

iPrimo Speakerphone Station User's Guide



**This User's Guide is for the following proprietary
common equipment:
FX Digital Communication Systems**

This user's guide applies to the following telephone model:

- 8900-IP-** Rev. A and later.

Contact your Comdial dealer for updates of this as well as other Comdial publications.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed in accordance with the instructions, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna
- Increase the separation between the equipment and receiver
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

ABOUT THIS BOOK

This user's guide serves as both an introduction for new IP speakerphone users and a reference for experienced users.

Introduction

The first chapter of the manual describes the initial setup and adjustments necessary to begin using your speakerphone.

1 Getting Started

The following chapters describe the basic and advanced features available to you from this speakerphone:

2 Answering Calls

3 Making Calls

4 Advanced Call Handling

5 Non-Verbal Messaging

6 Programming

7 Other Advanced Features

Following the advanced feature descriptions are two reference tables, a glossary that defines many general phrases and abbreviations which may not be familiar to users, tips on speakerphone use for the new users, and system feature sets available for various system configurations.

Appendix A Quick Reference guide

Appendix B Display Abbreviations

Appendix C Glossary

Appendix D Speakerphone Characteristics

Appendix E Feature Networking Support

Finally, at the end of the publication, an index provides a detailed reference to the feature locations.

Index

Note: Throughout this book, all references to fixed buttons (keypad, DSS/BLF, SPEAKER, HOLD, etc....) are printed in upper case, italic type; for example, **PRESS *INTERCOM***.”

All references to interactive buttons (which are used to make selections on the speakerphone display) are printed in upper case, bold italic type; for example “**SELECT *OPTIONS***.”

Also, to eliminate confusion, the text of this guide instructs users to “**PRESS**” fixed buttons of the telephone and “**SELECT**” interactive buttons as in the examples above. Instructions to “**DIAL**” refer to numbers or symbols on the keypad.

System to System Network

The system that your IP speakerphone works into can be either a local stand-alone system or part of a system-to-system network. System-to-system networking connects several systems together in an arrangement that allows unified communications throughout the network. Depending upon the networked system to which your IP speakerphone contacts (either the host system or one of the node systems) feature set capability differs. For a complete list of features and their properties see Appendix E, Feature Networking Support. Contact your installer to determine whether your system connection is to a hub or a node system.

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TABLE OF CONTENTS

1. GETTING STARTED	1
1.1 Setting Up Your Speakerphone.....	2
1.2 Positioning Your Speakerphone.....	2
1.3 Using Your Speakerphone	4
1.4 Setting Display Contrast.....	4
1.5 Setting a Personal Ringing Tone.....	5
1.6 Setting Volume Levels.....	6
1.7 Answering and Making Calls	7
1.8 Understanding the Basic Functions	8
1.9 Your Speakerphone's Buttons.....	9
1.10 Your Speakerphone's Display Lights.....	12
1.11 Understanding The Large Screen Display	14
2. ANSWERING CALLS	15
2.1 Answering Outside Calls	15
2.1.1 Using Call Handling Buttons.....	16
2.2 Answering Intercom Calls	17
2.3 Answering Night-Transferred Calls.....	18
2.4 Holding Calls.....	18
2.4.1 Handling Hold Recalls.....	20
2.4.2 Using Directed Call Hold	21
2.4.3 Specific Held Calls	22
2.5 Call Pickup.....	23
2.5.1 Group Call Pickup	23

Contents

2.5.2	Directed Call Pickup	23
2.5.3	Pickup For Monitored Stations	24
2.5.4	Servicing a Monitored Station	25
2.6	Receiving SOHVA Announcements	26
2.6.1	Handling an Incoming SOHVA	26
2.6.2	Voice Announce Blocking	28
2.7	Caller ID (Automatic Number Identification)	29
3.	MAKING CALLS.....	31
3.1	Making Outside Calls	31
3.2	Making Intercom Calls	33
3.3	Automatic Dialing	34
3.4	Redialing.....	35
3.4.1	Redial - Last-Dialed Number.....	35
3.4.2	Redial Programming (Storing Numbers).....	36
3.5	Camping On - Busy Station, Automatic Callback.....	37
3.6	Advanced Camping On Options.....	39
3.6.1	Idle Station, Automatic Callback.....	39
3.6.2	Busy Station, Wait For An Answer (Call Waiting)..	40
3.7	Sending Subdued Off-Hook Voice Announcements	42
4.	ADVANCED CALL HANDLING	43
4.1	Waiting for a Line (Queuing).....	43
4.2	Conferencing.....	44
4.3	Call Forwarding.....	46
4.3.1	Forwarding a Call	46

4.3.2	Diverting All Calls to Another Station	48
4.3.3	Call Forward Outside System (CFOS)	49
4.4	Call Parking	53
4.4.1	Parking a Call.....	53
4.4.2	Handling Park Recalls	53
4.5	Call Transferring.....	54
4.5.1	Screened Call Transfers	54
4.5.2	Unscreened Call Transfers	56
4.6	Other Call Transferring Options	58
4.6.1	Hot Transfer	58
4.6.2	Quick Transfer	58
5.	NONVERBAL MESSAGING	59
5.1	LCD Message Delivery	59
5.2	Message Waiting Light and Messaging.....	63
5.3	Response Message Delivery	65
6.	PROGRAMMING	67
6.1	DSS Numbers	67
6.2	Speed Dial Numbers	69
6.3	Feature Access Codes	73
6.4	LCD Feature Buttons.....	76
6.4.1	Programming Feature Access Buttons.....	79
6.5	Reminder Alert	80
6.6	Response Message Button	83
7.	OTHER ADVANCED FEATURES	85

Contents

7.1 Background Music.....	85
7.2 Line Groups	86
7.3 Do Not Disturb Condition	87
7.4 Automatic Redial	89
7.5 Wireless Paging System.....	91
7.6 Headset Jack	94
7.7 Account Codes.....	96
7.8 Dial By Name	97
7.9 Volume Control.....	99
7.9.1 Setting Current Volume Level	99
7.9.2 Muting Your Speakerphone	101
7.10 Programmed Button Display	102
7.10.1 Button Functions Display (Button Query).....	102
7.10.2 Busy DSS/BLF Button Inquiry	102
7.11 Paging.....	103
7.12 Viewing The Call Log.....	105
Appendix A - Feature Access Codes	107
Appendix B - Display Abbreviations.....	111
Appendix C - Glossary	119
Appendix D - Speakerphone Characteristics	131
Appendix E - Feature Networking Support	135

1. GETTING STARTED

Welcome

Congratulations and thank you for using a Comdial telephone! Your Internet Protocol (IP) large screen display speakerphone is supported by a communication system with hundreds of built-in, standard features. This manual serves as a helpful guide for using these various functions.

The sections in this introductory chapter help you initially set up your speakerphone and become familiar with the controls and indicators. The remaining sections are titled as follows:

- **Setting Up Your Speakerphone**
- **Understanding the Basic Functions**
- **Your Speakerphone's Buttons**
- **Your Speakerphone's Display Lights**

1.1 Setting Up Your Speakerphone

When your new speakerphone arrives, you or the system installer must unpack it and make the necessary connections. Comdial publication IMI81-082, *Installing the IP Speakerphone*, discusses the technical installation requirements.

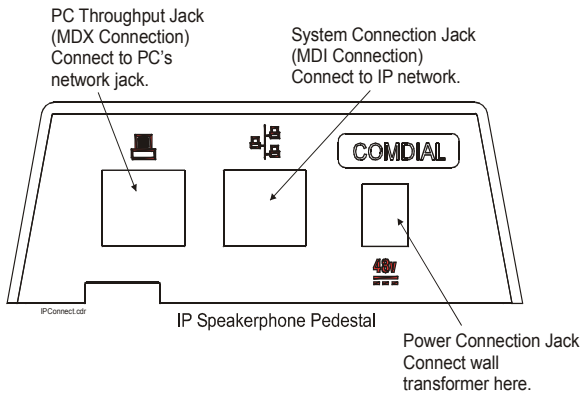


Figure 1-1 IP Speakerphone Pedestal

The following paragraphs in this chapter of the user guide describe a few initial adjustments that, once the station is properly installed, you can make to allow you to quickly begin making and answering calls with some of the more basic features.

1.2 Positioning Your Speakerphone

You should adjust the position of the speakerphone on your desk or table to suit your individual needs and maximize the performance of the sound activated features. When using your speakerphone, the microphone and loudspeaker are farther from you than when you use a handset. Some positioning tips to consider include:

For the microphone to best detect your voice, speak within three feet of it and face the speakerphone.

Background noise may prevent the sound-activated switches from operating properly. Avoid placing the speakerphone where it will detect sounds from typewriters, keyboards, printers, paging systems, or other equipment.

Place the telephone on a hard surface and away from table edges. Do not place the telephone in corners or enclosures. Do not let obstructions come between you and the microphone.

Your telephone's pedestal is adjustable in height to allow you to select the most comfortable viewing angle. When you receive the telephone, the pedestal is in its lowest position—flush against the pedestal.

- **To Adjust the Pedestal,**

1. Grasp the rear of the pedestal base firmly with one hand and lift the rear portion of the telephone upward with your other hand.

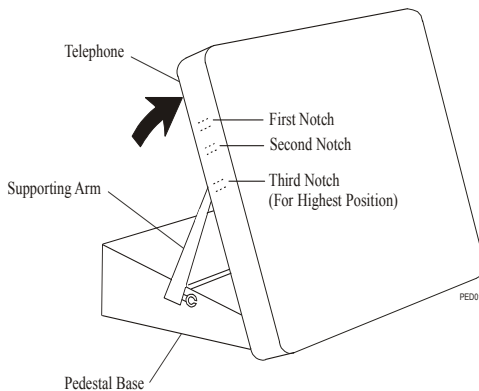


Figure 1-2 Adjusting the Pedestal

2. Lift the telephone upward with one hand and raise the telephone supporting arms upward with your other hand. (Notice there are three sets of notches under the telephone corresponding to the three positions available.)
3. When the telephone is at the desired height, select the closest pair of notches and insert the supporting arms in the notches. Press down slightly on the telephone until you feel the supporting arms snap into place.

Also remember, as with any piece of electronic equipment, your telephone may be damaged by contact with liquids. Please try to place the telephone in an area that is free from the danger of spills.

1.3 Using Your Speakerphone

- **To manually place a call using your speakerphone,**
 1. Press *Intercom* or *Line* button.
 2. Dial the number.
 3. When party answers, speak toward the telephone.
- **To automatically dial a number using your speakerphone,**
—Press the pre programmed speed dial or DSS/BLF button and speak toward the telephone when your party answers.
- **To answer a call with your speakerphone,**
 1. Press the *Intercom* or line button with flashing red or orange light.
 2. Speak toward the telephone to answer the call.
 3. Press the Speaker button to end.

NOTE: For more tips and information on speakerphone operation including the use of a Full-Duplex Speakerphone, see Appendix D, Speakerphone Characteristic on page.131

1.4 Setting Display Contrast

You can darken or lighten the contrast of the display for best viewing.

- **To adjust the display contrast,**
 1. Select *Options*.
 2. Select *Programming*.
 3. Select *Contrast Level*.

4. Select the Contrast Level interactive button (to the right of the LCD, on the same row as the words "Contrast Level") once for each change of darkness you desire. Each press of the button makes the display darker until you go past level eight and return to level one.
5. Select *EXIT* to end.

1.5 Setting a Personal Ringing Tone

You can choose one of eight different ring tones for your telephone. Often, when several telephones are located close together, each user chooses a different personal ring tone.

• **To Select One Of The Ring Tones, Proceed As Follows:**

1. Select *OPTIONS*.
2. Select *Programming*.
3. Select *NEXT*.
4. Select the *Ring Tone* interactive button (to the right of the LCD) to scroll through the eight ring tones.
5. Select *EXIT* to end.

The next time your telephone rings, you will hear the new ring tone.

1.6 Setting Volume Levels

The volume control on your telephone is a multipurpose control you can use to set the volume (loudness) of the ringer, the speaker, and the handset. There are four ringer loudness levels (plus an off position).

- **To Set The Ringer Loudness Level,**

1. While your telephone is on-hook and idle, press the *VOLUME UP* or *VOLUME DOWN* button once for each change in loudness you desire. The ringer sounds once for each change as an example of the current setting.
2. SELECT *SAVE* to end.

NOTE: If you set the ringer to the OFF position, your telephone sounds a short ring burst once for each call you receive at your station.

- **To Set The Speaker And Handset Loudness Levels,**

1. Press the *INTERCOM* button.
2. Press the *VOLUME UP* or *VOLUME DOWN* button once for each change in speaker volume that you desire.
3. Select *SAVE*.
4. Lift the handset.
5. Press the *VOLUME UP* or *VOLUME DOWN* button once for each change in handset volume that you desire.
6. Select *SAVE*.

NOTE: When a call ends, the system resets the speaker and handset volume of all future calls to the programmed setting. For instructions in setting your speakerphone's default volume, see Volume Control section in the system specific Other Advanced Features chapter on page.99

1.7 Answering and Making Calls

Your speakerphone is now properly configured to answer and make calls to both stations within your system (intercom calls) and outside lines. Remember that when dialing an outside number, you must first select a line to connect your system to the local exchange.

- **When You Hear Outside Ringing (Long Bursts),**

1. Press the flashing line button.
2. Speak toward the telephone or lift the handset if privacy is desired.

- **When You Hear Intercom Ringing (Two Short Bursts),**

1. Press *INTERCOM*.
2. Speak toward the telephone or lift the handset if privacy is desired.

- **To Dial An Outside Number Manually,**

1. Press *INTERCOM*.
2. DIAL 9 or press a line button to select a specific line (See Line Groups in the system specific Features chapters for more information on selecting an outside line).
3. Listen for dial tone.
4. Dial the number.
5. Lift the handset if privacy is desired.

- **To Dial An Intercom Number Manually,**

1. Press *INTERCOM*.
2. Dial the extension number (called telephone will ring or tone will be heard).
3. Speak toward telephone or lift the handset if privacy is desired.

1.8 Understanding the Basic Functions

Your speakerphone provides many versatile features for your use. These features are explained in terms of what they allow you to do.

Alphanumeric Display (Liquid Crystal Display—LCD)

- Displays time, day, date, and active call information.
- Keeps you apprized of the status of your telephone.
- Provides programming prompts.

Headset Jack

—Your iPrimo LCD speakerphone is equipped with a headset jack that provides an interface for a headset.

Message-Waiting Light

—Indicates that a message awaits pick up.

Microphone Opening

—Allows hands-free operation of speakerphone (speak clearly toward microphone opening).

Speaker

- Sounds distant party's voice.
- Sounds ringing and call-in-progress tones.

1.9 Your Speakerphone's Buttons

Hold Button (HOLD)

- Places a line or intercom call on hold.
- Stores pauses in number sequences during programming.
- If available, scrolls through LCD response messages.
- If multiple held calls feature is available, scans or scrolls through calls placed on hold (when hold light is flashing).

Interactive Buttons (located below alphanumeric display)

- Provide quick and easy access to system features.
- Provide straightforward button programming without dialing codes (the interactive buttons themselves, however, are not programmable).

Intercom Button (INTERCOM)

- Selects an intercom line.
- Allows you to initiate many of the telephone's features.

Mute Button (MUTE)

- Keeps the person on the line from hearing your conversation.
- Allows reply to a Subdued Off-Hook Voice Announcement (SOHVA).

Direct Station Select/Busy Lamp Field (DSS/BLF)

Programmable Buttons

- Allow you to store numbers for automatic dialing functions.
- Allow you to store telephone extension numbers for Direct Station Selection (DSS).
- May be programmed as a feature button.
- May be designated a line button by your system installer.

Shift Button (SHIFT)

—Allows you to enter a second tier for storing and/or automatically dialing speed dial numbers. (That is, you can store two speed dial numbers at every programmable button location—one in the regular tier and one in the second tier). You activate the shift function by pressing this button and turning the shift light on before storing or automatically dialing a speed dial number from the second tier.

Speaker Button (SPEAKER)

- Turns your speaker on or off.
- Disconnects a call when you are on a hands free call.
- Ends or cancels programming.

Tap Button (TAP)

- Recalls dial tone or generates a hookflash.
- Retrieves held calls or last call placed on hold.
- Places flash while programming speed dial number.

Transfer/Conference Button (TRNS/CONF)

- Transfers calls.
- Sets up conference calls.

Volume Control (VOLUME UP or VOLUME DOWN)

—Regulates the volume of the ringer, speaker, handset, headset, background music, and group listening mode.

