DBS 576HD
Digital Business System

Technical Manual

Supports DBS 576HD Version 5.0

Section 700 Feature Operation

DBS 576 - Version 5.0
Issued September 2001

Before attempting to operate the DBS 576HD, please read these instructions completely.

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Chapter 1. About This Manual

If you are using this manual for a single System, make note of its software version in the following table. This information may be referenced by technicians or owners of the System.

Software version information for systems shipped with this document	
CPC Model:	Software Version:

Organization

This manual contains detailed descriptions of features. The feature descriptions are organized according to the following categories:

Feature Categories	**Description**
System Features	System Features are either available on a system-wide basis or aid in the overall administration of the System.
User Maintenance	User Maintenance Features are used by the end user to maintain the System. These items include setting time and date, Personal Speed Dial (PSD) numbers and names, System Speed Dial (SSD) numbers and names, extension names, Verified ID codes, Call Forward ID codes for Voice Mail, Message Key ID codes, Mode schedule, Special Day mode, Exception Day mode, and Day of Week mode.
Key Telephone Features	Key Telephone Features are available to System Key phones. System Key phones are proprietary digital sets that provide feature access through a combination of feature keys and access codes.
Digital Single-Line Telephone (DSLT) Features	DSLT Features are available to Digital Single-Line Telephones. DSLTs provide digital audio quality and limited feature key access in a single-line set.
Single Line Telephone (SLT) Features	SLT Features are available to industry-standard 2500 sets. Since SLTs are not equipped with feature keys, most features are accessed by using the dialpad and/or the switchhook.

Purpose

The purpose of this manual is to provide an overview of feature operations and requirements. Where applicable, the following types of information are provided for each feature:

Types of information	**Purpose**
Description	Provides an overview of how the feature works and, in some cases, what it is typically used for
Operation	Includes step-by-step instructions on how to use the feature
Hardware Requirements	Lists any special hardware that is required to use the feature

Related Programming	Lists the programming subsystems associated with the feature
Considerations	Provides details on feature interactions and limitations

Abbreviation List

ACD Automatic Call Distributor
ARS Automatic Route Selection
BGM Background Music
BLF Busy Lamp Field
BRI Basic Rate Interface
DBS Digital Business System
CFWD Call Forward
COS Class of Service
CTAPI Computer Telephony Application Programming Interface
CTI Computer Telephony Integration
DDI Direct Dial Inward
DID Direct Inward Dial
DIL Direct In Line
DISA Direct Inward System Access
DL Direct Line
DN Directory Number
DND Do-Not-Disturb
DNIS Dialed Number Identification Service
DP Dial Pulse
DSLT Digital Single Line Telephone
DSS Direct Station Selector
DSU Digital Service Unit
DTMF Dual Tone Multifrequency
FF Flexible Function
HD High Density (DBS 576HD)
LCD Liquid Crystal Display
LCR Least Cost Routing
MCO Multiple CO (Pooled Trunk Access)
MIS Management Information System
MOH Music On Hold
PNPDN Phantom Non-Primary Directory Number
PRI Primary Rate Interface
PSD Personal Speed Dial
SLT Single Line Telephone
SMDR Station Message Detail Recorder
SPI Service Provider Interface
SSD System Speed Dial
TAPI Telephony Application Programming Interface
TRS Toll Restriction Service

Chapter 2. List of Features

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Chapter 3. System Features

System Features are either available on a system-wide basis or aid in the overall administration of the System.

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AEC Disconnect

Description

This feature allows the System to send a disconnect signal of 1 second to an analog device indicating that the calling party has hung up (terminated the call). This feature is useful with a Third-party Voice Mail or an Answering Machine. By default this feature is disabled.

Hardware Requirements

- AEC port

Related Programming

- FF3-0: Loop Disconnect Signal

Considerations

- The 1 second time duration of the disconnect signal is fixed. (It cannot be changed.)

Attendant Groups

Description

An attendant phone is often used as a central answering point for other extensions. In addition, attendant phones frequently have special capabilities for monitoring and programming extensions.

You can reach the assigned attendant group by dialing the feature access code for Attendant Calls (usually 0). If an attendant phone is available but does not answer within a set time, the call will move to the next available attendant phone. If all members of the attendant group are busy for a specified time, the call can be forwarded to other extensions or another hunt group. The system allows up to 20 extensions to be included in an attendant group.

Hardware Requirements

- N/A

Related Programming

- FF5-0-01: Attendant Hunt Pilot Number
- FF5-0-02: Day 1 Attendant Hunting
- FF5-0-03: Day 2 Attendant Hunting
- FF5-0-03: Night Attendant Hunt
- FF2: Ring Type

Considerations

- The System allows one attendant group for each system mode (Day 1, Day 2, and Night).
- An attendant group can contain both real extensions and virtual extensions. If virtual, several phones can be made to ring at the same time.
- Attendant groups can use only Pilot Terminal Hunt Group or Pilot Distributed Hunt Group. For more information, see “Hunting Groups” on page 3-33.
- The pilot number for an attendant group is flexible (i.e., any extension number can be designated as the pilot [not a real extension]).
- If a member of the attendant group has Do-Not-Disturb (DND) or Call Forwarding - All set, that phone is temporarily removed from the attendant group.
- If a member of the attendant group has Call Forwarding - Busy set and the extension is busy, the call goes to the next phone in the attendant group.
- If all members are busy for the duration of the busy queuing timer, the call can be forwarded to another hunt group or another extension.
- Attendant groups support the following call types:
    - Direct Inward Dialing (DID) / Dialed Number Identification Service (DNIS) / Direct Dial Inward (DDI)
    - Direct Inward System Access (DISA)

- Extension calls
- Private network attendant calls
- Call reversion
- Call forwarded to Attendant Hunt Group

Automatic Call Distributor

Description

The System provides an optional Automatic Call Distributor (ACD) for efficient presentation, handling, and management of incoming calls to one or more groups of specialized users.

This optional Built-in ACD is contained on a single circuit card that is installed in the System. This "built-in" capability eliminates the need for custom wiring and other installation.

Each specialized user is known as an ACD agent. Each agent position is equipped with a large display telephone (VB-44225) that provides Liquid Crystal Display (LCD) messages to assist the agent in handling calls.

The Built-in ACD provides:

- Up to 3 agent groups (ACD Version 3.0 and higher)
- Up to 2 agent groups (ACD Version below 3.0)
- Up to 32 agent IDs per group
- Up to 64 agent IDs per system (ACD Version 2.0 and higher)
- Up to 32 agents
- Up to 6 supervisor IDs per system (ACD Version 3.0 and higher)
- Up to 2 supervisor IDs per system (ACD Version below 3.0)
- Up to 4 voice ports per group
- Up to 4 voice ports per system
- 1 Music-On-Hold (MOH) source (Main System MOH source)
- 1 Management Information System (MIS) Monitor Port (RS-232C)
- Abandoned Call Report counter available with MIS reports (This is not the same as the Abandoned Call Timer added to the Station Message Detail Recorder [SMDR] reports.)
- 2-week memory for MIS reports
- Up to 6 recorded messages (flexible length, max. 96 sec. per system) (ACD Version 3.0 and higher)
- In Version 3.5 and higher, the Silent Monitor feature has been added. This feature allows an ACD supervisor to monitor a call between an ACD agent and a caller without the knowledge of either party. For more information, See "Silent Monitor" on page 5-75., Section 400 - *Programming*, and Section 520 - *Built-In ACD Reference Manual*.
- In addition to MOH, ACD Version 3.5 provides up to eight analog extension ports that can be connected to a recorded announcement device. See Section 520 - *Built-In ACD Reference Manual*.
- Up to 6 recorded messages (max. 14 sec. per message) (ACD Version below 3.0)
- Zip Tone which automatically answers calls when an agent is using the Headset mode (CPC Version 2.5 and higher)

- Wrap Mode which allows an agent to complete any paperwork before becoming available to take another call.

Hardware Requirements

- See Section 520 - *Built-In ACD Reference Manual*.

Related Programming

- See Section 520 - *Built-In ACD Reference Manual*.

Considerations

- For more information, see Section 520 - *Built-In ACD Reference Manual*.

Automatic Route Selection

Description

When Automatic Route Selection (ARS) is enabled, the system follows a preselected route for calls. Usually the selected routing is the least cost route.

ARS works in conjunction with Toll Restriction Service (TRS). Calls can be denied based on the programmed TRS level for the originating party. (For more information, see "Ringing Modes" on page 3-49.)

- Three levels of ARS checking are available based on the dialed number following the ARS access code:
  - **Direct Route Selection:** The simplest form of ARS routing that upon ARS entry (enter **9**) directly selects the trunk group and any dialed number modification.
  - **Route List Selection:** A more complex routing that includes up to 5 alternative levels of route selection and includes TRS level checking.
  - **Time List Selection:** The most complex routing that determines the appropriate route list based upon the day and time.
- Forced ARS is available on an Extension Class of Service (COS) basis.
- A special day list provides tailored ARS routing for up to 20 holidays, vacation days, etc.
- Automatic modification of dialed numbers is available. This includes deleting up to 24 prefix digits and adding up to a 10-digit prefix and a 10-digit suffix. The modification of dialed numbers can include pauses, Dual Tone Multifrequency (DTMF) conversion, itemized code (extension number) and an authorization code. (Itemized code and authorization are not used in some areas.)
- Up to 8 authorization codes are available.
- For more information on ARS/TRS, see Appendix A "ARS and TRS Operation" on page -1.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Automatic Trunk to Trunk Transfer

Description

The System can be set to automatically transfer trunk calls out to another trunk without requiring the call to be answered internally. This transfer may be either trunk based or extension based (i.e., call forward outside).

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Background Music/MOH Separation

Description

Separate inputs are provided for Background Music (BGM)and Music-on-Hold (MOH). This allows one music or sound source to be used for background music and another music or sound source to be used for music on hold.

A typical advantage of this is playing a pre-recorded promotional tape to held parties (since many may be customers) while providing a selected background music for use in the office.

Note: CPC-HS has only one input that is used for both BGM and MOH.

Hardware Requirements

- Both Background Music and Music on Hold (if using external MOH) require a sound source.

Related Programming

- N/A

Considerations

- N/A

Battery Backup

Description

When backup batteries are installed, the System will continue to operate in the event of a power failure. If using Battery Backup, backup batteries must be installed in each cabinet.

A fully loaded System will operate at least 15 minutes with the DBS 576HD.

Hardware Requirements

- Back-up battery unit (VB-44026)

Related Programming

- N/A

Considerations

- Any device connected to the System but that does not derive its power from the System must have a backup power source to operate. These devices include any System Message Detail Recording (SMDR) printer (or recorder), fax machine, answering machine, modem, cordless telephone, etc.

Call Progress Tones

Description

The System supplies a full array of call progress tones. These tones provide audible indications of the status of calls and include dial tone, busy tone, ringback tone, error tone, confirmation tone, and splash tone. The complete specification for these tones may be found in *Section 300 - Installation*.

In addition to call progress tones, Direct Station Select (DSS) LEDs and the display provide additional indication of the status of calls.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Caller ID

Description

A properly equipped system supports Caller ID, a service offered by the network telephone service provider. The CO sends calling number information to the system after the first ring. Users with display telephones can see Caller ID information as incoming calls ring at their extension. They can also access previous calls via the Caller ID Call Log feature. The Caller ID number is recorded in SMDR.

With Version 5.0, the caller name (if available) can be displayed for a calls received from an ISDN PRI line (ISDN / PRI NI II standard only).

Hardware Requirements

- Loop-start trunk card (8) (VB-44510) with Caller ID circuit card (8) (VB-44513), Loop-start trunk card (4) (VB-44514) with Caller ID circuit card (4) (VB-44515), ISDN (PRI = VB-44540, BRI = VB-44530).

Related Programming

- FF2-0: Caller ID
- FF2-0: Caller ID Ring Control
- FF3-0: Call Duration Display
- FF1-0-01: Alpha Tagging (Name/No. Display)
- ISDN (PRI/BRI - T Point) can get calling party information.
- Caller ID service must be ordered from the local telephone operating company or the interexchange carrier.
- Caller ID data is usually sent between the first and the second rings of the incoming trunk call. The trunk may be programmed to immediately ring at the station or wait until after the Caller ID digits are received before ringing at the station. If the trunk is programmed to ring immediately, the Caller ID digits will not display until after they are received and processed.
- Caller ID numbers may be denied from being sent for some callers (private). Some long distance carriers may not provide Caller ID data (out of area).
- Prior to Version 3.5, Caller ID supported only the number format. Version 3.5 and higher supports selection of the number or name.
- In Version 3.5, Caller ID displays the highest ringing priority call (*call queued to ring at the target extension immediately after the present call terminates*).

Caller ID Alpha Tagging

Description

If the received Caller ID phone number matches any number in the System Speed Dials (SSD000-SSD199), then the associated System Speed Dial name can be displayed as the Caller ID information. Alternatively, the DID name may be displayed instead.

In Version 3.5 and higher, Caller ID information will be shown on the second line of the LCD display when an incoming call rings a display phone with a conversation already in progress. Second incoming calls include extension Camp-on, extension Call Wait, queued DIL, both Appearance and non-Appearance calls (CO, MCO, virtual or DN, recall, BLF).

Hardware Requirements

- ISDN (PRI = VB-44540, BRI = VB-44530)
- FF1-0-01: System (Alpha Tagging)

Considerations

- The system may be set to display Caller ID in one of two priorities as follows:

  Priority Choice 1

  - CID name (future feature)
  - Alpha tagging if matched
  - DID name

  Priority Choice 2

  - DID name
  - CID name (future feature)
  - Alpha tagging if matched
- Currently Caller ID only supports the single format (number only). Multiple format (number and name) is not currently available but is planned as a future feature.
- Caller ID Call Logging only shows the CID number.

Centrex/PBX Compatibility

Description

Centrex/PBX Compatibility allows the System to be connected behind centrex or PBX lines.

The System supports up to 6 access codes for dialing centrex or a PBX. These access codes allow the System, System Message Detail Recording (SMDR) output to exclude the number dialed to reach a centrex or PBX line.

When connected behind a PBX or Centrex, Toll Restriction Service (TRS) can be used to restrict calls.

The System also supports transmission of a flash signal over the centrex or PBX link.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Class of Service

Description

A Class of Service (COS) allows or restricts access to a group of features or functions. For instance, an Extension COS may allow Call Forwarding features. In the System, both extensions and trunks use classes of service.

The System supports the following COSs for trunks and extensions:

- COS - Trunk/Tie
- COS - Ext/Ext Restriction
- COS - Extension Feature
- COS - Trunk to Trunk Restriction

Class of Service - Trunk/Tie

Tie/Trunk COS allows or restricts access to various features. Each trunk is assigned to one of 16 trunk classes of service (**00**-**15**).

The following table shows the features that can be enabled/disabled for each trunk COS.

Table 3-1. Trunk COS

Number	Feature
1	Intercom Ringing Tone (CO or intercom ring tone)
2	Dial Tone to Tie Lines (Enable/Disable)
3	Forced Recover on Fast-Busy Tone (Send fast busy or disconnect line)
4	DID/DDI Dialed Number Conversion Table (DID/DNIS Table A or B)
5	Paging on DISA/Tie-Line Call (Allow/Restrict)
6	DISA Security Code Verification
7	Network Flash Forwarding (Version 2.0 or higher)
8	Network Flash Receive (Version 2.0 or higher)
9	Brokers Hold for Network Calls (Version 2.0 or higher)
10	Priority Message-Waiting Set/Cancel (Version 2.0 or higher)
11	Network-to-Network Transfer (Version 2.0 or higher)
12	Camp-On for Tie-Lines (Version 2.0 or higher)
13	T1 Trunk Ring Back Service Tone (Version 3.5 or higher)

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Class of Service - Ext/Ext Restriction

Ext/Ext Restriction COS allows or restricts calls placed to other extensions based upon the Extension COS. Each Extension COS is programmed to either originate or not originate calls to another Extension COS.

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Class of Service - Extension
- FF1-0-10: Ext - Ext Restriction
- FF2: Extension COS Assignment

Considerations

- N/A

Class of Service - Extension Feature

Extension COS allows or restricts access to certain extension features. (The extension features are described later in this manual.) Each extension is assigned to one of 16 classes of service (**00-15**).

The following table shows the features that can be enabled/disabled for each Extension COS.

Table 3-2. Extension COS

Class of Service Features	
Number	**Feature**
1	Intercom Call Type (Tone/Voice)
2	Onhook Transfer at Ringback (Allow/Restrict)
3	Onhook Transfer at Talk (Allow/Restrict)
4	On-Hook Transfer at Camp-On (Allow/Restrict)
5	Exclusive Hold for Non-Appearing CO (System/Exclusive)
6	Exclusive Hold on SLTs (System/Exclusive)
7	Brokers Hold on SLTs (3-Party Conference/Brokers)
8	Hookflash During Talk on SLTs (Allow/Restrict)
9	SSD Assignment (Allow/Restrict)
10	SSD Assignment to MCO Tenant Groups (Allow/Restrict)
11	SSD Dialing (Allow/Restrict)
12	Intercom Redialing (Allow/Restrict)
13	Direct Trunk Access (Allow/Restrict)
14	MCO Incoming Call Answer (Allow/Restrict)
15	Paging (Allow/Restrict)

Class of Service Features	
16	Auto Repeat Dial (Allow/Restrict)
17	DND Set/Clear (Allow/Restrict)
18	DND Set/Clear (Other) (Allow/Restrict)
19	Call Forward/All Calls (Allow/Restrict)
20	Call Forward/No Answer (Allow/Restrict)
21	Call Forward-Busy (Allow/Restrict)
22	Call Forward (Other) (Allow/Restrict)
23	User Maintenance Log-in (Allow/Restrict)
24	Priority Message Waiting Send (VM) (Allow/Restrict)
25	Message Waiting Send (Allow/Restrict)
26	System Mode Switch (Allow/Restrict)
27	Busy Override Send (Allow/Restrict)
28	Manual Camp-On Send (Allow/Restrict)
29	Manual Camp-On Receive (Allow/Restrict)
30	Callback Request Send (Allow/Restrict)
31	Callback Request Receive (Allow/Restrict)
32	Trunk Queuing (Allow/Restrict)
33	Manual DND Override Send (Allow/Restrict)
34	Forced DND Override (Allow/Restrict)
35	8-Party Conference (Allow/Restrict)
36	Voice Call Send (Allow/Restrict)
37	Voice Call Receive (Allow/Restrict)
38	Dial Tone Stop (Allow/Restrict)
39	Dial Tone Pre-Pause Check (Check/No check)
40	Long Talk Alarm for Outgoing CO Calls (Enable/Disable)
41	Recall Timer Apply (Recall to Extension/Recall to Attendant)
42	Forced ARS (Not Forced/Forced)
43	API Event Reporting (No/Yes)
44	Call Forward/Outside (Allow/Deny)
45	Onhook Trunk-to-Trunk Transfer (Allow/Deny)
46	Station Call Park Answer (Allow/Deny)
47	Station Call Park Transfer (Allow/Deny)
48	OHVA (Allow/Deny)
49	OHVA Answer (Allow/Deny)
50	Call-Waiting Answer at HOLD

Class of Service Features	
51	On-Hook Park
52-54	Not Used
55	Station Lockout (Own)
56	Station Lockout (Other)
57	Absence Message Set
58	UNA Pickup
59	Intercom Ring Tone at CO (Version 2.0 or higher)
60	BGM Access
61	CFD Setting For a PDN By Pressing the NPDN
62	Busy Override
63	Silent Monitor Initiate
64	Silent Monitor Receive
65	Recall Pickup

Hardware Requirements

- N/A

Related Programming

- FF2: Trunk COS
- FF3: Extension COS Assignments

Considerations

- N/A

Class of Service - T1 Trunk Ring Back Service Tone

With Version 3.5 and higher, the system can be programmed to send a simulated ring back tone to T1 trunks when the CO does not provide a ring back tone.

Hardware Requirements

- N/A

Related Programming

- FF1-0-04: Trunk COS

Considerations

- Supports Ground Start/Loop Start Trunks

Class of Service - Trunk to Trunk Restriction

Trunk to Trunk COS allows or restricts call transfers from one trunk to another trunk based on the originating and receiving trunk COS.

Hardware Requirements

- N/A

Related Programming

- FF1-0-04: Class of Service Trunk/Tie
- FF1-0-11: Trunk-Trunk Restriction

Considerations

- N/A

Class of Service - Extension (Station) Timers

Prior to CPC Version 2.0, timers related to certain extension functions such as the Hold Recall Timer were only available on a system-wide basis. Beginning with CPC Version 2.0 these extension functions may continue to use the same system-wide timers or a newly added Station Timer Class settings. Up to eight Station Timer Classes may be specified. Then an extension may be assigned a Station Timer Class.

The following table shows the extension timers that may be assigned on a class basis.

Table 3-3. Station Timer Class

Number	Station Timer
1	Hold Recall Timer (KTEL)
2	Hold Recall Timer (SLT)
3	Transfer Recall Timer (KTEL and SLT)
4	Hold/Transfer Recall Ringing Timer
5	Call Park Recall Timer
6	Call Forward No Answer Timer (Day 1)
7	Call Forward No Answer Timer (Day 2)
8	Call Forward No Answer Timer (Night)
9	Floating Hold Recall Timer

Hardware Requirements

- N/A

Related Programming

- FF1-1-05: Station Timer Class Definitions
- FF3-0 (Extensions): Station Timer Class Assignments

Considerations

- N/A

CO Ringing Types

Description

Several types of CO ringing are available for the System including the following:

- Direct Inward Dialing (DID) Ringing
- Direct In Line (DIL) Ringing
- Direct Inward System Access (DISA) Ringing
- Multiple Ringing

These ringing types may be used in any combination in the System.

DID Ringing

DID Ringing allows calls on a common CO to be directed to ring to a specific extension or group of extensions, etc. based upon the final digits dialed. These final digits are received from the DID trunk and compared to a DID Table that determines where the calls should ring. Depending on the assignments in the DID Table, names or trunk numbers are displayed. (Names can be up to 10 digits long.)

DID Ringing can be very useful by sending calls directly to a specific extension, hunt group, etc. based upon the number dialed. Since a relatively small number of trunks handle the DID calls, this can be more cost efficient than DIL trunks or attendant group answering and transfer. (DID may send a call to a group using the Virtual Extension feature.) DID Busy/Delayed Ringing is also available with DID Ringing. (See “DID Day/Night Busy/Delayed Ringing” on page 3-50.)

For more information on DID CO Trunk Interface, see “CO Trunk Interface - DID” on page 3-20.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- Caller ID takes priority over the DID name assignment.
- Only one of the two DID tables may have name assignments.
- If the DID/DIL destination is a Directory Number (DN), the call goes to an extension that has a destination key even if the Primary Directory Number extension is busy or does not answer.
- If the DID/DIL destination is an UNA extension, the UNA will ring depending on DID number tenant group/ DIL incoming CO tenant group.

DIL Ringing

DIL Ringing allows calls on a specific CO line to be directed to ring a specific extension, System Speed Dial (SSD) number (for redirecting calls out), and hunting group.

This can be very useful when a trunk is dedicated to a specific person or purpose. However, this can be a more expensive use of the line since it has a more limited use.

Prior to Version 3.5, it was impossible to distinguish between Private Line incoming calls and Directory Number incoming calls. Version 3.5 and higher allows the person receiving the call to easily distinguish between these types of incoming calls.

Hardware Requirements

- N/A

Related Programming

- N/A

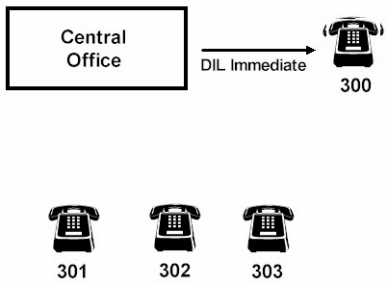
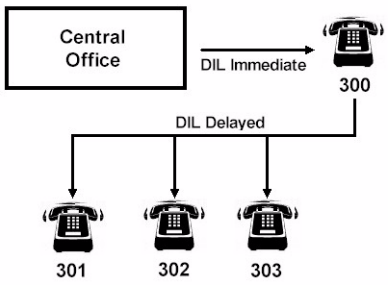
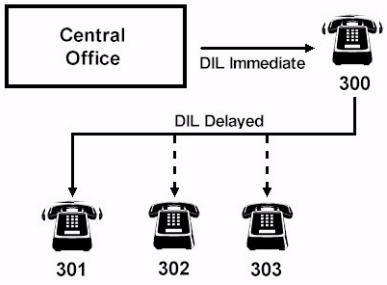
Considerations

- If the DID/DIL destination is a Directory Number (DN), the call goes to an extension that has a destination key even if the Primary Directory Number extension is busy or does not answer.
- If the DID/DIL destination is an UNA extension, the UNA will ring depending on DID number tenant group/ DIL incoming CO tenant group.

DIL Delayed Incoming Ring Enhancement

Version 3.5 and higher

Prior to Version 3.5, a DIL call that was not answered by the Immediate Ringing extension was simultaneously passed to all other extensions in the MCO if Delayed Ringing was set. Beginning with Version 3.5, an incoming DIL call that is not answered can be passed to a single Delayed Ring destination or to all extensions with an MCO key that includes the incoming trunk. If the Delayed Ringing extension is not answered, the call is forwarded the extension's preprogrammed location (e.g., Voice Mail, Call Forwarding, etc.) For example:

DIL Immediate (DIL Destination = 300)	DIL Delayed (DIL Delayed Destination = 301)	
Both Versions	**Version 2.7**	**Version 3.5**
		
FF2-0-BSSC-031 (DIL Dest. = 300) 1. Call rings on Ext. 300 only	FF2-0-BSSC-0441 (DIL Dest. = 300) 1. Call rings on Ext. 300 2. Call rolls over to Ext. 301, 302 and 303 simultaneously because they have an MCO key that includes the trunk.	FF2-0-BSSC-041 (DIL Dest. = 300) 1. Call rings on Ext. 300 2. System can be programmed to ring Ext. 301 only, or to ring all three extensions.

Note: The program settings in the previous figure can also be used for the following Delayed Ringing extension destinations:

- Speed Dial
- Hunt Group Number
- Attendant Group Number
- ERA Number

Hardware Requirements

- N/A

Related Programming

- FF2-0-BSSC-03 (Ring Assignment)
- FF2-0-BSSC-04 (Delayed Ring Assignment)
- FF1-0-02-0027 (DIL Delayed Ringing Pattern)

Considerations

- N/A

DISA Ringing

DISA Ringing (which is related to the DISA feature) allows a CO trunk specified as a DISA CO trunk to ring and give off-site users dial-in access to the System. Once the DISA trunk is accessed, the user receives dial tone and may dial an extension.

For more information on DISA, see “Direct Inward System Access” on page 3-28.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Multiple Ringing

Description

Multiple Ringing allows CO calls into the System to be directed to ring multiple extensions in the System. This can be very useful when anyone in a group may answer a call. This can also be very useful at night when only a selected number of people are available to handle calls.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

CO Trunk Interface

Description

The System supports several types of CO Trunk Interfaces including the following:

- Direct Inward Dialing (DID)
- Integrated Services Digital Network (ISDN) - Basic Rate Interface (BRI)
- ISDN - Primary Rate Interface (PRI)
- Loop Start and Ground Start

Each trunk type supports various features such as Delayed Ringing, Night Ringing, etc.

CO Trunk Interface - DID

The DID feature allows an extension to have a dedicated direct number. The dedicated number allows calls to be made directly to the extension, without the caller going through the attendant.

The DID number may have from 1 to 4 digits (typically 4).

Each DID Trunk Interface card (VB-44520) supports up to 8 DID trunks.

Hardware Requirements

- The -48V power supply is required.

Related Programming

- N/A

Considerations

- The DID Trunk card supports 1 to 4-digit dial-pulse (10 pps) or Dual Tone Multifrequency (DTMF) signaling.
- DID numbers must be between **0** and **9999**.

CO Trunk Interface - Ground Start

Ground start trunks are supported in the System with the VB-44511 Loop Start/Ground Start trunk interface. Each card supplies 8 circuits that can be individually configured for either loop start or ground start operation.

Ground start trunks are useful in preventing call collision.

Hardware Requirements

- When ground start trunks are used, the -48V power supply is required.

Related Programming

- N/A

Considerations

- N/A

CO Trunk Interface - ISDN BRI

The System supports ISDN BRI with the VB-44530 ISDN BRI interface unit. The VB-44530 is a T-Point ISDN-BRI that supports 2 B (bearer) channels and 1 D (data) channel (2B + D; 192kbps). This unit connects to an ISDN Data Service Unit (DSU). Point-to-point and point-to-multi operations are selectable.

The ISDN-BRI supports enblock setting and enblock setting at the sub-address.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- A DSU is required (not available from Panasonic).

CO Trunk Interface - ISDN-PRI

The System supports ISDN-PRI with the VB-44540 ISDN PRI Interface unit. The VB-44540 is a T/S-Point ISDN-PRI that supports 23 B (bearer) channels and 1 D (data) channel (23B + D; 1544kbps). This unit connects to an ISDN DSU.

A maximum of 1 ISDN-PRI unit may be installed ina DBS 576HD system with CPC-HS. Up to 2 ISDN-PRI units may be installed in a DBS 576HD system with CPC-HM.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

CO Trunk Interface - Loop Start

The VB-44510 Loop Start interface unit supplies 8 loop start analog trunks circuits. In addition, the VB-44511 Loop Start/Ground Start interface unit may alternatively be used to connect to loop start trunks.

Hardware Requirements

- VB-44510 Loop Start Card

Related Programming

- N/A

Considerations

- N/A

Computer Telephony Integration Capability

Description

Computer Telephony Integration (CTI) coordinates communications between computers and the telephone system. This is accomplished by using a Telephony Application Programming Interface (TAPI) server to connect the DBS 576 with a Local Area Network.

LAN TAPI is designed to enhance the DBS 576's performance by supporting both standard and custom computer telephony applications. A TAPI Service Provider (TSP) resides on a host computer running Windows NT Server/Version 4.0 or greater. Beginning with Version 3.0 and higher, CTAPI has been added to support LAN TAPI. (See LAN TAPI on p. 3-36 for additional information.)

Hardware Requirements

- API Card

Related Programming

- N/A

Considerations

- N/A

Data Security

Description

If you are using a line for data (modem connections, etc.), Data Security makes it possible to prevent interruptions. Data Security can be implemented for either all phone use or outside line use.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Daylight Saving Time

Description

The Daylight Saving Time feature allows you to program the 576HD so that it automatically adjusts the system's internal timeclock forward or back on specific days of the year. This time change is then reflected on the phone's display (display phones only).

Depending on the day of the year, the system will set the time according to the following:

Day of the year	System Action
First Sunday in April	System clock adds one hour to current time at 2 a.m.
Last Sunday in October	System clock subtracts one hour from

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- Daylight Saving Time can only be enabled or disabled in system programming. See *Section 400: Programming* for more information.

Day/Night System Mode

Description

Day/Night System Mode enables you to switch the System between two Day modes and a Night mode. These modes determine incoming call handling, Toll Restriction Service (TRS) call handling, and attendant group support.

While in a Night mode (generally used at night or any time when your office is closed), incoming calls can ring at selected extensions (e.g., a night watchman's extension or an extension connected to an answering machine). Outbound calls can be restricted to certain phones. Calls can be directed to a nighttime attendant group instead of the normal daytime attendant group.

The System provides one Night mode for night call handling. However, there are three night feature access codes (Night, Night 1, and Night 2). These three codes may be used to provide different two-way Voice Processing Unit messages (i.e., Night may select one message, Night 1 may select a different message, and Night 2 may select a third message.)

Typically, the Day mode is used for normal call processing of outside calls, TRS calls, and attendant calls. The second day mode (Day 2) may be used for alternative call handling such as during a lunch break, etc.

There are two ways to change day/night service modes:

- Manually
- Automatically

The following table lists the impact on TRS, Ringing, Attendant, and Built-in Voice Processing Unit in the various system modes:

Table 3-4. System Mode Impact on TRS, Ringing, Attendant, and Built-in Voice Processing Unit

SYSTEM MODE	TRS	RING	ATTENDANT	BUILT-IN VOICE PROCESSING UNIT
Day 1	Day TRS Mode	Day 1 Ring Pattern	Day 1 Attend. Group	Day 1 Message
Day 2	Day TRS Mode (Same for Day 1 and Day 2)	Day 2 Ring Pattern	Day 2 Attend. Group Handling	Day 2 Message
Night	Night TRS Mode (Same for Night 1, and 2)	Night Ring Pattern (Same for Night 1, and 2)	Night Attend. Group (Same for Night 1, and 2)	Night Message

SYSTEM MODE	TRS	RING	ATTENDANT	BUILT-IN VOICE PROCESSING UNIT
Night 1	Night TRS Mode (Same for Night 1, and 2)	Night Ring Pattern (Same for Night 1, and 2)	Night Attend. Group (Same for Night 1, and 2)	Night 1 Message
Night 2	Night TRS Mode (Same for Night 1, and 2)	Night Ring Pattern (Same for Night 1, and 2)	Night Attend. Group (Same for Night 1, and 2)	Night 2 Message

Manual Day/Night Mode

You can manually change the System mode to Day 1, Day 2, Night, Night 2, or Night 3 mode by either entering the correct dial code or by pressing the appropriately programmed FF key.

When using manual mode, the System may be configured to either use MCO tenant Day/Night modes or system-wide Day/Night mode.

Operation

To switch Day/Day 2/Night modes using Feature Access Codes (CPC Ver. prior to 2.0):

Switch Mode	Procedure	Indication
Toggle Day 1, Day 2, and Night Modes	1. Press the **ON/OFF** key.	Intercom dial tone **ON/OFF** LED lights
	2. Enter **760**.	
	3. Press the **ON/OFF** key	**ON/OFF** LED goes off If changing to Night mode, **Red** LED lights If changing to Day mode, **Red** LED goes off
Day 2 Mode	1. Press the **ON/OFF** key.	Intercom dial tone **ON/OFF** LED lights
	2. Enter **761** for the Day 2 Feature code.	
	3. Press the **ON/OFF** key	**ON/OFF** LED goes off **Green** LED lights
Night 1 Mode	1. Press the **ON/OFF** key.	Intercom dial tone **ON/OFF** LED lights
	2. Enter **762** for the Night 1 Feature code.	
	3. Press the **ON/OFF** key	**ON/OFF** LED goes off **Red Night** LED lights
Night 2 Mode	1. Press the **ON/OFF** key.	Intercom dial tone **ON/OFF** LED lights
	2. Enter **763** for the Night 2 Feature code.	
	3. Press the **ON/OFF** key	**ON/OFF** LED goes off **Red Night** LED lights

To switch Day/Day 2/Night modes using Feature Access Codes (Ver. 2.0 and later):

Switch Mode	Procedure	Indication
Toggle Day 1, Day 2, and Night Modes	1. Press the **ON/OFF** key.	Intercom dial tone **ON/OFF** LED lights
	2. Enter **760**.	
	3. Press the **ON/OFF** key	**ON/OFF** LED goes off If changing to Day 2 mode, **Green** LED lights If changing to Night mode, **Red** LED lights If changing to Day 1 mode, LED goes off

Switch Mode	Procedure	Indication
Day 2 Mode	1. Press the **ON/OFF** key.	Intercom dial tone **ON/OFF** LED lights
	2. Enter **761** for the Day 2 Feature code.	
	3. Press the **ON/OFF** key	**ON/OFF** LED goes off **Green** LED lights
Night 1 Mode	1. Press the **ON/OFF** key.	Intercom dial tone **ON/OFF** LED lights
	2. Enter **762** for the Night 1 Feature code.	
	3. Press the **ON/OFF** key	**ON/OFF** LED goes off **Red Night** LED lights
Night 2 Mode	1. Press the **ON/OFF** key.	Intercom dial tone **ON/OFF** LED lights
	2. Enter **763** for the Night 2 Feature code.	
	3. Press the **ON/OFF** key	**ON/OFF** LED goes off **Red Night** LED lights

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- Day and Night modes can be assigned to FF keys on a phone. You can switch between Day 1, Day 2, Night, Night 1, and Night 2 modes simply by pressing the appropriate key. The FF key lights red when the System is in the assigned mode.
- With CPC version 2.0 and later - Day 1/Day 2/Night toggle mode key can be assigned. Pressing the key toggles between modes. When in Day 1 mode, the FF key LED is not lit. When in Day 2 mode, the LED lights green. When in Night mode, the LED lights red.
- Prior to CPC version 2.0 - Day 1/Night toggle mode key can be assigned. Pressing the key toggles between modes. When in Day mode, the FF key LED is not lit. When in Night mode, the LED lights red.

Automatic Day/Night Mode

You can set the System to automatically enter a particular Day/Night mode determined by the time of day. Each day of the month can be assigned 1 of 3 automatic system mode patterns. Each of the patterns can be set to change modes up to 5 times per day.

Up to 20 special days can be programmed with up to 5 automatic mode changes for the day.

An Exception Day period is available for overriding the automatic mode for extended periods of time. For instance, if an office is shut down for the week of July 4th, the System can be programmed to not

operate in the automatic mode for those days. The System will stay in the same mode for the period. The mode may be manually changed at any time.

For instance, the System can be set to automatically enter Day 1 mode at 8:00 a.m. on weekdays and enter Night mode at 5:00 p.m. on weekdays. All incoming calls, TRS and attendant group handling would change accordingly. On Saturday and Sunday, the System would stay in Night mode.

The Automatic Day/Night modes may be set in User Maintenance. See “Set Mode Schedule” on page 4-15, “Set Special Day Mode” on page 4-24, “Set Exception Day Mode” on page 4-11, and “Set Day of Week Mode” on page 4-9.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- You can only set Automatic Day/Night modes on a system-wide basis. If tenant groups require separate Day/Night modes, you must set these modes manually.
- You can manually override Automatic Day/Night modes. (See “Manual Day/Night Mode” on page 3-24.)

Digital Pad

Description

Digital pad settings allow adjustment of call levels for different call types. There are 29 pad classes in the System. For pad class, a volume adjustment is assigned for a connection to any pad class assignment. The volume adjustment is between -30dB and +30 dB.

There are 8 extension pad classes and 16 trunk pad classes. In addition, there are pad classes for conference calls, page port, MFR, RAI Modem, and Conference Call Unit. One pad class is currently not used.

For instance, a call from an extension assigned to extension pad class 1 to a trunk assigned to trunk pad class 3 would received the volume adjustment assigned to this connection combination.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Direct Inward System Access

Description

Direct Inward System Access (DISA) gives off-site users dial-in access to the System. You access DISA from an outside location by entering a digit number assigned to a DISA trunk.

For security reasons, 16 incoming DISA ID codes/TRS class can be assigned. If a code is assigned, it must be entered as soon as the DISA trunk answers.

Operation

To make a DISA call to an extension:

Action	Result
1. From an outside location, enter the DISA trunk number.	DISA dial tone
2. If an incoming DISA code is assigned enter the DISA code (up to 10 digits). Otherwise, proceed to step 3.	
3. Dial the extension number.	

To make a DISA call to an outside number:

Action	Result
1. From an outside location, enter the DISA trunk number.	DISA dial tone
2. If an incoming DISA code is assigned enter the DISA code (up to 10 digits). Otherwise, proceed to step 3.	
3. Enter the Trunk group number (**9** or **81**-**84**)	
4. Dial the phone number.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-26: DISA Incoming Code
- FF1-0-26: DISA Outgoing Codes and TRS Assignments
- FF1-0-04: Class of Service (DISA ID Check)
- FF2: Ring Type

Considerations

- Busy override cannot be used for a DISA line.
- DISA can be used to access extensions as well as outside numbers.
- Paging cannot be accessed from a DISA line.
- While dialing an extension number, the ***** key may be entered to cancel dialing and return to dial tone. The **#** key may be entered to disconnect.

Distinctive Ringing

Description

Distinctive Ringing sets CO calls to ring with a distinctive ring based on the trunk. This “ring” also identifies the call as an outside call instead of an inside call.

Beginning with CPC version 2.0, calls to a key telephone or DSLT can also be set to distinctive ringing on an extension basis.

Hardware Requirements

- N/A

Related Programming

- FF2-0: (Trunks) Ring Pattern and Frequency
- FF3-0: (Extensions) Ring Pattern and Frequency
- FF1-0-04: (System) Trunk Class of Service

Considerations

- N/A

Door Box

Description

The door box (also called door phone) allows visitors to announce their presence from the office door, etc. When the button on the door box is pressed, one or more phones ring in the System. When answered, a two way conversation is made between the door box and the answering phone.

The answering party can operate a connected door opener (if equipped).

Operation

To answer a door box:

Action	Result
1. Answer the door box. (Door box calls ring in on a dedicated FF key.)	Two way conversation possible
2. Enter **3** while connected to the door box extension.	Door unlocks

Hardware Requirements

- The door box requires a Door Box Adaptor (VB-43701), Door Box (VA-43705), and Door Opener. Door openers are not sold by Panasonic; however, they can be purchased from an electronics dealer.
- Up to 2 Door Boxes can be connected to a Door Box Adaptor and utilize the same trunk.
- The Door Opener can be set to open for 15 seconds, 30 seconds, or one minute.

- While the Door Opener is functioning, a call from another Door Box on the same Door Box adaptor cannot be answered.

Related Programming

- N/A

Considerations

- The trunk connected to the Door Box Adaptor must be set to dial pulse (DP).

Door Box Sensor

The sensor is a device that detects when a circuit is opened or closed. Sensors can be used to detect events such as the opening of windows or doors. When the sensor is tripped, a tone sounds at a designated extension. Sensors are not sold by Panasonic; however, they can be purchased separately from an electronics dealer.

Hardware Requirements

- The sensor is attached to the Door Box Adaptor (VB-43701).
- Trunk lines connected to the Door Box Adaptor signal the designated extension when the sensor is tripped.

Related Programming

- N/A

Considerations

- The trunk connected to the sensor must be a dial-pulse (DP) trunk.

Extension Interface

The System supports a full array of extension devices including the following:

- Panasonic's proprietary key telephones
- Standard analog devices
- Dial Pulse (DP) / Dual Tone Multifrequency (DTMF) Single Line Telephone (SLT)
- Integrated Services Digital Network (ISDN) - Basic Rate Interface (BRI) S-point devices
- ISDN-Primary Rate Interface (PRI) S-point devices

Digital Key Telephones

The System supports the complete line of Panasonic proprietary 44-Series Digital Key Telephones as well as the Digital Single Line Telephone (DSLT). These models include:

- 16 Button Standard Telephone in Gray (VB-44210A-G) and Black (VB-44210A-B)
- 22 Button Standard Telephone in Gray (VB-44220A-G) and Black (VB-44220A-B)
- 22 Button Display Speakerphone in Gray (VB-44223A-G) and Black (VB-44223A-B)
- 22 Button Voice Response Compatible Display Speakerphone in Gray (VB-44224G) and Black (VB-44224B)
- 22 Button Large-display Speakerphone in Gray (VB-44225G) and Black (VB-44225B)
- 34 Button Standard Telephone in Gray (VB-44230G) and Black (VB-44230B)

- 34 Button Display Speakerphone in Gray (VB-44233G) and Black (VB-44233B)
- EM24 - 24 Button Expansion Module in Gray (VB-44310G) and Black (VB-44310B)
- DSS 72 - 72 Button DSS/BLF in Gray (VB-44320G) and Black (VB-44320B)
- DSLT (VB-41200)

In addition to the above Digital Key Telephone models, the System supports the complete line of the older Panasonic proprietary 43-series telephones.

For information on Key Telephone features and operation, see Chapter 5 of this manual. For information on the DSLT features and operation, see Chapter 6 of this manual.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Analog Device Capability

The System supports analog telephone devices. These devices include fax machines, answering machines, cordless telephones, computer modems as well as standard rotary and push button telephones. This provides full flexibility in configuring the System.

Hardware Requirements

- Analog devices must be connected to an analog port.

Related Programming

- N/A

Considerations

- N/A

DP/DTMF SLTs

The System supports both DP (rotary dial) and DTMF (push button) analog extension types.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- The CPC card provides 4 DTMF receivers. Traffic levels may require that one or more MFR (DTMF) circuit cards be installed. Each MFR card provides 8 DTMF decoders.

ISDN/BRI S-Point Interface

The System supports ISDN-BRI terminal devices for connection as extensions. The BRI provides 2 B (bearer) plus 1 D (data) channel support (2B +D; 192 kbps).

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

ISDN/PRI S-Point Interface

The System supports ISDN-PRI terminal devices with the ISDN/PRI S Point Interface (VB-44540). The PRI provides 23 B (bearer) plus 1 D (data) channel support (23B +D; 1544 kbps).

On the DBS 576HD, either 8, 16, or 24 circuits may be enabled on the interface. Each enabled group of 8 circuits requires a slot position in the System. A fully used card uses 1 slot for the DBS 576HD.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Flexible Numbering Plan

Description

The System provides flexible numbering for feature access special numbers and extension numbers.

The dialing plan allows settings for digits dialed at dial tone, digits dialed at ringback tone, digits dialed at busy tone, two patterns of feature codes dialed at dial tone, two patterns of feature codes dialed at ringback tone, and two patterns of feature codes dialed at busy tone.

Feature access codes can be used when replacing another PBX system with a DBS 576HD System. Rather than learning the new access codes, the System feature access codes can be changed to match the old system. As a result, telephone users are less confused by the change and the requirement for retraining is reduced. Two sets of feature access codes are available (one of the two must be assigned to the terminal).

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Free Slot

Description

The DBS 576HD cabinet contains 5 free slots. These slots can be used for trunk cards, extension cards, or certain option cards.

Some circuit cards such as the Integrated Services Digital Network (ISDN) - Primary Rate Interface (PRI) card occupy more that one slot.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Hunting Groups

Description

Hunting allows calls to be automatically transferred among a preselected group of phones. If a phone is busy or there is no answer in a set amount of time, the call will hunt to the next phone in the hunt group.

A phone assigned to a hunt group is called a member. Up to 20 members can be assigned to a hunt group. Up to 12 hunt groups are available per cabinet.

Several methods of station hunting are available. Some methods require use of a pilot number (a fictitious extension number) while others start by a direct call to a hunt group member.

The System supports the following hunting groups:

- Pilot Terminal Hunt Group
- Pilot Distributed Hunt Group
- Switch Back Hunt Group
- Circular Hunt Group
- Next Extension/Hunt Group

Pilot Terminal Hunt Group

Pilot Terminal Hunt Group directs calls to a pilot number. The System begins with the first member and hunts through the group for the first available member to receive the call. If no member is available (extension is busy or there is no answer for a specified amount of time), the call is queued for the first member to become available. You can also set the Queuing Timer to specify how long the System will search the initial hunt group before beginning to search the next hunt group or extension.

The main advantage of this type of hunting is that the same hunting order is taken for all calls. This is useful in presenting calls to selected members first.

Pilot Distributed Hunt Group

Pilot Distributed Hunt Group directs calls to a pilot number. The System reviews who received the last call and begins hunting with the next member. If the last member in the group is reached and no member is available, the hunt continues with the first member and proceeds forward. After a complete search and no available member is found (extension is busy or there is no answer for a specified amount of time), the call is queued for the first member to become available. You can also set the Queuing Timer and specify how the long the System will search the initial hunt group before beginning to search the next hunt group or extension.

The main advantage of this type of hunting is that calls are evenly distributed throughout the group.

Switch Back Hunt Group

Switch Back Hunt Group initiates hunting in a specified group for calls made to a member extension in the group. If the called member of the hunt group is busy, the System begins hunting forward to the end of the group. If no member is available, the system hunts backward from the called member. If no member is available (extension is busy or there is no answer for a specified amount of time), the call is queued for the first member to become available. You can also set the Queuing Timer and specify how the long the System will search the initial hunt group before beginning to search the next hunt group or extension.

The main advantage of this type of hunting is that calls can be directed to start with a selected portion of the hunting group based on the directed number. However, all members are eventually searched.

Circular Hunt Group

Circular Hunt Group initiates hunting in a specified group for calls made to a member extension in the group. If the called member of the hunt group is busy, the System begins hunting forward to the end of the group and then moves forward from the first member of the group. If no member is available (extension is busy or there is no answer for a specified amount of time), the call is queued for the first member to become available. You can also set the Queuing Timer and specify how the long the System will search the initial hunt group before beginning to search the next hunt group or extension.

The main advantage of this type of hunting is that calls can be directed to start with a selected portion of the hunting group based on the directed number. However, all members are eventually searched.

Next Extension/Hunt Group

Next Extension/Hunt Group lets you specify which extension or hunt group to search after the Queuing Timer expires. This hunt group can be set as any type of hunt group, an attendant group, or an extension (including virtual extensions).

Hardware Requirements

- N/A

Related Programming

- FF5-1: Hunt Groups Mode
- FF5-1: Pilot Number
- FF5-1: Member
- FF5-1: Delayed Hunt Timer
- FF5-1: Queuing Timer
- FF5-1: Next Hunting

Considerations

- If a member of the hunt group has Do-Not-Disturb (DND) or Call Forwarding - All set, that phone is temporarily removed from the hunt group.
- If a member of the hunt group has Call Forwarding - Busy set and the extension is busy, the call goes to the next phone in the hunt group.
- If all members are busy for the duration of the busy queuing timer, the call can be forwarded to another hunt group or another extension.
- A hunt group can contain both real extensions and virtual extensions. If virtual, several phones can be made to ring at the same time.
- The pilot number for a hunt group is flexible (i.e., any extension number can be designated as the pilot [not a real extension]).
- Hunt groups support the following call types:
    - Direct Inward Dialing (DID) / Dialed Number Identification Service (DNIS) / Direct Dial Inward (DDI)
    - Direct Inward System Access (DISA)
    - Extension calls
    - Private network attendant calls
    - Call forward incoming
    - Call forwarded to Attendant Hunt Group
- For Version 3.5 and higher, a queuing wait timer allows you to queue calls in a Hunt Group for a fixed period of time. When the call has passed through the Hunt Group once, the timer is activated and the call is re-routed to the top of the group. The system continues to hunt for an available agent until the timer limit expires, and the call is diverted to another location.

Internal Hold Tone

Description

If a Music-on-Hold (MOH) sound source is unavailable, a periodic hold tone generated internally in the System can be provided to a caller. For more information, see “Music-on-Hold” on page 3-37.

Hardware Requirements

- N/A

Related Programming

- FF1: MOH Assignment

Considerations

- N/A

LAN TAPI

Description

LAN TAPI opens a line of communications between the DBS 576HD's switching systems and a PC. This is accomplished through the use of a Telephony Server connected to a LAN. Users on PCs can use specific applications to send and receive information to and from the DBS 576HD via the LAN. Using a software program called the Telephony Service Provider (TSP), call control information (TAPI commands) is translated into commands that can be interpreted by the DBS 576HD. This "open" communication between the PC and the telephone system allows the user to initiate and handle calls via the application running on the PC.

Hardware Requirements

- Windows NT network
- Telephony Server connected to the network
- Panasonic TSP software installed on the Telephony Server
- PC (Windows 95/98 or NT operating system)
- Supported TAPI application

Related Programming

- See *Section 575 - LAN TAPI Installation*

Considerations

- N/A

MCO Tenant Group

Description

When the System is configured for tenant operation, MCO Tenant Group determines which trunks groups are used for incoming and outgoing calls.

Each MCO trunk group is assigned to an MCO tenant group for incoming calls and for outgoing calls. By default, Trunk Group 1 is assigned to MCO Tenant Group 1, Trunk Group 2 is assigned to MCO Tenant Group 2, etc. for both incoming and outgoing calls.

For outgoing calls, each tenant group has 5 auto-trunk selections available. By default the first auto-trunk selection is seized by entering **9**, the second by entering **81**, etc.

The number of MCO tenant groups available depends on the number of ports in the system as follows:

- DBS 576HD:
  - 96-port system: 1 to 12 MCO tenant groups

Hardware Requirements

- N/A

Related Programming

- FF1-3: MCO Incoming/Outgoing
- FF5-2: MCO Outgoing Trunk Assignments
- FF5-3: MCO Incoming Trunk Assignments
- FF2: Trunk Tenant Group Assignments
- FF3: Extension Tenant Group Assignments

Considerations

- When you first assign a trunk to a Trunk Tenant Group from the initial setting of (0), the system automatically assigns the trunks as a member of the same number MCO Trunk Group (FF5-2 and FF5-3). For instance, if Trunk 10 is assigned as a member of Trunk Tenant Group 1, then Trunk 10 is automatically assigned as a member of MCO Outbound Trunk Group 1 and MCO Inbound Trunk Group 1. These assignments can be manually changed if desired.

