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BUSINESS SYSTEMS, INC.

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Data Base

SBCSTM

TECHNICAL PRACTICES

FP A-D

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TL-120101-1001	SBCS™ Installation
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D-311	4.46	Key to ANS1 and ANS2
D-316	4.47	X-on/X-off Characters
D-317	4.48	Power On/Power Off Characters
D-324	5.1	System Capacity
D-327	5.2	Access Code Defaults
D-332	5.3	Features and Additional Digits
D-333	5.4	Button Assignment Feature Numbers
D-337	5.5	Class of Service Default Values
D-341	5.6	Timing Values
D-345	5.7	System Parameter Assignment
D-347	5.8	Service Parameter Assignment

<u>PAGE</u>	<u>TABLE</u>	<u>TITLE</u>
D-348	5.9	Customer Service Default Data
D-349	5.10	Trunk Group Data
D-350	5.11	Toll Prefix Assignments
D-350	5.12	Default Matrix
D-351	5.13	Default System Data for Trunk Cards
D-352	5.14	Default Data Assignment for Stations (Part 1)
D-353	5.15	Default Data Assignment for Stations (Part 2)
D-354	5.16	RS-232C Port Default Assignments (Part 1)
D-354	5.17	RS-232C Port Default Assignments (Part 2)
D-355	5.18	Network Loss Plan
D-356	5.19	Key to Abbreviations in Table 5.18
D-356	5.20	Key to Pad Values
D-357	5.21	Default Silent Message Number Assignment
D-357	5.22	Trunk Signaling or Type of Call Connection
D-358	5.23	Default Voice Directory Numbers - CMC 200/P2 (Basic Cabinet) - Cabinet Number 0 or Blank
D-358	5.24	Default Voice Directory Numbers - CMC 200/P2 (Expansion Cabinet) - Cabinet Number 1
D-368	5.25	Attendant Console Default Feature Assignments
D-369	5.26	First EKT Type, 40-Button DSS/BLF Default Assignment (All Packages)
D-369	5.27	Second EKT Type, 40-Button DSS/BLF Default Assignment (Packages C and D)
D-370	5.28	ATT Type, 40-Button DSS/BLF Default Assignment (First/Second) (Packages C and D)
D-371	5.29	First EKT Type, 80-Button DSS/BLF Default Assignment (All Packages)
D-371	5.30	Second EKT Type, 80-Button DSS/BLF Default Assignment (Packages C and D)
D-372	5.31	ATT Type, 80-Button DSS/BLF Default Assignment (First/Second) (Packages C and D)
D-373	5-32	Data Terminal Default Attributes
D-374	5.33	Default Directory Numbers for Data Stations (Basic System) - Cabinet Number 0 or Blank
D-374	5.34	Default Directory Numbers for Data Stations (Expansion System) - Cabinet Number 1

DATA BASE OVERVIEW

1.0 This technical practice contains instructions for programming the Fujitsu GTE Business Systems' SBCS (Small Business Communication System).

Prerequisites To Programming

The installer must ensure that the appropriate forms from Technical Practice TL-120401-1001, SBCS Site Log, detailing the specific system configuration have been filled out and are available prior to the start of installation. Any alterations or changes to the system configuration must be documented on the appropriate Site Log forms.

CMCs (Change and Maintenance Codes)

1.1 The CMC (Change and Maintenance Code) tables allow the user to modify the system data base. The function of each CMC, each CMC parameter, CMC entry procedures, CMC error codes, and any special instructions are provided. Information for verifying system operation, diagnosing faults, and performing system support functions such as ODDB (Office Dependent Data Base) save/load operations is also provided.

Programming Tools

1.2 Maintenance and administration functions can be performed from any one of the following devices:

- MCT (Master Control Telephone) - CSD telephone or Attendant Console
- PMP (Portable Maintenance Panel)
- PcMP (IBM PC or compatible) running the switching system installation and maintenance software

Some features such as call forwarding-all calls/no answer/busy, do not disturb, and station speed calling can be modified from individual telephones. Refer to the appropriate user's guide to program and operate these features.

Additional Documentation 1.3 The following is a list of documentation which is available to support the installation, maintenance, and operation of the system. User's guides that provide instructions for the use of the peripheral instruments attached to the system are also listed.

Technical Practice	TL-120401-1001	SBCS Site Log
Technical Practice	TL-120301-1001	Appendix 1 SBCS Data Base
Technical Practice	TL-120001-1001	SBCS System Description/Features
Technical Practice	TL-120101-1001	SBCS Installation
Technical Practice	TL-120201-1001	SBCS Maintenance
Customer Instruction	CI-484420	CS-10, CS-20, and Single Line Telephone User's Guide
Customer Instruction	CI-484428	CSD User's Guide
Customer Instruction	CI-484439	Attendant Console User's Guide
Customer Instruction	CI-484440	CSD User's Guide for Front Desk Console Capabilities

Downloading System Software 1.4 The system's data base management software, operating system, and default data base are read from the system's permanent memory when the system is first initialized with a COLD restart. Each subsequent COLD restart will clear the ODDB and cause a reloading of the system software. A COLD restart is required whenever the system's CPM or MEM cards are changed or if the system's back-up battery is drained due to a power shut off of approximately 2 weeks or longer.

Customizing the Default Data Base 1.5 The default data base can be customized by modifying CMCs using a programming tool or by playing the contents of a prepared ODDB tape or floppy diskette into the system memory.

PROGRAMMING TOOLS

2.0 The default data base can be modified by the use of CMC commands which must be issued from any one of the following devices:

- MCT (Master Control Telephone) CSD telephone or Attendant Console
- a PMP (Portable Maintenance Panel)
- a PcMP (IBM PC or compatible) running the switching system installation and maintenance software. (Software and documentation available from Fujitsu, America.)

Description

2.1 The following paragraphs provide descriptions of the MCT and PMP programming tools.

CSD as Master Control Telephone

2.1.1 A CSD can be used as an MCT for on-site entry of CMC commands. A CSD/MCT cannot record the ODDB (Office Dependent Data Base) and can only be used in an interactive mode (live and on-line).

The system will automatically assign the first four CSD or Attendant Console instruments installed in the system as MCTs. All four of these MCTs may be CSDs. Up to 20 total MCTs can be assigned at CMC 702 in Package D. Packages A, B, and C are limited to 4 MCTs. Only one MCT can be used in programming mode at any given time.

CSD

2.1.1.1 The CSD is a proprietary digital telephone with a 4-line, 20-character LCD display. This phone has 4 fixed feature buttons, 10 programmable feature buttons, and 6 display keys. When the CSD is used as an MCT, the feature buttons and display keys are assigned new functions.

CSD/MCT Key Assignments 2.1.1.2 Figure 2.1 shows key assignments for a CSD in MCT mode. Table 2.1 lists the function key assignments and describes the function of each key.

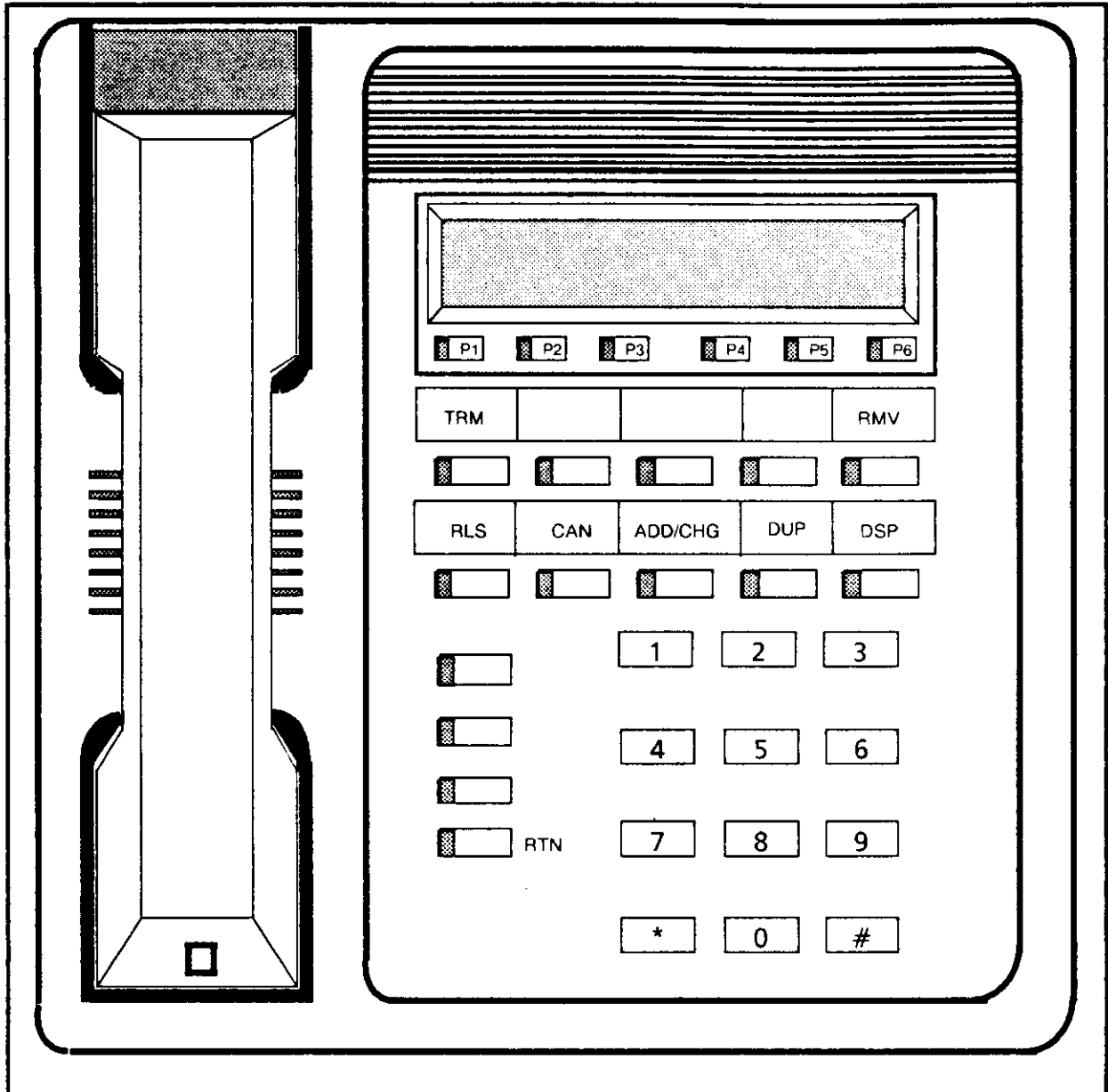


Figure 2.1 Key Assignments for a CSD in MCT Mode

Table 2.1 CSD/MCT Function Keys

Function Key Assignments	Description
Return/RTN	Required as a prompt to the system after typing the security code or CMC three-digit number. Can be used to move the cursor to the next parameter position.
Release/RLS	Permits exit from a command at any time. Useful to change to another command or exit from an error condition.
Terminate/ TRM	Terminates the command mode. (RLS must be used before using TRM.)
Cancel/CAN	Cancels a keyed in P value. Useful to erase typing errors. Will not delete a value from memory. (Can be used to enter a blank P value.)
ADD/CHG	Writes (enters) the typed P values into data base memory. In some tables, RMV must be used to delete old values before pressing ADD/CHG. PMP screen indicates whether the values were added or changed.
Duplicate/ DUP	Increments the table's key parameter(s) while causing the remaining P values to stay the same as on the previous screen. Useful for entering repetitive P values such as station and trunk data.
Display/DSP	Required as a prompt to the system after entering displayable CMC commands. Shows P values of a table. If no value exists for a parameter, the P value is blank. Depressing DSP a second time increments the main parameters, and their P values are displayed. Depressing DSP at the end of a table listing either displays the first P value again or releases the table by exiting.
Remove/RMV	Deletes all P values from a table. Required at some tables before entering new values.

SECURITY
CODES

	High level	Lo Level
{	Package-A - 703	# 380
	Package-B-D # 803	# 380

Attendant Console as Master Control Telephone

2.1.2 An Attendant Console can be used as an MCT for on-site entry of CMC commands. An Attendant Console/MCT cannot record the ODDB and can only be used in an interactive mode (live and on-line).

The system will automatically assign the first four CSD or Attendant Console instruments installed in the system as MCTs. Two of these MCTs may be Attendant Consoles. Only one MCT can be used in programming mode at any given time.

Attendant Console

2.1.2.1 The Attendant Console is a proprietary telephone with a 4-line, 20-character LCD display. This phone has 11 fixed feature buttons, 16 programmable feature buttons, and 6 display buttons. When the Attendant Console is used as an MCT, the feature and display buttons are assigned new functions.

Attendant Console/MCT Key Assignments

2.1.2.2 Figure 2.2 shows the the key assignments for an Attendant Console in MCT mode. Table 2.2 list the function key assignments and describes the function of each key.

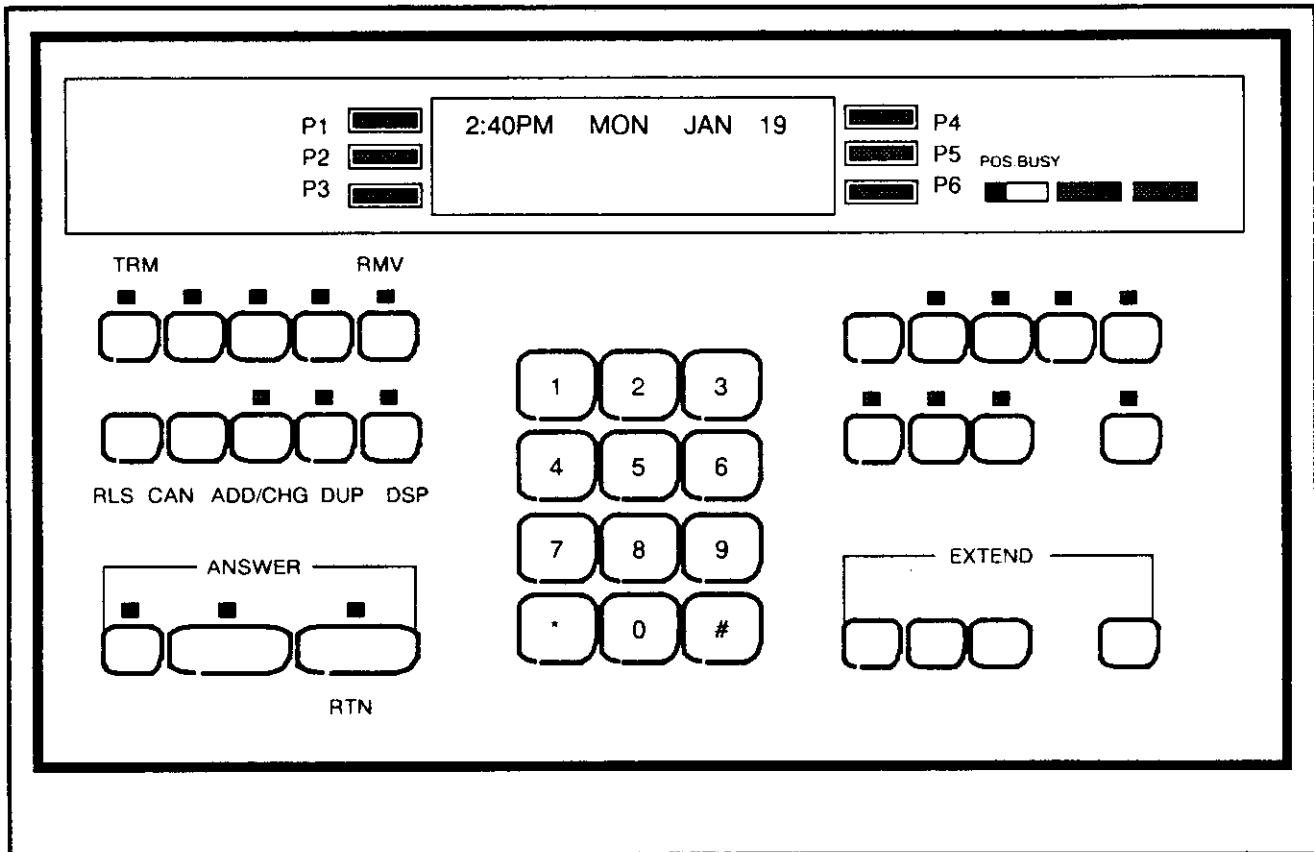


Figure 2.2 Key Assignments for an Attendant Console in MCT Mode

Table 2.2 Attendant Console/MCT Function Keys

Function Key Assignment	Description
Return/RTN	Required as a prompt to the system after typing the security code or CMC three-digit number. Can be used to move the cursor to the next parameter position.
Release/RLS	Permits exit from a command at any time. Useful to change to another command or exit from an error condition.
Terminate/ TRM	Terminates the command mode. (RLS must be used before using TRM.)
Cancel/CAN	Cancels a keyed in P value. Useful to erase typing errors. Will not delete a value from memory. (Can be used to enter a blank P value.)
ADD/CHG	Writes (enters) the typed P values into data base memory. In some tables, RMV must be used to delete old values before pressing ADD/CHG. PMP screen indicates whether the values were added or changed.
Duplicate/ DUP	Increments the table's key parameter(s) while causing the remaining P values to stay the same as on the previous screen. Useful for entering repetitive P values such as station and trunk data.
Display/DSP	Required as a prompt to the system after entering displayable CMC commands. Shows P values of a table. If no value exists for a parameter, the P value is blank. Depressing DSP a second time increments the main parameters, and their P values are displayed. Depressing DSP at the end of a table listing either displays the first P value again or releases the table by exiting.
Remove/RMV	Deletes all P values from a table. Required at some tables before entering new values.