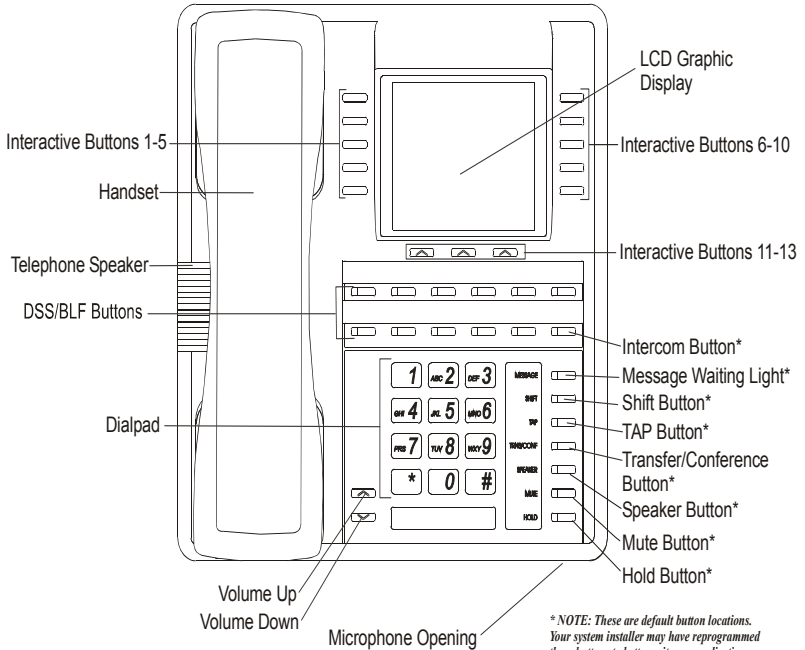


Figure 1-3 8900-IP Large Screen Display Speakerphone

1.10 Your Speakerphone's Display Lights

The lights (LEDs) on your LCD speakerphone indicate the status of lines, features, and intercoms.

Busy Lamp Field (BLF) lights (next to a Direct Station Select/Busy Lamp Field or DSS/BLF programmable button):

- Steady red = station is in use.
- Flashing red = station is receiving a call.
- Winking/Fluttering red = message-waiting light set for you by station associated with that DSS/BLF button.

Next to a line button:

- Steady green = this is your line, either on-hook (in a hands free mode) or off-hook, when the line is active.
- Steady red = another station is using this line.
- Flashing red = a call is coming in on this line.
- Flashing orange = this line will be answered when you lift the handset.
- Winking green = your line is on hold.
- Winking red = the call has been placed on hold by another station.
- Fluttering orange or green = your line has recalled from hold.
- Fluttering red = the line put on hold by another station has recalled.

Note: You can find the programmable buttons that the installer designates line buttons in the same location as the DSS/BLF buttons. Ensure that these buttons are labeled correctly to indicate their unique features.

Next to a fixed feature or programmable feature button:

- Steady red = the feature is on.
- Steady off = the feature is off.

Note: You can find the programmable buttons that the installer designates feature buttons through user programming in the same location as the DSS/BLF programmable buttons. Ensure that these buttons are labeled correctly to indicate their unique features.

The MUTE Button:

—On steady = called party cannot hear your conversation.

The INTERCOM Button:

- Steady green or red = you are using your intercom.
- Fluttering red = an LCD message is set on your telephone for others to receive when calling.
- Flashing orange = someone is calling your extension or a call is being transferred to you.

The HOLD Button:

—Winking green = a line is on hold at your station.

The MESSAGE-WAITING Button:

—Winking red = message awaits pick up.

The SPEAKER Button:

- On steady (with the telephone on hook and busy) = speakerphone mode
- On steady (with telephone on hook and idle) = background music is turned on.

1.11 Understanding The Large Screen Display

Your speakerphone has a large screen display consisting of six lines of 24 possible character positions per line. This provides you with much more system information than can be presented on two-line displays. This large display allows you many programming options as well as quick and easy selection of the many features available on your speakerphone. Your speakerphone has 13 interactive buttons for selecting or programming features.

When your speakerphone is idle, the first line in your display shows the day, date and time while the sixth line displays the word **OPTIONS**. If your system is using the voice mail option, this is also indicated in the sixth line by the word **VMAIL**. If your voice mail has four messages for you, for example, the **VMAIL** display is replaced by **4MSG**.

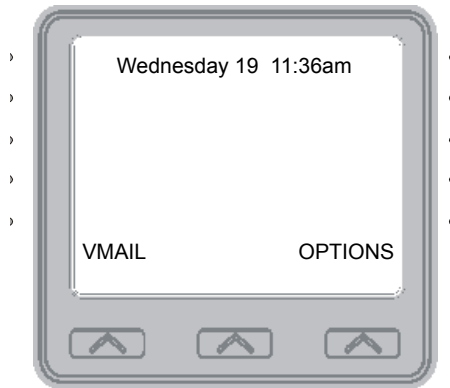


Figure 1-4 Idle Display

Lines two through four are used on the idle display to indicate features that may be active (flashing), enabled or set.

2. ANSWERING CALLS

2.1 Answering Outside Calls

When an outside call rings at your station, the LCD screen displays the system line number of the incoming call (e.g., L123) and any caller ID information that your ringing line is programmed to receive. In addition to simply lifting the handset, your other options for answering the call are displayed above the interactive buttons.

- **When you hear outside ringing (two long bursts) and observe an orange flashing light,**
 1. For speakerphone, press the flashing line button or select *Answer* and speak toward the telephone.
 2. For privacy, lift the handset.
 3. Select *Do Not Disturb* if you do not wish to answer the call at this time. (Selecting *Do Not Disturb* stops your telephone from ringing but continues to send a ringing tone to the caller.) The associated BLF will continue to flash until the caller disconnects.

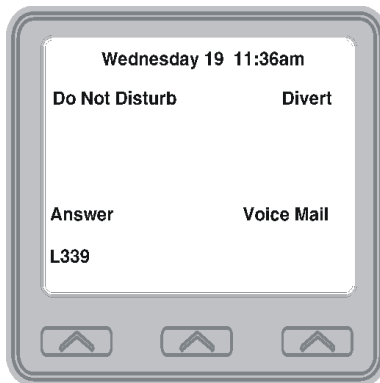


Figure 2-1 Answering an Outside Call

- **When you hear outside ringing (two long bursts) and observe a red flashing light,**
 1. Press the flashing line button or Select *Answer*.
 2. Speak toward telephone or lift the handset if privacy is desired.
 3. Select *Do Not Disturb* if you do not wish to answer the call at this time.

NOTE: For more information on setting Do Not Disturb at your station, see section titled Do Not Disturb Condition on page 87.

2.1.1 USING CALL HANDLING BUTTONS

- **After you have answered an outside call at your station, your LCD will display HOLD, TRANSFER, CONFERENCE, GROUP LISTEN, and RECORD**
 1. Select *Hold* to place the call on hold at your station, or
 2. Select *Transfer* to initiate a transfer to another station, then dial the station number, announce the call or hang up to complete the transfer, or



Figure 2-2 Selecting Hold, Transfer, or Conference

3. Select *Conference* to initiate a conference call.

4. Select *Group Listen* to activate the speaker while using the handset or headset, so a group can listen to the conversation but not interact with the calling party.
5. Select *Record* to record the call (if VMAIL is installed).

2.2 Answering Intercom Calls

An intercom call is one that is made from one system telephone to another. Your station receives intercom calls in one of two ways depending upon system programming. In a voice-first setting, a short tone is followed by the caller's voice heard on the speaker. With a tone-first setting, the telephone rings in a distinctive pattern and the user of the receiving station must take action to answer.

As with an outside call, your screen displays the line number of the incoming call (e.g., L123) and any caller ID information that the ringing line is programmed to receive.

- **When you hear an intercom tone followed by a caller's voice,**
—Speak toward the telephone to answer, or lift the handset if privacy is desired.

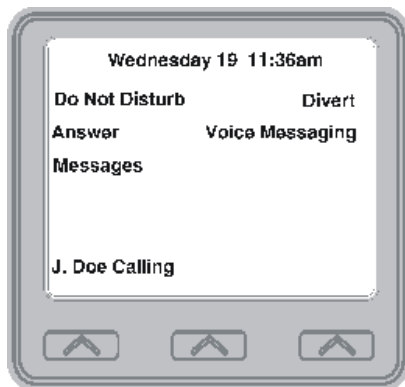


Figure 2-3 Intercom Call from J. Doe

- **When you hear intercom ringing (two short bursts),**
 1. Press *INTERCOM* or select *Answer*.
 2. Speak toward the telephone or lift the handset if privacy is desired.
 3. Select *Do Not Disturb* if you do not wish to answer the call at this time.

NOTE: For more information on setting Do Not Disturb at your station, see section titled Do Not Disturb Condition on page 87.

2.3 Answering Night-Transferred Calls

The system attendant can transfer incoming calls to a particular station or stations for off-hour ringing.

- **If your telephone rings,**
 1. Press the line button with the flashing light.
 2. Lift the handset to talk.
- **When you hear loud ringing anywhere in the system,**
 1. Lift the handset.
 2. Press *INTERCOM*.
 3. Choose the ringing zone:
 - Dial 65 through 68 to select ringing zone (1-4).
 - Dial 69 to answer for any zone.

2.4 Holding Calls

You can place a call on hold and retrieve it later. With a regular hold, you can pick up the held call at your telephone or another user can pick the call up at a telephone sharing the held call line appearance.

- **To place a call on hold,**
—Press *HOLD* (station button) or select *Hold* (interactive button).
- **To retrieve a held call,**
 1. Press the line button of the held call (with winking green light), or *INTERCOM* for intercom call held or press *TAP*.
 2. Speak toward the telephone or lift the handset if privacy is desired.



Figure 2-4 Holding a Call

Note: Unless you use your HOLD button to scroll through the calls on hold, TAP always retrieves the last number placed on hold, regardless of whether you have line appearance for the line on which the call is holding.

With an exclusive hold condition, you must pick up the held call at your telephone; no other telephone has access to the call.

- **To place a call on exclusive hold,**
—Press *HOLD* twice.

- **To retrieve exclusive hold,**
 1. Press the line button of held call (with winking green light), or press *TAP*.
 2. Speak toward the telephone or lift the handset if privacy is desired.

2.4.1 HANDLING HOLD RECALLS

After a call has been on hold for the period of time (set by the installer of your system), the system causes four quick hold recall tone bursts to sound at your telephone, the flash rate of the line button becomes faster and the light becomes orange. If the call is on exclusive hold, it will revert to manual hold after the hold recall period.



Figure 2-5 A Recalling Held Line

- **If a held line is recalling, choose one of the following:**
 1. Select *Hold* to place the call on hold at your station and restart hold timer.
 2. Lift the handset, press the line button (with flashing orange light) or select *Answer* to retrieve the call.

2.4.2 USING DIRECTED CALL HOLD

The installer can add a directed station hold feature to your telephone. With this feature, you can place a call on hold at another station. You can also pick up the held call that has been waiting the longest length of time at another telephone.

- **To place a call on directed station hold,**
 1. Answer the call.
 2. Press *INTERCOM* or *TRNS/CONF* if intercom call.
 3. Dial *90.
 4. Dial the extension number of the station to receive the held call.
 5. Hang up.
- **To retrieve a held call at another station,**
 1. Press *INTERCOM*.
 2. Dial #90.
 3. Dial the extension number of the station where the call is currently on hold.
 4. Press *TAP* to answer call.

2.4.3 SELECTING SPECIFIC HELD CALLS

Often, you will have more than one call on hold at your station. You know you can retrieve the last call placed on hold simply by pressing TAP; however, if you do not have line appearance for a line on which another call is holding, the system provides a way for you to access that call before servicing the last call you placed on hold.

- **To scan your held calls and retrieve a specific one:**

1. Repeatedly press *HOLD* to scan held call list.
2. Press *TAP* to retrieve call.

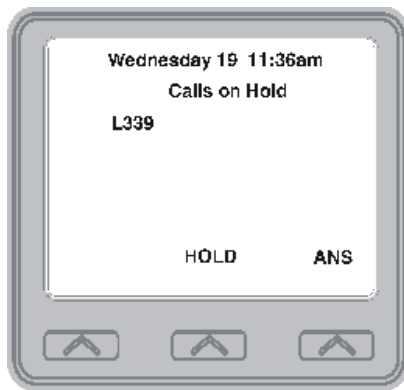


Figure 2-6 Scan Calls on Hold

2.5 Call Pickup

The Impact system offers three distinct methods to answer incoming calls that are ringing at other stations.

2.5.1 GROUP CALL PICKUP

The installer often arranges several telephones together in a user group. If your telephone is so arranged, you can answer calls that are ringing at other stations within your particular group.

- **To answer a call that is ringing within your group,**
 1. Press *INTERCOM*.
 2. DIAL #4.
 3. Speak toward the telephone, or lift the handset if privacy is desired.

2.5.2 DIRECTED CALL PICKUP

Also, you can answer a call that is ringing at any telephone in the system if you know the ringing telephone's extension number.

- **To answer a call that is ringing at any telephone in the system,**
 1. Press *INTERCOM*.
 2. Dial *4.
 3. Dial the extension number of the ringing telephone.
 4. Speak toward the telephone, or lift the handset if privacy is desired.

2.5.3 PICKUP FOR MONITORED STATIONS

Your telephone may have the personal intercom number of another telephone appearing at a programmable button location. You can use the light associated with this button to monitor the status of that telephone, and you can press the button to make a call to that telephone if you wish. The associated light is known as the Busy Lamp Field (BLF) light, and the button is known as the Direct Station Select (DSS) button. If the installer arranged for your telephone to have the station monitoring feature, the BLF light shows activity status at the monitored telephone.

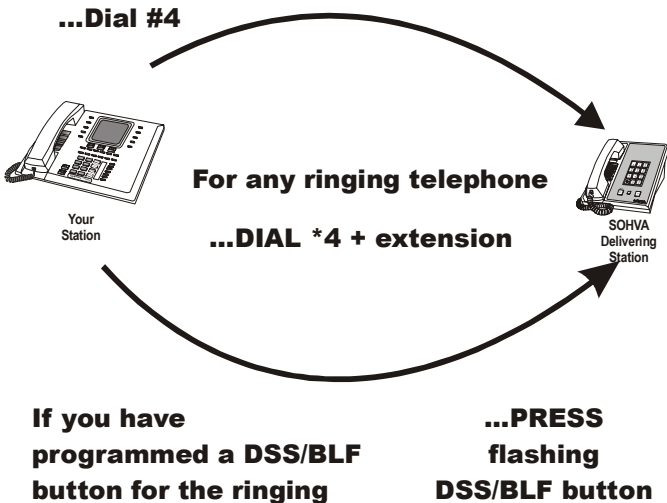
- **To monitor another telephone,**
 - Observe the BLF light indications next to the Direct Station Select (DSS/BLF) button:
 - Off = Station is idle
 - Flashing (if enabled) = Station has an incoming call
 - On = Station is busy

Note: If you do not have the station monitoring feature, the BLF light shows just the following information: Off = idle, On = busy.

2.5.4 SERVICING A MONITORED STATION

- To call an idle monitored station or to answer one that is ringing,
 1. Note the BLF light condition.
 2. Press the assigned DSS/BLF button.
 3. Speak toward the telephone, or lift the handset if privacy is desired.

**If ringing telephone
is within your
designated calling
group...**



Note: If you place this call on hold or if you transfer it to another telephone, the BLF light flashes a hold signal. You can retrieve the call by pressing TAP.

2.6 Receiving SOHVA Announcements

2.6.1 HANDLING AN INCOMING SOHVA

Subdued Off-Hook Voice Announcements (SOHVA), allows an intercom caller to break into your call by making an announcement through your handset receiver. The distant party that you are currently talking to cannot hear the announcement made by the SOHVA caller.

- **To respond to a SOHVA verbally,**
 1. Select and hold the *REPLY* interactive button.
 2. Speak into the handset. The distant party cannot hear your response.
 3. Release *REPLY* after response is complete to return to distant party.



Figure 2-7 Handling an Incoming SOHVA Call

- **To respond to a SOHVA non verbally through Response Messaging,**

1. Select *Message*.
2. Select one of the messages appearing in your LCD by selecting the corresponding interactive button. (Message appears in the display of the telephone making the SOHVA).
3. Continue your current call with distant party. (SOHVA caller is automatically disconnected from your telephone).

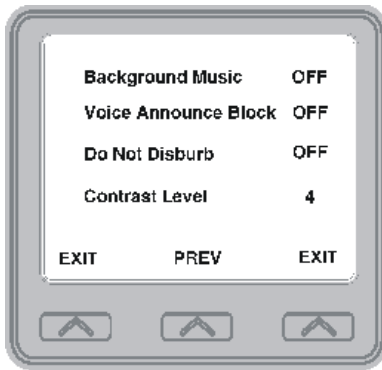


- **To respond to a SOHVA by blocking (see Voice Announce Blocking for more information),**

- Select *BLOCK* when you hear the SOHVA tone. (SOHVA call is disconnected).