Music-on-Hold

Description

The System can provide Music-on-Hold (MOH) to parties on hold (either CO line, extension, or network party). The MOH feature can also be used to play announcements or advertisements if desired.

Hardware Requirements

- The music source must be purchased separately. It is not provided with the System.

Related Programming

- N/A

Considerations

-

Important: A license may be required from the American Society of Composers, Authors, and Publishers (ASCAP) or similar organizations to transmit radio or recorded music through the MOH feature. Panasonic Telecommunication Systems Company, its distributors, and affiliates assume no liability should users of Panasonic equipment fail to obtain such a license.

Name Assignments

Description

Names may be assigned to the following:

- Extensions
- Trunks
- Direct Inward Dials (DIDs)
- Personal Speed Dials (PSDs)
- Systems Speed Dials (SSDs)

Trunks names and DID names must be assigned in dealer programming mode. Extension names and Speed Dial names may be assigned from a display telephone.

This feature does not require the use of a DSS/72 console or entering the programming mode.

Extension Name Assignments

Extension names can be up to 10 characters in length. (Assignment of extension names must be allowed in the Extension Class of Service [COS].)

Operation

To set extension names using a large-display or small-display phone:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	
3. Press the ***** key.	
4. Enter **2** for the Extension Name Assignment mode.	**EXT NO.=>** **EXT NAME** displays
5. Enter the extension number.	
6. Press the **HOLD** key.	**XXX** **A B C D E F XXX** displays (where XXX = extension number)
7. Press the **FLASH** key to clear the existing data.	**A B C D E F XXX** displays (where XXX = extension number)
8. Enter the extension name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 3-39.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 3-40.)	
9. Use the bottom row of FF keys to select a single letter. • See “Example 1. Large-Display Phone” on page 3-39. • See “Example 2. Small-Display Phone” on page 3-40. **Notes:** • Press the ***** key to erase a single entry. • Press the **#** key to enter a space.	

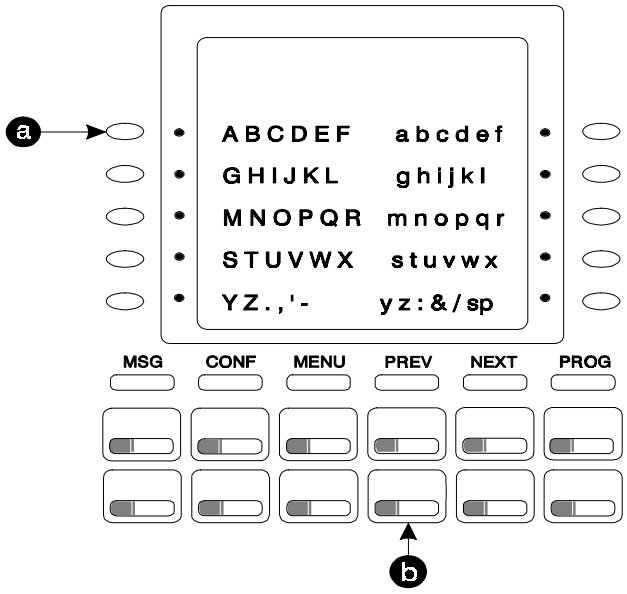
Action	Result
10. Repeat steps 7-8 as many times as necessary to enter the desired extension name. **Note:** Press the **FLASH** key to clear the entire entry.	
11. Press the **HOLD** key when finished.	Next extension number displays
12. To enter another extension name, press the **CONF** key and repeat steps 5-11.	**EXT NO.=>** **EXT NAME** displays

Example 1. Large-Display Phone

To enter **D**:

a. Press the first soft key on the top left.

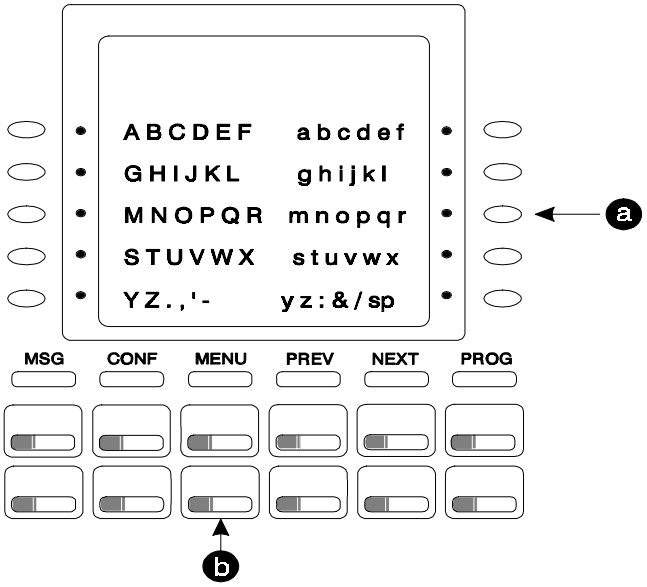
b. Press the fourth FF key from the left on the bottom row.



To enter **o**:

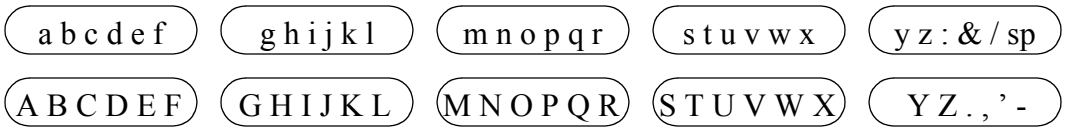
a. Press the third soft key from the top right.

b. Press the third FF key from the left on the bottom row.



Example 2. Small-Display Phone

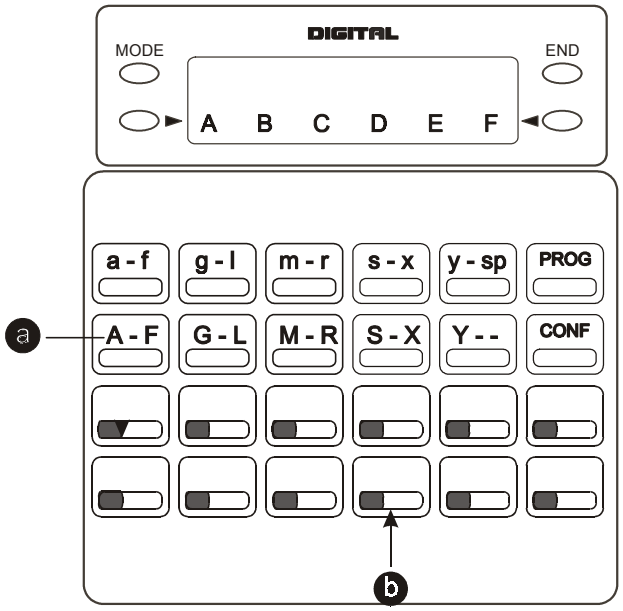
Refer to the following diagram to determine which one-touch key to press. (See step 7-8 above.)



To enter **D**:

a. Press the first one-touch key from the left on the bottom row.

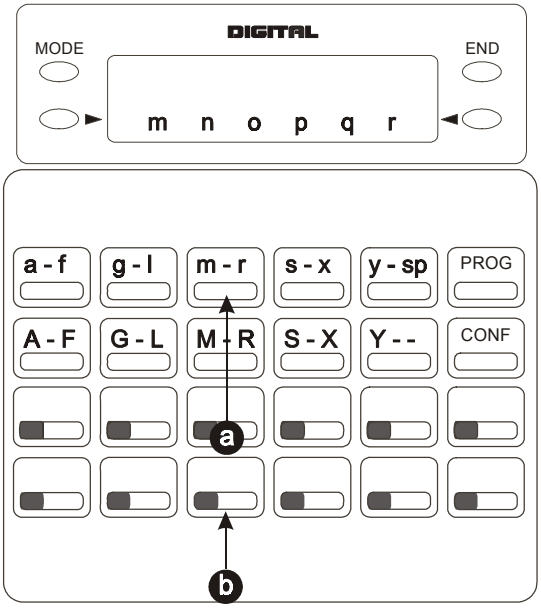
b. Press the fourth FF key from the left on the bottom row.



To enter **o**:

a. Press the third one-touch key from the left on the top row.

b. Press the third FF key from the left on the bottom row.



Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- Extension names can be up to 10 characters in length.
- The ability to make extension name assignments is allowed/restricted to anyone with a COS that allows access to User Maintenance features. (See Chapter 4 “User Maintenance” of this document.)

Speed Dial Name Assignments

You can assign names to PSD numbers from a display telephone without entering the programming mode. If allowed in the Extension COS, you can also assign names to SSD numbers.

Operation

PSD Names:

To set PSD names using a large-display or small-display phone:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	
2. Press the **PROG** key.	
3. Press the ***** key.	
4. Enter **0** for the PSD Name Assignment mode.	**A B C D E F P80** displays (where P80 = PSD bin 80)
5. Press the up or down arrow key to display the desired PSD bin number.	**A B C D E F PXX** displays (where PXX = desired PSD bin number)
6. Enter the extension name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 3-39.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 3-40.) **Note:** Press the **FLASH** key to clear any existing data	
7. Use the bottom row of FF keys to select a single letter. • See “Example 1. Large-display phone” on page 3-39. • See “Example 2. Small-display phone” on page 3-40. **Notes:** • Press the ***** key to erase a single entry. • Press the **#** key to enter a space.	
8. Repeat steps 6-7 as many times as necessary to enter the desired PSD name. **Note:** Press the **FLASH** key to clear the entire entry.	
9. Press the **HOLD** key when finished.	Next PSD bin number displays
10. To enter another speed dial name repeat steps 5-9.	

SSD Names:

To set SSD names using a large-display or small-display phone:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	
2. Press the **PROG** key.	
3. Press the ***** key.	
4. Enter **1** for the SSD Name Assignment mode.	**SSD NO.=>** **SSD NAME** displays
5. Enter the speed dial bin number (**00-79** or **000-799**).	
6. Press the **HOLD** key.	**-SSDXXX** **A B C D E F XXX** displays (where XXX = specified SSD bin number)
7. Press the **FLASH** key to clear the current data.	**A B C D E F XXX** displays (where XXX = specified SSD bin number)
8. Enter the speed dial name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 3-39.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 3-40.)	
9. Use the bottom row of FF keys to select a single letter. • See “Example 1. Large-display phone” on page 3-39. • See “Example 2. Small-display phone” on page 3-40. **Notes:** • Press the ***** key to erase a single entry. • Press the **#** key to enter a space.	
10. Repeat steps 8-9 as many times as necessary to enter the desired SSD name. **Note:** Press the **FLASH** key to clear the entire entry.	
11. Press the **HOLD** key when finished.	Next SSD bin number displays
12. To enter another speed dial name, press the **CONF** key and repeat steps 5-11.	**SSD NO.=>** **SSD NAME** displays

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- PSD names can contain a maximum of 7 characters. SSD names can contain a maximum of 16 characters.
- The ability to make extension name assignments is allowed/restricted to anyone with a Class of Service (COS) that allows access to User Maintenance features. (See Chapter 4 “User Maintenance” of this document.)

Network BLF

Panasonic’s Network Busy Lamp Field (BLF) Display is a PC-based application that monitors the activity (in use/on-hook/special feature set) of phone extensions across a Local Area Network (LAN) or Wide Area Network (WAN).

This allows an attendant to use his or her phone’s BLF keys to monitor the status of extensions on different networked systems, for example. Users can also view phone extension status on special browser applications on PCs anywhere in the network.

Setting up the Network BLF Display system includes configuring a Server PC, Client PCs and Browser PCs to work with networked DBS 576/DBS 576HD systems. An API card and Network BLF-specific programming is required. For detailed installation and setup instructions, see *Section 565 - Network BLF Display System Administrator Manual.*

Hardware Requirements

- See *Section 565 - Network BLF Display System Administrator Manual.*

Related Programming

- See *Section 565 - Network BLF Display System Administrator Manual.*

Considerations

- See *Section 565 - Network BLF Display System Administrator Manual.*

Network Facilities

Description

The System supports T1 and QSIG networking facilities such as:

- Network Attendant Reversion
- Network Call Forward
- Network Call Routing
- Network Call Transfer
- Network Caller ID
- Network Camp On / Call Waiting
- Network Centralized Attendant
- Network Centralized Voice Mail
- Networking Extension Calling
- Network Flash Transfer

- Network Hold
- Network Hold Recall
- Network Paging
- Network Transfer Recall
- Tandem Calling

Feature availability depends on CPC version and system configuration/programming. For more information on System Networking, see the *System Networking Reference Manual*.

For more information about QSIG, see "QSIG ISDN Lines" on page 3-48.

Network Attendant Reversion

Network Attendant Reversion enables calls to revert to the attendant in the same cabinet. Calls will not revert if the cabinet receiving the call has no attendant. Network Attendant Reversion does not work with Network Hold.

Network Call Routing

Network Call Routing allows multiple systems that are interconnected in a network, to direct calls to a specific tie line based on the number dialed. The call does not leave the network.

Network Call Transfer

Network Call Transfer allows a call at an extension to be transferred to another extension in the network.

Network Centralized Attendant

Network Centralized Attendant allows one primary attendant group in the network to handle network attendant calls.

Related Programming

- FF6-2-07: Closed Numbering

Network Centralized Voice Mail

Network Centralized Voice Mail allows one primary voice mail system to support the network. (This feature does not apply to integrated Voice Mail or Built-In Voice Mail.)

Related Programming

- FF6-2-04: Route Table: Digit Modify Pattern No.
- FF6-2-05: Digit Modify Table - Add Ending Digits
- FF6-2-05-0005: Numbering Plan
- FF6-2-06: Authorization Code (UK Only)
- FF6-2-09-0001: Dialing Access Voice Mail System
- FF1-0-04: Trunk COS (Priority Message - Waiting Send/Cancel)
- FF8-1-05: Call-Forward ID Codes for Voice Mail
- FF8-1-06: MSG Key ID Codes (USA only)

Network Extension Calling

Network Extension Calling allows you to reach an extension on another PBX. Based on the number you dial, the System network routes the call automatically.

Network Flash Transfer

When three or more systems are networked together with one System as the tandem, Network Flash Transfer determines where a call is held when Network Hold is pressed.

Related Programming

- FF1-0-04: Trunk COS (Network Flash Forwarding)

Network Hold

Network Hold allows the user to place a call on hold by pressing a programmed line key or MCO key. When using Network Hold, you cannot establish a conference call between nodes, and only one party can place the call on hold.

Related Programming

- FF1-0-04: Trunk COS (Broker's Hold for Network Calls)
- FF1-1-01-0020: Network Flash Signal Timer
- FF1-2-02: FF Dial Codes: Plan A (Network Flash Send During Intercom Dial Tone)
- FF1-2-03: FF Dial Codes: Plan B (Network Flash Send During Intercom Dial Tone)
- FF4-0-BSSC-0: FF-Key Assignment (Network Flash During Talk on FF-key)

Network Paging

Network Paging allows users on one System to page on another System when the appropriate Class of Service (COS) allows.

Network Transfer Recall

Network Transfer Recall allows a call which has been transferred to another node to recall back to the transferring extension.

Tandem Connection

Tandem Connection allows calls that are received over the network tie lines to be automatically routed on to another PBX or out to the public network.

Hardware Requirements

- T1 or E&M Card

Related Programming

- FF6: ARS/TRS

Considerations

- N/A

Non-Blocking Architecture

Description

The System is totally non-blocking. All extension and outside lines are available for use at the same time.

Hardware Requirements

- The CPC-HS supports 64 (max. 28 extensions). The CPC-HM supports up to 116 ports (max. 60 extensions).

Related Programming

- N/A

Considerations

- N/A

Power On Maintenance

Description

The System allows you to change most circuit cards, programming, and many other maintenance features while the System is powered on and operating. Very few operations require the System to be powered down or out of service. The System therefore continues to operate without interruption for most maintenance functions.

A limited number of items such as the replacement of some common control circuit cards requires the system to be powered down.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Programming Devices

Description

The dealer may program the System either by using:

- A digital key telephone equipped with display.
- DBS 576 Manager.

Telephone Programming

The System can be fully programmed from an extension telephone equipped with 12 FF keys and a display. While major system configuration changes may be more easily performed using DBS 576 Manager, all programming is available via a telephone. This is especially useful for minor changes to the system configuration.

Hardware Requirements

- Digital key telephone with 12 FF keys and a display.

Related Programming

- N/A

Considerations

- N/A

DBS 576 Manager

The System can be completely configured using DBS 576 Manager. This may be done either by directly connecting to the System or by remote connection using a modem.

The System database can be uploaded and downloaded for easy storage and retrieval.

DBS 576 Manager connects to the System through the RS232C maintenance port.

Hardware Requirements

- See Section 660 - DBS 576 Manager Administrator Guide.

Related Programming

- See Section 660 - DBS 576 Manager Administrator Guide.

Considerations

- N/A

QSIG ISDN Lines

Description

QSIG is a digital signaling protocol for private-network phone systems comprised of ISDN lines. Internationally, it is also called Private Signaling System No. 1 (PSS1).

QSIG, developed in the late 1980's and still in the process of global standardization, provides the ability to efficiently interconnect the remote ISDN PBX sites of large organization. Panasonic DBS 576 and DBS 576HD systems can be connected over ISDN QSIG lines to create a networked system.

For more information on QSIG, see *Section 570: QSIG Reference*.

Hardware Requirements

- QSIG (PRI/23) card

Related Programming

- FF2-1: QSIG ISDN Lines

Considerations

- See *Section 570: QSIG Reference*

Ringing Modes

Description

The System supports multiple types of CO ringing including the following:

- Day 1/Day 2/Night Ringing
- Day 1/Day 2/Night Delayed Ringing
- Direct Inward Dial (DID) Day/Night Ringing
- DID Day/Night Busy/Delayed Ringing
- Busy Lamp Field (BLF) Ringing
- BLF Delayed Ringing
- Slide Ringing
- Alarm Ringing

Day 1/ Day 2/Night Ringing

When the System is in Day 1 mode, calls can be directed to ring at one or more extensions or at a hunt group per the Day 1 ringing assignments.

When the System is in Day 2 mode, calls can be directed to ring at one or more extensions or at a hunt group per the Day 2 ringing assignments.

When the system is in Night mode, call can be directed to ring at one or more extensions or at a hunt group per the Night ringing assignments.

Inbound calls can be directed to desired normal daytime locations by setting the system into a Day mode. By having a second day mode (Day 2) alternative call handling is available during day operation. For instance, during lunch, calls can be directed to an alternative position.

Calls can be directed specific night locations when the system is set to Night mode.

For more information on Day Ringing, see “Day/Night System Mode” on page 3-23.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Day 1/ Day 2/Night Delayed Ringing

Delayed Ringing causes an incoming outside call that is unanswered at a primary extension within a certain period of time, to ring at a designated extension or extensions. Delayed ringing destinations can be set for Day 1, Day 2 and Night modes. CO Delayed Ringing is also available for hunt group pilot numbers.

Hardware Requirements

- N/A

Related Programming

- FF2: Trunk Setting (Ringing Assignments)
- FF1-1-02: CO Delayed Timer (Day 1/Day 2/Night)

Considerations

- N/A

DID Day/Night Ringing

Incoming DID calls can be set to ring at day destinations when the system is in day mode and ring at night destinations when the system is in night mode.

Hardware Requirements

- N/A

Related Programming

- FF1-4: DID Day Destination
- FF1-4: DID Night Destination

Considerations

- N/A

DID Day/Night Busy/Delayed Ringing

DID Day/Night Busy/Delayed Ringing causes an incoming DID call to a busy primary extension to ring at a designated extension or extensions. DID Busy/Delayed Ringing also causes an incoming DID call that is unanswered at a primary extension within a certain period of time, to ring at a designated extension or extensions. Separate ring destinations are available for day and night modes.

DID Busy/Delayed Ringing is also available for hunt group pilot numbers. However, when the Queuing Timer expires, the call leaves the hunt group and is forwarded to the DID Busy/Delayed Ringing destination.

Hardware Requirements

- N/A

Related Programming

- FF1-4: DID Day Busy/Delayed Destination
- FF1-4: DID Night Busy/Delayed Destination
- FF5-0-02: Queuing Timer

Considerations

- Call Forwarding takes priority over DID Busy/Delayed Ringing
- If the call is part of a hunt group and the Queuing Timer expires, the call is forwarded to the DID Busy/Delay Ringing destination. (See “DID Day/Night Busy/Delayed Ringing” on page 3-50.)

Busy Lamp Field Ringing

Extensions that have Direct Station Select (DSS)/BLF FF keys assigned may be set to ring on those keys.

Hardware Requirements

- N/A

Related Programming

- FF4: FF Key Assignment

Considerations

- ISDN phones may not set BLF ringing.
- For more information on BLF ringing, see “Line Appearances” on page 5-57.

Busy Lamp Field Delayed Ringing

Extensions that have Direct Station Select (DSS)/BLF FF keys assigned may be set to delay ring on those keys.

Hardware Requirements

- N/A

Related Programming

- FF1-1-03-0013: BLF Delayed Ring Timer
- FF4: FF Key Assignments

Considerations

- ISDN phones may not set BLF ringing.
- For more information on BLF ringing, see “Line Appearances” on page 5-57.

Slide Ringing

Similar to Delayed Ringing, Slide Ringing allows an alternate position to answer calls. If a call is not answered within a slide ringing time period, the call can be set to ring at another phone with that trunk key.

One possible use for Slide Ringing is in an office with a common secretary. A non-ringing FF key can be assigned for each CO trunk used by the group. If a call is not answered within the slide ringing timer, the call will ring the common secretary.

Hardware Requirements

- N/A

Related Programming

- FF11-02: Slide/Alarm Ringing Timer

- FF2: Trunk setting (Slide Ringing)
- FF4: FF Key Assignment (Direct Line Key)

Considerations

- N/A

Alarm Ringing

Alarm Ringing allows the incoming ringing tone to be changed if the call is not answered in a predetermined time. This can be very useful in alerting others to pick up unanswered calls.

Hardware Requirements

- N/A

Related Programming

- FF2: Trunk Programming (Alarm Ringing)
- FF11-02: Slide/Alarm Ringing Timer

Considerations

- If slide ringing is enabled, it will override alarm ringing.

System Speed Dial TRS Override

Description

System Speed Dial (SSD) numbers may be used to outdial calls from extensions that otherwise have outgoing call restrictions (i.e., Toll Restriction Service [TRS]).

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Station Message Detail Recording

Description

Station Message Detail Recording (SMDR) provides detailed call records of outgoing calls. This record is printed on a serial printer connected to the RS-232C port. SMDR records can be output to a printer or an external call accounting system.

Various types of information are reported on the SMDR record and each type of information occupies a set position in the SMDR format. Three SMDR formats are available (See Figure 1 on page 3-54.) One type of information is the "condition code" which occupies the first position in the output format. This code specifies what type of call was made or received (e.g., DISA Incoming call [S] or Closed Numbering call [W]). However, condition codes are prioritized, and the type of call determines what code is displayed.

The following tables shows the priority of condition codes for outgoing calls and incoming calls.

Table 3-5. Priority of outgoing call condition codes

Priority	Condition Code	Description
Highest	**T** or **H**	T = Outgoing Transfer Call H = Outgoing Hold Call
2nd	**F**	F = Call Forward Outside Call
3rd	**W**	W = Closed Numbering Call
4th	**L**	L = LCR Outgoing Call
Lowest	**O**	O = Outgoing Call

For example, an outgoing call is an LCR Outgoing call (**L**) but it is also a transferred call. The SMDR data condition code will be **T** to indicate that the call was an Outgoing Transfer. (A transferred call's condition code takes precedence over the type of call - LCR Outgoing call [**L**].)

Table 3-6. Priority of incoming call condition codes

Priority	Condition Code	Description
Highest	**h** or **t**	h = Incoming Hold t = Incoming Transfer
2nd	**D**, **N**, or **S**	D = DID/DDI Incoming Call N = Network Incoming Call S = DISA Incoming Call
Lowest	**I** or **A**	I = Incoming Call A = Abandoned Call

For example, an incoming call is a DID/DDI Incoming call (**D**), but it is also a transferred call. The SMDR data condition code will be **t** to indicate that the call was an Incoming Transfer call. (A transferred call's condition code takes precedence over the type of call - DID/DDI Incoming call [**D**].)

Figure 3-1. Output data format

Format #1

T MM/DD HH:MM:SS HH:MM:SS NNNN TTTT ddddddddddddddddddddddddd aaaaaaaaaa vvvvvH
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑫

Format #2

T MM/DD HH:MM:SS HH:MM:SS NNNN TTTT ddddddddddddddddddddddddd aaaaaaaaaa vvvv
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

ddddddddddddd ccccccccccc MM:SSH
⑨ ⑩ ⑪ ⑫

Format #3

T MM/DD HH:MM:SS HH:MM:SS NNNN TTTT ddddddddddddddddddddddddd aaaaaaaaaa vvvv
① ② ③ ④ ⑤ ⑥ ⑦ ⑧

ddddddddddddddddd bb MM:SSH
⑨ ⑬ ⑪ ⑫

① Condition Code: (**I**: Incoming call / **D**: DID.DDI incoming call / **h**: Hold incoming call / **N**: Network incoming call / **S**:DISA incoming call / **t**: Transfer incoming call / **A**: Abandoned Call / **O**: Outgoing call [Non LCR] / **F**: Call forward outside call / **H**: Hold outgoing call / **L**: LCR outgoing call / **T**: Transfer outgoing call / **W**: Closed Numbering call)

② Call Start Time (MM=01 to 12 / DD=01 to 31 / HH=00 to 23 / MM=00 to 59 / SS=00 to 59)

③ Call Duration Time (HH=00 to 23 / MM=00 to 59 / SS=00 to 59) Note: Only displayed when Condition Code is I, D, N, S, or A.

④ CO User No. (Extension line No.: 0 to 9999 / CO line No.: C001 to C576)

⑤ CO line No. (CO line No.: 001 to 576 / When CO line is disconnected while the call is on hold: *001 to *576)

⑥ Dialed No. (24 digits max. including **0-9**, *, # Cannot display Flash or Pause. If a number is hidden, * will appear instead of digits. * will stay with the call even if the call is transferred. For Format 2, an **I** Proceeds the digits if it is an incoming call.)

⑦ Accounting Code (10 digits max.)/Verified Account Code (Verified Account Code table number V001 to V500)

⑧ DISA Security Code ID (DISA ID Code table number D001-D016)

⑨ Caller Data (Formats #2 and #3 only) (Format #2: Max 12 digits, Format #3: Max 16 digits)

⑩ ISDN Charge Data (Format #2 only - originator number applies to ISDN only) - Not used (Format # 2 only) Future Use

⑪ Incoming Ringing Time (Formats #2 and #3 only) (MM=00 to 59 / SS=00 to 59)

⑬ ISDN B-channel number (Format #3 only) (bb = None (space) or 01 to 30)

⑫ Carriage Return Line Feed

Related Programming

- FF2: SMDR for Outbound Calls (for Analog, E&M Tie Line, and ISDN)
- FF2: SMDR for Inbound Calls (for Analog, E&M Tie Line, and ISDN)
- FF1-006: Serial Port Receive Data
- FF1-009: SMDR Output Format

Hardware Requirements

- A printer or external call accounting system is required to receive SMDR data.

Considerations

- A call must be answered to generate SMDR data (e.g., answered by voice mail, call pickup, etc.)
- You can specify which type of SMDR data format is sent (i.e., either Format 1 - 80 characters or Format 2 - 120 characters).
- (SMDR Format #3 only) When a call is received from a non-ISDN line, the B channel entry is blank on the SMDR.
- (SMDR Format #3 only) When a call is received from a H0(6B) / H1(24B,30B) ISDN line, the B channel is not shown on the SMDR.
- The maximum number of characters allowed in the SMDR for a Caller ID Caller Name is 12.

T1 Line

Description

The T-1 line provides up to 24 voice channels over a four-wire circuit. The 576HD can support either 8, 16, or 24 channels. When the card is set for 16 channels, it occupies two flexible card slots. When the card is set for 24 channels, it occupies three flexible card slots.

Unlike most other cards, the 576HD's T-1 cards must be installed in selected flexible card slots. Up to three T-1 cards can be installed in a cabinet.

Hardware Requirements

- Digital Service Unit (DSU)
- Network Sync Card

Related Programming

- FF2: T1-CO Lines

Considerations

- The T1 Line proivdes trunk signaling modes for Loop Start, Ground Start, and E&M.
- Also see Class of Service - T1 Trunk Ring Back Service Tone on p. 3-14 for more information on T1 Line features.

Toll Restriction Service

Description

Toll Restriction Service (TRS) allows access levels, including the prohibition of long distance calls or after-hours calls, to be assigned to specific extensions or CO lines. This minimizes non-business related calls and reduces phone bills by only allowing long distance calls over designated lines.

TRS can be used in conjunction with Automatic Route Selection (ARS).

- TRS classes are set on an extension and trunk basis. Up to 50 TRS classes can be assigned.
- Each TRS class is then assigned to a TRS level. This level is used as the basis for allowing or restricting calls.
- There are 10 TRS levels available: **0** denies all calls, **1-8** may be partially restrictive per assignments, and **9** allows all calls.
- TRS can restrict the number of digits dialed (1 to 20 digits limit or no limit).
- TRS can restrict the use of System Speed Dials (SSDs) for out dialing on a TRS class basis; either no system speed dials or limit the range of SSDs.
- TRS can restrict the use of the star (*****) or pound (**#**) digits on a TRS class basis.

The following calling restrictions are also available:

- Forced ARS Restriction (The ARS feature controls outside calls.)

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- The dialing restrictions included in this feature help prevent unauthorized outgoing calls. It is possible; however, to program your System to allow SSD to override TRS.
- For more information on ARS/TRS, see the *ARS/TRS Reference Manual*.

Trunk Access Groups

Description

Trunks can be placed in trunk groups. When a trunk group is accessed, the System automatically selects an open trunk from the group.

Operation

To access a trunk group:

Action	Result
1. Enter a trunk access code (default trunk group access codes are **9** or **81**-**84**).	
2. Dial the phone number.	

Hardware Requirements

- N/A

Related Programming

- FF1-3: MCO Access

Considerations

- Trunks can only appear in one trunk group.
- If Automatic Call Routing is enabled, the MCO access code (**9** by default) automatically accesses the Automatic Route Selection (ARS) features.

Virtual Port

Description

Virtual ports are not physical ports in the System. They are phantom or simulated ports used in the System to support:

- Virtual extension ringing
- Virtual floating hold

Up to 96 virtual ports may be assigned per cabinet.

Virtual Port used for Virtual Extension

You can assign an actual extension number to a virtual port. You can then assign the extension number as any actual extension (incoming call settings and types, Station Class of Service (COS), tenant group, pickup group, etc.). You can also assign the virtual port to an FF key on one or more telephones and set to ring. Any call directed to the virtual port extension number will ring the assigned telephone(s).

Virtual extensions provide a mechanism for ringing multiple phones simultaneously. For instance, a Direct Inward Dialing (DID) entry can only be set to ring to one extension number. However, if the DID is set to ring a virtual extension and the virtual extension is assigned to ring keys on multiple extensions, the DID will ring the multiple extensions.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Virtual Port used for Floating Hold

You can assign a virtual port that is not assigned an extension number to be used for floating hold. The virtual port is assigned to an FF key. Calls can then be placed on hold on the virtual port FF key. Any extension that is assigned the same virtual port FF key can then pick up the held call.

This can be used like a system park feature.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Voice Mail

With the DBS 576HD, you have two primary voice mail options:

- PanaVOICE Courier (integrated and non-integrated versions, installed internally or on an external PC)
- External (a third-party application hooked up to the phone system)

PanaVOICE -- Panasonic's Digital Voice Mail System

PanaVOICE Courier is a PC-based Voice Mail system offered by Panasonic. PanaVOICE Courier is is fully digital (connects to DBS 576HD digital ports), and is available in integrated and non-integrated versions. The integrated version provides improved messaging with Message-Waiting indication, constant message count on display phones, and visual menus on Large-display phones.

You can now install PanaVOICE Courier inside the DBS 576HD cabinet, using the new Integrated Feature Module (IFM) board. This board is actually a Pentium II 200 MHZ PC with a hard drive and voice processing capabilities, running Windows NT. Panasonic now pre-loads Integrated Courier Voice Mail on the IFM board, eliminating the need for an external PC and and API card.

PanaVOICE Courier can also be installed on an external PC and connected to the DBS 576HD via an API card. See your PanaVOICE documentation for further details.

Third-Party Voice Mail Support

Description

The System supports third party Voice Mail systems with features such as:

- Answer Supervision for Voice Mail
- Call Forward ID Code for Voice Mail
- Direct Inward Dial (DID)/DNIS/Direct Dial Inward (DDI) ID Code for Voice Mail
- Disconnect Signal
- High Priority Message Waiting
- Message Key ID Code

Answer Supervision for Voice Mail

Description

This feature allows the System to send an answer signal to third-party Voice Mail systems.

Without this feature a third-party Voice Mail cannot receive a signal indicating that a System extension has answered. In other words, to determine that the extension has answered, the Voice Mail system would have to wait until the extension stops receiving ringback tone. As a result, waiting for the ringback to stop often delays connection times for calls from Voice Mail to extensions. By sending an answer signal, this feature provides quicker response time between the DBS 576HD and the Voice Mail system.

Hardware Requirements

- AEC Port

Related Programming

- FF1-0 23: Voice Mail Answer Supervision ID Code
- FF3-0: SLT Voice Mail Connection
- FF1-101: DTMF ON/OFF Pattern 2

Considerations

- The digits used for the answer signal code are determined by the requirements of the Voice Mail system.
- The answer code may be up to 4 characters and consist of the characters 0 - 9, *, #, and pause.
- If the called extension does not answer and is forwarded to Voice Mail, the System sends a Call Forward ID code back to the Voice Mail system.
- During transmission of the answer signal code, other DTMF digits and functions from the DBS 576HD extension are ignored.
- The Voice Mail port must be assigned as a Voice Mail port connection.
- The DTMF pattern is set as pattern 2.

Call Forward ID Code for Voice Mail

Call Forward ID Code for Voice Mail allows you to call forward to a third-party Voice Mail system. The ID Code sends the digits that are required by the Voice Mail to identify the System extension.

Operation

To set a Call Forward ID Code for Voice Mail:

Action	Result
1. Go offhook or press **ON/OFF** key.	
2. Dial the Call Forward ID Code (default = **715**).	**Enter V.M. ID** displays
3. Enter the ID code required by voice mail (see your voice mail manual). Usually this is the extension number.	
4. Press the **HOLD** key.	**Stored V.M. ID** displays
5. Go onhook or press **ON/OFF** key.	

To clear the ID Code:

Action	Result
1. Go offhook or press **ON/OFF** key.	
2. Dial the Call Forward ID Code (default = **715**)	**Enter V.M. ID** displays
3. Press the **HOLD** key.	**Cleared V.M. ID** displays
4. Go onhook or press **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

DID/DNIS/DDI Voice Mail ID Code

DID/DNIS/DDI calls may be sent directly to voice mail through the used of the DID Voice Mail ID Code. A prefix and suffix may be specified to be sent to the voice mail as well as a chosen number of DID digits.

Either no digits (default), the last two digits of the DID, the last three digits of the DID or the entire DID number may be sent.

The prefix may be up to eight digits including 0-9, *, # and pause (REDIAL).

The suffix may be up to eight digits including 0-9, *, # and pause (REDIAL).

Hardware Requirements

- N/A

Related Programming

- FF1-4-06: DID Number Automatic Send to VM
- FF1-4-06: VM ID Code Prefix
- FF1-4-06: VM ID Code: Suffix

Considerations

- Each pause is a fixed 1 second delay.
- If you do not assign a Voice Mail ID Code, the DID digits will be sent to voice mail.
- Only one Voice Mail ID Code is available for the system.

Disconnect Signal

Beginning with CPC Version 2.0, either busy tone or silence can be sent to a third-party voice mail system when the caller hangs up.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- For more information on setting and retrieving message waiting, see the telephone operation sections that follow in this document.

High Priority Message Waiting

Message waiting displays and LEDs may be utilized by the Voice Mail system to indicate that a Voice Mail message has been left in your mail box. When you retrieve the message, the message waiting indications are cleared.

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- For more information on setting and retrieving message waiting, see the telephone operation sections that follow in this document.

Message Key ID Code

On a large-display phone you can use a Message key (labeled **MSG**) to either retrieve Voice Mail messages or respond to telephone messages. When responding to Voice Mail messages from a 3rd party Voice Mail system, the Message key needs to have an ID code set to identify the caller to the Voice Mail system. You can also use the Message key to program a Voice Mail password.

You must program the Message key using the User Maintenance feature “Set Message Key ID Code” on page 4-14.

Operation

To retrieve a message at Voice Mail:

Action	Result
1. Press the **MSG** key.	Voice mail instructions
2. Follow the Voice Mail instructions for retrieving messages.	
3. When finished retrieving messages, replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Voice Mail Transfer Key

Description

The Voice Mail Transfer (VM/TRF) key allows you to transfer calls to voice mailboxes without waiting for voice mail to answer. You can assign a Voice Mail Transfer key from a phone or through system programing.

Two Voice Mail Transfer keys are available. VM Transfer Key 1 will transfer to a voice mail extension number. Voice Mail Transfer Key 2 will transfer to the voice mail pilot number.

Prior to Version 3.6, the VM/TRF key could not be used to transfer a call into Voice Mail on another networked DBS 576 or DBS 576HD system. Beginning with Version 3.6, the user can press the VM/TRF key to send a call across a node to another networked DBS 576 or DBS 576HD system.

Operation

To assign a Voice Mail Transfer key from a phone:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	
3. Press the FF key to be assigned as the Voice Mail Transfer key.	
4. Press **REDIAL** and 74nnnn (VM Transfer Key 1) where nnnn is the voice mail extension number or Press **REDIAL** and 75nnnn (VM Transfer Key 2) where nnnn is the voice mail extension number	

Action	Result
8. Press the **HOLD** key.	
9. Replace the handset or press the **ON/OFF** key.	

To use a Voice Mail Transfer key:

Action	Result
1. Lift the handset or press the **ON/OFF** key to answer the incoming call.	Connected to caller
2. Press the **VM/TRF** (1 or 2) key.	System places caller on hold
3. Press the DSS/BLF key, dial an extension number or select the extension from the extension directory on the large display telephone.	
4. Replace the handset or press the **RELEASE**, **ON/OFF**, or **PROG** key.	

Once a call is sent to the voice mail, after the voice mail answers, the system sends the VM Transfer ID 1 or 2 + the extension number (BLF/DSS, Directory or dialed number).

Hardware RequirementsN/A

- N/A

Related Programming

- FF4 (FF Key Programming): FF Key Assignments
- FF1-0-24: Voice Mail Transfer ID Code

Considerations

- The VM/TRF key can be assigned to any key phone, DSS/72 or EM/24. The VM/TRF key cannot be assigned to a one-touch key.
- The VM/TRF key can be used to transfer intercom as well as CO calls to a voice mailbox.
- The Voice Mail Transfer ID codes are assigned in the Maintenance Programming section. Up to ten digits can be stored.
- The system responds to key operations during the transfer in the following ways:
  - Pressing the **FLASH** key cancels the VM/TRF and returns intercom dial tone to the user. When the VM/TRF is cancelled, the incoming call is still connected but is on hold.
  - If a valid key (CO key or second DSS key, for example) is pressed, the VM/TRF is cancelled and the operation invoked by the key is performed.
  - If an invalid key (**REDIAL**, for example) is pressed, the VM/TRF is cancelled, and the user receives busy tone.
  - Once VM/TRF is pressed, the user can dial up to 10 digits before completing the transfer.
- If a user begins to perform the voice mail transfer and the extension cannot hold a call (one call is already on non-appearance hold, for example), the system will keep the call in the talk state and will not allow the voice mail transfer to be initiated.

- If the VM/TRF key stores a number other than a voice mail extension number, the system does not send DSS/BLF information or the extension number that is dialed after pressing VM/TRF.

Chapter 4. User Maintenance

This chapter contains detailed descriptions of the following System maintenance topics and features:

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Set Personal Speed Dial Names	4-17
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Introduction

User Maintenance provides several items that can be adjusted by the end user of the telephone system. The telephone system dealer is not required to make these changes. These items include settings for:

- Date and Time - including date, time, and day of week
- Personal Speed Dial (PSD) Assignment - including PSD number and name
- System Speed Dial (SSD) Assignment - including SSD number and name
- Extension name
- Verified Account code
- Call Forward ID code
- Message Key ID code
- Walking Toll Restriction Service (TRS) Code
- TRF of CFID
- CID Logging Ext
- Send Text Messages
- Text Message Replies
- Absence Messages
- System mode. You can set the System to handle incoming calls, outbound call routing, and voice mail call messages differently depending upon whether the system is in Day mode, Day 2 mode, or Night mode. With User Maintenance, you can program the System for mode schedule, mode schedule for special day, mode schedule for exception days, and day of the month patterns.

About User Programming

User Maintenance requires a Digital Display Key Telephone assigned to a Class of Service (COS) that allows User Maintenance.

The procedures in the following sections describe the basic steps used for modifying parameters. However, there are many alternative ways to view and modify the parameters using special keys and procedures. Some of the more advanced keys include:

REDIAL	**(**At menu level) clears an entry (At data entry) retrieves the last entry setting
FLASH	(At menu level) ignored (At data entry) clears setting
ON/OFF	Begins programming log-in or exits programming
HOLD	(At menu level) moves to date and time (At data entry) saves the displayed setting and moves to the next setting
PROG	Moves to the 81 User Maintenance Menu
CONF	Moves to the first data setting
AUTO	Backs out of the address menu levels
Menu	Ignored
PREV	(At menu level) moves to the previous screen (At data entry) ignored
NEXT	(At menu level) moves to the next screen (At data entry) ignored
VOLUME (t)	Scrolls through the same address level (ascending)
VOLUME (s)	Scrolls through the same address level (descending)
FF1	Moves to Personal Speed Dial (PSD) Assignment menu
FF2	Moves to System Speed Dial (SSD) Assignment menu

FF3	Moves to Extension Name menu
FF4	Moves to Verified ID Code menu
FF5	Moves to Call Forward ID Code menu
FF6	Moves to Message Key ID Code menu
FF7	Moves to System Mode menu
FF8	Moves to Walking /Station Lock TRS
FF9	Moves to TRF of CWRD
FF10	Moves to CID Logging Ext.

Note: Once in a data entry level, you must either enter an acceptable value or restore the previous value before proceeding. For instance, if you change an entry to an unacceptable value and then press **FF1** to move to the PSD Assignment menu, you will not be able to proceed. You must first enter an acceptable value.

Operation

To enter User Maintenance mode:

Action	Result
1. At a telephone with a COS that allows user login, press the **ON/OFF** key.	
2. Press the **PROG** key.	
3. Press the * key twice (* *).	
4. Press the **CONF** key.	**81-** **User MAINT** displays

Note: Your extension's Class of Service must be properly set to allow User Maintenance access. Also, only one user may enter User Maintenance or System Programming at a time.

Set Absence Messages

Description

This menu item specifies absence messages.

Operation

To set Absence Messages using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **12**.	
3. Press the **HOLD** key.	**8112-** **Absence Message** displays
4. Press the **HOLD** key.	**Enter Msg #** displays

Action	Result
5. Enter the Message number (**0-9**).	
6. Press the **HOLD** key.	**A B C D E F X** displays (where X = Absence Message number)
7. Enter the Absence Message (up to 15 characters): • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 4-19.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 4-20.) **Note:** Press the **FLASH** key to clear any existing data.	
8. Use the bottom row of FF keys to select a single letter. • See Example 1. Large-display phone on page 4-19. • See Example 2. Small-display phone on page 4-20. **Notes:** • Press the ***** key to erase a single entry. • Press the **#** key to enter a space.	
9. Repeat steps 7-8 as many times as necessary to enter the desired Absence Message. **Note:** Press the **FLASH** key to clear the entire entry.	
10. Press the **HOLD** key to store the entry.	Next message number displays
11. To set additional Absence Messages, press the volume up or down key or press the **HOLD** key to move to the desired Absence Message.	Desired Absence Message displays
12. Repeat steps 7-11 until all Absence Messages are entered.	
13. Press the **AUTO** key to exit the entry mode.	**Enter Msg #** displays
14. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Call Forward Busy Destination Extension

Description

You can assign a Call Forward Busy Destination Extension for each extension. This is typically used for forwarding calls to voice mail.

Operation

To set a Call Forward Busy Destination Extension using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **09**.	
3. Press the **HOLD** key.	**8109-** **TRF of CFWD** displays
4. Enter **0**.	
5. Press the **HOLD** key.	**CFWD-Busy EXT #** displays
6. Dial the extension number.	
7. Press the **HOLD** key.	**Enter CODE** displays
8. Enter the destination extension.	
9. Press the **HOLD** key to store the entry.	Next extension number displays
10. To set Call Forward Busy destinations for additional extensions, press the volume up and down key or press the **HOLD** key to move to the desired Extension.	
11. Repeat steps 9-11 until all extension are entered.	
12. Press the **AUTO** key to exit the entry mode.	
13. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Call Forward ID Codes for Voice Mail

Description

(For a description of Call Forward ID codes for Voice Mail, see "Call Forward ID Code for Voice Mail" on page 3-59.)

Voice Mail Call Forward ID codes are used by voice mail systems to identify the correct mail box for storing messages. The actual entry needed will vary by voice mail systems and configuration. Often the entry is the extension number.

Operation

To set the Call Forward ID code:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **05**.	
3. Press the **HOLD** key.	**8105-** **C.FWD ID Code** displays
4. Press the **HOLD** key.	**CF ID-EXT Number** displays
5. Dial the extension number.	
6. Press the **HOLD** key.	**CF-ID EXT XXX** displays (where XXX = extension number)
7. Enter the Call Forward ID code. **Notes:** The ID code may contain up to 16 digits and contain **0**, **1**-**9**, *****, **#**, pause (**REDIAL** key). To clear an entry or any existing data, press the **FLASH** key.	
8. Press the **HOLD** key to store the entry.	Next extension number displays
9. To set additional Call Forward ID codes, press the volume up or down key or press the **HOLD** key to move to the desired extension.	Desired extension displays
10. Repeat steps 7-9 until all Call Forward ID codes are set.	
11. Press the **AUTO** key to exit the entry mode.	**CF ID-EXT Number** displays
12. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Call Forward No Answer Destination Extension

Description

You can assign a Call Forward No Answer Destination Extension for each extension. This is typically used for forwarding calls to voice mail.

Operation

To set a Call Forward Busy Destination Extension using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **09**.	
3. Press the **HOLD** key.	**8109-** **TRF of CFWD** displays
4. Enter **1**.	
5. Press the **HOLD** key.	**CFWD-NoANS Ext** displays
6. Dial the extension number.	
7. Press the **HOLD** key.	**Enter CODE** displays
8. Enter the destination extension.	
9. Press the **HOLD** key to store the entry.	Next extension number displays
10. To set Call Forward No Answer destinations for additional extensions, press the volume up and down key or press the **HOLD** key to move to the desired Extension.	
11. Repeat steps 9-11 until all extension are entered.	
12. Press the **AUTO** key to exit the entry mode.	
13. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Caller ID Logging Extensions

Description

You can assign Caller ID Call Logging to extensions. The system is limited to 20 call logging extensions per cabinet as follows:1

Number of Cabinets	Total Number of Call Log Extensions
1	20
2	40
3	60
4	80
5	100
6	120

Operation

To set a Caller ID Logging Extensions using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **10**.	
3. Press the **HOLD** key.	**8110-** **CID Logging EXT** displays
4. Press the **HOLD** key.	**CID Logging #** displays
5. Enter log control number.	
6. Press the **HOLD** key.	
7. Dial the extension number.	
8. Press the **HOLD** key to store the entry.	Next log control # displays

Action	Result
9. To set CID Log for additional extensions, press the volume up and down key or press the **HOLD** key to move to the desired Extension.	
10. Repeat steps 6-8 until all extension are entered.	
11. Press the **AUTO** key to exit the entry mode.	
12. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Day of Week Mode

Description

(For a description of Automatic Day/Night System Mode, see "Automatic Day/Night Mode" on page 3-26.)

The System allows you to specify up to 3 mode patterns. This menu item determines which pattern to follow for a given week day in the month (i.e., first Monday, second Monday, etc.).

Some bushiness may have special operating hours based on the day of the month. For instance, a company may work half-days on the second Saturday of each month.

Operation

To set the Day of Week Mode:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **07**.	
3. Press the **HOLD** key.	**8107-** **System Mode** displays
4. Enter **3**.	

Action	Result
5. Press the **HOLD** key.	**3-** **D of Week PTN** displays
6. Press the **HOLD** key.	**300 :** **1st SUN Pattern** displays
7. Enter pattern (**0** - no pattern, **1** - pattern 1, **2** - pattern 2, **3** - pattern 3) for the first Sunday. **Note:** To clear an entry or existing data, press the **FLASH** key.	
8. Press the **HOLD** key to store the entry.	Next Day of Week mode displays
9. To set additional Day of Week modes, press the volume up or down key or press the **HOLD** key to move to the desired mode.	Desired Day of Week mode displays
10. Repeat steps 7-9 until the remaining days in the month are set. **Note**: The entry positions are listed in Table 1 on page 4-10.	
11. Press the **AUTO** key to exit the entry mode.	**3-** **D of Week PTN** displays
12. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Table 4-1. Day of the Week - addresses

ADDRESSES FOR THESE DAYS OF THE WEEK:	-- DAY OCCURRENCE -- (e.g., 1st Sunday=address 300; 2nd Sunday=address 307)				
	1st	2nd	3rd	4th	5th
Sunday	300	307	314	321	328
Monday	301	308	315	322	329
Tuesday	302	309	316	323	330
Wednesday	303	310	317	324	331
Thursday	304	311	318	325	332
Friday	305	312	319	326	333
Saturday	306	313	320	327	334

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Exception Day Mode

Description

(For a description of Automatic Day/Night System Mode, see “Automatic Day/Night Mode” on page 3-26.)

You can specify exception days which allow for a range of days for the System to operate in the Night mode. This is intended for extended holidays for business shut down periods that last for multiple days. You can specify up to 6 exception day periods.

Operation

To set the Exception Day Modes:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See “To enter User Maintenance mode:” on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **07**.	
3. Press the **HOLD** key.	**8107-** **System Mode** displays
4. Enter **2**.	
5. Press the **HOLD** key.	**2-** **Mode Except Day** displays
6. Press the **HOLD** key.	**200 :MMDD** **PTN 1 Start Day** displays
7. Enter the start date by month (two characters) and day (two characters) for Exception Period 1. **Note:** To clear an entry or existing data, press the **FLASH** key.	
8. Press the **HOLD** key.	**201 :MMDD** **PTN 1 Stop Day** displays
9. Enter the stop date by month (two characters) and day (two characters) for Exception Period 1. **Note:** To clear an entry or existing data, press the **FLASH** key.	
10. Press the **HOLD** key.	Next Exception Day mode displays

Action	Result
11. To set additional Exception Day modes, press the volume up or down key or press the **HOLD** key to move to the desired mode.	Desired Exception Day mode displays
12. Repeat steps 7-11 until all Exception Day modes are set. (Up to 6 exception periods may be specified.) **Note**: The entry positions are listed in Table 2 on page 4-12.	
13. Press the **AUTO** key to exit the entry mode.	**2-** **Mode Except Day** displays
14. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Table 4-2. Exception Days

8107-2 (200-211) Hold (MMDD) Hold

EXCEPTION DAYS:
- 200=Start - Exception Day 1
- 201=End - " "
- 202=Start - Exception Day 2
- 203=End - " "
- 204=Start - Exception Day 3
- 205=End - " "
- 206=Start - Exception Day 4
- 207=End - " "
- 208=Start - Exception Day 5
- 209=End - " "
- 210=Start - Exception Day 6
- 211=End - " "

Month/Day of Exception Days (Start or End)

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Extension Names

Description

You can assign names to each extension, even if the extension is not a display telephone. When the extension is called, the name appears on the display. For more information on the digital key telephone display, see “Display Information” on page 5-39.

