INTER-TEL®

Axxess®

Administrator's Guide

QUICK REFERENCE GUIDE TO SYSTEM, VOICE MAIL, AND DIAGNOSTICS ADMINISTRATOR FEATURES

These are the **basic** instructions for the most frequently used system administrator and voice mail administrator features. For detailed information on these features, refer to the *Administrator's Guide*.

SYSTEM ADMINISTRATOR FEATURES

TO PLACE THE SYSTEM IN NIGHT OR DAY MODE:

— While on-hook, enter `9` `8` `6` `0`.

TO PLACE A SINGLE NODE IN DAY OR NIGHT MODE:

— While on-hook, enter `9` `8` `6` `1` (Enable Network **Night** Mode) *OR* enter `9` `8` `6` `2` (Enable Network **Day** Mode). Then enter the desired node number.

TO SET SYSTEM OR NETWORK DATE AND TIME:

— While on-hook, enter `9` `8` `0` `0` (**System** Date/Time) *OR* enter `9` `8` `1` `0` (**Network** Date/Time).

— Use the dialpad buttons to enter the month, day, and year. (For example, press 010300 for January 3, 2000.) *OR* press `#` to skip ahead without changing the date.

— Use the dialpad buttons to enter the time in hours and minutes. (For example, enter 0900 for 9:00.) *OR* press `#` twice to exit without changing the time.

— *If the system is set for 12-hour display format,* press `1` for AM or press `2` for PM.

TO SYNCHRONIZE NETWORK TIME:

— While on-hook, enter `9` `8` `1` `1`.

TO RESPOND TO AN ALARM MESSAGE:

— When a minor alarm indication appears, write down the alarm information.

— While on-hook, clear the alarm by entering `9` `8` `5` `0` (Clear System Alarm) *OR* entering `9` `8` `5` `1` (Clear Network Alarm).

— Look up the alarm in the *Administrator's Guide* and take the appropriate action.

VOICE MAIL ADMINISTRATOR FEATURES

TO RECORD A BROADCAST MESSAGE:

— Call the voice mail extension number.

— Press `*`, then enter the system administrator mailbox number and password.

— Press `9`, then press `1`.

— Record your message.

— When you have completed your message, hang up *OR* press `#` for more options.

TO PERFORM MAILBOX MAINTENANCE:

— Call the voice mail extension number.

— Press `*`, then enter the system administrator mailbox number and password.

— Press `9`, then press `2`.

— Dial the mailbox, extension ID, or group list number to be programmed.

— Program the personal options, following the prompts, as usual.

TO IMPORT A FAX DOCUMENT:

— Using a fax machine, call the voice mail extension.

— Press `*` and then enter the system administrator mailbox number and password.

— Press `9`, then press `4`.

— Enter the fax document number.

— *If the document number does not already exist,* press `#` if the number is correct *OR* press `3` and re-renter the number.

— *If the document number already exists,* press `#` to replace the document *OR* press `3` to enter another number.

— *If the document is being sent, updated, or deleted,* that number cannot be used right now. Enter a new number or hang up.

— *If you did not enter a valid number,* enter a new number.

— When prompted, press START on your fax machine.

— When the fax transmission is complete, press `#` to continue importing documents, or press `*` to exit.

SYSTEM DIAGNOSTICS FEATURES

System diagnostics mode allows a system administrator to perform diagnostics functions such as freezing/unfreezing the database, printing message logs, and seizing a device for troubleshooting purposes. Because diagnostics mode affects system performance, it is recommended that you run the diagnostics program when the system is idle.

You must enable diagnostics mode before you can enter a diagnostics feature code (99xx).

To Enable/Disable System Diagnostics Mode:
— While on hook, enter the Diagnostics Mode feature code (9900) to enable/disable diagnostics mode. The display shows DIAGNOSTICS ON/OFF.

Default Diagnostics Feature Codes

CODE	FEATURE NAME	CODE	FEATURE NAME
9962	Compress On/Off	9989	Diagnostic: Network Unfreeze Zone – System Histories
9961	Compression Statistics	9963	Diagnostic - Network Group
9926	Diagnostic - ASAI Snoop Off	9972	Diagnostic - Print Auxdata
9927	Diagnostic - ASAI Snoop On	9975	Diagnostic - Print Message Log
9943	Diagnostic - Heap Dump	9976	Diagnostic - Print Network Log
9922	Diagnostic - Dump Extension	9978	Diagnostic - Query Node Traffic
9936	Diagnostic - Dump Node Information	9928	Diagnostic - Show Version
9947	Diagnostic - Heap Statistics	9910-9912	Diagnostic - Spare 1-3
9947	Diagnostic - ISDN View	9974	Diagnostic - System History
9962	Diagnostic - Major Reset	9983	Diagnostic - View Displays
9945	Diagnostic - Mark as Leaks	9932	Program Database
9946	Diagnostic - Mark as Quiescent	9973	Seize Device
9964	Diagnostic - Minor Reset	9993	System History Freeze
9939	Diagnostic: Network Freeze Zone – System Histories	9998	System History Unfreeze

Default Administrator Feature Codes

CODE	FEATURE NAME	CODE	FEATURE NAME
9851	Clear Network Alarm	9869	Modem Reset
9850	Clear System Alarm	9860	Night Ring On/Off
9900	Diagnostics On/Off	9801	Program System Speed Dial
9862	Enable Network Day	9810	Set Network Date/Time
9861	Enable Network Night	9800	Set Time/Date
9866 9867	Modem Enable Modem Disable	9811	Synchronize Network Time

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TO PROGRAM SYSTEM SPEED-DIAL NUMBERS:
— While on-hook, enter 9 8 0 1 .
— Enter the speed-dial location code (000-999).
— To change or program the name: Enter the desired name for the speed-dial number:

In numeric mode, the dialpad buttons are used to enter numbers 0-9, the # button is used for entering a hyphen, and the * button is used for entering a colon.

In alphanumeric mode, dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. When adjoining characters are located under the same button, press FWD to advance to the next character. Refer to the following chart to program information in alphanumeric mode. (Note that letters correspond to the letters printed on the dialpad buttons.)

To erase the current name and leave it blank: Press MUTE repeatedly until the name is erased. Then press # .

To leave the name the same: Press # .

— Enter the number (up to 48 digits) to be stored.
— Press # .

BUTTON	NUMBER OF TIMES BUTTON IS PRESSED										
	1	2	3	4	5	6	7	8	9	10	11
	ENGLISH CHARACTERS					KATAKANA CHARACTERS**					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The character available depends on the software version.

**The Japanese characters are only available if the multilingual feature is enabled.

INTER-TEL®

AXXESS®

ADMINISTRATOR'S GUIDE

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NOTICE

This *Inter-Tel® Axxess® Administrator's Guide* is released by INTER-TEL, INC. as a guide for system and voice mail administrators. It provides information necessary to properly administer the system.

The contents of this guide, which reflect current INTER-TEL standards, are subject to revision or change without notice. Some features or applications mentioned may require a future release and are not available in the initial release. Future product features and applications are subject to availability and cost. Some features or applications may require additional hardware and/or specific software. Software packages released after the publication of this guide will be documented in addenda to the guide or succeeding issues of the guide.

For additional information, please contact your local INTER-TEL service representative.

For sales, service, or technical support,
contact your local authorized Inter-Tel dealer.
If you have any questions or comments regarding this guide or
other technical documentation, contact
Inter-Tel's Technical Publications Department at:
Tech_Pubs@inter-tel.com

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FCC Regulations

Important

1.   This equipment complies with Part 68 of FCC rules. On the side of the equipment cabinet is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. Customers connecting this equipment to the telephone network shall, before such connection is made, give notice to the telephone company of the particular line(s) to which such connection is to be made, and shall provide the telephone company with the following information:

   —   Complies with Part 68 of FCC rules

   —   FCC registration number: BE2USA-64572-MF-E (for MF-rated systems), BE2USA- 64573-KF-E (for KF-rated systems), or BE2USA-24359-PF-E (for PBX systems)

   —   USOC numbers of required interface jacks (see chart on next page)

   —   Service order code (SOC), as applicable (see chart on next page)

   —   Facility interface code (FIC) (see chart on next page)

   —   Ringer equivalence number (REN), as applicable (see chart on next page)

   > **NOTE:** The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five (5.0). To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

   The telephone company should also be given notice upon final disconnection of this equipment from the particular line(s).

   It is also the responsibility of the customer to provide the telephone company with registration numbers of any other devices which are configured for connection to the telephone network.

2.   This equipment cannot be used on public coin service provided by the telephone company. Connection to party line service is subject to state tariffs. (Contact the state public utility commission, public service commission, or corporation commission for information.)

3.   If this equipment causes harm to the telephone network, the telephone company will notify the customer in advance that service may be temporarily discontinued. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, the customer will be advised of the right to file a complaint with the FCC, if necessary.

4.   The telephone company may make changes in its facilities, equipment, operations, or procedures which may affect the operation of this equipment. If so, the customer shall be given advance notice so that any necessary modifications can be made in order to maintain uninterrupted service.

5. If trouble is experienced with this equipment, contact a local authorized factory service representative for repairs and/or warranty information. The customer, users, and unauthorized technicians should not repair, make adjustments to, or attempt to service this equipment in any way.

6. In the event of trouble with the telephone line(s), this equipment must be disconnected from the telephone line(s). If trouble ceases, the equipment must be repaired by an authorized factory service representative. If the trouble continues to occur with the equipment disconnected, the telephone company should be notified that they have a problem. If this is the case, repairs or adjustments made by the telephone company will be made at their expense.

7. Allowing this equipment to be operated in such a manner as to not provide proper answer supervision signaling is in violation of Part 68 of FCC rules. This equipment returns answer supervision signals to the public telephone network when: answered by the called station, answered by the attendant, routed to a recorded announcement that can be administered by the equipment user, and routed to a dial prompt. This equipment also returns answer supervision on all DID calls forwarded back to the public telephone network. Permissible exceptions are: a call is unanswered, busy tone is received, and reorder tone is received.

8. This equipment is capable of providing users access to interstate providers of operator services through the use of equal access codes. Failure to provide equal access capabilities is a violation of the Telephone Operator Consumer Services Improvement Act of 1990 and Part 68 of the FCC Rules.

TYPE OF PORT INTERFACE	FACILITY INTERFACE CODE (FIC)	RINGER EQUIV ALENCE NO. (REN)	SERVICE ORDER CODE (SOC)	USOC JACK CONNECTOR
2-Wire Loop	02LS2	0.6B	–	RJ21X
2-Wire Loop/Ground	02LS2/02GS2	3.6B/4.4B	–	RJ21X
2-Wire Ground	02GS2	0.6B	–	RJ21X
OPX Class C*	0L13C	–	9.0F	RJ11C, RJ21X
2-Wire DID**	02RV2-T	0.0B	AS.2	RJ11C, RJ21X
D4 Superframe/AMI	04DU9-BN	–	6.0Y	RJ48C
D4 Superframe with B8ZS	04DU9-DN	–	6.0Y	RJ48C
Extended Superframe (ESF)	04DU9-1KN	–	6.0Y	RJ48C
ESF with B8ZS	04DU9-1SN	–	6.0Y	RJ48C
Primary Rate ISDN	04DU9-1SN	–	6.0Y	RJ48C
* Also interfaces with Class A and B.				
** When using T1 facilities to provide DID service, do not use the DID facility interface code (FIC); instead, provide the telephone company with DID answer supervision code "AS.2" and the FIC for the requested T1 service.				

> **CAUTION**
>
> *THE TELEPHONE INSTRUMENTS SPECIFICALLY DESIGNED FOR THIS SYSTEM HAVE HEARING-AID COMPATIBLE HANDSETS THAT ARE IN COMPLIANCE WITH SECTION 68.316 OF THE FCC RULES.*
>
> THE IP SLA COMPLIES WITH UL1950/CSA950 AND EN 60950 STANDARDS AND COMPLIES WITH EN 55022 AND PART 15 OF FCC RULES.

Notice

This equipment generates and uses radio frequency energy and if not installed and used properly, that is, in strict accordance with the manufacturer's instructions, may cause interference to radio and television reception. It has been type tested and found to comply with the limits for a Class A computing device in accordance with the specifications in Subpart J of Part 15 of FCC Rule. Operation of this equipment in a residential area may cause unacceptable interference to radio and TV reception requiring the operator to take whatever steps are necessary to correct the interference. 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 the receiving antenna

- Relocate the equipment cabinet with respect to the receiver

- Check that the equipment cabinet and receiver are not on the same circuit; the equipment cabinet must be powered from an isolated, dedicated AC outlet

If necessary, the user should consult the dealer or an experienced radio/television technician for additional suggestions. The user may find the following booklet prepared by the FCC helpful: "How to Identify and Resolve Radio-TV Interference Problems"

This booklet is available from the U.S. Government Printing Office, Washington, D.C. 20402, Stock No. 004-000-00398-5.

If RFI problems persist, contact Inter-Tel Customer Support.

The Axxess® system is now product safety certified by Canadian Standards Association (CSA) for use in both the United States and Canada.

Safety Regulations

Important Safety Instructions

CAUTION
The "NRTL/C" indicator adjacent to the CSA mark on the product label signifies that the Axxess® System has been evaluated to the applicable ANSI/UL and CSA Standards for use in both the United States and Canada. NRTL (Nationally Recognized Testing Laboratory) is a designation granted by the U.S. Occupational Health and Safety Administration (OSHA) to laboratories which have been accredited to certify products to U.S. Standards. Before installation, also check the local electrical codes for important information concerning the installation of telephone and electronic equipment.

The following safety information is reprinted from UL 1459. When using your telephone equipment, basic safety precautions should always be followed to reduce the risk of fire, electric shock, and injury to persons, including the following:

1. Read and understand all instructions.

2. Follow all warnings and instructions marked on the product.

3. Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

4. Do not use this product near water (for example, in a wet basement).

5. Do not place this product on an unstable cart, stand, or table. The product may fall, causing serious damage to the product.

6. Slots and openings in the cabinet and the back or bottom are provided for ventilation, to protect it from overheating; these openings must not be blocked or covered. This product should never be placed near or over a radiator or heat register. This product should not be placed in a built-in installation unless proper ventilation is provided.

7. This product should be operated only from the type of power source indicated in the manual. If you are not sure of the type of power source to your building, consult your dealer or local power company.

8. This product is equipped with a three-wire grounding type plug, a plug having a third (grounding) pin. This plug will only fit into a grounding type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding type plug.

9. Do not allow anything to rest on the power cord. Do not locate this product where the cord will be abused by persons walking on it.

10. Do not use an extension cord with this product's AC power cord. The AC outlet for this product should not be used for any other electrical equipment.

11. Never push objects of any kind into this product through cabinet slots as they may touch dangerous voltage points or short out parts that could result in a risk of fire or electric shock. Never spill liquid of any kind on the product.

12. To reduce the risk of electric shock, do not disassemble this product, but take it to a qualified serviceman when some service or repair work is required. Opening or removing covers may expose you to dangerous voltages or other risks. Incorrect reassembly can cause electric shock when the product is subsequently used.

13. Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

    a. When the power supply cord or plug is damaged or frayed.

    b. If liquid has been spilled into the product.

    c. If the product has been exposed to rain or water.

    d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions because improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to normal operation.

    e. If the product has been dropped or the cabinet has been damaged.

    f. If the product exhibits a distinct change in performance.

14. Avoid using a telephone (other than a cordless type) during an electrical storm. There may be a remote risk of electric shock from lightning.

15. Do not use the telephone to report a gas leak in the vicinity of the leak.

Save These Instructions

CAUTION

This exclamation point within a triangle (which, for example, is silk-screened on the front of the system cabinet) is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product. Be sure to read and follow all of the instructions included in this manual.

Introduction

INTRODUCTION

This Administrator's Guide provides all of the information an administrator should need to know about the system hardware and features, and it gives detailed instructions on their use. Refer to the user guide provided with each phone for simplified instructions on using telephone and voice mail system features.

TELEPHONE SYSTEM

The Inter-Tel Axxess Telephone system is a state-of-the-art, digital, voice/data, hybrid telephone system. As a hybrid system, it incorporates many of the user-friendly features of key systems with many of the expanded features and flexibility of private branch exchange (PBX) systems.

The system is designed to meet the needs of growing businesses. In fact, the system's unique digital signal processing (DSP) structure allows it to be easily adapted and expanded as business communication needs change, especially with the Caller ID, Automatic Number Identification (ANI), Dialed Number Identification Service (DNIS), and Integrated Services Digital Network (ISDN) features. The modular design makes the system easy to install and service. And, the programmable features provide an abundance of user-friendly applications to meet each customer's needs. Highlights of the system's design include:

- Advanced microprocessor technology.

- Modular, easily replaceable hardware with add-on capabilities for optional features.

- Flexible programming to customize many system and station features.

NETWORKING

With system software versions 5.0 and later, you can connect two or more phone systems to form a network that provides a seamless interface between the systems. To the user, the network appears as though it is one integrated system. With few exceptions, the user can perform all of the functions across the network that he can within a single phone system.

In this manual, all references to a "network" mean two or more connected systems. Each system in a network is called a "node."

The maximum capacities for networking are listed in the following table.

FEATURE/DEVICES	CAPACITY
System Nodes per network	63
Local devices per node	1792*
Off-node devices per node	8000
Devices per network	40,000

* The maximum number of stations and trunks that can be installed is limited by the number of voice channels and/or system memory resources available.

SYSTEM ADMINISTRATOR DUTIES

As a system administrator, you can provide the following services:

- Place the local phone system or other systems in the network in night or day mode

- Set the date and time of the local system

- Set the network date and time and re-synchronize clocks in the network.

- Make database changes (see for a list of programming areas)

- Program system speed-dial numbers on the local system

- Receive and clear displayed system and network alarms

- Use diagnostic mode features to:

  — Freeze and unfreeze database history on the local system or other systems in the network

  — Print error logs

  — Seize specific devices for troubleshooting purposes

Administrator features are described in detail beginning on

Any Inter-Tel phone can be designated as an administrator station through Database Programming. All designated administrator stations should be equipped with display phones to show system alarms and make programming easier.

NOTE: Single-line sets can not be used as an administrator station.

VOICE PROCESSOR

The system Voice Processor can be used for any of the following applications:

- **Voice Mail:** This application handles all calls that are directed to voice mail (other than through the Message Notification/Retrieval application) by subscribers and non-subscribers. Callers will hear the main company greeting, followed by a menu of available options. Stations can forward or transfer calls directly to their mailbox.

- **Message Notification/Retrieval:** The Message Notification/Retrieval application provides voice mail message notification and quick mailbox access.

- **Directory Services:** Directory services provide callers with a list of mailboxes and extension IDs.

- **Automated Attendant:** The automated attendant is a programmable feature that can be used to provide automated call answering service. Calls can transfer, forward, or directly ring in to an automated attendant. When an automated attendant answers a call, it plays a recording that gives dialing instructions. After hearing the recording (or at any time while it is playing), the caller may then dial an extension or mailbox number.

- **Automated Attendant Recall Destination:** If a call, that is transferred by the automated attendant, is not answered before the Transfer Voice Processor timer expires, the call recalls the Automated Attendant Recall Destination. The Recall Destination announces that the station is unavailable and allows the caller to leave a message (if the station has an associated mailbox) or dial another extension.

- **Call Routing Announcement:** Call Routing Announcements can be used two ways:

  — A Call Routing Announcement application can be used in place of a playback device. The playback device function is especially useful for programming hunt group announcement and overflow stations. When called, the Call Routing Announcement application will play a recording and then hang up.

  — The Call Routing Announcement application can use Digit Translation which allows the caller to press a single digit for access to a mailbox, a fax-on-demand function, or a station or hunt group that has an associated mailbox or extension ID. Digit translation can be programmed for each digit 0-9, #, and *, plus a Timeout that is used when the caller does not enter a digit. Each digit can lead to a "digit translation node" that has its own digit translation values. This layered Call Routing Announcement digit translation creates a "tree" of programmable digit translation nodes.

- **Record-A-Call:** This feature allows a station user to record an ongoing call in a voice mailbox message. When a station user enters the Record-A-Call feature code, the system places a call to the station's assigned Record-A-Call application. When the application answers, the system sets up a conference call with the station's Record-A-Call mailbox. If programmed, the mailbox plays a greeting to indicate that the recording is in progress.

- **STAR:** The Scheduled Time-Based Application Routing (STAR) enhances the programmability of the voice mail application greetings. With STAR, applications can be programmed to play alternative greetings for holidays and weekends. A STAR application is a table of up to 20 entries, that serves as a "routing table" which tells the Voice Processor which application will be used, based on day and time information in the table. (The applications are programmed to play the greetings, not the STAR application. The STAR routes the call to the right application.)

- **Station Message Detail Recording (SMDR) Information Storage:** SMDR information can be stored on the Voice Processor's hard disk and then processed using call record sorting software, such as Inter-Tel's Inside Track®.

VOICE MAIL NETWORKS

A Voice Processor can be installed on any or all nodes in the system network. These Voice Processors can also be networked together to allow a caller to leave a message on the local Voice Processor for a mailbox located on another Voice Processor in the network.

The maximum capacities of the network are listed in the following table.

FEATURE/DEVICES	CAPACITY
Voice Processors per network	100[a]
Local or Off-Node Mailboxes and/or Extension IDs per Voice Processor node	10,000[b]
System Audio Interface Ports per node	40
Applications per node	150
Group Lists per node Members per group list	1000 1500
Remote Message Notification Numbers per mailbox	18
Audiotex Recordings per node	500
Message Notification/Retrieval Applications per node	1
System Passwords per node	4
Time Slot Groups per node	10

[a] This is the maximum number of nodes supported by the software. System traffic may limit the actual number of nodes that can be supported without affecting system performance.

[b] This is the maximum number of mailboxes supported by the NT-based software.

VOICE MAIL ADMINISTRATOR DUTIES

As the voice mail administrator, you can use special features that are not provided to other voice mail users. The system administrator mailbox has all standard subscriber features plus the ability to do the following:

- Record a broadcast message

- Perform mailbox and group list maintenance

- Create and select custom audiotex recordings (voice mail company greetings, auto attendant recordings, call routing announcements, and hunt group overflow and announcement station recordings)

- Import fax documents

- Customize voice mail prompts

Voice mail administrator features are described in detail on .

Administrator Procedures

INTRODUCTION

During database programming, any Inter-Tel phone can be designated as a system administrator and/or a voice mail administrator. All administrator stations should be equipped with display phones to show system alarms and to make programming easier.

This section gives you all of the instructions for using the Administrator Features of the system and voice mail.

- **System Administrator Features** begin below.

- **Voice Mail Administrator Features** begin on

A quick reference card is located in the front of this book for your convenience.

Refer to the *System Features* and *Voice Processing Features* chapters for detailed descriptions of the system and Voice Processor and for general user procedures.

NOTE: The telephone system provides a choice between American English, British English, Spanish and Japanese prompts and displays. As an administrator, you must know which language is considered Primary and which is Secondary for the system.

SYSTEM ADMINISTRATOR FEATURES

Any display Inter-Tel phone (attendant or non-attendant) can be assigned as a telephone system administrator. System administrator stations provide the following services:

- Place the local node or other nodes in the network in night or day mode

- Set the date and time of the local node

- Set the network date and time and re-synchronize clocks in the network

- Make database changes (see for a list of programming areas)

- Enable, disable, and reset local and off-node Call Processing Card modems

- Program system speed-dial numbers on the local node

- Receive and clear displayed system and network alarms

- Use diagnostic mode features:

  — Freeze and unfreeze the database history for the local node or any node in the network using programmed freeze zones

  — Print error logs

  — Seize specific devices for troubleshooting purposes

Any Inter-Tel phone station can be programmed to be an administrator station by the database programmer or by another administrator station.

NOTE: Single-line sets can not be used as an administrator station.

If a non-administrator station user attempts to use the administrator features, the user will hear reorder tones, and the display will show CANNOT ACCESS RESERVED FEATURE.

PLACING THE SYSTEM IN NIGHT MODE

An administrator station can place the local node in day or night mode. The day/night mode determines which lists the system will use for trunk access, toll restriction, etc.

Night mode also affects the night transfer relays on the Options Card (OPC). The relays are activated when the system is placed in night mode. See SPECIFICATIONS in the Installation Manual for details.

TO TURN NIGHT MODE ON OR OFF:

While on hook, enter the Night Ring On/Off feature code (9860). You hear a single confirmation tone. The display shows NIGHT MODE IS ON (or OFF). Then, if night mode was turned on, the display shows THE SYSTEM IS IN NIGHT MODE until day mode is turned on.

PLACING NODES IN DAY OR NIGHT MODE

An administrator station can place one or more nodes in day or night mode. The day/night mode determines which lists the system will use for trunk access, toll restriction, etc.

The network determines the day/night mode status of a call based on the day/night mode status of the node where the trunk resides.

TO TURN NIGHT MODE ON:

1.   While on hook, enter the Enable Network Night feature code (9861).

2.   You are prompted to enter a node number. Enter the desired node number.

3.   You hear a single confirmation tone. The display shows NIGHT MODE IS ON. Then the display shows NODE X IS IN NIGHT MODE until day mode is turned on.

TO TURN DAY MODE ON:

1.   While on hook, enter the Enable Network Day feature code (9862).

2.   You are prompted to enter a node number. Enter the desired node number.

3.   You hear a single confirmation tone. The display shows DAY MODE IS ON.

SETTING SYSTEM DATE AND TIME

NOTE: Software versions 8.2 and later support the automatic Daylight Saving Time feature. To enable the automatic Daylight Saving Time feature, the Enable Daylight Saving Time flag in Database Programming must be set to **Yes**. In systems running software versions 8.1 and earlier, you must reset the system time whenever Daylight Saving Time begins and ends.

A system administrator can manually reset the system time or date when it is necessary (for example, when the system is defaulted or for daylight-saving time). Any administrator can change the date and time that appears on all display phones and in the SMDR reports. The day of the week is automatically calculated and set by the system when the date is entered.

TO SET THE SYSTEM DATE AND TIME:

NOTE: If you make a mistake, press **MUTE** to backspace or press ✳ or CANCEL to leave it unchanged and start over.

1. While on hook, enter the Set Date/Time feature code (9800). Your display shows DATE *(current date)*.

   If you do not need to change the date, press **#** or **ACCEPT** to skip to the TIME XX:XX prompt.

2. Use the dialpad buttons to enter the month, day, and year. For example, press 020301 for February 3, 2001. When finished, the display shows TIME *(current time)*. If you entered the date incorrectly, the display shows INVALID DATE, and you are prompted to enter a new date.

   NOTE: If using a station programmed for Japanese, enter the date as year, month, date. For example, 010203 for February 3, 2001.

   If you do not need to change the time, press **#** or **ACCEPT** twice to exit. The display shows SYSTEM DATE AND TIME UPDATED.

3. Use the dialpad buttons to enter the time in hours and minutes. (For example, enter 0900 for 9:00.) If you entered the time incorrectly, the display shows INVALID TIME and you are prompted to enter a new time.

4. *If the system is set for 12-hour display format,* the display shows SELECT AM OR PM (AM=1 PM=2). Press **1** (or the **AM** menu button) for AM or press **2** (or the **PM** menu button) for PM. The display shows SYSTEM DATE AND TIME UPDATED. If you press any button other than 1 or 2, the display shows INVALID TIME and you are prompted to enter a new time.

   NOTE: If using a station programmed for Japanese, the prompts will be reversed and you will set the AM/PM before the hour and minutes.

SETTING NETWORK DATE AND TIME

Occasionally, the network time or date needs to be reset (for example, when the system is defaulted or for daylight-saving time). Any administrator can change the date and time that appears on all display phones and in the SMDR reports in the network. The day of the week is automatically calculated and set by the system when the date is entered.

TO SET THE NETWORK DATE AND TIME:

NOTE: If you make a mistake, press **MUTE** to backspace or press **✳** or **CANCEL** to leave it unchanged and start over.

---

1. While on hook, enter the Set Network Date and Time feature code (9810). Your display shows DATE *(current date)*.

    If you do not need to change the date, press **#** or **ACCEPT** to skip to the TIME XX:XX prompt.

2. Use the dialpad buttons to enter the month, day, and year. For example, press 020301 for February 3, 2001. When finished, the display shows TIME *(current time)*.

    NOTE: If using a station programmed for Japanese, enter the date as year, month, date. For example, 010203 for February 3, 2001.

    If you entered the date incorrectly, the display shows INVALID DATE, and you are prompted to enter a new date.

    If you do not need to change the time, press **#** or **ACCEPT** twice to exit. The display shows SYSTEM DATE AND TIME UPDATED.

3. Use the dialpad buttons to enter the time in hours and minutes. (For example, enter 0900 for 9:00.)

    NOTE: If using a station programmed for Japanese, the prompts will be reversed and you will set the AM/PM before the hour and minutes.

    If you entered the time incorrectly, the display shows INVALID TIME, and you are prompted to enter a new time.

4. *If the node is set for 12-hour display format,* the display shows SELECT AM OR PM (AM=1 PM=2). Press **1** (or the **AM** menu button) for AM or press **2** (or the **PM** menu button) for PM. The display shows SYSTEM DATE AND TIME UPDATED. If you press any button other than 1 or 2, the display shows INVALID TIME, and you are prompted to enter a new time.

SYNCHRONIZING NETWORK TIME

Administrators can synchronize the minutes past the hour across the network without changing the hour. This is useful when the nodes are in different time zones.

NOTE: If a node's time is off by more than 30 minutes, synchronizing the minutes may cause the hour to change. Also, network time is automatically synchronized every day at 12:30 AM (00:30), using the time setting on the node with the lowest number.

An administrator can synchronize the clocks in all nodes in the network using the following procedure.

TO SYNCHRONIZE NETWORK TIME:

While on hook, enter the Synchronize Network Time feature code (9811). You hear a confirmation tone, and the display shows NETWORK TIME SYNCHRONIZED.

PROGRAMMING THE DATABASE USING AN ADMINISTRATOR'S STATION

Any administrator station can perform database programming using an Inter-Tel phone. However, it requires a *display* phone, and an Executive Display, Professional Display or Model 8560 Phone is strongly recommended.

NOTE: If using an analog phone, you will need to use the **PREVIOUS**/**NEXT** or **UP**/**DOWN** buttons in place of the Volume button in the instructions in this section.

The database areas that can be programmed by an administrator station include the following:

Station Programming:

- Create or delete Administrator stations

- Create or delete Attendant stations

- Create or delete House Phones

- Assign stations to Attendants

- Program usernames

- Program station toll restriction

System Option Programming:

- Program Do-Not-Disturb (DND) messages

- Program up to ten passwords for the Database Programming feature

- Program station extensions

- Swap extensions

Trunk Programming:

- Individual trunk answer supervision type, caller information, hybrid balance, signaling type (DTMF or pulse), and trunk group assignment

- Trunk group answer access, ring-in, toll restrictions, and trunk lists

Entry to the Database Programming feature at the administrator station can be protected using a password. A password would prevent unauthorized users from altering the system database.

NOTE: Passwords are very important to system security. Without sufficient password protection, the telephone system database is vulnerable to unauthorized access.

Depending on the database changes you make, the system may require a reset after programming. If so, the system will prompt you for a reset and ask if it should be done immediately or delayed. Delaying the reset would prevent interruption in service. However, if a reset is required it should be done as soon as possible to permit proper system operation.

NOTE: A system reset will drop all calls in progress.

Entering Alphanumeric Information:

When entering alphanumeric information, such as a username, reminder message, or Do-Not-Disturb message, press **MSG** or **USE ALPHA MODE**/**USE NUMERIC MODE** menu button to switch back and forth between alphanumeric and numeric mode.

- **In numeric mode,** the dialpad buttons are used to enter numbers 0-9, the pound (**#**) button is used for entering a hyphen (-), and the asterisk (*****) button is used for entering a colon (:). For example, 1 ***** 00 would enter "1:00" in numeric mode.

- **In alphanumeric mode,** dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. For example, 533266 would enter "JEAN" in English. When adjoining characters are located under the same button, press **FWD** to advance to the next character. For example, 66 **FWD** 6667776 would enter "NORM." Refer to the chart below to program information in alphanumeric mode. (Note that letters correspond to the letters printed on the dialpad buttons.) The Japanese characters will be available only if the Multilingual Support premium feature is included in your software license, Japanese is programmed as a Primary or Secondary Language, and the administrator's station is set for Japanese.

	NUMBER OF TIMES BUTTON IS PRESSED										
BUTTON	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	ENGLISH/SPANISH CHARACTERS					**KATAKANA CHARACTERS****					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The character available depends on the software version.

**The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

Station Programming

You can use your administrator station to program the following station information:

- **Create or delete Administrator stations:** You can program any other Inter-Tel phone to be an additional administrator station, or you can delete administrators. (You cannot program this for your own station or a single-line station.)

- **Create or delete Attendant stations:** You can program any station to be an Attendant station, or you can delete Attendants.

- **Create or delete House Phones:** You can program any station to be a House Phone, or you can delete House Phones.

- **Assign stations to Attendants:** You can change the assigned Attendant for each station.

- **Program usernames:** You can program or change the username for any station.

- **Program station toll restrictions:** You can program toll restriction classes of service for the stations. Station toll restrictions are described in detail on page 155.

The Station Database Programming process is summarized in the flowchart shown on page 17. See page 65 for a Program Planning Sheet.

NOTE: If necessary, you can press the asterisk (✳) or Speaker button to cancel programming and discard any unsaved changes, at any time during the following procedure.

TO PROGRAM STATIONS:

1. While on hook, enter the Program Database feature code (9932).

2. *If a password is required,* the display shows ENTER PASSWORD. Use the dialpad to enter your 1-8 digit password and press **#**. (If you enter an incorrect password or do not press **#**, the display shows INVALID PASSWORD.)

   If a password is not required, skip this step.

3. The display shows ENTER DATABASE OPTION. (Display phones also show the options: STATION, SYSTEM, and TRUNK.) Press **1** or the **STATION** menu button.

4. The display shows ENTER STATION EXTENSION. Enter the extension number of the station to be programmed using one of the following methods. (If you enter an invalid extension number, you hear reorder tones and must try again.)

   Enter a complete number: Enter the extension number using your dialpad. When the circuit information is displayed, press **#** again to continue.

   Enter a partial number: Enter a partial extension number, then press **#**, the high end of the Volume button, or the **ACCEPT** menu button. The display shows the extension number, username and circuit number of the station that most closely matches the partial extension number. Press **#** or **ACCEPT** to program the displayed station, or scroll to another station as described below.

   Scroll through the numbers: To scroll through the extension number list, press the high end of the Volume button or **NEXT** to scroll forward, or press the low end of the Volume button or **PREVIOUS** to scroll backward. When the desired extension number is displayed, press **#** or **ACCEPT** to continue.

5.   The display shows ENTER STATION OPTION. Select one of the following:

a.   *Station Flags:* This option allows you to set the Administrator Station, Attendant, and House Phone flags. To select it, press **1** or the **STATION FLAGS** menu button. There are three flags that can be programmed: Administrator, Attendant, and House Phone. (However, you cannot program the Administrator flag for your own station or for a single-line station.) To program the flags, do the following:

1.   *To scroll to the desired flag:* Press the high end of the Volume button or **NEXT** to scroll forward, or press the low end of the Volume button or **PREVIOUS** to scroll backward.

2.   *To enable or disable a displayed flag:* Press **1** or the **ON** menu button to enable the flag. Or, press **2** or the **OFF** menu button to disable the flag.

3.   *To save your programming when all flags are set correctly:* Press **#** or **ACCEPT** to save the new flag settings. The display shows DATABASE UPDATED and then returns to the ENTER STATION OPTION prompt.

4.   *To exit without saving your changes:* Press ***** or **CANCEL** to exit. The display shows NO UPDATE PERFORMED and then returns to the ENTER STATION OPTION prompt.

b.   *Station Information:* This option allows you to select an attendant for the station or program the station's username. To select it, press **2** or the **STATION INFO** menu button. The display shows ENTER STATION INFO OPTION. Select one of the following:

1.   *Attendant:* To assign an attendant to serve this station, press **1** or the **ATTENDANT** menu button. The display shows ENTER ATTENDANT EXTENSION. Enter the desired extension number. When the circuit information is displayed, press **#** again to return to the ENTER STATION INFO OPTION prompt. The display shows DATABASE UPDATED. (Or, to cancel your entry, press ***** or **CANCEL**. The display shows NO UPDATE PERFORMED.)

2.   *Username:* To change the username of the station, press **2** or the **USERNAME** menu button. The display shows ENTER USERNAME. Enter the new name as described on (Or, to cancel your entry, press ***** or **CANCEL**. The display shows NO UPDATE PERFORMED.)

c. *Toll Restriction:* This option allows you to set the station class of service for day and/or night modes. To select it, press **3** or the **TOLL RESTRICTION** menu button. Then do the following:

1. The display shows TOLL RESTRICTION OPTION. Press **1** or the **COS DAY** menu button to program day mode toll restriction. Or, press **2** or the **COS NIGHT** menu button to program night mode toll restriction.

2. The display shows SET DAY (or NIGHT) COS XX. If this is not the COS you wish to program, scroll to the correct COS by pressing the high end of the Volume button or **NEXT** to scroll forward, or press the low end of the Volume button or **PREVIOUS** to scroll backward. The default COS numbers are as follows. See page 155.

   COS 01 – ARS Only
   COS 02 – Deny Area/Office
   COS 03 – Deny Operator
   COS 04 – Deny Toll Access
   COS 05 – Deny International
   COS 06 – Deny Equal Access
   COS 07 – Deny Local Calls
   COS 08 – Denied Numbers
   COS 09 – Allowed Numbers

3. When the correct COS is displayed, press **1** or the **ON** menu button to enable the toll restriction. Or, press **2** or the **OFF** menu button to disable it.

4. If desired, repeat steps c2 and c3 to program additional COS toll restrictions.

5. Press **#** or **ACCEPT** to save the COS programming. The display shows DATABASE UPDATED and then returns to the TOLL RESTRICTION OPTION prompt.

6. Press **#** again to exit to the ENTER STATION OPTION prompt.

6. When the display shows ENTER STATION OPTION, press **#** again to exit to the ENTER STATION EXTENSION prompt. You can then program another station by repeating these steps or press **#** or **ACCEPT** once more to exit to the ENTER DATA-BASE OPTION prompt.

7. When finished with all programming, press **#** while the ENTER DATABASE OPTION prompt is displayed. This ends the programming session.

8. *If a system reset is required,* the display shows ENTER SYS RESET OPTION. Do one of the following:

   — *Delayed Reset:* Press **1** or the **DELAYED** menu button to delay the reset. The display shows DELAYED RESET SCHEDULED. The system will be reset at the pre-programmed time.

   — *Immediate Reset:* Press **2** or the **IMMEDIATE** menu button to reset the system now.
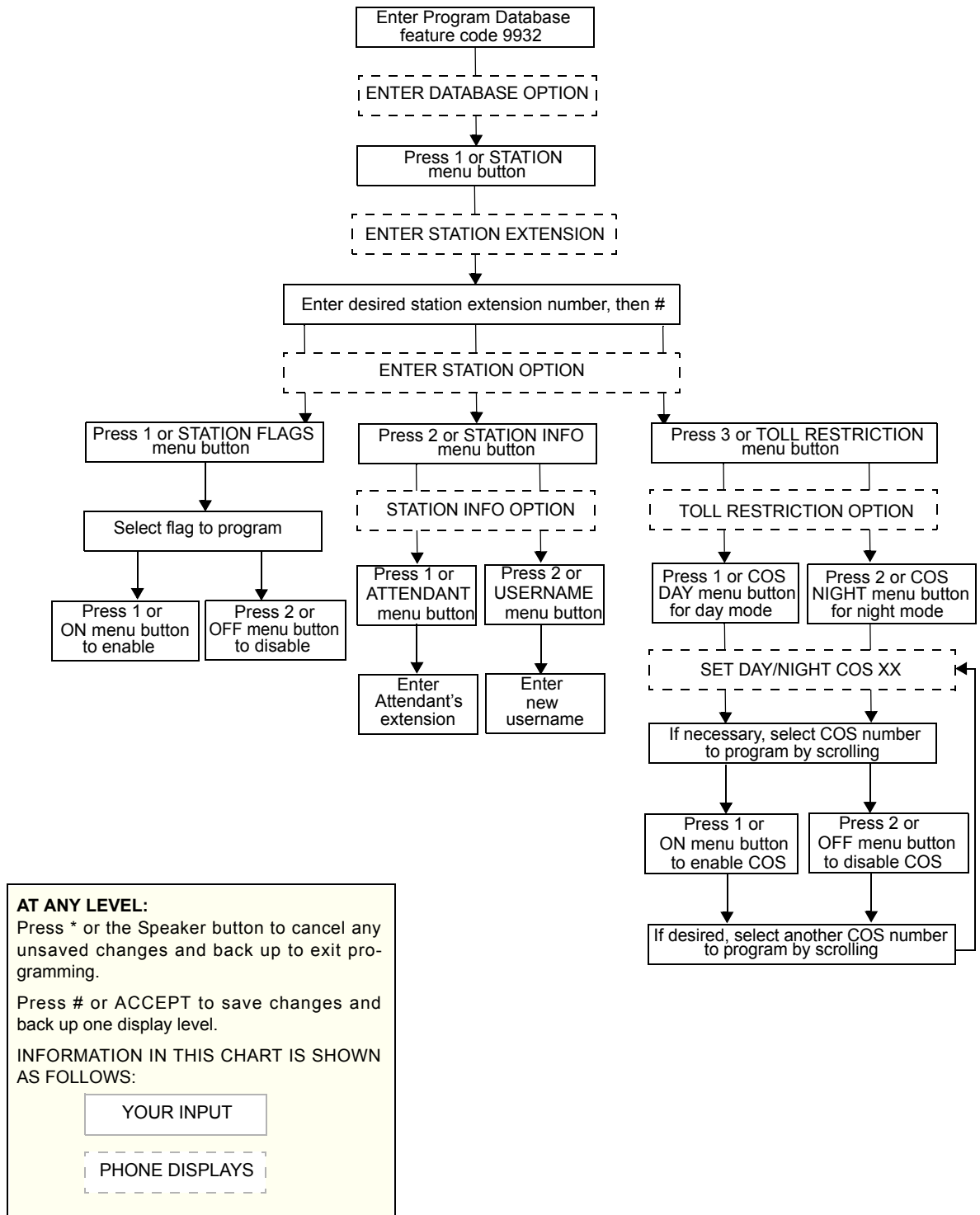
NOTE: A system reset will drop all calls in progress.

FIGURE 1. *Station Database Programming Flowchart*

```
                    ┌─────────────────────────┐
                    │ Enter Program Database   │
                    │   feature code 9932      │
                    └─────────────────────────┘
                                │
                    ┌ ─ ─ ─ ─ ─ ┴ ─ ─ ─ ─ ─ ─ ┐
                      ENTER DATABASE OPTION
                    └ ─ ─ ─ ─ ─ ┬ ─ ─ ─ ─ ─ ─ ┘
                                │
                    ┌─────────────────────────┐
                    │     Press 1 or STATION   │
                    │       menu button        │
                    └─────────────────────────┘
                                │
                    ┌ ─ ─ ─ ─ ─ ┴ ─ ─ ─ ─ ─ ─ ┐
                     ENTER STATION EXTENSION
                    └ ─ ─ ─ ─ ─ ┬ ─ ─ ─ ─ ─ ─ ┘
                                │
            ┌───────────────────────────────────────────┐
            │ Enter desired station extension number,   │
            │               then #                      │
            └───────────────────────────────────────────┘
                                │
            ┌ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┴ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┐
                        ENTER STATION OPTION
            └ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ─ ┘
```

Press 1 or STATION FLAGS menu button	Press 2 or STATION INFO menu button	Press 3 or TOLL RESTRICTION menu button

Press 1 or STATION FLAGS menu button

Select flag to program

Press 1 or ON menu button to enable	Press 2 or OFF menu button to disable

Press 2 or STATION INFO menu button

STATION INFO OPTION

Press 1 or ATTENDANT menu button	Press 2 or USERNAME menu button
Enter Attendant's extension	Enter new username

Press 3 or TOLL RESTRICTION menu button

TOLL RESTRICTION OPTION

Press 1 or COS DAY menu button for day mode	Press 2 or COS NIGHT menu button for night mode

SET DAY/NIGHT COS XX

If necessary, select COS number to program by scrolling

Press 1 or ON menu button to enable COS	Press 2 or OFF menu button to disable COS

If desired, select another COS number to program by scrolling

---

AT ANY LEVEL:

Press * or the Speaker button to cancel any unsaved changes and back up to exit programming.

Press # or ACCEPT to save changes and back up one display level.

INFORMATION IN THIS CHART IS SHOWN AS FOLLOWS:

YOUR INPUT

PHONE DISPLAYS

System Programming

You can use your administrator station to program the following system-wide information:

- **Define Do-Not-Disturb messages:** The messages for the Do-Not-Disturb feature can be reprogrammed through an administrator's station. (See page 247 for information concerning their use.) Administrators can delete or change messages 01-20 to any value (up to 16 characters). When the system has a programmed Primary and Secondary Language, the system has default Do-Not-Disturb messages in both languages. (Available languages are American English, British English, Spanish, and Japanese.) The current language of the programming phone determines which list is programmed. (See page 172 for a description of the Change Language feature.) The Secondary Language translation has the same meaning as the Primary Language message. The default messages are:

01 DO-NOT-DISTURB	11 OUT OF TOWN 'TIL
02 LEAVE A MESSAGE	12 OUT OF OFFICE
03 IN MEETING UNTIL	13 OUT UNTIL
04 IN MEETING	14 WITH A CLIENT
05 ON VACATION 'TIL	15 WITH A GUEST
06 ON VACATION	16 UNAVAILABLE
07 CALL ME AT	17 IN CONFERENCE
08 AT THE DOCTOR	18 AWAY FROM DESK
09 ON A TRIP	19 GONE HOME
10 ON BREAK	20 OUT TO LUNCH

  When two languages are enabled and DND messages are changed, the programmer should attempt to keep the meanings for the messages in both lists the same. That is, if the Primary Language message 02 is changed to "PAGE ME," a similar message should be programmed for the Secondary Language message 02.

- **Select an administrator Database Programming password:** Entry to the Database Programming feature at the administrator stations can be protected using a password. A password would prevent unauthorized users from altering the system database.

- **Define reminder messages:** System reminder messages can be changed using an administrator's station. (See page 258 for information about using reminder messages.) The messages can have up to 16 characters each. When Primary and Secondary Languages are enabled, the system has default reminder messages in both languages. The current language of the programming phone determines which list is programmed. (See page 172 for a description of the Change Language feature.) Each Secondary Language translation has the same meaning as the Primary Language message. The default messages are:

01 MEETING	11 CALL ENGINEERING
02 STAFF MEETING	12 CALL MARKETING
03 SALES MEETING	13 CALL ACCOUNTING
04 CANCEL MEETING	14 CANCEL DND
05 APPOINTMENT	15 CANCEL CALL FWD
06 PLACE CALL	16 TAKE MEDICATION
07 CALL CLIENT	17 MAKE RESERVATION
08 CALL CUSTOMER	18 REVIEW SCHEDULE
09 CALL HOME	19 LUNCH
10 CALL CORPORATE	20 REMINDER

When two languages are enabled and reminder messages are changed, the programmer should attempt to keep the meanings for the messages in both lists the same. That is, if the Primary Language message 02 is changed to "GO TO AIRPORT," a similar message should be programmed for the Secondary Language message 02.

- **Program new extension numbers for stations:** The extension number for any station can be changed by an administrator. The new extension number cannot conflict with an existing number.

- **Swap extensions:** An extension number can be relocated (swapped) to another station. To swap extensions, the two affected stations must meet the following criteria:

  — Both devices must reside on the same node as the administrator who performing the swap.

  — Both devices must be the same type (i.e., both digital phones or both single-line sets).

  — Neither device can be the administrator phone performing the swap.

The System-Wide Database Programming process is summarized in the flowchart shown on page 23. See page 65 for a Program Planning Sheet.

If necessary, you can press ✱ or the Speaker button to cancel programming and discard any unsaved changes, at any time during the following procedure.

TO PROGRAM THE SYSTEM DATABASE:

NOTE: If you wish to change the Japanese DND or reminder message sets, make sure your station is set in Japanese mode. See page 172 for an explanation of the Change Language feature.

---

1. While on hook, enter the Program Database feature code (9932).

2. *If a password is required,* the display shows ENTER PASSWORD. Use the dialpad to enter your 1-8 digit password and press **#**. (If you enter an incorrect password, the display shows INVALID PASSWORD.)

   If a password is not required, skip this step.

3. The display shows ENTER DATABASE OPTION. (Display phones show the options: STATION, SYSTEM, and TRUNK.) Press **2** or the **SYSTEM** menu button.

4. The display shows ENTER SYSTEM OPTION. Select one of the following:

   a. *Do-Not-Disturb Messages:* This option allows you to program the DND messages used by the stations. To select it, press **1** or the **DND MESSAGES** menu button. Then do the following:

      1. The display shows SELECT DND MESSAGE #. Enter a message number or scroll to the desired message. (To scroll to the correct message, press the Volume button or the **SCROLL** plus **NEXT** and **PREVIOUS** menu buttons.)

      2. When the display shows the desired DND message, enter the new message as described on page 13.

      3. Press **#** or **ACCEPT** to save the new message. The display shows DATABASE UPDATED and then returns to the SELECT DND MESSAGE prompt. (Or, to cancel your entry, press ✱ or **CANCEL**. The display shows NO UPDATE PERFORMED.)

4. To program another message, scroll to the desired message and repeat these steps.

5. Press **#** again to exit to the ENTER SYSTEM OPTION prompt.

b. *Password:* This option allows you to set a password that limits access to the administrator programming feature. To select it, press **2** or the **PASSWORD** menu button. Then do the following:

1. The display shows CHANGE PASSWORD TO. Enter a password of up to eight digits, then press **#** . (Or, to erase the password and leave it blank, just press **#** .)

2. The display shows VERIFY PASSWORD. Enter the password exactly as you did in the step above, followed by **#** . The display returns to the ENTER SYSTEM OPTION prompt. (If you hear reorder tones and see an error message, the passwords did not match and you must start over at the CHANGE PASSWORD prompt.)

c. *Reminder Messages:* This option allows you to program the reminder messages used by the stations. To select it, press **3** or the **REMINDER MSGS** menu button. Then do the following:

1. The display shows SELECT REMINDER MSG #. Enter a message number or scroll to the desired message. (To scroll to the correct message, press the Volume button or the **SCROLL** plus **NEXT** and **PREVIOUS** menu buttons.)

2. When the display shows the desired message, enter the new message as described on page 13.

3. Press **#** or **ACCEPT** to save the new message. The display shows DATA-BASE UPDATED and then returns to the SELECT REMINDER MSG prompt. (Or, to cancel your entry, press **✳** or **CANCEL**. The display shows NO UPDATE PERFORMED.)

4. To program another message, scroll to the desired message and repeat these steps.

5. Press **#** again to exit to the ENTER SYSTEM OPTION prompt.

d. *Station Extensions:* This option allows you to assign new extension numbers to stations. To select it, press **4** or the **STN EXTENSION** menu button.

If programming a station:

1. Press **1** or **CHANGE EXT**. The display shows ENTER STATION EXTENSION. Enter the extension number of the station to be programmed using one of the following methods. (If you enter an invalid extension number, you hear reorder tones and must try again.)

Enter a complete number: Enter the extension number using your dialpad. When a valid number is entered, the circuit information is displayed. Press **#** again to continue.

Enter a partial number: Enter a partial extension number, then press **#** , the high end of the Volume button, or the **ACCEPT** menu button. The display shows the extension number, username and circuit number of the station that most closely matches the partial extension number. Press **#** or **ACCEPT** to program the displayed station, or scroll to another station as described below.

Scroll through the numbers: To scroll through the extension number list, press the high end of the Volume button or the **NEXT** menu button to scroll forward, or press the low end of the Volume button or the **PREVIOUS** menu button to scroll backward. When the desired extension number is displayed, press **#** or **ACCEPT** to continue.

2. The display shows CHANGE X (*number)* TO EXTENSION. Enter the new extension number for the station. If you enter an invalid number, you hear reorder tones and must try again. *If you entered an extension number that is already assigned,* the display shows CONFLICTING EXTENSION and you hear reorder tones. When the display returns to ENTER STATION EXTENSION, you must start over and select a new extension number.

3. Press **#** or **ACCEPT** to exit to the ENTER STATION EXTENSION prompt. The display shows UPDATING DATABASE for four seconds and then DATABASE UPDATED. (Or, to cancel your entry, press **✻** or **CANCEL**. The display shows NO UPDATE PERFORMED.)

NOTE: Although the system begins to update the database when you press **#** or **ACCEPT**, it may take longer than the four-second display to change the extension in the system – especially in a large or busy system.

---

4. Press **#** or **ACCEPT** again to exit to the ENTER SYSTEM OPTION prompt. (If an extension number is displayed, press **✻** to exit, instead of **#** or **ACCEPT**.)

If swapping stations:

1. Press **2** or **SWAP EXTS**. The display shows ENTER STATION EXTENSION. Enter the first extension number to be swapped using one of the following methods. (If you enter an invalid extension number, you hear reorder tones and must try again.)

   Enter a complete number: Enter the extension number using your dialpad. When a valid number is entered, the circuit information is displayed. Press **#** or **ACCEPT** to continue.

   Enter a partial number: Enter a partial extension number, then press the **#** button, the high end of the Volume button, or the **ACCEPT** menu button. The display shows the extension number, user name and circuit number of the station that most closely matches the partial extension number. Press **#** or **ACCEPT** to continue, or scroll to another station as described below.

   Scroll through the numbers: To scroll through the extension number list, press the high end of the Volume button or the **NEXT** menu button to scroll forward, or press the low end of the Volume button or the **PREVIOUS** menu button to scroll backward. When the desired extension number is displayed, press **#** or **ACCEPT** to continue.

NOTE: If the feature times out while entering an extension number, the displays shows INCOMPLETE EXTENSION.

---

2.   The display shows SWAP *(extension)* WITH EXTENSION. Enter the second extension number to be swapped using the same methods previously described. The display shows DATABASE UPDATED.

NOTE: If you cancel or terminate the feature without entering the second extension number, the system discards any changes that have not yet been saved, and the display shows NO UPDATE PERFORMED. If the entered extension is the administrator station performing the swap, the same extension number as the target station, or the wrong device type, the display shows CONFLICTING EXTENSION.

---

5.   When the display shows ENTER SYSTEM OPTION, press **#** again to exit to the ENTER DATABASE OPTION prompt.

6.   When finished with all programming, press **#** while the ENTER DATABASE OPTION prompt is displayed. This ends the programming session.

7.   *If a system reset is required,* the display shows ENTER SYS RESET OPTION. Do one of the following:

— *Delayed Reset:* Press **1** or the **DELAYED** menu button to delay the reset. The display shows DELAYED RESET SCHEDULED. The system will be reset at the pre-programmed time.

— *Immediate Reset:* Press **2** or the **IMMEDIATE** menu button to reset the system now.

NOTE: A system reset will drop all calls in progress.

FIGURE 2. *System Database Programming Flowchart*

Enter Program Database
feature code 9932

ENTER DATABASE OPTION

Press 2 or SYSTEM menu button

ENTER SYSTEM OPTION

Press 1 or DND MESSAGES menu button

Press 2 or PASSWORD menu button

Press 3 or REMINDER MSGS menu button

Press 4 or STN EXTENSIONS menu button

SELECT DND MESSAGE

CHANGE PASSWORD

SELECT REMINDER MSG

Press 1 or CHANGE EXT menu button

Press 2 or SWAP EXTS menu button

Enter message number or select DND message to program by scrolling

Enter 0-8 digit password and press #

Enter message number or select message to program by scrolling

ENTER STATION EXTENSION

ENTER STATION EXTENSION

(DND message) SCROLL OR EDIT

VERIFY PASSWORD

(Reminder message) SCROLL OR EDIT

Enter the extension number of the station to be changed

Enter the extension number of the first station to be swapped and press #

Enter the new message using alpha or numeric mode and press #

Enter the new password again and press #

Enter the new message using alpha or numeric mode and press #

CHANGE (number) SCROLL OR EDIT

SWAP (extension) WITH EXTENSION

If desired, select another message to program

If desired, select another message to program

Enter the new extension number for the station and press #

Enter the extension number of the second station to be swapped and press #

AT ANY LEVEL:
Press * or the Speaker button to cancel any un-saved changes and back up to exit program-ming.

Press # or ACCEPT to save changes and back up one display level.

INFORMATION IN THIS CHART IS SHOWN AS FOLLOWS:

YOUR INPUT

PHONE DISPLAYS

Trunk Programming

The trunk information that can be programmed by an administrator station includes the following:

Individual trunks:

- **Answer supervision type:** Answer supervision determines whether the system should consider a call valid when it receives polarity reversal from the central office or wait for the Valid Call timer to expire. Any outside call put on hold becomes valid immediately, regardless of Answer Supervision or Valid Call timer status. There are three options available under answer supervision type:

  — **Polarity Reversal:** A loop reversal must be received to consider the call valid. When the first loop reversal is received, the call is made valid immediately, and the Inter-Tel phone display will begin call cost. When a second loop reversal is received, the system will terminate the call.

  > **NOTE:** If a second loop reversal is not received, the system will not terminate the call unless the inside party hangs up or loss-of-loop is received from the Telephone company.

  — **Valid Call Timer:** After the Valid Call Timer expires, the call is validated. All polarity reversals received before and after the Valid Call Timer are ignored.

  — **Valid Call Timer with Polarity Reversal:** If a loop reversal is received before the Valid Call Timer expires, the call will be made valid immediately, and the Inter-Tel phone display will begin call cost. When a second loop reversal is received, the system will terminate the call. If a loop reversal is not received before the Valid Call Timer expires, the call will be made valid by the timer. If a loop reversal is received after the timer expires, the loop reversal is ignored, but the call cost is reset. If a second loop reversal is then received, the system will terminate the call.

  > **NOTE:** If a second loop reversal is not received, the system will not terminate the call unless the inside party hangs up or loss-of-loop is received from the Telephone company.

- **Caller ID:** When selected, the Caller ID option indicates that the associated trunk will provide caller identification signals. This cannot be programmed unless the Advanced CO Interfaces premium feature is included in your software license.

- **Hybrid balance:** Hybrid balance can be set to Normal or Short to allow the installer to adjust the hybrid impedance of the trunk based on local central office conditions.

  — *Short:* The short balance is used when trunks are supplied by other equipment located within the same building, using private, copper wire termination (e.g., an OPX supplied by another PBX that does not use the public network) or when the site is located close to the central office.

  — *Normal:* The normal balance can be used by most trunks.

- **DTMF or dial-pulse signaling:** Trunks can be set for DTMF or dial pulse signals.

- **Trunk group assignment:** Trunks can be assigned to trunk groups on an individual basis.

- **Busy trunk:** This feature allows you to temporarily remove a trunk from service. While the trunk is out of service, it cannot be used for placing outgoing calls. However, incoming calls on analog trunks will ring in and can be answered. Incoming calls on ISDN trunks cannot be answered. The trunk will remain out of service until the Trunk Busy Out timer expires or you place the trunk back in service.

Trunk groups:

- **Day/Night Answer Access:** You can program separate lists for stations with allowed-answer access in day and night modes.

- **Day/Night Ring-In:** You can program separate lists of stations with ring-in for day and night modes.

- **Change Toll Restrictions:** You can program toll restriction classes of service for the trunk groups. Classes of service are described in detail on page 155.

- **Trunk List:** Each trunk group has a programmed list of individual trunks.

The Trunk Database Programming process is summarized in the flowchart shown on page 29. See page 65 for a Program Planning Sheet.

NOTE: If necessary, you can press the asterisk (✳) or Speaker button to cancel programming and discard any unsaved changes at any time during the following procedure.

Entering extension numbers:

When the procedure asks you to enter a station, trunk, or trunk group extension number, you can use any of the following methods (If you enter an invalid extension number, you hear reorder tones and must try again.)

- **Enter a complete number:** Enter the extension number using your dialpad. When the circuit information is displayed, press **#** again to continue.

- **Enter a partial number:** Enter a partial extension number then press **#**, the high end of the Volume button, or the **#** menu button. The display shows the extension number, username and circuit number of the station, trunk, or trunk group that most closely matches the partial extension number. Press **#** or **ACCEPT** to accept the displayed extension, or scroll to another station as described below.

- **Scroll through the numbers:** To scroll through the extension number list, press the high end of the Volume button or the **NEXT** menu button to scroll forward, or press the low end of the Volume button or the **PREVIOUS** menu button to scroll backward. When the desired extension number is displayed, press **#** or **ACCEPT** to continue.

TO PROGRAM TRUNK INFORMATION:

1. While on hook, enter the Program Database feature code (9932).

2. *If a password is required,* the display shows ENTER PASSWORD. Use the dialpad to enter your 1-8 digit password and press **#**. (If you enter an incorrect password, the display shows INVALID PASSWORD.)

   If a password is not required, skip this step.

3. The display shows ENTER DATABASE OPTION. (Executive Display, Professional Display and Model 8560 Phones also show the options: STATION, SYSTEM, and TRUNK.) Press **3** or the **TRUNK** menu button. The display shows ENTER TRUNK OPTION.

4. **To Program an Individual Trunk:** Press ▮1▮ or the **INDIVIDUAL TRUNK** menu button. Then program trunk options as follows:

   a. The display shows ENTER TRUNK EXTENSION. Enter the extension number of the trunk to be programmed using one of the methods described on page 25.

   b. The display shows INDIVIDUAL TRUNK OPTION. Enter one of the following options. To view the last two options on a display phone, press the arrow (<< or >>) menu button at the bottom of the display.

      Answer Supervision: To program the answer supervision for the trunk, press ▮1▮ or the **ANS SUPERVISION** menu button. When the display shows ANS SUPERVISION OPTION, press ▮1▮ or the **POLARITY REVERSE** menu button for the polarity-reversal supervision type. Or, press ▮2▮ or the **VALID CALL** menu button for Valid Call timer supervision. Or, press ▮3▮ or the **VALID + POLARITY** menu button for Valid Call timer with Polarity Reversal supervision. Then press ▮#▮ or **ACCEPT** to continue.

      Caller ID: To enable or disable Caller ID, press ▮2▮ or the **CALLER ID** menu button. When the display shows SET CALLER ID, press ▮1▮ or **ON** to enable the feature, or press ▮2▮ or **OFF** to disable it. Then press ▮#▮ or **ACCEPT** to continue.

      Hybrid Balance: To set the hybrid balance of the trunk to normal or short, press ▮3▮ or the **HYBRID BALANCE** menu button. When the display shows HYBRID BALANCE OPTION, press ▮1▮ or the **NORMAL** menu button, or press ▮2▮ or the **SHORT** menu button. Then press ▮#▮ or **ACCEPT** to continue.

      DTMF/Dial-Pulse Signaling: To set the trunk for DTMF or dial-pulse signaling, press ▮4▮ or the **SIGNALING** menu button. When the display shows ENTER SIGNALING OPTION, press ▮1▮ or the **DTMF** menu button, or press ▮2▮ or the **PULSE** menu button. Then press ▮#▮ or **ACCEPT** to continue.

      Trunk Group Number: To assign the trunk to a trunk group, press ▮5▮ or the **TRUNK GROUP** menu button. When the display shows ENTER TRUNK GRP EXTENSION, enter the desired trunk group number using one of the methods described on page 25.

      Busy Trunk: To temporarily remove the trunk from service, press ▮6▮ or the **BUSY TRUNK** menu button. When the display shows MARK TRUNK BUSY, press ▮1▮ or the **ON** menu button, or press ▮2▮ or the **OFF** menu button. Then press ▮#▮ or **ACCEPT** to continue.

   c. To exit, press ▮#▮ or **ACCEPT** to move backward through the prompts until you reach the ENTER DATABASE OPTION prompt.

5. **To Program A Trunk Group:** Press ▮2▮ or the **TRUNK GROUP** menu button. Then program the trunk group, as follows:

   a. The display shows ENTER TRUNK GRP EXTENSION. Enter the extension number of the trunk group to be programmed using one of the methods described on page 25.

   b. The display shows ENTER TRUNK GROUP OPTION. Select one of the following options. To view the last three options on a display phone, press the arrow (<< or >>) menu button at the bottom of the display.

Answer Access For Day Or Night Mode: To program the station(s) that will have answer access for this trunk group for day mode, press **1** or the **ANS-ACCESS DAY** menu button. To program for night mode, press **2** or the **ANS-ACCESS NIGHT** menu button. When the display shows ENTER STATION EXTENSION, do the following:

1. Enter a station extension using one of the methods described on page 25.

2. The display shows the extension number and a Yes/No prompt. Press **1** or the **YES** menu button, followed by **#**, to include the station in the list. Or, press **2** or the **NO** menu button, followed by **#**, to exclude the station from the list.

3. When the display returns to ENTER STATION EXTENSION, select another extension number. Or, if finished programming the station list, press **#** or **ACCEPT** to continue.

Ring-In For Day Or Night Mode: To program the station that will have ring in for this trunk group for day mode, press **3** or the **RING-IN DAY** menu button. To program for night mode, press **4** or the **RING-IN NIGHT** menu button. When the display shows ENTER STATION EXTENSION, enter stations into the list one at a time as described above for Answer Access.

Toll Restriction: To program the toll restrictions for the trunk group, press **5** or the **TOLL RESTRICTION** menu button. When the display shows TOLL RESTRICTION OPTION, press the numbers that correspond to the toll restrictions you wish to program, as follows:

1. *COS for day or night mode:* To program the toll restriction class of service for day mode, press **1** or the **COS DAY** menu button. To program class of service for night mode, press **2** or the **COS NIGHT** menu button. The display shows SET DAY (or NIGHT) COS XX. If this is not the COS you wish to program, scroll to the correct COS by pressing the high end of the Volume button or the **NEXT** menu button to scroll forward, or press the low end of the Volume button or the **PREVIOUS** menu button to scroll backward. The default COS numbers are listed below. (See page 155 for definitions. COS 01 is not used for trunks.) When the correct COS is displayed, press **1** or the **ON** menu button to enable the toll restriction. Or, press **2** or the **OFF** menu button to disable it. If desired, repeat this step to program additional COS toll restrictions. Then press **#** or **ACCEPT** to continue.

   COS 02 – Deny Area/Office
   COS 03 – Deny Operator
   COS 04 – Deny Toll Access
   COS 05 – Deny International
   COS 06 – Deny Equal Access
   COS 07 – Deny Local Calls
   COS 08 – Denied Numbers
   COS 09 – Allowed Numbers

2. *Exempt from ARS:* To program the Exempt from ARS option, press **3** or the **EXEMPT FROM ARS** menu button. When the display shows EXEMPT FROM ARS, press **1** or the **YES** menu button to enable the option. Or, press **2** or the **NO** menu button to disable it. Then press **#** or **ACCEPT** to continue.

3. *Subject to toll restriction:* To program the trunk group Subject to Toll Restriction option, press **4** or the **SUBJECT TO TOLL** menu button. When the display shows SUBJECT TO TOLL, press **1** or the **YES** menu button to enable the option. Or, press **2** or the **NO** menu button to disable it. Then press **#** or **ACCEPT** to continue.

Trunk List: To program the list of trunks for the trunk group, press **6** or the **TRUNK LIST** menu button. When the display shows ENTER TRUNK EXTENSION, enter trunks into the list as follows:

1. Enter a trunk extension using one of the methods described on .

2. The display shows the extension number and a Yes/No prompt. Press **1** or the **YES** menu button, followed by **#**, to include the trunk in the list. Or, press **2** or the **NO** menu button, followed by **#**, to exclude the trunk from the list.

3. When the display returns to ENTER TRUNK EXTENSION, select another extension number. Or, if finished programming the trunk list, press **#** or **ACCEPT** to continue.

c. To exit, press **#** or **ACCEPT** to move backward through the prompts until you reach the ENTER DATABASE OPTION prompt.

6. When finished with all programming, press **#** while the ENTER DATABASE OPTION prompt is displayed. This ends the programming session.

7. *If a system reset is required,* the display shows ENTER SYS RESET OPTION. Do one of the following:

    •   *Delayed Reset:* Press **1** or the **DELAYED** menu button to delay the reset. The display shows DELAYED RESET SCHEDULED. The system will be reset at the pre-programmed time.

    •   *Immediate Reset:* Press **2** or the **IMMEDIATE** menu button to reset the system now.

NOTE: A system reset will drop all calls in progress.

FIGURE 3. *Trunk Database Programming Flowchart*

Enter Program Database
feature code 9932

ENTER DATABASE OPTION

Press 3 or TRUNK menu button

ENTER TRUNK OPTION

Press 1 or INDIVIDUAL TRUNK
menu button

Press 2 or TRUNK GROUP
menu button

ENTER TRUNK EXTENSION

ENTER TRUNK GRP EXTENSION

Enter desired trunk
extension number

SEE NEXT PAGE

INDIVIDUAL TRUNK OPTION

Press 1 or
ANSWER SUPERVISION
menu button

ANS SUPERVISION OPTION

Press 1 or POLARITY
REVERSE menu button

Press 2 or VALID
CALL menu button

Press 3 or VALID +
POLARITY menu button

Press 2 or
CALLER ID
menu button

SET CALLER ID

Press 1 or ON
menu button

Press 2 or OFF
menu button

Press 3 or
HYBRID BALANCE
menu button

HYBRID BALANCE OPTION

Press 1 or NORMAL
menu button

Press 2 or SHORT
menu button

Press 4 or
SIGNALING
menu button

ENTER SIGNALING OPTION

Press 1 or DTMF
menu button

Press 2 or PULSE
menu button

Press 5 or
TRUNK GROUP
menu button

ENTER TRUNK GRP EXTENSION

Enter the trunk group number

Press 6 or
TRUNK BUSY
menu button

MARK TRUNK BUSY

Press 1 or ON
menu button

Press 2 or OFF
menu button

AT ANY LEVEL:
Press * or the Speaker button to *cancel* any unsaved changes and back up to exit programming.

Press # or ACCEPT to *save* changes and back up one display level.

INFORMATION IN THIS CHART IS SHOWN AS FOLLOWS:

YOUR INPUT

PHONE DISPLAYS

FIGURE 3. *Trunk Database Programming Flowchart (Continued)*

CONTINUED FROM PREVIOUS PAGE

Enter the number of the trunk group
to be programmed

TRUNK GROUP OPTION

Press 1 or
ANS ACCESS DAY
menu button

Press 2 or
ANS ACCESS NIGHT
menu button

Press 3 or
RING-IN DAY
menu button

Press 4 or
RING-IN NIGHT
menu button

ENTER STATION EXTENSION

Enter the desired extension number

(*Extension number*) YES/NO

Press 1 or YES
menu button

Press 2 or NO
menu button

Press 5 or
TOLL RESTRICTION
menu button

TOLL RESTRICTION OPTION

Press 1 or COS
DAY menu button

Press 2 or COS
NIGHT menu button

Press 3 or EXEMPT
FROM ARS menu button

Press 4 or SUBJECT
TO TOLL menu button

SET DAY/NIGHT COS XX

EXEMPT FROM ARS

SUBJECT TO TOLL

If necessary, select COS number
to program by scrolling

Press 1 or YES
menu button

Press 2 or NO
menu button

Press 1 or YES
menu button

Press 2 or NO
menu button

Press 1 or ON
menu button

Press 2 or OFF
menu button

Press 6 or
TRUNK LIST
menu button

ENTER TRUNK EXTENSION

Enter the desired trunk number

(*Extension number*) YES/NO

Press 1 or YES
menu button

Press 2 or NO
menu button

PROGRAMMING SYSTEM SPEED-DIAL NUMBERS

System speed-dial numbers and names can be programmed by the installer or at any administrator station.

The system speed-dial numbers can contain up to 48 digits each and can include hookflashes and/or pauses for dialing a series of numbers. For example, the speed-dial number can contain an SCC local number, a pause, an access code, and the telephone number. For using PBX trunks, the other system's trunk access codes, followed by a pause, may be included in speed-dial numbers. The lengths of the hookflash and the pause are determined by the programmable CO Hookflash and Pause Digit timers.

To program system speed-dial numbers, use one of the following methods:

- Use the dialpad to manually dial the number. If you make a mistake, press **MUTE** to backspace.

- Press **REDIAL** to enter the last number dialed or saved at the station (up to 48 digits).

- Press one of the speed-dial buttons on the Inter-Tel phone to enter the outside telephone number (up to 16 digits) programmed under that button.

Speed-dial names can contain up to 16 characters. To program speed-dial names, dialpad buttons are used to enter the desired letters, numbers, and punctuation in English/Spanish, or Japanese (Katakana). When programming speed-dial names, you can press **MSG** or **USE ALPHA MODE**/**USE NUMERIC MODE** menu button to switch back and forth between alphanumeric and numeric mode.

- **In numeric mode,** the dialpad buttons are used to enter numbers 0-9, the pound (#) button is used for entering a hyphen (-), and the asterisk (✱) button is used for entering a colon (:). For example, 1 ✱ 00 would enter "1:00" in numeric mode.

- **In alphanumeric mode,** dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. For example, 533266 would enter "JEAN." When adjoining characters are located under the same button, press FWD to advance to the next character. For example, 66 FWD 6667776 would enter "NORM." Refer to the chart on the following page to program information in alphanumeric mode. (Note that letters correspond to the letters printed on the dialpad buttons.) The Japanese characters will be available only if the Multilingual Support premium feature is included in your software license, and Japanese is set as the Primary or Secondary Language.

	NUMBER OF TIMES BUTTON IS PRESSED										
BUTTON	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	ENGLISH/SPANISH CHARACTERS					KATAKANA CHARACTERS**					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	/ or #*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or /*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

* The character available depends on the software version.

**The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

TO PROGRAM OR CHANGE SYSTEM SPEED-DIAL NUMBERS AND NAMES:

NOTE: If you make a mistake, use the **MUTE** button to backspace. Or, press **✳** or **CANCEL** at any time to cancel the operation (the name and number in memory remains unchanged and the display shows FEATURE CANCELED); then start over.

1. While on hook, enter the Program System Speed-Dial feature code (9801). Display phones show PROGRAM SYS SPD # (000-999).

2. Enter the speed-dial location code (000-999). The display shows ENTER NAME: *(current name)*. If you do not continue to the next step, the display times out after the Long Interdigit timer expires and you must start over.

3. **To change or program the name:** Enter the desired name for the speed-dial number using your dialpad as described on page 31, then press **#** or **ACCEPT**. Refer to the chart on the previous page. *If you make a mistake,* use the **MUTE** button to back up and erase existing characters or the **CLEAR** button to erase the whole entry.

    To erase the current name and leave it blank: Press **CLEAR** or press **MUTE** repeatedly until the name is erased. Then press **#** or **ACCEPT**.

    To leave the name the same: Press **#** or **ACCEPT**.

4. When the display shows ENTER NUMBER, enter the number (up to 48 digits) to be stored using the dialpad, one of the speed-dial buttons, or the **REDIAL** button. *If necessary,* use the **MUTE** button to back up and erase existing numbers. (Display phones show the number as it is entered.) *To include *, #, pause, or hookflash in the number,* press the Special button once for an asterisk (*), twice for a pound (#), three times for a hookflash (F), or four times for a pause (P). Executive Display, Professional Display or Model 8560 Phone users can press the **✳**, **#**, **FLASH**, or **PAUSE** menu buttons to enter special characters. You cannot exceed 48 digits.

5. Press **#** or **ACCEPT** to save the number. You hear a single progress tone when the number is accepted. Your display shows SYS SPD BIN #XXX UPDATED.

TO ERASE SYSTEM SPEED-DIAL NAMES OR NUMBERS:

1. While on hook, enter the Program System Speed-Dial feature code (9801). Display phones show PROGRAM SYS SPD # (000-999).