Note: A station that is currently active in speakerphone mode or has Voice Announce Block set CAN NOT receive a SOHVA.

2.6.2 VOICE ANNOUNCE BLOCKING



If your system installer makes this feature available, you can prevent voice announcements from sounding over your telephone speaker if you wish. This feature also blocks Subdued Off-Hook Voice Announcements (SOHVA) and will refuse any attempted SOHVAs.

Figure 2-8 Selecting Voice Announce Block

- **To block (unblock) all voice-announced calls,**
 1. Select *OPTIONS*.
 2. Select *Programming*.
 3. Select *Voice Announce Block*.
 4. Select *ON* interactive button to block (or *OFF* to unblock).
 5. Select *EXIT* to end.

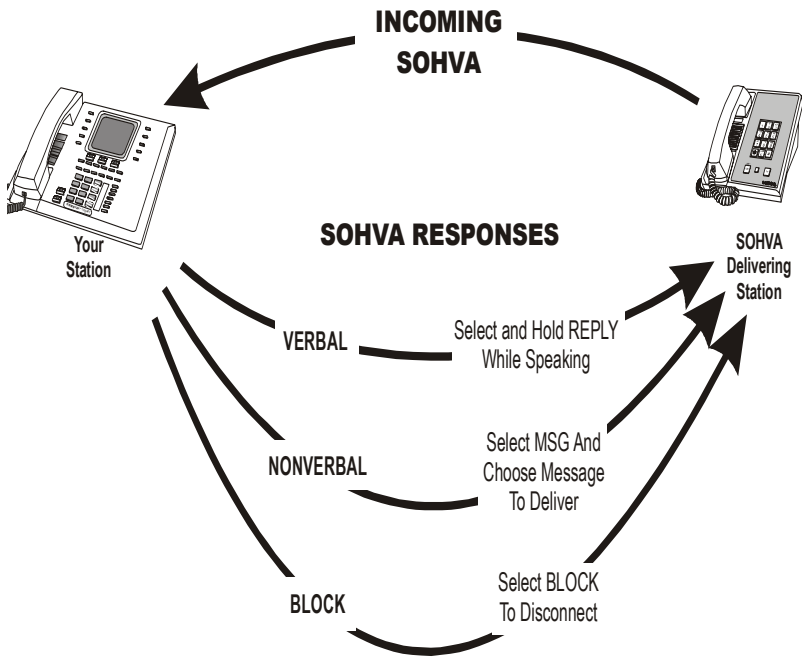


Figure 2-9 SOHVA Responses

2.7 Caller ID (Automatic Number Identification)

When installed by system programming, the Caller ID feature allows you to view incoming call numbers before you answer them. Incoming call numbers flash in the left half of the LCD. If the name of the calling party is available it will display in the second half on the right side of the LCD. If you answer the call, the number appears steady in the left half of the LCD.

The system also stores numbers that ring on your line but receive no answer. The system indicates that it has stored ring-no answer numbers by causing the programmed Caller-ID (CID) light on your telephone to flash. Pressing the CID button allows you to view the stored numbers one at a time. Pressing the programmed **SAVED NUMBER REDIAL** button causes the system to dial the displayed number. If the call has been returned by someone else, selecting the **T** key reveals who returned the call. Everyone sharing your line can scroll through the stored numbers and choose which calls to return.

- **To scroll through ring-no answer numbers stored on your system (CID light is flashing),**
 1. Select the *CID* button on your telephone. Your LCD will display the calling number, date, and time the call came in. The most recent call appears first in the list.
 2. Select the *CID* button each time you wish to display the next most recent ring-no answer call to your line.
 3. To dial one of the numbers in the redial queue, select the *SAVED NUMBER REDIAL* button. The system will automatically dial the number.

Depending on your system programming, when a call is returned it might remain in the ring-no answer queue or the system might delete it from the ring-no answer queue. Your system installer can tell you how the feature is programmed. If the system is programmed to leave a returned number in the redial queue, the display will show a “S” next to numbers that have been returned.

- **To determine who viewed the number and returned the call,**
—DIAL *.

3. MAKING CALLS

3.1 Making Outside Calls

You can manually dial a number over any telephone line you select. Or, if the installer assigned a prime line or the idle line preference feature to your LCD speakerphone, the system automatically selects a line for use when you lift the handset or press the speaker button.

- **To dial an outside number manually,**
 1. Press *INTERCOM* and dial 9, or select a line button.
 2. Listen for dial tone.



Figure 3-1 Outside Dialing Display

3. Dial the number.
4. Lift the handset if privacy is desired.

Making Calls

If your station has an assigned prime line, you will not have to select a line before dialing outside your system.

- **To dial an outside number using your prime line,**
 1. Press *SPEAKER* or lift the handset if privacy is desired. Outside line is automatically selected.
 2. Listen for dial tone (LCD displays “Dial Number”.)
 3. Dial number.

3.2 Making Intercom Calls

There are two methods for making an intercom call. One causes the called telephone to ring (tone-first). The other causes your voice to sound out at the called telephone (voice-first). Your installer can set the system to deliver either tone-first or voice-first calling.

Note: The following instructions assume a tone-first setting. You can change a call to voice announce signaling for that call simply by pressing the INTERCOM button again after dialing the extension number or by pressing the DSS/BLF button again.

- **To manually cause the other telephone to ring (tone calling),**
 1. Press *INTERCOM* or select *Dial by Name*.
 2. Dial the extension number (called telephone will ring).

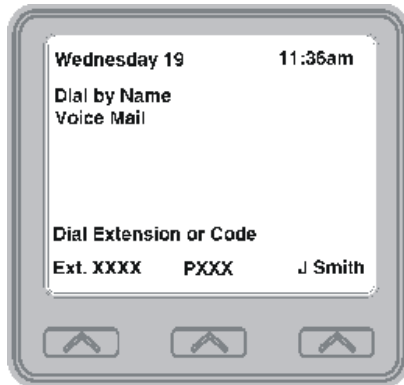


Figure 3-2 Intercom Call Screen

- **To tone call automatically,**
 - Press *DSS/BLF* button (called telephone will ring).

Note: The following instructions assume a voice-first default setting. Any user can change a call to a tone signaling for that call simply by pressing the INTERCOM button again after dialing the extension number or by pressing the DSS/BLF button again.

- **To voice announce manually,**
 1. Press *INTERCOM*.
 2. Dial the extension number.
 3. Speak your announcement.
- **To voice announce automatically,**
 1. Press the DSS/BLF button.
 2. Speak your announcement.

3.3 Automatic Dialing

This feature provides one- or two-button speed dialing using programmable buttons at which you have previously stored numbers. Two levels of number storage are available at each storage location, and you can use one or both levels as needed. Further, since you usually store a line choice as part of a speed dial number, line selection is automatic with speed dialing.

There are two types of speed dial numbers: (1) numbers that you store for your own use (personal speed dial numbers), and (2) numbers that the system attendant stores for everyone's use (system speed dial numbers).

- **To automatically dial a number stored at one of the programmable buttons on your station, choose one of the following:**
 - Press the programmed speed dial button, or press *SHIFT* and the programmed speed dial button.

- **To speed dial a personal speed dial number,**
—While on hook, dial the speed dial number on the dial pad (0 to 9).
- **To speed dial a system speed dial number,**
—While on hook, dial * and the system speed dial number.

Note: If you are already on a line, you must press SHIFT before dialing the personal or system speed dial numbers that are stored at the dial pad. Also, if a speed dial's preselected line is in use, the speed dial will not engage.

*Note: Due to programming action, the available system speed dial codes on some systems can be either *100 - *599, *000 - *999, or *0000 - *1999.*

3.4 Redialing

For instruction on using your system's Automatic Redial feature, see page 89 in the Other Advanced Features chapter.

3.4.1 REDIAL - LAST-DIALED NUMBER

- **To redial the last-dialed number,**
 1. Press *SPEAKER* or hang up the handset to disconnect the current ringing or busy tone.
 2. DIAL #.
 3. Listen for ringing or busy tone over the telephone speaker.

3.4.2 REDIAL PROGRAMMING (STORING NUMBERS)

- **To permanently store a number you've just dialed, choose one of these methods:**
 1. While the number is still ringing, select *MORE*, then select *SAVE*.
 2. Press an unused programmable button location.



- **To store a number while you are on a call (if available),**
 1. Press the programmed *SAVE NUMBER REDIAL* button twice (the display prompts you to dial a number).
 2. Dial the number that you wish to save (the system immediately saves the number for later redial; it does not dial it over the line you are on now).
- **To redial the saved number,**
 1. Press a line button to select a line.
 2. Press the programmed *SAVE NUMBER REDIAL* button (system automatically dials the number that you saved earlier).

3.5 Camping On - Busy Station, Automatic Callback

If you call another station and receive a busy signal or a Do Not Disturb tone, you can press a button that will cause the system to ring your telephone when the station is available. This is called “camping on at a station.” Please note that you can camp on to only one station at a time.

- **To camp on at any busy station,**



Figure 3-3 Setting Camp-On

1. Select *Camp-On*.
 2. Your telephone immediately hangs up. When the station you called becomes available, your telephone will ring with five short tone bursts.
- **When you hear five short tone bursts,**
 - Press *INTERCOM* or select *Answer*. The other telephone will start ringing.

Note: If you do not press INTERCOM after the ring back tones within the time limit set by the installer, the call back is canceled.

- **To cancel the call back before your telephone sounds the tone bursts,**
—Press *INTERCOM* and dial #6 or select *CLEAR*.
- **To camp on at a station with a Do Not Disturb condition set,**
—Select *Camp-On*. A call back will occur when called station is no longer set in the Do Not Disturb mode.

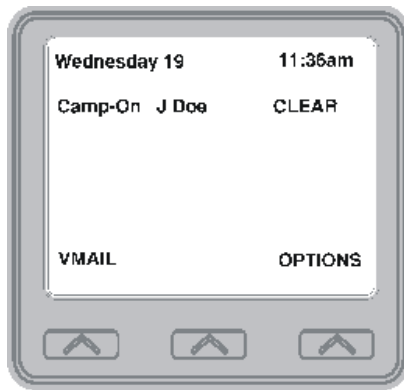


Figure 3-4 Clearing Camp-On

3.6 Advanced Camping On Options

3.6.1 IDLE STATION, AUTOMATIC CALLBACK

If you call another station and hear ringing but receive no answer, you can press a button that will cause the system to ring your telephone when any activity is initiated at that station.

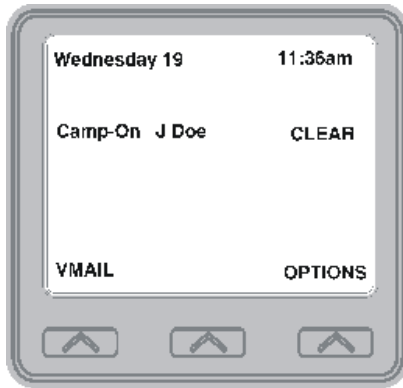


- **To camp on at a station for which you hear ringing but receive no answer,**
 - Select *Call Back*. Callback will occur after any activity is initiated at dialed station.
- **To cancel the camp-on condition,**
 - Press *INTERCOM* and dial #6 or select *CLEAR*.

3.6.2 BUSY STATION, WAIT FOR AN ANSWER (CALL WAITING)

If the telephone you have called is busy, you can send a call-waiting tone to the telephone and wait on the line for an answer (you must be using the handset for this feature to work).

- **To activate call waiting when you hear a busy signal,**
 1. Dial *6 (called party hears tone).
 2. Wait on line for reply.
 3. Called party can place the current call on hold or disconnect from the call to answer your call-waiting tone, or choose to ignore your call-waiting tone and continue current conversation.



- **To cancel call waiting,**
 1. Press *INTERCOM* and dial #6.
 2. Hang up or press *SPEAKER* to end.

- **To answer a call-waiting tone if you receive one while on a call,**
 1. Hear a short tone burst in receiver.
 2. Place the current call on hold, or complete the call and hang up (waiting call will ring at your telephone).
 3. Lift the handset to answer call.

3.7 Sending Subdued Off-Hook Voice Announcements

You can make a private voice announcement to another station that is off-hook and busy on a call if the installer has arranged the system to provide this feature.

- **Make a SOHVA announcement using the SOHVA button as follows:**



1. Make an intercom call and hear busy tone. If called station is on outside line, ring-back tone is heard, but SOHVA is still available.
2. Select *SOHVA* and hear several quick tone bursts.
3. Make the announcement.
4. Wait on line for reply (either verbal or LCD reply). If your station returns to idle, the called party has blocked your SOHVA.

Note If the called station is currently in speakerphone mode or if the SOHVA has been denied by system programming, inter-active button selection for SOHVA will not be available.

4. ADVANCED CALL HANDLING

4.1 Waiting for a Line (Queuing)

If all the lines in a line group are busy, you can place your telephone in a queue to await an idle line.

- **To Queue for a line group,**
 1. Press *INTERCOM*.
 2. Dial the line group access code (see Line Group Access code table on page 86 for your systems's codes).
 3. Hear busy tone.
 4. Dial *6.
- **If you have line appearance for a particular line and with to queue for it,**
 1. Observe the busy status light (LED).
 2. Press *INTERCOM*.
 3. Dial *6.
 4. Press the line button.
 5. When the line group is free, your telephone sounds several short tone bursts. When you hear this, lift handset, hear dial tone, and place the call.
- **To cancel line queuing or line group queuing,**
 1. Press *INTERCOM*.
 2. Dial #6.

4.2 Conferencing

When your telephone is joined together with several other telephones on the same call, the effect is called conferencing. You can make conference calls that involve up to five parties, including you as the originating party, in any combination of outside lines and intercom parties.

Note: When setting up a conference call with outside lines and internal telephones, you must call the outside lines first.

- **To set up a conference call that includes any combination of outside lines and intercom parties,**
 1. Make the first call.
 2. Select Conference, using the interactive button. The call is automatically placed on hold.

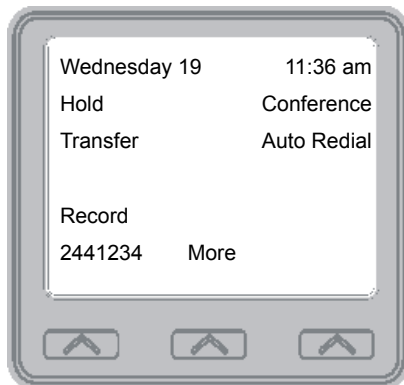


Figure 4-1 Establishing a Conference

3. Select next line and make the next call.
4. Select *Conference* to establish the conference.
5. Press the *TRNS/CONF* button to add more parties.

- **To continue conversation on remaining line after other outside lines have dropped out of conference,**
 1. Press *HOLD*,
 2. Press the line button of the remaining party.
- **To retrieve a line from hold and bring that party back into the conference,**
 1. Press *TRNS/CONF*.
 2. Press line button.
 3. Press *TRNS/CONF*

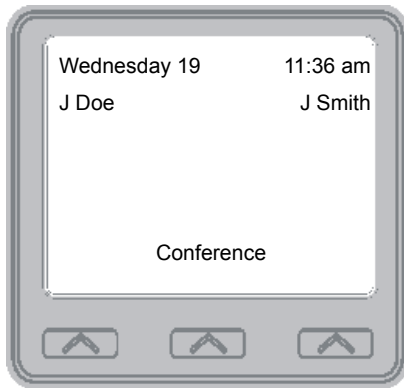


Figure 4-2 A Conference

If you are involved in a conference call with two outside lines, you can drop out of this established conference call and leave the outside lines in the conference with each other. This is known as an unsupervised conference call.

- **To drop out of a conference call you initiated involving outside lines (creating an unsupervised conference),**
 - Dial # (lines remain lighted and in use until one or both outside parties disconnect; when only one party drops out of an unsupervised conference, the other party remains on hold until he hangs up or the line is answered).

- **To rejoin an unsupervised conference between two outside lines,**
—Press *TAP*
- **To drop a party out of a conference call,**
 1. Select *Drop Party*,
 2. Select the party you wish to drop from the conference call by pressing the interactive button beside the appropriate line.

4.3 Call Forwarding

4.3.1 FORWARDING A CALL

You can forward the calls that normally ring at your telephone to another telephone. To remind you that your calls are being forwarded, your telephone will sound a short ring burst each time the system forwards a call.

You can forward calls that ring at your telephone but receive no answer; this feature is valuable if you are frequently away from your desk for short periods of time and find it inconvenient to permanently forward your calls every time you leave.