Operation

To set extension names using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See “To enter User Maintenance mode:” on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **03**.	
3. Press the **HOLD** key.	**8103-** **Extension Name** displays
4. Press the **HOLD** key.	**0 :** **EXT Number/Name** displays
5. Press the **HOLD** key.	**Enter EXT #** displays
6. Dial the extension number.	
7. Press the **HOLD** key.	**A B C D E F XXX** displays (where XXX = extension number)
8. Enter the extension name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 4-19.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 4-20.) **Note:** Press the **FLASH** key to clear any existing data.	
9. Use the bottom row of FF keys to select a single letter. • See Example 1. Large-display phone on page 4-19. • See Example 2. Small-display phone on page 4-20. **Notes:** • Press the * key to erase a single entry. • Press the # key to enter a space.	
10. Repeat steps 8-9 as many times as necessary to enter the desired speed dial name. **Note:** Press the **FLASH** key to clear the entire entry.	
11. Press the **HOLD** key to store the entry.	Next extension number displays
12. To set additional extension names, press the volume up and down key or press the **HOLD** key to move to the desired SSD.	

Action	Result
13. Repeat steps 8-12 until all extension names are entered.	
14. Press the **AUTO** key to exit the entry mode.	**Enter EXT #** displays
15. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Message Key ID Code

Description

(For a description of the Message Key ID Code Feature, see “Message Key ID Code” on page 3-61.)

On a large display phone you can use a Message key to either retrieve voice mail messages or respond to telephone messages. To respond to voice mail messages from a 3rd party voice mail system, you need to set the Message Key ID code to identify the caller to the voice mail system. You can also use the Message key to program a voice mail password.

Operation

To set the Message Key ID code:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See “To enter User Maintenance mode:” on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **06**.	
3. Press the **HOLD** key.	**8106-** **MSG Key ID Code** displays
4. Press the **HOLD** key.	**MSGID-EXT Number** displays
5. Dial the extension number of the phone being programmed.	
6. Press the **HOLD** key.	**MSG-ID EXT XXX** displays (where XXX = extension number)

Action	Result
7. Enter the Message Key ID code. **Notes:** The ID code may contain up to 16 digits and contain **0**, **1-9**, *****, **#**, pause (**REDIAL** key). To clear an entry or existing data, press the **FLASH** key.	
8. Press the **HOLD** key to store the entry.	Next extension number displays
9. To set additional Message Key ID codes, press the volume up or down key or press the **HOLD** key to move to the desired extension.	Desired extension number displays
10. Repeat steps 7-9 until all Message Key ID codes are set.	
11. Press the **AUTO** key to exit the entry mode.	**MSGID - EXT Number** displays
12. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Mode Schedule

Description

(For a description of Automatic Day/Night System Mode, see “Automatic Day/Night Mode” on page 3-26.)

You can set the System to automatically enter None, Day 1, Day 2, Night, Night (1), or Night (2) modes based upon mode patterns. You can define up to 3 patterns with up to 5 modes for each day. (This menu allows the setting of the patterns.)

Operation

To set the Mode Schedule:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **07**.	
3. Press the **HOLD** key.	**8107-** **System Mode** displays
4. Press the **HOLD** key.	**0-** **Mode Schedule** displays
5. Press the **HOLD** key.	**000 :HHMM** **PTN 1-1 Start T** displays
6. Enter the start time in hours (two characters) and minutes (two characters) for the Pattern 1 - first mode. **Note:** To clear an entry or existing data, press the **FLASH** key.	
7. Press the **HOLD** key.	**001 :** **PTN 1-1 Mode** displays
8. Enter the desired mode for Pattern 1 - first (**0** - None, **1** - Day 1, **2** - Day 2, **3** - Night, **4** - Night (1), **5** - Night (2)). **Note:** To clear an entry or existing data, press the **FLASH** key.	
9. Press the **HOLD** key to store the entry.	Next pattern mode displays
10. To set additional mode schedules, press the volume up or down key or press the **HOLD** key to move to the desired mode.	Desired pattern mode displays
11. Repeat steps 6-10 until all patterns and modes are set. (There are 3 total patterns with 5 start time/modes each.) **Note:** Entry Positions are listed in Table 3 on page 4-17.	
12. Press the **AUTO** key to exit the entry mode.	**0-** **Mode Schedule** displays
13. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Table 4-3. Mode Schedule Patterns - addresses & values

FF8 1 07 0 (00-29) Hold (MMDD or HHMM or 0-5) Hold						
-- VALUES -- (MMDD, HHMM, or 0-5)		-- ADDRESS NOs. (00-29) -- MODES				
		1st MODE	2nd MODE	3rd MODE	4th MODE	5th MODE
Pattern 1	Start Time (HHMM)	**00**	**02**	**04**	**06**	**08**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**01**	**03**	**05**	**07**	**09**
Pattern 2	Start Time (HHMM)	**10**	**12**	**14**	**16**	**18**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**11**	**13**	**15**	**17**	**19**
Pattern 3	Start Time (HHMM)	**20**	**22**	**24**	**26**	**28**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**21**	**23**	**25**	**27**	**29**

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Personal Speed Dial Names

Description

For a description of Personal Speed Dial (PSD), see “Personal Speed Dial” on page 5-77 for a Digital Key Telephone, “Personal Speed Dial” on page 6-42 for a Digital Single Line Telephone (DSLT), and “Personal Speed Dial” on page 7-35 for a Single Line Telephone (SLT).

Operation

To set PSD names using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **01**.	
3. Press the **HOLD** key.	**8101-** **PSD Assignment** displays
4. Enter **1**.	
5. Press the **HOLD** key.	**1 :** **PSD Name** displays
6. Press the **HOLD** key.	**EXT Number** displays
7. Dial the extension number.	
8. Press the **HOLD** key.	**Enter PSD # XXX** displays (where XXX = dialed extension number)
9. Enter the PSD bin number (**80-99**).	
10. Press the **HOLD** key.	**A B C D E F PXX** displays (where PXX = PSD number)
11. Enter the PSD name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 4-19.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 4-20.) **Note:** Press the **FLASH** key to clear any existing data.	
12. Use the bottom row of FF keys to select a single letter. • See Example 1. Large-display phone on page 4-19. • See Example 2. Small-display phone on page 4-20. **Notes:** • Press the ***** key to erase a single entry. • Press the **#** key to enter a space.	
13. Repeat steps 11-12 as many times as necessary to enter the desired speed dial name. **Note:** Press the **FLASH** key to clear the entire entry.	
14. Press the **HOLD** key to store the entry.	Next PSD bin number displays
15. To set additional PSD names, press the volume up and down key or press the **HOLD** key to move to the desired PSD.	Desired PSD bin number displays
16. Repeat steps 11-15 until all PSD names are entered.	

Action	Result
17. Press the **AUTO** key to exit the PSD name entry mode.	**Enter PSD # XXX** displays (where XXX = extension number)
18. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

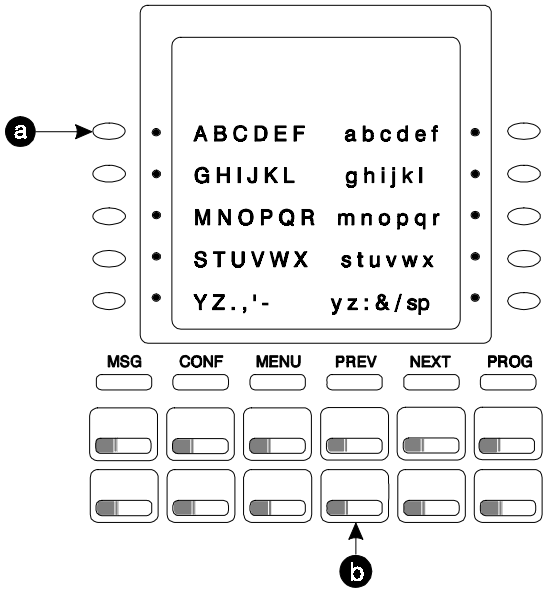
- N/A

Example 1. Large-Display Phone

To enter **D**:

a. Press the first soft key on the top left.

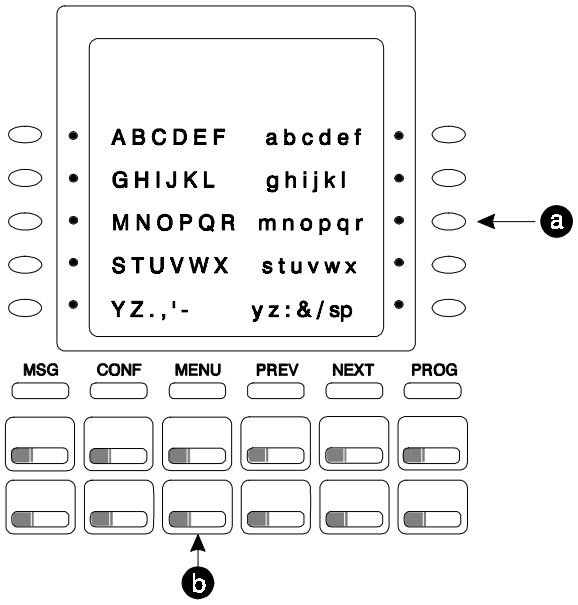
b. Press the fourth FF key from the left on the bottom row.



To enter **o**:

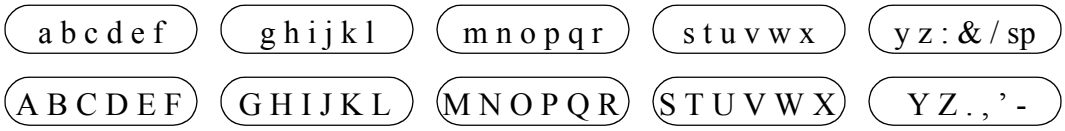
a. Press the third soft key from the top right.

b. Press the third FF key from the left on the bottom row.



Example 2. Small-Display Phone

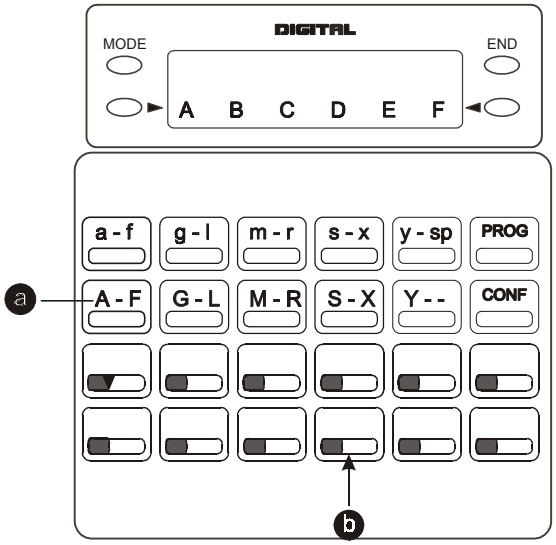
Refer to the following diagram to determine which one-touch key to press.



To enter **D**:

a. Press the first one-touch key from the left on the bottom row.

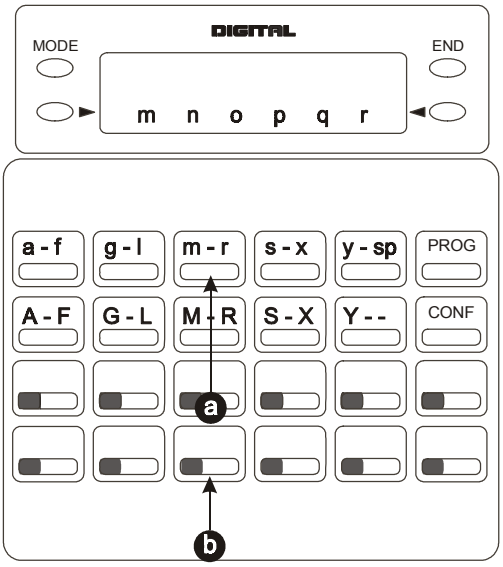
b. Press the fourth FF key from the left on the bottom row.



To enter **o**:

a. Press the third one-touch key from the left on the top row.

b. Press the third FF key from the left on the bottom row.



Set Personal Speed Dial Numbers

Description

For a description of Personal Speed Dial (PSD), see "Personal Speed Dial" on page 5-77 for a Digital Key Telephone, "Personal Speed Dial" on page 6-42 for a Digital Single Line Telephone (DSLT), and "Personal Speed Dial" on page 7-35 for a Single Line Telephone (SLT).

Operation

To set PSD numbers:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **01**.	
3. Press the **HOLD** key.	**8101-** **PSD Assignment** displays
4. Press the **HOLD** key.	**0 :** **PSD Number** displays
5. Press the **HOLD** key.	**EXT Number** displays
6. Dial the extension number.	
7. Press the **HOLD** key.	**Enter PSD # XXX** displays (where XXX = dialed extension number)
8. Enter the PSD bin number (**80**-**99**).	
9. Press the **HOLD** key.	**YYY ZZ** displays (where XXX = extension number, YYY = assigned name, and ZZ = PSD bin number)
10. Enter the PSD digits to be dialed. **Note:** To clear an entry or existing data, press the **FLASH** key.	
11. Press the **HOLD** key to store the entry.	Next PSD bin number displays
12. To set additional PSD numbers, press the volume up and down key or press the **HOLD** key to move to the desired PSD bin number.	Desired PSD bin number displays
13. Repeat steps 10-12 until all PSD numbers are entered.	
14. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Send Text Messages

Description

You can send a text message to a key telephone with a display when you are sending call waiting signal (Auto camp-on or manual camp-on). This menu item specifies the text messages that may be sent.

Operation

To set Send Text Messages using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **11**.	
3. Press the **HOLD** key.	**8111-** **Text Message** displays
4. Enter **0**.	
5. Press the **HOLD** key.	**8111-0:** **Send Message** displays
6. Press the **HOLD** key.	**Enter Msg #** displays
7. Enter the Message number (**0-9**).	
8. Press the **HOLD** key.	**A B C D E F X** displays (where X = Send Text Message number)
9. Enter the Text Message (up to 15 characters): • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 4-19.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 4-20.) **Note:** Press the **FLASH** key to clear any existing data.	

Action	Result
10. Use the bottom row of FF keys to select a single letter. • See Example 1. Large-display phone on page 4-19. • See Example 2. Small-display phone on page 4-20. **Notes:** • Press the * key to erase a single entry. • Press the # key to enter a space.	
11. Repeat steps 9-10 as many times as necessary to enter the desired Text Message. **Note:** Press the **FLASH** key to clear the entire entry.	
12. Press the **HOLD** key to store the entry.	Next message number displays
13. To set additional text Messages, press the volume up or down key or press the **HOLD** key to move to the desired Send Text Message.	Desired text message displays
14. Repeat steps 9-13 until all Send Text Messages are entered.	
15. Press the **AUTO** key to exit the entry mode.	**Enter Msg #** displays
16. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Special Day Mode

Description

(For a description of Automatic Day/Night System Mode, see “Automatic Day/Night Mode” on page 3-26.)

You can specify up to 20 special days for the System. For each special day, you can specify up to 5 modes settings.

Operation

To set the Special Day Modes:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **07**.	
3. Press the **HOLD** key.	**8107-** **System Mode** displays
4. Enter **1**.	
5. Press the **HOLD** key.	**1-** **Mode Special Day** displays
6. Press the **HOLD** key.	**1000 :MMDD** **Special Day 01** displays
7. Enter the date by month (two characters) and day (two characters) for the Special Day 1. **Note:** To clear an entry or existing data, press the **FLASH** key.	
8. Press the **HOLD** key.	**1001 :HHMM** **S Day 01-1 Start** displays
9. Enter the start time in hours (two characters) and minutes (two characters) for mode 1. **Note:** To clear an entry or existing data, press the **FLASH** key.	
10. Press the **HOLD** key.	**1002 :** **S Day 01-1 Mode** displays
11. Enter the desired mode for Special Day ((**0** - None, **1** - Day 1, **2** - Day 2, **3** - Night, **4** - Night(1), **5** - Night (2)). **Note:** To clear an entry or existing data, press the **FLASH** key.	
12. Press the **HOLD** key.	Next Special Day mode displays
13. To set additional Special Day modes, press the volume up or down key or press the **HOLD** key to move to the desired mode.	
14. Repeat steps 7-13 until all Special Day modes are set. (Up to 20 special days may be entered.) **Note**: The entry positions are listed in Table 4.	

Action	Result
15. Press the **AUTO** key to exit the entry mode.	**1-** **Mode Special Day** displays
16. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Table 4-4. Special Day Start Time/Mode - addresses & values

FF8 1 07 1 (1000-1219) Hold (MMDD or HHMM or 0-5) Hold						
-- VALUES -- **(MMDD, HHMM, or 0-5)**		**-- ADDRESS NOs. (1000-1219) --** **MODES**				
		1st MODE	**2nd MODE**	**3rd MODE**	**4th MODE**	**5th MODE**
Special Day 1	Date (MMDD)	**1000**				
	Start Time (HHMM)	**1001**	**1003**	**1005**	**1007**	**1009**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1002**	**1004**	**1006**	**1008**	**1010**
Special Day 2	Date (MMDD)	**1011**				
	Start Time (HHMM)	**1012**	**1014**	**1016**	**1018**	**1020**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1013**	**1015**	**1017**	**1019**	**1021**
Special Day 3	Date (MMDD)	**1022**				
	Start Time (HHMM)	**1023**	**1025**	**1027**	**1029**	**1031**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1024**	**1026**	**1028**	**1030**	**1032**

FF8 1 07 1 (1000-1219) Hold (MMDD or HHMM or 0-5) Hold						
-- VALUES -- (MMDD, HHMM, or 0-5)		-- ADDRESS NOs. (1000-1219) -- MODES				
		1st MODE	2nd MODE	3rd MODE	4th MODE	5th MODE
Special Day 4	Date (MMDD)	**1033**				
	Start Time (HHMM)	**1034**	**1036**	**1038**	**1040**	**1042**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1035**	**1037**	**1039**	**1041**	**1043**
Special Day 5	Date (MMDD)	**1044**				
	Start Time (HHMM)	**1045**	**1047**	**1049**	**1051**	**1053**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1046**	**1048**	**1050**	**1052**	**1054**
Special Day 6	Date (MMDD)	**1055**				
	Start Time (HHMM)	**1056**	**1058**	**1060**	**1062**	**1064**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1057**	**1059**	**1061**	**1063**	**1065**
Special Day 7	Date (MMDD)	**1066**				
	Start Time (HHMM)	**1067**	**1069**	**1071**	**1073**	**1075**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1068**	**1070**	**1072**	**1074**	**1076**

FF8 1 07 1 (1000-1219) Hold (MMDD or HHMM or 0-5) Hold						
-- VALUES -- (MMDD, HHMM, or 0-5)		-- ADDRESS NOs. (1000-1219) -- MODES				
		1st MODE	2nd MODE	3rd MODE	4th MODE	5th MODE
Special Day 8	Date (MMDD)	**1077**				
	Start Time (HHMM)	**1078**	**1080**	**1082**	**1084**	**1086**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1079**	**1081**	**1083**	**1085**	**1087**
Special Day 9	Date (MMDD)	**1088**				
	Start Time (HHMM)	**1089**	**1091**	**1093**	**1095**	**1097**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1090**	**1092**	**1094**	**1096**	**1098**
Special Day 10	Date (MMDD)	**1099**				
	Start Time (HHMM)	**1100**	**1102**	**1104**	**1106**	**1108**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1101**	**1103**	**1105**	**1107**	**1109**
Special Day 11	Date (MMDD)	**1110**				
	Start Time (HHMM)	**1111**	**1113**	**1115**	**1117**	**1119**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1112**	**1114**	**1116**	**1118**	**1120**

FF8 1 07 1 (1000-1219) Hold (MMDD or HHMM or 0-5) Hold						
-- VALUES -- (MMDD, HHMM, or 0-5)		-- ADDRESS NOs. (1000-1219) -- MODES				
		1st MODE	2nd MODE	3rd MODE	4th MODE	5th MODE
Special Day 12	Date (MMDD)	**1121**				
	Start Time (HHMM)	**1122**	**1124**	**1126**	**1128**	**1130**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1123**	**1125**	**1127**	**1129**	**1131**
Special Day 13	Date (MMDD)	**1132**				
	Start Time (HHMM)	**1133**	**1135**	**1137**	**1139**	**1141**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1134**	**1136**	**1138**	**1140**	**1142**
Special Day 14	Date (MMDD)	**1143**				
	Start Time (HHMM)	**1144**	**1146**	**1148**	**1150**	**1152**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1145**	**1147**	**1149**	**1151**	**1153**
Special Day 15	Date (MMDD)	**1154**				
	Start Time (HHMM)	**1155**	**1157**	**1159**	**1161**	**1163**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1156**	**1158**	**1162**	**1162**	**1164**

FF8 1 07 1 (1000-1219) Hold (MMDD or HHMM or 0-5) Hold						
-- VALUES -- (MMDD, HHMM, or 0-5)		-- ADDRESS NOs. (1000-1219) -- MODES				
		1st MODE	2nd MODE	3rd MODE	4th MODE	5th MODE
Special Day 16	Date (MMDD)	**1165**				
	Start Time (HHMM)	**1166**	**1168**	**1170**	**1172**	**1174**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1167**	**1169**	**1171**	**1173**	**1175**
Special Day 17	Date (MMDD)	**1176**				
	Start Time (HHMM)	**1177**	**1179**	**1181**	**1183**	**1185**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1178**	**1180**	**1182**	**1184**	**1186**
Special Day 18	Date (MMDD)	**1187**				
	Start Time (HHMM)	**1188**	**1190**	**1192**	**1194**	**1196**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1189**	**1191**	**1193**	**1195**	**1197**
Special Day 19	Date (MMDD)	**1198**				
	Start Time (HHMM)	**1199**	**1201**	**1203**	**1205**	**1207**
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	**1200**	**1202**	**1204**	**1206**	**1208**

FF8 1 07 1 (1000-1219) Hold (MMDD or HHMM or 0-5) Hold						
-- VALUES -- (MMDD, HHMM, or 0-5)		-- ADDRESS NOs. (1000-1219) -- MODES				
		1st MODE	2nd MODE	3rd MODE	4th MODE	5th MODE
Special Day 20	Date (MMDD)	1209				
	Start Time (HHMM)	1210	1212	1214	1216	1218
	Mode (0-5): 0=None 1=Day 1 2=Day 2 3=Night 4=Night (1) 5=Night (2)	1211	1213	1215	1217	1219

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set System Date/Time/Day

Description

The System allows you to change the date, time, and day of week. When setting the time, you can specify 12 or 24 hour format.

Operation

To change the system date, time, and day of week:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **000**.	
3. Press the **HOLD** key.	**0 :YYMMDD** **Date** displays
4. Enter the year (two characters), month (two characters), and day (two characters). **Note:** To clear an entry or existing data, press the **FLASH** key.	

Action	Result
5. Press the **HOLD** key.	**1 :HHMM** **Time** displays
6. Enter the hour (two characters) and minute (two characters). **Note:** To clear an entry or existing data, press the **FLASH** key.	
7. Press the **HOLD** key.	**2 :** **Day of the Week** displays
8. Enter the day of week where: **1** = Mon, **2** = Tues., **3** = Wed., **4** = Thurs., **5** = Fri., **6** = Sat., **0** = Sun. **Note:** To clear an entry or existing data, press the **FLASH** key.	
9. Press the **HOLD** key to store the entry.	
10. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set System Speed Dial Index

Description

For a description of System Speed Dial (SSD), see “System Speed Dial” on page 5-79 for a Digital Key Telephone, “System Speed Dial” on page 6-44 for a Digital Single Line Telephone (DSLT), and “System Speed Dial” on page 7-36 for a Single Line Telephone (SLT).

Operation

To set SSD index using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **02**.	
3. Press the **HOLD** key.	**8102-** **SSD Assignment** displays
4. Enter **2**.	
5. Press the **HOLD** key.	**2 :** **SSD Index** displays
6. Press the **HOLD** key.	**Enter Index #** displays
7. Enter the SSD Index number (**1 - 2**).	
8. Press the **HOLD** key.	**A B C D E F XXX** displays (where XXX = SSD bin number)
9. Enter the SSD Index name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 4-19.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 4-20.) **Note:** Press the **FLASH** key to clear any existing data.	
10. Use the bottom row of FF keys to select a single letter. • See Example 1. Large-display phone on page 4-19. • See Example 2. Small-display phone on page 4-20. **Notes:** • Press the ***** key to erase a single entry. • Press the **#** key to enter a space.	
11. Repeat steps 9-10 as many times as necessary to enter the desired SSD name. **Note:** Press the **FLASH** key to clear the entire entry.	
12. Press the **HOLD** key to store the entry.	Next SSD index number displays
13. To set additional SSD index names, press the volume up or down key or press the **HOLD** key to move to the desired SSD.	Desired SSD index number displays
14. Repeat steps 9-13 until all SSD indexes are entered.	

Action	Result
15. Press the **AUTO** key to exit the entry mode.	**Enter SSD #** displays
16. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set System Speed Dial Names

Description

For a description of System Speed Dial (SSD), see “System Speed Dial” on page 5-79 for a Digital Key Telephone, “System Speed Dial” on page 6-44 for a Digital Single Line Telephone (DSLT), and “System Speed Dial” on page 7-36 for a Single Line Telephone (SLT).

Operation

To set SSD names using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See “To enter User Maintenance mode:” on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **02**.	
3. Press the **HOLD** key.	**8102-** **SSD Assignment** displays
4. Enter **1**.	
5. Press the **HOLD** key.	**1 :** **SSD Name** displays
6. Press the **HOLD** key.	**Enter SSD #** displays
7. Enter the SSD bin number (**00**-**79** or **000**-**799**).	
8. Press the **HOLD** key.	**A B C D E F XXX** displays (where XXX = SSD bin number)

Action	Result
9. Enter the SSD name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 4-19.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 4-20.) **Note:** Press the **FLASH** key to clear any existing data.	
10. Use the bottom row of FF keys to select a single letter. • See Example 1. Large-display phone on page 4-19. • See Example 2. Small-display phone on page 4-20. **Notes:** • Press the * key to erase a single entry. • Press the # key to enter a space.	
11. Repeat steps 9-10 as many times as necessary to enter the desired SSD name. **Note:** Press the **FLASH** key to clear the entire entry.	
12. Press the **HOLD** key to store the entry.	Next SSD bin number displays
13. To set additional SSD names, press the volume up or down key or press the **HOLD** key to move to the desired SSD.	Desired SSD bin number displays
14. Repeat steps 9-13 until all SSD names are entered.	
15. Press the **AUTO** key to exit the entry mode.	**Enter SSD #** displays
16. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set System Speed Dial Numbers

Description

For a description of System Speed Dial (SSD), see “System Speed Dial” on page 5-79 for a Digital Key Telephone, “System Speed Dial” on page 6-44 for a Digital Single Line Telephone (DSLT), and “System Speed Dial” on page 7-36 for a Single Line Telephone (SLT).

Operation

To set SSD numbers:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **02**.	
3. Press the **HOLD** key.	**8102-** **SSD Assignment** displays
4. Press the **HOLD** key.	**0 :** **SSD Number** displays
5. Press the **HOLD** key.	**Enter SSD #** displays
6. Enter the SSD bin number (**00-79** or **000-799**).	
7. Press the **HOLD** key.	**-SSDXXX XXX** displays (where XXX = SSD bin number)
8. Enter the SSD digits to be dialed. **Note:** Press the **FLASH** key to clear an entry or any existing data.	
9. Press the **HOLD** key to store the entry.	Next SSD bin number displays
10. To set additional SSD numbers, press the volume up or down key or press the **HOLD** key to move to the desired SSD.	Desired SSD bin number displays
11. Repeat steps 8-10 until all SSDs are entered.	
12. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Text Message Replies

Description

This menu item specifies reply text messages.

Operation

To set Text Message Replies using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **11**.	
3. Press the **HOLD** key.	**8111-** **Text Message** displays
4. Enter **1**.	
5. Press the **HOLD** key.	**8111-1:** **Reply Message** displays
6. Press the **HOLD** key.	**Enter Msg #** displays
7. Enter the Message number (**0-9**).	
8. Press the **HOLD** key.	**A B C D E F X** displays (where X = Reply Text Message number)
9. Enter the Text Message (up to 15 characters): • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 4-19.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 4-20.) **Note:** Press the **FLASH** key to clear any existing data.	
10. Use the bottom row of FF keys to select a single letter. • See Example 1. Large-display phone on page 4-19. • See Example 2. Small-display phone on page 4-20. **Notes:** • Press the * key to erase a single entry. • Press the # key to enter a space.	
11. Repeat steps 9-10 as many times as necessary to enter the desired Text Message. **Note:** Press the **FLASH** key to clear the entire entry.	
12. Press the **HOLD** key to store the entry.	Next message number displays

Action	Result
13. To set additional text Messages, press the volume up or down key or press the **HOLD** key to move to the desired Send Text Message.	Desired text message displays
14. Repeat steps 9-13 until all Text Message Replies are entered.	
15. Press the **AUTO** key to exit the entry mode.	**Enter Msg #** displays
16. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Verified Account Codes

Description

(For a description of Verified Account Codes, see “Verified Account Codes” on page 5-7.)

You can enter up to 500 Verified Account codes. The System will store them in memory as valid codes. Once the codes are entered here, a Toll Restriction Service (TRS) Class of Service (COS) can be used with each code. You can then enter your code on someone else’s phone to bypass the TRS restrictions on that phone. (The TRS assigned to the Verified Account code will override the phone’s TRS.)

Operation

To set the Verified Account code:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See “To enter User Maintenance mode:” on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **04**.	
3. Press the **HOLD** key.	**8104-** **Verified ACCD** displays

Action	Result
4. Press the **HOLD** key.	**Table Number** displays
5. Enter the Verified Account table number (**001-500**).	
6. Press the **HOLD** key.	**XXX-** **Verified ACCD** displays (where XXX = account code table number)
7. Press the **HOLD** key.	**0001 : AAAAAAAAAAA** **XXX:Account Cod** displays (where AAAAAAAAAAA = current account code and XXX = account code table number)
8. Enter up to ten-digit Verified Account Code. (All Verified Account Codes must be unique. If there is a matching entry entered, the System will not accept the entry and will double beep.) **Note:** To clear an entry or existing data, press the **FLASH** key.	
9. Press the **HOLD** key.	**0002 :X** **XXX:TRS Class** displays (where X = TRS Class)
10. Enter the TRS Class to be associated with the Verified Account Code entry.	
11. Press the **HOLD** key to store the entry.	**0001 :YYY** displays (where YYY = the next account code table number)
12. To add additional Verified Account numbers, press the volume up or down key or press the **HOLD** key to move to the desired Verified Account table number.	Desired Verified Account table number displays
13. Repeat steps 8-12 until all Verified Account numbers are entered.	
14. Press the **AUTO** key to exit the entry mode	**Table Number**
15. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Set Walking TRS Codes

Description

You can assign Walking Toll Restriction Service (TRS) Codes for each extension.

Operation

To set Walking TRS Codes using either a large-display or small-display phone:

Action	Result
1. If not already in User Maintenance mode, enter User Maintenance mode. (See "To enter User Maintenance mode:" on page 4-3.)	**81-** **User MAINT** displays
2. At the **81** level, enter **08**.	
3. Press the **HOLD** key.	**8108-** **Walking TRS Cod** displays
4. Press the **HOLD** key.	**Walking ID-Ext** displays
5. Dial the extension number.	
6. Press the **HOLD** key.	**Walking ID XXX** displays
7. Enter the 4-digit Walking TRS Code.	
8. Press the **HOLD** key to store the entry.	Next extension number displays
9. To set additional extension Walking TRS Codes, press the volume up and down key or press the **HOLD** key to move to the desired Extension.	
10. Repeat steps 8-10 until all extension are entered.	
11. Press the **AUTO** key to exit the entry mode.	
12. To return to the top menu level (**81**), press the **PROG** key. **OR...** To exit the User Maintenance mode, press the **ON/OFF** key.	**81-** **User MAINT** displays **OR...** **ON/OFF** LED goes off

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Chapter 5. Key Telephone Features

This chapter describes Key telephone features. Key telephones are proprietary digital phones that provide feature access through a combination of feature keys and access codes.

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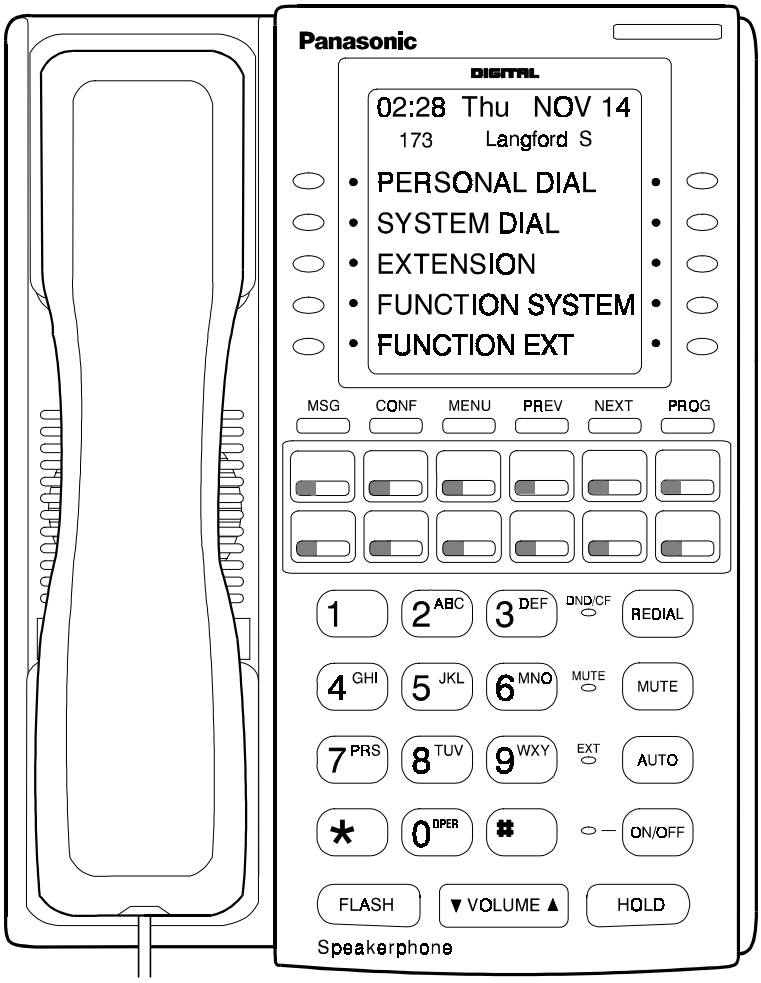
Key Telephone

As an example of a key telephone, Figure 1 illustrates the Panasonic model VB-44225. This model provides a large display that includes one-touch access to speed dial numbers, telephone features, and Help screens.

Figure 5-1. VB-44225 Large-Display Key Telephone



Absence Message

Description

Extension users can leave text messages on their phones when they are away. When the unattended extension is dialed, the text message displays on the caller's phone. Any one of the following messages can be selected. Messages 5 to 9 have no default message text. All the messages can be changed through system programming.

Beginning with Version 3.6, an LED lamp on the Absence Message key will light red when this feature is active.

Table 5-1. Absence Messages

Message No.	Message Text	Message No.	Message Text
0	In Meeting	5	Absence_No_5
1	At Lunch	6	Absence_No_6
2	Out of Office	7	Absence_No_7
3	Vacation	8	Absence_No_8
4	Another Office	9	Absence_No_9

Optionally, a return time can be input. Example Return Times for Absence Messages include:

Input	Display
No input	Return
9	Return 9:00
11	Return 11:00
615	Return 6:15
1035	Return 10:35

Operation

To set an Absence Message

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Absence Message code (default = **729**).	**Enter Msg Code #** displays
3. Enter the Absence Message number. (See Table 1 above.)	**Enter XXXX Hold** **In Meeting** displays
4. If desired, enter the 4-digit returning time.	Absence message displays
5. Press HOLD key.	**ABS MSG Accepted displays; LED lamp lights red on Absence Message key**
6. Replace the handset or press the **ON/OFF** key.	

To cancel an Absence Message

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Absence Message code (default = **729**).	**Enter Msg Code #** displays
3. Press **HOLD** key.	**ABS MSG Cleared** displays
4. Replace the handset or press the **ON/OFF** key.	

Related Programming

- FF1 (System): Extension Class of Service Setting
- FF3 (Extension): Extension Class of Service Assignment
- FF8 (Maintenance): Absence Messages

Considerations

- Calling parties without a display get a ring back tone, rather than the Absence Message.
- If a message code number that has not been programmed is selected, “Absence No.n,” appears on the display (n = message number).
- Regardless of setting an Absence Message on a DID/DIL extension, DID/DIL calls are routed according to the trunk ringing setting.
- An absence message may also be cancelled by dialing **7****. This cancels Do Not Disturb and Call Forwarding-All Calls as well.

Account Codes

Description

You can assign account codes to clients to facilitate billing and to track call dates and times, numbers called, and outside line numbers used. This information is printed for each account on the System Message Detail Recording (SMDR) record.

In addition verified account codes may be used to change the TRS level to allow calls to numbers otherwise restricted.

Account codes may be either forced or unforced (voluntary) and either verified or unverified.

This feature works with Station Message Detail Recording (SMDR). During a phone call, a station user can silently enter an accounting or client billing code. The entered Code will display on the phone’s LCD as it’s dialed, so the user can tell it’s being registered. Then later, the SMDR reports will show the Code dialed for each call, and even sort the report by these Codes.

There are two different types of account codes: Non-Verified and Verified Account Codes. Prior to Version 3.6, the maximum amount of account code numbers for both types could range from 1-10 digits. Beginning with Version 3.6, a second mode has been added that allows the user to set the maximum amount of account code numbers from 1-4 digits. An account code error will occur when more than the maximum number of digits are entered.

Non-Verified Account Codes

Non-Verified Codes are not checked by the system for validity. Depending on the setting, the user can enter anything from 1-4 digits or 1-10 digits. Individual phones can be programmed to accept forced Account Codes (the user must enter a code for every call) or voluntary Account Codes (the user can enter a code, but doesn’t have to, for each call).

Non-Verified Account Codes can be assigned to incoming and/or outgoing calls. For incoming calls, the user can enter the Code anytime during the call. For outgoing calls, the user either enters the Code before accessing an outside line (for forced Codes), or anytime during the call (for voluntary Codes).

Verified Account Codes

Verified Account Codes entered by phone users must match a code that has been preprogrammed into an Account Code Table. Depending on the setting, the user can enter anything from 1-4 digits or 1-10 digits. These codes can also be either forced or voluntary. You can program these codes with their own Toll Restriction Service (TRS) Class assignment so that, when entered, they will override the extension's TRS Class. Thus, Verified Account Code users can "float" from phone to phone, placing calls that would normally be restricted on that phone.

Non-Verified Account Codes

Non-verified Account codes are voluntary codes. (i.e., You do not have to enter an account code before making a call.)

You can assign Non-verified Account codes to both incoming and outgoing calls. To assign an account code to an outgoing call, you enter the account code before making the call or during the call. To assign an account code to an incoming call, you enter the account code during the call.

Operation

To enter an account code before making a call:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Account Code feature code (default = **8#**).	**Enter Account #** displays
3. Enter the Account Code (up to 10 digits).	Specified account code displays
4. Press the # key.	Specified account code **#** displays
5. Press a vacant CO key or enter a trunk access code.	**CO Key** LED lights
6. Dial the phone number.	Dialed phone number displays

To enter an account code during an outside call:

Action	Result
1. During a call, press the **AUTO** key.	
2. Press the # key.	**Enter Account #** displays
3. Enter the Account Code (up to 10 digits).	Specified account code displays
4. Press the # key.	Display returns to call state.

Verified Account Codes

Stations restricted from outside call origination by Toll Restriction Service (TRS) can be allowed to make outgoing calls by entering a Verified Account code that changes the TRS. After a call is made, the SMDR record for the call will show the verified account code.

Operation

To make an outside call that requires an account code:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Verified Account ID code (default = **8#**).	**Enter Account #** displays
3. Enter the Account Code (10 digits max.).	Specified account code displays
4. Press the # key.	Specified account code **#** displays
5. Press a vacant CO key or enter a trunk access code.	**CO Key** LED lights
6. Dial the phone number.	Dialed phone number displays

Hardware Requirements

- An SMDR printer or external call accounting system is required to collect account code records.

Related Programming

- FF1-0-19: TRS Class for Forced Account Code
- FF1-2: Dial Plan
- FF3: Forced Account
- FF3: Verified Account
- FF8-1-04: Verified Account Codes with TRS Class

Considerations

- Account codes will be cancelled after using CO queuing.
- Account Codes interact with TRS as shown in the following table:

Forced or Not Forced	Verified or Non-Verified	TRS Class	
		No Account Entry	Account Entry
Not Forced	Non-Verified	Extension Port Based TRS Class	Extension Port Based TRS Class
	Verified		Account Code Based TRS Class
Forced	Non-Verified	TRS Class for Forced Account Code (FF1 0 19 0001)	Extension Port Based TRS Class
	Verified		Account Code Based TRS Class

Attendant Group Calls

Description

You can call the attendant group from any extension by dialing the designated attendant number.

Operation

To call an attendant group:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the attendant pilot number (default = **0**).	**Call Attendant** displays

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF3: Extension Number
- FF5-0: Attendant Hunt Groups

Considerations

- Up to 20 extensions can be included in an attendant group.
- The attendant pilot number is flexible.
- If a member of an attendant group is for a virtual extension, multiple extensions in the attendant group can be made to ring at once when the virtual number is dialed.

Auto Repeat Dial

Description

If you press the **REDIAL** key while receiving busy tone on an outside call, the System automatically redials the number. The System continues to redial the number at set intervals until the called number answers, the caller hangs up, or the maximum of 15 redial attempts is made.

Operation

To use Auto Repeat Dial:

Action	Result
1. Press the **ON/OFF** key.	Intercom dial tone
2. Press a vacant CO key or enter a trunk access code	CO Key LED lights

Action	Result
3. Dial the phone number.	• Dialed phone number displays • Busy tone
4. Press the **REDIAL** key.	System automatically redials number

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Auto Repeat Dial)
- FF3: Extension COS Assignment

Considerations

- N/A

Background Music

Description

If your System is set up to provide Background Music, music can be played from the speakers of idle telephones. If a call is made to an extension receiving Background Music, the music stops and the phone rings. Background Music is also interrupted when the phone goes offhook.

The System can also provide Music-on-Hold (MOH) using a separate music source (except with CPC-HS). If MOH is provided, callers automatically hear music when they are placed on hold. (For more information on MOH, see page 3-37.)

Operation

To turn Background Music on:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Background Music code (default = ***30**).	**BGM ON** displays
3. Replace the handset or press the **ON/OFF** key.	

To turn Background Music off:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Background Music code (default = ***30**).	**BGM OFF** displays
3. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- The music source must be purchased separately. It is not provided with the System.

Important: A license may be required from the American Society of Composers, Authors, and Publishers (ASCAP) or similar organizations to transmit radio or recorded music through the MOH and/or Background Music feature. Panasonic Telecommunication Systems Company, its distributors, and affiliates assume no liability should users of Panasonic equipment fail to obtain such a license.

Related Programming

- FF1-0-03: Extension COS (BGM)

Considerations

- N/A

Busy Override

Description

Busy Override allows you to break into another user's outside or intercom calls to relay urgent information or to create three-party conference calls.

Operation

To break into a call with a line appearance on your phone (CO Key Busy Override):

Action	Result
1. Press the lit direct CO key.	• Alert tone sounds to both phones (System programming required) • Connected to both parties

To use Extension Busy Override:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone

Action	Result
2. Dial the extension number.	• Dialed extension number displays • Busy tone
3. Enter the Busy Override code (default = **9**).	• Alert tone sounds to both extensions (System programming required) • Connection to both parties • **OVR1: (name of overriding extension)** and **OVR2: (extension name for current talk path)** displays on both extensions

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Splash Tone (Busy Override)
- FF1-0-03: Extension COS (Manual DND Override Send)
- FF1-0-03: Extension COS (Forced DND Override)
- FF1-2: Dial Plan
- FF3: Extension COS
- FF3: Data Security

Considerations

- You cannot break in on three-party conference calls.
- The default for the Override Alert Tone is **off**. If the Override Alert Tone is enabled, the tone will be sent to both parties when a call is overridden.
- Beginning with Version 3.5 and higher, certain extensions can be excluded from busy override based on Class of Service.

Callback Request

Description

If you dial a busy extension, Callback Request enables the System to call you back when that extension becomes free. When you answer, the System automatically rings the called party again.

Operation

To set a Callback Request:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	• Dialed extension number displays • Busy tone
3. Enter the Callback Request code (default = **3**).	Ringback tone
4. Replace the handset after you hear the ringback tone.	System calls back when called extension becomes free

To respond to a Callback Request:

Action	Result
1. Lift the handset.	System automatically redials extension

To cancel a Callback Request:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the Callback cancellation code (default = **769**).	
3. Replace the handset .	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Callback Request Send)
- FF1-0-03: Extension COS (Callback Request Receive)
- FF3: Extension COS
- FF1-2-03: Dial Plan (Callback Cancel)

Considerations

- N/A

Call Forwarding

Description

Call Forwarding allows you to send your calls to another extension, to an outside line, or to Voice Mail. Call Forwarding can be set or canceled under the following conditions from either your own extension or from an alternate extension:

- Call Forwarding - All Calls
- Call Forwarding - Busy
- Call Forwarding - No Answer

Call Forwarding-All Calls

When Call Forwarding - All Calls is set, all incoming calls to an extension are immediately forwarded. Beginning with Version 3.6, a Flexible Function key can be programmed so that the LED indicates when this feature is active. The LED will light red when Call Forwarding-All Calls is set.

To set Call Forwarding-All Calls:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **721**. • For another extension, enter **741**.	
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you wish to forward.	
4. Enter the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For information, see “Speed Dialing” on page 5-77.)	
5. Replace the handset or press the **ON/OFF** key.	

To cancel Call Forwarding-All Calls:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: • For your extension, enter **731**. • For another extension, enter **751**.	
3. If canceling Call Forwarding for another extension, dial the extension number.	
4. Replace the handset or press the **ON/OFF** key.	

Call Forwarding - Busy

When Call Forwarding - Busy is set, all incoming calls to a busy extension are forwarded.

To set Call Forwarding - Busy:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **722**. • For another extension, enter **742**.	
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you want to forward.	
4. Enter the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For information, see “Speed Dialing” on page 5-77.)	
5. Replace the handset or press the **ON/OFF** key.	

To cancel Call Forwarding - Busy:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: • For your extension, enter **732**. • For another extension, enter **752**.	
3. If canceling Call Forwarding for another extension, dial the extension number.	
4. Replace the handset or press the **ON/OFF** key.	

Call Forwarding - No Answer

When Call Forwarding - No Answer is set, a call will ring until the Call Forward - No Answer timer expires. When the timer expires, the unanswered call is forwarded.

Operation

To set Call Forwarding - No Answer:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **723**. • For another extension, enter **743**.	
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you wish to forward.	
4. Dial the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For information, see “Speed Dialing” on page 5-77.)	
5. Replace the handset or press the **ON/OFF** key.	

To cancel Call Forwarding - No Answer:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: • For your extension, enter **733**. • For another extension, enter **753**.	
3. If canceling Call Forwarding for another extension, dial the extension number.	
4. Replace the handset or press the **ON/OFF** key.	

Call Forwarding-All Calls and Do-Not-Disturb

The System allows you to cancel both Call Forwarding-All Calls and Do-Not-Disturb (DND) for your own extension in one step.

Operation

To cancel Call Forwarding-All Calls and DND:.

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the CF-All/DND Clear code (default = **7****).	
3. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Call Forward All/Busy/No-Answer/DND Cancel)
- FF1-0-03: Extension COS (Call Forward/All Calls)
- FF1-0-03: Extension COS (Call Forward/Busy)
- FF1-0-03: Extension COS (Call Forward/No Answer)
- FF1-0-03: Extension COS (Call Forward/Other)
- FF1-2: Dial Plan
- FF1-0-03: NPDN and PNPDN Call Forwarding Programming Address

Considerations

- Calls cannot be forwarded to an extension that already has Call Forwarding or DND activated. (For example, extension 220 can only forward to extension 225 if 225 is not forwarded.
- If forwarding to an outside number, the destination number must be pre-programmed into a System Speed Dial (SSD) code.
- Call Forwarding - Busy and Call Forwarding - No Answer can both be set at the same time.

- You can set Call Forwarding - All Calls while Call Forwarding - No Answer and/or Call Forwarding - Busy are set. Canceling one mode only affects that mode; however, the other modes will remain set until canceled individually.
- An auto camp-on to a busy extension will forward to the Call Forward No Answer destination. A manual camp-on to a busy extension will not forward.
- If Call Forwarding No Answer and DND are both set, calls immediately forward to the Call Forward No Answer destination.
- You can cancel both Call Forwarding and DND by entering **7 * ***.
- Beginning with Version 3.5 and higher, calls can be forwarded by an extension with an NPDN or PNPDN if the COS gives permission. See “Directory Numbers” on page 5-35 for more information.

Call Hold

Description

The System provides the following types of Call Hold or Call Park:

- System Hold
- Floating Hold
- Exclusive Hold
- Broker’s Hold
- Station Call Park

System Hold

You can place either an outside or intercom call on System Hold. You can retrieve a call placed on System Hold from any extension that has a line appearance for the held call.

Operation

To place a call on System Hold:

Action	Result
1. While on a call, press the **HOLD** key.	• Intercom dial tone • **Hold CO XXX** displays (where XXX = outside line number)

To retrieve a call placed on System Hold from the extension that placed it there:

Action	Result
1. Press the line key that is flashing green or press the **HOLD** key if a non-appearing CO call.	**CO XXX** displays (where XXX = outside line number)

To retrieve a call placed on System Hold from an extension other than the one that put it there:

Action	Result
1. Press the line key that is flashing red.	**CO XXX** displays (where XXX = outside line number)

To retrieve a held call on a specific trunk:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Specified Trunk Answer code (default = ***0**).	**Enter TRK #** displays
3. Enter the trunk number.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Floating Hold on HOLD Key
- FF1-0-03: Extension COS (Hold Key Operation)
- FF1-2: Dial Plan

Considerations

- N/A

Floating Hold

Floating Hold is a type of System Hold that allows you to retrieve a held call from any extension that has an FF key assigned to the same Floating Hold orbit where the call is held. You can also retrieve a call by dialing the Floating Hold orbit number for the held call.

Floating Hold is useful when the intended recipient of a call must be located via a page. The call can be placed in a Floating Hold "orbit" and that orbit number announced during the page. The paged party can then pick up the call by dialing the orbit number or by pressing an FF key assigned to that orbit number.

Note: To place a call on Floating Hold, you should have at least one FF key assigned to a Floating Hold orbit number.

Operation

To place a call on Floating Hold:

Action	Result
1. While on a call, press the Floating FF key (system programming required) or press the **HOLD** key.	• Intercom dial tone • **Hold CO XXX** displays (where XXX = outside line number)

To retrieve a call from Floating Hold:

Action	Result
1. (A) Press the FF key assigned to the Floating Hold orbit number where the call is held. **OR...** (A) Enter the Floating Hold Pickup feature access code (default = ***9**). (B) Enter the Floating Hold orbit number **01-96** (CPC-96/HS/HM) or **01-09** (CPC-96/HS/HM) (See considerations below.)	**CO XXX** displays if line released (where XXX = outside line number)

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Floating Hold on HOLD Key
- FF1-0-02: Dial Control for Floating Hold Answer.
- FF1-2: Dial Plan
- FF4: FF-Key Feature Assignment

Considerations

- The number of floating hold orbits available may very depending on the Station Park/Floating Hold Pickup setting (FF1-0-02-0025). The floating hold pickup access code can be set to ***9** (default). The "***9**" access code operates as follows:

System Size	Virtual Line Number and Operation
96, 576HD	01-09 Floating Hold pick up 10-96: For Station Park Hold pick up purpose

Exclusive Hold

With Exclusive Hold, only the extension that held the call can retrieve it. Exclusive Hold can be used to hold CO calls and extension calls.