PMP (Portable Maintenance Panel)

2.1.3 A PMP can be used on-site or from a remote location to enter CMC commands. A PMP can also be used to make back-up copies of the system ODDB. Similarly, it can be used to write the contents of an ODDB into system memory.

The system can accommodate two PMPs attached to the system. Only one PMP can be in programming mode at any given time.

The PMP used with the system for data base administration is an EPSON HX-20 hand-held computer (Figure 2.3). It has a keyboard, a small built-in paper printer, a 4-line, 20-character LCD display, special function keys, a microcassette tape drive, and one RS-232C port for cable interface with the system.

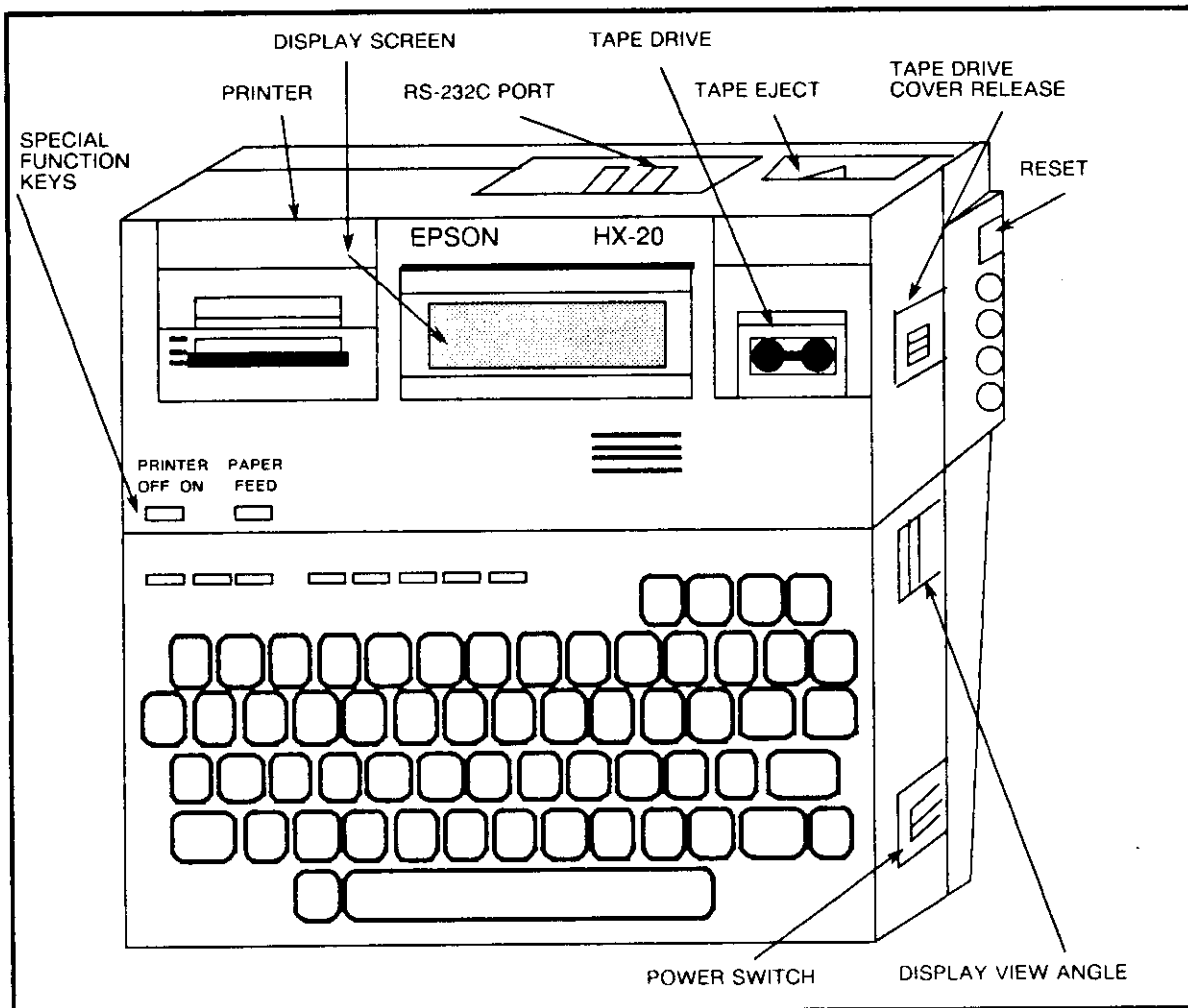


Figure 2.3 Portable Maintenance Panel (EPSON HX-20)

PMP Keyboard

2.1.3.1 The PMP keyboard (Figure 2.4) includes keys in standard typewriter format for entry of CMC commands, and a number of

special function keys. Table 2.3 lists the functions and corresponding PMP keys that are used for programming.

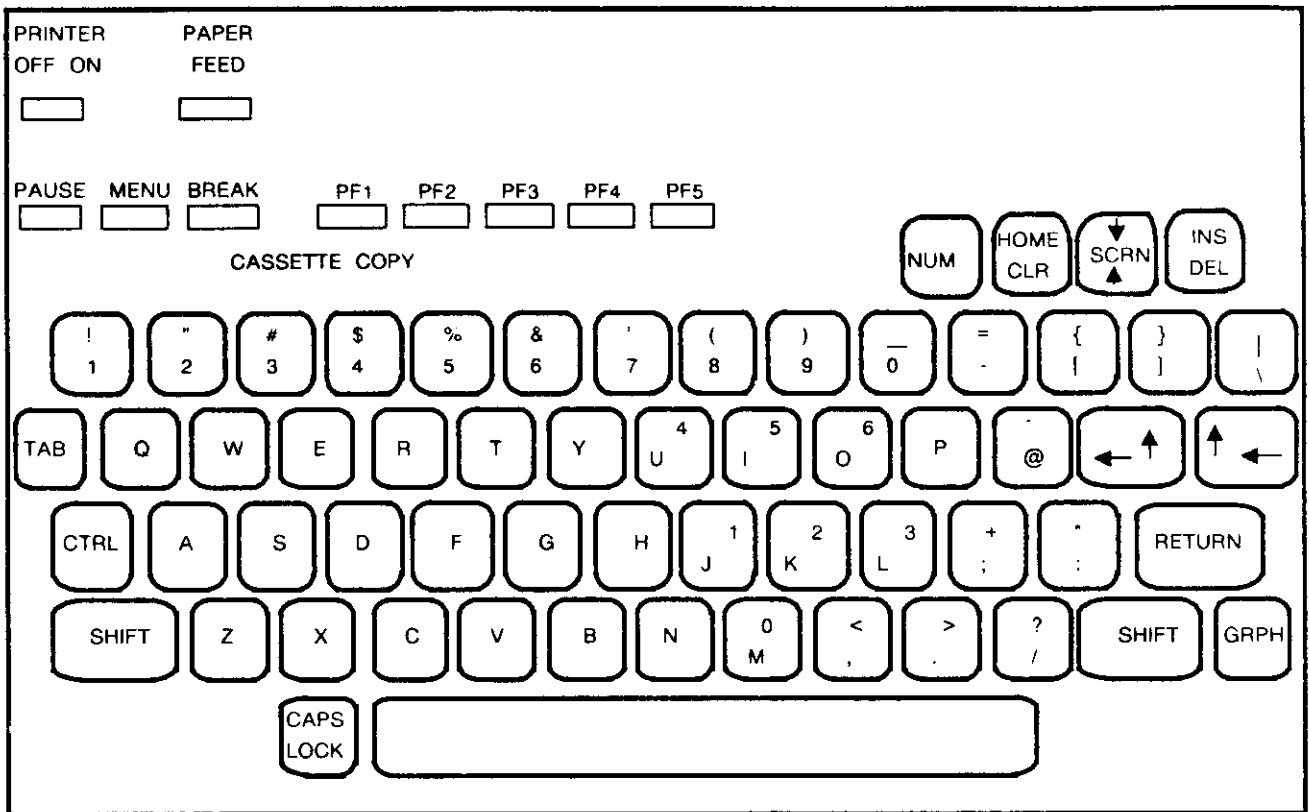


Figure 2.4 PMP Keyboard Layout

Table 2.3 Function Key Definitions

Function	PMP Key(s)	Description
Select/Return	RETURN	Required as a prompt to the system after typing the security code or CMC three-digit number. Can be used to move the cursor to the next parameter position
Release/RLS	PF1	Permits exit from a command at any time. Useful to change to another command or exit from an error condition.
Terminate/TRM	SHIFT + PF1 (PF6)	Terminates the command mode. (RLS must be used before using TRM.)
Cancel/CAN	PF2	Cancels a keyed in P value. Useful to erase typing errors. Will not delete a value from memory. (Can be used to enter a blank value.)
PRINT	CTRL + PF2	Sends the display on the current screen to the printer. One screen is printed at a time. The cursor must be visible on the screen and all PMP/system communications completed before pressing PRINT.
ADD/CHG	PF3	Writes (enters) the typed P values into data base memory. In some tables, RMV must be used to delete old values before pressing ADD/CHG. PMP screen indicates whether the values were added or changed.
Duplicate/DUP	PF4	Increments the table's key parameter(s) while causing the remaining P values to stay the same as the previous screen. Useful for entering repetitive values such as station and trunk data.
Tape Start	SHIFT + PF4 (PF9)	Starts the ODDB back-up tape during the load or save data base procedure.
Display/DSP	PF5	Required after entering some CMC commands. Shows P values of a table. If no value exists for a parameter, the P value is blank. Depressing DSP a second time increments the main parameters, and their P values are displayed. Depressing DSP at the end of a table listing either displays the first P values again or releases the table by exiting.
Remove/RMV	SHIFT + PF5 (PF10)	Deletes all P values from a table. Required at some tables before new values can be entered.

Optional PMP Disk Drive

2.1.3.2 The optional PMP disk drive is an EPSON TF-20. It is a separate unit which contains two 5¼-inch floppy disk drives, a controller card, and supporting circuitry. The power indicator LED, disk drive LEDs, and drive eject pushbuttons are located on the front of the unit (Figure 2.5). The power cord, power switch, and two serial interface connectors are located on the rear of the unit (Figure 2.6).