- **To forward your calls,**
 1. Select *OPTIONS*.
 2. Select *Programming*,
 3. Select *NEXT*

4. Select *Call Forwarding*.

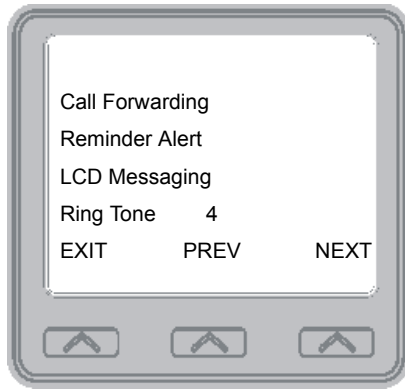


Figure 4-3 Selecting Call Forwarding

5. Choose one of the following call forwarding options:

- Select *Forward All* to forward all calls
- Select *Forward Personal* to forward prime line and intercom calls.
- Select *Forward RNA All* to forward all calls that ring at your station but receive no answer after a programmed number of rings.

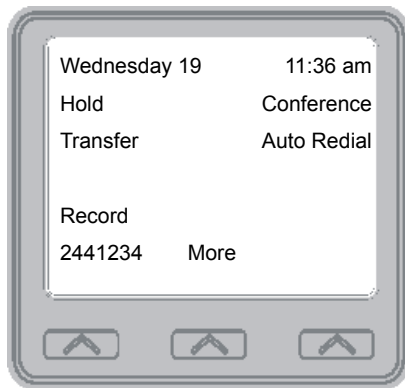


Figure 4-4 Call Forwarding Options

- Select *Forward RNA Personal* to forward your prime line and intercom calls that ring at your station but receive no answer after a programmed number of rings.
 - Select *CFOS* to forward your calls to outside the system.
6. Dial extension number or press *DSS/BLF* button of telephone
 7. Select *EXIT* to end.
- **To cancel call forwarding,**
 - Select *CLEAR* to disable call forwarding



Figure 4-5 Call Forwarding Active

4.3.2 DIVERTING ALL CALLS TO ANOTHER STATION

Call diverting permits you to send an incoming call to another station that you have previously designated. You can divert an incoming call to the designated station whether you are busy or idle.

- **To identify the station to receive diverted calls,**
 1. Press *INTERCOM*
 2. Dial * 55
 3. Dial the extension number of the station to receive the diverted call.

- **To divert calls to the designated station,**
 1. Hear ringing and/or see the flashing line status light.
 2. Select *Divert* (system immediately forwards ringing call to the station you previously designated).

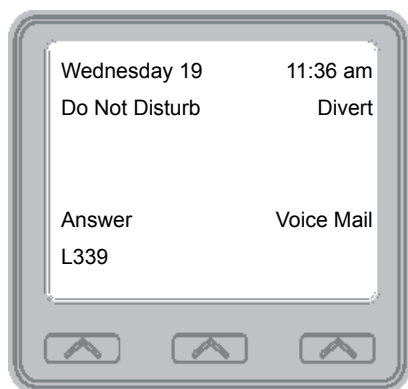


Figure 4-6 Diverting Incoming Calls

4.3.3 CALL FORWARD OUTSIDE SYSTEM (CFOS)

If enabled by your installer, the Call Forward Outside System (CFOS) feature allows you to forward incoming or transferred line calls to telephone numbers outside the system.

- **To activate CFOS with your LCD speakerphone,**
 1. Select *OPTIONS*
 2. Select *Programming*.
 3. Select *NEXT*

4. Select *Call Forwarding*

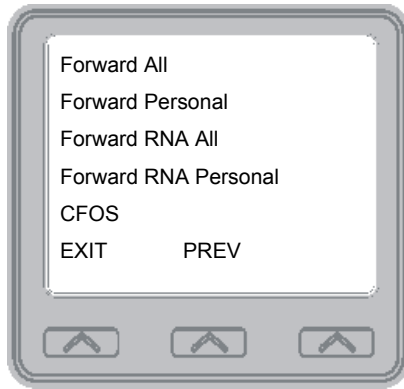


Figure 4-7 Selecting *CFOS*

5. Select *CFOS*
6. Select *NEXT*.
7. Choose a type of *CFOS* by selecting the top right-hand interactive button to scroll through the list of call types

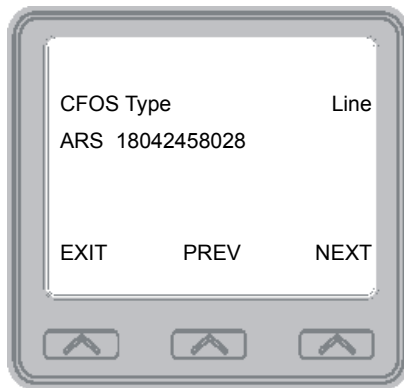


Figure 4-8 Choose *CFOS Type*

- Select *Line* for prime line calls.
- Select *Line Group* for and dial access code for outside calls.

- Select *Prime/Last Line* for the last line used for prime calls.
 - Select *ARS* for calls utilizing the least costly line group available to route a call.
 - Select *ARS programmed number* for selecting a programmed button for ARS calls.
8. Follow the instructions on the LCD display and then select *Done* or do nothing and let previously selected destination remain in effect.
 9. Select *EXIT*.

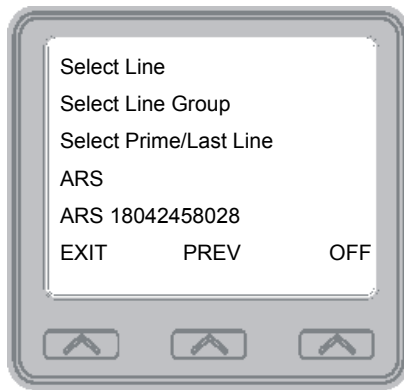


Figure 4-9 Selecting Line

- **To deactivate CFOS,**
—Select *CLEAR*

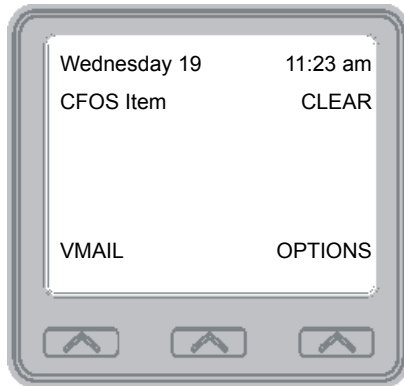


Figure 4-10 Deactivate CFOS

- **To join an active CFOS call from the CFOS-enabled station,**
—Note the flashing HOLD light indicating an active CFOS call, and press *TAP*. Join the CFOS-forwarded party and CFOS destination in a conference call.

* Comdial has taken reasonable steps in the design of all product features, including CFOS, which protect against unauthorized or fraudulent access to, or use of, a system, or which protect against unauthorized, fraudulent or unaccounted-for access to, or use of, long distance lines. However, no system is entirely invulnerable or immune from unauthorized or fraudulent access or use, or unaccounted-for access or use, and therefore Comdial disclaims any and all liability, and makes no warranty, express or implied, relating to unauthorized or fraudulent access or use, or unaccounted-for access or use.

4.4 Call Parking

4.4.1 PARKING A CALL

You can place an intercom or outside call on hold in the system so that it can be answered from any station, even though it may not have a line appearance for the call. You accomplish this by placing the call in one of many park orbits, where the call remains until it is answered.

- **To park a call in orbit,**
 1. While on an outside call, press *INTERCOM* and dial * or press *TRNS/CONF* if intercom call.
 2. Dial the code for park orbit (910-999 for orbit 10-99).
 3. Remember the code for later use or make it known to those who need to know it in order to retrieve the call.
- **To park a call using a programmed PARK button,**

—While on the call, press the programmed Park button (the system places the call in a preselected park orbit and lights the *PARK* light).
- **To retrieve a call that was placed on hold in the system (parked)**
 1. Press *INTERCOM*.
 2. Dial #
 3. Dial the code for the orbit (910-999 for orbit 10-99), or press the programmed *PARK* button.

4.4.2 HANDLING PARK RECALLS

When a parked call times out of the system, it returns to your telephone in the form of a park recall (you hear four short tone bursts at 12 second intervals).

- **To answer a park recall,**
 - Select *Answer*. The call will then connect to your station.
- **To place a park recall on hold at your station,**
 - Select *Hold*. After the call remains on hold for a period of time, it rings back to your telephone as a hold recall.



Figure 4-11 A Park Recall

- **To re-park a park recall and restart the park timer,**
 1. Answer/Retrieve the call.
 2. Select *Park* (the system places the call back in its original park orbit where it remains until it is answered or recalls again).

4.5 Call Transferring

4.5.1 SCREENED CALL TRANSFERS

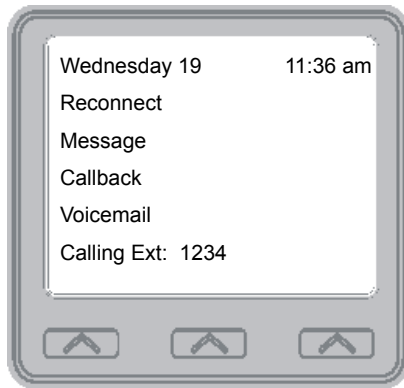
You can answer a call at your LCD speakerphone and transfer it to another telephone. If you first identify the caller to the party receiving the transfer (giving that user the opportunity to prepare for the call), you have made a *screened transfer*.

- **To screen and transfer a call to another telephone in the system,**
 1. Answer the call.
 2. Press the *TRNS/CONF* button or select *Transfer* (call is automatically placed on hold).
 3. Dial the extension number of the telephone to receive the transfer, or press the *DSS/BLF* button for that extension.
 4. Announce the call when the intercom party answers.
 5. Press *SPEAKER* to disconnect (if in speakerphone mode), or hang up.



The intercom party then has the call (if he or she answered the screened transfer with the handset). If you announce the transfer over the speaker, the intercom party's telephone will ring with the transferred call after you hang up.

- **If the intercom party is busy, take one of the following steps (if made available at your telephone by the installer programming):**



1. Select *Reconnect* to reconnect the call to your station.
 2. Select *Message* to leave a message-waiting indication at the called station.
 3. Select *Callback* to camp-on at the called station.
 4. Select *Voicemail* to connect the caller to the busy party's Voicemail.
- **If the intercom party does not answer their telephone when ringing, take on of the following steps:**
 1. Select *RECONNECT* to reconnect the call to your station.
 2. Select *MESSAGE* to leave a message-waiting indication at the station.
 3. Select *CALLBACK* to leave a message-waiting indication at the station.

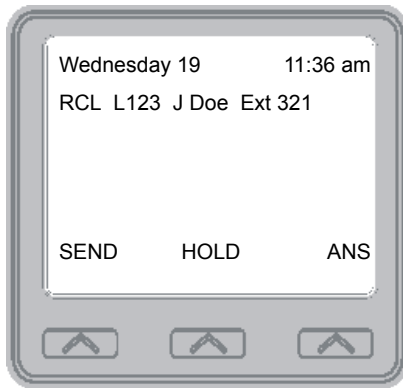
4.5.2 UNSCREENED CALL TRANSFERS

You can answer a call at your LCD speakerphone and transfer it to another telephone. If you transfer the call without first announcing it, you have made an *unscreened transfer*.

- **To transfer an unscreened call to another system telephone.,**
 1. Answer the call.
 2. Press TRNS/CONF or select Transfer) call is automatically placed on hold).
 3. Dial the extension number of the telephone to receive the transfer, or press DSS/BLF button for that extension.
 4. Press SPEAKER to disconnect (if in speakerphone mode), or hang up. The transfer will ring at the called telephone.

Note: Unscreened transfers ring at the busy telephones and wait to be answered.

- **If an unscreened transfer call is not answered and recalls to your telephone, you can take one of the following steps:**
 1. Press HOLD or select Hold to place the call on hold at your telephone.
 2. Select Answer to return to the call,
 3. Select SEND to retry the transfer.



4.6 Other Call Transferring Options

4.6.1 HOT TRANSFER

A hot transfer is a type of screened transfer. This feature is useful for transferring calls to people who need to work in a hands free mode. Once you announce the call and the system completes the transfer, the person receiving the transfer can simply begin speaking toward his or her speakerphone to answer the call.

- **To make a hot transfer to another telephone in the system.**
 1. Answer the call.
 2. Press TRNS/CONF or select Transfer (the system automatically places the call on hold).
 3. Dial the extension number of the telephone to receive the transfer or press DSS/BLF button for that extension.
 4. Announce the call
 5. Press TRNS/CONF or select transfer.
 6. Press SPEAKER to disconnect (if in speakerphone mode) or hang up. The person receiving the transfer then has the call.

4.6.2 QUICK TRANSFER

When the installer programs the quick transfer method on your telephone, you can deliver an automatic transfer of an incoming line call without pressing the TRNS/CONF button.

- **To do a quick screened transfer,**
 1. Answer the call.
 2. Dial the intercom number for the transfer location.
 3. When the party at the transfer location answers, announce the call.
 4. Hang up, select *RELEASE*, or press the *SPEAKER* button.

5. NONVERBAL MESSAGING

5.1 LCD Message Delivery

You can set system-supplied messages at your station to be received and displayed by a calling LCD speakerphone.

- **To turn on a message from your telephone,**
 1. Select *OPTIONS*.
 2. Select *Programming*.
 3. Select *NEXT*.
 4. Select *LCD MESSAGING*.

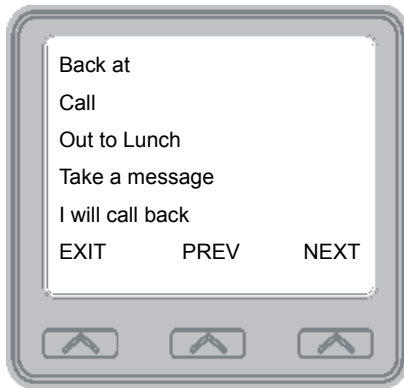


Figure 5-1 Select an LCD Message

5. Select the message you would like to appear in a calling party's LCD by selecting the corresponding interactive button. In addition to the five options shown below, there are 25 more options available to be programmed. Refer to the Dialing Code Table on the next page.
 - Select *Back at* and enter the time you will be back to display "*Back at xxxx*" on the LCD display.
For example: dial #00 01 29 0405 for the time 01:45).
 - Select *Call to* and enter the extension number to call to display "*Call and the extension number*" on the LCD display.
For example: DIAL #0907081502020000 for the number 978-2200.
 - Select *Out to lunch* to display "*Out to lunch*" on the LCD display.
 - Select *Take a message* to display "*Take a message*" on the LCD display.
 - Select *I will be back* to display "*I will be back*" on the LCD display.
6. Select *EXIT*.

- **To turn off the message and your intercom light,**
—Select *CLEAR*.

Table 1-1 Dialing Code Table

Character	Dialing Code	Character	Dialing Code
1	01	8	08
2	02	9	09
3	03	0	00
4	04	space	12
5	05	–	15
6	06	:	29
7	07		

LCD Message List (Write the attendant supplied message here)	
Dial Code	Message
01	Back at (default message 1)
02	Call (default message 2)
03	Ask them to hold (default message 3)
04	Take a message (default message 4)
05	I will call back (default message 5)
06	
07	
08	
09	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	

5.2 Message Waiting Light and Messaging

If the system installer designates your IP speakerphone to have message-wait originate ability, you can turn on the message-waiting light of any other telephone.

- **To turn on the message-waiting light (and a broken dial tone, if installer programmed) at another station that is idle or busy,**
 1. Press *INTERCOM*.
 2. Dial *3.
 3. Dial the extension number or press DSS/BLF button of station to be alerted. The message-waiting light of called station will flash.



Figure 5-2 Select MSG to leave a message

- **You can also turn on the message-waiting light and broken dial tone at another station when that station is busy,**
 1. Hear the busy tone and remain on the line.
 2. Select *MESSAGE*.
 3. Hang up.

- **To turn off the message waiting light at a busy or idle station,**
 1. Press *INTERCOM*.
 2. Dial #3.
 3. Dial the extension number or press the DSS/BLF button of the station that was alerted. The message-waiting light of called station will turn off.
- **To turn off the message-waiting light during message-delivering conversation,**

—Press *INTERCOM* once if off-hook, twice if on-hook.
- **To receive a message at an alerted station,**



Figure 5-3 Receiving a Message

1. Observe the flashing message waiting light and the LCD message indicating who called for you.
2. Select *CALL* to dial the messaging station automatically.
3. Select *CLEAR* to clear the message from your station.

5.3 Response Message Delivery

By programming one or more RESPONSE MESSAGE buttons on your LCD speakerphone, you can respond with a variety of messages to many calling situations. A scrolling RESPONSE MESSAGE button allows the sender to select from several different messages which have been programmed by the system attendant. A fixed RESPONSE MESSAGE button sends the same message you previously select each time it is pressed. (See page 83 for instructions on programming a dedicated RESPONSE MESSAGE button.

