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IMX/GMX 256/832

ATTENDANT COMPUTER CONSOLE MANUAL

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IMX/GMX 256/832 ATTENDANT COMPUTER CONSOLE ISSUE 1

— INDEX OF NEW FEATURES

For those individuals who are already familiar with the Issue 1 manuals for the IMX 256/832 and GMX-256/832 Systems, the following new items are documented in this Issue 1 combination manual. For complete information on each item, refer to the page numbers following the brief explanation. Also, throughout the manual, "change bars" like the one at the right have been placed in the margins to indicate any new or revised information since the original manuals.

IMX And GMX Combined Into One Manual

With the new 1995 North American Numbering Plan software releases, the IMX 256/832 and GMX-256/832 products are identical except for the station instruments that can be installed on them. To provide better service, condense reference materials, streamline training, and facilitate technical support, the console manuals for the two systems have been combined into one generic manual. When using this combined manual to help sell, install, or service a particular system, be aware that not all of the station instruments described in this manual are available on both products. Refer to the system installation and maintenance manual for a list of the station instruments that can be installed on each product.

North American Numbering Plan (NANP)

The growth of telecommunications services has created an increasing demand for more telephone numbers. To meet the demand, Bellcore has prepared a long-range North American Numbering Plan (NANP) to provide additional telephone numbers. The plan expands the capacity of the current numbering system by making area and office codes interchangeable. That is, numbering patterns formerly reserved for office codes can be used as new area codes, and office codes within existing area codes can have the same pattern as other area codes. This version of software supports the new numbering plan. Refer to the system installation and maintenance manual for more information.

One Installation Disk

The new console interface software is contained on one 1.2MB floppy disk. See pages 1-2 and 1-5.

Remote Hunt Group Remove/Replace

An attendant can control the hunt group remove/replace feature for any stations that have dial-zero access to that attendant's station. See page 2-46.

"Silent" Ring Tone Selection

When setting the ring tone on a keyset, the keyset user can enter 0 (zero) to disable ring tones. See page 2-62.

Toll Security Weekly Toll Limits

When enabled, the weekly toll limit feature keeps track of the accumulated call cost for specified types of toll calls. The feature can monitor 7- and 10-digit toll calls and/or operator-assisted/international calls. Alarm messages have been added for toll limit management. See pages 2-26 and 2-46.

Expanded DID Names

This option allows the operator to program identifying names to the system's DID numbers. The expanded name is used in place of the seven-character system-programmed DID name to give the operator more information when the DID name is displayed during a call. See pages 2-53 and 2-57.

LCR Toll Forced Account Code

Forced account codes for toll calls only can be programmed for stations with LCR-Only toll restriction in day *and* night modes. When this account code type is enabled, the user only has to enter an account code if the system detects that a toll call has been dialed when LCR is used. See page 2-27.

Station Off-Hook Alarm

The STATION OFF HOOK alarm now indicates the station that is off hook. Also, the alarm clears automatically when the station user hangs up. See page 2-46.

INDEX OF NEW FEATURES (continued)

Station Exchange

This programmable station feature allows a station user to exchange the extension numbers of two station circuits. This swaps the database and user programmed features of the extension numbers between two station circuits without the need for database programming. The circuit number of the station locations are unchanged, but the extension numbers are changed. See pages 2-38.

Modem Compatibility Testing

There is a new option in the utilities program (ACUTIL) that allows you to test your modem card for compatibility with the Interface Card by performing a series of downloads. See page 1-14.

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SPECIFICATIONS AND INSTALLATION

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1. INTRODUCTION

NOTE: This *Attendant Computer Console Manual* is intended for use in conjunction with the *Installation and Field Maintenance Manual* for the IMX and GMX 256 and 416/832 Systems. Refer to this manual for information specific to the Attendant Computer Console unit. Refer to the appropriate system manual for all other system information, including FCC/safety regulations, warranty information, product overview, specifications, installation, feature descriptions, system programming, troubleshooting, and repair/replacement.

1.1 The console unit itself is an IBM-XT, -AT, or -386

(or compatible) personal computer (PC) that is connected to an available Keyset Card (KSC) circuit on a 256 or 416/832 System. The PC is equipped with a proprietary interface circuit card and special interface software.

1.2 The Attendant Computer Console is primarily designed for use by attendants of larger telephone systems, especially those where the use of DSS/BLF Units would be difficult due to the large number of users. However, due to its enhanced call processing features, such as electronic text messaging and directory dialing, the console unit is also an attractive option for smaller systems as well.

2. SPECIFICATIONS

2.1 The Attendant Computer Console is an IBM (or compatible) PC equipped with the following:

- MS-DOS version 3.3 or above (if using 6.2, do not use the DoubleSpace or MemMaker utilities)
- Minimum of 640k RAM
- At least 20MB available space on the hard disk drive
- Double- or high-density, 5¼-inch floppy disk drive
- Hard and Floppy Disk Controller Cards
- CGA, EGA, or VGA monitor and Monitor Card
- 300/1200/2400-baud, Hayes-compatible, auto-dial modem and Modem Card
- Parallel port
- Capacity to house a full-size (16-bit) circuit card
- Case-mounted speaker (the speaker cannot be mounted on the motherboard)

2.2 The Attendant Computer Console package also includes the following:

- Specially designed Interface Card and software
- 122-key custom keyboard with cable
- Handset with coiled cord
- Adapter cable

2.3 Optional equipment that can be used with the console unit includes the following:

- Headset
- Floor stand to mount the PC vertically (cable extensions for the monitor and keyboard must be used when the PC is mounted vertically)
- External speaker for use when the PC is mounted vertically in the floor stand (using a standard 6-pin, 6-position modular connector)
- AC-ringing single-line set (connected to the console unit using a two-pair mod-to-mod line cord; must be within 100 feet of the console unit)
- Printer for producing copies of text messages

A. INTERFACE CARD

2.4 The console Interface Card is a specially designed PC Input/Output (I/O) circuit card that connects an available analog Keyset Card (KSC or KSC-D) circuit to the PC. It allows communication between the telephone system and the Attendant Computer Console.

NOTE: Keyset Cards (KSCs or KSC-Ds) are used to support analog keysets, analog DSS/BLF Units, and

Attendant Computer Consoles. Console units cannot be installed on Digital Keyset Card (DKSC) circuits or KSC-D circuits that have been designated for "dual-circuit" 8-line AIM keyset use. And, although the Attendant Computer Console is installed on a keyset circuit, it should not be associated with a DSS/BLF Unit.

B. INTERFACE SOFTWARE

2.5 Each new Attendant Computer Console is shipped with the 416/832 interface software already installed on the hard disk drive. Generally, it is not necessary to re-install the interface software if the console will be used on a compatible 416/832 System. However, if the console will be used on a 256 System, the appropriate interface software version must be installed instead. The following charts show which version of interface software is compatible with which version of system software.

IMX 416/832 COMPATIBILITY		
INTERFACE SOFTWARE PART NUMBER		SYSTEM SOFTWARE PART NUMBERS
827.6207 (2 disks)	<i>works with</i>	827.6201-6206
827.6257 (1 disk)	<i>works with and</i>	827.6201-6206 827.6246-6251
827.6235 (1 disk)	<i>works with and</i>	827.6230-6234 827.6252
827.8225 (1 disk)	<i>works with</i>	827.8218-8223
IMX 256 COMPATIBILITY		
INTERFACE SOFTWARE PART NUMBER		SYSTEM SOFTWARE PART NUMBERS
827.6194 (2 disks) or 827.6222 (2 disks)	<i>works with</i>	827.6189-6193
827.6256 (1 disk)	<i>works with and</i>	827.6189-6193 827.6241-6245
827.6228 (1 disk)	<i>works with</i>	827.6223-6227
827.8224 (1 disk)	<i>works with</i>	827.8213-8217

GMX-416/832 COMPATIBILITY		
INTERFACE SOFTWARE PART NUMBER		SYSTEM SOFTWARE PART NUMBERS
827.6175 (2 disks)	<i>works with</i>	827.6169-6173
827.8170 (1 disk)	<i>works with</i>	827.8164-8168
GMX-256 COMPATIBILITY		
INTERFACE SOFTWARE PART NUMBER		SYSTEM SOFTWARE PART NUMBERS
827.6174 (2 disks)	<i>works with</i>	827.6165-6168
827.8169 (1 disk)	<i>works with</i>	827.8160-8163

C. CONSOLE CABLING

2.6 For each console unit, industry-standard, three-pair (24 AWG) twisted cable is run from the station location to the MDF. All station cables are terminated on blocks at the MDF and on six-conductor modular jack assemblies at the station locations.

2.7 The loop limit for the Attendant Computer Console cabling is 103 ohms/2000 feet (609 m.). Refer to the 256 or 416/832 System manual for procedures on performing the station loop resistance test.

D. OPTIONAL HEADSETS

2.8 A headset may be attached to any Attendant Computer Console in place of the handset. The console units are compatible with industry-standard, four-conductor, modular headsets that have dynamic microphones, or carbon-microphone headsets that are connected to the console unit through an externally powered jacket (which makes the headset dynamic-compatible).

E. OPTIONAL EXTERNAL SPEAKER

2.9 If desired, an external (8-ohm, 1-watt) speaker may be attached to the Attendant Computer Console. This speaker is used in place of the internal PC speaker for alerting tones and signals. If an external speaker is used, the internal speaker *must be* disconnected.

2.10 To connect an external speaker, attach the speaker cables to the Y and BK terminals (pins 2 and 5) on a six-conductor modular jack assembly. Then use a mod-to-mod line cord to connect the modular jack assembly to the PC (jack J7).

F. OPTIONAL SINGLE-LINE SET

2.11 A single-line set can be connected to a jack on the PC modem card to be used as a courtesy lobby phone or auxiliary phone. It must have an AC ringer and the line cord must be no longer than 100 feet.

G. OPTIONAL PRINTER

2.12 An optional IBM-compatible parallel printer can be installed to allow the attendant to print text messages.

2.13 With newer console units (using the DFI PC), the printer port is located on the Disk Controller Card. With

some older units, the printer port was located on the Monitor Card. If the console unit does not have a printer port, a Parallel Printer Adapter Card is required (part number 440.5075). Installation instructions are shipped with the card. The proper jumper setting for use on the Attendant Computer Console is "LPTB" (JP1 is set in position 2).

H. PART NUMBERS

2.14 The part numbers for some of the major console components (at the time of this publication) are shown in the table below.

COMPONENT	PART NUMBER
Complete Console Package	
IMX 256/832	440.5078
GMX-256/832	440.5079
DFI PC Assembly	440.6000
DFI (386 DX) PC Motherboard	440.6005
VGA Monitor	440.5011
VGA Monitor Card	440.5069
Floppy Disk Drive	440.4070
IDE-Type Hard Disk Drive	691.3009
IDE-Type Disk Controller Card	691.3007
IDE-Type Hard Disk-to-Controller Interface Cable	813.1557
Floppy Disk-to-Controller Interface Cable	813.1105
Modem Card (2400 baud)	440.2820
Handset	817.3100
Handset Cord	813.1559
Line Cord	813.1155
Custom Keyboard	440.6011
Console Interface Card	440.2800
Console Interface Software Kit	
IMX 256/832	828.1233
GMX-256/832	828.1218
Optional PC Wall-Mount Shelf	691.3109

3. INSTALLATION

A. HARDWARE INSTALLATION

3.1 The AC power outlet for the console unit *must* have a third-wire ground, and the 256 or 416/832 System must be properly grounded. If both ground connections are *not* complete, the Attendant Computer Console may not work correctly.

3.2 TO ASSEMBLE THE ATTENDANT COMPUTER CONSOLE:

NOTE: Refer to the figure below for Interface Card component locations.

- (1) Ensure that the console unit's AC power cord is disconnected, then remove the cover from the PC by removing the screws and sliding the cover off.
- (2) *If not already installed*, install the Interface Card as outlined below:

NOTE: The Interface Card may be installed in any unused slot in the PC.

- a. *If not already installed on the Interface Card*, install the PROM in socket U18 and the PAL in the socket U11 as shown in the diagram below. Handle the components carefully; do not bend the pins.
- b. Remove the bracket that covers the opening in the PC for the slot you wish to use, and save the screws.
- c. Referring to the PC manufacturer's instructions, verify that *no other* cards in the PC are set to use address \$300 or IRQ 7 (for an XT) or IRQ 2 (for an AT or 386).

NOTE: If another card is at address \$300 and IRQ 7 or 2, and cannot be changed, refer to the information on page 1-7 for selecting another address for the Interface Card.

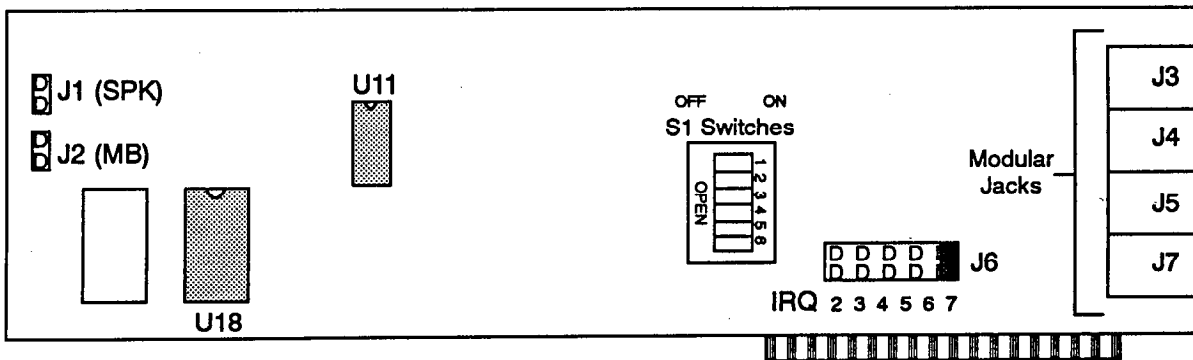
- d. Ensure that the Interface Card address selection DIP switches (S1) are set in the proper positions. For address \$300, DIP switches 1-5 must be in the ON position and switch 6 must be in the OFF position.
- e. Ensure that the Interface Card IRQ selection jumper strap (J6) is placed over the correct two pins: IRQ 7 (for an XT) or IRQ 2 (for an AT or 386). There should be no other straps over the pins in J6.
- f. Insert the Interface Card in the desired PC slot. Make sure the card is securely attached to the PC Motherboard connector and does not touch any adjacent cards.
- g. Attach the Interface Card bracket to the PC chassis with the screws that were removed in step 2b.

(3) Make the proper internal connections:

- a. Disconnect the two-conductor jack that connects the PC speaker to the PC Motherboard. Connect this jack to J1 (SPK) on the Interface Card.

NOTE: If installing an external speaker, tape and store the wires from the PC speaker. The external speaker will be connected to jack J7 on the Interface Card.

- b. Connect the one-conductor extender cable included with the Interface Card kit to either pin of J2 (MB) on the Interface Card.
- c. Connect the other end of the extender cable to pin 1 on the PC Motherboard speaker connector. (Some PC Motherboard connections will differ. If there is no sound through the PC speaker when the installation is complete, move the extender cable to pin 2.)



- (4) Set the PC Modem Card with the following parameters: COM Port 2, DTR and DCD followed by the modem, and auto answer.
- (5) Replace the cover on the PC and re-install the screws.
- (6) Plug one end of a two-pair mod-to-mod line cord into jack J4 on the Interface Card. Plug the other end of the line cord into the jack labeled "WALL" on the PC Modem Card.
- (7) Check the setting of DIP switch 1 on the bottom of the keyboard. *If connected to an XT*, the switch should be in the OFF position. *If connected to an AT or 386*, the switch should be in the ON position.
- (8) Connect the keyboard cable, monitor cable, and power cable according to the PC manufacturer's instructions.
- (9) Before mounting the modular jack assembly and connecting the console, measure the voltage on the RED terminal of the modular jack assembly with respect to the GREEN terminal. (The "common" probe of the voltmeter is placed on the GREEN terminal.) It must measure +30VDC (± 2.0 VDC). If -30VDC is measured, check the cabling for a reversed pair. If the power pair is reversed, the console will not operate.
- (10) Mount the modular jack assembly on the wall.
- (11) Plug one end of the six-conductor line cord into jack J3 on the Interface Card. Plug the other end of the line cord into the modular jack assembly mounted in step 10.
- (12) Plug the handset cord (or headset cord, if used instead) into jack J5 on the Interface Card.
- (13) *If using an external speaker*, plug its line cord into jack J7 on the Interface Card.
- (14) *If installing an auxiliary single-line set*, plug one end of a mod-to-mod line cord into the jack labeled "PHONE" on the PC Modem Card. Plug the other end of the line cord into the single-line set.
- (15) Turn on the console unit's AC power switch.
- (16) *If necessary*, install the appropriate interface software as described in the next section.

B. SOFTWARE INSTALLATION

3.3 Two floppy disks, one with 256 interface software and one with 416/832 interface software, are provided so that the console can be installed on either system.

NOTE: Although the console's hardware is the same for both systems, the interface software is different. *The console will not function unless the appropriate interface software is installed.* For information on software compatibility, refer to section B on page 1-2.

Initial Software Installation

3.4 TO INSTALL THE INTERFACE SOFTWARE, IF NECESSARY:

- (1) *If not already installed*, load DOS onto the hard drive.

NOTE: When installing MS-DOS 6.2, *do not* use the DoubleSpace or MemMaker utilities.

- (2) Insert the Installation Disk (1 of 1) into the console unit's floppy disk drive.

NOTE: Rather than two 360k floppy disks, the new console software is contained on one 1.2MB floppy disk.

- (3) At the C: prompt, type "a:install" and press ENTER. (The monitor displays "Installing Attendant's Console software, please wait...", followed by a series of installation messages and prompts.)
- (4) Follow the on-screen instructions. (When the installation is complete, the monitor displays "Attendant's Console software has been installed. The Attendant's Console will need to be restarted. Remove the installation disk from the disk drive. Strike a key when ready.")
- (5) Remove the Installation Disk and press any key on the keyboard to begin the power-up sequence.
- (6) Allow the PC to complete its power-up sequence (wait for the Attendant Computer Console display screen and "Station is Idle" message). *If the console unit does not complete the proper power-up sequence*, contact Customer Support.
- (7) Perform the database configuration procedures as described on page 1-9.
- (8) Perform the database download procedures as described on page 1-10.
- (9) When the database download is complete, the unit should be a functional Attendant Computer Console. However, before using the unit, the attendant should perform the configuration procedures beginning on page 2-48.

Removing Existing Interface Software (If Necessary)

3.5 When upgrading from one 416/832 interface software version to another 416/832 interface software version, no special installation procedure is required. Simply install the new software as outlined on the previous page. This same easy installation method also applies when upgrading from one 256 interface software version to another 256 interface software version.

3.6 However, when switching from 416/832 interface software to 256 interface software (or vice versa), or when reverting back to a previous version of interface software (no matter what the system), certain existing interface software files and directories must first be removed as outlined below.

3.7 TO REMOVE EXISTING INTERFACE SOFTWARE, IF NECESSARY:

- (1) Turn on the console unit's AC power switch and allow the console to complete the power-up sequence (wait for the Attendant Computer Console display screen and "Station is Idle" message).
- (2) Press the CTRL, SHIFT, and X keys all at the same time. (The monitor displays the "C:\OPTERM>" prompt.)
- (3) At the C:\OPTERM> prompt, type "del operator" and press ENTER to delete all of the files within the operator directory. (The monitor displays "Are you sure (y/n)?")
- (4) Type "y" and press ENTER. (The monitor displays the "C:\OPTERM>" prompt.)
- (5) Repeat steps 3 and 4 for any of the following directories that exist within the opterm directory:

txtmsg	busytrnk	tmp\operator
history	event	outgoing
help		

NOTE: Depending on the version of interface software already installed, one or more of these directories may not exist within the opterm directory. If so, proceed to the next directory on the list.

- (6) At the C:\OPTERM> prompt, type "rd operator" and press ENTER to remove the operator directory. (The monitor displays the "C:\OPTERM>" prompt.)
- (7) Repeat step 6 for any of the following directories that exist within the opterm directory:

txtmsg	busytrnk	tmp\operator
history	event	tmp
help	outgoing	

NOTE: Depending on the version of interface software already installed, one or more of the above directories may not exist within the opterm directory. If so, proceed to the next directory on the list.

- (8) At the C:\OPTERM> prompt, type "del *.*" and press ENTER to delete all the remaining files within the opterm directory. (The monitor displays "Are you sure (y/n)?")
- (9) Type "y" and press ENTER. (The monitor displays the "C:\OPTERM>" prompt.)
- (10) At the C:\OPTERM> prompt, type "cd.." and press ENTER. (The monitor displays the C drive programming prompt "C:\>".)

NOTE: It is not necessary to delete the opterm directory itself. Also, be careful not to delete or remove any other files or directories that may reside on the hard disk drive.

- (11) Install the appropriate interface software as outlined on the previous page.

Changing The Interface Card Address And Interrupt Level

3.8 If necessary, the Interface Card can be set at an address other than \$300. To use other addresses, the S1 DIP switches can be set in different combinations. Using the following information, you can determine the correct settings for all 64 On/Off combinations that yield addresses \$200-\$3F8.

3.9 The address has three digits which are set as follows:

- The first digit can be a 2 or 3 and is set by placing switch 6 in the ON position (2) or OFF position (3).
- The second digit is set by placing switches 2-5 in the desired positions as shown in the chart below.

Digit	S1-5	S1-4	S1-3	S1-2
0	On	On	On	On
1	On	On	On	Off
2	On	On	Off	On
3	On	On	Off	Off
4	On	Off	On	On
5	On	Off	On	Off
6	On	Off	Off	On
7	On	Off	Off	Off
8	Off	On	On	On
9	Off	On	On	Off
A	Off	On	Off	On
B	Off	On	Off	Off
C	Off	Off	On	On
D	Off	Off	On	Off
E	Off	Off	Off	On
F	Off	Off	Off	Off

- The third digit can be a 0 or 8 and is set by placing switch 1 in the ON (0) or OFF (8) position.

3.10 For example, address \$208 is achieved by setting switches 2-6 in the ON position and switch 1 in the OFF position. Be sure that the address you select is not reserved for a specific function by your PC manufacturer. Other common addresses and their uses include the following:

Address	S1-6	S1-5	S1-4	S1-3	S1-2	S1-1	Function
\$278	On	On	Off	Off	Off	Off	Parallel port 2
\$2F8	On	Off	Off	Off	Off	Off	Serial port 2
\$300	Off	On	On	On	On	On	Interface Card
\$378	Off	On	Off	Off	Off	Off	Parallel port 1
\$3F8	Off	Off	Off	Off	Off	Off	Serial port 1

3.11 If necessary, you can change interrupt level of the Interface Card. Other common levels and their uses include the following:

IRQ	J6 Position	XT	AT or 386
2	1	EGA	IRQ 8-15*
3	2	COM 2	COM 2
4	3	COM 1	COM 1
5	4	Fixed disk	LPT 2
6	5	Diskette	Diskette
7	6	LPT 1	LPT 1

*On an AT or 386, IRQ 8 through IRQ 15 appear as IRQ 2. Common uses for IRQ 8-15 are:

- IRQ 8 — Clock
- IRQ 9 — IRQ 2
- IRQ 10 — Reserved
- IRQ 11 — Reserved
- IRQ 12 — Reserved
- IRQ 13 — Coprocessor
- IRQ 14 — Fixed disk
- IRQ 15 — Reserved

Special Key Sequences

3.12 Occasionally, special circumstances arise in which you may need to clear the keyboard buffer (user error, after an object has rested against the keyboard, etc.). To clear the buffer, press the CTRL and C keys at the same time.

3.13 If desired, you can access the DOS prompt by pressing CTRL, SHIFT, and X simultaneously (if a MAJOR ALARM display is showing, press CTRL and C). The console will not be able to place or receive calls until the Attendant Console function is re-enabled. To return to the Attendant Console function, type "opterm" and press ENTER when the C:\OPTERM prompt is displayed.

3.14 Another key sequence can be used to reboot the PC. Before the keyboard driver has been loaded, you must press CTRL, ALT, and SPLIT at the same time. Once the keyboard driver has been loaded, CTRL, ALT, DEL will reboot the system. **USE THIS KEY SEQUENCE WITH CAUTION. IT WILL REBOOT THE ATTENDANT COMPUTER CONSOLE.**

3.15 If a printer is attached to the PC, pressing CTRL, ALT, and PAGE at the same time will print the screen being viewed.

3.16 When troubleshooting the console, error messages can be enabled by pressing CTRL, SHIFT, and E at the same time. This will cause any error messages to be displayed on the monitor as they occur. To disable the error messages, press CTRL, SHIFT, and E again.