Operation

To place a call on Exclusive Hold:

Action	Result
1. While on a call, press the **CO** key used for the call or press the **HOLD** key.	• Intercom dial tone • **Hold CO XXX** displays (where XXX = outside line number)

To retrieve a call from Exclusive Hold:

Action	Result
1. Press the **CO** key on which the call is held.	• CO LED stops flashing, remains green • **CO XXX** displays if call released (where XXX = outside line number)

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Exclusive Hold (CO Key)
- FF1-0-03: Extension COS (Hold Key Operation - System vs. Exclusive)

Considerations

- Intercom calls will be held as Exclusive when placed on hold by pressing the **HOLD** key.

Broker's Hold

Broker's Hold allows you to toggle between the current call and the last held call by pressing the **HOLD** key.

Operation

To place a call on Broker's Hold:

Action	Result
1. Pick up the first call.	
2. Press the **HOLD** key.	First call on hold
3. Pick up the second call.	
4. Press the **HOLD** key.	Second call on hold, first call retrieved

Hardware Requirements

- N/A

Related Programming

- FF3: Broker's Hold

Considerations

- In order to use Broker's Hold with CO calls, the first call must have a possible appearance and non-appearance, but in the case of appearance, the first call must be one of CO key.

Call Park

You can use the Call Park function to transfer a call, even if you cannot locate the intended recipient of the call.

CO, Extension, and Network calls may be parked.

There are two ways for an extension to park a call. One way is to park the call at the receiving extension and to retrieve the parked call at another extension by dialing the park answer code plus the parking extension number. The other way is to park the call at another extension and dial the park transfer answer code at the other extension to retrieve the call. Beginning with Version 3.6, the user may park the call at another extension by pressing the BLF key. In addition, an Extension Group Pickup code allows the user to pick up a Transfer Recall (only on non-appearing calls), a Hold Recall, and a Station Park Recall.

To park a call on this extension:

Action	Result
1. While on a call, press the **HOLD** key.	• Current call on hold • **CO HOLD #XX** displays (where XX = trunk number)
2. Enter the Call Park Hold access code (default =**771)** or press the **PARK HOLD** key.	**Accepted ST-Park** displays
3. If necessary, page the party that needs to retrieve the call.	

To retrieve a call parked at the originating extension from another extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Station Call Park Answer/Other Ext. access code (default **773)**. **OR...** Enter the Station Call Park/Floating Hold Answer feature access code (default = ***9**).	**Enter Park EXT** # displays
3. Dial the number of the extension that parked the call.	• **CO TALK TRK #XX** displays (where XX = line number) • Connected to parked call

To park a call at another extension:

Action	Result
1. Press the **HOLD** key.	• Current call on hold • **CO HOLD #XX** displays (where XX = trunk number)
2. Enter the Call Park Transfer access code (default = **774**).	**Enter TRNS EXT #** displays
3. Dial the extension numbler to receive the parked call, OR Press the BLF key	**Park (EXT#)** displays on lower display
4. If necessary, page the party that needs to retrieve the call.	

To retrieve a transferred call park:

Action	Result
1. At the extension with the transferred park call, lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter Call Park Answer/Self access code (default = **772**).	• **CO TALK TRK #XX** displays (where XX = line number) • Connected to parked call

Hardware Requirements

- N/A

Related Programming

- FF1 (System): Extension Park Hold Recall Timer
- FF1-0-02: Dial Control for Floating Hold Answer

Considerations

- You cannot park more than one call at a time.
- Call Park functions can be assigned to FF keys (see "Flexible Function Keys" on page 5-45).
- No more than one Call Park Answer key may be assigned to a single telephone.
- A Call Park Answer key may not be assigned to the EM/24 or DSS/72 console.
- If a call is parked by Call Park key, the LED flashes.
- LCD softkeys are also available for Call Park.
- Once a call is parked, it cannot be accessed by the CO line key or direct CO access (similar to exclusive hold).
- If two calls are on hold and the last call is parked, the other call is then considered the last held call. If a transfer is performed, the remaining held call would be the call transferred, not the parked call.
- Depending on the Station Park/Floating Hold Pickup setting (FF1-0-02-0025), the station park/floating hold pickup code can set to ***9** (default), **773**. The floating hold pickup code (***9**) operates as follows:

System Size	Virtual Line Number and Operation
96	01-09 Floating Hold pick up 10-96: For Station Park Hold pick up purpose

Call Pickup

Description

The System allows the following types of call pickup:

- Extension Group Pickup
- Extension Direct Pickup

- Trunk Group Pickup
- Trunk Direct Pickup

Extension Group Pickup

Extension Group Pickup allows you to pick up a direct ringing call (within your extension pickup group or in a different pickup group) without having to dial the number of the ringing extension.

Three types of Extension Group Pickup are available:

- **Call Pickup - All Calls:** You can pick up a call ringing anywhere within your own extension group.
- **Call Pickup - External Calls:** You can pick up only external calls ringing within your own extension group.
- **Specified Group Pickup:** You can pick up a call ringing to an extension in another extension group.

Operation

To use Extension Group Pickup - All Calls:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Extension Group Pickup - All Calls code (default = **701**).	Extension number or outside phone number displays
3. Complete the call and replace the handset or press the **ON/OFF** key.	

To use Extension Group Pickup - External Calls:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Extension Group Pickup - External Calls code (default = **702**).	Extension number or outside phone number displays
3. Complete the call and replace the handset or press the **ON/OFF** key.	

To use Specified Group Pickup:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Specified Group Pickup code (default = **703**).	
3. Enter the number of the call pickup group (**01**-**72**) where the call is ringing.	Extension number or outside phone number displays
4. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-02: Intercom Voice Call Pickup
- FF1-2: Dial Plan
- FF5-6: Call Pickup Group Assignment

Considerations

- Extension Group Pickup - 12 /system; maximum 20/group
- The Call Pickup Group assignments determine the order calls are picked up (i.e. if two calls are ringing in the call pickup group, the call ringing the first member will be picked up first).

Extension Direct Pickup

Extension Direct Pickup allows you to answer a call to another extension by dialing the number of the ringing extension.

Operation

To use Extension Direct Pickup:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Extension Direct Call Pickup code (default = **704**).	
3. Dial the number of the ringing extension.	Extension number or outside phone number displays
4. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-02: Intercom Voice Call Pickup
- FF1-2: Dial Plan

Considerations

- N/A

Trunk Group Pickup

Trunk Group Pickup allows you to answer calls ringing to any extension within your own MCO incoming trunk group.

Operation

To use Trunk Group Pickup:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Trunk Group Pickup code (default = **709**).	Extension number or outside phone number displays
3. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF5-3: MCO-Inbound Trunk Group

Considerations

- N/A

Trunk Direct Pickup

Trunk Direct Pickup allows you to answer calls ringing on a specific trunk number.

Operation

To use Trunk Direct Pickup:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Trunk Direct Pickup code (default = ***0**).	
3. Dial the number of the ringing or holding (system) trunk.	Outside number displays
4. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan

Considerations

- Calls in Exclusive Hold cannot be picked up.

Call Transfer

Description

The System allows you to transfer calls to either another extension or to an outside number. The transferred calls can be either supervised or unsupervised. (You can also use the Camp-on feature to transfer a call to a busy extension.)

Supervised Transfer

When completing a supervised transfer, the transferring party remains on the line until the third party answers, then he/she announces the call.

Operation

To supervise the transfer of a call to another extension:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. When the call is answered, inform the third party of the transfer.	**Talk-EXT Name or Number** displays
4. Complete the transfer: • If On-Hook Transfer is enabled for your Extension COS, replace the handset or press the **ON/OFF** key. • If On-Hook Transfer is disabled, press the **PROG** key (or **RELEASE** key if using DSS/72).	

To supervise the transfer of a call to an outside number:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Seize a trunk line and dial the number to which the call is to be transferred.	
3. When the call is answered, inform the third party of the transfer.	**Talk-EXT XXX** displays (where XXX = extension)
4. Complete the transfer: • If On-Hook Transfer is enabled for your Extension COS, complete the transfer by replacing the handset or pressing the **ON/OFF** key. • If On-Hook Transfer is disabled, press the **PROG** key (or **RELEASE** key is using DSS/72).	Original call LED light turns red

Unsupervised Transfer

When completing an unsupervised transfer, the transferring party hangs up before the third party answers.

Operation

To transfer a call to another extension without supervising the transfer:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. Complete the transfer: • If On-Hook transfer is enabled for your Extension COS, replace the handset or press the **ON/OFF** key. • If On-Hook is disabled, press the **PROG** key (or **RELEASE** key if using DSS/72).	

To transfer a call to an outside number without supervising the transfer:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Press a vacant CO key or enter a trunk access code.	
3. Dial the number to which the call is to be transferred.	
4. Complete the transfer: • If On-Hook Transfer is enabled for your Extension COS, complete the transfer by replacing the handset or pressing the **ON/OFF** key. • If On-Hook Transfer is disabled, press the **PROG** key (or **RELEASE** key is using DSS/72).	

Camping a Call Onto a Busy Extension

Operation

To camp a call onto a busy extension:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. If your extension does not have Auto Camp-on activated, enter the Camp-on (Call Waiting) code (default = **2**).	Camp-on tone heard at the called extension
4. Complete the transfer: • If On-Hook Transfer is enabled for your Extension COS, complete the transfer by replacing the handset or pressing the **ON/OFF** key • If On-Hook Transfer is disabled, press the **PROG** key (or **RELEASE** key is using DSS/72).	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Onhook Transfer at Ringback)
- FF1-0-03: Extension COS (Onhook Transfer at Talk)
- FF1-0-03: Extension COS (Onhook Transfer at Camp-on)
- FF1-0-03: Extension COS (Trunk-to-trunk On-hook Transfer Restriction)

Considerations

- If On-Hook Transfer is not enabled for the transferring party's Extension Class of Service (COS), he/she must press the **PROG** or **RELEASE** key before hanging up to complete the transfer.
- If the call is not answered by the third party before the Transfer Recall Timer expires, the call will recall to the transferring extension.
- Beginning with Version 3.6, a Transfer Recall (only on non-appearing calls) may be answered on another extension using the Call Pickup feature. However, an incoming Transfer Recall cannot be picked up during conversation.
- If a Transfer Recall is not answered before the Recall Duration Timer expires, the call will revert to the Attendant group.
- If the called party does not exist, the call recalls to the transferring extension.
- You cannot transfer a call to an extension that has Do-Not-Disturb (DND) activated.
- You can transfer a call to an extension that has Call Forwarding activated. The transferred call will follow the call forwarding path of the extension it is transferred to. For example, if extension 221 is forwarded to extension 225, calls that are transferred to extension 221 will be forwarded to extension 225.
- Calls can be transferred from paging using supervised transfer.

- If a call is unsupervised transferred to a busy extension, the call will camp on to the busy extension.
- To transfer to a outside party, it is best to use supervised transfer. If the trunk-to-trunk on-hook transfer restriction is enabled, a blind transfer will result in the loss of the second call but the second call will be kept on hold. If not enabled and the second outside party is busy, the transferred party will receive busy.

Caller ID Call Log

Description

The Call Log keeps a record of Caller ID calls that ring individual phones. The Call Log allows you to view Caller ID calls that have been sent to your phone and, if desired, return a call. Calls are shown in order, with the most recent call appearing at the top of the display.

For Large- and Small-display phones, there are two Call Log display modes. These modes define how Caller ID information is displayed for the call being viewed (the first two lines of the display).

Table 2. Call log maximums

Call Log Maximums	**Maximum**
Maximum number of extensions with Call Log	20 per system
Number of log entries that can be stored for an extension. (After the call log fills with 10 entries, each additional entry overwrites the oldest log entry.)	10

The Call Log stores information for Caller ID calls that ring a phone. If the phone does not ring (for instance when Call Forward - All Calls is active), there is no entry in the Call Log for that call.

Each Call Log entry includes the following call information:

- Calling number
- Time and date
- Whether the call was answered
- How the call was routed.

The most recent entries are stored first in the Call Log.

With Version 5.0, if an FF key is assigned as a Caller ID key, the key flashes when Caller ID information is received and the call is not answered (Busy/No Answer/CFWD/Hunting). This key can then be pressed to access the Call Log.

Call Log Operation on a Small- and Large-Display Key Telephones

Operation

See *Section 750 - Key Phone User Guide* for operating instructions and Call Log display examples.

Hardware Requirements

- Caller ID daughter circuit card on the Loop Start Trunk Card if a Loop Start Trunk receives the call.
- ISDN (PRI-T Point) if ISDN card receives the call.
- Large Display Telephone or 44-Series Small Display Telephone.

Related Programming

- FF1-0-01-0021: Caller ID Log Outgoing
- FF1-0-01-0022: Caller ID Log Control for Private or Out of Area
- FF8-1-10: Set Caller ID Logging Extensions

Considerations

- Caller ID is available ISDN PRI.
- Caller ID circuit card must be installed and enabled. (See “Caller ID” on page 3-9).
- Caller ID is typically 10 digits. If the local calling area requires 7-digit dialing, the call log outdialing will not operate properly.

Camp-on (Call Waiting)

Description

If you dial a busy extension, you can camp onto that extension and send a Call Waiting signal to the called party. The called party then needs only to replace the handset and pick it up again to be automatically connected to the new call. The called party can also press the **HOLD** key to place the first call on hold and then answer the waiting call.

The System provides two types of call waiting:

- **Automatic Call Waiting:** You do not need to enter a code to send the Call Waiting signal to the busy extension. You need only to remain on the line.
- **Manual Call Waiting:** You must enter a code to send a Call Waiting signal to the busy extension.

You can leave a text message that displays on the busy phone. Any one of the following messages can be selected. Messages 6 to 9 and 0 have no default message text. All the messages can be changed through system programming. (see “Set Send Text Messages” on page 4-23 for more information on setting Send Text Messages).

Table 3. Send Text Messages

Message No.	Message Text	Message No.	Message Text
1	Visitor Here	6	User Defined
2	Need Help	7	User Defined
3	Important	8	User Defined
4	Urgent	9	User Defined
5	Emergency	0	User Defined

The busy party can reply with a text message that displays on the camping on phone. Any one of the following messages can be selected. Messages 6 to 9 and 0 have no default message text. All the messages can be changed through system programming. (see “Set Text Message Replies” on page 4-37 for more information on setting Text Message Replies).

Table 4. Text Message Replies

Message No.	Message Text	Message No.	Message Text
1	Take A Message	6	User Defined
2	Please Hold	7	User Defined
3	Will Call Back	8	User Defined
4	Transfer	9	User Defined
5	Unavailable	0	User Defined

Operation

To use Automatic Camp-on:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	• **Wait XXX** displays (where XXX = extension number/name) • Called party hears alert tone from the speaker. • Calling party hears ringback tone
3. Remain on the line until the called party answers.	

To use Manual Camp-on:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	Busy tone
3. Enter the Camp-on (Call Waiting) code (default = **2**).	• **Wait XXX** displays (where XXX = extension number/name) • Called party hears alert tone from the speaker • Calling party hears ringback tone
4. Remain on the line until the called party answers.	

To leave a text message while camped-on:

Action	Result
1. Press the **MSG** key.	
2. Enter the Send Text Message number (**1-9**, **0**). (See Table 3 on page 5-31 for the send text messages.)	The send text message appears on the busy telephone display.

To reply to a text message:

Action	Result
1. Press the **MSG** key.	
2. Enter the Reply Text Message number (**1-9**, **0**). See Table 4 on page 5-32 for the text message replies.)	The text message reply appears on the camped on telephone display.

To answer a Camp-on (Call Waiting) signal:

Action	Result
1. Replace the handset or press the **ON/OFF** key.	
2. Lift the handset or press the **ON/OFF** key again to be connected to the waiting call. **OR...** Press the **HOLD** key.	• Current call placed on hold • Connected to waiting call

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Manual Camp-on Send)
- FF1-0-03: Extension COS (Manual Camp-on Receive)
- FF1-2: Dial Plan
- FF3: Extension COS
- FF3-0: Auto Camp-on

Considerations

- You can transfer an outside call to a busy extension using Camp-on. See “Camping a Call Onto a Busy Extension” on page 5-29.
- Manual camp-on to a busy extension will not Call Forward/No Answer.
- Automatic camp-on to a busy extension will Call Forward/No Answer.
- Calls transferred to a busy extension will Call Forward.
- Text message send and text message reply requires display Key Telephones. Also, Text Message Send and Text Message Reply keys must be programmed on the telephones.

Conference Calls

Description

Conference Calls allow you to add another party to an existing conversation. With the standard system configuration, up to 4 parties can be included in a conference call at any one time. If the optional Conference Card is installed, additional parties up to a total of 8 can participate in a conference call.

Any combination of extensions and CO lines can be in the conference as long as the original extension is in the conference and the total number of parties does not exceed 8. Only one operation is used to establish and add to a conference. You simply have to place the current call on hold, dial the next party and press the **CONF** key. No different operation or access code is required to add additional parties to the call.

When no optional conference card is installed, the system supports the following types of four-party conference calls:

- 4 extensions
- 3 extensions and 1 CO line
- 2 extension and 2 CO lines
- 1 extension and 3 CO lines

Operation

See *Section 750 - Key Phone User Guide* for operating instructions.

Hardware Requirements

- A Conference Card (VB-44120) must be installed in the System in order to conference more than four parties.

Related Programming

- FF1-0-03: Extension COS (8-Party Conference)
- FF1-0-03: Extension COS (Unsupervised Conference Call)
- FF1-0-01: Splash Tone (3-party conference)
- FF1-1-04: Conference Hold Call Recall Timer
- FF3: Extension COS

Considerations

- **If all the internal parties hang up, the conference call will be disconnected. If the internal party remains in the conversation, the conference call remains in progress.
- When three or four parties are conferenced, a built-in 4-party conference circuit is used. If no 4-party conference circuit is available, a conference cannot be established.
- When a fifth party is added, the conference is moved to a conference circuit on the 8-party conference card. If an 8-party conference circuit is not available, a fifth party cannot be added to a conference.
- Once an 8-party conference circuit is used, it continues to be used as long as the conference continues.
- An 8-party conference card supports up to four 8-party conference circuits. However, the card must be placed in cabinet slots 1, 5, or 9 to support more than one 8-party conference circuit (and jumpered accordingly).

- During a conference call, the extension (EXT) lamp lights on the conference originator's telephone.
- When the conference call is placed on Conference Hold, the EXT lamp blinks on the conference originator's telephone.
- When the conference originator adds an extension or outside line to the conference, the MCO key or VL (Virtual Line) key assigned to that party is turned off.
- During a conference call hold, the held conference members cannot use the HOLD key. Pressing the key has no effect.
- Conference Hold is an Exclusive Hold (only the conference originator can retrieve the conference).
- Conference Hold cannot be transferred.
- Conference members that do not have an appearance indication (FF key) on the conference originator's telephone cannot be released from the conference.

Directory Numbers

Description

A Directory Number (DN) allows extension numbers to be used on a key basis. The same DN may be assigned to multiple keys on the same telephone and to keys on other telephones.

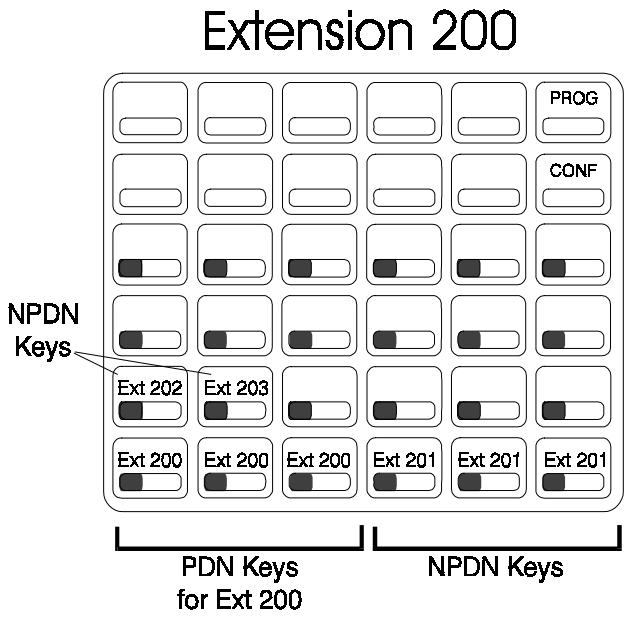
When a telephone's extension number is assigned to a key on the same telephone, it is considered a Primary Directory Number (PDN). Up to three appearances of the PDN may be assigned to keys on a key telephone. This allows for multiple calls on the same DN.

When a DN is assigned to an FF key on another telephone, it is considered a Non-Primary Directory Number (NPDN). Up to three NPDN appearances of the same DN may be assigned to keys on a telephone. This allows calls to the DN to appear on multiple telephones. The calls ring in on a specified basis - immediate, delayed, or no-ring.

A telephone may only have one PDN (on up to three keys) but may have multiple NPDNs with up to three appearances of any one NPDN.

In Version 3.5 and higher, directory numbers may be assigned to stations that are not installed, provided the cabinet is installed. However, once the directory numbers have been assigned to a particular slot, that slot is no longer available.

Figure 2. Example Directory Number assignments for Extension 200



When a caller originates a call, the call appears on the first available PDN key. If all PDNs are unavailable, the call will select the **EXT** LED.

When calls come in to a DN, the call appears on the first available DN key. If the call is to your PDN and no PDN key is available, the caller hears a busy tone.

Directory numbers may be assigned to FF keys 25-32. These are non-appearing keys.

Intercom voice calls only go to the PDN extension but light the corresponding NPDN keys red. A tone call follows the appropriate ring status (immediate ring, delayed ring, etc.) for any extension.

Operation

To originate a call using a Primary Directory Number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone The first available PDN key lights.
2. If dialing an outside call, dial the outside line group access code (**9**, **81-84**).	• Outside dial tone • **CO XXX** displays (where XXX = line number)
3. Dial the phone number or extension number.	Dialed number displays

To receive a call to a Directory Number (PDN or NPDN):

Action	Result
1. If ringing, go off-hook or press the green blinking PDN or NPDN key. If not ringing, press the red blinking PDN or NPDN key.	The PDN or NPDN key lights.

To originate a call using a Non-Primary Directory Number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone The first available PDN key lights.
2. Press the desired NPDN key.	Intercom dial tone The NPDN key lights.
3. If dialing an outside call, dial the outside line group access code (**9**, **81-84**).	• Outside dial tone • **CO XXX** displays (where XXX = line number)
4. Dial the phone number or extension number.	Dialed number displays

To receive a call using a Non-Primary Directory Number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the desired NPDN key.	The NPDN key lights. The call is received.

To call a Primary Directory Number extension (NPDNs not called):

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone The first available PDN key lights.
2. Dial the Direct Call to PDN access code (default = **766**).	
3. Dial the extension number.	

To transfer a call to the Primary Directory Number extension (NPDNs not called):

Action	Result
1. Place the current call on hold.	Intercom dial tone
2. Dial the Direct Call to PDN access code (default = **766**).	
3. Dial the extension number.	Dialed number displays
4. If desired, wait until the PDN Extension answers and introduce the call.	
5. Hang up.	

To set Call Forwarding All, Busy, or No Answer for a PDN from an NPDN or PNPDN:

Action	Result
1. Press an NPDN (or PNPDN) key.	Intercom dial tone
2. Dial the access code for Call Forwarding (Direct = 721), (Busy = 722), (No Answer = 723).	
3. Dial the Call Forward Destination extension number.	Dialed number displays

Note: FF1-0-03: NPDN and PNPDN Call Forwarding Programming Address

Hardware Requirements

- N/A

Related Programming

- FF4-0-: FF Keys (PDN and NPDN Assignment)
- FF1-2-01: Dial Plan (PDN/Extension Numbers)

Considerations

- A DN can be assigned as a member of a hunt group.
- DNs are not available for ISDN S-Point, pilot numbers of hunting groups, Voice Mail, ACD, API and for the Attendant group.
- A PDN must be assigned to a telephone before a corresponding NPDN can be used.
- TRS Class and ARS Routing is determined on an extension port basis regardless of the DN accessed.
- Busy Override is available to the PDN conversation, but not available to the NPDN conversation.

- Do Not Disturb can only be set through the PDN, but cannot be set through the NPDN.
- Timed Reminder (Alarm Setting) is set through the PDN, but cannot be set through the NPDN.
- Offhook Voice Announce is available to PDN conversation, but not available to the NPDN conversation.
- The appearance of incoming CO calls have the following priority if the keys are set to the same extension:
  - CO/Floating Hold Key
  - MCO Key
  - DN Key
  - Non-Appearance

Display Information

Description

Key telephones with a Liquid Crystal Display (LCD) reflect the following information:

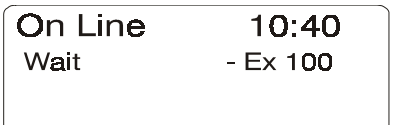
- Day and time (in 12 or 24 hour format)
- Callback requests from other extensions
- Caller ID information
- Call duration
- Extension number
- Extension calling party name
- Extension called party status
- Trunk call duration
- Trunk number
- Trunk name

Display telephones can also display Personal Speed Dial (PSD) Directories, System Speed Dial (SSD) Directories, and Extension Directories, along with various other information such as the Set/Cancel status of different features and callback messages from other extensions.

Caller ID Display Information

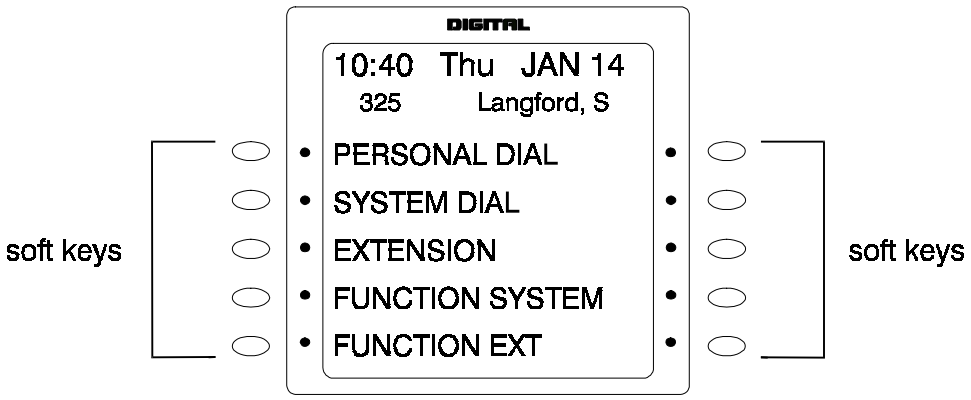
Prior to Version 3.5, the telephone would not display Caller ID information for an extension that was in use when a call was received. In Version 3.5 or higher, Caller ID information is displayed on the second line of an LCD display when an incoming call is received during conversation. If a second incoming call is from another extension, the LCD displays the extension name or number. If the second incoming call is from a CO, the LCD displays the CID information transmitted from the caller. Caller ID displays the second incoming call as follows:

Figure 3. Normal Incoming Caller ID Message (CO Line/Extension)



Large-Display Phone

Figure 4. Large-Display Main Menu (shown in default idle condition)



You can easily access and use many telephone features by pressing the soft key next to the desired Main Menu item. These items include:

Personal Dial

Contains PSD numbers. To scroll through the PSD Directory, press the **NEXT** or **PREV** buttons located beneath the display.

- PSD speed dial numbers must be programmed before they will appear in the speed dial directory. For information on programming speed dial numbers, see “Speed Dialing” on page 5-77.

System Dial

Contains SSD numbers. To scroll through the SSD Directory, press the **NEXT** or **PREV** button located beneath the display.

- SSD numbers must be programmed before they will appear in the speed dial directory. For information on programming speed dial numbers, see “Speed Dialing” on page 5-77.

Extension

Contains the Extension Directory (grouped alphabetically). To scroll through the Extension Directory, press the **NEXT** or **PREV** button located beneath the display.

Function System

Provides easy access to most key telephone features, such as Call Forwarding, Do-Not-Disturb (DND), Microphone Mute, Background Music, Call Pickup, Account Codes, Message Waiting / Callback, Headset On/Off, Extension Port confirmation, etc.

To scroll through the list of items, press the **NEXT** or **PREV** button located beneath the display.

Function Ext

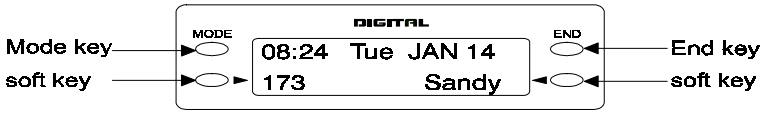
Allows you to assign frequently used telephone features for easy access. Most items found under Function System can be assigned to the Function Ext area, in any order you desire. (For additional information, see *Section 400 - Programming*.)

Large-LCD Display During Idle

The large display telephone may optionally be set to return to a selected idle screen after the user goes on-hook. If the Large-LCD Display During Idle setting (FF3-0-BSSC-04-11-HOLD) is set to 1 (allow), after moving to the desired menu is displayed, the user may enter **ON/OFF PROG ## ON/OFF** to select the menu as the idle menu.

Small-Display Phone

Figure 5. Small-Display Menu (shown in default idle condition)



The Mode key and End key on a small-display phone allow you to change the software mode of the display from Default (i.e., time and date) mode to Directory mode. While in Directory mode, you can view SSD and PSD Directories and Extension Directories. You can dial a speed dial number or extension by pressing the soft key next to the desired number. You can also use the soft keys to execute programmed system features while in the Variable mode.

Notes:

- The **MODE** key allows you to switch the display from Default to Directory mode. The **END** key allows you to return the display to Default mode.
- The soft keys allow you to view speed dial and extension directories and to dial a speed dial number or extension while in the Directory mode.
- Speed dial numbers must be programmed before they will appear in the speed dial directory. For information on programming speed dial numbers, see “Speed Dialing” on page 5-77.
- The “*” and “#” keys are used to scroll through system speed dials, personal speed dials, and extensions.

Variable Mode

Variable Mode allows you to use the soft keys to access programmed features while your phone is in the following states:

- During an intercom call
- During CO dial tone
- During a trunk call
- After dialing a busy extension

Note: Variable Mode features required system programming.

Changing the Display Contrast

You can adjust the display contrast by pressing the **# + VOLUME** up or down arrow key while the phone is idle.

Related Programming

- FF3: Extension COS
- FF1-1-03: Call Duration Display Timer
- FF4-2: Feature Codes
- FF8: Dealer Maintenance

Do-Not-Disturb

Description

You can make an extension unavailable by activating the Do-Not-Disturb (DND) feature. When DND is activated, calls to that extension receive busy tone.

You can set or cancel DND from either your extension or from an alternate extension.

Operation

To set DND for your own extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the DND Set/Cancel code (default = **720**).	**DND Accepted**
3. Replace the handset or press the **ON/OFF** key.	

To cancel DND for your own extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the DND Set/Cancel code (default = **720**).	• **DND/CD** LED light goes off • **DND Cleared** displays
3. Replace the handset or press the **ON/OFF** key.	

To set DND for another extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the DND Set by Other Phone code (default = **740**).	**Enter DND EXT #** displays
3. Dial the extension number.	**DND Set** displays on affected extension
4. Replace the handset or press the **ON/OFF** key.	

To cancel DND for another extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the DND Cancel by Other Phone code (default = **750**).	**Enter DND EXT #** displays
3. Dial the extension number.	**DND Cleared** displays
4. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Manual DND Override Send)
- FF1-0-03: Extension COS (Forced DND Override)
- FF1-0-03: Extension COS (DND Set/Clear)
- FF1-0-03: Extension COS (DND Set/Clear Other)
- FF1-2: Dial Plan
- FF3: Extension COS

Considerations

- Forced DND override is available.
- DND override function is available by Busy Override code.

DP to DTMF Signal Conversion

Description

Dial Pulse (DP) to Dual Tone Multifrequency (DTMF) Signal Conversion allows you to switch from DP to DTMF signaling when using a DP trunk. For instance, if you dial into a Voice Mail system using a DP trunk, you can switch to DTMF signaling to communicate with the Voice Mail system.

The System can automatically change DP to DTMF tones based on the incoming and outgoing timers.

Operation

To switch from DP to DTMF dialing:

Action	Result
1. Press the * key or the # key.	

Hardware Requirements

- N/A

Related Programming

- FF1: DTMF
- FF2: DP to DTMF (Outgoing)
- FF2: DP to DTMF (Incoming)

Considerations

- N/A

DSS/72 Console

Description

The DSS/72 console is a 72-key console that can be attached to a key telephone. The 72 keys on the DSS/72 can be programmed as Direct Station Select (DSS) keys for internal lines.

In addition to providing direct station selection, the DSS keys also provide Busy Lamp Fields (BLFs) that allow you to monitor the status of other extensions. The LED lights red when the assigned extension is busy, and lights green when Call Forwarding or Do-Not-Disturb (DND) are activated.

For additional information, see “Flexible Function Keys” on page 5-45.

Hardware Requirements

- VB-44320

Related Programming

- FF4: FF Key Assignment

Considerations

- Pressing a DSS key while connected to an outside line places the line on hold.
- A maximum of 12 DSS/72 consoles can be connected to a 96-port system.

EM/24 Console

Description

The EM/24 is a 24-key console that can be attached to a key telephone. The 24 keys on the EM/24 can be programmed as Direct Station Select (DSS) keys for internal lines.

In addition to providing direct station selection, the DSS keys also provide Busy Lamp Fields (BLFs) that allow you to monitor the status of other extensions. The LED lights red when the assigned extension is busy and lights green when Call Forwarding or Do-Not-Disturb (DND) are activated.

For additional information, see “Flexible Function Keys” on page 5-45.

Hardware Requirements

- VB-44310

Related Programming

- FF4: FF Key Assignment

Considerations

- N/A

Flash

Description

You can send a flash signal on your telephone to release an outside line and then either automatically reseize the same outside line or switch to extension dial tone status by pressing the **FLASH** or **PROG** key.

Trunk programming determines whether your phone reseizes the outside line or switches to extension dial tone status.

Note: The following is available for future use only: Alternatively, a extension setting determines if pressing a CO key will place the call on exclusive hold or send a flash to the trunk.

Hardware Requirements

- N/A

Related Programming

- FF1-1: Flash Timer
- FF2: Flash Pattern
- FF2: Flash Key Operation
- FF3: Flash on PROG (Recall)
- FF3: Flash on CO key (**For Future Use**)

Considerations

- You can send a longer or shorter flash signal, depending on whether you use the **FLASH** or **PROG** key (flash tone lengths are set for the **FLASH** and **PROG** keys through system programming).

Flexible Function Keys

Description

You can assign frequently used functions to programmable keys on key phones, DSS/72 consoles, and EM/24 consoles. All keys not already assigned as line or speed dialing keys are available for programming.

You can store either Fixed Feature codes or Flexible Feature codes in an FF key. (The LED of the Flexible Function [FF] key will not light when digits are stored in the key.) Fixed Feature codes are hard-coded and cannot be changed. Most features; however, can also be assigned flexible codes according to the System Dial Plan. This allows the flexible codes to be changed in the dial plan without having to re-program extensions.

When a flexible code is programmed into an FF key or soft key, the System translates the flexible code into the fixed code. You can use either the Fixed Feature code or your System's Flexible Feature code when programming FF keys. Table 5 on page 5-48 reflects both Fixed Feature codes and the System defaults for Flexible Feature codes.

Operation

To assign Fixed Feature codes to an FF key:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	**F** displays
3. Press the FF key to be programmed.	**Enter Function#** displays
4. Press the **REDIAL** key.	
5. Enter the code to be programmed. (See Table 5 on page 5-48.)	Programmed code displays
6. Press the **HOLD** key.	Programmed function name displays
7. Repeat steps 2-6 to program additional keys.	
8. Replace the handset or press the **ON/OFF** key.	

To assign Flexible Feature Codes to an FF key:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	**F** displays
3. Press the FF key to be programmed.	**Enter Function#** displays
4. Enter the code to be programmed. (See Table 5 on page 5-48.)	Programmed code displays
5. Press the **HOLD** key.	Programmed function name displays
6. Repeat steps 2-5 to program additional keys.	
7. Replace the handset or press the **ON/OFF** key.	

To erase a code stored on an FF key:

Note: You cannot use the following procedure to clear FF keys that have been assigned as CO lines. CO line keys can only be cleared through system programming.

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	
3. Press the FF key that was programmed.	Programmed code displays
4. Press the **HOLD** key.	**Cleared Function** displays

To check a programmed FF key (Display Phone Only):

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **CONF** key.	**C** displays
3. Press the FF key to be checked.	Programmed data displays
4. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF3: Extension Numbers
- FF4: FF Key Assignment

Considerations

- If a new code is programmed into a key, the previously programmed code is erased.
- FF keys assigned as CO lines must be cleared using system programming before new FF assignments can be made.
- The System can be programmed so that MCO 1 Trunk Access calls automatically use Automatic Route Selection (ARS).
- The **ANSWER** key functions as listed in the table below.

Status	Condition	Operation when ANSWER key is pressed
Idle	No incoming ring	Ignore.
	Incoming ring	Monitor ON (speaker) - Auto Answer for incoming ring.
Off-Hook	Off-hook signaling	Answer for off-hook signaling. Current conversation will be put on hold automatically.
	No off-hook signaling	Ignore.
Note: When the extension has 1 non-appearing CO on hold and 1 non-appearing CO at talk, **ANSWER** key operation is ignored and you can't put the 2nd non-appearing CO on hold.		

- The **RELEASE** key functions as listed in the table below.

Status	Condition	Operation when RELEASE key is pressed
Idle	--	Ignore.
Monitor ON (speaker) or Headset Mode	Several held calls	Latest held call will be transferred; phone returns to idle status (Monitor OFF).
	No held calls	Current call (talk) will be released; phone returns to idle status (Monitor OFF).

Status	Condition	Operation when RELEASE key is pressed
Handset Off-Hook	Several held calls	Latest held call will be transferred; phone gets internal dial tone.
	No held calls	Current call (talk) will be released; phone gets internal dial tone.

Table 5. Feature access codes for FF key assignments

Feature Description	Fixed Feature Code + (additional digits to program into key)	Default Flexible Feature Code (if not listed, must use Fixed Feature Code)
CO Trunk Key	# + (Trunk 1-96)	
MCO Key	1 + (Auto-Select Pattern 1-5; MCO-Incoming Trk Grp 00-96)	
Virtual Port Key	∗9 + (Virtual Port 001-96)	
BLF/DSS Outgoing	9 + (Extension 0-9999)	
BLF/DSS Immediate Ring	81 + (Extension 0-9999)	
BLF Delayed Ring	82 + (Extension 0-9999)	
BLF/DSS-No Ring	83+ (Extension 0-9999)	
2-Way Retrieve Messages	5 + (box no.)	
2-Way Access	∗#50	
2-Way End	∗#51	
2-Way Re-Record	∗#52	
2-Way Pause	∗#53	
2-Way Store	∗#54	
2-Way Add	∗#55	
2-Way Cancel	∗#56	
2-Way Notify	∗#57	
2-Way Copy	∗#58	
2-Way MF Send	∗#59	
ACD-1 Log-In/Out Button	∗#80	
ACD-1 Work Unit	∗#81 + (Work Unit 01-20)	
ACD-1 Unavailable Button	∗#82	
ACD-2 Log-In/Out Button	∗#85	
ACD-2 Work Unit	∗#86 + (Work Unit 00-99)	
ACD-2 Unavailable Button	∗#87	
Speed-Dial Send Button	∗01 + (SSD or PSD)	80
Designated CO Access Button (for outgoing calls)	∗02	88
Verified ID Code Send	∗03	89
Floating Hold Answer Call Park Pickup	∗04	∗9
Priority Message-Waiting: Send	∗05	∗41
Priority Message-Waiting: Cancel	∗06	∗49

Feature Description	Fixed Feature Code + (additional digits to program into key)	Default Flexible Feature Code (if not listed, must use Fixed Feature Code)
Message-Waiting: Cancel	∗07	∗5
Message-Waiting: Callback	∗08	∗6
Call Forward (All): Set	70 + (Extension 0-9999)	721 + (Extension 0-9999)
Call Forward (All): Clear	∗09	731 + (Extension 0-9999)
Call Forward (All): Set from another extension	∗10	741
Call Forward (All): Clear from another extension	∗11	751
Call Forward (No Answer): Set	71 + (Extension 0-9999)	723 + (Extension 0-9999)
Call Forward (No Answer): Clear	∗12	733 + (Extension 0-9999)
Call Forward (No Answer): Set from another extension	∗13	743
Call Forward (No Answer): Clear from another extension	∗14	753
Call Forward (Busy): Set	72 + (Extension 0-9999)	722 + (Extension 0-9999)
Call Forward (Busy): Clear	∗15	732 + (Extension 0-9999)
Call Forward (Busy): Set from another extension	∗16	742
Call Forward (Busy): Clear from another extension	∗17	752
DND Set/Clear	∗18	720
DND Set from Attendant	∗19	740
DND Clear from Attendant	∗20	750
Call Forward (All/Busy/No-Answer/ DND): Clear Call Forward (All/Busy/No-Answer/ DND and Absence Message: Clear	∗21	7**
Alarm Set	∗22	∗31
Alarm Clear	∗23	∗39
BGM On/Off	∗24	∗30
Day 1/Night Toggle Day 1/Day 2/ Night Toggle	∗25	760
Day 2	∗26	761
Night 1	∗27	762
Night 2 (for 2-Way VM)	∗28	763
Paging	∗29 + (Page Group No.)	# + (Zone No.)
Meet-Me Answer	∗30	##
Call Pickup Group-All Calls	∗31	701
Call Pickup Group-CO Calls Only	∗32	702

Feature Description	Fixed Feature Code + (additional digits to program into key)	Default Flexible Feature Code (if not listed, must use Fixed Feature Code)
Call Pickup Group-designated (pick up a call in another Pickup Group)	∗33 + (Call Pickup Grp 1-99)	703
Direct Call Pickup	73 + (Extension 0-9999)	704
CO Trunk Call Pickup	∗34	*0
Headset Mode On/Off	∗35	
Conference Key	∗36	
Transfer Key	∗37	
Program Key	∗38	
Recall - Flash Key	∗39	
PSD Name Assignment	∗40	
Ext. Directory Name Assignment	∗41	
Speed-Dial Directory Name Assignment	∗42	
MCO-1 Access (initial setting: 9)	∗43	9
MCO-2 Access (initial setting: 81)	∗44	81
MCO-3 Access (initial setting: 82)	∗45	82
MCO-4 Access (initial setting: 83)	∗46	83
MCO-5 Access (initial setting: 84)	∗47	84
Callback at Busy Tone	∗49	
Camp-on at Busy Tone	∗50	
Message-Waiting Set at Busy Tone	∗51	
Message-Waiting Priority Set at Busy Tone	∗52	
Busy Override Set	∗53	
Voice Call/Tone Call Toggle	∗54	
Message-Waiting Set at Ringback Tone	∗55	
Message-Waiting Priority Set at Ringback Tone	∗56	
Account Code Entry	∗57	8#
Extension Port Confirm	∗59	
Trunk Port Confirm	∗60	
VM Transfer Key 1	74 + (Ext.No. 0-9999)	
VM Transfer Key 2	75 + (Ext.No. 0-9999)	
Variable Mode	*61	
Call Logging Confirmation Mode Start	*62	
Station Call Park Hold/Answer	*63	
Station Call Park Hold	*64	771
Station Call Park Answer (Own Ext.)	*65	772

Feature Description	Fixed Feature Code + (additional digits to program into key)	Default Flexible Feature Code (if not listed, must use Fixed Feature Code)
Station Call Park Answer (Other Ext.)	*66	773
Station Call Park Transfer	*67	774
Release Key	*68	
Answer Key	*69	
OHVA Key	*70	
Split Key	*71	
Walking TRS Key	*72	*72
ANY Key	*8 + (Up to 4 digits 0 - 9, #, or *)	
Station Lockout Set (Own Ext.)	*#01	746
Station Lockout Set (Other Ext.)	*#02	747
Station Lockout Cancel (Other Ext.)	*#03	748
Walking TRS/Station Lockout Security Code Change	*#04	749
Callback Cancellatiion	*58	769
Zip Mode On/Off (toggle)	*73	
Direct Call to a PDN Ext.	*74	766
UNA Pickup	*77	705
Absence Message Code	*78	729
Network Flash during Talk on FF-Key	*79	767
PDN #1 Key	01	
PDN #2 Key	02	
PDN #3 Key	03	
NPDN #1 Key	01 + (Ext No. 0-9999)	
NPDN #2 Key	02 + (Ext. No. 0-9999)	
NPDN #3 Key	03 + (Ext. No. 0-9999)	
ACD-1 Wrap Key	* # 83	
ACD-2 Wrap Key	* # 88	
Text Message Send	* 75 + (Message code no. 0-9)	
Text Message Reply	* 76 + (Message code no. 0-9)	
Login Key for CTAPI	* # 90	
Note: The following feature keys were added with Version 3.5		
Message and Voice Mail Key	76 + (Ext. No. 0-9999)	
Silent Monitor Key	77 + (Ext. No. 0-9999)	768
Call Record Key	78 + (Ext. No. 0-9999)	
Room Monitoring Set Key	∗#05	775
Room Monitoring Initiate Key	∗#06	776

Handsfree Answerback

Description

Handsfree Answerback allows you to answer an intercom call without lifting the handset.

The System must be programmed for Voice Calling for you to use this feature. You must press **1** during a call to switch from Tone Calling to Voice Calling.

Operation

To answer calls using Handsfree Answerback:

Action	Result
1. When the intercom call arrives, confirm that the **MUTE** LED is off. (If it is lit, press the **MUTE** key to turn it off.)	
2. Speak into the microphone to answer.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Intercom Calling Type)
- FF1-0-03: Extension COS (Voice Call Send)
- FF1-0-03: Extension COS (Voice Call Receive)
- FF3: Extension COS

Considerations

- Handsfree Answerback can be used to respond to only voice calls from other extensions - not tone calls.
- Both the called and calling parties must belong to an Extension Class of Service (COS) that allows Voice Calling.

Handsfree Operation

Description

Handsfree Operation allows you to use all available System features without lifting the handset. Any speakerphone can be operated handsfree.

Operation

To initiate Handsfree Operation:

Action	Result
1. Press the **ON/OFF** key.	Phone is offhook with access to full range of calling features

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Headset Operation

Description

Headset Operation allows you to handle calls with a headset instead of with the handset or speakerphone.

Operation

To answer calls using the Headset Operation:

Note: If Headset mode is already on, the following procedure turns it off. If Headset mode is off, this procedure turns it on.

Action	Result
1. Pick up the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	
3. Enter **90** for Headset mode.	
4. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- A headset must be installed.

Related Programming

- FF1-0-3: Extension COS (Dial Tone Stop)
- FF1-2: Dial Plan

- FF3: Extension COS

Considerations

- Intercom Dial Tone is enabled/disabled regardless of Headset mode (per programming for the Extension Class of Service [COS])

Hot Dial Pad

Description

The dial pad on digital key phones can be designated as “hot” on an extension-by-extension basis.

The Hot Dial Pad allows the user to initiate a call without going offhook. Extensions with the Hot Dial Pad enabled can initiate calls by pressing any of the numeric keys (0-9), and the “*” and “#” keys.

The Dial Pad can be hot under these conditions:

- When the extension is idle
- When the extension is holding a call
- When the extension is receiving a page.

The Dial Pad cannot be hot under these conditions:

- When a call is ringing at the extension (intercom or CO)
- When the extension is on a call.

Related Programming

- FF1-0-01: * and # Keys for Hot Dial Pad
- FF3 0: Hot Dial Pad

Considerations

Paging: The Hot Dial Pad cannot be used to initiate a page.

Hot Line

Description

Hot Line enables you to immediately connect to another preassigned extension or speed dial number simply by lifting the handset. You do not have to dial any digits.

Operation

To immediately connect to a pre-assigned extension or speed dial number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Automatically connected to pre-assigned extension or speed dial number

Hardware Requirements

- N/A

Related Programming

- FF5-5: Hot Line

Considerations

- N/A

Intercom Calling

Description

The System provides two methods of intercom calling:

- **Voice Calling:** Extension calls are connected immediately, without a ringing tone.
- **Tone Calling:** A ringing tone is sent to the called extension.

Extension Class of Service (COS) programming determines whether the default for the originating extension is voice or tone calling. Regardless of the default, you can toggle between voice or tone calling by entering the Tone-Voice Call feature code. For example, if the extension default is tone calling, you can make a voice call to another extension by entering the Tone-Voice Call feature access code.

Operation

To make a call using Intercom Calling:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	
3. If your extension is set for tone calling and you want to make a voice call, enter **1**. **OR...** If your extension is set for voice call and you want to make a tone call, enter 1.	• Dialed number displays • **EXT** LED lights

Action	Result
4. Speak when your call is answered.	
5. Replace the handset or press the **ON/OFF** key.	**EXT** LED goes off

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Intercom Calling Type)
- FF1-0-03: Extension COS (Voice Call Send)
- FF1-0-03: Extension COS (Voice Call Receive)
- FF3: Extension COS

Considerations

- The Handsfree Answerback feature can be used to respond to only voice calls from other extensions - not tone calls.
- Both the called and calling parties must belong to an Extension COS that allows Voice Calling.

Last Number Redial

Description

Last Number Redial allows you to automatically redial the last number dialed by pressing the **REDIAL** key.

Operation

To automatically redial the last number dialed:

Action	Result
1. Lift the handset or press the **ON/OFF** key. **OR...** Press a vacant CO key or enter a trunk access code.	• Outside dial tone • **CO XXX** displays (where XXX = trunk number)
2. Press the **REDIAL** key.	Last number dialed displays
3. Complete the call and replace the handset or press the **ON/OFF** key.	**Line key** LED turns red, then goes off.

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Intercom Redialing)
- FF3: Extension COS

Considerations

- Extension Class of Service (COS) determines whether Last Number Redial can be used for both intercom and CO calls or CO calls only.

Line Appearances

Description

The System provides three types of line appearances

- Direct Station Select (DSS) / Busy Lamp Field (BLF) Appearances
- Direct Line (DL) Appearances
- MCO Line Appearance

DSS/BLF Appearances

When a DSS/BLF key is programmed, it automatically provides one-touch dialing and DSS and BLF for the assigned extension numbers. If desired, the DSS/BLF key can also provide ring or delayed ring monitor. For example, you can set extension A as a DSS/BLF ringing key on extension B. When extension A rings, the LED of the DSS/BLF key on extension B flashes and the phone rings.

Ringing or delayed ringing can be set on extensions which have a BLF key. The LED of the DSS/BLF key flashes green during ringing and the display shows the BLF extension number.

When extension A is in use, the LED of the DSS/BLF key on extension B lights red. If one extension has the Call Forwarding or Do-Not-Disturb (DND) feature activated, the DSS/BLF key lights green.

Four DSS/BLF modes are available as follows:

DSS/BLF Type	FF Key Entry	BLF LED Indication	Extension Call	Call Pickup	Ring (Immed.)	Ring (Delayed)	Voice Mail Transfer
DSS Only (No Pick Up/No Ring)	(9 + Ext #)	Yes	Yes	No	No	No	Yes
DSS/BLF Immediate Ring	(81 + Ext #)	Yes	Yes	Yes	Yes	No	Yes
DSS/BLF Delayed Ring	(82 + Ext #)	Yes	Yes	Yes	No	Yes	Yes
DSS/BLF No Ring	(83 + Ext #)	Yes	Yes	Yes	No	No	Yes

Operation

To assign a DSS/BLF key:

Action	Result
1. Press the **PROG** key.	
2. Press the FF key to be assigned the DSS/BLF appearance.	
3. Press the Redial key.	
4. Enter the code for the desired DSS/BLF mode as follows: **9+ Ext #** ---- DSS Mode Only **81+ Ext #** --- DSS/BLF Immediate Ring **82 + Ext #** -- DSS/BLF Delayed Ring **83 + Ext #** -- DSS/BLF No Ring	
5. Press the **HOLD** key.	

To make an intercom call using the DSS/BLF key:

Action	Result
1. Press the flashing DSS/BLF key.	

