
Internal Group Paging (Mobile Extension cannot be a member of a paging group)	11-12-19	801	Yes	
External Paging	11-12-20	803	Yes	
Meet-Me Answer to Specified Internal Paging Group	11-12-21	864	Yes	
Meet-Me Answer to External Paging	11-12-22	865	Yes	
Meet-Me Answer in Same Paging Group (although Mobile Extension cannot be paged)	11-12-23	863	Yes	Yes
Combined Paging	11-12-24	*1	Yes	
Direct Call Pickup own group	11-12-25	856	Yes	Yes
Call Pickup for specified group	11-12-26	868	Yes	Yes
Call Pickup	11-12-27	*#	Yes	Yes
Call Pickup for another group	11-12-28	869	Yes	Yes
Direct Extension Call Pickup	11-12-29	**	Yes	
Park	11-12-31	#6	Yes	
Answer Park	11-12-32	*6	Yes	
Group Hold	11-12-33	832	Yes	

Mobile Extension

Type Incoming Feature	Program	Code	Set By Mobile Extension	Set to Mobile Extension
Answer Group Hold	11-12-34	862	Yes	
Personal (Extension) Park	11-12-35	857	Yes	
Door Box Access (Door Box can also ring the Mobile Extension. *# operates relay)	11-12-36	802	Yes	
Common Cancel Service Code	11-12-37	120	Yes	
General Purpose Indication	11-12-38	883	Yes	
Voice Mail Center Access - Not used in the U.S.	11-12-39	884	Yes	
Personal Abbreviated Dialing	11-12-40	#7	Yes	
Voice Over	11-12-41	890	Yes	
Flash on Trunk lines	11-12-42	#3	Yes	
Enable SLT On-hook when Holding	11-12-45	849	Yes	
Answer SLT On-hook when Holding	11-12-46	859	Yes	
Call Waiting Answer/Split Answer for SLT	11-12-47	894	Yes	
Account Code	11-12-48	##	Yes	
General Purpose Relay	11-12-50	880	Yes	
Call Own Mailbox (In-skin VM)	11-12-51	*8	Yes	
SLT Live Recording	11-12-53	154	Yes	
ANI/DNIS Routing to VAU	11-12-54	882	Yes	
Tandem Trunking	11-12-57	#8	Yes	
Transfer into Conference	11-12-58	124	Yes	
Enable DND for other extensions	11-14-03	129	Yes	Yes
Disable DND for other extensions	11-14-04	130	Yes	Yes
Enable Wake-up Call for own extension	11-14-05	131	Yes	
Disable Wake-up Call for own extension	11-14-06	132	Yes	
Enable Wake-up Call for other extensions	11-14-07	133	Yes	Yes
Disable Wake-up Call for other extensions	11-14-08	134	Yes	Yes
Enable Room to Room Call Restriction	11-14-09	135	Yes	Yes
Disable Room to Room Call Restriction (Hotel)	11-14-10	136	Yes	Yes
Set Toll Restriction Class for other extensions	11-14-11	137	Yes	Yes
Check-in	11-14-12	138	Yes	Yes
Check-out	11-14-13	139	Yes	Yes
Set Room Status for own extension	11-14-14	140	Yes	
Set Room Status for other extensions	11-14-15	141	Yes	Yes
Room Status Output	11-14-16	142	Yes	
Hotel Room Monitor	11-14-17	175	Yes	Yes

Mobile Extension

Although some features may be available to the Mobile Extension, it may be advisable to disable them in Class of Service. There are also features that should be disabled in any case.

The features *to be disabled/not used* for Mobile Extension include:

- ACD
- TAPI (including applications such as PC Attendant, PC Assistant, etc.)
- H.323 Trunks
- Analog Trunks
- Port Swap
- Hotline
- General Message
- Message Waiting
- Headset Mode for SLT
- Flexible Transfer/Virtual Loop Back
- Tandem Ringing
- Park over CygniLink
- Virtual extension key as Call Coverage Key for mobile extension
- Automatic Conversation Record for trunks

Conditions

- It is recommended that this feature uses ISDN platform (as these trunks provide answer supervision).
- It is suggested that the proxy port have its own DID to allow for full functionality.
- The analog line must provide CLI information to allow the Mobile Extension to dial into the UX5000 to access features.
- For the *extension* DTMF, the minimum Detect Level for the DTMF Tone (80-03-03) must be set to allow a minimum detection level of -25dBm. This entry is dependent upon the Detect Level selected in Program 80-03-01.
- ***The Mobile Extension uses the * to perform a flash. In order to use feature service codes with a * (such as Call Forwarding, calling voice mail, etc.). The * key must be pressed twice - once to place an active call on hold, the second time as the service code. Pressing the * key a third time will retrieve the held call.***

However, a service code using ** can not be used, as with Directed Call Pickup (**).

- ***In order to provide a proper disconnect, Disconnect Supervision is required for the trunks used for this feature.***
- When an entry is made in Program 15-22-01 for a Mobile Extension, ports are reserved for Mobile Extension usage in groups of 4.
- To keep consecutive port numbering for blades, you may wish to consider starting Mobile Extensions at the upper extension port range.

Default Setting

No Mobile Extensions are configured.

Programming

- **11-02-01 : Extension Numbering**

The Mobile Extension port must be an unequipped extension port on the UX5000. This extension port is directed to an Abbreviated Dial bin.
- **11-10 : Service Code Setup (for System Administrator)**
11-11 : Service Code Setup (for Setup/Entry Operation)
11-12 : Service Code Setup (for Service Access)
11-13 : Service Code Setup (for ACD)

The Mobile Extension's flash function is performed by pressing the * key. Any service code which begins with * will require a second press of the * key - one to flash, the second for the service code. You may wish to redefine the UX5000 service codes to avoid this step. By default, these include functions for: Forced Trunk Disconnect (*3), Call Forwarding (*2), Off-Premise Call Forwarding (*4), Combined Paging (*1), Call Pickup (*#), Direct Extension Call Pickup (**), Park Answer (*6), Call Voice Mail (*8), and ACD Log In/Out (*5).
- **13-04-01 : Abbreviated Dialing Number and Name**

For the bin number defined in 15-22-01 for the Mobile Extension, enter the external number of the Mobile Extension. *This must exactly match the Caller ID number of the Mobile Extension* or the user will not be able to access the internal features.
- **15-22-01 : Mobile Extension External Number Setup - Abbreviated Dial Number**

For each Mobile Extension number, select the Abbreviated Dial bin number to be associated with it (0=No Setting, 1-999)
- **15-22-02 : Mobile Extension External Number Setup - Connect Confirmation**

As the Mobile Extension can be a GSM phone, it is necessary to be certain a person and not, for example, a GSM voice mail has answered the call. This is achieved by returning Music on Hold/ring tone to the Mobile Extension on answer, after which the Mobile Extension presses * to connect the call.

For each Mobile Extension number, select whether the user will need to use DTMF confirmation before a call is answered. Until the * is pressed, the call is treated as not being answered. (0: DTMF confirmation is always required for all trunk line types, 1: DTMF confirmation is required only for analog lines, 2: DTMF confirmation is not required)
- **15-22-03 : Mobile Extension External Number Setup - Trunk Access Code**

For each Mobile Extension number, determine which trunk access code the user dials when placing an outside call (1: Normal Trunk access code in Program 11-09-01 will be used, 2: Alternate Trunk access code in Program 11-09-02 will be used)
- **20-03-04 : System Options for Single Line Terminals - Dial Sending Start Time for SLT or ARS**

When an extension user dials a Mobile Extension number, the UX5000 uses this timer to determine how long the UX5000 waits before dialing the number (0-64800 seconds).
- **20-09-02 : Class of Service (Incoming Call Service) - Caller ID Display**

Caller ID must be enabled for the Mobile Extension user in order to receive UX5000 dial tone.
- **22-11-01 : DID Translation Table Number Conversion - Received Number**

Define the digits received by the UX5000 for the telephone number on which a Mobile Extension user will call into the UX5000 (up to 8 digits max).
- **22-11-02 : DID Translation Table Number Conversion - Target Number**

For the DID number defined in 22-11-01, enter the extension number for the Mobile Extension user.
- **80-01-01: Service Tone Setup - Tone 44, External Dial Tone**

It is necessary to adjust the DID/DISA dial tone (tone 44) to a Repeat Count of 250 (by default, this is set to "0"). The UX5000 must be reset in order for this change to take affect.

Mobile Extension

- **80-01-01: Service Tone Setup - Tone 57, Off-Hook Beep Tone**
If required, use this option to change the tone heard when a Mobile Extension user goes off hook to answer a call prior to pressing *. The UX5000 must be reset in order for this change to take affect.
- **80-03-01 : DTMF Tone Receiver Setup - Detect Level**
Select the Detect Level to be used for DTMF Tone detection. For the *extension* DTMF, this entry must allow for a detection of -25dBm. Set the minimum detection level in Program 80-03-03. *The UX5000 must be reset in order for this change to take affect.*
(0 = 0dBm ~ -25dBm, 1 = -5dBm ~ -30dBm, 2 = -10dBm ~ -35dBm, 3 = -15dBm ~ -40dBm, 4 = -20dBm ~ -45dBm, 5 = -25dBm ~ -50dBm, 6 = -30dBm ~ -55dBm)
- **80-03-03 : DTMF Tone Receiver Setup - Minimum Detect Time**
For the *extension* DTMF, the minimum Detect Level (0-15) for the DTMF Tone must be set to allow a minimum detection level of -25dBm. This entry is dependent upon the Detect Level selected in Program 80-03-01. For example, if Detect Level "0" were selected in Program 80-03-01, then the entry in this option would be "15" for a -25dBm. *The UX5000 must be reset in order for this change to take affect.*
(detect level 0: -10dBm to -25dBm, detect level 1: -15dBm to -30dBm, detect level 2: -20dBm to -35dBm, detect level 3: -25dBm to -40dBm, detect level 4: -30dBm to -45dBm, detect level 5: -35dBm to -50dBm, detect level 6: -40dBm to -55dBm)

Related Features

Abbreviated Dial

The Mobile Extension's internal extension number (Proxy Port) is linked to an abbreviated dial bin (Program 13-04) to provide integration.

Callback / Camp-On

A Mobile Extension user can use the Callback/Camp-On feature for other extensions, however, it cannot receive Callback/Camp-On requests from other extensions.

Caller ID

Caller ID must be enabled for the Mobile Extension. This is used to confirm the actual telephone number of the external phone and then provide internal dial tone to the Mobile Extension. The Mobile Extension user can not use the Block Caller ID code (*67) when calling in since the Caller ID must be confirmed.

DID

A DID is directed to the Mobile Extension's internal extension number (Proxy Port) in Program 22-11 and, in order to provide internal dial tone to the Mobile Extension, the incoming CLI of the Mobile Extension must match the number in the Abbreviated Dial bin.

DIL

Outside callers can dial the Mobile Extension directly if DIL is set up (Program 22-07).

SMDR

The following basic call scenarios explain the integration of the Mobile Extension with the SMDR output. The following examples use:

EXT 400 = Mobile Extension

2035551234 = Mobile Extension external number

Mobile Extension to Internal Extension

01 IVIN 05:54 003 00:00:13 EXT 400 2035551234 0:00

Internal Extension to Mobile Extension

02 IVOT 05:54 003 00:00:10 EXT 400 2035551234 0

Mobile Extension makes an outgoing trunk call

03 IVOT 05:56 001 00:00:08 EXT 400 2035559876 0

04 IVIN 05:55 003 00:00:44 EXT 400 2035551234 0:00

Internal Both Ring to Mobile Extension answered on Mobile Extension

05 IVOT 05:57 003 00:00:06 EXT 400 2035551234 0

Incoming DID Call to Mobile Extension

08 IVOT 06:07 003 00:00:06 EXT 400 2035551234 0

09 IVIN 06:07 009 00:00:05 EXT 400 2035559876 0:17

Incoming DID call to Mobile Extension answered on Mobile Extension

10 IVOT 06:09 003 00:00:08 EXT 400 2035551234 0

11 IVIN 06:09 009 00:00:06 EXT 400 2035559876 0:15

Operation

*With any of the features, if the Mobile Extension user presses *, an existing call is placed in a held state. Pressing * a second time is used to access service code features which begin with * (such as Call Forwarding, calling voice mail, etc). Pressing * a third time returns to the held call or the timeout of the inter-digit timer returns the call to conversation mode.*

Placing an Intercom Call to a Mobile Extension

1. Lift the handset or press SPK.
2. Dial the extension number assigned to the Mobile Extension.

If the Mobile Extension is turned off, incoming calls will hear a message indicating the user is not available. The setting in the DTMF Confirmation programming (15-22-02) determines how the call is handled.

Program 15-22-02 set to 0 or 1 (DTMF Confirmation Required):

The caller will be retrieved by the Aspire and follows the no-answer programming (ring another extensions, forward to UX5000 voice mail, etc.)

Program 15-22-02 set to 2 (No DTMF Confirmation Required):

The caller will be forwarded to the external extension's voice mail, if available.

Mobile Extension

Outside Party Dialing the Mobile Extension

1. Dial the DID or DIL telephone number for the Mobile Extension.
UX5000 programming (DID=22-11-01 or DIL=22-07-01) must be defined.
If the Mobile Extension is turned off, incoming calls will hear a message indicating the user is not available. The setting in the DTMF Confirmation programming (15-22-02) determines how the call is handled.
Program 15-22-02 set to 0 or 1 (DTMF Confirmation Required):
The caller will be retrieved by the Aspire and follows the no-answer programming (ring another extension, forward to Aspire voice mail, etc.)
Program 15-22-02 set to 2 (No DTMF Confirmation Required):
The caller will be forwarded to the external extension's voice mail, if available.

Placing a Call from the Mobile Extension

1. Dial the DID or DIL telephone number for the Mobile Extension.
If the Caller ID of the Mobile Extension matches the Abbreviated Dial bin entry (Program 13-04 and 15-22), then internal dial tone is heard by the Mobile Extension user.
2. Dial the desired Intercom number or dial the trunk access code in order to place an outgoing call.

Answering a Call on the Mobile Extension

1. Answer the ringing call.
2. If Program 15-22-02 is set to 0 or 1, the Mobile Extension user will hear Music on Hold/ring tone. Press * (within 10 seconds) to answer the call.
This step is required when using analog trunks for the Mobile Extension feature.

Sending a Flash from the Mobile Extension

1. While on a conversation, a hook flash is returned by dialing *# from the Mobile Extension.

Internal Dial Tone After Hang Up

1. When a call is finished, disconnect the call and receive internal dial tone by dialing *0.

Placing/Retrieving a Call on Hold from the Mobile Extension

1. While on a call, press * #.
2. To retrieve the held call, with system dial tone, press * #.

Swapping Between Two Held Calls from the Mobile Extension

1. While on a call, press * #.
The first call is placed on Hold.
2. Place second call, then place on Hold by pressing * #.
The second call is placed on Hold and the first call is picked up.
3. The Mobile Extension can connect the two held calls with Automatic On-Hook Transfer if Program 20-11-11 is enabled by dialing * 0.

Transferring a call from the Mobile Extension

1. With an active call, press * #.
2. Dial the extension number to which the call is to be transferred.
3. Dial * 0.
4. Hang up.

Call Forwarding

To activate or cancel Call Forwarding to/from the Mobile Extension:

1. **When activating Call Forwarding From the Mobile Extension:**
Dial the DID or DIL telephone number for the Mobile Extension.
If the Caller ID of the Mobile Extension matches the Abbreviated Dial bin entry (Program 13-04 and 15-22), then internal dial tone is heard by the Mobile Extension user.
OR
When activating Call Forwarding to the Mobile Extension:
Press CALL key or lift the handset.
2. Dial the service code defined in Program 11-11-06.
3. Dial Call Forwarding condition:
1 = Personal Answering Machine Emulation (then skip to step 5).
2 = Busy or not answered
4 = Immediate
6 = Not answered
7 = Immediate with simultaneous ringing (not for Voice Mail)
0 = Cancel
4. Dial destination extension or Voice Mail master number.
5. Dial Call Forwarding type:
2 = All calls
3 = Outside calls only
4 = Intercom calls only
When you enable Call Forwarding, stutter dial tone is heard on the ICM dial tone of the Mobile extension or, on a keyset the DND key flashes slowly.

To activate Call Forward Follow Me:

1. **When activating Call Forwarding From the Mobile Extension:**
Dial the DID or DIL telephone number for the Mobile Extension.
If the Caller ID of the Mobile Extension matches the Abbreviated Dial bin entry (Program 13-04 and 15-22), then internal dial tone is heard by the Mobile Extension user.
OR
When activating Call Forwarding to the Mobile Extension:
Press CALL key or lift the handset.
2. Dial the service code defined in Program 11-11-07.
3. Dial 3 + Dial your own extension number (i.e., the source).
4. Dial Call Forwarding Type:
2 = All Calls
3 = Outside calls only
4 = Intercom calls only
5. Hang up.

Mobile Extension

To cancel Call Forward Follow Me:

1. ***When activating Call Forwarding From the Mobile Extension:***

Dial the DID or DIL telephone number for the Mobile Extension.

If the Caller ID of the Mobile Extension matches the Abbreviated Dial bin entry (Program 13-04 and 15-22), then internal dial tone is heard by the Mobile Extension user.

OR

When activating Call Forwarding to the Mobile Extension:

Press CALL key or lift the handset.

2. Dial the service code defined in Program 11-11-07.
3. Dial 0.
4. Hang up.

Multiple Directory Numbers / Call Coverage

Feature Availability

- Available - Virtual ports 1-256.

Description

Multiple Directory Numbers let a keyset have more than one extension number. Calls can route to the keyset's installed number or to the keyset's "virtual extension" Multiple Directory Number key. This helps users identify incoming calls. For example, an extension installed at 304 (Sales) could have a virtual extension for 460 (Service). Calls to 304 ring the extension normally. Calls to 460 ring the Multiple Directory Number key. This lets the user at extension 304 differentiate Sales calls from Service calls. After answering a call, based on extension or system-defined options, the call can remain on the Multiple Directory Number key or it can switch to a CALL key, line key or loop key.

Call Coverage

A keyset can have Multiple Directory Number keys set up as Call Coverage keys for co-worker's extensions. The Call Coverage key lights when the co-worker's extension is busy and flashes slowly when the co-worker has an incoming call. The Call Coverage key can ring immediately when a call comes into the covered extension, ring after a delay or not ring at all. In addition, the keyset user can press the Call Coverage key to intercept their co-worker's incoming call. The user can also go off hook and press the Call Coverage key to call the covered extension.

If the covered extension is busy and they receive a second call, the covering extension's Call Coverage key will flash. The user just presses the flashing key to pick up the call.

The Call Coverage keys follow the extension's Do Not Disturb and Off-Hook Signaling programming. These keys do not, however, indicate the lamping for extensions in DND. If this is required, a Hotline key can be used instead.

Place and Receive Calls on Call Coverage/Multiple Directory Number Keys

Multiple Directory Number keys/Call Coverage keys can be used three separate ways, depending on how the key is defined in Program 15-02-21.

- a DSS key to the extension and for receiving incoming calls
 - answering incoming calls with the ability to place outgoing ICM or CO calls
- OR
- just for receiving incoming calls

A keyset can have Multiple Directory Number/Call Coverage keys for many different extensions and virtual extensions. In addition, co-workers can share the same Multiple Directory Numbers. For example, everyone in the Service Department could have a key for the Sales Department's virtual extension.

Auto Off-Hook Answer and Ringing Line Preference for Call Coverage Keys

An extension's Call Coverage Keys can be programmed to allow the user to simply pick up the handset to answer a ringing call. So as not to interfere with ringing trunk or Intercom calls, the UX5000 automatically assigns Call Coverage Key ringing with the lowest answering priority. If multiple Call Coverage Keys are ringing, answering priority is set first by the assigned ring pattern and then by the key position.

Multiple Directory Numbers / Call Coverage

Virtual Extension vs. Ring Groups

As the UX5000 does not allow voice mail calls to ring Ring Groups, a virtual extension can be created which will allow you to direct more than one call to the extension. The UX5000 will allow up to 10 calls to be queued. When you program a Call Coverage Key for that extension to ring, the next call can then be answered.

This could allow a voice mail caller to dial the virtual extension and have all the extensions with the same virtual extension key ring. The UX5000 can be programmed as follows:

- Program 11-04, 15-01-01: Assign a virtual extension number and name (example: virtual port 1, extension 5400, Sales, virtual port 2, extension 5401, Customer Service, etc.).
- Program 11-07: Assign a Department Group Pilot number for the virtual extension (example: Department Group Number 2 = 5555).
- Program 15-07: Assign a Call Coverage key (*03) to an extension for the virtual extension number assigned.
- Program 16-02: Department Group Assignment for Virtual Extensions (example: virtual extension 5400 - group 2, virtual extension 5401 - group 2).

The end user can then simply transfer the call to the virtual extension number (example: 5555). The call is placed in queue and will be answered in turn as soon as the extension is available.

Call Forward Off-Premise From CO Trunk/Voice Mail Transfer Possible

The UX5000 allows virtual extensions to use Fixed Call Forward Off-Premise with normal central office trunks. This allows a call transferred by the voice mail to a virtual extension to be forwarded off-premise.

Conditions

- More than one extension can share the same Multiple Directory Number.
- An extension can have more than one Multiple Directory Number (limited only by the number of available function keys).
- The UX5000 follows either the Multiple Directory Number's Class of Service or the keyset's Class of Service, depending on the program number.

Programs Which Follow The Multiple Directory Number COS	
• 20-07-04 : Storing Abbreviated Dial	• 20-10-03 : Group Call Pickup for Specific Group
• 20-08-01 : Intercom Calls	• 20-10-04 : Group Call Pickup
• 20-08-02 : Trunk Calls	• 20-11-06 : Unscreened Transfer
• 20-08-03 : Common Abbreviated Dial	• 20-11-11 : Automatic On-Hook Transfer
• 20-08-04 : Group Abbreviated Dial	• 20-13-01 : Long Conversation Alarm
• 20-08-12 : Department Group Step Calling	• 20-13-04 : Call Forwarding / DND Override
• 20-10-01 : Group Call Pickup (within group)	• 20-13-13 : Continued Dialing
• 20-10-02 : Call Pickup (another group)	

Multiple Directory Numbers / Call Coverage

Programs Not Supported by the Multiple Directory Number Key	
<ul style="list-style-type: none"> • 20-07-03 : Time Setting • 20-09-05 : Setting Handsfree Answer-back/Forced Intercom Ringing • 20-11-02 : Call Forward When Busy • 20-11-03 : Call Forward When Unanswered • 20-11-04 : Call Forward (Both Ringing) • 20-11-05 : Call Forward with Follow Me • 20-11-07 : Transfer Without Holding • 20-11-08 : Transfer Information Display 	<ul style="list-style-type: none"> • 20-11-09 : Group Hold Initiate • 20-11-10 : Group Hold Answer • 20-11-11 : Automatic On-Hook Transfer • 20-11-12 : Call Forwarding Off-Premise • 20-11-15 : VRS Personal Greeting • 20-11-16 : Call Redirect • 20-11-18 : No Recall • 20-11-19 : Normal/Extended Park • 20-11-20 : No Callback
<p>For all other features, the COS for the keyset with the Multiple Directory Number is followed.</p>	

Service Codes Supported by the Multiple Directory Number Key
<p>Program 11-11</p> <ul style="list-style-type: none"> • Item 09 - Answer Message Waiting (*0) • Item 10 - Cancel All Messages Waiting (873) • Item 11 - Cancel Message Waiting (871) • Item 18 - Background Music On/Off (825) • Item 34 - Temporary Toll Restriction Override (875)
<p>Program 11-12</p> <ul style="list-style-type: none"> • Item 01 - DND / Forward Override Call [Bypass Call] (807) • Item 03 - Call Waiting [Off-Hook Signaling] (809) • Item 05 - Cancel Camp-On (870) • Item 06 - Switching Voice/Signal Call (812) • Item 07 - Step Call (808) • Item 09 - Change to STG All Ring (no setting) • Item 10 - Common Abbreviated Dialing (#2) • Item 11 - Group Abbreviated Dialing (#4) • Item 12 - Last Number Dialing (#5) • Item 13 - Saved Number Dialing (815) • Item 14 - Trunk Group Access (804) • Item 15 - Specified Trunk Access (#9) • Item 19 - Internal Group Paging (801)

Multiple Directory Numbers / Call Coverage

Service Codes Supported by the Multiple Directory Number Key

- Item 20 - External Paging (803)
- Item 21 - Meet-Me Answer to Specified Internal Page Group (864)
- Item 22 - Meet-Me Answer to External Paging (865)
- Item 23 - Meet-Me Answer in Same Paging Group (863)
- Item 26 - Call Pickup for Specified Group (868)
- Item 27 - Call Pickup (*#)
- Item 28 - Call Pickup for Another Group (869)
- Item 31 - Park Orbit (#6)
- Item 36 - Door Box Access (802)

Other service codes are not supported by the Multiple Directory Number key.

Programmable Function Keys Not Supported by the Multiple Directory Number Key

- 03 - DND Key
- 07 - Conference Key
- 09 - Day/Night Mode Change
- 11 - Call Forward Busy
- 12 - Call Forward, No Answer
- 13 - Call Forward, Busy/No Answer
- 14 - Call Forward, Both Ringing
- 15 - Call Forward, Follow-Me
- 18 - Text Message Setup
- 32 - Meet-Me Conference
- 35 - Camp-On/Callback
- 39 - Room Monitoring
- 42 - Secretary Call Pickup (calls to manager)

Default Setting

Disabled.

Programming

- **11-04-01 : Virtual Extension Numbering**
Assign extension numbers (1-256) to Multiple Directory Numbers.
- **11-07-01 : Department Group Pilot Numbers**
In order to queue multiple calls to a busy virtual extension key, assign a pilot number to each Department Group set up in Program 16-02. The pilot number is the number users dial for the Department Group when transferring a call. If the extensions in the group are busy, the call will be placed in queue until an extension is available.
- **14-05-01 : Trunk Groups**
Assign trunks to trunk groups (1-100).
- **14-06-01 : Trunk Group Routing**
Set up an outbound routing table(1-100) for trunk groups assigned in Program 14-05.
- **15-01-01 : Basic Extension Data Setup - Extension Name**
Assign names to virtual extensions.
- **15-01-02 : Basic Extension Data Setup - Outgoing Trunk Line Preference**
Set this option to determine if an extension user seizes Prime Line when they lift the handset (0=disable, 1=enable).
- **15-01-05 : Basic Extension Data Setup - Restriction for Outgoing Disable on Incoming Line**
Enable (1) or disable (0) supervised dial detection for an extension.
- **15-02-21 : Multi-Line Terminal Basic Data Setup, Virtual Extension Access Mode**
Determine whether an extension's Virtual Extension/Call Coverage Key should be used as a DSS key to the extension and for receiving calls (0), answering incoming calls and ability to place outgoing ICM or CO calls (1), or just receiving incoming calls (2). If the key is to be used for outgoing calls, the extension number of the key must be a real extension or virtual extension number. When the extension number of the key is a real extension number, when the key is pressed, the real extension cannot be used.
- **15-07-01 : Programmable Function Keys**
Assign function keys for Multiple Directory Numbers (code *03 + extension number).
- **15-08-01 : Incoming Virtual Extension Ring Tone Setup**
Assign a ring tone (0-4) to each extension port and virtual extension port assigned to a Multiple Directory Number key. If ringing is enabled for the key in Program 15-09, the key rings with the tone set in this program. Each port can have one of four different rings.
Set the priority in 15-10-01 for the keyset with the virtual extension key to match this entry. Program 13-04-05 has priority with the ring pattern and can affect the option set in 15-08-01.
- **15-09-01 : Virtual Extension Ring Assignment**
Individually program an extension's Multiple Directory Number function keys to either ring (1) or not ring (0).
- **15-10-01 : Incoming Virtual Extension Ring Tone Order Setup**
Set the priority (1-4) for the Multiple Directory Number Ring Tones set in Program 15-08. When Multiple Directory Number calls ring an extension simultaneously, the tone with the highest priority (e.g., 1) rings. The other keys just flash.
- **15-11-01 : Virtual Extension Delayed Ring Assignment**
Individually program an extension's Multiple Directory Number keys for Delayed Ringing (1) or Immediate Ringing (0). Also see Program 20-04-03 below.

Multiple Directory Numbers / Call Coverage

- **15-18-01: Virtual Extension Key Enhanced Options - Operation Mode**

Determine whether an extension should release (0) or retain (1) the LED display when answering a virtual extension call. With an entry of "0", once the incoming call is picked up, the call comes off the virtual extension key and appears on the CALL key, line key or loop key. This programming is based on each extension, while Program 20-04-01 is system-wide. Extension numbers can include keysets, SLTs and virtual extension numbers.
- **15-18-02: Virtual Extension Key Enhanced Options - Key Display**

Determine the extension number a virtual extension should display when it places an intercom call to another extension user. Selecting (0) will display the virtual extension number, while selecting (1) will display the extension number of the actual terminal placing the call.
- **16-01-08 : Department Group Basic Data Setup - Queuing for Department Group Calls**

In order to queue multiple calls to a busy virtual extension key, set this option to an entry of "1" - "0" is used for no queuing.
- **16-01-10 : Department Group Basic Data Setup - Hunt Type**

In order to queue multiple calls to a busy virtual extension key, set the type of hunting for the Department Group. This entry should be either "1" or "3" in order for the virtual extension to receive calls when busy.
- **16-02-01 : Department Group Assignment for Extensions**

In order to queue multiple calls to a busy virtual extension key, add the virtual extensions to the Department Group defined in 11-07-01.
- **20-04-01 : System Options for Virtual Extensions - Virtual Extension Key Operation Mode**

With an entry of "0", after answering a call on a virtual extension key, the call comes off the virtual extension key and appears on the CALL key, line key or loop key.
With an entry of "1", after answering a call on a virtual extension key, the call remains the virtual extension key.
When defining this option on an extension basis (15-18-01), this option must be set to "0".
- **20-04-03 : System Options for Virtual Extensions - Call Coverage Delay Interval**

Multiple Directory Number/Call Coverage Keys set for Delayed Ringing (see Program 15-11 above) ring the covering extension after this interval.
- **20-04-04 : System Options for Virtual Extensions - Busy LED Status Mode**

Determine whether virtual extensions should display busy LED status for ICM and trunk calls (0) or if the enhanced setting should be used (1) which does not provide busy LED status for trunk calls. This program supports the setting made in Program 15-02-21 when set to Ignore, DSS or Outgoing..
- **20-06-01 : Class of Service for Extensions**

Assign a COS to each virtual extension (1-15). A virtual extension can have a different COS from the real extension number of the terminal.
- **20-07-10 : Class of Service Options (Administrator Level) - Programmable Function Key Programming (Appearance Level)**

Determine whether an extension's Class of Service allows a user to set up a Call Coverage key using service code 852 (Enable=1, Disable=0).
- **20-10-08 : Class of Service Options (Answer Service) - Auto Off-Hook Answer for Call Coverage Keys**

Determine whether an extension's Call Coverage Key should be automatically answered when the handset is lifted (0=disabled, 1=enabled). With multiple ringing calls, Programs 15-08, 15-10 and 23-04 determine which call is answered first.
- **20-13-27 : Class of Service Options (Supplementary Service) - Busy on Seizing Virtual Extension**

If set to '1', you can call a busy extension which is talking on a virtual extension key. Program 20-13-06 (Call Waiting) must be set to "0" for this option to work.

Multiple Directory Numbers / Call Coverage

- **20-29-01 : Timer Class for Extensions**

Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**

Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **21-01-15 : System Options for Outgoing Calls - Outgoing Disable on Incoming Line**

Enable (1) or disable (0) the Outgoing Disable on Incoming Line feature.
- **21-01-16 : System Options for Outgoing Calls - Supervise Dial Detection Timer**

With the Outgoing Disable on Incoming Line feature, if dial tone is not detected after the extension answers an incoming line, the UX5000 determines the call is unable to complete and releases the DTMF receiver (0-64800 Seconds).
- **21-01-17 : System Options for Outgoing Calls - Restriction Digit in Outgoing Disable on Incoming Line**

With the Outgoing Disable on Incoming Line feature, determine the number of digits (0-9) to be dialed before the call should be disconnected.
- **21-02-01 : Trunk Group Routing for Extensions**

Assign the routes set in Program 14-06 to extensions.
⇨ Trunk Group Routing 1-100
- **21-04-01 : Toll Restriction Class for Extensions**

For each virtual extension, assign a Toll Restriction Class for each Night Service mode. A virtual extension can have a different Toll Restriction Class from the real extension number of the terminal.
- **21-13-01 : ISDN Calling Party Number Setup for Extensions**

Assign each extension a Calling Party Number (maximum 16 digits per entry). The calling number is the subscriber number of the dial-in number. When a call is made by an extension which does not have an Extension Calling Number assigned (Program 21-13), the UX5000 sends the calling number for the ISDN trunk defined in Program 21-12.
- **23-04-01 : Ringing Line Preference for Virtual Extensions**

When an extension has a virtual extension assigned to a Programmable Function Key, this program determines the priority (1-4) for a Ring Group for automatically answering the ringing calls when the handset is lifted. If "00" is selected for the Ring Group (1-64), when the user lifts the handset, the user will answer a ringing call from any group.

Related Features

Call Forwarding, Off-Premise

Multiple Directory Numbers/Call Coverage Keys can be forwarded off-premise.

Caller ID

Call Coverage Keys can receive Caller ID.

Central Office Calls, Placing

If, for example, extension 301 dials a trunk access code while using the outgoing virtual extension key, extension 301's trunk access route is used for the call.

Class of Service

Class of Service options apply to Multiple Extension Appearances. In addition, the Timer Class of Service may affect a call.

Multiple Directory Numbers / Call Coverage

Conference

Multiple Directory Numbers/Call Coverage Keys cannot be used to add parties to a Conference call.

Department Calling

Multiple Extension Appearances can be in Department Calling Groups.

Do Not Disturb / Off-Hook Signaling

A Call Coverage Key follows DND and Off-Hook Signaling programming for an extension.

Group Call Pickup

Multiple Extension Appearances can be in Call Pickup Groups.

ISDN Compatibility

The Calling Party Number for the keyset or virtual port can be programmed.

Line Preference

An extension user can answer an outside call on a Call Coverage Key just by lifting the handset.

Programmable Function Keys

This feature requires uniquely programmed function keys.

Multiple Directory Numbers / Call Coverage

Operation

To answer a call ringing a Multiple Directory Number:

1. Press flashing Multiple Directory Number key (PGM 15-07 or SC 852: *03 + ext.).

To place a call to a Multiple Directory Number (including a Call Coverage key):

1. Press idle CALL key.
2. Dial Multiple Directory Number number or press Multiple Directory Number key.

To place a call from a Multiple Directory Number (including a Call Coverage key):

1. Press the Multiple Directory Number key.
ICM dial tone is heard.
2. Place an intercom call or dial a trunk access code to seize an outside line and place your call.

To set up a Call Coverage Key:

1. Press idle CALL key or SPK key.
2. Dial 852.
3. Press the programmable key you want to program.
The previously programmed entry displays.
4. Dial *03.
5. Dial the number of the extension you want to cover.
6. Press HOLD once for Immediate Ring
To set for Delayed Ring, skip to Step 8.
7. Dial the Mode number(s) in which the key will be used.
1=Day 1
2=Night 1
3=Midnight 1
4=Rest 1
5=Day 2
6=Night 2
7=Midnight 2
8=Rest 2
8. Press HOLD to set up Delayed Ring
OR
Skip to Step 10.
9. Dial the Mode number(s) in which the key will be used.
1=Day 1
2=Night 1
3=Midnight 1
4=Rest 1
5=Day 2
6=Night 2
7=Midnight 2
8=Rest 2
10. Press SPK to hang up.

Music on Hold

Feature Availability

- Available.

Description

Music on Hold (MOH) sends music to calls on Hold and parked calls. The music lets the caller know that his call is waiting, not forgotten. Without Music on Hold, the UX5000 provides silence to these types of calls. The Music on Hold source can be a system tone, internal (synthesized) music, or from a customer-provided music source (i.e., tape deck, receiver, etc.). The customer-provided source can connect to a PGDAD module analog port or to a connector on the CCPU blade.

Note: In accordance with U.S. copyright law, a license may be required from the American Society of Composers, Authors and Publishers (ASCAP) or other similar organizations, if radio, television broadcasts or music other than material not in the public domain are transmitted through the Music on Hold feature of communication servers. NEC America hereby disclaims any liability arising out of the failure to obtain such a license.

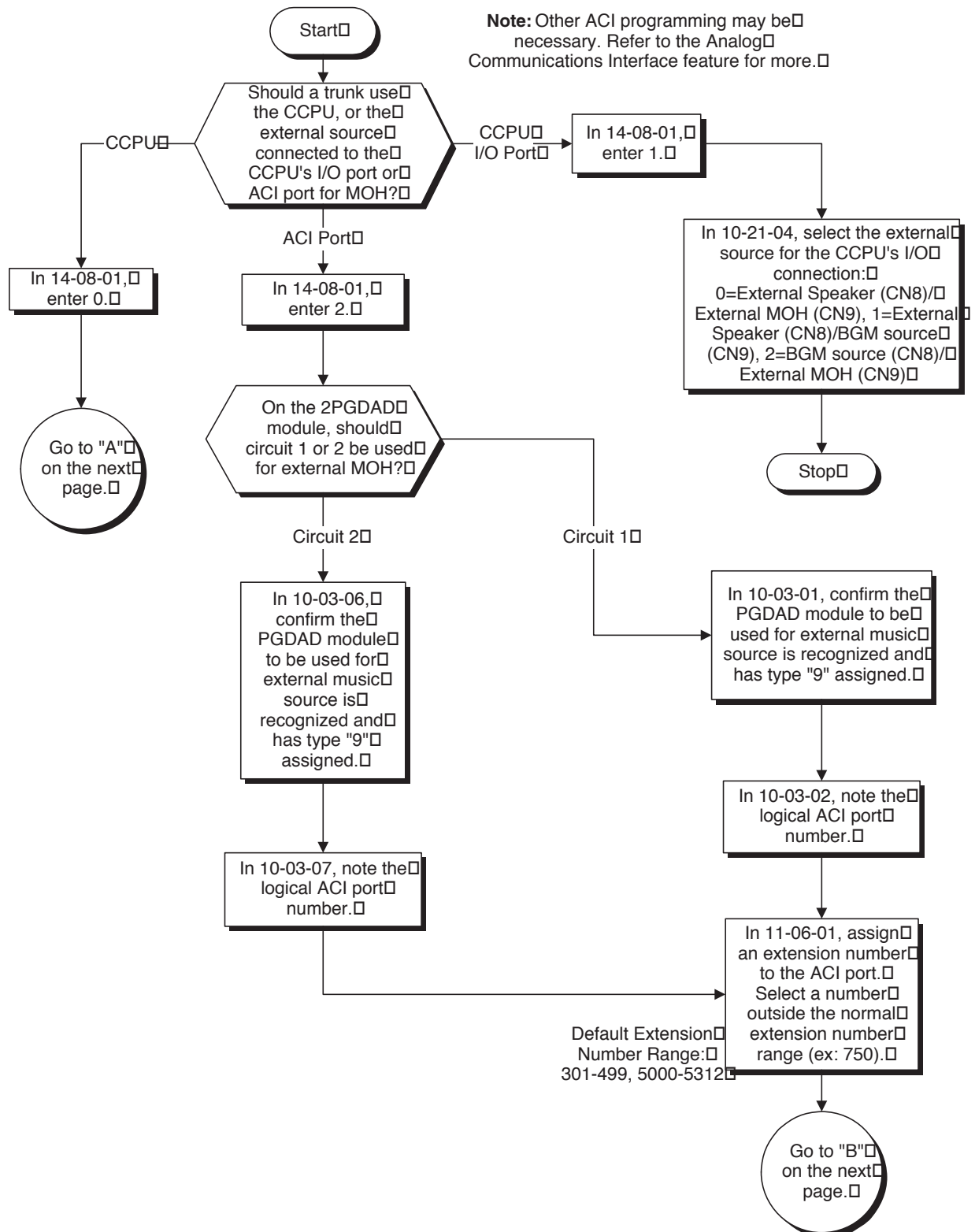
Conditions

None.

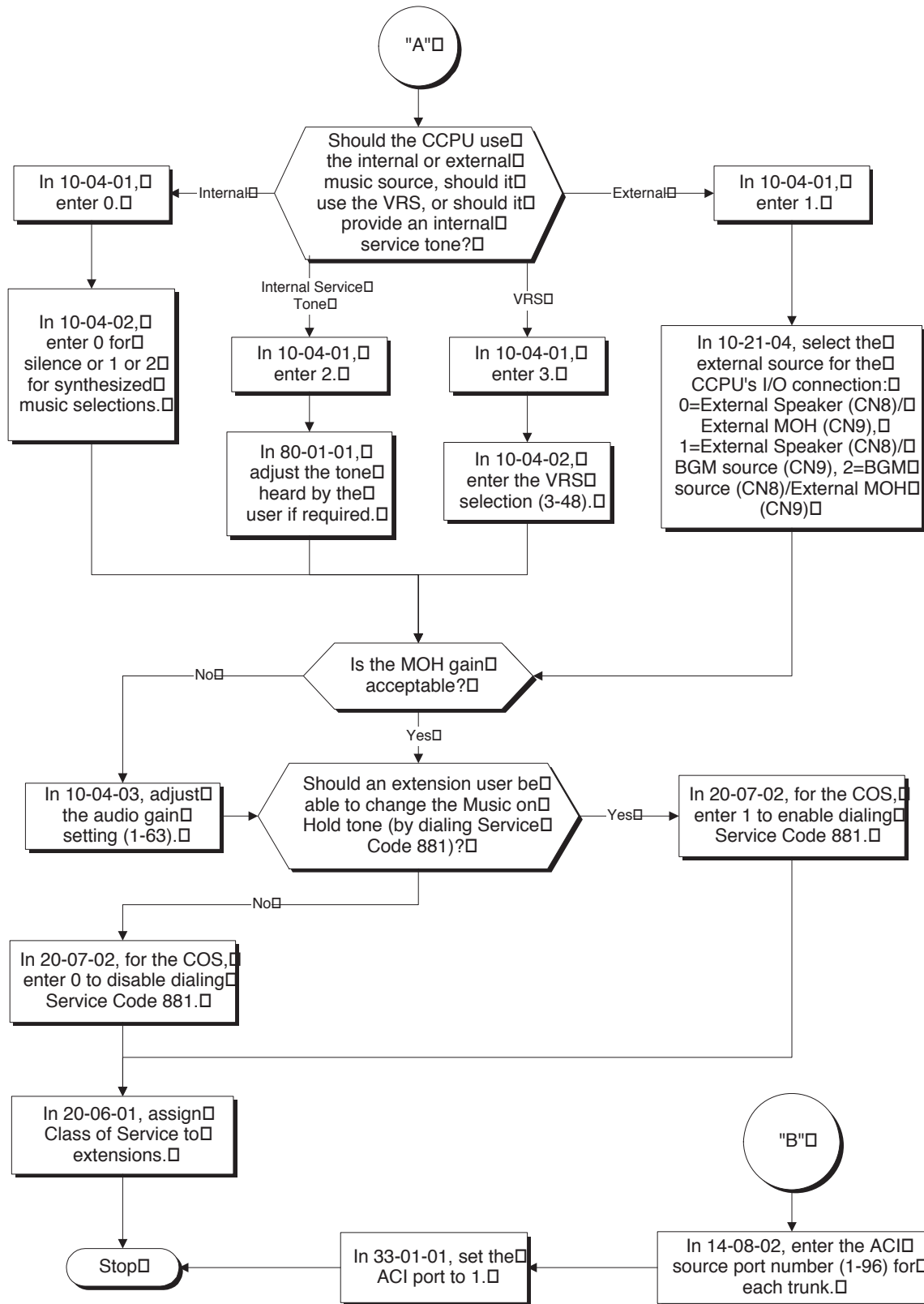
Default Setting

Disabled.

Programming



Music on Hold



Programming

➤ **10-04-01 : Music on Hold Setup - Music on Hold Source Selection**

The Music on Hold source can be internal (synthesized) [0], from a customer-provided music source [1], service tone provided by the UX5000 [2] (refer to Program 80-01-01, Tone 64). Use Program 10-04-03 to set the audio gain for the MOH selection.

The customer-provided source can connect to a 2PGDAD or the connector on the CCPU. Trunk MOH and Extension MOH music source use the same Music on Hold source.

If set to '1', Program 14-08-01 must be set to '0' or '1'.

➤ **10-04-02 : Music on Hold Setup - Music Selection for Internal Source**

Set the Music on Hold selection. If Program 10-04-01=0, set music source files 1-3. If Program 10-04-01=3, select the VRS message number to be played (1-100).

➤ **10-04-03 : Music on Hold Setup - Audio Gain Setup**

Set the Music on Hold audio gain (1-63).

➤ **10-21-04 : CPU Hardware Setup - External Source Input/Output Selection**

Specify the functions for the input and output of the CN8 and CN9 connectors on the CCPU for an external music source (0=External Speaker (CN8)/External MOH (CN9), 1=External Speaker (CN8)/BGM Source (CN9), 2=BGM Source (CN8)/External MOH (CN9).

➤ **14-08-01 : Music on Hold Source for Trunks**

For each trunk, set the Music on Hold source (0=CCPU, 1=Customer-provided source connected to BGM port, 2=Customer-provided source connected to ACI port).

➤ **14-08-02 : Music on Hold Source Port Number**

If the MOH type is "2" in 14-08-01, for each trunk enter the ACI source port number (1 – 96).

➤ **20-06-01 : Class of Service for Extensions**

Assign a Class Of Service (1-15) to an extension for each night mode (1-8).

➤ **20-07-02 : Class of Service Options (Administrator Level) - Changing the Music on Hold Tone**

In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to change the Music on Hold tone (Service Code 881).

➤ **33-01-01 : ACI Port Type Setup**

If ACI software port is designated for MOH in 14-08-01, set port's function to 1 (input).

➤ **80-01-01 : Service Tone Setup, Music On Hold Tone, Service Tone 64**

If required, change the tone heard by the user when placed on hold when Program 10-04-01 set to "2". Changes to this program require a UX5000 reset in order to take affect. The recommended setting is:

- Unit Count 1, Basic Tone 11, Duration 2, Gain 35
- Unit Count 2, Basic Tone 0, Duration 3, Gain 32
- Unit Count 3, Basic Tone 11, Duration 2, Gain 35
- Unit Count 4, Basic Tone 0, Duration 12, Gain 32

Music on Hold

When Using a PGDAD Module:

➤ **10-03-01 : Blade Setup - Terminal Type**

If a PGDAD module is used for the external music source, the module will automatically be assigned type '9' if the jumper straps in the module have been set prior to connecting it to the UX5000. If another type has been assigned, disconnect the PGDAD from the UX5000, delete the type setting, and, with the jumper straps positioned correctly in the PGDAD module, reconnect the module to the UX5000. Refer to the UX5000 Hardware Manual (P/N 0913100) for the jumper strap settings.

➤ **11-06-01 : ACI Extension Numbering**

Each ACI port must be assigned an extension number. Use this program to assign the extension numbers to ACI software ports. Select a number outside of the normal extension number range.

⇨ ACI Ports 1-96

➤ **11-08-01 : ACI Group Pilot Number**

Assign pilot numbers to ACI groups. When a user dials the pilot number, they reach an available ACI software port within the group.

⇨ ACI Groups 1-16

➤ **33-01-01 : ACI Port Type Setup**

Set each ACI software ports for input (1) or input/output (2). Use input ports for Music on Hold sources. Use output ports for External Paging/ringer control.

⇨ ACI Ports 1-96

➤ **33-02-01 : ACI Department Calling Group**

Assign ACI software ports to an ACI Department Group. This lets ACI callers connect to ACI software ports by dialing the group's pilot number (set in Program 11-08).

⇨ ACI Ports 1-8, ACI Groups 1-16

Note: Refer to the "Analog Communications Interface (ACI)" feature for additional information.

Related Features

Single Line Terminals

Single line terminals cannot change the Music on Hold tone.

Operation

To change the Music on Hold tone:

This option is allowable based on an extension's Class of Service.

1. Press idle CALL key.
2. Dial 881.
3. Dial Music on Hold tone code:
 - 00 No Tone
 - 01 General
 - 02 Holiday
4. Press SPK to hang up.

Feature Availability

- Available.

Description

Extensions and trunks can have names instead of just circuit numbers. These names show on a key-set's display when the user places or answers calls. Extension and trunk names make it easier to identify callers. The user does not have to refer to a directory when processing calls. A name can be up to 12 digits long, consisting of alphanumeric characters, punctuation marks and spaces.

To enter a space or accept an entry, the # key is used. However, this key will only work when performing user programming (such as Name Storing for an extension, service code 800). When in UX5000 programming, the right arrow soft key must be used to advance the cursor.

Conditions

None

Default Setting

Enabled.

Programming

- ◆ 14-01-01 : **Basic Trunk Data Setup - Trunk Name**
Program names for UX5000 trunks.
- ◆ 15-01-01 : **Basic Extension Data Setup - Extension Name**
Program name for UX5000 extensions (extensions 301-499, 5000-5312).
- ◆ 15-07-01 : **Programmable Function Keys**
Assign an Extension Name Change key (55) to extensions:
- ◆ 20-06-01 : **Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ◆ 20-09-02 : **Class of Service Options (Incoming Call Service) - Trunk Name Display, Incoming**
In an extension's Class of Service (1-15), enable (1) or disable (0) the displaying of a trunk's name/number when the trunk is ringing.
- ◆ 20-13-21 : **Class of Service Options (Supplementary Service) - Extension Name**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to program their name.

Related Features

Directory Dialing

Display terminals use extension names for Directory Dialing.

Single Line Terminals

Single line extensions cannot program names.

Name Storing

Operation

To program an extension's name:

1. Press idle CALL key.
2. Dial 800
OR
Press Extension Name Change key (PGM 15-07 or SC 851: 55).
3. Enter the extension number to be named.
4. Enter name (see below).
Your name can be up to 12 digits maximum.
5. Press HOLD.
6. Press SPK to hang up.

Key for Entering Names	
When entering names in the procedures below, refer to this chart. Names can be up to 12 digits long.	
Use this keypad digit . . .	When you want to . . .
1	Enter characters: 1 @ [¥] ^ _ ` { } → ← Á À Â Ã Ä Ç È É Ê Ì Ó 0
2	Enter characters A-C, a-c, 2.
3	Enter characters D-F, d-f, 3.
4	Enter characters G-I, g-i, 4.
5	Enter characters J-L, j-l, 5.
6	Enter characters M-O, m-o, 6.
7	Enter characters P-S, p-s, 7.
8	Enter characters T-V, t-v, 8.
9	Enter characters W-Z, w-z, 9.
0	Enter characters: 0 ! “ # \$ % & ’ () ô o ú å ä ö ü α ε θ
*	Enter characters: * + , - . / : ; < = > ? π Σ σ Ω ∞ ϕ ε
#	# = Accepts an entry (only required if two letters on the same key are needed - ex: TOM). Pressing # again = Space. (In UX5000 programming mode, use the right arrow soft key instead to accept and/or add a space.)
CONF	Clear the character entry one character at a time.
CLEAR	Clear all the entries from the point of the flashing cursor and to the right.

Feature Availability

- Available - Feature requires a MEMDB be installed on the CCPU. Up to 50 nodes possible.

Description

Use the AspireNet networking feature to integrate multiple phone systems (UX5000 and Aspire) into a single “virtual” UX5000 communications server. Interconnected with ISDN PRI or BRI or VoIP, each phone system becomes a node on the network that can communicate with any other phone system node.

AspireNet provides seamless feature support for all features connected to the network.

- **Centralized Network Attendant**
Centralized Network Attendant allows multiple networked systems to share a single centralized attendant. This centralized attendant can receive calls from and transfer calls to any destination in any network node. Unanswered calls recall and route as if they were part of a single, much larger system.
- **Flexible Network Routing**
Use network routes to set up ISDN and VoIP networking between many separate systems - or use mixed (ISDN or VoIP) networking per system for greater network performance. Data tables in the system program define the routing for each network node. These tables are easily customized to meet the requirements of each networking configuration.

Users may place an intercom call or transfer a call to any extension at any location by simply dialing an extension number. The communications server analyzes each extension number received and determines how to route the call to its final destination. The feature which handles this route selection is called Flexible Routing (F-Routing). F-Routing also has the ability to select alternate routes to the destination extension if the primary destination is busy. Up to 48 routes are available for networking. Once an extension number is dialed, the system checks the routing, accesses the assigned trunk group and places the call. Each extension is assigned a route or routes that decides which trunk group to access and any modified dialed data if required.

When a UX5000 is connected via a VoIP connection to an Aspire system in a tie-line type setup, in order to transfer calls from the UX5000 to the Aspire, in addition to the VoIP programs specified in the VoIP feature (page 608), set up the Flexible Routing Tables as follows:

- **Program 44-05-01 : ARS/F-Route Table** ; Table Number 1 = 9 (Trunk Group for UX5000 VoIP Trunk)
- **Program 10-23-02 : H.323 System Interconnection, IP Address** ; System Number 3 = 172.16.9.10 (IP Address for i-Series System)
- **Program 10-23-04 : H.323 System Interconnection, Alias Address** ; System Number 3 = 4 (For Dial 4 Calls)

With this programming, the UX5000 will wait for the Trunk Interdigit Timer to expire before dialing out after an i-Series extension (4xxx) is dialed.

If the F-Routing is set up with Program 44-05-01; Table Number 1 set to 103 (Networking) and Program 10-27-01; System ID 3 = 172.16.9.10 (IP Address for i-Series), though the i-Series system will be able to transfer calls to the UX5000, the UX5000 system will not be able to transfer to the i-Series.

PRI AspireNet With Two Local Voice Mails, Masters Must Have Different Numbering

When programming a PRI network with each UX5000 having their own local voice mail, the master numbers for the voice mails must be defined in different series in Program 11-01. The second digit of the extension number can not be the same. For example, 700 and 701 will not work, however 700 and 710 can be used.

With Two Local Voice Mails, Network ID Must Match in Programming

With a networked system, with each system having their own voice mail, in order for users to properly connect to the correct voice mail when leaving a message, the programming must be set as described below.

PRI AspireNet

Each node on a networked UX5000 is defined in **Program 10-03-11 : Blade Setup - Networking System Number** for the desired PRI slot. In the local system (Site 1), **Program 11-01-01 : System Numbering** has a digit defined for networking (example: 7x=8 (network)).

The ID entry in Program 10-03-11 must match the ID set in Program 11-01-01. Otherwise, callers could not press "8" to leave a message at a networked user's voice mail. For example:

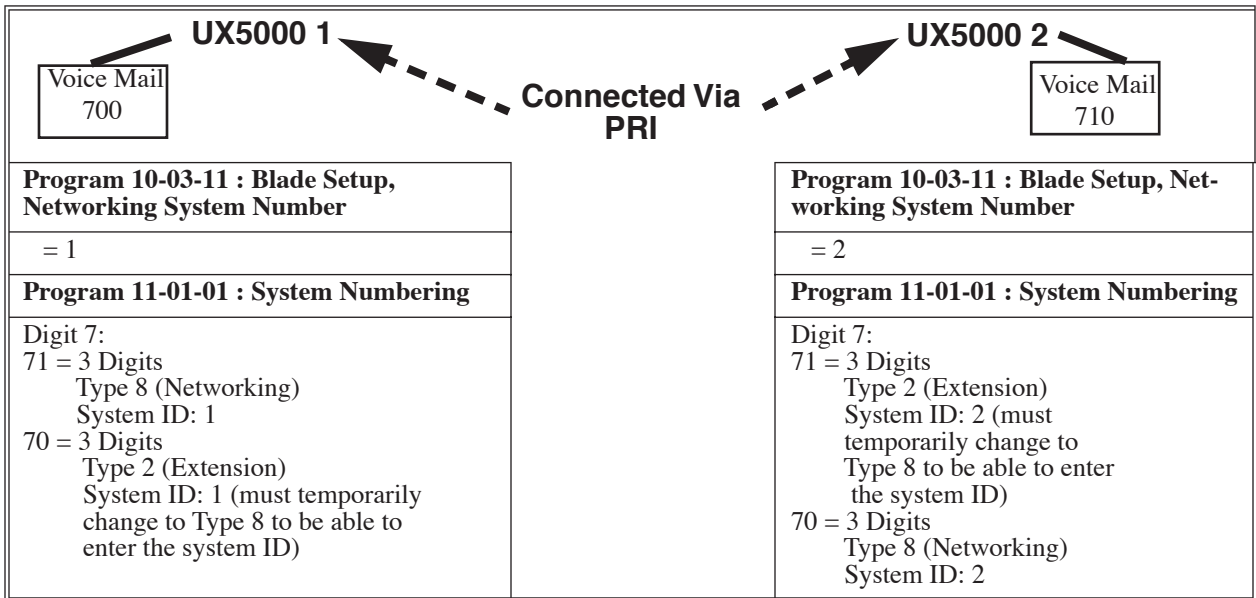
- In Site 1 in **Program 10-03-11 = 1, Program 11-01-01 7X=8, ID = 2.**
When Site 1's extension 301 calls Site 2's extension 401, then presses digit "8", the user would hear a reorder tone.
- In Site 1 in **Program 10-03-11 = 1, Program 11-01-01 7X=8, ID = 1.**
When Site 1's extension 301 calls Site 2's extension 401, then presses digit "8", the user will hear the voice mail message for extension 401.

Note that in order to assign a system ID, the "type" must temporarily be set to "8" (networking). Once the system ID has been assigned, you can change the type to the required entry (2).

Programming

1. Set Program 11-01-01 to "8" (networking) for the local and remote voice mail master numbers and define the ID number.
2. Set the local system ID in Program 10-03-11 to the same entry defined in Program 11-01-01.
3. Change Program 11-01-01 for the local voice mail master number back to "2" (extension number).

Refer to the example below:



IP AspireNet

Each node on an IP networked UX5000 is defined in **Program 10-27-01 : IP System ID**. For example, Site A has ID 1 and Site B system has ID 2 in Program 10-27-01. *This must be the same in every node.*

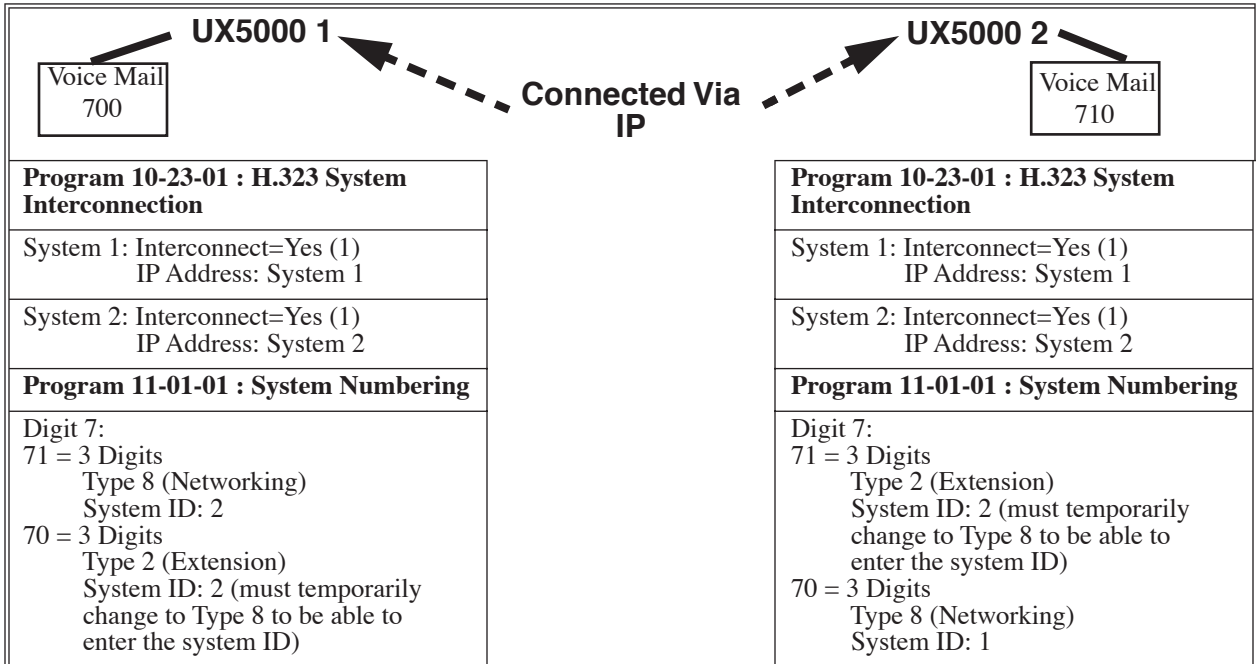
In **Program 11-01-01 : System Numbering**, if Site 1 system (system ID 1) has 700 as the master number, the entry for "70" would be "2".

Site 2 system (system ID 2) has 710 as the master number, the entry for "71" would also be "2".

Note that in order to assign a system ID, the "type" must temporarily be set to "8" (networking). Once the system ID has been assigned, you can change the type to the required entry (2).

Networking - AspireNet

The system ID defined in Program 11-01-01 is where the voice mail master number resides. Refer to the example below:



Multiple Site AspireNet Available

IP AspireNet allows for a maximum of 50 nodes. With ISDN AspireNet, the maximum number of nodes depends on the type of trunks used - PRI, BRI or a mixture of both.

The recommended connection for multiple system networking is to interconnect all the UX5000s using hardware (required with ISDN AspireNet) and programming. This also allows such features as Park to be used in a network.

With VoIP AspireNet, the system IDs for each networked system are defined in **Program 10-27 : IP System ID**. An IP address is defined for each node, and using the Numbering Plan (Program 11-01xx), the dialed digits are analyzed, the system ID is determined, and the call is routed to the networked system.