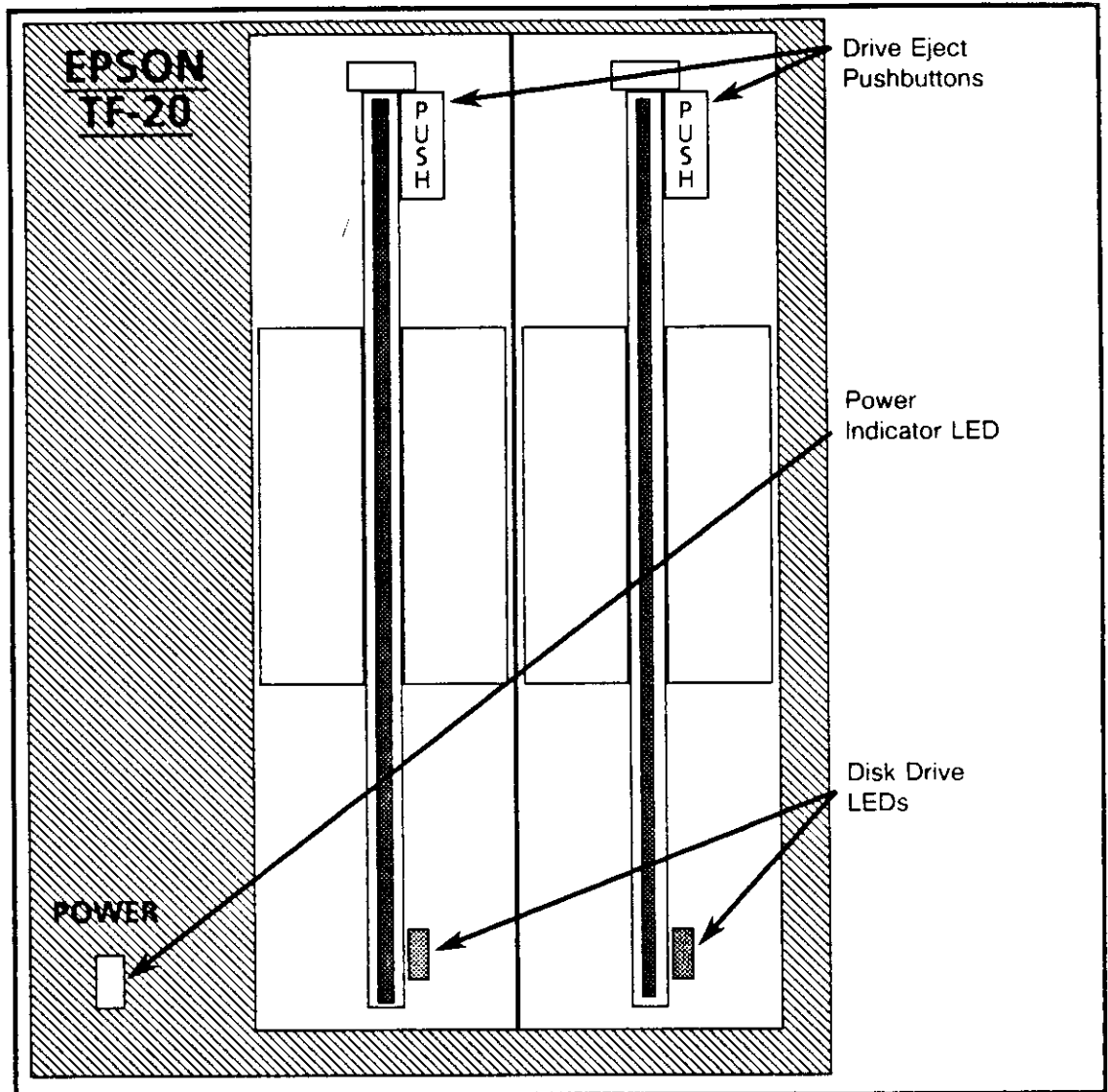


Figure 2.5 PMP Disk Drive Front

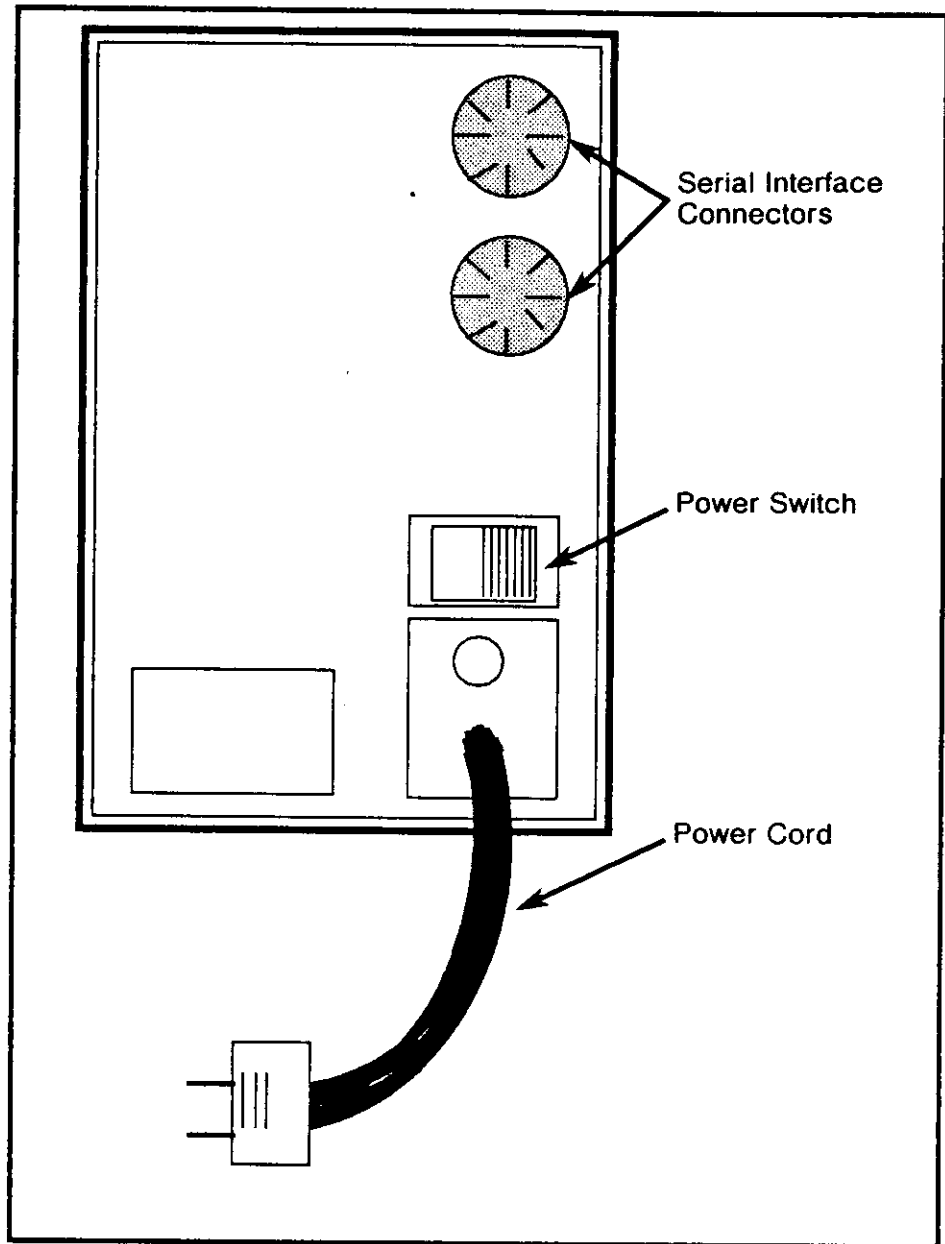


Figure 2.6 PMP Disk Drive Rear

Installation Procedures

2.2 The following paragraphs provide instructions for installing the PMP and optional PMP disk drive. Instructions for installing MCTs (CSDs and Attendant Consoles) can be found in Technical Practice TL-120101-1001, SBCS Installation.

Installing the PMP

2.2.1 To install the PMP (Figure 2.7):

1. Connect the small end of the PMP connector cable (EPSON No. 715) to the RS-232C port on the rear of the PMP.
2. Connect the large end of the PMP connector cable to port I/O Ø (CN13) on the equipment cabinet frame.

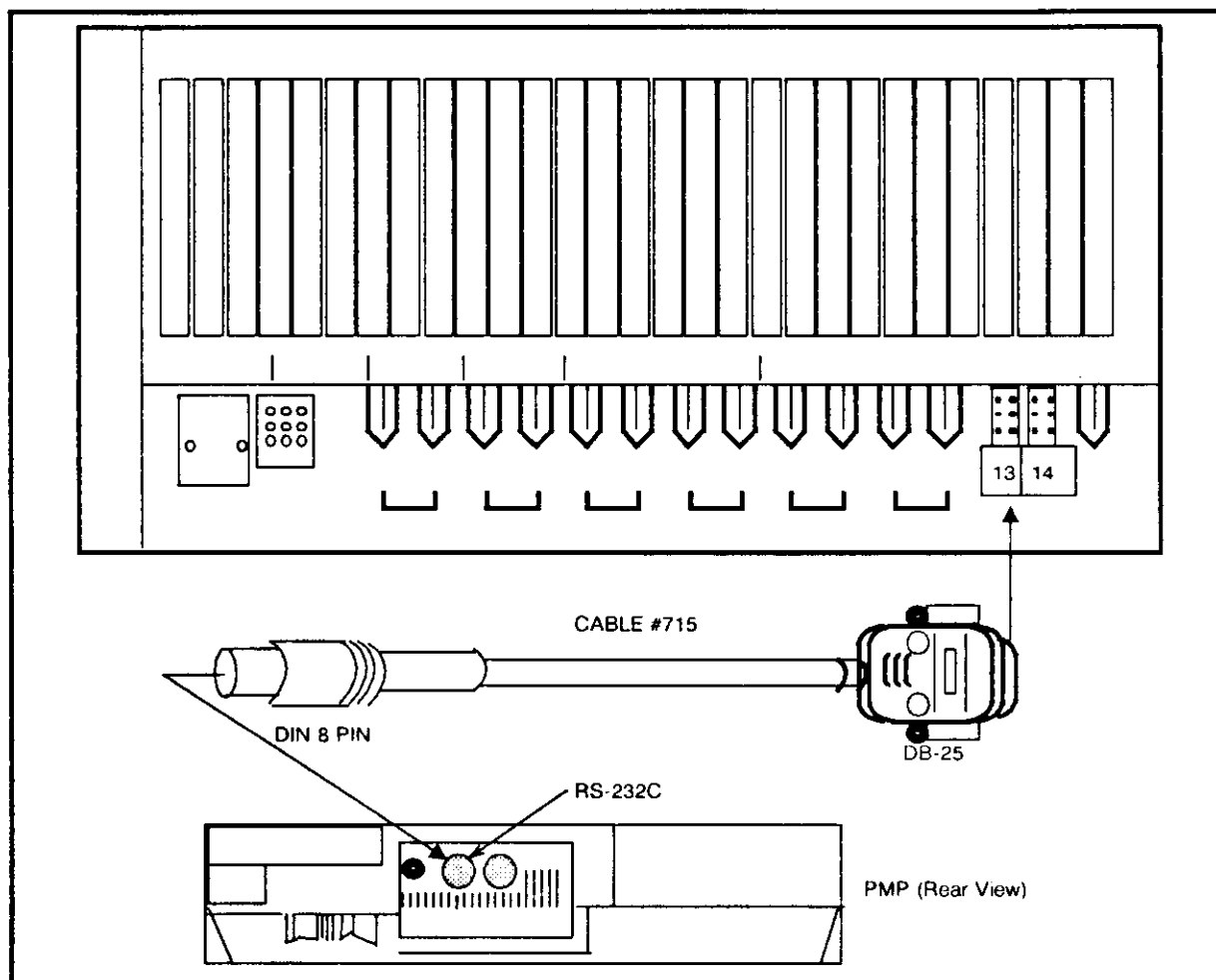


Figure 2.7 PMP/Equipment Cabinet Connection

Installing the Optional PMP Disk Drive

2.2.2 To install the optional PMP disk drive:

1. Verify that the PMP has been upgraded with the expansion RAM module (EPSON No. H20EU). The module must be installed before the optional disk drive can be installed. Refer to the manufacturer's instructions.

2. Verify that the power switches of both the PMP and the disk drive are turned off.
3. Remove the bottom panel of the PMP (Figure 2.8).
4. Set dip 4 of the dip switch in the PMP to on. The dip switch is well inside and to the left as viewed when the bottom panel is open.
5. Replace the PMP bottom panel.

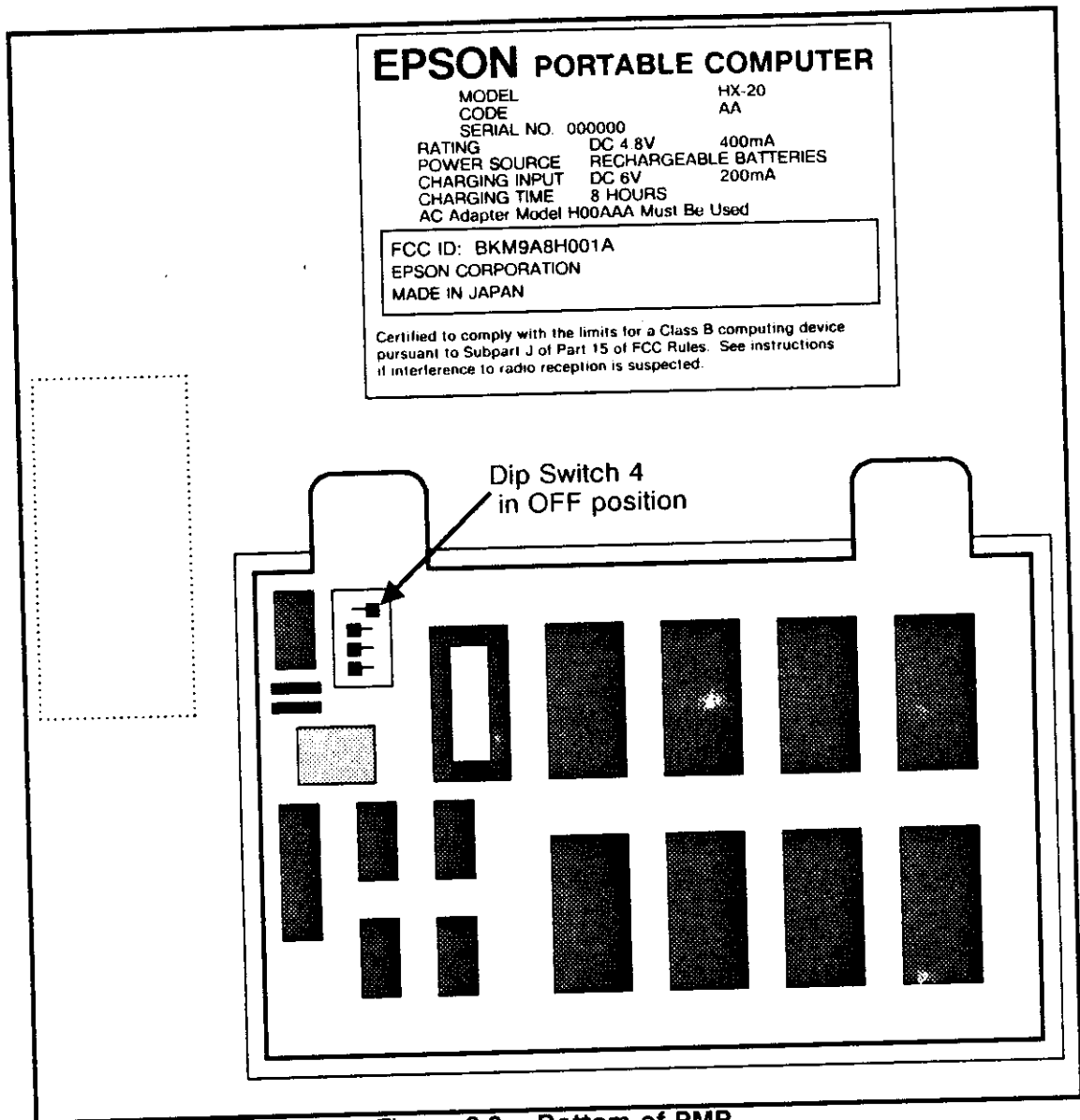


Figure 2.8 Bottom of PMP

6. Connect one end of the disk drive connector cable (EPSON No. 707) to the serial interface connector on the rear of the PMP.
7. Connect the other end of the disk drive connector cable to a serial interface connector on the rear of the disk drive (Figure 2.9).

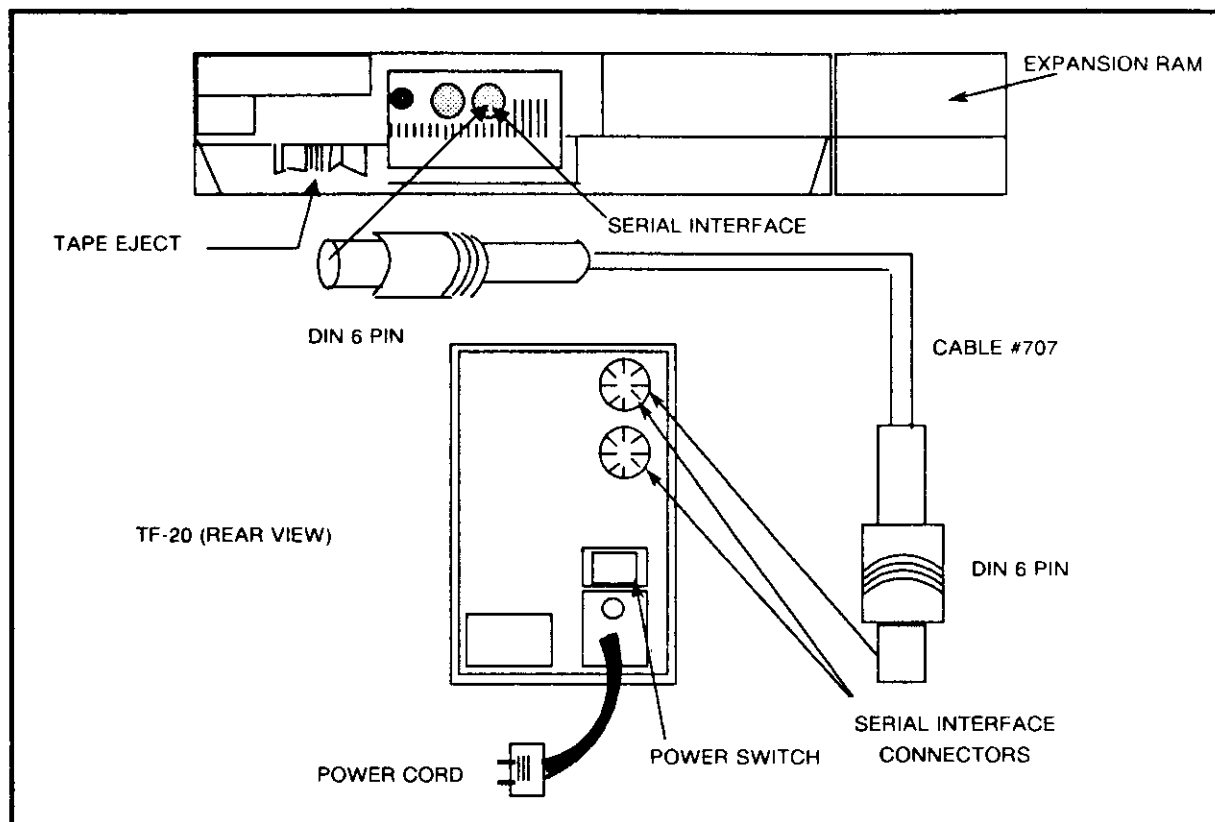


Figure 2.9 PMP Connections to Disk Drive

CAUTION

Always turn on the PMP disk drive before turning on the PMP power switch.

General Programming Operations

2.3 The following paragraphs provide procedures for general programming operations which can be done from any MCT or PMP connected to the system.

Entering Security Codes

2.3.1 Security codes are provided to prevent unauthorized users from compromising system data by making command entries or modifications. There are two levels of system security, high and low. A low level security code allows the user to access the commands needed for daily operation of the system. A high level security code allows user access to more powerful commands, particularly those having broader system impact such as maintenance commands or global commands. The CMC command tables will indicate whether a high or low security code is required. Table 2.4 lists the default security codes.

When the low level security code is entered, only low level CMC commands can be accessed. When the system prompts, LOCKED, the user must access the high security level. The following paragraphs describe how a high level security code is entered.