2. Enter the speed-dial location code (000-999). The display shows ENTER NAME: *(current name)*.

3. You may erase the name and/or number:

    To erase the name: Press **MUTE** repeatedly until the name is erased or press **CLEAR**.

    To erase the number: Press **#** or **ACCEPT** to display the ENTER NUMBER prompt, then press **MUTE** repeatedly until the number is erased or press **CLEAR**.

4. Press **#** or **ACCEPT** to exit. You hear a single progress tone when accepted. Your display shows SYS SPD BIN #XXX UPDATED.

PROGRAMMING AND USING DSS/BLF BUTTONS

Direct Station Selection/Busy Lamp Field (DSS/BLF) buttons (located on a DSS/BLF unit, Mini-DSS unit, or an Inter-Tel phone) provide one-button access to extension numbers. If the button is equipped with a lamp, you can visually monitor the status of the associated extension. DSS/BLF buttons are not available on single-line sets.

NOTE: You can program a DSS button for an off-node device, but not for "wildcard" off-node extensions.

Together, the lamps in the buttons create a busy lamp field that indicates the status of the resource (e.g., station, trunk, hunt group, or feature) assigned to the buttons. The table shown below explains what DSS lamps indicate about the associated resource.

IF THE LAMP IS...	THEN...
Solidly Lit	The associated resource is busy or all stations in the associated hunt group are unavailable (in Do-Not-Disturb, busy, or with hunt group remove enabled). Or, the associated feature is enabled.
Slow Flash	The associated resource is in Do-Not-Disturb.
Fast Flash	The associated resource has a call ringing in or a call is camped on to the hunt group. (This option is programmable. If DSS ring flash is disabled, a call ringing in to a station will show a solidly lit lamp.)
Continuous Flutter	The associated resource is causing a STATION OFF-HOOK system alarm.

In Database Programming, DSS/BLF buttons may also be programmed for direct access to other resources (such as paging zones) or they can be assigned feature codes (see page 167). Busy lamp indication is provided to show the idle/busy status of the resource or feature.

NOTE: Programming a DSS button as a resource does not always provide a transfer capability. For example, a DSS button programmed for paging will not transfer a party to the paging system.

PROGRAMMING DSS/BLF BUTTONS:

1. With the handset in the cradle, dial **3** **9** **7**.

2. Press the DSS button(s) and dial the desired extension number.

Once programmed, you can use your DSS button as follows:

*   You can place an intercom call to the extension that the DSS button is programmed for by pressing the button once.

*   You can transfer a call to the extension that the DSS button is programmed for by pressing the button once and hanging up. (For transferred calls that are forwarded to voice mail you will hear repeating double tones, and the display will show DEST FORWARDED TO VOICE MAIL.)

*   If the DSS button has a lamp, you can visually monitor the status of the extension.

PLACING AN INTERCOM CALL USING DSS/BLF BUTTONS:

1. **To use the handset:** Lift the handset. The display shows ENTER EXTENSION NUMBER.

    To use the speakerphone: While on hook, press the Speaker button or **IC**. The Speaker button lights. The display shows ENTER EXTENSION NUMBER.

2. *If you want to place a private (non-handsfree) call to an Inter-Tel phone,* press the pound (**#**) button. The display shows RING EXTENSION NUMBER.

3. Press the desired DSS/BLF button.

    If calling an Inter-Tel phone with handsfree answering enabled, you are immediately connected.

    If placing a private call, calling a hunt group, calling a single-line set, or calling an Inter-Tel phone with the Handsfree feature disabled, you hear repeating double tones until the call is answered.

    If the called OHVA-enabled station is busy and your station is enabled for immediate OHVA transmit, do not hang up when calling a busy phone. Press the DSS/BLF button again. If the phone's secondary voice path is available, you are immediately connected for an off-hook voice announce call and may speak.

TRANSFERRING CALLS TO STATIONS:

1.   While on a call, press the desired DSS/BLF button. The call is placed on transfer hold.

   a.   **Transfer to a station that is forwarded to voice mail:** You hear repeating double tones and the display shows DEST FORWARDED TO VOICE MAIL.

   b.   **Transfer to voice mail:** The system waits for you to enter the mailbox number. The display shows ENTER MAILBOX. Enter the desired mailbox number. *If you do not enter a mailbox number before you hang up,* the caller will be connected to the voice mail unit and must enter the mailbox number after listening to the introductory prompts.

   c.   **Transfer-to-park:** If transferring to a park location, hang up or press the Hold button to complete the transfer. Then page the desired party and announce the call. The party must reverse transfer the call. Note that if the call is not answered, it will recall your station if transferred directly, or it will recall the called transfer-to-park location's attendant if transferred to hold.

2.   *If desired,* wait for an answer and announce the call. If you are calling a device that does not accept handsfree calls (such as an automated attendant or transfer-to-park location), the display shows HANG UP TO FINISH TRANSFER.

3.   You have the following options:

   To complete the transfer: Hang up or press another Call button. The display shows CALL TRANSFERRED TO *(username)*.

   To transfer the call to hold: Press the Hold button or press [∞] and enter the Individual Hold feature code (336). The call will not ring or send call waiting signals until the Hold timer expires.

   To try another station: Press another DSS/BLF button.

   To return to the caller: Press the lit Call button, trunk button, or [IC] button.

REVERSE TRANSFERRING (PICKING UP A CALL RINGING OR HOLDING AT ANOTHER EXTENSION):

   EITHER, enter the Reverse Transfer feature code (4) and then press the DSS/BLF button of the station where the call is ringing.

   OR, press the desired DSS/BLF button, and then press [∞] and enter the Reverse Transfer feature code (4).

MANAGING SYSTEM AND NETWORK ALARMS

To allow one administrator to monitor multiple nodes, the system provides both system alarms and network-wide alarms.

System Alarms

The system's Alarm Reporting feature detects equipment failures. If there is a system failure that affects service, a major alarm is displayed at all affected phones. If all Inter-Tel phones in the system are inoperative, any alarm messages are sent to the system's primary serial port (on the CPU).

When a minor equipment failure occurs, a minor alarm is generated and appears on the primary attendant's display and, if enabled, at administrators' stations. If enabled in the Message Print programming, the alarm also appears in the error/message report.

Alarms 1-99 indicate problems that can be corrected without calling service personnel. Alarms 100-199 (telephone system) and 200-299 (voice mail) require attention from service personnel. Note that when a voice mail alarm is in effect, the telephone system may be functioning properly, but the Voice Processor may be inoperative.

Network Alarms

Each node has two flags which determine whether the node broadcasts or receives network-wide alarms.

- The **Send Network Alarms** flag determines whether a node will broadcast alarms that occur on that node to the rest of the network.

- The **Receive Network Alarms** flag determines whether the node will receive and display alarms sent by other nodes in the network.

To differentiate between network-wide and local alarms, network-wide alarms appear on administrator phones preceded by "NET ALARM," and local system alarms are preceded with "SYS ALARM." Network-wide alarms will override system alarms on an administrator's phone display.

On remote nodes, network-wide alarms will indicate the name of the node on which the alarm occurred. The node name is obtained from the username.

TO RESPOND TO A MINOR ALARM FROM ANY ALARM DISPLAY STATION:

1.   When a minor alarm indication appears, write down the alarm information.

2.   While on hook, clear the alarm by entering the Clear System Alarm feature code (9850) or the Clear Network Alarm feature code (9851). The display shows SYSTEM (or NETWORK) ALARM CLEARED.

3.   Take the appropriate action as indicated in the following table.

ALARM TEXT	DESCRIPTION/ACTION NEEDED
#10 XXXXX OFF-HOOK	A station remained off hook and inactive until the Inactivity Alarm timer expired. The display and the SMDR indicate which station is off hook. The station's button on DSS/BLF Units and on other stations' speed-dial buttons flutters continuously. Locate the station and replace the handset in the cradle. The station's display shows STATION OFF HOOK. **NOTE:** Calls being transmitted over the secondary voice path are not affected or interrupted by an off-hook alarm condition.
#11 XXXXX EMER-GENCY	A user has dialed the Emergency Call feature code (911) and the system has selected a trunk and dialed the programmed emergency number.
#12-13 & 20 CHECK PRINTER	The printer is not functioning properly. Check that the cable and the power cord are connected and that it has paper and ribbon.
#14 SET DATE/TIME	The system real-time clock has not been initialized or has been corrupted. Set the system time and date as described on page 10.
#21 V-MAIL 80% FULL/ #22 V-MAIL 100% FULL	The voice mail disk space is either 80% or completely full. If it reaches 100%, voice mail cannot accept any messages until disk space is made available.
#23 SMDR 80% FULL/ #24 SMDR 100% FULL	The SMDR disk space is either 80% or completely full. If it reaches 100% before the SMDR information is cleared, no further SMDR recording will be possible.
#32 X <ext> INSUF BAND	The IP Network does not have enough bandwidth to support the IP call that is currently connected to the extension. If this alarm is generated frequently, it could indicate a network problem that requires the attention of your network administrator. Make sure the affected device is not behind a firewall or NAT. **NOTE:** This alarm is displayed only if the Insufficient Bandwidth Alarm flag is enabled in Database Programming (System\Flags).
#100-199 & 200-299 CALL TECHNICIAN	These alarms indicate that an equipment failure has occurred that requires the attention of service personnel. When calling for service, be prepared to provide them with the alarm information as well as what was taking place when the alarm occurred, if anything

TO RESPOND TO A MINOR ALARM FROM ANY ALARM DISPLAY STATION:

A major alarm message, MAJOR ALARM, appears on all display phones in the event of a system-wide failure. If the major alarm appears on a group of phones, the associated Keyset Card may have failed. The warning might also appear on a single phone if the phone or its cabling may be defective. Because they indicate that all or part of the system is inoperative, major alarms require immediate attention from service personnel.

Clearing Alarms

An administrator can clear a network-wide alarm on the local node only or on every node in the network. To clear an alarm, you can use either the administrator feature codes or the menu buttons on your phone.

TO USE THE FEATURE CODES TO CLEAR ALARMS:

Enter the appropriate feature code to clear the alarm. The clear alarms feature codes are as follows:

- **Clear Network Alarm (9851):** This feature code clears network-wide alarms on every node in the network, but will not affect system alarms. The Clear Network Alarm feature code may be entered on any node in the network, but the Send Network Alarms flag must be set for you to clear alarms on other nodes in the network.

- **Clear System Alarm (9850):** This feature code clears all local and network-wide system alarm displays on your node.

After you enter the feature code, the display shows SYSTEM (or NETWORK) ALARM CLEARED, and the highest priority alarm is cleared. If another alarm is active, the display shows that alarm. Enter the feature code again to clear the next alarm in the queue (only one alarm is cleared at a time). When all alarms are cleared next highest priority alarm is displayed.

TO USE MENU BUTTONS TO CLEAR ALARMS:

- EITHER, Press CLEAR ALARM to clear the currently displayed alarm. The display shows SYSTEM (or NETWORK) ALARM CLEARED, and the next highest priority alarm is displayed. If there are no more alarms, the display shows the idle menu.

- OR, Press CLEAR ALL ALARMS to clear all alarms. The display shows ALL ALARMS CLEARED, and the idle menu is shown.

> **NOTE:** You can press IDLE MENU at any time to view the idle menu instead of the clear alarm menu.

Alarm Queue

Software versions 8.2 and later support the Alarm Queue feature. This feature prioritizes system and network alarms based on severity and allows system administrators to view and handle critical alarms before addressing minor alarms. You can then clear the individual alarm, or clear all the alarms in the queue (up to 30). When clearing alarms individually, the alarms are displayed in order of severity. The Emergency Alarm (when an extension has dialed emergency services) is the only priority 1 alarm. Other prioritized alarms have a 2, 3, or 4 priority, based on the severity of the alarm.

Not all alarms have a number 1,2, 3, or 4 priority. The numbered priority scheme is limited to alarms that can cause a major or minor system reset. Those alarms in the Alarm Queue that have a numbered priority (1-4) are displayed before the alarms that do not receive a numbered priority. Alarms that do not have a numbered priority are prioritized in the queue by date and time.

When alarms are generated:

- The highest priority alarm is placed in the front of the queue, regardless of when lower priority alarms are generated. For example, if A114 (priority 3) and A116 (priority 4) are currently in the queue, but A119 (priority 2) is generated, A119 is placed first in the queue.

- Alarms with the same priority level are placed in the queue based on the time the alarm was generated. For example, if A010 (priority 3) is generated at 10:30 AM, and A012 (priority 3) is generated at 10:32 AM, A012 is placed in the queue after A010.

- If the queue contains 30 alarms, the oldest, lowest priority alarm is overwritten with the new alarm. For example, if the queue currently holds 30 alarms, 20 of which are priority 4, and a priority 3 alarm is generated, the oldest priority 4 alarm is overwritten.

- Repetitive alarms such as A125, are placed in the queue only once. If the alarm is regenerated, the alarm that is currently in the queue is overwritten with the new alarm data (if applicable) and time. For example, A125 is overwritten each time it is regenerated, which is every five minutes. This prevents the queue from being filled with duplicate alarms.

The following table shows which alarms have a numbered priority.

PRIORITY	ALARM NUMBER	PRIORITY	ALARM NUMBER
1	A011	4	A017
2	A119	4	A018
2	A121	4	A020
2	A122	4	A021
2	A123	4	A022
2	A125	4	A023
2	A203	4	A024
2	A204	4	A025
3	A104	4	A026
3	A109	4	A032
3	A110	4	A100
3	A111	4	A101
3	A112	4	A102
3	A114	4	A103
3	A115	4	A105
3	A120	4	A106
3	A124	4	A107
3	A126	4	A108
3	A127	4	A116
4	A010	4	A117
4	A012	4	A118
4	A013	4	A200
4	A014	4	A201
4	A015	4	A202
4	A016		

Networked systems containing nodes that are running version 8.1 or earlier require special attention because not all nodes will have an alarm queue. In networks such as this, a broadcast message is sent only when the most recent network alarm is cleared. When the message is sent, that network alarm is cleared on all nodes in the system. Once the alarm is cleared, any pre-8.2 nodes will not show any other alarms because these nodes do not have a queue to store alarms. 8.2 or later nodes, however, may still have additional alarms in the queue. When this happens, each 8.2 node must manually clear the other network alarms.

For example, suppose you have a three-node network: node 1 running 8.0; node 2 running 8.2; and node 3 running 8.2. Node 1 then generates two network alarms, one immediately after the other. At this point, node 1 shows one network alarm (the latest) and nodes 2 and 3 show two network alarms. Node 1 then clears the alarm, and a broadcast message is sent. Node 1 now shows no alarms, but nodes 2 and 3 still show the first alarm. Node 2 then clears the first alarm, but a broadcast message is NOT sent. Now nodes 1 and 2 show no alarms, but node 3 still has one in the queue. This alarm will stay in the queue until node 3 clears it or until the alarm is overwritten as previously described.

ENABLING/DISABLING THE CALL PROCESSING CARD MODEM

The Call Processing Card (CPC), available in versions 8.0 and later, has a built-in modem that can be used for a number of functions. Once the modem has been enabled, it can be used for Database Programming, Message Print, and SMDR and for uploading the system software license.

If disabled, the modem and extension is placed into DND. In DND, the modem rejects all calls and does not allow camp ons. Any outside calls that attempt to ring a disabled modem are automatically transferred to the Primary Attendant.

TO ENABLE/DISABLE A MODEM:

NOTE: Programming off-node modems across an IPRC connection is not supported.

1. While on hook, enter the Modem Enable (9866) or Modem Disable (9867) feature code. The display shows ENABLE (DISABLE) MODEM EXT #.

2. Enter the extension of the modem (local or off-node) to enable/disable. The display shows MODEM ENABLED (DISABLED).

   NOTE: If an invalid modem extension is entered, the display shows INVALID MODEM EXTENSION.

ASSIGNING THE CPC MODEM TO A DSS/BLF BUTTON

To easily monitor the CPC modem, it is recommended that you program a Direct Station Selection/Busy Lamp Field (DSS/BLF) button to reflect the modem's status (see page 34). When programmed for a local or off-node CPC modem, the DSS/BLF button indicates the following states:

- **Unlit:** Modem is not active.

- **Fast Flash:** Modem is ringing.

- **Slow Flash:** Modem is disabled.

- **Solid:** Modem is connected to a call.

RESETTING THE CALL PROCESSING CARD MODEM

CAUTION
Do not reset the modem if it is connected to a Database Programming session. If you do, the programming session is dropped, potentially corrupting the database. For this reason, Inter-Tel strongly recommends that you assign the modem extension to a DSS/BLF button.

Occasionally the CPC modem will need to be reset if it is unable to answer an incoming call or out of sync with the external modem.

TO RESET THE MODEM:

NOTE: A modem reset drops any call that is currently connected to the modem.

1. Enter the Modem Reset (9869) feature code. The display shows RESET MODEM EXT#.

2. Enter the extension of the modem (local or off-node) to reset. The display shows MODEM RESET.

    NOTE: If an invalid modem extension is entered, the display shows INVALID MODEM EXTENSION.

USING THE NETWORK GROUP DIAGNOSTICS FEATURE

NOTE: The Network Group diagnostics feature works on Inter-Tel proprietary IP devices for the local node only. It does not work across nodes.

Version 8.1 supports a Network Group Diagnostics feature that allows an administrator to verify that the Network Groups are programmed properly. When the Network Group Diagnostics feature code is entered, the phone system initiates pings from each Inter-Tel IP device and determines if the other devices respond to the ping. If a device does not respond to the ping or if a firewall is detected, the system issues a Message Print message (see page 265). It is recommended that you enable a port for Message Print before you run this diagnostics feature.

NOTE: Because this feature affects system performance, it is recommended that you run the diagnostics program when the system is idle (i.e., after normal business hours).

TO RUN THE NETWORK GROUP DIAGNOSTICS:

1. While on hook, enter the Diagnostics Mode feature code (9900) to turn on diagnostics mode. The display shows DIAGNOSTICS ON.

2. Enter the Network Group Diagnostics feature code (9963 by default). The display shows NET GRP CHECK (YES = 1 NO = 2).

3. When prompted, press 1 or **ACCEPT** to start the diagnostics feature. The display shows NET GROUP DIAG IN PROGRESS.

When the diagnostics is complete, the phone displays one of the following messages:

- NET GROUP CHECK COMPLETED: Indicates that all IP devices within the Network Groups are capable of communicating via P2P audio.

- NET GROUP CHECK ERRORS FOUND: Indicates that either some of the IP devices are offline or there are NATs/firewalls located between the devices. Check Message Print to determine which errors occurred.

SEIZING A DEVICE

For troubleshooting purposes, the Seize Device feature code allows an administrator to enable diagnostics mode and then seize a specific trunk or extension by entering the board, circuit, and device number.

The Seize Device is affected by trunk restriction. The administrator's station must have outgoing access permission for the trunk to seize it. Toll restriction is applied to any calls placed after the seizure of the trunk.

TO SEIZE A DEVICE:

1. While on hook, enter the Diagnostics Mode feature code (9900) to turn on diagnostics mode. The display shows DIAGNOSTICS ON.

2. Press the Special button and enter the Seize Device feature code (9973). The display shows ENTER BOARD.

3. Enter the board number on which the device to be seized is located (if you enter a single digit, press ⊞ after the digit to continue). (If you enter an invalid board number, the display shows INVALID BOARD NUMBER.) Do not enter the CPU board number (0). The display shows ENTER PORT.

4. Enter the port (circuit) number of the device to be seized (if you enter a single digit, press ⊞ after the digit to continue). Valid numbers depend on the type of board. (If you enter an invalid board number, the display shows INVALID BOARD NUMBER.)

    If there is only one device on the selected port, the selected device is seized as if the user had directly entered the extension or trunk number.

    If there is more than one device on the selected port, the display shows ENTER DEVICE. Enter the number of the device to be seized. Valid numbers depend on the type of devices installed. (If you enter an invalid board number, the display shows INVALID BOARD NUMBER.) When the device has been selected, it is seized as if the user had directly entered the extension or trunk access number.

5. Enter the Diagnostics Mode feature code (9900) to turn off diagnostics mode. The display shows DIAGNOSTICS OFF.

For example, if you wanted to seize the T1 trunk on the tenth circuit of the T1C in card slot 3 (circuit 3.10.0), the entries would be as follows:

> ENTER BOARD: *3*
>
> ENTER PORT: *10*
>
> (Device number not required.)

However, to select the first single-line device connected to the second circuit of the KSC in card slot 5 (circuit 5.2.1), the entries would be as follows:

> ENTER BOARD: *5*
>
> ENTER PORT: *2*
>
> ENTER DEVICE: *1*

FREEZING/UNFREEZING THE SYSTEM HISTORY

When certain system failures occur, service personnel might request a "system history freeze." This allows them access to the system database so that they can analyze system activity for the time period preceding the alarm.

TO FREEZE OR UNFREEZE SYSTEM HISTORY:

NOTE: Do not perform this procedure unless directed to do so by service personnel.

1. While on hook, enter the Diagnostics Mode feature code (9900) to turn on diagnostics mode. The display shows DIAGNOSTICS ON.

2. Enter the Freeze System History feature code (9993) or Unfreeze System History feature code (9998). The display shows HISTORY FROZEN (or UNFROZEN). *If you attempt change the state of the system history to its current status,* the display shows HISTORY ALREADY FROZEN (or UNFROZEN).

3. Enter the Diagnostics Mode feature code (9900) to turn off diagnostics mode. The display shows DIAGNOSTICS OFF.

FREEZING/UNFREEZING THE NETWORK HISTORY

Administrators can freeze or unfreeze the fault history for any node in the network. Service personnel can then pull the information from each node for troubleshooting purposes. Nodes are assigned to freeze zones by the database programmer to allow selective freezes. You must know which zone to freeze/unfreeze and then enter the freeze feature code followed by the zone number.

A node can be in more than one freeze zone. If you freeze a zone that contains a node that is already frozen, the display will show "SOME NODES ALREADY FROZEN" and the node will remain frozen. If you unfreeze a zone with unfrozen nodes in it, the display shows "SOME NODES ALREADY UNFROZEN." To determine the individual freeze status of the nodes, check the message print output.

NOTE: Do not perform this procedure unless directed to do so by service personnel.

TO FREEZE OR UNFREEZE NETWORK HISTORY:

1. While on hook, enter the Diagnostics Mode feature code (9900) to turn on diagnostics mode. The display shows DIAGNOSTICS ON.

2. Enter the Network Freeze Zone System Histories feature code (9939) or Network Unfreeze Zone System Histories feature code (9989). Display shows SELECT FRZ ZONE (0-9) #.

3. Enter the number of the zone you wish to freeze or unfreeze. The display shows FREEZE ZONE XX IS FROZEN (or UNFROZEN). *If you attempt change the state of the system history to its current status,* the display shows FREEZE ZONE XX ALREADY FROZEN (or UNFROZEN).

4. Enter the Diagnostics Mode feature code (9900) to turn off diagnostics mode. The display shows DIAGNOSTICS OFF.

VOICE MAIL ADMINISTRATOR FEATURES

The voice mail administrator can use special features that are not provided to other mailbox owners. The system administrator mailbox has all standard mailbox features plus the ability to do the following:

- Record a broadcast message

- Perform mailbox and group list maintenance

- Create and select custom audiotex recordings (voice mail company greetings, auto attendant recordings, call routing announcements, and hunt group overflow and announcement station recordings)

- Import fax documents

- Customize voice mail prompts

To access the system administrator's mailbox, the system administrator dials the voice mail access number, presses **✳** to access the main menu, enters the system administrator's mailbox number, then presses **9** to reach the System Administrator Menu. (There is not a prompt for entering the **9** .)

BROADCASTING MESSAGES

The system administrator has the ability to make a single recorded message and send it to all Standard and Receive-Only mailboxes. (Extension IDs do not receive Broadcast Messages.)

TO RECORD A BROADCAST MESSAGE:

1. Dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press **✳** to identify yourself as a mailbox owner.

3. Enter the system administrator mailbox number and password.

4. Press **9** to access the System Administrator Menu.

5. When you hear the System Administrator Menu list of options, press **1** to send a broadcast message.

6. Record your message.

   To pause while recording: Press **2** . To continue, press any button except **0** .

   To erase and re-record your message: Press **3** .

   If you exceed the maximum allotted time for message length, a prompt will notify you and allow you to re-record the message or send it.

   If voice mail is full, a message will notify you that it cannot accept your message. Hang up and try again later.

7. When you have completed your message, you have the following options:

   If you are satisfied with your message, hang up. OR press **#** for more options.

   If you wish to hear your message, press **1** .

   If you wish to add to your message, press **2** and continue your message as described in step 6.

   To erase and re-record your message, press **3** .

MAINTAINING MAILBOXES AND GROUP LISTS

Using the system administrator's mailbox, you may provide basic voice mail mailbox and group list system maintenance. This maintenance includes the following:

- Record the name of a standard mailbox, extension ID, or a group list

- Record the mailbox greeting and set personal options for a mailbox

- Set the password for a mailbox or extension ID

NOTE: To provide system security, *all* mailboxes and extension IDs should have a password. To make the passwords difficult to guess, they should not match the mailbox number or consist of one digit repeated several times. This is especially important in the system administrator's mailbox which allows programming access to the other mailboxes.

The system administrator does not need to know the mailbox's password to perform maintenance on another mailbox.

TO PERFORM MAILBOX/GROUP LIST MAINTENANCE:

1. Dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press ✳ to identify yourself as a mailbox owner.

3. Enter the system administrator mailbox number and password.

4. Press **9** to access the System Administrator Menu.

5. When you hear the System Administrator Menu list of options, press **2** to access the Mailbox/Group List Maintenance option.

6. Dial the mailbox, extension ID, or group list number to be accessed.

    If programming a mailbox or extension ID, you hear the Personal Options menu. Follow the instructions on to program the personal options (name, password, message envelope, or greeting) for the selected mailbox.

    If programming a group list, the current name is played. You are prompted to enter a name. After the tone, record the name for the selected list. When you are finished, press **#**. Then press **#** again to accept the name. (Or, press **1** to replay the name you just recorded, or **3** to erase and re-record it.)

IMPORTING FAX DOCUMENTS

If you have a fax card in your Voice Processor, you can use the voice mail administrator's mailbox to import fax documents. Imported documents can then be requested by callers who use the Call Routing Announcement application that is programmed to provide the Fax-On-Demand service.

TO IMPORT A FAX DOCUMENT:

1. Using a fax machine, dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press ✱ to identify yourself as a mailbox owner.

3. Enter the system administrator mailbox number and password.

4. Press **9** to access the System Administrator Menu.

5. When you hear the System Administrator Menu list of options, press **4** to select the Import Fax option. (Note that, if the Fax-On-Demand feature is not enabled, the system will not accept this digit). The system may inform you of one the following, if not, continue to the next step.

    All system fax ports are busy: Hang up and try again later.

    The system already contains the maximum number of fax documents allowed: Until one or more fax documents are deleted from the system, there is no room for additional documents.

    The system does not have enough disk space to import any more documents: Until one or more fax documents are deleted from the system, there is no room for additional documents.

    The system currently is at or above the Maximum Fax Library Size: Until one or more fax documents are deleted from the system, there is no room for additional documents.

6. When prompted, enter the fax document number. (Or, to exit to the System Administrator Menu, press ✱.) One of the following occurs when you enter the number:

    If the document number does not already exist, the system asks you to verify the number. Press **#** if the number is correct and go to the next step. Or, press **3** if you wish to re-renter the number.

    If the document number already exists, the system asks if you wish to replace it. Press **#** if you wish to replace the document and go to the next step. Or, press **3** if you wish to re-renter the number.

    If the document is currently being sent, updated, or deleted, that document number cannot be used right now. You are prompted to enter a new number. Repeat step 6.

    If you did not enter a valid number, you are prompted to enter a new number. Repeat step 6.

7. When prompted, press the **Start** button on your fax machine. One of the following may occur:

    If the system cannot communicate with your fax machine, check that it is working properly and press **#** to try again.

    If the system runs out of disk space while importing the document or if the document will cause the system to exceed the Maximum Fax Library Size, you cannot import this document until one or more fax documents have been deleted from the system to create disk space. Press **#** to return to step 6.

8. When the fax transmission is complete, the system tells you that the document was received. Press **#** to continue importing documents, or press ✱ to exit.

CREATING AUDIOTEX RECORDINGS

The voice mail administrator can create and select up to 500 custom audiotex recordings (voice mail company greetings, auto attendant greetings, call routing announcements, and hunt group announcement/overflow recordings). Each recording has an assigned number. Numbers are then assigned to specific applications using the system administrator's mailbox or through Database Programming.

Any recording number (001-500) can be assigned to any Voice Processor application. In the default state, Recording 001 is automatically defaulted to play the system-provided voice mail main greeting, and Recording 002 is the Automated Attendant main greeting. The default recordings can be changed, but will be returned to system-provided values if the Voice Processor is defaulted. A single recording may be used for multiple applications.

After making the required recordings, the system administrator must determine which ones play during the telephone system's day and night modes of operation. This can be done from either the system administrator's mailbox or through Database Programming.

The system administrator must enter a valid three-digit recording number (or a single digit followed by **#** for recordings 1-9) before a custom audiotex recording can be made. If a valid number has been entered and a previous recording exists, the Voice Processor will play it. (This includes the two standard default greetings.) When no recording is associated with a recording number, the system administrator will be prompted to create a recording.

Once the recording is installed, it replaces any previous recording. The only recordings that can be retrieved are system default recordings 001 and 002. They can be retrieved by defaulting the Voice Processor database.

The maximum recording time for each custom audiotex recording is determined in Database Programming when the maximum greeting lengths are established for all mailbox owners.

In Database Programming, several greetings can be linked together for one application and/or use the special UCD/ACD hunt group characters that tell the caller how many calls are ahead and how long the wait will be. If you use the system administrator's mailbox to record or assign a recording to an application with a list of several recordings, your input will change only the first entry in the list. You cannot change the other entries using the system administrator's mailbox.

TO RECORD CUSTOM AUDIOTEX RECORDINGS:

1. Dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press **✳** to identify yourself as a mailbox owner.

3. Enter the system administrator mailbox number and password.

4. Press **9** to access the System Administrator Menu.

5. When you hear the System Administrator Menu, press **3** to select the Custom Recordings option.

6. The next prompt asks if you wish to make a custom recording or select a custom recording. Press **1** (make a recording).

7. When prompted, enter the desired recording number (001-500). If a recording exists, it is played. If not, go to the next step. After the recording has played, you have the following options:

   To hear the recording again, press **1**.

   If you wish to leave the recording unchanged, press **#**.

   If you wish to re-record the recording, press **3** and continue to the next step.

8. When prompted, record the greeting or message.

   To pause while recording, press **2**. To continue, press any button.

   If you exceed the maximum allotted time for recording length, a prompt will notify you and allow you to re-record or save it.

   If the Voice Processor PC disk is full, a prompt will notify you that it cannot accept your recording. Hang up and try again later.

9. When you have completed your recording, you have the following options:

   If you are satisfied with your recording, hang up. Or, press **#** for more options.

   If you wish to hear your recording, press **1**.

   If you wish to add to your recording, press **2** and continue your recording as described in step 3.

   To erase and re-record your recording, press **3**.

TO ASSIGN CUSTOM AUDIOTEX RECORDINGS TO SPECIFIC APPLICATION EXTENSION NUMBERS:

1. Dial the voice mail access number. You hear the main menu.

2. During or after the greeting, press **✳** to identify yourself as a mailbox owner.

3. Enter the system administrator mailbox number and password.

4. Press **9** to access the System Administrator Menu.

5. When you hear the System Administrator Menu list of options, press **3** to select the Custom Recordings options.

6. The next prompt asks if you wish to make a custom recording or select a custom recording. Press **2** (select a recording).

7. When prompted, enter the extension number of the application to be programmed. (For example, if users dial 299 to reach voice mail, enter 299 to program the voice mail greeting.) Or, press **✳** to exit to the System Administrator Menu.

8. When prompted, select whether the recording will be played during day mode (by pressing **1**) or during night mode (by pressing **2**).

9. When prompted, enter the desired recording number (001-500). If a recording exists, it is played. (If not, you hear a warning that the recording has not yet been made.)

10. If it is the correct recording, press **#** . Return to step 7.

RECORDING CUSTOM VOICE MAIL PROMPTS

All of the pre-recorded prompts in the Voice Processor can be customized, using the voice mail administrator's mailbox.

If the Multilingual feature is enabled, and the Secondary Language prompts have been loaded, the system administrator can change either the Primary or Secondary Language prompts. When the system administrator's phone is in the Primary Language mode, those prompts will be changed when the following procedure is performed. If the system administrator's phone is in Secondary Language mode, those prompts will be changed.

A list of all pre-recorded prompt numbers (001-595) and their text is provided in Figure 4, beginning on page 52. The Secondary Language prompts have the equivalent text in the same prompt numbers. If you change any of the prompts, you should create a chart that shows the new text.

NOTE: If you change the text of the prompts, keep the content similar to the default text. Otherwise, the prompts will not make sense to the listeners when played by voice mail.

TO RECORD CUSTOM SYSTEM PROMPTS (OR RESTORE SYSTEM PROMPTS):

1. Dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press ***** to identify yourself as a mailbox owner.

3. Enter the system administrator mailbox number and password.

4. Press **9** to access the System Administrator Menu.

5. When you hear the System Administrator Menu, press **6** to select the System Prompt Replacement option.

6. Enter the desired prompt number (001-545) followed by **#** or the **ACCEPT** menu button. If the number is valid, the current system and/or custom prompt is played. (*If the number is not valid,* you hear an error message and must choose another prompt number.)

7. Do one of the following:

   To hear the prompt again, press **1**.

   If you wish to replace the current system or custom prompt with a new custom prompt, press **3** and continue to the next step.

   To delete a custom prompt and reinstate the system prompt, press **9**.

   If you wish to leave the prompt unchanged and return to the previous menu, press *****.

8. Record the new prompt. *(To pause while recording the prompt,* press **2**. To continue, press any button.)

   If the Voice Processor PC disk is full, a prompt will notify you that it cannot accept your prompt. Hang up and try again later.

9. When you have completed recording your prompt, you have the following options:

   If you are satisfied with your prompt, hang up.

   If you wish to hear your prompt, press **1**.

   If you wish to add to your prompt, press **2** and continue as described in step 8.

   To erase and re-record your prompt, press **3**.

FIGURE 4. *Default Voice Mail Prompts*

PROMPT	CONTENT
001	To leave a message, please enter a mailbox number.
002	For the directory, press pound.
003	To reach an operator, press 0.
004	I'm sorry...
005	...is not available.
006	The number entered is not valid.
007	Using the buttons on your telephone, please spell the last name of the person, then press POUND. For the letter Q, press 7. For the letter Z, press 9.
008	To exit the directory, press STAR.
009	Mailbox number...
010	If this is correct, press POUND.
011	For the previous name in the directory, press 1.
012	To hear additional information, press 2.
013	To hear the next directory name, press 3.
014	To spell a new name, press 4.
015	Extension number...
017	...is not a valid choice.
018	Please try again.
019	After the tone, please record your message. When finished, you may hang up to deliver the message or press POUND for more options.
020	Message delivered.
021	To replay, press 1.
022	To erase and re-record, press 3.
023	To append this recording, press 2.
024	To accept, press POUND.
025	Please record after the tone. To end, press POUND.
026	Recording erased.
027	Recording stopped.
028	Please begin speaking after the tone.
029	Message play stopped. To continue, press POUND.
030	Enter the destination mailbox or group list number.
031	Logon canceled.
032	Enter your password. Then press POUND.
033	There have been 3 invalid attempts to log onto your mailbox.
034	Invalid password.
035	Thank you for calling. Good-bye.
036	To access voice mail features, you must change your system-assigned password.
037	You have not finished setting up your mailbox.
038	Subscriber access denied.
039	Because this is the first time you are accessing your mailbox, you must record your name for the company directory.

PROMPT	CONTENT (Continued)
040	Since you are accessing your mailbox for the first time, you should be aware of a few standard features. To cancel an option you have accessed and return to the previous menu, press STAR. To accept your recording or dialing sequence, or to advance to your next message, press POUND. For help, you may press 0 at any time you are at a menu and voice mail will replay the current menu and or give you additional information. Certain voice mail features such as remote messaging are available from your mailbox only if authorized by your system administrator. Your mailbox is now fully set up.
041	Your password may be up to 12 digits.
042	Enter your new password, then press POUND. If you don't want a password, press POUND now.
043	You new password is...
044	The number entered is too long.
045	To accept this entry, press POUND.
046	To erase and re-enter, press 3.
047	Password erased.
048	Password saved.
049	Your mailbox is full and cannot receive any new messages. Please delete old messages.
050	Not used.
051	Not used.
052	Your mailbox is almost full. Please delete any messages you no longer need so new messages may arrive.
053	You have...
054	You have one new message.
055	...new messages.
056	...of which is priority.
057	You have no new messages.
058	You have one saved message.
059	...saved messages.
060	Remote messaging is currently enabled.
061	To listen to new messages, press 1.
062	To record a message, press 2.
063	To listen to saved messages, press 3.
064	For personal options, press 4.
065	To setup remote messaging, press 5.
066	For your primary setup, press 1.
067	For your alternate setup, press 2.
068	If this is the correct destination, press POUND.
069	To send this message now, press POUND.
070	For special delivery options, press 9.
071	To return to the previous menu, press STAR.
072	Message canceled.
073	To mark this message private, press 1.
074	To mark this message for certified delivery, press 2.

PROMPT	CONTENT (Continued)
075	To mark this message priority, press 3.
076	Message marked private.
077	Message marked certified.
078	Message marked priority.
079	To send this message to additional mailboxes, press POUND.
080	To backup within your message or recording, press 1.
081	To pause at any time, press 2.
082	To advance press 3.
083	To lower the voice mail volume, press 4.
084	To increase volume, press 6.
085	To save this message, press 7.
086	To delete this message, press 9.
087	To skip to the end of your message or re cording, press POUND.
088	To return to the main menu, press STAR.
089	To reply to this message, press 2.
090	To forward a copy of this message to another destination, press 3.
091	To skip back to the previous message, press 4.
092	To replay the message envelope, press 5.
093	To listen to your next message, press 6.
094	There are no previous messages.
095	Message saved.
096	Message deleted.
097	There are no further messages.
098	Message received...
099	...at...
100	...from...
101	...totaling...
102	...minutes...
103	...minute...
104	...seconds...
105	...second...
106	Message received from an outside caller.
107	To record an introduction with a copy of this message, press 1.
108	To change your personal greeting, press 1.
109	To change your name in the directory, press 2.
110	To change your password, press 3.
111	To change your message envelope, press 4.
112	To replay the message, press 1.
113	To use your primary greeting, press 1.
114	To select your alternate greeting, press 2.
115	To select the system greeting, press 3.
116	After the tone, please record your greeting, then press POUND.

PROMPT	CONTENT (Continued)
117	Greeting saved.
118	After the tone, please record your name, then press POUND.
119	Name saved.
120	Your message envelope is currently set to return...
121	...all information.
122	...time and date...
123	...message source...
124	...and...
125	...message length...
126	To turn on all envelope options, press 4.
127	For message source, press 2.
128	For message length, press 3.
129	This option is now off.
130	This option is now on.
131	For time and date, press 1.
132	Your message envelope will play all options.
133	...is turned on to call you at...
134	AM
135	PM
136	...Extension ID number...
137	...Every day.
138	...Monday through Friday.
139	Sunday
140	Monday
141	Tuesday
142	Wednesday
143	Thursday
144	Friday
145	Saturday
146	To turn this number on or off, press 1.
147	To change the phone number, press 2.
148	To change times of day, press 2.
149	To change days of the week, press 3.
150	For pager notification, press 1.
151	For personal phone notification, press 2.
152	For notification of all new messages, press 1.
153	For priority-only, press 2.
154	Please enter the destination telephone number and wait for further instructions.
155	The new number is...
156	Please enter the start time.
157	Please enter the stop time.
158	I'm sorry. You must program a telephone number first.

PROMPT	CONTENT (Continued)
159	Invalid time.
160	For AM, press 1.
161	Please select the days of the week on which you wish to be notified.
162	Not used.
163	Please enter your mailbox number.
164	Today
165	Yesterday
166	January
167	February
168	March
169	April
170	May
171	June
172	July
173	August
174	September
175	October
176	November
177	December
178	First
179	Second
180	Third
181	Fourth
182	Fifth
183	Sixth
184	Seventh
185	Eighth
186	Ninth
187	Tenth
188	Eleventh
189	Twelfth
190	Thirteenth
191	Fourteenth
192	Fifteenth
193	Sixteenth
194	Seventeenth
195	Eighteenth
196	Nineteenth
197	Twentieth
198	Twenty-first
199	Twenty-second
200	Twenty-third

PROMPT	CONTENT (Continued)
201	Twenty-fourth
202	Twenty-fifth
203	Twenty-sixth
204	Twenty-seventh
205	Twenty-eighth
206	Twenty-ninth
207	Thirtieth
208	Thirty-first
209	...the voice mail system.
210	The system is set to notify you between...
211	...is turned off.
212	...is turned on to call your pager at...
213	...with all new messages.
214	...with all priority messages.
215	...starting at...
216	...ending at...
217	For mailbox and group list maintenance, press 2.
218	To send a message to all subscribers, press 1.
219	To make a custom recording, press 1.
220	To select a custom recording, press 2.
221	Not used.
222	Please enter the recording number.
223	After the tone, please record. Then press POUND.
224	Recording saved.
225	To continue recording, press POUND.
226	Not used.
227	No saved messages.
228	To change and spell the first name, press 5.
229	To change and spell the last name, press 5.
230	Using the buttons on your telephone, please spell the first name of the person. Then press POUND. For the letter Q, press 7. For the letter Z, press 9.
231	No message left.
232	...last...
233	...an outside caller at...
234	Message was sent from...
235	This matches the mailbox of...
236	...an unknown caller.
237	To turn off the envelope, press 5.
238	To accept the changes, press POUND.
239	The envelope is turned off.
240	Please enter the application extension number.
241	To select a day recording, press 1.
242	To select a night recording, press 2.

PROMPT	CONTENT (Continued)
243	If this is the correct recording, press POUND.
244	Warning, no recording has been made.
245	Invalid application entered.
246	...is not a valid recording number.
247-252	Not used.
253	This is a return receipt verifying the message sent has been heard.
254	I'm sorry. Private messages cannot be for warded.
255	This is the message center calling for...
256	If you are the correct person, press POUND.
257	...One
258	...Two
259	...Three
260	...Four
261	...Five
262	...Six
263	...Seven
264	...Eight
265	...Nine
266	...Ten
267	...Eleven
268	...Twelve
269	...Thirteen
270	...Fourteen
271	...Fifteen
272	...Sixteen
273	...Seventeen
274	...Eighteen
275	...Nineteen
276	...Twenty
277	...Thirty
278	...Forty
279	...Fifty
280	...Sixty
281	...Seventy
282	...Eighty
283	...Ninety
284	...Hundred
285	This mailbox is currently full and cannot receive new messages.
286	Oh
287	...of which are priority.
288	Priority message received...
289	Otherwise, press STAR.

PROMPT	CONTENT (Continued)
290	When you are finished entering mailbox numbers, press POUND.
291	Otherwise, press POUND.
292	For PM, press 2.
293	For Sunday, press 1.
294	For Monday, press 2.
295	For Tuesday, press 3.
296	For Wednesday, press 4.
297	For Thursday, press 5.
298	For Friday, press 6.
299	For Saturday, press 7.
300	For Monday through Friday service, press 1.
301	For all the days of the week, press 2.
302	Thousand
303	The hard disk is...
304	...percent full.
305	I'm sorry. Voice mail is full and cannot re cord any messages.
306	Zero
307	POUND
308	STAR
309	Group list number...
310	Please speak louder.
311	You have recorded for the maximum time permitted.
312	Not used.
313	Resuming playback.
314	You have one priority message.
315	Use 2 digits for the hour and 2 digits for the minutes.
316-317	Not used.
318	You have chosen not to have a password.
319	I'm sorry. This mailbox is currently in use and cannot be accessed. Please try again later.
320	Not used.
321	If you are calling from a rotary-type telephone, please stay on the line and your call will be answered.
322	You can not reply to a system sent message.
323	Zero is not a valid entry. To spell a name, please press one number on the telephone dialpad for each letter of the person's name you are entering. For the letter A, press the number 2 button one time and for the letter F, press the number 3 button one time. When you are finished, press POUND.
324	Zero is not a valid entry. To spell a name, please press the associated number on the telephone dialpad with the desired letter of the person's name you are entering. For the letter A, press the number 2 button once. for the letter B, press it twice and for the letter C, three times. When you are finished, press POUND.
325	Please select the days of the week.
326	To select individual week days, press 3.

PROMPT	CONTENT (Continued)
327	Service is set for Monday through Friday.
328	Service is set for each day of the week.
329	Recording canceled.
330	The system was busy and could not deliver message notification at the specified time.
331	The system was unable to deliver message notification due to a programming error.
332	Extension ID...
333	...the operator.
334	...the operator...
335	Remote Messaging will call...
336	To change a cascade level, press 1.
337	To select a message notification category, press 4.
338	Please enter the cascade level you wish to program.
339	...with a pager number of...
340	To change the pager dial string, press 3.
341	To call an internal extension, press 1.
342	To call an outside number, press 2.
343	Not used.
344	Please enter the digits for your digital pager and wait for further instructions.
345	The new pager number is...
346	Mailbox Number
347	New Message Count
348	Pause
349	You must program a telephone number first.
350	You have chosen not to have a pager number.
351	Cascade Level...
352	You did not enter a valid document number.
353	This document is currently unavailable.
354	... is not a valid document number.
355	You have already selected that document.
356	To cancel, press STAR.
357	You have selected the maximum number of documents allowed.
358	To send your fax, press pound.
359	You have selected one document.
360	You haven't selected any documents yet.
361	You may select one more document during this call.
362	You may select up to...
363	... more documents during this call.
364	Selections Canceled.
365	The number that will appear on your fax cover sheet is...
366	You have chosen not to have your extension appear on your cover sheet.

PROMPT	CONTENT (Continued)
367	If you would like to have your fax automatically delivered to you later, press pound.
368	To re-enter the number, press 3.
369	If you wish to have your extension appear on your cover sheet, enter the extension followed by the POUND button.
370	If you are calling from your fax machine, press 1.
371	Press the start button on your fax machine now.
372	All of our fax lines are currently busy.
373	Please try again later.
374	Your fax will be delivered to...
375	Your fax will be delivered shortly.
376	I am unable to communicate with your fax machine. Please make sure it is operating properly and try again.
377	Please enter the 10 digit area code and telephone number of your fax machine.
378	The number you enter may be up to twenty digits in length.
379	Your fax is scheduled to be delivered at...
380	Please enter a document number.
381	When you have finished importing documents, press star.
382	Document number...
383	...is currently in use.
384	...already exists.
385	To replace this document, press POUND.
386	Document received.
387	Press POUND to continue.
388	To import a fax document, press 4.
389	If this is an international call, enter 011 followed by your country code and your fax number. Then, press POUND.
390	I'm sorry. I'm not allowed to dial that number.
391	To receive your documents, please hang up and call from your fax machine.
392	The system does not have enough disk space to import your document.
393	The system is unable to import your document because it will exceed the Maximum Fax Library Size.
394	For recording options, press 3.
395	There are...
396	... calls ahead of you.
397	Your call should be answered within...
398	You have selected...
399	...documents.
400	Hello, you've reached the Inter-Tel voice processing system.
401	Hello, you've reached the Inter-Tel automated call processing system.
402	To change your message search order, press 2.
403	Your current message search order is first in first out.
404	Your current message search order is last in, first out.
405	To search for messages first in first out, press 1.

PROMPT	CONTENT (Continued)
406	To search for messages last in first out, press 2.
407	To change the search order for new messages, press 1.
408	To change the search order for saved messages, press 2.
409-499	Not used.
500	If you know your party's extension number, enter it now.
501	To leave a message, press 1.
502	To try another extension, press 2.
503	Please hold while your call is being transferred to...
504	Not used.
505	To return to the menu, press 2.
506	Your fax is scheduled to be delivered on...
507	The system already contains the maximum number of fax documents allowed.
508	The system does not have enough disk space to import any more documents.
509	The system is currently at or above the Maximum Fax Library Size.
510	Levels 1 through 9 are currently disabled.
511	Your call will be answered in the order it was received.
512	There is one call ahead of you.
513	To change your transfer method, press 5.
514	Your current transfer method is unannounced.
515	Your current transfer method is screened.
516	Your current transfer method is announce only.
517	To select unannounced transfers, press 1.
518	For screened transfers, press 2.
519	For announce only, press 3.
520	Who should I say is calling?
521	To replay the announcement, press 1.
522	To send this call to voice mail, press 2.
523	To forward this call to another extension, press 3.
524	To accept this call, press POUND.
525	To refuse this call, press STAR.
526	You have a call from...
527-534	Not used.
535	Please enter the extension number.
536-537	Not used.
538	For system prompt replacement or reinstatement, press 6.
539	Please enter the number of the system prompt.
540	The system prompt has been replaced by the following custom prompt...
541	The original system prompt is...
542	To replace this system prompt with a custom prompt, press 3.
543	...is not a valid system prompt number.
544	To delete the custom prompt and reinstate the system prompt, press 9.
545	To replace this custom prompt with a new custom prompt, press 3.

PROMPT	CONTENT (Continued)
546	You have no deleted messages.
547	You have one deleted message.
548	...deleted messages.
549	To recover deleted messages, press 2.
550	To recover this message, press 7.
551	Message recovered.
552	To purge this message, press 9.
553	Message purged.
554	To listen to deleted messages, press 1.
555	To recover all messages, press 2.
556	To purge all messages, press 3.
557	...messages recovered.
558	...messages purged.
559	...message recovered.
560	...message purged.
561	For message options, press 5.
562	For more options, press 9.
563	To change the fax destination number, press 1.
564	Please enter the extension number of your fax destination, followed by the [#] button.
565	Your fax destination is...
566	You have chosen not to have a fax destination.
567	Invalid extension.
568	Fax destination saved.
569	Fax destination erased.
570	To cancel unheard sent messages, press 1.
571	All sent messages have been heard.
572	Enter the destination mailbox.
573	This mailbox has one unheard message.
574	...unheard messages.
575	To append to the message, press 2.
576	To leave a voice mail message, press 1.
577	To make a return call, press 2.
578	Please hold while your call is being transferred to an outside number.
579-580	Not used.
581	…has just listened to the original message.
582	This mailbox has...
583	This message was canceled by the originator.
584	I'm sorry, there are no network mailboxes available for node...
585	For the directory, press # now.
586	I'm sorry, you cannot reply to this network message.
587	The following message could not be delivered to...
588	This nonsubscriber message could not be delivered to...

PROMPT	CONTENT (Continued)
589	Enter the number of the remote extension.
590	To cancel this message, press *.
591	Fax-on-demand was unable to deliver one or more faxes. Please view the Fax Delivery Report for details.
592	I'm sorry. I'm not allowed to dial that number.
593	Message received from an outside number with no Caller ID information.
594	I'm sorry. I do not have valid Caller ID information.
595	...the network...
596	Your call is being handled by the Inter-Tel voice processing system.

FIGURE 5. *Administrator Database Programming Planning Sheets*

CUSTOM AUDIOTEX RECORDINGS: If you record special recordings for the Voice Processor applications (see page 51 for instructions), record the information here:

RECORDING #	TEXT	WHERE USED (EXT #)
Sample	*Thank you for calling XYZ Company. All of our representatives are busy right now. Please hold.*	*Ext.2011 (Hunt Group Overflow Station)*

FIGURE 5. *Administrator Database Programming Planning Sheets (Continued)*

STATION PROGRAMMING: For each station to be programmed, record the following information:

Station Extension #:	
Administrator station?	Yes *or* No
Attendant station?	Yes *or* No
House Phone?	Yes *or* No
This station's attendant:	
Username:	
Toll restriction classes of service:	

SYSTEM PROGRAMMING: Record the following system-wide information:

Administrator Database Programming Password: _____

Do-Not-Disturb Messages:

DEFAULT MESSAGE	PRIMARY LANGUAGE MESSAGE	SECONDARY LANG. MESSAGE
MESSAGE 01 (DO-NOT-DISTURB)		
MESSAGE 02 (LEAVE A MESSAGE)		
MESSAGE 03 (IN MEETING UNTIL)		
MESSAGE 04 (IN MEETING)		
MESSAGE 05 (ON VACATION 'TIL)		
MESSAGE 06 (ON VACATION)		
MESSAGE 07 (CALL ME AT)		
MESSAGE 08 (AT THE DOCTOR)		
MESSAGE 09 (ON A TRIP)		
MESSAGE 10 (ON BREAK)		
MESSAGE 11 (OUT OF TOWN 'TIL)		
MESSAGE 12 (OUT OF OFFICE)		
MESSAGE 13 (OUT UNTIL)		
MESSAGE 14 (WITH A CLIENT)		
MESSAGE 15 (WITH A GUEST)		
MESSAGE 16 (UNAVAILABLE)		
MESSAGE 17 (IN CONFERENCE)		
MESSAGE 18 (AWAY FROM DESK)		
MESSAGE 19 (GONE HOME)		
MESSAGE 20 (OUT TO LUNCH)		

FIGURE 5. *Administrator Database Programming Planning Sheets (Continued)*

Reminder Messages:

DEFAULT MESSAGE	PRIMARY LANGUAGE MESSAGE	SECONDARY LANG. MESSAGE
MESSAGE 01 (MEETING):		
MESSAGE 02 (STAFF MEETING):		
MESSAGE 03 (SALES MEETING):		
MESSAGE 04 (CANCEL MEETING):		
MESSAGE 05 (APPOINTMENT):		
MESSAGE 06 (PLACE CALL):		
MESSAGE 07 (CALL CLIENT):		
MESSAGE 08 (CALL CUSTOMER):		
MESSAGE 09 (CALL HOME):		
MESSAGE 10 (CALL CORPORATE):		
MESSAGE 11 (CALL ENGINEERING):		
MESSAGE 12 (CALL MARKETING):		
MESSAGE 13 (CALL ACCOUNTING):		
MESSAGE 14 (CANCEL DND):		
MESSAGE 15 (CANCEL CALL FWD):		
MESSAGE 16 (TAKE MEDICATION):		
MESSAGE 17 (MAKE RESERVATION):		
MESSAGE 18 (REVIEW SCHEDULE):		
MESSAGE 19 (LUNCH):		
MESSAGE 20 (REMINDER):		

FIGURE 5. *Administrator Database Programming Planning Sheets (Continued)*

Changing Station Extension Numbers:

OLD EXTENSION NUMBER	NEW EXTENSION NUMBER

Swapping Stations:

EXTENSION NUMBER	SWAPPED WITH EXTENSION

FIGURE 5. *Administrator Database Programming Planning Sheets (Continued)*

TRUNK PROGRAMMING:

Individual Trunks: Record the following information for each trunk to be programmed:

Answer Supervision Type:	Polarity Reversal or Valid Call *or* Valid Call with Polarity Reversal
Caller ID?	Yes *or* No
Hybrid Balance:	Normal *or* Short
Signaling:	DTMF *or* Dial Pulse
Trunk Group Number:	
Username:	

Trunk Groups: Record the following information for each trunk group to be programmed:

Stations with Day Answer Access:	
Stations with Night Answer Access:	
Stations with Day Ring In:	
Stations with Night Ring In:	
Toll Restriction Classes of Service:	
Trunks in Trunk Groups:	

System Hardware

CONTENTS *PAGE*

INTRODUCTION

The Inter-Tel hardware houses the system power supply unit and the circuit cards. Together, the circuit cards in the phone system's cabinet perform the switching activities for the system, detect incoming calls, process data-controlled features, and control the interaction of station instruments, trunks, intercom calls, and Voice Processor applications.

The basic cabinet has slots for up to seven circuit cards. For increased port capacity, two, three, or four basic cabinets may be connected together to form one expanded cabinet. For maximum capacity, up to four dual-cabinet systems can be connected via an Asynchronous Transfer Mode (ATM) Switch, creating an eight-cabinet system.

The actual number of phones and lines available depends on the number and type of cards and stations installed on the system. For example, there could be as many as 512 outside lines, 448 Inter-Tel phones, or 512 single-line sets, depending on the circuit card configuration.

The circuitry and software in the basic cabinet combine to produce an "integrated switching matrix" of 128 time slots (voice channels). A quad-cabinet system has 512 time slots.

With system software version 5.0 (and later), you can connect two or more systems to form a network that provides a seamless interface between the systems. To the user, the network appears as though it is one integrated system. With few exceptions, the user can perform all of the functions across the network that can be performed on a single system.

Standard system hardware features include:

- A Central Processing Unit (CPU) Card for storing the system software programs, the customer's database, and call processing history files.

- Light-emitting diode (LED) indicators for showing main processor operation, database error occurrences, minor system alarms, and database back-up battery connection.

- External ports for connecting a personal computer (PC) or modem to program the system database and/or for connecting output devices for the Station Message Detail Recording (SMDR) and programming reports. Ports are also provided for the Voice Processor interface.

- Database back-up battery for preserving the system database in the event of a power failure.

- Reset switch to manually reset the system during troubleshooting.

- Easily accessible voltage test points for checking the system operating voltages.

- Relays for connecting power failure transfer equipment.

- Circuitry for connecting an external music source (radio, tape player, etc.).

STATION INSTRUMENTS

To allow system flexibility and cost efficiency, a variety of Inter-Tel and industry-standard third-party station instruments can be used on the Inter-Tel phone system. These include:

- Model 8000 Digital Phones (8560, 8520, 8500)

- Digital Display Phones (Executive, Professional, Standard, and Associate)

- Digital Non-Display Phones (Axxess Basic, and Eclipse^{2}™ Basic)

- AIM Analog Phones (8-, 12-, and 24-Line)

- Inter-Tel/DVK Analog Phones (8-, 12-, and 24-Line)

- GMX Analog Phones (12-, and 24-Line)

- IMX Analog Phones (8-, 12-, and 24-Line)

- IDS Phones (Model Numbers 160, 64, 32, 18, and 12, and Agent Terminals)

- Wave Phones (29- and 17-Button)

- Single-Line Sets

- DSS/BLF Units – single or tandem (60-,50-, and 48-Button)

- Mini-DSS Units (Available for Model 8560 and 8520 Phones Only)

- IP/SIP Endpoints (Model 8690, Model 8662, Model 8620, Model 8600, Model 8660, Model 8664, Model 8665, Model 8601, IP Phone Plus, IP Single-Line Adapter (IP SLA), IP SoftPhone, and Media Gateway Control Protocol (MGCP) endpoints)

System software will support any configuration of station instruments with the limitation that there must be a minimum of one Keyset Card. The actual configuration is defined by the type of cards and the number of circuits in use on the system. The following list explains the function of the various Keyset Cards.

- **Digital Keyset Card (DKSC, DKSC-16, DKSC-16 +):** Provides eight or 16 circuits for connecting digital display and non-display phones. Digital Keyset Card circuits can be equipped with a Single-Line Adapter (SLA) and programmed to support two single-line sets (instead of an Inter-Tel phone).

- **Analog Keyset Card (AKSC)/Executone Keyset Card (EKSC):** Provides up to 12 circuits for connecting GMX and IMX Analog phones, Executone IDS phones, and Executone Wave phones and devices to the system.

- **Single-Line Card (SLC, SLC-16, or SLC-16+):** Provides eight or 16 circuits for connecting on-premises AC ringing single-line DTMF sets and playback devices. The SLC-16+ is available for software versions 8.2 and later.

- **Internet Protocol Card (IPC):** Supports up to eight IP SoftPhone devices. The IPC provides the functionality that is required to make phone calls through the IP network using the telephone system.

- **Internet Protocol Resource Card (IPRC):** Supports up to 32 (V8.1 and later) IP/SIP devices. The 32-device IPRC provides the functionality that is required to make phone calls through the IP network using the telephone system. Thee 32-device IPRC cannot be installed behind a firewall or Network Address Translation (NAT).

INTER-TEL PHONES

The features supported by Inter-Tel digital and analog phones are described in the following paragraphs.

NOTE: Throughout this guide, the term "Inter-Tel phone" refers to the full-feature phones manufactured and sold by Inter-Tel. The term does not apply to industry-standard single-line, dual-tone multi-frequency sets.

Model 8000 Digital Phones, Standard Display Phone, Associate Display Phone and Basic Digital Phone Speakerphones

The following display and non-display digital phones have a built-in speaker and microphone that allow the user to answer intercom calls handsfree, dial while on hook, monitor calls, and listen to background music.

- Model 8000 Digital Phones (8560, 8520, and 8500)

- Standard Display Phone

- Associate Display Phone

- Axxess Basic Digital Phone

- Eclipse Basic Digital Phone

These phones can be programmed in individual station programming to be allowed to use system resources for standard and enhanced speakerphones. Enhanced mode allows for full-duplex operation over a limited volume range (the range depends on trunk characteristics, typically the range is 1-3). Enhanced speakerphones are explained below.

If a user presses the Speaker button while on hook, the standard switched speakerphone function is activated and the speakerphone resource is assigned to that phone for the length of the call. If a user requests the speakerphone function when speakerphone resources are not available, the user will hear reorder tones, and the display will show NO SPKRPHN AVAIL STAY OFF HOOK.

If the user attempts to change to the speakerphone and hangs up during a call when speakerphones are unavailable, the user will be forced into a monitor-only mode. The user will be able to hear the other party but will not be allowed to transmit to them. In this mode, the user's **MUTE** button will be lit, and the display shows NO SPKRPHN AVAIL COME OFF HOOK. Pressing the lit **MUTE** button will result in a burst of reorder tone; you must lift the handset to speak.

NOTE: On certain handsfree-to-handsfree intercom calls, voice volume levels may cause feedback to occur. If this happens; one station user should pick up the handset. Two Display Phones cannot be in enhanced mode while on a call together; one phone must be off hook to allow the other phone to enter enhanced speakerphone mode. If both phones are on hook, there is no benefit to having one phone in enhanced mode.

Executive and Professional Display Phone Speakerphones

Each Executive and Professional Display Phone has a built-in, integrated speakerphone that allows on-hook dialing and handsfree operation on outside calls and inside (intercom) calls. The speakerphone can be used in standard mode or in enhanced mode which allows for full-duplex operation over a limited volume range (the range depends on trunk characteristics, typically the range is 1-3). Enhanced speakerphones are explained on the next page.

The Executive and Professional's speaker can also provide background music (if an external music source is installed) and is used to receive pages.

A programming option can be used to disable the phone's speakerphone capabilities. Or, the user can disable the speakerphone for intercom calls using the Handsfree On/Off and/or Ring Intercom Always On/Off feature code.

NOTE: On certain handsfree-to-handsfree intercom calls, voice volume levels may cause feedback to occur. If this happens; one station user should pick up the handset. Two Display Phones cannot be in enhanced mode while on a call together; one phone must be off hook to allow the other phone to enter enhanced speakerphone mode. If both phones are on hook, there is no benefit to having one phone in enhanced mode.

Enhanced Speakerphones for Digital Phones

The following display and non-display digital phones have enhanced speakerphone capabilities:

- Model 8000 Series Phones (8560, 8520, and 8500)

- Executive, Professional, Standard, and Associate Display Phones

- Axxess and Eclipse Basic Digital Phones

To use an enhanced speakerphone on a Digital Phone, the user establishes a call and presses ∞ (the Special button) and then the Speaker button (or presses ∞ and enters the Enhanced Speakerphone feature code – 310). There will be about one second of white noise at this point. (Both parties should avoid speaking during this white noise.) This white noise is used to calibrate the echo-canceling circuitry. After the white noise, there will be a confirmation tone that both parties will hear (except for Executive Display and Professional Display Phone users who will hear the tone, but the other party will not). Then the user will be connected in an enhanced handsfree call. If the speakerphone cannot be calibrated correctly, due to trunk conditions, the enhanced speakerphone will not be enabled and the display will show CANNOT ENABLE ENHANCED MODE.

NOTE: It is normal for an outside party to hear a minimal amount of his or her own echo when speaking to a Digital Phone in enhanced speakerphone mode. This is usually acceptable to most callers on local calls and on most long-distance calls. However, on some T1 and long-distance calls involving significant delays (for example, cross-country T1 calls, overseas calls or calls via satellite), the amount of echo may be objectionable, and the enhanced speakerphone mode should not be used on these types of long-distance calls.

If an enhanced speakerphone call is placed on hold and then taken off hold on an Executive or Professional Display Phone, it remains an enhanced speakerphone call. For all other digital phones, if the call is placed on hold, the call is returned to standard speakerphone mode.

A station can only have one enhanced speakerphone call. For example, if an Executive or Professional Display Phone user makes an enhanced speakerphone call, puts it on hold, and establishes another enhanced speakerphone call, the first call will be turned back into a standard speakerphone call.

A digital phone user can set up a conference and then, once it is established, presses the
▬∞▬ (Special button) and Speaker (or presses ▬∞▬ and enter the Enhanced Speakerphone
feature code – 310) to have an enhanced speakerphone call in the conference.

Analog, IDS, and Wave Phone Speakerphones

NOTE: The volume adjustment range of non-AIM and non-DVK analog phones may not be
suitable in all user environments. In such cases, Inter-Tel recommends using AIM and/or DVK
phones, if possible.

Every Analog, IDS, and Wave Phone station has a built-in, integrated speakerphone that allows
the user to dial while on hook and allows handsfree operation on outside calls and inside (inter-
com) calls. In addition, the speaker may provide background music (if an external music
source is installed) and is used to receive pages. Analog, IDS, and Wave Phones cannot use the
shared speakerphone resources or the Enhanced Speakerphone option that is provided for the
digital display and non-display phones.

NOTE: IDS Model 12 and Agent Terminal Phone have only a speaker. They do not have a
microphone.

The speakerphone can be disabled with the Handsfree Answering feature (see page 176). If the
handsfree option is enabled, the speakerphone can still be used for receiving handsfree inter-
com calls, but the user must lift the handset to speak when placing intercom calls and when
placing or receiving outside calls. The **MUTE** button is lit when the speaker is activated for
outside calls or outgoing intercom calls. Call monitoring and on-hook dialing are not affected.

NOTE: On certain handsfree-to-handsfree intercom calls, voice volume levels may cause feed-
back to occur. If this happens, one user should pick up the handset.

Six-Line Liquid Crystal Display (LCD)

All Model 8560, Executive, and Professional Display Phones have a six-line LCD. Each line has 16 characters. (A picture of the Model 8560 display is shown in the Figure below. A picture of the Executive display is shown on the following page.) The top two lines are for standard call information and show the same displays as other display phones. The remaining four lines are used for displaying feature-related menus that change with the function being performed by the phone (intercom call, outside call, programming, etc.). These lines have menu selection buttons on both sides (eight buttons) that are used for menu features. When there are two prompts on a line, like PREVIOUS and NEXT, the button next to the word is the one that will select that feature. When there is only one prompt on a line, like DO NOT DISTURB, then pressing the button on either side of the prompt will select it.

NOTE: Version 7.0 or later system software is required to support the menu display and buttons on the Model 8560.

There is a system-wide flag, called "Alternate Keyset Menu Displays," that determines the display that Model 8560, Executive, and Professional Phone users will see during an outside call. In the default state, the display shows the following menu with Transfer-To-Hold on the first menu and Flash on the "More..." menu:

HOLD	SYS HOLD
TRANSFER	CNF
TRANSFER-TO-HOLD	
MUTE	MORE...

If the Alternate Keyset Menu Displays flag is enabled, the Model 8560, Executive, and Professional Phone users will see the following menu with Flash on the first menu and Transfer-To-Hold on the "More..." menu:

HOLD	SYS HOLD
TRANSFER	CNF
FLASH	
MUTE	MORE...

Enabling the Alternate Keyset Menu flag allows Centrex features to be accessed more easily, using the FLASH menu option.

FIGURE 6. *Model 8560 Phone Displays*

LCD WITH SIX 16-CHARACTER LINES   8 LCD MENU SELECTION KEYS
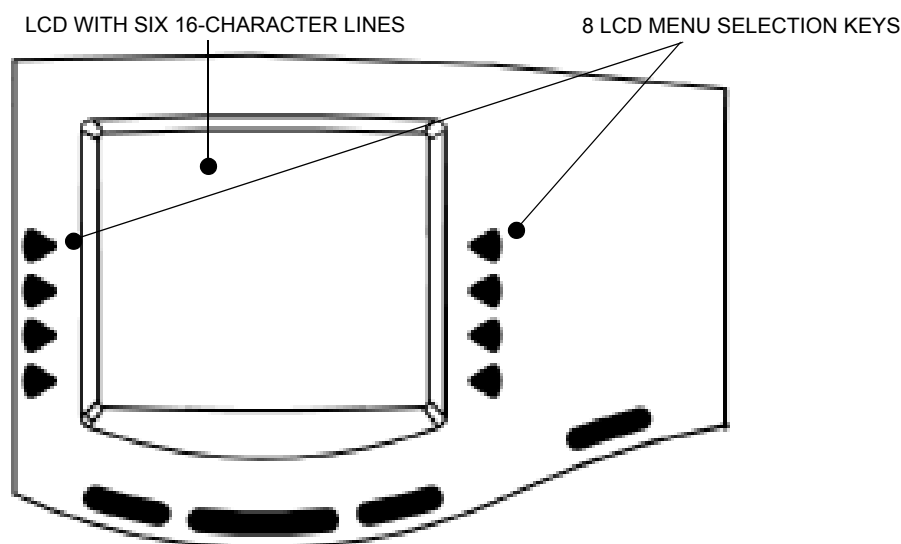
FIGURE 7. *Executive Phone Display*

LCD WITH SIX 16-CHARACTER LINES   8 LCD MENU SELECTION KEYS
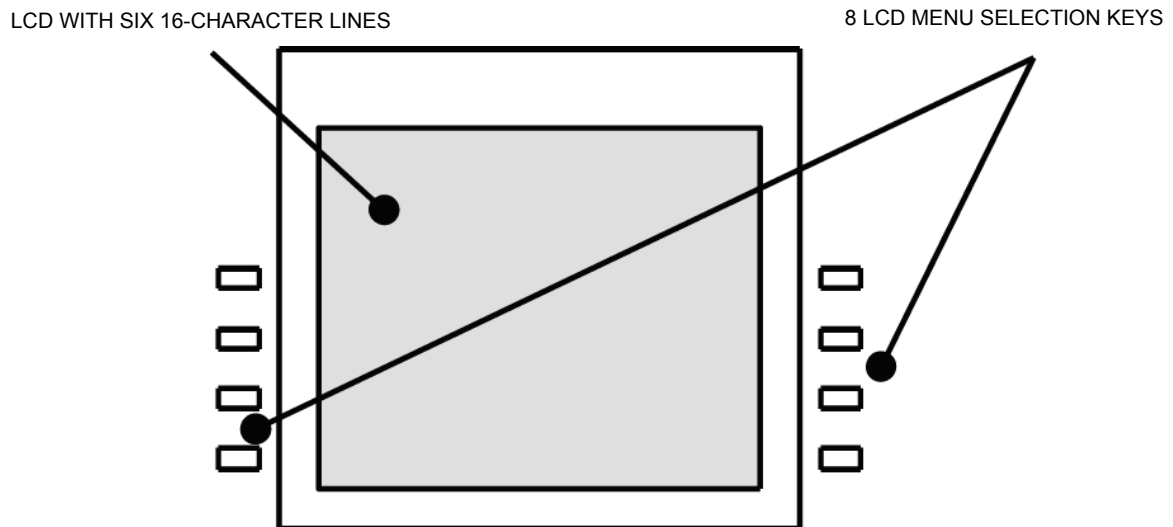
Two-Line LCD

The Model 8520, Standard, and Associate Display Phones have a two-line Liquid Crystal Display that supports 16-characters per line.

When the phone is not in use, the LCD shows the station extension number, username, time of day, and date. Other displays include reminder messages, Do-Not-Disturb messages, numbers dialed, call sources, elapsed time of calls, current call costs, error messages, station status, programming messages, etc. The displayed information is described throughout the instructions in this section of the manual.

Older Inter-Tel phone types are available in a standard or display model. The non-display phones can be converted to display phones by installing LCD Units (refer to REPLACEMENT PARTS for unit part numbers). Installation instructions are in the INSTALLATION section of the manual.

NOTE: Most Analog, IDS, and Wave phones also have an LCD display that supports 16 characters per line.

LCD Contrast Adjustment

The contrast for the Model 8000 Series Display Phones is adjustable. There are eight different contrast levels available. The LCD Contrast Control feature is supported on software versions 7.0 and later.

TO ADJUST THE LCD CONTRAST ON THE MODEL 8560 PHONE:

1. While the phone is idle, press the Special button (⬛ ∞ ⬛) and enter the LCD Contrast feature code (303).
2. *EITHER,* Select **LIGHTER** or **DARKER** on the menu buttons.

   OR, Use the Volume button to make your selection.

   OR, Press the desired level (1-8).
3. Press the Speaker button or **ACCEPT** to save your change.

The Model 8520 Phone has a contrast control wheel to adjust the contrast level. This wheel is located on the back of the phone and can be adjusted while viewing the display.

TO ADJUST THE LCD CONTRAST ON THE MODEL 8520 PHONE:

4. While the phone is idle, locate the contrast control wheel on the back, upper-right section of the phone.

5. Adjust the contrast of the LCD screen by turning the wheel clockwise (lighter) or counter-clockwise (darker).

Node and Circuit Number on Power-Up

To aid in installation and troubleshooting procedures, display phones show their station identification for five seconds when power is turned on, when the system is reset, or when the phone line cord is first plugged in (or removed and replaced). The extension number and assigned username appear on the top line of the display, and the node number and circuit number appears on the bottom line (for example, circuit 1.1.1 on node 2 would appear as 2:1.1.1). After the five-second identification display, the phone returns to the appropriate display, depending on its current status.

Keymaps

A keymap group determines the layout of the buttons for all the stations assigned to that group. If any of the buttons in the keymap group are user-programmable or undefined, they can be changed by the station user. There can be up to 250 different phone keymap groups. Each node contains its own keymap programming. (There are also 20 maps for DSS/BLF Units.)

Each Inter-Tel phone is assigned a standard keymap and can also have an alternate keymap. See for information about switching between standard and alternate keymaps.

When the system is in the default state all phones are assigned to the default Keyset Keymap 01. There are no individual pre-programmed keymaps for each of the specific phone types. (Previous software had an Executive/Standard map and a Basic map. If you convert from a previous version to the current version, those keymaps will be preserved. However, in the current software, the default Speaker, **MSG**, and **MUTE** buttons are not programmable.)

NOTE: The Model 8560, 8520, and 8500 Phones have more buttons and lamps than the Executive Display, Standard Display, and Basic Digital Phones. If running system version 6.0 or earlier software, the additional buttons and lamps will not operate. To use the buttons and lamps, version 7.0 or later software is required. Contact your local Inter-Tel dealer for upgrade information.

As part of the installation procedure, the installer must make sure the phone buttons are labeled to match their functions.

The buttons in each keymap can be assigned the following functions:

- **Accept Key:** *(This button type is not required for Digital Phones. It is intended for Analog Phone use.)* This button is used to accept an entry when using numeric mode. (Digital Phones use the Volume button, by pressing both arrows at once.)

- **Cancel Key:** No further programming is necessary. This button will be used to cancel a feature or cancel an entry when in numeric mode.

- **Call Key:** Up to 10 Call buttons can be assigned in each keymap. These buttons are used for call access. They are not associated with specific trunks. Instead, they are assigned to calls in the order that the calls are placed or received. In the following example, the user has three Call buttons.

