NEC

!! Important - New DS2000 Default Assignments !!

Software versions 02.01.07 and higher implement new DS2000 hardware default assignments:
- Slot CN1 = 16DSTU PCB (Extensions 300-315).
- Slots CN2-CN8 = Undefined.
- Before programming your system, turn to *Data Base Compatibility* on page 357 for the latest data base compatibility information.

When installing PCBs:
- Be sure your system's hardware configuration does not exceed the System Load Factor. Turn to *DS2000 Load Factor* on page 3 and *DS1000 Load Factor* on page 9 for more on how to check the load factor.
- After plugging in your DS2000 PCBs and powering up the system, use **9902 - Slot Assignment** to enable the installed PCBs. Turn to *9902 - Slot Assignment* on page 562 for more.

DS1000/2000

Software Manual

This manual has been developed by NEC America, 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:

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Shelton, CT 06484
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Chapter 1
Features

Introduction

Before Reading This Section

This section provides detailed information on the system'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 to this section for the specifics.

Using This Section

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

Description

Read *Description* to get an overview of the feature. Along with the feature's 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 (factory installed) Programming List. When initially installed, the system uses the default setting. For specific default settings on each program, refer to the chart at the end of this manual.

Introduction

In each feature description there are two icons which provide additional essential information about the feature:

This is *Feature Benefit* icon. Read this text to find out how the feature can help co-worker's become more productive and streamline company-wide communications.

This is the *Software History* icon. Since NEC America is constantly enhancing your system, all options may not be available in all software levels. Read this text to find out the specifics.
- DS2000 Fixed Slot software is version **01.nn.nn**.
- DS2000 U (Universal) Slot software is version **02.nn.nn** or higher.
- DS1000 software is version **02.nn.nn** or higher.

To check your system's software version:

1. Do not lift the handset, do not press **SPK**, and do not press **ICM**.

2. Dial 8.
   Your system's software version displays.

Programming Guide

The *Programming Guide* is an easy-to-use chart that guides you step-by-step through programming the feature. If you're not sure how to set up a feature, start first with the Programming Guide.

Programming List

Programming List explains the system Programming List that lets you customize the feature. Some features require Programming List; others don't. If you decide to customize a feature, use Section 2 to enter the change into the system.

Other Related Features

Read this part to learn how the feature interacts with other features.

Feature Operation

This part provides you with instructions on how to use each feature. These instructions are also provided in the follower documents:
- DS1000/2000 Feature Handbook (P/N 80000MFH**)
- DS1000/2000 Multibutton Telephone Quick Reference Guide (P/N 80000MBG**)
- DS1000/2000 Analog Single Line Quick Reference Guide (P/N 80000SLT**)
- DS1000/2000 Soft Key Glossary (P/N 80000GLO**)

DS2000 Load Factor

The total number of components you can install and connect to your DS2000 system depends on power supply capacity and the System Load Factor. Read the following notes, then turn to *DS2000 System Load Factor Calculations* on page 4 to calculate the System Load Factor.

Notes for Fixed Slot Software
• *Fixed slot (01.nn.nn) software is only compatible with 4 slot cabinets.*
• Fixed slot software is no longer available, but you may encounter it in existing installations.   • You can plug 16DSTU PCBs only into slots CN1 and CN2. Do not install more than 2 16DSTU PCBs under any circumstances.   • You can plug an ASTU PCB only into slot CN2 (in place of the second DSTU PCB).   • Install ATRU PCBs only into slots CN3 and CN4.
• System Load Factor in Fixed Slot systems is only an issue if you have DSS Consoles and 2-OPX Modules installed. Note that you cannot install more than 4 DSS Consoles, regardless of System Load Factor.   • The *Release Notes* that came with your system indicate if it uses Fixed Slot software.   • Check your system's *Hardware Manual* for more installation details.
• Maximum configuration for 4-slot cabinets with Fixed Slot software is **16 trunks**, **32 extensions** and **48 ports**.

Notes for U Slot Software
• *U Slot (02.nn.nn) software is available with both 4 and 8 slot cabinets.*

4 Slot Cabinets
 • Do not install more than 2 16DSTU PCBs installed under any circumstances.
 • The first 16DSTU PCB you install must be in the first slot.
 • You can install up to **40 extensions** maximum, as follows:
  (2) 16DSTU PCBs = 32 digital extensions
  (1) 8ASTU PCB = 8 analog extensions
  Total = 40 extensions
 • You can install up to **24 trunks** maximum, as follows:
  (3) 8ASTU PCBs = 24 analog trunks
 • Maximum configuration is **48 ports**.
 • The total of all extensions and trunks cannot exceed **48**.
 • Always use the System Load Factor Table to check you system configuration.

DS2000 System Configuration

<table>
<tr><td colspan="1">Notes for U Slot Software</td></tr>
</table>

8 Slot Cabinets
- Do not install more than 2 16DSTU PCBs for each power supply.
- The first 16DSTU PCB you install must be in the first slot (CN1).
- You can install up to **96 extensions** maximum.
- You can install up to **48 trunks** maximum.
- The total of all extensions and trunks installed cannot exceed **104**.
- Maximum configuration is **104 ports**.
- 8-slot cabinet *require*, A series PCBs, as follows:
    - CPU PCB P/N 80025**A**
    - Power Supply P/N 80005**A**
    - 16DSTU Digital Station PCB P/N 80021**A**
    - 8 ASTU 8 Port Analog Station PCB P/N 80041**A**
    - 4ASTU 4 Port Analog Station PCB P/N 80040**A**
    - 8ATRU 8 Port Analog Trunk PCB P/N 80011**A**
    - 4ATRU 4 Port Analog Trunk PCB P/N 80010**A**
- Always use the System Load Factor Table to check your system configuration.

DS2000 System Load Factor Calculations

To check your system configuration:

1. Indicate the quantity for each item installed in the **Qty** column.

2. For each item, multiply the **Qty** times the **Load Factor** and enter the value in the **Total Load** column.

3. Add all the values in the **Total Load** column and enter the value in **Item 1**.

4. Determine the System Load Factor capacity of the power supplies installed in your system and enter the total in **Item 2**.

    A 4-Slot Cabinet can have only 1 power supply. An 8-Slot Cabinet can have up to 3 power supplies. You cannot have more than two 16DSTU PCBs per power supply, regardless of System Load Factor calculations.

    Exceeding the System Load Factor will cause the system's power supplies to automatically shut down.

5. Compare the entry in **Item 2** to your entry in **Item 1**. *Item 1 must always be equal to or less than the entry in Item 2.*

<table>
<tr><td>Do not operate your system if the System Load Factor total
(Item 1) exceeds the allowable value (Item 2).</td></tr>
</table>

System Load Factor Calculations			
Description	**Load Factor**	**Qty**	**Total Load**
16DSTU PCB	16		
4ASTU PCB	8		
8ASTU PCB	12		
110-Button DSS Console	2		
24-Button DSS Console	1		
Total DSS Consoles installed cannot exceed 4.			
2-OPX Module	3		
Item 1: Total load for this configuration:			
Item 2: If you have <u>one</u> power supply installed, enter 48. If you have <u>two</u> power supplies installed, enter 80. If you have <u>three</u> power supplies installed, enter 112. (2 16DSTU PCBs maximum per power supply)			
Note: An 8-Slot Cabinet can have up to 3 power supplies. You ***cannot*** have more than two 16DSTU PCBs per power supply, regardless of System Load Factor calculations.			

Examples of Typical DS2000 4-Slot Cabinet Maximum Configurations

Note that only the first configuration listed below (16 x 32) applies to Fixed Slot software. Refer to the Release Notes that came with your system to find out if you have Fixed Slot software.

- **16 x 32** (16 trunks and 32 digital extensions)
  Recommended for sites with no Voice Mail and high trunk usage.
- **24 x 16** (24 trunks and 16 digital extensions)
  Recommended for sites with no Voice Mail and very high trunk usage.
- **8 x 16 x 16** (8 trunks, 16 digital extensions and 16 analog extensions)
  Recommended for sites with Voice Mail, normal trunk usage and high analog extension usage.
- **16 x 16 x 8** (16 trunks, 16 digital extensions and 8 analog extensions)
  Recommended for sites with Voice Mail, high trunk usage and high analog extension usage.
- **8 x 32 x 8** (8 trunks, 32 digital extensions and eight analog extensions)
  Recommended for sites with Voice Mail, normal to low trunk usage and low analog extension usage.

Examples of Typical DS2000 8-Slot Cabinet Maximum Configurations

- **32 x 64** (32 trunks and 64 digital extensions)
  Recommended for sites with no Voice Mail and high trunk usage. This configuration requires 2 power supplies.
- **48 x 32** (48 trunks and 32 digital extensions)
  Recommended for sites with no Voice Mail and very high trunk usage. This configuration requires 1 power supply.
- **16 x 32 x 32** (16 trunks, 32 digital extensions and 32 analog extensions)
  Recommended for sites with Voice Mail, normal trunk usage and high analog extension usage. This configuration requires 2 power supplies.

DS2000 System Configuration

- **32 x 32 x 16** (32 trunks, 32 digital extensions and 16 analog extensions)
  Recommended for sites with Voice Mail, high trunk usage and high analog extension usage. This configuration requires 2 power supplies.
- **16 x 64 x 16** (16 trunks, 64 digital extensions and 16 analog extensions)
  Recommended for sites with Voice Mail, normal to low trunk usage and low analog extension usage. This configuration requires 3 power supplies.

DS2000 Default Setup

Every DS2000 system has a factory-installed default setup. The default setup determines the hardware you can install and how the system features work *without reprogramming*.

DS2000 4 Slot Cabinet (with Fixed Slot Software) Hardware Configuration

Following is the default PCB configuration for a 4 slot cabinet using CPU P/N 80025 with Fixed Slot software. Although Fixed Slot software is no longer available, you may encounter it in existing installations. Note that an existing CPU P/N 80025 equipped with Fixed Slot software can be upgraded to U Slot software. Contact your Sales Representative for the specifics.

Slot	PCB	Extensions
1	16DSTU	300-315
2	16DSTU	316-331
3	8 ATRU	401-408
4	8 ATRU	409-416

DS2000 4 Slot Cabinet (with U Slot Software) Hardware Configuration

Both CPU P/N 8025 and P/N 80025A can be equipped with U Slot software. When installed in a 4 slot cabinet, each version CPU will provide a unique configuration.

Configuration 1 - with CPU P/N 80025

For Software Versions 02.01.07 and Higher

- Slot CN1 = 16DSTU PCB (extensions 300-315)
- Slots CN2-CN4 = Undefined
- Slots CN5-CN8 are unavailable.
- The database is limited to 24 trunks and 40 extensions.

For Software Versions Prior to 02.01.07
Following is the default PCB configuration for a 4 slot cabinet using CPU P/N 80025 equipped with U Slot software prior to software version 02.01.07.

Slot	PCB	Extensions
1	16DSTU	300-315
2	16DSTU	316-331
3	8 ATRU	401-408
4	8 ATRU	409-416

Turn to **Program 9902 - Slot Assignment** (page 562) for information on how to change your PCB assignments. To swap the positions of PCBs, turn to **Program 9802 - Swap Command Utility (U Slot)** (page 559).

Configuration 2 - with CPU P/N 80025A

For Software Versions 02.01.07 and Higher

- Slot CN1 = 16DSTU PCB (extensions 300-315)
- Slots CN2-CN8 = Undefined
- Slots CN5-CN8 are not provided by the 4 slot cabinet hardware (i.e., cannot physically be installed)
- The database provides the capability to program all 48 trunks and 96 extensions.

For Software Versions Prior to 02.01.07

Following is the default PCB configuration for a 4 slot cabinet using CPU P/N 80025A equipped with U Slot software prior to software version 02.01.07. *Since a 4 slot system allows only 2 16DSTU PCBs, you must reprogram this configuration.*

Slot	PCB	Extensions
1	16DSTU	300-315
2	16DSTU	316-331
3	16DSTU	332-347
4	16DSTU	348-363

Turn to **Program 9902 - Slot Assignment** (page 562) for information on how to change your PCB assignments. To swap the positions of PCBs, turn to **Program 9802 - Swap Command Utility (U Slot)** (page 559).

RFI Suppressor Assembly Requirements

You can install either A series PCBs or non-A series PCBs in a 4 slot cabinet. If you install non-A series PCBs, you must install the RFI Suppressor Assemblies as shown in your Hardware Manual. If you install A series PCBs, you *do not* need to install the RFI Suppressor Assemblies on the station and trunk cables. The available PCBs are:

CPU PCB P/N 80025**A** and 80025
Power Supply P/N 80005**A** and P/N 80005
16DSTU Digital Station PCB P/N 80021**A** and 80021
8 ASTU 8 Port Analog Station PCB P/N 80041**A** and 80041
4ASTU 4 Port Analog Station PCB P/N 80040**A** and 80040
8ATRU 8 Port Analog Trunk PCB P/N 80011**A** and 80011
4ATRU 4 Port Analog Trunk PCB P/N 80010**A** and 80010

DS2000 System Configuration

DS2000 8 Slot Cabinet (with U Slot Software) Hardware Configuration

For Software Versions 02.01.07 and Higher

● Slot CN1 = 16DSTU PCB (extensions 300-315)

● Slots CN2-CN8 = Undefined

● The database provides the capability to program all 48 trunks and 96 extensions.

For Software Versions Prior to 02.01.07

Following is the default PCB configuration for an 8 slot cabinet with U Slot software prior to software version 2.01.07. Note that this configuration requires 3 power supplies. Refer to *DS2000 Load Factor* on page 3 for more. In addition, the 8 slot cabinet does not support Fixed Slot software.

Slot	PCB	Extensions
1	16DSTU	300-315
2	16DSTU	316-331
3	16DSTU	332-347
4	16DSTU	348-363
5	16DSTU	364-379
6	8 ATRU	401-408
7	8 ATRU	409-416
8	8 ATRU	417-424

If you need to modify your system's configuration, turn to **Program 9902 - Slot Assignment** (page 562). To swap the positions of PCBs, turn to **Program 9802 - Swap Command Utility (U Slot)** (page 559). You should also review the installation in your *Hardware Manual* before proceeding.

RFI Suppressor Assembly Requirements

In an 8 slot cabinet, you can *only* install A series PCBs. You *do not* need to install the RFI Suppressor Assemblies on your extension and trunk cabling. The available PCBs are:

CPU PCB P/N 80025**A**
Power Supply P/N 80005**A**
16DSTU Digital Station PCB P/N 80021**A**
8 ASTU 8 Port Analog Station PCB P/N 80041**A**
4ASTU 4 Port Analog Station PCB P/N 80040**A**
8ATRU 8 Port Analog Trunk PCB P/N 80011**A**
4ATRU 4 Port Analog Trunk PCB P/N 80010**A**

DS1000 Load Factor

DS1000 System Load Factor Calculations

The combination of extensions, Digital Door Boxes and DSS Consoles you can connect to your system may be limited by the System Load Factor. Use the *DS1000 System Load Factor Calculations* chart below to verify your system's configuration.

To check your system configuration:

1. Indicate the quantity for each item installed in the **Qty** column.
2. For each item, multiply the **Qty** times the **Load Factor** and enter the value in **Total Load**.
3. Add all the values in the **Total Load** column and enter the value in **Item 1**.
4. Compare the entry in **Item 2** to your entry in **Item 1**. **Item 1** must always be equal to or less than the entry in **Item 2**.

> **Do not operate your system if the System Load Factor total (Item 1) exceeds the allowable load of 30 (Item 2).**

DS1000 System Load Factor Calculations			
Description	**Load Factor**	**Qty**	**Total Load**
Digital Telephone and Digital Door Box	1		
Analog Telephone	1		
Analog Door Box	0		
24-Button DSS Console	1		
110-Button DSS Console	2		
Total DSS Consoles installed cannot exceed 4			
Item 1: Total load for this configuration			
Item 2: Maximum allowable load			30

DS1000 System Configuration

DS1000 Default Setup

Using the factory installed default configuration, your DS1000 system provides:

	Base	Expansion	Total
Trunks	3	3	6
Digital Extensions	8	8	16
Analog Extensions	4	4	8
Analog Door Boxes	1	1	2
Relays	1	1	2
Page Output	1	-	1
Music Input	1	-	1

For more on installing the DS1000 Expansion PCB, refer to the *DS1000 Quick Setup Guide* (P/N 80200QSET**) that came with your system.

Default Feature Setup

DS2000 Fixed Slot Software (01.nn.nn)

- All trunks are loop start DTMF
  Use **Program 1001 - Trunk Circuit Type** (page 498) *to change this assignment.*
- All extensions are 22-Button Display models.
  Use **Program 1801 - Extension Circuit Type** (page 532) *to change this assignment.*
- Trunks 1-8 ring on line keys 1-8.
  Use **Program 1805 - Ring Assignments** (page 551) *to customize ringing.*
- Extension users cannot press ICM and dial 9 for an outside line. Trunk Group Routing, Line Dial-Up, and Direct Trunk Access are disabled.
  See **Central Office Calls, Placing** (page 93) *for more.*
- The last active Programmable Function Key on extension 300 is the Operator Call Key.
  See **Attendant Call Queuing** (page 44) *for more.*

DS2000 U Slot Software and DS1000 (02.nn.nn)

- All trunks are loop start DTMF.
  Use **Program 1001 - Trunk Circuit Type** (page 498) *to change this assignment.*
- All extensions are 22-Button Display models.
  Use **Program 1801 - Extension Circuit Type** (page 532) *to change this assignment.*
- In DS2000, trunks 1-12 ring on line keys 1-12 for extensions 300-315.
  In DS1000, trunks 1-6 ring on line keys 1-6. (Trunks 4-6 require the Expansion Board.)
  Use **User Programmable Features** (page 410) *code* **#RAL** *or* **Program 1805 - Ring Assignments** (page 551) *to customize ringing.*
- *In software versions 02.01.07 and higher*, extension users cannot press ICM and dial 9 for an outside line.
  See **Central Office Calls, Placing** (page 93) *for more.*
- *In software versions prior to 02.01.07*, extension users can press ICM and dial 9 for an outside line. Line Dial-Up and Direct Trunk Access are disabled.
  See **Central Office Calls, Placing** (page 93) *for more.*
- At the attendant's extension (300), key 11 is the Night Key and key 12 is the Operator Call Key.
  Pressing the Night Key puts the system in the night mode. See Night Service / Night Ring on page 265.
  Use the Operator Call Key to answer incoming Intercom calls queued at the attendant's extension. See Attendant Call Queuing on page 44.

Initial System Startup

Initial Startup Programming

Initial Startup Programming (Page 1 of 3)

Step 1: Check the system defaults.

- If you have a 4 slot Fixed Slot system, refer to *DS2000 4 Slot Cabinet (with Fixed Slot Software) Hardware Configuration* on page 6
- If you have a 4 slot U Slot system, refer to *DS2000 4 Slot Cabinet (with U Slot Software) Hardware Configuration* on page 6.
- If you have an 8 slot U Slot system, refer to *DS2000 8 Slot Cabinet (with U Slot Software) Hardware Configuration* on page 8.
- If you have a DS1000, refer to *DS1000 Default Setup* on page 10.
- To check the feature defaults, refer to *Default Feature Setup* on page 11.

Step 2: Does the current DS2000 U Slot PCB configuration meet the site requirements?

If yes ➝
- Skip to the next step. Also skip this step if you have a DS1000.

If no ➝
- Review *Program 9902 - Slot Assignment* on page 562 and *Program 9802 - Swap Command Utility (U Slot)* on page 559.

Step 3: Enter the programming mode.

- From any display telephone:
  Press ICM + #*#* + Password + HOLD.
- The default system passwords are:
  Installer (level 3) = 372000
  System Administrator 2 (level 2) = 9999
  System Administrator 3 (level 1) = 0000

Step 4: Assign the correct circuit type to your installed trunks.

- In *Program 1001 - Trunk Circuit Type* (page 498), enter the correct circuit type for each installed trunk:
  00 = Uninstalled
  51 = Loop start DTMF
  52 = Loop start DP

Initial Startup Programming (Page 2 of 3)

Step 5: Assign the correct circuit type to your installed extensions.

- In *Program 1801 - Extension Circuit Type* (page 532), enter the correct circuit type for each installed extension:
  - 00 = Uninstalled
  - 01 = 22-Button Standard
  - 02 = 22-Button Display
  - 06 = 34-Button Display
  - 09 = 34-Button Super Display
  - 10 = Digital Door Box [1]
  - 15 = Analog station
  - 21 = 2OPX (DS2000 Only)
- *All keysets default to type 02 (22-Button Display). If you don't change the circuit type for 34-Button and 34-Button Super Display telephones, the bottom two rows of Programmable Function Keys will be unassigned (i.e., not functioning).*

Step 6: By default, each extension has full access to each trunk. Do you want to change this assignment?

If yes
- For each extension in *Program 1803 - Extension Line Access Assignments* (page 546), assign the access options for each trunk. The options are:
  - 0 = No access
  - 1 = Incoming only
  - 2 = Outgoing only
  - 3 = Full access
- Use *Program 9801 - Copy Command* (page 557), to simplify your programming.

If no
- In *Program 1803 - Extension Line Access Assignments* (page 546), make no changes from the default assignments.

Step 7: Do you want to change the way extensions ring for incoming trunk calls?

If yes
- For each extension in *Program 1805 - Ring Assignments* (page 551), assign ringing for each trunk. The options are:
  - 1 = Lamp only (day and night)
  - 2 = Ringing day and night
  - 3 = Night Ring only, lamp during the day
  - 4 = Delay ring day and night
- Use *Program 9801 - Copy Command* (page 557), to simplify your programming.
- The system attendant (extension 300) can put these trunks in the night mode by pressing their preassigned Night Key (key 11).

If no
- For each extension in *Program 1805 - Ring Assignments* (page 551), make no changes from the default assignments.

Initial System Startup

Initial Startup Programming (Page 3 of 3)

Step 8:   Does your system have Voice Mail?

If yes ──────────▶
- Turn to *Voice Mail* on page 414 and review the required Voice Mail programming.

If no ──────────▶
- Go to the next step.

Step 9:   Do you want to change the default system passwords?
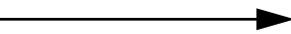
If yes ──────────▶
- In *Program 9905 - Password* (page 566), change the passwords from their default settings.

If no ──────────▶
- In *Program 9905 - Password* (page 566), do not change the passwords from their default settings.

Step 10: Do you want to return the system to its factory installed (default) programming?

If yes ──────────▶
- In *Program 9999 - System Initialization* (page 571), reinstate the factory installed programming. ***This erases all your programming and returns the system to its initial default settings.***

If no ──────────▶
- In *Program 9999 - System Initialization* (page 571), ***do not*** reinstate the factory installed programming.

Table 1: Dial Codes (by Feature)

For this feature	Dial this code	When you are
Barge In (Intrusion)	**4**	Barging-In on a co-worker's call
Call Forwarding	**ICM + *30**	Canceling Call Forwarding at an extension
	ICM + *32 + Extension or 0 (for the operator)	Enabling Call Forwarding Busy/No Answer
	ICM + *34 + Extension or 0 (for the operator)	Enabling Call Forwarding All Calls
	ICM + *36 + Extension or 0 (for the operator)	Enabling Call Forwarding No Answer
	ICM + *37 + 2 (all calls) or 8 (outside calls)	Setting up Personal Answering Machine Emulation
Call Waiting / Camp-On	**2** + Do not hang up **2** + Hang up	Camping-On to a co-worker Leaving a Callback for a co-worker
Central Office Calls, Placing	**ICM + #9** + Trunk number (e.g., 01)	Using Line Dial-Up to place an outside call
	ICM + Trunk number (e.g., 01)	Using Direct Trunk Access to place an outside call
	ICM + **9** or **90-98**	Accessing a Trunk Group to place an outside call
Dial Number Preview	**#**	Previewing a number before dialing
Directed Call Pickup	**ICM** + **# #**	Intercepting a call ringing a co-worker's extension
Forced Trunk Disconnect	**#**	Using Forced Trunk Disconnect to disconnect a busy outside line
Group Call Pickup	**ICM** + *** #**	Answering a call ringing a phone in your Pickup Group
Hold	**ICM** + **#4** + Trunk number (e.g., 01)	Picking up an outside call on System Hold at a co-worker's extension
Intercom	**ICM** + Extension (e.g., 301)	Placing an Intercom call to a co-worker
Meet-Me Conference	**ICM** + **#11** or **# 12**	Setting up or joining a Meet-Me Conference
Monitor / Silent Monitor	**6**	Setting up Monitor after calling a busy co-worker
Night Service / Night Ring	**##** + UNA code (01-04)	Answering a call ringing UNA at night

Charts and Illustrations

Table 1: Dial Codes (by Feature)

For this feature	Dial this code	When you are
Paging	***1** + Page zone (1-7 or 0 for All Call)	Making an internal Paging announcement
Park	**ICM** + ****** + System Park Orbit (60-69)	Parking or retrieveing a call from System Park Orbit
	ICM + ** + Extension (e.g., 301)	Using Personal Park to Park or retrieve a call at a co-workers extension
Removing Trunks and Extensions From Service	**ICM** + **#40** + Extension (e.g., 301) or trunk (e.g., 401) + **4** (to return) or **6** (to remove)	Removing or returning an extension or trunk to service
Selectable Display Messaging	**ICM** + ***38** + Message (00-16) + Hold + Add additional digits + Hold	Enabling a Selectable Display Message
Speed Dial	**ICM** + **##** + System bin (200-299) or Personal bin (701-720)	Dialing a System or Personal Speed Dial number
Transfer	**ICM** + Extension (e.g., 301)	Transferring a call to a co-worker's extension
	ICM + Extension (e.g., 301) + **MW**	Transferring a call to a co-worker's mailbox
Trunk (Line) Queuing / Trunk Callback	**2**	Queuing or leaving a Callback for a busy trunk
Voice Mail	**ICM** + **MW**	Calling your mailbox
	ICM + Extension (e.g., 301) + **MW**	Transferring a call to a co-worker's mailbox
	ICM + *37 + 2 (all calls) or 8 (outside calls)	Setting up Personal Answering Machine Emulation
	ICM + *30	Canceling Personal Answering Machine Emulation
Voice Over	**9**	Initiating a Voice Over to a busy extension (after hearing busy/ring tone)

Table 2: System Number Plan/Capacities (Page 1 of 3)

	DS1000	DS2000 4-Slot	DS2000 8-Slot
System Options			
• Classes of Service	1-15 (COS 1 normally reserved for attendants)		
• Conference	32 simultaneous users in Conference (total of all Conferences system-wide) 8 simultaneous Conferences maximum 8 parties maximum in any one Conference		
• Extension Hunting (ACD/UCD) Master Numbers	8		
• Extension Hunting Groups	8 (1-8)		
• Group Call Pickup Groups	8 (1-8, 0 = unassigned)		
• Privacy Release Groups	16 (1-16, 0 = unassigned)		
• Speed Dial, Personal	20 bins at each extension (701-720) See **Speed Dial** (page 332) for additional information on Speed Dial capacities.		
• Speed Dial. System	10 (20-29), 100 (200-299), 1000 (2000-2999) See **Speed Dial** (page 332) for additional information on Speed Dial capacities.		
• Tenant Groups	1		
• Timeslots	Non-blocking		
• Toll Restriction Levels	7 (1-7, 0 = no restriction)		
Trunks			
• Direct Trunk Access Codes	401-406	401-416 (Fixed Slot) 401-424 (U Slot)	401-448
• Line Dial Up Codes	#901-#906	#901-#916 (Fixed Slot) #901-#924 (U Slot)	#901-#948
• Ring Groups	8 (1-8) 0 = No assignment Ring Group master numbers can be 100-299, 332-400, or 417-899. They cannot be in the extension (300-395 in DS2000 or 300-325 in DS1000) or trunk (401-448 in DS2000 or 401-406 in DS1000) number range. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.		
• Trunk Group Access Codes	90-98		
• Trunk Groups	9 (0-8)		
• Trunk Ports	6 (1-6) Trunks 4-6 require the Expansion Board.	16 (1-16) (Fixed Slot) 24 (1-24) (U Slot)	48 (1-48)

Charts and Illustrations

	DS1000	DS2000 4-Slot	DS2000 8-Slot
Extensions			
• Attendant (Operator) Access Number	0 (single operator) 01-04 (multiple operators)		
• Attendants	4		
• Digital Door Boxes	Each Digital Door Box uses one digital station port. The System Load Factor may limit the total number you can install. See *DS2000 Load Factor* on page 3 and *DS1000 Load Factor* on page 9. Not available in DS2000 Fixed Slot software.		
• Analog Door Boxes	2 2nd Analog Door Box requires Expansion PCB	0	
• DSS Consoles	4 The System Load Factor may limit the total number that you can install. See *DS2000 Load Factor* on page 3 and *DS1000 Load Factor* on page 9.		
• Telephone Extension Numbers	300-325 (which includes digital extensions 300-315, analog extensions 31-323, and Analog Door Boxes 324 and 325)	32 (300-331) (Fixed Slot) 40 (300-339) (U Slot)	96 (300-395)
• Telephone Port Numbers	26 (1-26)	32 (1-32) (Fixed Slot) 40 (1-40) (U Slot)	96 (1-96)
• Total Number of Station Devices	26 (which includes digital extensions 300-315, analog extensions 31-323, and Analog Door Boxes 324 and 325)	32 (Fixed Slot) (may be limited by load factor) 40 (U Slot) (may be limited by load factor)	96 (may be limited by load factor)
• UCD Hunting Master Numbers	8 (1-8) Master numbers can be from 100-899, excluding those extension numbers used by extensions and trunks. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.		
• Voice Mail Master Numbers	1 Master numbers can be from 100-899, excluding those extension numbers used by extensions and trunks. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.		
• Voice Mail Ports	Limited by available analog ports.		
Paging and Park			
• Page Zones (Internal)	7 zones (1-7) and All Call (0)		
• Page Zone (External)	All Call and zone 1 broadcast from Audio jack (AUDIO)	All Call and zone 1 broadcast from the CPRU External Page port	

Table 2: System Number Plan/Capacities (Page 3 of 3)

	DS1000	DS2000 4-Slot	DS2000 8-Slot
• Page Relays	One set in each Analog Door Box jack (DOOR1 and DOOR2)	One set on CPRU	
• Park Orbits	10 (60-69) Orbits 68 and 69 have extended (5 min.) timers		
Passwords			
• System Administrator 1 (Level 1)	0000		
• System Administrator 2 (Level 2)	9999		
• Installer (Level 3)	372000		

Charts and Illustrations

Display:
```
  1-15 TUE 12:10PM
DIR  PGM   VM  EXT
```

CLEAR | BIN 1 | BIN 2 | BIN 3 | BIN 4 | BIN 5
CHECK | BIN 6 | BIN 7 | BIN 8 | BIN 9 | BIN 10

LINE 1 | LINE 2 | LINE 3 | LINE 4 | LINE 5 | LINE 6
LINE 7 | LINE 8 | FIXED LOOP 0 | FIXED LOOP 0 | AUTO TIMER | ALL PAGE

For Attendants:
Key 11=Night Key
Key 12=Operator Call Key

Keypad:
1 | 2 ABC | 3 DEF | MW | ICM
4 GHI | 5 JKL | 6 MNO | FLASH | DND
7 PQRS | 8 TUV | 9 WXYZ | DIAL | MIC
* | 0 OPER | # | LND | SPK
▼ VOL ▲ | CONF | HOLD

80000-21A
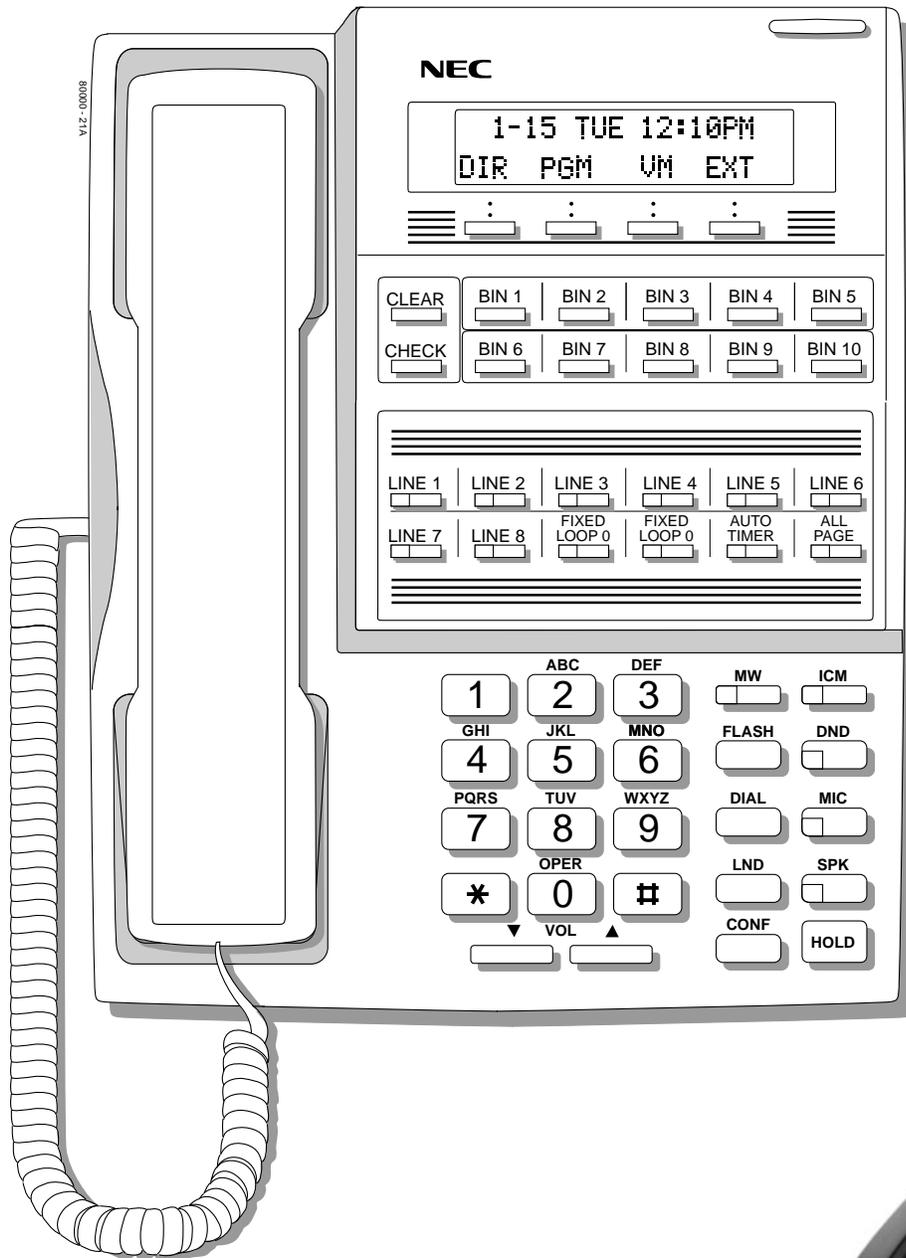
Figure 1: 22-Button Display Telephone (Fixed Slot)
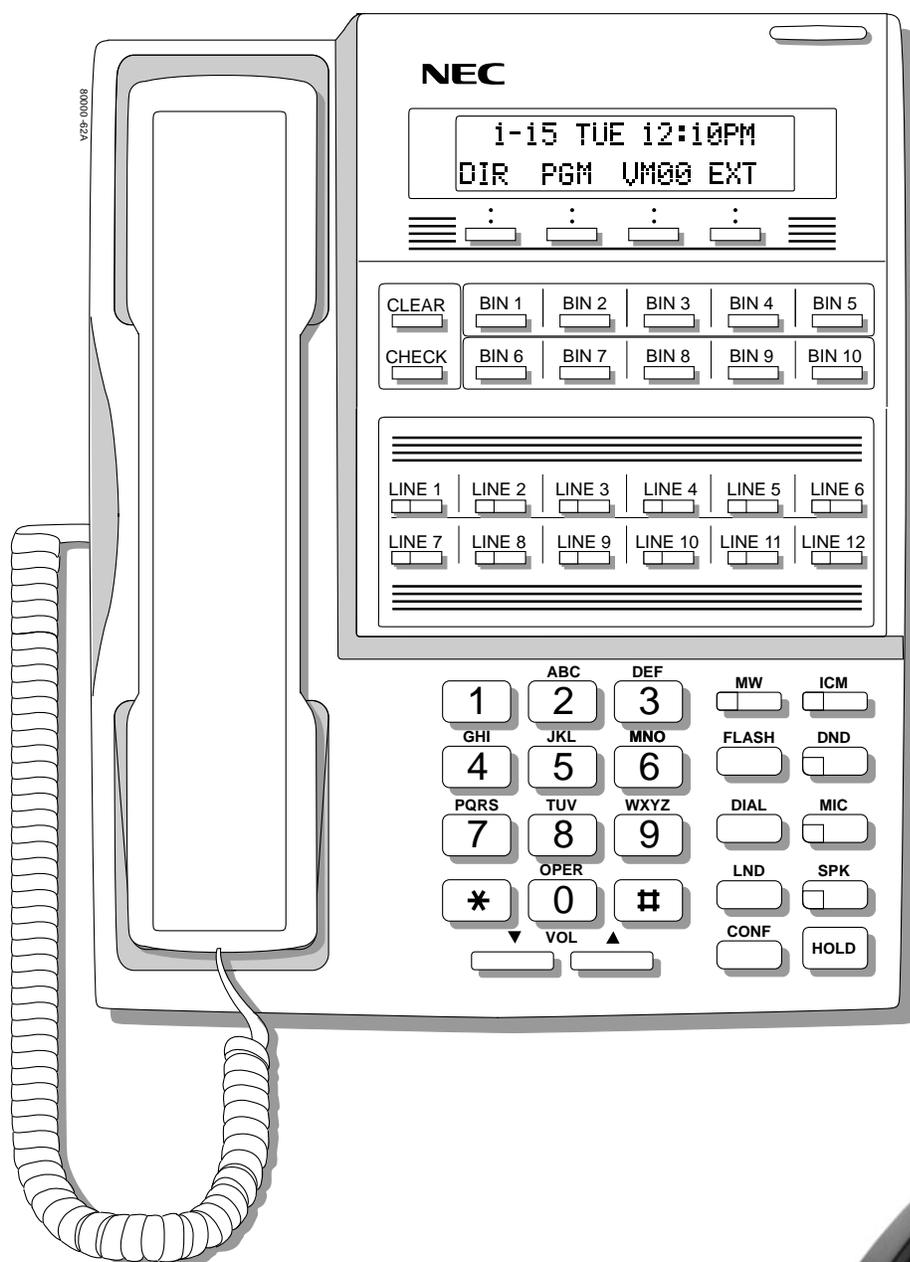
In DS1000:
Keys 7-12 are
undefined.

For Attendants:
Key 11=Night Key
Key 12=Operator Call Key

In DS2000 software version 02.01.07 and higher,
Programmable Function Keys are undefined for all
extensions above 315.

Figure 2: 22-Button Display Telephone (U Slot and DS1000)

Charts and Illustrations

For Attendants:
Key 11=Night Key
Key 12=Operator Call Key

Figure 3: 22-Button Standard Telephone (Fixed Slot)
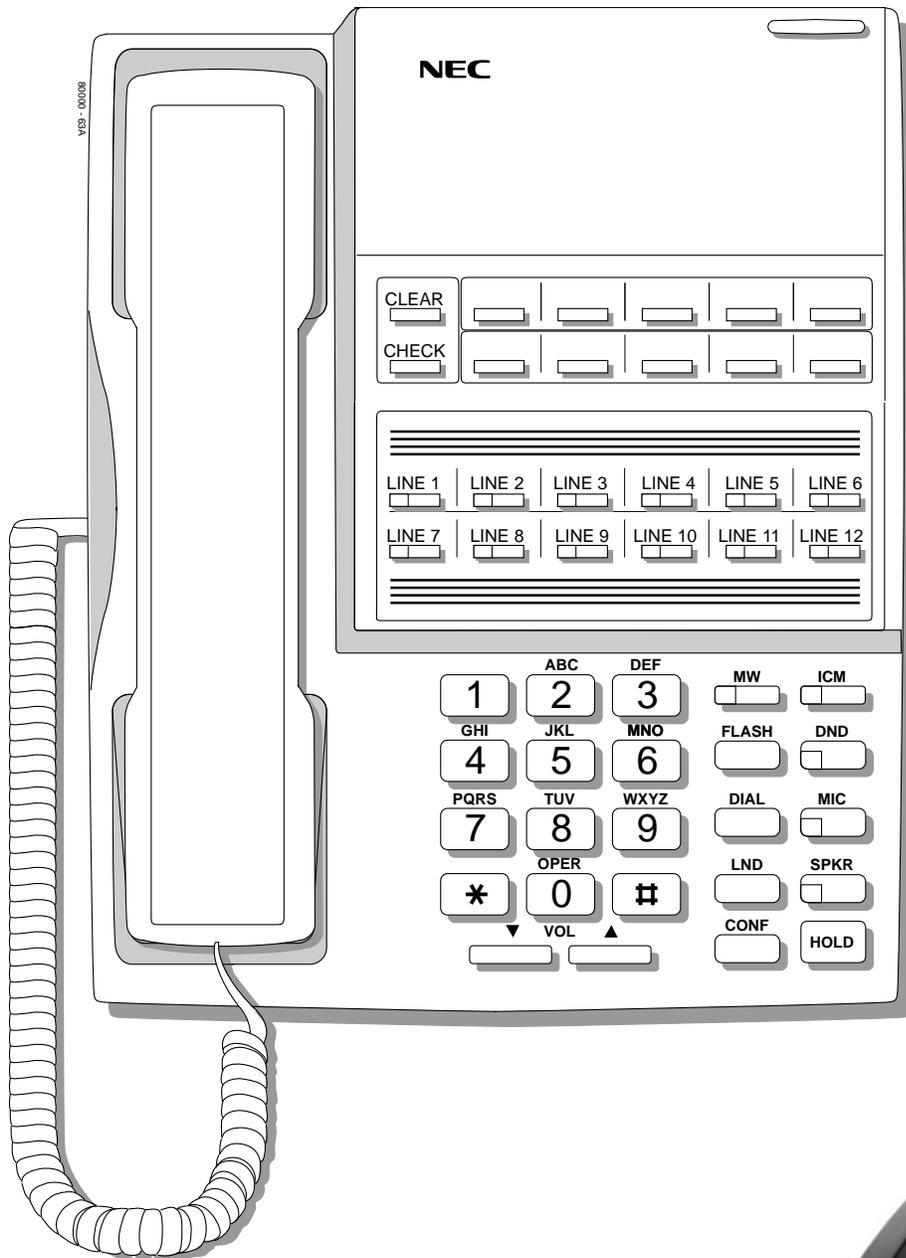
In DS1000:
Keys 7-12 are undefined.

For Attendants:
Key 11=Night Key
Key 12=Operator Call Key

In DS2000 software version 02.01.07 and higher,
Programmable Function Keys are undefined for all
extensions above 315.

Figure 4: 22-Button Standard Telephone (U Slot and DS1000)

80000 - 10C

NEC

1-15 TUE 12:10PM
DIR PGM VM EXT

| CLEAR | BIN 1 | BIN 2 | BIN 3 | BIN 4 | BIN 5 |
| CHECK | BIN 6 | BIN 7 | BIN 8 | BIN 9 | BIN 10 |

| LINE 1 | LINE 2 | LINE 3 | LINE 4 | LINE 5 | LINE 6 |
| LINE 7 | LINE 8 | FIXED LOOP 0 | FIXED LOOP 0 | AUTO TIMER | ALL PAGE |

These keys are undefined

For Attendants:
Key 11=Night Key
Key 24=Operator Call Key

1	ABC 2	DEF 3	MW	ICM
GHI 4	JKL 5	MNO 6	FLASH	DND
PQRS 7	TUV 8	WXYZ 9	DIAL	MIC
*	OPER 0	#	LND	SPK
▼ VOL ▲			CONF	HOLD
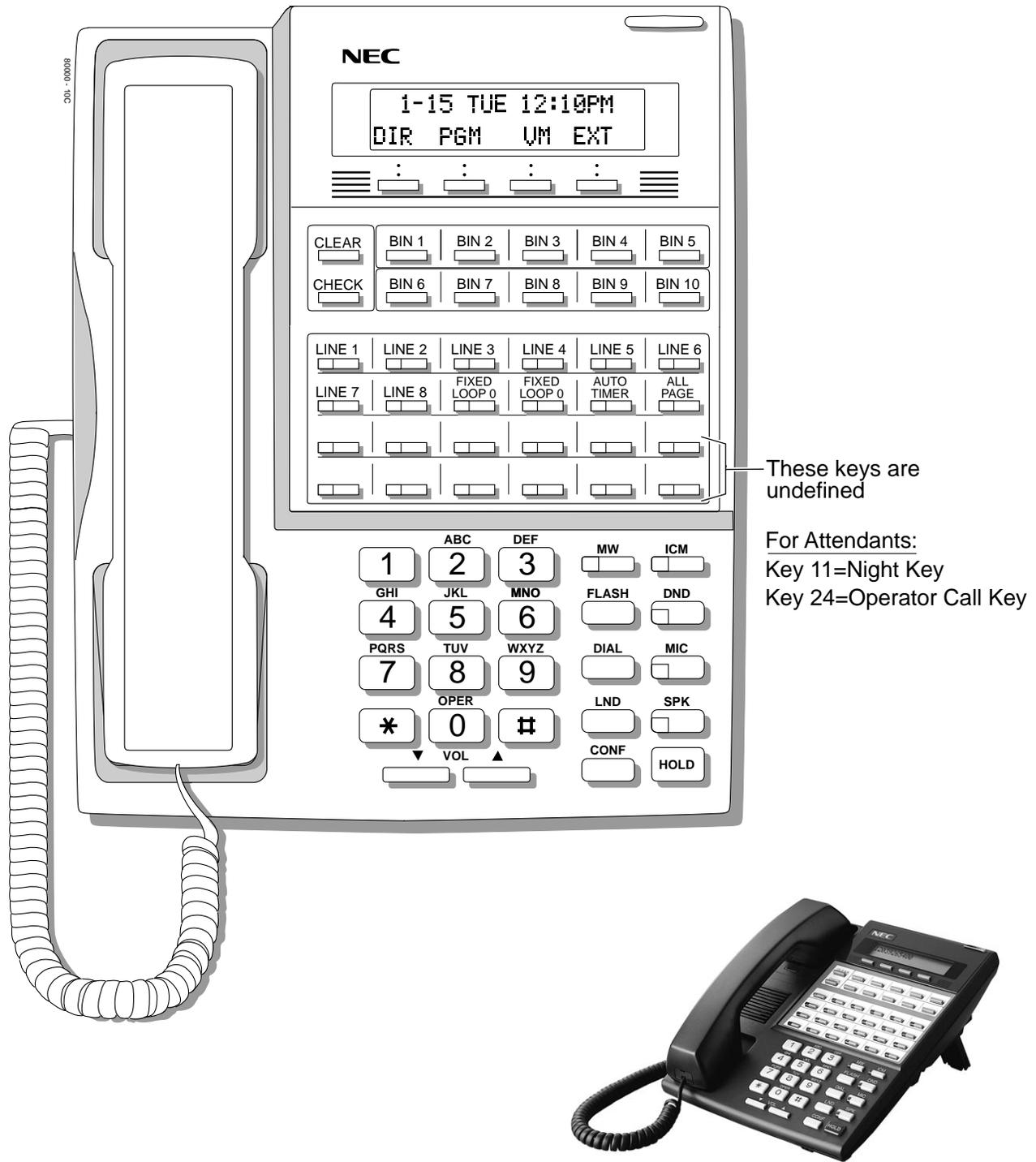
Figure 5: 34-Button Display Telephone (Fixed Slot)
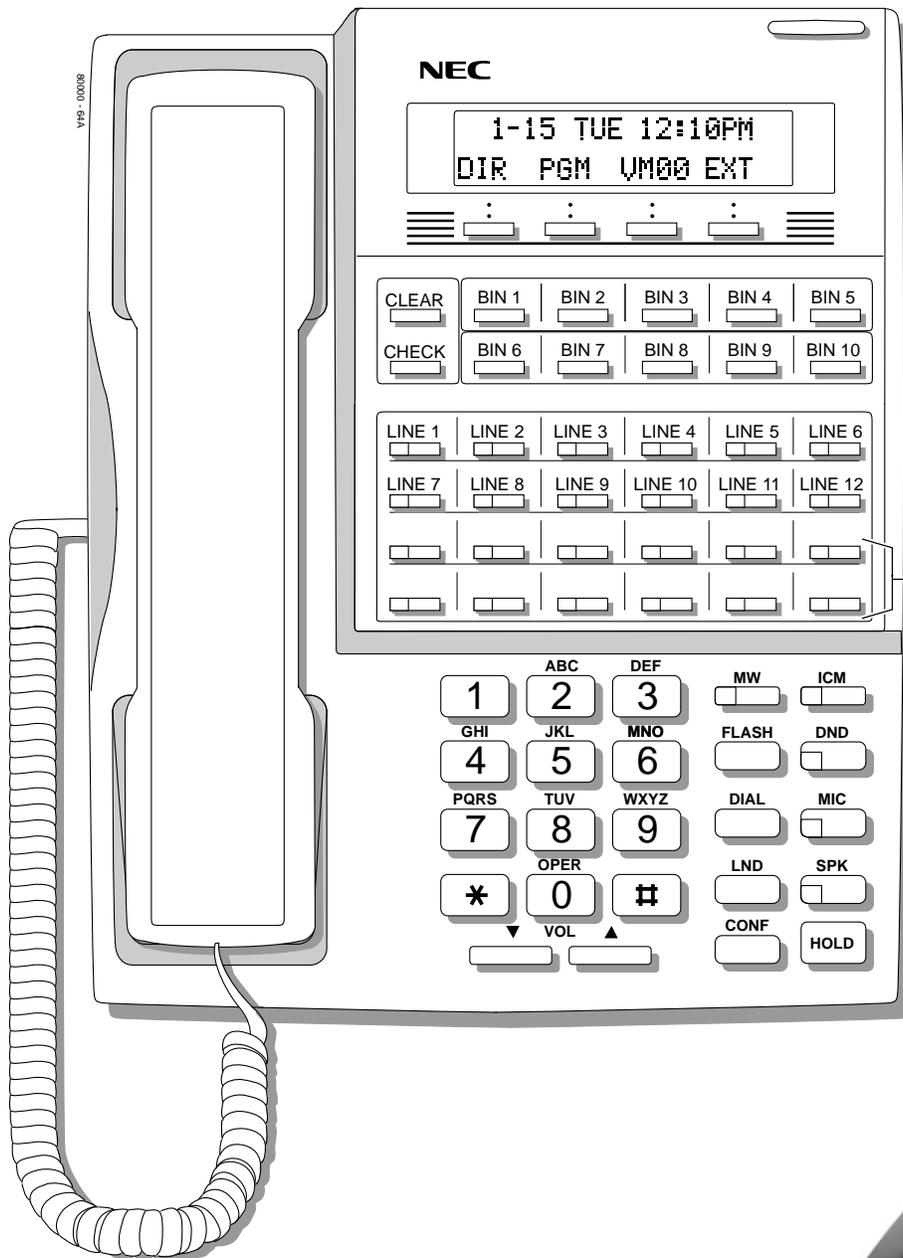
NEC

1-15 TUE 12:10PM
DIR PGM VM00 EXT

CLEAR | BIN 1 | BIN 2 | BIN 3 | BIN 4 | BIN 5
CHECK | BIN 6 | BIN 7 | BIN 8 | BIN 9 | BIN 10

LINE 1 | LINE 2 | LINE 3 | LINE 4 | LINE 5 | LINE 6
LINE 7 | LINE 8 | LINE 9 | LINE 10 | LINE 11 | LINE 12

For Attendants:
Key 11=Night Key
Key 24=Operator Call Key

Keys 13-24 are undefined
for non-attendants in DS2000.

Keys 7-24 are undefined for
non-attendants in DS1000.

	ABC	DEF	MW	ICM
1	2	3		
GHI	JKL	MNO	FLASH	DND
4	5	6		
PQRS	TUV	WXYZ	DIAL	MIC
7	8	9		
	OPER		LND	SPK
*	0	#		
	▼ VOL ▲		CONF	HOLD

In DS2000 software version 02.01.07 and higher,
Programmable Function Keys are undefined for all
extensions above 315.

Figure 6: 34-Button Display Telephone (U Slot and DS1000)

Charts and Illustrations


```
          NEC
CHECK                              CLEAR

○ ··· DIRECTORY              ··· ○
○ ··· PROGRAM               ··· ○
○ ··· V-MAIL                ··· ○
○ ··· EXTERNAL    SP DIAL 1 ··· ○
○ ··· PAGE        SP DIAL 2 ··· ○
○ ···

LINE 1  LINE 2  LINE 3  LINE 4  LINE 5  LINE 6

                FIXED   FIXED   AUTO    ALL
LINE 7  LINE 8  LOOP 0  LOOP 0  TIMER   PAGE
```

These keys are undefined

For Attendants:
Key 11=Night Key
Key 24=Operator Call Key
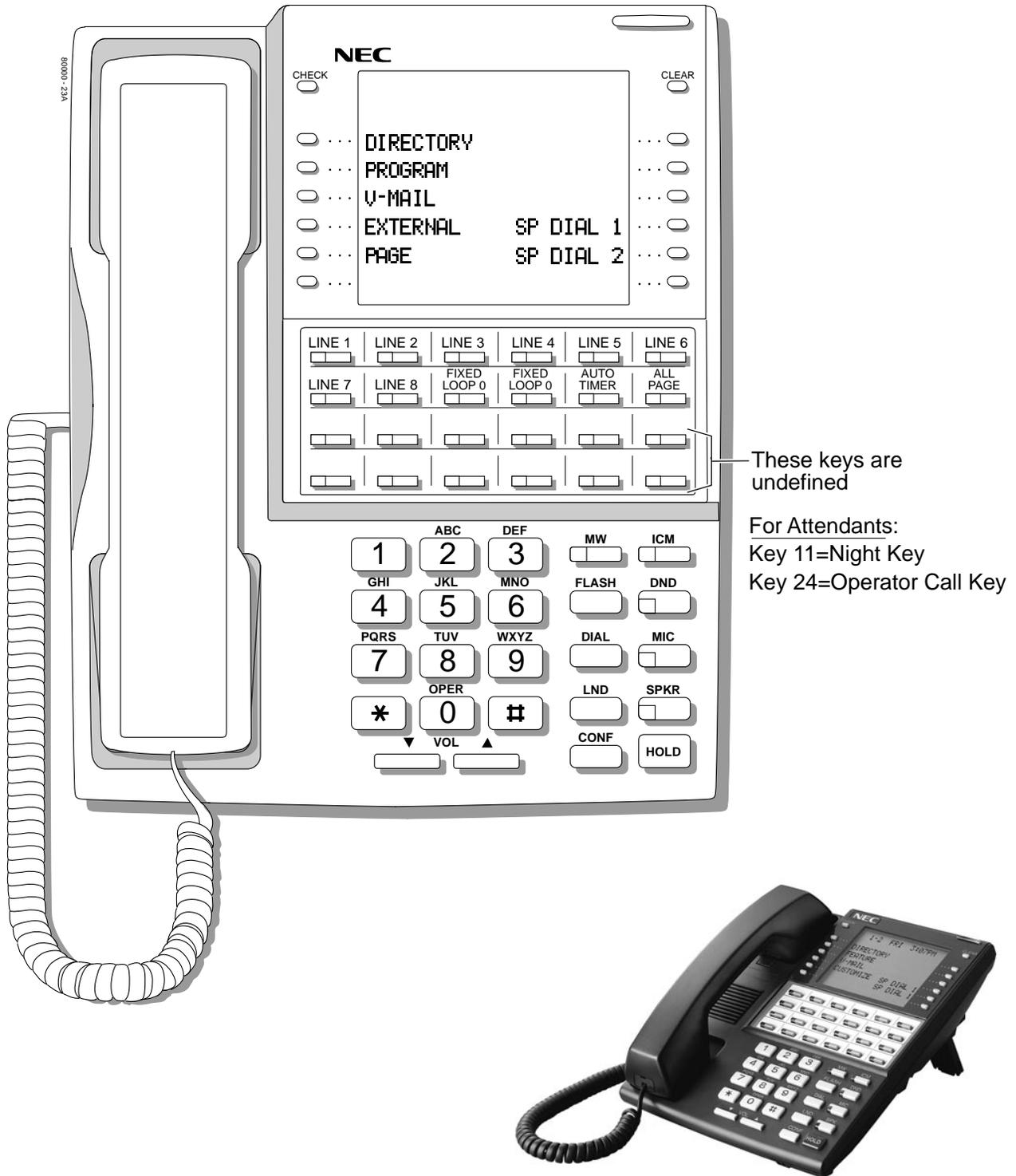
Figure 7: 34-Button Super Display Telephone (Fixed Slot)
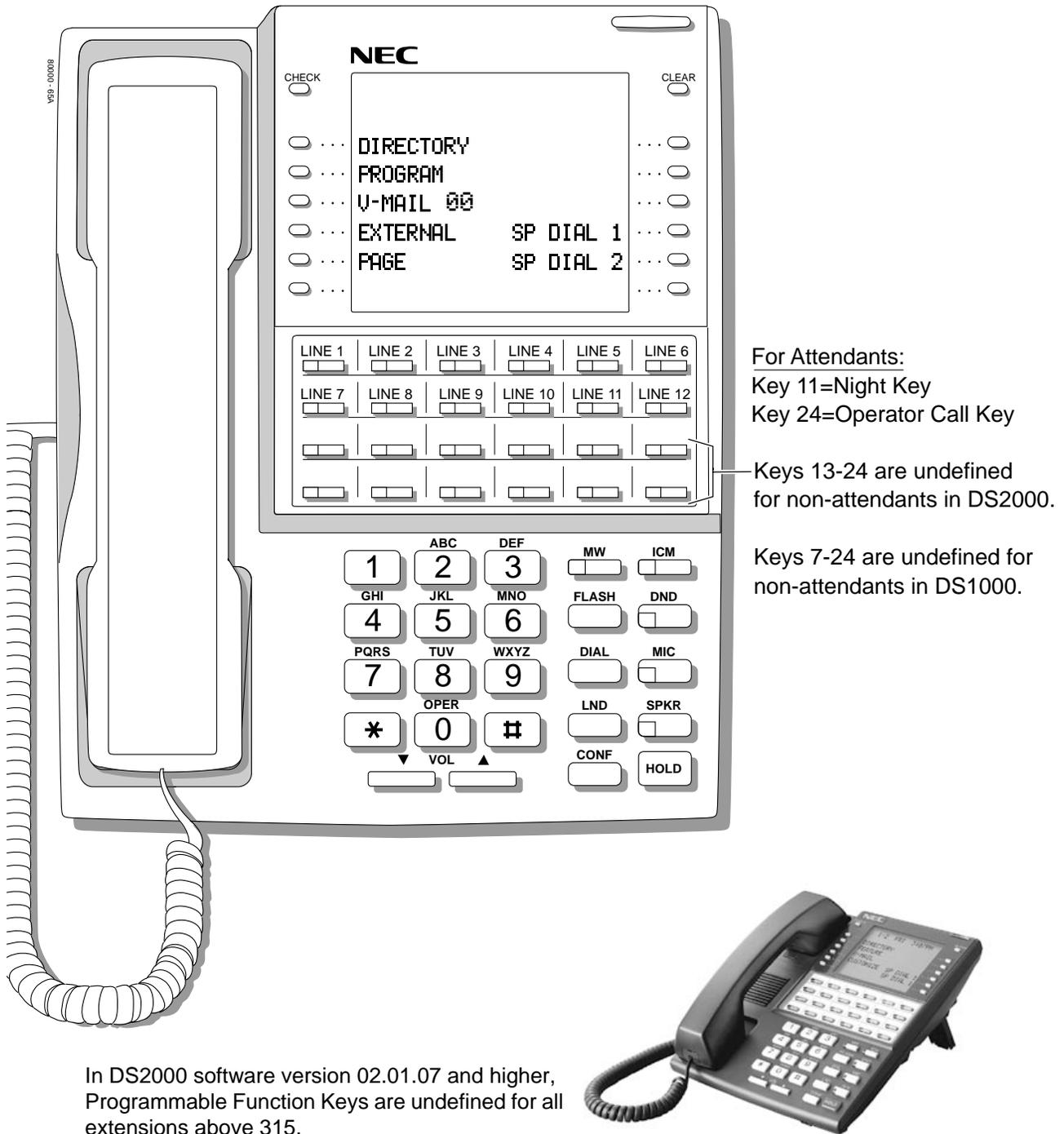
8000D - 65A

NEC

CHECK

CLEAR

```
DIRECTORY
PROGRAM
V-MAIL 00
EXTERNAL    SP DIAL 1
PAGE        SP DIAL 2
```

| LINE 1 | LINE 2 | LINE 3 | LINE 4 | LINE 5 | LINE 6 |
| LINE 7 | LINE 8 | LINE 9 | LINE 10 | LINE 11 | LINE 12 |

| **ABC** 2 | **DEF** 3 | **MW** | **ICM** |
| 1 | | | |

For Attendants:
Key 11=Night Key
Key 24=Operator Call Key

Keys 13-24 are undefined
for non-attendants in DS2000.

Keys 7-24 are undefined for
non-attendants in DS1000.

	ABC	**DEF**	**MW**	**ICM**
1	2	3		
GHI 4	**JKL** 5	**MNO** 6	**FLASH**	**DND**
PQRS 7	**TUV** 8	**WXYZ** 9	**DIAL**	**MIC**
*	**OPER** 0	#	**LND**	**SPKR**
▼ **VOL** ▲			**CONF**	**HOLD**

In DS2000 software version 02.01.07 and higher,
Programmable Function Keys are undefined for all
extensions above 315.

Figure 8: 34-Button Super Display Telephone (U Slot and DS1000)

Charts and Illustrations

300	312
301	313
302	314
303	315
304	316
305	317
306	318
307	319
308	320
309	321
310	322
311	323

80000 - 25
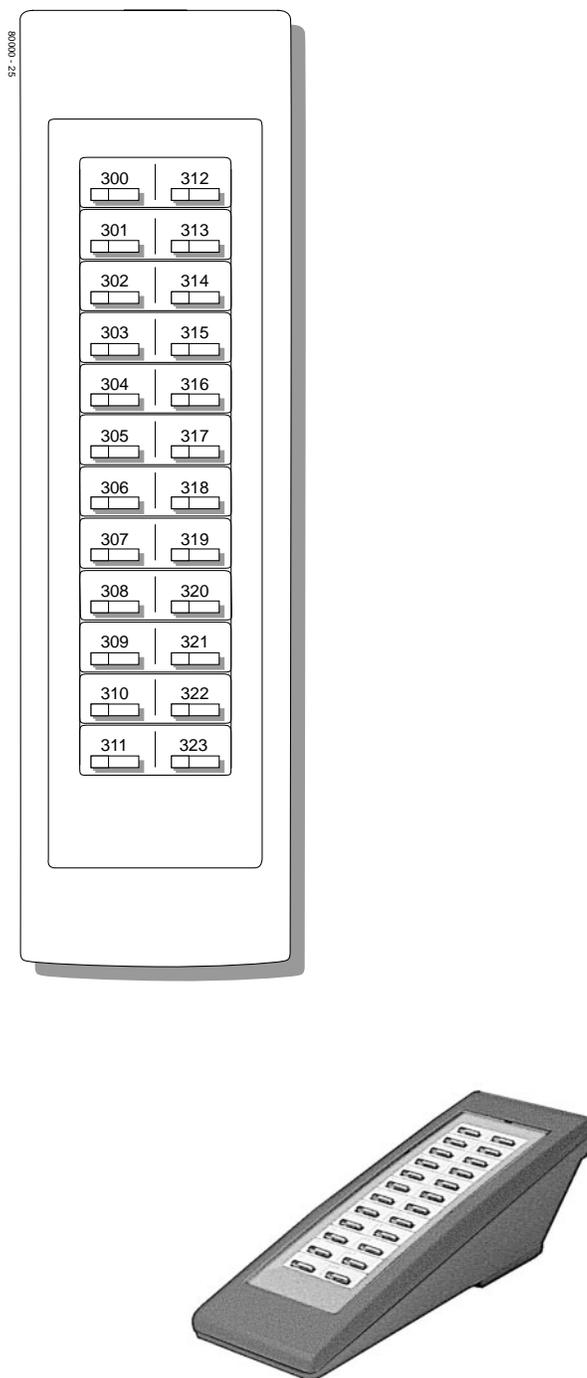
Figure 9: 24-Button DSS Console

80000 - 24

300	301	302	303	304	305	306	307	308	309
310	311	312	313	314	315	316	317	318	319
320	321	322	323	324	325	326	327	328	329
330	331	LINE 1	LINE 2	LINE 3	LINE 4	LINE 5	LINE 6	LINE 7	LINE 8
LINE 9	LINE 10	LINE 11	LINE 12	LINE 13	LINE 14	LINE 15	LINE 16	200	201
202	203	204	205	206	207	208	209	701	702
703	704	705	706	707	708	709	710	711	712
713	714	715	716	717	718	719	720	PG 0	PG 1
PK 0	PK 1								

These keys are undefined

Figure 10: 110-Button DSS Console (Fixed Slot)

Charts and Illustrations

80000 - 99

300	301	302	303	304	305	306	307	308	309
310	311	312	313	314	315	316	317	318	319
320	321	322	323	324	325	326	327	328	329
330	331	332	333	334	335	336	337	338	339
340	341	342	343	344	345	346	347	348	349
350	351	352	353	354	355	356	357	358	359
360	361	362	363	364	365	366	367	368	369
370	371	372	373	374	375	376	377	378	379

These keys are undefined

| | | | | | | | | PAGE 1 | PAGE 2 | PAGE 3 | PAGE ALL |
| PARK 0 | PARK 1 | PARK 2 | PARK 3 | PARK 4 | PARK 5 | PARK 6 | PARK 7 | PARK 8 | NIGHT |

Figure 11: 110-Button DSS Console (U Slot)

80200 - 38

| 300 | 301 | 302 | 303 | 304 | 305 | 306 | 307 | 308 | 309 |

| 310 | 311 | 312 | 313 | 314 | 315 | 316 | 317 | 318 | 319 |

| 320 | 321 | 322 | 323 | 324 | 325 | | | | |

Hotlines to Extensions

| | | | | | PAGE 1 | PAGE 2 | PAGE 3 | PAGE ALL |

| PARK 0 | PARK 1 | PARK 2 | PARK 3 | PARK 4 | PARK 5 | PARK 6 | PARK 7 | PARK 8 | NIGHT |
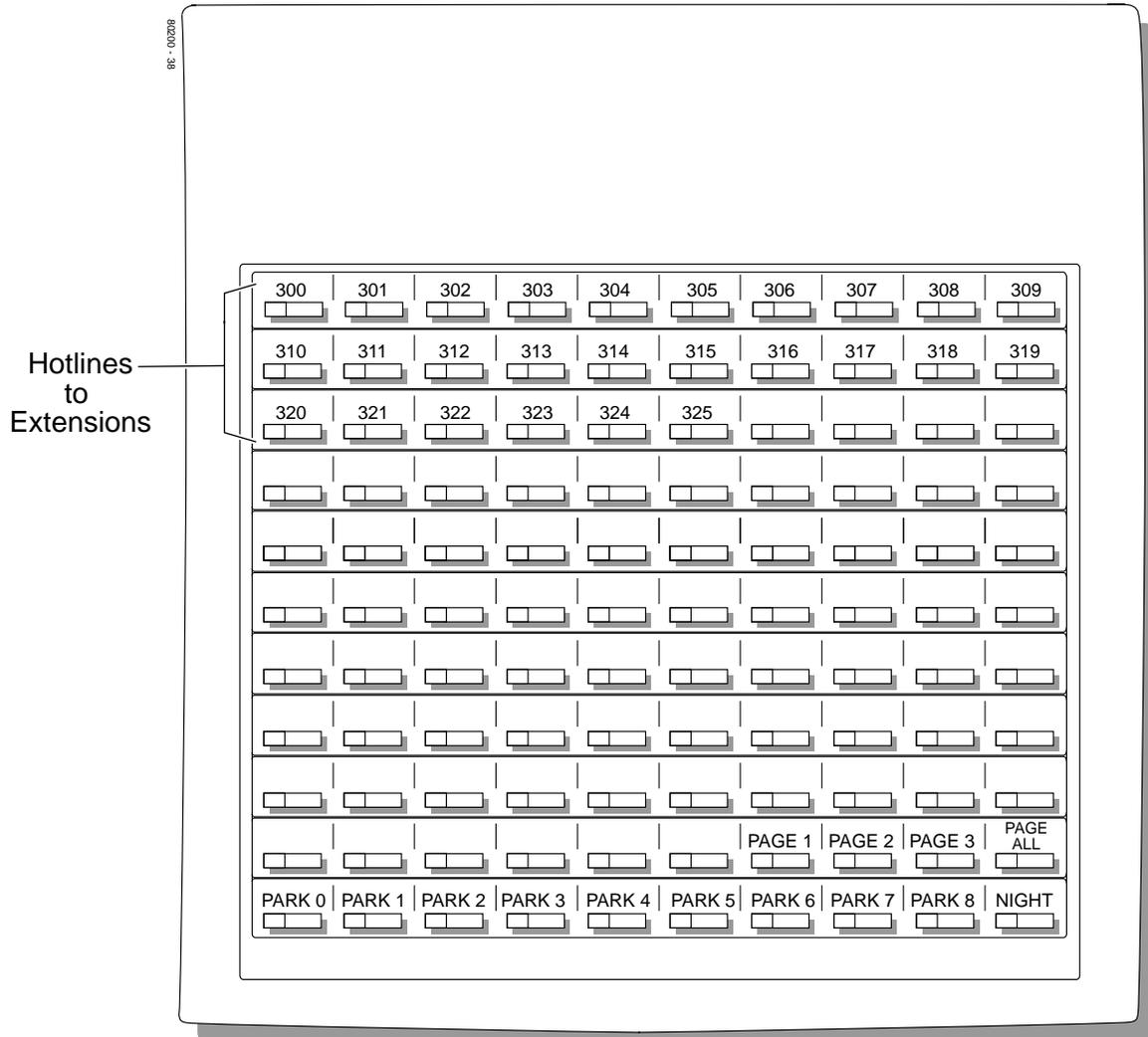
Note: Blank keys are undefined.
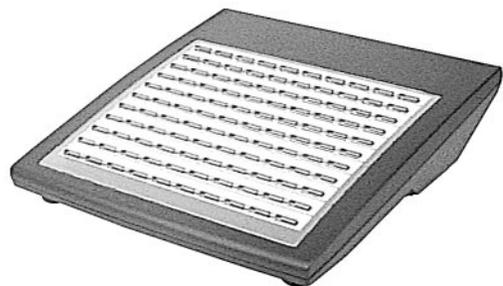
Figure 12: 110-Button DSS Console (DS1000)

2-OPX Module

Description

	DS2000 Fixed Slot	Available. See see *Off-Premise Extensions / On-Premise SLT Extensions* on page 274.
	DS2000 U Slot	
	DS1000	Not available.

Description

DS2000 Fixed Slot DS2000 U Slot DS1000	Available. Refer to *Off-Premise Extensions / On-Premise SLT Extensions* on page 274 for more.

Account Codes

Description

	DS2000 Fixed Slot	Not available.
	DS2000 U Slot	Available. Requires software version 02.01.07 or higher.
	DS1000	

⚠️ Use Account Codes to categorize and/or restrict outside calls.

Account Codes are user-dialed codes that help categorize and/or restrict trunk calls. Account Codes are from 2-10 digits long, using any combination of the digits 0-9. There are three types of Account Codes:

- Optional (Unforced Account Codes)
- Forced Account Codes
- Verified Account Codes

Optional (Unforced) Account Codes

Optional Account Codes allow a keyset extension user to enter an Account Code while placing a trunk call or any time while on a call. This type of Account Code is optional: the system does not require the user to enter it. If the keyset user is already talking on a trunk call, their conversation continues uninterrupted while they enter an Account Code.

Single line telephone users can only enter an Account Code while placing their trunk call.

Forced Account Codes

Forced Account Codes <u>require</u> an extension user to enter an Account Code every time they place a trunk call. If the user doesn't enter the code, the system prevents the call. The system can require Forced Account Codes for all trunk calls, or just for toll calls (as determined by Toll Restriction programming). Note that Forced Account Codes do not pertain to incoming calls.

Verified Account Codes

With Verified Account Codes, the system compares the Account Code the user dials with a list of codes programmed into the Verified Account Code Table. If the Account Code is in the table, the call goes through (provided it is not prevented by an extension's Toll Restriction programming). If the code is not in the table, the system prevents the call. Verified Account Codes, if enabled, apply only to Forced Account Codes.

Using Account Codes and Speed Dial

To simplify Account Code operation, Personal and System Speed Dial bins can contain Account Codes. Keep the following in mind when using Speed Dial and Account Codes:

- The Account Code can be either the first or last entry in the bin, and must be preceded and followed by the # character. For example, the Account Code 1234 must be entered as #1234#.
- The *Program 0201 - # Key to Enter Account Codes* (page 447) option must be enabled in system programming. In addition, the *Program 0201 - Enable Account Codes in Speed Dial (2.01.07 or higher)* (page 446) option must also be enabled.
- The Speed Dial bin can contain an Account Code followed by an outside number, or just the Account Code. The Account Code must be preceded and followed by a # entry. If the bin contains just the Account Code, the user must be sure to press the bin key before dialing the outside number.

- If the system has Verified Account Codes enabled, the Account Code entered in the Speed Dial bin must match an entry in the Verified Account Code Table.
- If the Speed Dial bin does not contain an Account Code, the user must enter the Account Code manually. If Forced Account Codes are enabled, the system <u>requires</u> the user to enter the Account Code before it outdials the stored Speed Dial number.
- An extension user can preselect a trunk for a Speed Dial call.

Using Account Codes with Last Number Redial and Save

Last Number Redial and Save do not store Account Codes. This means that the user must manually enter an Account Code to have it included with a call dialed using Last Number Redial and Save. If Forced Account Codes are enabled, the system <u>requires</u> the user to enter the Account Code before it outdials the stored number saved by Last Number Redial or Save.

An extension user can preselect a trunk for a Last Number Redial or Save call.

Account Codes and Emergency Calls

Account Codes are never enforced for emergency (911 and 1+911) calls.

<u>Conditions</u>

Do not use Account Codes that begin with 911 or 1911.

<u>Default Setting</u>

Account Codes disabled.

Account Codes

Programming Guide

**Step-by-step guide for setting up
Account Codes** (Page 1 of 2)

Step 1: Should users be able to store Account Codes in Speed Dial bins?

If yes
- In *Program 0201 - Enable Account Codes in Speed Dial (2.01.07 or higher)* (page 446), enter Y.

If no
- In *Program 0201 - Enable Account Codes in Speed Dial (2.01.07 or higher)* (page 446), enter N. Any Account Codes stored in Speed Dial bins dial out as part of the stored number.

Step 2: While on an outside call, should an extension user be able to dial # to enter an Account Code?

If yes
- In *Program 0201 - # Key to Enter Account Codes* (page 447), enter Y.

If no
- In *Program 0201 - # Key to Enter Account Codes* (page 447), enter N.

Step 3: Should Account Code entries be hidden (i.e., replaced by * characters) on each telephone's display?

If yes
- In *Program 0201 - View Account Codes* (page 447), enter N.

If no
- In *Program 0201 - View Account Codes* (page 447), enter Y.

Step 4: Should a keyset have an Account Code key to simplify entering Account Codes?

If yes
- In *Program 1701 - Programmable Function Key Assignments* (page 517), enter 26 to assign a key as an Account Code key.

If no
- In *Program 1701 - Programmable Function Key Assignments* (page 517), do not assign a key with code 26.

Step-by-step guide for setting up
Account Codes (Page 2 of 2)

Step 5: **Should an extension have Forced Account Codes (i.e., be required to enter an Account Code while placing a call)?**

If yes
- In *Program 0101 - Forced Account Codes* (page 443), enter Y.
- *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no
- In *Program 0101 - Forced Account Codes* (page 443), enter N.
- *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Step 6: **Should an extension have Forced Account Codes just for long distance (toll) calls?**

If yes
- In *Program 0101 - Forced Account Codes for Toll Calls Only* (page 443), enter Y.
- In *Program 0201 - Account Code Toll Level* (page 447), enter the toll level (0-7) the system will use to determine toll calls. See *Forced Account Codes Programming* on page 38 for more on setting this up.
- *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no
- In *Program 0101 - Forced Account Codes for Toll Calls Only* (page 443), enter N.
- *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Step 7: **Should an extension have Verified Account Codes (i.e., be required to enter an Account Code from the Verified Account Codes Table while placing a call)?**

If yes
- In *Program 0101 - Verify Account Codes* (page 443), enter Y.
- In *Program 1201 - Verified Account Codes Table* (page 515), enter codes into the Verified Account Codes table.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no
- In *Program 0101 - Verify Account Codes* (page 443), enter N.
- *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Account Codes

Programming List

General Account Codes Programming

Program 0201 - Enable Account Codes in Speed Dial (2.01.07 or higher) (page 446)
Enable (Y) this option if users should be able to store Account Codes in Speed Dial bins. This causes the stored Account Code to properly display in the SMDR report *Account* column. If you disable (N) this option, Account Codes stored in Speed Dial bins dial out as part of the stored number and display in the SMDR report *Number Dialed* column. They will not display in the *Account* column. This option is disabled by default.

Program 0201 - # Key to Enter Account Codes (page 447)
Use this option to enable (Y) an extension user to dial # to enter an Account Code while on an outside call. If disabled (N), the extension user can only enter an Account Code by pressing the Account Code soft key or a uniquely programmed Account Code Programmable Function Key. This option is disabled by default.

Program 0201 - View Account Codes (page 447)
Use this option to show or hide the Account Codes a user enters on their telephone's display. If enabled (Y), the dialed Account Codes show on the display. ***This may be a security risk, since a co-worker can easily read the telephone display as the user enters their Account Code.*** If disabled (N), Account Codes are shown as * characters on the telephone display. This option is disabled by default.

Program 1701 - Programmable Function Key Assignments (page 517)
Use this option to assign an Account Code Programmable Function Key to a keyset (code 26). There are no Account Code Programmable Function Keys assigned by default. The Account Code Programmable Function Key is not available on DSS Consoles.

Optional (Unforced) Account Codes Programming

Optional Account Codes are always available without programming.

Forced Account Codes Programming

Program 0101 - Forced Account Codes (page 443)
Use this option to enable (Y) or disable (N) Forced Account Codes. If disabled, Optional Account Codes are still available. This option is disabled by default.

Program 0101 - Forced Account Codes for Toll Calls Only (page 443)
- Use this option to enable (Y) Forced Account Codes only for toll (long distance) calls. If disabled (N), Forced Account Codes apply to all outgoing trunk calls. This option is disabled by default (i.e., Forced Account Codes, if enabled, apply to all outgoing trunk calls).
- The system identifies toll calls according to the settings in *Program 0201 - Account Code Toll Level* (page 447) programming below.
- If *Program 0101 - Forced Account Codes* (page 443) is disabled, the *Program 0101 - Forced Account Codes for Toll Calls Only* (page 443) option has no effect.

Program 0201 - Account Code Toll Level (page 447)
If *Program 0101 - Forced Account Codes for Toll Calls Only* (page 443) is enabled, use this option to differentiate toll calls from local calls for Account Code purposes. If you enter 0 for this option, toll calls are any calls the user dials that begin with 0 or 1. If you enter a toll level for this option (1-7), the system uses the toll level options programmed in *Program 0601 - Toll Restriction Level* (page 489) for that level to determine if the call is local or toll.

- If the toll level is set to deny the call, it is considered to be a long distance call and the system requires that the user must have entered an Account Code.

- If the toll level permits the call, it is considered to be a local call and no Account Code entry is required.

- Note that additional dialing restrictions enforced by an extension's toll level (set in *Program 1801 - Extension Toll Level Day* (page 533) and *Program 1801 - Extension Toll Level Night* (page 534) are in effect and may also restrict dialing.

Program 1801 - **Extension Class of Service Assignment** (page 533)
Assign Class of Service to extensions.

Verified Account Codes Programming

Program 0101 - **Verify Account Codes** (page 443)
Use this option to enable (Y) or disable (N) Verified Account Codes. If enabled, the system compares the Account Code the user dials to the entries in *1201 - Verified Account Codes Table* on page 515. There are no entries in this table by default.

Program 1201 - **Verified Account Codes Table** (page 515)
● Use this option to enter codes into the Verified Account Codes Table. When *Program 0101 - Verify Account Codes* (page 443) is enabled, the system compares the Account Code the user dials to the entry in this table. If the entries match, the system allows the call (provided it is not prevented by an extension's Toll Restriction). If there is no match, the system denies the call.
● A Verified Account Code can be from 2 to 10 digits long, using the digits 0-9. You can use the * character as a wild card, which can be entered in any position in a Verified Account Code. A wild card allows the user to dial any digit in that position. For example, the entry 11*1 represents entries 1101, 1111, 1121, etc.
● DS1000 provides for 500 table entries. DS2000 provides for 1000 table entries.
● Do not enter either 911 or 1911 into the Verified Account Codes Table. When a user presses a line key and dials either 911 or 1911, the system immediately bypasses all Toll Restriction and Account Code programming and routes the call.

Program 1801 - **Extension Class of Service Assignment** (page 533)
Assign Class of Service to extensions.

Account Codes Programming Examples

Example 1: Forced Account Codes Require an Account Code only for 900 and 1 + 900 Long Distance Dialing

To set up Forced Account Codes to require entries for only 900 and 1 + 900 calls:

1. In **0101 - Forced Account Codes**, enter Y.

2. In **0101 - Forced Account Codes for Toll Calls Only**, enter Y.

3. In **0201 - Account Code Toll Level**, enter 2 (for example).

4. In **0601 - Initialize Toll Restriction**, be sure to initialize the Toll Restriction tables.

5. In **0601 - Toll Restriction for Toll Level 2**:
   - Enable **N11 Dialing** (Y).
   - Enable **0 + Dialing** (Y).
   - Enable **International Dialing** (Y).
   - For **10+XXX Dialing**, make a deny table with no entries (i.e., deny nothing).
   - For **NXX Dialing**, make a deny table with no entries (i.e., deny nothing).
   - For **NPA Dialing**, make a deny table and enter 900.
   - For **6 DGT Analysis**, make a deny table with no entries (i.e., deny nothing).

6. In **1801 - Extension Class of Service**, assign the Class of Service with Forced Account Codes enabled to the extension.

An extension user can then:

1. Press a line key or dial a code for an outside line.

2. Wait for reminder tone (3 beeps).
   With Forced Account Codes enabled, the system automatically goes into the Account code mode after you press a line key in step 1 above.
   If you have an Account Code Programmable Function Key, it flashes green.

3. Press # (if enabled), the Account Code soft key, or an Account Code Programmable Function

Key (if programmed).
> *This exits the Account Code mode.*

4. Dial any number that doesn't begin with 900 or 1 + 900.

5. Have the call go through without an Account Code.
> *If the user doesn't enter an Account Code for 900 or 1 + 900 calls, the system will cut off the call.*
> *The system will also cut off any call not allowed by the extension's Toll Restriction programming.*

Example 2: Forced Account Codes Allow 800 and 1 + 800 Long Distance Dialing Without an Account Code

To set up Forced Account Codes to require entries for all calls except 800 and 1 + 800 Dialing:

1. In **0101 - Forced Account Codes**, enter Y.

2. In **0101 - Forced Account Codes for Toll Calls Only**, enter Y.

3. In **0201 - Account Code Toll Level**, enter 2 (for example).

4. In **0601 - Toll Restriction** for **Toll Level 2**:
   - Enable **N11 Dialing** (Y).
   - Enable **0 + Dialing** (Y).
   - Enable **International Dialing** (Y).
   - For **10+XXX Dialing**, make a deny table with no entries (i.e., deny nothing).
   - For **NXX Dialing**, make a deny table with no entries (i.e., deny nothing).
   - For **NPA Dialing**, make an allow table and enter 800.
   - For **6 DGT Analysis**, make a deny table with no entries (i.e., deny nothing).

5. In **1801 - Extension Class of Service**, assign the Class of Service with Forced Account Codes enabled to the extension.

An extension user can then:

1. Press a line key or dial a code for an outside line.

2. Wait for reminder tone (3 beeps).
> *With Forced Account Codes enabled, the system automatically goes into the Account code mode after you press a line key in step 1 above.*
> *If you have an Account Code Programmable Funtion Key, it flashes green.*

3. Press # (if enabled), the Account Code soft key, or an Account Code Programmable Function Key (if programmed).
> *This exits the Account Code mode.*

4. Dial any number that begins with 800 or 1 + 800.
> *The call will go through without an Account Code. If the user doesn't enter an Account Code for all other calls, the system will cut off the call.*
> *The system will also cut off any call not allowed by the extension's Toll Restriction programming.*

Other Related Features

Last Number Redial (page 236) and **Save Number Dialed** (page 322)
> Last Number Redial and Save do not store Account Codes. This means that the user must manually enter an Account Code to have it included with a call dialed using Last Number Redial and Save.

Speed Dial (page 332)
> An extension user can store an Account Code in a Speed Dial bin. See *Using Account Codes and Speed Dial* on page 34 for more.

Station Message Detail Recording (page 348)
> Account Codes print on the SMDR report.

Voice Mail (page 414)
> Voice Mail callout features (such as Message Notification) may interact with Account Codes if the callout number contains # characters.

Feature Operation

To enter an Optional (Unforced) Account Code:

> *For keysets, Optional Account Codes apply to both incoming and outgoing calls. For outgoing calls, you can enter the Account Code before or after dialing the outside number. For Single Line sets, Optional Account Codes apply only to outgoing calls. You must enter the Account Code after getting dial tone on the trunk but before dialing the outside number.*

1. Place or answer outside call.

2. Press Account Code soft key, Programmable Function Key, or dial # (if enabled).

3. Enter Account Code (up to 10 digits long, using the digits 0-9).

4. Press Account Code soft key, Programmable Function Key, or dial # (if enabled).

5. For Outgoing Calls Only
   Dial your outside number.
   > *Toll Restriction may still prevent you from dialing certain outside numbers.*

To enter a Forced Account Code:

> *Forced Account Codes do not apply to incoming calls.*

1. Access a line for an outgoing call.

   | 🎧 | Three beeps. |
   | 👁 | Your telephone display prompts you to enter an Account Code. |

2. Enter Account Code (up to 10 digits long, using the digits 0-9).
   > *If your system has Verified Account Codes enabled, you <u>must</u> enter one from the Verified Account Codes Table. If you enter an invalid Verified Account Code, your call will be cut off in the next step.*

3. Press Account Code soft key, Programmable Function Key, or dial # (if enabled).

   | 🎧 | Dial tone on your outside line. |
   | 👁 | N/A. |

4. Dial your outside number.
   > *Toll Restriction may still prevent you from dialing certain outside numbers.*

Alphanumeric Display

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS100

The Alphanumeric Display messages help the display telephone user process calls, identify callers and customize features.

The 22- and 34-Button Display Telephones have a two-line, 20-character per line alphanumeric display. The first line displays the date and time (while idle) and feature status messages. The second line displays the Soft Key definitions.

The 34-Button Super Display Telephone has an eight-line, 20-character per line alphanumeric display. The first line displays the date and time (while idle) and feature status messages, just like the 22- and 34-Button Display Telephones. Lines 2-8 are the comprehensive Super Display Telephone soft key definitions.

- To learn more about the display telephones:
  - see *22-Button Display Telephone (Fixed Slot)* on page 20
  - see *22-Button Display Telephone (U Slot and DS1000)* on page 21
  - see *34-Button Display Telephone (Fixed Slot)* on page 24
  - see *34-Button Display Telephone (U Slot and DS1000)* on page 25
  - see *34-Button Super Display Telephone (Fixed Slot)* on page 26
  - see *34-Button Super Display Telephone (U Slot and DS1000)* on page 27
- To learn more about the Soft Keys, see *Soft Keys* on page 331.

Conditions

None

Default Setting

Enabled for all display telephones.

Programming Guide

None

Programming List

None

Other Related Features

Soft Keys (page 331)
   The interactive Soft keys provide users with intuitive access to the telephone's features.

Volume Controls (page 431)

While a feature is active, pressing VOL ▲ and VOL ▼ adjusts the volume of the active feature. While a 22-Button or 34-Button Display telephone is idle, pressing VOL ▲ and VOL ▼ adjusts the display contrast. Note that 34-Button Super Display Telephones do not provide contrast adjustments. A system reset or power down returns the user-set contrast setting to a median level.

Feature Operation

Refer to the individual features for feature operation.

Attendant Call Queuing

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Attendant Call Queuing helps minimize call congestion in systems that use the attendant as the overflow destination for unanswered calls.

An unlimited number of callers can queue for the attendant. The callers hear ringback while they wait for the attendant to answer — not busy tone. If you have the attendant as the overflow destination for Direct Inward Lines, for example, unanswered DILs will "stack up" at the attendant until they are answered

Operator Call Key

The last programmable key on an attendant telephone is permanently assigned as an Operator Call Key. When the operator has Intercom calls waiting to be answered, the calls queue under this key. The key winks (on) when calls are queued.

The Operator Call Key is a permanent assignment for all extensions assigned as operators. You cannot change this assignment. Attendant Call Queuing is a permanent, non-programmable feature.

Conditions
None

Default Setting
At attendant (extension 300 by default), key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key.

Programming Guide

None

Programming List

None

Other Related Features

Attendant Position (page 46)
  Assign system attendants.
Off-Hook Signaling (page 270)
  The Operator Call Key does not activate off-hook signaling.
Ringing Line Preference (page 319)
  Ringing Line Preference will not answer a call ringing the Operator Call Key.
Voice Mail (page 414)

● TRF transfers to the attendant from the Voice Mail Automated Attendant flash the Operator Call key and the Ring Indicator lamp. The call does not flash a line/loop key. (Note that Ringing Line Preference will not pick up a call ringing the attendant's Call Queue key.)

● UTRF transfers to the attendant from the Voice Mail Automated Attendant flash the trunk's line/loop key and the Ring Indicator lamp.

Feature Operation

To answer a call flashing the Operator Call Key:

1. Press the flashing Operator Call Key.

    This places your outside call on Hold and answers the waiting call.

Attendant Position

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

The attendant is the system's call processing focal point.

The attendant is the focal point for call procesing within the system. The system can have up to four attendants. In addition to the features of a standard keyset, the attendant also has the following unique capabilities (refer to the respective feature for details):

- **Attendant Call Queuing** (page 44)
  Incoming Intercom calls from co-workers queue for the attendant. The callers never hear busy tone.

- **Barge In (Intrusion)** (page 57)
  The attendant can break into another extension user's established call. This option is enabled in the attendant's Class of Service (COS 1).

- **Direct Trunk Access** (page 139)
  Direct Trunk Access lets the attendant user dial a code to access an individual trunk. This option is enabled in the attendant's Class of Service (COS 1).

- **Forced Trunk Disconnect** (page 175)
  In an emergency, the attendant can release (disconnect) another user's active trunk call. This option is enabled in the attendant's Class of Service (COS 1).

- **Night Service / Night Ring** (page 265)
  An attendant with a Night key can put the system in the night mode. This option is enabled in the attendant's Class of Service (COS 1).

- **Removing Trunks and Extensions From Service** (page 311)
  The attendant can remove problem trunks from service —then return them to service once the problem is corrected. This option is enabled because the attendant has Direct Trunk Access enabled in their Class of Service (COS 1).

- **Trunk (Line) Queuing / Trunk Callback** (page 402)
  The attendant can Camp On (queue) for a busy trunk. This option is enabled in the attendant's Class of Service (COS 1).

The attendant should use a 34-Button Display or 34-Button Super Display Telephone. In addition, most attendants should find a 24-Button or 110-Button Direct Station Selection (DSS) Console helpful when processing calls.

Conditions

- Ringing Line Preference will not pick up a call ringing the attendant's Call Queue key.
- System operators will not ring for Ring Group calls.

Default Setting

The system has one operator assigned to extension 300.

Programming Guide

> **Step-by-step guide for setting up Attendant Position** (Page 1 of 2)

Step 1: Install a 34-Button Display or 34-Button Super Display telephone for the attendant.

- A 24-Button or 110-Button DSS Console will also help the attendant process calls more quickly.

Step 2: Should the system have more than one attendant?

If yes

- In *Program 0301 - Number of Operators* (page 449), enter 2-4 or press CLEAR (to undefine all operators).
- In *Program 0301 - Operator 1 Extension* (page 449), *Program 0301 - Operator 2 Extension* (page 449), *Program 0301 - Operator 3 Extension* (page 449), and *Program 0301 - Operator 4 Extension* (page 449), assign the operator extensions.
- In *Program 1802 - Extension's Operator* (page 541), assign an operator to each extension.

If No

- In *Program 0301 - Number of Operators* (page 449), enter 1 or press CLEAR (to undefine all operators).
- In *Program 0301 - Operator 1 Extension* (page 449), assign the system operator's extension (normally 300).
- In *Program 1802 - Extension's Operator* (page 541), assign each extension to the operator (normally 300).

Step 3: While busy on a call, should the attendant be audibly notified of incoming calls?

If yes

- *Program 1802 - Off-Hook Signaling for CO Calls* (page 540), at the attendant's extension enter 1 for Call Waiting beeps, 2 for off-hook ringing.

If No

- *Program 1802 - Off-Hook Signaling for CO Calls* (page 540), enter 0 for the attendant's extension.

Step 4: Should the first digit an extension user dials to reach an operator be 0 (e.g., 0 for single operator systems, 01-04 for multiple operator systems)?

If yes

- In *Program 0501 - Digit 0 Options* (page 472), be sure this option is left at its default setting (*Function Type* = 1 and *Expected Digits* = 2).

Attendant Position

If no ➡

- In *Program 0501 - Digit 0 Options* (page 472), exchange the digit 0 settings with the new digit.

- Do not change the *Expected Digits* entry for the digit 0.

Programming List

Note: Designating an extension as an operator in Program 0301 automatically assigns Class of Service 01 to that extension. If you change your operator setup and make an operator a "normal" extension, be sure to go back and manually reassign a new Class of Service (2-15) to that extension. Note that the attendant's Class of Service options are fully customizable.

Program 0301 - Number of Operators (page 449)
Specify the number of operators in the system (1-4) or press CLEAR (to undefine all operators)

Program 0301 - Operator 1 Extension (page 449)
Assign the 1st operator's extension number. Be sure you have entered the correct number in the *Number of Operators* option above.

Program 0301 - Operator 2 Extension (page 449)
Assign the 2nd operator's extension number. Be sure you have entered the correct number in the *Number of Operators* option above.

Program 0301 - Operator 3 Extension (page 449)
Assign the 3rd operator's extension number. Be sure you have entered the correct number in the *Number of Operators* option above.

Program 0301 - Operator 4 Extension (page 449)
Assign the 4th operator's extension number. Be sure you have entered the correct number in the *Number of Operators* option above.

Program 0501 - Digit 0 Options (page 472)
Assign the digit(s) the system will use for operator access (normally 0 and 01-04). Do not change the *Expected Digits* entry for the digit 0.

Program 1802 - Extension's Operator (page 541)
Assign the extension's operator (300-395 in DS2000, 300-315 in DS1000). This is the co-worker the extension user reaches when they dial 0.

Program 1802 - Off-Hook Signaling for CO Calls (page 540)
To have the system audibly alert the operator when trunk calls are waiting, assign an extension's Off-Hook Signaling options for trunk calls (0 = no Off-Hook Signaling, 1 = Call Wait beeps over speaker, 2 = Off hook ringing.

Other Related Features

Barge In (Intrusion) (page 57)
Since the attendant is never busy, Intercom callers cannot Barge In on an attendant.

Call Waiting / Camp-On (page 74)
Since the attendant is never busy, Intercom callers cannot Camp On to an attendant.

Callback (page 78)
Since the attendant is never busy, Intercom callers cannot leave a Callback for an attendant.

Class of Service (page 105)

By default, the system assigns Class of Service 1 to the attendant. This provides the attendant with Alternate Attendant, Barge In, Call Forwarding Off Premise, Direct Trunk Access, Forced Trunk Disconnect, Night Service, and Trunk Queuing (Camp On) capability.

Do Not Disturb (page 146)

The attendant can have Do Not Disturb. In addition, pressing DND at the attendant activates the night mode for any trunks directly terminated to the attendant.

Group Ring (page 183)

System operators will not ring for Ring Group calls.

Intercom (page 227)

Designate each extension's operator.

Monitor / Silent Monitor (page 257)

Since the attendant is never busy, Intercom callers cannot Monitor an attendant.

Privacy (page 295)

Since the attendant is never busy for Intercom calls, the attendant always has Privacy enabled.

Removing Trunks and Extensions From Service (page 311)

Normally, the attendant should be able to remove extensions and trunks from service.

Voice Mail (page 414)

● TRF transfers to the attendant from the Voice Mail Automated Attendant flash the Operator Call key and the Ring Indicator lamp. The call does not flash a line/loop key. (Note that Ringing Line Preference will not pick up a call ringing the attendant's Call Queue key.)

● UTRF transfers to the attendant from the Voice Mail Automated Attendant flash the trunk's line/loop key and the Ring Indicator lamp.

Feature Operation

To call the attendant:

1. Press **ICM**.

   | Dial tone.
   | **ICM** and **SPK** on.

2. Dial **0**.

   | Two beeps.
   | **ICM** and **SPK** on.

   This calls the attendant assigned to your extension. If your system has multiple attendants, you can reach them by dialing 01-04.

Automatic Handsfree

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Automatic Handsfree is a convenience for workers who don't have a free hand to answer a call or use a feature.

Automatic Handsfree allows a keyset user to place or answer a call Handsfree by just pressing a key — without lifting the handset or pressing **SPK** first. If enabled, the system provides Automatic Handsfree for:

- Call Coverage Keys
- Central Office Calls (line and loop calls)
- Group Call Pickup keys
- Hotline Keys
- Intercom (**ICM** key)
- Last Number Redial (**LND** key)
- Paging keys
- Park keys
- Personal Speed Dial bin keys
- Personal and System Speed Dial keys

The system always provides Automatic Handsfree for:

- Dial Number Preview
- Directory Dialing

Conditions
None

Default Setting
Enabled

Programming Guide

```
┌─────────────────────────────────────────┐
│  Step-by-step guide for setting up        │
│  Automatic Handsfree                      │
└─────────────────────────────────────────┘
```

Step 1: IShould an extension be able to use Automatic Handsfree?

If yes
- In *Program 0201 - Automatic Handsfree* (page 445), enter Y to enable Automatic Handsfree system wide.
- In *Program 1802 - Automatic Handsfree* (page 540), enter Y to enable Automatic Handsfree for the extension.

If no
- In *Program 1802 - Automatic Handsfree* (page 540), enter N to enable Automatic Handsfree for the extension.

Step 2: Do you want to disable Automatic Handsfree for all extensions system-wide?

If yes
- In *Program 0201 - Automatic Handsfree* (page 445), enter Y to enable Automatic Handsfree for all extensions system-wide.

If no
- In *Program 0201 - Automatic Handsfree* (page 445), enter N to disable Automatic Handsfree for all extensions system-wide.

Programming List

Program 0201 - Automatic Handsfree (page 445)
Enter Y to enable Automatic Handsfree system-wide.
Program 1802 - Automatic Handsfree (page 540)
Enter Y to enable Automatic Handsfree.

Automatic Handsfree

Other Related Features

Central Office Calls, Placing (page 93)

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.

Handsfree and Handsfree Answerback (page 190)

Process calls using the speaker and microphone in the telephone (instead of the handset).

Headset Compatibility (page 194)

While in the headset mode, Automatic Handsfree simplifies answering trunk calls.

Line Keys (page 238)

Automatic Handsfree allows the keyset user to answer a call ringing a line key without lifting the handset; they just press the line key instead.

Loop Keys (page 242)

Automatic Handsfree allows the keyset user to answer a call ringing a loop key without lifting the handset; they just press the loop key instead.

Feature Operation

If enabled, Automatic Handsfree operation is automatic when you press the key.

Description

DS2000 Fixed Slot	
DS2000 U Slot	Available. See *Ringdown Extension* on page 317.
DS1000	

Background Music

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Broadcast music through the telephone speaker for a more pleasing work environment.

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 extension is idle. Incoming calls and Paging announcements temporarily override (turn off) Background Music.

Background Music requires a customer-provided music source. This source is also used by Music on Hold. In DS2000, you connect the music source to the CPU's 8-pin mod jack. In DS1000, you connect the music source to the Main Equipment Cabinet AUDIO jack. The music source you use must be compatible with the following specifications:

Table 3: Music Source Specifications	
Input Impedance	10K Ohms
Relative Input Level	+18 dBr (+/- dBr) at 1.0 kHz

For more on connecting a customer-provided music source, refer to the system's Hardware Manual.

Note:

In accordance with U.S. copyright law, a license may be required from the America 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 Background Music feature of telecommunications systems. NEC America, Inc. hereby disclaims any liability arising out of the failure to obtain such a license.

Conditions

None

Default Setting

Enabled system-wide and at each extension.

Programming Guide

```
┌──────────────────────────────────────┐
│     Step-by-step guide for setting up │
│            Background Music           │
└──────────────────────────────────────┘
```

Step 1: Should Background Music be enabled system-wide?

If yes ──────────────►

- In *Program 0201 - Background Music* (page 446), enter Y to enable Backgorund Music system-wide.
- Connect the music source to the CPRU music terminals.

If no ──────────────►

- In *Program 0201 - Background Music* (page 446), enter N to disable Backgorund Music system-wide.

Step 2: Once enabled system-wide, should individual extension have Background Music?

If yes ──────────────►

- In *Program 1802 - BGM* (page 541), enter Y to enable Backgorund Music for the extension.

If no ──────────────►

- In *Program 1802 - BGM* (page 541), enter N to disable Backgorund Music for the extension.

Programming List

Program 0201 - Background Music (page 446)
  Enter Y for this option to enable Background Music system-wide.
Program 1802 - BGM (page 541)
  Enter Y to enable Background Music at the extension.

Other Related Features

Do Not Disturb (page 146)
  DND does not affect the operation of Background Music.
Headset Compatibility (page 194)
  Background Music plays in the headset when the extension is in the headset mode.
Music on Hold (page 260)
  Background Music and Music on Hold share the same music source.
Off-Premise Extensions / On-Premise SLT Extensions (page 274)
  Background Music is not available to On- and Off-Premise extensions.

Background Music

Feature Operation

To turn Background Music on and off:

1. Do not lift handset or press **SPK**.
2. Press **HOLD**.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

In an emergency, use Barge In to get through to a co-worker right away.