- **To send an LCD message when you call and receive busy signal or no answer,**
 1. While still on the call, press the appropriate *RESPONSE MESSAGE* button to send a preselected message to the other telephone,
 2. If a scrolling Response Messaging was programmed, continue to press *RESPONSE MESSAGE* button and dial # when your display shows the message you wish to send.
- **To send an LCD message to a caller who has initiated a SOHVA or intercom call from another LCD telephone,**
 1. Hear the SOHVA tone or voice announcement in your handset or headset.
 2. Press the appropriate fixed *RESPONSE MESSAGE* button to send a preselected message to the calling telephone,
 3. If a scrolling Response Messaging was programmed, continue to press *RESPONSE MESSAGE* button and dial # when your display shows the message you

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6. PROGRAMMING

6.1 DSS Numbers

Storing another station extension number at a DSS/BLF programmable location allows you to monitor that station, dial with the press of one button, or pick up or hold calls at that station quickly and conveniently.

- **To store an intercom number as a DSS number,**

NOTE: Storing DSS numbers at button locations will overwrite any previously stored numbers.

1. Select *OPTIONS*.
2. Select *Programming*.

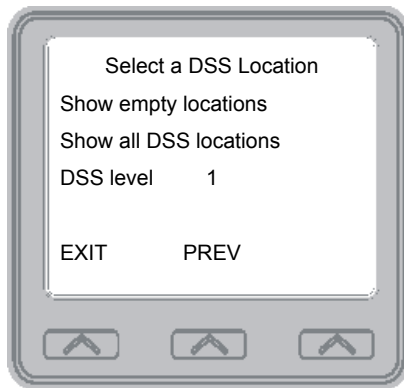


Figure 6-1 Designating an Extension

Programming

3. Select *NEXT* until the DSS option appears.
4. Select *DSS/BLF*.
5. Press the programmable button to choose DSS/BLF button location.
6. Dial the extension number.
7. Repeat the previous steps, or select *EXIT*.
8. **PRESS SPEAKER** to end.

6.2 Speed Dial Numbers

Speed dialing is a feature that lets you store and dial frequently called numbers using one or two buttons. You can store numbers for speed dialing at any programmable button that is not now assigned as a line button or other feature by the system administrator or installer or at the keypad numbers.

Note: The Federal Communications Commission (FCC) requires that when programming emergency numbers and/or making test calls to emergency numbers:

1. Remain on the line and briefly explain to the dispatcher the reason for the call.
2. Perform such activities in the off-peak hours, such as early morning or late evening.

• **To store an outside number as a speed dial number, follow the display prompts and proceed as follows:**

1. Select *OPTIONS*.
2. Select *Programming*.
3. Select *NEXT* until Speed dial option appears.
4. Select *Speed Dial* to choose speed dial programming.

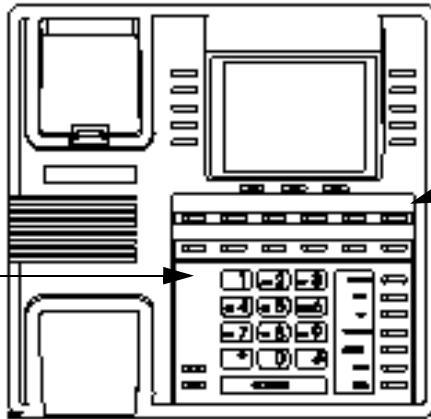


Figure 6-2 Choosing a Button

Programming

5. Press a programmable button or dial pad button (0–9) to choose storage location (remember, to access second level storage at a programmable button, press *SHIFT* first).

Keypad-Dial desired number for personal speed dial or dial * and number for system speed dial.



DSS/BLF Button- Press button of desired station to dial directly

Figure 6-3 Speed Dialing Options

6. Select *EDIT*.

7. Make your speed dial route selection choice from the list on the LCD by pressing the appropriate button.

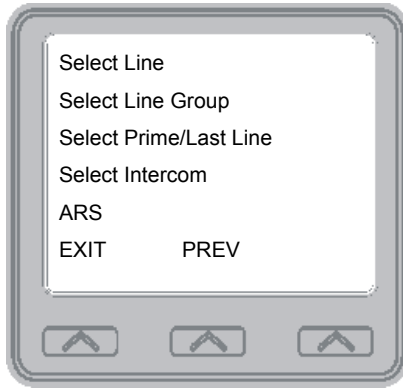


Figure 6-4 Selecting Line or Intercom

- Press a line button to select outside line,
- Dial 00 to select prime line or last line used.
- Dial 01 to 16 to select line group.
- Press the *INTERCOM* button or dial 8 to select intercom.

*Note: You may need a pause between numbers to compensate for differences in response time between your system and the host system (ask your attendant about this). To store a pause, press HOLD, then continue dialing. If your system is behind a host system that needs a hookflash to access a feature, **PRESS TAP** to store a hookflash, then continue dialing.*

- Dial a number (up to 16 digits long, include * and # if needed).

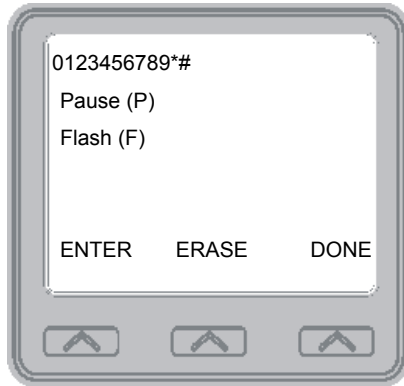


Figure 6-5 Dialing a Speed Number

- Select *DONE* to store the number.
- Repeat the previous steps until all numbers are stored, or select *EXIT*.
- Press *SPEAKER* to end.

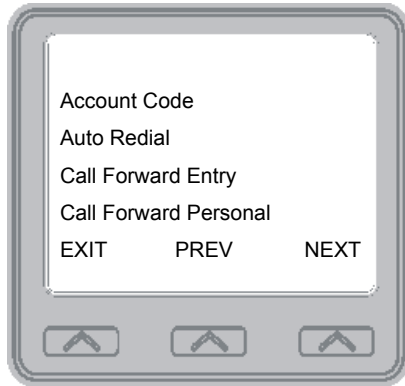
6.3 Feature Access Codes

In addition to the system features which may be programmed using the interactive buttons, several other features may be programmed by using their access codes. The feature codes are programmed like speed dial numbers and can occupy the same programmable buttons on your telephone. Access codes are listed in Appendix A, Feature Access Codes found on page 107.

- **To store a system feature access code,**
 1. Select *OPTIONS*
 2. Select *Programming*.
 3. Select *NEXT* until Feature Button option appears.
 4. Select Feature Button.



5. Select the programmable button at which you wish to store the feature (remember, if there is anything else programmed at this button, the new programming will overwrite it). For help in selecting a button, select *SHOW EMPTY LOCATIONS* to display unused feature buttons (green lights). To display all feature buttons (used and unused) (red lights), select *SHOW ALL LOCATIONS*.



6. The speakerphone will now display a list of features which you can scroll through by selecting *NEXT*.
 7. Select the feature you want to assign to the programmable button.
 8. Repeat the previous steps until all numbers are stored.
 9. Select *EXIT*.
 10. Press *SPEAKER* to end.
- **To clear a feature button assignment,**
 - Repeat the above procedure, but select *EXIT* once you have selected the feature button.

As you program numbers, fill in the identification strips on your telephone as well as these tables.

Speed Dial Numbers, Features or DSS/BLF Locations (Programmable Buttons)			
1		13	
2		14	
3		15	
4		16	
5		17	
6		18	
7		19	
8		20	
9		21	
10		22	
11		23	
12		24	

Personal Speed Dial Numbers (Keypad Buttons)			
1		6	
2		7	
3		8	
4		9	
5		0	

6.4 LCD Feature Buttons

You can create feature access buttons to make operation easier. To do this, use the interactive buttons to select the feature you want to store, and then store it on a programmable button (see the instructions on page 79).

- **Account Code** —allows you to enter an account code for call record purposes.
- **Auto Redial** —allows you to redial the last dialed number.
- **Authorization Entry Code** —allows you the mobility to use your class of service features, prime line assignments, and exception numbers on any telephone in the system.
- **Background Music (MUSIC)**—allows you to enable or disable background music; also allows you to choose from two pre programmed music sources.
- **Call Forward All** —allows you to forward all of your calls to another telephone.
- **Call Forward Outside System (CFOS)**— allows you to forward incoming or transferred calls to telephone numbers outside the system.
- **Call Forward Personal** —allows you to forward all of your prime line calls to another telephone.
- **Call Forward Ring No Answer All (Call Forward RNA All)** —allows you to forward all calls that ring at your station but receive no answer after a pre programmed number of rings.
- **Call Forward Ring No Answer Personal (Call Forward RNA Personal)**—allows you to forward all prime line calls that ring at your station but receive no answer after a pre programmed number of rings.
- **Camp-On With Automatic Call Back (CAMP)**—allows you to camp on to a station. The system calls you back as soon as the called station becomes idle or occupied.

- **Camp-On (Call Waiting)(CAMP)**—when calling a busy station, this feature allows you to send a call waiting tone to the station and to wait on-line for a reply.
- **Clear Feature (CLEAR)**—clears a currently active or engaged feature.
- **Do Not Disturb (DND)**—prevents other telephones from ringing your telephone.
- **Executive Override** —allows overriding a call or a Do Not Disturb condition at another telephone.
- **Group Listen** —allows others to hear a conversation over the telephone speaker while you use the handset or headset; the distant party can hear only the conversation transmitted through the handset or headset microphone.
- **Headset** —allows you to use the Headset.
- **Meet Me** —provides the capability for you to page with the instruction to meet you on line.
- **Message Wait** —allows you to be notified that there is a message waiting.
- **Page Zone** —provides one-button access to paging.
- **Park Orbit** —parks calls in preselected park orbit.
- **Pick-Up Direct** —allows you to pick up a call ringing elsewhere in your system.
- **Pick-Up Group** —allows you to pick up a call ringing in your group.
- **Privacy Release** —allows other telephones which share a line appearance for current call to join.
- **Response Messaging** —allows you to send an LCD message to a caller who has initiated a SOHVA or intercom call from another LCD telephone.
- **Saved Number Redial** —redials the last number saved
- **Service Observe**—allows you to monitor a conversation or activity at another telephone in an undetected manner.

- **Tracker Paging System** (Tracker Access)—allows you to enter tracker pager numbers, pickup a tracker page, and either enable and/or disable a pager number.
- **Voice-Announce Block** —blocks voice announcements.
- **Volume Save**—allows the preset volume level to be saved.

6.4.1 PROGRAMMING FEATURE ACCESS BUTTONS

Programming of the feature access buttons may require several selections involving many LCD screens. If an abbreviation used is not familiar to you, consult Appendix B, Display Abbreviations on page 111.

- **To create a feature access button,**

1. Select *OPTIONS*.



Figure 6-6 Selecting a Feature

2. Select *Programming*.
3. Select *NEXT* until the Feature Button option appears.
4. Select *Feature Button*.
5. Select the Feature Level interactive button to toggle between 1 and 2.
6. Select one of the three options.
 - Show Empty Locations - green lights
 - Show All Locations - red lights
 - Feature Level
7. Select the button you want to assign as a feature button.

8. Select the feature you want to assign to by selecting the corresponding interactive button. (Select *NEXT* to scroll through the list of available feature.
 9. Repeat steps 1 through 7 for other features.
 10. Select *EXIT* to end programming.
- **To clear a feature button assignment,**
 - Repeat the above procedure, but select *CLEAR* before selecting storage location button.

6.5 Reminder Alert

You can set up to two reminder alerts to sound so that you will remember important regular events or occasional events.

- **To set a reminder alert at your telephone,**
 1. Select *OPTIONS*.
 2. Select *Programming*.

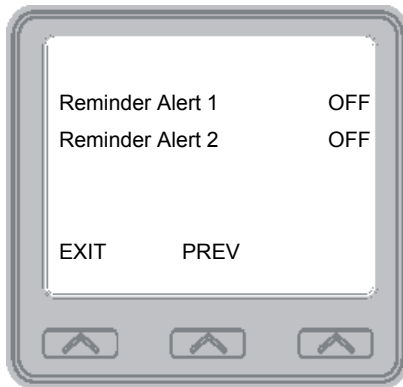


Figure 6-7 Setting an Alert

3. Select *NEXT* until the Reminder Alert option appears.

4. Select *Reminder Alert*.

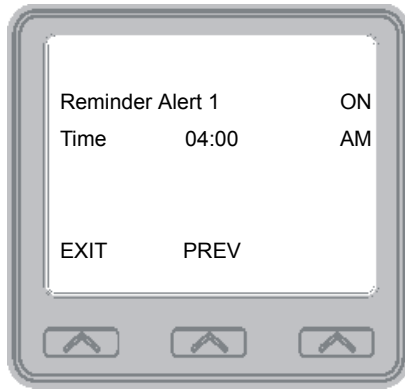


Figure 6-8 Setting the Alert Time

5. Select *Reminder Alert 1* or *Reminder Alert 2* to select available alert designation; if you have already programmed an alert for 1, select 2 to set a second alert condition.
6. Dial reminder time using the numbers on the dial pad (remember to add a zero [0] before single digit times: 01 for one o'clock, 02 for 2 o'clock, etc.)
7. Toggle interactive button between *AM* or *PM*.
8. Select Reminder Alert interactive button to select *ON*.
9. Select *EXIT*.

When an alert sounds at the set time, you hear four short tone bursts, which will continue until acted upon. If you are not at your station to hear the alert when it sounds, your telephone's ring tone changes to the alert tone for every incoming call until you respond to the alert.

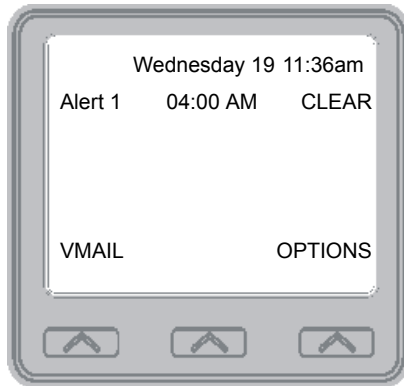


Figure 6-9 Respond to an Alert

- **To respond to an alert after it sounds, choose one of the following:**
 1. Select *CLEAR* to turn off the alert.
 2. Select *SET* to reset the alert for the same time the following day.

6.6 Response Message Button

You may program a RESPONSE MESSAGE button, which allows you to send an LCD message to a caller who has initiated a SOHVA or intercom call from another LCD speakerphone, or to send an LCD message to another LCD speakerphone that you call and receive a busy signal or no answer.

- **To store a fixed RESPONSE MESSAGE button (delivers the same message each time it is pressed),**
 1. Select *OPTIONS*.
 2. Select *Programming*.
 3. Select *NEXT* until the Feature Button option appears.
 4. Select *Feature Button*.
 5. Select the programmable button you wish to use as a response message button.
 6. Select *NEXT* until the Response Message option appears.
 7. Select *Response Message*.
 8. Select from the list of displayed messages. Select *NEXT* to scroll through the list of messages. If you use the Back at or Call options add to them as follows:
 - For Back at message, dial the code for the time numbers and colon from dialing codes table.
For example, dial #0001290405 for time 01:45.
 - For the Call message, dial the code for telephone number where you can be reached.
For example, dial #090708150202
0000 for number 978-2200).
 9. Repeat steps 5 through 8 for other features, or select *EXIT* to end programming.

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7. OTHER ADVANCED FEATURES

7.1 Background Music

If the telephone system supplies background music, you can turn it on at your IP speakerphone while on-hook and idle. The system automatically turns background music off during calls and voice announcements.

- **To turn the music on,**
 1. Select *OPTIONS*.
 2. Select *Programming*.

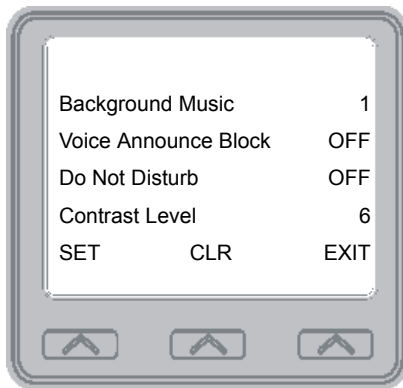


Figure 7-1 Setting Background Music

3. Select *Background Music*.
4. Select Background Music interactive button and toggle between 1 or 2.
5. Select *EXIT*.
6. Adjust the music volume with the volume buttons.

- **To turn the music off,**
 1. Select *OPTIONS*.
 2. Select *Programming*.
 3. Select *Background Music*.
 4. Select the Background Music interactive button and select *OFF*.
 5. Select *EXIT*.

7.2 Line Groups

Some systems have telephone lines arranged into line groups which may be accessed for outside calling instead of selecting an individual line button.

- **If your system has line groups, access them as follows:**
 1. Press *INTERCOM*.
 2. Dial the desired line group access code,

Line Group Access Codes		
Line Group	Default Code	Active code*
1	9	
2 through 11	80 through 89	
12 through 16	60 through 64	

* If your system attendant has reassigned your line group access codes, write them here for future reference.