ACTION	CALL KEY 1	CALL KEY 2	CALL KEY 3
User places call #1	Shows status of call #1		
Call #2 rings in while call #1 is active	Shows status of call #1	Shows ring flash for call #2	
Calls #1 and #2 on hold, call #3 placed	Shows hold flash for call #1	Shows hold flash for call #2	Shows status of call #3

If there are more calls in progress than there are Call buttons (e.g., if another call rings in to the phone in the example), the new call will not have an available call button and will camp on to the station until a Call button becomes available; it will then appear under the available button. Pressing an idle Call button will enter the programmed Outgoing Call feature for that station. If there is no **IC** button programmed in the keymap, intercom calls will appear under Call buttons.

NOTE: All keymaps should have at least one Call button if there is not an individual trunk button for every trunk.

- **Down Key:** *(This button type is not required for Digital Phones. It is intended for Analog Phone use.)* No further programming is necessary. This button can be used scrolling backward through displays. When the phone is idle, it can be used for adjusting volume, in place of the Volume button. (Digital Phones use the Volume button.)

- **DSS/BLF Key:** A DSS/BLF button will dial the associated extension number when pressed. If assigned to a button with a lamp, it will also show the status of the associated station, as described for DSS/BLF Units on page 34. DSS/BLF buttons cannot be changed by the station user.

- **Feature Key:** These are programmed with feature codes. The feature code appears in the same button location on all stations assigned to the keymap and cannot be changed by the phone user.

- **Forward Key:** The forward button can be programmed with any of the Call Forwarding feature codes. The forwarding code used by the button can be changed by the phone user.

- **Hunt Group Key:** Like a DSS/BLF button, this button dials a hunt group pilot number when pressed and, if assigned to a button with a lamp, will show the status of that hunt group.

- **Individual Trunk Key:** This button is associated with one trunk. It can be used for placing outgoing calls, and for picking up calls on hold and answering incoming calls on that trunk.

- **Intercom (IC) Key:** The [IC] button allows access to intercom channels for placing and answering calls. If an [IC] button is not assigned, an intercom call will appear under a Call button.

- **Next Key:** *(This button type is not required for Digital Phones. It is intended for Analog Phone use.)* This button is used for scrolling forward through displays. (Digital Phones use the Volume button.)

- **Page Zone Key:** A page zone button is programmed with one of the page access codes (9600-9609 or 9600-9649 depending on the software version) for quick access to page zones (0-9 or 0-49 respectively).

- **Previous Key:** *(This button type is not required for Digital Phones. It is intended for Analog Phone use.)* This button is used for scrolling backward through displays. (Digital Phones use the Volume button.)

- **Programmable Key:** Up to 35 user-programmable buttons can be designated and given default values in the keymap database. They can then be reprogrammed to enter any of the trunk group access codes, extension numbers, or feature codes by the individual phone users as desired. Or, they can be programmed as system or station speed-dial bins, or as secondary extension buttons (see below). The phone user or programmer can return the buttons to default values at any time.

- **Save Key:** *(This button type is not required for Digital Phones. It is intended for Analog Phone use.)* This button is used for saving volume levels or programmed phone features. (Digital Phones use the Volume button, by pressing both ends at once.)

- **Secondary Extension Key:** This type of button allows a station user to have one-button access to calls ringing or holding at another station. It should be assigned to a button with a lamp so that the secondary extension button can show the call status. If desired, a station can have several secondary extension buttons, each associated with a different station. For details, see page 85.

- **SPKR Key:** This button is used for turning the phone speaker or headset on and off.

- **Speed-Dial Keys:** Each keymap can have up to 10 speed-dial buttons. Each speed-dial button can be programmed by the phone user to dial one digit string. If assigned to a button with a lamp, the lamp will show the status of an extension number if it is associated with that button.

- **Trunk Group Key:** These buttons are associated with specific trunk group access codes and are used for placing outgoing calls on trunks in the selected trunk group. If assigned to a button with a lamp, the lamp will be lit if all trunks in the trunk group are in use.

- **Undefined Key:** Any button can be left undefined if it will not be needed. It can be programmed, like a user-programmable button, as described above. If the phone user or programmer returns the phone to default values, the button will return to being "undefined."

- **Up Key:** *(This button type is not required for Digital Phones. It is intended for Analog Phone use.)* No further programming is necessary. This button can be used for scrolling forward through displays. When the phone is idle, it can be used for adjusting volume, in place of the Volume button. (Digital Phones use the Volume button.)

NOTE: The volume adjustment button on the Digital Phones also can be used for scrolling through displays. However, the Analog Phone volume buttons are used ***only*** for adjusting volume; Analog Phones need to have Previous and Next buttons programmed in their keymaps to scroll through displays. They also need an Accept button to accept entries when in numeric programming mode.

Default Inter-Tel Phone Feature Buttons

When the system is in the default state, all phones are in the same keymap group and have the following feature buttons. Feature code descriptions start on page 116. (The Special button is represented by keycaps with ▬ ∞ ▬ on the Inter-Tel phone.)

KEY	FUNCTION
CALL KEYS 1-4	Selects an outgoing trunk, if idle, or answers a call on the button.
IC	Selects a voice channel or picks up a holding or camped-on intercom call.
DND	Programmable button 1: Do-Not-Disturb On/Off (372)
PROGRAMMABLE KEYS 2-6, 14-16, 18, and 21-35	Undefined values. Can be programmed with any feature code, trunk access code, or extension number, or can be programmed as a station or system speed-dial bin.
CNF	Programmable Button 7: Conference (5)
HOLD	Programmable Button 8: Individual Hold (336)
TRANSFER	Programmable Button 9: Transfer to Ring (345)
SYS SPD	Programmable Button 10: System Speed Dial (381)
REDIAL	Programmable Button 11: Redial (380)
PAGE	Programmable Button 12: Page (7)
QUEUE	Programmable Button 13: Queue Request (6)
MUSIC	Programmable Button 17: Background Music (313)
PAGE ZONE 1	Programmable Button 19: Selects Page Zone 1 for making a page.
STN SPEED DIAL	Programmable Button 20: Station Speed Dial (382)
FWD	Call Forward All Calls (355) Also used for canceling Call Forward.
SPECIAL	Signals the system to expect a feature code.
ANSWER	Answer (351)
OUTGOING	Selects a trunk for placing an outgoing call using the station's Outgoing Call feature (8).
SPEAKER	Speakerphone On/Off
MSG	Message (365) – Also retrieves messages when the flashing MSG button is pressed.
MUTE	Microphone Mute On/Off (314) (This is a fixed-function button on Digital Phones.)
DATA	Data (340)
STATION SPEED DIAL KEYS 0-9	Used for storing and dialing one station speed-dial number each.
UNDEFINED	Some Analog Phones have several undefined buttons that can be programmed as desired.

Secondary Extension Appearances

The Secondary Extension Appearances feature allows calls ringing or on individual hold at one "primary" station to appear on a "secondary extension button" at another station. For example, a secretary or assistant can have a secondary extension button for a supervisor's station, or one station can have several secondary extension buttons, each associated with a different primary station. The primary station and the secondary station must reside on the same node.

A secondary extension button functions as follows:

- When a call is ringing or holding on any Call button at the primary station, pressing the secondary extension button will answer the call. (This includes recalls, transfers, call-backs, and hunt group calls.)

- If the secondary extension button is unlit, pressing the button places an intercom call to the primary station. If the button is flashing, an intercom call can still be placed without answering the incoming call by pressing the pound (**#**) button before the secondary extension button, by pressing a DSS button, or by manually dialing the primary station's extension number.

There are two programmable options that determine the type of call indications the station user will receive for calls on a secondary extension button:

- **Ring When *n* Calls At Extension:** This programmable option allows the station to receive a burst of ringing when "n" number of calls are present at the associated primary station. The ring signal will repeat periodically as long as "n" number of calls are present at a primary station. (This period is determined by the DKTS Secondary Extension Key Alerting Tone timer.) If "n" is set to 0, the secondary station will never receive the burst of ringing. This option is programmed individually for each secondary extension button, during keymap programming.

- **Transient Call Indication On Call Answer:** This programmable station flag determines whether the station user will see a call display when answering a call by pressing the secondary extension button or reverse-transferring the call. If enabled, the display will tell if the call was ringing, recalling, transferred, or holding at the primary station.

The secondary extension button can be located on an Inter-Tel phone or on a DSS/BLF Unit. There are two ways to make a secondary extension button:

- Create a secondary extension button in the keymap and determine which station it will represent. This will be the same for all stations assigned to that keymap.

- Set the default value of a user-programmable button to "secondary extension button" in the keymap. This allows each station user assigned to that keymap to determine the associated station for his or her secondary extension button. (See page 167 for button programming procedures.)

User-programmable buttons cannot be made into secondary extension buttons by the station user; they can only be created in the database. Also, the station user cannot change the button into any other *type* of button (such as a speed-dial or feature button), even though it is assigned to a user-programmable button.

Any Inter-Tel phone button can be designated as a secondary extension button, but buttons with lamps are recommended so that the secondary extension button can show call status. The table on the next page shows the definition for each possible lamp flash rate.

The secondary extension button shows only calls that appear under the Call buttons at the primary station. Any calls on individual trunk buttons at the primary station are considered private calls and will not appear on the secondary extension button.

Normally, the secondary extension button will not show intercom calls. However, if the primary station does not have an IC button, intercom calls will appear under a Call button and, therefore, will appear on the secondary extension button. If the primary station is a single-line set, *all* calls will appear on the secondary extension button.

After answering a call on the secondary extension button, the station user can transfer it back to the primary station using one of the following methods:

- **Transfer to hold:** To transfer the call to hold at the primary station, press the secondary extension button, announce the call, if desired, and then hang up.

- **Transfer to ring:** To transfer a call to the primary station, press the `TRANSFER` button and then the secondary extension button. You can announce the call, if desired, before hanging up to complete the transfer.

Because the calls that appear on the secondary extension button are active only at the primary station, they will not follow call forwarding or system forwarding paths at the station with the secondary extension button.

Light-Emitting Diode (LED) Indications

The Inter-Tel phone Call buttons, trunk buttons, speed-dial buttons, hunt group buttons, and some of the feature buttons contain light-emitting diodes (LEDs). The LED flash rates indicate the status of the stations, trunks, and features.

FIGURE 8. *Executone Phone LED Rates*

CALL/DEVICE STATUS	LAMP RATE
Call Active Device in DND	500ms on, 500 ms off (slow flash)
Call Holding Data Call In Progress Secondary Extension Holding	500ms flutter, 500 ms on, 500 ms flutter, 500 ms off (fluttering flash)
Call Ringing Queue Callback Help/Record-A-Call In Progress Secondary Call Ringing Device Ringing (DSS or Speed-Dial button) Call Transferring	250ms on, 250 ms off (fast flash)
Call Recalling Message Waiting	250ms on, 50 ms off (urgent flash)
Call On System Hold Device Idle (DSS or Speed-Dial button)	50 ms on, 50 ms off (flutter)
Device Busy	Solidly lit

FIGURE 9. *Digital Phone LED Rates*

The following rates are shown in interruptions per minute (IPM).

	STEADY 0 IPM	SLOW 30 IPM	MEDIUM 120 IPM	FAST 240 IPM	FLUTTER 60/960 IPM
DATA	Auto-dial modem is dialing and the data port is unavailable. (Red LED)			Ring signal is being sent to the data device. (Red LED)	Data call is in progress and accessible. A continuous flutter indicates that the data device is off hook. (Red LED)
IC		Intercom call is in progress. (Green LED*)	Recalling intercom call is camped on. (Green LED*)	Intercom call is camped on (waiting). (Green LED*)	Intercom call is on hold. (Green LED*)
SPEAKER	Speakerphone is on or ready for use. Or, station programming is in progress. (Red LED)				
CNF		Conference is in progress. (Green LED*)	Conference is recalling your station. (Green LED*)		A conference party is on conference wait hold. (Green LED*)
MUTE	Microphone is muted. (Red LED)				
FWD	Calls are being forwarded. (Red LED)				
MSG	Station is in alpha-numeric mode. (Red LED)		Message is waiting. (Red LED)		
DND	Your station is in Do-Not-Disturb. (Red LED)				
SPEED DIAL or DSS	Station is busy or unplugged. (Red LED)	Station is in Do-Not-Disturb. (Red LED)		Station has a call ringing in. (Red LED)	Continuous flutter indicates that the station was left off hook. (Red LED)
HUNT GROUP	All stations in hunt group are unavailable. (Red LED)			Hunt group has a call camped on. (Red LED)	
CALL		Call is active at your station. (Green LED*)	Call is recalling from hold or transfer. (Green LED*)	Call or queue callback is ringing in or camped on (waiting). (Green LED*)	Call is on hold. (Green LED*)
TRUNK	Trunk is in use at another station, in a conference at your station, or is unplugged. (Red LED)	Trunk is in use at your station. (Green LED*)	Trunk is recalling from hold or transfer. (Red LED)	Trunk is ringing in or camped on (waiting). (Red LED if on another station or green if at your station*) Or, busy trunk queue callback to your station (Green LED*).	Trunk is on hold. (Red LED if on another station or green if at your station*)

*This applies only to Inter-Tel phones with red/green LEDs.

Red and Green LEDs

Inter-Tel Model 8000 Series, Executive Display, Professional Display, Standard Display, Associate Display, and Basic Digital Phones have red and green LEDs in the button lamps. When both colors are used, a green lamp generally indicates that the call is active, ringing, or holding at your station (see below for a possible exception for direct ring-in calls). When the lamp is red, the call is active, ringing, or holding at another station. Trunk access, allowed-answer permission, and the feature being used (for example, System Hold or Call Transfer) determine whether you can pick up a (red) call from another station.

There are two system-wide programming options that control these LEDs.

- **Allow Green LEDs:** This flag gives the installer the option of having all red/green phones and red-only phones operate the same, or allowing the red/green phones to use the green LEDs. If this flag is enabled, the dual-color phones will use both the red and green LEDs. If it is disabled, the phones will operate in red-only mode, like the phones without green LEDs. In the default state, the flag is disabled.

- **Use Green LEDs For Direct Ring:** This flag determines whether direct ring-in calls cause a red or green lamp. If the flag is enabled, direct ring-in calls to your station will be green. If disabled, all direct ring-in calls will cause the LED to be red. In the default state, this flag is enabled.

NOTE: The Allow Green LEDs flag must be enabled in order for this flag to operate.

Connecting a Headset

For convenience, an electret headset can be used at any Inter-Tel phone. The Speaker button is used to connect and disconnect calls when the headset is attached.

Some headsets have a power-saver mode that disables the headphone after a period of silence. To prevent these headsets from missing portions of incoming calls, there is a station flag called "Headset Connect Tone." Enabling this flag allows the phone to generate a tone that activates the headset before connecting to an incoming call. In the default state, it is disabled.

The Model 8520 and 8560 Phones have headset jacks on the back of the phones. This allows you to have the headset and the handset connected to the phone at the same time. You must still, however, enable/disable the headset using the Headset Mode feature code.

TO CONNECT A HEADSET TO A MODEL 8560 OR 8520 PHONE:

1. Insert the headset plug into the vacant headset jack on the back of the phone.

2. While on hook, enter the Headset On feature code (315) or the Headset On/Off feature code (317). The display shows HEADSET MODE ON.

TO CONNECT A HEADSET TO ALL OTHER INTER-TEL PHONES:

1. Remove the coiled handset cord from the base of the phone. Leave the handset in the cradle.

2. Insert the headset plug into the vacant handset jack.

3. While on hook, enter the Headset On feature code (315) or the Headset On/Off feature code (317). The display shows HEADSET MODE ON.

TO DISCONNECT THE HEADSET FROM A MODEL 8560 OR 8520 PHONE:

1. Unplug the headset cord from the back of the phone.

2. While on hook, enter the Headset Off feature code (316) or the Headset On/Off feature code (317). The display shows HEADSET MODE OFF.

TO DISCONNECT THE HEADSET FROM ALL OTHER INTER-TEL PHONES:

1. Unplug the headset cord from the base of the phone.

2. Plug the coiled handset cord into the base of the phone.

3. While on hook, enter the Headset Off feature code (316) or the Headset On/Off feature code (317). The display shows HEADSET MODE OFF.

"Send Alert Burst To Headset" Station Flag

The "Send Alert Burst To Headset" will send a single tone to a headset, instead of normal phone ring tones, when a call is ringing at the station (non-handsfree intercom call, outside call, queue callback, or reminder message). The tone is sent only once, when the call is received, and will not repeat even if the call continues to ring unanswered. It is intended as a "wake up" tone for headsets that have a power-saving function that allows the device to "sleep" if idle for a set period. The flag is programmed on a station-by-station basis. By default the flag is disabled.

Digital Phone Data Port Modules

There are two types of Data Port Modules that can be connected to Model 8560, Model 8520, Executive Display, Professional Display, Standard Display, and Associate Display Phones:

- **PC Data Port Module (PCDPM):** This is a digital device that is connected to the Model 8560, Model 8520, Executive Display, Professional Display, Standard Display, or Associate Display Phone which supports data transmission between the phone and the system for DSS/BLF, off-hook voice announce (OHVA), Desktop Interface, and/or serial port functions. A PCDPM is required if a Modem Data Port Module or DSS/BLF Unit will be installed, or if the user wishes to receive OHVA calls.

  NOTE: A phone serial port should not be used as the Voice Processor communications port.

- **Modem Data Port Module (MDPM):** The MDPM is an analog device that can be used with a PCDPM and connected to a modem for data applications or it can be connected to a single-line set. The port itself has an individual extension number and complete station programming setup including its own trunk access and toll restriction information. (See for data device information.)

Special programming is required to enable the phone circuit to support some of the PCDPM and MDPM functions.

Station users can adjust the bit rate (bps) of the serial port on the PCDPM connected to the phone, if it is not configured for a DSS/BLF unit. The rate can be set to 300, 600, 1200, 2400, or 4800 (1200, 2400, or 4800 if it is a system serial port).

TO CHANGE THE BIT RATE OF YOUR PCDPM:

1. While on hook, enter the Program Bit Rate feature code (393). If the port is not configured for a DSS/BLF unit, the display shows ENTER BIT RATE. (*If it is configured for DSS/ BLF,* the display shows CANNOT PROGRAM BIT RATE.)

2. Enter a valid rate (300, 600, 1200, 2400, or 4800). Executive Display and Model 8560 Phone users can press the appropriate menu button in the display. The display shows BIT RATE UPDATED. (*If the entered baud rate was already in effect,* it shows NO UPDATE PERFORMED.)

Data Port Module for 12-Line and 24-Line Analog Phones

All GMX 24-line and IMX 12- and 24-line Analog Phones may be equipped with optional Data Port Modules (refer to REPLACEMENT PARTS for the part number). The module contains a four-conductor, RJ11 modular jack that can be used to connect *either* a data device (such as a personal computer equipped with a modem) *or* a loud ringing adapter (LRA) and an external signaling device (such as a loud bell, horn, flashing light, etc.) to the phone. Refer to for operating instructions.

Optional Data Devices

A customer-provided, modem-equipped data device (such as a data terminal or a personal computer) may be attached to an Inter-Tel phone that has an optional data port module installed.

Model 8560, Model 8520, Executive Display, Professional Display, Standard Display, and Associate Display Phone users can adjust the bit rate (bps) of the PCDPM connected to the phone. The rate can be set to 300, 600, 1200, 2400, or 4800 (1200, 2400, or 4800 on a system serial port). To adjust the bit rate of your PCDPM, refer to the instructions on .

The circuit with the data port module can be programmed to be associated with one or more other phones. The associated phone(s) should have a **DATA** button that will show the status of the data device and will allow easy transfers between the phone and the data device.

Data calls are transmitted over the data port voice path. This leaves the attached phone's voice path available for normal phone operation. However, receiving off-hook voice announce (OHVA) calls at an Model 8560, Model 8520, Executive Display, Professional Display, Standard Display, or Associate Display Phone attached to an MDPM is not possible during a data call since the data call is using the secondary voice path.

Calls can be transferred back and forth between an associated phone's primary voice path and data port as often as needed provided that the data port is on-hook at the time of the transfer attempt. For example, a call can be placed using the data device, then transferred to the phone's primary voice path to announce the call, and then transferred back to the data device so that it can communicate with the called device. (Note that transferring to the phone's primary voice path disconnects the data device from the call. During that time, the call cost display for the data call is shown on the phone.)

Operation of the data device begins with the initiation of a call in one of four ways:

- The user may initiate a call using the phone, while on or off-hook, and then transfer it to the data device.

- The user may lift the handset to answer a ringing call and then transfer it to the data device.

- The user may initiate a call using the data device, without touching the phone.

- The data device may receive a call directly, without using the phone.

The phone user can place or receive a data call using the phone and then transfer it to the data device. It can be an intercom or outside call and the phone can be on or off hook. The call is placed to or received from another modem-equipped data device.

Once the connection is established, the phone user presses the **DATA** button, or presses the Special button **∞** and enters the Data feature code (340) to transfer the call to the data device. If the data device does not answer before the Transfer Available timer expires, the call recalls the station.

Transferring a call to the data device using the **DATA** button places the call without providing ring voltage to the data device. The user must manually cause the data device to answer the call. (Note that if the phone user wishes to cause ring voltage to be applied to the data device, the Transfer feature must be used to send the call to the data device.)

While the user is establishing the call using the phone, the **DATA** button is unlit. From the time that the user presses the **DATA** button, until the data device answers, the **DATA** button will flash. While the data device is on an active call, the **DATA** button flutters on the associated phone(s) (indicating that the data call may be retrieved by the phone). If the phone is off hook, the user will hear dial tone.

TO PLACE A DATA CALL USING AN INTER-TEL PHONE:

1. Place or receive an intercom or outside call.

2. When you hear modem tone, press the **DATA** button, or press the Special button **∞** and enter the Data feature code (340). The **DATA** button flashes slowly.

3. Hang up or press the Speaker button. The **DATA** button begins to flutter when the data device answers, and the display returns to date and time. The phone can now be used as usual.

4. Operate the data device according to the manufacturer's instructions. The device must be able to come off hook and answer the incoming call.

   If you wish to return the active data call to your primary voice path, press the fluttering **DATA** button. The call cost and elapsed time of the data call are displayed.

The data device can be used for initiating a data call, without the use of an Inter-Tel phone. The user causes the modem to select a trunk or intercom channel and dial the desired number.

The data device can dial an extension number or a trunk access code followed by a pause and then a telephone number. As soon as the data device comes off-hook, the **DATA** button is lit at the associated phone(s) to indicate that the data port is busy. The button remains lit until the data device finishes dialing (outside call) or the station user answers (intercom call). This protects the call during dialing to ensure that the dialing is not interrupted. An Inter-Tel phone user who attempts to transfer another data call to the data device or pick up the data call while the button is lit will hear a burst of reorder tone.

When a data device places an intercom call, the call is placed in the non-handsfree mode. (This can be changed in database programming, if desired, by disabling the Ring Intercom Always flag.) The incoming intercom call to the destination station from the data device appears as a normal intercom call with the usual displays and tones.

If an extension number is dialed and that station is in Do-Not-Disturb, the user will hear Do-Not-Disturb tone through the data device's speaker (if it has one). Whenever continuous busy, reorder, or Do-Not-Disturb tone is sent by the system, the Inactivity Alarm timer is registered. The `DATA` button is lit while the tones are present. If the timer expires before the data device hangs up, off-hook alarm tone is sent, and the `DATA` button flutters rapidly until the device hangs up. Note that once the `DATA` button begins fluttering, the voice path on the phone attached to the data port module is released and can be used for other call processing applications. (Note that the absence of a lamp or `DATA` button will not interfere with these timing parameters, but the user will not have a visual indication of them.)

If the data port places an outside call, the system performs toll restriction using the data port's class-of-service. If an illegal extension number or access code is dialed, the user will hear reorder tone through the data device's speaker. (Call cost information for a data call is displayed on an associated phone only when the data call is connected to a phone's primary voice path.)

If an attempt is made to initiate a data call from the data device when the required voice path is not available (the secondary voice path of the attached phone is busy), the data device will not receive dial tone. The activity on the phone's secondary voice path continues uninterrupted.

TO PLACE A DATA CALL USING THE DATA DEVICE:

1. Following the procedures of your data device's communications software, instruct the device to come off hook and dial the extension number, or a trunk access code and the telephone number, of the data device to be called. The call will be processed and will be automatically connected when answered. The `DATA` button is lit until dialing is completed, then it flutters.

2. Operate the data device according to the manufacturer's instructions.

The data device can be called directly (intercom or outside calls) and receive transferred calls via its extension number.

When a call is placed directly or transferred to the device's intercom number, the data device will receive ring signal. If the data device does not have auto-answer capability, the user must manually answer the call using the data device. (Transferring a call to the data device using the `DATA` button places the call without providing ring voltage to the data device. The user must manually cause the data device to answer the call.)

While ring signal is being sent to the data device, the `DATA` button flashes. As soon as the data device answers, the `DATA` button flutters. The button continues to flutter for the duration of the call, indicating that the data path is in use but may be picked up by associated phones.

TO ANSWER A DATA CALL USING THE DATA DEVICE:

1. When the data device receives a call, the `DATA` button flashes on the associated phone(s). If the data device does not have an auto-answer modem, follow the procedures for the data device's communications software and instruct the device to answer the incoming call. The `DATA` button flutters while the call is in progress.

2. Operate the data device according to the manufacturer's instructions.

Termination of a data call may be accomplished in one of three ways:

- Your data device can hang up. This causes the trunk or intercom channel to be released, terminating the call to the other data device.

- The other data device may hang up. When the call is disconnected, the **DATA** button is unlit. Depending on the type of device used, the data device may detect the loss of carrier and automatically terminate the entire connection. If the data device does not have this capability, you must manually cause the data device to hang up.

- The data call can be transferred to an associated phone's primary voice path (releasing the data device) and then disconnected by the phone. Note however that the **DATA** button will flutter rapidly if the data device does not hang up before the Inactivity timer expires.

TO TERMINATE DATA DEVICE CONNECTION:

To have the data device disconnect the call: Use the appropriate commands for the data device to instruct it to hang up. When the call is disconnected, the **DATA** button is unlit.

To transfer the data call back to an associated Inter-Tel phone before disconnecting the call: While on or off hook:

a. Press the fluttering **DATA** button. The **DATA** button goes off. *If desired,* speak to the party at the site of the remote data device. This can only be done if the modem at the site of the remote data device can be turned off without disconnecting the trunk.

b. **To disconnect:** *If off hook*, hang up. *If on hook,* press the Speaker button. The **DATA** button will flutter rapidly until the data device hangs up.

8-Line IMX AIM Analog Phones on Dual Circuits

If desired, 8-line IMX AIM Analog Phones can be installed *two to a circuit* using the Analog Keyset Card (AKSC). To do this, single Analog Keyset Card (AKSC) circuits are designated as "dual" circuits in System Configuration programming. (Other Inter-Tel phone models cannot be installed two to a circuit.) The designated dual circuit becomes two circuits that can be programmed individually.

Digital Phone Desktop Interface

NOTE: Your software license must include the appropriate premium feature(s) to use Desktop Interface and System OAI features.

Desktop Interface is a *station-level* communications protocol that allows a PC, attached to a PCDPM on a Model 8560, Model 8520, Executive Display, Professional Display, Standard Display, or Associate Display, to emulate an Inter-Tel phone for call handling. This protocol will allow devices such as PC phones, operators' consoles, ACD supervisors, and integrated contact management tools to be developed for the system.

There can be as many Desktop Interface devices on the system as there are Model 8560, Model 8520, Executive Display, Professional Display, Standard Display, and Associate Display Phone circuits. The only limitation is on Desktop Interface devices that require DSS/BLF status updates (such as operators' consoles). The system can support up to 20 DSS/BLF status requests from external devices at one time. Therefore, if the device requires continuous DSS/BLF status updates, only 20 can be installed on the system at one time. Devices that require one-time or infrequent DSS/BLF updates are not limited by this capacity, except that only 20 requests for updates can be processed at one time. There is a limit of four Attendant Consoles per system because of the number of requests they require and the amount of information that is shared with the system.

Another Premium Feature, System OAI, is a *system-level* communications protocol that allows command-oriented tools to be developed for the system. System OAI is available in two levels: Events and Third Party Call Control. System OAI Events provides call status information to an external device. Its primary use is for automatic call distribution products such as the Call Center Suite. System OAI Third Party Call Control is a protocol that allows system command-oriented tools to be used on the system. System software versions 6.0 and later do not support Level 1 System OAI. Contact Inter-Tel for more information regarding products and development materials for these features.

AGENTSET

The AgentSet is used in place of an Inter-Tel phone with an attached PCDPM. It is connected to a Digital Keyset Card (DKSC or DKSC-16) port just as a phone would be. It has a jack for plugging in an Inter-Tel handset or headset. It also has a serial connector (DB9) for attaching it to a PC. The AgentSet does not require a transformer or external power source.

To operate properly, the AgentSet *must* be programmed for headset mode. This can be done in one of the following ways:

- Enable Headset Mode via Station Programming in the system database

- At the AgentSet, *unplug the headset or handset* (to take the AgentSet off hook) and enter the Headset On/Off feature code (317) to enable headset mode. Then plug in the headset or handset.

NOTE: There is nothing to prevent the user from disabling headset mode using the Headset On/Off feature code at the station.

Because the AgentSet does not have feature buttons, a dialing pad, or a speaker, it must be connected to a PC that is equipped with an OAI product that emulates an Inter-Tel phone. The OAI product is used for dialing and feature access.

The AgentSet also requires an Inter-Tel headset or handset. Only Inter-Tel equipment should be used. Other manufacturer's equipment may not be compatible with the AgentSet.

If the user wishes to receive audible signals at the headset, there is a station flag that will send a single tone to the headset when a call is ringing. (Refer to page 89.)

SINGLE-LINE SETS

Industry-standard, single-line DTMF sets can be installed on the system and/or used as an off-premises extension (OPX). On-premises single-line circuits can be used for installing AC-ringing single-line sets, playback devices, and other single-line devices.

The single-line sets are connected to Single-Line Cards (SLCs) or 16-Port Single Line Cards (SLC-16s). Or, they can be connected to Single-Line Adapter (SLA) circuits, which are in turn connected to available Digital Keyset Card (DKSC or DKSC16) circuits. Off-premises stations can be connected to SLAs, T1 Cards (T1Cs), or T1/E1 Cards.

- Each SLC can support up to eight on-premises single-line stations and each SLC-16 can support up to sixteen stations. The SLC and SLC-16 will support message lamps on single-line sets if the optional Lamp Option Card is installed on the SLC or SLC-16.

- Each SLA can support any combination of up to two single-line sets or DID devices.

- T1 Card (T1C) and T1/E1 Card circuits can be used for installing off-premises single-line stations.

Single-Line Caller ID

Version 8.1 and later system software supports the transmission of Caller ID to single-line sets. For more information about Caller ID on single-line sets, see page 150.

Single-Line DTMF Sets

Single-line DTMF set users gain access to the features by hookflashing (pressing and releasing the hookswitch quickly) and entering feature codes.

Single-Line Set Message Lamps

The optional Lamp Option Card (LOC) for the SLC or SLC-16 supports message waiting lamps. To enable a message waiting lamp on a specific single-line station, the station must have the Message Lamp station flag enabled. In the default state it is disabled.

SLAs, T1C, and T1/E1 Card circuits cannot support message waiting lamps.

Single-Line Ring Zones and Extended Ring Cadences

In some installations, where more than one single-line device is connected in series to an SLC or SLC-16 circuit, zoned ringing may be necessary. The system can support devices with up to 3 Ringer Equivalences (REs) per circuit. However, the system can only ring 8 REs per board. If the installation exceeds eight REs on any SLC or SLC-16, the system-wide SLC Ring Zones flag must be enabled. Also, all circuits on the SLC or SLC-16 should have the Extended Ring Cadences station flag enabled to allow the longer cadence to be used instead of the short internal cadence.

With ring zones enabled, devices 1-3 on the card will ring first, 4-6 ring next, and so on until all devices have rung.

The table below explains the difference between standard and extended ring cadences for the various types of single-line devices used on the Inter-Tel phone system in the United States.

SINGLE-LINE DEVICE	CADENCE TYPE	DESCRIPTION
SLA, SLC, SLC-16, or T1 OPX	Standard IC Ring	This is a repeating 2-second cadence that rings twice. Each ring lasts 200 ms and is separated from the next ring by 400 ms of silence. The remaining 1.2 seconds is silent.
	Extended IC Ring	This is a repeating 6-second cadence that rings twice. Each ring lasts 800 ms and is separated from the next ring by 400 ms of silence. The remaining 4 seconds is silent
	Standard CO Ring	This is a repeating 6-second cadence that rings once for 2 seconds followed by 4 seconds of silence.
	Extended CO Ring	Same as Standard CO Ring cadence.
Model 8560, Model 8520, Professional, Executive, Standard and Associate MDPM	Standard IC Ring	This cadence has two 250 ms rings every 2 seconds.
	Extended IC Ring	This is a repeating 3-second cadence that rings once for 1 second followed by 2 seconds of silence.
	Standard CO Ring	This is a repeating 6-second cadence that rings once for 2 seconds followed by 4 seconds of silence.
	Extended CO Ring	This is a repeating 6-second cadence that rings once for 4 seconds followed by 2 seconds of silence.

Off-Premises Extensions (OPX)

Off-premises extensions are remote single-line DTMF sets that are connected to the Inter-Tel system through telephone company OPX circuits (or customer-provided circuits).

Off-premises station users gain access to the features by hookflashing (pressing and releasing the hookswitch quickly) and entering feature codes.

Some telephone company off-premises extension (OPX) networks do not recognize certain single-line set ring cadences used in the system. This incompatibility results in an inability to provide certain ring signals to off-premises extensions. Because of this, the system is equipped with a station option (Extended Ring Cadences) which allows the ring cadences be altered for individual single-line circuits.

OFF-PREMISES EXTENSIONS

- Axxess (DKSC) — SLA
  - B1 — OPX
  - B2 — Axxess or other system
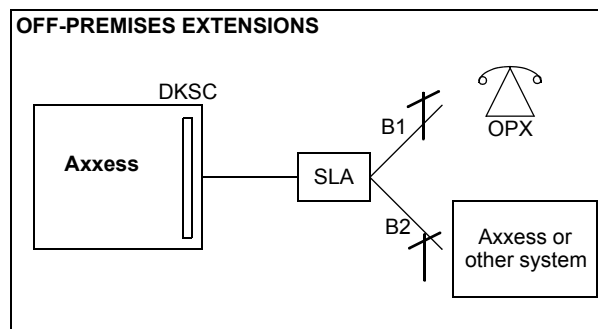
DIGITAL DIRECT STATION SELECTION/BUSY LAMP FIELD (DSS/BLF) UNITS

The Inter-Tel system supports three types of DSS/BLF Consoles/Units. The unit used depends on the phone.

- **With Model 8560 and Model 8520 Phones:** Model 8560 and 8520 Phones equipped with a PCDPM support up to four 50-button DSS/BLF Units. There can be a total of 20 of these 50-button DSS/BLF Units on the system. The presence of the optional Mini-DSS does not affect the number of units supported.

- **With Executive Display, Standard Display, Professional Display, and Associate Display Phones:** Executive, Professional, Standard, and Associate Display Phones equipped with a PCDPM support up to four 60-button DSS/ BLF Units. There can be a total of 20 of these 60-button DSS/BLF Units on the system.

    NOTE: Because each 50- and 60-button DSS Unit is powered by an AC transformer and is connected to the phone's PCDPM, the Units do not require a DKSC or DKSC-16/ DKSC-16+ circuit that is separate from the phone.

- **With Executone IDS Phones:** IDS phones can be equipped with up to three 48-button DSS Units. The IDS phone does not require a PCDPM. There can be a total of 80 IDS 48-button DSS Units on the system. Each 48-button DSS Unit requires an EKSC circuit.

    NOTE: For details about the 48-button DSS/BLF Unit, see a version 7.0 or earlier Eclipse Installation and Maintenance Manual.

Although the 50-button Unit is designed for Model 8560 and 8520 Phones, and the 60-button Unit is designed for Executive, Professional, Standard, and Associate Display Phones, you can use either DSS/BLF Unit on any of these phones. Each single unit provides one-button access to 50 or 60 extension numbers and/or other features/ resources. For instructions on programming and using DSS/BLF buttons, see page 34.

MINI-DSS UNITS

Version 7.0 software supports a Mini-DSS that has 16 user-programmable buttons. This unit attaches directly to the Model 8520 or 8560 Phone and does not require a PCDPM or AC transformer. Like the DSS/BLF Unit, these buttons contain lamps that light or flash depending on the status of a station or the button's programming. For details about the lamps, see the previous section.

NOTE: Version 7.0 or later software is required to use the Mini-DSS.

IP AND SIP DEVICES

Devices using Axxess IP and Session Initiation Protocol (SIP) allow users to communicate using the Local Area Network (LAN) and the telephone system. The telephone system supports the following IP and SIP devices:

- Model 8000 Multi-Protocol Endpoints

- Model 8664 and 8665 Wireless IP Endpoints

- Model 8601 Softphone for Pocket PC

- Model 8660 IP Phone

- IP PhonePlus

- IP Single-Line Adapter (SLA)

- IP SoftPhone

As of V8.1, IP and SIP calls can be routed through the system cabinet or they can be configured as members of the same Network Group. If the devices are routed through the system cabinet, they terminate at the 32-Device Internet Protocol Resource Card (IPRC) (see page 74). If the devices are configured to be members of a Network Group, they can use the peer-to-peer (P2P) audio feature (see page 105).

IP and SIP Phone Identification

At first glance, IP and SIP phones look nearly identical to digital phones. Additional ports on the back of the phone, used for LAN and power connections, identify a phone as an IP or SIP phone. IP and SIP phones operate like digital phones installed on the system except for the limitations listed below.

The IP SLA operates like a standard single-line set except for the limitations listed below.

Installation and Configuration

To install and configure IP and SIP devices, you must know the required network settings and be familiar with the associated hardware and software. For installation and configuration information for all IP and SIP devices, refer to the latest *IP Devices Installation and Configuration Manual*.

IP Limitations

Currently, IP devices (SIP and Axxess IP) have the following limitations:

- They do not have a secondary voice path and cannot support off-hook voice announce (OHVA).

- They do not support the enhanced speakerphone mode feature.

- They cannot use a PCDPM or MDPM.

- They do not support the DSS/BLF units.

- They do not support Desktop Open Architecture Interface (OAI) applications.

- While using peer-to-peer (P2P) audio, SIP and IP devices do not support the Agent Help, Record-A-Call, and Station Monitor features.

IP SoftPhone

The IP SoftPhone allows you to make and receive phone calls on a PC. This application uses the Executive Display Phone graphical user interface (GUI), and audio is handled by the PC's microphone and speakers. The IP SoftPhone functions like an Executive Display Phone installed directly on the system except for the IP limitations listed above. The IP SoftPhone terminates on an IP Card (IPC) or an IPRC (firmware V8.0 and earlier) in the system cabinet.

NOTE: The IP SoftPhone does not support V8.1 and later firmware or P2P audio.

Model 8690

The Model 8690 is an advanced IP phone that has an LCD touch screen that displays a telephone interface. A stylus pen provides access to elements on the interface, which include a dialpad, feature buttons, menu buttons and navigation buttons. The Model 8690 can operate in SIP mode or Axxess IP mode (see). This phone uses a customized version of Microsoft® Windows CE.NET V4.2, and includes ports and connectors for optional hardware and memory cards.

Network Connection

The LAN/PWR jack on the back of the Model 8690 phone provides access to the network and to the SIP and Unified Communicator® (UC) servers. SIP Server is a standards-based, SIP proxy server that allows SIP-enabled devices and applications to communicate with the phone system. Unified Communicator (UC) is a productivity tool designed to help stationary and mobile users manage their communication effectively. For detailed information about SIP Server and UC, see the latest versions of the *SIP Server* and *Unified Communicator® Installation and Configuration Manuals*.

In addition to the LAN/PWR jack, the phone has additional ports and connectors for adding memory cards and connecting optional hardware. For information about using the ports and connections on the back of the phone, see the latest version of the *IP Devices Installation and Configuration Manual.*

Optional USB Connections

To connect a standard USB keyboard to the Model 8690 Phone, use the USB client port on the back of the phone. The operating system will automatically detect the device when the phone is powered on. You can configure the keyboard properties under Start - Settings - Control Panel - Keyboard.

The USB client port can also be used to connect a mouse. To connect both a mouse and a keyboard to the phone, connect the mouse to the keyboard, and then connect the keyboard to the USB client port on the phone. The operating system recognizes all daisy-chained USB devices. You can configure mouse properties under Start - Settings - Control Panel - Mouse.

Microsoft® Windows CE.NET Operating System

The operating system on the Model 8690 Phone is a customized version of Windows CE.NET. When you first power up the Model 8690 Phone, the screen remains blank for approximately 10 seconds. After this period, the Windows CE.NET desktop appears, followed by the Loading Application Appearance dialog box. This dialog box signals that the telephone application is launching. Once it has launched, the telephone interface covers the entire desktop except the taskbar.

To minimize the telephone interface and access the desktop area of the screen, press the telephone icon or the Show Desktop icon located on the task bar as shown below. The phone interface is minimized, and you have access to the desktop. To restore the phone interface, press either icon again.

Telephone Application Icon   Taskbar   Show Desktop Icon

The version of Windows CE.NET running on the Model 8690 Phone has been customized specifically for the phone. This version is different from Windows PC operating systems and Windows handheld/mobile device operating systems. When using Windows CE.NET, users may notice the following differences:

- The Windows Viewer applications that are included in the operating system do not have the full functionality that their counterparts do on Windows PC operating systems. These applications include Word, Excel, PowerPoint, Media Player, and Internet Explorer.

- A range of applications, tools, and functionality normally included in PC operating systems, such as Microsoft Outlook, administrator tools, fonts, etc., are not included with Windows CE.NET.

- Some applications will not work with Windows CE.NET. Before running an application, make sure it is compatible with Windows CE.NET.

- Because Windows CE.NET has limited RAM available for executing programs, users may experience much slower processing times than they are accustomed to on their desktop PC.

NOTE: The Help for Windows CE.NET is provided by Microsoft, and it is available on the Start menu. To view the Help for Windows you must minimize the telephone application. Because the operating system for the Model 8690 has been customized, certain options that are mentioned in the Help may not be available on the phone.

Backlight

If the phone remains idle for several minutes, the backlight on the screen will time out and the screen will go dark. To "wake" the screen, either lift the handset or touch the screen. The instructions below explain how to change the timeout value for the backlight.

TO CHANGE THE DEFAULT VALUE FOR THE BACKLIGHT TIMEOUT:

1. Press Start - Settings - **Control Panel**.
2. Double-press **Display**.
3. Select the Backlight tab.
4. Select the **Automatically turn off backlight while on external power** option.
5. Select the amount of time you want the phone to remain idle before the backlight turns off. Timeout choices include:
   - 2 minutes
   - 5 minutes (default)
   - 10 minutes
   - 15 minutes
   - 30 minutes
6. Press **OK**.

Input Panel

Windows CE.NET. includes an on-screen keyboard function called the Input Panel. To access the Input Panel, press the Input Panel icon located in the far right corner of the taskbar. Then select **LargeKB** (large keyboard). To relocate the Input Panel, press the title bar with the stylus and drag it to another area of the screen. To hide the Input Panel, press the Input Panel icon and then press **Hide Input Panel**. When a feature requires the user to enter characters, the Input Panel pops to the front of the screen. If you connect an external keyboard to your phone, it is recommended that you disable the Input Panel.

TO DISABLE THE INPUT PANEL:

1. Press Start - Settings - **Control Panel**.
2. Double-press **Input Panel**.
3. Disable the **Allow applications to change the input panel state** option.
4. Press **OK**.
5. Save the registry (see) and reset the phone.

System Memory and Storage

The Model 8690 Phone ships with 128 MB of RAM and 64 MB of flash RAM. The telephone application is pre-loaded on the device, with approximately 5 MB of RAM available to the user.

CAUTION
The Model 8690 Phone does not have a built-in hard drive. **Storage memory will not survive a reset or an upgrade to the operating system unless the files are stored in the Mounted Volume folder on the phone (My Computer\Mounted Volume) or on a host that is accessible from the Model 8690 Phone.** Desktop shortcuts and any preferences that have not been saved in the registry (including UC preferences) will be lost if you upgrade the operating system or if the phone resets.

You can view the available amount of system memory using the System Properties dialog box. System memory is divided into Storage Memory (see caution above) and Program Memory. Program Memory is used for executing programs.

TO VIEW SYSTEM MEMORY:

1. Press Start - Settings - **Control Panel**.
2. Double-press **System**.
3. Select the Memory tab.

NOTE: While using the Memory tab, you can re-assign the system memory. Do not perform this procedure unless directed to do so by service personnel.

Storage Manager

Prior to shipment the Model 8690 Phone's available 8MB of space is formatted and partitioned using the **Storage Manager** (Start\Settings\Control Panel). When the 8MB of space is formatted, the **Mounted Volume** folder is created. This folder is the only location on the phone where data and files persist across power loss and resets. The Model 8690 phone application and its associated files reside in the Mounted Volume folder.

NOTE: While using the Storage Manager, you can reformat the file system. Do not perform this procedure unless directed to do so by service personnel.

System Registry

The information stored in the Windows CE registry is not accessible. The registry contains a number of settings and preferences that are saved in two separate locations for backup purposes.

If the phone loses power during a registry update, the registry will be destroyed. However, the last saved version of the registry can be recovered upon reboot. To safeguard registry settings, it is recommended that you save the registry after you make changes to preferences and before you power down the phone.

TO SAVE REGISTRY SETTINGS:

1. Press Start - Programs - **Save Registry**.

2. Press **Yes**.

When the "Registry Saved Successfully" message appears, press **OK**. It is now safe to power down the phone.

NOTE: The Windows file includes an executable file you can use to delete and reset the registry. Do not perform this procedure unless directed to do so by service personnel.

TO DELETE AND RESET THE REGISTRY:

1. From the desktop, navigate to My Computer**Windows**.

2. Double-press **DeleteReg.exe** to run the executable.

3. Immediately reset the phone by removing and then replacing the ethernet cable from the LAN/PWR jack on the back of the phone.

Audio

The telephone application's audio feature has priority over the operating system's audio feature. For example, if you are running Windows Media Player to play music and your phone receives a call, the audio for Media Player is cut off and audio output switches to the phone call. When the call ends, audio is switched back to Media Player. You can configure audio properties under Start - Settings - Control Panel - Volume & Sounds.

MGCP Gateway and Endpoints

The system also supports IP-based solutions for providing local Public Switched Telephone Network (PSTN) connectivity using the IPRC and a third-party Media Gateway Control Protocol (MGCP) device. For information about currently supported MGCP devices, contact your local authorized Inter-Tel dealer.

CAUTION

If an IP or SIP device user dials 911 from a remote location and an MGCP gateway is not present and configured properly, the call will be placed from where the telephone system is located. Because 911 services use Caller ID to help locate the caller, emergency service could be misdirected or delayed. Also, the 911 service contacted may be local to the system, but not to the IP or SIP device. All IP and SIP device users should be alerted to this situation and instructed to use a local telephone line for placing emergency calls if an MGCP gateway is not present and/or functioning properly. Also note that IP and SIP devices will not function in the event of a power failure at either the local site or the system location. Inter-Tel will not be held responsible for any problems resulting from an unavailable line that is connected to the MGCP gateway. Inter-Tel also recommends that users regularly test the MGCP gateway for dial tone.

Peer-to-Peer Audio for IP and SIP Devices

The P2P audio feature, available in software V8.1 and later, allows certain IP and SIP devices to transmit and receive audio directly with each other rather than through the system cabinet. The P2P feature reduces delay and packet loss for IP and SIP devices.

Devices that support P2P audio include:

- AudioCodes™ MP-104 MGCP gateway and associated endpoints

- IP phones, except the IP SoftPhone

- Multi-Protocol endpoints

- SIP endpoints

To use P2P, the IPRC and the IP and/or SIP devices must be upgraded with V8.1 firmware. In addition, the devices must be programmed as members of the same Network Group. Calls between IP and SIP devices that are members of separate Network Groups are routed through the cabinet and do not use P2P.

Version 8.1 supports a Network Group Diagnostics feature that allows an administrator to verify that the Network Groups are programmed properly. See page 42 for instructions on how to use the Network Group Diagnostics feature.

IP devices that use P2P audio do not use cabinet resources when they are connected in a P2P call. Therefore, the following features will not work during a P2P call:

- Agent Help

- Record-A-Call

- Station Monitor

NOTICE

Passing real-time streaming data, such as audio, through encrypted virtual private networks (VPNs) may significantly impact the network performance, router and firewall functionality, and audio quality.

Axxess IP and SIP Operating Modes

The Model 8000 Multi-Protocol Endpoints have the ability to operate in Axxess IP mode or Session Initiation Protocol (SIP) mode.

Axxess IP mode supports nearly all of the system features except for the limitations listed above. SIP mode offers basic phone features and the flexibility of shared extensions, which means you can use one extension with up to five different devices on the telephone and voice mail systems.

SIP Default Feature Codes

The following table lists the default feature codes for features supported in SIP mode..

FEATURE NAME	FEATURE CODE	FEATURE NAME	FEATURE CODE
Answer (Ringing Call)	351	Headset On/Off	317
Call Forward All Calls	355	Hold – Individual	336
Conference	5	Microphone Mute On/Off	314
Do-Not-Disturb	370	Redial	380
Do-Not-Disturb Cancel	371	Redirect Call	331
Do-Not-Disturb On/Off	372	Reverse Transfer (Call Pick-Up)	4
Group Listen	312	Ring Tone Selection	398
Headset On	315	Transfer To Ring	345
Headset Off	316		

Axxess IP Default Feature Codes

The following table lists the default feature codes for features supported in Axxess IP mode.

FEATURE NAME	FEATURE CODE	FEATURE NAME	FEATURE CODE
Account Code – Following Calls	391	Hunt Group Remove	322
Account Code – Optional	390	Hunt Group Replace	323
ACD Agent Log In	326	Hunt Group Remove/Replace	324
ACD Agent Log Out	327	LCD Contrast Control	303
ACD Agent Log In/Out	328	Message	365
ACD Agent Wrap-Up Terminate	329	Message – Cancel Message Left	366
Agent Help Request	375	Message – Cancel Message On Phone	368
Agent Help Reject	376	Message – Silent Message	367
Answer (Ringing Call)	351	Microphone Mute On/Off	314
Automatic Intercom Access On/Off	361	Page	7
Automatic Line Access On/Off	360	Page Receive On/Off	325
Automatic Line Answer	350	Program Buttons	397
Background Music On/Off	313	Program Station Password	392
Call Forward All Calls	355	Queue (Callback) Request	6
Call Forward If Busy	357	Record-A-Call	385
Call Forward If No Answer	356	Redial	380
Call Forward No Answer/Busy	358	Redirect Call	331
Conference	5	Reminder Message	305
Default Station	394	Reminder Message Cancel	306
Directory	307	Remote Programming	359
Display Time And Date	300	Reverse Transfer (Call Pick-Up)	4
Do-Not-Disturb	370	Review Buttons	396
Do-Not-Disturb Cancel	371	Ring Intercom Always On/Off	377
Do-Not-Disturb On/Off	372	Ring Tone Selection	398
Do-Not-Disturb Override	373	Routing Off	304
Feature Button Default	395	Station Speed Dial	382
Group Listen	312	Station Speed-Dial Programming	383
Handsfree On/Off	319	System Forward Enable	352
Headset On	315	System Forward Disable	353
Headset Off	316	System Forward On/Off	354
Headset On/Off	317	System Speed Dial	381
Hold – Individual	336	Switch Keymap	399
Hold – System	335	Transfer To Hold	346
Hookflash	330	Transfer To Ring	345

For more information about operating modes and IP Devices, see the latest version of the *IP Devices Installation and Configuration Manual*.

Power Supplies

Each SIP and IP device must use a compatible power supply. Because there are so many power supply options, it is strongly recommended that you refer to the IP Devices Power Supply Matrix located in the *IP Devices Installation Manual* when selecting a power supply for the IP or SIP device.

IP Troubleshooting

The following table lists some possible errors that you may encounter when programming or using IP or SIP devices. For detailed troubleshooting information, see the latest version of the *IP Devices Installation and Configuration Manual*.

Problem	Probable Cause	Solution
IP/SIP Phone displays VOIP RESOURCE IS UNAVAIL-ABLE	The number of programmed IP devices exceeds the number of available voice channels, and all programmed voice channels are in use.	Make sure all available voice channels are set to VoIP. If necessary, consider adding another IPRC or a daughter card.
A call was established between two IP/SIP phones, but there is no audio.	The IP phones are pro-grammed for P2P audio, but they do not support the same vocoder.	Remove the IP devices from the Network Group. Consider adding them to a Network Group that contains IP devices that support the vocoder.
	The IP phones are pro-grammed for P2P audio, but they do not support the same number of audio frames per IP packet.	Remove the IP devices from the Network Group. Consider adding them to a Network Group that contains IP devices that support the same number of audio frames per IP packet.
A call was established, but the device cannot send DTMF digits.	The IP phones are pro-grammed for P2P audio, but they do not support the same DTMF encoding setting.	Remove the IP devices from the Network Group. Consider adding them to a Network Group that contains IP devices that support the same DTMF encoding setting.

OPTIONAL SYSTEM EQUIPMENT

The following optional equipment can be purchased and installed with the Inter-Tel system. Complete specifications and installation instructions are provided in the Inter-Tel *Axxess Installation and Maintenance Manual*.

Voice Processor: Provides multi-port integrated voice processing features (voice mail, automated attendant, hunt group announcement and overflow, SMDR storage, Record-A-Call, etc.) The Voice Processor is available with Windows NT and OS/2. The NT version is required for the Unified Messaging and Fax Recognition features.

Attendant Console: Allows attendants to use their personal computers (PCs) to answer and manage incoming call traffic. It is primarily designed for use by attendants of larger systems - those systems with so many stations that using DSS/BLF Units is not practical. However, due to its enhanced functionality, including electronic text messaging and directory dialing, the Attendant Console is an attractive option for smaller systems as well.

Inside Track: Provides the ability to create customized call management and accounting reports from the system's SMDR data. The reports can be used to manage calling costs, analyze system traffic, and track employee productivity. If a Voice Processor is not used, an optional PollCat (Pollable Call Accounting Terminal) call record buffer box is also required.

Optional DSP resources: One or more Options Cards may be installed to provide the system with additional Digital Signal Processor (DSP) resources including Caller ID receivers, shared speakerphones (standard or enhanced) for Basic Digital, Standard Display, Model 8500, Model 8520, and Model 8560 Phones, additional conferencing circuits, and additional DTMF receivers.

External music sources: External music sources (radios, tape players, etc.) can be connected to the system to provide music-on-hold and background music.

External paging speaker equipment: An amplifier and speakers can be connected to the system to provide external paging and background music to large areas, such as warehouses, loading docks, etc.

SMDR and error message recording output devices: Output devices can be connected to record the data generated by the Station Message Detail Recording (SMDR) and error message recording features. The device can be a printer, magnetic tape, floppy disk, etc.

Surge/spike protector: A surge/spike protector should be installed to reduce the effects of AC voltage surges and spikes that may cause system malfunctions, false logic, and/or damage to the electronic components.

System battery back-up: To provide back-up power in the event of an AC power failure or brownout condition, the system power supply can have optional battery back-up using an uninterruptable power supply (UPS) unit or a standby power supply (SPS) unit.

Facsimile (FAX) machine: A FAX machine may be connected to an available single-line circuit.

Off-premises stations: Single-line DTMF sets can be connected to the system from a remote location. The connection is made through a telephone company OPX circuit or a customer-provided trunk.

Playback devices: A playback device (answering machine) can be used in place of the Voice Processor interface to help process calls. The device answers a call, plays a message, then disconnects from the call (or transfers it to a hunt group) to allow the caller access to other system resources.

Power failure transfer equipment: Power failure transfer equipment can be installed to connect one or more single-line sets to predetermined trunks during a power or system failure.

Night transfer equipment: Night transfer equipment can be installed to turn on or off lights, an alarm system, or other devices.

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INTRODUCTION

The Inter-Tel system, in addition to its sleek, modular appearance and easy installation and programming, provides many user-friendly features. To describe the system features, this chapter has been divided into the following sections:

- **Access to the Features:** This section contains a list of the feature codes and their definitions.

- **System Organization:** This section describes possible administrator assignments, attendant arrangements, and hunt groups (including UCD and ACD hunt groups).

- **Trunk Features:** This section explains the trunk functions and programmable features, including: dual-tone multi-frequency (DTMF) or dial-pulse signaling; types of trunks (loop start, ground start, T1, T1/PRI, T1/E&M, DID); Caller ID, DNIS, and ANI; trunk groups; outgoing access, allowed-answer, and ring-in assignments; call routing tables; day and night modes of operation; automatic route selection (ARS); trunk and toll restriction; area/office code number plans; emergency calls; and direct inward system access (DISA).

- **Station Instruments:** This section describes the station instruments of the system. Available station instruments include digital and analog phones, single-line sets, and Direct Station Selection/Busy Lamp Field (DSS/BLF) Units.

- **Intercom, Outside, and General Call Processing Features:** Several sections explain the use of the station features that are available to all station users, including intercom call features, outside call features, and general call processing features.

- **Attendant Features:** This section explains the special attendant-only features and the use of the DSS/BLF Unit.

- **Administrator Features:** This section explains the special administrator-only features.

- **Record Keeping and Maintenance Features:** For record keeping purposes, the system offers station message detail recording (SMDR). A system error reporting feature provides self-diagnostic information to make the system easier to service.

ACCESS TO THE FEATURES

Inter-Tel phones have feature buttons that allow one-button dialing of feature codes. Information is programmed in the database to determine the arrangement of the feature buttons and their default values. If desired, some of the phone feature buttons can be designated as user-programmable buttons. See page 167 for more information.

SPECIAL BUTTON AND HOOKFLASH

Depending on the feature and system programming, users can either enter feature codes immediately after lifting the handset or while on hook, or they must signal the system before entering the feature code. Inter-Tel phone users signal the system by pressing the Special button (which is represented by ▮ ∞ ▮ on the phone). Single-line DTMF set users perform a hookflash (press and release the hookswitch quickly). If the user does not enter a code or begin dialing before the Dial Initiation timer expires, the system sends reorder tones.

MESSAGE LAMP

Model 8500, 8520, and 8560 Phones have a Message Lamp located on the upper, right-hand corner of the phone. This lamp is programmable and is defaulted to the Message feature code (365). If you change the feature code associated with this lamp, it will flash when the feature is active. For example, if you program the lamp for Individual Hold (336), the lamp will flash when a call is held at the station.

NOTE: Version 7.0 or later system software is required to support the Message Lamp.

SPEAKER BUTTONS

On all Inter-Tel phones (except the Model 8000 Series phones) handsfree mode is controlled by a Speaker (**SPKR**) button. On the Model 8500, 8520, and 8560 Phones, an illustration of a speaker (🔊) represents the Speaker button.

HOLD BUTTONS

On all Inter-Tel phones (except the Model 8000 Series phones) the Hold feature is controlled by a Hold (**HOLD**) button. On the Model 8500, 8520, and 8560 Phones, the international hold illustration (⏾) represents the Hold button.

"HOT" DIALPAD BUTTONS VS. "SPCL KEY REQUIRED FOR FEATURE CODE ENTRY" FLAG

Unless programmed to use the Special button when entering a feature code, all Inter-Tel phones have "hot" dialpad buttons that allow dialing of feature codes, extension numbers, and trunk access codes without pressing the Special button or lifting the handset. As soon as a dial-pad digit is pressed, the digit is recognized by the system.

There is a system-wide option called "SPCL Key Required For Feature Code Entry" that, if enabled, it requires Inter-Tel phone users to always press the Special button before entering a feature code.

Regardless of programming, if an Inter-Tel phone user presses the Special button while on hook, the display shows ENTER FEATURE CODE, and the Executive Display, Professional Display, or Model 8560 Phone menu shows a list of feature codes. The user can enter the desired code or press a menu button.

FEATURE CODES

Each of the station features is assigned a feature code. Using the station's dialpad, these codes are entered to select trunks, process calls, and use special features. Complete explanations of the features and instructions for using them begin on the next page.

The codes shown on the following pages are the values that are assigned when the system is in the default state. If desired, they can be changed in Database Programming to any one- to five-digit value.

CAUTION
Changing a feature code may affect the accessibility of other features.

TRUNK ACCESS CODES

These feature codes are used for selecting trunks when placing outgoing calls.

FEATURE NAME	CODE	DEFINITION
Automatic Route Selection (ARS)	92000*	Allows the system to select the desired route for placing a call, as programmed in the database. *The ARS premium feature is required.*
Trunk Group Access 1-208	92001-92208*	Selects an available trunk from a programmed group of trunks for placing an outside call.
Emergency Calls	911	Entering this feature code selects an outgoing trunk and automatically dials the programmed emergency number (defaults to Trunk Group 1 and 911).
Outgoing Call	8	Selects an outgoing trunk according to the programmed outgoing access mode for that station. (Inter-Tel phones use the OUTGOING button or a Call button.)

* These feature codes may differ depending on the software version.

STATION FEATURE CODES

The following pages list the general feature codes. When a default feature button can be used in place of the feature code, it is indicated at the end of the explanation. Refer to page 84 for a listing of the default phone feature buttons.

FEATURE NAME	CODE	DEFINITION
Account Code – All Calls Following	391	Allows the station user to enter a forced or optional account code that will apply to all calls following the entry of this feature code and will appear in the SMDR. To disable the All Calls Following feature, the feature code is entered again without an account code.
Account Code – Optional	390	Allows the station user to enter an optional account code for SMDR reports during an outside call.
ACD Agent Login ACD Agent Logout ACD Agent Login/Logout Toggle	326 327 328	These feature codes allow an ACD hunt group member (agent) to log into and out of the ACD hunt group(s). The agent will only receive calls through the ACD hunt group(s) while logged in.
ACD Agent Wrap-Up Terminate	329	When an ACD agent completes a call, no other ACD hunt group call will ring at the station until the ACD Wrap-Up Timer expires or the agent enters this feature code to terminate the wrap-up session.
Agent Help	375	The Agent Help feature allows a station user to request help from a designated "Agent Help Extension" during a two- or three-party call.
Agent Help Reject	376	When a request-for-help call rings, the Agent Help Extension can choose to join the call or enter this feature code to reject the request.
Answer (Ringing Call)	351	Answers the call that has been ringing or holding the longest at that station. Refer to page 151 for the priority list. (Inter-Tel phones use the ANSWER button.)

FEATURE NAME	CODE	DEFINITION (Continued)
Automatic CO Access On/Off	360	*(Inter-Tel Phones Only)* Allows the phone user to determine how ringing outside calls will be answered: simply by lifting the handset or pressing the Speaker button (automatic answer), or by lifting the handset or pressing the Speaker button and pressing a Call button, individual trunk button or the ANSWER button.
Automatic IC Access On/Off	361	*(Inter-Tel Phones Only)* Allows the phone user to determine how ringing intercom calls will be answered: simply by lifting the handset (automatic answer), or by lifting the handset and pressing the IC button (or a Call button, if there is no IC button).
Automatic Trunk Answer	350	Using this feature code, station users with allowed answer can pick up trunks that are ringing into the system, but that are not actually ringing at their stations. This feature does not pick up transferred calls or recalls that are ringing at the station.
Background Music On/Off	313	*(Inter-Tel Phones Only)* Turns on and off background music heard through the phone speaker. (Analog phones have a default MUSIC button.)
Call Forward All Calls	355	Immediately forwards all calls to another station or to an outside telephone number. (Inter-Tel phones use the FWD button.)
Call Forward If Busy	357	Immediately forwards all calls to another station or to an outside telephone number when the station is in use.
Call Forward If No Answer	356	Forwards all calls to another station or to an outside telephone number if not answered within a predetermined time.
Call Forward If No Answer/Busy	358	Forwards all calls to another station or to an outside telephone number if not answered within a predetermined amount of time, or immediately if the station is in use.
Change Language	301	A station user can change the assigned language for the station by entering the Change Language feature code while the station is idle.
CO Hookflash	330	Sends a timed hookflash over the trunk while on an outside call (includes conference calls).
Conference	5	Connects from three to four parties in a conference. A conference consists of any combination of inside and outside parties. (Inter-Tel phones use the CNF button.)
Data	340	*(Inter-Tel Phones Only)* Allows operation of a data device attached to a phone that has a PC Data Port Module and a Modem Data Port Module (also requires a modem-equipped data device). (Analog phones have a default DATA button.)
Default Station	394	This single feature code cancels account codes for all calls following, Do-Not-Disturb, manual call forwarding, background music, ring intercom always, and queue requests; restores handsfree mode, pages, hunt group calls, and system forwarding; and returns phone volumes to default values.

FEATURE NAME	CODE	DEFINITION (Continued)
Directory	307	*(Display Phones Only)* Allows display phone users to search for extension numbers or system speed-dial numbers. The number can then be dialed, if desired. *The Directories premium feature is required.*
Display Outside Party Name On/Off	379	*(Display Phones Only)* When the phone user enters this feature code, while connected to a CO call that has outside party name information, the display will toggle between the caller's name and number. If there is no outside party name or the Expanded CO Call Information On Displays flag is disabled, the user will hear a burst of reorder tone and see the CANNOT ACCESS FEATURE display. If the Display Outside Party Name On/Off feature code is programmed in a user programmable button with a lamp, the lamp will be lit when the outside party name is enabled and off when the outside party number is enabled.
Display Time/Date	300	*(Display Phones Only)* Temporarily displays the system date and time, username, and extension number during a call or when other displays are shown. **NOTE:** Feature code 300 displays the IP Address of an endpoint if it is in SIP mode (see page 105).
Do-Not-Disturb Do-Not-Disturb Cancel Do-Not-Disturb On/Off	370 371 372	The Do-Not-Disturb feature code halts all intercom calls, transferred calls, and pages to the station. The Cancel code returns the station to normal operation. The on/off code can be used to turn Do-Not-Disturb on or off. (Inter-Tel phones use the DND button.)
Do-Not-Disturb Override	373	*(Inter-Tel Phones Only)* If enabled in the database, allows the phone user to break through another station's Do-Not-Disturb mode when placing an intercom call
Enhanced Speakerphone Enable	310	*(Digital Phones Only)* When entered at a Digital Phone station, this feature code enables the enhanced speakerphone as described on page 76. (Digital Phones can also use the Special button + Speaker buttons.)
Feature Key Default	395	*(Inter-Tel Phones Only)* Phones have user-programmable feature buttons that can be set to enter feature codes. This code returns the user-programmable buttons to the database default values.
Group Listen	312	*(Inter-Tel Phones Only)* Allows a user to transmit a conversation over the phone speaker while in handset or headset mode
Handsfree On/Off	319	*(Inter-Tel Phones Only)* Disables/enables the phone's handsfree intercom answering. Incoming intercom calls ring as private calls if handsfree answering is disabled.
Headset Enable Headset Disable Headset On/Off	315 316 317	*(Inter-Tel Phones Only)* The enable code signals the system that a headset has been connected to the phone. The disable code returns the phone to normal operation. The on/off feature code can be used to toggle the feature on or off.

FEATURE NAME	CODE	DEFINITION (Continued)
Hold – Individual	336	Places a call on hold so that it can be picked up directly at that station or through a reverse transfer from any other station. (Inter-Tel phones use the HOLD button.)
Hold – System	335	Places an outside call on system hold. It can be picked up directly at any phone that has an individual trunk button and has allowed-answer and/or outgoing access for that trunk, or by the station that placed it on hold. (If used on conference or intercom calls, the system places the call on individual hold.)
Hunt Group Remove Hunt Group Replace Hunt Group Remove/Replace	322 323 324	Removes the station from its assigned hunt group(s) or places it in again. Does not affect non-hunt group calls. The remove/replace feature code can be used to toggle the feature.
LCD Contrast Adjustment	303	*(Model 8000 Display Phones Only)* Adjusts the LCD contrast on the display. The phone must be idle to use this feature.
Message	365	This feature code is used for leaving and retrieving a message waiting indication at a called station or the called station's message center. Depending on how the message was left, the called station user either retrieves the message from his/her message center or from the station that left the message. (Inter-Tel phones use the MSG button.)
Message – Cancel	366	Allows the station user to cancel a message waiting indication that he or she left at another station.
Message – Cancel Current	368	Cancels a message waiting indication that is waiting at the station without requiring the user to respond to it. (Inter-Tel phones can use the asterisk [*] button while viewing the message.)
Message – Silent	367	Leaves a message waiting indication at a station without first placing an intercom call. (This is the code that should be used by analog voice mail units connected to the system.)
Mute On/Off	314	*(Inter-Tel Phones Only)* Turns the microphone on or off during a call. If muted, the phone user can hear the other party, but the party cannot hear the phone user. (Inter-Tel phones can also use the MUTE button.)
Page	7	When followed by a paging zone code (0-9 or 0-49), it allows announcements to be made through phone speakers and any external paging speakers in the page zone. (Analog phones have a default PAGE button.)
Page On/Off	325	*(Inter-Tel Phones Only)* Halts pages through the phone speaker or allows them to be received again.
Program Bit Rate	393	*(Model 8560, Executive Display, Professional Display, Model 8520, Standard Display, and Associate Display Phones Only)* This allows a user to change the bit per second (bps) rate of an attached PCDPM's serial port.
Program Keys	397	*(Inter-Tel Phones Only)* User-programmable feature buttons and station speed-dial buttons can be programmed using this feature code.

FEATURE NAME	CODE	DEFINITION (Continued)
Program Station Password	392	The Station password is used for the Remote Programming feature. The password can be changed by entering the Program Station Password feature code at the station or when using the Remote Programming feature.
Queue Request	6	Requests (or cancels) an automatic callback when a busy trunk or station becomes available. (Analog phones have a default QUEUE button.)
Record-A-Call	385	If the system is programmed with a Record-A-Call application, the stations can be programmed to use the Record-A-Call feature. It allows users to enter a feature code whenever they want to record an ongoing call in their designated Record-A-Call mailbox. Users can retrieve the recorded messages later, just as they would any other mailbox messages.
Redial	380	Redials the last outside telephone number dialed or saved at the station (up to 48 digits). Also used to save numbers at phones programmed for last number saved. (Inter-Tel phones use the REDIAL button.)
Redirect Call	331	This feature allows the phone user to route ringing outside, intercom, and camped on calls to another station, hunt group, or outside number. Routing of the redirected call is still subject to trunk and toll restrictions. This feature provides these options in addition to the currently available options which allow the station user to redirect calls to voice mail or Do-Not-Disturb. The Redirect Ringing Call feature does not require any premium features.
Reminder Message Reminder Message Cancel	305 306	*(Inter-Tel Phones Only)* The phone user can set reminder messages that signal the station at specific times. Or, the user can cancel all reminder messages for the station.
Remote Programming	359	Allows a user to place a phone in Do-Not-Disturb mode or forward the station's calls, either from another station or through DISA.
Reverse Transfer (Call Pick-Up)	4	Picks up a call ringing or holding at a station or hunt group
Review Keys	396	*(Inter-Tel Phones Only)* User-programmable feature buttons and station speed-dial buttons can be viewed using this feature code.
Ring Intercom Always On/Off	377	Enables/disables the feature that allows the station to always place private (non-handsfree) intercom calls.
Ring Tone Selection	398	*(Inter-Tel Phones Only)* Selects the type of ringing alert tone that will be heard from the phone.
Routing Off	304	Disables System OAI Offering Control for third-party applications. (This feature requires you to enter a password.) Once you disable routing, you cannot enable it again (i.e., only the third-party application can enable routing).
Station Monitor	321	*(Hunt Group Supervisors Only)* Allows a designated hunt group supervisor to monitor a call of anyone in the associated hunt group.

FEATURE NAME	CODE	DEFINITION (Continued)
Station Speed Dial Station Speed Dial Programming	382 383	Dials/programs one of the 10 station speed-dial numbers when followed by a location code (0-9). (Inter-Tel phones use the Station Speed Dial button plus a location code for programming and dialing, or they can program speed-dial buttons for one-button dialing.)
Switch Keymap	399	*(Inter-Tel Phones Only)* This allows a phone user to switch between standard and alternate keymaps.
System Forward Enable System Forward Disable System Forward On/Off	352 353 354	Enables or disables the database-programmed System Forwarding feature for this station. The on/off feature code can be used to toggle the feature on or off. *The System Forwarding premium feature is required.*
System Speed Dial	381	Dials one of the 1000 system speed-dial telephone numbers when followed by a location code (000-999). Also used for reviewing system speed-dial numbers. (Inter-Tel phones use the SYS SPD button.)
Transfer to Hold	346	Transfers a call to another station and places it on individual hold so that it does not ring or send call waiting signals until it recalls.
Transfer to Ring	345	Transfers a call to another station or to an outside telephone number. (Inter-Tel phones use the TRANSFER button.)

ADMINISTRATOR FEATURE CODES

The following feature codes may be used only at designated administrator stations. Non-administrator station users hear reorder tones if they attempt to use these feature codes.

FEATURE NAME	CODE	DEFINITION
Clear Network Alarm	9851	Clears network-wide alarms on every node in the network, but will not affect system alarms. The Clear Network Alarm feature code may be entered on any node in the network, but the Send Network Alarms flag must be set for the administrator to clear alarms on other nodes in the network.
Clear System Alarm	9850	Clears all local and network-wide system alarm displays on your node.
Compression On/Off	9962	Compresses call processing messages sent to Database Programming, speeding up transfers. You should not disable this feature unless instructed to do so by Inter-Tel personnel.
Compression Statistics	9961	Dumps various statistics related to the Database Programming compression algorithm. This feature should be used only when directed to do so by Inter-Tel personnel.
Diagnostics On/Off	9900	Enables or disables system diagnostics mode to perform diagnostics functions such as freezing/unfreezing the database, printing message logs, and seizing a device for troubleshooting purposes. **NOTE:** Because diagnostics mode affects system performance, it is recommended that you run the diagnostics program when the system is idle.
Enable Network Day	9862	Places any or all remote nodes into day mode (you are prompted for the node number).
Enable Network Night	9861	Places any or all remote nodes into night mode (you are prompted for the node number).
Modem Enable	9866	Enables a local or off-node modem in the system using the modem's assigned extension.
Modem Disable	9867	Disables a local or off-node modem in the system using the modem's assigned extension.
Modem Reset	9869	Resets a local or off-node modem if the modem is unable to answer an incoming call or sync-up with the external modem.
Night Ring On/Off	9860	Places system in night mode or cancels night mode. While in night mode, the night toll and trunk restriction lists are used and the night transfer relays on the OPC are activated.
Program Database	9932	Can be used for programming station, system, and trunk parameters.

FEATURE NAME	CODE	DEFINITION
Program System Speed Dial	9801	Programs system-wide speed-dial numbers when followed by location codes (000-999).
Set Network Date/Time	9810	Programs the time and date for all nodes in the system. (Local time and date can also be reset by individual nodes.)
Set Time/Date	9800	Programs system time and date
Synchronize Network Time	9811	Synchronizes the minutes past the hour across the network. **NOTE:** If a node's time is off by more than 30 minutes, synchronizing the minutes may cause the hour to change. Also, network time is automatically synchronized every day at 12:30 AM (00:30), using the time setting on the node with the lowest number.

The Diagnostics Mode feature code (9900) must be entered at the administrator's station to enable system diagnostic mode before these feature codes can be used:

FEATURE NAME	CODE	DEFINITION
Diagnostic - ASAI Snoop Off	9926	This feature code turns off the ASAI output to Message Print. ASAI is the protocol the system uses to talk to Database Programming and the AVDAP. Turning this feature on helps the Inter-Tel Engineers debug the messaging between Call Processing and Database Programming or Call Processing and the AVDAP.
Diagnostic - ASAI Snoop On	9927	This feature code turns on the ASAI output to Message Print. ASAI is the protocol the system uses to talk to Database Programming and the Voice Processor. Turning this feature on helps the Inter-Tel Engineers debug the messaging between Call Processing and Database Programming or Call Processing and the AVDAP.
Diagnostic - Heap Dump	9943	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - Dump Extension	9933	Allows an Inter-Tel field technician to dump out a device or structure when debugging a problem. The system dumps the internal data structures for that extension to message print. If you press the pound button (#) you are prompted for a command. The command allows you to enter an alphanumeric string of the structure to dump.