3.17 Service personnel may request that the error history information be stored immediately on the console hard disk. If so, press the CTRL, SHIFT, and D keys at the same time. This will disable the buffer and the transient display will show "History Input Buffering Is Disabled." To re-enable the buffer when requested, repeat the CTRL-SHIFT-D command. The transient display will then show "History Input Buffering Is Enabled."

3.18 If the console "locks up" and the alarm message shows "ALARM: OTIC board reset," turn the power switch of the console PC off for several seconds and then on again.

4. DATABASE DOWNLOAD

4.1 The Attendant Computer Console database is derived from the system database. Information is transferred to the console by performing a database download.

4.2 A download must be performed when the console is first installed and when any changes are made in the system database through the system programming monitor. (Information programmed at the console is automatically communicated to the system.)

4.3 When the Attendant Computer Console is installed on a 416/832 System, a download cannot be performed while any other programming session is in progress. If the system has an active remote or on-site session, wait for the programmer to exit before attempting the download.

4.4 When the Attendant Computer Console is installed on a 256 System, the download can be performed any time that the modem is available.

4.5 If desired, an automatic daily download can be programmed to take place by setting the desired download time as described below. Communications parameters are also explained below. Instructions for performing a backup are shown on page 1-11.

4.6 If the Attendant Computer Console is not equipped with a modem, a manual database download can be performed. Refer to the PROGRAMMING section of the IMX/GMX 256 or 416/832 System manual for instructions.

NOTE: If the system database is changed and no longer matches the console database, if devices are programmed without extension numbers, or cabling problems prevent proper communication, the console will generate an alarm message. The message "Database Inconsistency — Download To Clear" will be displayed until a download is performed or the console is reset. To reset the console, press CTRL, SHIFT, and X simultaneously; to return to the Attendant Console function, type "opterm" and press ENTER when the C:\OPTERM prompt is displayed. See page 1-10 for download procedures.

A. DATABASE UTILITY

4.7 The Database Utility is used for setting the communications parameters for the database download and for setting the time for the automatic daily database download. Press CONFIG and then F6 to program the following parameters.

Phone Number

4.8 TO PROGRAM THE SYSTEM MODEM NUMBER FOR THE DATABASE DOWNLOAD:

- (1) Press CONFIG and then the F6 key to select "Database." A list of options appears in the lower half of the screen.
- (2) Press F1 to select "Phone Number." The screen prompts you to enter the "Modem Download Number."
- (3) Enter the extension number of the system modem (default is 2600 for 416/832 and 271 for 256) and press ENTER. The "Modem Options for Database Download" window returns.

Baud Rate

4.9 TO SET THE BAUD RATE FOR THE DATABASE DOWNLOAD:

- (1) Press CONFIG and then the F6 key to select "Database." A list of options appears in the lower half of the screen.
- (2) Press F2 to select "Baud Rate." The screen prompts you to "Select Baud Rate for Database Download."
- (3) Press a key (F1-F6) to select the desired baud rate (default is 1200). The available baud rates are 300, 1200, 2400, 4800, 9600, and 19200 baud. The "Modem Options for Database Download" window returns.

Communication Port

4.10 TO DETERMINE WHICH PORT THE CONSOLE USES TO PERFORM THE DOWNLOAD:

- (1) Press CONFIG and then the F6 key to select "Database." A list of options appears in the lower half of the screen.
- (2) Press F3 to select "Port." The screen prompts you to "Select Communication Port for Download."
- (3) Press F1 for communication port 1 or F2 for port 2 (default is COM2). The "Modem Options for Database Download" window returns. (If you change the COM port, make sure the DIP switches on the console's modem are configured correctly.)

Time For Automatic Download

4.11 TO SET THE TIME FOR THE AUTOMATIC DAILY DATABASE DOWNLOAD:

- (1) Press CONFIG and then the F6 key to select "Database." A list of options appears in the lower half of the screen.

- (2) Press F4 to select "Time." The screen prompts you to "Enter the Time to Begin Database Download."
- (3) Enter the time in the indicated format with the hours and minutes separated with a colon (for example, "13:00" or "1:00 pm") and press ENTER. The "Modem Options for Database Download" window returns. (*If you wish to disable the automatic download, erase the current entry and do not enter a time before pressing ENTER.*)

NOTE: *Do not* set the time for "2:00 am". Other system functions are pre-programmed to take place at that time, which cause conflicts.

B. DATABASE DOWNLOAD

4.12 A database download can be performed at any time using the following procedure. However, during a download, the Attendant Computer Console cannot be used for placing or receiving calls. Therefore, it is recommended that you perform the download before or after regular business hours, or forward the console station to another station before performing the download. A download will take between 2.5 and 5 minutes depending on the size of the 256 or 416/832 system database.


4.13 TO PERFORM A DATABASE DOWNLOAD:

- (1) Press the FEAT key and then press F3 to select "Database Download." The transient display shows "Database Download" and gives the following messages while the download is in progress:
 - a. Initializing modem
 - b. Waiting for carrier (you may hear the console dial and access the system modem)
 - c. Waiting for login
 - d. Downloading database... (this may take several minutes)
 - e. Download complete

NOTE: You can cancel the download at any stage by pressing the ESC key. The transient display will show "Aborting Download."

- (2) After the "Download Complete" message, the screen resets. When the "Station is Idle" message appears with a flashing period at the end of the message, the console is fully functional and ready for use.

<< IMX 256/832 Attendant's Console Interface Card Utility Program >>
 << Part Number: 827.6XXX (V1.0) >>
 << Release Date and Time: XX/XX/XX XX:XX >>

Setup	Displays how the interface card is configured.
Utilities	Hard disk backup and restore; Maintenance. 
Diagnostics	Perform interface card diagnostics.
Download	Perform multiple downloads.
Quit	Exit to DOS.

5. UTILITIES

5.1 The Attendant Computer Console software contains a utilities program that allows the installer or console user to check the Interface Card configuration, to save the console data on a floppy disk or restore the data from the floppy disk, and to run a self-test on the console hardware.

NOTE: The console cannot place or receive calls while the utility program is being used.

5.2 To access the utility routines, press CTRL, SHIFT and X simultaneously to display the DOS prompt (C:\OPTERM>). Then type "ACUTIL" and press ENTER. The window shown above appears.

5.3 To select a routine, first highlight it by pressing the first letter of the routine name (S, U, D, or Q) or use the arrow keys to move the highlight to the desired routine. Then press ENTER. The routines are described separately in the following paragraphs.

5.4 When finished, select Quit to return to the DOS prompt. To return to the Attendant Console function, type OPTERM and press ENTER when the C:\OPTERM> prompt is displayed.

A. SETUP

5.5 When "Setup" is selected from the window shown above, the screen shows the Interface Card configuration. It lists the firmware version, if available, and the address and interrupt level of the card. Ensure that this information matches the settings selected in the procedures on page 1-4, paragraph 3.2. After viewing the information, press any key and the display will return to the window shown above.

B. BACKUP/RESTORE

5.6 The arrow at the end of the second line indicates that the Utilities option accesses an additional window. When "Utilities" is selected from the window shown above, another window appears that gives you the op-

tions of backing up or restoring the OPTERM directory files on the console hard disk or updating the CO directory time zone information. The options are:

- Backup — Back up the hard disk.
- Restore — Restore the hard disk.
- Update CO Times — Update the CO directory time information.

5.7 The options are discussed individually in the following paragraphs. To exit from the option window without selecting Backup, Restore, or Update CO Times, press ESC. The main window, shown at the top of this page, returns.

Backup

5.8 To save the hard disk OPTERM directory files on floppy disks, select "Backup" by pressing B and then ENTER. The following prompts tell you how to complete the backup routine:

Backing up ALL Attendant's Console files...

Insert backup diskette 01 in drive A:

Warning! Files in the target drive A:\ root directory will be erased. Strike any key when ready.

5.9 Insert a blank, formatted floppy diskette in drive A and press any key. The backup copy will fill 3-10 double-sided/double-density (360k) floppy disks. The prompts continue with:

Backing up files to drive A: ***
 Diskette Number 01:

(lists files as they are copied)

5.10 As each diskette is filled, another prompt will ask you to insert another diskette into drive A. After changing disks, press any key to continue. When all console files have been copied, the Backup/Restore window returns. Press ESC to exit to the Utilities window.

Restore

5.11 To restore the console OPTERM directory files to the hard disk, from the backup floppy disks, select "Restore" by pressing R and then ENTER. The following prompts tell you how to complete the restore routine:

```
Restoring ALL Attendant's Console files...
```

All Attendant's Console files are going to be overwritten. Press ctrl-c to abort, any other key to continue.

Strike a key when ready...

5.12 If you decide not to restore the files at this time, press CTRL and C simultaneously. If you wish to begin restoring files, press any other key. The next prompt is:

```
Insert backup diskette 01 in drive A:  
Strike any key when ready.
```

5.13 Insert the first backup diskette in drive A, and press any key. The prompts continue as follows:

```
***Files were backed up XX-XX-19XX***  
***Restoring files from drive A: ***  
Diskette 01
```

(lists files as they are copied)

5.14 As each diskette is copied, another prompt will ask you to insert another diskette into drive A. After changing disks, press any key to continue. When all console files have been copied, the window shown on the preceding page returns. Press ESC to exit to the Utilities window.

Update CO Times

5.15 In the event that area codes or their time zones change, the console can be updated with the new information. The area code/time zone table is located in a file named CO_TIME.TBL in the OPTERM directory.

5.16 To update the time zone information, select "Update" by pressing U and then ENTER. The following prompt appears:

The time information in the CO directory will be updated based on the contents of the co_time.tbl file.

Press ESC to abort or press any other character to continue.

5.17 To exit to the Utilities window without changing the time zone table, press ESC. To update the time zone table, press any key. The following prompt appears:

```
Proceeding with update... WARNING: DO NOT interrupt.
```

5.18 Allow the update to proceed uninterrupted. When the process is finished, the Utilities window returns.

C. DIAGNOSTICS

5.19 When "Diagnostics" is selected from the main utilities window shown on page 1-11, the following window appears, showing the functions that will be tested.

Interface Card Diagnostics:	
Firmware version:	<i>(firmware version)</i>
Interface card memory test	
Dial tone at speaker	
Silence at speaker	
Tones (31) at speaker	
Speaker volume adjust	
System beeps at speaker	
Dial tone at handset	
Silence at handset	
Tones (31) at handset	
Handset volume adjust	
MODEM test — Responding	
Ring SL	
SL Hook Status	<input type="checkbox"/> On Hook

5.20 Complete the diagnostics routine as follows:

- **Interface card memory test:** This test runs automatically when you select Diagnostics. If the Interface Card memory passes the test, PASSED appears on the line. If not, a flashing FAILED message appears. The prompt moves to the next line.
- **Dial tone at speaker:** The prompt shows "PASSED? (Y/N)." You should hear dial tone over the speaker. If you do not, press N and a FAILED message will appear. If you hear dial tone, press Y and a PASSED message appears. The prompt moves to the next line.
- **Silence at speaker:** The prompt shows "PASSED? (Y/N)." You should not hear any noise through the speaker. If you do, press N and a FAILED message will appear. If the speaker is silent, press Y and a PASSED message appears. The prompt moves to the next line.
- **Tones (31) at speaker:** The prompt shows "PASSED? (Y/N/R)." You should hear 31 tones

played over the speaker. If you wish to have the tones play again, press R. If you do not hear the tones, press N and a FAILED message will appear. If you hear the tones, press Y and a PASSED message appears. The prompt moves to the next line.

- **Speaker volume adjust:** The prompt shows "PASSED? (Y/N/R)." You should hear a single tone, that increases in volume, over the speaker. If you wish to have the tone play again, press R. If you do not hear the tone or if the volume does not change, press N and a FAILED message will appear. If you hear the tone increase in volume, press Y and a PASSED message appears. The prompt moves to the next line.
- **System beeps at speaker:** The prompt shows "PASSED? (Y/N/R)." You should hear a single beep. If you wish to hear the beep again, press R. If you do not hear the beep, press N and a FAILED message will appear. If you hear the beep, press Y and a PASSED message appears. The prompt moves to the next line.
- **Dial tone at handset:** The prompt shows "PASSED? (Y/N/R)." You should hear dial tone over the handset or headset. If you do not, press N and a FAILED message will appear. If you hear dial tone, press Y and a PASSED message appears. The prompt moves to the next line.
- **Silence at handset:** The prompt shows "PASSED? (Y/N/R)." You should not hear any noise through the handset or headset. If you do, press N and a FAILED message will appear. If the handset or headset is silent, press Y and a PASSED message appears. The prompt moves to the next line.
- **Tones (31) at handset:** The prompt shows "PASSED? (Y/N/R)." You should hear 31 tones played over the handset or headset. If you wish to have the tones play again, press R. If you do not hear the tones, press N and a FAILED message will appear. If you hear the tones, press Y and a PASSED message appears. The prompt moves to the next line.
- **Handset volume adjust:** The prompt shows "PASSED? (Y/N/R)." You should hear a single tone, that increases in volume, through the handset or headset. If you wish to have the tone play again, press R. If you do not hear the tone or if the volume does not change, press N and a FAILED message will appear. If you hear the tone increase in volume, press Y and a PASSED message appears. The prompt moves to the next line.
- **MODEM test — Responding:** This test runs automatically. If the modem passes the test, PASSED ap-

pears on the line. If not, a flashing FAILED message appears. The prompt moves to the next line. A window appears that asks if you want to "Check the single-line port." Press N and ENTER if there is not a single-line set connected to the console, or Y and ENTER if there is a single-line set. If you select N the test ends. If you select Y, the prompt moves to the next line.

- **Ring SL:** The prompt shows "PASSED? (Y/N/R)." The single-line set connected to the console should ring. If it does not, press N and a FAILED message will appear. If it rings, press Y and a PASSED message appears. The prompt moves to the next line.
- **SL Hook Status:** A box at the end of this line shows "On Hook" or "Off Hook" to indicate the present status of the single-line set. The prompt shows "PASSED? (Y/N)." If the box does not show the correct status when the single-line set hookswitch is pressed and released *or if the test times out and you hear a beep*, press N and a FAILED message appears. If the status changes correctly, press Y and a PASSED message appears.

5.21 When the test is complete, "Press any key to continue" appears at the bottom of the screen. Note which tests, if any, failed. When you press a key, "Clearing/Resetting modem" appears momentarily, and then the Utilities window (shown on page 1-11) returns.

5.22 If the Interface Card test failed: Turn off the console, open the PC, and verify that the Interface Card components are seated properly. Then, reassemble the console and run the diagnostics test again. If the test fails again, contact Customer Support for assistance.

5.23 If any of the speaker tests failed: Turn off the console, open the PC, and check the speaker connections. Then, reassemble the console and run the diagnostics test again. If the speaker fails again, contact Customer Support for assistance.

5.24 If any of the handset tests failed: Remove the handset or headset and install a new one. Then run the diagnostics test again. If the handset or headset fails again, contact Customer Support for assistance.

5.25 If the modem test fails: Turn off the console, open the PC, and verify that the modem parameters are set correctly, as listed in step 4 on page 1-5. Then, reassemble the console and run the diagnostics test again. If the test fails again, contact Customer Support for assistance.

5.26 If either of the single-line set tests failed: Remove the single-line set and install a new one. Then run the diagnostics test again. If the single-line set fails again, contact Customer Support for assistance.

D. DOWNLOAD

5.27 The download option is used to test the modem card installed in the Attendant Computer Console by performing several downloads. It tests the modem card for compatibility with the Attendant Computer Console Interface Card and tests the performance of the modem.

5.28 When "Download" is selected from the main utilities window shown on page 1-11, the following window appears, showing the modem parameters.

Multiple Download Parameters:

CR for next field, ENTER to accept, ESC to exit

Baud Rate:	1200
Modem Number:	2600
Comm Port Number:	2
Delay Time (Secs):	10
Repeat Count:	20
Initialization Wait Time (Secs):	30

5.29 Perform the download test as follows:

- (1) Set the download parameters. Press RETURN to move among the fields in the parameter list.
 - **Baud Rate:** Set this to the baud rate of the modem. Default is 1200.
 - **Modem Number:** This is the extension number of the modem on the telephone system. It defaults to 2600.
 - **Comm Port Number:** This identifies the serial port of the modem. It defaults to 2.

- **Delay Time:** This is the amount of time, in seconds that will be allowed to elapse between downloads. The default delay is 10 seconds.
- **Repeat Count:** This determines how many downloads will be performed. The count defaults to 20.
- **Initialization Wait Time:** This determines how long the Attendant Computer Console will wait, before the first download, for the telephone system to acknowledge that the Console is on line. It defaults to 30 seconds, but can be set higher or lower depending on system activity and the number of stations in do-not-disturb or forward mode.

(2) When the parameters are correct, press ENTER to begin the test. A message about the initialization appears on the screen, followed by the number of downloads being performed. Modem status messages appear at the bottom of the screen.

(3) *If an error occurs*, the test stops and a message appears. The modem is either incompatible with the Interface Card or it is not functioning properly. In either case, you must replace the modem card.

If the test is successful, turn off the Attendant Computer Console and then turn it on again.

(4) Repeat steps 2 and 5 two more times to fully test the modem.

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1. INTRODUCTION

1.1 To describe the 256/832 Attendant Computer Console features, this FEATURES chapter has been organized to cover four main topics:

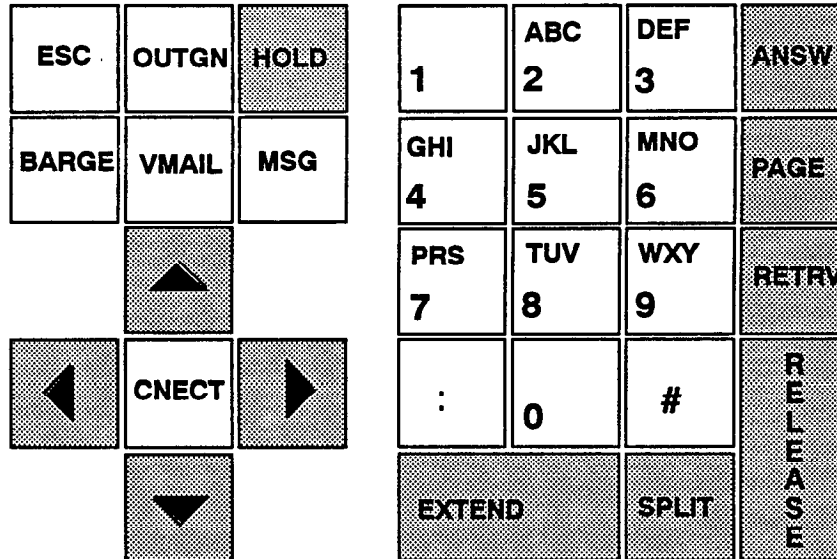
- **Keyboard and Display Layout:** The first sections explain the layout of the customized keyboard and the display screen. One section shows the locations of the various feature keys and briefly explains their functions. Another section shows the display screen and explains where to look for specific on-screen information.
- **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 other call processing features such as conferencing, forwarding, etc.
- **Attendant Features:** This section explains the special attendant-only features and how to use them on the Attendant Computer Console.
- **Configuring The Console:** Several console features can be customized for each operator including name display, screen colors, speed-dial directory, etc. These sections explain the configuration tasks as well as how to adjust the speaker volume and select ring tones and background music.

2. USING THE KEYBOARD

2.1 A custom keyboard is used to enhance the speed and accuracy of handling calls. To minimize keystrokes, the most frequently used features are assigned to dedicated (non-programmable) keys.

A. FEATURE KEYS

2.2 The following feature keys of the Attendant Computer Console are used most frequently and are located in the right-hand key pads on the keyboard. The keys and their functions are described below.



KEY	FUNCTION
ESC	Used for cancelling various functions as described in the procedures. Also exits a menu or moves up one menu level when programming.
OUTGN	Used for placing an outgoing call (default route and displayed directory are determined in configuration programming).
HOLD	Places a call on individual hold so that it can be directly accessed at that station or accessed through a reverse transfer from any other station.
BARGE	Allows the user to join into a call when calling a station, if the console station is enabled for this feature in the 256 or 416/832 database.
VMAIL	Dials the voice mail unit for placing and retrieving voice messages, and for transferring calls to the voice mail unit.
MSG	Sends and responds to message waiting indications. When pressed with the SHIFT key, it displays a directory of waiting messages.
CNECT	Can be used in place of the ANSW or RETURN keys in some procedures.
UP, DOWN, LEFT and RIGHT ARROWS	These keys move the cursor in the indicated direction.
ANSW	Answers the highest priority incoming call and changes the display to the call handling window no matter which call handling or utility program is being executed.
PAGE	Accesses the paging network. The user can choose the desired page zone.
RETRV	Accesses a call on transfer hold.
RELEASE	Returns the console to idle state.
SPLIT	Allows the user to move between two calls while executing a transfer.
EXTEND	Transfers a call to an extension or outside number.

2.3 The following keys are located across the top edge of the keyboard and are used for accessing additional features. The keys and their functions are listed below.

HELP	INS	HOME	PAGE UP	TAG	VOL ↑	FEAT	DND	FWD	FLASH	NIGHT	PICK UP
	DEL	END	PAGE DOWN	BAD LINE	VOL ↓	IC DIR		CONFG	CNF	QUEUE	TEXT MSG

KEY	FUNCTION
HELP	Accesses the on-line help utility.
INS	Allows the user to toggle between insert and replacement mode while programming or editing text.
DEL	Allows the user to delete a character while programming or editing text.
HOME	When the user is viewing a list window, pressing this key moves the cursor to the beginning of the list.
END	When the user is viewing a list window, pressing this key moves the cursor to the end of the list.
PAGE UP PAGE DOWN	Pressing the PAGE UP or PAGE DOWN key moves the cursor a preset number of lines up or down. The number of lines may be customized by each user.
TAG	Permits the user to add an identifying tag to an incoming call before transferring it to a station or outside number. With the ALT key, it is used for un-tagging calls. With the SHIFT key, it tags the call and places it in the CO directory and with the CTRL key it reverses the first and last names in a CO directory entry.
BAD LINE	Allows an attendant to place a trunk out of service while connected to a call on the defective trunk.
VOL UP VOL DOWN	Adjusts the speaker and handset volume for calls and alerting tones. When pressed simultaneously with the ALT key, it saves the new setting.
FEAT	A list of features appears when this key is pressed. The user can then select and execute the desired feature. Features accessed by this key are listed on the next page.
IC DIR	The full intercom directory appears when this key is pressed. The user can then view station status or can call any station on the list.
DND	Places the console in, or cancels, do-not-disturb mode.
FWD	Places the console in, or cancels, call forwarding mode.
CONFG	Allows the user to set up customized configuration options.
FLASH	Sends a hookflash while on an outside call.
CNF	Allows the user to establish a conference.
NIGHT	At attendant stations, places the system in night mode and returns the system to day mode. At stations with user statistics enabled, displays the statistics for that user.
QUEUE	Requests or cancels a busy trunk/station callback (queue).
PICK UP	Allows the user to pick up a call that is ringing or holding at a station or hunt group.
TEXT MSG	Accesses the text messaging utility to allow the user to enter and save detailed messages.

2.4 The FEAT key is used to access the following features. Procedures are given throughout this section of the manual. Some features can only be used at attendant stations.

- Clear system alarm
- Save/release history queue (Release history queue — in 256 System only)
- Database download
- SMDA
- Set time of day
- Operator statistics
- Trunk statistics
- Program system speed-dial
- Program system do-not-disturb messages
- Program system reminder messages
- Database programming enable (for toll security programming)
- Cancel all station forward requests
- Cancel individual station forward request
- Cancel all station do-not-disturb requests
- Cancel individual station do-not-disturb request
- Cancel all station do-not-disturb/forward requests
- Cancel individual station do-not-disturb/forward request
- Remote hunt group remove/replace
- Remove all trunks from maintenance
- Reminder message
- Reminder message cancel
- Re-light message lamps
- Background music channel selection
- Ring tone selection
- Music/page to speaker on/off
- Background music on/off
- Paging speaker music on/off
- Hunt group remove/replace
- Page remove/replace
- Ring intercom always/cancel
- Station exchange
- Clear printer queue
- Display software version

2.5 During an intercom call, pressing the FEAT key allows the user to use the following features:

- Do-not-disturb override
- Microphone mute on/off

2.6 During an outside call, pressing the FEAT key allows the user to use the following features:

- Optional account code
- Private CO call
- Microphone mute on/off

B. FUNCTION KEYS

2.7 The function keys, labeled F1-F10, are located on the left-hand side of the keyboard. They are used for speed dialing and for selecting items that appear in directory and programming lists.