Barge In permits an extension user to break into another extension user's established call. This sets up a three-way conversation between the intruding extension and the two parties on the initial call. The user can Barge In on an Intercom call or a trunk call.

> **!! CAUTION !!**
>
> Unauthorized intrusion on calls using this feature may be interpreted as an invasion of privacy.

Conditions
Barge-In uses a system Conference circuit. See *Conference* on page 111 for more.

Default Setting
Disabled

Programming Guide

> **Step-by-step guide for setting up Barge In**

Step 1: Should an extension be able to Barge In on a co-worker's call?

If yes

- In *Program 0101 - Barge-In (Intrusion)* (page 440), enter Y to enable Barge In in the extension's Class of Service.
- In *Program 0101 - Privacy* (page 441), enter N to disable Privacy in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no

- In *Program 0101 - Barge-In (Intrusion)* (page 440), enter N to disable Barge In in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions

Barge In (Intrusion)

Programming List

Program 0101 - Barge-In (Intrusion) (page 440)
    In an extension's Class of Service, enter Y to allow the extension to Barge In on another extension.
Program 0101 - Privacy (page 441)
    In an extension's Class of Service, enter N to disable Privacy for the extension.
Program 1801 - Extension Class of Service Assignment (page 533)
    Assign Class of Service to extensions.

Other Related Features

Attendant Position (page 46)
    Since the attendant is never busy, Intercom callers cannot Barge In on an attendant.
Conference (page 111)
    An extension user can Barge In on a Conference.
Forced Trunk Disconnect (page 175)
    As an alternative to Barging In, disconnect the trunk instead.
Privacy (page 295)
    Privacy blocks Barge In attempts.

Feature Operation

To Barge-In on a call:

1.   Call busy extension.
          OR
    Press line key for busy trunk.
          OR
    Press **ICM** and dial 401 for busy trunk (i.e., using Direct Trunk Access).
          OR
    Press **ICM** and dial #901 for busy trunk (i.e., using Line Dial-up).
          OR
    Press **ICM** and dial Trunk Group access code (e.g., 9).

🎧	Busy tone.
👁	N/A

2.   Dial 4.

🎧	Two beeps.
👁	N/A

3.   Join the conversation in progress.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

The CPU PCB provides temporary backup of system memory and the time and date.

In the event of commercial AC power failure, the battery on the CPU PCB provides short-term backup of system memory and the system time and date (Real Time Clock). This battery will hold memory and time and date for up to 10-14 days. When commercial AC power is restored, the system restarts with all programming and the time and date intact.

Additional Battery Backup capability can be provided by a customer-supplied Uninterruptable Power Supply (UPS). The length of the time the UPS will power the system when power fails depends on the capacity of the UPS unit. Consult with the UPS manufacturer for the specifics. When sizing a UPS unit, keep in mind that a fully-loaded 4-slot cabinet requires 165 VA. Refer to the *Hardware Manual* for additional details.

Conditions
None

Default Setting
None

Programming List

None

Other Related Features

When commercial AC power fails, the CPU battery does not back up the status of the following:
● Call Forwarding
● Call Waiting / Camp On
● Do Not Disturb
● Message Waiting
● Microphone Mute
● Trunk Queuing

System Programming Backup and Restore (page 357)
You can use PC Card P/N 85880 or P/N 80050-V**.**.** (with system software preloaded) to back up and restore your site data.
Time and Date (page 383)
The battery on the CPU PCB backs up the CPU Real Time Clock for 10-14 days.

Battery Backup

Feature Operation

If properly installed, Battery Backup is automatic during AC power failures and brownouts.

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	Available. User Programmable Feature steps added.
	DS1000	Available. Includes User Programmable Feature steps.

Call Coverage keys allow an extension user to cover a co-worker's calls from their own telephone.

A keyset can have Call Coverage Keys for a co-worker's extensions, Ring Group master numbers and UCD group master numbers. The Call Coverage Key lights when the co-worker's extension is busy, flashes slowly when the co-worker has an incoming call, and flashes fast when the co-worker is in Do Not Disturb. 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. They can also go off hook and press the Call Coverage key to call the covered extension. An extension can have as many Call Coverage Keys as they have available Programmable keys on their telephone.

Call Coverage Key Busy Lamp Indications	
When the key is:	**The covered extension is:**
Off	Idle or not installed
On	Busy
Flashing slowly	Ringing
Flashing fast	In Do Not Disturb

Call Coverage Keys will intercept the following types of calls:
- Key Ring Calls
- Ringing Intercom calls

Conditions
None

Default Setting
No Call Coverage Keys assigned.

Call Coverage Keys

Programming Guide

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┌─────────────────────────────────────┐
│  Step-by-step guide for setting up Call │
│          Coverage Keys                │
└─────────────────────────────────────┘
```

Step 1: Should the Call Coverage key have Immediate Ring, No Ring or Delayed Ring?

Immediate Ring →

- For keysets, in *Program 1701 - Call Coverage Immediate Ring* (page 518), enter code 06 + the covered extension, Ring Group master number or UCD Group master number to assign an Immediate Ring Call Coverage Key.
- For DSS Consoles, in *Program 1704 - Call Coverage Immediate Ring* (page 528), enter code 06 + the covered extension, Ring Group master number or UCD Group master number to assign an Immediate Ring Call Coverage Key.

No Ring →

- For keysets, in *Program 1701 - Call Coverage No Ring* (page 518), enter code 07 + the covered extension, Ring Group master number or UCD Group master number to assign a No Ring (lamp only) Call Coverage Key.
- For DSS Consoles, in *Program 1704 - Call Coverage No Ring* (page 528), enter code 07 + the covered extension, Ring Group master number or UCD Group master number to assign a No Ring (lamp only) Call Coverage Key.

Delay Ring →

- For keysets, in *Program 1701 - Call Coverage Delay Ring* (page 518), enter 08 + the covered extension, Ring Group master number or UCD Group master number to assign a Delay Ring Call Coverage Key.
- For DSS Consoles, in *Program 1704 - Call Coverage Delay Ring* (page 529), enter 08 + the covered extension, Ring Group master number or UCD Group master number to assign a Delay Ring Call Coverage Key.
- In *Program 0403 - Call Coverage Delay* (page 467), enter the interval after which a Delay Ring Call Coverage Key begins to ring.

Programming List

Program 0403 - Call Coverage Delay (page 467)
For extensions with Delayed Ringing Call Coverage keys, set how long a call flashes the key at an extension before it starts to ring.
Program 1701 - Programmable Function Key Assignments (page 517)
Assign a programmable key on an extension as a Call Coverage Key (code 06 = immediate ring key, code 07 = no ring key, code 08 = delay ring key). The option is the covered extension (300-395 in DS2000, 300-325 in DS1000).
Program 1704 - DSS Console Key Assignment (page 526)
Assign a programmable key on an extension as a Call Coverage Key (code 06 = immediate ring key, code 07 = no ring key, code 08 = delay ring key). The option is the covered extension (300-395 in DS2000, 300-325 in DS1000).

Other Related Features

Direct Station Selection (DSS) Console (page 128)
DSS Consoles can have Call Coverage keys.
Door Box (page 148)
If you enter Door Chime type 0 (normal ring) above, you can set up Call Coverage keys for the Door Box Ring Group. This allows extensions that are not members of the Ring Group to answer Door Box calls. Extensions with Call Coverage keys to the Door Box Ring Group can also activate the relay.
Extension Hunting (page 156)
A keyset can have Call Coverage keys for UCD Group master numbers.
Group Ring (page 183)
A keyset can have Call Coverage keys for Ring Group master numbers.
Hotline (page 202)
Hotline keys provide many of the features available with Call Coverage keys.
Intercom (page 227)
A user can press a Call Coverage Key as an alternative to dialing Intercom numbers.
Key Ring (page 232)
Call Coverage will pick up Key Ring calls.
Transfer (page 393)
An extension user can Transfer a call to the covered extension by pressing the Call Coverage key.
Voice Over (page 428)
After calling a co-worker by pressing their Call Coverage key, and extension user can dial 9 to leave a Voice Over (if enabled in programming).

Call Coverage Keys

Feature Operation

	User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**	
The shaded row below shows the Fixed Slot software User Programmable Feature.				
Call Coverage	**#RC**	**#** + **R C** + Press Call Coverage key repeatedly to select ringing mode	N/A	
Programmable Function Key Ringing	**#RA**	*Call Coverage Keys:* **#RAC** + Call Coverage Key repeatedly to select ringing mode + **SPK** to exit. Call Coverage Keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green.	2-5	

To answer a call ringing or flashing a Call Coverage Key:

> (Optional) Ringing.
> Slowly flashing Call Coverage Key.

1. Press flashing Call Coverage Key.

To place a call from an idle Call Coverage Key to the covered extension:

1. Press Call Coverage Key.

> Two beeps.
> Call Coverage Key lights green.

2. Speak with co-worker at the covered extension.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Call Forwarding ensures that the user's calls are covered when they are away from their work area.

Call Forwarding permits an extension user to redirect their call to another extension. The types of Call Forwarding are:

- **Call Forwarding when Not Answered**
  Calls ringing the extension forward when not answered.
- **Call Forwarding when Busy or Not Answered**
  Calls ringing the extension forward when not answered, and all calls forward while the extension is busy.
- **Call Forwarding Immediate**
  All calls to the extension forward immediately.

Extension user's can chain Call Forwards. For example, extension 301 can forward all calls immediately to 304, which in turn can forward all calls immediately to extension 302. Any co-worker calling 301 or 304 goes to 302 instead. If extension 302 is Call Forwarded to Voice Mail, callers to 301 or 304 go directly to 302's mailbox.

Conditions

A system reset or power failure cancels Call Forwarding.

Default Setting

Enabled

Programming Guide

Step-by-step guide for setting up Call Forwarding

Step 1: Should an extension be able to forward their calls to a co-worker?

If yes ⟶
- In *Program 0101 - Internal Call Forwarding* (page 440), enter Y to enable Call Forwarding.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Call Forwarding

```
                    ┌─────────────────────────────────┐
                    │  Step-by-step guide for setting up Call │
                    │            Forwarding            │
                    └─────────────────────────────────┘
```

(**If no**) ──────────▶

- In *Program 0101 - Internal Call Forwarding* (page 440), enter N to disable Call Forwarding.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Step 2: When a user enables Ring No Answer forwarding, does an unanswered call ring the forwarding destination after the correct interval?

(**If yes**) ──────────▶

- In *Program 0403 - Call Forward Ring No Answer* (page 466), leave at the current setting.

(**If no**) ──────────▶

- In *Program 0403 - Call Forward Ring No Answer* (page 466), change the entry to meet the site's requirements.

Call Forwarding Timers

The following diagrams show how the system implements various timers when handling forwarded calls.

Transferred Trunk Call to Forwarded Extension

Extension A transfers trunk to extension B, which is forwarded Busy/No Answer (type 2) to extension C.

0401 - Transfer Recall

The trunk rings extension B for the Transfer Recall time. See *Transfer* on page 393 for more.

0403 - Call Forward RNA

In unanswered, the call then rings extension C (the forward destination) for the Call Forward Ring No Answer time.

0403 - Call Forward RNA

If still unanswered, the call rings the extension that initially transferred the call (A) for the Call Forward Ring No Answer time.

If still unanswered, call diverts to Key Ring

DIL (no overflow) to Forwarded Extension

DIL (with no overflow) rings programmed destination, which is forwarded Busy/No Answer (type 2) to a co-worker.

0401 - DIL No Answer

DIL rings programmed DIL destination for the DIL No Answer time.

0401 - DIL No Answer

In unanswered, the call rings the extension to which it is call forwarded for the DIL No Answer time.

If still unanswered, call diverts to Key Ring

Call Forwarding

DIL (with overflow) to Forwarded Extension

DIL (with overflow) rings programmed destination, which is forwarded Busy/No Answer (type 2) to a co-worker.

0401 - DIL No Answer

DIL rings programmed DIL destination for the DIL No Answer time.

0401 - DIL No Answer

In unanswered, the call rings the extension to which it is forwarded for the DIL No Answer time.

0401 - DIL No Answer

If unanswered, the DIL rings the programmed overflow destination for the DIL No Answer time.

If still unanswered, call diverts to Key Ring

Trunk Call on Hold at Forwarded Extension

Extension forwarded to co-worker using Busy/No Answer (type 2) to a co-worker puts trunk call on Hold.

0403 - Hold Recall

If not picked up, trunk call recalls the extension that put it on Hold after the Hold Recall time.

0401 - Trunk Revert

The call then rings the extension that put it on Hold for the Trunk Revert time.

If still unanswered, call diverts to Key Ring
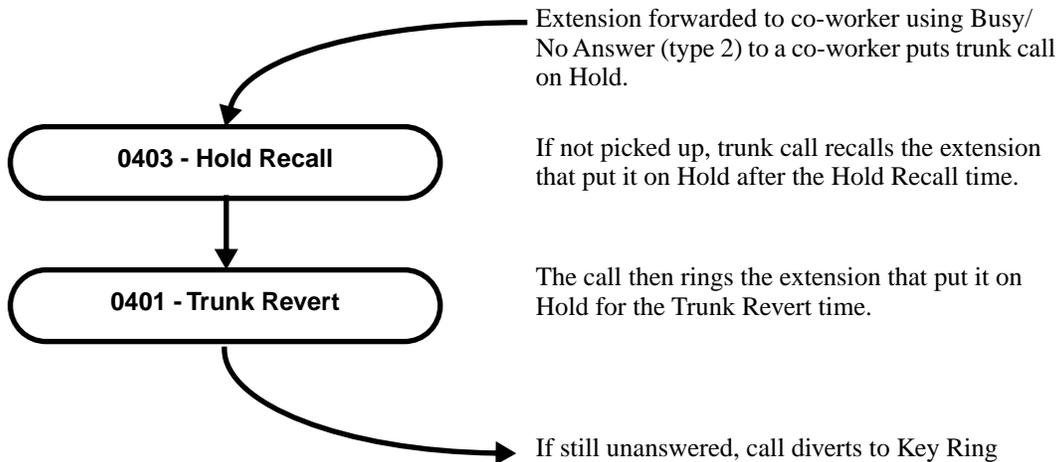
Programming List

Program 0101 - Internal Call Forwarding (page 440)
> In an extension's Class of Service, enter Y to enable internal Call Forwarding.

Program 0403 - Call Forward Ring No Answer (page 466)
> For Call Forwarding Ring No Answer, set how long a forwarded call rings an unanswered extension before routing to the forwarding destination.

Program 1801 - Extension Class of Service Assignment (page 533)
> Assign Class of Service to extensions.

Other Related Features

Call Coverage Keys (page 61)
> Call Forwarding will not reroute a call ringing a Call Coverage Key.

Direct Inward Line (page 118)
> Call Forwarding will reroute Direct Inward Lines.

Do Not Disturb (page 146)
> Call Forwarding considers an extension in DND as busy. In addition, an extension can have both DND and Call Forwarding enabled at the same time.

Extension Hunting (page 156)
> If a member of a Circular or Terminal Hunting group forwards their calls, hunting will follow Call Forwarding. If a member of a UCD Hunting group forwards their calls, calls to the extension follow forwarding but calls to the UCD master number do not.

Group Ring (page 183)
> Call Forwarding will not reroute Group Ring calls.

Intercom (page 227)
> Call Forwarding when Busy and Call Forwarding when Busy/Not Answered will not reroute voice-announced Intercom calls. It will reroute only ringing Intercom calls.

Key Ring (page 232)
> Call Forwarding will not reroute Key Ring calls.

Line Keys (page 238)
> Call Forwarding will not reroute calls ringing line keys.

Loop Keys (page 242)
> Call Forwarding will not reroute a call ringing a loop key (unless the call is a DIL).

Message Waiting (page 250)

- An extension user cannot leave a Message Waiting at an co-worker that has Call Forwarding Immediate (*34) enabled. Pressing MW automatically leaves a message at the forwarding destination instead.

- An extension user cannot leave a Message Waiting at a busy co-worker that has Call Forwarding Busy/No Answer (*32) enabled. Pressing MW will automatically leave a message at the forwarding destination instead.

Selectable Display Messaging (page 325)
> Enabling or canceling Call Forwarding cancels an extension's Selectable Display Messaging.

Transfer (page 393)
> Call Forwarding will reroute transferred calls.

Call Forwarding

Feature Operation

To activate or cancel Call Forwarding:

1. Press **ICM**.

   👂 | Dial tone.
   👁 | **ICM** and **SPK** on.

2. Dial ***3**.

   👂 | Dial tone stops.
   👁 | **ICM** and **SPK** on.

3. Dial Call Forwarding type:
   0 = Cancel your extension's Call Forwarding
   2 = Call Forwarding Busy/No Answer
   4 = Call Forwarding Immediate
   6 = Call Forwarding No Answer
   7 = Personal Answering Machine Emulation (see *Voice Mail* on page 414 for more).

4. Dial destination extension (or 0 for your operator).
   OR
   Dial Voice Mail master number.
   OR
   Press Voice Mail key.

   👂 | Dial tone.
   👁 | **ICM, DND** and **SPK** on.

5. Press **SPK** to hang up.

   👂 | Dial tone off.
   👁 | **ICM** and **SPK** off. **DND** on.

   Once you forward, only the user at the forwarding destination can place an intercom call to you.

   You can forward your phone to another destination without first canceling Call Forwarding. For example, you can dial *34 + 0 to immediately forward to the operator, then later on dial *34 + 700 to immediately forward to Voice Mail.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Call Timer helps users that must keep track of their time on the phone.

Call Timer lets a keyset user with a Call Timer key time their trunk calls on the telephone display. There are two types of Call Timer keys:

- **Manual Call Timer**
  The Manual Call Timer key works like a stopwatch. Pressing the key turns on the timer, while pressing the key a second time resets and turns off the timer. With a Manual Call Timer key, the timer will not start automatically. For example, if an extension user presses the Manual Call Timer key and calls three clients, the display will show the total elapsed time for all three calls. The user can also press the Manual Call Timer key to time events anytime while their phone is idle.

- **Automatic Call Timer**
  The Automatic Call Timer key will automatically start the Call Timer for each new trunk call, without the user having to press the key. The Automatic Call Timer can also work like a Manual Call Timer key: push to turn on, then push a second time to reset and turn off. There is no need to have a Manual and Automatic Call Timer key on the same phone.

Conditions

None

Default Setting

No Call Timer keys assigned.

Programming Guide

Step-by-step guide for setting up Call Timer

Step 1: Should extension have a Manual Call Timer key?

If yes
- In *Program 1701 - Call Timer Key* (page 519), assign a Manual Call Timer key (code 16 + 1). Make sure you do not also have an Automatic Call Timer key assigned (code 16 + 2).

If no
- In *Program 1701 - Call Timer Key* (page 519), make sure the extension does not have a Manual Call Timer key assigned (code 16 + 1).

Call Timer

Step 2:   Should extension have an Automatic Call Timer key?

If yes

- In *Program 1701 - Call Timer Key* (page 519), assign an Automatic Call Timer key (code 16 + 2). Make sure you do not also have a Manual Call Timer key assigned (code 16 + 1).

If no

- In *Program 1701 - Call Timer Key* (page 519), make sure the extension does not have an Automatic Call Timer key assigned (code 16 + 2).

Programming List

Program 1701 - Call Timer Key (page 519)
Assign a programmable key on an extension as a Call Timer key (code 16). The options are manual (1) and automatic (2).

Other Related Features

Caller ID (page 81)
The Auto Timer feature interacts with Caller ID on the first line of the telephone display.
Central Office Calls, Placing (page 93)
Call Timer shows the time a user has been on a trunk call.
Flash (page 170)
Flash restarts the Call Timer.
Hold (page 197)
A user's Call Timer starts when they pick up a call from Hold. If they place the call on Hold and another user picks it up, the timer restarts for the new user.
Station Message Detail Recording (page 348)
The SMDR report also keeps track of the time on a call.

Feature Operation

To time your trunk call if you have an Automatic Call Timer key:

1. Place or answer trunk call.

2. The Call Timer starts automatically.

👂 ‖ Conversation with caller.

👁 ‖ Automatic Call Timer key on.
    ‖ Timer in first line of display.

You can press the Automatic Call Timer key once to turn the timer off. Press the key a second time to restart the timer.
You can also press CHECK + the timer key to restart the timer.

To time your call if you have a Manual Call Timer key:

You can also use your Manual Call timer key as a stop watch while your phone is idle.

1. Place or answer Intercom or trunk call.

2. Press Manual Call Timer key.

👂 ‖ Conversation with caller.

👁 ‖ Manual Call Timer key on.
    ‖ Timer in first line of display.

You can press the Manual Call Timer key once to turn the timer off. Press the key a second time to restart the timer.
You can also press CHECK + the timer key to restart the timer.

Call Waiting / Camp-On

Description

DS2000 Fixed Slot	
DS2000 U Slot	Available.
DS1000	

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.

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 (by dialing 2), the system signals the busy extension with two beeps indicating the first waiting call. (The busy extension can be on a handset or Handsfree call.) The call goes through when the extension becomes free.

If an extension has more than one caller waiting, they queue on a first-in/first-out basis (FIFO). The extension will not hear Camp-On beeps for additional waiting calls.

Off-Hook Signaling also alerts the user when unanswered calls are waiting to get through. Turn to *Off-Hook Signaling* on page 270 for more.

The following chart shows when the two types of Off-Hook Signaling occur. Note that Camp-On tones occur for an extension when they are the exclusive recipient of the call (such as a DIL).

	Off-Hook Ringing[1]	Camp-On Tones[2]
Key Ring	Yes	No
Transferred Trunk Call	Yes	Yes
Direct Inward Line	Yes	Yes
Transfer from Voice Mail (UTRF)	Yes	Yes
Call Coverage Key	Yes	No
Group Call Pickup Key	Yes	No
[1] For Off-Hook ringing, **1802 - Off-Hook Signaling for CO Calls** = 2. [2] For Camp-On tones, **1802 - Off-Hook Signaling for CO Calls** = 1.		

Conditions

● A system reset or power failure cancels all Camp-Ons system wide.

● While busy on a call, Camp-On tones occur only for the first incoming call and do not repeat.

Default Setting

Call Waiting tones enabled.

Programming Guide

> **Step-by-step guide for setting up Call Waiting / Camp-On**

Step 1: Should extension be able to Camp On to a busy co-worker?

(**If yes**) ⟶
- In *Program 0101 - Camp-On to Busy Extension* (page 440), enter Y in each Class of Service that should allow users to Camp-On to a busy extension.
- In *Program 0101 - Privacy* (page 441), be sure Privacy is disabled at the destination extension (N).
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.
- Assign Class of Service (1-15) to extensions.

(**If no**) ⟶
- In *Program 0101 - Camp-On to Busy Extension* (page 440), enter N in each Class of Service that should prevent users from Camping-on to a busy extension. Entering N automatically converts an extension's Camp On to Callback.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Step 2: Should an extension hear Camp-On tones when a co-worker camps-on to their extension?

(**If yes**) ⟶
- In *Program 0201 - Call Waiting (Camp-On) Tone* (page 445), enter Y to enable Camp-On tones system-wide.
- In *Program 0403 - Call Waiting Tone Interval* (page 467), set the interval between Camp-On tones.
- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 539), enter 1.

(**If no**) ⟶
- In *Program 0201 - Call Waiting (Camp-On) Tone* (page 445), enter N to disable Camp-On tones system-wide.

Call Waiting / Camp-On

Programming List

Program 0101 - Camp-On to Busy Extension (page 440)
> In an extension's Class of Service, enter Y to allow the extension to Camp-On to a busy co-worker. Enter N to prevent the extension from Camping-On to a busy co-worker. Entering N also automatically converts an extension's Camp On to Callback.

Program 0101 - Privacy (page 441)
> An extension with Privacy enabled (Y) will block Camp On / Call Waiting.

Program 0201 - Call Waiting (Camp-On) Tone (page 445)
> Enter Y to enable Camp-On tones system-wide. Enter N to disable Camp-On Tones system-wide.

Program 0403 - Call Waiting Tone Interval (page 467)
> Set the interval between Camp-On tones.

Program 1801 - Extension Class of Service Assignment (page 533)
> Assign Class of Service (1-15) to extensions.

Program 1802 - Off-Hook Signaling for Intercom Calls (page 539)
> To enable Camp On tones for Intercom calls, enter 1.

Other Related Features

Attendant Position (page 46)
> An extension user cannot Camp-On to the attendant because the attendant's extension is never busy.

Callback (page 78)
> If an extension user Camps-On and then hangs up, the system converts the Camp-On to a Callback.

Caller ID (page 81)
> An extension programmed to receive Camp On tones or Off-Hook Ringing from a waiting call will also receive Second Call Caller ID.

Direct Inward Line (page 118),
> DILs to a busy extension automatically send Camp-On tones.

Do Not Disturb (page 146)
> An extension cannot Camp-On to a busy co-worker that is also in Do Not Disturb.

Key Ring (page 232)
> A Key Ring call will not send Camp-On beeps to a busy extension that normally rings for that call.

Intercom (page 227)
> A user can Camp-On after placing an Intercom call to a busy co-worker.

Privacy (page 295)
> Privacy blocks Camp-On / Call Waiting.

Split (Alternate) (page 343)
> Camp-On lets an extension user know that a call is waiting to be answered. The user can Split between the waiting call and their current call.

Transfer (page 393)
> An extension user may be able to Transfer a call to a busy extension.

Trunk (Line) Queuing / Trunk Callback (page 402)
> Trunk Queuing lets an extension user Camp-On to a busy trunk.

Volume Controls (page 431)
> The extension user cannot adjust the volume of incoming Camp On tone.

Feature Operation

To Camp-On to a busy extension:

1. Call busy extension.

   👂 ‖ Busy tone.

   👁 ‖ **ICM** and **SPK** on.

2. Dial 2; do not hang up.

   👂 ‖ Busy tone stops.

   👁 ‖ **ICM** and **SPK** on.

   If you hang up, the system converts your Camp-On to a Callback.

3. When your co-worker hangs up their initial call:

   👂 ‖ Ringback. Camp-On rings your co-worker's phone also.

   👁 ‖ **ICM** and **SPK** on.

4. Speak to your co-worker when they answer their Camp-On ring.

Callback

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

⚠ With Callback, a user does not have to repeatedly call a busy extension back, hoping to find it idle.

When an extension user calls a busy co-worker, they can leave a Callback request for a return call. The system services Callback requests as follows:

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

An extension user can leave a Callback at many extensions simultaneously. The system processes the Callbacks as the extensions become free. In addition, many extensions can leave a Callback at the same extension. The system processes these Callbacks on a first-in/first-out (FIFO) basis.

If an extension user leaves a Callback request and then fails to answer within four rings, the system cancels the Callback.

Conditions
A system reset or power failure cancels all Callbacks system-wide.

Default Setting
Callback enabled.

Programming Guide

Step-by-step guide for setting up Callback

Step 1: Should extension be able to leave a Callback for a busy co-worker?

If yes ──────────▶
- In *Program 0101 - Camp-On to Busy Extension* (page 440), enter Y in each Class of Service that should allow users to leave a Callback at a busy extension.

If no ──────────▶
- In *Program 0101 - Camp-On to Busy Extension* (page 440), enter N in each Class of Service that should prevent users from leaving a Callback at a busy extension.

Step-by-step guide for setting up Callback

Step 2:   When an extension leaves a Callback for a co-worker, should the co-worker hear Camp-On tones?

If yes ━━━━▶

- In *Program 0201 - Call Waiting (Camp-On) Tone* (page 445), enter Y to enable Camp-On tones system-wide.
- In *Program 0403 - Call Waiting Tone Interval* (page 467), set the interval between Camp-On tones.

If no ━━━━▶

- In *Program 0201 - Call Waiting (Camp-On) Tone* (page 445), enter N to disable Camp-On tones system-wide.

Programming List

Program 0101 - Camp-On to Busy Extension (page 440)
In an extension's Class of Service, enter Y to allow the extension to leave a Callback for a busy co-worker. Enter N to prevent the extension from leaving a Callback for a busy co-worker.

Program 0201 - Call Waiting (Camp-On) Tone (page 445)
Enter Y to enable Camp-On tones system-wide. Enter N to disable Camp-On Tones system-wide.

Program 0403 - Call Waiting Tone Interval (page 467)
Set the interval between Camp-On tones.

Other Related Features

Attendant Position (page 46)
An extension user cannot leave a Callback for the attendant because the attendant's extension is never busy.

Call Waiting / Camp-On (page 74)
If an extension user starts to leave a Callback request but doesn't hang up, the system Camps-On instead.

Central Office Calls, Answering (page 87)
If a trunk is ringing an extension because of a prior Callback, and then receives a new trunk call, it will start ringing for the new call. The Callback request is then queued.

Do Not Disturb (page 146)
An extension cannot leave a Callback for a busy co-worker that is also in Do Not Disturb.

Trunk (Line) Queuing / Trunk Callback (page 402)
An extension user can queue for a busy trunk and then hang up to turn the queue into a trunk Callback.

Callback

Feature Operation

To place a Callback:

1. Call busy extension.

    ☏ ‖ Busy tone.

    👁 ‖ **ICM** and **SPK** on.

2. Dial 2 and hang up.

    ☏ ‖ Busy tone stops.

    👁 ‖ **ICM** and **SPK** off.

    Stay on the line without hanging up if you want to Camp-On instead.

3. When the busy co-worker becomes free:

    ☏ ‖ Intercom ring.

    👁 ‖ **ICM** and **SPK** off.

4. Lift handset to answer.

    ☏ ‖ Two beeps.

    👁 ‖ **ICM** on.

5. Speak to your co-worker when call goes through.

Description

DS2000 Fixed Slot	Not available.
DS2000 U Slot	Available. • Caller ID Separator requires software version 02.00.01. • In **Program 1001 - Caller ID** (page 503), the entries are changed from Y (Caller ID enabled) to 2 in software version 02.00.06. • Post-answer Caller ID display for Ring Group calls requires 02.00.04. • Pre-answer Caller ID display for Ring Group calls requires 02.01.07.
DS1000	Available. • Post-answer Caller ID display for Ring Group available. • Pre-answer Caller ID display for Ring Group calls requires 02.01.07.

Caller ID automatically displays the phone number and optional name for incoming trunk calls.

Caller ID allows a display keyset to show an incoming caller's telephone number (called Directory Number or DN) and optional 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.

Caller ID provides the following features:

Single and Multiple Message Format Compatibility

There are two types of Caller ID message formats currently available: Single Data Message Format (SDMF) and Multiple Data Message Format (MDMF). With Single Message Data Format, the telco sends only the caller's phone number (DN). The DN can be up to 10 digits long. In Multiple Data Message Format, the telco sends the DN and the caller's name. The DN for this format can be up to 15 digits long, and the name provided can consist of up to 15 ASCII characters.

If no DN is received, no number or error message displays.

Caller ID on the SMDR Report

Caller ID data prints on the SMDR report. SDMF records print a single line which shows just the incoming number. MDMF records print on two lines, with the first line showing the number and the second line showing the name. Unlike the telephone display, the SMDR report can show the entire 15 digits in the DN, if required.

Following is a same SMDR report showing Caller ID data. The first two lines of the report show a complete MDMF record with both the caller's number and name. The last two lines of the report show two Caller ID error messages: Private Number and Out of Area. The "IN" in the type column indicates that the records shown are for incoming calls.

If no DN is received, no number or error message displays.

```
Station Message Detail Recording
03/10/2000 11:11A

---+---+--------------------------------+----------+--------+--------+---
Sta|Lin|          Number Dialed         |  Account |  Start |Duration| T
---+---+--------------------------------+----------+--------+--------+---
301| 02|                      2139261000 |          |11:11:39A|00:00:13|IN
301| 02|                   ANDERSON ALLEN |          |11:11:39A|00:00:13|IN
301| 02|                   Private Number |          |11:12:26A|00:00:12|IN
301| 02|               Out of Area Number |          |11:13:16A|00:00:12|IN
```

Caller ID Integration with Voice Mail

Caller ID fully integrates with NVM-Series Voice Mail systems. This enables Voice Mail features such as Make Call with Caller ID. Make Call allows the Voice Mail subscriber to return a call to someone who left them a message without knowing the calling party's phone number.

Second Call Caller ID (Extension Level Call Waiting Caller ID)

While a display keyset user is busy on a call, the system can show the Caller ID information for a waiting call. If the busy extension is programmed to receive Camp On tones or Off-Hook Ringing from the waiting call, the system will send the Caller ID data to the busy telephone's display. If the busy extension does not receive Camp On tones or Off-Hook Ringing, it will also not receive the waiting call's Caller ID. (Note that Caller ID data from a Camp On is displayed only once, corresponding to the single Camp On beep.)

Third Party Caller ID Check

Third Party Caller ID Check allows an idle or busy keyset user to display the Caller ID data for another trunk. The trunk that the user checks can be ringing or busy.

Caller ID Display Separator

An extension's display can optinally show a calling party number separator. The separator is a dash after the area code and after the local exchange on a 7 or 10 digit number. If disabled, the calling party number displays without a separator.

Conditions

● In DS2000, Caller ID requires the installation of Caller ID Daughter Boards on your ATRU PCBs:
   - 4ATRU PCB P/N 80010A uses Caller ID Daughter Board P/N 92012.
   - 8ATRU PCB P/N 80011A uses Caller ID Daughter Board P/N 80013.
   - The 4ATRU and 8ATRU PCBs must use firmeware 1.5 or higher.

Default Setting

● Caller ID for each a trunk is disabled. See **Program 1001 - Caller ID** (page 503).

● Caller ID with Voice Mail is disabled. See **Program 1001 - Voice Mail Caller ID** (page 503).

● An extension's Caller ID display is enabled. See **Program 0101 - CLID Display** (page 443).

● Second Call Caller ID is enabled. See **Program 0101 - 2nd CALL CLID (Extension Level Call Waiting Caller ID)** (page 443).

● Third Party Caller ID Check is disabled. See **Program 0101 - 3rd Party Caller ID** (page 443).

● The Caller ID Display Separator is disabled. See **Program 0101 - CLID Display Separator** (page 443).

● The telco must provide Caller ID service for each trunk that has Caller ID programming enabled.

Programming Guide

> **Step-by-step guide for setting up Caller ID**

Step 1: Should the trunk provide Caller?

If yes
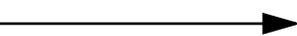
- In DS2000, be sure that Caller ID Daughter Boards are installed on the ATRU PCBs.
- In DS2000, for *Program 1001 - Caller ID* (page 503), enter 2 (for daughter board).
- In DS1000, for *Program 1001 - Caller ID* (page 503), enter 1 (for DSP).

If no

- In *Program 1001 - Caller ID* (page 503), enter 0.

Step 2:   Should the extension display Caller ID?

If yes

- In *Program 0101 - CLID Display* (page 443), enter Y.

If no

- In *Program 0101 - CLID Display* (page 443), enter N.

Step 3:   Should the extension display 2nd Call Caller ID (Extension Level Call Waiting Caller ID)?

If yes
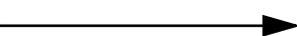
- In *Program 0101 - 2nd CALL CLID (Extension Level Call Waiting Caller ID)* (page 443), enter Y.
- In *Program 1802 - Off-Hook Signaling for CO Calls* (page 540), enter 1 for Camp On Tones or 2 for Off Hook Ringing. See the *Programming List* below for more.
- In *Program 1701 - Call Timer Key* (page 519), disable the Call Timer key (code 16). The Caller Timer will block the first line (caller's name) of the 2nd Call Caller ID display.

If no

- In *Program 0101 - 2nd CALL CLID (Extension Level Call Waiting Caller ID)* (page 443), enter N.

Step 4:   Should the extension use 3rd Party Caller ID?

If yes

- In *Program 0101 - 3rd Party Caller ID* (page 443), enter Y.

If no

- In *Program 0101 - 3rd Party Caller ID* (page 443), enter N.

Caller ID

Step-by-step guide for setting up Caller ID

Step 5: Should the extension use the Caller ID Display Separator?

If yes ➤ • In *Program 0101 - CLID Display Separator* (page 443), enter Y.

If no ➤ • In *Program 0101 - CLID Display Separator* (page 443), enter N.

Step 6: Assign Class of Service to Extensions

If yes ➤ • In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Step 7: Should the system send Caller ID data to Voice Mail for a trunk?

If yes ➤ • In *Program 1001 - Voice Mail Caller ID* (page 503), enter Y. You should enable *Program 1001 - Caller ID* (page 503), as well.

If no ➤ • In *Program 1001 - Voice Mail Caller ID* (page 503), enter N.

Programming List

Program 0101 - CLID Display (page 443)
   This option enables (Y) or disables (N) Caller ID in an extension's Class of Service. If enabled, Caller ID will occur for all extensions with this Class of Service provided Caller ID is enabled in other system programming. If disabled (N), Caller ID will never occur for extensions with this Class of Service.

Program 0101 - 2nd CALL CLID (Extension Level Call Waiting Caller ID) (page 443)
   This option enables (Y) or disables (N) Second Call Caller ID in an extension's Class of Service. If enabled, Second Call Caller ID will occur for all extensions with this Class of Service provided Second Call Caller ID is enabled in other system programming. If disabled (N), Second Call Caller ID will never occur for extensions with this Class of Service.

Program 0101 - 3rd Party Caller ID (page 443)
   This option enables (Y) or disables (N) Third Party Call Caller ID Check in an extension's Class of Service. If enabled, Third Party Caller ID Check is available to all extensions with this Class of Service provided Caller ID is enabled in other system programming. If disabled (N), Third party Caller ID check is unavailable to extensions with this Class of Service.

Program 0101 - CLID Display Separator (page 443)
   This option enables (Y) or disables (N) the Caller ID display separator. If enabled, the telephone displays a dash separator after the area code and after the local exchange ona 7 or 10 digit number. If disabled (N), the calling party number displays without a separator.

Program 1001 - Caller ID (page 503)
   This option enables or disables Caller ID for each trunk. If enabled, Caller ID will occur if also enabled by the other Caller ID programmable options. To enable Caller ID in DS2000, enter 2 (for daughter board). To enable Caller ID in DS1000, enter 1 (for DSP). If disabled (by entering 0), Caller ID will never occur.

Program 1001 - Voice Mail Caller ID (page 503)

This option enables (Y) or disables (N) the capability of the telephone system to send Caller ID data to an NVM-Series Voice Mail. If enabled, the telephone system will send incoming Caller ID data for any trunk answered by Voice Mail. (This will occur, for example, for DILs terminated to the Voice Mail master number.) If disabled (N), the telephone system will not provide a trunk's Caller ID data to Voice Mail. If you enable this option, you must also enable (Y) 1001: Caller ID.

Program 1701 - Call Timer Key (page 519)

If an extension has Call Timer enabled (code 16), the first line (i.e., caller's name) of the Second Call Caller ID display won't show. The user will only see the caller's number (in the second line).

Program 1801 - Extension Class of Service Assignment (page 533)

Assign Class of Service to extensions.

Program 1802 - Off-Hook Signaling for CO Calls (page 540)

- If an extension is set up to receive Off Hook Ringing (entry = 2), it will receive Second Call Caller ID for each new trunk call. The display returns to idle when the second call stops ringing.

- If an extension is set up to receive Off Hook Ringing (entry = 1), it will receive Second Call Caller ID only for the first call. This occurs, for example, for DILs and transferred trunk calls. With transferred trunk calls, the Second Call Caller ID displays until the call recalls the transferring destination (if not picked up). With DILs, the Second Call Caller ID displays remains until the extension activates another feature.

Other Related Features

Call Timer (page 71)

The Auto Timer feature interacts with Caller ID on the first line of the telephone display. If an extension has Call Timer enabled, the first line (i.e., caller's name) of the Second Call Caller ID display won't show. The user will only see the caller's number (in the second line).

Call Waiting / Camp-On (page 74) and **Off-Hook Signaling** (page 270)

An extension programmed to receive Camp On tones or Off-Hook Ringing from a waiting call will also receive Second Call Caller ID.

Group Ring (page 183)

- DS2000 02.00.04 and DS1000 Prior to 02.01.07

  An extension's display will show Caller ID data for a trunk terminated to a Ring Group master number *after* the user answers the call. In prior DS2000 software versions, the Caller ID data for the Ring Group call would show only when the extension user pressed the **CHECK** key after answering or after the call diverted to Key Ring.

- DS1000/2000 02.01.07 and Higher

  An extension's display will show Caller ID data for a trunk terminated to a Ring Group master number *as* the call is ringing.

Station Message Detail Recording (page 348)

Caller ID prints out on the SMDR report.

Voice Mail (page 414)

Caller ID fully integrates with NVM-Series Voice Mail systems.

Caller ID

Feature Operation

To cancel the Caller ID display and return your phone to its normal display:

> *You can only do this while you're on a call, not while your phone is ringing.*

1. Press **CLEAR**.

👂	N/A
👁	Your phone's display returns to normal.

To turn the Caller ID display back on (after you press CLEAR to cancel it):

1. Press **CHECK**.

👂	N/A
👁	The Caller ID number and optional name displays.

To display the Caller ID data for the third party's call (i.e., use Third Party Caller ID check):

1. Press **ICM** + **CHECK**.

2. Press the key for the call you want to check.

   > *You can press a line key, loop key, Hotline key, or Call Coverage key:*
   > *- Press a <u>line key</u> while the call is ringing or connected to the third pary.*
   > *- Press a <u>loop key</u> while the call is ringing the third party.*
   > *- Press a <u>Hotline key</u> while the call is connected to the third party.*
   > *- Press a <u>Call Coverage key</u> while the call is ringing the third party.*

👂	N/A
👁	You see Caller ID data for the trunk you selected.

3. Hang up when you are done.

Description

	DS2000 Fixed Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup.
	DS2000 U Slot DS1000	Avalable. • In version 02.01.07 and higher, single line sets ring according to **1805 - Ring Assignment** programming (just like keysets). • See *Default Setting* below for specifics on the initial trunk setup.

⚠️ The system allows trunk calls to ring and be answered at any combination of system extensions.

The system provides flexible routing of incoming CO (trunk) calls to meet the exact site requirements.

Answering Priority

When multiple calls ring an extension simultaneously, the system services the ringing calls in the following order:

1. Line key (from lowest to highest)
2. Fixed Loop Key (from lowest to highest)
3. Switched Loop Key (from lowest to highest)
4. **ICM** Key

Overflow

Refer to *Overflow for Key Ring Calls* on page 232 for details on the overflow options.

Conditions

● The system provides analog trunk CO service via ATRU PCBs. ATRU PCBs can connect to either loop start or ground start trunks (depending on circuit type programming). Refer to the Hardware Manual for additional details on installing ATRU PCBs and connecting trunks.

● Per FCC regulations, do not set *1001- Trunk Transmit Gain* on page 499 higher than 0 dB.

Default Setting

DS2000

● All extensions have full access on all trunks.

Fixed Slot

● Trunks 1-8 ring extensions on line keys 1-8.

U Slot Prior to 02.01.07

● Trunks 1-12 ring extensions on line keys 1-12.

U Slot 02.01.07 or Higher

● Extensions 300-315 (the first DSTU) have immediate ring for trunks 1-24 and lamp only for trunks 25-48. All other extensions have lamp only for all trunks.

● Trunks 1-12 ring extensions 300-315 on line keys 1-12.

● Single line sets ring according to **1805 - Ring Assignment** programming. (By default, all single line sets are lamp only.)

Central Office Calls, Answering

DS1000

- All extensions have full access on all trunks.
- Trunks 4-6 require the Expansion Board.

Prior to 02.00.09

- Extensions have immediate day/night ring on trunks 1-4 (line keys 1-4), and delay ring on trunks 5 and 6 (line keys 5 and 6).

2.00.09 or Higher

- Extensions have immediate day/night ring on all trunks.
- Trunks 1-6 ring extensions on line keys 1-6.

2.01.07 or higher

- Extensions have immediate day/night ring on all trunks.
- Single line sets ring according to **1805 - Ring Assignment** programming (just like keysets).
- Trunks 1-6 ring extensions on line keys 1-6.

Programming Guide

Step-by-step guide for setting up Central Office Calls, Answering (Page 1 of 3)

Step 1: Check to be sure each trunk's circuit type and loop length setting matches the connected trunk circuit.

- In *Program 1001 - Trunk Circuit Type* (page 498), enter the correct circuit type for each trunk (51 = loop start DTMF, 52 = loop start DP).
- In *Program 1001 - Loop Length* (page 502), use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.

Step 2: Review *System Timers, Trunks* on page 372 **for compatibility with the connected telco or PBX/Centrex.**

Step 3: Set the trunk access options at each extension for each trunk.

No access ⟶
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 0 to prevent both incoming and outgoing access on the trunk.

Incoming ⟶
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 1 to allow incoming access only.

Outgoing ⟶
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 2 to allow outgoing access only.

Step-by-step guide for setting up Central Office Calls, Answering (Page 2 of 3)

Full
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 3 to allow full access (both incoming and outgoing).

Step 4: Set the ringing options at each extension for each trunk.

Lamp only
- In *Program 1805 - Ring Assignment* (page 551), enter 1 for each trunk that should lamp only (day and night).

Ring
- In *Program 1805 - Ring Assignment* (page 551), enter 2 for each trunk that should ring during the day and at night.

Night Ring
- In *Program 1805 - Ring Assignment* (page 551), enter 3 for each trunk that should ring at night and lamp only during the day.

Delay Ring
- In *Program 1805 - Ring Assignment* (page 551), enter 4 for each trunk that should delay ring during the day and at night.
- In *Program 0401 - Trunk Delay Ring* (page 457), enter the interval after which a delay ring trunk will change from flashing to ringing.

Step 5: Should extension have line keys for answering trunk calls?

If yes
- In *Program 1701 - Line Key* (page 518), assign programmable keys as line keys (code 03). The options are 1-48 (for trunks 1-48) in DS2000, and 1-6 in DS1000.

If no
- In *Program 1701 - Line Key* (page 518), make sure no keys are assigned as line keys (code 03).
- In *Program 1701 - Switched Loop Key* (page 517), or in *Program 1701 - Fixed Loop Key* (page 517), assign a loop key to any extension without line keys. This allows the extension to answer trunk calls.

Step 6: Should DSS Console have line keys for answering trunk calls?

If yes
- In *Program 1704 - Line Key* (page 528), assign programmable keys as line keys (code 03). The options are 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000..

If no
- In *Program 1704 - Line Key* (page 528), make sure no keys are assigned as line keys (code 03).

Central Office Calls, Answering

Step 7: While on a trunk call, is a user's conversation transmitted to the caller at a comfortable level?

If yes ➤
- In *Program 1001 - Trunk Transmit Gain* (page 499), leave this option at its current setting.

If no ➤
- In *Program 1001 - Trunk Transmit Gain* (page 499), increase or decrease the trunk transmit gain for the optimum transmission level for the connected telco or PBX.

Step 8: While on a trunk call, is the conversation received by the user at a comfortable level?

If yes ➤
- In *Program 1001 - Trunk Receive Gain* (page 501), leave this option at its current setting. The setting is applied to each line seizure.

If no ➤
- In *Program 1001 - Trunk Receive Gain* (page 501), increase or decrease the trunk receive gain for the optimum reception level for the connected telco or PBX. The setting is applied to each line siezure.

Step 9: Does the system properly detect ringing trunks?

If yes ➤
- In *Program 0402 - Minimum Ring Detection Timer* (page 461), leave this option at its current setting.

If no ➤
- In *Program 0402 - Minimum Ring Detection Timer* (page 461), set the ring detect threshold for compatibility with the connected telco or PBX.

Step 10: Do trunks inadvertantly disconnect while users are on a call?

If yes ➤
- In *Program 0402 - Loop Current Detection Time* (page 463), set the loop disconnect interval for compatibility with the connected telco or PBX.

If no ➤
- In *Program 0402 - Loop Current Detection Time* (page 463), leave this option at its current setting.

Programming List

Program 0401 - Trunk Delay Ring (page 457)
Set how long the system flashes a line key before ringing an extension that has the Delayed Ringing option enabled.

Program 0402 - Minimum Ring Detection Timer (page 461)
Set the threshold for ring detection. If the ring signal is longer than this interval, the system interprets the signal as valid ringing. If the signal is equal to or shorter than this interval, the system ignores the ringing.

Program 0402 - Loop Current Detection Time (page 463)
Set the loop disconnect interval for trunk calls. If the system detects a loop current interruption longer than this interval it assumes the telco has disconnected the trunk. It then returns the trunk trunk to idle.

Program 0402 - Ringing Signal End Detect Timer (page 464)
If the ringing signal on a trunk call is interrupted for longer than this interval, the system assumes ringing has stopped and terminates the call. If this interval is set to short, valid ringing will be inadvertantly cut off. If too long, the system will leave the call set up even after ringing has stopped.

Program 1001 - Trunk Circuit Type (page 498)
Set the trunk's circuit type for compatibility with the connected telco or PBX. The options are 51 (loop start DTMF), 52 (loop start DP), 53 (ground start DTMF) or 54 (ground start DP).

Program 1001 - Trunk Transmit Gain (page 499)
Set the trunk's transmit gain to compensate for the transmit gain characteristics of the connected telco or PBX. The setting is applied to each line siezure.

Program 1001 - Trunk Receive Gain (page 501)
Set the trunk's receive gain to compensate for the receive gain characteristics of the connected telco or PBX. The setting is applied to each line siezure.

Program 1001 - Loop Length (page 502)
Use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.

Program 1701 - Line Key (page 518)
Assign a programmable key on an extension as a line key (code 03). The options are 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000.

Program 1701 - Switched Loop Key (page 517)

Program 1701 - Fixed Loop Key (page 517)
In order to answer trunk calls, extensions without line keys should have loop keys.

Program 1704 - Line Key (page 528)
Assign a programmable key on a DSS Console as a line key (code 03). The options are 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000.

Program 1803 - Extension Line Access Assignments (page 546)
For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access).

Program 1805 - Ring Assignments (page 551)
Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Central Office Calls, Answering

Other Related Features

Call Timer (page 71)
> The Call Timer helps a user keep track of the time they spend on the phone.

Direct Inward Line (page 118)
> A DIL rings an extension directly.

Line Keys (page 238)
> Line keys simplify answering trunk calls.

Loop Keys (page 242)
> In order to answer trunk calls, extensions without line keys should have loop keys.

Night Service / Night Ring (page 265)
> Night Service determines how outside calls ring at night.

System Timers, Trunks (page 372)
> Always review the system's trunk timers for compatibility with the connected telco or PBX/Centrex.

Feature Operation

To answer an incoming trunk call:

👂	Trunk ring.
👁	Line or loop key flashing red for key ring call. Line key flashing green for DIL.

1. Lift handset.
   > *If you have Ringing Line Preference, lifting the handset answers the call.*
   > *If you have Automatic Handsfree, you can press the line or loop key without first lifting the handset.*

2. Press flashing line or loop key.

👂	Conversation with caller.
👁	Line or loop key on.

Description

	DS2000 Fixed Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup.
	DS2000 U Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup. • In 02.01.07 and higher, ***dial 9 is disabled*** by default.
	DS1000	Available. • See *Default Setting* below for specifics on the initial trunk setup. • In 02.00.09 and higher, ***dial 9 is enabled*** by default.

⚠ Customize the call placing options to meet the site requirements and each individual's needs.

The system provides flexibility in the way each extension user can place outgoing trunk calls. A user can place a call by:

● **Pressing a Line Key**
  Any keyset can have line keys for one-touch access to specific trunks. See *Line Keys* on page 238 for more.

● **Pressing a Loop Key**
  Loop Keys provide a user with one-touch access to the assigned Loop Group. Loop Groups can consist of one or more Trunk Groups. See *Loop Keys* on page 242 for more.

● **Using Line Dial-Up**
  With Line Dial-Up, a user can select a specific trunk by pressing **ICM** and dialing the Line Dial-Up code (#9) followed by the trunk number (1-48 for trunks 1-48 in DS2000, 1-6 in DS1000).

● **Using Direct Trunk Access**
  Direct Trunk Access allows a user to access a trunk by pressing **ICM** and dialing the trunk's extension number (e.g., 401 for trunk 1, 402 for trunk 2. etc.).See *Direct Trunk Access* on page 139 for more.

● **Dialing a Trunk Group Access Code**
  User's can also place trunk calls by pressing **ICM** and dialing a Trunk Group Access Code (90-98). See *Trunk Groups* on page 405 for more.

● Trunk Group Routing
  If the system has Trunk Group Routing enabled, user's get the first available trunk when they press **ICM** and dial 9. See *Trunk Group Routing* on page 398 for more.

Expanded Dial Buffering (02.01.07 or Higher)

When placing a trunk call, extension users can dial an unlimited number of digits. Users are assured that they can use services such as telephone banking without encountering restrictions imposed by the telephone system. In software versions prior to 02.01.07, callers are restricted to dialing 32 digits maximum if they dialed continuously.

Conditions

● Systems using Trunk Groups or Trunk Group Access should use the hybrid FCC registration number (i.e., the number that ends in MF-E). Look at the label on the bottom of your equipment cabinet for more information.

● Per FCC regulations, do not set *1001- Trunk Transmit Gain* on page 499 higher than 0 dB.

Central Office Calls, Placing

Default Setting

<u>DS2000</u>

    <u>Fixed Slot</u>

- Keys 1-8 are line keys, keys 9 and 10 are Fixed Loop keys for trunk group 0, key 11 is an Auto Timer key and key 12 is an All Call Page key. (The last key on an attendant telephone is automatically an Operator Call key.)
- Trunk Group Routing (dial 9) is assigned to trunk group 1 (which contains trunks 9-16). Dial 9 does not work by default.
- All extensions have full access on all trunks.

    <u>U Slot Prior to 02.01.07</u>

- Keys 1-12 are line keys for trunks 1-12.
- Trunk Group Routing (dial 9) is assigned to trunk group 0 (which contains trunks 1-8). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
  Order 1 = trunk 8
  Order 2 = trunk 7
  Order 3 = trunk 6
  Order 4 = trunk 5
  Order 5 = trunk 4
  Order 6 = trunk 3
  Order 7 = trunk 2
  Order 8 = trunk 1
- All extensions have full access on all trunks.
- Introduces User Programmable Feature steps for line keys.

    <u>U Slot 02.01.07 and Higher</u>

- Keys 1-12 are line keys for trunks 1-12.
- All extensions have full access on all trunks.
- ***Trunk Group assignments are not defined, so there is no Trunk Group Routing (dial 9) by default.***

<u>DS1000</u>

- Keys 1-6 are line keys for trunks 1-6.
- All extensions have full access on all trunks.
- Trunks 4-6 require the Expansion Board.
- All versions have User Programmable Feature steps for line keys.

    <u>DS1000 prior to 02.00.09.</u>

- ***Trunk Group assignments are not defined, so there is no Trunk Group Routing (dial 9) by default.***

    <u>DS1000 02.00.09 and Higher</u>

- Trunk Group Routing (dial 9) is assigned to trunk group 0 (which contains trunks 1-6). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
  Order 1 = trunk 6
  Order 2 = trunk 5
  Order 3 = trunk 4
  Order 4 = trunk 3
  Order 5 = trunk 2
  Order 6 = trunk 1

Programming Guide

> **Step-by-step guide for setting up Central Office Calls, Placing** (Page 1 of 5)

Step 1: Check to be sure each trunk's circuit type and loop length setting matches the connected trunk circuit.

- In *Program 1001 - Trunk Circuit Type* (page 498), enter the correct circuit type for each trunk (51 = loop start DTMF, 52 = loop start DP).
- In *Program 0402 - Codec Digitizing Method* (page 463), be sure to always set this option to 0 (μ-law companding enabled). ***Do not set this option to 1.***
- In *Program 1001 - Loop Length* (page 502), use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.

Step 2: Review *System Timers, Trunks* on page 372 **for compatibility with the connected telco or PBX/Centrex.**

Step 3: Are connected trunks DTMF or Dial Pulse (DP)?

DTMF →
- In *Program 0402 - Manual DTMF Tone On* (page 462), set the DTMF on duration for compatibility with the connected telco or PBX.
- *Program 0402 - Manual DTMF Tone Off* (page 462), se the DTMF off duration for compatibility with the connected telco or PBX.

DP →
- In *Program 0402 - DP Make Timer* (page 461), set the DP make (on) interval for compatibility with the connected telco or PBX.
- In *Program 0402 - DP Break Timer* (page 461), set the DP break (off) interval for compatibility with the connected telco or PBX.
- In *Program 0402 - DP Interdigit Timer* (page 461), set the DP interdigit (time between digits) interval for compatibility with the connected telco or PBX.

Central Office Calls, Placing

Step 4: For Direct Trunk Access, should trunk extension numbers be left at their default setting (e.g., 401-448 in DS2000 or 401-406 in DS1000).

If yes
- In *Program 0504 - Trunk Port Extension Numbers (Fixed Slot)* (page 476), leave the trunk extension numbers at their default settings (401-448 in DS2000 or 401-406 in DS1000).

If no
- In *Program 0504 - Trunk Port Extension Numbers (Fixed Slot)* (page 476), change the trunk extension numbers to meet the site requirements (e.g., 501-516).

Step 5: Should trunk names be left at their default setting (Trunk 1, Trunk 2 etc.).

If yes
- In *Program 1001 - Trunk Name* (page 498), leave the trunk names at their default setting.

If no
- In *Program 1001 - Trunk Name* (page 498), change the trunk names to meet the site requirements.

Step 6: Set the trunk access options at each extension for each trunk.

No access
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 0 to prevent both incoming and outgoing access on the trunk.

Incoming
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 1 to allow incoming access only.

Outgoing
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 2 to allow outgoing access only.

Full
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 3 to allow full access (both incoming and outgoing).

Step 7: Should extension have line keys for placing trunk calls?

If yes
- In *Program 1701 - Line Key* (page 518), assign programmable keys as line keys (code 03). The options are 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000.

> **Step-by-step guide for setting up Central Office Calls, Placing** (Page 3 of 5)

If no

- In *Program 1701 - Line Key* (page 518), make sure no keys are assigned as line keys (code 03).
- In *Program 1701 - Switched Loop Key* (page 517), or in *Program 1701 - Fixed Loop Key* (page 517), assign a loop key to any extension without line keys. This allows the extension to answer trunk calls.

Step 8: Should DSS Console have line keys for placing trunk calls?

If yes

- In *Program 1704 - Line Key* (page 528), assign programmable keys as line keys (code 03). The options are 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000.

If no

- In *Program 1704 - Line Key* (page 528), make sure no keys are assigned as line keys (code 03).

Step 9: Should extension user have single digit (dial 9) access to outside calls?

If yes

- In *Program 0501 - Single Digit Access* (page 475), enter Y.
- In *Program 1802 - Station's Dial 9 Group* (page 540), assign the Trunk Group (0-8) the station will select after the user dials 9.
- In *Program 1002 - Trunk Groups* (page 506), assign trunks to Trunk Groups.

If no

- In *Program 0501 - Single Digit Access* (page 475), enter N. Users dial 9 followed by the Trunk Group number (0-8).
- In *Program 1002 - Trunk Groups* (page 506), assign trunks to Trunk Groups (0-8).

Step 10: Should extension have Line Dial-up capability (i.e., the ability to dial #901-#916).

If yes

- In *Program 1802 - Line Dial Up* (page 540), Enter Y.

If no

- In *Program 1802 - Line Dial Up* (page 540), enter N.

Step 11: While on a trunk call, is a user's conversation transmitted to the caller at a comfortable level?

If yes

- In *Program 1001 - Trunk Transmit Gain* (page 499), leave this option at its current setting.

Central Office Calls, Placing

If no

- In *Program 1001 - Trunk Transmit Gain* (page 499), increase or decrease the trunk transmit gain for the optimum transmission level for the connected telco or PBX.

Step 12: While on a trunk call, is the conversation received by the user at a comfortable level?

If yes

- In *Program 1001 - Trunk Receive Gain* (page 501), leave this option at its current setting.

If no

- In *Program 1001 - Trunk Receive Gain* (page 501), increase or decrease the trunk receive gain for the optimum reception level for the connected telco or PBX.

Step 13: Do trunks inadvertantly disconnect while users are on a call?

If yes

- In *Program 0402 - Loop Current Detection Time* (page 463), set the loop disconnect interval for compatibility with the connected telco or PBX.

If no

- In *Program 0402 - Loop Current Detection Time* (page 463), leave this option at its current setting.

Step 14: Do users ever experience call colissions (i.e., connect to an incoming call while placing an outgoing call)?

If yes

- In *Program 0402 - Force Idle (Trunk Guard Time)* (page 460), lengthen the trunk guard time.

If no

- In *Program 0402 - Force Idle (Trunk Guard Time)* (page 460), leave the trunk guard time at its current setting.

Step 15: If the system encounters a defective trunk while placing a call, does it wait the proper interval before automatically cycling to the next trunk?

If yes

- In *Program 0402 - Line Response* (page 459), leave this interval at its current setting.

If no

- In *Program 0402 - Line Response* (page 459), set the *Line Response* interval to meet the site's requirements.

Step 16: Should 4 be the first digit in the Direct Trunk Access code?

If yes

- In *Program 0501 - Numbering Plan* (page 472), leave the parameters for digit 4 at their default settings.

```
┌─────────────────────────────────────┐
│  Step-by-step guide for setting up   │
│  Central                             │
│  Office Calls, Placing (Page 5 of 5) │
└─────────────────────────────────────┘
```

(**If no**) ───────────────►   • In *Program 0501 - Numbering Plan* (page 472), set up another digit (in place of 4) that meets the site's requirements.

Programming List

Program 0402 - Line Response (page 459)
When the system fails to detect loop current on a trunk, it will wait this interval before marking the trunk as defective. Be sure the value you enter is compatible with the local telco.

Program 0402 - Force Idle (Trunk Guard Time) (page 460)
Set the guard time for trunks. When the system disconnects a trunk (e.g., after a user hang up), the system keeps the line idle until this timer expires. The Trunk Guard Time helps prevent call collisions.

Program 0402 - DP Make Timer (page 461)
Set the duration of the Dial Pulse Make signal (i.e., relay closed). This is the "on" time in a Dial Pulse digit. Set this timer for compatability with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval.

Program 0402 - DP Break Timer (page 461)
Use this timer to set the duration of the Dial Pulse Break signal (i.e., relay open). This is the "off" time in a Dial Pulse digit. Set this timer for compatability with the connected telco or PBX/Centrex.

Program 0402 - DP Interdigit Timer (page 461)
Set the duration of the Dial Pulse Interdigit signal (i.e., relay open time *between* each digit). Set this timer for compatability with the connected telco or PBX/Centrex.

Program 0402 - Manual DTMF Tone On (page 462)
Set the duration of DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 0402 - Manual DTMF Tone Off (page 462)
Set the duration of the interval between DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 0402 - Loop Current Detection Time (page 463)
Set the loop disconnect interval for trunk calls. If the system detects a loop current interruption longer than this interval it assumes the telco has disconnected the trunk. It then returns the trunk trunk to idle.

Program 0402 - Codec Digitizing Method (page 463)
Be sure this option is always set to 0 (μ-law companding enabled). Do not set this option to 1 (A-law companding enabled).

Program 0501 - Numbering Plan (page 472)
Review this option when if you want to change the digits user's dial for Direct Trunk Access (normally 4 followed by the trunk number).

Program 0501 - Single Digit Access (page 475)
Use this option to enable or disable single digit access. If enabled (Y), users can dial 9 to select their assigned dial 9 Trunk Group. If disabled, users must dial 9 followed by the Trunk Group number (0-8 for Trunk Groups 0-8).

Program 1001 - Trunk Circuit Type (page 498)
Set the trunk's circuit type for compatiblity with the connected telco or PBX. The options are 51 (loop start DTMF), 52 (loop start DP), 53 (ground start DTMF) or 54 (ground start DP).

Program 1001 - Trunk Name (page 498)

Assign extension numbers and names to trunk ports.

Program 1001 - Trunk Transmit Gain (page 499)

Set the trunk's transmit gain (0-60) to compensate for the transmit gain characteristics of the connected telco or PBX.

Program 1001 - Trunk Receive Gain (page 501)

Set the trunk's receive gain (0-60) to compensate for the receive gain characteristics of the connected telco or PBX.

Program 1001 - Loop Length (page 502)

Use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations.

Program 1002 - Trunk Groups (page 506)

Assign trunk Trunk Groups (0-8).

Program 1701 - Line Key (page 518)

Assign a programmable key on a extension as a line key (code 03). The options are 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000.

Program 1704 - Line Key (page 528)

Assign a programmable key on a DSS Console as a line key (code 03). The options are 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000.

Program 1802 - Line Dial Up (page 540)

Enter Y to allow an extension to access lines (1-48 in DS2000, 1-6 in DS1000) by dialing trunk access codes (#901-#948 in DS2000, #901-#906 in D1000).

Program 1802 - Station's Dial 9 Group (page 540)

Assign the trunk group (0-8) a user accesses when they dial 9 for an outside line or press a switched loop key. This option does not apply to systems with ARS installed.

Program 1802 - Key Access to Outbound Lines (page 541)

Enter Y to enable an extension user to press a Programmable Function Key to access and outside line.

Program 1803 - Extension Line Access Assignments (page 546)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access).

Program 1804 - Trunk Group Access (page 549)

For each extension, enter Y to allow or N to prevent outgoing trunk group access. The system always allows incoming trunk group access.

Other Related Features

Automatic Handsfree (page 50)

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.

Call Timer (page 71)

The Call Timer helps a user keep track of the time they spend on the phone.

Dial Number Preview (page 116)

Dial Number Preview allows an extension user to review a number before the system dials it out.

Direct Trunk Access (page 139)

Direct Trunk Access allows an extension user to seize an individual trunk and place a call without restriction.

Equal Access Compatibility (page 153)

The system is compatible with Equal Access numbers (e.g., 10-10-321).

Last Number Redial (page 236)

Easily redial the last number dialed.

Line Keys (page 238)

Line Keys give a user one-touch access to specific trunks.

Loop Keys (page 242)

An extension user may also be able to press a Loop Key to place an outside call.

Save Number Dialed (page 322)

Save a number you dialed, then easily redial it later on.

Speed Dial (page 332)

You can store outside numbers in Speed Dial bins for quick access to frequently called numbers.

System Timers, Trunks (page 372)

Always review the system's trunk timers for compatibility with the connected telco or PBX/Centrex.

Trunk Group Routing (page 398)

With Trunk Group Routing enabled, an extension user can dial 9 to place a trunk call.

Trunk (Line) Queuing / Trunk Callback (page 402)

An extension user can queue for a busy trunk, or queue and hang up to leave a callback for a busy trunk.

Feature Operation

To place a call over a specific trunk using a line key:

1. Lift handset.

2. Press line key.

   ☏ | Trunk dial tone.

   👁 | Line key on.

   You may also be able to press a Loop Key. See Loop Keys on page 242 for more.

3. Dial outside number.

To place a call over a specific trunk (using Line Dial-up or Direct Trunk Access):

1. Lift handset.

2. Press ICM.

   ☏ | Intercom dial tone.

   👁 | **ICM** on.

   If you hear busy tone, you may be able to dial 2 to queue for the busy trunk. See Trunk (Line) Queuing / Trunk Callback on page 402 for more.

3. **For Line dial-up:** Dial **#9** followed by the trunk number (e.g., #901 for trunk 1).

   OR

   For Direct Trunk Access: Dial 4 plus the trunk number (e.g., 401 for trunk 1).

   ☏ | Trunk dial tone, followed by digits outdialing on the trunk.

   👁 | **ICM** on.

4. Dial outside number.

To place a call over a trunk group:

1. Lift handset.

2. Press ICM.

   ☏ | Intercom dial tone.

   👁 | **ICM** on.

3.   Dial trunk group code (90-98).

        Trunk dial tone.

        Line key on.

If you hear dial tone as soon as you dial 9, your system has Trunk Group Routing enabled. See *for more.*

4.   Dial outside number.

Description

DS2000 Fixed Slot
DS2000 U Slot   ‖ Available.
DS1000

Quickly check keyset and DSS Console Programmable Function Key assignments.

A display telephone user can use the CHECK key to check keyset and DSS Console Programmable Function Key assignments and Personal Speed Dial bin names.

Conditions
None

Default Setting
Enabled

Programming Guide

None

Programming List

None

Other Related Features

Programmable Function Keys (page 304)
    Check Programmable Function Key assignments.
Speed Dial (page 332)
    Check Personal Speed Dial bin assignments.

Feature Operation

To check a Programmable Function Key assignment:

1.   Press CHECK

        ✆ ‖ N/A
       👁 ‖ **SPK** flashes fast.

2.   Press the Programmable Function Key
        The key assignment displays.

3.   Press another key or SPK to exit the check mode.

Check Key

To check a Personal Speed Dial bin name and number:

1. Press CHECK.

    ✆ ‖ N/A

    👁 ‖ **SPK** flashes fast.

2. Press the Personal Speed Dial Key once to display the name for the lower numbered bin.

    For example, pressing bin 1 in this step displays the name for 701.

3. Press the Personal Speed Dial Key a second time to display the number stored in the lower numbered bin.

    For example, pressing bin 1 in this step displays the number stored for 701.

4. Press the Personal Speed Dial Key a third time to display the name for the higher numbered bin.

    For example, pressing bin 1 in this step displays the name for 711.

5. Press the Personal Speed Dial Key a fourth time to display the number stored in the higher numbered bin.

    For example, pressing bin 1 in this step displays the number stored for 711.

6. Press another key or SPK to exit the check mode.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Customize features and dialing options for extensions.

Class of Service (COS) sets various features and dialing options for extensions. The system allows any number of extensions to share the same Class of Service.

The table below shows each Service Option. Refer to the individual features referenced in the table for more.

Conditions
None

Default Setting
- Extension 300 (normally the attendant) has Class of Service 1. (In DS2000 software version 02.01.07 and higher, extensions above 315 also have Class of Service 1.)
- All other extensions are normally Class of Service 2.

Table 4: Program 0101 - Class of Service Options (Page 1 of 5)

Option	Description	Entries	Default
Off-Premise Call Forward	• This option is not used.	**OFF PREM FWRD?** Y = Enable N = Disable	N
Barge-In (Intrusion)	Use this option to enable or disable an extension's ability to Barge In on a co-worker. • See *Barge In (Intrusion)* on page 57 for more.	**BREAK-IN?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Camp-On to Busy Extension	Use this option to enable or disable an extension's ability to Camp-On to a busy extension. Enter Y to allow the extension to Camp-On to a busy co-worker. Enter N to prevent the extension from Camping-On to a busy co-worker. Entering N also automatically converts an extension's Camp On to Callback. • See *Call Waiting / Camp-On* on page 74 for more. • See *Callback* on page 78 for more.	**CAMP-ON BUSY EXT?** Y = Enable N = Disable	Y
Internal Call Forwarding	Use this option to enable or disable an extension's ability to use Internal Call Forwarding. • See *Call Forwarding* on page 65 for more.	**CALL FORWARDING?** Y = Enable N = Disable	Y

Class of Service

Option	Description	Entries	Default
System Speed Dial Access	Use this option to enable or disable an extension's ability to access System Speed Dial. • See *System Speed Dial* on page 332 for more.	**SYS SPDL ACCESS?** Y = Enable N = Disable	Y
Extended Ring	Use this option to enable or disable Extended Ringing at the extension. • See *Extended Ringing* on page 154 for more.	**EXTENDED RING?** Y = Enabled N = Disable	N
Privacy	Use this option to enable or disable Privacy at the extension. • See *Privacy* on page 295 for more.	**PRIVACY?** Y = Enable N = Disable	N
Trunk (Line) Queuing Priority	Use this option to enable or disable Trunk (Line) Queuing Priority at the extension. If more than one extension with Priority is queued on a busy trunk, the system services the Priority extensions on a first-queued, first-served basis. • See *Trunk Queuing Priority* on page 402 for more.	**LINE Q PRIORITY?** Y = Enable N = Disable	N
Forced Trunk Disconnect	Use this option to enable or disable an extension's ability to use Forced Trunk Disconnect. • See *Forced Trunk Disconnect* on page 175 for more.	**FORCE DISCONNECT?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Camp-On to Busy Line	Use this option to enable or disable an extension's ability to Camp-On to a busy trunk. • See *Trunk (Line) Queuing / Trunk Callback* on page 402 for more.	**CAMP ON TO LINES?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Initiate All Call Page	Use this option to enable or disable an extension's ability to make an All Call Paging announcement. • See *Paging* on page 281 for more.	**PAGE ALL CALL?** Y = Enable N = Disable	Y
Access Page Zone 1	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 1. • See *Paging* on page 281 for more.	**PAGE ZONE 1?** Y = Enable N = Disable	Y
Access Page Zone 2	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 2. • See *Paging* on page 281 for more.	**PAGE ZONE 2?** Y = Enable N = Disable	Y
Access Page Zone 3	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 3. • See *Paging* on page 281 for more.	**PAGE ZONE 3?** Y = Enable N = Disable	Y

Table 4: Program 0101 - Class of Service Options (Page 3 of 5)

Option	Description	Entries	Default
Access Page Zone 4	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 4. • See *Paging* on page 281 for more.	**PAGE ZONE 4?** Y = Enable N = Disable	Y
Access Page Zone 5	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 5. • See *Paging* on page 281 for more.	**PAGE ZONE 5?** Y = Enable N = Disable	Y
Access Page Zone 6	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 6. • See *Paging* on page 281 for more.	**PAGE ZONE 6?** Y = Enable N = Disable	Y
Access Page Zone 7	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 7. • See *Paging* on page 281 for more.	**PAGE ZONE 7?** Y = Enable N = Disable	Y
Silent Monitor	Use this option to enable or disable an extension's ability to use Silent Monitor. • See *Monitor / Silent Monitor* on page 257 for more.	**SILENT MONITOR?** Y = Enable N = Disable	N
Flash for Single Line Sets	• Not currently supported.	**FLASH FOR SLT?** Y = Enable N = Disable	N
ACD Supervisor	• This option is currently not implemented.	**ACD SUPERVISOR?** Y = Enable N = Disable	N
Single Ring for Single Line Sets	• Use this option to enable or disable single ring for single line telephones. This option only apples to single line telephones. See *Central Office Calls, Answering* on page 87 for more.	**SINGLE RING?** Y = Enable N = Disable	N
View System Alarms	Use this option to enable or disable an extension's ability to view the system alarms. • See *Attendant Position* on page 46 for more.	**VIEW SYS ALARMS?** Y = Enable N = Disable	COS 1 = N COS 2-15 = N
Automatic Hold	Use this option to enable or disable Automatic Hold at an extension. • See *Hold* on page 197 for more.	**AUTO HOLD?** Y = Enable N = Disable	COS 1 = N COS 2-15 = N
Activate Night Mode	Use this option to enable or disable an extension's ability to activate Night Service. • See *Night Service / Night Ring* on page 265 for more.	**ACTIVATE NITES?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N

Class of Service

Option	Description	Entries	Default
Direct Trunk Access	Use this option to enable or disable an extension's ability to use Direct Trunk Access. Note that enabling Direct Trunk Access allows the user to bypass Toll Restriction. • See *Central Office Calls, Placing* on page 93 for more.	**DIRECT TRK ACCES?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Remote Call Forwarding / Alternate Attendant	• This option is currently not implemented.	**REMOTE FWRD?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Soft Keys	Use this option to enable or disable a display set's Interactive Soft Keys. • See See *Interactive Soft Keys* on page 206 for more.	**SOFTKEYS** Y = Enable N = Disable	Y
Conversation Record	Use this option to enable or disable an extension's ability to record conversations into their Voice Mail mailbox. If enabled, the user can press either their Conversation Record key or RECORD soft key to initiate recording. • See *Voice Mail* on page 414 for more.	**RECORD CONV** Y = Enable N = Disable	N
CLID Display	Use this option to enable or disable Caller ID. • See *Caller ID* on page 81 for more.	**CLID DISPLAY?** Y = Enable N = Disable	Y
2nd CALL CLID (Extension Level Call Waiting Caller ID)	Use this option to enable or disable Second Call Caller ID. • See *Caller ID* on page 81 for more.	**2nd CALL CLID?** Y = Enable N = Disable	Y
3rd Party Caller ID	Use this option to enable or disable Third Party Call Caller ID Check. • See *Caller ID* on page 81 for more.	**3rd PARTY CLID?** Y = Enable N = Disable	N
CLID Display Separator	Use this option to enable or disable the Caller ID display separator. • See *Caller ID* on page 81 for more.	**'-' IN CID DISP?** Y = Enable N = Disable	N
Forced Account Codes	Use this option to enable or disable Forced Account Codes. disabled, Optional Account Codes are still available. • See *Account Codes* on page 34 for more.	**FORCE AC CODES?** Y = Enable N = Disable	N
Verify Account Codes	Use this option to enable or disable Verified Account Codes. If enabled, the system compares the Account Code the user dials to the entries in *1201 - Verified Account Codes Table* on page 515. • See *Account Codes* on page 34 for more.	**VERIFY AC CODES?** Y = Enable N = Disable	N

Table 4: Program 0101 - Class of Service Options (Page 5 of 5)

Option	Description	Entries	Default
Forced Account Codes for Toll Calls Only	Use this option to enable or disable Forced Account Codes for toll (long distance) calls. If disabled, Forced Account Codes apply to all outgoing trunk codes. • See *Account Codes* on page 34 for more.	**AC FOR TOLL ONLY?** Y = Enable N = Disable	N

Programming Guide

Step-by-step guide for setting up Class of Service

Step 1: Make a unique Class of Service (1-15) for each set of feature/dialing options the site requires.

• In *Program 0101 - Class of Service Options* (page 440), set up the options for each Class of Service. The system has 15 Classes of Service (1-15).

Step 2:   Assign Class of Service to extensions.

• In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions. Many extensions can share the same Class of Service. Normally, only the attendant has Class of Service 1.

Programming List

Program 0101 - Class of Service Options (page 440)
  Set Class of Service options for extensions, OPX trunk and tie lines.
Program 1001 - Trunk Class of Service Assignment (page 502)
  Assign Class of Service (1-15) to OPX trunks and tie lines.
Program 1801 - Extension Class of Service Assignment (page 533)
  Assign Class of Service (1-15) to extensions.

Class of Service

Other Related Features

Refer to the Class of Service chart above.

Attendant Position (page 46)
By default, the system assigns Class of Service 1 to the attendant. This provides the attendant with Alternate Attendant, Barge In, Call Forwarding Off Premise, Direct Trunk Access, Forced Trunk Disconnect, Night Service, and Trunk Queuing (Camp On) capability.

Feature Operation

None

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

⚠️ A user can set up a multiple-party telephone meeting without leaving the office.

Conference lets an extension user add additional inside and outside callers to their conversation. The following table shows the system's Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions
None

Default Setting
Conference enabled.

Programming Guide

None

Programming List

Program 1803 - Extension Line Access Assignments (page 546)
An extension can join a Conference with a trunk to which they normally cannot access.

Other Related Features

The following features also allow different types of multiple party calls:

Barge In (Intrusion) (page 57)
An extension user can Barge In on a Conference.
Group Listen (page 181)

Conference

Meet-Me Conference (page 247)
Monitor / Silent Monitor (page 257)
    An extension user cannot Monitor a Conference.
Privacy Release Groups (page 297)
Tandem Trunking / Unsupervised Conference (page 379)

Off-Hook Signaling (page 270)
    After hearing off-hook signals, an extension user can Conference their active call with the waiting call.
Off-Premise Extensions / On-Premise SLT Extensions (page 274)
    On- and off-premise SLT extensions can use Conference.
Reverse Voice Over (page 313)
    An extension user cannot add an incoming Reverse Voice Over call to a Conference.
Voice Over (page 428)
    An extension user cannot Voice Over to a co-worker busy on a Conference call.

Feature Operation

To establish a Conference:

1. Establish Intercom or trunk call.

    📞 ‖ Conversation with caller.
    👁 ‖ **ICM**, Line Key or Loop Key on.

2. Press **CONF**.

    📞 ‖ Intercom dial tone.
    👁 ‖ *If a trunk call:* **ICM** on and Line/Loop Key flashing.
        ‖ *If an Intercom call:* **ICM** on.
    Your caller hears Music On Hold (if installed) while they wait for you to set up the Conference.

3. Dial extension you want to add.
        OR
    Place or answer trunk call
        OR
    Retrieve call from Park Orbit.

4. Press CONF to set up the Conference.

    📞 ‖ Conversation with your conferenced callers.
    👁 ‖ *If a trunk call:* **ICM** on and Line/Loop Key on.
        ‖ *If an Intercom call:* **ICM** on.
    If you cannot add additional parties to your Conference, you have exceeded the system's Conference limit.

5. Repeat steps 2-4 to add additional parties to your Conference.
    You can optionally place the Conference on hold. Your callers hear Music on Hold (if installed) while waiting on Hold. Press **CONF** *to reinstate the Conference.*

To exit a Conference without affecting the other parties:

1. Hang up.
    The remaining parties can continue their conversation uninterrupted. If you were in Conference with two trunks, this may set up a tandem call. Refer to Tandem Trunking / Unsupervised Conference on page 379 for more.

Conference

To use Conference at an on- or off-premise single line telephone:

1.   Establish Intercom or trunk call
2.   Hookflash and dial extension or trunk you want to add.
3.   Hookflash and dial #10 to set up Conference.
      If you cannot add additional parties to your Conference, you have exceeded the system's Conference limit.
4.   Repeat steps 2 and 3 to add aditional parties to your Conference.

Delayed Ringing

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Delayed Ringing helps co-workers cover each other's unanswered calls.

Delayed Ringing allows a trunk to start ringing a preset interval *after* the call starts flashing a line key. This is helpful for co-workers that cover each other's calls.For example, a secretary can have Delayed Ringing for the trunks that ring the boss's telephone. If the boss doesn't answer after the Delayed Ringing interval, the call will start ringing the secretary's extension.

Conditions
None

Default Setting
Trunks 1-8 immediately ring on line keys 1-8.

Programming Guide

Step-by-step guide for setting up Delayed Ringing

Step 1: Should a trunk have delayed ringing on its assigned line key?

If yes
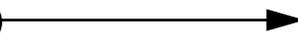
- In *Program 1805 - Ring Assignments* (page 551), enable option 4 for each trunk that should have Delayed Ringing.
- In *Program 0401 - Trunk Delay Ring* (page 457), set the Delay Ring interval to meet the site requirements.

If no
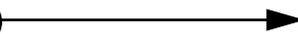
- In *Program 1805 - Ring Assignments* (page 551), select one of the other ring options for each trunk (1 = lamp only day and night, 2 = ringing day and night, 3 = night ring only).

Programming List

Program 0401 - Trunk Delay Ring (page 457)
Set how long the system waits before ringing an extension that has the Delayed Ringing option enabled.

Program 1805 - Ring Assignments (page 551)
For the selected trunk, set the ring assignment to 4 to enable Delayed Ringing. The other options are: 1 (lamp only day and night), 2 (ringing day and night) and 3 (night ring only, lamp during the day).

Other Related Features

Call Coverage Keys (page 61)
Delayed Ringing is also available for Call Coverage Keys.

Private Line (page 300)
Consider having Delayed Ringing for Private Lines. Users with Delayed Ringing will ring for the Private Line only if it is not answered.

Feature Operation

None

Dial Number Preview

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Dial Number Preview helps the user avoid dialing errors.

Dialing Number Preview lets a display keyset user dial and review a number before the system dials it out.

Conditions
None

Default Setting
Enabled

Programming Guide

None

Programming List

None

Other Related Features

Central Office Calls, Placing (page 93)
Dial Number Preview allows an extension user to review a number before the system dials it out.

Feature Operation

To dial using Dial Number Preview:

1. Do not lift the handset, press **SPK** or press **ICM**.

2. Dial *.
    N/A
    Your display shows: *DIAL PREVIEW*

3. Dial the number you want to call.
    N/A
    Your display shows the digits dialed, with a cursor (-) after the last digit.

4.   Press line key.

         Dial tone on the selected trunk, then your digits dialing out.

         Line key on (green).

To correct the displayed digits before dialing them out:

1.   Use VOL ▲ and VOL ▼ until the cursor replaces the digit you want to change.
      VOL ▲ moves the cursor to the left. VOL ▼ moves the cursor to the right.

2.   Dial the digit that you want to replace the cursor.

3.   Press VOL ▲ and VOL ▼ to place the cursor over any other digits you want to edit.
         OR
      Press VOL ▼ until the entire number displays to the left of the cursor.
         The system will only dial the digits to the left of the cursor.

4.   Press a line key to have the system automatically dial the displayed number.

Dial Number Preview Editing Example	
To replace 2049265410 with 2039265400:	
Step 1: Dial * followed by 2049265410. You see:	**2049265410-**
Step 1: Press Vol ▲ until you see:	**20-9265410**
Step 2: Dial 3. You see:	**203-265410**
Step 3: Press VOL ▼ until you see:	**20392654-0**
Step 4: Dial 0. You see:	**203926540-**
Step 5: Press Vol ▼ until the entire number displays to the left of the cursor.	**2039265400-**
Step 6: Press line key to dial number.	

Direct Inward Line

Description

DS2000 Fixed Slot
DS2000 U Slot | Available.
DS1000

A DIL lets an employee know which calls are just for them.

A Direct Inward Line (DIL) is a trunk that rings an extension directly. Since DILs only ring one extension, 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.

Assigning a DIL to an extension automatically provides immediate ringing and incoming access for the trunk, with no additional programming required.

The extension to which the trunk is terminated controls the night mode of the trunk. For example, if extension 301 has trunk 1 assigned as a DIL, the user can press **DND** to switch trunk 1 to its night routing destination. Switching trunk 1 to night mode at extension 304 has no affect on the night mode of the system. This flexibility could allow a service dispatcher with several DILs to independently send trunks to their night destinations without affecting the night mode of the entire system.

A DIL can ring:
- Extension numbers (including the attendant's extension)
- Ring Group master numbers
- UCD Group master numbers (including the Voice Mail master number)

Overflow for Direct Inward Lines

If unanswered, DILs calls can route to a programmed overflow destination. The overflow destination can be an extension, Ring Group, UCD Group or Voice Mail (i.e., DIL destination's mailbox). You can set up separate DIL overflow destinations for the day mode and at night. If unanswered at the overflow destination, the call diverts to Key Ring.

Conditions
None

Default Setting
No DILs assigned.

Programming Guide

> **Step-by-step guide for setting up Direct Inward Line** (Page 1 of 3)

Step 1: Check to be sure each trunk's circuit type matches the connected trunk circuit.

- In *Program 1001 - Trunk Circuit Type* (page 498), enter the correct circuit type for each trunk (51 = loop start DTMF, 52 = loop start DP).

Step 2:   Assign the DIL day mode destination.

- In *Program 1003 - Direct Termination (Day)* (page 509), assign the DIL day mode termination. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number.

Step 3:   Do you want an unanswered DIL to overflow during the day mode?
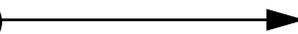
If yes ⟶
- In *Program 1003 - Activate Overflow During the Day* (page 509), enter Y.

If no ⟶
- In *Program 1003 - Activate Overflow During the Day* (page 509), enter N.

Step 4:   Assign the DIL day overflow destination.

- In *Program 1003 - Day Overflow Destination* (page 509), assign the DIL day mode termination. The destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Step 5:   Assign the DILnight mode destination.

- In *Program 1003 - Direct Termination (Night)* (page 510), assign the DIL night mode termination. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number. (An extension puts their DIL in the night mode by pressing DND.)

Direct Inward Line

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┌─────────────────────────────────┐
│  Step-by-step guide for setting up Direct  │
│      Inward Line (Page 2 of 3)             │
└─────────────────────────────────┘
```

Step 6:   Do you want an unanswered DIL to overflow during the night mode?

> **If yes**
- In *Program 1003 - Activate Overflow at Night* (page 510), enter Y.

> **If no**
- In *Program 1003 - Activate Overflow at Night* (page 510), enter N.

Step 7:   Assign the DIL night overflow destination.

- In *Program 1003 - Night Overflow Destination* (page 510), assign the DIL night mode termination. The destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Step 8:   Does extension have a line key for their DIL?

> **If yes**
- In *Program 1701 - Line Key* (page 518), no programming changes are required.

> **If no**
- In *Program 1701 - Line Key* (page 518), make sure the DIL has a line key assigned (code 03). DILs can optionally ring Loop Keys (codes 01 and 02).

Step 9:   Do you want to put the DIL on a DSS Console key?

> **If yes**
- In *Program 1704 - Line Key* (page 528), make sure the DIL has a DSS Console line key assigned (code 03).

> **If no**
- In *Program 1704 - Line Key* (page 528), make sure the DIL does not have a DSS Console line key assigned (code 03).

Step 10: If a DIL to an extension is unanswered, does call divert to its overflow destination (If programmed) or Key Ring (if no overflow exists) after the proper interval?

> **If yes**
- In *Program 0401 - DIL No Answer* (page 456), leave the DIL No Answer time at its current setting.

> **If no**
- In *Program 0401 - DIL No Answer* (page 456), change the DIL No Answer time to meet the site requirements.

<div style="border:1px solid black; text-align:center;">
Step-by-step guide for setting up Direct
Inward Line (Page 3 of 3)
</div>

Step 11: If a DIL to a Ring Group master number is unanswered, does call divert to its over-flow destination (If programmed) or Key Ring (if no overflow exists) after the proper interval?

If yes
- In *Program 0401 - Trunk Revert* (page 457), leave the Trunk Revert time at its current setting.

If no
- In *Program 0401 - Trunk Revert* (page 457), change the Trunk Revert time to meet the site requirements.

Step 12: If DIL is unanswered at the overflow destination, does call divert to Key Ring after the proper interval.

If yes
- In *Program 0401 - Transfer Recall* (page 455), leave the Transfer Recall time at its current setting.
- In *Program 1805 - Ring Assignments* (page 551), make sure you have extensions assigned to Key Ring.

If no
- In *Program 0401 - Transfer Recall* (page 455), change the Transfer Recall time to meet the site requirements.
- In *Program 1805 - Ring Assignments* (page 551), make sure you have extensions assigned to Key Ring.

Step 13: If DIL is terminated to Voice Mail, set up a Night key that controls the night mode status of the DIL.

- In *Program 1701 - Night Key* (page 520), set up a Night key for the Voice Mail master number (code 18 + Voice Mail master number)
  OR
- In *Program 1704 - Night Key* (page 530), set up a Night key for the Voice Mail master number (code 18 + Voice Mail master number).

Programming List

Program 0401 - DIL No Answer (page 456)
  When the DIL destination is an extension:
  If DIL Overflow is set up, this interval determines how long a DIL rings its destination before ringing its programmed overflow destination. If DIL Overflow is not set up, this interval determines how long a DIL rings is destination before diverting to Key Ring.

Direct Inward Line

Program 0401 - DIL No Answer (page 456)

When the DIL destination is a Ring Group master number:

If DIL Overflow is set up, this interval determines how long a DIL rings its destination before ringing its programmed overflow destination. If DIL Overflow is not set up, this interval determines how long a DIL rings is destination before diverting to Key Ring.

Program 0401 - Transfer Recall (page 455)

This interval sets how long a call will ring the day or night overflow destination before diverting to key ring.

Program 1001 - Trunk Circuit Type (page 498)

Set the trunk's circuit type for compatiblity with the connected telco or PBX. The options are 51 (loop start DTMF), 52 (loop start DP), 53 (ground start DTMF) or 54 (ground start DP).

Program 1003 - Direct Termination (Day) (page 509)

Set the day termination (answering point) for the DIL. The DIL rings the answering point directly. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number.

Program 1003 - Activate Overflow During the Day (page 509)

Enter Y to enable DIL overflow during the day mode. (Entering N for this option has the same affect as entering Y followed by Key Ring in the following option.)

Program 1003 - Day Overflow Destination (page 509)

Set the overflow destination for day mode calls. The overflow destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Program 1003 - Direct Termination (Night) (page 510)

Set the night termination (answering point) for the DIL. The DIL rings the answering point directly. The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number.

Program 1003 - Activate Overflow at Night (page 510)

Enable Y to enable DIL overflow during the night mode. (Entering N for this option has the same affect as entering Y followed by Key Ring in the following option.)

Program 1003 - Night Overflow Destination (page 510)

Set the overflow destination for night mode calls.The destination can be an extension, UCD Group master number, Ring Group master number or Voice Mail master number.

Program 1701 - Line Key (page 518)

Make sure the extension has a line key (code 03) for the DIL.

Program 1701 - Night Key (page 520)

If the DIL is terminated to a Voice Mail master number, a Night Key key (code 18 + the Voice Mail master number) controls the night mode of the DIL.

Program 1704 - Line Key (page 528)

The extension can optionally have a line key (code 03) for their DIL on a DSS Console.

Program 1704 - Night Key (page 530)

If the DIL is terminated to a Voice Mail master number, a Night Key key (code 18 + the Voice Mail master number) controls the night mode of the DIL.

Program 1805 - Ring Assignments (page 551)

Make sure you have extensions assigned to Key Ring.

Other Related Features

Call Forwarding (page 65)
Call Forwarding will reroute an extension's DILs.

Call Waiting / Camp-On (page 74)
A DIL to a busy extension will send Camp-On tones (if the extension is programmed to normally receive Camp-On tones).

Central Office Calls, Answering (page 87)
Central Office Calls, Placing (page 93)
Refer to these features to set additional parameters for trunks (such as transmit gain, receive gain and sidetone level). In addition, extension users can place calls on DILs, just like other trunks (depending on programming).

Delayed Ringing (page 114)
DILs automatically override Delayed Ringing.

Do Not Disturb (page 146)
Enabling Do Not Disturb at an extension puts that extension's DILs into Night Mode.

Extended Ringing (page 154)
With Extended Ringing enabled, DIL trunks ring for the *Number of Extended Rings* before routing to the overflow destination.

Extension Hunting (page 156)
DILs to a Circular or Terminal Hunting group member initiate hunting. In addition, DILs to a UCD master number ring the UCD group directly.

Group Ring (page 183)
A DIL can ring a Ring Group master number.

Key Ring (page 232)
An unanswered DIL diverts to all extensions with Key Ring for the trunk.

Line Keys (page 238)
Loop Keys (page 242)
When you assign a trunk as a DIL, it continues to flash its previously programmed line/loop key assignments. It will not, however, ring those phones.

Names for Extensions and Trunks (page 263)
Programming names for DILs makes it easier to identify incoming callers.

Night Service / Night Ring (page 265)
The extension to which the DIL is terminated controls the night mode of the DIL by pressing their DND key.

Off-Hook Signaling (page 270)
A DIL ringing a busy extension can automatically initiate Off-Hook Signaling.

Prime Line Preference (page 292)
If an extension's Prime Line is another extension's DIL, lifting the handset will answer the call even though it does not ring the phone.

Voice Mail (page 414)

● The Voice Mail Automated Attendant will answer a DIL terminated to the Voice Mail Master Number.

● If a DIL is terminated to the Voice Mail master number, a System Mode key (code 18 + the Voice Mail number) controls the night mode status of the DIL.

Direct Inward Line

Feature Operation

To answer a call on your Direct Inward Line:

　📟　‖Ringing.
　👁　‖DIL's line key flashing (green).

1. Lift handset.

　📟　‖Conversation with caller.
　👁　‖DIL's line key on (green).

To place your DIL into Night Mode

1. Press **DND**.

　📟　‖N/A
　👁　‖**DND** flashes.

　　　This also enables Do Not Disturb at the extension.

Description

DS2000 Fixed Slot	Available - DSS keys enabled (but unassigned) by default.
DS2000 U Slot	Available - DSS keys disabled by default. User Programmable steps added.
DS1000	Available - DSS keys disabled by default.

Quickly place and Transfer calls to co-workers, without having to look up or dial extension numbers.

Important

- If you enable an extension's DSS Keys and leave the extension's default Prime Line programming intact, the line keys automatically change to DSS keys when the user lifts the handset. ***To avoid confusion, be sure to explain this to your users.***
- You may prefer to use the **Call Coverage Keys** (page 61) or **Hotline** (page 202) features instead. Remember, in addition to providing one-button Intercom access and Transfer, Call Coverage Keys also provide call pickup capability.

If an extension's Direct Station Selection (DSS) Keys are enabled, Programmable Function Keys *automatically* become Direct Station Selection (DSS) keys when the user presses **ICM**. Direct Station Selection provides an extension user with one-button Intercom access and Transfer to co-workers. Each DSS key also provides a Busy Lamp Field (BLF) for the assigned co-worker.

When the DSS/BLF key is:	The covered extension is:
Off	Idle
On	Busy or ringing
Flashing fast	In Do Not Disturb

Conditions

DSS keys do not pick up ringing calls.

Default Setting

Not assigned. DSS capability is disabled.

Direct Station Selection (DSS)

Programming Guide

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│   Step-by-step guide for setting up Direct │
│            Station Selection               │
└─────────────────────────────────────────┘
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Step 1: Should extension have DSS capability on their programmable keys?

If yes
- In *Program 1802 - Busy Lamp Field* (page 540), enter Y.
- In *Program 1807 - Prime Line Key* (page 554), turn off Intercom Prime Line to prevent the the extension's line keys from switching to DSS mode when the user lifts the handset while idle.

If no
- In *Program 1802 - Busy Lamp Field* (page 540), enter N.

Step 2: Should extension have preprogrammed DSS keys?

If yes
- In *Program 1703 - DSS Key Assignment* (page 524), program the extension's DSS assignments.

If no
- In *Program 1703 - DSS Key Assignment* (page 524), leave the extension's DSS keys unassigned.

Programming List

Program 1703 - DSS Key Assignment (page 524)
Program the extension's DSS assignments.
Program 1802 - Busy Lamp Field (page 540)
Enter Y to enable DSS capability for an extension's programmable keys.
Program 1807 - Prime Line Key (page 554)
If you enable DSS capability in the option above, consider turning off Intercom Prime Line in this program. If you don't, the extension's line keys switch to DSS mode whenever the user lifts the handset while idle. (If a trunk call is ringing the phone, *Ringing Line Preference* will normally answer the call when the user lifts the handset — even with Intercom Prime Line enabled.)

Other Related Features

Intercom (page 227)
A user can press a DSS key as an alternative to dialing Intercom numbers.
Prime Line Preference (page 292)
With Intercom Prime Line, an idle extension user hears Intercom dial tone whenever they lift the handset or press **SPK**. Since each extension's Busy Lamp Field is disabled by default in U Slot, the Programmable Function Keys do not go into the DSS mode when the user lifts the handset while idle. (If a trunk call is ringing the phone, *Ringing Line Preference* will normally answer the call when the user lifts the handset — even with Intercom Prime Line enabled.)

Speed Dial (page 332)

The Personal Speed Dial Keys also provide one-button access to extensions.

Transfer (page 393)

You can press your DSS key to Transfer a call instead of dialing a co-worker's extension number.

Voice Over (page 428)

An extension can Voice Over after using Direct Station Selection to call a co-worker.

Feature Operation

User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**
This option is not available with Fixed Slot software.			
DSS	**#BLF**	**#BLF** + Press DSS key + **HOLD** + Enter extension + **VOL ▲** + Program another key or **SPK** to exit.	1-5

To place a call to a co-worker using a DSS key:

1. Lift handset.

2. Press **ICM** .

   Intercom dial tone.

   DSS keys show status of covered co-workers (off = idle, on = busy or ringing, flashing fast = in Do Not Disturb).

3. Press DSS key for co-worker you want to call.

   Two beeps or ringing.

   N/A

To Transfer a call to a co-worker using a DSS key:

1. Place or answer trunk call.

   Conversation with caller.

   Line or Loop Key on (green).

2. Press **ICM** .

   Intercom dial tone.

   DSS keys show status of covered co-workers (off = idle, on = busy or ringing, flashing fast = in Do Not Disturb).

3. Press DSS key for co-worker.

   Two beeps or ringing.

   N/A

4. Hang up to have the Transfer go through unscreened.

   OR

   Wait for the called party to answer if you want them to screen the Transfer.

Direct Station Selection (DSS) Console

Description

DS2000 Fixed Slot	Available - with unique default settings.
DS2000 U Slot	Available - with unique default settings.
DS1000	Available - with unique default settings.

DSS Consoles provide one-touch access to extensions, trunks and system features.

The DSS Console gives a 34-Button Display or 34-Button Super Display user a Busy Lamp Field (BLF) and one-button access to extensions, trunks, and selected system features. This saves time for users that do a lot of call processing (such as operators or dispatchers). There are two DSS Consoles types: the 24-Button (P/N 80556) and the 110-Button (P/N 80555).

Figure 13: 24-Button and 110-Button DSS Consoles

The system allows you to install 4 DSS Consoles maximum. In addition, System Load Factor may further reduce the number that you can install. See *DS2000 Load Factor* on page 3 for more on the System Load Factor. You cannot connect multiple DSS Consoles to the same keyset. DSS Consoles do not use a station port and do not require their own power supply.

The system provides four unique DSS configurations (called blocks). If you want your DSS Consoles to have unique key configurations, assign them to different blocks. If you want your consoles to share the same configuration, assign them to the same block. Note that DSS Console Personal Speed Dial bins are the same as the extension to which the console is attached. This means that DSS Consoles that share the same block number still have unique Personal Speed Dial.

You can assign DSS Console keys to the following functions:

• ACD Log On (future)	• Message Center	• Speed Dial, Personal
• Call Coverage (immediate, delayed or no ring)	• Multiple Directory Numbers (future)	• Reverse Voice Over
• Data (future)	• Night Key	• Split
• Group Pickup (immediate, delayed or no ring)	• Page Zones	• Speed Dial, System
• Hotline	• Park Orbit	• Trunks (line keys)
• ICM Directory	• Save	• Voice Mail Record

Conditions

● You cannot connect a DSS Console to a 22-button telephone.

● You must consider the System Load Factor when installing DSS Consoles. See *DS2000 Load Factor* on page 3 for more.

Direct Station Selection (DSS) Console

Fixed Slot DSS Console Default Assignments	
These keys:	**Have this function:**
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-32	Hotlines to extensions 300-331
33-48	Lines 1-16
49-58	System Speed Dial bins 200-209
59-78	Personal Speed Dial bins 700-719
79, 80	Page zones 0 (All Call) and 1.
81-82	System Park Orbits 0 and 1.
83-110	Unassigned

U Slot DSS Console Default Assignments	
These keys:	**Have this function:**
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-80	Hotlines to extensions 300-379
81-96	Hotlines to undefined destinations.
97-99	Page Zones 1-3
100	All Call Page
101-109	Park Orbits 0-8
110	Night Key

DS1000 DSS Console Default Assignments	
These keys:	**Have this function:**
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-26	Hotlines to extensions 300-325
27-58	Hotlines to undefined extensions
59-64	Hotlines to trunks 1-6 (401-406)[1]
65-96	Hotlines to undefined destinations.
97-99	Page Zones 1-3
100	All Call Page
101-109	Park Orbits 0-8
110	Night Key

[1] Trunk Hotlines require that the extension have Direct Trunk Access enabled. See *Direct Trunk Access* on page 139 for more. ***These keys do not exist in software versions 02.01.07 and higher.***

Programming Guide

Step-by-step guide for setting up DSS Consoles

Step 1: Does the extension have a DSS Console connected?