FEATURE NAME	CODE	DEFINITION
Diagnostic - Dump Node Information	9936	The user can easily dump node information to Message Print using a single feature code. Pressing the Dump Node Information feature code dumps specified node information to Message Print for diagnostic purpose. When the system prompts for a node number, enter the desired node number or zero (0) for all nodes within a network. If the node does not exist, an error message saying INVALID NODE NUM-BER appears and prompt the user for a node number again. After entering a node number, the system displays a confir-mation message on the phone display. This helps for the user to analyze which nodes are up and which nodes are down (the word 'down' does not mean that the node is completely down, it simply means the node is unreach-able). For Example: If all nodes are up, the display shows ALL NODES ARE UP X. The 'X' represents the total number of the nodes. If node 3 and 5 of a 5-node network are down, the display shows # NODES DOWN 2 3 5.
Diagnostic - Heap Statistics	9947	This feature code outputs miscellaneous heap information to Message Print as well as putting up a message on the phone that indicates the percentage of available dynamic heap memory. This feature code is useful in determining if the system is losing heap memory and how quickly the system may be losing it.
Diagnostic - ISDN View	9948	This feature code is toggles through the three different ISDN view output modes. Entering the feature code the first time puts the ISDN view feature into headers only mode. In this mode the system outputs all ISDN messages to message print in header for-mat (i.e. it does not contain any ISDN information ele-ments). Entering the feature code the second time puts the ISDN view feature into full mode. In this mode the system out-puts all ISDN message to message print in full format (i.e. each ISDN information element). Entering the feature code one more time turns this feature off.
Diagnostic - Major Reset	9962	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - Mark As Leaks	9945	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - Mark As Quiescent	9946	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - Minor Reset	9964	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.

FEATURE NAME	CODE	DEFINITION
Diagnostic - Network Freeze Zone System Histories Diagnostic - Network Unfreeze Zone System Histories	9939 9989	The system fault history for any freeze zone in the network can be halted (frozen) or re-enabled using these feature codes when diagnostics mode is enabled. The fault history can then be extracted from each zone and used by service personnel when troubleshooting the system.
Diagnostic - Network Group	9963	Verifies that the system Network Groups are programmed correctly. When the feature code is entered, the phone system initiates pings from each Inter-Tel IP device and determines if the other devices respond to the ping. If a device does not respond to the ping or if a firewall is detected, the system issues a Message Print message.
Diagnostic - Print Auxdata	9972	(Not Programmable) Sends a report to a designated printer or file that shows system reset history information to be used for troubleshooting purposes.
Diagnostic - Print Message Log	9975	(Not Programmable) Sends a report to a designated printer or file that lists system error messages to be used for troubleshooting purposes.
Diagnostic - Print Network Log	9976	This feature code prints the network log to message print. This feature is useful in determining the system of a networked system.
Diagnostic - Query Node Traffic	9978	Using this feature code you can query the status of various devices on the system based on the status of the traffic flags in Database Programming. The output is sent to Message Print.
Diagnostic - Show Version	9928	To check the call processing software version at an administrator's phone, you can enable diagnostics mode, then enter this feature code to view the version and date of the call processing software. **NOTE:** Feature code 9928 displays the firmware version of the endpoint if it is in SIP mode (see page 105).
Diagnostic - Spare 1-3	9910-9912	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - System History	9974	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Diagnostic - View Displays	9983	This is used by Inter-Tel software developers and cannot be used in Beta or Production software.
Seize Device	9973	Used during troubleshooting to seize a specific trunk or station by indicating the board number, port number, and device number.
System History — Freeze System History — Unfreeze	9993 9998	The system fault history can be halted (frozen) or re-enabled using these feature codes when diagnostics mode is enabled. The fault history is used by service personnel when troubleshooting the system

EXTENSION NUMBERS

Extension numbers are recognized as feature codes by the system. When the system is in the default state, the extension numbers are assigned as follows:

Attendant	0
Stations	1000-1999
Hunt groups 1-75	2000-2074 or 2000-2299
Voice Processor Applications	2500-2999
Page Zones	9600-9609 or 9600-9649 (Used only for programming a feature button to select a page zone.)
External Page Ports	91000-91003
Individual Trunks	94000-95999 (Determined by card slot and device number. Used for programming and troubleshooting.)

ATTENDANT STATIONS

> **NOTE:** For information on *automated* attendants, see page 272 in VOICE PROCESSING FEATURES.

Attendant stations can be called by dialing 0 at the stations they serve. Usually, they are also programmed to provide these services:

- Central operators for incoming calls

- Message centers

- Recall stations for unanswered calls

Any station can be designated as an attendant station during database programming. Attendant stations should be equipped with display phones to show recall sources.

If using a digital display phone, an attendant's station can also be used with a PC Data Port Module (PCDPM) and single or tandem DSS/BLF Units for one-button intercom dialing of extension numbers and for constant station/hunt group status indications. (Non-attendant digital display phones can also be equipped with DSS/BLF Units.) Up to 20 DSS/BLF units can be equipped per system, up to four per phone.

> **NOTE:** Model 8520 and 8560 Phone also support the Mini-DSS, which provides 16-user programmable buttons. The Mini-DSS does not affect the number of DSS/BLF Units that can attach to the phone.

A hunt group can be assigned to serve as an attendant. However, the individual stations in the hunt group are not required to be programmed as attendant stations, and the database will not reflect that the individual stations serve as an attendant for any other stations. (This feature is especially useful when a voice mail hunt group is assigned as an attendant.)

NETWORK AND LOCAL PRIMARY ATTENDANTS

One attendant can be designated as the primary attendant who can receive unsupervised outside call recalls, hunt group recalls, and calls that cannot be matched to patterns in call routing tables.

When Axxess® systems are installed in a network, there are two types of primary attendants:

- **Node Attendants:** There can be a primary attendant for each node.

- **Network Primary Attendant:** There can be a network primary attendant programmed on each node. (There is usually one Network Primary Attendant shared by all of the nodes.) When the network needs to direct a call to an attendant, it attempts to direct the call to the network primary attendant first. If the network primary attendant is unavailable, it directs the call to the attendant on the node where the call originated.

If there is no network or local primary attendant, calls that would normally go to the primary attendant (as described above) are handled as follows:

- If the system has seized the call, but it has not been sent to a station, the call is disconnected.

- If the call has been sent to a station, it remains at the station and rings until answered.

- If the call is not seized and not sent to a station, the caller will hear ringing until he or she hangs up. The call will not ring at any station.

ONE-ATTENDANT OR MULTIPLE-ATTENDANT OPERATION

Each node can be set up with one attendant or several attendants, as follows:

- **One Attendant:** One attendant provides all of the attendant services listed on the previous page. All trunks (except private trunks) are usually programmed to ring in at this attendant's station.

- **Multiple Attendants:** Any or all stations can be programmed as attendants. (For example, there may be one or more attendants to serve each department in a business.) Trunks are programmed to ring at any or all attendant stations. Multiple attendants can be arranged in a hierarchy. That is, one attendant may be the attendant for another. In this case, the "serving" attendant is reached by dialing 0 at the "served" attendant.

ATTENDANT RECALL

When a call is placed on hold or is transferred from one station to another, the Hold and Transfer timers limit the amount of time the call may remain unattended. After that time, the call recalls the station that transferred it or placed it on hold, and the Recall timer is started. If the call remains unanswered at the station until the Recall timer expires, it recalls the station's attendant and the Abandoned Call timer starts. (If there is no attendant, the call continues to recall at the station that transferred it or placed it on hold.) If the attendant station is busy, the call camps on and the display shows the source of the recall. If the call is not answered before the Abandoned Call timer expires, the system disconnects the call.

If an attendant station transfers a call and it is not answered before the Attendant Transfer timer expires, it will recall the attendant station.

If a station user transfers or forwards an outside call to an outside telephone number, it becomes an "unsupervised" CO-to-CO call because no inside parties are involved. The CO-to-CO call is limited by the Unsupervised CO timer. When the timer expires, the call recalls the primary attendant station and causes the ▇CNF▇ button to flash. (Display phones show UNSUPERVISED CNF RECALL.) This serves two purposes:

- It allows the attendant to monitor the length of CO-to-CO calls. When a CO-to-CO call recalls, the attendant can disconnect the call or allow it to continue.

- If the callers hang up before the attendant receives the recall, the system may not have disconnected the trunks because a disconnect was not received from the central office. The attendant must disconnect the call.

When a recall rings at the attendant's station, a Call or individual trunk button flashes at the medium rate.

If the attendant has calls forwarded, recalls from stations follow internal call forward requests. Recalls do not forward to outside telephone numbers, but recall the attendant's station until they are answered or the Abandoned Call timer expires. Placing the attendant's station in Do-Not-Disturb does not block recalls or direct ring-in calls.

If there is not a primary attendant, recalls remain at the stations and ring until answered or disconnected by the system.

TO ANSWER A HOLD OR TRANSFER RECALL AT AN ATTENDANT STATION:

When you see a hold or transfer recall display (XXXX RCL FROM YYYY) and hear a recall ringing:

1. *If desired,* lift the handset.

2. **Outside call recall:** Press the medium-flashing Call button or individual trunk button. Or, press the ⬛ ANSWER button. (If more than one trunk is recalling, pressing the ⬛ ANSWER button selects the outside call indicated on the display.)

   Intercom call recall: Press the ⬛ IC button or the **ANSWER** menu button. (If you are busy when the intercom call recalls, it will camp on. The ⬛ IC button flashes at the medium rate, but you do not hear recall ring signals.)

   Conference call recall: Press the flashing ⬛ CNF button to connect with the conference call. The ⬛ CNF button flashes slowly and the display shows CONFERENCE IN PROGRESS. *If the parties are still talking,* press the ⬛ CNF button again and hang up to return the parties to their conversation. The ⬛ CNF button flutters. You can enter the conference at any time by pressing the fluttering ⬛ CNF button. If the Hold timer expires, the conference recalls your station again. *If the parties have hung up,* hang up to disconnect the call.

HUNT GROUPS

The Hunt Group feature permits calls to be placed to a group of stations and to be automatically transferred to an available station within the group. Up to 75 hunt groups can be programmed in the database. Hunt group lists can contain individual stations and/or extension lists. Non-ACD hunt group stations must reside on the same node; off-node devices must be ACD hunt group members.

The order in which hunt group stations receive incoming calls is determined by a list stored in the database. A station or extension list can appear in a single hunt group more than once, and it can appear in multiple hunt group lists, if desired.

Hunt groups have their own extension numbers (defaults to 2000-2074). Individual stations within the hunt group can be called using their assigned extension numbers.

Two other Premium Feature hunt group types are also available: UCD Hunt Groups and ACD Hunt Groups. For UCD information, refer to . For ACD, refer to .

HUNT GROUP CALL DISTRIBUTION

When an intercom or outside call is transferred or rings in to the pilot number, it circulates through the hunt group in linear or distributed order until answered, as described below.

- **Linear order:** Incoming calls always start circulating by ringing at the first station (or extension list) on the hunt group list that is stored in the database.

```
LINEAR HUNT GROUP CALL PROCESSING
                          Hunt group pilot
                          number 2000 called
                                │
                                ▼
Calls will always     ──▶   HUNT GROUP MEMBERS:
begin search here           EXT. 1000
                            EXT. 1001
                            EXT. 1002
                            EXT. 1003
```
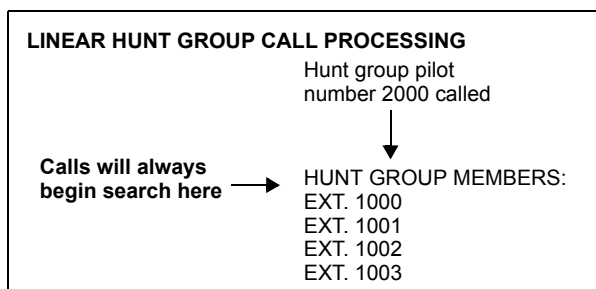
- **Distributed order:** To even out the call load, distributed order shifts the starting point of each call. When a station user receives a call, the next station or extension list in the hunt group receives the next incoming call. If the receiving station is busy (or all sta-

DISTRIBUTED HUNT GROUP CALL PROCESSING
Hunt group pilot number 2000 called
1st call begins here → EXT. 1000
2nd call begins here → EXT. 1001
3rd call begins here → EXT. 1002
4th call begins here → EXT. 1003

tions in the extension list are busy), or if there is no answer before the No Answer Advance timer expires, the call goes to the next station or extension list on the hunt group list.
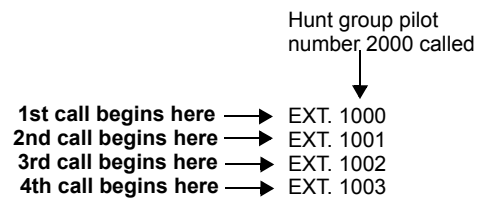
NOTE: See page 139 for information on the additional distribution types available in ACD hunt groups.

If an extension list is included in a hunt group, a call will ring all stations on the extension list when it reaches that point in the hunt group list. Therefore, to create an "all ring" type of hunt group, you can program the hunt group as either linear or distributed and then assign an extension list as the only hunt group member.

HUNT GROUP CALL PROCESSING

Hunt group stations receive the following indications when a call is ringing in:

- If an outside call is ringing, the station designated to receive the call first shows ring flash on the associated individual trunk button (if it has one) *or* a Call button until the call is answered or the No Answer Advance timer expires and the call moves to the next station.

- If hunt group camp on is allowed and all stations on the hunt group list are unavailable (busy, in Do-Not-Disturb, or with hunt group remove enabled), an intercom or outside call will camp on and the stations will receive the following indications:

  — *Busy stations* receive hunt group camp-on tones (if enabled) and display. If there is an individual trunk button associated with the trunk, it shows ring flash. (There is a programmable station flag that can disable the camp-on tones for hunt group calls.)

  — *Stations with Hunt Group Remove enabled* receive camp-on tones and display. If there is an individual trunk button associated with the trunk, it shows ring flash.

  — *Stations with Do-Not-Disturb enabled* receive no camp on indications, but if there is an individual trunk button associated with the trunk, it shows ring flash.

  — *The first station that becomes available* receives ringing and a flashing trunk or Call button. The camp-on and ring flash indications end at the other stations. (The associated trunk button will be steadily lit at those stations to show that the trunk is busy.)

- If hunt group camp on is *not* allowed, and all stations on the hunt group list are unavailable, the hunt group members will not have any camp-on indications. Callers will hear one of the following:

    — *Intercom callers* will hear busy signals.

    — *Callers on a trunk not needed to return busy signal* (such as a T1 E&M) will hear busy signals.

    — *Callers on a trunk needed to return busy signal* (such as a non-T1 loop-start) will hear ringing, and the call will be sent to the primary attendant.

    — *ISDN callers* hear busy signals.

Stations within the hunt group can receive direct trunk ring-in, intercom, forwarded, or transferred calls to their individual extension numbers without affecting other stations in the hunt group.

HUNT GROUPS AND CALL FORWARDING

Hunt group programming affects the Call Forwarding feature in the following ways:

- **Hunt group calls follow unconditional forward:** If a station in a hunt group is in the unconditional call forward mode to another station, calls to the hunt group will follow the station forwarding request. A forwarded hunt group call will ring at the forwarding destination until the No Answer Advance timer expires. If it is not answered before the timer expires, the call will return to the hunt group and continue circulating through the hunt group list.

- **Conditional forward dependent on timer interaction:** Stations that are busy and have their calls forwarded conditionally (no answer, busy, or unavailable) to another station will receive the hunt group call (if the station is not busy) until the Forward No Answer timer expires. At this point, if the hunt group's No Answer Advance timer has not expired, then the call will be forwarded. Once the No Answer Advance timer expires, the call will circulate to the next station in the hunt group list.

- **Hunt group calls will not forward to some destinations:** Hunt group calls will not forward to voice mail, outside numbers, or system forwarding paths.

- **Announcement and overflow stations can forward hunt group calls:** If an announcement or overflow station has call forward enabled, hunt group calls will follow the forward and the forwarding destination station will act as the announcement or overflow station.

- **Hunt groups can receive forwarded calls:** Stations can forward calls to a hunt group's pilot number.

Hunt groups can be assigned as message centers and/or alternate message sources for individual stations.

HUNT GROUP REMOVE/REPLACE AND DO-NOT-DISTURB

Hunt group members can temporarily stop hunt group calls from ringing at their stations by entering the Hunt Group Remove feature code as described below. (If a station is assigned to more than one hunt group, this halts calls from all hunt groups. Hunt group assignments cannot be removed individually.) Do-Not-Disturb can also be used to halt hunt group and other calls to the station (see page 247 for details).

> **NOTE:** This feature has no effect on ACD hunt groups. See page 141 for ACD login/logout information.

When the Hunt Group Remove feature is enabled, the user will still receive the camp-on display and tone, and the individual trunk button flashes, if one exists, for calls to the hunt group. (The station continues to receive calls placed to its extension number.) Hunt group overflow and announcement stations cannot block hunt group calls using this feature.

If a phone user has programmed a button for entering the Hunt Group Remove/Replace feature code, and if that button has a lamp, the lamp will be lit whenever the station is removed from the hunt group.

TO REMOVE THE STATION FROM ITS HUNT GROUP(S) OR REPLACE THE STATION IN ITS HUNT GROUP(S):

Inter-Tel Phones: While on or off hook, enter the Hunt Group Remove feature code (322) to halt hunt group calls or enter the Hunt Group Replace feature code (323) to return the station to its hunt group(s). Or, use the Hunt Group On/Off feature code (324) to toggle the hunt group mode on or off. You hear a confirmation tone, and the display shows ACCEPT (or DIVERT) HUNT GROUP CALLS. *If off hook,* hang up.

Single-Line Sets: Lift the handset and enter the Hunt Group Remove feature code (322) to halt hunt group calls or enter the Hunt Group Replace feature code (323) to return the station to its hunt group(s). Or, use the Hunt Group On/Off feature code (324) to toggle the hunt group mode on or off. You hear dial tone.

UCD HUNT GROUPS

NOTE: The Uniform Call Distribution Hunt Groups premium feature is required to use UCD features.

Uniform Call Distribution (UCD) hunt groups provide additional features to improve hunt group efficiency. The features added when UCD is enabled are as follows:

- Announcement and overflow stations pick up unanswered calls when the hunt group stations are busy.

- Hunt group priority ranking will place calls to one hunt group before another at stations that are members of more than one hunt group.

- Hunt group supervisors can monitor outside calls of any member of the hunt group.

Announcement and Overflow Stations

Announcement and overflow stations are individual stations that receive unanswered calls when all of the hunt group stations are unavailable. (They are not usually included in the hunt group list.) Announcement and overflow stations can be separate stations or they can be the same station. Also, each of the hunt groups can have the same announcement and overflow stations or they can be assigned different stations. In a network, the announcement and overflow stations can be off-node devices.

```
Call rings in to
Ext. 2000
                        No Answer
                        Advance Timer
                        18 sec.
   Ext. 1000
                                      Announcement Timer
                                      18 sec.
                        18 sec.                          Announcement
   Ext. 1001                                             Station
                                                         (once only)
                        18 sec.
   Ext. 1002
                                      Overflow Timer
                                      72 sec.
                        18 sec.                          Overflow
   Ext. 1006                                             Station
                        18 sec.
   Ext. 1007
                                      Overflow Timer
                                      72 sec.
                        18 sec.                          Overflow
   Ext. 1011                                             Station
                        18 sec.
   Ext. 1012
                                      Recall Timer       Can be
                                      180 sec.           an Extension,
                        18 sec.       Recall             Voice Processor,
   Ext. 1020                          Dest.              or a Hunt Group
```

Announcement Stations: When a call rings in or is transferred to a hunt group, the Announcement and Recall timers are started. The incoming call circulates through the hunt group until it is answered or the Announcement timer expires. When this timer expires, the unanswered call is picked up by the designated announcement station which is a playback device that answers the call and plays a message. Meanwhile, the call continues circulating through the hunt group (unless it was sent to a Voice Processor application and then transferred to a station). If it is answered by an available hunt group station while the announcement station is connected to the call, the call will leave the announcement station. Each direct ring-in call will transfer to the announcement station only once. If it remains unanswered when the Overflow timer expires, the call will be sent to the overflow station. Or, if there is no overflow station, the call will be sent to the recall destination station when the Recall timer expires.

Overflow Stations: The Overflow timer is started when the Announcement timer expires or, if there is no announcement station, when the call is received by the hunt group. If an incoming hunt group call is unanswered when the Overflow timer expires, the call is picked up by an overflow station. The overflow station is a playback device that answers the call and plays a message. Meanwhile, the call continues circulating through the hunt group (unless it was sent to a Voice Processor application and then transferred to a station). If the call is answered by an available hunt group station while the overflow station is connected to the call, the call will leave the overflow station. The Overflow timer restarts each time the unanswered call leaves the overflow station. An unanswered call will return to the overflow station each time the Overflow timer expires, until the call is answered by a hunt group station or it is sent to the recall destination station.

The following chart shows the path that an incoming hunt group call will follow for all possible combinations of announcement and overflow stations:

ANN. STATION	OVERFLOW STATION	CALL PATH
No	No	Call remains in hunt group.
Yes	No	Call goes to announcement station only once, after Announcement timer expires.
No	Yes	Call goes to overflow station after each expiration of Overflow timer.
Yes	Yes	Call goes to announcement station once (after Announcement timer expires) then goes to overflow station after each expiration of Overflow timer.

If an announcement or overflow station has call forward enabled, hunt group calls will follow the forward, and the forwarding destination station will act as the announcement or overflow station.

Voice Processor Applications as Announcement/Overflow Stations

When a Voice Processor application is used as an announcement or overflow station, calls to the application automatically stop circulating through the hunt group if the caller selects a valid digit translation option (such as pressing a digit to select an extension from a Call Routing Announcement menu), and the call is transferred. This allows the application to send the call to other stations without the call being "pulled back" into the hunt group when a hunt group station answers the call. However, if the caller does not dial a valid digit translation option, the call will be pulled back if a hunt group member answers.

NOTE: Standard Display, Associate Display, Axxess Basic, Eclipse Basic, Model 8500, Model 8520, and Model 8560 Phones do not send DTMF tones on intercom calls and therefore cannot stop circulating through the hunt group by dialing a digit.

A Call Routing Announcement application's message can be programmed to include the caller's queue position and/or estimated wait time. The queue position announcement tells the caller how many calls are ahead of his or her call. This includes calls being served and waiting calls (however, all calls being served count as one call). The estimated wait time is based on a programmed Average Connect Time Per Call multiplied by the number of calls ahead of the caller in the queue, divided by the number of available hunt group members (*avg. connect time per call* $\times$ *no. of waiting calls* $\div$ *available members*). See page 276 for details.

If a Voice Processor application is used as an announcement or overflow station or as the recall destination, and the system is unable to communicate with the Voice Processor, outside calls will not be sent to the announcement or overflow application. They will continue to camp on to the hunt group.

UCD Hunt Group Priority List

Some stations may be members of more than one UCD hunt group. For this reason, hunt groups are assigned a "priority level." The priority level determines which hunt group's calls should be received first when calls ring in or camp on to several hunt groups at once.

UCD priority levels range from 0 (low) to 75 (high). If a station is a member of multiple hunt groups that have the same priority level, calls received by those hunt groups will be queued in the order they were received by the phone system. (Non-UCD hunt groups are treated as if they have a priority level of 0.)

PRIORITY LEVELS

Calls ring in or camp on to all hunt groups

PRIORITY LEVEL

1   HUNT GROUP Ext. 2000

8   HUNT GROUP Ext. 2001

0   HUNT GROUP Ext. 2002

ORDER CALLS ARE RECEIVED

2

1

3
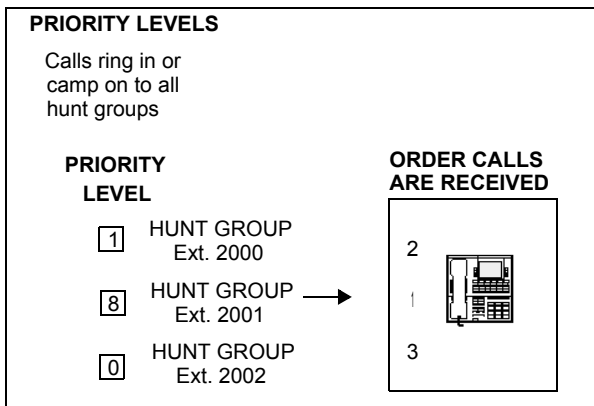
UCD Hunt Group Supervisors and Station Monitoring

The Station Monitor feature allows hunt group supervisors to monitor the calls of anyone in a specified hunt group. It can be useful in training or in evaluating the performance of hunt group members.

NOTE: As a courtesy, hunt group members should be notified in advance that their calls may be monitored. In addition, a programmable option can be enabled that sends a tone to the station being monitored whenever the hunt group supervisor joins an ongoing call. (Note that call monitoring may be illegal in some locations. It is up to the end user to ensure that use of this feature is in compliance with local laws.)

In Database Programming, each hunt group can have one or more stations assigned as the hunt group supervisor(s). The supervisor must reside on the same node as the hunt group members. (An extension list can be assigned as the supervisor to provide multiple supervisors.) The supervisor is usually not a member of the hunt group. If the supervisor is a member of the hunt group, the Hunt Group Remove/Replace feature can be used at any time without affecting the Station Monitor ability. If desired, one station can be assigned as the supervisor for more than one hunt group.

To monitor a hunt group member's call, the supervisor enters the Station Monitor feature code (321) and dials an extension number. The supervisor is then connected to the call and can hear both parties, but cannot be heard by either one. If the monitored call is terminated, transferred, or placed on hold by the hunt group member, the monitor function is terminated.

In the associated hunt group, the supervisor may monitor any active intercom or CO-to-intercom call (both hunting and non-hunting), including incoming, outgoing, and DISA-to-intercom calls. Conference calls and calls that do not involve hunt group members cannot be monitored.

If the supervisor attempts to monitor a station that is not on an active call that allows monitoring, the system sends reorder tones, and the supervisor must enter the feature code again to try another number. If the supervisor attempts to monitor a station that is not in the hunt group or an idle station in the hunt group, the system sends reorder tones and cancels the Station Call Monitor feature.

Station monitoring requires conferencing circuits. If resources are not available when a supervisor attempts to monitor a station, the supervisor's display will show NO CNF CIRCUITS AVAILABLE, and the monitor will not be allowed. Multiple supervisors can monitor the same station, providing that a conference circuit is available for each supervisor.

The supervisor station cannot use the Agent Help feature while monitoring a call.

NOTE: Station Monitoring is not supported on an IP or SIP device engaged in a P2P call (see page 105).

TO MONITOR A HUNT GROUP CALL (DESIGNATED SUPERVISOR ONLY):

1. **To use the speakerphone:** While on hook, enter the Station Call Monitoring feature code (321). You hear a confirmation tone and the Speaker button lights. The display shows ENTER EXT TO MONITOR.

   To use the handset: Lift the handset and enter the Station Call Monitoring feature code (321). You hear a confirmation tone. The display shows ENTER EXT TO MONI-TOR.

2. Dial the extension number (or press the lit station speed-dial or DSS/BLF button) of the station to be monitored. You are automatically connected to the call and the display shows MONITORING *(username)*.

3. **To monitor another hunt group member's call:** Enter the Station Call Monitoring feature code (321), and dial the extension number (or press the speed-dial button).

   To terminate the monitor feature: *If off hook,* hang up. *If on hook,* press the Speaker button.

ACD HUNT GROUPS

NOTE: The Automatic Call Distribution Hunt Groups premium feature is required to use ACD hunt group features. To take full advantage of all hunt group features, the Uniform Call Distribution Hunt Groups premium feature should also be included in your software license.

Automatic Call Distribution (ACD) can be programmed to distribute hunt group calls to equalize call time or call count among the available members. If the System OAI Events premium feature is included in your software license, ACD hunt groups can also be programmed to send call information records that can be processed by an external device connected to a system serial port (such as Call Center Suite).

ACD hunt groups can use the standard hunt group features described on page 130, and/or the UCD features described on page 134 (if the UCD Hunt Group premium feature is included in your software license).

ACD Call Distribution

When an intercom or outside call is transferred or rings in to the ACD hunt group, it can circulate in linear or distributed order (as described on page 130) or using one of the following ACD distribution methods:

- **Longest Idle:** An incoming call is sent to the station that has not been involved in a call to this hunt group for the longest period of time. (It does not count calls that were received through other hunt groups, direct ring-ins, or transfers.

```
LONGEST IDLE DISTRIBUTION
                    ACD HUNT GROUP
                       Ext. 2000

                               ▼        TIME IDLE
                          Ext. 1000   (3 min.)
Next call will be sent here ──▶ Ext. 1001  (10 min.)
                          Ext. 1002   (6 min.)
                          Ext. 1003   (1 min.)
```
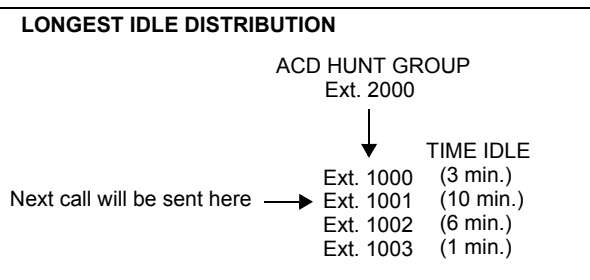
NOTE: The Restart ACD Idle Time Upon Login flag affects how the longest idle time is calculated. See page 143 for more information.

- **Balanced Call Count:** To balance the call load, each incoming call is sent to the station that has received the fewest calls through this hunt group. (It does not count calls that were received through other hunt groups, direct ring-ins, or transfers.)

```
BALANCED CALL COUNT DISTRIBUTION
                    ACD HUNT GROUP
                       Ext. 2000

                               ▼   NUMBER OF CALLS
                          Ext. 1000   (10 calls)
                          Ext. 1001   (16 calls)
                          Ext. 1002   (6 calls)
Next call will be sent here ──▶ Ext. 1003  (3 calls)
```
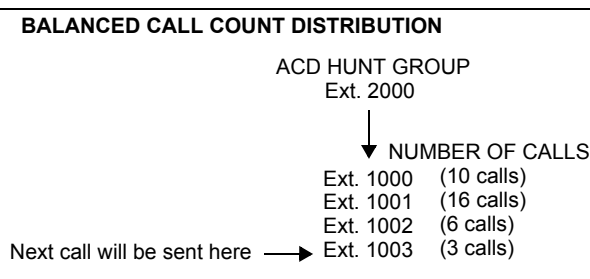
NOTE: When an agent logs in to a balanced call count ACD hunt group (or comes out of Do-Not-Disturb mode), the system checks the average call count for that ACD hunt group and assigns that average count to the station logging in. This prevents the agent who is logging in from receiving all of the incoming calls until the call count of the lowest agent catches up with his call count. For example, if there are five agents logged in whose call counts are 5, 5, 5, 10, and 10, the average call count of 7 will be assigned to the next agent who logs in.

If an extension list is included in an ACD hunt group set for Longest Idle or Balanced Call Count distribution, it will treat each station in the extension list as a separate agent; it will not ring all of the stations on the list at once. If the hunt group is set for linear or distributed order, a call will ring at all stations on an extension list at once when the call reaches that point in the hunt group list.

ACD Agent IDs

ACD hunt group members are referred to as "agents." Agents log in to the ACD hunt group to receive calls and log out to halt ACD hunt group calls. An ACD hunt group can be programmed to circulate calls to agents in two ways:

- **Agent IDs:** If the hunt group is programmed to use ACD Agent IDs, each agent is assigned an Agent ID number which he or she enters during the login procedure (described below). The hunt group calls are routed to logged in agents, according to their Agent ID number instead of their station extension. Because the Agent ID is not associated with any station extension, the agent can use any station in the system to log in and does not have to use the same station every time.

- **Members:** If the hunt group is not programmed to use Agent IDs, it will have a list of stations and will send calls to the stations where agents are logged in.

> **NOTE:** For optimum system performance, there should not be more than 1000 Agent IDs in any hunt group and no more than 2000 Agent ID entries in all hunt groups combined.

ACD Agent IDs can be included in Extension Lists which allow several ACD Agents to receive a call at once.

When a call camps on to an ACD hunt group that uses Agent IDs, only the agents currently logged in to the hunt group will receive camp-on indications. ACD hunt group supervisors will receive visual camp-on displays if they are programmed as members of the hunt group and have the ACD Agent Logout feature enabled.

ACD Agent Login/Logout

ACD hunt group members are referred to as "agents." Agents can log in to and out of the ACD hunt group at any time. While logged in, the agent will receive calls through the ACD hunt group. When the agent is logged out, calls to that ACD hunt group will bypass the station. (The Hunt Group Remove/Replace feature, described on page 133, does not have any effect on ACD hunt group calls when entered by an ACD agent. However, placing the agent's station in Do-Not-Disturb will halt all ACD and non-ACD hunt group calls.)

AGENT ID IN UCD/ACD HUNT GROUP
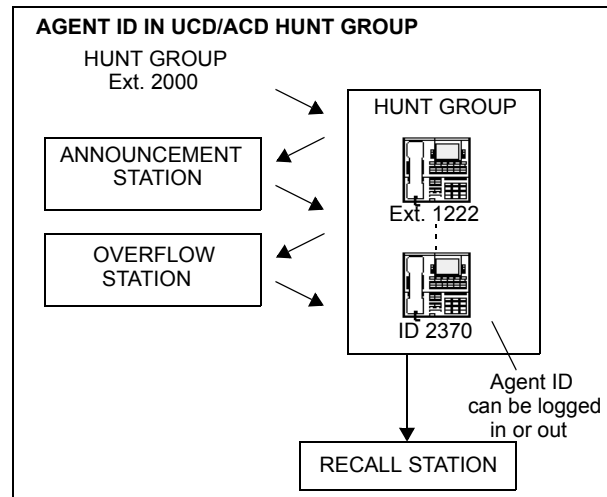
There are three feature codes that can be used for logging in to and out of the ACD hunt groups: ACD Agent Login, ACD Agent Logout, and ACD Agent Login/Logout. The first two perform only one operation. The third (Login/Logout) is a toggle feature code that logs the station in or out of *all* associated ACD hunt groups at once. If the toggle feature code is programmed in a user-programmable button with a lamp, the lamp will be lit when the agent is logged in to an ACD hunt group and available to receive calls, and it will be unlit when the agent is logged out.

TO LOG OUT OF ALL OF YOUR ACD HUNT GROUPS AT ONCE USING THE LOGIN/LOGOUT FEATURE CODE:

> While on or off hook (single-line users must lift the handset), enter the ACD Agent Login/Logout feature code (328). The display shows AGENT LOGGED OUT OF ALL ACDS, and you hear a confirmation tone. Hang up if off hook.

TO LOG IN TO ALL OF YOUR ACD HUNT GROUPS AT ONCE USING THE LOGIN/LOGOUT FEATURE CODE:

1. While on or off hook (single-line users must lift the handset), enter the ACD Agent Login/Logout feature code (328). *If you were already logged in,* the display shows AGENT LOGGED OUT OF ALL ACDS, and you hear a confirmation tone. *If you were not logged in,* continue to the next step.

2. The display shows AGENT LOGIN AGENT ID. Do one of the following:

   — **To log in to all ACD hunt groups for which you have an Agent ID:** Enter your Agent ID. The display shows AGENT LOGGED INTO ALL ACDS. You are logged into *only the ACD hunt group(s) that use the Agent ID that you entered.* Hang up if off hook. *If another agent is already logged in at this station,* you hear reorder tones, and the display shows DIFFERENT AGENT ID ALREADY USED. You must have the other agent log out before you can use that station.

   — **To log in to all of your ACD hunt groups that do not use Agent IDs:** Press `#`. The display shows AGENT LOGGED INTO ALL ACDS. You are logged into *only the ACD hunt group(s) that do not use Agent IDs.* Hang up if off hook.

TO LOG IN TO ONE OR MORE HUNT GROUPS USING THE ACD AGENT LOGIN FEATURE CODE:

1. While on or off hook (single-line users must lift the handset), enter the ACD Agent Login feature code (326). The display shows AGENT LOGIN ACD NUMBER.

2. Enter the pilot number of the desired ACD hunt group. (Or, you can press **#** to log in to several ACD hunt groups at once.)

    If you entered an invalid hunt group number, the display shows NOT AN ACD HUNT GROUP, and you hear reorder tones.

3. The display shows AGENT LOGIN AGENT ID. Then do one of the following:

    — **To log in to ACD hunt group(s) using Agent IDs:** Enter your Agent ID. The display shows AGENT LOGGED INTO ALL ACDS. You are logged into *only* the ACD hunt group(s) that you requested in step 2 *that use the Agent ID that you entered in this step. If another Agent ID is already logged in at this station,* you hear reorder tones and the display shows DIFFERENT AGENT ID ALREADY USED. You must have the other agent log out before you can use that station.

    — **To log in to ACD hunt group(s) that do not use Agent IDs:** Press **#** . The display shows AGENT LOGGED INTO ALL ACDS. You are logged into *only* the ACD hunt group(s) that you requested in step 2 *that do not use Agent IDs.*

    If you were already logged in, the display shows ALREADY LOGGED INTO *(hunt group).*

    If you are not a member of the entered hunt group, the display shows NOT AN AGENT IN THIS HUNT GROUP, and you hear reorder tones. Start over.

4. If off hook, hang up. Repeat this procedure to log in to additional ACD groups, if necessary.

TO LOG OUT OF AN ACD HUNT GROUP:

1. While on or off hook, enter the ACD Agent Logout feature code (327). One of the following will occur:

    If you were logged in to only one hunt group, you hear a confirmation tone, and the display shows AGENT LOGGED OUT OF *(hunt group).* The procedure is complete. Hang up if you were off hook.

    If you were logged in to more than one hunt group, you hear a confirmation tone, and the display shows AGENT LOGOUT ACD NUMBER. Go to the next step.

    If you were not logged in to any hunt group, the display shows NOT LOGGED INTO ANY ACD GROUP, and you hear reorder tone.

2. Dial the pilot number of the desired ACD hunt group or press pound (**#**) to log out of all of your ACD hunt groups. You hear a confirmation tone, and the display shows AGENT LOGGED OUT OF *(hunt group).*

    If you were not logged in to the hunt group number that you entered, the display shows NOT LOGGED INTO *(hunt group).* Start over.

3. If off hook, hang up.

Restart ACD Idle Time Upon Login Flag

The Restart ACD Idle Time Upon Login flag determines where an agent is placed in a longest idle queue when he or she logs back in to a hunt group. When *enabled*, the agent's idle time is reset to zero whenever he or she logs in (i.e., that agent will be least likely to receive the next distributed call). If *disabled*, the agent's idle time includes the time the agent was logged out of the hunt group (i.e., that agent will be most likely to receive the next distributed call). By default, this flag is *disabled*.

This flag is programmable for each individual hunt group.

ACD Agent Wrap-Up Timer

Each time an agent ends an ACD hunt group call, the station goes into "wrap-up" mode, and the ACD Wrap-Up Duration timer is started. Until that timer expires, the agent will not receive another call through any ACD hunt group. (However, the agent can receive non-ACD hunt group calls, direct ring-in calls, and transfers.)

The range of the ACD Wrap-Up Duration timer is 1 to 65535 seconds. The default value is 15 seconds. It is programmed individually for each ACD hunt group.

If an agent wishes to terminate the wrap-up mode before the timer expires, he or she can use the following procedure.

TO TERMINATE ACD AGENT WRAP-UP:

> While on or off hook (single-line users must lift the handset), enter the ACD Wrap-Up Terminate feature code (329). The display shows ACD WRAP-UP TERMINATED. (*If you were not logged in to an ACD hunt group,* the display shows CANNOT ACCESS RESERVED FEATURE.)

Wrap-Up Mode for Holding ACD Calls

There is a system flag called "Wrap-Up Mode For Holding ACD Calls." If enabled, it places an ACD agent's station in wrap-up mode when an ACD call is placed on hold. (However, the ACD Wrap-Up Duration timer is not activated.) This prevents the agent from receiving additional ACD hunt group calls after he or she places an ACD call on hold while the station is idle. (The station can still receive non-ACD calls, as usual.) If the flag is disabled, the agent will be available to receive additional ACD calls as soon as an ACD call is placed on hold. In the default state, this flag is *disabled.*

This flag applies to any type of hold, including individual, system, transfer, and conference-wait hold. If the call is terminated or if it is reverse transferred by another station, the ACD agent's station will be made available to receive incoming ACD calls.

If the agent wishes to terminate the wrap-up mode while an ACD call is on hold, he or she can use the procedure described in the previous section.

ACD Agent ID Automatic Connect Flag

When the ACD Agent ID flag is enabled, and the agent is using a headset, ACD hunt group calls will automatically be connected following a short ring burst. (This feature will not work if the agent is not using a headset.)

When the ACD agent logs in or removes the station from Do-Not-Disturb mode, the first call will ring until the ACD agent answers it. However, every time an ACD hunt group call is received after the first call, the agent will hear the ring burst in the headset and the call will be automatically connected.

This flag overrides the station's Transfer-To-Connect station flag, which is disabled by default.

Group Call Pick-Up

When the Group Call Pick-Up feature is enabled, a call ringing in to a hunt group or one of its stations can be picked up at any other station. Users can enter the Reverse Transfer feature code (4) and dial a hunt group's pilot number to pick up a call that is ringing in to the hunt group's pilot number or to any station within that hunt group.

The system follows the priority list shown below to determine which call is picked up. The system follows the hunt group list (always beginning with the first station on the list) to check each station in the hunt group and then the overflow station for one type of call at a time. If there is more than one call of the same type at the selected station, the call that was received by the station first is picked up. Holding calls and queue callbacks cannot be picked up.

1. Calls to the hunt group pilot number

2. CO calls

   a. Direct ring-in calls

   b. Transferred calls

   c. Recalls

   d. Camped-on calls

3. IC calls

   a. Direct ring-in calls

   b. Transferred calls

   c. Recalls

   d. Camped-on calls

NOTE: Group Call Pick-up can only retrieve calls from stations that are currently logged in to the hunt group. You cannot use this feature to pick up calls from members who have logged out using the Hunt Group Remove feature code. Also, Group Call Pick-up cannot be used on ACD Hunt Groups that use Agent IDs. It can only be used on hunt groups that use lists of extensions. If the ACD Hunt Group flag is enabled, the Group Call Pick-up flag will be dimmed.

To pick up a call that is ringing at a hunt group:

1. Lift the handset, and/or enter the Reverse Transfer feature code (4). You hear a single progress tone.

2. Dial the pilot number of the hunt group where the call is ringing.

   Inter-Tel Phones: If the system is programmed for direct connection of reverse transferred calls, you are immediately connected. If not, press the flashing CALL, individual trunk, or **IC** button.

   Single-Line Sets: You are automatically connected.

ACD HUNT GROUPS SPAN NODES

There is a premium feature called Remote Automatic Call Distribution Hunt Groups. It allows ACD hunt groups to span nodes. Node-spanning ACD hunt groups can have either members or ACD Agent IDs.

- **Members:** ACD hunt group members may include off-node-phones, off-node single lines, and Hunt Group Member extension lists.

- **ACD Agent IDs:** Unlike members, there are no off-node Agent IDs. Agent IDs are considered global throughout all nodes in which the Agent exists. This means that if you create Agent ID 100 on one node, you must also create Agent ID 100 on all other nodes that have a station that a user may wish to login to the hunt group using that ID.

The Remote Automatic Call Distribution Hunt Groups premium feature must be included in the software license where the hunt group resides as well as any node that wishes to have users login to the node-spanning hunt group. The ACD Hunt Groups premium feature is also required. Because of this fact, there are several cases that must be considered. The following table shows the different displays and results for logging into and out of ACD hunt groups with the different combinations of the premium feature and the ACD Hunt Group enabled/disabled.

STN NODE	HUNT GRP NODE	LOGIN DISPLAY	LOGIN RESULT	LOGIN "ALL" DISPLAY	LOGIN "ALL" RESULT
Yes	Yes	AGENT LOGGED INTO HUNT GROUP XXXX	Agent logged into hunt group.	AGENT LOGGED INTO ALL ACDS	Agent logged into all local and remote groups.
Yes	No	CANNOT ACCESS RESERVED FEATURE	Agent not logged into group.	AGENT LOGGED INTO ALL ACDS	Agent logged into all local hunt groups, but not remote where feature disabled.
No	Yes	CANNOT ACCESS RESERVED FEATURE	Agent not logged into group.	AGENT LOGGED INTO ALL ACDS	Agent logged into all local, but no remote groups.
No	No	CANNOT ACCESS RESERVED FEATURE	Agent not logged into group.	AGENT LOGGED INTO ALL ACDS	Agent logged into all local, but no remote groups.

Database Programming

- ACD hunt groups have options allowing the addition of phone off-node devices, single line off-node devices, and hunt group member extension lists containing local or off-node stations or both.

- If the Remote Call Distribution Hunt Groups premium feature is not included in the node's software license, the off-node options will not appear in the list when programming members for ACD hunt groups.

Operational Changes

- The Station Monitor feature remains limited to a single node. Members who are logged in to a remote node or who are logged in to the supervisor's node from a remote node cannot be monitored.

- Hunt groups with remote members rely on network links between nodes. Node availability and software version compatibility affect hunt group log-in procedures as follows:

  — Hunt group members attempting to log in to all hunt groups will be logged in to only those hunt groups on nodes that are reachable. The display on the user device will only indicate log in results for reachable nodes.

  — Members logging out of all hunt groups will be logged out of groups on reachable nodes immediately and will automatically be logged out of groups on unreachable nodes as soon as the link to the node is restored. The phone will display MESSAGE PENDING in this case.

  — When users attempt to log in to a remote hunt group on a node running an earlier version of System software, the phone display in version 5.3 or later will show NOT AN ACD HUNT GROUP.

  — If users on a node running an earlier version of system software try to log into a hunt group on a node running version 5.3 or later, the display will show the message NOT AN AGENT IN THIS ACD GROUP.

- The ACD Wrap-Up functions perform as in previous versions with the exception of priority. Due to timing issues involved in sending messages across the network, the following prioritization method is used for hunt groups with remote members:

  — The first criterion is priority level. The hunt group with the highest priority gets the available agent first.

  — In the event of a tie in priority, hunt groups located locally take priority over those located on remote nodes.

  — In cases where ties in priority occur within the local node, the hunt group with the longest camped on call will receive the available agent.

  — Given off-node ties in priority, the first hunt group to camp on will receive the available agent.

Maintenance of Node-Spanning Hunt Groups

- Deletion of ACD Agents is different in version 5.3 or later because agents must be defined globally. In previous versions, deletion of an agent resulted in removal of the agent from any hunt groups in which the agent was a member and also logged the agent out. With node-spanning hunt groups, deleting an agent from a hunt group can be done from the node on which the hunt group resides or from a remote node.

  — If an agent is deleted on the node containing hunt group(s) of which he is a member, then the agent is removed from all hunt group(s) on that node and is logged out.

  — If the agent is deleted from a remote node, the agent is logged off from that node, but remains a member of any hunt group(s) located on other nodes.

- Deletion of ACD Hunt Groups in previous versions resulted in all member stations being logged out. In version 5.3 or later, this will apply to off-node, logged-in stations also. When the hunt group is deleted, all remotely logged-in stations will be logged out.

- If the extension number of an ACD Hunt Group is changed, any local or remote stations that are logged in will reflect the change. If links are down at the time of the change, remote nodes will not receive the change and an import/export process will be necessary to update the information on the affected nodes.

- Removing an Agent ID from a hunt group agent list logs out any station, local or remote, that is logged in to that hunt group using that Agent ID.

- With the node-spanning features of ACD hunt groups, changing Agent IDs can be done from two possible locations: on the node where the group resides or on a node where the logged-in station resides.

  — When changing an Agent ID on the node where the hunt group resides, the remotely logged-in station using that Agent ID will be logged out even though the Agent ID still exists on the remote node. The hunt group will then contain the new Agent ID in its removed list, making the new Agent ID available for log-in use.

  — When changing an Agent ID on the node on which the logged-in station resides (a node remote from the hunt group), the remote member will be logged out and the old Agent ID will no longer exist on that node. The hunt group on the original node will contain the old Agent ID in its removed list, because this ID still exists on that node.

- During a database restore on a node containing ACD hunt groups that use Agents IDs, all Agents IDs are placed into each hunt group's removed list. All stations will be logged out during the restore.

- When the extension number of a logged-in station is changed, the new extension will be logged in with the same Agent ID and will not be disconnected. This applies to stations logged in both remotely and locally.

TRUNK FEATURES

This section explains the trunk functions and programmable features.

<table>
<tr><td align="center">**CAUTION**</td></tr>
<tr><td>While this system is designed to be reasonably secure against CO trunk misuse by outside callers, there is no implied warranty that it is not vulnerable to unauthorized intrusions and toll fraud. If the central office does not provide supervision it will not disconnect the call when one party hangs up; it is possible for a caller to remain connected to a CO trunk circuit. If this happens, and the caller begins dialing, the call could be placed through the system and would then be billed to the system's owner. The system cannot check this type of call for toll restriction and may not register the call in SMDR. This problem could arise when a call is connected to a station or when a call is in an unsupervised conference.</td></tr>
</table>

CALLER ID, DNIS, AND ANI

NOTE: The Advanced CO Interfaces premium feature is required to use the following features.

The system supports Caller ID, ANI, and DNIS. These features provide information about the source of the call.

- **Caller ID:** Caller ID information gives the caller's telephone number and/or name.

- **ANI:** Automatic Numbering Identification (ANI) information identifies the caller's telephone number. The system receives a specified number of digits.

- ***ANI*:** This is a form of ANI that does not have a specified number of digits. The system receives a star (*) before the ANI digits to signal the beginning of the caller's telephone number. Then there is another star after the digits to signal the end of the ANI information.

- **DNIS:** Dialed Number Identification Service (DNIS) identifies the number that was dialed to reach your location. The system receives a base number and a specified number of digits that identify the dialed number.

- ***DNIS*:** This is a form of DNIS that does not have a specified number of digits. The system receives a star (*) before the DNIS digits to signal the beginning of the dialed number. Then there is another star after the digits to signal the end of the DNIS information.

- ***ANI*DNIS*:** This is a two-stage address service that provides both the caller's telephone number and the dialed number. It combines the *ANI* and the *DNIS* features described above.

INTER-TEL PHONE DISPLAYS

Whether call information appears on the Inter-Tel phone display and what information appears, is determined by station flags in the database. The flags are:

- **Expanded CO Call Information On Displays:** This station flag determines whether call information (trunk name or call information) is displayed at the phone. If it is enabled, the Outside Call Party Information Has Priority flag (described below) determines what is displayed. If it is disabled, the programmed trunk group username will appear on the display. In the default state, this flag is *enabled*.

- **Outside Party Call information Has Priority:** If the Expanded CO Call Information flag is enabled (as described above), this flag determines what information is displayed at the phone. If enabled, any call that is received on a trunk that provides outside call information (for example, Caller ID or ANI), will be identified on the phone's display with the call information. If disabled, the display will show the DID or DNIS information for the call (if available). In the default state, is it *enabled*.

- **Display Outside Name:** If the Display Outside Name station flag is enabled, the phone user can switch between the outside party name and number when connected to a CO call with outside party information. The phone user enters the Display Outside Party Name On/Off feature code (379). In addition, the enhanced ring-in displays will provide the user with more information such as both Caller ID name and number if available, or tell the user if a Caller ID number is blocked or out-of-area. This is a station flag that applies to Inter-Tel phones only. In the default state, this flag is *enabled*.

The system will provide the user with advanced displays for direct ring-in calls, if the station has "Expanded CO Call Information On Displays" and "Outside Party Call Information Has Priority" station flags enabled (by default they are enabled).

A typical direct ring in display would look like the following: "TRNK GRP 1 RINGING IN." However, with the enhanced displays, the system will attempt to display the name of the outside caller on line 1 and the number of the outside caller on line 2.

When a CO call rings into the system, the system uses the following criteria to determine the name that will appear on the display phones. The criteria are listed from highest priority to lowest priority.

Display Line 1

The following criteria are used to display the name on the top line of the ring-in display. This assumes that all of the necessary station flags are properly set and usernames are correctly filled in or left blank (at the programmer's discretion) for Call Routing Tables and Trunk Group Names.

1. Outside Party Name provided by the Desktop Application, if available.

2. Outside Party Name provided by Caller ID, if enabled at the system-wide flag level.

3. Outside Party Name provided by system speed-dial. If the collected number matches a number in a speed-dial bin, the system uses the name of the corresponding speed-dial bin.

4. Outside Party Number provided by the Desktop Application.

5. Outside Party Number provided by Caller ID, if enabled at the system-wide flag level.

6. Outside Party Number provided by ANI service, if enabled at the system-wide flag level.

7. Call Routing Table Name, if the name is not blank.

8. Trunk Group Name, if the name is not blank.

9. Default Trunk Group Name (TG XXXXX).

Display Line 2

The following criteria are used to display the number on the bottom line of the ring-in display. This assumes that all of the necessary flags are properly set.

1. Outside Party Number provided by the Desktop Application, if available.

2. Outside Party Number provided by Caller ID, if enabled at the system-wide flag level.

3. Outside Party Number provided by ANI service, if enabled at the system-wide flag level.

4. Number Absence Reason, such as Caller ID "OUT-OF-AREA" or "PRIVATE" (blocked) message.

5. RINGING IN display.

ANI and Caller ID information is also sent to the voice mail application to provide the caller's telephone number as part of the message envelope.

SINGLE-LINE SET DISPLAYS

System software V8.1 and later supports the transmission of Caller ID to single-line sets. This feature uses the calling party information that the system cabinet receives from the central office (CO). Once programmed, on-hook single-line sets display the calling party's phone number after the first ring when they receive an incoming CO call. The Caller ID information is also displayed if the single-line set receives a transferred call from another station that has calling party information.

NOTE: Caller ID is not transmitted to single-line adapters (SLAs).

OUTGOING-ACCESS, ALLOWED-ANSWER, AND RING-IN ASSIGNMENTS

Each trunk group has programmed lists of stations for outgoing-access, allowed-answer, and ring-in assignments for day and night modes.

- **Outgoing-access** assignment for a particular trunk group or node trunk group permits the station user to place calls using trunks in that trunk group. Each station has a default outgoing access code programmed in the database. When the user presses the `OUTGOING` button, presses an idle Call button, or enters the Outgoing Call feature code (8), the system automatically selects an outgoing trunk.

  NOTE: Because the network does not allow users to directly access trunks on other nodes, each trunk group's Outgoing Access can contain only stations on the local node. (Users must use ARS to access trunks on other nodes.)

- **Allowed-answer** access to a particular trunk group permits the station user to answer incoming calls on the trunks in that trunk group (even if the station does not have ring-in assignment for that trunk group). Stations cannot have allowed-answer assignment for trunk groups on other nodes. On Inter-Tel phones, the individual trunk button flashes (if one exists) to indicate the ringing call. If a station is programmed with allowed-answer access only (no ring-in) for a trunk group, direct ring-in calls on that trunk group can be answered by entering the Automatic Trunk Answer feature code (350) or pressing the flashing individual trunk button.

- **Ring-in** assignment for a particular trunk group can be assigned to one or more stations, extension lists, or Voice Processor applications; to a hunt group; to DISA; or to a call routing table. A trunk can ring in to a station or Voice Processor application on another node. The ring in destination(s) for the trunk group will receive direct ring-in calls on trunks in that trunk group. On Inter-Tel phones with ring in, the individual trunk or Call button flashes, and the display indicates a ringing call. Allowed answer for the trunk group is automatically assigned to a station with ring in.

When Inter-Tel phones have outgoing-access or ring-in assignments, the associated individual trunk buttons show the status of their trunks.

Stations that do not appear on any of the lists cannot place or directly receive outside calls; they are limited to intercom calls, conferences, transferred calls, and retrieving calls on system hold. (A call on system hold can only be picked up at the station that placed it on hold or at a station that has an individual trunk button and has allowed-answer and/or outgoing access for that trunk.)

A private trunk group (with one or more trunks) can be established by programming outgoing-access, ring-in, and allowed-answer permission for the trunk group to only one station.

ANSWER FEATURE CODE

For calls that are ringing or holding at the station, the user may enter the Answer feature code (351) or press the `ANSWER` button. When more than one call is ringing or holding, the following priority list determines which call is answered first:

- Ringing calls (ring ins, recalls, callbacks, or transfers) are answered in the order they were received.

- Calls on individual hold are answered in the order they were placed on hold.

AUTOMATIC ROUTE SELECTION (ARS)

NOTE: The Automatic Route Selection premium feature is required to use ARS.

ARS is a money-saving feature that allows the system to be programmed to select the least expensive route for placing outgoing calls. It can be used for placing outgoing calls and transferring or forwarding calls to outside telephone numbers. Stations can be restricted to using only ARS for placing outgoing calls. Also, because users do not have direct access to trunks on other nodes, ARS is the only way users can place calls using the other nodes' trunks.

ARS is programmed using route groups and facility groups.

- **Route Groups:** A route group contains dialing patterns and facility groups.

  — The dialing patterns are used to determine the calls that will be routed through the route group. For example, the default dial pattern for Route Group 1 is N+ (any number of digits beginning with digit 2-9). If a number is dialed that begins with 1, it will not be routed through this route group.

  — Each route group has an ordered list of facility groups that contains lists of local trunk groups and/or nodes. There can be 100 facility groups in the system. The facility groups should be programmed so that the least-expensive route is checked and, if available, is selected first. If the least-expensive facility group is not available, the system checks the other groups in the list until it finds an available trunk.

- **Facility Groups:** A facility group contains trunk group/node lists and dial rules.

  — The trunks can include local trunk groups or nodes.

  — The dial rules tell the system what to dial. The system can have up to 32 dial rules, 26 of which are programmable. Each facility group can use up to 32 dial rules. For example, if the selected route group requires that the number contain "1" but no area code, the dial rules include the 1 and drop the area code. The modified telephone number can contain up to 32 digits. (If SMDR is enabled, the modified telephone number, not the digits dialed, will appear in the SMDR call record.) When programming ARS, you can use preset dial rules or create new dial rules that add up to 16 digits each. The pre-programmed dial rules are:

    Dial Rule #1 – Echo Equal Access: This non-programmable dial rule includes the equal access digits (10XXX or 101XXXX) in the number, if dialed.

    Dial Rule #2 – Echo Toll Field: The toll field (1, 0, 01, or 011) is included in the number, if dialed. This dial rule is non-programmable.

    Dial Rule #3 – Echo 3 Digits After Toll Field: With this non-programmable dial rule, the three digits after the toll field are included in the number. (These digits are usually the area code or country code.)

    Dial Rule #4 – Echo Local Address: This non-programmable dial rule allows ARS to dial the telephone number that was dialed by the station user.

Dial Rule #5 – Add Account Code: This non-programmable dial rule causes the system to dial the account code that is associated with the call, when it is available. The account code can be entered using any of the account code types, including All Calls Following, as long as the system receives the account code before the end of dialing. (To use an optional account code, the code must be entered before the number is dialed.)

Dial Rule #6 – Add Extension Number: This non-programmable dial rule tells the system to include the extension number of the station or Voice Processor application that is being used to place the call.

Dial Rule #7 – Add #: This dial rule adds a pound (#) to the number dialed. This dial rule can be programmed.

When ARS is selected, the user dials the number (including the area code, if needed), and the system does the following:

1. **Checks the dialed number and matches the dialing pattern to a route group:** The system checks the route groups in numerical order and selects the first group that applies to the dialing pattern of the number that was dialed.

   NOTE: If the Emergency Call feature is programmed to use ARS, the emergency calls will always go through Route Group 1, regardless of route group programming.

2. **Selects a facility group:** If all of the trunks are busy, and the station is enabled for ARS camp on, the call will camp on to the facility group until a trunk is available.

3. **Checks for toll restrictions and outgoing access:** Before the number is modified by the facility group's dial rules, the system checks the station toll restrictions and outgoing access to determine whether the call is allowed. (All calls placed using ARS are toll restricted, regardless of whether the selected trunk is subject to toll restriction. However, Emergency Call feature calls are never toll restricted.) If allowed, the system continues to the next step. If not allowed, the system sends reorder tones, and the call is not placed.

4. **Adds or deletes digits according to the facility group chosen:** Each facility group has a programmed set of dial rules that tells the system what to dial. For example, if the selected route group requires that the number contain "1" but no area code, the dial rules include the 1 and drop the area code.

5. **Dials the modified telephone number:** If the number is allowed, the system seizes an idle trunk in one of the selected trunk groups, waits for the Dialing Wait After Connect timer to expire, and then dials the number.

When ARS is used, the station user hears dial tone when the feature code is entered (manually or automatically using a Call button, the ARS button, or the **OUTGOING** button). The user then dials the number and hears silence until the trunk is seized and dialing is completed. (The user will not hear the digits being dialed.) The call appears under an available Call button or trunk button.

AUTOMATIC ROUTE SELECTION EXAMPLE

①

Station user enters 1234 account code and dials 1-602-961-9000

Axxess

CO

OUTGOING CALL DIALED = 1-602-961-9000-1234

② ARS does the following:

- Checks the number and finds dialing pattern 602+ in Route Group 2.
- Selects a facility group with an available trunk.
- Checks toll restriction and outgoing access.
- Uses dial rules to modify the number:
Echo 3 Digits After Toll
Echo Local Address
Add Account Code
- Dials the modified number.

TOLL RESTRICTION

The following features provide toll restriction on the system. (They are described in further detail in this section.)

- **Trunk Group Toll Restriction:** Each trunk group can be designated as "subject to toll restriction" or "not subject to toll restriction" in Database Programming. If subject to toll restriction, station class of service is checked when the trunk group is selected for placing an outgoing call. The exceptions to trunk group toll restriction are as follows:

  — **Emergency Call Feature:** When the Emergency Call feature code is entered, the designated trunk access code is used to seize a trunk and the programmed emergency number is dialed regardless of any station or trunk group toll restrictions.

  — **Automatic Route Selection (ARS):** Calls placed using ARS (except Emergency Call feature calls) are always subject to toll restriction, regardless of the selected trunk group's toll restriction programming. Note that only the station's COS is checked; the trunk group's COS is not.

  — **Network ARS Calls:** When determining toll restriction for an ARS outgoing call, the network checks the station toll restriction based on the database information on the node on which the station resides, not the node that contains the trunk which the system uses to place the call. The system does not check the trunk COS for ARS calls.

- **Exemption From ARS-Only Restriction:** Each trunk group may be designated as "exempt from automatic route selection (ARS) only." If exempt, station users with the ARS-Only class of service can select the trunk group directly.

- **Absorbed Digits:** Trunk groups that are subject to toll restriction can be programmed to "absorb" (ignore) the first digit(s) dialed. This allows the system to handle the dialed digits just as they would be by the local telephone company or PBX to which the system is connected.

- **Station And Trunk Group Classes Of Service:** Each station and trunk group can be assigned one or more classes of service (COS) which can restrict or allow certain digit patterns when an outside call is dialed. (Trunk group COS is not checked when ARS is used.)

CLASS OF SERVICE (COS)

Each station and each trunk group that is "subject to toll restriction" is assigned toll restriction classes of service (COS) that restrict or allow certain dialing patterns on outside calls.

The classes of service (COS) are programmed individually for stations, Voice Processor applications, and trunk groups. There are separate COS designations for day and night modes. A station or trunk group can be completely unrestricted or can have any combination of the classes of service.

The first nine COS designations (01-09) have default values. COS designations (10-16) do not have default values and are blank. All of the classes of service are programmable. Each may be specified as an "allowed" or "denied" class of service, dialing patterns can be programmed for each, and each can be assigned to stations and trunk groups as needed.

The default values of COS 01-09 are as follows.

COS	NAME	RESTRICTION
01	ARS Only	*(This is a station class of service only. It is not used for trunk groups. Also, the Automatic Route Selection premium feature is required.)* Calls can only be placed using the Automatic Route Selection (ARS) feature. The user will hear reorder tones when attempting to place a call using any other method. A restricted user can still select individual trunks if the trunks are designated as "exempt from ARS Only" (as described on page 155), were transferred, were placed on hold, or are recalling or ringing. Trunk restriction determines which trunks in the ARS route group can be selected by the station or application.
02	Deny Area/ Office	This restriction is divided into eight user groups to allow the use of varying area/office code restriction tables. This is useful for reducing restrictions for some of the stations, applications, or trunk groups while increasing restrictions for others. Each station, application, and trunk group is assigned a day mode and a night mode user group in Database Programming. Within each user group, area codes can be designated as restricted, allowed, or extended. Restricting an area code prevents users from placing calls to that area code. Allowing an area code allows all office codes within that area code. Designating an area code as extended allows the programmer to determine which office codes (up to 800) are allowed or restricted within that area code.
03	Deny Operator	Calls to operator numbers are restricted.
04	Deny Toll Access	Calls to numbers containing a toll string (defaults to 1) are restricted.
05	Deny International	Calls to international numbers are restricted.
06	Deny Equal Access	Calls that begin with equal access digits (10XXX or 101XXXX) are restricted.
07	Deny Local Calls	Calls to local numbers are restricted.
08	Denied Numbers	Calls to programmed "denied" numbers (defaults to 1900NXXXXXX+ and 976XXXX+) are restricted.
09	Allowed Numbers	Calls to programmed "allowed" numbers (defaults to 1800NXXXXXX+) are allowed, even if number also matches a dial pattern in a restricted class of service that is assigned to the station, application, or trunk group being used.

System speed-dial numbers can be programmed to bypass COS restrictions on a system-wide basis. If the option is not enabled, all system speed-dial numbers are subject to toll restriction.

Because a condition may exist where a critical or life threatening situation needs to be reported, using the Emergency Call feature code will override all toll restrictions and trunk access programming.

Note that if the trunk group is "not subject to toll restriction," neither the trunk group or station COS is checked, unless the call was placed using ARS. All ARS calls are subject to *station* toll restriction only.

EMERGENCY CALL FEATURE

> **NOTICE**
>
> It shall be the responsibility of the entity or person(s) completing installation and maintenance of hardware or software described herein to research, comply with and be responsible for the specific governmental rules and regulations regarding Emergency Outgoing Access (911) of the geographic location in which such functions are performed.

The system will immediately allow access to local emergency facilities whenever a station user enters the Emergency Call feature code (defaults to 911). When activated, the Emergency Call feature will select a trunk or route the call based on the device programming. The digit(s) required to call the local emergency services facility (defaults to 911) are then automatically dialed. Because a condition may exist where a critical situation needs to be reported, this feature will override all toll restrictions and trunk access programming.

In versions prior to 7.0, when a user dialed 911 at intercom dial tone, the system selected an idle trunk using the trunk access code programmed for this feature (defaults to Trunk Group 1) or an individual line code (direct trunk access). In versions 7.0 and later, however, the emergency extension is programmable on a per-station basis. In addition, Day/Night Emergency Outgoing Access lists are provided to validate the extension making the emergency call. When a user dials 911 at intercom or CO dial tone, emergency outgoing access is granted based on how system programming and what the user dialed, as described below.

- *If the user dials the emergency feature code from a station with a trunk or trunk group programmed as the Emergency Extension,* the Emergency Call feature routes the call based on the station's Emergency Extension. The trunk or trunk group does *not* validate the station originating the emergency call against the trunk group's Emergency Day/Night Outgoing Access List. An idle trunk is seized, and the system automatically dials Emergency Number 1.

- *If the user dials the emergency feature code from a station with ARS programmed as the Emergency Extension*:

  a. The Emergency Call feature routes the call based on the station's Emergency Extension.

  b. The call is routed to Route Group 1.

  c. The call tries the first facility group in Route Group 1.

  d. The trunk group or node trunk group validates the station originating the emergency call against the group's Emergency Day/Night Outgoing Access List.

  e. *If the call is denied,* it tries the next member in the facility group. If each member denies the call, the call tries the next facility group in Route Group 1's list.

     If everything is denied due to Emergency Outgoing Access, the call is routed once again to Route Group 1. The call then tries the first facility group in Route Group 1. The trunk group or node trunk group does *not* validate the station originating the emergency call against the group's Emergency Day/Night Outgoing Access List. If no trunks are available, the call tries the next member in the facility group. If all of the members are unavailable, the call camps-on to Route Group 1 until a trunk is available.

- *If the user accesses a trunk or trunk group and dials any Emergency Number (1-10),* the trunk or trunk group does *not* validate the station originating the emergency call against the trunk group's Emergency Day/Night Outgoing Access List. An idle trunk is seized, and the system automatically dials the emergency number.

- *If the user accesses ARS and dials any Emergency Number (1-10):*

  a. The call is routed to Route Group 1.

  b. The call tries the first facility group in Route Group 1.

  c. The trunk group or node trunk group validates the station originating the emergency call against the group's Emergency Day/Night Outgoing Access List.

  d. *If the call is denied,* the call tries the next member in the facility group. If each member denies the call, the call tries the next facility group in Route Group 1's list.

    If everything is denied due to Emergency Outgoing Access, the call is routed once again to Route Group 1. The call then tries the first facility group in Route Group 1. The trunk group or node trunk group does *not* validate the station originating the emergency call against the group's Emergency Day/Night Outgoing Access List. If no trunks are available, the call tries the next member in the facility group. If all of the members are unavailable, the call camps-on to Route Group 1 until a trunk is available.

NOTE: Inter-Tel highly recommends that only local trunks be installed and used for emergency trunk access and that only local trunks be programmed in Route Group 1. Programming a node in Route Group 1 may cause the system to access a trunk on a separate node when ARS is used for emergency access. If this occurs, Emergency Outgoing Access is no longer validated.

The system will allow the Dialing Wait After Connect timer to expire and will then dial the digit string programmed in the database as the emergency number.

At the time the call is processed, a minor alarm will be generated by the system and sent to all administrator stations. Also if the Message Print option is enabled, the alarm message is sent to the designated output port.
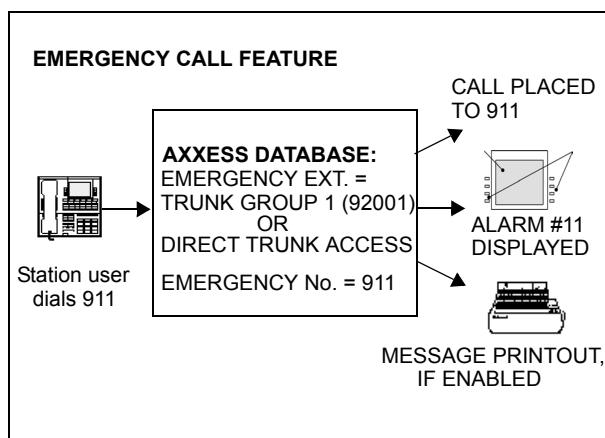
Emergency Outgoing Access Lists

As of version 7.0, the system supports two outgoing access lists called *Emergency Day Outgoing Access* and *Emergency Night Outgoing Access*. These lists, which are similar to the Day/ Night Outgoing Access lists, are programmable for CO Trunk Groups and Node IP Connection Groups. These lists default to the Auto Extension List *PP051: Auto: All Stations*.

Ten Emergency Numbers

The system can store up to ten emergency numbers that are dialed when the Emergency Call feature is used.

When the Emergency Call feature code (defaults to 911) is dialed at intercom dial tone, the Emergency Call feature will select a trunk (defaults to Trunk Group 1) and then automatically dial Emergency Number 1. If a station user accesses a trunk or ARS and dials Emergency Numbers 1-10, the dialed number will automatically override all toll restrictions and trunk access programming.

If the system is installed in an area where 911 service is not available, it is suggested that the number for the local police or fire department or the telephone company operator be substituted.

If the database programmer renders this feature inoperative by removing all trunk access and/ or by removing the dialed digit string, the database program will present a warning message indicating that the feature has been disabled and requiring the programmer to acknowledge or change this condition before being allowed to continue.

Like all other feature codes, the 911 feature code can be changed to another 1- to 5-digit code, if necessary, but it is not recommended.

An emergency number will be blocked if there are no trunks or emergency numbers programed in the database, or all trunks in a trunk group are busy.

If the Emergency Call feature is programmed to use ARS, route group 1 (local calls) will be used even if its dial patterns are reprogrammed.

Emergency calls, by default, use the first local trunk group and will not be sent using node trunk groups on other nodes. However, when ARS is used to place an emergency call, Route Group 1 is used even if it contains nodes. This means that the network *can* access a trunk on a node other than the user's node if the user accesses ARS and dials the emergency number. *Local trunks must be installed and used for emergency number trunk access and nodes should not be used in Route Group 1.* When a user places an emergency call, every administrator in the network receives an emergency alarm.

Calling Party Number Field

Each station can be programmed to send an identifying number when a call is placed. The "Calling Party Number field is located in Devices and Feature Codes - Stations - Individual Station programming. This information is required for emergency 911 calls in some states. You can program any number up to 48 digits in the Calling Party Number field. However, check with your service provider to determine their specific requirements for this field. This number will be sent in the ISDN setup message in the Calling Party Number Information Element. In addition, the system will also send the extension number of the station in the Calling Party Number Subaddress Information Element. The CO should ignore this information element if it does not support it.

NOTE: There is no default number for this field. It is up to the programmer to supply the correct Emergency Calling Party Number for each station.

If an off-premises extension is used for dialing 911, the 911 operators will see Calling Party Number or the address of the location of the system, not the off-premises address. Off-premises personnel should be prepared to give the correct address and other pertinent information if it is not programmed as the Calling Party Number.

IP Devices and Local Loop Support

System V7.0 or later supports IP-based solutions for providing local Public Switched Telephone Network (PSTN) connectivity using the IPRC card and a third-party Media Gateway Control Protocol (MGCP) gateway. The system requires software V7.0 or later and IPRC firmware V1.3 or later. The firmware supports up to 32 IP Phones/SLAs/SoftPhones and Loop Start Adapters (LSAs). Support for IP-based local loop does not require Premium Features.

Up to 32 ports of an IPRC can be programmed to be loop start adapter ports (MGCP gateway trunks). The IPRC statically maps Voice over IP resources on a one-to-one, non-blocking basis for each loop-start port within the MGCP device.

Inter-Tel currently supports the following gateways:

- **AudioCodes MP-100 Foreign Exchange Office (FXO) Gateway:** Supports up to four loop start line (FXO) ports.

- **AudioCodes MP-104 FXO Gateway:** Supports up to four loop start line (FXO) ports. Although the MP-104 is similar to the MP-100, each gateway uses a different switch type for configuring the device. The MP-100 uses DIP switches, and the MP-104 uses a command line switch (-fb). The MP-104 on an IPRC V8.1 firmware supports the peer-to-peer (P2P) audio feature.

For details on the gateway device, see the latest version of the *IP Devices Installation Manual*.

The following diagram illustrates a remote site with an MGCP gateway.