With ISDN AspireNet, interconnecting the systems is accomplished by defining a master blade and slave blade between each system (**Program 10-03-10 : Blade Setup - Master/Slave System**). Each system must have an ISDN blade for each other system in the network.

The networked systems can be interconnected using a combination of PRI and VoIP trunks. In this type of setup, the IP resources will received priority over the PRI resources. The PRI will be used when the IP resources are busy. The following two graphics indicate correct networking layouts. Each one provides connection between all three systems within the network.

ISDN AspireNet Clock Source

When using ISDN AspireNet (PRI or BRI) on the UX5000, the option selected in **Program 10-03-01 : Blade Setup - ISDN Line Mode** determines the clock source for the networked connection. The following information indicates how, with each option, the clock source is obtained for the networked systems.

Option 3: Network Mode (Leased Line)

Telco sends the clock to the Master System
Telco sends the clock to the Slave System

Option 4: Network Mode (Interconnected Line)

Master System sends the clock to the Telco (or direct connection without telco) which then sends the clock to the Slave System

Option 5: (Interconnected Line, Fixed Layer 1=NT)

Master System sends the clock to the Telco
Slave System sends the clock to the Telco

Keep Alive Programs

Two options in Program 10-31 for use with the AspireNet feature are available to define the interval of Keep Alive and how many times the system resends Keep Alive.

PRI Channel Limitation

The system provides an option which can be used to assign the number of B-channels to be used for each ISDN blade. This allows for fractional PRIs when used with multiple site networking. If this program is limited to less than "23" on one side of the network, then it also limits both inbound and outbound network calls. This also applies on the other side of the network as well.

Transfer Network Trunk to Local Voice Mail Using Voice Mail Key

IP or PRI network sites that have their own voice mail can transfer a call into voice mail using the following steps if the inbound call originated in another site (for example, a call comes in to Site A and it translates to an extension at Site B):

- HOLD + the Voice Mail Programmable Function Key (Program 15-07 or SC 851 + 77) or MSG key (Program 15-02-26=1) + the extension number.

Keep the following in mind when using this option:

- **Note that if you have a local and central voice mail, you can not have the same mailbox number at each node.** If both sites have the same mailbox, when transferring a call, it will be transferred into the local voice mail and not across the network.
- As this software change allows transferring to a general message by a Single Line Set, the following two operations have different results between Networking Call Transfer and Internal Call Transfer.
 - Hold + Voice Mail Master Dial then hang up.
 - Hold + Service Code (Own Mailbox Access - *8) then hang up.

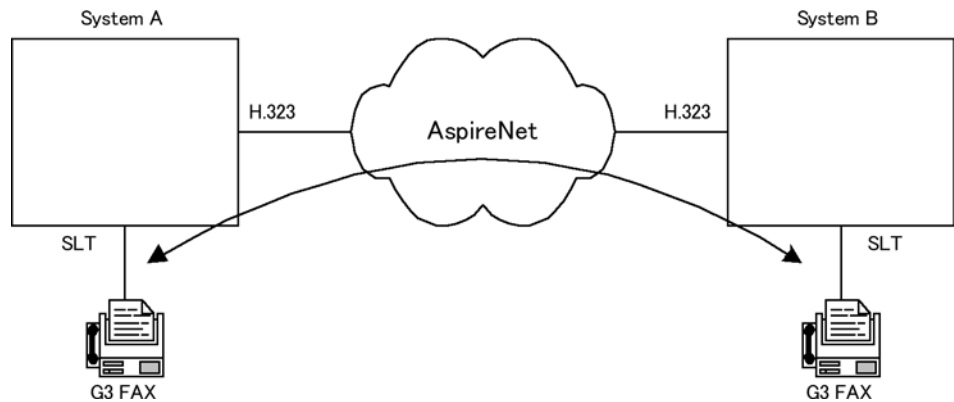
Fax Over AspireNet

The purpose of AspireNet is to be able to connect several systems and have them appear to operate as one system. However, some restrictions apply. With Fax Over AspireNet using H.323 trunks, if a resource is busy, the operation may not be performed efficiently. Although the operation continues if there is no G.711 compression, there is no resending procedure with RTP. The software enhances this operation to provide better performance.

With IP AspireNet, the modem signal of the fax relay uses H.245. This enhancement only applies to G3.

Examples:

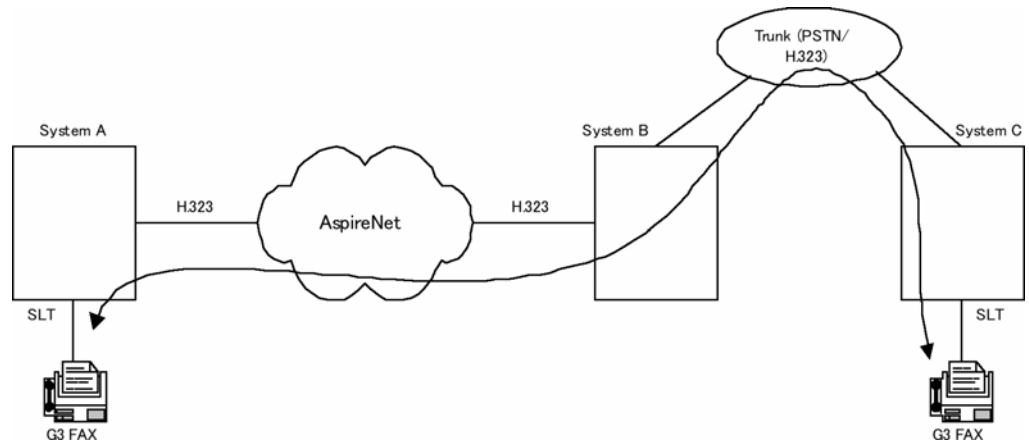
FAX Relay with SLT Extension (G3)



Setup:

- System A
Program 15-03-03 = G3 Fax 1 (special)
Program 84-12-32 = 2 (Each Port Mode)
- System B
Program 15-03-03 = G3 Fax 1 (special)
Program 84-12-32 = 2 (Each Port Mode)

FAX Relay with Trunks



Setup:

- System A
Program15-03-03 = G3 Fax 1 (special)
Program 84-12-32 = 2 Each Port Mode
- System B
Program 84-01-59 = 2 special
Program 84-12-32 = 2 Each Port Mode
- System C
Program15-03-03 = G3 Fax 1 (special)
Program 84-01-59 = 2 Each Port Mode

For additional information on networking, refer to the Aspire Networking Guide (P/N 0893207).

Conditions

Refer to the Aspire Networking Guide (P/N 0893207).

Default Setting

Disabled.

Programming

Refer to the Aspire Networking Guide (P/N 0893207).

- ◆▶ **10-19-01 : VOIPDB DSP Resource Selection - DSP Resource**
Specify the operating mode of the DSP resource on the VOIPDB blade. This program setting has no affect on the terminal/trunk port assignments or usage.
(0 = common use - for both IP extensions and trunks, 1 = IP extension only, 2 = IP trunk only SIP trunks, 3 = Networking (network)/Telco/CCIS, 4 = CygniLink, 5 = Blocked)
- ◆▶ **10-20-01 : LAN Setup for External Equipment - TCP Port, External Device 4**
Define the TCP port (0-65535) for communicating to the Network listener.
- ◆▶ **10-20-03 : LAN Setup for External Equipment - Keep Alive Time**
Define the keep alive time (1-255 seconds) for communicating to external equipment.
- ◆▶ **10-31-01, 02, 03 : Networking Keep Alive Setup**
Set the interval and retry count of the Networking keep alive message. The keep alive is used for ISDN and IP networking

Related Features

Refer to the Aspire Networking Guide (P/N 0893207).

Operation

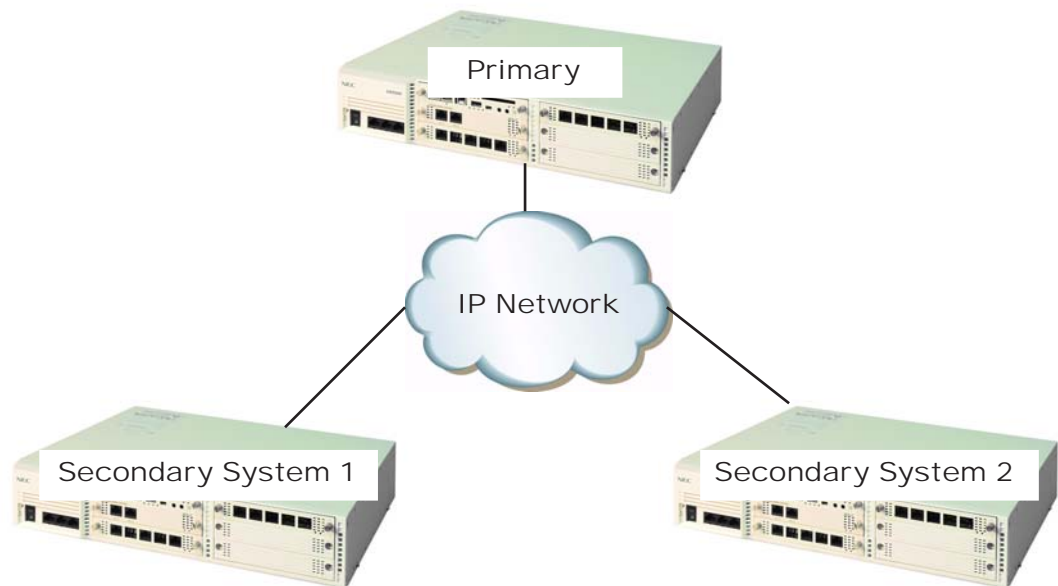
Refer to the Aspire Networking Guide (P/N 0893207).

Also refer to the Networking - CygniLink (page 441) for information on this feature.

Feature Availability

- Available - Feature requires a VOIPDB and a MEMDB be installed on the CCPUs. Up to 16 nodes possible.

Description



Use the built in CygniLink networking feature to integrate multiple communication servers into a single “virtual” communications system. Interconnected with ISDN PRI or BRI or VoIP, each communications server becomes a node on the network that can communicate with any other communications server node.

With CygniLink, the Fail-Over ability will allow the UX5000 to switch to another CCPU defined in programming, should there be a power outage/failure with the main CCPU. The networked communication servers will reboot (this takes approximately 30 seconds) and when they come back up are linked to the new Primary System.

CygniLink provides seamless feature support for all features connected to the network.

For additional information on networking, refer to the UX5000 CygniLink Networking Guide (P/N 0913207).

Conditions

Refer to the UX5000 CygniLink Networking Guide (P/N 0913207).

Default Setting

Disabled.

Programming

Refer to the UX5000 CygniLink Networking Guide (P/N 0913207).

- **51-01-01 : CygniLink System Settings - CygniLink System ID**

This is the ID number (0=Disabled, 1-50) that identifies each UX5000 within the CygniLink network. Each UX5000 must be a unique number in the network.
When this option is set to 0, CygniLink is disabled.
The UX5000 must be reset when changing this option.
- **51-01-02 : CygniLink System Settings - Primary Candidate Order**

When the Primary UX5000 is turned off or disconnected from the network, this value (1-50) is used to select the new Primary UX5000 with the Fail Over feature. The smaller the number, the higher the priority for the UX5000. When the value for two UX5000s is the same, lower CygniLink System ID (51-01-01) is selected as the Primary UX5000.
- **51-01-03 : CygniLink System Settings - Secondary System**

The link between UX5000s is established based on this setting (0, 1). When enabled, the UX5000 will connect with the top priority Primary UX5000 (address set in Program 51-04-01). If the UX5000 is not found within the defined time (Program 51-05-02), the Fail Over feature of the UX5000 will search for the Primary UX5000 (as if this option were set to '0').
The link between UX5000s is dynamically established based on the node list set in Program 51-03-01. The Primary UX5000 will be selected in the order in which the UX5000s wake up.
- **51-02-01 : CygniLink System Individual Setting - System Name**

Set the desired site name (up to 20 characters) for ease of maintaining information. Once the UX5000 is connected to the Primary UX5000, this setting is updated by the Primary system data.
- **51-02-02 : CygniLink System Individual Setting - Time Zone - Hour**

Determine the offset hours from the Primary UX5000. This setting affects the time display on display keysets (0~24 = -12 ~ +12 hours).
- **51-02-03 : CygniLink System Individual Setting - Time Zone - Minute**

Determine the offset minutes from the Primary UX5000. This setting affects the time display on display keysets (0 ~ 120 = -60 ~ +60 minutes).
- **51-02-04 : CygniLink System Individual Setting - System Authentication MAC Address**

When Program 51-13-03 is enabled, the UX5000 checks this MAC address against the MAC address of the connecting CCPU. If the value is different, the connection is refused.
- **51-03-01 : CygniLink Internet Protocol Address List Setting - Internet Protocol Address List**

The communications server sees the Primary UX5000 from within this list. When no Primary UX5000 is seen or Fail-Over occurs, the Node List is referred to in order to establish a new link. This setting is necessary when Program 51-01-03 is set to '0' or Program 51-05-02 is other than '0'.
Enter IP addresses for any communications server which is included in the network (especially the Primary UX5000). Once the communications server connects to the Primary UX5000, this setting is updated by the Primary UX5000 when Program 51-13-01 is enabled. This will allow any new or changed UX5000s to be added automatically.
An IP address cannot be defined more than once.
- **51-04-01 : IP Address for Top Priority Primary System - Internet Protocol Address for Top Priority Primary System**

Enter the IP address of the Primary UX5000. This setting is needed to use the Primary UX5000 Automatic Integration Feature (Program 51-06-01). If the secondary flag is set in Program 51-01-03 secondary UX5000s will connect with this IP address.
- **51-05-01 - 51-05-07 : Timer Settings for CygniLink**

Set the various timers for the CygniLink feature.
- **51-06-01 : CygniLink Primary System Automatic Integration Setting - Primary Automatic Integration**

When Fail-Over occurs, multiple Primary UX5000s may be established. When the connection is recovered, with this option enabled (1), the CygniLink feature will automatically be re-established around the top priority Primary UX5000.

- **51-06-02 : CygniLink Primary System Automatic Integration Setting - Blade Reset Timing Option**

When the Primary Automatic Integration re-establishes the CygniLink network, the blades in the secondary UX5000s are reset. This option determines if the secondary UX5000 blades are reset only when all blades are idle (0) or at any time (1).
- **51-07-01 : CygniLink Forced Change of Primary System Settings - Allow Forced Change of Primary System**

When Fail-Over occurs, you can manually change the Primary UX5000 using Program 51-08, if this option is enabled. Program 51-06-01 must be set to “0”.
- **51-07-02 : CygniLink Forced Change of Primary System Settings - Blade Reset Timing Option**

When the Forced Change of Primary Settings is performed, the blades in the secondary communication servers are reset. This option determines if the secondary UX5000 blades are reset only when all blades are idle (0) or at any time (1).
- **51-08-01 : New Primary System Setting - Internet Protocol Address of New Primary**

When forcing the communications server to update to a new Primary UX5000, the communications server using the IP address defined here as the new Primary.
Note: After a Forced Change of Primary UX5000 is done, this entry will be erased.
- **51-08-02 : New Primary System Setting - System ID of New Primary**

If you already have an IP address registered in Program 51-11-03, you can execute a Forced Change Primary UX5000 by entering the system ID. If this ID is set to “0”, the Top Priority UX5000 will be selected as the new Primary.
- **51-09-01 : CygniLink TCP Port Settings - Primary Port**

Define the port the Primary UX5000 uses to communicate with the Secondary UX5000 (0-65535).
- **51-09-02 : CygniLink TCP Port Settings - Communication Port**

Define the port used to communicate between other networked communications servers (0-65535).
- **51-09-03 : CygniLink TCP Port Settings - Secondary Port**

This setting defines the port used by the Secondary UX5000 to communicate to the Primary UX5000 (0-65535). If ‘0’ is entered, the port is selected dynamically.
- **51-09-04 : CygniLink TCP Port Settings - Primary Search Port**

When Fail-Over occurs, each UX5000 communicates with the other communication servers using the port number specified in this entry (0-65535). If ‘0’ is entered, the port is selected dynamically.
If an entry other than ‘0’ is made, up to 50 ports (depending in the number of networked systems) are continuously used from the specified port number. (Ex: If 5000 is entered, 5001-5049 will be used.)
- **51-09-05 : CygniLink TCP Port Settings - Primary Detection Port**

Enter the port number to search for the Top Priority Primary UX5000. If ‘0’ is entered, the port is selected dynamically (0-65535).
- **51-09-06 : CygniLink TCP Port Settings - Database Replication Secondary System Listening Port**

Define the listening port used so that the Secondary UX5000 can replicate the Primary UX5000 database (0-65535).
- **51-09-07 : CygniLink TCP Port Settings - Database Replication Primary System Detection Port**

Define the port used for communication so that the Primary UX5000 may synchronize the Secondary UX5000 with the program data (0-65535). If ‘0’ is entered, the port is selected dynamically.

- **51-10-01 : Remaining Virtual Slots**
View the remaining number of slots which can be controlled by CygniLink. The CygniLink feature can control up to 240 virtual slots maximum. (The physical slots within the CygniLink network are maintained as virtual slots by the UX5000.) *This option is not user-definable and is view-only.*
- **51-11-01 - 51-11-06 : CygniLink System Information**
View the UX5000 information for communication servers connecting with the Primary UX5000. *These options are not user-definable and are view-only.*
- **51-12-01 - 51-12-06 : Primary System Information**
View the information for the Primary UX5000 in a CygniLink network. *These options are not user-definable and are view-only.*
- **51-13-01 : CygniLink Option Settings - Automatic IP Address List Update**
If this option is enabled (1), the Internet Protocol address list is updated to include the IP address of a Secondary UX5000 upon connection.
- **51-13-02 : CygniLink Option Settings - Time Zone Enhancing**
When enabled (1), the time zone is applied to the following items:
Clock Display, Caller ID History, VRS Time Announce, Time and Date Set by Service Code, Alarm Clock, Hotel Mode Wake-Up Call (time announce included)
- **51-13-03 : CygniLink Option Settings - MAC Address Authentication**
When enabled (1), connection authentication of the UX5000 is done with the MAC address set in Program 51-02-04.
- **51-14-01 : CygniLink System Control - Delete System Information**
Use this option to delete the UX5000 and slot information for a particular communications server using the CygniLink feature. To use this program, the communications server must not be connected to the network.
- **51-15-01 : Easy Set Command**
Automatically set the minimum settings for the CygniLink feature. This program will set up to 4 communication servers and apply the minimum settings required to Program 10-12-09, 51-01-01, 51-03-01, 51-04-01, and 51-05-02.
- **51-16-01 : CygniLink System Data Replication Mode Setting - System Data Replication Mode**
Use this option to set the replication mode (0=Disabled, 1=Setting Time Mode, 2=Interval Mode). An entry of '1' will replicate the data at the time set in 51-16-02. If this option is set to '2', replication will occur at the interval set in 51-16-03.
- **51-16-02 : CygniLink System Data Replication Mode Setting - System Data Replication Time Setting**
If Program 51-16-01 is set to '1', set the time to replicate the program data (0000-2359).
- **51-16-03 : CygniLink System Data Replication Mode Setting - System Data Replication Interval Setting**
If Program 51-16-01 is set to '2', set the interval time between replicating the program data (15-1440 minutes).
- **51-16-04 : CygniLink System Data Replication Mode Setting - Replication Time Stamp**
This program displays the last time the program data was replicated. This is automatically updated whenever the replication occurs. This option is view-only.
- **51-16-05 : CygniLink System Data Replication Mode Setting - System Data Replication Wait Time**
When a CygniLink network is created, this option determines how long the UX5000 waits until replication is started (1-86400 seconds).
- **51-16-06 : CygniLink System Data Replication Mode Setting - System Data Replication Interval**
This option sets the interval time to start replication to the next node after replication has completed to one node (1-86400 seconds).

Related Features

Refer to the UX5000 CygniLink Networking Guide (P/N 0913207).

Operation

Refer to the UX5000 CygniLink Networking Guide (P/N 0913207).

Night Service

Feature Availability

- Available - 32 Night Service Patterns/Groups and 8 time modes.

Description

Night Service lets UX5000 users activate one of the Night Service modes. Night Service redirects calls to their night mode destination, as determined by Assigned and Universal Night Answer programming. A user typically activates Night Service after normal working hours, when most employees are unavailable to answer calls. The UX5000 also provides external contacts to enable Night Service.

There are eight Night Service modes:

- Day 1 / Day 2 Modes - for normal working hours
- Night 1 / Night 2 Modes - after hours (usually evening)
- Midnight 1 / Midnight 2 Modes - late at night to early in the morning
- Rest 1 / Rest 2 Modes - interval usually used for lunch

Assigned Night Answer (ANA)

With Assigned Night Answer, Night Service has calls ring extensions directly. Assigned Night Answer provides an answering point for Night Service calls. For certain applications, this may be more appropriate than Universal Night Answer. For example, you could program trunks to ring the security station terminal during off hours.

Universal Night Answer (UNA)

Universal Night Answer makes incoming calls ring over the External Paging speakers. With UNA, an employee can go to a terminal and press the flashing line key or use “Universal Answer” to pick up the call. Only ring groups calls can be used with Universal Night Answer. For more on setting up Universal Answer, turn to the “Central Office Calls, Answering” feature.

You may also be able to use Transfer to UNA. An extension user can Transfer their call to UNA (i.e., External Paging at night). Once transferred, the call will ring the External Paging speakers like any other UNA call and can be picked up at any extension.

Automatic Night Service

The UX5000 will allow or deny Automatic Night Service based on the extension’s class of service programming. If allowed, the calls will then route according to the service patterns programmed. The Night Service programming is stored in the RAM memory. This means that if the UX5000 is not using the Automatic Night Service, in the case of a power failure while in night mode, when the power is restored, the UX5000 will continue to be in night mode.

rogrammable Function Key Can Toggle Night Modes

The software allows a Night Service Programmable Function Key (PGM 15-07 or SC 851: 09 + 0) to toggle night modes. You can determine in programming how many modes through which the user will toggle. Note that the additional data for the Programmable Function Key must be set to "0" for the toggle function to work.

Conditions

- The following programs are affected by Night Mode:

15-06	21-16	24-05	31-05
15-09	22-02	25-02	32-02
15-11	22-05	25-03	34-02
20-06	22-06	25-04	34-03
20-29	22-07	25-05	34-04
20-30	22-08	25-09	40-06
21-02	22-12	25-10	40-11
21-03	22-13	25-11	44-04
21-04	23-03	25-12	
21-15	24-04	26-04	

- Almost all features are affected by Night Mode except for the following:
 1. Dial Tone Detection
 2. External Alarm Sensors
 3. Flexible System Numbering
 4. Labelmaker
 5. Pulse to Tone Conversion
 6. SMDR
 7. Volume Control
- Multiple Directory Number (virtual extension) keys do not support Day/Night Mode (09) Programmable Function keys.

Default Setting

UX5000 is always in the Day Mode.

Programming

- **10-05-01 : General Purpose Relay Setup**
Define which relay circuits (5-8) on the 2PGDAD adapter are used for General Purpose Relays.
- **10-21-04 : CPU Hardware Setup - External Source Control Switch Selection**
Select the functions of the CCPU's I/O terminals (CN8/CN9) for external music source. (0=External Speaker (CN8) / External MOH (CN9), 1=External Speaker (CN8) / BGM (CN9), 2=BGM (CN8) / External MOH (CN9)).
- **10-21-05 : CPU Hardware Setup - General Purpose Relay on the CCPU**
Select which relay is to be used for the general purpose relay on the CCPU (CN10). (0=Off, 1=Relay 1, 2=Relay 2).
- **11-10-01 : Service Code Setup (for System Administrator) - Day / Night Mode Switching**
Customize the service code (818) to be used for day/night mode switching.

Night Service

- **11-12-50 : Service Code Setup (for Service Access) - General Purpose Relay**
Define the service code to be used for turning the general purpose relay on and off (default=880).
- **12-01-01 : Night Mode Function Setup - Manual Night Service Enable**
Allow (1) or prevent (0) any extensions from activating Manual Night Service.
- **12-01-02 : Night Mode Function Setup - Automatic Night Service Enabled**
Enable (1) or disable (0) Automatic Night Service for the UX5000. Make sure to set the Service Patterns in 12-02, 12-03, and 12-04.
- **12-01-03 : Night Mode Function Setup - Night Mode Switch Operating Mode**
Set the function of the CPU Night Service Mode switch (Not Used = 0, Day 1 Mode = 1, Night 1 Mode = 2, Midnight 1 Mode = 3, Rest 1 Mode = 4, Day 2 Mode = 5, Night 2 Mode = 6, Midnight 2 Mode = 7, Rest 2 Mode = 8).
- **12-02-01 : Automatic Night Service Patterns - Start Time**
For each Night Service Group, enter up to 20 start times for each Time Pattern (1-10). Pattern 1 should begin at 00:00 (midnight).
⇨ Night Service Groups 1-32
- **12-02-02 : Automatic Night Service Patterns - End Time**
For each Night Service Group, enter up to 20 end times (0000-2359) for each Automatic Night Service pattern (1-10).
⇨ Night Service Groups 1-32
- **12-02-03 : Automatic Night Service Patterns - Operation Mode**
For each Night Service Group, define the time mode for up to 20 start/end times for each Automatic Night Service pattern (1-10).
⇨ Night Service Time Modes 1-8 (Day 1, Night 1, Midnight 1, Rest 1, Day 2, Night 2, Midnight 2, Rest 2), Night Service Group: 1-32
- **12-03-01 : Weekly Night Service Switching**
Assign one of the five Automatic Night Service patterns programmed in 12-02 to each day of the week.
- **12-04-01 : Holiday Night Service Switching**
Assign one of the five Automatic Night Service patterns to holidays.
- **12-05-01 : Night Mode Group Assignment for Extensions**
Assign a Day/Night Mode Group for each extension.
⇨ Night Service Groups 1-32
- **12-06-01 : Night Mode Group Assignment for Trunks**
Assign a Day/Night Mode Group for each trunk port (1-200).
- **12-07-01 : Text Data for Night Mode**
Create an original text message which will be displayed on an LCD of keyset terminal in each Night Mode.
- **12-08-01 : Night Mode Service Range**
For each night mode group, determine how many night modes a user will toggle through when the Night Mode key is pressed (entries: 2-8).
⇨ 01-32

- **14-07-01 : Trunk Access Map Setup**

To allow for UNA answering, set up the Trunk Access Maps (1-200). For UNA, extension must have incoming access to trunk ringing the External Paging speakers.
- **15-06-01 : Trunk Access Map for Extensions**

For UNA answering, assign Trunk Access Maps (1-200) to extensions. Make one entry for each Night Service mode.
- **15-07-01 : Programmable Function Keys**

Assign Night Service function keys (09) to extensions. The additional data for this key must be set to "0" in order for the toggle mode to function. Set the key for the proper mode (Day, Night, Rest, etc.). Assign trunks to function keys (code *01 + 1-8 or 001-200). If required, define a function key for a keyset to use the general purpose relay (51).
- **20-06-01 : Class of Service for Extensions**

Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-01 : Class of Service Options (Administrator Level) - Manual Night Mode Switching**

In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to manually switch the Night Mode (Service Code 818). This option must be enabled for an extension to be able to display the "Night" indication.
- **22-02-01 : Incoming Call Trunk Setup**

Assign the incoming trunk type (0-7) for each trunk. There is one item for each Night Service Mode.
⇨ Night Service Time Mode 1-8
- **22-04-01 : Incoming Extension Ring Group Assignment**

To have trunks ring extensions during the different Night Service modes (for ANA), assign extensions to Ring Groups. For each extension in the Ring Group, indicate in Program 22-06 if trunk should ring (1) or not ring (0).
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-05-01 : Incoming Trunk Ring Group Assignment**

To have trunks ring extensions for ANA, assign trunks to Ring Groups. You make a different entry for each Night Service mode.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-08-01 : DIL/IRG No Answer Destination**

If a Universal Answer call rings longer than the DIL No Answer Time (Program 22-01-04), it routes to the Ring Group specified in this option.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **31-05-01 : Universal Night Answer/Ring Over Page**

For each Night Service Mode, assign which trunks should ring which External Paging Zones.

Related Features

Central Office Calls, Answering and Placing/Ring Groups

There are separate Access Map and Ring Group programming entries for each Night Service mode (Day 1, Night 1, Midnight 1, Rest 1, Day 2, Night 2, Midnight 2, Rest 2). Also, "Universal Answer" allows an extension user to pick up a UNA call.

Direct Station Selection (DSS) Console

Assign a Night Mode Key as required for keyset users. The DSS Consoles provide Day and Night keys.

Paging, External

With Universal Night Answer, outside calls can ring External Paging Zones.

Programmable Function Keys

Function keys simplify activating Night Service.

Night Service

Operation

To activate Night Service by dialing codes:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 818. To change a different group's mode, dial 118 + the group number (01-32).
3. Dial Night Service code:
 - 1 Day 1 mode
 - 2 Night 1 mode
 - 3 Midnight 1 mode
 - 4 Rest 1 mode
 - 5 Day 2 mode
 - 6 Night 2 mode
 - 7 Midnight 2 mode
 - 8 Rest 2 mode
4. Press SPK to hang up.

To activate Night Service by using programmable keys:

1. Press Night Service key defined to toggle (PGM 15-07 or SC 851: 09 + 0).
OR
Press Night Service key (PGM 15-07 or SC 851: 09 + Mode code number 1-8).
 - 1 Day 1 mode
 - 2 Night 1 mode
 - 3 Midnight 1 mode
 - 4 Rest 1 mode
 - 5 Day 2 mode
 - 6 Night 2 mode
 - 7 Midnight 2 mode
 - 8 Rest 2 mode

To transfer a call to the Universal Answer External Page zones:

1. Place the CO call on hold and dial the Transfer to Trunk Ring Group code.
You will hear a confirmation tone.
2. Hang up.
The call rings over the External Paging, enabling anyone to answer the call.

Feature Availability

- Available.

Description

The signal is an off hook ringing over the idle (second) line appearance. Off Hook Signaling helps important callers get through, without waiting in line for the called extension to become free. The UX5000 provides the following Off Hook Signaling options:

- **Called Extension Block**
The called extension's Class of Service may block incoming Off Hook Signaling attempts. This is beneficial to users that don't want interruptions while on a call.
- **Automatic Signaling**
Calling a busy extension automatically initiates Off Hook Signaling. This option is useful to receptionists, operators and others that must quickly process calls. This is set in the called extension's Class of Service.
- **Manual Signaling**
After reaching a busy extension, manual signaling gives the caller the choice of using Off Hook Signaling or activating other features. Extension's without automatic signaling have manual signaling. The users can dial a service code or press a Programmable Function Key to send Off Hook Signaling to the called terminal.
- **Selectable Off Hook Signaling Mode**
The Off Hook Signal can be muted ringing, no off hook ringing or a beep in the handset - based on the caller's programming.
- **Off Hook Ringing**
Use this option to enable or disable an extension's Off Hook Signaling for incoming calls. If enabled, Off Hook Signaling occurs normally. If disabled, calls queue behind the extension's busy line appearance and the user gets no Off Hook Signaling indication. The second line appearance stays idle. The caller hears ringback tone while their call waits. This is set in the called extension's Class of Service.
- **DID Call Waiting**
An extension can optionally have DID calls camp on with Off Hook/Call Wait signaling, without Off Hook/Call Wait signaling or no signaling. This is set in the called extension's Class of Service.
- **Block Manual Off Hook Signals**
This Class of Service option enables/disables a busy extension's ability to block off hook signals manually sent from a co-worker. If disabled (not blocked), callers can dial 7 at busy or busy/ring to signal the extension. If enabled (blocked), nothing happens when the caller dials 7 to off hook signal.
- **Block Camp On**
If an extension has Block Camp On enabled, callers to the extension cannot dial 2 to Camp On after hearing busy or busy/ring. If the extension has Block Camp On disabled, callers are not prevented from dialing 2 to Camp on after hearing busy or busy/ring. This is set in the called extension's Class of Service.

Off Hook Signaling

Conditions

None

Default Setting

Enabled

Programming

- **11-12-03 : Service Code Setup (for Service Access) - Override (Off Hook Signaling)**
Assign a service code (809 by default) to be used for Off Hook Signaling Override.
- **11-16-04 : Single Digit Service Code Setup - Intercom Off Hook Signaling**
Assign a one-digit service code to be used for Off Hook Signaling.
- **15-02-12 : Multi-Line Terminal Basic Data Setup - Off Hook Ringing**
For each extension, set Off Hook Ringing type: 0 (muted), 1 (none), 3 (beep in speaker), 4 (beep in handset). DID, DNIS and DIL trunks can use any of the 4 options - normal/ring group trunks can only use options "0" or "1".
- **15-07-01 : Programmable Function Keys**
Assign a function key for Off Hook Signaling (code 33).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-13-05 : Class of Service Options (Supplementary Service) - Off Hook Signaling Receive**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to receive Off Hook Signaling.
- **20-13-06 : Class of Service Options (Supplementary Service) - Automatic Off Hook Signaling**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to automatically send Off Hook Signals while busy on a handset call.
- **20-13-34 : Class of Service Options (Supplementary Service) - Block Manual Off Hook Signaling**
Turn off (0) or on (1) an extension's ability to block off-hook signals manually sent from a co-worker.
- **20-18-06 : Service Tone Timer - Call Waiting Tone Timer**
Use this timer to set the interval between Off Hook Signaling alerts.

Related Features

Call Waiting/Camp On and Callback

An extension user cannot Camp On to a busy extension or leave a Callback if Off Hook Signaling has already gone through. Off Hook Signaling allows an extension to block a caller's ability to dial 2 to Camp On.

Direct Inward Dialing (DID)

Refer to the DID feature for interaction between Off Hook Signaling and other DID programmed options.

Handsfree and Monitor

You cannot send Off Hook Signals to an extension busy on a Handsfree (Speakerphone) call. The called extension's idle CALL key flashes fast, with no ringing.

Hotline/Reverse Voice Over

The setting of Program 20-13-06 affects the BLF display for Hotline and Reverse Voice Over. Refer to these features for additional information.

Intercom

You cannot send Off Hook Signals to an extension that is already receiving a voice announcement.

One-Touch Calling

An extension user can store the Off Hook Signaling Service Code (809) under a One-Touch Programmable Function Key to provide quick Off Hook Signaling access.

Programmable Function Keys

Function keys simplify sending Off Hook Signals.

Single Line Terminals

Single line terminals can only send Off Hook Signals.

Operation

To send Off Hook Signals to an extension busy on a call:

Your extension may send Off Hook Signals automatically.

1. Dial 7.

OR

Press Off Hook Signaling key (PGM 15-07 or SC 851: 33).

You hear ringback.

To have your call voice-announce, dial 1.

One-Touch Calling

Feature Availability

- Available.

Description

One-Touch Calling, using a Programmable Function Key, gives a keyset user one button access to extensions, trunks and selected UX5000 features. This saves users time when accessing co-workers, clients and features they use most often. Instead of dialing a series of codes, the user need only press the One-Touch Key. An extension user can have One-Touch Keys programmed for:

- **Direct Station Selection** - one button access to extensions
- **Personal Abbreviated Dialing** - one button access to stored numbers (up to 24 digits long)
- **Abbreviated Dialing** - one button access to stored Abbreviated Dialing numbers
- **Trunk Calling** - one button access to trunks or trunk groups
- **Service Codes** - one button access to specific Service Codes

An extension user can chain dial with One-Touch Programmable Function Keys. For example, a user can store the number for a company's Automated Attendant in key 13 and employee extension numbers in keys 14-18. The user presses key 13 to call the company, then one of keys 14-18 to ring the employee to which they want to speak.

An extension user or system administrator can optionally store a Flash command under a One-Touch Key. This is helpful for One-Touch Keys used as Personal Speed Dial bins. The stored Flash may be helpful to access features of the connected telco, PBX or Centrex.

Conditions

One-Touch Keys must be defined as a Programmable Function Key.

Default Setting

No One-Touch Programmable Function Keys assigned.

Programming

- **15-07-01 : Programmable Function Keys**
If required, define a Programmable Function Key for One-Touch calling of an outside telephone number by defining the key as a One-Touch key (01) + trunk access code + the telephone number.
- **15-14-01 : Programmable One-Touch Keys**
Set the functions of an extension's One-Touch Keys. An extension user can also program their One-Touch Keys.
- **30-03-01 : DSS Console Key Assignment**
Customize DSS Console keys to function as DSS keys, Service Code keys, Programmable Function Keys, and One-Touch calling keys.

Note: When programming a feature within a One-Touch Key, refer to the feature's description for additional programming options.

Related Features

Programmable Function Keys

Function keys can also give an extension user one-touch access to selected UX5000 features.

Transfer

When transferring a call, an extension user can press a One-Touch Programmable Function Key instead of dialing the extension number.

Operation

Key for Entering Names	
When entering names in the procedures below, refer to this chart. Names can be up to 12 digits long.	
Use this keypad digit . . .	When you want to . . .
1	Enter characters: 1 @ [¥] ^ _ ` { } → ← Á À Â Ã Ä Ç È É Ê Ì Ó 0
2	Enter characters A-C, a-c, 2.
3	Enter characters D-F, d-f, 3.
4	Enter characters G-I, g-i, 4.
5	Enter characters J-L, j-l, 5.
6	Enter characters M-O, m-o, 6.
7	Enter characters P-S, p-s, 7.
8	Enter characters T-V, t-v, 8.
9	Enter characters W-Z, w-z, 9.
0	Enter characters: 0 ! “ # \$ % & ’ () ô o ú å ä ö ü α ε θ
*	Enter characters: * + , - . / : ; < = > ? π Σ σ Ω ∞ ϕ ξ
#	# = Accepts an entry (only required if two letters on the same key are needed - ex: TOM). Pressing # again = Space. (In UX5000 programming mode, use the right arrow soft key instead to accept and/or add a space.)
CONF	Clear the character entry one character at a time.
CLEAR	Clear all the entries from the point of the flashing cursor and to the right.

One-Touch Calling

*For one-touch operation to these functions, define a Programmable Function key.
Refer to the operation on page 456.*

Direct Station Selection

To program a Bin for Direct Station Selection (extension) calling:

1. Press idle CALL key and dial 855.
2. Dial the bin number (1-9, 0) you want to program.
3. Dial extension number you want assigned to that key.
4. Press HOLD.
5. Enter the name associated with the bin you are programming.
If your terminal is a non-display terminal, simply press HOLD.
6. Press HOLD.
7. Press SPK to hang up.

Personal Abbreviated Dialing

To program a Bin for Personal Abbreviated Dialing:

1. Press idle CALL key or lift the handset and dial 855.
2. Dial the bin number (1-9, 0) you want to program.
3. Dial general trunk access code (9).
OR
Dial Specific Trunk Service Code (#9) plus the trunk number (e.g., 005).
OR
Dial Trunk Group Service Code (804) plus the trunk group number (e.g., 1).
4. Dial number you want to store.
*The total of the digits stored in steps 3 and 4 cannot exceed 24.
Valid entries are 0-9, # and *. To enter a pause, press MIC. To store a Flash, press FLASH.*
5. Press HOLD.
6. Enter the name associated with the key you are programming.
7. Press HOLD.
8. Press SPK or hang up.

Abbreviated Dialing

To program a bin for Abbreviated Dialing:

1. Press idle CALL key and dial 855.
2. Dial the bin number (1-9, 0) you want to program.
3. Dial #2 to store a Common Abbreviated Dialing number.
OR
Dial #4 to store a Group Abbreviated Dialing number.
4. Dial Abbreviated Dialing number storage code (e.g., 001).
5. Press HOLD.
6. Enter the name associated with the key you are programming.
7. Press HOLD.
8. Press SPK to hang up.

Central Office Calls, Placing (Trunk Calling)

To program a bin for trunk calling:

1. Press idle CALL key and dial 855.
2. Dial the bin number (1-9, 0) you want to program.
3. Dial general trunk access code (9).
OR
Dial Specific Trunk Service Code (#9) plus the trunk number (e.g., 005).
OR
Dial Trunk Group Service Code (804) plus the trunk group number (e.g., 1).
4. Dial number you want to store.
*The total of the digits stored in steps 3 and 4 cannot exceed 24.
Valid entries are 0-9, # and *. To enter a pause, press MIC. To store a Flash, press FLASH.*
5. Press HOLD.
6. Enter the name associated with the key you are programming.
7. Press HOLD.
8. Press SPK to hang up.

Service Codes

To assign a Service Code to a bin:

This lets you make your own set of one-touch feature keys.

1. Press idle CALL key and dial 855.
2. Dial the bin number (1-9, 0) you want to program.
3. Dial Service Code you want stored.
For example, if you want a One-Touch Key to automatically clear your Last Number Redial, enter 876.
4. Press HOLD.
5. Enter the name associated with the key you are programming.
6. Press HOLD.
7. Press SPK to hang up.

One-Touch Calling

Using a Bin Number

To dial a One-Touch Key:

1. Press the CALL key (or lift the handset).
2. Dial #7 + bin number (1-9, 0).

For one-touch operation to these functions, define a Programmable Function key. Refer to the operation on page 456.

Clearing a Bin Number

To clear a programmed One-Touch Key:

1. Dial 855.
2. Enter the bin number to be cleared.
3. Press CLEAR.

Chaining Bin Numbers

To chain One-Touch Keys:

*This option can only be used when Programmable Function Keys are defined for One-Touch operation (PGM 15-07 or SC 851: + 01). For programming, refer to **Programmable Function Keys** (page 459).*

1. Press the first One-Touch Programmable Function Key.
Let the stored function dial out.
2. Press another One-Touch Programmable Function Key.
The stored digits dial out.

Programmable Function Keys

When using Programmable Function Keys, note that names cannot be stored with the key as with the bin number operation documented on the previous pages.

To define a Programmable Function Key as a One-Touch Key:

1. Dial 851.
2. Press the key to be defined.
3. Dial 01 (DSS/One-Touch Key Operation).
4. **For Direct Station Selection (Extension):**
 - a. Dial extension number you want assigned to that key.
 - b. Press HOLD.
 - c. Press SPK.

For Personal Abbreviated Dialing:

- a. Dial general trunk access code (9).
OR
Dial Specific Trunk Service Code (#9) plus the trunk number (e.g., 005).
OR
Dial Trunk Group Service Code (804) plus the trunk group number (e.g., 1).
- b. Dial number you want to store.
The total of the digits stored in steps 3 and 4 cannot exceed 24.
*Valid entries are 0-9, # and *. To enter a pause, press MIC. To store a Flash, press FLASH.*
- c. Press HOLD.
- d. Press SPK.

For Abbreviated Dialing:

- a. Dial #2 to store a Common Abbreviated Dialing number.
OR
Dial #4 to store a Group Abbreviated Dialing number.
- b. Dial Abbreviated Dialing number storage code (e.g., 001).
- c. Press HOLD.
- d. Press SPK.

For Central Office Calls, Placing (Trunk Calling):

- a. Dial general trunk access code (9).
OR
Dial Specific Trunk Service Code (#9) plus the trunk number (e.g., 005).
OR
Dial Trunk Group Service Code (804) plus the trunk group number (e.g., 1).
- b. Dial the telephone number to be stored.
- c. Press HOLD.
- d. Press SPK.

For Service Codes:

- a. Dial Service Code you want stored.
For example, if you want a One-Touch Key to automatically clear your Last Number Redial, enter 876.
- b. Press HOLD.
- c. Press SPK.

Operator

Feature Availability

- Available - up to 8 operators.

Description

When an extension user dials “0”, calls are routed to a main UX5000 operator. The operator can answer and route outside calls or locate employees using the Page feature.

Conditions

None

Default Setting

Extension 301 is an operator.

Programming

◆ 20-01-01 : System Options - Operator Access Mode

Use this program to set up priority of a call when calling an operator terminal (0 = Step, 1 = Circular).

◆ 20-17-01 : Operator’s Extension - Operator’s Extension Number

Designate an extension an operator. When an extension user dials “0” or “9” (defined by Program 11-01 Type 5), calls go to the operator selected in this program.

If you don’t assign an extension in Program 90-11-01, UX5000 alarms appear on the extension assigned in this option.

◆ 20-17-02 : Operator’s Extension - Operator Console

Determine if the console should be a normal keyset (0) or if it should be a special operator console (1).

Related Features

Attendant Call Queuing

Attendant extensions can have up to 32 incoming calls queued before additional callers hear busy tone.

Multiple Directory Numbers/Call Coverage

The operator extension cannot be a virtual extension key.

Tandem Ringing

The operator extension(s) cannot be paired for Tandem Ringing.

Operation

Refer to the individual features for operation.

OPX (Off Premise Extension)

Refer to the Single Line Terminals, Analog 500/2500 Sets (page 521) for information on this feature.

Paging, External

Feature Availability

- Available - 9 External Paging zones.

Description

With External Paging, a user can broadcast announcements over paging equipment connected to external Paging zones. When a user pages on of these external zones, the UX5000 broadcasts the announcement over the speakers. Like Internal Paging, External Paging allows a user to locate another employee or make an announcement without calling each extension individually.

The UX5000 allows up to nine External Paging zones, with the additional zone (#9) provided on the CCPU. All other zones (#1-8) requires a port on a 2PGDAD module, with a maximum of two external paging circuits per module. You must have four 2PGDAD modules to get the eight external zones. In addition, each external zone has an associated relay contact. When a user pages to a zone, the corresponding contact activates (closes). This provides for Paging amplifier control. Refer to the UX5000 hardware manual for additional details.

Combined Paging

Use Combined Paging when you want to simultaneously Page into an internal and corresponding external zone. For example, you can Page your company's warehouse and outside loading dock at the same time. Combined Paging is available for zones 1-8 and All Call. Refer to **Paging, Internal** (page 466) for more on setting up Combined Paging.

Remove Paging Information from Display Terminals

A Class of Service option is available in UX5000 programming to prevent display terminals from showing incoming paging information. This allows the UX5000 to save processor time and speed up communications server operation.

Conditions

- The UX5000 provides one external page zone on the CCPU. For more than one external page zone on the UX5000, External Paging requires 2PGDAD modules and customer-provided Paging equipment.
- With Combined Paging, the UX5000 may not allow a page over just the external page zone if the internal zone is busy or if there are no extensions in a page group.
- Talkback paging requires the use of a PGDAD module or a CO trunk port (with the use of external equipment, such as a Valcom page control device). The UX5000 CCPU's external page circuit does not allow talkback.
- External Paging to a remote site is possible using a PGDAD module or a CO trunk port.

Default Setting

No External Paging defined.

Programming

- **10-03-01 : Blade Setup - Terminal Type (Circuit 1)**
10-03-06 : Blade Setup - Terminal Type (Circuit 2)
When a 2PGDAD module is used for external page, type “6” should be assigned for the 2PGDAD circuit.
- **10-05-01 : General Purpose Relay Setup**
Define which relay circuits (5-8) on the 2PGDAD Module are used for General Purpose Relays. Also refer to Program 10-21-01 for the CPU relay assignments.
- **10-21-04 : CPU Hardware Setup - External Source Input/Output Selection**
Specify the functions for the input and output of the CN8 and CN9 connectors on the CCPU (0=External Speaker (CN8)/External MOH (CN9), 1=External Speaker (CN8)/BGM Source (CN9), 2=BGM Source (CN8)/External MOH (CN9).
- **11-12-50 : Service Code Setup (For Service Access)**
Specify the service code to be used for toggling the relay open and closed (Default: 880).
- **15-07-01 : Programmable Function Keys**
Assign function keys for External Paging zones (19 + zone) and External All Call Page (20). If required, define a function key for a keyset to use the general purpose relay (51).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-13-29 : Class of Service Options (Supplementary Service) - Paging Display**
In an extension’s Class of Service (1-15), enable (1) or disable (0) an extension’s ability to display incoming internal paging information on their display.
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **31-01-02 : System Options for Internal/External Paging - Page Announcement Duration**
Set the maximum allowable duration for a Paging announcement.
- **31-04-01 : External Paging Zone Group**
Assign each External Paging Speaker to an External Paging Group (1-8) used for accessing the zone. If zones 1-8 are not connected to PGDAD modules, set these unused zones to External Paging Group “0”.
⇨ External Paging Speaker/Zone: 1-9
- **31-05-01 : Universal Night Answer/Ring Over Page**
Assign Universal Night Answer ringing to each External Paging zone. For each trunk port, you make a separate entry for each External Paging Speaker (1-9).

Paging, External

- **31-06-01 : External Speaker Control - Broadcast Splash Tone Before Paging**
Use this option to enable or disable splash tone before Paging over an external zone. If enabled (1=Splash, 2=Chime), the UX5000 broadcasts a splash tone before the External Paging announcement.
- **31-06-02 : External Speaker Control - Broadcast Splash Tone After Paging**
Use this option to enable or disable splash tone after Paging over an external zone. If enabled (1=Splash, 2=Chime), the UX5000 broadcasts a splash tone at the end of an External Paging announcement.
- **31-06-03 : External Speaker Control - Speech Path**
Determine if the external speaker will be used for talkback (0=Duplex [both ways], 1=Simplex [one way]). As this option is not available with the CCPU external page zone, speaker 9 should be left at '1'.
- **31-06-04 : External Speaker Control - Codec Transmit Gain Setup**
31-06-05 : External Speaker Control - Codec Receive Gain Setup
Select the codec gain types (1-32) for each External Page Speaker (1-9).
- **31-07-01 : Combined Paging Assignments**
Assign an External Paging Group (0-8) to an Internal Paging Zone (0=all call, zones 1-64) for Combined Paging. When an extension user makes a Combined Page, they simultaneously broadcast into both the External and Internal Zone.
- **31-08-01 : BGM on External Paging**
Assign the Background Music option for each External Paging Speaker (1-9). If enabled (1), the UX5000 will play Background Music over the zone when it is idle.

Related Features

Central Office Callings, Placing

A trunk port may be used for a talkback external page with the use of proper external paging equipment (ex: Valcom).

Class of Service

The Timer Class of Service may affect a call.

Direct Inward Dial (DID) / Direct Inward Line (DIL) / Transfer

DID and DIL trunks will not ring external page speakers. Only trunks defined as "normal" in Program 22-02-01 will ring external page speakers.

Direct Station Selection

Assign Paging keys for DSS consoles.

Door Box

If a 2PGDAD circuit has a Door Box connected, you cannot use that circuit for External Paging.

Night Service (Universal Night Answer)

To have outside calls ring External Paging Zones at night, refer to the Night Service feature and Program 31-05.

Paging, Internal

Internal Paging broadcasts announcements to extensions in programmed Internal Paging Zones.

Programmable Function Keys

Function keys simplify External Paging operation.

Operation

To Page into an external zone:

1. Press External Paging key (PGM 15-07 or SC 851: 19 + zone for External Paging zones or 20 for External All Call Paging).
2. Make Announcement.
OR
1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 803 and the External Paging Zone code (1-8 or 0 for All Call).
OR
Dial *1 and the Combined Paging Group code 1-8 or 0 (for Internal/External All Call).
Display indicates the Combined Paging as an External Page.
If the Internal Page Zone is busy or if there are no extensions in a page group, the page may be announced as an External Page only.
3. Make Announcement.

Paging, Internal

Feature Availability

- Available - 64 Internal Paging Groups (Zones).

Description

Internal Paging lets extension users broadcast announcements to other keyset users. When a user makes a Zone Paging announcement, the announcement broadcasts to all idle extensions in the zone dialed. With All Call Paging, the announcement broadcasts to all idle extensions programmed to receive All Call Paging. An extension can be a member of only one Internal Paging Zone. Like External Paging, Internal Paging allows a user to locate another employee or make an announcement without calling each extension individually.

Combined Paging

Use Combined Paging when you want to simultaneously Page into an internal and corresponding external zone. For example, you can Page your company's warehouse and outside loading dock at the same time. Combined Paging is available for Paging zones 1-8 and All Call. Optionally, you can change the Combined Paging assignments. For example, you can associate External Paging Zone 1 with Internal Paging Zone 4.

Remove Paging Information from Display Terminals

A Class of Service option is available in UX5000 programming to prevent display terminals from showing incoming internal paging information. This allows the UX5000 to save processor time and speed up UX5000 operation.

Conditions

- Internal Paging does not require a 2PGDAD module.
- You can assign any number of extensions to an Internal or All Call Paging Zone.
- A UX5000 must have at least one extension port idle in order to make an Internal Page. If no extension port is idle, the extension performing the Page will hear a busy signal.
- With Combined Paging, the UX5000 may not allow a page over just the external page zone if the internal zone is busy or if there are no extensions in a page group.

Default Setting

Enabled.

Programming

- ◆→ **15-07-01 : Programmable Function Keys**
Assign function keys for Internal Paging Zones (code 21 + page zone) and Internal All Call Paging (code 22).
⇄ Internal Page Zones: 0, 1-9, 00, 01-64
- ◆→ **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).

- **20-13-29 : Class of Service Options (Supplementary Service) - Paging Display**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to display incoming internal paging information on their display.
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **31-01-01 : System Options for Internal/External Paging - All Call Paging Zone Name**
Assign a name to the All Call Internal Paging Zone. The name shows on the display of the terminal making the announcement.
- **31-01-02 : System Options for Internal/External Paging - Page Announcement Duration**
Set the maximum allowable duration (0-64800 seconds) for a Paging announcement.
- **31-02-01 : Internal Paging Group Assignment - Internal Paging Group Number**
Assign extensions to Internal Paging Zones. An extension must be assigned to a 2-digit zone in order to access any of the 2-digit zones. Up to 50 extensions maximum can be in a page group.
⇨ Internal Page Zones: 0, 1-9, 00, 01-64
- **31-02-02 : Internal Paging Group Assignment - Internal All Call Paging Receiving**
Allow (1) or prevent (0) All Call Internal Paging for each extension. If allowed, extensions can make and receive All Call Internal Paging announcements. If prevented, extension can only make All Call Internal Paging announcements.
- **31-03-01 : Internal Paging Group Settings - Internal Paging Group Name**
Program names for the Internal Paging Zones.
- **31-03-02 : Internal Paging Group Settings - Internal Paging Tone**
For each Internal Paging Zone, have normal (0), muted (1) or no (2) Internal Paging alert tones. If enabled (0 or 1), extensions hear two beeps before Paging announcements. If disabled, the extensions hear the announcement without the beeps.
⇨ Internal Page Zones: 0, 1-9, 00, 01-64
- **31-07-01 : Combined Paging Assignments**
For each External Paging Group (1-8 and 0 for All Call), assign a corresponding Internal Zone for Combined Paging.
⇨ Internal Page Zones: 0, 1-9, 00, 01-64

Related Features

Class of Service

The Timer Class of Service may affect a call.

Meet Me Paging / Meet Me Paging Transfer

Preventing access to internal page also prevents these features.

Paging, External

An extension user can broadcast an announcement over an External Paging Zone.

Programmable Function Keys

Function keys simplify Internal Paging operation.

Paging, Internal

Operation

To make an Internal Page announcement:

Keypad

1. Press the zone's Internal Paging key (PGM 15-07 or SC 851: 21 + 0 or 1-9 or 01-64 for zones (0 or 00 for All Call).
OR
1. Press idle CALL key.
2. Dial 801 and the Paging Zone number (0-9 or 00-64).
Dialing 0 or 00 calls All Call Internal Paging.
OR
Dial *1 and the Combined Paging Group code 1-8 or 0 (for Internal/External All Call).
Display indicates the Combined Paging as an External Page.
If the Internal Page Zone is busy or if there are no extensions in a page group, the page will be announced as an External Page only.
3. Make announcement.
4. Press SPK to hang up.

Single Line Terminal

1. Lift handset.
2. Dial 801 and the Paging Zone number (0-9 or 00-64).
Dialing 0 or 00 calls All Call Internal Paging.
Dial *1 and the Combined Paging Group code 1-8 or 0 (for Internal/External All Call).
3. Make announcement.
4. Hang up.

Please refer to Conference, Voice Call/Privacy Release (page 242) for information on this feature.

Park

Feature Availability

- Available - 64 System Park Orbits.

Description

Park places a call in a waiting state (called a Park Orbit) so that an extension user may pick it up. There are two types of Park: System and Personal. Use System Park when you want to have the call wait in a system orbit. Personal Park allows a user to Park a call at their extension so a co-worker can pick it up. After parking a call in orbit, a user can Page the person receiving the call and hang up. The paged party dials a code or presses a programmed Park key to pick up the call. With Park, it is not necessary to locate a person to handle their calls. A call parked for too long will recall the extension that initially parked it, however the call remains in the park orbit until it's answered. There are 64 Park Orbits (1-64) available for use.

If Caller ID is enabled in the UX5000, a user can check the Caller ID for a parked call using their Park key and possibly the Flash key (depending on programming).

Splitting Between Parked Calls

A keyset user can retrieve two calls from Park Orbit (for which they don't have line appearances) and easily split (alternate) between them. The split operation brings the calls to the user's terminal and frees up the Park Orbits.

Extended Park

An extension's Class of Service determines whether it will use the normal Park Orbit Recall time or the Extended Park Orbit Recall time. The timers are set up in UX5000 programming. When an extension with Extended Park Recall Class of Service option parks a call, it recalls after the Extended Park Orbit Recall time. When an extension with the Normal Park Orbit Recall Class of Service option parks a call, it recalls after the normal Park Orbit Recall time, however the call remains in the park orbit until it's answered.

Automatic Park Search for Idle Park Orbit Feature

The Park feature provides an Automatic Park Search feature for use with *display* terminals. Without this option, the user needs to be aware of which Park orbit is available. With the Automatic Park Search feature enabled, the UX5000 will automatically Park a call in the first available orbit (the UX5000 searches in ascending order for an idle orbit). The user's display will temporarily indicate which orbit the call was parked.

Notes:

- If all Park orbits are busy, the user will hear a busy signal and the call will not be parked.
- The Automatic Park Search is within the local UX5000 only. It cannot check networked communication servers.
- Single line terminals, non-display keysets, and cordless terminal users should not use this feature as they can not determine which orbit the call was parked.

Personal Park Options

Programmable Function Key and Service Code Available for Personal Park

The Personal Park feature provides the ability to use a Programmable Function Key (15-07-01, code *07) or service code (3-digit or 1-digit) (11-16-11) to place a call in Personal Park. This option is available for keysets, single line sets, and IP DECT terminals and can be used for analog or ISDN trunks.

With this feature, the following conditions apply:

- An extension can have only one Personal Park key.
- When the terminal that has a call in Personal Park is unplugged, the Personal Park will be released and the held caller will receive busy tone.

The following table indicates what condition the service codes and Programmable Function key can be used.

Status	Using 3-Digit Service Code	Using 1-Digit Service Code	Using Personal Park Key
Speaking	Not Available	Not Available	Available
ICM Dial Tone or Busy Tone	Available	Not Available	Available
Calling Another Extension	Available	Available (with outside call on hold and when called extension does not answer)	Available
Receiving a Personal Park Recall	Available	Not Available	Available

Personal Park at a Co-Worker's Extension

The Personal Park feature allows an extension user to place an outside call, which is on hold, on Personal Park at a co-worker's extension after placing an intercom call. This feature is available for keysets, SLTs, IP terminals and IP DECT terminals.

Notes:

- If the called extension has Call Forwarding enabled, the outside call is parked at the originator's extension instead.
- This feature is not available when calling a Department Group's pilot number.
- If an extension user has a call in Personal Park and the terminal is unplugged, the Personal Park will be cancelled and the held caller will hear a busy tone.
- This feature will not work when calling a Networked or virtual extension.
- If an extension has currently placed a trunk in another extension's Personal Park, the feature cannot be used for a new trunk until the initial trunk has been picked up.
- A Personal Park Programmable Function Key or the Soft Key must be used to park the call in a co-worker's park. This operation cannot be done using a service code.

Park

Conditions

- An extension can park a call in any Park Orbit. However, an extension can only pick up a call Parked by a member of its own Park group (see Program 24-03).
- If an extension is not allowed access to trunks in the Access Maps (Programs 14-07 and 15-06), calls in Park and on Hold can be blocked.

Default Setting

Enabled.

Programming

- **11-12-31 : Service Code Setup (for Service Access) - Park**
Set the service code which should be used for placing a call in Park (default: #6).
- **11-12-32 : Service Code Setup (for Service Access) - Park Answer**
Set the service code which should be used for answering a call in Park (default: *6).
- **11-12-35 : Service Code Setup (for Service Access) - Personal Park**
Set the service code to be used for placing a call in a Personal Park (default: 857).
- **11-16-11 : Single Digit Service Code Setup - Personal Park**
Customize the one-digit service code to be used when placing a call in Personal Park (default: No setting).
- **15-07-01 : Programmable Function Keys**
Assign a keys as a Park Orbit key (code *04 plus Park orbit number [01-64]) or as a Personal Park key (code *07).
- **20-06-01 : Class of Service for Extensions**
Assign a Class of Service (1-15) to extensions.
- **20-11-19 : Class of Service Options (Hold/Transfer Service) - Normal/Extended Park**
Determine whether an extension's Class of Service should allow normal or extended Park (0=normal, 1=extended).
- **20-11-26 : Class of Service Options (Hold/Transfer Service) - Personal Park Hold**
Allow (1) or prevent (0) an extension user from placing a call on Personal Park at a co-worker's extension.
- **20-11-27 : Class of Service Options (Hold/Transfer Service) - Automatic Park Search**
Enable (1) or disable (0) an extensions ability to use the Automatic Park Search feature.
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **24-01-02 : System Options for Hold - Hold Recall Callback Time**
A call left parked too long recalls the extension that initially parked it for this interval.
- **24-01-06 : System Options for Hold - Park Hold Time**
Set the Park Hold Time (0-64800 seconds). A call left parked longer than this interval will recall the extension that initially parked it.

- **24-01-07 : System Options for Hold - Extended Park Hold Time**
Set the Extended Park Hold Time (0-64800 seconds). A call left parked longer than this interval will recall the extension that initially parked it.
- **24-02-04 : System Options for Transfer - Transfer Recall Time**
Use this option to set the recall timer for the Personal Park feature. Calls still on hold after this timer expires will recall the extension that initially parked it. The timer allows entries of 0-64800 seconds.
- **24-03-01 : Park Group**
Assign an extension to a Park Group (01-64). An extension can only pick up a call Parked by a member of its own Park Group.