2.8 When a list is displayed, each line is preceded with a number (F1-F10). To select a line, press the associated function key.

2.9 When the list contains more than ten entries, additional entries are preceded with ^F1-^F6. To select one of these entries, press the CTRL key and the indicated function key at the same time.

C. SPECIAL KEYS

2.10 RETURN or CNECT: These keys will select the line that is highlighted in each programming window and move you to the next window or prompt. They are also used to accept an entry and return you to the previous window. The use of these keys is described throughout the Custom Configuration section. The "carriage return" (RETURN) key on the typewriter keyboard can be used in place of the ANSW and CNECT keys in many features.

2.11 ENTER: Some features require you to press the ENTER key to complete the task. It is located in the lower right corner of the typewriter keyboard.

2.12 ESC: The ESC key has the following uses when the operator is programming console options:

- The ESC key is used to cancel the present programming utility and move you to the previous window. When several subroutines are involved, you will need to press ESC several times.
- You can exit to the Console display screen by pressing SHIFT and ESC simultaneously.
- If you wish to exit to the Console display screen *temporarily*, you can press ALT and ESC simultaneously; when you press CONFIG again you will have the option of continuing the previous activity or starting over.

2.13 ARROWS, PAGE UP/DOWN, HOME and END: The UP ARROW, DOWN ARROW, PAGE UP, PAGE DOWN, HOME, and END keys are used for moving through lists, as described on page 2-5.

2.14 ARROWS, DEL, and INS: When a prompt requires you to enter text (either letters or numbers) you can edit the entry by using the LEFT and RIGHT ARROW keys to move the cursor, DEL to delete the character located above the cursor, or INS to toggle between insert and replacement modes. The cursor is box-shaped in insert mode and is an underline when in replacement mode. In replacement mode, if you begin typing while a previous entry is displayed (without first moving the cursor), the former entry is overwritten. If desired, you can press ESC to cancel the new entry before you press RETURN.

2.15 CTRL: This is the "control" key that is used in conjunction with the function keys to access items in lengthy lists, as described in paragraph 2.9 on the previous page. It is located in the lower left corner of the typewriter keyboard.

2.16 ALT: There are two ALT keys and they are located on either side of the SPACE BAR. They are used for several purposes. For example, when both ALT keys

are pressed simultaneously, the keyboard "click" (that is heard whenever a key is pressed) is turned on or off. A single ALT key is used to access the "alternate" function of a feature key (this use is described in detail for each feature throughout the manual). While on a call, pressing an ALT and any keypad key simultaneously turns on or off DTMF signaling (depending on the default DTMF mode set up in CONFIG programming described on page 2-56).

2.17 HELP: The HELP key can be used as follows:

- If you press the HELP key once, the Help text files appear in the bottom half of the screen.
- While viewing the Help text files you can press CTRL and HELP to display a menu of Help topics.
- While scrolling through the Help text files you can return to your starting point by pressing SHIFT and HELP.
- If you press HELP twice, the screen will display information about using the Help feature.
- If you press the ALT and HELP keys at the same time, the screen prompts you to press the key about which you would like information.

3. DISPLAY SCREEN LAYOUT

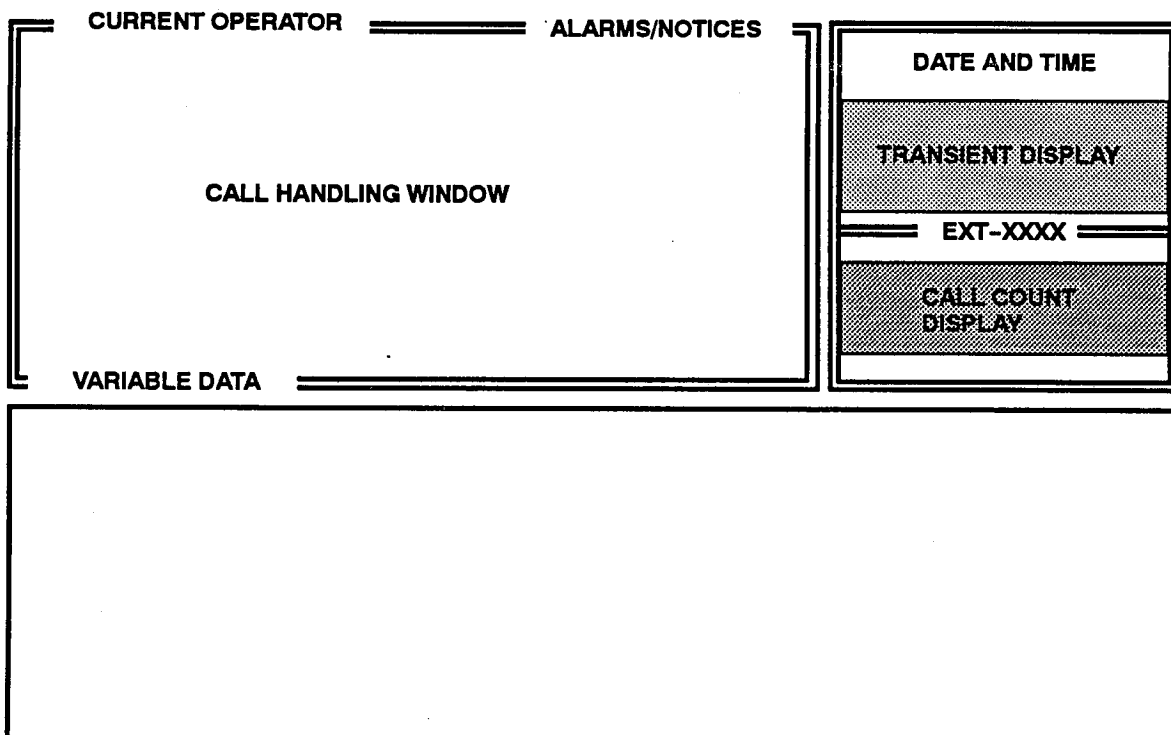
3.1 The Attendant Computer Console screen display appears as shown below. The different sections of the screen, which are referred to throughout this manual, include the following:

- The **Current Operator** is identified in the upper left corner, if the operator has enabled it in Configuration. This indicates which operator's customized options are in effect.
- The **Alarms/Notices** area displays an abbreviated message to indicate system alarms and console status such as do-not-disturb, forward, or reminder messages. When the console is idle, a box appears below the abbreviated message to show the full alarm or status message.
- The **Call Handling Window** changes when a call is placed or received, and when do-not-disturb, forward, or reminder messages are displayed. These displays are explained throughout the procedures in this section.
- The **Variable Data** changes to indicate the status of the console and acts as an identifying header for the information that appears in the large box at the bottom of the screen (such as speed-dial numbers or di-

rectory listings). When the console is not in use, the display shows "Station Is Idle."

NOTE: The period at the end of the idle status message flashes to indicate that the console is operational, but not in use. If the period fails to flash, contact service personnel.

- The **Date and Time** are shown in the upper right corner of the display. The operator can determine whether the time appears in 12- or 24-hour format.
- The **Transient Display** changes to show the operator what the console is doing. For example, after you have programmed a reminder message, it shows "Reminder Message Accepted." The length of time the display remains on the screen is determined by the operator. If the console is part of a hunt group, the transient display is also used for showing the number of calls camped on to the hunt group. These messages are cleared automatically, not by the operator.
- The **Extension Number** of the Attendant Computer Console appears below the transient display if enabled by the operator.
- The **Call Count Display** shows the number of calls ringing and holding. When the console is idle, it shows "No Ringing Calls" and "No Holding Calls."



4. INCOMING CALLS

4.1 Incoming calls, both intercom and outside, are displayed in the lower half of the screen in order of *priority* with the highest priority call at the top of the list. The highest priority call is also indicated by a highlight bar and the prompt "ANSWER?" in the margin, as shown in the figure below.

4.2 As shown below, each incoming call is identified with the trunk or extension number where the call originated or the name that was "tagged" to the call, the elapsed time of the call, and its status (ringing, holding, recalling, or callback). Intercom calls are further identified with the user's name. Callbacks and outside calls are identified with the name of the tenant associated with the trunk. Recalls are identified with the name of the user from whom the call is recalling. In the default configuration, the call types are displayed in different colors for easy identification of the higher priority calls.

4.3 The priority list for incoming calls is as follows:

- Ringing calls are listed first, in the order they were received.
- Calls recalling from transfer or hold are listed next, in the order they were received.
- Holding calls are listed next, in the order they were placed on hold.
- A queue callback will appear at the end of the incoming call list.

4.4 The call count display reflects the current number of ringing and holding calls. As shown in the example below, recalling calls are considered "ringing" for call count purposes.

4.5 If the console is a hunt group member, the transient display is used for showing the number of calls camped on to the hunt group(s).

4.6 When a call is answered, the information for that call appears in the call handling window as shown on the next page.

<p>CURRENT OPERATOR</p> <p>Incoming Calls</p>	<p>TUE NOV 7 08:36 AM</p> <p>TRANSFER COMPLETE</p> <hr/> <p>EXT-100</p> <hr/> <p>3 RINGING CALLS</p> <p>1 HOLDING CALL</p>
--	--

Local Trunk	for: Company's name	XX:XX	RINGING	ANSWER?
IC XXXX	for: User's name	XX:XX	RECALL	
Tagged name	for: Company's name	XX:XX	HOLD	
Trunk or IC XXXX	for: User's name	XX:XX	CALLBACK	

CURRENT OPERATOR	
Local Trunk	XX:XX CONNECTED!
Good Morning, May I help you?	
Last name, First or Ext >>	
IC Directory	

TUE NOV 07 08:37 AM
TRANSFER COMPLETE
EXT-100
3 RINGING CALLS
1 HOLDING CALL

F1	
F2	
F3	
F4	
F5	
F6	
F7	
F8	
F9	
F10	

A. RECEIVING CALLS

4.7 When the call is answered, the call handling window includes the call information that had appeared in the ring-in list, followed by "CONNECTED!" and a prompt that allows the call to be transferred to a station. When an outside call is answered, the programmed greeting for the appropriate tenant group also appears.

4.8 The lower section of the screen changes to the display selected by the operator in the configuration utility. If the intercom speed-dial directory is displayed, it allows the operator to see the most frequently called extension numbers and check their status. If any of the stations in the speed-dial directory are forwarded or in do-not-disturb, the operator will see this and can handle the incoming calls for that station accordingly.

4.9 After answering an outside call, the operator can tag it with a name by pressing the TAG key and typing the name of the caller. The caller's name will replace the trunk identification. If the call recalls, the operator will be able to see the name of the waiting party. Also, when text messaging is used, the name is automatically inserted in the FROM line.

4.10 TO ANSWER AN INCOMING CALL:

- (1) To answer the top priority call: Press ANSW, RETURN, or CNECT.

To select the call you wish to answer: Use the DOWN ARROW key to move the highlight bar to the desired call and press ANSW.

- (2) The call is connected. The call handling window shows the call's identification, the elapsed time of the call, and "CONNECTED!" on the top line. The bottom line prompts you for "Last name, First, or EXT." You may do one of the following:
 - a. If it is an outside call, you can tag the call with the caller's name by pressing the TAG key, entering the name, and pressing RETURN. The name replaces the trunk identification. You can then perform any of the following steps. (If necessary, you can cancel the tag before it is completed by pressing the ESC key. Or, you can erase the tag by pressing the ALT and TAG keys at the same time.)
 - b. Transfer the call to a station by dialing an extension number or pressing a speed-dial key and then pressing the EXTEND key. For more information, refer to page 2-12.
 - c. Transfer the call to an outside number by pressing OUTGN and dialing the desired number (or pressing OUTGN and a speed-dial key) and then the EXTEND key. For more information, refer to page 2-13.

- d. Place the call on hold by pressing the HOLD key. Refer to the instructions below for more information.
- e. Establish a conference call. Refer to page 2-29.

B. PLACING CALLS ON HOLD

4.11 An operator can place intercom and outside calls on hold. While on hold, the caller hears music (if equipped). The Attendant Computer Console can be used to place calls on hold using the following methods:

- **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.
- **Microphone mute** allows the operator to disable the microphone in the handset so that the caller cannot hear the operator, but the operator can still hear the caller. This does not activate a recall timer and the caller will not hear music-on-hold.

4.12 Skate-to-hold, if enabled in the database, allows operators to place calls on individual hold when the ANSW key is pressed during a call (instead of pressing the HOLD key and the desired key). When the system is in the default state, pressing the ANSW key during a call disconnects the call (skate-to-disconnect).

4.13 If the 256 or 416/832 System is programmed with transfer-to-park locations, calls could be transferred to hold at a "park" location, then retrieved when the attendant becomes available. For information regarding transfer-to-park, refer to page 2-12.

4.14 If an outside call remains on hold until the hold timer expires, it recalls the station. If the call is still unanswered when the recall timer expires, it recalls the station's attendant. If the attendant does not answer the recall before the abandoned call timer expires, the call is disconnected by the system. (If the system is in night mode, the call recalls the station that placed it on hold until the abandoned call timer expires and then the call is disconnected.) Intercom calls will recall the station, but will not recall the station's attendant.

Individual Hold

4.15 *TO PLACE AN INTERCOM OR OUTSIDE CALL ON INDIVIDUAL HOLD:*

While on the call press the HOLD key (or, if the system is programmed with the skate-to-hold option, press ANSW to place the call on hold and answer the next ringing call).

Microphone Mute

4.16 *TO MUTE THE HANDSET MICROPHONE WHILE ON A CALL:*

- (1) Press the FEAT key, then press the function key associated with "Microphone Mute On" (F3 while on an outside call, F2 while on an intercom call). You can hear the caller, but the caller cannot hear you.
- (2) To re-enable the microphone, press the FEAT key, then press the function key associated with "Microphone Mute On" (F3 while on an outside call, F2 while on an intercom call).

C. CALL TRANSFER

4.17 Intercom and outside calls can be transferred to other stations, to hunt groups, or to outside telephone numbers.

4.18 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, the installer cannot assign a transfer-to-park location.

4.19 If an outside call is transferred to another station and is not answered before the transfer-available or transfer-busy timer expires (and if it was not transferred to hold), the call recalls the transferring station and rings until the recall timer expires. If still unanswered after the recall timer expires, it recalls the transferring party's attendant. If the attendant does not answer a recall before the abandoned call timer expires, the call is disconnected by the system. If the transferring station has no attendant, the call remains at the transferring station until the recall and abandoned call timers expire, and then the call is disconnected by the system. Transferred intercom calls will not recall the transferring station or the attendant.

4.20 A call that is 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 transfer recall timers expire.

4.21 If the PAGE key is pressed instead of the EXTEND key, the call is placed on hold at the receiving station and the console operator can use the paging feature.

Transfer To An Extension Number

4.22 TO TRANSFER A CALL TO AN EXTENSION NUMBER:

(1) While connected to a call, enter an intercom number or press a speed-dial key. The "CONNECTED!" message on the incoming call changes to "TRANSFER HOLD" and the intercom call information is displayed on the next line.

- a. *If transferring to a station that is forwarded to voice mail, the display shows "Transferring to a station forwarded to voice mail." Go to step 2.*

- b. *If transferring to the transfer-to-park location, hang up to complete the transfer, or transfer the call to hold. 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 will recall the called transfer-to-park location's attendant if transferred to hold.*

- c. *If transferring the call to a hunt group, the transfer is automatically completed when you dial the pilot number.*

(2) *If desired, wait for an answer and announce the call. One of the following occurs:*

- a. *If the call is accepted, press EXTEND (or press HOLD to transfer the call to hold at the receiving station). The transient display shows "Transfer Completed."*

- b. *If the call is refused, the station is busy, or there is no answer, do one of the following:*

To try another station: Disconnect from the intercom call by pressing the RELEASE key. You can enter another intercom number.

To return to the party on transfer hold and disconnect the intercom call: Press the RETRV key.

To complete the transfer: Press EXTEND to complete the transfer (or press HOLD to transfer the call to hold at the receiving station, or press PAGE to place the call on hold at the receiving station and connect you with the paging network). Then page the party to announce the transfer.

- c. *If you need to speak to the calling party again before completing the transfer:*

1. Press the SPLIT key. The station waiting to receive the transfer is placed on hold and you are connected to the party waiting to be transferred.

2. Press SPLIT again to speak to the station user waiting to receive the transfer and place the party to be transferred on hold.

3. Press EXTEND to complete the transfer (or press HOLD to transfer the call to hold at the receiving station, or press PAGE to place the call on hold at the receiving station and connect your station with the paging network).

Transfer To Voice Mail

4.23 TO TRANSFER A CALL TO VOICE MAIL:

- (1) While connected to a call, press VMAIL. The "CONNECTED!" message on the incoming call changes to "TRANSFER HOLD."
- (2) To send the call to a specific mailbox: Enter the desired mailbox number. Or, select an entry from the speed-dial directory at the bottom of the screen and press RETURN or CNECT.

If the system is checking for a valid mailbox number and you entered a valid mailbox number, the transfer is completed to voice mail.

If the system is checking for a valid mailbox number and the number you entered is invalid, you hear reorder tones and you must enter a valid number.

To send the call to the voice mail main menu: Press RELEASE. The caller will be connected to the voice mail unit and must enter the mailbox number after listening to the introductory voice prompts.

Transfer To An Outside Number Or E&M Destination

NOTE: 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.

4.24 When a loop start trunk is being used by either outside party, the duration of an outside call that is transferred to outside telephone numbers is limited by the unsupervised CO timer. When this timer expires, the outside parties hear a burst of dial tone. They may then press any DTMF key (before the dial initiation — SL set timer expires) to reset the timer. If the timer is not reset, the unsupervised call recalls the primary attendant. If the attendant does not answer the recall before the abandoned call timer expires, the call is disconnected by the system.

4.25 TO TRANSFER A CALL TO AN OUTSIDE NUMBER:

- (1) While connected to a call, press the OUTGN key. The "CONNECTED!" message on the incoming

call changes to "TRANSFER HOLD" and the outside call information is displayed on the next line.

- (2) *If using an outgoing trunk:* Dial the desired telephone number or press a speed-dial key.

If using an E&M trunk: Do one of the following:

- a. *If you hear ringing,* wait for the other telephone system's attendant to answer. Then ask to be transferred to the desired station or outside telephone number.
- b. *If you are connected to the other telephone system (you may hear dial tone) and wish to transfer the call to an extension number on that system,* dial the desired extension number.
- c. *If you are connected to the other telephone system (you may hear dial tone) and wish to transfer the call to an outside telephone number,* dial the other telephone system's trunk access code and the desired telephone number.

- (3) One of the following occurs:

- a. *If answered,* press EXTEND. The transient display shows "Transfer Completed."
- b. *If the call is refused, the number is busy or invalid, or there is no answer,* disconnect from the outside call by pressing the RELEASE key; you can dial another number. Or, you can return to the party on transfer hold by pressing the RETRV key.
- c. *If you needed to speak to the calling party again before completing the transfer:*
 1. Press the SPLIT key. The station waiting to receive the transfer is placed on hold and you are connected to the party waiting to be transferred.
 2. Press SPLIT again to speak to the station user waiting to receive the transfer and place the party to be transferred on hold.
 3. Press EXTEND to complete the transfer.

Text Message Editor

FOR:	Telephoned
DEPT:	Please call
FROM:	Returned Your Call
OF:	URGENT
PHONE:	Will Call Again
Additional Information:	

5. TEXT MESSAGING

5.1 The Text Messaging facility provides a means for entering a memo-type text message, retrieving a specific text message, and maintaining a directory of text messages.

5.2 If the party for whom the message was left is in the company directory, that party's extension is called and a message indication is left at their station when the message is completed.

5.3 Each text message is automatically stamped with the date, time, and name of the operator taking the message (if the operator's name has been programmed in configuration).

5.4 If an outside caller is placed on hold while a text message is being entered, and the message is partially completed, the text message is automatically retrieved when the party is taken off hold. If an intercom caller is placed on hold or if a caller (intercom or outside) hangs up while on hold, the partially completed text message is stored in a buffer. The next time you press TEXT MSG, you can choose to save the incomplete message, delete it, edit it, or leave it in the buffer. If you save it, it is inserted in the text message directory and flagged as "incomplete." If you edit it and then press RETURN, it is inserted in the directory as a completed message.

5.5 If the number of text messages saved on disk nears the specified limit, an alarm will be posted alerting you that the messages will soon be lost (if enabled in the computer console database to do so). Refer to page 2-60 for more information.

A. ENTERING TEXT MESSAGES

5.6 TO ENTER A TEXT MESSAGE:

NOTE: To cancel the message at any time before saving it, press ESC. "MESSAGE ABANDONED" appears in the transient information display.

- (1) Press the TEXT MSG key, the text messaging window appears in the lower half of the screen as shown above. The cursor is on the "FOR" line.

NOTE: If the message is being taken while speaking to a party that has recalled from an extension number, the "FOR" field will be automatically filled in with the name of the called intercom party. Skip the next step.

- (2) Enter the extension number or name of the person to receive the message (last name, first name, or any portion that matches an intercom directory name) and press RETURN.
- (3) If the name exactly matches one in the system directory, the "DEPT" line is automatically filled in. Go to the next step.

If the name does not match a name in the system directory, a list of closely matching names from the directory is displayed. You may select one of the names by pressing the associated function key (or highlighting it and pressing RETURN). Or use the name as you typed it by pressing ESC. The cursor moves to the "DEPT" line to allow you to type a department name, if desired. Press RETURN to continue to the next step.

NOTE: If the message is being taken while speaking to an intercom party, the "FROM" field

will be automatically filled in with the name of the calling intercom party. Skip the next step.

- (4) The cursor moves to the "FROM" line. Type the name of the party who is leaving the message and press RETURN. *If the call was tagged*, this line will already be filled in. You can type a new name or just press RETURN to leave it unchanged.
- (5) The cursor moves to the "OF" line. Type the company or department of the party who is leaving the message, if desired, and press RETURN.
- (6) The cursor moves to the "PHONE" line. Type the telephone number of the party who is leaving the message, if desired, and press RETURN.
- (7) The cursor moves to the message notes (Telephoned, Please Call, Returned Your Call, URGENT, and Will Call Again) at the right side of the screen. To mark a message note, use the UP and DOWN ARROW keys to move the highlight bar. When the desired note is highlighted, press the SPACE BAR. Mark as many notes as desired. (To unmark a message, highlight it again and press the SPACE BAR.)
- (8) **To edit the message:** Use the UP and DOWN ARROW keys to move back through the entered information and make changes or corrections.

To accept the message without changing it: Press the PAGE DOWN key to move to the "Additional Information" line and type the message as desired (up to 13, 75-character lines).

NOTE: To send the text message to the printer before saving it, press the F10 key.

- (9) When the message appears as desired, press the ENTER key. "MESSAGE SAVED" appears in the transient display and the console returns to the idle state. If the party for whom the message was left is in the company directory, a message indication is left at that party's extension when the message is completed.

5.7 TO TEMPORARILY EXIT FROM THE MESSAGE AND ANSWER A CALL:

- (1) *If a call rings in while you are entering a text message and you are not currently on a call*, press the ANSW key. You are connected with the incoming call. The partially completed text message will be held in memory.

If a call rings in while you are entering a text message and you are on a call, press the HOLD key and then the ANSW key. The previous call is on hold and you are connected with the incoming call. The partially completed text message will be held in memory and will return when you reconnect the associated call

- (2) **To return to the message after the call is completed:** Press the TEXT MSG key (or answer the holding call). A prompt allows you to choose to edit the message, delete it, or save it on disk as is. Highlight your choice and press RETURN.

If you chose to edit the message, fill in the spaces as described in the preceding procedures.

If you chose to save the message as is, a new, blank message screen is displayed for you to enter another message.

B. RETRIEVING A TEXT MESSAGE

5.8 There are two ways to retrieve a text message: automatically and manually.

- **Automatically:** When you answer a call from a station that has pending text messages, the oldest pending message for that party is automatically retrieved and displayed in the lower half of the screen, and the incoming date and time at which the message was received is added to the message. You can then view, delete, or print any waiting messages.
- **Manually:** When you receive a call from a station user, either from an outside number or a station other than his or her own, the caller's pending messages are not automatically displayed. To retrieve the messages, press SHIFT and TEXT MSG, scroll to the desired message, and press RETURN. You can then view, delete, or print the message or additional messages. (Refer to USING THE TEXT MESSAGE DIRECTORY on the next page for more details.)