If yes

- In *Program 1801 - DSS Type* (page 533), enter 1 if the extension has a 24-button console connected. Enter 2 if the extension has a 110-button console connected. You cannot have more than 4 DSS Consoles installed.

If no

- In *Program 1801 - DSS Type* (page 533), enter 0 if the extension does not have a DSS Console connected.

Direct Station Selection (DSS) Console

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┌─────────────────────────────────────┐
│  Step-by-step guide for setting up DSS │
│              Consoles                 │
└─────────────────────────────────────┘
```

Step 2: **Should the DSS Console have unique programming, not available on any other DSS Console?**

(**If yes**) ──────────▶
- In *Program 1801 - DSS Block Number* (page 533), be sure to choose a block (1-4) that is not assigned to any other extension in the system.

(**If no**) ──────────▶
- In *Program 1801 - DSS Block Number* (page 533), assign the same block to extensions that should share DSS Console programming.

Step 3: **Do you want to change the DSS Console assignments from their default settings?**

(**If yes**) ──────────▶
- In *Program 1704 - 1704 - DSS Console Key Assignment* (page 526), customize the key assignments to meet the application requirements.

(**If no**) ──────────▶
- In *Program 1704 - 1704 - DSS Console Key Assignment* (page 526), leave the DSS Console assignments at their default settings.

Programming List

Program 1704 - DSS Console Key Assignment (page 526)
> Assign the keys for the system's DSS Consoles.

Program 1801 - DSS Type (page 533)
> Specify the type of DSS Console plugged into the telephone (1 = 24-button, 2 - 110-button, 0 = unassigned). You cannot install more than 4 DSS Consoles.

Program 1801 - DSS Block Number (page 533)
> Use this option to assign a DSS block to the console.

The following table shows the DSS Console key options (assigned in Program 1704):

Table 5: Program 1704 - DSS Console Key Assignment (Page 1 of 3)

Option	Description	Key Code
Undefined	Use this option to designate a key as undefined (no function).	**00**
Line Key	Use this option to assign a programmable key as a line key.	**03 + nn (trunk number)**
Park Orbit Key	Use this option to assign a programmable key as a Park Orbit key.	**04 + n (Park Orbit 0-9)**

Table 5: Program 1704 - DSS Console Key Assignment (Page 2 of 3)

Option	Description	Key Code
Hotline Key	Use this option to assign a programmable key as a Hotline key. A DSS Console can also have a Hotline key for a trunk (e.g., 401). However, this capability requires that Direct Trunk Access be enabled for the extension. See *Direct Trunk Access* on page 139 for more.	**05 + nnn (extension number)**
Call Coverage Immediate Ring	Use this option to assign a programmable key as an immediately ringing Call Coverage Key.	**06 + nnn (extension number)**
Call Coverage No Ring	Use this option to assign a programmable key as a lamp only (no ring) Call Coverage Key.	**07 + nnn (extension number)**
Call Coverage Delay Ring	Use this option to assign a programmable key as a delayed ringing Call Coverage Key.	**08 + nnn (extension number)**
Group Pickup Immediate Ring	Use this option to assign a programmable key as an immediately ringing Group Call Pickup key.	**09 + nn (Pickup Group 01-16)**
Group Pickup No Ring	Use this option to assign a programmable key as a lamp only (no ring) Group Call Pickup key.	**10 + nn (Pickup Group 01-16)**
Group Pickup Delay Ring	Use this option to assign a programmable key as a delay ring Group Call Pickup key.	**11 + nn (Pickup Group 01-16)**
Page Zone Key	Use this option to assign a programmable key as a Page Zone key.	**13 + n (Page Zone 1-7, 0 for All Call)**
System Speed Dial Key	Use this option to assign a programmable key as a System Speed Dial key. You assign the key to specific System Speed Dial bin.	**14 + nnn (System Speed Dial bin, normally 200-299)**
Personal Speed Dial Key	Use this option to assign a programmable key as a Personal Speed Dial key. You assign the key to a specific Personal Speed Dial bin.	**15 + nnn (701-720)**
Voice Mail Record Key	Use this option to assign a programmable key as a Voice Mail Record key.	**17**
Night Key	Use this option to assign a programmable key as a Night key.	**18 + CLEAR**
Data Key	This option is currently not used.	**19 + nnn (extension number)**
Split Key	Use this option to assign a programmable key as a Split key.	**20**
ICM Directory Key	Use this option to assign a programmable key as an Intercom Directory Dialing key.	**21**

Direct Station Selection (DSS) Console

Table 5: Program 1704 - DSS Console Key Assignment (Page 3 of 3)

Option	Description	Key Code
ACD Log On Key	This option is currently not used.	**22**
Reverse Voice Over Key	Use this option to assign a programmable key as a Reverse Voice Over key.	**23**
Message Center Key	Use this option to assign a programmable key as a Message Center key.	**24 + nnn (extension number)**
Save Key	Use this option to assign a programmable key as a Save Number Dialed key.	**25**

Other Related Features

Call Coverage Keys (page 61)
 DSS Consoles can have Call Coverage keys.
Directory Dialing (page 143)
 Assign a Directory Dialing key on a DSS Console.
Group Call Pickup (page 177)
 DSS Consoles can have Group Call Pickup keys.
Hotline (page 202)
 DSS Consoles can have Hotline keys.
Night Service / Night Ring (page 265)
 A DSS Console with a Night key can put the system in the night mode.
Paging (page 281)
 DSS Consoles can have Page zone keys.
Park (page 287)
 DSS Consoles can have Park keys.
Reverse Voice Over (page 313)
 A DSS Console can have a Reverse Voice Over key.
Save Number Dialed (page 322)
 A DSS Console can have a Save key.
Speed Dial (page 332)
 The DSS Console Personal Speed Dial bins are the same as the extension to which the console is attached. This means that DSS Consoles that share the same block number still have unique Personal Speed Dial.

Voice Mail (page 414)
 A DSS Console can have Voice Mail Record and Message Center keys.

Feature Operation

To use your DSS Console trunk (line) key:

1.   Press the DSS Console trunk key.

DSS Console Trunk Key Busy Lamp Indications	
When the key is:	**The assigned trunk is:**
Off	Idle or not installed
On	Busy
Slow Flash	Ringing

To use your DSS Console Park key:

1.   Press DSS Console Park key to Park or retrieve call.

DSS Console Park Key Busy Lamp Indications	
When the key is:	**The assigned orbit is:**
Off	Idle
On	Holding a call that has been parked by a co-worker
Wink On	Holding a call that you parked

To use your DSS Console Hotline key:

1.   Press key to call Hotline partner.

DSS Console Hotline Key Busy Lamp Indications	
When the key is:	**The Hotline partner is:**
Off	Idle
On	Busy or ringing
Fast Flash	In Do Not Disturb

To use your DSS Console Call Coverage key:

You can set up the Call Coverage key for immediate ring, delayed ring , or no ring.

1.   Press key to call covered extension or pick up ringing call.

DSS Console Call Coverage Key Busy Lamp Indications	
When the key is:	**The covered extension is:**
Off	Idle

Direct Station Selection (DSS) Console

DSS Console Call Coverage Key Busy Lamp Indications	
On	Busy
Fast Flash	In DND
Slow Flash	Ringing

To use your DSS Console Group Call Pickup key:

You can set up the Group Call Pickup key for immediate ring, delayed ring , or no ring.

1. Press key to answer call ringing Pickup Group.

DSS Console Group Call Pickup Key Busy Lamp Indications	
When the key is:	**The Pickup Group:**
Off	Does not have a call ringing
Slow Flash	Has a call ringing

To use your DSS Console Page Zone key:

1. Press key to Page into assigned zone.

DSS Console Page Zone Key Busy Lamp Indications	
When the key is:	**The assigned zone is:**
On	Busy
Off	Idle

To use your DSS Console System Speed dial key:

1. Press key to dialed stored number.
   System Speed Dial keys provide no BLF.

To use your DSS Console Personal Speed dial key:

1. Press key to dialed stored number.
   Personal Speed Dial keys provide no BLF.

To use your DSS Console Conversation Record key:

You must have Voice Mail installed to use this key. A voice prompt and a periodic beep will remind you that your calls are being recorded.

1. Press key to record conversation in mailbox.

DSS Console Conversation Record Key Busy Lamp Indications	
When the key is:	**Recording is:**
On	Being set up
Off	Off
Fast Flash	On

To use your DSS Console Night key:

1. Press key to put the system in the night mode.

DSS Console Night Key Busy Lamp Indications	
When the key is:	**The system is:**
On	In the night mode
Off	In the day mode

To use your DSS Console ICM Directory key:

1. Press key to access Intercom Directory Dialing.

DSS Console ICM Directory Key Busy Lamp Indications	
When the key is:	**ICM Directory Dialing is:**
On	Active
Off	Inactive

To use your DSS Console Reverse Voice Over key:

1. While on a handset call, press key to place Private Intercom call to covered extension.

DSS Console Reverse Voice Over Key Busy Lamp Indications	
When the key is:	**Assigned extension is:**
On	Busy or ringing
Off	Idle
Fast Flash	In Do Not Disturb

Direct Station Selection (DSS) Console

To use your DSS Console Message Center key:

1. Press key to see how many messages are waiting in the Message Center.
        OR
    Press **SPK** + key to call Message Center mailbox.

DSS Console Message Center Key Busy Lamp Indications	
When the key is:	**There are:**
Off	No messages waiting in the Message Center mailbox
Fast Flash	Messages waiting in the Message Center mailbox

To use your DSS Console Save key:

1. While on a call, press key to Save the number you just dialed.
        OR
    While idle, press key to redial a previously saved number.
        Save keys provide no BLF.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Priority users can access trunks directly. Direct Trunk Access also lets maintenance personnel access and test individual trunks.

Direct Trunk Access lets an extension user access (seize) an individual trunk. After seizing the trunk, the user can dial any outside telephone number without restriction. An extension's Class of Service allows or denies Direct Trunk Access. Direct Trunk Access is normally only provided for attendants, priority users and maintenance personnel.

Conditions
None

Default Setting
Disabled

Programming Guide

> **Step-by-step guide for setting up Direct Trunk Access** (Page 1 of 2)

Step 1: Should extension have Direct Trunk Access capability?

If yes
- In *Program 0101 - Direct Trunk Access* (page 442), enter Y.
- *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.
- In *Program 1803 - Extension Line Access Assignments* (page 546), no entries are required. Direct Trunk Access automatically provides access.

If no
- In *Program 0101 - Direct Trunk Access* (page 442), enter N.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Step 2: Does the default Direct Trunk Access code (4) meet the site requirements?

If yes
- In *Program 0501 - Numbering Plan* (page 472), do not change the digit 4 from its default assignment.

Direct Trunk Access

If no ──────────────────▶

- In *Program 0501 - Numbering Plan* (page 472), reassign digits to meet the site requirements.

Programming List

Program 0501 - Numbering Plan (page 472)
Change the digit that user's dial for Direct Trunk Access if 4 does not meet the site requirements.
Program 0101 - Direct Trunk Access (page 442)
Enter Y to enable an extension to use Direct Trunk Access.
Program 1801 - Extension Class of Service Assignment (page 533)
Assign Class of Service to extensions.
Program 1803 - Extension Line Access Assignments (page 546)
Direct Trunk Access overrides an extension's access assignments. A extension can directly access a trunk for which they normally do not have access.

Other Related Features

Central Office Calls, Placing (page 93)
Refer to this feature for other methods of placing trunk calls.
Forced Trunk Disconnect (page 175)
An extension user with Direct Trunk Access can use Forced Trunk Disconnect.
Removing Trunks and Extensions From Service (page 311)
An extension user with Direct Trunk Access can remove trunks from service.
Toll Restriction (page 385)
Direct Trunk Access does not bypass Toll Restriction.

Feature Operation

To place a call over a specific trunk using Direct Trunk Access:

1. Lift handset.

2. Press ICM.
    Intercom dial tone.
    ICM on.

3. Dial 4 plus the trunk number (e.g., 401 for trunk 1).
    Trunk dial tone, followed by digits outdialing on the trunk.
    ICM on.
    If you hear busy tone, you may be able to dial 2 to queue for the busy trunk. See Trunk (Line) Queuing / Trunk Callback on page 402 for more.

4. Dial outside number.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Directed Call Pickup allows co-worker's to answer each other's calls.

Directed Call Pickup permits an extension user to intercept a call ringing another extension. With Directed Call Pickup, an extension user can pick up:

● Trunk (Key Ring) calls ringing an extension
● Direct Inward Lines
● Transferred trunk calls
● Ringing Intercom calls.
● Recalls (e.g., Hold recall).
● Ring Group Calls (by dialing either the ringing extension's number or the Ring Group master number)

Conditions

None

Default Setting

Enabled

Programming Guide

None

Programming List

Program 1803 - Extension Line Access Assignments (page 546)
Directed Call Pickup can intercept a call on a trunk to which it normally does not have access.

Other Related Features

Door Box (page 148)
Directed Call Pickup cannot intercept a Door Box call ringing an extension.
Hold (page 197)
Directed Call Pickup can pick up Hold recalls.
Park (page 287)
Personal Park allows an extension user to pick up a call parked at a co-worker's extension.

The following features also let co-workers cover each other's calls:

Call Coverage Keys (page 61)
Group Call Pickup (page 177)
Hotline (page 202)

Directed Call Pickup

Feature Operation

To use Directed Call Pickup to intercept a call to a co-worker's extension:

> Call ringing co-worker's extension.
> N/A.

1. Lift handset.

2. Dial *** ***.

3. Dial number of extension whose call you want to intercept.

    > Conversation with intercepted caller.
    > N/A.

    To intercept a call ringing an attendant, dial the attendant's extension number (e.g., 300). Do not dial 0 or 01-04.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Directory Dialing available.

Allows users to place Intercom or Speed Dial calls from a displayed list of names.

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 three types of directory Dialing:

- **C** – System (Company-Wide) Speed Dial names.
- **I** – Intercom names (including extension, Ring Group and UCD Group names).
- **P** – Personal Speed Dial names.

Conditions
None

Default Setting
Directory Dialing always enabled, but no Intercom or Speed Dial names are stored.

Programming Guide

Step-by-step guide for setting up Directory Dialing (Page 1 of 2)

Step 1: Do extension users have adequate time to enter their Directory Dialing options?

If yes
- In *Program 0401 - Intercom Inter-digit* (page 456), leave this option at its currently assigned value.

If no
- In *Program 0401 - Intercom Inter-digit* (page 456), change the Interdigit Interval to meet the site requirements. Keep in mind that this affects *all* Intercom dialing (in addition to Directory Dialing).

Step 2: Should extension have one-touch access to Intercom Directory Dialing?

If yes
- To put an ICM Directory key on a keyset:
  In *Program 1701 - ICM Directory Key* (page 520), assign an Intercom Directory Dialing key (code 21).
- To put an ICM Directory key on a DSS Console:
  In *Program 1704 - ICM Directory Key* (page 530), assign an Intercom Directory Dialing key (code 21).

Directory Dialing

If no ⟶

• In *Program 1701 - ICM Directory Key* (page 520), and in *Program 1704 - ICM Directory Key* (page 530), do not assign an Intercom Directory Dialing key (code 21).

Programming List

Program 0401 - Intercom Inter-digit (page 456)
If an extension user initiates Directory Dialing but doesn't make an entry within this interval, the system automatically cancels Directory Dialing.

Program 1701 - ICM Directory Key (page 520)
Assign an Intercom Directory Dialing key to a keyset (code 21).

Program 1704 - ICM Directory Key (page 530)
Assign an Intercom Directory Dialing key to a DSS Console (code 21).

Other Related Features

Direct Station Selection (DSS) Console (page 128)
Assign a Directory Dialing key on a DSS Console.

Extension Hunting (page 156)
Intercom Directory Dialing will show UCD Group names.

Group Ring (page 183)
Intercom Directory dialing will show Ring Group names.

Intercom (page 227)
Directory Dialing is a convenient alternative to manually dialing Intercom numbers.

Names for Extensions and Trunks (page 263)
Set up the names for extensions and trunks.

Speed Dial (page 332)
Set up Speed Dial names.

Feature Operation

To place a call using Directory Dialing:

1. Do not lift handset or press **SPK**.
1. Dial 3.
2. Dial the type of Directory Dialing from the table below:

Pressing this key:		Selects Directory Dialing for:
2	C	System (Company-Wide) Speed Dial names.
4	I	Intercom names.
7	P	Personal Speed Dial names.

☞ ‖ N/A
👁 ‖ **SPK** on.
To scroll alphabetically through the selected directory, press **VOL ▲** *or* **VOL ▼**. *To call the displayed name, just press* **DIAL**.

3. Dial the first letter of the desired name.
   For example, dial 4 if the first letter in the name begins with G, H or I. The display
   ☞ ‖ N/A
   👁 ‖ For the example above (i.e., when you dial 4), the display shows:
   ‖ **1 = G, 2 = H, 3 = I**

4. Look at your phone's display and dial the digit for the letter/number you want to call.
   In the example above, if the name begins with G, dial 1. If the name begins with H, dial 2. If the name begins with I, dial 3.
   The first name/number that begins with your selection displays. If you see UNLISTED NAME, there is no name stored for your selection.

5. Press **VOL ▲** or **VOL ▼** to scroll through all the names/numbers that begin with the letter/number you selected.
   OR
   Skip to the next step if the displayed name/number is the one you want to call.

6. Press **DIAL** to have the system dial your call.

To exit Directory Dialing at any time.

1. Press **SPK**.

Do Not Disturb

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

> DND permits an extension user to work by the phone undisturbed by incoming calls and announcements.

Do Not Disturb (DND) blocks incoming calls, Off-Hook Signaling and Paging announcements. An extension user can activate DND anytime while on a call or while their phone is idle. Once activated, incoming trunk calls still flash the line keys. The user may use the phone in the normal manner for placing and processing calls.

Conditions
A system reset or power failure cancels DND.

Default Setting
Do Not Disturb enabled.

Programming Guide

Step-by-step guide for setting up Do Not Disturb

Step 1: Should an extension be allowed to enable Do Not Disturb?
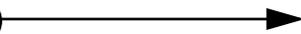
If yes
- In *Program 1802 - Do Not Disturb* (page 539), enter Y to enable Do Not Disturb.
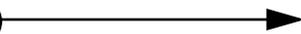
If no
- In *Program 1802 - Do Not Disturb* (page 539), enter N to disable Do Not Disturb.

Programming List

Program 1802 - Do Not Disturb (page 539)
Enter Y to enable Do Not Disturb at the extension.

Other Related Features

Attendant Position (page 46)
The attendant can have Do Not Disturb. In addition, pressing DND at the attendant actives the night mode for any trunks directly terminated to the attendant.

Background Music (page 54)
DND does not affect the operation of Background Music.

Call Forwarding (page 65)
Call Forwarding considers an extension in DND as busy. In addition, an extension can have both DND and Call Forwarding enabled at the same time.

Call Waiting / Camp-On (page 74)
An extension cannot Camp-On to a busy co-worker that is in Do Not Disturb.

Callback (page 78)
An extension cannot leave a Callback for a busy co-worker that is in Do Not Disturb.

Night Service / Night Ring (page 265)
The attendant presses DND to put the system in the night mode.

Extension Hunting (page 156)
Placing an agent in DND temporarily removes it from the UCD group.

Hotline (page 202)
An extension user can press their Hotline key twice to override their Hotline partner's DND.

Message Waiting (page 250)
An extension user can leave a Message Waiting at an extension in Do Not Disturb.

Night Service / Night Ring (page 265)
A DIL destination activates the night mode for the DIL when they press DND.

Off-Premise Extensions / On-Premise SLT Extensions (page 274)
On- and Off-Premise extensions cannot use DND.

Paging (page 281)
DND blocks Paging announcements.

Reverse Voice Over (page 313)
DND does not block Reverse Voice Over.

Transfer (page 393)
DND blocks Transfer.

Feature Operation

To activate DND at your extension:

You can activate DND anytime while idle or on a call.

1. Press **DND**.

🕮	N/A
👁	**DND** flashes fast.

To cancel Do Not Disturb:

🕮	N/A
👁	**DND** flashes fast.

1. Press **DND**.

🕮	N/A
👁	**DND** goes out.

Door Box

Description

	DS2000 Fixed Slot	Not available.
	DS2000 U Slot	Digital Door Boxes are available. Analog Door Boxes are not available. Additional relay control options added in 02.00.04.
	DS1000	Both Digital and Analog Door Boxes are available. The Expansion Board is required for the second Analog Door Box and relay.

Use a Door Box to remotely monitor an entrance door.

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.

There are two types of Door Boxes: Analog Door Box P/N 92245 and Digital Door Box P/N 80560. Both Door Boxes operate identically. There are, however, some differences:

● The Digital Door Box connects to a digital station port (300-395 in DS2000 or 300-315 in DS1000).The number of Digital Door Boxes you can install may be liminted by the System Load Factor. Turn to *DS2000 Load Factor* on page 3 and *DS1000 Load Factor* on page 9 for more.

● The Analog Door Box connects to one of the dedicated DS1000 Door Box ports (i.e., DOOR1 or DOOR2).

● The Analog Door Box is not available in DS2000.

● The Analog Door Box can be mounted outside. Refer to *Section 4, Optional Equipment* in the *Hardware Manual* on the DS1000 *System Document CD* for more.

The system uses Ring Groups to control Door Box chimes. When a visitor at the door presses the Door Box call button, the Door Box will alert (chime) all the extensions in the Ring Group to which the Door Box belongs. For example, if the Door Box and extensions 301 and 302 are in Ring Group 1, pressing the call button alerts 301 and 302.

Any keyset extension that receives Door Box chimes can control a system relay, which in turn typically enables an electric strike on an entrance door next to a Door Box. After answering the Door Box chimes, the extension user can press FLASH or a soft key to enable the associated relay. The visitor at the door can then enter without having an employee open the entrance for them. In DS2000, there is a single relay on the CPRU PCB. DS1000 has 2 relays, located in the DOOR1 and DOOR2 Analog Door Box jacks. In either system, you can assign these relays for Door Box strike control or Page Relay Control, but not both.

The equipment you connect to a system relay must be compatible with the following specifications. Refer to your system's Hardware Manual for more on connecting to the system relay contacts.

Table 6: Relay Contact Specifications	
DS1000	
Contact Configuration:	Normally open
Maximum Load:	0.5A @ 120 VAC 1A @ 24 VDC
Maximum Initial Contact Resistance	100 mOhms
D2000	
Contact Configuration:	Normally open
Maximum Load:	60 mA @ 30 VDC 10 mA @ 90 VDC
Maximum Initial Contact Resistance	50 mOhms

Conditions

● The Digital Door Box is a weather-tight unit, with an operating temperature range of 0 to 45 degrees C (32 to 113 degrees F) and a relative humidity of 10-95%, non-condensing. It is not intended for outdoor installation.

● The Analog Door Box is also a weather-tight unit, and can be mounted outside. It has an operating temperature range of -20 to 60 degrees C (-4 to 140 degrees F) and a relative humidity of 10-95%, non-condensing.

Default Setting

● No Digital Door Boxes enabled.

● In DS1000, Analog Door Boxes are automatically set up at extensions 324 (DOOR1) and 325 (DOOR 2).

Programming Guide

Step-by-step guide for setting up Door Box
(Page 1 of 3)

Step 1: At the Door Box extension, assign the Door Box circuit type (required for Digital Door Boxes only).

- In *Program 1801 - Extension Circuit Type* (page 532), enter 10 to assign the extension as a Door Box.
- In DS1000, Analog Door Boxes are automatically enabled at extensions 324 (DOOR1) and 325 (DOOR2).

Door Box

Step 2: At the Door Box extension, assign the Door Box chime pattern (i.e., how the Door Box alerts other extensions).

- In *Program 1801 - Door Chime* (page 533), assign the chime pattern to the Door Box:
  0 = Normal Ring Group ringing
  1 = Low pitch chime pattern
  2 = Mid range pitch chime pattern
  3 = High pitch chime pattern

Step 3: Set up the Door Box Ring Group. (Pressing the Door Box call button chimes all extensions in the Door Box Ring Group.)

- In *Program 0511 - Ring Group Master Extension Numbers and Names* (page 487), assign a Ring Group master number to the Ring Group assigned as the Door Box Ring Group.
- In *Program 1802 - Ring Group Number* (page 539), assign the Door Box and the extensions that should alert to the same Ring Group.

Step 4: In DS2000, after answering a Door Box call, should an extension be able to remotely release the door strike (via the CPRU relay)?

If yes

- In *Program 1801 - Relay Owner* (page 533), for the Door Box extension enter 1 to assign the CPRU PCB relay to the Door Box.
- In *Program 0201 - CPRU Relay* (page 448), enter 1 to assign the CPRU relay for Door Box control.

If no

- In *Program 1801 - Relay Owner* (page 533), enter 0 to disable the CPRU PCB relay for Door Box calls.

Step 5: In DS1000, after answering an Analog Door Box call, should an extension be able to remotely release the door strike (via the DOOR1 or DOOR2 relays)?

If yes

- In *Program 1801 - Relay Owner* (page 533), for the Analog Door Box extension, assign the DOOR1 or DOOR2 relays.
  - If programming extension 324 (DOOR1), enter 1.
  - If programming extension 325 (DOOR2), enter 2.
  This option does not apply to Digital Door Boxes in DS1000.
- In *Program 0201 - DOOR1 Relay* (page 448), enter 1 to assign the DOOR1 relay for Analog Door Box control (extension 324).
     OR
  In *Program 0201 - DOOR2 Relay* (page 448), enter 1 to assign the DOOR2 relay for Analog Door Box control (extension 324).

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┌─────────────────────────────────────────────┐
│   Step-by-step guide for setting up Door Box  │
│                (Page 3 of 3)                  │
└─────────────────────────────────────────────┘
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(**If no**) ──────────▶ • In *Program 1801 - Relay Owner* (page 533), enter 0 to disable the CPRU PCB relay for Door Box calls.

Step 6: **When an extension user activates (closes) the relay, does it stay closed for the proper interval?**

(**If yes**) ──────────▶ • In *Program 0401 - Door Unlock* (page 456), do not change the Door Unlock interval.

(**If no**) ──────────▶ • In *Program 0401 - Door Unlock* (page 456), change the Door Unlock interval to meet the site requirements. After user activation, the relay remains closed for the Door Unlock interval. After the interval expires, the relay returns to its idle (open) state.

Programming List

Program 0201 - CPRU Relay (page 448)
> DS2000 Only
> Enter 1 to assign the CPRU relay for Door Box control.

Program 0201 - DOOR1 Relay (page 448)
> DS1000 Only
> Enter 1 to assign the DOOR1 relay for Analog Door Box control (extension 324).

Program 0201 - DOOR2 Relay (page 448)
> DS1000 Only
> Enter 1 to assign the DOOR2 relay for Analog Door Box control (extension 325).

Program 0401 - Door Unlock (page 456)
> Enter the interval that the relay should remain closed after a keyset user activates (closes) the relay. After this interval, the relay automatically returns to its idle (open) state.

Program 0511 - Ring Group Master Extension Numbers and Names (page 487)
> Assign a Ring Group master number to the Ring Group assigned as the Door Box Ring Group.

Program 1801 - Extension Circuit Type (page 532)
> Enter 10 to assign the extension as a Door Box.

Program 1801 - Door Chime (page 533)
> For a Door Box extension, enter the Door Chime type (0=normal Ring Group ringing, 1=low pitch chime pattern, 2=mid range pitch chime pattern, 3=high pitch chime pattern).

Program 1801 - Relay Owner (page 533)
> DS2000 Only
> For the Door Box extension, enter 1 to assign the CPRU PCB relay to the Door Box. Enter 0 to disable the CPRU PCB relay for Door Box calls.
> DS1000 Only
> For the Analog Door Box extensions, use this option to assign the DOOR1 or DOOR2 relays.
> - When programming extension 324 (DOOR1), enter 1.
> - When programming extension 325 (DOOR2), enter 2.
> This option does not apply to Digital Door Boxes in DS1000.

Program 1802 - Ring Group Number (page 539)
> Assign the Door Box and the extensions that should alert to the same Ring Group.

Door Box

Other Related Features

Call Coverage Keys (page 61)

If you enter Door Chime type 0 (normal ring) above, you can set up Call Coverage keys for the Door Box Ring Group. This allows extensions that are not members of the Ring Group to answer Door Box calls. Extensions with Call Coverage keys to the Door Box Ring Group can also activate the relay.

Hotline (page 202)

An extension user can have Hotline keys for Door Boxes.

Message Waiting (page 250)

An extension user cannot leave a Message Waiting at a Door Box.

Off-Hook Signaling (page 270)

A Door Box can automatically send off-hook signals to the assigned extension.

Off-Premise Extensions / On-Premise SLT Extensions (page 274)

Single line telephones can only receive Door Chime type 0 (normal ring). While connected to the Door Box, an SLT can hookflash to control the system relay.

Feature Operation

To place a call from the Door Box:

1. Press the Door Box call button.

   Ringing or chimes.

   N/A.

2. When someone inside the building answers your call, speak toward the Door Box.

To place a call to the Door Box:

1. Lift handset and press **ICM**.

   Intercom dial tone.

   ICM and **SPK** on.

2. Dial the Door Box extension number.

   Two beeps, then conversation with visitor at door.

   ICM and **SPK** on.

To answer the Door Box chimes from a keyset:

   Ringing or chimes.

   N/A.

1. Lift handset or press **SPK**.

To control the relay which in turn controls the door strike:

   Once set up in programming, this option is available to any member of the Door Box Ring Group as well as any extension with a Call Coverage Key for the Door Box Ring Group.

1. Place call to Door Box.

2. To open the relay, press **FLASH** key or **OPEN** soft key.

3. To close the relay, press **FLASH** key again or **CLOSE** soft key.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

See *Toll Restriction* on page 385.

Extended Ringing

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Lets calls ring longer that usual to assist co-workers that can't readily get to their phones.

Extended Ringing forces an unanswered call to ring a telephone an extended number of times before rerouting. This helps users that cannot get to their phones quickly to pick up calls (such as a warehouse worker). Extended Ringing is available with the following features:

- Direct Inward Line
  DILs ring for an extended period before routing to the overflow destination.
- Transfer
  Transferred trunks ring for an extended period before recalling the transferring extension.

Conditions
None

Default Setting
Disabled.

Programming Guide

Step-by-step guide for setting up Extended Ringing

Step 1: Should extension have Extended Ringing capability?

If yes
- In *Program 0101 - Extended Ring* (page 441), enter Y to enable Extended Ringing.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no
- In *Program 0101 - Extended Ring* (page 441), enter N to disable Extended Ringing.

Step 2: When Extended Ringing is enabled, does the extension ring an adequate number of times before the call reroutes?

If yes
- In *Program 0403 - Number of Extended Rings* (page 467), leave the entry at its current setting.

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┌─────────────────────────────────┐
│ Step-by-step guide for setting  │
│      up Extended Ringing        │
└─────────────────────────────────┘
```

(**If no**) ────────────────▶

• In *Program 0403 - Number of Extended Rings* (page 467), enter a new Extended Ringing value that meets the site's requirements.

Programming List

Program 0101 - Extended Ring (page 441)
  In an extension's Class of Service, enter Y to enable Extended Ringing.
Program 0403 - Number of Extended Rings (page 467)
  Set the duration of the Extended Ringing.
Program 1801 - Extension Class of Service Assignment (page 533)
  Assign Class of Service to extensions.

Other Related Features

Key Ring (page 232)
  With Extended Ringing, a call rings longer at its destination before diverting to Key Ring.
Transfer (page 393)
  With Extended Ringing enabled, transferred trunks ring the destination extension for the *Number of Extended Rings* before recalling the transferring extension.

Feature Operation

None

Extension Hunting

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot DS1000	Available. UCD Hunting group members can dial a code to log in and out of their UCD group.

⚠️ Automatically route calls to co-workers that work closely together.

Extension Hunting routes calls to a predefined group of hunt group member extensions. A call rings in sequence through the hunt group until answered at a member extension. Extension Hunting is helpful, for example, for a group of co-workers that share responsibility for answering calls. Each call cycles through the group until an available member picks it up.

There are three types of Extension Hunting:
- Circular Hunting
- Terminal Hunting
- Uniform Call Distribution (UCD) Hunting

Circular Hunting

A Circular Hunting group consists of a group of extensions programmed into a Circular Hunting list. A call unanswered at a member extension rings the next extension in the programmed list. If unanswered, the call will continue to cycle through the hunt group. Depending on the hunt type (see below), Circular Hunting will occur for transferred trunk calls, DILs to a hunt group member, and ringing Intercom calls. Hunting does not occur for Key Ring and Ring Group calls.

There are four types of Circular Hunting:
- **Ring No Answer Trunk** (Option 1)
  Hunting will occur for unanswered trunk calls. Hunting will not occur for unanswered ringing Intercom calls or while the member extension is busy.
- **Busy/Ring No Answer Trunk** (Option 2)
  Hunting will occur for unanswered trunk calls and for trunk calls to the member extension while it is busy. Hunting will not occur for ringing Intercom calls.
- **Busy/Ring No Answer All Calls** (Option 3)
  Hunting will occur for unanswered trunk and ringing Intercom calls, and for trunk and ringing Intercom calls to the member extension while it is busy.
- **Busy Trunk** (Option 4)
  Hunting will occur for trunk calls to the member extension while it is busy. Hunting will not occur for unanswered trunk and ringing Intercom calls.

Circular Hunting Notes:
- If a call cycles through the entire Circular Hunting group and remains unanswered, it follows normal recall/routing programming. For example, a transferred call will recall the transferring extension and, if still unanswered, go to Key Ring.
- For type 3 hunting, an Intercom call will stop hunting when it voice-announces. Extension Hunting follows the Handsfree Answerback/Forced Intercom Ringing setup at each extension.
- Placing an extension in DND temporarily removes it from the Circular Hunting group.

Terminal Hunting

A Terminal Hunting group consists of a group of extensions programmed into a Terminal Hunting list. A call unanswered at a member extension rings the next extension in the programmed list. The call will cycle through the group once, until it reaches the last extension in the list. Unlike Circular Hunting, the call will not cycle back to the top of the hunt list. Depending on the hunt type (see below), Terminal Hunting will occur for transferred trunk calls, DILs to a hunt group member, and ringing Intercom calls. Hunting does not occur for Key Ring and Ring Group calls.

Just like Circular Hunting, there are four types of Terminal Hunting:

- **Ring No Answer Trunk** (Option 1)
  Hunting will occur for unanswered trunk calls. Hunting will not occur for unanswered ringing Intercom calls or while the member extension is busy.

- **Busy/Ring No Answer Trunk** (Option 2)
  Hunting will occur for unanswered trunk calls and for trunk calls to the member extension while it is busy. Hunting will not occur for ringing Intercom calls.

- **Busy/Ring No Answer All Calls** (Option 3)
  Hunting will occur for unanswered trunk and ringing Intercom calls, and for trunk and ringing Intercom calls to the member extension while it is busy.

- **Busy Trunk** (Option 4)
  Hunting will occur for trunk calls to the member extension while it is busy. Hunting will not occur for unanswered trunk and ringing Intercom calls.

Terminal Hunting Notes:

- If a call cycles through the entire Terminal Hunting group and remains unanswered, it follows normal recall/routing programming. For example, a transferred call will recall the transferring extension and, if still unanswered, go to Key Ring.

- Placing an extension in DND temporarily removes it from the Terminal Hunting group.

- For type 3 hunting, an Intercom call will stop hunting when it voice-announces. Extension Hunting follows the Handsfree Answerback/Forced Intercom Ringing setup at each extension.

Uniform Call Distribution (UCD) Hunting

Like Circular and Terminal Hunting, a UCD Hunting group also consists of a group of extensions programmed into a hunt list. The system routes calls into a UCD group according to the frequency of use of the member extensions. The first extension rung is the member that has been idle the longest. The last extension rung is the member that has been idle the shortest.

Each member of the group is additionally associated with a UCD Master Extension Number. To active UCD hunting, an incoming call must route to the UCD master number. This is done by placing an Intercom call to the master number, transferring a call to the master number or setting up a DIL to the master number. When all members of the UCD Hunting group are busy, the call can route to the programmed UCD Overflow destination.

UCD Hunting Notes:

- Unanswered transferred calls and DILs continue to cycle through the UCD group as long as an agent is available.

- Placing an extension in Do Not Disturb temporarily removes it from the UCD group.

- Intercom calls to the UCD master number always ring the agent extensions.

- If a UCD Group is set to overflow to Voice Mail, overflow will divert to the Voice Mail Automated Attendant.

Conditions

None

Extension Hunting

Default Setting

Hunting not set up.

Programming Guide

Step-by-step guide for setting up Circular Hunting

Step 1: Assign the hunt type to each extension in the Circular Hunting group.

- In *Program 1807 - Hunt Type* (page 554), enter the hunt type for each extension in the hunt group:
  1 = Ring No Answer Trunk
  2 = Busy/Ring No Answer Trunk
  3 = Busy/Ring No Answer All Calls
  4 = Busy Trunk

Step 2:   Set up the hunt destination routing.

- In *Program 1807 - Hunt Destination* (page 554), set up the circular hunt routing. Each extension should route to the next in the group. In addition, the last extension should route back to the first.

Step 3:   Do calls ring each hunt group member for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes
- In *Program 0401 - Transfer Recall* (page 455), leave the entry at its current setting.

If no
- In *Program 0401 - Transfer Recall* (page 455), change the Transfer Recall interval to meet the site requirements. (This setting also determines how long a trunk call waits at a busy member extension before routing.)

Step 4:   Does a DIL to a hunt group member ring for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes
- In *Program 0401 - DIL No Answer* (page 456), leave the entry at its current setting.

If no
- In *Program 0401 - DIL No Answer* (page 456), change the DIL No Answer interval to meet the site requirements.

> **Step-by-step guide for setting up Terminal Hunting** (Page 1 of 2)

Step 1: Assign the hunt type to each extension (except for the last) in the Terminal Hunting group.

- In *Program 1807 - Hunt Type* (page 554), enter the hunt type for each extension in the hunt group:
  1 = Ring No Answer Trunk
  2 = Busy/Ring No Answer Trunk
  3 = Busy/Ring No Answer All Calls
  4 = Busy Trunk

Step 2: Make sure the last extension in the Terminal Hunting group has hunting undefined.

- In *Program 1807 - Hunt Type* (page 554), press CLEAR for the last extension in the Terminal Hunting group.

Step 3: Set up the hunt destination routing (except for the last extension in the group).

- In *Program 1807 - Hunt Destination* (page 554), set up the terminal hunt routing. Each extension should route to the next in the group (except for the last — see below).

Step 4: Make sure the last extension in the Terminal Hunting group has no hunt destination.

- In *Program 1807 - Hunt Destination* (page 554), press CLEAR for the last extension in Terminal Hunting group.

Step 5: Do calls ring each hunt group member for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes
- In *Program 0401 - Transfer Recall* (page 455), leave the entry at its current setting.
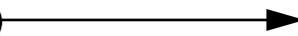
If no
- In *Program 0401 - Transfer Recall* (page 455), change the Transfer Recall interval to meet the site requirements. (This setting also determines how long a trunk call waits at a busy member extension before routing.)

Extension Hunting

Step 6: **Does a DIL to a hunt group member ring for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?**

If yes ──────────▶
- In *Program 0401 - DIL No Answer* (page 456), leave the entry at its current setting.

If no ──────────▶
- In *Program 0401 - DIL No Answer* (page 456), change the DIL No Answer interval to meet the site requirements.

Step 7: **Do you want to set up an extension to overflow to Voice Mail when unanswered, busy or in DND?**

If yes ──────────▶
- In *Program 1807 - Hunt Type* (page 554), enter 3.
- In *Program 1807 - Hunt Destination* (page 554), enter the Voice Mail master number.

If no ──────────▶
- Stop.

Step-by-step guide for setting up UCD Hunting (Page 1 of 2)

Step 1: Set up the UCD Hunting group master number.

- In *Program 0510 - Hunt Group Master Number* (page 485), assign the UCD Hunting group master number.
- UCD Hunting group master numbers can be 100-299, 332-400, or 417-899. They cannot be in the extension (300-395 in DS2000 or 300-325 in DS1000) or trunk (401-448 in DS2000 or 401-406 in DS1000) number range. By default, the system uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.

Step 2: When all extensions in the UCD group are busy, should calls to the UCD group overflow to an alternate destination?

- In *Program 0510 - Overflow Destination* (page 485), enter the UCD overflow destination. The destination can be an extension, Ring Group master number or another UCD Hunting group master number.

Step 3: Assign hunt type 05 to each member of the UCD group.

- In *Program 1807 - Hunt Type* (page 554), make sure each extension in the UCD group has hunt type 05.

Step 4: Make sure each extension in the hunt group has the same master number assignment.

- In *Program 1807 - Hunt Master Number* (page 554), make sure each extension in the same UCD group has the same master number. Refer to **Program 0510 - Hunt Group Master Number** (page 485) when setting up master numbers.

Step 5: When all UCD group members are busy, do calls queue for the correct interval (i.e., neither too long nor too short) before routing to the overflow destination?

If yes
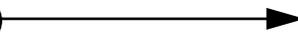
- In *Program 0401 - ACD/UCD Overflow* (page 457), leave the entry at its current setting.

If no

- In *Program 0401 - ACD/UCD Overflow* (page 457), change the ACD/UCD Overflow interval to meet the site requirements.

Extension Hunting

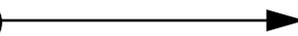**Step-by-step guide for setting up UCD Hunting** (Page 2 of 2)

Step 6: Do calls ring each idle hunt group member for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes ➤
- In *Program 0403 - Call Forward Ring No Answer* (page 466), leave the entry at its current setting.

If no ➤
- In *Program 0403 - Call Forward Ring No Answer* (page 466), change the Call Forward Ring No Answer interval to meet the site requirements.

Step 7: Does a DIL to the UCD master ring an idle group member for the correct interval (i.e., neither too long nor too short) before routing to the next extension in the group?

If yes ➤
- In *Program 0401 - DIL No Answer* (page 456), leave the entry at its current setting.

If no ➤
- In *Program 0401 - DIL No Answer* (page 456), change the DIL No Answer interval to meet the site requirements.

Extension Hunting Timers

The following diagrams show how the system implements various timers when handling Extension Hunting calls.

Transfer to Hunt Group
Busy/Ring No Answer All Calls (Type 3)
Circular and Terminal Hunting

Call transferred into hunt group.

0401 - Transfer Recall

Call rings first member for Transfer Recall time.

0403 - Call Fwd Ring No Answer

In unanswered, call rings the next and succeeding members for the Call Forward Ring No Answer time.

300

In unanswered, call rings extension 300.

0403 - Call Fwd Ring No Answer

In unanswered at extension 300 for the Call Forward Ring No Answer time, the call diverts to Key Ring.

Key Ring
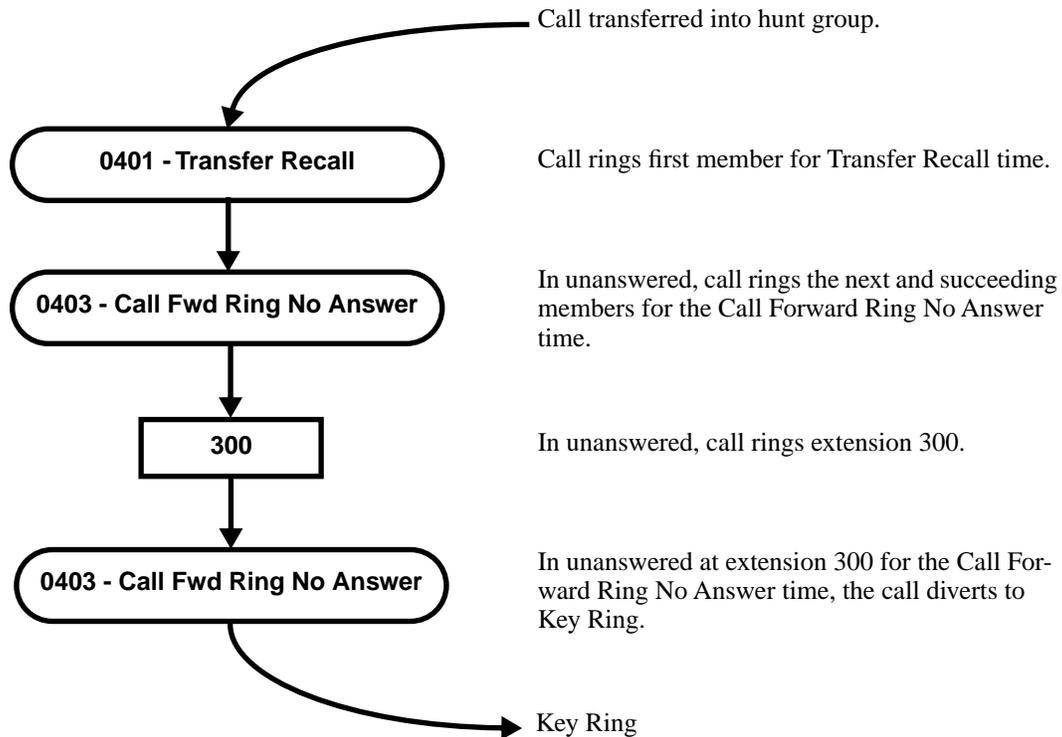
Extension Hunting

Transfer to Hunt Group
Busy/Ring No Answer All Calls (Type 3) Circular and Terminal Hunting
Routing to Busy UCD Group with Overflow

Call transferred to extension A, which is the single member of a type 3 hunt group that is set up to hunt to extension B.

0401 - Transfer Recall

Call rings extension A for the Transfer Recall time.

Extension B

In unanswered at extension A, the call hunts to extension B which is the single member to a type 5 UCD group that is set up to overflow to extension C.

0403 - Call Fwd Ring No Answer

The call now rings extension B for the Call Forward Ring No Answer time.

Busy UCD Master

In unanswered at extension B, the call camps-on to the busy UCD master extension number.

0401 - ACD/UCD Overflow

The call camps-on to the UCD group for the ACD/UCD Overflow interval, waiting for a member to become free. (Note that the Call Coverage Delay timer also starts now. See *Call Coverage Keys* on page 61 for more.)

UCD Overflow

If a UCD group member does not become free, the call diverts to the programmed overflow destination.

0403 - Call Fwd Ring No Answer

The call the rings the overflow destination for the Call Forward Ring No Answer time.

If still unanswered, the call diverts to Key Ring

DIL (no overflow) to Hunt Group
Busy/Ring No Answer All Calls (Type 3)
Circular and Terminal Hunting

DIL (with no overflow) directly rings hunt group member.

0401 - DIL No Answer

DIL rings programmed DIL destination for the DIL No Answer time.

0401 - DIL No Answer

In unanswered, call rings the next and succeeding members for the DIL No Answer time.

If still unanswered, call diverts to Key Ring

DIL (with overflow) to Hunt Group
Busy/Ring No Answer All Calls (Type 3)
Circular and Terminal Hunting

DIL (with overflow) directly rings hunt group member.

0401 - DIL No Answer

DIL rings programmed DIL destination for the DIL No Answer time.

0401 - DIL No Answer

In unanswered, call rings the next and succeeding members for the DIL No Answer time.

0401 - DIL No Answer

If unanswered at the last extension, the DIL rings the programmed overflow destination for the DIL No Answer time.

If still unanswered, call diverts to Key Ring

Extension Hunting

Trunk Call on Hold at Hunt Group Member
Busy/Ring No Answer All Calls (Type 3)
Circular and Terminal Hunting

Hunt group member puts trunk call on Hold.

0403 - Hold Recall

If not picked up, trunk call recalls the extension
that put it on Hold after the Hold Recall time.

0401 - Trunk Revert

The call then rings the extension that put it on
Hold for the Trunk Revert time.

If still unanswered, call diverts to Key Ring

Programming List

Circular Hunting

Program 0401 - Transfer Recall (page 455)
> Set how long a trunk call waits at a busy member extension. This interval also sets how long a
> call rings each member extension as it cycles through the group.

Program 0401 - DIL No Answer (page 456)
> Set how long a DIL rings its destination member extension before cycling through the group.

Program 0403 - Call Forward Ring No Answer (page 466)
> Set how long a call rings an idle UCD Hunting group member before cycling to the next
> extension in the group.

Program 1807 - Hunt Type (page 554)
> Enter the same hunt type for all extensions in the Circular Hunting group. The available hunt
> types are: 1 (Ring No Answer Trunk), 2 (Busy/Ring No Answer Trunk), 3 (Busy/Ring No
> Answer All Calls), and 4 (Busy Trunk)

Program 1807 - Hunt Destination (page 554)
> For each extension, enter the next extension in the hunt group. Be sure the last extension
> points back to the first extension.

Refer to the table below for a Circular Hunting programming example.

Circular Hunting Programming (for 301, 303 and 304)	
1807: Hunt Type	Enter the same Hunt Type for all three extensions: 1 = Ring No Answer Trunk 2 = Busy/Ring No Answer Trunk 3 = Busy/Ring No Answer All Calls 4 = Busy Trunk
1807: Hunt Destination	
301	303
303	304

Circular Hunting Programming (for 301, 303 and 304)	
304	301 (This causes hunting to loop back to 301)
0401: Transfer Recall Time	This timer sets how long a trunk call waits at a busy member extension. It also sets how long a call rings each member extension as it cycles through the group.
0401: DIL No Answer Time	This timer sets how long a DIL rings its destination member extension before cycling through the group.

Terminal Hunting

Program 0401 - Transfer Recall (page 455)
> Set how long a trunk call waits at a busy member extension. This interval also sets how long a call rings each member extension as it cycles through the group.

Program 0401 - DIL No Answer (page 456)
> Set how long a DIL rings its destination member extension before cycling through the group.

Program 1807 - Hunt Type (page 554)
> Enter the same hunt type for all extensions in the Terminal Hunting group, ***except for the last extension***. The last extension should have hunting undefined (by pressing CLEAR). The available hunt types are: 1 (Ring No Answer Trunk), 2 (Busy/Ring No Answer Trunk), 3 (Busy/Ring No Answer All Calls), and 4 (Busy Trunk)

Program 1807 - Hunt Destination (page 554)
> For each extension ***except for the last extension***, enter the next extension in the hunt group. Be sure the destination for the last extension is undefined (by pressing CLEAR).

Refer to the table below for a Terminal Hunting programming example.

Terminal Hunting Programming (for 301 and 303)	
1807: Hunt Type	Enter the same Hunt Type for all three extensions: 1 = Ring No Answer Trunk 2 = Busy/Ring No Answer Trunk 3 = Busy/Ring No Answer All Calls 4 = Busy Trunk (Make sure hunting is not defined at 304.)
1807: Hunt Destination	
301	303
303	304
304	Press CLEAR to undefine entry. (Hunting stops at 304.)
0401: Transfer Recall Time	This timer sets how long a trunk call waits at a busy member extension. It also sets how long a call rings each member extension as it cycles through the group.
0401: DIL No Answer Time	This timer sets how long a DIL rings its destination member extension before cycling through the group.

UCD Hunting

Program 0401 - ACD/UCD Overflow (page 457)
> This timer sets when UCD overflow occurs. When all UCD agents are busy, a queued call rings for this interval and then overflows to the destination set in **Program 0510 - Overflow Destination** (page 485).

Extension Hunting

> **Program 0510 - Hunt Group Master Number** (page 485)
>> Define the master extension number for the UCD hunt group. UCD Hunting group master numbers can be 100-299, 332-400, or 417-899. They cannot be in the extension (300-395 in DS2000 or 300-325 in DS1000) or trunk (401-448 in DS2000 or 401-406 in DS1000) number range. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.
>
> **Program 0510 - Overflow Destination** (page 485)
>> Define the overflow destination for the UCD hunt group. When all UCD group members are busy, calls the to master number ring the overflow destination instead.
>
> **Program 1807 - Hunt Type** (page 554)
>> Enter hunt type 05 for all extensions in the UCD Hunting group.
>
> **Program 1807 - Hunt Destination** (page 554)
>> For each extension in the UCD Hunting group, enter the master number defined in **Program 0510 - Hunt Group Master Number** (page 485).

Refer to the table below for a UCD Hunting programming example.

UCD Hunting Programming (for 301, 303 and 304 with master 750)	
0510: Hunt Group Master Number	Select UCD Group 2 and assign master number 750.
0510: UCD Overflow Destination	Enter 305
1807: Hunt Type	Enter the Hunt Type 5 for all three extensions.
1807: Hunt Master Number	Enter 750 for all three extensions.
0401: UCD Overflow Timer	This timer sets when UCD overflow occurs. When all UCD agents are busy, a queued call rings for this interval and then overflows to the destination set in **Program 0510 - Overflow Destination** (page 485).

Other Related Features

Call Coverage Keys (page 61)
> A keyset can have Call Coverage keys for UCD Group master numbers.

Call Forwarding (page 65)
> If a member of a Circular or Terminal Hunting group forwards their calls, hunting will follow Call Forwarding. If a member of a UCD Hunting group forwards their calls, calls to the extension follow forwarding but calls to the UCD master number do not.

Direct Inward Line (page 118)
> DILs to a Circular or Terminal Hunting group member initiate hunting. In addition, DILs to a UCD master number ring the UCD group directly.

Directory Dialing (page 143)
> Intercom Directory Dialing will show UCD Group names.

Do Not Disturb (page 146)
> Placing an agent in DND temporarily removes it from the UCD group.

Flexible Numbering Plan (page 172)
> UCD Hunting group master numbers can be 100-299, 332-400, or 417-899. They cannot be in the extension (300-395 in DS2000 or 300-325 in DS1000) or trunk (401-448 in DS2000 or 401-406 in DS1000) number range. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.

Group Ring (page 183)
> Group Ring calls do not activate hunting.

Intercom (page 227)
> Voice-announced Intercom calls do not initiate hunting.

Transfer (page 393)

> Trunk calls transferred to a Terminal or Circular Hunting group member activate hunting. In addition, trunk calls transferred to a UCD group master number activate hunting.

Voice Mail (page 414)

- To set up extension overflow to Voice Mail:
  - In *Program 1807 - Hunt Type* on page 554, enter Hunt Type 3.
  - In *Program 1807 - Hunt Destination* on page 554, designate the Voice Mail master number as the Hunt Destination.

  Unanswered calls, in addition to calls to the extension while it is busy or in DND, route the the extension's mailbox.

- For Terminal and Circular Hunting, unsupervised transfers (UTRF) from the Voice Mail Automated Attendant route like trunk calls. Supervised transfers (TRF) from the Voice Mail Automated Attendant route like Intercom calls. In either case, unanswered calls eventually route the initially called extension's mailbox.

Feature Operation

To send a call to a Terminal or Circular Hunting group:

> *The options available depend on the type of hunting set up.*

- Transfer a trunk call to a hunt group member.
- Set up a DIL to a hunt group member.
- Place a ringing Intercom call to a hunt group member.
- Set up a hunt group member as a trunk's overflow destination.

To send a call to a UCD Hunting group:

- Transfer a call to the UCD master number.
- Set up a DIL to the UCD master number.
- Place an Intercom call to the UCD master number.
- Set up the UCD master number as a trunk's overflow destination.

To temporarily remove/reinstall your extension from your UCD group:

1. Press **ICM** and dial ***5**.

   | Intercom dial tone stops.
   | **ICM** and **SPK** on.

2. Dial **4** to return your extension to your UCD group.

   OR

   Dial **6** to remove your extension from your UCD group.

3. Press **SPK** to hang up when you are done.

Flash

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

⚠️ Extension users can access certain CO and PBX features by interrupting trunk loop current.

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.

Conditions
None

Default Setting
Enabled

Programming Guide

Step-by-step guide for setting up Flash

Step 1: When an extension flashes a trunk, does the telco/PBX return new dial tone on the same trunk without dropping the line?

If yes ⟶
- In *Program 0402 - PBX/Centrex Flash* (page 460), do not change the setting of the Flash Response timer.

If no ⟶
- In *Program 0402 - PBX/Centrex Flash* (page 460), change the setting of the Flash Response timer for compatiblity with the connected telco/PBX.

Programming List

Program 0402 - PBX/Centrex Flash (page 460)
Set the Flash interval. When a user flashes a trunk, the system opens the trunk circuit for this interval. Be sure to set this interval for compatibility with the connected telco or PBX/Centrex.

Other Related Features

Call Timer (page 71)
Flash restarts the Call Timer.
PBX/Centrex Compatibility (page 291)
Flash allows an extension user to access certain telco or PBX features.
Toll Restriction (page 385)
The system enforces normal Toll Restriction after the Flash.

Feature Operation

To Flash the trunk you are on:

1. Press FLASH

    A brief interruption, followed by new CO/PBX dial tone.

    Line/loop key on (green).

2. Dial the code for the desired CO/PBX feature.

Flexible Numbering Plan

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Change the digits users dial for co-workers and other features.

The system's Flexible Numbering Plan allows you to change the digits users dial to reach the attendant, other co-worker's and trunks. The following chart shows the areas of the system number plan you can change.

For this feature:	You can change the digits a user dials to:	These digits are normally:
Attendant Position	Reach the system operator(s)	0 or 01-04
Intercom	Call a co-worker over the Intercom	300-395 in DS2000 300-325 in DS1000
Direct Trunk Access	Directly access a trunk	401-448 in DS2000 401-406 in DS1000
Central Office Calls, Placing	Access a Trunk Group	90-98

Conditions
None

Default Setting
See the table above.

Programming Guide

Step-by-step guide for setting up Flexible Numbering Plan (Page 1 of 3)

Step 1: Do you want to change the digits users dial to reach the system operator(s)?

If yes ⟶
- In *Program 0501 - Numbering Plan* (page 472), change the options for digit 0 and the new operator access digit. Review your new choice to be sure it does not affect other system operations.

If no ⟶
- In *Program 0501 - Numbering Plan* (page 472), leave the options for digit 0 at their default setting.

Step 2: Do you want to change the digits users dial to reach coworkers over the Intercom?

If yes

- In *Program 0501 - Numbering Plan* (page 472), change the options for digit 3 and the new Intercom access digit. Review your new choice to be sure it does not affect other system operations.
- In *Program 0505 - Station Port Extension Numbers (Fixed Slot)* (page 480), assign new extension numbers to station ports.
  OR
  In *Program 0505 - Extension Assignment (U Slot and DS1000)* (page 482), assign new extension numbers to station ports.

If no

- In *Program 0501 - Numbering Plan* (page 472), leave the options for digit 3 at their default setting.

Step 3: Do you want to change the digits users dial to directly access a trunk?

If yes

- In *Program 0501 - Numbering Plan* (page 472), change the options for digit 4 and the new trunk access digit. Review your new choice to be sure it does not affect other system operations.
- In *Program 0504 - Trunk Port Extension Numbers (Fixed Slot)* (page 476), assign new extension numbers to trunk ports.
  OR
  In *Program 0505 - Extension Assignment (U Slot and DS1000)* (page 482), assign new extension numbers to trunk ports

If no

- In *Program 0501 - Numbering Plan* (page 472), leave the options for digit 4 at their default setting.

Step 4: Do you want to change the digits users dial to access a Trunk Group?

If yes

- In *Program 0501 - Numbering Plan* (page 472), change the options for digit 9 and the new Trunk Group access digit. Review your new choice to be sure it does not affect other system operations.

If no

- In *Program 0501 - Numbering Plan* (page 472), leave the options for digit 9 at their default setting.

Flexible Numbering Plan

Step 5: **With U Slot software, do you want to view the current slot and port (circuit) assignment for an extension or trunk?**

If yes ⟶

- In *Program 0504 - View Extension (U Slot and DS1000)* (page 478), select an extension or trunk for which you want to view the slot and port (circuit) assignment.

If no ⟶

- No action.

Programming List

Program 0501 - Numbering Plan (page 472)
Customize the system's number plan by changing the digits users dial to reach an operator, co-workers (i.e., Intercom), Direct Trunk Access and Trunk Group Access.
Program 0504 - Trunk Port Extension Numbers (Fixed Slot) (page 476)
Enter the extension number associated with each trunk port.
Program 0504 - View Extension (U Slot and DS1000) (page 478)
Select an extension or trunk for which you want to view the slot and port (circuit) assignment.
Program 0505 - Station Port Extension Numbers (Fixed Slot) (page 480)
Enter the extension number associated with each station port.
Program 0505 - Extension Assignment (U Slot and DS1000) (page 482)
Enter the extension or trunk number associated with each port (circuit).

Other Related Features

Attendant Position (page 46)
Change the digits users dial to reach the system operators (normally 0 or 01-04).
Central Office Calls, Placing (page 93)
Change the digits users dial to access a Trunk Group for an outside call (normally 90-98).
Direct Trunk Access (page 139)
Change the digits users dial to directly access a trunk (normally 401-448 in DS2000 or 401-406 in DS1000).
Extension Hunting (page 156)
UCD Hunting group master numbers can be 100-299, 332-400, or 417-899. They cannot be in the extension (300-395 in DS2000 or 300-325 in DS1000) or trunk (401-448 in DS2000 or 401-406 in DS1000) number range. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.
Intercom (page 227)
Change the digits users dial to reach co-worker's over the Intercom (normally 300-395 in DS2000 or 300-325 in DS1000).

Feature Operation

None

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Disconnect a co-worker's outside call in an emergency.

Forced Trunk Disconnect allows an extension user to disconnect (release) another extension's active trunk call. 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 trunk. Only use this feature in an emergency and when no other trunks are available.

Conditions
None

Default Setting
Enabled for attendants (COS 1). Disabled for all other extensions (COS 2-15).

Programming Guide

> **Step-by-step guide for setting up Forced Trunk Disconnect** (Page 1 of 2)

Step 1: Do you want to be able to disconnect another extension's active trunk call?

If yes →

- In *Program 0101 - Forced Trunk Disconnect* (page 441), enter Y to enable Forced Trunk Disconnect for the extension.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extension.
- *Program 1803 - Extension Line Access Assignments* (page 546), make sure the extension has outgoing (option 2) or full (option 3) access to the trunks it should be able to disconnect.

Forced Trunk Disconnect

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┌─────────────────────────────────────┐
│ Step-by-step guide for setting up Forced │
│   Trunk Disconnect (Page 2 of 2)     │
└─────────────────────────────────────┘
```

(**If no**) ⟶

- In *Program 0101 - Forced Trunk Disconnect* (page 441), enter N to disable Forced Trunk Disconnect for the extension.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extension.

Programming List

Program 0101 - Forced Trunk Disconnect (page 441)
In an extension's Class of Service, enter Y to enable the ability to use Forced Trunk Disconnect.

Program 1801 - Extension Class of Service Assignment (page 533)
Assign Class of Service to extensions.

Program 1803 - Extension Line Access Assignments (page 546)
An extension can only use Forced Trunk Disconnect on a trunk to which it has outgoing (option 2) or full (option 3) access.

Other Related Features

Attendant Position (page 46)
System attendants normally have Forced Trunk Disconnect capability.

Barge In (Intrusion) (page 57)
As an alternative to disconnecting the trunk, Barge In instead.

Direct Trunk Access (page 139)
An extension user with Direct Trunk Access can dial a code for the busy trunk before using Forced Trunk Disconnect.

Tandem Trunking / Unsupervised Conference (page 379)
An extension user can end an Unsupervised Conference by using Forced Trunk Disconnect on one of the trunks in the tandem call.

Feature Operation

To disconnect a busy trunk:

1. Press line key for busy trunk.
   OR
   Press **ICM** and dial the trunk's Direct Trunk Access code (e.g., 401 for trunk 1).

   🔊 ‖ Busy tone.
   👁 ‖ Line/loop key on (red).
   Refer to Direct Trunk Access for the specifics.

2. Dial # to disconnect the line.
   The line key goes out and you hear Intercom dial tone. To place a call on the trunk, press the line key and dial the number.

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	Available. User Programmable Feature steps added.
DS1000	Available.

Easily answer a call ringing your Pickup Group, even if you don't know which extension is ringing.

Group Call Pickup allows an extension user to answer a call ringing an extension in their assigned Pickup Group.This permits co-workers in the same Pickup Group to easily answer each other's ringing calls. The user can intercept the ringing call by dialing a code or pressing a programmed Group Call Pickup key. The system has a maximum of eight Pickup Groups, with an unlimited number of extensions in each group. However, an extension can be a member of only one pickup group.

Group Call Pickup can answer the following types of calls:
- Ringing Intercom calls
- Transfered calls
- Direct Inward Lines
- Calls on trunks assigned to the Pickup Group

To simplify picking up calls, an extension can have Programmable Function Keys assigned as Group Call Pickup keys. There are three types of Group Call Pickup keys: immediate ring, no ring (lamp only) or delayed ring.

Conditions
None

Default Setting
No Pickup Groups assigned.

Programming Guide

> **Step-by-step guide for setting up Group Call Pickup** (Page 1 of 2)

Step 1: Should extension be part of a Pickup Group?

If yes →
- In *Program 1802 - Call Pickup Group Number* (page 539), enter the number (1-8) of the Pickup Group to which the extension should belong.

If no →
- In *Program 1802 - Call Pickup Group Number* (page 539), assign the extension to Pickup Group 0.

Group Call Pickup

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┌─────────────────────────────────────┐
│  Step-by-step guide for setting up Group Call │
│        Pickup (Page 2 of 2)                  │
└─────────────────────────────────────┘
```

Step 2: Should an incoming call on a trunk ring all extensions in a Pickup Group?

If yes
- In *Program 1003 - Call Pickup Group* (page 509), assign the trunk to a Pickup Group (1-8).
- In *Program 1803 - Extension Line Access Assignments* (page 546), make sure extensions in the Pickup Group have incoming (option 1) or full (option 3) access to the trunk.
- In *Program 1805 - Ring Assignments* (page 551), make sure to enable ringing for all extensions in the Pickup Group that should ring for the trunk.

If no
- In *Program 1003 - Call Pickup Group* (page 509), assign the trunk to Pickup Group 0.

Step 3: Should extension have one-touch Group Call Pickup?

If yes
- In *Program 1701 - Group Pickup Immediate Ring* (page 519), use code 09 to assign a key as an immediate ring Group Call Pickup key.
                    OR
- In *Program 1701 - Group Pickup No Ring* (page 519), use code 10 to assign a key as a no ring (lamp only) Group Call Pickup key.
                    OR
- In *Program 1701 - Group Pickup Delay Ring* (page 519), use code 11 to assign a key as a delayed ring Group Call Pickup key.

If no
- In *Program 1701 - Programmable Function Key Assignments* (page 517), do not assign a key as a Group Pickup key (codes 09, 10 or 11).

Step 4: Should DSS Console have one-touch Group Call Pickup?

If yes
- In *Program 1704 - Group Pickup Immediate Ring* (page 529), use code 09 to assign a key as an immediate ring Group Call Pickup key.
                    OR
- In *Program 1704 - Group Pickup No Ring* (page 529), use code 10 to assign a key as a no ring (lamp only) Group Call Pickup key.
                    OR
- In *Program 1704 - Group Pickup Delay Ring* (page 529), use code 11 to assign a key as a delayed ring Group Call Pickup key.

If no
- In *Program 1704 - DSS Console Key Assignment* (page 526), do not assign a key as a Group Pickup key (codes 09, 10 or 11).

Programming List

Program 1003 - Call Pickup Group (page 509)
Have an incoming call on the trunk ring all the extensions in the assigned pickup group.
Program 1701 - Programmable Function Key Assignments (page 517)
Assign a programmable key on an extension as a Group Call Pickup key (09 = Immediate Ring, 10 = No Ring, 11 = Delayed Ring). The options are 1-8 (Pickup Groups 1-8) or 0 (unassigned).
Program 1704 - DSS Console Key Assignment (page 526)
Assign a programmable key on an extension as a Group Call Pickup key (09 = Immediate Ring, 10 = No Ring, 11 = Delayed Ring). The options are 1-8 (Pickup Groups 1-8) or 0 (unassigned).
Program 1802 - Call Pickup Group Number (page 539)
Assign the Call Pickup Group (1-8, 0 = undefined) for each extension.
Program 1803 - Extension Line Access Assignments (page 546)
For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access).
Program 1805 - Ring Assignments (page 551)
Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Other Related Features

Direct Inward Line (page 118)
DILs to an extension activate Group Call Pickup if the extension ringing is a member of a Pickup Group.
Direct Station Selection (DSS) Console (page 128)
DSS Consoles can have Group Call Pickup keys.
Directed Call Pickup (page 141)
Directed Call Pickup is another way to pick up calls ringing an extension.
Intercom (page 227)
Ringing Intercom calls activate Group Call Pickup if the extension ringing is a member of a Pickup Group.
Transfer (page 393)
A trunk call transferred to an extension in a Pickup Group activates Group Call Pickup.

Group Call Pickup

Feature Operation

	User Programmable Feature			
Feature	**Mnemonic**	**Operation**		**Access Level**
The shaded row below shows the Fixed Slot software User Programmable Feature..				
Group Call Pickup	**#RG**	#RG + press Group Call Pickup key repeatedly to select ringing mode.		N/A
Group Call Pickup	**#RA**	**#RAP** + Group Call Pickup Key repeatedly to select ringing mode + **SPK** to exit. Group Call Pickup Keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green.		1-5

To answer a call ringing a phone in your Pickup Group:

Trunk ringing.

(Optional) Group Pickup flashing (red).

1. Lift handset.

2. Press flashing Group Pickup key.

Conversation with caller.

N/A.

OR

Dial * #.

Conversation with caller.

N/A.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use Group Listen to talk to an important client or customer and have your co-workers listen in on the meeting.

Group Listen permits a keyset user to talk on the handset and have their caller's voice broadcast over the telephone 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 hear the co-worker's voices during a Group Listen.

Conditions

None

Default Setting

Enabled

Programming List

> **Step-by-step guide for setting up Group Listen**

Step 1: Should extension be able to use Group Listen?

If yes

- Extensions in the Headset mode cannot use Group Listen. In *Program 1807 - Headset* (page 553), enter N to disable the Headset mode.

If no

- N/A

Programming List

Program 1807 - Headset (page 553)
   Extensions in the Headset mode cannot use Group Listen. If you need Group Listen, be sure to enter N to disable the Headset mode.

Other Related Features

Single Line Telephones (page 330)
   Group Listen is not available to single line telephones.

Group Listen

Feature Operation

To initiate Group Listen:

1. Place or answer call using the handset.

2. Press **SPK** twice (but do not hang up).

    | ☝ | Use handset to speak to caller. Caller's voice will broadcast over the telephone speaker. |
    | 👁 | **SPK** flashes slowly (red). |

    You can talk to the caller through your handset. You and your co-workers hear your caller's voice over your phone's speaker.
    Your handsfree microphone and handset receiver are off.

To talk handsfree after initiating Group Listen:

1. Press **SPK** twice.

    | ☝ | N/A. |
    | 👁 | **SPK** on. |

2. Hang up.

    | ☝ | Handsfree conversation with caller. |
    | 👁 | **SPK** on. |

To cancel Group Listen and return to your handset:

1. Do not hang up.

2. Press flashing **SPK**.

    | ☝ | Handset conversation with caller. |
    | 👁 | **SPK** off. |

    You can talk to your caller over your handset. Your co-workers can no longer hear your caller's voice.

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	Available.
DS1000	• Post-answer Caller ID display for Ring Group calls requires DS2000 02.00.04 or DS1000.

Use Group Ring to call a group of co-worker's simultaneously.

Group Ring allows you to arrange extensions into Ring Groups for answering calls. When a call comes into the Ring Group master number, all extensions in the group ring simultaneously. Any user in the Ring Group can answer the call just by lifting the handset. The ringing call can be:

● A Direct Inward Line to the Ring Group (i.e., terminated to the Ring Group master number)

● An trunk call transferred to the Ring Group master number

● An intercom call to the Ring Group master number

The system provides up to 8 Ring Groups (1-8). The Ring Group master number can be any valid extension number not already in use.

Overflow for Group Ring Calls

If unanswered, DILs to a Ring Group can route to a programmed overflow destination. The overflow destination can be an extension, another Ring Group, UCD Group or Voice Mail. You can set up separate DIL overflow destinations for the day mode and at night. If unanswered at the overflow destination, the call diverts to Key Ring. Note that a Ring Group DIL goes into the night mode when any extension with night mode capability presses their Night key. See *Night Service / Night Ring* on page 265 for more.

If the Ring Group DIL does not have overflow programmed, the call will divert to Key Ring after the Trunk Revert interval.

Conditions

● Do not program any of the 1800 series options for Ring Group master extension numbers. The options you assign in *1800 - Extension Options* do not apply to Ring Group master extension numbers.

● System operators will not ring for Ring Group calls. Do not include the operator in a Ring Group.

Default Setting

No Ring Groups assigned.