To pick up a call on a DSS/BLF key:

Action	Result
1. Go off-hook or press the flashing DSS/BLF key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-02: BLF Call Pickup
- FF4-0-04: FF Key Assignment

Considerations

- If several calls arrive at a DSS/BLF key, the calls are queued and ring on a first-in, first-out basis.
- If a BLF key has a second call while busy and off- hook signaling is enabled, the BLF key starts blinking. The call can be answered by pressing the BLF key or going on hook and then off hook.

Direct Line Appearances

Direct Line (DL) keys are used to originate and receive calls over specific trunk numbers (DL keys can be assigned to any trunk number).

The LED for a DL key will flash red on an incoming call even if the CO line is set to ring. If another extension answers the call, the LED on the telephone will light solid red.

Operation

Operation	Action
To originate a trunk call...	1. Press an idle **DL** key. 2. The key blinks green as the call is made.
To place a call on Exclusive Trunk Hold (page 133)...	1. Press the **DL** key.
To place a call on System Trunk Hold (page 133)...	1. Press the **HOLD** key.
To transfer a call...	1. Press the **HOLD** key. 2. Dial the destination extension. 3. Press the **PROG** key.

Hardware Requirements

- N/A

Related Programming

- FF4: Key Assignment

Considerations

- N/A

Multi-CO (MCO) Appearances

Description

You can make and receive CO line calls using a Multi-CO (MCO) key. Each extension can have up to 5 MCO keys.

An MCO key can be assigned to any of the pooled trunk groups. Pressing the MCO key is the same as dialing the MCO Access Code (usually **9**, **81-84**).

Operation

Operation	Action
To originate a trunk call	1. Press an idle **MCO** key. The key blinks (green) as the call is made.
To receive a call on an **MCO** key.	1. If ringing line preference is enabled, go off-hook. If ringing line preference is not enabled, go off-hook and press the **MCO** key with the green flashing LED. The LED lights solid green.
To place a call on Exclusive Trunk Hold	1. Press the **MCO** key. The key flashes green while the call is held.

To place a call on System Trunk Hold	1. Press the **HOLD** key. The key flashes green while the call is held.
To transfer a call	1. Press the **HOLD** key. 2. Dial the destination extension. 3. Press the **PROG** key (if on-hook transfer is off) or go on-hook.

Related Programming

- FF1-0-02: ARS for MCO Access Code 1/Route Advance for MCO Access Code
- FF1-3: MCO Group
- FF5-2: MCO Outgoing Trunk Assignments
- FF5-3: MCO Incoming Trunk Assignments
- FF4: FF Key Assignments

Considerations

- Press the MCO key that flashes red to answer an outside call.
- If you are already on a call appearing on an MCO key and you press another MCO key, a line on the other MCO key is selected and the first call is dropped.
- If a CO key is assigned, the CO Key LED will light when that specific trunk is used instead of the MCO key LED.
- There are five groups of outside lines: **9** and **81-84** (default).
- MCO keys cannot be assigned on the DSS/72 or the EM/24.
- An MCO key must be assigned in programming mode. The MCO key cannot be assigned by the end user with FF key assignments.

Message Key

Description

The System supports the **MSG** key on the VB-44225 large-display phone. This key provides the following functionality:

- **Message Wait Callback:** If a callback message has been left by another extension, you can press the **MSG** key to place an automatic callback to that extension. If more than one callback message has been received, pressing the **MSG** key performs auto-callback in the order received.
- **Priority Message Wait Callback (One-Touch Voice Mail Access):** You can press the **MSG** key to automatically access your voice mailbox. The phone will dial your voice mailbox and send access codes (if programmed) for retrieving new messages.

Operation

To automatically call back an extension that left a message or to access Voice Mail:

Action	Result
1. Press the **MSG** key.	Automatically call back to extension **OR...** Automatic access to Voice Mail

Hardware Requirements

- N/A

Related Programming

- FF8-1: Voice Mail ID Code

Considerations

- The **Message** lamp lights when a message has been received.
- If more than one callback message has been received, pressing the **MSG** key performs auto-callback in the order received.
- The **MSG** key works only when the phone is idle or receiving internal dial tone.
- Auto-callback is always enabled for large display phones.
- Messages are accessed in a first-in, first-out order for Message Wait, except Priority Message Wait, which is typically sent by Voice Mail.

Message Waiting/Callback

Description

If you try to call an extension that is busy or does not answer, you can leave a message wait indication at that extension, requesting a return call.

Operation

To leave a message waiting indication:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	

Action	Result
3. While the phone is still ringing, or when you hear the busy tone, enter the Message Wait Set code (default = **4**).	**MSG Accepted** displays
4. Replace the handset or press the **ON/OFF** key.	• **Message** lamp flashes at called extension • **MSG EXT XXX** displays (where XXX = calling extension number) or name of calling extension displays at called extension

To answer a message waiting indication (callback):

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Message Wait Callback code (default = ***6**) or press the **MSG** key if using a large-display phone. **OR...** Press the Flexible Function (FF) Key assigned as a Message Callback Key (Version 3.5 and higher).	• Telephone automatically dials extension that sent the message waiting indication • **Message** lamp goes off when your call is answered

To cancel a callback message:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Callback Request Cancel code (default = ***5**) or press the **MSG** key if using a large-display phone.	**MSG Cleared** displays
3. Replace the handset or press the **ON/OFF** key.	**Message** lamp goes off

Note: Message waiting/callback messages may also be cancelled by either the originator or the receiver by calling the other party.

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Message Wait set/cancel)
- FF1-0-03: Extension COS (Priority Message Wait set/cancel)
- FF1-2: Dial Plan
- FF3: Extension COS

Considerations

- The System has priority message waiting for 3rd-party Voice Mail. See “Voice Mail” on page 3-59.

Mute Function

Description

Mute Function allows you to block outgoing audio to the other party while on a call.

With 44-Series phones, audio can be blocked through both the microphone and the handset. (For handset mute, an FF key must first be assigned as a **MUTE** key.)

Operation

To block outgoing audio using the Handset Mute (44-Series phones only):

Action	Result
1. During a handset call, press the **MUTE** key.	Outgoing audio is blocked through phone's handset
2. To turn Mute off, press the **MUTE** key again.	

To block outgoing audio using the Microphone Mute:

Action	Result
1. During a handset call, press the **MUTE** FF key	Outgoing audio is blocked through phone's microphone
2. To turn Mute off, press the **MUTE** FF key again.	

Hardware Requirements

- N/A

Related Programming

- FF4: Key Assignment

Considerations

The fixed MUTE key works both for handset mute and microphone mute. But only 44-Series phones have the fixed MUTE key, so others must assign an FF key as a MUTE key.

Offhook Monitor

Description

Offhook Monitor lets you put a call on speaker while the handset is offhook. You can still communicate with the other party via the handset, but you will also be able to hear the other party on the phone's speaker. The other party can only hear what is transmitted through your handset however, because audio is not transmitted through your microphone.

Operation

To put a call on speaker using the Offhook Monitor:

Action	Result
1. During a handset call, press the **ON/OFF** key.	• Other party is audible through speaker and handset • Phone's microphone is mute
2. To take a caller off speaker (disable Offhook Monitor) but continue the call via the handset, press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Offhook Monitor

Considerations

- **Offhook Monitor is available on 44-Series phones only.**
- Offhook Monitor can be disabled system-wide.

Offhook Signaling

Description

Offhook Signaling sends a tone to a busy extension to indicate that another CO call has arrived or a call is camped-on.

Operation

After receiving an offhook signal during a call:

Action	Result
1. Press the **HOLD** key.	First call on hold
2. Press the flashing FF key for the CO line of the incoming call.	

Note: For details about handling multiple calls, see "Call Hold" on page 5-18.

Hardware Requirements

- N/A

Related Programming

- FF3: CO Off-Hook Signal.

Considerations

- The CO call type may be multiple ring, direct, BLF Ring, or camp-on.
- The System does not send the offhook signal under the following conditions:
  - During a conference call
  - During an OHVA or Busy override
  - Data Privacy is enabled
  - the receiving telephone is a 3rd party voice mail.

Offhook Voice Announce

Description

You can interrupt a busy extension when making an Intercom Call, and then use the Off-Hook Voice Announce (OHVA) feature to make an announcement that only the called party can hear. You can also transfer a held call to a busy extension after making the announcement using this feature. The called party may optionally reply to (answer) an OHVA call.

The busy party can reply to an offhook announcement with a text message that displays on the announcing phone. Any one of the following messages can be selected. Messages 6 to 9 and 0 have no default message text. All the messages can be changed through system programming. (see “Set Text Message Replies” on page 4-37 for more information on setting Text Message Replies).

Prior to the release of Version 2.7, it was not possible for a caller to activate the OHVA feature when a call was placed to an available second or third Directory Number (DN) key. Beginning with Version 2.7, the calling party can activate the OHVA feature even when the second and/or third DN key is available. Depending on how this feature has been programmed, the calling party hears one of three different tones. Ring-Back Tone or Special Tone is heard when a call is placed to a “non-Voice Mail assigned” extension. When a call is placed to a “Voice Mail assigned” number, Ring-Back Tone or Busy Tone may be heard. Text Message Replies

Message No.	Message Text	Message No.	Message Text
1	Take A Message	6	User Defined
2	Please Hold	7	User Defined
3	Will Call Back	8	User Defined
4	Transfer	9	User Defined
5	Unavailable	0	User Defined

Operation

To make an OHVA :

Action	Result
1. Lift the handset or press the **ON/OFF** key.	
2. Dial the extension number.	Busy signal
3. Enter the OHVA feature access code (default = **8)**.	• **OHVA EXT XXX** displays if busy extension called (where XXX = calling extension. • **EXT LED** flashes
4. Make your announcement	

To answer an OHVA:

Action	Result
1. Press the OHVA Split key. **Note:** You must program an FF key as a split key (default = *71) to use this feature.	Split key flashes red
2. To return to the previous call, press the Split key again.	The OHVA originating party receives Busy signal.

To transfer a call using OHVA:

Action	Result
1. Press the **HOLD** key to put the current call on hold.	Current call on hold
2. Dial the extension number to which the call is being transferred.	Busy signal
3. Enter OHVA feature access code (default = **8**) and announce the call to be transferred.	
4. If transfer is: • Not accepted, retrieve the call by pressing the associated flashing **MCO** key (if an appearing call) or by pressing the **HOLD** key (if a non appearing call). • Accepted, and On-hook Transfer is enabled for your extension, replace the handset or press the **ON/OFF** key. If On-hook Transfer is not enabled for your extension, press the **PROG** key (or **RELEASE** key if using DSS/72).	

To reply to off-hook voice announcement with a text message:

Action	Result
1. Press the **MSG** key.	
2. Enter the Reply Text Message number (**1-9**, **0**). See Table on page 5-65 for the text message replies.)	The text message reply appears on the camped on telephone display.

To answer a call after it has been announced using the OHVA:

Action	Result
1. Replace the handset.	Your extension rings
2. Lift the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1 0 03: Extension COS OHVA Originate
- FF1 0 03: Extension COS OHVA Receive
- FF3: Extension COS Assignments
- FF4: FF Key Assignments

Considerations

- The held call is transferred as soon as the extension sending the OHVA hangs up.
- If the transferred call is not answered immediately, it will queue for a set time limit, then return to the extension sending the OHVA by transfer recall timer.
- You cannot receive a Call Waiting message during an OHVA.
- If a Split key is assigned to the extension that receives an OHVA call, when an OHVA is being received, the Split key blinks green. If the split key is pressed during an OHVA call to answer, the Split key lights red. If the split key is pressed again to terminate the OHVA conversation, the Split key extinguishes.
- If you make an OHVA to an SLT, the SLT user and **the other party** will hear the announcement.
- Text message reply requires Display Key Telephones. Also, a Text Message Reply key must be programmed on the replying telephone.

One-Touch Keys

Description

You can use one-touch keys to store telephone numbers, speed dial numbers, or feature access codes.

To dial the stored number, you go offhook and press the desired key.

Operation

To program a one-touch key for outside telephone numbers:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	
3. Press the one-touch key to be programmed.	
4. Dial the phone number to be stored.	
5. Press the **HOLD** key.	
6. Replace the handset or press the **ON/OFF** key.	

To assign an System Speed Dial (SSD) numbers to a one-touch key:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	
3. Press the one-touch key to be programmed.	
4. Press the **AUTO** key.	
5. Enter the SSD bin number to be programmed.	
6. Press the **HOLD** key.	
7. Replace the handset or press the **ON/OFF** key.	

To chain 2 to 6 SSD numbers to a single one-touch key:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	
3. Press the one-touch key to be programmed.	
4. Press the **AUTO** key.	
5. Enter the SSD bin number that contains the first part of the number to be dialed.	
6. If a pause is required, press the **REDIAL** key	• Pause occurs between access code and telephone number • **R** displays
7. Repeat steps 4-5 (up to 5 more times) for each additional speed dial number to be chained.	
8. Press the **HOLD** key.	
9. Replace the handset or press the **ON/OFF** key.	

To assign a feature code or extension number to a one-touch key:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **PROG** key.	
3. Press the one-touch key to be programmed.	
4. If the System is set for MCO Code level, press the following keys **AUTO * #**. Otherwise, proceed to step 5.	
5. Enter the desired feature code or extension number.	
6. Press the **HOLD** key.	
7. Replace the handset or press the **ON/OFF** key.	

To check a programmed one-touch key:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **CONF** key.	**C** displays
3. Press the one-touch key to be checked.	Programmed data displays
4. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF8-1: PSD Numbers
- FF8-1: PSD Names

Considerations

- One-touch keys **1**-**10** are the same as Personal Speed Dial (PSDs) numbers **80**-**89**.

Onhook Dialing

Description

Onhook Dialing is a standard feature for key telephones where you can dial onhook using the dialpad, one-touch keys, or FF keys.

Operation

To dial onhook:

Action	Result
1. Press the **ON/OFF** key.	Intercom dial tone
2. Dial the phone number.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Paging

Description

The System allows you to make both internal and external pages and announcements. Internal pages are made via the System's key telephone speakers. External pages are made through the speakers of an external paging system connected to the System.

Paging calls can be answered from any extension using the Meet-Me Answer feature.

Operation

To make a page:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Group Paging code (default = #).	
3. Enter the number of the desired paging group (**0-9**).	
4. Make your announcement.	
5. Replace the handset or press the **ON/OFF** key.	

Meet-Me Answer

To answer a page using Meet-Me Answer:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Meet Me Answer code (default = ##).	Connected to specified party

Hardware Requirements

- External relays, amplifier, and speakers are required for external paging.

Related Programming

- FF1-0-02: Paging Override
- FF1-0-03: Extension COS (Paging)
- FF1-0-04: Trunk COS (Paging)
- FF1-2: Dial Plan
- FF2: Trunk COS
- FF3: Extension COS

Considerations

- You can assign the paging access code to a one-touch or FF key. Beginning with Version 3.5 and higher, the assigned FF key LED indicates whether the paging system is in use. If the paging system is not in use when a page is originated, the FF key LED lights solid green on the originator's telephone. If someone in the paging group initiates a page, assigned FF key LEDs on all other telephones will light solid red until the page has been terminated.
- If an external paging system has been connected, pages can be made to paging groups **0**-**9** through the external speakers. Voice paging can also be heard over the extensions in groups **0**-**9**.
- An extension can belong to more than one paging group.
- Only one page may be performed at a time. If you attempt to make a page while another extension is paging, you will receive a busy signal unless your system allows Paging Override.
- Beginning with Version 3.5 and higher, the paging system can be set to "timeout" if a page remains unanswered for a specified length of time (0 to 255 seconds). If this feature is set and the timeout period has elapsed, the page originator's handset will emit a Fast Busy Tone and the words "Paging Time Out" will be displayed on the originating telephone's display.

Reset Call

Description

If you dial a busy extension, the System allows you to quickly dial another extension by simply pressing the last digit of the new extension number.

Operation

To use Reset Call to dial another extension (after a busy extension):

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial an extension number.	Busy tone
3. Dial the last digit of the next extension number.	

Example: You dial extension 213, but it is busy. To dial extension 214, enter **4**.

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan

Considerations

- The second extension called using the Reset Call feature must have the same number of digits as the first extension.

Ringing Line Preference

Description

Ringing Line Preference enables an extension to answer a ringing call by simply picking up the handset or pressing the **ON/OFF** key.

Operation

To answer a call using Ringing Line Preference:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF3 (Extensions): Ringing Line Preference by Handset.
- FF3: Ringing Line Preference (ON/OFF)

Considerations

- If disabled in Extension Programming, you must press the line key or enter the feature code for incoming pick-up in order to answer a call.

Room Monitoring

Version 3.5 and higher

Description

This feature allows the user to monitor the sounds in a room from another extension or room. The transmitter in the telephone handset is used as a remote "microphone" for monitoring these sounds.

To activate this feature, the monitored extension must enable the Room Monitor feature before the monitoring extension can listen to the sounds in the room. The monitored extension can be enabled using a SLT, DSLT, or Key Telephone. No special programming is required to allow an extension to enable the monitored mode.

Operation

To set up the monitored extension:

Action	Result
1. Dial the monitored extension access code (**default 775**), **OR...** **Note:** The handset must be off-hook to activate the Room Monitor feature.	You will hear a confirmation tone after the monitored extension has enabled the Room Monitor feature. (If the monitored extension has an LCD display, a confirmation message will also be shown.)
Press an FF key assigned with the monitored access code	

Additional operations may be performed from the monitored extension when it is in monitored mode:

Action	Result
1. Placing the handset back on-hook or pressing ON/OFF	Monitored mode is cancelled. Extension returns to idle.
2. Pressing digits 0-9, *, #, HOLD, PROG, CONF, AUTO, MSG, FF Key	No response is given. Extension remains in monitored mode.
3. Flash	Monitored mode is cancelled. Dial tone is returned to handset.

Note: When a monitored extension receives a call, the caller hears a busy tone.

To set up the monitoring extension:

Action	Result
1. Dial the monitoring extension access code (**default 776**) and the extension number of the monitored extension, **OR...**	The monitoring extension enters the monitoring mode. (If the monitored extension has an LCD display, a confirmation message will also be shown.)
Press an FF key assigned the monitored access code and the extension number of the monitored extension, **OR...**	
While the handset is on-hook, press an FF key assigned to the Room Monitor followed by the monitored extension number.	The monitoring extension will automatically enter the monitoring mode.

The monitoring operation can be allowed or denied by extension COS and is controlled by the Busy Override feature. If Busy Override is denied and the user attempts to monitor an extension, the user will hear a fast busy tone.

Additional operations may be performed from the monitoring extension when it is in monitoring mode:

Action	Result
1. Placing the handset back On Hook or pressing ON/OFF	Monitoring mode is cancelled. Extension returns to idle.
2. Pressing digits 0-9, *, #, HOLD, PROG, CONF, AUTO, REDIAL, MSG, FF Key,	No response is given. Extension remains in monitoring mode.
3. Flash	Monitoring mode is cancelled. Dial tone is returned to handset.

Services available on the monitoring extension while the Room Monitoring feature is active:

- Camp On
- Call Back
- Message displayed on LCD when extension is busy
- Message Waiting On/Off
- Cancellation of DND and Call Forwarding by another extension
- Busy Transfer
- DIL Incoming Call (Queuing)

Services **NOT** available to either the monitored or monitoring extension when this feature is active:

- Busy Override
- On-Hook VA
- The ability to receive a text message
- Silent Monitor

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Allow/deny Busy Override Send—Monitoring extension)
- FF1-2-02: Dial Plan at DT Pattern 1
- FF1-2-03: Dial Plan at DT Pattern 2

Considerations

- If the monitored extension is placed on-hook while Room Monitoring is activated, the monitoring extension will hear a fast busy tone.
- If the monitoring extension goes on-hook while Room Monitoring is activated, the monitored extension will remain in the monitored mode, and can be accessed by any other extension allowed to access the room monitoring mode.
- A room cannot be monitored from more than one extension at a time. If an attempt is made to monitor an extension while the extension is being monitored, the user will hear a fast busy tone.
- ISDN (s-point) extensions cannot access the Room Monitor feature in either the monitor or monitored modes.
- A monitoring extension cannot forward a call on hold to a monitored extension.
- A monitored extension cannot receive a transferred call.
- If DND is enabled on either the monitoring or monitored extension, DND status is displayed on the calling extension's telephone.
- If the monitoring or monitored extension has an absence message set, the absence message will be displayed on the calling extension's telephone.

Silent Monitor

Version 3.5 and higher

CAUTION – When using the ACD "Silent Monitor" feature, in some states it is illegal (or civilly actionable) to monitor telephone communications without giving prior warning to all participants. These laws do not make the Silent Monitor feature on a telephone system illegal. Before activating this feature, please check applicable state and federal laws.

Description

The Silent Monitor feature allows an ACD supervisor to monitor a call between an ACD agent and a caller without the knowledge of either party. (*See CAUTION, above.*) If necessary, the ACD supervisor can initiate a three-way call by barging into the call.

Operation

To initiate Silent Monitor:

Action	Result
1. Press ON/OFF + 768 + Extension number you want to monitor **OR...**	The Silent Monitor feature is active, and the extension is being monitored. (The Silent Monitor key flashes green when Silent Monitor is active.)
Press the FF key assigned as a Silent Monitor Key + Extension number you want to monitor* **OR...**	
Press only the Silent Monitor Key if the FF key has been preprogrammed to monitor a specific extension number. You do not need to enter the extension number.	

Note: The Silent Monitor key is disabled when the extension assigned to that key is idle, dialing, or ringing.

Silent Monitor Key Color Definitions

FF Key Color	Definition	Possible Operation
Clear	Cannot monitor	None
Solid Red	Able to monitor	Press Silent Monitor key
Flashing Green	Not monitoring	On-Hook or CONF

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Silent Monitor Initiate (0 = allow, 1 = deny, **default = 1**)
- FF1-0-03: Silent Monitor Receive (0 = allow, 1 = deny, **default = 1**)

Considerations

- Be sure all phones that should NOT be allowed to monitor have a COS that restricts monitoring.
- Silent Monitor is allowed or denied by setting the appropriate extension COS.
- Only one supervisor can initiate Silent Monitor on an individual extension at any given time.
- Display telephones can initiate Silent Monitoring. SLTs cannot initiate Silent Monitoring.
- Display telephones and SLTs can be monitored.
- A supervisor cannot initiate Silent Monitoring on an extension when that extension is on a conference call.

Speed Dialing

Description

The System supports the following speed dial features:

- Personal Speed Dial (PSD)
- System Speed Dial (SSD)
- Speed Dial Linking
- Speed Dial Name Assignment

Personal Speed Dial

You can store frequently called numbers using the PSD feature. Up to 20 PSD numbers can be stored in PSD bins numbered **80-99**.

You can assign up to 10 PSD numbers to the one-touch keys on a non-display or small-display phone, and up to 20 PSD numbers to the soft keys on a large-display phone. Once the PSD numbers have been assigned, you dial them by pressing the appropriate key. (For additional information, see "One-Touch Keys" on page 5-67.)

You can also enter a name up to 7 characters for each of the PSD numbers. This allows PSD numbers to be confirmed by name rather than by number.

Operation

To assign PSD numbers:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. (A) Press the **PROG** key. (B) Press the **AUTO** key. **OR...** (A) Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the PSD bin number (**80-99**).	**Enter Spd Dial** displays
4. Dial the phone number.	
5. Press the **HOLD** key.	**Stored Spd Dial** displays
6. Replace the handset or press the **ON/OFF** key.	

To dial a PSD number by entering the speed dial bin number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. If necessary, access an outside line.	Outside dial tone

Action	Result
3. Press the **AUTO** key. **OR...** Enter the Speed Dial Originate code (default = **80**).	
4. Enter the PSD bin number (**80-99**).	
5. Complete the call and replace the handset or press the **ON/OFF** key.	

To check a PSD number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **CONF** key.	**C** displays
3. Press the **AUTO** key.	
4. Enter the PSD bin number (**80-99**).	Programmed data displays
5. If you want to check the next PSD number, press the **HOLD** key.	
6. Replace the handset or press the **ON/OFF** key.	

To delete a PSD number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. (A) Press the **PROG** key. (B) Press the **AUTO** key. **OR...** (A) Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the PSD bin number (**80-99**).	
4. Press the **HOLD** key.	**Cleared Spd Dial** displays
5. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF8-1: PSD Numbers
- FF8-1: PSD Names

Considerations

- PSD number can be dialed from One-Touch keys. (For additional information, see “One-Touch Keys” on page 5-67.)

- Storing a new number erases any previously stored data.
- If the called party's number and name are stored in the PSD code, that information appears on the display when you use the speed dial code.
- Speed dial numbers can contain up to 24 characters. The following table reflects which keys to use.

To indicate. . .	Enter/Press	Shown on Display?
Digit or character	**0**, **1 - 9**, *, #	yes (unless preceded by **AUTO * 2** - see *** below)
Intercom Level *	**AUTO * #**	no
MCO Code **	**AUTO * 0**	no
Pause	**REDIAL**	no
DP - DTMF Code	**AUTO * ***	no
SSD Code	**AUTO NN(N)**	no
Hyphen (-)	**PROG**	yes
Display Number (Start / Stop) ***	**AUTO * 2**	
DTMF Conversion After the Other Party Answers	**AUTO * 3**	

* Indicates that the digits that follow are either a feature access code or an extension number. (Not needed if your System is set for Intercom Level.) See **Note** below.

** Indicates that the digits that follow are for an outside number and the System should seize the next available trunk when dialing. (Not needed if your System is set for CO Level.) See **Note** below.

*** Indicates that the enclosed digits should not be displayed during dialing. Must precede and follow the digits that you do not want displayed. **Example: AUTO *2 555-4143 AUTO *2.**

Note: The System has two levels - CO Level and Intercom Level. If set at CO Level (default), you must enter the code for Intercom Level when programming a feature access code or extension number for speed dialing. If the System is set at Intercom Level, you must enter the MCO Code when programming an outside number for speed dialing.

System Speed Dial

You can store frequently called numbers using the SSD feature. Either 80 or 800 SSD numbers can be programmed, depending on how the System is configured. In an 80 SSD-number system, the SSD numbers are stored in bins **00-79**. In 800 SSD-number systems, the SSD numbers are stored in bins **000-799**.

Operation

To assign SSD numbers:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone

Action	Result
2. (A) Press the **PROG** key. (B) Press the **AUTO** key. **OR...** (A) Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the SSD bin number (**00-79** or **000-799**).	**Enter Spd Dial** displays
4. Dial the phone number.	
5. Press the **HOLD** key.	**Stored Spd Dial** displays
6. Replace the handset or press the **ON/OFF** key.	

To dial an SSD number by entering the speed dial bin number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. If necessary, access an outside line.	Outside dial tone
3. Press the **AUTO** key. **OR...** Enter the Speed Dial Originate code (default = **80**).	**A** displays
4. Enter the SSD bin number (**00-79** or **000-799**).	
5. Complete the call and replace the handset or press the **ON/OFF** key.	

To check an SSD number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the **CONF** key.	**C** displays
3. Press the **AUTO** key.	
4. Enter the SSD bin number (**00-79** or **000-799**).	Programmed data displays
5. If you want to check the next SSD number, press the **HOLD** key.	
6. Replace the handset or press the **ON/OFF** key.	

To delete an SSD number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. (A) Press the **PROG** key. (B) Press the **AUTO** key. **OR...** (A) Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the SSD bin number (**00-79** or **000-799**).	
4. Press the **HOLD** key.	**Cleared Spd Dial** displays
5. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-15, 16, & 17: SSD Blocks
- FF1-0-02: SSD Digits
- FF1-0-03: Extension COS (SSD Assignment)
- FF8-1-02: SSD Number
- FF8-1-02: SSD Name

Considerations

- If numbers do not appear on the display when you use SSD codes (**00-79** or **000-799**), your extension is not programmed to display that data.
- The System can be programmed to allow SSD numbers to override toll restrictions.

Speed Dial Linking

You can automatically link together up to 6 SSD numbers in 1 PSD bin to handle telephone numbers longer than 24 characters. You can then dial the entire number by pressing the programmed PSD key or by entering the speed dial bin number.

Alternatively, any combination of PSDs and SSDs can be manually linked together by pressing the keys in the desired sequence. This can be useful for prepending account codes or long distance carrier access codes, etc.

Note: Before linking multiple SSD numbers to a PSD bin, the SSD bins must already have been programmed with the appropriate speed dial information.

Operation

To link multiple SSD numbers to a PSD bin:

Action	Result
1. Determine the SSD bin numbers to be linked	
2. Lift the handset or press the **ON/OFF** key.	
3. (A) Press the **PROG** key. (B) Press the **AUTO** key. **OR...** (A) Enter the Speed Dial Set/Clear code (default = **710**).	
4. Enter the PSD bin number (**80-90**).	**Enter Spd Dial** displays
5. Press the **AUTO** key.	
6. Enter the SSD bin number (**00-79** or **000-799**) that contains the first part of the number to be dialed.	
7. Repeat steps 5-6 up to 5 more times for all additional SSDs to be dialed.	
8. Press the **HOLD** key when finished.	**Stored PSDXXX** displays

To use a PSD Key that links multiple SSDs:

Action	Result
1. If necessary, select the trunk group (**9**, **81-84**). (Normally the trunk is selected by the speed dial numbers.)	
2. Press the PSD key.	

To manually link speed dial keys together:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. If necessary, access an outside line.	
3. If you are using a PSD number, press the one-touch key for the first part of the number. If you are using an SSD number, press the **AUTO** key, then enter the SSD bin number.	
4. Use the one-touch keys or press the **AUTO** key and enter the SSD codes to dial the parts of the phone number until it is completed.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Speed Dial Name Assignments

You can assign names to PSD numbers from a key telephone without entering the programming mode. If allowed in the Extension Class of Service (COS), you can also assign names to SSD numbers.

(PSD names can contain a maximum of 7 characters. SSD names can contain a maximum of 16 characters.)

Operation

PSD Names:

To set PSD names using a large-display or small-display phone:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	
2. Press the **PROG** key.	
3. Press the ***** key.	
4. Enter **0** for the PSD Name Assignment mode.	**A B C D E F P80** displays (where P80 = PSD bin 80)
5. Press the **VOLUME** up or down arrow key to display the desired PSD bin number.	**A B C D E F PXX** displays (where PXX = desired PSD bin number)
6. Enter the extension name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 5-84.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 5-86.) **Note:** Press the **FLASH** key to clear any existing data	
7. Use the bottom row of FF keys to select a single letter. • See “Example 1. Large-display phone” on page 5-84. • See “Example 2. Small-display phone” on page 5-86. **Notes:** • Press the ***** key to erase a single entry. • Press the **#** key to enter a space.	
8. Repeat steps 6-7 as many times as necessary to enter the desired PSD name. **Note:** Press the **FLASH** key to clear the entire entry.	
9. Press the **HOLD** key when finished.	Next PSD bin number displays
10. To enter another speed dial name repeat steps 5-9.	

SSD Names:

To set SSD names using a large-display or small-display phone:

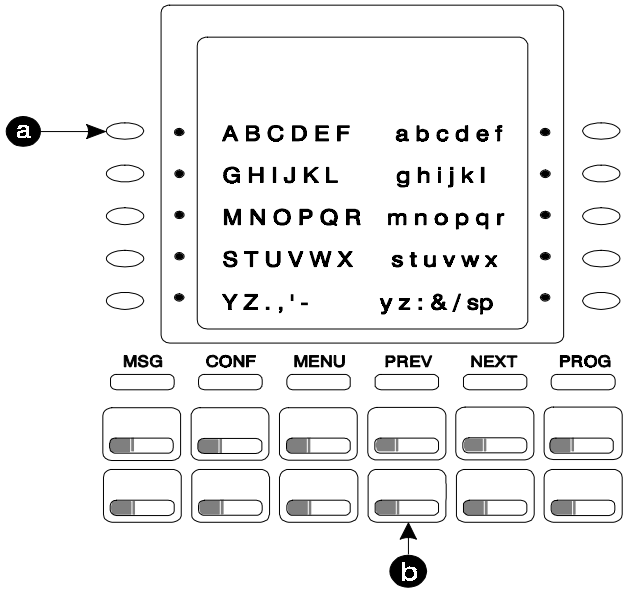
Action	Result
1. Lift the handset or press the **ON/OFF** key.	
2. Press the **PROG** key.	
3. Press the ***** key.	
4. Enter **1** for the SSD Name Assignment mode.	**SSD NO.=>** **SSD NAME** displays
5. Enter the speed dial bin number (**00-79** or **000-799**).	
6. Press the **HOLD** key.	**-SSDXXX** **A B C D E F XXX** displays (where XXX = specified SSD bin number)
7. Press the **FLASH** key to clear the current data.	**A B C D E F XXX** displays (where XXX = specified SSD bin number)
8. Enter the speed dial name: • If using a **large-display phone**, press the soft key next to the desired row of letters. (See Example 1 on page 5-84.) • If using a **small-display phone** press the appropriate one-touch key. (See Example 2 on page 5-86.)	
9. Use the bottom row of FF keys to select a single letter. • See “Example 1. Large-display phone” on page 5-84. • See “Example 2. Small-display phone” on page 5-86. **Notes:** • Press the ***** key to erase a single entry. • Press the **#** key to enter a space.	
10. Repeat steps 8-9 as many times as necessary to enter the desired SSD name. **Note:** Press the **FLASH** key to clear the entire entry.	
11. Press the **HOLD** key when finished.	Next SSD bin number displays
12. To enter another speed dial name, press the **CONF** key and repeat steps 5-11.	**SSD NO.=>** **SSD NAME** displays

Example 1. Large-display phone

To enter **D**:

a. Press the first soft key on the top left.

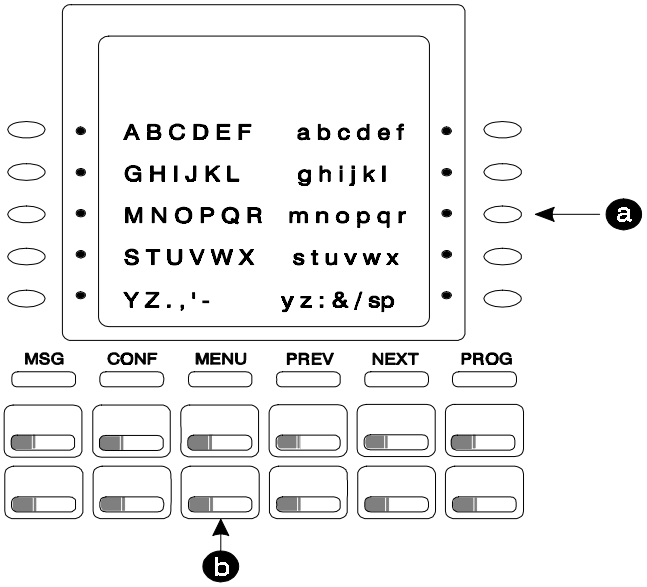
b. Press the fourth FF key from the left on the bottom row.



To enter **o**:

a. Press the third soft key from the top right.

b. Press the third FF key from the left on the bottom row.



Example 2. Small-display phone

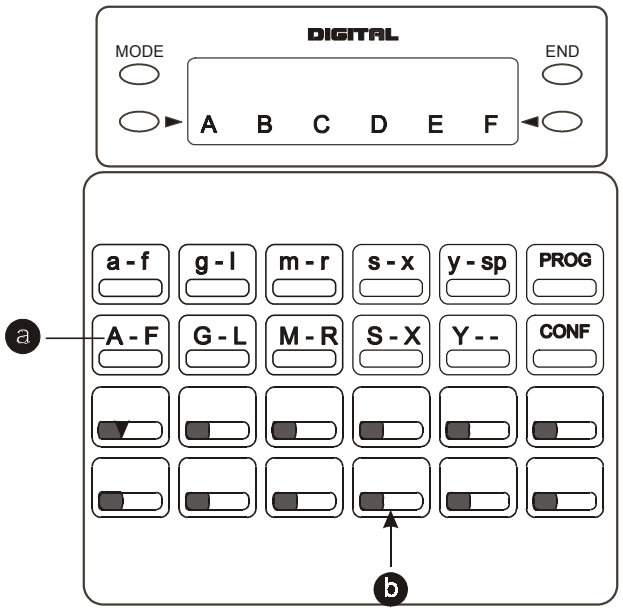
Refer to the following diagram to determine which one-touch key to press. (See step 7-8 above.)

a b c d e f	g h i j k l	m n o p q r	s t u v w x	y z : & / sp
A B C D E F	G H I J K L	M N O P Q R	S T U V W X	Y Z . , ' -

To enter **D**:

a. Press the first one-touch key from the left on the bottom row.

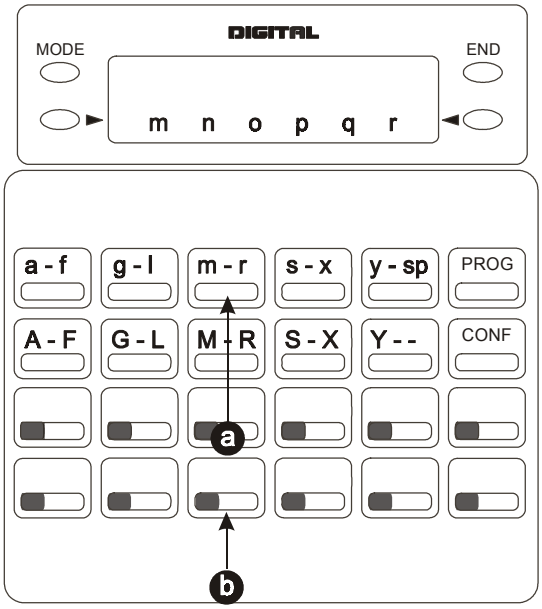
b. Press the fourth FF key from the left on the bottom row.



To enter **o**:

a. Press the third one-touch key from the left on the top row.

b. Press the third FF key from the left on the bottom row.



Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (User Log-in)
- FF3: Extension COS
- FF8-1: SSD & PSD

Considerations

- The ability to assign SSD names is allowed/restricted to anyone with a COS that allows access to User Maintenance features. (See Chapter 4 “User Maintenance” of this document.)

Station Lockout

Description

Use the Station Lockout feature to limit use of your phone by others when you are away from your telephone. When the Station Lockout feature is in use, the TRS Class of your telephone is changed. Anyone using your telephone is limited to the calling abilities defined by this Lockout TRS Class.

In addition, with the appropriate COS, you can set or cancel Station Lockout for other telephones.

Operation

To activate Station Lockout feature:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Station Lockout feature code (default = **746**).	**St. Lock Set** displays
3. Replace the handset or press the **ON/OFF** key.	**Lock** displays

To cancel Station Lockout feature:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Station Lockout feature code (default = **746**) .	**Enter ID Code** displays
3. Enter the Walking TRS/Station Lockout security code.	**Cleared St. Lock** displays
4. Replace the handset or press the **ON/OFF** key.	The telephone display returns to the normal display.

To activate Station Lockout feature for another extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Station Lockout for another extension feature code (default = **747**).	**Enter Lock EXT #** displays
3. Dial the extension number to activate station lockout.	**St. Lock Set** displays
4. Replace the handset or press the **ON/OFF** key.	

To cancel Station Lockout feature for another extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Station Lockout feature code (default = **748**).	**Enter Lock EXT #**displays
3. Enter the extension number to activate station lockout.	**Enter ID Code** displays
4. Enter the Walking TRS/Station Lockout security code.	**Cleared St. Lock** displays
5. Replace the handset or press the **ON/OFF** key.	The telephone display returns to the normal display.

To change the Walking TRS/Station Lockout security code:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Station Lockout security code change code (default = **749**).	**Enter Old ID** displays
3. Enter the current Walking TRS/Station Lockout security code.	**Enter New ID** displays
4. Enter the new Walking TRS/Station Lockout security code.	**Stored ID Code** displays
5. Replace the handset or press the **ON/OFF** key.	The telephone display returns to the normal display.

Related Programming

- FF1-0-03: Extension COS (Station Lockout Enable/Disable)
- FF1-0-03: Extension COS (Station Lockout for another Extension Enable/Disable)
- FF1-2-02: Feature Codes (Station Lockout Code)
- FF1-2-02: Feature Codes (Station Lockout other Extensions Code)
- FF1-2-02: Feature Codes (Station Lockout Cancel other Extensions Code)
- FF1-2-02: Feature Codes (Walking TRS/Station Lockout Security Code Changing Code)
- FF1-0-19: TRS Class Under Station Lockout
- FF8-1-08: Walking TRS/Station Lockout Security Code

Considerations

- Walking TRS and Station Lockout use the same security code.
- You cannot override station lockout using Walking TRS feature.
- If you enter an incorrect key code and then try to dial, the phone will issue a busy tone.
- If station lockout is set, the phone is limited to the Station Lockout TRS Class outside calling abilities. This TRS Class should be carefully selected to only allow the desired call types.
- Without Walking TRS/Station Lockout Security Code, you cannot set the Station Lockout feature.

Timed Reminder Call

Description

Your telephone can act as an alarm clock with the Timed Reminder Call feature.

Operation

To set the Timed Reminder Call feature:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Timed Reminder Set code (default = ***31**).	**Enter Alarm hhmm** displays
3. Enter the time you want the Timed Reminder Call to sound. (Enter the time in 24-hour format. For example, **0100** for 1 AM, **1300** for 1 PM).	
4. Replace the handset or press the **ON/OFF** key.	**Alarm HH:MM** displays (where HH = hour and MM = minutes)

To cancel the Timed Reminder Call feature:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Timed Reminder Cancel code (default = ***39**).	
3. Replace the handset or press the **ON/OFF** key.	Time display disappears

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- An alarm tone (default = 16 seconds) will be issued at the specified time.
- An extension can have only one Reminder Call set at a time.
- To change the Reminder Call, simply enter a new time.
- If the extension is in use when the reminder call is scheduled, the reminder call is issued 3 minutes later.

Trunk Access

Description

The System supports the following ways to seize an idle trunk to make an outside code:

- CO Line Trunk Access
- Direct Trunk Access
- MCO Line Preference

- MCO Trunk Access

CO Line Key Trunk Access

You can access an outside line by pressing a CO line key.

Operation

To access an outside line:

Action	Result
1. Press a vacant CO key.	• Outside dial tone • **CO XXX** displays (where XXX = line number)
2. Dial the phone number	Dialed phone number displays

Hardware Requirements

- N/A

Related Programming

- FF4: FF Key Assignment

Considerations

- N/A

Direct Trunk Access

Extensions can seize a specific trunk for outgoing calls. Extensions can also use Direct Trunk Access to test trunks or to access data trunks.

Operation

To use Direct Trunk Access:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	
2. Enter the Direct Trunk Access code (default = **88**).	Dialed number displays
3. Enter the desired trunk number.	• Outside dial tone • **CO XXX** displays (where XXX = line number)
4. Dial the phone number.	Dialed phone number displays

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Direct Trunk Access)
- FF3: Extension COS

Considerations

- N/A

MCO Line Preference

MCO Line Preference allows you to place an outside call by simply picking up the handset. When you go offhook, the MCO 1 trunk group is automatically accessed.

Operation

To place a call using MCO Line Preference:

Action	Result
1. Lift the handset.	• Outside dial tone • **CO XXX** displays (where XXX = trunk number)
2. Dial the phone number.	Dialed phone number displays

Hardware Requirements

- N/A

Related Programming

- FF1: MCO Trunk Access
- FF3: MCO
- FF5-2: MCO Trunk Groups (Outbound)

Considerations

- You can press the **ON/OFF** key to get intercom dial tone.

MCO Trunk Access

The System supports up to 5 MCO groups for each MCO tenant group. You can seize an idle trunk from the MCO trunk group by entering the MCO access code.

Operation

To seize an idle trunk:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone

Action	Result
2. Enter the trunk access number (**9** or **81**-**84**). (See Table 6.)	• Outside dial tone • **CO XXX** displays (where XXX = trunk number)
3. Dial the phone number.	Dialed phone number displays

Hardware Requirements

- N/A

Related Programming

- FF1-3: MCO Access
- FF1-2: Dial Plan
- FF5-2: MCO Trunk Group (Outbound)
- FF7: ARS/TRS

Considerations

- Each trunk group can support up to 50 outside lines.
- Each MCO Tenant Group can have up to 5 MCO trunk access codes. System defaults for MCO trunk access codes are displayed in the following table.
- MCO1 can have up to 5 trunk groups assigned by the Advanced Trunk Group feature.
- MCO1 access code is used for Automatic Route Selection (ARS) access code.

Table 6. MCO Trunk Access Codes

MCO Group	Trunk Access Code
MCO1	9
MCO2	81
MCO3	82
MCO4	83
MCO5	84

Trunk Queuing

Description

When you try to originate a call by MCO (enter **9**) and all outside lines in a trunk group are busy, the System can call you when a line becomes free. Simply pick up the handset and dial the telephone number when the Trunk Callback alert tone rings.

Operation

To set Trunk Queuing:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the CO line key or enter a trunk access code.	Busy tone
3. Enter the Callback Request code (default = **3**.)	
4. Press the **ON/OFF** key.	**Wait CBK-TRK** displays
5. Wait for the Trunk Callback alert tone.	

To respond to the Trunk Callback alert tone:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	• Outside dial tone • **CO XXX** displays (where XXX = line number

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF1-0-03: Extension COS (Trunk Queuing)
- FF3: Extension COS

Considerations

- Response to the Trunk Callback must be within 15 seconds or Trunk Queuing will be canceled.
- The Trunk Queuing feature may also be used if you hear a busy tone when trying to make a call using the MCO Trunk Access feature.

Universal Night Answer to Page

Description

During night mode, Universal Night Answer (UNA) sends incoming calls for selected trunks to ring external paging speakers. Universal Night Answer calls can be picked up from any extension, provided the extension's Class of Service allows UNA answer. Beginning with Version 3.5 and higher, this feature can be programmed so that incoming calls ring on both external paging speakers and at extensions with CO/MCO appearances on FF keys (Key Telephones only).

Operation

To answer a UNA call:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the UNA to Page Pickup code (default = **705**).	Call is received.

To answer a UNA call using the assigned FF key:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Press the FF key that corresponds with the CO/MCO key	Call is received.

Related Programming

- FF2-0: Trunk Ring Assignments
- FF1-2: Dial Plan (UNA Pickup Code)
- FF1-0-03: Extension COS (UNA Pickup)
- FF3: Extension COS
- FF3: Extension (External Ring Extension Number)
- FF1-0-27: System (UNA Ringing Port by Tenant Group)
- FF4-0: FF Keys on Digital Key Telephones

Hardware Requirements

- External paging speakers and associated equipment are not provided; they must be purchased separately.

Considerations

- The UNA ringing port can be specified by caller's tenant group or by the trunk ring assignment.

Variable Mode

Description

Variable Mode allows you to use the soft keys on a display phone to access selected features when your phone is in the following state:

- While receiving intercom Dial Tone or during dialing - up to 10 functions
- While receiving intercom ringback tone - up to 5 functions
- While receiving intercom busy tone - up to 10 functions
- While talking in intercom mode, during CO seizure, or during CO talk - up to 5 functions

Each extension may have customized soft key features available. The customization must be programmed by the dealer.

To access the feature beside the soft key, simply press the associated soft key.

Operation

To enable Variable Mode:

Action	Result
1. Press the **ON/OFF** key.	
2. Press the Variable Mode FF key	**AUTO FNC Mode** displays
3. Press the **ON/OFF** key.	Programmed features display

To Execute a Variable Mode Function:

Action	Result
1. Press the **NEXT** or **PREV** keys on the large display telephone or the up or down arrow keys on the small display telephones until the desired function appears	
2. Press the soft key next to the desired function	The variable mode function executes

To cancel Variable Mode:

Action	Result
1. Press the **ON/OFF** key.	
2. Press the Variable Mode FF key.	**AUTO FNC Mode** displays
3. Press the **ON/OFF** key again.	

To assign Variable Mode Functions to a Small Display Telephone

Action	Result
1. Press the **ON/OFF** key.	
2. Press **PROG + 95 + (XX) + Fixed Feature Code** (see Table 5 on page 5-48)**.** **OR...** Press **PROG + 95 + (XX) + REDIAL + Flexible Feature Code** (see Table 5 on page 5-48). **Note:** Where XX is the Flexible Screen position as listed below.	The variable mode function executes
3. Press the **ON/OFF** key.	

To assign Variable Mode Functions to a Large Display Telephone

Action	Result
1. Press the **ON/OFF** key.	
2. Using the FUNCTION EXT menu, display the desired extension function location (see Flexible Screen Positions below).	
3. Press **PROG + soft key + Fixed Feature Code** (see Table 5 on page 5-48). **OR...** Press **PROG + 95 + (XX) + REDIAL + Flexible Feature Code** (see Table 5 on page 5-48). **Note:** Where XX is the Flexible Screen position as listed below.	
4. Press the **ON/OFF** key.	

Flexible Screen Positions

Variable Mode Display Position	Displays at
Position 1 to 10	Intercom Dial Tone/Intercom Dial
Position 11 to 15	Intercom Ringback Tone
Position 16 to 25	Intercom Busy Tone
Position 26 to 30	Talk

Hardware Requirements

- A 44-Series Display Telephone or or the VB-43225 Large Display Telephone

Related Programming

- FF4-2: Flexible Screens
- FF3-0: Variable Modes

Considerations

- The small display telephone will exit variable mode after a variable mode function is executed.
- The large display telephone will stay in variable mode after a function is executed.

Voice Recognition

Description

Voice Recognition allows you to dial another extension or a speed dial number using verbal commands. You can also quickly access various telephone features by voice.

Hardware Requirements

- Need VB-44224, VB-44101

Related Programming

- N/A

Considerations

- The VB-44224 24-key telephone is required.
- You must pre-program the desired calling information into the telephone's Voice Recognition Unit in order for the System to recognize the verbal commands.

Volume Control

Description

The System allows you to set different receiving volumes for the handset, speaker, intercom ring tone, and incoming ring tone.

Operation

To adjust the volume while your phone is in use:

Action	Result
1. Press the **VOLUME** up or down arrow key: • During ringing to adjust intercom or incoming ring tone • During a call to adjust handset or speaker volume	Intercom dial tone

To adjust ringer volume while your phone is idle:

Action	Result
1. Press the **ON/OFF** key.	
2. Press the **PROG** key.	
3. Enter **9**, then **1** to adjust the incoming ring tone. **OR...** Enter **9**, then **2** to adjust the intercom ring tone.	Pseudo ring tone
4. Press the **VOLUME** up or down arrow key to adjust the loudness of the tone.	
5. Press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF3-0: Ring Volume Control

Considerations

- Extension programming determines whether or not you can set separate volume levels for CO incoming ring tone and intercom ring tone.

Walking TRS Class of Service

Walking Toll Restriction Service (TRS) Class of Service (COS) allows an extension user to "carry" his or her toll restrictions to another phone.

Before the Walking TRS COS feature can be used, a Walking TRS COS code must be entered at your extension before using dialing privileges at another extension.

Operation

To use a Walking TRS COS code:

Action	Result
1. Lift the handset or press the **ON/OFF** key of an extension other than your own.	Intercom dial tone
2. Enter the Walking TRS COS Access code (default = **87**).	
3. Dial your extension number.	
4. Enter your Walking TRS COS code (**0001**-**9999**)	
5. Enter a trunk access code (**9** or **81**-**84**)	
6. Dial the phone number.	Walking TRS COS remains in effect until you replace the handset.
7. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF8-1-08: Walking TRS COS Code

Considerations

- The same Walking TRS COS code can be used on more than one extension.
- Walking TRS COS mode is kept until the user goes on-hook.
- ARS and TRS dialing privileges follow the Walking TRS COS.
- Before entering a new Walking TRS COS code, you must first clear the existing code.
- When Walking TRS COS is used, Wxxxx (where xxxx is the user's extension number) appears in SMDR.

Zip Mode

Zip mode automatically answers calls when operating a Key Telephone in headset mode.

Operation

To enter or cancel Zip Mode:

Action	Result
1. Press the **ON/OFF** key.	
2. Press the **PROG** key and enter **80**. **OR...** Press the **ZIP** key.	When entering Zip mode, **ZIP Mode On** displays When cancelling Zip mode, **ZIP Mode Off** displays
3. Press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF4: FF Key Programming

Considerations

- Call forward takes precedence over zip mode.

Chapter 6. DSLT Features

This chapter describes features that are available with the Digital Single Line Telephone (DSLT).