FIGURE 10. *Example of a Remote Site without an MGCP Gateway Application*
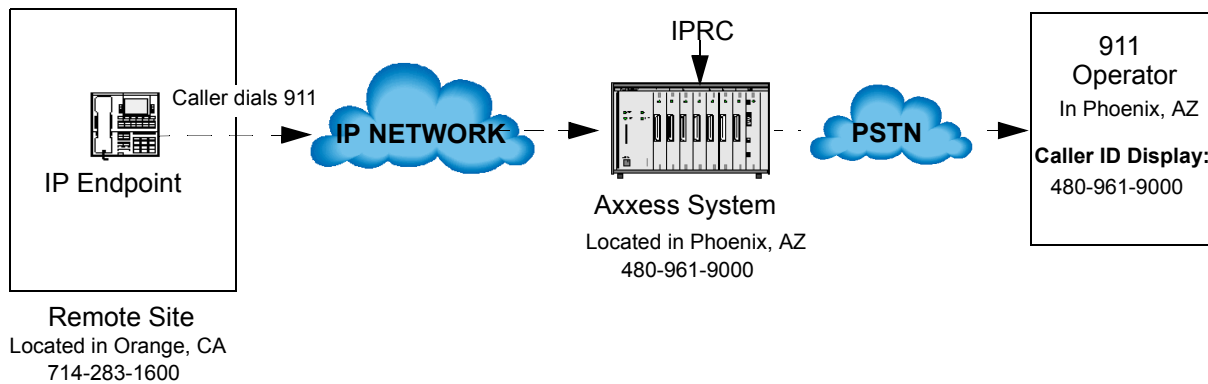
FIGURE 11. *Example of a Remote Site with an MGCP Gateway Application*
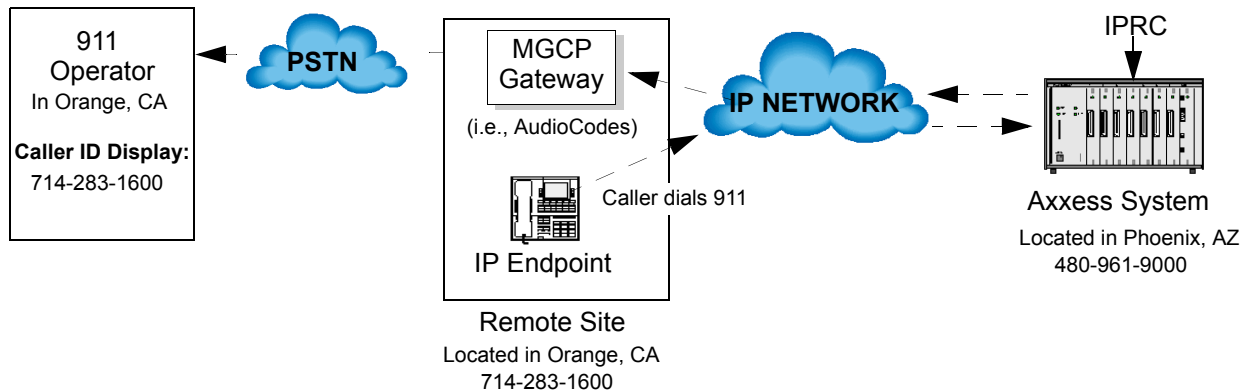
NOTE: The MGCP gateway is intended to connect to the PSTN. Connecting the MGCP gateway to single-line ports on other phone systems is currently not supported.

When configured with an MGCP Gateway, you can program the system so that when 911 is dialed from an IP device, the calling name and number associated with the IP device, not the system, is sent to the 911 operators. See the latest version of the *IP Devices Installation Manual* for details.

CAUTION

If an IP or SIP device user dials 911 from a remote location and an MGCP gateway is not present and configured properly, the call will be placed from where the telephone system is located. Because 911 services use Caller ID to help locate the caller, emergency service could be misdirected or delayed. Also, the 911 service contacted may be local to the system, but not to the IP or SIP device. All IP and SIP device users should be alerted to this situation and instructed to use a local telephone line for placing emergency calls if an MGCP gateway is not present and/or functioning properly. Also note that IP and SIP devices will not function in the event of a power failure at either the local site or the system location. Inter-Tel will not be held responsible for any problems resulting from an unavailable line that is connected to the MGCP gateway. Inter-Tel also recommends that users regularly test the MGCP gateway for dial tone.

IP Devices and Local Loop Support

DAY AND NIGHT MODES

There are separate lists in the database for class-of-service, outgoing-access, allowed-answer, and ring-in assignments for day and night modes. When an administrator enters the Night Ring feature code, the system uses the night mode lists. When the system is in day mode, the day lists are used. (Active calls are not affected when the mode is changed.)

Night mode also affects the night transfer relays on the Options Card (OPC). The relays are activated when the system is placed in night mode.

Administrators can place any or all remote nodes into night mode or day mode. The default feature code for Enable Network Night is 9861. The default feature code for Disable Network Night is 9862.

NOTE: The Night Ring On/Off feature code (9860) affects only the node on which the administrator resides. See page 8 for a complete explanation of administrator features.

DIRECT INWARD SYSTEM ACCESS (DISA)

DISA is a programmable feature that allows an outside party to dial into the system from an external DTMF telephone and then dial extension numbers, hunt group pilot numbers, and off-node device extensions. (DISA callers do not have access to outgoing trunks or page zones.)

Any of the trunk groups can be programmed to receive incoming DISA calls in day and/or night mode. When not in use for DISA, the trunk group can be used for placing outgoing calls by stations with outgoing access permission.

NOTE: Due to the natural characteristics of the trunk, the volume level of DTMF tones transmitted over the trunk may be substantially reduced before reaching the system. This natural degradation in tone volume may adversely affect the reliability of the DISA feature. Other factors which can affect DISA performance are trunk noise and the quality and strength of the DTMF tones generated by the off-premises phone itself. If the system cannot recognize a DTMF digit, the call is automatically sent to the primary attendant.

When a DISA user calls a station extension number, the call rings as a direct ring-in call, even if the called station is busy or in Do-Not-Disturb. The DISA caller hears music or ringing (determined by a system-wide option in Database Programming) until the Transfer Available or Transfer Busy timer expires. Then, if the call is not answered, it recalls the called station's attendant. If the called station is forwarded, the call follows the programmed forward.

When a hunt group pilot number receives a call through DISA, the call rings or circulates according to how the hunt group is programmed (i.e., linear or distributed).

If a caller dials a valid hunt group pilot number that has no members assigned to it, the call automatically rings at the primary attendant station until the Abandoned Call timer expires. If the call is not answered before the Abandoned Call timer expires, the call is disconnected.

Security Codes

DISA trunks can be assigned security codes (up to eight digits in length) that are required for access to the system. The installer can program separate codes for each DISA trunk group to be used during day and/or night modes.

NOTE: To prevent unauthorized access to the outgoing trunks, *all* trunk groups using DISA should have a security code.

During database programming, the programmer can determine the number of times that a caller may unsuccessfully attempt to enter a security code and/or dial an extension number. If the user does not succeed within the determined number of attempts, the call will be disconnected (if the security code is invalid) or transferred to the primary attendant (if the extension number is invalid).

Using DISA

NOTE: If DTMF decoders are unavailable when a DISA call is received, the incoming DISA call is automatically sent to the primary attendant.

TO USE DISA:

1. From a DTMF telephone, dial the telephone number of the DISA trunk. When the call is answered by the system, you hear system intercom dial tone.

   If you hear a single progress tone, enter the appropriate (day or night) DISA security code, followed by pound (#).

2. Dial an extension number or a hunt group pilot number. (To call the primary attendant, dial 0.) You hear music or ringing until the call is answered.
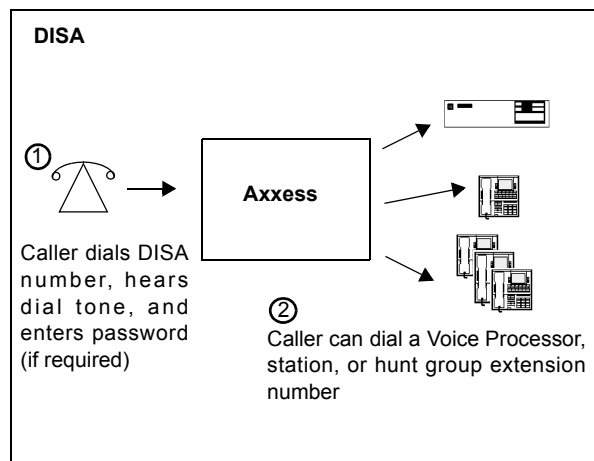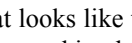
INTER-TEL PHONE FEATURES

The following sections describe how to use Inter-Tel Phone features.

VOLUME CONTROLS

On Inter-Tel phones, volume is controlled in the following ways:

- On Model 8500, 8520, and 8560 Phones, illustrations of speakers (◀ and ◀))) represent higher and lower volume levels. Press the ◀ end of the button to lower the volume and the ◀)) end of the button to raise the volume.

- On the Executive, Standard, and Axxess Basic Phones, an illustration on the button (that looks like this ▬▬ ▬▬ ▬▬) represents higher and lower volume levels. Press the lower end in place of the down arrow and the higher end in place of the up arrow.

- On the Professional, Associate, and Eclipse Basic Phones, arrows on the key represents higher and lower volume levels.

- On some analog phones, speaker volume and ring tone volume are controlled by two thumbwheels on the right-hand side of the phone.

- The other Inter-Tel phones have separate VOL UP and VOL DOWN keys.

NOTE: The volume adjustment button on the digital phones also can be used for scrolling through displays. The analog phone volume buttons are used *only* for adjusting volume; they need to have **PREVIOUS** and **NEXT** buttons programmed in their keymaps to scroll through displays.

TO CHANGE VOLUMES ON AN INTER-TEL PHONE:

1. Press the appropriate button to raise or lower the volume, using one of the procedures listed below. A confirmation tone will alert you when you have reached the highest or lowest possible volume. On display phones, the display shows VOLUME LEVEL X. The "X" represents the level and changes as the volume is raised or lowered.

   - **To change handset intercom voice volume:** Adjust the volume while on an off hook (handset) intercom call.

   - **To change handsfree intercom voice and paging volume:** Adjust the volume while on an on-hook (speakerphone) intercom call.

   - **To change handset outside call voice volume:** Adjust the volume while on an off hook (handset) outside call.

   - **To change handsfree outside call voice volume:** Adjust the volume while on an on-hook (speakerphone) outside call.

   - **To change headset intercom voice volume:** *(Model 8520 and 8560 Phones Only)* Adjust the volume while using the headset and on an intercom call.

   - **To change background music volume:** Adjust the volume while listening to music through the phone speaker.

     NOTE: The selected background music volume level is automatically saved.

   - **To change alerting tone (ring tone) volume on a digital phone:** Adjust the volume while the phone is ringing or idle. *OR,* while on hook, press both edges of the Volume button to hear the currently programmed volume. Then adjust the volume.

- **To change alerting tone (ring tone) volume on an analog phone:** Adjust the volume while the phone is ringing or idle. *OR,* while on hook, press the pound button (#) to hear the currently programmed volume. Then adjust the volume.

> **NOTE:** The selected alert tone volume level is automatically saved.

- **To change handset progress tone volume:** Press the desired arrow while listening to intercom dial tone through the handset.

- **To change speakerphone progress tone volume:** Press the desired arrow while listening to intercom dial tone through the speakerphone.

2. **To save the setting on a digital phone:** Press both edges of the Volume button at the same time. The display shows VOLUME SAVED.

    To save the setting on an analog phone: Press the pound (#), **SAVE**, or **ACCEPT** button. The display shows VOLUME SAVED.

    If this step is not performed, the phone will return to the previous volume level when the call or tone ends (except for the ringing alert tone or background music volume, which is automatically saved at the most recent volume level).

TO RETURN AN INTER-TEL PHONE TO DEFAULT VOLUME LEVELS:

While on or off hook, enter the Default Station feature code (394). *If off hook,* hang up. The display shows STATION DEFAULTED.

> **NOTE:** Entering this feature code also cancels Do-Not-Disturb, manual call forwarding, background music, ring intercom always, all calls following account code, headset mode, and queue requests; and restores handsfree mode, pages, hunt group calls, and system forwarding.

SELECTABLE RING TONE

The tone of the phone ring signals (all tones except call waiting) can be changed by the user to create distinctive ringing. If stations are placed close together, changing the tone makes each station's ring easier to recognize. On all Inter-Tel phones, the tone is changed by entering a feature code and a code, as described below.

There are ten ring tone options (0-9). Selection 0 will turn off the ring signals.

TO CHANGE PHONE RING TONE:

1. While on hook, enter the Program Ring Tone feature code (398). The display shows SELECT RING TYPE (0-9) OR SCROLL.

2. **To select a specific ring tone:** Enter a number 1-9 for the desired ring tone. The display shows RING TYPE X SELECTED.

    To scroll through the tones: Press the low end of the Volume button or the **PREVIOUS** button to scroll backward through the tones. Press the high end of the Volume button or the **NEXT** button to scroll forward. (You cannot scroll to selection 0, you must enter it as described below.) The display shows RING TYPE X SELECTED.

    To turn off ringing: Enter 0 or press the **RINGER OFF** menu button. The display shows RING TYPE OFF SELECTED.

3. Lift and replace the handset or press the pound button (#), both ends of the Volume button, or the **ACCEPT** button to exit. The selected tone will be heard when the phone rings (unless ringing was disabled). The display shows RING TYPE X SAVED.

EXTENSION NUMBER, USERNAME, TIME AND DATE DISPLAY

When a display phone is idle, the extension number, username, time, and date are displayed. While on a call, in Do-Not-Disturb, or unconditionally forwarded, other displays are shown. In these circumstances, use the following procedure to redisplay the date, time, username, and extension number for five seconds.

TO DISPLAY THE DATE, TIME, USERNAME, AND EXTENSION NUMBER:

Press the Special button and enter the Display Time/Date feature code (300). The date, time, username, and extension number are displayed for five seconds.

"ALL TRANSIENT DISPLAYS" STATION FLAG

The "All Transient Displays" station flag, when enabled, will allow all transient call handling displays to appear on the phone display. If it is disabled, the CALL TRANSFERRED TO XXXX and MESSAGE LEFT FOR XXXX transient displays will not appear.

Each transient display is shown for five seconds before another display can take its place. Disabling the flag allows high-traffic stations (such as attendants) to change displays more quickly after a message is left by the station user or after a call is transferred.

This station option cannot be programmed by the user. It is a database-programmable flag.

"DKTS ALTERNATE TRANSIENT DISPLAY TIMER" STATION FLAG AND TIMER

As an alternative to (or in addition to) disabling the call transfer and message transient displays, as previously described, the programmer can use a combination of a station flag and a timer to control *all* of the station's transient displays (not just the call transfer and message displays). The "DKTS Alternate Transient Display Timer" station flag, if enabled, allows all transient displays to be controlled by the "DKTS Alternate Transient Display" timer.

The "DKTS Alternate Transient Display" timer can be set to 1-255 tenths of a second (0.1-25.5 seconds). The default value is 10 tenths of a second (1 second). This timer affects only those Inter-Tel phones with the "DKTS Alternate Transient Display Timer" flag enabled.

"TRANSIENT CALL INDICATION ON CALL ANSWER" STATION FLAG

This programmable station flag determines whether the station user will see a call display when answering a call by pressing a secondary extension button or by reverse transferring. If enabled, the display will tell if the call was ringing, recalling, transferred, or holding at the other station.

USER-PROGRAMMABLE FEATURE BUTTONS

> **NOTE:** This feature does not apply to single-line sets.

Individual Inter-Tel phone buttons can be designated as "user-programmable" in the keymaps during database programming. The installer can program the default feature codes, and the station user can reprogram the feature codes as desired. Default phone feature codes are shown on page 84. Up to 35 user-programmable phone buttons can be programmed to enter any of the general feature codes.

Inter-Tel display phones have a special **FWD** key when the buttons are in the default state. (However, it can be reprogrammed to use any of the Forward feature codes.) When the **FWD** button is pressed, the display shows a menu of call forwarding options. The user must then select the desired option by pressing the corresponding button next to the display. If the **FWD** button is programmed to use any other Forward feature code (355-358), the forwarding options will not be displayed when the **FWD** button is pressed. Any Inter-Tel phone user can make any user-programmable button a **FWD** button that uses any one of the forwarding feature codes (355-358).

Secondary extension buttons (described on page 85) can be assigned to user-programmable buttons during keymap programming. If so, the phone user can determine the primary station that is associated with the secondary extension button by using the feature button programming procedures given below.

TO DISPLAY THE CURRENT BUTTON ENTRIES:

1. While on hook, enter the Review Keys code (396). The display shows PRESS THE KEY TO REVIEW.

2. Press the feature or speed-dial button(s) to be displayed. The display shows the feature, username, or speed dial location name and KEY VALUE: *(feature code, extension number, or location code)*. For a secondary extension button, the display shows SECONDARY: *(station)*.

TO RETURN THE BUTTONS TO DEFAULT VALUES:

While on or off hook, enter the Feature Key Default feature code (395). *If off hook,* hang up. The display shows FEATURE KEYS DEFAULTED.

TO PROGRAM A FEATURE CODE IN A USER-PROGRAMMABLE BUTTON OR ASSIGN A PRIMARY STATION TO A SECONDARY EXTENSION BUTTON:

1. While on hook, enter the Program Keys feature code (397). Display phones show PRESS THE KEY TO PROGRAM.

2. Press the desired feature or secondary extension button. The display shows the current feature, station, or speed dial location name and KEY VALUE: *(feature, extension, or location code)*.

3. Enter the feature code or extension number to be stored under that button. (*If programming the* ▮ **FWD** ▮ *button,* only Call Forwarding feature codes 355-358 will be accepted.) You hear a single progress tone when the programming is completed. Display phones show the newly programmed feature. If you attempt to program a non-programmable button or enter an invalid code, you will hear repeating reorder tones, and the feature code assigned to the button will remain unchanged. Display phones show NON-PRO-GRAMMABLE KEY or FEATURE CODE INVALID.

> **NOTE:** If you do not enter a feature code, the programming mode times out when the Long Interdigit timer expires; the feature code assigned to the button remains unchanged.

4. To program other buttons, repeat the procedure.

> **NOTE:** Speed-dial buttons are programmed using the procedure shown below. Entering an extension number, using the above instructions, will create a DSS/BLF button for that extension number, not a speed-dial button (even if the button was previously programmed as a speed-dial button).

TO CREATE A SPEED-DIAL LOCATION IN A USER-PROGRAMMABLE BUTTON:

1. While on hook, enter the Program Keys feature code (397). Display phones show PRESS THE KEY TO PROGRAM.

2. Press the desired feature button. The display shows the current feature, user, or speed dial location name and KEY VALUE: *(feature or name)*.

3. Enter the Station Speed-Dial feature code (382) or the System Speed-Dial feature code (381). The display shows SELECT STN SPEED or SELECT SYS SPEED.

4. Enter the desired speed-dial bin number (0-9 for station, 000-999 for system). The display shows the current contents of that bin.

5. To program a new number in a station speed-dial bin, follow the instructions given on page 235. Administrators can use the procedures on page 31 to program system speed-dial locations.

STANDARD/ALTERNATE KEYMAP SWITCHING

In Database Programming, each Inter-Tel phone is assigned a standard keymap and can also have an alternate keymap. The user can switch between the keymaps by entering a feature code.

Having two keymaps provides the user with access to more features or trunks. In most situations, the user would have one button programmed with the Switch Keymap feature code (399) in each keymap so that it would be easy to change the keymap. (If the user-programmed button has a lamp, the lamp is lit when the alternate keymap is active.)

When keymaps are switched, any user-programmable buttons in the maps retain their user-programmed values; they are not returned to default during the switch. However, if the keymaps do not have the same user-programmable buttons in the same positions, the location of individual buttons may change when the keymaps change.

If a user switches keymaps during an outside call, the call will appear on the appropriate trunk or Call button for that keymap. The button assignment may not be the same for both keymaps. For example, it could appear under a Call button on one map and an individual trunk button on the other.

If a button is not available in the currently active keymap when a call rings in, the user will still see the correct display, hear ringing, and can answer as usual.

TO SWITCH BETWEEN KEYMAPS WHEN THE STATION IS IDLE:

While on hook, enter the Switch Keymap feature code (399). The display shows STANDARD KEYMAP IS ACTIVE or ALTERNATE KEYMAP IS ACTIVE.

TO SWITCH BETWEEN KEYMAPS DURING A CALL:

While on a call, press the Special button and enter the Switch Keymap feature code (399). The display momentarily shows STANDARD KEYMAP IS ACTIVE or ALTERNATE KEYMAP IS ACTIVE.

AUTOMATIC CALL ACCESS

This feature allows an Inter-Tel phone user to determine the way incoming calls are answered by entering a feature code to select the type of call access. The four variations are as follows:

- *No Automatic Call Access:* The user hears intercom dial tone when the handset is lifted and must press a Call or individual trunk button (or the `ANSWER` button) to answer an outside call, or press the `IC` button (or Call button, if there is no `IC` button) to answer an intercom call.

- *Automatic Intercom Call Access Only:* The user can answer ringing intercom calls by simply lifting the handset, but outside calls must be answered by pressing a Call button, an individual trunk button, or the `ANSWER` button.

- *Automatic Outside Call Access Only:* The user can answer ringing outside calls by lifting the handset, but ringing intercom calls must be answered by pressing the `IC` button (or Call button, if there is no `IC` button).

- *Automatic Access For All Calls:* The user can answer any ringing call by lifting the handset. If no call is ringing, the user hears intercom dial tone when the handset is lifted. (This is the way single-line sets work. When the system is in the default state, all Inter-Tel phones have this type of call access.)

> **NOTE:** In any of the above variations, Inter-Tel phone users may still receive handsfree intercom calls (if enabled).

The selected option determines how all types of ringing intercom or outside calls (direct calls, transferred calls, recalls, etc.) are answered. If more than one call is ringing at the station, the first call received is the first answered.

When programmed for automatic outside call access, a station user with allowed answer, but without ring in, for a ringing trunk must always press an individual trunk button for that trunk or enter the Automatic Trunk Answer feature code (350) to answer the incoming call. Transferred calls and recalls can be answered by lifting the handset.

Camped-on calls cannot be answered by simply lifting the handset or pressing the Speaker button. For example, a station is programmed to automatically answer ringing outside calls, but requires pressing the `IC` button to answer ringing intercom calls. If a private intercom call rings in and is immediately followed by an outside call ringing in, the display shows the intercom call message, and the outside call camps on. The intercom call also camps on when the handset is lifted. The user can then choose between the camped on calls by pressing either the `IC` button or the Call or individual trunk button (or `ANSWER` button).

The automatic call access options outlined below can be programmed at Inter-Tel phones only. Single-line sets are designed to automatically answer ringing intercom and outside calls by lifting the handset and cannot be changed.

TO PROGRAM OUTSIDE CALL ACCESS:

To change the current outside call access option to its opposite (toggle on or off), enter the Automatic Trunk Access On/Off feature code (360). You hear a confirmation tone. The display shows AUTO TRNK ACCESS ON (or OFF).

TO PROGRAM INTERCOM CALL ACCESS:

To change the current intercom access option to its opposite (toggle on or off), enter the Automatic Intercom Access On/Off feature code (361). You hear a confirmation tone. The display shows AUTO IC ACCESS ON (or OFF).

MUSIC-ON-HOLD AND BACKGROUND MUSIC

The Music-On-Hold feature not only makes waiting on hold as pleasant as possible, but it assures the holding party that the call is still connected.

Inter-Tel phone users can choose to listen to background music by entering the Background Music feature code (313).

The system can be equipped with one or more optional external music sources for the Music-On-Hold feature. The music source can be a customer-provided radio, tape player, or other device connected to the Central Processing Unit (CPU) Card and/or the Option Card(s) in the system cabinet. When a music source is installed, music-on-hold is enabled or disabled in Database Programming. If music is not desired, the system can be programmed for tick-tones or silence on hold. (The Background Music feature uses the music source connected to the CPU Card only).

NOTE: In some circumstances, there may be broadcast restrictions associated with the music heard by callers on hold. Check with the music's original distributor and/or the radio station for copyright and broadcast restrictions concerning music-on-hold.

In a network, each node has its own music source(s). If a caller on Node 1 is holding for a user on Node 2, the caller hears the music on node 2. Note that if a caller is holding for a user on Node 1 and the call moves to Node 2 (due to a transfer, forward, or recall), the user will stop hearing the music on Node 1 and will begin hearing the music on Node 2.

The music-on-hold option that will be heard by outside callers on the trunks in the trunk group can be set for music, silence, tick tones, ringback, or silence. Throughout the manual, the term "music" refers to the selected option.

Background music is interrupted for calls, pages, phone programming, and ringing.

NOTE: If you receive complaints from IP phone users about losing background music, there may be a firewall issue. Contact your local Inter-Tel dealer for assistance.

TO TURN PHONE BACKGROUND MUSIC ON OR OFF:

While on or off hook, enter the Background Music On/Off feature code (313) or press the analog phone's **MUSIC** button. *If off hook,* hang up. The display shows BACK-GROUND MUSIC ON (or OFF).

MULTILINGUAL CAPABILITY

> **NOTE:** This feature must be enabled in Premium Features. It requires 0 feature units, but it is installer-programmable to prevent unintentional language changes by users in an all-English system.

The system provides a choice between American English, British English, Spanish, and Japanese prompts and displays. The system selects the language to use for each call, as determined by the trunk, station, and Voice Processor programming, as described below. Japanese prompts can be viewed only on the digital display phones. Other Inter-Tel phones do not support Japanese displays.

STATIONS

Language Selection

The system can be programmed to use a Primary Language and a Secondary Language. The available languages are American English, British English, Spanish, and Japanese. A station flag in Database Programming determines the language that will be used by each station.

For example, if the station is programmed for American English, all Inter-Tel phone displays will appear in American English. Also, when the station is used for calling a Voice Processor application, the voice prompts will be in American English (unless overridden by a Call Routing Announcement as described on). If programmed for Japanese, the displays will be in Japanese (Katakana) characters and the voice prompts will be in Japanese (unless overridden). By default, all stations are set for the system's Primary Language.

> **NOTE:** Only digital display phones will display Japanese prompts. Other Inter-Tel phones do not support Japanese displays.

All displays and default messages in the system are provided in American English, British English, Japanese, and Spanish. Station-programmed messages, including those programmed through the administrator's phone, can include English/Spanish or Japanese characters, or a combination. In displayed lists, such as directories, the English/Spanish characters are alphabetized before the Japanese characters. Therefore, Japanese names will be at the end of the list.

When programming a feature that requires a time and date, an English/Spanish phone user will enter the date in the order "month, day, year" and the time in the order "time, AM/PM." The Japanese phone user will enter the date as "year, month, day" and the time as "AM/PM, time." The displays show the time and date differently, as well. For example, the English/Spanish display will show the time and date as "12:25 TUE NOV 28" and the Japanese display will show "TUE 11/28 12:25."

Secondary Language Selection

There is a field provided for each station in the system called "Secondary Language." This field corresponds to the Change Language feature (301). In version 5.2, this feature toggles between the System Primary Language and the System Secondary language. In versions 5.3 and later, this feature toggles between the System Primary Language and the station's Secondary Language, or it can specify a language. This allows any station in the system to have its own secondary language or use the System Secondary Language, giving the system the ability to support more than just two languages.

If a station's Secondary Language field is programmed to be Use Primary Language, the Change Language feature will do nothing because the station will toggle between the System Primary Language and the station's Secondary Language, which is the System Primary Language.

If a station's Secondary Language field is programmed to be Use Secondary Language, the Change Language feature will act like version 5.2 and toggle between the System Primary Language and the station's Secondary Language, which is the System Secondary Language. This is the system default.

If a station's Secondary Language field is programmed to be Japanese, the Change Language feature will toggle between the System Primary Language and the station's Secondary Language, which is Japanese.

The Language field for stations indicates what language the station is currently set to. This field used to toggle between the Use Primary Language and Use Secondary Language. It can be set to any specific language along with the Use Primary Language and Use Secondary Language. The side-effect of changing the Language field is that if you change it to Japanese and the station's Secondary Language field is set to Spanish, then the user will have no way to get back to Japanese if they enter the Change Language feature code. This is because the first time the user enters the feature code, the system will toggle the station to the Use Primary Language. The next time the user enters the feature code, the system will toggle the language to the station's Secondary Language, which is Spanish. To avoid this situation, simply change the station's Secondary Language to Japanese and the station's Language field to Japanese.

NOTE: Setting a station's Secondary Language field to a specific language will not work across nodes unless all nodes in the system are at least 5.2F6 or later. This is because the older systems do not understand specific languages and expect to receive only Primary Language or Secondary Language values.

TRUNKS

A flag in Database Programming determines the language that will be used by each trunk. The language choices are Use Primary Language, Use Secondary Language, American English, British English, Japanese, or Spanish. This field can be set to any specific language so that the system can support more than two languages. If the trunk is programmed for the Primary Language, callers who reach a Voice Processor application will hear the voice prompts in the Primary Language (unless overridden by a Call Routing Announcement as described on the following page). If programmed for the Secondary Language, the voice prompts will be in the Secondary Language (unless overridden). By default all trunks are set for the Primary Language.

NOTE: Setting a trunk or digit translation Language field to a specific language will not work across nodes unless all the nodes in the system are at least 5.2F6 or later. This is because the older systems do not understand specific languages and expect to receive only Primary Language or Secondary Language values.

DO-NOT-DISTURB AND REMINDER MESSAGES

The system has default Do-Not-Disturb and reminder messages in both languages. The messages that use Japanese characters can be reprogrammed only through an administrator's station (see page 18) or Database Programming.

The language of the messages seen by the station user, both when programming his or her station and when calling another station that is in Do-Not-Disturb, are determined by the station's programmed language. That is, if a station is programmed for Japanese, the user will see only Japanese messages when programing a message. If a Japanese-programmed station calls an English-programmed station that has selected Do-Not-Disturb message 02, the Japanese station's user will see the Japanese version of message 02.

NOTE: Only digital display phones will display Japanese prompts. Other Inter-Tel phones do not support Japanese prompts.

When Do-Not-Disturb or reminder messages are reprogrammed, the programmer should attempt to keep the meanings for the messages in both lists the same. That is, if the Primary Language Do-Not-Disturb message 02 is changed to "PAGE ME," a similar message should be programmed for the Secondary Language Do-Not-Disturb message 02.

VOICE PROCESSOR

When a Voice Processor application receives a call from a station or trunk, the system tells the application which language is programmed for that device. For example:

- If a trunk programmed for American English rings in to an application, the Voice Processor will play the American English prompts.

- If a station programmed for Japanese calls voice mail, the station user will hear Japanese prompts.

- If a station programmed for American English receives a call on a trunk that is programmed for Japanese, and then transfers the call to voice mail, the caller (using the trunk) will hear Japanese voice prompts.

- If a Japanese station is forwarded to voice mail, a caller on an American English station or trunk will hear the "American English" prompts (the user-recorded mailbox greeting will be heard in the language in which it was recorded) when the call is forwarded.

When using a Call Routing Announcement application with digit translation, the individual Voice Processor applications assigned to the digits can be programmed to override the device language and provide prompts in one language only. Using this method, you can program a Call Routing Announcement tree that offers callers a choice between languages. For example:

- The Call Routing Announcement application could have a greeting that says, "Thank you for calling. For English prompts, press 1. NIHONGO WA, 2 WO OSHITE KUDASAI (for Japanese, press 2)."

- The digit translation for digit 1 would lead to an application that overrides the calling device's programming and uses only American English prompts.

- The digit translation for digit 2 would lead to an application that overrides the calling device's programming and uses only Japanese prompts.

In the example above, the digit translations could be nodes that lead to various other American English-only or Japanese-only applications. Or, the first level can give more choices, such as English voice mail or automated attendant and Japanese voice mail and automated attendant. Either way, the individual applications or nodes can be programmed to play only one language or they can use the device's language, as needed.

MULTI-LANGUAGE FEATURE ON NETWORK OPERATION

In version 5.2 and earlier systems, all nodes had to be set to use the same Primary and Secondary languages. In version 5.3 or later, all nodes do not have to match the languages because the voice mail system installs any existing language prompt, not just the languages designated as Primary or Secondary. Therefore, for calls across network nodes, if the language does not match between the two nodes, the called voice mail system searches for the designated language in its system in the following order; Primary language, Secondary language, American English, British English, Japanese, and Spanish and uses the designated language. If the designated language does not exist in the voice mail system, the system uses the default Primary language instead.

DIRECTORIES

If Multilingual Support is enabled, directory users will be able to enter English/Spanish and Japanese (Katakana) characters, as needed. Procedures for using the directories are given on page 238.

In directories, the English characters are alphabetized before the Japanese characters. Therefore, Japanese names will be at the end of the list, after the English names.

CHANGE LANGUAGE FEATURE CODE

A station user can change the assigned language for the station by entering the Change Language feature code only when the station is idle.

TO CHANGE THE STATION'S LANGUAGE:

Inter-Tel Phones: Enter the Change Language feature code (301) to change your station between the Primary and Secondary Language, as desired. The display changes to the current language.

Single-Line Sets: Lift the handset and enter the Change Language feature code (301) to change your station between the Primary and Secondary Language, as desired. (To verify the current language, you can call a Voice Processor application that does not override the device language.)

An Inter-Tel phone user can assign the Change Language feature code to any user-programmable button.

Changing a phone's language automatically changes any display. For example, if a station changes from English to Japanese while in Do-Not-Disturb mode with message 02, the display would change from American English message 02 to Japanese message 02.

NOTE: Only digital display phones display Japanese prompts. Other Inter-Tel phones do not support Japanese prompts.

INTERCOM CALLS

<table>
<tr><td align="center">**CAUTION**</td></tr>
<tr><td>When the procedures tell you to hookflash, quickly press and release the hookswitch. If you press the hookswitch to hang up, hold it down until the SL Hookflash Maximum timer expires (default value is 1.2 seconds); otherwise, the system recognizes it as a hookflash.</td></tr>
</table>

The intercom can be used to place station-to-station calls that can be answered handsfree. Or, it can be used to place private (non-handsfree) calls. A station user that reaches a busy station can camp on, request a callback (queue), leave a message, or use the Off-Hook Voice Announce feature (if enabled). Other features that apply to both outside and intercom calls, as described later in this section of the manual, include placing calls on hold, call waiting, call transfer, reverse transfer, and call forwarding.

The network allows handsfree intercom calls when calling from one node to another, unless the call camps on to the node before being sent to the other node.

PROGRAMMING FOR PRIVATE INTERCOM CALLS

A station user can place private (non-handsfree) intercom calls by pressing the pound (**#**) button before dialing the extension number. Or, the station can be programmed to always send and/or receive private calls using the Ring Intercom Always or Handsfree Disable features.

Ring Intercom Always

A station user can always place private calls by programming the station with the Ring Intercom Always feature code. While this feature is enabled, the called party hears repeating double tones and must lift the handset (or press the Speaker button, **ANSWER** button, or **IC** button) to answer. (If the station does not have an **IC** button, the call will appear under a Call button.)

In the default database, all single-line stations have this feature enabled.

TO TURN RING INTERCOM ALWAYS ON OR OFF:

> **Inter-Tel Phones:** While on hook, enter the Ring Intercom Always On/Off feature code (377). The display shows RING IC ALWAYS ON (or OFF).

> **Single-Line Sets:** Lift the handset. Enter the Ring Intercom Always On/Off feature code (377).

Handsfree Enable/Disable

An Inter-Tel phone user can always receive private calls by disabling the phone Handsfree Answering feature using the Handsfree On/Off feature code, as described in the following paragraph. The phone user hears repeating double tones when receiving an intercom call and must lift the handset (or press the Speaker, **ANSWER**, or **IC** button) to answer while Handsfree Mode is disabled.

TO ENABLE OR DISABLE HANDSFREE MODE:

> While on hook, enter the Handsfree On/Off feature code (319). The display shows HANDSFREE MODE ON (or OFF).

STATION-TO-STATION CALLING

Receiving Intercom Calls

TO RECEIVE AN INTERCOM CALL ON AN INTER-TEL PHONE:

If you hear a double tone and a call announcement (handsfree call), and the Speaker button is lit, respond handsfree or lift the handset. (Display phones show **IC** TO *(username)* to identify the source of the call.)

If you hear repeating double tones (private call), lift the handset, or press the Speaker, **ANSWER**, or **IC** button to respond handsfree. (Display phones show INTER-COM CALL FROM *(username)* to identify the source of the call.)

Executive Display, Professional Display, and Model 8560 Phones: Instead of answering the call, you may press one of the following menu buttons:

— SEND TO V-MAIL: This option appears only if you have a voice mailbox. Pressing this button sends the call directly to your mailbox greeting.

— IC CALL TO DND: Pressing this button will send Do-Not-Disturb tones to the caller and allow you to program a Do-Not-Disturb message. If using a display phone, the caller will see DO-NOT-DISTURB. (See page 247 for detailed instructions on using Do-Not-Disturb.)

TO RECEIVE AN INTERCOM CALL ON A SINGLE-LINE SET:

When you hear repeating double tones, lift the handset.

TO RECEIVE A TRANSFERRED-TO-HOLD INTERCOM CALL:

NOTE: If the station does not have an **IC** button, the call will appear under a Call button.

Inter-Tel Phones: When the **IC** button (or Call button) is fluttering and the display shows *(calling station)* TFR FROM *(transferring station)*, lift the handset and press the **IC** button (or Call button). Or, while on hook, press the **IC** button (or Call button) to speak handsfree. You are connected to the caller. (Executive Display, Professional Display, Model 8560 Phone, and some Executone Phone users have the same menu button options as described for a ringing intercom call.)

Single-Line Sets: When you hear a page announcing that a call is holding at your station, lift the handset (at your station) and enter the Individual Hold feature code (336). You are connected to the caller.

Placing Intercom Calls

When placing an intercom call, begin dialing before the Dial Initiation timer expires. If the timer expires, the system drops the connection and sends reorder tones.

TO PLACE AN INTERCOM CALL:

NOTE: In the procedure below, if you want to place a private (non-handsfree) call to an Inter-Tel phone, press the pound (**#**) button before dialing the extension number.

1. **For all Inter-Tel phones:**

   To use the handset: Lift the handset. If the phone has a display it shows ENTER EXTENSION NUMBER.

   To use the speakerphone: Skip to step 2 (begin dialing). The Speaker button lights. The display shows ENTER EXTENSION NUMBER.

   Executive Display, Professional Display, and Model 8560 Phones: Lift the handset or begin dialing as described above. The display shows ENTER EXTENSION NUMBER. You may press one of the following menu buttons:

   — IC DIRECTORY: Press this button to use the Intercom Directory feature. Refer to page 238 for instructions.

   — OUTSIDE CALL: If you would rather make an outside call, press this button and refer to the instructions on page 189.

   Single-Line Sets: Lift the handset. (If the DTMF decoders are busy, you hear silence. Hang up and try again.)

2. Dial an extension number. The number can be 0 for the attendant, a station extension number, or a hunt group pilot number. Display phones show the number dialed. If you dial too slowly, the Interdigit timer may expire and you will hear reorder tones. One of the following will occur:

   a. *If calling a handsfree Inter-Tel phone,* speak after you hear a double tone. The display shows IC TO *(username)*.

   b. *If placing a private call or calling a single-line station, a hunt group, or an Inter-Tel phone with handsfree disabled,* you hear repeating double tones until the call is answered. The display shows CALL RINGING FOR *(username)*. When the call is answered, the display shows IC TO *(username)*. Executive Display, Professional Display, and Model 8560 Phone users can press one of the following menu buttons while the call is ringing:

      — LEAVE MESSAGE: This button appears only if you have called a station. Press this button to leave a message waiting indication at the station. Refer to page 182 for details.

      — LEAVE VOICE MAIL: This button appears only if the called station has a voice mailbox. Press this button to call the station's voice mailbox.

   c. *If you dial an invalid number,* you hear reorder tones. Display phones show INVALID NUMBER. If you do not have an assigned attendant and you dialed 0, the display shows NO ATTENDANT PROGRAMMED. If you dialed a hunt group number with no assigned stations, the display shows NO MEMBERS IN HUNT GROUP.

   d.   *If the called station is busy,* the display shows *(username)* IS BUSY. You have the following options (in addition to the menu buttons described previously):

   1.   **Disconnect:** Hang up and try later. *If dialing handsfree (Inter-Tel phones only)*, press the Speaker button to disconnect.

   2.   **Camp on:** Do not hang up, your call camps on. When the called station is available, a private call is placed. Refer page 180 for details.

   3.   **Request a callback (queue):** This is similar to camping on except that you hang up and wait for the busy station to be available. (For more information, refer to page 181.) Executive Display, Professional Display, and Model 8560 Phone users can press the **QUEUE** menu button.

   e.   *If you hear a repeating signal of four fast tones and a pause,* the station is in Do-Not-Disturb. You can use the Queue Callback feature or, if enabled on your phone, use the Do-Not-Disturb Override feature to place a non-handsfree call to the station by pressing the Special button and entering the Do-Not-Disturb Override feature code (373) or pressing the **OVERRIDE DND** menu button.

   f.   *If the called station is busy, in Do-Not-Disturb, or there is no answer,* you can leave a message waiting indication with the station itself or with the station's message center. For details, refer to page 182. Executive Display, Professional Display, and Model 8560 Phone users can press the **LEAVE MESSAGE** or **LEAVE VOICE MAIL** menu button.

   g.   *If the called station is a busy phone, and if all the necessary conditions for OHVA are enabled,* you can complete the call using the Off-Hook Voice Announce feature. For a complete explanation of this feature, refer to page 187.

INTERCOM CAMP ON AND QUEUE CALLBACK

Camp-on and queue requests allow the caller to wait for an available resource. A station user waiting for a specific resource (a trunk or a station) will be served before a station user waiting for a group that contains that specific resource (trunk group or hunt group). This includes camped on Emergency Call feature (911) calls – if the Emergency Call feature uses a trunk group, requests for specific trunks will be processed ahead of the emergency call.

Camp On

When a station user calls a busy station or hunt group, the system sends a busy signal. The caller can wait off hook to camp on (after the Camp-On timer expires) and hear music while waiting until the called station is available. The system periodically sends call waiting signals to the busy station(s).

A user can camp on to busy stations on other nodes and will hear the other node's music-on-hold while camped on.

If a station enables Do-Not-Disturb while an intercom call is camped on, the camped-on caller is removed from the camped on state and that caller receives Do-Not-Disturb indications (see page 201). Intercom callers cannot camp on to a station that is in Do-Not-Disturb.

TO CAMP ON TO AN EXTENSION NUMBER:

- **All Inter-Tel Phones:** If you hear a busy signal when calling an extension number and wish to camp on, do not hang up. You hear music (if enabled) while camped on. When the station is available, a private call is automatically placed, and you hear repeating double tones until the call is answered. The display shows WAITING FOR *(username)*.

- **Executive Display, Professional Display, and Model 8560 Phones:** You may press one of the following menu buttons:

  — LEAVE MESSAGE: This button appears only if you have called a station. Press this button to leave a message waiting indication at the station. Refer to page 182 for details.

  — LEAVE VOICE MAIL: This button appears only if the called station has a voice mailbox. Press this button to call the station's voice mailbox.

  — QUEUE: Press this button to request a callback when the resource is available, as described on the next page.

Busy Station Queue Callback

When a called station is busy or in Do-Not-Disturb, the caller can request a callback (queue) and hang up until the station is available. This can be done even if the call camps on. Each station can have only one active queue callback request at a time.

The Queue Callback feature can also be used when calling a hunt group if all stations are unavailable.

A user cannot queue onto busy resources on another node.

Queue callbacks must be answered before the Queue Callback timer expires. If a callback is not answered, the queue is canceled. If the station is busy when called back, the queue request is placed behind any other waiting queue requests.

Queue callbacks do not follow forwarding and are not blocked by Do-Not-Disturb mode.

TO REQUEST A CALLBACK FROM A STATION:

1.   **Inter-Tel Phones:** When you hear a busy signal or Do-Not-Disturb signal (a repeating signal of four fast tones and a pause) when calling an extension number, press the **QUEUE** menu button. Or press the Special button, enter the Queue Callback feature code (6), and hang up. The display shows QUEUE REGISTERED FOR *(username)*.

     Single-Line Sets: When you hear a busy signal or Do-Not-Disturb signal when calling an extension number, hookflash and enter the Queue Callback feature code (6). Then hang up.

2.   When the queued station is available, your station will ring. Display phones show *(username)* IS NOW AVAILABLE. Lift the handset or press the ▉ **ANSWER** ▉ button. A private call is automatically placed to the queued station.

     Executive Display, Professional Display, and Model 8560 Phones: You may press one of the following menu buttons:

     •   CANCEL QUEUE: To cancel the queue request, press this button without lifting the handset.

     •   ANSWER: You may press this button instead of lifting the handset to answer the queue callback using the speakerphone.

TO CANCEL A QUEUE REQUEST (BEFORE THE QUEUED STATION BECOMES AVAILABLE):

•   **Inter-Tel Phones:** While on hook, enter the Queue Callback feature code (6). The display shows QUEUE REQUEST CANCELED.

•   **Single-Line Sets:** Lift the handset, enter the Queue Callback feature code (6), and hang up.

INTER-STATION MESSAGES

Intercom callers may leave a message waiting indication if a called station is busy, if there is no answer, if the station is in Do-Not-Disturb, or when they are connected to or placed on hold by another station. Users are allowed to leave message for, and respond to messages from, users on other nodes. There are two messaging options:

- **Have the called party return your call.** Display phones show the source and time of the message. When the called party responds to the message indication, a call is automatically placed to your station.

- **Leave a message with the called party's message center.** Display phones show that a message was left with the phone user's assigned message center. When the called party responds to the message indication, a call is automatically placed to his or her message center.

To signal that a message is waiting, a called Inter-Tel phone's **MSG** button flashes, and the display shows the number of waiting messages. Each time the **MSG** button is pressed, the display shows the message source for each of the waiting messages in the order they were received. For messages from stations, the display shows MSG: *(station)* and the date and time of the message. For messages from voice mailboxes, the display shows XX MESSAGES FROM MBOX XXXX to indicate the number of waiting messages in each mailbox that left a message. (This is especially helpful at stations with multiple mailboxes.) For single-line sets, a system programming option can be enabled that sends six short message waiting tones when the user lifts the handset or presses the hookswitch.

NOTE: Model 8500, 8520, and 8560 Phones have a Message Lamp located on the upper, right-hand corner of the phone. If programmed for the Message feature, this lamp flashes/lights whenever the **MSG** button flashes/lights. See page 116 for details.

Any station, Voice Processor application, hunt group, or off-node device can be designated as the message center for a station. However, a station cannot be programmed as its own message center.

If the designated message center is a voice mail hunt group, the voice mail hunt group is called after the Message Wait timer expires. When the voice mail unit answers the call, the called party's "mailbox" is automatically dialed. The caller can then leave a message in the mailbox. The called party's **MSG** button flashes, and the message display indicates that the message was left by the voice mail hunt group.

Each station user can leave message waiting indications at more than one station. If more than one message is received from one station, the message display will show only the first message, and all other requests will be ignored.

When a station is forwarded or has system forwarding, and a caller leaves a message waiting indication after calling the forwarded station, the message indication appears at the original station instead of the station that received the forwarded call.

LEAVING MESSAGES

TO LEAVE A MESSAGE WAITING INDICATION:

1. When calling a station, if you hear a busy signal, Do-Not-Disturb signal (repeating signal of four fast tones and a pause), or the call is not answered:

   Inter-Tel Phones: Press the ▊ MSG ▊ button. Or press the Special button and enter the Message feature code (365). The station will receive a message waiting indication. The display shows HANG UP OR WAIT FOR MESSAGE CENTER.

   Single-Line Sets: Hookflash and enter the Message feature code (365).

2. **To have the called party call you:** Hang up or press a trunk button or the ▊ IC ▊ button to disconnect before the Message Wait timer expires. The display shows MESSAGE LEFT FOR *(username)*.

   To leave the message with the called party's message center: Do not hang up. When the Message Wait timer expires, a private call is automatically placed to the called party's message center. (If the message center is a voice mail hunt group, the called party's mailbox is automatically dialed after the voice mail unit answers the call.) Leave your message with the message center and hang up. The called station receives message waiting indications. If the message center does not answer the call (that is placed after the timer expires), the display will show that the message was from your station and you will be called when the station user responds to the message indications. The display shows MESSAGE LEFT FOR *(username)*.

   NOTE: If the station you are calling does not have a designated message center, you will hear dial tone immediately after pressing the ▊ MSG ▊ button. The station will receive a message waiting indication.

Silent Messages

Silent messages can be placed while on or off hook without making an intercom call to the station. (This method should be used by analog voice mail units.)

TO LEAVE A SILENT MESSAGE:

Executive Display, Professional Display, and Model 8560 Phones: While on hook, press the ▊ MSG ▊ button. Then press the **LEAVE MESSAGE** menu button. The display shows LEAVE MESSAGE ON EXTENSION. Enter the desired extension number. The number is shown on the display. (If desired, you can press the **IC DIRECTORY** menu button to use the intercom directory to look up a number. Refer to page 238 for instructions.)

Other Inter-Tel Phones: While on hook, enter the Silent Message feature code (367). Then dial the extension number of the desired station.

Single-Line Sets: Lift the handset and enter the Silent Message feature code (367). Then dial the extension number of the desired station and hang up.

Canceling a Message Waiting Indication That You Left

Occasionally, you may wish to cancel a message waiting indication that you left, before the station user responds to the message. If the message was left with the station's message center, you cannot cancel the message waiting indication; only the message center can cancel that message. Use the procedure outlined below to cancel a message that you left.

TO CANCEL A MESSAGE YOU LEFT:

1. **Executive Display, Professional Display, and Model 8560 Phones:** While on hook, press the `MSG` button. Then press the **CANCEL MESSAGE** menu button. The display shows CANCEL MESSAGE ON EXT#. (If desired, you can press the **IC DIREC-TORY** menu button to use the intercom directory to look up a number. Refer to page 238 for instructions.)

   Other Inter-Tel Phones: While on or off hook at your station, enter the Cancel Message feature code (366). The display shows CANCEL MESSAGE ON EXT #.

   Single-Line Sets: Lift the handset and enter the Cancel Message feature code (366).

2. Enter the extension number of the station that has the message indication that you wish to cancel. You hear intercom dial tone if off hook, or confirmation tone if on hook. The display shows MESSAGE CANCELED FOR *(username)*. *(*If a message was not present at the called station, you hear reorder tones and the display shows NO MES-SAGES TO CANCEL.)

RESPONDING TO MESSAGES

Viewing Waiting Messages

TO VIEW RECEIVED MESSAGES AT A DISPLAY PHONE:

1. If your `MSG` button is flashing, one or more messages are waiting and the display shows YOU HAVE XX MESSAGES.

   Executive Display, Professional Display, and Model 8560 Phones: While on hook, press the **VIEW MESSAGES** menu button. Then press **PREVIOUS** or **NEXT** to scroll to the desired message.

   Other Inter-Tel Phones: While on hook, press the `MSG` button repeatedly to view waiting messages.

2. A displayed message will show MESSAGE RECEIVED FROM EXT XXXX. *If desired,* you can answer or cancel a message while it is displayed, as described below.

Answering Messages

TO ANSWER MESSAGES AT A DISPLAY PHONE:

1. When the desired message is displayed (as described above), press the `#` button or the **REPLY** menu button while on or off hook. Depending on how the message was left, an intercom call is placed to either the station that left the message or your message center.

   NOTE: If, when you respond to the message, the called station is unavailable (does not answer a private call, is busy, or is in Do-Not-Disturb), your `MSG` button continues to flash (and the display indicates a waiting message) unless you immediately leave a message before hanging up or cancel the message after hanging up. The message waiting indications are canceled automatically only when you have actually connected with the called station. Message indications from voice mail will only be cleared if you save or delete the waiting voice mail message. The `MSG` button will re-light if you clear the message indication without saving or deleting the voice mail.

2. If the `MSG` button continues to flash, there is another message (display shows the next message). Repeat step 1.

TO ANSWER MESSAGES AT A NON-DISPLAY PHONE OR SINGLE-LINE SET:

1. **Inter-Tel Phones:** If you see a flashing phone `MSG` button, press the `MSG` button. Depending on how the message was left, an intercom call is placed to either the station that left the message or your message center.

    Single-Line Sets: If you hear single-line message waiting tones (six tones) after lifting the handset or hookflashing when the station is idle, enter the Message feature code (365). Depending on how the message was left, an intercom call is placed to either the station that left the message or your message center.

    If the called station does not answer, is busy, or is in Do-Not-Disturb, you may hang up or leave a message at that station before hanging up. You will continue to receive message waiting indications (`MSG` button flash or tones), unless you left a message while attempting to retrieve the message or canceled the message after hanging up. The message waiting indications are canceled when you are actually connected with the called station. Message indications from voice mail will only be cleared if you save or delete the waiting voice mail message. The `MSG` button will re-light if you clear the message indication without saving or deleting the voice mail.

2. If message waiting indications continue, there is another message. Repeat this procedure.

Canceling a Waiting Message

NOTE: Message indications from voice mail will only be cleared if you save or delete the waiting voice mail message. The `MSG` button will re-light if you clear the message indication without saving or deleting the voice mail.

TO CANCEL A DISPLAYED MESSAGE WITHOUT ANSWERING AT AN INTER-TEL PHONE:

1. When the message you wish to cancel is displayed (as described on the previous page), remain on hook and press the asterisk (`*`) button or the **DELETE** menu button. The message is canceled.

2. If the `MSG` button continues to flash, there is another message. The display shows the next message. Either respond to it or cancel it.

TO CANCEL A MESSAGE WITHOUT ANSWERING AT A SINGLE-LINE SET OR WITHOUT DISPLAYING MESSAGES AT AN INTER-TEL PHONE:

1. If you receive message waiting indications, enter the Cancel Current Message feature code (368). The message is canceled.

2. If you continue to receive message waiting indications, there is another message. Either respond to it or cancel it.

Alternate Message Source

The Alternate Message Source feature was developed to enable a voice processing system to leave messages through a station or hunt group that is designated as its alternate message source. When a message is left on the voice processing system for a station user that has an assigned mailbox, the called station receives the message waiting indications. If it is a display phone, the display shows MESSAGE RECEIVED FROM *(alternate message source)* rather than from the voice mail circuit. When the station user retrieves the message, an intercom call is placed to the alternate message source.

To make efficient use of multi-port *analog* voice mail units (not Voice Processor voice mail applications), the ports are placed in a voice mail hunt group, and the voice mail hunt group's pilot number is assigned as the alternate message source for each of the individual voice mail ports. When a user responds to a message left by one of the voice mail ports, the pilot number is automatically dialed, and the call circulates through the hunt group until a voice mail port is available. Without the alternate message source hunt group, the call would return only to the port that left the message and would not circulate through the hunt group.

A station's message center or alternate message source does not need to be on the same node as the station. It can be a station, hunt group, Voice Processor application, or any off-node device.

Alternate Message Source

OFF-HOOK VOICE ANNOUNCE (OHVA)

The Off-Hook Voice Announce (OHVA) feature allows an intercom caller (either single-line set or Inter-Tel phone) to establish voice contact with the called Inter-Tel phone user, even though the user already has a call in progress on the handset. The called phone user can then talk freely on both connections, using the handset for the original call and the speakerphone for the OHVA intercom call. Note that the caller on the handset call *will* be able to hear the OHVA call.

In a network, intercom callers can establish OHVA calls to Inter-Tel phones on other nodes.

A PC Data Port Module (PCDPM) must be installed on a digital display phone to provide the secondary voice path needed for the OHVA feature. The analog phones and Executone IDS Phones do not require any additional equipment.

NOTE: IP and SIP endpoints do not support OHVA.

To enable the OHVA, the following must be completed:

- The OHVA system flag must be enabled. (When the system is in the default state, this flag is enabled.)

- Each OHVA-equipped Inter-Tel phone can be programmed for *placing* and/or *receiving* OHVA calls. (By default, OHVA is disabled at the station level.)

- Other Inter-Tel phones and single-line sets can be programmed for *placing* OHVA calls, as desired. Inter-Tel phones without PC Data Port Modules or secondary voice paths, and single-line sets cannot receive OHVA calls since they do not have secondary voice path circuitry. (By default, OHVA is disabled at the station level.)

- DSS/BLF-equipped digital display phones can be programmed to override the Camp-On and OHVA Screening timers and make "immediate" OHVA calls. This is a useful option for attendant stations.

Any combination of OHVA-enabled and -disabled stations is available through database programming. For example, all attendants may be programmed to make, but not receive, OHVA calls, while other stations are allowed to receive, but not place, OHVA calls.

OHVA calls cannot be processed if the secondary voice path or the speakerphone of the called phone is not available. This occurs when the phone has a different OHVA call in progress, has an active data call in progress, is on an active handsfree intercom or outside call, has handsfree disabled, has a call being changed from handset to speakerphone, has a headset enabled, or is in Do-Not-Disturb. Also, OHVA calls are not possible if the caller is placing a private intercom call or has the Ring Intercom Always feature enabled.

NOTE: To place an OHVA call using a single-line set, the Ring Intercom Always feature must be disabled. To disable this feature, lift the handset and dial 377 (Ring Intercom Always ON/OFF feature code) on the single-line set. By default, this is enabled.

If you press the **MUTE** button while speaking to an off hook voice announce caller on the speakerphone, the handset microphone will be muted and the caller on the handset will not hear you or the OHVA caller. When you press **MUTE** again, the handset microphone is re-enabled.

TO PLACE AN OFF-HOOK VOICE ANNOUNCE CALL:

1. When placing an intercom call to a busy OHVA-enabled Inter-Tel phone, do not hang up. You hear busy signals until the Camp-On and OHVA Screening timers expire. (If you hear music after the Camp-On timer expires, conditions for an OHVA call were not met and you are camped-on. See page 180.)

```
OFF-HOOK VOICE ANNOUNCE

                                    PHONE WITH
                                    PCDPM
                                                         ACTIVE
                                                         CALL ON
     Ext. 1103              Ext. 1002                    HANDSET
       ①                        ②
 Caller places a call      Display shows INTERCOM
 to ext. 1002 and          CALL FROM 1103
 hears busy signal              ③
                           After 5 seconds, call is
                           established on speaker, if not
                           blocked.
```
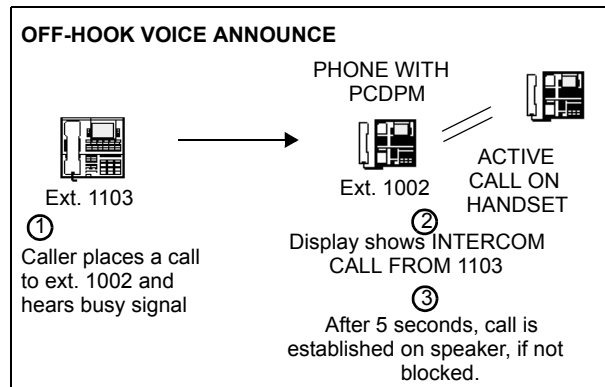
2. When the OHVA Screening timer expires (and if the phone's secondary voice path is available), you are automatically connected to the called party's speakerphone.

TO PLACE AN IMMEDIATE OFF-HOOK VOICE ANNOUNCE CALL (INTER-TEL PHONES WITH DSS/BLF BUTTONS ONLY):

NOTE: This method can only be used if the database has been programmed to allow Inter-Tel phones with DSS/BLF buttons to bypass the Camp-On and OHVA Screening timers.

1. When an intercom call is placed, using a DSS/BLF button, to a busy OHVA-enabled Inter-Tel phone, do not hang up.

2. Press the DSS/BLF button for that phone again. If the phone's secondary voice path is available, you are immediately connected and may speak.

TO RECEIVE AN OFF-HOOK VOICE ANNOUNCE CALL (OHVA-ENABLED INTER-TEL PHONES ONLY):

1. While on a call using the handset, you hear a camp-on tone. The display shows CALL ANNOUNCE FROM *(username)*. Do nothing. When the OHVA Screening timer expires, you hear a double tone. You are connected with the intercom caller via the speakerphone. Your original call remains connected on the handset.

   NOTE: If you press **MUTE** while speaking to the caller on the speakerphone, the handset microphone will be muted and the caller on the handset will not hear you or the OHVA caller. Press **MUTE** again to enable the handset.

2. **To terminate the OHVA call:** Press the lit Speaker button or have the OHVA caller hang up. If you terminate the original call by hanging up the handset, you remain connected to the OHVA call in the handsfree intercom mode.

TO BLOCK AN OFF-HOOK VOICE ANNOUNCE CALL (OHVA-ENABLED INTER-TEL PHONES ONLY):

1. While on a call using the handset, you hear a camp-on tone. The display shows CALL ANNOUNCE FROM *(username)*. To cause the intercom call to camp on, press the Speaker button. The **IC** button flashes.

2. *If you wish to send Do-Not-Disturb signals to the camped-on call,* press the **DND** button.

OUTSIDE CALLS

When a trunk is selected for receiving or placing an outside call, the voice channel is seized and cannot be used by any other station (unless the Conference feature is used, see page 209). If the desired trunk is busy, the station user can camp on or request a callback (queue). Other features that apply to both outside and intercom calls are discussed later in this section of the manual. They include placing calls on hold, call waiting, call transfer, reverse transfer, conferencing, and call forwarding. Refer to page 151 for an explanation of outgoing-access, allowed-answer, and ring-in assignments.

PLACING OUTSIDE CALLS

Inter-Tel phones can be programmed to select a trunk, a trunk group, or ARS when a Call button is pressed. In the default state, all Call buttons are programmed for ARS access.

On display phones, the dialed number is displayed with hyphens separating the toll field, equal access field, area code, office code, hookflashes, pauses, asterisks, pounds, Centrex codes, and/or absorbed digits. When the system absorbs local trunk digits, the digits are displayed even when they are not dialed. (For example, if 423 is absorbed and 6767 is dialed, 423-6767 is displayed.)

NOTE: When placing a call, begin dialing before the Dial Initiation timer expires. If the timer expires, the system drops the trunk connection and sends repeating reorder tones. This prevents a trunk from being tied up accidentally.

TO PLACE AN OUTSIDE CALL:

1. Lift the handset. (Inter-Tel phone users can dial on hook by skipping this step.)

2. Select an outgoing trunk, using one of the methods below. The associated individual trunk or Call button flashes slowly. (If on hook, the Speaker button is lit.)

    NOTE: You must have outgoing access to a trunk to seize it.

    Executive Display, Professional Display, and Model 8560 Phones: Press the **OUT-GOING** menu button.

    Any Inter-Tel Phone: Select a trunk using one of the following methods:

    *   Press an individual trunk button for direct access.

    *   Enter a trunk group access code (92001-92208) or press a trunk group button. This selects a trunk in the chosen trunk group. (If the group has not been programmed, the display shows NO TRUNKS IN TRUNK GROUP.)

    *   If your station is programmed to select a trunk group when a Call button is pressed, press a Call button for outgoing access.

    *   Refer to the Automatic Route Selection (ARS) procedure on the next page.

    *   Enter the Outgoing Calls feature code (8). This automatically selects an outgoing trunk according to the programmed outgoing access mode for your station.

    Single-Line Sets: Select a trunk using one of the following methods:

    *   Enter the Outgoing Call feature code (8). This automatically selects an outgoing trunk according to the programmed outgoing access mode for your station.

    *   Enter a trunk group access code (92001-92208).

    *   Refer to the Automatic Route Selection (ARS) procedure on the next page.

3.   You hear one of the following signals:

- **Outside dial tone:** Manually dial, speed dial, or redial the desired telephone number or use the outside directory. (Display phones show the numbers dialed. When dialing is ended and the call is determined to be valid, the display shows the elapsed time and call cost.) *If you hear repeating reorder tones,* you dialed a restricted number. Also, if you dial too slowly and the Interdigit timers expire, the call may be dropped, and you will hear repeating reorder tones. *If using an Inter-Tel phone that is on hook,* you may lift the handset to speak privately. Go to the next step. On Inter-Tel phones, an individual trunk or Call button flashes slowly and the display shows the call cost and elapsed time.

  Executive Display, Professional Display, and Model 8560 Phone users may press one of the following menu buttons:

  — OUTSIDE DIR: This button appears only if you are using ARS. Press the button to use the outside directory as described on page 238.

  — STN SPEED DIAL: Press this button to use a station speed-dial number as described on page 232.

  — SYS SPEED DIAL: Press this button to use a system speed-dial number as described on page 230.

  — REDIAL: Press this button to redial the last number dialed (or saved) as described on page 243.

- **Single progress tone:** Enter a forced account code using the dialpad buttons or a pre-programmed speed-dial button (refer to page 195). The display shows ENTER ACCOUNT CODE and the digits as they are entered. You hear outside dial tone when the code is accepted. On Inter-Tel phones, an individual trunk or Call button flashes slowly.

- **Repeating reorder tones:** You are restricted from the trunk group chosen; choose another trunk group. Or, you are restricted to using ARS only; try again using ARS (see page 191). The display shows OUTGOING ACCESS DENIED.

4.   After dialing the call, you can place it on hold, transfer it, set up a conference, enter optional account codes, etc. as described in this manual. Executive Display, Professional Display, and Model 8560 Phones have menu buttons for easy use of outside call features.

   If you dialed an invalid or restricted telephone number, you hear reorder tones and the display shows INVALID OUTSIDE NUMBER or RESTRICTED OUTSIDE NUMBER.

5.   **To use the speakerphone, if equipped:** *If off hook,* speak handsfree when the party answers. *If on hook,* press the Speaker button and hang up.

   To change from speakerphone to handset: Lift the handset and speak. The Speaker button goes off. You may later transfer back to the speakerphone by pressing the Speaker button and hanging up.

6.   **To terminate the call:** *If on hook,* disconnect by pressing the Speaker button. *If off hook,* hang up.

TO PLACE A CALL USING AUTOMATIC ROUTE SELECTION:

1. **Inter-Tel Phones:** While on or off hook, enter the Automatic Route Selection feature code (92000), or press the ARS button. You hear dial tone.

   Single-Line Sets: Lift the handset and enter the Automatic Route Selection feature code (92000). You hear a single progress tone followed by dial tone.

   NOTE: If required, enter a forced account code using the dialpad or a pre-programmed speed-dial button (see page 195). Display phones show ENTER ACCOUNT CODE and the digits as they are entered. You hear a progress tone when the code is accepted.

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2. Dial the telephone number. Use the **MUTE** button to backspace if you make a mistake. Include the area code, if needed. You hear one of the following signals.

   - **Single progress tone:** Your call is being placed. The associated individual trunk or Call button flashes slowly. Executive Display, Professional Display, and Model 8560 Phone users have the same options as described for outgoing calls on the previous page.

   - **Busy signals, then music:** All of the trunks in the route group are busy. Do one of the following:

     1. Camp-on and wait for the trunk.
     2. **Request a callback (queue):** The system places your station in a queue for the trunk. When you hear ringing and the display shows TG XXXX *(or group name)* IS NOW AVAILABLE, lift the handset; Inter-Tel phone users may also need to press the fast flashing Call button or individual trunk button (or the **ANSWER** button). You hear dial tone and digits being dialed. The associated individual trunk or Call button flashes slowly.

   - **Repeating reorder tones:** You are restricted from the number dialed or from using the route selected. The display shows INVALID OUTSIDE NUMBER or RESTRICTED OUTSIDE NUMBER. If the number that you dialed does not match any of the programmed ARS route group patterns, the display shows UNABLE TO ROUTE CALL.

RECEIVING OUTSIDE CALLS

TO RECEIVE AN OUTSIDE CALL:

Inter-Tel Phones:

You will hear one of the following signals when receiving an outside call.

- **Repeating long tones and a Call button or individual trunk button is flashing at the fast rate:** A call is ringing in. Lift the handset and/or press the flashing individual trunk button, flashing Call button, or `ANSWER` button. (Executive Display, Professional Display, and Model 8560 Phone users that have a programmed voice mail extension can press the **SEND TO V-MAIL** menu button to transfer the call to voice mail.) The individual trunk or Call button flashes slowly during the call. Display phones show *(trunk name)* RINGING IN.

- **Intercom call or page announcing a call and a Call button or individual trunk button is flashing at the fast rate:** A call has been transferred to your station. Lift the handset and/or press the flashing individual trunk button, flashing Call button, or `ANSWER` button. (Executive Display, Professional Display, and Model 8560 Phone users that have a programmed voice mail extension can press the **SEND TO V-MAIL** menu button to transfer the call to voice mail.) The individual trunk or Call button flashes slowly during the call. Display phones show TG XXXX *(or group name)* TFER FROM EX XXXX *(or username)*.

- **An individual trunk button is flashing at the fast rate, there is no ring signal, and you have allowed answer for the trunk. You may hear ringing on another phone:** Press the fast-flashing individual trunk button as described above or enter the Automatic Trunk Answer feature code (350). (The `ANSWER` button cannot be used to answer these calls.)

Single-Line Set:

> **You hear a page announcing a transfer and/or repeating long double tones:** A call is ringing in. Lift the handset; you are connected to the caller.

> **You hear a call ringing in on another station and you have allowed answer:** Lift the handset and enter the Automatic Trunk Answer feature code (350). You are connected to the lowest-numbered trunk ringing in for which you have allowed answer.

TO RECEIVE A CALL THAT WAS TRANSFERRED TO HOLD:

When you hear a page announcing that an outside call is holding at your station (a Call button or individual trunk button is fluttering):

> **Inter-Tel Phones:** Lift the handset and/or press the fluttering Call button or individual trunk button, or press the `ANSWER` button. You are connected to the caller.

> **Single-Line Sets:** Lift the handset and press the Hold button or enter the Individual Hold feature code (336). You are connected to the caller.

ON-HOOK MONITORING

An Inter-Tel phone user with a speakerphone can monitor the call (listen to a recorded message, wait for the call to be answered, or wait on hold), and then speak handsfree when answered.

TO USE ON-HOOK MONITOR:

1. While on a call, press the Speaker button and hang up. *If you do not want to be heard and if the MUTE button is not lit,* press the **MUTE** button or **MUTE** menu button, or press the Special button and enter the Microphone Mute On/Off feature code (314). You can hear the other party (if the microphone is muted, you cannot be heard). The Speaker button is lit (and the **MUTE** button is lit if the microphone was muted).

2. **To return to the conversation:** You may lift the handset or speak handsfree. (If the microphone was muted, press the lit **MUTE** button or the **UNMUTE** menu button to speak. The **MUTE** button goes off.)

GROUP LISTEN FEATURE

The Group Listen feature allows an Inter-Tel phone user to transmit a conversation over the phone speaker while in handset or headset mode. This allows other people in the room to listen to the conversation. However, the phone microphone remains disabled so that only the headset or handset user can speak.

This feature cannot be used on a handsfree call. The user must be on a call using the handset or a headset before entering the feature code. Group Listen cannot be used on single-line sets.

TO TURN THE GROUP LISTEN FEATURE ON OR OFF DURING A CALL:

While on a call using the handset or a headset, press the Special button and enter the Group Listen feature code (312). You hear a confirmation tone, and the display shows GROUP LISTEN ON or GROUP LISTEN OFF. (The other party will not hear the confirmation tone.)

NOTE: If using a headset on a Model 8500, 8520, or 8560 Phone when Group Listen is enabled, the volume control adjusts the volume of the headset, not the speaker.

When the Group Listen feature is active in handset mode, the Speaker button lamp will remain unlit. This allows the user to place the call into handsfree mode at any time during the call by pressing the Speaker button. When the feature is active in headset mode, the Speaker lamp is lit. Pressing the button will disconnect the call.

The Group Listen feature code can be programmed under a feature button or DSS/BLF button just like any other feature. The button functions as a toggle. If the button has a lamp, it is lit when the feature is activated and unlit when the feature is turned off.

If the Group Listen feature is active when an OHVA call is received by the phone, the OHVA call will camp on (because the speaker is busy).

TRUNK CAMP ON AND BUSY TRUNK CALLBACK (QUEUE)

Camp-on and queue requests allow the caller to wait for an available resource. A station user waiting for a specific resource (a trunk or a station) will be served before a station user waiting for a group that contains that specific resource (trunk group or hunt group). This includes camped on Emergency Call feature (911) calls.

Camp On

When a station user attempts to select a busy outgoing trunk or trunk group, the system sends a busy signal. The station user can wait off hook to camp on until the trunk is available.

A user can camp on to busy resources on other nodes and will hear the other node's music-on-hold while camped on. When the system has several routing options for a call, it tries to use each route, in order, until it finds a free route. If it is unable to find a free route, the system tries once again to use the first route. If the first route is still busy, the system camps on to the first route.

TO CAMP ON TO AN OUTGOING TRUNK GROUP:

1. When you hear a busy signal after selecting an outgoing trunk, do not hang up. You camp on and hear music until a trunk in the trunk group is available. The display shows WAITING FOR *(trunk name).*

2. When you hear a single progress tone and outside dial tone, dial the desired telephone number. The associated Call button or individual trunk button flashes slowly.

Busy Trunk Callback (Queue)

If you attempt to select a busy outgoing trunk group and hear a busy signal or if you camp on, you can request a callback (queue) and hang up until the system signals your station that a trunk in the trunk group is available. Each station can place only one queue request at a time. If a second request is made, the first request is canceled and replaced by the second request.

A user cannot queue onto busy resources on another node.

Queue callbacks must be answered before the Queue Callback timer expires. If a callback is not answered, the queue is canceled. If the station is busy when a trunk in the queued trunk group becomes available, the queue request is placed at the end of the queue list.

TO QUEUE A BUSY OUTGOING TRUNK:

1. **Inter-Tel Phones:** When you hear a busy signal while selecting a trunk. Or if you are camped on, press the **QUEUE** button, or press the Special button and enter the Queue Callback feature code (6) and hang up. The display shows QUEUE REGISTERED FOR *(trunk name).*

   Single-Line Sets: When you hear a busy signal while selecting a trunk or if you are camped on, hookflash and enter the Queue Callback feature code (6). Hang up.

2. Your station rings when the queued trunk is available. Display phones show TG XXXX *(or group name)* IS NOW AVAILABLE.

3. **Inter-Tel Phones:** Lift the handset and/or press the fast-flashing Call button, individual trunk button, or the ▮ANSWER▮ button. Then dial the desired telephone number. The associated Call button or individual trunk button flashes slowly. If ARS was used when the call was placed originally, the number is dialed automatically.

   Single-Line Sets: Lift the handset and dial the desired number. If all DTMF decoders are busy when your station is called back, the system sends repeating reorder tones instead of dial tone, and the queue is canceled. If ARS was used when the call was placed originally, the number is dialed automatically.

TO CANCEL A QUEUE BEFORE THE CALLBACK:

Inter-Tel Phones: While on hook, press the **CANCEL QUEUE** button or **QUEUE** button. Or, enter the Queue Callback feature code (6). The display shows QUEUE REQUEST CANCELED.

Single-Line Sets: Lift the handset and enter the cancel Queue Callback feature code (6). Hang up.

ACCOUNT CODES

Account codes are 3- to 12-digit codes that can be used in conjunction with the Station Message Detail Recording (SMDR) feature to aid record keeping. Account codes can be assigned to measure telephone use and/or to identify calls for customer billing. There are Standard, Forced, and Optional types of account codes. The account code, when used, is recorded in the SMDR report as soon as the call is completed. If more than one account code is entered during a call, the last account code that was entered is recorded.

Database-Programmed Account Codes

Any station can be assigned a standard account code or one of six types of forced account codes (four are ARS dependent). Or, if desired, the station can have no associated account code.

There can be up to 256 standard and 256 forced account codes in the database (512 of each in a triple- or quad-cabinet system).

The account code types are:

- **Standard:** Standard account codes automatically appear in the SMDR printout to identify calls from this station. The station user is not required to enter any digits during the call.