Package A software allows the user to enter the high level security code only after obtaining low level clearance. In Package A, the user must always enter the low level security code at the SECURITY CODE = prompt. At the time of a command request requiring a higher security code, the system will prompt LOCKED. If the user desires a high level security clearance, he can now enter the HIGH level security code.

In Packages B, C, and D, the user can enter the high level security code at the SECURITY CODE = prompt. If the system is in low security mode and access to a high level CMC is attempted, the prompt LOCKED is displayed. If high level security clearance is desired, the user must press release <RLS>, press terminate <TRM>, type in the HIGH level security code at the SECURITY CODE = prompt, and proceed.

Table 2.4 System Security Codes

Security Code Level	Package	Default Code
High	A	703
High	B, C, D	#803
Low	A, B, C, D	#380

Initializing the Programming Tools

2.3.2 MCTs (CSDs and Attendant Consoles) and PMPs must be initialized before they can be used for system programming. The following paragraphs provide procedures for initializing each type of programming tool.

Initializing the CSD/MCT**2.3.2.1 To use a CSD digital phone as the MCT:**

1. Select a CSD which has been assigned as an MCT by default or by use of CMC 702.
2. Ensure that the phone is in an idle state, defined as receiver is on-hook, no call is on hold, in camp-on, or in progress.
3. Enter the appropriate system security code for the CMC command(s) to be used.
4. The CSD will enter MCT mode and display:

<p>CMC = ____ MM/DD/YY</p> <p>COMMAND READY</p>

5. The CSD is ready for use in programming the system.

To return the CSD to call processing mode:

1. Press the <RLS> key.
2. Press the <TRM> key.

**Initializing the
Attendant Console/MCT****2.3.2.2 To use an Attendant Console as the MCT:**

1. Select an Attendant Console which has been assigned as an MCT by default or by use of CMC 702.
2. Press the <POS.BUSY> key.
3. Enter the appropriate system security code for the CMC command(s) to be used.
4. The Attendant Console will enter MCT mode and display:

<p>CMC = ____ MM/DD/YY</p> <p>COMMAND READY</p>

5. The Attendant Console is ready for use in programming the system.

To return the Attendant Console to call processing mode:

1. Press the <RLS> key.

2. Press the <TRM> key.
3. Press <POS.BUSY> key.

Initializing the PMP

2.3.2.3 To initialize the PMP:

1. Turn on the PMP. A screen displaying the main program menu and copyright information will appear briefly, then disappear. The PMP will display the port configuration screen:

```
PORT CONFIGURATION  
CHANGE?  
YES OR NO (Y/N)
```

2. Type N. DO NOT PRESS <RETURN>. This will skip the port configuration screens and assume the default values which are preset to match the system default port 0 configuration:
3. The PMP will display the security code prompt.

```
SECURITY CODE =
```

4. Enter the desired security code and press the <RETURN> key. The security code will not appear (echo) on the screen.
 - a. If the security code is not accepted, the PMP will display:

```
SECURITY CODE =  
ERROR
```

- b. If another terminal has access to the system (a modem, MCT, or another PMP connected to CN14), the PMP will display:

```
SECURITY CODE =  
BUSY
```

- c. If the security access has been cleared, the following screen will appear, indicating the user is now in PMP command mode:

```
CMC = #####
COMMAND READY
```

Initializing the Optional PMP Disk Drive

2.3.2.4 To initialize the PMP disk drive:

1. Turn the disk drive power switch on.
2. Put the system disk (the EPSON BASIC floppy disk that comes with the disk drive) in drive A and check that the drive select LED blinks.
3. Turn the PMP power switch on. Check that the drive select LED blinks again, indicating that BASIC has booted on the PMP.
4. Continue with the procedure for **Initializing the PMP**.

Moving the Cursor

2.3.3 While programming the system, it is often necessary to move from parameter to parameter. Each programming tool provides a quick method for doing so.

The CSD provides six cursor control keys just below the LCD display. Each key corresponds to a parameter position on the display. Press the desired key to move the cursor (Figure 2.10).

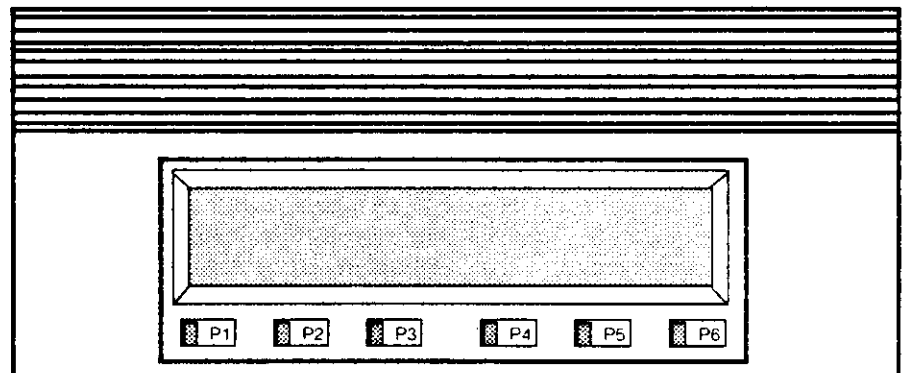


Figure 2.10 CSD/MCT Cursor Control Keys

The Attendant Console provides six cursor control keys (three keys on either side of the LCD display). Each key corresponds to a parameter position on the display. Press the desired key to move the cursor (Figure 2.11).

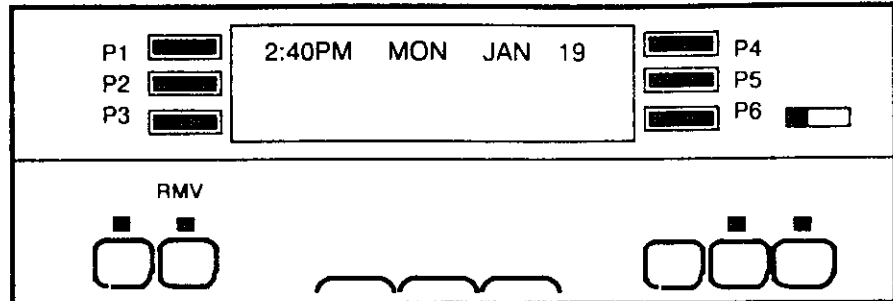


Figure 2.11 Attendant Console/MCT Cursor Control Keys

The PMP provides cursor control through simultaneous use of the <SHIFT> key and one of the alphabetic keys listed in Table 2.5.

Table 2.5 PMP Parameter Selection Control Keys

PARAMETER	Corresponding PMP Keys
P1	SHIFT + J
P2	SHIFT + K
P3	SHIFT + L
P4	SHIFT + U
P5	SHIFT + I
P6	SHIFT + O

**Manipulating the Office
Dependent Data Base**

2.3.4 The ODDB (Office Dependent Data Base) is manipulated by using CMC (Change and Maintenance Code) commands. These commands permit the programmer to build or modify tables of information which are unique to the system. These tables are referred to as CMC tables. Each row in a CMC table can be identified by one or more data elements called key parameters. Unless otherwise stated in the CMC descriptions in section 4.0, these key parameters must be entered to identify the specific data to be manipulated during a system programming session.

The following paragraphs provide the general procedures for ODDB manipulations using any of the programming tools. Refer to Figure 2.1, 2.2, or 2.3 for an illustration of the appropriate programming tool.

CMC Access 2.3.4.1 To access a specific CMC command:

1. Initialize the programming tool.
2. Enter the appropriate high or low level security code. The security code level for each CMC is given in the CMC's description in section 4.0 of this practice.
3. Enter the desired 3-digit CMC table number when the CMC = prompt is displayed on the programming tool screen.
4. Press <RETURN>. The system will display the CMC parameter menu:

CMC = ###	DSP	10:23
P1:	P4:	
P2:	P5:	
P3:	P6:	

There are one to six parameters depending on the particular CMC command.

Display Data 2.3.4.2 To display data associated with a specific CMC:

1. Perform the **CMC Access** procedure.
2. Enter the key parameter(s) identifying the CMC data to be displayed.
3. Press <DSP>.

Add/Change Data 2.3.4.3 To add or change data associated with a specific CMC:

1. Perform the **CMC Access** procedure.
2. Enter the parameters to be added or changed.
3. Press <ADD/CHG>.

Duplicate Data 2.3.4.4 To duplicate data associated with a specific CMC:

1. Perform the **CMC Access** procedure.
2. Perform either the add/change data or the display data procedure.
3. Press <DUP>.
4. Use either the cursor control keys or <RETURN> to move the cursor to any parameters which need to be changed, and type in any corrections.

5. Press <ADD/CHG>.

Remove Data

2.3.4.5 To remove data associated with a specific CMC:

1. Perform the **CMC Access** procedure.
2. Enter the key parameter(s) identifying the CMC data to be removed.
3. Press <RMV>.

CMC Release

2.3.4.6 To release a CMC table:

1. Press <RLS>.
2. Press <TRM>.

The system will automatically release a CMC if any attempt is made to display a key parameter value which is out of range.

PMP Operations

2.4 The following paragraphs describe data base procedures which can only be performed on a PMP.

Loading the PMP Control Program

2.4.1 The PMP control program must be loaded into the PMP memory if it is new or if the PMP's batteries have discharged. Typically, the program will not need to be reloaded unless the batteries discharge.

1. Power on the PMP by pressing the <POWER ON> switch located on the right side of the PMP.
2. The PMP will display the program menu:

```

CTRL/@ INITIALIZE
  1 MONITOR
  2 BASIC

```

3. Press the <CTRL> and <@> keys simultaneously. The PMP will display the following screen which prompts for year, date, and time:

```

ENTER DATE AND TIME
MM DD YY HH MM SS cr
=
PRESS BREAK TO ABORT

```


- 4. Type the year, date, and time (for example: 07/08/85 084500) and press the <RETURN> key. The PMP will display the following: *0414 23 19 - -*

```
CTRL/@ INITIALIZE
1 MONITOR
2 BASIC
```

- 5. Press the numeric 2 key to run the program named BASIC. DO NOT PRESS <RETURN>.
- 6. Push the tape drive cover release (on the right side of the PMP) to open the tape drive.
- 7. Insert the PMP control program microcassette (version V06 for PMPs without a disk drive or version FDV02 for PMPs with a disk drive).
- 8. Close the tape drive.
- 9. Type WIND and press <RETURN> to rewind the tape.
- 10. Type RUN "CASØ:LOADER" and press RETURN (making sure the numeric zero is used for the first Ø in the command). The PMP will display the following:

```
WIND
RUN "CASØ:LOADER"
SEARCHING
```

Then:

```
RUN "CASØ:LOADER"
SEARCHING
FOUND: LOADER
```

which indicates the machine code and PMP control program are being loaded.

11. Wait approximately 5 minutes. When the tape has finished moving, the cursor will appear on the screen:

```

RUN "CASØ:LOADER"
SEARCHING
FOUND: LOADER
≥
```

12. Type TITLE "PMPCTRL" (exactly as shown) and press <RETURN>. This will identify the PMP control program on the main menu. The PMP will display the following:

```

SEARCHING
FOUND: LOADER
TITLE "PMPCTRL"
```

13. Type MON and press <RETURN>. The PMP will display the following:

```

-
A = ØØ B = 6E X = AB1C
C = C4 S = 3CEC P = A3B5
```

14. Type K3 DO NOT PRESS THE <RETURN> KEY.

NOTE: The number three (3) in this entry can vary. It identifies the numeric order of the programs in the PMP. The main menu displays all stored programs in order. If three programs already exist, 3 cannot be used in this entry. Enter the next available number sequence instead of 3.

15. Press the <CTRL> key and <@> key simultaneously. DO NOT PRESS THE <RETURN> KEY.

16. Turn the power off and then on. A screen displaying the main program menu and copyright information will appear briefly, then disappear. The PMP port configuration will be displayed. This confirms that PMPCTRL has been loaded properly.

NOTE: It is advisable to make a copy of the PMP control program for back-up purposes. Refer to **Making Back-up Copies of the PMP Control Program.**

Using the PMP Printer 2.4.2 To print the contents of one PMP screen:

1. Complete any CMC command in progress and verify that the cursor is flashing on the screen.
2. Turn the printer on.
3. Press the <CTRL> and <PF2> keys simultaneously.
4. After the contents of the screen have been printed, press the PAPER FEED key to advance the paper for removal.

Using the PMP Disk Drive 2.4.3 The following procedures are used when operating the PMP disk drive.

Loading Floppy Diskettes 2.4.3.1 To load a floppy diskette:

1. Ensure that the drive pushbutton is off.
2. Slowly insert the floppy diskette into the drive with the write protect notch up and the diskette label to the right (Figure 2.12).

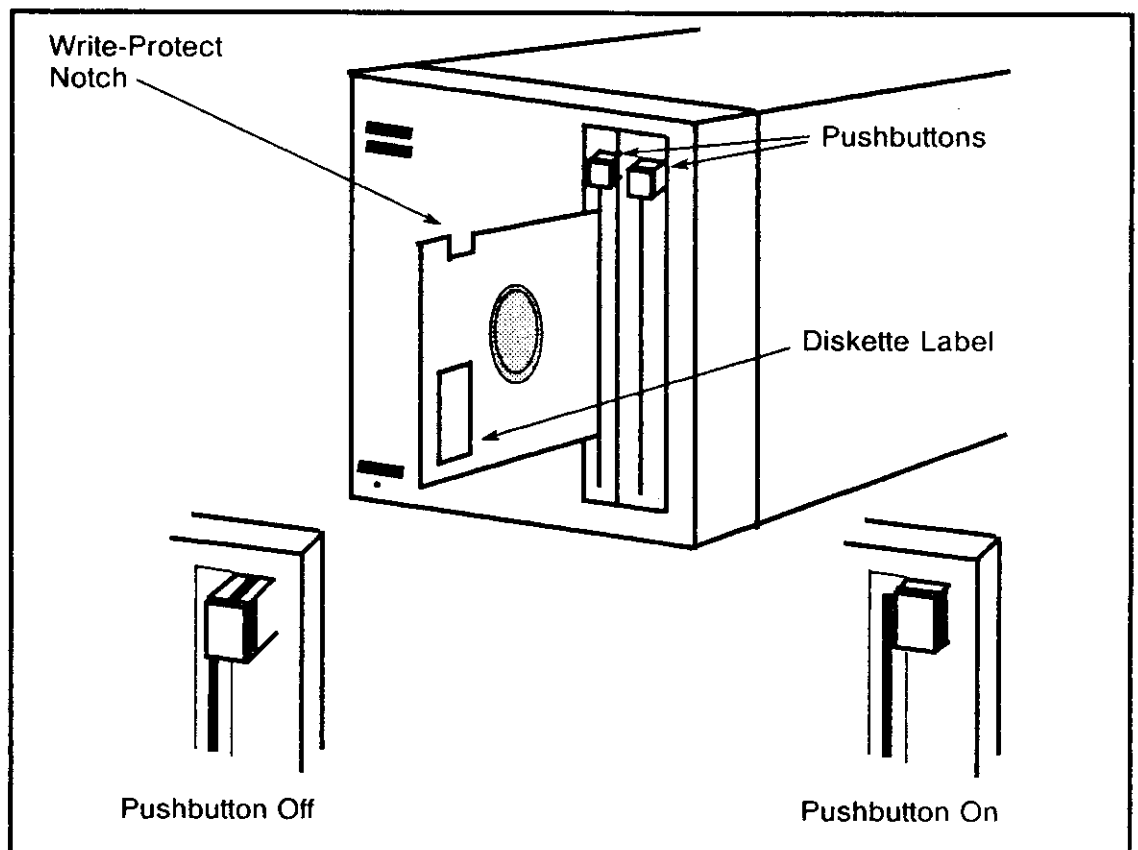


Figure 2.12 Loading the Disk Drive

3. Push the floppy diskette in until a click is heard and the drive eject lock pops out (Figure 2.13).

NOTE: The disk drive may fail to operate or may operate improperly and damage the floppy diskette if the diskette is not properly inserted.