Group Ring

Programming Guide

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│  Step-by-step guide for setting up Group Ring │
│                (Page 1 of 3)              │
└─────────────────────────────────────────┘
```

Step 1: Should extensions be in a Ring Groups?

If yes →

- In *Program 0511 - Ring Group Master Extension Numbers and Names* (page 487), assign names and extension numbers to Ring Groups (1-8).

  Ring Group master numbers can be from 100-899. However, they cannot be in the extension (300-395 in DS2000 or 300-325 in DS1000) or trunk (401-448 in DS2000 or 401-406 in DS1000) number range. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.

- *Program 1802 - Ring Group Number* (page 539), assign extensions to Ring Groups.

If no →

- In *Program 0511 - Ring Group Master Extension Numbers and Names* (page 487), do not assign names and extension numbers to Ring Groups.
- *Program 1802 - Ring Group Number* (page 539), do not assign extensions to Ring Groups.

Step 2:   Check to be sure each trunk's circuit type matches the connected trunk circuit.

- In *Program 1001 - Trunk Circuit Type* (page 498), enter the correct circuit type for each trunk (51 = loop start DTMF, 52 = loop start DP, 53 = ground start DTMF, 54 = ground start DP).

Step 3:   Do you want to assign a DIL to the Ring Group in the day mode?.

If yes →

- In *Program 1003 - Direct Termination (Day)* (page 509), assign the DIL to the Ring Group master number. (You can also assign a DIL to an extension, UCD Group master number, or Voice Mail master number.)

If no →

- In *Program 1003 - Direct Termination (Day)* (page 509), do not assign the DIL to a Ring Group master number.

Step 4:   Do you want an unanswered Ring Group DIL to overflow during the day mode?

If yes →

- In *Program 1003 - Activate Overflow During the Day* (page 509), enter Y.

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│  Step-by-step guide for setting up Group Ring  │
│              (Page 2 of 3)               │
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```

If no ━━━━▶ • In *Program 1003 - Activate Overflow During the Day* (page 509), enter N.

Step 5:   Assign the Ring Group DIL day overflow destination.

• In *Program 1003 - Day Overflow Destination* (page 509), assign the DIL day mode termination. The destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Step 6:   Do you want to assign a DIL to a Ring Group in the night mode?

If yes ━━━━▶ • In *Program 1003 - Direct Termination (Day)* (page 509), assign the DIL to the Ring Group master number.(You can also assign a DIL to an extension, UCD Group master number, or Voice Mail master number.)

If no ━━━━▶ • In *Program 1003 - Direct Termination (Night)* (page 510), do not assign the DIL to a Ring Group master number.

Step 7:   Do you want an unanswered DIL to overflow during the night mode?

If yes ━━━━▶ • In *Program 1003 - Activate Overflow at Night* (page 510), enter Y.

If no ━━━━▶ • In *Program 1003 - Activate Overflow at Night* (page 510), enter N.

Step 8:   Assign the DIL night overflow destination.

• In *Program 1003 - Night Overflow Destination* (page 510), assign the DIL night mode termination. The destination can be an extension, UCD Group master number, Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Step 9:   Make sure the extension has a line key for the Ring Group DIL?

• In *Program 1701 - Line Key* (page 518), make sure the DIL has a line key assigned (code 03).
• This is the default setting in DS1000, since all keysets have line keys for trunks 1-6.

Group Ring

Step 10: Do you want to put the Ring Group DIL on a DSS Console key?

If yes
- In *Program 1704 - Line Key* (page 528), make sure the DIL has a DSS Console line key assigned (code 03).

If no
- In *Program 1704 - Line Key* (page 528), make sure the DIL does not have a DSS Console line key assigned (code 03).

Step 11: If the Ring Group DIL is unanswered, does call divert to its programmed overflow destination after the proper interval.

If yes
- In *Program 0401 - DIL No Answer* (page 456), leave the DIL No Answer time at its current setting.

If no
- In *Program 0401 - DIL No Answer* (page 456), change the DIL No Answer time to meet the site requirements.

Step 12: If DIL is unanswered at the overflow destination, does call divert to Key Ring after the proper interval.

If yes
- In *Program 0401 - Transfer Recall* (page 455), leave the Transfer Recall time at its current setting.

If no
- In *Program 0401 - Transfer Recall* (page 455), change the Transfer Recall time to meet the site requirements.

Step 13: If the DIL doesn't have overflow enabled and is unanswered, does the call divert to Key Ring after the proper interval.

If yes
- In *Program 0401 - Trunk Revert* (page 457), leave the Transfer Recall time at its current setting.

If no
- In *Program 0401 - Trunk Revert* (page 457), change the Transfer Recall time to meet the site requirements.

Programming List

Program 0401 - Transfer Recall (page 455)
This interval sets how long a call will ring the day or night overflow destination before diverting to key ring. It also sets how long a call transferred to a Ring Group will ring before recalling the extension that initially transferred it.

Program 0401 - DIL No Answer (page 456)
Set how long a DIL rings its destination before ringing its programmed overflow destination.

Program 0401 - Trunk Revert (page 457)
For DILs to a Ring Group that don't have overflow enabled, set how long the call rings the Ring Group before diverting to Key Ring.

Program 0511 - Ring Group Master Extension Numbers and Names (page 487)
Assign extension numbers and names to the Ring Group master extensions.

Program 1001 - Trunk Circuit Type (page 498)
Set the DIL trunk's circuit type for compatiblity with the connected telco or PBX. The options are 51 (loop start DTMF), 52 (loop start DP), 53 (ground start DTMF) or 54 (ground start DP).

Program 1003 - Direct Termination (Day) (page 509)
To have a DIL ring the Ring Group directly during the day mode, enter the Ring Group master number.

Program 1003 - Activate Overflow During the Day (page 509)
Enter Y to enable DIL overflow during the day mode. (Entering N for this option has the same affect as entering Y followed by Key Ring in the following option.)

Program 1003 - Day Overflow Destination (page 509)
Set the overflow destination for the Ring Group's DIL during the day. The overflow destination can be an extension, UCD Group master number, another Ring Group master number, Voice Mail master number or Key Ring (by pressing CLEAR).

Program 1003 - Direct Termination (Night) (page 510)
To have a DIL ring the Ring Group directly during the night mode, enter the Ring Group master number. You can optionally have the trunk ring a different destination at night, such as anextension, UCD Group master number, or Voice Mail master number.

Program 1003 - Activate Overflow at Night (page 510)
Enable Y to enable DIL overflow during the night mode. (Entering N for this option has the same affect as entering Y followed by Key Ring in the following option.)

Program 1003 - Night Overflow Destination (page 510)
Set the overflow destination for the Ring Group's DIL during the night mode calls.The destination can be an extension, UCD Group master number, another Ring Group master number, or Voice Mail master number.

Program 1701 - Line Key (page 518)
A Ring Group DIL should also appear on a line key (code 03).

Program 1704 - Line Key (page 528)
A Ring Group DIL can optionally appear on a DSS Console line key (code 03).

Program 1802 - Ring Group Number (page 539)
Assign extensions to Ring Groups (1-8, 0 = no assignment).

Other Related Features

Attendant Position (page 46)
System operators will not ring for Ring Group calls. Do not include the operator in a Ring Group.

Call Coverage Keys (page 61)
A keyset can have Call Coverage keys for Ring Group master numbers.

Call Forwarding (page 65)
Call Forwarding does not reroute Ring Group calls.

Group Ring

Call Waiting / Camp-On (page 74)

An extension user cannot Camp On to a busy Ring Group. When all extensions in the Ring Group are busy, the call continues to ring until an extension becomes free.

Caller ID (page 81)

● DS2000 02.00.04 and DS1000 Prior to 02.01.07

An extension's display will show Caller ID data for a trunk terminated to a Ring Group master number *after* the user answers the call. In prior DS2000 software versions, the Caller ID data for the Ring Group call would show only when the extension user pressed the **CHECK** key after answering or after the call diverted to Key Ring.

● DS1000/2000 02.01.07 and Higher

An extension's display will show Caller ID data for a trunk terminated to a Ring Group master number *as* the call is ringing.

Direct Inward Line (page 118)

A DIL can terminate to a Ring Group master number. When a call comes in on the trunk, all phones in the Ring Group ring simultaneously.

Directed Call Pickup (page 141)

Directed Call Pickup can intercept Ring Group calls.

Directory Dialing (page 143)

Intercom Directory dialing will show Ring Group names.

Extension Hunting (page 156)

Group Ring calls do not activate hunting.

Night Service / Night Ring (page 265)

The Night key sets the day/night status of a DIL terminated to a Ring Group.

Transfer (page 393)

An extension user can Transfer a call to a Ring Group master number. If unanswered, the call will recall the extension from which it was transferred.

Feature Operation

To make an Intercom call to a Ring Group:

1. Lift handset and press **ICM**.

    ║ Intercom dial tone.
    ║ **ICM** on.

2. Dial Ring Group number (e.g., 350).

    ║ Intercom ringing.
    ║ **ICM** on.

3. Wait for co-worker to answer.

    If all Ring Group members are busy, your call will continue to ring until a group member becomes free.

To Transfer your trunk call to a Ring Group:

1. Press **ICM**.

    ║ Intercom dial tone.
    ║ **ICM** on.

2. Dial Ring Group number (e.g., 350).

    ║ Intercom ringing.
    ║ **ICM** on and line key flashes (green).

3. To screen (announce) the Transfer:

    ● Wait for Ring Group member to answer before hanging up.

OR

To have the call go through unscreened (unannounced):

● Hang up.

OR

To return to call before a Ring Group member picks it up:

● Press flashing (green) line key.

An unanswered Transfer to a Ring Group will continue to ring the group until a member picks it up. It will not recall to the transferring extension.

To answer a call that rings your Ring Group:

☞	Ringing
👁	N/A

1. If call doesn't appear on a line/loop key:

    ● Lift handset.

    OR

    If line appears on a line/loop key:

    ● Press flashing line/loop key.

To answer a call that ringing another group (of which you are not a member):

☞	Ringing
👁	N/A

1. Lift handset and press **ICM**.

☞	Intercom dial tone.
👁	**ICM** on.

2. Dial ** and the Ring Group number (e.g., 350).

☞	Conversation with caller.
👁	**ICM** on.

Handsfree and Handsfree Answerback

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	Available. User Programmable Feature steps added for voice-announced Intercom calls.
	DS1000	Available. Includes User Programmable Feature steps for voice-announced Intercom calls.

- ● Talk over the phone Handsfree, using the built-in speaker and microphone.
- ● With Handsfree Answerback, answer an Intercom call by just speaking toward your phone.

Handsfree

Handsfree allows a keyset user to process calls using the speaker and microphone in the telephone (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 phone.

Handsfree Answerback and Forced Intercom Ringing

Handsfree Answerback permits an extension user to respond to a voice-announced Intercom call by speaking toward the phone, without lifting the handset. Like Handsfree, this is a convenience for workers who don't have a free hand to pick up the handset. Incoming Intercom calls alert with two beeps if the extension has Handsfree Answerback — a single beep if it does not.

Forced Intercom Ringing causes an Intercom call to ring the destination extension. You can enable Forced Intercom Ringing system-wide (for all extensions), or a user can dial a code to have their Intercom call ring the destination.

Conditions

Since Handsfree switching is handled in each telephone, there is no limit to the number of simultaneouls Handsfree calls system-wide.

Default Setting

Enabled

Programming Guide

Step-by-step guide for setting up Handsfree Answerback

Step 1: Should Intercom calls voice-announce system-wide?

If yes ⟶
- In *Program 0201 - Voice-Announced Intercom Calls* (page 445), enter Y to allow Intercom calls to voice-announce system-wide. Users can still dial 1 to have their calls ring.
- In *Program 1807 - Station Voice Announced Intercom Calls* (page 553), enter Y to enable voice-announced intercom calls for specific extensions. The User-Programmable Options # **IV** (#48) and # **IR** (#47) locally override this setting.

If no ⟶
- In *Program 0201 - Voice-Announced Intercom Calls* (page 445), enter N to have all Intercom calls ring system-wide. Users cannot dial 1 to have their calls voice-announce.

Step 2: Should user be able to respond to a voice-announced Intercom call without lifting the handset (i.e., by using Handsfree Answerback)?

If yes ⟶
- In *Program 0201 - Handsfree Reply on Intercom Calls* (page 445), enter Y to enable Handfree Answerback system-wide.
- In *Program 1802 - Handsfree Reply on Intercom Calls* (page 540), enter Y to enable Handsfree Answerback for specific extensions.

If no ⟶
- In *Program 0201 - Handsfree Reply on Intercom Calls* (page 445), enter N to disable Handsfree answerback system-wide. Users must lift the handset to respond to voice-announced Intercom calls.

Programming List

Program 0201 - Handsfree Reply on Intercom Calls (page 445)
Enter Y to allow extension user to respond to voice-announced Intercom calls by just speaking toward the phone (i.e., by using Handsfree Answerback). When you enter N, the extension user must lift the handset to speak.

Program 0201 - Voice-Announced Intercom Calls (page 445)
Enter Y to enable voice-announced Intercom calls system-wide. If disabled, all Intercom calls ring (i.e., Forced Intercom Ringing is enabled).

Program 1802 - Handsfree Reply on Intercom Calls (page 540)
Enter Y to enable Handsfree reply (Handsfree Answerback) on a per-extension basis. Intercom calls initially ring when this option is disabled. This option requires that you have previously enabled *0201 - Handsfree Reply on Intercom Calls*.

Handsfree and Handsfree Answerback

Program 1807 - Station Voice Announced Intercom Calls (page 553)

Enter Y to enable voice-announced Intercom calls on a per-extension basis. This option requires that you have previously enabled *0201 - Voice-Announced Intercom Calls*. The User-Programmable Options # **IV** (#48) and #**IR** #47) locally override this setting.

Other Related Features

Automatic Handsfree (page 50)

Automatic Handsfree allows a keyset user to place or answer a call Handsfree by just pressing a key — without pressing **SPK** first.

Headset Compatibility (page 194)

Handsfree is not available to extensions in the headset mode. Handsfree Answerback still available — depending on system programming.

Intercom (page 227)

Handsfree Answerback allows a user to answer an Intercom call by just speaking toward the phone.

Microphone Mute (page 253)

Use Microphone Mute to temporarily turn off the Handsfree microphone.

Off-Premise Extensions / On-Premise SLT Extensions (page 274)

On- and Off-Premise Extensions do not have Handsfree and Handsfree Answerback capability.

Feature Operation

Handsfree

To activate Handsfree instead of lifting the handset:

1. Press **SPK**.

    Handsfree conversation with caller.

    SPK on.

To talk on a Handsfree call:

1. Speak toward phone.

    To temporarily turn off the Handsfree microphone, see Microphone Mute on page 253.

To hang up a Handsfree call:

1. Press **SPK**.

    Conversation stops.

    SPK off.

To change a handset call into a Handsfree call:

1. Press **SPK**.

    N/A.

    SPK on.

2. Hang up the handset.

To change a Handsfree call into a handset call:

1. Lift handset.

> 👂 ‖ Conversation with caller in handset.
>
> 👁 ‖ **SPK** off.

Handsfree Answerback

Operation is automatic if enabled in system programming.

	User Programmable Feature
	#IV **#48** Handsfree Answerback On (Forced Intercom Ringing Off)
	#IR **#47** Forced Intercom Ringing On (Handsfree Answerback Off)

Headset Compatibility

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	Available. User Programmable Feature steps added.
	DS1000	Avalable. Includes User Programmable Feature steps.

Have the privacy of a handset call without having to hold the handset

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, the headset provides privacy not available from Handsfree.

An example of a compatible headset is UNEX Model Pro-MP10A.

Off-Hook Signaling and Headsets

Outside Calls (transfers and DILs)

If the extension is set up to receive Camp-On tones for waiting (transferred) outside calls, the user will hear the Camp-On tones in their headset. They will also hear Camp-On tones in their headset for a waiting Direct Inward Line (DIL). The extension will not, however, receive Camp On tones for Key Ring calls ringing the phone while it is in the headset mode.

An extension in the headset mode will not hear Off-Hook Ringing.

Intercom Calls

If the extension is set up to receive Camp-On tones for waiting Intercom calls, the user will hear tones in their headset when a co-worker dials 2 to wait in line.

An extension in the headset mode will not receive a Voice Over.

Conditions

None

Default Setting

Disabled

Programming Guide

<p style="text-align:center;">**Step-by-step guide for setting up Headset Compatibility**</p>

Step 1: Should extension be in the headset mode?

If yes ⟶
- In *Program 1807 - Headset* (page 553), enter Y to enable the headset mode.

If no ⟶
- In *Program 1807 - Headset* (page 553), enter N to disable the headset mode.

Programming List

Program 1807 - Headset (page 553)
> Enter Y to enable the Headset mode.

Other Related Features

Automatic Handsfree (page 50)
> While in the headset mode, Automatic Handsfree simplifies answering trunk calls.

Background Music (page 54)
> Background Music plays in the headset when the extension is in the headset mode.

Group Listen (page 181)
> Group Listen is not available to extensions in the headset mode.

Handsfree and Handsfree Answerback (page 190)
> Handsfree is not available to extensions in the headset mode. Handsfree Answerback is available — depending on system programming.

Off-Hook Signaling (page 270)
> Turn to *Off-Hook Signaling and Headsets* on page 194 for more on how Off-Hook Signaling interacts with headsets.

Off-Premise Extensions / On-Premise SLT Extensions (page 274)
> On- and Off-Premise Extensions do not have headset capability.

Paging (page 281)
> While in the headset mode, the extension user can hear Paging announcements in the headset.

Single Line Telephones (page 330)
> Headset Compatibility is not available to single line telephones.

Voice Over (page 428)
> An extension user cannot Voice Over to a co-worker in the headset mode.

Headset Compatibility

Feature Operation

	User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**	
This option is not available in Fixed Slot software.				
Headset	**#HS**	**#HS** + **Y** to enable or **N** to disable + **SPK** to exit	3-5	

To enable the headset mode:

1. Unplug the telephone handset but leave it in the handset cradle.
2. Plug in the headset.

When in the headset mode:

● Press a line key to place or answer a trunk call.
   OR
● Press **ICM** to get Intercom dial tone.
   OR
● If on a call, press **SPK** to hang up.

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	• Extension users can dial a code to pick up a trunk on Hold at a co-worker's extension.
DS1000	• Distinctive flash rate for Hold and Exclusive Hold Recall requires DS2000 software version 02.00.01 or DS1000.

Have a call wait on Hold, then pick it up to continue the conversation.

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 system feature. Outside calls left on Hold too long recall the extension that placed them on Hold. If the recall is unanswered, the call diverts to Key Ring.

There are four types of Hold:

System (Regular) Hold

With 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 the user doesn't want a co-worker picking up their call on Hold.

Automatic Hold

Automatic Hold allows a user to be on a trunk call, activate a feature and automatically place the call on Hold without first pressing the HOLD key. The system places a call on Hold automatically when the user presses CONF or ICM, a Call Coverage Key or a Hotline key.

Intercom Hold

A user can place an Intercom call on Hold. The Intercom call on Hold does not indicate at any other extension. There is no Hold Recall for Intercom calls.

Hold

Distinctive Flash Rate on Recall

System Hold and Exclusive Hold recall feature a distinctive flash rate for line keys (see the chart below). This allows the keyset extension user to easily differentiate new calls that are ringing from Held calls that are recalling.

Distinctive Flash Rate on Recall		
For this type of call:	**You see this flash rate:**	
	System Hold	**Exclusive Hold**
Call that you placed on Hold	Single Wink On (Green)	Double Wink On (Green)
Call that you initially placed on Hold <u>recalling</u> your phone	Double Wink On (Green)	Double Wink On (Green)
Call a co-worker placed on Hold at their extension	Single Wink On (Red)	None (On Red)
Call a co-worker initially placed on Hold <u>recalling</u> your phone	Double Wink On (Red)	Double Wink On (Red)

Conditions

None

Default Setting

System Hold, Exclusive Hold and Automatic Hold enabled.

Programming Guide

Step-by-step guide for setting up Hold

Step 1: Should extension be able to use Automatic Hold?

If yes
- In *Program 0101 - Automatic Hold* (page 442), enter Y to enable Automatic Hold.
- *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no
- In *Program 0101 - Automatic Hold* (page 442), enter N to disable Automatic Hold.
- *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Step-by-step guide for setting up Hold

Step 2: Does an unanswered call on System Hold recall the extension that placed it on Hold after the correct interval?

If yes ⟶
- In *Program 0403 - Hold Recall* (page 466), leave the Hold Recall interval at its current setting.

If no ⟶
- In *Program 0403 - Hold Recall* (page 466), change the Hold Recall interval to meet the site requirements.

Step 3: Does an unanswered call on Exclusive Hold recall the extension that placed it on Hold after the correct interval?

If yes ⟶
- In *Program 0403 - Exclusive Hold* (page 466), leave the Exclusive Hold Recall interval at its current setting.

If no ⟶
- In *Program 0403 - Exclusive Hold* (page 466), change the Exclusive Hold Recall interval to meet the site requirements.

Step 4: Does an unanswered Hold recall revert to Key Ring after the proper interval?

If yes ⟶
- In *Program 0401 - Trunk Revert* (page 457), leave the Trunk Revert interval at its current setting.

If no ⟶
- In *Program 0401 - Trunk Revert* (page 457), change the Trunk Revert interval to meet the site requirements.

Programming List

Program 0101 - Automatic Hold (page 442)
Enter Y to enable Automatic Hold at an extension.
Program 0401 - Trunk Revert (page 457)
This timer sets how long Hold Recall rings the extension that placed the call on hold before Key Ring occurs. Key Ring rings all extensions programmed to ring for that line.
Program 0403 - Hold Recall (page 466)
Set how long a call stays on Hold before it recalls the extension that initially placed it on Hold.
Program 0403 - Exclusive Hold (page 466)
Set how long a call stays on Exclusive Hold before it recalls the extension that initially placed it on Exclusive Hold.
Program 1801 - Extension Class of Service Assignment (page 533)
Assign Class of Service to extensions.

Hold

Other Related Features

Call Timer (page 71)
> A user's Call Timer starts when they pick up a call from Hold. If they place the call on Hold and another user picks it up, the timer restarts for the new user.

Directed Call Pickup (page 141)
> Directed Call Pickup can pick up Hold recalls.

Key Ring (page 232)
> Unanswered Hold Recalls revert to Key Ring if not picked up.

Music on Hold (page 260)
> If installed, Music on Hold plays to callers on Hold.

Off-Hook Signaling (page 270)
> An extension user can place their current call on Hold and answer the waiting call.

Transfer (page 393)
> If an extension receiving a screened Transfer answers the screen and immediately hangs up (before the transferring extension), the call goes on Exclusive Hold at the transferring extension.

Feature Operation

To place a trunk call on System Hold:

1. Press **HOLD**.

👂	N/A
👁	The line key winks (on) while on Hold, flashes slowly while recalling. The line key is green for your calls - red for your co-workers.

2. Hang up.

To pick up a trunk call on System Hold:

1. Press flashing line key.

👂	Conversation with caller.
👁	Line key on (green).

To pick up a trunk call on system Hold at a co-worker's extension:

You must know the number of the trunk that is on Hold.

1. Lift handset and press **ICM**.

👂	Intercom dial tone.
👁	**ICM** and **SPK** on (red).

2. Dial ***4**.

👂	Intercom dial tone stops.
👁	**ICM** and **SPK** on (red).

3. Dial the number of the trunk that is on Hold (e.g., 01 for trunk 1).

👂	Conversation with the outside caller that was on Hold.
👁	Line key on.

To place a trunk call on Exclusive Hold:

1.   Press **HOLD** twice.

> N/A
>
> For you, the line key winks (on - green) while on Hold, flashes slowly while recalling. For your co-worker's the line key is on (red).

2.   Hang up.

To pick up a trunk call on Exclusive Hold:

1.   Press flashing line key.

> Conversation with caller.
>
> Line key on (green).

To place an Intercom call on Hold:

> *You can place both voice-announced and ringing Intercom calls on Hold.*

1.   Press **HOLD**.

> N/A
>
> **ICM** goes out.

2.   Hang up.

To pick up a call on Intercom Hold:

1.   Lift handset.

2.   If you don't hear Intercom dial tone, press **ICM**.

3.   Press **HOLD**.

> Conversation with caller.
>
> **ICM** on.

Hotline

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	Available. User Programmable Feature steps added.
DS1000	Available. Includes User Programmable Feature steps.

Hotline provides partner extensions with one-button calling and Transfer.

Hotline gives a keyset user with a programmed Hotline key 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:

Hotline Busy Lamp Indications	
When the key is:	**The covered extension is:**
Off	Idle or not installed
On	Busy or ringing[1]
Flashing fast	In Do Not Disturb
[1] Ringing ICM and Group Ring calls light the Hotline key. DILs, Key Ring calls and transferred calls do not.	

Conditions

● An extension's Hotline partner can be any other keyset (e.g., physical port). An extension cannot have a Hotline key for master numbers or virtual ports.

● A Hotline partner can also be a trunk (e.g., 401). However, this capability requires that Direct Trunk Access be enabled. See *Direct Trunk Access* on page 139 for more.

Default Setting

No Hotline keys programmed.

Programming Guide

Step-by-step guide for setting up Hotline

Step 1: Should extension have a Hotline partner?

If yes ➤

• In *Program 1701 - Hotline Key* (page 518), enter code 05 + the covered extension (300-395 in DS2000 or 300-325 in DS1000) to assign a Hotline key.
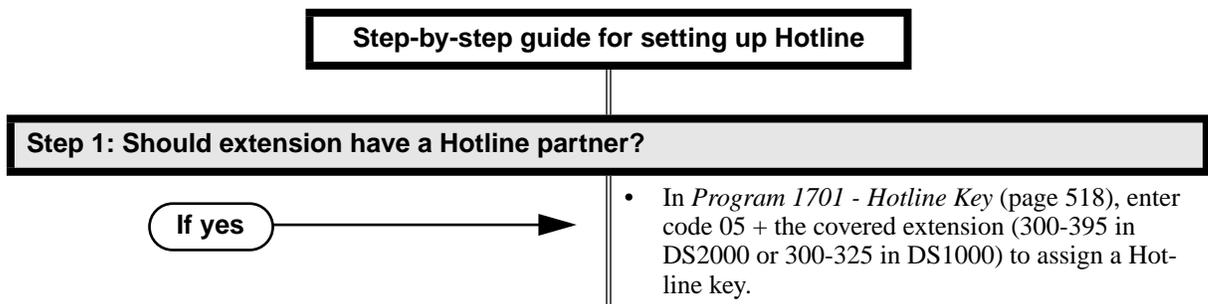
Step-by-step guide for setting up Hotline

If no
- In *Program 1701 - Hotline Key* (page 518), do not enter code 05 to assign a key as a Hotline key.

Step 2: Should DSS Console also have a Hotline partners?

If yes
- In *Program 1704 - Hotline Key* (page 528), enter code 05 + the covered extension (300-395 in DS2000 or 300-325 in DS1000) to assign a Hotline key.

If no
- In *Program 1704 - Hotline Key* (page 528), do not enter code 05 to assign a key as a Hotline key.

Step 3: Should Hotline partner initiate Voice Over, Camp-On tones, or no Off-Hook Signaling when they press their Hotline key to call a busy extension?

Voice Over
- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 3. Refer to *Voice Over* on page 428 for additional programming information.

Camp On
- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 1. Refer to *Call Waiting / Camp-On* on page 74 for additional programming information.

No Signals
- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 0.

Hotline

Programming List

Program 1701 - Hotline Key (page 518)
   Assign a programmable key on an extension as a Hotline key (code 05). The option is your Hotline partner's extension number.
Program 1704 - Hotline Key (page 528)
   Assign a programmable key on a DSS Console as a Hotline key (code 04). The option is your Hotline partner's extension number.
Program 1802 - Off-Hook Signaling for Hotline Partner (page 539)
   ● Enter 3 if Hotline partner should be able to initiate a Voice Over by pressing their Hotline key. Refer to *Voice Over* on page 428 for additional programming information.
   ● Enter 1 if Hotline partner should be able to initiate a Camp On tones by pressing their Hotline key. Refer to *Call Waiting / Camp-On* on page 74 for additional programming information.
   ● Enter 0 if Hotline partner should not send Off-Hook Signals.

Other Related Features

Call Coverage Keys (page 61)
   Call Coverage Keys provide many of the features available to Hotline partners.
Direct Station Selection (DSS) Console (page 128)
   DSS Consoles can also have Hotline keys.
Do Not Disturb (page 146)
   An extension user can press their Hotline key twice to override their Hotline partner's DND
Intercom (page 227)
   A user can press a Hotline Key as an alternative to dialing Intercom numbers.
Transfer (page 393)
   An extension user can Transfer a call to their Hotline partner by pressing their Hotline key.
Voice Over (page 428)
   An extension can Voice Over after calling a co-worker by pressing their Hotline key.

Feature Operation

	User Programmable Feature		
Feature	**Mnemonic**	**Operation**	**Access Level**
Hotline	**#HL**	**#HL** + Press flashing Hotline key + Enter extension for new Hotline partner + **HOLD** (in 02.00.00) + Program another Hotline key or **SPK** to exit.	3-5

To place a call to your Hotline partner:

1. Press Hotline key.

   🎵 ‖ Two beeps.
   👁 ‖ Hotline key on (green) and **ICM** on (red).

To Transfer your trunk call to your Hotline partner:

👂 ‖ Conversation with caller.
👁 ‖ (Optional) Line/loop key on.

1. Press Hotline key.

   👂 ‖ Two beeps.
   👁 ‖ Hotline key on (green). Line/loop key flashes.

2. Announce call and hang up.

   OR

   Hang up to have the call wait at your Hotline partner unannounced.

   If the call is not picked up, it recalls to you after the Transfer Recall interval. See Transfer on page 393 *for more.*

To answer a call from your Hotline partner:

👂 ‖ Two beeps.
👁 ‖ **ICM** on (red).

1. Speak toward phone.

Interactive Soft Keys

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use advanced telephone features just by pressing a soft key, without remembering feature codes.

Interactive Soft Keys provide intuitive feature access. It is no longer necessary to remember feature codes to access the telephone's advanced features because the function of the soft keys change as the user process calls. For example, while on a trunk call a display keyset user can press the **PARK** soft key to Park their call in orbit.

For additional information on Interactive Soft Key operation, refer to *Feature Operation* below.

Conditions

When an extension's soft keys are enabled or disabled in programming, the user must take some action at the telephone (such as lifting and replacing the handset) before the change takes effect.

Default Setting

Soft keys enabled.

Programming Guide

Step-by-step guide for setting up Interactive Soft Keys

Step 1: Should extension have Interactive Soft Keys?

If yes

- In *Program 0101 - Soft Keys* (page 443), enter Y to enable soft keys.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.
- Take some action at the telephone (such as lifting and replacing the handset) so the change will take effect.

If no

- In *Program 0101 - Soft Keys* (page 443), enter N to enable soft keys.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.
- Take some action at the telephone (such as lifting and replacing the handset) so the change will take effect.

Programming List

Program 0101 - Soft Keys (page 443)
Enable (Y) or disable (Y) an extension's soft keys.
Program 1801 - Extension Class of Service Assignment (page 533)
Assign Class of Service to extensions.

Other Related Features

None

Feature Operation

See the charts beginning on the following page.

Interactive Soft Keys

Keyset Soft Keys

Global Navigation Soft Keys You May See At Any Time	
Soft Key	**Definition**
PREV	Press this Soft Key to back up to the previous set of options.
MORE	Press this Soft Key to display additional options for your call.
CNCL	Press to return your telephone to the idle mode.

While Your Telephone Is Idle (Page 1 of 2)		
Soft Key	**Feature**	**Definition**
Use Directory Dialing to select a call from a list of names:		
DIR	Press to access Directory Dialing, Paging and Meet Me Conference	
INT	Directory Dialing	
ICM Directory		**VOL ▲** or **VOL ▼** + **DIAL** to select co-worker from a list of extension names.
EXT		
PERS		**VOL ▲** or **VOL ▼** + **DIAL** to select one of your Personal Speed Dial bins.
CMPY		**VOL ▲** or **VOL ▼** + **DIAL** to select a System Speed Dial bin.
PAGE	Paging	
Dial a page zone		Dial a zone (1-7) or press **ALL** for All Call.
MT11 or MT12	Meet Me Conference	Press key to set up a Meet Me Conference.
Set up Call Forwarding, Programmable Function Key Ringing, Speed Dial, Do Not Disturb and Intercom voice-announcements		
PGM	Press to set up Call Forwarding, Programmable Function Key ringing, Speed Dial, Do Not Disturb, and Intercom voice-announcements.	
CFWD	Call Forwarding	
Enter Call FWD type		Enter the Call Forwarding type + Co-worker's extension, 0 (operator) or **MW** (Voice Mail) + **SPK**. 0 = Cancel forwarding 2 = Busy/No Answer 4 = Immediate 6 = No answer 7 = Personal Answering Machine Emulation 8 = Selectable Display Messaging
RING	Press to set up ringing for Call Coverage, Group Call Pickup and line keys.	
CCK	Call Coverage	Press lit Call Coverage key to select ringing mode.
PKUP	Group Call Pickup	Press lit Group Call Pickup key to select ringing mode.
LINE	Line Keys	Press lit line key to select ringing mode.

While Your Telephone Is Idle (Page 2 of 2)		
Soft Key	**Feature**	**Definition**
SPD	Speed Dial	Enter bin (200-299 for System, 701-720 for Personal) + **HOLD** + Line (1-16), Group (90-98) or **ICM** + **HOLD** + Number + **HOLD** + Name + **HOLD** + **SPK**
DND	Do Not Disturb	Press to enable or cancel Do Not Disturb.
VANN	Intercom	
VAON		Press to enable voice-announcements for incoming Intercom calls.
VAOFF		Press to have all incoming Intercom calls ring (i.e., disable voice-announce).
Call Your Mailbox		
VM00	Voice Mail	Press to call your Voice Mail mailbox. The numbers after **VM** show the number of new messages in your mailbox.
Place Outside Calls		
EXT	Placing Outside Calls	
RTE		Press to access your dial 9 trunk route.
GRP		Select trunk group (0-8) for outside call.
LINE		Select line (e.g., 01) for outside call. This feature requires Line Dial Up.

Outside Calls (Page 1 of 3)		
Soft Key	**Feature**	**Definition**
After you get trunk dial tone for a new call (but before you dial the outside number):		
LND	Last Number Redial	Automatically redial the last outside number you called.
DLSV	Save Number Dialed	Automatically redial the stored Save Number Dialed number.
RLS		Hang up (disconnect) the call and return to Intercom dial tone.
ACCT	Account Code	Press to start and complete Account Code entry.
After you answer or place an outside call:		
PARK	Park	
SYS		Enter system orbit (0-9).
PERS		Enter co-worker's extension number.

Interactive Soft Keys

Soft Key	Feature	Definition
TRF	Transfer	Enter co-worker's extension number. (Press **MW** after extension number to send call to co-worker's mailbox.)
DIR		Use Directory Dialing to Transfer call to co-worker.
ICM Directory		**VOL ▲** or **VOL ▼** + **DIAL** to select co-worker from a list of extension names.
MBOX		Send call to co-worker's mailbox.
RING		Change your voice announcement to ringing.
RTRV		Retrieve call (instead of Transferring).
PKPG		Park the call at the extension selected and make a Page.
PAGE		Broadcast a Page before setting up a Meet Me Conference.
Dial a page zone		Dial a zone (1-7) or press **ALL** for All Call.
MT11 or MT12		Press key to set up a Meet Me Conference.
RTRV		Retrieve the call you just transferred.
RLS		Hang up (disconnect) the call and return to Intercom dial tone.
CONF	Conference	
DIR		Use Directory Dialing to set up the Conference with a co-worker.
ICM Directory		**VOL ▲** or **VOL ▼** + **DIAL** to select co-worker from a list of extension names.
PAGE		Broadcast a Page before setting up a Meet Me Conference.
Dial a page zone		Dial a zone (1-7) or press **ALL** for All Call.
MT11 or MT12		Press key to set up a Meet Me Conference.
RTRV		Retrieve the call you just transferred.
REC	Voice Mail	Record the active call in your Voice Mail mailbox (if allowed in your Class of Service).
SAVE	Save Number Dialed	Save the number you just dialed. Not used for incoming calls.
MTMR	Call Timer (Manual)	Press once to stop the Call Timer. Press a second time to restart the Call Timer from 00:00:00.
ACCT	Account Code	Press to start and complete Account Code entry.

Outside Calls (Page 3 of 3)		
Soft Key	**Feature**	**Definition**
After you press ICM to Transfer your outside call, or CONF to set up a Conference (see Call States in the back of this guide for more):		
DIR	Transfer	Use Directory Dialing to Transfer the call to your co-worker.
ICM Directory		**VOL ▲** or **VOL ▼** + **DIAL** to select co-worker from a list of extension names.
MBOX (after ICM only)		Send call to co-worker's mailbox.
MSG (after CONF only)		Leave message in co-worker's mailbox
RING		Change your voice announcement to ringing.
RTRV (after ICM only)		Retrieve call (instead of Transferring).
RLS (after CONF only)		Hang up (disconnect) the call and return to Intercom dial tone.
PKPG (after ICM only)		Park the call at the extension selected and make a Page.
PAGE	Paging	Broadcast a zone or All Call Page.
Dial a page zone		Dial a zone (1-7) or press **ALL** for All Call.
MT11 or MT12		Press key to set up a Meet Me Conference.
RTRV		Retrieve the call.
When you press a busy line key:		
CLBK	Trunk Queuing / Trunk Callback	Leave a Callback for the busy trunk.
BARG	Barge In	Barge In on the busy trunk (if allowed in your Class of Service).
RLS		Hang up (disconnect) the call and return to Intercom dial tone.
DISC	Forced Trunk Disconnect	Disconnect the call on the trunk (if allowed in your Class of Service).

Intercom Calls (Page 1 of 3)		
Soft Key	**Feature**	**Definition**
After a co-worker answers your Intercom call:		
MSG	Message Waiting Voice Mail	• If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. • If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
RING (Voice-announced calls only)	Intercom	Change your voice announcement to ringing.
RLS		Hang up (disconnect) the call and return to Intercom dial tone.

Interactive Soft Keys

<table>
<tr><td colspan="3" style="background:#B03A2E; color:white">Intercom Calls (Page 2 of 3)</td></tr>
<tr><td>Soft Key</td><td>Feature</td><td>Definition</td></tr>
<tr><td colspan="3">After you call a co-worker and hear busy tone:</td></tr>
<tr><td>MSG</td><td>Message Waiting
Voice Mail</td><td>• If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker.
• If your system has Voice Mail, this allows you to leave a voice message in their mailbox.</td></tr>
<tr><td>CAMP</td><td>Call Waiting / Camp-On</td><td>Send Camp On tones to your busy co-worker. If you hang up, your Camp On converts to a Callback.</td></tr>
<tr><td>CLBK</td><td>Callback</td><td>Leave a Callback for busy co-worker.</td></tr>
<tr><td>BARG</td><td>Barge In</td><td>Barge In on busy co-worker (if allowed in your Class of Service).</td></tr>
<tr><td>MON</td><td>Monitor / Silent Monitor</td><td>Monitor your co-worker's call (if allowed in your Class of Service).</td></tr>
<tr><td colspan="3">After you call a co-worker and hear busy/ring tone:</td></tr>
<tr><td>MSG</td><td>Message Waiting
Voice Mail</td><td>• If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker.
• If your system has Voice Mail, this allows you to leave a voice message in their mailbox.</td></tr>
<tr><td>VOVR</td><td>Voice Over</td><td>Initiate a Voice Over with your busy co-worker.</td></tr>
<tr><td>BARG</td><td>Barge In</td><td>Barge In on your busy co-worker (if allowed in your Class of Service).</td></tr>
<tr><td>MON</td><td>Monitor / Silent Monitor</td><td>Monitor your co-worker's call (if allowed in your Class of Service).</td></tr>
<tr><td colspan="3">After you call a co-worker and hear Do Not Disturb tone:</td></tr>
<tr><td>MSG</td><td>Message Waiting
Voice Mail</td><td>• If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker.
• If your system has Voice Mail, this allows you to leave a voice message in their mailbox.</td></tr>
<tr><td>OVRD</td><td>Do Not Disturb</td><td>Override an extension's Do Not Disturb (if allowed in your Class of Service).</td></tr>
<tr><td>RLS</td><td></td><td>Hang up (disconnect) the call and return to Intercom dial tone.</td></tr>
<tr><td colspan="3">After you answer an Intercom call:</td></tr>
<tr><td>CONF</td><td>Conference</td><td>Set up a Conference with your caller.</td></tr>
<tr><td>RLS</td><td></td><td>Hang up (disconnect) the call and return to Intercom dial tone.</td></tr>
</table>

Intercom Calls (Page 3 of 3)		
Soft Key	**Feature**	**Definition**
After you place or answer a Door Box call:		
OPEN	Door Box	Press to activate (open) the system relay associated with the Door Box door strike (if programmed and installed).
CLOSE		After pressing **OPEN** above, press **CLOSE** to deactivate (close) the system relay associated with the Door Box door strike (if programmed and installed).
RLS		Hang up (disconnect) the call and return to Intercom dial tone.

Interactive Soft Keys

Super Display Soft Keys

Global Navigation Soft Keys You May See At Any Time		
Soft Key	**Feature**	**Definition**
PREVIOUS		Press this Soft Key to back up to the previous set of options.
MORE		Press this Soft Key to display additional options for your call.
CANCEL		Press to return your telephone to the idle mode.

While Your Telephone Is Idle (Page 1 of 2)		
Soft Key	**Feature**	**Definition**
Use Directory Dialing to select a call from a list of names:		
DIRECTORY		Press to access Directory Dialing
INTERCOM	Directory Dialing	
ICM Directory		**VOL ▲** or **VOL ▼** + **DIAL** to select co-worker from a list of extension names.
PERSONAL		**VOL ▲** or **VOL ▼** + **DIAL** to select one of your Personal Speed Dial bins.
COMPANY		**VOL ▲** or **VOL ▼** + **DIAL** to select a System Speed Dial bin.
Set up Call Forwarding, Programmable Function Key Ringing, Speed Dial, Do Not Disturb and Intercom voice-announcements		
PROGRAM		Press to set up Call Forwarding, Programmable Function Key ringing, Speed Dial, Do Not Disturb, and Intercom voice-announcements.
CALL FWD	Call Forwarding	
Enter Call FWD type		Enter the Call Forwarding type + Co-worker's extension, 0 (operator) or **MW** (Voice Mail) + **SPK**. 0 = Cancel forwarding 2 = Busy/No Answer 4 = Immediate 6 = No answer 7 = Personal Answering Machine Emulation 8 = Selectable Display Messaging
RING		Press to set up ringing for Call Coverage, Group Call Pickup and line keys.
CALL COVERAGE	Call Coverage	Press lit Call Coverage key to select ringing mode.
PICKUP	Group Call Pickup	Press lit Group Call Pickup key to select ringing mode.
LINE	Line Keys	Press lit line key to select ringing mode.
SPEED DIAL	Speed Dial	Enter bin (200-299 for System, 701-720 for Personal) + **HOLD** + Line (1-16), Group (90-98) or **ICM** + **HOLD** + Number + **HOLD** + Name + **HOLD** + **SPK**.
DND	Do Not Disturb	Press to enable or cancel Do Not Disturb.

While Your Telephone Is Idle (Page 2 of 2)		
Soft Key	**Feature**	**Definition**
VOICE ANNOUNCE	Intercom	
VOICE ANNOUNCE ON		Press to enable voice-announcements for incoming Intercom calls.
VOICE ANNOUNCE OFF		Press to have all incoming Intercom calls ring (i.e., disable voice-announce).
Call Your Mailbox		
V-MAIL 00	Voice Mail	Press to call your Voice Mail mailbox. The numbers after **VM** show the number of new messages in your mailbox.
Place Outside Calls		
EXTERNAL	Placing Outside Calls	
ROUTE 9		Press to access your dial 9 trunk route.
GROUP		Select trunk group (0-8) for outside call.
LINE		Select line (e.g., 01) for outside call. This feature requires Line Dial Up.
Page a Co-worker		
PAGE	Paging	Press to access Paging options.
ALL		Make an All Call Page.
MEET ME 11 or 12		Press to set up Meet Me Conference with code 11 or 12.
ZONE 1 thru ZONE 7		Page into zone selected (1-7).
MEET ME 11 or 12		Press to set up Meet Me Conference with code 11 or 12.
Press a single key for your Personal Speed Dial numbers.		
SP DIAL 1	Speed Dial	Provides one-touch access to Personal Speed Dial bins 701-710. After pressing **SP DIAL 1**, the names for bins 701-710 display.
(Names for bins 701-710)		
SP DIAL 2		Provides one-touch access to Personal Speed Dial bins 711-720. After pressing **SP DIAL 2**, the names for bins 711-720 display
(Names for bins 711-720)		

Outside Calls (Page 1 of 3)		
Soft Key	**Feature**	**Definition**
After you get trunk dial tone for a new call (but before you dial the outside number):		
DIAL LAST NUMBER	Last Number Redial	Automatically redial the last outside number you called.
DIAL SAVE	Save Number Dialed	Automatically redial the stored Save Number Dialed number.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
ACCT CODE	Account Code	Press to start and complete Account Code entry.

Interactive Soft Keys

Soft Key	Feature	Definition
After you answer or place an outside call:		
PARK	Park	
PERSONAL		Enter co-worker's extension number for Personal Park.
ORBIT 0-9		Select a system orbit (0-9).
TRANSFER	Transfer	Enter co-worker's extension number. (Press **MW** after extension number to send call to co-worker's mailbox.)
DIRECTORY		Use Directory Dialing to Transfer call to co-worker.
ICM Directory		**VOL ▲** or **VOL ▼** + **DIAL** to select co-worker from a list of extension names.
TRANSFER TO MAILBOX		Send call to co-worker's mailbox.
RING		Change your voice announcement to ringing.
RETRIEVE		Retrieve call (instead of Transferring).
PARK AND PAGE		Park the call at the extension selected and make a Page.
PAGE		Broadcast a Page before setting up a Meet Me Conference.
Dial a page zone		Dial a zone (1-7) or press **ALL** for All Call.
MEET ME 11 or 12		Press either key to set up a Meet Me Conference.
RETRIEVE		Retrieve the call you just transferred.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
CONFERENCE	Conference	
DIRECTORY		Use Directory Dialing to set up the Conference with a co-worker.
ICM Directory		**VOL ▲** or **VOL ▼** + **DIAL** to select co-worker from a list of extension names.
PAGE		Broadcast a Page before setting up a Meet Me Conference.
Dial a page zone		Dial a zone (1-7) or press **ALL** for All Call.
MEET ME 11 or 12		Press key to set up a Meet Me Conference.
RETRIEVE		Retrieve the call you just transferred.
RECORD	Voice Mail	Record the active call in your Voice Mail mailbox (if allowed in your Class of Service).
SAVE	Save Number Dialed	Save the number you just dialed. Not used for incoming calls.
MAN TIMER	Call Timer (Manual)	Press once to stop the Call Timer. Press a second time to restart the Call Timer from 00:00:00.
ACCT CODE	Account Code	Press to start and complete Account Code entry.

Outside Calls (Page 3 of 3)		
Soft Key	**Feature**	**Definition**
After you press ICM to Transfer your outside call, or CONF to set up a Conference (see Call States in the back of this guide for more):		
DIRECTORY	Transfer	Use Directory Dialing to Transfer the call to your co-worker.
ICM Directory		**VOL ▲** or **VOL ▼** + **DIAL** to select co-worker from a list of extension names.
TRANSFER TO MAILBOX (after ICM only)		Send call to co-worker's mailbox.
LEAVE MESSAGE (after CONF only)		Leave message in co-worker's mailbox
RING		Change your voice announcement to ringing.
RETRIEVE (after ICM only)		Retrieve call (instead of Transferring).
RELEASE (after CONF only)		Hang up (disconnect) the call and return to Intercom dial tone.
PARK AND PAGE (after ICM only)		Park the call at the extension selected and make a Page.
PAGE	Paging	Broadcast a zone or All Call Page.
ALL		Make an All Call Page.
MEET ME 11 or 12		Press to set up Meet Me Conference with code 11 or 12.
ZONE 1 thru ZONE 7		Page into zone selected (1-7).
MEET ME 11 or 12		Press to set up Meet Me Conference with code 11 or 12.
RETRIEVE		Retrieve the call.
When you press a busy line key:		
CALLBACK	Trunk Queuing / Trunk Callback	Leave a Callback for the busy trunk.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
BARGE IN	Barge In	Barge In on the busy trunk (if allowed in your Class of Service).
FORCED DISCONNECT	Forced Trunk Disconnect	Disconnect the call on the trunk (if allowed in your Class of Service).

Intercom Calls (Page 1 of 3)		
Soft Key	**Feature**	**Definition**
After a co-worker answers your Intercom call:		
LEAVE MESSAGE	Message Waiting Voice Mail	• If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. • If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
RING	Intercom	Change your voice announcement to ringing.

Interactive Soft Keys

Intercom Calls (Page 2 of 3)		
Soft Key	**Feature**	**Definition**
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
After you call a co-worker and hear busy tone:		
LEAVE MESSAGE	Message Waiting Voice Mail	• If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. • If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
CAMP ON	Call Waiting / Camp-On	Send Camp On tones to your busy co-worker. If you hang up, your Camp On converts to a Callback.
CALLBACK	Callback	Leave a Callback for busy co-worker.
BARGE IN	Barge In	Barge In on busy co-worker (if allowed in your Class of Service).
SILENT MONITOR	Monitor / Silent Monitor	Monitor your co-worker's call (if allowed in your Class of Service).
After you call a co-worker and hear busy/ring tone:		
LEAVE MESSAGE	Message Waiting Voice Mail	• If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. • If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
VOICE OVER	Voice Over	Initiate a Voice Over with your busy co-worker.
BARGE IN	Barge In	Barge In on your busy co-worker (if allowed in your Class of Service).
SILENT MONITOR	Monitor / Silent Monitor	Monitor your co-worker's call (if allowed in your Class of Service).
After you call a co-worker and hear Do Not Disturb tone:		
LEAVE MESSAGE	Message Waiting Voice Mail	• If your system has Message Waiting, this leaves a Message Waiting indication for your co-worker. • If your system has Voice Mail, this allows you to leave a voice message in their mailbox.
DND OVERRIDE	Do Not Disturb	Override an extension's Do Not Disturb (if allowed in your Class of Service).
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
After you answer an Intercom call:		
CONFERENCE	Conference	Set up a Conference with your caller.
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.
After you place or answer a Door Box call:		
OPEN DOOR	Door Box	Press to activate (open) the system relay associated with the Door Box door strike (if programmed and installed).
CLOSE DOOR		After pressing **OPEN DOOR** above, press **CLOSE DOOR** to deactivate (close) the system relay associated with the Door Box door strike (if programmed and installed).

Intercom Calls (Page 3 of 3)		
Soft Key	**Feature**	**Definition**
RELEASE		Hang up (disconnect) the call and return to Intercom dial tone.

Interactive Soft Keys

Soft Key Index

Following is an alphabetical index of your telephone's soft keys.

Soft Key	Feature	Phone Type	Definition
ACCT	Account Code	Keyset	Press to start and complete Account Code entry.
ACCT CODE		Super Display	
ALL	Page	Keyset	Make an All Call Page.
		Super Display	
BARG	Barge In	Keyset	Barge In on a busy trunk.
BARGE IN		Super Display	
CAMP	Call Waiting / Camp On	Keyset	Send Camp-On tones to a busy co-worker.
CAMP ON		Super Display	
CCK	Call Coverage	Keyset	Press lit Call Coverage key to select ringing mode.
CALL COVERAGE		Super Display	
CFWD	Call Forwarding	Keyset	Access Call Forwarding options.
CALL FWD		Super Display	
CLBK	Callback Trunk Queuing and Trunk Callback	Keyset	Leave Callback for a busy trunk or co-worker.
CALLBACK		Super Display	
CMPY	Directory Dialing	Keyset	Access your company's System Speed Dial bins.
COMPANY		Super Display	
CNCL	N/A	Keyset	Return to idle.
CANCEL	N/A	Super Display	Return to idle.
CLOSE	Door Box	Keyset	Press to Deactivate (close) the system relay associated with the Door Box door strike (if programmed and installed).
		Super Display	
CONF	Conference	Keyset	Set up a Conference.
CONFERENCE		Super Display	
DIAL LAST NUMBER	Last Number Redial	Super Display	Automatically redial the last outside number you called.
DIR	Conference Directory Dialing Transfer	Keyset	Access Directory Dialing, Paging and Meet Me Conference.
DIRECTORY		Super Display	
DISC	Forced Trunk Disconnect	Keyset	Disconnect the call on the trunk.
DLSV	Save Number Dialed	Keyset	Redial the number saved by Save Number Dial.
DIAL SAVE		Super Display	

Soft Key	Feature	Phone Type	Definition
DND	Do Not Disturb	Keyset	Enable or disable Do Not Disturb.
		Super Display	
DND OVERRIDE	Do Not Disturb	Super Display	Override an extension's Do Not Disturb.
Enter Call FWD type	Call Forwarding	Keyset	Enter the Call Forwarding type (0, 2, 4, 6, 7, 8).
		Super Display	
EXT	Directory Dialing	Keyset	Access Personal and System Speed Dial bins.
EXT	Placing Outside Calls	Keyset	Access Placing Outside Call options.
		Super Display	
FORCED DISCONNECT	Forced Trunk Disconnect	Super Display	Disconnect the call on the trunk.
GRP	Placing Outside Calls	Keyset	Select trunk group (0-8) for outside call.
GROUP		Super Display	
ICM Directory	Conference Directory Dialing Transfer	Keyset	Select a co-worker from a list of names.
		Super Display	
INT	Directory Dialing	Keyset	Access Intercom Directory Dialing.
INTERCOM		Super Display	
LEAVE MESSAGE	Message Waiting Voice Mail	Super Display	Leave Message Waiting or message in Voice Mail mailbox.
LINE	Line Keys	Keyset	Press lit line key to select ringing mode.
		Super Display	
LINE	Placing Outside Calls	Keyset	Select line (e.g., 01) for outside call.
		Super Display	
LND	Last Number Redial	Keyset	Redial the last outside number you dialed.
MBOX	Transfer	Keyset	Send a call to your co-worker's mailbox.
MON	Monitor / Silent Monitor	Keyset	Monitor your co-worker's call.
MORE	N/A	Keyset	Display additional options for your call.
		Super Display	
MSG	Message Waiting Voice Mail	Keyset	Leave a Message Waiting or a Voice Mail message.
MT11	Conference Meet Me Conference Transfer	Keyset	Set up a Meet Me Conference on circuit 11.
MEET ME 11		Super Display	
MT12	Conference Meet Me Conference Transfer	Keyset	Set up a Meet Me Conference on circuit 12.
MEET ME 12		Super Display	

Interactive Soft Keys

Soft Key	Feature	Phone Type	Definition
MTMR	Call Timer (Manual)	Keyset	Start and stop the Call Timer.
MAN TIMER		Super Display	
OPEN	Door Box	Keyset	Press to activate (open) the system relay associated with the Door Box door strike (if programmed and installed).
		Super Display	
ORBIT	Park	Super Display	Select a System Park Orbit (0-9).
OVRD	Do Not Disturb	Keyset	Override an extension's Do Not Disturb.
PAGE	Conference Paging Transfer	Keyset	Select Paging options.
		Super Display	
PARK	Park	Keyset	Access your Park options.
		Super Display	
PERS	Directory Dialing	Keyset	Access your Personal Speed Dial bins.
PERSONAL		Super Display	
PERS	Park	Keyset	Park a call at a co-worker's extension.
PERSONAL		Super Display	
PGM	Various	Keyset	Set up Call Forwarding, Programmable Function Key ringing, Speed Dial, Do Not Disturb, and Intercom voice-announcements.
PROGRAM		Super Display	
PKPG	Park	Keyset	Park call at a co-worker's extension and do an All Call Page.
PARK AND PAGE		Super Display	
PKUP	Group Call Pickup	Keyset	Press lit Group Call Pickup key to select ringing mode.
PICKUP		Super Display	
PREV	N/A	Keyset	Back up to the previous set of options.
PREVIOUS		Super Display	
REC	Voice Mail	Keyset	Record the active call in your Voice Mail mailbox.
RECORD		Super Display	
RING	Various	Keyset	When programming key ringing, set up Call Coverage, Group Call Pickup and line keys.
		Super Display	
RING	Transfer	Keyset	Change your voice announcement to ringing.
RLS	Various	Keyset	Hang up (disconnect) the call and return to Intercom dial tone.
RELEASE		Super Display	
RTE	Placing Outside Calls	Keyset	Selects your "dial 9" trunk route.
ROUTE 9		Super Display	

Soft Key	Feature	Phone Type	Definition
RTRV	Conference Transfer	Keyset	Retrieve call (instead of transferring it).
RETRIEVE		Super Display	
SAVE	Save Number Dialed	Keyset	Save the number you just dialed.
		Super Display	
SILENT MONITOR	Monitor / Silent Monitor	Super Display	Monitor your co-worker's call.
SPD	Speed Dial	Keyset	Press then enter your Speed Dial data (bin, etc.).
SPEED DIAL		Super Display	
SP DIAL 1	Speed Dial	Super Display	Select keys for Personal Speed Dial bins 701-710. After pressing **SP DIAL 1**, the names for bins 701-710 display.
SP DIAL 2	Speed Dial	Super Display	Select keys for Personal Speed Dial bins 711-720. After pressing **SP DIAL 2**, the names for bins 711-720 display.
SYS	Park	Keyset	Select a system Park orbit (0-9).
TRF	Transfer	Keyset	Transfer a call to a co-worker.
TRANSFER		Super Display	
TRANSFER TO MAILBOX	Transfer	Super Display	Send call to co-worker's mailbox.
VANN	Intercom	Keyset	Access the Intercom voice-announce options.
VOICE ANNOUNCE		Keyset	
ZONE 1-7	Paging	Super Display	Page into zone selected (1-7).
VAOFF	Intercom	Keyset	Turn off Intercom voice-announce.
VOICE ANNOUNCE ON		Super Display	
VAON	Intercom	Keyset	Turn on Intercom voice-announce.
VOICE ANNOUNCE OFF		Super Display	
VM00	Voice Mail	Keyset	Call your Voice Mail mailbox. The numbers after **VM** show the number of new messages in your mailbox.
V-MAIL 00		Super Display	
VOVR	Voice Over	Keyset	Initiate a Voice Over.
VOICE OVER		Super Display	

Call States

Following is a list of the available soft keys based on the telephone's call state.

Call States (Page 1 of 3)		
State	**Phone Type**	**Keys**
Idle		
	Keyset	**DIR PGM VM00 EXT**
	Super Display	**DIRECTORY PROGRAM V-MAIL 00 EXTERNAL PAGE SP DIAL 1** **SP DIAL 2**
Intercom Dial Tone		
From Idle (after pressing ICM)	Keyset	**DIR PAGE PKUP**
	Super Display	**DIRECTORY PAGE PICKUP**
From trunk talk state		
After pressing ICM	Keyset	**DIR PAGE RTRV**
	Super Display	**DIRECTORY PAGE RETRIEVE**
After pressing CONF	Keyset	**DIR PAGE RTRV PKUP** (from Conference call only)
	Super Display	**DIRECTORY PAGE RETRIEVE PICKUP** (from Conference call only)
From Intercom talk state		
After pressing ICM	Keyset	**DIR PAGE PKUP**
	Super Display	**DIRECTORY PAGE PICKUP**
After pressing CONF	Keyset	**DIR PAGE RTRV**
	Super Display	**DIRECTORY PAGE RETRIEVE**
After calling an extension		
From idle		
If called extension answers using Handsfree Answerback	Keyset	**MSG RING RLS**
	Super Display	**LEAVE MESSAGE RING RELEASE**
If called extension is ringing	Keyset	**MSG RLS**
	Super Display	**LEAVE MESSAGE RELEASE**
If called extension is busy	Keyset	**MSG CAMP CLBK MORE BARG MON PREV**
	Super Display	**LEAVE MESSAGE CAMP ON CALLBACK BARGE IN SILENT MONITOR**
If called extension is in Do Not Disturb	Keyset	**MSG OVRD RLS**
	Super Display	**LEAVE MESSAGE DND OVERRIDE RELEASE**

Call States (Page 2 of 3)		
State	**Phone Type**	**Keys**
If you hear busy/ring	Keyset	MSG VOVR BARG MON
	Super Display	LEAVE MESSAGE VOICE OVER BARGE IN SILENT MONITOR
After using ICM key to Transfer (but before destination answers)		
If called extension answers announcement using Handsfree Answerback	Keyset	MBOX RING RTRV PKPG
	Super Display	TRANSFER TO MAILBOX RING RETRIEVE PARK AND PAGE
If called extension is ringing	Keyset	MBOX RTRV PKPG
	Super Display	TRANSFER TO MAILBOX RETRIEVE PARK AND PAGE
If called extension is busy	Keyset	MBOX RTRV PKPG
	Super Display	TRANSFER TO MAILBOX RETRIEVE PARK AND PAGE
If called extension is in Do Not Disturb	Keyset	MSG OVRD RTRV PKPG
	Super Display	TRANSFER TO MAILBOX DND OVERRIDE RETRIEVE PARK AND PAGE
If you hear busy/ring	Keyset	MBOX VOVR RTRV PKPG
	Super Display	TRANSFER TO MAILBOX VOICE OVER RETRIEVE PARK AND PAGE
After using CONF to set up a Conference (but before destination answers)		
If called extension answers announcement using Handsfree Answerback	Keyset	MSG RING RLS
	Super Display	LEAVE MESSAGE RING RELEASE
If called extension is ringing	Keyset	MSG RLS
	Super Display	LEAVE MESSAGE RELEASE
If called extension is busy	Keyset	MSG CAMP CLBK MORE BARG MON PREV
	Super Display	LEAVE MESSAGE CAMP ON CALLBACK BARGE IN SILENT MONITOR
If called extension is in Do Not Disturb	Keyset	MSG OVRD RLS
	Super Display	LEAVE MESSAGE DND OVERRIDE RELEASE
If you hear busy/ring	Keyset	MSG VOVR BARGE MON
	Super Display	LEAVE MESSAGE VOICE OVER BARGE IN SILENT MONITOR
Door Box calls in the talk state		
After placing or answering a Door Box call	Keyset	OPEN RLS
	Super Display	OPEN DOOR RELEASE
After pressing OPEN to release the door strike	Keyset	CLOSE RLS
	Super Display	CLOSE DOOR RELEASE

Interactive Soft Keys

<table>
<tr><td colspan="3">Call States (Page 3 of 3)</td></tr>
<tr><td>State</td><td>Phone Type</td><td>Keys</td></tr>
<tr><td colspan="3">Outside calls before talk state (interdigit time) set up</td></tr>
<tr><td rowspan="2">After pressing line key from idle</td><td>Keyset</td><td>LND DLSV RLS ACCT</td></tr>
<tr><td>Super Display</td><td>DIAL LAST NUMBER DIAL SAVE RELEASE ACCT CODE</td></tr>
<tr><td rowspan="2">After pressing ICM while on an outside call</td><td>Keyset</td><td>DIR PAGE RTRV</td></tr>
<tr><td>Super Display</td><td>DIRECTORY PAGE RETRIEVE</td></tr>
<tr><td rowspan="2">After pressing CONF while on an outside call</td><td>Keyset</td><td>DIR PAGE RTRV</td></tr>
<tr><td>Super Display</td><td>DIRECTORY PAGE RETRIEVE</td></tr>
<tr><td colspan="3">Outside calls in the talk state</td></tr>
<tr><td rowspan="2">Outgoing</td><td>Keyset</td><td>PARK TRF RLS MORE CONF REC SAVE MORE MTMR
ACCT PREV</td></tr>
<tr><td>Super Display</td><td>PARK TRANSFER RELEASE CONFERENCE RECORD SAVE
MAN TIMER ACCT CODE</td></tr>
<tr><td rowspan="2">Incoming</td><td>Keyset</td><td>PARK TRF RLS MORE CONF REC SAVE MORE MTMR
ACCT PREV</td></tr>
<tr><td>Super Display</td><td>PARK TRANSFER RELEASE CONFERENCE RECORD SAVE
MAN TIMER ACCT CODE</td></tr>
<tr><td colspan="3">While in a Conference</td></tr>
<tr><td rowspan="2"></td><td>Keyset</td><td>N/A</td></tr>
<tr><td>Super Display</td><td>N/A</td></tr>
<tr><td colspan="3">Intercom call</td></tr>
<tr><td rowspan="2">Answered</td><td>Keyset</td><td>CONF RLS</td></tr>
<tr><td>Super Display</td><td>CONFERENCE RELEASE</td></tr>
<tr><td colspan="3">Paging</td></tr>
<tr><td rowspan="2">While receiving a Page broadcast</td><td>Keyset</td><td>N/A</td></tr>
<tr><td>Super Display</td><td>N/A</td></tr>
<tr><td rowspan="2">While Meet Me Paging is active</td><td>Keyset</td><td>N/A</td></tr>
<tr><td>Super Display</td><td>N/A</td></tr>
</table>

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	Available. User Programmable Feature steps added for voice-announced Intercom calls.
DS1000	Available. Includes User Programmable Feature steps for voice-announced Intercom calls.

⚠ Use Intercom to call any co-worker.

Intercom gives extension users access to other extensions. This provides the system with complete internal calling capability.

Handsfree Answerback and Forced Intercom Ringing

Handsfree Answerback permits an extension user to respond to a voice-announced Intercom call by speaking toward the phone, without lifting the handset. Like Handsfree, this is a convenience for workers who don't have a free hand to pick up the handset. Incoming Intercom calls alert with two beeps if the extension has Handsfree Answerback — a single beep if it does not.

Forced Intercom Ringing causes an Intercom call to ring the destination extension. You can enable Forced Intercom Ringing system-wide (for all extensions), or a user can dial a code to have their Intercom call ring the destination.

For more on setting up Handsfree Answerback and Forced Intercom Ringing, see **Handsfree and Handsfree Answerback** (page 190) for more.

Conditions
None

Default Setting
Intercom calling always enabled.

Programming Guide

Step-by-step guide for setting up Intercom

Step 1: When placing Intercom calls, do extension users have adequate time to dial their Intercom digits before the system disables dialing?

If yes ➞
- In *Program 0401 - Intercom Inter-digit* (page 456), leave the Intercom Interdigit time at its default setting.

If no ➞
- In *Program 0401 - Intercom Inter-digit* (page 456), change the Intercom Interdigit time to meet the site requirements.

Intercom

Step-by-step guide for setting up Intercom	

Step 2: Should Intercom calls voice-announce system-wide?

If yes ➔
- In *Program 0201 - Voice-Announced Intercom Calls* (page 445), enter Y to allow Intercom calls to voice-announce system-wide. Users can still dial 1 to have their calls ring.
- In *Program 1807 - Station Voice Announced Intercom Calls* (page 553), enter Y to enable voice-announced intercom calls for specific extensions. The User-Programmable Options #**IV** (#48) and #**IR** (#47) locally override this setting.

If no ➔
- In *Program 0201 - Voice-Announced Intercom Calls* (page 445), enter N to have all Intercom calls ring system-wide. Users cannot dial 1 to have their calls voice-announce.

Step 3: Should user be able to respond to a voice-announced Intercom call without lifting the handset (i.e., by using Handsfree Answerback)?

If yes ➔
- In *Program 0201 - Handsfree Reply on Intercom Calls* (page 445), enter Y to enable Handsfree Answerback system-wide.
- In *Program 1802 - Handsfree Reply on Intercom Calls* (page 540), enter Y to enable Handsfree Answerback for specific extensions.

If no ➔
- In *Program 0201 - Handsfree Reply on Intercom Calls* (page 445), enter N to disable Handsfree answerback system-wide. Users must lift the handset to respond to voice-announced Intercom calls.

Programming List

Program 0201 - Handsfree Reply on Intercom Calls (page 445)
> Enter Y to allow extension user to respond to voice-announced Intercom calls by just speaking toward the phone (i.e., by using Handsfree Answerback). When you enter N, the extension user must lift the handset to speak.

Program 0201 - Voice-Announced Intercom Calls (page 445)
> Enter Y to enable voice-announced Intercom calls system-wide. If disabled, all Intercom calls ring (i.e., Forced Intercom Ringing is enabled).

Program 1802 - Handsfree Reply on Intercom Calls (page 540)
> Enter Y to enable Handsfree reply (Handsfree Answerback) on a per-extension basis. Intercom calls initially ring when this option is disabled. This option requires that you have previously enabled *0201 - Handsfree Reply on Intercom Calls.*

Program 0401 - Intercom Inter-digit (page 456)
> When an extension user places a call, they must dial each succeeding digit within this interval.

Program 1807 - Station Voice Announced Intercom Calls (page 553)
> Enter Y to enable voice-announced Intercom calls on a per-extension basis. This option requires that you have previously enabled *0201 - Voice-Announced Intercom Calls.* The User-Programmable Options #**IV** (#48) and #**IR** (#47) locally override this setting.

Other Related Features

Attendant Position (page 46)
> Designate each extension's operator.

Call Coverage Keys (page 61)
> A user can press a Call Coverage Key as an alternative to dialing Intercom numbers.

Call Waiting / Camp-On (page 74)
> A user can Camp-On after placing an Intercom call to a busy co-worker.

Callback (page 78)
> A user can leave a Callback request after placing an Intercom call to a busy co-worker.

Direct Station Selection (DSS) (page 125)
> A user can press a DSS key as an alternative to dialing Intercom numbers.

Directory Dialing (page 143)
> Directory Dialing is a convenient alternative to manually dialing Intercom numbers.

Extension Hunting (page 156)
> Voice-announced Intercom calls do not initiate hunting.

Flexible Numbering Plan (page 172)
> Change the digits users dial to place Intercom calls to co-workers.

Group Call Pickup (page 177)
> Ringing Intercom calls activate Group Call Pickup if the extension ringing is a member of a Pickup Group.

Handsfree and Handsfree Answerback (page 190)
> Handsfree Answerback allows a user to answer an Intercom call by just speaking toward the phone.

Headset Compatibility (page 194)
> Extensions with headsets cannot receive voice-announced Intercom calls.

Hotline (page 202)
> A user can press a Hotline Key as an alternative to dialing Intercom numbers.

Last Number Redial (page 236)
> Last Number Redial cannot redial Intercom calls.

Message Waiting (page 250)
> A user can leave a Message Waiting after placing an Intercom call to a busy co-worker.

Music on Hold (page 260)
> Music on Hold plays to Intercom callers on Hold.

Intercom

Names for Extensions and Trunks (page 263)

Extension names help identify Intercom callers to co-workers.

Off-Premise Extensions / On-Premise SLT Extensions (page 274)

All Intercom calls to On- and Off-Premise Extensions ring.

Ringdown Extension (page 317)

Ringdown Extension follows the voice-announce status of destination extension. For example, if an extension usually voice-announces Intercom calls, a ringdown to that extension will also voice-announce.

Ringing Line Preference (page 319)

Ringing Line Preference answers a ringing Intercom call before a ringing trunk call.

Single Line Telephones (page 330)

Single line telephones cannot receive voice-announced Intercom calls.

Transfer (page 393)

The system cannot Transfer Intercom calls.

Voice Over (page 428)

An extension user can Voice Over to a co-worker busy on an Intercom call.

Volume Controls (page 431)

The default Intercom (station-to-station) gain is 0 dB. While on an Intercom call, use VOL ▲ and VOL ▼ to change this setting.

Feature Operation

	User Programmable Feature		
Feature	**Mnemonic**	**Operation**	**Access Level**
The shaded row below shows the Fixed Slot software User Programmable Feature.			
Voice Announce (for your incoming Intercom calls)	**#IV or #IR**	**#** + **I V** to enable voice-announce for your incoming Intercom calls **#** + **I R** to enable ringing for your incoming Intercom calls	N/A
Voice Announce (for your incoming Intercom calls)	**#VA**	**#VA** + **V** for voice announce or **R** for ring + **SPK** to exit.	3-5

To place an Intercom call:

1. Lift handset and press **ICM**.

   🎧 ‖ Intercom dial tone.

   👁 ‖ **ICM** on (red).

2. Dial extension number (300-316).

   🎧 ‖ Two beeps (if voice-announced) or ringing.

   👁 ‖ N/A

   To call the operator, dial the operator s extension number or dial 0 or 01-04 (depending on how your system is set up).

   If your call voice-announces the destination, you can dial 1 to force the call to ring.

To answer an Intercom call (if you hear two beeps and your phone has Handsfree Answerback):

👂	Two beeps.
👁	**ICM** and **SPK** on (red).

1. Speak toward phone.

    OR

    Lift the handset for privacy.

To answer an Intercom call (if you hear one beep and your phone does not have Handsfree Answerback):

👂	One beep.
👁	**ICM** and **SPK** on (red).

1. Lift the handset.

To answer an Intercom call (if you hear ringing):

👂	Intercom ringing.
👁	**ICM** flashes.

1. Lift the handset.

Key Ring

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	Available. In software version 02.01.007 and higher, Key Ring is enabled by default only at extensions 300-315.
	DS1000	Available.

So they are not forgotten, unanswered calls automatically ring co-worker's extensions.

A Key Ring trunk rings an extension according to the settings in **Program 1805 - Ring Assignments** (page 551). Multiple extensions can be enabled to ring immediately or after a programmed delay for each incoming trunk call. In addition, under certain conditions other types of trunk calls divert to Key Ring if unanswered. The following conditions also initiate Key Ring:

● Direct Inward Line
An unanswered DIL diverts to Key Ring if unanswered at the extension to which it is terminated (see *Direct Inward Line* on page 118 for more).

● **Hold**
Calls left on Hold too long recall the extensions that initially placed them on Hold. If still unanswered, they divert to Key Ring.

● **Park**
Calls parked in orbit recall the extension that initially parked them. If unanswered, the call diverts to Key Ring.

● **Transfer**
An unanswered Transfer recalls the extension that initially transferred it. If still unanswered, the trunk diverts to Key Ring.

Overflow for Key Ring Calls

If unanswered, Key Ring calls can route to a programmed overflow destination. The overflow destination can be an extension, Ring Group, UCD Group or Voice Mail. You can set up separate Key ring overflow destinations for the day mode and at night. If unanswered at the overflow destination, the call again diverts to Key Ring. Note that a Key Ring trunk goes into the night mode when any extension with night mode capability presses their Night key. See *Night Service / Night Ring* on page 265 for more.

Conditions

None

Default Setting

Enabled. (In DS2000 software version 02.01.007 and higher, Key Ring is enabled by default only at extensions 300-315.)

Programming Guide

Step-by-step guide for setting up Key Ring
(Page 1 of 2)

Step 1: Should extension have Key Ring for trunk?

If yes
- In *Program 1805 - Ring Assignments* (page 551),
  - Enter 2 for day & night Key Ring,
  - Enter 3 for night only Key Ring,
  - Enter 4 for delayed day & night Key Ring.
- To ensure that a trunk will always have a ring destination, consider making at least one extension in the system type 2 for all trunks.

If no
- In *Program 1805 - Ring Assignments* (page 551), enter 1 for lamp only (no Key Ring).

Step 2:   Should trunk be a Key Ring trunk during the day?
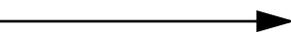
If yes
- In *Program 1003 - Direct Termination (Day)* (page 509), press CLEAR to assign the trunk as a day mode Key Ring trunk.

If no
- Refer to *Direct Inward Line* on page 118 to make a different day mode assignment for the trunk.

Step 3:   Should trunk overflow during the day mode?

If yes
- In *Program 1003 - Activate Overflow During the Day* (page 509), enter Y.
- In *Program 1003 - Day Overflow Destination* (page 509), assign the extension, Ring Group, UCD Group master number or Voice Mail master number you want to use for the trunk's day mode overflow destination.

If no
- In *Program 1003 - Activate Overflow During the Day* (page 509), enter N.

Step 4:   Should trunk be a Key Ring trunk during the night?

If yes
- In *Program 1003 - Direct Termination (Night)* (page 510), press CLEAR to assign the trunk as a night mode Key Ring trunk.
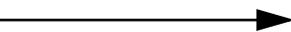
If no
- Refer to *Direct Inward Line* on page 118 to make a different night mode assignment for the trunk.

Key Ring

Step-by-step guide for setting up Key Ring
(Page 2 of 2)

Step 5:   Should trunk overflow during the night mode?

If yes

- In *Program 1003 - Activate Overflow at Night* (page 510), enter Y.
- In *Program 1003 - Night Overflow Destination* (page 510), assign the extension, Ring Group, UCD Group master number or Voice Mail master number you want to use for the trunk's night mode overflow destination.

If no

- In *Program 1003 - Activate Overflow at Night* (page 510), enter N.

Step 6:   Do the trunks ring their initial mode destinations for the correct interval before diverting to the overflow destination?

If yes

- In *Program 0401 - Trunk Revert* (page 457), leave the Trunk Revert interval at is currently assigned value.

If no

- In *Program 0401 - Trunk Revert* (page 457), change the Trunk Revert interval to meet the site requirements.

Step 7:   Do the trunks ring their overflow destinations for the correct interval before diverting to the Key Ring?

If yes

- In *Program 0401 - Transfer Recall* (page 455), leave the Transfer Recall interval at is currently assigned value.

If no

- In *Program 0401 - Transfer Recall* (page 455), change the Transfer Recall interval to meet the site requirements.

Programming List

Program 0401 - Transfer Recall (page 455)
This interval sets how long a call will ring the day or night overflow destination before diverting to key ring.

Program 0401 - Trunk Revert (page 457)
This interval sets how long a call will ring its initial day or night mode destination before routing to the programmed overflow destination.

Program 1003 - Direct Termination (Day) (page 509)
Press CLEAR to assign the trunk to Key Ring in the day mode.

Program 1003 - Activate Overflow During the Day (page 509)
Enter Y if unanswered day mode calls on the trunk should route to the day overflow destination. Enter N if unanswered calls should stay at Key Ring.

Program 1003 - Day Overflow Destination (page 509)
Enter the extension, Ring Group, UCD Group master number or Voice Mail master number that you want to assign as the day overflow destination.

Program 1003 - Direct Termination (Night) (page 510)

Press CLEAR to assign the trunk to Key Ring in the night mode.

Program 1003 - Activate Overflow at Night (page 510)

Enter Y if unanswered night mode calls on trunk should route to the night overflow destination. Enter N if unanswered calls should stay at Key Ring.

Program 1003 - Night Overflow Destination (page 510)

Enter the extension, Ring Group, UCD Group master number or Voice Mail master number that you want to assign as the night overflow destination.

Program 1805 - Ring Assignments (page 551)

Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night). To ensure that a trunk will always have a ring destination, consider making at least one extension in the system type 2 for all trunks.

Other Related Features

Call Coverage Keys (page 61)

Call Coverage will pick up Key Ring calls.

Call Forwarding (page 65)

A Key Ring call will not follow an extension's Call Forwarding.

Call Waiting / Camp-On (page 74)

A Key Ring call will not send Camp-On beeps to a busy extension that normally rings for that call.

Direct Inward Line (page 118)

An unanswered DIL reverts to all extensions with Key Ring for the trunk.

Extended Ringing (page 154)

With Extended Ringing, a call rings longer at its destination before diverting to Key Ring.

Hold (page 197)

Unanswered Hold Recalls revert to Key Ring if not picked up.

Off-Hook Signaling (page 270)

Off-Hook Signaling can occur for Key Ring calls.

Park (page 287)

An unanswered Park recall diverts to Key Ring.

Transfer (page 393)

An unanswered call transferred to an extension diverts to Key Ring if unanswered at the transferring extension.

Feature Operation

Key Ring is automatic for those extensions programmed to receive it.

Last Number Redial

Description

| | DS2000 Fixed Slot
DS2000 U Slot
DS1000 | Available. Last Number Redial saves up to 20 digits. Prior to software version 02.01.07, Last Number Redial would save up to 32 digits. |

⚠ Quickly redial the last number dialed.

Last Number Redial allows an extension user to quickly redial the last outside number dialed. For example, a user may quickly recall a busy or unanswered number without manually dialing the digits. Last Number Redial saves in system memory the last 20 digits a user dials. The number can be any combination of digits 0-9, # and *. The system remembers the digits regardless of whether the call was answered, unanswered or busy. The system normally uses the same trunk as for the initial call. However, if that trunk is busy and is part of a trunk group, Last Number Redial will automatically select the next trunk in the group. The user can also preselect a specific trunk if desired.

Conditions
None

Default Setting
Enabled

Programming Guide

┌───┐
│ **Step-by-step guide for setting up Last** │
│ **Number Redial** │
└───┘

Step 1: Should extension be able to use Last Number Redial on the trunk?

If yes ➤
- In *Program 1803 - Extension Line Access Assignments* (page 546),
  - Enter 2 for outgoing only access,
  - Enter 3 for full access.

If no ➤
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 0 for no access.

Programming List

Program 1803 - Extension Line Access Assignments (page 546)
> An extension can only use trunks for Last Number Redial for which it has outgoing access.
> The access options are: 0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access.

Other Related Features

Account Codes (page 34)
> Last Number Redial does not store Account Codes. This means that the user must manually enter an Account Code to have it included with a call dialed using Last Number Redial.

Central Office Calls, Placing (page 93)
> Users can easily redial the last outside number dialed.

Intercom (page 227)
> Last Number Redial cannot redial Intercom calls.

Save Number Dialed (page 322)
> Save also simplifies dialing important numbers.

Trunk (Line) Queuing / Trunk Callback (page 402)
> If all trunks are busy and Last Number Redial cannot go through, the user can dial 2 a queue for a trunk to become free. If the user hangs up, the system converts the queue to a Trunk Callback.

Feature Operation

To redial your last call:

1. Lift the handset.

2. (Optional) Press an idle line key to preselect a trunk.

    If you skip this step, the system automatically selects a trunk from the same group as your original call.

3. Press **LND**.

    > Dial tone, then your call dialing out.

    > Line key on (green).

    If you hear busy tone, you can dial 2 to queue for a trunk to become free. If you hang up, the system converts the queue to a Trunk Callback.

Line Keys

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

⚠ Press a line key for one-touch access to an outside line.

A line key provides an extension user with one-button access to trunks. The extension user just presses a line key to place or answer a call on the trunk. There is no need to dial codes to access or intercept trunk calls. In addition, a line key provides a Busy Lamp Field (BLF) for the trunk to which it is assigned (see the table below).

Line Key BLF Indications	
When the key is:	**The trunk is:**
Off	Idle or not installed
On (red)	In use or on Exclusive Hold at a co-worker's extension
On (green)	In use at your extension
Winking on (red)	On System Hold at a co-worker's extension
Winking on (green)	On System Hold at your extension
Flashing slowly (red)	Ringing into the system
Flashing slowly (green)	Ringing or recalling directly to your extension

Answering Priority

When multiple calls ring an extension simultaneously, the system services the ringing calls in the following order:

1. **ICM** Key
2. Line Key (from lowest to highest)
3. Loop Key (from lowest to highest)

Conditions

None

Default Setting

(Fixed Slot) Keys 1-8 are line keys for trunks 1-8.
(U Slot) Keys 1-12 are line keys for trunks 1-12.
(DS1000) Keys 1-6 are line keys for trunks 1-6.

Programming Guide

| Step-by-step guide for setting up Line Keys |

Step 1: Should extension have a line key for the trunk?

If yes ➤
- In *Program 1701 - Line Key* (page 518), assign a key as a line key (code 03). The option is 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000.

If no ➤
- In *Program 1701 - Line Key* (page 518), do not assign a key as a line key (code 03).

Step 2: For the trunk assigned to the line key, should extension have incoming, outgoing or full (both ways) access to the trunk?

Incoming ➤
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign option 1 (incoming only).

Outgoing ➤
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign option 2 (outgoing only).

Both ➤
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign option 3 (full access).

Step 3: Should extension have ringing assigned to the line key?
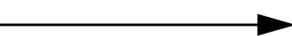
If yes ➤
- In *Program 1805 - Ring Assignments* (page 551), enter the ringing mode for the trunk (2 = ringing day and night, 3 = night ringing only, 4 = delay ringing day and night).

If no ➤
- In *Program 1805 - Ring Assignments* (page 551), enter 1 (lamp only).

Step 4: Should extension have ability to press a line key for an outside line?
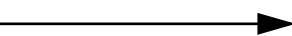
If yes ➤
- In *Program 1802 - Key Access to Outbound Lines* (page 541), enter Y.

If no ➤
- In *Program 1802 - Key Access to Outbound Lines* (page 541), enter N.

Line Keys

Programming List

Program 1701 - Line Key (page 518)
Assign a programmable key as a line key (code 03). The option is 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000.

Program 1802 - Key Access to Outbound Lines (page 541)
Enter Y to enable or N to disable key access to outbound lines.

Program 1803 - Extension Line Access Assignments (page 546)
For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access).

Program 1805 - Ring Assignments (page 551)
Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Other Related Features

Automatic Handsfree (page 50)
Automatic Handsfree allows the keyset user to answer a call ringing a line key without lifting the handset; they just press the line key instead.

Central Office Calls, Placing (page 93)
Line Keys give a user one-touch access to specific trunks.

Direct Inward Line (page 118)
When you assign a trunk as a DIL, it continues to flash its previously programmed line/loop key assignments. It will ring line/loop keys only after diverting to Key Ring.

Loop Keys (page 242)
Loop keys also provide one-button access to trunks.

Ringing Line Preference (page 319)
Ringing Line Preference allows an extension user to answer a call ringing a line key just by lifting the handset.

Feature Operation

User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**
The shaded row below shows the Fixed Slot software User Programmable Feature.			
Line Keys	**#RL**	**#** + **R L** + Press Line Key repeatedly to select ringing mode	N/A
Line Keys	**#RA**	**#RAL** + Call Coverage Key repeatedly to select ringing mode + **SPK** to exit. Line keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green, Night ring=Slow flash green.	2-5

To place a call over a specific trunk using a line key:

1.   Lift handset.

2.   Press line key.

   ✆ ‖Trunk dial tone.

❙👁❙ ‖Line key on.
You may also be able to press a Loop Key. See Loop Keys on page 242 for more.

3. Dial outside number.

To answer an incoming trunk call:

👂 ‖Trunk ring.

Line key flashing red for calls that ring you and your co-workers.

❙👁❙ ‖Line key flashing green for calls that ring you directly (such as DILs and transfers).

1. Lift handset.
   If you have Ringing Line Preference, lifting the handset answers the call.
   If you have Automatic Handsfree, you can press the line or loop key without first lifting the handset.

2. Press flashing line key.

👂 ‖Conversation with caller.

❙👁❙ ‖Line key on.

Loop Keys

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Loop keys simplify answering and placing calls.

Loop keys are programmable keys that simplify the way extension users place and answer outside calls. There are two types of loop keys: Switched Loop Keys and Fixed Loop Keys.

Switched Loop Keys

For incoming calls, Switched Loop Keys provide an appearance for any trunk **_not_** assigned to a line key for which the extension has access and ringing. Switched Loop Keys insure that there is a visual appearance for trunks that do not ring an extension's line keys.

For outgoing calls, Switched Loop Keys provide convenient access to the "dial 9" trunk groups. For example, instead of pressing ICM and dialing 90 for trunk group 0, the user can just press the Switched Loop Key and dial 0 instead.

Fixed Loop Keys

For outgoing calls, a Fixed Loop Key is a loop key assigned to a specific trunk group. When the extension user presses the Fixed Loop Key for an outgoing call, they get the first trunk in the group assigned to the key.

For incoming calls, the Fixed Loop Key works just like a Switched Loop Key. It provides an appearance for any trunk not assigned to a line key for which the extension has access and ringing.

Answering Priority

When multiple calls ring an extension simultaneously, the system services the ringing calls in the following order:

1. **ICM** Key
2. Line Key (from lowest to highest)
3. Loop Key (from lowest to highest)

Conditions

None

Default Setting

- (Fixed Slot) No Switched Loop Keys assigned. In addition, on all keysets keys 9 and 10 are assigned as Fixed Loop Keys (trunk group 0).
- (U Slot and DS1000) No Switched Loop or Fixed Loop Keys assigned.

Programming Guide

Step-by-step guide for setting up Loop Keys

Step 1: Should extension have a Switched Loop Key?

If yes

- In *Program 1701 - Switched Loop Key* (page 517), assign a key as a Switched Loop Key (code 01).

If no

- In *Program 1701 - Switched Loop Key* (page 517), do not assign a key as a Switched Loop Key (code 01).

Step 2: Should extension be able to use Switched Loop Key for answering outside calls?

If yes

- In *Program 1803 - Extension Line Access Assignments* (page 546), assign incoming (1) or full (3) access to the trunks that should be able to ring the Switched Loop Key. ***Be sure all trunks assigned ringing in 1805 below also have incoming or full access.***
- In *Program 1805 - Ring Assignments* (page 551), assign day/night ringing (2), night only ringing (3), or delayed day/night ringing (4) to each trunk that should be able to ring the Switched Loop Key.

If no

- In *Program 1803 - Extension Line Access Assignments* (page 546), do not assign incoming (1) or full (3) access to the trunks that should be able to ring the Switched Loop Key.

Step 3: Should extension user be able to place outgoing calls on Switched Loop Keys?

If yes
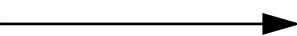
- In *Program 1002 - Trunk Groups* (page 506), assign installed trunks to trunk groups.
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign outgoing (2) or full (3) access to the trunks that should be available for placing calls from the Switched Loop Key.

If no
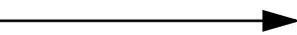
- In *Program 1002 - Trunk Groups* (page 506), do not assign installed trunks to trunk groups.

Loop Keys

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┌─────────────────────────────────────────┐
│   Step-by-step guide for setting up Loop Keys   │
└─────────────────────────────────────────┘
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Step 4:   Should extension have Fixed Loop Keys?

If yes ──────────────►
- In *Program 1701 - Fixed Loop Key* (page 517), assign a key as a Fixed Loop Key (code 02).
- In *Program 1002 - Trunk Groups* (page 506), assign installed trunks to the trunk groups assigned to the Fixed Loop Keys.

If no ──────────────►
- In *Program 1701 - Fixed Loop Key* (page 517), do not assign a key as a Fixed Loop Key (code 02).

Step 5:   Should extension have Fixed Loop Keys for answering outside calls?

If yes ──────────────►
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign incoming (1) or full (3) access to the trunks in the assigned group that should be able to ring the Fixed Loop Key. *Be sure all trunks assigned ringing in 1805 below also have incoming or full access.*
- In *Program 1805 - Ring Assignments* (page 551), assign day/night ringing (2), night only ringing (3), or delayed day/night ringing (4) to each trunk in the group that should be able to ring the Fixed Loop Key.

If no ──────────────►
- In *Program 1803 - Extension Line Access Assignments* (page 546), do not assign incoming (1) or full (3) access to the trunks in the assigned group that should be able to ring the Fixed Loop Key.

Step 6:   Should extension user be able to place outgoing calls on Fixed Loop Keys?

If yes ──────────────►
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign outgoing (2) or full (3) access to the trunks that should be available for placing calls from the Fixed Loop Key.

If no ──────────────►
- In *Program 1803 - Extension Line Access Assignments* (page 546), do not assign outgoing (2) or full (3) access to the trunks that should be available for placing calls from the Fixed Loop Key.

Programming List

Program 1002 - Trunk Groups (page 506)
  Assign trunks to trunk groups.
Program 1701 - Switched Loop Key (page 517)
  Assign a programmable key on an extension as a Switched Loop Key (code 01).
Program 1701 - Fixed Loop Key (page 517)
  Assign a programmable key on an extension as a Loop Key (code 02). You make a separate assignment for inbound and outbound. The options are 00-08 (Trunk Groups 0-8).

Program 1803 - Extension Line Access Assignments (page 546)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access).

Program 1805 - Ring Assignments (page 551)

Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Other Related Features

Automatic Handsfree (page 50)

Automatic Handsfree allows the keyset user to answer a call ringing a line key without lifting the handset; they just press the line key instead.

Call Forwarding (page 65)

Call Forwarding will not reroute a call ringing a loop key (unless the call is a DIL or transferred call).

Central Office Calls, Answering (page 87)

An extension user can press a Loop Key to answer an outside call.

Central Office Calls, Placing (page 93)

An extension user can press a Loop Key to place an outside call.

Direct Inward Line (page 118)

When you assign a trunk as a DIL, it continues to flash its previously programmed line/loop key assignments. It will ring line/loop keys only after diverting to Key Ring.

Line Keys (page 238)

Loop keys also provide one-button access to trunks.

Ringing Line Preference (page 319)

Ringing Line Preference allows an extension user to answer a call ringing a loop key just by lifting the handset.

Trunk Groups (page 405)

Switched and Fixed Loop Keys use the system's Trunk Groups.

Loop Keys

Feature Operation

To answer a call on a Loop Key:

> 👂 ‖ Trunk ringing.
> 👁 ‖ Loop Key flashing (red).

1. Lift handset.

2. Press Switched Loop Key.

    > 👂 ‖ Conversation with caller.
    > 👁 ‖ Loop Key on (green).

To place a call on a Loop Key:

1. Lift handset.

2. Press Loop Key.

    > 👂 ‖ Intercom dial tone.
    > 👁 ‖ Loop Key on (green).

3. Dial trunk group code (0-8).

    > 👂 ‖ Trunk dial tone.
    > 👁 ‖ Loop Key on (green).

4. Dial outside number.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Set up a multiple-party telephone conversation with your co-workers.

With Meet-Me Conference, an extension user can set up a telephone meeting with their co-workers. 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. Users must join the meeting within the Meet-Me Conference interval.

The system has two Meet-Me Conference codes (#11 and #12). After a Meet-Me Conference is set up and the Meet-Me Conference interval expires, the code used becomes available for a new meeting. Since Meet-Me Conference is a type of Conference, the system's Conference capacity determines:

● The number of users that can join a Meet-Me Conference
   and

● The number of simultaneous conferences.

The following table shows the Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions

None

Default Setting

Meet-Me Conference enabled.

Meet-Me Conference

Programming Guide

<div style="border:1px solid black; text-align:center;">
Step-by-step guide for setting up Meet-Me Conference
</div>

Step 1: When a co-worker hears a Page for them to join a Meet-Me Conference, do they have enough time to join the telephone meeting?

(**If yes**) ⟶
- In *Program 0401 - Meet-Me Conference* (page 456), leave the Meet Me Conference interval at its assigned value.

(**If no**) ⟶
- In *Program 0401 - Meet-Me Conference* (page 456), lengthen the Meet Me Conference interval to meet the site requirements.

Step 2: When co-worker's are joining a Meet-Me Conference, is the length of time they have to join the meeting excessive?

(**If yes**) ⟶
- In *Program 0401 - Meet-Me Conference* (page 456), shorten the the Meet Me Conference interval.

(**If no**) ⟶
- In *Program 0401 - Meet-Me Conference* (page 456), leave the Meet Me Conference interval at its currently assigned value.

Programming List

Program 0401 - Meet-Me Conference (page 456)
When a user initiates a Meet-Me Conference, the system waits this interval for the Paged party to join the call.

Other Related Features

The following features also allow different types of multiple party calls:

Barge In (Intrusion) (page 57)
Conference (page 111)
Group Listen (page 181)
Privacy (page 295)
Tandem Trunking / Unsupervised Conference (page 379)

Feature Operation

To set up a Meet-Me Conference:

1. Page parties and announce the Meet-Me Conference code (#11 or #12).
   See Paging on page 281 *for more on how to page your co-workers.*

2. Do not hang up.

3. Press **ICM**.

   | ☞ | Intercom dial tone. |
   | 👁 | **ICM** on (red). |

4. Dial announced Meet-Me Conference code (#11 or #12).

   | ☞ | Conversation with coworkers. |
   | 👁 | • When the first co-worker joins the Conference, **ICM** flashes fast (until the Meet-Me Conference interval expires).
 • When the second and succeeding co-worker's join, **ICM** goes out. |

   Your co-worker's must join the telephone meeting within the Meet Me Conference time.

To join a Meet-Me Conference:

1. Listen for paged invitation to join the Conference.

2. Press **ICM**.

   | ☞ | Intercom dial tone. |
   | 👁 | **ICM** on (red). |

3. Dial announced Meet-Me Conference code (#11 or #12).

   | ☞ | Conversation with coworkers. |
   | 👁 | • When the first co-worker joins the Conference, **ICM** flashes fast (until the Meet-Me Conference interval expires).
 • When the second and succeeding co-worker's join, **ICM** goes out. |

   You can join the telephone meeting within the Meet Me Conference time.

Message Waiting

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

⚠ Leave a Message Waiting request for a return call.

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 key at the called 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:

● Cancel all messages left at their extension.

● Cancel message they left at co-worker's extensions.

● Scroll through their Messages Waiting and select a co-worker to call back.

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.

Conditions

A power failure or system reset cancels all Messages Waiting system wide.

Default Setting

Enabled

Programming Guide

```
┌─────────────────────────────────────────┐
│  Step-by-step guide for setting up Message │
│                  Waiting                  │
└─────────────────────────────────────────┘
```

Step 1: Should the system have Message Waiting capability (applicable only when Voice Mail is not installed)?

If yes ⟶
- In *Program 0201 - Voice Mail Installed* (page 446), enter N to disable Voice Mail.
- ***The system can have Message Waiting or Voice Mail, not both.***

If no ⟶
- In *Program 0201 - Voice Mail Installed* (page 446), enter Y to enable Voice Mail.

Programming List

Program 0201 - Voice Mail Installed (page 446)
Enter N to disable Voice Mail and enable Message Waiting.

Other Related Features

Call Forwarding (page 65)

● An extension user cannot leave a Message Waiting at an co-worker that has Call Forwarding Immediate (*34) enabled. Pressing MW automatically leaves a message at the forwarding destination instead.

● An extension user cannot leave a Message Waiting at a busy co-worker that has Call Forwarding Busy/No Answer (*32) enabled. Pressing MW will automatically leave a message at the forwarding destination instead.

Do Not Disturb (page 146)
An extension user can leave a Message Waiting at an extension in Do Not Disturb.

Intercom (page 227)
A user can leave a Message Waiting after placing an Intercom call to a busy co-worker.

Voice Mail (page 414)
A system can have either Voice Mail or Message Waiting activated — not both.

Voice Over (page 428)
An extension user cannot leave a Message Waiting after using Voice Over.

Feature Operation

To leave a Message Waiting:

1. Place Intercom call to co-worker.
   The extension you call can be unanswered, busy or in Do Not Disturb.

2. Press **MW**.

   | 🕭 | Intercom dial tone. |
   | 👁 | **ICM** on (red). |

3. Hang up.
   MW flashes fast at the extension you call.

To answer a Message Waiting:

   | 🕭 | N/A |
   | 👁 | **ICM** on (red). |

1. Lift handset.

2. Press **MW**.

   | 🕭 | Two beeps or ringing, then conversation with co-worker. |
   | 👁 | **ICM** on (red). |

   If the extension you call is unanswered, busy or in DND, the system cancels Message Waiting.
   If the called extension doesn't answer, press your MW key to automatically leave them a message.
   Normally, your MW key goes out. If it continues to flash, you have additional Messages Waiting.

Message Waiting

To review your Messages Waiting and then select a message for a return call:

👂 ‖N/A

👁 ‖**MW** flashing fast (red).

1. Do not lift the handset.

2. Press **MW**.

    The first message displays. Press MW repeatedly to display additional Messages Waiting, if any.

3. When the extension you want to call displays, lift the handset.

4. Press **MW**.

    👂 ‖Two beeps or ringing.

    👁 ‖**MW** flashing fast (red).

    If the extension you call is unanswered, busy or in DND, the system cancels Message Waiting.

    If the called extension doesn't answer, press your Message Waiting key to automatically leave them a message.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Talk to a co-worker in your office without your caller hearing the conversation.

Microphone Mute lets a keyset user turn off their phone's Handsfree microphone at any time. Once activated, Microphone Mute prevents the caller from hearing Handsfree conversations in the user's work area. The user can turn off the Handsfree or handset microphone while their telephone is idle, busy on a call, in DND or while a call is ringing. The microphone stays off until the user turns it back on.

While an extension has their microphone muted, the calling party hears a single beep when the called extension's mic is muted.

Conditions
A system reset or power failure cancels all Microphone Mutes system wide.

Default Setting
Enabled.

Programming List

None

Other Related Features

Handsfree and Handsfree Answerback (page 190)
Use Microphone Mute to temporarily turn off the Handsfree microphone.

Feature Operation

To activate Microphone Mute:

1. Press **MIC**.

The systems mutes your Handsfree microphone.
MIC on.
You can do this any time while on the phone or while your phone is idle.

Microphone Mute

To deactivate Microphone Mute:

N/A.

MIC on.

1. Press **MIC**.

N/A.

MIC off.

Description

DS2000 Fixed Slot	Not available.
DS2000 U Slot	
DS1000	Available.

⚠️ Maximize modem throughput speeds and obtain power failure cu-through on the same port.

The unique DS1000 Modem Cut-Through feature allows a modem connected to the system's analog modem port to achieve maximum throughput speeds on outside calls. In addition, a single line set plugged into the modem is a fully functinoal internal analog extension. this same single ine set is also the system's power-failure telephone. It directly connexcts to an outside line if there is a commercial power failure.

With Modem Cut-Though, the system can automatically switch an outgoing call from the modem plugged into the PFT/MDM jack directly to trunk 1 or trunk 2. This effectively bypasses the system, allowing modem calls to achieve maximum modem connect speeds. Modem Cut-Through can also bypass the system on an incoming call to the extension plugged into the PFT/MDM jack (extension 316).

To have your modem directly answer incoming calls on trunk 1 or 2, make the trunk a DIL to the PFT/MDM extension. Turn to *Direct Inward Line* on page 118 for more.

Modem Setup

When using Modem Cut-Through, the modem's dial string for outgoing calls must contain the codes to access trunk 1 or trunk 2. There are several methods you can use:

● Line Dial-up (#9 followed by the trunk number 01-06)
Turn to *Central Office Calls, Placing* on page 93 for the programming required to enable Line Dial-up.

● Direct Trunk Access (4 plus the trunk number 01-06)
Turn to *Direct Trunk Access* on page 139 for the programming required to enable Direct Trunk Access.

● Trunk Group Routing (9 or 90-98)
Turn to *Trunk Group Routing* on page 398 for the programming required to enable Trunk Group Routing.

Conditions

● If you have a modem or power failure telephone connected to the PFT/MDM port, do not connect a Voice Mail port to extension 316. This is because extension 316 is in parallel with the PFT/MDM port.

● If you are going to use Modem Cut-Through, be sure your telco provides loop supervision for trunks 1 and 2.

Default Setting

Modem Cut-Through is always available, if connected.

Modem Cut-Through

Programming List

Program 0401 - Intercom Inter-digit (page 456)

The system uses this interval for an extension going into the talk state, which affects the Modem Cut-Though timing. Setting this timer too short or too long could effect DTMF receiver usage and create blocking. Normally, you should leave this timer at its default value (6 seconds). Some applications may require that it be shortened, but it is recommended that it not be lengthened.

Program 0402 - PBX/Centrex Flash (page 460)

When a call is recieved or placed on trunk 1 or trunk 2, the system waits this interval plus 100 mS) to determine if a system extension or the PFT/MDM port is connected to the call. If the PFT/MDM port is on the call, the system connects the port directly to the trunk.

Other Related Features

Voice Mail (page 414)

If you have a modem or power failure telephone connected to the PFT/MDM port, do not connect a Voice Mail port to extension 316. This is because extension 316 is in parallel with the PFT/MDM port.

Feature Operation

Operation is automatic if:

● Your modem is properly installed and connected to the PFT/MDM jack.

● The system programming provides a dialing method to access trunks 1 and/or 2.

● The codes to access trunks 1 or 2 are in the modem's dial string.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Monitor a co-worker's phone conversation without them knowing you are on the phone.

Monitor lets an extension user listen to the conversation at a busy extension. To implement Monitor, an extension user just calls a busy extension and dials the Monitor code. The busy extension and their caller have no indication of the intusion. There are no tones heard and there is no visual indication that monitoring is occuring. For example, Monitor could help the superisor of a service department. The department supervisor could listen to the questions that callers ask without disturbing the service call.

!! CAUTION !!

Monitor provides no warning tones prior to intrusion. Monitor may be interpreted as an invasion of privacy.

Conditions

Monitor uses a system Conference circuit. See *Conference* on page 111 for more.

Default Setting

Disabled

Programming Guide

Step-by-step guide for setting up Monitor

Step 1: Should an extension be able to Monitor a co-worker's call?

If yes

- In *Program 0101 - Silent Monitor* (page 442), enter Y to enable Monitor in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no

- In *Program 0101 - Silent Monitor* (page 442), enter N to disable Monitor in the extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions

---

Monitor / Silent Monitor

Programming List

Program 0101 - Barge-In (Intrusion) (page 440)
>   In an extension's Class of Service, enter Y to allow the extension to Barge In on another extension.
>
Program 1801 - Extension Class of Service Assignment (page 533)
>   Assign Class of Service to extensions.

Other Related Features

Attendant Position (page 46)
>   Since the attendant is never busy, Intercom callers cannot Monitor an attendant.
>
Conference (page 111)
>   An extension user cannot Monitor a Conference.
>
Privacy (page 295)
>   Privacy does not block Monitor.

Feature Operation

To Monitor a call:

1.   Call busy extension.

	Busy tone.
	N/A

2.   Dial 6.

	Two beeps.
	N/A

3.   Listen to the conversation in progress.

Description

DS2000 Fixed Slot DS2000 U Slot DS1000	See *Call Coverage Keys* on page 61.

Music on Hold

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Callers can listen to music while waiting for their call to go through.

Music on Hold (MOH) plays music to calls on Hold, parked calls, and transferred calls. The music lets the caller know that their calls is waiting, not forgotten. Without Music on Hold, the system provides silence to these types of calls. Music on Hold is available from three sources: two internal beep tones and an external source connected to the CPU music input terminals. The external source typically connects to a customer-provided music source (such as a CD player or FM receiver).

Music on Hold requires a customer-provided music source. This source is also used by Background Music. In DS2000, you connect the music source to the CPU's 8-pin mod jack. In DS1000, you connect the music source to the Main Equipment Cabinet AUDIO jack. The music source you use must be compatible with the following specifications:

Table 7: Music Source Specifications	
Input Impedance	10K Ohms
Relative Input Level	+18 dBr (+/- dBr) at 1.0 kHz

For more on connecting a customer-provided music source, refer to the system's Hardware Manual.

With Music on Hold enabled, transferred callers can optionally listen to ringback or MOH while their call waits at the transfer destination.

Note:

In accordance with U.S. copyright law, a license may be required from the America 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 telecommunications systems. NEC America, Inc. hereby disclaims any liability arising out of the failure to obtain such a license.

Conditions
None

Default Setting
External MOH enabled.

Programming Guide

> **Step-by-step guide for setting up Music on Hold**

Step 1: Should the system have Music on Hold?

If yes
• In *Program 0201 - Music on Hold* (page 445), enter Y to enable Music on Hold system wide.

If no
• In *Program 0201 - Music on Hold* (page 445), enter N to disable Music on Hold system wide.

Step 2: Assign the Music on Hold source.

• In *Program 1003 - MOH Source* (page 510), assign the MOH source. The options are:
0 - No MOH
1 - External at CPU terminals
2 - Tone 1 (low pitch)
3 - Tone 2 (high pitch)
4 - ACI port (currently not used)
When entering data, be sure to press VOL ▲ or VOL ▼ after entering your data. Do not press CONF or HOLD instead.

Step 3: Should transferred callers listen to MOH or ringback while waiting?

MOH
• In *Program 0201 - MOH on Transfer* (page 446), enter Y to enable Music on Hold for transferred calls.

Ringback
• In *Program 0201 - MOH on Transfer* (page 446), enter N to enable ringback for transferred calls.

Programming List

Program 0201 - Music on Hold (page 445)
Enter Y for this option to enable Music on Hold system-wide.
Program 0201 - MOH on Transfer (page 446)
Enter Y for this option to enable Music on Hold for transferred calls.

Music on Hold

Program 1003 - MOH Source (page 510)

Assign the MOH source for the trunk. The options are:

0 - No MOH
1 - External at CPU terminals
2 - Tone 1 (low pitch)
3 - Tone 2 (high pitch)
4 - ACI port (currently not used).

When entering data, be sure to press VOL ▲ or VOL ▼ after entering your data. Do not press CONF or HOLD instead.

Other Related Features

Background Music (page 54)

Background Music and Music on Hold share the same external music source.

Hold (page 197)

If installed, Music on Hold plays to callers on Hold

Intercom (page 227)

Music on Hold plays to Intercom callers on Hold. Intercom callers always hear internal Tone 1.

Park (page 287)

If installed, Music on Hold plays to parked callers.

Transfer (page 393)

With Music on Hold enabled, transferred callers can optionally listen to ringback or MOH while their call waits at the transfer destination.

Feature Operation

Music on Hold is automatic once enabled.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Names help identify trunks and extension.

Extensions and trunks can have names instead of just circuit numbers. These names show on a keyset'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. Extension and trunk names can consist of upper and lower case letters, spaces and punctuation, and can be up to 15 characters long.

Extension names display when placing or answering Intercom calls. Trunk names display when using the following features:

- Central Office Calls, Answering
- Central Office Calls, Placing
- Direct Inward Line
- Direct Trunk Access
- Directed Call Pickup
- Last Number Redial
- Line Keys
- Loop Keys
- Night Service / Night Ring
- Park
- Speed Dial
- Transfer

Refer to *Programming Names and Text Messages* on page 439 when entering names.

Conditions
None

Default Setting
- No extension names assigned (the extension's number displays instead).
- All trunk names are *TRUNK* followed by the trunk's number (e.g., *TRUNK 2* for trunk 2).

Names for Extensions and Trunks

Programming Guide

Step-by-step guide for setting up Names for Extensions and Trunks

Step 1: Do you want to program names for trunks?

If yes
- In *Program 1001 - Trunk Name* (page 498), assign names to trunks (up to 15 characters).

If no
- In *Program 1001 - Trunk Name* (page 498), do not change the trunk names from their default entries.

Step 2: Do you want to program names for extensions.

If yes
- In *Program 1801 - Extension Name* (page 532), assign names to extensions (up to 15 characters).

If no
- In *Program 1801 - Extension Name* (page 532), do not change the extension names from their default entries.

Programming List

Program 1001 - Trunk Extension Number (page 498)
Enter the name for the trunk port. The trunk name can be up to 15 characters long.
Program 1801 - Extension Name (page 532)
Enter the name for the extension port. The extension name can be up to 15 characters long.

Other Related Features

See the list under *Description* above.

Feature Operation

Trunk and extension names automatically display once programmed.

Description

DS2000 Fixed Slot
DS2000 U Slot | Available.
DS1000

Use Night Service to reroute calls after hours.

Night Service redirects trunk calls to their night mode destination. Typically, the attendant or supervisor activates Night Service after normal working hours, when most employees are unavailable to answer calls. There are two basic types of Night Service: Assigned Night Answer and Universal Night Answer.

Assigned Night Answer rings extensions directly at Night, providing specific answering points for Night Service calls. (For example, you can program trunks to ring the security station at night.)

Universal Night Answer (UNA) allows a user to pick up a call ringing the system at night. With UNA, an employee can go to any telephone and dial a UNA code to answer the call. The extension does not need to have a line/loop key assigned for the ringing call.

Following are the four basic types of Night Service operation for a trunk. Note that only option 3 enables Universal Night Answer.

- **Option 1: Key Ring Day and Night**
  The trunk is a Key Ring trunk during the day and at night. The trunk rings according to the settings in **Program 1805 - Ring Assignments** (page 551). An extension's Night Key (if programmed) controls the day/night mode of the trunk. The trunk will not enable Universal Night Answer pickup. Turn to *Key Ring* on page 232 for more on setting up Key Ring trunks.

- **Option 2: Key Ring During the Day, DIL at Night**
  The trunk is a Key Ring trunk during the day and a DIL at night. During the day, the trunk rings according to the settings in **Program 1805 - Ring Assignments** (page 551). At night, the trunk rings the DIL destination (i.e., extension, Ring Group UCD Hunting group or Voice Mail). An extension's Night Key (if programmed) controls the day/night mode of the trunk. The trunk will not enable Universal Night Answer pickup. Turn to *Key Ring* on page 232 for more on setting up Key Ring trunks. Turn to *Direct Inward Line* on page 118 for more on setting up Direct Inward Lines.

- **Option 3: DIL During the Day, Key Ring at Night**
  The trunk is a DIL during the day and a Key Ring trunk at night. The trunk rings the DIL destination during the day and rings according to the settings in **Program 1805 - Ring Assignments** (page 551) at night. The DIL destination's DND key controls the night mode of the trunk. If the DIL destination is extension 300 (normally the attendant), pressing the DND key also enables Universal Night Answer pickup. Turn to *Direct Inward Line* on page 118 for more on setting up Direct Inward Lines. Turn to *Key Ring* on page 232 for more on setting up Key Ring trunks.

- **Option 4: DIL Day and Night**
  The trunk is a DIL during the day and at night. The DIL destination's DND key controls the night mode of the trunk. Pressing the DND key will not enable Universal Night Answer pickup. Turn to *Direct Inward Line* on page 118 for more on setting up Direct Inward Lines.

Night Service / Night Ring

At attendant (extension 300 by default), key 11 is a Night key. This allows the attendant to activate the Night Mode system-wide.

Conditions

None

Default Setting

● Trunks 1-8 ring extensions on line keys 1-8 in the day and at night.
● At attendant (extension 300 by default), key 11 is a Night key. This allows the attendant to activate the Night Mode system-wide.

Programming Guide

Step-by-step guide for setting up Night Service / Night Ring (Page 1 of 2)

Step 1: Should extension be able to put Key Ring trunks into the night mode?

If yes

- In *Program 0101 - Activate Night Mode* (page 442), enter Y to allow extensions with the assigned Class of Service to put the system in the night mode. This capability is normally reserved for attendants.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.
- To put a Night key on a keyset:
  In *Program 1701 - Night Key* (page 520), assign a key as a Night key (code 18 + CLEAR).
- To put a Night key on a DSS Console:
  In *Program 1704 - Night Key* (page 530), assign a key as a Night key (code 18 + CLEAR).

If no

- In *Program 0101 - Activate Night Mode* (page 442), enter N to prevent extensions with the assigned Class of Service from putting the system in the night mode.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.
- In *Program 1701 - Night Key* (page 520), and *Program 1704 - Night Key* (page 530), do not assign Night keys (code 18).

Step-by-step guide for setting up Night Service / Night Ring (Page 2 of 2)

Step 2: Do you want Key Ring trunks to ring extensions at night?

If yes
- In *Program 1805 - Ring Assignment* (page 551), for each trunk at each extension assign option 2 (ringing day and night), option 3 (night ring only) or option 4 (delay ring day and night).
- *Program 1803 - Extension Line Access Assignments* (page 546), for each trunk at each extension be sure to assign access option 1 (incoming only) or 2 (outgoing only).

If no
- In *Program 1805 - Ring Assignment* (page 551), for each trunk at each extension do not assign option 2 (ringing day and night), option 3 (night ring only) or option 4 (delay ring day and night).

Step 3: Do you want trunks to enable Universal Night Answer pickup?

If yes
Implement Night Service option 3:
- In *Program 1003 - Direct Termination (Day)* (page 509), terminate the trunk to extension 300 during the day.
- In *Program 1003 - Direct Termination (Night)* (page 510), terminate the trunk to Key Ring at night (by pressing CLEAR).

If no
- Implement one of the other basic types of Night Service operation (option 1, 2 or 4).

Programming List

Program 0101 - Activate Night Mode (page 442)
Enter Y to allow an extension to activate the Night Mode for Key Ring trunks.
Program 1003 - Direct Termination (Day) (page 509)
To enable UNA pickup for a trunk (e.g., ** + 01 at night), terminate the trunk to extension 300 during the day. UNA pickup only applies to Option 3.
Program 1003 - Direct Termination (Night) (page 510)
To enable UNA pickup for the trunk (e.g., ** + 021 at night), terminate the trunk to Key Ring at night (by pressing CLEAR). UNA pickup only applies to Option 3.
Program 1701 - Night Key (page 520)
Assign a programmable key as a Night Key (code 18 + CLEAR). Pressing the Night Key puts trunks terminated to Key Ring during the day into the night mode.
Program 1704 - Night Key (page 530)
Assign a DSS Console key as a Night Key (code 18 + CLEAR). Pressing the Night Key puts trunks terminated to Key Ring during the day into the night mode.
Program 1801 - Extension Class of Service Assignment (page 533)
Assign Class of Service to extensions.
Program 1803 - Extension Line Access Assignments (page 546)
For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access).

Night Service / Night Ring

Program 1805 - Ring Assignments (page 551)
Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night).

Other Related Features

Direct Inward Line (page 118)
- The extension to which the DIL is terminated controls the night mode of the DIL.
- If a DIL is terminated to the Voice Mail master number, a System Mode key (code 18 + the Voice Mail number) controls the night mode status of the DIL.

Direct Station Selection (DSS) Console (page 128)
A DSS Console with a Night key can put the system in the night mode.

Do Not Disturb (page 146)
A DIL destination activates the night mode for the DIL when they press DND.

Group Ring (page 183)
The Night key sets the day/night status of a DIL terminated to a Ring Group.

Feature Operation

To activate Night Service (i.e., put Key Ring trunks into the night mode):

This capability is normally restricted to attendants and supervisors.

1. Do not lift the handset.
2. Press the Night key.

👂	N/A.
👁	Night key on. You display shows: *SYSTEM IN NIGHT MODE*

To deactivate Night Service (i.e., put Key Ring trunks into the day mode):

👂	N/A.
👁	Night key on.

This capability is normally restricted to attendants and supervisors.

1. Do not lift the handset.
2. Press the Night key.

👂	N/A.
👁	Night key goes out.

To answer a call that rings a line or loop key at night:

👂	Trunk ring.
👁	Line or loop key flashing red for key ring call. Line key flashing green for DIL.

1. Lift handset.
    If you have Ringing Line Preference, lifting the handset answers the call.
    If you have Automatic Handsfree, you can press the line or loop key without first lifting the handset.
2. Press flashing line or loop key.

👂	Conversation with caller.
👁	Line or loop key on.

To answer a call ringing the system at night (UNA Pickup):

🧏	Trunk ring.
👁	N/A

1. Press **ICM**.

2. Dial ** followed by the UNA code (01-04).

 Dial the lowest number first (e.g., 01). If you hear busy, try the next highest number (e.g., 02).

Off-Hook Signaling

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	Available. User Programmable Feature steps added.
DS1000	Available. Includes User Programmable Feature steps.

Off-Hook Signaling helps important callers get through.

When a user is busy on a call, Off-Hook Signaling indicates that another caller is trying to get through. Off-Hook Signaling helps important callers get through, without waiting in line for the called extension to become free. After the user hears the off-hook signal, they can use other system features (such as Hold or Park) to process their active call and then answer the waiting call.

Off-Hook Signaling for Trunk Calls

While a keyset user is on a call, Off-Hook Signaling for trunk calls can be:

● While on a handset call, a flashing green Ring/Message lamp, line/loop key, and muted off-hook ringing. (While Off-Hook Signaling ringing is occuring, use VOL ▲ and VOL ▼ to adjust the volume of ringing.)
   OR

● While on a handset or Handsfree call, a flashing green line/loop key and Camp-On tones.

The following chart shows when the two types of Off-Hook Signaling occur. Note that Camp-On tones occur for an extension when they are the exclusive recipient of the call (such as a DIL).

	Off-Hook Ringing[1]	Camp-On Tones[2]
Key Ring	Yes	No
Transferred Trunk Call	Yes	Yes
Direct Inward Line	Yes	Yes
Transfer from Voice Mail (UTRF)	Yes	Yes
Call Coverage Key	Yes	No
Group Call Pickup Key	Yes	No

[1] For Off-Hook ringing, **1802 - Off-Hook Signaling for CO Calls** = 2.
[2] For Camp-On tones, **1802 - Off-Hook Signaling for CO Calls** = 1.

Off-Hook Signaling for Intercom Calls

While an extension user is on a handset or Handsfree call, they can receive Camp-On tones from a co-worker that called them and dialed 2 to Camp-On. Turn to *Call Waiting / Camp-On* on page 74 for more on how to set this up. Off-hook ringing for Intercom calls is not available.

Conditions
None

Default Setting

● Off-Hook Signaling for trunk calls is a flashing green line/loop key and Camp-On tones.
● Off-Hook Signaling for Intercom calls is Camp-On tones.

Programming Guide

Step-by-step guide for setting up Off-Hook Signaling

Step 1: When an Intercom call is waiting, should extension hear Camp-On beeps, Voice Over, or no Off-Hook Signaling?

Camp-On ⟶
- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 539), enter 1.
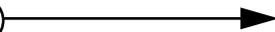
Voice Over ⟶
- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 539), enter 3.
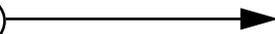
No Signals ⟶
- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 539), enter 0.

Step 2: When an Intercom call from their Hotline partner's Hotline key is waiting, should extension hear Camp-On beeps, Voice Over, or no Off-Hook Signaling?

Camp-On ⟶
- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 1.
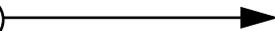
Voice Over ⟶
- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 3.

No Signals ⟶
- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 0.

Step 3: When an incoming trunk call is waiting, should extension hear Camp-On beeps, off-hook ringing, or no Off-Hook Signaling?

Camp-On ⟶
- In *Program 1802 - Off-Hook Signaling for CO Calls* (page 540), enter 1.
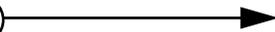
Ringing ⟶
- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 2.
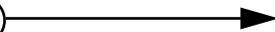
No Signals ⟶
- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 0.

Off-Hook Signaling

Programming List

Program 1802 - Off-Hook Signaling for Intercom Calls (page 539)
- Set an extension's Off-Hook Signaling options for incoming Intercom calls. The options are 0 (no Off-Hook Signaling), 1 (Call Wait beeps over speaker), and 3 (Voice Over).
- Turn to *Call Waiting / Camp-On* on page 74 for more on setting up Camp On.
- Turn to *Voice Over* on page 428 for more on setting up Voice Over.

Program 1802 - Off-Hook Signaling for Hotline Partner (page 539)
- Set an extension's Off-Hook Signaling options for incoming Intercom calls from their Hotline partner that were placed using the Hotline key. The options are 0 (no Off-Hook Signaling), 1 (Call Wait beeps over speaker), or 3 (Voice Over).
- Note that incoming Intercom calls *dialed* from the Hotline partner follow the *Off-Hook Signaling for Intercom Calls* option above.
- Turn to *Voice Over* on page 428 for more on setting up Voice Over.

Program 1802 - Off-Hook Signaling for CO Calls (page 540)
Set an extension's Off-Hook Signaling options for incoming trunk calls. The options are 0 (no Off-Hook Signaling),1 (Camp-On tones) and 2 (off-hook ringing).

Other Related Features

Attendant Call Queuing (page 44)
The Operator Call Key does not activate off-hook signaling.

Caller ID (page 81)
An extension programmed to receive Camp On tones or Off-Hook Ringing from a waiting call will also receive Second Call Caller ID.

Conference (page 111)
An extension user can Conference their active call with the waiting call.

Direct Inward Line (page 118)
DILs can initiate Off-Hook Signaling beeps.

Headset Compatibility (page 194)
Turn to *Off-Hook Signaling and Headsets* on page 194 for more on how Off-Hook Signaling interacts with headsets.

Hold (page 197)
An extension user can place their current call on Hold and answer the waiting call.

Hotline (page 202)
Hotline activates Off-Hook Signaling.

Key Ring (page 232)
Off-Hook Signaling can occur for Key Ring calls.

Park (page 287)
An extension user can Park their current call and answer the waiting call.

Split (Alternate) (page 343)
An extension user can alternate between their active call and their waiting call.

Transfer (page 393)
An extension user can Transfer their current call to a co-worker or Voice Mail and then answer the waiting call. In addition, transferred calls can initiate Off-Hook Signaling.

Voice Over (page 428)
Voice Over also lets a user get through to a keyset extension user busy on a handset call. The busy keyset extension user hears an alert tone followed by the voice of the interrupting party.

Feature Operation

	User Programmable Feature		
Feature	**Mnemonic**	**Operation**	**Access Level**
This option is not available in Fixed Slot software.			
Off Hook Signaling	**#OHR**	**#OHS** + Select mode (**C**=Outside line, **D**=DSS, **I**=ICM) + Select option (see below) + **SPK** to exit. *Outside line options:* **C**=Camp On tone, **O**=Off Hook Ringing, **0** = None *Intercom options:* **C**=Camp On, **O**=Off Hook Ringing, **V**=Voice Over, **0** = None *DSS/Hotline Options:* **C**=Camp On, **O**=Off Hook Ringing, **0** = None	3-5

Off-Hook Signaling is automatic for camped-on Intercom calls, Direct Inward Lines and transferred trunk calls.

Off-Premise Extensions / On-Premise SLT Extensions

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	2-OPX Modules require software version 2.00.01.
DS1000	2-OPX Modules are not available.

Connect analog devices such as single line telephones, fax machines and voice mail systems to the system.

The system is compatible with 500 type (dial pulse) and 2500 type (DTMF) analog telephone devices. This includes telco OPX circuits (DS2000 only), on-premise single line telephones (SLTs), fax machines, modems, and voice mail ports. In DS2000, off-premise SLTs can connect to 2-OPX Modules. On-premise SLTs connect to 2-OPX Modules or ASTU PCBs. In DS1000, on-premise SLTs connect to dedicated analog ports 316-323 in the main equipment cabinet. DS1000 off-premise extensions are not available.

DS2000 ASTU PCBs and the DS1000 analog ports do not provide the signaling required to light SLT Message Waiting lamps

DS2000 ASTU PCBs are available in two models, providing 4 and 8 ports, respectively. Each ASTU port provides power and ring voltage for the connected SLT. ASTU PCBs use system DTMF receivers, and do not provide the signaling required to light SLT Message Waiting lamps. The CPU provides 10 DTMF receivers that are shared by all devices connected to ASTU ports.

Each 2-OPX Module (P/N 92177A) provides two OPX ports. The first 2-OPX extension number is the same as the port's extension number. The second 2-OPX extension number is the first port *plus 201*. For example, the two extension numbers for the 2-OPX module plugged into extension 314 are 314 and 515.

In addition, the 2-OPX Module has its own DTMF receivers (one for each port), internal ring generator and power supply to provide the connected SLT with power and ring voltage. The 2-OPX Module does not provide the signaling required to light SLT Message Waiting lamps.

Fixed Slot systems have unique 2-OPX Module extension numbering. Refer to the system *Hardware Manual* that came with your Fixed Slot system for additional details.

Ringing For Incoming Calls (Prior to Software Version 02.01.07)

On- and Off-Premise single line extensions do not ring according to the settings in **Program 1805 - Ring Assignments** (page 551). They can, however, directly ring for the following:

- **Direct Inward Line** (page 118)
- **Intercom** (page 227)
- **Group Ring** (page 183)
- **Ringdown Extension** (page 317)
- **Transfer** (page 393)

Ringing For Incoming Calls (Software Version 02.01.07 and Higher)

On- and Off-Premise single line extensions ring according to the settings in **Program 1805 - Ring Assignments** (page 551). It is no longer necessary to assign single line sets to Ring Groups to make them ring for incoming calls; they follow Key Ring instead. In DS2000 by default, extensions in the first DSTU PCB (300-315) ring (option 2) for trunks 1-24 and flash (option 1) for trunks 25-48. All other extensions have lamp only for all trunks. In DS1000 by default, all extensions (including sin-

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gle line sets) have immediate ring for all trunks. Refer to **Ringer Equivalence Number (REN) Considerations** below.

Ringer Equivalence Number (REN) Considerations

DS1000

Single line telephones assigned to Key Ring or the same Ring Group will ring simultaneously. This is also true for single line telephones connected to the same port. Since the Ringer Equivalence Numbers of connected single line telephones are cumulative, you must do the following:

● Add up the RENs of all connected single line telephones.

● Be sure the total REN does not exceed 4 on any single port *or* system-wide.

Note that a REN of 1 is normal for an industry standard 2500 set with electromechanical ringer. Many phones with electronic ringers have significantly lower REN's. Check the label on the bottom of each single line telephone for the

DS2000

Single line telephones assigned to Key Ring or the same Ring Group ring in pairs according to their ASTU PCB port assignment. For example, ports 1 and 2 ring together, followed by 3 and 4, 5 and 6, and finally 7 and 8. If the system has more than one ASTU PCB installed, the respective port pairs ring simultaneously on each card (e.g., ports 1 and 2 ring simultaneously on each PCB). The ASTU provides the capability to support this ringing arrangement, and REN calculations are not required. In DS2000, there *is not* a REN limitation.

Conditions

● 2-OPX Module circuits meet the requirements of EIA Specification RS-464-A for OPS Class C (loop resistance to 3,300 ohms, loop current = 16 mA or greater). The 2-OPX Module provides far end loop disconnect supervision for the connected circuits.

● Dial Pulse (500 type) single line telephones cannot access any features that require the user to dial # or *.

● The system provides a pool of 10 DTMF receivers that are dynamically allocated as required.

Default Setting

The system's 2-OPX Modules do not auto-ID. See the Programming List below more.

Programming List

Program 0403 - Drop Pulse Send (page 467)
> Use this timer to set the duration of the ASTU PCB drop pulse. This pulse is sent from the ASTU PCB to the connected analog device to initiate a disconnect.

Program 0403 - DTMF Detect (page 467)
> Set the DTMF detection threshold for single line (analog device) ports. If the analog device sends a DTMF signal longer than this interval, the system recognizes it as a valid DTMF tone and decodes it. If the DTMF signal is equal to or less than this interval, the system ignores it

Program 1801 - Extension Circuit Type (page 532)
> DS2000 Only
> Assign circuit type 15 to each ASTU port. Assign circuit type 21 to the DSTU port to which the 2-OPX is connected.

Off-Premise Extensions / On-Premise SLT Extensions

Other Related Features

Background Music (page 54)
> Background Music is not available to On- and Off-Premise extensions.

Conference (page 111)
> On- and off-premise SLT extensions can use Conference.

Do Not Disturb (page 146)
> On- and Off-Premise extensions cannot use DND.

Handsfree and Handsfree Answerback (page 190)
> On- and Off-Premise Extensions do not have Handsfree and Handsfree Answerback capability.

Headset Compatibility (page 194)
> On- and Off-Premise Extensions do not have headset capability.

Intercom (page 227)
> All Intercom calls to On- and Off-Premise Extensions ring.

Paging (page 281)
> On- and Off-Premise Extensions can make Paging announcements, but cannot receive Paging announcements.

Prime Line Preference (page 292)
> On- and off-premise extensions cannot use Prime Line Preference.

Save Number Dialed (page 322)
> Save Number Dialed is not available to SLTs.

Single Line Telephones (page 330)
> Single line telephones connect to either 2-OPX Modules or ASTU PCBs. On-premise single line telephones have the same capability as Off-Premise Extensions.

Feature Operation

Call Forwarding (page 65)

1. Lift handset + Dial ***3** + Dial Call Forwarding type:
   0 = Cancel your extension's Call Forwarding
   2 = Call Forwarding Busy/No Answer
   4 = Call Forwarding Immediate
   6 = Call Forwarding No Answer
2. Dial destination extension, **0** for your operator, or Voice Mail master number.
3. Hang up.

Call Waiting / Camp-On (page 74)

1. Call busy extension + Dial **2** + Do not hang up.
   > *If you hang up, the system converts your Camp-On to a Callback.*
2. Speak to your co-worker when they answer their Camp-On ring.

Callback (page 78)

1. Call busy extension + Dial **2** and hang up.
   > *Stay on the line without hanging up if you want to Camp-On instead.*
2. When Callback rings your phone, lift handset to answer.
3. Speak to your co-worker when call goes through.

Central Office Calls, Answering (page 87)

1. When your telephone rings, lift the handset.

Central Office Calls, Placing (page 93)

Line Dial-Up

1.   Lift handset + Dial **#9** followed by the trunk number (e.g., #901 for trunk 1).

Direct Trunk Access

1.   Dial **4** plus the trunk number (e.g., 401 for trunk 1) + Dial outside number.

Trunk Group Access

1.   Lift handset + Dial trunk group code (9 or 90-98) + Dial outside number.

Conference (page 111)

1.   Establish Intercom or trunk call

2.   Hookflash and dial extension or trunk you want to add.

3.   Hookflash and dial #10 to set up Conference.
     If you cannot add additional parties to your Conference, you have exceeded the system's Conference limit.

4.   Repeat steps 2 and 3 to add additional parties to your Conference.

Direct Trunk Access (page 139)

1.   Dial **4** plus the trunk number (e.g., 401 for trunk 1) + Dial outside number.

Directed Call Pickup (page 141)

1.   Lift handset + Dial *** *** + Dial number of extension whose call you want to intercept.
     To intercept a call ringing an attendant, dial the attendant's extension number (e.g., 300). Do not dial 0 or 01-04.

Forced Trunk Disconnect (page 175)

1.   Lift handset + Dial the trunk's Direct Trunk Access code (e.g., 401 for trunk 1).

2.   Dial **#** to disconnect the line.
     You hear Intercom dial tone. To place a call on the trunk, dial a trunk access code and then dial the number.

Group Call Pickup (page 177)

1.   Lift handset + Dial *#.

Hold (page 197)

Place

1.   Hookflash.
     This places a trunk call on Exclusive Hold.

2.   (Optional) Hang up.

Retrieve

1.   From Intercom dial tone, dial *7.

Retrieve trunk on Hold at a Co-worker's Extension

1.   From Intercom dial tone, dial *4.

2.   Dial the number of the trunk that is on Hold (e.g., 01 for trunk 1).

Intercom (page 227)

Place

1.   Lift handset + Dial extension number (300-316).

Off-Premise Extensions / On-Premise SLT Extensions

> *To call the operator, dial the operator s extension number or dial 0 or 01-04 (depending on how your system is set up).*
> *If your call voice-announces the destination, you can dial 1 to force the call to ring.*

Answer

1. Lift handset.

Last Number Redial (page 236)

1. Lift handset + Dial #5.
   > *The system automatically selects a trunk from the same group as your original call.*
   > *If you hear busy tone, you can dial 2 to queue for a trunk to become free. If you hang up, the system converts the queue to a Trunk Callback.*

Meet-Me Conference (page 247)

Setting Up

1. Page parties and announce the Meet-Me Conference code (#11 or #12).
   > *See Paging on page 281 for more on how to page your co-workers.*

2. Hang up + Lift Handset + Dial announced Meet-Me Conference code (#11 or #12).
   > *Your co-worker's must join the telephone meeting within the Meet Me Conference time.*

Joining

1. Listen for paged invitation to join the Conference + Dial announced Meet-Me Conference code (#11 or #12).
   > *You can join the telephone meeting within the Meet Me Conference time.*

Message Waiting (page 250)

Leaving a Message Waiting

1. Place Intercom call to co-worker.
   > *The extension you call can be unanswered, busy or in Do Not Disturb.*

2. Dial **8** + Hang up.
   > *MW flashes fast at the extension you call.*

Answering a Message Waiting

> *The system currently provides no indication that an on- or off-premise extension has messages waiting.*

1. Lift handset + Dial ***8**.

Night Service / Night Ring (page 265)

1. Dial ** + UNA code (01-04).
   > *Dial the lowest code first (e.g., 01). If you hear busy, try the next highest code (e.g., 02).*

Paging (page 281)

> *SLTs cannot receive Paging announcements.*

1. Lift handset + Dial ***1** + Dial Paging zone (1-7 or 0 for all call).

Park (page 287)

Park a Call

1. Place or answer call + Hookflash + Dial ***** + Dial orbit (60-69 for system orbits, *300-*331 for Personal Park)

<u>**Retrieve a Parked Call**</u>

1. Lift handset + Dial ***** + Dial orbit (60-69 for system orbits, *300-*331 for Personal Park)

Pulse to Tone Conversion (page 309)

> Must be switched manually from the telephone. The system does not provide Pulse to Tone Conversion for SLTs.

Removing Trunks and Extensions From Service (page 311)

1. Lift handset + Dial **#40** + Dial trunk (401-448 in DS2000 or 104-406 in DS1000) or extension (300-395 in DS2000 or 300-325 in DS1000) you want to remove or return to service + Dial **4** to return or **6** to remove. Hang up.

Speed Dial (page 332)

To dial a Speed Dial Number:

1. Lift handset and dial #.

2. Dial the Personal Speed Dial bin number (701-720).
    > OR
    Dial the System Speed Dial bin number (normally 200-299).
    > *The stored number dials out.*

Tandem Trunking / Unsupervised Conference (page 379)

1. Establish trunk call (e.g., lift handset, dial 9, and dial outside number).

2. Hookflash and dial another trunk call.

3. Hookflash and dial #10 to set up Conference.

4. Hang up.
    > *If the outside parties disconnect, the trunks you selected do not have Tandem Trunking capability.*

Transfer (page 393)

To Transfer your call:

1. Place or answer call.

2. Hookflash + Dial extension to which you want to transfer the call.
    > *To Transfer the call to the Voice Mail Automated Attendant, dial the Voice Mail master number.*

3. To Transfer the call unscreened, hang up.
    > OR
    To screen the Transfer, wait for the called party to answer before hanging up.

To return to the call if the calling party doesn't want the Transfer:

1. Hang up + Lift handset + Dial ** and co-worker's extension number.
    > *Do not hookflash or the call will go on Hold at the destination extension.*

To receive a Transfer (if you get an intercom call announcing it):

1. Stay on the line.
    > *The Transfer goes through when the calling party hangs up.*

Voice Mail (page 414)

1. Lift handset + Dial *8.

One-Touch Keys

Description

DS2000 Fixed Slot DS2000 U Slot DS1000	Available for Personal Speed Dial. Refer to *Speed Dial* on page 332.

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	Available. User Programmable Feature steps added. Version 02.00.04 adds Page Relay Control.
	DS1000	Available. Provides Page Relay Control. Includes User Programmable Feature steps.

⚠ Use Paging to broadcast announcements or quickly locate co-workers.

Paging lets extension users broadcast announcements to other keyset users and to external Paging speakers. Paging allows a user to locate a co-worker or make an announcement without calling each extension individually. There are two types of Paging: Internal Paging and External Paging.

Internal Paging

Internal Paging allows extension users to broadcast announcements into 7 internal Paging Zones and All Call (all zone). When a user makes a zone page, the announcement broadcasts to all extensions assigned to the specified zone. If the user makes an All Call announcement, the announcement simultaneously broadcasts to extensions in all zones. All Call Paging automatically overrides any zone pages already in progress. A system timer can optionally limit the duration of Paging announcements.

To simplify Paging access, a keyset can have Programmable Function Keys assigned as Page keys.

Paging Key Busy Lamp Indications	
When the key is:	**The zone is:**
Off	Idle
On (red)	A co-worker is Paging into the assigned zone
On (green)	The extension user is Paging into the assigned zone.

External Paging

When a user pages into Internal All Call Page or Internal page Zone 1, the system simultaneously broadcasts the announcement into the External Paging Zone. In DS2000, access to the external zone is via pins in the CPU's 8-pin mod jack. In DS1000, access to the external zone is via the AUDIO jack in the main equipment cabinet. Refer to the system's *Hardware Manual* for additional installation details.

When connecting External Paging equipment, be sure to adhere to the following requirements:

Table 8: Audio/Paging Output	
Output Impedance	600 Ohms @ 1 KHz
Output Level	0 dBr at 1.0 KHz

Paging

Page Relay Control

Page Relay Control allows an announcement broadcast into a Paging zone to activate a system relay. This relay is typically used to activate a customer-provided Paging amplifier. In DS2000, there is a single relay on the CPRU PCB. DS1000 has 2 relays: one in the DOOR1 jack and another in the DOOR2 jack. In either system, you can assign these relays for Door Box strike control or Page Relay Control, but not both.

The equipment you connect to a system relay must be compatible with the following specifications. Refer to your system's Hardware Manual for more on connecting to the system relay contacts.

Table 9: Relay Contact Specifications	
DS1000	
Contact Configuration:	Normally open
Maximum Load:	0.5A @ 120 VAC 1A @ 24 VDC
Maximum Initial Contact Resistance	100 mOhms
D2000	
Contact Configuration:	Normally open
Maximum Load:	60 mA @ 30 VDC 10 mA @ 90 VDC
Maximum Initial Contact Resistance	50 mOhms

Conditions

None

Default Setting

All Call and Zone Paging allowed.

Programming Guide

Step-by-step guide for setting up Paging

Step 1: Should extension be able to receive Paging announcements?

If yes
- In *Program 1807 - Paging Through Speaker* (page 553), enter Y to allow the extension to receive paging announcements.
- In *Program 1802 - Page Zone Member* (page 541), assign extension to the zone for which it should receive page announcements (1-7, 0 for All Call only).

If no
- In *Program 1807 - Paging Through Speaker* (page 553), enter N to prevent extension from receiving paging announcements.

Step-by-step guide for setting up Paging

Step 2:   Should extension be able to make (broadcast) Paging announcements?

If yes

- In *Program 0101 - Initiate All Call Page* (page 441), enter Y to allow extensions with the assigned Class of Service to make All Call Paging announcements.
- In *Program 0101 - Access Page Zone 1* (page 441), through *Program 0101 - Access Page Zone 7* (page 442), enter Y to allow extensions with the assigned Class of Service to make announcements into zones 1-7.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no

- In *Program 0101 - Initiate All Call Page* (page 441), enter N to prevent extensions with the assigned Class of Service from making All Call Paging announcements.
- In *Program 0101 - Access Page Zone 1* (page 441), through *Program 0101 - Access Page Zone 7* (page 442), enter N to prevent extensions with the assigned Class of Service from making announcements into zones 1-7.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Step 3:   When a user makes a Paging announcement, is the length of time the system allows to make the page announcement adequate?

If yes

- In *Program 0401 - Page Duration* (page 456), leave the Page Duration interval at its currently assigned value.

If no

- In *Program 0401 - Page Duration* (page 456), change the Page Duration interval to meet the site requirements.

Step 4:   Should extension have one-touch Paging?

If yes

- In *Program 1701 - Page Zone Key* (page 519), assign a programmable function key as a Page Zone key (code 13 + zones 1-7 or 0 for All Call).

If no

- In *Program 1701 - Page Zone Key* (page 519), do not assign a programmable function key as a Page Zone key (code 13).

Paging

Step-by-step guide for setting up Paging

Step 5: Should DSS Console have one-touch Paging?

If yes →
- In *Program 1704 - Page Zone Key* (page 529), assign a programmable function key as a Page Zone key (code 13 + zones 1-7 or 0 for All Call).

If no →
- In *Program 1704 - Park Orbit Key* (page 528), do not assign a programmable function key as a Page Zone key (code 13).

Step 6: In DS2000, should a Paging announcement activate the CPRU relay?

If yes →
- In *Program 0201 - CPRU Relay* (page 448), enter 2 to assign the CPRU relay for Page control.
- In *Program 0201 - CPRU Relay Page Zone Assignment* (page 448), enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).

If no →
- In *Program 0201 - CPRU Relay* (page 448), enter 0 to disable the CPRU PCB relay for Page control.

Step 7: In DS1000, should a Paging announcement activate the DOOR1 or DOOR2 relay?

If yes →
For the DOOR1 relay:
- In *Program 0201 - DOOR1 Relay* (page 448), enter 2 to assign the DOOR1 relay for Page control.
- In *Program 0201 - DOOR1 Relay Page Zone Assignment* (page 448), enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).
For the DOOR2 relay:
- In *Program 0201 - DOOR2 Relay* (page 448), enter 2 to assign the DOOR2 relay for Page control.
- In *Program 0201 - DOOR2 Relay Page Zone Assignment* (page 448), enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).

If no →
- In *Program 0201 - CPRU Relay* (page 448), enter 0 to disable the CPRU PCB relay for Page control.

Programming List

Program 0101 - Initiate All Call Page (page 441)
  Enter Y to enable an extension's ability to make an All Call Paging announcement.
Program 0101 - Access Page Zone 1 (page 441)
  Enter Y to enable an extension's ability to make a zone 1 Paging announcment.
Program 0101 - Access Page Zone 2 (page 441)
  Enter Y to enable an extension's ability to make a zone 2 Paging announcment.

Program 0101 - Access Page Zone 3 (page 441)
> Enter Y to enable an extension's ability to make a zone 3 Paging announcment.

Program 0101 - Access Page Zone 4 (page 441)
> Enter Y to enable an extension's ability to make a zone 3 Paging announcment.

Program 0101 - Access Page Zone 5 (page 442)
> Enter Y to enable an extension's ability to make a zone 3 Paging announcment.

Program 0101 - Access Page Zone 6 (page 442)
> Enter Y to enable an extension's ability to make a zone 3 Paging announcment.

Program 0101 - Access Page Zone 7 (page 442)
> Enter Y to enable an extension's ability to make a zone 3 Paging announcment.

Program 0201 - CPRU Relay (page 448)
> For DS2000 Only
> Enter 2 to assign the CPRU relay for Page control.

Program 0201 - CPRU Relay Page Zone Assignment (page 448)
> For DS2000 Only
> Enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).

Program 0201 - DOOR1 Relay (page 448)
> DS1000 Only
> Enter 2 to assign the DOOR1 relay for Page control.

Program 0201 - DOOR1 Relay Page Zone Assignment (page 448)
> DS1000 Only
> Enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).

Program 0201 - DOOR2 Relay (page 448)
> DS1000 Only
> Enter 2 to assign the DOOR2 relay for Page control.

Program 0201 - DOOR2 Relay Page Zone Assignment (page 448)
> DS1000 Only
> Enter the Page zone that should activate the relay (1 = External Paging [zone 1 and All Call], 2-7 = Internal zones 2-7).

Program 0401 - Page Duration (page 456)
> Use this timer to set the maximum length of Page announcements.

Program 1701 - Page Zone Key (page 519)
> Assign a programmable key on an extension as a Page Zone key (code 13). The options are 0-7 (Page Zones 1-7 or 0 for All Call Page).

Program 1704 - Page Zone Key (page 529)
> Assign a programmable key on a DSS Console as a Page Zone key (code 13). The options are 0-7 (Page Zones 1-7 or 0 for All Call Page).

Program 1801 - Extension Class of Service Assignment (page 533)
> Assign Class of Service to extensions.

Program 1802 - Page Zone Member (page 541)
> Assign the extension to a Page Zone (1-7).

Program 1807 - Paging Through Speaker (page 553)
> Enter Y to enable Paging through the telephone speaker.

Other Related Features

Direct Station Selection (DSS) Console (page 128)
> DSS Consoles can have Page zone keys.

Do Not Disturb (page 146)
> DND blocks Paging announcements.

Headset Compatibility (page 194)
> While in the headset mode, the extension user can hear Paging announcements in the headset.

Paging

Feature Operation

	User Programmable Feature		
Feature	**Mnemonic**	**Operation**	**Access Level**
This option is not available in Fixed Slot software.			
Paging (Incoming)	**#VP**	**#VP** + **Y** to enable or **N** to disable + **SPK** to exit.	3-5

To make an Internal Paging announcement:

1. Lift handset.

2. Press **ICM**.

👂	Intercom dial tone.
👁	**ICM** on.

3. Dial *1 and page zone number (1-7 or 0 for All Call).

👂	Two beeps.
👁	N/A

4. Make announcement and hang up.
   The system may limit the length of your announcement.

   OR

1. Lift handset.

2. Press Paging key.

👂	Two beeps.
👁	N/A

3. Make announcement and hang up.
   The system may limit the length of your annoucement.

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot DS1000	• Distinctive flash rate for Park Recall requires DS2000 software version 02.00.01 or DS1000. • Unanswered calls Parked by an extension that has RNA/Busy Terminal Hunting to Voice Mail do not route to Voice Mail in DS2000 02.00.01 or higher and DS1000.

Park a call in orbit so a co-worker can pick it up. With Park, it is not necessary to locate a person to handle their calls.

Park places a trunk 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 one of 10 system orbits (60-69). Personal Park allows you to Park a call at an extension so a co-worker can pick it up. After parking a call, a user can Page the person receiving the call and hang up. The paged party dials a code or presses a programmed System Park key to pick up the call. Many calls can be parked at the same extension, and are retrieved in LIFO (last-in, first-out) order.

A call parked in System Park Orbit for too long will recall the extension that initially parked it. The recall for System Park Orbits 68 and 69 is permanently fixed at 5 minutes. If the recall remains unanswerd, the call diverts to Key Ring.

A call parked in Personal Park Orbit for too long will initially recall to the extension at which it is parked. If unanswered there, it recalls to the extension that parked the call. If still unanswered, it diverts to Key Ring.

When an an extension has System Park keys, the keys provide a Busy Lamp Field (BLF) for the orbit assigned to the key.

Park Key Busy Lamp Indications	
When the key is:	**The Park orbit is:**
Off	Idle
On (red)	A co-worker has parked a call in the orbit assigned to the key.
Single wink on (green)	The extension user has parked a call in the orbit assigned to the key.

Park

Distinctive Flash Rate on Recall

Park recall features a distinctive flash rate for line keys (see the chart below). This allows the keyset extension user to easily differentiate new calls that are ringing from Parked calls that are recalling.

Distinctive Flash Rate on Park Recall	
For this type of call:	**You see this flash rate:**
Call that you Parked	Double Wink On (Green)
Call that you initially Parked <u>recalling</u> your phone	Double Wink On (Green)
Call Parked by a co-worker	On (Red)
Call initially Parked by a co-workerthat is <u>recalling</u> your phone	Double Wink On (Red)

Conditions

None

Default Setting

● Park available.
● No System Park keys assigned.

Programming Guide

Step-by-step guide for setting up Park

Step 1: If a parked call is not picked up, does it recall the extension that initially parked it at after the desired interval?

If yes ➔
- In *Program 0401 - Park Orbit* (page 455), leave the Park Orbit interval at its currently assigned value.

If no ➔
- In *Program 0401 - Park Orbit* (page 455), change the Park Orbit interval to meet the site requirements.

Step 2: Should extension have System Park Orbit keys?

If yes ➔
- In *Program 1701 - Park Orbit Key* (page 518), assign a key as a Park Orbit Key (code 04 + System Park Orbit 60-69).

If no ➔
- In *Program 1701 - Park Orbit Key* (page 518), do not assign a key as a Park Orbit Key (code 04).

Step-by-step guide for setting up Park

Step 3: Should DSS Console have System Park Orbit keys?

If yes →
- In *Program 1704 - Park Orbit Key* (page 528), assign a key as a Park Orbit Key (code 04 + System Park Orbit 60-69).

If no →
- In *Program 1704 - Park Orbit Key* (page 528), do not assign a key as a Park Orbit Key (code 04).

Programming List

Program 0401 - Park Orbit (page 455)
Set how long a call stays in System Park Orbits 60-67 only before recalling. Note that the recall for orbits 68 and 69 is fixed at 5 minutes.

Program 1701 - Park Orbit Key (page 518)
Assign a programmable key on an extension as a Park Orbit key (code 04). The options are 60-69 (System Park Orbits 60-69).

Program 1704 - Park Orbit Key (page 528)
Assign a programmable key on a DSS Console as a Park Orbit key (code 04). The options are 60-69 (System Park Orbits 60-69).

Other Related Features

Direct Station Selection (DSS) Console (page 128)
DSS Consoles can have Park keys.

Directed Call Pickup (page 141)
Directed Call Pickup also allows an extension user to pick up a call at a co-worker's extension.

Key Ring (page 232)
Unanswered Park recalls divert to key ring.

Music on Hold (page 260)
If installed, Music on Hold plays to parked callers.

Off-Hook Signaling (page 270)
An extension user can Park their current call and answer the waiting call.

Voice Mail (page 414)
(DS2000 02.00.01 or higher and DS1000 Only)
When an extension user with Ring No Answer/Busy Terminal Hunting to Voice Mail parks a call at a co-worker's extension, the call recalls to them if not picked up. If still unanswered, the call diverts to Key Ring. (In prior DS2000 versions, the call would route to Voice Mail.)

Feature Operation

To Park a call in system orbit:

1. While on a trunk call, press **ICM**.

   Intercom dial tone.
   ICM on.

2. Dial ***** + System Park Orbit (60-69).

3. Hang up.

🎧	N/A
👁	Line/loop key triple Wink On (green).

OR

1. While on a trunk call, press Park key.

2. Hang up.

🎧	N/A
👁	Line/loop key triple wink on (green). Park key single wink on (green).

To retrieve a call from system Park orbit:

1. Lift handset.

2. Press **ICM**.

🎧	Intercom dial tone.
👁	**ICM** on.

3. Dial ***** + System Park Orbit (60-69).

🎧	Conversation with caller.
👁	Line/loop key on (green).

OR

1. Lift handset.

2. Press Park key.

🎧	N/A
👁	Line/loop key on.

To Park a call at an extension (using Personal Park):

1. While on a trunk call, press **ICM**.

🎧	Intercom dial tone.
👁	**ICM** on.

2. Dial *** *** + Number of extension at which you want to park the call (300-395 in DS2000 or 300-323 in DS1000).

3. Hang up.

🎧	N/A
👁	*For the extension that parked the call and for the extensin at which the call is parked:* Line/loop key triple wink on (green).

To retrieve a call parked at an extension:

1. Lift handset.

2. Press **ICM**.

🎧	Intercom dial tone.
👁	**ICM** on.

3. Dial *** *** + Number of extension at which the call is parked.

🎧	Conversation with caller.
👁	Line/loop key on (green).

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Refer to *Centrex Compatibility* on page 334 for more.

Prime Line Preference

Description

DS2000 Fixed Slot	Idle Prime Line for trunks available.
DS2000 U Slot	Intercom Prime Line enabled by default. User Programmable Feature steps added.
DS1000	Intercom Prime Line enabled by default. Includes User Programmable Feature steps.

Place or answer an outside call on your Prime Line just by lifting the handset.

Prime Line Preference allows a keyset user to place or answer a call by just lifting the handset. The user does not have to press a line key, loop key, or the ICM key first. This simplifies answering calls. In programming, you designate a line key, loop key, or the ICM key as a Prime Line Key. With a line or loop key, the trunk or trunk group assigned to that key becomes your Prime Line. With the ICM key, you get Intercom dial tone when you lift the handset. Any number of extensions can have the same Prime Line assignment.

There are two types of Prime Line Preference: Idle Prime Line and Intercom Prime Line.

Idle Prime Line

Idle Prime Line lets a user place or answer a Prime Line call by just lifting the handset. If the Prime Line Key is a line key, lifting the handset places or answers a call on the trunk assigned to the key. If the Prime Line key is a Loop Key, lifting the handset places or answers a call on a trunk assigned to the key.

Intercom Prime Line

With Intercom Prime Line, an idle extension user hears Intercom dial tone whenever they lift the handset or press **SPK**. Intercom Prime Line may help the extension user that most often uses Intercom functions or calls co-workers. If an extension's Busy Lamp Field is disabled (the default in U Slot and DS1000), the Programmable Function Keys do not go into the DSS mode when the user lifts the handset.

Prime Line vs. Ringing Line Preference

Ringing Line Preference has priority over Prime Line. For example, an extension with Ringing Line Preference will answer a ringing trunk, not get dial tone on their Prime Line. In addition, a Ringing Prime Line will have priority over any other ringing trunk. The seize priority is as follows:
● Ringing Prime Line
● Ringing non-Prime Line
● Prime Line

Conditions
None

Default Setting
● (Fixed Slot) Prime Lines are not set up.
● (U Slot) Intercom Prime Line enabled.

Programming Guide