- **Forced – All Calls Validated:** If this type of account code is enabled, the user must enter a forced account code before an outside call can be placed. If the code matches one of the pre-programmed forced account codes in the database, the call is allowed. If the code does not match, the call is blocked. *Stations with this account code type cannot forward calls to outside telephone numbers.*

- **Forced – All Calls Non-Validated:** With this account code type, the user must enter an account code before placing an outside call. The code is not checked against any lists, and the call is allowed as soon as the code is entered. *Stations with this account code type cannot forward calls to outside telephone numbers.*

- **Forced – Local Toll Calls Validated:** This account code type requires the user to enter an account code after dialing a local toll call number (a toll call within the local area codes) or a long distance call when using ARS. If the code matches one of the pre-programmed forced account codes in the database, the call is allowed. If the code does not match, the call is blocked. *Stations with this account code type cannot forward calls to outside telephone numbers.*

- **Forced – Local Toll Calls Non-Validated:** This account code type requires the user to enter an account code after dialing a local toll call number (a toll call within the local area codes) or a long distance call when using ARS. The code is not checked against any lists, and the call is allowed as soon as the code is entered. *Stations with this account code type cannot forward calls to outside telephone numbers.*

- **Forced – Long-Distance Toll Calls Validated:** When this account code type is enabled, the user only has to enter an account code if the system detects that a long distance call (a toll call outside of the local area codes) has been dialed when ARS is used. If the code matches one of the pre-programmed forced account codes in the database, the call is allowed. If the code does not match, the call is blocked. *Stations with this account code type cannot forward calls to outside telephone numbers.*

- **Forced – Long-Distance Toll Calls Non-Validated:** When this account code type is enabled, the user only has to enter an account code if the system detects that a long distance call (a toll call outside of the local area codes) has been dialed when the ARS is used. The code is not checked against any lists, and the call is allowed as soon as the code is entered. *Stations with this account code type cannot forward calls to outside telephone numbers.*

- **None:** If the user will not be required to enter an account code, this option is selected. The user may still use optional account codes or enable the Account Code For All Calls Following feature, as desired.

If the system is installed in a network, the network validates account codes against the account code table on the same node as the caller. The account code follows the call as it moves from node to node and appears on every SMDR record associated with the call. However, if an optional account code is entered during the call, that account code will be used in the SMDR report.

If ARS Dial Rule #5 (Add Account Code) is enabled, the account code must be entered *before* the end of dialing for it to be included in the dialed digits. Forced, standard, and "all calls following" account codes are automatically entered before the digits. If using an optional account code, it must be entered after seizing a trunk, but before dialing the number, to be included in the ARS digits.

Optional Account Codes

Optional account codes can be entered at any time during a call. These user-defined codes are not pre-programmed, but must be within the maximum length set in programming. If entered, optional account codes are printed in the SMDR report for that call in place of standard or forced account codes that may have been used.

TO ENTER AN OPTIONAL ACCOUNT CODE AFTER SELECTING A TRUNK OR WHILE ON AN OUTSIDE CALL:

1. **Inter-Tel Phones:** Press the Special button and enter the Optional Account Code feature code (390). Display phones show ENTER ACCT CODE. The outside party, if any, does not hear you enter the code.

   Single-Line Sets: Hookflash and enter the Optional Account Code feature code (390). The outside party, if any, hears music until step 2 is completed.

2. Enter the account code using the dialpad; Inter-Tel phone users may press a speed-dial button to enter an account code number that has been stored in that speed-dial number location. (Display phones show numbers. You hear a single progress tone when the code is accepted. Single-line users are reconnected when the system accepts the account code. (If an account code is entered that has fewer than the programmed maximum number of digits, press **#** to return to the call. Pressing **✱** will cancel the account code entry.)

Enabling the Account Codes for All Calls Following Feature

You can use the Account Code For All Calls Following feature to enter an account code once and apply it to all calls placed from that phone until the feature is canceled. The account code is stored in system memory and is used for all calls made by that station. It affects other account code programming as follows:

- **Forced:** If forced account codes are enabled for the station, the "all calls following" account code is used for all calls and the station user will not be prompted to enter an account code until the "all calls following" code is canceled.

  NOTE: If account codes are validated, and the Account Code For All Calls Following is an invalid code, calls will not be allowed at the station until the code is removed or reprogrammed.

- **Standard:** If standard account codes are enabled for the station, the "all calls following" account code overrides the standard code.

- **None:** If no forced or standard account codes are enabled for the station, the "all calls following" code will be used as an optional account code.

- **Optional:** In the event that this feature is in effect and an optional account code is also entered, the optional account code will override the "all calls following" account code for that call only. All subsequent calls will be associated with the "all calls following" account code.

To cancel this feature, the feature code is entered without an account code (just press **#** to terminate programming).

TO ENTER AN ACCOUNT CODE AND USE IT FOR ALL FOLLOWING CALLS:

1. **Inter-Tel Phones:** Enter the Account Code For All Calls Following feature code (391). Display phones show ENTER ACCT CODE.

   Single-Line Sets: Lift the handset and enter the Account Code For All Calls Following feature code (391).

2. Enter the account code using the dialpad; Inter-Tel phone users may press a speed-dial button to enter an account code number that has been stored in that speed-dial number location. *If an account code is entered that has fewer than the programmed maximum number of digits,* press **#** to terminate the code. Display phones show numbers. You hear a single progress tone when the code is accepted.

TO CANCEL THE ACCOUNT CODE FOR ALL CALLS FOLLOWING FEATURE:

1. **Inter-Tel Phones:** Enter the Account Code For All Calls Following feature code (391). Display phones show ENTER ACCT CODE.

   Single-Line Set: Lift the handset and enter the Account Code For All Calls Following feature code (391).

2. *If on hook,* lift and replace the handset, or press **#** to exit. *If off hook,* hang up.

PLACING CALLS ON HOLD

There are several ways to place intercom and outside calls on hold. While on hold, the caller hears music (if equipped). There are three hold applications in the system:

- **Individual hold** places the call on hold at one station. It can then be picked up directly at that station or it can be picked up at another station using the Reverse Transfer feature.

- **System hold** places the call on hold so that it can then be picked up directly at any Inter-Tel phone that has an individual trunk button and has allowed-answer and/or outgoing access for the associated trunk or at the station that placed it on hold. Attempting to place a conference on system hold will place the conference on individual hold. Intercom calls cannot be placed on system hold. Single-line sets cannot place calls on system hold; attempting to do so at a single-line station will place the call on individual hold. In a network setting, when a user puts a trunk on system hold, only that user and users on the same node as the trunk can access the call.

- **Consultation hold** allows a single-line set user to pause during a call, use other system features, and then return to the caller by hookflashing. If a single-line set user attempts to hang up after placing a call on consultation hold, the call recalls the station.

If a call remains on hold until the Hold timer expires, it recalls the station where it is on hold, and the Recall timer is started. If it is still unanswered when the Recall timer expires, it recalls the station's attendant, and the Abandoned Call timer is started. (If the station does not have an attendant, the call continues to recall at the station that placed it on hold.) If the call is not answered before the Abandoned Call timer expires, the call is disconnected by the system.

For users' convenience, the system has two Hold timers: *Hold* and *Hold - Alternate*. In the default state, the Alternate timer is set for a longer time period than the Hold timer. However, both timers are programmable. The "Alternate Hold Timer" station flag determines which timer each station will use. If the flag is disabled, the station uses the Hold timer. If it is enabled, the station uses the Alternate timer.

NOTE: Inter-Tel phone users can avoid the Hold timer by muting the microphone during a call instead of placing the call on hold. If this is done, the caller will not hear music-on-hold and will not recall the station.

INDIVIDUAL HOLD

To place an intercom or outside call on individual hold:

1. While on the call:

   Inter-Tel Phones: Press the Hold button or press the Special button and enter the Individual Hold feature code (336). You hear intercom dial tone and the Call button, individual trunk button, or **IC** button flutters.

   Single-Line Sets: Hookflash and enter the Individual Hold feature code (336). You hear intercom dial tone.

2. Hang up or place another call.

To return to the caller on individual hold:

   Inter-Tel Phones: Lift the handset and/or press the fluttering **IC** button for intercom calls, or the Call button or individual trunk button (or the **ANSWER** button) for outside calls.

   Single-Line Sets: Lift the handset and enter the Individual Hold feature code (336).

SYSTEM HOLD

NOTE: This feature does not apply to single-line sets.

TO PLACE AN OUTSIDE CALL ON SYSTEM HOLD (INTER-TEL PHONES ONLY):

1. While on a call, press the Special button and enter the System Hold feature code (335). You hear intercom dial tone, and the associated Call button or individual trunk button flutters.

2. Hang up or place another call.

TO RETURN TO A CALL ON SYSTEM HOLD (INTER-TEL PHONES ONLY):

At any Inter-Tel phone that shows a fluttering individual trunk button for the call and has allowed-answer and/or outgoing access for that trunk, lift the handset and/or press the fluttering button.

At the Inter-Tel phone that placed the call on hold, press the fluttering individual trunk or Call button.

NOTE: Intercom calls and conferences cannot be placed on system hold. If you attempt to do so, the call or conference will actually be placed on individual hold.

CONSULTATION HOLD

TO USE CONSULTATION HOLD (SINGLE-LINE SETS ONLY):

1. While on a call, hookflash to place the call on consultation hold. You hear three short tones followed by dial tone.

2. You can place a call or enter a feature code.

NOTE: If you hang up while the call is on consultation hold, the call will immediately recall your station. If you hang up after dialing an extension number, the call will transfer to that station.

3. Return to the caller on hold by hookflashing.

HOLD RECALL

TO ANSWER A HOLD RECALL:

When the recall rings at your station, the display shows *(station or trunk)* RECALL-ING. Lift the handset or press the ANSWER button. Executive Display, Professional Display, and Model 8560 Phone users can press the **ANSWER** menu button. Single-line sets are automatically connected; Inter-Tel phone users may need to press the flashing Call or individual trunk button.

MICROPHONE MUTE

Whether handsfree or using the handset, you can temporarily turn off your microphone while on a call. The call is still connected; you can hear the other party, but they cannot hear you. Since the call is not placed on hold, no timer is activated. The `MUTE` button is lit when the microphone is muted; the light will go off when you press the `MUTE` button to re-enable the microphone.

If you receive an off-hook voice announce call (see page 187), you can press the `MUTE` button while speaking to the off-hook voice announce caller to mute the handset microphone. The caller on the handset will not hear you or the OHVA caller. When you press `MUTE` again, the handset microphone is re-enabled.

You cannot mute the microphone on your phone while your call is on hold at another station.

NOTE: If you receive complaints from IP phone users about losing audio on muted calls, there may be a firewall issue. Contact your local Inter-Tel dealer for assistance.

MUTING THE PHONE MICROPHONE:

1. To temporarily turn off your microphone while on a call, press the `MUTE` button or **MUTE** menu button, or press the Special button and enter the Microphone Mute On/Off feature code (314). The `MUTE` button is lit, and the display shows MICROPHONE MUTE ON. If off hook, do not hang up (unless you press the Speaker button first).

2. Press the lit `MUTE` button or **UNMUTE** menu button, or press the Special button and enter the feature code (314) to turn the microphone on. The `MUTE` button goes off, and the display shows MICROPHONE MUTE OFF.

CALL WAITING

While a station is in use, incoming intercom and outside calls camp on until the busy station is available. The busy party hears a single camp-on tone every 15 seconds (unless the Camp-on Tone timer is changed or camp-on tones are disabled at the station).

A station programming flag (Camp-On Indications) allows camp-on tones to be enabled or disabled for incoming intercom and outside calls. This flag is programmed on a station-by-station basis.

The DID/E&M Receive Busy Instead Of Camp-On station flag determines whether E&M and DID callers will receive busy signal or receive ringback and camp on when calling a busy station. In the default state, busy tones are disabled, and the callers will hear ringback while camped on to the called station. This flag is programmed on a station-by-station basis.

TO RESPOND TO CALL WAITING USING AN INTER-TEL PHONE:

1. If, while on a call, you hear a single camp-on tone and/or see the **IC** button, a Call button, or an individual trunk button flashing rapidly, you have a call waiting. The display indicates the type of call that is waiting (intercom, outside, recall, etc.). If you are a hunt group member, the display shows the number of calls camped on to the hunt group. Do one of the following:

   - *If you wish to end the current call,* hang up. A waiting outside call rings as an incoming call; an intercom call rings as a private call. Answer as usual.

   - *If you wish to place the current call on hold,* press the Hold button or press the Special button and enter the Individual Hold feature code (336). The Call button, individual trunk button, or **IC** button flutters (unless an intercom call is camped on, in which case the **IC** button flashes rapidly until the camped on call is picked up, then the **IC** button flutters). Answer the waiting call by pressing the flashing Call button, individual trunk button, or **IC** button.

   - *If using an Executive Display, Professional Display, or Model 8560 Phone:* You may press one of the following menu buttons:

     — ANSWER: Press this button to end the current call and answer the ringing call.

     — SEND TO V-MAIL: This button appears only if you have a voice mailbox. Press this button to transfer the call to your mailbox.

     — IC CALL TO DND: Pressing this button will send Do-Not-Disturb tones to the caller. If using a display Inter-Tel phone, the caller will see DO-NOT-DIS-TURB.

2. **To return to the holding call:** Press the fluttering individual trunk button, Call button, or **IC** button.

TO RESPOND TO CALL WAITING USING A SINGLE-LINE SET:

When you hear a single camp-on tone every 15 seconds while you are on a call, another call is waiting. Do one of the following.

1. *If you wish to end the current call,* hang up. The call rings at your station. Lift the handset to speak to the waiting caller.

   If you wish to place the current call on hold, hookflash and then enter the Individual Hold feature code (336). You are connected with the waiting caller.

2. **To return to the first call on hold:**

   If you wish to end the current call, hang up. Return to the holding call by lifting the handset and entering the Individual Hold feature code (336).

   If you wish to place the current call on hold and connect with the original call: Hookflash and then enter the Individual Hold feature code (336) twice.

TO MOVE A CAMPED-ON INTERCOM CALL TO DO-NOT-DISTURB:

While on a call, you hear call waiting signals:

> **Phones with menu buttons:** Press the **DO-NOT-DISTURB**, or **IC CALL TO DND** menu button.

> **Other Inter-Tel Phones:** Press the **DND** button or enter a Do-Not-Disturb feature code (370 or 372). The **DND** button lights. The intercom caller is no longer camped on and receives Do-Not-Disturb indications.

> **Single-Line Sets:** Hookflash and enter a Do-Not-Disturb feature code (370 or 372). The intercom caller is no longer camped on and receives Do-Not-Disturb indications. Hookflash twice to return to the current call.

CALL TRANSFER

FEATURE CODES

There are two feature codes for transferring intercom and outside calls to other stations, Voice Processor applications, hunt groups, off-node devices, or outside telephone numbers. The call transfer options are as follows:

- **Transfer to ring:** You can transfer intercom or outside calls to another station, a Voice Processor application, a hunt group, or an outside telephone number.

- **Transfer to hold:** Either intercom or outside calls can be transferred to another station and placed on hold using this feature.

> **NOTE:** For information on screened and announced transfers from automated attendants, refer to SYSTEM FEATURES and VOICE PROCESSING FEATURES in the Installation Manual.

TRANSFER TO PARK LOCATIONS

In addition, transfer-to-park locations can be set up by the installer. A transfer-to-park location is a station circuit with an extension number that is not equipped with a station instrument. Calls can be transferred to these locations and then reverse transferred by any station user. If all station circuits are equipped, you cannot create a transfer-to-park location.

TRANSFERRING CONFERENCE CALLS

An established conference can be transferred to a station. While the transfer is taking place, the parties in the conference remain connected to each other and may converse. The transfer will appear at the destination station in the same manner as any other transferred call along with a CONFERENCE TFR FROM *(username)* display and may be answered by the station user.

TRANSFER TO A SYSTEM FORWARD

When a station user transfers a call to the principal station of a system forwarding path, the Handsfree Announce System Forward system-wide flag determines what the caller will hear. If enabled, the caller will place a handsfree call to the principal station and can announce the transfer (the call does not enter the forwarding path). If the option is disabled, the transferring station user will hear ringing and can announce the call only if it is answered by the principal station or one of the forwarding points.

TRANSFERS AND OUTSIDE CALLS

If a station user answers another call while a party is waiting on transfer hold, the waiting party will be moved to individual hold at that station. If the Hold timer expires while a call is on transfer hold, the call will recall the station. The station user must return to the call on hold and begin the transfer process again. There may be some reduction in voice volume when an outside call is transferred to an outside telephone number depending on the quality of the trunks being used.

TRANSFER-TO-CONNECT STATION FLAG

If the Transfer-To-Connect Allowed station flag is enabled, an announced transfer call (including an announced transfer from voice mail) connects immediately with the destination once the transferring party hangs up. (If the flag is disabled, the recipient must press a Call button or the **ANSWER** button to answer the transferred call). If the user has a headset enabled, or if the station user picks up the handset for the initial call and the transferring party disconnects, the transferred party will hear a single tone and then be immediately connected without any further action from the station user. (Calls will not automatically connect in handsfree speakerphone mode.) This flag applies only to Inter-Tel phones and is disabled by default.

TRANSFER TO RING

TO TRANSFER A CALL OR CONFERENCE:

1. **Inter-Tel Phones:** While on a call, press the `TRANSFER` button, or press the Special button and enter the Transfer to Ring feature code (345). You hear intercom dial tone. The display shows TRANSFER CALL TO EXTENSION.

    Single-Line Sets: While on a call, hookflash. You hear tones followed by intercom dial tone.

2. **EITHER,** Select an outgoing trunk group or press the OUTSIDE PHONE menu button, and dial the desired telephone number. *If all trunks in the trunk group are busy,* select another trunk group or camp on and wait for a trunk. *If you hear repeating reorder tones,* you dialed a restricted telephone number. To return to the caller on transfer hold, press the lit Call button, trunk button, or `IC` button (Inter-Tel phone) or hookflash twice (single-line set).

    OR, Dial the desired extension number or press a speed-dial button, the **VOICE MAIL** menu button, or the **MESSAGE CENTER** menu button. Executive Display, Professional Display, and Model 8560 Phone users can use the Directory feature by pressing the **IC DIRECTORY** menu button. The number can be a station extension number, `0` for the attendant, a hunt group pilot number, a voice mail extension number, or a transfer-to-park location number.

    a. **Transfer to a station that is forwarded to voice mail:** You hear repeating double tones and the display shows DEST FORWARDED TO VOICE MAIL.

    b. **Transfer to voice mail:** The system waits for you to enter the mailbox number. The display shows ENTER MAILBOX. Enter the desired mailbox number. (Executive Display, Professional Display, and Model 8560 Phone users can use the Directory feature by pressing the **IC DIRECTORY** menu button, if the system is validating mailbox numbers.) *If you do not enter a mailbox number before you hang up,* the caller will be connected to the voice mail unit and must enter the mailbox number after listening to the introductory voice prompts.

    c. **Transfer-to-park:** If transferring to a park location, complete the transfer. Then page the desired party and announce the call. The party must reverse transfer the call. Note that if the call is not answered, it will recall your station if transferred directly, or it will recall the called park location's attendant if transferred to hold.

3. *If desired,* wait for an answer and announce the call. If you are calling a device (such as an automated attendant) that does not accept call announcements, the display shows HANG UP TO FINISH TRANSFER.

4. You have the following options:

    To complete the transfer: Hang up or press another Call button. The display shows CALL TRANSFERRED TO *(username)*.

    To return to the caller: Press the fluttering Call button, trunk button, or `IC` button (Inter-Tel phone) or hookflash twice (single-line set).

    To try another station: Press the `TRANSFER` button or press the Special button and enter the Transfer to Ring feature code (345). Then dial another extension number.

    To transfer the call to hold when calling a station (Inter-Tel phones only): Press the `HOLD` button or the **TRANSFER-TO-HOLD** menu button. Or press the Special button and enter the Individual Hold feature code (336). The call will not ring or send call waiting signals until the Hold timer expires.

TRANSFER TO HOLD

A call transferred to hold at a station does not ring or send a display message while holding. After the Hold timer expires, the station rings or sends call waiting signals. Also, calls transferred to hold do not recall the transferring party; they recall the receiving party's attendant if unanswered after the Hold and Recall timers expire. Besides the procedure listed below, Inter-Tel phone users have an alternative method for transferring calls to hold; refer to step 4 in the previous procedure.

TO TRANSFER A CALL TO HOLD:

1. **Executive Display, Professional Display, and Model 8560 Phones:** While on a call, press the **TRANSFER-TO-HOLD** menu button. The display shows TRANSFER CALL TO EXTENSION.

   Other Inter-Tel Phones: While on a call, press the Special button and enter the Transfer To Hold feature code (346). The display shows TRANSFER CALL TO EXTENSION.

   Single-Line Sets: While on a call, hookflash and enter the Transfer To Hold feature code (346).

2. Dial the desired extension number. Executive Display, Professional Display, and Model 8560 Phone users can use the Directory feature by pressing the **IC DIRECTORY** menu button.

3. Hang up to complete the transfer.

TO PICK UP A CALL THAT WAS TRANSFERRED TO HOLD:

If a call was transferred to hold at your station:

Inter-Tel Phones: When your ▬ IC ▬ button, a Call button, or individual trunk button is fluttering, lift the handset and/or press the fluttering button (or the ▬ ANSWER ▬ button for an outside call). You are connected to the caller.

Single-Line Sets: Lift the handset and enter the Individual Hold feature code (336). You are connected to the call.

TRANSFER RECALLS

If a call is transferred to another station and is not answered before the appropriate Transfer timer expires (and if it was not transferred to hold), the call recalls the transferring station's recall destination (defaults to the station) and the Recall timer is started. The call rings until the Recall timer expires. If unanswered, it recalls the transferring party's attendant, and the Abandoned Call timer is started. (If the transferring station has no attendant, the call continues to recall at the transferring station.) If the call is not answered before the Abandoned Call timer expires, the call is disconnected by the system.

In a network, a station's transfer recall destination can be an off-node device.

TO ANSWER A TRANSFER RECALL:

Inter-Tel Phones: When the recall rings at your station, the display shows *(username)* RECALLING FROM *(username)*. Lift the handset and/or press the ▬ ANSWER ▬ button. Press the medium-flashing Call button or individual trunk button, or press the ▬ ANSWER ▬ button if the call is not automatically connected.

Single-Line Sets: If you hear a repeating signal of four tones and a pause, lift the handset. You are immediately connected

CALL SCREENING

Calls transferred from the Automated Attendant or a Call Routing Announcement application can be screened, announced, or unannounced. Separate programming flags in the database determine the methods used for transferring calls to stations with mailboxes, stations with extension IDs, and extensions without mailboxes or IDs.

When a call is received by an automated attendant or Call Routing Announcement application and the caller enters an extension number, the programmed Transfer Method determines how the call will be transferred. The Transfer Method flags can be programmed in the database. If allowed in mailbox programming, they can also be programmed by the mailbox user. (See page 301 in VOICE PROCESSING FEATURES.) The available Transfer Methods are as follows:

- *Announce Only:* The caller is asked to state his or her name. Then the call is transferred to the associated extension number. When the station user answers the transfer, the Voice Processor plays the caller's name and completes the transfer.

- *Screened:* The caller is asked to state his or her name. Then the call is transferred to the associated extension number. When the station user answers the transfer, the Voice Processor plays the caller's name. The station user has the options of replaying the name, sending the call to voice mail (if the extension has a mailbox), transferring the call to another extension, accepting the call, or rejecting the call.

- *Unannounced:* The call is transferred to the associated extension number without announcing the call. This is the default method.

In a network setting, the Voice Processor can provide call screening for a destination extension on another node. However, the node where the Voice Processor is connected must have an off-node device programmed for the destination extension and access to the remote node.

Receiving an Announced Or Screened Transferred Call: Depending on the Transfer Method programmed for your mailbox or extension ID, one of the following will occur when you receive a call transfer from the automated attendant or a Call Routing Announcement application:

- **"Announce Only" Calls:** When the caller enters your extension number, the system asks the caller to record his or her name. The Voice Processor then places a private call to your station. When you answer, it plays *"You have a call from (caller's name)."* It then completes the transfer, and the transferred call rings at your station. Answer as usual.

- **"Screened" Calls:** When the caller enters your extension number, the system asks the caller to record his or her name. The Voice Processor then places a private call to your station. When you answer, it plays *"You have a call from (caller's name),"* and gives you the following options:

  — *To accept the call,* press **#** or the **ACCEPT** menu button. The call will ring at your station.

  — *To replay the announcement,* press **1** or the **REPLAY** menu button.

  — *To send the call to voice mail,* press **2** or the **SEND TO V-MAIL** menu button. The caller is transferred to your mailbox and hears your personal greeting.

  — *To forward the call to another extension,* press **3** or the **FORWARD** menu button. Then enter the extension number. The call is sent to the other station. If that station has screened or announced transfers, the caller's name is played again for that station.

  — *To refuse the call,* press **✳** or the **REFUSE** menu button, or simply hang up. The caller receives a recording that says you are not available and offers them the option of leaving a message.

- **"Unannounced" Calls:** This is the default method for transferring a call. The call is transferred to your station without any kind of announcement.

REVERSE TRANSFER

Calls ringing or recalling at a station, a hunt group, or a transfer-to-park location can be picked up at any other station, using this feature. Calls on hold can also be picked up from stations and from transfer-to-park locations. A user can reverse transfer a call from a station or a hunt group on another node.

If more than one call is ringing or holding at the station or hunt group, a priority list determines which call is reverse transferred. Calls are selected in the following order, and if more than one call of the same type is at the station, the calls are picked up in the order they were received:

1. Ringing calls

2. Camped-on calls

3. Holding outside calls

4. Holding intercom calls

If a call is reverse transferred from a hunt group announcement or overflow station, and a station in the hunt group becomes available, the call will be disconnected from your station immediately when answered by the hunt group station.

Group Call Pick-up: When the Group Call Pick-Up feature is enabled, a call ringing in to a hunt group or one of its stations can be picked up at any other station. Users can enter the Reverse Transfer feature code (4) and dial a hunt group's pilot number to pick up a call that is ringing in to the hunt group's pilot number or to any station within that hunt group. See for details about the Group Call Pick-Up feature.

NOTE: Group Call Pick-up does not affect DSS lamp status any differently than standard hand group calls or individual calls.

There is a programmable station flag called "Transient Call Indication On Call Answer" that determines whether the station user will see a call display when reverse transferring a call (or using a secondary extension button). If the flag is enabled, the display will indicate whether the call was ringing, recalling, transferred, or holding at the other station.

TO REVERSE TRANSFER A CALL:

> **EITHER,** Lift the handset (Inter-Tel phones can remain on hook) and enter the Reverse Transfer (Call Pick-Up) feature code (4), then dial the extension or pilot number where the call is ringing or holding. You are automatically connected to the caller.

> **OR,** Lift the handset (Inter-Tel phones can remain on hook) and dial the extension or pilot number where the call is ringing or holding, then press the Special button or hookflash and enter the Reverse Transfer (Call Pick-Up) feature code (4). You are automatically connected to the caller.

CONFERENCE CALLS

Station users can establish multi-party conference calls without operator assistance. There can be up to four parties in a conference. In addition to the initiating station, the conference can include any combination of up to three intercom and/or outside calls. The CPU provides 12 conference channels (24 on a triple- or quad-cabinet system). Additional channels can be added, via DSP programming on the Options card, to support conferencing.

NOTE: During a conference, some reduction in voice volume may be noticed, depending on CO trunk quality.

During a conference, if any station user presses a dialpad button, the DTMF tones will be heard by all other parties in the conference. This allows conference callers access to DTMF-controlled devices.

An established conference can be transferred to another station, using the call transfer feature described on page 203. While the transfer is taking place, the parties in the conference remain connected to each other and may converse. The transfer will appear at the destination station in the same manner as any other transferred call along with a CONFERENCE TFR FROM *(user-name)* display and may be answered by the party.

NOTE: While this system is designed to be reasonably secure against CO trunk misuse by outside callers, there is no implied warranty that it is invulnerable to unauthorized intrusions. If the central office does not provide supervision, and does not disconnect the call when one party hangs up, making it possible for a caller to remain connected to a CO trunk circuit. If this happens, and the caller begins dialing, the call could be placed through the system and would then be billed to the system's owner. The system cannot check this type of call for toll restriction and may not register the call in SMDR. This problem could arise when a call is connected to a station or when a call is in an unsupervised conference.

In a network setting, a user can build a conference with party members (stations and/or trunks) on other nodes. The conference circuits used to build the conference will be allocated from the originating party's node. Any party, not just the originating party, can add a party member to the conference.

- If the party who adds the new member is on the originating party's node, the party will be added to the conference circuit already allocated. This conference is still restricted to the four party limit.

- If the party who adds the new member is not on the originating party's node, a new conference circuit is allocated from the second node. Because this allows more than four parties in a conference, users should be warned that voice levels can be degraded as more parties are added to the conference.

PLACING A CONFERENCE CALL

TO PLACE A CONFERENCE CALL:

1. While on a call:

   Inter-Tel Phones: Press the `CNF` button, or press the Special button and enter the Conference feature code (5). The party is on conference wait hold (hears music) and the `CNF` button flutters. The display shows CALL NEXT PARTY TO CNF.

   Single-Line Sets: Hookflash and enter the Conference feature code (5). The party is on conference wait hold (hears music).

2. Place an intercom or outside call to another party (or return to a call on hold) to be included in the conference. Executive Display, Professional Display, and Model 8560 Phones users can press the **IC DIRECTORY** or **OUTSIDE DIR** menu button to look up numbers, if desired.

   > **NOTE:** An existing conference is not a valid "party" for another conference.

3. Place the party on conference wait hold:

   Inter-Tel Phones: Press the `CNF` button again. Or, press the Special button and enter 5 again.

   Single-Line Sets: Hookflash and enter the Conference feature code (5). The party is on conference wait hold (hears music).

4. Repeat steps 2 and 3 until all desired parties are on conference wait hold (or the maximum allowed number has been reached).

5. Connect all waiting parties in the conference:

   Phones with menu buttons: Press the **CONNECT TO CONFERENCE** menu button. All parties are connected. The display shows CNF IN PROGRESS. The CNF button and a Call button flash slowly. You can use the following menu buttons:

   — HOLD: Press this button to place the conference on hold.

   — DISCONNECT: Press this button to remove your station from the conference. If there are no other stations in the conference, all parties are disconnected. If there is still another station in the conference, the parties remain connected.

   — ADD PARTY: This button appears only if you have not reached the maximum number of allowed parties. Press this button to leave the conference parties connected while you place another call to be added to the conference.

   — MUTE: Press this button to turn the phone microphone on or off during the conference.

   — TRANSFER CNF: Press this button and enter an extension number to transfer the conference to another station or the voice mail application.

   Other Inter-Tel Phones: Press the `CNF` button again. Or, press the Special button and enter `5` again. All parties are connected. Display phones show CNF IN PROGRESS. The `CNF` button and a Call button flash slowly.

   Single-Line Sets: When all parties are on conference wait hold, hookflash and enter the Conference feature code (5). All parties are connected.

NOTE: If the number of parties in your conference exceeds the capacities of the system resources, you will hear reorder tone and see a display that tells you MAX NUMBER OF PARTIES EXCEEDED. To complete the conference setup, return to the parties on conference wait hold one by one (Inter-Tel phone users press the associated Call or **IC** button, single-line set users enter the Individual Hold feature code twice) and release parties until there are fewer than the maximum. Then repeat step 5 to connect the conference.

ADD PARTIES TO A CONFERENCE

TO ADD PARTIES TO AN EXISTING CONFERENCE (ANY INSIDE PARTY):

NOTE: This procedure cannot be performed if the maximum number of conference participants has been reached.

Inter-Tel Phones:
1.   During the conference, press the **CNF** button. The other parties remain connected. The Call button and **CNF** button flutter.

2.   Place an intercom or outside call to the other party (or return to a call on hold) to be included in the conference and press the **CNF** button.

3.   **To connect all parties in a conference:** Press the **CNF** button again.

4.   **To add another party:** Repeat steps 1-3 again.

Single-Line Sets:
1.   During the conference, hookflash. The other parties remain connected.

2.   Place an intercom or outside call to the other party to be included in the conference (or return to a call on hold). Hookflash and enter the Conference feature code (5).

3.   **To connect all parties in a conference:** Hookflash and enter the Conference feature code (5) again.

4.   **To add another party:** Repeat steps 1-3 again.

EXITING A CONFERENCE

There are several options for leaving the conference:

- Exit the conference by hanging up. The other parties remain connected only if at least one is a station (inside party). You cannot return to the conference. If there are no stations remaining in the conference, it is disconnected.

- Leave the conference and allow the outside parties to remain connected by pressing the **CNF** button or entering the Conference feature code. You can return to the conference at any time.

- End the conference and place all of the parties on individual hold. You can return to the parties one at a time.

- Place the entire conference on hold. The conferenced parties remain connected.

NOTE: If a user attempts to place a conference call on system hold, the conference will be placed on individual hold.

Exiting and Re-Entering the Conference

TO EXIT THE CONFERENCE AND LEAVE THE OTHER PARTIES CONNECTED (ANY INSIDE PARTY):

Inter-Tel Phones:

During the conference, press the **CNF** button and hang up. The **CNF** button and a Call button flutters.

NOTE: If all remaining parties are outside parties and the Hold timer expires while you are out of the conference, the conference recalls your station. The recall rings at your station and the **CNF** button flashes at the medium rate. The display shows CONFERENCE RECALLING. Press the **CNF** button to return to the conference. If the recall is not answered before the Recall timer expires, it will recall the attendant.

To return to the conference: Lift the handset and/or press the **CNF** button again.

Single-Line Sets:

During the conference, hookflash and hang up.

NOTE: If the Hold timer expires while you are out of the conference, the parties recall your station. When the recall rings at your station, lift the handset to answer the recall. If the recall is not answered before the Recall timer expires, it will recall the attendant.

To return to the conference: Lift the handset and/or enter the Conference feature code (5).

Ending the Conference and Placing All Parties on Hold

TO END THE CONFERENCE AND PUT ALL PARTIES ON HOLD (ANY INSIDE PARTY):

Inter-Tel Phones:

During the conference, press the **CNF** button and hang up. The **CNF** button and a Call button flutters. The parties are still connected in a conference.

To place the parties on individual hold: Press the Hold button or enter the Individual Hold feature code (336). You can then return to each party individually by pressing the associated Call or **IC** button.

Single-Line Sets:

During the conference, hookflash and hang up. The parties are still connected in a conference.

To place the parties on individual hold: Lift the handset and enter the Individual Hold feature code (336). You can then return to each party individually by entering the Individual Hold feature code again.

Placing the Entire Conference on Hold

Any inside party involved in a conference can place the conference on hold at his or her station. The other conference parties remain connected and can converse. The station user that placed the conference on hold can then place calls or use system features while the conference is on hold. Then the user can return to the conference on hold. Note, however, that a conference may not be terminated while it is on hold.

Once a station user has moved a conference to hold, the user may, if desired, establish another conference. Because each conference is established under a separate Call button, it is possible for the user to have access to any individual conference for further call processing. If the user elects to use the `CNF` button for conference access, the `CNF` button will rotate through the conferences in priority order. The `CNF` button will always reflect the status of the top-priority conference. The priority order for the `CNF` button when multiple conferences are in effect is:

- Conference or call on transfer hold

- Ringing (ring in, recall, or camp on) conference

- Conference on hold

- Active conference

TO PLACE THE CONFERENCE ON HOLD (ANY INSIDE PARTY):

1. During a conference call:

   Inter-Tel Phones: Press the Hold button or press the Special button and enter the Individual Hold feature code (336). The conferenced parties remain connected. The call and `CNF` buttons flutter.

   Single-Line Sets: Hookflash and then enter the Individual Hold feature code (336). The conferenced parties remain connected.

   NOTE: If you do not return to the conference before the Hold timer expires, the conference will recall your station. If the recall is not answered, the conference will recall to your attendant's station. At the attendant, the call will be terminated automatically after the Abandoned Recall timer if no inside parties are still in the conference and if it is not answered by the attendant. (If the attendant answers the call, a conference is re-established with the attendant station as one of the conference parties.)
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2. To return to the conference:

   Inter-Tel Phones: Press the Hold button, `CNF` button, or the fluttering Call button.

   Single-Line Sets: Lift the handset and enter the Conference feature code (5).

RECORD-A-CALL

NOTE: The Record-A-Call premium feature is required to use Record-A-Call.

If your system is programmed with a Record-A-Call application, the stations can be programmed to use the Record-A-Call feature. It allows users to enter a feature code whenever they want to record an ongoing call in their designated Record-A-Call mailbox. Users can retrieve the recorded messages later, just as they would any other mailbox messages.

When a user requests the Record-A-Call feature, the system establishes a conference call with the current call parties and a mailbox. If there are no conference circuits available when the user requests Record-A-Call, or if there are already four parties on the call, the user hears reorder tones and cannot use the feature.

The Record-A-Call mailbox records the call as a voice mail message. All parties will be included in the recording. If desired, the Record-A-Call mailbox can be programmed to play a message announcing that the Record-A-Call feature is in progress. There can be separate messages for day and night modes.

To signal to the other parties that the Record-A-Call feature is in use, a system-wide Record-A-Call Tone flag can be enabled during system programming. If the flag is disabled, there will be no alerting tone. If enabled, the beep will occur periodically throughout the call. The Record-A-Call Tone Interval timer determines how often this tone is generated. If the timer is set to 0, the tone is generated only when the feature is first activated.

There are two ways a station can be programmed to use this feature:

- The station can be programmed to use its personal mailbox, or another mailbox, as the assigned Record-A-Call mailbox. Only this assigned mailbox can be selected. (This is the default programming for all stations.)

- The station can be programmed with a default mailbox, but with the option of selecting a different mailbox. If the user chooses to not enter a mailbox number, the system automatically selects the default mailbox.

In a network setting, the Record-A-Call destination does not have to be on the same node as the station, but the Voice Processor must be programmed with a mailbox for that station.

When the requesting station user hangs up, all parties are automatically disconnected. If all parties on the call hang up, except the requesting station user, an intercom call will remain connected between the requesting station and the Record-A-Call application. This allows the user to make additional comments before ending the recording.

When the station user turns off Record-A-Call or ends the call being recorded, the system delivers the message to the mailbox. The associated station will receive message waiting indications as usual.

In software versions 7.004 and later or 8.002 and later, a monitored station can initiate a Record-A-Call session without terminating call monitoring. Hunt group supervisors, however, cannot initiate a Record-A-Call while monitoring a station, and a station using Record-A-Call cannot be monitored. In other words, to use Record-A-Call and station monitoring simultaneously, the supervisor must first be monitoring the station, and the station, not the supervisor, must initiate the recording.

The Record-A-Call feature code can be assigned to a user-programmable feature button. If the feature button has a lamp, it flashes while the Record-A-Call conference is being set up and is lit while the feature is active.

The programmer can set a maximum length for Record-A-Call messages. The Record-A-Call Maximum Message Length timer can be set at 0-600 minutes. A 0 setting allows messages of any length, limited only by the available disk space. The default is 30 minutes. (This overrides the mailbox's maximum message length setting. However, if a Record-A-Call message exceeds the maximum message length, the mailbox will be considered full until that Record-A-Call message is deleted.)

As with any other conference call, any inside party involved in a Record-A-Call conference can use the Hold, Transfer, Agent Help, or other features. However, if any inside party has enhanced speakerphone enabled, the enhanced mode will be disabled when the conference begins and must be re-enabled if desired.

NOTE: Record-A-Call is not supported on an IP or SIP device engaged in a P2P call (see page 105).

TO USE RECORD-A-CALL:

1. **Inter-Tel Phones:** Press the Special button and dial the Record-A-Call feature code (385) or press the **RECORD-A-CALL** menu button. The display shows REQUEST-ING RECORD-A-CALL.

    Single-Line Sets: During a call, hookflash and dial the Record-A-Call feature code (385).

2. *If required or allowed,* enter the desired mailbox number. The display shows ENTER MAILBOX NUMBER. (If you do not enter a mailbox number, and you have a default Record-A-Call mailbox, the system will automatically select your default mailbox. If you do not have a default mailbox, the feature will time out or can be canceled by pressing **#** or **ACCEPT**.)

3. You hear a confirmation tone when the Record-A-Call feature is activated. The display shows RECORD-A-CALL IN PROGRESS.

4. **To turn off Record-A-Call,** repeat step 1 or end the call. The display shows RECORD-A-CALL TERMINATED.

AGENT HELP

> **NOTE:** The Agent Help premium feature is required to use Agent Help.

The Agent Help feature allows a station user to request help from a designated "Agent Help Extension" during a two- or three-party call. When the request-for-help call rings, the Agent Help Extension can choose to join the call or reject the request. The Agent Help Extension can be a supervisor or other station, an extension list, or a hunt group.

In Database Programming, there are two fields for each station that affect how this feature operates.

- The Agent Help Extension field determines the station that is called when the Agent Help feature code is entered at the station. This can be set to any valid extension number for a station, extension list, or hunt group, or it can be set to "None."

- The User-Keyed Extension flag, if enabled, allows the user to select the station that will receive the Agent Help request, even if a default Agent Help Extension is programmed as described above.

AGENT HELP EXT	USER-KEYED	RESULT
Ext. number	Disabled	The Agent Help Extension is called when the feature code is entered.
Ext. number	Enabled	The user is prompted to enter the desired number after the feature code is entered. If a number is not entered before the dialing timer expires, the programmed Agent Help Extension number is dialed automatically.
None	Enabled	The user is prompted to enter the desired number after the feature code is entered.
None	Disabled	The user hears reorder tone if the feature code is entered.

When a station user enters the Agent Help feature code, a private call is placed to the station's Agent Help Extension. While the call is ringing at the supervisor's extension, neither the requesting user nor any other parties on the call can hear the private call ringing. If the supervisor answers the call, the system creates a conference to include the supervisor in the requesting user's original call.

If the Agent Help Extension is an Inter-Tel phone, the microphone is muted, and the supervisor cannot be heard unless he or she presses the **MUTE** button. If the Agent Help Extension is a single-line set, the supervisor *can* be heard as soon as the conference is established. In either case, the supervisor can hear all other parties on the call.

> **NOTE:** Agent Help is not supported on an IP or SIP device engaged in a P2P call (see).

In a network setting, the Agent Help Extension does not need to reside on the same node as the user requesting Agent Help.

The type of station instrument determines how the Agent Help Extension is alerted:

- *Display Phones:* If the Agent Help Extension is a display phone, the display shows that the incoming private call is an Agent Help request and identifies the username of the requesting station. The Agent Help Extension can choose to reject the call by not answering it or by entering the Agent Help Reject feature code (376). The call appears under the `IC` button (or a Call button if there is no `IC` button).

- *Non-Display Phones and Single-Line Sets:* The Agent Help Request private call rings just as any private intercom call would; there is no way to distinguish it.

If the Agent Help Extension is an extension list or hunt group, the private call circulates as usual until it is answered. If an Agent Help request is not answered before the Forward No Answer timer expires, the request is considered rejected.

To signal to the other parties that the Agent Help Extension has joined the call, a system-wide Agent Help Tone flag can be enabled during database programming. If the flag is disabled, there will be no alerting tone. A timer, called the Agent Help Tone Interval timer, determines how often this tone is generated. If the timer is set to 0, the tone is generated only when the Agent Help Extension enters the call, a party is added to the call, or the call is placed on hold and retrieved.

If the Agent Help feature code is assigned to an Inter-Tel phone feature button with a lamp, the lamp status shows the following:

- The lamp flashes when the Agent Help Extension is being called.

- The lamp goes off if the Agent Help request is rejected or the feature is terminated.

- The lamp is lit solidly when the Agent Help Extension is in the conference.

When the requesting station user hangs up, all parties are automatically disconnected. The Agent Help Extension can leave the call at any time, without affecting the other parties, by hanging up. If the other party (or parties) hangs up first, the requesting station and the Agent Help Extension remain connected in an intercom call. The requesting station can cancel the request (or remove the Agent Help Extension from the call) by re-entering the Agent Help feature code, thereby terminating the feature.

If necessary, the requesting station in an Agent Help call can use the Hold, Transfer, Record-A-Call, or other features during the call, while the Agent Help Extension is connected. However, if any inside party has enhanced speakerphones enabled, the enhanced mode will be disabled when the Agent Help conference begins and must be re-enabled if still desired.

The Agent Help feature will not function in the following cases:

- If the feature is not enabled in Premium Features, any user attempting to enter the Agent Help feature code will hear reorder tones and, if at a display phone, see a RESERVED FEATURE display.

- The Agent Help Extension cannot be in Do-Not-Disturb mode or have call forwarding enabled. If so, the requesting user will hear reorder tones after entering the Agent Help feature code or entering the desired extension number. The Agent Help request will not follow the forward or any programmed system forwarding.

- If the station user who enters the Agent Help feature code is on a four-party conference call, the system will send reorder tones to signal that the Agent Help Extension cannot be added. There can be a maximum of four parties in a conference; attempting to add the Agent Help Extension would exceed the maximum.

- If there are no conference circuits available when the station user enters the Agent Help feature code, the user will hear reorder tones and must try again later when circuits are available.

If the call is being monitored by a hunt group supervisor, the monitoring feature is terminated when the Agent Help Extension joins the call; an Agent Help conference call cannot be monitored.

TO USE THE AGENT HELP FEATURE:

1. **Inter-Tel Phones:** While on a call, press the Special button and then enter the Agent Help feature code (375). Executive Display, Professional Display, and Model 8560 Phone users can press the **AGENT HELP** menu button.

   Single-Line Sets: While on a call, hookflash and then enter the Agent Help feature code (375).

   If you hear reorder tone, the Agent Help feature is not available at your station, you already have four parties in your call, no conference circuit is currently available, or the Agent Help Extension is in Do-Not-Disturb.

2. Depending on programming, you may be prompted to enter an extension number. If so, enter the extension number of the station you wish to call for help. *If you do not enter a valid extension number,* you hear reorder tones and must start over. The display shows REQUESTING AGENT HELP.

3. *If the Agent Help Extension accepts the call,* you will hear the Agent Help tone, if enabled. Display phones show AGENT HELP IN PROGRESS. When the Agent Help Extension hangs up, your display shows AGENT HELP TERMINATED.

   If the Agent Help Extension rejects the call, you will hear a confirmation tone. Display phones will show AGENT HELP REJECTED.

TO RESPOND TO AN AGENT HELP REQUEST AT A DISPLAY PHONE:

When you receive a private call from an Agent Help request, you will see a display that shows *(name)* REQUESTS HELP. You can do one of the following:

   To accept the call: Answer as usual or press the **ANSWER** menu button. You hear the Agent Help Tone, if enabled. Your display shows AGENT HELP IN PROGRESS.

   To reject the call: Enter the Agent Help Reject feature code (376) or press the **REJECT HELP** menu button. You hear confirmation tone.

   To place your station in Do-Not-Disturb to block the call: Enter the Do-Not-Disturb feature code (370) or press the **DND** button or the **IC CALL TO DND** menu button.

SYSTEM FORWARDING

NOTE: The System Forwarding premium feature is required to use system forwarding.

System forwarding provides the ability to program the system so that calls ringing at a station will follow a database-programmed "forwarding path" that routes the call based on the type of call and the status of the intended station. (The Call Forwarding station feature can be used to override System Forwarding.) Several terms will be used to describe this feature, including:

- **Principal Station:** Original station being called.

- **Forwarding Point:** A destination (station, hunt group, or off-node device) to which the system-forwarded call is directed. Each forwarding path can contain up to four forwarding points.

- **Forwarding Path:** The sequence of forwarding points to which the call will be sent. Forwarding paths are programmed in the database. Up to 200 unique paths can be programmed. Each station can have up to three forwarding paths.

Two system timers are used with this feature:

- **System Forwarding Initiate:** This timer determines how long a call will ring (unanswered) at the principal station before moving to the first forwarding point. The default value is 15 seconds, and the range is 2-255 seconds.

- **System Forwarding Advance:** This timer determines how long the call will ring (unanswered) before moving to the next forwarding point. The default value is 15 seconds, and the range is 2-255 seconds.

For each forwarding path assigned to the station, the system checks the following three criteria to determine if and when a call should be forwarded:

- **Type of incoming call:** Up to six different types of calls can be programmed to be sent to the forwarding path. They are:
  — Outside calls received through a call routing table (including DID and E&M calls, but not including DISA calls)

  — Ringing outside calls

  — Transferred outside calls (including automated attendant and voice mail transfers)

  — Recalling outside calls

  — DISA calls (including DISA calls received through a call routing table)

  — Intercom calls

- **Station status:** The system recognizes four different types of station status.

  — *No Answer:* If the call is not answered at the principal station before the System Forwarding Initiate timer expires, the system sends the call to the forwarding path.

  — *Busy*: If the principal station is busy, the system immediately sends the call to the forwarding path. Both "No Answer" and "Busy" can be selected together to form a "Not Available" status.

  — *Do-Not-Disturb*: If the principal station is in Do-Not-Disturb, the system immediately sends the call to the forwarding path.

  — *Immediate*: The system immediately sends the call to the forwarding path. The principal station user cannot answer an immediately forwarded call, but can reverse transfer it from the forwarding point.

- **Day-mode/night-mode status:** The system day/night mode is used to determine if a forwarding path is taken. Either day mode, night mode, or both may be specified.

For an example, refer to the diagram below. In the example, the "principal" station user wants direct ring-in or transferred calls to ring at his or her station during day mode. The principal station has a forwarding path with two forwarding points: a hunt group and voice mail. If the principal does not answer the call, it follows the forwarding path to forwarding point #1, a hunt group. If the hunt group does not answer the call, it would continue on the forwarding path and go to the principal station's voice mailbox (forwarding point #2).

If the principal station is an Inter-Tel phone, the "ring principal once" option can be set that will signal the principal station when a call begins to follow the forwarding path. The signal to the principal station consists of a display (CALL SENT TO FORWARD PATH) and a single burst of ring tone. The call cannot be answered at the principal station, but can be reverse transferred from the system forward point.

CALL RINGS IN TO PRINCIPAL STATION

NO ANSWER

CALL IS SENT TO FWD POINT #1 - HUNT GROUP

CALL IS SENT TO FWD POINT #2 - VOICE MAIL
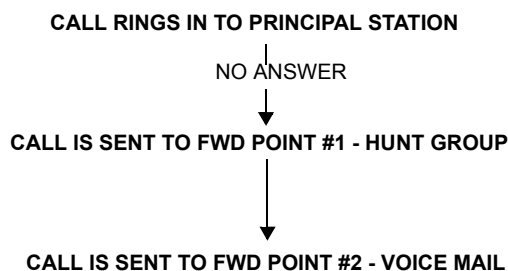
If a call rings in to multiple stations, and one or more of those stations has system forwarding, the call will not follow any of the forwarding paths.

Agent Help requests will not follow any forwarding path.

If a principal station or a station forwarding point is a member of a hunt group, calls placed to the hunt group's pilot number are unaffected by system forwarding. The hunt group calls will be received at the station as usual and will not enter the system forwarding path.

A call follows only the forwarding path of the principal, even if a forwarding point has a forwarding path of its own. The call that originated at the principal station will follow only the principal station's forwarding path.

INDIVIDUAL STATION FORWARDING POINTS

The ringing duration at each station forwarding point is determined by the System Forwarding Advance timer (defaults to 15 seconds). If the station forwarding point is busy, the call will camp-on until the System Forwarding Advance timer expires and then it moves to the next forwarding point.

If the station forwarding point is in Do-Not-Disturb, the forwarding path will bypass that station and immediately send the call to the next forwarding point.

If a forwarding point is a Voice Processor application, and the system is unable to communicate with the Voice Processor, the call will bypass the forwarding point.

A station forwarding point can place calls or transfer calls to the principal.

HUNT GROUP FORWARDING POINTS

If a forwarding point is a hunt group, a call following the forwarding path will be sent to the announcement station or overflow station as usual; it will advance to the next forwarding point if not answered before the System Forwarding Advance timer expires.

The call will ring at the hunt group until the System Forwarding Advance timer expires. It will then move to the next forwarding point. The No Answer Advance timer determines how long the call will ring at each hunt group station, as usual.

If all stations in a hunt group forwarding point have Do-Not-Disturb or hunt group remove enabled, the call will camp on until the System Forwarding Advance timer expires. The call will then be sent to the next forwarding point.

HANDSFREE ANNOUNCE SYSTEM FORWARD OPTION

When a call is transferred to the principal station by another station user *and the principal station's system forward is set for the "no answer" station status*, a system-wide option determines what the caller hears, as shown in the table below.

HANDSFREE ANN. OPTION	SYS. FORWARD OPTION	RESULT
Disabled	Intercom and/or outside calls forwarded	The intercom call from the transferring station enters the forwarding path after the System Forwarding Initiate timer expires. The transferring station user hears ringing and can announce the call only if it is answered.
Enabled	Outside calls forwarded	The transferring station user will place a handsfree call to the principal station and can announce the transfer; the *System Forwarding Initiate* timer does not start until the transfer is completed.
Enabled	Intercom calls forwarded	The handsfree announce option is overridden and the intercom call from the transferring station enters the forwarding path after the System Forwarding Initiate timer expires. The transferring station user hears ringing and can announce the call only if it is answered.
Enabled or Disabled	Calls forwarded to voice mail	The transfer is completed when the transferring station hangs up. The principal station's mailbox number is automatically dialed.

MANUAL CALL FORWARDING AND SYSTEM FORWARDING

If the principal station or a forwarding point has manual call forward enabled (using the **FWD** button or one of the Call Forwarding feature codes), the Call Forward feature overrides System Forwarding.

**PRINCIPAL STATION USING BOTH
SYSTEM AND MANUAL CALL FORWARD**
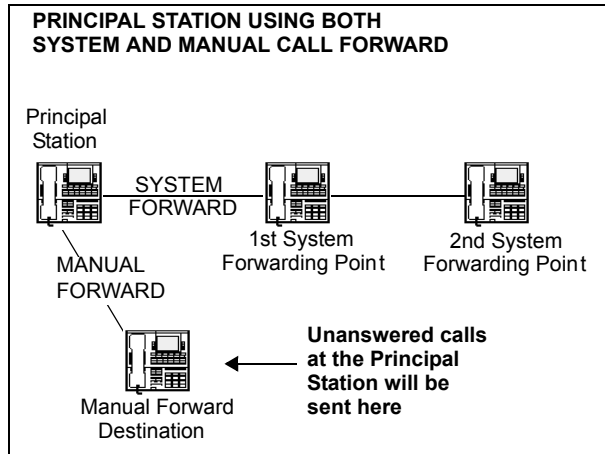
If a forwarding point has the Call Forward feature enabled, a system-forwarded call will ring at the forward destination until it is answered or the System Forward Advance timer expires; then the call moves on to the next forwarding point.

**FORWARDING POINT USING
MANUAL CALL FORWARD**
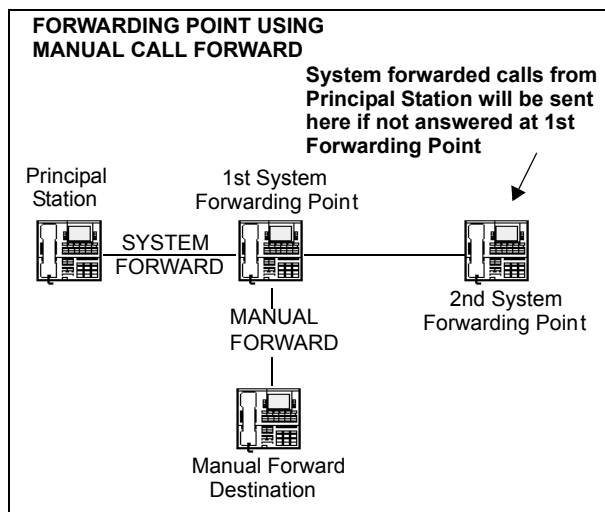
If a station forwarding point is manually forwarded to voice mail, the call will not follow the manual forward to the Voice Processor; it will ring at the station forwarding point.

**FORWARDING POINT
FORWARDED TO VOICE PROCESSING**
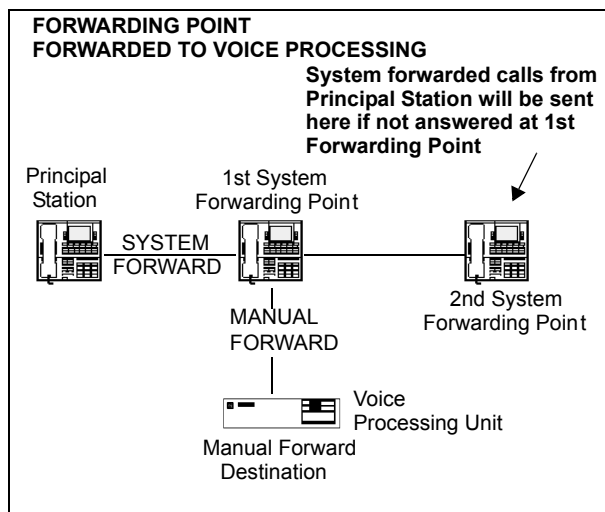
If the principal station *receives* a manually forwarded call (not a system forward), that call will *not* follow the principal station's system forwarding path.

**PRINCIPAL STATION IS MANUAL
FORWARD DESTINATION**

MANUAL
FORWARD

SYSTEM
FORWARD

Principal
Station

System
Forwarding Point

**Manually forwarded calls will
stop here and will not be sent
to System Forwarding Point**
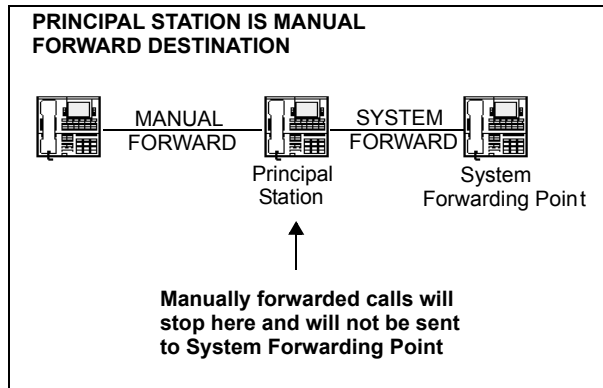
If an infinite forward loop results from the combination of manual forwards and system forwarding paths, the station that was originally intended to receive the call will ring, even if the station is in Do-Not-Disturb.

**INFINITE LOOP CAUSED BY
SYSTEM AND MANUAL CALL FORWARD**

**Calls received by this station
will not follow the manual
forward if other two stations are
unavailable.**

MANUAL
FORWARD

SYSTEM
FORWARD

MANUAL
FORWARD
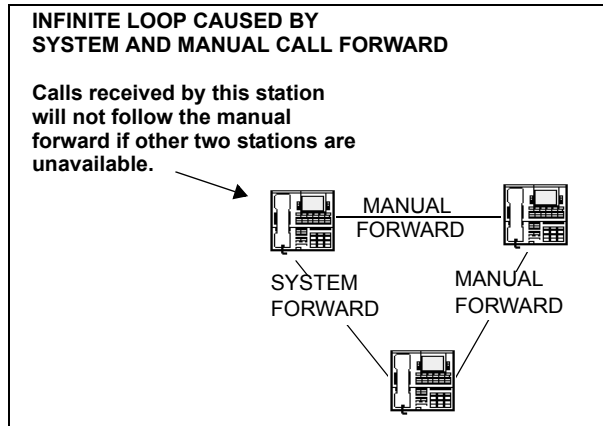
SYSTEM FORWARD ENABLE/DISABLE

The station user has the option of entering feature codes that will disable or enable the use of system forwarding at that station. Note that this flag does not affect the station's appearance on any other station's call forwarding path. The flag merely determines whether the station will have its own calls system forwarded.

TO ENABLE OR DISABLE SYSTEM FORWARDING:

- **Inter-Tel Phones:** Enter the System Forward On (352), System Forward Off (353), or System Forward On/Off (354) feature code. The display shows SYSTEM FORWARD ON (or OFF). If disabled, the system will ignore any system forwarding paths programmed for this phone until you re-enable system forwarding.

- **Single-Line Sets:** Lift the handset and enter the System Forward On (352), System Forward Off (353), or System Forward On/Off (354) feature code. If disabled, the system will ignore any system forwarding paths programmed for this phone until you re-enable system forwarding.

UNANSWERED SYSTEM FORWARD CALLS

If a call that is following a system forwarding path is not answered or all forwarding points are in Do-Not-Disturb or busy, its final destination depends on the type of call as shown below.

TYPE OF CALL	ALL FWD POINTS ARE BUSY OR DO NOT ANSWER	ALL FWD POINTS ARE IN DO-NOT-DISTURB
Intercom	Rings at the last forwarding point until it is answered or the caller hangs up.	Call never leaves the principal station.
Call routing ring-in (except DISA)	Rings at last forwarding point until it is answered or caller hangs up.	Rings at the principal station until it is answered or the caller hangs up.
Direct ring-in	Rings at last forwarding point until it is answered or caller hangs up.	Rings at the principal station until it is answered or the caller hangs up.
Transfer from a station, auto-mated attendant or voice mail	Recalls the transferring station's transfer recall destination when the System Forwarding Advance timer expires at the last forwarding point.	*If immediate forwarding is enabled,* rings the principal station until the applicable Transfer timer expires. Then it recalls the transferring station's transfer recall destination. *If a conditional forwarding is enabled,* rings principal station until the System Forward Initiate timer expires. Then it recalls the transferring station's transfer recall destination.
DISA (including Call Routing to DISA)	Rings at last forwarding point until the Abandoned Call timer expires.	Rings at the principal station until the Abandoned Call timer expires.
Recalls	Recalls the principal station's attendant when the System Forwarding Advance timer expires at the last forwarding point. If the principal station does not have an attendant, the call continues to ring at the last forwarding point until the Abandoned Call timer expires.	*If immediate forwarding is enabled,* rings principal station until the Recall timer expires. Then it recalls the principal station's attendant. *If a conditional forwarding is enabled,* rings principal station until the System Forward Initiate timer expires. Then it recalls the principal station's attendant. If the principal station does not have an attendant, the call continues to ring at the principal station until the Abandoned Call timer expires.

CALL FORWARDING

With call forwarding, a station user can route incoming intercom and outside calls (including direct ring-in calls) to another station, to a hunt group, or to an outside telephone number, if allowed by toll and trunk restrictions. In a network setting, the network allows the user to forward calls to stations or hunt groups on another node. (See also page 253.) The four forwarding options are:

- **Forward all calls:** All incoming calls are immediately forwarded.

- **Forward if no answer:** Incoming calls are forwarded if they are not answered before the Forward No Answer timer expires.

- **Forward if busy:** Incoming calls are immediately forwarded if the station is busy.

- **Forward if no answer or busy:** Incoming calls are forwarded immediately if the station is busy or if calls are not answered before the Forward No Answer timer expires.

If forward all calls is enabled, display phones show the call forwarding status and destination until the request is canceled. If one of the conditional forwards is enabled (no answer, busy, or no answer/busy), display phones show the forward status for five seconds and then return to normal. If the station receiving the forward is a display phone, it shows EXT XXXX FWD FROM EXT XXXX for each forwarded call received.

Station users can chain forwards from station to station providing the forwards do not form a loop and the chain does not include more than 10 stations. The conditional forward features (if busy, if no answer, if busy/no answer) may form a loop that the system cannot detect until a call is placed to the forwarding station. For example, if two station users forward their calls to each other using the Forward If Busy feature, the system accepts the requests. However, if a call rings in while both stations are busy, the forwards create an illegal loop. In this case, the call camps on to the called station and that station's display shows INVALID FORWARD PATH.

If more than one station has ring in for a trunk group, direct ring-in calls on that trunk group will forward to extension numbers, but not outside numbers or voice mail ports. The display of the phone receiving the forwarded call will show it as a forwarded call, and the Call button or individual trunk button flashes to show ring in. (The individual trunk button also flashes on the phone that is being forwarded.)

Calls cannot be forwarded to restricted outside telephone numbers or stations in Do-Not-Disturb. If the station that is programmed to receive your forwarded calls is later placed in Do-Not-Disturb and you receive a call, you will momentarily see a display showing that the destination station is in Do-Not-Disturb; the call will remain at your station.

NOTE: Direct ring-in calls that are forwarded to a station in DND will ring the DND station per the rules of DND.

If your station is in Do-Not-Disturb and you have call forwarding programmed, the call is still forwarded, unless you enabled Forward No Answer. With Forward No Answer, intercom callers will see the Do-Not-Disturb display that you programmed, and the call will not be forwarded.

If calls are forwarded to a Voice Processor application, and the system is unable to communicate with the Voice Processor PC, the call will not be forwarded. It will remain at your station.

Call forwarding overrides system call forwarding at the principal station.

If a station is programmed for Forward No Answer or Forward No Answer/Busy and receives a transferred call, the Forward No Answer timer is started when the intercom call from the transferring station begins ringing. The Forward No Answer timer is restarted if the transferring station completes the transfer before the timer expires (the transferred call will then be forwarded when the timer expires).

Agent Help Request calls, queue callbacks, and recalls do not forward, except that a recall at an attendant's station will forward to another station.

FWD BUTTON

Some Inter-Tel phones use a combination of the default `FWD` key and forwarding menu keys. When the default `FWD` key is pressed, the display shows a menu of call forwarding options. The user must then select the desired option by pressing the corresponding key next to the display. If the `FWD` key is programmed to use any other Forward feature code (355-358) the forwarding options will not be displayed when the `FWD` key is pressed; the Inter-Tel phone will operate the same as any other Inter-Tel phone.

Any Inter-Tel phone user can make any user-programmable button a `FWD` button that uses one of the forwarding feature codes (355-358). Refer to the procedures on page 167 for programming user-programmable buttons.

A user-programmed `FWD` button is lit only when the station is programmed for the call forwarding condition enabled by that button. For example, if a user-programmed `FWD` button is set to forward calls when the station is busy, the button will be lit when the Forward If Busy feature is enabled, but not if the Forward If No Answer feature is enabled.

If an Inter-Tel phone user has both a fixed `FWD` button and a user-programmable `FWD` button, the fixed button will always light when the station is forwarded. However, the user-programmable `FWD` button will be lit only when the forwarding option activated by that button has been selected. For example, if the user has the Forward All Calls feature programmed under a user-programmable button, that button will light if either the fixed or programmable `FWD` button is used to select that feature. However, if the fixed button or a feature code is used to set the Forward If Busy feature, only the fixed button will light.

FORWARD TO AN OUTSIDE NUMBER

When programming a station for call forward to an outside telephone number, a trunk access code is programmed before the telephone number. If the station is called while the selected trunk group is busy, the call will not be forwarded. Calls will ring at the forwarded station until the call is answered or the caller hangs up. The forwarded station's display shows FORWARD TO BUSY TRUNK.

The forwarded station's (not the intercom caller's) trunk and toll restrictions are checked when an intercom call is forwarded to an outside number.

When an outside call is forwarded to an outside number, the Unsupervised CO timer is activated. When the timer expires, the call recalls the attendant. If the attendant does not answer the recall before the Abandoned Call timer expires, the call is disconnected.

Stations with Forced Local Toll Call and Forced Long-Distance Toll Call account codes cannot forward calls to outside numbers.

If a trunk group is assigned direct ring in to multiple stations, and one of those stations is forwarded to an outside number, incoming calls on that trunk group are not forwarded to the outside number.

NOTE: There may be some reduction in voice volume when an outside call is forwarded to an outside telephone number, depending on central office trunk quality.

MANUAL FORWARDING TO PUBLIC NETWORK

There is a station flag called Manual Forwarding to Public Network. When the Manual Forwarding to Public Network station flag is disabled, it prevents the station from manually forwarding calls to the public network. This prevents users from calling in to a local station and reaching toll numbers via forwarding.

FORWARD TO THE MESSAGE CENTER

Station users can forward calls to their message centers. Inter-Tel phone users can forward calls to their designated message center by pressing the **FWD** button and then the **MSG** button or **MESSAGE CENTER** menu button. Single-line users must use the call forwarding procedure and dial the extension number of the message center.

FORWARD TO AN ATTENDANT

Station users can forward calls to their attendant by pressing the **FWD** button and then **0**, or by entering a Call Forwarding feature code and dialing **0**.

FORWARD TO VOICE MAIL

If a station is forwarded to voice mail or if the message center is a voice mail hunt group, the user's mailbox number is automatically dialed when the voice mail unit answers the forwarded call.

If a chain of forwarded stations ends in voice mail, the mailbox number of the first station in the chain will be selected when the voice mail unit answers the call.

If a trunk group is assigned direct ring in to multiple stations, and one of those stations is forwarded to a voice mail unit, incoming calls on that trunk group are not forwarded to the voice mail unit.

HOW TO FORWARD CALLS TO AN EXTENSION OR OUTSIDE NUMBER

Station users can also forward calls using the Remote Programming feature described on

TO FORWARD CALLS:

1.   **Executive Display, Professional Display, and Model 8560 Phones:** Press the ▮ **FWD** ▮ button. The display shows SELECT TYPE OF FORWARD. Press the menu button for the desired forwarding option (ALL, NO ANSWER, BUSY, or NO ANSWER/BUSY). The display shows ENTER FORWARD DEST.

     Other Inter-Tel Phones: While on or off hook, press the ▮ **FWD** ▮ button or enter one of the following feature codes. (Display phones show ENTER FORWARD DEST.)

     - Call Forward All Calls (355)

     - Call Forward If No Answer (356)

     - Call Forward If Busy (357)

     - Call Forward If No Answer Or Busy (358)

     Single-Line Sets: Lift the handset and enter one of the feature codes listed above.

2.   *If forwarding to an extension number or pilot number,* do one of the following:

     - Press a DSS/BLF button.

     - Dial the extension number or pilot number to receive the calls.

     - Dial 0 to forward to your attendant.

     - *(Inter-Tel phone users only)* Press the ▮ **MSG** ▮ button or **MESSAGE CENTER** menu button to forward calls to your message center.

     - *(Executive Display, Professional Display, and Model 8560 Phone users only)* Press the **VOICE MAIL** button to forward to your mailbox.

     - *(Executive Display, Professional Display, and Model 8560 Phone users only)* Press the **IC DIRECTORY** menu button to look up and select a number.

     NOTE: If you dialed an invalid extension number, your display shows FORWARD TO INVALID NUMBER, you hear reorder tones, and must try again. If you dialed a station that is in Do-Not-Disturb, the display shows DESTINATION IN DND, you hear reorder tones, and you must enter a new destination.

If forwarding to an outside telephone number, do one of the following:

- Dial a trunk access code (8 or 92001-92208). The display shows ENTER PHONE #. Dial the desired telephone number.

- *(Inter-Tel phone users only)* Press a trunk access button (**OUTGOING**, ARS, trunk group button, or trunk button). The display shows ENTER PHONE #. Dial the desired telephone number.

- *(Executive Display, Professional Display, and Model 8560 Phone users only)* Press the **OUTSIDE PHONE** menu button. The display shows ENTER PHONE #. Dial, speed dial, or redial the desired telephone number or press the **OUTSIDE DIR** menu button to look up and select a number.

> **NOTE:** If the forward destination is invalid because of toll restriction, ARS-Only restriction, no outgoing access for the trunk, no ARS or ARS route group for the dialed number, or an invalid dialed number, you hear reorder tones and must enter a new destination. (The display explains why the call was denied.)

3. **Inter-Tel Phones:** *If off hook,* hang up. You hear a progress tone, and the **FWD** button is lit. The display shows FWD *(condition)* TO XXXX. If you attempted to forward calls to a station that is unconditionally forwarded to your station or if the forwarding path already has 10 stations, your display shows INVALID FORWARD PATH, you hear reorder tones, and you must enter a new destination.

   Single-Line Sets: Hang up.

TO CANCEL ANY CALL FORWARD REQUEST:

- **Executive Display, Professional Display, and Model 8560 Phones:** Press the **FWD** button and then press the **FWD OFF** menu button. You hear a progress tone and the **FWD** button is unlit. The display shows ANY CALL FORWARD CANCELED.

- **Other Inter-Tel Phones:** Press the lit **FWD** button (the Speaker button lights) then press the Speaker button (both buttons go off). You hear a progress tone. Display phones show ANY CALL FORWARD CANCELED.

   Single-Line Sets: Lift the handset, enter any Call Forwarding feature code (355-358), and hang up.

SPEED DIALING

Three system features provide speed-dialing. They are as follows:

- **System Speed Dialing:** Up to 1000, 48-digit system speed-dial numbers can be stored in the system.

- **Station Speed Dialing:** Each station user can program up to 10, 16-digit station speed-dial numbers. Display phone users can program a 16-character name for each station speed-dial number.

- **System Directory (Intercom and Outside):** The intercom directory enables display phone users to "look up" intercom extension numbers and usernames. The outside directory enables display phone users to "look up" system speed-dial numbers and associated names.

> **NOTE:** The Directories premium feature is required to use the system directory.

SYSTEM SPEED DIALING

Speed dialing allows station users to dial stored telephone numbers quickly. Up to 1000, 48-digit system speed-dial numbers can be stored in system memory. If desired, an identifying name can also be stored with each number. (See also the System Directory feature on page 238 and Caller ID on page 148.)

Each node in a network has its own system speed dial numbers. System speed dial numbers can be used only on the node where they are programmed.

To keep system speed-dial numbers confidential, some or all can be programmed as non-display numbers. Non-display numbers can be used by any station user, but are displayed only on the programming station's phone. (Non-display numbers cannot be redialed or saved as station speed-dial numbers at a display phone.) Non-display numbers *will* appear in the SMDR report.

System speed-dial names can be programmed by an administrator using English/Spanish or Japanese characters, or a combination. The programmed language for the phone does not affect the characters that can be viewed. That is, no matter what language the phone uses or which characters are in the name, the phone user will be able to see the speed-dial names exactly the way they were programmed. In lists, such as speed-dial directories, the English/Spanish characters are alphabetized before the Japanese characters (Japanese names will be at the end of the list).

System speed-dial numbers are subject to toll restriction unless a system-wide option has been enabled that allows any station to dial any system speed-dial number regardless of toll restriction.

The system speed-dial numbers are stored using location codes (000-999). When dialed, the numbers appear on a display phone unless they have been programmed as non-display numbers. Display phone users can also view system speed-dial numbers and names without dialing; however, with non-display numbers, only the name is displayed.

System speed dial codes 000-999 can be stored in user-programmable phone buttons by following the directions given on page 167. These buttons allow one-button dialing of system speed-dial numbers.

The system speed-dial numbers and names are stored in battery-backed RAM and will not be erased in the event of a power failure.

The system speed-dial numbers and names are programmed by the installer or at any administrator station. (Refer to page 31 for administrator programming instructions.)

Viewing System Speed-Dial Numbers

TO VIEW SYSTEM SPEED-DIAL NUMBERS AND NAMES:

NOTE: If you make a mistake, use the `MUTE` button to backspace.

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1. While on hook, press `SYS SPDL` or enter the System-Speed Dial feature code (381). The display shows REVIEW SYS SPEED # (000-999).

2. Enter the desired location code (000-999) or press the **SEARCH** menu button. The display shows the programmed name and number.

3. *If desired,* scroll forward through the speed-dial locations in alphabetical order by pressing the high end of the Volume button or the **NEXT** button, or scroll backward by pressing the low end of the Volume button or the **PREVIOUS** button.

4. Repeat steps 2 and 3 for each speed-dial location to be viewed. Or, press `✳` or **CANCEL** to terminate this feature.

5. **To automatically select a trunk and dial the displayed number,** press `#`.

Dialing System Speed-Dial Numbers

TO DIAL SYSTEM SPEED-DIAL NUMBERS AT AN INTER-TEL PHONE:

1. *If desired,* lift the handset and select an outgoing trunk. (You may skip this step.)

2. Press `SYS SPDL` or enter the System Speed-Dial feature code (381). The display shows REVIEW SYS SPEED # (000-999). Non-display phone users hear a confirmation tone.

3. Enter the location code (000-999) for the desired number. *If you have not selected a trunk,* press `#` or the **ACCEPT** menu button to accept the number and automatically select a trunk. Or, press the ARS button, a trunk button, a trunk group button, or the `OUTGOING` button to select a trunk. The number is automatically dialed. (Display phones show the number dialed unless it is a non-display number.) If you hear reorder tones, your station is restricted from dialing the selected number. If the display shows INVALID BIN NUMBER, you entered an invalid speed-dial location code.