4. Press the drive eject pushbutton in slowly until it engages.

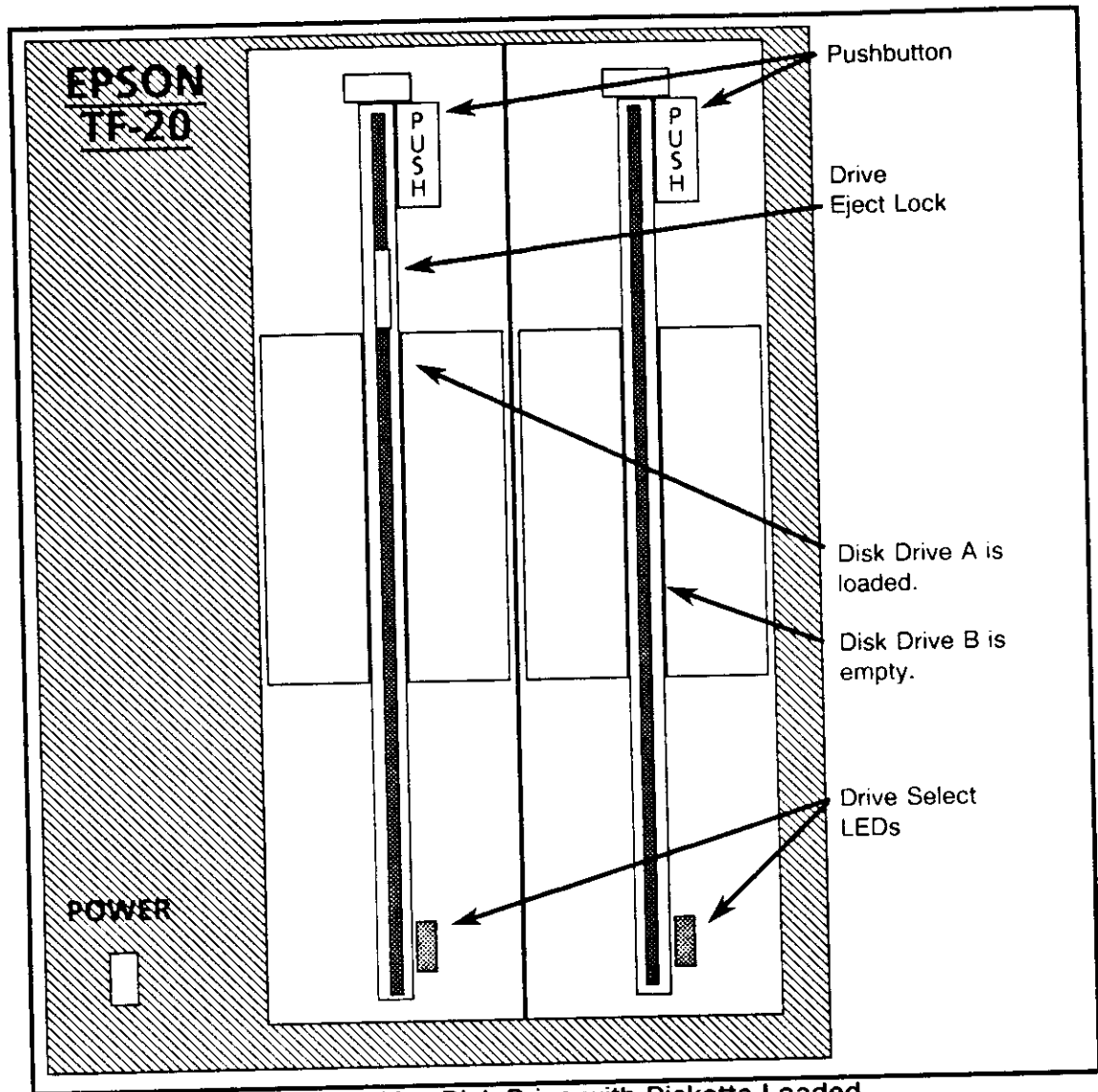


Figure 2.13 Disk Drive with Diskette Loaded

Ejecting Floppy Diskettes

2.4.3.2 To eject a floppy diskette:

1. Check that the drive select LED of the drive containing the floppy diskette is off. If it is on, wait for the current read or write process to end.

2. Press the drive eject pushbutton in so that it pops out to the off position (Figure 2.14). The floppy diskette will be ejected 2 to 3 cm.
3. Slowly remove the floppy diskette from the drive.

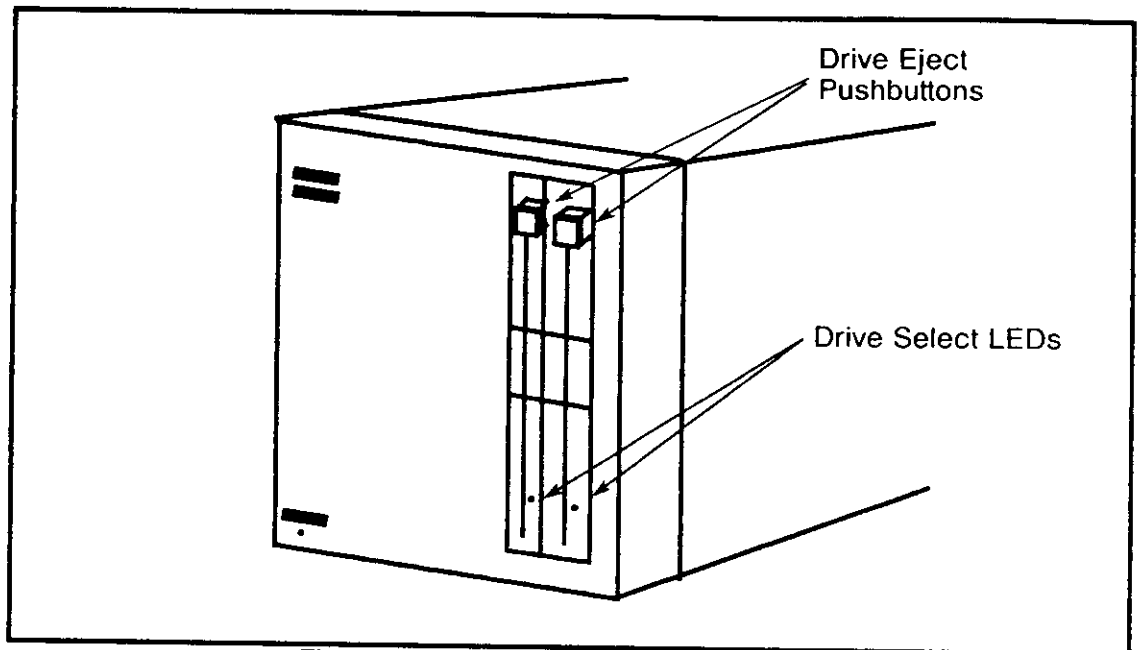


Figure 2.14 Floppy Diskette Ejection

Formatting Floppy Diskettes 2.4.3.3 To format a floppy diskette:

CAUTION

This procedure will erase all data on the disk being formatted.

1. Perform the **Initializing the PMP** procedure.
2. Press <BREAK>.
2. Put the floppy diskette to be initialized in drive A.
3. Type FRMAT "A:" and press <RETURN>.
4. When "Are you sure?" is displayed, enter Y.

**Loading the Office
Dependent Data Base**

2.4.4 To load the ODDB using the PMP:

1. Perform the **Initializing the PMP** procedure.
2. Enter the high level security code.
3. Enter 902 at the CMC = prompt.

4. Type LOAD at P1 and press the <ADD/CHG> button.
5. If using a PMP disk drive, verify that the EPSON operating system disk is in drive A, and insert the floppy diskette containing the ODDB in drive B.

If using the PMP tape drive, insert the tape containing the ODDB into the tape drive.
6. Press <SHIFT + PF4> (Tape Start).
7. Check that the save data and file versions are displayed, then press <SHIFT + PF4> again to start the loading process. The system will be placed in off-line mode automatically, stopping all switching operations.
8. The system TO (Timer Overflow) lamp (on the CPM card edge) will light after loading ends and the system will automatically perform a HOT restart. The PMP screen will display SECURITY CODE = . Enter the low level security code to put the system in the low command mode.
9. Use CMC 801 to confirm the data base loading history, and to turn the TO lamp off.

CMC = 801	DSP	HH/MM
P1:CC		
P2:HH:MM	MM/DD	
P3:5		

**Saving the Office
Dependent Data Base**

2.4.5 To load the ODDB using the PMP:

1. Perform the **Initializing the PMP** procedure.
2. Enter the high level security code.
3. Enter 903 at the CMC = prompt.
4. Enter SAVE at P1 and press the <ADD/CHG> button.
5. If using a PMP disk drive, verify that the EPSON operating system diskette is in drive A, and insert a blank, formatted floppy diskette in drive B.

If using the PMP tape drive, insert a blank tape into the tape drive.
6. Press <SHIFT + PF4> (Tape Start).
7. Make additional back-up copies of the ODDB by repeating steps 3 through 6.

*Micro Cassette Voice-Leaderless***Making Back-up Copies of
the PMP Control Program****2.4.6 To make back-up copies of the PMP control program:**

- 1 Turn the PMP power on.
- 2 After the main menu appears and the port configuration screen is displayed, press the <BREAK> key.
- 3 Type LOGIN2 and press <RETURN>.
- 4 Insert the PMP control program tape into the cassette tape drive.
5. Type WIND and press <RETURN>. The tape will rewind.
6. Type LOAD"CASØ:LOADER" and press <RETURN>. Wait approximately 5 minutes.
7. After the tape stops moving, insert a blank tape.
8. Type WIND and press <RETURN>. The tape will rewind.
9. After the tape stops, type RUN2 and press <RETURN>.
10. After the tape stops and the cursor appears, type SAVE "CASØ:PMPCTRL.BSC" and press <RETURN>.
11. After the tape stops, more tapes can be made by repeating step 3 and steps 7 through 11.

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APPLICATIONS

3.0 This section contains specific instructions for applying the CMC commands (described individually in section 4.0) to implement or modify various system features.

System-Wide Programming

3.1 The following procedures permit the user to modify basic system operation.

Numbering Plan Assignment

3.1.1 This procedure is used to modify the default feature access numbering plan, trunk group numbers, Tie access, and dial or store and forward flag. This procedure applies to all packages.

1. Use CMC 100 to change:

- feature number (P1)
- feature access code (P2)
- trunk group number (P3)
- outgoing digits (P4)
- access code digits to be sent (P5)
- dial or store and forward flag (P6)

2. Verify that any modification of feature access codes does not conflict with existing feature access codes or station directory number assignments. Refer to CMC 104 in section 4.0 of this practice.

Service Parameter Assignment

3.1.2 This procedure is used to set flags for service parameters. This procedure applies to all packages.

Use CMC 101 to assign:

- system flag ID (P1)
- flag value (P2)

System Timing Assignments

3.1.3 This procedure is used to modify the default system timing parameters. This procedure applies to all packages.

Use CMC 103 to select:

- system timing ID (P1)
- normalized timing (number of time units) (P2)

System Parameter Assignment

3.1.4 This procedure is used to set flags for various system functions. This procedure applies to all packages.

Use CMC 102 to add or change:

- flag number (P1)
- set value (P2)

**Network Loss Plan
Assignment**

3.1.5 This procedure is used to modify the default digital PAD values to improve the quality of incoming or outgoing connections. This procedure applies to all packages.

1. Determine which incoming or outgoing routes are affected by digital PAD loss. Identify specific circuits that are experiencing circuit loss.
2. Use CMC 106 to change the value of digital PAD:
 - incoming route (P1)
 - outgoing route (P2)
 - digital padding value (P3)

**Programming Key
System Features**

3.1.6 This procedure is used to assign key system features to feature buttons. Refer to the key telephone system user's guide for operation of basic call processing features and programming special selection features (automatic line preference and manual line selection). This procedure applies to all packages.

1. Use CMC 203 for EKT button assignments.
2. Use CMC 211 for DSS/BLF button assignments.

Basic Trunk Programming

3.2 The following procedures permit the user to program trunk connections.

Trunk Installation

3.2.1 This procedure is used to install new trunks. This procedure applies to all packages.

1. Check that a trunk card is seated in an appropriate card slot and that a trunk has been physically connected to a card slot and circuit on the card.
2. Use CMC 250 to add:
 - trunk equipment number (P1)
 - type of trunk (P2)
 - trunk group number (P3)
 - operations mode (P4)
 - signaling (P5)
 - start mode, zone number, DISA mode (P6)
3. Use CMC 251 to assign trunk data associated with an installed trunk:
 - trunk equipment number (P1)
 - dial mode and break ratio (P2)
 - trunk directory number (P3)
 - tenant number (optional) (P4)

4. Use CMC 252 to assign or change COS and COR for each trunk group:
 - trunk group number (P1)
 - class of service (day mode) (P2)
 - class of service (night mode) (P3)
 - class of restriction (day mode) (P4)
 - class of restriction (night mode) (P5)
5. Use CMC 306 (if desired) to assign a trunk to a night answer station.

Trunk Data Modification

3.2.2 This procedure is used to modify the data associated with an installed trunk. This procedure applies to all packages.

1. Trunk must be removed from CMC 203, CMC 306, and CMC 307 as applicable prior to removal of the trunk from its assigned trunk group.
2. Use CMC 250 to remove a trunk from its assigned group. This operation also changes other CMC tables by:
 - Automatically removing trunk data assignments from CMC 251.
 - Automatically removing the trunk from its terminating trunk group.
3. Reassign the trunk using the procedures for adding trunks.

Specialized Common Carrier

3.2.3 This procedure is used to install specialized common carrier trunks. This procedure applies to all packages.

1. Verify that a trunk card has been seated in an appropriate card slot.
2. Use CMC 404 to assign:
 - SCC route number (which corresponds to designated trunk group number) (P1)
 - SCC gateway telephone number (P2)
 - SCC security access code (P3)
 - signal timing values (P4)
 - The first two digits of P4 are the time interval (in seconds) between sending the SCC gateway telephone number and sending the security access code.
 - The second two digits of P4 are the time interval (in seconds) between sending the security access code and sending the called party's directory number.

3. Use CMC 405 to establish the outgoing trunk route for each SCC trunk group:

- SCC trunk group number (P1)
- routing destination trunk group number (P2)

**Direct-In Trunk
Line Assignments**

- 3.2.4 This procedure is used to program direct-in lines. This procedure applies to all packages.

Use CMC 307 to assign a trunk line to a designated SLT or EKT station:

- trunk equipment number (P1)
- station directory number (P2)

**Key System Trunk
Line Assignments**

- 3.2.5 This procedure is used to emulate the operation of a traditional key telephone system by reserving one trunk line for up to 16 stations. This procedure applies to all packages.

NOTE: If trunk cards were seated at the time of COLD restart, the default data base places all trunks in TTGN 1 and designates them as bothway trunks.

1. Ensure that the operations mode for CMC 250 (P4) matches the trunk termination flag for CMC 253 (P3).

2. Use CMC 253 to assign:

- terminating trunk group (P1)
- equipment number (P2)
- trunk termination flag (P3)

3. Use CMC 203 to assign trunk(s) to designated EKT buttons:

- station directory number (P1)
- button number (P2)
- feature number (P3)
- supplemental data (P4)
- line termination type, directory number for station line, intercom group station number (P5)
- ringing mode (P6)

4. Use CMC 251 to assign the trunk directory number and tenant number (if applicable).

**Personal-Private
Trunk Line Assignment**

- 3.2.6 This procedure is used to reserve a trunk line for single-button access on one telephone. This procedure applies to all packages.

NOTE: If trunk cards were seated at the time of COLD restart, the default data base places all trunks in TTGN 1 and designates them as bothway trunks.

1. Ensure that the trunk has been removed from any previous terminating trunk group assignment at CMC 203.
2. Use CMC 253 to assign:
 - terminating trunk group (P1)
 - equipment number (P2)
 - trunk termination flag (P3)
3. Use CMC 203 to assign:
 - station directory number (P1)
 - button number (P2)
 - feature number (P3)
 - supplementary data (P4)
 - line termination type, directory number for station line, intercom group station number (P5)
 - ringing mode (P6)
4. Use CMC 251 to assign the trunk directory number and tenant number (if applicable).