3. Listen for outside dial tone.
4. Dial the desired number.
5. Lift the handset to talk.

7.3 Do Not Disturb Condition

This feature keeps calls from ringing at your IP speakerphone and makes your station appear to be busy to intercom calls. As a reminder, a station that is set in Do Not Disturb mode will display this information on the display.

- **To enable DND, proceed as follows:**

1. Select *OPTIONS*.
2. Select *Programming*.

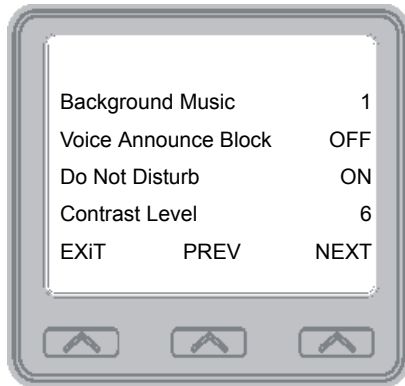


Figure 7-2 Setting Do Not Disturb

3. Select *Do Not Disturb*.
4. Select *Do Not Disturb* interact button to toggle between *ON* and *OFF*.
5. Select *EXIT*.

- **To disable the DND condition,**

—Repeat the above procedure, but select *OFF* instead of *ON* at step 4.

- **To set a Do Not Disturb condition at your telephone when a call rings at your station,**
 1. Hear ringing and notice incoming call information in display.
 2. Select *OPTIONS*.
 3. Select *Programming*.
 4. Select *Do Not Disturb*.
 5. Select the *Do Not Disturb* interact button. Ringing will stop, caller will hear the do not disturb tone, and your telephone will remain in DND until you disable the feature (described above).
 6. SELECT EXIT.

7.4 Automatic Redial

If your station has the multiple automatic redial feature enabled, you can place up to ten numbers in your telephone's redial queue.

Note: The AUTOMATIC REDIAL button described in the following steps must be programmed by your system installer or attendant. Individual users DO NOT have access to programming of this feature.

- **To use the automatic redial feature to redial a busy or unanswered number,**



Figure 7-3 Initiating Auto Redial

1. While on the call, select *Auto Redial* or press the *AUTOMATIC REDIAL* button programmed by your installer.
2. The system repeatedly dials the number until you cancel the feature or the system has dialed the number a pre programmed number of times (determined by your system installer).
3. The *AUTOMATIC REDIAL* light flashes between redials and turns on steady during redialing.

4. If your installer has enabled answer supervision on your line, the system automatically cancels automatic redialing and turns the *AUTOMATIC REDIAL* light off.
 5. If answer supervision is NOT enabled, select *Auto Redial* or the programmed *AUTOMATIC REDIAL* button while on the call to cancel automatic redialing,
 6. If your system installer has enabled the redial multiple numbers feature, you can have up to ten numbers in your redial queue. To add numbers to your redial queue, REPEAT step 1 in the above procedure.
- **To scroll through numbers in your redial queue if your telephone is currently idle,**
 1. Select *Auto Redial* or the programmed *AUTOMATIC REDIAL* button. The display shows the last number dialed.
 2. Choose one of the following:
 - Select *REMOVE* to remove the number from the redial queue.
 - Select *NEXT* to scroll to the next number in the queue.
 - Select *EXIT* to exit from the redial queue.
 - **To interrupt the redialing procedure so that you can scroll through numbers in your redial queue,**
 1. While your telephone is in the process of dialing a number, Select *Auto Redial* or the programmed *AUTOMATIC REDIAL* button twice. This treats the number as answered, cancels automatic redialing for that number, and puts the number back in the automatic redial queue. The display shows the last number dialed.
 2. Choose from one of the following:
 - Select *REMOVE* to remove the number from the redial queue.
 - Select *NEXT* to scroll to the next number in the queue.
 - Select *EXIT* to exit from the redial queue.

- **To cancel the automatic redial feature, choose one of the following:**
 1. Perform any user activity at the station (go on-hook, select the speaker button, etc.),
 2. Dial #72 to delete all numbers from the redial queue,
 3. Select *Auto Redial* or the programmed *AUTOMATIC REDIAL* button while the number you wish to remove from the redial queue is ringing.

7.5 Wireless Paging System

When available, a wireless paging system option allows you to send call back and parked call messages to pager units assigned to station extension numbers of the system to which your IP speakerphone is in contact. Along with the parked call message, the system parks the call in orbit for retrieval by the paged party. The type of message that the system delivers (either alphanumeric or numeric-only) is dependent upon the pager model in use at the station.

When outside callers call into a system that have both a paging option and a voice mail option installed, the system gives these callers the option of either leaving a message or tracking the person that they are calling.

- **To page a called party after receiving a ring—no answer,**
 1. Make an intercom call to someone and receive no answer.
 2. Select *TRACK*.
 3. Hear the confirmation beep (page accepted) or hear a busy tone (page not accepted).

4. Press *SPEAKER* to end.

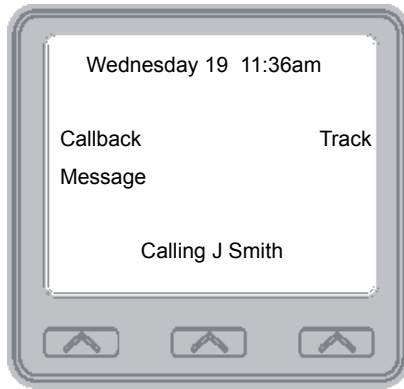


Figure 7-4 Initiating a Tracking Page

- **To page a called party without first calling them,**

1. Press *INTERCOM AND DIAL *8*.
2. Dial an extension number or select the *LIST NAMES* interactive button. The LCD display shows several letters beside each interactive button. **SELECT** the interactive button next to the letter of the person's name whom you wish to call. The LCD display shows the first existing name to match to the letters you selected or shows a No Name Match message if the system cannot find a match.

Note: All the names starting with the letters you selected will appear, but they will not be in alphabetical order.

3. Select *NEXT* to display the subsequent names in the index until you reach the name you need.
4. Hear the confirmation beep (page accepted) or hear a busy tone (page not accepted).
5. Press *SPEAKER* to end.



- **To transfer a call to a pager park orbit for retrieval and transmit the call's park orbit code and caller ID information (if available),**
 1. Answer the call and select *Transfer*.
 2. Dial an extension number.
 3. If the called station does not answer or is busy, select *TRACK*.
 4. Hear the confirmation beep (page accepted) or hear a busy tone (page not accepted).
 5. Press the *SPEAKER* button to end.

Note: Parked pager calls will recall to your station after a pre programmed time-out. You can either place the call into another page orbit or retrieve the call.

- **To retrieve a call that you parked using the paging option,**
 1. Press the *HOLD* button to scroll your held calls, (display shows *PAGE* and extension number of each parked call).
 2. Press *TAP* to retrieve the displayed parked call.
- **If you receive a parked call message on your pager unit,**
 1. Go to any system station.
 2. Press *INTERCOM*.
 3. Dial the pager orbit code (#800 to #899).
 4. Retrieve the call.
- **To enable or disable a pager unit at your station,**
 1. Press *INTERCOM*.
 2. Dial #07 to enable, or dial #06 to disable.
 3. Press *SPEAKER* to end.

7.6 Headset Jack

Your IP Speakerphone is equipped with a headset jack that provides an interface for a headset. In order to properly operate a headset, you must program a blank programmable button location on your IP Speakerphone as a headset button. This headset button will perform the enable/disable function for the headset. When the headset button is enabled, all communications through your IP Speakerphone will be done through the headset. If the headset button is disabled, the telephone will perform as normal.

	CAUTION	
<p>With the exception of a headset microphone, do not connect the audio output of any external device to the headset jack. Also, do not connect the tip and ring leads of a telephone line to the headset jack. Do not connect any devices to the headset jack other than those mentioned above.</p>		

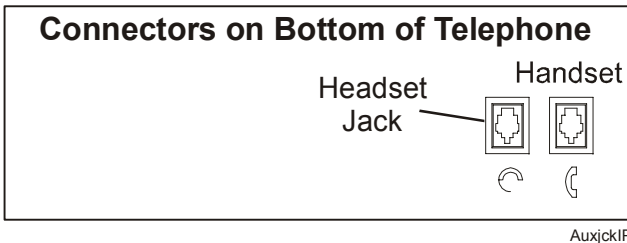


Figure 7-5 Headset Jack Location

- **Program the headset button (at any blank programmable button location) as follows:**
 1. Select *OPTIONS*.
 2. Select *Programming*.
 3. Select *NEXT* until the Feature Button option appears.
 4. Select *Feature Button*.Programming Button

5. Press a blank programmable button location to serve as enable/disable button for the feature you've selected.
6. Select *NEXT* until the desired feature appears.
 - Headset to choose headset

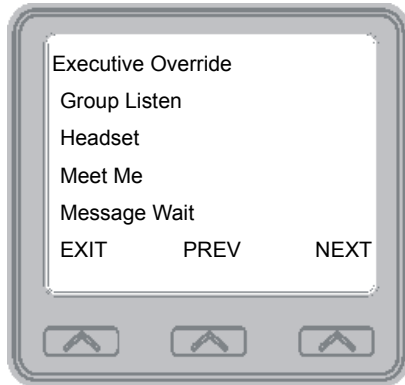


Figure 7-6 Programming Headset Button

7. Return to previous steps to add another device, or select *SPEAKER* to quit.
- **To enable headset mode,**
 - Select enable/disable button to enable mode. Light associated with button turns on and display denotes feature.
 - **To disable headset mode,**
 - Select enable/disable button. Light associated with button will turn off and display no longer denotes the feature.

7.7 Account Codes

If the installer has arranged your system for account code entry, your display may prompt you to enter an account code after answering a call.

- **To enter account code on an incoming call,**
 1. If available, press the programmed *ACCOUNT CODE* button (the call in progress is not interrupted).
 2. IF not available, press *INTERCOM* and dial *04 (call is automatically placed on hold).

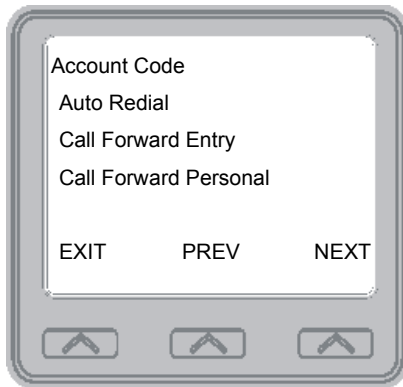


Figure 7-7 Account Code Entry

3. DIAL account code. Your telephone automatically returns to the call after you've dialed the complete account code.

If the installer has arranged your system for account code entry, your display may prompt you to enter an account code before dialing. Depending upon how the installer has programmed your system, these account codes may be “forced” (mandatory) for dialing outside numbers

- **To enter account code on an outgoing call,**
 1. Dial 9 or other line button (the display will prompt for Account Code if programmed to do so).

2. Press *INTERCOM* (call is automatically placed on hold).
3. Dial *04 AND account code, or press the programmed *ACCOUNT CODE* button.
4. LISTEN for dial tone AND DIAL number you are calling.

Note: See page 79 for instructions on programming a dedicated ACCOUNT CODE button.

7.8 Dial By Name

The Dial By Name feature provides an index of names for you to search through. When you select a name in the index, the system will automatically dial that person's extension number.

- **To use Dial By Name,**

1. Select *OPTIONS* to enter the dial by name menu.
2. Select *Internal Dial by Name* interactive button for intercom calling, or select *External Dial by Name* for speed dial calling.

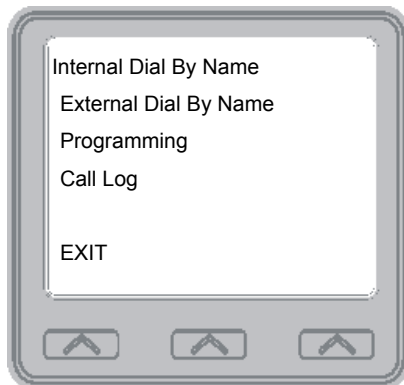


Figure 7-8 Selecting Dial By Name

Other Advanced Features

3. Select *ALL* to view all entries or select an interactive button corresponding to the letters in the name you want to locate (for example, dial ABC for Comdial). There is no limit to the number of digits you can dial.
4. The display shows the first existing name match to the dialed digits or shows a **NO MATCH** message if the system can not find a match.



Figure 7-9 Entering Search

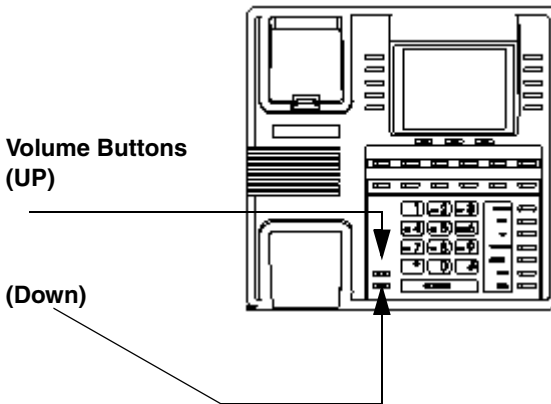
5. Select *NEXT* to display the subsequent names in the index until you reach the name you need.
6. Select interactive button corresponding to the name you want to call.

1 QZ	2 ABC	3 DEF
4 GHI	5 JKL	6 MNO
7 PRS	8 TUV	9 WXY

7.9 Volume Control

7.9.1 SETTING CURRENT VOLUME LEVEL

The volume control on your telephone is a multipurpose control you can use to set the volume (loudness) of the ringer, the speaker, the handset, the headset, background music, and the group listening mode.



- **There are four ringer loudness levels (plus an off position). Set these levels as follows:**
 - While your telephone is on-hook and idle, press the **VOLUME UP OR VOLUME DOWN** button once for each change in loudness you desire. The ringer sounds once for each change as an example of the current setting.

Note: If you set the ringer to the OFF position, your telephone will sound a short ring burst once for each call you receive at your station while the ringer is off.

- **There are eight speaker loudness levels. Set these levels for the current call as follows:**
 - While on a call and in speakerphone mode, press the VOLUME UP OR VOLUME DOWN button once for each change in loudness that you desire.
- **There are eight headset loudness levels that you can set for the current call as follows:**
 - While on a call and in headset mode, press the VOLUME UP OR VOLUME DOWN button once for each change in loudness that you desire.
- **There are at least eight handset loudness levels that you can set for the current call as follows:**
 - While on a call and in the handset mode, press the VOLUME UP or VOLUME DOWN button once for each change in loudness that you desire.

Note: When that call ends, the system resets the loudness of all future calls to the programmed (default) setting. For instructions in setting your speakerphone's default volume, see the next section of this chapter.

- **There are eight group listening loudness levels. Set the level for the current call as follows:**
 - While on a call and in the group listening mode, press VOLUME UP OR VOLUME DOWN button once for each change in loudness you desire.
- **There are eight background music loudness levels. To set the level,**
 - While background music is on at your station, press VOLUME UP OR VOLUME DOWN button once for each change in loudness you desire. This level remains set for background music until you change it again, even if you turn off the feature and then reactivate it.

7.9.2 MUTING YOUR SPEAKERPHONE

By using the MUTE button, you can block transmission of your voice to the distant party. You can do this whether you are using the handset or the speaker.

- **To mute your station,**
 - Press *MUTE* (mute function and light turn on). You can still hear the distant party, but he or she cannot hear you.
- **To speak to the distant party,**
 - Press *MUTE* again (mute function and light turn off).

7.10 Programmed Button Display

7.10.1 BUTTON FUNCTIONS DISPLAY (BUTTON QUERY)

You can cause the display to identify the function of each button on your telephone.

- **To button query your telephone,**
 1. Select *OPTIONS*.
 2. Select *Programming*.



Figure 7-10 Button Query

3. Select *NEXT* until the *Button Query* option appears.
4. Select *Button Query*.
5. Press the button in question.
6. Read the displayed information (display will hold for few seconds before the telephone returns to idle).

7.10.2 BUSY DSS/BLF BUTTON INQUIRY

You can use this feature to identify the station that is busy on a line or the line on which a station is busy.

- **To identify the station that occupies a busy line,**
 1. Press the DSS/BLF button for busy line.
 2. Read your display for intercom number of station that is busy on line.
- **To identify the line that a busy station occupies,**
 1. Press the DSS/BLF button for busy station.
 2. Read your display for the busy station's line number.

7.11 Paging

Your system provides an all-call or a zone page feature that you access by dialing special codes. This arrangement sounds your voice announcement through the telephone speakers or through an external paging unit.

- **To send a paging announcement,**
 1. Lift the handset.
 2. Press *INTERCOM*.
 3. Dial 70 through 77 for zones 1–8.

Note: Zone 1 (code 70) provides an all-call function in the default mode.