```
┌─────────────────────────────────────────┐
│  Step-by-step guide for setting up       │
│  Prime Line Preference                   │
└─────────────────────────────────────────┘
```

Step 1: Should an extension have Prime LIne Preference?

(**If yes**) ➡
- In *Program 1807 - Prime Line Key* (page 554), enter the line/loop key that will be the extension's Prime Line. For Intercom Prime Line, press **ICM** instead of a line key.

(**If no**) ➡
- In *Program 1807 - Prime Line Key* (page 554), enter 0 (no assignment).

Step 2: Designate the function of the Prime Line Key (except for Intercom Prime Line).

- In *Program 1701 - Switched Loop Key* (page 517), assign the Prime Line Key as a Switched Loop Key (code 01).
      OR
- In *Program 1701 - Fixed Loop Key* (page 517), assign the Prime Line Key as a Fixed Loop Key (code 02 + Trunk Group 0-8).
      OR
- In *Program 1701 - Line Key* (page 518), assign the Prime Line Key as a Line Key (code 03 + Trunk number 1-48 in DS2000, 1-6 in DS1000).

Programming List

Program 1701 - Programmable Function Key Assignments (page 517)
> Program the key assigned as the extension's Prime Line as a Switched Loop Key (code 01), Fixed Loop Key (code 02 followed by Trunk Group 0-8), or a Line Key (code 03 followed by the trunk number 1-48 in DS2000, 1-6 in DS1000).

Program 1807 - Prime Line Key (page 554)
> Use this option to assign a trunk as the extension's Prime Line. You enter the Prime Line's key number (1-24) or press **ICM** for Intercom Prime Line. (Software version 02.01.07 or higher is required to enter 2-digit key numbers.)

Prime Line Preference

Other Related Features

Direct Inward Line (page 118)
> If an extension's Prime Line is another extension's DIL, lifting the handset will answer the call even though it does not ring the phone.

Direct Station Selection (DSS) (page 125)
> (U Slot) With Intercom Prime Line, an idle extension user hears Intercom dial tone whenever they lift the handset or press **SPK**. Since each extension's Busy Lamp Field is disabled by default in U Slot, the Programmable Function Keys do not go into the DSS mode when the user lifts the handset.

Off-Premise Extensions / On-Premise SLT Extensions (page 274)
> On- and off-premise extensions cannot use Prime Line Preference.

Ringing Line Preference (page 319)
> Prime Line Preference overrides Ringing Line Preference. For example, if you lift the handset while a call is ringing your phone, you seize your Prime Line instead of answering the ringing call.

Feature Operation

User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**
This option is not available in Fixed Slot software.			
Prime Line Assignment	**#PLA**	**#PLA** + Press one of your flashing programmable keys or **ICM** + **SPK** to exit.	3-5

To place a call on your Prime Line:

> *To bypass your Prime Line, press another key (e.g., a line or loop key) before lifting the handset.*

1. Lift the handset.

   Trunk dial tone.

   The key assigned as your Pime Line key is on (green).

2. Dial call normally.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use Privacy to prevent interruptions at high priority extensions.

An extension with Privacy blocks incoming Barge In attempts, and Call Waiting (Camp-On) signals. Privacy helps extension users that don't want their conversations interrupted.

Note that if an extension with Privacy *enabled* is on a call with an extension with Privacy *disabled*, they are still subject to Barge In attempts and Call Waiting signals to the non-private extension.

Conditions

None

Default Setting

Privacy disabled in an extension's Class of Service.

Programming Guide

Step-by-step guide for setting up Privacy

Step 1: Should an extension have Privacy?

If yes
• In *Program 0101 - Privacy* (page 441), enter Y.
• *Program 1801 - Extension Class of Service Assignment* (page 533), assign the extension's Class of Service.
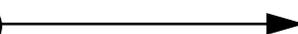
If no
• In *Program 0101 - Privacy* (page 441), enter N.
• In *Program 1801 - Extension Class of Service Assignment* (page 533), assign the extension's Class of Service.

Programming List

Program 0101 - Privacy (page 441)
   In an extension's Class of Service, enter Y to enable Privacy.
Program 1801 - Extension Class of Service Assignment (page 533)
   Assign Class of Service to extensions.

Privacy

Other Related Features

Attendant Position (page 46)
> Since the attendant is never busy for Intercom calls, the attendant always has Privacy enabled.

Call Waiting / Camp-On (page 74)
> Privacy blocks Camp-On beeps.

Barge In (Intrusion) (page 57)
> Privacy blocks Barge In attempts.

Monitor / Silent Monitor (page 257)
> Privacy does not block Monitor.

Privacy Release Groups (page 297)
> There is no interaction between Privacy and Privacy Release Groups.

Feature Operation

None

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Quickly join in a co-worker's outside call.

You can program extensions into Privacy Release Groups to simplify sharing trunk calls. Co-workers in the same Privacy Release Group can easily join another group member's trunk call just by pressing the busy line key. The co-worker immediately joins in unannounced and uninvited. Privacy Release Groups are a quick alternative to Conference where control over the Conference is not required. In a Customer Service group, for example, a supervisor could just press a busy line key to monitor any agent's call.

If desired, an extension user can prevent other members of their Privacy Release Group from interrupting their active call. This ensures that group members will not interrupt confidential calls.

Any number of extensions can be in the same Privacy Release Group. However, an extension can only be in a single group. Members of the Privacy Release Group must have line keys and access to the trunks they want to share.

Privacy Release Groups utilizes a Conference circuit. The following table shows the Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions
None

Default Setting
No Privacy Release groups assigned.

Privacy Release Groups

Programming Guide

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┌─────────────────────────────────────────┐
│  Step-by-step guide for setting up Privacy │
│            Release Groups                  │
└─────────────────────────────────────────┘
```

Step 1: Should extension be in a Privacy Release Group?

If yes

- In *Program 1802 - Privacy Release Group* (page 539), assign the extension to a Privacy Release Group (1-16). Users in the Privacy Release Group must have line keys for the trunks they want to share.
- In *Program 1701 - Line Key* (page 518), assign the extension's line keys. Users in the Privacy Release Group must have line keys for the trunks they want to share.
- In *Program 1704 - Line Key* (page 528), optionally assign line keys to the extension's DSS Console. Users in the Privacy Release Group must have line keys for the trunks they want to share.
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign access to the trunks the Privacy Release Group members want to share. The options are 0 (no access), 1 (incoming only), 2 (outgoing only) and 3 (full access).

If no

- In *Program 1802 - Privacy Release Group* (page 539), assign the extension to Privacy Release Group 0.

Programming List

Program 1701 - Line Key (page 518)
   Assign a programmable key as a line key. Users in the Privacy Release Group must have line keys for the trunks they want to share.
Program 1704 - Line Key (page 528)
   Optionally assign a programmable key on a DSS Console as a line key. Users in the Privacy Release Group must have line keys for the trunks they want to share.
Program 1802 - Privacy Release Group (page 539)
   Assign an extension to a Privacy Release Group (1-16, 0 = Unassigned).
Program 1803 - Extension Line Access Assignments (page 546)
   Users in the Privacy Release Group must have access for the trunks they want to share.The options are 0 (no access), 1 (incoming only), 2 (outgoing only) and 3 (full access).

Other Related Features

The following features also allow different types of multiple party calls:

Barge In (Intrusion) (page 57)
Conference (page 111)
Group Listen (page 181)
Meet-Me Conference (page 247)
Tandem Trunking / Unsupervised Conference (page 379)

Privacy (page 295)
> There is no interaction between Privacy and Privacy Release Groups.

Feature Operation

To join a trunk call with a member of your Privacy Release Group:

📟	N/A.
	Line key on(red).
👁	The line key is on (orange) at the extension that initially placed or answered the call.

1. Press line key.
   You can optionally press a line key on your DSS Console.

📟	Conversation with caller.
👁	Line key on (green) for every Privacy Release Group member that joins the call.

To prevent a member of your Privacy Release Group from joining your call:

1. Place or answer trunk call on line key.

📟	Conversation with caller.
👁	Line key on (orange).

2. Press line key.

📟	Conversation with caller continues.
👁	Line key on (green).

   A Privacy Release Group member cannot join your call.

3. Repeat step 2 to allow or prevent users to join your call.

Private Line

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

You can have a line reserved exclusively for your own use.

A Private Line is a trunk reserved for a keyset for placing and answering calls. A user with a Private Line 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 system.

There are three types of Private Lines:

● **Incoming Only**
  The keyset has a Private Line only for incoming calls. The user cannot place a call on the Private Line. A customer service representative may want an incoming only Private Line to be sure customers can always get through.

● **Outgoing Only**
  The keyset has a Private Line only for outgoing calls. The Private Line does not ring for incoming calls. A service dispatcher may want an ougoing only Private Line so they can always get in touch with field technicians.

● **Both Ways**
  The keyset has a Private Line for both incoming and outgoing calls. An executive may want a both ways Private Line that is available only to them for placing and answering calls.

You can optionally set up shared Private Lines between a group of co-workers that work closely together.

Conditions
None

Default Setting
No Private Lines programmed.

Programming Guide

<table>
<tr><td colspan="2" align="center">**Step-by-step guide for setting up Private Lines** (Page 1 of 2)</td></tr>
</table>

Step 1: Should extension have a Private Line

If yes ➔
- In *Program 1001 - Trunk Circuit Type* (page 498), assign the correct circuit type to the Private Line.

If no ➔
- Stop.

Step 2:   Should Private Line be exclusively for only one extension?
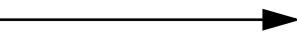
If yes ➔
- In *Program 1701 - Line Key* (page 518), make sure that only the extension with the Private Line has a line key for the trunk (code 03 followed by the trunk number 1-48 in DS2000, 1-6 in DS1000).
  OR
  In *Program 1704 - Line Key* (page 528), optionally assign the Private Line to a key on the DSS Console (code 01 followed by the trunk number 1-48 in DS2000, 1-6 in DS1000).
- In *Program 1803 - Extension Line Access Assignments* (page 546), make sure that the extension with the Private Line is the only phone that has access to the trunk. See step 3 below for the specifics.

If no ➔
- In *Program 1701 - Line Key* (page 518), assign line keys (code 03 followed by the trunk number [1-48 in DS2000, 1-6 in DS1000]) for all extensions that will share the Private Line.
  OR
  In *Program 1704 - Line Key* (page 528), optionally assign the Private Line to a key on the DSS Console (code 01 followed by the trunk number [1-48 in DS2000, 1-6 in DS1000]).

Private Line

Step 3:   Should Private Line be incoming, outgoing or both ways?

(Incoming) ———————➤
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 1 for incoming only access.
- In *Program 1805 - Ring Assignments* (page 551), make sure only the extension with the Private Line rings for the trunk.

(Outgoing) ———————➤
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 2 for outgoing only access.
- In *Program 1805 - Ring Assignments* (page 551), make sure no extensions ring for the trunk.

(Both) ———————➤
- In *Program 1803 - Extension Line Access Assignments* (page 546), enter 3 for full access.
- In *Program 1805 - Ring Assignments* (page 551), make sure only the extension with the Private Line rings for the trunk.

Programming List

Program 1001 - Trunk Circuit Type (page 498)
Assign the correct circuit type to the Private Line.
Program 1701 - Line Key (page 518)
Assign the Private Line to a line key (code 03 followed by the trunk number [1-48 in DS2000, 1-6 in DS1000]).
Program 1704 - Line Key (page 528)
Optionally assign the Private Line to a key on the DSS Console (code 01 followed by the trunk number [1-48 in DS2000, 1-6 in DS1000]).
Program 1803 - Extension Line Access Assignments (page 546)
For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access).
Program 1805 - Ring Assignments (page 551)
Assign ringing for each trunk at each extension (1 = Lamp only [day and night], 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night). Check to be sure this program applies to this feature.

Other Related Features

The following features work normally for Private Lines.

Automatic Handsfree (page 50)
Delayed Ringing (page 114)
Group Ring (page 183)
Hold (page 197)
Last Number Redial (page 236)
Night Service / Night Ring (page 265)
Park (page 287)
Prime Line Preference (page 292)
Save Number Dialed (page 322)
Speed Dial (page 332)
Toll Restriction (page 385)
Transfer (page 393)

The following features do not apply to Private Lines

Call Forwarding (page 65)
   If you want to be able to forward a private trunk, consider setting up a Direct Inward Line.

Feature Operation

To answer an incoming call on your Private Line:

| | Trunk ring. |
| | Privalte Line flashing red. |

1.   Lift handset..

| | Conversation with caller. |
| | Private Line key on (green). |

To place a call over your Private Line:

1.   Lift handset.

2.   Press line key.

| | Trunk dial tone. |
| | Private Line key on (green). |

3.   Dial outside number.

Programmable Function Keys

Description

	DS2000 Fixed Slot	Available - unique defaults.
	DS2000 U Slot	Available - unique defaults. • User Programmable Feature steps added. • **_In 02.01.07 and higher, all Programmable Function Keys are undefined for extensions above 315._**
	DS1000	Available - unique defaults. • Includes User Programmable Feature steps.

⚠ Programmable Function Keys simplify feature operation.

Each keyset has Programmable Function Keys. These Programmable Function Keys simplify placing calls, answering calls and using certain features. You can customize the function of any keyset's Programmable Function Keys from the sytem program.

The **22-Button Standard and Display Telephones** feature 12 Programmable Function Keys.

The **34-Button Display Telephone** features 24 Programmable Function Keys.

The **34-Button Super Display Telephone** also features 24 Programmable Function Keys.

The following chart lists the available Programmable Function Key assignments.

- Account Code
- Call Coverage
- Call Timer
- Data Key (Future)
- Group Pickup
- Hotline
- Intercom Directory Dialing

- Line Key
- Loop Key, Fixed
- Loop Key, Switched
- Message Center
- Multiple Directory Numbers (Future)
- Night Key
- Page Zones

- Park Orbit
- Reverse Voice Over
- Speed Dial, Personal
- Speed Dial, System
- Split Key

- Voice Mail Record Key

Conditions

If you unplug a 34-button telephone and replace it with a 22-button telephone, Programmable Function Keys 13-24 are inaccessible. However, the system still retains the programming for those keys.

Default Setting

● Fixed Slot Software:
- Keys 1-8 are line keys for trunks 1-8.
- Keys 9 and 10 are fixed loop keys.
- Key 11 is an auto timer key.
- Key 12 is an All Call Page key.
For attendants (extension 300 by default)
- Key 11 is a Night Key
- Key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key.

● U Slot and DS1000 Software:
- In U Slot, keys 1-12 are line keys for trunks 1-12 and keys 13-24 are undefined.
- *In U Slot version 02.01.07 or higher, keys are undefined for all extensions above 315.*
- In DS1000, keys 1-6 are line keys for trunks 1-6 and keys 7-24 are undefined.
For attendants (extension 300 by default)
- Key 11 is a Night Key.
- Key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key.

Programmable Function Keys

Programming Guide

Step-by-step guide for setting up Programmable Function Keys

Step 1: Do you want to customize an extension's Programmable Function Keys?

If yes
- In *Program 1701 - Programmable Function Key Assignments* (page 517), review the options and set up the Programmable Function Keys to meet the site requirments.

If no
- In *Program 1701 - Programmable Function Key Assignments* (page 517), leave each extension's Programmable Function Keys at their default settings.

Step 2: Are any of an extension's Programmable Function Keys set up as line keys?

If yes
- In *Program 1802 - Key Access to Outbound Lines* (page 541), enter Y to enable line key access to trunks.
- Also, review *Central Office Calls, Answering* on page 87 and *Central Office Calls, Placing* on page 93 for more on setting up trunk calling.

If no
- To provide an answering point for incoming calls, you should have at least one Loop Key reserved for incoming calls. Refer to *Loop Keys* on page 242 for more.

Programming List

Program 1701 - Programmable Function Key Assignments (page 517)

Assign programmable key functions per the following chart.

Option	Description	Key Code
Undefined	Use this option to designate a key as undefined (no function).	**00**
Switched Loop Key	Use this option to assign a programmable key as a switched loop key.	**01**
Fixed Loop Key	Use this option to assign a programmable key as a Fixed Loop Key.	**02 + nn (trunk group)**
Line Key	Use this option to assign a programmable key as a line key.	**03 + nn (trunk number)**

Option	Description	Key Code
Park Orbit Key	Use this option to assign a programmable key as a Park Orbit key.	**04 + nn (Park Orbit 60-69)**
Hotline Key	Use this option to assign a programmable key as a Hotline key. An extension can also have a Hotline key for a trunk (e.g., 401). However, this capability requires that Direct Trunk Access be enabled. See *Direct Trunk Access* on page 139 for more.	**05 + nnn (extension number)**
Call Coverage Immediate Ring	Use this option to assign a programmable key as an immediately ringing Call Coverage Key.	**06 + nnn (extension number)**
Call Coverage No Ring	Use this option to assign a programmable key as a lamp only (no ring) Call Coverage Key.	**07 + nnn (extension number)**
Call Coverage Delay Ring	Use this option to assign a programmable key as a delayed ring Call Coverage Key.	**08 + nnn (extension number)**
Group Pickup Immediate Ring	Use this option to assign a programmable key as an immediate ring Group Call Pickup key.	**09 + nn (Pickup Group 01-08)**
Group Pickup No Ring	Use this option to assign a programmable key as a lamp only (no ring) Group Call Pickup key.	**10 + nn (Pickup Group 01-08)**
Group Pickup Delay Ring	Use this option to assign a programmable key as a delay ring Group Call Pickup key.	**11 + nn (Pickup Group 01-08)**
Page Zone Key	Use this option to assign a programmable key as a Page Zone key.	**13 + n (Page Zone 1-7, 0 for All Call)**
System Speed Dial Key	Use this option to assign a programmable key as a One-Touch System Speed Dial key. You assign the key to specific System Speed Dial bin.	**14 + nnn (System Speed Dial bin, normally 200-299)**
Personal Speed Dial Key	Use this option to assign a programmable key as a Personal Speed Dial key. You assign the key to a specific Personal Speed Dial bin.	**15 + nnn (701-720)**
Call Timer Key	Use this option to assign a programmable key as a Call Timer key. There are two types of timer key: manual and automatic.	**16 + n (1 = Manual Call Timer, 2 = Automatic Call Timer)**
Voice Mail Record Key	Use this option to assign a programmable key as a Voice Mail Record key.	**17**
Night Key	Use this option to assign a programmable key as a Night Key.	**18 + CLEAR**
Data Key	This option is currently not used.	**19 + nnn (extension number)**
Split Key	Use this option to assign a programmable key as a Split key.	**20**

Programmable Function Keys

Option	Description	Key Code
ICM Directory Key	Use this option to assign a programmable key as an Intercom Directory Dialing key.	**21**
ACD Log On Key	• This option is currently not used.	**22**
Reverse Voice Over Key	Use this option to assign a programmable key as a Reverse Voice Over key.	**23**
Message Center Key	Use this option to assign a programmable key as a Message Center key.	**24 + nnn (extension number)** Note that the extension number does not have to be an installed extension.
Save Key	Use this option to assign a programmable key as a Save Number Dialed key.	**25**
Account Code Key	Use this option to assign a programmable key as an Account Code key.	**26**

Program 1802 - Key Access to Outbound Lines (page 541)
> Enter Y to enable an extension user to press a Programmable Function Key to access and outside line.

Other Related Features

Check Key (page 103)
> Check Programmable Function Key assignments.

Direct Station Selection (DSS) (page 125)
> If enabled in programming, Programmable Function Keys become DSS keys when the user presses **ICM**.

Feature Operation

User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**
This option is not available in Fixed Slot software.			
Programmable Funtion Key Assignments	**#KP**	**#KP** + Press key you want to program + **HOLD** + **ICM** + Press **VOL Up** or **VOL Down** to select key option + **HOLD** + (Enter any additional data, if required + **HOLD**) + Press **VOL Up** or **VOL Down** to select another key to program, or **CONF** + **SPK** to exit.	3-5

Refer to the individual features in the chart above.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use special services (such as telephone banking) over dial pulse trunks.

An extension can use Pulse to Tone Conversion while placing a trunk call to change the dialing mode from dial pulse to DTMF. For a system in a dial pulse area, this permits users to access DTMF services (such as telephone banking) from their DP area. Pulse to tone conversion also helps dial pulse callers use another company's automated attendant dialing options. The user can, for example:

● Place a call to their bank over a DP trunk.

● After the banking service answers, wait 6 seconds. (The system automatically converts dialing to DTMF.)

● Dial additional banking options.

Refer to *Central Office Calls, Answering* on page 87 and *Central Office Calls, Placing* on page 93 for the specifics on setting up your trunk calling.

Conditions

None

Default Setting

Pulse to Tone Conversion always enabled for dial pulse trunks.

Programming Guide

None

Programming List

Program 1001 - Trunk Circuit Type (page 498)
    Be sure to program your DP trunk with circuit type 52.

Other Related Features

Pulse to Tone Conversion (page 309)
    The system does not provide Pulse to Tone Conversion for SLTs. The conversion must be switched manually from the telephone.
Speed Dial (page 332)
    If a Speed Dial number using a dial pulse trunk contains a pause, the digits following the pause automatically dial out as DTMF.

Pulse to Tone Conversion

Feature Operation

To convert your phone's dialing to DTMF after placing your call on a DP trunk:

1. Dial initial digits for call.

    🕮 ‖ Digits dial out as dial pulse.
    👁 ‖ N/A

2. Wait 6 seconds.

3. Dial additional digits.

    🕮 ‖ Additional digits dial out as DTMF.
    👁 ‖ N/A

Removing Trunks and Extensions From Service

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Temporarily remove problem extensions and trunks from service until they can be repaired.

Supervisors and attendants can remove problem trunks and extensions from service. This helps ensure maximum system performance. For example, the attendant can busy-out a noisy trunk or problem extension until service personnel can repair the problem. The trunk or extension the appears busy to all callers. Following repair, the attendant or supervisor can return the trunk to service.

The extension or trunk removed from service shows as busy on the appropriate key (e.g., line key or Hotline key). The port activity LED on the ATRU PCB indicates that the trunk is busy.

Conditions
None

Default Setting
Disabled

Programming Guide

Step-by-step guide for setting up Removing Trunks and Extensions from Service

Step 1: Should extension be able to remove another extension or trunk from service?

If yes

- In *Program 0101 - Direct Trunk Access* (page 442), enter Y to enable Direct Trunk Access.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no

- In *Program 0101 - Direct Trunk Access* (page 442), enter N to disable Direct Trunk Access.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Removing Trunks and Extensions From Service

Programming List

Program 0101 - Direct Trunk Access (page 442)
Enter Y to enable an extension to use Direct Trunk Access. Note that enabling Direct Trunk Access allows the user to bypass Toll Restriction.

Program 1801 - Extension Class of Service Assignment (page 533)
Assign Class of Service to extensions.

Other Related Features

Attendant Position (page 46)
Normally, system attendants should have the ability to remove trunks and extensions from service.

Call Forwarding (page 65)
If Call Forwarding is enabled at an extension when it is removed from service, it is reinstated when the extension is returned to service.

Direct Trunk Access (page 139)
An extension user with Direct Trunk Access can remove trunks from service.

Selectable Display Messaging (page 325)
Removing and returning an extension to service does not cancel an extension's Selectable Display Messaging.

Feature Operation

To remove or return an extension or trunk to service:

1. Press **ICM** and dial #40.

2. Dial the number of the extension you want to remove or return to service (300-395 in DS2000 or 300-325 in DS1000).

    OR

    Dial the number of the trunk you want to remove or return to service (401-448 in DS2000 or 401-406 in DS1000).

3. Dial 4 to return.

    OR

    Dial 6 to remove.

    Dial tone.

    The display on a telephone removed from service shows: *Out of Service*
    The line key for a trunk removed from service is on (red).

4. Press **SPK** to hang up.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Privately call a co-worker while you're busy on your handset.

While on a handset call, Reverse Voice Over lets a busy keyset user make a private Intercom call to an idle co-worker. The busy user just presses and holds down a programmed Reverse Voice Over key to make a private call to the assigned 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 handset call can be a trunk call or an Intercom call. An extension can have Reverse Voice Over keys for more than one co-worker.

Reverse Voice Over could help a salesperson, for example, when placing a call to an important client. The salesperson can talk with the client and give special instructions to an assistant — without interrupting the initial call.

When the keyset is idle, the Reverse Voice Over key functions the same as a Hotline key. (You cannot, however, use it to Transfer calls.) The key also shows at a glance the status of the associated extension:

Reverse Voice Over Busy Lamp Indications	
When the key is:	**The covered extension is:**
Off	Idle or not installed
On	Busy or ringing
Flashing fast	In Do Not Disturb

Reverse Voice Over uses a system Conference circuit while it is active. The following table shows the system's Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions

Reverse Voice Over

Default Setting
No Reverse Voice Over keys assigned

Programming Guide

Step-by-step guide for setting up Reverse Voice Over

Step 1: Should extension have Reverse Voice Over Capability?

If yes →

- To put a Reverse Voice Over key on a keyset:
  In *Program 1701 - Reverse Voice Over Key* (page 520), assign a Reverse Voice Over key (code 23 followed by the assigned extension number).
    OR
- To put a Reverse Voice Over key on a DSS Console:
  In *Program 1704 - Reverse Voice Over Key* (page 530), assign a Reverse Voice Over key (code 23 followed by the assigned extension number).

If no →

- In *Program 1701 - Reverse Voice Over Key* (page 520), and in *Program 1704 - Reverse Voice Over Key* (page 530), do not assign any Reverse Voice Over keys (code 23).

Programming List

Program 1701 - Reverse Voice Over Key (page 520)
  Assign a keyset programmable key as a Reverse Voice Over key (code 23 followed by the assigned extension number).
Program 1704 - Reverse Voice Over Key (page 530)
  Assign a DSS Console programmable key as a Reverse Voice Over key (code 23 followed by the assigned extension number).

Other Related Features

Conference (page 111)
  An extension user cannot add an incoming Reverse Voice Over call to a Conference.
Direct Station Selection (DSS) Console (page 128)
  A DSS Console can have a Reverse Voice Over key.
Do Not Disturb (page 146)
  DND does not block Reverse Voice Over.
Hold (page 197)
  An extension cannot put an incoming Reverse Voice Over call on Hold.
Transfer (page 393)
  While idle, an extension user cannot use their Reverse Voice Over key to Transfer calls.

Feature Operation

To place a Reverse Voice Over call:

1. While on a handset call, press and hold your Reverse Voice Over key.

    Two beeps, then conversation with called co-worker.

    Reverse Voice Over key on (red).

To return to your initial caller:

1. Release your Reverse Voice Over key.

    Conversation with initial caller in handset.

    Reverse Voice Over key off.

To place a call to your assigned Reverse Voice Over destination:

1. While your telephone is idle, press your Reverse Voice Over key.

    Two beeps, then conversation with called co-worker.

    Reverse Voice Over key on (green).

    You can optionally lift the handset for Privacy.

Ring Groups

Description

DS2000 Fixed Slot
DS2000 U Slot   Available. Refer to *Group Ring* on page 183 for more information.e.
DS1000

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Call another extension, group or Voice Mail just by lifting the handset.

A Ringdown Extension automatically calls a co-worker, Voice Mail, a Ring Group or a UCD Hunting group when the user lifts the handset. The call automatically goes through — there is no need for the user to dial digits or press additional keys. Ringdown extension are frequently used for lobby phones, where the caller just lifts the handset to get the information desk.

Conditions
None

Default Setting
Ring Down disabled.

Programming List

Program 1802 - Ring Down Destination (page 541)
Assign the extension's Ringdown destination. The destination can be an extension, the Voice Mail master number, a Ring Group number, or a UCD master number. The Ringdown destination cannot be a trunk (e.g., 401).

Other Related Features

Intercom (page 227)
Ringdown Extension follows the voice-announce status of destination extension. For example, if an extension usually voice-announces Intercom calls, a ringdown to that extension will also voice-announce.

Ringing Line Preference (page 319)
Ringing Line Preference has precedence over Ringdown Extension. If Ringing Line Preference is ringing the phone, lifting the handset answers the call. Lifting the handset does not call the Ringdown destination.

Voice Mail (page 414)
If the Ringdown destination is the Voice Mail master number, the Ringdown Extension user hears the Voice Mail main greeting ("*Please enter your mailbox number*") after the call connects.

Ringdown Extension

Feature Operation

To use Ringdown Extension:

1. Lift handset or press **SPK**.

> ✋ ‖ Two beeps or ringing.
> 👁 ‖ ICM on.

   If you hear ringing, wait for the called pary to answer. If you hear two beeps, you may begin speaking.

To bypass Ringdown (if your keyset is set up as a Ringdown Extension):

1. Before lifting the handset or pressing **SPK**, press one of the following:
   - **ICM**
   - Line key
   - Programmable Function Key

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Simply lift the handset to answer a ringing call.

Ringing Line Preference lets a keyset user answer a ringing call by just lifting the handset. For a user that primarily answers calls, Ringing Line Preference ensures that ringing calls have priority. The tables below show the interaction between Ringing Line Preference and other features for both handset and headset calls.

Table 10: Ringing Line Preference for Handset Call

Feature	Keyset		Attendant	
	RLP = Y	RLP = N	RLP = Y	RLP = N
	Does lifting the handset answer the ringing call?			
Intercom (page 227) Ringing Intercom calls	Yes	Yes	Yes[1]	Yes[1]
Key Ring (page 232) (Line/Loop Keys)	Yes	No	Yes	No
Transfer (page 393)	Yes	No	Yes	No
Direct Inward Line (page 118)	Yes	No	Yes	No
Group Ring (page 183)	Yes	Yes	N/A	N/A
Extension Hunting (page 156) (Call to UCD master)	Yes	Yes	No	No
Call Coverage Keys (page 61)	No	No	No	No
Group Call Pickup (page 177)	No	No	No	No
[1]Ringing Line Preference will not answer a call ringing the Operator Call Key.				

Ringing Line Preference

Table 11: Ringing Line Preference for Headset Calls

Feature	Keyset		Attendant	
	RLP = Y	**RLP = N**	**RLP = Y**	**RLP = N**
	Does pressing **SPK** while in the Headset mode answer the ringing call?			
Intercom (page 227) Ringing Intercom calls	Yes	Yes	Yes	Yes
Key Ring (page 232) (Line/Loop Keys)	Yes	No	Yes	No
Transfer (page 393)	Yes	No	Yes	No
Direct Inward Line (page 118)	Yes	No	Yes	No
Group Ring (page 183)	Yes	Yes	N/A	N/A
Extension Hunting (page 156) (Call to UCD master)	Yes	Yes	No	No
Call Coverage Keys (page 61)	No	No	No	No
Group Call Pickup (page 177)	No	No	No	No

When multiple calls ring an extension simultaneously, the system services the ringing calls in the following order:

1. **ICM** Key
2. Line Key (from lowest to highest)
3. Loop Key (from lowest to highest)

In addition, if two extensions with Ringing Line Preference answer the same trunk call simultaneously, the system connects the call to the lowest numbered extension.

Prime Line vs. Ringing Line Preference

Ringing Line Preference has priority over Prime Line. For example, an extension with Ringing Line Preference will answer a ringing trunk, not get dial tone on their Prime Line. In addition, a ringing Prime Line will have priority over any other ringing trunk. The seize priority is as follows:

● Ringing Prime Line
● Ringing non-Prime Line
● Prime Line

Conditions
None

Default Setting
Enabled

Programming List

Program 1807 - Ringing Line Preference (page 553)
Enter Y to enable Ringing Line Preference.

Other Related Features

Attendant Call Queuing (page 44)
Ringing Line Preference will not answer a call ringing the Operator Call Key.
Intercom (page 227)
Ringing Line Preference answers a ringing Intercom call before a ringing trunk call.
Prime Line Preference (page 292)
Prime Line Preference overrides Ringing Line Preference. For example, if you lift the handset while a call is ringing your phone, you seize your Prime Line instead of answering the ringing call.
Ringdown Extension (page 317)
Ringing Line Preference has precedence over Ringdown Extension. If Ringing Line Preference is ringing the phone, lifting the handset answers the call. Lifting the handset does not call the Ringdown destination.

Feature Operation

User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**
This option is not available in Fixed Slot software.			
Ringing Line Preference	**#RLP**	**#RLP** +**Y** to enable or **N** to disable + **SPK** to exit.	2-5

To use Ringing Line Preference:

1. Lift handset or press **SPK**.
You automatically answer the call.

To bypass Ringing Line Preference:

1. Before lifting the handset or pressing **SPK**, press one of the following:
- **ICM**
- Line key
- Programmable Function Key

Save Number Dialed

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available. Save Number Dialed saves up to 20 digits. Prior to software version 02.01.07, Save Number Dialed would save up to 32 digits.

Save the number you just dialed for quick redialing.

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 system retains the saved number until the user stores a new one in its place.

Save Number Dialed saves in system memory a dialed number up to 20 digits. The system remembers the digits regardless of whether the call was answered, unanswered or busy. The system normally uses the same trunk as for the initial call. However, if that trunk is busy and is part of a trunk group, Save Number Dialed will automatically select the next trunk in the group. The user can also preselect a specific trunk if desired.

Save Number Dialed requires a uniquely programmed Programmable Function Key or DSS Console Key.

Conditions
None

Default Setting
No Save keys programmed.

Programming Guide

Step-by-step guide for setting up Save Number Dialed (Page 1 of 2)

Step 1: Should extension have a Save key?
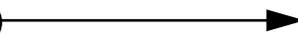
If yes →
- In *Program 1701 - Save Key* (page 520), enter code 25.

If no →
- In *Program 1701 - Save Key* (page 520), do not enter code 25 to assign a key as a Save key.

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┌─────────────────────────────────────┐
│  Step-by-step guide for setting up Save │
│  Number Dialed (Page 2 of 2)         │
└─────────────────────────────────────┘
```

Step 2:   Should DSS Console have a Save key?

If yes ──────────────▶

- In *Program 1704 - Save Key* (page 530), enter code 25.

If no ──────────────▶

- In *Program 1704 - Save Key* (page 530), do not enter code 25 to assign a key as a Save key.

Programming List

Program 1701 - Save Key (page 520)
> Assign a Save key to a keyset Programmable Function Key (code 25).

Program 1704 - Save Key (page 530)
> Assign a Save key to a DSS Console (code 25).

Other Related Features

Account Codes (page 34)
> Save Number Dialed does not store Account Codes. This means that the user must manually enter an Account Code to have it included with a call dialed using Save Number Dialed.

Central Office Calls, Placing (page 93)
> Save an outside number, then easily redial it later on.

Direct Station Selection (DSS) Console (page 128)
> A DSS Console can have a Save key.

Last Number Redial (page 236)
> Last Number Redial also simplifies dialing important numbers.

Off-Premise Extensions / On-Premise SLT Extensions (page 274)
> Save Number Dialed is not available to on- and off-premise SLTs.

Single Line Telephones (page 330)
> Save Number Dialed is not available to SLTs.

Trunk (Line) Queuing / Trunk Callback (page 402)
> If an extension user presses their Save key and hears busy, they can dial 2 to wait in line for the trunk to become available. The system will automatically redial the call. However, if the user hangs up to convert the queue to a Trunk Callback, the system will not redial the saved call once the trunk connects.

Save Number Dialed

Feature Operation

To save the outside number you just dialed (up to 32 digits):

1. Press Save Number Dialed Key.
    The system stores the number you just dialed.

To redial a saved number:

1. (Optional) Press a line key to preselect a trunk for the call.

2. Press Save Number Dialed key.

    Stored number dialing out.

    Line/loop key triple Wink On (green).

    The stored number dials out.
    If you hear busy, you may be able to dial 2 and wait in line for the trunk to become free.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

While you're away from the phone, display telephone callers can receive personalized text messages you set up.

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 text messaging. For example, an extension user could select the message "GONE FOR THE DAY." Any display keyset user calling the extension would see the message. Other than displaying the message, the system puts the call though normally.

The are 16 Selectable Display Messages (01-16), set up in system programming. Messages 01-09 are preset by default, but can be changed to meet the site requirements. Messages 10-16 are initially undefined. Any message can be appended by the extension user. For example, a user could select message 09 (OUT UNTIL) and append the time they are expected back (e.g., 5:00). The total length of the message *plus* any user appended entries cannot exceed 20. Selectable Display Messages cannot begin with numbers.

Following are the 16 default Selectable Display Messages.

Option	Default
Message 01	CALL (plus 15 user entries)
Message 02	BACK BY (plus 12 user entries)
Message 03	MEETING IN RM (plus 4 user entries)
Message 04	OUT TO LUNCH (plus 7 user entries)
Message 05	GONE FOR THE DAY (plus 3 user entries)
Message 06	ON VACATION (plus 8 user entries)
Message 07	ON BUSINESS TRIP (plus 3 user entries)
Message 08	IN THE MEETING (plus 7 user entries)
Message 09	OUT UNTIL (plus 10 user entries)
Message 10	Undefined (up to 20 characters)
Message 11	Undefined (up to 20 characters)
Message 12	Undefined (up to 20 characters)
Message 13	Undefined (up to 20 characters)
Message 14	Undefined (up to 20 characters)
Message 15	Undefined (up to 20 characters)

Selectable Display Messaging

Option	Default
Message 16	Undefined (up to 20 characters)

Conditions
None

Default Setting
See the table above.

Programming Guide

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┌─────────────────────────────────────────┐
│ Step-by-step guide for setting up Selectable │
│            Display Messaging             │
└─────────────────────────────────────────┘
```

Step 1: Should extension be able to enable Selectable Display Messaging?
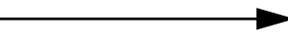
If yes
- In *Program 1001 - Internal Call Forwarding* (page 440), enter Y.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign an extension's Class of Service.

If no
- In *Program 1001 - Internal Call Forwarding* (page 440), enter N.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign an extension's Class of Service.

Step 2:   Do you want to change the default Selectable Display Messages or create new ones?

If yes
- In *Program 0801 - Selectable Display Messages* (page 496), edit the Selectable Display Messages.

If no
- Do not make any changes to **Program 0801 - Selectable Display Messages** (page 496).

Programming List

Program 1001 - Internal Call Forwarding (page 440)
 Enter Y to enable Call Forwarding.
Program 0801 - Selectable Display Messages (page 496)
 Program the system's 16 Selectable Display Messages (up to 20 characters long).
Program 1801 - Extension Class of Service Assignment (page 533)
 Assign an extension's Class of Service.

Other Related Features

Call Forwarding (page 65)
>   Enabling or canceling Call Forwarding cancels an extension's Selectable Display Messaging.

Removing Trunks and Extensions From Service (page 311)
>   Removing and returning an extension to service does not cancel an extension's Selectable Display Messaging.

Single Line Telephones (page 330)
>   SLTs cannot use Selectable Display Messaging.

Speed Dial (page 332)
>   Personal Speed Dial keys can store the codes that enable Selectable Display Messaging.

Feature Operation

To select a Selectable Display Message:

1. Press **ICM**.

    | 📞 | Dial tone. |
    | 👁 | **ICM** and **SPK** on. |

2. Dial *38 + Message number (01-16).

    | 📞 | Dial tone stops. |
    | 👁 | **ICM** on, **SPK** flashes. |

    You can press VOL ▲ or VOL ▼ to scroll through the messages instead of dialing the message number.

3. Press HOLD.

4. Enter any additional digits.

    The total number of digits/characters in the message cannot exceed 20. Use any valid characters, digits or symbols (just as if you were entering names). Refer to the table below when entering digits.

5. Press HOLD.

6. Press SPK to hang up.

    DND is on while the Selectable Display Message is active.

To cancel a Selectable Display Message:

1. Press **ICM**.

    | 📞 | Dial tone. |
    | 👁 | **ICM** and **SPK** on. |

2. Dial *30.

    | 📞 | Dial tone. |
    | 👁 | **ICM** and **SPK** on. |

3. Press SPK to hang up.

    | 📞 | Dial tone stops. |
    | 👁 | **ICM, SPK** and **DND** go out. |

Selectable Display Messaging

Use the following table when entering or appending messages:

Keys for Entering Names					
Press this key:	**Then one of these keys to enter the character in the white cell:**				
	1	**2**	**3**	**4**	**#**
1	**&**	**-** (dash)[1]	**/** (backslash)[1]	**'** (apostrophe)[1]	**1**
2	**A**	**B**	**C**		**2**
3	**D**	**E**	**F**		**3**
4	**G**	**H**	**I**		**4**
5	**J**	**K**	**L**		**5**
6	**M**	**N**	**O**		**6**
7	**P**	**Q**	**R**	**S**	**7**
8	**T**	**U**	**V**		**8**
9	**W**	**X**	**Y**	**Z**	**9**
0	**SPACE**	**:**			**0**
*					*****
#					

To enter characters in lower case (e.g., **e** instead of **E**), press **MW** before pressing the key in the first shaded column. Use **LND** to backspace over (erase) any characters you want to correct.

[1]In software versions prior to 02.00.00, the codes for 1 + 2, 1 + 3, and 1 + 4 were not available.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

See *Monitor / Silent Monitor* on page 257.

Single Line Telephones

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available. Refer to *Off-Premise Extensions / On-Premise SLT Extensions* on page 274 for more.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

See *Interactive Soft Keys* on page 206.

Speed Dial

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	• The Super Display telephone display shows the first 10 characters of the programmed Personal Speed Dial name (or first 10 digits of stored number if there is no name). Previous versions showed bin number only. • User Programmable Feature steps added. • Software version 02.01.07 or higher is recommended for Speed Dial bin chaining applications.
DS1000	• The Super Display telephone display shows the first 10 characters of the programmed Personal Speed Dial name (or first 10 digits of stored number if there is no name). Previous versions showed bin number only. • Software version 02.01.07 or higher is recommended for Speed Dial bin chaining applications.

⚠️ Instead of dialing a long telephone number to reach a client or customer, use Speed Dial instead. Also, store Intercom digits for quick access to commonly used features.

Speed Dial gives an extension user quick access to frequently called numbers. There are two types of Speed Dial: System and Personal. Speed Dial numbers can be up to 32 digits long, using 0-9, # and *. Every Speed Dial can have a programmed name up to 16 characters long. The name shows in the telephone display as the Speed Dial number dials out.

Speed Dial can store outside numbers and Intercom digits. The capability to store Intercom digits provides the user with "one-touch" access to features they use most often. For example, a user can have a Speed Dial bin that simplifies forwarding calls to Voice Mail or a co-worker.

System Speed Dial

System Speed Dial gives every extension access to the same set of stored numbers. The system provides up to 1000 System Speed Dial numbers. Depending on the system option selected (see *Programming Guide* below), the system provides either 10, 100 or 1000 System Speed Dial numbers.

Personal Speed Dial

Personal Speed Dial provides extensions with 20 numbers stored privately for their own use. The Personal Speed Dial keys on a DSS Console access the same bins as the extension to which it is attached.

Allocating Speed Dial Blocks

The system allows up to 1240 unique Speed Dial numbers (bins). Bins are grouped into 62 distinct blocks, with 20 numbers in each block. Review the table below and keep the following bullets in mind when setting up Speed Dial:

System Speed Dial			Personal Speed Dial		
Total Bins	**Total Blocks**	**Block Numbers**	**Total Bins**	**Total Blocks**	**Block Numbers**
10 (20-29)	1	1 (10 bins not used)	1220	61	2-61
100 (200-299)	5	1-5	1140	57	6-62
1000 (2000-2999)	50	1-50	240	12	51-62

- The system automatically assigns System Speed Dial blocks. By default, Personal Speed Dial Blocks are assigned as follows.

Extension	Personal Speed Dial Block Assignment
300	6
301	7
through	
356	62

- You can change the Personal Speed Dial block assignment for an extension in system programming. ***Always be careful, however, to not assign a Personal Speed Dial block that is already in use for System Speed Dial.*** If you do, that extension's personal entries will overwrite the system entries, and vice-versa.

- Extensions with the same Personal Speed Dial block share the same Personal Speed Dial numbers.

- The Personal Speed Dial keys on a DSS Console access the same bins as the extension to which it is attached. DSS Consoles do not have unique Personal Speed Dial numbers.

Unique Speed Dial Entries

In addition to the digits 0-9, # and *, you can enter the following for additional dialing options:

For this option	Or use this telephone Programming List option:
Pause	MIC
Flash	FLASH

Storing Trunk Routing in a Speed Dial Bin

When you program a Speed Dial bin, you can select either a trunk or a Trunk Group over which the call should route. For example, you can enter 1 for trunk 1 or 90 for Trunk Group 0.

- If you enter a Trunk Group number, the system will select the lowest numbered trunk in the group for the call. If that trunk is busy, the system will select the next highest trunk.

- If you enter a trunk number, the system initially selects that specific trunk for the call. If the trunk is busy, the system automatically tries the next trunk in that trunk's group (if any). If there is no other installed trunk in that group, the user hears busy tone and the call doesn't go through.

- The capability to dial 90-98 to select a Trunk Group for a Speed Dial call is not affected by the setting of **Program 0501 - Single Digit Access** (page 475). It is a permanent feature.

Centrex Compatibility

Speed Dial offers unique compatibility with connected Centrex services. A Speed Dial number can accommodate *both* placing a new call *and* outdialing the stored Speed Dial number on an active Centrex trunk. This enables features such as Centrex Transfer and Conference. Speed Dial adheres to the following rules.

● When a user presses ICM and selects a Speed Dial number (using any method), the system examines the contents of the stored Speed Dial bin.

● If the first entry in the bin is an F (Flash command), the system checks to see if the user was active on a trunk call.

   - If the user was active on a trunk call, the system flashes the connected trunk and outdials the contents of the bin (ignoring the trunk selection associated with the bin).

   - If the user was not active on a trunk call, the system ignores the F (flash command), selects the trunk associated with the bin and outdials the stored number.

● If the first entry in the bin is not an F (Flash command), the system handles the Speed Dial entry normally (i.e., selects the trunk associated with the bin and outdials the stored number).

Note that this unique Centrex integration also pertains to Voice Mail ports accessing stored Speed Dial numbers.

Chaining Bins for Dialing Long Numbers

A Speed Dial number can be up to 32 digits long. The system allows this by automatically using the next adjacent bin for entries longer than 16 digits. For example, assume you want to store a Personal Speed Dial number for a banking service (203-926 5400) followed by a pause and your 10 digit customer code (9876543210). If you store the entries in bin 701, the following occurs:

● The system stores the first 16 digits (203 926 5400 Pause 98765) in bin 701.

● The system stores the remaining digits (43210) in bin 702.

Chaining Notes:

● In the above example, bin 702 is inaccessible for viewing, programming, or dialing. It only becomes available if you reprogram bin 701 to be 16 digits or less.

● Since bin 720 is the last Personal Speed Dial bin, it can contain only 16 digits.

● Software version 02.01.07 or higher is recommended for chaining applications.

Conditions

None

Default Setting

● 100 System Speed Dial bins (200-299).

● System Speed Dial uses Speed Dial blocks 1-5.

● All extensions can program and use System Speed Dial.

● Extension Speed Dial uses blocks 6-62. (Extension 300 uses block 6, extension 301 uses block 7 etc.)

● All bins are empty and no names are programmed.

Programming Guide

| Step-by-step guide for setting up Speed Dial |

Step 1: Should extension be able to use System Speed DIal?

If yes

- In *Program 0101 - System Speed Dial Access* (page 440), enter Y if extension should have access to System Speed Dial.
- In *Program 1803 - Extension Line Access Assignments* (page 546), make sure extensions have access to the trunks you want to use for System Speed Dial.
- In *Program 1002 - Trunk Groups* (page 506), optionally set up Trunk Groups. See *Storing Trunk Routing in a Speed Dial Bin* on page 333 for more on why you may want to do this.

If no

- In *Program 0101 - System Speed Dial Access* (page 440), enter N is extension should not have access to System Speed Dial.

Step 2: Should the system have 10 (2-digit), 100 (3-digit) or 1000 (4-digit) System Speed Dial numbers?

10

- In *Program 0301 - Number of Digits in a System Speed Dial Code* (page 450), enter 2. System bins will normally be 20-29.

100

- In *Program 0301 - Number of Digits in a System Speed Dial Code* (page 450), enter 3. System bins will normally be 200-299.

1000

- In *Program 0301 - Number of Digits in a System Speed Dial Code* (page 450), enter 4. System bins will normally 2000-2999.

Step 3: Do you want to enter System Speed Dial numbers from within system programming?

If yes

- In *Program 1101 - System Speed Dial Numbers* (page 513), enter System Speed Dial numbers. Users with the proper access can also enter System Speed Dial numbers.
- When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8.

If no

- In *Program 1101 - System Speed Dial Numbers* (page 513), do not enter System Speed Dial numbers. Users with the proper access can still enter System Speed Dial numbers.

Speed Dial

Step-by-step guide for setting up Speed Dial

Step 4: **Should extension or DSS Console have Programmable Function Key access to System Speed Dial numbers.**

If yes ➤
- In *Program 1701 - System Speed Dial Key* (page 519), assign a keyset programmable key as a System Speed Dial Key (code 14 + System Speed Dial bin number).
- In *Program 1704 - System Speed Dial Key* (page 529), assign a DSS Console key as a System Speed Dial Key (code 14 + System Speed Dial bin number).

If no ➤
- Do not assign keyset or DSS Console keys for System Speed Dial access.

Step 5: **Should extension be able to use Personal Speed Dial?**

If yes ➤
- In *Program 1802 - Speed Dial Block* (page 541), assign Personal Speed Dial Blocks to extensions. Refer to *Allocating Speed Dial Blocks* on page 332 for help with assigning blocks.
- In *Program 1803 - Extension Line Access Assignments* (page 546), make sure extensions have access to the trunks you want to use for Personal Speed Dial.
- In *Program 1002 - Trunk Groups* (page 506), optionally set up Trunk Groups. See *Storing Trunk Routing in a Speed Dial Bin* on page 333 for more on why you may want to do this.

If no ➤
- In *Program 1802 - Speed Dial Block* (page 541), assign the extension to Personal Speed Dial block 0.

Step 6: **Do you want to enter Personal Speed Dial numbers from within system programming?**

If yes ➤
- In *Program 1702 - Personal Speed Dial* (page 522), enter Personal Speed Dial numbers. Users can also enter Personal Speed Dial numbers from their own phone.
- When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8.

If no ➤
- In *Program 1702 - Personal Speed Dial* (page 522), do not enter Personal Speed Dial numbers. Users can still enter Personal Speed Dial numbers from their own phone.

Step-by-step guide for setting up Speed Dial

Step 7: Should extension or DSS Console have Programmable Function Key access to Personal Speed Dial numbers.

If yes ➤

- In *Program 1701 - Personal Speed Dial Key* (page 519), assign a keyset programmable key as a Personal Speed Dial Key (code 15 + System Speed Dial bin number).
- In *Program 1704 - Personal Speed Dial Key* (page 529), assign a DSS Console key as a Personal Speed Dial Key (code 10 + System Speed Dial bin number).

If no ➤

- Do not assign keyset or DSS Console keys for System Speed Dial access.

Step 8: Should the system be able to dial out any # characters stored in a Speed Dial bin?

You may not want to enable the dialing of stored # characters if your system is installed behind a PBX.

If yes ➤

- In *Program 0201 - Enable Account Codes in Speed Dial (2.01.07 or higher)* (page 446), enter Y.
- In *Program 0201 - Enable Dial-out of # in a Speed Dial Number (Prior to 2.01.07)* (page 447), enter Y.

If no ➤

- In *Program 0201 - Enable Account Codes in Speed Dial (2.01.07 or higher)* (page 446), enter N.
- In *Program 0201 - Enable Dial-out of # in a Speed Dial Number (Prior to 2.01.07)* (page 447), enter N.

Step 9: When the system encounters a pause stored in a Speed Dial bin, does it wait the proper interval before outdialing the remainder of the number?

If yes ➤

- In *Program 0401 - Dialing Pause* (page 456), do not change the entry from its assigned value.

If no ➤

- In *Program 0401 - Dialing Pause* (page 456), change the pause duration for compatibility with the connected telco or PBX/Centrex.

Speed Dial

Step-by-step guide for setting up Speed Dial

Step 10: When the system encounters a Flash stored in a Speed Dial bin, does it open the loop on the trunk for the proper interval before outdialing the remainder of the number?

If yes
- In *Program 0402 - PBX/Centrex Flash* (page 460), do not change the entry from its assigned value.

If no
- In *Program 0402 - PBX/Centrex Flash* (page 460), change the Flash duration for compatibility with the connected telco or PBX/Centrex.

Step 11: Does the system properly detect dial tone for Speed Dial calls?

If yes
- In *Program 0402 - Dial Tone Detect* (page 459), do not change the entry from its assigned value.

If no
- In *Program 0402 - Dial Tone Detect* (page 459), change the Dial Tone Detect duration for compatibility with the connected telco or PBX/Centrex.

Step 12: When the system outdials DTMF Speed Dial calls, are the DTMF digits properly interpreted by the connected telco or PBX/Centrex.

If yes
- In *Program 0402 - Speed Dial DTMF Tone On* (page 462), do not change the entry from its assigned value.
- In *Program 0402 - Speed Dial DTMF Tone Off* (page 463), do not change the entry from its assigned value.

If no
- In *Program 0402 - Speed Dial DTMF Tone On* (page 462), change the DTMF on interval the system uses for Speed Dial calls to match the connected telco or PBX/Centrex.
- In *Program 0402 - Speed Dial DTMF Tone Off* (page 463), change the DTMF on interval the system uses for Speed Dial calls to match the connected telco or PBX/Centrex.

Programming List

Program 0101 - System Speed Dial Access (page 440)
In an extension's Class of Service, enter Y to allow the extension to access System Speed Dial numbers.
Program 0201 - Enable Account Codes in Speed Dial (2.01.07 or higher) (page 446)
Program 0201 - Enable Dial-out of # in a Speed Dial Number (Prior to 2.01.07) (page 447)
Enter Y for this option if you want the system to outdial any # characters stored in the Speed Dial number. Enter N to have the system suppress outdialing the #. (You may want to enter N if the system is installed behind a PBX.)

Program 0301 - Number of Digits in a System Speed Dial Code (page 450)

Assign the number of digits the system uses to designate System Speed Dial bins (2, 3 or 4). With 2-digit bins, the system has 10 bins numbered 20-29. With 3-digit bins, the system has 100 bins numbered 200-299. With 4-digit bins, the system as 1000 bins numbered 2000-2999.

When Number of Digits in a System Speed Dial Code is:	System Speed Dial bin numbers are:	And the total number of System Speed Dial bins is:
2	20-29	10
3	200-299	100
4	2000-2999	1000

Program 0401 - Dialing Pause (page 456)

For Speed Dial, the system waits this interval when it encounters a pause in a Speed Dial bin.

Program 0402 - Dial Tone Detect (page 459)

When the system seizes a line to place a Speed Dial call, it waits this interval for dial tone before outdialing the call.

Program 0402 - PBX/Centrex Flash (page 460)

When the system encounters a flash in a Speed Dial bin, it opens the loop on the trunk for this interval for outdialing the remainder of the call.

Program 0402 - Speed Dial DTMF Tone On (page 462)

Set the duration of DTMF digits for Speed Dial trunk calls automatically dialed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 0402 - Speed Dial DTMF Tone Off (page 463)

Sets the duration the the quiet time between DTMF digits for Speed Dial trunk calls automatically dialed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex.

Program 1002 - 1002 - Trunk Groups (page 506)

Set up Trunk Groups if you want Speed Dial to use or overflow to Trunk Groups.

Program 1101 - System Speed Dial Numbers (page 513)

Enter System Speed Dial bin names and numbers. When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8.

Program 1701 - System Speed Dial Key (page 519)

Assign a programmable key on an extension as a System Speed Dial key (code 14). You assign the key to specific System Speed Dial bin (normally 200-299).

Program 1701 - Personal Speed Dial Key (page 519)

Assign a programmable key on an extension as a Personal Speed Dial key (code 15). You assign the key to a specific Personal Speed Dial bin (e.g., 701-720).

Program 1702 - Personal Speed Dial (page 522)

Enter Personal Speed Dial bin names and numbers. An extension user can also enter their Personal Speed Dial numbers from their own telephone. When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8.

Program 1704 - System Speed Dial Key (page 529)

Assign a programmable key on an extension as a System Speed Dial key (code 14). You assign the key to specific System Speed Dial bin (normally 200-299).

Program 1704 - Personal Speed Dial Key (page 529)

Assign a programmable key on an extension as a Personal Speed Dial key (code 15). You assign the key to a specific Personal Speed Dial bin (e.g., 701-720).

Program 1802 - Speed Dial Block (page 541)

Assign a Speed Dial block (1-62) to an extension.

Program 1803 - Extension Line Access Assignments (page 546)

For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access).

Speed Dial

Other Related Features

Account Codes (page 34)
An extension user can store an Account Code in a Speed Dial bin. See **Using Account Codes and Speed Dial** (page 34) for more.

Central Office Calls, Placing (page 93)
You can store outside numbers in Speed Dial bins for quick access to frequently called numbers.

Check Key (page 103)
Check Personal Speed Dial bin assignments.

Direct Station Selection (DSS) Console (page 128)
The DSS Console Personal Speed Dial bins are the same as the extension to which the console is attached. This means that DSS Consoles that share the same block number still have unique Personal Speed Dial.

Voice Over (page 428)
An extension user can Voice Over after calling a co-worker by using Personal Speed Dial.

Feature Operation

Personal Speed Dial

User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**
The shaded row below shows the Fixed Slot software User Programmable Feature.			
Speed Dial, Personal		**ICM** + ## + 701-720	N/A
Speed Dial, Personal	**#SP**	**#SP** + Press bin key (for bins 701-710) or **DIAL** then bin key (for bins 711-720) + **HOLD** + Enter outside line (e.g., 1), line group (90-98), or **ICM** for Intercom feature + **HOLD** + Number to store + **HOLD** + Name + **HOLD** + Press another bin key or **SPK** to exit.	1-5

To program a Personal Speed Dial number:

1. <u>With U Slot software</u>: Dial **#SP**

    <u>With Fixed Slot software</u>: Press **ICM** and dial ##.

    > With Fixed Slot software, Intercom dial tone comes on - then goes off.
    > **SPK** flashes slowly.

2. Dial the Personal Speed Dial bin number (701-720).
    OR
    Press Personal Speed Dial Key (for bins 1-10).
    OR
    Press **DIAL** and the Personal Speed Dial Key for bins 11-20.

3. Press **HOLD**.

4. Enter the trunk number you want the system to use when dialing your stored number (1-48 in DS2000, 1-6 in DS1000).
    OR
    Enter the Trunk Group number you want the system to use when dialing your stored number

(i.e.., 90-98 for Trunk Groups 0-8).

OR

Press **ICM** if you want to enter Intercom codes.

5. Press **HOLD**.

6. Enter the number you want to store (up to 30 digits long).

If storing Intercom codes, you can enter any valid dial sequence consisting of the digits 0-9, # and *.

To insert a pause, press MIC. To insert a Flash, press FLASH.

7. Press **HOLD**.

8. Enter a name for the Speed Dial number

For help on programming names, see Keys for Entering Names on page 439.

9. Press **HOLD**.

10. Repeat from step 2 to program another bin number.

OR

Press **SPK** to exit.

To dial a Personal Speed Dial number:

1. Press **ICM** and dial #.

   🎧 ‖ Intercom dial tone comes on - then goes off.

   👁 ‖ **SPK** and **ICM** on.

2. Dial the Personal Speed Dial bin number (701-720).

The stored number dials out. To chain Personal Speed Dial bins, wait for the first bin to dial out and then press the second bin key.

For one-button access to your Personal Speed Dial numbers:

1. Press Personal Speed Dial Key for bins 1-10.

   OR

   Press **DIAL** then Personal Speed Dial key for bins 11-20.

   OR

   Press Programmable Function key for Personal Speed Dial bin.

The stored number dials out.

System Speed Dial

User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**
The shaded row below shows the Fixed Slot software User Programmable Feature.			
Speed Dial, System		**ICM** + ## + 200-299	N/A
Speed Dial, System	**#SP**	**#SP** + Dial System Speed Dial bin number (e.g., 200) + **HOLD** + Enter outside line (e.g., 1), line group (e.g., 90), or **ICM** for Intercom feature + **HOLD** + Number to store + **HOLD** + Name + **HOLD** + Press another bin key or **SPK** to exit.	4 and 5

To program a System Speed Dial number:

1. With U Slot software: Dial **#SP**

Speed Dial

With Fixed Slot software: Press **ICM** and dial ##.

> 👂 ‖ With Fixed Slot software, Intercom dial tone comes on - then goes off.
>
> 👁 ‖ **SPK** flashes slowly.

2. Dial the System Speed Dial bin number (normally 200-299).

3. Press **HOLD**.

4. Enter the trunk number you want the system to use when dialing your stored number (1-48 in DS2000, 1-6 in DS1000).

    OR

    Enter the Trunk Group number you want the system to use when dialing your stored number (i.e.., 90-98 for Trunk Groups 0-8).

    OR

    Press **ICM** if you want to enter Intercom codes.

5. Press **HOLD**.

6. Enter the number you want to store (up to 30 digits long).
    *You can enter any combination of the digits 0-9, # and *. To store a pause with your Speed Dial number, press MIC. To insert a Flash, press FLASH.*

7. Press **HOLD**.

8. Enter a name for the Speed Dial number
    For help on programming names, see Keys for Entering Names on page 439.

9. Press **HOLD**.

10. Repeat from step 2 to program another bin number.

    OR

    Press **SPK** to exit.

To dial a System Speed Dial number:

1. Press **ICM** and dial #.

    > 👂 ‖ Intercom dial tone comes on - then goes off.
    >
    > 👁 ‖ **SPK** and **ICM** on.

2. Dial the System Speed Dial bin number (normally 200-299).

    OR

    Press Programmable Function Key for System Speed Dial bin.
    The stored number dials out.

To chain Speed Dial bins:

1. Access the first Speed Dial bin and wait for the number to dial out.

2. Press another Personal Speed Dial bin key.

    OR

    Press a Personal or System Speed Dial Programmable Function Key.

    OR

    Press a DSS Console Personal or System Speed Dial Key.

3. Repeat step 2 to chain additional numbers.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Switch between active calls without Conferencing the calls together.

With Split, an extension user can split (alternate) between a current call and a new call. Split lets the extension user easily alternate between the calls without joining (Conferencing) the parties together.

Conditions

None

Default Setting

Split disabled (no Split keys programmed).

Programming Guide

Step-by-step guide for setting up Split

Step 1: Should keyset be able to Split between calls?

If yes
- In *Program 1701 - Split Key* (page 520), assign a Programmable Function Key as a Split key (code 20).
  OR
- In *Program 1704 - Split Key* (page 530), assign a DSS Console key as a Split key (code 20).

If no
- In *Program 1701 - Split Key* (page 520), *do not* assign a Programmable Function Key as a Split key (code 20).
  OR
- In *Program 1704 - Split Key* (page 530), *do not* assign a DSS Console key as a Split key (code 20).

Programming List

Program 1701 - Split Key (page 520)
    Assign a Programmable Function Key as a Split key (code 20).
Program 1704 - Split Key (page 530)
    Assign a DSS Console key as a Split key (code 20).

Split (Alternate)

Other Related Features

Call Waiting / Camp-On (page 74)
> Camp-On lets an extension user know that a call is waiting to be answered. The user can Split between the waiting call and their current call.

Direct Station Selection (DSS) Console (page 128)
> A DSS Console can have a Split key.

Off-Hook Signaling (page 270)
> An extension user can alternate between their active call and their waiting call.

Feature Operation

To Split between your current Intercom call and a new Intercom call:

> *Your extension must have a Split Programmable Function Key.*

1. Press **HOLD** to place your current Intercom call on Hold, then hang up.

2. Place or answer Intercom call.

> Intercom Callback ring from waiting Intercom call.
> **ICM** slow flash.

3. Press the Split key to switch between your two Intercom calls.

To Split between your current trunk call and an Intercom call:

> *Your extension must have a Split Programmable Function Key.*

1. Press **ICM** to place trunk call on Hold, then hang up.

> Intercom Callback ring from waiting Intercom call.
> Line key flutter on (green). **ICM** slow flash.

2. Place or answer waiting Intercom call.

3. Press the Split key to switch between the Intercom call and the trunk call.
   Repeat this step to alternate between the callers.

To Split between your current Intercom call and a trunk call:

> *Your extension must have a Split Programmable Function Key.*

1. Press HOLD to place your current Intercom call on Hold.

2. Answer trunk call.

> Conversation with trunk caller.
> **ICM** slow flash.

3. Press the Split key to switch between your two calls.

To Split between your current trunk call and a waiting trunk call:

> *Your extension must have a Split Programmable Function Key.*

1. Press ICM to place your current trunk call on Hold, then hang up.

2. Place or answer new trunk call.

> Conversation with trunk caller.
> Line key on (green) for active call, flutter on (green) for call on Hold.

3. Press the Split key to switch between your two calls.

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	DTMF supervisory tones play through the keyset handset or speaker whenever the user lifts the handset. Supervisor tones play whether the keyset is on-hook, on a call or in the programming mode.
	DS1000	

⚠ System keysets provide a host of sophisticated extension features.

The system offers 22-Button Display, 22-Button Standard, 34-Button Display, and 34-Button Super Display keyset telephones.

22-Button Display Telephone

The 22-Button Display Telephone features a 2-by-20 alphanumeric display with 4 Interactive Soft Keys for intuitive feature access, 10 Personal Speed Dial bin keys, 12 Programmable Function Keys and 14 fixed feature keys. It also provides a built-in speakerphone, Dual LEDs and a built-in desk stand.

22-Button Standard Telephone

The 22-Button Telephone also has 10 Personal Speed Dial bin keys, 12 Programmable Function Keys and 14 fixed feature keys. It also provides a built-in speakerphone, Dual LEDs and a built-in desk stand. It does not, however, have a 2-line display and Interactive Soft Keys.

Station Instruments

34-Button Display Telephone

The 34-Button Display Telephone features a 2-line, 20 character display with 4 Interactive Soft Keys for intuitive feature access, 10 Personal Speed Dial bin keys, 24 Programmable Function keys and 14 fixed feature keys. It also offers a built-in speakerphone, Dual LEDs, and a built-in desk stand. The 34-Button Display Telephone is compatible with the optional REJ Recording Jack.

34-Button Super Display

The 34-Button Super Display Telephone is the system's premier telephone instrument. It features an 8-line, 20-character display with 12 interactive keys that provide intuitive call processing. The Super Display also offers 24 user-customizable programmable function keys for one-button access to a host of sophisticated features. The 14 fixed feature keys provide quick access to the vast array of standard features. The Super Display is compatible with the optional REJ Recording Jack.

Ring/Message Lamp

Each keyset has a Ring/Message Lamp. Located on the upper right of the keyset faceplate, the Ring/Message Lamp indicates for the following features:

For this feature:	The lamp does this:
Central Office Calls, Answering	Flashes slow (green) as call rings
Direct Inward Line	Flashes slow (green) as call rings
Hold	Flashes slow (green) during Hold recall
Intercom	Flashes slow (green) as call rings
Message Waiting	Flashes fast (red) when user has a Message Waiting indication left
Park	Flashes slow (green) during Park recall
Transfer	Flashes slow (green as call rings) and during Transfer recall
Voice Mail	Flashes fast (red) when messages are waiting in mailbox

Conditions

None

Default Setting

All extensions set up as 22-Button Display keysets (circuit type 02)

Programming List

Program 1801 - Extension Circuit Type (page 532)

Assign the correct circuit type for each extension:

● 01 = 22-Button Standard
● 02 = 22-Button Display
● 06 = 34-Button Display
● 09 = 34-Button Super Display

Other Related Features

None

Feature Operation

Refer to the individual features in this manual.

Station Message Detail Recording

Description

DS2000 Fixed Slot	Available. Default COM port baud rate is 9600.
DS2000 U Slot DS1000	Available. • Default COM port baud rate is 19200. • DS2000 version 02.00.01 changes programmable baud rate range. • Last column in report is expanded from 1 to 3 characters.

SMDR provides a printed record of your calls.

Station Message Detail Recording (SMDR) provides a record of the system'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 includes both incoming and outgoing calls, and can be turned off system-wide or selectively for each trunk.

The SMDR call record outputs when the call completes. The system assigns the SMDR record to the last extension on the call. For example, if extension 306 answers the call, talks for 20 minutes, and then Transfers the call to extension 302, extension 302 "owns" the entire call record as soon as they hang up.

When connecting SMDR in DS2000, use cable P/N 80893 and adaptor P/N 85980 to connect the 8-pin DIN connector on the CPU to the 9-pin COM port on the customer-provided laptop or data collection device. In DS1000, use adaptor P/N 85980 and a Mod-8 patch cord to connect the system's RS-232-C jack to the 9-pin COM port on a customer-provided laptop or data collection device. By default, the data rate is 19200 baud (9600 baud in Fixed Slot), 8 data bits, 1 stop bit and no parity (typically referred to as 19200 8N1).

The system buffers 50 SMDR call records. When the SMDR buffer fills, new call records will overwrite previously buffered call records.

Sample SMDR Report

Following is a sample SMDR report:

```
Station Message Detail Recording
05/07/1999 09:10P

---+---+--------------------------------+----------+---------+--------+---
Sta|Lin|          Number Dialed         | Account  |  Start  |Duration| T
---+---+--------------------------------+----------+---------+--------+---
306| 01|                     12039265400 |          |09:10:18P|00:00:05|OUT
306| 01|                     19055072888 |          |09:10:48P|00:01:13|OUT
301| 02|                               - |          |09:12:13P|00:01:12|IN
304| 01|                               - |          |09:12:07P|00:01:20|IN
306| 01|                     18003651928 |          |09:15:38P|00:00:14|OUT
```

SMDR Report Definitions

SMDR Report Definitions	
Sta	The extension that placed or answered the call
Lin	The trunk used for the call
Number Dialed	For outgoing calls, the number dialed on the trunk (up to 20 digits)
Account	Account code
Start	The time the call was initially answered
Duration	The total duration of the call
T	<u>In Fixed Slot:</u> O = Outgoing trunk call I = Incoming trunk call <u>In U Slot:</u> OUT = Outgoing trunk call IN = Incoming trunk call RNA = trunk that rang but was not answered

SMDR Report Format

SMDR Report Format (Page 1 of 3)		
Line	**Character**	**Field**
Report Start Header		
1	1-32	STATION MESSAGE DETAIL RECORDING
	33,34	Carriage return, line feed
2	1-10	Date (mm/dd/yyyy)
	11	Space
	12-16	Time (hh:mm:ss)
	17	A (for am) or P (for pm)
	18,19	Carriage return, line feed
3	1,2	Carriage return, line feed

Station Message Detail Recording

SMDR Report Format (Page 2 of 3)		
Line	**Character**	**Field**
Call Record Header		
1	1-3	- characters
	4	+ character
	5-7	- characters
	8	+ character
	9-40	- characters
	41	+ character
	42-51	- characters
	52	+ character
	53-61	- characters
	62	+ character
	63-70	- characters
	71	+ character
U Slot	72-74	- characters
Fixed Slot	72	- character
2	1-3	Sta
	4	| character
	5-7	Lin
	8	| character
	9-40	(9 spaces) Number Dialed (10 spaces)
	41	| character
	42-51	(2 spaces) Account (1 space)
	52	| character
	53-61	(2 spaces) Start (2 spaces)
	62	| character
	63-70	Duration
	71	| character
	72	Space
U Slot	73	T
	74	Space
Fixed Slot	72	T

SMDR Report Format (Page 3 of 3)		
Line	**Character**	**Field**
3	1-3	- characters
	4	+ character
	5-7	- characters
	8	+ character
	9-40	- characters
	41	+ character
	42-51	- characters
	52	+ character
	53-61	- characters
	62	+ character
	63-70	- characters
	71	+ character
U SLot	72-74	- characters
Fixed Slot	72	- character
Call Record		
1	1-3	Extension number
	4	| character
	5-7	Trunk number (2 digits, right justified, preceded by one space)
	8	| character
	9-40	Number dialed (up to 20 characters, right justified, preceded by spaces)
	41	| character
	42-51	Account Code (right justified, preceded by spaces)
	52	| character
	53-61	Start time of call (hh:mm:ssA or P)
	62	| character
	63-70	Duration of call (hh:mm:ss)
	71	| character
U Slot	72-74	Type of call
Fixed Slot	72	Type of call

Conditions

None

Default Setting

SMDR output disabled.

Station Message Detail Recording

Programming Guide

| Step-by-step guide for setting up SMDR |

Step 1: Should system output SMDR?

If yes
- In *Program 0301 - SMDR Port* (page 450), enter 1 to enable SMDR at the CPU RS-232-C port.
- In *Program 0301 - CPU Baud Rate* (page 450), set the baud rate on the RS-232-C port to match the requirements of the connected SMDR device. The entries are 1-5 in DS1000; 1-7 in DS1000.

If no
- In *Program 0301 - SMDR Port* (page 450), enter 0 to prevent the CPU from outputting SMDR.

Step 2: Should the SMDR report include the header?

If yes
- In *Program 0301 - Print SMDR Header* (page 450), enter Y to enable the SMDR header.

If no
- In *Program 0301 - Print SMDR Header* (page 450), enter N to disable the SMDR header.

Step 3: Should a specific trunk be included in the SMDR report?

If yes
- In *Program 1001 - Print SMDR* (page 503), enter Y to have the system include the trunk in the SMDR report.

If no
- In *Program 1001 - Print SMDR* (page 503), enter N to have the system exclude the trunk from the SMDR report.

Programming List

Program 0301 - CPU Baud Rate (page 450)
Assign the baud rate for the RS-232-C port on the CPU. The options are as follows
Fixed Slot and U Slot prior to 02.00.01:
- 1 (1200)
- 2 (2400)
- 3 (4800)
- 4 (9600)
- 5 (19200)
U Slot 02.00.01 and higher and DS1000:
- 1 (2400)
- 2 (4800)
- 3 (9600)
- 4 (19200)
- 5 (38400)
- 6 (57600) - DS1000 Only
- 7 (115000) - DS1000 Only
You can also use Ctrl + Break from a laptop connected to the CPU RS-232-C port to step through the available baud rates.

Program 0301 - SMDR Port (page 450)
Enter 1 to enable SMDR output from the CPU RS-232-C port, or enter 0 to disable SMDR at the CPU RS-232-C port.

Program 0301 - Print SMDR Header (page 450)
Enter Y to have the beginning of the SMDR report include the column header data. Enter N to have the SMDR report only include the call data (without the header).

Program 1001 - Print SMDR (page 503)
Enter Y to have the SMDR report include calls on the trunk. Enter N to have the SMDR report exclude calls on the trunk.

Other Related Features

Account Codes (page 34)
Account Codes print on the SMDR report.

Call Timer (page 71)
The Call Timer also helps users keep track of their time on the phone.

Caller ID (page 81)
Caller ID prints out on the SMDR report.

Time and Date (page 383)
Time and date appear on the SMDR report.

Transfer (page 393)
The system assigns the SMDR record to the last extension on the call. For example, if extension 306 answers the call, talks for 20 minutes, and then Transfers the call to extension 302, extension 302 "owns" the entire call record as soon as they hang up.

Year 2000 Compliance (page 433)
The SMDR report displays four digits for the year (i.e., 2000, 2001).

Feature Operation

SMDR is automatic once enabled.

System Diagnostics

Description

DS2000 Fixed Slot	
DS2000 U Slot	See steps below.
DS1000	

To check your system's software version:

1. Do not lift the handset, do not press **SPK**, and do not press **ICM**.
2. Dial 8.

   Your system's software version displays.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Store the site name and telephone number in the system data base.

The system adminstrator can enter the site name and telephone number into the system data base. This information is saved into system memory and will appear on system diagnostic reports, once available.

Conditions
None

Default Setting
No entries.

Programming Guide

Step-by-step guide for setting up System Identification

Step 1: Do you want to enter a site name for the system?

If yes
- In *Program 0302 - Company Name* (page 452), enter the name for the site (up to 14 characters).

If no
- In *Program 0302 - Company Name* (page 452), do not enter the name for the site.

Step 2:   Do you want to enter the contact telephone number for the site
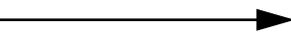
If yes
- In *Program 0302 - Company Phone Number* (page 452), enter the site telephone number (up to 14 characters).

If no
- In *Program 0302 - Company Phone Number* (page 452), do nor enter the site telephone number.

System Identification

Programming List

Program 0302 - Company Name (page 452)

14 Enter the name of the company (up to 14 characters) at which the system is installed. The name appears on top of various system reports.

Program 0302 - Company Phone Number (page 452)

Enter the number that the system should call to report a fault. This *is not* the number of the company where the system is installed. It is the number of the remote service center.

Other Related Features

System Diagnostics (page 354)

The company name and phone number will display on system diagnostic reports.

Feature Operation

None

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	• Versions prior to 02.00.01 used PC Card P/N 80050-V**.**. **. Versions 02.00.01 and higher user PC Card P/N 80051-V**.**.**. • PC Card Erase utility requires software version 02.00.01 or higher.
DS1000	Not available.

⚠️ Backup and restore site data to a PC card.

The PC Card provides a permanent, non-volatile backup of all the site's programming. If you have backed up your site data to a PC Card, for example, you can easily restore all site programming after an extended power failure.

Versions 02.00.01 and Higher

Use PC Card P/N 85880 to back up and restore your site data. Each PC card can store up to 16 complete data bases. In addition, you can assign a name (up to 10 characters long) to each stored data base. You cannot use PC Card P/N 80051-V**.**.** (with system software preloaded) to store site data. This PC Card contains only the system's operating software and the default data base.

Versions Prior to 02.00.01

Use PC Card P/N 85880 or P/N 80050-V**.**.** (with system software preloaded) to back up and restore your site data. Each PC card can store up to 12 complete data bases. In addition, you can assign a name (up to 10 characters long) to each stored data base.

Data Base Compatibility

Program 9906 - Database Save (page 567) and **Program 9907 - Database Load** (page 569) show the type of data base stored. There are currently two types of data bases:

● **DB8** (U Slot software with CPU P/N 80025A)
● **DB4** (U Slot software with CPU P/N 80025)

Compatibility Guidelines
Refer to your system's Hardware Manual or instruction sheet P/N 85880INS** for details on how to load your system software.
When loading system software, a U Slot data base (version 02.nn.nn) is not backward compatible with a Fixed Slot data base (version 01.nn.nn). When updating to U Slot from Fixed Slot, the system must be reinitialized (and reprogrammed) after the new software is loaded.
If restoring a data base from software version 02.00.00 to a higher version, the data base addresses are offset by 8. For example, a 02.00.00 data base you store in address 00 becomes adress 08 when the same PC card is used with software version 02.01.00.
You can only back up and restore data bases of the same type (DB8 or DB4). If you attempt to restore a data base of the wrong type, you'll see and error message and the operation will abort.
There is a unique upgrade procedure you must use when upgrading from software 02.00.00 to a more recent version. Turn to *Upgrading from 02.00.00 to a More Recent Version* on page 359.

System Programming Backup and Restore

Conditions

See Compatiblity Guidelines above.

Default Setting

No data bases stored.

Programming Guide

Step-by-step guide for setting up System Programming Backup and Restore

Step 1: Do you want to back up the site data to a PC Card?

If yes
- In *Program 9906 - Database Save* (page 567), back up the site data to one of the 12 available PC card addresses.
- Refer to the system Hardware Manual for additional information on using the PC card for backup and restore.

If no
- In *Program 9906 - Database Save* (page 567), do not back up the site data to the PC card.

Step 2: Do you want to restore the site data from a PC card.

If yes
- In *Program 9907 - Database Load* (page 569), restore the site data from one of the 12 available PC card addresses.
- After restoring the site data in software versions 02.00.01 and higher, the system will automatically reset.
- Refer to the system Hardware Manual for additional information on using the PC card for backup and restore.

If no
- In *Program 9907 - Database Load* (page 569), do not restore the site data from the PC card.

Step 3: Do you want to completely erase all the data in Data Base PC Card P/N 85880?