Pooled Incoming Trunk Line Assignments

3.2.7 This procedure is used to pool incoming trunks into one trunk group. This procedure applies to all packages.

NOTE: If trunk cards were seated at the time of COLD restart, the default data base places all trunks in TTGN 1 and designates them as bothway trunks.

1. Ensure that the trunk has been removed from any previous terminating trunk group assignment at CMC 203.
2. Use CMC 253 to assign:
 - terminating trunk group (P1)
 - equipment number (P2)
 - trunk termination flag (P3)
3. Use CMC 203 to assign:
 - station directory number (P1)
 - button number (P2)
 - feature number (P3)
 - supplementary data (P4)
 - line termination type, directory number for station line, intercom group station number (P5)
 - ringing mode (P6)
4. Use CMC 251 to assign the trunk directory number and tenant number (if applicable).

**Pooled Outgoing Trunk
Line Assignments**

3.2.8 This procedure is used to pool outgoing trunks into one trunk group. This procedure applies to all packages.

NOTE: If trunk cards were seated at the time of COLD restart, the default data base places all trunks in TTGN 1 and designates them as bothway trunks.

1. Ensure that the trunk has been removed from any previous terminating trunk group assignment at CMC 203.
2. Use CMC 253 to assign:
 - terminating trunk group (P1)
 - equipment number (P2)
 - trunk termination flag (P3)
3. Use CMC 203 to assign:
 - station directory number (P1)
 - button number (P2)
 - feature number (P3)
 - supplementary data (P4)
 - line termination type, directory number for station line, intercom group station number (P5)
 - ringing mode (P6)
4. Use CMC 251 to assign the trunk directory number and tenant number (if applicable).

**Pooled Bothway
(Two-Way) Trunk
Assignment**

3.2.9 This procedure is used to pool bothway trunks into one trunk group. This procedure applies to all packages.

NOTE: If trunk cards were seated at the time of COLD restart, the default data base automatically places all trunks in TTGN 1 and designates them as bothway trunks.

1. Ensure that the trunk has been removed from any previous terminating trunk group assignment at CMC 203..
2. Use CMC 253 to assign:
 - terminating trunk group (P1)
 - equipment number (P2)
 - trunk termination flag (P3)

3. Use CMC 203 to assign:

- station directory number (P1)
- button number (P2)
- feature number (P3)
- supplementary data (P4)
- line termination type, directory number for station line, intercom group station number (P5)
- ringing mode (P6)

4. Use CMC 251 to assign trunk directory number and tenant number (if applicable).

**Programming Direct
Inward System Access
Standard (DISA)**

3.2.10 This procedure is used to program direct inward system access. This procedure applies to Packages C and D.

1. Use CMC 250 to assign:

- equipment number (P1)
- type of trunk (P2)
- trunk group number (P3)
- operations mode (P4)
- signaling (P5)
- start mode, zone number, DISA mode (P6)

2. Use CMC 252 to assign:

- trunk group number (P1)
- class of service (day mode) (P2)
- class of service (night mode) (P3)
- class of restriction (day mode) (P4)
- class of restriction (night mode) (P5)

3. Assign the DISA authorization code with CMC 432.

**Programming Direct
Inward Dialing (DID)**

3.2.11 This procedure is used to program direct inward dialing trunks. This procedure applies to Packages C and D.

1. Use CMC 250 to assign:

- equipment number (P1)
- type of trunk (P2)
- trunk group number (P3)
- operations mode (P4)
- signaling (P5)
- start mode, zone number, DISA mode (P6)

2. Use CMC 252 to assign:

- trunk group number (P1)
- class of service (day mode) (P2)
- class of service (night mode) (P3)
- class of restriction (day mode) (P4)
- class of restriction (night mode) (P5)

3. Use CMC 430 to assign:

- trunk group number (P1)
- number of received digits (P2)
- prefix code (P3)
- DISA directory number (P4)
- DISA authorization code (P5)

4. Use CMC 431 to assign:

- trunk group number (P1)
- listed directory number (P2)
- listed directory number (P3)
- listed directory number (P4)
- listed directory number (P5)
- listed directory number (P6)

NOTE: The number of digits of the listed directory number must match the received digits length (P2) in CMC 430.

5. Use CMC 433 to assign:

- trunk group number (P1)
- digit to be replaced(P2)
- replacement digit (P3)

**Programming Direct
Inward Dialing/Direct
Inward System Access**

3.2.12 This procedure is used to assign DISA directory numbers and authorization codes to existing DID trunk lines. This procedure applies to Packages C and D.

Use CMC 430 to assign:

- trunk group number (P1)
- number of received digits (P2)
- prefix code (P3)
- DISA directory number (P4)
- DISA authorization code (P5)

Basic Station Programming

3.3 The following procedures permit the user to program station instruments for use with the system.

**Default Station
Installation**

3.3.1 This procedure is used to initiate the default directory numbering scheme. This procedure applies to all packages.

1. Verify that a line card is seated in an appropriate card slot and that a telephone instrument is physically connected to a port on the card.
2. COLD start the system (at initial installation or after an extended power outage) or HOT restart the system (when installing additional instruments to an existing system).

3. Refer to the default data base tables (section 5.0) for the default directory number and button assignments for CS-10s, CS-20s, and CSDs.
4. Program any desired changes using applicable CMC commands.

Manual Station Installation

3.3.2 This procedure is used to modify the default directory numbering scheme. This procedure applies to all packages.

1. Use CMC 200 to assign:

- equipment number (P1)
- station directory number (P2)
- type of terminal (P3)
- copied station directory number (P4)

2. Use CMC 201 to assign:

- station directory number (P1)
- operating mode (P2)
- type of dialing (P3)
- tenant number (P4)
- SMDR group number or personal account code for SCC (P5)

3. Use CMC 202 to assign:

- station directory number (P1)
- class of service (day mode) (P2)
- class of service (night mode) (P3)
- class of restriction (day mode) (P4)
- class of restriction (night mode) (P5)

4. Use CMC 203 to assign:

- station directory number (P1)
- button number (P2)
- feature number (P3)
- supplementary data (P4)
- line termination type, directory number for station line, intercom group station number (P5)
- ringing mode (P6)

5. Use CMC 204 (if applicable) to assign:

- station directory number (P1)
- speech path interruption denial (data secure path) (P2)
- off-premises extension (P3)
- SLT with message waiting lamp (P4) (Packages B, C, and D)
- guest room flag (P5) (Packages C and D)
- 4SLC interface dictation machine (P6) (Package D)

6. If a line is assigned to a button on a CS-10, CS-20, or CSD, use CMC 253 to assign a trunk termination.

Change or Remove a Station

3.3.3 This procedure is used to change the data associated with a specific station, or to remove a station from the system. This procedure applies to all packages.

(Change)

1. Use CMC 203 to:
 - Remove unwanted EKT button assignments.
 - Enter new button assignments.
2. Use CMC 200 to change directory numbers and/or equipment numbers.
3. Check CMC 201, CMC 202, and CMC 204 and change station directory numbers as appropriate for COS/COR operation mode, type of dialing, tenant number, SMDR group number or personal account code, data security, or OPS designation.
4. Check CMC 306 and CMC 307 and make appropriate changes to trunk equipment numbers.

(Remove)

1. Use CMC 200 to remove a station directory number assignment and equipment number assignment.
2. If the system denies the attempt, refer to the error code listing at CMC 200 in section 4.0 and correct the error condition.
3. Try CMC 200 again.

DSS/BLF Manual Installation

3.3.4 This procedure is used to install a DSS/BLF Console. This procedure applies to all packages.

(Add)

1. Use CMC 210 to assign:
 - DSS/BLF Console number (P1)
 - DSS/BLF type (P2)
 - equipment number (P3)
 - number of instrument DSS/BLF is paired with (P4)
 - copied DSN (P5)
 - DSS/BLF order (P6) (Package C)

2. Use CMC 211 to assign:

- number of the instrument paired with the specified DSS/BLF (P1)
- DSS/BLF button number (P2)
- button type (P3)
- directory number of alternate proprietary telephone, directory number of station service is forwarded to, zone number, terminating trunk group (P4)
- line termination type (P3 = 9) (P5)
- ringing mode (P3 = 9) (P6)

Modify or Remove a DSS/BLF Console

3.3.5 This procedure is used to modify the data associated with a DSS/BLF Console, or to remove a DSS/BLF Console from the system. This procedure applies to all packages.

(Change)

Use CMC 211 to remove a DSS/BLF button assignment before entering a new button assignment.

(Remove)

1. Use CMC 211 to remove DSS/BLF button assignments.
2. Use CMC 210 to remove DSS/BLF Console assignments.

Attendant Console

3.3.6 This procedure is used to install an Attendant Console. This procedure applies to Packages C and D.

1. Identify the circuit port on the 8EKC card to be used for Attendant Console connection. (If the Attendant Console is to be placed more than 300 feet from system cabinet, a second circuit port will be required.)
2. Install the Attendant Console.
3. Use CMC 230 to assign:
 - Attendant Console number (P1)
 - equipment number (P2)
 - tenant number (P3)
 - Attendant Console to copy data from (P4)

NOTE: The Attendant Console can be removed only in an off-line (position busy) state. The Attendant Console can be removed only after any attached DSS/BLF Console is removed.

4. Use CMC 231 to assign:

- Attendant Console number (P1)
- button number (P2)
- feature number (P3)
- supplementary data (P4)

5. Use CMC 232 to assign:

- Attendant Console number (P1)
- class of service (day mode) (P2)
- class of service (night mode) (P3)
- class of restriction (day mode) (P4)
- class of restriction (night mode) (P5)

6. Use CMC 233 to assign:

- trunk group number (P1)
- answering priority (P2)

7. Use CMC 306 to assign the Attendant Console overflow position and/or to assign the Attendant Console overflow position to "all tenants":

- night answer group number (P1)
- trunk/station/tenant flag (P2)
- equipment number or tenant number (P3)

Multiple Station Appearance

3.3.7 Proprietary telephones may have one PSL (primary station line) appearance assigned to a button. This line may appear as an OSL (other station line) on up to 15 other stations.

Night answer overflow can be achieved by assigning a PSL to a card circuit with no telephone instrument and assigning the PSL directory number to another telephone as an OSL. (Call forward - no answer must be activated for the PSL to permit overflow.)

NOTE: Single-line telephones cannot appear as an OSL on proprietary telephones.

1. Use CMC 200 to assign:

- equipment number (P1)
- station directory number (P2)
- type of terminal (P3)
- copied station directory number (P4)

2. Use CMC 201 to assign:

- station directory number (P1)
- operating mode (P2)
- type of dialing (P3)
- tenant number (P4)
- SMDR group number or personal account code for SCC (P5)

3. Use CMC 202 to assign:

- station directory number (P1)
- class of service (day mode) (P2)
- class of service (night mode) (P3)
- class of restriction (day mode) (P4)
- class of restriction (night mode) (P5)

4. Use CMC 203 to assign:

- station directory number (P1)
- button number (P2)
- feature number (P3)
- supplementary data (P4)
- line termination type, directory number for station line, intercom group station number (P5)
- ringing mode (P6)

5. Use CMC 203 to assign a separate voice path for intercom group use if desired. (Enter FNO 194 at P3.)

6. Use CMC 204 (if applicable) to assign:

- station directory number (P1)
- speech path interruption denial (data secure path) (P2)
- off-premises extension (P3)
- SLT with message waiting lamp (P4) (Packages B, C, and D)
- guest room flag (P5) (Packages C and D)
- SLC interface dictation machine (P6) (Package D)

Intercom Group Programming

3.3 8 This procedure is used to reserve feature button access to a speech path (separate from PSL/OSL) for members of assigned intercom groups.

1. Use CMC 200 to assign:

- equipment number (P1)
- station directory number (P2)
- type of terminal (P3)
- copied station directory number (P4)

2. Use CMC 201 to assign:

- station directory number (P1)
- operating mode (P2)
- type of dialing (P3)
- tenant number (P4)
- SMDR group number or personal account code for SCC (P5)

3. Use CMC 203 to assign:

- station directory number (P1)
- button number (P2)
- feature number (P3)
- supplementary data (P4)
- line termination type, directory number for station line, intercom group station number (P5)
- ringing mode (P6)

4. Use CMC 204 (if applicable) to assign:

- station directory number (P1)
- speech path interruption denial (data secure path) (P2)
- off-premises extension (P3)
- SLT with message waiting lamp (P4) (Packages B, C and D)
- guest room flag (P5) (Packages C and D)
- SLC interface dictation machine (P6) (Package D)

Message Waiting for SLT Programming

3.3.9 This procedure is used to activate message waiting for SLTs equipped with a message waiting lamp. This procedure applies to Packages B, C, and D.

1. Use CMC 102 to assign:

- flag number (P1)
- set value (P2)

2. Use CMC 204 (if applicable) to assign:

- station directory number (P1)
- speech path interruption denial (data secure path) (P2)
- off-premises extension (P3)
- SLT with message waiting lamp (P4) (Packages B, C and D)
- guest room flag (P5) (Packages C and D)
- SLC interface dictation machine (P6) (Package D)

3. Use CMC 425 to assign:

- LCR CAC number (P1)
- carrier access code (P2)

Class of Service Programming

3.4 The following procedures permit the user to assign the features associated with each level of class of service and assign individual instruments to class of service levels.

Feature Assignment

3.4.1 This procedure is used to modify the list of features associated with each class of service. This procedure applies to all packages.

1. Review the default COS table in section 5.0 to identify COS levels requiring the addition or removal of features.

2. Use CMC 104 to assign or remove:

- class of service (P1)
- feature number (P2)

Station Assignment

3.4.2 This procedure is used to establish the class of service and class of restriction for a station. To assign class of restriction, refer to the paragraph titled **Toll and Multi-Digit Restriction** in this section. This procedure applies to all packages.

1. Identify appropriate COS and COR levels for each station in the system.

2. Use CMC 202 to assign or change:

- station directory number (P1)
- class of service (day mode) (P2)
- class of service (night mode) (P3)
- class of restriction (day mode) (P4)
- class of restriction (night mode) (P5)

Trunk Group Assignment

3.4.3 This procedure is used to establish the class of service and class of restriction for a trunk group. To assign class of restriction, refer to the paragraph titled **Toll and Multi-Digit Restriction** in this section. This procedure applies to all packages.

Use CMC 252 to assign or change:

- trunk group number (P1)
- class of service (day mode) (P2)
- class of service (night mode) (P3)
- class of restriction (day mode) (P4)
- class of restriction (night mode) (P5)

Service Function Programming

3.5 The following procedures permit the user to program system services.

System Speed Calling Directory

3.5.1 This procedure is used to put directory numbers in a system speed calling directory. This procedure applies to all packages.

1. Use CMC 300 to assign, change, or delete:

- system speed call number (P1)
- access code (P2)
- sent digits (P3)

2. Use CMC 100 to change the feature access code numbering plan.

**Station Hunt Group
Assignment**

3.5.2 This procedure is used to create or change circular, terminating, or pilot hunt groups. Existing entries must be removed before changing hunt group assignments. This procedure applies to all packages.

Use CMC 301 to change or remove:

- hunting group number (P1)
- terminating sequence (P2)
- station/data directory number (P3)
- hunting group (P4)

NOTE: When entering parameters for a pilot hunt group, the first directory number entered is designated as the pilot station.

**Pickup Group
Assignment**

3.5.3 This procedure is used to assign stations to a pickup group. Existing entries must be deleted before changing pickup group directory numbers. This procedure applies to all packages.

Use CMC 302 to change or remove:

- pickup group number (P1)
- directory number of member station (P2)

**Hot Line Station
Assignment**

3.5.4 This procedure is used to program one station to automatically signal another station when taken off-hook. Existing entries must be deleted before changing hot line station assignments. This procedure applies to all packages.

Use CMC 304 to change or remove:

- hot line number (P1)
- originating directory number (P2)
- terminating directory number (P3)

**Internal Speaker Paging
Group Assignment**

3.5.5 This procedure permits designated proprietary telephones to be assigned as part of a paging group. Existing entries must be deleted with the remove <RMV> program function before changing paging groups assignments. This procedure applies to all packages.