Related Features

Caller ID

A user can display the Caller ID of a call in Park if Caller ID is enabled (1) in Program 20-09-02.

Class of Service

The Timer Class of Service may affect a call.

Direct Station Selection

Assign park keys for DSS consoles.

Hold

A user can place a call in a temporary waiting state without putting it in orbit.

Multiple Directory Numbers/Call Coverage Keys

Calls on virtual extension keys can not be put in Personal Park.

Networking

Networked trunks or extensions can not be put in Personal Park.
Automatic Park Search does not work across a networked communications server.

One-Touch Keys

One-Touch bin numbers can be programmed with the #6* code, allowing you to automatically park a call by pressing Hold and accessing the One-Touch bin number (#7+bin). The codes for accessing the one-touch bin can be defined in a One-Touch Programmable Function key for quicker access.

Programmable Function Keys

Function keys simplify Park operation.

Operation

To Park a call in a system orbit:

You can Park Intercom or trunk calls.

1. Press Park key (PGM 15-07 or SC 852: *04 + orbit).
The Park key LED lights.
If you hear busy tone, the orbit is busy. Try another orbit.
 2. Use Paging to announce call.
 3. Press SPK to hang up.
If not picked up, the call will recall to you.
- OR
1. At keyset , press HOLD.
OR
At a 500/2500 single line terminal, hookflash.
 2. Dial #6 and the Park orbit (01-64).
If you hear busy tone, the orbit is busy. Try another orbit.
 3. Use Paging to announce call.
 4. Press SPK to hang up.
If not picked up, the call will recall to you.

Note: The parked call recalls after the Park Hold Time (Program 24-01-06). The call rings the extension to which it recalled for the Hold Recall Callback Time (Program 24-01-02). The call then goes on Hold for the Park Hold Time - then recalls again for the Hold Recall Callback Time. The call continues to cycle between Hold and recall until the extension user answers the call or the outside party hangs up.

To pick up a parked call:

1. Lift handset.
2. Press Park key (PGM 15-07 or SC 852: *04 + orbit).
OR
1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial *6 and the Park orbit (01-64).

To park a call at your extension:

1. Do not hang up.
2. Press the Personal Park key (PGM 15-07 or SC 852: *07).
OR
Press HOLD and dial 857.
OR
Press HOLD + Press the Personal Park key (PGM 15-07 or SC 852: *07).
At a 500/2500 SLT, hookflash instead of pressing HOLD.
A confirmation tone is heard and the call is parked at your extension. If the extension has a Personal Park key, the key will flash.
The Personal Park single-digit service code (PGM 11-16-11) cannot be used in this operation.
3. Page your co-worker to pick up the call.
4. Press SPK to hang up (or hang up at SLT).
If not picked up, the call will recall to you.

To pick up a call parked at your extension:

1. Press the Personal Park key (PGM 15-07 or SC 852: *07).
OR
Press idle CALL key and dial 857.
OR
Use Directed Call Pickup (** + extension number).
At an SLT, skip pressing CALL.
The Personal Park single-digit service code (PGM 11-16-11) cannot be used in this operation.
If it recalls the extension, pressing the Personal Park key or flashing CALL key will answer the call.

To Park an outside call at your extension after trying to call a co-worker:

1. While on a call, press HOLD.
2. Dial a co-worker's extension number.
The co-worker does not answer.
3. Press the Personal Park key (PGM 15-07 or SC 852: *07).
OR
Dial the Personal Park single digit code (PGM 11-16-11).
The Intercom call to the co-worker is dropped. A confirmation tone is heard and the outside call is parked at your extension.
If the co-worker answers the call, the outside call will ring back once the intercom call is completed. The call can then be placed in Personal park if desired.

To Park an outside call at a co-worker's extension after calling them:

An extension's Class of Service must allow the user to park the call at a co-worker's extension (Program 20-11-26=1).

1. While on a call, press HOLD.
2. Dial a co-worker's extension number.
3. Press the Personal Park key (PGM 15-07 or SC 852: *07).

OR

Press the StaP Soft Key.

The Intercom call to the co-worker is dropped. A confirmation tone is heard and the outside call is parked at the called extension.

If the called extension has Call Forwarding enabled, the outside call is parked at the originator's extension instead.

If the co-worker does not answer the call, it will recall to the originator's extension.

To answer a call parked at a co-worker's extension:

1. Press the CALL key, dial ** plus the co-worker's extension number.

At an SLT, skip pressing CALL.

To split between two parked calls (Keypad Only):

You must have Park Orbit keys for the parked in calls. In addition, your keypad cannot have line keys defined for the parked calls.

1. Press CALL1.
2. Press Park Orbit key (PGM 15-07 or SC 852: *04 + orbit) to retrieve first parked call.
CALL1 lights steadily. This moves the first parked call to your terminal.
3. Press HOLD and press SPK.
CALL1 flashes.
4. Press another Park Orbit key (PGM 15-07 or SC 852: *04 + orbit) to retrieve the second parked call.
CALL2 lights steadily. This moves the second parked call to your terminal.
5. To switch between the two parked calls, press HOLD then the flashing CALL key.
You can only split between two active calls. To retrieve and split with a new call, you must first hang up one of the initial calls.

To display Caller ID for a call in Park:

Program 15-02-08 set to "0" (pre-select) for this feature.

1. *With Program 15-02-08 set to "0" (pre-select) :* With a call in Park, press the PARK key. (PGM 15-07 or SC 852: *04).
OR
With Program 15-02-08 set to "1" (one touch): With a call in Park, press FLASH then the PARK key (PGM 15-07 or SC 852: *04).

To Use Automatic Park Search to Park a Call:

1. With an active call, press HOLD.
2. Dial #6 *.
3. **Before hanging up, check the terminal's display.** The display indicates the Park orbit in which the call was placed.
 - When you hang up the handset or press SPK, the display will return to its idle display.*
 - If you keep the handset off-hook or do not press SPK after step 2, the display will continue to show the park orbit.*
 - If you have a Park key on your terminal (15-07-01 or SC 852, code *04) for the orbit used, the Park key will flash while the call remains in orbit.*
 - If all Park orbits are busy, the user will hear a busy signal and the call will not be parked.*
4. Answering an Automatic Park Search call, is the same as with any other Parked call. Simply dial *6 + 2-digit Park Orbit.

PBX Compatibility

Feature Availability

- Available.

Description

You can connect your communications server trunks to Centrex/PBX lines, rather than to telco trunk circuits. This makes the trunk inputs into the UX5000 500/2500 type compatible Centrex/PBX extensions, rather than telco circuits. PBX Compatibility lets the UX5000 be a node (i.e., satellite) in a larger private telephone network. To place outside calls when the UX5000 is behind a PBX, UX5000 users must first dial the PBX's trunk access code (usually 9).

The UX5000 provides the following PBX Compatibility options:

- **PBX Trunk Access Code Screening**
The UX5000 can monitor the numbers users dial and screen for PBX trunk access codes. The UX5000 can screen for up to 4 groups of trunk access codes. The codes can be one or two digits long, consisting of the digits 0-9, # and *. (You use Line Key 1 as a wild card entry.)
- **PBX Trunk Toll Restriction**
The UX5000 can provide the Toll Restriction for the PBX trunk, or restriction can be handled solely by the connected PBX. If the UX5000 provides the restriction, it restricts the digits dialed after the PBX access code.
- **PBX Call Restriction**
When the UX5000 does the Toll Restriction, it can further restrict users from dialing PBX extensions. In this case, the only valid numbers are those dialed after the PBX trunk access code. The only PBX facility UX5000 users can access are the PBX's outside trunks.
- **Automatic Pause**
The UX5000 automatically pauses when it sees a PBX trunk access code during manual dialing, Abbreviated Dialing, Last Number Redial, Repeat Redial and Save Number Dialed. This gives the connected PBX time to set up its trunk circuits.

Conditions

When using Account Codes, do not use an asterisk within a PBX access code. Otherwise, after the *, the trunk would stop sending digits to the central office.

Default Setting

Disabled.

Programming

- **14-01-08 : Basic Trunk Data Setup - Toll Restriction**
For each PBX trunk port, enable (0) or disable (1) Toll Restriction.
- **14-02-01 : Analog Trunk Data Setup - Signaling Type (DP/DTMF),
14-02-02 : Analog Trunk Data Setup - Ring Detect Type and
14-01-02 : Basic Trunk Data Setup - Transmit Codec Gain Type**
Set these options for compatibility with the connected PBX.
- **14-04-01 : Behind PBX Setup - Behind PBX**
For each PBX trunk port, enter 1. You make a separate entry for each Night Service mode.

- **21-04-01 : Toll Restriction Class for Extensions**
Assign a Toll Restriction Class (1-15) to each extension.
- **21-05-12 : Toll Restriction Class - PBX Call Restriction**
For each Toll Restriction Class, enter 1 to restrict calls on the PBX trunk to outside calls only. Enter 0 to allow users to dial PBX extensions.
- **21-06-08 : Toll Restriction Table Data Setup - PBX Access Code**
Enter the UX5000 PBX access codes. The UX5000 can have up to 4 groups of codes. A code can be one or two digits long. Valid entries are 0-9, # and *. Use Line Key 1 as a “don’t care” digit. If using Account Codes, do not use the * within the PBX Access Code.
- **81-01-14 : COIU Initial Data Setup - Hookflash 1**
If the CONF key is set for transfer (in Program 15-02-05), use this program to set the duration of the flash that occurs when a user presses the CONF key.

Related Features

Account Codes

When using Account Codes, do not use an asterisk within a PBX access code. Otherwise, after the *, the trunk would stop sending digits to the central office.

Abbreviated Dialing

- The UX5000 automatically pauses after it finds a PBX access code in an Abbreviated Dialing bin.
- If Abbreviated Dialing routes a call to a PBX trunk, it does not automatically insert a PBX access code. It outdials the digits just as they are stored.

Central Office Calls, Answering/ Ring Groups

Users answer incoming calls on PBX trunks just like other trunks. All of the relevant access and Ring Group programming applies. Refer to these features for more details.

Central Office Calls, Placing

Except for dialing the PBX access code, users place calls on PBX trunks just like other trunks. All of the relevant access programming applies. Refer to the Central Office Calls Placing feature for more details.

Direct Inward Lines

You can have DILs route from the connected PBX. Users can access these trunks for outgoing PBX calls. All PBX Compatibility restrictions and programming apply.

Direct Inward System Access

You can program incoming DISA trunks to be outgoing PBX trunks. All PBX Compatibility restrictions and programming apply.

Flash

Flash may allow access to certain PBX features - like Transfer. Make sure you program Flash for compatibility with the connected PBX

Pulse to Tone Conversion

The UX5000 does not provide automatic Pulse to Tone Conversion after outdialing the PBX trunk access code.

Toll Restriction

PBX trunks can follow normal UX5000 Toll Restriction.

Trunk Groups and Trunk Group Routing

- Users can get outbound access to PBX trunks through Trunk Groups and/or Trunk Group Routing. All PBX Compatibility restrictions and programming apply.
- If the UX5000 routes a call to a PBX trunk, it does not automatically insert the PBX access code. It outdials the call just as the user dialed it.

Operation

To place a call over a PBX trunk:

1. At keyset, press idle CALL key and dial 804.
OR
At single line terminal, lift handset and dial 804.
2. Dial PBX trunk group number (1-9 or 001-100).
3. Dial PBX access code and number
OR
 1. (Keyset only) Press PBX trunk group key (PGM 15-07 or SC 852: *02 + group).
 2. Dial PBX access code and number.
- OR
 1. At keyset, press idle CALL key and dial 9.
OR
At single line terminal, lift handset and dial 9.
 2. Dial PBX access code and number.
- OR
 1. At keyset, press idle CALL key.
OR
At single line terminal, Lift handset.
 2. Dial #9.
 3. Dial PBX trunk number (e.g., 005 for line 5).
 4. Dial PBX access code and number.
- OR
 1. Press PBX trunk key (PGM 15-07 or SC 851: 1 to 200).
 2. Dial PBX access code and number.

Note: In all cases above, Toll Restriction may prevent your call.

Feature Availability

- Available.

Description

Prime Line Selection allows a keyset user to place or answer a call over a specific trunk by just lifting the handset. The user does not have to first press keys or dial codes. This simplifies handling calls on a frequently used trunk.

Prime Line Selection has the following two modes of operation:

- **Outgoing Prime Line Preference**
Lifting the handset seizes the Prime Line. Outgoing Prime Line Preference would help a telemarketer who always needs a free line to call prospective clients. The telemarketer just lifts the handset and the Prime Line is always available. (Outgoing Prime Line Preference may be affected by Incoming Prime Line Preference -- see Programming below.)
- **Incoming Prime Line Preference**
When the Prime Line rings the extension, lifting the handset answers the call. Incoming Prime Line Preference could benefit the Service Department dispatcher who must quickly answer customer's service calls and then dispatch repair technicians. The dispatcher would have the assurance that whenever a customer calls in, the dispatcher just lifts the handset get their call. (Incoming Prime Line Preference can optionally seize an idle line appearance -- see Programming below.)

Conditions

- The Cordless terminals do not support Prime Line Preference.
- Though Prime Line Selection can be used for SLTs, with this option programmed, the terminals can not access ICM dial tone. They can however, transfer an outside call.

Default Setting

Disabled.

Programming

- **14-05-01 : Trunk Groups**
Assign Prime Line to a separate trunk group for outgoing Prime Line selection. (Also see 14-06 and 21-02.)
- **14-06-01 : Trunk Group Routing**
Set up outbound route for trunk group that contains the Prime Line. (Also see 14-05 and 21-02.)
⇨ Trunk Group Routing 1-100
- **14-07-01 : Trunk Access Map Setup**
For outgoing Prime Line selection, assign each Prime Line trunk to a different Access Map and deny outbound access to all trunks except the Prime Line trunk (1-200).
- **15-01-02 : Basic Extension Data Setup - Outgoing Trunk Line Preference**
Enter 1 for this option so extension user seizes Prime Line when they lift the handset.
- **15-02-10 : Multi-Line Terminal Basic Data Setup - Ringing Line Preference for Trunk Calls**
Enter 1 if lifting the handset should answer ringing Prime Line; enter 0 to seize idle line appearance.
- **15-06-01 : Trunk Access Map for Extensions**
Set assignment so extension(s) can have access to Prime Line (1-200). Deny outbound access to extensions that should not have Prime Line.
- **21-02-01 : Trunk Group Routing for Extensions**
Assign extension(s) to a Prime Line route for outgoing Prime Line access.
⇨ Trunk Groups: 1-100
- **22-01-01 : System Options for Incoming Calls - Incoming Call Priority**
Set incoming Prime Line preference. Enter 1 to answer ringing Prime Line; enter 0 to answer ringing Intercom call.
- **22-04-01 : Incoming Extension Ring Group Assignment**
Assign extension(s) to a ring group that consists of a Prime Line.
⇨ Ring Groups: 1-100
- **22-05-01 : Incoming Trunk Ring Group Assignment**
Assign a Prime Line to a ring group.
⇨ Ring Groups: 1-100

Related Features

Single Line Terminal, Analog 500/2500 Sets

Though Prime Line Selection can be used for SLTs, with this option programmed, the terminals can not access ICM dial tone. They can however, transfer an outside call.

Central Office Calls, Placing

Other programmed options for outgoing calls also affect a Prime Line.

Direct Inward Lines/Direct Inward System Access

DILs and DISA calls also ring extensions directly, even if not allowed in ring group programming.

Line Preference

Prime Line Selection directly interacts with Line Preference.

Voice Mail

If Voice Mail is installed, calls can be directed to the Voice Mail Auto Attendant ring group (102 or 103).

Operation

To place a call on your Prime Line:

1. Lift handset.

You hear dial tone on your Prime Line.

To answer a call on your Prime Line:

1. Lift handset.

Depending on your Line Preference programming, you'll either answer the Prime Line or get dial tone on the idle line appearance.

Privacy Release

Please refer to Conference, Voice Call/Privacy Release (page 242) for information on this feature.

Feature Availability

- Available.

Description

A Private Line is a trunk reserved for a keyset for placing and answering calls. A user with a Private Line always knows when important calls are for them. Additionally, the user has their own trunk for placing calls that is not available to others in the UX5000.

- **Incoming only**
The keyset has a Private Line only for incoming calls. The user cannot place calls on the Private Line.
- **Outgoing only**
The keyset has a Private Line only for outgoing calls. The Private Line does not ring for incoming calls.
- **Both ways**
The keyset has a Private Line for both incoming and outgoing calls.

Conditions

None

Default Setting

Disabled.

Programming

- **14-07-01 : Trunk Access Map Setup**
Assign Private Line to the Private Line Access Map (see Program 15-06 below). Use option 5 for Incoming, option 7 for Both Ways and option 4 for Outgoing. In all other Access Maps, give option 3 to the Private Line.
⇨ Trunk Access Maps 1-200
- **14-01-09 : Basic Trunk Data Setup - Private Line**
Determine if a trunk should be used as a normal (0) or private (1) line.
- **15-06-01 : Trunk Access Map for Extensions**
Assign extension to have Private Line to an unused “Private Line” Access Map.
⇨ Trunk Access Maps 1-200
- **15-07-01 : Programmable Function Keys**
Make sure extension has a line key (e.g., 012) for the Private Line (1-200).
- **22-02-01 : Incoming Call Trunk Setup**
Set the Trunk Service Type to 4 if routing unanswered Private Lines to voice mail or 0 if not routing to voice mail.
⇨ Ring Groups: 1-100

Private Line

- **22-04-01 : Incoming Extension Ring Group Assignment**
Assign extension to Private Line's ring group. Set the ringing in Program 22-06 - use option 1 for Incoming or Both Ways Private Lines. Use option 0 for Outgoing Private Lines. Do not assign any other extensions to the Private Line ring group.
- **22-05-01 : Incoming Trunk Ring Group Assignment**
Assign Private Line to an unused "Private Line" ring group (i.e., a ring group just for the Private Line).
⇨ Ring Groups: 1-100
- **22-07-01 : DIL Assignment**
If routing unanswered Private Lines to voice mail, assign DILs to the extensions.

Related Features

Call Forwarding

Private Lines do not follow Call Forwarding if not DIL.

Central Office Calls, Placing

Other programmed options for outgoing calls also affect a Prime Line.

Do Not Disturb

Calls to extensions with DND active do not follow Call Forwarding programming. DIL calls will ring an idle Department Group member, then follow 22-08 programming then 22-05 programming.

Line Preference

An extension user can have Line Preference options applied to their Private Line.

Prime Line Selection

A Private Line can also be a Prime Line.

Programmable Function Keys

You should always program a line key for each Private Line.

Single Line Terminals

Private Lines are available on single line terminals.

Toll Restriction

Private Lines follow normal Toll Restriction.

Transfer

An extension user can Transfer their Private Line. Since other users have hold access (see Programming), the destination can answer the transferred Private Line and place it on Hold.

Voice Mail

If the Voice Mail is installed, calls can be directed to the Voice Mail Auto Attendant ring group (102 or 103).

Operation

To place a call on your Private Line:

1. Press Private Line key.
2. Dial number.

To answer a call on your Private Line:

1. Press Private Line key or lift the handset.

Feature Availability

- Available.

Description

Each keyset has Programmable Function Keys. Programmable Function Keys simplify placing calls, answering calls and using certain features. You can customize the function of a keyset's programmable keys from your administration terminal, or the extension user can do it themselves. The number of Programmable Function Keys depends on your terminal style.

Refer to Tables 4 and 5 in the beginning of this section for the Programmable Function Key functions.

Conditions

- When a key is programmed using service code 852, that key cannot be programmed with a function using the 851 code until the key is undefined (000). For example with a Park Key programmed by dialing 852 + *04 must be undefined by dialing 852 + 000 before it can be programmed as a Voice Over key by dialing 851 + 48.
- Using Program 92-01 to copy a keyset's Programmable Function Keys will copy all the keys whether they exist on the terminal to which the programming is being copied. This may cause confusion when trying to define a key which is already defined but which doesn't exist on the terminal (will display as "DUPLICATE DATA"). It is recommend to either clear these non-existent keys or to only copy from an extension which has the same or fewer number of keys than the extension to which the programming is being copied.

Default Setting

The first 12 keys on a terminal are line keys (e.g., key 1 = line 001). The remaining keys are unassigned.

Programming

- **15-07-01 : Programmable Function Keys**
Assign the functions of a keyset's Programmable Function Keys. Refer to Tables 4 and 5 at the beginning of this manual.
- **15-20-01 : Programmable Function Keys**
Assign the functions of a keyset's Programmable Function Keys. Refer to Tables 4 and 5 at the beginning of this manual.
- **20-06-01 : Class of Service for Extensions**
Assign Class of Service (1-15) to extensions for each night mode (1-8).
- **20-07-10 : Class of Service Options (Administrator Level) - Programmable Function Key Programming (Appearance Level)**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to program their own function keys using service code 852.

Note: When programming a feature as a Programmable Function Key, refer to the feature's description for additional programming options.

Programmable Function Keys

Related Features

Abbreviated Dialing/One-Touch Calling

Abbreviated Dialing and One-Touch Calling also offer quick access to calls and features.

Alphanumeric Display

If required, General Purpose LED Operation keys can be assigned. These Programmable Function Keys can be used to light an LED on a keyset (for example, in a doctor's office, to let the doctor know a patient is ready to be seen).

On DESI-Less keysets, first define the operation of the key using Program 15-07-01 or service codes 851 or 852, then define the key name in 15-20-01 (otherwise, the name will be overwritten/cleared).

Direct Station Selection (DSS) Console

Programming a 60-button console requires separate programming. Refer to this feature for more details.

Operation

To change the function of a General Function programmable key:

1. Press idle CALL key.
2. Dial 851.
3. Press the key you want to program.
4. Enter the 2-digit key function, any additional information needed for the key and press HOLD.
Available functions are 00-99 (refer to the chart in Program 15-07) and line keys 001-200.
To undefine a key, enter 00.

To change the function of an Appearance Function programmable key:

1. Press idle CALL key.
2. Dial 852.
3. Press the key you want to program.
4. Enter the 3-digit key function and any additional information needed for the key.
*Available functions are *00-*99 (refer to chart) and line keys 001-200.*
To undefine a key, enter 000.
*When a key is programmed using service code 852, that key cannot be programmed with a function using the 851 code until the key is undefined (000). For example with a Park Key programmed by dialing 852 + *04 must be undefined by dialing 852 + 000 before it can be programmed as a Voice Over key by dialing 851 + 48.*

To check the function of a programmable key:

1. Press CHECK.
2. Press the programmable key.
The programmed function displays.

Feature Availability

- Available.

Description

An extension can use Pulse to Tone Conversion on trunk calls. Pulse to Tone Conversion lets a user change their extension's dialing mode while placing a call. For UX5000s in a Dial Pulse area, this permits users to access dial-up OCCs (such as MCI) from their DP area. The user can, for example:

- Place a call to an OCC over a DP trunk.
- Depending on programming:
Manually implement Pulse to Tone Conversion
OR
Wait 10 seconds.
- Dial the OCC security code and desired number. The UX5000 dials the digits after the conversion as DTMF.

Conditions

Pulse to Tone Conversion is only valid for Dial Pulse trunks (Program14-02-01, options 0 or 1).

Default Setting

Enabled.

Programming

- ➔ **14-02-07 : Analog Trunk Data Setup - DP to DTMF Conversion Options**
For each trunk, set the type of DP to DTMF Conversion required: automatic (0), automatic and manual (1), or manual (2).

Related Features

Central Office Calls, Placing

Other programmed options for outgoing calls can affect how a call is placed. Check or program these options as needed.

Operation

To convert your terminal's dialing to tone after placing your call on a pulse line:

1. Place call over pulse line.
2. Dial # to switch the DP trunk to DTMF dialing.

Repeat Redial

Feature Availability

- Available.

Description

If a keyset user places a trunk call that is busy or unanswered, they can have Repeat Redial try it again later on. The user doesn't continually have to try the number again -- hoping it will go through. Repeat Redial automatically retries it until the called party answers (the number of retries is based on UX5000 programming).

Conditions

Lifting the handset during a callout cycle will cancel Repeat Redial.

Default Setting

Enabled.

Programming

- **15-07-01 : Programmable Function Keys**
Assign a function key for Repeat Redial (code 29).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-08-07 : Class of Service Options (Outgoing Call Service) - Repeat Redial**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to use Repeat Redial.
- **21-08-01 : Repeat Dial Setup - Repeat Redial Count**
Set how many times Repeat Redial will automatically repeat if the call does not go through.
- **21-08-02 : Repeat Dial Setup - Repeat Redial Interval Time**
Set the interval between Repeat Redial attempts (0-64800 seconds).
- **21-08-03 : Repeat Dial Setup - Repeat Dial Calling Timer**
Set how long the UX5000 waits (0-64800 seconds) for the called party to answer after a Repeat Redial. If the called party doesn't answer within this interval, the UX5000 hangs up and tries again (after the Repeat Redial Interval Time). For unanswered calls, the total time between retries is the sum of Items 21-08-02 and 21-08-03.

Related Features

Automatic Route Selection

For UX5000s with Automatic Route Selection, ARS selects the trunk for the Repeat Redial call.

Central Office Calls, Placing

Other programmed options for outgoing calls can affect how a call is placed. Check or program these options as needed.

Last Number Redial/Save Number Dialed

An extension user can quickly redial their last call.

Networking

Repeat Redial will not work across a network.

Single Line Terminals

Single line terminals cannot use Repeat Redial.

Operation

To use Repeat Redial (if the outside party you call is unavailable or busy):

1. Place trunk call.
Listen for busy tone or ring-no-answer.
2. Press DIAL + LND.
OR
Press Repeat Redial Key (PGM 15-07 or SC 851: 29).
Your Repeat Redial key flashes while you wait for the UX5000 to redial.
3. Press SPK to hang up.
The UX5000 periodically redials the call.
4. Lift handset when called party answers.

To cancel Repeat Redial:

1. Press DIAL.
2. Press LND.
OR
1. Press Repeat Redial Key (PGM 15-07 or SC 851: 29).

See also Last Number Redial.

Reverse Voice Over

Feature Availability

- Available.

Description

While on a handset call, Reverse Voice Over lets a busy keyset user make a private Intercom call to an idle co-worker. The idle co-worker can be at a keyset or 500/2500 set. The busy user just presses and holds down a programmed Reverse Voice Over key to make a private call to a specified co-worker. The initial caller cannot hear the Reverse Voice Over conversation. The private Intercom call continues until the Reverse Voice Over caller releases the key again. The initial call can be an outside call or an Intercom call.

Reverse Voice Over could help a salesman, for example, when placing a call to an important client. The salesman can talk with the client and give special instructions to a secretary - without interrupting the initial call.

When the keyset is idle, the Reverse Voice Over key functions the same as a Hotline key. A keyset's Reverse Voice Over key also shows at a glance the status of the associated extension:

When the key is . . .	The associated extension is . . .
Off	Idle
On	Busy or call ringing
Fast Flash	In Do Not Disturb

Note: When the keyset is idle, the Reverse Voice Over provides one button calling to the associated extension (like a Hotline key). An extension user cannot, however, use the Reverse Voice Over key to Transfer calls.

Conditions

- An extension can have Reverse Voice Over keys for more than one extension (limited only by the number of available function keys).

Default Setting

Disabled.

Programming

- **15-07-01 : Programmable Function Keys**
Assign a function key for Reverse Voice Over (code 47 + dest. ext.).
- **20-02-03 : System Options for Multi-Line Terminals - BLF Control and 20-13-06 : Class of Service Options (Supplementary Service) - Automatic Off Hook Signaling**
Programs 20-02-03 and 20-13-06 set the conditions under which a Hotline, Reverse Voice Over or DSS Console key indicates that an extension is busy.

	Program 20-02-03	Program 20-13-06	BLF ¹ Status	Busy Status
1	1	0	On	Yes
2	1	1	On	Yes
3	0	0	On	Yes
4	0	1	Off On	No - 1 CALL key busy Yes - Both CALL keys busy

¹ BLF is on for extension receiving a voice announced Intercom call.

- **20-06-01 : Class of Service for Extensions**
Assign a COS to each extension (1-15).

Related Features

Do Not Disturb

A Reverse Voice Over placed to an extension always rings, regardless of how Handsfree Answerback/Forced Intercom Ringing is set at the destination.

Handsfree Answerback/Forced Intercom Ringing

Reverse Voice Over follows Handsfree Answerback/Forced Intercom Ringing programming.

Hotline

Like Reverse Voice Over, Hotline also provides one-button calling to co-workers.

Intercom

Other programmed options can affect how the Intercom feature works. Program these options as needed.

One-Touch Calling

One-Touch Calling provides one button access to co-workers, but without the Busy Lamp Field provided by Reverse Voice Over.

Programmable Function Keys

Reverse Voice Over requires a uniquely programmed function key.

Single Line Terminals

Reverse Voice Over is not available at single line terminals.

Voice Over

If an extension user places a Reverse Voice Over to a busy destination extension, the UX5000 sets up a Voice Over. The Voice Over continues as long as the initiating extension holds down the Reverse Voice Over key.

Reverse Voice Over

Operation

WHEN YOU'RE ON A CALL . . .

To place a Reverse Voice Over call:

1. Press and hold your Reverse Voice Over key (PGM 15-07 or SC 851: 47 + dest. ext.).
Your Reverse Voice Over key lights steadily (green) and you can talk with the programmed Reverse Voice Over destination.

To return to your initial caller:

1. Release the Reverse Voice Over key.
If the co-worker you call hangs up, you return to the initial call automatically.

WHEN YOUR TERMINAL IS IDLE . . .

To place a call to your Reverse Voice Over destination:

1. Press your Reverse Voice Over key (PGM 15-07 or SC 851: 47 + dest. ext.).
You can optionally lift handset after this step for privacy.

Feature Availability

- Available - 100 Ring Groups.

Description

Ring Groups determine how trunks ring extensions. Generally, trunks ring extension's only if Ring Group programming allows. For example, to make a trunk ring an extension:

- Assign the trunk and the extension to the same Ring Group
- In the extension's Ring Group programming, assign ringing for the trunk.

Any number of extensions and trunks can be in a specific group. The UX5000 allows Ring Groups=1-100, In-Skin Voice Mail (102), or Centralized Voice Mail (103).

If an extension has a line key for the trunk, Ring Group calls ring the line key. If the extension doesn't have a line key, the trunk rings the line appearance key. If an extension has a key for a trunk that is not in its ring group, the trunk follows Access Map programming.

Conditions

DIL trunks disregard ring group programming until DIL overflow.

Default Setting

All trunks are in Ring Group 1, the first 16 extensions ring for trunk calls and all other extensions only flash.

Programming

- **15-07-01 : Programmable Function Keys**
Assign function keys as line (code *01 + trunk number) or loop keys (code *05 + enter 0).
⇨ Trunks 001-200
- **15-13-01 : Loop Keys - Outgoing**
Assign trunk groups for outgoing loop keys (0=ARS, Trunk Groups 1-100).
- **15-13-02 : Loop Keys - Incoming**
Assign trunk groups for incoming loop keys (0=all Trunk Groups, Trunk Groups 1-100).
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **22-02-01 : Incoming Call Trunk Setup**
Assign the incoming trunk type (0) for each trunk. There is one item for each Night Service Time Mode (1-8). Note: This option must be set to '0' for Ring Groups to work.

Ring Groups

- **22-04-01 : Incoming Extension Ring Group Assignment**
Assign extensions to ring groups.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-05-01 : Incoming Trunk Ring Group Assignment**
Assign trunks to ring groups.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-08-01 : DIL/IRG No Answer Destination**
For DIL Delayed Ringing, assign the DIL No Answer Ring Group. An unanswered DIL rings this group after the DIL No Answer Time (Program 22-01-04) expires. DIL Delayed Ringing can also reroute outside calls ringing a Ring Group, In-Skin/External Voice Mail, or Centralized Voice Mail.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **22-12-01 : DID Intercept Ring Group**
For each DID Translation Table, assign the destination for DID Intercept. The destination can be a Ring Group, In-Skin/External Voice Mail, or Centralized Voice Mail. For each table, make a separate entry for each Night Service mode.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail
- **25-03-01 : VRS/DISA Transfer Ring Group With Incorrect Dialing**
Set the transfer destination for each DISA and Automated Attendant (OPA) trunk. The destination can be a Ring Group or Voice Mail. Make a separate entry for each Night Service mode.
⇨ Ring Groups: 1-100, 102=In-Skin/External Voice Mail, 103=Centralized Voice Mail

Note: For incoming calls, Ring Group programming (22-04/22-05) overrides Access Map programming (14-07/15-06).

Use the charts below to program the following example:

For this extension ...¹			
301	Trunk 1 rings	Trunk 2 flashes	Trunk 3 flashes
302	Trunk 1 flashes	Trunk 2 rings	Trunk 3 flashes
303	Trunk 1 flashes	Trunk 2 flashes	Trunk 3 rings

¹ Trunks ring the same in the day as at night.

Program 22-04 : Incoming Extension Ring Group Assignment			
Ring Group >	1	2	3
Ext. 301	X ¹	- 0	- 0
Ext. 302	- 0	X ¹	- 0
Ext. 303	- 0	- 0	X ¹
X = Extension assigned to indicated Ring Group			
¹ Extension rings ⁰ Extension doesn't ring. To allow an extension user to answer a flashing line, be sure to give the extension incoming access to the trunk in Programs 14-07 and 15-06.			

Program 22-05 : Incoming Trunk Ring Group Assignment			
Ring Group ¹ >	1	2	3
Trunk 1	X	-	-
Trunk 2	-	X	-
Trunk 3	-	-	X
X = Trunk assigned to indicated Ring Group			
¹ Make the same 22-05 entry for all Night Service modes.			

Ring Groups

Related Features

Automatic Call Distribution

Ring Groups can be used to route trunks to ACD groups.

Automatic Route Selection

When ACD is enabled, Ring Groups are programmed to ring into ACD Groups for each of the eight Work Periods.

Call Forwarding, Off-Premise

Ring Group calls do not follow Off-Premise Call Forwarding programming. However, using the voice mail's Call Routing, a dial action table can be created to forward calls to an outside number or Abbreviated Dial number (enter #2001PP with 001 being the # to which the call is forwarded) on timeout using UTRF.

Class of Service

The Timer Class of Service may affect a call.

Direct Inward Dial (DID) / Direct Inward System Access (DISA)

DID, DISA overflow options can be to a Ring Group.

Direct Inward Line (DIL)

DILs ring extensions without being in a Ring Group.

ISDN Compatibility

For ISDN 3.1 KHz audio calls, Ring Groups can be assigned as the destination. These calls include G3 (ISDN) fax calls, modem calls and ISDN calls that are not "end-to-end" ISDN.

Night Service

Ring Group programming can be different for each Night Service mode.

Programmable Function Keys

Function keys simplify answering incoming calls.

Operation

Refer to Central Office Calls, Answering.

Please refer to Selectable Ring Tones (page 518) for information on this feature.

Ringdown Extension, Internal/External

Feature Availability

- Available - 512 extensions/virtual extensions and 512 Hotline assignments.

Description

With a Ringdown Extension, a user can call another extension, outside number, or Abbreviated Dialing number by just lifting the handset. The call automatically goes through - there is no need for the user to dial digits or press additional keys. Ringdown Extensions are frequently used for lobby terminals, where the caller just lifts the handset to get the information desk or off-site Reservation Desk.

After the Ringdown Extension user lifts the handset, ringdown occurs after a programmable interval. Depending on the setting of this interval, the extension user may be able to place other calls before the ringdown goes through.

Conditions

- Ringdown extension has no effect on an extension's current (active) call.
- The Ringdown Extension user **must** lift the handset for ringdown to work.

Default Setting

Disabled.

Programming

- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-08-09 : Class of Service Options (Outgoing Call Service) - Hotline/Extension Ringdown**
In an extension's Class of Service (1-15), enable (1) or disable (0) ringdown. If disabled in Class of Service, the settings in Program 21-11 below have no effect.
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **21-01-09 : System Options for Outgoing Calls - Ringdown Extension Timer**
After the user lifts the handset, the extension automatically calls the ringdown destination after this interval (0-64800 seconds). A setting of '0' will immediately ring the programmed extension. Any other setting will delay the ringdown the number of seconds programmed.
- **21-11-01 : Extension Ringdown (Hotline) Assignments**
Program the ringdown (Hotline) source and destination (target) number, up to 24 digits (512 Hotline assignments). Remember to include the trunk access code (usually 9) in front of the number when dialing outside numbers. When programming Common Abbreviated Dialing numbers as the destination, the entry should be "#2+bin number".

Related Features

Abbreviated Dialing

Ringdown Extension can use Abbreviated Dialing numbers (and follow their trunk routing) as the destination number.

Call Forwarding

Ringdown Extension follows Call Forwarding. For example, the ringdown destination can forward their calls. When the Ringdown Extension user lifts the handset, ringdown automatically calls the extension to which calls are forwarded.

Call Waiting/Camp On, Callback and Off Hook Signaling

If the Ringdown Extension user hears busy tone when they lift the handset, they can Camp On to the destination, leave a Callback or activate Off Hook Signaling.

Class of Service

The Timer Class of Service may affect a call.

Do Not Disturb

The ringdown destination user can activate Do Not Disturb. When the Ringdown Extension user lifts the handset, they hear DND. If enabled, the Ringdown Extension user can override the destination's DND.

Handsfree Answerback/Forced Intercom Ringing

If the destination extension has Handsfree Answerback enabled, the call will voice-announce. If the destination extension has Forced Intercom Ringing enabled, the call will ring.

Multiple Directory Numbers/Call Coverage Keys

A Multiple Directory Number key can be a ringdown destination. This would allow a 'front door' key to be programmed on every extension.

Operation

To place a call if your extension has ringdown programmed:

1. Lift handset.

If you want to place a trunk call, press a line key before lifting the handset.

Depending on the setting of your ringdown timer, you may be able to dial an Intercom call before your ringdown goes through.

If the destination has Handsfree Answerback enabled, your call will voice announce.

If the destination has Forced Intercom Ringing enabled, your call will ring.

To bypass ringdown (if enabled for your keyset):

1. Do not lift handset.
2. Press CALL.
3. Place Intercom or trunk call.

To answer a call if you are another extension's ringdown destination:

1. Speak toward terminal to answer incoming voice-announcement.
OR
Lift handset to answer ringing Intercom call.

Room Monitor

Feature Availability

- Available.

Description

Room Monitor lets an extension user listen to the sounds in a co-workers area. For example, the receptionist could listen for sounds in the warehouse when it's left unattended. To use Room Monitor, the initiating extension *and* the receiving extension must activate it.

When using keysets for monitoring, an extension user can only Monitor one extension at a time. However, many extensions can Monitor the same extension at the same time.

With single line terminals, multiple SLT's can be programmed to be monitored by the same SLT, however, only one SLT can monitor another SLT at a time.

Room Monitor for Single Lines

This option enables you to monitor the room status through your single line terminal. This can be used with the Hotel/Motel feature as well. Between keysets, the monitored room status is picked up by the terminal's microphone and the activity is heard through the speaker of the monitoring keyset. Between single line terminals, a user goes off hook on the monitored terminal and, from another single line terminal, dials a service code and the extension number. The activity of the area where the monitored terminal is placed can then be heard at the monitoring terminal. This service is available until the handset of the monitored terminal is placed on hook.

CAUTION

The use of monitoring, recording, or listening devices to eavesdrop, monitor, retrieve, or record telephone conversation or other sound activities, whether or not contemporaneous with transmission, may be illegal in certain circumstances under federal or state laws. Legal advice should be sought prior to implementing any practice that monitors or records any telephone conversation. Some federal and state laws require some form of notification to all parties to a telephone conversation, such as using a beep tone or other notification methods or requiring the consent of all parties to the telephone conversation, prior to monitoring or recording the telephone conversation. Some of these laws incorporate strict penalties.

Conditions

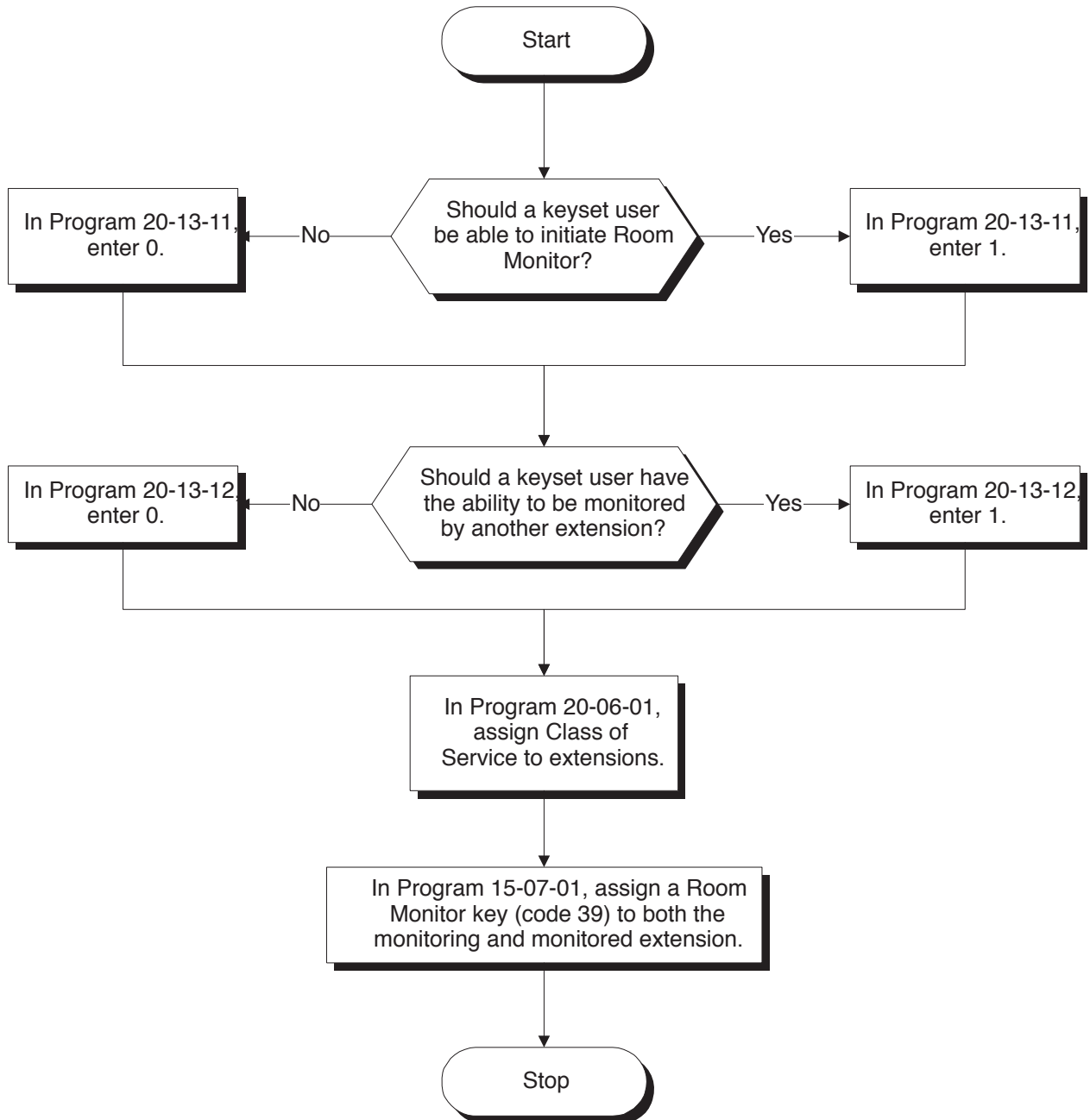
- Room Monitor is for listening only. It does not allow for conversation between the monitoring and monitored extensions.
- An extension user cannot monitor an Attendant.
- The NEC cordless terminal (P/N 730082) does not support Room Monitor.
- A keyset user cannot monitor a single line terminal and a single line terminal cannot monitor a keyset.
- Multiple Directory Number (virtual extension) keys do not support Room Monitor Programmable Function keys (code 39).

Default Setting

Disabled.

Programming

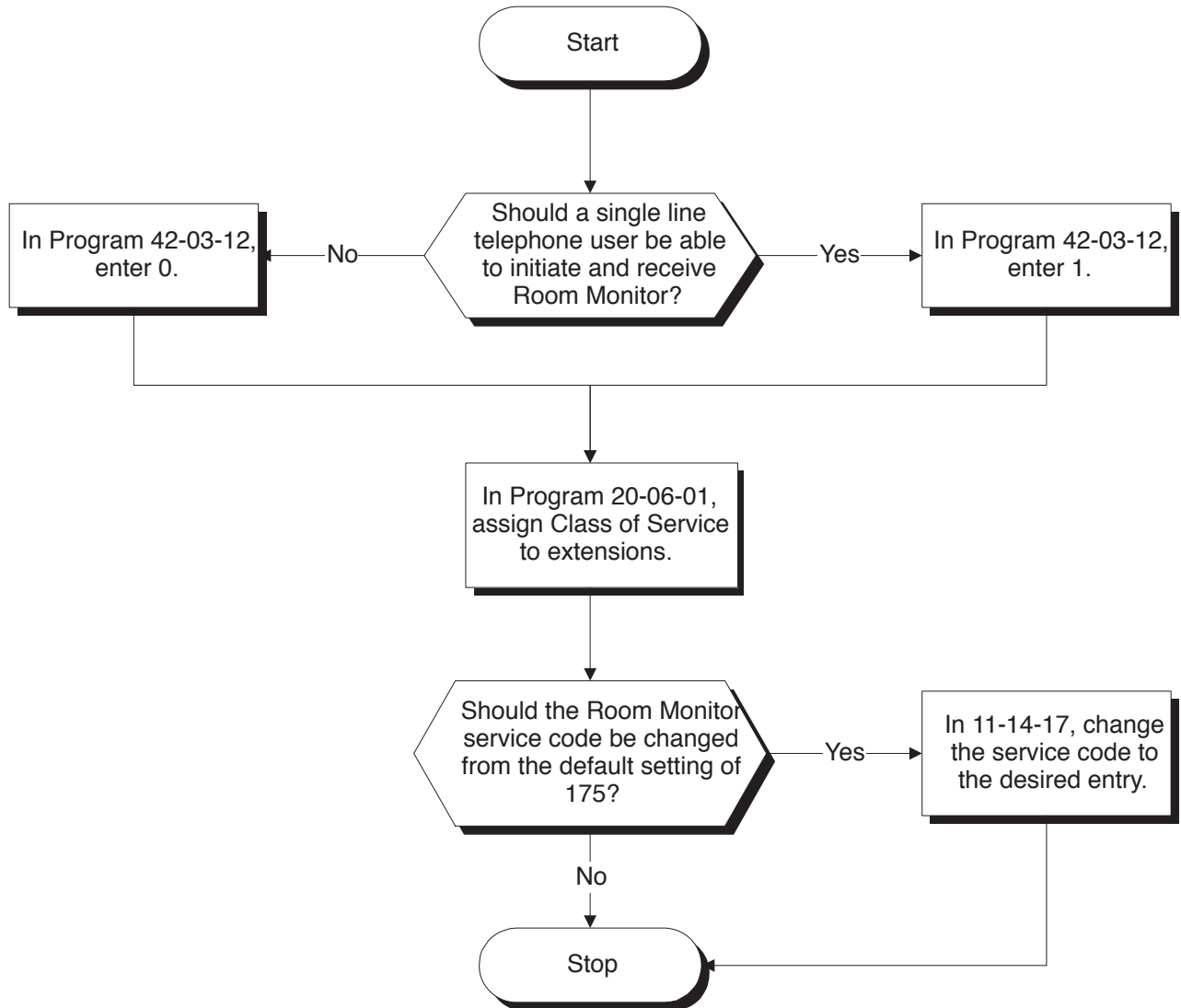
Keypad Room Monitor



Room Monitor

Programming (Cont'd)

Single Line Terminal Room Monitor



Programming (Cont'd)

- ➔ **11-14-17 : Service Code Setup (for Hotel) - Hotel Room Monitor**
Customize the service code (175 by default) to be used for Room Monitor.
- ➔ **15-07-01 : Programmable Function Keys**
Assign a function key as a Room Monitor key (code 39) for both the extension being monitored and the extension initiating Room Monitor.
- ➔ **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- ➔ **20-13-11 : Class of Service Options (Supplementary Service) - Room Monitor, Initiating Extension**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to initiate Room Monitor.
- ➔ **20-13-12 : Class of Service Options (Supplementary Service) - Room Monitor, Extension Being Monitored**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to be monitored.
- ➔ **42-03-12 : Class of Service Options (Hotel) - SLT Room Monitor**
Enable (1) or disable (0) a single line terminal's ability to use Room Monitor.

Related Features

Hotel/Motel

Room Monitor for single line terminals can be used with the Hotel/Motel feature.

Programmable Function Keys

Room Monitor requires uniquely programmed function keys.

Room Monitor

Operation

You must activate Room Monitor at the extension initiating the monitor and at the extension you want to monitor. You can only listen to one extension at a time.

Keysets:

To activate Room Monitor (at the initiating extension):

1. Do not lift handset or press SPK.
2. Press Room Monitor key (PGM 15-07 or SC 851: 39).
3. Dial number of extension you want to monitor.

You can place and answer other calls while Room Monitor is active.

To activate Room Monitor (at the extension to be monitored):

1. Go to the extension you want to monitor.
2. Do not lift handset or press SPK.
3. Press Room Monitor key (PGM 15-07 or SC 851: 39).
4. Dial the number of the extension you are at.

For example, if you are at extension 306, dial 306.

You can place and answer other calls while Room Monitor is active.

To cancel Room Monitor:

1. Press Room Monitor key at both the initiating extension and the monitored extension.

Single Line Terminals:

To activate Room Monitor (at the extension to be monitored):

1. Go to the extension you want to monitor.
2. Lift handset at the terminal to be monitored.
3. Dial 175.
4. Dial 1.
5. Dial number of extension number which will be monitoring the terminal.
6. Place the handset on the desk, placing the handset's transmitter towards the room.

You cannot place or answer other calls while Room Monitor is active.

To activate Room Monitor (at the initiating extension):

1. Lift handset at the terminal which will be monitoring another terminal.
2. Dial 175.
3. Dial 2.
4. Dial number of extension number which will be monitored.

You cannot place or answer other calls while Room Monitor is active.

To cancel Room Monitor:

1. Hang up the handsets for both the monitored and the monitoring terminals.

Feature Availability

- Available.

Description

Save Number Dialed permits an extension user to save their last outside number and easily redial it later on. For example, an extension user can recall a busy or unanswered number without manually dialing the digits. The UX5000 retains the saved number until the user stores a new one in its place.

Save Number Dialed saves in memory a dialed number up to 24 digits. The number can be any combination of digits 0-9, # and *. The UX5000 remembers the digits regardless of whether the call was answered, unanswered or busy. The UX5000 normally uses the same trunk group as for the initial call. However, the extension user can preselect a specific trunk if desired.

Conditions

None

Default Setting

Enabled.

Programming

- ◆ **11-12-13 : Service Code Setup (for Service Access) - Saved Number Dialed**
Customize the service code (815 by default) to be used for dialing a saved number.
- ◆ **15-07-01 : Programmable Function Keys**
Assign a function key as a Save key (code 30).

Related Features

Automatic Route Selection

For UX5000s with Automatic Route Selection, ARS selects the trunk for the call unless the user preselects.

Central Office Calls, Placing

Other programmed options for outgoing calls can affect how a call is placed. Check or program these options as needed.

Dial Tone Detection

Refer to this feature for the specifics on how the UX5000 handles Dial Tone Detection.

Last Number Redial

An extension user can quickly redial the last number placed.

Programmable Function Keys

Function keys simplify Save Number Dialed operation.

Repeat Redial

The UX5000 can automatically retry a trunk call that was unanswered or busy.

Save Number Dialed

Operation

To save the outside number you just dialed (up to 24 digits):

Use this feature before hanging up.

Keyset

1. Press Save Number Dialed key (PGM 15-07 or SC 851: 30).

500/2500 Single Line Terminal

1. Hookflash.
2. Dial 815.

To redial a saved number:

Keyset

1. (Optional) Press line key.
This selects a specific trunk for the call.
2. Press Save Number Dialed key (PGM 15-07 or SC 851: 30).
The stored number dials out.

OR

1. Press idle CALL key
2. Dial 815.

OR

Press Save Number Dialed key (PGM 15-07 or SC 851: 30).

Save Number Dialed automatically selects a trunk from the same group as your original call.

The stored number dials out.

500/2500 Single Line Terminal

1. Hookflash.
2. Dial 815.

To check to see the number you have saved:

1. Press Save Number Dialed key (PGM 15-07 or SC 851: 30).
The stored number displays for ten seconds.
The stored number dials out if you:
 - Lift the handset,
 - Press an idle line key,
 - Press an idle CALL key, or
 - Press SPK
2. Press CLEAR.

To clear your saved number:

Keypad

1. Press idle CALL key.
2. Dial 885.
3. Press SPK to hang up.

Single Line Terminal

1. Lift handset and dial 885.
2. Hang up.

Secretary Call (Buzzer)

Feature Availability

- Available.

Description

Secretary Call lets two co-workers alert each other without disturbing their work. To have Secretary Call, both co-workers must have keysets with Secretary Call buzzer keys. When a user presses their buzzer key, the UX5000 alerts the called extension by sending a splash tone and flashing the called extension's buzzer key. The called user can respond by placing an Intercom call to the calling party. The called extension's buzzer key continues to flash and the splash tone is heard until either user cancels the Secretary Call. A secretary could use this feature, for example, to get a message through to the boss in an important meeting. After being alerted, the boss could call the secretary when it's most convenient.

An extension can have Secretary Call keys for any number of extensions, limited only by the available number of programmable keys.

Conditions

- Secretary Call is not available to single line terminal users.
- Secretary Call does not set up an Intercom call.
- When assigning Secretary Call, a user enters the associated extension numbers, not port numbers.

Default Setting

Disabled.

Programming

- ◆ **15-07-01 : Programmable Function Keys**
Assign function keys for Secretary Call buzzer (code 41 + Hold + the destination extension number). Both co-workers must have buzzer keys for each other.

Related Features

Programmable Function Keys

Secretary Call requires a uniquely programmed function key.

Single Line Terminals

Single line terminals cannot use Secretary Call.

Operation

To buzz your secretary or boss:

1. Do not lift handset.
2. Press buzzer key (PGM 15-07 or SC 851: 41 + sec. ext.).
Your boss or secretary hears ringing.
Your buzzer key lights steadily.
Your boss's or secretary's buzzer key flashes fast.
The terminal continues to ring until the Secretary Call key is pressed.

To check to see who left you a Secretary Call:

1. Do not lift handset.
2. Press CHECK.
3. Press flashing Secretary Call key.
4. Press CLEAR.

To answer your Secretary Call indication:

1. Place an Intercom call to the extension that called you.

To cancel a Secretary Call you left at another extension:

1. Press your lit Secretary Call key.

To cancel a Secretary Call left at your extension:

1. Do not lift handset.
2. Press flashing Secretary Call key.

Secretary Call Pickup

Feature Availability

- Available.

Description

Secretary Call Pickup lets a keyset user easily reroute calls intended for a co-worker to themselves. By pressing a Secretary Call Pickup key, the user can have all calls to a co-worker's terminal ring or voice-announce theirs instead. Secretary Call Pickup is a simplified type of Call Forward with Follow Me for employees that work closely together. This feature could be helpful to customer service representatives that must frequently cover each other's clients. When a representative leaves their desk, an associate could press the Secretary Call Pickup key to intercept all their calls.

An extension can have Secretary Call Pickup keys for any number of extensions, limited only by the available number of programmable keys.

Conditions

- Secretary Call Pickup is not available to single line terminal users.
- A Multiple Directory Number (virtual extension) cannot be programmed as the boss's extension.

Default Setting

Disabled.

Programming

➤ 15-07-01 : Programmable Function Keys

Assign function keys for Secretary Call Pickup (42 + boss ext). Unlike Secretary Call, you do not have to program a corresponding key at the source and destination extensions.

Related Features

Call Forwarding with Follow Me

An extension user can also have Call Forwarding with Follow Me reroute a co-worker's calls to themselves.

Programmable Function Keys

Secretary Call pickup requires a uniquely programmed function key.

Secretary Call (Buzzer)

Co-workers can alert each other without disturbing their work.

Single Line Terminals

A keyset can have a Secretary Call Pickup key for a single line terminal.

Operation

To activate Secretary Call Pickup:

1. Press your Secretary Call Pickup key (PGM 15-07 or SC 851: 42 + boss ext.).
Your Secretary Call Pickup key lights and the Boss's terminal display shows "BOSS FWD>>".
Calls intended for covered extension ring your terminal instead.

To cancel Secretary Call Pickup:

1. Press your lit Secretary Call Pickup key (PGM 15-07 or SC 851: 42 + boss ext.).

Secure Set Relocation

Please refer to Maintenance (page 378) for information on this feature.

Selectable Display Messaging

Feature Availability

- Available - all terminals are able to use Selectable Display Messaging at one time.

Description

An extension user can select a preprogrammed Selectable Display Message for their extension. Display keyset callers see the selected message when they call the user's extension. Selectable Display Messaging provides personalized messaging. For example, an extension user could select the message "GONE FOR THE DAY". Any display keyset user calling the extension may hear a DND signal and then see the message. See table below for a list of the standard messages.

An extension user can add digits for date, time or phone number after messages 1-8 and 10 (up to 24 characters). For example, an extension user could select the message "ON VACATION UNTIL" and then enter the date. Callers see the original message followed by the appended date. They would then be able to tell when the user was coming back from vacation. The UX5000 allows all terminals to use the Selectable Display Messaging feature at the same time.

The default messages are:

No.	Message	Change "#" to...
1	IN MEETING UNTIL ##:##	Time (when meeting done)
2	MEETING ROOM - #####	Room Name or extension
3	COME BACK ##:##	Time (when returning)
4	PLEASE CALL #####	11 digits (phone number)
5	BUSY CALL AFTER ##:##	Time (when returning)
6	OUT FOR LUNCH BACK ##:##	Time (when returning)
7	BUSINESS TRIP BACK ####	Date (when returning)
8	BUSINESS TRIP #####	10 digits (where reached)
9	GONE FOR THE DAY	
10	ON VACATION UNTIL ####	Date (when returning)
11-20	MESSAGE 11-20	

Conditions

None

Default Setting

Enabled.

Selectable Display Messaging

Programming

- **11-11-14 : Service Code Setup (for Setup/Entry Operation) - Text Message Setting**
Define the service code to be used when setting a text message.
- **15-07-01 : Programmable Function Keys**
Assign a function key for Call Forwarding (Device) (code 17) or Text Message (code 18). The Call Forwarding Device key allows the user to select a message each time they activate the feature, while the Text Message key automatically selects the defined message used when programming the key.
- **20-01-02 : System Options - Text Message Mode**
Select whether and intercom caller should hear busy (1) or ring through (0) for extensions which have Selectable Display Messaging set. **Note:** Any extensions previously set with Selectable Display Messaging must cancel the feature and reactivate in order for a change in this option to take affect.
- **20-02-07 : System Options for Multi-Line Terminals - Time and Date Display Mode**
Set the UX5000 Time and Date display mode. The format of the time and date which is displayed in Selectable Display Messages follows this setting.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-13-19 : Class of Service Options (Supplementary Service) - Selectable Display Messaging**
In an extension's Class of Service (1-15), enable (1) or disable (0) an extension's ability to use Selectable Display Messaging.
- **20-16-01 : Selectable Display Messages**
Program the Selectable Display Messages (1-20). Refer to the chart below for character entry.

Use this keypad digit . . .	When you want to . . .
1	Enter characters: 1 @ [¥] ^ _ ' { } > <
2	Enter characters A-C, a-c, 2.
3	Enter characters D-F, a-f, 3.
4	Enter characters G-I, g-i, 4.
5	Enter characters J-L, j-l, 5.
6	Enter characters M-O, m-o, 6.
7	Enter characters P-S, p-s, 7.
8	Enter characters T-V, t-v, 8.
9	Enter characters W-Z, w-z, 9.
0	Enter characters: 0 ! “ # \$ % & <space> ()
*	Enter characters: * + , - . / : ; < = > ?
#	# = Accepts an entry (only required if two letters on the same key are needed - ex: STA)
CONF	Clear the character entry one character at a time.
FLASH	Clear all the entries from the point of the flashing cursor and to the right.

Related Features

Do Not Disturb

The DND key lights steady when Program 20-01-02 is set to “1” (no answer/busy mode) and ICM callers may hear “Please do not disturb” or a DND signal. The message is displayed on their terminal. If this option is set to “0” (call mode), the DND is off allowing ICM callers to ring through while the message is displayed on their terminal.

Programmable Function Keys

Function keys simplify Selectable Display Messaging operation.

Operation

To select a message:

1. Press idle CALL key + dial *4.
OR
Press Call Forward (Device) key (PGM 15-07 or SC 851: 17).
OR
Press idle CALL key + press Text Message key (PGM 15-07 or SC 851: 18) + enter digits to append, if needed + SPK to hang up. Skip the remaining steps.
2. Dial 3 + Message number (01-20).
Use VOL ▲ or VOL ▼ to scroll through the messages after entering any message number.
3. (Optional for messages 1-8 and 10)
Dial the digits you want to append to the message.
You can append messages 1-8 and 10 with digits (e.g., the time when you will be back). You enter the time in 24-hour format, but it displays in 12-hour format.
4. Press SPK to hang up.
*Intercom calls to extensions with Selectable Display Messaging set will receive a DND signal and receive the display message on their terminal's display instead of ringing the extension based on the setting in Program 20-01-02.
To allow calls to ring through and have the message displayed on the calling extension's display, cancel DND by pressing DND + 0.*

To cancel a message:

1. Press idle CALL key + dial *4.
OR
Press Call Forward (Device) key (PGM 15-07 or SC 851: 17).
OR
Press idle CALL key + press Text Message key (PGM 15-07 or SC 851: 18) + SPK to hang up.
2. Dial 3.
3. Press SPK to hang up.