4. Make the announcement.
5. Remain on the line if awaiting a reply (known as a Meet-Me page), or hang up the handset.

Other Advanced Features

At times other telephone users may page you with instructions to meet them on line. This is known as a Meet-Me page. You can go to the nearest telephone, dial a code, and be in contact with the paging party.

- **To reply to a Meet-Me page,**
 1. Lift the handset of the nearest telephone.
 2. Press *INTERCOM*.
 3. Dial 78.
 4. Meet paging party on line.

7.12 Viewing The Call Log

The Call Log feature allows you to view the last 10 outgoing calls made from your station. If you have caller ID, the LCD will also display incoming calls. Incoming calls are designated with an I next to the number and outgoing calls are designated with an O.

- **To view the call log,**
 1. Select *OPTIONS*.
 2. Select *Call Log*.

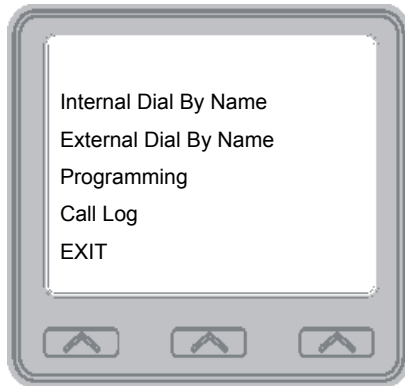


Figure 7-11 Viewing the Call Log

The LCD displays the last 10 phone numbers you dialed (or the numbers that called you, if you have caller ID). Incoming calls are designated with an I to the left of the number and outgoing calls are designated with an O.

3. To scroll through the lists of numbers, press the *NEXT* or *PREV* buttons.
4. To display the time of a call, press the corresponding button to the right of the LCD.
5. Press *EXIT* when you are done.

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APPENDIX A - FEATURE ACCESS CODES

This chart provides you with a quick reference guide of the feature dialing codes. If you wish, you can detach these pages and keep them near your telephone to serve as a stand alone reference. On page 73, the Feature Access Code section describes a method to program these codes on your telephone at unused programmable buttons.

Feature	Enable Code	Disable Code
Account Code	INTERCOM + *04 + account code	
All Call	INTERCOM + 70	
Attendant Calling	INTERCOM + 0	
Authorization Code	INTERCOM + #08 + authorization code	
Automatic Callback and Call Waiting	INTERCOM + *6	INTERCOM + #6
Background Music	INTERCOM + 11 or 12	INTERCOM + #1
Call Divert Station	INTERCOM + *55 + extension number	
Call Forward, Personal	INTERCOM + *51 + extension number	INTERCOM + #5
Call Forward, Ring- No Answer, All Calls	INTERCOM + *54 + extension number	INTERCOM + #5
Call Forward, Ring- No Answer, Personal Calls	INTERCOM + *53 + extension number	INTERCOM + #5
Call Forward, All Calls	INTERCOM + *52 + extension number	INTERCOM + #5

Feature	Enable Code	Disable Code
Call Park, Orbit 910-990	INTERCOM + * +	
910 to 999		
Call Park, Pickup	INTERCOM + # +	
910 to 999		
Call Pickup, Directed	INTERCOM + *4 + extension number	
Call Pickup, Group	INTERCOM + #4	
Clear Major Alarm Ring	INTERCOM + #09	
DISA Access	Installer Assigned	
Do Not Disturb	INTERCOM + #01	INTERCOM + #01 (repeat)
Do Not Disturb Override	extension number + *3	
DSS/BLF Programming	INTERCOM + **3	
Executive Override	Ext. Number + *03	
Hold, Manual	HOLD	
Hold, Exclusive	HOLD + HOLD	
Hold, Directed	INTERCOM + *90	
Hold, Directed Pickup	INTERCOM + #90	
LCD Messaging	INTERCOM + *02 + message	INTERCOM + #02
Line Group 1	INTERCOM + 9	
Line Groups 2-11	INTERCOM + 80 to 89	

Feature	Enable Code	Disable Code
Line Groups 12-16	INTERCOM + 60 to 64	
Line Pick Up From Any Station, Zones 1-4	INTERCOM + 65 to 68	
Line Pick Up From Any Station, All Zones	INTERCOM + 69	
Meet-Me Answer Page	INTERCOM + 78	
Message Waiting	INTERCOM + *3 + extension number	INTERCOM + #3 + extension number
Message Wait Retrieval	#00	
Operator Access	INTERCOM + 0	
Paging, All Call	INTERCOM + 70	
Paging, Zones 2-8	INTERCOM + 71 to 77	
Paging, Meet-Me	INTERCOM + 78	
Park Orbit Retrieve	INTERCOM + # +	
910 to 999		
Park Orbit Send	INTERCOM + * +	
910 to 999		
Personal Ringing Tones	INTERCOM + **4 + tone code (1 to 8)	
Redial Last Dialed Number	#	
Remote Station Disable	INTERCOM + *05 + extension number	INTERCOM + #05 + extension number

Feature	Enable Code	Disable Code
Response Message	INTERCOM + **6 + button + 01 to 30	
Service Observing	INTERCOM + #03 + extension number	
Speed Dial, Station	Keypad 1, 2, 3, 4, 5, 6, 7, 8, 9, or 0	
Speed Dial, System	*100 to *599*000 to *999*0000 to *1999 (Dial code varies with system programming)	
Speed Dial, Programming	INTERCOM + **1	
Station Lock	INTERCOM + #04 + code	
Volume Save	INTERCOM + **7	
Voice-Announce Block	INTERCOM + *2	INTERCOM + #2

Note: The dialing codes provided in this quick reference guide are default values. Your system installer has the ability to renumber these codes.

APPENDIX B - DISPLAY ABBREVIATIONS

This chart identifies the interactive button abbreviations that appear in your display.

Abbreviation	Feature	Definition
ACCT	Account Codes	Stores a button that enables account code entry.
ALERT	Set Reminder	Sets two reminder alerts that will sound at your station at specified times.
ALL	All Calls Forward	Route all of your calls to a different station location.
ANS	Answer	Answers any call ringing at your station.
ARDL	Automatic Redial	Redials a busy call once a minute for 10 minutes.
ERASE	Erase	While programming a speed dial number, erases an incorrect entry.
CALL	Call	Calls a station that turned on your message waiting light.

Abbreviation	Feature	Definition
CAMP	Camp On	Has system call you when busy station becomes idle. When chosen as a feature, stores a button that enables the function.
CFWD	Call Forward	Forwards all of your calls to a different station location. When chosen as a feature, stores a button that enables the function
CALLBK	I Will Call Back	Respond to a SOHVA call with a non-verbal message.
CLEAR	Clear Features	Stores a button that clears a currently active or engaged feature.
CLR	Clear	Cancels a call forward condition.
CONF	Conference	Establishes a conference.
DARK	Dark (contrast)	Makes display screen darker.
DISP	Display	Adjusts the contrast of your display screen.

Abbreviation	Feature	Definition
DND	Do Not Disturb	Makes your station appear busy to other stations. When chosen as a feature, stores a button that enables the function.
DSS/BLF	Direct Station Select	Stores a personal intercom number at a DSS/BLF button.
EXIT	Exit Selection	Ends a current programming session.
EXT	System Speed Dial By Name	Selects system speed dial numbers to access through the dial by name interface. (2 Line LCD)
FEAT	Feature	Presents several different features you can store at programmable buttons for later use.
GPLSN	Group Listen	When chosen as a feature, stores a button that enables loud speaker broadcast of distant party's voice.
HDSET	Headset	When chosen as a feature, stores a button that enables headset operation.

Abbreviation	Feature	Definition
HAVE HOLD	Ask Caller To Hold	Send a non-verbal response to a SOHVA caller so he or she will know to place the outside caller on hold.
INT	Internal Dial by Name	Selects speed dial intercom numbers to access through internal dial by name. (2 Line LCD)
LIGHT	Light (contrast)	Makes the LCD screen lighter.
MSG	Message	Turns on message waiting light at another station.
MUSIC	Background Music	Turn on the background music at your station. When chosen as a feature, stores a button that enables the function.
NEXT	Next Display	Shows the next display.
NoANS	No Answer/Forward	Forwards calls that ring at your station but receive no answer.
OPTIONS	Options	Selects interactive button features.

Abbreviation	Feature	Definition
OVER	Override	Overrides either a do-not-disturb condition or a busy signal at a station you have called.
PAGE	Paging Zone	When chosen as a feature, stores a button that provides one-button access to paging.
PARK	Park Orbit	When chosen as a feature, stores a button that provides one-button parking of calls.
PCKUP	Pick Up	When chosen as a feature, stores a button that allows you to pick up a call ringing elsewhere.
PERS	Personal	Route your personal intercom calls to a different station location.
PRIV	Privacy	When chosen as a feature, stores a button that releases privacy for a current call.
QUERY	Button Query	Displays program status of any button.
RECON	Reconnect	Reconnect you to a transferred call.

Abbreviation	Feature	Definition
RING	Ring Tone	Select different ringing tones.
SAVE	Save Number	Permanently saves last number you dialed. When chosen as a feature, stores a button that provides the function.
SDIAL	Speed Dial	Programs a number for one-button calling.
SEND	Send Transfer	Re-transfers a previously transferred call that returned to your station.
SET	Set Feature	Enable call forwarding.
SOHVA	Secure Off-Hook Voice Announcement	Sends a subdued off-hook voice announcement to another station.
SRC	Music Source	Selects which music source will supply background music.

Abbreviation	Feature	Definition
TAKE MSG	Take A Message	Send a non-verbal response to a SOHVA caller so he or she will know to take a message from an outside party.
VAB	Voice Announce Block	Inhibits your station from receiving a SOHVA. Also, blocks voice calls sent over the speaker. When chosen as a feature, stores a button that provides the function.

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APPENDIX C - GLOSSARY

A

Account Code

A group of numbers, up to 16 digits in length, entered by station users during incoming or outgoing calls; the system uses account codes to identify the calls by category, or special grouping, for call accounting purposes.

All-Call Paging

Paging through the intercoms of all stations in the system.

Assist Button

A button that you can program that will let you send a message requesting assistance to the LCD of another telephone.

Attendant

Also known as the operator; typically, the first person to answer incoming calls and responsible for directing calls to the proper person or department.

Automatic Callback

System will ring a calling telephone when a busy called telephone becomes idle.

Automatic Dialing (or Autodialing)

Using programmable buttons to store numbers for one- or two-button dialing.

Automatic Redialing

Turning on a program that automatically redials the last number dialed once a minute for 10 minutes.

Automatic Route Selection (ARS)

ARS allows the system to automatically select the least costly line group available to a station to route a call. The system modifies the dialed number, if needed, to match the selected line group. ARS makes routing decisions (which lines to route a call over, if and how to modify a number, and costing information) based entirely upon the programming of the system.

Automatic Station Relocation

Process by which the system automatically recognizes particular stations if they are relocated to a different station port; the same class of service and station features are provided the station at the new port.

B

Block Programming

To eliminate the need to program each station individually, programmers can assign features or functions to groups of stations.

Button Query

Feature which allows users to display the functions of programmable buttons on LCD telephones.

C

Call Forward

Designating another telephone to receive intercom calls normally directed to the user's telephone.

Call Forward Outside System (CFOS)

Allows station users to forward incoming or transferred line calls to telephone numbers outside the system.

Call Park

Placing an active call at a particular telephone in system hold (park orbit) and retrieving it by any telephone.

Call Pick-Up

Answering a call at one telephone when it is ringing at another telephone.

Call Transfer

Transferring a call from one station to another. The transfer can be screened, i.e., you find out who is calling and announce them to the party being called; or unscreened, i.e., you transfer the call without identifying the calling party to the called party.

Caller ID

Allows station users to view the originating line number of incoming calls before they are answered.

Camp On

Process that allows a user to wait for a busy or idle line to become available and immediately be called back by the system; also allows users to send a tone to busy telephone to notify the station that a call is waiting.

Central Message Desk

A station that has been assigned to control message waiting lights and deliver messages to other stations in the system.

Class Of Service (COS) Programming

Customized programming of your system by the installer that establishes the basic operating parameters of the system and individual stations.

D

Departmental Station Operation

The operation of stations that are organized into departments.

Dial By Name

This feature allows users to employ any two-line display, LCD speakerphone and its interactive buttons to search through an index of names, locate a desired station name or system speed dial name, and automatically call the located item.

Digital Voice Announcing (DVA)

The DVA is a line-powered device that provides voice prompts for auto-attendant and transfer, or you can use it to enhance the operation of DISA and Tracker.

Direct Inward System Access (DISA)

An enhancement option that allows outside callers to directly call a station or access certain internal system features, including all line groups and ARS. To prevent fraudulent access and unauthorized use, the caller must use an authorization code and system access code to gain access to outside lines as well as many of the advanced telephone features.

Direct Inward Station Dialing (DISD or DID)

This feature allows an outside party to call an intercom station directly without an attendant's assistance.

Direct Station Selection/Busy Lamp Field (DSS/BLF)

Programmable buttons which allow the user one button to place intercom calls to other stations within your system; the button is sometimes referred to as a DSS button. Busy lamp field or BLF is a term for a light that identifies current call status of DSS station. See telephone layout drawings in Chapter 1 for location.

Do Not Disturb

A mode that disables incoming call ringing and intercom calling.

Dual Tone Multiple Frequency (DTMF)

The tones made by your telephone when you dial.

DXP, DXP Plus, FXS and FXT

Common Code Based Systems; DXP, DXP Plus, FXS and FXT Comdial Communication Systems so named because the programmed function codes of these systems are interchangeable.

Dynamic Line Button

System temporarily assigns a normally unassigned line to an idle line button for certain call handling operations.

E

E&M Tie Lines

In telephony, a separate pair of leads to your station which are used by system operators for signaling and supervisory purposes.

Exclusive Hold

Only the telephone placing the call on hold can retrieve it.

Executive Override

Breaking into a conversation at a busy called telephone. This intrusion is announced by several quick tone bursts over the conversation.

H

Hands Free Answer Inhibit

A telephone can be set to block voice calls sent to it over the speaker.

Hookflash

Action that occurs when the TAP button is pressed. Needed for activating host system features.

Hookswitch

The switch on a telephone which, when depressed manually or by the handset, disconnects a call.

I

Industry Standard Telephone (IST)

Analog telephone with only a basic 12 button keypad and no advanced features

Intercom

An internal communication system that allows you to dial another station at your office or location without connecting to the outside telephone system.

K

Keypad

Buttons 0 through 9, * and # used for dialing.

L

Last Number Redialing

Automatically dialing the last number dialed.

LCD

Liquid crystal display; the alphanumeric display of several Comdial Digital Telephone models.

Line Groups

Programmers assemble and program outside lines into distinct line groups which users must dial a certain code to access.

Line Queuing

When several telephones share a line and that line is busy, a user can dial a code and hang up to wait for the line to become idle. When the line becomes idle, the user's telephone will ring.

M

Meet-Me Answer Page

Any user can dial a code in response to an all-call or zone page and be connected to the paging party in a private conversation.

Messaging

Turning on a telephone lamp to let the user know that a message awaits pickup and leaving a message on the display of a telephone that gives information on your status.

Mute

A fixed feature button that keeps a distant party from hearing your conversation. This button also lets you adjust the telephone display contrast from light to dark.

N

Night Transfer

Transferring incoming calls to a particular station(s) for off-hour answering.

O

Operator Station

Also known as the attendant station, this system station is programmed to ring when users dial the operator; usually considered the central message desk of the system although multiple attendant stations are possible.

P

Paging

This feature allows station users to dial-up customer provided loudspeaker paging equipment and page over externally placed loudspeakers and determines what paging zones, if any, a station can page over.

Prime Line

A line designated to a particular telephone and automatically selected when the handset is lifted.

Privacy

Line feature, assigned by the programmer, to allow only one station to access a line at any time; no other station has access to the line unless the user makes it available through conferencing.

Programmable Buttons

Each telephone or station has buttons that can be user-programmed for autodialing numbers or feature codes, or other special purpose dialing requirements.

Pulse/Tone Switching

Changing from pulse/rotary dial signals to tone/DTMF signals.

Q

Queue

Method by which a station user waits for an available line by dialing a code and waiting for the system to call back.

R

Response Messaging

Responding non-verbally to a calling station by pressing a programmed button that sends a message to the calling station's display.

Ringling Line Preference

An automatic connection to any outside line ringing at the station when the station handset is taken off-hook.

Ringling Tones, Personal

A telephone can be arranged to ring in one of six distinctive tones.

S

Saved Number Redialing

Saving a last manually dialed number for later autodialing.

Screened Call Transfer

Allows users to first announce and then transfer both line and intercom calls from one station or group to another.

Service Observing

Class of service programming option allows users to enter an in-progress call in an unannounced muted mode to monitor the call.