Use CMC 303 to add or remove:

- paging group (P1)
- directory number of a zone member station (P2)

Music-on-Hold

3.5.6 This procedure is used to register a customer provided music source. This procedure applies to all packages.

1. Verify that a trunk card (4BWC) is seated in an appropriate slot and that a customer-provided music source has been physically connected to the desired slot and circuit.
2. Use CMC 250 to assign the type of trunk.
3. Use CMC 305 to assign the equipment number for the music source. (P1)

Night Answer Station Assignment or Attendant Overflow

3.5.7 This procedure is used to establish a night answer position or an attendant overflow position. Existing trunk or station assignments must be deleted by using the remove <RMV> program function before changing or removing night group assignments. This procedure applies to all packages.

1. If a night bell is used for night answer operation, the bell must be programmed as a station (assigned an equipment number at CMC 200), the bell must be physically connected to a circuit on an 8SLC card, and the RGEN must be installed.
2. Use CMC 306 to assign:
 - night answer group number (P1)
 - trunk/station/tenant flag (P2)
 - equipment number (P3)
2. Use CMC 201 and CMC 251 (if applicable) to check tenant assignments.

External Speaker Paging Assignment

3.5.8 This procedure is used to identify the circuit used for external paging. This procedure applies to Packages B, C, and D.

1. Verify that a 4BWC card and an external speaker/amplifier with appropriate cross connections have been installed. Instructions for installing an external speaker/amplifier can be found in Technical Practice TL-120101-1001, SBCS Installation.
2. Use CMC 250 to assign:
 - equipment number (P1)
 - type of trunk (P2)
 - trunk group number (P3)
 - operations mode (P4)
 - signaling (P5)
 - start mode, zone number, DISA mode (P6)

3. If applicable, use CMC 100 to change:
 - feature number (P1)
 - feature access code (P2)
4. If applicable, use CMC 103 to change:
 - service timing ID (P1).
 - normalized timing (number of time units) (P2)

ACD 3.5.9 This procedure is used to establish incoming routes to ACD agents, bypassing the attendant. An ACD supervisory position is also established in this procedure. This procedure applies to Package D.

1. Use CMC 308 to assign:
 - ACD group number (P1)
 - extension number (P2)
 - extension type (P3)
2. Use CMC 307 to assign:
 - trunk equipment number (P1)
 - station directory number of the terminating station (ACD pilot) (P2)
3. Use CMC 203 to assign normal telephone button data and to identify the ACD group being supervised:
 - station directory number (P1)
 - button number (P2)
 - feature number (P3)
 - supplemental information (P4)

NOTE: Parameters P5 and P6, CMC 203, are not used in this procedure.

4. Use CMC 702 to assign:
 - MCT number (P1)
 - MCT directory number or Attendant Console (MCT) directory number (P2)

Silent Messages 3.5.10 This procedure is used to establish the text of silent messages and to program how silent messages are delivered to selected stations. This procedure applies to Package D.

1. Use CMC 309 to assign:
 - message ID (P1)
 - message text (P2)

2. Use CMC 206 to assign:

- station directory number (P1)
- receive warning tone with silent message and/or receive silent message while in conversation (P2)

Recorded Voice Announcements

3.5.11 This procedure is used to record, duplicate, and record protect recorded voice messages. This procedure applies to Package D.

1. Use CMC 260 to register an RVAC card after installation.

2. Use CMC 261 to assign:

- RVAC equipment number (P1)
- message ID
- voice message block (P3)
- recorded flag (P4)
- number of playbacks (P5)

3. Use CMC 263 to release the record protection on the message block.

4. Use CMC 262 (if desired) to duplicate an existing RVAC message.

Dictation Assignment

3.5.12 Dictation may be assigned to a station circuit on an 8SLC card. The station must be designated as a dictation machine with CMC 204. This procedure applies to Package D.

Use CMC 204 to assign:

- station directory number (P1)
- speech path interruption denial (data secure path) (P2)
- off-premises extension (P3)
- SLT with message waiting lamp (P4)
- Hotel/Motel guest room flag (P5)
- SLC interface dictation machine(P6)

Programming Station Message Detail Recording

3.6 This procedure is used to establish station message detail recording. This procedure applies to all packages.

1. Verify that a serial printer has been physically installed.

2. Use CMC 500 to assign SMDR output options on outgoing connections:

- CO outgoing connection (P1)
- Tie outgoing connection (P2)
- account flag (P3)
- toll call flag (P4)

3. Use CMC 501 to assign trunk groups for SMDR output:
 - trunk group number (P1)
 - output ID flag (P2)
4. Use CMC 502 to assign COR for SMDR output:
 - class of restriction (P1)
 - output ID flag (P2)
5. Use CMC 503 to assign SMDR output for tenants:
 - tenant group (P1)
 - output ID flag (P2)
6. Use CMC 504 to set minimum call duration for SMDR output:
 - hours of minimum duration (P1)
 - minutes of minimum duration (P2)
 - seconds of minimum duration (P3)

**Toll Restriction
Programming**

**Toll and Multi-Digit
Restriction Assignment**

3.7 The following procedures permit the user to program restrictions into the system.

3.7.1 This procedure is used to restrict access to CO (FX, WATS) and Tie lines. This procedure applies to all packages.

1. Review the default COR table to identify any restrictions to be added to or removed from COR levels.
2. Use CMC 105 to assign:
 - class of restriction (P1)
 - outgoing CO, FX, WATS connections (P2)
 - incoming CO, FX, WATS connections (P3)
 - outgoing Tie connections (P4)
 - incoming Tie connections (P5)
3. Use CMC 202 to assign or change:
 - station directory number (P1)
 - class of service (day mode) (P2)
 - class of service (night mode) (P3)
 - class of restriction (day mode) (P4)
 - class of restriction (night mode) (P5)
4. Use CMC 252 to assign or change:
 - trunk group number (P1)
 - class of service (day mode) (P2)
 - class of service (night mode) (P3)
 - class of restriction (day mode) (P4)
 - class of restriction (night mode) (P5)

Area and Office Code Restriction Assignments

3.7.2 This procedure defines area and office code restrictions for outgoing trunk groups. This procedure applies to all packages.

1. Use CMC 411 to assign:
 - restriction group numbers (P1)
 - class of restriction (P2)
 - flag ID (P3)
 - flag value (P4)
2. Use CMC 413 assign:
 - restriction group number (P1)
 - class of restriction (P2)
 - allowed/denied flag (P3)
 - area code (P4)

NOTE: Repeat steps 1 and 2 to assign other area codes.

3. Use CMC 412 to assign:
 - restriction group number (P1)
 - class of restriction (P2)
 - allowed/denied flag (P3)
 - office code (P4)

NOTE: Repeat steps 1 and 3 to add other office codes.

4. Use CMC 414 to assign:
 - restriction group number (P1)
 - class of restriction (P2)
 - allowed/denied flag (P3)
 - area code (P4)
 - office code (P5)

NOTE: Repeat steps 1 and 4 to add other area and office codes.

Conflicting Area/Office Code Assignment

3.7.3 This procedure is used to define restrictions on outgoing trunks for conflicting area/office codes. This procedure applies to all packages.

1. Use CMC 400 to assign:
 - trunk group number (P1)
 - dial group number (P2)
 - restriction group number (P3)

2. Use CMC 401 to assign:
 - dial group number (P1)
 - customer toll prefix code (P2)
 - operator toll prefix code (P3)
3. Use CMC 402 to assign:
 - toll prefix code (P1)
 - dial group number (P2)
 - registration digit flag (P3)
 - registration digits (P4)

**SCC Restriction
Assignment**

3.7.4 This procedure is used to define outgoing trunk group restrictions on SCC services. This procedure applies to all packages.

Use CMC 415 (if applicable) to assign or remove:

- restriction group number (P1)
- class of restriction (P2)
- carrier access code (P3)

**Programming
Least Cost Routing**

3.8 The following procedures permit the user to establish lists of available routes, ordered by cost, for outgoing calls.

Basic LCR Programming

3.8.1 This procedure is used to establish the least cost routing lists for the system. This procedure applies to all packages.

1. Use CMC 421 to access:
 - area and area/office code route table number (P1)
 - route selection sequence (P2)
 - trunk group number (P3)
 - dialing pattern flag (P4)
2. Use CMC 423 to assign:
 - area code route table number (P1)
 - area code (P2)
3. Use CMC 420 to assign:
 - office code route table number (P1)
 - route selection sequence (P2)
 - trunk group number (P3)
 - dialing pattern flag (P4)
4. Use CMC 422 to assign:
 - office code route table number (P1)
 - three-digit office code (P2)

5. Use CMC 424 to assign:

- area/office code route table number (P1)
- area code (P2)
- office code (P3)

6. Use CMC 425 to assign:

- LCR CAC number (P1) (Packages B, C, and D)
- carrier access code (P2)

LCR Equal Access Programming

3.8.2 This procedure is used to program LCR routing in equal access areas. This procedure applies to all packages.

1. Using CMC 415 to assign:

- restriction group number (P1)
- class of restriction (P2)
- carrier access code (P3)

2. Use CMC 411 to assign:

- restriction group number (P1)
- class of restriction (P2)
- flag ID (P3)
- flag value (P4)

3. Use CMC 420 to assign:

- office code route table number (P1)
- route selection sequence (P2)
- trunk group number (P3)
- dialing pattern flag (P4)

4. Use CMC 421 to assign:

- area code route table number (P1)
- route selection sequence (P2)
- trunk group number (P3)
- dialing pattern flag (P4)

Data Communications Programming

3.9 The following procedures permit the user to program the system for data communications.

Data Switching Programming

3.9.1 This procedure is used to establish basic data switching in the system. This procedure applies to Packages B, C, and D.

1. Verify that DTAs (Data Terminal Adapters) have been installed in the CSD telephones to be used with data stations.

2. Verify that the CSD telephones have been installed.
3. Verify that 8DTC cards have been installed in slot 00, 03, 06, 09, or 12.
4. Verify that data stations are connected to the RS-232C interfaces in the rear of the CSD telephones.
5. Assign the CSD telephones as voice stations and designate appropriate service using CMCs 201, 202, 203, and 204.
6. Use CMC 220 to assign:
 - equipment number of data station (P1)
 - directory number of data station (P2)
 - data terminal type (P3)
 - directory number of associated voice station (P4)
7. Use CMC 221 to assign:
 - data station directory number (P1)
 - class of service (day mode) (P2)
 - class of service (night mode) (P3)
 - class of restriction (day mode) (P4)
 - class of restriction (night mode) (P5)
8. Use CMC 222 to assign:
 - directory number (P1)
 - data speed (P2)
 - synchronization and communications (P3)
 - word structure (stop bits/word length) (P4)
 - parity (P5)
 - echoplex (P6)
9. Use CMC 223 to assign:
 - directory number (P1)
 - call control mode (P2)
 - RS-232C interface signal/mode 1 (P3)
 - RS-232C interface signal/mode 2 (P4)
10. Use CMC 224 to assign:
 - directory number (P1)
 - operation mode (P2)
 - dial mode (P3)
 - tenant number (P4)
 - SMDR group number (P5)

11. Use CMC 301 to assign:

- hunt group number (P1)
- terminating sequence (P2)
- station/data directory number (P3)
- hunt group type (P4)

12. If applicable, use CMC 304 to assign:

- hot line number (P1)
- originating terminal station (P2)
- terminating terminal station (P3)

Programming Data Interface Unit (DIU/DTA)

3.9.2 This procedure is used to register new data interfaces or to modify the data associated with currently installed data interfaces. The DTA portion of this procedure applies to Packages B, C, and D. The DIU portion applies to Packages C and D.

1. Use CMC 220 to assign:

- equipment number of data station (P1)
- directory number of data station (P2)
- data terminal type (P3)
- directory number of associated voice station (P4)

2. Use CMC 221 to assign:

- data station directory number (P1)
- class of service (day mode) (P2)
- class of service (night mode) (P3)
- class of restriction (day mode) (P4)
- class of restriction (night mode) (P5)

3. Use CMC 222 to assign:

- directory number (P1)
- data speed (P2)
- synchronization and communications (P3)
- word structure (stop bits/word length) (P4)
- parity (P5)
- echoplex (P6)

4. Use CMC 223 to assign:

- directory number (P1)
- call control mode (P2)
- RS-232C interface signal/mode 1 (P3)
- RS-232C interface signal/mode 2 (P4)

5. Use CMC 224 to assign:

- directory number (P1)
- operation mode (P2)
- dial mode (P3)
- tenant number (P4)
- SMDR group number (P5)

6. Use CMC 301 to assign:

- hunt group number (P1)
- terminating sequence (P2)
- station/data directory number (P3)
- hunt group type (P4)

7. If applicable, use CMC 304 to assign:

- hot line number (P1)
- originating terminal station (P2)
- terminating terminal station (P3)

**Programming Data
Interface Unit (DIU)
Associated with
CS-10/CS-20**

3.9.3 This procedure is used to program DIUs associated with specific CS-10 and CS-20 telephones. This procedure applies to Packages C and D.

1. Use CMC 220 to assign:

- equipment number of data station (P1)
- directory number of data station (P2)
- data terminal type (P3)
- directory number of associated voice station (P4)

2. Use CMC 203 to assign:

- station directory number (P1)
- button number (P2)
- feature number (P3)
- supplementary data (P4)
- line terminating type, directory number for station line, intercom group station line (P5)
- ringing mode (P6)

NOTE: CMC 203 may also be used to assign the mode change button to CS-20 and CSD telephones.

Hotel/Motel Programming

3.10 This procedure is used to establish the Hotel/Motel feature package in the system. This procedure applies to Packages C and D.

1. Use CMC 203 (CSD) or CMC 231 (Attendant Console) to assign the Front Desk Console program button:

CMC 203

- station directory number (P1)
- button number (P2)
- feature number (P3)
- supplementary data (P4)
- line terminating type, directory number for station line, intercom group station line (P5)
- ringing mode (P6) [not applicable]

CMC 231

- Attendant Console number (P1)
- button number (P2)
- feature number (P3)
- supplementary data (P4) [not applicable]

2. Use CMC 204 to assign:

- station directory number (P1)
- speech path interruption denial (data secure path) (P2)
- off-premises station (P3)
- SLT with message waiting (P4)
- guest room flag (P5)
- SLC interface dictation machine [not applicable]

NOTE: A given device cannot be assigned as both a DSS/BLF Console and a Room Status Indicator. Remove any existing DSS/BLF Consoles assignments using CMC 210.

3. Use CMC 354 to assign:

- room status indicator number (P1)
- room status indicator type (P2)
- equipment number (P3)

4. Use CMC 355 to assign:

- room status indicator number (P1)
- button number (P2)
- directory number (P3)

5. Use CMC 356 to assign:

- printer number (P1)
- character trunk equipment number (P2)
- DIU/DTA directory number (P3)

6. Use CMC 357 to assign:

- printer number (P1)
- message type ID code (P2)
- Front Desk Console directory number (P3)

7. Use CMC 358 to assign:
 - flag number (P1)
 - status value (P2)
8. Use CMC 350 to assign:
 - trunk group number (P1)
 - call charge flag (P2)
9. Use CMC 351 to assign:
 - billing group number (P1)
 - office code (P2)
10. Use CMC 352 to assign:
 - billing group number (P1)
 - initial time for call (P2)
 - initial charge for call (P3)
 - length of additional time periods (P4)
 - charge for additional time periods (P5)
11. Use CMC 353 to assign:
 - feature access code (P1)
 - feature selection control (P2)
 - destination directory number (P3)
 - guest room floor number (P4)

**Special System
Configuration
Programming**

3.11 The following procedures permit the user to program the system for special applications.

SBCS Behind a PABX

3.11.1 This procedure is used to coordinate the installation of the system behind a PABX. This procedure applies to all packages.

1. Refer to CMC 100 to coordinate feature access numbering plans for both systems and CMC 200 to coordinate station numbering plans.
2. Use CMC 250 to change:
 - equipment number (P1)
 - type of trunk (P2)
 - trunk group number (P3)
 - operation mode (P4)
 - signaling (P5)
 - start mode/zone number/DISA mode (P6)

3. Use CMC 254 to change:
 - trunk group number (P1)
 - route timing identification number (P2)
 - number of timing units (P3)
4. Use CMC 400 to change:
 - trunk group number (P1)
 - dial group numbers (P2)
 - restriction group number (P3)

Tenant Assignment

3.11.2 This procedure is used to program the system for use by one or more tenants. This procedure applies to all packages.