If yes
- In *Program 9908 - PC Card Erase Utility* (page 570), erase the PC card data.

If no
- Do not use *Program 9908 - PC Card Erase Utility.*

Programming List

Program 9906 - Database Save (page 567)
Save (back up) site data to a PC card.
Program 9907 - Database Load (page 569)
Restore (load) site data from a PC card.
Program 9908 - PC Card Erase Utility (page 570)
Erase all the data bases in Data Base PC Card P/N 85880.

Other Related Features

System Diagnostics (page 354)
If the system diagnostics report a critical fault that requires a CPU change or system initialization, the installer can quickly restore site programming from the PC card.
Battery Backup (page 59)
In the event of commercial AC power failure, the battery on the CPU PCB provides short-term backup of system memory and the system time and date (Real Time Clock).

Feature Operation

Upgrading from 02.00.00 to a More Recent Version

Use the following procedure if you need to upgrade an existing 02.00.00 system using CPU 80025A to a more recent version (e.g., 02.01.00) that is also using CPU 80025A. This method gives you a way to retain your stored site-specific data. The following steps explain how to upgrade from 02.00.00 to 02.10.00, as an example.

1. With version 02.00.00 System Software PC Card installed (P/N 80050-V02.00.00), use **9906 - Database Save** to save the data base to one of the available address (00-07).

2. Without powering down, remove the 02.00.00 PC Card and install the new System Software PC Card (P/N 80051-V02.01.00).

3. Set the CPU mode switch to **BOOT** and press the **RESET** switch. This will restart your system with software version 02.01.00, using the factory installed (default) settings.

4. After the system restarts, switch the CPU mode switch back to **RUN**.

5. Reinstall the 02.00.00 System Software PC card you removed in step 2 above.

6. Use **9907 - Database Load** to restore the database from the address you specified in step 1 above, offset by 8 (e.g., 02.00.00 address 00 becomes address 08 in 02.01.00).

7. Remove the 02.00.00 System Software PC card and install a new Data Base PC Card (P/N 85880).

8. Use **9906 - Database Save** to store your site-specific data in one of the 16 available dat base addresses (00-15).

System Programming List

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

The following system programs are available:

Program 0100 - Class of Service (page 440)
> **Program 0101 - Class of Service Options** (page 440)

Program 0200 - Tenant Options (page 445)
> **Program 0201 - Tenant Option Programming** (page 445)

Program 0300 - System Options (page 449)
> **Program 0301 - System Options (Part 1)** (page 449)
> **Program 0302 - System Identification** (page 452)

Program 0400 - Timers (page 455)
> **Program 0401 - System Timers** (page 455)
> **Program 0402 - Trunk Timers** (page 459)
> **Program 0403 - Station Timers** (page 466)
> **Program 0404 - Analog Station Timers** (page 469)

Program 0500 - System Numbering (page 472)
> **Program 0501 - Numbering Plan** (page 472)
> **Program 0504 - Trunk Port Extension Numbers (Fixed Slot)** (page 476)
> **Program 0504 - View Extension (U Slot and DS1000)** (page 478)
> **Program 0505 - Station Port Extension Numbers (Fixed Slot)** (page 480)
> **Program 0505 - Extension Assignment (U Slot and DS1000)** (page 482)
> **Program 0510 - ACD/UCD Master Extension Numbers and Names** (page 485)
> **Program 0511 - Ring Group Master Extension Numbers and Names** (page 487)

Program 0600 - Toll Restriction (page 489)
> **Program 0601 - Toll Restriction Options** (page 489)

Program 0800 - Display Messages (page 496)
> **Program 0801 - Selectable Display Messages** (page 496)

Program 1000 - Trunk Programming (page 498)
> **Program 1001 - Trunk Port Description** (page 498)
> **Program 1002 - Trunk Groups** (page 506)
> **Program 1003 - Trunk Options** (page 509)

Program 1200 - Verified Account Codes (page 515)
> **Program 1201 - Verified Account Codes Table** (page 515)

Program 1100 - Speed Dial (page 513)
> **Program 1101 - System Speed Dial Numbers** (page 513)

Program 1700 - Key Programming (page 517)
> **Program 1701 - Programmable Function Key Assignments** (page 517)

System Programming Password Protection

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Control access to system programming.

The system controls access to the programmable options according to the programming password the administrator enters. There are three password levels:

Logging On with this Password:	Gives you access to these programs:
System Administrator 1 (level 1) Password = 0000	**Program 0302 - System Identification** (page 452) **Program 1101 - System Speed Dial Numbers** (page 513)
System Administrator 2 (level 1) Password = 9999	**Program 0302 - System Identification** (page 452) **Program 0801 - Selectable Display Messages** (page 496) **Program 1101 - System Speed Dial Numbers** (page 513) **Program 1701 - Programmable Function Key Assignments** (page 517) **Program 1702 - Personal Speed Dial** (page 522) **Program 1703 - DSS Key Assignment** (page 524)
Installer (level 3) Password - 372000	All

Conditions
None

Default Setting
See the table above.

Programming List

Program 9905 - Password (page 566)
> Review the complete list of programmable options.

Other Related Features

System Programming Backup and Restore (page 357)
Backup your system programming to a PC card provides for a permanent, non-volatile backup of all the site's programming.
System Programming List (page 360)
Review the complete list of programmable options.

Feature Operation

None

System Timers

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000
| Available.

⚠ Use the system-side timers to tailor the system to the site's requirements.

The system-wide timers allow the adminstrator system performance to meet the specific application requirements. Review the table below for a description of each timer.

Following is a summary of the **Program 0401 - System Timers** (page 455) options.

Table 12: Program 0401 - System Timers (Page 1 of 2)

Option	Description	Default
Park Orbit	Use this timer to set how long a call stays in System Park Orbit before it recalls the extension that parked it. This timer if for orbits 60-67 only. The recall for orbits 68 and 69 is fixed at 5 minutes.	60 sec.
Modem Reserve	Use this timer to set how long the system reserves a modem, once requested by an extension user, from the modem pool before returning in to the pool.	30 sec.
Transfer Recall	Use this timer to set how long a transferred call rings an idle destination extension or Ring Group before recalling the extension from which it was initially transferred. In addition, use this timer to set how long a transferred call rings a busy operator extension before recalling the extension from which it was initially transferred.	30 sec. (Fixed Slot) 20 sec. (U Slot)
Intercom Inter-digit	When an extension user places a call, they must dial each succeeding digit within this interval.	6 sec.
Meet-Me Conference	When a user initiates a Meet-Me Conference, the system waits this interval for the Paged party to join the call.	30 sec.
Dialing Pause	For Speed Dial, the system waits this interval when it encounters a pause in a Speed Dial bin.	1 sec.
Page Duration	Use this timer to set the maximum length of Page announcements.	30 sec.
Door Unlock	When a single line (2500 type) user hookflashes while talking to a Door Box, the Door Box strike opens for this interval.	30 sec.

Table 12: Program 0401 - System Timers (Page 2 of 2)

Option	Description	Default
DIL No Answer	This timer sets how long a DIL to an extension rings before Key Ring or overflow occurs. Key Ring rings all extensions programmed to ring for that line.	15 sec.
Trunk Revert	This timer sets how long Hold Recall rings the extension that placed the call on hold before Key Ring occurs. Key Ring rings all extensions programmed to ring for that line. This timer also sets how long a DIL to a Ring Group master number rings before Key Ring or overflow occurs. Key Ring rings all extensions programmed to ring for that line. In addition, this timer sets how long a Transfer Recall rings the extension that initially transferred the call before Key Ring occurs.	15 sec.
Trunk Delay Ring	Use this timer to set how long the system waits before ringing an extension that has the Delayed Ringing option enabled.	10 sec.
Trunk Overflow	Not used.	20 sec.
Centrex Type Feature Key Delay	This timer sets how long the system waits when it finds a Centrex delay (i.e., D) programmed in a Centrex Feature Key.	50 sec.
ACD/UCD Overflow	This timer sets when UCD overflow occurs. When all UCD agents are busy, a queued call rings for this interval and then overflows to the UCD Overflow destination.	60 sec
Number of Password Attempts	Use this option to set how many times the system allows a user to enter the incorrect programming password before locking them out.	3
Program Lockout Time	Once the system locks out a user, it will wait this interval before allowing the user to reenter the programming mode.	10 sec.
Force Program Exit	If a telephone in the programming mode is inactive longer than this interval, the system automatically cancels the programming mode and makes the telephone idle.	10 sec.

Conditions

None

Default Setting

See the table above.

System Timers

Programming List

Program 0401 - System Timers (page 455)
The system-wide timers allow the adminstrator system performance to meet the specific application requirements.

Other Related Features

Refer to the following for related feature information:

Program 0401 - System Timers (page 455)

Feature Operation

None

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Adjustable station timers allow the system to more precisely meet the site requirements.

The system provides many station timers that the administrator can customize. Review the tables below for a description of each station timer.

Following is a summary of the **Program 0403 - Station Timers** (page 466).

Table 13: Program 0403 - Station Timers (Page 1 of 2)

Option	Description	Default
Hold Recall	Use this timer to set how long a call stays on Hold before it recalls the extension that initially placed it on Hold.	60 sec.
Exclusive Hold	Use this timer to set how long a call stays on Exclusive Hold before it recalls the extension that initially placed it on Exclusive Hold.	90 sec.
Camp-On	Use this timer to set how long a transferred call camps-on to a busy single line phone before recalling the extension that initially transferred the call.	60 sec.
Call Forward Ring No Answer	When Call Forwarding Ring No Answer is enabled, this timer sets how long a forwarded call rings an unanswered extension before routing to the forwarding destination. In addition, use this timer to set how long a transferred call rings a busy non-operator extension before recalling the extension from which it was initially transferred.	10 sec.
Call Waiting Tone Interval	Use this timer to set the interval between Call Waiting tones. Also use this timer to set the interval between Off Hook Signaling alert tones.	10 sec.
Call Coverage Delay	For extensions with Delayed Ringing Call Coverage keys, this timer sets how long a call flashes the key at an extension before it starts to ring.	10 sec.
Hook flash Transfer	This timer is currently not implemented.	2 sec.
Hook Flash Disconnect	This timer is currently not implemented.	12 sec.

Table 13: Program 0403 - Station Timers (Page 2 of 2)

Option	Description	Default
Number of Extended Rings	If an extension's Class of Service enables Extended Ringing, use the timer to set the duration of the Extended Ringing.	20 sec.
Drop Pulse Send	Use this timer to set the duration of the ASTU PCB drop pulse. This pulse is sent from the ASTU PCB to the connected analog device to initiate a disconnect.	300 mS
DTMF Detect	Use this timer to set the DTMF detection threshold for single line (analog device) ports. If the analog device sends a DTMF signal longer than this interval, the system recognizes it as a valid DTMF tone and decodes it. If the DTMF signal is equal to or less than this interval, the system ignores it.	70 mS
Ring No Answer Hunt	Use this timer to set the Extension Hunting Ring No Answer Time. A call will ring a hunt group member extension for this interval before automatically cycling to the next extension in the group.	10 sec.

Following is a summary of the **Program 0404 - Analog Station Timers** (page 469).

Table 14: Program 0404 - Analog Station Timers (Page 1 of 2)

Option	Description	Default
Country Data	Use this option to define the country of use and the codec digitizing method for ASTU PCBs. This timer consists of two bits (xy), with bit x defining the country and bit y defining the digitization method. For example, the default entry 00 is for North America (x=0) and u-law digitization method (y=0). ***Do not change this entry from its default value (00).***	00 (xy)
Rotary Dial Type	Use this option to define the rotary dial pulsing method for the system's ASTU PCBs. ***Do not change this entry from its default value (01).***	Standard (0)
Loop Current	Use this option to set the maximum allowed loop current for the system's ASTU PCBs. Normally choose 25mA for short loops and 35mA for long loops. In general, a long loop is 3000 feet or longer and a short loop is less than 3000 feet.	25mA (0)
Ringing Frequency	Use this option to define the AC ringing frequency for the system's ASTU PCBs. ***Do not change this entry from its default value (20 Hz).***	20 Hz (1)
Minimum Break Time	This timer defines the minimum amount of time the loop must be opened to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. ***Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.***	2 (10 mS)
Maximum Break Time	This timer defines the maximum amount of time the loop must be opened to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. ***Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.***	20 (100 mS)
Minimum Make Time	This timer defines the minimum amount of time the loop must be closed to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. ***Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.***	2 (10 mS)
Maximum Make Time	This timer defines the maximum amount of time the loop must be closed to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. ***Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.***	20 (100 mS)

Table 14: Program 0404 - Analog Station Timers (Page 2 of 2)

Option	Description	Default
Minimum Hookflash Time	For ASTU PCBs, this timer defines the minimum amount of time the loop must be opened before the system starts to detect a transfer or hang up sequence. Open loop intervals shorter than the setting are ignored by the ASTU PCB.	21 (105 MS)
Maximum Hookflash Time	For ASTU PCBs, this timer defines the maximum amount of time the loop can be opened in order for the system to detect a Transfer sequence. Open loop intervals longer than the setting are interpreted as hang up.	200 (1000 mS / 1 second)
Minimum Ground Flash Time	For ground start applications with ASTU PCBs, this timer sets the amount of time a ground must be applied before the system detects a transfer sequence. The ASTU uses this timer when analog telephones use ground Transfer instead of open loop Transfer. *This timer is not used in North America. Do not change this timer from its default value.*	21 (105 mS)
Minimum Off-Hook Time	For ASTU PCBs, this timer defines how long a connected analog device must remain off-hook before the system recognizes the off-hook status.	21 (105 mS)
Off-Hook Guard Time	The ASTU PCB waits this interval after an analog device hangs up before accepting any additional input from the device. This timer helps prevent erroneous detection due to hardware stabilization.	60 (300 mS)
Dial Pulse Guard Timer	The ASTU PCB waits this interval between dial pulse digits before attempting to detect any additional DP digits. This timer helps prevent erroneous DP dialing due to hardware stabilization.	70 (350 mS)
Loop Disconnect Time	When the far end disconnects, the ASTU PCB opens the loop to the connected analog device for this interval.	40 (200 mS)
Ring/MW Wait Period Time	This timer determines the ringing sequence for the devices connected ASTU PCBs. Because of power consumption, it is not possible to ring all analog devices on an ASTU simultaneously. Instead, the card is divided into 4 groups with two ports in each group. Ringing cycles between the 4 groups, ringing each group for this interval.	15 (750 mS)

Conditions

None

Default Setting

Refer to the charts above.

Programming List

Program 0403 - Station Timers (page 466)
Customize general station timers.
Program 0404 - Analog Station Timers (page 469)
Customize analog station timers.

Other Related Features

Refer to the following for related feature information:

Program 0403 - Station Timers (page 466)
Program 0404 - Analog Station Timers (page 469)

Feature Operation

None

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

⚠️ Customize critical trunk timers for compatibility with the connected telco or PBX/Centrex.

The system provides many trunk timers that the administrator can customize. Review the table below for a description of each trunk timer.

Following is a summary of the **Program 0402 - Trunk Timers** (page 459). Refer also to:

- *Rules for Detecting Normal CO (Single) Ring* on page 376.
- *Rules for Detecting Special (Double) Ring* on page 376.
- *Rules for Detecting Loop Current* on page 377.

Table 15: Program 0402 - Trunk Timers (Page 1 of 5)

Option	Description	Default
Camp-On	Not used.	60 sec.
Line Response	When the system fails to detect loop current on a trunk, it will wait this interval before marking the trunk as defective.	100 (10 seconds)
	Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may mark properly functioning trunks as defective. If too long, defective trunks may be left in service.	
Dial Tone Detect	When the system seizes a line to place a Speed Dial call, it waits this interval for dial tone before outdialing the call. The system requires that the first dial tone be at least .5 seconds long and the second dial tone to be at least 2.5 seconds long.	10 (1 second)
	Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may not seize properly functioning trunks. If too long, there will be too long a delay before the system skips over a defective trunk.	
PBX/Centrex Flash	Use this timer to set the Flash interval. When a user flashes a trunk, the system opens the trunk circuit for this interval. For accurate flash function, be sure to set this interval for compatibility with the connected telco or PBX/Centrex.	800 mS
	If you set this interval too short, the telco may not always register the flash. If too long, inadvertent disconnects may occur.	

Table 15: Program 0402 - Trunk Timers (Page 2 of 5)

Option	Description	Default
Flash Disconnect	Not used.	2496mS
Force Idle (Trunk Guard Time)	Use this timer to set the guard time for trunks. When the system disconnects a trunk (e.g., after a user hang up), the system keeps the line idle until this timer expires. The Trunk Guard Time helps prevent call collisions. If you set this interval too short, call collisions may occur. If too long, there will be unnecessary delays before you can use the trunk for a new call.	25 (2.5 sec) (Fixed Slot) 10 (1 sec) (U Slot)
PBX Pause	Not used.	0
Minimum Ring Detection Timer	Use this timer to set the threshold for ring detection. If the ring signal is longer than this interval, the system interprets the signal as valid ringing. If the signal is equal to or shorter than this interval, the system ignores the ringing. Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may detect line spikes and anomalies as ringing. If too long, the system may not properly interpret a valid ringing signal.	104 mS
DP Make Timer	Use this timer to set the duration of the Dial Pulse Make signal (i.e., relay closed). This is the "on" time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.	40 mS
DP Break Timer	Use this timer to set the duration of the Dial Pulse Break signal (i.e., relay open). This is the "off" time in a Dial Pulse digit. Set this timer for compatability with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.	60 mS
DP Interdigit Timer	Use this timer to set the duration of the Dial Pulse Interdigit signal (i.e., relay open time *between* each digit). Set this timer for compatability with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing.	800 mS

Table 15: Program 0402 - Trunk Timers (Page 3 of 5)

Option	Description	Default
Manual DTMF Tone On	This timer sets the duration of DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to properly detect the DTMF digit. If too long, outbound dialing is unnecessarily slowed down.	150 mS
Manual DTMF Tone Off	This timer sets the duration of the interval between DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Note that this is the minimum DTMF Tone off time guaranteed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to set up to receive the next DTMF digit. If too long, outbound dialing is unnecessarily slowed down.	50 mS
Speed Dial DTMF Tone On	This timer sets the duration of DTMF digits for Speed Dial trunk calls automatically dialed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to properly detect the DTMF digit. If too long, outbound dialing is unnecessarily slowed down.	100 mS
Speed Dial DTMF Tone Off	This timer sets the duration the quiet time between DTMF digits for Speed Dial trunk calls automatically dialed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to set up to receive the next DTMF digit. If too long, outbound dialing is unnecessarily slowed down.	100 mS
Loop Current Detection Time	For loop start trunks, loop current must be present for this interval before the system seizes the trunk. Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently seize unstable trunks. If too long, the system may not properly seize a valid trunk.	800 mS
Codec Digitizing Method	Use this option to set the system's codec companding method type for the trunk. ***Be sure this option is always set to 0 (μ-law companding enabled).*** Do not set this option to 1 (A-law companding enabled).	0 (μ-law)

Table 15: Program 0402 - Trunk Timers (Page 4 of 5)

Option	Description	Default
Setting for International Rotary Disk	Set this option for compatibility with the type of rotary dial (500 type) telephone used. ***Be sure to always set this option to 0.***	0 (US standard)
Far End Disconnect	Use this timer to set the loop disconnect interval for trunk calls. If the system detects a loop current interruption longer than this interval it assumes the telco has disconnected the trunk. It then returns the trunk trunk to idle. Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently disconnect valid trunks. If too long, the system may leave trunks connected that it should tear down.	300 mS
Minimum Single Ring Detection Timer	The system uses this timer to detect valid ringing signal from the connected telco or PBX. Valid single ring must be longer than this interval.	504 mS
Minimum Double Ring Detection Off Timer	The system uses this timer to detect valid double ring from the connected PBX. Valid double ring must be longer than this interval.	104 mS
Maximum Double Ring Detection Off Timer	The system uses this timer to detect valid double ring from the connected PBX. Valid double ring must be less than this interval.	304 mS
Ringing Signal End Detect Timer	If the ringing signal on a trunk call is interrupted for longer than this interval, the system assumes ringing has stopped and terminates the call. Set this option for compatibility with the connected telco or PBX Centrix. If this interval is set to short, valid ringing will be inadvertently cut off. If too long, the system will leave the call set up even after ringing has stopped.	6016 mS
Caller ID Detection Timer	Not used.	3268 mS
Ground Start Timer	Before the system can start a ground start trunk, the telco's tip ground must be present for longer than this interval. Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently start a trunk it should not set up. If too long, the system may not start trunks that are functioning normally.	800 mS
Pause Timer	Not used.	3008 mS
DP Mute Timer	Not used..	8 mS

Table 15: Program 0402 - Trunk Timers (Page 5 of 5)

Option	Description	Default
P.F. Recovery Detect Timer	When the ATRU PCB recovers from a power failure, it checks the power failure trunk (trunk 1) for loop current for the P.F. Recovery Detect interval. If loop current is detected, it assumes the Power Failure Telephone is still connected and does not tear down the call. If loop current is not detected, the ATRU PCB switches the trunk out of the power failure mode.	3008 mS

Rules for Detecting Normal CO (Single) Ring
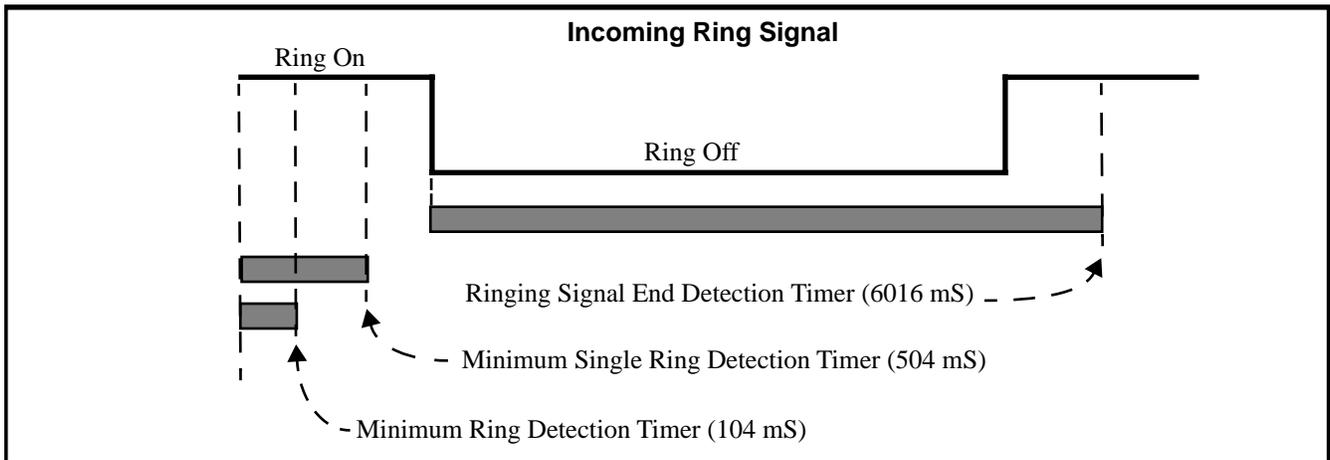
1. The ring signal must be longer than the *Minimum Ring Detection Timer* (normally 104 mS).
2. The ring signal must also be longer than the *Minimum Single Ring Detection Timer* (normally 504 mS).
3. The interval between ring bursts must not be longer than the *Ringing Signal End Detection Timer* (normally 6016 mS).

Rules for Detecting Special (Double) Ring

(This option is normally not required and is intended for only for certain Centrex/PBX applications

with unique incoming ring.)
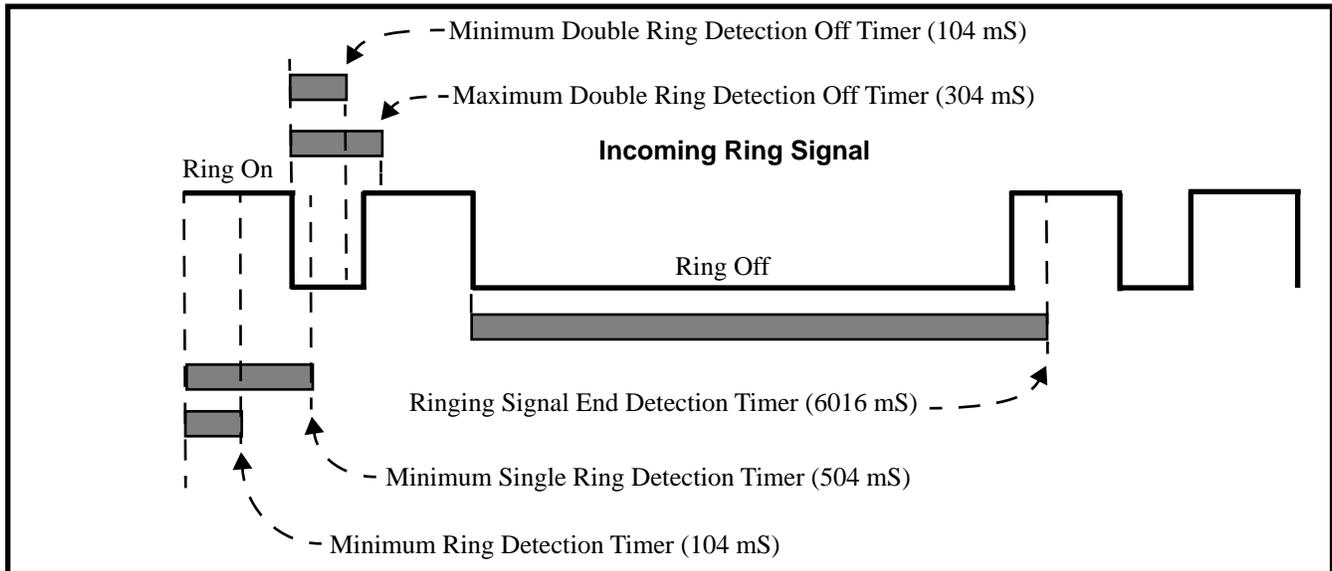
1. The ring signal must be longer than the *Minimum Ring Detection Timer* (normally 104 mS).

2. The ring signal must be shorter than the *Minimum Single Ring Detection Timer* (normally 504 mS).

3. The off interval between the two double rings must be greater than the *Minimum Double Ring Detection Off Timer* (normally 104 mS) but less than the *Maximum Double Ring Detection Off Timer (normally 304 mS)*.

4. The interval between the second burst of a ring cycle and the first burst of the next cycle must not be longer than the *Ringing Signal End Detection Timer* (normally 6016 mS).

Rules for Detecting Loop Current
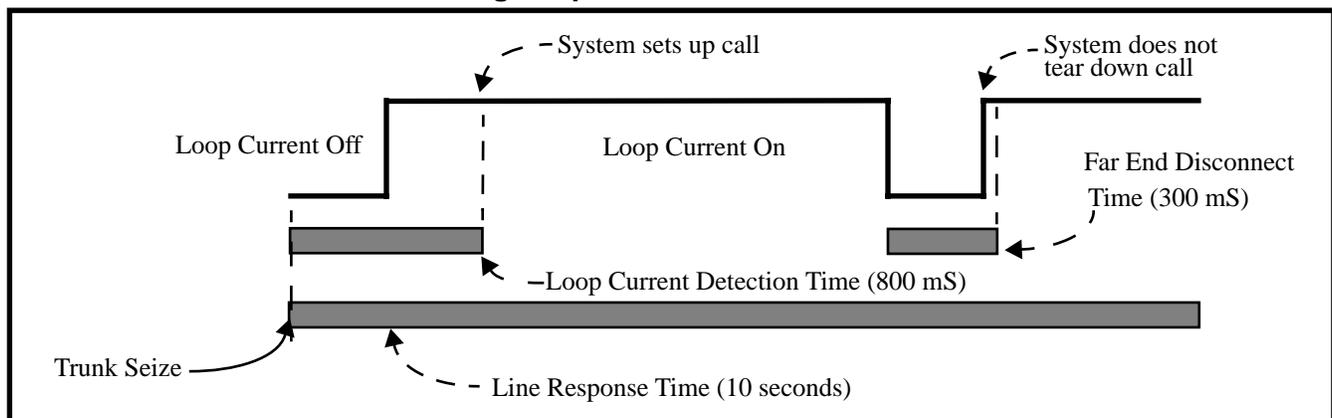
1. When the system seizes a trunk, it will wait the *Line Response Time* (normally 10 seconds) for loop current. (If it doesn't detect loop current, it marks the trunk as defective. If it does detect loop current, it will proceed to step 2 below.) Note that *Line Response Time* is a system timer. (not a trunk timer).

2. Once loop current is detected, it must be present for the *Loop Current Detection Time* (normally 800 mS).

3. If loop current is interrupted for longer than the *Far End Disconnect Time* (normally 300 mS), the system disconnects the call.

System Timers, Trunks

Conditions
None

Default Setting
Refer to the chart above.

Programming List

Refer to the chart above.

Other Related Features

Refer to the following for related feature information:

Program 0402 - Trunk Timers (page 459)

Feature Operation

None

Description

DS2000 Fixed Slot
DS2000 U Slot | Available.
DS1000

Join two callers in Conference, leave the call and let their conversation continue.

Tandem Trunking allows an extension user to join two 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.

Tandem Trunking uses a Conference circuit. The following table shows the system's Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions
None

Default Setting
Tandem Trunking disabled.

Tandem Trunking / Unsupervised Conference

Programming Guide

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┌─────────────────────────────────────┐
│ Step-by-step guide for setting up Tandem │
│   Trunking / Unsupervised Conference     │
└─────────────────────────────────────┘
```

Step 1: Should trunk have the ability to be included in an Unsupervised Conference?

If yes ──────────────────►
- In *Program 1003 - Tandem Trunk* (page 510), enter Y. Note that only one of the trunks in the tandem call must have this option enabled.
- In *Program 0402 - Far End Disconnect* (page 464), set the Far End Disconnect time for compatiblity with the local telco.

If no ──────────────────►
- In *Program 1003 - Tandem Trunk* (page 510), enter N. Note that only one of the trunks in the tandem call must have this option enabled.

Programming List

Program 0402 - Far End Disconnect (page 464)
> Set the Far End Disconnect time for compatibility with the local telco.

Program 1003 - Tandem Trunk (page 510)
> Enabled (Y) or disable (N) the trunk's ability to be included in an Unsupervised Conference. Only one of the trunks in the tandem call must have this option enabled.

Other Related Features

The following features also allow different types of multiple party calls:

Barge In (Intrusion) (page 57)
> An extension user can Barge In on a tandem call.

Conference (page 111)

Group Listen (page 181)

Meet-Me Conference (page 247)

Privacy Release Groups (page 297)

Forced Trunk Disconnect (page 175)
> An extension user can end an Unsupervised Conference by using Forced Trunk Disconnect on one of the trunks in the tandem call.

Off-Premise Extensions / On-Premise SLT Extensions (page 274)
> Tandem Trunking is available at Single Line extensions.

Feature Operation

To set up a tandem call (Unsupervised Conference):

1. Establish trunk call.

    > 🕮 ‖ Conversation with caller.
    > 👁 ‖ Line Key or Loop Key on.

2. Press **CONF**.

    > 🕮 ‖ Intercom dial tone.
    > 👁 ‖ **ICM** on and Line/Loop Key flashing.

    Your caller hears Music On Hold (if installed) while they wait for you to set up the Conference.

3. Place or answer trunk call

         OR

    Retrieve trunk call from Park Orbit.

4. Press CONF to set up the Conference.

    > 🕮 ‖ Conversation with your conferenced callers.
    > 👁 ‖ Line/Loop Keys on (green).

    If you cannot add additional parties to your Conference, you have exceeded the system's Conference limit.

5. Hang up.

    > 🕮 ‖ N/A
    > 👁 ‖ Line/Loop Keys on (red)

    If the outside parties disconnect, the trunks you selected do not have Tandem Trunking capability.

To disconnect a tandem call (using Forced Trunk Disconnect):

1. Press line key for busy trunk.

         OR

    Press **ICM** and dial the trunk's Direct Trunk Access code (e.g., 401 for trunk 1).

    > 🕮 ‖ Busy tone.
    > 👁 ‖ Line/loop key on (red).

    Refer to Direct Trunk Access for the specifics.

2. Dial # to disconnect the line.

    The tandem call disconnects.

To Barge In on a tandem call:

1. Press line key for busy trunk.

         OR

    Press **ICM** and dial the trunk's Direct Trunk Access code (e.g., 401 for trunk 1).

    > 🕮 ‖ Busy tone.
    > 👁 ‖ Line/loop key on (red).

    Refer to Direct Trunk Access for the specifics.

2. Dial 4.

    > 🕮 ‖ You hear two beeps and you join the tandem call.
    > 👁 ‖ Line/loop keys on (green).

    You can optionally place the Conference on hold. Your callers hear Music on Hold (if

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Tandem Trunking / Unsupervised Conference

installed) while waiting on Hold. Press **CONF** *to reinstate the Conference.*

To set up Tandem Trunking at a Single Line Telephone:

1. Establish trunk call (e.g., lift handset, dial 9, and dial outside number).

2. Hookflash and dial another trunk call.

3. Hookflash and dial #10 to set up Conference.

4. Hang up.
   If the outside parties disconnect, the trunks you selected do not have Tandem Trunking capability.

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	Available. User Programmable Feature steps added.
DS1000	Available. Includes User Programmable Feature steps.

The time and date shows on telephone displays and prints on system reports.

The system Time and Date appears on:
- Display Telephones
- Station Message Detail Recording reports

The system administrator can change the time and date from the system programming mode. Although the data is entered in 24-hour format, it always displays in 12-hour format (e.g., 1300 = 1:00PM).

Conditions

The system retains the time and date after a system reset or short term power failure.

Default Setting

- 01:00:00 (1:00AM)
- 01/01/1998 (Thursday, January 1, 1998)

Programming Guide

> **Step-by-step guide for setting up Time and Date**

Step 1: Do you want to change the system time?

If yes
- In *Program 0302 - Time* (page 452), enter the new system time (HH:MM:SS in 24 hour format).

If no
- In *Program 0302 - Time* (page 452), do not change the system time.

Step 2:   Do you want to change the system date?

If yes
- In *Program 0302 - Date* (page 453), enter the new system date (MM:DD:YYYY). For example, enter 01012000 for January 1, 2000.

If no
- In *Program 0302 - Date* (page 453), do not change the system date.

Time and Date

Programming List

Program 0302 - Time (page 452)
Enter the system time.
Program 0302 - Date (page 453)
Enter the system date.

Other Related Features

Battery Backup (page 59)
The battery on the CPU PCB backs up the CPU Real Time Clock for 10-14 days.
Station Message Detail Recording (page 348)
Time and date appear on the SMDR report.
Year 2000 Compliance (page 433)
The system is fully Y2K (year 2000) compliant. The year always displays as four digits and the system correctly recognizes leap years.

Feature Operation

User Programmable Feature			
Feature	**Mnemonic**	**Operation**	**Access Level**
This option is not available in Fixed Slot software.			
Time and Date	**#TD**	**#TD** + Enter time in 24-hour clock using hours (2 digits), minutes (2 digits) and seconds (2 digits) + **HOLD** + Enter date using month (2 digits), day (2 digits) and year (4 digits) + **HOLD** + **SPK** to exit.	4 and 5

Description

DS2000 Fixed Slot

DS2000 U Slot   Available.

DS1000

Use Toll Restriction to help you control the costs of outgoing long distance calls.

Toll Restriction limits the numbers an extension user may dial. By allowing extensions to place only certain types of calls, the system administrator can control long distance costs. The system applies Toll Restriction according to an extension's Toll Restriction Level. For each of the 7 Toll Restriction Levels, the administrator can enable or disable the following options.

● Active Dial Pad (Continuous Dialing)
Active Dial Pad continuously enables the telephone dial pad. This is important if co-workers typically use dial-up services (suck as automated banking) or frequently dial into Voice Mail systems. With Active Dial Pad disabled, the system disables the telephone dial pad 6 seconds after the user has dialed their last digit. Toll Restriction controls Active Dial Pad for both incoming and outgoing calls.

● N11 Dialing
N11 Dialing enables or disables an extension's ability to use N11 services such as directory assistance (411) and repair (611). Consider enabling this option if the connected telco charges by the call (i.e., meters) these services. *Note that the system never restricts a user from dialing 911 or 1 + 911.* (Toll Restriction uses the NPA Dialing table to control 1 + N11 dialing.)

● 0 + Dialing
0 + Dialing enables or disables an extension's ability to manually dial 0 + (operator assisted) calls. These calls typically include collect calls and credit card calls. Be sure to disable this option if you don't want co-workers making these types of calls. The setting of 0 + Dialing does not affect the operation of international dialing (see the option immediately following).

● International (011) Dialing
Use the International Dialing option to restrict extension access to high-cost international (011) dialing. You can, for example, enable international dialing for high priority users and executives while disabling international dialing for all other co-workers.

● Equal Access (10XXX) Dialing
Equal Access allows users to select long distance carriers other than your primary carrier. Your primary carrier is the long distance provider you access when you seize a trunk and dial 1. To reach another provider, dial 10 and that provider's three-digit code (e.g., 10321). The system does not restrict the numbers dialed after the Equal Access code, but can prevent users from dialing specific 10XXX codes. Enter the codes you want to deny or allow in the 10XXX Toll Restriction Table.

● NXX Dialing
NXX Dialing provides restriction for calls not exceeding 7 digits that begin with the digits 2-9. These are typically local exchanges. Enter the codes you want to deny or allow in the NXX Dialing Toll Restriction Table. You might want to prevent local calling to all exchanges that are not in the immediate vicinity of your company.

Toll Restriction

- NPA Dialing
  NPA Dialing performs 3-digit analysis on numbers dialed that exceed 7 digits and are not 0+, 011, or 10XXX calls. Enter the codes you want to deny or allow in the NPA Dialing Toll Restriction Table. To control long distance costs, for example, you might want to limit NPA calls to in-state or neighboring state area codes. Note that if a number is allowed or denied by NPA Dialing, it can be further allowed or denied by 6-Digit Analysis below.

- 6-Digit Analysis (NPA + NXX translation)
  The 6-Digit Analysis option evaluates both the NPA and NXX component of the number dialed. Enter the 6-digit codes you want to deny or allow in the 6-Digit Analysis Toll Restriction Table. This option allows for more flexible Toll Restriction assignments. For example, you can allow calls only to the area code and exchange for your out-of-state branch and restrict all other exchanges within that area code.

Refer to the *Toll Restriction Rules* table for additional routing information.

Conditions
None

Default Setting
- Toll Restriction disabled (Toll Level 0 assigned to all extensions).

For Toll Levels 1-7 (once assigned):
- Active Dial enabled (Yes).
- N11 Dialing enabled (Yes).
- 0+ Dialing enabled (Yes).
- International Dialing enabled (Yes).
- Equal Access (10+XXX) Dialing disabled (allow table with no entries).
- NXX Dialing disabled (allow table with no entries).
- NPA Dialing disabled (allow table with no entries).
- 6-Digit Analysis disabled (allow table with no entries)

Programming List

Program 0601 - Program Toll Restriction (page 489)
　　Use this option to program Toll Restriction. (You must always use the following option to initialze Toll Restriction before using it for the first time.)
Program 0601 - Initialize Toll Restriction (page 489)
　　Use this option to initialize Toll Restriction. You must always initialize Toll Restriction before using if for the first time. If you have already programmed Toll Restriction, initializing will erase all your entries and reinstate the default Toll Restriction values.
Program 0601 - Toll Restriction Level (page 489)
　　Use this option to select the Toll Restriction level you want to program. The entries that follow pertain to the Toll Restriction Level you select in this option.

Toll Level Rules
　　1.　Toll Level follows the day/night mode of the trunk used for the call. If a trunk is terminated to Key Ring in **Program 1003 - Direct Termination (Day)** (page 509), an extension's Night key controls the day/night mode of the trunk. (A uniquely programmed Night key controls the day/night mode of trunks terminated to UCD Hunting or Ring Groups.) If a trunk is terminated to an extension in **Program 1003 - Direct Termination (Day)** (page 509), the extension's DND key controls the day/ night mode of the trunk.

2. If a trunk has **1001: Override Extension Toll Level** enabled (Y), the system uses the Toll Level assigned to the trunk in **1001: Trunk Toll Level**. The entries are 1-7, 0 = no Toll Restriction applied.

3. If a trunk has **Program 1001 - Override Extension Toll Restriction** (page 503) disabled (N), and the trunk is in the day mode, the system uses the Toll Level assigned in **Program 1801 - Extension Toll Level Day** (page 533). The entries are 1-7, 0 = no Toll Restriction applied.

4. If a trunk has **Program 1001 - Override Extension Toll Restriction** (page 503) disabled (N), and the trunk is in the night mode, the system uses the Toll Level assigned in **Program 1801 - Extension Toll Level Night** (page 534). The entries are 1-7, 0 = no Toll Restriction applied.

5. When an extension user with Toll Restriction enabled flashes a trunk, the system enforces toll Restrictin on any digits the user dials from the new dial tone. For example, if an extension user cannot dial 203 926 5400 before they flash, they cannot dial 203 926 5400 after they flash.

Program 0601 - Active Dial Pad (page 489)

Enable (Y) or disable (N) Active Dial Pad (continued dialing). With Active Dial Pad enabled, the telephone outputs a digit over the trunk each time the user presses a dial pad key. With Active Dial Pad disabled, the the system turns off the extension's dial pad six seconds after the user dials their last digit. Toll Restriction controls Active Dial Pad for both incoming and outgoing calls.

Program 0601 - N11 Dialing (page 489)

Enable (Y) or disable (N) N11 Dialing. If disabled, the system terminates the call on the third digit of an N11 call. The system never restricts 911 calls. To control 0NN and 1 + 0NN calls, refer to the 0 + Dialing and International Dialing options below. Toll Restriction controls 1 + N11 calls through the NPA Dialing table.

Program 0601 - 0 + Dialing (page 490)

Enable (Y) or disable (N) 0 + dialing. If enabled, the telephone can dial operator assisted calls and credit card calls. If disabled, the system terminates the call as soon as the user dials 0.

Program 0601 - International Dialing (page 490)

Enable (Y) or disable (N) International Dialing. If enabled, the extension can directly dial 011 international calls. If disabled, the system terminates the call as soon as the user dials 01.

Program 0601 - Equal Access Dialing (page 490)

This option allows/prevents an extension user from directly dialing Equal Access (10XXX) calls. The system compares the 10XXX code the user dials to the 10XXX table that you program. You can set up the table as an allow or deny table. If set up as an allow table, the system will allow only those codes you enter into the table, and deny all others. If set up as a deny table, the system will deny only those codes you enter into the table, and allow all others.

Program 0601 - NXX Dialing (page 490)

This option allows/prevents an extension user from directly dialing NXX (local exchange) calls. The system compares the NXX code the user dials to the NXX table that you program. You can set up the table as an allow or deny table. If set up as an allow table, the system will allow only those codes you enter into the table, and deny all others. If set up as a deny table, the system will deny only those codes you enter into the table, and allow all others.

Program 0601 - NPA Dialing (page 491)

This option allows/prevents an extension user from directly dialing NPA (area code) calls. The system compares the NPA code the user dials to the NPA table that you program. You can set up the table as an allow or deny table. If set up as an allow table, the system will allow only those codes you enter into the table, and deny all others. If set up as a deny table, the system will deny only those codes you enter into the table, and allow all others. (Note that if you want to do 6-Digit Analysis on an NPA, be sure the NPA Dialing Table doesn't restrict the code.)

Toll Restriction

Program 0601 - 6-Digit Analysis (page 491)

This option enables/disables 6-Digit Analysis. With 6-Digit Analysis, the system restricts a call according to the NPA and NXX the user dials. If 6-Digit Analysis is allowed, the system compares the NPA and NXX code the user dials to the 6-Digit Table that you program. You can set up the table as an allow or deny table. If set up as an allow table, the system will allow only those codes you enter into the table, and deny all others. If set up as a deny table, the system will deny only those codes you enter into the table, and allow all others. (Note that if you want to do 6-Digit Analysis on an NPA, be sure the NPA Dialing Table doesn't restrict the code.)

Additional Toll Restriction Programming Notes

- Valid Toll Restriction table entries are the digits 0-9. Use * as a wild card to represent *any* digit 0-9. For example 20* = 200 through 209.

- The system provides a total of 600 Toll Restriction Elements. Each element corresponds to a 3-digit Toll Restriction Table entry. For example, the 10XXX Table, NXX Dialing Table, and the NPA Dialing Table use one element for each entry. The 6-Digit Analysis Table uses two elements for each entry.

- To set up a global deny table (i.e., denies all entries), you have two choices:
  - Set up an allow table and leave it empty.
  - Set up a deny table and enter *** (3-digit entry) or ****** (6-Digit Analysis entry).

- To set up a global allow table (i.e., allows all entries), you have two choices:
  - Set up a deny table and leave it empty.
  - Set up an allow table and enter *** (3-digit entry) or ****** (6-Digit Analysis entry).

Toll Restriction Rules

Toll Restriction Rules (Page 1 of 4)

Step 1: Has caller dialed 911 or 1911?

If yes → • The system <u>allows</u> the call.

If no → • Wait for caller to dial 3 or more digits, then go to next step.
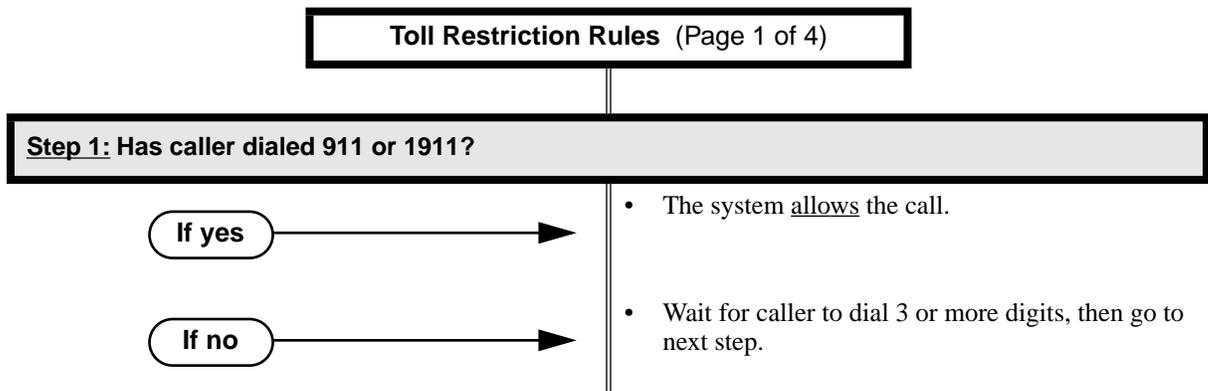
| Toll Restriction Rules (Page 2 of 4) |

Step 2: Has the caller dialed 0 as the first digit?

If yes →

- If the 0 + Dialing option is Y, and the International Dialing option is also Y, the system allows the call.
- If the 0 + Dialing option is Y, the International Dialing option is N, and the first 2 digits are 01, the system restricts the call.
- If the 0 + Dialing option is N, the International Dialing option is Y, and the first 2 digits *are* 01, the system allows the call.
- If the 0 + Dialing option is N, the International Dialing option is Y, and the first 2 digits *are not* 01, the system restricts the call.
- If the 0 + Dialing option is N, and the caller just dials 0, the system restricts the call.

If no →

- Go to the next step.

Step 3: Has the caller dialed an N11 number (e.g., 311, 411, 611, 811)?

If yes →

- If the N11 Dialing option is Y, the system allows the call.
- If the N11 Dialing option is N, the system checks to see if the digits dialed are 911 or 1911. If they are, the system allows the call. If they are not, the system denies the call.

If no →

- Go to the next step. (Toll Restriction uses the NPA Dialing Table to restrict 1 + N11 numbers.)

Step 4: Does the number dialed begin with 1 or 2-9?

If 1 →

- Go to step 5 below.

If 2-9 →

- Go to step 8 below.

Toll Restriction

Step 5: **Has caller dialed a 10XXX Equal Access number (e.g., 10320)**

If yes ➤

The system currently supports 5-digit (10XXX) Equal Access. It does not support 7-digit (10XXXXX) Equal Access.

If the Equal Access Table is an allow table:
- The system <u>denies</u> the call if the number dialed is not in the table.
- The system <u>allows</u> the call if the number dialed is in the table.

If the Equal Access Table is a deny table:
- The system <u>denies</u> the call if the number dialed is in the table.
- The system <u>allows</u> the call if the number dialed is not in the table.

- Go to the next step.

If no ➤

Step 6: **If the number dialed is not an Equal Access Code, the system looks at the NPA Dialing Table.**

The system currently looks at the first four digits dialed and compares them to the NPA Dialing table.

If the NPA Dialing Table is an allow table:
- If the number dialed is not in the table, the system checks the 6-Digit Analysis Table in <u>step 7 below</u>. If the number is not allowed in the 6-digit table, the system <u>denies</u> the call.
- If the number dialed is in the table, the system goes to the <u>step 7 below</u> to further analyze the dialed number. If the number is not denied by the 6-digit table, the system <u>allows</u> the call.

If the NPA Dialing Table is a deny table:
- If the number dialed is in the table, the system checks the 6-Digit Analysis Table in <u>step 7 below</u>. If the number is not allowed in the 6-digit table, the system <u>denies</u> the call.
- If the dialed number is not in the table, the system goes to the <u>step 7 below</u> to further analyze the dialed number. If the number is not denied by the 6-digit table, the system <u>allows</u> the call.

Toll Restriction Rules (Page 4 of 4)

Step 7: Before denying or allowing the call based on the NPA Dialing Table, the system looks at the 6-Digit Analysis Table (i.e., uses NPA + NNX analysis).

If the number dialed is accepted by the NPA Dialing Table above, the system waits for 7 digits and then compares them to the 6-Digit Analysis Table entries.

If the 6-Digit Analysis Table is an allow table:
- The system <u>denies</u> the call if the number dialed is not in the table.
- The system <u>allows</u> the call if the number dialed is in the table.

If the 6-Digit Analysis Table is a deny table:
- The system <u>denies</u> the call if the number dialed is in the table.
- The system <u>allows</u> the call if the number dialed is not in the table.

Step 8: If the first digit dialed is 2-9, the system waits for timeout or for more than 7 digits.

If the dialing times out before more than 7 digits are dialed, the system looks at the NXX Dialing Table.

If the NXX Dialing Table is an allow table:
- The system <u>denies</u> the call if the NXX portion of the number dialed is not in the table.
- The system <u>allows</u> the call if the NXX portion of the number dialed is in the table.

If the NXX Dialing Table is a deny table:
- The system <u>denies</u> the call if the NXX portion of the number dialed is in the table.

The system <u>allows</u> the call if the NNX portion of the number dialed is not in the table.

If more than 7 digits are dialed, the system goes back to step 6 and reanalyzes the NPA Dialing Table and the 6-Digit Analysis Table.

Other Related Features

Direct Trunk Access (page 139)
Direct Trunk Access does not bypass Toll Restriction.
Flash (page 170)
When an extension user with Toll Restriction enabled flashes a trunk, the system enforces toll Restriction on any digits the user dials from the new dial tone. For example, if an extension user cannot dial 203 926 5400 before they flash, they cannot dial 203 926 5400 after they flash.

Toll Restriction

Forced Trunk Disconnect (page 175)

Forced Trunk Disconnect does not bypass Toll Restriction.

Last Number Redial (page 236)

Last Number Redial will not store a number denied by Toll Restriction.

Private Line (page 300)

Toll Restriction restricts Private Lines just like any other trunk.

Save Number Dialed (page 322)

Save Number Dialed will not store a number denied by Toll Restriction.

Speed Dial (page 332)

The system enforces Toll Restriction on Speed Dial numbers as they are dialed, not as they are stored.

Feature Operation

Toll Restriction operation is automatic.

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot DS1000	Distinctive flash rate for Transfer Recall requires DS2000 software version 02.00.01 or DS1000.

Send the trunk call you are on to a co-worker.

Transfer permits an extension user to send (i.e., extend) an active trunk call to any other extension in the system, a Ring Group, UCD Hunting Group or Voice Mail. 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. If still unanswered, the call diverts to Key Ring. This assures that users do not lose or inadvertently abandon their transfers.

The system 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.

The system cannot Transfer Intercom calls.

Distinctive Flash Rate on Recall

Transfer recall features a distinctive flash rate for line keys (see the chart below). This allows the keyset extension user to easily differentiate new calls that are ringing from transferred calls that are recalling.

Distinctive Flash Rate on Transfer Recall	
For this type of call:	**You see this flash rate:**
Call that you Transferred	Slow Flash (Red)
Call that you initially Transferred <u>recalling</u> your phone	Double Wink On (Green)

Conditions

None

Default Setting

Enabled

Transfer

Programming Guide

Step-by-step guide for setting up Transfer
(Page 1 of 2)

Step 1: Does an unanswered Transfer ring an idle destination extension or Ring Group long enough before recalling the extension that initially transferred it?

If yes →
- In *Program 0401 - Transfer Recall* (page 455), leave the Transfer Recall interval at it's currently assigned value.

If no →
- In *Program 0401 - Transfer Recall* (page 455), change the Transfer Recall interval to meet the site requirements.

Step 2: Does an unanswered Transfer Camp-On to a busy destination extension long enough before recalling the extension that initially transferred it?

If yes →
- For a non-operator keyset:
  In *Program 0403 - Call Forward Ring No Answer* (page 466), leave the Call Forward Ring No Answer interval at it's currently assigned value.
- For an operator keyset:
  In *Program 0401 - Transfer Recall* (page 455), leave the Transfer Recall interval at it's currently assigned value.

If no →
- For a non-operator keyset:
  In *Program 0403 - Call Forward Ring No Answer* (page 466), change the Call Forward Ring No Answer interval to meet the site requirements.
- For an operator keyset:
  In *Program 0401 - Transfer Recall* (page 455), change the Transfer Recall interval to meet the site requirements.

Step 3: If a transferred call is not picked up, recalls the transferring extension, and is still not picked up, does it divert to Key Ring after the proper interval?

If yes →
- In *Program 0401 - Trunk Revert* (page 457), leave the Trunk Revert interval at it's currently assigned value.

If no →
- In *Program 0401 - Trunk Revert* (page 457), change the Trunk Recall interval to meet the site requirements.

Step-by-step guide for setting up Transfer
(Page 2 of 2)

Step 4: If a user transfers a call into a busy UCD Hunting group, does it divert to the over-flow destination (if programmed) after the proper interval?

If yes
- In *Program 0401 - ACD/UCD Overflow* (page 457), leave the ACD/UCD Overflow interval at it's currently assigned value.

If no
- In *Program 0401 - ACD/UCD Overflow* (page 457), change the ACD/UCD Overflow interval to meet the site requirements.

Step 5: While a transferred caller is waiting to be picked up, should they hear Music on Hold instead of ringback?

If yes
- In *Program 0201 - Music on Hold* (page 445), enter Y for this option to enable Music on Hold system-wide.
- *Program 0201 - MOH on Transfer* (page 446), enter Y for this option to enable Music on Hold for transferred callers.

If no
- In *Program 0201 - MOH on Transfer* (page 446), enter N for this option to disable Music on Hold for transferred callers.

Programming List

Program 0201 - Music on Hold (page 445)
Enter Y for this option to enable Music on Hold system-wide (if you also enabled *MOH on Transfer* below).

Program 0201 - MOH on Transfer (page 446)
Enter Y for this option to enable Music on Hold for transferred callers.

Program 0401 - Transfer Recall (page 455)
Set how long a transferred call rings an idle destination extension or Ring Group before recalling the extension from which it was initially transferred. In addition, use this timer to set how long a transferred call rings a busy operator extension before recalling the extension from which it was initially transferred.

Program 0401 - Trunk Revert (page 457)
Sets how long a Transfer Recall rings the extension that initially transferred the call before Key Ring occurs. Key Ring rings all extensions programmed to ring for that line.

Program 0401 - ACD/UCD Overflow (page 457)
Set how long a transferred call (or DIL) camps on to a busy UCD Hunt Group before ringing the overflow destination.

Program 0403 - Call Forward Ring No Answer (page 466)
Use this timer to set how long a transferred call rings a busy non-operator extension before recalling the extension from which it was initially transferred.

Transfer

Other Related Features

Call Forwarding (page 65)
Call Forwarding will reroute transferred calls.
Call Coverage Keys (page 61)
An extension user can Transfer a call to the covered extension by pressing the Call Coverage key.
Call Waiting / Camp-On (page 74)
Transfer can automatically Camp-On to a busy extension.
Direct Station Selection (DSS) (page 125)
You can press your DSS key to Transfer a call instead of dialing a co-worker's extension number.
Do Not Disturb (page 146)
DND blocks Transfer.
Extended Ringing (page 154)
With Extended Ringing enabled, transferred trunks ring the destination extension for the *Number of Extended Rings* before recalling the transferring extension.
Extension Hunting (page 156)
Trunk calls transferred to a Terminal or Circular Hunting group member activate hunting. In addition, trunk calls transferred to a UCD group master number activate hunting.
Group Call Pickup (page 177)
A trunk call transferred to an extension in a Pickup Group activates Group Call Pickup.
Group Ring (page 183)
An extension user can Transfer a call to a Ring Group master number. If unanswered, the call will recall the extension from which it was transferred.
Hold (page 197)
If an extension receiving a screened Transfer answers the screen and immediately hangs up (before the transferring extension), the call goes on Exclusive Hold at the transferring extension.
Hotline (page 202)
An extension user can Transfer a call to their Hotline partner by pressing their Hotline key.
Intercom (page 227)
The system cannot Transfer Intercom calls.
Key Ring (page 232)
An unanswered call transferred to an extension diverts to Key Ring if unanswered at the transferring extension.
Music on Hold (page 260)
With Music on Hold enabled, transferred callers can optionally listen to ringback or MOH while their call waits at the transfer destination.
Off-Hook Signaling (page 270)
An extension user can Transfer their current call to a co-worker or Voice Mail and then answer the waiting call. In addition, transferred calls can initiate Off-Hook Signaling.
Reverse Voice Over (page 313)
While idle, an extension user cannot use their Reverse Voice Over key to Transfer calls.
Station Message Detail Recording (page 348)
The system assigns the SMDR record to the last extension on the call. For example, if extension 306 answers the call, talks for 20 minutes, and then Transfers the call to extension 302, extension 302 "owns" the entire call record as soon as they hang up.
Voice Over (page 428)
An extension user can Voice Over after making a Screened Transfer and hearing busy/ring tone.

Feature Operation

To Transfer your call:

You cannot Transfer Intercom calls.

1.   Do not hang up.

2. Press **ICM**.

> 👂 ‖ Intercom dial tone.
> 👁 ‖ **ICM** anbd **SPK** on
> *You can press your Call Coverage or Hotline key instead of* **ICM**.

3. Dial your co-worker's extension.

> OR

Press a DSS key.

> OR

Dial a Ring Group or UCD Hunting group master number.

4. Announce call to make a Screened Transfer.

> OR

Press the flashing line key to return to the call if your co-worker doesn't want it (i.e., rejects your screen).

> OR

Hang up to send the call through Unscreened.

> *The call will recall to you if unanswered at the destination extension. If you don't answer the recall, it diverts to Key Ring.*

To Transfer your call to a co-worker's mailbox:

1. Do not hang up.

2. Press **ICM**.

> 👂 ‖ Intercom dial tone.
> 👁 ‖ **ICM** anbd **SPK** on
> *You can press your Call Coverage or Hotline key instead of* **ICM**.

3. Dial your co-worker's extension.

4. Press **MW**.

5. Hang up.

Trunk Group Routing

Description

	DS2000 Fixed Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup.
	DS2000 U Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup. • In 02.01.07 and higher, ***dial 9 is disabled*** by default.
	DS1000	Available. • See *Default Setting* below for specifics on the initial trunk setup. • In 02.00.09 and higher, ***dial 9 is enabled*** be default.

Dial a single code to place a call over the first available trunk in a trunk group.

With Trunk Group Routing enabled, an extension user can just press **ICM** and dial 9 to place a trunk call. Trunk Group Routing automatically selects the first available trunk in the extension's programmed "dial 9" trunk group. This simplifies placing calls in systems that have a lot of trunks for outgoing calls. Rather than press one of many line keys, the user just dials 9 instead.

Conditions

Systems using Trunk Groups or Trunk Group Access should use the hybrid FCC registration number (i.e., the number that ends in MF-E). Look at the label on the bottom of your equipment cabinet for more information.

Default Setting

DS2000

　Fixed Slot

● Trunk Group Routing (dial 9) is assigned to trunk group 1 (which contains trunks 9-16). Dial 9 does not work by default.

● All extensions have full access on all trunks.

　U Slot Prior to 02.01.07

● Trunk Group Routing (dial 9) is assigned to trunk group 0 (which contains trunks 1-8). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
Order 1 = trunk 8
Order 2 = trunk 7
Order 3 = trunk 6
Order 4 = trunk 5
Order 5 = trunk 4
Order 6 = trunk 3
Order 7 = trunk 2
Order 8 = trunk 1

● All extensions have full access on all trunks.

● Introduces User Programmable Feature steps for line keys.

　U Slot 02.01.07 and Higher

● All extensions have full access on all trunks.

● ***Trunk Group assignments are not defined, so there is no Trunk Group Routing (dial 9) by default.***

DS1000

- All extensions have full access on all trunks.
- Trunks 4-6 require the Expansion Board.
- All versions have User Programmable Feature steps for line keys.

DS1000 prior to 02.00.09.

- *Trunk Group assignments are not defined, so there is no Trunk Group Routing (dial 9) by default.*

DS1000 02.00.09 and Higher

- Trunk Group Routing (dial 9) is assigned to trunk group 0 (which contains trunks 1-6). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
  Order 1 = trunk 6
  Order 2 = trunk 5
  Order 3 = trunk 4
  Order 4 = trunk 3
  Order 5 = trunk 2
  Order 6 = trunk 1

Programming Guide

Step-by-step guide for setting up Trunk Group Routing (Page 1 of 2)

Step 1: Should dial 9 capability be available system-wide?

If yes ➔
- In *Program 0501 - Single Digit Access* (page 475), enter Y.

If no ➔
- In *Program 0501 - Single Digit Access* (page 475), enter N.

Step 2: Should extension have dial 9 capability?

If yes ➔
- In *Program 1802 - Station's Dial 9 Group* (page 540), assign a trunk group that has valid, installed trunks to which the extension has access. Also review the steps below.
- In *Program 1002 - Trunk Groups* (page 506), assign installed trunks to the extension's dial 9 trunk group assigned above.

If no ➔
- In *Program 1802 - Station's Dial 9 Group* (page 540), assign a trunk group that does not have valid, installed trunks to which the extension has access.

Trunk Group Routing

> **Step 3:** **Check the trunk and trunk group access options for the extension.**

- In *Program 1803 - Extension Line Access Assignments* (page 546), be sure the extension has either outgoing access (2) or full access (3) for some of the trunks in their dial 9 group.
- In *Program 1804 - Extension Trunk Group Access* (page 549), be sure to enable (Y) access to the extension's dial 9 group.

Programming List

Program 0501 - Single Digit Access (page 475)
Enter Y to enable user's to dial 9 for their specified trunk group. Enter N to require users to dial 9 followed by the Trunk Group number (0-8).

Program 1002 - Trunk Groups (page 506)
Program installed trunks into the trunk group you want to designate as an extension's dial 9 group in *Program 1802 - Station's Dial 9 Group* on page 540 below.

Program 1802 - Station's Dial 9 Group (page 540)
Assign the extension's dial 9 trunk group.

Program 1803 - Extension Line Access Assignments (page 546)
To make outgoing call, make sure the extension has either outgoing access (2) or full access (3) for the trunk.

Program 1804 - Extension Trunk Group Access (page 549)
Make sure the extension has access to the trunk group specified in *Program 1802 - Station's Dial 9 Group* on page 540.

Other Related Features

Central Office Calls, Placing (page 93)
Review this feature for other ways to place trunk calls.

Trunk (Line) Queuing / Trunk Callback (page 402)
An extension user camp-on or leave a Callback if all trunks in the dial 9 group are busy.

Trunk Groups (page 405)
With Trunk Group Routing disabled, extension users can optionally dial 90-98 to place calls on trunk groups 0-8.

Feature Operation

To place a call over a trunk group:

1. Lift handset.

2. Press ICM.

👂	Intercom dial tone.
👁	**ICM** on.

3. Dial 9.

👂	Trunk dial tone.
👁	Line key on.

   If you don't hear dial tone as soon as you dial 9, your system does not have Trunk Group Routing enabled. SeeCentral Office Calls, Placing on page 93 for more.
   If you hear busy tone after dialing 9, all the trunks in your dial 9 group are busy. You can dial 2 to wait in line for a trunk to become free, or dial 2 to have an available trunk call you back. See Trunk (Line) Queuing / Trunk Callback on page 402 for more.

4. Dial outside number.

Trunk (Line) Queuing / Trunk Callback

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

When all trunks are busy, *Trunk Queuing* lets a user wait in line for a trunk to become free. *Trunk Callback* will automatically call the user back when a trunk is available.

Trunk Queuing

Trunk Queueing permits an extension user to queue (wait in line) on hook for a busy trunk or trunk group to become free. The system recalls the queued extension as soon as the trunk is available. The user does not have to manually retry the trunk later.

Trunk Callback

After queuing for a trunk, the extension user just hangs up to convert the Trunk Queue into a Trunk Callback. When the trunk becomes free, the system automatically recalls the extension. As soon as the extension user answers the callback ring, the system connects the extension to the trunk.

An extension user can leave a Trunk Callbackfor many trunks. The system processes the callbacks as the trunks become free. In addition, many extensions can leave a Trunk Callback for the same trunk. The system processes the Trunk Callbacks on a first-in/first-out (FIFO) basis.

If an extension user leaves a Trunk Callback request and then fails to answer the calback ring within four rings, the system cancels the Callback.

Trunk Queuing Priority

Selected extensions can have Trunk Queuing Priority enabled in their Class of Service. If more than one extension queues for a busy trunk, the system services the extension with Trunk Queuing Priority first. If more than one extension with priority is queued for the same busy trunk, the system services the priority extensions on a first-in/first-out (FIFO) basis.

Conditions

A system reset or power failure cancels all Trunk Callbacks system-wide.

Default Setting

- Trunk (Line) Queuing / Trunk Callback enabled for attendants (COS 1), but disabled for all other extensions (COS 2-15).
- Trunk Queuing Priority disabled for all extensions (COS 1-15).

Programming Guide

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┌─────────────────────────────────────┐
│  Step-by-step guide for setting up Trunk │
│  (Line) Queuing / Trunk Callback        │
└─────────────────────────────────────┘
```

Step 1: Should extension be able to queue for a busy trunk?

If yes ──────────────▶
- In *Program 0101 - Camp-On to Busy Line* (page 441), enter Y to enable Trunk (Line) Queueing.

If no ──────────────▶
- In *Program 0101 - Camp-On to Busy Line* (page 441), enter N to disable Trunk (Line) Queueing.

Step 2: Should extension have Trunk Queuing Priority?

If yes ──────────────▶
- In *Program 0101 - Trunk (Line) Queuing Priority* (page 441), enter Y to enable Trunk Queuing Priority.

If no ──────────────▶
- In *Program 0101 - Trunk (Line) Queuing Priority* (page 441), enter N to disable Trunk Queuing Priority.

Step 3: Assign Class of Service to extensions.

- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Programming List

Program 0101 - Trunk (Line) Queuing Priority (page 441)
In an extension's Class of Service, enter Y to enable Trunk (Line) Queuing Priority.
Program 0101 - Camp-On to Busy Line (page 441)
In an extension's Class of Service, enter Y to allow camping on to a busy trunk.**Program 1801 - Extension Class of Service Assignment** (page 533)
Assign Class of Service to extensions.

Other Related Features

Callback (page 78)
An extension user can Camp-On to a busy co-worker then hang up to turn the Camp-On into a Callback.
Call Waiting / Camp-On (page 74)
Camp-On lets an extension user Camp-On to a busy extension.
Central Office Calls, Answering (page 87)
If a trunk is ringing an extension because of a prior Callback, and then receives a new trunk call, it will start ringing for the new call. The Callback request is then queued.

Trunk (Line) Queuing / Trunk Callback

Central Office Calls, Placing (page 93)

An extension user can queue for a busy trunk, or queue and hang up to leave a callback for a busy trunk.

Last Number Redial (page 236)

If all trunks are busy and Last Number Redial cannot go through, the user can dial 2 a queue for a trunk to become free. If the user hangs up, the system converts the queue to a Trunk Callback.

Save Number Dialed (page 322)

If an extension user presses their Save key and hears busy, they can dial 2 to wait in line for the trunk to become available. The system will automatically redial the call. However, if the user hangs up to convert the queue to a Trunk Callback, the system will not redial the saved call once the trunk connects.

Feature Operation

To queue for a busy trunk:

1. Press line key for busy trunk.

    OR

    Press **ICM** and dial the trunk's Direct Trunk Access code (e.g., 401 for trunk 1).

    | | Busy tone. |
    | | Line/loop key on (red). |

    After you hang up a trunk call on one of your line keys, and the trunk immediately becomes busy, wait a few seconds before queuing for that same trunk.

2. Dial 2; do not hang up.

    | | Busy tone stops. |
    | | **ICM** and **SPK** on. |

    If you hang up, the system converts your queue to a Trunk Callback.

3. When the trunk becomes free, you are automatically connected.

    | | • If you initially queued for the trunk, you hear trunk dial tone so you can place your call again. |
    | | • If you left a Trunk Callback, your hear Trunk Callback ring. If you answer within four rings, you will hear dial tone from the trunk. You can then place your call again. |
    | | **ICM** and **SPK** on. |

4. Place your outside call.

Description

	DS2000 Fixed Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup.
	DS2000 U Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup. • In 02.01.07 and higher, ***dial 9 is disabled*** by default.
	DS1000	Available. • See *Default Setting* below for specifics on the initial trunk setup. • In 02.00.09 and higher, ***dial 9 is enabled*** be default.

Dial codes to access trunk groups for outgoing calls.

Extension users can optionally dial trunk group access codes 90-98 to select trunk groups 0-8 for outgoing calls. This is helpful in applications that have different services arranged into trunk groups. For example, dialing 90 could access a group of DDD trunks for local calls, and dialing 91 could access a group of WATS trunks for long distance calls. (Note that systems with **Trunk Group Routing** (page 398) enabled cannot also dial trunk group access codes 90-98.)

When a user dials a trunk group access code (90-98), the system selects the lowest number in the group that is available. If that trunk is busy, it automatically selects the next highest trunk. If all trunks in the group are busy, the user can optionally queue for a trunk to become free. See **Trunk (Line) Queuing / Trunk Callback** (page 402) for more.

Systems using Trunk Groups or Trunk Group Access should use the hybrid FCC registration number (i.e., the number that ends in MF-E). Look at the label on the bottom of your equipment cabinet for more information.

Conditions

- Systems using Trunk Groups or Trunk Group Access should use the system's hybrid FCC registration number (i.e., the number that ends in MF-E). Look at the label on the bottom of your equipment cabinet for more information.
- A trunk can only be in one group.

Trunk Groups

Default Setting

<u>DS2000</u>

    <u>Fixed Slot</u>

- Trunk Group Routing (dial 9) is assigned to trunk group 1 (which contains trunks 9-16). Dial 9 does not work by default.

- All extensions have full access on all trunks.

    <u>U Slot Prior to 02.01.07</u>

- Trunk Group Routing (dial 9) is assigned to trunk group 0 (which contains trunks 1-8). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
  Order 1 = trunk 8
  Order 2 = trunk 7
  Order 3 = trunk 6
  Order 4 = trunk 5
  Order 5 = trunk 4
  Order 6 = trunk 3
  Order 7 = trunk 2
  Order 8 = trunk 1

- All extensions have full access on all trunks.

- Introduces User Programmable Feature steps for line keys.

    <u>U Slot 02.01.07 and Higher</u>

- All extensions have full access on all trunks.

- *Trunk Group assignments are not defined, so there is no Trunk Group Routing (dial 9) by default.*

<u>DS1000</u>

- All extensions have full access on all trunks.

- Trunks 4-6 require the Expansion Board.

- All versions have User Programmable Feature steps for line keys.

    <u>DS1000 prior to 02.00.09</u>.

- *Trunk Group assignments are not defined, so there is no Trunk Group Routing (dial 9) by default.*

    <u>DS1000 02.00.09 and Higher</u>

- Trunk Group Routing (dial 9) is assigned to trunk group 0 (which contains trunks 1-6). Dial 9 works by default. The outgoing trunk priority for the dial 9 group is as follows:
  Order 1 = trunk 6
  Order 2 = trunk 5
  Order 3 = trunk 4
  Order 4 = trunk 3
  Order 5 = trunk 2
  Order 6 = trunk 1

Programming Guide

```
┌─────────────────────────────────────┐
│  Step-by-step guide for setting up  Trunk │
│              Groups                  │
└─────────────────────────────────────┘
```

Step 1: Should extension be able to dial codes 90-98 to place calls on trunk group.

If yes ──────────────▶
- In *Program 0501 - Single Digit Access* (page 475), enter N to disable single digit access (dial 9).
- In *Program 1002 - Trunk Groups* (page 506), check your system's trunk group assignments.

If no ──────────────▶
- In *Program 0501 - Single Digit Access* (page 475), enter Y to enable single digit access (dial 9).

Step 2: Should extension be able to access all installed trunks in all trunk groups for placing calls (via codes 90-98)?

If yes ──────────────▶
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign either outgoing (2) or full (3) access to each trunk the extension ***should*** be able to use for outgoing calls.
- In *Program 1804 - Extension Trunk Group Access* (page 549), be sure the extension has access (Y) to each trunk group it ***should*** be able to use for outging calls.

If no ──────────────▶
- In *Program 1803 - Extension Line Access Assignments* (page 546), assign either no (0) or incoming (1) access to each trunks the extension ***should not*** be able to use for outgoing calls.
- In *Program 1804 - Extension Trunk Group Access* (page 549), be sure the extension has no access (N) to each trunk group it ***should not*** be able to use for outging calls.

Programming List

Program 0501 - Single Digit Access (page 475)
Enter N to disable single digit access. With single digit access disabled, an extension user can dial 90-98 to access trunk groups 0-8.

Program 1002 - Trunk Groups (page 506)
Assign trunks to Trunk Groups (0-8).

Program 1803 - Extension Line Access Assignments (page 546)
For each extension, assign the access options for each trunk (0 = No access, 1 = Incoming only. 2 = Outgoing only, 3 = Full access). This feature may not require access - check into this when the feature is working.

Program 1804 - Trunk Group Access (page 549)
For each extension, enter Y to allow or N to prevent outgoing trunk group access. The system always allows incoming trunk group access.

Trunk Groups

Other Related Features

Loop Keys (page 242)
> Switched and Fixed Loop Keys use the system's Trunk Groups.

Trunk Group Routing (page 398)
> With Trunk Group Routing enabled, extension users can press ICM and dial 9 to place outgoing calls.

Feature Operation

To place a call over a trunk group:

1. Lift handset.

2. Press ICM.

   > Intercom dial tone.
   >
   > **ICM** on.

3. Dial trunk group code (90-98).

   > Trunk dial tone.
   >
   > Line key on.

   If you hear dial tone as soon as you dial 9, your system has Trunk Group Routing enabled. SeeTrunk Group Routing on page 398 *for more.*

4. Dial outside number.

Description

DS2000 Fixed Slot DS2000 U Slot DS1000	Available. See *System Timers, Trunks* on page 372 for more.

User Programmable Features

Description

DS2000 Fixed Slot	Basic User Programmable Features available. Access is fixed (enabled) at each extension.
DS2000 U Slot DS1000	Extensive User Programmable Features available. Access depends on an extension's programmed access level.

Extension users can set up their telephones to meet their own unique requirements.

User Programmable Features allow an extension user to customize their telephone to work just the way they want. With User Programmable Features, there is no need to rely on a System Administrator or Communications Manager to set up each phone. These User-Programmable Features include:

- Direct Station Selection (DSS) Assignment[1]
  See *Direct Station Selection (DSS)* on page 125 for more.
- Headset Mode[1]
  See *Headset Compatibility* on page 194 for more.
- Hotline Key Assignment[1]
  See *Hotline* on page 202 for more.
- Off Hook Signaling Setup[1]
  See *Off-Hook Signaling* on page 270 for more.
- Paging (Incoming)[1]
  See *Paging* on page 281 for more.
- Prime Line Assignment[1]
  See *Prime Line Preference* on page 292 for more.
- Programmable Function Key Assignment[1]
  See *Programmable Function Keys* on page 304 for more.
- Programmable Function Key Ringing (Call Coverage Keys, Group Call Pickup Keys, and Line Keys)
  See *Call Coverage Keys* on page 61 for more.
  See *Group Call Pickup* on page 177 for more.
  See *Line Keys* on page 238 for more.
- Ringing Line Preference[1]
  See *Ringing Line Preference* on page 319 for more.
- Speed Dial Bin Setup (Personal and System)
  See *Speed Dial* on page 332 for more.
  Note that in U Slot systems, the ##2 and ##7 Speed Dial procedures are no longer available.
- Time and Date[1]
  See *Time and Date* on page 383 for more.
- Voice Announce (For incoming Intercom calls)
  See *Intercom* on page 227 for more.
- Voice Over[1]
  See *Voice Over* on page 428 for more.

  [1] Feature only available in U Slot systems.

Table 16: User Programmable Features

Feature	Mnemonic	Operation	Access Level
The shaded rows below show the Fixed Slot software User Programmable Features.			
Call Coverage	**#RC**	**#** + **R C** + Press Call Coverage key repeatedly to select ringing mode	N/A
DSS	**#BLF**	**#BLF** + Press DSS key + **HOLD** + Enter extension + **VOL Up** + Program another key or **SPK** to exit.	1-5
Group Call Pickup	**#RG**	**#** + **R G** + Press Group Call Pickup key repeatedly to select ringing mode	N/A
Headset	**#HS**	**#HS** + **Y** to enable or **N** to disable + **SPK** to exit	3-5
Hotline	**#HL**	**#HL** + Press flashing Hotline key + Enter extension for new Hotline partner + **HOLD** + Program another Hotline key or **SPK** to exit.	3-5
Line Keys	**#RL**	**#** + **R L** + Press Line Key repeatedly to select ringing mode	N/A
Off Hook Signaling and Voice Over	**#OHS**	**#OHS** + Select mode (**C**=Outside line, **D**=DSS/Hotline, **I**=ICM) + Select option (see below) + **SPK** to exit. _Outside line options:_ **C**=Camp On tone, **O**=Off Hook Ringing, **0** = None _Intercom options:_ **C**=Camp On, **O**=Off Hook Ringing, **V**=Voice Over, **0** = None _DSS/Hotline Options:_ **C**=Camp On, **O**=Off Hook Ringing, **0** = None	3-5
Paging (Incoming)	**#VP**	**#VP** + **Y** to enable or **N** to disable + **SPK** to exit.	3-5
Prime Line Assignment	**#PLA**	**#PLA** + Press one of your flashing programmable keys or **ICM** + **SPK** to exit.	3-5
Programmable Funtion Key Assignments	**#KP**	**#KP** + Press key you want to program + **HOLD** + **ICM** + Press **VOL Up** or **VOL Down** to select key option + **HOLD** + (Enter any additional data if required + **HOLD**) + Press **VOL Up** or **VOL Down** to select another key to program, or **CONF** + **SPK** to exit.	3-5

User Programmable Features

<div align="center">

Table 16: User Programmable Features

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Feature	Mnemonic	Operation	Access Level
The shaded rows below show the Fixed Slot software User Programmable Features.			
Programmable Function Key Ringing	**#RAC**	*Call Coverage Keys:* **#RAC** + Call Coverage Key repeatedly to select ringing mode + **SPK** to exit. Call Coverage Keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green.	2-5
	#RAL	*Outside Line Keys:* **#RAL** + Line Key repeatedly to select ringing mode + **SPK** to exit. Line keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green, Night ring=Slow flash green.	
	#RAP	*Group Call Pickup Keys:* **#RAP** + Group Call Pickup Key repeatedly to select ringing mode + **SPK** to exit. Group Call Pickup Keys flash as follows: Lamp only=On red, Immediate ring=On green, Delay ring=Fast flash green.	
Ringing Line Preference	**#RLP**	**#RLP** +**Y** to enable or **N** to disable + **SPK** to exit.	2-5
Speed Dial, Personal		**ICM** + ## + 200-299	N/A
Speed Dial, Personal	**#SP**	**#SP** + Press bin key (for bins 701-710) or **DIAL** then bin key (for bins 711-720) + **HOLD** + Enter outside line (e.g., 1), line group (90-98), or **ICM** for Intercom feature + **HOLD** + Number to store + **HOLD** + Name + **HOLD** + Press another bin key or **SPK** to exit.	1-5
Speed Dial, System		**ICM** + ## + 701-720	N/A
Speed Dial, System	**#SP**	**#SP** + Dial System Speed Dial bin number (e.g., 200) + **HOLD** + Enter outside line (e.g., 1), line group (90-98), or **ICM** for Intercom feature + **HOLD** + Number to store + **HOLD** + Name + **HOLD** + Press another bin key or **SPK** to exit.	4 and 5
System Program Access	**#*#***	**#*#*** + Enter programming password	3-5
Time and Date	**#TD**	**#TD** + Enter time in 24-hour clock using hours (2 digits), minutes (2 digits) and seconds (2 digits) + **HOLD** + Enter date using month (2 digits), day (2 digits) and year (4 digits) + **HOLD** + **SPK** to exit.	4 and 5
Voice Announce (for your incoming Intercom calls)	**#IV or #IR**	**#** + **I V** to enable voice-announce for your incoming Intercom calls **#** + **I R** to enable ringing for your incoming Intercom calls	N/A

Table 16: User Programmable Features

Feature	Mnemonic	Operation	Access Level
The shaded rows below show the Fixed Slot software User Programmable Features.			
Voice Announce (for your incoming Intercom calls)	**#VA**	**#VA** + **V** for voice announce or **R** for ring + **SPK** to exit.	3-5

Conditions

None

Default Setting

● Extension 300 has its access level fixed at 5. (This means that by default only extension 300 can dial #TD to change the system time and date.)

● All other extensions have access level 3.

Programming List

Program 1801 - Access Level (page 534)
Use this option to set an extension's access level (1-5). Access level 5 has the most capability (see the tables above). Access level 1 has the least capability. By default, extension 300 has it's access level fixed at 5. All other extensions have Access Level 3.

Other Related Features

See features listed under *Description* heading above.

Feature Operation

See tables under *Description* heading above.

Voice Mail

Description

DS2000 Fixed Slot	Available. Check with your Sales Representative for the availability of Park and Page.
DS2000 U Slot DS1000	• Display and Super Display Telephone displays show the number of new messages in the user's mailbox. • Unanswered calls Parked by an extension that has RNA/Busy Terminal Hunting to Voice Mail do not route to Voice Mail in DS2000 02.00.01 or higher and DS1000. • In DS2000 02.00.06 or higher and DS1000, the Transfer to Mailbox feature doesn't require that the user wait for splash tone before hanging up. • The capability to press a line key to stop Conversation Record requires software version 02.01.07 or higher.

Voice Mail ends the frustration of and cost of missed calls, inaccurate written messages and telephone tag, freeing up the company's receptionists and secretaries for more production work.

The system is fully compatible with the NVM-Series Voice Mail with Automated Attendant Systems. These systems provide telephone users with comprehensive Voice Mail and Automated Attendant features. Automated Attendant automatically answers the system's incoming calls. After listening to a customized message, an outside caller can dial a system extension or use Voice Mail. Integrated Voice Mail enhances the telephone system with the following features:

Call Forwarding to Voice Mail

An extension user can forward their calls to Voice Mail. Once forwarded, calls to the extension connect to that extension's mailbox. The caller can leave a message in the mailbox instead of calling back later. Forwarding can occur for all calls immediately, for unanswered calls or when the extension is busy, or just for unanswered calls.

Leaving a Message

Voice Mail lets a keyset extension user easily leave a message at an extension that is unanswered, busy in Do Not Disturb. The caller just presses their Voice Mail key to leave a message in the called extension's mailbox. There is no need to call back later.

Transferring to Voice Mail

By using Transfer to Voice Mail, an extension user can Transfer a call to the user's own or a coworker's mailbox. After the Transfer goes through, the caller can leave a message in the mailbox.

Conversation Record

While on a call, an extension user can have Voice Mail record the conversation. The keyset user just presses their Voice Mail Record Key. Once recorded, the Voice Mail stores the conversation as a new message in the user's mailbox. After calling their mailbox, a user can save, edit or delete the recorded conversation. The ability to use Conversation Record is controlled by an extension's Class of Service.

Personal Answering Machine Emulation

A keyset user can have their idle extension emulate a personal answering machine. This lets Voice Mail screen their calls, just like their answering machine at home. If activated, the extension's incoming calls route to the user's subscriber mailbox. Once the mailbox answers, the user hears two alert tones followed by the caller's incoming message. The keyset user can then:

● Let the call go through to their mailbox.

● Intercept the call before it goes to their mailbox.

Voice Mail Overflow

If Voice Mail automatically answers trunks, Voice Mail Overflow can reroute those trunks to an extension, Ring Group or UCD Hunting group when all Voice Mail ports are busy. During periods of high traffic, this prevents the outside calls from ringing Voice Mail for an inordinate amount of time. Without overflow, the outside calls ring Voice Mail until a port becomes available or the outside caller hangs up.

In addition, Voice Mail can be the *overflow destination* for the following types of calls (refer to the individual features for the specifics):

● **Direct Inward Line** (page 118)
A trunk that directly rings an extension can overflow to Voice Mail.

● **Extension Hunting** (page 156)
A trunk that rings an Extension Hunting group can overflow to Voice Mail.

● **Group Ring** (page 183)
A trunk that rings a group of extensions can overflow to Voice Mail.

● **Key Ring** (page 232)
A trunk ringing extension's line keys can overflow to Voice Mail.

Message Center Mailbox

A Message Center Mailbox is a mailbox shared by more than one extension. Any keyset that has a Message Center Key for the shared mailbox can:

● Listen to the messages stored in the mailbox.

● Transfer calls to the shared mailbox.

● Use many other Voice Mail features previously available only at an extension's individual mailbox.

A Message Center Mailbox helps co-workers that work together closely - such as members of the same Pickup Group. For example, the group supervisor can send important messages to the shared Message Center Mailbox, to which any group member can respond when time allows. Each group member's Message Center Key flashes (green) when messages are waiting.

Interactive Soft Key Shows New Messages

The Display and Super Display Telephone interactive soft keys show the number of new messages in the user's mailbox. For example, if a Display Telpehone user has 2 new messages in their mailbox, their Voice Mail soft key shows: **VM02**. If a Super Display Telephone user has 2 new messages in their mailbox, their Voice Mail soft key shows **V-MAIL 02**. The new message count resets to 00 as soon as the user calls their mailbox (regardless of whether the new messages were listened to). The message count returns when the system updates the MW key on the phone.

Note on NVM-Series Voice Mail Configuration

If your NVM-Series Voice Mail does not have DS2000 as a menu selection in **IN - INSTALL SYSTEM**, do the following:

● **Set up the Voice Mail database.**
1. Select **IN - Install System**
2. Reinstall the Voice Mail for DS01/VS (24 x 72) and customize the trunk numbers to begin with 401.

● **Change the Voice Mail Call Pickup String.**
1. Select **CU - Customize Database**.

2. Select **SO - System Options**.

3. Change the **Call Pickup String** option to **W****.

● **Change the Voice Mail Park and Page String.**

1. Select **CU - Customize Database**.

2. Select **MO - Mailbox Options**

3. Enter the the extension's mailbox number (e.g., 300 for extension 300).

4. For the mailbox selected (e.g., 300), change the **Park/Paging string** option to: FW**nnn/*10
   (where nnn is the extension's number).
   For extension 300, for example, the string would be FW**300/*10.

● **Change the Voice Mail Off Hook Call Announce and Ringdown Strings.**
   *The Ringdown String is required for Voice Mail Call Announce options 1, 2 and 3. The
   Off Hook Call Announce String is required for Voice Mail Call Announce Options 2 and 3.*

1. Select **CU - Customize Database**.

2. Select **SO - System Options**.

3. Change the **Off Hook Call Announce String** option to: 9P@A|2.
   This option may not be available on all Voice Mail systems.

4. Change the **Ringdown String** to B (DTMF digit B).
   This option may not be available on all Voice Mail systems.

Refer to your NVM-Series Documentation for additional details.

DS1000 Ring Assignments and Voice Mail Ports

In DS1000 software version 02.01.07 and higher, the system automatically disables the
1805 - Ring Assignments programming for all single line ports assigned as Voice Mail ports in
1802 - Voice Mail Port. To have Voice Mail answer an outside call, the trunk should be a Direct
Inward Line (i.e., directly terminated) to the Voice Mail master number.

Conditions

● If an extension has a flashing MW lamp and the system resets or power fails, the MW key continues to flash after the system restarts.

● When using ASTU PCBs, the number of Voice Mail ports you can install is limited by available system DTMF receivers.

● When the system rings an idle Voice Mail port, it will continue to ring the port until answered. The call will not cycle to a another member of the UCD Group (as it will for voice calls).

Default Setting

Voice Mail not installed.

Programming Guide

┌───┐
│ **Step-by-step guide for setting up Voice Mail** │
│ (Page 1 of 4) │
└───┘

Step 1: Make sure you have analog ports reserved for Voice Mail.

- If you are using a 2-OPX Module, in *Program 1801 - Extension Circuit Type* (page 532), be sure to enter type 21. The 2-OPX Module must be P/N 92177A.
- If you are using ports on an ASTU PCB, in *Program 1801 - Extension Circuit Type* (page 532), be sure to enter type 15.

- Following the instructions in your Voice Mail documentation, connect the analog ports to Voice Mail system.

Step 2:   Assign a UCD Hunt Group for Voice Mail.

- In *Program 0510 - Group Number* (page 485), select an available UCD Hunt Group for Voice Mail.
- In *Program 0510 - Hunt Group Master Number* (page 485), assign a master number to the hunt group you designate for Voice Mail.

Step 3:   Enable Voice Mail programming.

- In *Program 0201 - Voice Mail Installed* (page 446), enter Y. (Entering N enables Message Waiting.) ***You must assign a Hunt Group Master Number in the previous step before programming this option.***

- In *Program 0201 - Voice Mail Master Extension Number* (page 446), enter the Voice Mail master extension number (e.g., 700).

Step 4:   Set up the Voice Mail ports.

- In *Program 1802 - Voice Mail Port* (page 541), enter Y for each analog extension connected to Voice Mail.

- In *Program 1807 - Hunt Type* (page 554), enter hunt type 05 (for UCD hunting) for each analog extension connected to Voice Mail.
- In *Program 1807 - Hunt Master Number* (page 554), enter the Voice Mail UCD Group master number (assigned in step 2 above) for each analog extension connected to Voice Mail.

Voice Mail

Step 5: Do you want the Voice Mail Automated Attendant to answer trunk calls?

If yes

- In *Program 1003 - Direct Termination (Day)* (page 509), enter the Voice Mail master extension number (e.g., 700). The Automated Attendant will now also answer calls at night.

If no

- In *Program 1003 - Direct Termination (Day)* (page 509), make sure the trunk is not terminated to the Voice Mail master extension number.

Step 6: Do you want the Voice Mail Automated Attendant to answer trunk calls only at night?

If yes

- In *Program 1003 - Direct Termination (Day)* (page 509), make sure the trunk is not terminated to the Voice Mail master extension.
- In *Program 1003 - Direct Termination (Night)* (page 510), enter the Voice Mail master extension number (e.g., 700). The Automated Attendant will now also answer calls when the system is in the night mode.

If no

- In *Program 1003 - Direct Termination (Day)* (page 509), make sure the trunk is not terminated to the Voice Mail master extension number.
- *Program 1003 - Direct Termination (Night)* (page 510), make sure the trunk is not terminated to the Voice Mail master extension.

Step 7: When all Voice Mail ports are busy, do you want Automated Attendant calls to ring a designated overflow destination?

If yes

- In *Program 0510 - Overflow Destination* (page 485), enter the Voice Mail overflow destination. The destination can be an extension, Ring Group master number of a UCD Group master number.

If no

- In *Program 0510 - Overflow Destination* (page 485), press CLEAR to remove the overflow destination.

Step 8: When all Voice Mail ports are busy, do calls wait for the proper interval before ringing the overflow destination?

If yes

- In *Program 0401 - ACD/UCD Overflow* (page 457), leave the ACD/UCD Overflow interval at its currently assigned value.

If no

- In *Program 0401 - ACD/UCD Overflow* (page 457), change the ACD/UCD Overflow interval to meet the site requirements.

Step 9:   Do calls ring the Voice Mail overflow destination for the proper interval before diverting to Key RIng?

If yes →

- In *Program 0401 - DIL No Answer* (page 456), leave the DIL No Answer interval at its currently assigned value.

If no →

- In *Program 0401 - DIL No Answer* (page 456), change the DIL No Answer interval to meet the site requirements.

Step 10: Should extension have Conversation Record capability?

If yes →

- If you want the Conversation Record key on the keyset:
  In *Program 1701 - Voice Mail Record Key* (page 519), assign a keyset programmable key as a Voice Mail Record key (code 17).
- If you want the Conversation Record key on the DSS Console:
  In *Program 1704 - Voice Mail Record Key* (page 530), assign a DSS Console key as a Voice Mail Record key (code 17).
- In *Program 0101 - Conversation Record* (page 443), enter Y to enable Conversation Record in an extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

If no →

- In *Program 1701 - Voice Mail Record Key* (page 519), make sure a keyset key is not assigned as a Voice Mail Record key (code 17).
- In *Program 1704 - Voice Mail Record Key* (page 530), make sure a DSS Console key is not assigned as a Voice Mail Record key (code 17).
- In *Program 0101 - Conversation Record* (page 443), enter Y to enable Conversation Record in an extension's Class of Service.
- In *Program 1801 - Extension Class of Service Assignment* (page 533), assign Class of Service to extensions.

Voice Mail

Step 11: Should extension have access to a Message Center?

If yes

- If you want the Message Center key on the keyset:
  In *Program 1701 - Message Center Key* (page 520), assign a keyset programmable key as a Message Center key (code 24). You must also enter the Message Center mailbox number. The Message Center can be an installed or uninstalled extension, but must be in the system's number plan (e.g., 300-379 in U Slot).
- If you want the Message Center key on the DSS Console:
  In *Program 1704 - Message Center Key* (page 530), assign a DSS Console key as a Message Center key (code 24). You must also enter the Mesage Center mailbox number. The Message Center can be an installed or uninstalled extension, but must be in the system's number plan (e.g., 300-379 in U Slot).

If no

- In *Program 1701 - Message Center Key* (page 520), make sure a keyset key is not assigned as a Message Center key (code 24).
- In *Program 1704 - Message Center Key* (page 530), make sure a DSS Console key is not assigned as a Message Center key (code 22).

Call Forwarding Timers and Voice Mail

The following diagrams show how the system implements various timers when handling calls transferred from Voice Mail.

Transferred Trunk Call to Forwarded Extension

Extension A transfers trunk to extension B, which is forwarded Busy/No Answer (type 2) to extension C.

0401 - Transfer Recall

The trunk rings extension B for the Transfer Recall time. See *Transfer* on page 393 for more.

0403 - Call Forward RNA

In unanswered, the call then rings extension C (the forward destination) for the Call Forward Ring No Answer time. See *Call Forwarding* on page 65 for more.

0403 - Call Forward RNA

If still unanswered, the call rings the extension that initially transferred the call (A) for the Call Forward Ring No Answer time.

If still unanswered, call diverts to Key Ring

Programming List

Program 0101 - Conversation Record (page 443)
Enter Y to enable Conversation Record in an extension's Class of Service. If enabled, the user can press either their Conversation Record key or the RECORD soft key to initiate recording. If disabled (N), the user cannot record conversations into their mailbox.

Program 0201 - Voice Mail Installed (page 446)
Enter Y to enable Voice Mail.

Program 0201 - Voice Mail Master Extension Number (page 446)
Enter the number of the Voice Mail master extension (e.g., 700). *You must assign a Hunt Group Master Number in Program 0510 - Hunt Group Master Number below before programming this option.*

Program 0401 - DIL No Answer (page 456)
A call rings the Voice Mail overflow destination for this interval before diverting to Key Ring.

Program 0401 - ACD/UCD Overflow (page 457)
When all Voice Mail ports are busy, a call rings the overflow destination after this interval.

Program 0510 - Group Number (page 485)

Program 0510 - Hunt Group Master Number (page 485)
Select an available UCD Hunt Group and assign the master number. Available master numbers are 100-899, excluding extension nuumbers (300-395 in DS1000 or 300-325 in DS1000) and trunk extension numbers (401-448 in D2000 or 401-406 in DS1000).

Program 0510 - Overflow Destination (page 485)
Assign the Voice Mail overflow destination. The destination can be an extension, Ring Group Master Number, or UCD Group Master Number

Program 1003 - Direct Termination (Day) (page 509)

To have the Voice Mail Automated Attendant answer the trunk in the day or at night, assign the Voice Mail master number (e.g., 700) as the day termination.

Program 1003 - Direct Termination (Night) (page 510)

To have the Voice Mail Automated Attendant answer the trunk at night (if it has a different termination in the day), assign the Voice Mail Master number (e.g., 700) as the night termination. If the day termination above is the Voice Mail master, the system ignores the assignment in this program.

Program 1701 - Voice Mail Record Key (page 519)

Assign a programmable key on an extension as a Voice Mail Record key (code 17).

Program 1701 - Message Center Key (page 520)

Assign a programmable key as a Voice Mail Message Center key (code 24). The option is the extension number assigned as the Message Center. The Message Center can be an installed or uninstalled extension, but must be in the system's number plan (e.g., 300-379 in U Slot).

Program 1704 - Voice Mail Record Key (page 530)

Assign a programmable key on an extension as a Voice Mail Record key (code 17).

Program 1704 - Message Center Key (page 530)

Assign a programmable key as a Voice Mail Message Center key (code 24). The option is the extension number assigned as the Message Center. The Message Center can be an installed or uninstalled extension, but must be in the system's number plan (e.g., 300-379 in U Slot).

Program 1801 - Extension Circuit Type (page 532)

Enter 15 for each Voice Mail analog port connected to an ASTU PCB.

Enter 21 for each Voice Mail analog port connected to a 2-OPX Module.

Program 1801 - Extension Class of Service Assignment (page 533)

Assign Class of Service to extensions.

Program 1802 - Voice Mail Port (page 541)

Enter Y for each analog extension connected to Voice Mail.

Program 1807 - Hunt Type (page 554)

For each extension designated as a Voice Mail port in **Program 1802 - Voice Mail Port** (page 541), enter hunt type 05 (for UCD hunting).

Program 1807 - Hunt Master Number (page 554)

Enter the extension hunting group master number created for Voice Mail in **Program 0510 - Hunt Group Master Number** (page 485).

Other Related Features

Account Codes (page 34)

Voice Mail callout features (such as Message Notification) may interact with Account Codes if the callout number contains # characters.

Attendant Position (page 46)

- TRF transfers to the attendant from the Voice Mail Automated Attendant flash the Operator Call key and the Ring Indicator lamp. The call does not flash a line/loop key. (Note that Ringing Line Preference will not pick up a call ringing the attendant's Call Queue key.)

- UTRF transfers to the attendant from the Voice Mail Automated Attendant flash the trunk's line/loop key and the Ring Indicator lamp.

Call Forwarding (page 65)

You can forward calls Voice Mail.

Caller ID (page 81)

Caller ID fully integrates with NVM-Series Voice Mail systems.

Direct Inward Line (page 118)

- The Voice Mail Automated Attendant will answer a DIL terminated to the Voice Mail Master Number.

- If a DIL is terminated to the Voice Mail master number, a System Mode key (code 18 + the Voice Mail number) controls the night mode status of the DIL.

Direct Station Selection (DSS) Console (page 128)

A DSS Console can have Voice Mail Record and Message Center keys.

Extension Hunting (page 156)

● To set up extension overflow to Voice Mail:
- In *Program 1807 - Hunt Type* on page 554, enter Hunt Type 3.
- In *Program 1807 - Hunt Destination* on page 554, designate the Voice Mail master number as the Hunt Destination.
Unanswered calls, in addition to calls to the extension while it is busy or in DND, route the the extension's mailbox.

● For Terminal and Circular Hunting, unsupervised transfers (UTRF) from the Voice Mail Automated Attendant route like trunk calls. Supervised transfers (TRF) from the Voice Mail Automated Attendant route like Intercom calls. In either case, unanswered calls eventually route the initially called extension's mailbox.

● (DS2000 02.00.01 or higher and DS1000 Only)
When an extension user with Ring No Answer/Busy Terminal Hunting to Voice Mail parks a call at a co-worker's extension, the call recalls to them if not picked up. If still unanswered, the call diverts to Key Ring. (In prior DS2000 versions, the call would route to Voice Mail.)

Message Waiting (page 250)

A system can have either Voice Mail or Message Waiting activated — not both.

Ringdown Extension (page 317)

If the Ringdown destination is the Voice Mail master number, the Ringdown Extension user hears the Voice Mail main greeting ("*Please enter your mailbox number*") after the call connects.

Feature Operation

Calling Your Mailbox

To call your mailbox:

Your Voice Mail key flashes fast when you have new messages in your mailbox. Your display shows the number of new messages in your mailbox.

1. Press **ICM**.

| 🎧 | Dial tone. |
| 👁 | **ICM** and **SPK** on. |

2. Press **MW**.
   OR
   Dial Voice Mail master number (e.g., 700) followed by your mailbox number.

Your mailbox number is normally the same as your extension number. You may optionally dial a co-worker's mailbox – or use this procedure to call your mailbox from a co-worker's phone.

3. If requested by Voice Mail, enter your security code.

Your MW LED goes out.

Leaving a Message

To leave a message in a mailbox of an unanswered extension:

The extension you call can be busy, in DND or unanswered.

1. Press **MW**.

The Voice Mail system will prompt you to leave a message.

Voice Mail

Forwarding Calls to your Mailbox

To activate or cancel Call Forwarding:

1. Press **ICM**.

   🦻 ‖ Dial tone.
   👁 ‖ **ICM** and **SPK** on.

2. Dial ***3**.

   🦻 ‖ Dial tone stops.
   👁 ‖ **ICM** and **SPK** on.

3. Dial Call Forwarding type:
   0 = Cancel forwarding
   2 = Busy/No Answer
   4 = Immediate
   6 = No answer

4. Press **MW**.

5. Press **SPK** to hang up.
   Your DND key is on while your calls are forwarded.

Transferring Calls to a Mailbox

To Transfer your active call to a mailbox:

Method A

1. Press **ICM**.

   🦻 ‖ Dial tone.
   👁 ‖ **ICM** and **SPK** on.