5.9 TO VIEW MULTIPLE MESSAGES:

- (1) If more than one message is pending for the calling party, you can scroll through all the messages without deleting them using the PAGE UP, PAGE DOWN, HOME, and END keys.
- (2) You may perform any of the procedures described below. When finished, press ESC to leave the message flagged as "Unretrieved" or press RELEASE to end the call and flag the message as "Received."

If the text message was retrieved manually, you can transfer the caller to another intercom number and flag the message as "Received" by pressing IC DIR, selecting an intercom number, and pressing EXTEND. (For example, the station user calls from an outside number to check text messages and then wishes to be transferred to a station or voice mail.)

5.10 TO PRINT A MESSAGE WHILE VIEWING IT:

Press the F3 key. The message will be printed via the parallel printer port on the console. The message remains in the directory until it is deleted.

5.11 TO DELETE A MESSAGE WHILE VIEWING IT:

Press the F2 key. The message is deleted from memory.

5.12 TO EDIT A MESSAGE WHILE VIEWING IT:

- (1) Press the F1 key. Edit the message as described in the instructions for entering a message.
- (2) When finished, press RETURN. The date and time that the message was updated is added and the message is stored in the directory.

C. USING THE TEXT MESSAGE DIRECTORY

5.13 When you press the SHIFT and TEXT MSG keys at the same time, the text message directory window appears in the lower half of the screen. You can view, erase, print, or set a delayed printing of messages as desired.

5.14 Each directory entry consists of one line containing the following information:

- Person for whom message was entered
- Person from whom message was received
- Date and time message was received or updated
- Whether the message has been retrieved
- Whether the message is complete

5.15 The messages appear in the directory in alphabetical order according to the person for whom the message was taken. If there is more than one message for the same person, they are listed oldest first.

5.16 An asterisk (*) in the left margin indicates that the message has not been retrieved. After you have read the message once and pressed RELEASE (or the IC DIR key as described on the preceding page), the asterisk is removed, but the message remains in the directory until you delete it. (If you press ESC while viewing a message, the asterisk remains.)

5.17 When erasing or printing messages, you can choose a single message or "tag" (select) several messages. When the procedures state "tag the desired messages," you can perform of the following steps.

5.18 TO TAG MESSAGES:

- (1) **To select a single message:** Use the UP or DOWN ARROW keys to move the highlight bar. When a message you wish to erase or print is highlighted, press the CTRL and T keys at the same time to tag it.

To select a range of messages: Press the CTRL and R keys at the same time. The screen prompts you to "Select range." Do one of the following:

a. **To tag all messages:** Press RETURN to select "All."

b. **To tag only the messages in a specific time range:**

1. Press the DOWN ARROW key to highlight "Time" and press RETURN. The screen prompts you to enter the starting date.

2. Enter the month, day, and year (for example, 01/01/90) and press RETURN. The screen prompts you to enter the starting time.

3. Enter the hour and minutes in the indicated format (for example, "13:00" or "1:00 pm") and press RETURN.

4. The screen prompts you for the ending date, then the ending time. Enter them as described for the starting date and time and press RETURN. The messages that were received between the starting and ending times are tagged.

c. **To tag only the messages for a specific tenant:** Press the DOWN ARROW key to highlight "Group" and press RETURN. The screen shows a list of tenants. Move the high-

light bar to the desired tenant group and press RETURN.

- d. **To tag only the messages that have been retrieved:** Press the DOWN ARROW key to highlight "Retrieved" and press RETURN.
- e. **To tag only the messages that have NOT been retrieved:** Press the DOWN ARROW key to highlight "Unretrieved" and press RETURN.
- f. **To clear all tags:** Press the DOWN ARROW key to highlight "Clear" and press RETURN.

- (2) Repeat step 1 as necessary to tag additional messages. *If you wish to remove a tag from a message, move the highlight bar to the desired message and press the CTRL and U keys at the same time.*

5.19 TO VIEW A MESSAGE:

- (1) **To select a specific message:** Press the associated function key (or use the UP or DOWN ARROW keys to move the highlight bar to the message to be viewed and press RETURN). The message appears at the bottom of the screen.

To select a message for a specific station: Enter a name or extension number and press RETURN. The oldest waiting message for that person is displayed at the bottom of the screen.

- (2) You may edit, delete, or print the message as described in paragraphs 5.8 through 5.12.
- (3) **To return to the text message directory:** Press ESC.

5.20 TO ERASE A SINGLE MESSAGE:

- (1) Use the UP or DOWN ARROW keys to move the highlight bar to the message to be erased.
- (2) Press the CTRL and E keys at the same time to erase the highlighted message.

5.21 TO ERASE ONE OR MORE MESSAGES:

- (1) Tag the desired messages. (Refer to paragraph 5.18.)
- (2) Press the CTRL and E keys at the same time. A window appears that asks "Delete which messages?" Do one of the following:

- a. **To erase the tagged messages:** Press RETURN to select "Tagged." The text message directory returns. All previously tagged messages have been removed.
- b. **To erase only the message that is currently highlighted:** Press the DOWN ARROW key to highlight "Individual" and press RETURN. The text message directory returns. The previously highlighted message has been removed.
- c. **To cancel this function:** Press the DOWN ARROW key to highlight "None" and press RETURN. The text message directory returns, unchanged.

5.22 TO PRINT ONE OR MORE MESSAGE:

NOTE: You can send the text message to the printer while entering it by pressing the F10 key as described on page 2-15.

- (1) **To select several messages:** Tag the desired messages. (Refer to paragraph 5.18.)

To select a specific message: Move the highlight bar to the desired message.

- (2) Press the CTRL and L keys at the same time. If only one message is in the directory it is sent to the printer. If more than one message is in the directory, a window appears that asks "Print which messages?" Do one of the following:

- a. **To print the tagged messages:** Press RETURN to select "Tagged." The text message directory returns. All tagged messages are sent to the printer.

- b. **To print only the message that is currently highlighted:** Press the DOWN ARROW key to highlight "Individual" and press RETURN. The text message directory returns. The highlighted message is sent to the printer.

- c. **To cancel this function:** Press the DOWN ARROW key to highlight "None" and press RETURN. The text message directory returns.

5.23 TO SET MESSAGES FOR DELAYED PRINTING:

- (1) **To select several messages:** Tag the desired messages. (Refer to paragraph 5.18.)

To select a specific message: Move the highlight bar to the desired message.

- (2) Press the CTRL and D keys at the same time. A window appears that asks "Print message (delayed)?" Do one of the following:

- a. **To print the tagged messages:** Press RETURN to select "Tagged."

- b. **To print only the message that is currently highlighted:** Press the DOWN ARROW key to highlight "Individual" and press RETURN.

- c. **To cancel this function:** Press the DOWN ARROW key to highlight "None" and press RETURN.

- (3) The screen prompts you to "Enter print date." Press RETURN to use the current date or enter the date on which you want the message(s) to print in the following format: month/date/year (for example, 01/01/90). Press RETURN. The screen prompts you to "Enter print time."

- (4) Press RETURN to use the current time or enter the time in the indicated format with the hour and minutes separated by a colon (for example, "13:00" or "1:00 pm"). Press RETURN. The text message directory returns. The selected messages will be printed at the designated time.

6. INTERCOM CALLS

A. INTERCOM DIRECTORY

6.1 The system intercom directory is stored in the 256 or 416/832 System database and transferred to the Attendant Computer Console during database download.

6.2 When the system is first installed, all stations and hunt groups that have assigned extension numbers appear in the intercom directory. To simplify the directory for Attendant Computer Console Operators, the installer should delete all unused numbers. Refer to the 256 or 416/832 manual for the following applicable programming information:

- Extension numbers, pilot numbers, user names, and hunt group names are programmed through the Extensions, Usernames and Feature Codes Programming window described in the 256 and 416/832 installation manuals.
- Aliases can be assigned to extension numbers that have more than one user or purpose so that they appear in the console intercom directory more than once. For example, if two users share a station, one name can be programmed as the user description for that station and the other name can be programmed as an alias. Or, if these two users also have a special function, such as "customer service" that name can be programmed as the main name for the station and the individual names as aliases for that station. There can be a total of up to 200 aliases programmed in the 416/832 System and up to 100 in the 256 System. They are programmed using the Attendants — Aliases window described in the 256 and 416/832 installation manuals.

NOTE: Aliases will not appear in the IC directory that is accessed by keysets. These aliases can only be viewed on Attendant Computer Console stations.

- Tenant groups and departments and their names are programmed through the Tenant and Departments window described in the 256 and 416/832 installation manuals.

6.3 The intercom directory allows the Attendant Computer Console operator to place a call to any extension number by pressing the IC DIR key and scrolling to the desired name, by dialing the number, or by typing the first name, last name, or department of the station user. It also permits the console operator to see which stations are in do-not-disturb and are forwarded.

6.4 When a station has both do-not-disturb and call forward enabled, the do-not-disturb message is displayed, and a "+" is added to the extension number to indicate that a call forward message is also in effect. The

operator can press the question mark (?) key to toggle between the do-not-disturb and call forward messages.

6.5 As part of the configuration function, each operator can select whether the intercom directory shows just his/her tenant group or the entire system while an intercom call is being placed. (Pressing the IC DIR key will always display the entire system directory.) Refer to page 2-52.

6.6 When the console operator dials an extension number, the number is checked against the system directory for validity. Depending on configuration programming (see page 2-57), the call will be handled in one of the following three ways when the number *exactly* matches an entry in the system directory.

- The call is dialed regardless of the station's availability. If the station is busy, the call camps on. If in do-not-disturb, the operator can use the queue, message, or do-not-disturb override feature (if enabled).
- The call is dialed only if the station is available. If the station is busy or in do-not-disturb, the operator has the option of calling in order to camp on, queue, leave a message, barge (if enabled), or override do-not-disturb (if enabled).
- The call is dialed if the station is busy, but not if the station is in do-not-disturb. If the called station is in do-not-disturb, the operator can still choose to place the call in order to use the queue, message, or do-not-disturb override feature (if enabled).

B. PLACING INTERCOM CALLS

6.7 TO PLACE AN INTERCOM CALL:

- (1) **To use speed dialing:** Speed dial an intercom number by pressing any function key to display the intercom speed-dial directory and then pressing the function key associated with the desired number. Skip to step 3.

To call a station or hunt group: Dial an extension or pilot number. Whether the call to a station is automatically connected depends on your configuration programming. If the call is not automatically connected, the intercom directory will include the prompt "Call?" and you must press RETURN or CNECT to complete the call. You have the options described in step 3.

To use the directory search: Enter one of the following:

- The first number of an extension number.
- The first letter of a last name.
- A comma (,) followed by the first letter of a first name.

- A backslash (\) and the department name followed by another backslash (and a name if desired).

The prompt "Last name, First or EXT" appears in the call handling window and the intercom directory appears in the bottom half of the screen. The entries on the directory list have numbers or letters that match the character that was entered. (For example, if you entered "P" the list includes station users whose last name begins with P.)

To use the full intercom directory: Press the IC DIR key. The prompt "Last name, First or EXT" appears in the call handling window and the intercom directory appears in the bottom half of the screen. Use the ARROW keys or PAGE UP/DOWN keys to locate the desired extension number, or enter characters as described above.

(2) You have the following options:

- a. Continue entering the name and/or number. As each character is typed, the directory list in the lower half of the screen is shortened to match the input. (For example, if "PO" has been entered the list includes only those station users whose name begins with PO.) If no matching entries are available, the display shows "[No entries]." *If desired*, you may include a comma in the entry to begin searching for a first name (for example, "PO,J" for a user whose last name begins with PO and whose first name begins with J), or enter a combination of letters and numbers (for example, "PO12" to find a user whose name begins with PO and whose extension number begins with 12). Press the associated function key (or press RETURN or CNECT when the desired name is highlighted).

NOTE: If you make a mistake, use the backspace key to erase your entry before it is completed. This will expand the directory list as fewer characters remain in the input. To cancel the call before it is complete, erase all characters or press RELEASE or ESC.

- b. Scroll through the list by pressing the UP or DOWN ARROW key until the desired name is highlighted. Then press the associated function key or press RETURN or CNECT.
- c. Move through the list alphabetically by pressing the RIGHT ARROW key to move forward. (Press the arrow once to show only entries that begin with A, twice to show entries that begin with B, and so on.) To move

backward, press the LEFT ARROW key. If no entries are available for a given letter, the display shows "[No entries]." When the desired name is showing, press the associated function key (or move the highlight bar to it and press RETURN or CNECT).

- d. Press the function key (F1-F10) or the CTRL key/function key combination (^F1-^F6) that appears next to the desired name. (If the desired name is not on the screen, use the ARROW, END, HOME, or PAGE UP/DOWN keys to move through the list, or enter more characters to shorten the list.)

(3) One of the following will occur:

- a. *If calling a handsfree keyset station*, speak after you hear a double tone. The call display shows "CONNECTED!"
- b. *If calling another console, a single-line station, a hunt group, or a keyset with handsfree disabled*, you hear repeating double tones until the call is answered. The call display shows "RINGING" until the call is answered, then it shows "CONNECTED!"
- c. *If you dial an invalid number*, the intercom directory shows "No Entries" to indicate that there is no match. Erase the number and try again, using a valid number.
- d. *If the called station is busy*, the call display shows "BUSY." You have the following options:
 1. Press RELEASE to disconnect and try later. The console returns to the idle state.
 2. Wait for the called station to become available. When your call camps on the display changes to "CAMPED ON." When the called station is available, a private call is placed and the display shows "RINGING" until the call is answered. Refer to paragraph 6.11 for details.
 3. Request a busy station callback (queue) by pressing the QUEUE key. This is similar to camping on except that you disconnect from the call and wait for the busy station to be available. For more information, refer to paragraph 6.14.
 4. Leave a message waiting indication with the station itself or with the station's message center by pressing the MSG key. For details, refer to page 2-23.
 5. Press the BARGE key to join in the call. Refer to page 2-31 for details.

- e. *If you hear a repeating signal of four fast tones and a pause, and the call display shows "IN DND" and the selected do-not-disturb message, the station is in do-not-disturb. You can use the busy station callback feature, leave a message waiting indication, or, if enabled on your station, use the do-not-disturb override feature by pressing the FEAT key, then F1 to select the override feature. To cancel the intercom call, press RELEASE.*
- f. *If the called station is a busy keyset and if all the necessary conditions for OHVA are enabled, you can announce the call using the off-hook voice announce feature. For a complete explanation of this feature, refer to page 2-22.*

C. RING INTERCOM ALWAYS

6.8 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 SPKR key or IC key) to answer.

6.9 *TO PROGRAM THE STATION TO ALWAYS PLACE PRIVATE INTERCOM CALLS (RING INTERCOM ALWAYS):*

- (1) Press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Move the highlight bar to "Ring Intercom Always" and press the associated function key or RETURN.

6.10 *TO CANCEL RING INTERCOM ALWAYS:*

Repeat the procedure shown above. The feature name will have changed to "Ring Intercom Always Cancel" in the feature list.

D. INTERCOM CAMP ON AND BUSY STATION CALLBACK (QUEUE)

Camp On

6.11 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 (if enabled) while waiting until the

called station is available. The system periodically sends call waiting signals to the busy station, if camp-on tones are enabled.

6.12 If a called station enables do-not-disturb while an intercom call is camped on, the caller is removed from the camped on state and receives do-not-disturb indications. Intercom callers cannot camp on to a station that is in do-not-disturb.

6.13 *TO CAMP ON TO AN EXTENSION NUMBER:*

When calling an extension number and you 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.

Busy Station Callback (Queue)

6.14 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 before or after the call camps on. Each station can have only one active queue request at a time.

6.15 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.

6.16 *TO QUEUE A STATION:*

- (1) When calling an extension number that is busy or in do-not-disturb, press the QUEUE key.
- (2) When the queued station is available, you hear a repeating signal of three tones and a long pause and see a callback message in the incoming call list. Highlight the callback and press RETURN, CNECT, or ANSW. A private call is automatically placed to the queued station.

6.17 *TO CANCEL A QUEUE REQUEST (BEFORE THE QUEUED STATION BECOMES AVAILABLE):*

While the console is idle, press the ALT and QUEUE keys at the same time. The transient display shows "Canceling Queue."

E. OFF-HOOK VOICE ANNOUNCE (OHVA)

■ **6.18** When a digital keyset, a 12-line or 24-line analog keyset, or an Inter-Tel/DVK keyset is busy, you can use the off-hook voice announce (OHVA) feature (if enabled). This feature allows you to establish voice contact with the called keyset user, even though the user already has a call in progress on the handset. The called keyset user can then talk freely on both connections, using the handset for the original call and the speakerphone for your OHVA intercom call. Note that the caller on the handset call *will* be able to hear your OHVA call (unless the keyset user presses the MUTE key).

■ **6.19** The OHVA feature must be enabled in the database. Each digital keyset, 12/24-line analog keyset, and Inter-Tel/DVK keyset can be programmed for *placing* and/or *receiving* OHVA calls, and each console, keyset, and single-line set can be programmed for *placing* OHVA calls, as desired. (Consoles, 8-line analog key-

sets, and single-line sets cannot receive OHVA calls since they do not have secondary voice path circuitry.)

6.20 OHVA calls cannot be processed if the secondary voice path or the speakerphone of the called keyset is not available. Also, OHVA calls are not possible if you are placing a forced private intercom call.

6.21 TO PLACE AN OFF-HOOK VOICE ANNOUNCE CALL:

- (1) When an intercom call is placed to a busy keyset, do not hang up. You hear busy signals until the camp-on timer and the OHVA screening timer 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 paragraph 6.11.)
- (2) When the OHVA screening timer expires (and if the keyset's secondary voice path is available), you are automatically connected to the called party's speakerphone.

7. INTER-STATION MESSAGES

7.1 If a station is busy or in do-not-disturb, or if there is no answer, you may leave a message waiting indication. The called station's MSG key flashes (consoles and display keysets also show the message source). There are two message options:

- **Have the called party return your call.** (Display keysets and consoles show the source 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 keysets and consoles show that a message was left with the 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.

7.2 To signal that a message is waiting, a called keyset's MSG key flashes and the display shows the message source. Enhanced Single-Line Sets (ESLSs) are equipped with message waiting lamps that, if enabled in the database, light when the station receives a message. For all 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.

7.3 When a message waiting indication is left at an Attendant Computer Console, "MSG" appears in the alarms/notices area at the top of the screen. When you press the SHIFT and MSG keys at the same time, a listing of waiting messages appears in the lower half of the screen. Messages are listed in the order they were received. Each message is identified with the caller's name, department, and current status (busy, forwarded, etc.). The waiting messages can be answered or canceled as desired.

7.4 Any station can be designated as the message center for any other station. However, a station cannot be programmed as its own message center. If the designated message center is a voice mail system, the voice mail system is called. When the voice mail system answers the call, the called party's "mail box" is automatically dialed. The caller can then leave a message in the mailbox. The called party's MSG key flashes and the

display shows MESSAGE RECEIVED FROM [Voice Mail].

7.5 Each station user can leave message waiting indications at more than one station, but only one per station.

A. LEAVING MESSAGES

7.6 *TO LEAVE A MESSAGE WAITING INDICATION:*

- (1) Place a call to the desired extension number.
- (2) Press the MSG key. The call handling window shows "Release to leave at station or wait for MSG center" if the called station has a message center.

NOTE: If the station you are calling does not have a designated message center or if you are calling your message center, you will see "Message Left At Station" immediately after pressing the MSG key. The station will receive a message waiting indication.

- (3) **To have the called party call you:** Press RELEASE.

To leave the message with the called party's message center: Do not hang up. When the message timer expires, a private call is automatically placed to the called party's message center. (If the message center is a voice mail system, the called party's mailbox is automatically dialed after the voice mail system answers the call.) Leave your message with the message center and hang up. The called station receives message waiting indications.

NOTE: If the message center does not answer, the station will still call the message center when responding to the message waiting indication. You may wish to call the station again and leave a message at the station instead of the message center.

7.7 *TO LEAVE A MESSAGE WAITING INDICATION WITHOUT CALLING THE STATION (SILENT MESSAGE):*

Highlight the desired extension number in the intercom directory and press the MSG key. The transient display shows "Message Left At Station."

Canceling A Message Waiting Indication That You Left

7.8 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 the message, using the procedure outlined below.

7.9 TO CANCEL A MESSAGE YOU LEFT:

- (1) Dial or highlight the desired extension number.
- (2) Press the ALT and MSG keys at the same time. The transient display shows "Message Canceled At Station."

B. RECEIVING MESSAGES

Answering Messages

7.10 TO ANSWER MESSAGES:

- (1) If "MSG" appears in the alarm/notice area at the top of the screen, press the SHIFT and MSG keys at the same time to view the message directory. A list of waiting messages appears in the lower half of the screen.
- (2) **To reply by calling the station:** Press the function key associated with the desired message (or move the highlight bar to the desired message and press RETURN or CNECT). A private call is placed to the party identified in the message.

To reply by calling voice mail: Press the VMAIL key and then press the function key associated with the desired message (or move the highlight bar to the desired message and press RETURN or CNECT). The mailbox number for the station that is identified in the message is automatically dialed.

NOTE: If the station does not answer the private call, is busy, or is in do-not-disturb, the directory continues to indicate a waiting message unless you leave a message before hanging up or cancel the message after hanging up. The message waiting indications are canceled automatically only when you are actually connected with the station that left the message.

- (3) Repeat this procedure for each message you wish to answer.

Canceling A Waiting Message

7.11 TO CANCEL A MESSAGE WITHOUT ANSWERING:

- (1) If "MSG" appears in the alarm/notice area at the top of the screen, press the SHIFT and MSG keys at the same time. A directory of waiting messages appears in the lower half of the screen.
- (2) Move the highlight bar to the message to be canceled and press the ALT and MSG keys at the same time.
- (3) Repeat this procedure for each message you wish to cancel.

8. OUTSIDE CALLS

8.1 When a trunk group is selected for receiving or placing an outside call, the voice channel is seized and cannot be used by any other station (unless privacy release is enabled, see page 2-32, or the conferencing feature is used, see page 2-29). If all trunks in the desired group are busy, you can camp on or request a callback (queue). Refer to the 256 or 416/832 manual for an explanation of trunk groups, auto trunks, and outgoing-access, allowed-answer, and ring-in assignments.

8.2 After answering an outside call, the operator can tag it with a name and/or note by pressing the TAG key and typing the name of the caller and, if a note is desired, a backslash followed by the note. The caller's name and the note will replace the trunk identification. If the call is placed on hold and recalls, the operator will be able to see the name of the waiting party. Also, when text messaging is used, the name is automatically inserted in the FROM line. Tagged calls can also be added to the CO directory as described in paragraph 8.8 below.

A. THE CO DIRECTORY

8.3 The console CO directory is displayed when an outgoing call is placed. It includes the *system* speed-dial numbers and any additional numbers that were entered by the operator(s) using the procedure given on page 2-55 or the tagging procedure described below. To view the complete directory, an operator can use the programming sequence (shown on page 2-55), or press OUTGN followed by any letter and a BACKSPACE.

8.4 The numbers added by the operator(s) can be given names and/or notes as desired. Each operator can add numbers to the CO directory, but because all operators of a single console share the CO directory, all will have access to the numbers (the added numbers are not "private" for each operator on a shared console). The names can be 20 letters long and the notes can be 10 letters long. Do not use digits or backslashes in the names or notes.

8.5 System speed-dial entries are shown in the directory with the speed-dial location number in the "notes" field. Unless the console user is an attendant or the system speed-dial programming station, non-display speed-dial numbers will show only the name (not the telephone number) and they cannot be added as personal entries in the CO directory or redialed.

8.6 While viewing a CO directory entry, the console user can press the "at" key (@) to display the area code, location, and local time of the telephone number. If the time is shown as ~XX:XX, the area code spans two time zones and the local time is estimated. If you know the actual time for that telephone number, the local time can be modified as described on page 2-55.

8.7 In the directory, toll-free "800" numbers are preceded by "\$0" to indicate that they are free calls. Toll numbers that begin with 9XX are preceded with "\$\$".

8.8 *TO TAG A CALL OR REDIAL NUMBER AND/OR ENTER IT IN THE CO DIRECTORY:*

- (1) While on an outgoing call or while viewing a highlighted redial number in your personal CO directory, press the TAG key.
- (2) When prompted, enter the name and, if desired, a backslash (\) followed by a note.
- (3) **To tag the call and place the number in the CO directory:** Press SHIFT and TAG at the same time. The name and note replaces the trunk identification.

To tag the call without adding it to the directory: Press RETURN. The name and note replaces the trunk identification. (You can later add the call to the CO directory by repeating steps 1-3.)

To remove the tag from a tagged call: Press ALT and TAG at the same time. (This does not remove the CO directory entry, if one was added.)