TO DIAL SYSTEM SPEED-DIAL NUMBERS AT A SINGLE-LINE SET:

1. Lift the handset and select an outgoing trunk.

2. Hookflash and enter the System Speed-Dial feature code (381). You hear a confirmation tone.

3. Enter the location code (000-999) for the desired number. The number is automatically dialed. If you hear reorder tones, your station is restricted from dialing the selected number.

STATION SPEED DIALING

For convenience, each station user can program up to 10, 16-digit station speed-dial numbers. Single-line sets use speed-dial location codes (0-9). Inter-Tel phones use speed-dial buttons, if programmed in the Inter-Tel phone's keymap, or location codes 0-9. Together, the lamps in the Inter-Tel phone speed-dial buttons create a busy lamp field that indicates the status of the stations programmed under the buttons (refer to the lamp status chart on page 86). Speed-dial buttons can contain outside telephone numbers, feature codes, station extension numbers, or hunt group pilot numbers.

Station speed-dial codes can be stored in user-programmable buttons to create speed-dial buttons.

Programming Station Speed-Dial Numbers and Names

When entering the outside telephone numbers, use one of the following methods:

- Use the dialpad to manually dial the number.

- On an Inter-Tel phone, press the **REDIAL** button to enter the last number (up to the first 16 digits) dialed or saved at the station.

- On an Inter-Tel phone, press the **SYS SPDL** button and enter the system speed-dial location code (000-999) to store one of the system speed-dial numbers in a station speed-dial location. (If the number is over 16 digits, only the first 16 digits are stored.) Non-display system speed-dial numbers cannot be stored in station speed-dial locations.

If desired, outside telephone numbers can be preceded with a trunk access code to allow one-button dialing of outside telephone numbers. For example, a button programmed with "89619000" would select a trunk using the Outgoing Calls feature code (8) then dial 961-9000.

A station extension number can be preceded with a pound (#) to always speed dial private intercom calls to the station. Or, a "4" may be entered before a station extension number or hunt group pilot number to reverse transfer (pick up) calls from that station or hunt group. If either of these options is used, normal handsfree intercom calls cannot be placed using that station speed-dial location or speed-dial button and the speed-dial button will not show the station's status.

An outside telephone number can be preceded by a trunk access code for easier trunk selection and number dialing. Station users can also program pauses and/or hookflashes into the stored outside telephone numbers. For example, the number can contain a specialized common carrier (SCC) local number, a pause, and an access code. When programming speed-dial numbers, each hookflash and each pause is considered one digit. The durations of the hookflash and the pause are determined by the programmable CO Hookflash and Pause Dialing Digit Length timers.

Display phone users can program an associated name for each station speed-dial number. Speed-dial names can contain up to 16 characters. To program speed-dial names, dialpad buttons are used to enter the desired letters, numbers, and punctuation in English/Spanish and/or Japanese (Katakana). (Only digital display phones can display Japanese characters. Analog phones and Executone IDS phones do not support Japanese displays.) When programming speed-dial names, you can press the **MSG** button or **USE ALPHA MODE/USE NUMERIC MODE** menu button to switch back and forth between alphanumeric and numeric mode.

- **In numeric mode,** the dialpad buttons are used to enter numbers 0-9, the pound (**#**) button is used for entering a hyphen (-), and the asterisk (**✳**) button is used for entering a colon (:). For example, 1 **✳** 00 would enter "1:00" in numeric mode.

- **In alphanumeric mode,** dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. For example, 533266 would enter "JEAN." When adjoining characters are located under the same button, press the **FWD** button to advance to the next character. For example, 66 **FWD** 6667776 would enter "NORM." Refer to the chart on the next page to program information in alphanumeric mode. (Note that letters correspond to the letters printed on the dialpad buttons.)

TO PROGRAM STATION SPEED-DIAL NUMBERS AT A DISPLAY PHONE:

NOTE: If you make a mistake, press **✳** or **CANCEL**; then start over. The number in memory remains unchanged. Or, use the **MUTE** button to backspace.

1. While on hook, enter the Program Station Speed Dial feature code (383). The display shows PROGRAM STN SPD (0-9) OR SCROLL. Do one of the following:

   - **Use a speed-dial button:** Press the speed-dial button to be programmed.

   - **Use a location code:** Dial the desired speed-dial location code (0-9).

   - **Scroll through the displayed numbers:** Scroll to the desired number by pressing the Volume, **NEXT**, or **PREVIOUS** button.

   - **Use the Executive Display, Professional Display, or Model 8560 Phone menu:** Use the menu buttons to select the desired speed-dial location.

2. When the display shows ENTER NAME do one of the following:

   - **To change or program the name:** Enter the desired name for the speed-dial number using your dialpad as described on page 232. Refer to the chart on the following page. Then press **#** or **ACCEPT**. *If you make a mistake,* use the **MUTE** button to back up and erase existing characters or the **CLEAR** button to erase the whole entry.

   - **To erase the current name and leave it blank:** Press **CLEAR** or press **MUTE** repeatedly until the name is erased. Then press **#** or **ACCEPT**.

   - **To leave the name the same:** Press **#** or **ACCEPT**.

3. When the display shows ENTER NUMBER do one of the following:

- **To enter or change a number:** Dial the extension number or telephone number (up to 16 digits, including pauses and hookflashes) to be stored. *To include *, #, a hookflash, or a pause in the number,* press the Special button once for an asterisk (*), twice for a pound (#), three times for a hookflash, or four times for a pause. You can enter more than one *, #, or hookflash in a row by pressing the **FWD** button to move to the next character (not necessary after pauses). *If you make a mistake,* press **MUTE** to back up and erase, or press **✱** or **CANCEL** to leave the number unchanged; then start over at step 1.

- **To erase an existing number and leave it blank:** Press **MUTE** until the number is erased.

4. Press **#** to exit. Repeat these steps for each additional number to be stored.

BUTTON	NUMBER OF TIMES BUTTON IS PRESSED										
	1	2	3	4	5	6	7	8	9	10	11
	ENGLISH/SPANISH CHARACTERS					KATAKANA CHARACTERS**					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The character available depends on the software version.

**The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

TO PROGRAM STATION SPEED-DIAL NUMBERS AT A NON-DISPLAY PHONE:

NOTE: If you make a mistake, press ✱ or **CANCEL**; then start over. The number in memory remains unchanged. Or, use the **MUTE** button to backspace.

1. While on hook, enter the Program Station Speed Dial feature code (383).

2. Press the speed-dial button to be programmed or dial the desired speed-dial location code (0-9). If you hear reorder tones, you entered an invalid speed dial location code; try again.

3. Do one of the following:

   - **To enter or change a number:** Dial the extension number or telephone number (up to 16 digits, including pauses and hookflashes) to be stored. *To include *, #, a hookflash, or a pause in the number,* press the Special button once for an asterisk (*), twice for a pound (#), three times for a hookflash, or four times for a pause. You can enter more than one *, #, or hookflash in a row by pressing the **FWD** button to move to the next character (not necessary after pauses). *If you make a mistake,* press **MUTE** to back up and erase, or press ✱ or **CANCEL** to leave the number unchanged; then start over at step 1.

   - **To erase an existing number and leave it blank:** press **MUTE** until the number is erased.

4. Press **#** to exit. Repeat these steps for each additional number to be stored.

TO PROGRAM STATION SPEED-DIAL NUMBERS AT A SINGLE-LINE SET:

NOTE: If you make a mistake, press ✱; then start over. The number in memory remains unchanged.

1. Lift the handset and enter the Program Station Speed-Dial feature code (383). You hear a confirmation tone.

2. Dial the desired speed-dial location code (0-9). If you hear reorder tones, you entered an invalid speed dial location code; try again.

3. Do one of the following:

   - **To enter or change a number:** Dial the extension number or telephone number (up to 16 digits, including pauses and hookflashes) to be stored. *To include *, #, a hookflash, or a pause in the number,* hookflash once for an asterisk (*), twice for a pound (#), three times for a hookflash, or four times for a pause. *If you make a mistake,* press ✱ to leave the number unchanged; then start over at step 1.

   - **To erase an existing number and leave it blank:** Overwrite the existing number by entering only a hookflash as the new number.

4. Hang up to exit. Repeat these steps for each additional number to be stored.

Viewing Station Speed-Dial Numbers

TO VIEW THE CONTENTS OF A SPEED-DIAL BUTTON (ON A DISPLAY PHONE):

1. While on hook, enter the Review Keys feature code (396). The display shows PRESS THE KEY TO REVIEW. Press the desired speed-dial button. The display shows the currently stored number and name.

2. After viewing the number, press the Speaker button, ✳ , or # to exit, or wait for the display to return to date and time.

TO VIEW THE STORED NUMBERS AND NAMES (ON A DISPLAY PHONE):

1. While on hook, enter the Program Station Speed Dial feature code (383). The display shows PROGRAM STN SPD # (0-9) OR SCROLL. Do one of the following:

   - **Use a location code:** Dial the desired speed-dial location code (0-9). When the name is displayed, press # or **ACCEPT** to view the number.

   - **Scroll through the displayed numbers:** Scroll to the desired number by pressing the Volume, **NEXT**, or **PREVIOUS** button. The name and number are displayed for each location.

   - **Use the Executive Display, Professional Display, or Model 8560 Phone menu:** Use the menu buttons to select the desired speed-dial location. When the name is displayed, press # or **ACCEPT** to view the number.

2. After viewing the number, press the Speaker button, ✳ , or # to exit, or wait for the display to return to date and time.

Dialing Station Speed-Dial Numbers

TO DIAL A STATION SPEED-DIAL NUMBER AT A SINGLE-LINE SET:

1. Lift the handset. (Inter-Tel phones can remain on hook.)

2. *If placing an outside call,* select an outgoing trunk or use ARS. *If placing an intercom call or if the outside number contains a trunk access code,* skip this step.

3. Hookflash and enter the Station Speed-Dial feature code (382). You hear a confirmation tone. Then dial the location code (0-9). The number is dialed.

TO DIAL A STATION SPEED-DIAL NUMBER AT A NON-DISPLAY PHONE:

1. Lift the handset or remain on hook.

2. *If placing an outside call,* select an outgoing trunk or use ARS. *If placing an intercom call or if the outside number contains a trunk access code,* skip this step.

3. **Inter-Tel phone with a speed-dial button:** Press the speed-dial button of the desired number. The number is dialed.

   Inter-Tel phone without a speed-dial button: Enter the Station Speed-Dial feature code (382). You hear a confirmation tone. Then enter the location code (0-9). The number is dialed.

TO DIAL A STATION SPEED-DIAL NUMBER AT A DISPLAY PHONE:

1. Lift the handset or remain on hook.

2. *If placing an outside call,* select an outgoing trunk or use ARS. *If placing an intercom call or if the outside number contains a trunk access code,* skip this step.

3. **Inter-Tel phone with a speed-dial button:** Press the speed-dial button of the desired number. The number is dialed. Display phones show the number.

   Inter-Tel phone without a speed-dial button: Enter the Station Speed-Dial feature code (382). Then do one of the following to dial the number:

   - **Use a location code:** Dial the desired speed-dial location code (0-9).

   - **Scroll through the displayed numbers:** Scroll to the desired number by pressing the Volume, **NEXT**, or **PREVIOUS** button.

   - **Use the Executive Display, Professional Display, or Model 8560 Phone menu:** Use the menu buttons to select the desired speed-dial location.

INTERCOM, SPEED-DIAL, AND FEATURE CODE DIRECTORY

NOTE: The feature does not apply to single-line sets.

The Directory feature enables display phone users to "look up" intercom extension numbers and usernames, system speed-dial numbers and names, or system feature codes. Once the desired information has been displayed, the user may automatically dial the number, store the number in a station speed-dial location, select a different number/name, terminate the directory routine, or switch to the other directory. A directory search can be performed when a call is waiting on conference or transfer hold at the station.

NOTE: The Directories premium feature is required to use the system directory.

In a network setting, a user can see intercom directory names and extension numbers for all devices that are programmed as "off-node devices" on the local node. Devices that are represented by wildcard off-node extensions will *not* show up in the intercom directory.

To use the directory, the user enters a letter, a string of letters, a valid extension number, or a valid feature code. If searching for a name, the full name need not be entered. The system will find the closest match and show the number and its associated name on the phone display. Or, the user can scroll alphabetically through the stored list of names. (It is not possible to scroll through the extension numbers or feature codes numerically; extensions and features scroll alphabetically.)

Directory names can include English/Spanish or Japanese characters, or a combination. In the directories, English/Spanish characters are alphabetized before the Japanese characters. Therefore, Japanese names will be at the end of the list.

NOTE: When using Japanese as the Primary or Secondary language, you can only search for IC and CO directory names based on the last name. You cannot search based on the first name.

Keypad buttons are used to enter the desired English/Spanish or Japanese (Katakana) letters, numbers, and punctuation. Refer to the chart on the next page. (Only digital display phones can be used for viewing Japanese prompts.) The station user can switch between numeric and alphanumeric modes. (Numeric mode = **MSG** button unlit; alphanumeric mode = **MSG** button lit.) In alphanumeric mode, the number of times a button is pressed determines which character is entered. For example, 77776444844 would enter "SMITH." When adjoining characters are located under the same button, press the **FWD** button once to advance to the next character. For example, 5666 **FWD** 66337777 would enter "JONES." The letters correspond to the letters printed on the dialpad buttons.

NOTE: Model 8500, 8520, and 8560 Phones have a Message Lamp located on the upper, right-hand corner of the phone. If programmed for the Message feature, this lamp will also light while in alphanumeric mode.

The intercom directory is automatically updated whenever usernames and/or extension number information is reprogrammed. The outside directory is updated whenever a system speed-dial number or name is reprogrammed.

Only administrator stations will be able to view administrator feature codes using the directory. If the Diagnostics Mode feature is enabled, you will also be able to see the diagnostic feature codes.

BUTTON	NUMBER OF TIMES BUTTON IS PRESSED										
	1	2	3	4	5	6	7	8	9	10	11
	ENGLISH/SPANISH CHARACTERS					KATAKANA CHARACTERS**					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The character available depends on the software version.

**The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

TO PERFORM A DIRECTORY SEARCH:

1. While on or off hook, enter the Directory feature code (307). The **MSG** button lights (and the Speaker button lights if on hook) and the display shows DIR TYPE: (IC=1 OUT=2 FEAT=3).

2. Press one of the following:

   - **For Intercom Directory:** Press **1** or the **IC DIRECTORY** menu button to select the intercom directory. The display shows INTERCOM NAME.

   - **For Outside Directory:** Press **2** or the **OUTSIDE DIR** menu button to select the outside number directory. The display shows OUTSIDE NAME.

   - **For Feature Directory:** Press **3** or the **FEATURE DIR** menu button to select the feature code directory. The display shows FEATURE NAME.

3. Enter alpha and/or numeric characters for the number, code, or user/feature name (up to 10 characters for intercom directory, 16 for outside or feature directory). If searching for a name, the whole name does not have to be entered. You may switch between modes by pressing the **MSG** button or the **USE NUMERIC MODE/USE ALPHA MODE** menu button. If necessary, press **✳** to cancel the search.

   a. *In numeric mode (* **MSG** *button unlit):* Press the dialpad buttons to enter a valid feature, extension, or speed-dial location number. Press **MUTE** to backspace, if necessary. Press the **SEARCH** menu button, or press **MSG** to change to alphanumeric mode and then press **#** to begin the search.

   b. *In alphanumeric mode (* **MSG** *button lit):* Press the dialpad buttons to enter the desired characters. Refer to the chart above. Press **FWD** once to advance or twice to leave a space. Press **MUTE** to backspace. Press **#** or the **SEARCH** menu button to begin the search. The closest match will be displayed. Executive Display, Professional Display, and Model 8560 Phone users can return to the initial entry by pressing the **START OVER** menu button.

4. *If desired,* press the high end of the Volume button or the **NEXT** button to scroll forward alphabetically through the directory or press the low end of the Volume button or the **PREVIOUS** button to scroll backward.

5. Do one of the following:

- **To store the selected number in a station speed-dial location:** Press the desired speed-dial button. You hear confirmation tone when the number is accepted.

- **To automatically dial a displayed extension number:** Press `#`, the `IC` button, or the **ACCEPT** button. (If an intercom call is camped on and the `IC` button is lit, pressing the `IC` button answers the waiting call and terminates the Directory feature.)

- **To dial a displayed outside number:** Press `#`, the **CALL** menu button, or a Call button. The system automatically dials the number using your programmed outgoing access code.

- **To dial a displayed feature code:** Press `#` or the **ACCEPT** button. The system automatically dials the feature code.

- **To search for another name or number:** Repeat the procedure beginning at step 3.

HOUSE PHONE

This feature provides users with the ability to place a pre-designated intercom or outside call simply by lifting the handset (or pressing the Speaker button, if using an Inter-Tel phone) on a designated house phone. In a network, the house phone can be programmed to dial an off-node device. There are several applications for this feature, such as:

- **Courtesy paging phone:** Visitors hear pages instructing them to pick up the house phone (such as the paging phones used in airport terminals). When they lift the handset, they are connected to a pre-programmed station user who can give them a message or connect them to a call.

- **Emergency phone:** The house phone can be programmed to automatically dial the Emergency Call feature code (default is 911). This could save time in an emergency.

- **Service phone:** Customers can use the house phone(s) to place orders or receive special services from the lobby. For example, the house phone would automatically dial the extension number of a service representative (or hunt group number of the service department).

- **Intercom network:** House phones could be placed in specific locations throughout a building (such as examination rooms in a doctor's office) and could be programmed to call a specific station or group of stations (such as a nurses' station).

Any station may be designated as a house phone in Database Programming, however this feature is usually assigned to single-line sets. The primary attendant should not be a house phone.

The number dialed by the house phone is determined by the station's speed-dial programming. The number programmed through the database or in station speed-dial location 0 is automatically dialed during day mode, and the number in location 1 is dialed during night mode. This number can be either an extension number or an outside telephone number. If it is an outside number, it must be preceded with a trunk access code (and a pause if necessary).

Once the house phone status has been programmed, the speed-dial number can only be changed while on hook (if it is an Inter-Tel phone) or through individual station information (special purpose station) programming because lifting the handset will cause the station to dial the designated number.

Incoming calls take precedence over outgoing calls. If using a single-line set or an Inter-Tel phone that is programmed for automatic trunk access (see page 170), any ringing call is automatically answered when the handset is lifted or the Speaker button is pressed.

There is a flag, called "House Phone Mode," that affects single-line house phones. The house phone can be programmed to return to dial tone after a call is disconnected (normal mode). This allows the user to enter a feature code or place a call. Or, the dial tone can be disabled (restricted mode) to prevent the user from performing any operation other than placing a house-phone call. In the default state, this is *normal*. The interaction of the House Phone Mode flag with the programmed speed-dial number and system feature is shown below.

SITUATION	DAY/NIGHT #	NORMAL MODE	RESTRICTED MODE
House phone user lifts the handset	Complete extension	Dials the extension number	Dials the extension number
House phone user lifts the handset	Blank	User receives intercom dial tone	User receives reorder tone
House phone user lifts the handset	Incomplete extension number	System dials the partial number and waits for further digits	System dials partial number, then times out after Long Interdigit timer expires, and sends reorder tones
House phone is connected to ARS, and the user performs a hookflash	Dials an outside number using ARS	System inserts a hookflash in the number and registers end-of-dialing	System restarts ARS by clearing the number and returns outside dial tone to the user
House phone is connected to an outside call, and the user performs a hookflash	N/A	The call is placed on consultation hold, and the user hears intercom dial tone	The trunk dials a hookflash, and toll restriction is restarted
Party the house phone is connected to hangs up before the house phone user	N/A	User receives intercom dial tone and can use another feature code or dial a number	System redials the house phone digits after the SL Wait for Disconnect timer expires

REDIALING

The Redial feature can store one telephone number in redial memory at the station. If the station user reaches a busy number, is disconnected, or if there is no answer, the number can be redialed easily. The station user simply lifts the handset and presses the REDIAL button or enters the Redial feature code. A trunk access code is automatically entered, and the telephone number is redialed. (If redialing while still connected to an outside call, the connection is dropped, and the trunk is reseized before the number is dialed.)

Only one telephone number can be stored in the station's redial memory at a time. This number can be stored in one of two ways, depending on station programming:

- **Last number saved:** The desired number is manually stored in redial memory by the station user. Dialing other numbers does not change the stored number. It only changes when a new number is stored.

- **Last number dialed:** The last number manually dialed or speed dialed is automatically stored. It changes every time the user dials a telephone number. (This is the default value of the Redial feature.)

The Last Number Saved and Last Number Dialed features work differently depending on the station status when it is used, as shown in the table below. Individual station programming determines the mode of the Redial feature (Last Number Dialed or Last Number Saved). The Redial feature code (380) performs the redial function (programmed under the REDIAL button).

Non-display system speed-dial numbers cannot be redialed at a display phone.

STATION STATUS WHEN REDIAL FEATURE IS USED	STATION HAS "LAST NUMBER SAVED"	STATION HAS "LAST NUMBER DIALED"
Idle station	Saves the last trunk access code and telephone number that was dialed.	A trunk is selected using the same trunk access code as used to place last outside call, and the last telephone number is dialed.
Intercom dial tone (on or off hook)	Saves the last trunk access code and telephone number that was dialed.	A trunk is selected using the same trunk access code as used to place last outside call, and the last telephone number is dialed.
On an intercom call	Releases the current call, seizes a trunk using the saved trunk access code, and dials the saved telephone number.	Releases the current call, seizes a trunk using the access code used on the last outside call, and dials the last telephone number dialed.
After selecting a trunk but *before* dialing	Redials the saved telephone number on the currently selected trunk. (Note that the current trunk is used instead of the saved trunk access.)	Redials the last telephone number dialed, using the currently selected trunk.
After selecting a trunk *and dialing* one or more digits	Releases the current call, seizes a trunk using the saved trunk access code, and dials the saved telephone number.	Releases the current call, reseizes the trunk (using the access code used on that call), and redials the digits that were dialed.
On an incoming outside call	Releases the current call, seizes a trunk using the saved trunk access code, and dials the saved telephone number.	Releases the current trunk, seizes a trunk using the same trunk access code used on the last outgoing call and dials the last number dialed.

USING THE LAST NUMBER SAVED FEATURE

Use the following procedures to save and redial numbers at stations that are programmed to use the Last Number *Saved* feature.

TO SAVE A NUMBER ON A STATION PROGRAMMED FOR LAST NUMBER SAVED:

> **NOTE:** The saved number is replaced each time you repeat this procedure.

Inter-Tel Phones: While the phone is idle or while listening to intercom dial tone, press the **REDIAL** button, or press the Special button and enter the Redial feature code (380). You hear a confirmation tone, and the display shows LAST OUTSIDE NUMBER SAVED.

Single-Line Sets: Lift the handset and enter the Redial feature code (380). When you hear the confirmation tone, hang up.

TO REDIAL A NUMBER (LAST NUMBER SAVED):

Inter-Tel Phones: While on a call or after selecting a trunk, press the **REDIAL** button, or press the Special button and enter the Redial feature code (380). Refer to the chart on the previous page to determine which trunk is selected. The saved telephone number is dialed.

Single-Line Sets: While on a call or after selecting a trunk, hookflash and then enter the Redial feature code (380). Refer to the chart on the previous page to determine which trunk is selected. The saved telephone number is dialed.

USING THE LAST NUMBER DIALED FEATURE

Use the following procedure to redial numbers at stations that are programmed to use the Last Number *Dialed* feature.

TO REDIAL A NUMBER (LAST NUMBER DIALED):

Inter-Tel Phones: While on or off hook, press the **REDIAL** button, or press the Special button and enter the Redial feature code (380). Refer to the chart on the previous page to determine which trunk is selected and which digits are dialed.

Single-Line Sets: Lift the handset or hookflash. Then enter the Redial feature code (380). Refer to the chart on the previous page to determine which trunk is selected and which digits are dialed.

REDIRECT CALL

The Redirect Call feature code is located under System/Devices and Feature Codes/Feature Codes. The Redirect Call Feature (feature code 331) allows Inter-Tel phone users to route ringing outside, intercom, and camped on calls to another station, hunt group, or outside number. Routing of the redirected call is still subject to trunk and toll restrictions. This feature provides these options in addition to the currently available options which allow the station user to redirect calls to voice mail or Do-Not-Disturb.

The Redirect Ringing Call feature does not require premium features. Some specific aspects of this feature are described below.

- If the user has an Executive Display, Professional Display, or Model 8560 Phone, the display will show a call menu option which reads SEND TO DEST. The user may choose this option or enter feature code 331. The display then prompts the user to enter the destination number directly or by scrolling through the IC directory.

- For non-display phones, calls are redirected using the feature code 331. This code is entered, followed by the desired destination number.

- If the phone receiving the redirected call is a display phone, it will show EXT XXXX FWD FROM EXT XXXX just as it does for a manually forwarded call.

- Calls may not be redirected back to the originating station. This will result in a message on the display saying CALL FORWARDED TO SOURCE. For non-display phones, the call will simply ring back at the station.

- Calls may not be redirected to restricted outside numbers, to stations in Do-Not-Disturb mode, or to stations that are forwarded. Redirected calls will not follow call forwarding.

- Agent Help Request calls, queue callbacks, and recalls cannot be redirected (these types of calls do not follow call forwarding).

- Calls cannot be redirected to another station's mailbox, because redirected calls will not follow forwarding.

- If the call is redirected to an unreachable destination, it will not be redirected and will ring back at the original station.

- If an ARS, trunk group, or trunk number is entered, the system will prompt the user to enter the destination telephone number. Calls may not be redirected to a node number, but may be directed to a station on another node by entering the correct extension number.

- If the applicable Forwarding timer expires before the user completes the redirection process, the system terminates the call.

PAGING

The Paging feature allows announcements to be made through phone internal speakers. Optional external paging equipment (amplifiers and paging speakers) may also be installed.

There can be up to 10 paging zones (50 when using a CP Server). When the system is in the default state, all Inter-Tel phones are assigned to paging zone 1 to provide an all-page zone. Inter-Tel phones, trunks, and the external paging port(s) can be assigned to any, all, or none of the paging zones, as desired.

NOTE: Placing a large number of Inter-Tel phones in a paging zone may affect system performance. If system operation is affected when a page is placed to a particular page zone, remove some Inter-Tel phones from that zone or change to external paging for the area served by that page zone.

In a network, all Inter-Tel phones and trunks within a page zone must reside on the same node as the page zone. However, a page zone can contain external page ports on other nodes.

NOTE: Because the external paging ports have intercom numbers (91000 and 91001), stations can place an intercom call to the external paging ports, instead of using the Page feature, to make a page over the external paging speakers.

Pages are not heard on Inter-Tel phones that have been removed from paging (using the feature code as described below), are in Do-Not-Disturb, are ringing, or are in use. Also, background music on phones and on external speakers connected to phone speaker leads is interrupted for pages. If a trunk in a paging zone is unplugged, the page cannot be completed.

If desired, Inter-Tel phone users can program feature buttons to select the paging zones 0-9 (or 0-49) using paging access codes 9600-9609 (or 9600-9649).

The Page timer limits the length of pages. If it is set to 0, pages are unlimited in length.

TO MAKE A PAGE:

1. Lift the handset.

2. **Inter-Tel Phones:** Press the PAGE button, or enter the Page feature code (7). The display shows SELECT PAGE ZONE # (0-9).

   Single-Line Sets: Enter the Page feature code (7).

3. Enter the zone code (0-9 or 0-49) for the desired zone.

4. After the single progress tone, make your page before the Page timer expires. If you hear reorder tones, and the display shows PAGE ZONE NOT PROGRAMMED, there are no stations in the selected page zone. If the display shows PAGE ZONE BUSY TRY AGAIN LATER, the necessary system resources are busy or the paging zone is being used by another station. Users cannot camp on to or queue the paging system.

5. Hang up.

REMOVE FROM PAGING

An Inter-Tel phone user can prevent the phone from receiving pages or allow it to receive pages again using these feature codes. If the phone is assigned to more than one page zone, all zones are removed or replaced; the user cannot toggle individual zones.

TO HALT OR ENABLE ZONE PAGES:

1. While on or off hook, enter the Page Receive On/Off feature code (325) to prevent the phone from receiving pages. You hear a confirmation tone and the display shows PAGE RECEIVE ON (or OFF).

2. *If off hook,* hang up.

DO-NOT-DISTURB

Placing a station in Do-Not-Disturb halts all pages, incoming intercom calls, camped-on calls, and transferred calls to that station. Queue callbacks, recalls, and direct ring-in calls are not blocked. Another user calling the station while it is in Do-Not-Disturb hears a repeating signal of four fast tones and a pause (display phones show the Do-Not-Disturb message); the user cannot camp on, but can queue or leave a message at the station.

> **NOTE:** Direct ring-in calls that are forwarded to a station in DND will ring the DND station per the rules of DND.

If desired, individual stations can be prevented from using Do-Not-Disturb by disabling the Do-Not-Disturb option in the database.

If a hunt group station is in Do-Not-Disturb, calls to the user's hunt group do not cause the phone to ring, but the individual trunk button will flash if all other stations in the hunt group are busy, forwarded, have hunt group remove enabled, or are in Do-Not-Disturb. Hunt group announcement stations and overflow stations can use Do-Not-Disturb to block hunt group calls by using Do-Not-Disturb.

Inter-Tel phones may be given Do-Not-Disturb override permission. These stations, when reaching a station in Do-Not-Disturb, can enter the Do-Not-Disturb Override feature code (373) to place a non-handsfree intercom call to the station. Single-line stations cannot be enabled to use the Do-Not-Disturb Override feature.

When a station is placed in DND, the user may select one of 20 system-stored messages that will appear on the top line of the display (unless Do-Not-Disturb is enabled while the user is on a call or off hook, in which case message 1 is automatically selected). When a station in Do-Not-Disturb is called by a display phone user, the caller sees the selected message.

Do-Not-Disturb messages can be programmed in the database or using an administrator station. Default Do-Not-Disturb messages are programmed as follows:

01 DO-NOT-DISTURB	11 OUT OF TOWN 'TIL
02 LEAVE A MESSAGE	12 OUT OF OFFICE
03 IN MEETING UNTIL	13 OUT UNTIL
04 IN MEETING	14 WITH A CLIENT
05 ON VACATION 'TIL	15 WITH A GUEST
06 ON VACATION	16 UNAVAILABLE
07 CALL ME AT	17 IN CONFERENCE
08 AT THE DOCTOR	18 AWAY FROM DESK
09 ON A TRIP	19 GONE HOME
10 ON BREAK	20 OUT TO LUNCH

Do-Not-Disturb works as follows in a network setting:

- Each node has its own list of Do-Not-Disturb messages that can be used only on that node.

- An intercom caller will see another user's Do-Not-Disturb display when calling across nodes.

- The network allows DND override across nodes.

The system has default Do-Not-Disturb messages in both the Primary and Secondary Language. However, messages that use Japanese characters can be reprogrammed only through an administrator's station (see page 18).

The language of the messages seen by the station user, both when programming his or her station and when calling another station that is in Do-Not-Disturb, is determined by the station's programmed language. That is, if a station is programmed for Japanese, the user will see only Japanese messages when programing a Do-Not-Disturb message. If that station calls an American English-programmed station that has selected Do-Not-Disturb message 02, the Japanese station's user will see the Japanese version of message 02.

NOTE: Only digital display phones will display Japanese prompts. Other Inter-Tel phones do not support Japanese prompts.

The second line of the message can be customized with a numeric/alphanumeric message of up to 16 characters (English/Spanish and/or Japanese characters). The customized message is entered as described below. When entering a customized Do-Not-Disturb message, you can press the `MSG` button or **USE ALPHA MODE/USE NUMERIC MODE** menu button to switch back and forth between alphanumeric and numeric mode.

- **In numeric mode,** the dialpad buttons are used to enter numbers 0-9, the pound (`#`) button is used for entering a hyphen (-), and the asterisk (`*`) button is used for entering a colon (:). For example, 1 `*` 00 would enter "1:00" in numeric mode. When programming a customized Do-Not-Disturb message, the station is automatically in numeric mode.

- **In alphanumeric mode,** dialpad buttons are used to enter the desired letters, numbers, and punctuation. The number of times a button is pressed determines which character is entered. For example, 33377744432999 would enter "FRIDAY." When adjoining characters are located under the same button, press the `FWD` button once to advance to the next character. For example, 6 `FWD` 666 `FWD` 6632999 would enter "MONDAY." Refer to the chart below to program information in alphanumeric mode. (Note that letters correspond to the letters printed on the dialpad buttons.)

	NUMBER OF TIMES BUTTON IS PRESSED										
BUTTON	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**
	ENGLISH/SPANISH CHARACTERS					KATAKANA CHARACTERS**					
1	-	&	(	)	1	A	I	U	E	O	a
2	A	B	C	'	2	KA	KI	KU	KE	KO	i
3	D	E	F	!	3	SA	SHI	SU	SE	SO	u
4	G	H	I	*	4	TA	CHI	TSU	TE	TO	e
5	J	K	L	# or /*	5	NA	NI	NU	NE	NO	o
6	M	N	O	Ñ or #*	6	HA	HI	FU	HE	HO	tsu
7	P	Q	R	S	7	MA	MI	MU	ME	MO	ya
8	T	U	V	?	8	YA	YU	YO	.	,	yu
9	W	X	Y	Z	9	RA	RI	RU	RE	RO	yo
0	@	:	.	,	0	WA	WO	N	pa	ba	long

*The character available depends on the software version.

**The Japanese characters are only available if the Multilingual feature is enabled and Japanese is installed as the secondary language.

When using either mode, phone users may use the speed-dial buttons and/or the `REDIAL` button to enter stored numbers or messages. Speed-dial numbers can be chained together when entering messages that require more that 16 keystrokes to create the desired message. When programming a message in speed-dial memory, you can use the Special button to enter a hookflash (F) in place of the `FWD` button to advance or insert spaces, or to enter a pause (P) to change numeric/alphanumeric modes within the message. The Special button can also be used to enter * or # in the speed-dial number.

Station users can also place their stations in Do-Not-Disturb using the Remote Programming feature described on .

TO ENABLE DO-NOT-DISTURB MODE:

1.   **Inter-Tel Phones:** While on hook, press the `DND` button, or enter the Do-Not-Disturb feature code (370) or Do-Not-Disturb On/Off feature code (372). Display phones show SELECT DND MESSAGE # (01-20).

2.   **Single-Line Sets:** Lift the handset and enter the Do-Not-Disturb feature code (370) or the Do-Not-Disturb On/Off feature code (372). You hear a progress tone.

3.   **To select message 01 (DO-NOT-DISTURB):**

> **Inter-Tel Phones:** Press the Speaker button or lift and replace the handset. The `DND` button lights.

> **Single-Line Sets:** Hang up.

> **To select any of the 20 pre-programmed messages:** Enter the desired number (01-20), or press the **SCROLL** menu button to begin scrolling. Display phone users may scroll through the messages by pressing the high end of the Volume button or the **NEXT** button to go forward, or the low end of the Volume button or the **PREVIOUS** button to go backward (the display shows the selected message). If you enter an invalid message number, you will hear reorder tones, and the display shows INVALID DND MESSAGE NUMBER; try again.

4.   **If desired, customize the second line of the message:** Use any combination of the following methods.

a.   *Remain in numeric mode:* Press the dialpad buttons to enter the desired number. Use the pound button (`#`) for a hyphen (-) and the asterisk button (`*`) for a colon (:). Inter-Tel phone users can press the `FWD` button once to leave a space, or press the `MUTE` button to backspace.

b.   *Change to alphanumeric mode (Inter-Tel phones only):* Press the `MSG` button (the button lights) or the **USE ALPHA MODE** menu button, then enter the desired characters. Refer to the chart above. Inter-Tel phone users can press the `FWD` button once to advance or twice to leave a space, or press the `MUTE` button to backspace.

c.   *Use speed-dial and/or redial numbers (Inter-Tel phones only):* In either numeric or alphanumeric mode, you can speed dial a number (using the speed-dial button or feature code). In numeric mode you can press the `REDIAL` button to enter the stored characters. You may chain speed-dial and/or redial numbers together.

5.   Terminate programming:

> **Inter-Tel Phones:** Press the Speaker or the **ACCEPT** button, or lift and replace the handset. The `DND` button lights. (Display phones show selected message. Date and time appear on the second line if there is no customized message.)

> **Single-Line Sets:** Hang up.

TO CANCEL DO-NOT-DISTURB:

> **Executive Display, Professional Display, or Model 8560 Phone:** While on hook, press the lit `DND` button. The button goes off, and the display shows DO NOT DISTURB OFF.

> **Other Inter-Tel Phones:** While on hook, press the lit `DND` button, or enter the Cancel Do-Not-Disturb feature code (371) or Do-Not-Disturb On/Off feature code (372). The button goes off, and the display shows DO NOT DISTURB OFF.

> **Single-Line Set:** Lift the handset, enter the Cancel Do-Not-Disturb feature code (371) or Do-Not-Disturb On/Off feature code (372), and hang up.

TO PLACE YOUR BUSY STATION IN DO-NOT-DISTURB WHILE A CALL IS CAMPED ON:

If, while on a call, you hear call waiting signals and you wish to let the caller know you do not want to be disturbed:

Inter-Tel Phones: Press the **DND** button or press the Special button and then enter a Do-Not-Disturb feature code (370 or 372). The button lights. The display shows DO-NOT-DISTURB ON. The intercom caller is no longer camped on and receives Do-Not-Disturb indications.

Single-Line Sets: *(This procedure will interrupt your call in progress.)* Hookflash and enter the a Do-Not-Disturb feature code (370 or 372). The intercom caller is no longer camped on and receives Do-Not-Disturb indications. Hookflash twice to return to the current call.

DO-NOT-DISTURB OVERRIDE

If your Inter-Tel phone is enabled for Do-Not-Disturb override and you hear Do-Not-Disturb tones when placing an intercom call, you may use the following procedure to break through Do-Not-Disturb and complete the call.

DO-NOT-DISTURB OVERRIDE (INTER-TEL PHONES WITH THIS FEATURE ENABLED ONLY):

When you hear Do-Not-Disturb tones while placing an intercom call, press the Special button and enter the Do-Not-Disturb Override feature code (373). If the called station is idle, the call rings as a private intercom call. If the called station is busy, your call camps on.

REMOTE FEATURE PROGRAMMING

The Remote Programming feature allows a user to place a phone in Do-Not-Disturb mode (DND) or forward the station's calls, either from another station or through DISA. Each station has a password to limit access to this feature. (See page 162 for information about DISA.)

In a network, Remote Programming can be performed on one node for any Inter-Tel phone that is programmed as an off-node device on that node. You must go through DISA for remote programming of any phones that are not programmed as off-node devices.

STATION PASSWORD

The station password is used only for the Remote Programming feature.

NOTE: To prevent unauthorized use of the call forward feature, *all* stations using Remote Programming should have a password. To make the passwords difficult to guess, they should not match the extension number or consist of one digit repeated several times.

The station password can be up to 8 digits in length. The default password is the extension number of the station. The password can be changed by entering the Program Station Password feature code at the station or when using the Remote Programming feature. It can also be programmed through Individual Station programming.

If the password is changed from a station, the user will be prompted for the old password, then the new password, and will be asked to verify the new password. If it is programmed through Remote Programming, the user will already have entered a correct password. In this case, the user is prompted only for the new password and then asked to verify the password.

Should the verified password and new password not match, the old password will be retained and the programming session canceled.

TO CHANGE THE STATION PASSWORD FROM YOUR STATION:

1. Enter the Program Station Password feature code (392). You hear a confirmation tone. If you have a display, it shows ENTER PASSWORD.

2. Enter your current password, followed by #. (At default, it is your extension number.) If you have a display, it shows NEW PASSWORD.

NOTE: *If you enter an incorrect password,* the display will show INVALID PASSWORD, and your station will return to the idle state.

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3. Enter the new password followed by **#**. You hear a confirmation tone.

4. Enter the new password again for verification followed by **#**. You hear a confirmation tone. If you have a display, it shows PASSWORD SAVED. Your station returns to the idle state.

TO CHANGE THE STATION PASSWORD USING REMOTE PROGRAMMING:

1. *If calling from an outside telephone,* access the system through a DISA line. Enter the DISA security code (if applicable). You hear a confirmation tone.

   If programming from another station, lift the handset or press the Speaker button.

2. Enter the Remote Programming feature code (359). You hear a confirmation tone. If you have a display, it shows ENTER EXTENSION. Executive Display, Professional Display, and Model 8560 Phone users can press the IC DIR button to use the intercom directory to look up a number.

3. Enter the extension to be programmed. You hear a confirmation tone. If you have a display, it shows ENTER PASSWORD. *If you entered an invalid extension number,* you will hear reorder tones and can try again.

4. Enter the extension's password followed by **#**. You hear a confirmation tone.

   If you enter an incorrect password, the display will show INVALID PASSWORD. Outside callers will be returned to dial tone, and stations will return to the idle state.

5. Enter the Program Station Password feature code (392). You hear a confirmation tone. If you have a display, it shows NEW PASSWORD.

6. Enter the new password, followed by **#**. You hear a confirmation tone.

7. Enter the new password again for verification, followed by #. You hear a confirmation tone. If you have a display, it shows PASSWORD SAVED. Outside callers will hear dial tone, and stations return to the idle state.

REMOTE DO-NOT-DISTURB PROGRAMMING

TO PLACE A STATION IN DO-NOT-DISTURB MODE USING THE REMOTE PROGRAMMING FEATURE:

NOTE: After each entry, non-display phone users will hear a confirmation tone. Outside callers using a DISA line will hear confirmation tone followed by DISA dial tone. Display phone users will not hear confirmation tones but will see a prompt asking for the next entry.

1. *If calling from an outside telephone,* access the system through a DISA line. Enter the DISA security code (if applicable). You hear a confirmation tone followed by DISA dial tone.

   If programming from another station, lift the handset or press the Speaker button.

2. Enter the Remote Programming feature code (359). If you have a display, it shows ENTER EXTENSION. Executive Display, Professional Display, and Model 8560 Phone users can press the IC DIR button to use the intercom directory to look up a number.

3. Enter the extension to be placed in DND. If you have a display, it shows ENTER PASSWORD. *If you entered an invalid extension number,* you will hear reorder tones and can try again.

4. Enter the extension's password, followed by **#**. If you have a display, it shows ENTER FEATURE CODE.

   NOTE: *If you enter an incorrect password,* the display will show INVALID PASSWORD, and the call is disconnected. Station users will hear reorder tones.

5.   **To turn on Do-Not-Disturb:**

   a.   Enter the Do-Not-Disturb On feature code (370). (The On/Off feature code cannot be used in remote programming.) *If you entered an invalid feature code,* you will hear reorder tones and can try again.

> **NOTE:** *If the station you are programming is not allowed to use DND,* you will hear reorder tones, and the display will show CANNOT ACCESS RESERVED FEATURE. Outside callers will be returned to dial tone, and stations will return to the idle state.

   b.   Enter the desired Do-Not-Disturb message number (01-20). *If you entered an invalid message number,* you will hear reorder tones and can try again.

   c.   Enter the optional second-line message text, if desired, using any combination of the following methods:

   Remain in numeric mode: Press the dialpad buttons to enter the desired number. Use the pound button (**#**) for a hyphen (-) and the asterisk button (**✳**) for a colon (:). Inter-Tel phone users can press the **FWD** button once to leave a space, or press the **MUTE** button to backspace.

   Change to alphanumeric mode (Inter-Tel phones only): Press the **MSG** button (the button lights) or the **USE ALPHA MODE** menu button, then enter the desired characters. (Refer to the chart and instructions in your user guide.) Inter-Tel phone users can press the **FWD** button once to advance or twice to leave a space, or press the **MUTE** button to backspace.

   Use speed-dial and/or redial numbers (Inter-Tel phones only): In either numeric or alphanumeric mode, you can speed dial a number (using the speed-dial button or feature code). In numeric mode you can press the **REDIAL** button to enter the stored characters. You may chain speed-dial and/or redial numbers together.

   d.   Hang up to complete the programming.

6.   **To turn off Do-Not-Disturb:** Enter the Do-Not-Disturb Off feature code (371). (The On/Off feature code cannot be used in remote programming.) The call is automatically disconnected when the feature code is accepted. *If you entered an invalid feature code,* you will hear reorder tones and can try again.

REMOTE FORWARD PROGRAMMING

TO FORWARD A STATION USING THE REMOTE PROGRAMMING FEATURE:

> **NOTE:** After each entry, non-display phone users will hear a confirmation tone. Outside callers using a DISA line will hear confirmation tone followed by DISA dial tone. Display phone users will not hear confirmation tones but will see a prompt asking for the next entry.

1. *If calling from an outside telephone,* access the system through a DISA line. Enter the DISA security code (if applicable). You hear a confirmation tone followed by DISA dial tone.

   If programming from another station, lift the handset or press the Speaker button.

2. Enter the Remote Programming feature code (359). If you have a display, it shows ENTER EXTENSION. Executive Display, Professional Display, and Model 8560 Phone users can press the IC DIR button to use the intercom directory to look up a number.

3. Enter the extension to be forwarded. If you have a display, it shows ENTER PASS-WORD. *If you entered an invalid extension number,* you will hear reorder tones and can try again.

4. Enter the extension's password, followed by **#**. If you have a display, it shows ENTER FEATURE CODE.

   > **NOTE:** *If you enter an incorrect password,* the display will show INVALID PASSWORD, and the call is disconnected. Station users will hear reorder tones.

5. **To turn on Call Forward:**

   a. Enter one of the following Call Forward feature codes. *If you entered an invalid feature code,* you will hear reorder tones and can try again.

      Call Forward All Calls355
      Call Forward If Busy 357
      Call Forward If No Answer356
      Call Forward If No Answer/Busy358

   b. Enter the forwarding destination. This can be an extension number or a trunk access code followed by an outside telephone number.

      If the forward destination is an extension number, programming is complete, and the call is disconnected automatically.

      If the forward destination is an outside number, hang up to complete the programming.

      If the station is not permitted to forward to the destination entered, you will hear reorder tones and can try again.

      If you hang up before entering a forward destination, the programmed forward is canceled.

6. **To turn off Call Forward:** Enter 355 and then hang up instead of entering a destination. You hear a confirmation tone.

DEFAULT STATION

A station user can enter one feature code that will return the following features to their default states. Returning a station to default:

- Cancels the following features, if in effect:
  — Do-Not-Disturb
  — Manual Call Forwarding
  — Queue Request
  — Account Code For All Calls Following
  — Background Music
  — Ring Intercom Always
  — Headset Mode

- Restores the following features, if disabled:
  — Handsfree
  — Page Receive
  — Hunt Group Replace
  — System Forwarding

- Returns phone volumes to default levels
- Returns phones to the standard keymap
- If the phone is a member of one or more ACD hunt groups, logs into the hunt group(s)
- Does not affect PCDPM bit rate

This feature is especially useful for installers and troubleshooters who need to know exactly how a given station is programmed.

TO RETURN THE STATION TO DEFAULT:

Inter-Tel Phones: While on or off hook, enter the Default Station feature code (394). You hear a confirmation tone, and the display shows STATION DEFAULTED. *If off hook,* hang up.

Single-Line Sets: Lift the handset and enter the Default Station feature code (394). You hear a confirmation tone followed by dial tone. Hang up.

HOOKFLASH

A timed hookflash may be required for Inter-Tel phone and single-line users to use certain telephone company or PBX features. The CO Hookflash feature code sends a timed hookflash over the trunk when entered. A hookflash will restart the call cost display and toll restriction, plus it will start a new line in the SMDR printout. However, the call will remain under the same Call button.

The Hookflash feature can be enabled or disabled on a trunk group-by-trunk group basis. It can be used on any outside call, including conference calls.

The duration of the hookflash can be changed by reprogramming the LS/GS CO Hookflash timer (default value is 0.6 seconds). If the system is not installed behind a PBX, the Hookflash timer must be programmed to be compatible with the system's trunks.

TO SEND A TIMED HOOKFLASH WHILE ON A TRUNK:

> **Inter-Tel Phones:** Press the Special button and enter the Hookflash feature code (330).
> **Single-Line Sets:** Hookflash and then enter the Hookflash feature code (330).

REMINDER MESSAGES

NOTE: This feature does not apply to single-line sets.

Reminder messages are set, like an alarm clock, to signal an Inter-Tel phone at a specified time. The user can select the message and time up to 24 hours in advance. Twenty different reminder messages are available. These messages can be reprogrammed by the installer or using an administrator's station.

At the programmed time, the reminder message signals the station with eight short tones. A display phone shows the message until it is canceled; a non-display phone receives tones only. If the station is busy, the user still hears the tones and the message displays for 10 seconds during the call, then the display returns after the user hangs up. (Reminder displays interrupt, but do not affect, programming.)

Messages can be changed by the installer or administrators station, if desired. They are limited to 16 characters. The default messages are:

01 MEETING	11 CALL ENGINEERING
02 STAFF MEETING	12 CALL MARKETING
03 SALES MEETING	13 CALL ACCOUNTING
04 CANCEL MEETING	14 CANCEL DND
05 APPOINTMENT	15 CANCEL CALL FWD
06 PLACE CALL	16 TAKE MEDICATION
07 CALL CLIENT	17 MAKE RESERVATION
08 CALL CUSTOMER	18 REVIEW SCHEDULE
09 CALL HOME	19 LUNCH
10 CALL CORPORATE	20 REMINDER

In a network, each node has its own list of reminder messages that can be used only on that node.

The system has default reminder messages in both the Primary and Secondary Languages. However, messages using Japanese characters can be reprogrammed only through an administrator's station (see).

The language of the messages seen by the station user is determined by the station's programmed language. That is, if a station is programmed for Japanese, the user will see only Japanese messages when programing a reminder message.

NOTE: Only digital display phones will display Japanese prompts. Other Inter-Tel phones do not support Japanese prompts.

TO REQUEST REMINDER MESSAGES:

NOTE: Lift and replace the handset to stop the process without selecting a message.

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1. While on hook, enter the Reminder Message feature code (305). Display phones show SELECT REMINDER MSG # (01-20).

2. **To select a specific message:** Enter the two-digit message code (01-20). (Display phones show the selected message and SCROLL OR ACCEPT.)

   To scroll through the messages: View the available messages by pressing the high end of the Volume button or the **NEXT** button to scroll forward or pressing the low end of the Volume button or the **PREVIOUS** button to scroll backward. Each message displays for 0.5 seconds before another can be selected. When the desired message is displayed, press **#** or **ACCEPT**.

3. Enter the time that you wish to receive the message. (If using a station programmed for Japanese, these prompts will be reversed, and you will set the AM/PM before the hour and minutes.)

   a. Enter the hour and minutes using four digits (e.g., 0900 for 9:00).

   b. *If the system is set for 12-hour display format,* the display shows SELECT AM OR PM. Press **1** or the AM button for AM or press **2** or the PM button for PM. You hear a progress tone when it is accepted, and the display momentarily shows the selected reminder message and time.

NOTE: If an invalid time is entered, you hear reorder tones and must enter the time again. Display phones show INVALID TIME.

TO RECEIVE A REMINDER MESSAGE:

1. At the selected time, you hear eight short tones, and the message is displayed. Do one of the following:

   If your station is idle, go to the next step.

   If you are on a call, the message will display for 10 seconds. After you hang up, the reminder message returns and must be cleared.

   If you are programming your Inter-Tel phone, the programming function is interrupted. The message will display, but will not interrupt programming; you can continue. After programming is completed, the reminder message will return and must be cleared.

2. **To clear the message:** Remain on hook and press **＊**. The display shows EXPIRED REMINDER MESSAGE CLEARED.

TO CANCEL ALL OF YOUR REMINDER MESSAGE REQUESTS:

While on hook, enter the Cancel Reminder Message feature code (306). The display shows REMINDER MSGS CANCELED. You cannot view or cancel individual messages.

RECORD KEEPING AND MAINTENANCE FEATURES

CALL COST ACCOUNTING

NOTE: The system's Call Cost Accounting feature is intended to provide a cost estimate that is applied to the various classes of calls. Due to the wide variation in charges among network carriers, the system's call cost calculation cannot be used as a prediction of actual charges. This feature can only be used as a management tool to estimate call cost.

The Call Cost Accounting feature estimates the cost of outgoing and incoming calls, displays it on the Inter-Tel phones, and prints it in the SMDR reports. The cost is based on the type of call, telephone number dialed, the elapsed time of the call, the day of the week, and the time of day. A table in the database supplies the rates for all types of calls, including multiplicative factors for evening and weekend rate changes on outgoing calls. The equation for calculating call cost is:

Daytime Rate X Multiplicative Factor X Connect Time.

The multiplicative factor adjusts the daytime per-minute call cost for evening and weekend rates of outgoing calls. For example, the evening call cost multiplier is 0.65 if calls are 35% less expensive after 5:00PM. The daytime rate (D), evening (E) multiplicative factor, and night/weekend (N/W) multiplicative factors are used on the following schedule:

	SUN	MON	TUE	WED	THU	FRI	SAT
8 AM TO 5 PM	N/W	D	D	D	D	D	N/W
5 PM TO 11PM	E	E	E	E	E	E	N/W
11PM TO 8 AM	N/W	N/W	N/W	N/W	N/W	N/W	N/W

NOTE: The system's Call Cost Accounting feature is intended to provide a *cost estimate* that is applied to the various classes of calls. Due to the wide variation in charges among network carriers, the system's call cost calculation cannot be used as a prediction of actual charges. This feature can only be used as a management tool to *estimate* call cost.

If call cost is set to zero, call cost will not display during the call and the SMDR printout will show $00.00.

In a network setting, the call cost shown on the display and SMDR output use the factors and rates for the node on which the trunk resides. In other words, if a station on Node 1 dials what is considered a long-distance number on Node 1, but the call is routed to Node 2 where the number is considered local, the Inter-Tel phone will use the local call cost rate from Node 2. The call rate used for calls between nodes will be based on the Network call rate.

All outgoing calls using a trunk that is not subject to toll restriction are classified as one of the following call types for call cost calculation (call cost type is programmed in the database).

- Free

- Local

- Toll Local

- Toll Long Distance

- Incoming

- Operator

- Network

- International

STATION MESSAGE DETAIL RECORDING (SMDR)

Station Message Detail Recording (SMDR) is a system feature that provides a detailed record of outgoing and incoming calls. The system records only valid calls. Outgoing calls become valid when the Valid Call timer expires or polarity reversal is detected (depending on system programming). Outgoing calls become valid immediately if placed on hold or transferred. Incoming calls are always valid immediately.

Station call data can be recorded on a customer-provided printer or an alternate device, such as a magnetic tape or floppy disk. The Voice Processor PC can also be used to capture Station Message Detail Recording (SMDR) information. The SMDR information is stored in a file on the Voice Processor PC hard disk for later retrieval.

Selectable SMDR options include any combination of the following. (See page 260 for an definition of call cost types.)

- **Record All Incoming Calls:** Records all incoming calls that are answered, except DID/DNIS calls.

- **Record All Local Calls:** Records all calls that use the "local" call cost.

- **Record All Free Calls:** Records all calls that use the "free" call cost.

- **Record All Ring-in Diagnostics:** A ring-in message is recorded for every incoming call (whether answered or unanswered) to indicate how long it rang.

- **Record All Toll Local Calls:** Records all calls that use the "toll local" call cost.

- **Record All Toll Long Distance Calls:** Records all calls that use the "toll long distance" call cost.

- **Record All Operator Calls:** Records all calls that use the "operator" call cost.

- **Record All International Calls:** Records all calls that use the "international" call cost.

- **Record All DISA Calls:** Records all DISA calls.

- **Record All Conference Calls:** Records all conference calls. If all conference parties exit except one station and one outside party, the call is no longer considered a conference and, when completed, it will be recorded using the appropriate call cost for that outside call.

- **Record All DID/DNIS Calls:** Records all calls received through DID and DNIS.

- **Record All Trunk To Trunk Calls:** Records all calls made from one outside caller to another.

- **Record All Network Calls:** Records all calls placed to and received from network nodes.

- **Record All Off-Node Devices:** Records all calls placed to and received from off-node devices.

The programmer can determine whether absorbed digits, equal access digits, and/or toll field digits appear in the SMDR printout. As an example, assume the following number was dialed: 89 (other system's trunk access code) - 10288 (equal access code) - 1 (toll field) - 602 (area code) - 961-9000 (seven-digit number). The following programming options can be used:

- **Suppress Absorbed Digits:** Absorbed digits (on local or PBX lines) will not appear in the report if this option is selected. In the sample above, the absorbed digits (the other system's trunk access code) would be suppressed so that only 10288- 1-602-961-9000 appears.

  NOTE: If absorbed digits are repeatable on a local line, the absorbed digits will not appear in the SMDR report even when repeated.

- **Suppress Equal Access Digits:** Equal access digits will not appear in the report if this option is selected. In the sample above, the equal access code field would be suppressed to print only 89-1-602-961- 9000.

- **Suppress Toll Digits:** When this option is selected, toll digits will not appear in the report. In the sample above, the toll field would be suppressed so that only 89-10288- 602-961-9000 prints.

Any combination of the above can be used. If all three fields are suppressed, only 602-961-9000 will print.

The programmer can also suppress or allow call information in the SMDR report "Dialed Digits" field. The following options are available:

- **Suppress Outside Party Number:** Caller information that is received through ANI or Caller ID will not appear if this option is selected.

- **Suppress Trunk Number:** Information received through DID or DNIS will not be included in the report if this option is selected.

The programmer can determine which equipped station(s) and/or trunks will be included in the report, and whether off-node devices will be included in reports. However, for incoming calls, DISA calls, conference calls, and/or ring-in diagnostics, all calls are recorded even when they involve stations not in the programmed station list.

SMDR can be programmed to record the elapsed time of calls in seconds (S=XXXXXX) or hours and minutes (HH:MM). If programmed to record elapsed time in seconds, the ELAPSED TIME field will show "S=XXXXXX" (XXXXXX represents the number of seconds) for calls up to 999999 seconds long. For calls lasting longer than 999999 seconds, ELAPSED TIME will show "HH:MM" (hours and minutes rounded up to the nearest minute).

The SMDR output report is printed as shown in Figure 12 on the following page. A page heading (with the day of the week, date, month, year and column headings) is generated just after midnight to show the change in date. A header is also printed after output from another system source (alarm, informative message, etc.), using the same output device, interrupted the SMDR output.

FIGURE 12. *SMDR Report Format*

TYP	EXT# TRUNK	DIALED DIGITS	START	ELAPSED	COST	ACCOUNT CODE
XXX	XXXXXXXXXXX	<28 characters>	HH:MM	HH:MM:SS	$XX.XX	XXXXXXXXXXXXX*

TYP   Call type abbreviations for:

Free	000
Local	LOC
Toll Local	TLC
Toll Long Distance	TLD
Operator/International	O/I*
DISA	DSA
Conference	CNF
DID/DNIS (non-DISA)	DID
Incoming	IN
Network	NET

    * Depending on how your system is programmed, the operator and international calls may be displayed separately. If so, the operator calls are displayed under "OP," and the international calls are displayed under "INT."

EXT   The extension number (XXXXX) of the last station to handle the call is shown. For a CO-to-CO call, this field shows the extension number of the second trunk involved. For a conference call, it shows the station that initiated or answered the call. For an unanswered ring-in, it shows *****. An outgoing call that has been initiated by another trunk will show the initiating trunk's number.

TRUNK   The extension number of the trunk used during the call is shown. For an IP network call, this field shows the extension number of the IP connection used for the call.

DIALED
DIGITS   **For an outgoing call:** The first 28 digits of the telephone number are shown (if ARS was used to place the call, the modified number, not the dialed digits, are shown). A ">" at the end of the number indicates that more than 28 digits were dialed. Some digits may be suppressed (see the previous page for an explanation). For a conference call, this field shows the station that brought the trunk into the conference unless the conference ends as a call with only one station and one trunk or if all conference parties are put on individual hold (in which case the field shows the last party to handle the call).

     For an incoming call: This field is determined by the service type of the trunk that was used for the call and whether the digits are being suppressed. If the information is not suppressed, it is included in the report as follows:

SERVICE TYPE	CALL RECORD SHOWS:	RING-IN RECORD* SHOWS:
DID, DNIS, or *DNIS* (not DISA ring-in)	Trunk DID or DNIS Information	Ring... Trunk *DID or DNIS Information*
DID, DNIS, or *DNIS* with DISA ring-in	Blank if answered; DISA digits if unanswered	DISA calls do not generate a ring-in record
Caller ID, ANI, or *ANI*	Outside Party ANI or Caller ID	Ring...*Outside Party ANI or Caller ID*
*ANI*DNIS*	*Outside Party ANI or Caller ID* and *Trunk DID or DNIS Information*	Ring...*Outside Party ANI or Caller ID* and *Trunk DID or DNIS Information*
None	Blank	Blank

FIGURE 12. *SMDR Report Format (Continued)*

START	This shows the time that the call became valid (see for an explanation). For an unanswered ring-in, it shows the time the call began ringing. It is shown in 24-hour time (00:00 - 23:59).
ELAPSED	This shows the call length from the START time (above) until disconnect or the length of time an unanswered call was ringing. If the option is enabled that shows call duration in seconds, calls up to 999999 seconds long appears as S=XXXXXX (XXXXXX represents the number of seconds) and calls lasting longer than 999999 seconds appear as HH:MM (hours and minutes).
COST	This is the approximate cost of the call ($XX.XX), based on the database information. If cost exceeds $99.99, it is printed without the decimal point ($XXXXX). If it exceeds $99999, $$$$$$ is shown instead. If there is no cost, the field is blank.
ACCOUNT CODE	This is a standard, forced, or optional account code (up to 16 digits). An optional account code overrides standard or forced account codes. The field is blank if no account code was used.

NOTE: If an asterisk (*) appears at the end of the record, as shown in the sample, it indicates that the call was terminated because the system detected a disconnect signal from the trunk (that is, the caller hung up before the station user on the call).

SYSTEM ERROR/MESSAGE PRINTING

The system has a self-diagnostic feature that monitors the system. When a system fault or other noteworthy condition is detected, the software determines the impact of the condition and classifies it as an alarm (major or minor) or other message type. If the Message Print option is enabled, the messages are sent to the designated output port. For a complete list of Diagnostics codes, refer to the *Inter-Tel Diagnostics Manual*.

The programmer may enable any combination of the error message types. The available message types are:

- **Information Messages:** These messages give information concerning system operation.

- **Warning Messages:** The warnings in these messages indicate that a condition exists which may affect system performance.

- **Alarm Messages:** Alarm messages indicate that a minor alarm has occurred, but that general system operation was not affected.

- **Severe Messages:** These messages indicate that a severe error has occurred in the system.

The messages can be programmed to be sent to any output device attached to the system. This includes devices attached to the CPU card, Options cards, and phone data ports. Messages can be printed through only one system port at a time. The print width is adjustable (64, 80, or 132 characters) to accommodate different output devices. When a line of information is longer than the programmed width, the information is printed on subsequent lines and preceded with "+" to indicate the continuation.

The system database also has a reserved area for recording the history of messages to allow service personnel to request a report at any time. The message history area has enough memory to maintain a record of at least 50 of the most recently generated messages. When the reserved area is full, the more recent messages begin to replace the older ones so that the most recent messages are available.

In a network setting, each node has its own message print programming, message print output port, and message print output port backup. There should be a message print terminal at each node to monitor node and network performance and aid in troubleshooting.

- If a node's Message Print output port is a node, the network sends Message Print records to the specified node.

- You cannot select a node as the message print output port backup.

- If Message Print output programming forms a loop, the system will send the output to the node's backup Message Print port. For example, if the Message Print port on Node 1 routes to Node 2 and the Message Print port on Node 2 routes to Node 1, the configuration will cause an infinite loop. Message Print reports for Node 1 would be printed to the backup serial port on Node 2 and vice versa.

- A two digit node number is inserted in front of the sequence number to indicate the node where the message originated. The following is an example of the new message print string format for a message the originated on node 3:

- -03:001- 15:30 03-20 M6009 WRN EG CP

- Corrupted Queue Was Cleared: HISTORY QUEUE

- Message Print will *not* route diagnostic messages that apply to another node, except during manual Message Print requests. Those messages will only be printed locally.

- Message Print will not route messages during a startup or reset. The system will wait one minute before starting to send messages. Startup messages will only be printed locally.

- Messages may not be printed in time sequence order on remote nodes. The order of an incoming message print depends on how the message print was routed to the destination node. Therefore, a message print could possibly arrive at the destination message print node out of order.

In addition to the messages, the following error indications will occur in the event of a system alarm:

- If a major system alarm occurs, MAJOR ALARM appears on all display phones. If the major alarm appears on a group of phones, the associated Keyset Card has failed. The warning might also appear on a single phone if the phone is defective. If all phones on the system are inoperative, the alarm message is sent to the system's primary serial port on the CPU.

- A minor alarm sends a message to the primary attendant and to administrators, if programmed to receive alarms.

Each message record includes the following fields:

- **Sequence Number:** This field shows the order in which the faults occurred. If there is a skip in a series of sequence numbers, it indicates that a message was logged that is not programmed to be printed.

- **Time:** The Time field shows the time that the fault occurred. This field shows the hours and minutes in 24-hour format as HH:MM.

- **Date:** The Date field shows the date that the indicated fault occurred. The date shows the month and date as MM-DD.

- **Fault Code:** The Code field holds the associated number of the indicated fault. This field is four characters in length and the first character is an "M" for messages or "A" for minor alarms. Each of the different system faults that the system is capable of detecting is assigned a unique number (M100-M999 or A001-A299) in the system database.

- **Type:** This field indicates the following:
  — *Alarms:* The field shows "ALARM" for system faults that have not stopped system operation.
  — *Information Messages:* The field shows "INF." The condition requires no attention.
  — *Warning Messages:* The field shows "WRN." The condition requires attention because it may affect system performance.
  — *Severe Messages:* The field shows "SVR." The condition requires attention because it has affected or will affect system performance.

- **Realm:** *This field does not appear for Alarm messages.* This two-character field indicates the realm responsible for the message. The field will contain one of the following abbreviations:

  — *DB* indicates that the message applies to the system database. These problems can often be fixed with appropriate database programming.

  — *HW* indicates the messages concerns the system hardware. Typically these problems are corrected by adjusting or replacing the affected hardware.

  — *EG* is indicative of a software error which will, most likely, require the intervention or attention of an Inter-Tel software engineer.

- **Source:** *This field does not appear for Alarm messages.* This two-character field indicates the software source responsible for the message.

  — *CP* indicates that Call Processing is the source

  — *OS* refers to the Operating System

  — *SS* refers to the System Software

  — *AL* refers to a Voice Processor link

- **Text:** The Text field holds a text message that identifies the particular fault indicated by the record. This field is at least 40 characters in length and may extend onto subsequent lines if necessary to present adequate information about the fault. The information printed on an additional line is preceded with the character "+" to indicate the continuation.

- **Auxiliary:** When necessary, additional information may be printed as part of a message on separate lines. This additional information is referred to as "auxiliary text." To identify this text as pertaining to the previous message, each line is preceded with the "<"character.

POWER FAILURE CAPABILITIES

The Central Processor (CPU) Card contains relay contacts that can be used for power failure transfer which allows one or more single-line sets to select predetermined trunks in the event of a processor board failure or a power failure. Additional equipment is required.

CUSTOMIZED SYSTEM PROGRAMMING REPORTS

Customized system programming reports can be created through the database. The programmer can select the programming area to be reported and then select the information that will be included. When extension numbers are listed in a report, they can be sorted by name, extension number or circuit number. Reports can also be titled.

Voice Processing Features

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INTRODUCTION

The Voice Processor can be used for any of the following applications. Each application is described in detail in this chapter.

- **Automated Attendant:** The automated attendant is a programmable feature that can be used to provide automated call answering service. Calls can transfer, forward, or directly ring in to an automated attendant. When an automated attendant answers a call, it plays a recording that gives dialing instructions. After hearing the recording (or at any time while it is playing), the caller may then dial an extension or mailbox number.

- **Automated Attendant Recall Destination:** If a call is not answered after being transferred by the automated attendant, the call returns to (recalls) the Automated Attendant Recall Destination. The Recall Destination announces that the station is unavailable and allows the caller to leave a message (if the station has an associated mailbox) or dial another extension.

- **Call Routing Announcement:** Call Routing Announcements can be used two ways:

  — A Call Routing Announcement application can be used in place of a playback device. When called, the Call Routing Announcement application will play a recording and then hang up.

  — The Call Routing Announcement application can use Digit Translation which allows the caller to press a single digit for access to a mailbox, a fax-on-demand function, or a station or hunt group that has an associated mailbox or extension ID. Each digit can lead to a "digit translation node" that has its own digit translation values. This layered Call Routing Announcement digit translation creates a "tree" of programmable digit translation nodes.

- **Directory Services:** Directory services provide callers with a list of mailboxes and extension IDs.

- **Record-A-Call:** This feature allows a station user to record an ongoing call in a mailbox message. When a station user enters the Record-A-Call feature code, the system places a call to the station's assigned Record-A-Call application. When the application answers, the system sets up a conference call with the station's Record-A-Call mailbox. If programmed, the mailbox plays a greeting to indicate that recording is in progress.

- **STAR:** The Scheduled Time-Based Application Routing (STAR) enhances the programmability of the voice mail application greetings. With STAR, applications can be programmed to play alternative greetings for holidays and weekends. A STAR application is a table of up to 20 entries, that serves as a "routing table" which tells the Voice Processor which application will be used, based on day and time information in the table. (The applications are programmed to play the greetings, not the STAR application. The STAR routes the call to the right application.)

- **Station Message Detail Recording (SMDR) Information Storage:** SMDR information can be stored on the Voice Processor's hard disk and then processed using call record sorting software, such as Inter-Tel's Inside Track®.

- **Voice Mail:** This application handles all calls that are directed to voice mail (other than through the Message Notification/Retrieval application) by subscribers and non-subscribers. Callers will hear the main company greeting, followed by a menu of available options. Stations can forward or transfer calls directly to their mailbox using this application's.

AUTOMATED ATTENDANT

The automated attendant is a programmable feature that can be used to provide automated call answering service. Calls can transfer, forward, or directly ring in to an automated attendant. A Voice Processor is required for the Automated Attendant feature on the System. Calls to the automated attendant application are processed as follows.

CALL TO AUTOMATED ATTENDANT
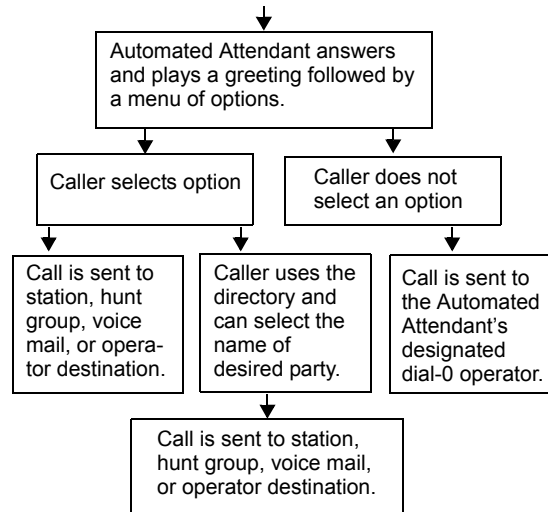
```
          Automated Attendant answers
          and plays a greeting followed by
          a menu of options.

    Caller selects option        Caller does not
                                 select an option

Call is sent to   Caller uses the    Call is sent to
station, hunt     directory and      the Automated
group, voice      can select the     Attendant's
mail, or opera-   name of            designated
tor destination.  desired party.     dial-0 operator.

          Call is sent to station,
          hunt group, voice mail,
          or operator destination.
```

When an automated attendant answers a call, it plays a recording that gives dialing instructions. During or after the recording, the caller may then directly dial a station extension number, voice mail access number (if there is no associated mailbox), or hunt group pilot number. Or, the caller may use the directory to look up the desired extension.

When the automated attendant answers a call, the caller will hear the company greeting, followed by instructions and the list of available options. The caller then has the following options:

- **Dial a station extension number:** If an extension number is dialed, the call is transferred to the selected station. If ringback tones are enabled, the caller hears ringing while the call is being transferred. If ringback is not enabled, the caller hears music. If the called station is forwarded, the call follows the programmed forward.

- **Dial a hunt group number:** When a hunt group number is dialed, the call is transferred to the selected hunt group. The call rings or circulates according to how the hunt group is programmed. If ringback tones are enabled, the caller hears ringing while the call is being transferred.

- **Dial the voice mail application's extension number:** The caller can reach the voice mail main greeting by dialing the application's extension number assigned to the voice mail feature. The caller can then leave a message as a non-subscriber or access any of the voice mail subscriber features. (See page 286 for voice mail information.)

- **Use the directory:** If the caller does not know the extension or mailbox number of the desired party, he or she can spell the name using the dialpad buttons and "look up" the number in the directory. (This option can be disabled in the database. Or, if there are no names recorded for the individual mailboxes or for the system's extension IDs, this option will not be provided.) Directory names can be sorted by first or last name. (Refer to page 286 for information about using the directory.)

- **Dial the operator access destination:** If the caller needs further assistance, dialing 0 will access the Voice Processor's programmed operator destination. Or, if the caller is on a rotary telephone and cannot enter a digit, the call will be automatically transferred to the operator destination. (The operator access destination is programmed in the database. There can be separate destinations for day and night modes.)

NOTE: Due to the natural characteristics of the trunk, the volume level of DTMF tones transmitted over the trunk may be substantially reduced before reaching the system and Voice Processor. This natural degradation in tone volume may adversely affect the reliability of the Automated Attendant feature. Other factors which can affect automated attendant performance are trunk noise and the quality and strength of the DTMF tones generated by the off-premises phone itself.

AUTOMATED ATTENDANT APPLICATIONS

There are a number of different uses for this feature. Here are two examples:

- Direct ring-in calls to a busy attendant could be forwarded to an automated attendant (using the Call Forward If Busy feature or system forwarding).

- Calls could ring in directly to an automated attendant application's extension number when the system is in day and/or night mode.

AUTOMATED ATTENDANT RECALL DESTINATION

When a station receives a call that has been routed through the automated attendant, the call is handled as a transferred, call and the display shows TFR FROM *(description)*. If the call is not answered, the call recalls the automated attendant's recall destination. The recall destination is usually the Automated Attendant Recall Destination application which announces that the called station is unavailable and allows the caller to choose to leave a message (if the station has an associated mailbox) or dial another extension number.

CALL TO AUTOMATED ATTENDANT

↓

Automated Attendant answers and transfers the call to the destination selected by the caller.

↓

The party receiving the transfer does not answer before the Transfer Voice Processing timers expires.

↓

Call goes to the Automated Attendant Recall Destination where caller selects option.

↓

Call is sent to station's associated mailbox

Call is sent to station, hunt group, voice mail, or operator destination.
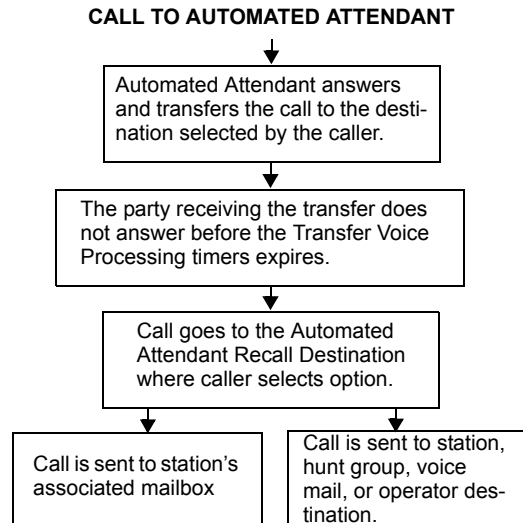
If the Recall Destination fails to answer a call, it is automatically sent to the recall destination's programmed attendant. If the call is not answered there, it is disconnected after the Abandoned Call timer expires.

If an invalid number is dialed, the caller is prompted to enter another number. If a caller fails to make an entry before the Inactivity Alarm timer expires, the caller is prompted again to make an entry.