Using the Text Message Service Code to select a message:

1. Press idle CALL key + dial the Text Message service code (Program 11-11-14).
2. Dial the Selectable Display Message number to be used (01-20).
3. Press SPK to hang up.
To cancel, repeat Step 1 and hang up.

Selectable Ring Tones

Feature Availability

- Available.

Description

An extension user can change the way trunks or ICM calls ring their terminal. Selectable Ring Tones allows an extension user to set up unique ringing for their calls. This is important in a crowded work area where several terminals are close together. Because their terminal has a characteristic ring, the user always can tell when it's their terminal ringing.

Conditions

None

Default Setting

Enabled

Programming

- **11-11-20 : Service Code Setup (for Setup/Entry Operation) - Change Incoming CO and ICM Ring Tones**
If required, change the service code used for changing the incoming ring tones heard for CO and ICM calls (Default: 820).
- **15-02-02 : Multi-Line Terminal Basic Data Setup - Trunk Ring Tone**
Use this option to set the tone (pitch) of the incoming trunk ring for the extension port you are programming (1 = High, 2 = Mid range, 3 = Low, 4 = Ring Tone 1, 5 = Ring Tone 2, 6 = Ring Tone 3, 7 = Ring Tone 4, 8 = Ring Tone 5).
- **15-02-03 : Multi-Line Terminal Basic Data Setup - Extension Ring Tone (Pitch)**
Use this option to set the tone (pitch) of the incoming extension call ring for the extension port you are programming (1 = High, 2 = Mid range, 3 = Low, 4 = Ring Tone 1, 5 = Ring Tone 2, 6 = Ring Tone 3, 7 = Ring Tone 4, 8 = Ring Tone 5). Also see program 15-08.
- **15-08-01 : Incoming Virtual Extension Ring Tone Setup**
Assign a ring tone range (0-4) to incoming virtual extensions assigned to a Virtual Extension key (Program 15-07). If you enable ringing for the key in Program 15-09, the key rings with the tone you set in this program. Also see Program 22-03.
- **15-10-01 : Incoming Virtual Extension Ring Tone Order Setup**
Set the priority (1-4) for the Virtual Extension Ring Tones set in Program 15-08. When Virtual Extension calls ring an extension simultaneously, the tone with the highest order number (e.g., 1) rings. The other keys just flash.
- **22-03-01 : Trunk Ring Tone Range**
Select the ring tone range for the trunk. The trunk uses a ring tone within the range selected when it rings an extension. There are four ring tones available. Customize the Trunk Ring Tones in Program 82-01.

Related Features

Distinctive Ringing, Tones and Flash Patterns

This feature can be used to change the default ring tones.

Single Line Terminals

Single line terminals cannot use Selectable Ring Tones.

Transfer

Transferred calls on DISA, DID, ISDN trunks can display the reason a call is being transferred (Call Forward, Busy, No Answer, or DND) unless a Selectable Display Message is enabled. If enabled, the message shall be displayed instead of the reason for the call transfer.

Operation

To change your extension's incoming ring tones:

1. Press idle CALL key.
2. Dial 820.
3. Dial 1 to set Intercom ring; 2 to set trunk ring.
4. Dial code for the desired ring pattern (1-8).
5. Press SPK to hang up.

To listen to the incoming ring choices:

1. Press idle CALL key.
2. Dial 811.
3. Dial 1 to listen to Intercom ring; 2 to listen to trunk ring.
For trunk ring, enter the tone to which you want to listen.
4. **For Intercom Ring:**
Dial code for the ring pattern you want to hear (1-8).
OR
For Trunk Ring:
Dial code for the ring pattern you want to hear (1-8) and then dial the tone for the ring pattern (1-4).
5. Press SPK to hang up.

Serial Call

Feature Availability

- Available.

Description

Serial Call is a method of transferring a call so it automatically returns to the transferring extension. Serial Calling saves transferring steps between users. For example, a Customer Service Representative (CSR) has a client on the terminal who needs technical advice. The CSR wants to send the call to Tech Service, but needs to advise the client of certain costs when Tech Service is done. Rather than transferring the call back and forth, the CSR can use Serial Call to Technical Service and announce, “I have Ted on the terminal. I need to talk to him again. Just hang up when you’re done and I’ll get him back.”

Conditions

The transferring extension can remain off-hook to auto-receive the callback or hang up and it will ring back to them.

Default Setting

Disabled.

Programming

- ➔ **15-07-01 : Programmable Function Keys**
Assign a programmable key as a Serial Call key (code 43).

Related Features

Programmable Function Keys

Serial Call requires a uniquely programmed function key.

Single Line Terminals

Serial Call is not available to single line terminals.

Transfer

An extension user can extend (send) a call to a co-worker.

Operation

To place a Serial Call to a co-worker:

1. Place or answer a call.
2. Press HOLD.
3. Dial co-worker’s extension number.
Co-worker must lift handset to respond to your announcement.
4. Press Serial Call key (PGM 15-07 or SC 851: 43) but do not hang up.
When your co-worker hangs up the call, the UX5000 makes an automatic live transfer back to your extension.

Single Line Terminals, Analog 500/2500 Sets

Feature Availability

- Available. Capacity based on blades installed and port licensing(max. 001-512).

Description

The UX5000 is compatible with 500 type (Dial Pulse) and 2500 type (DTMF) analog single line terminals (SLTs). You can install single line terminals as On-Premise or Off-Premise extensions. Single line terminal users can dial codes to access many of the features available to keyset users. With Single Line Terminals, you can have your UX5000 simulate PBX type operation.

When installing single line terminals, you must have:

- A port on an SLIU blade for each single line terminal installed.
- (If you have 2500 sets) At least one block reserved on the CCPU for analog extension DTMF reception.

Codec Filter Data Setup Program

When **Program 82-07-01 : Codec Filter Setup for Analog Station Ports** is set to "4 - Specified Data", the UX5000 will use the settings in **Program 82-09 : SLIU Codec Filter Data Setup**.

These values should not be changed from their default settings unless directed by NEC'S Technical Service department.

The side tone of the SLIU is adjusted using all 16 values, however, special software is required in order to compute these values. The setting is not proportional to the gain level. To change these values, contact NEC's Technical Service department for assistance.

DTMF Dial Out Timer

A program is available for DTMF dialing, **Program 20-03-07 : System Options for Single Line Terminals**. When **Program 20-03-03 : System Options for Single Line Terminals - SLT DTMF Dial to Trunk Lines** is set to "0" (receive all digits before sending), the UX5000 will following the timers in Program 20-03-04 and 23-03-07.

The timer in **Program 20-03-04 : System Options for Single Line Terminals - Dial Sending Start Time for SLT or ARS** will reset when the user dials another digit.

The timer in **Program 23-03-07 : System Options for Single Line Terminals - Forced Dial Sending Start Time** will not reset when a digit is dialed. The user must finish dialing all the digits before this timer expires (Entries: 0-64800 seconds, Default: 0).

Protocol for External Analog Devices (ex: Fax Server) Supported

An analog station port can support the sending of DTMF tones and disconnect signal to support an external fax server or other similar products.

With a digital voice mail installed, this option allows the UX5000 to send protocol digits to an analog SLT port (this allows an external fax server to be used as well).

Note that this feature is created for SLT ports and not for a voice mail group. If an SLT port is assigned to a voice mail group, the existing analog voice mail protocol will be sent.

- DTMF digits can be sent only when a call is forwarded. The forwarding extension can be a keyset, single line terminal, or virtual extension.
- The extension can be set for Call Forwarding options: All, Busy, No Answer, or Busy/No Answer.

Single Line Terminals, Analog 500/2500 Sets

- The forwarding destination can be a SLT or Department Group.
- This feature is not available for networked ports.

Conditions

- Dial Pulse (500 type) single line terminals cannot access any features that require the user to dial # or *.
- In order for single line terminals connected to an APR adapter to establish a conference call or to split between two calls, it must use the second channel of the digital port (Program 10-03-06/07).

Default Setting

- Single Line Terminals function as soon as they are installed and properly programmed.

Programming

- **10-03-01 : Blade Setup**
Program all on-premise 500/2500 type single line terminals with circuit type '2'. Set the DIOPU trunk to type '1' when trunks should be defined for off-premise extension (OPX) use.
- **10-03-03 : Blade Setup, For SLIU Unit - Transmit Codec Gain Type**
10-03-04 : Blade Setup, For SLIU Unit - Receive Codec Gain Type
Assign transmit and receive levels for 500/2500 type single line terminals.
- **10-09-01 : DTMF and Dial Tone Circuit Setup**
If the UX5000 has 2500 type (DTMF) single line extensions, allocate at least one circuit for analog extension DTMF reception (entry 0 or 1).
 - Use the following as a guide when allocating DTMF receivers:
 - In light traffic sites, allocate one DTMF receiver for every 10 devices that use them.
 - In heavy traffic sites, allocate one DTMF receiver for every five devices that use them.
- **15-03-01 : Single Line Terminal Basic Data Setup - SLT Signaling Type**
Enter 0 if single line terminal is a 500 type (dial pulse). Enter 1 if single line terminal is a 2500 type (DTMF).
- **15-03-03 : Single Line Terminal Basic Data Setup - Terminal Type**
Enter 0 for normal 500/2500 type terminals. Enter 1 if a Voice Mail port (refer to "Voice Mail" for more).
- **15-03-16 : Single Line Terminal Basic Data Setup - Special DTMF Protocol Sent**
For each analog port, enable (1) or disable (0) the ability to send the extension number of the terminal that forwarded to it when not assigned a voice mail port. This setting is ignored if a voice mail department group number is defined in Program 45-01-01.
- **15-03-17 : Single Line Terminal Basic Data Setup - Dial Tone Select**
When an SLT user has received a Message Waiting or Voice Mail message, this option allows the UX5000 to provide an initial stutter dial tone (three beeps then normal dial tone) when the SLT handset is lifted. This program has two options: *Normal Dial Tone (0)* and *New Dial Tone (1)*. By default, this option is set to 0 for all extensions.
- **20-03-02 : System Options for Single Line Terminals - Ignore Received DP Dial on DTMF SLT Port**
Use this option to define whether the UX5000 should receive dial pulse and DTMF signals (0) or ignore dial pulse and only accept DTMF signals (1).
- **20-06-01 : Class of Service for Extensions**
Assign a unique Class of Service for Dual OPX terminals only when using Continued Dialing.

Single Line Terminals, Analog 500/2500 Sets

- **20-13-13 : Class of Service Options (Supplementary Service) - Continued Dialing**
Set option to '0' to prevent dual DTMF tones when using Continued Dialing.
- **20-15-01 : Ring Cycle Setup - Normal Incoming Call on Trunk**
Define the ringing cycle (1-13) for normal incoming trunk calls (DIL, ring group, etc.).
- **20-15-03 : Ring Cycle Setup - Incoming Internal Calls**
Define the ringing cycle (1-13) for ICM calls.
- **20-15-05 : Ring Cycle Setup - DID**
Define the ringing cycle (1-13) for DID calls.
- **45-01-16 : Voice Mail Integration Options - Fax Digit Add Assignment**
Assign the leading digits (up to 4) to show in front of extension numbers sent to analog ports defined as "1" in Program 15-03-16 (Special DTMF Protocol Sent). If this entry is blank and Program 15-03-16 is enabled, the protocol will only include the extension number. (*Entries: 0 - 9, # **)
- **80-02-01 : DTMF Tone Setup - Duration**
With the protocol for external devices option, set the duration time for the protocol digits sent.
- **80-03-01 : DTMF Tone Receiver Setup**
80-04-01 : Call Progress Tone Detector Setup
If required, modify the criteria for dial tone detection and call progress tone detection for the DTMF tones received at a single line terminal.
- **82-04-01 - 82-04-14 : SLIU Initial Data Setup**
Set various timing parameters for the analog station blades. The entries you make in this program affect all SLIU blades installed (make time, break time, hookflash, etc.).
- **82-07-01 : Codec Filter Setup for Analog Station Ports**
Define the Codec (QSLAC) Filter (0 = No filter, 1 = 0dB Loss, 2 = 4dB Loss, 3 = 8dB Loss, 4 = Specified Data from Program 82-09) for each analog extension port (1-256).

Related Features

Single line terminal users have access to the following features:

Abbreviated Dialing	Department Step Calling	Message Waiting
Account Codes	Directed Call Pickup	Night Service
Alarm	Do Not Disturb	Off Hook Signaling
Automatic Route Selection	Door Box	Paging
Barge In	Flash	PBX Compatibility
Call Forwarding	Forced Trunk Disconnect	Pulse to Tone Conversion
Call Forwarding with Follow Me	Group Call Pickup	Ringdown Extension
Call Forwarding/DND Override	Hold	Save Number Dialed
Call Waiting/Camp On with Split	Intercom	Selectable Display Messages
Callback	Handsfree Answerback/Forced Intercom Ringing	Toll Restriction
Central Office Calls, Answering	Last Number Redial	Transfer
Central Office Calls, Placing	Line Preference	Trunk Queuing and Camp On
Conference	Meet Me Conference	Voice Mail
Department Calling	Meet Me Paging	Voice Over
	Meet Me Paging Transfer	Warning Tone for Long Conversation

Single Line Terminals, Analog 500/2500 Sets

Data Communications

APR modules can be used with keysets to provide an analog port.

Park

SLT users should not use the Automatic Park feature as they can not determine which orbit the call was parked.

Refer to the individual features for additional descriptive, programming and operational information.

Operation

Refer to the individual features listed in the Related Features chart above.

Protocol for External Devices

1. Define Call Forwarding for an extension to ring to the SLT port for the fax server.
2. When the forwarded extension is called, the calling party is transferred to the SLT port and the DTMF protocol is sent when it goes off-hook (example: `**99305` [`**99` defined in Program 45-01-16 plus the extension number of the SLT port, 305]).

The DTMF protocol will not be sent if the SLT port is dialed directly.

Feature Availability

- Available.

Description

Each display terminal provides interactive soft keys for intuitive feature access. It is no longer necessary to remember feature codes to access the terminal's advanced features because the function of the soft keys change as the user processes calls. For example, just press a soft key to Page, Park a call, leave a message or Camp On to a busy co-worker.

Conditions

If a feature is restricted by an extension's Class of Service, though the Soft Key menu will still display the option, the user can not set the feature.

Default Setting

Display shows time/date/extension/Soft Key menu information.

Programming

None

Related Features

Directory Dialing

Using the Directory Dialing Soft Keys, the FLASH key can toggle the language display from English to Japanese.

Volume Controls

The feature must be active to change the volume (ex: terminal must be ringing, page being heard, etc.). Pressing the volume keys when the terminal is idle will adjust the display's contrast.

Refer to the individual features for additional descriptive, programming and operational information.

Station Message Detail Recording

Feature Availability

- Available.
This feature requires a connection to the UX5000 using the LAN port on the UX5000 CCPU (The LAN port only provides information through LAN-capable programs, such as HyperTerminal. Printing of the SMDR information must be done from within that program.), or a CTA or CTU adapter connected to an Aspire keyset.

Description

Station Message Detail Recording (SMDR) provides a record of the UX5000's trunk calls. Typically, the record outputs to a customer-provided printer, terminal or SMDR data collection device. SMDR allows you to monitor the usage at each extension and trunk. This makes charge-back and traffic management easier.

SMDR provides the following options:

- **Abandoned Call Reporting**
The SMDR report includes calls that rang into the UX5000 but were unanswered (i.e., abandoned). SMDR can include all abandoned calls or only those abandoned calls that rang longer than the specified duration. The Abandoned Call Report helps you keep track of lost business.
- **Blocked Call Reporting**
When Toll Restriction blocks a call, you can have SMDR print the blocked call information. Or, you can have SMDR exclude these types of calls. With Blocked Call Reporting, you can better customize Toll Restriction for the site's application.
- **Customized Date Format**
The SMDR header can show the report date in one of three formats: American, European or Japanese. Set the format for your preference.
- **Transferred Call Tracking**
SMDR shows each extension's share of a transferred call. If an outside call is transferred among four extensions, SMDR shows how long each of the callers stayed on the call.
- **Data Call Tracking**
Data Call Tracking can log the UX5000's internal data calls. Since SMDR normally logs external (trunk) data calls, Data Call Tracking lets you get a complete picture of data terminal activity.
- **Digit Counting**
With Digit Counting, SMDR can selectively keep track of toll calls. For example, if the digit count is nine, SMDR won't include toll calls within the home area code. Digit Counting permits SMDR to include only the types of calls you want to monitor.
- **Digit Masking**
Digit Masking lets you "X" out portions of the number dialed on the SMDR report. A digit mask of seven, for example, masks out all exchange codes (NNXs) and local addresses. Digit Masking makes it easier to keep track of calling patterns, without having to interpret each individual number. You can also use Digit Masking to block out access and security codes.

Station Message Detail Recording

- **Duration Monitoring**
SMDR can include calls of any duration, or only those that last longer than the interval you specify. If you want to keep track of all trunk activity, use a short duration. To keep track of only significant usage, use a longer duration.
- **Extension Exclusion**
You can selectively exclude extensions from the SMDR report. This ensures privacy for high-profile callers. For example, the company attorney negotiating a merger may not want his calls to show up on an in-house report.
- **PBX Call Reporting**
If your UX5000 is behind a PBX, you can have SMDR monitor all traffic into the PBX or just calls placed over PBX trunks. The SMDR record can include all PBX calls (including calls to PBX extensions) or just calls that include the PBX trunk access code.
- **USB SMDR Communication**
SMDR communication to the UX5000 requires a LAN connection. However, when using an Aspire keyset on the UX5000, you can attach a CTA adapter to the Aspire keyset allowing for serial or USB output. The UX5000 is compatible with USB SMDR devices. You can output the SMDR report to a high speed printer or send it to disk through a PC's USB port.
- **Trunk Exclusion**
Use Trunk Exclusion to exclude certain trunks not subject to per-call charges (like WATS lines) from the SMDR report. This makes call accounting easier, since you review only those calls with variable costs.
- **Usage Summaries**
SMDR can automatically print daily, weekly and monthly call activity summaries. Each summary includes the total number of regular trunk calls and ISDN trunk calls, and the costs for each type. The daily report prints every day at midnight. The weekly report prints every Sunday night at midnight. The monthly report prints at midnight on the last day of the month.
- **Extension Name or Number**
The SMDR report can include an extension's name or extension number. Choose the method that makes it easier for you to track call usage.

Station Message Detail Recording

SMDR with Caller ID

The SMDR output can include up to 16 or 24 characters of the Caller ID name information (depending on the view option selected in Program 35-02-18). You can select to display the Caller ID number or name or the DID number. If you wish to display the Caller Name in the "DIALLED NO./CLI" and "ACCOUNT" area, select "2" in the updated Program 35-02-15 and "1" in Program 35-02-17.

If the Caller ID name is not received, the area for Caller ID Name is left blank.

Sample SMDR Report

For example, with Program 35-01-09 = 0 (Format for NA) and Program 35-02-17 = 1 (Caller ID Name), if a call is received with the Caller ID Name of "NECinfrontia Corporation" (24 characters), the following SMDR record is displayed:

CLASS	TIME	DATE	LINE	DURATION	STATION	DIALLED No./CLI	ACCOUNT
POT	10:52	12/09	002	00:00:10	2001	2142623801	08754
PIN	10:52	12/09	001	00:00:20	2017	2142623802	NECinfrontia Cor
PIN	10:53	12/09	002			2142623801	NO ANSWER

If Program 35-02-18 = 1 (Caller ID Name Output Method) is set to line feed, the SMDR will display as follows:

CLASS	TIME	DATE	LINE	DURATION	STATION	DIALLED No./CLI	ACCOUNT
POT	10:52	12/09	002	00:00:10	2001	2142623801	08754
PIN	10:52	12/09	001	00:00:20	2017	2142623802	NECinfrontia Cor
NEXT NECinfrontia Corp.							
PIN	10:53	12/09	002			2142623801	NO ANSWER

External Call Forward Setting Display

A program option (Program 35-02-20) for the SMDR reports is available which determines which information is displayed in the "STATION" area for a transferred call when the extension has Call Forward set with an Abbreviated Dial number as the destination. You can choose to display the extension number which **called** the extension with external Call Forward set or display the extension number which **has the external Call Forward set**.

This option only applies when Call Forward is set using a service code (Program 11-11-01~11-11-07) and the destination uses an Abbreviated Dial bin. It does not include Off-Premise or Centrex transfers.

Station Message Detail Recording

Definitions	
Call Record Number	SMDR record number (consecutive)
CLASS	Type of call (see Class Definitions below)
TIME	Time call placed or answered. (For Transferred calls, shows time user picked up Transfer.)
DATE	Date the call was made
LINE	Trunk number used for call. This field can show both the trunk number (or trunk name) and the DID number based on the setting in Program 35-02-16.
DURATION	How long call lasted. (For Transferred calls, shows how long user was on call after answering the Transfer.)
STATION	Extension number of call "owner" (i.e., extension that first placed or answered call) (For Transferred calls, there can be more than one owner - depending on how many extensions shared the call.)
DIALLED No./CLI	For outgoing calls, the number dialed or, for incoming calls, the Caller ID information. The "DIALLED No./CLI" field can print up to 20 digits. Programming determines whether the report shows the first 20 digits or the last 20 digits.
COST	For UX5000 with ARS, indicates the call cost
OR	
ACCOUNT	Account Code number entered by extension user
Class Definitions	
POT	Outgoing trunk call
POTA	Outgoing trunk call placed using Toll Restriction Override
PIN	Incoming trunk calls
ALB	All lines in group are busy (group number follows TIME field)
BRD	Call blocked due to Toll Restriction
PTRS	Transferred call
IVIN	BRI trunk call

Station Message Detail Recording

Description (Cont'd)

SMDR Report Format with Program 35-02-14 Set to "0"	
Character Position	Field Definition
Header Line 1	
1-60	Spaces
61-70	MM/DD/YYYY
71	Space
72-75	PAGE
76	Space
77-79	Report page number (e.g., 001)
CR & LF	Carriage return and line feed
Header Line 2	
1-5	CLASS
6	Space
7-10	TIME
11-14	Spaces
15-18	LINE
19-22	Spaces
23-30	DURATION
31-32	Spaces
33-39	STATION
40-44	Spaces
45-51	DIALLED
52	Space
53-59	No./CLI
60-63	Spaces
64-70	ACCOUNT
CR & LF	Carriage return and line feed
LF	Line feed
SMDR Record	
1-4	Call type (e.g., POT for outgoing)
5	Space
6-10	Time in 24 hour clock (HH:MM)
11	Space
12-21	LINE
22	Space
23-30	Call Duration (HH:MM:SS)
31	Space
32-41	Station number or name
42	Space
43-62	Number dialed (20 digits maximum)
63	Space
64-79	Account number or NO ANSWER

Station Message Detail Recording

SMDR Report Format with Program 35-02-14 Set to "1"	
Character Position	Field Definition
Header Line 1	
1-60	Spaces
61-70	MM/DD/YYYY
71	Space
72-75	PAGE
76	Space
77-79	Report page number (e.g., 001)
CR & LF	Carriage return and line feed
Header Line 2	
1-5	CLASS
6	Space
7-10	TIME
11	Spaces
12-15	DATE
16-17	Spaces
18-21	LINE
22	Space
23-30	DURATION
31-32	Spaces
33-39	STATION
40-44	Spaces
45-51	DIALLED
52	Space
53-59	No./CLI
60-63	Spaces
64-70	ACCOUNT
CR & LF	Carriage return and line feed
LF	Line feed
SMDR Record	
1-4	Call type (e.g., POT for outgoing)
5	Space
6-10	Time in 24 hour clock (HH:MM)
11	Space
12-16	DATE
17	Space
18-21	LINE
22	Space
23-30	Call Duration (HH:MM:SS)
31	Space
32-41	Station number or name
42	Space
43-62	Number dialed (20 digits maximum)
63	Space
64-79	Account number or NO ANSWER

Station Message Detail Recording

Summary Reports

OUTGOING CALL/COST SUMMARY FOR DAY OF nn/nn/nn

TOTAL NO. OF OUTGOING PSTN CALLS:	0		
TOTAL NO. OF OUTGOING ISDN CALLS:	0		
NO. OF OUTGOING PSTN CALLS COSTED:	0	COST:	0
NO. OF OUTGOING ISDN CALLS COSTED:	0	COST:	0

OUTGOING CALL/COST SUMMARY FOR WEEK ENDING nn/nn/nn

TOTAL NO. OF OUTGOING PSTN CALLS:	49		
TOTAL NO. OF OUTGOING ISDN CALLS:	0		
NO. OF OUTGOING PSTN CALLS COSTED:	49	COST:	0
NO. OF OUTGOING ISDN CALLS COSTED:	0	COST:	0

OUTGOING CALL/COST SUMMARY FOR MONTH ENDING nn/nn/nn

TOTAL NO. OF OUTGOING PSTN CALLS:	49		
TOTAL NO. OF OUTGOING ISDN CALLS:	0		
NO. OF OUTGOING PSTN CALLS COSTED:	49	COST:	0
NO. OF OUTGOING ISDN CALLS COSTED:	0	COST:	0

Conditions

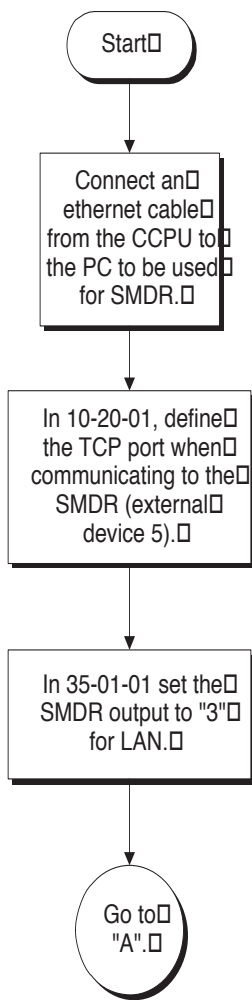
- The SMDR report does not include Intercom calls.
- The SMDR call buffer stores 500 calls. The buffer stores calls when the SMDR device is unavailable. When the buffer fills, the oldest record is deleted to allow the new record to be saved.
- When SMDR reports are enabled using the same port as the Traffic Reporting feature (example: 147), the SMDR blocks the Traffic reports. Unplugging the cable and plugging it back in again will allow Traffic reports to print.
- This feature requires a connection to the UX5000 using the LAN port on the UX5000 CCPU (The LAN port only provides information through LAN-capable programs, such as HyperTerminal. Printing of the SMDR information must be done from within that program.), or a CTA or CTU adapter connected to an Aspire keyset. Once you designate a CTA or CTU for SMDR, you cannot use that extension for placing and answering other data calls. SMDR and the Traffic Reports should not use the same CTA/CTU.
- If no answer is received, "NO ANSWER" is displayed regardless of the UX5000 programming for the Caller ID display option.
- The setting in Program 35-02-18 works regardless of the entry in Program 35-02-15 or 35-02-17.
- When Program 35-02-18 is set to "1", the first and second lines are sometimes separated. When the buffer is full, the overflowed data may not be shown.
- The special characters used in the UX5000 cannot be output to the SMDR - they are converted to "_".

Default Setting

Disabled.

Programming

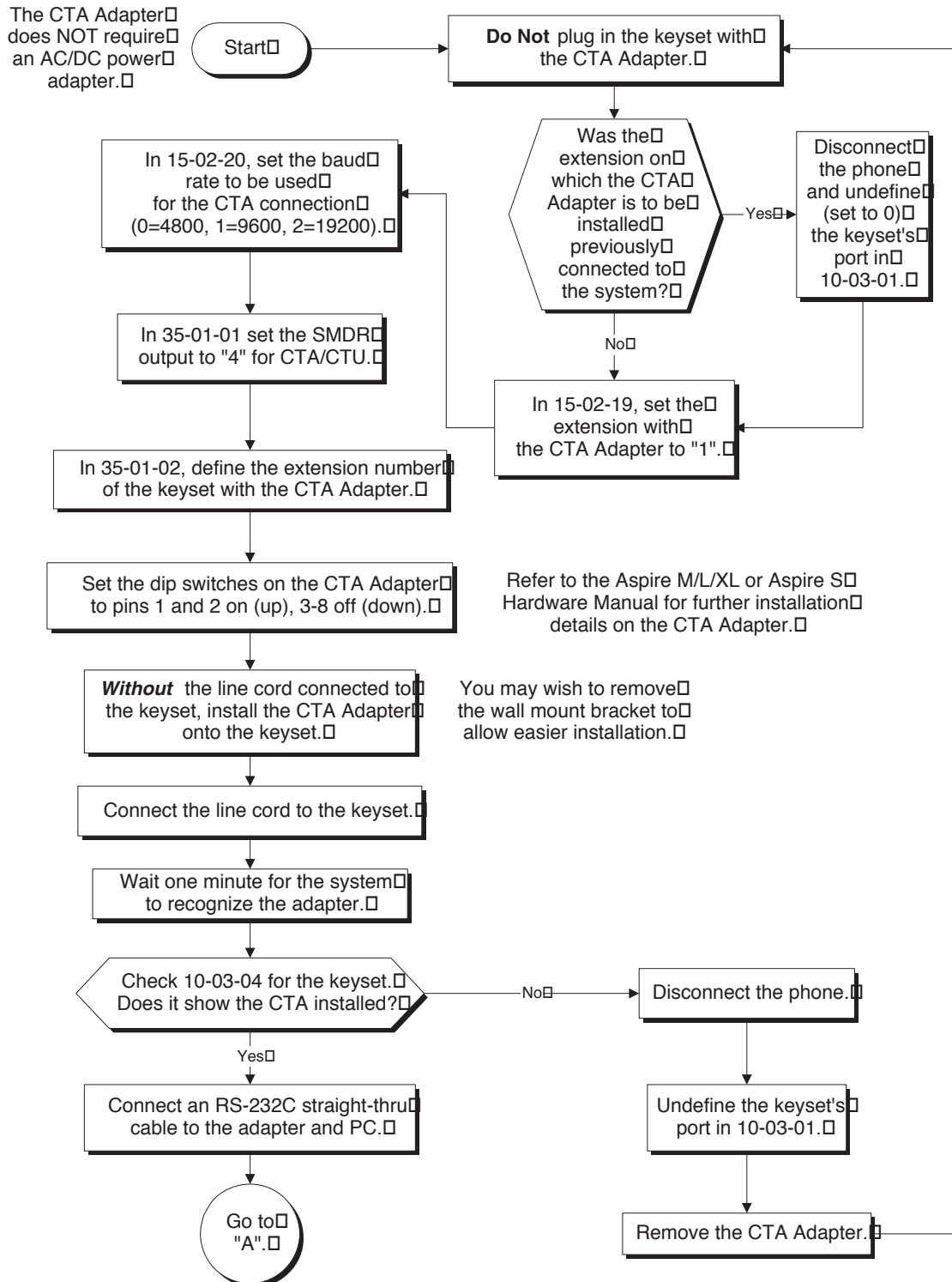
SMDR With a CCPU Connection - Ethernet



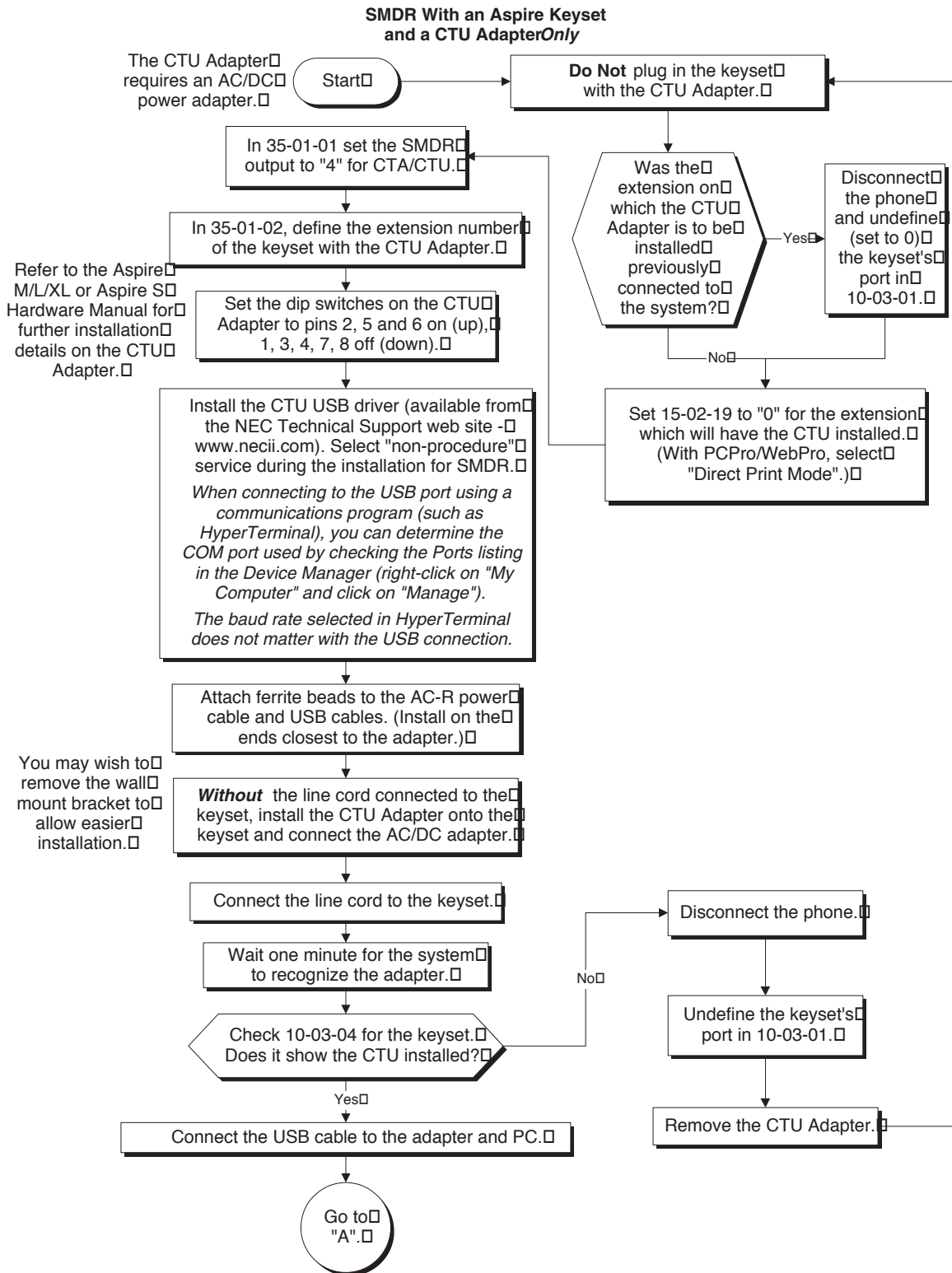
Station Message Detail Recording

Programming (Cont'd)

SMDR With an Aspire Keyset and a CTA Adapter Only

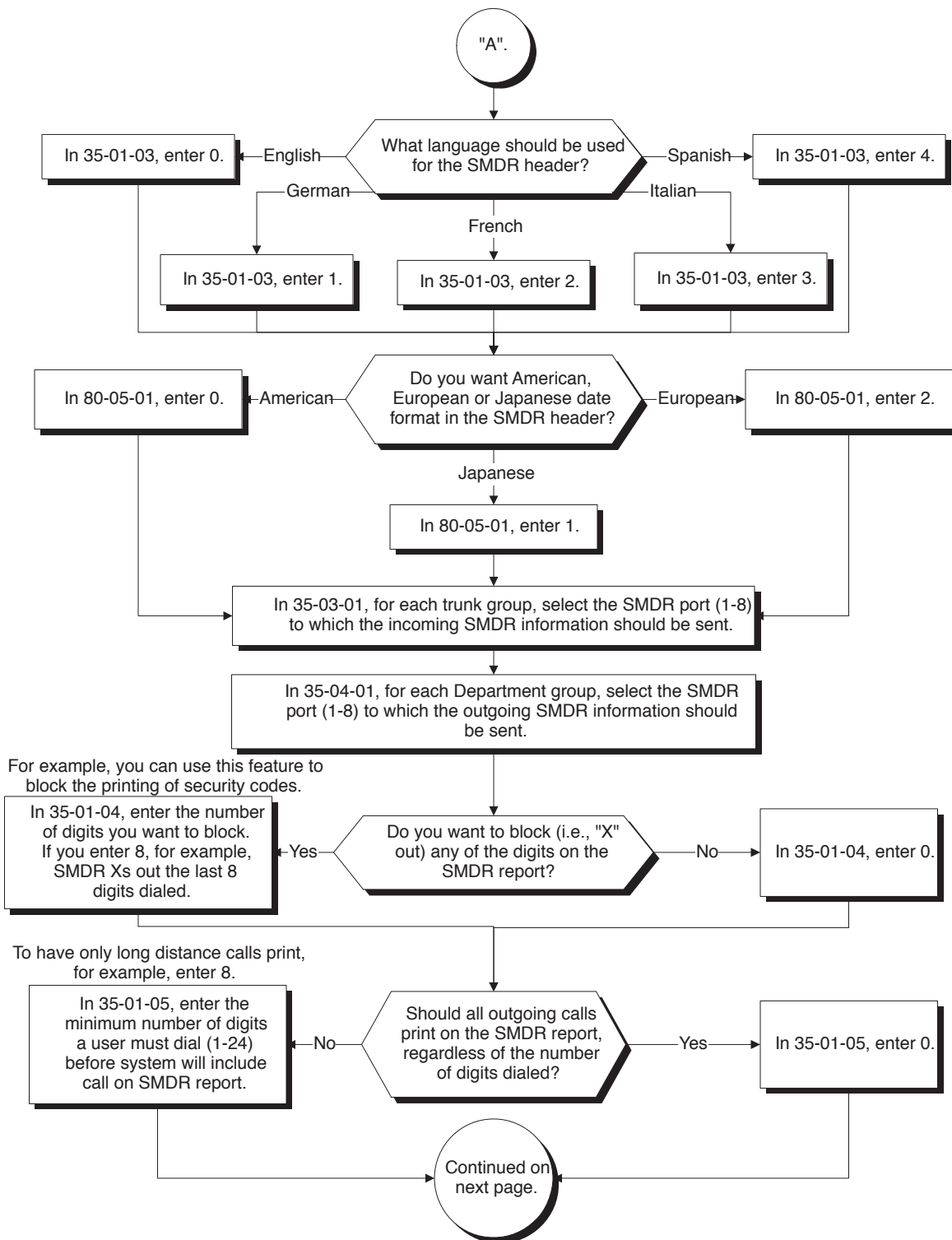


Programming (Cont'd)

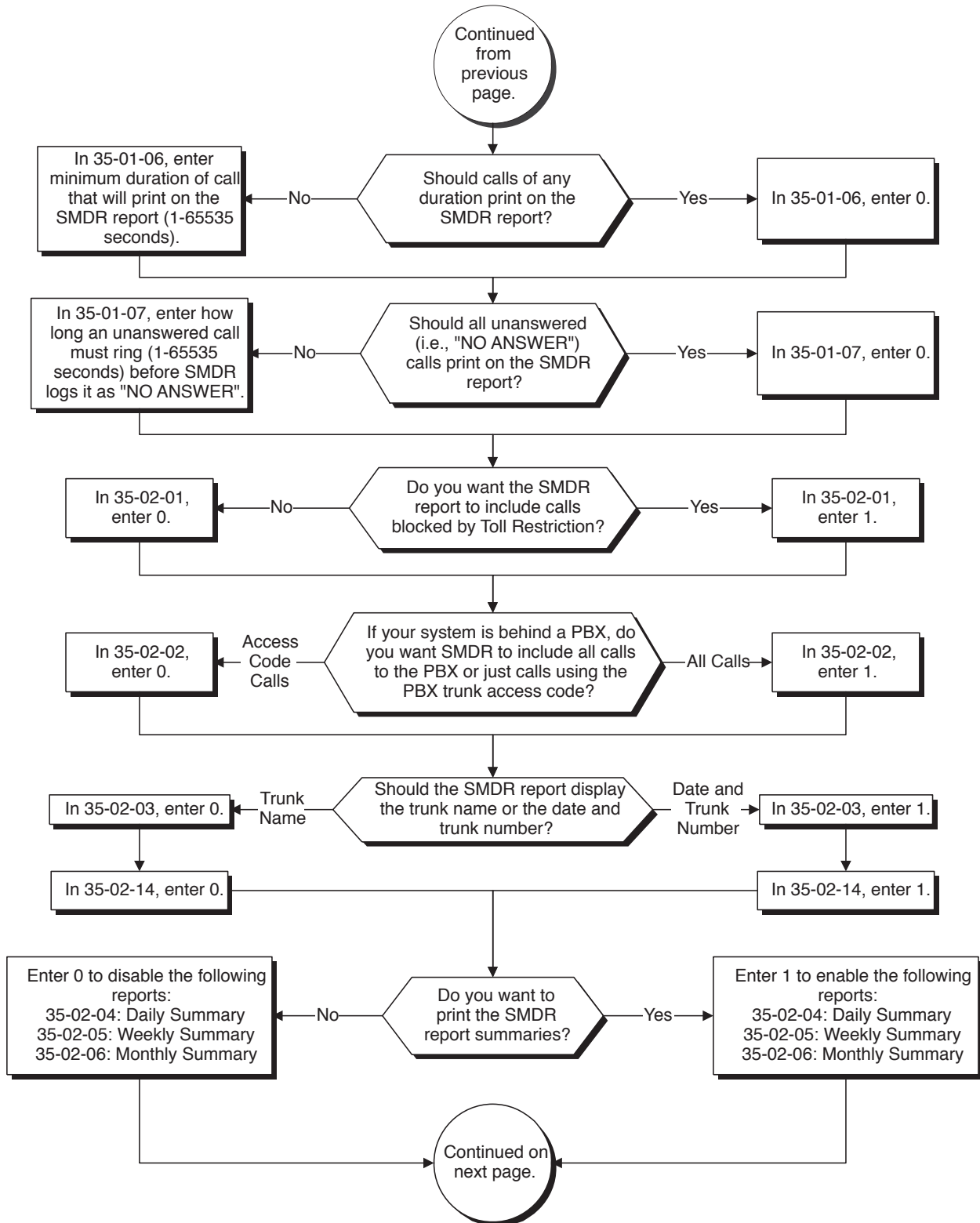


Station Message Detail Recording

Programming (Cont'd)

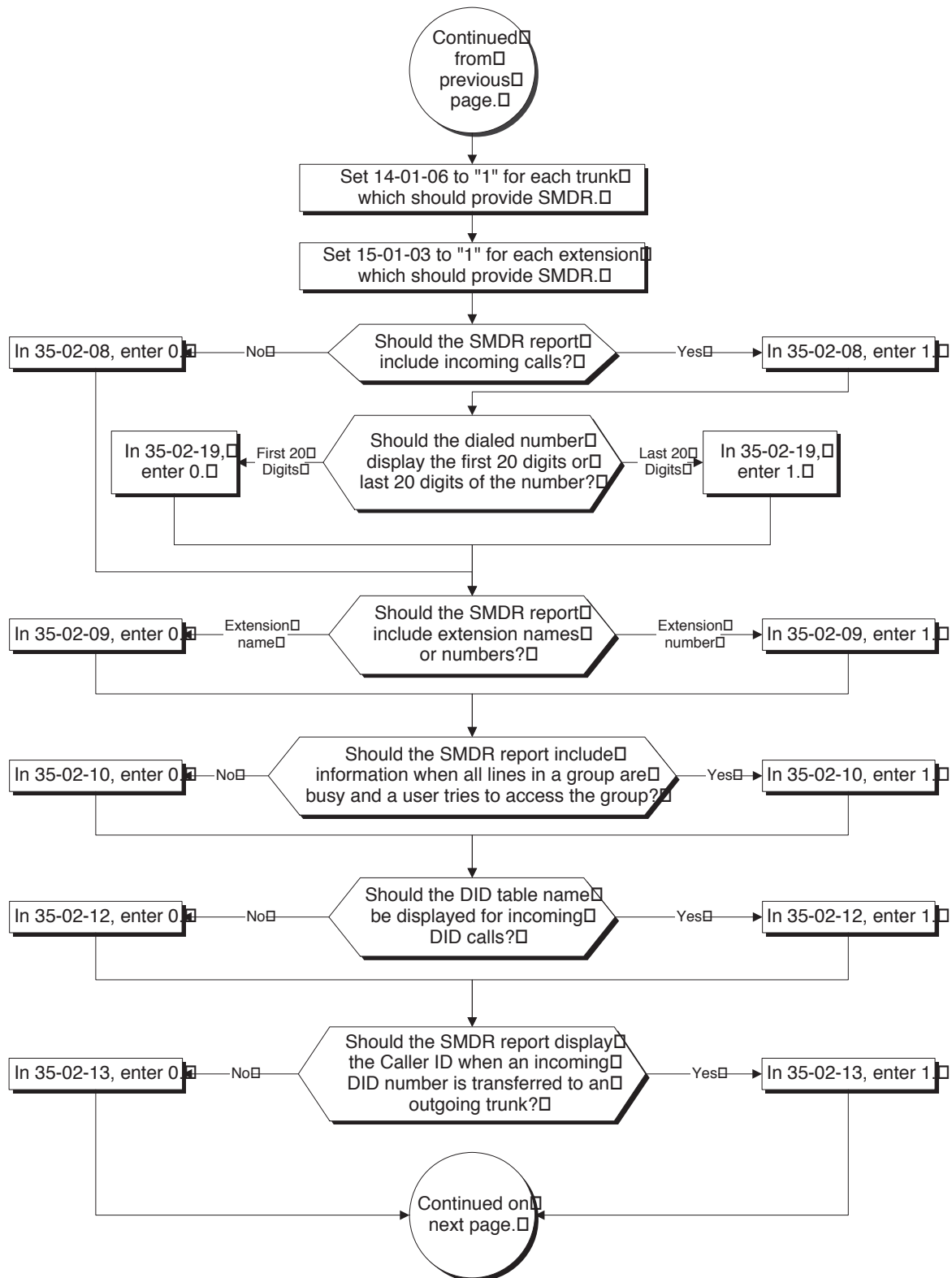


Programming (Cont'd)

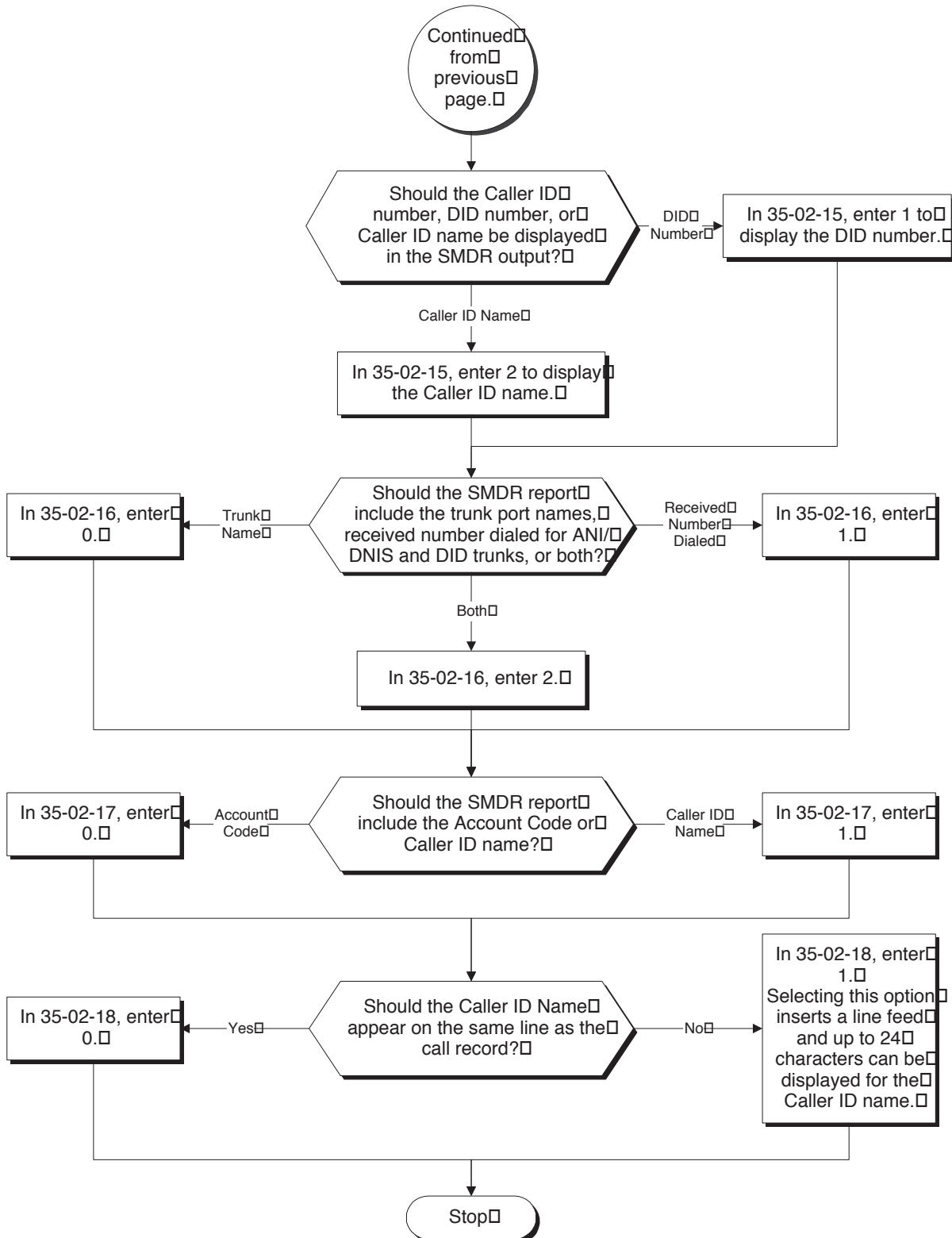


Station Message Detail Recording

Programming (Cont'd)



Programming (Cont'd)



Station Message Detail Recording

Programming (Cont'd)

- **10-20-01 : LAN Setup for External Equipment**
Define the TCP port (0-65535) when communicating to the SMDR (type 5).
- **14-01-06 : Basic Trunk Data Setup - SMDR Print Out**
For each trunk, enter 1 if trunk's calls should appear on SMDR report. Enter 0 if trunk's calls should not appear on SMDR report.
- **15-01-03 : Basic Extension Data Setup - SMDR Printout**
For each extension, enter 1 if extension's calls should appear on SMDR report. Enter 0 if extension's calls should not appear on SMDR report.
- **15-02-19 : Multi-Line Terminal Basic Data Setup - CTA/CTU Data Communication Mode**
When an Aspire keyset is installed in the UX5000 with a CTA/CTU adapter, select '0' if the dip switch settings are set to PC connection or select '1' if printer/SMDR connection is selected on the CTA/CTU adapter.
- **15-02-20 : Multi-Line Terminal Basic Data Setup - Baud Rate for CTA Port**
When an Aspire keyset is installed in the UX5000 with a CTA adapter, set the baud rate to be used by the CTA (0=4800, 1=9600, 2=19200).
- **35-01-01 : SMDR Options - Output Port Type**
Specify the type of connection used for SMDR (0=No setting, 3=LAN (CPU), 4=CTA/CTU). The baud rate for the COM port should be set in Program 15-02-20.
- **35-01-02 : SMDR Options - Output Destination Number**
When an Aspire keyset is installed in the UX5000 with a CTA/CTU adapter, specify the SMDR printer output port (CTA/CTU extension number).
- **35-01-03 : SMDR Options - Header Language**
Specify the language in which the SMDR header should be printed (0 = English, 1 = German, 2 = French, 3 = Italian, 4 = Spanish).
- **35-01-04 : SMDR Options - Omit (Mask) Digits**
Enter the number of digits (1-24) you want SMDR to block (i.e., "X" out). Enter 0 not to block any digits.
- **35-01-05 : SMDR Options - Minimum Number of SMDR Digits**
Enter the minimum number of digits a user must dial (1-24) before the UX5000 includes a call on the SMDR report. Enter 0 to include all outgoing calls, regardless of the number of digits dialed.
- **35-01-06 : SMDR Options - Minimum Call Duration**
Enter the minimum duration of a call (1-65535) that will print on the SMDR report. Enter 0 to have calls of any duration print.
- **35-01-07 : SMDR Options - Minimum Ringing Time**
Enter how long an unanswered call must ring (1-65535) before SMDR logs it as "No Answer". Enter 0 to allow all "No Answer" calls to print.
- **35-01-08 : SMDR Options - SMDR Format**
Do not change:
This option is added to allow an increased account code field from 8 to 16 when used in the U.K. This allows 16 characters of the Caller ID name to be displayed. For the U.S., this option is set to "0" and should remain at this setting as 16 characters are already provided for the account code field.
- **35-02-01 : SMDR Output Options - Toll Restricted Call**
Enter 1 if you want the SMDR report to include calls blocked by Toll Restriction. Enter 0 to exclude blocked calls.

Station Message Detail Recording

- **35-02-02 : SMDR Output Options - PBX Calls**
If the UX5000 is behind a PBX, enter 1 to have SMDR include all calls to the PBX. Enter 0 to have SMDR include only calls dialed using PBX trunk access code.
- **35-02-03 : SMDR Output Options - Display Trunk Name or Number**
Select whether the UX5000 should display the trunk name (0) or the number (1) on SMDR reports. If Program 35-02-16 is set to 0, then the UX5000 checks this program to determine what is displayed. *If this option is set to "0", Program 35-02-14 must be set to "0".*
- **35-02-04 : SMDR Output Options - Daily Summary**
35-02-05 : Weekly Summary and
35-02-06 : Monthly Summary
Enter 1 to enable a summary report. Enter 0 to disable a summary report. The daily report prints every day at midnight. The weekly report prints every Saturday night at midnight. The monthly report prints at midnight on the last day of the month.
- **35-02-08 : SMDR Output Options - Incoming Calls**
Enter 1 if you want the SMDR report to include incoming calls. Enter 0 if you want the SMDR report to exclude incoming calls.
- **35-02-09 : SMDR Output Options - Print Name or Number**
Enter 0 if you want the SMDR report to include the extension's name. Enter 1 if you want the SMDR report to include the extension's number.
- **35-02-10 : SMDR Output Options - All Lines Busy (ALB) Output**
Enter 1 to report information when all lines in a group are busy and an extension user tries to access the group. Enter 0 if this information should not be included.
- **35-02-12 : SMDR Output Options - DID Table Name Output**
Determine if the DID table name should be displayed for incoming DID calls (0=Not Displayed, 1=Displayed).
- **35-02-13 : SMDR Output Options - CLI Output When DID to Trunk**
Determine if the Caller ID should be displayed when the incoming DID number is transferred to an outgoing trunk (0=Not Displayed, 1=Displayed).
- **35-02-14 : SMDR Output Options - Date**
Determine whether the date should be displayed on SMDR reports (0=not displayed, 1=displayed). *This option must be set to "0" if the trunk name is set to be displayed in Program 35-02-03.*
- **35-02-15 : SMDR Output Options - CLI/DID Number Switching**
Determine if the Caller ID number (0), DID number (1) or Caller ID name (2) should be displayed in the SMDR output.
- **35-02-16 : SMDR Output Options - Print Trunk Name or Received Dialed Number**
Determine which should be displayed for an incoming call - the trunk name as assigned in Program 14-01-01 (0), the received dialed number (1), or both (2). If set to (1), ANI/DNIS trunks can print DNIS digits. For DID trunks, if the received number is not defined in Program 22-11-01, then no number will be printed. If both (2) is selected, the SMDR detail will show the 3 characters of the trunk name, followed by the last 6 digits of the received dialed number.
- **35-02-17 : SMDR Output Options - Print Account Code or Caller ID Name**
Determine whether the Account Code (0) or Caller ID name (1) should appear in the SMDR record. By default, the Account Code will be displayed.
Note: Program 35-01-08 must be set to "0" for this entry to be followed.

Station Message Detail Recording

- **35-02-18 : SMDR Output Options - Caller ID Name Output Method**

Select whether to display up to 16 characters of the Caller ID Name on the same line as the call record (0) or if a line feed should be added and up to 24 characters of the Caller ID Name will be displayed on the following line (1). If the line feed option is selected, the Caller ID Name will be displayed on the next line as : NEXT "Caller ID Name". The default entry for this option is "0".

This setting will work regardless of the setting in Program 35-02-15.

Note: With this option set to "1", if your communications program (such as HyperTerminal) has the line wrap option enabled in the ASCII setup, an additional line break may appear above the Caller ID name line.
- **35-02-19 : SMDR Output Options - Dialed Number Output Format**

Determine if the dialed number should display the first 20 digits (0) or the last 20 digits (1). This option is only available for outgoing calls.
- **35-02-20 : SMDR Output Options - External Information CFW Mode**

Determine which information is displayed in the "STATION" area for a transferred call when the extension has Call Forward set with an Abbreviated Dial number as the destination. Selecting "0" (Transfer Info) will display the extension number which **called** the extension with external Call Forward set. Selecting "1" (Incoming Info) will display the extension number which **has the external Call Forward set**.

This option only applies when Call Forward is set using a service code (Program 11-11-01~11-11-07) and the destination uses an Abbreviated Dial bin. It does not include Off-Premise or Centrex transfers.
- **35-03-01 : SMDR Port Assignment for Trunk Group**

Assign the SMDR port for each trunk group. For each Trunk Group, select the SMDR port to which the incoming SMDR information should be sent.

⇨ Trunk Groups: 1-100, SMDR Ports 1-8
- **35-04-01 : SMDR Port Assignment for Department Groups**

Assign the SMDR port for each Department Group. For each Department Group, select the SMDR port to which the outgoing SMDR information should be sent.

⇨ Department Groups 1-64, SMDR Ports 1-8
- **80-05-01 : Date Format for SMDR and System Reports**

Set the date format for SMDR (0=American, 1=Japanese or 2=European).

Related Features

PBX Compatibility

To use the PBX Call Reporting option, program the UX5000 for behind PBX operation.

Networking

Extensions across a network are not included in SMDR.

Traffic Reports

Traffic Management Reports and SMDR should not use the same Aspire CTA port.

Operation

Once installed and programmed, SMDR operation is automatic.

Feature Availability

- Available.

Description

Synchronous Ringing synchronizes CO/PBX incoming ringing with the incoming ringing pattern from a Central Office. This feature can be used for keysets or single line terminals (but not SLT's connected to an APR module or IP terminals).

Conditions

- Synchronous Ringing will work when the keyset is ringing a Multiple Directory Number/Call Coverage key.
- Synchronous Ringing is not supported for Tie Line or DID incoming calls, Off-Hook Ringing, or CO/PBX ring transfers.
- If Synchronous Ringing is enabled, the VRS Preamble Message or VRS Forwarding message for Call Forward cannot be used.
- Single line terminals connected to a keyset's APR module cannot use Synchronous Ringing.
- If Pre-Ringing is enabled in 10-08-01, Synchronous Ringing will not function.
- With Caller ID enabled, Synchronous Ringing will not work until the Caller ID is received.

Default Setting

Disabled.

Programming

- **14-02-17 : Analog Trunk Data Setup - Synchronous Ringing**
For each trunk, enable (1) or disable (0) the Synchronous Ringing feature.
- **20-15-01 - 20-15-11 : Ring Cycle Setup**
Define the ringing cycles for each ring tone when Synchronous Ringing is disabled.
- **22-03-01 : Trunk Ring Tone Range - Ring Tone Pattern**
Define the ring tone (0-8) for each trunk.

Related Features

None

Operation

None

T1 Trunking (with ANI/DNIS Compatibility)

Feature Availability

- Available - ANI/DNIS Compatibility is available.

Description

The T1/PRI Interface blade gives the UX5000 T1 trunking capability. This blade uses a single universal slot and provides up to 24 trunk circuits. In addition to providing digital-quality trunking, the T1/PRI Interface blade allows you to have maximum trunking capability with fewer blades. This in turn makes more universal slots available for other functions.

You can program each T1/PRI blade for any combination of the following trunks:

- CO loop start
- CO ground start
- Direct Inward Dialing
- Tie lines ¹

Programming

➤ **10-03-06 : Blade Setup - T1 Setup - Number of Ports**

10-03-21 : Blade Setup - PRI Setup - Number of Ports

Select the number of ports the blade should be assigned. With PRI, the "B" channels are used - the "D" channel is not. (0 = Auto, 1 = 4 Ports, 2 = 8 Ports, 3 = 12 Ports, 4 = 16 Ports, 5 = 20 Ports)

The slot must be reset in Program 90-05-01:Menu 2 when the ports are reassigned. A UX5000 reset can also be done to reset the blade.

➤ **10-39-01 : T1 Fraction Setup**

Enable (1) or disable (0) the fractional usage of the T1/PRI blade.

➤ **10-51-01 : PRI/T1 Selection for 1PRIU Blade**

Select if the 1PRIU blade is to be used for PRI (0) or T1 (1).

1. Two-wire (four-lead) type 1 tie lines (FIC TL11M) only.

Feature Availability

- Available.

Description

Tandem Ringing allows an extension user to have two terminals with one phone number. For example, extension 305 (the master terminal) sets Tandem Ringing with extension 306. When extension 305 receives an incoming call, both extension 305 and 306 ring. Callers would dial the master extension number (extension 305 in this example). When either the master terminal or slave terminal is in use, the other terminal cannot be used for outgoing calls - incoming calls, however, will ring the available terminal.

The keyset must be paired with either an analog single line terminal. It cannot be paired with another keyset, IP terminal, or Cordless terminal.

Conditions

- The slave terminal cannot call the master terminal.
- Extensions numbers up to 8 digits can be registered on the Tandem Ringing key. Extension numbers over 9 digits cannot be registered.
- If both terminals are busy, no additional calls can be received.
- Tandem Ringing can support up to 256 pairs of Tandem Ringing extensions.
- The extension user which enables Tandem Ringing is the master, while the slave terminal is the extension entered by the user while setting up the feature.
- Extensions defined as an operator in Program 20-17-01 cannot use Tandem Ringing.