8.9 The numbers added by the operator(s) to the CO directory can be listed by first name or last name, as desired. If the entry was made with the names reversed (for example, "Joe Smith" was entered and "Smith, Joe" is desired), the names can be reversed by highlighting the entry and pressing CTRL and TAG at the same time.

8.10 When CO directory entries contain numbers that exceed the space allotted, a plus (+) appears next to the number. To view the expanded information, place the highlight bar on the entry (using the ARROW keys) and then press the question mark (?) key. To return to the shorter display, press the question mark key again.

B. PLACING OUTSIDE CALLS

8.11 TO PLACE AN OUTSIDE CALL:

- (1) **To select the default outgoing trunk:** Press the OUTGN key. A trunk is selected according to the customized option you have programmed (see page 2-56).

To select a trunk other than the default selection: Press the ALT and OUTGN keys at the same time. A list of all trunk group access codes is displayed in the lower half of the screen. Press the associated function key (or highlight the desired option and press RETURN or CNECT).

- (2) *If you wish to use your class-of-service account code,* press the FEAT key and then press F1 to select Optional Account Code. A prompt appears to allow you to enter the account code. Enter the account code and press RETURN or CNECT. You hear a single progress tone when the code is accepted. Your usual toll restriction is now in effect.
- (3) *If you hear intercom dial tone:* You have accessed a dial-repeating E&M trunk. You can dial an extension number to reach a station on the other telephone system. Or, you can enter a valid trunk access code (determined by the other telephone system) and dial and outside telephone number.

If you hear outside dial tone: Dial a telephone number using one of the following methods:

To dial directly: Dial the desired number and press RETURN or CNECT.

To use the console CO directory: Begin entering a last name, first name (preceded with a comma), a note (preceded with a backslash), or number. (If you make a mistake, use the DEL key to back up and make corrections.) The bottom portion of the screen will display the closest matches. (To display listings with the next letter in the alphabet, press the right arrow. To move back one letter, press the left arrow.) When the desired num-

ber is displayed, press the function key associated with it (or press the arrow keys until the highlight bar rests on the desired number and then press RETURN or CNECT). Or continue entering characters until a complete number is shown then press RETURN or CNECT.

To use a system speed-dial number: Enter the system speed-dial location number followed by a right bracket (]).

To redial a number or use your personal speed-dial directory: If the redial/speed-dial directory is displayed, select a number from the directory shown in the bottom half of the screen by pressing the associated function key (or moving the highlight bar to the desired number and pressing RETURN or CNECT).

- (4) *If an account code is required,* the screen prompts you to enter an account code. Enter a forced account code (refer to page 2-27) and press RETURN or CNECT.
- (5) The call handling window shows "PLACING OUTGOING CALL" and then shows the call information including the trunk group selected, the number dialed, elapsed time of the call, and "CONNECTED!"

If you hear repeating reorder tones: You are restricted from the trunk group chosen; start over and choose another trunk group. If your call has been blocked because the weekly toll limit has been exceeded, the display shows CALL FAILED - TOLL LIMIT EXCEEDED.

If you hear busy signals: The chosen trunk group is busy. Camp on, use the busy trunk callback (queue) feature, or start over and select another trunk group.

NOTE: To turn DTMF mode on or off (depending on the default mode), press the ALT key and any keypad digit key. That digit and all digits dialed after it use the new mode. To return to the default mode, disconnect from the call or press ALT and any keypad key again.

C. TRUNK CAMP ON AND BUSY TRUNK GROUP CALLBACK (QUEUE)

Camp On

8.12 When you attempt to access a busy outgoing trunk group, the system sends a busy signal. You can wait off hook to camp on until a trunk is available.

8.13 *TO CAMP ON TO AN OUTGOING TRUNK GROUP:*

When you hear a busy signal after pressing the OUTGN key, do nothing. You camp on and hear music until a trunk in the trunk group is available. When the trunk is available, your call is placed automatically.

Busy Trunk Callback (Queue)

8.14 If you attempt to access 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.

8.15 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.

8.16 *TO QUEUE A BUSY OUTGOING TRUNK GROUP:*

- (1) When you hear a busy signal while selecting a trunk or if you are camped on, press the QUEUE key.
- (2) Your station rings (a repeating signal of three tones and a long pause) when the queued trunk is available. Answer the callback by highlighting it in the incoming call list and pressing ANSW or CNECT. Your call is placed automatically.

8.17 *TO CANCEL A QUEUE BEFORE THE QUEUED TRUNK GROUP BECOMES AVAILABLE:*

While the console is idle, press the ALT and QUEUE keys at the same time. The transient display shows "Canceling Queue."

D. ACCOUNT CODES

8.18 There are four types of account codes in the system. All account codes are assigned the same character length (4-8 characters) in database programming. The four types are as follows:

- **Standard account codes** automatically appear in the SMDR report (if programmed) to identify the station that answered or initiated the call.
- **Forced account codes** are programmed on a station-by-station basis. If required, a forced account code must be entered before the user is given access to a selected outgoing trunk group (refer to step 5, on page 2-26, for procedures). The account code entered by the user must match any one of the programmed forced account codes before outgoing access is granted.
- **Forced account codes for toll calls only** can be programmed for stations with LCR-Only toll restriction in day *and* night modes. When this account code type is enabled, the user only has to enter an account code if the system detects that a toll call has been dialed when LCR is used.
- **Optional account codes** are used to identify calls to and from customers for billing purposes. They can be entered at any time during a call. These user-defined codes are not pre-programmed, but must be the same length as the standard and forced account codes. If entered, optional account codes are printed in the SMDR/SMDA report for that call in place of standard or forced codes that may have been used.
- **Class-of-service account codes:** If the system-wide class-of-service account code option is enabled, individual stations can be assigned account codes that the users can enter at other stations to enable their usual SCOS. When a user is at a station other than his own, he can enter his class of service account code before placing an outgoing call. The system will then check the station circuit that is associated with that account code and apply the appropriate SCOS (it will not apply the trunk access permission or LCR advance class of service). The class-of-service account code can be entered when the system requests a forced account code or by using the optional account code feature code (described below). The SCOS is enabled for one call only. When the call is completed, the station's normal SCOS goes back into effect.

8.19 Forced account codes can be validated or non-validated.

- **Validated:** If the entered 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.
- **Non-Validated:** The code is not checked against any lists and the call is allowed as soon as the code is entered.

8.20 *TO ENTER AN OPTIONAL ACCOUNT CODE WHILE ON AN OUTSIDE CALL:*

- (1) Press the FEAT key and press F1 to select Optional Account Code. A prompt appears that allows you to enter the account code.
- (2) Enter the account code and press RETURN or CNECT. You hear a single progress tone when

the code is accepted. (If an account code is entered that has fewer than the programmed number of digits, the display shows "Invalid Account Code — Enter any character to continue." Press any character, then enter the code again, or press ESC to cancel the account code display.)

E. HOOKFLASH

8.21 A hookflash may be required to access certain external PBX or telephone company features. The duration of the hookflash can be changed by reprogramming the CO hookflash timer (default value is 600ms).

8.22 *TO SEND A TIMED HOOKFLASH WHILE ON AN OUTSIDE TRUNK:*

Press the FLASH key.

9. REVERSE TRANSFER (CALL PICK-UP)

9.1 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.

9.2 If more than one call is ringing or holding at the station, 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. Outside calls
 - a. direct ring-in calls
 - b. transferred and camped-on calls
 - c. recalls
 - d. calls on individual hold
2. Intercom calls
 - a. ringing calls (incoming, transferred, or recalling)
 - b. holding calls

9.3 When a call is picked up from a hunt group, the system uses a different priority list. 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. Camped-on calls, holding calls, and queue callbacks cannot be picked up. The hunt group call pick-up priority is as follows:

1. Ringing outside calls
 - a. direct ring-in calls
 - b. transferred calls
 - c. recalls
2. Ringing intercom calls (incoming, transferred, or recalling)

9.4 TO REVERSE TRANSFER (PICK UP) A CALL:

EITHER, Dial the extension or pilot number where the call is ringing or holding and press the PICK UP key. The reverse transferred call's information and "Retrieved from XXXX" is displayed in the transient display.

OR, Press the PICK UP key and then dial the extension or pilot number (or select it from the directory). The reverse transferred call's information and "Retrieved from XXXX" is displayed in the transient display.

10. CONFERENCE CALLS

10.1 Users can establish a three- to eight-party conference without operator assistance. A user can initiate one conference at a time. In addition to the initiating station, the conference can include any combination of up to seven intercom and/or outside calls. The initiating station is considered one of the conferencing parties.

10.2 If a conference is terminated using the hold feature, the remaining callers hear music while they are waiting. The user must return to the callers one at a time. If the hold timer expires, the calls on hold recall the station that placed them on hold in the order they were placed. If still unanswered after the recall timer expires, they recall the station's attendant.

10.3 While a conference call is in progress, the inside parties cannot dial numbers, enter hookflashes, or use the call transfer features. Also, if any inside party exits the conference by pressing the CNF key, the remaining inside parties may not use the conference wait or hold features to exit or terminate the conference.

NOTE: During a conference, some reduction in voice volume may be noticed, depending on CO trunk quality.

A. PLACING A CONFERENCE CALL

10.4 TO PLACE A CONFERENCE CALL:

- (1) While on a call, press the CNF key. The party is on conference wait hold (hears music) and the call information appears in the lower half of the screen. The transient display shows "CONFERENCE SETUP — 1 CALL PENDING."

NOTE: If you hear a busy signal followed by music, all conference resources are busy. Attempt the conference again by pressing the CNF key.

- (2) Place intercom or outside calls to other parties (or access existing calls) to be included in the conference and place them on conference wait hold as described in the first step. The transient display shows the number of calls pending and the call information is listed in the lower half of the screen.

NOTE: After placing the first call on conference hold, if you cannot reach the other parties and need to speak to the caller on conference hold, press CNF.

- (3) When all parties are on conference wait hold, press the CNF key again. All parties are connected. Display shows "IN CONFERENCE" and the call information shows "CONNECTED!" at the end of each line.

NOTE: If you attempt to add more than the maximum number of parties, "MAXIMUM CONFERENCE SIZE REACHED" appears in the transient display, and the last party you called will be placed on individual hold. The conference is unaffected.

B. ADD PARTIES TO A CONFERENCE

10.5 TO ADD PARTIES TO AN EXISTING CONFERENCE:

NOTE: Only one party in the conference can perform this procedure at a time. This procedure cannot be performed if the maximum number of conference participants has been reached.

- (1) During the conference, press the CNF key. The other parties remain connected.
- (2) Place an intercom or outside call to (or access an existing call with) the other party to be included in the conference. Then press the CNF key.
- (3) **To connect the conference:** Press the CNF key again to connect all parties in a conference.

To add another party: Repeat steps 1 and 2.

C. EXITING A CONFERENCE

10.6 TO EXIT THE CONFERENCE AND LEAVE THE OTHER PARTIES CONNECTED:

- (1) During the conference, press the CNF key. The parties remain in conference. The lower half of the screen changes to the incoming call list and the conference is placed on the list as a holding call. The transient display shows the number of calls ringing and holding. You may place or answer other calls or use other console features.

- (2) **To return to the conference:** Press the function key associated with the conference (or highlight the conference and press RETURN, CNECT, or ANSW).

NOTE: If all remaining parties are outside parties and the conference hold timer expires while you are out of the conference, the parties will hear a warning tone. One of the parties may reset the timer by pressing any DTMF key. If the timer is not reset, the parties recall your station. You hear recall tones and the call information shows that the conference is a recall. Return to the conference as described above. If the recall is not answered before the recall and abandoned call timers expire, the conference will be disconnected; it will not recall your attendant.

10.7 TO PLACE THE OTHER PARTIES ON HOLD:

- (1) During a conference call press HOLD. The conference is terminated and the parties are placed on individual hold. The lower half of the screen changes to the incoming call list and the transient display shows the number of calls ringing and holding.
- (2) Return to the parties one at a time by pressing the associated function key (or highlighting the desired call and pressing RETURN, CNECT, or ANSW).

10.8 TO END THE CONFERENCE:

During a conference call press RELEASE. If there are no other inside parties, the conference is terminated and all the calls are disconnected. The console returns to the idle state. (If there is another inside party, only you are removed from the conference and control is transferred to the other inside party.)

11. BARGE

11.1 If the barge feature is enabled system-wide, console stations can be programmed (on a station-by-station basis) to use the "barge" feature. This permits the user to join an ongoing call by pressing the BARGE key. Another option is available on a station-by-station basis that prevents other stations from barging into calls on the station.

11.2 Only keyset and Attendant Computer Console users can use the barge feature. They can join the conversation of any station to which they may make a call. The user may never barge into a station that he or she could not otherwise call, such as a cross-tenant station when the system does not allow cross-tenant traffic.

11.3 A hunt group supervisor may barge on any call that he or she can monitor; this could conceivably be a station that he or she could not otherwise call.

11.4 Barge is not affected by do-not-disturb mode, the call privacy and private call features, ring intercom always, or call forwarding. If any of these are programmed on the receiving station, barge will override them.

11.5 A barge call will be received through the secondary voice path as an off-hook voice announce call if the station being called is a digital keyset, a 12/24-line analog keyset, or an Inter-Tel/DVK keyset and the keyset user is using the handset (using the speakerphone or a headset would block the secondary voice path). Although it uses the secondary voice path, barge *can* be used if OHVA is not enabled system-wide; the receiving

keyset does not have to be programmed to receive OHVA.

11.6 A barge call will be received as a conference with the ongoing call if the secondary voice path is not available or the keyset user is on one of the following types of calls:

- An intercom call
- A conference that does not exceed the maximum capacity of parties
- An outside call using the speakerphone or headset

11.7 A barge cannot be completed on data calls or calls on conference wait hold. Nor can a barge be completed if the conference resources or voice channels are not available.

11.8 When a barging party joins a conference call, the parties in the ongoing call hear a single tone (if barge confirmation tone is enabled). The call then continues as a conference.

11.9 TO JOIN (BARGE) AN ONGOING CALL:

If the receiving station does not have an available secondary voice path: When placing an intercom call to a busy station, press BARGE. The parties in the ongoing call hear a single tone and you are in the conference with all parties.

If the receiving station has an available secondary voice path: When placing an intercom call to a busy station, press BARGE. You are connected to the keyset user through the secondary voice path (speakerphone) as if you were placing an off-hook voice announce call.

12. CALL PRIVACY AND PRIVACY RELEASE

12.1 Call privacy restricts voice channel access to one station at a time. When a voice channel is selected, no other station user can gain access to the channel. However, access to and control of a channel can be passed to another station using the conference or transfer features.

12.2 In addition, the database contains an installer-programmable option that can be set to enable call privacy on all trunks or to allow keyset users to join an ongoing call by pressing the lit individual trunk key. Single-line set and console users cannot join calls, but keyset users can join a call that involves a single-line or console station. When the system is in the default state, calls on all trunks are private and any user attempting to access a busy trunk will hear busy tones.

12.3 A keyset or console user cannot join established conference calls, data calls, calls on individual hold, DISA calls, and calls forced private by the user.

12.4 Even when privacy release is enabled system-wide, an individual station user can restore call privacy during an outside call by entering the private call feature code or by placing the station in do-not-disturb. The call then cannot be joined by other people unless the conferencing feature is used. If the call is transferred or placed on system hold, the privacy restore feature is canceled. Privacy is retained if the call is put on individual hold.

12.5 There is a programmable option that enables or disables a signal tone (barge confirmation tone) that is heard by the parties on the call whenever another user joins the call.

12.6 *TO RESTORE PRIVACY ON A NON-PRIVATE TRUNK:*

EITHER, While on an outside call, press the FEAT key and then press F2 to select "Private CO Call."

OR, While on an outside call, press the DND key to place your station in do-not-disturb.

13. CALL FORWARDING

13.1 With call forwarding, a station user can route incoming intercom and outside calls (including direct ring-in calls and DID calls) to another station, to a hunt group, or to an outside telephone number, if allowed by toll and trunk restrictions. 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 forwarded if calls are not answered before the forward no answer timer expires.

13.2 When call forward is enabled, the call handling window shows the call forwarding status and destination while the console is idle. The alarm/notice area shows "FWD" until the request is canceled.

13.3 Users can chain forwards from station to station providing that the forwards do not form a loop. 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 is received at either station while both stations are busy, the forwards create an illegal loop. In this case, the call camps on to the called station.

13.4 If more than one station has ring-in permission for a trunk group, direct ring-in calls on that trunk group will forward to extension numbers, but not to outside numbers or voice mail.

13.5 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, intercom callers will see the receiving station's do-not-disturb display, but the call will be forwarded.

13.6 If your station is in do-not-disturb and you have call forwarding programmed, the call is still forwarded. If you enabled call forward no answer, intercom callers will see the do-not-disturb display that you programmed before the call is forwarded.

13.7 Call forwarding overrides system call forwarding at the principal station.

13.8 Queue callbacks and recalls do not forward, except that a recall at the attendant's station will forward to another station.

Forwarding To An Outside Number Or E&M Destination

13.9 When programming a station for call forward to an outside telephone number or E&M destination, a trunk group is selected before the telephone number. If the station is called while the selected trunk group is busy, the call will not be forwarded. An intercom caller will hear busy signals. An outside call will ring at the forwarded station until the call is answered or the caller hangs up.

13.10 The forwarding station's (not the intercom caller's) trunk and toll restrictions are checked when the call is forwarded to an outside number.

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 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 256/832 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 it is forwarded or transferred to the public network.

13.11 If using an E&M trunk that is connected to another telephone system, and forwarding to an outside number through the other system, the E&M trunk access code is entered, followed by the other system's trunk access code, and the telephone number. Then, when a call is forwarded, the system automatically pauses after the E&M trunk access code, for the duration of the pause digit timer, before dialing the rest of the number.

13.12 When an outside call is forwarded to an outside number using a loop start trunk, the unsupervised CO timer is activated (unless disabled in database programming). When the timer expires, both parties hear a burst of dial tone. Either party can reset the timer by pressing any DTMF key. If the timer is not reset, the call recalls the attendant. If the attendant does not answer the recall before the abandoned call timer expires, the call is disconnected.

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.

Using Call Forwarding

13.13 TO FORWARD CALLS:

- (1) Press the FWD key. A window appears in the lower half of the screen with the available forwarding options.
- (2) Select the desired option by pressing the associated function key (or moving the highlight bar and pressing RETURN).
- (3) **To forward to an intercom number or pilot number:** Dial the extension number of the station to receive the calls, 0 for the attendant, a hunt group pilot number, or the voice mail extension numbers (or highlight the number in the intercom directory and press RETURN). "FWD" appears in the alarm/notice area and, when the console is idle, the forward condition and destination are shown in the call handling window.

To forward to an outside number: Press OUTGN. A list of trunk groups appears. Press the associated function key (or highlight the desired line and press RETURN). Then dial the desired outside telephone number and press RETURN. (If you entered a restricted number, the transient display shows "Invalid Operation." You must press ESC to exit or enter another number.) "FWD" appears in the alarm/notice area and, when the console is idle, the forward condition and destination are shown in the call handling window.

To forward to an outside telephone number via an E&M trunk: Press OUTGN. Select the E&M trunk group from the trunk group list. Dial the other system's trunk access code and the desired outside telephone number, then press RETURN. The system automatically enters a pause and the display keysets show an "S" to indicate a short pause. If you entered an invalid E&M trunk group feature code or dialed a restricted number, you hear repeating reorder tones. (Display keysets show FORWARD TO RESTRICTED TRUNK.)

To forward to an extension on the other telephone system via an E&M trunk: Press OUTGN. Select the E&M trunk group from the trunk group list. Then dial the desired intercom number and press RETURN. If you entered an invalid E&M trunk group feature code or dialed a restricted number, you hear repeating reorder tones. (Display keysets show FORWARD TO RESTRICTED TRUNK.)

13.14 TO CANCEL OR CHANGE ANY CALL FORWARD REQUEST:

- (1) Press the FWD key. A window appears in the lower half of the screen with the available forwarding options. "Cancel Forward" appears at the top of the list.
- (2) **To cancel call forward:** Press F1 or RETURN to select "Cancel Forward." The "FWD" notice and forward status display disappear.

To change your forwarding option: Select the desired option by pressing the associated function key (or by moving the highlight bar and pressing RETURN). Then enter the new extension or outside number as described in paragraph 13.13, step 3.

14. PAGING

14.1 The paging feature allows announcements to be made through console and keyset internal speakers. Optional paging equipment (amplifiers and paging speakers) may also be installed on external paging ports or relays to provide paging for an external area, such as a warehouse or loading dock.

14.2 When the system is in the default state, all consoles and keysets are assigned to paging zone 1 to provide an all-page zone. Consoles, keysets and external paging ports/relays can be assigned to any, all, or none of the paging zones, as desired.

14.3 TO MAKE A PAGE:

- (1) Press the PAGE key. A window appears in the lower half of the screen that lists the paging zones.
- (2) Scroll to the desired page zone and press RETURN or press the function key associated with the desired zone.
- (3) A display in the call handling window appears to show you the selected page zone. Make your page before the paging timer expires and the display disappears.

If you hear reorder tones and the transient display shows "Invalid Operation," there are no

stations or external zones in the selected page zone, 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.

- (4) *If you complete your page in less than the allotted time, press RELEASE to end the page.*

15. REMOVE FROM PAGING

15.1 A console operator can prevent the console from receiving pages or allow it to receive pages again using this feature. If the console is assigned to more than one page zone, all zones are removed or replaced; the operator cannot toggle individual zones.

15.2 TO HALT OR ENABLE ZONE PAGES:

- (1) Press the FEAT key.
- (2) Locate the page remove/replace feature code in the feature list. (If paging is enabled, "Page Remove" will be in the list. If paging has been removed, "Page Replace" will be in the list.)
- (3) Press the associated function key (or move the highlight bar to the "Page Remove/Replace" feature code and press RETURN or CNECT).

16. DO-NOT-DISTURB

16.1 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 (consoles and display keysets show the do-not-disturb message); the user cannot camp on, but can queue or leave a message at the station.

16.2 If desired, individual stations can be prevented from using do-not-disturb by disabling the do-not-disturb option in the database. Another option concerns do-not-disturb breakthrough. Normally, calls to a station through DISA or the automated attendant are not blocked by placing the station in do-not-disturb. If desired, individual stations can be set to prevent these calls from breaking through do-not-disturb.

16.3 Console stations may be given do-not-disturb override permission. These stations, when reaching a station in do-not-disturb, can bypass do-not-disturb and place an intercom call. This procedure is shown on page 2-20, step 3e.

16.4 Default do-not-disturb messages are programmed as follows. Additional, customized two-line messages can be programmed by each console operator. Refer to page 2-58 for do-not-disturb message customizing information.

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

16.5 When a customized message is not used, the second line of the message can be filled in with a numeric/alphanumeric message of up to 16 characters.

16.6 TO ENABLE DO-NOT-DISTURB MODE AT YOUR STATION:

- (1) Press the DND key. The list of customized and default do-not-disturb messages appears in the lower half of the screen.
- (2) Press the function key associated with the desired message (or move the highlight bar to the desired message and press RETURN or CNECT).

If you selected a customized two-line message, "DND" appears in the alarm/notice area at the top of the screen. When the console is idle, the full message appears in the call handling window.

If you did not select a customized message, the screen prompts you to "Enter custom DND message."

- (3) *If desired, enter a second line of up to 16 characters and press RETURN or CNECT. (If you make a mistake, you can use the backspace or delete keys to back up and correct the entry before pressing RETURN or CNECT, or press ESC to completely erase the entry.) "DND" appears in the alarm/notice area at the top of the screen. When the console is idle, the DND message appears in the call handling window.*

NOTE: If you do not enter a character within 10 seconds when programming the second line, the program times out and the characters already entered (if any) are used as the second line of the DND message.

If you do not wish to enter a second line, press RETURN or CNECT without entering a message. "DND" appears in the alarm/notice area at the top of the screen. When the console is idle, the DND message appears in the call handling window.

16.7 TO CHANGE THE DO-NOT-DISTURB MESSAGE:

- (1) Press the DND key. A window appears with the options "Cancel" and "Program."
- (2) Press the F2 key to select "Program." Enter the new message as described in paragraph 16.6.

16.8 TO CANCEL DO-NOT-DISTURB:

EITHER, Press the ALT and DND keys at the same time.

OR, Press the DND key. When the list appears, press F1 or RETURN to select "Cancel."

16.9 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, press the DND key. Then press RETURN twice or let the program time out. The console is in do-not-disturb. The intercom caller is no longer camped on and receives do-not-disturb indications.