This chapter covers the following topics:

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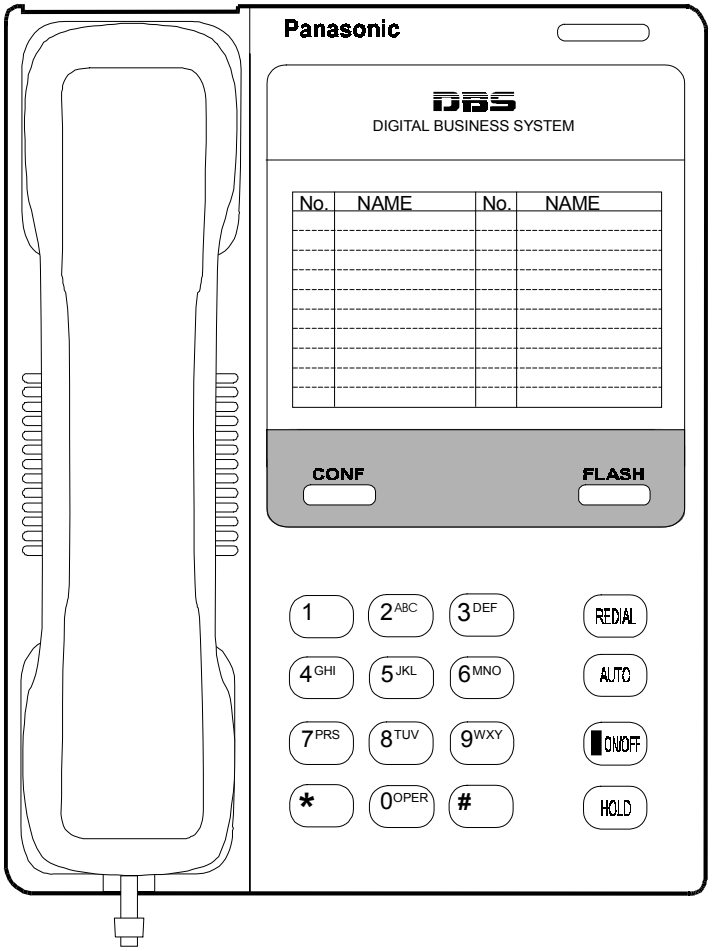
Digital Single Line Telephone

Figure Figure 1 illustrates the Digital Single Line Telephone (DSLT). For more information on DLST, see *Section 751: Key Telephone/DSLT Quick Reference*.

Figure 6-1. DSLT



Absence Message

Description

Extension users can leave text messages related to their phones when they are away. When the unattended extension is dialed, the text message displays on the caller's phone. Any one of the following messages can be selected. Messages 5 to 9 have no default message text. All the messages can be changed through system programming.

Table 7-1. Absence Messages

Message No.	Message Text Displayed on Called Party's Key Telephone	Message No.	Message Text Displayed on Called Party's Key Telephone
0	In Meeting	5	Absence_No_5
1	At Lunch	6	Absence_No_6
2	Out of Office	7	Absence_No_7
3	Vacation	8	Absence_No_8
4	Another Office	9	Absence_No_9

Optionally, a return time can be input. Example Return Times for Absence Messages include:

Input	Display
No input	Return
9	Return 9:00
11	Return 11:00
615	Return 6:15
1035	Return 10:35

Operation

To set an Absence Message

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Absence Message code (default = **729**).	
3. Enter the Absence Message number. (See Table 1.)	
4. If desired, enter the 4-digit returning time.	
5. Press the **HOLD** key.	
6. Replace the handset.	

To cancel an Absence Message

Action	Result
1. Lift the handset .	Intercom dial tone
2. Enter the Absence Message code (default = **729**).	
3. Press the **HOLD** key.	
4. Replace the handset.	

Related Programming

- FF1 (System): Extension Class of Service Setting

- FF3 (Extension): Extension Class of Service Assignment
- FF8 (Maintenance): Absence Messages

Considerations

- Calling parties without a display get a busy signal, rather than the Absence Message.
- Regardless of setting an Absence Message on a DID/DIL extension, DID/DIL calls are routed according to the trunk ringing setting.
- An absence message may also be cancelled by dialing **7****. This cancels Do Not Disturb and Call Forwarding-All Calls as well.

Account Codes

Description

You can assign account codes to clients to facilitate billing and to track call dates and times, numbers called, and outside line numbers used. This information is printed for each account on the System Message Detail Recording (SMDR) record.

In addition verified account codes may be used to change the TRS level to allow calls to numbers otherwise restricted.

Account codes may be either forced or unforced (voluntary) and either verified or unverified.

This feature works with SMDR. During a phone call, a station user can silently enter an accounting or client billing code. The entered Code will display on the phone's LCD as it's dialed, so the user can tell it's being registered. Then later, the SMDR reports will show the Code dialed for each call, and even sort the report by these Codes.

There are two different types of account codes: Non-Verified and Verified Account Codes. Prior to Version 3.6, the maximum amount of account code numbers for both types could range from 1-10 digits. Beginning with Version 3.6, a second mode has been added that allows the user to set the maximum amount of account code numbers from 1-4 digits. An account code error will occur when more than the maximum number of digits are entered.

Non-Verified Account Codes

Non-Verified Codes are not checked by the system for validity. Depending on the setting, the user can enter anything from 1-4 digits or 1-10 digits. Individual phones can be programmed to accept forced Account Codes (the user must enter a code for every call) or voluntary Account Codes (the user can enter a code, but doesn't have to, for each call).

Non-Verified Account Codes can be assigned to incoming and/or outgoing calls. For incoming calls, the user can enter the Code anytime during the call. For outgoing calls, the user either enters the Code before accessing an outside line (for forced Codes), or anytime during the call (for voluntary Codes).

Verified Account Codes

Verified Account Codes entered by phone users must match a 4-digit code that has been preprogrammed into an Account Code Table. Depending on the setting, the user can enter anything from 1-4 digits or 1-10 digits. These codes can also be either forced or voluntary. You can program these codes with their own Toll Restriction Service (TRS) Class assignment so that, when entered, they will override the extension's TRS Class. Thus, Verified Account Code users can "float" from phone to phone, placing calls that would normally be restricted on that phone.

Non-Verified Account Codes

Non-Verified Account codes are voluntary codes. (i.e., You do not have to enter an account code before making a call.)

You can assign Non-Verified Account codes to both incoming and outgoing calls. To assign an account code to an outgoing call, you enter the account code before making the call or during the call. To assign an account code to an incoming call, you enter the account code during the call.

Operation

To enter an account code before making a call:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Account Code feature code (default = **8#**).	
3. Enter the Account Code (up to 10 digits).	
4. Press the # key.	
5. Press a vacant CO key or enter a trunk access code.	
6. Dial the phone number.	

To enter an account code during an outside call:

Action	Result
1. During a call, press the **AUTO** key.	
2. Press the # key.	
3. Enter the Account Code (up to 10 digits).	
4. Press the # key.	

Verified Account Codes

Stations restricted from outside call origination by Toll Restriction Service (TRS) can be allowed to make outgoing calls by entering a Verified Account code that changes the TRS. After a call is made, the SMDR record for the call will show the verified account code.

Operation

To make an outside call that requires an account code:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Verified Account ID code (default = **8#**).	
3. Enter the Account Code (10 digits).	

Action	Result
4. Press a vacant CO key or enter a trunk access code.	
5. Dial the phone number.	

Hardware Requirements

- An SMDR printer or external call accounting system is required to collect account code records.

Related Programming

- FF1-0-19: TRS Class for Forced Account Code
- FF1-2: Dial Plan
- FF3: Forced Account
- FF3: Verified Account
- FF8-1-04: Verified Account Codes with TRS Class

Considerations

- Even though up to 10 digits may be entered, the system verifies the ID based on the first 4 digits only.
- Account codes will be cancelled after using CO queuing.
- Account Codes interact with TRS as shown in the following table:

Forced or Not Forced	Verified or Non-Verified	TRS Class	
		No Account Entry	Account Entry
Not Forced	Non-Verified	Extension Port Based TRS Class	Extension Port Based TRS Class
	Verified		Account Code Based TRS Class
Forced	Non-Verified	TRS Class for Forced Account Code (FF1 0 19 0001)	Extension Port Based TRS Class
	Verified		Account Code Based TRS Class

Attendant Group Calls

Description

You can call the attendant group from any extension by dialing the designated attendant number.

Operation

To call an attendant group:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the attendant pilot number (default = **0**).	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF3-0: Extension Number
- FF5-0: Attendant Hunt Groups

Considerations

- Up to 20 extensions can be included in an attendant group.
- The attendant pilot number is flexible.
- If a member of an attendant group is for a virtual extension, multiple extensions in the attendant group can be made to ring at once when the virtual number is dialed.
- Attendant calls are always tone calls (i.e., not voice calls).

Auto Repeat Dial

Description

If you press the **REDIAL** key while receiving busy tone on an outside call, the System automatically redials the number. The System continues to redial the number at set intervals until the called number answers, the caller hangs up, or the maximum of 15 redial attempts is made.

Operation

To use Auto Repeat Dial:

Action	Result
1. Press the **ON/OFF** key.	Intercom dial tone
2. Enter a trunk access code.	
3. Dial the phone number.	Busy tone
4. Press the **REDIAL** key.	System automatically redials number

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Auto Repeat Dial)
- FF3: Extension COS Assignment

Considerations

- N/A

Background Music

Description

If your System is set up to provide Background Music, music can be played from the speakers of idle telephones. If a call is made to an extension receiving Background Music, the music stops and the phone rings. Background Music is also interrupted when the phone goes offhook.

The System can also provide Music-on-Hold (MOH) using a separate music source (except with CPC-HS.) If MOH is provided, callers automatically hear music when they are placed on hold. (For more information on "MOH", see page 3-37.)

Operation

To turn Background Music on:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Background Music code (default = ***30**).	
3. Replace the handset or press the **ON/OFF** key.	

To turn Background Music off:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Background Music code (default = ***30**).	
3. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- The music source must be purchased separately. It is not provided with the System.

> **Important:** A license may be required from the American Society of Composers, Authors, and Publishers (ASCAP) or similar organizations to transmit radio or recorded music through the MOH and/or Background Music feature. Panasonic Telecommunication Systems Company, its distributors, and affiliates assume no liability should users of Panasonic equipment fail to obtain such a license.

Related Programming

- FF1-0-03: Extension COS

Considerations

- N/A

Busy Override

Description

Busy Override allows you to break into one another's outside or intercom calls to relay urgent information or to create three-party conference calls.

Operation

To use Extension Busy Override:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	Busy tone
3. Enter the Busy Override code (default = **9**).	• Alert tone sounds to both extensions (system programming required) • Connected to both parties

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Splash Tone (Busy Override)
- FF1-0-03: Extension COS (Manual DND Override Send)
- FF1-0-03: Extension COS (Forced DND Override)
- FF1-2: Dial Plan
- FF3: Extension COS
- FF3: Data Security

Considerations

- You cannot break in on three-party conference calls.
- The default for the Override Alert Tone is **off**. If the Override Alert Tone is enabled, the tone will be sent to both parties when a call is overridden.

Callback Request

Description

If you dial a busy extension, Callback Request enables the System to call you back when that extension becomes free. When you answer, the System automatically rings the called party again.

Operation

To set a Callback Request:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	Busy tone
3. Enter the Callback Request code (default = **3**).	Ringback tone
4. Replace the handset after you hear the ringback tone.	System calls back when called extension becomes free

To respond to the Callback Request:

Action	Result
1. Lift the handset.	System automatically redials extension

To cancel a Callback Request:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Callback cancellation code (default = **769**).	
3. Replace the handset .	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Callback Request Send)

- FF1-0-03: Extension COS (Callback Request Receive)
- FF3: Extension COS
- FF1-2-03: Dial Plan (Callback Cancel)

Considerations

- N/A

Call Forwarding

Description

Call Forwarding allows you to send your calls to another extension, to an outside line, or to Voice Mail. Call Forwarding can be set or canceled under the following conditions from either your own extension or from an alternate extension:

- Call Forwarding - All Calls
- Call Forwarding - Busy
- Call Forwarding - No Answer

Call Forwarding-All Calls

When Call Forwarding - All Calls is set, all incoming calls to an extension are immediately forwarded.

Operation

To set Call Forwarding-All Calls:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **721**. • For another extension, enter **741**.	
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you wish to forward.	
4. Enter the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For instructions, see "Speed Dialing" on page 6-42.)	
5. Replace the handset or press the **ON/OFF** key.	

To cancel Call Forwarding-All Calls:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: • For your extension, enter **731**. • For another extension, enter **751**.	
3. If canceling Call Forwarding for another extension, dial the extension number.	
4. Replace the handset or press the **ON/OFF** key.	

Call Forwarding - Busy

When Call Forwarding - Busy is set, all incoming calls to a busy extension are forwarded.

Operation

To set Call Forwarding - Busy:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **722**. • For another extension, enter **742**.	
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you want to forward	
4. Enter the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For instructions, see “Speed Dialing” on page 6-42.)	
5. Replace the handset or press the **ON/OFF** key.	

To cancel Call Forwarding - Busy:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: 3. For your extension, enter **732**. 4. For another extension, enter **752**.	

Action	Result
5. If canceling Call Forwarding for another extension, dial the extension number.	
6. Replace the handset or press the **ON/OFF** key.	

Call Forwarding - No Answer

When Call Forwarding - No Answer is set, a call will ring until the Call Forward - No Answer timer expires. When the timer expires, the unanswered call is forwarded.

Operation

To set Call Forwarding - No Answer:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **723**. • For another extension, enter **743**.	
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you wish to forward	
4. Dial the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For instructions, see "Speed Dialing" on page 6-42.)	
5. Replace the handset or press the **ON/OFF** key.	

To cancel Call Forwarding - No Answer:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: • For your extension, enter **733**. • For another extension, enter **753**.	
3. If canceling Call Forwarding for another extension, dial the extension number.	
4. Replace the handset or press the **ON/OFF** key.	

Call Forwarding and Do-Not-Disturb

The System allows you to set or cancel both Call Forwarding and Do-Not-Disturb (DND) for your own extension in one step.

To cancel Call Forwarding and DND:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the CF/DND All Clear code (default = **7****).	
3. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Call Forward/All/Busy/No-Answer and DND Cancel)
- FF1-0-03: Extension COS (Call Forward/All Calls)
- FF1-0-03: Extension COS (Call Forward/Busy)
- FF1-0-03: Extension COS (Call Forward/No Answer)
- FF1-0-03: Extension COS (Call Forward/Other)
- FF1-2: Dial Plan

Considerations

- Calls cannot be forwarded to an extension that already has Call Forwarding DND activated.For example, extension 220 can only forward to extension 225 if 225 is not forwarded.
- If forwarding to an outside number, the destination number must be pre-programmed into a System Speed Dial (SSD) code.
- Call Forwarding - Busy and Call Forwarding - No Answer can both be set at the same time.
- You can set Call Forwarding - All Calls while Call Forwarding - No Answer and/or Call Forwarding - Busy are set. Canceling one mode only affects that mode; however, the other modes will remain set until canceled individually.
- An auto camp-on to a busy extension will forward to the Call Forward No Answer destination. A manual camp-on to a busy extension will not forward.
- If Call Forwarding No Answer and DND are both set, calls immediately forward to the Call Forward No Answer destination.
- You can cancel both Call Forwarding and DND by entering **7 * ***.

Call Hold

Description

The system provides the following types of Call Hold:

- System Hold
- Floating Hold
- Exclusive Hold
- Broker's Hold
- Call Park (Station)

System Hold

You can place either an outside or intercom call on System Hold. You can retrieve a call placed on System Hold from any extension that has a line appearance for the held call.

Operation

To place a call on System Hold:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone

To retrieve a call placed on System Hold:

Action	Result
1. Press the **HOLD** key.	Intercom dial tone

To retrieve a held call on a specific trunk:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Specified Trunk Answer code (default = ***0**).	
3. Enter the trunk number.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Floating Hold by HOLD Key
- FF1-0-03: Extension COS (Hold Key Operation)
- FF3: Extension COS

Considerations

- N/A

Floating Hold

Floating Hold is a type of System Hold that allows you to retrieve a held call from any extension by dialing the Floating Hold orbit number for the held call.

Floating Hold is useful when the intended recipient of a call must be located via a page. The call can be placed in a Floating Hold "orbit" and that orbit number announced during the page. The paged party can then pick up the call by dialing the orbit number.

Operation

To place a call on Floating Hold:

Action	Result
1. Press the **HOLD** key.	Intercom dial tone

To retrieve a call from Floating Hold:

Action	Result
1. Enter the Floating Hold Pickup feature access code (default = ***9**).	
2. Enter the Floating Hold orbit number **01-96** (CPC-96/HS/HM) or **01-09** (CPC-96/HS/HM) (See considerations below.)	

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Floating Hold on HOLD Key
- FF1-0-02: Dial Control for Floating Hold Answer.
- FF1-2: Dial Plan

Considerations

- The number of floating hold orbits available may very depending on the Station Park/Floating Hold Pickup setting (FF1-0-02-0025). The floating hold pickup access code can set to ***9** (default). The "***9**" access code operates as follows:

System Size	Virtual Line Number and Operation
96	01-09 Floating Hold pick up 10-96: For Station Park Hold pick up purpose

Exclusive Hold

With Exclusive Hold, only the extension that held the call can retrieve it. Exclusive Hold can be used to hold CO calls and extension calls.

Operation

To place a call on Exclusive Hold:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone

To retrieve a call from Exclusive Hold:

Action	Result
1. While on a call, press the **HOLD** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Hold Key Operation - System vs. Exclusive)
- FF3-0: Extension COS Assignment

Considerations

- Intercom calls will be held as Exclusive when placed on hold by pressing the **HOLD** key.

Broker's Hold

Broker's Hold allows you to toggle between the current call and the last held call by pressing the **HOLD** key.

Operation

To place a call on Broker's Hold:

Action	Result
1. Pick up the first call.	
2. Press the **HOLD** key.	First call on hold
3. Pick up the second call.	
4. Press the **HOLD** key.	Second call on hold, first call retrieved

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Call Park

You can use the Call Park function to transfer a call, even if you cannot locate the intended recipient of the call.

CO, Extension, and Network calls may be parked.

There are two ways for an extension to park a call on the DBS 576HD. One way is to park the call at the receiving extension and to retrieve the parked call at another extension by dialing the park answer code plus the parking extension number. The other way is to park the call at another extension and dial the park transfer answer code at the other extension to retrieve the call. Beginning with Version 3.6, an Extension Group Pickup code allows the user to pick up a Transfer Recall (only on non-appearing calls), a Hold Recall, and a Station Park Recall.

Operation

To park a call on this extension:

Action	Result
1. While on a call, press the **HOLD** key.	• Current call on hold
2. Enter the Call Park Hold access code (default = **771)**.	
3. If necessary, page the party that needs to retrieve the call.	

To retrieve a call parked at the originating extension from another extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Call Park Answer/Other Ext. access code (default = **773)**. **OR...** Enter the Call Park/Floating Hold Answer feature access code (default = ***9**).	
3. Dial the number of the extension that parked the call.	• Connected to parked call

To park a call at another extension:

Action	Result
1. Press the **HOLD** key.	• Current call on hold •
2. Enter the Call Park Transfer access code (default = **774**).	
3. Dial the extension number to receive the parked call.	
4. If necessary, page the party that needs to retrieve the call.	

To retrieve a transferred call park:

Action	Result
1. At the extension with the transferred park call, lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Call Park Answer/Self access code (default = **772**).	• Connected to parked call

Hardware Requirements

- N/A

Related Programming

- FF1 (System): Extension Park Hold Recall Timer
- FF1-0-02: Dial Control for Floating Hold Answer

Considerations

- You cannot park more than one call at a time.
- No more than one Call Park Answer key may be assigned to a single telephone.
- If two calls are on hold and the last call is parked, the other call is then considered the last held call. If a transfer is performed, the remaining held call would be the call transferred, not the parked call.

Call Pickup

Description

The System allows the following types of call pickup:

- Extension Group Pickup
- Extension Direct Pickup
- Trunk Group Pickup
- Trunk Direct Pickup

Extension Group Pickup

Extension Group Pickup allows you to pick up a direct ringing call (within your extension pickup group or in a different pickup group) without having to dial the number of the ringing extension.

Three types of Extension Group Pickup are available:

- **Call Pickup - All Calls:** You can pick up a call ringing anywhere within your own extension group.
- **Call Pickup - External Calls:** You can pick up only external calls ringing within your own extension group.
- **Specified Group Pickup:** You can pick up a call ringing to an extension in another extension group.

Operation

To use Extension Group Pickup - All Calls:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Extension Group Pickup - All Calls code (default = **701**).	
3. Complete the call and replace the handset or press the **ON/OFF** key.	

To use Extension Group Pickup - External Calls:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Extension Group Pickup - External Calls code (default = **702**).	
3. Complete the call and replace the handset or press the **ON/OFF** key.	

To use Specified Group Pickup:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Specified Group Pickup code (default = **703**).	
3. Enter the number of the call pickup group (**01**-**72**) where the call is ringing.	
4. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-02: Intercom Voice Call Pickup
- FF1-2: Dial Plan
- FF5-6: Call Pickup Group Assignment

Considerations

- Extension Group Pickup - 12/system; maximum of 20/group

Extension Direct Pickup

Extension Direct Pickup allows you to answer a call to another extension by dialing the number of the ringing extension.

Operation

To use Extension Direct Pickup:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Extension Direct Call Pickup code (default = **704**).	
3. Dial the number of the ringing extension.	
4. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-02: Intercom Voice Call Pickup
- FF1-2: Dial Plan

Considerations

- N/A

Trunk Group Pickup

Trunk Group Pickup allows you to answer calls ringing to any extension within your own MCO incoming trunk group.

Operation

To use Trunk Group Pickup:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Trunk Group Pickup code (default = **709**).	
3. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-3: MCO - Inbound Trunk Group Members

- FF1-2: Dial Plan

Considerations

- N/A

Trunk Direct Pickup

Trunk Direct Pickup allows you to answer calls ringing on a specific trunk number.

Operation

To use Trunk Direct Pickup:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Trunk Direct Pickup code (default = ***0**).	
3. Dial the number of the ringing or holding (system hold) trunk.	
4. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan

Considerations

- Call on exclusive hold cannot be picked up.

Call Transfer

Description

The System allows you to transfer calls to either another extension or to an outside number. The transferred calls can be either supervised or unsupervised. (You can also use the Camp-on feature to transfer a call to a busy extension.)

Supervised Transfer

When completing a supervised transfer, the transferring party remains on the line until the third party answers, then he/she announces the call.

Operation

To supervise the transfer of a call to another extension:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. When the call is answered, inform the third party of the transfer.	
4. Complete the transfer by replacing the handset or pressing the **ON/OFF** key.	

To supervise the transfer of a call to an outside number:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Seize a trunk line and dial the number to which the call is to be transferred.	
3. When the call is answered, inform the third party of the transfer.	
4. Complete the transfer by replacing the handset or pressing the **ON/OFF** key.	

Unsupervised Transfer

When completing an unsupervised transfer the transferring party hangs up before the third party answers.

Operation

To transfer a call to another extension without supervising the transfer:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. Complete the transfer by replacing the handset or pressing the **ON/OFF** key.	

To transfer a call to an outside number without supervising the transfer:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Enter a trunk access code.	
3. Dial the number to which the call is to be transferred.	
4. Complete the transfer by replacing the handset or pressing the **ON/OFF** key.	

Camping a Call Onto a Busy Extension

Operation

To camp a call onto a busy extension:

Action	Result
1. While on a call, press the **HOLD** key.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. If your extension does not have Auto Camp-On activated, enter the Camp-On (Call Waiting) code (default = **2**).	Camp-on tone heard at called extension
4. Complete the transfer by replacing the handset or pressing the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Onhook Transfer at Ringback)
- FF1-0-03: Extension COS (Onhook Transfer at Talk)
- FF1-0-03: Extension COS (Onhook Transfer at Camp-on)

Considerations

- On-Hook Transfer is not enabled for the transferring party's Extension Class of Service (COS), he/she cannot complete the transfer.
- If the call is not answered by the third party before the Transfer Recall Timer expires, the call will recall to the transferring extension.
- If a Transfer Recall is not answered before the Recall Duration Timer expires, the call will revert to the Attendant group.
- If the called party does not exist, the call recalls to the transferring extension.
- You cannot transfer a call to an extension that has Do-Not-Disturb (DND) activated.
- You can transfer a call to an extension that has Call Forwarding activated. The transferred call will follow the call forwarding path of the extension it is transferred to. For example, if extension

221 is forwarded to extension 225, calls that are transferred to extension 221 will be forwarded to extension 225.

- Calls can be transferred from paging using supervised transfer.
- If a call is unsupervised transferred to a busy extension, the call will camp on to the busy extension.
- To transfer to a outside party, it is best to use supervised transfer. If the trunk-to-trunk on-hook transfer restriction is enabled, a blind transfer will result in the loss of the second call but the second call will be kept on hold. If not enabled and the second outside party is busy, the transferred party will receive busy.

Camp-On (Call Waiting)

Description

If you dial a busy extension, you can camp onto that extension and send a Call Waiting signal to the called party. The called party then needs only to replace the handset and pick it up again to be automatically connected to the new call. The called party can also press the **HOLD** key to place the first call on hold and then answer the waiting call.

The System provides two types of call waiting:

- **Automatic Call Waiting:** You do not need to enter a code to send the Call Waiting signal to the busy extension. You need only to remain on the line.
- **Manual Call Waiting:** You must enter a code to send a Call Waiting signal to the busy extension.

Operation

To set Automatic Camp-on:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	• Called party hears alert tone • Calling party hears ringback tone
3. Remain on the line until the called party answers.	

To set Manual Camp-on:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	Busy tone
3. Enter the Camp-on (Call Waiting) code (default = **2**).	• Called party hears alert tone • Calling party hears ringback tone
4. Remain on the line until the called party answers.	

To answer a Camp-on (Call Waiting) signal:

Action	Result
1. Replace the handset or press the **ON/OFF** key.	
2. Lift the handset or press the **ON/OFF** key again to be connected to the waiting call. **OR....** Press the **HOLD** key.	• Current call placed on hold • Connected to waiting call

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Manual Camp-on Send)
- FF1-0-03: Extension COS (Manual Camp-on Receive)
- FF1-2: Dial Plan
- FF3: Extension COS
- FF3-0: Auto Camp-on

Considerations

- You can transfer an outside call to a busy extension using Camp-on. See “Camping a Call Onto a Busy Extension” on page 6-25.

Conference Calls

Description

Conference Calls allow you to add another party to an existing conversation. With the standard system configuration, up to 4 parties can be included in a conference call at any one time. If the optional Conference Card is installed, additional parties up to a total of 8 can participate in a conference call.

Any combination of extensions and CO lines can be in the conference as long as the original extension is in the conference and the total number of parties does not exceed 8. Only one operation is used to establish and add to a conference. You simply have to place the current call on hold, dial the next party and press the **CONF** key. No different operation or access code is required to add additional parties to the call.

When no optional conference card is installed, the system supports the following types of four-party conference calls:

- 4 extensions
- 3 extensions and 1 CO line
- 2 extension and 2 CO lines
- 1 extension and 3 CO lines

Operation

See *Section 750 - Key Phone User Guide* for operating instructions.

Hardware Requirements

- A Conference Card (VB-44120) must be installed in the System in order to conference more than four parties.

Related Programming

- FF1-0-03: Extension COS (8-Party Conference)
- FF1-0-03: Extension COS (Unsupervised Conference Call)
- FF1-0-01: Splash Tone (3-party conference)
- FF1-1-04: Conference Hold Call Recall Timer
- FF3: Extension COS

Considerations

- If all the internal parties hang up, the conference call will be disconnected. If the internal party remains in the conversation, the conference call remains in progress.
- When three or four parties are conferenced, a built-in 4-party conference circuit is used. If no 4-party conference circuit is available, a conference cannot be established.
- When a fifth party is added, the conference is moved to a conference circuit on the 8-party conference card. If an 8-party conference circuit is not available, a fifth party cannot be added to a conference.
- Once an 8-party conference circuit is used, it continues to be used as long as the conference continues.
- An 8-party conference card supports up to four 8-party conference circuits. However, the card must be placed in cabinet slots 1, 5, or 9 to support more than one 8-party conference circuit (and jumpered accordingly).
- During a conference call hold, the held conference members cannot use the HOLD key. Pressing the key has no effect.
- Conference Hold is an Exclusive Hold (only the conference originator can retrieve the conference).
- Conference Hold cannot be transferred.

Do-Not-Disturb

Description

You can make an extension unavailable by activating the Do-Not-Disturb (DND) feature. When DND is activated, calls to that extension receive busy tone.

You can set or cancel DND from either your extension or from an alternate extension.

Operation

To set DND for your own extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the DND Set/Cancel code (default = **720**).	
3. Replace the handset or press the **ON/OFF** key.	

To cancel DND for your own extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the DND Set/Cancel code (default = **720**).	
3. Replace the handset or press the **ON/OFF** key.	

To set DND for another extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the DND Set by Other Phone code (default = **740**).	
3. Dial the extension number.	
4. Replace the handset or press the **ON/OFF** key.	

To cancel DND for another extension:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the DND Cancel by Other Phone code (default = **750**).	
3. Dial the extension number.	
4. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Manual DND Override Send)
- FF1-0-03: Extension COS (Forced DND Override)
- FF1-0-03: Extension COS (DND Set/Clear)
- FF1-0-03: Extension COS (DND Set/Clear Other)
- FF1-2: Dial Plan

- FF3: Extension COS

Considerations

- Forced DND override is available.
- DND override function is available by Busy Override code.

DP to DTMF Signal Conversion

Description

Dial Pulse (DP) to Dual Tone Multifrequency (DTMF) Signal Conversion allows you to switch from DP to DTMF signaling when using a DP trunk. For instance, if you dial into a Voice Mail system using a DP trunk, you can switch to DTMF signaling to communicate with the Voice Mail system. (The System can automatically change DP to DTMF tones based on the incoming and outgoing timers).

Operation

To switch from DP to DTMF dialing:

Action	Result
1. Press the * key or the # key.	

Hardware Requirements

- N/A

Related Programming

- FF1: DTMF
- FF2: DP to DTMF (Outgoing)
- FF2: DP to DTMF (Incoming)

Considerations

- N/A

Flash

Description

You can send a flash signal on your telephone to release an outside line and then either automatically reseize the same outside line or switch to extension dial tone status by pressing the **FLASH** key.

Trunk programming determines whether your phone reseizes the outside line or switches to extension dial tone status.

Hardware Requirements

- N/A

Related Programming

- FF1-1: Flash Timer
- FF2: Flash Pattern
- FF2: Flash Key Operation
- FF3: Flash on PROG (Recall)

Considerations

- N/A

Hot Line

Description

Hot Line enables you to immediately connect to another pre-assigned extension or speed dial number simply by lifting the handset. You do not have to dial any digits.

Operation

To immediately connect to a pre-assigned extension or speed dial number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Automatically connected to pre-assigned extension or speed dial number

Hardware Requirements

- N/A

Related Programming

- FF5-5: Hot Line

Considerations

- N/A

Intercom Calling

Description

The System provides two methods of intercom calling:

- **Voice Calling:** Extension calls are connected immediately, without a ringing tone.
- **Tone Calling:** A ringing tone is sent to the called extension.

Extension Class of Service (COS) programming determines whether the default for the originating extension is voice or tone calling. Regardless of the default, you can toggle between voice or tone calling by entering the Tone-Voice Call feature code. For example, if the extension default is tone calling, you can make a voice call to another extension by entering the Tone-Voice Call feature access code.

Operation

To make a call using Intercom Calling:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	
3. If your extension is set for tone calling and you want to make a voice call, enter **1**. Or, if your extension is set for voice call and you want to make a tone call, enter **1**.	
4. Speak when your call is answered	
5. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Intercom Calling Type)
- FF1-0-03: Extension COS (Voice Call Send)
- FF1-0-03: Extension COS (Voice Call Receive)
- FF3: Extension COS

Considerations

- Both the called and calling parties must belong to an Extension COS that allows Voice Calling.
- You cannot change from voice call to tone call.

Last Number Redial

Description

Last Number Redial allows you to automatically redial the last number dialed by pressing the **REDIAL** key.

Operation

To automatically redial the last number dialed:

Action	Result
1. Lift the handset or press the **ON/OFF** key. **OR...** Enter a trunk access code.	Outside dial tone (if trunk access code entered)
2. Press the **REDIAL** key.	
3. Complete the call and replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Intercom Redialing)
- FF3: Extension COS

Considerations

- Extension Class of Service (COS) determines whether Last Number Redial can be used for both intercom and CO calls, or CO calls only.

Message Waiting/Callback

Description

If you try to call an extension that is busy or does not answer, you can leave a message wait indication at that extension, requesting a return call.

Operation

To leave a message waiting indication:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial the extension number.	Ring or busy tone
3. While the telephone is still ringing, or when you hear the busy tone, enter the Message Wait Set code (default = **4**).	
4. Replace the handset or press the **ON/OFF** key.	**Message** lamp flashes at called extension

To answer a message waiting indication (callback):

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Message Wait Callback code (default = ***6**).	• Telephone automatically dials extension that sent message waiting indication • **Message** lamp goes off when your call is answered

To cancel a Callback Message:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Callback Request Cancel code (default = ***5**).	
3. Replace the handset or press the **ON/OFF** key.	**Message** lamp goes off

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Message Wait set/Cancel)
- FF1-0-03: Extension COS (Priority Message Wait set/Cancel)
- FF1-2: Dial Plan
- FF3: Extension COS

Considerations

- The System has priority message waiting for 3rd-party Voice Mail. See “Third-Party Voice Mail Support” on page 3-59.

Offhook Signaling

Description

Offhook Signaling sends a tone to a busy extension to indicate that another CO call has arrived or a call is camped on.

Operation

After receiving an offhook signal during a call:

Action	Result
1. Press the **HOLD** key.	
2. Press the flashing FF key for the CO line of the incoming call.	

Note: For details about handling multiple calls, see “Call Hold” on page 6-15.

Hardware Requirements

- N/A

Related Programming

- FF3: CO Off-Hook Signal.

Considerations

- The CO call type may be either multiple ring, direct, or camp-on.
- The system does not send the offhook signal under the following conditions:
  - During a conference call
  - During an OHVA or Busy override
  - Data Privacy is enabled
  - the receiving telephone is a 3rd party voice mail.

Offhook Voice Announce

Description

You can interrupt a busy extension when making an Intercom Call, and then use the Off-Hook Voice Announce (OHVA) feature to make an announcement that only the called party can hear. You can also transfer a held call to a busy extension after making the announcement using this feature.

To make an OHVA:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	
2. Dial the extension number.	Busy signal
3. Enter the OHVA feature access code (default = **8**).	
4. Make your announcement	

To transfer a call using OHVA:

Action	Result
1. While on a call, press the **HOLD** key.	Current call on hold
2. Dial the extension number to which the call is being transferred.	Busy signal
3. Enter OHVA feature access code (default = **8**) and announce the call to be transferred.	
4. If transfer is: not accepted, press the **FLASH** key.	Transfer canceled
5. Replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1 0 03 (System): Extension COS OHVA Originate
- FF1 0 03 (System): Extension COS OHVA Receive
- FF3 (Extension): Extension COS Assignments
- FF4: FF Key Assignments

Considerations

- If Onhook Transfer is enabled, the held call is transferred as soon as the extension sending the OHVA hangs up.
- If the transferred call is not answered immediately, it will queue for a set time limit, then return to the extension sending the OHVA by Transfer Recall Timer.
- You cannot receive a Call Waiting message during an OHVA.
- If you make an OHVA to an SLT, the SLT user and the other party will hear the announcement.

Onhook Dialing

Description

Onhook Dialing allows users to dial without lifting the handset. However, the Digital Single Line Telephone (DSLT) does not have a microphone so you must lift the handset to talk.

Operation

To use onhook dialing:

Action	Result
1. Press the **ON/OFF** key.	Intercom dial tone
2. Enter a trunk access code, or dial an extension number.	

Action	Result
3. If you entered a trunk access code in step 2, dial the phone number. Otherwise, proceed to step 4.	
4. When the call is answered, lift the handset to talk.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Paging

Description

The System allows you to make both internal and external pages and announcements. Internal pages are made via the System's key telephone speakers. External pages are made through the speakers of an external paging system connected to the System.

Paging calls can be answered from any extension using the Meet-Me Answer feature.

Operation

To make a page:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Group Paging code (default = #).	
3. Enter the number of the desired paging group (**0-9**).	
4. Make your announcement.	
5. Replace the handset or press the **ON/OFF** key.	

Meet-Me Answer

To answer a page using Meet-Me Answer:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Meet Me Answer code (default = ##).	Connected to specified party

Hardware Requirements

- External relays, amplifier, and speakers are required for external paging.

Related Programming

- FF1-0-02: Paging Override
- FF1-0-03: Extension COS (Paging)
- FF1-0-04: Trunk COS (Paging)
- FF1-2: Dial Plan
- FF2: Trunk COS
- FF3: Extension COS

Considerations

- If an external paging system has been connected, pages can be made to paging groups **0**-**9** through the external speakers. Voice paging can also be heard over the extensions in groups **0**-**9**.
- An extension can belong to more than one paging group.
- Only one page may be performed at a time. If you attempt to make a page while another extension is paging, you will receive a busy signal.
- Beginning with Version 3.5 and higher, the paging system can be set to "timeout" if a page remains unanswered for a specified length of time (0 to 255 seconds). If this feature is set and the timeout period has elapsed, the page originator's handset will emit a Fast Busy Tone.

Reset Call

Description

If you dial a busy extension, the System allows you to quickly dial another extension by simply pressing the last digit of the new extension number.

Operation

To use Reset Call to dial another extension (after a busy extension):

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Dial an extension number.	Busy tone
3. Dial the last digit of the next extension number.	

Example: You dial extension 213, but it is busy. To dial extension 214, enter **4**.

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan

Considerations

- The second extension called using the Reset Call feature must have the same number of digits as the first extension.
- If you program the System for Reset Call, the following features are not available: Camp-on (Ext. no. + 2), Callback Request (Ext. no. + 3), Message Waiting (Ext. no. + 4, Ext. no. + 5), Intercom Busy Override (Ext. no. + 9).

Room Monitoring

Version 3.5 and higher

Description

This feature allows the user to monitor the sounds in a room from another extension or room. The transmitter in the telephone handset is used as a remote "microphone" for monitoring these sounds.

To activate this feature, the monitored extension must enable the Room Monitor feature before the monitoring extension can listen to the sounds in the room. The monitored extension can be enabled using an SLT, DSLT, or Key Telephone. No special programming is required to allow an extension to enable the monitored mode.

Operation

To set up the monitored extension:

Action	Result
1. Dial the monitored extension access code (**default 775**), **OR...** **Note:** The handset must be off-hook to activate the Room Monitor feature.	You will hear a confirmation tone after the monitored extension has enabled the Room Monitor feature. (If the monitored extension has an LCD display, a confirmation message will also be shown.)
Press an FF key assigned with the monitored access code	

When a monitored extension receives a call, the caller hears a busy tone. Additional operations may be performed from the monitored extension when it is in monitored mode:

Action	Result
1. Placing the handset back On Hook or pressing ON/OFF	Monitored mode is cancelled. Extension returns to idle.
2. Pressing digits 0-9, *, #, HOLD, PROG, CONF, AUTO, REDIAL, MSG, FF Key,	No response is given. Extension remains in monitored mode.
3. Flash	Monitored mode is cancelled. Dial tone is returned to handset.

To set up the monitoring extension:

Action	Result
1. Dial the monitoring extension access code (**default 776**) and the extension number of the monitored extension, **OR...**	The monitoring extension enters the monitoring mode. (If the monitored extension has an LCD display, a confirmation message will also be shown.)
Press an FF key assigned the monitored access code and the extension number of the monitored extension, **OR...**	
While the handset is on-hook, press an FF key assigned to the Room Monitor followed by the monitored extension number.	The monitoring extension will automatically enter the monitoring mode.

The monitoring operation can be allowed or denied by extension COS and is controlled by the Busy Override feature. If Busy Override is denied and the user attempts to monitor an extension, the user will hear a fast busy tone.

Additional operations may be performed from the monitoring extension when it is in monitoring mode:

Action	Result
1. Placing the handset back On Hook or pressing ON/OFF	Monitoring mode is cancelled. Extension returns to idle.
2. Pressing digits 0-9, *, #, HOLD, PROG, CONF, AUTO, MSG, FF Key	No response is given. Extension remains in monitoring mode.
3. Flash	Monitoring mode is cancelled. Dial tone is returned to handset.

Services available on the monitoring extension while the Room Monitoring feature is active:

- Camp On
- Call Back
- Message displayed on LCD when extension is busy
- Message Waiting On/Off
- Cancellation of DND and Call Forwarding by another extension
- Busy Transfer
- DIL Incoming Call (Queuing)

Services **NOT** available to either the monitored or monitoring extension when this feature is active:

- Busy Override
- On-Hook VA
- The ability to receive a text message
- Silent Monitor

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Allow/deny Busy Override Send—Monitoring extension)
- FF1-2-02: Dial Plan at DT Pattern 1
- FF1-2-03: Dial Plan at DT Pattern 2

Considerations

- Be sure all phones that should NOT be allowed to monitor have a COS that restricts monitoring.
- If the monitored extension is placed on-hook while Room Monitoring is activated, the monitoring extension will hear a fast busy tone.
- If the monitoring extension goes on-hook while Room Monitoring is activated, the monitored extension will remain in the monitored mode, and can be accessed by any other extension allowed to access the room monitoring mode.
- A room cannot be monitored from more than one extension at a time. If an attempt is made to monitor an extension while the extension is being monitored, the user will hear a fast busy tone.
- ISDN (s-point) extensions cannot access the Room Monitor feature in either the monitor or monitored modes.
- A monitoring extension cannot forward a call on hold to a monitored extension.
- A monitored extension cannot receive a transferred call.
- If DND is enabled on either the monitoring or monitored extension, DND status is displayed on the calling extension's telephone.
- If the monitoring or monitored extension has an absence message set, the absence message will be displayed on the calling extension's telephone.

Speed Dialing

Description

The System supports the following speed dial features:

- Personal Speed Dial (PSD)
- System Speed Dial (SSD)
- Speed Dial Linking
- Speed Dial Name Assignment

Personal Speed Dial

You can store frequently called numbers using the PSD feature. Up to 20 PSD numbers can be stored in PSD bins numbered **80-99**.

Operation

To assign PSD numbers:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the PSD bin number (**80-99**).	
4. Dial the phone number.	
5. Press the **HOLD** key.	
6. Replace the handset or press the **ON/OFF** key.	

To dial a PSD number by entering the speed dial bin number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. If necessary, access an outside line.	Outside dial tone
3. Press the **AUTO** key. **OR...** Enter the Speed Dial Originate code (default = **80**).	
4. Enter the PSD bin number (**80-99**).	
5. Complete the call and replace the handset or press the **ON/OFF** key.	

To delete a PSD number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the PSD bin number (**80-99**).	
4. Press the **HOLD** key.	
5. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF8-1: PSD Numbers
- FF8-1: PSD Names

Considerations

- Storing a new number erases any previously stored data.
- Speed Dial numbers can contain up to 24 characters. The following table reflects which keys to use.

To indicate . . .	Enter/Press
Digit or character	**0**, **1 - 9**, *, #
Intercom Level *	**AUTO * #**
MCO Code **	**AUTO * 0**
Pause	**REDIAL**
DP - DTMF Code	**AUTO * ***
SSD Code	**AUTO NN(N)**

To indicate . . .	Enter/Press
Hyphen (-)	**PROG**
DTMF Conversion After the Other Party Answers	**AUTO * 3**

* Indicates that the digits that follow are either a feature access code or an extension number. (Not needed if your System is set for Intercom Level.) See **Note** below.

** Indicates that the digits that follow are for an outside number and the System should seize the next available trunk when dialing. (Not needed if your System is set for CO Level.) See **Note** below.

Note: The System has two levels - CO Level and Intercom Level. If set at CO Level (default), you must enter the code for Intercom Level when programming a feature access code or extension number for speed dialing. If the System is set at Intercom Level, you must enter the MCO Code when programming an outside number for speed dialing.

System Speed Dial

You can store frequently called numbers using the SSD feature. Either 80 or 800 SSD numbers can be programmed, depending on how the System is configured. In an 80 SSD-number system, the SSD numbers are stored in bins **00-79**. In 800 SSD-number systems, the SSD numbers are stored in bins **000-799**.

Operation

To assign SSD numbers:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the SSD bin number (**00-79** or **000-799**).	
4. Dial the phone number.	
5. Press the **HOLD** key.	
6. Replace the handset or press the **ON/OFF** key.	

To dial an SSD number by entering the speed dial bin number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. If necessary, access an outside line.	Outside dial tone
3. Press the **AUTO** key. **OR...** Enter the Speed Dial Originate code (default = **80**).	

Action	Result
4. Enter the SSD bin number (**00**-**79** or **000**-**799**).	
5. Complete call and replace the handset or press the **ON/OFF** key.	

To delete an SSD number:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the SSD bin number (**00**-**79** or -**799**).	
4. Press the **HOLD** key.	
5. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-15, 16, & 17 SSD Blocks
- FF1-0-02 SSD Digits
- FF1-0-03 Extension COS (SSD Assignment)
- FF8-1-02: SSD Number
- FF8-1-02: SSD Name

Considerations

- The system can be programmed to allow SSD Numbers to override toll restrictions.

Speed Dial Linking

You can automatically link together up to 5 SSD numbers in 1 PSD bin to handle telephone numbers longer than 24 characters. You can then dial the entire number by pressing the programmed PSD key or by entering the speed dial bin number.

Alternatively, any combination of PSDs and SSDs can be manually linked together by pressing the keys in the desired sequence. This can be useful for prepending account codes or long distance carrier access codes, etc.

Note: Before linking multiple SSD numbers to a PSD bin, the SSD bins must already have been programmed with the appropriate speed dial information.

Operation

To link multiple SSD numbers to a PSD bin:

Action	Result
1. Determine the SSD bin numbers to be linked	
2. Lift the handset or press the **ON/OFF** key.	
3. Enter the Speed Dial Set/Clear code (default = **710**).	
4. Enter the PSD bin number (**80-99**).	
5. Press the **AUTO** key.	
6. Enter the SSD bin number (**00-79** or **000-799**) that contains the first part of the number to be called.	
7. Repeat steps 5-6 up to 5 more times for all additional SSDs to be dialed.	
8. Press the **HOLD** key when finished.	

To use a PSD that links multiple SSDs:

Action	Result
1. If necessary, select the trunk group (**9**, **81-8**). (Normally the trunk is selected by the speed dial numbers.)	
2. Press the **AUTO** key.	
3. Enter the PSD bin number (**80-99**).	

To manually link speed dials together:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. If necessary, access an outside line.	Outside dial tone
3. Press the **AUTO** key, then enter the PSD or SSD bin number.	
4. Press the **AUTO** key and enter the PSD or SSD codes to dial the parts of the phone number until it is completed.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Station Lockout

Description

Use the Station Lockout feature to limit use of your phone by others when you are away from your telephone. When the Station Lockout feature is in use, the TRS Class of your telephone is changed. Anyone using your telephone is limited to the calling abilities defined by this Lockout TRS Class.

In addition, with the appropriate COS, you can set or cancel Station Lockout for other telephones.

To activate Station Lockout feature:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Station Lockout feature code (default = **746**).	
3. Replace the handset.	

To cancel Station Lockout feature:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Station Lockout Cancel feature code (default = **746**).	
3. Enter the Walking TRS/Station Lockout security code.	
4. Replace the handset.	

To activate Station Lockout feature for another extension:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Station Lockout for another extension feature code (default = **747**).	
3. Dial the extension number to activate station lockout.	
4. Replace the handset.	

To cancel Station Lockout feature for another extension:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Station Lockout Cancel for another extension feature code (default = **748**).	
3. Dial the extension number to activate station lockout.	

Action	Result
4. Enter the Walking TRS/Station Lockout security code.	
5. Replace the handset.	

To change the Walking TRS/Station Lockout security code:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Station Lockout Security Code Change code (default = **749**).	
3. Enter the current Walking TRS/Station Lockout security code.	
4. Enter the new Walking TRS/Station Lockout security code.	
5. Replace the handset.	

Related Programming

- FF1-0-03: Extension COS (Station Lockout Enable/Disable)
- FF1-0-03: Extension COS (Station Lockout for another Extension Enable/Disable)
- FF1-2-02: Feature Codes (Station Lockout Code)
- FF1-2-02: Feature Codes (Station Lockout other Extensions Code)
- FF1-2-02: Feature Codes (Station Lockout Cancel other Extensions Code)
- FF1-2-02: Feature Codes (Walking TRS/Station Lockout Security Code Changing Code)
- FF1-0-19: TRS Class Under Station Lockout
- FF8-1-08: Walking TRS/Station Lockout Security Code

Considerations

- Walking TRS and Station Lockout use the same security code.
- You cannot override station lockout using Walking TRS feature.
- If you enter an incorrect key code and then try to dial, the phone will issue a busy tone.
- If station lockout is set, the phone is limited to the Station Lockout TRS Class outside calling abilities. This TRS Class should be carefully selected to only allow the desired call types.
- Without Walking TRS/Station Lockout Security Code, you cannot set the Station Lockout feature.

Timed Reminder Call

Description

Your telephone can act as an alarm clock with the Timed Reminder Call feature.

Operation

To set the Timed Reminder Call feature:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Timed Reminder Set code (default = ***31**).	
3. Enter the time you want the Timed Reminder Call to sound. (Enter the time in 24-hour format. For example, **0100** for 1 AM, **1300** for 1 PM.)	
4. Replace the handset or press the **ON/OFF** key.	

To cancel the Timed Reminder Call feature:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the Timed Reminder Cancel code (default = ***39**).	
3. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- An alarm tone (default = 60 seconds) will be issued at the specified time.
- An extension can have only one Reminder Call set at a time.
- To change the Reminder Call, simply enter a new time.
- If the extension is in use when the reminder call is scheduled, the reminder call is issued 3 minutes later.

Trunk Access

Description

The System supports the following ways to seize an idle trunk to make an outside call:

- Direct Trunk Access
- MCO Trunk Access

Direct Trunk Access

Extensions can seize a specific trunk for outgoing calls. Extensions can also use Direct Trunk Access to test trunks or to access data trunks.

Operation

To use Direct Trunk Access:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	
2. Enter the Direct Trunk Access code (default = **88**).	
3. Enter the desired trunk number.	Outside dial tone
4. Dial the phone number.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Direct Trunk Access)
- FF3: Extension COS

Considerations

- N/A

MCO Trunk Access

The System supports up to 5 MCO groups for each MCO tenant group. You can seize an idle trunk from the MCO trunk group by entering the MCO access code.

Operation

To seize an idle trunk:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the desired trunk access number (**9** or **81**-**84**). (See Table 2.)	Outside dial tone
3. Dial the phone number.	

Hardware Requirements

- N/A

Related Programming

- FF1: MCO Access
- FF1-2: Dial Plan
- FF5-2: MCO Trunk Group (Outbound)
- FF7: ARS/TRS

Considerations

- Each trunk group can support up to 50 outside lines.
- Each MCO Tenant Group can have up to 5 MCO trunk access codes. System defaults for MCO trunk access codes are displayed in the following table.
- MCO1 can have up to 5 trunk groups assigned by the Advanced Trunk Group feature.
- MCO1 access code is used for Automatic Route Selection (ARS) access code.

Table 2. MCO Trunk Access Codes

MCO Group	Trunk Access Code
MCO1	9
MCO2	81
MCO3	82
MCO4	83
MCO5	84

Trunk Queuing

Description

When you try to originate a call by MCO (enter **9**) and all outside lines in a trunk group are busy, the System can call you when a line becomes free. Simply pick up the handset and dial the telephone number when the Trunk Callback alert tone rings.

Operation

To set Trunk Queuing:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter a trunk access code (**9** or **81**-**84**).	Busy tone
3. Enter the Callback Request code (default = **3**.)	
4. Press the **ON/OFF** key.	
5. Wait for the Trunk Callback alert tone.	