Default Setting

Disabled.

Programming

- **15-07-01 : Programmable Function Keys**
Assign a function key for Tandem Ringing (code 80).
- **30-03-01 : DSS Console Key Assignments**
Assign a DSS function key for Tandem Ringing (code 80).
- **11-11-41 : Service Code Setup (for Setup/Entry Operation) - Tandem Ringing**
Define a service code to be used to set up Tandem Ringing (default=no setting).

Related Features

Abbreviated Dial / Multiple Directory Numbers / Voice Mail

Abbreviated Dial, Multiple Directory Numbers/Virtual Extensions and Voice Mail cannot be the target of the Tandem Ringing feature.

Call Forwarding

The slave terminal cannot be set as the Call Forward target of the master terminal. A slave terminal will ignore the settings for Call Forwarding and follow the master terminal's settings instead.

Call Forwarding/Do Not Disturb Override

Call Forwarding/Do Not Disturb Override is not available for Tandem Ringing extensions.

Tandem Ringing

Direct Station Selection (DSS) Console

When Tandem Ringing is active and one of the extensions is busy, a DSS console will indicate both extensions as busy.

Do Not Disturb

A slave terminal will ignore the settings for DND and follow the master terminal's settings instead.

Intercom

Voice Call is not supported on a keyset with Tandem Ringing.

ISDN / Networking

Tandem Ringing does not support S-Bus or Networking.

Hold

Calls placed on Hold while Tandem Ringing is active will immediately recall if the handset is placed on hook.

Message Waiting

When an extension leaves a Message Waiting for a Tandem Ringing extension, both extensions will indicate the message until one of the extensions return the call.

Tandem Ringing

The operator extension(s) cannot be paired for Tandem Ringing.

Ring Groups

A slave terminal will ignore the settings for Ring Groups and follow the master terminal's settings instead.

Tie Lines

E&M trunks are not supported.

Operation

To set up Tandem Ringing:

1. Press the CALL key on the extension to be considered the master terminal.
2. Press the Tandem Ringing key (PGM 15-07 or SC 851: 80).
3. Dial "1" to set the feature.
4. Enter the extension number to be considered the slave terminal (the terminal that will ring when the master extension rings).
A confirmation tone will be heard.
5. Press SPK to hang up.

While the feature is active, if either the master or slave terminal has placed a call, the other terminal will only be able to answer incoming calls - no calls can be placed until the other extension has hung up. For keysets, this will be indicated by "TANDEM IN USE" displayed on the terminal - single line terminals will hear a busy signal when the handset is lifted.

To cancel Tandem Ringing:

1. Press the CALL key on the extension to be considered the master terminal.
2. Press the Tandem Ringing key (PGM 15-07 or SC 851: 80).
3. Dial "0" to cancel the feature.

Tandem Trunking (Unsupervised Conference)

Feature Availability

- Available - CCPU provides 2 blocks of 32 conference circuits, allowing each block to have any number conferences with any number of internal or external parties conferenced as long as the total number of conference channels used does not exceed the block's limit of 32.

Description

Tandem Trunking allows an extension user to join two or more outside callers in a trunk-to-trunk Conference. The extension user can then drop out of the call, leaving the trunks in an Unsupervised Conference. The extension user that established the Conference is not part of the conversation. The Conference continues until either outside party hangs up. In addition, the extension user that set up the Conference can reenter the conversation or end the tandem call at any time.

The number of simultaneous Conference calls is limited by the number of Conference circuits in the UX5000. Due to this fact, the maximum number of Conference calls cannot exceed the limits defined in the above table.

Tandem Trunking could help an office manager, for example, put two outside sales people in touch. The office manager could:

- Answer a call from one salesperson
- Place a call to the second salesperson
- Set up the trunk-to-trunk Conference
- Drop out of the call

The office manager could terminate the Conference at any time.

There are four methods for Tandem Trunking:

- **Method A - Set Up Without Transfer Key**
An extension user can set up Tandem Trunking (Unsupervised Conference) with 2 or more outside calls by dialing a two-digit service code (#8) or a uniquely programmed Transfer key.
- **Method B - Tandem Trunking with Transfer Key**
This method allows an extension user to easily set up an Unsupervised Conference with 2 or more calls they have placed on Hold. It uses a uniquely programmed Transfer key to set up a tandem call.
Note: The operation for connecting multiple outside callers is different than when only connecting 2 outside callers - the call can be on hold and, after calling the second party, the Transfer key can be pressed. With more than 2 outside calls, the CONF key must be pressed in order to connect the callers.
- **Method C - Automatic Tandem Trunking on Hang Up**
This method allows an extension user to easily set up a 2-party Unsupervised Conference without having to place the conference call on Hold. ***This option cannot be used for Multiple Tandem Trunking calls (containing more than 2 outside parties).*** A Class of Service option is available which will allow or deny an extension user from automatically setting up a Conference/Tandem Trunking call upon hanging up the terminal.
- **Method D - Automatic Tandem Trunking Setup to Abbreviated Dial Number**
This method allows an extension user to easily set up a 2-party Unsupervised Conference with a call they have placed on Hold. ***This option cannot be used for Multiple Tandem Trunking calls (containing more than 2 outside parties).*** A Class of Service option is available which will allow or deny an extension user from automatically setting up a Conference/Tandem Trunking call upon hanging up the terminal.

Tandem Trunking (Unsupervised Conference)

Trunk Disconnect Continue/Disconnect Codes

With the Tandem Trunking and DISA features, users can be provided with the option to use a Continue or Disconnect service code. The Continue service code will extend the conversation a programmed length of time. If the user enters the Disconnect service code, the call will be disconnected immediately.

Example:

The following example indicates how a call will be handled with the UX5000 programmed as follows:

- Program 14-01-25: 1
 - Program 20-28-01: #
 - Program 20-28-02: No setting
 - Program 20-28-03: 180
 - Program 24-02-07: 600 (Only used with Tandem Trunking)
 - Program 24-02-10: 30 (Only used with Tandem Trunking)
 - Program 25-07-07: 600 (Only used with DISA)
 - Program 25-07-08: 30 (Only used with DISA)
1. An external call connects to an external number (either by transferring with Tandem Trunking or by DISA caller).
 2. After 10 minutes (Tandem Trunking = Program 24-02-07 or DISA = Program 25-07-07), a warning tone is heard and the user dials "#" (Program 20-28-01) to extend the conversation.
 3. After 3 minutes (Program 20-28-03), the warning tone is heard again. After 30 seconds (Tandem Trunking = Program 24-02-10 or DISA = Program 25-07-08), the call is disconnected.

Conditions

- Tandem Trunking requires either loop start trunks with disconnect supervision or ground start trunks for analog trunks. ISDN does not have this limitation.
- The maximum number of simultaneous trunk-to-trunk conferences allowed is determined by the Conference feature setup. See *Programming* below.
- The Continue/Disconnect code must be DTMF.
- With an analog trunk, the Continue/Disconnect code may work using DTMF sounds from the opposite side trunk. With an ISDN trunk, Program 14-01-25 must be enabled to detect the Continue/Disconnect code.
- The Continue/Disconnect code is not accepted while dialing a trunk.
- Continue/Disconnect codes will not work if all DTMF receivers are busy.
- When used with the Networking feature, both communication servers must be programmed the same for the Continue/Disconnect codes.
- Only trunk keys can be used for re-entering a Multiple Trunk Conference. Trunk Group keys and Loop keys are not supported.

Default Setting

Disabled.

Tandem Trunking (Unsupervised Conference)

Programming

Tandem Trunking Method A - Tandem Trunking from Conference

- **10-07-01 : Conversation Record Circuits**
The number of circuits assigned as Conversation Record circuits limits the number of available Conference circuits. Make sure there are circuits available for Conference.
- **11-12-57 : Service Code Setup (for Service Access) - Tandem Trunking/Unsupervised Conference**
If the default service code (#8) for Tandem Trunking is not acceptable, change the code as required.
- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-05 : Basic Trunk Data Setup - Receive Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**
For each trunk that should be able to participate in a tandem call, enter 1.
- **15-07-01 : Programmable Function Keys**
(Optional) Assign a function key for Transfer (code 06).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-11 : Class of Service Options (Administrator Level) - Forced Trunk Disconnect**
In an extension's Class of Service (1-15), enter 1 to enable Forced Trunk Disconnect. This allows the extension to disconnect an Unsupervised Conference in progress.
- **20-11-14 : Class of Service Options (Hold/Transfer Service) - Trunk-to-Trunk Transfer Disable**
Disable (0) the Trunk-to-Trunk Transfer Restriction option.
- **20-11-21 : Class of Service Options (Hold/Transfer Service) - Restriction for Tandem Trunking on Hang Up**
Deny (1) an extension user's ability to set up a tandem call automatically when they hang up.
- **20-13-08 : Class of Service Options (Supplementary Service) - Conference**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to initiate a Conference.
- **20-13-10 : Class of Service Options (Supplementary Service) - Barge In Mode**
In an extension's Class of Service (1-15), set whether an extension should be able to Barge In to a call and talk (1) or just monitor the call (0).
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer, outgoing from trunk, Tandem Trunking) (0-64800).
- **25-07-07 : System Timers for VRS/DISA -DISA/Tandem Trunking Conversation Warning Tone Time**
Determine the length of time a DISA caller or a Tandem Trunking conversation can talk before the Long Conversation tone is heard (0-64800 seconds).
- **25-07-08 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Disconnect**
This timer determines how long the UX5000 will wait before disconnecting a call after the Long Conversation tone is heard (0-64800 seconds).

Tandem Trunking (Unsupervised Conference)

Tandem Trunking Method B - Tandem Trunking with Transfer Key

- **10-07-01 : Conversation Record Circuits**
The number of circuits assigned as Conversation Record circuits limits the number of available Conference circuits. Make sure there are circuits available for Conference.
- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-05 : Basic Trunk Data Setup - Receive Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**
Enable (1) trunk-to-trunk transfer with loop supervision for each trunk.
- **15-07-01 : Programmable Function Keys**
Assign a function key for Transfer (code 06).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-11 : Class of Service Options (Administrator Level) - Forced Trunk Disconnect**
In an extension's Class of Service (1-15), enter 1 to enable Forced Trunk Disconnect. This allows the extension to disconnect an Unsupervised Conference in progress (initially set up using Method B).
- **20-11-14 : Class of Service Options (Hold/Transfer Service) - Trunk-to-Trunk Transfer**
Disable (0) the Trunk-to-Trunk Transfer Restriction option.
- **20-11-21 : Class of Service Options (Hold/Transfer Service) - Restriction for Tandem Trunking on Hang Up**
Deny (1) an extension user's ability to set up a tandem call automatically when they hang up.
- **20-13-10 : Class of Service Options (Supplementary Service) - Barge In Mode**
In an extension's Class of Service (1-15), set whether an extension should be able to Barge In to a call and talk (1) or just monitor the call (0).
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer, outgoing from trunk, Tandem Trunking) (0-64800).
- **25-07-07 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Warning Tone Time**
Determine the length of time a DISA caller or any trunk-to-trunk (such as Tandem Trunking) conversation can talk before the Long Conversation tone is heard (0-64800 seconds).
- **25-07-08 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Disconnect**
This timer determines how long the UX5000 will wait before disconnecting a DISA or any trunk-to-trunk (such as Tandem Trunking) call after the Long Conversation tone is heard (0-64800 seconds).

Tandem Trunking (Unsupervised Conference)

Tandem Trunking Method C - Tandem Trunking on Hang up

- **10-07-01 : Conversation Record Circuits**
The number of circuits assigned as Conversation Record circuits limits the number of available Conference circuits. Make sure there are circuits available for Conference.
- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-05 : Basic Trunk Data Setup - Receive Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**
Enable (1) trunk-to-trunk transfer with loop supervision for each trunk.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-11 : Class of Service Options (Administrator Level) - Forced Trunk Disconnect**
In an extension's Class of Service (1-15), enter 1 to enable Forced Trunk Disconnect. This allows the extension to disconnect an Unsupervised Conference in progress (initially set up using Method B).
- **20-11-14 : Class of Service Options (Hold/Transfer Service) - Trunk-to-Trunk Transfer**
Disable (0) the Trunk-to-Trunk Transfer Restriction option.
- **20-11-21 : Class of Service Options (Hold/Transfer Service) - Restriction for Tandem Trunking on Hang Up**
Allow (0) an extension user's ability to set up a tandem call automatically when they hang up.
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer, outgoing from trunk, Tandem Trunking) (0-64800).
- **25-07-07 : System Timers for VRS/DISA -DISA/Tandem Trunking Long Conversation Warning Tone Time**
Determine the length of time a DISA caller or any trunk-to-trunk (such as Tandem Trunking) conversation can talk before the Long Conversation tone is heard (0-64800 seconds).
- **25-07-08 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Disconnect**
This timer determines how long the UX5000 will wait before disconnecting a a DISA or any trunk-to-trunk (such as Tandem Trunking) call after the Long Conversation tone is heard (0-64800 seconds).

Tandem Trunking (Unsupervised Conference)

Tandem Trunking Method D - Tandem Trunking to Abbreviated Dial Number

- **10-07-01 : Conversation Record Circuits**
The number of circuits assigned as Conversation Record circuits limits the number of available Conference circuits. Make sure there are circuits available for Conference.
- **11-10-06 : Service Code Setup (for System Administrator) - Setting the Automatic Forwarding for Each Trunk Line**
If the default service code (833) for enabling Automatic Tandem Trunking feature is not acceptable, change the code as required.
- **11-10-07 : Service Code Setup (for System Administrator) - Canceling the Automatic Forwarding for Each Trunk Line**
If the default service code (834) for canceling Automatic Tandem Trunking feature is not acceptable, change the code as required.
- **11-10-08 : Service Code Setup (for System Administrator) - Setting the Destination for Automatic Trunk Forwarding**
If the default service code (835) for setting the destination of the Automatic Tandem Trunking feature is not acceptable, change the code as required.
- **13-04-01 : Abbreviated Dialing Number and Name**
Enter the number and names for the bins used to hold the Automatic Tandem Trunking destination.
- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-05 : Basic Trunk Data Setup - Receive Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**
Enable (1) trunk-to-trunk transfer with loop supervision for each trunk.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-05 : Class of Service Options (Administrator Level) - Set/Cancel Automatic Trunk-to-Trunk Forwarding**
Enable (1) or disable (0) an extension's ability to use Trunk-to-Trunk Forwarding service codes.
- **20-07-11 : Class of Service Options (Administrator Level) - Forced Trunk Disconnect**
In an extension's Class of Service (1-15), enter 1 to enable Forced Trunk Disconnect. This allows the extension to disconnect an Unsupervised Conference in progress.
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer, outgoing from trunk, Tandem Trunking) (0-64800).
- **24-04-01 : Automatic Trunk-to-Trunk Transfer Target Setup**
Assign the Abbreviated Dialing number (0-1999) to be used as the destination for the trunk-to-trunk transfer.
⇨ Trunks 001-200
- **25-07-07 : System Timers for VRS/DISA -DISA/Tandem Trunking Long Conversation Warning Tone Time**
Determine the length of time a DISA caller or any trunk-to-trunk (such as Tandem Trunking) conversation can talk before the Long Conversation tone is heard (0-64800 seconds).
- **25-07-08 : System Timers for VRS/DISA - DISA/Tandem Trunking Long Conversation Disconnect**
This timer determines how long the UX5000 will wait before disconnecting a a DISA or any trunk-to-trunk (such as Tandem Trunking) call after the Long Conversation tone is heard (0-64800 seconds).

Tandem Trunking (Unsupervised Conference)

Trunk Disconnect Continue/Disconnect Codes

- **14-01-25 : Basic Trunk Data Setup - Continue/Disconnect Trunk-to-Trunk Conversation**
When Program 24-02-10 is set to disconnect a trunk after the defined time, determine whether or not a user should have the ability to use the continue/disconnect code (**Entries:** 0 = Disabled, 1 = Enabled).
- **20-28-01 : System Option Setup - Conversation Continue Code**
When Program 14-01-25 is enabled, determine the 1-digit code the user should dial (0 - 9, *, #) to extend the conversation length for the time defined in 20-28-03. If the Continue and Disconnect codes are programmed the same (e.g., #), the UX5000 will follow the "Continue" operation. Using the Continue code before the warning tone is heard has no action.
- **20-28-02 : System Option Setup - Conversation Disconnect Code**
When Program 14-01-25 is enabled, determine the 1-digit code the user should dial (0 - 9, *, #) to immediately disconnect their call. Using the Disconnect code before the warning tone is heard will disconnect the call.
- **20-28-03 : System Option Setup - Conversation Extend Time**
When Program 14-01-25 is enabled, determine the length of time a call will be extended (0 - 64800 seconds) when the user dials the Continue code (defined in 20-28-01).
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer/Tandem Trunking). When this timer expires, a warning tone is heard. If Program 24-02-10 is set, the conversation disconnects after that timer expires. This timer is set again when the external digit timer expires. One of the trunks used must be an analog trunk (or leased line). **Entries:** 0 - 64800 (seconds)
- **24-02-10 : System Options for Transfer - Trunk-to-Trunk Transfer Disconnect Timer**
Determine how long a conversation will continue (0 - 64800 seconds) once the timer in Program 24-02-07 expires. If this option is set to "0", the conversation will be disconnected immediately. This program has no affect if Program 24-02-07 is set to "0". One of the trunks used must be an analog trunk (or leased line).
- **25-07-07 : System Timers for VRS/DISA - DISA Long Conversation Warning Tone Time**
Determine the length of time a DISA caller can talk before the Long Conversation tone is heard (0-64800 seconds). If Program 25-07-08 is set to "0", the call is disconnected once the timer expires. This timer is set again when the external digit timer expires.
Note: If this option is set to "0", the settings in Program 24-02-07 and 24-07-10 are followed - not 25-07-07 and 25-07-08.
- **25-07-08 : System Timers for VRS/DISA - DISA Long Conversation Disconnect Timer**
This timer determines how long the UX5000 will wait (0 - 64800 seconds) before disconnecting a DISA call after the Long Conversation tone is heard. This program has no affect if Program 25-07-07 is set to "0".
- **80-01-35 : Service Tone Setup - 1 Second Signal Tone**
If required, adjust the warning tone heard by the user when Program 24-02-07 or 25-07-07 expires.

Tandem Trunking (Unsupervised Conference)

Multiple Trunk Conference, Method A - From Conference

- **10-07-01 : Conversation Record Circuits**
The number of circuits assigned as Conversation Record circuits limits the number of available Conference circuits. Make sure there are circuits available for Conference.
- **11-12-57 : Service Code Setup (for Service Access) - Tandem Trunking/Unsupervised Conference**
If the default service code (#8) for Tandem Trunking is not acceptable, change the code as required.
- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-05 : Basic Trunk Data Setup - Receive Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**
For each trunk that should be able to participate in a tandem call, enter 1.
- **14-02-09 : Analog Trunk Data Setup - Busy Tone Detector**
If this option is enabled (1) for a trunk, if there is no DSP resource available, the Multiple Trunk Conference cannot be completed.
- **15-07-01 : Programmable Function Keys**
(Optional) Assign a function key for Transfer (code 06).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-11 : Class of Service Options (Administrator Level) - Forced Trunk Disconnect**
In an extension's Class of Service (1-15), enter 1 to enable Forced Trunk Disconnect. This allows the extension to disconnect an Unsupervised Conference in progress.
- **20-13-08 : Class of Service Options (Supplementary Service) - Conference**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to initiate a Conference.
- **20-13-10 : Class of Service Options (Supplementary Service) - Barge In Mode**
In an extension's Class of Service (1-15), set whether an extension should be able to Barge In to a call and talk (1) or just monitor the call (0).
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer, outgoing from trunk, Tandem Trunking) (0-64800).

Tandem Trunking (Unsupervised Conference)

Multiple Trunk Conference Method B - Tandem Trunking with Transfer Key

- **10-07-01 : Conversation Record Circuits**
The number of circuits assigned as Conversation Record circuits limits the number of available Conference circuits. Make sure there are circuits available for Conference.
- **14-01-04 : Basic Trunk Data Setup - Transmit Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-05 : Basic Trunk Data Setup - Receive Gain Level for Conference and Transfer Calls**
Select the codec gain type used by the trunk when it is part of an Unsupervised Conference.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**
Enable (1) trunk-to-trunk transfer with loop supervision for each trunk.
- **14-02-09 : Analog Trunk Data Setup - Busy Tone Detector**
If this option is enabled (1) for a trunk, if there is no DSP resource available, the Multiple Trunk Conference cannot be completed.
- **15-07-01 : Programmable Function Keys**
Assign a function key for Transfer (code 06).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-11 : Class of Service Options (Administrator Level) - Forced Trunk Disconnect**
In an extension's Class of Service (1-15), enter 1 to enable Forced Trunk Disconnect. This allows the extension to disconnect an Unsupervised Conference in progress (initially set up using Method B).
- **20-11-14 : Class of Service Options (Hold/Transfer Service) - Trunk-to-Trunk Transfer**
Disable (0) the Trunk-to-Trunk Transfer Restriction option.
- **20-13-10 : Class of Service Options (Supplementary Service) - Barge In Mode**
In an extension's Class of Service (1-15), set whether an extension should be able to Barge In to a call and talk (1) or just monitor the call (0).
- **24-02-07 : System Options for Transfer - Forced Release for Trunk-to-Trunk Transfer**
This timer will start when a trunk begins talking with another trunk (for example: trunk-to-trunk transfer, outgoing from trunk, Tandem Trunking) (0-64800).

Related Features

Call Forward, Off Premise

A trunk can be set up to automatically tandem trunk/forward to an outside telephone number or Abbreviated Dialing bin.

Central Office Calls, Answering / Central Office Calls, Placing

Other programmed options for incoming and outgoing calls can affect how calls are handled. Check or program these options as needed.

Conference, Voice Call

Set up a Conference with a co-worker in your immediate work area.

Direct Inward System Access (DISA)

DISA calls also use the same Continue/Disconnect codes.

Meet Me Conference

Meet Me Conference lets an extension user set up a Conference via Paging.

Meet Me Paging

Meet Me Paging lets an extension user set up a two-party meeting via Paging.

Tandem Trunking (Unsupervised Conference)

Operation

Method A - Tandem Trunking from Conference

To set up a Tandem/Multiple Trunk Conference Call:

1. Place or answer first trunk call.
2. Press CONF key.
3. Place or answer second trunk call.
When adding an answered call, the call must first be answered and placed on hold. A call ringing in cannot be added.
4. With Multiple Trunk Conference, press CONF and place or answer a third trunk call.
When adding an answered call, the call must first be answered and placed on hold. A call ringing in cannot be added.
5. To set up the tandem call, press CONF key twice.
This sets up a Conference between you and the outside parties.
6. Press HOLD and dial #8 and hang up.
OR
With Tandem Trunking (2 outside calls) Only: Press Transfer key (PGM 15-07 or SC 851: 06).
*This sets up the conference between the outside parties and you drop out.
The line keys for the trunks blink green as long as the Unsupervised Conference continues.*

To end the Tandem Call:

1. Press any of the flashing line keys.
*The line keys light steadily (green). You can listen (i.e., monitor) to the call or rejoin the conversation, based on the setting in Program 20-13-10.
Only trunk keys can be used for re-entering the call - trunk group keys and loop keys will not work.*
2. Press SPK or Hang up.
*If Program 20-13-10 is set to "0", the Conference ends and the line keys go out.
If Program 20-13-10 is set to "1", to manually disconnect the Conference, Forced Trunk Disconnect (i.e., Press the line key + *3) must be used by an extension other than the originating extension.*

Method B - Tandem Trunking with Transfer Key

To set up a Tandem Trunking Call with only 2 outside lines:

1. Place or answer first trunk call.
2. Press HOLD to place the first trunk call on Hold.
3. Place or answer second trunk call.
4. Press Transfer key (PGM 15-07 or SC 851: 06).
*This sets up an Unsupervised Conference with both outside parties.
The line keys for the trunks are lit solid red.
To disconnect the Conference, Forced Trunk Disconnect (i.e., Press the line key + *3) must be used by an extension other than the originating extension.*

Tandem Trunking (Unsupervised Conference)

Continue/Disconnect Code

To use the Continue code to extend a Tandem Trunk call:

1. An external call connects to an external number.
2. After the programmed time (Program 24-02-07), a warning tone is heard and the user dials the Continue code (Program 20-28-01) to extend the conversation.
3. After the programmed time (Program 20-28-03), the warning tone is heard again. After the programmed time (Program 24-02-10), the call is disconnected.

To set up a Multiple Trunk Conference Call (3 or more outside lines):

1. Place or answer first trunk call.
2. Press CONF key.
3. Place or answer second trunk call.
When adding an answered call, the call must first be answered and placed on hold. A call ringing in cannot be added.
4. Press CONF key.
5. Place or answer third trunk call.
When adding an answered call, the call must first be answered and placed on hold. A call ringing in cannot be added.
6. To set up the conference call, press CONF key.
7. Add additional calls by repeating steps 5 and 6.
Before beginning the Conference, if you wish to drop one of the outside callers, press the flashing line key then press the RLS soft key.
8. When all parties are contacted, press the CONF key again.
This sets up a Conference between you and the outside parties.
With a IP-CTS terminal, if you wish to drop one of the outside callers before creating the Tandem Trunk call, press the soft key for the line to be dropped. With a multibutton key-set, press HOLD to place all callers on Hold. Press the flashing line key of the call to be dropped then press the RLS soft key. Press the CONF key to reconnect the other parties.
9. Press Transfer key (PGM 15-07 or SC 851: 06).
This sets up the Multiple Trunk Conference between the outside parties.
The line keys for the trunks stutter flash green.
*To disconnect the Conference, Forced Trunk Disconnect (i.e., Press the line key + *3) must be used by an extension other than the originating extension.*

Single Line Terminal

To set up a Tandem Call:

1. Place or answer first trunk call.
2. Press HOOKFLASH and dial #1.
3. Place or answer second trunk call.
4. To set up the tandem call, press HOOKFLASH and dial #8.
5. Hang up.
This sets up a Conference between both outside parties.

Tandem Trunking (Unsupervised Conference)

Method C - Tandem Trunking on Hang up

To set up a Tandem Call (with only 2 outside lines):

1. Place or answer first trunk call.
2. Press HOLD to place the first trunk call on Hold.
3. Place or answer second trunk call.
The second call cannot be a ringing call. It must first be answered, placed on hold, then answer the other call and press HOLD, then hang up.
4. Hang up.
*This sets up an Unsupervised Conference with both outside parties.
The line keys for the trunks light solid red.
To disconnect the Conference, use Forced Trunk Disconnect (i.e., Press line key + *3).*

Single Line Terminal

To set up a Tandem Call (with only 2 outside lines):

1. Place or answer first trunk call.
2. Press HOOKFLASH.
3. Place or answer second trunk call.
4. To set up the tandem call, hang up.
*This sets up a Conference between both outside parties.
To disconnect the Conference, use Forced Trunk Disconnect (i.e., Dial the trunk access code [#9 + trunk number] + *3).*

Tandem Trunking (Unsupervised Conference)

Method D - Automatic Tandem Trunking Using Abbreviated Dialing

To set Automatic Tandem Trunking:

1. Dial service code 833.
2. Dial the desired trunk number (1-200).
3. Hang up.

The line key for the trunk will be solid red as long as the Unsupervised Conference continues.

*To disconnect the Conference, Forced Trunk Disconnect (i.e., Press the line key or #9 plus the trunk number + *3).*

To cancel Automatic Tandem Trunking:

1. Dial service code 834.
2. Dial the desired trunk number (1-200).
3. Hang up.

*To disconnect the Conference, Forced Trunk Disconnect (i.e., Press the line key or #9 plus the trunk number + *3).*

To set and change the destination of the Automatic Tandem Trunk call:

1. Dial service code 835.
2. Dial the desired trunk number (1-200).
3. Dial the desired time mode (1-8).
4. Dial the new telephone number to be saved in the programmed Abbreviated Dial bin.
5. Press HOLD.
6. Hang up.

*To disconnect the Conference, Forced Trunk Disconnect (i.e., Press the line key or #9 plus the trunk number + *3).*

Tie Lines

Feature Availability

- Available.

Description

Tie lines directly link a local communications server with one or more remote systems. The link is independent of the telco's switched network. When a local system user seizes a tie line, they hear Intercom dial tone from the remote system. The user may then be able to:

- Dial extensions in the remote system
- Use the remote system's trunks for outgoing calls
- Access Common Abbreviated Dialing bins in the remote system
- Use the remote system's Internal and External Paging

The UX5000 provides connection for 2-wire (four lead, tip/ring) or 4-wire (eight lead, tip/ring/tip 1/ring 1) type tie line circuits. Using UX5000 programming, each circuit type can be set as Type I or V.

Tie Line Class of Service

Tie Line Class of Service provides features and dialing restrictions for incoming tie lines. This allows you to control the capabilities of callers dialing into your UX5000. The tie line Class of Service options are:

- **First Digit Absorption**
A tie line can ignore (absorb) the first digit received, which helps when setting up a tie line network. For example, your UX5000 can have tie lines to two other systems with the same extension numbering plan. Use the first digit to differentiate between the systems. Tie line callers can dial 3200-3456 for the first system's extensions and 4200-4456 for the second system's extensions. The receiving system ignores the first digit and routes calls correctly to the extension dialed (i.e., 4301 is received as 301).
- **Trunk Group Routing/ARS Access**
When a tie line user calls the remote system, they may be able to dial 9 and place outside calls through the remote system. Any toll charges are incurred by the remote system. The call follows the remote system's Trunk Group Access or Automatic Route Selection - whichever is enabled.
- **Trunk Group Access**
Tie line callers may be able to access trunk groups in the remote system by dialing Programable Function Key *02 and the trunk group number. This allows the callers to select a specific trunk group for an outgoing call. Trunk Group Access bypasses the remote system's Trunk Group Routing/ARS. As with dial 9 access, any toll charges are incurred by the remote system.
- **Common Abbreviated Dialing**
The remote system's Common Abbreviated Dialing bins may be available to tie line callers. Use this capability to set up centralized Abbreviated Dialing control - or just save time when dialing.

- **Operator Calling**
A tie line caller may be able to dial 0 for the remote system's operator.
- **Paging**
Internal and External Paging may be available to tie line callers. This allows co-workers in adjacent facilities connected by tie lines, for example, to broadcast announcements to each other.
- **Direct Trunk Access**
This option allows tie line callers to directly access a trunk for an outside call by dialing #9 and the trunk's number. Like Trunk Group Access, this bypasses the remote system's Trunk Group Routing/ARS. Any toll charges are incurred by the remote system.
- **Forced Trunk Disconnect**
The Forced Trunk Disconnect option allows a tie line caller to disconnect (release) another extension's active outside call. The tie line caller can then place a call on the released trunk. Tie line callers should use Forced Trunk Disconnect only in an emergency, when no other trunks are available.
- **DISA/Tie Trunk Barge In**
The DISA/Tie Trunk Barge In option allows a tie line caller to break into another extension's established call. This sets up a three-way conversation between the intruding party and the two parties on the initial call.

Tie Line Outgoing Call Restriction

You can selectively deny incoming tie lines access to your UX5000's outgoing trunk groups. Incoming tie line callers could be able to access your outgoing WATS lines, for example, but not your DID trunks. The UX5000 allows you to set up a restriction matrix for each of your incoming tie lines - for each of your outgoing trunk groups.

Tie Line Toll Restriction Class

Incoming tie lines can have a Toll Restriction Class and be subject to the UX5000's toll restriction. For example, Toll Restriction can prevent users from dialing 1-900 calls. When an incoming tie line caller tries to use UX5000 trunks to dial a 1-900 service, Toll Restriction will deny the call.

Flexible Tie Line Service Compatibility

You can individually program tie lines for Dial Pulse (DP) or DTMF incoming or outgoing signaling. Outgoing tie lines can be either wink start or immediate start.

Wink Start Mode Does Not Require a DTMF Receiver

E&M trunks in wink start mode do not require a DTMF receiver for dial tone detection. It is detected with the wink. This frees the DTMF receivers for other use.

Conditions

- Tie lines require the installation of a 4TLIU blade. Each blade provides four tie line ports.
- Tie line service must be purchased from your local telephone company.

Default Setting

Disabled.

Programming

- **10-03-03 : Blade Setup - TLIU, E&M Line Control Method**
Select the M-Lead type for each tie line (0 = Type I, 1 = Type V).
- **10-09-01 : DTMF and Dial Tone Circuit Setup**
If the UX5000 has DTMF tie lines, be sure to reserve at least one circuit for analog trunk DTMF reception (type 0 or 2).
 - Use the following as a guide when allocating DTMF receivers:
 - In light traffic sites, allocate one DTMF receiver for every 10 devices that use them.
 - In heavy traffic sites, allocate one DTMF receiver for every five devices that use them.
- **14-01-02 : Basic Trunk Data Setup - Transmit Codec Gain Type**
14-01-03 : Basic Trunk Data Setup - Receive Codec Gain Type
Customize the transmit and receive levels of the Codec Gain Types for each trunk as required.
- **14-01-13 : Basic Trunk Data Setup - Trunk-to-Trunk Transfer/Loop Disconnect Supervision**
Enable (1) trunk-to-trunk transfer with loop supervision for each tie line that should be able to place outgoing calls.
- **14-02-01 : Analog Trunk Data Setup - Signaling Type (DP/DTMF)**
Set the outgoing signaling type for the tie trunk. The options are 0 (DP 10 pps), 1 (DP 20 pps) and 2 (DTMF). To set incoming signaling, refer to Program 34-01-02.
- **14-05-01 : Trunk Groups**
Program tie lines of similar type into the same trunk group. The UX5000 uses trunk groups for outgoing access to tie lines (i.e., Service Code 804 + group). Also see Program 34-05.
⇨ Trunk Groups: 1-100
- **14-06-01 : Trunk Group Routing**
When a tie line user dials 9, the UX5000 uses the routes defined in this program. Also see Program 34-03. (If the UX5000 has ARS, the tie line user accesses ARS when they dial 9.)
⇨ Trunk Group Routes: 1-100
- **20-01-05 : System Options - DTMF Receiver Active Time**
After answering the tie line call, the UX5000 attaches a DTMF receiver to the tie line for this interval (0- 64800 seconds).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to extensions.
- **20-09-01 : Class of Service Options (Incoming Call Service) - Second Call for DID/DISA/ DIL/ E&M**
Enable (1) or disable (0) an extension's ability to receive a second call from a DID, DISA, DIL, or tie line caller.
- **20-14-01 : Class of Service Options for DISA/E&M**
Enable (1) or disable (0) the following options for each tie line Class of Service (1-15):
 - First Digit Absorption (Item 1)
 - Trunk Group Routing/ARS Access (Item 2)
 - Trunk Group Access (Item 3)
 - Common Abbreviated Dialing (Item 4)
 - Operator Calling (Item 5)
 - Internal Paging (Item 6)
 - External Paging (Item 7)
 - Direct Trunk Access (Item 8)
 - Forced Trunk Disconnect (Item 9)
 - Call Forward Setting by Remote Via DISA (Item 10)
 - DISA/Tie Trunk Barge In (Item 11)

- **21-05-01 : Toll Restriction Class - International Call Restriction Table**
- 21-05-02 : Toll Restriction Class - International Call Permit Table**
- 21-05-04 : Toll Restriction Class - Maximum Number of Digits Table Assignments**
- 21-05-05 : Toll Restriction Class - Common Permit Code Table**
- 21-05-06 : Toll Restriction Class - Common Restrict Code Table**
- 21-05-07 : Toll Restriction Class - Permit Code Table**
- 21-05-08 : Toll Restriction Class - Restrict Code Table**
- 21-05-09 : Toll Restriction Class - Restriction for Common Abbreviated Dialing**
- 21-05-10 : Toll Restriction Class - Restriction for Group Abbreviated Dialing Numbers**
- 21-05-11 : Toll Restriction Class - Intercom Call Restriction**
- 21-05-12 : Toll Restriction Class - PBX Call Restriction**

If Program 34-01-05 is set to “1”, define the toll restriction settings for tie lines.
- **21-05-13 : Toll Restriction Class - Restriction of Tie Line Calls**

Enable (1) or disable (0) toll restriction for tie line calls (defined in Program 34-08-01).
- **22-02-01 : Incoming Call Trunk Setup**

For each Night Service mode, enter service type 5 when the trunk should be a tie trunk.
- **34-01-01 : E&M Tie Line Basic Setup - DID/E&M Start Signaling**

Enter 0 for 2nd dial tone, 1 for wink, 2 for immediate, or 3 for delay start signaling. To set outgoing signaling, refer to Program 14-02-01.
- **34-01-02 : E&M Tie Line Basic Setup - DID/E&M Start Signaling**

Set the trunk signaling type to either dial pulse (0) or DTMF (1).
- **34-01-03 : E&M Tie Line Basic Setup - E&M Dial-In Mode**

Determine if the incoming tie line call should be directed as an intercom call or if it should follow the DID Translation Table in Program 22-11.
- **34-01-04 : E&M Tie Line Basic Setup - E&M Line Dial Tone**

Enter 1 if the tie line should send dial tone to the calling UX5000 once the call is set up. Enter 0 if the tie line should not send dial tone.
- **34-01-05 : E&M Tie Line Basic Setup - System Toll Restriction**

Enable (1) or disable (0) the ability for tie line calls to follow the UX5000 toll restriction entries in Programs 21-05-01 through 21-05-13. If disabled, tie line toll restriction will be determined by 21-05-13.
- **34-02-01 : E&M Tie Line Class of Service**

Assign the tie line’s Class of Service (1-15). Use Program 20-14 to set the tie line Class of Service options. *You cannot use Programs 20-06 thru 20-17 to assign Class of Service to tie lines.*
- **34-03-01 : Trunk Group Routing for E&M Tie Lines**

Use this program to assign the trunk group route chosen when a user seizes a tie line and dials 9. Set Trunk Group Routing in program 14-06. If the UX5000 has ARS, dialing 9 accesses ARS.
⇨ Trunk Group Routes: 1-100
- **34-04-01 : E&M Tie Line Toll Restriction Class**

If the UX5000 uses Toll Restriction, enter a Toll Restriction Class (1-15) for each tie line. The UX5000 uses the class you enter in Program 21-05. *You cannot use Program 21-04 to assign Toll Restriction to tie lines.*
- **34-05-01 : Tie Line Outgoing Call Restriction**

This program lets you build a restriction matrix for trunk calls placed over a tie line. For each tie line trunk group, enable (0) or disable (1) outgoing access to each CO trunk group.
⇨ Trunk Groups: 1-100
- **34-06-01 : Add/Delete Digit for E&M Tie Line - Delete Digit**

Some tie line networks pass the location number and extension number to the remote side. If the UX5000 should ignore these digits, use this program to define the number of digits which should be deleted (0-255, 255 deletes all digits) for a call.

- **34-06-02 : Add/Delete Digit for E&M Tie Line - Additional Dial Digits**
If a tie line network requires additional digits to reroute the call to a location, enter the digits for the location which should be added to the received digits (up to 4 digits).
- **34-07 : E&M Tie Line Timers**
Define the UX5000 timers as needed for use with the tie line trunks.
- **34-08-01 : Toll Restriction Data for E&M Tie Lines**
Define the toll restriction data for E&M tie lines if required. This should be defined if toll restriction is enabled in Program 21-05-13.
- **34-09-01 : ANI/DNIS Service Options - Receive Format**
Use this option to specify the format of the ANI/DNIS data received from the telco. Make sure your entry is compatible with the service the telco provides (0 = Address, 1 = *ANI*, 2 = *DNIS*, 3 = *ANI*Address*, 4 = *ANI*DNIS*, 5 = *DNIS*ANI* [* = Delimiter Code]).
- **34-09-02 : ANI/DNIS Service Options - Delimiter Dial**
This option defines the character telco uses as a delimiter (see entries 1-5 in Item 1 above). Valid entries are 0-9, #, and *.
- **34-09-03 : ANI/DNIS Service Options - Route Setup of Receive Dial**
This option specifies the source of the data the UX5000 uses to route incoming ANI/DNIS calls. If option '2' is selected, refer to Program 34-09-04 (0 = Fixed Route (Item 08), 1 = Routes on Received DNIS or Address Data, 2 = Routes on Received ANI Data).
- **34-09-04 : ANI/DNIS Service Options - Route Table Setup of Target Dial**
The option sets how the UX5000 uses the route data (gathered in Item 3) to route incoming ANI/DNIS calls (0 = ABB Table [Program 13-03], 1 = DID Table [Program 22-11]).

If option '2' is selected and the call is to be routed using the DID table (1), up to 8 digits can be matched. The number of expected digits set in Program 22-09-01 must match the ANI digits defined in Program 22-11-01. For example, if an ANI/DNIS number received was *2035551234*3001* and Program 22-09-01=4, then the entry in 22-11-01 must be 1234 with the defined target extension.

If the call is to be routed using the ABB table (0), up to 24 digits can be matched. Define the range of the ABB table to be used in Program 34-09-06. The data is then compared to the entries in Program 13-04-01 and then routed according to Program 13-04-03.

- **34-09-05 : ANI/DNIS Service Options - ANI/DNIS Display as Target Dial Name**
Use this option to set if ANI data should appear on terminal displays as part of Caller ID display (0 = Display Off, 1 = Display On).
- **34-09-06 : ANI/DNIS Service Options - Routing ABB Table Setup**
Use this option to define which part of the ABB Table set up in Program 13-04 the UX5000 will use for ANI/DNIS Caller ID look-ups and ANI/DNIS routing (Start = 0, 100-1900, End = 0, 99-1999). This is required if Items 4 and 5 above are 1 (Caller ID on). When you specify a starting and end address, the UX5000 uses the part of the table for look-ups. When you specify a starting address and length, the UX5000 uses that part of the table for routing. If the incoming ANI/DNIS number data matches the Number entry in the table, the UX5000 routes according to the associated Name data. That data can be an extension, Department Group pilot number, the voice mail master number or a trunk ring group.
- **34-09-07 : ANI/DNIS Service Options - Routing on ANI/DNIS Error**
This option lets you determine how the UX5000 will handle an ANI/DNIS call if a data error is detected in the incoming data string (0 = Play busy tone to caller, 1 = Route the caller to the ring group specified in Program 25-03).
- **34-09-08 : ANI/DNIS Service Options - Routing When Destination Busy or No Answer**
This option lets you determine how the UX5000 will handle an ANI/DNIS call if destination is busy or does not answer (0 = Play busy or ringback tone to caller, 1 = Route the caller to the ring group specified in Program 25-04).

- **34-09-09 : ANI/DNIS Service Options - Calling Number Address Length**
When Item 1=0 (ANI/DNIS receive format is address), use this option to specify the address length. The choices are from 1 to 8 digits in length.
- **80-03-01 : DTMF Tone Receiver Setup**
80-04-01 : Call Progress Tone Detector Setup
If required, modify the criteria for dial tone detection and call progress tone detection for tie line calls.
- **81-03-01 : 4TLIU Initial Data Setup**
Make sure the Tie Line Timer settings are compatible with your local telco.

Related Features

Automatic Route Selection/Trunk Group Routing

In a UX5000 with ARS enabled:

When a tie line user dials 9 for an outside call, the UX5000 routes the call via ARS.

In a UX5000 with ARS disabled:

When a tie line user dials 9 for an outside call, the UX5000 uses the routes programmed for Trunk Group Routing.

Central Office Calls, Placing

Depending on programming, you can seize a tie line by:

- Pressing a line key
- Pressing a One-Touch Programmable Function Key
- Dialing a trunk group code
- Dial codes which directly accessing a specific tie line

CygniLink

The Cygnilink feature can use tie lines to connect the different networking nodes.

Dial Tone Detection

Refer to this feature for the specifics on how the UX5000 handles Dial Tone Detection.

Long Conversation Cutoff

Long Conversation Cutoff is controlled separately for DISA and tie lines.

Toll Restriction

Incoming tie line calls can have a Toll Restriction class and can be subject to the UX5000's toll restriction.

Trunk Groups

To simplify placing calls over your tie lines, you can put the tie lines in a trunk group.

Operation

To place a call over a tie line group:

1. Press idle CALL key and dial 804.
 2. Dial tie line group number (1-100).
 3. Dial number.
- OR
1. Press tie line group key (PGM 15-07 or SC 852: *02 + group).
 2. Dial number.

To place a tie line call using Trunk Group Routing:

1. Press idle CALL key and dial 9.
2. Dial number.

To place a call over a specific tie line:

1. Press idle CALL key and dial #9.
 2. Dial tie line number (e.g., 005 for line 5).
 3. Dial number.
- OR
1. Press tie line key (PGM 15-07 or SC 852: *01 + 1-200).
 2. Dial number.

To Barge In after calling a busy extension:

*The call must be set up for about 10 seconds before you can Barge In.
Listen for busy/ring or busy tone.*

1. Call busy extension using tie line trunk.
2. Press Barge In key (PGM 15-07 or SC 851: 34).

After calling the remote system, you may be able to:

- Dial 9 to place an outside call through the remote system.
- Dial Service Code #9 + a trunk number to place outside calls over a specific trunk.
- Use the remote system's Common Abbreviated Dialing.
- Call the remote system's operator.
- Use the remote system's Internal and/or External Paging.

Feature Availability

- Available.

Description

The UX5000 uses Time and Date for:

- Central Office Calls (Access Maps)
- Class of Service (Class)
- Direct Inward Lines
- Display Terminals
- Fax Machine Compatibility
- Night Service (Automatic)
- Programmable Trunk Parameters
- Ring Groups
- Station Message Detail Recording
- System Reports
- Toll Restriction (Class)
- Trunk Group Routing
- Voice Mail
- Voice Response System

Using the Daylight Savings Setup program, you can determine whether the UX5000 should automatically adjust the UX5000 time for daylight savings time/standard time changes.

Clock Adjustment

The UX5000 can be programmed to automatically adjust the UX5000 clock on a nightly basis. This feature allows you to make adjustments should the UX5000 chassis regularly lose or gain time.

Conditions

The UX5000 retains the Time and Date after a power failure or UX5000 reset.

Default Setting

Enabled.

Programming

- **10-01-01 : Time and Date**
Set the UX5000 Time and Date for the UX5000.
- **10-24-01 : Daylight Savings Setup - Daylight Savings Mode**
Enable (1) or disable (0) the UX5000's ability to adjust the time for daylight savings/standard time.
- **10-24-02 : Daylight Savings Setup - Time for Daylight Savings**
Enter the time of day the UX5000 should adjust for daylight savings time (0000 - 2359).
- **10-24-03 : Daylight Savings Setup - Start of Month (Summer Time)**
Enter the month of UX5000 should adjust the time for daylight savings time (01 - 12).

Time and Date

- **10-24-04 : Daylight Savings Setup - Start of Week**
Enter the week of the month the UX5000 should adjust the time for daylight savings time (0 = last week of the month or 1-5).
- **10-24-05 : Daylight Savings Setup - Start of Week Day**
Enter the day of the week the UX5000 should adjust the time for daylight savings time (01 = Sunday, 02 = Monday, etc.).
- **10-24-06 : Daylight Savings Setup - End of Month**
Enter the month of UX5000 should adjust the time for standard time (01 - 12).
- **10-24-07 : Daylight Savings Setup - End of Week**
Enter the week of the month the UX5000 should adjust the time for standard time (0 = last week of the month or 1-5).
- **10-24-08 : Daylight Savings Setup - End of Week Day**
Enter the day of the week the UX5000 should adjust the time for daylight savings time (01 = Sunday, 02 = Monday, etc.).
- **11-10-03 : Service Code Setup (or System Administrator) - Time Setting**
Define the service code to be used by a user to change the UX5000 time (default: 828).
- **11-10-41 : Service Code Setup (or System Administrator) - Date Setting**
Define the service code to be used by a user to change the UX5000 date (default: no entry).
- **20-02-07 : System Options for Multi-Line Terminals - Time and Date Display Mode**
Select the display mode (type 1-8) for Time and Date (i.e., Time and Date format).
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-07-03 : Class of Service Options (Administrator Level) - Time**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to set the Time.
- **20-07-30 : Class of Service Options (Administrator Level) - Date Setting**
Enable (1) or disable (0) an extension's ability to change the UX5000 date.
- **99-01-16 : System Clock Adjustment**
The UX5000 is able to automatically adjust the UX5000 clock at every midnight should you find it is not keeping accurate time.
This program is only available through terminal programming.
No other programs in 99-01-xx should be adjusted. Leave all other entries at their default setting.
(0 = No adjustment (*default*), 1 - 127 = seconds to be added to clock, 128 - 255 = seconds to be backed up on the clock (-128 to -1 seconds).

Related Features

Class of Service

Changing the time may change the current COS service depending on the COS mode setup.

Night Service

You can program the UX5000 to automatically switch day/night modes.

Single Line Terminals

Single line terminals cannot set the Time and Date.

Operation

To set the UX5000 Time:

1. Press idle CALL key.
2. Dial 828.
3. Dial two digits for the hour (24 hour clock, 13 = 1:00 PM).
4. Dial two digits for the minutes (00-59).
5. Press SPK to hang up.

To set the UX5000 Date:

1. Press idle CALL key.
2. Dial the service code defined in Program 11-10-41 (by default, there is no entry).
3. Dial two digits for the year (00-99).
4. Dial two digits for the month (01-12).
5. Dial two digits for the day (01-31).
6. Dial one digit for the day of the week (1-7: [Sunday = 1, Saturday = 7]).
7. Press SPK to hang up.

Toll Restriction

Feature Availability

- Available - 15 Toll Restriction Classes.
Capacity depends on the number of blades installed and the system port licensing.

Description

Toll Restriction limits the numbers an extension user may dial. By allowing extensions to place only certain types of calls, you can better control long distance costs. The UX5000 applies Toll Restriction according to an extension's Toll Restriction Class. The UX5000 allows for up to 15 Toll Restriction Classes.

Toll Restriction offers the following capabilities:

- **Common Permit Code Table**
Use the Common Permit Code Table when you have numbers you want all Toll Restriction Classes to dial. To let all users dial 911, for example, put 911 in the Common Permit Code Table. The Common Permit Code Table overrides the Restrict Code and Common Restrict Code Tables. The UX5000 provides 10 tables, with 10 entries in each table. Each code is 4 digits max., using 0-9, #, * and FLASH (as a wild card).
- **Common Restrict Code Table**
The Common Restrict Code Table lets you globally restrict certain numbers for all Toll Restriction Classes. To prevent all users from dialing directory assistance (411), for example, put 411 in the Common Restrict Code Table. Be sure you don't allow the codes you want to restrict in the Permit Code Table or the Common Permit Code Table. The UX5000 provides 10 tables, with 10 entries in each table. Each code is 4 digits max., using 0-9, #, * and FLASH (as a wild card).
- **Restrict Code Table**
When you want Toll Restriction to allow most calls and restrict only selected calls, use the Restrict Code Table. To block only 1-900 calls, for example, enter 1900 in the Restrict Code Table. (If the same Toll Restriction Class has both Permit and Restrict Code Tables, the UX5000 restricts calls that you enter only in the Restrict Code Table. Calls entered in both tables are not restricted.) The UX5000 provides 4 tables, with 60 entries (restricted codes) in each table. A restricted code is 12 digits maximum, using 0-9, #, * and FLASH (as a wild card).
- **Permit Code Table**
The Permit Code Table lets you set up Toll Restriction so that users can dial only selected (permitted) telephone numbers. Use this table when you want to restrict most calls. To allow all users to dial only area code 203, for example, enter 1203 in the Permit Code Table. 1 + 203 + NNX + nnnn are the only numbers users can dial. (If the same Toll Restriction Class has both Permit and Restrict Code Tables, the UX5000 restricts calls that you enter only in the Restrict Code Table. Calls entered in both tables are not restricted.) The UX5000 provides 4 tables, with 200 entries (permitted codes) in each table. A permitted code is 12 digits maximum, using 0-9, #, * and FLASH (as a wild card).

- **International Call Restriction**

International Call Restriction lets you limit the international calls an extension user may dial. You can build a restrict table to prevent only certain calls, or you can build a permit table to allow only certain calls. To allow most international calls, use the *International Call Restrict Table*. To prevent most international calls, use the *International Call Allow Table*. The UX5000 provides 10 International Call Restrict tables with up to 4 digits in each table entry and 20 International Call Allow tables, with up to 6 digits in each table entry. Valid entries are 0-9, #,* and FLASH (for a wild card).
- **Toll Restriction for Abbreviated Dialing**

Abbreviated Dialing can bypass or follow Toll Restriction. If you allow many users to program Abbreviated Dialing, consider Toll Restricting the numbers they dial. If only administrators can program Abbreviated Dialing, Toll Restriction may not be necessary. You can separately restrict Group and Common Abbreviated Dialing.
- **Call Digit Counting**

Use Call Digit Counting to limit the number of digits local callers can dial. You can use this option to prevent users from accessing local dial-up services. For example, set the Maximum Number of Digits in Local Calls to 7 to limit local callers to dialing the exchange code (NNX) and local address (nnnn) only. The UX5000 provides 4 tables in which you can make entries for this option. The range is 4-30 digits.
- **Toll Call Digit Counting**

With Toll Call Digit Counting, you can limit the number of digits long distance callers can dial. This lets you prevent callers from dialing extensively into long distance dial-up services. You can make four entries (4-30 digits).
- **Toll Free Trunks**

Certain trunks can be completely unrestricted, such as the company president's Private Line. Users can place calls on Toll Free Trunks anytime -- to anywhere, without inadvertently being toll restricted.
- **PBX Call Restriction**

Toll Restriction programming lets you enable/disable PBX Call Restriction and enter PBX access codes. You only need to do this if your UX5000 is behind a PBX and you have trunks programmed for behind PBX operation. Refer to PBX Compatibility feature for the specifics.
- **Tie Line Toll Restriction**

With **Program 34-01-05 : E&M Tie Line Basic Setup - System Toll Restriction** set to '0', the UX5000 will follow the setting in **21-05-13 : Toll Restriction Class - Restriction of Tie Line Calls** to determine whether or not the toll restriction setting in Program 34-08 is to be followed (only 20 entries are allowed in this option). If this option is set to '1', the UX5000 will follow the UX5000 toll restriction settings defined in Program 21-05-01 through 21-05-13.

Toll Restriction Level for Trunks

The UX5000 allows a trunk to be assigned a Toll Restriction level. When both an extension and a trunk have a Toll Restriction level assigned, the higher class will apply for outgoing calls. For example:

- When a trunk is set to class 1 and an extension is class 02, Toll Restriction class 02 is applied to the outgoing call.
- When a trunk is set to class 15 and an extension is class 03, Toll Restriction class 15 is applied to the outgoing call.

Toll Restriction

This feature can be used for any type of extension (real or virtual) and using any type of terminal (keyset, SLT, etc.). When virtual extensions are to be used, Program 15-02-21 must be set to "1" to allow outgoing calls on a virtual/Call Coverage key.

When DISA and Tie Line trunks are used, the restriction class for the incoming trunk is compared to the restriction class of the outgoing trunk.

When a trunk makes an outgoing call, the restriction class of the incoming trunk (Program 21-21-01) is compared to the restriction class of the outgoing trunk. The higher class will be used for outgoing calls.

DISA Trunk (22-02-01 is set to "2") - Program 25-11-01 is compared to 21-21-01.

Tie Line Trunk (22-02-01 is set to "5") - Program 34-04-01 is compared to 21-21-01.

Networking does not support Trunk Toll Restriction.

Conditions

- If a Toll Restriction Class has the same entries in both a permit and restriction table, the UX5000 does not restrict the call.
- Toll Call Digit counting may prevent users from taking advantage of long distance automated services like ACD and automated Technical Service.
- Toll Restriction is applied when accessing ARS.
- If Program 21-01-10 is programmed with an entry other than "0", a call will not have a talk path unless the user dials at least the number of digits entered in this option when placing an out going call. This means that an entry of 4 or higher in this program will cause a problem when dialing 911. Since it is only a 3-digit number, the call will not have a talk path, preventing the emergency dispatcher from hearing the caller. It is recommended that this option be kept at its default setting of "0" to prevent any problems with dialing 911.
- An extension's Toll Restriction may be ignored by the UX5000 if the extension dials after answering an incoming call (e.g., pressing Flash, the outside party hangs up and the Telco returns dial tone or an idle state along with allowing outgoing calls, the Telco detects the end of the call and returns to an idle status, a user seizes the trunk within a second or two after this status change but before the terminal stops ringing, etc.) and either receives a new outside dial tone or if the Telco does not return dial tone but will allow dialing an outside number. The following is an explanation of how individual extension Program 15-01-05 and UX5000 Programs 21-01-15, 21-01-16 and 21-01-17 work under the above conditions.
 1. If Program 21-01-15 is disabled, Toll Restriction is ignored.
 2. If Program 21-01-15 is enabled but Program 15-01-05 is disabled, Toll Restriction is ignored.
 3. If both Programs 21-01-15 and 15-01-05 are enabled, Toll Restriction is ignored, however, the extension user can only dial the number of digits entered in Program 21-01-17.
 4. If Program 21-01-15 is enabled and the Telco does not return dial tone but allows dialing, Toll Restriction is ignored. however, the extension user can only dial the number of digits entered in Program 21-01-17 regardless of the setting of Program 15-01-05 but only has the time entered in Program 21-01-16 to dial.

Default Setting

Disabled.

Programming

- **14-01-08 : Basic Trunk Data Setup - Toll Restriction**
For each trunk, enter 1 to enable Toll Restriction; enter 0 to disable Toll Restriction.
- **15-01-05 : Basic Extension Data Setup - Restriction for Outgoing Disable on Incoming Line**
Enable (1) or disable (0) supervised dial detection for an extension.
- **15-02-21: Multi-Line Terminal Basic Data Setup - Virtual Extension Access Mode**
If setting Trunk Toll Restriction Level for a virtual extension, this option must be set to '1' to allow the extension the ability to place outgoing ICM or CO calls.
- **15-02-30 : Multi-Line Terminal Basic Data Setup - Select Toll Restriction Class**
If setting Trunk Toll Restriction Level, use this program to define which Toll Restriction class which should be followed when placing a call on a virtual/Multiple Directory Number/Call Coverage key - the keyset's (1) or the virtual extension's (0).
- **20-06-01 : Class of Service for Extensions**
For each extension, assign a Class of Service (1-15).
- **20-08-02 : Class of Service Options (Outgoing Call Service) - Trunk Calls**
For each Class of Service, decide whether to enable (1) or disable (0) an extension's ability to place an outgoing trunk call.
- **20-13-20 : Class of Service Options (Supplementary Service) - Account Code/Toll Restriction Operator Alert**
When toll restriction is violated, determine if the operator should be notified. (0=disable, 1=enable)
- **21-01-10 : System Options for Outgoing Calls - Dial Digits for Toll Restriction Path**
If this option is programmed with an entry other than "0", a call will not have a talk path until the timer set in Program 21-01-11 expires unless the user dials at least the number of digits entered in this option when placing an outgoing call. This means that an entry of 4 or higher in this program will cause a problem when dialing 911. Since it is only a 3-digit number, the call will not have a talk path (until 21-01-11 expires), preventing the emergency dispatcher from hearing the caller. It is recommended that this option be kept at its default setting of "0" to prevent any problems with dialing 911.
- **21-01-11 : System Options for Outgoing Calls - Toll Restriction Path Control Timer**
Define the timer used to determine how long the UX5000 waits before automatically connecting the transmit path if the number of digits defined in 21-01-10 is not dialed.
- **21-01-15 : System Options for Outgoing Calls - Outgoing Disable on Incoming Line**
Enable (1) or disable (0) the Outgoing Disable on Incoming Line feature.
- **21-01-16 : System Options for Outgoing Calls - Supervise Dial Detection Timer**
With the Outgoing Disable on Incoming Line feature, if dial tone is not detected after the extension answers an incoming line, the UX5000 determines the call is unable to complete and releases the DTMF receiver (0-64800 seconds).
- **21-01-17 : System Options for Outgoing Calls - Restriction Digit in Outgoing Disable on Incoming Line**
With the Outgoing Disable on Incoming Line feature, determine the number of digits (0-9) to be dialed before the call should be disconnected.
- **21-04-01 : Toll Restriction Class for Extensions**
For each extension, assign a Toll Restriction Class (1-15) for each Night Service mode.
- **21-05-01 : Toll Restriction Class - International Call Restriction Table**
For the Toll Restriction Class you select, enable (1) or disable (0) the International Call Restrict Table (Program 21-06-01).