17. REMINDER MESSAGES

17.1 Reminder messages are set, like an alarm clock, to signal your station at a specified time. You can select the message and time up to 24 hours in advance. Twenty different reminder messages are available.

17.2 At the programmed time, the reminder message signals the station with two short tones and the message appears in the transient display. When the console is idle, the full reminder message appears in the lower half of the screen.

17.3 Messages can be changed by the installer or any attendant, if desired (see page 2-43). 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

17.4 TO REQUEST REMINDER MESSAGES:

- (1) While the console is idle, press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Locate "Reminder Message" in the list, then press the function key associated with it (or highlight it and press RETURN or CNECT). A list of reminder messages appears.

- (3) Locate the desired reminder message in the list, then press the function key associated with it (or highlight it and press RETURN or CNECT). The screen prompts you to "Enter Reminder Time."
- (4) Enter the time at which you wish to receive the message, in the indicated format, with the hour and minutes separated by a colon (for example: "13:00" or "1:00 pm") and press RETURN. The transient display shows "Reminder Message Accepted."

17.5 TO CLEAR A RECEIVED REMINDER MESSAGE:

At the selected time, you hear two short tones and the message displays in the transient display and, if the console is idle, it appears in the lower half of the screen.

To clear the message: When the console is idle, press the asterisk (*) key on the typewriter or numeric keypad.

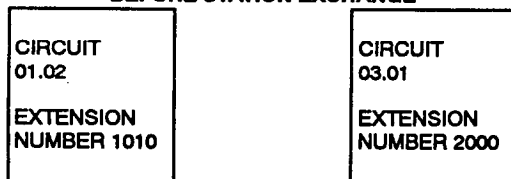
17.6 TO CANCEL ALL OF YOUR REMINDER MESSAGE REQUESTS:

- (1) Press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Locate the "Reminder Message Cancel" feature in the list, then press the function key associated with it (or highlight it and press RETURN or CNECT). The transient display shows "Reminder Message Canceled."

18. OPTIONAL STATION EXCHANGE FEATURE

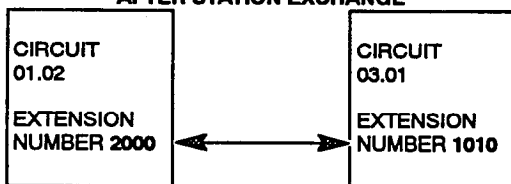
18.1 This programmable station feature allows a station user to exchange the extension numbers of two station circuits. This swaps the database and user programmed features of the extension numbers between two station circuits without the need for database programming. The circuit number of the station locations are unchanged, but the extension numbers are changed, as illustrated below.

BEFORE STATION EXCHANGE



Circuit Number 01.02 has all of the database and user programming of Extension Number 1010. Circuit Number 03.01 is programmed as Extension Number 2000.

AFTER STATION EXCHANGE



Circuit Number 01.02 becomes Extension Number 2000. Circuit Number 03.01 becomes Extension Number 1010.

18.2 All database-programmed station features (such as, trunk access, station flags, toll restriction, username, etc.) as well as all user programming (speed-dial numbers, call forwarding, do-not-disturb, reminder messages, etc.) will stay with the extension number during an exchange.

18.3 Any station that will be involved in a station exchange must have the Station Exchange station flag enabled and a programmed Station Exchange Password. If a station user attempts an exchange in which one or both extension numbers do not have the flag enabled, the exchange will not be allowed. If the user does not enter a valid password after entering the Station Exchange feature code, the exchange will not be allowed.

18.4 Attendant Computer Console stations can be exchanged with other Console stations or with Analog Keypad stations. They cannot exchange with Digital Keypad stations or Single-Line stations. **NOTE:** Exchanges between a console and keypad station will cause

the keypad to lose station speed-dial locations 1-3. This is because those locations are automatically modified by the console. Speed-dial locations 1-3 will remain functional at the console station.

18.5 Neither station involved in the exchange can have a call in progress, ringing, or recalling when an exchange is attempted. There can be calls on hold or hunt group calls can be camped on, recalling, or ringing. If the exchange is denied, the user hears reorder tones.

18.6 TO EXCHANGE STATIONS:

- (1) To bring a new extension number to your present location, press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Locate the "Station Exchange" feature in the list, then press the function key associated with it (or highlight it and press RETURN or CNECT). An extension number prompt and directory appear.

If the station you are using is not programmed for Station Exchange, you hear reorder tones and the station returns to idle state.

- (3) Enter the extension number you wish to bring to the station you are using. You hear a confirmation tone. The display shows the number you dialed.

You will hear reorder tones and must start over if any of the following occur:

- You entered an invalid extension number
- The extension number that you entered is not programmed for Station Exchange
- You entered an extension number of mismatched station device type (digital vs. analog, or keypad vs. single-line)
- You entered an extension number of a station that is not idle

- (4) When the password window appears, enter the Station Exchange Password for the extension number entered in step 2. When the password is accepted, you hear a confirmation tone. The station you are using is reset to reflect the database and user programming of the extension number selected in step 2.

If you entered an invalid password, you see "Invalid Operation" in the transient display and must start over.

19. OPERATOR STATISTICS

19.1 While the Attendant Computer Console is in use, statistics are being tallied. These statistics include the number and average time of calls that rang, recalled, and were placed on hold, as well as total number of calls handled, time spent talking, and percent of calls that recalled. If no calls were placed on hold or recalled, this information is also indicated. Statistics are not kept for separate operators, but are continually compiled until they are cleared by an operator or during a database download.

19.2 TO VIEW THE OPERATOR STATISTICS:

- (1) Press the FEAT key and then press F6 to select "Operator Statistics." The statistics display as shown below.

- (2) When you are finished reading the statistics, press ESC or RELEASE. If you pressed ESC, the screen allows you to "Clear Operator Statistics."

- (3) To allow the data to continue to accumulate: Press F1 to select "Do Not Clear." The console returns to the idle state.

To clear the accumulated data: Press F2 to select "Clear." The console returns to the idle state.

19.3 An operator option can also be selected in the configuration utility that will display operator statistics when the NIGHT key is pressed to place the system in night mode. Refer to page 2-52.

Operator name — <i>Current Operator</i>		
Statistics collected from Mon Jan 01 XX:XX to Mon Jan 01 XX:XX		
X calls rang in	Average time for calls ringing in	XXXX
X calls recalled	Average time calls in recall	XXXX
X calls on hold	Average time calls on hold	XXXX
X calls handled	Time spent talking on calls	X:XX:XX
	Percent of ringing calls that were recalls	X%

20. TRUNK STATISTICS

20.1 The console operator can display trunk statistics that show instances, if any, when all trunks in a trunk group are busy. When this feature is selected, the display shows a list of trunk groups that includes the trunk group description, access code, number of times all the trunks in the trunk group were busy, the total amount of time they were busy, and any errors that have been logged (trunk flags).

20.2 When the operator selects one of the trunk groups to review, the display shows a list of instances when all trunks were busy (the most recent instance is listed first). Each line shows the date and time that the trunk group became busy, date and time the busy condition ended, and amount of time it was busy.

20.3 Up to 1000 "all busy" instances can be recorded for each trunk group. And up to 40 can be recorded per trunk group in an hour. Once either maximum is reached, the oldest instance is removed from the list.

20.4 The trunk flags indicate errors that have been logged against the trunk group. The errors (FE, MI, and MB) should be reported to service personnel. The possible trunk flags and their meanings are as follows:

- **FE (File Error):** An error occurred with one of the trunk busy files while trying to log a busy/idle condition.
- **PB (Pending for Busy):** A busy condition was logged for this trunk, but the Attendant's Console was restarted (powered off and then on or reset) before the trunk became idle. Therefore it cannot be determined how long the trunk was busy.

- **MI (Multiple Idle Conditions):** Two idle conditions were noted without an intervening busy condition.
- **MB (Multiple Busy Conditions):** Two busy conditions were noted without an intervening idle condition.
- **IO (Instance Overflow):** More than 1000 busy instances were logged for the trunk group and some records may have been deleted, but the total time is correct.
- **HO (Hour Overflow):** More than 40 busy instances were logged in an hour. Some records may have been deleted.

20.5 While reviewing a trunk group, the operator can choose to print or delete the information or to select another trunk group.

20.6 TO VIEW AND/OR PRINT THE TRUNK STATISTICS:

- (1) Press the FEAT key. A list of features is displayed. Locate "Trunk Statistics." Then press the associated function key (or highlight it and press RETURN or CNECT). A list of trunk groups is displayed. (If there were no instances of all trunks being busy in any of the trunk groups, the console returns to the idle state.)
- (2) Locate the desired trunk group and then press the associated function key (or highlight the trunk group and press RETURN or CNECT). The "All Trunk Busy" display appears as shown below. (If the trunk group did not have any instances when all trunks were busy, the display shows "No busy conditions for this selected trunk.") If you wish to scroll through the records, press the UP or DOWN ARROW, PAGE UP, PAGE DOWN, HOME, or END keys to move through the list.

All Trunk Busy — Data For Trunk Group: <i>(selected trunk group name)</i>			
Instances	X	Busy Time:	X:XX:XX, Trunk Flags: FE, PB, MI, MB, IO, HO
Press y/b/PgUp/PgDn/Home/End, F10: Options, ESC: New Group, ALT-ESC: Exit			
Inst	Time Went Busy	Time Went Idle	Time Busy
2	: Mon Jan 01 XX:XX:XX 1990	: Mon Jan 01 XX:XX:XX 1990	: X:XX:XX
1	: Mon Jan 01 XX:XX:XX 1990	: Mon Jan 01 XX:XX:XX 1990	: X:XX:XX

- (3) You then have the following options:
- a. **Return the console to the idle state:** Press the ALT and ESC keys at the same time.
 - b. **Select a different trunk group:** Press the ESC key and repeat step 2.
 - c. **Print or delete records:** Press F10. The "Busy Trunk Options" display appears. Continue to the next step.

- (4) While viewing the "Busy Trunk Options" window, you may perform any of the following:
- a. **To return to the Data For Trunk Group screen:** Press F1. Return to step 3.

- b. **To print the totals for all of the trunks:** Press F2. The screen asks you if you want to "Output the total data only." Press RETURN to exit, or enter Y and then press RETURN to print the totals for the trunks being displayed. (This prints the summary information shown in the highlighted area of the Data For Trunk Group screen.) The screen shows "Outputting this trunk group's data, press any key to abort."

NOTE: If the selected output has previously been sent to the printer and is still pending, the screen displays: "The total data output file exists, overwrite?" You can choose to overwrite the existing file by entering Y and pressing RETURN. If you do not wish to overwrite the file enter N and press RETURN.

- c. **To print the records for the selected trunk:** Press F3. The screen asks you to verify that you want to "Output the selected trunk group's data." Press RETURN to exit, or en-

ter Y and then press RETURN to print the records for the trunk being displayed. The screen shows "Outputting this trunk group's data, press any key to abort."

NOTE: If the selected output has previously been sent to the printer and is still pending, the screen displays: "The data output file exists, overwrite?" Do not overwrite the file; enter N and press RETURN.

- d. **To print the records for ALL trunk groups:** Press F4. The screen asks you to verify that you want to "Output data for ALL trunk groups." Press RETURN to exit or Y and then RETURN to print the records for ALL trunks. (This prints itemized information for all of the trunks.) The screen shows "Outputting ALL trunk group data, press any key to abort."

NOTE: If the selected output has previously been sent to the printer and is still pending, the screen displays: "The data output file exists, overwrite?" Do not overwrite the file; enter N and press RETURN.

- e. **To delete the records for the selected trunk group:** Press F5. The screen asks you to verify that you want to "Delete the selected trunk group's data." Press RETURN to exit, or enter Y and then press RETURN to delete the records for the trunk being displayed.

- f. **To delete the records for ALL trunk groups:** Press F6. The screen asks you to verify that you want to "Delete data for ALL trunk groups." Press RETURN to exit, or enter Y and then press RETURN to delete the records for ALL trunks.

21. ATTENDANT FEATURES

21.1 This section describes the attendant-only features. Attendants with Attendant Computer Console stations can provide the following services for the stations they serve:

- Accessed by dialing "0"
- Central operators for incoming calls (if programmed for ring in)
- Message centers (if programmed)
- Recall stations for unanswered calls
- Clear displayed system alarms
- Able to cancel do-not-disturb and/or call forwarding for the stations they serve
- Able to control the hunt group remove/replace feature for stations they serve
- Program system do-not-disturb messages
- Program system reminder messages
- Program tenant-specific and system-wide speed-dial numbers
- Place the tenant group in night mode or day mode
- Set the system time of day, date, and day of week
- Enable database programming for toll security programming
- Generate an SMDA report
- Take trunks out of service for maintenance purposes and then place them back in service when maintenance is complete

21.2 In addition to the capabilities listed above, if the console operator is the primary attendant, he or she can:

- Place the entire system in night mode or day mode
- Program all system speed-dial numbers (including tenant-specific numbers), unless this ability has been assigned to another station
- Receive unsupervised outside call and hunt group recalls

NOTE: Station circuits do not have to be assigned as attendant stations in order to use an Attendant Computer Console.

A. ATTENDANT RECALL

21.3 When a call is placed on hold or is transferred from one station to another, certain system timers limit the amount of time the call may remain unattended. Af-

ter that time, the call recalls the station that transferred it or placed it on hold. If the call remains unanswered at the station until the recall timer expires, it recalls the station's attendant. 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 call is disconnected.

21.4 If a station user transfers or forwards an outside call to an outside telephone number and a loop start trunk is involved, the call is limited by the unsupervised CO timer (this does not apply to ground start trunks). When the timer expires, the parties hear a warning tone. One of the outside parties can reset the timer by pressing any DTMF key. If the timer is not reset, the call recalls the primary attendant station. 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.

21.5 A recall appears in the incoming call list after any calls that are ringing. Unsupervised calls and conferences are identified as such in the call information. If the system is in night mode, the call recalls the station that transferred the call or placed it on hold until the abandoned call timer expires; then the call is disconnected.

21.6 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.

21.7 TO ANSWER A HOLD OR TRANSFER RECALL:

- (1) Highlight the call in the incoming call list and press ANSW, RETURN, or CNECT.
- (2) *If the caller wishes to speak to another party, transfer the call by dialing another extension number and pressing EXTEND.*

If the caller wishes to continue to hold, press the HOLD key.

If you wish to disconnect the call, press the RELEASE key.

21.8 TO ANSWER AN UNSUPERVISED OUTSIDE CALL RECALL:

- (1) Highlight the call in the incoming call list and press ANSW, RETURN, or CNECT.
- (2) Check to see if the trunk is still being used.

If the parties are still talking, press the CNF key to return the parties to their conversation. You can enter the conference at any time by pressing the CNF key. When the conference-hold timer expires, the conference recalls your station again.

If the parties have hung up or are finished, press RELEASE to disconnect the call.

B. PLACING THE SYSTEM IN NIGHT MODE

21.9 Each attendant can place the associated tenant group in night mode to change the allowed-answer and ring-in assignments to the night lists.

21.10 The primary attendant can place the entire system (all tenant groups) in day or night mode. When the primary attendant places the system in night mode, the night mode display appears at all attendant and console stations. If the primary attendant places the system in day mode, the night mode display is cleared at all other attendant stations.

21.11 There is no attendant recall during night mode. Hold and transfer recalls ring at the station that transferred them or placed them on hold. If a recall is not answered before the abandoned call timer expires, the call is disconnected. Unsupervised call recalls and unassigned DID trunks will continue to ring at the primary attendant's station in night mode.

21.12 The configuration utility contains an option that, if enabled, will display operator statistics whenever the NIGHT key is pressed.

21.13 If the console station is not programmed as an attendant in the database, pressing the NIGHT key will cause "Invalid Operation" to appear in the transient display and will have no effect on the system. However, if operator statistics are programmed to appear, the statistics will be shown in the bottom half of the screen.

21.14 TO PLACE THE SYSTEM IN NIGHT MODE:

Press the NIGHT key. When the system is in night mode, "NIGHT MODE" appears above the

date and, if programmed, the operator statistics are displayed in the lower half of the screen.

21.15 TO PLACE THE SYSTEM IN DAY MODE:

Press the NIGHT key again. The night mode indication and operator statistics disappear when the system is placed in day mode.

C. PROGRAMMING SYSTEM REMINDER MESSAGES

21.16 The stored system reminder messages can be changed from any attendant's station. (See page 2-37 for information concerning their use.) When the system is in the default state, the 20 reminder messages listed below are programmed. Attendants can delete them or change them to any other value (up to 16 characters).

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

21.17 TO PROGRAM A SYSTEM REMINDER MESSAGE:

- (1) Press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Move the highlight bar to "Program System Reminder Messages" and press the associated function key, or press RETURN or CNECT. A list of reminder messages appears.
- (3) Move the highlight bar to the message you wish to change and press RETURN or CNECT. The screen prompts you to "Enter New Reminder Message."
- (4) Enter the desired message, up to 16 characters and press RETURN. The console returns to the idle state.
- (5) Perform a database download (as described on page 1-10), as soon as it is convenient, to update the messages in your console's database. Any other consoles will also need to perform downloads to update their databases.

D. PROGRAMMING SYSTEM DO-NOT-DISTURB MESSAGES

21.18 The stored system do-not-disturb messages can be changed from any attendant station. (See page 2-36 for information concerning their use.) When the system is in the default state, the 20 do-not-disturb messages listed below are programmed. Attendants can delete or change messages 02-20 to any other desired value (up to 16 characters). Message number 01 (DO-NOT-DISTURB) cannot be changed.

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

21.19 TO PROGRAM A SYSTEM DO-NOT-DISTURB MESSAGE:

- (1) Press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Move the highlight bar to "Program System DND Messages" and press the associated function key, or press RETURN or CNECT. A list of do-not-disturb messages appears.
- (3) Move the highlight bar to the message you wish to change (except the first message, which cannot be changed) and press RETURN or CNECT. The screen prompts you to "Enter Replacement DND Message."
- (4) Enter the desired message, up to 16 characters and press RETURN. The console returns to the idle state.
- (5) Perform a database download (as described on page 1-10), as soon as convenient, to update the messages in your console's database. Any other consoles will also need to perform downloads to update their databases.

E. SETTING TIME OF DAY AND DATE

21.20 Occasionally, the system time or date needs to be reset (for example, for daylight-saving time). Any attendant can change the date and time message that appears on all consoles and display keysets and in the SMDA and SMDR reports.

21.21 TO SET THE TIME OF DAY AND DATE:

- (1) Press the FEAT key and press F5 to select "Set Time Of Day." The screen prompts you to "Enter new date."
- (2) To enter the date: Enter a new month, day, and year (for example, 01/01/90) and press RETURN.

To edit the date: Change the current date by using the LEFT or RIGHT ARROW keys to move the cursor to the digit to be changed, entering the new digit, and pressing RETURN.

To leave the date unchanged: Press RETURN.

- (3) The prompt changes to "Enter New Time" and the cursor is flashing on the first digit of the time. Do one of the following:

To enter the time: Enter the new time in the indicated format with the hour and minutes separated by a colon (for example "13:00" or "1:00 pm"), and press RETURN. The console returns to the idle state and the date and time display is updated.

To edit the time: Change the current time by using the LEFT or RIGHT ARROW keys to move the cursor to the digit to be changed, entering the new digit, and pressing RETURN.

To leave the time unchanged: Press RETURN. The console returns to the idle state and the system date and time display is updated.

F. ENABLING TOLL SECURITY DATABASE PROGRAMMING

21.22 Weekly toll limit information can be changed only after the Database Programming feature code has been entered at an attendant station. The programming privilege will remain in effect until the end of the programming session. When the data has been changed, a system alarm shows TOLL SECURITY DATA CHANGED at alarm stations and in SMDR.

21.23 TO ENABLE TOLL SECURITY DATABASE PROGRAMMING:

- (1) Press the FEAT key. A list of features appears. Scroll to the end of the list and locate "Database Programming Enable."
- (2) Press the associated function key (or highlight it and press RETURN or CNECT). The display automatically returns to the idle state.

G. PROGRAMMING SYSTEM SPEED-DIAL NUMBERS

21.24 Through database programming, each system speed-dial number can be designated in the database as available to all stations or available only to stations within a certain tenant group. If desired, an identifying name can also be stored with each speed-dial number.

21.25 All Attendant Computer Console operators can dial and view the system speed-dial numbers. However, if the station is programmed as an attendant or system speed-dial programming station, the operator can also program system speed-dial numbers.

21.26 The system speed-dial numbers and names are stored on the system hard disk and will not be erased in the event of a power failure.

21.27 The system speed-dial numbers and names are programmed by the installer, an attendant, or at the system speed-dial programming station. When the system is in the default state, the primary attendant station is the designated system speed-dial programming station.

21.28 System speed-dial numbers can contain up to 32 digits each and can include hookflashes and/or short or long 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 E&M trunks, the other systems' 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.

21.29 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 that station's SCOS.

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

- (1) Press the FEAT key, then press F8 to select "Program System Speed Dial." The screen prompts you to "Enter bin number."
- (2) Enter the speed-dial location code (000-399) that you wish to program and press RETURN. The screen prompts you to "Enter name."
- (3) Enter the name that is associated with the number and press RETURN. The screen prompts you to "Enter outside number."
- (4) Enter the desired number, up to 32 digits and press RETURN. *To include pauses or hookflashes in the number*, enter F for a hookflash, S for a short pause, or L for a long pause.
- (5) The screen momentarily shows "Programming" and then returns to "Enter bin number." Repeat the process to program or change other numbers, or press ESC to exit.
- (6) The screen prompts you to perform a database download. Perform a database download (as described on page 1-10), as soon as it is convenient, to update the system speed-dial numbers in your console's database. Any other consoles will also need to perform downloads to update their databases.

H. REMOTE STATION FEATURE CANCEL

21.31 An attendant can cancel call forward and/or do-not-disturb for any or all stations that have dial-zero access to that attendant's station.

21.32 TO CANCEL FEATURES FOR STATIONS YOU SERVE:

- (1) Press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Move the highlight bar to one of the following feature codes and press the associated function key, or press RETURN or CNECT.
 - a. Cancel all station forward requests
 - b. Cancel station forward request
 - c. Cancel all station do-not-disturb requests
 - d. Cancel station do-not-disturb request
 - e. Cancel all station DND/FWD requests
 - f. Cancel station DND/FWD request
- (3) *If you cleared all stations*, the console returns to the idle state.

If clearing an individual station, the intercom directory appears in the lower half of the screen. Dial the extension number or locate the desired number in the directory and press RETURN or CNECT.

I. REMOTE HUNT GROUP REMOVE/REPLACE

21.33 An attendant can control the hunt group remove/replace feature for any stations that have dial-zero access to that attendant's station.

21.34 TO USE REMOTE HUNT GROUP REMOVE/REPLACE:

- (1) Press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Move the highlight bar to the Remote Hunt Group Remove or Remote Hunt Group Replace feature. Then press the associated function key, RETURN, or CNECT.
- (3) The intercom directory appears in the lower half of the screen. Dial the extension number or locate the desired number in the directory and press RETURN or CNECT.

J. SYSTEM ALARM REPORTING

21.35 The system's alarm reporting feature detects equipment failures, determines the impact, and classifies the problem as a major or minor alarm. Minor alarms are indicated on the primary attendant's station display and can be programmed to appear on all attendants' stations. Both major and minor alarms are printed in the error report printout. Major alarm messages appear on all consoles and display keysets. On Attendant Computer Consoles, "ALARM" appears in the alarm/notice area at the top of the screen and a full alarm message appears in the lower half of the screen when the console is idle.

21.36 The first four minor alarms indicate problems that can be corrected without calling service personnel. All other minor alarms require attention from service personnel. Refer to the 256 or 416/832 manual for a listing of the possible alarms and their meanings.

21.37 A major alarm message, WARNING! MAJOR ALARM, appears on all consoles and display keysets in the event of a major system reset. If the major alarm appears on a group of keysets, the associated KSC board has failed (or, if they are dual-circuit 8-line AIM keysets, the circuits may be incorrectly programmed as "single" circuits, instead of "dual"). The warning might also appear on a single station if the console is defective. Major alarms require immediate attention from service personnel.

21.38 If necessary, you can press the CTRL and C keys at the same time to return the console PC to the C:\OPTERM prompt while a major alarm is displayed.