To respond to the Trunk Callback alert tone:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Outside dial tone

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF1-0-03: Extension COS (Trunk Queuing)
- FF3: Extension COS

Considerations

- Response to the Trunk Callback must be within 15 seconds or Trunk Queuing will be canceled.
- The Trunk Queuing feature may also be used if you hear a busy tone when trying to make a call using the MCO Trunk Access feature.

Universal Night Answer to Page

Description

During night mode, Universal Night Answer (UNA) sends incoming calls for selected trunks to ring external paging speakers.

Universal Night Answer calls can be picked up from any extension, provided the extension's Class of Service allows UNA answer.

Operation

To answer a UNA call:

Action	Result
1. Lift the handset or press the **ON/OFF** key.	Intercom dial tone
2. Enter the UNA to Page Pickup code (default = **705**).	Call is received.

Related Programming

- FF2-0: Trunk Ring Assignments
- FF1-2: Dial Plan (UNA Pickup Code)
- FF1-0-03: Extension COS (UNA Pickup)
- FF3: Extension COS
- FF3: Extension (External Ring Extension Number)
- FF1-0-27: System (UNA Ringing Port by Tenant Group)

Hardware Requirements

- External paging speakers and associated equipment are not provided; they must be purchased separately.

Considerations

- The UNA Ringing port can be specified by the caller's tenant group or by the trunk ringing assignment.

Walking TRS Class of Service

Description

Walking Toll Restriction Service (TRS) Class of Service (COS) allows an extension user to "carry" his or her toll restrictions to another phone.

Before the Walking TRS COS feature can be used, a Walking TRS COS code must be entered at your extension before using dialing privileges at another extension.

Operation

To use a Walking TRS COS code:

Action	Result
1. Lift the handset or press the **ON/OFF** key of an extension other than your own.	Intercom dial tone
2. Enter the Walking TRS Access code (default = **87**).	
3. Dial your extension number.	
4. Enter your Walking TRS COS code (**0001-9999**)	
5. Enter a trunk access code (**9** or **81-84**)	
6. Dial the phone number.	Walking TRS COS remains in effect until you replace the handset.
7. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF8-1-08: Walking TRS COS Code

Considerations

- The same Walking TRS COS code can be used on more than one extension.
- Walking TRS Class of Service mode is kept until the user goes on-hook.
- ARS and TRS dialing privileges follow the Walking TRS COS.
- Before entering a new Walking TRS COS code, you must first clear the existing code.
- When Walking TRS COS is used, Wxxxx (where xxxx is the user's extension number) appears in SMDR.

Chapter 7. SLT Features

Single Line Telephones (SLTs) are industry-standard 2500 sets. SLTs are not equipped with feature keys or line keys, so basic telephone operations are performed by pressing dialpad keys and/or using the switchhook.

This chapter describes the following features that are available with SLTs.

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Absence Message

Description

Extension users can leave text messages related to their phones when they are away. When the unattended extension is dialed, the text message displays on the caller's phone. Any one of the following messages can be selected. Messages 5 to 9 have no default message text. All the messages can be changed through system programming.

Table 7-1. Absence Messages

Message No.	Message Text Displayed on Called Party's Key Telephone	Message No.	Message Text Displayed on Called Party's Key Telephone
0	In Meeting	5	Absence_No_5
1	At Lunch	6	Absence_No_6
2	Out of Office	7	Absence_No_7
3	Vacation	8	Absence_No_8
4	Another Office	9	Absence_No_9

Optionally, a return time can be input. Example Return Times for Absence Messages include:

Input	Display
No input	Return
9	Return 9:00
11	Return 11:00
615	Return 6:15
1035	Return 10:35

Operation

To set an Absence Message

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Absence Message code (default = **729**).	
3. Enter the Absence Message number. (See Table 1 above.)	
4. If desired, enter the 4-digit returning time.	
5. Flash the hookswitch.	
6. Replace the handset.	

To cancel an Absence Message

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Absence Message code (default = **729**).	
3. Flash the hookswitch.	
4. Replace the handset.	

Related Programming

- FF1 (System): Extension Class of Service Setting
- FF3 (Extension): Extension Class of Service Assignment
- FF8 (Maintenance): Absence Messages

Considerations

- Calling parties without a display get a busy signal, rather than the Absence Message.
- Regardless of setting an Absence Message on a DID/DIL extension, DID/DIL calls are routed according to the trunk ringing setting.
- An absence message may also be cancelled by dialing **7****. This cancels Do Not Disturb and Call Forwarding-All Calls as well.

Account Codes

Description

You can assign account codes to clients to facilitate billing and to track call dates and times, numbers called, and outside line numbers used. This information is printed for each account on the System Message Detail Recording (SMDR) record.

In addition verified account codes may be used to change the TRS level to allow calls to numbers otherwise restricted.

Account codes may be either forced or unforced (voluntary) and either verified or unverified.

This feature works with Station Message Detail Recording (SMDR). Before making an outgoing call, a station user can silently enter an accounting or client billing code. Then later, the SMDR reports will show the Code dialed for each call, and even sort the report by these Codes.

There are two different types of account codes: Non-Verified and Verified Account Codes. Prior to Version 3.6, the maximum amount of account code numbers for both types could range from 1-10 digits. Beginning with Version 3.6, a second mode has been added that allows the user to set the maximum amount of account code numbers from 1-4 digits. An account code error will occur when more than the maximum number of digits are entered.

Non-Verified Account Codes

Non-Verified Codes aren't checked by the system for validity. Depending on the setting, the user can enter anything from 1-4 digits or 1-10 digits. Individual phones can be programmed to accept forced Account Codes (the user must enter a code for every call) or voluntary Account Codes (the user can enter a code, but doesn't have to, for each call).

Non-Verified Account Codes can be assigned to outgoing calls. The user either enters the Code before accessing an outside line (for forced or voluntary Codes).

Verified Account Codes

Verified Account Codes entered by phone users must match a 4-digit or 10-digit code that has been preprogrammed into an Account Code Table. Depending on the setting, the user can enter anything from 1-4 digits or 1-10 digits. These codes can also be either forced or voluntary. You can program these codes with their own Toll Restriction Service (TRS) Class assignment so that, when entered, they will override the extension's TRS Class. Thus, Verified Account Code users can "float" from phone to phone, placing calls that would normally be restricted on that phone.

Non-Verified Account Codes

Non-Verified Account codes are voluntary codes. (i.e., You do not have to enter an account code before making a call.)

You can assign Non-Verified Account codes to outgoing calls only. To assign an account code to an outgoing call, you enter the account code before making the call.

Operation

To enter an account code before making a call:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Account Code feature code (default = **8#**).	
3. Enter the Account Code (up to 10 digits).	
4. Press the # key.	
5. Enter a trunk access code.	
6. Dial the phone number.	

Verified Account Codes

Stations restricted from outside call origination by Toll Restriction Service (TRS) can be allowed to make outgoing calls by entering a Verified Account code that changes the TRS. After a call is made, the SMDR record for the call will show the verified account code.

Operation

To make an outside call that requires an account code:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Verified Account ID code (default = **8#**).	
3. Enter the Account Code (max. 10 digits).	
4. Press the # key.	

Action	Result
5. Enter a trunk access code.	
6. Dial the phone number.	

Hardware Requirements

- An SMDR printer or external call accounting system is required to collect account code records.

Related Programming

- FF1-0-19: TRS Class for Forced Account Code
- FF1-2: Dial Plan
- FF3: Forced Account
- FF3: Verified Account
- FF8-1-04: Verified Account Codes with TRS Class

Considerations

- Even though up to 10 digits may be entered, the system verifies the ID based on the first 4 digits only.
- Account codes will be cancelled after using CO queuing.-
- Account codes are not available for a Dial Pulse SLT.
- SLT telephones can only use account codes with outgoing calls only.
- Account Codes interact with TRS as shown in the following table:

Forced or Not Forced	Verified or Non-Verified	TRS Class	
		No Account Entry	Account Entry
Not Forced	Non-Verified	Extension Port Based TRS Class	Extension Port Based TRS Class
	Verified		Account Code Based TRS Class
Forced	Non-Verified	TRS Class for Forced Account Code (FF1 0 19 0001)	Extension Port Based TRS Class
	Verified		Account Code Based TRS Class

- FF1-0-19: TRS Class for Verified Account Code
- FF1-2: Dial Plan
- FF8-1-04: Verified Account Codes

Considerations

- N/A

Attendant Group Calls

Description

You can call the attendant group from any extension by dialing the designated attendant number.

Operation

To call an attendant group:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the attendant pilot number (default = **0**).	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF3-0: Extension Number
- FF5-0: Attendant Hunt Groups

Considerations

- Up to 20 extensions can be included in an attendant group.
- The attendant pilot number is flexible.
- If a member of an attendant group is for a virtual extension, multiple extensions in the attendant group can be made to ring at once when the virtual number is dialed.
- Attendant calls are always tone calls (i.e., not voice calls).

Busy Override

Description

Busy Override allows you to break into another user's outside or intercom calls to relay urgent information or to create three-party conference calls.

Operation

To set Extension Busy Override:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the extension number.	Busy tone
3. Enter the Busy Override code (default = **9**).	• Alert tone sounds to both extensions (System programming required) • Connection to both parties

Hardware Requirements

- N/A

Related Programming

- FF1-0-01: Splash Tone (Busy Override)
- FF1-0-03: Extension COS (Manual DND Override Send)
- FF1-0-03: Extension COS (Forced DND Override)
- FF1-2: Dial Plan
- FF3: Extension COS
- FF3: Data Security

Considerations

- You cannot break in on three-party conference calls.
- The default for the override alert tone is **off**. If the override alert tone is enabled, the tone will be sent to both parties when a call is overridden.

Callback Request

Description

If you dial a busy extension, you can have the System call you back when that extension becomes free. When you answer, the System automatically rings the called party again.

Operation

To set a Callback Request:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the extension number.	Busy tone
3. Enter the Callback Request code (default = **3**).	Ringback tone
4. Replace the handset after you hear the ringback tone.	System calls back when called extension becomes free

To respond to the Callback Request:

Action	Result
1. Lift the handset.	System automatically redials extension

To cancel a Callback Request:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the Callback Cancel code (default = **769**).	
3. Replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Callback Request Send)
- FF1-0-03: Extension COS (Callback Request Receive)
- FF3-0: Extension COS
- FF1-2-03: Dial Plan (Callback Cancel)

Considerations

- N/A

Call Forwarding

Description

Call Forwarding allows you to send your calls to another extension, to an outside line, or to voice mail. Call Forwarding can be set or canceled under the following conditions from either your own extension or from an alternate extension:

- Call Forwarding - All Calls
- Call Forwarding - Busy
- Call Forwarding - No Answer

Call Forwarding-All Calls

When Call Forwarding - All Calls is set, all incoming calls to an extension are immediately forwarded.

Operation

To set Call Forwarding-All Calls:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **721**. • For another extension, enter **741**.	

Action	Result
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you wish to forward.	
4. Enter the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For instructions, see "Speed Dialing" on page 276.)	
5. Replace the handset.	

To cancel Call Forwarding-All Calls:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: • For your extension, enter **731**. • For another extension, enter **751**.	
3. If canceling Call Forwarding for another extension, enter the extension number.	
4. Replace the handset.	

Call Forwarding - Busy

When Call Forwarding - Busy is set, all incoming calls to a busy extension are forwarded.

To set Call Forwarding - Busy:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **722**. • For another extension, enter **742**.	
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you want to forward.	

Action	Result
4. Enter the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For instructions, see "Speed Dialing" on page 276.)	
5. Replace the handset.	

To cancel Call Forwarding - Busy:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: • For your extension, enter **732**. • For another extension, enter **752**.	
3. If canceling Call Forwarding for another extension, dial the extension number.	
4. Replace the handset.	

Call Forwarding - No Answer

When Call Forwarding - No Answer is set, a call will ring until the Call forward No Answer timer expires. When the timer expires, the unanswered call is forwarded.

To set Call Forwarding - No Answer:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the appropriate Set Call Forwarding code: • For your extension, enter **723**. • For another extension, enter **743**.	
3. If setting Call Forwarding for another extension, dial the number of the extension whose calls you wish to forward.	

Action	Result
4. Dial the destination number: • If forwarding to another extension, dial the extension number. • If forwarding to an outside number, press the # key then enter the SSD bin number. **Note:** Any outside number used for Call Forwarding must already be programed into speed dialing. (For instructions, see "Speed Dialing" on page 276.)	
5. Replace the handset.	

To cancel Call Forwarding - No Answer:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the appropriate Cancel Call Forwarding code: • For your extension, enter **733**. • For another extension, enter **753**.	
3. If canceling Call Forwarding for another extension, dial the extension number.	
4. Replace the handset.	

Call Forwarding and Do-Not-Disturb

The System allows you to cancel both Call Forwarding and Do-Not-Disturb (DND) for your own extension in one step.

To cancel Call Forwarding and DND:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the CF/DND All Clear code (default = **7****).	
3. Replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Call Forward/All Calls)
- FF1-0-03: Extension COS (Call Forward/Busy)
- FF1-0-03: Extension COS (Call Forward/No Answer)
- FF1-0-03: Extension COS (Call Forward/Other)

- FF1-2: Dial Plan
- FF3-0: Extension COS Assignment

Considerations

- Calls cannot be forwarded to an extension that already has Call Forwarding or DND activated. For example, extension 220 can only forward to extension 225 if 225 is not forwarded.
- Call Forwarding - Busy and Call Forwarding - No Answer can both be set at the same time.
- You can cancel both Call Forwarding and DND by entering **7 * *.**
- An auto camp-on to a busy extension will forward to the Call Forward No Answer destination. A manual camp-on to a busy extension will not forward.
- If Call Forwarding No Answer and DND are both set, calls immediately forward to the Call Forward No Answer destination.

Call Hold

Description

The system provides the following types of Call Hold:

- System Hold
- Floating Hold (Retrieve Only)
- Exclusive Hold
- Broker's Hold
- Call Park (Station)

System Hold

You can place either an outside or intercom call on System Hold. You can retrieve a call placed on System Hold from any extension that has a line appearance for the held call.

Operation

To place a call on System Hold:

Action	Result
1. While on a call, hookflash.	Intercom dial tone

To retrieve a call placed on System Hold:

Action	Result
1. If onhook, go offhook.	Intercom dial tone
2. Hookflash.	Retrieve call

To retrieve a held call on a specific trunk:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Specified Trunk Answer code (default = ***0**).	
3. Enter the trunk number.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Hookflash Operation for SLT)
- FF3-0: Extension COS

Considerations

- N/A

Floating Hold (Retrieve Only)

Floating Hold allows calls to be placed in a hold orbit (position) for retrieval elsewhere in the system. Floating Hold is most commonly used by the attendant group when they are unable to locate the desired party. If the desired party does not answer his/her phone, the attendant places the caller on Floating Hold and asks over the paging system that the desired party dial ***9XXX** to retrieve the held call.

Note: Single Line Telephone (SLT) positions are not able to place a call on Floating Hold. However, an SLT can retrieve a call on floating.

To retrieve a call from Floating Hold:

Action	Result
1. Lift the handset.	
2. Enter ***9** followed by the Floating Hold Orbit number **01-96** (CPC-96/HS/HM) or **01-09** (CPC-96/HS/HM) (See considerations below.)	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF1-0-02: Dial Control for Floating Hold Answer.

Considerations

- The number of floating hold orbits available may very depending on the Station Park /Floating Hold Pickup setting (FF1-0-02-0005). The floating hold pickup access code can set to ***9** (default). The "***9**" access code operates as follows:

System Size	Virtual Line Number and Operation
96	01-09 Floating Hold pick up 10-96: For Station Park Hold pick up purpose

Exclusive Hold

With Exclusive Hold, only the extension that held the call can retrieve it. Exclusive Hold can be used to hold CO calls and extension calls.

Operation

To place a call on Exclusive Hold:

Action	Result
1. While on a call, hookflash.	Intercom dial tone

To retrieve a call from Exclusive Hold:

Action	Result
1. If onhook, lift the handset.	
2. Hookflash.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Hookflash Control on SLTs)

Considerations

- Intercom calls will be held as Exclusive.

Broker's Hold

Broker's Hold allows you to toggle between the current call and the last held call by hookflash.

Operation

To place a call on Broker's Hold:

Action	Result
1. Pick up the first call.	
2. Hookflash.	First call on hold
3. Pick up the second call.	
4. Hookflash.	Second call on hold, first call retrieved

Hardware Requirements

- N/A

Related Programming

- F1-0-03: Extension COS (Hookflash Control on SLTs - Broker's Hold or Conference)
- FF3: Extension COS

Considerations

- If Broker's Hold is enabled, it is not possible to establish a conference call from an SLT position.

Call Park

You can use the Call Park function to transfer a call, even if you cannot locate the intended recipient of the call.

CO, Extension, and Network calls may be parked.

There are two ways for an extension to park a call. One way is to park the call at the receiving extension and to retrieve the parked call at another extension by dialing the park answer code plus the parking extension number. The other way is to park the call at another extension and dial the park transfer answer code at the other extension to retrieve the call. Beginning with Version 3.6, an Extension Group Pickup code allows the user to pick up a Transfer Recall (only on non-appearing calls), a Hold Recall, and a Station Park Recall.

Operation

To park a call on this extension:

Action	Result
1. While on a call, press the hookswitch..	• Intercom dial tone
2. Enter the Station Call Park code (default = **771**).	
3. If necessary, page the party that needs to retrieve the call.	

To retrieve a call parked at the originating extension from another extension:

Action	Result
1. Lift the handset	Intercom dial tone
2. Enter the Station Call Park Answer/Other Ext. code (default = **773**). **OR...** Enter the Station Call Park/Floating Hold Answer code (default = ***9**).	
3. Dial the number of the extension that parked the call.	• Connected to parked call

To park a call at another extension:

Action	Result
1. While on a call, press the hookswitch.	• Intercom dial tone
2. Enter the Station Call Park Transfer code (default = **774**).	
3. Dial the extension number to receive the parked call.	
4. If necessary, page the party that needs to retrieve the call.	

To retrieve a transferred call park:

Action	Result
1. At the extension with the transferred park call, lift the handset.	Intercom dial tone
2. Enter the Station Call Park Answer/Own code (default = **772**).	• Connected to parked call

Hardware Requirements

- N/A

Related Programming

- FF1 (System): Extension Park Hold Recall Timer
- FF1-0-02: Dial Control for Floating Hold Answer

Considerations

- You cannot park more than one call at a time.
- If two calls are on hold and the last call is parked, the other call is then considered the last held call. If a transfer is performed, the remaining held call would be the call transferred, not the parked call.

Call Pickup

Description

The System allows the following types of call pickup:

- Extension Group Pickup
- Extension Direct Pickup
- Trunk Group Pickup
- Trunk Direct Pickup

Extension Group Pickup

Extension Group Pickup allows you to pick up a direct ringing call (within your extension pickup group or in a different pickup group) without having to dial the number of the ringing extension.

Three types of Extension Group Pickup are available:

- **Call Pickup - All Calls:** You can pick up a call ringing anywhere within your own extension group.
- **Call Pickup - External Calls:** You can pick up only external calls ringing within your own extension group.
- **Specified Group Pickup:** You can pick up a call ringing to an extension in another extension group.

Operation

To use Extension Group Pickup - All Calls:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Extension Group Pickup - All Calls code (default = **701**).	
3. Complete the call and replace the handset.	

To use Extension Group Pickup - External Calls:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Extension Group Pickup - External Calls code (default = **702**).	
3. Complete the call and replace the handset.	

To use Specified Group Pickup:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Specified Group Pickup code (default = **703**).	
3. Enter the number of the call pickup group (**01**-**72**) where the call is ringing.	
4. Complete the call and replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-02: Intercom Voice Call Pickup
- FF1-2: Dial Plan
- FF3: Call Pickup Group Assignment

Considerations

- Extension Group Pickup - 12/cabinet; maximum of 20/group

Extension Direct Pickup

Extension Direct Pickup allows you to answer a call to another extension by dialing the number of the ringing extension.

Operation

To use Extension Direct Pickup:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Extension Direct Call Pickup code (default = **704**).	
3. Dial the number of the ringing extension.	
4. Complete the call and replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-02: Intercom Voice Call Pickup
- FF1-2: Dial Plan

Considerations

- N/A

Trunk Group Pickup

Trunk Group Pickup allows you to answer calls ringing to any extension within your own MCO incoming trunk group.

Operation

To use Trunk Group Pickup:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Trunk Group Pickup code (default = **709**).	
3. Complete the call and replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF5-3: MCO Inbound Trunk Group Members

Considerations

- N/A

Trunk Direct Pickup

Trunk Direct Pickup allows you to answer calls ringing on a specific trunk number.

Operation

To use Trunk Direct Pickup:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Trunk Direct Pickup code (default = ***0**).	
3. Dial the number of the ringing or holding (system) trunk.	
4. Complete the call and replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan

Considerations

- Calls on exclusive hold cannot be picked up.

Call Transfer

Description

The System allows you to transfer calls to either another extension or to an outside number. The transferred calls can be either supervised or unsupervised. (You can also use the Camp-on feature to transfer a call to a busy extension.)

Supervised Transfer

When completing a supervised transfer, the transferring party remains on the line until the third party answers, then he/she announces the call.

Operation

To supervise the transfer of a call to another extension:

Action	Result
1. While on a call, hookflash to place the call on hold.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. When the call is answered, inform the third party of the transfer.	
4. Complete the transfer by replacing the handset.	

To supervise the transfer of a call to an outside number:

Action	Result
1. While on a call, hookflash to place the call on hold.	Intercom dial tone
2. Enter a trunk access code.	
3. Dial the number to which the call is to be transferred.	
4. When the call is answered, inform the third party of the transfer.	
5. Complete the transfer by replacing the handset.	

Unsupervised Transfer

When completing an unsupervised transfer the transferring party hangs up before the third party answers.

Operation

To transfer a call to another extension without supervising the transfer:

Action	Result
1. While on a call, hookflash to place the call on hold.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. Complete the transfer by replacing the handset.	

To transfer a call to an outside number without supervising the transfer:

Action	Result
1. While on a call, hookflash to place the call on hold.	Intercom dial tone
2. Enter a trunk access code.	
3. Dial the number to which the call is to be transferred.	
4. Complete the transfer by replacing the handset.	

Camping a Call Onto a Busy Extension

Operation

To camp a call onto a busy extension:

Action	Result
1. While on a call, hookflash to place the call on hold.	Intercom dial tone
2. Dial the extension number to which the call is to be transferred.	
3. If your extension does not have Auto Camp-On activated, enter the Camp-On (Call Waiting) code (default = **2**).	Camp-on tone heard at called extension
4. Complete the transfer by replacing the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Onhook Transfer at Ringback)
- FF1-0-03: Extension COS (Onhook Transfer at Talk)
- FF1-0-03: Extension COS (Onhook Transfer at Camp-on)

Considerations

- On-Hook Transfer must be enabled for the transferring party's Extension Class of Service (COS).
- If the call is not answered by the third party before the Transfer Recall Timer expires, the call will recall to the transferring extension.
- If a Transfer Recall is not answered before the Recall Duration Timer expires, the call will revert to the Attendant group.
- If the called party does not exist, the call recalls to the transferring extension.
- You cannot transfer a call to an extension that has Do-Not-Disturb (DND) activated.
- You can transfer a call to an extension that has Call Forwarding activated. The transferred call will follow the call forwarding path of the extension it is transferred to. For example, if extension 221 is forwarded to extension 225, calls that are transferred to extension 221 will be forwarded to extension 225.
- Calls can be transferred from paging using supervised transfer.

Camp-On (Call Waiting)

Description

If you dial a busy extension, you can camp onto that extension and send a Call Waiting signal to the called party. The called party then needs only to replace the handset and pick it up again to be automatically connected to the new call. The called party can also place the first call on hold by Hookflashing and then answering the waiting call.

The System provides two types of call waiting:

- **Automatic Call Waiting:** You do not need to enter a code to send the Call Waiting signal. You need only to remain on the line.
- **Manual Call Waiting:** You must enter a code to send a Call Waiting signal to the busy extension.

Operation

To use Automatic Camp-on:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the extension number.	• Called party hears alert tone • Calling party hears ringback tone
3. Remain on the line until the called party answers.	

To use Manual Camp-on:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the extension number.	Busy tone
3. Enter the Camp-On (Call Waiting) code (default = **2**).	• Called party hears alert tone • Calling party hears ringback tone
4. Remain on the line until the called party answers.	

To answer a Camp-on (Call Waiting) signal:

Action	Result
1. Replace the handset.	
2. Lift the handset again to be connected to the waiting call. **OR....** Hookflash.	• Current call placed on hold • Connected to waiting call

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF1-0-03: Extension COS
- FF3: Extension COS

Considerations

- You can transfer an outside call to a busy extension using Camp-on. See “To camp a call onto a busy extension:” on page 266.

Conference Calls

Description

Conference Calls allow you to add another party to an existing conversation. With the standard system configuration, up to 3 parties can be included in a conference call at any time.

Note: The SLT does not support 8-party conference calling.

The system supports the following types of three-party conference calls:

- 3 extensions
- 3 extensions and 1 CO line
- 2 extensions and 2 CO lines

Operation

To establish a conference call:

Action	Result
1. While on a call, hookflash to place your current call on hold.	
2. If adding an outside party, dial a trunk access code.	• Outside dial tone
3. Dial the number of the party you wish to add to the call.	
4. Hookflash when your call is answered.	
5. To drop out of the conference call, hang up.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Unsupervised Conference Call)
- FF1-0-01: Splash Tone (3-party conference)
- FF3: Extension COS

Considerations

- If all the internal parties hang up, the conference call will be disconnected. If the internal party remains in the conversation, the conference call remains in progress.

Do-Not-Disturb (DND)

Description

You can make an extension unavailable by activating the Do-Not-Disturb (DND) feature. When DND is activated, calls to that extension receive busy tone.

You can set or cancel DND from either your extension or from an alternate extension.

Operation

To set DND for your own extension:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the DND Set code (default = **720**).	
3. Replace the handset.	

To cancel DND for your own extension:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the DND Cancel code (default = **720**).	**DND/CD LED** light goes off
3. Replace the handset.	

To set DND for another extension:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the DND Set by Other Phone code (default = **740**).	
3. Dial the extension number.	
4. Replace the handset.	

To cancel DND for another extension:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the DND Cancel by Other Phone code (default = **750**).	
3. Dial the extension number.	
4. Replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Manual DND Override Send)
- FF1-0-03: Extension COS (Forced DND Override)
- FF1-0-03: Extension COS (DND Set/Clear)
- FF1-0-03: Extension COS (DND Set/Clear Other)
- FF1-2: Dial Plan
- FF3-0: Extension COS

Considerations

- Forced DND override is available.
- DND override function is available by Busy Override code.

Flash Send

Description

Flash send allows you to send a flash to a CO line.

Operation

To send a flash on a CO line:

Action	Result
1. Hookflash to place the current CO call on hold.	Dial tone is returned
2. Enter the SLT Flash Send access code (default = **765**).	A flash is sent on the CO line. The CO line will respond according.

Related Programming

- FF1-2: Dial Plan
- FF5-5: Hot Line

Considerations

- N/A

Hot Line

Description

Hot Line enables you to immediately connect to another pre-assigned extension or speed dial number simply by lifting the handset. You do not have to dial any digits.

Operation

To immediately connect to a pre-assigned extension or speed dial number:

Action	Result
1. Lift the handset.	Automatically connected to pre-assigned extension or speed dial number

Related Programming

- FF1-2: Dial Plan
- FF5-5: Hot Line

Considerations

- N/A

Intercom Calling

Description

The System provides two methods of intercom calling:

- **Voice Calling:** Extension calls are connected immediately, without a ringing tone.
- **Tone Calling:** A ringing tone is sent to the called extension.

Extension Class of Service (COS) programming determines whether the default for the originating extension is voice or tone calling. Regardless of the default, you can toggle between voice or tone calling by entering the Tone-Voice Call feature code. For example, if the extension default is tone calling, you can make a voice call to another extension by entering the Tone-Voice Call feature access code.

Operation

To make a call using Intercom Calling:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the extension number.	
3. If your extension is set for tone calling and you want to make a voice call, enter **1**. Or, if your extension is set for voice call and you want to make a tone call, enter **1**.	
4. Speak when your call is answered	
5. Replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Intercom Calling Type)
- FF1-0-03: Extension COS (Voice Call Send)
- FF1-0-03: Extension COS (Voice Call Receive)
- FF3: Extension COS

Considerations

- Both the called and calling parties must belong to an Extension COS that allows Voice Calling.
- You cannot change from voice calling to tone calling.

Last Number Redial

Description

Last Number Redial allows you to automatically redial the last number dialed.

Operation

To automatically redial the last number dialed:

Action	Result
1. Lift the handset.	
2. Enter the SLT Redial code (default = **712**).	
3. Complete the call and replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Intercom Redialing)
- FF3: Extension COS

Considerations

- Extension Class of Service (COS) determines whether Last Number Redial can be used for both intercom and CO calls or CO calls only.

Message Waiting/Callback

Description

If you try to call an extension that is busy or does not answer, you can leave a message wait indication at that extension, requesting a return call.

Operation

To leave a message waiting indication:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the extension number.	Ring or busy tone
3. While the telephone is still ringing, or when you hear the busy tone, enter the Message Wait Set code (default = **4**).	
4. Replace the handset.	

To answer a message waiting indication (Callback):

Action	Result
1. Lift the handset.	Stutter dial tone
2. Enter the Message Wait Callback code (default = ***6**).	Telephone automatically dials extension that set Message Waiting Indication

To cancel a Callback Message:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Callback Request Cancel code (default = ***5**).	
3. Replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Message Wait set/cancel)
- FF1-0-03: Extension COS (Priority Message Wait set/cancel)
- FF1-2: Dial Plan
- FF3: Extension COS

Considerations

- The System has priority message waiting for 3rd-party voice mail. See “Voice Mail Integration (Third Party)” on page 69.

Offhook Signaling

Description

Offhook Signaling sends a tone over the handset to a busy extension to indicate that a CO call has arrived or a call is camped-on. Prior to Version 3.6, users receiving an offhook signal during a conversation had to end the call before answering an incoming call. Beginning with Version 3.6, users receiving an offhook signal during conversation can press and release the hook quickly (hookflash) to place the current call on hold and answer the incoming call.

After receiving an offhook signal during a call:

Action	Result
1. Complete the first call and place the handset on hook.	First call is terminated.
2. After the telephone rings, go off hook.	Incoming call is answered.

OR

Action	Result
1. Press and release the hook quickly (hookflash).	First call is placed on hold; incoming call connects.
2. Press and release the hook quickly to go back to the original call.	First call connects again.

NOTE: The steps outlined above can be performed only when the necessary settings have been programmed into the system.

Hardware Requirements

- N/A

Related Programming

- FF3: CO Off-Hook Signal
- FF1-1: Off-Hook Signal Timer

Considerations

- The CO call type may be either multiple ring, or DID/DIL whose destination is set to Auto camp-on (Call Waiting).
- Offhook signaling is not supported for an ISDN terminal.
- The System does not send the offhook signal under the following conditions:
  - During a conference call
  - During an OHVA or Busy override
  - Data Privacy is enabled
  - Receiving telephone is a 3rd party voice mail.

Offhook Voice Announce

Description

You can interrupt a busy extension when making an Intercom Call, and then use the Off-Hook Voice Announce (OHVA) feature to make an announcement.

Operation

To make an OHVA :

Action	Result
1. Lift the handset.	
2. Dial the extension number.	Busy signal
3. Enter the OHVA Access code (default = **8**).	
4. Make your announcement	

Hardware Requirements

- N/A

Related Programming

- FF1 0 03 (System): Extension COS OHVA Originate
- FF1 0 03 (System): Extension COS OHVA Receive
- FF3 (Extension): Extension COS Assignments
- FF4: FF Key Assignment

Considerations

- If On hook Transfer is enabled, the held call is transferred as soon as the extension sending the OHVA hangs up.
- You cannot receive a Call Waiting message during an OHVA.
- If you make an OHVA to an SLT, the SLT user and **the other party** will hear the announcement.

Paging

Description

The System allows you to make both internal and external pages and announcements. Internal pages are made via the System's key telephone speakers. External pages are made through the speakers of an external paging system connected to the System.

Paging calls can be answered from any extension using the Meet-Me Answer feature.

Operation

To make a page:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Group Paging code (default = #).	
3. Enter the number of the desired Paging group (**0-9**).	
4. Make your announcement.	
5. Replace the handset.	

Meet-Me Answer

To answer a page using Meet-Me Answer:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Meet Me Answer code (default = ##).	Connected to specified party

Hardware Requirements

- External relays, amplifier, and speakers are required for external paging.

Related Programming

- FF1-0-02: Paging Override
- FF1-0-03: Extension COS (Paging)
- FF1-0-04: Trunk COS (Paging)
- FF1-2: Dial Plan
- FF2: Trunk COS
- FF3: Extension COS

Considerations

- If an external paging system has been connected, pages can be made to Paging groups **0-9** through the external speakers. Voice paging can also be heard over the extensions in groups **0-9**.
- An extension can belong to more than one paging group.
- Only one page may be performed at a time. If you attempt to make a page while another extension is paging, you will receive a busy signal unless your system allows Paging Override.
- Beginning with Version 3.5 and higher, the paging system can be set to "timeout" if a page remains unanswered for a specified length of time (0 to 255 seconds). If this feature is set and the timeout period has elapsed, the page originator's handset will emit a Fast Busy Tone.

Reset Call

Description

If you dial a busy extension, the System allows you to quickly dial another extension by simply pressing the last digit of the new extension number.

Operation

To use Reset Call to dial another extension (after a busy extension):

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial an extension.	Busy tone
3. Enter the last digit of the next extension.	

Example: You dial extension 213, but it is busy. To dial extension 214, enter **4**.

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan

Considerations

- The second extension called using the Reset Call feature must have the same number of digits as the first extension.

Room Monitoring

Version 3.5 and higher

Description

This feature allows the user to monitor the sounds in a room from another extension or room. The transmitter in the telephone handset is used as a remote “microphone” for monitoring these sounds.

To activate this feature, the monitored extension must enable the Room Monitor feature before the monitoring extension can listen to the sounds in the room. The monitored extension can be enabled using an SLT, DSLT, or Key Telephone. No special programming is required to allow an extension to enable the monitored mode.

Operation

To set up the monitored extension:

Action	Result
1. Dial the monitored extension access code (**default 775**) **Note:** The handset must be off-hook to activate the Room Monitor feature.	You will hear a confirmation tone after the monitored extension has enabled the Room Monitor feature.

When a monitored extension receives a call, the caller hears a busy tone. Additional operations may be performed from the monitored extension when it is in monitored mode:

Action	Result
1. Placing the handset back on-hook	Monitored mode is cancelled. Extension returns to idle.
2. Pressing digits 0-9, *, #	No response is given. Extension remains in monitored mode.
3. Flash	Monitored mode is cancelled. Dial tone is returned to handset.

It is not possible to monitor an extension from an SLT telephone.

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Allow/deny Busy Override Send—Monitoring extension)
- FF1-2-02: Dial Plan at DT Pattern 1
- FF1-2-03: Dial Plan at DT Pattern 2

Considerations

- Be sure all phones that should NOT be allowed to monitor have a COS that restricts monitoring.
- If the monitored extension is placed on-hook while Room Monitoring is activated, the monitoring extension will hear a fast busy tone.
- If the monitoring extension goes on-hook while Room Monitoring is activated, the monitored extension will remain in the monitored mode, and can be accessed by any other extension allowed to access the room monitoring mode.
- A room cannot be monitored from more than one extension at a time. If an attempt is made to monitor an extension while the extension is being monitored, the user will hear a fast busy tone.
- ISDN (s-point) extensions cannot access the Room Monitor feature in either the monitor or monitored modes.
- A monitoring extension cannot forward a call on hold to a monitored extension.
- A monitored extension cannot receive a transferred call.

Speed Dialing

Description

The System supports the following speed dial features:

- Personal Speed Dial (PSD)
- System Speed Dial (SSD)
- Speed Dial Linking
- Speed Dial Name Assignment

Personal Speed Dial

You can store frequently called numbers using the PSD feature. Up to 20 PSD numbers can be stored in PSD bins numbered **80-99**.

Operation

To assign PSD numbers:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the PSD bin number (**80-99**).	
4. Dial the number.	
5. Hookflash.	
6. Replace the handset.	

To dial a PSD number by entering the speed dial bin number:

Action	Result
1. Lift the handset.	Intercom dial tone
2. If necessary, access an outside line.	Outside dial tone
3. Enter the Speed Dial Originate code (default = **80**).	
4. Enter the PSD bin number (**80-99**).	
5. Complete the call and replace the handset.	

To delete a PSD number:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the PSD bin number (**80-99**).	
4. Hookflash.	
5. Complete the call and replace the handset.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- Storing a new number erases any previously stored data.
- Speed Dial numbers can contain up to 24 characters.
- Single Line Telephone SLT can only enter **0**, **1-9**, *****, and **#**. If a pause, MCO code, intercom level, Dial Pulse (DP) - Dual Tone Multifrequency (DTMF) code, or SSD code needs to be programmed, use *User Maintenance* to program the speed dial.

System Speed Dial

You can store frequently called numbers using the SSD feature. Either 80 or 800 SSD numbers can be programmed, depending on how the System is configured. In an 80 SSD-number system, the SSD numbers are stored in bins **00-79**. In 800 SSD-number systems, the SSD numbers are stored in bins **000-799**.

Operation

To assign SSD numbers:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the SSD bin number (**00**-**79** or **000**-**799**).	
4. Dial the phone number.	
5. Hookflash.	
6. Replace the handset.	

To dial an SSD number by entering the speed dial bin number:

Action	Result
1. Lift the handset.	Intercom dial tone
2. If necessary, access an outside line.	Outside dial tone
3. Enter the Speed Dial Originate code (default = **80**).	
4. Enter the SSD bin number (**00**-**79** or **000**-**799**).	
5. Complete the call and replace the handset.	

To delete an SSD number:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Speed Dial Set/Clear code (default = **710**).	
3. Enter the SSD bin number (**00**-**79** or **000**-**799**).	
4. Hookflash.	
5. Replace the handset.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-15, 16, & 17 SSD Blocks
- FF1-0-02 SSD Digits
- FF1-0-03 Extension COS (SSD Assignment)
- FF8-1-02: SSD Number
- FF8-1-02: SSD Name

Considerations

- The system can be programmed to allow SSD Numbers to override toll restrictions.

Speed Dial Linking

You can automatically link together up to 6 SSD numbers in 1 PSD bin to handle telephone numbers longer than 24 characters.

Alternatively, any combination of PSDs and SSDs can be manually linked together by pressing the keys in the desired sequence. This can be useful for prepending account codes or long distance carrier access codes, etc.

Operation

To use a PSD that links multiple SSDs:

Action	Result
1. Lift the handset.	
1. If necessary, access an outside line.	Outside dial tone
2. Enter the Speed Dial Originate code (default = **80**).	
3. Enter the desired PSD bin number (**80**-**99**).	
4. Complete the call and replace the handset.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- N/A

Station Lockout

Description

Use the Station Lockout feature to limit use of your phone by others when you are away from your telephone. When the Station Lockout feature is in use, the TRS Class of your telephone is changed. Anyone using your telephone is limited to the calling abilities defined by this Lockout TRS Class.

In addition, with the appropriate COS, you can set or cancel Station Lockout for other telephones.

To activate Station Lockout feature:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the Station Lockout Set/Cancel (Own EXT) code (default = **746**).	
3. Replace the handset.	

To cancel Station Lockout feature:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the Station Lockout Set/Cancel (Own EXT) code (default = **746**).	
3. Dial the Walking TRS/Station Lockout security code.	
4. Replace the handset.	

To activate Station Lockout feature for another extension:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the Station Lockout Set (Other EXT) code (default = **747**).	
3. Dial the extension number to activate station lockout.	
4. Replace the handset.	

To cancel Station Lockout feature for another extension:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the Station Lockout Cancel (Other EXT) code (default = **748**).	
3. Dial the extension number to activate station lockout.	
4. Dial the Walking TRS/Station Lockout security code.	
5. Replace the handset.	

To change the Station Lockout security code:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Dial the Walking TRS/Station Lockout Security Code Change code (default = **749**).	
3. Dial the current Walking TRS/Station Lockout security code.	
4. Dial the new Walking TRS/Station Lockout security code.	
5. Replace the handset.	

Related Programming

- FF1-0-03: Extension COS (Station Lockout Enable/Disable)
- FF1-0-03: Extension COS (Station Lockout for another Extension Enable/Disable)
- FF1-2-02: Feature Codes (Station Lockout Code)
- FF1-2-02: Feature Codes (Station Lockout other Extensions Code)
- FF1-2-02: Feature Codes (Station Lockout Cancel other Extensions Code)
- FF1-2-02: Feature Codes (Walking TRS/Station Lockout Security Code Changing Code)
- FF1-0-19: TRS Class Under Station Lockout
- FF8-1-08; Walking TRS/Station Lockout Security Code

Considerations

- Walking TRS and Station Lockout use the same security code.
- You cannot override station lockout using Walking TRS feature.
- If you enter an incorrect key code and then try to dial, the phone will issue a busy tone.
- If station lockout is set, the phone is limited to the Station Lockout TRS Class outside calling abilities. This TRS Class should be carefully selected to only allow the desired call types.
- Without Walking TRS/Station Lockout Security Code, you cannot set the Station Lockout feature.

Timed Reminder Call

Description

Your telephone can act as an alarm clock with the Timed Reminder Call feature.

Operation

To set the Timed Reminder Call feature:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Timed Reminder Set code (default = ***31**).	
3. Enter the time you want the Timed Reminder Call to sound. (Enter the time in 24-hour format. For example, **0100** for 1 AM, **1300** for 1 PM).	
4. Replace the handset.	

To cancel the Timed Reminder Call feature:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the Timed Reminder Cancel code (default = ***39**).	
3. Replace the handset.	

Hardware Requirements

- N/A

Related Programming

- N/A

Considerations

- An alarm tone (default = 60 seconds) will be issued at the specified time.
- An extension can have only one Reminder Call set at a time.
- To change the Reminder Call, simply enter a new time.
- If the extension is in use when the reminder call is scheduled, the reminder call is issued 3 minutes later.

Trunk Access

Description

The System supports the following ways to seize an idle trunk to make an outside call:

- Direct Trunk Access
- MCO Trunk Access

Direct Trunk Access

Extensions can seize a specific trunk for outgoing calls. Extensions can also use Direct Trunk Access to test trunks or to access data trunks.

Operation

To use Direct Trunk Access:

Action	Result
1. Lift the handset.	
2. Enter the Direct Trunk Access code (default = **88**).	
3. Enter the desired trunk number.	Outside dial tone
4. Dial the phone number.	

Hardware Requirements

- N/A

Related Programming

- FF1-0-03: Extension COS (Direct Trunk Access)
- FF3: Extension COS

Considerations

- N/A

MCO Trunk Access

The System supports up to 5 MCO groups for each MCO tenant group. You can seize an idle trunk from the MCO trunk group by entering the MCO access code.

Operation

To seize an idle trunk:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the desired trunk access number (**9** or **81**-**84**). (See Table 2 on page 7-43.)	Outside dial tone
3. Dial the phone number.	

Hardware Requirements

- N/A

Related Programming

- FF1: MCO Access

- FF5-2: MCO Trunk Group (Outbound)
- FF7: ARS/TRS

Considerations

- Each trunk group can support up to 50 outside lines.
- Each MCO Tenant Group can have up to 5 MCO trunk access codes. System defaults for MCO trunk access codes are displayed in the following table.
- MCO1 can have up to 5 trunk groups assigned by the Advanced Trunk Group feature.
- MCO1 access code is used for Automatic Route Selection (ARS) access code.

Table 2. MCO Trunk Access Codes

MCO Group	Trunk Access Code
MCO1	9
MCO2	81
MCO3	82
MCO4	83
MCO5	84

Trunk Queuing

Description

When you try to originate a call by MCO (enter **9**) and all outside lines in a trunk group are busy, the System can call you when a line becomes free. Simply pick up the handset and dial the telephone number when the Trunk Callback alert tone rings.

Operation

To set Trunk Queuing:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter a trunk access code.	Busy tone
3. Enter the Callback Request code (default = **3**).	
4. Replace the handset.	
5. Wait for the Trunk Callback alert tone.	

To respond to the Trunk Callback alert tone:

Action	Result
1. Lift the handset.	Outside dial tone

Hardware Requirements

- N/A

Related Programming

- FF1-2: Dial Plan
- FF1-0-03: Extension COS (Trunk Queuing)
- FF3: Extension COS

Considerations

- Response to the Trunk Callback must be within 15 seconds or Trunk Queuing will be canceled.
- The Trunk Queuing feature may also be used if you hear a busy tone when trying to make a call using the MCO Trunk Access feature.

Universal Night Answer to Page

Description

During night mode, Universal Night Answer (UNA) sends incoming calls for selected trunks to ring external paging speakers.

UNA calls can be picked up from any extension, provided the extension's Class of Service allows UNA answer.

Operation

To answer a UNA call:

Action	Result
1. Lift the handset.	Intercom dial tone
2. Enter the UNA Pickup code (default = **705**).	Call is received.

Related Programming

- FF2-0: Trunk Ring Assignments
- FF1-2: Dial Plan (UNA Pickup Code)
- FF1-0-03: Extension COS (UNA Pickup)
- FF3: Extension COS
- FF3: Extension (External Ring Extension Number)
- FF1-0-27: System (UNA Ringing Port by Tenant Group)

Hardware Requirements

- External paging speakers and associated equipment are not provided; they must be purchased separately.

Considerations

- The UNA Ringing port can be specified by tenant group or by trunk ring assignment.

Walking TRS Class of Service

Description

Walking Toll Restriction Service (TRS) Class of Service (COS) allows an extension user to "carry" his or her toll restrictions to another phone.

Before the Walking TRS COS feature can be used, a Walking TRS COS code must be entered at your extension before using dialing privileges at another extension.

Operation

To use a Walking TRS COS code:

Action	Result
1. Lift the handset or press the **ON/OFF** key of an extension other than your own.	Intercom dial tone
2. Enter the Walking TRS Access code (default = **87)**.	
3. Dial your extension number.	
4. Enter your Walking TRS COS code (**0001-9999**).	
5. Enter a trunk access code (**9** or **81-84**).	
6. Dial the phone number.	Walking TRS COS remains in effect until you replace the handset.
7. Replace the handset or press the **ON/OFF** key.	

Hardware Requirements

- N/A

Related Programming

- FF8-1-08: Walking TRS COS Code

Considerations

- The same Walking TRS COS code can be used on more than one extension.
- Walking TRS COS mode is kept until the user goes on-hook.
- ARS and TRS dialing privileges follow the Walking TRS COS.
- Before entering a new Walking TRS COS, you must first clear the existing code.
- When Walking TRS COS is used, Wxxxx (where xxxx is the user's extension number) appears in SMDR.

Appendix A. ARS and TRS Operation

Introduction

This appendix provides an overview of the Toll Restriction Service (TRS) and Automatic Route Selection (ARS) features that are available with the DBS 576HD PBX.

- TRS provides the ability to block selected outgoing calls while allowing others.
- ARS automatically finds the lowest cost way to send out a call. This feature is sometimes called Least Cost Routing (LCR).

With the DBS 576HD system, it is possible to utilize TRS without ARS (called TRS) or to utilize both TRS and ARS together (called ARS/TRS or simply ARS).

Once TRS is set up, it is automatic. Whenever a call is originated, the TRS tables are checked to see if the call is restricted or not. This restriction is based on the originator and the number dialed. Separate TRS classes are assigned for Day mode and Night mode.

ARS operates when ARS is enabled and the caller dials the first MCO Access Number (usually **9**). Direct trunk access and the second to fifth MCO Access numbers (usually **81** to **84**) do not utilize ARS.

ARS use may be required based on the extension originating the call. This is enabled by the Forced ARS extension setting.

The ARS feature is exceptionally flexible, depending on the implementation plan. Call routing can consider the day of the year, day of the week, time of day, the originating extension or trunk and the number dialed. If the preferred route is busy, up to 4 additional routes can be considered. When all trunks in a call route are busy, the call can optionally be queued to continue trying all trunks while moving to the additional routes.

Once the trunk group is selected, prefix digits can be deleted and digits added. In addition, digits can be added as a suffix.

A high cost toll call warning can also be issued before connecting to a high cost trunk, giving the caller an opportunity to terminate the call attempt before a higher cost connection is established.

Both TRS and ARS/TRS utilize various tables that are linked together. These tables together determine the TRS and ARS/TRS operation. Data must be collected determining the customer's needs, requirements and facilities. Then the data must be analyzed to organize a TRS or ARS plan. This plan must then be implemented using the appropriate TRS or ARS/TRS tables.

Detailed Description

This section provides a description of the TRS and ARS options on the DBS 576HD PBX.

TRS Features

TRS Class Features

Each trunk and extension is assigned to one of 50 TRS classes. Each TRS class is assigned a Day TRS level and a Night TRS level for each Trunk group. This assigned origination party TRS level is compared to the restriction TRS Level determined by the dialed number. If the Origination Party TRS level is not higher than the restriction party TRS level, the call is denied.

In addition, each TRS class is assigned settings such as Outgoing Dial Digit Restriction, Incoming Dialing Restriction, Outgoing SSD Dialing Restriction, and * and # Dialing Restriction.

Outgoing Dialed Digit Maximum

This TRS Class-based parameter sets the maximum number of digits that can be dialed for outgoing calls in a TRS Class. The maximum number of digits can be set from **0**-**20**. When set to 0 (default), there is no restriction.

Dialing Restriction During Inbound Calls

Determines whether dialing during an incoming call is restricted on trunks in a TRS Class.

TRS Override on SSD Dialing

Determines whether SSD dialing will override TRS on extensions for a TRS Class.

Star (*) and Pound (#) Dialing Restriction

Determines if the * or # key can be used in dialing for a TRS Class.

TRS Level for Non-ARS Routing

For each of the 50 TRS classes, an originator's TRS level of **0**-**9** may be assigned for each possible trunk group. When a call is originated on a particular trunk group, this value is used to determine the originator's TRS level. From the dialed digits, a restriction TRS level (**0**-**8**) is determined. If the originator's TRS level does not exceed the restriction TRS level, the call is restricted. The higher the originator's TRS level, the less the restriction. If the originator's TRS level is **0**, no outside calls are allowed. If the originator's TRS level is **9**, all outside calls are allowed since this always exceeds the restriction TRS value which has a maximum value of **8**.

Dialing Analysis

When a trunk is accessed, the dialed digits can be analyzed to determine if the call will be toll restricted.

Leading Digits Table

The leading digits table considers the initial dialed digits in determining the restriction TRS level.

Up to 10 digits can be considered. The digits may be any number **0**, **1-9**. In addition a wild card (*****) may be used to occupy any digit position. For instance ***11** would consider the numbers **011**, **111**, **211**, **311**, **411**, **511**, **611**, **711**, **811**, **911**.

When considering the prefix string, the system will always consider the longest exact match first. For instance, the prefix string **404** match would be followed before **40**.

A wild card is always considered last. For instance if **911** were dialed and both **911** and ***11** were prefix strings, the **911** would be followed.

If additional digits need to be considered, a prefix ID can be used to cross-reference the Analyze Digits Table.

Once the system determines an exact match, the system will determine from this table the number of digits that are to be dialed and the restriction TRS level. (There are two other entries in the Leading Digits Table - Route Type and Route Number. These are not used for TRS-only operation.)

Note that TRS operation is a match then restrict feature. If there is no match, there is no restriction. Make certain that there is a match. As a catch all, use the ***** wild card.

Note: With TRS is used in a system behind another PBX, the PBX access code does not have to be processed by TRS

Analyze Digits Table

If the Leading Digits Table contains a Prefix ID, the system will consider all appearances of this Prefix ID to look for an exact match. Up to 8 digits are considered (in addition to the prefix dial digits).

Once the system determines an exact match, the system determines from this table the number of digits that can are expected to be dialed and the restriction TRS level. (There are two other entries in the Analyze Digits Table - Route Type and Route Number. There are not used for TRS-only operation.)