2. Dial the number of the mailbox to receive the Transfer (e.g., 301 for extension 301).
   This number can be your mailbox number (if you're away from your desk) or a co-worker's mailbox number.

3. Press **MW**.

4. Press **SPK** to hang up.
   Voice Mail will prompt your caller to leave a message in the mailbox you selected.

Method B
   This method transfers a call to a co-worker's mailbox without first ringing their phone.

1. Press **ICM**.

   🦻 ‖ Dial tone.
   👁 ‖ **ICM** and **SPK** on.

2. Press **MW**.

3. Dial the number of the mailbox to receive the Transfer (e.g., 301 for extension 301).
   This number can be your mailbox number (if you're away from your desk), a co-worker's mailbox number, or an "out of range" mailbox.

4. Press **SPK** to hang up.
   Voice Mail will prompt your caller to leave a message in the mailbox you selected.

Method C

1. Press **ICM**.

> 🔊 ‖Dial tone.
> 👁 ‖**ICM** and **SPK** on.

2. Press DSS key for co-worker's extension + **MW**.

3. Press **SPK** to hang up.

   Voice Mail will prompt your caller to leave a message in the mailbox you selected.

Method D

1. Press keyset or DSS Console Hotline or Call Coverage key.

> 🔊 ‖Dial tone.
> 👁 ‖**ICM** and **SPK** on.

2. Press **MW**.

3. Press **SPK** to hang up.

   Voice Mail will prompt your caller to leave a message in the mailbox you selected.

Recording your call

To record your active call in your mailbox:

Only one party on a call can use Conversation Record at any one time. This includes Intercom calls and Conference calls.

1. Press Voice Mail Record key or RECORD soft key.

   The key lights green while the system calls your mailbox. Once recording begins, the key flashes fast you and your caller hear the voice prompt "Recording."
   You can also have a Record key on your DSS Console. It lights red while the system calls your mailbox and flashes fast once recording begins.

To turn coversation record off:

1. Press Voice Mail Record key or line key for your active call.

   Recording stops. The capability to press a line key to stop recording requires software version 02.01.07 or higher.

Voice Mail

Personal Answering Machine Emulation

To activate Answering Machine Emulation:

1. Press **ICM**.

    🦻 ║ Dial tone.
    |👁| ║ **ICM** and **SPK** on.

2. Dial ***3**.

    🦻 ║ Dial tone stops.
    |👁| ║ **ICM** and **SPK** on.

3. Dial **7**.

4. Dial Answering Machine Emulation option (2 or hang up to forward all calls, 8 to forward just trunk calls).

5. Press **SPK** to hang up.

To cancel Answering Machine Emulation:

1. Press **ICM**.

    🦻 ║ Dial tone.
    |👁| ║ **ICM** and **SPK** on.

2. Dial ***30**.

    🦻 ║ Dial tone.
    |👁| ║ **ICM** and **SPK** on.

3. Press **SPK** to hang up.

When Answering Machine Emulation broadcasts your caller's message, you can:

●   Do nothing to have the caller's message automatically recorded in your mailbox,

●   Lift the handset to intercept the call and speak to your caller.

Checking Your Messages

To check your messages:

1. Press **MW**.

    You see: Number of MSG = n (where n is the number of new messages in your mailbox).

Using the Message Center

To call the Message Center:

> *The Message Center key flashes fast (green) when there are new messages not listened to in the Message Center mailbox.*

1. Press **SPK** or lift handset.
2. Press the Message Center key.
3. If requested by Voice Mail, enter the security code for the Message Center mailbox.
   > *Your MW LED goes out.*

To Transfer a call to the Message Center:

1. When on an Intercom or outside call, press the Message Center key.
2. Hang up.
   > *You caller will be prompted to leave a message in the Message Center mailbox.*

Voice Over

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Get through to a co-worker busy on a handset call — without interrupting their call.

Voice Over lets a user get through to a keyset extension user busy on a handset 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 on how to handle the situation — all without the original client hearing the conversation.

Either a keyset or SLT can initiate a Voice Over, but only a keyset can receive a Voice Over.

Voice Over uses a system Converence circuit. The following table shows the system's Conference capacities:

Description	Capacity
Conference circuits	32
Maximum simultaneous users in Conference (total of all Conferences system-wide)	32
Maximum simultaneous conferences	8
Maximum parties in any one Conference (trunks and/or extensions)	8

The system's 32 Conference circuits are dynamically allocated as users request them.

Conditions
None

Default Setting
Disabled

Programming Guide

Step-by-step guide for setting up Voice Over

Step 1: When an Intercom call is waiting, should extension be able to receive a Voice Over?

If yes

- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 539), enter 3.

If no

- In *Program 1802 - Off-Hook Signaling for Intercom Calls* (page 539), 0 for no Off-Hook Signaling or 1 for Camp-On beeps.

Step 2: When an Intercom call from their Hotline partner's Hotline key is waiting, should extension be able to receive a Voice Over?

If yes

- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), enter 3.

If no

- In *Program 1802 - Off-Hook Signaling for Hotline Partner* (page 539), 0 for no Off-Hook Signaling or 1 for Camp-On beeps.

Programming List

Program 1802 - Off-Hook Signaling for Intercom Calls (page 539)
Enter 3 for each extension that should be able to receive Voice Over.
Program 1802 - Off-Hook Signaling for Hotline Partner (page 539)
Enter 3 for each extension that should be able to receive Voice Over when their Hotline partner presses their Hotline key.

Other Related Features

Call Coverage Keys (page 61)
An extension can Voice Over after calling a co-worker by pressing their Call Coverage key.
Conference (page 111)
An extension user cannot Voice Over to a co-worker busy on a Conference call.
Direct Station Selection (DSS) (page 125)
An extension can Voice Over after using Direct Station Selection to call a co-worker.
Headset Compatibility (page 194)
An extension user cannot Voice Over to a co-worker in the headset mode.
Hotline (page 202)
An extension can Voice Over after calling a co-worker by pressing their Hotline key.
Intercom (page 227)
An extension user can Voice Over to a co-worker busy on an Intercom call.
Message Waiting (page 250)
An extension user cannot leave a Message Waiting after using Voice Over.
Off-Hook Signaling (page 270)
When a user is busy on a call, Off-Hook Signaling indicates that another caller is trying to get through.

Voice Over

Single Line Telephones (page 330)

An SLT can initiate a Voice Over but cannot receive a Voice Over.

Speed Dial (page 332)

An extension user can Voice Over after calling a co-worker by using Personal Speed Dial.

Transfer (page 393)

An extension user can Voice Over after making a Screened Transfer and hearing busy/ring tone.

Feature Operation

To initiate a Voice Over to a busy extension:

You can only leave a Voice Over if you hear busy/ring tone.

1.   Dial **9**.

> Two beeps, then you can speak with your co-worker.
>
> N/A

To respond to a Voice Over alert tone to your extension:

> Two beeps while on a handset call.
>
> N/A.

1.   Press and hold **MIC**.

Release MIC to talk to your initial caller. You can repeat this procedure as long as the Voice Over initiator doesn't hang up.

Description

DS2000 Fixed Slot
DS2000 U Slot | Available.
DS1000

Easily adjust the volume of ringing, Paging and other features.

A keyset user can press VOL ▲ and VOL ▼ to adjust the volume of the following features while they are active. Note that the categories grouped together are the same control. For example, adjusting Intercom ringing also adjusts trunk ringing.

- Incoming Intercom and trunk ringing[1] [2]
- Background Music, Paging, Handsfree speaker, and incoming Intercom voice announcements broadcast through your telephone speaker[1]
- Handset/headset receiver volume and incoming Voice Over announcements[1]
- Off Hook Ringing[1] [2]

[1]These features retain the volume levels set by the keyset user.
[2]These features retain the user-set volume levels after a system reset or power-down.

There are six steps in the Volume Control adjustment range. This makes it easier for the keyset user to set up just the right volume levels.

Conditions
Off hook and On hook ringing user-set levels are retained after a system reset.

Default Setting
Enabled

Programming List

None

Other Related Features

Alphanumeric Display (page 42)
While the telephone is idle, pressing VOL ▲ and VOL ▼ adjusts the contrast of the 22-Button and 34-Button telephone display. Note that 34-Button Super Display telephones do not provide a contrast adjustment. A system reset or power down returns the user-set contrast setting to a median level.
Call Waiting / Camp-On (page 74)
The extension user cannot adjust the volume of incoming Camp On tone.
Intercom (page 227)
The default Intercom (station-to-station) gain is 0 dB. While on an Intercom call, use VOL ▲ and VOL ▼ to change this setting.

Volume Controls

Feature Operation

To adjust the volume of a feature while it is active:

> *While your keyset is idle, pressing VOL ▲ and VOL ▼ adjusts the display contrast.*

1.   Press VOL ▲ and VOL ▼.

Year 2000 Compliance

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

The system is fully Y2K (Year 2000) compliant.

The system provides Year 2000 Compliance. The change of the date from one century to the next is handled by the system software and is no different than the change from one year to the next. The day following 12/31/1999 will be 01/01/2000. The system will process the leap year correctly and will not require an upgrade or reprogramming. In addition, the SMDR report will properly show the years in the 21st century.

Conditions

None

Default Setting

Year 2000 Compliance always enabled.

Programming List

None

Other Related Features

Station Message Detail Recording (page 348)
   The SMDR report displays four digits for the year (i.e., 2000, 2001).
Time and Date (page 383)
   The system is fully Y2K (year 2000) compliant. The year always displays as four digits and the system correctly recognizes leap years.

Feature Operation

None

Year 2000 Compliance

Chapter 2
Programming

Before You Start Programming

Before Reading This Section

This section provides you with detailed information about the system programs. By changing a program, you change the way the feature associated with that program works. In this section, you find out about each program, the features that the program affects and how to enter the program data into system memory.

Do not start customizing your system without first reading Section 1, Features.

When you want to customize a feature, find it in Section 1 and learn about it. (If you have trouble finding the feature, try cross-referencing it in the Index at the back of this book.) Section 1 will tell you what programs you have to change to get the operation you want. Then, look the program up in this section if you have any questions about how to enter the data.

How to Use This Section

This section lists each program in numerical order. For example, Program 0101 is at the beginning of the section and Program 9905 is at the end. The information on each program is subdivided into the following headings:

Description

Description tells what the program is. Along with the Description are the *Conditions* which describe any limits or special considerations that may apply to the program. get an overview of the feature. For the Default Settings of each programmable option, refer to the information provided with each program. When you first install the system, it uses the Default Setting for all programs.

In each program description there are is a *Software History* icon which summarizes how the program works with different system software levels:

Introduction to Programming
Before You Start Programming

This is the *Software History* icon. Since NEC America is constantly enhancing your system, all options may not be available in all software levels. Read this text to find out the specifics.

Telephone Programming Instructions

Telephone Programming Instructions shows you how to enter the program's data into system memory. For example:

1. Enter the programming mode.

2. 0101 + HOLD

   ```
   0101:CLASS OF SERVIC
   COS NUM?XX
   ```

tells you to enter the programming mode, dial 0101 from the telephone dial pad and then press the HOLD key. After you do, you'll see the message "COS NUM?xx" on the telephone display. To learn how to enter the programming mode, see *How to Enter the Programming Mode* below.

How to Enter the Programming Mode

To enter the programming mode:

1. Go to any working display telephone.
   In a newly installed system, use extension 300 (port 1).

2. Do not lift the handset.

3. Press **ICM**.

4. # * # *

   ```
   LCCPU    VER nn.nn.nn
   Enter Password:
   ```

5. Dial the system password + **HOLD**
   Refer to the following table for the default system passwords.

Table 17: Password Levels

Password Level	Password	Level
System Administrator 1	0000	1
System Administrator 2	9999	2
Installer	372000	3

To change the passwords, use Program 9905 - Password on page 566.

```
USER: nnn
ENTER PROGRAM?
```

Logging On with this Password:	Gives you access to these programs:
System Administrator 1 (level 1) Password = 0000	**Program 0302 - System Identification** (page 452) **Program 1101 - System Speed Dial Numbers** (page 513)
System Administrator 2 (level 1) Password = 9999	**Program 0302 - System Identification** (page 452) **Program 0801 - Selectable Display Messages** (page 496) **Program 1101 - System Speed Dial Numbers** (page 513) **Program 1701 - Programmable Function Key Assignments** (page 517) **Program 1702 - Personal Speed Dial** (page 522) **Program 1703 - DSS Key Assignment** (page 524) **Program 1704 - DSS Console Key Assignment** (page 526) (U Slot only)
Installer (level 3) Password - 372000	All

How to Exit the Programming Mode

To exit the programming mode:

1. When you see:

   USER: nnn
   ENTER PROGRAM?

   OR

   nnnnn VER nn.nn.nn
   PASSWORD:

   Press and release the hookswitch,.
   OR
   Press **SPK**.

   If you don't see one of the above prompts, press CONF until you do.
   When you exit programming, the system automatically stores your entries in Random Access Memory (RAM).

Using Keys to Move Around in the Programs

Once you enter the programming mode, use the keys in the following chart to enter data, edit data and move around in the menus.

Table 18: Keys for Entering Data

Use this key:	When you want to:
0-9, # and *	Enter data into the program.
HOLD	Complete the programming step you just made (like pressing **Enter** on a PC keyboard). When a program entry displays, press **HOLD** to accept the entry (i.e., bypass the entry without changing it).

Table 18: Keys for Entering Data

Use this key:	When you want to:
CONF	Complete the programming step you just made (like pressing **Enter** on a PC keyboard) and back up one step in the program.
LND	Delete the entry to the left (like pressing **Backspace** on a PC keyboard. To delete an entire name entry (without backspacing over each letter), just reenter the name without pressing **LND** first.
CLEAR	Erase the entire command line you just entered and undefine the entry. In many cases, this changes a Yes entry to No.
CHECK	Erase the entry you just made and replace it with the prior stored entry.
VOL ▲	Scroll forward through a list of entries in a program. If you enter data and then press this key, the system accepts the data before scrolling forward to the next entry.
VOL ▼	Scroll backward through a list of entries in a program. If you enter data and then press this key, the system accepts the data before scrolling backward to the previous entry.
ICM	Enable the scroll mode. When you press this key and it lights, you can then press **VOL ▲** and **VOL ▼** to scroll through the options. To choose the displayed value, press **HOLD**.

Connecting a PC or Printer

Refer to your system's *Hardware Manual* or the *DS1000 Quick Setup Guide*.

Programming Names and Text Messages

Several programs reference require you to enter text. Use the following chart when entering and editing text.

Table 19: Keys for Entering Names

Keys for Entering Names					
Press this key:	**Then one of these keys to enter the character in the white cell:**				
	1	**2**	**3**	**4**	**#**
1	**&**	**-** (dash)[1]	**/** (backslash)[1]	**'** (apostrophe)[1]	**1**
2	**A**	**B**	**C**		**2**
3	**D**	**E**	**F**		**3**
4	**G**	**H**	**I**		**4**
5	**J**	**K**	**L**		**5**
6	**M**	**N**	**O**		**6**
7	**P**	**Q**	**R**	**S**	**7**
8	**T**	**U**	**V**		**8**
9	**W**	**X**	**Y**	**Z**	**9**
0	**SPACE**	**:**			**0**
*					*****
#					
To enter characters in lower case (e.g., **e** instead of **E**), press **MW** before pressing the key in the first shaded column. Use **LND** to backspace over (erase) any characters you want to correct.					
[1]In software versions prior to 02.00.00, the codes for 1 + 2, 1 + 3, and 1 + 4 were not available.					

0100 - Class of Service
0101 - Class of Service Options

Description

DS2000 Fixed Slot	Available.	
DS2000 U Slot DS1000	Enables the following options: • CLID Display • 2nd Call CLID (Extension Level Call Waiting Caller ID) • 3rd Party Caller ID	

Use **Program 0101- Class of Service Programming** to set up the Class of Service options. The system has 15 Classes of Service, numbered 1-15. You assign Classes of Service to extensions in *Program 1801: Extension Class of Service Assignment* on page 533. Many extensions can have the same Class of Service. Class of Service 1 is normally reserved for the attendant (port 1).

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions

None

Table 20: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Off-Premise Call Forward	• This option is not used.	**OFF PREM FWRD?** Y = Enable N = Disable	N
Barge-In (Intrusion)	Use this option to enable or disable an extension's ability to Barge In on a co-worker. • See *Barge In (Intrusion)* on page 57 for more.	**BREAK-IN?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Camp-On to Busy Extension	Use this option to enable or disable an extension's ability to Camp-On to a busy extension. Enter Y to allow the extension to Camp-On to a busy co-worker. Enter N to prevent the extension from Camping-On to a busy co-worker. Entering N also automatically converts an extension's Camp On to Callback. • See *Call Waiting / Camp-On* on page 74 for more. • See *Callback* on page 78 for more.	**CAMP-ON BUSY EXT?** Y = Enable N = Disable	Y
Internal Call Forwarding	Use this option to enable or disable an extension's ability to use Internal Call Forwarding. • See *Call Forwarding* on page 65 for more.	**CALL FORWARDING?** Y = Enable N = Disable	Y
System Speed Dial Access	Use this option to enable or disable an extension's ability to access System Speed Dial. • See *System Speed Dial* on page 332 for more.	**SYS SPDL ACCESS?** Y = Enable N = Disable	Y

Table 20: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Extended Ring	Use this option to enable or disable Extended Ringing at the extension. • See *Extended Ringing* on page 154 for more.	**EXTENDED RING?** Y = Enabled N = Disable	N
Privacy	Use this option to enable or disable Privacy at the extension. • See *Privacy* on page 295 for more.	**PRIVACY**? Y = Enable N = Disable	N
Trunk (Line) Queuing Priority	Use this option to enable or disable Trunk (Line) Queuing Priority at the extension. If more than one extension with Priority is queued on a busy trunk, the system services the Priority extensions on a first-queued, first-served basis. • See *Trunk Queuing Priority* on page 402 for more.	**LINE Q PRIORITY?** Y = Enable N = Disable	N
Forced Trunk Disconnect	Use this option to enable or disable an extension's ability to use Forced Trunk Disconnect. • See *Forced Trunk Disconnect* on page 175 for more.	**FORCE DISCONNECT?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Camp-On to Busy Line	Use this option to enable or disable an extension's ability to Camp-On to a busy trunk. • See *Trunk (Line) Queuing / Trunk Callback* on page 402 for more.	**CAMP ON TO LINES?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Initiate All Call Page	Use this option to enable or disable an extension's ability to make an All Call Paging announcement. • See *Paging* on page 281 for more.	**PAGE ALL CALL?** Y = Enable N = Disable	Y
Access Page Zone 1	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 1. • See *Paging* on page 281 for more.	**PAGE ZONE 1?** Y = Enable N = Disable	Y
Access Page Zone 2	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 2. • See *Paging* on page 281 for more.	**PAGE ZONE 2?** Y = Enable N = Disable	Y
Access Page Zone 3	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 3. • See *Paging* on page 281 for more.	**PAGE ZONE 3?** Y = Enable N = Disable	Y
Access Page Zone 4	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 4. • See *Paging* on page 281 for more.	**PAGE ZONE 4?** Y = Enable N = Disable	Y

Table 20: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Access Page Zone 5	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 5. • See *Paging* on page 281 for more.	**PAGE ZONE 5?** Y = Enable N = Disable	Y
Access Page Zone 6	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 6. • See *Paging* on page 281 for more.	**PAGE ZONE 6?** Y = Enable N = Disable	Y
Access Page Zone 7	Use this option to enable or disable an extension's ability to make a Paging announcement into zone 7. • See *Paging* on page 281 for more.	**PAGE ZONE 7?** Y = Enable N = Disable	Y
Silent Monitor	Use this option to enable or disable an extension's ability to use Silent Monitor. • See *Monitor / Silent Monitor* on page 257 for more.	**SILENT MONITOR?** Y = Enable N = Disable	N
Flash for Single Line Sets	• Not currently supported.	**FLASH FOR SLT?** Y = Enable N = Disable	N
ACD Supervisor	• This option is currently not implemented.	**ACD SUPERVISOR?** Y = Enable N = Disable	N
Single Ring for Single Line Sets	• Use this option to enable or disable single ring for single line telephones. This option only apples to single line telephones. See *Central Office Calls, Answering* on page 87 for more.	**SINGLE RING?** Y = Enable N = Disable	N
View System Alarms	Use this option to enable or disable an extension's ability to view the system alarms. • See *Attendant Position* on page 46 for more.	**VIEW SYS ALARMS?** Y = Enable N = Disable	COS 1 = N COS 2-15 = N
Automatic Hold	Use this option to enable or disable Automatic Hold at an extension. • See *Hold* on page 197 for more.	**AUTO HOLD?** Y = Enable N = Disable	COS 1 = N COS 2-15 = N
Activate Night Mode	Use this option to enable or disable an extension's ability to activate Night Service. • See *Night Service / Night Ring* on page 265 for more.	**ACTIVATE NITES?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Direct Trunk Access	Use this option to enable or disable an extension's ability to use Direct Trunk Access. Note that enabling Direct Trunk Access allows the user to bypass Toll Restriction. • See *Central Office Calls, Placing* on page 93 for more.	**DIRECT TRK ACCES?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N

Table 20: Program 0101 - Class of Service Options

Option	Description	Entries	Default
Remote Call Forwarding / Alternate Attendant	• This option is currently not implemented.	**REMOTE FWRD?** Y = Enable N = Disable	COS 1 = Y COS 2-15 = N
Soft Keys	Use this option to enable or disable a display set's Interactive Soft Keys. • See See *Interactive Soft Keys* on page 206 for more.	**SOFTKEYS** Y = Enable N = Disable	Y
Conversation Record	Use this option to enable or disable an extension's ability to record conversations into their Voice Mail mailbox. If enabled, the user can press either their Conversation Record key or RECORD soft key to initiate recording. • See *Voice Mail* on page 414 for more.	**RECORD CONV** Y = Enable N = Disable	N
CLID Display	Use this option to enable or disable Caller ID. • See *Caller ID* on page 81 for more.	**CLID DISPLAY?** Y = Enable N = Disable	Y
2nd CALL CLID (Extension Level Call Waiting Caller ID)	Use this option to enable or disable Second Call Caller ID. • See *Caller ID* on page 81 for more.	**2nd CALL CLID?** Y = Enable N = Disable	Y
3rd Party Caller ID	Use this option to enable or disable Third Party Call Caller ID Check. • See *Caller ID* on page 81 for more.	**3rd PARTY CLID?** Y = Enable N = Disable	N
CLID Display Separator	Use this option to enable or disable the Caller ID display separator. • See *Caller ID* on page 81 for more.	**'-' IN CID DISP?** Y = Enable N = Disable	N
Forced Account Codes	Use this option to enable or disable Forced Account Codes. disabled, Optional Account Codes are still available. • See *Account Codes* on page 34 for more.	**FORCE AC CODES?** Y = Enable N = Disable	N
Verify Account Codes	Use this option to enable or disable Verified Account Codes. If enabled, the system compares the Account Code the user dials to the entries in *1201 - Verified Account Codes Table* on page 515. • See *Account Codes* on page 34 for more.	**VERIFY AC CODES?** Y = Enable N = Disable	N
Forced Account Codes for Toll Calls Only	Use this option to enable or disable Forced Account Codes for toll (long distance) calls. If disabled, Forced Account Codes apply to all outgoing trunk codes. • See *Account Codes* on page 34 for more.	**AC FOR TOLL ONLY?** Y = Enable N = Disable	N

0100 - Class of Service

0101 - Class of Service Options

Telephone Programming Instructions

1. Enter the programming mode.

2. 0101 + **HOLD**

   0101:CLASS OF SERVIC
   COS NUM?XX

3. Dial the Class of Service you want to program (1-15) + **HOLD**

4. Press **VOL ▲** or **VOL ▼** to scroll to the option you want to change + **HOLD**

5. Enter Y or N for displayed option + **HOLD**

6. Press **VOL ▲** or **VOL ▼** to scroll to another option.

   OR

   Press **HOLD** to return to step 3 and select another Class of Service.

   OR

   Press **HOLD** twice to return to step 2 and enter another program number.

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	Available. Version 02.00.04 adds additional relay control options.
	DS1000	Available. Relay control available.

Use **Program 0201- Tenant Option Programming** to set up various options for Tenant Groups.

Conditions

None

Table 21: Program 0201 - Tenant Options

Option	Description	Entries	Default
Call Waiting (Camp-On) Tone	Use this option to enable or disable system wide Call Waiting Tones (double beeps). • See *Call Waiting / Camp-On* on page 74 for more.	**CALL WAIT?** Y = Enable N = Disable	Y
Handsfree Reply on Intercom Calls	Use this option to enable or disable system-wide Handsfree Reply for voice-announced Intercom calls. If you enable this option, you must also enable *Voice-Announced Intercom Calls* below. • See *Handsfree and Handsfree Answer-back* on page 190 for more.	**HF REPLY ON ICM?** Y = Enable N = Disable	Y
Voice-Announced Intercom Calls	Use this option to enable or disable system-wide voice-announced Intercom calls. You must enable this option if you have *Hands-free Reply on Intercom Calls* enabled above. If you disable this option, extension users can only receive ringing Intercom calls. • See *Handsfree and Handsfree Answer-back* on page 190 for more.	**VOICE ANNOUNCE?** Y = Enable N = Disable	Y
Automatic Handsfree	Use this option to enable or disable Auto-matic Handsfree system-wide. • See *Automatic Handsfree* on page 50 for more. • See *Handsfree and Handsfree Answer-back* on page 190 for more.	**AUTO HANDSFREE?** Y = Enable N = Disable	Y
Music on Hold	Use this option to enable or disable Music on Hold system wide. • See *Music on Hold* on page 260 for more.	**ENABLE MOH?** Y = Enable N = Disable	Y

Table 21: Program 0201 - Tenant Options

Option	Description	Entries	Default
MOH on Transfer	Use this option to enable or disable MOH for transferred calls system-wide. If enabled, transferred callers hear Music on Hold while waiting. If disabled, transferred callers hear ringback. • See *Transfer* on page 393 for more.	**MOH ON TRANSFER?** Y = Enable N = Disable	Y
Background Music	Use this option to enable or disable Background Music system-wide. • See *Background Music* on page 54 for more.	**ENBLE BGM?** Y = Enable N = Disable	Y
Voice Mail Installed	Enable this option if you have an NVM-series Voice Mail system installed. Disable this option if you don't have Voice Mail installed. If you enable this option, be sure to specify a Voice Mail master extension number in the option below. • See *Voice Mail* on page 414 for more.	**V-MAIL INSTALLED?** Y = Enable N = Disable	N
Voice Mail Master Extension Number	Use this option to specify the Voice Mail master extension number. Be sure to make an entry for this item if you enabled the *Voice Mail Installed* option above. The entry you make must be within the system's number plan. • **You must set the Voice Mail master number in** *0510 - Hunt Group Master Number* **on page 485 before programming this option.** • See *Voice Mail* on page 414 for more.	**V-MAIL MST EXT?** nnn (extension number)	000
Enable Account Codes in Speed Dial (2.01.07 or higher)	Enable (Y) this option if users should be able to store Account Codes in Speed Dial bins. This causes the stored Account Code to properly display in the SMDR report *Account* column. They do not dial out as part of the stored number. If you disable (N) this option, Account Codes stored in Speed Dial bins dial out as part of the stored number and display in the SMDR report *Number Dialed* column. • See *Account Codes* on page 34 for more. • See *Speed Dial* on page 332 for more.	**AC CODES IN SPDL?** Y = Enable N = Disable	N

Table 21: Program 0201 - Tenant Options

Option	Description	Entries	Default

Enable Dial-out of # in a Speed Dial Number (Prior to 2.01.07)	Use this option to control how the system handles the dialing of the # digit when it is stored in a Speed Dial number. If enabled, the system outdials the # as part of the number. If disabled, the system bypasses the # without outdialing it. You may want to disable this option if the system is installed behind a PBX.
	• See *Speed Dial* on page 332 for more.
		ENABLE # IN SPDL?
		Y = Enable
		N = Disable
			N

# Key to Enter Account Codes	Use this option to enable (Y) an extension user to dial # to enter an Account Code while on an outside call. If disabled, the extension user can only enter an Account Code by pressing the Account Code soft key or a uniquely programmed Account Code Programmable Function Key. • See *Account Codes* on page 34 for more.	**"#" KEY AC CODES?** Y = Enable N = Disable	N
Account Code Toll Level	If **Program 0101: Forced Account Codes for Toll Calls Only** (page 443) is enabled, use this option to differentiate toll calls from local calls for Account Code purposes. If you enter 0 for this option, toll calls are any calls the user dials that begin with 0 or 1. If you enter a toll level for this option (1-7), the system uses the toll level options programmed in *0601 - Toll Restriction Options* on page 489 for that level to determine if the call is local or toll. • If the toll level is set to deny the call, it is considered to be a long distance call and the system requires that the user must have entered an Account Code. • If the toll level permits the call, it is considered to be a local call and no Account Code entry is required. • See *Account Codes* on page 34 for more.	**"#" KEY AC CODES?** 0-7	0
View Account Codes	Use this option to show or hide the Account Codes a user enters on their telephone's display. If enabled (Y), the dialed Account Codes show on the display. ***This may be a security risk, since a co-worker can easily read the telephone display as the user enters their Account Code.*** If disabled, Account Codes are shown as * characters on the telephone display. • See *Account Codes* on page 34 for more.	**VIEW AC CODES?** Y = Enable N = Disable	N

Table 21: Program 0201 - Tenant Options

Option	Description	Entries	Default
CPRU Relay (DS2000 Only)	Use this option to control the CPRU relay. This relay can activate for a Digital Door Box or External Paging. • See *Door Box* on page 148 for more. • See *Paging* on page 281 for more.	**CPU RELAY?** 0 = Not assigned 1 = Door Box relay control 2 = Page Zone control	None
CPRU Relay Page Zone Assignment (DS2000 Only)	If the CPRU is assigned to Page Zone control (2) in the previous option, use this option to designate the Page Zone that will activate the relay. • See *Paging* on page 281 for more.	**PAGE ZONE** 1 = External Paging (zone 1 and All Call) 2-7 = Internal zones 2-7	1 (External Paging)
DOOR1 Relay (DS1000 Only)	Use this option to control the relay in the DS1000 DOOR1 jack. This relay can activate for an Analog Door Box or Paging. • See *Door Box* on page 148 for more. • See *Paging* on page 281 for more.	**DOOR1 RELAY?** 0 = Not assigned 1 = Analog Door Box relay control 2 = Page Zone control	0 (Not assigned)
DOOR1 Relay Page Zone Assignment (DS1000 Only)	If the DOOR1 relay is assigned to Page Zone control (2) in the previous option, use this option to designate the Page Zone that will activate the relay. • See *Paging* on page 281 for more.	**PAGE ZONE** 1 = External Paging (zone 1 and All Call) 2-7 = Internal zones 2-7	1 (External Paging)
DOOR2 Relay (DS1000 Only)	Use this option to control the relay in the DS1000 DOOR2 jack. This relay can activate for an Analog Door Box or Paging. • See *Door Box* on page 148 for more. • See *Paging* on page 281 for more.	**DOOR2 Relay?** 0 = Not assigned 1 = Analog Door Box relay control 2 = Page Zone control	0 (Not assigned)
DOOR2 Relay Page Zone Assignment (DS1000 Only)	If the DOOR2 relay is assigned to Page Zone control (2) in the previous option, use this option to designate the Page Zone that will activate the relay. • See *Paging* on page 281 for more.	**PAGE ZONE** 1 = External Paging (zone 1 and All Call) 2-7 = Internal zones 2-7	1 (External Paging)

Telephone Programming Instructions

1. Enter the programming mode.

2. 0201 + **HOLD**

   0101:TENANT OPTIONS
   CALL WAIT?XX

3. Enter Y or N for the displayed option.
   OR
   Press **VOL ▲** or **VOL ▼** to scroll to the option you want to change + **HOLD**

4. Enter Y or N for displayed option + **HOLD**

5. Press **VOL ▲** or **VOL ▼** to scroll to another option.
   OR
   Press **HOLD** to return to step 2 and enter another program number.

Description

DS2000 Fixed Slot	Available. Default **CPU Baud Rate** is 4 (9600).
DS2000 U Slot	Available.
	• In U Slot prior to 02.00.01, the default **CPU Baud Rate** is 5 (19200).
DS1000	• In U Slot 02.00.01 and higher and DS1000, the default **CPU Baud Rate** is 4 (19200).

Use **Program 0301- System Options** to set up various options system-wide options.

Conditions

None

Table 22: Program 0301 - System Options

Option	Description	Entries	Default
Number of Operators	Use this option to set the number of operators (attendants) in the system. The system can have up to four operators. • See *Attendant Position* on page 46 for more.	**NUM OF OPERATORS?** 1-4 CLEAR = Undefine all operators	01
Operator 1 Extension	Use this option to assign the 1st operator's extension number. • See *Attendant Position* on page 46 for more.	**OPERATOR 1 EXT?** Enter any valid extension number	300
Operator 2 Extension	Use this option to assign the 2nd operator's extension number. Before assigning this option, be sure you have entered the correct number in the *Number of Operators* option. • See *Attendant Position* on page 46 for more.	**OPERATOR 2 EXT?** Enter any valid extension number	Undefined
Operator 3 Extension	Use this option to assign the 3rd operator's extension number. Before assigning this option, be sure you have entered the correct number in the *Number of Operators* option. • See *Attendant Position* on page 46 for more.	**OPERATOR 3 EXT?** Enter any valid extension number	Undefined
Operator 4 Extension	Use this option to assign the 4th operator's extension number. Before assigning this option, be sure you have entered the correct number in the *Number of Operators* option. • See *Attendant Position* on page 46 for more.	**OPERATOR 4 EXT?** Enter any valid extension number	Undefined

0300 - System Options

0301 - System Options (Part 1)

Table 22: Program 0301 - System Options

Option	Description	Entries	Default
Number of Digits in a System Speed Dial Code	Use the option to assign the number of digits the system uses to designate System Speed Dial bins (2, 3 or 4). With 2-digit bins, the system has 10 bins numbered 20-29. With 3-digit bins, the system has 100 bins numbered 200-299. With 4-digit bins, the system as 1000 bins numbered 2000-2999. • See *Speed Dial* on page 332 for more.	**SYS SPDL CODE DGTS?** 2 = 2-digit (20-29) 3 = 3-digit (200-299) 4 = 4-digit (2000-2999)	3
CPU Baud Rate	Use this option to set the speed of the LCCPU PCB RS-232-C port. You may want to connect a PC or SMDR printer to this port. • See *Connecting a PC or Printer* on page 438 for more. • See *Station Message Detail Recording* on page 348 for more.	**LCCPU BAUD RATE?** Fixed Slot and U Slot prior to 02.00.01 1 = 1200 2 = 2400 3 = 4800 4 = 9600 5 = 19200 U Slot 02.00.01 and higher and DS1000 1 = 2400 2 = 4800 3 = 9600 4 = 19200 5 = 38400 6 = 57600 (DS1000 only) 7 = 115000 (DS1000 only)	Fixed Slot 4 (9600) U Slot prior to 02.00.01 5 (19200) U Slot 02.00.01 and higher and DS1000 4 (19200)
SMDR Port	Use this option to specify the port the system uses for SMDR. • See *Connecting a PC or Printer* on page 438 for more. • See *Station Message Detail Recording* on page 348 for more.	**SMDR PORT?** 0 = NONE 1 = CPU Serial Port	0
Print SMDR Header	Use this option to include or exclude the header from the SMDR report. • See *Connecting a PC or Printer* on page 438 for more. • See *Station Message Detail Recording* on page 348 for more.	**PRINT SMDR HEADR?** Y = Enable header N = Disable header	Y

Telephone Programming Instructions

1. Enter the programming mode.
2. 0301 + **HOLD**

   0301:SYSTEM OPTIONS
   NUM OF OPERATORS?

3. Enter Y or N for the displayed option.
   OR
   Press **VOL ▲** or **VOL ▼** to scroll to the option you want to change + **HOLD**

4.   Enter Y or N for displayed option + **HOLD**

5.   Press **VOL ▲** or **VOL ▼** to scroll to another option.
        OR
    Press **HOLD** to return to step 2 and enter another program number.

0300 - System Options
0302 - System Identification

Description

DS2000 Fixed Slot
DS2000 U Slot ‖ Available.
DS1000
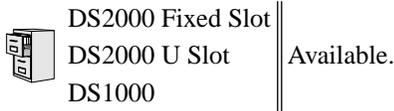
Use **Program 0302- System Identification** enter information about the system and to set the Time and Date. This information is used in various system reports.

Conditions

None

Table 23: Program 0302 - System Identification Options

Option	Description	Entries	Default
Company Name	Use this option to enter your company's name. The name prints in system reports. • See *System Identification* on page 355 for more.	**NAME?** 24 characters max (For instructions on entering names. see *Keys for Entering Names* on page 439.)	No entry

Company Phone Number	Use this option to enter your company's phone number. This is the number the system will call to report a problem (***not*** the system's number). You must enter a trunk access code (9, 9X or #9XX) before the number. For more information about trunk access codes, see *Central Office Calls, Placing* on page 93.
	• See *System Identification* on page 355 for more.
		PHONE?
		24 digits max, using:
		0-9, # and *
		P = Pause
		T = Tone Detection
		F = Flash
		D = Delay
			No entry

System Type	This option displays your system's type. It shows DS-2000. You cannot edit this option. • See *System Identification* on page 355 for more.	**SYS TYP:** Automatically displayed.	DS-2000
Software Version	This option displays your system's software level. It is for viewing only. You cannot edit this option. • See *System Identification* on page 355 for more.	**S/W VER:** Automatically displayed.	Depends on software level
Time	Use this option to set the system time. Enter data using the 24-hour format HH:MM:SS. For example, 13:00:00 = 1:00 PM. • See *Time and Date* on page 383 for more.	**TIME?** HH:MM:SS HH = Hours (0-24) MM = Minutes (0-59) SSS = Seconds Enter in 24-hour format	Current time

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Table 23: Program 0302 - System Identification Options

Option	Description	Entries	Default
Date	Use this option to enter the system Time and Date. The system shows Time and Date on telephone displays and in various system reports. • See *Time and Date* on page 383 for more.	**DATE?** MM-DD-YY MM = Month (1-12) DD = Day (1-31) YYYY = Year (e.g., 2000)	Current date

Telephone Programming Instructions

1. Enter the programming mode.

2. 0302 + **HOLD**

   0302:SYSTEM ID
   NAME?

3. Enter the system name (up to 14 characters) + **VOL ▲**.
   (Refer to *Programming Names and Text Messages* on page 439 if you need help in entering names)

   OR

   Press **VOL ▲** to scroll to the next option.

   0302:SYSTEM ID
   PHONE?

   After pressing **VOL ▲** *to scroll to the next entry, you can press* **CONF** *to exit the program.*

4. Enter the site phone number (up to 14 digits) + **VOL ▲**.
   OR

   Press **VOL ▲** to scroll to the next option.

   0302:SYSTEM ID
   SYS TYP:DS-1000

   You cannot edit this entry.

5. Press **VOL ▲** to scroll to the next option.

   0302:SYSTEM ID
   S/W VER:

   You cannot edit this entry.

6. Press **VOL ▲** to scroll to the next option.

   0302:SYSTEM ID
   TIME?

7. Enter the system time (HH:MM:SS in 24-hour format) + **VOL ▲**.
   OR

   Press **VOL ▲** to scroll to the next option.

   0302:SYSTEM ID
   DATE?:

8. Enter the system date (MM:DD:YYYY) + **VOL ▲**.
   OR

   Press **VOL ▲** to scroll to the next option.

OR
Press **CONF** to exit the program.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000
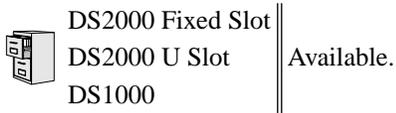
Use **Program 0401- System Timers** to enter the values for system-wide timers. ***Conditions***
None

Table 24: Program 0401 - System Timers

Option	Description	Entries	Default
Park Orbit	Use this timer to set how long a call stays in System Park Orbit before it recalls the extension that parked it. This timer if for orbits 60-67 only. The recall for orbits 68 and 69 is fixed at 5 minutes. • See *Park* on page 287 for more.	**PARK RECALL?** 1-9999 sec. 0 = Disabled	60 sec.
Modem Reserve	Use this timer to set how long the system reserves a modem, once requested by an extension user, from the modem pool before returning in to the pool. • See *System Diagnostics* on page 354 for more.	**MODEM RESERVE?** 1-9999 sec. 0 = Disabled	30 sec.
Transfer Recall	Use this timer to set how long a transferred call rings an idle destination extension or Ring Group before recalling the extension from which it was initially transferred. In addition, use this timer to set how long a transferred call rings a busy operator extension before recalling the extension from which it was initially transferred. • See *Transfer* on page 393 for more.	**TRANSFER RECALL?** 1-9999 sec. 0 = Disabled	30 sec (Fixed Slot) 20 seconds (U Slot)

Table 24: Program 0401 - System Timers

Option	Description	Entries	Default
Intercom Inter-digit	When an extension user places a call, they must dial each succeeding digit within this interval. The system also uses this interval for an extension going into the talk state, which affects the Modem Cut-Though timing. Setting this timer too short or too long could effect DTMF receiver usage and create blocking. Normally, you should leave this timer at its default value (6 seconds). Some applications may require that it be shortened, but it is recommended that it not be lengthened. • See *Intercom* on page 227 for more. • See *Modem Cut-Through* on page 255 for more.	**ICM INTERDIGIT?** 1-9999 sec. 0 = Disabled	6 sec.
Meet-Me Conference	When a user initiates a Meet-Me Conference, the system waits this interval for the Paged party to join the call. • See *Meet-Me Conference* on page 247 for more.	**MEET ME CONF?** 1-9999 sec. 0 = Disabled	30 sec.
Dialing Pause	For Speed Dial, the system waits this interval when it encounters a pause in a Speed Dial bin. • See *Speed Dial* on page 332 for more.	**DIALING PAUSE?** 1-9999 sec. 0 = Disabled	1 sec.
Page Duration	Use this timer to set the maximum length of Page announcements. • See *Paging* on page 281 for more.	**PAGE DURATION?** 1-9999 sec. 0 = Disabled	30 sec.
Door Unlock	This timer sets the interval that the CPRU PCB relay remains closed after a keyset user activates (closes) the relay. After this interval, the CPRU relay automatically returns to its open (idle) state. • See *Door Box* on page 148 for more.	**DOOR UNLOCK?** 1-9999 sec. 0 = Disabled	30 sec.
DIL No Answer	This timer sets how long a DIL to an extension rings an idle extension before Key Ring or overflow occurs. Key Ring rings all extensions programmed to ring for that line. • See *Direct Inward Line* on page 118 for more.	**DIL NO ANSWER?** 1-9999 sec. 0 = Disabled	15 sec.

Table 24: Program 0401 - System Timers

Option	Description	Entries	Default
Trunk Revert	This timer sets how long Hold Recall rings the extension that placed the call on hold before Key Ring occurs. Key Ring rings all extensions programmed to ring for that line. • See *Hold* on page 197 for more. • See *Key Ring* on page 232 for more. This timer also sets how long a DIL to a Ring Group master number rings an idle extension before Key Ring or overflow occurs. Key Ring rings all extensions programmed to ring for that line. • See *Direct Inward Line* on page 118 for more. In addition, this timer sets how long a Transfer Recall rings the extension that initially transferred the call before Key Ring occurs. • See *Transfer* on page 393 for more.	**TRUNK REVERT?** 1-9999 sec. 0 = Disabled	15 sec.
Trunk Delay Ring	Use this timer to set how long the system waits before ringing an extension that has the Delayed Ringing option enabled. • See *Central Office Calls, Answering* on page 87 for more. • See *Delayed Ringing* on page 114 for more.	**TRK DELAY RING?** 1-9999 sec. 0 = Disabled	10 sec.
Trunk Overflow	• Not used.	**TRUNK OVERFLOW?** 1-9999 sec. 0 = Disabled	20 sec.
Centrex Type Feature Key Delay	This timer sets how long the system waits when it finds a Centrex delay (i.e., D) programmed in a Centrex Feature Key. • See *PBX/Centrex Compatibility* on page 291 for more.	**CENTRX FTR DLY?** 1-9999 sec. 0 = Disabled	50 sec.
ACD/UCD Overflow	This timer sets when UCD overflow occurs. When all UCD agents are busy, a queued call rings for this interval and then overflows to the UCD Overflow destination. • See *Extension Hunting* on page 156 for more.	**ACD/UCD OVRFLOW?** 1-9999 sec. 0 = Disabled	60 sec
Number of Password Attempts	Use this option to set how many times the system allows a user to enter the incorrect programming password before locking them out. • See *System Programming List* on page 360 for more.	**PSWD ATTEMP NUM?**	3

0400 - Timers
0401 - System Timers

Table 24: Program 0401 - System Timers

Option	Description	Entries	Default
Program Lockout Time	Once the system locks out a user, it will wait this interval before allowing the user to reenter the programming mode. • See *System Programming List* on page 360 for more.	**PROGRAM LOCKOUT?** 1-9999 sec. 0 = Disabled	10 sec.
Force Program Exit	If a telephone in the programming mode is inactive longer than this interval, the system automatically cancels the programming mode and makes the telephone idle. • See *System Programming List* on page 360 for more.	**FORCE PROG EXIT?** 1-9999 sec. 0 = Disabled	10 sec.

Telephone Programming Instructions

1. Enter the programming mode.
2. 0401 + **HOLD**

   0401:SYSTEM TIMERS
   PARK RECALL?

3. Enter data for the displayed timer + **HOLD**.
   OR
   Press **VOL ▲** or **VOL ▼** to scroll to the timer you want to change + **HOLD**
4. Enter data for the displayed timer + **HOLD**
5. Press **VOL ▲** or **VOL ▼** to scroll to another timer.
   OR
   Press **HOLD** to return to step 2 and enter another program number.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.
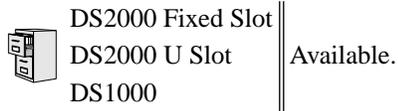
Use **Program 0402- Trunk Timers** to enter the values for trunk timers.

Conditions
None

Table 25: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Camp-On	• Not used.	**CAMP ON?** 0-9999 sec.	60 sec.
Line Response	When the system fails to detect loop current on a trunk, it will wait this interval before marking the trunk as defective. Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may mark properly functioning trunks as defective. If too long, defective trunks may be left in service. • See *System Timers, Trunks* on page 372 for more.	**LINE RESPONSE?** 4-1020 in 100 mS increments (e.g., 4 = 400 mS, 10 - 1000 mS)	100 (10 seconds)
Dial Tone Detect	When the system seizes a line to place a Speed Dial call, it waits this interval for dial tone before outdialing the call. The system requires that the first dial tone be at least 5 seconds long and the second dial tone to be at least 2.5 seconds long. Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may not seize properly functioning trunks. If too long, there will be too long a delay before the system skips over a defective trunk. • See *Speed Dial* on page 332 for more. • See *System Timers, Trunks* on page 372 for more.	**DL TONE DETECT?** 0-9999 in 100 mS increments (e.g., 10 = 1 second, 100 = 10 seconds)	10 (1 second)

Table 25: Program 0402 - Trunk Timers

Option	Description	Entries	Default
PBX/Centrex Flash	Use this timer to set the Flash interval. When a user flashes a trunk (manually or in a Speed Dial number), the system opens the trunk circuit for this interval. For accurate flash function, be sure to set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco may not always register the flash. If too long, inadvertent disconnects may occur. • See *Flash* on page 170 for more. • See *Modem Cut-Through* on page 255 for more. • See *PBX/Centrex Compatibility* on page 291 for more. • See *Speed Dial* on page 332 for more. • See *System Timers, Trunks* on page 372 for more.	**FLASH PBX?** 16-4080 mS	800 mS
Flash Disconnect	• Not used.	**FLASH DISC.?** 16-4080 mS	2496mS
Force Idle (Trunk Guard Time)	Use this timer to set the guard time for trunks. When the system disconnects a trunk (e.g., after a user hang up), the system keeps the line idle until this timer expires. The Trunk Guard Time helps prevent call collisions. If you set this interval too short, call collisions may occur. If too long, there will be unnecessary delays before you can use the trunk for a new call. • See *System Timers, Trunks* on page 372 for more.	**FORCE IDLE?** 10-9999 in 100 mS increments (e.g., 10 = 1 second)	25 (2.5 sec) (Fixed Slot) 10 (1 sec) (U Slot)
PBX Pause	• Not used.	**PBX PAUSE?** 0-9999 sec. 0 = No pause	0

Table 25: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Minimum Ring Detection Timer	Use this timer to set the threshold for ring detection. If the ring signal is longer than this interval, the system interprets the signal as valid ringing. If the signal is equal to or shorter than this interval, the system ignores the ringing. Be sure the value you enter is compatible with the local telco. If you set this value too short, the system may detect line spikes and anomalies as ringing. If too long, the system may not properly interpret a valid ringing signal. • See *System Timers, Trunks* on page 372 for more.	**MIN RING DET?** 8-2040 mS	104 mS
DP Make Timer	Use this timer to set the duration of the Dial Pulse Make signal (i.e., relay closed). This is the "on" time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing. • See *System Timers, Trunks* on page 372 for more.	**PULSE DIAL MAKE?** 4-1020 mS	40 mS
DP Break Timer	Use this timer to set the duration of the Dial Pulse Break signal (i.e., relay open). This is the "off" time in a Dial Pulse digit. Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing. • See *System Timers, Trunks* on page 372 for more.	**PULSE DIAL BRK?** 4-1020 mS	60 mS
DP Interdigit Timer	Use this timer to set the duration of the Dial Pulse Interdigit signal (i.e., relay open time *between* each digit). Set this timer for compatibility with the connected telco or PBX/Centrex. Keep in mind that there are three components of a Dial Pulse digit: Make interval, Break interval and Interdigit interval. An improper setting may cause misdialing. • See *System Timers, Trunks* on page 372 for more.	**PULSE INTRDIGIT?** 100-9999 mS	800 mS

Table 25: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Manual DTMF Tone On	This timer sets the duration of DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to properly detect the DTMF digit. If too long, outbound dialing is unnecessarily slowed down. • See *System Timers, Trunks* on page 372 for more.	**MAN DTMF ON?** 10-2550 mS	150 mS
Manual DTMF Tone Off	This timer sets the duration of the interval between DTMF digits for trunk calls manually dialed by an extension user. This is required because the system buffers the digits the user dials. Note that this is the minimum DTMF Tone off time guaranteed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to set up to receive the next DTMF digit. If too long, outbound dialing is unnecessarily slowed down. • See *System Timers, Trunks* on page 372 for more.	**MANB DTMF OFF?** 10-2550 mS	50 mS
Speed Dial DTMF Tone On	This timer sets the duration of DTMF digits for Speed Dial trunk calls automatically dialed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to properly detect the DTMF digit. If too long, outbound dialing is unnecessarily slowed down. • See *Speed Dial* on page 332 for more. • See *System Timers, Trunks* on page 372 for more.	**SPDL DTMF ON?** 10-2550 mS	100 mS

Table 25: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Speed Dial DTMF Tone Off	This timer sets the duration the quiet time between DTMF digits for Speed Dial trunk calls automatically dialed by the system. Set this timer for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the telco or PBX/Centrex may not be able to set up to receive the next DTMF digit. If too long, outbound dialing is unnecessarily slowed down. • See *Speed Dial* on page 332 for more. • See *System Timers, Trunks* on page 372 for more.	**SPDL DTMF ON?** 10-2550 mS	100 mS
Loop Current Detection Time	For loop start trunks, loop current must be present for this interval before the system seizes the trunk. Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently seize unstable trunks. If too long, the system may not properly seize a valid trunk. • See *System Timers, Trunks* on page 372 for more.	**LOOP CURRENT?** 4-1020 mS	800 mS
Codec Digitizing Method	Use this option to set the system's codec companding method type for the trunk. ***Be sure this option is always set to 0 (μ-law companding enabled).*** Do not set this option to 1 (A-law companding enabled). • See *System Timers, Trunks* on page 372 for more.	**CODEC A/D TYPE?** 0 = μ-law 1 = A-law	0 (μ-law)
Setting for International Rotary Disk	Set this option for compatibility with the type of rotary dial (500 type) telephone used. ***Be sure to always set this option to 0.*** • See *System Timers, Trunks* on page 372 for more.	**DP FOR INT'L?** 0 = US standard 1 = Norwegian 2 = Swedish	0 (US standard)

Table 25: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Far End Disconnect	Use this timer to set the loop disconnect interval for trunk calls. If the system detects a loop current interruption longer than this interval it assumes the telco has disconnected the trunk. It then returns the trunk trunk to idle. Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently disconnect valid trunks. If too long, the system may leave trunks connected that it should tear down. • See *System Timers, Trunks* on page 372 for more.	**FAR END DISC.?** 4-1020 mS	300 mS
Minimum Single Ring Detection Timer	The system uses this timer to detect valid ringing signal from the connected telco or PBX. Valid single ring must be longer than this interval. • See *System Timers, Trunks* on page 372 for more.	**SNGL RG MIN DET?** 8-2040 mS	504 mS
Minimum Double Ring Detection Off Timer	The system uses this timer to detect valid double ring from the connected PBX. Valid double ring must be longer than this interval. • See *System Timers, Trunks* on page 372 for more.	**DBL RG MIN OFF?** 8-2040 mS	104 mS
Maximum Double Ring Detection Off Timer	The system uses this timer to detect valid double ring from the connected PBX. Valid double ring must be less than this interval. • See *System Timers, Trunks* on page 372 for more.	**DBL RG MAX OFF?** 8-2040 mS	304 mS
Ringing Signal End Detect Timer	If the ringing signal on a trunk call is interrupted for longer than this interval, the system assumes ringing has stopped and terminates the call. Set this option for compatibility with the connected telco or PBX Centrex. If this interval is set to short, valid ringing will be inadvertently cut off. If too long, the system will leave the call set up even after ringing has stopped. • See *System Timers, Trunks* on page 372 for more.	**SIGNAL STOP DET?** 64-16320 mS	6016 mS
Caller ID Detection Timer	Not used.	**CID DETECT** 64-16320 mS	3268 mS

Table 25: Program 0402 - Trunk Timers

Option	Description	Entries	Default
Ground Start Timer	Before the system can start a ground start trunk, the telco's tip ground must be present for longer than this interval. Set this interval for compatibility with the connected telco or PBX/Centrex. If you set this interval too short, the system may inadvertently start a trunk it should not set up. If too long, the system may not start trunks that are functioning normally. • See *System Timers, Trunks* on page 372 for more.	**GROUNDING** 16-4080 mS	800 mS
Pause Timer	Not used.	**PAUSE** 64-16320 mS	3008 mS
DP Mute Timer	Not used. • See *System Timers, Trunks* on page 372 for more.	**DP MUTE** 4-1020 mS	8 mS
P.F. Recovery Detect Timer	When the ATRU PCB recovers from a power failure, it checks the power failure trunk (trunk 1) for loop current for the P.F. Recovery Detect interval. If loop current is detected, it assumes the Power Failure Telephone is still connected and does not tear down the call. If loop current is not detected, the ATRU PCB switches the trunk out of the power failure mode. • See *System Timers, Trunks* on page 372 for more.	**PF RECOVERY** 64-16320 mS	3008 mS

Telephone Programming Instructions

1. Enter the programming mode.
2. 0402 + **HOLD**

   > **0402:TRUNK TIMERS**
   > **CAMP ON?**

3. Enter data for the displayed timer + **HOLD**.
   OR
   Press **VOL ▲** or **VOL ▼** to scroll to the timer you want to change + **HOLD**
4. Enter data for the displayed timer + **HOLD**
5. Press **VOL ▲** or **VOL ▼** to scroll to another timer.
   OR
   Press **HOLD** to return to step 2 and enter another program number.

0400 - Timers
0403 - Station Timers

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000
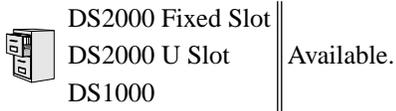
Use **Program 0403- Station Timers** to enter the values for station timers.

Conditions

None

Table 26: Program 0403 - Station Timers

Option	Description	Entries	Default
Hold Recall	Use this timer to set how long a call stays on Hold before it recalls the extension that initially placed it on Hold. • See *Hold* on page 197 for more.	**HOLD RECALL?** 0-9999 sec.	60 sec.
Exclusive Hold	Use this timer to set how long a call stays on Exclusive Hold before it recalls the extension that initially placed it on Exclusive Hold. • See *Hold* on page 197 for more.	**EX-HOLD RECALL?** 0-9999 sec.	90 sec.
Camp-On	• Not used.	**CAMP-ON?** 0-9999 sec.	60 sec.
Call Forward Ring No Answer	When Call Forwarding Ring No Answer is enabled, this timer sets how long a forwarded call rings an unanswered extension before routing to the forwarding destination. In addition, use this timer to set how long a transferred call rings a busy non-operator extension before recalling the extension from which it was initially transferred. This timer also sets how long a call will ring an idle UCD Hunting group member before cycling to the next member of the group. • See *Call Forwarding* on page 65 for more. • See *Extension Hunting* on page 156 for more.	**FWRD NO ANSWER?** 0-9999 sec.	10 sec.

Table 26: Program 0403 - Station Timers

Option	Description	Entries	Default
Call Waiting Tone Interval	Use this timer to set the interval between Call Waiting tones. • See *Call Waiting / Camp-On* on page 74 for more. Also use this timer to set the interval between Off Hook Signaling alert tones. • See *Off-Hook Signaling* on page 270 for more.	**CL WAIT INTIRVL?** 0-9999 sec.	10 sec.
Call Coverage Delay	For extensions with Delayed Ringing Call Coverage keys, this timer sets how long a call flashes the key at an extension before it starts to ring. • See *Call Coverage Keys* on page 61 for more.	**CL CVR DLY RING?** 0-9999 sec.	10 sec.
Hook flash Transfer	• Not used.	**HOOK FLASH XFER?** 0-9999 sec.	2 sec.
Hook Flash Disconnect	• Not used.	**FLSH DISCONNECT?** 0-9999 sec.	12 sec.
Number of Extended Rings	If an extension's Class of Service enables Extended Ringing, use the timer to set the duration of the Extended Ringing. • See *Extended Ringing* on page 154 for more.	**EXTENDED RING?** 0-9999 sec.	20 sec.
Drop Pulse Send	Use this timer to set the duration of the ASTU PCB drop pulse. This pulse is sent from the ASTU PCB to the connected analog device to initiate a disconnect. • See *Off-Premise Extensions / On-Premise SLT Extensions* on page 274 for more.	**DROP PULSE SEND?** 0-9999 mS	300 mS
DTMF Detect	Use this timer to set the DTMF detection threshold for single line (analog device) ports. If the analog device sends a DTMF signal longer than this interval, the system recognizes it as a valid DTMF tone and decodes it. If the DTMF signal is equal to or less than this interval, the system ignores it. • See *Off-Premise Extensions / On-Premise SLT Extensions* on page 274 for more.	**DTMF DETECT?** 0-9999 mS	70 mS

Table 26: Program 0403 - Station Timers

Option	Description	Entries	Default
Ring No Answer Hunt	Use this timer to set the Extension Hunting Ring No Answer Time. A call will ring a hunt group member extension for this interval before automatically cycling to the next extension in the group. • See *Extension Hunting* on page 156 for more.	**RG NO ANS HUNT?** 0-9999 sec.	10 sec.

Telephone Programming Instructions

1. Enter the programming mode.

2. 0403 + **HOLD**

   0403:STATION TIMERS
   HOLD RECALL?

3. Enter data for the displayed timer + **HOLD**.
   OR
   Press **VOL ▲** or **VOL ▼** to scroll to the timer you want to change + **HOLD**

4. Enter data for the displayed timer + **HOLD**

5. Press **VOL ▲** or **VOL ▼** to scroll to another timer.
   OR
   Press **HOLD** to return to step 2 and enter another program number.

Description

DS2000 Fixed Slot
DS2000 U Slot | Available.
DS1000
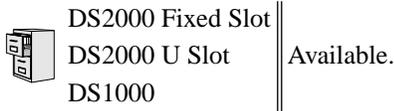
Use **0404: Analog Station Timers** to set parameters and timers for ASTU PCBs.

Conditions

None

Option	Description	Entries	Default
Country Data	Use this option to define the country of use and the codec digitizing method for ASTU PCBs. This timer consists of two bits (xy), with bit x defining the country and bit y defining the digitization method. For example, the default entry 00 is for North America (x=0) and u-law digitization method (y=0). ***Do not change this entry from its default value (00).***	**COUNTRY DATA?** xy x= 0 (North America), 1 (International) or 2 (Japan) y = 0 (u-law) or 1 (A-law)	00 (xy)
Rotary Dial Type	Use this option to define the rotary dial pulsing method for the system's ASTU PCBs. ***Do not change this entry from its default value (01).***	**ROTARY TYPE?** 0 = Standard (1-10) 1 = Norwegian (9-1, 10) 2 = Swedish (10, 1-9)	Standard (0)
Loop Current	Use this option to set the maximum allowed loop current for the system's ASTU PCBs. Normally choose 25mA for short loops and 35mA for long loops. In general, a long loop is 3000 feet or longer and a short loop is less than 3000 feet.	**LOOP CURRENT** 0 = 25mA (short loop) 1 = 35 mA (long loop)	25mA (0)
Ringing Frequency	Use this option to define the AC ringing frequency for the system's ASTU PCBs. ***Do not change this entry from its default value (20 Hz).***	**RINGING FREQ?** 0 = 25 Hz 1 = 20 Hz 2 = 16 Hz	20 Hz (1)
Minimum Break Time	This timer defines the minimum amount of time the loop must be opened to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. ***Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.***	**MIN BREAK TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	2 (10 mS)

0400 - Timers
0404 - Analog Station Timers

Option	Description	Entries	Default
Maximum Break Time	This timer defines the maximum amount of time the loop must be opened to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. *Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.*	**MAX BREAK TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	20 (100 mS)
Minimum Make Time	This timer defines the minimum amount of time the loop must be closed to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. *Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.*	**MIN MAKE TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	2 (10 mS)
Maximum Make Time	This timer defines the maximum amount of time the loop must be closed to properly decode the dial pulse digits sent from analog devices connected to ASTU PCBs. *Change this value only if the connected analog devices are set to dial at a rate other than 10 PPS.*	**MIN MAKE TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	20 (100 mS)
Minimum Hookflash Time	For ASTU PCBs, this timer defines the minimum amount of time the loop must be opened before the system starts to detect a transfer or hang up sequence. Open loop intervals shorter than the setting are ignored by the ASTU PCB.	**MIN FLASH TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	21 (105 MS)
Maximum Hookflash Time	For ASTU PCBs, this timer defines the maximum amount of time the loop can be opened in order for the system to detect a Transfer sequence. Open loop intervals longer than the setting are interpreted as hang up.	**MAX FLASH TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	200 (1000 mS / 1 second)
Minimum Ground Flash Time	For ground start applications with ASTU PCBs, this timer sets the amount of time a ground must be applied before the system detects a transfer sequence. The ASTU uses this timer when analog telephones use ground Transfer instead of open loop Transfer. *This timer is not used in North America. Do not change this timer from its default value.*	**MIN GND TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	21 (105 mS)
Minimum Off-Hook Time	For ASTU PCBs, this timer defines how long a connected analog device must remain off-hook before the system recognizes the off-hook status.	**MIN GND TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	21 (105 mS)

Option	Description	Entries	Default
Off-Hook Guard Time	The ASTU PCB waits this interval after an analog device hangs up before accepting any additional input from the device. This timer helps prevent erroneous detection due to hardware stabilization.	**OFF HOOK GUARD?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	60 (300 mS)
Dial Pulse Guard Timer	The ASTU PCB waits this interval between dial pulse digits before attempting to detect any additional DP digits. This timer helps prevent erroneous DP dialing due to hardware stabilization.	**DIAL GUARD?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	70 (350 mS)
Loop Disconnect Time	When the far end disconnects, the ASTU PCB opens the loop to the connected analog device for this interval.	**LOOP DISC TIME?** 1-255 (5-1275 mS in 5 mS increments [e.g., 2 = 10mS, 3 = 15 mS, 4 = 20 mS)	40 (200 mS)
Ring/MW Wait Period Time	This timer determines the ringing sequence for the devices connected ASTU PCBs. Because of power consumption, it is not possible to ring all analog devices on an ASTU simultaneously. Instead, the card is divided into 4 groups with two ports in each group. Ringing cycles between the 4 groups, ringing each group for this interval.	**RING/MW PERIOD?** 1-255 (50-12750 mS in 50 mS increments [e.g., 2 = 100 mS, 3 = 150 mS, 4 = 200 mS)	15 (750 mS)

Telephone Programming Instructions

1. Enter the programming mode.
2. 0404 + **HOLD**

   0403:ASTU TIMERS
   COUNTRY DATA?

3. Enter data for the displayed timer + **HOLD**.
   OR
   Press **VOL ▲** or **VOL ▼** to scroll to the timer you want to change + **HOLD**
4. Enter data for the displayed timer + **HOLD**
5. Press **VOL ▲** or **VOL ▼** to scroll to another timer.
   OR
   Press **HOLD** to return to step 2 and enter another program number.

0500 - System Numbering

0501 - Numbering Plan

Description

DS2000 Fixed Slot
DS2000 U Slot | Available.
DS1000

Use **Program 0501- Numbering Plan** to customize the system's number plan. For each dialed digit (0-9, excluding # and *), assign a *Function Type* and an *Expected Digits* entry. *Function Type* defines the digit's function in the system (see the table below).

Function Type	Description
1	Operator Access
2	Intercom and Direct Trunk Access
3	Trunk Group Access

Expected Digits sets how many digits the system expects to receive when the digit string begins with selected digit. For example, digit 3 has *Function Type* 2 and *Expected Digits* 3. This means that digits 300-399 are Intercom numbers.

Refer to *Flexible Numbering Plan* on page 172 for more on customizing the system's number plan.

Conditions

None

Table 27: Program 0501 - Numbering Plan

Option	Description	Entries	Default
Digit 0 Options	Use this option to define the function type for dial strings beginning with 0. These strings are normally used for telephone system operator access (1). • See *Attendant Position* on page 46 for more. • See *Intercom* on page 227 for more.	**OPER** 1 = OPER 2 = EXT 3 = LN GRP	1 (OPER)
	Use this option to define the total length of dial strings beginning with 0. These strings are normally two digits long (2). • See *Attendant Position* on page 46 for more. • See *Intercom* on page 227 for more.	**EXPECTED DGTS"** 1-3	2

Table 27: Program 0501 - Numbering Plan

Option	Description	Entries	Default
Digit 1 Options	Use this option to define the function type for dial strings beginning with 1. These strings are normally reserved for Intercom access (2). • See *Intercom* on page 227 for more.	**EXT** 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 1. These strings are normally three digits long (3). • See *Intercom* on page 227 for more.	**EXPECTED DGTS"** 1-3	3
Digit 2 Options	Use this option to define the function type for dial strings beginning with 2. These strings are normally reserved for Intercom access (2). • See *Intercom* on page 227 for more.	**EXT** 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 2. These strings are normally three digits long (3). • See *Intercom* on page 227 for more.	**"2" EXPECTED DGTS"** 1-3	3
Digit 3 Options	Use this option to define the function type for dial strings beginning with 3. These strings are by default assigned to Intercom access (2). • See *Intercom* on page 227 for more.	**EXT** 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 3. These strings are normally three digits long (3). • See *Intercom* on page 227 for more.	**"3" EXPECTED DGTS"** 1-3	3
Digit 4 Options	Use this option to define the function type for dial strings beginning with 4. These strings are by default assigned to Direct Trunk Access (2). • See *Central Office Calls, Placing* on page 93 for more. • See *Direct Trunk Access* on page 139 for more.	**EXT** 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 4. These strings are normally three digits long (3). • See *Central Office Calls, Placing* on page 93 for more. • See *Direct Trunk Access* on page 139 for more.	**"4" EXPECTED DGTS"** 1-3	3

Table 27: Program 0501 - Numbering Plan

Option	Description	Entries	Default
Digit 5 Options	Use this option to define the function type for dial strings beginning with 5. These strings are normally reserved for Intercom access (2). • See *Intercom* on page 227 for more.	**EXT** 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 5. These strings are normally three digits long (3). • See *Intercom* on page 227 for more.	**"5" EXPECTED DGTS"** 1-3	3
Digit 6 Options	Use this option to define the function type for dial strings beginning with 6. These strings are normally reserved for Intercom access (2). • See *Intercom* on page 227 for more.	**EXT** 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 6. These strings are normally three digits long (3). • See *Intercom* on page 227 for more.	**"6" EXPECTED DGTS"** 1-3	3
Digit 7 Options	Use this option to define the function type for dial strings beginning with 7. These strings are normally reserved for Intercom access (2). • See *Intercom* on page 227 for more.	**EXT** 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 7. These strings are normally three digits long (3). • See *Intercom* on page 227 for more.	**"7" EXPECTED DGTS"** 1-3	3
Digit 8 Options	Use this option to define the function type for dial strings beginning with 8. These strings are normally reserved for Intercom access (2). • See *Intercom* on page 227 for more.	**EXT** 1 = OPER 2 = EXT 3 = LN GRP	2 (EXT)
	Use this option to define the total length of dial strings beginning with 8. These strings are normally three digits long (3). • See *Intercom* on page 227 for more.	**"8" EXPECTED DGTS"** 1-3	3
Digit 9 Options	Use this option to define the function type for dial strings beginning with 9. These strings are normally reserved to trunk access (3). • See *Central Office Calls, Placing* on page 93 for more. • See *Trunk Group Routing* on page 398 for more. • See *Trunk Groups* on page 405 for more.	**LN GRP** 1 = OPER 2 = EXT 3 = LN GRP	3 (LN GRP)

Table 27: Program 0501 - Numbering Plan

Option	Description	Entries	Default
Single Digit Access	Use this option to enable or disable single digit access. If enabled (Y), users can dial 9 to select their assigned dial 9 Trunk Group. If disabled, users must dial 9 followed by the Trunk Group number (0-8 for Trunk Groups 0-8). • See *Central Office Calls, Placing* on page 93 for more. • See *Trunk Group Routing* on page 398 for more.	**SINGL DGT ACCESS?** Y or N	Y

Telephone Programming Instructions

1. Enter the programming mode.

2. 0501 + **HOLD**

   > **0501:NUMBERING PLAN**
   > **"0" FUNCTION TYP?**

3. Enter data for the displayed option + **VOL ▲**.
   > OR

   Press **VOL ▲** or **VOL ▼** to scroll to the option you want to change + **HOLD**

4. Enter data for the displayed option + **HOLD**

5. Press **VOL ▲** or **VOL ▼** to scroll to another option.
   > OR

   Press **CONF** to return to step 2 and enter another program number.

0500 - System Numbering
0504 - Trunk Port Extension Numbers (Fixed Slot)

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	See the following program.
	DS1000	

Use **Program 0504- Trunk Port Extension Numbers** to assign extension numbers to trunk ports. The extension numbers you enter must be unique and not overlap extension numbers used for extensions, ACI ports, DCI ports and Extension Hunting master numbers.

● Ports 001 -016 are the system's physical trunk ports.

Conditions

None

Table 28: Program 0504 - Trunk Port Extension Numbers (Fixed Slot)

Option	Description	Entries	Default
Extension Number	For the trunk port selected, use this option to enter the extension number associated with the port. • See *Central Office Calls, Placing* on page 93 for more. • See *Flexible Numbering Plan* on page 172 for more.	**EXT NUM?**	Not assigned
Name	For the trunk port selected, this option shows the name associated with the port. • See *Names for Extensions and Trunks* on page 263 for more. •	**NAME?** View only	View only

---

Telephone Programming Instructions

1. Enter the programming mode.
2. 0504 + **HOLD**

   ```
   0504:TRUNK ID
   TRUNK PORT?
   ```

3. Enter the number of the trunk port you want to program (01-32) + **HOLD**.

   ```
   0504:TRUNK ID-PT:nnn
   EXT NUM?nnn
   ```

   The previously programmed extension number displays.

4. Enter the number of the extension you want assigned to the port.
   OR
   Press **HOLD** to leave the entry unchanged.

   ```
   0504:TRUNK ID-PT:nnn
   NAME?(name)
   ```

The previously programmed name displays.

5. Return to step 3 and enter another trunk port.
    OR
    Press **HOLD** to return to step 2 and enter another program number.

0500 - System Numbering
0504 - View Extension (U Slot and DS1000)

Description

DS2000 Fixed Slot	See the previous program.
DS2000 U Slot DS1000	Available.

Use **Program 0504- View Extension** to view the extension assignments for each port (circuit) for each PCB.

Conditions
None

Table 29: Program 0504 - View Extension (U Slot)

Option	Description	Entries	Default
Extension Number	Use this option to select the trunk (401-448 in DS2000 or 401-406 in DS1000) or extension (300-395 in DS2000 or 300-325 in DS1000) you want to view. • See *Flexible Numbering Plan* on page 172 for more.	**EXT NUM?**	Not assigned
Slot and Circuit Assignment (DS2000)	This option displays the DS2000 Main Equipment Cabinet slot number and port (circuit) assignment for the extension selected in the option above. • Extension numbers are 300-395. • Trunk extension numbers are 401-448.	**SLOT:n CIRCUIT:n** View only	View only
Port Assignment (DS1000)	Use this option to view the DS1000 port assigned to each station, trunk, or Analog Door Box. • Digital extension numbers are 300-315. • Analog extension numbers are 316-323. • Analog Door Box extension numbers are 324 and 325. • Trunk extension numbers are 401-406.	**STATION n** **DOOR BOX n** **CO LINE n** View only	View only

---

Telephone Programming Instructions

1. Enter the programming mode.
2. 0504 + **HOLD**

   0504:VIEW EXTENSION
   EXT NUM?

3. Enter the number of the trunk (401-448 in DS2000 or 401-406 in DS1000) or extension (300-395 in DS2000 or 300-325 in DS1000) you want to view + **HOLD**.
   In DS2000, you see:

   0504:EXTENSION:nnn
   SLOT:n CIRCUIT:n

   The slot and circuit for the extension or trunk you selected displays.

SLOT is the Main Equipment Cabinet slot where the extension or trunk is located.
CIRCUIT is the port (circuit) on the PCB assigned to the slot.

In DS1000, you see:

0504:EXTENSION:nnn
nnnnnn nn

The system shows the associated port number.

4.   Press **HOLD** and return to step 3 above to view another extension or trunk.
        OR
     Press **CONF** to exit.

Description

DS2000 Fixed Slot	Available. Will swap port/extension numbers but not programming.
DS2000 U Slot DS1000	See the following program.

Use **Program 0505- Station Port Extension Numbers** to assign extension numbers to station ports. The extension numbers you enter must be unique and not overlap extension numbers used for trunks, ACI ports, DCI ports and Extension Hunting master numbers.

● Ports 001-096 are the system's physical extension ports.

Conditions

None

Table 30: Program 0505 - Station Port Extension Numbers (Fixed Slot)

Option	Description	Entries	Default
Extension Number	For the station port selected, use this option to enter the extension number associated with the port. • See *Flexible Numbering Plan* on page 172 for more.	**EXT NUM?**	Not assigned
Name	For the station port selected, this option shows the name associated with the port. • See *Names for Extensions and Trunks* on page 263 for more. •	**NAME?** View only	View only

---

Telephone Programming Instructions

1. Enter the programming mode.
2. 0505 + **HOLD**

    ```
    0505:STA ID
    STATION PORT?
    ```

3. Enter the number of the station port you want to program (01-96) + **HOLD**.

    ```
    0505:STA ID-PT:nnn
    EXT NUM?nnn
    ```

    The previously programmed extension number displays.

4. Enter the number of the extension you want assigned to the port + **HOLD**.
        OR
    Press **HOLD** to leave the entry unchanged.
        OR
    Press **CLEAR** + **HOLD** to undefine the selected port (see comment below).

    ```
    0505:STA ID-PT:nnn
    NAME?(name)
    ```

    If you are swapping ports that are within the extension number range (e.g., 300-395), press CLEAR to undefine the two ports you want to swap before reprogramming them. If

---

you don't undefine the ports first, you will see the message **EXT ALREADY EXISTS!**

5.   Return to step 3 and enter another station port.
     OR
   Press **HOLD** to return to step 2 and enter another program number.

0500 - System Numbering

0505 - Extension Assignment (U Slot and DS1000)

Description

DS2000 Fixed Slot	See the previous program.
DS2000 U Slot DS1000	Available.

In DS2000, use **Program 0505- Extension Assignment** to view and change the extension or trunk number assigned to a port (circuit) on an installed PCB. You make the selection based on slot and port (circuit) number.

In DS1000, use **Program 0505 - Extension Assignment** to view and change the extension number for each extension, trunk, or Analog Door Box assigned to each port. You make the selection based on the port for each device type.

Conditions
None

Table 31: Program 0505 - Extension Assignment (U Slot)

Option	Description	Entries	Default
Slot Number (DS2000 Only)	Use this option to select the Main Equipment Cabinet slot that has the extension or trunk you want to change. • See *Flexible Numbering Plan* on page 172 for more.	**SLOT NUMBER?**	Not assigned
Circuit Number (DS2000 Only)	For the slot selected in the previous option, use this option to select the port (circuit) you want to change. • Extension ports 1-80 are assigned to extensions 300-379. • Trunk ports 1-48 are assigned to trunks 401-448,	**CIRCUIT NUM?**	Not assigned
Type (DS1000 Only)	Use this option to select the type of device you want to change.	**TYPE?** 1 = Extensions 2 = Trunks 3 = Analog Door Boxes	Not assigned
Extension Number	Use this option to enter the extension number for the port (circuit) selected. The extension number you choose must be from the pool of unassigned extensions.	**EXT NUM?** 100-899	-

---

Telephone Programming Instructions

DS2000 U SLOT

1. Enter the programming mode.

2. 0505 + **HOLD**

   ```
   0505:EXT ASSIGNMENT
   SLOT NUMBER?
   ```

3. Enter the Main Equipment Cabinet slot number (1-8) for the trunk (401-448) or extension (300-395) you want to view + **HOLD**.

   ```
   0505:SLOT:n
   CIRCUIT NUM?
   ```

   The first line of the display shows the slot you selected.

4. For the slot selected, enter the number of the port (circuit) you want to change + **HOLD**.

   ```
   0505:SLOT:n CIR:
   EXT NUM?nnn
   ```

   For example, the 16DSTU plugged into slot 1 has 16 circuits numbered 1-16.
   The currently programmed extension number for slot and circuit you selected displays.

5. Enter a new extension number from the pool of unassigned extensions (e.g., extension 380 in the default database) + **HOLD**.

   ```
   0505:SLOT:n CIR:
   EXT NUM?nnn
   ```

   *If the number is already assigned to another extension, you see EXTENSION ASSIGNED! Press **HOLD** and start over again from step 3.*

6. Return to step 3 and enter another extension to change.
   OR
   Press **CONF** to exit.

DS1000

1. Enter the programming mode.

2. 0505 + **HOLD**

   ```
   0505:EXT ASSIGNMENT
   TYPE?
   ```

3. To view extensions, enter 1 + **HOLD**.

   ```
   0505:EXT ASSIGNMENT
   STATION:n
   ```

   Or, to view trunks, enter 2 + **HOLD**.

   ```
   0505:EXT ASSIGNMENT
   CO LINE:n
   ```

   Or, to view Analog Door Boxes, enter 3 + **HOLD**.

   ```
   0505:EXT ASSIGNMENT
   DOOR BOX:n
   ```

---

4. Enter the port number for the device you want to view. For example,
    - For extension 302, enter 2.
    - For trunk 4, enter 4.
    - For the second Analog Door Box, enter 2.
        Note that each device type (extension, trunk, or Analog Door Box) has its own set of port numbers.

5. Press **HOLD**. The currently assigned extension number for the port selected displays. If you selected an extension, for example, you see:

    0505:STATION:n
    EXT NUM?nnn

6. Enter the new extension number for the port (100-899) + **HOLD**. You see:

    0505:STATION:n
    EXTENSION ASSIGNED !

    The system provides a single pool of extension numbers (100-899). Any port can use any available extension number.
    If you see ASSIGNMENT FAILED, the extension number you entered is already assigned to another port.

7. Press **HOLD** to go back to step 5 if you want to change your assignment.
        OR
    Press **HOLD** + **CONF** to go back to step 4 and select another port.
        OR
    Press **HOLD** + **CONF** twice to go back to step 3 and select another type.
        OR
    Press **HOLD** + **CONF** three times to exit program 0505.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000
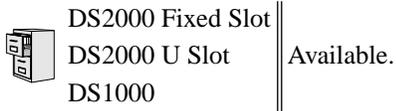
Use **Program 0510- ACD/UCD Master Extension Numbers and Names** to assign extension numbers and names to the ACD/UCD master extensions. The system can have up to eight ACD/UCD groups (1-8). The extension numbers you enter must be unique and cannot be a physical port (e.g., 300).

Conditions

None

Table 32: Program 0510 - ACD/UCD Master Extension Numbers and Names

Option	Description	Entries	Default
Group Number	Use this option to select the ACD/UCD group you want to program.	**GROUP NUM?**	N/A
Hunt Group Master Number	Use this option to enter the master extension number associated with the group selected. • See *Flexible Numbering Plan* on page 172 for more. • See *Extension Hunting* on page 156 for more.	**EXT NUM?** UCD Hunting group master numbers can be 100-299, 332-400, or 417-899. They cannot be in the extension (300-395 or 300-325 in DS1000) or trunk (401-448 in DS2000 or 401-406 in DS1000) number range. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.	None
Overflow Destination	Use this option to assign the ACD/UCD Group overflow destination. • See *Extension Hunting* on page 156 for more.	**OVERFLOW DEST?** 300-395 in DS2000 or 300-325 in DS1000, Ring Group Master Number, or UCD Group Master Number	Not assigned
Name	Use this option to enter the name associated with the group selected. • See *Extension Hunting* on page 156 for more. • When entering names, use *Table 19: Keys for Entering Names* on page 439.	**NAME?**	Not assigned

Telephone Programming Instructions

1. Enter the programming mode.

2. 0510 + **HOLD**

   0510:ACD ID
   GROUP NUM?

3. Enter the number of the group you want to program (1-8) + **HOLD**.

   0510:ACD ID-GROUP:nn
   EXT NUM?nnn

   The previously programmed extension number displays.

4. Enter the number of the extension you want assigned to the group.
       OR
   Press **HOLD** to leave the entry unchanged.

   0510:ACD ID-GROUP:nn
   NAME?(name)

   The previously programmed name displays.

5. Enter the name for the group (10 character maximum) + **HOLD**
       OR
   Press **HOLD** to leave the displayed name unchanged.

   0510:ACD ID
   GROUP NUM?

6. Return to step 3 and enter another group.
       OR
   Press **HOLD** to return to step 2 and enter another program

Description

DS2000 Fixed Slot
DS2000 U Slot | Available.
DS1000
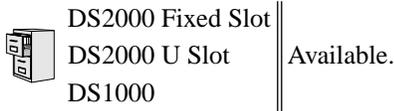
Use **Program 0511- Ring Group Master Extension Numbers and Names** to assign extension numbers and names to the Ring Group master extensions. The system can have up to eight Ring Groups (1-8). The extension numbers you enter must be unique and not overlap extension numbers used for trunks, extensions, or Extension Hunting master numbers.

Conditions

None

Table 33: Program 0511 - Ring Group Master Extension Numbers and Names

Option	Description	Entries	Default
Extension Number	Use this option to enter the extension number associated with the Ring Group selected. • See *Central Office Calls, Answering* on page 87 for more. • See *Flexible Numbering Plan* on page 172 for more. • See *Ring Groups* on page 316 for more.	**EXT NUM?** Ring Group master numbers can be 100-899. They cannot be in the extension (300-395 or 300-325 in DS1000) or trunk (401-448 in DS2000 or 401-406 in DS1000) number range. By default, the systems uses codes beginning with 0 for operator access and 9 for trunk/trunk group access.	Not assigned
Name	Use this option to enter the name associated with the Ring Group selected. • See *Central Office Calls, Answering* on page 87 for more. • See *Ring Groups* on page 316 for more. • When entering names, use *Table 19: Keys for Entering Names* on page 439.	**NAME?**	Not assigned

Telephone Programming Instructions

1. Enter the programming mode.

2. 0511 + **HOLD**

   ```
   0511:RING GROUP ID
   GROUP NUM?
   ```

3. Enter the number of the group you want to program (1-8) + **HOLD**.

   ```
   0511:RING GROUP:nn
   EXT NUM?nnn
   ```

   The previously programmed extension number displays.

4.   Enter the number of the extension you want assigned to the group.
        OR
     Press **HOLD** to leave the entry unchanged.

     0511:RING GROUP:nn
     NAME?(name)

          The previously programmed name displays.

5.   Enter the name for the group (10 character maximum) + **HOLD**
        OR
     Press **HOLD** to leave the displayed name unchanged.

     0511:RING GROUP ID
     GROUP NUM?

6.   Return to step 3 and enter another group.
        OR
     Press **HOLD** to return to step 2 and enter another program

Description

DS2000 Fixed Slot

DS2000 U Slot · Not available.

DS1000

Use **Program 0601- Toll Restriction Options** to assign Toll Restriction options to each of the seven Toll Levels (1-7). When you assign a Toll Level to an extension, the extension uses the options set up in this program.

Conditions

None

Table 34: Program 0601 - Toll Restriction Options

Option	Description	Entries	Default
Program Toll Restriction	Use this option to program Toll Restriction. (You must always use the following option to initialize Toll Restriction before using it for the first time.) • See *Toll Restriction* on page 385 for more.	**PROG-P** P = Program	N/A
Initialize Toll Restriction	Use this option to initialize Toll Restriction. You must always initialize Toll Restriction before using if for the first time. If you have already programmed Toll Restriction, initializing will erase all your entries and reinstate the default Toll Restriction values. • See *Toll Restriction* on page 385 for more.	**INIT-I** I = Initialize	N/A
Toll Restriction Level	Use this option to select the Toll Restriction level you want to program. The entries that follow pertain to the Toll Restriction Level you select in this step. • See *Toll Restriction* on page 385 for more.	**TOLL LEVEL** 1-7	1
Active Dial Pad	Use this option to enable or disable Active Dial Pad (continuous dialing) for trunk calls. • See *Toll Restriction* on page 385 for more.	**ACTIVE DIAL PAD?** Y = Enable N = Disable	Y
N11 Dialing	Use this option to enable or disable dial N11 services such as directory assistance (411) and repair (611). This option does not restrict 911 or 1 + 911 calls. These calls are always allowed. • See *Toll Restriction* on page 385 for more.	**N11 DIALING?** Y = Enable N = Disable	Y

Table 34: Program 0601 - Toll Restriction Options

Option	Description	Entries	Default
0 + Dialing	Use this option to enable or disable an extension's ability to manually dial 0 + (operator assisted) calls. • See *Toll Restriction* on page 385 for more.	**0 + DIALING?** Y = Enable N = Disable	Y
International Dialing	Use this option to enable or disable 011 (international) dialing. • See *Toll Restriction* on page 385 for more.	**INT'L DIAL?** Y = Enable N = Disable	Y
Equal Access Dialing	This option allows/prevents an extension user from directly dialing Equal Access (10XXX) calls. The system compares the 10XXX codes the user dials to the 10XXX table that you program. • See *Toll Restriction* on page 385 for more. • See *Toll Restriction Rules* on page 388 for more.	**10+XXX DIALING ALLOW OR DENY TABLE?** A = Allow Table D = Deny Table	A (Allow table)
	• Enter A to set the table up as an allow table, or D to set the table up as a deny table. • D to convert an existing allow table into a deny table, or enter A to convert an existing deny table into an allow table.	**ADD-A/VIEW-V/DEL-D** A = Add a code to the table D = Delete a code from the table V = View the table entries	N/A
NXX Dialing	This option allows/prevents an extension user from directly dialing NXX (local exchange) calls. The system compares the NXX codes the user dials to the NXX table that you program. • See *Toll Restriction* on page 385 for more. • See *Toll Restriction Rules* on page 388 for more.	**NXX DIALING ALLOW OR DENY TABLE?** A = Allow Table D = Deny Table	A (Allow table)
	• Enter A to set the table up as an allow table, or D to set the table up as a deny table. • D to convert an existing allow table into a deny table, or enter A to convert an existing deny table into an allow table.	**ADD-A/VIEW-V/DEL-D** A = Add a code to the table D = Delete a code from the table V = View the table entries	N/A

Table 34: Program 0601 - Toll Restriction Options

Option	Description	Entries	Default
NPA Dialing	This option allows/prevents an extension user from directly dialing NPA (area code) calls. The system compares the NPA codes the user dials to the NPA table that you program. • See *Toll Restriction* on page 385 for more. • See *Toll Restriction Rules* on page 388 for more.	**NPA DIALING ALLOW OR DENY TABLE?** A = Allow Table D = Deny Table	A (Allow table)
	• Enter A to set the table up as an allow table, or D to set the table up as a deny table. • D to convert an existing allow table into a deny table, or enter A to convert an existing deny table into an allow table.	**ADD-A/VIEW-V/DEL-D** A = Add a code to the table D = Delete a code from the table V = View the table entries	N/A
6-Digit Analysis	This option enables/disables 6-Digit Analysis. With 6-Digit Analysis, the system restricts a call according the NPA and NXX the user dials. The system compares the codes the user dials to the 6-Digital Analysis table that you program. • See *Toll Restriction* on page 385 for more. • See *Toll Restriction Rules* on page 388 for more.	**6 DGT ANALYSIS ALLOW OR DENY TABLE?** A = Allow Table D = Deny Table	A (Allow table)
	• Enter A to set the table up as an allow table, or D to set the table up as a deny table. • D to convert an existing allow table into a deny table, or enter A to convert an existing deny table into an allow table.	**ADD-A/VIEW-V/DEL-D** A = Add a code to the table D = Delete a code from the table V = View the table entries	N/A

Telephone Programming Instructions

To quickly locate the procedure for a Toll Restriction option, go to the steps listed below:
● To select the Toll Level you want to program, go to step 4.
● To enable or disable Active Dial Pad, go to step 5.
● If setting up N11 Dialing, go to step 6.
● When enabling or disabling 0+ Dialing, go to step 7.
● For International Dialing options, go to step 8.
● When programming Equal Access (10XXX) Dialing, go to step 9.
● If you want to configure NXX Dialing, go to step 12.
● To select the NPA Dialing options, go to step 15.
● To set up 6-Digit Analysis, go to 18.

0600 - Toll Restriction

0601 - Toll Restriction Options

1. Enter the programming mode.

2. 0601 + **HOLD**.

   > **0601:TOLL RESTRICT**
   > **PROG-P / INIT-I?**

3. Enter P (7) to program Toll Restriction and go to the next step.

   > **0601:TOLL RESTRICT**
   > **TOLL LEVEL?1**

   > OR

   Enter I (4) + **HOLD** to initialize Toll Restriction and return to the previous step.

   > **0601:TOLL RESTRICT**
   > **TABLES INITIALIZED!**

   > *You must always initialize Toll Restriction when programming it for the first time. If you initialize an existing Toll Restriction setup, you'll return all your programmed entries to their factory-installed initial values.*

Toll Level

4. Enter the Toll Level you want to program (1-7) + **HOLD**
   > OR

   Press **HOLD** to select the currently displayed Toll Level.

   > **0601:TOLL LEVEL:n**
   > **ACTIVE DIAL PAD?n**

   > *The options that follow pertain to the Toll Level selected.*

Active Dial Pad

5. Enter Y to enable or N to disable Active Dial Pad + **VOL ▲**.
   > OR

   Press **VOL ▲** to select the currently displayed value.

   > **0601:TOLL LEVEL:n**
   > **N11 DIALING?nnn**

   > *The previously programmed value displays.*

N11 Dialing

6. Enter Y to enable or N to disable N11 Dialing + **VOL ▲**.
   > OR

   Press **VOL ▲** to select the currently displayed value.

   > **0601:TOLL LEVEL:n**
   > **0 + DIALING?nnn**

   > *The previously programmed value displays*

0+ Dialing

7. Enter Y to enable or N to disable 0+ Dialing + **VOL ▲**.
   > OR

   Press **VOL ▲** to select the currently displayed value.

   > **0601:TOLL LEVEL:n**
   > **INT'L DIAL?nnn**

   > *The previously programmed value displays*

International Dialing

8. Enter Y to enable or N to disable International Dialing + **VOL ▲**.
    OR
    Press **VOL ▲** to select the currently displayed value.

    0601:10+XXX DIALING
    ALLOW OR DENY TABLE?

    > *The previously programmed table type displays (A = allow, D = deny).*

Equal Access (10XXX) Dialing

9. Enter A to set up the table as an allow table.
    OR
    Enter D to set up the table as a deny table.

    0601:10+XXX ALLW TBL
    ADD-A/VIEW-V/DEL-D?

    OR

    0601:10+XXX DENY TBL
    ADD-A/VIEW-V/DEL-D?

    > *Enter D to convert an existing allow table into a deny table, or enter A to convert an existing deny table into an allow table.*

10. Press A to add codes into the table.
    OR
    Press D to delete codes from the table.
    OR
    Press V to view the current contents of the table.

    > *If you press V to view the table, the bottom line of the display will show the first set of table entries. Press V to see the remaining entries. The prompt* **TABLE DONE** *tells you when you are at the end of the table or the table is empty. The prompt* **>** *tells you that there is additional data in the table to view.*
    >
    > *If you press A or D to add codes into the table, you see the prompt* **DATA**. *Just enter the codes you want into the table. When entering data, new data appears to the right of the previously entered data. (The system automatically assumes that every group of three digits is an entry.)*

11. When you are done entering data, press **VOL ▲** to go to the next option.

    0601:NXX DIALING
    ALLOW OR DENY TABLE?

    > *The previously programmed table type displays (A = allow, D = deny).*

NXX Dialing

12. Enter A to set up the table as an allow table.
    OR
    Enter D to set up the table as a deny table.

    0601:NXX ALLOW TABLE
    ADD-A/VIEW-V/DEL-D?

    OR

    0601:NXX DENY TABLE
    ADD-A/VIEW-V/DEL-D?

    > *Enter D to convert an existing allow table into a deny table, or enter A to convert an existing deny table into an allow table.*

13. Press A to add codes into the table.

OR

Press D to delete codes from the table.

OR

Press V to view the current contents of the table.

> *If you press V to view the table, the bottom line of the display will show the first set of table entries. Press V to see the remaining entries. The prompt* **TABLE DONE** *tells you when you are at the end of the table or the table is empty. The prompt* **>** *tells you that there is additional data in the table to view.*

> *If you press A or D to add codes into the table, you see the prompt* **DATA**. *Just enter the codes you want into the table. When entering data, new data appears to the right of the previously entered data. (The system automatically assumes that every group of three digits is an entry.)*

14. When you are done entering data, press **VOL ▲** to go to the next option.

> **0601:NPA DIALING**
> **ALLOW OR DENY TABLE?**

> *The previously programmed table type displays (A = allow, D = deny).*

NPA Dialing

15. Enter A to set up the table as an allow table.

OR

Enter D to set up the table as a deny table.

> **0601:NPA ALLOW TABLE**
> **ADD-A/VIEW-V/DEL-D?**

OR

> **0601:NPA DENY TABLE**
> **ADD-A/VIEW-V/DEL-D?**

> *Enter D to convert an existing allow table into a deny table, or enter A to convert an existing deny table into an allow table.*

16. Press A to add codes into the table.

OR

Press D to delete codes from the table.

OR

Press V to view the current contents of the table.

> *If you press V to view the table, the bottom line of the display will show the first set of table entries. Press V to see the remaining entries. The prompt* **TABLE DONE** *tells you when you are at the end of the table or the table is empty. The prompt* **>** *tells you that there is additional data in the table to view.*

> *If you press A or D to add codes into the table, you see the prompt* **DATA**. *Just enter the codes you want into the table. When entering data, new data appears to the right of the previously entered data. (The system automatically assumes that every group of three digits is an entry.)*

17. When you are done entering data, press **VOL ▲** to go to the next option.

> **0601:6 DGT ANALYSIS**
> **ALLOW OR DENY TABLE?**

> *The previously programmed table type displays (A = allow, D = deny).*

6-Digit Analysis

18. Enter A to set up the table as an allow table.

OR

Enter D to set up the table as a deny table.

0601:6 DGT ALLOW TBL
ADD-A/VIEW-V/DEL-D?

OR

0601:6 DGT ALLOW TBL
ADD-A/VIEW-V/DEL-D?

Enter D to convert an existing allow table into a deny table, or enter A to convert an existing deny table into an allow table.

19. Press A to add codes into the table.

OR

Press D to delete codes from the table.

OR

Press V to view the current contents of the table.

If you press V to view the table, the bottom line of the display will show the first set of table entries. Press V to see the remaining entries. The prompt **TABLE DONE** *tells you when you are at the end of the table or the table is empty. The prompt* **>** *tells you that there is additional data in the table to view.*

If you press A or D to add codes into the table, you see the prompt **DATA**. *Just enter the codes you want into the table. When entering data, new data appears to the right of the previously entered data. (The system automatically assumes that every group of six digits is an entry.)*

20. When you are done entering data, press **VOL ▲** to go back to the Active Dial Pad option for the currently selected Toll Level.

0601:TOLL LEVEL:n
ACTIVE DIAL PAD?nn

OR

Press CONF to go back to the Program/Initialize option.

0601:TOLL RESTRICT
PROG-P / INIT-I

OR

Press CONF twice to exit Toll Restriction programming.

0800 - Display Messages
0801 - Selectable Display Messages

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000

Available.

Use **Program 0801 - Selectable Display Messages** to program the system's 16 Selectable Display Messages. Each message can be up to 20 characters long, including a blank spaces you may want to ad for readability. All messages are appendable by user-entered digits.

When entering names, use *Table 19: Keys for Entering Names* on page 439. When creating a new user-appendable message, consider adding a space at the end of the text portion to improve readability. In the table, the X characters reserve space for user-entered digits.

● See *Selectable Display Messaging* on page 325 for more.

Conditions

None

Table 35: Program 0801 - Selectable Display Messages

Option	Default
Message 01	CALL (plus 15 user entries)
Message 02	BACK BY (plus 12 user entries)
Message 03	MEETING IN RM (plus 4 user entries)
Message 04	OUT TO LUNCH (plus 7 user entries)
Message 05	GONE FOR THE DAY (plus 3 user entries)
Message 06	ON VACATION (plus 8 user entries)
Message 07	ON BUSINESS TRIP (plus 3 user entries)
Message 08	IN THE MEETING (plus 7 user entries)
Message 09	OUT UNTIL (plus 10 user entries)
Message 10	GONE FOR THE DAY (plus 3 user entries)
Message 11	Undefined (up to 20 characters)
Message 12	Undefined (up to 20 characters)
Message 13	Undefined (up to 20 characters)
Message 14	Undefined (up to 20 characters)
Message 15	Undefined (up to 20 characters)
Message 16	Undefined (up to 20 characters)

Telephone Programming Instructions

1. Enter the programming mode.

2. 0801 + **HOLD**

   0801:DISPLAY MESSAGE
   MESSAGE NUM?

3. Enter the number of the message you want to program + HOLD.

   0801:DISPLAY MESSAGE
   (message text)

   The previously programmed message displays.

4. Enter the new display message + **HOLD**.
   OR
   Press **HOLD** to leave the current value unchanged.

   0801:DISPLAY MESSAGE
   MESSAGE NUM?

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	Enables the following options:
		• Caller ID
	DS1000	• Voice Mail Caller ID
		In DS1000, Trunks 4-6 require the Expansion Board.

Use **Program 1001 - Trunk Port Description** to program various options for trunks ports.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Also see *Program 1003 - Trunk Options* on page 509.

Conditions

Per FCC regulations, do not set *1001- Trunk Transmit Gain* on page 499 higher than 0 dB.