21.39 TO RESPOND TO A MINOR SYSTEM ALARM:

- (1) When a minor alarm indication appears, write down the alarm number, alarm message, date, and time.
- (2) Clear the message by pressing the FEAT key and then pressing the F1 key or RETURN to select "Clear System Alarm."
- (3) *If the alarm message is #05 or #10 or higher, contact service personnel.*

If the alarm message is #01-04, correct the problem:

- a. **#01 STATION XXX OFF-HOOK:** The indicated station remained off hook and inactive until the inactivity alarm timer expired. SMDR also indicates which station is off hook. The station's key on DSS/BLF Units and on other stations' SD keypads flutters continuously. Have the station user replace the handset in the cradle. The alarm automatically clears when the station user hangs up.

NOTE: Calls being transmitted over the secondary voice path are not affected or interrupted by an off-hook alarm condition.

- b. **#02, #03, or #04 PRINTER TIMEOUT:** The indicated printer is not functioning properly. Check that the cable and the power cord are connected and that it has paper and ribbon.
- c. **#30 TOLL SECURITY FEATURE EXPIRED:** Indicates that the weekly toll limit feature is no longer in effect. It can be re-enabled only by Inter-Tel Services personnel.
- d. **#31 TOLL SECURITY LIMIT EXCEEDED and #34 TOLL SECURITY LIMIT AT 80%:** The weekly limit for one or both types of monitored calls is 80% or 100% depleted. The programmer can set the limit to a higher value or reset it to zero. (When either of these alarms is displayed, any further alarms will not overwrite the display.)
- e. **#32 TOLL SECURITY DATA CHANGED:** This indicates that the weekly toll limit information has been changed in the database.
- f. **#33 DISA SECURITY LIMIT EXCEEDED:** This indicates that a DISA caller has entered an invalid password three consecutive times. DISA will not answer that trunk for five minutes after the third invalid password has been entered.

K. TRUNK MAINTENANCE

21.40 An attendant can take an individual trunk out of service while using that trunk, or return *all* trunks to service at once by selecting the remove all trunks from maintenance feature code.

21.41 TO TAKE A TRUNK OUT OF SERVICE:

- (1) While on a call using the trunk to be removed from service, press the BAD LINE key. The display asks you if you wish to remove the trunk from service.
- (2) To remove the trunk from service: Enter Y and then press RETURN. Once you complete your call and press RELEASE, the trunk cannot be accessed for placing or answering calls until it is returned to service.

To cancel the BAD LINE feature: Press the RETURN key.

21.42 TO PLACE ALL TRUNKS IN SERVICE:

- (1) Press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Move the highlight bar to "Remove All Trunks From Maintenance" and press the associated function key, or press RETURN or CNECT. All trunks are placed back into service.

L. GENERATING AN SMDA REPORT

21.43 A programming option can be enabled that allows the attendant to generate an SMDA report on demand.

21.44 TO GENERATE AN SMDA REPORT:

Press the FEAT key and then press F4 to select "SMDA." The SMDA report begins printing on the designated system port.

M. SAVING THE HISTORY QUEUE

21.45 When requested to do so by service personnel, an attendant can command the system to save a copy of the current call processing history so that trained personnel can analyze the data.

21.46 TO SAVE THE HISTORY QUEUE:

Press the FEAT key and then press F2 to select "Save History Queue." The system error history report will be saved on the system hard disk and logged in the Save/Restore window for retrieval. The Attendant's Console error history is saved in the C:/OPTERM/HISTORY directory and can be copied to a floppy disk using DOS commands.

On the 256 System, the history queue must be released before messages can accumulate, to be saved again. To release the history queue, repeat this procedure, but select Release History Queue from the feature list instead of Save History Queue.

NOTE: Service personnel may request that the error history information be stored immediately on the console hard disk. If so, press the CTRL, SHIFT, and D keys at the same time. This will disable the buffer and the transient display will show "History Input Buffering Is Disabled." To re-enable the buffer when requested, repeat the CTRL-SHIFT-D command. The transient display will then show "History Input Buffering Is Enabled."

N. RE-LIGHTING MESSAGE LAMPS

21.47 It is possible that the message lamps on keysets and ESLs could be turned off as the result of a power failure, database reset, or user error. For this reason, the Attendant Computer Console can be used to re-send any message waiting indications for any text messages that were originally sent using the console and re-light the lamps.

21.48 This can also be done automatically, by setting the recall interval option in configuration programming (see page 2-60) to re-send message indications when the system is placed in night mode, at a preset time of day, or both.

21.49 TO RE-LIGHT MESSAGE LAMPS:

- (1) Press the FEAT key. A list of features appears in the lower half of the screen.
- (2) Move the highlight bar to "Re-light Message Lamps" and press the associated function key, or press RETURN or CNECT.

O. DISPLAYING THE SOFTWARE VERSION

21.50 When requested to do so by service personnel, an attendant can display the current software version of the Attendant Computer Console.

21.51 TO DISPLAY THE SOFTWARE VERSION:

- (1) Press the FEAT key. A list of features appears. Scroll to the end of the list and locate "Display Software Version Number."
- (2) Press the associated function key (or highlight it and press RETURN or CNECT). A message showing software version that is installed on the console is displayed.
- (3) Press ESC when you wish to clear the display and return the console to the idle state.

22. CUSTOM CONFIGURATION

22.1 Up to 16 operators can store customized information on a single Attendant Computer Console. A set of customized options (name, colors, speed-dial numbers, etc.) can be saved for each operator when multiple users share a console. Then, each operator can restore his or her custom configuration on command. If the console is turned off and back on, the customized options for the last active operator are used.

22.2 When the CONFIG key is pressed, a window appears in the lower half of the console screen to show the available configuration options. The options include the following. Some options apply to *all* operators of the console and some can be customized for *each* operator.

- **Name:** Each operator can have a user name of up to 20 characters and up to 16 operators can be programmed with customized configurations. This utility allows you to select, create, delete, or change operator designations or use the default configuration. This option is explained on the next page.
- **Display:** This utility allows each operator to customize the display screen and save custom configurations. Refer to page 2-50 for a list of options.
- **Calls:** Each operator can select several options relating to call handling including, speed-dial displays, trunk access, call connect, voice mail, and DID names. (Trunk access, call connect, and voice mail information is programmed for *all* operators of the console, not on an individual-operator basis.) Instructions for programming these options begin on page 2-53.
- **Features:** Each operator can program customized do-not-disturb messages and determine which call forwarding feature the FWD key will use as its default. This option is explained on page 2-58.
- **Message:** Operators can store tenant-related greetings to remind them what to say when receiving calls for specific tenant groups. Using this utility, they can also set the duration of the transient display and set several text messaging options. Tenant messages and text messaging options are set for *all* operators of the console and cannot be programmed on an individual-operator basis. Programming is explained on page 2-59.
- **Database:** Database download parameters for the console are set using this utility. Instructions are given on page 1-9.

A. INTERRUPTING THE CONFIGURATION PROGRAMMING SESSION

22.3 The Attendant Computer Console can continue to receive calls while the configuration utility is being used. To halt programming and view the Console display screen, press ALT and ESC. To halt programming and answer a call, press ANSW. Any programming completed to that point will be in effect. When the call is completed, press CONFIG again, a prompt will ask you if you wish to continue or initiate a new configuration session. Press the function key associated with the desired option. You will return to the "Options" window if you choose to initiate a new session, or to the last window you viewed if returning to a previous session.

B. NAME

22.4 To select the active operator, or modify, add, or delete operator names, perform the following steps.

Select Operator

22.5 TO CHANGE THE CURRENT OPERATOR:

- (1) Press CONFIG and then the F1 key to select "Name." A list of options appears in the lower half of the screen.
- (2) Press F1 to select "Select." A list of currently available operators appears.
- (3) Press the function key that corresponds to the new operator (or use the UP and DOWN ARROW keys to move the highlight bar to the desired name and then press RETURN or CNECT). The console resets to the new operator's configuration and the transient display shows "XXXX IS THE NEW OPERATOR."

Modify Operator Name

22.6 TO MODIFY AN EXISTING OPERATOR NAME:

- (1) Press CONFIG and then the F1 key to select "Name." A list of options appears in the lower half of the screen.
- (2) Press F2 to select "Modify." A list of currently available operators appears.
- (3) Press the function key that corresponds to the new operator (or use the UP and DOWN ARROW keys to move the highlight bar to the desired name and then press RETURN or CNECT). A prompt allows you to enter a new name or edit the existing name. Do one of the following:

To change the name: Edit the name and press RETURN. Use the LEFT or RIGHT ARROW

key to move the cursor. Use the backspace or DEL key to remove letters. Use the INS key to toggle between insert and replacement modes. When you press RETURN, a window shows you the previous name and the new name. Press RETURN to accept the name and return to the "Operator's Name to be MODIFIED" window, or press ESC to retain the old name and return to the "Operator Names" window.

To add a name: Enter a new name. As you type, the old name is removed. When you press RETURN, a window shows you the previous name and the new name. Press RETURN to accept the name and return to the "Operator's Name to be MODIFIED" window, or press ESC to return to the old name and return to the "Operator Names" window.

To continue without changing the name: Leave the name unchanged and return to the "Operator Names" window by pressing the ESC key.

Add Operator Name

22.7 TO ADD A NEW OPERATOR NAME:

- (1) Press CONFIG and then the F1 key to select "Name." A list of options appears in the lower half of the screen.
- (2) Press F3 to select "Add." The screen prompts you to "Enter Operator Name."
- (3) Enter the name as you wish it to appear on the screen. Use the backspace key to back up and make corrections, if necessary. Press RETURN when the name appears as desired.
- (4) If there are two or more operators from which to choose, the screen then prompts you to "Select Initial Configuration Values" and gives a list of existing names. Press the function key of the operator name that has the customized configurations most similar to those you wish to use (or

move the highlight bar to the desired name and press RETURN).

- (5) The screen displays the new name and the selected default configuration. Do one of the following:

To accept the name: Press RETURN. The screen returns to the "Enter Operator Name" window. You can enter another name or press ESC to return to the "Operator Names" window.

To erase the name: Press ESC. The display returns to the "Operator Names" window.

Delete Operator Name

22.8 TO DELETE AN EXISTING OPERATOR NAME:

- (1) Press CONFIG and then the F1 key to select "Name." A list of options appears in the lower half of the screen.
- (2) Press F4 to select "Delete." The screen prompts you to select the "Operator's Name to be DELETED." (If there are no names to be deleted, the "Operator Names" window remains on the screen. You cannot delete the Default operator.)
- (3) Press the function key that corresponds to the name to be deleted (or use the UP and DOWN ARROW keys to move the highlight bar to the desired name and then press RETURN or CNECT).
- (4) The screen shows the name you have chosen. Do one of the following:

To delete the operator: Press RETURN to delete that name. You return to the "Operator Names" window. (If there are other names programmed, the screen then shows the next available name on the list. If you wish to also delete that name, press RETURN; otherwise press ESC to return to the "Operator Names" window.)

To leave the operator unchanged: Press ESC to cancel the deletion and return to the "Operator's Names" window.

C. DISPLAY

22.9 To customize the console displays, press CONFIG and then F2 to select "Display." A list of display options appears in the lower half of the screen which allows each operator to customize the following configuration options:

- **Color:** The colors of the different areas of the display screen and the messages and directories that appear on it can be changed to suit each operator's preference.
- **Name:** The operator's name can be programmed to appear in the upper left corner of the screen.
- **Time:** The time display can be programmed to show the time in 24- or 12-hour format. This determines the format of the time display as well as the format used when programming.
- **Scroll Overlap:** When an operator presses the PAGE UP or PAGE DOWN key, a number of entries will "overlap" from the previous page. This can be 0, 1, 2, or 3 entries.
- **Tenant:** Each operator can determine whether the intercom directory that is displayed when a number or letter is entered shows the entire system directory or just those names that are included in his or her tenant group. (The entire system directory is displayed whenever the IC DIR key is pressed.)
- **Statistics:** Each operator can determine whether call handling statistics are displayed each time the NIGHT key is pressed.
- **Screen Saver:** The screen can be programmed to go blank when the console has been inactive for a period of time. It is then restored when any key is pressed or when a call is received (press the SPACE BAR or RELEASE key to restore the screen without activating any features). The length of inactivity that triggers screen saver can be set to each operator's preference.
- **Directory:** Each operator can determine which, if any, directory is displayed when calls are answered.
- **Extension:** The extension number that appears above the call count display can be enabled or disabled.

Colors

22.10 TO MODIFY THE DISPLAY COLORS:

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.
- (2) Press F1 to select "Color." The list of color options appears in the lower half of the screen.
- (3) **To return all colors to default configuration:** Move the highlight bar to "Default" at the end of the list and press the associated function key, RETURN, or CNECT. When the prompt asks "Restore all colors to their default values?" enter Y and press RETURN. The "Color" menu returns.

To change colors: Change selected areas of the display by moving the highlight bar to the area for which you wish to change the color and pressing the associated function key, RETURN, or CNECT. The options include the following. Each of these options, when selected, presents another menu that lists the components of the selected area that can be changed individually.

- a. **Border:** Changes the color of the border of the entire screen.
- b. **Answer Handling:** Changes the "CONNECTED!" and "TRANSFER HOLD" message color.
- c. **IC Directory:** Changes the IC Directory colors.
- d. **Incoming:** Changes the incoming call list colors.
- e. **Status:** Changes the status window colors.
- f. **Configuration:** Changes the configuration programming window colors.
- g. **Text Message:** Changes the text message display colors.
- h. **Text Message Directory:** Changes the text message directory colors.
- i. **General:** Changes the color of the windows that show the DND and FWD messages.
- j. **Paging:** Changes the color of the box that indicates when paging is active.
- k. **Help:** Changes the color of the screen displayed when the HELP key is pressed.
- l. **Busy Trunk Window:** Changes the color of the trunk statistics window.

- m. **Busy Trunk Options:** Changes the color of the options shown in the trunk statistics window.
 - n. **CO Outgoing:** Changes the color used for the CO directory that is displayed during an outgoing call.
 - o. **Other:** Changes screen background, status indicator, and alarm status window colors.
- (4) The "Modify Color" prompts appear. Perform any or all of the following steps. The sample box in the lower right corner indicates what you have selected. (Note that not all areas will have all of these options. For example, "Borders" has only a "Background" option.)
- a. **To change the color of the background:** Move the highlight bar to "Background" by using the LEFT or RIGHT ARROW key. Then use the UP or DOWN ARROW key to select the desired color as shown in the sample.
 - b. **To change the color of the foreground:** Move the highlight bar to "Foreground" using the LEFT or RIGHT ARROW key. Then use the UP or DOWN ARROW key to select the desired color as shown in the sample.
 - c. **To change the intensity of the selected color:** Move the highlight bar to "Intensity" by using the LEFT or RIGHT ARROW key. Then use the UP or DOWN ARROW key to select the desired intensity as shown in the sample.
 - d. **To turn blinking on or off:** Move the highlight bar to "Blink" by using the LEFT or RIGHT ARROW key. Then use the UP or DOWN ARROW key to turn blinking on or off.
- (5) Press RETURN or CNECT to save the new color selection (or ESC to cancel the changes) and back up one menu level.
- (6) Select other colors to change or press ESC to exit and update the console to the new colors.

Operator Name

22.11 TO DETERMINE IF YOUR NAME APPEARS ON THE SCREEN WHEN YOUR CONFIGURATION IS IN USE:

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.
- (2) Press F2 to select "Name." The "Display Current Operator's Name" prompts appear.
- (3) *If you wish to have the name appear in the upper left corner of the screen, press F1 to select "On."*
If you do not want the operator's name displayed, press F2 to select "Off."

Clock Format

22.12 TO DETERMINE WHETHER THE CLOCK USES 12- OR 24-HOUR FORMAT:

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.
- (2) Press F3 to select "Time." The "Time Formats" prompts appear.
- (3) *If you wish to have the time appear in 24-hour format, press F1 to select "Continental."*
If you wish to have the time appear in AM/PM (12-hour) format, press F2 to select "AM/PM."

Page Overlap

22.13 TO DETERMINE HOW MANY LINES FROM THE PREVIOUS PAGE OVERLAP WHEN THE PAGE UP OR PAGE DOWN KEY IS PRESSED:

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.
- (2) Press F4 to select "Scroll Overlap." The screen prompts you to "Enter overlap for page scrolling."
- (3) Enter the desired number (0, 1, 2, or 3) and press RETURN.

Tenant Intercom Directory Contents

22.14 TO DETERMINE THE CONTENTS OF THE ACTIVE TENANT'S INTERCOM DIRECTORY LIST:

NOTE: This changes the directory that appears when a number or letter is entered when placing an intercom call. It does not change the IC DIR key function. The IC DIR key will always access the complete system intercom directory.

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.
- (2) Press F5 to select "Tenant." The "IC Directory Contents" prompts appear.
- (3) If you wish to have the directory include all extension numbers in the system, press F1 to select "All."

If you wish to have the directory include only the extension numbers in your tenant group and the tenant group of the trunk being used, press F2 to select "Tenant."

Operator Statistics

22.15 TO DETERMINE WHETHER OPERATOR STATISTICS ARE DISPLAYED WHEN THE NIGHT KEY IS PRESSED:

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.
- (2) Press F6 to select "Statistics." The prompts "Display Operator Statistics at End of Session."
- (3) If you want operator statistics enabled, press F1 to select "On."

If you want operator statistics disabled, press F2 to select "Off."

Screen Saver

22.16 TO ENABLE OR DISABLE SCREEN SAVER AND/OR SET THE INTERVAL:

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.

- (2) Press F7 to select "Screen Saver." The "Screen Saver Options" prompts appear.

- (3) To enable or disable screen saver: Press F1 to select "Switch." The enable/disable prompts appear. Press F1 to enable screen saver or F2 to disable it.

To set the screen saver interval: Press F2 to select "Interval." The screen prompts you to enter the time (in minutes and seconds) for the "Inactive Period Before Blanking Screen." Enter the desired time in minutes, followed by a colon (:) and the seconds.

Display After Answering

22.17 TO DETERMINE WHAT IS DISPLAYED WHEN YOU ANSWER AN INCOMING CALL:

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.
- (2) Press F8 to select "Directory." The "Display After Answering Call" prompts appear.
- (3) If you wish to have your intercom speed-dial directory appear, press F1 to select "Speed Dial."

If you wish to have the system intercom directory appear, press F2 to select "IC Directory."

If you wish to leave the lower half of the screen blank when you answer a call, press F3 to select "Blank."

Station Extension Number

22.18 TO DETERMINE IF THE STATION'S EXTENSION NUMBER APPEARS ON THE SCREEN:

- (1) Press CONFIG and then the F2 key to select "Display." A list of options appears in the lower half of the screen.
- (2) Press F9 to select "Extension." The "Display Own Extension Number" prompts appear.
- (3) If you wish to have the extension number appear, press F1 to select "On."

If you do not want the extension number displayed, press F2 to select "Off."

D. CALLS

22.19 The following configuration options can be programmed by pressing CONFIG and then F3 to select "Calls."

- **IC Speed Dial:** Each operator can program up to 10 numbers in his or her intercom speed-dial directory.
- **CO Speed Dial:** Each operator can program up to 10 numbers in his or her *personal* outside call directory. (Some locations may be programmed for redialing the last number dialed, as described below.)
- **CO Options:** Each operator can determine how many of the locations in the *personal* outside call directory are reserved for redialing. Any number 0-10 can be designated.
- **CO Directory:** The *system* speed-dial directory can contain additional numbers that are frequently used by the operator. This option is used for entering numbers in the CO directory (see page 2-25 for another method of entering numbers in the CO directory using the TAG key). These additional numbers can be given names and/or notes as desired. Each operator can add numbers to the CO directory, but because all operators of the console share the CO directory, all will have access to the numbers (the added numbers are not "private" for individual operators on a shared console). System speed-dial entries are shown in the directory with the speed-dial location number in the "notes" field.
- **DTMF:** Each operator can determine whether the console will be in DTMF mode automatically during an outgoing call or remains in non-DTMF mode.
- **Trunk Access:** The OUTGN key can be programmed to access LCR or any available trunk group for placing an outgoing call. This option applies to *all* operators of the console and cannot be programmed on an individual-operator basis.
- **Call Connect:** Determine when intercom calls will be placed. They can be placed as soon as the entered number matches an entry in the intercom directory, or only when the called station is not busy or not in do-not-disturb. This option applies to *all* operators of the console and cannot be programmed on an individual-operator basis.
- **Voice Mail:** Any operator can program the intercom number that is accessed by the VMAIL key. This option applies to *all* operators of the console and cannot be programmed on an individual-operator basis.

- **Voice Type:** This option identifies the mode used to access the voice mail unit: customized directory Mode or generic DTMF mode.
- **Expanded DID Names:** This option allows the operator to program identifying names to the system's DID numbers. The expanded name is used in place of the seven-character system-programmed DID name to give the operator more information when the DID name is displayed during a call. Each DID name must be unique for this feature to work properly.

Personal Intercom Speed Dial

22.20 This utility is used for programming or deleting entries in each operator's *personal* intercom speed-dial list. Three options are available. They are:

- **IC** is used for programming intercom numbers that match extensions in the system intercom directory.
 - **Generic** is used for programming digit strings that may be used during a call. For example, when calling voice mail, you could press the speed-dial key that contains your mailbox number and password to listen to waiting messages.
- NOTE:** Generic numbers cannot begin with numbers that match a feature code, nor can the digits that follow a pause or hookflash begin with a number that matches a feature code. For example, a voice mail password that begins with 9 (e.g., 9999) cannot be entered, as the entire number or after a pause, because 9 is the default feature code for least-cost routing.
- **Remove** is used for deleting numbers from the speed-dial list.

22.21 TO PROGRAM OR DELETE INTERCOM SPEED-DIAL NUMBERS:

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press the F1 key to select "IC Speed Dial." The "IC Speed Dial Types" window appears. Press the associated function key (or move the highlight bar and press RETURN or CNECT) to select one of the three choices: IC, Generic, or Remove.
- (3) The intercom speed-dial list appears. Use a function key (or move the highlight bar and press RETURN or CNECT) to select the speed-dial number that you wish to program or delete.

- (4) Determine which of the following procedures applies to your selection:

If you chose IC in the first step, the system intercom directory and an input prompt appear. Enter the desired intercom number (or move the highlight bar to the desired number in the directory and press RETURN or CNECT). The intercom speed-dial list reappears, showing the number in the selected location. You may choose another number to program or press ESC to return to the "IC Speed Dial Types" window.

NOTE: If an alias has been assigned to the station that you wish to enter as an IC number, you can use the main listing for that number or the alias.

If you chose Generic in the first step, the screen prompts you to "Enter Generic IC Number." Enter the desired number and press RETURN. The screen then prompts you to enter the "Name Associated with Number." If desired, enter a name for this number and/or press RETURN. The intercom speed-dial list reappears, showing the number in the selected location. You may choose another number to program or press ESC to return to the "IC Speed Dial Types" window.
NOTE: If you enter an extension number as a "generic number," the station's status will not appear in the intercom speed-dial directory.

If you chose Remove in the first step, the screen prompts you to "Verify Operation" and asks "Delete Speed Dial at F_? N" Enter Y and press RETURN to delete the number (or press RETURN to cancel the operation). The intercom speed-dial list reappears, showing the selected location as "<No Entry>." You may choose another number to program or press ESC to return to the "IC Speed Dial Types" window.

Personal CO Speed-Dial

22.22 Each operator has a *personal* CO speed-dial list. This speed-dial list will be displayed whenever the OUTGN key is pressed. The operator can then choose to press a function key or enter a number that is not on the list.

22.23 Some CO speed-dial locations can be programmed for redialing numbers (as described on the next page). If all locations are set for redialing, this option will not be available to the operator.

22.24 The CO speed-dial numbers can contain up to 32 digits each and can include dashes, hookflashes, and/or short or long pauses for dialing a series of numbers. For example, the speed-dial number can contain an SCC local number, a pause, and an access code. For using E&M trunks, speed-dial numbers may contain the other system's trunk access code if it is followed by a pause. The lengths of the hookflash and the pause are determined by the programmable "CO hookflash" and "pause digit" timers. (Refer to the 256 or 416/832 manual for additional information regarding the timers.)

22.25 TO PROGRAM OR DELETE NUMBERS IN THE SPEED-DIAL LIST:

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press the F2 key to select "CO Speed Dial." The CO speed-dial list appears. Use a function key (or move the highlight bar and press RETURN or CNECT) to select the number that you wish to program or delete.
- (3) A window appears with prompts for entering the name, note, number, and local time.
 - a. Enter the desired name. If the last name is listed first, separate the names with a comma.
 - b. Enter or modify the desired note and press RETURN or CNECT. Do not use a backslash (\) in the note.
 - c. Enter the desired telephone number and press RETURN or CNECT. (*To include pauses or hookflashes in the number, enter F for a hookflash, S for a short pause, or L for a long pause.*)
 - d. *If the time zone is correct, skip to the next step. If the time zone is not correct, type Y and press RETURN. A window appears that contains United States time zones and "Other." Select the desired time zone. If you selected "Other," another window appears so that you can enter the time offset from Greenwich Mean Time and "East" or "West" for the number's location.*
- (4) Press ENTER to place the number in the speed-dial directory. The CO speed-dial list reappears, showing the number in the selected location.
- (5) You may choose another number to program or press ESC to return to the "CO Speed Dial Types" window.