Toll Restriction

- **21-05-02 : Toll Restriction Class - International Call Permit Table**
For the Toll Restriction Class you select, enable (1) or disable (0) the International Call Permit Table (Program 21-06-02).
- **21-05-04 : Toll Restriction Class - Maximum Number of Digits Table Assignments**
For the Toll Restriction Class you select, disable (0) or enable (1) the dialing limit for calls. When enabling, select from entries 1-4 in Program 21-06-03.
- **21-05-05 : Toll Restriction Class - Common Permit Code Table**
For the Toll Restriction Class you select, enable (1) or disable (0) the Common Permit Code Table (Program 21-06-04).
- **21-05-06 : Toll Restriction Class - Common Restrict Code Table**
For the Toll Restriction Class you select, enable (1) or disable (0) the Common Restrict Code Table (Program 21-06-05).
- **21-05-07 : Toll Restriction Class - Permit Code Table**
For the Toll Restriction Class you select, disable (0) or enable (1) the Permit Code Table. When enabling, select from tables 1-4 in Program 21-06-06.
- **21-05-08 : Toll Restriction Class - Restrict Code Table**
For the Toll Restriction Class you select, disable (0) or enable (1) the Restrict Code Table. When enabling, select from tables 1-4 in Program 21-06-07.
- **21-05-09 : Toll Restriction Class - Restriction for Common Abbreviated Dialing**
For the Toll Restriction Class you select, enable (1) or disable (0) Toll Restriction for Common Abbreviated Dialing numbers.
- **21-05-10 : Toll Restriction Class - Restriction for Group Abbreviated Dialing Numbers**
For the Toll Restriction Class you select, enable (1) or disable (0) Toll Restriction for Group Abbreviated Dialing numbers.
- **21-05-11 : Toll Restriction Class - Intercom Call Restriction**
For the Toll Restriction Class you select, enable (1) or disable (0) Intercom Call Restriction. If enabled, extensions cannot place Intercom calls.
- **21-05-12 : Toll Restriction Class - PBX Call Restriction**
For the Toll Restriction Class you select, enable (1) or disable (0) PBX Call Restriction. Refer to the PBX Compatibility Feature.
- **21-05-13 : Toll Restriction Class - Restriction of Tie Line Calls**
Select whether or not the toll restriction set up in 34-08-01 is enabled (1) or disabled (0).
- **21-06-01 : Toll Restriction Table Data Setup - International Call Restrict Table**
Enter the international dialing codes you want to restrict.
- **21-06-02 : Toll Restriction Table Data Setup - International Call Permit Table**
Enter the international dialing codes you want to permit.
- **21-06-03 : Toll Restriction Table Data Setup - Maximum Number of Digits Table Assignment**
Select the maximum number of digits allowed in outgoing calls for each table (4-30).
- **21-06-04 : Toll Restriction Table Data Setup - Common Permit Code Table**
Program codes into the Common Permit Code Table.
- **21-06-05 : Toll Restriction Table Data Setup - Common Restrict Table**
Program codes into the Common Restrict Code Table.
- **21-06-06 : Toll Restriction Table Data Setup - Permit Code Table**
Program codes into the Permit Code Tables.
- **21-06-07 : Toll Restriction Table Data Setup - Restrict Code Table**
Program codes into the Restrict Code Tables (200 codes per table maximum).
- **21-06-08 : Toll Restriction Table Data Setup - PBX Access Codes**
The UX5000 allows up to 4 tables for PBX access codes. PBX Access Codes can be up to 2 digits, using 0-9, #, * and LINE KEY 1 (don't care). Refer to the PBX Compatibility feature for the specifics.

- **21-06-09 : Toll Restriction Table Data Setup - Specified Dial Codes**

If telco carrier dialing codes are used, by defining the possible codes in this program, the UX5000 will ignore these codes when Toll Restriction is enabled. For example, if 0070 is entered as a dialing code, with Toll Restriction enabled, a user can dial “0070-0471-32-6927”. The “0070” digits are ignored and only the “0471-32-6927” is checked for Toll Restriction. Without any dialing code entered first, or if the code does not match an entry in this program, then the complete number is checked for restriction.
- **21-06-10 : Toll Restriction Table Data Setup - Special Service Codes**

If special service codes are used (such as *67 to block Caller ID), by defining the possible codes in this program, the UX5000 will ignore these codes when Toll Restriction is enabled. For example, if *67 is entered to block the outgoing Caller ID, with Toll Restriction enabled, a user can dial “*67-203-926-5400”. The “*67” digits are ignored and only the “203-926-5400” is checked for Toll Restriction. Without any special service code entered first, or if the code does not match an entry in this program, then the complete number is checked for restriction.
- **21-21-01 : Toll Restriction Class for Trunks**

For each trunk, assign a Toll Restriction Class (1-15) for each Day/Night Service mode.
- **34-01-05 : E&M Tie Line Basic Setup - System Toll Restriction**

Enable (1) or disable (0) the ability for tie line calls to follow the UX5000 toll restriction entries in Programs 21-05-01 through 21-05-13. If disabled, the setting in 21-05-13 determines whether or not the toll restriction setting in Program 34-08 is to be followed (only 20 entries are allowed in this option).
- **34-08-01 : Toll Restriction Data for E&M Tie Lines**

Define the toll restriction data for E&M tie lines. This data should be defined if Tie Line Toll Restriction is enabled in Program 21-05-13.

Related Features

Central Office Calls, Placing

The UX5000 will allow or deny outgoing access to trunks depending on Toll Restriction.

Direct Inward System Access (DISA) /Tie Lines

When using DISA or tie lines, additional programming is required for Toll Restriction (DISA, see Program 25-10; tie lines, see Program 34-04).

Hotel/Motel

Trunk Toll Restriction is ignored when Hotel/Motel is used and an extension is checked in - Program 42-02-02 is used instead.

Networking

Networking does not support Trunk Toll Restriction.

PBX Compatibility

The UX5000 can provide Toll Restriction for the PBX trunks or the restriction can be handled solely by the connected PBX. If the UX5000 provides the restriction, it restricts the digits dialed after the PBX access code.

Toll Restriction, Dial Block

A user can temporarily block their extension's Toll Restriction access, preventing unwanted calls from being placed on their terminal while they are away from their desk.

With Trunk Toll Restriction, when an extension has Dial Block enabled, **Program 21-10-01 : Dial Block Restriction Class Per Extension** is used.

Toll Restriction Override

A user can temporarily override an extension's Toll Restriction.

Toll Restriction, Walking Toll Restriction

With Trunk Toll Restriction enabled, when Walking Toll Restriction is enabled, **Program 21-14-02 : Walking Toll Restriction Class Number** is used.

Toll Restriction

Operation

To place a trunk call if your UX5000 is Toll Restricted:

1. Place call normally.

If your Toll Restriction Class does not allow the number you dial, your call will be cut off.

Feature Availability

- Available.

Description

Toll Restriction Override lets a user temporarily bypass an extension's Toll Restriction. This helps a user that must place an important call that Toll Restriction normally prevents. For example, you could set up Toll Restriction to block 900 calls and then provide a Toll Restriction Override code to your attendant and executives. When the attendant or executive needs to place a 900 call, they just:

- Press CALL1, dial a service code and enter their override code.
- Press a line key or dial a trunk access code (e.g., 9 or #9 002).
- Place the 900 call without restriction.

You can assign a different Toll Restriction Override code to each extension. Or, extensions can share the same override code.

Toll Restriction Override will override *all* Toll Restriction programming. Walking Toll Restriction allows you to assign a Toll Restriction level for each user. When a call is placed using Walking Toll Restriction, the restriction for the call is based on the Toll Restriction level defined in Programs 21-05-xx and 21-06-xx.

Conditions

None

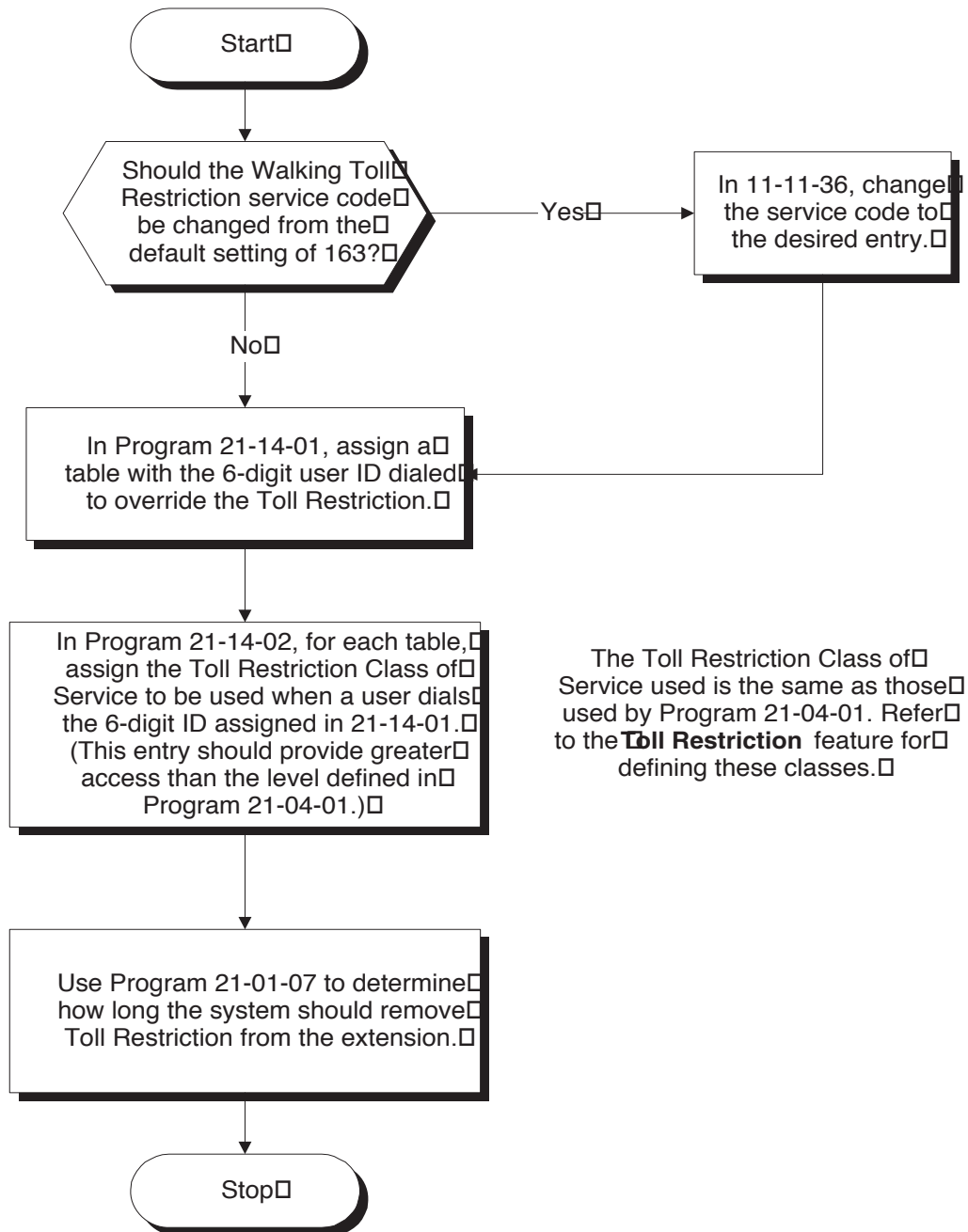
Default Setting

Disabled.

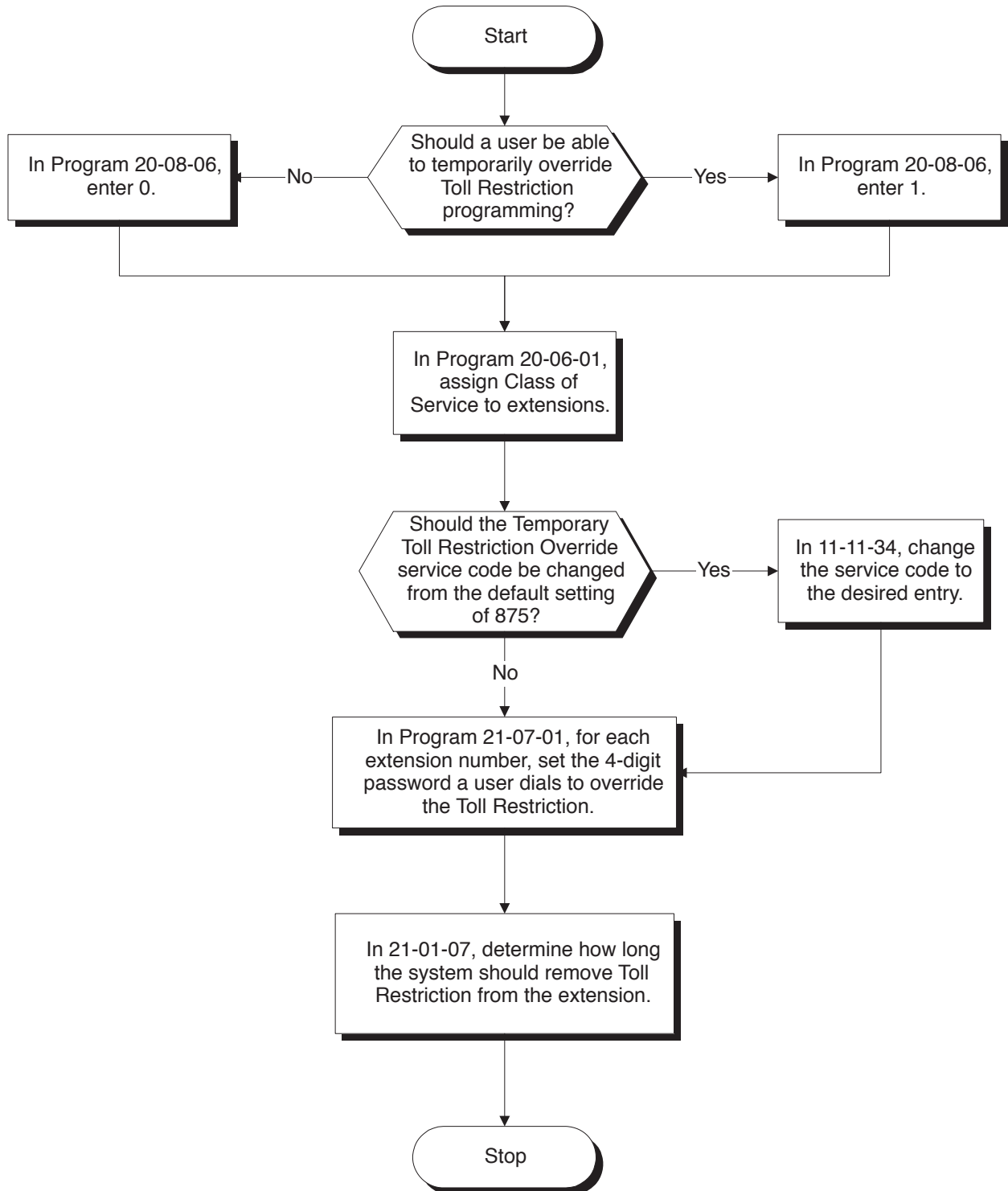
Toll Restriction Override

Programming

Walking Toll Restriction



Temporary Toll Restriction Override



Toll Restriction Override

Programming (Cont'd)

- **11-11-34 : Service Code Setup (for Setup/Entry Operation) - Temporary Toll Restriction Override**
If required, change the service code (875) for Temporary Toll Restriction Override.
- **11-11-36 : Service Code Setup (for Setup/Entry Operation) - Walking Toll Restriction**
If required, change the service code (163) for Toll Restriction Override.
- **20-08-06 : Class of Service Options (Outgoing Call Service) - Toll Restriction Override**
In an extension's Class of Service (1-15), enable (1) or disable (0) the ability to use Temporary Toll Restriction Override.
- **21-01-07 : System Options for Outgoing Calls - Toll Restriction Override Time**
Set the Toll Restriction Override Time (0-64800 seconds). After dialing the Toll Restriction Override codes, the UX5000 removes Toll Restriction for this interval.
- **21-07-01 : Toll Restriction Override Password Setup**
Assign Toll Restriction Override codes to extensions. Each code must be 4 digits long, using any combination of 0-9, # and *. Each extension can have a separate code, or many extensions can share the same override code.
- **21-14-01 : Walking Toll Restriction Password Setup - User ID**
Enter the Walking Toll Restriction Override User ID codes (6 digits) into tables. Up to 500 different override codes can be entered.
- **21-14-02 : Walking Toll Restriction Password Setup - Walking Toll Restriction Class Number**
Enter the Walking Toll Restriction Class of Service (1-15) to be used for each table number assigned in 21-14-01.
- **35-02-06 through 35-02-11 : SMDR Output Options**
Assign the output condition for the printer or PC. If the data is set to "1" (output), the symbol of the call will print as "POTW" and the password table number will be printed as "W/@@@" (@@ equals the 3 digit table number) in the Account Code area.

Related Features

Central Office Calls, Placing

Off-premise notification and external extensions require access to outside lines.

Station Message Detail Recording

In the *Class* heading in the SMDR report, POTA indicates that the call was placed using Toll Restriction Override. Walking Toll Restriction calls are indicated as POT (a regular outgoing trunk call).

Toll Restriction

Toll Restriction Override and Walking Toll Restriction temporarily overrides an extension's Toll Restriction.

Operation

To temporarily override a restricted extension's Toll Restriction:

You can override restriction for only one call at a time.

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial the Temporary Toll Restriction Override service code (875).
3. Dial the 4-digit Toll Restriction Override code.

If you wait too long before going to the next step, you may have to repeat the procedure. After dialing the service code, the display will indicate the override codes as they are being entered. As the last digit is entered, the display is cleared and ICM dial tone is heard.

You'll hear error tone if you dial your code incorrectly.

4. Press idle line key or dial trunk access code.
5. Dial the number without any restriction.

Toll Restriction, Dial Block

Feature Availability

- Available.

Description

Toll Restriction Dial Block lets a user temporarily block an extension's Toll Restriction. This helps a user block his or her terminal from being used by another person while they are away from their desk. A user would need to enter a 4-digit personal code to enable/disable this feature.

Dial Block can also be set by the system administrator. If Dial Block has already been set by an extension user, the supervisor can not release it. Additionally, if Dial Block has been set by the supervisor, an extension user can not release it.

Important: This function works by password and Class of Service control (the supervisor is not an assigned extension). If Dial Block is available for all Classes of Service, everyone may become a supervisor if they know the Dial Block password.

Conditions

- If the UX5000 is reset by a cold start, the Dial Block feature is cleared.
- This feature is not available for ISDN S-Bus extensions.
- Both Programs 21-09-01 and 21-10 can be set at the same time. The UX5000 gives priority to the setting in Program 21-10.

Default Setting

Disabled.

Programming

- **11-10-17 : Service Code Setup (for System Administrator) - Dial Block by Supervisor**
Assign a service code (101 by default) to be used by the supervisor to set Dial Block for **another** extension.
- **11-11-33 : Service Code Setup (for Setup/Entry Operation) - Dial Block**
Assign a service code (100 by default) to be used for Dial Block at a user's extension.
- **20-06-01 : Class of Service for Extensions**
Assign a COS to each extension (1-15).
- **20-08-08 : Class of Service Options (Outgoing Call Service) - Toll Restriction Dial Block**
Enable (1) or disable (0) an extension's ability to use Dial Block.
- **21-09-01 : Dial Block Setup - Toll Restriction Class With Dial Block**
Assign a Toll Restriction Class of Service (1-15) when the Dial Block feature is used by the supervisor extension.
- **21-09-02 : Dial Block Setup - Supervisor Password**
Assign a 4-digit password to be used by the supervisor or extension user to enable or disable Dial Block for extensions.

➤ **21-10-01 : Dial Block Restriction Class Per Extension**

Assign the Toll Restriction class (1-15) to be used by an extension when the Dial Block feature is enabled. If this data is "0", Toll Restriction Class follows Program 21-09-01.

➤ **90-19-01 : Dial Block Release**

Enter the extension number to be released from the Dial Block restriction. This program can be used when a password is forgotten by the user.

Related Features

Toll Restriction

Dial Block can temporarily block an extension's Toll Restriction setting.

Operation

To set Dial Block at your extension:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 100 .
3. Dial the 4-digit Dial Block code.
4. Dial 1.
A confirmation tone is heard.
5. Press SPK or replace the handset to hang up.

To release Dial Block:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 100 .
3. Dial the 4-digit Dial Block code.
4. Dial 0.
A confirmation tone is heard.
5. Press SPK or replace the handset to hang up.

To set Dial Block from another extension:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 101 .
3. Dial the 4-digit Dial Block code.
4. Dial the extension number to be blocked.
5. Dial 1.
A confirmation tone is heard.
6. Press SPK or replace the handset to hang up.

Toll Restriction, Dial Block

To release Dial Block from another extension:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 101 .
3. Dial the 4-digit Dial Block code.
4. Dial the extension number to be released from Dial Block.
5. Dial 0.
A confirmation tone is heard.
6. Press SPK or replace the handset to hang up.

Feature Availability

- Available.

Description

The UX5000 provides the ability to send data to a PC connected to the UX5000. The terminal call traffic data for each extension is captured for use with the SMDR feature.

Conditions

- The SMDR call buffer stores 500 calls. The buffer stores calls when the SMDR device is unavailable. When the buffer fills, the oldest record is deleted to allow the new record to be saved.
- If connected to the output device, the reports will print hourly. If not connected and the data is not outputted at the end of the hour, the traffic data will be overwritten by new incoming data.
- The traffic data is lost if a power failure occurs.
- The traffic data does not include ICM calls.

Default Setting

Disabled.

Programming

- **10-20-01 : LAN Setup for External Equipment - TCP Port**
Define the TCP port (0-65535) when communicating to the Traffic Report (type 12). The reports will print hourly when connected to the output device.
- **10-20-03 : LAN Setup for External Equipment - Keep Alive Time**
Define the timer for the Keep Alive function when connecting to the TCP port (10-20-01).
- **90-20-01 : Traffic Report Data Setup - Call Traffic Output**
Determine whether or not the Call Traffic Output should be tracked (0=no, 1=yes).

Related Features

Data Communications

TMS Reports require connection to the USB connector on the CCPU. Refer to the UX5000 *Hardware Manual* for more on setting up and connecting to the UX5000.

Station Message Detail Recording

SMDR provides additional information about the UX5000's trunk calling patterns. Refer to **Station Message Detail Recording** (page 526) for more.

Transfer

Feature Availability

- Available.

Description

Transfer permits an extension user to send (i.e., extend) an active Intercom or outside call to any other extension in the UX5000. With Transfer, any extension user can quickly send a call to the desired co-worker. A call a user transfers automatically recalls if not picked up at the destination extension. This assures that users do not lose or inadvertently abandon their transfers. While a transferred call is ringing an extension the UX5000 can optionally play ringback tone or Music on Hold to the caller.

The UX5000 allows the following types of transfers:

- **Screened Transfer**
The transferring user announces the call to the destination before hanging up
- **Unscreened Transfer**
The transferring party extends the call without an announcement.
- **Extension (Department) Groups Transfer**
The Transferring party sends the call to a Department instead of an extension.
- **Transfer Without Holding**
A user presses a busy line key and waits for the call to complete. The UX5000 automatically sends them the call when the internal caller hangs up.

Automatic On-Hook Transfer Operation

With Automatic On-Hook Transfer, a Transfer goes through as soon as the transferring user hangs up. For example, extension 304 can answer a trunk, press HOLD, dial 305 and hang up. The UX5000 extends the call to extension 305. Without Automatic On-Hook Transfer, the call would stay on Hold at extension 304 when the user hangs up. To extend the call, the user at extension 304 would have to press CONF or a Transfer function key before hanging up.

Each method has advantages. Automatic On-Hook Transfer makes transferring calls easier. However, users have to be more aware of how they handle their calls on Hold. Without Automatic On-Hook Transfer, extending a call becomes a two-step operation - but separate from placing calls on Hold.

Prevent Recall of Transferred Call

The Class of Service program has an option that will allow you to prevent a Transferred call from recalling the originating extension if the call is not answered.

Transfer Call into Conference/Existing Call

This feature allows either a keyset or single line terminal user with Barge In capability the ability to transfer a call into an existing call. This call can be a 2-party call, a Conference call, or a Barge In Conference. The UX5000 allows Intercom, analog trunk, ISDN trunk and H.323 trunk calls to be transferred into a Conference call. This would allow, for example, an attendant to locate co-workers and then transfer them into an existing telephone meeting. There is no need for the attendant to locate all the parties at the same time and sequentially add them into the Conference.

This feature is not supported across a network or with S-Bus ports (this includes transferring an S-Bus call into a conference or transferring a call into a conference which includes an S-Bus port).

Transfer to Trunk Ring Group Available

Software allows a user to transfer a DID or trunk call to the trunk's defined ring group (defined in **Program 22-05-01 : Incoming Trunk Ring Group Assignment**). The trunk will then ring the defined extensions for the ring group.

This also allows the transferred call to ring over the External Paging (**Program 31-05 : Universal Night Answer/Ring Over Page**) so that an employee can answer the call from any available terminal.

To enable this feature, the UX5000 has a program option, **Program 11-15-09 : Service Code Setup Administrative (for Special Access) - Transfer to Trunk Ring Group Code**. When a call is transferred using this service code, it's transferred to the ring group destination for that incoming trunk. For example, trunk 2 is in Ring Group 4. When the call is transferred using this service code, the trunk will ring all extensions programmed for Ring Group 4 or ring the External Paging Group for Ring Group 4, depending on how the UX5000 is programmed.

Program 22-04-01 : Extension Ring Group Assignment and **Program 22-05-01 : Incoming Trunk Ring Group Assignment** must be programmed to allow an extension access to the ring groups. If the call is not answered, it can overflow to the destination defined in **Program 22-08-01 : DIL/IRG No Answer Destination**.

This service code can also be used with the VRS. This provides the caller listening to the VRS message with the ability to transfer their call and have it ring the external page. The code the caller would dial is defined in **Program 25-06-02 : VRS/DISA One-Digit Code Attendant Setup**.

Step Transfer for Automatic Trunk-to-Trunk Transfer Feature

With the Automatic Trunk-to-Trunk Transfer feature, if the destination to which a trunk has been transferred receives no answer (following the timer set in Program 24-02-12), the UX5000 can then automatically Step Transfer the call to a new destination. Up to 8 different destination numbers can be defined (Program 14-01-26).

Notes:

- With DID trunks, if the DID Transfer Destination (Program 22-11-04) is allowed, if the Automatic Trunk-to-Trunk Transfer programming is defined, the DID trunks will follow the Step Transfer.
- If the Step Transfer reaches the last defined destination for a call and there is still no answer, the call will continue to ring the last number - it will not restart dialing the first destination.

Conditions

None

Default Setting

Enabled.

Programming

- **11-10-06 : Service Code Setup (for System Administrator) - Setting the Automatic Forwarding for Each Trunk Line**

If the default service code (833) for enabling the Automatic Tandem Trunking feature is not acceptable, change the code as required.
- **11-12-58 : Service Code Setup (for Service Access) - Transfer into Conference**

Use this program to assign the code users dial to Transfer a call into a Conference call. This code is normally 124.
- **11-15-09 : Service Code Setup Administrative (for Special Access) - Transfer to Trunk Ring Group Code**

When a call is transferred using this service code, it's transferred to the ring group destination for that incoming trunk. For example, trunk 2 is in Ring Group 4. When the call is transferred using this service code, the trunk will ring all extensions programmed for Ring Group 4 or ring the External Paging Group for Ring Group 4, depending on how the UX5000 is programmed.
- **14-01-26 : Basic Trunk Data Setup - Automatic Trunk to Trunk Transfer Mode**

For each trunk, enable (1) or disable (0) the Step Transfer function when using the Automatic Trunk-to-Trunk Transfer feature. If this option is disabled, the call will be forwarded to the first specified destination only.
- **15-02-05 : Multi-Line Terminal Basic Data Setup - Transfer Key Operation Mode**

Use this option to set the operating mode of the extension's CONF key. The keys can be for Call Transfer (0), Serial Calling (1) or Flash (2). When selecting the Flash option, refer also to Program 81-01-14.
- **15-02-24 : Multi-Line Terminal Basic Data Setup, Conference Key Mode**

This option allows an extension's CONF key to be programmed for Conference or for Transfer. When set for Transfer (1), the user places a call on hold, dials the extension to which it should be transferred, the presses the CONF key. The call is then transferred. When set for Conference (0), with an active call, the user presses the CONF key, places a second call, then presses the CONF key twice. All the calls are then connected.
- **15-07-01 : Programmable Function Keys**

Extension users may want a function keys programmed for Transfer (code 06).
- **20-02-01 : System Options for Multi-Line Terminals - Retrieve the Line After Transfer**

Enable (1) or disable (0) an extension's ability to answer a call after it's been transferred, but before it's answered.
- **20-03-01 : System Options for Single Line Terminals - SLT Call Waiting Answer Mode**

For a busy single line (500/2500 type) terminals, set the mode used to answer a camped-on trunk call:

 - 0 = Press and release hookswitch to pick up waiting call
 - 1 = Press and release hookswitch and dial Service Code 894 to answer waiting call
- **20-29-01 : Timer Class for Extensions**

Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**

Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **20-06-01 : Class of Service for Extensions**

Assign a Class Of Service (1-15) to extensions.

- **20-11-06 : Class of Service Options (Hold/Transfer Service) - Unscreened Transfer**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to use Unscreened Transfer.
- **20-11-07 : Class of Service Options (Hold/Transfer Service) - Transfer Without Holding**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to use Transfer Without Holding.
- **20-11-08 : Class of Service Options (Hold/Transfer Service) - Transfer Display**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's incoming Transfer pre-answer display.
- **20-11-11 : Class of Service Options (Hold/Transfer Service) - Automatic On Hook Transfer**
In an extension's Class of Service (1-15), enable (1) or disable (0) the extension's ability to use Automatic On Hook Transfer. If enabled, user must press HOLD and dial the extension number to Transfer the call. If disabled, a user must have a Transfer Programmable Function Key. To transfer the call, the user would press HOLD, dial the extension number, then press the Transfer Programmable Function key to complete the transfer.
- **20-11-18 : Class of Service Options (Hold/Transfer Service) - Transfer Recall On Receiving COS**
Allow (0) or deny (1) unanswered Transferred calls to the COS from recalling the originating extension.
For example, with this option set to '1' for COS 1, calls transferred by any COS to any extension with a COS of 1, will not recall.
- **20-11-20 : Class of Service Options (Hold/Transfer Service) - Transfer Recall On Originating COS**
Allow (0) or deny (1) unanswered Transferred calls from the COS from recalling the originating extension.
For example, with this option set to '1' for COS 1, any call transferred by an extension with COS 1, will not recall.
- **20-13-10 : Class of Service Options (Supplementary Service) - Barge In Mode**
In an extension's Class of Service (1-15), enable the Barge In Speech Mode (0) at the initiating extension (i.e., Barge In initiator). This is required in order to transfer a call into a conference.
- **20-13-15 : Class of Service Options (Supplementary Service) - Barge In Initiate**
In an extension's COS, enable (1) or disable (0) the extension's ability to Barge In to a call.
- **20-13-16 : Class of Service Options (Supplementary Service) - Barge In Receive**
In an extension's COS, enable (1) or disable (0) the extension's ability to receive a Barge In on a call.
- **20-13-17 : Class of Service Options (Supplementary Service) - Barge In Tone/Display**
Enable (1) or disable (0) the Barge In Tone. If disabled, this also turns off the Barge In display at the called extension. As this option is for extensions and trunks don't have an option for a Barge In Tone, the tone will be sent to the trunks based on the Class of Service of the transferring extension.
- **20-13-32 : Class of Service Options (Supplementary Service) - Multiple Barge In**
Enable (1) or disable (0) the extension's ability to have multiple user's Barge In to their conversation.
- **20-14-11 : Class of Service Options For DISA/E&M - DISA/Tie Trunk Barge In**
Determine if DISA and tie trunk users should have the ability to dial a service code to Barge In to a Conference call (0=disabled, 1=enabled).
- **20-15-09 : Ring Cycle Setup - Callback/Transfer Ring**
Define the ringing cycle for transferred and callbacks (ringing cycle 1-13).

- **20-18-07 : Service Tone Timer - Intrusion Tone Repeat Time**

After a user Barges In, the UX5000 repeats the Barge In tone after this interval. Normally, you should disable this timer by entering 0. (This timer also affect any other types of call interruption features, such as Voice Mail Conversation Recording, Voice Over, etc.)
- **21-01-03 : System Options for Outgoing Calls - Trunk Interdigit Time (External)**

Program how long an extension must wait before using the Barge In feature can be used on a call (this timer waits until this timer expires before putting a call in a talk state). This timer also affects Voice Over.
- **22-04-01 : Incoming Extension Ring Group Assignment**

Assign extensions to ring groups.
- **22-05-01 : Incoming Trunk Ring Group Assignment**

Define a trunk's ring group. When transferring a DID or trunk call to the trunk's defined ring group, the trunk will then ring the defined extensions for the ring group.
- **22-08-01 : DIL/IRG No Answer Destination**

Assign the DIL No Answer Ring Group (1-103) to which an unanswered call should overflow.
- **24-02-01 : System Options for Transfer - Busy Transfer**

Prevent (0) or allow (1) extensions to transfer calls to busy extensions. If disabled, calls transferred to busy extensions recall immediately.
- **24-02-02 : System Options for Transfer - MOH or Ringback on Transferred Calls**

Use these options to enable (0) or disable (1) MOH on Transfer. If enabled (0), a transferred caller hears Music on Hold while their call rings the destination extension. If disabled (1), a transferred caller hears ringback while their call rings the destination extension. For this option to work with voice mail, the transferred call must be an unscreened transfer.
- **24-02-03 : System Options for Transfer - Delayed Call Forwarding Time**

If activated at an extension, Delayed Call Forwarding occurs after this interval (0-64800 seconds). This also sets how long a Transferred call waits at an extension forwarded to Voice Mail before routing to the called extension's mailbox.
- **24-02-04 : System Options for Transfer - Transfer Recall Time**

Set the Transfer Recall Time (0-64800 seconds). An unanswered transferred call recalls to the extension that initially transferred it after this interval. This interval also sets how long a transferred call camps-on to a busy extension.
- **24-02-05 : System Options for Transfer - Transfer to Busy Department Group Recall Timer**

After a trunk is unscreen transferred to a busy Department Group, this timer will start. If the call is not answered, it will recall the originator (0-64800 seconds).
- **24-02-11 : System Options for Transfer - No Answer Timer for Step Transfer**

Define the length of time (0-64800 seconds) the UX5000 will wait before Step Transferring a no-answer call to the next destination.
- **24-02-12 : System Options for Transfer - No Answer Timer for Automatic Trunk-to-Trunk Transfer**

Define the length of time (0-64800 seconds) the UX5000 will wait before Automatic Trunk-to-Trunk Transfer occurs for a no-answer call.
- **24-04-01 : Automatic Trunk-to-Trunk Transfer Target Setup**

Define the Abbreviated Dialing number bin(s) which are to be used as the destination of the Automatic Trunk-to-Trunk Transfer.
- **25-06-02 : VRS/DISA One-Digit Code Attendant Setup**

Define the digit to be used by a VRS caller which will allow their call to be transferred to the external page.

- **31-05-01 : Universal Night Answer/Ring Over Page**
For each trunk which should ring the external page, set the External Page zone (1-9) to allow ringing (1).
- **81-01-14 : COIU Initial Data Setup - Flash (Hooking 1)**
Set the flash duration for analog trunk calls (1-255 in 16ms steps).

Related Features

Barge-In

An existing call can be transferred into a call with Barge-In enabled.

Caller ID

Unscreened Transfers from voice mail will show pre-answer Caller ID information.

Call Forwarding

With Transfer to Busy Extensions enabled (Program 24-02-01=1), Call Forwarding with Both Ringing offers a unique option. A transferred call will wait for either the forwarding or destination extension to become free. The call goes through to whichever extension becomes available first. If neither extension becomes free within the Transfer Recall Time, the call recalls the transferring extension.

Class of Service

The Timer Class of Service may affect a call.

Conference

An existing call can be transferred into a Conference call.

Meet Me Paging Transfer

Page a co-worker and have the call automatically Transfer when the co-worker answers the Page.

One-Touch Calling

When transferring, an extension user can press a One-Touch Programmable Function Key instead of dialing the extension number.

Serial Call

Serial Call is a method of transferring a call so it automatically returns to the transferring extension.

Tandem Trunking

The Tandem Trunking programs may affect the Transfer operation.

Operation

Transferring Trunk Calls

To Transfer a trunk call to a co-worker's extension:

1. At keyset terminal, press HOLD or a defined Transfer key (Pgm 15-07 or SC 851: 06).
If Program 15-03-14 is set to "1", when transferring outside calls to an analog terminal, the Transfer key must be pressed instead of the Hold key if the outside Caller ID is to be displayed. If Hold is used, the extension number of the transferring extension will be displayed.
OR
At 500/2500 single line terminal, hookflash.
You hear Transfer dial tone.
2. Dial co-worker's extension number.
If the extension is busy or doesn't answer, you can dial another extension number or press the line key to return to the call. In addition, you may be able to hang up and have the call Camp-On.
*SLT users can retrieve the call by pressing hookflash. If a call has been transferred and the 500/2500 user has hung up the handset, the call be can retrieved by dialing ** and the extension number to which it had been transferred.*
3. Announce call and hang up.
If you don't have Automatic On Hook Transfer, you must press CONF (Program 15-02-24=1) or your Transfer Programmable Function Key to transfer the call.
If your co-worker doesn't want the call, press the flashing line key to return to the call.
*SLT users can retrieve the call by pressing hookflash. If a call has been transferred and the 500/2500 user has hung up the handset, the call be retrieved by dialing ** and the extension number to which it had been transferred.*
If you don't want to screen the call, hang up without making an announcement.

To answer a call transferred to your extension:

1. Lift the handset when a co-worker announces the call.

Transferring Without Holding

To Transfer without holding (keyset only):

1. Lift handset.
2. Press busy line key.
3. When original caller hangs up, you are connected.

Transferring Intercom Calls

To Transfer your Intercom call:

1. At keyset terminal, press HOLD or a defined Transfer key (Pgm 15-07 or SC 851: 06).
OR
At single line terminal, hookflash.
2. Dial extension to receive your call.
If the extension is busy, doesn't answer or does not want the call, you can dial another extension number or press the lit CALL key to return to the call. In addition, you may be able to hang up and have the call Camp-On.
*SLT users can retrieve the call by pressing hookflash. If a call has been transferred and the 500/2500 user has hung up the handset, the call be can retrieved by dialing ** and the extension number to which it had been transferred.*
3. Announce your call and press the Transfer key (PGM 15-07 or SC 851: 06) or hang up.
With Automatic On Hook Transfer
When you hang up, the call is automatically transferred.
Without Automatic On Hook Transfer
You must press your Transfer Programmable Function Key to Transfer the call.
To Transfer the call unscreened, press your Transfer Programmable Function Key and hang up without making an announcement.

Transferring a Call Into a Conference/Existing Call

1. While on a call, press HOLD and dial service code 124.
The display shows "Transfer to Conf. ICM Dial".
2. Enter the extension number of the co-worker currently on a Conference call to which the call should be transferred.
To cancel the transfer, press the flashing line or CALL key to retrieve the call.
If an error tone is heard, Barge In is not enabled for the extension and the call will not go through. Retrieve the call by pressing the flashing line or CALL key or hang up and the call will recall the extension.
3. The transferred call is incorporated into the Conference call.
The callers hear the Barge In tone if enabled in Program 20-13-17.
If a call is transferred into a Barge In Conference (an existing 2-party call into which an extension user has used the Barge In feature to join), the Conference becomes a regular 4-party Conference call.
4. Hang up.

Transferring a Call to a Trunk Ring Group

1. While on a call, press HOLD.
2. Dial the Transfer to Ring Group service code defined in 11-15-09.
You will hear a confirmation tone.
3. Hang up.
The call is transferred to the trunk's ring group defined in Program 22-05-01 and all assigned extensions in the group (Program 22-04-01) ring or it will ring the External Paging, enabling anyone to answer the call.

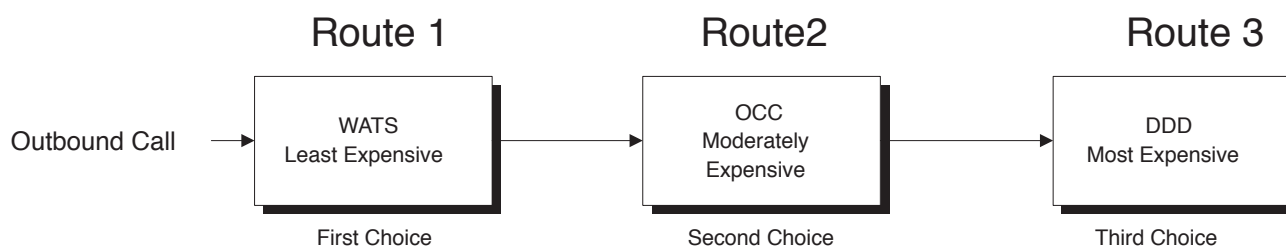
Trunk Group Routing

Feature Availability

- Available - 100 trunk groups and 100 routes.

Description

Trunk Group Routing sets outbound call routing options for users that dial the Trunk Group Routing code (9) for trunk calls. Trunk Group Routing routes calls in the order specified by UX5000 programming. If a user dials 9 and all trunks in the first group are busy, the UX5000 may route the call to another group. When you're setting up your UX5000, Trunk Group Routing will help you minimize the expense of toll calls. For example, if your UX5000 has outbound WATS lines, OCC lines and DDD lines, use Trunk Group Routing to route calls to the WATS lines first.



Conditions

None

Default Setting

Enabled. All trunks are in Group 1.

Programming

- **11-01-01 : System Numbering**
Set up a Service Code for Alternate Trunk Route Access.
- **11-09-01 : Trunk Access Code**
If required, change the single-digit Trunk Access Code (normally 9). If you change this code, you must also review the settings in 11-01 for the new code selected.
- **11-09-02 : Trunk Access Code - Alternate Trunk Route Access Code**
Assign the Service Code set up in 11-01 for Alternate Trunk Route Access.
- **14-05-01 : Trunk Groups**
Assign trunks to trunk groups (1-100).
- **14-06-01 : Trunk Group Routing**
Set up an outbound routing table (1-100) for trunk groups assigned in Program 14-05.
- **14-07-01 : Trunk Access Map Setup**
Access Map programming (maps 1-200) may limit Trunk Group Routing options.
- **15-06-01 : Trunk Access Map for Extensions**
Access Map programming (maps 1-200) may limit Trunk Group Routing options.
- **15-07 : Programming Function Keys**
Assign a function key for Trunk Group Routing access (code *02 + trunk group #).
↔ Trunk Groups: 1-100

- **21-02-01 : Trunk Group Routing for Extensions**
Assign the routes (1-100) set in Program 14-06 to extensions.
- **21-15-01 : Alternate Trunk Route for Extensions**
Designate the trunk route (1-100) accessed when a user dials the Alternate Trunk Route Access Code assigned in Program 11-09-02. Trunk Group Routing is set up in Program 14-06.
- **23-03-01 : Universal Answer/Auto Answer**
Assign trunk routes (1-100) set in Program 14-06 to extensions for Universal Answer. If the call ringing the paging system is in an extension's assigned route, the user can dial the Universal Answer code (#0) to pick up the call. This program also allows an extension user to automatically answer trunk calls ringing other extensions, based on Trunk Group Routing programming (defined in Program 14-06).
- **25-10-01 : Trunk Group Routing for DISA**
Assign the Trunk Group Route (1-100) chosen when a user places a DISA call into the UX5000 and dials 9. The Trunk Group Routing is defined in Program 14-06. If the UX5000 has ARS, dialing 9 accesses ARS. The route chosen is based on the DISA Class of Service, which is determined by the password the caller dials.
- **25-12-01 : Alternate Trunk Group Routing for DISA**
Define the trunk route (1-100) selected when a DISA caller dials the Alternate Trunk Access Code assigned in Program 11-09-02. The route selected is based on the DISA caller's Class of Service, which is in turn determined by the password the caller dial. Program 14-06 is used to set up the Trunk Group Routing.
- **34-03-01 : Trunk Group Routing for E&M Tie Lines**
Use this program to assign the Trunk Group Route (1-100) chosen when a user seizes a tie line and dials 9. Set Trunk Group Routing in Program 14-06. If the UX5000 has ARS, dialing 9 accesses ARS.

Related Features

Automatic Route Selection (ARS)

Dialing 9 activates ARS, overriding trunk group routing.

Central Office Calls, Placing

Instead of using Trunk Group Routing, an extension user can place a trunk call by:

- Pressing a line key
- Dialing a trunk service code
- Pressing a trunk group key (refer to the Trunk Group feature)
- Dialing a trunk group service code (refer to the Trunk Group feature).

Data Communications / Direct Inward System Access (DISA) / Tie Lines

DISA (Program 25-10) and tie lines (Program 34-03) have separate Trunk Group Routing programs.

Dial Tone Detection

Refer to this feature for the specifics on how the UX5000 handles Dial Tone Detection.

Programmable Function Keys

Programmable Function Keys simplify placing calls using Trunk Group Routing.

Ringing Line Preference

The UX5000 uses Trunk Group Routing programming (Program 14-06) when setting up Ringing Line Preference.

Trunk Groups

Use trunk group programming to set the order in which users access trunks within a specific trunk group.

Trunk Group Routing

Operation

To place a call using Trunk Group Routing:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 9.
3. Dial number.
OR
1. At keyset, press Trunk Group Routing key (PGM 15-07 or SC 852: *05).
Also see the “Loop Keys” feature.
2. Dial number.

Feature Availability

- Available - 100 trunk groups.

Description

Trunk Groups let you optimize trunk usage for incoming and outgoing calls. With Trunk Groups, users can have loop (rotary) keys for trunk calls. Incoming trunk group calls ring these loop keys. For outgoing calls, the user presses a loop key to access the first available trunk within the group. You set the access order in trunk group programming.

Loop keys give an extension user more available function keys, since the user doesn't need a separate line key for each trunk. The user only needs one loop key for each trunk group. This simplifies placing and answering calls.

Like Trunk Group Routing, Trunk Groups help you minimize the expense of toll calls. For example, if your UX5000 has outbound WATS lines, OCC lines and DID lines, program the trunk group to route to the WATS lines first.

Priority	Type of Trunk
1	WATS
2	OCC
3	DDD

Conditions

None

Default Setting

All trunks are in group 1.

Programming

- **10-09-01 : DTMF and Dial Tone Circuit Setup**
Allocate the circuits on the CPU or DSPDB Blades for either DTMF receiving or dial tone detection.
- **14-02-11 : Analog Trunk Data Setup - Next Trunk in Rotary if No Dial Tone**
Use this option to enable/disable the UX5000's ability to skip over a trunk if dial tone is not detected. This pertains to calls using Loop Keys, Speed Dial, ARS, Last Number Redial, or Save number Dialed (0=disabled, 1=enabled). It does not pertain to line keys or Direct Trunk Access calls.
- **14-05-01 : Trunk Groups**
Assign trunks to trunk groups (1-100).
- **14-06-01 : Trunk Group Routing**
Set up an outbound routing table for the trunk groups you assigned in Program 14-05. When users dial 9, the UX5000 routes their calls in the order (priority) you specify.
⇨ Trunk Groups: 1-200, Trunk Group Routes: 1-100
- **14-07-01 : Trunk Access Map Setup**
Assign trunks to Access Maps (1-200).

Trunk Groups

- **15-06-01 : Trunk Access Map for Extensions**
Assign Access Maps (1-200) to extensions.
- **15-07-01 : Programmable Function Keys**
Assign function keys for trunk group access (code *02 + group) or loop keys (code *05 + 0=incoming, 1=outgoing, 2=both + trunk group. If loop keys are used, assign the loop key to a trunk group in Program 15-13.
⇨ Trunk Groups: 1-100
- **15-13-01 : Loop Keys - Outgoing**
Assign trunk groups for outgoing loop keys (0=ARS, Trunk Groups 1-100).
- **15-13-02 : Loop Keys - Incoming**
Assign trunk groups for incoming loop keys (0=all Trunk Groups, Trunk Groups 1-100).
- **20-02-02 : System Options for Multi-Line Terminals - Trunk Loop Access Key Operating Mode**
Set the operating mode of the extension's trunk group keys (Incoming and Outgoing Access = 0, Outgoing Access = 1, Incoming Access = 2).
- **21-01-02 : System Options for Outgoing Calls - Dial Tone Detection Timer**
If dial tone detection is enabled, the UX5000 will wait this interval for the telco to return dial tone. When the interval expires, the UX5000 assumes dial tone is not present. To disable this timer (and have the UX5000 wait continuously), enter 0.
- **21-02-02 : Trunk Group Routing for Extensions**
Assign the routes defined in Program 14-06 to extensions.

Related Features

Abbreviated Dialing

Unless a user preselects a trunk, Trunk Group programming selects the trunk Abbreviated Dialing users for trunk calls.

Automatic Route Selection

If a user dials a number that is not programmed in ARS, the UX5000 can route the call to a trunk group.

Central Office Calls, Placing

Instead of using Trunk Groups, an extension user can place a trunk call by:

- Pressing a line key
- Dialing a trunk access code
- Dialing a Trunk Group Routing code (9) - refer to the Trunk Group Routing feature

Dial Tone Detection

Refer to this feature for the specifics on how the UX5000 handles Dial Tone Detection.

Direct Inward Dialing (DID)

All DID trunks of the same type should be placed in the same trunk group. These trunk groups must then be assigned to a DID Translation Table.

Loop Keys

Program a function key as a Loop Key to allow an extension user to answer incoming trunks within a trunk group.

Programmable Function Keys

Function keys simplify placing and answering trunk group calls.

Ring Groups

Trunks ring extensions according to Ring Group programming.

Tie Lines

To simply placing calls over your tie lines, you can put the tie lines in a trunk group.

Trunk Group Routing

Trunk Group Routing sets outbound call routing options for users that dial the Trunk Group Routing code (9) for trunk calls.

Operation

To place a call over a trunk group:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 804.
3. Dial trunk group number (1-9 or 001-100).
4. Dial number.
OR
 1. Press trunk group key (PGM 15-07 or SC 852: *02 + group)
 2. Dial number.

To answer an incoming trunk group call:

1. Lift handset.
2. Press flashing trunk group key.

Trunk Queuing/Camp On

Feature Availability

- Available.

Description

Trunk Queuing permits an extension user to queue (wait in line) on hook for a busy trunk or trunk group to become free. The UX5000 recalls the queued extension as soon as the trunk is available. The user does not have to manually retry the trunk later. Trunk Queuing lets the caller know when the call can go through. If the extension user does not answer the Trunk Queuing ring, the UX5000 cancels the queue request.

With Trunk Camp On, an extension user can queue (wait in line) *off hook* for a busy trunk or trunk group to become free. The caller connects to the trunk when the trunk becomes free. As with Trunk Queuing, the user does not have to manually retry the trunk later.

Any number of extensions may simultaneously queue or Camp On for the same trunk or trunk group. When a trunk becomes free, the UX5000 connects the extensions in the order that the requests were left.

Conditions

None

Default Setting

Enabled.

Programming

- **15-07-01 : Programmable Function Keys**
Assign a function key for Trunk Queuing and Trunk Camp On (code 35).
- **20-01-08 : System Options - Trunk Queuing Callback Time**
Set the Trunk Queuing Callback Time (0-64800 seconds). Trunk Queuing Callback rings an extension for this interval.
- **20-01-09 : System Options - Callback/Trunk Queuing Cancel Time**
Set the Callback/Trunk Queuing Cancel Time (0-64800 seconds). The UX5000 cancels an extension's Callback or Trunk Queuing request after this interval.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-11-07 : Class of Service Options (Hold/Transfer Service) - Transfer Without Holding**
Disable (0) an extension's ability to use Transfer Without Holding.
- **20-29-01 : Timer Class for Extensions**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to an extension. You make 8 entries for this program - one for each Night Service Mode. This entry can also be used for virtual extension numbers.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).

Related Features

Automatic Route Selection

With Automatic Route Selection, Trunk Queuing automatically queues for the least costly route.

Call Waiting/Camp On and Callback

A user can Camp On or leave a Callback request for an extension.

Central Office Calls, Placing

Other programmed options for outgoing calls can affect how a call is placed. Check or program these options as needed (ex: access, line/loop keys, etc.).

Programmable Function Keys

Function keys simplify Trunk Queuing operation.

Operation

To queue for a busy trunk:

1. Try to access busy trunk.
2. Dial 2 or press Trunk Queuing/Camp On key (PGM 15-07 or SC 851: 35).
3. Hang up to leave a Trunk Queuing request.
OR
Wait off hook to Camp On to the trunk.

To answer when Trunk Queuing calls you back:

1. Lift handset.

To cancel a Trunk Queuing/Camp On request:

1. At keyset, press idle CALL key.
OR
At single line terminal, lift handset.
2. Dial 870.
3. At keyset, press SPK to hang up.
OR
At single line terminal, hang up.

Universal Answer

Please refer to *Central Office Calls, Answering* (page 179) for information on this feature.

Feature Availability

- Available

Description

Voice Mail ends the frustration and cost of missed calls, inaccurate written messages and telephone tag. This frees a company's busy receptionists and secretaries for more productive work.

For complete details on the voice mail options, refer to the following manuals:

- UX5000 IntraMail Manual (P/N 0913240)
- UX5000 UXMail Manual (P/N 0913250)
- UX5000 Multibutton Feature Handbook (P/N 0913400)
- UX5000 Multibutton Quick Reference Guide (P/N 0913401)

Voice Over

Feature Availability

- Available.

Description

- Important -

Do not use Voice Over to a user on speakerphone as the conversation may be heard by the outside party.

Voice Over lets a user interrupt a keyset extension user busy on another call. With Voice Over, the busy keyset extension user hears an alert tone followed by the voice of the interrupting party. The keyset extension user can respond to the interrupting party without being heard by the original caller. If desired, the keyset extension user can easily switch between their original caller and the interrupting co-worker. The original caller and the interrupting party can never hear each other's conversation.

Voice Over could help a lawyer, for example, waiting for an urgent call. While on a call with another client, the lawyer's paralegal could announce the urgent call as soon as it comes in. The lawyer could then give the paralegal instructions how to handle the situation - all without the original client hearing the conversation.

Either a keyset or 500/2500 set user can initiate a Voice Over, but only a keyset user can receive a Voice Over.

To enable Voice Over, a keyset should have a function key programmed for Voice Over. In addition to one-touch Voice Over operation, the key shows the Voice Over status as follows:

When the key is . . .	You are . . .
Off	Not using Voice Over
Flashing	Listening to the interrupting party
On	Responding to the interrupting party

Conditions

- While active, Voice Over uses a Conference circuit on a CPU. Refer to the Conference feature for Conference circuit programming.
- Voice Over can interrupt a trunk call only if the trunk has been set up for at least six seconds.

Default Setting

Disabled.

Programming

- **10-03-03 : Blade Setup, For SLIU Unit - Transmit Codec Gain Type**
10-03-04 : Blade Setup, For SLIU Unit - Receive Codec Gain Type
Customize the transmit and receive levels of the Codec Gain Types for 500/2500 type single line terminals.
- **11-12-41 : Service Code Setup (for System Access) - Voice Over**
If required, change the service code used for the Voice Over feature (default: 890).
- **15-07-01 : Programmable Function Keys**
Assign a function key for Voice Over (code 48).
- **20-02-05 : System Options for Multi-Line Terminals - Headset Busy Mode**
Set the conditions under which a headset extension is busy to incoming callers:
 - The Headset extension is busy to incoming callers when **only one** extension appearance is busy (0).
 - OR
 - Headset extension is busy to incoming callers only when **both** extension appearances are busy (1).When using a headset, this program must be set to “1” to allow voice over’s to be received.
- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-13-06 : Class of Service Options (Supplementary Service) - Automatic Off Hook Signaling**
In an extension’s Class of Service (1-15), enter 1 if you want callers to a busy extension to hear Voice Over (busy/ring) tone. Enter 0 if you want callers to hear busy tone. (The caller must then dial 7 to hear Voice Over tone).
- **21-01-03 : System Options for Outgoing Calls - Trunk Interdigit Time (External)**
Program how long an extension must wait before using the Voice Over feature can be used on a call (this timer waits until this timer expires before putting a call in a talk state). This timer also affects Barge In.

Related Features

Conference

An extension user cannot Voice Over to another extension user in a Conference.

Handsfree and Monitor

Do not use Voice Over to a user on speakerphone as the conversation may be heard by the outside party.

Off Hook Signaling

When a user calls an extension busy on a call, they can send an off hook signal indicating they are trying to get through.

Programmable Function Keys

Answering a Voice Over requires a uniquely programmed Voice Over key.

Single Line Terminals

Single line terminals can only initiate Voice Over.

Transfer

If you place a call on Hold and then Voice Over to a busy extension, the call on Hold will not Transfer to the busy party when you end the Voice Over.

Voice Over

Operation

To initiate a Voice Over to a busy extension:

If you hear busy instead, you may be able to dial 7 and hear Voice Over (busy/ring) tone.

1. Press Voice Over key (PGM 15-07 or SC 851: 48)
OR
Dial 6.
OR
Dial 890.

You hear an alert tone and the Voice Over key flashes. You can talk to the called party after the alert tone ends.

In order to use Service Code 890 for Voice Over, Program 11-16-09 (Voice Mail Service Code) must be undefined.

To respond to a Voice Over alert tone to your extension:

You can only respond if you have a Voice Over key.

1. Press and hold flashing Voice Over key.
*The Voice Over key lights steadily (green) and you can talk to the interrupting party.
You cannot respond by dialing the Voice Over Service Code (6).*

To return to your original call:

1. Release Voice Over key.
*Your Voice Over key flashes when you are talking to your original call.
To switch between your original call and the interrupting party, just keep pressing the Voice Over key.*

Feature Availability

- Available - 16 Channels (shared with voice mail).

Description

The IntraMail daughter board provides the option for Voice Response System (VRS) which gives the UX5000 voice recording and playback capability. The VRS CompactFlash card provides up to 100 system messages (General Message, Automated Attendant greetings, ACD messages, and the 900 Preamble). In addition, the Personal Greeting and Park & Page options can have messages (note that the Park & Page feature uses 2 messages). This enhances the UX5000 with:

- **General Message** - provides a prerecorded message to which any user can listen
- **Personal Greeting** - lets an extension user record a message and forward their calls. Callers to the extension hear the recorded message and are then redirected.
- **Park and Page** - parks a call at an extension and automatically pages the user to pick it up
- **Automated Attendant (Operator Assistance)** - answers incoming calls, plays a greeting to the caller and then lets the caller directly dial a system extension
- **ACD Messages** - provides announcement and overflow messages for ACD groups
- **Transfer to the VRS** - any extension user can Transfer their outside call to the VRS
- **Voice Prompting Messages** - plays call and feature status messages to users
- **900 Preamble** - alerts callers using 900 lines of the cost and features of the “pay-per-call” service
- **Time, Date and Station Number Check** - lets a keyset extension user quickly hear a recording for the time, date, or the extension’s number.

VRS Messages

The VRS allows you to record up to 100 VRS messages. You allocate these messages for Automated Attendant greetings, the General Message, ACD messages and the 900 Preamble message.

Any on-premise extension caller can listen, record and erase VRS Messages (unless restricted in programming). DISA and DID callers can listen and record VRS messages (unless restricted in programming).

Feature Availability

- Available - 512 IP extensions maximum, 128 IP trunks maximum.
- The UX5000 provides a maximum of 32, 64, or 128 VoIP channels (depending on the VOIPDB used).
- IP terminals using the Lock button must be programmed to allow emergency numbers (such as 911) to be dialed. Refer to the 911 section (page 622) of this feature for details.

Description

VoIP (voice over Internet protocol or voice over IP) allows the delivery of voice information using the Internet protocol (sending data over the Internet using an IP address). This means that voice information, in a digital form, can be sent in packets over the Internet rather than using the traditional public switch telephone network (CO lines). A major advantage of VoIP and Internet telephony is that it avoids the tolls charged by ordinary telephone service.

Using VoIP equipment at a gateway (a network point that acts as an entrance to another network), the packetized voice transmissions from users within the company are received and routed to other parts of the company's intranet (local area or wide area network) or they can be sent over the Internet using CO lines to another gateway.¹

The UX5000 VoIP supports H.323 trunks and compressions of G.711, G.722, G.723.1, G.726, G.729AB, and iLBC. The UX5000 is IEEE 802.3af compliant for PoE.

Note: G.723 is not supported with SIP multiline terminals.

Program Available for Gain Setup of VOIPDB Daughter Board

The UX5000 software provides an option to adjust the gain setting for the VOIPDB daughter board.

Calling Party Number Setup for Trunks and Extensions

The UX5000 provides two programs which allow the programmed entry of the Calling Party Number. These entries determine the information displayed when VoIP trunks and extensions are used.

Using LANs

Using a LAN setup (local area network) with the UX5000 complies with the ethernet standard (10Base-T/100Base-TX).

To connect a terminal to a LAN connection, the UX5000 allows the use of an UX5000 digital IP keyset, SIP terminal.

If connecting a LAN to a WAN (wide area network), follow the instructions included with the ADSL modem or gateway device.

1. The voice quality of VoIP is dependent on variables such as available bandwidth, network latency and Quality of Service (QoS) initiatives, all of which are controlled by the network and internet service providers. Because these variables are not in NEC's control, it cannot guarantee the performance of the user's IP-based remote voice solution. Therefore, NEC recommends connecting VoIP equipment through a local area network using a Private IP address.

IP Address

Equipment/devices used in the UX5000 LAN setup must have an IP address assignment. An IP address assigns a unique address for each device. There are two types of IP addresses: Private and Global. A Private IP address is not accessible through the internet - a Global IP address can be accessed through the internet.

With a Private IP address, with equipment that does not access the internet directly, addresses can be assigned to the equipment within Class A, B or C by assigning a number within the class's range of numbers.

Class	Allowed IP Address	Recommended Environment
A	10.0.0.0 ---10.22.255.255	Large Scale Network
B	172.16.0.0 --- 172.31.255.255	Mid Scale Network
C	192.168.0.0 --- 192.168.255.255	Small Scale Network

With a Global IP Address, connected equipment can be accessed through the internet, so each address must be unique. To avoid a conflict, the addresses are controlled by ARIN (American Registry for Internet Numbers). To obtain a Global IP Address, contact ARIN or apply with your local ISP (internet service provider).

The first one to three groups of numbers (depending on the subnet mask) identify the network on which your computer is located. The remaining group(s) of numbers identify your computer on that network.

Subnet Mask

As the IP Address includes information to identify both the network and the final destination, the Subnet Mask is used to set apart the network and destination information.

The default subnet masks are:

Class	Default Subnet Mask
A	255.0.0.0
B	255.255.0.0
C	255.255.255.0

In the above table, you'll see that the Subnet Mask is made up of four groups of numbers. When a group contains the number '255', this is telling the router to ignore or mask that group of numbers in the IP address as it is defining the network location of the final destination. So, for example, if the IP Address were: 172.16.0.10 and the Subnet Mask used was Class B (255.255.0.0), the first two groups of numbers (172.16) would be ignored once they reached the proper network location. The next two groups (0.10) would be the final destination within the LAN to which the connection is to be made.