Table 36: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
Trunk Circuit Type	Use this option to set the trunk's circuit type. Set this option for compatibility with the connected telco or PBX. • See *Central Office Calls, Answering* on page 87 for more. • See *Central Office Calls, Placing* on page 93 for more. • See *Direct Inward Line* on page 118 for more. • See *Pulse to Tone Conversion* on page 309 for more.	**TYP?** 00 = Uninstalled 51 = Loop start DTMF 52 = Loop start DP	51
Trunk Extension Number	This option displays the trunk's extension number programmed in *0504 - Trunk Port Extension Numbers (Fixed Slot)* on page 476. This is for viewing only. You cannot edit this option from Program 1001.	**EXT:** (View only)	4nn (View only)
Trunk Name	Use this option to assign a name to the trunk port. • Refer to *Table 19: Keys for Entering Names* on page 439 when entering names. • See *Names for Extensions and Trunks* on page 263 for more.	**NAME:**	TRUNK nn

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Table 36: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
Trunk Transmit Gain	Use this option to set the trunk's transmit gain. This gain setting allows you to compensate for the transmit gain characteristics of the connected telco or PBX. The setting is applied to each line seizure. • See *Central Office Calls, Answering* on page 87 for more. • See *Central Office Calls, Placing* on page 93 for more. • • See *PBX/Centrex Compatibility* on page 291 for more.	**TRANSMIT GAIN?** 0 = 0 dB gain 1 = .5 dB gain 2 = 1 dB gain 3 = 1.5 dB gain 4 = 2 dB gain 5 = 2.5 dB gain 6 = 3 dB gain 7 = 3.5 dB gain 8 = 4 dB gain 9 = 4.5 dB gain 10 = 5 dB gain 11 = 5.5 dB gain 12 = 6 dB gain 13 = 6.5 dB gain 14 = 7 dB gain 15 = 7.5 dB gain 16 = 8 dB gain 17 = 8.5 dB gain 18 = 9 dB gain 19 = 9.5 dB gain 20 = 10 dB gain 21 = 10.5 dB gain 22 = 11 dB gain 23 = -11.5 dB gain 24 = 12 dB gain 25 = 12.5 dB gain 26 = 13 dB gain 27 = 13.5 dB gain 28 = 14 dB gain 29 = 14.5 dB gain 30 = 15 dB gain	0

Table 36: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
		TRANSMIT GAIN? (Cont'd) 31 = .5 dB loss 32 = 1 dB loss 33 = 1.5 dB loss 34 = 2 dB loss 35 = 2.5 dB loss 36 = 3 dB loss 37 = 3.5 dB loss 38 = 4 dB loss 39 = 4.5 dB loss 40 = 5 dB loss 41 = 5.5 dB loss 42 = 6 dB loss 43 = 6.5 dB loss 44 = 7 dB loss 45 = 7.5 dB loss 46 = 8 dB loss 47 = 8.5 dB loss 48 = 9 dB loss 49 = 9.5 dB loss 50 = 10 dB loss 51 = 10.5 dB loss 52 = 11 dB loss 53 = 11.5 dB loss 54 = 12 db loss 55 = 12.5 dB loss 56 = 13 dB loss 57 = 13.5 dB loss 58 = 14 dB loss 59 = 14.5 loss 60 = 15 dB loss	0

Table 36: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
Trunk Receive Gain	Use this option to set the trunk's receive gain. This gain setting allows you to compensate for the receive gain characteristics of the connected telco or PBX. The setting is applied to each line siezure. • See *Central Office Calls, Answering* on page 87 for more. • See *Central Office Calls, Placing* on page 93 for more. • See *PBX/Centrex Compatibility* on page 291 for more.	**RECEIVE GAIN?** 0 = 0 dB gain 1 = .5 dB gain 2 = 1 dB gain 3 = 1.5 dB gain 4 = 2 dB gain 5 = 2.5 dB gain 6 = 3 dB gain 7 = 3.5 dB gain 8 = 4 dB gain 9 = 4.5 dB gain 10 = 5 dB gain 11 = 5.5 dB gain 12 = 6 dB gain 13 = 6.5 dB gain 14 = 7 dB gain 15 = 7.5 dB gain 16 = 8 dB gain 17 = 8.5 dB gain 18 = 9 dB gain 19 = 9.5 dB gain 20 = 10 dB gain 21 = 10.5 dB gain 22 = 11 dB gain 23 = -11.5 dB gain 24 = 12 dB gain 25 = 12.5 dB gain 26 = 13 dB gain 27 = 13.5 dB gain 28 = 14 dB gain 29 = 14.5 dB gain 30 = 15 dB gain	0

Table 36: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
		RECEIVE GAIN? (Cont'd) 31 = .5 dB loss 32 = 1 dB loss 33 = 1.5 dB loss 34 = 2 dB loss 35 = 2.5 dB loss 36 = 3 dB loss 37 = 3.5 dB loss 38 = 4 dB loss 39 = 4.5 dB loss 40 = 5 dB loss 41 = 5.5 dB loss 42 = 6 dB loss 43 = 6.5 dB loss 44 = 7 dB loss 45 = 7.5 dB loss 46 = 8 dB loss 47 = 8.5 dB loss 48 = 9 dB loss 49 = 9.5 dB loss 50 = 10 dB loss 51 = 10.5 dB loss 52 = 11 dB loss 53 = 11.5 dB loss 54 = 12 db loss 55 = 12.5 dB loss 56 = 13 dB loss 57 = 13.5 dB loss 58 = 14 dB loss 59 = 14.5 loss 60 = 15 dB loss	0
Trunk Class of Service Assignment	Use this option to assign Class of Service (1-15) to trunks.	**CLASS OF SERVICE?** 1-15	1
PBX Line	Use this option to designate a trunk as a PBX line. Enable this option if the trunk connects to a PBX instead of the telco. • See *PBX/Centrex Compatibility* on page 291 for more.	**PBX LINE** Y = Enable N = Disable	N
Loop Length	Use this option to compensate for a trunk's loop length. Use the short option (1) only when the system is very close to the central office or behind a PBX. Use the long option (2) for normal installations. • See *Central Office Calls, Answering* on page 87 for more. • See *Central Office Calls, Placing* on page 93 for more.	**LOOP LENGTH** 1 = Short loop 2 = Long loop	2 (Long loop)

Table 36: Program 1001 - Trunk Port Description

Option	Description	Entries	Default
Trunk Toll Restriction Level	Use this option to set the Toll Level of the trunk during the day mode. If this Toll Level is higher than the extension's Toll Level, it may cause additional dialing restrictions. If it is lower, it will have no effect. • See *Toll Restriction* on page 385 for more.	**TOLL LEVEL?** 0-7	0
Override Extension Toll Restriction	Use this option to "release" the Toll Restriction on a trunk. If enabled, any user can dial any number on the trunk without restriction. • See *Toll Restriction* on page 385 for more.	**OVRD EXT TL LVL?** Y = Toll Restriction overridden N = Toll Restriction not overridden	No
Print SMDR	Use this option to have the SMDR report include or exclude the trunk. • See *Station Message Detail Recording* on page 348 for more.	**PRINT SMDR?** Y = Yes (include in SMDR report) N = No (exclude from SMDR report)	Yes
Caller ID	Use this option to enable or disable Caller ID for each trunk. This option enables or disables Caller ID for each trunk. If enabled, Caller ID will occur if also enabled by the other Caller ID programmable options. • To enable Caller ID in DS2000, enter 2 (for daughter board). • To enable Caller ID in DS1000, enter 1 (for DSP). • If disabled (by entering 0), Caller ID will never occur. • See *Caller ID* on page 81 for more.	**CALLER ID?** <u>DS2000 Prior to 02.00.06</u> Y = Yes (Caller ID allowed) N = No (Caller ID prevented) <u>DS2000 2.00.06 or higher and DS1000</u> 0 = CLID disabled 1 = DSP (CLID enabled for DS1000) 2 = Daughter Board (CLID enabled for DS2000)	No
Voice Mail Caller ID	Use this option to enable or disable the capability of the telephone system to send Caller ID data to Voice Mail. • See *Caller ID* on page 81 for more.	**VOICE MAIL CLID?** Y = Yes (Trunk sends Caller ID to Voice Mail) N = No (Trunk does not send Caller ID to Voice Mail)	Yes

Telephone Programming Instructions

1. Enter the programming mode.

2. 1001 + **HOLD**

   > **1001:TRK DESCRIPTION**
   > **TRUNK PORT?**

3. Enter the number of the trunk you want to program (1-48 in DS2000, 1-6 in DS1000) + **HOLD**.

   > **1001:TRUNK PORT?:n**

TYPE?n

The previously programmed value displays.

4.   Enter the new trunk circuit type + **VOL ▲**.

OR

Press **VOL ▲** to leave the current circuit type unchanged.

> **To scroll through the available entries instead of entering a code in this step:**
> 1. Press **ICM** (your **ICM** key flashes fast).
> 2. Press **VOL ▲** OR **VOL ▼** until the entry you want displays.
> 3. Press **HOLD** to assign the displayed entry to the key.
>   *You automatically advance to the next prompt.*

1001: TRUNK PORT?:n
EXT:nnn

The extension number programmed in 0504 - Trunk Port Extension Numbers (Fixed Slot) on page 476displays. You cannot edit this option.

5.   Press **VOL ▲**.

1001: TRUNK PORT?:n
NAME:nnnnnn

Enter the trunk name. Refer to Programming Names and Text Messages on page 439 if you need help with entering names.

6.   Press **VOL ▲**.

1001: TRUNK PORT?:n
TRANSMIT GAIN?

7.   Enter the new transmit gain + **VOL ▲**.

OR

Press **VOL ▲** to leave the transmit gain unchanged

1001: TRUNK PORT?:n
RECEIVE GAIN?

8.   Enter the new receive gain + **VOL ▲**.

OR

Press **VOL ▲** to leave the current receive gain unchanged

1001: TRUNK PORT?:n
CLASS OF SERVICE?

9.   Enter the new Class of Service for the trunk + **VOL ▲**.

OR

Press **VOL ▲** to leave the current Class of Service unchanged

1001: TRUNK PORT?:n
PBX LINE?

10.   Enter Y ro assign or N to unassign the line as a PBX line + **VOL ▲**.

OR

Press **VOL ▲** to leave the current assignment unchanged

1001: TRUNK PORT?:n
LOOP LENGTH?

11.   Enter 1 for shor loop or 2 for long loop (the normal setting) + **VOL ▲**.

OR

Press **VOL** ▲ to leave the current assignment unchanged

**1001: TRUNK PORT?:n
TOLL LEVEL?**

12. Enter the new Toll Level for the trunk (1-7) + **HOLD**.
    OR

Press **VOL** ▲ to leave the current Toll Level unchanged

**1001: TRUNK PORT?:n
OVRD EXT TL LVL?**

Press **VOL** ▲ to leave the current assignment unchanged.

13. Enter Y + **VOL** ▲ to override (release) Toll Restriction for the trunk.
    OR

Enter N + **VOL** ▲ to enforce the extension's Toll Restriction.
    OR

Press **VOL** ▲ to leave the current assignment unchanged.

**1001: TRUNK PORT?:n
PRINT SMDR?**

14. Enter Y + **VOL** ▲ to have calls on the trunk included on the SMDR report.
    OR

Enter N + **VOL** ▲ to have the calls excluded from the SMDR report.
    OR

Press **VOL** ▲ to leave the current assignment unchanged.

**1001: TRUNK PORT?:n
TYPE?nnnnnnnn**

15. Enter new circuit type data for the selected trunk.
    OR

Press **CONF** to select another trunk.
    OR

Press **CONF** twice to exit the program.

Description

DS2000 Fixed Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup.
DS2000 U Slot	Available. • See *Default Setting* below for specifics on the initial trunk setup. • In 02.01.07 and higher, *dial 9 is disabled* by default. • Version 02.01.07 and higher provide additional data entry options.
DS1000	Available. • See *Default Setting* below for specifics on the initial trunk setup. • In 02.00.09 and higher, *dial 9 is enabled* be default. • Version 02.01.07 and higher provide additional data entry options.

Use **Program 1002 - Trunk Groups** to assign trunks (1-48 in DS2000, 1-6 in DS1000) to trunk groups (0-8). This program also lets you assign the priority of trunks within each group. When a user seizes a trunk group, the system selects the lowest order trunk in the group first. If the lowest order trunk is busy or out of service, the system searches sequentially by order number (e.g., from order 01 to order 02) for the first available trunk.

When entering data, software version 02.01.07 and higher provide the following additional entry options. These options make it easier to enter data and help prevent inadvertent entry errors.

Pressing HOLD validates and registers entries.

When you are done entering data for a Trunk Group, you must press **HOLD**. When you press **HOLD**:

● The system compares the Trunk Group you just programmed against all other Trunk Groups. If a trunk exists in more than one group, the system retains it in the last Trunk Group you programmed and deletes it from all other groups. For example, if group 1 has trunks **1 2 3 4**, and you program group 2 with trunks **4 5 6**, the system will automatically change group 1 to trunks **1 2 3**.

● The system checks the Trunk Group you just programmed for duplicate entries. If you have entered a trunk more than once into the group, the system retains the first entry you made. It discards all other duplicate entries. For example, if you enter trunks **1 2 3 1 4**, the system stores **1 2 3 4**. You'll see "**DUPLICATE TRK ERASED**" if the system deletes any duplicate entries.

Pressing CONF cancels program entry.

● While programming a Trunk Group, press **CONF** to exit the group and return to the **TRUNK GROUP** prompt. Any changes you made to the group before pressing **CONF** are not saved.

Pressing CHECK restores previous entries.

● While programming a Trunk Group, press **CHECK** to restore the group to its previously saved data and return to the **ORDR n: TRK NUM** prompt. You might want to do this if you lose track of what you are programming in a group and want to start over.

Pressing CLEAR deletes entries.

● While programming a Trunk Group, press **CLEAR** to erase the entries from the current position to the end of the group. For example, in the default program if you press **CLEAR** at the **ORDER 2:TRK NUM?5** prompt, you'll only retain the **ORDER 1:TRK NUM?6** entry. All other entries for the group are erased.

In DS2000, trunks must be on installed PCBs.

● You can only enter a trunk into a Trunk Group it the PCB for that trunk has been properly installed in **9902 - Slot Assignment**.

● In addition, if you program a trunk into a group and later on use **9902 - Slot Assignment** to remove that trunk's PCB, the system automatically removes the trunk from the group.

Conditions

None

Table 37: Program 1002 - Trunk Groups

Option	Description	Entries	Default
Trunk Group	• Use this option to select the trunk group you want to program. A trunk can only be in one group.See *Loop Keys* on page 242 for more. • See *Trunk Group Routing* on page 398 for more. • See *Trunk Groups* on page 405 for more.	**TRUNK GROUP?** 0-8	<u>Fixed Slot</u> Trunks 1-8 are not assigned to a trunk group. Trunks 9-16 are in group 1. <u>U Slot Prior to 02.01.07</u> Trunks 1-8 are in group 0. <u>U Slot 02.01.07 or Higher</u> Trunks are not assigned to a group. <u>DS1000 Prior to 02.00.09</u> Trunks are not assigned to a group. <u>DS561000 02.00.09 or Higher</u> Trunks 1-6 are in group 0.
Order Number	Use this option to set the priority of the trunk within the group. When a user seizes a trunk group, the system selects the lowest priority trunk within the group first. • See *Trunk Groups* on page 405 for more.	**ORDER nn:** **TRK NUM?nn**	<u>Fixed Slot</u> The trunk's order is the same as its port number (e.g., 1=1, 2=2). <u>U Slot</u> Order 1=Trk 8 Order 2=Trk 7 Order 3=Trk 6 Order 4=Trk 5 Order 5=Trk 4 Order 6=Trk 3 Order 7=Trk 2 Order 8=Trk 1 <u>DS1000</u> Order 1=Trk 6 Order 2=Trk 5 Order 3=Trk 4 Order 4=Trk 3 Order 5=Trk 2 Order 6=Trk 1

Telephone Programming Instructions

1. Enter the programming mode.

2. 1002 + **HOLD**

    > **1002: TRUNK GROUPS**
    > **TRUNK GROUP?**

3. Select the trunk group you want to program + **HOLD**.

    > **1002: TRUNK GROUP nn**
    > **ORDER 01: TRK NUM?nn**

    The trunk currently assigned to order 01 displays.

4. Enter the trunk you want to assign to order 01 + **VOL ▲**.
    OR
    Press **VOL ▲** to leave the current assignment unchanged and advance to the next entry.

    > **1002:TRUNK GROUP nn**
    > **ORDER 02: TRK NUM?nn**

5. When you are done entering data for the group, press **HOLD**

6. Return to step 2 and select another trunk group to program.
    OR
    Press **CONF** to exit the program.

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	
	DS1000	Available. Trunks 4-6 require the Expansion Board.

Use **Program 1003 - Trunk Options** to program various options for trunks.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Also see *Program 1001 - Trunk Port Description* on page 498.

Conditions

None

Table 38: Program 1003 - Trunk Options (Part 2)

Option	Description	Entries	Default
Call Pickup Group	Use this option to have an incoming call on the trunk ring all the extensions in the assigned pickup group. • See *Group Call Pickup* on page 177 for more.	**PICK-UP GROUP?** 1-8 0 = Unassigned	0
Direct Termination (Day)	If the trunk is a Direct Inward Line, use this option to set the day termination (answering point). The DIL rings the answering point directly. This option has no effect on other types of trunks. • See *Direct Inward Line* on page 118 for more. • See *Key Ring* on page 232 for more.	**DAY TERMINATION?** Extension (300-395 in DS2000 or 300-325 in DS1000), UCD master number, Voice Mail master number, Ring Group master number or Key Ring (by pressing CLEAR)	Key Ring
Activate Overflow During the Day	Use this option to enable or disable overflow during the day mode. • See *Direct Inward Line* on page 118 for more. • See *Key Ring* on page 232 for more.	**DAY OVERFLOW?** Y = Day overflow enabled N = Day overflow disabled	N
Day Overflow Destination	Use this option to set the overflow destination for day mode calls (including DILs). • See *Direct Inward Line* on page 118 for more. • See *Key Ring* on page 232 for more.	**DAY OVRFLW DEST?** Extension (300-395 in DS2000 or 300-325 in DS1000), UCD master number, Voice Mail master number, Ring Group master number or Key Ring (by pressing CLEAR)	300

Table 38: Program 1003 - Trunk Options (Part 2)

Option	Description	Entries	Default
Direct Termination (Night)	If the trunk is a Direct Inward Line, use this option to set the night termination (answering point). The DIL rings the answering point directly at night. This option has no effect on other types of trunks. • See *Direct Inward Line* on page 118 for more. • See *Key Ring* on page 232 for more.	**NT TERMINATION?** Extension (300-395 in DS2000 or 300-325 in DS1000), UCD master number, Voice Mail master number, Ring Group master number or Key Ring (by pressing CLEAR)	Key Ring
Activate Overflow at Night	Use this option the enable or disable Night Ring (Universal Night Answer). If enabled, the trunk will activate UNA if it rings while the system is in the night mode. • See *Direct Inward Line* on page 118 for more. • See *Key Ring* on page 232 for more. • See *Night Service / Night Ring* on page 265 for more.	**NIGHT OVERFLOW?** Y = Night overflow enabled N = Night overflow disabled	N
Night Overflow Destination	Use this option to set the overflow destination for Night Mode calls. • See *Direct Inward Line* on page 118 for more. • See *Key Ring* on page 232 for more. • See *Night Service / Night Ring* on page 265 for more.	**NT OVRFLW DEST?** Extension (300-395 in DS2000 or 300-325 in DS1000), UCD master number, Voice Mail master number, Ring Group master number or Key Ring (by pressing CLEAR)	300
Distinctive Ring	• Use this option to set the Distinctive Ring tone for the trunk. Extension users can adjust the ring frequency of tones 1-6. Tones 7 and 8 are fixed.	**DISTINCTIVE RING?** 1-8	1
MOH Source	Use this option to assign the Music on Hold music source. • See *Music on Hold* on page 260 for more.	**MOH SOURCE?** 0 = None 1 = External (CPU terminals) 2 = Tone 1 (low pitch) 3 = Tone 2 (high pitch) 4 = ACI port (currently not used)	1
Tandem Trunk	Use this option to enable or disable a trunk's ability to be included in an Unsupervised Conference. • See *Tandem Trunking / Unsupervised Conference* on page 379 for more.	**TANDEM TRUNK?** Y = Unsupervised Conference enabled N = Unsupervised Conference disabled	N

Telephone Programming Instructions

1. Enter the programming mode.

2. 1003 + **HOLD**

    1003: TRUNK OPTION
    TRUNK PORT?

    > *Press* **CONF** *at any time to back up to the previous entry. This automatically saves your data entry,*

3. Select the trunk port you want to program + **HOLD**.

    1003: TRUNK OPTION
    PICK-UP GROUP?nn

    > *The previously programmed Pickup Group displays.*

4. Enter the number of the Pickup Group to which the trunk should belong (1-8, 0 for unassigned) + **HOLD**.
    > OR

    Press **VOL** ▲ to leave the current assignment unchanged and advance to the next entry.

    1003: TRUNK OPTION
    DAY TERM?nnn

    > *The previously programmed assignment displays.*

5. Enter the day mode termination for the trunk + **HOLD**.
    > OR

    Press **VOL** ▲ to leave the current assignment unchanged and advance to the next entry.

    1003: TRUNK OPTION
    DAY OVERFLOW?n

    > *The previously programmed assignment displays.*

6. Enter Y to enable or N to disable day mode ringing for the trunk + **HOLD**.
    > OR

    Press **VOL** ▲ to leave the current assignment unchanged and advance to the next entry.

    1003: TRUNK OPTION
    DAY OVRFLW DEST?nnn

    > *The previously programmed assignment displays.*

7. Enter the day mode overflow destination + **HOLD**.
    > OR

    Press **VOL** ▲ to leave the current assignment unchanged and advance to the next entry.

    1003: TRUNK OPTION
    NIGHT TERM?nnn

    > *The previously programmed assignment displays.*

8. Enter the night mode termination for the trunk + **HOLD**.
    > OR

    Press **VOL** ▲ to leave the current assignment unchanged and advance to the next entry.

    1003: TRUNK OPTION
    NIGHT OVERFLOW?n

    > *The previously programmed assignment displays.*

9. Enter Y to enable or N to disable night mode ringing for the trunk + **HOLD**.
    > OR

    Press **VOL** ▲ to leave the current assignment unchanged and advance to the next entry.

    1003: TRUNK OPTION
    NT OVRFLW DEST?nnn

    > *The previously programmed assignment displays.*

10. Enter the night mode overflow destination + **HOLD**.

OR

Press **VOL ▲** to leave the current assignment unchanged and advance to the next entry.

1003:TRUNK OPTION
DISTINCTIVE RING?

The previously programmed assignment displays.

11. Enter the Distinctive Ringing tone for the trunk (1-8) + **HOLD**.

OR

Press **VOL ▲** to leave the current assignment unchanged and advance to the next entry.

1003:TRUNK OPTION
MOH SOURCE?nnn

The previously programmed assignment displays.

12. Enter the MOH source for the trunk (0 = No MOH, 1 = External at CPU terminals, 2 = Tone 1 [low pitch], 3 = Tone 2 [high pitch], 4 = ACI port [currently not used]) + **HOLD**.

OR

Press **VOL ▲** to leave the current assignment unchanged and advance to the next entry.

1003:TRUNK OPTION
TANDEM TRUNK?n

The previously programmed assignment displays.

13. Enter Y to enable or N to disable Tandem Trunking capability for the trunk + **HOLD**.

OR

Press **VOL ▲** to leave the current assignment unchanged and advance to the next entry.

OR

Press **CONF** to return to step 3 and program another trunk.

OR

Press **CONF** twice to exit this program.

Description

DS2000 Fixed Slot
DS2000 U Slot
DS1000 ║ Available.

Use **Program 1101 - System Speed Dial Numbers** to enter numbers and names into the System Speed Dial bins. The system has up to 1000 Speed Dial bins, depending on the setting of *Program 0301 - Number of Digits in a System Speed Dial Code* on page 450.

When *Number of Digits in a System Speed Dial Code* is:	System Speed Dial bin numbers are:	And the total number of System Speed Dial bins is:
2	20-29	10
3	200-299	100
4	2000-2999	1000

Speed Dial numbers can be up to x?x? digits long, use 0-9, # and *. In addition, you can enter the following for additional dialing options:

For this option		Or use this telephone programming option:
Pause		MIC
Flash		FLASH

Conditions

None

Table 39: Program 1101 - System Speed Dial Numbers

Option	Description	Entries	Default
System Speed Dial Bin	Use this option to select the System Speed Dial bin you want to program. • See *Speed Dial* on page 332 for more.	**BIN?** 1-10 1-100 1-1000	Not assigned
Line/Group/ICM	Use this option to choose the route System Speed Dial normally selects for the bin you are programming. When selecting a route for the bin, you can press ICM (for Intercom Speed Dial), select a trunk (e.g., 1 for trunk 1), or choose 90-98 for Trunk Groups 0-8. • See *Speed Dial* on page 332 for more.	**LINE/GRP/ICM** ICM (Intercom), 1-48 (for trunks 1-48 in DS2000), 1-6 (for trunks 1-6 in DS1000), 90-98 (for Trunk Groups 0-8)	1

1100 - Speed Dial

1101 - System Speed Dial Numbers

Table 39: Program 1101 - System Speed Dial Numbers

Option	Description	Entries	Default
System Speed Dial Number	For the bin selected above, use this option to enter the System Speed Dial number. The number can be up to x?x? digits long, using 0-9, # and *. You can also enter special characters (see the table above). Special characters count as a single digit. • See *Speed Dial* on page 332 for more.	**NUM?** 0-9, #, *, MIC (Pause), DND (Dial Tone Detect), FLASH (Flash) or DIAL (Delay)	Not assigned
System Speed Dial Name	Use this option to enter the name for the System Speed Dial bin (up to 16 characters). • See *Speed Dial* on page 332 for more. • When entering names, see *Programming Names and Text Messages* on page 439.	**NA?** Not assigned	Not assigned

Telephone Programming Instructions

1. Enter the programming mode.
2. 1101 + **HOLD**

    > **1101: SYSTEM SPD DIAL**
    > **BIN?nnn**

    The previously programmed bin displays.
3. Press **VOL ▲** to select the System Speed Dial bin you want to program (20-29, 200-299 or 2000-2999) + **HOLD**.
        OR
    Press **HOLD to** program the currently selected bin.

    > **1101:SPDL BIN:nnn**
    > **LINE/GRP/ICM:nnn**

4. Enter the trunk number (1-48 in DS2000, 1-6 in DS1000) you want the system to use when dialing the stored number + **HOLD**.
        OR
    Enter the Trunk Group number (90-98 for Trunk Groups 0-8) you want the system to use when dialing the stored number + **HOLD**.
        OR
    Press **ICM** + **HOLD** if you want to enter Intercom codes.

    > **1101:SPDL BIN:nnn**
    > **NUM?**

    The System Speed Dial number previously programmed for this selected bin displays.
5. Enter the System Speed Dial number for the selected bin + **HOLD**.
        OR
    Press **HOLD** to leave the current assignment unchanged and advance to the next entry.

    > **1101:SPDL BIN:nnn**
    > **NA?**

6. Enter the name for the selected System Speed Dial bin + **HOLD** + Go back to step 3.
        OR
    Press **HOLD** to leave the current assignment unchanged + Go back to step 3.

Description

DS2000 Fixed Slot	Not available.
DS2000 U Slot	Requires software version 02.01.07 or higher. The Verified Account Codes table can contain up to 1000 entries.
DS1000	Requires software version 02.01.07 or higher. The Verified Account Codes table can contain up to 500 entries.

Use **Program 1201 - Verified Account Codes Table** to enter codes into the Verified Account Codes table. When **Program 0101: Verify Account Codes** (page 443) is enabled, the system compares the Account Code the user dials to the entry in this table. If the entries match, the system allows the call (provided it is not prevented by an extension's Toll Restriction). If there is no match, the system denies the call. In DS2000, the Verified Account Codes table can contain up to 1000 entries. In DS1000, the Verified Account Codes table can contain up to 500 entries.

A verified Account Code can be from 2 to 10 digits long, using the digits 0-9. You can use the * character as a wild card, which can be entered in any position in the Verified Account Code. A wild card allows the user to dial any digit in that position. For example, the entry 11*1 represents entries 1101, 1111, 1121, etc.

Use the following keys when entering data in the Verified Account Codes Table.

Table 40: Entering Verified Account Code Table Data

Use this key:	When you want to:
Key 0-9	Make table entries
*	Enter a wild card (representing any digit 0-9)
LND	Backspace (erase previous entry)
CLEAR	Erase the entire entry
Volume Up	Go to the next table entry
Volume Down	Go to the previous table entry.

Conditions

Do not enter 911 or 1911 into the Verified Account Codes Table. When a user presses a line key and dials either 911 or 1911, the system immediately bypasses all Toll Restriction and Account Code programming and routes the call.

1200 - Verified Account Codes

1201 - Verified Account Codes Table

Telephone Programming Instructions

1. Enter the programming mode.
2. 1201 + **HOLD**

   1201: VERIFIED AC CD
   ENTRY?(1-1000)n

3. Enter the number of the table entry you want to program (e.g., 100) + **HOLD**.

   OR

   Press **VOL ▲** to select the table entry you want to program + **HOLD**.

   OR

   Press **HOLD** to program the currently selected table entry.

   1201: VERIFIED AC CD
   nnn: nnn

   The previously programmed table entry displays.

4. Enter the Verified Account Code for the table entry selected + **HOLD**.

   A verified Account Code can be from 2 to 10 digits long, using the digits 0-9.
   *You can use the * character as a wild card, which can be entered in any position in the Verified Account Code. A wild card allows the user to dial any digit in that position. For example, the entry 11*1 represents entries 1101, 1111, 1121, etc.*

5. Go back to step 3 and select another table entry to program.

   OR

   Press **CONF** to exit Program 1201.

Description

DS2000 Fixed Slot	Available - unique defaults.
DS2000 U Slot	Available - unique defaults. • ***In 02.01.07 and higher, all Programmable Function Keys are undefined for extensions above 315.***
DS1000	Available - unique defaults.

Use **Program 1701 - Programmable Function Key Assignments** to assign the programmable keys on a keyset. The defaults are as follows:

● Fixed Slot Software:
- Keys 1-8 are line keys for trunks 1-8.
- Keys 9 and 10 are fixed loop keys.
- Key 11 is an auto timer key.
- Key 12 is an All Call Page key.
For attendants (extension 300 by default)
- Key 11 is a Night Key
- Key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key.

● U Slot and DS1000 Software:
- In U Slot, keys 1-12 are line keys for trunks 1-12 and keys 13-24 are undefined.
- *In U Slot version 02.01.07 or higher, keys are undefined for all extensions above 315.*
- In DS1000, keys 1-6 are line keys for trunks 1-6 and keys 7-24 are undefined.
For attendants (extension 300 by default)
- Key 11 is a Night Key.
- Key 12 (on 22-button) or key 24 (on 34-button) is an Operator Call Key.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions

None

Table 41: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Undefined	Use this option to designate a key as undefined (no function). • See *Programmable Function Keys* on page 304 for more.	**00**	**UNDEFINED**
Switched Loop Key	Use this option to assign a programmable key as a switched loop key. • See *Loop Keys* on page 242 for more. • See *Programmable Function Keys* on page 304 for more.	**01**	**SWITCH LOOP** (01)
Fixed Loop Key	Use this option to assign a programmable key as a Fixed Loop Key. • See *Loop Keys* on page 242 for more. • See *Programmable Function Keys* on page 304 for more.	**02 + nn (trunk group)**	**FIXED LOOP GRP** 00-08 = Trunk Groups 0-8

Table 41: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Line Key	Use this option to assign a programmable key as a line key. • See *Central Office Calls, Answering* on page 87 for more. • See *Central Office Calls, Placing* on page 93 for more. • See *Line Keys* on page 238 for more. • See *Private Line* on page 300 for more. • See *Programmable Function Keys* on page 304 for more.	**03 + nn (trunk number)**	**LINE** 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000
Park Orbit Key	Use this option to assign a programmable key as a Park Orbit key. • See *Park* on page 287 for more. • See *Programmable Function Keys* on page 304 for more.	**04 + nn (Park Orbit 60-69)**	**PARK ORBIT?n** 60-69 = System Park Orbits 60-69
Hotline Key	Use this option to assign a programmable key as a Hotline key. • See *Hotline* on page 202 for more. • See *Programmable Function Keys* on page 304 for more. An extension can also have a Hotline key for a trunk (e.g., 401). However, this capability requires that Direct Trunk Access be enabled. See *Direct Trunk Access* on page 139 for more.	**05 + nnn (extension number)**	**HOTLINEnnn** Hotline partner's extension number (300-395 in DS2000 or 300-325 in DS1000)
Call Coverage Immediate Ring	Use this option to assign a programmable key as an immediately ringing Call Coverage Key. • See *Call Coverage Keys* on page 61 for more. • See *Programmable Function Keys* on page 304 for more.	**06 + nnn (extension number)**	**CALL CVR RING** Covered extension number, Ring Group master number, or UCD Group master number
Call Coverage No Ring	Use this option to assign a programmable key as a lamp only (no ring) Call Coverage Key. • See *Call Coverage Keys* on page 61 for more. • See *Programmable Function Keys* on page 304 for more.	**07 + nnn (extension number)**	**CALL CVR NO RING** Covered extension number, Ring Group master number, or UCD Group master number
Call Coverage Delay Ring	Use this option to assign a programmable key as a delayed ring Call Coverage Key. • See *Call Coverage Keys* on page 61 for more. • See *Programmable Function Keys* on page 304 for more.	**08 + nnn (extension number)**	**CALL CVR DELAY** Covered extension number, Ring Group master number, or UCD Group master number

Table 41: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Group Pickup Immediate Ring	Use this option to assign a programmable key as an immediate ring Group Call Pickup key. • See *Group Call Pickup* on page 177 for more. • See *Programmable Function Keys* on page 304 for more.	**09 + nn (Pickup Group 01-08)**	**GRP PCKUP RING** 01-08 = pickup groups 1-8
Group Pickup No Ring	Use this option to assign a programmable key as a lamp only (no ring) Group Call Pickup key. • See *Group Call Pickup* on page 177 for more. • See *Programmable Function Keys* on page 304 for more.	**10 + nn (Pickup Group 01-08)**	**GRP PCKUP NO RING** 01-08 = pickup groups 1-8
Group Pickup Delay Ring	Use this option to assign a programmable key as a delay ring Group Call Pickup key. • See *Group Call Pickup* on page 177 for more. • See *Programmable Function Keys* on page 304 for more.	**11 + nn (Pickup Group 01-08)**	**GRP PCKUP DELAY** 01-08 = pickup groups 1-8
Page Zone Key	Use this option to assign a programmable key as a Page Zone key. • See *Paging* on page 281 for more. • See *Programmable Function Keys* on page 304 for more.	**13 + n (Page Zone 1-7, 0 for All Call)**	**PAGE ZONE** 0-7 (Page Zones 1-7 or 0 for All Call Page)
System Speed Dial Key	Use this option to assign a programmable key as a System Speed Dial key. You assign the key to specific System Speed Dial bin. • See *Programmable Function Keys* on page 304 for more. • See *Speed Dial* on page 332 for more.	**14 + nnn (System Speed Dial bin normally 200-299)**	**SYS SPDL BIN**
Personal Speed Dial Key	Use this option to assign a programmable key as a Personal Speed Dial key. You assign the key to a specific Personal Speed Dial bin. • See *Programmable Function Keys* on page 304 for more. • See *Speed Dial* on page 332 for more.	**15 + nnn (701-720)**	**PERS SPDL BIN**
Call Timer Key	Use this option to assign a programmable key as a Call Timer key. There are two types of timer key: manual and automatic. • See *Call Timer* on page 71 for more. • See *Programmable Function Keys* on page 304 for more.	**16 + n (1 = Manual Call Timer, 2 = Automatic Call Timer)**	**CALL TIMER**
Voice Mail Record Key	Use this option to assign a programmable key as a Voice Mail Record key. • See *Programmable Function Keys* on page 304 for more. • See *Voice Mail* on page 414 for more.	**17**	**RECORD**

Table 41: Program 1701 - Programmable Function Key Assignments

Option	Description	Key Code	Entry
Night Key	Use this option to assign a programmable key as a Night Key. • See *Night Service / Night Ring* on page 265 for more. • See *Programmable Function Keys* on page 304 for more.	**18 + CLEAR** (to control the system's night mode) **18 + Master Number** (to control the night mode of a DIL terminated to the master number)	**SYS MODE**
Data Key	• This option is currently not used.	**19 + nnn (extension number)**	**DATA**
Split Key	Use this option to assign a programmable key as a Split key. • See *Programmable Function Keys* on page 304 for more. • See *Split (Alternate)* on page 343 for more.	**20**	**SPLIT**
ICM Directory Key	Use this option to assign a programmable key as an Intercom Directory Dialing key. • See *Directory Dialing* on page 143 for more. • See *Programmable Function Keys* on page 304 for more.	**21**	**ICM DIR**
ACD Log On Key	• This option is currently not used.	**22**	**ACD LOG**
Reverse Voice Over Key	Use this option to assign a programmable key as a Reverse Voice Over key. • See *Programmable Function Keys* on page 304 for more. • See *Reverse Voice Over* on page 313 for more.	**23 + nnn (extension number)**	**REV VOICE OVER**
Message Center Key	Use this option to assign a programmable key as a Message Center key. • See *Programmable Function Keys* on page 304 for more. • See *Voice Mail* on page 414 for more.	**24 + nnn (extension number)** Note that the extension number does not have to be an installed extension.	**MESSAGE CTR** 300-395 (extension numbers 300-395)
Save Key	Use this option to assign a programmable key as a Save Number Dialed key. • See *Programmable Function Keys* on page 304 for more. • See *Save Number Dialed* on page 322 for more.	**25**	**SAVE**
Account Code Key	Use this option to assign a programmable key as an Account Code key. • See *Account Codes* on page 34 for more. • See *Programmable Function Keys* on page 304 for more.	**26**	**ACCT CODE**

Telephone Programming Instructions

1. Enter the programming mode.

2. 1701 + **HOLD**

   > **1701:KEY PROGRAMMING**
   > **STATION #?**

3. Enter the number of the extension you want to program + **HOLD**

   OR

   Press **HOLD** to select the currently displayed extension.

   > **1701:STA:nnn**
   > **KEY NUMBER 1?**

4. Enter the number of the key you want to program + **HOLD**.

   OR

   Press **VOL ▲** or **VOL ▼** + **HOLD** to select another key to program.

   OR

   Press **HOLD** to select the currently displayed key.

   > **1701:STA:nnn   KEY:n**
   > **nnnnnnnnn n?**

   The previously programmed key definition displays.

5. Enter key code and options as required + **VOL ▲**.

   OR

   Press **VOL ▲** to leave the current assignment unchanged

   OR

   Press ICM + **VOL ▲** to scroll.

   > **To scroll through the available entries instead of entering a code in this step:**
   > 1. Press **ICM** (your **ICM** key flashes fast).
   > 2. Press **VOL ▲** OR **VOL ▼** until the entry you want displays.
   > 3. Press **HOLD** to assign the displayed entry to the key.
   >   *You automatically advance to the next consecutive key.*

6. Enter data for another key.

   OR

   Press **CONF** to return to step 4 and select another key to program.

   OR

   Press **CONF** twice to return to step 3 and select another extension to program.

   OR

   Press **CONF** three times to exit the program.

Description

DS2000 Fixed Slot	
DS2000 U Slot	Available.
DS1000	

Use **Program 1702 - Personal Speed Dial** to program an extension's Personal Speed Dial bins (1-20). Extension users can also program their Personal Speed Dial bins from their own telephone.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Personal Speed Dial numbers can be up to x?x? digits long, use 0-9, # and *. In addition, you can enter the following for additional dialing options:

For this option		Or use this telephone programming option:
Pause		MIC
Flash		FLASH

Conditions

None

Table 42: Program 1702 - Personal Speed Dial

Option	Description	Entries	Default
Personal Speed Dial Bin	Use this option to select the Personal Speed Dial bin you want to program. • See *Speed Dial* on page 332 for more.	**BIN?** 0-19	Not assigned
Personal Speed Dial Number	For the bin selected above, use this option to enter the Personal Speed Dial number. The number can be up to x?x? digits long, using 0-9, # and *. You can also enter special characters (see the table above). Special characters count as a single digit. • See *Speed Dial* on page 332 for more.	**NUM?** Not assigned	Not assigned
Personal Speed Dial Name	Use this option to enter the name for the Personal Speed Dial bin (up to 16 characters). • See *Speed Dial* on page 332 for more. • When entering names, see *Programming Names and Text Messages* on page 439.	**NA?** Not assigned	Not assigned

Telephone Programming Instructions

1. Enter the programming mode.

2. 1702 + **HOLD**

   1702: Personal SPD
   Station #?300

3. Press **VOL ▲** to select the extension you want to program (300-395 in DS2000 or 300-323 in DS1000) + **HOLD**.

   OR

   Press **HOLD** to program the currently selected extension.

   1702:STA:
   BIN?:nnn

4. For the extension selected, press **VOL ▲** to select the bin you want to program (701-720) + **HOLD**.

   OR

   Press **HOLD** to program the currently selected bin.

   1702:SPDL BIN:nnn
   LINE/GRP/ICM:nnn

5. Enter the trunk number (1-48 in DS2000, 1-6 in DS1000) you want the system to use when dialing the stored number + **HOLD**.

   OR

   Enter the Trunk Group number (90-98 for Trunk Groups 0-8) you want the system to use when dialing the stored number + **HOLD**.

   OR

   Press **ICM** + **HOLD** if you want to enter Intercom codes.

   1702:STA:nnn BIN:nnn
   NUM?

   The Personal Speed Dial number previously programmed for this selected bin displays.

6. Enter the Personal Speed Dial number for the selected bin + **HOLD**.

   OR

   Press **HOLD** to leave the current assignment unchanged and advance to the next entry.

   1702:STA:nnn BIN:nnn
   NA?

7. Enter the name for the selected Personal Speed Dial bin + **HOLD** + Go back to step 3.

   OR

   Press **HOLD** to leave the current assignment unchanged + Go back to step 3.

1700 - Key Programming
1703 - DSS Key Assignment

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000
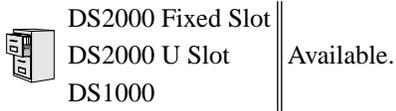
Use **Program 1703 - DSS Key Assignment** to program an extension's DSS keys. Programmable Function Keys automatically become DSS keys when the user press **ICM**. While in the DSS mode, the extension has one button Intercom access and a Busy Lamp Field for the assigned co-worker. By default, BLF keys are undefined.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions
None

Table 43: Program 1703 - BLF Key Assignment

Option	Description	Entries	Default
Key Number	Use this option to select the key you want to program. • See *Direct Station Selection (DSS)* on page 125 for more.	**KEY?** 1-24	Not assigned
BLF Extension Assignment	Use this option to assign an extension to the BLF key. • See *Direct Station Selection (DSS)* on page 125 for more.	**BLF EXT NUM?** 300-395 in DS2000 or 300-315 in DS1000	Not assigned

---

Telephone Programming Instructions

1. Enter the programming mode.
2. 1703 + **HOLD**

   1703:BLF LEVEL KEYS
   STATION PORT?

3. Enter the number of the station port (1-32) you want to program + **HOLD**

   1703:BLF LEVEL KEYS
   KEY?

4. For the station port selected, enter the number of the key (1-24) you want to program + **HOLD**

   1703:BLF LEVEL KEYS
   BLF EXT NUM?nnn

   The previously programmed assignment displays.

5. Enter the number of the extension (300-395 in DS2000 or 300-325 in DS1000) assigned to the BLF key + **HOLD**

     OR

Press **VOL** ▲ to leave the current assignment unchanged.

```
1703:BLF LEVEL KEYS
KEY?
```

1700 - Key Programming
1704 - DSS Console Key Assignment

Description

DS2000 Fixed Slot	Available - with unique defaults.
DS2000 U Slot	Available - with unique defaults.
DS1000	Available - with unique defaults.

Use **Program 1704 - DSS Console Key Assignment** to assign the keys for the system's DSS Consoles. There are two types of DSS Consoles: 24-button and 110 button. For default assignments, refer to the following tables.

Default Setting

Fixed Slot DSS Console Default Assignments	
These keys:	**Have this function:**
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-32	Hotlines to extensions 300-331
33-48	Lines 1-16
49-59	System Speed Dial bins 200-209
59-78	Personal Speed Dial bins 700-719
79, 80	Page zones 0 (All Call) and 1.
81-82	System Park Orbits 0 and 1.
83-110	Unassigned

U Slot DSS Console Default Assignments	
These keys:	**Have this function:**
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-80	Hotlines to extensions 300-379
81-96	Hotlines to undefined destinations.
97-99	Page Zones 1-3
100	All Call Page
101-109	Park Orbits 0-8
110	Night Key

DS1000 DSS Console Default Assignments	
These keys:	**Have this function:**
24-Button DSS Console	
1-24	Hotlines to extensions 300-323
110-Button DSS Console	
1-26	Hotlines to extensions 300-325
27-58	Hotlines to undefined extensions
59-64	Hotlines to trunks 1-6 (401-406)[1]
65-96	Hotlines to undefined destinations.
97-99	Page Zones 1-3
100	All Call Page
101-109	Park Orbits 0-8
110	Night Key

[1] Trunk Hotlines require that the extension have Direct Trunk Access enabled. See *Direct Trunk Access* on page 139 for more. **These keys do not exist in software version 02.01.07 or higher.**

Conditions

When the system initially powers up, Hotline keys for extensions are defined only for extensions 300-315. As DSTU PCBs are added in *9902 - Slot Assignment* on page 562, the corresponding DSS Console Hotline keys for those extensions are automatically enabled (provided you use the standard extension numbering plan). Note that the features permanently assigned to keys 97-110 still available on initial power-up.

Table 44: Program 1704 - DSS Console Key Assignment

Option	Description	Key Code	Entry
Undefined	Use this option to designate a key as undefined (no function). • See *Direct Station Selection (DSS) Console* on page 128 for more.	**00**	**UNDEFINED** (00)
Line Key	Use this option to assign a programmable key as a line key. • See *Central Office Calls, Answering* on page 87 for more. • See *Central Office Calls, Placing* on page 93 for more. • See *Direct Station Selection (DSS) Console* on page 128 for more.	**03 + nn (trunk number)**	**LINE?nn** 1-48 (for trunks 1-48) in DS2000, 1-6 in DS1000
Park Orbit Key	Use this option to assign a programmable key as a Park Orbit key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Park* on page 287 for more.	**04 + n (Park Orbit 60-69)**	**PARK ORBIT?n** 60-69 = System Park Orbits 60-69
Hotline Key	Use this option to assign a programmable key as a Hotline key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Hotline* on page 202 for more. A DSS Console can also have a Hotline key for a trunk (e.g., 401). However, this capability requires that Direct Trunk Access be enabled for the extension. See *Direct Trunk Access* on page 139 for more.	**05 + nnn (extension number)**	**HOTLINE?nnn** Hotline partner's extension number (300-395 in DS2000 or 300-325 in DS1000)
Call Coverage Immediate Ring	Use this option to assign a programmable key as an immediately ringing Call Coverage Key. • See *Call Coverage Keys* on page 61 for more. • See *Direct Station Selection (DSS) Console* on page 128 for more.	**06 + nnn (extension number)**	**CALL CVR RING** Covered extension number, Ring Group master number, or UCD Group master number
Call Coverage No Ring	Use this option to assign a programmable key as a lamp only (no ring) Call Coverage Key. • See *Call Coverage Keys* on page 61 for more. • See *Direct Station Selection (DSS) Console* on page 128 for more.	**07 + nnn (extension number)**	**CALL CVR NO RING** Covered extension number, Ring Group master number, or UCD Group master number

Table 44: Program 1704 - DSS Console Key Assignment

Option	Description	Key Code	Entry
Call Coverage Delay Ring	Use this option to assign a programmable key as a delayed ringing Call Coverage Key. • See *Call Coverage Keys* on page 61 for more. • See *Direct Station Selection (DSS) Console* on page 128 for more.	**08 + nnn (extension number)**	**CALL CVR DELAY** Covered extension number, Ring Group master number, or UCD Group master number
Group Pickup Immediate Ring	Use this option to assign a programmable key as an immediately ringing Group Call Pickup key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Group Call Pickup* on page 177 for more.	**09 + nn (Pickup Group 01-08)**	**GRP PKUP RING** 01-16 = pickup groups 1-16
Group Pickup No Ring	Use this option to assign a programmable key as a lamp only (no ring) Group Call Pickup key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Group Call Pickup* on page 177 for more.	**10 + nn (Pickup Group 01-08)**	**GRP PKUP NO RING** 01-16 = pickup groups 1-16
Group Pickup Delay Ring	Use this option to assign a programmable key as a delay ring Group Call Pickup key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Group Call Pickup* on page 177 for more.	**11 + nn (Pickup Group 01-08)**	**GRP PKUP DELAY** 01-16 = pickup groups 1-16
Page Zone Key	Use this option to assign a programmable key as a Page Zone key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Paging* on page 281 for more.	**13 + n (Page Zone 1-7, 0 for All Call)**	**PAGE ZONE?** 0-7 (Page Zones 1-7 or 0 for All Call Page)
System Speed Dial Key	Use this option to assign a programmable key as a System Speed Dial key. You assign the key to specific System Speed Dial bin. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Speed Dial* on page 332 for more.	**14 + nnn (System Speed Dial bin, normally 200-299)**	**SYS SPDL BIN?**
Personal Speed Dial Key	Use this option to assign a programmable key as a Personal Speed Dial key. You assign the key to a specific Personal Speed Dial bin. The DSS Console shares Personal Speed Dial bins with the extension to which it is attached. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Speed Dial* on page 332 for more.	**15 + nnn (701-720)**	**PERS SPDL BIN?**

Table 44: Program 1704 - DSS Console Key Assignment

Option	Description	Key Code	Entry
Voice Mail Record Key	Use this option to assign a programmable key as a Voice Mail Record key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Voice Mail* on page 414 for more.	**17**	**RECORD?**
Night Key	Use this option to assign a programmable key as a Night key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Night Service / Night Ring* on page 265 for more.	**18 + CLEAR** (to control the system's night mode) **18 + UCD Master Number** (to control the night mode of a DIL terminated to the UCD master number)	**SYS MODE?**
Data Key	• This option is currently not used.	**19 + nnn (extension number)**	**DATA?**
Split Key	Use this option to assign a programmable key as a Split key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Split (Alternate)* on page 343 for more.	**20**	**SPLIT**
ICM Directory Key	Use this option to assign a programmable key as an Intercom Directory Dialing key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Directory Dialing* on page 143 for more.	**21**	**ICM DIR**
ACD Log On Key	• This option is currently not used.	**22**	**ACD LOG**
Reverse Voice Over Key	Use this option to assign a programmable key as a Reverse Voice Over key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Reverse Voice Over* on page 313 for more.	**23 + nnn (extension number)**	**REV VOICE OVER**
Message Center Key	Use this option to assign a programmable key as a Message Center key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Voice Mail* on page 414 for more.	**24 + nnn (extension number)** Note that the extension number does not have to be an installed extension.	**MESSAGE CTR** 300-395 (extension numbers 300-395)
Save Key	Use this option to assign a programmable key as a Save Number Dialed key. • See *Direct Station Selection (DSS) Console* on page 128 for more. • See *Save Number Dialed* on page 322 for more.	**25**	**SAVE**

Telephone Programming Instructions

1. Enter the programming mode.

2. 1704 + **HOLD**

   > **1704:DSS KEY PROG**
   > **DSS BLOCK NUM?**

3. Select the block that corresponds to the DSS Console you want to program + **HOLD**

   > **1704:DSS KEY PROG**
   > **DSS KEY 1**

4. For the console selected, enter the number of the key you want to program + **HOLD**.

   OR

   Press **VOL ▲** or **VOL ▼** + **HOLD** to select another key to program.

   OR

   Press **HOLD** to select key 1.

   > **DSS BLOCK:n KEY:n**
   > **nnnnnnnnn n?**

   The previously programmed key definition displays.

5. Enter key code and options as required + **VOL ▲**.

   OR

   Press **VOL ▲** to leave the current assignment unchanged.

   +--+
   | **To scroll through the available entries instead of entering a code in this step:** |
   | 1. Press **ICM** (your **ICM** key flashes fast). |
   | 2. Press **VOL ▲** OR **VOL ▼** until the entry you want displays. |
   | 3. Press **HOLD** to assign the displayed entry to the key. |
   | *You automatically advance to the next consecutive key.* |
   +--+

6. Enter data for another key.

   OR

   Press **CONF** to return to step 4 and select another key to program.

   OR

   Press **CONF** twice to return to step 3 and select another console.

   OR

   Press **CONF** three times to exit the program.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000
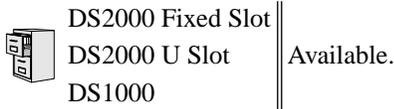
Use **Program 1801 - Extension Port Description** to set up various options for extensions. Also see *Program 1802 - Extension Options (Part 1)* on page 539 and *Program 1807 - Extension Options (Part 2)* on page 553.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions

None

Table 45: Program 1801 - Extension Options (Part 1)

Option	Description	Entries	Default
Extension Circuit Type	Use this option to assign circuit type to station devices. In the column at right, the numbers in square brackets [ ] indicate how many ports the device requires. • See *Door Box* on page 148 for more. • See *Initial Startup Programming* on page 12 for more. • See *Off-Premise Extensions / On-Premise SLT Extensions* on page 274 for more. • See *Station Instruments* on page 345 for more. •	**PT TYP?** 00 = Uninstalled [1] 01 = 22-Button Standard [1] 02 = 22-Button Display [1] 06 = 34-Button Display [1] 09 = 34-Button Super Display [1] 10 = Door Box [1] 15 = Analog station [1] 21 = 2OPX [2]	02 (22-Button Display)
DCI Type	• This option is currently not used.	**DCI TYP?**	0
Device Number	• This option is currently not used.	**DEVICE ORDER NUM?**	1
Extension Numbering	This option shows the extension number assigned to the station port. This option is view only — you cannot edit this entry. • See *0505 - Station Port Extension Numbers (Fixed Slot)* on page 480 for more.	**EXT:** View only	View only
Extension Name	Use this option to assign a name to the extension port. • Refer to *Table 19: Keys for Entering Names* on page 439 when entering names. • See *Names for Extensions and Trunks* on page 263 for more.	**NAME:**	STATION nn

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Table 45: Program 1801 - Extension Options (Part 1)

Option	Description	Entries	Default
DSS Type	Use this option to specify the type of DSS Console plugged into the telephone (1 = 24-button, 2 = 110-button, 0 = unassigned). You cannot install more than 4 DSS Consoles. • See *Direct Station Selection (DSS) Console* on page 128 for more.	**DSS TYP?** 0 = Uninstalled 1 = 24-Button 2 = 110 Button	300 = 1 301-331 = 0
DSS Block Number	Use this option to assign a DSS block to the console. • See *Direct Station Selection (DSS) Console* on page 128 for more.	**DSS BLOCK NUM?** 00 = Unassigned 01-04	01
Door Chime	Use this option to assign a chime pattern to a Door Box. In DS2000, this option is only available when Extension Circuit Type above is 10 (Door Box). In DS1000, This option is available to both Digital Door Boxes (circuit type 10) and Analog Door Boxes (extensions 324 and 325). • See *Door Box* on page 148 for more.	**DOOR CHIME?** 0 = Normal Ring Group ringing 1 = Low pitch chime pattern 2 = Mid range pitch chime pattern 3 = High pitch chime pattern	None (0)
Relay Owner	DS2000 For the Door Box extension, use this option to assign the relay on the CPRU PCB to the Door Box. This option is only available when Extension Circuit Type above is 10 (Door Box).	**RELAY OWNER?** 0 = CPRU relay *not* assigned to Door Box 1 = CPRU relay assigned to Door Box	None (0)
	DS1000 For the Analog Door Box extension (324 or 325), use this option to assign the DOOR1 or DOOR2 relays to the Door Box. Normally, you assign the DOOR1 relays to Analog Door Box 324 and DOOR2 relays to Analog Door Box 325. • See *Door Box* on page 148 for more.	**RELAY OWNER?** 0 = Relay no assigned 1 = Relay assigned to DOOR1 2 = Relay assigned to DOOR2	None (0)
Second Channel Option	• This option is currently not implemented.	**2ND CHANNEL?** N = No Y = Yes	N
Extension Class of Service Assignment	Use this option to assign the extension's Class of Service. • See *Class of Service* on page 105 for more.	**CLASS OF SERVICE?** 1-15	01 for Attendant.[1] 02 for all other extensions.
		[1] In DS2000 02.01.07 and higher, extensions above 315 also have COS 1.	
Extension Toll Level Day	Use this option to assign an extension's Toll Level during the day mode. • See *Toll Restriction* on page 385 for more.	**STA TOLL LVL DAY?** 1-7, 0 = No restriction	00

Table 45: Program 1801 - Extension Options (Part 1)

Option	Description	Entries	Default
Extension Toll Level Night	Use this option to assign an extension's Toll Level during the night mode. • See *Toll Restriction* on page 385 for more.	**STA TOLL LVL NITE?** 1-7, 0 = No restriction	00
DCI Class of Service Assignment	• This option is currently not used.	**DCI COS?** 1=15	1
DCI Toll Level Day	• This option is currently not used.	**DCI TOLL LVL DAY?** 1-7, 0 = No restriction	1
DCI Toll Level Night	• This option is currently not used.	**DCI TOLL LVL NITE?** 1-7, 0 = No restriction	1
Access Level	In U Slot systems, use this option to set an extension's access level for the User Programmable Features. Access level 5 has the most capability. Access level 1 has the least capability. • See *User Programmable Features* on page 410 for more.	**ACCESS LVL?** 0-5	Extension 300 = 5 All others = 3
Station Overflow Destination	• This option is currently not implemented.	**OVRFLW EXT?** 300-395 in DS2000 or 300-325 in DS1000	300
Overflow Condition for Intercom Calls	• This option is currently not implemented.	**ICM OVRFLOW B-R-D?**	0
Overflow Condition for External Calls	• This option is currently not implemented.	**CO OVRFLW B-R-D?**	0
Overflow Condition for DID Calls	• This option is currently not implemented.	**DID OVRFLW B-R-D?**	0
Overflow Condition for Tie Line Calls	• This option is currently not implemented.	**E&M OVRFLW B-R-D?**	0

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Telephone Programming Instructions

1.   Enter the programming mode.

2.   1801 + **HOLD**

   1801:EXTENSION PROG
   STATION PORT?

3.   Enter the number of the extension you want to program (300-395) + **HOLD**

   OR

   Press **HOLD** to select extension 300.

   1801: STA PORT n
   PT TYPE?n

   The previously programmed value displays. See the chart above for valid circuit types.

4.   Enter the new station circuit type + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current circuit type unchanged.

   ┌───┐
   │ **To scroll through the available entries instead of entering a code in this step:** │
   │ 1. Press **ICM** (your **ICM** key flashes fast).   │
   │ 2. Press **VOL ▲** OR **VOL ▼** until the entry you want displays.   │
   │ 3. Press **HOLD** to assign the displayed entry to the key.   │
   │   *You automatically advance to the next prompt.*   │
   └───┘

   1801: STA PORT n
   DCI TYP?n

   The previously programmed value displays. See the chart above for valid DCI types.

5.   Enter the DCI circuit type (if installed) + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current entry unchanged

   1801: STA PORT n
   DEVICE ORDER NUM?n

   The previously programmed value displays.

6.   Enter the software port (for 3DCI, 3ACI, VAU and VAU Expansion Modules only) + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current entry unchanged

   1801: STA PORT n
   EXT:nnn

   This display shows the extension number assigned to the port. This option is view only — you cannot edit or change it.

7.   Press **VOL ▲**.

   1801: STA PORT n
   NAME:nnnnnnn

   Use this option to enter or change the extension's name. Refer to Programming Names and Text Messages on page 439 for more.

8.   Press **VOL ▲**.

   1801: STA PORT n
   DSS TYP?n

   The previously programmed value displays.

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1800 - Extension Options

1801 - Extension Port Description

If you already have 4 DSS Consoles installed, and you try to install a 5th, you see the message: TABLE FULL. You cannot install more than 4 DSS Consoles.

9. If installed, enter the DSS Console type (00-02) + **VOL ▲**
    OR
    Press **VOL ▲** to leave the current entry unchanged

    ```
    1801: STA PORT n
    DSS BLOCK NUM?
    ```

10. If installed, enter the DSS Console block number (if installed) + **VOL ▲**
    OR
    Press **VOL ▲** to leave the current entry unchanged

    ```
    1801: STA PORT n
    2nd CHANNEL?n
    ```

    The previously programmed value displays.

11. Enter Y to enable or N to disable second channel operation + **VOL ▲**
    OR
    Press **VOL ▲** to leave the current entry unchanged

    ```
    1801: STA PORT n
    CLASS OF SERVICE?n
    ```

    The previously programmed value displays.

12. Enter extension's Class of Service (1-15) + **VOL ▲**
    OR
    Press **VOL ▲** to leave the current entry unchanged

    ```
    1801: STA PORT n
    STA TOLL LVL DAY?n
    ```

    The previously programmed value displays.

13. Enter the extension's day mode Toll Level (1-7, 0 = No restriction) + **VOL ▲**
    OR
    Press **VOL ▲** to leave the current entry unchanged

    ```
    1801: STA PORT n
    STA TOLL LVL NITE?n
    ```

    The previously programmed value displays.

14. Enter the extension's night mode Toll Level (1-7, 0 = No restriction) + **VOL ▲**
    OR
    Press **VOL ▲** to leave the current entry unchanged

    ```
    1801: STA PORT n
    DCI COS?n
    ```

    The previously programmed value displays.

15. For 3DCI Modules, enter the module's Class of Service (1-15) + **VOL ▲**
    OR
    Press **VOL ▲** to leave the current entry unchanged

    ```
    1801: STA PORT n
    DCI TOLL LVL DAY?n
    ```

    The previously programmed value displays.

16. For 3DCI Modules, enter the module's day mode Toll Level (1-7, 0 = No restriction) + **VOL ▲**
    OR
    Press **VOL ▲** to leave the current entry unchanged

    ```
    1801: STA PORT n
    DCI TOLL LVL NITE?n
    ```

The previously programmed value displays.

17. For 3DCI Modules, enter the module's night mode Toll Level (1-7, 0 = No restriction) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1801: STA PORT n
    ACCESS LEVEL?n

    The previously programmed value displays.

18. Enter the extension's Access Level (0-5) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1801: STA PORT n
    OVRFLW EXT?nnn

    The previously programmed value displays.

19. Enter the extension's overflow destination (300-395 in DS2000 or 300-325 in DS1000) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1801: STA PORT n
    ICM OVRFLW B-R-D?n

    The previously programmed value displays.

20. Enter the overflow condition for Intercom calls (0 = no overflow, 1 = busy, 2 = ring and 3 = delay) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1801: STA PORT n
    CO OVRFLW B-R-D?n

    The previously programmed value displays.

21. Enter the overflow condition for trunk calls (0 = no overflow, 1 = busy, 2 = ring and 3 = delay) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1801: STA PORT n
    DID OVRFLW B-R-D?n

    The previously programmed value displays.

22. Enter the overflow condition for DID calls (0 = no overflow, 1 = busy, 2 = ring and 3 = delay) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1801: STA PORT n
    E&M OVRFLW B-R-D?n

    The previously programmed value displays.

23. Enter the overflow condition for tie line calls (0 = no overflow, 1 = busy, 2 = ring and 3 = delay) + **VOL ▲**

    OR

    Press **VOL ▲** to go back to the first option for this port.

    1801: STA PORT n
    PT TYP?n

The previously programmed value displays.

24. Press **CONF** to select another station port to program.
    OR
    Press **CONF** twice to exit this program.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use **Program 1802 - Extension Options (Part 1)** to set up additional options for extensions. Also see *Program 1801 - Extension Port Description* on page 532 and *Program 1807 - Extension Options (Part 2)* on page 553.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions

None

Table 46: Program 1802 - Extension Options (Part 1)

Option	Description	Entries	Default
Do Not Disturb	Use this option to enable or disable Do Not Disturb at the extension. • See *Do Not Disturb* on page 146 for more.	**ALLOW DND?** Y = Enable N = Disable	Y
Ring Group Number	Use this option to assign an extension to a Ring Group. • See *Group Ring* on page 183 for more. • See *Ring Groups* on page 316 for more.This may be the same as Group Ring.	**RING GROUP NUM?** 1-8 0 = Unassigned	0
Call Pickup Group Number	Use this option to assign an extension to a Pickup Group. • See *Group Call Pickup* on page 177 for more.	**PK-UP GROUP NUM?** 1-8 0 = Unassigned	0
Privacy Release Group	Use this option to assign an extension to a Privacy Release Group. • See *Privacy* on page 295 for more.	**PRIV REL GRP NUM?** 1-16 0 = Unassigned	0
Off-Hook Signaling for Intercom Calls	Use this option to assign an extension's Off-Hook Signaling options for Intercom calls. • See *Voice Over* on page 428 for more.	**OHS ICM?** 0 = No Off-Hook Signaling 1 = Call Wait beeps over speaker 3 = Voice Over	1
Off-Hook Signaling for Hotline Partner	Use this option to assign an extension's Off-Hook Signaling options for calls from the Hotline partner. • See *Hotline* on page 202 for more. • See *Off-Hook Signaling* on page 270 for more.	**OHS HL?** 0 = No Off-Hook Signaling 3 = Voice Over	2

1800 - Extension Options

1802 - Extension Options (Part 1)

Table 46: Program 1802 - Extension Options (Part 1)

Option	Description	Entries	Default
Off-Hook Signaling for CO Calls	Use this option to assign an extension's Off-Hook Signaling options for trunk calls. • See *Attendant Position* on page 46 for more. • See *Central Office Calls, Answering* on page 87 for more. • See *Off-Hook Signaling* on page 270 for more.	**OHS CO?** 0 = No Off-Hook Signaling 1 = Camp On tone 2 = Off hook ringing	1
Handsfree Reply on Intercom Calls	Use this option to enable or disable Handsfree reply (Handsfree Answerback). Calls ring if disabled. • See *Handsfree and Handsfree Answerback* on page 190 for more.	**HF REPLY ON ICM?** Y = Enable N = Disable	Y
Automatic Handsfree	Use this option to enable or disable Automatic Handsfree. • See *Automatic Handsfree* on page 50 for more. • See *Handsfree and Handsfree Answerback* on page 190 for more.	**AUTO HANDSFREE?** Y = Enable N = Disable	Y
Busy Lamp Field	Use this option to enable or disable the DSS function for an extension's Programmable Function Keys. • See *Direct Station Selection (DSS)* on page 125 for more.	**BUSY LAMP FIELD?** Y = Enable N = Disable	Y (Fixed Slot) N (U Slot)
Line Dial Up	Use this option to enable or disable an extension's ability to access lines 1-48 in DS2000 by dialing trunk access codes #901-#948, or 1-6 in DS1000 by dialing codes #901-#906. • See *Central Office Calls, Placing* on page 93 for more.	**LINE DIAL UP?** Y = Enable N = Disable	N
Station's Dial 9 Group	Use this option to assign the trunk group a user accesses when they dial 9 for an outside line or press a switched loop key. This option does not apply to systems with ARS installed. • See *Central Office Calls, Placing* on page 93 for more. • See *Trunk Group Routing* on page 398 for more. • See *Trunk Groups* on page 405 for more.	**DIAL 9 GROUP?** 0-8	1 (Fixed Slot) 0 (U Slot and DS1000)
Retain Trunk Volume Setting	• Currently not used.	**RETAIN TRK VOL?** Y = Enable (retain user setting) N = Disable (use median system setting)	Y

Table 46: Program 1802 - Extension Options (Part 1)

Option	Description	Entries	Default
Key Access to Outbound Lines	Use this option to enable or disable the extension user's ability to press a Programmable Function Key to access and outside line. • See *Central Office Calls, Placing* on page 93 for more. • See *Line Keys* on page 238 for more. • See *Programmable Function Keys* on page 304 for more.	**KEY ACESS TO LN?** Y = Enable N = Disable	Y
Page Zone Member	Use this option to assign the extension to a Page Zone (1-7). • See *Paging* on page 281 for more.	**PAGE ZONE MEMBER?** Y = Include extension in Page Zone N = Do not include extension in Page Zone	Y
BGM	Use this option to enable or disable Background Music at the extension. • See *Background Music* on page 54 for more.	**BGM?** Y = Enable N = Disable	Y
Extension's Operator	Use this option to assign the extension's operator. This is the co-worker the extension user reaches when they dial 0. • See *Attendant Position* on page 46 for more.	**EXT'S OPERATOR?** 300-395 in DS2000 or 300-315 in DS1000	300
Ring Down Destination	Use this option to assign the extension's Ring Down destination. To use this option, you must also enable the *Ring Down* option above. • See *Ringdown Extension* on page 317 for more.	**RG DN DEST?** 0 = None (Ring Down disabled) Extension number (300-395 in DS2000 or 300-325 in DS1000), UCD master number, Voice Mail master number, Ring Group master number	UND
Speed Dial Block	Use this option to assign a Speed Dial block to an extension. • See *Speed Dial* on page 332 for more.	**SPDL BLOCK NUMN?** 1-62	1
Voice Mail Port	For analog ports, use this option to assign the port as a Voice Mail port. • See *Voice Mail* on page 414 for more.	**VOICE MAIL PORT?** Y = Assigned as a Voice Mail port N = Not a Voice Mail port	N

Telephone Programming Instructions

1. Enter the programming mode.

---

2. 1802 + **HOLD**

    1802:EXT OPT PART I
    STATION PORT?

3. Enter the extension number (300-395 in DS2000 or 300-325 in DS1000) you want to program + **HOLD**

    OR

    Press **HOLD** to select extension 300.

    1802: STA PORT n
    ALLOW DND?nnn

    The previously programmed value displays.

4. Enter the Y to enable or N to disable Do Not Disturb + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current assignment unchanged

    1802: STA PORT n
    RING GROUP NUM?n

    The previously programmed value displays.

5. Enter the extension's Ring Group (1-8, 0 = Unassigned) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1802: STA PORT n
    PK-UP GROUP NUM?n

    The previously programmed value displays.

6. Enter the extension's Pickup Group (1-8, 0 = Unassigned) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1802: STA PORT n
    PRIV REL GRP NUM?nn

    The previously programmed value displays.

7. Enter the extension's Privacy Release Group (1-16, 0 = Unassigned) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1802: STA PORT n
    OHS ICM

    The previously programmed value displays.

8. Enter the Off-Hook Signaling for Intercom Calls option (0 = None, 1 = Call Wait beeps over speaker, 3 = Voice Over, + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged

    1802: STA PORT n
    OHS HL?

    The previously programmed value displays.

9. This option is currently not used. Press **VOL ▲** to leave the current entry unchanged

    1802: STA PORT n
    OHS CO

    The previously programmed value displays.

10. Enter the Off-Hook Signaling for trunk calls (0 = None, 1 = Call Wait beeps over speaker, 2 =

Off-hook ringing, + **VOL** ▲

    OR

Press **VOL** ▲ to leave the current entry unchanged

1802: STA PORT n
HF REPLY ON ICM?nnn

The previously programmed value displays.

11. Enter Y to enable or N to disable Handsfree Answerback + **VOL** ▲

    OR

Press **VOL** ▲ to leave the current entry unchanged

1802: STA PORT n
AUTO HANDSFREE?nnn

The previously programmed value displays.

12. Enter Y to enable or N to disable Automatic Handsfree + **VOL** ▲

    OR

Press **VOL** ▲ to leave the current entry unchanged

1802: STA PORT n
BUSY LAMP FIELD?nnn

The previously programmed value displays.

13. Enter Y to enable or N to disable the programmable key BLF mode + **VOL** ▲

    OR

Press **VOL** ▲ to leave the current entry unchanged

1802: STA PORT n
LINE DIAL UP?nnn

The previously programmed value displays.

14. Enter Y to enable or N to disable the extension's ability to dial #901-#916 + **VOL** ▲

    OR

Press **VOL** ▲ to leave the current entry unchanged

1802: STA PORT n
DIAL 9 GROUP?nn

The previously programmed value displays.

15. Enter the extension's dial 9 trunk group (0-8) + **VOL** ▲

    OR

Press **VOL** ▲ to leave the current entry unchanged

1802: STA PORT n
RETAIN TRK VOL?nnn

The previously programmed value displays.

16. Enter Y to retain user setting or N to use median system setting + **VOL** ▲

    OR

Press **VOL** ▲ to leave the current entry unchanged

1802: STA PORT n
KEY ACCESS TO LN?nnn

The previously programmed value displays.

17. Enter Y to enable or N to disable programmable key access to trunks + **VOL** ▲

    OR

Press **VOL** ▲ to leave the current entry unchanged

1802: STA PORT n

> **PAGE ZONE MEMBER?nnn**

The previously programmed value displays.

18.   Enter Y to include or N to exclude the extension + **VOL ▲**
       OR

   Press **VOL ▲** to leave the current entry unchanged

> **1802: STA PORT n**
> **BGM?nnn**

The previously programmed value displays.

19.   Enter Y to enable or N to disable Background Music at the extension + **VOL ▲**
       OR

   Press **VOL ▲** to leave the current entry unchanged

> **1802: STA PORT n**
> **EXT'S OPERATOR?nnn**

The previously programmed value displays.

20.   Enter the extension's operator (300-395 in DS2000, 300-315 in DS100, 0 = Unassigned) +
   VOL ▲
       OR

   Press **VOL ▲** to leave the current entry unchanged

> **1802: STA PORT n**
> **RING DOWN?nnn**

The previously programmed value displays.

21.   Enter Y to enable or N to disable Ring Down for the extension + **VOL ▲**
       OR

   Press **VOL ▲** to leave the current entry unchanged

> **1802: STA PORT n**
> **RG DN DEST?nnn**

*The previously programmed value displays. If you enable Ring Down, you must assign
a Ring Down destination in the next step.*

22.   Enter the extension's Ring Down destination (24 digits max., 0 = Unassigned) + **VOL ▲**
       OR

   Press **VOL ▲** to leave the current entry unchanged

> **1802: STA PORT n**
> **SPDL BLOCK NUM?nn**

The previously programmed value displays.

23.   Enter the extension's Speed Dial block (1-57, 0 = Unassigned) + **VOL ▲**
       OR

   Press **VOL ▲** to leave the current entry unchanged

> **1802: STA PORT n**
> **VOICE MAIL PORT?nnn**

The previously programmed value displays.

24.   For analog ports, enter Y to assign or N to unassign the port as a Voice Mail port + **VOL ▲**
       OR

   Press **VOL ▲** to leave the current entry unchanged

> **1802: STA PORT n**
> **ALLOW DND?nnn**

The previously programmed value displays.

25. Press **CONF** to select another extension port.
    OR
    Press **CONF** twice to exit the program.

1800 - Extension Options

1803 - Extension Line Access Assignments

Description

DS2000 Fixed Slot DS2000 U Slot	Available.
DS1000	In software version 02.00.09, all extension have full access to all trunks. In prior software versions, analog extensions 316-332 had full access to trunks 3-6 but incoming only access to trunks 1 and 2. Trunks 4-6 require the Expansion Board.

Use **Program 1803 - Extension Line Access Assignments** to assign the incoming and outgoing trunk access for extensions.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions

None

Table 47: Program 1803 - Extension Line Access Assignments

Option	Description	Entries	Default
Access Option	For each extension, use this option to assign the access option for each trunk. • See *Initial System Startup* on page 11 for more. • See *Central Office Calls, Answering* on page 87 for more. • See *Central Office Calls, Placing* on page 93 for more. • See *Conference* on page 111 for more. • See *Direct Trunk Access* on page 139 for more. • See *Forced Trunk Disconnect* on page 175 for more. • See *Group Call Pickup* on page 177 for more. • See *Last Number Redial* on page 236 for more. • See *Line Keys* on page 238 for more. • See *Loop Keys* on page 242 for more. • See *Night Service / Night Ring* on page 265 for more. • See *Privacy Release Groups* on page 297 for more. • See *Private Line* on page 300 for more. • See *Save Number Dialed* on page 322 for more. • See *Speed Dial* on page 332 for more. • See *Tandem Trunking / Unsupervised Conference* on page 379 for more. • See *Trunk Group Routing* on page 398 for more. • See *Trunk Groups* on page 405 for more.	NO ACCESS? 0 = No access INCOMING ONLY? 1 = Incoming only OUTGOING ONLY? 2 = Outgoing only FULL ACCESS? 3 = Full access	3 (All trunks, all extensions)

Telephone Programming Instructions

1. Enter the programming mode.

2. 1803 + **HOLD**

   ```
   1803:LINE ACCESS
   STATION #?nnn
   ```

3. Enter the number of the station you want to program + **HOLD**
   OR

   Press **HOLD** to select extension 300.

   ```
   1803: STA:nnn
   LINE NUMBER?n
   ```

   The previously programmed value displays.

4. Enter the number of the trunk you want to program + **HOLD**

OR

Press **HOLD** to select trunk 1.

> **1803:STA:nnn   LINE:n**
> **nnnnnnnnnn**

> *The previously programmed value displays on the second line. The first line of the display shows the extension and trunk you are programming.*

5. Enter the access option for the trunk selected (0 = No access, 1 = Incoming only, 2 = Outgoing only, 3 = Full access) + **VOL ▲**

OR

Press **VOL ▲** to leave the current unchanged.

> **1803:S_PT:n   LINE:n**
> **nnnnnnnnnn**

> *You see the options for the next consecutive trunk. The previously programmed value displays.*

6. Enter the access option for the currently selected trunk + **VOL ▲**

OR

Press **CONF** to select another trunk.

OR

Press **CONF** twice to select another extension port.

OR

Press **CONF** three times to exit the program.

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	
DS1000	Available. Trunks 4-6 require the Expansion Board.

Use **Program 1804 - Extension Trunk Group Access** to assign the outgoing access to trunk groups. Incoming trunk group access is always allowed.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions
None

Table 48: 1804 - Extension Trunk Group Access

Option	Description	Entries	Default
Trunk Group Access	For each extension, use this option to assign outgoing access for each trunk group. • See *Initial System Startup* on page 11 for more. • See *Central Office Calls, Placing* on page 93 for more. • See *Trunk Groups* on page 405 for more.	LINE GROUP n:nnn Y = Allow N = Prevent	Y (All extensions, all trunk groups)

Telephone Programming Instructions

1. Enter the programming mode.

2. 1804 + **HOLD**

    1804:LINE GRP ACCESS
    STATION #?nnn

3. Enter the number of the extension you want to program + **HOLD**
       OR
    Press **HOLD** to select extension 300.

    1804: STA:nnn
    LINE GROUP?n

    The previously programmed value displays.

4. Enter the number of the trunk group (0-8) you want to program + **HOLD**
       OR
    Press **HOLD** to select trunk group 1.

    1804:STA:nnn   GRP:n
    LINE GROUP n:nnn

    The previously programmed value displays on the second line. The first line of the display shows the extension and trunk group you are programming.

5. Enter Y to allow or N to prevent outgoing access to the trunk group selected + **VOL ▲**
       OR

Press **VOL** ▲ to leave the current unchanged.

1804:STA:nnn   GRP:n
LINE GROUP n:nnn

> *You see the options for the next consecutive trunk group. The previously programmed value displays.*

6.   Enter Y to allow or N to prevent outgoing access to the trunk group selected + **VOL** ▲
> OR

Press **CONF** to select another trunk group.
> OR

Press **CONF** twice to select another extension.
> OR

Press **CONF** three times to exit the program.

Description

DS2000 Fixed Slot	Available.
DS2000 U Slot	Available. • See *Default* in the table below for the initial ring assignment setup. • In version 02.01.07 and higher, single line sets ring according to **1805 - Ring Assignment** programming (just like keysets).
DS1000	Available. • See *Default* in the table below for the initial ring assignment setup. • In version 02.01.07 and higher, single line sets ring according to **1805 - Ring Assignment** programming (just like keysets).

Use **Program 1805 - Ring Assignments** to set up incoming ringing for each trunk at each extension.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions

In DS1000 software version 02.01.07 and higher, the system automatically disables the **1805 - Ring Assignments** programming for all single line ports assigned as Voice Mail ports in **1802 - Voice Mail Port**. To have Voice Mail answer an outside call, the trunk should be a Direct Inward Line (i.e., directly terminated) to the Voice Mail master number.

Table 49: 1805 - Ring Assignments

Option	Description	Entries	Default
Ring Assignment	For each extension, use this option to assign the access option for each trunk. • See *Initial System Startup* on page 11 for more. • See *Central Office Calls, Answering* on page 87 for more. • See *Delayed Ringing* on page 114 for more. • See *Group Call Pickup* on page 177 for more. • See *Key Ring* on page 232 for more. • See *Line Keys* on page 238 for more. • See *Loop Keys* on page 242 for more. • See *Night Service / Night Ring* on page 265 for more. • See *Private Line* on page 300 for more.	1 = Lamp only (day and night) 2 = Ringing day and night 3 = Night Ring only, lamp during the day 4 = Delay ring day and night	<u>Fixed Slot</u> 2 (All trunks for all extensions) <u>U Slot Prior to 02.01.07</u> 2 (All trunks for all extensions,) <u>U Slot 02.01.07 or Higher</u> 2 (All trunks for extensions 300-315) 1 (All trunks for extensions above 315) <u>DS1000 Prior to 02.00.09</u> 2 (Trunks 1-4 for all extensions) 4 (Trunks 5 and 6 for all extensions) <u>DS1000 02.00.09 or Higher</u> 2 (All trunks for all extensions)

Telephone Programming Instructions

1. Enter the programming mode.

2. 1805 + **HOLD**

    > **1805:RING ASSIGNMENT**
    > **STATION #?n**

3. Enter the number of the station you want to program + **HOLD**

    > OR

    Press **HOLD** to select extension 300.

    > **1805: STA:nnn**
    > **LINE NUMBER?n**

    > *The previously programmed value displays.*

4. Enter the number of the trunk you want to program + **HOLD**

    > OR

    Press **HOLD** to select trunk 1.

    > **1805:STA:nnn   LINE:n**
    > **DAY / NITE RING**

    > *The previously programmed value displays on the second line. The first line of the display shows the extension and trunk you are programming.*

5. For the extension and trunk selected, enter the ring option (1 = Lamp only (day and night), 2 = Ringing day and night, 3 = Night Ring only, lamp during the day, 4 = Delay ring day and night) + **VOL ▲**

    > OR

    Press **VOL ▲** to leave the current entry unchanged.

    > **1805:STA:nnn   LINE:n**
    > **DAY / NITE RING**

    > *You see the options for the next consecutive trunk. The previously programmed value displays.*

6. Enter the ring option for the trunk + **VOL ▲**

    > OR

    Press **CONF** to select another trunk.

    > OR

    Press **CONF** twice to select another extension.

    > OR

    Press **CONF** three times to exit the program.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use **Program 1807 - Extension Features (Part 2)** to additional options for extensions. Also see *Program 1801 - Extension Port Description* on page 532 and *Program 1802 - Extension Options (Part 1)* on page 539.

Note: If you are doing extensive programming, you may find **Program 9801 - Copy Command** (page 557) saves you time when customizing this option.

Conditions

None

Table 50: 1807 - Extension Features (Part 2)

Option	Description	Entries	Default
Station Voice Announced Intercom Calls	Use this option to enable or disable incoming voice-announced Intercom calls while the extension is ***not*** in the headset mode. If disabled, all Intercom calls to the extension ring. • See *Handsfree and Handsfree Answerback* on page 190 for more.	**STA VOICE CALL**	Y
Headset Voice-Announced Intercom Calls	Use this option to enable or disable incoming voice-announced Intercom calls while the extension is in the headset mode. • See *Headset Compatibility* on page 194 for more. •	**HDSET VOICE CALL?** Y = Enable N = Disable	Y
Paging Through Speaker	Use this option to enable or disable Paging through the telephone speaker. • See *Paging* on page 281 for more.	**PAGE THRU SPK?** Y = Enable N = Disable	Y
Headset	Use this option to enable or disable the Headset mode. • See *Group Listen* on page 181 for more. • See *Headset Compatibility* on page 194 for more.	**HEADSET?** Y = Enable N = Disable	N
Ringing Line Preference	Use this option to enable or disable Ringing Line Preference. • See *Ringing Line Preference* on page 319 for more.	**RING LINE PREF?** Y = Enable (i.e., enable Ringing Line Preference) N = Disable (i.e., enable idle line preference)	N

Table 50: 1807 - Extension Features (Part 2)

Option	Description	Entries	Default
Hunt Type	Use this option to assign the hunt type for the extension. The options are: 1 = Ring No Answer Trunk (TRUNK RNA) 2 = Busy/Ring No Answer Trunk (T BUSY RNA) 3 = Busy/Ring No Answer All Calls (A BUSY RNA) 4 = Busy Trunk (TRUNK BUSY) 5 = Uniform Call Distribution (UCD) 6 = Automatic Call Distribution (ACD) • See *Extension Hunting* on page 156 for more.	**HUNT TYPE?** 0 = None 1= Trunk RNA 2 = T Busy RNA 3 = A Busy RNA 4 = Trunk Busy 5 = UCD 6 = ACD	None
Hunt Destination	(For type 1-4 hunting only) Use this option to assign the next extension in a Circular or Terminal Hunt group. • See *Extension Hunting* on page 156 for more.	**HUNT DEST?** 300-395 in DS2000 300-325 in DS1000 CLEAR = Undefined	Undefined
Hunt Master Number	(For type 5 and 6 hunting only) Use this option to assign the hunt group master number to the member extension. These numbers are set up in *0510 - ACD/UCD Master Extension Numbers and Names* on page 485. • See *Extension Hunting* on page 156 for more.	**ENTER MASTER NUM:** Any valid master number CLEAR = Undefined	Undefined
Prime Line Key	Use this option to assign a trunk as the extension's Prime Line. You enter the Prime Line's key number (1-24), press the key, or press **ICM** for Intercom Prime Line. (Software version 02.01.07 or higher is required to enter 2-digit key numbers.) • See *Prime Line Preference* on page 292 for more.	**PRIME LINE KEY?** 1-24 0 = Unassigned ICM = Intercom Prime Line	0 (Fixed Slot) ICM (U Slot)
Walking Class of Service Security Code	• This option is currently not used.	**W-COS CODE?** 8-digits long, using 0-9, # and *.	No entry

---

Telephone Programming Instructions

1. Enter the programming mode.

2. 1807 + **HOLD**

   > **1807:EXT OPT PART II**
   > **STATION PORT?n**

3. Enter the number of the extension you want to program (300-395) + **HOLD**
   > OR

   Press **HOLD** to select extension 300.
   > **1807:STA PORT:n**

HDSET VOICE CALL?nnn

> *The previously programmed value displays. The top line of the display indicates the extension port you are programming.*

4. Enter Y to enable or N to disable incoming voice-announced Intercom calls while the extension is in the headset mode + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current entry unchanged.

1807:STA PORT:n
PAGE THRU SPK?nnn

> *The previously programmed value displays.*

5. Enter Y to enable or N to disable Paging through the telephone speaker + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current entry unchanged.

1807:STA PORT:n
WHISPER PAGE?nnn

> *The previously programmed value displays.*

6. Enter Y to enable or N to disable Voice Over + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current entry unchanged.

1807:STA PORT:n
HEADSET?nnn

> *The previously programmed value displays.*

7. Enter Y to enable or N to disable the headset mode + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current entry unchanged.

1807:STA PORT:n
RING LINE PREF?nnn

> *The previously programmed value displays.*

8. Enter Y to enable or N to disable Ringing Line Preference + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current entry unchanged.

1807:STA PORT:n
PRIME LINE PREF?n

> *The previously programmed value displays.*

9. Enter the extension's Prime Line trunk assignment (1-48 in DS2000, 1-6 in DS1000, 0 = Unassigned) + **VOL ▲**

   OR

   Press **VOL ▲** to leave the current entry unchanged.

1807:STA PORT:n
LINE PREF TYPE?n

> *The previously programmed value displays.*

10. Enter the extension's Prime Line trunk group assignment (0-8) + **VOL ▲**

    OR

    Press **VOL ▲** to leave the current entry unchanged.

1807:STA PORT:n
HDSET VOICE CALL?nnn

> *The previously programmed value displays.*

11. Enter Y to enable or N to disable the headset mode for the extension + **VOL** ▲
        OR
     Press **CONF** to select another extension port.
        OR
     Press **CONF** twice times to exit the program.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use **Program 9801 - Copy Command** to copy Class of Service, extension and trunk data. You can copy data from a single source to a single destination, or from a single source to a range of COSs, extensions or trunks.

Program 9801 - Copy Command will copy data in the following programs:
Program 0101: Class of Service Options
Program 1001: Trunk Port Description
Program 1003: Trunk Options
Program 1701: Programmable Function Key Assignments
Program 1702: Personal Speed Dial
Program 1703: DSS Key Assignment
Program 1801: Extension Port Description
Program 1802: Extension Options (Part 1)
Program 1803: Extension Line Access Assignments
Program 1804: Extension Trunk Group Access
Program 1805: Ring Assignments
Program 1807: Extension Options (Part 2)

Conditions

None

Telephone Programming Instructions

1. Enter the programming mode.

2. 9801 + **HOLD**

   9801:COPY COMMAND
   ENTER PGM#

3. Enter the number of the program in which you want to copy data.

   COPY: nnnn
   SOURCE nnnn

   COPY displays the program you selected. SOURCE will display the trunk or extension that will be the source for the copied data.

4. Enter the source (extension or trunk) from which you want to copy data + HOLD.

   COPY (program)   (source)
   DEST RANGE

5. If copying to a single destination, enter the destination trunk or extension number.
      OR
   If copying to a range of extensions or trunks, enter the *lowest* numbered extension or trunk in the range.

6. Press **HOLD**.

   COPY (program)   (source)
   DEST RANGE nnn-

7. If copying to a single destination, enter the same destination trunk or extension you entered in step 5 above.

   > OR

   If copying to a range of extensions or trunks, enter the ***highest*** numbered extension or trunk in the range.

8. Press **HOLD**.

   ```
   COPY (program)   (source)
   COPY COMPLETE!
   ```

9. Press **CONF** to select another program to copy.

   > OR

   Press **CONF** twice to exit the program.

Description

	DS2000 Fixed Slot	Not available.
	DS2000 U Slot	Available.
	DS1000	Not applicable.

Use **9802: Swap Command** to swap extensions, trunks, or slot positions. Use this option as an alternative to manual cross-connect or extensive reprogramming.

Keep the following in mind when using **9802: Swap Command**:

● The system will prevent you from swapping an extension with a trunk.

● When you swap extensions, all the programmed parameters swap also. For example, swapping keyset 301 with Voice Mail port 316 creates keyset 316 and Voice Mail port 301, with all programming intact.

● When you swap PCBs (slots), all the programmed parameters swap also.

● You cannot swap slot 1; that assignment is fixed.

● The system will not currently swap operator assignments.

Conditions

None

Telephone Programming Instructions

To swap extensions or trunks:

1. Enter the programming mode.

2. 9802 + **HOLD**.

```
9802:SWAP COMMAND
  EXT-E / SLOT-S  ?
```

3. Enter **E**. You see:

```
9802:SWAP COMMAND
  FIRST EXT
```

4. Enter the number of the first extension or trunk you want to swap + **HOLD**.

```
9802:SWAP COMMAND
SECOND EXT nnn  &
```

5. Enter the number of the second extension or trunk you want to swap + **HOLD**.

```
9802:SWAP COMMAND
SWAPPED  !
```

> *SWAP FAILED indicates that you tried to make an illegal swap.*

6. Press **HOLD** to return to step 2 to make another swap.
   OR
   Press **HOLD** + **CONF** to exit.

To swap PCBs (slots):

1. Enter the programming mode.

---

2. 9802 + **HOLD**.

    > **9802:SWAP COMMAND**
    > **EXT-E / SLOT-S ?**

3. Enter **E**. You see:

    > **9802:SWAP COMMAND**
    > **FIRST SLOT**

4. Enter the number of the first PCB/slot you want to swap + **HOLD**.

    > **9802:SWAP COMMAND**
    > **SECOND SLOT n &**

5. Enter the number of the second PCB/slot you want to swap + **HOLD**.

    > **9802:SWAP COMMAND**
    > **SWAPPED !**

6. Following the instructions in your Hardware Manual, unplug the swapped PCBs/slots and plug them into their new locations.

7. Press **HOLD** to retrun to step 2 to make another swap.
    > OR

    Press **HOLD** + **CONF** to exit.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use **Program 9901 - Reset Station Port** to reset an extension.

Conditions
None

Telephone Programming Instructions

1. Enter the programming mode.
2. 9901 + **HOLD**

   ```
   9901:RESET PORT
   PORT?n
   ```

3. Enter the number of the extension you want to program (300-395) + **HOLD**.

   ```
   9901:RESET PORT
   RESET PORT nnnn
   ```

   The first line of the display indicates the station port you have selected.

4. Press **HOLD** and go back to step 3 and enter another extension to reset.
   OR
   Press **CONF** to exit Program 9901.

Description

	DS2000 Fixed Slot	Not available.
	DS2000 U Slot	Available.
	DS1000	Not applicable.

Use **Program 9902 - Slot Assignment** to assign PCBs to slots. Only use this program if the default U Slot configurations do not meet the site requirements. When you first install your system, the default slot assignments follow the charts below.

4 and 8 Slot Systems with CPU Version P/N 80025A		
Slot	**PCB**	**Extensions**
1	16DSTU	300-315
2	16DSTU	316-331
3	16DSTU	332-347
4	16DSTU	348-363
5	16DSTU	364-379
6	8 ATRU	401-408
7	8 ATRU	409-416
8	8 ATRU	417-424
If you have a 4 slot system, ignore slots 5-8 above.		

4 Slot Systems with CPU Version P/N 80025		
Slot	**PCB**	**Extensions**
1	16DSTU	300-315
2	16DSTU	316-331
3	8 ATRU	401-408
4	8 ATRU	409-416

Conditions

None

Telephone Programming Instructions

Using Program 9902: Slot Assignment

Step 1: Review the Default Configuration

1.1 Check the default configuration to see if it meets the site requirements. If it does, you won't have to make any of the changes in the following steps.

Step 2: Map Out Your Installation

2.1 If you need to reconfigure your PCBs, use the table below to determine in which slots you want to install your PCBs. Be sure to assign the extension numbers. Note that the 16DSTU in slot 1 is a permanent assignment and cannot be changed.

Slot	PCB	Description	Extensions
1	16DSTU	16 Digital Station	300-315
2			
3			
4			
5			
6			
7			
8			

Step 3: Install the Common Equipment.

3.1 Following the instructions in your system's *Hardware Manual*, install your common equipment, system power supplies and CPU PCB. You should also plug a 16DSTU PCB into slot 1. (This is a permanent system assignment.)

Step 4: Turn on your system.

4.1 Once your system starts up, connect a display telephone assigned to the 16DSTU PCB in slot 1.

Step 5: Clear Out Existing Slot Control Programming

If the default setup does not meet the site requirements, you may have to delete some existing slot programming:

5.1 Enter **ICM** + **#*#*** + **372000** to enter the programming mode.

5.2 Dial **9902** + **HOLD** to enter program 9902: Slot Control.

5.3 Press **HOLD** again. You see the programmed slot information for slot 2, or **EMPTY SLOT** if there is no assignment.

5.4 Press **VOL ▲** or **VOL ▼** to check the current assignments for slots 2-8. (Note that slot 1 is permanently assigned as a 16DSTU PCB. You cannot change this assignment.)

5.5 Access the slot you want to change and press **HOLD**. You see **REMOVE CARD (Y/N)?**

5.6 Press **N** to return to step 5.4 without deleting, or press **Y** to remove the assignment. You see: **SLOT DATA WILL BE LOST! ABORT (Y/N)?**

5.7 Press **N**. You see **SLOT CONFIG CHANGED**.

5.8 Press **HOLD**.

5.9 **VOL ▲** or **VOL ▼** to select another slot, or press **CONF** to exit program 9902.

Step 6: Programming (Adding) an Empty Slot

During programming, you may see the following error messages:

9902 Error Message	Description
ERR! NO SLOT CHANGE	Occurs if you are trying to assign an extension range that already exists. Also occurs if your assignment will exceed the system maximums (e.g., assigning a 7th 16DSTU).
SLOT 1 IS FIXED!	You are trying to change the assignment for slot 1, which is fixed for a 16DSTU PCB.
SLOT IN USE!	You have attempted to delete the slot that supports the extension from which you are programming.

6.1 Enter the programming mode and dial **9902** + **HOLD** to enter program 9902: Slot Control.

6.2 Press **HOLD** then **VOL ▲** or **VOL ▼** until you select the empty slot you want to program (2-8).

6.3 Press **HOLD**. You see **ADD CARD (Y/N)**.

6.4 Press **N** + **HOLD** to return to step 6.2 without adding a PCB, or press **Y** to enter a new PCB assignment.

6.5 Press **ICM**, then **VOL ▲** or **VOL ▼** to scroll through the available circuit types for the slot selected.

OR

Enter one of the circuit types from the table below.

Enter this:	For this PCB circuit type
0	Empty Slot
1	8 DSTU
2	16 DSTU
3	4 ASTU
4	8 ASTU
5	4 ASTU with Message Waiting (currently not available)
6	8 ASTU with Message Waiting (currently not available)
7	4 ATRU (loop start)
8	8 ATRU (loop start)
9	Empty Slot

6.6 When the circuit type you want displays, press **HOLD**. You see: **FIRST EXTENSION**.

6.7 Enter the first extension number for the PCB. Refer to the chart in *Step 2: Map Out Your Installation* above. (For example, if you have a second DSTU in slot 2, and you want the extension numbers to flow consecutively from slot 1, enter 316.) If you make an entry mistake, use **LND** to backspace over (erase) the incorrect entry and then enter the correct digits.

6.8 Press **HOLD**. You see **SLOT CONFIG CHANGED!**

6.10 Press **HOLD** twice + **VOL ▲** or **VOL ▼** to select another slot to program (2-8), or press **CONF** to exit program 9902.

Step 7: Verify Your Slot Entries

Use the following steps to check your 9902: Slot Control programmed entries.

7.1 Enter the programming mode and dial **9902** + **HOLD** to enter program 9902: Slot Control.

7.2 Press **HOLD** then **VOL Up** or **VOL Down** until you select the slot you want to check (1-8).

7.4 Once you've selected the slot you want to check, press **V**. The display shows the number of circuits currently displayed and the extension numbers assigned to the circuits. For example, if you plugged your first 8ATRU into slot 8, you would see:
SLOT:8 CIRCUIT:1-5
401 402 403 404 405

7.5 Press **V** to check any additional circuits on the PCB, press **CONF** + **HOLD** to return to step 7.2, or press **CONF** twice to exit program 9902.

Step 8: Plug in Your PCBs.

Plug in your PCBs according to the installation map (step 2) and your slot programming (step 6).

9900 - System Utilities, Part 2

9905 - Password

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use **Program 9905 - Password** to change the system passwords. The table below shows the default system passwords. Turn to *System Programming List* on page 360 for more on the system passwords.

Table 51: Password Levels

Password Level	Password	Level
System Administrator 1	0000	1
System Administrator 2	9999	2
Installer	372000	3

Conditions

None

Telephone Programming Instructions

1. Enter the programming mode.

2. 9905 + **HOLD**

    9905:PASSWORD PROG
    PASSWORD LVL?

3. Enter the level (1-3) for the password you want to change + **HOLD**.

    9905:PASSWORD PROG
    NEW PASS?

4. Enter the new password for the level selected (up to 8 digits) + **HOLD**.

    9905:PASSWORD PROG
    CONFIRM?

5. Reenter the password you entered in step 4 above + **HOLD**.

    9905:PASSWORD PROG
    PASSWORD ACCEPTED

6. Press **CONF** to return to step 3 and select another password to program.
        OR
    Press **CONF** twice to exit the program.

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	
	DS1000	Not applicable.

Use **Program 9906 - Database Save** to back up site data to PC Card P/N 85880 or P/N 80050-V**.**. Refer to your Hardware Manual for the specifics.

Conditions

The following table lists the PC Card Backup Error Messages that you may see when using the instructions below.

This error message:	Means this:
No PCCARD	The PC Card is not installed. *Install the PC Card and try again.*
ERASE FAILED	The system could not overwrite an existing data base on the PC Card. *Repeat the procedure. If you get the message again, try another PC Card.*
SAVE FAILED	The system could not save data to the PC Card. *Repeat the procedure. Of you get the error message again, try another PC Card.*

Telephone Programming Instructions

1. Insert the PC Card into the CPU.
   Refer to the Hardware Manual for additional information.
2. Be sure the CPU mode switch is set to **RUN**.
3. Enter the programming mode.
4. 9906 + **HOLD**

   9906:DATABASE SAVE START?

5. Enter Y + **HOLD**.

   9906:DATABASE NAME

   To quit program 9906 instead, enter N + HOLD.
6. Enter a name for the database you want to save (up to 10 characters long).

   9906:DATABASE NAME (name)

   Refer to Programming Names and Text Messages on page 439 if you need help when entering names.
   Skip this step if you want to save data in an address that already has a name assigned.
7. When you are done entering the name, press **HOLD**.

   9906:DB 00 (time)

> **(name) (date)**

> *You see the address, name and date of the first data base stored. If you data bases are stored, you see:*

> **9906:DB 00**
> **(empty)**

8. The system assigns the name you entered in step 7 to the address you select below:
   - Press VOL ▲ or VOL ▼ to scroll through the 12 data base addresses (DB 00 through DB 11)
      OR
   - Skip this step to select the currently displayed data base.

9. Press **HOLD**.

   Normally, you see:

   9906:SAVING
   . . . .

   The PC Card Active LED is on during backup.

   If the address you choose already has data stored in it. you see:

   9906:DATABASE SAVE
   REPLACE DB nn Y/N

   - Press N + **HOLD** to back up to step 5.
      OR
   - Press Y + **HOLD** to proceed.
      You automatically exit programming when the upload completes.

Description

	DS2000 Fixed Slot	Available.
	DS2000 U Slot	
	DS1000	Not applicable.

Use **Program 9907 - Database Load** to load site data previously saved to PC Card P/N 85880 or P/N 80050-V**.** into the system data base. Refer to your Hardware Manual for the specifics.

Conditions

The following table lists the PC Card Load Error Messages that you may see when using the instructions below.

This error message:	Means this:
No PCCARD	The PC Card is not installed. *Install the PC Card and try again.*
NO DATABASE	There is no data stored in the data base address you selected. *Select another data base address and try again.*

Telephone Programming Instructions

1. Insert the PC Card into the CPU.
   Refer to the Hardware Manual for additional information.
2. Be sure the CPU mode switch is set to **RUN**.
3. Enter the programming mode.
4. 9907 + **HOLD**

   9907:DATABASE LOAD START?

5. Enter Y + **HOLD**.

   9907:DB 00 (time) (name) (date)

   You see the name and date of the first data base stored. If no data bases are stored, you see:

   9907:DB 00 (empty)

6. Press VOL ▲ or VOL ▼ to scroll through the 12 data base addresses (DB 00 through DB 11) and select the one you want to restore.
7. When the data base you want to restore displays, press **HOLD**.
   The PC Card Active LED is on during restore.
   You automatically exit programming when the upload completes.

9900 - System Utilities, Part 2
9908 - PC Card Erase Utility

Description

	DS2000 Fixed Slot	Not available.
	DS2000 U Slot	• Requires software version 02.00.01. • Exit procedure from the Abort screen is modified in software version 02.00.04.
	DS1000	Not applicable.

Use **Program 9908 - PC Card Erase Utility** to completely erase all the data bases in a Data Base PC Card (P/N 85880).

Conditions

None

Telephone Programming Instructions

1. Following the instructions in your Hardware Manual, insert Data Base PC Card (P/N 85880) into the CPU.

2. Be sure the CPU mode switch is set to **RUN**.

3. Enter the programming mode.

4. 9908 + **HOLD**

    ```
    9908:FORMAT PCCARD
    ERASE ALL (Y/N):
    ```

5. To erase all data on the PC Card, enter **Y** + **HOLD** and go to the next step. You see:

    ```
    9908:FORMAT PCCARD
    ABORT (Y/N)?
    ```

         OR

    To exit the program without erasing the PC Card, enter **N** + **CONF**.

6. To erase all data on the PC Card, enter **N** + **HOLD**. You see:

    ```
    9908:FORMAT PCCARD
    . . . .
    ```

    After about 30 seconds, you see:

    ```
    9908:FORMAT PCCARD
    PCCARD ERASED !
    ```

         OR

    To exit the program without erasing the PC Card, enter **Y** + **HOLD**.
    *In software versions prior to 02.00.04, press **CONF** instead of **HOLD**.*

7. Press **CONF** twice to exit.

Description

DS2000 Fixed Slot
DS2000 U Slot   Available.
DS1000

Use **Program 9999 - System Initialization** to initialize the system database.

! Warning!
Initializing the system erases all your programmed entries and replaces them with the factory-installed default values.

Conditions

None

Telephone Programming Instructions

1. Enter the programming mode.

2. 9999 + **HOLD**

    9999:INITIALIZATION
    INITIALIZE SYS?nnn

3. Enter Y + **HOLD** to initialize the system.

    OR

    Enter N + **HOLD** to exit the program without initializing.

    If you enter Y, the system will initialize with the factory-installed default and return to the idle state.

Numerics

A

B

C

D

E

F

NEC

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