The caller cannot access trunks or enter feature codes through the Automated Attendant application. Trunk access codes and feature codes are considered invalid numbers.

AUTOMATED ATTENDANT CUSTOM AUDIOTEX RECORDINGS

Custom audiotex recordings are made using the voice mail administrator's mailbox as described on page 48. Each recording is associated with a recording number and assigned to the application(s) in Database Programming or using the system administrator's mailbox.

EXTENSION ID

Extension IDs are used in conjunction with transferring calls through the Automated Attendant or using the Extension Directory. The extension ID allows callers to be transferred to stations and applications that do not have mailboxes. It also allows the station or application to have a recorded name in the directory. This feature is set up and initialized using Database Programming and voice mail features.

If an Extension ID has been created in Database Programming for a station extension number, either the principal owner of the extension or the voice mail administrator must set up (initialize) the ID with a new password and record a name for use in the Extension Directory. At default, the extension ID password is the same as the extension number.

If the Extension ID has not been "initialized," calls can still be transferred to the associated extension number. However, they cannot be accessed from the directory. If the Extension ID's username has not been recorded, it cannot be heard when callers access the Extension Directory. The name must be recorded in order to fully initialize the Extension ID. See for more information on initializing Extension IDs.

NOTE: To provide system security, *all* extension IDs should have a password. To make the passwords difficult to guess, they should not match the station's extension number or consist of one digit repeated several times. The default password should be changed the first time the user logs in.

Once a password has been set up and the name recorded, the extension owner may access Extension ID Options which allows the associated directory name and password to be modified.

If an Extension ID has not been created for a station, callers using the automated attendant cannot be transferred to that destination. Instead, these callers will receive a system recording notifying them of an invalid entry and are routed back to the automated attendant's main menu.

Individual extension IDs can be programmed as "Private" in Database Programming. A Private number is included in the directory and can be dialed if the caller knows the number, but the extension number information is not available to the caller; only the name is played.

Extension IDs can also be programmed as "Unlisted." That means that the number will not be included in the directory, but can be dialed if the caller knows the extension number.

Calls transferred from the Automated Attendant or a Call Routing Announcement application to stations with extension IDs can be screened, announced, or unannounced. Programming flags determine the methods used for transferring calls to stations with extensions IDs. (See for details.)

CALL ROUTING ANNOUNCEMENT

The Call Routing Announcement application can be used as a simple playback device that plays a message and then hangs up to disconnect the call. This is especially useful for programming hunt group announcement and overflow stations. Or, the Call Routing Announcement application can use digit translation which allows the caller to press a single digit for access to a station, hunt group, or mailbox.

**CALL TO CALL ROUTING ANNOUNCEMENT
WITHOUT DIGIT TRANSLATION**

```
┌──────────────────────────────┐
│ Call Routing Announcement    │
│ answers and plays a recording.│
└──────────────────────────────┘
              ↓
┌──────────────────────────────┐
│ Call Routing Announcement hangs│
│ up. (If this is an announcement│
│ or overflow station, the call  │
│ returns to the hunt group.)    │
└──────────────────────────────┘
```
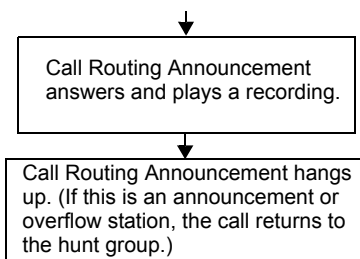
**CALL TO CALL ROUTING ANNOUNCEMENT
WITH DIGIT TRANSLATION**

```
          ┌──────────────────────────────┐
          │ Call Routing Announcement    │
          │ answers and plays a greeting │
          └──────────────────────────────┘
             ↓                       ↓
┌────────────────────┐   ┌────────────────────┐
│ Caller selects     │   │ Caller does not    │
│ option             │   │ select an option   │
│                    │   │ (Timeout)          │
└────────────────────┘   └────────────────────┘
             ↓                       ↓
┌────────────────────┐   ┌────────────────────┐
│ Call is sent to    │   │ Call is sent to    │
│ station, hunt group,│   │ station, hunt group,│
│ voice mail, operator│   │ voice mail, operator│
│ destination, digit │   │ destination, digit │
│ translation node, or│   │ translation node, or│
│ directory as deter-│   │ directory as deter-│
│ mined by digit pro-│   │ mined by Timeout   │
│ gramming.          │   │ programming.       │
└────────────────────┘   └────────────────────┘
```

When a Call Routing Announcement application is used as a hunt group announcement or overflow station, calls to the application automatically stop circulating through the hunt group if the caller selects a valid digit translation option. This allows the application to send the call to other stations without the call being "pulled back" into the hunt group when a hunt group station becomes available and answers the call. However, if the caller does not dial a valid digit translation option, the call will be pulled back if a hunt group member answers.

CALL ROUTING CUSTOM AUDIOTEX RECORDINGS

When accessed, the Call Routing Announcement application will play a custom audiotex recording and then hang up.

Call routing announcements are recorded using the voice mail administrator's mailbox as described on page 48. Each announcement is assigned to use a "custom greeting" number in Database Programming.

Recordings for fax documents should include all dialing instructions. The recording should state whether documents can be selected by number and/or list all options. If fax delivery times are set to specific days or times, the recording should also include this information.

CALL SCREENING

Calls transferred from the Automated Attendant or a Call Routing Announcement application can be screened, announced, or unannounced. Separate programming flags determine the methods used for transferring calls to stations with mailboxes, stations with extension IDs, and extensions without mailboxes or IDs. (See page 206 for details.)

DIGIT TRANSLATION

Digit translation allows callers to dial a single digit to access a designated extension number, mailbox, or hunt group. Up to 12 digit translation storage locations (#, *, 0-9) are available for each Call Routing Announcement application. To use digit translation, the Call Routing Announcement application must have special programming.

After the application is created and programmed, the voice mail administrator's mailbox is used to make a custom audiotex recording that explains the options to callers, as described on page 48. The custom audiotex recording is then assigned to the Call Routing Announcement application. A caller who listens to the Call Routing Announcement recording can dial the single-digit location number to reach the designated destination. For example, if the hunt group extension for a customer support group is programmed for digit 3, the recording should say something like, "For customer support, press 3."

The system provides a choice between Primary and Secondary Language prompts and displays. The available languages are American English, British English, Spanish, and Japanese. The system selects the language to use for each call, as determined by the trunk, station, and Voice Processor programming. When using a Call Routing Announcement application with digit translation, the individual Voice Processor applications assigned to the digits can be programmed to override the device language and provide prompts in one language only. Using this method, you can program a Call Routing Announcement tree that offers callers a choice between languages. See page 172 for more information.

DIGIT TRANSLATION NODES

A "digit translation node" is a digit translation destination that allows further digit translation options. Unlike extension and mailbox destinations, a digit translation node does not move the call to a specific location. Instead, it offers additional dialing options. A digit translation node can use any of the Actions, including transfers to other digit translation nodes.

The use of digit translation nodes allows the programmer to create a Call Routing Announcement with several layers to form a digit translation "tree." The tree can be made up of digits with destinations and/or digit translation nodes with additional translations. An example of a Call Routing Announcement application with a multi-layered tree is shown on the next page.

FIGURE 13. *Sample Call Routing Announcement Tree*
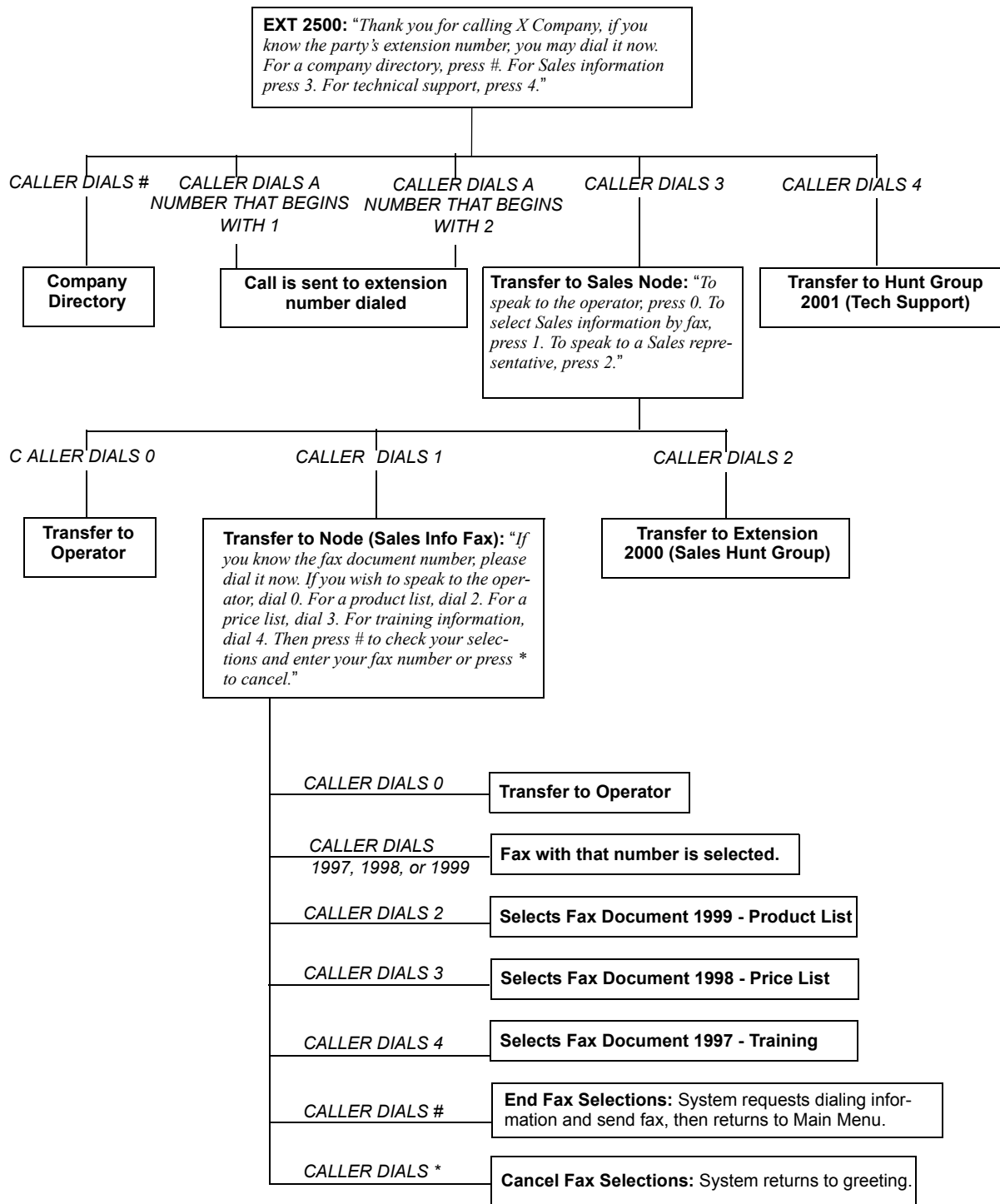
FAX-ON-DEMAND

The Fax-On-Demand feature provides fax services to callers. It is a specially programmed Call Routing Announcement application that uses digit translation to allow callers to select the documents they wish to have faxed to them.

With Fax-On-Demand, callers can use a DTMF telephone to request one or more documents from the company's fax library. (This library of fax documents is also used in the Unified Messaging faxing feature.) When the request is completed, the Voice Processor places a call to the caller's fax machine to deliver the requested documents.

The Fax-On-Demand process is shown in the following steps:

1. The caller reaches the Call Routing Announcement application either through direct ring-in or transfer.

2. After listening to the introductory recording, the caller selects a document by entering a document number or using digit translation, depending on digit translation node programming. If the document is selected by number, the system will ask the caller to verify the entry by pressing #. If the number is invalid, the system alerts the caller and returns to the introductory recording.

3. The system checks the availability of the document, and one of the following occurs:

   - *If the document is available,* the system tells the caller how many documents have been selected and how many more documents can be requested (as determined by the Maximum Selections Allowed value in the database). It then returns to the recording to allow the caller to select more documents or end the selection process.

   - *If the document has been deleted or is being updated,* the caller is told that the document is unavailable and returns to the recording.

4. If desired, the caller selects additional documents, and the system checks for their availability as described above. If the maximum number of allowed documents has been reached, the system informs the caller and gives the option of returning to the greeting or ending the selection process. If a caller selects the same document more than once, the system informs the caller of the error and allows another selection.

5. If desired, the caller can cancel the document selections at this point by pressing the Cancel Fax Selections digit (usually *). However, once the next steps are completed, the faxes will be delivered.

6. When the caller ends the selection process by pressing the End Fax Selections digit (usually #), or reaches the allowed maximum number of documents, the system requests fax dialing information from the caller.

7. The caller enters and verifies his or her extension number (to be printed on the cover sheet) and the caller's fax machine telephone number.

8. The system checks the entered number, and one of the following occurs:

   - *If the number is valid,* the system tells the caller when the document will be delivered (this depends on the programmed fax delivery times in the Voice Processor database) and returns to the recording.

   - *If the number cannot be dialed by the Message Notification/Retrieval application due to toll restrictions,* the system tells the caller that the number cannot be dialed and asks for a new number.

   - *If the caller enters an invalid number,* the system tells the caller the number is invalid and asks for a new number.

9.   The caller hangs up or returns to step 2 to select more documents. (If more documents are selected and canceled, the documents that were selected and accepted previously will still be sent. Each time the caller accepts the documents and enters the dialing information, the documents are prepared for transmittal. They cannot be canceled after that point.)

10. The Message Notification/Retrieval application places a call to the caller's fax machine as soon as a fax port is available, unless one of the following occurs:

*   *If the fax was requested outside of the programmed fax delivery times,* the system will wait until the Fax Delivery Start Time on an allowed day of the week before it attempts to send the document. The Fax Delivery Start and Stop times determine when faxes can be sent. Start and stop times can be set to any time period, up to 24 hours. The programmer can also determine which days of the week faxes will be sent.

*   *If other calls are going out and the programmed Maximum Number of Outgoing Calls has been met,* the system waits for an available outgoing call to send the fax.

*   *If a fax port or trunk is not available or if a requested document is not available,* the system delays delivery until the resource or document is available.

*   *If a requested document has been deleted,* the system will complete the delivery, but will indicate on the cover sheet that the document is no longer available.

*   *If a fax delivery fails after one or more pages have been transmitted,* the system remembers which pages were not sent and tries again to send only those pages. For example, if the transmission failed in the middle of page 3 of 5, the system would attempt to send only pages 3, 4, and 5 on the retry. The cover sheet on the retry will say, "This fax is the continuation of..." and the description for the fax will include "continued" in the title.

Documents are stored in the fax library using the system administrator's mailbox. To do so, a fax machine places a call to the system administrator's mailbox and sends the document. (See page 47 for instructions.)

Fax-On-Demand transmits a cover sheet with each faxed document that includes the recipient's extension number, your company name (as programmed in the database), the date, the number of pages to be sent, and a list of included documents. If you wish, you can store a company logo to be used on the cover sheet. The logo can be up to 5.5 inches tall; if it is larger, the system automatically cuts it off at the 5.5 inch mark. The logo document is stored, like other fax documents, using the system administrator's mailbox.

If you have several fax documents, you may want to create and store a "catalog" document that callers can request before continuing their selections. For example, the catalog can include the document number, title, description of the contents, number of pages, and last revision date for each document.

Fax documents can be saved and restored using the Voice Processing Save And Restore database program. The system Save And Restore operation has no effect on fax documents. However, if the system database is defaulted, all fax documents are deleted.

The digit translation node used for fax document selection should have a greeting that explains how to select documents. For example, it can say something like, "Welcome to Fax-On-Demand. For a product list, press 1. For a price list, press 2. When you have made your selections, press # to continue. Or, to cancel your selections, press *." Or, you can use a series of digit translation nodes that break the document selection into categories and/or allow callers to dial individual document numbers. If fax delivery times are set to specific days or times, the introductory recording should also include this information.

DIRECTORIES

There are two types of Voice Processor directories that can be enabled (or disabled) in the system: Mailbox and Extension.

- **The Voice Mailbox Directory** is a list of mailbox subscribers, their recorded names, and mailbox numbers.

- **The Automated Attendant Directory,** provided to all Auto Attendant callers, is a list of all mailbox subscribers and extension ID owners and their recorded names.

The directories can be selected in the following ways:

- **From the voice mail or Automated Attendant main menu:** Press the **#** button.

- **Using a Call Routing Announcement application:** Press the Digit Translation digit designated for directory access. (See page 276 for a detailed explanation of digit translation.)

- **As a voice mail subscriber:** Subscribers can access the directory by pressing **#** whenever they are prompted to enter a mailbox number.

If a directory is disabled or empty because no names are recorded for any of the system's mailboxes and extension IDs, callers will not hear the prompt that allows access to the directory. However, if the caller does press **#** or a Directory menu button, the user will be instructed that the selection is invalid and returned to the initial instructions.

Recorded names are added to the directories when the owner of the mailbox or extension ID has initialized the name. If the mailbox or ID is not initialized, the directory will include only the mailbox number or extension ID number. (Group Lists are not included in either type of directory.)

The caller uses the dialpad buttons to enter the name. The application then plays the closest matching directory name that corresponds to the digits entered by a caller. Once the name has been played, the system will return a menu of options, including the following:

- Listening to the previous or next name in the directory

- Listening to additional information (This option is not available if the mailbox or extension ID number has been classified in the database as a "Private" number.)

- Spelling a new name

- Toggling from a last to first name search mode

- Accepting the name

LOCATING A NAME

Entering a Name

There are two methods used for entering a name: Quick Spell and Exact Spell. Outside callers and station users with non-display phones and single-line sets use Quick Spell. Display phone stations use the Exact Spell method.

- Quick Spell callers press a single digit (or button) from their digital telephone dialpad for each letter or character entered. For example, dialpad button **2** shows ABC, button **3** shows DEF, etc. To enter JONES, you would press **5** **6** **6** **3** **7**. Some characters are not shown on the buttons: for "Q" press **7**, for "Z" press **9**, for punctuation marks press the **1** button.

- Exact Spell callers press the dialpad buttons to enter the name. The number of times a button is pressed determines which character is entered, as shown on the chart below. When adjoining characters are located under the same button, press **FWD** once to advance to the next character. For example, 5666 **FWD** 66337777 would enter "JONES."

	NUMBER OF TIMES BUTTON IS PRESSED				
BUTTON	1	2	3	4	5
1	-	&	(	)	1
2	A	B	C	'	2
3	D	E	F	!	3
4	G	H	I	*	4
5	J	K	L	#	5
6	M	N	O	Ñ	6
7	P	Q	R	S	7
8	T	U	V	?	8
9	W	X	Y	Z	9
0	@	:	.	,	0

After the digits have been entered, the caller presses **#** to begin the search. The Automated Attendant application plays the name that most closely matches the digit(s) that were entered. If **#** is pressed without entering any digits, the caller will hear the first name in the directory.

If a user presses **0** at any time while spelling a name, the system will play a helpful prompt instructing the caller how to enter a name. (Display phone users will receive Exact Spell instructions; all other users will hear Quick Spell instructions.)

Changing the First/Last Name Search

Each directory can be programmed to be organized by last name or by first name. Callers accessing a directory receive system voice prompts that ask them to enter the first or last name of the person for whom they wish to leave a message.

If an Executive Display, Professional Display, or Model 8560 Phone with menu buttons is used to access a directory, the caller may switch back and forth from looking up a last name, to a first name simply by pressing the corresponding menu button. Callers using other Inter-Tel phones or single-line sets can press **5** to toggle between last and first name.

Listening to the Next/Previous Name

After a name has been played, the caller can listen to the previous name in the directory by pressing **1**. To listen to the next name, the caller can press **3**.

The directory lists are circular. That is, when the end of the list is reached, the next name played will be the first name in the directory. Or, if the caller scrolls to the beginning of the list, the "previous" name played will be the last name in the directory.

ACCEPTING A NAME

When the caller is using the voice mail feature and accepts a name, the caller is transferred to the corresponding mailbox. Then the caller will hear either the subscriber's recorded greeting, recorded directory name, or, if no recording has been made, the "mailbox number XXX is not available" prompt. The caller can then record a message.

If the caller is using the Automated Attendant feature, and accepts the name, the caller is transferred to the selected destination (station or mailbox) if it is available. If a station extension is dialed and the destination is not available, the caller is sent to the associated mailbox, if one exists.

REQUESTING ADDITIONAL INFORMATION

After a name is selected from the directory, the caller has the option of requesting additional information. When requested, the mailbox number, extension number, and name are played (if they have not been disallowed).

Individual mailboxes and extension IDs can be programmed as "Private" in Database Programming. A Private number is included in the directory and can be dialed by a caller who knows the number, but the associated mailbox and extension number information are not available to the caller; only the name is played.

Mailboxes and extension IDs can also be programmed as "Unlisted." That means that the number will not be included in the directory, but can be dialed if the caller knows the extension number.

USING THE DIRECTORIES

TO USE A DIRECTORY:

1. Dial the voice mail access number. You hear the recorded system greeting.

2. Press **#** to access the Directory Services application.

3. The buttons on your telephone are labeled with letters. Use Quick Spell (non-display phone or single-line) or Exact Spell (display phone) to enter the desired name, as described on , then press **#**. (If you wish to exit from the directory without selecting a name, press **✳** or hang up.)

4. The voice mail application will play the selected name. Do one of the following:

   - **To accept the name:** Press **#**.

   - **To hear the previous name in the directory:** Press **1**.

   - **To hear additional information for the selected name (if allowed):** Press **2**.

   - **To hear the next name in the directory:** Press **3**.

   - **To spell a different name:** Press **4** and repeat step 3.

   - **To switch the first/last name sort order:** Press **5**.

RECORD-A-CALL

NOTE: The Record-A-Call premium feature is required to use Record-A-Call.

If the Voice Processor has a Record-A-Call application, the users can enter a feature code to record ongoing calls in their designated Record-A-Call mailboxes. Users can retrieve the recorded messages later, just as they would any other mailbox message.

The Record-A-Call mailbox records the call as a voice mail message. All parties will be included in the recording. If desired, the Record-A-Call mailbox can be programmed to play a message announcing that the Record-A-Call feature is in progress. There can be separate messages for day and night modes.

A Record-A-Call tone can be programmed to alert callers at the beginning of the recording. Also, it can be programmed to beep periodically throughout the recording.

There are two ways a station can be programmed to use this feature:

- The station can use its personal mailbox, or any other mailbox, as the assigned Record-A-Call mailbox. No other mailbox can be selected. (This is the default programming for all stations.)

- The station can be programmed with a default mailbox, but with the option of selecting a different mailbox. If the user chooses to not enter a mailbox number, the system automatically selects the default mailbox.

When the requesting station user hangs up, all parties are automatically disconnected. If all parties on the call hang up, except the requesting station user, an intercom call will remain connected between the requesting station and the Record-A-Call application. This allows the user to make additional comments before ending the recording.

When the station user turns off Record-A-Call or ends the call being recorded, the Voice Processor delivers the message to the mailbox. The station associated with the mailbox will receive message waiting indications as usual. See for message retrieval instructions.

The programmer can set a maximum length for Record-A-Call messages. The Record-A-Call Maximum Message Length timer can be set at 0-600 minutes. A 0 setting allows messages of any length, limited only be the available disk space. The default is 30 minutes.

In a network setting, the Record-A-Call destination does not have to be on the same node as the station, but the Voice Processor must have a mailbox for that station.

For more information on using the Record-A-Call feature, refer to .

SCHEDULED TIME-BASED APPLICATION ROUTING (STAR)

Scheduled Time-Based Application Routing (STAR) allows you to have applications with alternate greetings and/or different programming set up for holidays, weekends, and other scheduled events.

A STAR application is basically a "routing table" for Voice Processor applications. When a direct ring-in call (from a trunk group or call routing table) rings in to a STAR application, it sends the call to another application, according to its programmed schedule. The caller will not be aware of this transfer, but will hear the programmed day or night greeting for the destination application. (The STAR application itself does not play a greeting.)

STAR can be used with any type of application except Auto Attendant Recall and Record-A-Call. You can even send calls from one STAR application to another, thereby "chaining" the applications to increase the number of available schedules.

A STAR application can contain up to 20 scheduling entries with the following fields:

- **Application:** This is the application (call routing announcement, automated attendant, etc.) that will be used when the scheduling information applies to the incoming call.

- **Start/Stop Date:** If the schedule is going to be active on a single day or for a period of days, it will have Start and Stop Dates. (To have the schedule active on only one day, the Start and Stop Dates can be the same day.)

- **Days of the Week**: The schedule can be used on specific days of the week.

- **Specific Times or Day/Night Mode:** The schedule can be set to be active for a specific period of time on the selected day(s). Or, it can be set to be active in day or night mode.

The chart below shows several samples of STAR entries. Note that there are two entries for Labor Day and Memorial Day, and that Christmas Day and Christmas Holiday overlap. The first entry in the table is checked first, and so on, until a match is found. So it is important that you program the applications in the correct order. For example:

- The Labor Day entry, with a specific time, comes before the Day/Night entry so that a different message is played from 10:00 to 2:00 only.

- The early time intervals come before the later intervals on Memorial Day.

- Dec 25 comes before the range of dates Dec 24- Jan 4 so that the special holiday message will be played on that day only.

Once a match is found, the application corresponding to the matched entry is invoked. If no match is found, the application programmed in the "Default Application" field is used.

When programming the days and times, be careful not to overlap. For example, if you place a date entry for Dec. 25 after a day of the week entry for Monday, and Christmas falls on a Monday, the "Monday" application will be selected instead of the "Dec. 25" application.

ENTRY	DESCRIPTION	DATE	DAY	TIME INTERVAL	DAY/NIGHT	APPLICATION
1	Labor Day	Sep 1		10:00am-2:00pm		2600
2	Labor Day	Sep 1			Both	2601
3	Memorial Day	May 30		8:00am-5:00pm		2605
4	Memorial Day	May 30		5:00pm-8:00am		2606
5	Christmas Day	Dec 25			Both	2607
6	Christmas Holiday	Dec 24 - Jan 2			Both	2608
7	Weekends		Sat, Sun		Both	2612
8	Lunch Break		M - F	11:00am- 1:00pm		2613
9	Night Shift		M - F		Night	2614
10	Day Shift		M - F		Day	2615

SMDR INFORMATION STORAGE AND RETRIEVAL

The Voice Processor PC can be used to capture Station Message Detail Recording (SMDR) information. The SMDR information is stored in a file on the Voice Processor PC's hard disk for later retrieval.

Every time a call is completed, the SMDR feature records the call, formats it according to SMDR programming (see page 261), and sends the record to the SMDR output device, if enabled. The formatted record is also sent to the Voice Processor if SMDR buffering is enabled.

The Voice Processor PC adds each call record to the SMDR buffer file as it is received. The amount of disk space allocated for SMDR storage is determined in Database Programming. The default value is zero megabytes of memory. If the call records use disk space exceeding 80% of the allotment, the system generates an alarm and displays it at the primary attendant station and all telephone system administrator stations. Another alarm message is generated if the allotted space is 100% filled. If the maximum buffer capacity is exceeded, the oldest call record(s) are discarded as new ones arrive.

NOTE: Since each SMDR call record takes up approximately 81 bytes on the Voice Processor PC, nearly 13,000 calls can be stored in each megabyte of hard disk space.

The SMDR records, which are stored in ASCII/binary format, are buffered until they are cleared by the programmer. If desired, the programmer may save and/or restore SMDR data (along with the system database) to floppy disks using the Voice Processing Save and Restore feature.

If desired, the SMDR records can be retrieved and processed using Inter-Tel's Inside Track®, a separate call accounting software package, to create customized reports.

In a network setting, the Voice Processor will buffer SMDR records that are sent from other nodes in the network.

VOICE MAIL

The voice mail feature allows callers to send and receive recorded messages from any station or DTMF telephone. (Dial-pulse signaling is not recognized by the Voice Processor. Callers using dial-pulse phones will be routed to the voice mail application's Dial-0 Destination for assistance.)

VOICE MAIL AND MESSAGE NOTIFICATION/RETRIEVAL APPLICATIONS

Two types of applications are combined to provide the voice mail feature: Voice Mail and Message Notification/Retrieval.

- **Voice Mail:** This application handles all calls that are directed to voice mail (other than the Message Notification/Retrieval application) placed by subscribers and non-subscribers. Callers will hear the main company greeting, followed by a menu of available options. Stations can forward or transfer calls directly to their mailbox using this application's extension number. This application can also be the message center for the subscribers' stations.

CALL TO VOICE MAIL

Voice mail answers and plays a greeting followed by a menu of options.

Caller selects option

Caller does not select an option

Call is sent to mailbox. Or a subscriber enters his own mailbox.

Caller uses the directory and can select the name of desired party.

Call is sent to the voice mail designated dial-0 operator.

Call is sent to selected mailbox.
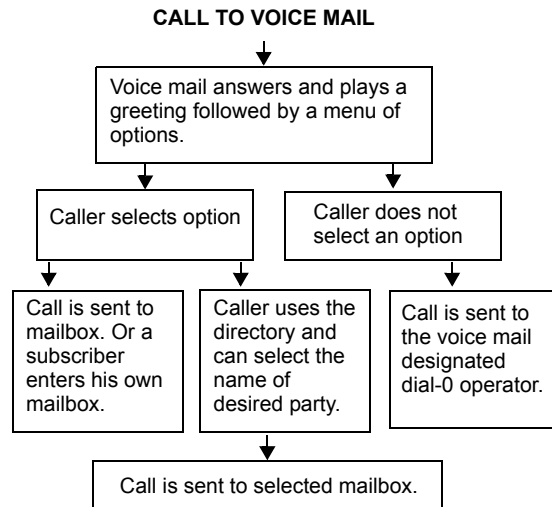
- **Message Notification/Retrieval:** Only one Message Notification/Retrieval application may be created for the system. When station users respond to message indications left by voice mail, they reach the Message notification/Retrieval application and are prompted only for their password.

MESSAGE IS LEFT IN A MAILBOX

Voice mail leaves a message waiting indication at the station designated as the message notification station for the mailbox.

Station user responds to message indication (presses MSG button or enters feature code).

INTERCOM CALL IS PLACED TO MESSAGE NOTIFICATION/RETRIEVAL APPLICATION (Alternate Message Source)

Station user is prompted for the password to his mailbox.

Station users and outside callers gain access to the voice mail application in the following ways:

- By dialing the telephone number or extension number assigned to the voice mail application

- By being transferred to the voice mail by the automated attendant

- By being forwarded to the voice mail when a called station is unavailable (via the Call Forwarding or System Forwarding features)

- By responding to message waiting indications

Callers will hear the voice mail company greeting and recorded instructions that tell them what to do next. Users simply listen to the prompts and press the dialpad button that corresponds to the desired choice. If the user does not respond immediately, a second set of prompts is played.

Most prompts are interruptible, and users can press the desired button at any time during the prompt. The prompt will then stop and the system will act on the requested choice.

MAILBOXES

A mailbox is a storage location on the Voice Processor PC hard disk that stores all messages that have been directed to it. (The hard disk also stores prompts, greetings, and special programming.) Each "Subscriber" (member of the voice message system) is assigned a unique mailbox number. At system default, the passwords are the same as the mailbox numbers. (For example, the default password for mailbox 1001 is "1001.")

There are three types of mailboxes on the voice mail system: Standard, Receive-Only and System Administrator. There can also be Extension IDs which are stations that do not have mailboxes, but that are included in the recorded directory.

- The Standard mailbox owner receives all of the available subscriber options as authorized through database programming. Standard mailbox features include:

  — Listening to new messages

  — Recording and sending messages

  — Deleting and restoring messages

  — Saving messages

  — Personal options (greeting, password, etc.)

  — Remote messaging (if authorized through database programming)

- A Receive-Only mailbox type may only listen to new messages, save, delete, or recover them and access personal options. This type of mailbox is restricted from recording and sending messages and has no access to remote messaging.

- There can be only one voice mail administrator. The voice mail administrator has all of the options a Standard mailbox subscriber has, plus these features:

  — Record and send broadcast messages to all subscribers of the voice mail system

  — Provide mailbox and group list maintenance

  — Record and select Custom Audiotex Recordings

- Extension IDs are used in conjunction with transferring calls through the Automated Attendant or using the Extension Directory. The extension ID allows callers to be transferred to station extensions which do not have mailboxes and allows the station user to record a directory name and set up a password.

Calls transferred from the Automated Attendant or a Call Routing Announcement application to a station with a mailbox can be screened, announced, or unannounced. Separate programming flags determine the methods used for transferring calls to stations with mailboxes.

During database programming, each mailbox is assigned a dial-0 operator destination. When a caller presses **0** while listening to the mailbox's personal greeting or recording instructions, or while recording a non-subscriber message, the operator destination is called. The operator can be one of the following types:

- **Mailbox:** If the operator is a mailbox, the caller will hear the operator destination's personal greeting after pressing **0**.

- **Station extension number:** If the operator destination is an extension number, the caller will hear the Automated Attendant transfer prompt while the call is placed to the extension number ("*Please hold while I transfer your call to...*"), unless it has been disabled at the mailbox. If the station user does not answer, the caller will be asked if he wants to leave a message, if the operator's extension has an associated mailbox. If the caller chooses not to leave a message, the call returns to the main menu of the application being used (Call Routing Announcement, voice mail, or Auto Attendant).

- **Application extension number:** If the operator destination is an application's extension number, the call is transferred to that application's main menu.

- **Operator:** If the operator destination is set to "Operator," the caller will be transferred to the operator destination programmed in the Voice Processor database.

- **None:** If the operator destination is set to "None," the **0** will be ignored.

GROUP LISTS

Group lists are programmed in the database. They are lists of mailboxes that can be used by any Subscriber for sending messages to several mailboxes simultaneously. The information that is programmed for group lists include the following:

- Group list description
- Group list number
- Mailboxes included in the list

There can be up to 1000 group lists in the system and up to 1500 entries per group list.

Group Lists are not included in the Automated Attendant or voice mail directories.

MESSAGE NOTIFICATION TO STATIONS

Each mailbox has a programmed Message Notification Station. This is usually the extension number that matches the mailbox number (associated mailbox). However, a different number can be used for the mailbox's message notification station (non-associated mailbox).

- **Associated:** When the extension number, message notification number, and mailbox number for a station all match, that station user can forward calls to voice mail and have the call go directly to the associated mailbox's personal greeting. (Even if other mailboxes use that extension number as their message notification extension.)

- **Non-Associated:** The extension number assigned as the Message Notification Station for a non-associated station is an extension number that does not match the mailbox number. (For example, a hunt group pilot number can have a mailbox, but the message notification must be sent to a specific station so that a message lamp can be lit or message notification signal can be sent.) If a station user's extension number does not match a mailbox number, and the station user forwards calls to voice mail, the caller will hear the main voice mail greeting and must enter a mailbox number.

When a mailbox receives a message, the message notification station is signaled. If it is an Inter-Tel phone, the **MSG** button is lit and the display shows that a message has been received. A single-line set will receive message waiting signals, if enabled system-wide.

CASCADING REMOTE MESSAGE NOTIFICATION

Remote Messaging is a subscriber feature that is enabled through database programming. Subscribers may program a series of specific telephone numbers (a "cascade") for the voice mail system to call when new messages are received by their mailboxes. Refer to for subscriber instructions on using Personal Options to set up remote messaging.

Primary and Alternate Notification

Each mailbox can have a Primary and/or an Alternate notification cascade of numbers. The notification numbers are programmed to be accessed during specific days and times.

The voice mail system monitors subscriber mailboxes continuously. During monitoring, if new messages have been received, the system will check to see if Primary notification is turned on. If it is, the system will check the day and time programming. If the current time is within the programmed notification day and time, the voice mail system will make the notification call(s) to the numbers in the Primary Notification cascade. If Primary Notification is turned off or if the day or time does not match, the voice mail system will immediately make the same check for Alternate Notification and possibly place calls to the numbers in the Alternate Notification cascade.

When the Voice Processor makes a notification call, it moves through the appropriate notification cascade level by level as determined by the notification and retry programming described below. When the system reaches the last level in the cascade, it will return to level 1 and begin again, if necessary.

If the system is not able to place the call within the parameters of the programmed notification day and time (due to busy facilities or invalid programming), the mailbox will receive a message stating that notification could not be completed (the mailbox owner will hear the message next time he or she accesses the mailbox.)

The number of calls that the Voice Processor can process simultaneously is determined by the Maximum Number of Outgoing Calls flag. It defaults to 2, but can be programmed to use all of the enabled Voice Processor voice channels.

All Messages, Priority Only, and Each New Message Flags

When the mailbox is being programmed for remote notification, message notification can be set to place the notification call when any message is received or only when priority messages are received. (This defaults to "All Messages.") Another mailbox flag, called "Call For Each New Message," determines when the Voice Processor will attempt to make the notification call when more than one message is waiting to be heard:

- If the Call For Each New Message flag is *enabled,* the Voice Processor will attempt *immediate* notification each time a new message (or priority message, depending on the option selected) is received, regardless of the status of the applicable retry timer. If a retry is in progress, it will place the call to the number on the cascade table that would have received the retry call, as described below. (For example, if the Voice Processor was on level 3 of a cascade, attempting retries, it will not start over again at level 1. It will place the call to level 3.)

- If the Call For Each New Message flag is *disabled,* new messages will not generate a remote notification attempt until the Subscriber has logged on and listened to the waiting message(s). (However, retry calls will be attempted if the applicable retry timer expires, as described below.)

Retry Call Attempts

The mailbox can be programmed to retry notification calls when it encounters a busy trunk or trunk group. Each cascade level can be programmed with a Number of Call Attempts value of 1-1000 calls.

If the mailbox user accesses the mailbox between the time the message is received and when remote notification is successful, the system will stop attempting remote notification. It is assumed that the mailbox user listened to the message when the mailbox was accessed. However, the **MSG** button at the station will remain lit if there are any messages that have not been heard.

Each level also has a Number Called Busy timer and a Pager Notification Retry timer or Personal Number No Answer timer. These timers determine how long the Voice Processor will wait before making the next notification attempt when messages are waiting to be heard (unless it is overridden by the Each New Message flag). These timers can be set to a value of 0-255 minutes. If set to 0, it retries the cascade level immediately, for as many attempts as allowed by the Number of Call Attempts field. If the message(s) has not been picked up by then, the system moves to the next cascade level. The default setting for the Pager Notification Retry timer is 20 minutes. The Number Called Busy and Personal Number No Answer timers default to 5 minutes.

NOTE: The 0-minute timer value should be used cautiously. If the system is forced to make several calls in quick succession, it will impair the Voice Processor's ability to place other outgoing calls. It should be used primarily with cascades in which all of the members wish to receive notification at approximately the same time. In this case, all levels except the last could be set to 0-minute retries with 1 allowed call attempt. However, the last level in the cascade should be programmed with a longer Pager Notification Retry timer so that the system does not continuously cycle through the cascade levels. (Continuous cycling is also prevented somewhat by a per-mailbox 15-call limit. Due to FCC regulations, the Voice Processor can allow a mailbox to make only 15 calls in rapid succession without a 10 minute pause.)

Notification Numbers

Each cascade level has a programmed notification number that can be an extension number or an outside telephone number.

When an outside telephone number is used, the system will access an outgoing trunk using the code programmed for that level that contains a pre-programmed trunk access code and followed by an outgoing access termination feature code, if needed.

Notification calls to outside telephone numbers can be sent to a pager or to a number where a person will answer (personal number).

- If the call goes to a pager, the system will dial the programmed Pager Dial String, then disconnect the call. The dial string should include any digits that the paging company requires when the call is answered, the pager LCD number, and the pager termination code, if needed. Also, if desired, the pager string can be programmed to show the number of the mailbox that placed the call and/or the number of waiting messages in the mailbox.

- If the call goes to a personal number, the system will play a prompt announcing that the call is from voice mail, play the directory name or mailbox number that originated the call, and play user instructions. The listener can then enter the mailbox number's password to gain access to the mailbox and hear the message. The listener has three chances to enter a correct password. If the system receives an incorrect password three times, the voice mail system will disconnect the call immediately, and the attempt is considered unsuccessful.

USING VOICE MAIL

Voice mail subscriber features include the following:

- Listen to new messages, if any

- Send a message

- Listen to saved messages, if any

- Set personal options

- Set up remote messaging, if enabled

When a subscriber enters the mailbox, the voice mail application may play one of the following messages:

- **Mailbox almost full or full:** If a mailbox is full, no new messages can be received at that mailbox until the subscriber deletes waiting or saved messages.

- **Message count:** A prompt tells the subscriber how many messages are waiting to be heard, if any, and how many are priority messages.

- **Remote messaging:** A prompt will indicate whether primary or alternate remote messaging is selected when remote messaging is enabled. It will also alert the subscriber if a programming error has been detected and/or whether the system encountered busy resources when attempting to place a remote messaging call.

ACCESS TO A MAILBOX

A SUBSCRIBER CAN ACCESS HIS OR HER MAILBOX BY FOLLOWING THESE STEPS:

1. Dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press ✱ to identify yourself as a subscriber.

3. Enter your mailbox number and personal password.

INITIALIZING A SUBSCRIBER MAILBOX OR EXTENSION ID

The first time a subscriber uses voice mail, he or she must customize the mailbox. System prompts will instruct the subscriber to:

- Change the default password number (same as the mailbox number) to a personal password.

> **NOTE:** To provide system security, *all* mailboxes should have a password. To make the passwords difficult to guess, they should not match the mailbox number or consist of one digit repeated several times. The default password should be changed the first time the user logs in. This is especially important in the system administrator's mailbox which, allows programming access to the Voice Processor.

- Record a name to identify the mailbox owner in the company directory. (Directory names can be up to 1 minute in length.)
- Listen to the voice mail application introduction. (You can skip this introduction by pressing **#**, if desired.)

TO INITIALIZE A MAILBOX OR EXTENSION ID:

1. Dial the voice mail extension number. (You hear the main menu.)
2. Press **✳** to identify yourself as a subscriber.
3. Enter your mailbox number and default password. (Your default password is your mailbox number.)
4. *If you want a password,* enter a new password using digits 0-9 (up to 12 digits). Then press **#**. Voice mail plays back your password.
5. *If you do not want to use a password,* just press **#**.
6. Press **#** to accept the entry. (Or, press **3** if you wish to re-enter your password.) The system prompts you to record your directory name.
7. After the tone, record your first and last name. When finished, press **#**.
8. Press **#** again to accept the name. (Or, press **1** to replay the name you just recorded, press **2** to add to your name, or press **3** to erase and re-record it.)
9. The system then plays a prompt that introduces you to the basic voice mail features. (You can skip this introduction by pressing **#**, if desired.)

Once your mailbox is initialized, you may use any of the mailbox features provided. To record a personal greeting, or to change your password or directory name, refer to page 301.

LISTENING TO MESSAGES

There are three types of voice mail messages:

- **New Messages** are messages that you have not yet heard, including Broadcast Messages from the voice mail administrator and system-sent messages. The order in which the messages are played depends on your message retrieval setting (see page 301), except that messages marked "priority" are played first. Some special messages that may be played include the following:

  — *Message receipt:* If you send a certified message, a system message will be played when the recipient has listened to the message.

  — *Caller Information:* If a call was placed to your mailbox on a trunk that supports the Caller ID feature, and the caller hung up without leaving a message, a system message will be played informing you that the calling party did not leave a message. It will also include, within the corresponding message envelope, the number of the calling party as the message source.

  — *Security violation:* The voice mail system has an extra security measure built in which plays a message, when you log into your mailbox, that tells you if three invalid attempts have been made to access your mailbox within a single call. This announcement message will be sent to your mailbox each time this situation occurs. It is received as a new message and is accompanied by a message envelope.

- **Saved Messages** are messages that you previously listened to and saved (or deleted and restored). You can play them back, as necessary, based on your message retrieval setting.

- **Undeliverable Messages** are messages you have left for a mailbox on another node, that cannot be delivered. They are returned to you as "undeliverable."

The Return Call feature allows voice mail users to return a call to the person who left a message, as long as the call was received from an extension number or an outside number with Caller ID. It is part of the "Reply" option described in the following procedure.

Whenever you access voice mail as a subscriber, you are told how many new and saved messages you have.

FROM THE MAIN MENU:

1. *EITHER,* Press **1** to listen to your new messages.

    OR, Press **3** to listen to your saved messages.

2. The system plays each message in the queue selected. While you are listening to a message, you can use the following options:

    - Press **#** to skip to the end of the envelope or recording.

    - Press **1** to back up.

    - Press **2** to pause. (Then press any button to continue.)

    - Press **3** to skip ahead.

    - Press **4** to lower the volume.

    - Press **5** to play the message envelope again.

    - Press **6** to raise the volume.

    - Press **7** to save the new message in your mailbox.

    - Press **9** to delete the message from your mailbox.

3. When the message has finished playing, you have the following options:

    - Press **1** to replay the message from the beginning.

    - Press **2** to reply to the message. You can then do one of the following:

        — Press **1** to leave a voice mail message for the caller. *If the caller had a mailbox number,* it will ask you to verify the destination by pressing **#**. *If the number was not associated with a mailbox,* it will ask you to enter a mailbox number. *If the message was from an outside caller,* you cannot leave a voice mail message.

        — Press **2** to make a return call. Your call will be transferred automatically to the caller's extension or telephone number, if available. *If the extension number is not available,* you will have the option of leaving voice mail. *If the telephone number is not available,* you cannot reply to the message.

    - Press **3** to forward a copy of the message to another subscriber. If you want to include introductory comments, press **1** and record an introduction. If not, press **#** to forward the message without an introduction.

    - Press **4** to listen to the previous message.

    - Press **5** to play the introductory message "envelope" again.

    - Press **6** to listen to the next message.

    - Press **7** to save the new message in your mailbox.

    - Press **9** to delete the message from your mailbox.

RECOVERING DELETED MESSAGES

This feature allows you to "undo" the Delete Message operation and restore previously deleted messages. The messages will be restored to your saved-message queue. You have a set amount of time to recover messages, depending on database programming (up to 24 hours). After that, voice mail will erase them.

TO RECOVER DELETED MESSAGES:

1. Dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press ✱ to identify yourself as a subscriber.

3. Enter your mailbox number and password.

4. When you hear the Main Menu list of options, press **5** to select Message Options. Some Inter-Tel phone users will also see Message Options on their display menu.

5. The next prompt gives you the option of recovering deleted messages. Press **2** to continue.

6. Your options are:

   - Press **1** to listen to your deleted messages and choose which ones to delete or recover. After each message you can:

     — Press **1** to replay the message.

     — Press **2** to reply to the message.

     — Press **3** to forward the message to another mailbox.

     — Press **4** to listen to the previous message.

     — Press **5** to replay the message envelope.

     — Press **6** to listen to the next message.

     — Press **7** to recover the message.

     — Press **9** to purge the message from your mailbox.

   - Press **2** to recover all of your deleted messages and store them as saved messages.

   - Press **3** to purge all of your deleted messages so that they are erased from voice mail.

SENDING A MESSAGE

As a subscriber, you can record and send voice messages to other users from the subscriber Main Menu.

FOLLOW THESE STEPS:

1. Dial the voice mail application access number. (You hear the main menu.)

2. During or after the greeting, press **✳** to identify yourself as a subscriber.

3. Enter your mailbox number and personal password.

4. When you hear the Subscriber Menu, press **2** to send a message.

5. Dial the desired mailbox number or group list number. *If you do not know the mailbox number,* you can press **#** to access the company directory to locate and select the mailbox. See page 286 for directory instructions. Group lists are not included in the directory.

   If the mailbox is full, a prompt will notify you that the mailbox cannot receive messages. However, it will allow you to leave a message at another mailbox. Leave your message with another subscriber or try again later.

6. After hearing the subscriber's name, press **#** to accept it.

7. The subscriber's mailbox message is played (To skip this message, press **#** .) When you hear the tone, record your message. When finished, hang up or press **#** and go to the next step.

   NOTE: If the system detects silence for longer than 5 seconds, it will prompt you to speak up. The recording, if any, will remain unchanged.

   - **To pause while recording:** Press **2** . To continue, press any button. (The pause length is determined by the Pause Voice Mail timer.)

   - **To erase your message:** Press **3** .

   If you exceed the maximum allotted time for message length, a prompt will notify you and allow you to re-record the message or send the message as it is.

   If voice mail is full, a message will notify you that it cannot accept your message. Hang up and try again later.

8. When you have completed your message, you have the following options:

   - **To hear your message:** *P*ress **1** .

   - **To add to your message:** Press **2** and continue your message.

   - **To erase and re-record your message:** Press **3** .

   - **To use the special delivery option:** Press **9** . Go to the next step.

   - **To send your message:** Press **#** . (If you wish to mark the message certified, private, and/or priority, do so before completing this step.) If you wish to send another message, return to step 5.

9. You can do one or more of the following if you selected "special delivery options" above:

    *   Press **1** to mark the message "private." (This prevents the recipient from forwarding it to other subscribers.)

    *   Press **2** to mark the message "certified." (When a certified message is heard by the recipient, you will receive a receipt notice.)

    *   Press **3** to mark the message "priority." (This will place your message ahead of all other waiting messages in the receiving mailbox.)

    *   Press **✳** to cancel delivery options.

10. After the message has been sent with special delivery options, you may choose to do either of the following:

    *   Press **#** and enter another mailbox number to send the message to another destination.

    *   Press **✳** to exit.

CANCELING UNHEARD MESSAGES

The Cancel Unheard Messages feature allows you to cancel voice messages you have sent to other subscribers, provided the messages have not yet been heard by their recipients and they were not sent to a group list.

TO CANCEL UNHEARD MESSAGES:

1. Dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press **✳** to identify yourself as a subscriber.

3. Enter your mailbox number and password.

4. When you hear the Main Menu list of options, press **5** to select Message Options. Executive Display, Professional Display, and Model 8560 phone users will also see Message Options on their display menu.

5. The next prompt gives you the option of canceling unheard messages. Press **1** to continue.

6. When prompted, enter the number of the mailbox that has the unheard message. Then you will be asked to confirm the mailbox you selected by pressing **#**.

7. It will tell you how many messages you have waiting at the mailbox and play them for you. After each message, you can:

    *   Press **1** to replay the message.

    *   Press **2** to add to the message.

    *   Press **3** to forward the message to another mailbox

    *   Press **4** to listen to the previous message.

    *   Press **5** to replay the message envelope.

    *   Press **6** to listen to the next message.

    *   Press **7** to save the message in your mailbox and remove it from theirs.

    *   Press **9** to delete the message.

PERSONAL OPTIONS

Personal Options allow you to customize your mailbox. Each subscriber's mailbox has the following personal options:

- **Greetings:** Your primary or alternate greeting is played to callers when they reach your mailbox. You can change your primary greeting at any time to reflect a change in status and/or record and enable an alternate greeting. If you elect not to record a personal greeting, the default system greeting will be used.

  > **NOTE:** There is a database option called "Play Recording Instructions" that affects mailbox greetings. If this option is enabled, the system prompt that tells the caller to "leave a message after the beep" will play after the primary or alternate greeting. If disabled, the beep will occur as soon as the primary or alternate greeting ends. In the default state, this option is enabled.

- **Directory Name:** Your recorded name is used to identify you in the directory and to verify your mailbox number when messages are addressed to you by non-subscribers and other subscribers. Although your name is recorded when you first set up your mailbox, you can change it at any time.

- **Password:** Your password is used to prevent unauthorized access to your mailbox. Although you create a personal password when you first set up your mailbox, you can change it at any time.

  > **NOTE:** To provide system security, *all* mailboxes should have a password. To make the passwords difficult to guess, they should not match the mailbox number or consist of one digit repeated several times. The default password should be changed the first time the user logs in. This is especially important in the system administrator's mailbox, which allows programming access to the Voice Processor.

- **Message Envelope Contents:** Each message is preceded by an "envelope" message that can include the time and date the message was left, the source of the message, and the length of the message. You can choose the contents of the envelope or disable the envelope completely. (Even if the envelope is disabled, the subscriber can still enter the code to play the envelope when listening to the message.)

- **Remote Messaging:** Remote messaging is described in detail on page 291.

- **Fax Destination Number:** If your station is programmed to receive incoming faxes, you can program the extension number of the fax machine receive the faxes that are sent to your mailbox.

- **Message Retrieval Order:** This option allows you to determine how to retrieve your saved or new messages based on the date and time they were received. You can listen to the earliest-received messages first (First In/First Out) or the latest-received messages first (Last In/First Out).

- **Transfer Method:** When a call is received by an Automated Attendant or Call Routing Announcement application and the caller enters an extension number, the programmed Transfer Method determines how the call will be transferred. See page 206 for a list of Transfer Methods and information about receiving screened and announced calls.

TO PROGRAM PERSONAL OPTIONS:

1. Dial the voice mail application access number. You hear the main menu.

2. During or after the greeting, press ✱ to identify yourself as a subscriber.

3. Enter your mailbox number and password.

4. When you hear the Main Menu list of options, press 4 to select the Personal Options Menu. You may then do any or all of the following steps.

5. **To change your personal greeting,** press 1 . You have the following options:

   a. Press 1 to record and/or enable your primary personal greeting or 2 to record and/or enable your alternate greeting. The system plays your current greeting, if one exists. To replay the greeting, you can press 1 . Press 3 to erase and re-record your greeting as follows:

      1. Record your greeting after the tone, then press # .

      2. Press # again to accept your greeting. (Or, you can press 1 to replay your greeting, 2 to add to your greeting, or 3 to erase and re-record your greeting.)

   b. Press 3 to enable the system default mailbox greeting. The system greeting is automatically enabled.

   c. Press ✱ to exit without changing your greeting.

6. **To change your recorded directory name,** press 2 .

   a. After the tone, record your first and last name, then press # .

   b. Press # again to accept your recorded name. (Or, press 1 to replay your recorded name, 2 to add to your name, or press 3 to erase and re-record your name.)

7. **To change your password,** press 3 .

   a. Choose and enter a new password using digits 0-9 (up to 12 digits). *If you do not want to use a password,* skip this step.

   b. Press # . Your password is played back.

   c. Press # to accept the password as entered. (Or, press 3 if you wish to re-enter your password.)

8. **To change your envelope contents,** press 4 . A prompt plays to tell you the current status of your envelope contents.

   a. To enable or disable the time/date option, press 1 . A prompt plays to tell you the current status of the time/date option.

   b. To enable or disable the message source option, press 2 . A prompt plays to tell you the current status of the message source option.

   c. To enable or disable the message length option, press 3 . A prompt plays to tell you the current status of the message length option.

   d. To enable all options, press 4 . A prompt tells you that all options are enabled.

   e. To disable all options, press 5 . A prompt tells you that all options are disabled.

   f. To return to the Personal Options menu, press ✱ or # .

9. **To set up Remote Messaging,** press `5`.

NOTE: In the following procedure, some Inter-Tel phones have menu buttons next to their displays which you can use instead of pressing the digits on the dialpad.

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a. Press `1` to set up a Primary cascade, or press `2` to set up an Alternate cascade. A prompt tells you what the cascade's current status is. (If desired, press `*` to return to the Personal Options Menu.) Then perform one of the following steps.

b. **To program a cascade level:** Press `1` then program the following:

   1. Enter the number of the level you wish to program (1-9). A prompt tells you the current status of the level.

   2. You have the following options:

      — Press `1` to enable or disable this level. (You cannot enable the level until a notification number is programmed.)

      — Press `2` to set up or change the personal telephone number. If it is an extension number, press `1`. Or, if it is an outside number, press `2`. Then enter the number. (If your Inter-Tel phone has menu buttons, you can enter the special characters for pause, mailbox, and new message count by pressing the corresponding menu buttons.) A prompt will play back the number for your verification. If you entered an invalid or toll-restricted number, you will hear a warning and must enter the number again.

      — Press `3` to set up or change the pager telephone number. Then enter the number. (If your Inter-Tel phone has menu buttons, you can enter the special characters for pause, mailbox, and new message count by pressing the corresponding menu buttons.) a prompt will play back the number for your verification. If you entered an invalid or toll-restricted number, you will hear a warning and must enter the number again.

c. **To set up time of day for notification:** Press `2`. Then, when prompted, enter the time at which you wish to have the message notification start and stop. Enter the times with two digits for the hour and two digits for the minutes. If entering the time in 12-hour format, you will be prompted to press `1` for AM or press `2` for PM.

NOTE: If you wish to have 24-hour notification, program the starting and ending times to be the same.

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d. **To set up the days of the week for notification:** Press `3`. Then press `1` for messaging Monday-Friday, `2` for all days, or `3` to select individual days. If you selected individual days, you will be prompted to press digits 1-7 which correspond to the days Sunday through Saturday. Your selection will be played back.

e. **To select all or priority-only message notification:** Press `4`. Then press `1` for all messages or `2` for priority messages only.

f. The options prompt returns. Either select another option, as described above, or press `#` to save the settings and exit.

10. **To change your Fax Destination Number,** press **9** for More Options and then press **1**.

 a. Enter the number of your fax destination, followed by **#**.

 b. To accept press **#**. Or, to erase the number and re-enter it press **3**.

11. **To change your Message Retrieval method,** press **9** for More Options and then press **2** or press the **MSG SEARCH ORDER** menu button. This allows you to determine how to retrieve your new or saved messages based on the date and time they were received. Press **1** to change the search order for new messages, or press **2** to change the search order for saved messages. Your options are:

 • Press **1** or the **1ST IN/1ST OUT** menu button to retrieve the earliest-received messages first.

 • Press **2** or the **LAST IN/1ST OUT** menu button to retrieve the latest-received messages first.

12. **To change your Transfer Method,** press **9** for More Options and then press **5**. The system tells you what your current Transfer Method is. You can then select the desired Transfer Method, as follows:

 a. To select unannounced transfers, press **1** or the **UNANNOUNCED** menu button.

 b. To select screened transfers, press **2** or the **SCREENED** menu button.

 c. To select announce only transfer, press **3** or the **ANNOUNCE ONLY** menu button.

OUTSIDE CALLER USE OF VOICE MAIL

Callers who do not have a subscriber mailbox can leave messages for subscribers. Also, Subscribers can use this method for leaving messages without accessing their mailboxes. If a non-subscriber message is left using a station with an associated mailbox, the receiving mailbox Subscriber can reply to the message, if desired, and the reply will be sent to the caller's associated mailbox.

TO LEAVE A MESSAGE AS A NON-SUBSCRIBER:

1. *If you hear the voice mail greeting or menu,* dial the desired mailbox number. (If you do not know the number, you can press **#** to access the mailbox directory to locate and select the mailbox. See for directory instructions.)

   If you hear a subscriber's personal mailbox greeting, skip this step.

2. *If the mailbox is full,* a prompt will notify you that it cannot receive messages. However, it will allow you to leave a message at another mailbox. Leave your message with another subscriber or try again later.

3. After hearing the subscriber's greeting and a tone, record your message. You have the following options while recording your message:

   - **To pause while recording:** Press **2**. To continue, press any button except **0**.

   - **To erase and re-record your message:** Press **3**.

   - **To call the mailbox user's attendant:** Press **0**.

   - **To cancel the recording and return to the main menu:** Press **✱**.

   If you exceed the maximum allotted time for message length, a prompt will notify you and allow you to re-record the message or send the message as it is.

   If voice mail is full, a message will notify you that it cannot accept your message. Hang up and try again later.

   NOTE: If the system detects silence for longer than 5 seconds, it will prompt you to speak up. The recording, if any, will remain unchanged.

4. When you have completed your message, you have the following options:

   - **To hear your message:** Press **1**.

   - **To add to your message:** Press **2** and continue your message as described in step 3.

   - **To erase and re-record your message:** Press **3**.

   - **To use the special delivery options:** Press **9**. Go to the next step.

   - **To send your message:** Press **#**. (If you wish to mark the message certified, private, and/or priority, do so before completing this step.) If you wish to send another message, return to step 1.

5.   You can do one or more of the following if you selected "special delivery options" above:

- Press **1** to mark the message "private." (This prevents the recipient from forwarding it to other subscribers.)

- Press **3** to mark the message "priority." (This will place your message ahead of all other waiting messages in the receiving mailbox.)

- Press **✳** to cancel delivery options.

6.   After the message has been sent with special delivery options, you may choose to do either of the following:

- Press **#** and enter another mailbox number to send the message to another destination.

- Press **✳** to exit.

UNIFIED MESSAGING

> **NOTE:** This feature is available in the NT Voice Processor only.

The Unified Messaging feature links Inter-Tel's NT version of the Voice Processor with e-mail and/or provides outgoing fax capabilities. There are three levels of Unified Messaging features. They are:

- **Level 1 Voice Mail As E-Mail Attachments:** This provides users the ability to receive a voice mail message as an e-mail message with a voice attachment. The voice attachment will be in the form of a "wave" (.wav) file that can be played on any computer equipped with a sound card, speakers, and multimedia software (such as Sound Recorder). Users can choose to receive the messages as voice mail and e-mail (Copy & Forward) or as e-mail only (Forward Only). The e-mail server can use SMTP\POP3, VIM, MAPI protocol. The number of users with Level 1 is limited by a security button attached to the Voice Processor PC.

- **Level 2 with Microsoft Outlook/Exchange:** To use this Voice Processor level, the mailbox E-mail Gateway field must be programmed for Unified Messaging, and the user's PC must have Microsoft Outlook/Exchange and the Unified Messaging Client software installed. Voice mail messages are sent to the voice mail server and are stored on the Voice Processor. This allows the user to play the messages using the Inter-Tel phone speakerphone or the PC's speakers. The number of users with Unified Messaging is limited by a security button attached to the Voice Processor PC.

- **Level 3 with Microsoft Outlook/Exchange and Outbound Fax:** This level is the same as Level 2, with outbound fax server features added. Use of the outbound fax server functionality does not require a mailbox, only the Microsoft Outlook/Exchange and Unified Messaging Client software. Therefore, the number of outbound fax users is not limited by the security button; only the number of mailboxes with Unified Messaging enabled are limited.

LEVEL 1

When a mailbox receives a voice mail message or uses the voice mail Record-A-Call feature, one of four things can occur, depending on how the mailbox's E-Mail Gateway field is programmed.

- If the field is programmed to DISABLED, the voice mail or Record-A-Call message is delivered to the mailbox just as normal and no e-mail is sent.

- If the field is programmed to FORWARD ONLY, the Voice Processor will convert the voice mail or Record-A-Call message to an 8-bit WAV file, build an e-mail message, attach the WAV file, and send the e-mail message to the address specified in the mailbox's E-mail Address field. Once the e-mail message is sent, the original message will be deleted from the mailbox. (If the e-mail message cannot be delivered to the specified address, it will be stored as a voice mail message in the mailbox and will not be deleted.)

  NOTE: Mailboxes programmed for FORWARD ONLY cannot use the Remote Notification feature. Because all messages are automatically sent to the E-mail Address, there is no voice mail message to trigger the Remote notification.

- If the mailbox's E-mail field is programmed to COPY & FORWARD, the voice mail or Record-A-Call message will be stored in the mailbox, *and* the Voice Processor will convert the file to WAV, attach it to an e-mail message, and deliver the e-mail message to the address specified in the mailbox's E-Mail Address field.

  NOTE: Due to the nature of network connections, Voice Processor software is designed to handle a network failure gracefully. If the network link from the Voice Processor to the e-mail server is down, the Voice Processor will store the messages in a queue. If the network does not come back up in 15 minutes, the Voice Processor will deliver all pending messages in the queue back to the voice mailboxes and temporarily disable the e-mail queue until the network is available. This means that new messages will remain in the mailboxes and will not be converted to e-mail messages until the network link is restored.

Level 1 Unified Messaging is a "one-way" feature. That is, the user cannot reply to the sender of a voice mail message using e-mail. If a user attempts to reply, the message will be sent to the administrator's E-mail Address instead of to the sender of the voice mail message. The user should forward the message or send a new message instead of replying. In Levels 2 and 3, the user can reply to any message from another mailbox, using the Outlook/Exchange "Reply" or "Reply to All" options.

E-mail messages containing WAV files can be forwarded to other e-mail addresses or stored on the computer's local drive, just like any other e-mail message. Or, the WAV file can be detached from the message and stored on the computer.

To use Level 1 Unified Messaging, the customer must have an existing e-mail system based on Message Application Programming Interface (MAPI), Vendor Independent Messaging (VIM), or Simple Mail Transport Protocol/Post Office Protocol (SMTP/POP3). The following list shows the e-mail systems that are supported, and the protocols on which they are based.

- Microsoft Mail or Microsoft Outlook/Exchange (MAPI)
- cc:Mail or Lotus Notes (VIM)
- Internet mail (SMTP/POP3)

For complete instructions on using Unified Messaging, refer to the *Unified Messaging User Guide* (part number 550.8111).

The e-mail message sent by the voice mail will have the following components:

- **To:** The TO line will contain the recipient's e-mail address.

- **From:** The FROM line will contain the e-mail address of the Voice Processor. If an E-Mail Real Name has been programmed for the Voice Processor, it will also be shown on this line.

- **Subject:** The SUBJECT line will contain the line "*<length of message>* Message for MB *<number>* from *<source>*." If the message is marked priority, the subject line will be preceded by the word "PRIORITY." The source of the voice mail message will appear as one of the following:
  - MB *<number>*
  - x *<extension number>*
  - the voice mail system
  - an unknown caller
  - an outside caller at *<phone number>*

  If the message is from an extension ID or a mailbox, the programmed username will be shown inside parentheses after the number. For example: mailbox 1000 (ADMIN).

- **Received on:** The RECEIVED ON line contains the date and time that the voice mail was received by the mailbox.

- **Priority, Private, or Certified:** If the voice mail message was sent with a delivery option, the body will contain the line "Message marked *<PRIORITY, PRIVATE or CER-TIFIED>*." Note that this is for informational purposes only and does not affect the e-mail message itself. For example, if a voice mail message is marked for certified delivery, the sender will receive a confirmation when the recipient listens to the voice mail message using the mailbox. However, the sender will not receive confirmation when the recipient reads the e-mail.

- **WAV file attachment:** The WAV file attachment will appear as a file with the name VM.WAV. To listen to the message, the user must play the WAV file using multimedia software (such as Sound Recorder).

LEVELS 2 AND 3

To use Level 2 or 3 Unified Messaging, you must have the following:

- An existing e-mail system based on Microsoft Outlook/Exchange (MAPI).

- The mailboxes' E-mail Gateway fields are programmed for "Unified Messaging."

For complete instructions on using Unified Messaging, refer to the *Unified Messaging User Guide* (part number 560.8006).

The Outlook message that contains the voice mail will have the following components:

- **To:** This line will contain the recipient's name and mailbox number.

- **From:** This line will contain the sender's name and mailbox or Caller ID, if known, or **Unknown**.

- **Subject:** This line will say "Voice Mail Message." If the message has been forwarded, it is preceded by **FW**.

- **Sent:** This line contains the date and time that the voice mail was received by the mailbox.

- **Priority Messages:** If the message is marked "Priority," the subject line will be preceded by an exclamation mark (!) and, in the Options tab, the Importance field is **High**.

- **Private Messages:** If the message is marked "Private," the Sensitivity field in the Options tab will be set to **Private**.

- **Certified Messages:** If the voice mail message is marked for certified delivery, the **Track Option** on the Options tab is checked.

AUTOMATIC FAX DETECTION

NOTE: This feature is available in the NT Voice Processor only.

With Automatic Fax Detection, Call Routing Announcement applications and mailboxes can be programmed to automatically route incoming fax calls to a specified extension or to an e-mail address.

If the feature is enabled, the mailbox or Call Routing Announcement Application will automatically listen for fax tone.

- A mailbox will listen for fax tones during the mailbox greeting and while a message is being recorded. If the mailbox detects fax tones, the call will be transferred to the specified extension or e-mail address. If the tones are detected after a recording has started, the call will be disconnected.

- Call Routing Applications will be able to detect fax tones during the greeting and up to time-out. The fax tone detection will also be disabled if the caller performs an action that removes them from the Call Routing Announcement (transferring to an extension, transferring to a mailbox, etc.).

If the fax card is busy when an incoming fax call is received, the call will be disconnected.

UNIFIED MESSAGING REQUIRED FOR FAX E-MAIL

To send faxes to an e-mail address using the Fax-On-Demand feature, the Unified Messaging feature, described on , must also be enabled. Note that programming a mailbox Fax E-mail Address counts as one user.

FAX CARD REQUIRED

To send and receive faxes, the Voice Processor PC must have a fax card installed. This can be the same fax card that supports the Fax-On-Demand feature. The software will support up to eight fax ports.

FAX E-MAIL MESSAGE FORMAT

The e-mail message sent by the voice mail will have the following components:

- **To:** The TO line will contain the recipient's e-mail address.

- **From:** The FROM line will contain the e-mail address of the Voice Processor. If an E-mail Real Name has been programmed for the Voice Processor, it will also be shown on this line.

- **Subject:** The SUBJECT line will contain the line "Fax received from *<source>*." The source will be the Call Routing Application number or the mailbox number from where the fax is received, for example: CRA 2505 or MB 1000.

- **Received On:** The RECEIVED ON line contains the date and time that fax was received.

- **FAX.TIF file attachment:** The file attachment will appear as a file with the name FAX.TIF. To view the fax, the user must display the TIF file using graphics software.

Index

Symbols

A

Default Feature Codes

Trunk Access Codes

FEATURE NAME	CODE
Automatic Route Selection (ARS)	92000*
Trunk Group Access 1-208	92001-92208*
Emergency Calls	911
Outgoing Call	8

*These feature codes may differ depending on the software version.

Station Feature Codes

FEATURE NAME	CODE
Account Code – All Calls Following	391
Account Code – Optional	390
ACD Agent Login ACD Agent Logout ACD Agent Login/Logout Toggle	326 327 328
ACD Agent Wrap-Up Terminate	329
Agent Help	375
Agent Help Reject	376
Answer (Ringing Call)	351
Automatic CO Access On/Off	360
Automatic IC Access On/Off	361
Automatic Trunk Answer	350
Background Music On/Off	313
Call Forward All Calls	355
Call Forward If Busy	357
Call Forward If No Answer	356
Call Forward If No Answer/Busy	358
Change Language	301
CO Hookflash	330
Conference	5
Data	340
Default Station	394
Directory	307
Display Outside Party Name On/Off	379
Display Time/Date (Axxess IP Mode) Display IP Address (SIP Mode)	300
Do-Not-Disturb Do-Not-Disturb Cancel Do-Not-Disturb On/Off	370 371 372

FEATURE NAME	CODE
Do-Not-Disturb Override	373
Enhanced Speakerphone Enable	310
Feature Key Default	395
Group Listen	312
Handsfree On/Off	319
Headset Enable Headset Disable Headset On/Off	315 316 317
Hold – Individual	336
Hold – System	335
Hunt Group Remove Hunt Group Replace Hunt Group Remove/Replace	322 323 324
LCD Contrast (Model 8000 Phones Only)	303
Message	365
Message – Cancel	366
Message – Cancel Current	368
Message – Silent	367
Mute On/Off	314
Page	7
Page On/Off	325
Program Bit Rate	393
Program Keys	397
Program Station Password	392
Queue Request	6
Record-A-Call	385
Redial	380
Redirect Call	331
Reminder Message Reminder Message Cancel	305 306
Remote Programming	359
Reverse Transfer (Call Pick-Up)	4
Review Keys	396
Ring Intercom Always On/Off	377
Ring Tone Selection	398
Routing Off	304
Station Monitor	321

FEATURE NAME	CODE
Station Speed Dial	382
Station Speed Dial Program	383
Switch Keymap	399
System Forward Enable	352
System Forward Disable	353
System Forward On/Off	354
System Speed Dial	381
Transfer to Hold	346
Transfer to Ring	345

Administrator Feature Codes

FEATURE NAME	CODE
Clear Network Alarm	9851
Clear System Alarm	9850
Diagnostics On/Off	9900
Enable Network Day	9862
Enable Network Night	9861
Modem Enable	9866
Modem Disable	9867
Modem Reset	9869
Night Ring On/Off	9860
Program System Speed Dial	9801
Set Network Date/Time	9810
Set Time/Date	9800
Synchronize Network Time	9811

Diagnostics Feature Codes

The Diagnostics Mode feature code (9900) must be entered before the following feature codes can be used.

FEATURE NAME	CODE
Compress On/Off	9962
Compression Statistics	9961
Diagnostic - ASAI Snoop Off	9926
Diagnostic - ASAI Snoop On	9927
Diagnostic - Heap Dump	9943
Diagnostic - Dump Extension	9933
Diagnostic - Dump Node Information	9936
Diagnostic - Heap Statistics	9947
Diagnostic - ISDN View	9948
Diagnostic - Major Reset	9962
Diagnostic - Mark As Leaks	9945
Diagnostic - Mark As Quiescent	9946
Diagnostic - Minor Reset	9964
Diagnostic - Network Freeze Zone System Histories	9939
Diagnostic - Network Unfreeze Zone System Histories	9989
Diagnostic - Network Group	9963
Diagnostic - Print Auxdata	9972
Diagnostic - Print Message Log	9975
Diagnostic - Print Network Log	9976
Diagnostic - Query Node Traffic	9978
Diagnostic - Show Version	9928
Diagnostic - Spare 1-3	9910-9912
Diagnostic - System History	9974
Diagnostic - View Displays	9983
Program Database	9932
Seize Device	9973
System History — Freeze	9993
System History — Unfreeze	9998

VOICE MAIL FLOWCHART

NOTE: At any menu level, you can press ✳ to cancel or return to the previous menu or press # to accept.

ACCESSING THE SYSTEM ADMINISTRATOR'S MAILBOX

- *EITHER,* Press the MSG button to respond to a message from voice mail.

  OR, Call the voice mail extension number, press ✳, and enter your mailbox number.
- Enter your password and then #.
- Press **9** to access administrator features.

SUBSCRIBER MAILBOX MENU

Send a Broadcast Message	**1**
Mailbox/Group List Maintenance	**2**
Create Custom Recording	**3**
Assign Custom Greeting	**4**

SENDING A MESSAGE

During your message:

Pause	**2**
Erase and Re-Record	**3**

After your message:
EITHER, Hang up

OR, For options	**#**

RECORDING OPTIONS

Replay Your Message	**1**
Add to Your Message	**2**
Erase and Re-Record	**3**
Cancel	**✳**
Accept the Recording	**#**

Enter Mailbox Number   Enter Group List Number

PERSONAL OPTIONS

Record Greeting	**1**
Record Directory Name	**2**
Record Password	**3**
Change Envelope Options	**4**

CREATE CUSTOM RECORDING

If existing recording plays:

Replay	**1**
Accept	**#**
Erase and Re-Record	**3**

If no recording exists
See "Making a Recording"

ASSIGN CUSTOM RECORDINGS

Day Mode	**1**
Night Mode	**2**

ENVELOPE OPTIONS

Time and Date On/Off	**1**
Message Source On/Off	**2**
Message Length On/Off	**3**
All Options Enabled	**4**
No Options Enabled	**5**
Accept Settings	**#**
Cancel/Previous Menu	**✳**

MAKING A RECORDING

During your recording:

Pause	**2**
Erase and Re-Record	**3**

After you finish:
EITHER, Hang up

OR, For options	**#**

CUSTOM RECORDING

If recording plays:

Accept	**#**
Cancel/Previous Menu	**✳**

If no recording exists:
See "Making a Recording"

GREETING OPTIONS

Primary Greeting	**1**
Alternate Greeting	**2**
System Greeting	**3**
Cancel/Previous Menu	**✳**

RECORDING OPTIONS

Replay Your Recording	**1**
Add to Your Recording	**2**
Erase and Re-Record	**3**
Cancel	**✳**
Accept the Recording	**#**

RECORDING OPTIONS

Replay Your Greeting/Name	**1**
Add to Your Greeting/Name	**2**
Erase and Re-Record	**3**
Accept the Greeting/Name	**#**
Cancel/Previous Menu	**✳**

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