DHCP

DHCP (Dynamic Host Configuration Protocol) is a protocol which assigns a dynamic IP Address. Network control may be easier with DHCP as there is no need to assign and program individual IP Addresses for the LAN equipment. To use a dynamic IP Address, a DHCP server must be provided - either the DHCP server in the UX5000 can be used or an external server.

When equipment which is connected to the LAN (the DHCP client) is requesting an IP Address, it searches the DHCP server. When the request for an address is recognized, the DHCP server assigns an IP Address, Subnet definition, and the IP Address of the router, etc., based upon the UX5000 programming.

When the UX5000 is used as the DHCP server, note the following:

- The DHCP client must have a direct connection to the same network - a router cannot be used between the UX5000 and the terminal.
- No other DHCP servers can be on the network.
- No UX5000 reset is required when enabling/disabling DHCP.
- IPv6 is not supported with DHCP. It is unnecessary as an IP address is automatically prepared in IPv6 by the exchange between the terminal and a router.
- It's possible that an IP address may be repeated prior to the lease time expiring. When an IP address is leased and the maintenance data of the DHCP is cleared, duplication may occur of the IP address assigned until the lease time expires.

Note that the CPU must always have a static IP address. This address is set in **Program 10-12-01 : CPU (FECL) Network Setup - IP Address** (default: 172.16.0.10).

Gatekeeper

Whenever an H.323 terminal activates, a check is made of the network to see if there are any gatekeepers available. When a gatekeeper is present, it provides users with:

- **Address Translation**
Users typically do not know the IP addresses of other terminals. When a user makes a call, the gatekeeper translates an alias address (name or number) to the destination address.
- **Admissions Control**
Users will not all be able to access the network at the same time because of limited shared resources. Gatekeepers may restrict network access based on call authorization, bandwidth usage, or some other criteria. It is important to note that Admissions Control is a way to preserve the integrity of the calls (provide QoS guarantees) that are already up and operating when a user requests access.
- **Bandwidth Control**
Besides network access control, the gatekeeper offers network managers the ability to restrict or assign bandwidth to different applications along certain protocol conventions. This is another place network managers can enforce QoS guarantees and other enterprise-wide usage policies.

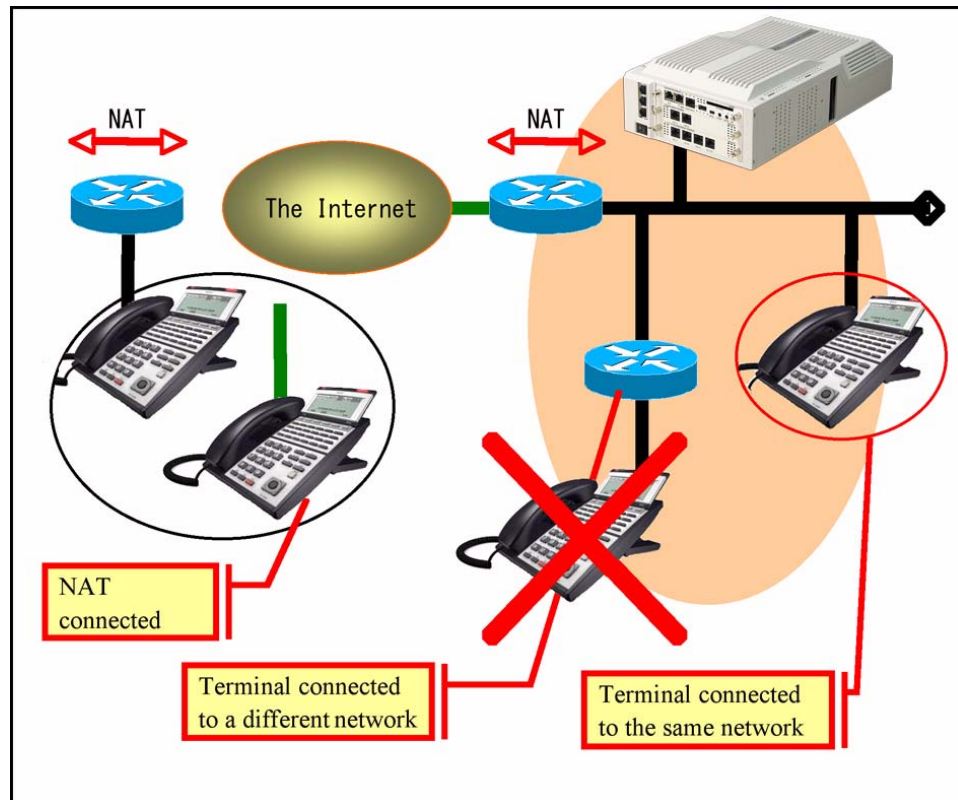
Routers

When purchasing a router for use with the UX5000 IP feature, the minimum requirements would be that it provide VPN and QoS. Note that a router which supports 'VPN Pass Through' requires a VPN server. Current VoIP protocols for the UX5000, NGT terminals can communicate over NAT, however multiple NAT routers on a network are not supported. The following NAT connections are possible:

- UX5000 (with local IP address) → NAT Router → Internet → NAT Router → IP terminal (with local IP address)

- UX5000 (with global IP address) → Internet → NAT Router → IP terminal (with local IP address)
- UX5000 (with local IP address) → NAT Router → Internet → IP terminal (with global IP address)

When the UX5000 is connected to a NAT router, the terminals connected to the LAN must be on the same network domain.



The priority control feature is required to prevent RTP packet loss. If a WAN is used for VoIP only and the bandwidth is wide enough for the VoIP channel, then the QoS feature might not be required.

The following are available routers which provide VPN and QoS:

- NEC IX1000 / 2000 Series
- Yamaha RT105, RTX1000 / 2000
- Cisco 800 Series
- Furukawa FITElnet - F40
- Fujitsu SiR-170, SiR-150

The following routers provide VPN but no priority control (QoS):

- Linksys BEFSX41, DEFVP41
- OMRON MR104DV, MR104FH
- Allied Telesis AR410

VoIP Bandwidth Calculation

A digital communications server converts an analog voice signal into a stream of bits expressed in K bits per second (where K is used to mean one thousand). For standard PCM digital encoding, this stream of bits is 64 K bits per second. This is 64 K bps in each direction (transmit and receive).

To improve transmission efficiency, this bit stream is compressed using a standard compression algorithm such as G.729. The result is still a bit stream, but with fewer bits per second. For example, G.729 will reduce the 64 K bits per second to a bit stream of 8 K bits per second.

This bit stream is then divided into chunks (called Voice Samples or Voice Frames) that can be placed in packets for transmission over a data network.

This reduced bit stream is examined repeatedly in fixed time intervals. This examination time is called the Voice Frame Interval. This is the time used to collect the bits for one Voice Frame. The Voice Frame Interval is expressed in milliseconds (ms). A millisecond is one thousandth of a second.

To help determine the bandwidth requirements for the UX5000, the NEC Technical Support web site (<http://ws1.necii.com>) provides a bandwidth calculator. This web site requires registration with the NEC Sales Support. Contact them by phone (1-800-365-1928) or EMail (ubsdsupport@necinfrontia.com) in order to register. It is important to remember that the bandwidth calculator is based on a single voice channel. It takes two voice channels (send and receive) for each telephone conversation.

Refer to **Bandwidth Setting for UX5000** (page 652) for additional information.

IP Hardware

Blades:

- **CCPU** - Signals the gateway with VoIP communication
- **32VOIPDB-A14** - VoIP daughter board provides a 32-channel voice packet gateway unit and works as a media gateway for VoIP communication. A VoIP daughter board is required for VoIP trunks extensions. The 32VOIPDB requires 32 trunk ports.
- **64VOIPDB-A14** - VoIP daughter board provides a 64-channel voice packet gateway unit and works as a media gateway for VoIP communication. A VoIP daughter board is required for VoIP trunks extensions. The 64VOIPDB requires 64 trunk ports.
- **128VOIPDB-A14** - VoIP daughter board provides a 128-channel voice packet gateway unit and works as a media gateway for VoIP communication. A VoIP daughter board is required for VoIP trunks extensions. The 128VOIPDB requires 128 trunk ports.

The number of VoIP channels may be restricted based on the codec and encryption used. Refer to **Codec Selection** (page 624) for additional information.

When installing a VoIP daughter board, the UX5000 allocates the maximum number of trunk ports for the daughter board being installed. For instance, the 4VOIPDB daughter board requires 4 ports, while the 16VOIPDB daughter board requires 16 ports. If the daughter board is not going to be used for trunks, the logical trunk ports can be set to '0' in **Program 10-03-01 : Blade Setup**, but the physical trunk ports are still assigned to the daughter board and cannot be used for any other blade. If the trunk ports will not be used and the trunk port usage is a concern, plug the VOIPDB daughter boards into the UX5000 last. The UX5000 will allow extension ports to be assigned even if there are no trunk ports available. A maximum of 512 IP extensions or 200 IP trunks are possible with the UX5000. The VoIP daughter board is installed onto the UX5000's CCPU.

As long as at least one VOIPDB daughter board is installed, the UX5000 will allow up to 512 IP keysets to be registered.

Terminals:

- SIP Multi-Line Terminal (MLT) (supports standard SIP [RFC3261] and NECi protocol)
SIP MLTs consist of the Value, Enhanced, DESI-Less, IP-CTS terminals, as well as the Softphone and WiFi phones.
- DTerm IP (Protims)
- Standard SIP Terminal
- H.323 Terminal

Trunks:

- SIP Trunk
- H.323 Trunk

Other Possible VoIP Connections:

- Telephone Call Between UX5000s Using CygniLink
- Networked Trunks/Extensions With H.323

Power must be supplied to the IP terminals using either a local or central power supply. If there is a power outage, the VoIP terminals will not work unless the terminals are plugged into a UPS (uninterruptible power supply).

When the first IP terminal is plugged in, the UX5000 automatically assigns the next three consecutive station ports available as IP ports. The next three IP terminals installed will use this group of ports. When the fifth IP terminal is connected, the next 3 consecutive station ports available will be assigned as IP ports.

Switches/Hubs for PoE

Using a central power supply or the Switch Hub (GSWU) blade, power over category 5 network cables can be provided. This eliminates the need of installing separate power adapters for each IP terminal and it allows for centralized power backup.

If PoE (power over ethernet) is to be used to eliminate the separate power adapters, due to the power requirements, a separate power source is suggested. It is recommended that you use one of the central power supplies below:

- 24-port power supply PoE-managed switch (NEC BlueFire 200/24)
 - PoE (Power Over Ethernet) to UX5000 IP/H.323 Terminals
 - Spare Pair (4/5, 7/8) / Signal Pair (1/2, 3/6) Selection
 - For communication servers which require layer 2 switching capability and PoE, the NEC BlueFire 200/24 switch is recommended. This unit provides layer 2 switch capability in addition to being able to supply ethernet power to 24 NEC IP terminals.*
- Cisco Data Switch - CDP Supported

Other manufacturer central power supplies may be usable, but the above items have been tested for compatibility with the UX5000 equipment.

Note: Each IP terminal consumes one port. When automatically selected, the port number ranges from 257-512. The port number can be manually assigned using the port range 001-512.

Use of SIP Protocol Available

SIP (Session Initiation Protocol) is a protocol used for Voice over IP. It is defined by the IETF (Internet Engineering Task Force) in RFC3261. SIP trunking is the term used for linking a PBX, like the UX5000, to the public telephone network by means of VoIP. This provides the possibility for users to place and receive communications and services from any location and for networks to identify the users wherever they are located.

SIP analyzes requests from clients and retrieves responses from servers then sets call parameters at either end of the communication, handles call transfer and termination.

The UX5000 can support the following:

- IP Trunk : SIP Trunks
- IP Extension : Dterm IP / Standard SIP Extensions / SIP Multi-Line Terminal (MLT) (supports standard SIP [RFC3261] and NECi protocol)
 - SIP MLTs consist of the Value, Enhanced, Desi-Less, IP-CTS terminals, as well as the Softphone and WiFi phones.*
- IP Networking : Networking over SIP
 - This protocol can be used simultaneously.*

With the UX5000, SIP trunks can receive incoming calls with Caller ID, place outgoing calls, and transfer SIP trunks to IP, SIP, analog and digital stations, and across a network. SIP trunks can be used for making a simple IP networking.

If a common carrier supports SIP, then the UX5000 can connect the SIP Carrier and outgoing calls to the PSTN network and the common IP network using an UX5000 SIP trunk.

Refer to the UX5000 SIP Trunking Manual, P/N 0913214, for details on programming this feature.

Conditions - SIP Trunking

- UX5000 does not support a simultaneous using of a SIP trunk inter-connection and a SIP Trunk Carrier connection.
- UX5000 supports a "100rel" option and "Session Timer" option.
- UX5000 supports a "DNS resolution access" and a "IP address direct access" for SIP server.
- UX5000 restricts an outgoing call under the following conditions:
 - SIP configuration failed.
 - SIP registration failed.
 - CPU/MBU/VOIPDB link down.
 - Lack of VOIPDB DSP resource.
 - Lack of a VoIP bandwidth.
- UX5000 can connect a SIP server over NAPT router by one static global IP address.
- UX5000 supports the sub-address feature with SIP trunk inter-connection.
- Support the 401 response for the Initial Invite.
If 401 message is sent for the Initial Invite.
- Support the 401/407 response for the Invite of Session Timer.
If 401/407 response is sent for the invite of Session Timer with Authentication header.
- SIP RFC3261 Supported Completely by SIP Trunks (UX5000 SIP trunks or SIP Carrier trunks) and SIP Extensions

Conditions - SIP Extensions

- SIP extensions support G.711, G.729 codec 20ms.
- SIP MLT extensions do not support G.723 codec.
- SIP RFC3261 Supported Completely by SIP Trunks (UX5000 SIP trunks or SIP Carrier trunks) and SIP Extensions

● **Hold/Transfer**

The UX5000 will only support SIP extensions which comply with the two standards for the Hold and Transfer features as described in the Internet Engineering Task Force (IETF) documents:

- *draft-ietf-sipping-service-examples-09.txt*
- *draft-ietf-sipping-cc-transfer-05.txt*

These documents can be obtained at the IETF web site: www.ietf.org

- Call Hold
- Transfer - Screened

Note: If a SIP terminal does a semi-attended Transfer to a trunk, SIP extension and voice mail, the UX5000 calls back to the SIP terminal immediately.

UX5000 VoIP Specifications

Category	Feature	Note
IP Address	DHCP Server	CPU
Protocol	Packet Protocol: IP/UDP RTP/RTCP	

Programming

In addition to the required VoIP programming described under the **Programming - VoIP** (page 617) heading, the following features and options have additional programming which may be required. Refer to the section that applies to the applications required for your location.

- **Programming - VoIP** (page 617)
- **Programming - Using the UX5000 DHCP** (page 618)
- **Programming - Using an External DHCP** (page 619)
- **LAN Connections** (page 620)
- **911 Calls with Networked IP Terminals** (page 622)
- **Address Conversion Table** (page 623)
- **Calling Party Number Setup for Trunks and Extensions** (page 623)
- **Codec Selection** (page 624)
- **Deleting IP Terminal Registration** (page 624)
- **Direct Station Selection (DSS) Console** (page 625)
- **Echo Adjustment** (page 625)
- **Encryption** (page 639)
- **Firmware Download for UX5000 IP Terminal** (page 640)
- **IP Extensions** (page 640)
- **IP Trunks** (page 652)
- **Networking Over IP** (page 653)
- **Peer-to-Peer Connection** (page 654)
- **RTP Forwarding** (page 661)
- **Security Mode** (page 662)
- **Tandem Connection** (page 662)
- **VLAN/QoS** (page 662)

Programming - VoIP

These programs are always required with the VoIP feature. Refer to the following feature options for additional programming.

- **10-12-01 : CPU (FEC1) Network Setup - IP Address**
Select the IP address for the IP connection (default: 172.16.0.10). A static IP address is required by the CPU (FEC1). The UX5000 must be reset in order for the change to take effect.
- **10-12-02 : CPU (FEC1) Network Setup - Subnet Mask**
Select the Subnet Mask to be used by the IP server (default: 255.255.0.0).
- **10-12-03 : CPU (FEC1) Network Setup - Default Gateway**
If required, select the default gateway IP address to be used when using a router (default: 0.0.0.0). This entry is also used by the VoIP Daughter board (Program 10-12-09) as well.
- **10-12-09 : CCPU Network Setup - VoIP Daughter Board IP Address**
Set the LAN IP address for the 32, 64 and 128 channel VoIP daughter boards. The IP number increases by one for each increase in the slot number (default: 172.16.0.10).
- **10-12-10 : CCPU Network Setup - VoIP Daughter Board Subnet Mask**
Define the subnet mask for the 32, 64 and 128 channel VoIP daughter boards. The setting of Subnet Mask errors when all Host Addresses are 0. (default: 255.255.0.0).
- **84-26-01 : VOIPDB Setup for Each DSP - Internet Protocol Address**
Define the IP address of each DSP on a VOIPDB (default: Slot 1: 172.16.0.20, Slot 4: 172.16.0.44). The DSPs are assigned in pairs.
- **84-26-02 : VOIPDB Setup for Each DSP - RTP Port Number**
Set the UPD port number to be used for RTP traffic (default: 10020).
- **84-26-03 : VOIPDB Setup for Each DSP - RTCP Port Number**
This must be set to RTP Port Number (item 02) + 1 (default: 10021).

Programming - Static IP Address

In addition to the UX5000 programming for the CPU or VOIPDB daughter board, the IP terminal also has options which must be programmed from the terminal itself. Be sure to set both the UX5000 and terminal options.

- **10-13-01 : In-DHCP Server Setup - DHCP Server Mode**
Disable (0) the UX5000's ability to use the built-in DHCP server.

Programming - Using the UX5000 DHCP

- **10-13-01 : In-DHCP Server Setup - DHCP Server Mode**
Enable (1) the UX5000's ability to use the built-in DHCP server.
- **10-13-02 : In-DHCP Server Setup - Lease Time**
Enter the lease time of the IP address to a client (default: 0 days, 0 hours, 30 minutes).
- **10-13-05 : In-DHCP Server Setup - Last DHCP Data**
Enable (1) or disable (0) whether DHCP lease information that has previously been set was successful (default: 1).
- **10-14-01 : Managed Network Setup**
Set the range of IP addresses available to be used by the DHCP server (default: Minimum = 172.16.0.100, Maximum = 172.16.5.254).
- **10-15-01 : Client Information Setup - MAC Address**
Set the MAC addresses for each client (up to 512) when the DHCP server needs to assign a fixed IP address to clients.
- **10-15-02 : Client Information Setup - IP Address**
Set the IP addresses for each client (up to 512) when the DHCP server needs to assign a fixed IP address to clients.
- **10-16-01 : Option Information Setup - Router**
Set the router address for the DHCP server to the client.
- **10-16-02 : Option Information Setup - DNS Server**
If required, set the DNS server address for the DHCP server to the client.
- **10-16-03 : Option Information Setup - TFTP Server**
Set the TFTP server address for the DHCP server to the client.
- **10-16-04 : Option Information Setup - DRS**
Set the CPU's IP address for the DHCP server to the client.
- **10-16-10 : Option Information Setup - FTP Server Address**
Set the FTP server address used with AutoConfig.
- **10-16-11 : Option Information Setup - Configuration File Name**
Set the file name used with AutoConfig.
- **10-16-12 : Option Information Setup - Vender Class**
Identification information on the particular vendor hardware which passes on the ID (256 character strings maximum, Default: NECDTERM95IPSIP).
- **10-16-13 : Option Information Setup - SNMP Server**
Set the IP address for the SNMP server.
- **10-16-14 : Option Information Setup - POP3 Server**
Set the IP address for the POP3 server.
- **10-16-15 : Option Information Setup - LDAP Server**
Set the IP address for the LDAP server.
- **10-16-16 : Option Information Setup - SIP Server**
Set the IP address for the SIP server.
- **10-16-18 : Option Information Setup - FTP Server**
Set the IP address for the FTP server.
- **10-16-20 : Option Information Setup - LDS Server 1**
Set the IP address for the LDS server 1.
- **10-16-21 : Option Information Setup - LDS Server 2**
Set the IP address for the LDS server 2.
- **10-16-22 : Option Information Setup - LDS Server 3**
Set the IP address for the LDS server 3.
- **10-16-23 : Option Information Setup - LDS Server 4**
Set the IP address for the LDS server 4.

Programming - Using an External DHCP

Note 1. If a user's LAN is already operating with a DHCP server, disable the UX5000's DHCP server. Either DHCP server can be used, but not both.

Note 2. When an external DHCP server is operating, make sure to define Program 10-16.

- **10-13-01 : In-DHCP Server Setup - DHCP Server Mode**
Enable (1) the UX5000's ability to use the built-in DHCP server.
- **10-13-02 : In-DHCP Server Setup - Lease Time**
Enter the lease time of the IP address to a client (default: 0 days, 0 hours, 30 minutes).
- **10-13-05 : In-DHCP Server Setup - Last DHCP Data**
Enable (1) or disable (0) whether DHCP lease information that has previously been set was successful (default: 1).
- **10-16-01 : Option Information Setup - Router**
Set the router address for the DHCP server to the client.
- **10-16-02 : Option Information Setup - DNS Server**
If required, set the DNS server address for the DHCP server to the client.
- **10-16-03 : Option Information Setup - TFTP Server**
Set the TFTP server address for the DHCP server to the client.
- **10-16-04 : Option Information Setup - DRS**
Set the CPU's IP address for the DHCP server to the client.
- **10-16-10 : Option Information Setup - FTP Server Address**
Set the FTP server address used with AutoConfig.
- **10-16-11 : Option Information Setup - Configuration File Name**
Set the file name used with AutoConfig.
- **10-16-12 : Option Information Setup - Vender Class**
Identification information on the particular vendor hardware which passes on the ID (256 character strings maximum, Default: NECDTERM95IPSIP).
- **10-16-13 : Option Information Setup - SNMP Server**
Set the IP address for the SNMP server.
- **10-16-14 : Option Information Setup - POP3 Server**
Set the IP address for the POP3 server.
- **10-16-15 : Option Information Setup - LDAP Server**
Set the IP address for the LDAP server.
- **10-16-16 : Option Information Setup - SIP Server**
Set the IP address for the SIP server.
- **10-16-18 : Option Information Setup - FTP Server**
Set the IP address for the FTP server.
- **10-16-20 : Option Information Setup - LDS Server 1**
Set the IP address for the LDS server 1.
- **10-16-21 : Option Information Setup - LDS Server 2**
Set the IP address for the LDS server 2.
- **10-16-22 : Option Information Setup - LDS Server 3**
Set the IP address for the LDS server 3.
- **10-16-23 : Option Information Setup - LDS Server 4**
Set the IP address for the LDS server 4.

LAN Connections

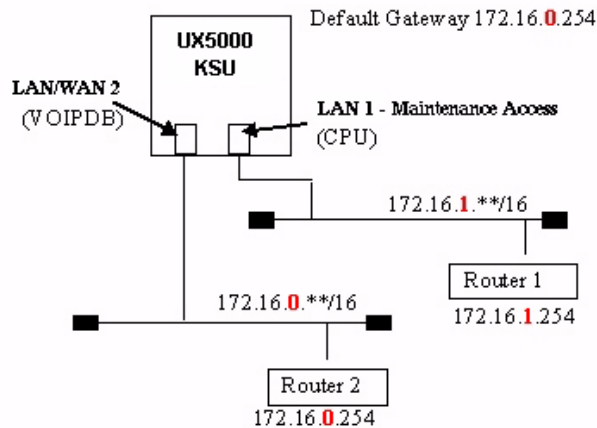
Hardware:

- VOIPDB - Provides a LAN interface with 10Base-T/100Base-TX/000Base-T, auto-negotiation and VLAN
 - Maximum transmission ability is 100Mbps.*
 - The connection for VoIP must be made to the VoIP daughter board and NOT the CPU's LAN connector.*
- GSWU Blade
- 24-Port Power Supply PoE-managed switch (NEC BlueFire 200/24)
 - PoE (Power over Ethernet) to UX5000 IP Terminal
 - Spare Pair (4/5, 7/8) / Signal Pair (1/2, 3/6) Selection
- 12-Port Power Supply Patch Panel (NEC SN1604 PWRMS)
 - PoE (Power over Ethernet) to UX5000 IP Terminal
 - Add this patch to an existing switching hub
 - Spare Pair (4/5, 7/8) / Signal Pair (1/2, 3/6) Selection

Conditions:

- When using a LAN connection to the CPU and a LAN connection to the VOIPDB, each must be placed onto a separate network node.
- Only one gateway can be assigned in the UX5000. In order to communicate with both the CPU router and the VOIPDB router, it is necessary to create a routing table within the router which is not on the same network as the gateway. Use a static address to route to the gateway.

The example below indicates the setup when the default gateway is in the same network as the VOIPDB.



Network Destination	Subnet Mask	Gateway
10.123.4.0	255.255.255.0	172.16.1.254

When an IP address is entered, the routing table is checked. If the address is not found in the table, it routes the packet information to the gateway.

LAN Connection Programming

- ◆▶ **10-45-01 : IP Routing Table Setting - Network IP Address**
Set the network IP address for routing the packets sent by LAN to the CCPU.
- ◆▶ **10-45-02 : IP Routing Table Setting - Subnet Mask**
Define the subnet of the neetwork where routing is sent. Errors are masked when all Host Addresses are 0.
- ◆▶ **10-45-03 : IP Routing Table Setting - Gateway Address**
Set the destination gateway address.

Note 1. Use a 100Base/Full Duplex switch. In order to avoid network problems and to retain voice quality, do not use a Repeater Hub/10Base.

911 Calls with Networked IP Terminals

When using IP terminals at a remote site (Site B) which are registered to the main communications server (Site A), you can use the ARS Class of Service Matching feature to route 911 calls to the local authorities at the remote location. Without this programming, since the terminals are registered to the main site, when 911 calls are placed by IP terminals, the local authorities at the main site (Site A) would be called.

Programming at the Main Communications Server

- **10-27-01 : IP System ID**
For each network node, assign an ID and corresponding IP address of the networked IP communications server.
- **26-01-01 : Automatic Route Selection Service - ARS Service**
Enter “1” to enable ARS.
- **26-01-06 : Automatic Route Selection Service - COS Match Access**
Enter “1” to enable COS Matching.
- **26-04-01 : ARS Class of Service**
Assign the IP extension’s ARS Class of Service (0-16).
- **26-02-01 : Dial Analysis Table for ARS /LCR - Dial**
Define the Dial Analysis Table. Enter “911” in a table.
- **26-02-02 : Dial Analysis Table for ARS /LCR - Service Type**
For the 911 Dial Analysis Table, enter the “1” to route the call to a trunk group.
Note: With PCPro/WebPro, the option is displayed as “Incoming Ring Group”.
- **26-02-03 : Dial Analysis Table for ARS /LCR - Additional Data**
Enter the network ID number which corresponds to the entry in Program 10-27 preceded by “1”. (For example: ID 01 is entered as “101”, 02 is entered as “102”, etc.)
- **26-02-04 : Dial Analysis Table for ARS /LCR - ARS Class of Service**
Assign the ARS COS to the 911 Dial Analysis Table.

Each remote site needs to have a different ARS Class of Service. If, for example, there were 50 IP sets on one remote site, each would use the same ARS Class of Service.

It is important to remember that there must be a trunk available to make a call across the network from the main communications server. Then, by default, the UX5000 will access the first available trunk in trunk group 1 at the remote side to place the 911 call.

Programming the IP Terminal for the 911 Dialing When Lock Feature Activated

The Lock button on the IP terminals will provide a user with the ability to prevent calls on their phone while away from their desk. This will prevent all calls from being dialed - including 911. In order to allow anyone to dial 911 from a locked IP terminal, each terminal must be set up to override the lock function. Each IP terminal can have up to 3 emergency numbers defined which can be dialed when a terminal is locked. Perform the following steps on any IP terminal which may be used to dial an emergency number.

1. Enter the terminal’s program mode by pressing **HOLD CONF * #**.
2. At the log-in screen, enter the user name (default: ADMIN) and password (default: 6633222) and press the OK Soft Key.
3. Press Soft Key 6 for “Application Setting”.
4. Press Soft Key 5 for “Emergency Call”.

5. Press Soft Key 1, 2 or 3 for the emergency number entry.
6. Dial the emergency number to be allowed (ex: 911).
7. Press Soft Key 4 for "OK" to complete.
8. Continue pressing Soft Key 4 to exit (Exit-Exit-Save). The terminal will reset automatically.



! Important !

Once a locked terminal is used to dial an emergency number, the terminal will be unlocked until the Lock button is pressed again.

Address Conversion Table

UX5000 provides an IP Conversion Table with which the UX5000 can recognize the IP address of another system without the use of an outside Gatekeeper.

Programming

◆▶ **10-23-01 : H.323 System Interconnection - System Interconnection**

For each communications server (50 max), specify whether the system interconnection is used (0=no, 1=yes).

◆▶ **10-23-02 : H.323 System Interconnection - IP Address**

If Program 10-23-01 is set to "1", for each communications server (50 max), specify the destination IP address. The address should not be duplicated within the UX5000.

◆▶ **10-23-03 : H.323 System Interconnection - Call Control Port**

If Program 10-23-01 is set to "1", for each communications server (50 max), specify the Call Control Port (1-65535).

◆▶ **10-23-04 : H.323 System Interconnection Alias Address**

If Program 10-23-01 is set to "1", for each communications server (50 max), specify the destination E.164 number as the Alias Address (12 digits max).

Calling Party Number Setup for Trunks and Extensions

The UX5000 has two programs which allow for the Calling Party Number to be displayed when the VoIP feature is used:

Programming

◆▶ **21-17-01 : IP Trunk Calling Party Number Setup for Trunk**

Enter the Calling Party Number to be displayed for each IP trunk used (Entry: 16 digits maximum).

◆▶ **21-18-01 : IP Trunk Calling Party Number Setup for Extension**

Enter the Calling Party Number to be displayed for each IP extension used (Entry: 16 digits maximum).

Codec Selection

- Codec Support

Codec	RTP Packetization Sizes Supported (VIF Size)	Jitter Buffer Max (ms)
G.711	10, 20, 30, 40 ms	160
G.722	10, 20, 30, 40 ms	160
G.723.1	30, 60 ms	270
G.726 *	10, 20, 30, 40 ms	160
G.729AB	10, 20, 30, 40, 50, 60 ms	270
ILBC *	20, 30, 40, 60 ms	300

* H.323 inside and outside lines are not supported.

* SIP MLT terminals do not support G.723.

* When G.723 or iLBC is used, for each UX5000 set Program 84-27-02.

- UX5000 provides 5 types of codec for the Dterm IP terminals (defined in Program 84-11, selected in Program 15-05-15).

The maximum number of channels available is based on the codec and compression used. Refer to the following chart for the channel limits.

Codec	Baseline	w/SRTP ¹	w/Packet Loss Recovery (PLR)	w/SRTP ¹ + Packet Loss Recovery (PLR)
G.711	128	128	128	128
G.722	128	96	96	96
G.726	128	96	96	96
G.729ab	128	96	96	96
iLBC	96	64	64	64
G3 Fax	128	128	-	-

¹ The SIP MLT Softphone supports SRTP encryption. However, SRTP between main devices that use the CygniLink function not currently supported

Refer to **Simultaneous Calls** (page 641) for more information on codec settings.

Deleting IP Terminal Registration

- **90-23-01 : Deleting Registration of IP Terminals**

When removing an IP terminal from the UX5000, the registration can be deleted using this program. Enter the extension number to be deleted, press 1 and then HOLD.

Direct Station Selection (DSS) Console

Physical IP keysets can be associated with a 60-Button DSS Console (an IP Softphone cannot be paired with a DSS Console).

◆→ **15-05-22 : IP Terminal Terminal Basic Data Setup - DSS Console Association**

If an IP extension has a DSS Console associated with it, enter the console number (0=none, 01-32=DSS Console).

◆→ **30-10-01 : DSS Console IP Setting - MAC Address**

Read Only: The MAC address of a terminal associated with a DSS Console is automatically set and can be viewed with this program.

Echo Adjustment

Where echo (reflection of voice) is generated depends on how the network is configured. Typically, however, echo is generated at the trunk blade (COIU) or at the terminal's microphone/speaker. The transmit/receive data is separated at the analog trunk interface. Echo from the transmit data to the receive data can be generated, and when the impedance is not set correctly, increased echo will occur. This can also occur at an ISDN/analog trunk interface. In general, the nearer the transmit, the more echo occurs as the signal level is greater.

The type of echo can also occur with non-IP terminals, but the time difference between the transmit and receive is so small, the user is hardly aware of it. As the IP terminals require voice packetization, there is a longer delay. This delay causes the echo.

To reduce the echo:

- Suppress the echo from the UX5000.
- Suppress the echo from outside the UX5000.
- Remove the unsuppressed echo using the echo canceller in the VOIPDB.
- Reduce the terminal's volume.

On some calls, the echo and side tones can be increased if the terminal volume is set to a midrange level or higher. Simply press the Volume Down button on the terminal to reduce the level.

A typical example of this adjustment process is as follows:

1. Codec Packet Size/Jitter Buffer Configuration
The Voice Packet codec, packet size, jitter buffer size should be configured to minimize the voice delay. This data is set in Program 84-xx-xx.
 - Set the Audio Capability Priority.
 - Set the packet size.
 - Set jitter buffer type and adjust the size.
2. Gain Level
A transmit gain level with is set too high for a trunk may cause considerable echo depending on the level of the voice path route. Adjust the echo controlling this data.
 - Change the Trunk Voice Transmit Level in the UX5000 to adjust the voice transmit level of the UX5000.
 - Change the Trunk Voice Receive Level in the UX5000 to adjust the voice receive level of the UX5000.

3. Codec Filter

When connecting an analog trunk, adjust the codec filter depending on the damping of the trunk side. If this is not properly adjusted, you may hear considerable echo depending on the condition of the line.

- Set the Echo Canceller Mode to disabled (0) [Program 84-11-20 = UX5000 IP terminal, 84-13-20 = SIP Trunk, 84-19-20 = SIP extension, 84-24-20 = SIP MLT, 84-25-20 = CygniLink], and check the condition of the echo level by making an outgoing call.

4. Echo Canceller Adjustment

The echo canceller should be adjusted after reducing the echo using the previous steps.

- Set the Echo Canceller Mode to enabled (1) [Program 84-11-20 = UX5000 IP terminal, 84-13-20 = SIP Trunk, 84-19-20 = SIP extension, 84-24-20 = SIP MLT, 84-25-20 = CygniLink], the Echo Canceller NLP Mode to disabled (0) [Program 84-11-22 = UX5000 IP terminal], and check the condition of the echo level by making an outgoing call.
- Adjust the VOIPDB Limiter Control Gain Setup (Program 84-16) and choose the configuration which results in the least amount of echo.
- The Echo Canceller NLP Mode should be set to the data which receives the best voice quality.

NLP

If an echo problem is not resolved with the long echo tail size, NLP can be used to remove echo by replacing low level voice to low level white noise (NLP noise).

By default, the adjustment of the NLP noise (white noise) level is automatically determined by Program 84-17-04 (set to adaptive). If needed, the level between background noise and NLP noise can be adjusted setting Program 84-17-04 to “fixed” and then adjust the NLP noise level using Program 84-17-05.

Programming

➤ 14-01-02 : Basic Trunk Data Setup - Transmit Codec Gain Type

Use this option to select the codec gain for the trunk (1~63 in .5dB intervals [1= -15.5dB]). The option sets the amount of gain (signal amplification) for the trunk you are programming.

➤ 14-01-03 : Basic Trunk Data Setup - Receive Codec Gain Type

Use this option to select the codec gain for the trunk (1~63 in .5dB intervals [1= -15.5dB]). The option sets the amount of gain (signal amplification) for the trunk you are programming.

➤ 81-07-01 : Codec Filter Setup for Analog Trunk Ports

Define the codec (QSLAC) Filter for each analog trunk port (0 = No Filter, 1 = 0dB Loss, 2 = 4dB Loss, 3 = 8dB Loss, 4 = Specified Data - This option uses the entries defined in Program 81-09.).

➤ 84-17-01 : VOIPDB Echo Canceller Control Setup - Echo Canceller Mode

Enable (1) or disable (0) Echo Canceller mode.

➤ 84-17-02 : VOIPDB Echo Canceller Control Setup - Echo Canceller Tail Size

Select the Echo Canceller Tail Size (1 = 8ms, 2 = 16ms). If 84-06-12 (Long Tail Echo Mode) = on, this value is ignored – 84-06-14 is used instead. Only effective if 84-17-01 = enable.

➤ 84-17-03 : VOIPDB Echo Canceller Control Setup - Echo Canceller NLP Mode

Enable (1) or disable (0) Echo Canceller NLP mode.

➤ 84-17-04 : VOIPDB Echo Canceller Control Setup - Echo Canceller CNG CFG

Only effective if 84-17-03 = enabled. Select either Adaptive (0) or Fixed (1) for the NLP noise adjustment. If set to Fixed, determine the level in Program 84-17-05.

➤ 84-17-05 : VOIPDB Echo Canceller Control Setup - Echo Canceller NLP Noise

Adjust the NLP noise level (entries: 40 [-40dBm] - 70 [70dBm]). Only effective if 84-17-04 = fixed.

- **84-11-26 : Dterm IP Codec Information Basic Setup - RX Gain**
Adjust the receive gain as needed (0-28 [-14~+14]).
- **84-11-27 : Dterm IP Codec Information Basic Setup - TX Gain**
Adjust the transmit gain as needed (0-28 [-14~+14]).
- **84-16-01 : VOIPDB Limiter Control Gain Setup - RX Limiter Control Gain**
This option controls the limiter gain for IP to PCM direction. This option adds gain to the voice input from the LAN and removes it from the voice output to highway (0-30 [-15 ~ +15]).
- **84-16-02 : VOIPDB Limiter Control Gain Setup - TX Limiter Control Gain**
This option controls the limiter gain for PCM to IP direction. This option adds the gain to the voice input from highway and removes it from the voice output to the LAN (0-30 [-15 ~ +15]).

Note: Set the trunk TX/RX level to lower than 0dB to reduce hybrid echo level.

Codec Packet Size/Jitter Buffer Configuration				
Program	Item	Input Data	Default	How to Adjust
84-11-28 (UX5000 IP Terminal) 84-13-28 (SIP Trunk) 84-19-28 (SIP Extension) 84-24-28 (SIP MLT) 84-25-28 (CygniLink)	Audio Capability Priority	<i>Program</i> 84-01-33, 84-12-28, 84-13-28, 84-24-28, 84-25-28= 0 = G.711_PT 1 = G.723.1_PT 2 = G.729_PT 3 = G.726 4 = G.722 5 = iLBC <i>Program</i> 84-11-28 = 0 = G.711_PT 1 = G.723.1_PT 2 = G.729_PT	0 (G.711)	This data should not be changed. Voice Quality is the best with G.711 and lessens with G.729 and then again with G.723.1. If you need to select another bandwidth, it is recommended that G.729 be selected.
84-01-02 (H.323 Trunk) 84-11-01 (UX5000 IP Terminal) 84-12-01 (H.323 Extension) 84-13-01 (SIP Trunk) 84-19-01 (SIP Extension) 84-24-01 (SIP MLT) 84-25-01 (CygniLink)	G.711 Audio Frame	1 = 10msec 2 = 20msec 3 = 30msec 4 = 40msec	<i>Program</i> 84-01-02, 84-11-01, 84-12-01, 81-19-01, 84-24-01, 84-25-01 = 3 (30msec) <i>Program</i> 84-13-01 = 2 (20msec)	It is strongly recommended to use option 2 (20ms) for H.323 trunks/stations. <ul style="list-style-type: none"> • This data will usually come into affect when Audio Capability=0 (G.711) is selected. •

Codec Packet Size/Jitter Buffer Configuration				
Program	Item	Input Data	Default	How to Adjust
84-01-63 (H.323 Trunk) 84-12-33 (H.323 Extension) 84-13-33 (SIP Trunk) 84-19-32 (SIP Extension) 84-24-32 (SIP MLT) 84-25-33 (CygniLink)	G.722 Audio Frame	1 - 4 (10msec - 40msec)	3 (30msec)	It is strongly recommended to use option 2 (20ms) for H.323 trunks/stations. <ul style="list-style-type: none"> This data will usually come into affect when Audio Capability = 2 (G.722) is selected.
84-01-11 (H.323 Trunk) 84-11-12 (UX5000 IP Terminal) 84-12-12 (H.323 Extension) 84-13-12 (SIP Trunk) 84-24-12 (SIP MLT) 84-25-12 (CygniLink)	G.723.1 Audio Frame	<i>Program</i> 84-12-12, 84-12-12 = 1 - 60 (10 msec - 60 msec) <i>Program</i> 84-01-11, 84-13-12, 84-19-12, 84-24-12, 84-25-12 = 1-2 (30 msec - 60 msec)	<i>Program</i> 84-01-05, 84-12-12, 84-12-12 = 3 (30 msec) <i>Program</i> 84-13-12, 84-19-12, 84-24-12, 84-25-12 = 1 (30 msec)	This data will not need to be changed usually. <ul style="list-style-type: none"> This data will usually come into affect when Audio Capability = 1 (G.723) is selected.
84-13-38 (SIP Trunk) 84-19-37 (SIP Extension) 84-25-38 (CygniLink)	G.726 Audio Frame	1 - 4 (10msec - 40msec)	3 (30msec)	This data will not need to be changed usually. <ul style="list-style-type: none"> This data will usually come into affect when Audio Capability = 1 (G.726) is selected.
84-01-05 (H.323 Trunk) 84-11-07 (UX5000 IP Terminal) 84-12-07 (H.323 Extension) 84-13-07 (SIP Trunk) 84-19-07 (SIP Extension) 84-24-07 (SIP MLT) 84-25-07 (CygniLink)	G.729 Audio Frame	<i>Program</i> 84-01-05, 84-12-07, 84-13-07, 84-19-07, 84-24-07, 84-25-07: 1 - 6 (10msec - 60msec) <i>Program</i> 84-11-07: 1 - 8	<i>Program</i> 84-01-05, 84-11-07, 84-12-07, 84-19-07, 84-24-07: 3 (30msec) <i>Program</i> 84-13-07: 2 (20msec)	It is strongly recommended to use option 2 (20ms) for H.323 trunks/stations. <ul style="list-style-type: none"> This data will usually come into affect when Audio Capability = 2 (G.729) is selected.
84-13-43 (SIP Trunk) 84-19-43 (SIP Extension) 84-25-43 (CygniLink)	iLBC Audio Frame	2 - 4 (20msec - 40msec)	3 (30msec)	This data will not need to be changed usually. <ul style="list-style-type: none"> This data will usually come into affect when Audio Capability = 1 (iLBC) is selected.

Codec Packet Size/Jitter Buffer Configuration				
Program	Item	Input Data	Default	How to Adjust
84-01-15 (H.323 Trunk) 84-11-17 (UX5000 IP Terminal) 84-12-17 (H.323 Extension) 84-13-17 (SIP Trunk) 84-19-17 (SIP Extension) 84-24-17 (SIP MLT) 84-25-17 (CygniLink)	Jitter Buffer Mode	1: static 2: adaptive during silence 3: adaptive immediately	3 (adaptive immediately)	This data should not be changed.
84-01-16 (H.323 Trunk) 84-11-04 (UX5000 IP Terminal) 84-12-04 (H.323 Extension) 84-13-04 (SIP Trunk) 84-19-04 (SIP Extension) 84-24-04 (SIP MLT) 84-25-04 (CygniLink)	G.711 Jitter Buffer (minimum)	<i>Program</i> 84-01-16, 84-13-04, 84-19-04, 84-24-04, 84-25-04: 0 - 160 (msec) <i>Program</i> 84-11-04, 84-12-04: 0 - 255 (msec)	<i>Program</i> 84-01-16, 84-11-04, 84-12-04, 84-19-04, 84-24-04, 84-25-04: 30 <i>Program</i> 84-13-04: 20	Set the same time as selected in G.711 Audio Frame.
84-01-17 (H.323 Trunk) 84-11-05 (UX5000 IP Terminal) 84-12-05 (H.323 Extension) 84-13-05 (SIP Trunk) 84-19-05 (SIP Extension) 84-24-05 (SIP MLT) 84-25-05 (CygniLink)	G.711 Jitter Buffer (standard)	<i>Program</i> 84-01-17, 84-13-05, 84-19-05, 84-24-05, 84-25-05: 0 - 160 (msec) <i>Program</i> 84-11-05, 84-12-05: 0 - 255 (msec)	<i>Program</i> 84-01-17, 84-11-05, 84-12-05, 84-19-05, 84-24-05, 84-25-05: 60 <i>Program</i> 84-13-05: 40	Set this option at two times the time selected in G.711 Audio Frame.
84-01-18 (H.323 Trunk) 84-11-06 (UX5000 IP Terminal) 84-12-06 (H.323 Extension) 84-13-06 (SIP Trunk) 84-19-06 (SIP Extension) 84-24-06 (SIP MLT) 84-25-06 (CygniLink)	G.711 Jitter Buffer (maximum)	<i>Program</i> 84-01-18, 84-13-06, 84-19-06, 84-24-06, 84-25-06: 0 - 160 (msec) <i>Program</i> 84-11-06, 84-12-06: 0 - 255 (msec)	<i>Program</i> 84-01-18, 84-11-06, 84-12-06, 84-19-06, 84-24-06, 84-25-06: 120 <i>Program</i> 84-13-06: 60	Set this option at four times the time selected in G.711 Audio Frame.

Codec Packet Size/Jitter Buffer Configuration				
Program	Item	Input Data	Default	How to Adjust
84-01-65 (H.323 Trunk) 84-12-35 (H.323 Extension) 84-13-35 (SIP Trunk) 84-19-34 (SIP Extension) 84-24-35 (SIP MLT) 84-25-35 (CygniLink)	G.722 Jitter Buffer (minimum)	0 - 160 (msec)	30	Set the same time as selected in G.722 Audio Frame.
84-01-66 (H.323 Trunk) 84-12-36 (H.323 Extension) 84-13-36 (SIP Trunk) 84-19-35 (SIP Extension) 84-24-36 (SIP MLT) 84-25-36 (CygniLink)	G.722 Jitter Buffer (standard)	0 - 160 (msec)	60	Set this option at two times the time selected in G.722 Audio Frame.
84-01-67 (H.323 Trunk) 84-12-37 (H.323 Extension) 84-13-37 (SIP Trunk) 84-19-36 (SIP Extension) 84-24-36 (SIP MLT) 84-25-37 (CygniLink)	G.722 Jitter Buffer (maximum)	0 - 160 (msec)	120	Set this option at four times the time selected in G.722 Audio Frame.
84-01-19 (H.323 Trunk) 84-11-14 (UX5000 IP Terminal) 84-12-14 (H.323 Extension) 84-13-12 (SIP Trunk) 84-19-14 (SIP Extension) 84-24-14 (SIP MLT) 84-25-14 (CygniLink)	G.723 Jitter Buffer (minimum)	<i>Program</i> 84-12-14, 84-13-12, 84-19-14, 84-25-14: 0 - 270 (msec) <i>Program</i> 84-01-19, 84-11-14, 84-24-14: 0 - 500 (msec)	30	Set the same time as selected in G.723 Audio Frame.
84-01-20 (H.323 Trunk) 84-11-15 (UX5000 IP Terminal) 84-12-15 (H.323 Extension) 84-13-15 (SIP Trunk) 84-19-15 (SIP Extension) 84-24-15 (SIP MLT) 84-25-15 (CygniLink)	G.723 Jitter Buffer (standard)	<i>Program</i> 84-12-15, 84-13-13, 84-19-15, 84-24-15, 84-25-15: 0 - 270 (msec) <i>Program</i> 84-01-20, 84-11-15: 0 - 500 (msec)	60	Set this option at two times the time selected in G.723 Audio Frame.

Codec Packet Size/Jitter Buffer Configuration				
Program	Item	Input Data	Default	How to Adjust
84-01-21 (H.323 Trunk) 84-11-16 (UX5000 IP Terminal) 84-12-16 (H.323 Extension) 84-13-16 (SIP Trunk) 84-19-16 (SIP Extension) 84-24-16 (SIP MLT) 84-25-16 (CygniLink)	G.723 Jitter Buffer (maximum)	<i>Program</i> 84-12-16, 84-13-14, 84-19-16, 84-24-16, 84-25-16: 0 - 270 (msec) <i>Program</i> 84-01-21, 84-11-16: 0 - 500 (msec)	120	Set this option at four times the time selected in G.723 Audio Frame.
84-13-40 (SIP Trunk) 84-19-40 (SIP Extension) 84-25-40 (CygniLink)	G.726 Jitter Buffer (minimum)	0 - 160 (msec)	30	Set the same time as selected in G.726 Audio Frame.
84-13-41 (SIP Trunk) 84-19-40 (SIP Extension) 84-25-40 (CygniLink)	G.726 Jitter Buffer (standard)	0 - 160 (msec)	60	Set this option at two times the time selected in G.726 Audio Frame.
84-13-42 (SIP Trunk) 84-19-42 (SIP Extension) 84-25-42 (CygniLink)	G.726 Jitter Buffer (maximum)	0 - 160 (msec)	120	Set this option at four times the time selected in G.726 Audio Frame.
84-01-07 (H.323 Trunk) 84-11-09 (UX5000 IP Terminal) 84-12-09 (H.323 Extension) 84-13-09 (SIP Trunk) 84-19-09 (SIP Extension) 84-24-09 (SIP MLT) 84-25-09 (CygniLink)	G.729 Jitter Buffer (minimum)	<i>Program</i> 84-01-07, 84-12-09, 84-13-09, 84-19-09, 84-24-09, 84-25-09: 0-270 (msec) <i>Program</i> 84-11-09: 0 - 500 (msec)	30	Set the same time as selected in G.729 Audio Frame.
84-01-08 (H.323 Trunk) 84-11-10 (UX5000 IP Terminal) 84-12-10 (H.323 Extension) 84-13-10 (SIP Trunk) 84-19-10 (SIP Extension) 84-24-10 (SIP MLT) 84-25-10 (CygniLink)	G.729 Jitter Buffer (standard)	<i>Program</i> 84-01-08, 84-13-10, 84-12-10, 84-19-10, 84-24-09, 84-25-09: 0-270 (msec) <i>Program</i> 84-11-10: 0 - 500 (msec)	60	Set this option at two times the time selected in G.729 Audio Frame.

Codec Packet Size/Jitter Buffer Configuration				
Program	Item	Input Data	Default	How to Adjust
84-01-09 (H.323 Trunk) 84-11-11 (UX5000 IP Terminal) 84-12-11 (H.323 Extension) 84-13-11 (SIP Trunk) 84-19-11 (SIP Extension) 84-24-11 (SIP MLT) 84-25-11 (CygniLink)	G.729 Jitter Buffer (maximum)	<i>Program</i> 84-01-09, 84-13-11, 84-12-11, 84-19-11, 84-24-09, 84-25-09: 0-270 (msec) <i>Program</i> 84-11-11: 0 - 500 (msec)	120	Set this option at four times the time selected in G.711 Audio Frame.
84-13-45 (SIP Trunk) 84-19-45 (SIP Extension) 884-25-45 (CygniLink)	iLBC Jitter Buffer (minimum)	0 - 160 (msec)	30	Set the same time as selected in iLBC Audio Frame.
84-13-46 (SIP Trunk) 84-19-45 (SIP Extension) 84-25-46 (CygniLink)	iLBC Jitter Buffer (standard)	0 - 160 (msec)	60	Set this option at two times the time selected in iLBC Audio Frame.
84-13-47 (SIP Trunk) 84-19-47 (SIP Extension) 84-25-47 (CygniLink)	iLBC Jitter Buffer (maximum)	0 - 160 (msec)	120	Set this option at four times the time selected in iLBC Audio Frame.

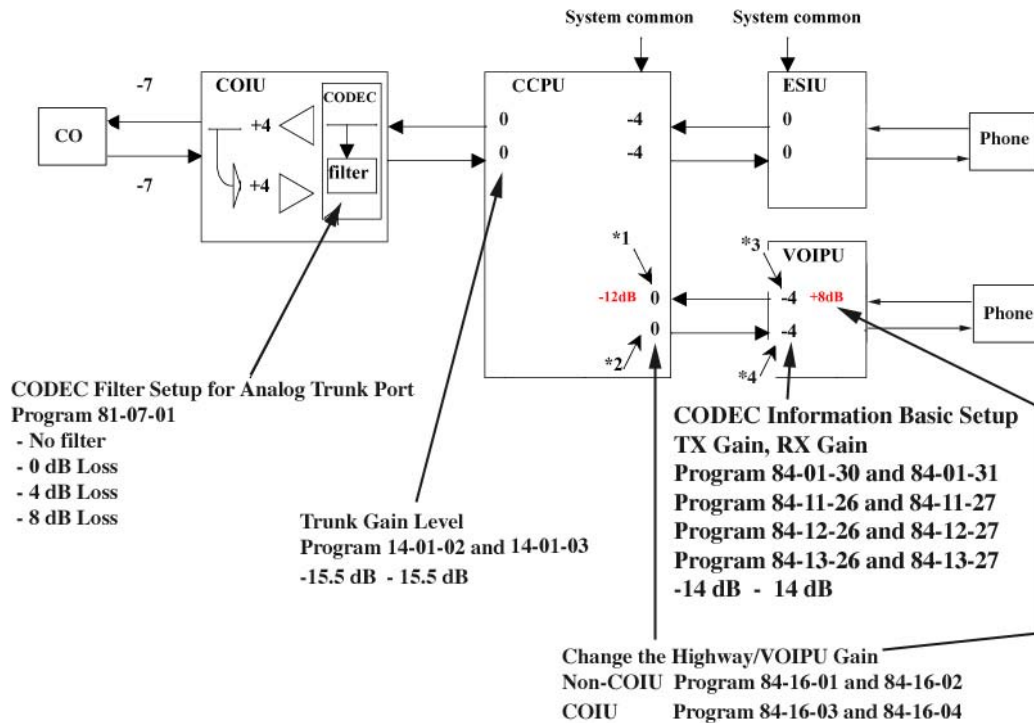
Gain Level - Transmit/Receive				
Program	Item	Input Data	Default	How to Adjust
14-01-02	Transmit Gain Level	1 - 63 (-15.5dB - +15.5dB) (.5dB steps)	32 (0dB)	High level of transmit gain may generate a large echo depending on the environment or location of the party called. Adjust to the appropriate level. Lower limits should be around 18 (-7db).
14-01-03	Receive Gain Level	1 - 63 (-15.5dB - +15.5dB) (.5dB steps)	32 (0dB)	
14-01-04	Transmit Gain level for conference and Transfer Calls	1 - 63 (-15.5dB - +15.5dB) (.5dB steps)	32 (0dB)	High level of transmit gain may generate a large echo depending on the environment or location of the party called. Adjust to the appropriate level. Lower limits should be around 18 (-7db).

Gain Level - Transmit/Receive				
Program	Item	Input Data	Default	How to Adjust
14-01-05	Receive Gain level for conference and Transfer Calls	1 - 63 (-15.5dB - +15.5dB) (.5dB steps)	16 (-8dB)	
84-01-30 (H.323 Trunk) 84-11-26 (UX5000 IP Terminal) 84-12-26 (H.323 Extension) 84-13-26 (SIP Trunk) 84-19-26 (SIP Extension) 84-24-26 (SIP MLT) 84-25-26 (CygniLink)	Transmit Gain Level of VOIPDB	0 - 40 (-20dB - +20dB) (1dB steps)	20 (-1dB)	<ul style="list-style-type: none"> UX5000 IP terminal TX gain becomes congruent with the UX5000 IP terminal when this data is set to 10 (-11db).
84-01-31 (H.323 Trunk) 84-11-27 (UX5000 IP Terminal) 84-12-27 (H.323 Extension) 84-13-27 (SIP Trunk) 84-19-27 (SIP Extension) 84-24-27 (SIP MLT) 84-25-27 (CygniLink)	Receive Gain Level of VOIPDB.	0 - 40 (-20dB - +20dB)	20 (-1dB)	<ul style="list-style-type: none"> UX5000 IP terminal RX gain become congruent with Dterm when this data is set to 10 (-11db).
84-11-30 (UX5000 IP Terminal) 84-12-30 (H.323 Extension) 84-13-30 (SIP Trunk) 84-19-30 (SIP Extension) 84-24-30 (SIP MLT) 84-25-30 (CygniLink)	Auto Gain Control	0-5	0	

Internal Gain Control

Control the VOIPDB daughter board's internal echo canceller input by setting the VOIPDB RX gain higher and the Highway Gain lower. (In the figure below set *1 to +12dB and *2 to -12dB.)

Not all the sidetone can be removed from the COIU by the VOIPDB daughter board. The remaining sidetone may appear as echo when heard at the IP terminal. Optimizing **Program 81-07-01 : Codec Filter Setup for Analog Trunk Ports** and suppressing sidetone as much as possible may still result in some echo being heard. This becomes more apparent when the volume of the voice level on the IP terminal is louder. This may be resolved by setting the VOIPDB RX Gain higher, the Highway gain lower and by limiting the volume on the terminal (in the figure below, set the *3 and *4 options to +12dB [*3] and -12dB [*4]).



Internal Gain Control				
Program	Item	Input Data	Default	How to Adjust
84-16-01	VOIPDB RX Limiter Control Gain This option controls the limiter gain for IP to PCM direction. This option adds gain to the voice input from the LAN and removes it from the voice output to highway.	0 - 30 (-15dB - +15dB)	15 (0dB)	This setting is applied to the call using the VOIPDB and a unit other than the COIU. You may notice a small echo remaining when using ISDN trunks. If this is the case, change this data to a smaller value. Example: 10 (-5db)
84-16-02	VOIPDB TX Limiter Control Gain This option controls the limiter gain for PCM to IP direction. This option adds the gain to the voice input from highway and removes it from the voice output to the LAN.	0 - 30 (-15dB - +15dB)	15 (0dB)	This setting is applied to the call using the VOIPDB and a unit other than the COIU. You may notice a small echo remaining when using ISDN trunks. If this is the case, change this data to larger value. Example 10 (-5db)
84-16-03	VOIPDB RX Limiter Control Gain (COIU) This option controls the limiter gain for a COIU call in the IP to PCM direction.	0 - 30 (-15dB - +15dB)	15 (0dB)	This setting is applied to the call using the VOIPDB and a COIU. Set this to a larger value when the echo from the COIU is too much.
84-16-04	VOIPDB TX Limiter Control Gain (COIU) This option controls the limiter gain for a COIU call in the PCM to IP direction.	0 - 30 (-15dB - +15dB)	15 (0dB)	This setting is applied to the call using the VOIPDB and COIU.

Codec Filter Configuration				
Program	Item	Input Data	Default	How to Adjust
81-07-01	Codec Filter Setup for Analog Trunk Port	0: No Filter 1: 0dB Loss 2: 4dB Loss 3: 8dB Loss 4: Specified Data	1	<p>Setting this data depends on the loss of the analog line. This will reduce the echo from the analog hybrid circuit caused by the mismatch of the impedance.</p> <ul style="list-style-type: none"> • When the signal loss is low (ex. behind PBX connection), set to 1. • When the signal loss is high (large distance from the central office), set to 3. • When the echo from the analog line is too much, setting 4 (specified data) may help improve the condition. • Input data 1-4 is equivalent to Types 1-4 in the Analog Port Codec Filter Setup table below.
82-07-01	Codec Filter Setup for Analog Station Port	0: No Filter 1: 0dB Loss 2: 4dB Loss 3: 8dB Loss 4: Specified Data	3	<p>Setting this data depends on the loss of the analog line. This will reduce the echo from the analog hybrid circuit caused by the mismatch of the impedance.</p> <ul style="list-style-type: none"> • When the signal loss is low (ex. behind PBX connection), set to 1. • When the signal loss is high (large distance from the central office), set to 3. • When the echo from the analog line is too much, setting 4 (specified data) may help improve the condition. • Input data 1-4 is equivalent to Types 1-4 in the Analog Port Codec Filter Setup table below.