Speed Dialing

Autodialing using the keypad buttons. Speed dialing can be station calls (personal and accessed by only one specific user) or system calls (numbers used and accessed by anyone in the system).

Station

A single system telephone with an individual identity and feature set assigned by the programmer.

Station Message Detail Accounting (SMDA)

Station message detail accounting provides a record of the incoming and outgoing calls handled by the system on selected lines.

This record provides information for accounting and traffic analysis studies.

Subdued Off-Hook Voice Announce (SOHVA)

A private announcement that can be made to a busy party which they hear through the receiver of their handset.

System Alarm Reporting

Allows you to view (through the LCD telephone screen) the various system alarms and the stations with which those alarms are associated.

System Speed Dial

System speed dialing provides system users with a repertory of up to 500 numbers that they can dial from any telephone in the system. The installer or the attendant is responsible for storing the system speed dial numbers.

T

TAP (Flash/Recall)

Depending on your system's programming, this button gives you a fresh dial tone or activates a hookflash.

Toll Restriction

Class of service feature by which the system allows or denies outgoing calls to selected users over selected lines.

Tone Call

A ringing intercom call.

TRNS/CONF

A fixed feature button that allows you to transfer outside calls and set up conference calls.

U

Unscreened Call Transfer

Allows users to transfer line or intercom calls from one station or group to another without first announcing them.

Unsupervised Conference

After establishing a conference between two outside parties, the originator drops out leaving a line to line unsupervised connection with the remaining parties.

V

Voice call

A verbal intercom call.

Voice Announce Blocking (VAB)

A telephone can be set to block voice calls sent to it over the speaker.

Z

Zone Paging

Paging through the intercoms of some stations or departments in the system.

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APPENDIX D - SPEAKERPHONE CHARACTERISTICS

When using your speakerphone, the microphone and loudspeaker are farther away from you than when you use a handset. Both the signal from the loudspeaker and the signal to the microphone must be strengthened. When microphones and loudspeakers are close together (such as in a speakerphone), additional amplification typically generates a ringing sound (public address systems do this if the volume is too high or the microphone is too close to a loudspeaker).

The 8900-IP speakerphone can function in a full-duplex or half-duplex mode.

Full-Duplex Speakerphone Guidelines

The 8900-IP speakerphone uses the latest full-duplex speakerphone technology. (Full-duplex technology enables both parties on a speakerphone call to speak simultaneously—half-duplex speakerphones carry only one person's voice at a time.) and will operate in either full-duplex or half-duplex mode depending on the current line conditions. For example, satellite calls or calls with a delay involved may prevent the telephone from operating in full-duplex mode.

To operate in full-duplex mode, the telephone must perform a “speech training” test at the beginning of each call. To achieve optimum performance from the full-duplex speakerphone, Comdial recommends that each user in turn speak about 10 consecutive words to allow the telephone to “train” itself. Note that during the “speech training” test, the speakerphone is operating in half-duplex mode.

Depending on the telephone line conditions and the type of speakerphone at the other end, it may not be possible to operate in full-duplex mode. If the speakerphone at the other end is a half-duplex speakerphone and both parties are in speakerphone mode, the half-duplex speakerphone is the controlling factor preventing full-duplex mode.

Note: Pressing any button (mute, hold, etc.) on the speakerphone while in full-duplex mode causes the system to perform the “speech training” test again. For example, if you press MUTE while in full-duplex mode, when you release the call from mute, the system will perform the entire “speech training” test.

To maximize the usefulness of your full-duplex speakerphone, take note of these following observations about full-duplex speakerphone operation.

- The full duplex operating mode requires a small amount of time to adapt to changes in echo; therefore, you should avoid making any movements in the vicinity—about a one-foot radius—of the speakerphone.
- There are certain echo limits beyond which the speakerphone cannot effect canceling. These limits are as follows: room echoes beyond 39 milliseconds (standard configuration) and line echoes beyond 24 milliseconds (standard configuration).
- The speakerphone may automatically reduce the volume in each direction when both you and the distant party talk at the same time (double-talk). This volume reduction is necessary to control the echoes at high volume levels. It is possible for surrounding conversations and other sounds to trigger double-talk even when you are not speaking. This condition may lower the loudspeaker volume at your speakerphone.
- You must adjust the loudness of your voice to match that of the distant party’s voice. This action is necessary to cause full-duplex operation to take place. Sustained double-talk or excessive echo may cause the speakerphone to drop back into half-duplex operation. This happens because the speakerphone’s echo cancel circuits cannot adapt during the double-talk situation.

- If both you and the distant party are using full-duplex speakerphones, the sensitivity to both echo path changes and volume reduction during double-talk is doubled from the sensitivity when just one full-duplex speakerphone is involved.

Half-Duplex Speakerphone Guidelines

The speakerphone user guidelines in this section do not apply when your speakerphone is operating in full-duplex mode. However, they are applicable when operating in half-duplex mode or in “speech training” mode.

- Background noise may prevent the sound-activated switches from operating properly. Avoid placing the speakerphone where it will detect sounds from typewriters, keyboards, printers, paging systems, and other equipment.
- Speak slightly louder than normal and in a clear voice. For the microphone to best detect your voice, speak within three feet of it and face the telephone.
- Raising the volume of the loudspeaker makes it easier for the sound-activated switches in your telephone to select the distant party's voice. Lowering the volume of the loudspeaker makes it easier for the switches to select your voice.
- Since the system takes several seconds to provide the best switching, constant sound patterns—such as elongating your words and playing externally-supplied music—may prevent the sound-activated switches from operating properly.
- Place the telephone on a hard surface and away from table edges. Do not place the telephone in corners or enclosures. Do not let obstructions come between you and the microphone. Rooms with hard, flat surfaces that reflect sound may affect the sound-activated switches.
- If you are using a handset and the other party is using a speakerphone, avoid breathing heavily into your microphone. Avoid other sounds that may affect the distant telephone's sound-activated switches.

In some situations, such as when either you or the distant party is in a noisy environment, you may have to lift your handset to ensure a clear conversation. When using your speakerphone, the microphone and loudspeaker are farther away from you than when you use a handset. Both the signal from the loudspeaker and the signal to the microphone must be strengthened.

APPENDIX E - FEATURE NETWORKING SUPPORT

The system that your IP speakerphone works into can be either a local stand-alone system or part of a system-to-system network. System-to-system networking connects several systems together in an arrangement that allows unified communications throughout the network. Depending upon the networked system to which your IP speakerphone connects (either the host system or one of the node systems) feature set capability differs. For a complete list of features and their properties see Appendix E, Feature Networking Support. Contact your installer to determine whether your system connection is to a hub or a node system.

The table below identifies the features to which Comdial provides remote networking support and identifies whether each feature is for a local stand-alone system or for a system-to-system network.

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Abandoned Hold Release	Terminating	None	Across Network	
Account Code	Both	None	Across Network	Node/COS
Alarms			Local	Node
A-lead			Local	Node
Alternate Attendant	Terminating	Comdial	Local	Node

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
ANI (passed across the network but must be enabled per node)	Terminating	Comdial/ QSIG	Local (display telephones)	Node
ANI DNIS (passed across the network but must be enabled per node)	Originating	Comdial/ QSIG	Local (display telephones)	Node
ANS Detect	Originating	Comdial	Across Network	
ARS	Both	Comdial	Across Network	Node
ASR	N/A	None	Local	Node
Attendant Programing	Both	Comdial	Local	Node
Authorizati on Code	Originating	None	Local	Node
Auto Hold	Terminating	None	Across Network	Node
Auto Pause	Terminating	None	Across Network	Node

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Auto Redial	Originating	None	Across Network	Node
Aux Line			Across Network	Node
Aux Ring			Local	Node
Block Program			Across Network	Incoming DID Node
Button, Programmable	Both	Comdial	Across Network (with limitations)	Node/ Station
Call Costing	Originating	None	Across Network (with limitations)	Node/ Station
Call Divert	Terminating	Comdial	Local	Node/ Station
Call Forward Default Forward	Terminating	Comdial	Across Network	Node/ Station
Call Forward All Immediate	Terminating	Comdial	Across Network	Node/ Station
Call Forward All RNA	Terminating	Comdial	Across Network	Node/ Station

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Call Pickup Directed	Terminating	Comdial	Across Network	Node/ Station
Call Pickup Group	Terminating	None	Local	Node/ Station
Call Time	Originating	None	Across Network	Node/ Station
Call Transfer	Both	Comdial	Across Network	Node/ Station
Call Waiting Tone	Terminating	None	Local	Node/ Station
Camp On	Terminating	None	Local	Node/ Station
CFOS	Both	None	Local	Node/ Station
Clock Set			Local	Node
Conference	Both	Comdial/ QSIG	Across Network (with limitations)	Station
COS			Local	Node
Day Night Class of Service	Both	Comdial	Local	Node
Delay Hot Line	Terminating	None	Local	Node/ Station

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Dist Ring	Terminating	None	Local	Node/ Station
Dial by Name	Originating	None	Local	Node/ Station
Directed Station Hold	Both	None	Local	Node/ Station
Disable Station			Local	Node/ Station
Disconnect Notification	Both	None	Across Network	
DND/ inhibit/ override	Terminating	Comdial/ QSIG	Local	Node
DNIS (passed across the Network but must be enabled per node)	Both	Comdial	Local (display phones)	Node
DSS/BLF	Both	Comdial	Across Network (with limitations)	Node/ Station
DTMF Signaling	Both	None	Across Network	

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Enhanced Night Mode	Terminating	None	Across Network	Node
Enhanced Ringing	Terminating	None	Across Network	Node
Executive Override	Both	None		
Extended DTMF				
Feature Numbering			Local	Node
Group Listen	Terminating	None	Across Network	Node/ Station
Hands Free	Both	None	Across Network	Node/ Station
Hold	Terminating	Comdial/ QSIG	Across Network	Node/ Station
Hunt Group (can access Hunt group across Network but members must be local to each other)	Terminating	Comdial	Across Network	Node
Hunt List	Terminating	None	Local	Node/ Station

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Idle Line	Both	None	Local	Node
Incoming Call Routing	Both	Comdial	Across Network	Node
Intercom Numbering			Local	Node
Intercom Speed Dial Last Number Dialed	Originating	None	Across Network	Node/ Station
LCD Contrast	Both	None	Local Station Only	Node/ Station
LCD Messaging	Both	None	Local	Node
Line Group	Both	None	Local or Network Channels	Node
Line Monitoring	Both	Comdial	Local	Node
Line Names	Both	Comdial/ QSIG	Across Network	Node
Line Queue	Both	None		
Lock	Both	None	Local	Node/ Station
Location Codes	Both	None	Local	Node

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Mark	Both	None	Local	Node/ Station
Message Deposit	Both	Comdial	Local	Node/ Station
Message Waiting	Terminating	Comdial	Across Network	Node/ Station
Music, Background	Both	None	Local	
Music, On Hold	Both	None	Local	
Mute	Both	None	Across Network	Node/ Station
Operator/ Network	Both	Comdial	Across Network	Hub
Operator/ Node	Both	Comdial	Local	Node
Page	Both	None	Local	Node
Park Orbit	Terminating	None	Local	Node
Personal Ring Tone	Terminating	None	Local Station Only	Node/ Station
Prime Line	Originating	None	Local	Node/ Station
Privacy	Terminating	None	Local	Node/ Station
Pulse Set On	Originating	None	Local	Node

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Query (button)	Originating	None	Local	Node/ Station
Queue	Terminating	Comdial	Local	Node/ Station
Quick Transfer	Terminating	Comdial	Across Network (with limitations)	Node/COS
Recall Call Forward			Across Network (with limitations)	Node/ Station
Recall Timing (Hunt Group)	Terminating	Comdial/ QSIG	Across Network	Node
Record	Both	Comdial	Across Network	Node/ Station
Response Message	Both	None	Local	
Ring Monitoring	Terminating	Comdial	Local	Node/ Station
Serial Transfer	Terminating	Comdial/ QSIG	Local	
Service Observe	Originating	None	Local	Node/ Station
Shift for Speed Dials	Both	None	Across Network	Node/ Station

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Silent for Ringing	Both	None	Local	Node/ Station
SLPS— Brokers Mode	Both	None	Local	
SLPS— Dial Saved Number	Originating	None	Across Network	
SLPS— Pick Up Last Line	Terminating	None	Across Network	
SLPS— Save Number	Originating	None	Across Network	
SLPS— TAP	Both	None	Across Network	
SMDA/ SMDR	Both	Comdial	Across Network (with limitations)	Node
Softkey	Both	Comdial	Across Network (with limitations)	
SOHVA	Terminating	Comdial	Local	Node/ Station

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
SOHVA Service Observe	Originating	None	Local	Node/ Station
Dial	Originating	None	Across Network	Node/ Station
System Speed Dial	Both	None	Across Network	Node
Station Monitoring (DSS/BLF)	Both	Comdial	Across Network	
(with limitations)	Hub only			
Station Names	Both	None	Across Network	Node/ Station
Station State Query	Originating	Comdial	Across Network	Node/ Station
Subdue Ringing	Terminating	Comdial	Local	Node/ Station
System Manager Prog	Both	None	Local	
System Parameters	Both	None	Local	Node
TAFAS (line answer from any station)	Both	None	Local	Node/ Station

Feature Name	Type Network Originate Terminate Both	Remote Network Support	Feature Parameters	Program Feature
Toll Restriction	Both	None	Across Network	Node/COS
Tracker	Both	Comdial	Local	
Transfer to Voice Mail	Both	Comdial	Across Network	Node/ Station
Trunk to Trunk Transfer	Both	Comdial	Across Network	
Voice Announce Block	Terminating	Comdial	Across Network	Node/ Station
Serial WP Integration			Across Network	Hub and VM
VVP			Across Network	Hub and

INDEX

A

Account Code 76, 119
Account Codes 96
 entering for incoming calls 96
 entering for outgoing calls 96
Advanced Options 39
All-Call Paging 119
Answering Calls 7
Assist Button 119
Attendant 119
Authorization Entry Code 76
Auto Redial 76
Autodialing 119
Automatic Callback 119
Automatic Dialing 34, 119
Automatic Redial 89
Automatic Route Selection 120
Automatic Station Relocation 120

B

Background Music 76, 85
Block Programming 120
Button Inquiry 102
Button Query 102, 120

C

Call Forward 120
Call Forward All 76
Call Forward Outside System 76
Call Forward Personal 76
Call Forward Ring No Answer All 76
Call Forward Ring No Answer
 Personal 76
Call Log 105
Call Park 120
Call Pick-Up 121

Call Pickup 23
Call Transfer 121, 128
Call Waiting 40
Caller ID 29
Camp On 37
Camp-On (Call Waiting 77
Camp-On With Automatic Call Back 76
CFOS 49, 120
Clear Feature 77
Conference 128

D

Dial By Name 97, 122
Directed Call Hold 21
Directed Call Pickup 23
Display Abbreviations 111
Do Not Disturb 77, 87, 122
DSS
 programmable buttons 9
 Storing Numbers 67

E

Exclusive Hold 123
exclusive hold 19
Executive Override 77

F

Feature
 Codes 73
Feature Access Codes 107
Feature Codes
 Clearing 74
flashing hold lamp 52

G

Group Call Pickup 23

Group Listen 77

H

Headset 77
Headset Connectors 94
Headset Jack 8, 94
Hold Button 9
Holding Calls 18

I

Interactive Buttons 9
Intercom 124
INTERCOM Button 13
Intercom Button 9
Intercom Calls
 Answering 17

L

LCD 124
 description 8
 Feature Buttons 76
 Message Delivery 59
 Message List 62
 setting display contrast 4
Line Groups 86

M

Making Calls
 Intercom 33
 Outside Calls 31
Meet Me 77
Message Wait 77
Message Waiting Light 63
Message-Waiting Light 8
Microphone Opening 8
Monitored Stations 24
MUTE Button 13
Mute Button 9

N

Networking Support 135
Night Calls
 Answering 18
Night Transfer 125

P

Page Zone 77
Paging 103
Park Orbit 77
Pedestal
 Adjusting 3
Privacy Release 77

R

Redial
 Last dialed number 35
Redialing 35
Reminder Alert 80
Ring Tone
 setting 5
Ring Line Preference 126

S

Saved Number Redial 77
Service Observe 77
Shift Button 10
SOHVA 26, 42, 127
Speaker 8
Speaker Button 10
Speakerphone
 buttons 9
 Display Lights 12
 Lamp status 12
 Muting 101
 placing a call 4
Speed Dial
 Programming 69
 storing numbers 36

System Speed Dial 128

T

TAP 128

Tap Button 10

Tracker Paging System 78

Transfer/Conference Button 10

V

Voice Announce Blocking 28

Voice-Announce Block 78

Volume Control 11, 99

Volume Level
setting 5

Volume Save 78

W

Wireless Paging 91

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