ARS/TRS Features

When ARS is used in the DBS 576HD, TRS also operates.

TRS Class Features

These are the same features as for TRS (see above).

TRS Class - ARS Routing

TRS Level

For each of the 50 TRS classes, a TRS Level of **0-9** may be assigned. (This is not done on a Trunk group basis since the ARS system determines the trunk group used.)

When a call is originated, this TRS value is used to determine the originator's TRS level. From the dialed digits, a restriction TRS level (**0-8**) is determined. If the originator's TRS level does not exceed the restriction TRS level, the call is restricted. The higher the originator's TRS level, the less the restriction. If the originator's TRS level is **0**, no outside calls are allowed. If the originator's TRS level is **9**, all outside calls are allowed since this will always exceed the restriction TRS value (maximum of **8**).

ARS Level

An ARS level is also assigned to each of the 50 TRS classes. This originator's ARS value is used to determine if the caller can proceed to use a particular priority route based on the associated ARS requirement in the Route List (described later). The originator's ARS value may be **0**-**9** where the higher number allows more calling access.

Queuing Point

The Route List provides up to 5 route possibilities for handling a call. Each route is considered in a sequential order. When the Queuing Point is set to operate, the system will search all previously considered routes and then the current route for an available trunk for the Queuing time period.

Dialing Analysis

When ARS is active, the dialed digits can be analyzed to determine if the call is toll restricted and what type of routing the call will follow.

Leading Digits Table

The leading digits table considers the initial dialed digits in determining the restriction TRS level and ARS routing.

Up to 10 digits can be considered. The digits may be any number **0**, **1**-**9**. In addition a wild card (*****) may be used to occupy any digit position. For instance ***11** would consider the numbers **011**, **111**, **211**, **311**, **411**, **511**, **611**, **711**, **811**, **911**.

When considering the prefix string, the system considers the longest exact match first. For instance, the prefix string **404** match would be followed before **40**.

A wild card is always considered last. For instance if **911** were dialed and both **911** and ***11** were prefix strings, the **911** would be followed.

If additional digits need to be considered, a prefix ID can be used to cross-reference the Analyze Digits Table.

Once the system determines an exact match, the system will determine from this table the number of digits that are expected to be dialed and the restriction TRS level.

If the TRS level allows the call to proceed, then the route type and its associated pattern number (entry index number) are followed. There are three possible route types; the Route Table, the Route List Table and the Time List Table.

Analyze Digits Table

If the Leading Digits Table contains a Prefix ID, the system considers all appearances of this Prefix ID to look for an exact match. Up to 8 digits are considered (in addition to the prefix dial digits).

Once the system determines an exact match, the system determines from this table the number of digits expected to be dialed and the restriction TRS level.

If the TRS level allows the call to proceed, then the route type and its associated pattern number (entry index number) are followed. There are three possible route types; the Route Table, the Route List Table and the Time List Table.

Time List Table

Time List Table is used when the time of day, the day of week or the date affects the desired route. The Time List Table allows up to 50 patterns to be entered. Each pattern may specify up to five Route List patterns to used based on the current time of day.

Up to four Time List tables may be used. The referenced time list table is determined by the Special Day Table or the Day of Week Table. This is useful when rates change for certain days (such as weekend rates versus weekday rates).

Route List Table

The Route List Table is used when there are multiple route possibilities. Up to 5 possible route table patterns may be considered in sequential priority when attempting to find an available trunk. Before a route is tried, the system compares the route ARS to the originator's ARS level. If the route ARS exceeds the originator's ARS, the call processing will stop and the caller will receive busy tone.

When the call is first presented, the first priority route is tried. If there is no available trunk in the first route and queuing point is not enabled the system continues to the next priority route, compares the ARS levels and if acceptable checks for an available trunk. If no trunk is available, it will continue to the next priority trunk, and so forth until all routes have been attempted.

If an available trunk is found and warning tone is enable, the system will first issue a warning tone to the caller to allow the caller the opportunity to hang up before using a more expensive trunk.

If the queuing point is enabled, the system will wait for an available trunk (beginning with the first priority trunk) until the queuing point timer expires before moving to the next possible route.

Route Table

The Route Table provides a simple trunk group selection and selects any digit dialing modification needed. This table is directly referenced when there is only one route to use. It is also indirectly reference from the Route List Table.

Digit Modify Table

Once a route is selected, the actual dialed digits can be changed based on the Digit Modify Table. Digits can be deleted from the beginning of the number (such as removing an unneeded area code), digits can be added to the beginning of the number (such as adding an area code or equal access number) and digits can be added to the end of a number.

TRS Configuration and Operation

This section provides the following:

- An overview of the TRS operation.
- An example TRS configuration - This is a simple example intended to introduce TRS planning and implementation. Example worksheets are included.
- Worksheets for planning and implementing a TRS plan.

TRS Programming/Operation Overview

The purpose of TRS is to restrict outside call origination based on the number dialed and the originator.

As shown in Figure A-4 TRS Operation (Non-ARS) at the end of this appendix, up to 50 TRS Classes settings are assigned. When a call is originated, several general settings for the originator are always considered:

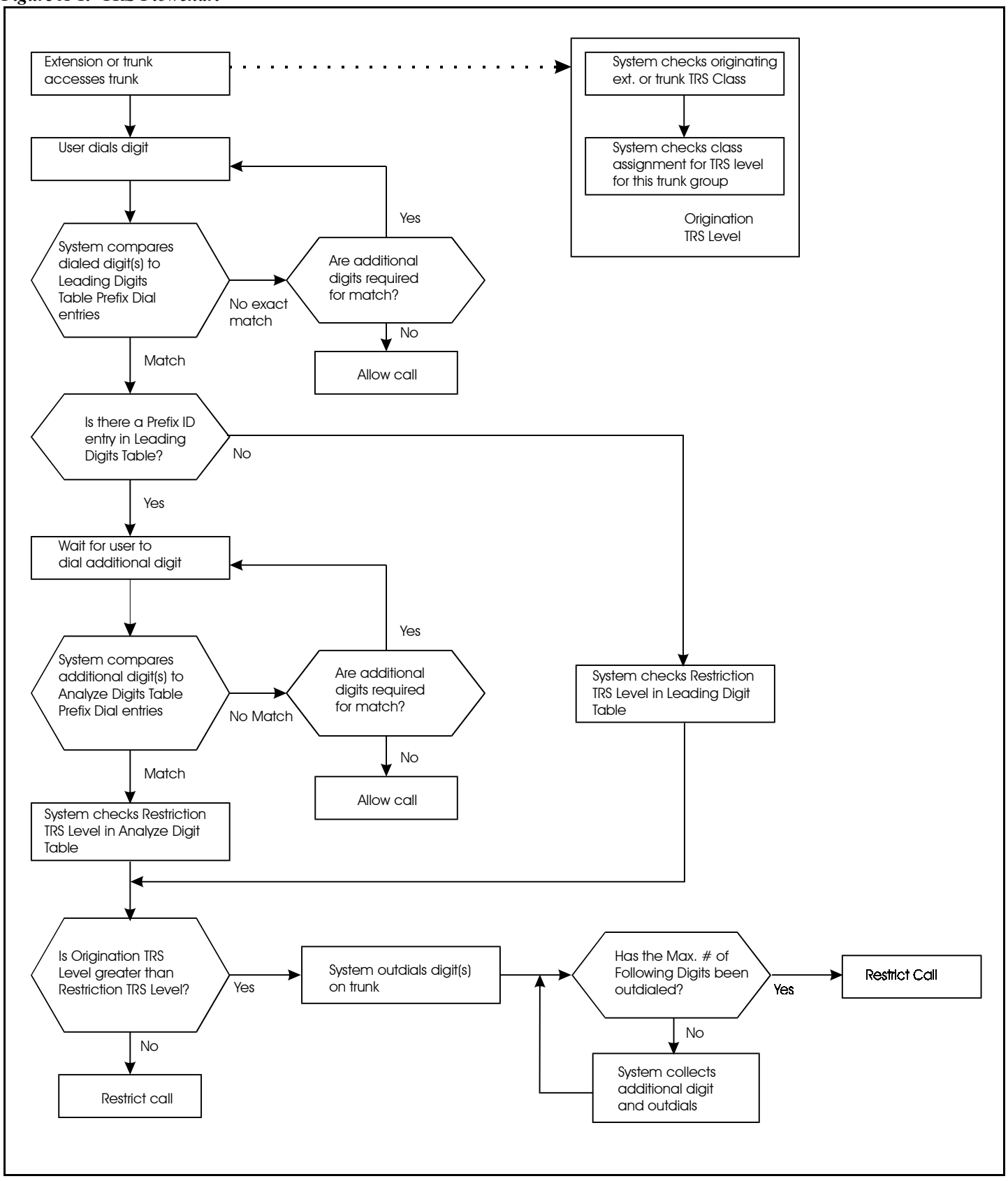
- **Digit Restriction** - This is the maximum number of digits that can be dialed.
- **Incoming Dialing Restriction** - If this is enabled, an outside call cannot be originated during an incoming call.
- **Outgoing SSD Dialing Restriction** - This determines if SSD dialing is allowed or not.
- **Star (*) and Pound (#) Dialing Restriction** - This determines if the * and # digits can be outdialed.

When a call is originated, the system determines the TRS class for the originator from either the Trunk Class Assignments or the Extension Class Assignments. It then determines the originator TRS level for the trunk group selected.

When the call is dialed, the system collects the digits and compares the leading digits to the leading digits table entry. The system will look for the longest available exact match. A * may be entered as a wild card for any digit position.

If an exact match is found, the system will look to see if there is a Prefix ID. If so, it will jump to the analyze digits table. If not, the system will compare the entered TRS Restriction value to the call originator's assigned TRS level. If the originator's TRS level is not greater than the Restriction TRS level, the call is denied. Otherwise, the call is allowed to proceed.

Figure A-1. TRS Flowchart



If the analyze digits table is referenced by a Prefix ID, the system will consider at all entries with the Prefix ID and analyze any additional digits dialed. The system will look for the longest exact match. If there is an exact match, the system compares the entered TRS Restriction value to the call originator's assigned TRS level. If the Restriction value is equal to or greater than the originator's TRS level, the call is denied. Otherwise, the call is allowed to proceed.

Example TRS Configuration

As an example of setting up TRS, assume that XYZ Department Store is using the DBS 576HD PBX.

Situation

This example installation has the following considerations:

- Only one tenant (one MCO tenant group operation)
- 75 retail floor store phones
    - restricted to local telephone use only except for 1800, 1888 and calls to a city where a sister store and many suppliers are located
    - restrict special calling numbers (976, 1900, outside operator, etc.)
    - public emergency numbers always allowed
- 40 general office phones
    - long distance allowed during day mode
    - restrict special calling numbers (976, 1900, outside operator, etc.)
    - public emergency numbers always allowed
- 10 purchaser/buyer telephones
    - no time restriction
    - restrict special calling numbers (976, 1900, outside operator, etc.)
    - public emergency numbers always allowed
- 25 executive office telephones
    - no time restriction
    - no calling restrictions
- 2 attendant group phones
    - no restrictions during the day
    - local calls only at night to prevent abuse
- 7 warehouse phones
    - extension and public emergency numbers only
- Trunks 1-24 are in Trunk Group 1 and are to the local CO (exchange line) for local calls. In addition, long distance carriers are accessed using these trunks.

Implementation

The configuration of this system is described in the following steps:

1. The system needs are listed in Table 1, “Example - User Needs Worksheet,” on page 10.

   Most of the information is straight forward. The Day TRS and Night TRS classes are determined by assigning consecutive Class numbers to each unique calling need. When a duplicate need is encountered, the same class number is assigned.

   The system trunk equipment is listed in Table 2, “Example - MCO Tenant/Trunk Groups Worksheet,” on page 11.

Table A-1. Example - User Needs Worksheet

Tenant Name XYZ Department Stores Tenant # 1 (1-72)

User Type (office, executive, lobby)	User Extension (or Trunk) Ports (BSSC) and Numbers	Day Calling Needs (Long Distance, 411, specific number, etc.)	Night Calling Needs (Long Distance, 411, specific number, etc.)	Day TRS Class[a] (1-50)	Night TRS Class[a] (1-50)
Executive	1101-1125	No Restrictions	No Restrictions	1	1
Buyers	1166 - 1175	No Restrictions except special numbers (976, 1900, 411, operator access, collect calls, etc.)	No Restrictions except special numbers (976, 1900, 411, operator access, collect calls, etc.)	2	2
General Office	1126-1165	Long Distance Allowed No special numbers (976, 1900, 411, operator access, collect calls, etc.)	Local calls only No special numbers (976, 1900, 411, operator access, collect calls, etc.) Allowed to call City B	3	4
Attendant Group	1176-1177	No Restriction	Local calls only No special numbers (976, 1900, 411, operator access, collect calls, etc.) Allowed to call City B	1	4
Retail floor	1178-1253	Local calls only No special numbers (976, 1900, 411, operator access, collect calls, etc.) Allowed to call City B	Local calls only No special numbers (976, 1900, 411, operator access, collect calls, etc.) Allowed to call City B	4	4
Warehouse	1254-1260	Extension calling and emergency calling only	Extension calling and emergency calling only	5	5

a. After all user data has been entered, then assign class numbers.

Table A-2. Example - MCO Tenant/Trunk Groups Worksheet

Tenant Name XYZ Department Stores Tenant Number 1

Trunk Group Number (0-99)	Description (Two-Way CO LS, Tie Line, FX, etc.)	Trunks in Trunk Group (Number/BSSC)	Usage (MCO1 - Dial "9", MCO2 - dial "81", Direct Access Only, etc.)
1	Two-Way CO (Exchange Line) Loop Start	1-24	MCO 1 - Dial "9"

2. From the User Needs and Tenant Trunk Groups Worksheets, TRS levels are determined. This list is created by reviewing the different calling needs and assigning the most restrictions to the lowest TRS level and working up to the least restriction level.

Table A-3. Example - Origination TRS Level Plan

Originator TRS Level	TRS Level Properties
9	No Restriction
8	
7	
6	
5	
4	All long distance calls allowed except special numbers (976, 1900, 411, operator access, collect calls, etc.) Allow public emergency numbers
3	North America long distance calls allowed except special numbers (976, 1900, 411, operator access, collect calls, etc.) Allow public emergency numbers
2	Local Calls Allowed No long distance or special numbers (976, 1900, 411, operator access, collect calls, etc.) Allow calls to (205) 555-XXXX, (205) 556-XXXX, and (205) 557-XXXX Allow public emergency numbers
1	Public emergency numbers only
0	No Outside Calling/PBX Centrex & Extension only

3. Next the Origination TRS Level is determined for each Trunk group per class.

   Using Table 1, “Example - User Needs Worksheet,” on page 10, each unique origination class is determined. Then using Table 3, “Example - Origination TRS Level Plan,” on page 12 the TRS level is determined for each class. (If there were multiple trunk groups available, a TRS level would be assigned for each trunk group for each class.)

Table A-4. Example - Origination TRS Class/Level Worksheet

Origination TRS Class		**Origination TRS Level (0-9)**				
Number	User Type(s) (Executive, Office, loading dock)	Trunk Group 1 Description: Used for all outside calls.	Trunk Group ___ Description:	Trunk Group ___ Description:	Trunk Group ___ Description:	Trunk Group ___ Description:
1	Executive (Day/Night) Attendant (Day	9				
2	Buyer (Day/Night)	4				
3	General Office (Day)	3				
4	General Office (Night) Attendant Group (Night) Retail Floor (Day/Night)	2				
5	Warehouse (Day/Night)	1				

4. Calls are screened by first considering the initial digits dialed. In this case, the first Prefix Dialed entry is a **1**. This will look at any number that starts with 1. A ***** is available as a wild card. This represents any single digit **1-9**.

   When prefix dial is being considered by the system, the system looks for the longest exact match first. The system will consider a wildcard last. For instance, **911** is considered before ***11** or even *****. Notice also in this example there are multiple entries that begin with 9.

   If the leading digits are not enough to determine the handling of the call, then additional digits can be considered by entering a Prefix ID that references entries in the Analyze Digits Table. Otherwise, the Prefix ID is left blank and the additional items are considered.

   In this example, we cross reference Prefix ID 1 in the Analyze Digits Table for any dialed number that begins with 1. The remaining digits are analyzed in the Analyze Digits Table.

   From Table 1, "Example - User Needs Worksheet," on page 10 and Table 3, "Example - Origination TRS Level Plan," on page 12, the restriction levels are determined for each type of dialed call.

   Route Type and Route Pattern Number are not used with TRS-only operation.

Table A-5. Example - Leading Digits Worksheet

Pattern Number (1-100)	**Prefix Dial (up to 10 digits)**	**Prefix ID (Go to this Prefix ID in Analyze Digits Tables)**	**Number of Following Digits**	**Restriction TRS Level** (Any Origination TRS at this level or below will be restricted)	**Route Type** Route Table (0) Route List (1) Time List (2)	**Route Pattern Number** Route Table (1-200) Route List (1-100) or Time List (1-50)
1	1	1	N/A	N/A	N/A	N/A
2	101****	1	N/A	N/A	N/A	N/A
3	10***	1	N/A	N/A	N/A	N/A
4	101	1	N/A	N/A	N/A	N/A
5	10	1	N/A	N/A	N/A	N/A
6	0		N/A	8	N/A	N/A
7	01	2	N/A	8	N/A	N/A
7	911	0	N/A	0	N/A	N/A
8	*11	0	N/A	4	N/A	N/A
95	976	0	N/A	4	N/A	N/A
10	*	0	N/A	1	N/A	N/A

5. In this case, Prefix ID 1 links calls that have a dialed prefix of 1. Several entries are made to determine the restriction TRS level and the Route Type. The call originator must have a Origination TRS Level exceeding 1 for the call to be allowed. If any other analyze digits are dialed this would be covered by the three * wildcards (***). In this case; the call originator must have a TRS level exceeding 2 for the call to be allowed.

Table A-6. Example - Analyze Digits Worksheet

Pattern Number (1-500)	**Prefix ID**	**Digits to Analyze** (in addition to the leading digits)	**Number of Following Digits**	**Restriction TRS Level** (Any Origination TRS at this level or below will be restricted)	**Route Type** Route Table (0) Route List (1) Time List (2)	**Route Pattern Number** Route Table (1-200) Route List (1-100) or Time List (1-50)
1	1	20555* (120555XXXXX)	N/A	1	N/A	N/A
2	1	***976 (1NXX976XXXX)	N/A	8	N/A	N/A
3	1	***5551212 (1NXX5551212)	N/A	2	N/A	N/A
4	1	800 (1800XXXXXXX)	N/A	1	N/A	N/A
5	1	888 (1888XXXXXXX)	N/A	1	N/A	N/A
6	1	900 (1900XXXXXXX)	N/A	8	N/A	N/A
7	1	*** (1NXXXXXX)	N/A	2	N/A	N/A
8	2	*** (0XXXX... - Collect Call)	N/A	8	N/A	N/A

ARS Configuration and Operation

This section provides the following:

- An overview of ARS.
- An example ARS configuration.
- Worksheets for planning and implementing an ARS plan.

ARS/TRS Programming/Operation Overview

The purpose of TRS is to restrict outside call origination based on the dialed number and the originator. The purpose of ARS is to automatically select the lowest cost route available for a call based on the dialed number. The system allows separate TRS operation or TRS operation concurrent with ARS operation.

TRS-only operation is described in the previous section of this appendix. The TRS portion of ARS/TRS works in the same manner.

As shown in Figure A-5 “ARS/TRS Operation” found at the end of this appendix, up to 50 TRS/ARS Class Settings are assigned. When a call is originated, several general settings for the originator are always considered:

- **Digit Restriction** - This is the maximum number of digits that can be dialed.
- **Incoming Dialing Restriction** - If this is enabled, an outside call cannot be originated during an incoming call.
- **Outgoing SSD Dialing Restriction** - This determines if SSD dialing is allowed or not.
- **Star (*) and Pound (#) Dialing Restriction**. - This determines if the * and # digits can be outdialed.

When a call is originated, the system determines the TRS/ARS Class for the originator from either the Extension Class Assignments or the Trunk Class Assignments. It then determines the originator TRS level and originator TRS level from the TRS/ARS Class Assignments. In addition, the Queuing Point continue parameter setting is considered.

When the call is dialed, the system collects the digits and compares the leading digits to the leading digits table entry. The system looks for the longest available exact match. A * may be entered as a wild card for any digit position.

If an exact match is found, the system looks to see if there is a prefix ID. If so, it will jump to the analyze digits table. If not, the system will compare the entered TRS Restriction value to the call originator’s assigned TRS level. If the Restriction value is equal to or greater than the originator’s TRS level, the call is denied. Otherwise, the Route Type and associated Pattern # are determined and the system jumps there.

Figure A-2. ARS/TRS Flowchart Page 1 of 2

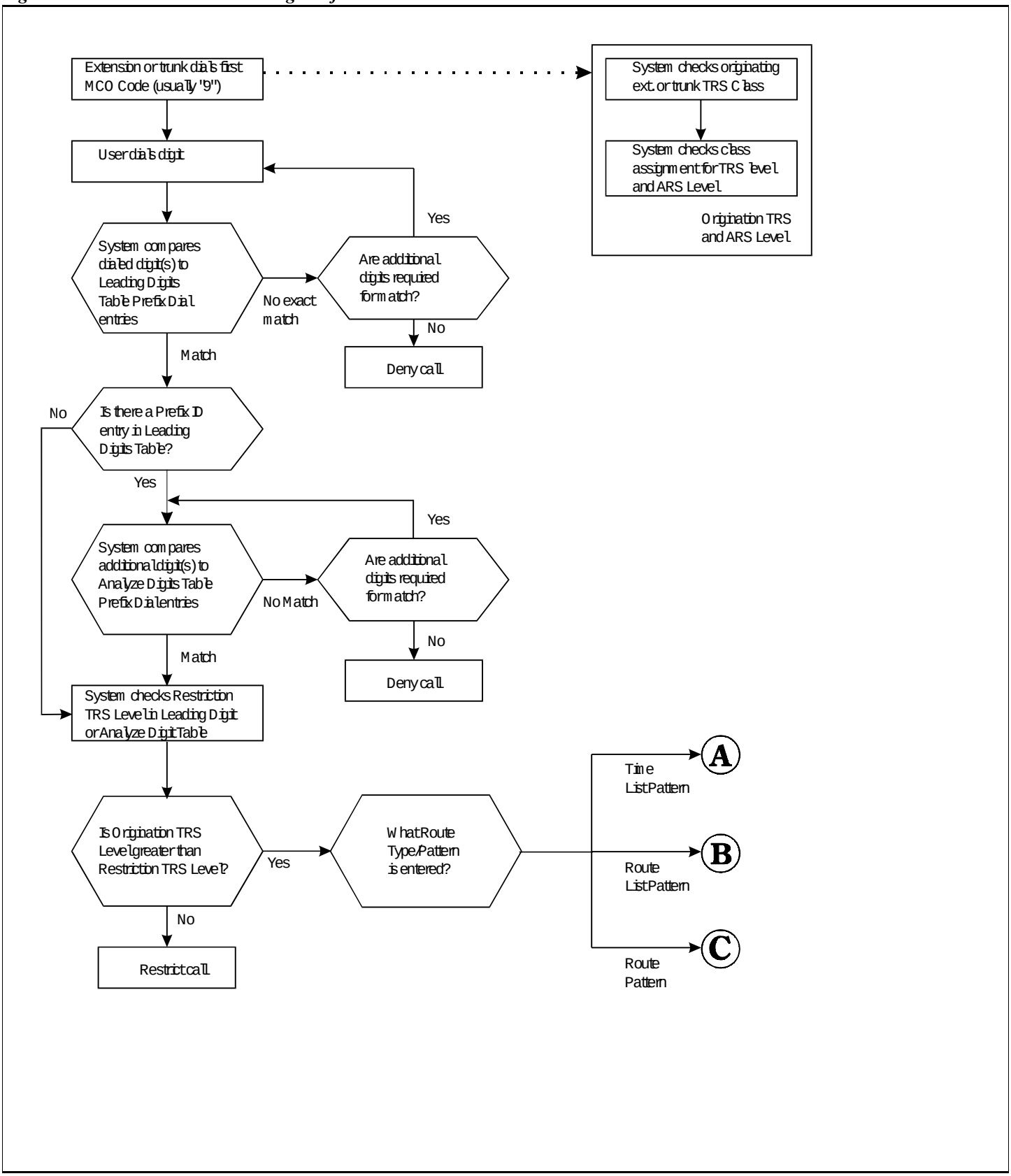
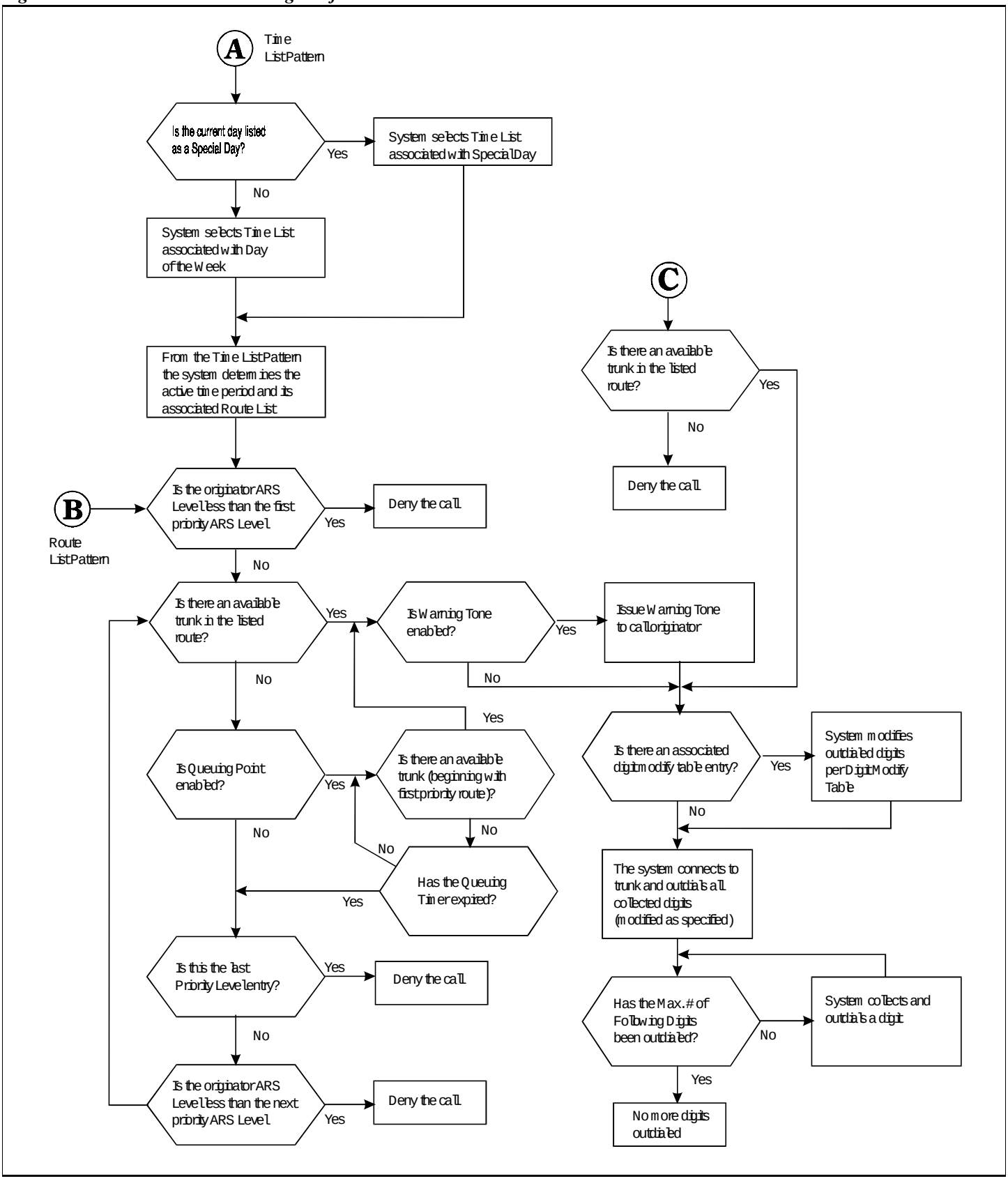


Figure A-3. ARS/TRS Flowchart Page 2 of 2



If the analyze digits table is referenced by a prefix ID, the system will consider at all entries with the prefix ID and analyze any additional digits dialed. The system looks for the longest exact match. If there is an exact match, the system compares the entered TRS Restriction value to the call originator's assigned TRS level. If the Restriction value is equal to or greater than the originator's TRS level, the call is denied. Otherwise, the route type and associated pattern # are determined and the system jumps there.

Three route types are available. These include the Routing Table (a direct trunk group selection), the Route List Table (a route priority consideration), and the Time List Table (selects a route list based on date, day of the week, and time of day).

The simplest call routing method is the Route Table. This determines a trunk group to use and, if programmed, a digits modification pattern to use. Up to 24 prefix digits may be deleted, up to 10 prefix digits can be added and up to 10 suffix digits may be added.

If multiple trunk groups are to be considered for the call, the Route List Table is used. This table consists of up to 5 possible routes and an associated ARS level required. If the ARS level for the first priority route is equal to or less than the ARS level associated with the call originator, then the listed route will be tried. If the first listed Route Table trunk group has no available trunks busy, then the next priority route is considered. If Queuing Point is set to continue, then the first priority trunks are retried first before trying to a next priority route. If the Warning Tone is enabled, then before a call is connected to a found trunk, a warning tone is sounded to allow the caller to hang up before the more expensive trunks are used.

If time of day, day of week and day of the year need be considered in routing the call, then the Time List Table should be referenced first. The Time List Table allows up to 50 patterns to be entered. Each pattern can specify up to 5 route list patterns to used based on the current time of day.

Up to four time list tables may be used. The referenced time list table is determined by the Special Day Table or the Day of Week Table. This is useful when rates change for certain days (such as weekend rates versus weekday rates).

Example ARS Configuration

As an example of setting up ARS, assume that XYZ Department Store is based in City A and is using the DBS 576HD PBX.

Situation

This example installation has the following considerations:

- 75 retail floor store phones
    - restricted to local telephone use only except for 1800, 1888 and calls to another city where a sister store and many suppliers are located
    - restrict special calling numbers (976, 1900, outside operator, etc.)
    - public emergency numbers allowed
- 40 general office phones
    - long distance allowed during day mode
    - restrict special calling numbers (976, 1900, outside operator, etc.)
    - public emergency numbers allowed
- 10 purchaser/buyer telephones
    - no time restriction

    - restrict special calling numbers (976, 1900, outside operator, etc.)
    - public emergency numbers allowed
- 25 executive office telephones
    - no time restriction
    - no calling restrictions
- 2 attendant group phones
    - no restrictions during the day
    - local calls only at night to prevent abuse
- 7 warehouse phones
    - extension and public emergency numbers allowed
- Trunks 1-24 are in trunk group 1 and are to the local CO (exchange line) for local calls. In addition, long distance carriers are accessed using these trunks by dialing the equal access codes. Long distance carrier A (equal access code 101XXXX) is the least expensive carrier during the weekday times of 8 to 6. Long distance carrier B is the least expensive long distance carrier during nights, weekends, and holidays.
- Trunks 25 and 26 are in trunk group 2 and are toll-free out-going trunks from Long Distance Carrier C. These trunks are less expensive than either of the other long distance carrier lines.
- Trunks 27 and 28 are Foreign Exchange lines to a central office exchange in City B where a sister store and several suppliers are located. These trunks are always preferred for any call to City B area code with exchanges 555, 556, and 557.

Figure A-4. Example System Configuration

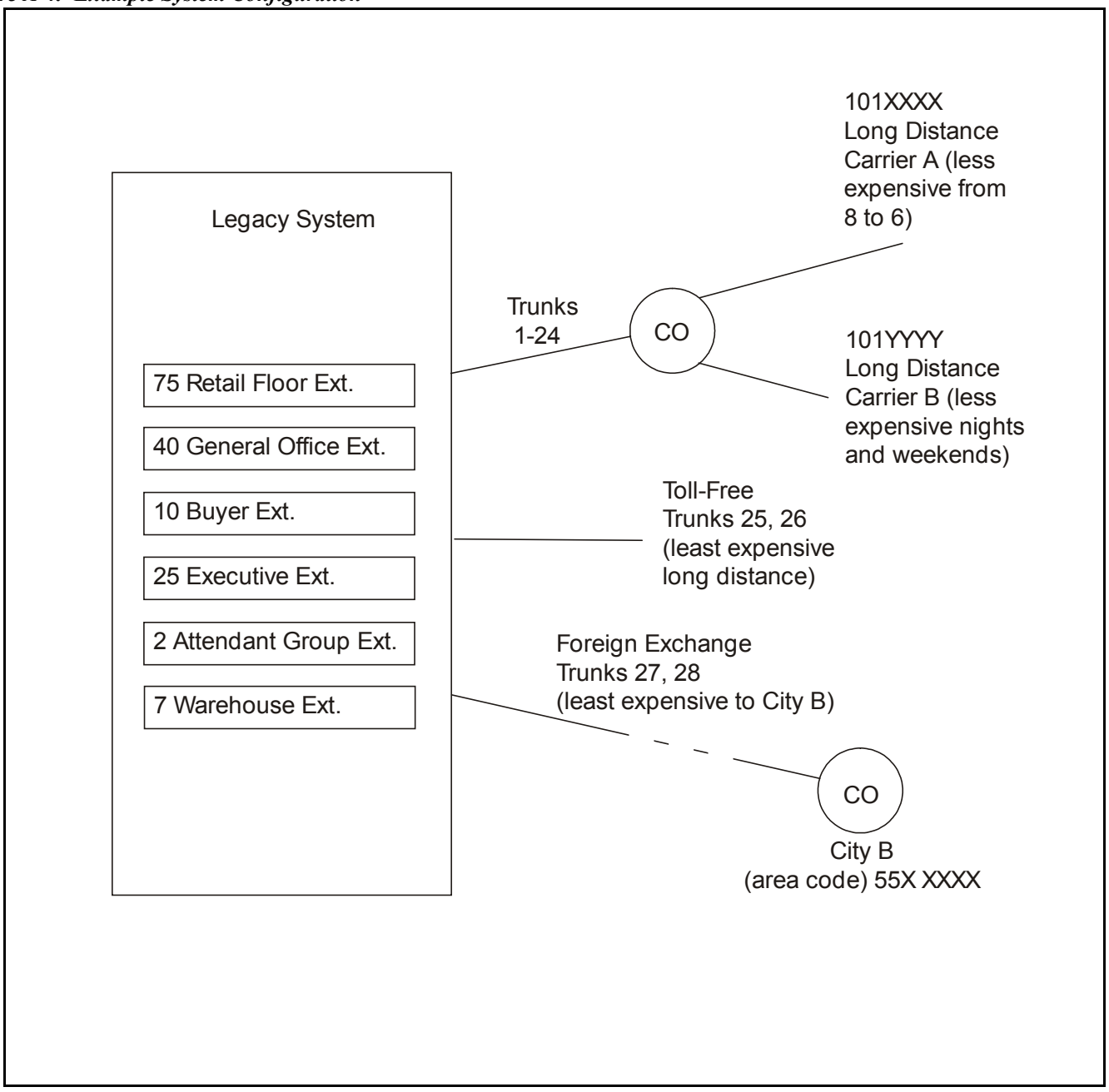
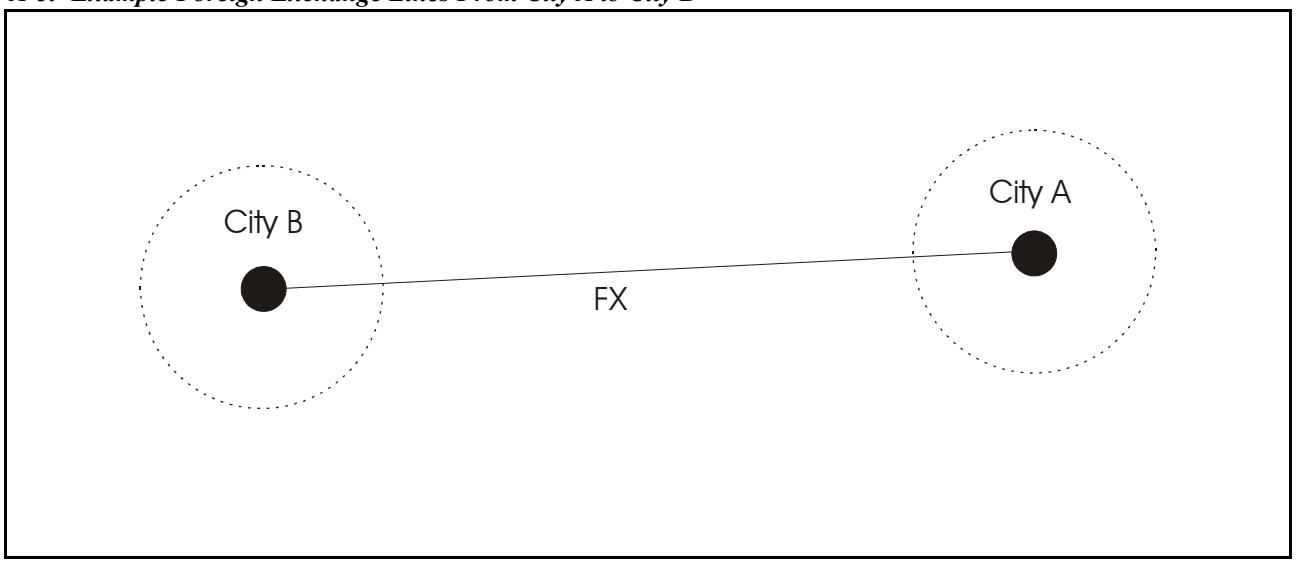


Figure A-5. Example Foreign Exchange Lines From City A to City B



In this case we have two Foreign Exchange (FX) lines to a City B Central Office Exchange. Using these lines are like dialing directly from the City B exchange. We pay a flat fee for the FX line. There is no additional charge for calls to City B.

For this example, there are three office exchange numbers in City B (555, 556, and 557) that we want to be able to call that are local calls. There are no other exchanges that begin with 55X.

Implementation

The configuration of this system is described in the following steps:

1. The system needs are listed in Table 7, “Example - User Needs Worksheet,” on page 23.

   Most of the information is straight forward. The Day TRS and Night TRS Classes are determined by assigning consecutive Class numbers to each unique calling need. When a duplicate need is encountered, the same class number is assigned.

   The system trunk equipment is listed in Table 8, “Example - MCO Tenant/Trunk Groups Worksheet,” on page 24.

Table A-7. Example - User Needs Worksheet

Tenant Name XYZ Department Stores Tenant # 1 (1-72)

User Type (office, executive, lobby)	User Extension (or Trunk) Ports (BSSC) and Numbers	Day Calling Needs (Long Distance, 411, specific number, etc.)	Night Calling Needs (Long Distance, 411, specific number, etc.)	Day TRS Class[a] (1-50)	Night TRS Class[a] (1-50)
Executive	1101-1125	No Restrictions	No Restrictions	1	1
Buyers	1166 - 1175	No Restrictions except special numbers (976, 1900, 411, operator access, collect calls, etc.)	No Restrictions except special numbers (976, 1900, 411, operator access, collect calls, etc.)	2	2
General Office	1126-1165	Long Distance Allowed No special numbers (976, 1900, 411, operator access, collect calls, etc.)	Local calls only No special numbers (976, 1900, 411, operator access, collect calls, etc.) Allowed to call City B	3	4
Attendant Group	1176-1177	No Restriction	Local calls only No special numbers (976, 1900, 411, operator access, collect calls, etc.) Allowed to call City B	1	4
Retail floor	1178-1253	Local calls only No special numbers (976, 1900, 411, operator access, collect calls, etc.) Allowed to call City B	Local calls only No special numbers (976, 1900, 411, operator access, collect calls, etc.) Allowed to call City B	4	4
Warehouse	1254-1260	Extension calling and emergency calling only	Extension calling and emergency calling only	5	5

a. After all user data has been entered, then assign class numbers.

Table A-8. Example - MCO Tenant/Trunk Groups Worksheet

Tenant Name XYZ Department Stores Tenant Number 1

Trunk Group Number (0-99)	Description (Two-Way CO GS, Tie Line, FX, etc.)	Trunks in Trunk Group (Number/BSSC)	Usage Notes
1	Local CO (Exchange Line) Access	1-24	Local, access to long distance carriers A (least cost Day carrier) and B (least cost night and weekend carrier) via equal access numbers
2	Foreign Exchange lines to City B	25, 26	Foreign Exchange lines for calls to City B area code and exchanges 555, 556, and 557.
3	Toll-free outgoing numbers	27, 28	Toll-free service to the complete US. Less expensive than carriers A and B

2. From the User Needs and Tenant Trunk Groups Worksheets, TRS levels are determined. This list is created by reviewing the different calling needs and assigning the most restrictions to the lowest TRS level and working up to the least restriction level.

Table A-9. Example - Origination TRS Level Plan

Originator TRS Level	TRS Level Properties
9	No Restriction
8	
7	
6	
5	
4	All long distance calls allowed except special numbers (976, 1900, 411, operator access, collect calls, etc.) Allow public emergency numbers
3	North America long distance calls allowed except special numbers (976, 1900, 411, operator access, collect calls, etc.) Allow public emergency numbers
2	Local Calls Allowed No long distance or special numbers (976, 1900, 411, operator access, collect calls, etc.) Allow calls to (205) 555-XXXX, (205) 556-XXXX, and (205) 557-XXXX Allow public emergency numbers.
1	Public emergency numbers only
0	No Outside Calling

3. From the User Needs and Tenant Trunk Groups Worksheets, ARS levels are determined. This list is created by reviewing the different calling needs and assigning the least cost access levels to the lowest ARS level and working up to the highest cost ARS level.

Table A-10. Example - Origination ARS Level Plan

Originator ARS Level	ARS Level Properties
9	Full ARS Access
8	
7	
6	
5	
4	
3	In addition to ARS levels 0-2 access, allows high cost long distance trunk access.
2	In addition to ARS levels 0 and 1 access, allows medium cost long distance trunk access
1	In addition to ARS levels 0 access, allows local call access
0	Allows City B (sister store) FX ARS access only

4. Next the Origination TRS and ARS level and queuing point enable/disable operation is determined for each class.

   Using Table 7, “Example - User Needs Worksheet,” on page 23, each unique origination class is listed. Using Table 9, “Example - Origination TRS Level Plan,” on page 25 the TRS Level is determined for each class. Using Table 8, “Example - MCO Tenant/Trunk Groups Worksheet,” on page 24 and Table 10, “Example - Origination ARS Level Plan,” on page 26, the ARS level is determined for each class.

   In this example, we enable Queuing Point so that the system will continuously check for the availability of a lower cost trunk before selecting a higher cost trunk.

Table A-11. Example - Origination TRS/ARS Class to Level Worksheet

Origination TRS Class		**Origination TRS/ARS Level (0-9)**		
Class Number	User Type(s) (Executive, Office, loading dock)	TRS Level	ARS Level	Queuing Point Continue?
1	Executive (Day/Night) Attendant (Day)	9	3	Y
2	Buyers (Day/Night)	4	3	Y
3	General Office (Day)	3	2	Y
4	General Office (Night) Attendant Group (Night) Retail Floor (Day/Night)	2	1	Y
5	Warehouse (Day/Night)	1	0	Y

Calls are screened by examining the initial digits dialed. A * is available as a wild card. This represents any single digit 1 to 9.

When prefix dial is being considered by the system, the system looks for the longest exact match first. The system considers a wildcard last.

5. Calls are screened by first considering the initial digits dialed. In this case, the first Prefix Dialed entry is a **1**. This will look at any number that starts with 1. A ***** is available as a wild card. This represents any single digit **1-9**.

   When prefix dial is being considered by the system, the system looks for the longest exact match first. The system considers a wildcard last. For instance, **911** is considered before ***11** or even *****. Notice also in this example there are multiple entries that begin with **9**.

   If the leading digits needed are to determine the handling of the call, then additional digits can be considered by entering a Prefix ID that references entries in the Analyze Digits Table. Otherwise, the Prefix ID is left blank and the additional items are considered.

   In this example, we cross reference Prefix ID 1 in the Analyze Digits table for any dialed number that begins with 1 and Prefix ID 2 for any dialed number that begins with 0. The remaining digits are analyzed in the Analyze Digits Table.

   From Table 7, “Example - User Needs Worksheet,” on page 23 and Table 9, “Example - Origination TRS Level Plan,” on page 25, the restriction levels are determined for each type of dialed call.

   We determine the Route Type depending on the type of call. If the time and or day impacts the cost, then the time list is used. If the time is not a factor, but multiple trunk groups could be used, then the Route List is used. If a specific trunk should be used, then we directly reference the Route Table.

Table A-12. Example - Leading Digits Worksheet

Pattern Number (1-100)	**Prefix Dial** (up to 10 digits)	**Prefix ID** (Go to this Prefix ID in Analyze Digits Tables)	**Number of Following Digits**	**Restriction TRS Level** (Any Origination TRS at this level or below will be restricted)	**Route Type** Route Table (0) Route List (1) Time List (2)	**Route Pattern Number** Route Table (1-200) Route List (1-100) or Time List (1-50)
1	1	1	N/A	N/A	N/A	N/A
2	101****	1	N/A	N/A	N/A	N/A
3	10***	1	N/A	N/A	N/A	N/A
4	01	2	N/A	N/A	N/A	N/A
5	0*	2	N/A	N/A	N/A	N/A
6	0	NA	N/A	8	N/A	N/A
7	911	N/A	N/A	0	Route Table (0)	1
8	*11	N/A	N/A	4	Route Table (0)	1
9	976	N/A	N/A	4	Route Table (0)	1
10	*	N/A	N/A	1	Route Table (0)	1

6. In this case, Prefix ID 1 links calls that have a dialed prefix of 1. Several entries are made to determine the restriction TRS level and the Route Type. The call originator must have a Origination TRS Level exceeding 1 for the call to be allowed. If any other analyze digits are dialed this would be covered by the three * wildcards (***). In this case; the call originator must have a TRS level exceeding 2 for the call to be allowed.

Table A-13. Example - Analyze Digits Worksheet

Pattern Number (1-500)	**Prefix ID**	**Digits to Analyze** (in addition to the leading digits)	**Number of Following Digits**	**Restriction TRS Level** (Any Origination TRS at this level or below will be restricted)	**Route Type** Route Table (0) Route List (1) Time List (2)	**Route Pattern Number** Route Table (1-200) Route List (1-100) or Time List (1-50)
1	1	20555* (120555XXXXX)		1	Time List (2)	1
2	1	***976 (1NXX976XXXX)		8	Time List (2)	2
3	1	***5551212 (1NXX5551212)		2	Route Table (0)	1
4	1	800 (1800XXXXXXX)		1	Route Table (0)	1
5	1	888 (1888XXXXXXX)		1	Route Table (0)	1
6	1	900 (1900XXXXXXX)		8	Route Table (0)	1
7	1	*** (1NXXXXXX)		2	Time List (2)	2
8	2	*** (0XXXX... - Collect Call)		8	Time List (2)	3

7. If call routing varies by day of week or special day, then separate time lists must be prepared. In this example, weekday call routing varies from weekends and holidays. Therefore two time list tables are completed. When a call is made, the system will check to see if this is a special day listed in a Time List Table. If so, it will use that table. If not, then it will check the day of week and use the associated table.

   On weekdays, we know that Carrier B is less expensive from midnight (0000) to 7:59am and from 6pm (1800) to midnight). Carrier A is less expensive from 8am (0800) to 1759).

   We then reference a route list pattern for each call entry.

Table A-14. Example -Time List Table 1

Time List Table 1

Day Of Week: Sun __ Mon X Tue X Wed X Thu X Fri X Sat __

Special Days _____

Time List Pattern Number (1-500)	Time Period 1		Time Period 2		Time Period 3		Time Period 4		Time Period 5	
	Start Time	Route List #	Start Time	Route List #	Start Time	Route List #	Start Time	Route List #	Start Time	Route List #
1	0000	1	0800	2	1800	1				
2	0000	3	0800	4	1800	3				
3	0000	5	0800	6	1800	5				
4										
5										
6										
7										
8										
9										
10										

On weekends, the time of day is not a cost factor. Therefore there is only one time period used.

Table A-15. Example -Time List Table 2

Time List Table 2

Day Of Week: Sun X Mon ___ Tue ___ Wed ___ Thu ___ Fri ___ Sat X

Special Days: 0101, 0704, 1127, 1225

Time List Pattern Number (1-500)	Time Period 1		Time Period 2		Time Period 3		Time Period 4		Time Period 5	
	Start Time	Route List #	Start Time	Route List #	Start Time	Route List #	Start Time	Route List #	Start Time	Route List #
1	0000	1								
2	0000	3								
3	0000	5								
4										
5										
6										
7										
8										
9										
10										

8. Each Route List Pattern consists of a one or more trunk groups in sequence to check for an available trunk.

   Before a route is considered, the required ARS level is compared to the originator's ARS level. If the originator's ARS level is greater than or equal to the required ARS level, the trunk group listed for the route will be searched for an available trunk. If no trunk is found, the system will attempt to use the next priority route.

   In this example for Pattern 1, the system will first compare the Priority 1 ARS level for the call. If it is determined that the ARS level is acceptable, the system looks at the route # 4 (FX trunk group). If there is an available trunk, the system completes the call. If no FX trunk is available during the queuing time, the system checks the ARS level for Priority 2. If acceptable, since Queuing Point is enabled the system will first attempt to find an available Priority 1 trunk, and then attempt to find a Priority 2 toll-free trunk. If a Priority 2 trunk is found, the system will first check to see if Warning Tone is set to Yes. In this example, there is no warning tone. If Yes, the system would issue a warning tone to the user before connecting the trunk to allow the caller to hang up before using the higher cost trunk. This process is repeated if necessary for the Priority 3 - Long Distance Carrier B and then Priority 4 - Long Distance Carrier A.

Table A-16. Example - Route List Table

Route List Table														
Route List Pattern Number (1-500)	**Priority 1**		**Priority 2**			**Priority 3**			**Priority 4**			**Priority 5**		
	Route #	ARS Level	Route #	ARS Level	Warning Tone	Route Table	ARS Level	Warning Tone	Route #	ARS Level	Warning Tone	Route #	ARS Level	Warning Tone
1	4 FX	1	5 Toll-Free	2	NO	3 Night	3	NO	2 Day	3	No			
2	4 FX	1	5 Toll-Free	2	NO	2 Day	3	NO	3 Night					
3	5 Toll-Free	2	3 Night	3	NO	2 Day	3	NO						
4	5 Toll-Free	2	2 Day	3	NO	3 Night	3	NO						
5	3 Night	2	2 Day	3	NO									
5	2 Day	2	3 Night	3	NO									

9. In this example, there are only 5 route patterns needed. The first three use the same trunks to the local CO. The first pattern does not modify the dialed digits. The second pattern uses the Digit Modify Pattern to add the Equal Access Code prefix for Long Distance Carrier A (preferred in the day time). The third pattern uses the Digit Modify Pattern to add the Equal Access Code prefix for Long Distance Carrier B (preferred at night and on week ends).

   The fourth pattern selects the FX lines to City B and selects a digit modify pattern that removes the first 4 digits dialed (1205) so that the call originates at the CO (Exchange Line) as a local call.

   The fifth pattern selects the toll-free outgoing trunks. No digit modification is required for these trunks.

Table A-17. Example - Route Table

Route Pattern #	**Trunk Group**	**Digit Modify Pattern #** 0 (not modified), 1-50
1	1 - Local CO (Exchange Line)	0
2	1 - Local CO to Carrier “A” (Day preferred) (101XXXX)	1
3	1 - Local CO (Exchange Line) to Carrier “B” (Night/Weekend preferred (101YYYY)	2
4	2 - FX to City B	3
5	3 - Outgoing toll-free numbers	0

Table A-18. Example - Digit Modify Table Route Table

Digit Modify Pattern #	**Delete Digits** (Prefix, up to 24 digits)	**Add Digits** (Prefix, up to 10)	**Add Digits** (Suffix, up to 10)
1	0	101XXXX	-
2	0	101YYYY	-
3	4	-	-

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