Analog Port Codec Filter Setup									
Filter	Data	Type 1		Type 2		Type 3		APEX3600 LC	
		0dB Loss		ø0.5 4dB Loss		ø0.5 8dB Loss		APEX3600 LC	
		HEX	DEC	HEX	DEC	HEX	DEC	HEX	DEC
B1	D01	AA	170	5A	90	23	35	AA	170
	D02	73	115	CB	203	DE	222	DB	219
	D03	A3	163	2B	43	AA	170	3B	59
	D04	6D	109	2A	42	A3	163	37	55
	D05	33	51	1C	28	22	34	22	34
	D06	A5	165	21	33	A0	160	61	97
	D07	2A	42	22	34	FE	254	B4	180
	D08	D4	212	22	34	1B	27	2C	44
	D09	BD	189	A3	163	B2	178	C4	196
	D10	2B	43	49	73	23	35	98	152
	D11	DB	219	F3	243	4B	75	D3	211
	D12	AD	173	2E	46	A6	166	2E	46
	D13	E2	226	2A	42	52	82	4A	74
	D14	E0	224	D0	208	E0	224	D0	208
B2	D01	22	34	22	34	57	87	2A	42
	D02	C0	192	C0	192	C0	192	B0	176

Filter	Data	Type 4							
		ø0.4 4dB Loss		ø0.4 8dB Loss		ø0.65 4dB Loss		ø0.65 8dB Loss	
		HEX	DEC	HEX	DEC	HEX	DEC	HEX	DEC
B1	D01	24	36	AB	171	22	34	5A	90
	D02	CA	202	DD	221	C2	194	C3	195
	D03	AB	171	4C	76	2A	42	2A	42
	D04	3A	58	2C	44	6A	106	AB	171
	D05	1A	26	13	19	32	50	52	82
	D06	B1	177	A0	160	31	49	21	33
	D07	A2	162	BA	186	7A	122	B3	179
	D08	3C	60	1A	26	1A	26	1C	28
	D09	9F	159	33	51	B3	179	22	34
	D10	3A	58	E2	226	A8	168	A2	162
	D11	C2	194	6B	107	7B	123	35	53
	D12	2D	45	BE	190	AD	173	C4	196
	D13	A5	165	AA	170	25	37	B9	185
	D14	D0	208	D0	208	D0	208	F0	240
B2	D01	FA	250	A2	162	AA	170	A3	163
	D02	C0	192	C0	192	C0	192	D0	208

Echo Canceler Configuration				
Program	Item	Input Data	Default	How to Adjust
84-01-24 (H.323 Trunk) 84-11-20 (UX5000 IP Terminal) 84-12-20 (H.323 Extension) 84-13-20 (SIP Trunk) 84-19-20 (SIP Extension) 84-24-20 (SIP MLT) 84-25-20 (CygniLink)	Echo Canceller Mode	0: Disable 1: Enable	1	<ul style="list-style-type: none"> Echo canceler mode
84-01-25 (H.323 Trunk) 84-11-21 (UX5000 IP Terminal) 84-12-21 (H.323 Extension) 84-13-21 (SIP Trunk) 84-19-21 (SIP Extension) 84-24-21 (SIP MLT) 84-25-21 (CygniLink)	Echo Canceller Tail Size	1: 4ms 2: 8 ms 3: 16 ms 4: 32ms 5: 64ms 6: 128ms	6	<ul style="list-style-type: none"> Only valid when 84-01-24, 84-11-20, 84-12-20, 84-13-20, 84-19-20, 84-24-20, or 84-25-20 is enabled.
84-01-26 (H.323 Trunk) 84-11-22 (UX5000 IP Terminal) 84-12-22 (H.323 Extension) 84-13-22 (SIP Trunk) 84-19-22 (SIP Extension) 84-24-22 (SIP MLT) 84-25-22 (CygniLink)	Echo Canceller NLP Mode	0: Disable 1: Enable	1	<ul style="list-style-type: none"> NLP (Non-linear processing) will remove the remaining noise after suppressing echo using the echo canceler. When NLP is enabled, the low level voice is replaced with the NLP noise, resulting in low level echo being removed.
84-01-28 (H.323 Trunk) 84-11-24 (UX5000 IP Terminal) 84-12-24 (H.323 Extension) 84-13-24 (SIP Trunk) 84-19-24 (SIP Extension) 84-24-24 (SIP MLT) 84-25-24 (CygniLink)	Echo Canceller NLP Noise Setting	0: Adaptive 1: Fixed	0	<ul style="list-style-type: none"> This is only valid when Program 84-01-26, 84-11-22, 84-12-22, 84-13-22, 84-19-22, 84-24-22, or 84-25-22 is enabled. When “0” is set, the level is self-adjusted - when “1” is set, Program 84-25-33 is used.
84-01-60 (H.323 Trunk) 84-11-29 (UX5000 IP Terminal) 84-12-29 (H.323 Extension) 84-13-29 (SIP Trunk) 84-19-29 (SIP Extension) 84-24-29 (SIP MLT) 84-25-29 (CygniLink)	Echo Canceller Type	0 = Auto 1 - 3	0	

Encryption

The Secure Real-Time Transport Protocol (SRTP) defines a profile of RTP (Real-Time Transport Protocol), intended to provide encryption, message authentication and integrity, and replay protection to the RTP data in both unicast and multicast applications.

The SIP MLT Softphone supports SRTP encryption. However, SRTP between main devices that use the CygniLink function not currently supported

✦ 84-27-03 : VOIPDB Settings - SRTP Mode Setting

Enable (1) or disable (0) the use of SRTP. When this option is enabled, the number of VoIP channels may be restricted.

Fax Relay

Required Items

- 16VOIPDB Daughter Board
- G3 Fax equipment (G4 Fax is not supported)

Basic Programming

All VOIPDB programming required for the feature as well as the following:

✦ 15-03-03 : Single Line Terminal Basic Data Setup

Set the terminal type to “1” (Special Terminal) for the extension which has the fax connected.

✦ 84-01-59 : Codec Information Basic Setup - Fax Relay Function

Enable (1) or disable (0) the Fax Relay function for the UX5000.

When the voice codec to be used in a session is selected as G.711, fax signals may be sent even when this option is disabled. This occurs as G.711 sends fax signals in voice packets. Frequent packet loss on the network may cause the session to disconnect since the connection is not established as a Fax Relay (T.38). To avoid this, set Program 84-01-33 to a codec other than G.711 and the fax connection will then be established as T.38 (Fax Relay).

✦ 84-01-36 through 84-01-58 : Codec Information Basic Setup

These programs are also available for the Fax Relay feature, but it is recommended that they remain at the UX5000 default.

The following fax machines require changes as noted below:

- NEFAX-490:
Set the VOIPDB ECM to off (Program 84-01-55 = 0) for transmission on the VOIPDB. The NEFAX-490 must also have the ECM turned off and the auto-answer alerting time should be increased.
- NEFAX-500:
The NEFAX-500 must have the ECM set to off.

Firmware Download for UX5000 IP Terminal

A TFTP server or FTP server is required.

Programming

- **84-07-01 : Firmware Download Setup - Server Mode**
Select the server mode (0=TFTP, 1=FTP).
- **84-07-02 : Firmware Download Setup - File Server**
Enter the IP address for the file server.
- **84-07-03 : Firmware Download Setup - Log-In Name**
Enter the log-in name to be used, up to 20 characters.
- **84-07-04 : Firmware Download Setup - Password**
Enter the password to be used, up to 20 characters.
- **84-08-01 : Firmware Name Setup - Firmware Directory**
Enter the firmware directory to be used, up to 64 characters maximum.
- **84-08-02 : Firmware Name Setup - Firmware File Name**
Enter the firmware file name to be used, up to 30 characters.
- **90-22-01 : NGT Terminal Version Information - Hardware Version**
For each terminal type (1:Dterm IP, 2:Smart Phone , 3:Bandle IP Terminal , 4:ITR-32D-1D, 5:IP1WW_IP_Adapter, 6:ITR-LC-1, 7:IP1NA-24TIXH, 8:IP1WW-24TIXH), define the hardware version of the NGT terminal.
- **90-22-02 : NGT Terminal Version Information - Firmware Version**
For each terminal type (1:Dterm IP, 2:Smart Phone , 3:Bandle IP Terminal , 4:ITR-32D-1D, 5:IP1WW_IP_Adapter, 6:ITR-LC-1, 7:IP1NA-24TIXH, 8:IP1WW-24TIXH), define the firmware version of the NGT terminal.

IP Extensions

- Each IP/SIP terminal requires an available port license in order to register the terminal. An available port license is verified at the time the Register message is sent to the UX5000. If no licenses are available, the registration is refused.
- When the first IP terminal is plugged in, the UX5000 automatically assigns four consecutive station ports available as IP ports (the UX5000 takes the next group of consecutive ports available). The next three IP terminals installed will use this group of ports. When the fifth IP terminal is connected, the next 4 consecutive station ports available will be assigned as IP ports.
- After connecting an IP terminal, there could be a delay of up to one minute until the UX5000 checks for an IP connection.
- If there is no idle DSP resource or codec resource available, the terminal cannot be registered.
- If the same IP address already exists in the LAN, the last one assigned to the terminal is considered valid.
- If a MAC address is registered, but an intercom number is not (Program 11-02), then the DRS rejects a registration and the IP terminal display reads "Illegal Len".
- If the same MAC address already exists, the lower port is assigned.

Assign Port/Extension Number

The extension port of an IP terminal is assigned by default starting with port 01. Use Program 84-03-09 to redefine this starting port number. The extension number for the port is set in Program 11-02.

Programming

◆ 11-02-01 : Extension Numbering

If the default extension number is not acceptable for an IP terminal, change the extension number associated with the port number (port 1-512).

◆ 84-03-09 : NGT Information Basic Setup

Set the starting port number to be used for IP terminals (default: 1, entries 1-512).

Simultaneous Calls

Each VoIP daughter board provides resources which can be used for IP calls. The 32VOIPDB provides 32 resources, the 64VOIPDB provides 64, and the 128VOIPDB provides 128 resources. An IP terminal uses 1 channel resource. When an IP terminal or IP trunk is used, each will use one resource. For instance, if an IP terminal uses an IP trunk to place a call, 2 resources are used. However, if an IP terminal places an intercom call to a digital keyset, only 1 resource is used.

If the peer-to-peer feature is enabled, in the following instances, **no** DSP resource will be used.

SIP Multi-Line Terminal (MLT)	to	SIP Multi-Line Terminal (MLT) or Standard SIP Terminal
Dterm IP Terminal	to	Dterm IP Terminal
Standard SIP Terminal	to	SIP Multi-Line Terminal (MLT) or Standard SIP Terminal

All other combinations between terminals (i.e., H.323 extension, H.323 trunk, trunk using SIP Networking, CygniLink, analog or digital extensions) will require 1 resource for each IP terminal or trunk involved in a call.

Refer to **Codec Selection** (page 624) for additional information on codec settings.

Because of the performance that would be experienced with the maximum number of calls, it is necessary to restrict the number of maximum number of simultaneous calls with a combination of the type and the number of codec frames. The table below indicates the performance level which can be achieved with the various settings.

Use the charts on the following pages to view how the different types of settings restrict the number of simultaneous calls within that range.

Group	Codec / Frame (VIF) Number *	Comments
Group 1	G.711 / 30ms	<ul style="list-style-type: none"> No compression Best voice performance Most restricted in the quantity of calls With a 32VOIPDB, 12 channels are possible with this setting. The remaining 20 channels must use one of the Group 3 settings shown below.
Group 2	G.723 / 30ms	<ul style="list-style-type: none"> Mid-range compression Good voice performance Some restrictions for the quantity of calls
	G.729 / 30ms	
	G.729 / 40ms	
	G.729 / 50ms	

SIP Terminals

The SIP MLT terminals (these are the Value, Enhanced, Desi-Less, and IP-CTS terminals, as well as the Softphone and WiFi phones) allow for 3 types on log-on: Plug and Play, Automatic Log-on, Manual Log-on.

- **Plug and Play Option**

The Plug and Play option does not require a user to log on or off. This option provides no security.

Once the terminal is registered and the extension number is assigned based on the MAC address of the terminal, it can be unplugged from the UX5000 and then reconnected, keeping the same extension number - even if a different IP address in DHCP is allocated.

The extension number can be pre-assigned locally at the terminal. If this is defined, when the terminal is connected, the MAC address is checked, and if the specified extension number is available, the terminal will be registered. When the extension is already assigned, when the terminal is connected, an error message will be displayed to the other terminals. If a new terminal is to be used and requires an extension previously assigned to another terminal, first delete the existing terminal within the UX5000 programming.

- **Automatic Log-On Option**

The Automatic Log-On option compares the user's log-on defined in the local terminal to the UX5000 data and will automatically log a user in. This option provides greater security as the personal ID and password defined within the terminal needs to correctly match the UX5000.

Define the extension number locally at the terminal - the UX5000 cannot automatically assign an extension number. If this is defined, when the terminal is connected, the MAC address is checked, and if the specified extension number is available, the terminal will be registered.

A personal ID/password can only be used by one terminal. A second terminal trying to register using the same personal ID/password will be refused and an error message will be displayed on the terminal.

The terminal type (as defined in Program 15-05-26) must match the defined entry for the extension. The personal index information (ID/Password) stored within the terminal and the UX5000 is compared and must also match when registering a terminal or an error message will be displayed.

- **Manual Log-On Option**

The Manual Log-On option requires a user to log in and log out. This option provides the greatest security as the user must know and correctly enter the personal ID and password.

Define the extension number locally at the terminal - the UX5000 cannot automatically assign an extension number.

When the terminal is connected, the MAC address is checked. The terminal type (as defined in Program 15-05-26) must match the defined entry for the extension. The user must also enter the correct personal index information (ID/password) assigned to the extension (Program 84-22-01/02) or an error message will be displayed.

The UX5000 can prevent a user from logging off based on the setting in Program 84-22-04. This could be useful for common area terminals (like a conference room). This option is only available for Manual Log-On.

The UX5000 can be set to require both the Personal ID and Password, or only the Password - the Personal ID will automatically display in the Login field. This is set in Program 84-22-03 and is only available for Manual Log-On.

Override allows a second terminal user (with the same type of terminal) to log on using the same Personal ID and Password as a previously logged on terminal. The original terminal is logged off and an override screen is displayed until the second terminal logs off. If the initial terminal, however, is active (i.e., on a call, uploading/downloading data, etc.), the override will be refused and an error message will be displayed on the second terminal's screen. The override can also be refused if the initial terminal is programmed to prevent logging off (Program 84-22-04) if the second terminal logging in is not the same terminal type (Economy, Value, Desi-Less, Sophisticated, Softphone, Wireless), or if the initial terminal has a 60-Button DSS Console connected.

Multiple Log-On allows for multiple terminal users to log on using the same Personal ID and Password, and each terminal type can be different (though the connecting terminal must match the defined terminal type for the extension number. For example, using the same Personal ID and Password, a Value terminal, Economy terminal, and Sophisticated terminal user can all log on using the same information, yet each user will have their own extension number. Unlike the Override option described above, this function will not block another user in order to log on.

Programming

- **10-46-01 : SIP Multi-Line Server Setup - Register Mode**
 Select the terminal registration mode of the SIP multi-line terminal (0=Plug and Play, 1 = Automatic Log-on, 2 = Manual Log-on). When this option is set to "1", set the beginning port number in Program 10-46-10.
- **10-46-04 : SIP Multi-Line Server Setup - User ID**
 Set the user id, up to 32 characters max, of the SIP URL to the UX5000 (ex: *UserID* @Host-Name.DomainName).
- **10-46-06 : SIP Multi-Line Server Setup - Reception Port**
 Define the port number (0-65535) for receiving SIP messages from the SIP multi-line terminal. Do not overlap this value with Program 10-29-04 and 84-20-01.
- **10-46-07 : SIP Multi-Line Server Setup - Encryption Mode**
 Set whether the encryption mode for the SIP message is used (0 = Disable, 1 = Enable). Set the password in Program 10-46-09 when this option is enabled.
- **10-46-08 : SIP Multi-Line Server Setup - Encryption Type**
 Read Only: The encryption type for the SIP message is set automatically.
- **10-46-09 : SIP Multi-Line Server Setup - One-Time Password**
 When Program 10-46-07 is enabled, set the one-time password for the encryption (up to 10 characters; 0~9, *, #).
- **10-46-10 : SIP Multi-Line Server Setup - Registration Beginning Port Number**
 When Automatic Log-on is used in Program 10-46-01, define the beginning port number (1-512).
- **15-05-01 : IP Terminal Terminal Basic Data Setup - Terminal Model**
 Define the terminal model for each IP extension (0=NGT, 1=H.323, 2=SIP, 3=Megaco, 4=SIP-MLT).

- **15-05-22 : IP Terminal Terminal Basic Data Setup - DSS Console Association**
If an IP extension has a DSS Console associated with it, enter the console number (0=none, 01-32=DSS Console). The DSS Console can only be associated with a MLT (Economy, Value, Desi-Less, Sophisticated terminal). The DSS number is determined by the order in which users log their terminal (terminal A = DSS1, terminal B = DSS2, etc.).
- **15-05-25 : IP Terminal Terminal Basic Data Setup - Host Name**
Read Only: The host name, up to 16 characters max, of the SIP URL for the terminal is displayed (ex: UserID @*HostName*.DomainName).
- **15-05-26 : IP Terminal Terminal Basic Data Setup - Terminal Type**
For each IP extension, define the terminal type (1-5) to be connected.
- **15-05-27 : IP Terminal Terminal Basic Data Setup - Personal ID Index**
Select the Personal ID index to be used for the extension. Refer to Program 84-22 for defining the Personal IDs. Note that duplicate terminal types (Program 15-05-26) cannot be assigned to the same Personal ID index. Example of acceptable entries:

Extension Number	Personal ID Index	Terminal Type
301	1	Type 1
302	2	Type 2
303	3	Type 3
304	3	Type 1
305	3	Type 2
306	3	Type 3
307	3	Type 4

- **15-05-29 : IP Terminal Terminal Basic Data Setup - WAN Side IP Address of Terminal**
Read Only: The WAN side IP address of the terminal is displayed.
- **84-10-01 : ToS Setup - ToS Mode**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), select the ToS mode (0=disable, 1=IP Precedence, 2=Diffserv).
- **84-10-02 : ToS Setup - Priority (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP), if Program 84-10-01 is set to "1", select the precedence (0=low - 7=high).
- **84-10-03 : ToS Setup - Low Delay (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "1", select the delay (0=normal delay, 1=low delay).
- **84-10-04 : ToS Setup - Wideband (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "1", select the throughput (0=normal throughput, 1=high throughput).
- **84-10-05 : ToS Setup - Reliability (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "1", select the reliability (0=normal reliability, 1=high reliability).
- **84-10-06 : ToS Setup - Low Cost (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "1", select the low cost mode (0=normal cost, 1=low cost).
- **84-10-07 : ToS Setup - Priority (Diffserv)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "2", select the Diffserv priority (0-63).

- **84-22-01 : SIP Multi-Line Log-On Setup - Personal ID**
For each Personal ID Index required, assign a personal ID used when logging in.
- **84-22-02 : SIP Multi-Line Log-On Setup - Password**
For each Personal ID Index required, define the password used when logging in. When changes are made to this option in WebPro when a user is logged in, the user must log off. Changing the password from user programming or from the terminal will automatically displays the log-in screen on the terminal.
- **84-22-03 : SIP Multi-Line Log-On Setup - Personal ID Omission**
For each Personal ID Index required, when Program 10-46-01 is set to 'manual log-on', determine when a personal id will be required (0=not required, 1 = required).
- **84-22-04 : SIP Multi-Line Log-On Setup - Log Off**
For each Personal ID Index required, when Program 10-46-01 is set to 'manual log-on', determine whether log-off is required (0=not required, 1 = required).
- **84-22-05 : SIP Multi-Line Log-On Setup - Nickname**
For each Personal ID Index required, define the nickname (32 characters max) other users can view. Each nickname in the UX5000 should be unique.
- **84-23-01 : SIP Multi-Line Terminal Setup - Register Update Time**
Define the Register update time (60-65535 seconds).
- **84-23-02 : SIP Multi-Line Terminal Setup - Subscribe Update Time**
Define the Subscribe update time (60-65535 seconds).
- **84-23-03 : SIP Multi-Line Terminal Setup - Session Update Time**
Define the Invite update time (0-65535 seconds).
- **84-23-04 : SIP Multi-Line Terminal Setup - Minimum Value of Session Update Time**
Define the minimum value for the Invite update time (0-65535 seconds).
- **84-23-05 : SIP Multi-Line Terminal Setup - Invite Start Time**
When the Expire value of the Invite message received from the SIP MLT is not set, the value defined here determines the time for sending and arrival of the message (0-65535 seconds).
- **84-23-06 : SIP Multi-Line Terminal Setup - ToS Value**
Define the ToS value for the registered SIP MLT (0x00 - 0xFF).
- **84-23-07 : SIP Multi-Line Terminal Setup - LCD Error Display time**
When a SIP MLT registration fails, define the LCD display time for the error message (0-65535 seconds). If set to "0", the message displays continuously until a Soft Key is pressed.
- **84-23-08 : SIP Multi-Line Terminal Setup - Register Start Time for ID**
Define the start time of the Register message for the ID received from the SIP MLT (0-4294967295 seconds).
- **84-23-09 : SIP Multi-Line Terminal Setup - Temporary Password**
Read Only: The temporary password for the encryption is displayed.
- **90-42-01 : DT700 Terminal Version Information - Software Version**
Use this option to set the software version of the DT700 terminal.
- **90-42-02 : DT700 Terminal Version Information - Hardware Version**
Use this option to set the hardware version of the DT700 terminal.
- **90-43-01 : Deleting Terminal License for DT700**
Use this option to set the delete the licensing for a DT700 terminal.

VoIP Terminals

When connecting an VoIP terminal, the MAC address (ID) is automatically registered in Program 15-05-02. If the registration in Program 15-05-02 is made manually, prior to connecting the terminal, when the terminal is connected, it will use the extension number assigned. The MAC address is printed on the barcode label on the bottom of the terminal. It is a 12-digit alphanumeric number, ranging from 0-9 and A-F.

Programming

➤ 15-05-02 : IP Terminal Terminal Basic Data Setup - NGT Fixed Port Assignment

For any Dterm IP terminal, the MAC Address as indicated on the terminal's label to assign a specific extension number. If this is not set, the UX5000 will automatically assign the next available extension number.

This option does not apply to standard SIP terminals.

Use line keys 1-6 to enter letters A-F (key 1=A, key 2=B, etc.)

Use caution when entering in the MAC Address as the UX5000 will allow duplicate entries to be made. If there are two duplicate entries, the lowest matching extension will be assigned to the MAC Address.

UX5000 IP Keypad

Each UX5000 IP keypad provides a menu for defining individual terminal programming. This menu allows for settings items such as DHCP mode for the terminal, IP address, gateway address, audio settings, security settings, etc.

Accessing the User Menu

1. On the UX5000 IP terminal, enter the terminal's program mode by pressing HOLD CONF *#. When the login screen appears, "Admin" is automatically displayed as the user name. Enter the password (by default: 6633222). Press the OK soft key. The following shows the menu items available in the terminal's programming.

1. Network Settings
 1. DHCP Mode
 - Disable
 - Enable
 2. IP Address
 3. Default Gateway
 4. Subnet Mask
 5. DNS Address
 6. Advanced Settings
 1. LAN Port Settings
 1. Speed & Duplex
 - Autonego
 - 100M Full
 - 100M Half
 - 10M Full
 - 10M Half
 2. VLAN Model
 - Disable
 - Enable
 3. VLAN IP
 4. VLAN Priority

- 2. PC Port Settings
 - 1. Speed & Duplex
 - Autonego
 - 100M Full
 - 100M Half
 - 10M Full
 - 10M Half
 - 2. Port VLAN Mode
 - Disable
 - Enable
 - 3. Port VLAN ID
 - 4. Port VLAN Priority
 - 5. Port Availability
 - Automatic
 - Disable
 - 6. EAPOL Forwarding
 - Disable
 - Enable
- 3. CDP Modem
 - Disable
 - Enable
- 4. Type of Service
 - 1. RTP
 - 2. SIP
- 2. SIP Settings
 - 1. SIP User
 - 1. User ID
 - 2. Password
 - 3. Incoming Number
 - 4. Backup Logon
 - Disable
 - Enable
 - 2. Server Address & URI
 - 1. 1st Server Address
 - 2. 2nd Server Address
 - 3. 3rd Server Address
 - 4. 4th Server Address
 - 5. Registrar Destination
 - 1. 1st Register Address
 - 2. 2nd Register Address
 - 3. 3rd Register Address
 - 4. 4th Register Address
 - 3. Access Mode
 - Normal
 - Remote
 - 4. SIP Server Port
 - 1. 1st Server Port
 - 2. 2nd Server Port
 - 3. 3rd Server Port
 - 4. 4th Server Port

5. Registrar Destination

1. 1st Register Port
2. 2nd Register Port
3. 3rd Register Port
4. 4th Register Port

5. Area ID

Automatic
Japan
America
Australia
Others
Hong Kong
Malaysia
Singapore
Mexico
Taiwan
Korea
Brazil
China
Thailand
Thailand (EGAT)
Sri Lanka
Germany
Italy
Netherlands
Catalonia
Denmark
Sweden
Poland
Czech
Norway
France
Portugal
Spain
Austria
Belgium
UK
Greece
Switzerland
South Africa
Brazil (NEC Philips)

6. Extra Function

1. Retransmit Interval
 - Standard
 - 6 Seconds
2. Keeping Call
 - Disable
 - Enable
- Howler Tone
 - Disable
 - Enable

3. Maintenance Settings

1. Download Menu
 1. Download Files

1. Config
2. Certificate
 1. Client
 2. CA
3. Boot & Program
4. Flash Memory Image
5. Voice File
6. Translation Data
2. Download Address
3. Protocol
 - FTP/TFTP
4. FTP Settings
 1. User ID
 2. Password
 3. Folder
2. Hard Reset
3. Data Clear
 1. Factory Value
 2. Terminal Data
 3. Personal Data
4. Adjust
 1. Audio
 1. Sidetone Volume
 2. Send Gain
 3. Receive Bias
 4. Receive Gain
 2. Key Kit Type
 - Kit 1
 - Kit 2
 - Kit 3
 - Kit 4
 - Kit 8
 - Kit 9
 - Kit 10
 - Kit 11
 - Kit 12
5. Auto Config
 - Disable
 - Enable
6. Data Maintenance
 1. Backup
 1. Terminal & Personal Data
 2. Terminal Data
 3. Personal Data
 2. Restore
 1. Terminal & Personal Data
 2. Terminal Data
 3. Personal Data
 3. Server Address

- 4. Protocol
 - FTP
 - TFTP
- 5. FTP Settings
 - 1. User ID
 - 2. Password
 - 3. Folder
- 4. Security
 - 1. Web Programming
 - Disable
 - Enable
 - 2. Push Server
 - 1. Push Server Access
 - Disable
 - Enable
 - 2. Client IP Address
 - 3. Push Server Port
 - 3. Admin Password
 - 4. 802.1X Supplicant
 - 1. Supplicant
 - Disable
 - Enable
 - 2. Account
 - 3. Password
 - 4. EAPOL VLAN Mode
 - Disable
 - Enable
- 5. Terminal Information (display only)
- 6. Application Settings
 - 1. Screen Saver URL
 - 2. XML Settings
 - 1. Terminal ID
 - 2. XML Browser
 - 1. Home URL
 - 2. Proxy Settings
 - 1. Proxy IP
 - 2. Proxy Port
 - 3. Directory URL
 - 3. IPM Self Port
 - 4. TCS Settings
 - 1. TCS Mode
 - Disable
 - Enable
 - 2. Mate Address
 - 3. Mate Port
 - 4. Self Port
 - 5. Incoming Popup
 - 1. Popup Mode

-
- Disable
 - Enable
 - # Special
 - 1. Port Settings
 - 1. RTP Self Port
 - 2. SIP Self Port
 - 2. Upload
 - 1. Data Upload
 - 1. Log Data
 - TFTP
 - FTP
 - 2. Upload Address
 - 3. Compulsive TP Start
 - 4. PC Port Link Watch
 - Disable
 - Enable
 - 5. Special Mode
 - 1. SIP Capture
 - Disable
 - Enable
 - 2. CDP Cisco Parameter
 - Disable
 - Enable
 - 3. PLC Mode
 - Default
 - Frame Repeat
 - G711-APXI
 - BVC
 - 4. Debug Mode
 - Serial Only
 - Serial & Telnet
 - Side Option Only
 - Side Option & Telnet
 - 6. Supplicant Timers
 - 1. Start Period
 - 2. Auth Period
 - 3. Held Period
 - 4. Max Start
 - 7;. Error Log Clear
 - 8. Developer Password
2. Press the Soft Key “SAVE” to save the entries and return the terminal to an idle condition.

IP Trunks

When installing a VoIP daughter board, the UX5000 will not automatically assign ports to the card. This must be defined in UX5000 program 10-40-02. This program defines the ports in groups of 4.

Programming

- **10-40-01 : IP Trunk Availability - SIP Trunk Availability**
Enable (1) or disable (0) SIP trunk usage.
- **10-40-02 : IP Trunk Availability - Number of Ports**
Assign the number of trunk ports used for SIP (1-128).
- **14-01-32 : Basic Trunk Data Setup -**
With networked H.323 trunks, enable (1) or disable (0) the UX5000's ability to release the external H.323 trunks when a call is placed across the network to an extension which is forwarded back to the originating system. If enabled, in this situation, the call is changed from an external trunk call to an internal call and the H.323 trunks are released for other calls.

Bandwidth Setting for UX5000

Setting the bandwidth limitation in the UX5000 restricts the amount of bandwidth the UX5000 uses for a call.

Packet Len. (msec)	Required Voice Bandwidth (Kbps) Per Call (TX+RX RTP)					
	G711 No VLAN	G711 VLAN	G729 No VLAN	G729 VLAN	G723 No VLAN	G723 VLAN
10	-	-	-	-	-	-
20	160	161.6	48	49.6	-	-
30	149.4	150.4	37.4	38.4	32	33
40	-	-	32	32.8	-	-
50	-	-	28.8	29.6	-	-
60	-	-	26.8	27.2	21.4	21.8
70	-	-	25.2	25.6	-	-
80	-	-	24	24.4	-	-

To help determine the bandwidth requirements for the UX5000, the NEC Technical Support web site (<http://ws1.necii.com>) provides a bandwidth calculator. This web site requires registration with the NEC Sales Support. Contact them by terminal (1-800-365-1928) or EMail (ubsdsupport@necinfrontia.com) in order to register. It is important to remember that the bandwidth calculator is based on a single voice channel. It takes two voice channels (send and receive) for each terminal conversation.

Programming

- **84-01-34 : Codec Information Basic Setup - Bandwidth Control**
Enable (1) or disable (0) voice bandwidth control on H.323 trunks.
- **84-01-35 : Codec Information Basic Setup - Maximum Bandwidth**
Set the maximum total bandwidth limitation for voice packets (0-65535 kbps). Calls are restricted which are above the maximum bandwidth. Only RTP packets are considered.

Licensing

The UX5000 supports up to a maximum of 512 IP terminals, as permitted by licensing. An IP license will cover either a Dterm IP terminal or a SIP terminal. When the licenses or the UX5000 capacity has been exceeded, when the next terminal tries to register, the display will indicate an error message.

Networking Over IP

The UX5000 allows Networking connection between several different UX5000s. UX5000 supports Networking using ISDN or VoIP.

Channel Release Link with Networked Calls

When a trunk from site A rings an extension in site B, site B answers and transfers the call back to an extension in site A, the following occurs:

- On the initial call, there is 1 media gateway channel used on each site.
- When site B puts the call on hold and transfers it to site A, another media gateway channel is used in site B.
- When site A answers the call, ALL media gateway channels are released.

Programming

- **10-12-09 : CPU Network Setup - VoIP Daughter Board IP Address**
Set the LAN IP address for the 32, 64 and 128 channel VoIP daughter boards. The IP number increases by one for each increase in the slot number The UX5000 must be reset in order for the change to take effect.
- **10-12-10 : CPU Network Setup - VoIP Daughter Board Subnet Mask**
Select the Subnet Mask to be used by the VoIP daughter board (default: 255.255.0.0).
- **10-23-01 : H.323 System Interconnection - System Interconnection**
Enable (1) or disable (0) the system interconnection. This program is activated when Program 10-17-01 and 10-18 are registered.
- **10-23-02 : H.323 System Interconnection - IP Address**
Define the IP address of another node for UX5000 inter-connection. This program is activated when Program 10-17-01 and 10-18 are registered. The UX5000 allows for up to 1000 systems to be registered.
- **10-23-03 : H.323 System Interconnection - Call Control Port**
Define the call control port number for UX5000 inter-connection. This program is activated when Program 10-17-01 and 10-18 are registered. The UX5000 allows for up to 1000 systems to be registered.
- **10-23-04 : H.323 System Interconnection - Alias Address**
Define the alias address for UX5000 inter-connection. This program is activated when Program 10-17-01 and 10-18 are registered. The UX5000 allows for up to 1000 systems to be registered. If Program 10-28-04 is used, its entry must be numeric as 10-23-04 does not permit text entry - only numeric entries.
- **10-27-01 : IP System ID**
For each of the networked IP systems, define the IP addresses.
- **10-28-01 : SIP Trunk Basic Setup - Domain Name**
Define the Domain name (up to 64 characters). This information is generally provided by the SIP carrier.
- **10-28-02 : SIP Trunk Basic Setup - Host Name**
Define the Host name (up to 48 characters). This information is generally provided by the SIP carrier.

- **10-28-04 : SIP Trunk Basic Setup - User ID**
Define the User ID (up to 32 characters). Note: If Program 10-23-04 for UX5000 interconnection, this entry must be numeric as 10-23-04 does not allow text entry - only numeric. This information is generally provided by the SIP carrier.
- **10-29-14 : SIP Proxy Setup - SIP Carrier Choice**
Define the SIP Carrier Choice for SIP trunks (0=Default, 1=Carrier A, 2=Carrier B, 3=Carrier C, 4=Carrier D, 5=Carrier E, 6=Carrier F, 7=Carrier G).
- **84-12-31 : Networking Codec Information Setup - DTMF Relay Mode**
Define the DTMF Payload (Networking). (Entries: 0=Disable, 1=RFC2833, 2=VOIPDB)

Peer-to-Peer Connection

A UX5000 Dterm IP keyset can send and receive RTP packets to/from another Dterm IP keyset without using DSP resources on a VOIPDB daughter board. In addition, when standard SIP terminals or SLT MLTs are connected, SIP Peer-to-Peer is also possible between these terminals. Note, however, that there is no Peer-to-Peer between Dterm IP keysets and SIP terminals. Peer-to-Peer over a networked system is not possible.

Peer-to-Peer is supported by SIP terminals with RFC3261 compliance, such as Grandstream's BudgeTone100 or HandyTone286, or Hitachi Cable's Wireless IP 5000.

This operation only allows Intercom calls between the terminals. If a non-IP keyset, H.323, outside CO line or networked extension is required, a DSP resource is needed and a VOIPDB daughter board must be installed - peer-to-peer will not work. If, while on a peer-to-peer call, a Conference call is formed, the peer-to-peer connection is released and a new non peer-to-peer connection is created using the VOIPDB daughter board. If the third party drops out of the conversation, the call reverts to a peer-to-peer call (silence may be heard while this conversion is made by the UX5000). A non peer-to-peer call can become a peer-to-peer call when the connected parties are changed to compatible terminals (for example, a digital keyset user parks an intercom call with a SIP terminal and the call is picked up by a SIP terminal or SIP MLT user).

When there is no DSP resource available when a SIP terminal places a call, a local busy signal is heard by the SIP terminal user. When the DSP resource becomes available and the call can be placed, a local ringback tone of the standard SIP terminal is sent.

The following chart is used to indicate when a resource would be used or not used when a Dterm IP extension or SIP extension places a call.

The DSP resource is not consumed only as follows.

- Call in Peer-to-Peer mode between SIP-MLT terminal and standard SIP terminal.
- Telephone call in Peer-to-Peer mode mode with Dterm IP terminals.

Terminal Type	Connected to Device/Trunk	Channel Resource
SIP-MLT (multi-line terminal)	SIP-MLT and SIP extension	Peer-to-Peer: Resource not used. Not Peer-to-Peer: Resource used.
	Dterm IP, H323 extension, H323 outside line, SIP outside line, Networking, and CygniLink	Resource used.
D-TermIP	Dterm IP	Peer-to-Peer: Resource not used. Not Peer-to-Peer: Resource used.
	SIP-MLT, H323 extension, H323 outside line SIP extension, SIP outside line Networking, and CygniLink	Resource used.
H.323 extension	SIP-MLT, Dterm IP, and H323 extension, H323 outside line, SIP extension, SIP outside line Networking, and CygniLink	Resource used.
H.323 outside line	SIP-MLT, Dterm IP, and H323 extension, H323 outside line, SIP extension, SIP outside line Networking, and CygniLink	Resource used.
SIP extension	SIP-MLT and SIP extension	Peer-to-Peer: Resource not used. Not Peer-to-Peer: Resource used.
	Dterm IP, H323 extension, H323 outside line, SIP outside line, Networking, and CygniLink	Resource used.
SIP outside line	SIP-MLT, D-TermIP, and H323 extension, H323 outside line, SIP extension, SIP outside line Networking, and CygniLink	Resource used.
Networking	SIP-MLT, D-TermIP, and H323 extension, H323 outside line SIP extension, SIP outside line Networking, and CygniLink	Resource used.
CygniLink	SIP-MLT, D-TermIP, and H323 extension, H323 outside line, SIP extension, SIP outside line Networking, and CygniLink	Resource used.

The following table indicates how Peer-to-Peer interacts when using the following features.

Feature		
Outgoing Calls	These outgoing call conditions can be a peer-to-peer connection, if the option is enabled and both terminals which are part of the call are the same type of device (SIP terminal/SIP MLT to SIP terminal/SIP MLT or Dterm IP to Dterm IP).	<ul style="list-style-type: none"> • Extension Call • Department Group Pilot Number • Operator Access • Virtual Extension
	These outgoing call conditions require a DSP resource.	<ul style="list-style-type: none"> • Voice Mail Access • Signal/Voice Call Switching • Outgoing Trunk Access • Dialing a Service Code
Incoming Calls	These incoming call conditions can be a peer-to-peer connection, if the option is enabled and both terminals which are part of the call are the same type of device (SIP terminal/SIP MLT to SIP terminal/SIP MLT or Dterm IP to Dterm IP).	<ul style="list-style-type: none"> • Extension Call • Department Group Pilot Number • Virtual Extension
	These incoming call conditions require a DSP resource.	<ul style="list-style-type: none"> • Normal Ring Trunk • DISA/DISA • Lease Line • Door Box
Hold/Hold Pickup	<ul style="list-style-type: none"> • With a Peer-to-Peer connection, RTP of a held terminal is stopped once any hold message is finished and, if applicable, once the local Music on Hold is sent. (Refer to Service Codes (page 658) for details when using service codes.) • A non peer-to-peer call placed on hold will keep the secured DSP resource. If the connection changes to Peer-to-Peer after the held call is answered or disconnected, the DSP is released. 	
	These held call conditions can be a peer-to-peer connection, if the option is enabled and both terminals which are part of the call are the same type of device (SIP terminal/SIP MLT to SIP terminal/SIP MLT or Dterm IP to Dterm IP). If a non-Dterm IP/SIP terminal is part of the call, then a DSP resource is required.	<ul style="list-style-type: none"> • Normal Hold • Exclusive Hold • Park • Personal Park
	Answering the following held calls, a call can be Peer-to-Peer if both terminals which are part of the call are the same type of device (SIP terminal/SIP MLT to SIP terminal/SIP MLT or Dterm IP to Dterm IP).	<ul style="list-style-type: none"> • Park Answer • Station Group Hold Answer • Personal Park Answer • Exclusive/Normal Hold
	This condition requires a DSP resource.	<ul style="list-style-type: none"> • Trunk Answer

Feature		
Transfer	<ul style="list-style-type: none"> When a call is transferred and both parties are compatible terminals, the call changes to a Peer-to-Peer call if enabled. If a transfer fails or is cancelled, the recalled call between compatible terminals changes to Peer-to-Peer, if enabled. A DSP resource is required when a call forwarding station is a non-compatible terminal. 	
	<p>These transferred call conditions can be a peer-to-peer connection <i>after the transfer</i>, if the option is enabled and both terminals which are part of the call are the same type of device (SIP terminal/SIP MLT to SIP terminal/SIP MLT or Dterm IP to Dterm IP).</p>	<ul style="list-style-type: none"> Call Forward - Immediate Call Forward - Both Ring Call Forward - No Answer Call Forward - Follow Me Call Forward - Busy Call Forward - Busy/No Answer Fixed Call Forward Call Forward to Device Transfer - Normal Transfer - Blind/Unsupervised
	<p>Answering the following held calls, a call between compatible terminals can be Peer-to-Peer (SIP terminal/SIP MLT to SIP terminal/SIP MLT or Dterm IP to Dterm IP).</p>	<ul style="list-style-type: none"> Fixed Call Forward Off-premise Automated Attendant (DSPDB Voice Mail) Automated Attendant (in-skin Voice Mail)
Callback	<p>These Callback call conditions can be a peer-to-peer connection <i>after the transfer</i>, if the option is enabled and both terminals which are part of the call are the same type of device (SIP terminal/SIP MLT to SIP terminal/SIP MLT or Dterm IP to Dterm IP).</p>	<ul style="list-style-type: none"> Hold Callback Camp-On Callback Transfer Callback
Out of Area	<p>This out-of-area call condition can be a peer-to-peer connection <i>after the transfer</i>, if the option is enabled and both terminals which are part of the call are the same type of device (SIP terminal/SIP MLT to SIP terminal/SIP MLT or Dterm IP to Dterm IP).</p> <p>With an Out-of-Area VRS message: If the terminal can secure a DSP resource, the VRS message is sent out. If the terminal can't secure a DSP resource, the VRS message is not sent.</p>	<ul style="list-style-type: none"> Out of Area Call Transfer

Using Service Codes with Peer-to-Peer

Refer to the following chart for a list of the service codes which allow for Peer-to-Peer (P2P) when using compatible terminals and any conditions which may apply. Any service code not displayed below does not support Peer-to-Peer.

Service Code Function		Condition for Peer-toPeer
Program 11-12		
No	Function Name	Comments
1	DND / FWD Override Call (bypass call)	A DSP resource is required when the called extension is a non-SIP/DtermIP terminal. No DSP resource is required when the call extension is the same type of SIP/DtermIP terminal.
2	Conference	A DSP resource is required at the time of conference-hold. A telephone call uses the VOIPU during the conference. When it changes from a 3-person call to a 2-person call, if the call is between the same type of SIP/DtermIP terminals, it is Peer-to-Peer.
3	Call Waiting (off-hook signaling)	A call is possible from a SIP/DtermIP terminal. A SIP/DtermIP terminal cannot be called. A DSP resource is required.
4	Camp On/Call Waiting/Callback	With an outgoing call, a DSP resource is required. An incoming call camped on to the same type of SIP/DtermIP terminal can be Peer-to-Peer.
5	Cancel Camp-On	When the service code is dialed, a DSP resource is required.
6	Switching of Voice Call and Signal Call	An outgoing call to a non-SIP/DtermIP terminal requires a DSP resource. With an outgoing call to a SIP/DtermIP terminal, this service code is not possible.
7	Step Call	When the step call extension is non-SIP/DtermIP terminal, a DSP resource is required. After the step call is answered, if the call is between the same type of SIP/DtermIP terminals, it is Peer-to-Peer.
8	Barge In	At the time of the barge in, the call is handled on the VOIPU. Once the call is only between 2 SIP/DtermIP terminals, it's Peer-to-Peer. When a Peer-to-Peer call has been barged in upon, DSP resources for the number of SIP/DtermIP terminal are needed.
9	Change to STG All Ring	After the service code is dialed, if the call is between the same type of SIP/DtermIP terminals, it's Peer-to-Peer.
10	Common Abbreviated Dialing	After the service code is dialed, if the call is between the same type of SIP/DtermIP terminals, it's Peer-to-Peer.
11	Group Abbreviated Dialing	After the service code is dialed, if the call is between the same type of SIP/DtermIP terminals, it's Peer-to-Peer.
12	Last Number Dialing	After the service code is dialed, if the call is between the same type of SIP/DtermIP terminals, it's Peer-to-Peer.
13	Saved Number Dialing	A DSP resource is required.
14	Trunk Group Access (Placing central office calls)	A DSP resource is required.
15	Specified Trunk Access (Placing central office call)	A DSP resource is required.

Service Code Function		Condition for Peer-to-Peer
Program 11-12		
No	Function Name	Comments
16	Trunk Access via Networking	A DSP resource is required.
17	Clear Last Number Dialed Data	When the service code is dialed, a DSP resource is required.
18	Clear Saved Number Dialed Data	When the service code is dialed, a DSP resource is required.
19	Internal Group Paging	SIP/DtermIP terminals do not receive internal pages, but can make a page. A DSP resource is required.
20	External Paging	SIP/DtermIP terminal supports making a page, however, a DSP resource is required.
21	Meet Me Answer to Specified Internal Paging Group	Answering using a service code requires a DSP resource. After answering, if the connected devices are the same type of SIP/DtermIP terminals, Peer-to-Peer is possible.
22	Meet Me Answer to External Paging	Answering using a service code requires a DSP resource. After answering, if the connected devices are the same type of SIP/DtermIP terminals, Peer-to-Peer is possible.
23	Meet Me Answer in Same Paging Group	<i>Not Supported</i>
24	Combined Paging	SIP/DtermIP terminals do not receive pages, but can make a page. A DSP resource is required.
25	Direct Call Pickup - Own Group	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
26	Call Pickup for Specified Group	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
27	Call Pickup	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
28	Call Pickup for Another Group	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
29	Direct Extension Call Pickup	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
30	Specified Trunk Answer	A DSP resource is required.
31	Park a Call in Orbit	A DSP resource is required.
32	Pick Up a Parked Call	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
33	Place a Call on Group Hold	A DSP resource is required.
34	Pick a Call on Group Hold	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
35	Personal Park	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
36	Door Box Access	A DSP resource is required.
37	Common Canceling Service Code	When the service code is dialed, a DSP resource is required.

Service Code Function		Condition for Peer-to-Peer
Program 11-12		
No	Function Name	Comments
38	General Purpose Indication	When the service code is dialed, a DSP resource is required.
39	Voice Mail Center Access (DSPDB)	A DSP resource is required.
40	Personal Abbreviated Dial	After dialing the service code, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
41	Voice Over	<i>Not Supported</i>
42	Flash on Trunk Lines	A DSP resource is required.
43	Universal Answer Page Ring	A DSP resource is required.
44	Callback Test for SLT	<i>Not Supported</i>
45	Enabled On-Hook When Holding (SLT)	A DSP resource is required.
46	Answer On-Hook When Holding (SLT)	After answering the call, if the connected extension is the same type of SIP/DtermIP terminal, Peer-to-Peer is possible.
47	Call Waiting Answer / Split Answer for SLT	<i>Not Supported</i>
48	Account Code	<i>Not Supported</i>
49	-- Not used --	--
50	General Purpose Relay	A DSP resource is required.
51	Call Own Mailbox (VMSU/FMSU)	A DSP resource is required.
52	Live Monitoring (VMSU/FMSU)	<i>Not Supported</i>
53	Live Recording at SLT (VMSU/FMSU)	A DSP resource is required.
54	ANI/DNIS Routing to VAU	A DSP resource is required.
55	-- Not used --	--
56	Turning Off the E911 Alarm Ring	<i>Not Supported</i>
57	Tandem Trunking (Unsupervised Conference)	A DSP resource is required.
58	Transfer Into Conference	<i>Not Supported</i>
59	Line Drop Operation for SLT	<i>Not Supported</i>
60	Directory Dialing	<i>Not Supported</i>

Service Code Function		Condition for Peer-to-Peer
Program 11-16 (Single Digit Codes)		
No	Function Name	Comments
1	Step Call	When the step call extension is non-SIP/DtermIP terminal, a DSP resource is required. After the step call is answered, if the call is between the same type of SIP/DtermIP terminals, it is Peer-to-Peer.
2	Break In	At the time of the barge in, the call is handled on the VOIPU. Once the call is only between 2 SIP/DtermIP terminals, it's Peer-to-Peer. When a Peer-to-Peer call has been barged in upon, DSP resources for the number of SIP/DtermIP terminal are needed.

3	Switching of Voice/Signal Call	An outgoing call to a non-SIP/DtermIP terminal requires a DSP resource. With an outgoing call to a SIP/DtermIP terminal, this service code is not possible.
4	Call Waiting (Intercom Off-Hook Signaling)	Peer-to-Peer is possible FROM a standard SIP terminal, but not TO a standard SIP terminal. With SIP MLT/DtermIP terminals, Peer-to-Peer is possible once the call is connected. A DSP resource is required while initially calling.
5	Camp-On	With an outgoing call, a DSP resource is required. An incoming call camped on to the same type of SIP/DtermIP terminal can be Peer-to-Peer.
6	DND Override/Call Forward Override	A DSP resource is required when the called extension is a non-SIP/DtermIP terminal. No DSP resource is required when the call extension is the same type of SIP/DtermIP terminal.
9	Voice Mail	Peer-to-Peer is possible with IP voice mail.
10	STG All Ring Mode	A DSP resource is required while initially calling, but Peer-to-Peer is possible once response received.
11	Station Park Hold	A DSP resource is required while initially dialing, but Peer-to-Peer is possible once answered.

Conditions

- When a Peer-to-Peer call requires a DSP resource and none is available, the call operation is not completed.
- With Barge-In, a short silence may be heard if the following occurs:
 - A Peer-to-Peer call receives a Barge-In without a Barge-In tone.
 - A Peer-to-Peer call receives a Barge-In with Monitor mode.
 - When the established Barge-In is disconnected.

Programming

- ◆ **10-26-01 : IP System Operation Setup - Peer-to-Peer Mode for Dterm IP Keysets**
Enable (1) or disable (0) peer-to-peer operation for Dterm IP keysets.
- ◆ **10-26-03 : IP System Operation Setup - SIP Peer-to-Peer Mode for SIP Terminals**
Enable (1) or disable (0) peer-to-peer operation for standard SIP terminals.

RTP Forwarding

Real-Time Transport Protocol (RTP) is an internet protocol for transmitting real-time data such as audio and video. It provides mechanisms for sending and receiving applications to support streaming data. With RTP Forwarding, this data can be forwarded to multiple network devices. The VOIPDB daughter board does not decode the RTP packet, but instead just transfers it, decreasing the delay in sending the RTP packets.

RTP Forwarding will take affect when:

- Program 10-26-02 is enabled.
- IP call via VoIP daughter board.
- DSP channels on the same VOIPDB daughter board are used.
- The codec and payload size used RTP packet 1 and RTP packet 2 are the same.
- VAD mode is disabled.

Conditions

- If a digit key on an IP terminal is pressed, the RTP Forwarding is temporarily disabled. After a 5 second delay (Program 21-01-03 : Trunk Interdigit Timer), RTP Forwarding is automatically enabled.
- If RTP Forwarding is enabled and RTP packets are not sent from the other terminal, an error tone is heard.

Programming

◆▶ 10-26-02 : IP System Operation Setup - RTP Forwarding

Enable (1) or disable (0) RTP Forwarding for the UX5000. If this option is disabled, the DSP is used from the VOIPDB which has low load channel. If this option is enabled, the DSP is used from the same VOIPDB channel.

Security Mode

Enable or disable the use of the security/protection button for UX5000 IP terminals.

Programming

◆▶ 15-05-24 : IP Terminal Basic Data Setup - Protection Mode

Enable (1) or disable (0) the use of the security/protection button for UX5000 IP terminals.

◆▶ 90-49-01 : Button Kit Information of Multi-Line Terminal - Release Protection Mode

If required, release the protection state of an UX5000 IP terminal.

◆▶ 90-49-02 : Button Kit Information of Multi-Line Terminal - Initialize Password Protection

If required, initialize the protection password of an UX5000 IP terminal.

Tandem Connection

To call from one UX5000 to another, set the following programs.

Programming

◆▶ 15-05-12 : IP Terminal Basic Data Setup - System Type

◆▶ 15-05-13 : IP Terminal Basic Data Setup - IP Address for Other System

Define the IP address for the connected UX5000.

◆▶ 15-05-14 : IP Terminal Basic Data Setup - Call Control Port for Other System

The Call Control Port for the other UX5000 is defined in this program. This item is fixed at 1720 and it cannot be changed.

VLAN/QoS

Layer 2

Programming - UX5000, VLAN/QoS - Layer 2

◆▶ 84-09-01 : VLAN Setup - VLAN Mode

Enable the VLAN mode for the UX5000 (0=disable, 1=enable). The UX5000 must be reset in order for the change to take effect. If the VLAN mode is enabled, the UX5000 sends all packets with a VLAN tag - if disabled, no VLAN tag is sent in the packets.

- **84-09-02 : VLAN Setup - VLAN ID**
Enter the ID to be used for the VLAN (1-4094). The UX5000 must be reset in order for the change to take effect.
- **84-09-03 : VLAN Setup - Priority**
Enter the priority of the VLAN (0-7). The UX5000 must be reset in order for the change to take effect.

Layer 3 (ToS)

The router-supported ToS controls routing priority of packets by following the ToS field. It is possible to give priority to the voice packet using the ToS field.

- There are two types of ToS formats: DiffServ and IP Precedence. Before programming your router, make sure to check which type is supported by your router.

Programming - VLAN/QoS - Layer 3

- **84-10-01 : ToS Setup - ToS Mode**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), select the ToS mode (0=disable, 1=IP Precedence, 2=Diffserv).
- **84-10-02 : ToS Setup - Priority (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP), if Program 84-10-01 is set to "1", select the precedence (0=low - 7=high).
- **84-10-03 : ToS Setup - Low Delay (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "1", select the delay (0=normal delay, 1=low delay).
- **84-10-04 : ToS Setup - Wideband (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "1", select the throughput (0=normal throughput, 1=high throughput).
- **84-10-05 : ToS Setup - Reliability (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "1", select the reliability (0=normal reliability, 1=high reliability).
- **84-10-06 : ToS Setup - Low Cost (IP Precedence)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "1", select the low cost mode (0=normal cost, 1=low cost).
- **84-10-07 : ToS Setup - Priority (Diffserv)**
For the Protocol type (1=DRS, 2=Protims, 3=Voice Control, 4=H.323, 5=RTP/RTCP, 6=SIP, 8=SIP MLT), if Program 84-10-01 is set to "2", select the Diffserv priority (0-63).

IP trunk only 3 = Networking (network)/Telco4 = CygniLink, 5 = Blocked
Default Setting Disabled.

Operation

Refer to the individual features for operation.

Volume Controls

Feature Availability

- Available.

Description

Each keyset user can control the volume of incoming ringing, splash tone, Paging, Background Music, Handsfree and your handset. Keysets consolidate all adjustments into the volume buttons. Pressing the Navigation Pad up or down will adjust the volume level for whichever feature is active (outside call, ICM, ICM ringing, paging, etc.). Pressing these keys when the terminal is idle will adjust the contrast level of the terminal's display. The users should set the volumes for their most comfortable levels.

Within UX5000 programming, an option is available which will allow the terminal to retain the user's settings for the handset and speakerphone volume, or it can default back to the UX5000 setting.

Conditions

The contrast is not adjustable when the terminal has background music enabled.

Default Setting

Enabled.

Programming

- ◆▶ **11-11-37 : Service Code Setup (for Setup/Entry Operation) - Adjusting Ring Volume**
If required, change the service code used to adjust a keyset's ring volume (829).
- ◆▶ **15-02-27 : Multi-Line Terminal Basic Data Setup, Retain Handset Volume**
This option determines whether a keyset's handset volume will change back to the UX5000 default (0) or whether it will be retained at the user's setting (1) after hanging up the handset. This setting will also affect whether or not the speakerphone volume will be reset.

Related Features

None

Operation

To adjust the volume of incoming ringing and splash tone:

1. If the terminal is idle, press the CALL key and dial 829. If the terminal is ringing, skip to Step 2.
2. Press the Navigation Pad up or down to raise or lower the volume.

To adjust the volume of ringing incoming Paging announcements, Handsfree, the handset or Background Music:

1. Press the Navigation Pad up or down to raise or lower the volume.

The feature must be active to change the volume. Pressing the volume keys when the terminal is idle will adjust the display's contrast.

Warning Tone For Long Conversation

Feature Availability

- Available.

Description

The UX5000 can broadcast warning tones to a trunk user warning them that they have been on the call too long. The tones are just a reminder -- the user may be able to disregard the tones and continue talking if they choose. In addition, warning tones do not occur for Intercom calls.

The UX5000 can be programmed to use warning tones for outgoing or incoming trunks as well as DISA trunks. When warning tones are used for outgoing calls, the outside caller does not hear the warning tones. Using warning tones on incoming calls, however, both parties will hear the tone.

There are two types of warning tones: Alarm Tone 1 and Alarm Tone 2. Alarm Tone 1 is the first set of tones that occur after the user initially places a trunk call. Alarm Tone 2 broadcasts periodically after Alarm Tone 1 as a continued reminder.

If programmed, DISA calls will be disconnected unless the “continue” code is entered by the user. With the Long Conversation Cutoff feature, incoming or outgoing central office calls can also be disconnected.

Warning Tone for DISA Callers

For DISA callers, with this feature enabled, the warning tone timer begins when an incoming DISA call places an outgoing call and either the inter-digit timer expires or the outgoing call is answered.

If an outside call is transferred to forwarded off-premise using an outside trunk, the warning tone timer begins immediately. This will occur only if either trunk involved in the call is programmed for this feature (Program 14-01-17). When transferring a trunk call off-premise, Program 14-01-13 must be enabled (set to ‘1’).

Conditions

None

Default Setting

Disabled.

Warning Tone For Long Conversation

Programming

Outgoing Trunks

- **20-06-01 : Class of Service for Extensions**
Assign a Class Of Service (1-15) to an extension for each night mode (1-8).
- **20-13-01 : Class of Service Options (Supplementary Service) - Long Conversation Alarm**
In an extension's Class of Service (1-15), enable (1) or disable (0) Warning Tone for Long Conversation for outgoing calls.
- **20-21-01 : System Options for Long Conversation - Long Conversation Alarm 1**
After a user places a trunk call, the UX5000 sends the first warning tone to their extension after this interval (0-64800 seconds).
- **20-21-02 : System Options for Long Conversation - Long Conversation Alarm 2**
After hearing the first warning tone, the UX5000 sends additional warning tones after this interval (0- 64800 seconds). The warning tones continue, spaced by this interval, until the user hangs up.
- **21-01-03 : System Options for Outgoing Calls - Trunk Interdigit Time (External)**
Determine the length of time the UX5000 should wait before starting the Warning Tone Timer.

Incoming Trunks

- **14-01-18 : Basic Trunk Data Setup - Warning Tone For Incoming Calls**
Enable (1) or disable (0) this option for each trunk to determine if the Warning Tone for Long Conversations is used for incoming calls.
- **20-18-09 : Service Tone Timers - Incoming Warning Tone Timer**
When an incoming trunk is set to use the warning tone (Program 14-01-18), define the interval between the tones (0-64800 seconds). The warning tones continue, spaced by this interval, until the user hangs up.

DISA Trunks

- **14-01-17 : Basic Trunk Data Setup - Trunk-to-Trunk Warning Tone for Long Conversation Alarm**
Determine whether DISA callers should hear the Warning Tone for Long Conversations (0=disabled, 1=enabled).
- **14-01-25 : Basic Trunk Data Setup - Continue/Disconnect Trunk-to-Trunk Warning Conversation**
With a DISA trunk set to disconnect after the warning tone, determine whether DISA callers should be able to use the continue/disconnect codes (0=disabled, 1=enabled).
- **20-28-01 : System Option for Trunk-to-Trunk Conversations - Conversation Continue Code**
With a DISA trunk set to disconnect after the warning tone, enter a single digit Continue Code to be used to immediately disconnect or continue an outside call (0-9, * or # are accepted entries).
- **20-28-02 : System Option for Trunk-to-Trunk Conversations - Conversation Disconnect Code**
With a DISA trunk set to disconnect after the warning tone, enter a single digit Disconnect Code to be used to immediately disconnect or continue an outside call (0-9, * or # are accepted entries).
- **20-28-03 : System Option for Trunk to Trunk Conversations - Continue Time**
When the Continue Code is used for a DISA call (as defined in Program 20-28-01), enter the time a call will be extended (0-64800 seconds).

Warning Tone For Long Conversation

- **20-30-01 : Timer Class for Trunks**
Assign a Timer Class of Service (0=Follows system-wide timer, 1-15) to a trunk. You make 8 entries for this program - one for each Night Service Mode.
- **20-31-01 : Timer Data**
Assign the time entry for each timer. These timers are used when a class is set with an entry from 1 to 15 in Program 20-29-01 and 20-30-01. When the timer class is set to 0, the system-wide timer is used instead (this is the default setting).
- **25-07-07 : System Timers for VRS/DISA - DISA Conversation Warning Tone Time**
Determine the length of time the UX5000 should wait before the Warning Tone is heard by DISA callers (0-64800 seconds). If an outside call is transferred or forwarded off-premise using an outside trunk, this timer starts immediately. This will occur if either trunk involved in the call is programmed for the Warning Tone (Program 14-01-17).
- **25-07-08 : System Timers for VRS/DISA - DISA Long Conversation Disconnect**
Determine how long after the Warning Tone is heard the UX5000 will wait before disconnecting DISA calls - unless the Continue code is entered (Program 20-28-02).

Related Features

Central Office Calls, Answering

Warning Tone for Long Conversation can be used for incoming trunk calls.

Central Office Calls, Placing /Toll Restriction

Warning Tone for Long Conversation occurs for all outgoing trunk calls, regardless of how they are placed or other outgoing restrictions.

Class of Service

The Timer Class of Service may affect a call.

Direct Inward System Access (DISA)

Warning Tone for Long Conversation can be enabled for DISA calls.

Intercom

Warning Tone for Long Conversation does not occur for Intercom calls.

Long Conversation Cutoff

Warning Tone for Long Conversation can be used with the Long Conversation Cutoff feature for outgoing or incoming calls.

Single Line Terminals

Warning tones are not available to single line terminal (SLT) users.

Operation

Warning Tone for Long Conversation is automatic if programmed.

Warning Tone for Long Conversation for DISA Callers:

1. A DISA caller dials into the UX5000 and places a call.
2. Once the Warning Tone is heard, if the trunk is set to disconnect
To continue the call, the DISA caller presses the programmed Continue Code.
OR
To disconnect the call, the DISA caller presses the programmed Disconnect Code.

Numerics

- 2500 Phones . . .521
- 2PGDAD Module . . .75, . . .426, . . .462
- 500 Phones . . .521
- 900 Preamble . . .607

A

- Abandoned Call Reporting . . .526
- Abbreviated and Post Dialing Service Codes . . .3
- Abbreviated Dialing . . .53
 - Common Bins Limited to 1000 with Dial Key or #2 Service Code . . .53
 - DSS Key Chaining . . .53
 - One-Touch Calling . . .454
 - Personal Abbreviated Dialing . . .54
 - Storing a Flash . . .54
 - Tie Line COS . . .560
 - Toll Restriction . . .571
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NEC Unified Solutions, Inc.

4 Forest Parkway
Shelton, CT 06484

www.necux5000.com

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NEC Unified Solutions, Inc.
4 Forest Parkway
Shelton, CT 06484
www.necux5000.com

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May 16, 2008, Rev 3

Printed in U.S.A.