CO Options

22.26 Each operator can determine how many (if any) *personal* CO speed-dial locations will be used for storing numbers for redialing.

22.27 *TO ASSIGN CO SPEED-DIAL LOCATIONS FOR REDIALING:*

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press the F3 key to select "CO Options." A window appears with the prompt "Number of CO Speed Dial Entries to be Used for Redial (0-10)."
- (3) Enter the desired number (0-10) and press RETURN.

CO Directory

22.28 Using this option, each operator can add, modify, and/or delete CO directory numbers. These numbers displayed in the directory that contains the *system* speed-dial numbers. Because all operators of the console share the CO directory, all will have access to the numbers (the added numbers are not "private" for individual operators on a shared console).

22.29 *TO ENTER OR MODIFY NUMBERS IN THE SYSTEM CO DIRECTORY:*

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press the F4 key to select "CO Directory." A list of options appears.
- (3) *To add a number*, press F1. A window appears with prompts for entering the name, note, number, and local time.

To modify a number, press F2 (or enter the desired name or number and press RETURN). A window appears that shows the current name, note, number, and local time.

- (4) Enter or modify the desired name (up to 20 characters). If the last name is listed first, separate the names with a comma.
- (5) Enter or modify the desired note (up to 10 characters) and press RETURN or CNECT. Do not use a backslash (\) in the note.
- (6) Enter or modify the desired telephone number (up to 42 digits) and press RETURN or CNECT. You can include dashes in the number, if desired.

(To include pauses or hookflashes in the number, enter F for a hookflash, S for a short pause, or L for a long pause.)

- (7) *If the time zone is correct*, skip to the next step. *If the time zone is not correct*, type Y and press RETURN. A window appears that contains United States time zones and "Other." Select the desired time zone. If you selected "Other," another window appears so that you can enter the time offset from Greenwich Mean Time and "East" or "West" for the telephone number's location.
- (8) Press ENTER when the number appears as desired. *If modifying a number*, the CO directory appears. You may choose another number to modify or press ESC to exit.

22.30 *TO DELETE A NUMBER FROM THE SYSTEM CO DIRECTORY:*

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press the F4 key to select "CO Directory." A list of options appears.
- (3) Press F3 (or enter the desired name or number and press RETURN). A window appears that shows the current name, note, number, and local time, followed by a prompt that asks if you want to delete the number.
- (4) Press Y and ENTER to delete the number or press N and ENTER to leave the number unchanged.

22.31 The CO Directory option is also used for setting the console's default value for the local time zone and for the international dialing code(s).

22.32 *TO SET THE LOCAL TIME ZONE:*

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press the F4 key to select "CO Directory." A list of options appears.
- (3) Press F4 again to select "Location." A list of time zones appears.
- (4) Select the desired United States time zone or "Other" and press RETURN.
 - a. *If you selected a U.S. time zone*, another window appears that contains two prompts. Enter the following information and then press ENTER.

Daylight-saving time occurs? (y/n): Press Y and RETURN if the console is in an area that follows daylight-saving time. Press N and RETURN if daylight-saving time is not used.

Local description code: You can enter up to three characters that will be used in the CO directory to identify local calls. Enter the desired characters (if any) and press RETURN.

- b. *If you selected "Other,"* a window appears that prompts you for the time offset from Greenwich Mean Time. Enter the following information and then press ENTER.

Time offset from Universal Time Zone (hours:min): Enter the number of hours and minutes difference between the local time and Greenwich Mean Time. Enter the hours, a colon, and the minutes, then press RETURN.

East (-) or West (+) of the Universal Time Zone (E/W): Indicate whether the local zone is located east or west of the international date line by entering E or W and pressing RETURN.

- (5) Press ENTER when the location information is correct. (Or press ESC to exit without saving the changes.)

22.33 TO SET THE INTERNATIONAL DIALING CODE(S):

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press the F4 key to select "CO Directory." A list of options appears.
- (3) Press F5 to select "Code." A window with two prompts appears.
- (4) Enter or edit the first dialing code and press RETURN. (Or just press RETURN to leave it unchanged.)
- (5) Enter or edit the second dialing code and press RETURN. (Or just press RETURN to leave it unchanged.)
- (6) Press ENTER when the dialing codes are correct. (Or press ESC to exit without saving the changes.)

DTMF

22.34 If DTMF tones are frequently needed during outgoing calls (for example, when calling a computer-

ized service or voice mail system), this option can be used to automatically enable DTMF mode during outgoing calls. (To enable DTMF on incoming calls, press ALT and any keypad key, regardless of the DTMF mode option selected. To disable DTMF during the incoming call, press ALT and any keypad again.)

22.35 While on an outgoing call, pressing the ALT and any keypad key simultaneously turns on or off DTMF signaling (depending on the default DTMF mode). To return the DTMF mode to default, you can disconnect from the call or press ALT and any keypad key again.

22.36 TO SET THE DTMF MODE OPTION:

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press F5 to select "DTMF." A window with two options appears.
- (3) Press F1 to enable DTMF mode on all outgoing calls, or press F2 to disable DTMF.
- (4) Press ESC when finished.

Trunk Access

22.37 This option determines whether LCR or a trunk group is accessed when a console operator presses the OUTGN key.

22.38 The OUTGN key selection can be overridden whenever desired by pressing the ALT and OUTGN key simultaneously, then selecting the desired route for the call being placed.

22.39 TO DETERMINE THE DEFAULT FUNCTION OF THE OUTGN KEY:

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press F6 to select "Trunk Access." A list of trunk group access codes and descriptions appears. Press the associated function key (or move the highlight bar to the desired code and press RETURN or CNECT).

NOTE: If a trunk group access code has been deleted from the 256 or 416/832 database, it will not appear in this list.

Voice Mail

22.40 This determines the number that is dialed when a console operator presses the VMAIL key.

22.41 TO PROGRAM THE VMAIL NUMBER:

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press F7 to select "Voice Mail." When prompted, enter the extension number of the voice mail unit and press RETURN.

Voice Type

22.42 This option determines the mode used to access the voice mail unit connected to the 256 or 416/832 System. It is needed to allow the console to send commands that are suited to the voice mail unit.

22.43 TO PROGRAM THE VOICE MAIL UNIT ACCESS MODE:

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press F8 to select "Voice Type." Two choices appear. Press F1 for customized Directory Mode or press F2 for the generic DTMF Mode.

NOTE: Most voice mail systems require the generic DTMF Mode. The customized Directory Mode is used only for voice mail systems that have been specially modified to interface directly with the 256 or 416/832 System.

Call Connect

22.44 When an intercom number is dialed, it is checked against the intercom directory for validity. This option determines what will occur when a console operator dials a number that *exactly matches* an entry in the system intercom directory. The options are as follows.

- The call is automatically dialed regardless of the station's availability. If the station is busy, the call camps on. If the station is in do-not-disturb, you can use the queue, message, or do-not-disturb override feature.
- The call is automatically dialed only if the station is available. If the station is busy or in do-not-disturb, you have the option of calling in order to camp on, queue, leave a message, barge, or override do-not-disturb.
- The call is automatically dialed if the station is busy, but not if the station is in do-not-disturb. If the called station is in do-not-disturb, you can still choose to

place the call in order to use the queue, message, or do-not-disturb override feature.

22.45 TO PROGRAM THE INTERCOM CALL CONNECT OPTION:

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press F9 to select "Call Connect." Three choices appear. Press one of the following keys:
- (3) Select one of the following options:

To connect calls regardless of availability of the called station: Press F1.

To automatically connect calls only if the called station is available: Press F2.

To automatically connect calls only if the called station is not in do-not-disturb: Press F3.

Expanded DID Names

22.46 This option allows the operator to program identifying names to the system's DID numbers. The expanded name is used in place of the seven-character system-programmed DID name to give the operator more information when the DID name is displayed during a call.

22.47 TO PROGRAM AN EXPANDED DID NAME:

- (1) Press CONFIG and then the F3 key to select "Calls." A list of options appears in the lower half of the screen.
- (2) Press F10 to select "Expanded DID Name." A list of DID numbers appears.
- (3) Press the associated function key (or move the highlight bar to the desired number and press RETURN or CNECT).
- (4) A window appears that contains a space for you to enter the new information. (No other information in that window can be changed.) Type the desired name or number, up to 48 characters, and press ENTER. The list returns.
- (5) To program a name for another DID number, repeat steps 3 and 4. Or, to exit, press ESC.

E. FEATURES

22.48 Each operator can program customized do-not-disturb messages and/or determine the function of the FWD key by pressing CONFIG and then F4 to select "Features."

Do-Not-Disturb Messages

22.49 Customized do-not-disturb messages combine the programmed system messages with a personalized second line. The custom messages appear at the top of the list of do-not-disturb message selections.

22.50 TO PROGRAM CUSTOMIZED DO-NOT-DISTURB MESSAGES:

- (1) Press CONFIG and then the F4 key to select "Features." A list of options appears in the lower half of the screen.
- (2) Press F1 to select "DND." Two choices appear.
- (3) Press F1 to select "Replace." A list of do-not-disturb message locations appears.
- (4) Press the function key associated with the message location you wish to program (or move the highlight bar to the desired location and press RETURN). The list of system do-not-disturb messages appears.
- (5) Press the function key associated with the message you wish to appear on the first line of your custom message (or move the highlight bar to the desired message and press RETURN). The screen prompts you to "Enter Replacement DND Message."
- (6) Enter the message you wish to appear on the second line of your customized message and press RETURN. The list of locations reappears, showing the new message in the selected location. You may select another location or press ESC to return to the "DND Operation" window.

22.51 TO DELETE A CUSTOMIZED DO-NOT-DISTURB MESSAGE:

- (1) Press CONFIG and then the F4 key to select "Features." A list of options appears in the lower half of the screen.
- (2) Press F1 to select "DND." Two choices appear.
- (3) Press F2 to select "Remove." A list of do-not-disturb message locations appears.
- (4) Press the function key associated with the message location you wish to delete (or move the highlight bar to the desired location and press RETURN). The screen prompts you to "Verify Operation."
- (5) Enter Y and press RETURN to delete the indicated message. Or just press RETURN to exit to the list of do-not-disturb message locations. You may select another location or press ESC to return to the "DND Operation" window.

Forward

22.52 The FWD key can be programmed to default to one of the four forwarding options (all calls, if no answer, if busy, or if no answer/busy). When the FWD key is pressed, the operator has two options: press RETURN to use the default option, or select an alternate option by pressing a function key (or move the highlight bar to the desired option and press RETURN).

22.53 TO DETERMINE THE DEFAULT FWD OPTION:

- (1) Press CONFIG and then the F4 key to select "Features." A list of options appears in the lower half of the screen.
- (2) Press F2 to select "Forward." The four forwarding choices appear.
- (3) Press the function key associated with the forwarding option you wish to select (or move the highlight bar to the desired option and press RETURN).

F. MESSAGE

22.54 Three parameters are programmed by pressing CONFIG and then F5 to select "Message." They are as follows:

- **Greeting:** When console operators answer calls for several tenant groups, the operators may wish to have special greeting prompts to remind them which tenant is being called and what the preferred greeting is. Different messages can be entered for each tenant group and for morning, evening, and night hours. The operators can also program the time at which the message will change. This information is shared by *all* operators of the console and cannot be programmed on an individual-operator basis. Messages can only be programmed for tenant groups that have descriptions programmed in the database (refer to the 256 or 416/832 manual for tenant group programming information.)
- **Transient Display Timer:** The transient display alerts the operator when an operation has been completed or when the operation is invalid. The length of time a transient message will remain on the display is programmed by each operator. (One exception to this timer is the Hunt Group Camp-On display which appears for four seconds regardless of the transient display timer value.)
- **Text Message Options:** The text messaging option allows operators to enter detailed messages and retrieve them as desired. Using this utility, the operators can determine the various parameters of the text messaging option. This information is shared by *all* operators of the console and cannot be programmed on an individual-operator basis.

Morning, Afternoon, and Evening Greetings

22.55 TO PROGRAM CUSTOMIZED GREETINGS:

- (1) Press CONFIG and then the F5 key to select "Message." A list of options appears in the lower half of the screen.
- (2) Press F1 to select "Greeting." The display shows the "Greeting Message Options" window.
- (3) Select the desired message by pressing the associated function key (F1 for Morning, F3 for Af-

ternoon, or F5 for Evening), or move the highlight bar to the desired message and press RETURN or CNECT. The screen prompts you to "Select Tenant Option" and shows a list of tenants and the previously programmed greetings.

- (4) Select the desired tenant by pressing the associated function key (or move the highlight bar to the desired message and press RETURN or CNECT). The screen prompts you to "Enter New Message."
- (5) Type the desired message (up to 30 characters) and press RETURN. The "Select Tenant Option" window returns, showing the new message. You can select another message to program by returning to step 4, or exit to the "Greeting Message Options" window by pressing ESC.

22.56 TO SET THE TIME PERIODS FOR THE MESSAGES:

- (1) Press CONFIG and then the F5 key to select "Message." A list of options appears in the lower half of the screen.
- (2) Press F1 to select "Greeting." The display shows the "Greeting Message Options" window.
- (3) Select the desired time period by pressing the associated function key (F2 for Morning, F4 for Afternoon, or F6 for Evening), or move the highlight bar to the desired time period and press RETURN or CNECT. The screen prompts you to "Select Tenant Option" and shows a list of tenants and the previously programmed time.
- (4) Select the desired tenant by pressing the associated function key (or move the highlight bar to the desired tenant and press RETURN or CNECT). The screen prompts you to "Enter the Time to Begin Greeting Message."
- (5) Type the desired time, in the indicated format, with hours and minutes separated by a colon (for example "13:00" or "1:00 pm") and press RETURN. The "Select Tenant Option" window returns, showing the new time. You can select another tenant to program by returning to step 4, or exit to the "Greeting Message Options" window by pressing ESC.

Transient Display Timer

22.57 TO SET THE DURATION OF TRANSIENT DISPLAYS:

- (1) Press CONFIG and then the F5 key to select "Message." A list of options appears in the lower half of the screen.
- (2) Press F2 to select "Transient." The screen prompts you to enter the "Transient Message Display Time (1 to 5 Seconds)."
- (3) Enter the desired value (1-5) and press RETURN. Or, just press RETURN to keep the current value. The "Message Options" window returns.

Text Messaging Parameters

22.58 The following parameters can be set for the text messaging option:

- **Auto Purge:** The operator can set the maximum number of messages that will be held in the text message directory for each tenant. When this maximum is reached, the oldest waiting message will automatically be purged as each new message is entered. The maximum number of messages that can be stored in the system is dependent on disk space, but the highest possible number is 10,000 messages.
- **Full Alarm:** If enabled, this alarm will alert the operator when a tenant's messages are within 90% of the maximum number allowed. The word "ALARM" appears in the alarm/notice area at the top of the screen and a detailed message appears in a box in the lower half of the screen when the console station is idle. The detailed message will state that the message quantity is near limit when more than 90% of the maximum has been reached. If the directory is 100% full, it will state that the quantity is at the limit. The operator should then delete any unnecessary messages.
- **Recall Interval:** It is possible that occasionally the message lamps on keysets and ESLs will be turned off as the result of a power failure, database reset, or user error. For this reason, the Attendant Computer Console can be used to re-send the message waiting indications and light the lamps. This can be done automatically, by setting the recall interval to re-send message indications when the system is placed in night mode, at a preset intervals during the day, or both. Or the operator can choose to only reset the lamps manually using the "Re-Light Message Lamps" option under the FEAT key (see page 2-47).

- **Print Size:** This determines the minimum number of lines that will be printed per text message.

22.59 TO SET THE MAXIMUM NUMBER OF SAVED MESSAGES:

- (1) Press CONFIG and then the F5 key to select "Message." A list of options appears in the lower half of the screen.
- (2) Press F3 to select "Text." The screen shows the "Text Message Options."
- (3) Press F1 to select "Auto Purge." The screen prompts you to "Select Tenant Option."
- (4) If there is more than one tenant group, select the desired tenant by pressing the associated function key, (or move the highlight bar to the desired tenant and press RETURN or CNECT). The screen prompts you to "Enter Number of Text Messages for (tenant)."
- (5) Enter the desired number and press RETURN. Or, just press RETURN to leave the number unchanged. The "Select Tenant Option" window returns, showing the new number. You can select another tenant to program by returning to step 4, or exit to the "Text Message Options" window by pressing ESC.

22.60 TO ENABLE OR DISABLE THE FULL ALARM:

- (1) Press CONFIG and then the F5 key to select "Message." A list of options appears in the lower half of the screen.
- (2) Press F3 to select "Text." The screen shows the "Text Message Options."
- (3) Press F2 to select "Full Alarm." The screen prompts you to "Select Tenant Option."
- (4) Select the desired tenant by pressing the associated function key, (or move the highlight bar to the desired tenant and press RETURN or CNECT). The screen prompts you to "Enable/Disable Text Message Alarms for (tenant)."
- (5) Press F1 to enable the alarm or F2 to disable it. The "Select Tenant Option" window returns, showing the enable/disable status. You can select another tenant to program by returning to step 4, or exit to the "Text Message Options" window by pressing ESC.

22.61 TO DETERMINE THE RECALL INTERVAL:

- (1) Press CONFIG and then the F5 key to select "Message." A list of options appears in the lower half of the screen.

- (2) Press F3 to select "Text." The screen shows the "Text Message Options."
- (3) Press F3 to select "Recall Interval." The screen shows a list of options.
- (4) Select one of the following:
 - a. To have the messages re-sent every time the system is placed in night mode: Press F1 to select "Night Ring." The "Text Message Options" window returns.
 - b. To have the messages re-sent at preset intervals: Press F2 to select "Interval." The screen prompts you to enter "Starting Time to Re-notify Recipients." Enter the time in the indicated format with the hours and minutes separated with a colon (for example, "13:00" or "1:00 pm") and press RETURN. The screen prompts you to enter the "Time Interval to Re-notify Recipients." Enter the amount of time you wish to have elapse between notifications with the hours and minutes separated by a colon and press RETURN. The "Text Message Options" window returns.
 - c. To have the messages re-sent when the system is placed in night mode *and* at the preset intervals: Press F3 to select "Both." The screen prompts you to enter "Starting Time to Re-notify Recipients." Enter the time in the indicated format with the hours and minutes separated with a colon (for example,

"13:00" for 1:00PM) and press RETURN. The screen prompts you to enter the "Time Interval to Re-notify Recipients." Enter the amount of time you wish to have elapse between notifications with the hours and minutes separated by a colon (for example, 3:00 to re-notify every three hours) and press RETURN. The "Text Message Options" window returns.

- d. To disable the automatic re-sending of the messages: Press F4 to select "None." The "Text Message Options" window returns.

22.62 TO DETERMINE THE PRINT SIZE:

The "print size" is the minimum number of lines that will be printed per page of text messages:

- (1) Press CONFIG and then the F5 key to select "Message." A list of options appears in the lower half of the screen.
- (2) Press F3 to select "Text." The screen shows the "Text Message Options."
- (3) Press F4 to select "Print Size." The screen prompts you to enter a number.
- (4) Enter minimum number of lines per printed page. (If a message is shorter than this length, or if the last page of a message is shorter than this length, blank lines will be added automatically to make the message meet the minimum length.) If this is set to 0, the default message spacing is used.

23. OTHER CONSOLE ADJUSTMENTS

A. VOLUME CONTROLS

23.1 The volume of calls, music, pages, progress tones, and ring signals that are heard through the handset or headset are controlled by pressing volume control feature keys (labeled VOL, with up and down arrows).

23.2 Separate volumes can be saved for intercom calls, outside calls, background music, alerting tones, and progress/reorder tones. The volume of pages is the same as for intercom calls.

23.3 TO CHANGE CALL, MUSIC, PAGING, OR PROGRESS TONE VOLUME:

- (1) While listening to an intercom or outside call, a page, background music, or progress/reorder tones, press the VOL UP key to raise the handset volume or press the VOL DOWN key to lower the volume. The transient display shows which volume is being changed (call, music, page, or tone) followed by a number 1-13, and a bar graph, to show the level as it is raised or lowered.
- (2) **To save the setting:** Press the ALT key and a VOL key at the same time. The transient display shows "VOLUME SAVED." If this step is not performed, the console will return to the previous volume level when the call ends.

23.4 TO CHANGE ALERTING TONE (RING TONE) VOLUME:

- (1) While the console is ringing or idle, press the VOL UP key to raise the volume or press the VOL DOWN key to lower the volume. The transient display shows "Alerting Tone" followed by a number 1-13, and a bar graph, to show the level as it is raised or lowered.
- (2) **To save the setting:** Press the ALT key and a VOL key at the same time. The transient display shows "VOLUME SAVED." If this step is not performed, the console will return to the previous volume level when the call ends.

B. SELECTABLE RING TONE

23.5 The tone of the ring signals can be changed by the operator to create distinctive ringing. If stations are placed close together, changing the tone makes each station's ring easier to recognize.

23.6 TO CHANGE CONSOLE RING TONE:

- (1) Press the FEAT key. A list of feature codes is displayed in the lower half of the screen.

- (2) Using the UP or DOWN ARROWS and/or the PAGE UP and PAGE DOWN keys, move the highlight bar to select "Ring Tone Selection."

- (3) Press the associated function key or press RETURN. The screen prompts you to "Select Tone using # and *, or use 0 for no ring tone."

- (4) Press the asterisk (*) key to scroll backward through the eight available tones or the pound (#) key to scroll forward. Or press 0 to turn off ring tones.

- (5) Press ESC or allow the timer to expire. The last tone selected will now be heard when the console rings.

C. MUSIC-ON-HOLD AND BACKGROUND MUSIC

23.7 The 256 and 416/832 Systems can be equipped with one or two optional external music sources for the music-on-hold and background music features. Station users can select a *music channel* that determines which of the two music sources they wish to listen to when camped onto a system resource, when placed on hold by another station, and for background music. The music channel defaults are assigned on a station-by-station basis in the database.

23.8 Background music is interrupted for pages. The music channel heard by outside callers is determined on a trunk group-by-trunk group basis in the database.

23.9 TO TURN BACKGROUND MUSIC ON OR OFF:

- (1) Press the FEAT key. A list of feature codes appears.

- (2) Using the UP or DOWN ARROWS and/or the PAGE UP and PAGE DOWN keys, move the highlight bar to select "Background Music On (or Off)." The option that is shown (on or off) is the function that will be performed.

- (3) Press the associated function key or press RETURN. The console returns to the idle state and music can be heard through the handset or headset. If background music/paging to the speaker is enabled, it is heard through the speaker.

23.10 TO SELECT THE MUSIC CHANNEL:

- (1) Press the FEAT key. A list of feature codes appears.

- (2) Using the UP or DOWN ARROWS and/or the PAGE UP and PAGE DOWN keys, move the highlight bar to select "Background Music Channel Selection." The number at the end of the

line (1 or 2) shows which channel will be selected.

- (3) Press the associated function key or press RETURN. The console returns to the idle state and the new channel can be heard through the handset, or headset (or the speaker, if background music/paging is enabled).

D. MUSIC AND PAGING TO SPEAKER

23.11 If desired, the operator can disable both music and pages that would be heard over the console speaker.

23.12 *TO TURN SPEAKER BACKGROUND MUSIC AND PAGES ON OR OFF:*

- (1) Press the FEAT key. A list of feature codes appears.
- (2) Using the UP or DOWN ARROWS and/or the PAGE UP and PAGE DOWN keys, move the highlight bar to select "Music/Page to Speaker

On (*or Off*).” The option that is shown (on or off) is the function that will be performed.

- (3) Press the associated function key or press RETURN or CNECT. The console returns to the idle state and music can be heard through the speaker if background music was enabled.

E. CLEAR PRINTER QUEUE

23.13 If necessary, the operator can clear all information that is waiting to be printed by clearing the printer queue.

23.14 *TO CLEAR THE PRINTER QUEUE:*

- (1) Press the FEAT key. A list of feature codes appears.
- (2) Using the UP or DOWN ARROWS and/or the PAGE UP and PAGE DOWN keys, move the highlight bar to select "Clear Printer Queue." The printer queue is cleared automatically and the console returns to the idle state.

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