1. Use CMC 201 to assign:
 - station directory number(P1)
 - operating mode (P2)
 - type of dialing (P3)
 - tenant number (P4)
 - SMDR group number or personal account code for SCC (P5)
2. If applicable, use CMC 102 to assign:
 - flag number (P1)
 - set value (P2)
3. Use CMC 251 to assign:
 - equipment number (P1)
 - dial mode and break ratio (P2)
 - trunk directory number (P3)
 - tenant number (P4)
4. Use CMC 503 to assign:
 - tenant number (P1)
 - output ID flag (P2)

**Off-Premises
Station (OPS)**

3.11.3 This procedure is used to establish data for stations which are installed off-premises. This procedure applies to all packages.

1. Use CMC 200 to assign:
 - station equipment number (P1)
 - directory number (P2)
 - type of terminal (P3)
 - copied station directory number (P4)

2. Use CMC 204 to identify the directory number of a off-premises station.

3. Use CMC 102 to change:

- flag number (P1) - (Flag 2)
- set value (P2)

Test and Maintenance Routines

3.12 The following procedures permit the user to perform normal maintenance.

Clock, Day, and Date

3.12.1 This procedure is used to set or change the system clock. This procedure applies to all packages.

Use CMC 700 to assign or change:

- year (P1)
- month and day (P2)
- day of the week (P3)
- hour and minute (P4)

Circuit Busy Assignment

3.12.2 This procedure is used to busy out a circuit or return a circuit to service. This procedure applies to all packages.

Use CMC 701 to assign:

- equipment number (P1)
- make busy/release flag (P2)

SMDR Printer Busy Assignment

3.12.3 This procedure is used to make the SMDR printer circuit busy or to return it to service. This procedure applies to all packages.

Use CMC 705 to assign:

- port number (P1)
- make busy flag (P2)

Hotel/Motel Printer Busy Assignment

3.12.4 This procedure is used to make a Hotel/Motel printer circuit busy or return it to service. This procedure applies to Packages C and D.

Use CMC 706 to assign:

- printer number (P1)
- make-busy flag (P2)



**Software and
Distributed Processor
Version Number
Displays**

3.12.5 This procedure is used to display system and card level software versions. This procedure applies to all packages.

1. Use CMC 904 to display the current system software version ID.
2. Use CMC 907 to display:
 - equipment number (P1)
 - card type (P2)
 - version number (P3)

Device Status Display

3.12.6 This procedure is used to show the current status of devices registered in the data base. This procedure applies to all packages.

1. Enter CMC 800.
2. Press <DSP> to display screen one.
3. Press <DSP> to display screen two.
4. Press <DSP> to display screen three.
5. If no other information is available, subsequent screens are skipped.

Fault Log Display

3.12.7 This procedure is used to display the current fault log. This procedure applies to all packages.

1. Enter CMC 801.
2. Press <DSP> to display oldest fault listing in log.
3. Continue to press <DSP> at P1 until all faults listed in log have been displayed.

SMDR Printer Controls

3.12.8 This procedure is used to modify the parameters which control the SMDR printer. This procedure applies to all packages.

1. Use CMC 705 to make the SMDR printer circuit busy:
 - port number (P1)
 - make busy/release flag (P2)

2. Use CMC 901 to change:

- port number (P1)
- X-on/X-off control characters (P2)
- power control characters (P3)
- power on timing (P4)
- power off timing (P5)
- printout format (P6)

3. Use CMC 705 to release the SMDR printer circuit.

**RS-232C Port
Configuration
Assignment**

3.12.9 This procedure is used to modify the default parameters for the system RS-232C ports. This procedure applies to all packages.

1. If the port to be changed is assigned to an SMDR printer, first place the printer out of service using CMC 705.

2. Use CMC 900 to assign:

- port number (P1)
- bit rate (P2)
- parity (P3)
- character length (P4)
- stop bit (P5)
- echo back (P6)

**Diagnostic Trunk
Connection Assignment**

3.12.10 This procedure is used to perform a line-to-trunk test. This procedure applies to all packages.

Use CMC 802 to assign:

- station directory number (P1)
- trunk equipment number (P2)

NOTE: When activated, a station will always seize the assigned trunk until values for P1 and P2 are deleted with the <RMV> key.

Traffic Measurement

3.12.11 This procedure is used to establish traffic measurement in the system. This procedure applies to all packages.

1. Use CMC 600 to assign:

- traffic registration number (P1)
- trunk group number (P2)

2. Use CMC 601 to activate the traffic measurement flag (P1).

3. Use CMC 602 to display:

- traffic measurement data buffer (P1)
- traffic registration number (P2)
- trunk group number (P3)
- traffic measurement period (P4)
- traffic density (P5)

**Master Control
Telephone Assignment**

3.12.12 This procedure is used to assign or cancel MCT directory number identifications. This procedure applies to all packages.

Use CMC 702 to assign:

- MCT number (P1)
- station directory number (P2)

**Security Code
Assignment**

3.12.13 This procedure is used to change the system security access codes. This procedure applies to all packages.

Use CMC 704 to change:

- low level security code (P1)
- high level security code (P2)

**Character Trunk
(CHT) Loop Test**

3.12.14 This procedure is used to start a character trunk test. This procedure applies to all packages.

1. Use CMC 810 to assign:

- test type (P1)
- character trunk EN (P2)
- DIU/DTA DN (P3)
- test result 1 (P4)
- test result 2 (P5)

2. Press <DSP> to perform the test. Results are displayed in P4 and P5.

3. For a loop test between the 4CHT and the DIU/DTA, set the test switch on the back of the DIU/DTA to the on position.

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CMC TABLES 4.0 The following paragraphs describe in detail the parameters of all the CMC (Change and Maintenance Code) tables associated with the system. Each CMC description indicates whether the parameter is valid for Packages A, B, C, and/or D. The CMCs are listed in numerical order. Refer to the index to find the CMC(s) which correspond to a particular feature.

The following terms are used through out this section:

Security Codes System security codes are passwords used to prevent unauthorized access to the data base. There are two levels of system security, high and low. A low level security code allows access to the commands needed for daily operation of the system. A high level security code allows access to more powerful commands, particularly those having broader system impact, such as maintenance commands or global commands. The CMC table descriptions will indicate whether a high or low security code is required.

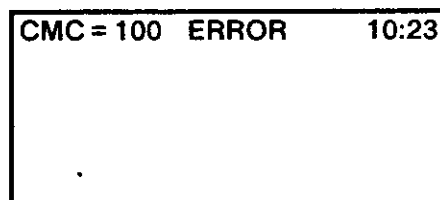
Display The system permits the user to display the current parameter values for the CMC tables. Specific instructions for this process are given at each CMC table.

Add/Change The system permits the user to add new or change existing parameter values for the CMC tables. Specific instructions for this process are given at each CMC table.

Duplicate The system permits the user to duplicate existing parameter values for the CMC tables. Specific instructions for this process are given at each CMC table.

Remove The system permits the user to remove existing parameter values from the CMC tables. Specific instructions for this process are given at each CMC table.

Error Codes The system will prompt the user with error codes if errors are made during a data base programming session. These error codes appear in the center of the top line of the LCD display on each of the programming tools.



Specific definitions for the possible error codes which may occur while programming are shown along with each CMC description.

Additional terms used throughout this practice are defined in the glossary appended to this practice.

Numbering Plan Assignment (CMC 100)

4.1 The Numbering Plan Assignment (CMC 100) table is used to assign access codes to system trunks and features. This CMC requires a HIGH level security code.

CMC = 100	
P1:FNO	P4:OGD
P2:FAC	P5:ACC
P3:TGN	P6:SF

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	FNO	feature number	2 to 160	See Table 4.1
X	X	X	X	P2	FAC	feature access code	4 digits maximum (0-9, #, *)	See Table 4.1
X	X	X	X	P3	TGN	trunk group number	1 to 63 (if P1 = 4-47) blank (if P1 ≠ 4-47)	See Table 4.3
X	X	X	X	P4	OGD	outgoing digits (total number of digits for an outgoing directory: includes FAC [P5].)	1 to 15 or blank (blank means that this parameter may be set by program logic) (This parameter must be blank if P1 ≠ 4-47)	blank
X	X	X	X	P5	ACC	access code digits to be sent	this parameter is needed for Tie trunks only (FNO = 22 - 41) blank = no digits 1 = last digit 2 = last 2 digits 3 = all digits	blank
X	X	X	X	P6	SF	dial or store and forward flag	this parameter is needed for TIE trunks only (FNO = 22 - 41) 0 = send digits as dialed 1 = store digits in buffer, then send	None

NOTES:

- Check that the feature access codes assigned in P2 do not conflict with the station numbers assigned at CMC 200. If a conflict is present, the system will disable the access code.
- If P1 ≠ FNO 4-47, then P3, P4, P5 and P6 must be left at their default values.

DISPLAY

1. Enter an FNO at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of remaining FNOs.
- A blank parameter indicates that no value has been entered.
- The system will release the CMC table if the FNO exceeds a value of 160.

CHANGE

1. Display the data to be changed.
2. Press <RMV> .
3. Enter the new data for each parameter as needed.
4. Press <ADD/CHG> .

REMOVE

1. Display the data to be removed.
2. Press <RMV> .

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The key parameter specified in the display command has not been registered in the system.	Add the new parameter.
OVERLAP	The FAC has already been entered as the access code of another feature.	Select a different access code.

FNO = FEATURE NUMBER OR FEATURE NAME IN 4.1

Table 4.1 Access Code Assignment

Trunk Group/ Feature Name	Feature Number	Default Access Code (Basic/Expansion)	Numbering Scheme
CO #1 Access (default)	4	75	FAC* + DN
CO #2 Access	5	76	FAC + ODN
CO #3 Access	6	85	FAC + ODN
CO #4 Access	7	86	FAC + ODN
CO #5 Access	8	45/None	FAC + ODN
CO #6 Access	9	46/None	FAC + ODN
FX #1 Access	10	10	FAC + ODN
FX #2 Access	11	12	FAC + ODN
FX #3 Access	12	13	FAC + ODN
FX #4 Access	13	14	FAC + ODN
FX #5 Access	14	15	FAC + ODN
FX #6 Access	15	16	FAC + ODN
WATS #1 Access	16	70	FAC + ODN
WATS #2 Access	17	72	FAC + ODN
WATS #3 Access	18	73	FAC + ODN
WATS #4 Access	19	74	FAC + ODN
WATS #5 Access	20	None	FAC + ODN
WATS #6 Access	21	None	FAC + ODN
Tie #1 Access (Loop - default)	22	80	FAC + ODN
Tie #2 Access (E&M - default)	23	82	FAC + ODN
Tie #3 Access	24	83	FAC + ODN
Tie #4 Access	25	84	FAC + ODN
Tie #5 Access	26	None	FAC + ODN
Tie #6 Access	27	None	FAC + ODN
SCC #1 Access	42	40/46	FAC + ODN

* = 1 Digit

DN = Station Directory Number
 ODN = Outgoing Directory Number
 See Table 4.2 for ADDn

Table 4.1 Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Number	Default Access Code (Basic/Expansion)	Numbering Scheme
SCC #2 Access	43	42/47	FAC + ODN
SCC #3 Access	44	43/48	FAC + ODN
SCC #4 Access	45	44/49	FAC + ODN
SCC #5 Access	46	None	FAC + ODN
SCC #6 Access	47	None	FAC + ODN
Account code entry	154	56	FAC + ADD6
Add data call setup (Packages B, C, & D)	160	67	FAC
Attendant access (Packages C & D)	55	0	FAC
Automatic intercom - user programmable	122	#4	FAC + [BTN] + SPC + ADD1/ADD2 or FAC + [BTN] + DN
Call announce receive on/off	126	#8	FAC + ADD8
Call charges (message registration) add/clear (Packages C & D)	74	None	FAC + X + DN + charge (\$\$\$cc) X = 0/1/9: cni/reg/verify
Call forward - all calls (activate)	80	*34	FAC + DN
Call forward - all calls (cancel)	81	*30	FAC
Call forward - busy/no answer (activate)	82	*33	FAC + DN
Call forward - no answer (activate)	83	*32	FAC + DN
Call forward - busy/no answer & no answer (cancel)	84	*31	FAC

DN = Station Directory Number

ODN = Outgoing Directory Number

[BTN] = Button on EKT

SPC = System/Station Speed Dialing Access Code

See Table 4.2 for ADDn

Table 4.1. Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Name	Default Access Code (Basic/Expansion)	Numbering Scheme
Call park	153	*9	FAC + ADD5
Call park answer	93	#9	FAC + ADD5
Controlled restriction (Packages C & D)	75	None	FAC + ADD15 + X + COS (X = 0/1:reg/cnl)
Data call attribute change (Packages B, C, & D)	117	69	FAC + ADD13
Day/Night mode change - self tenant only	131	*#	FAC + ADD10
Day/Night mode change - all tenants	132	0# (Packages A & B) 8# (Packages C & D)	FAC + ADD10
DSS Park answer	107	18	FAC
DSS Speed dial (program) (Packages C & D)	135	52	FAC + [BTN] + TAC + ODN (TAC = 2nd DIGIT)
Directed call pickup	106	17	FAC
Do-not-disturb (activate)	85	*6 (Packages A, B, & C) None (Package D)	FAC
Do-not-disturb - other (activate) (Packages C & D)	71	None	FAC + X + DN + ADD17 (X = 0/1/2/9:cnl/reg/with Silent Message/verify)
Do-not-disturb (cancel)	86	#6	FAC
Do-not-disturb override (activate)	120	*2	FAC + DN
Do-not-disturb override (cancel)	121	#2	FAC
Do-not-disturb with silent message registration (Package D)	137	*6	FAC + ADD17

DN = Station Directory Number
 ODN = Outgoing Directory Number
 [BTN] = Button on EKT
 See Table 4.2 for ADDn

Table 4.1. Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Name	Default Access Code (Basic/Expansion)	Numbering Scheme
EKT paging access zone/all zone	51	77	FAC + ADD3
EKT paging answer (Packages B, C, & D)	52	87	FAC + ADD3
Executive override (limited)	152	#5	FAC
External paging access (Packages B, C, & D)	53	78	FAC + ADD3
External paging answer (Packages B, C, & D)	54	88	FAC + ADD3
Guestroom cleanup (Packages C & D)	73	None	FAC
Group pickup	92	*4	FAC
Idle line preference change (Packages C & D)	129	541	FAC + X (X = 0/1/2/3: Not Available/ICM/ ICM-TRK/ D-ICM,ICM,TRK)
Key touch tone control - EKT only (Packages B, C, & D)	133	58	FAC + ADD11
Least cost routing system access	3	9	FAC + ODN
Message leaving (activate)	87	*1	FAC + DN + ADD17
Message leaving (cancel)	88	#1	FAC + DN
Message pickup	89	*5	FAC
Night answer any station - this tenant only	94	#30	FAC
Night answer any station - all tenants	95	#31	FAC
Off-hook incoming signal change - user programmable	124	57	FAC + ADD7

DN = Station Directory Number
See Table 4.2 for ADDn

Table 4.1. Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Name	Default Access Code (Basic/Expansion)	Numbering Scheme
Pre-selection mode change (Packages C & D)	127	542	FAC + X (X = 0/1:One touch ops/pre-selection)
Programming from key telephone (button programming) (Packages C & D)	134	53	FAC + [BTN] + FNO + X (X = DN, ZONE #, RGN, SPD)
Recorded voice announcement (Package D)	136	89	FAC + X + ADD16 (X = 0/1/9:cnl/reg/verify)
Ringing line preference change (Packages C & D)	128	540	FAC + X (X = 0/1/2/3: Not Available/ICM/ ICM-TRK/ D-ICM,ICM,TRK)
Room status change (Packages C & D)	72	None	FAC + ADD14 + X + COS (1 - 16) (X = 0/1:reg/cnl)
Save/repeat last number dialed	50	*8	FAC
Service call routing #1 (Packages C & D)	96	None	FAC
Service call routing #2 (Packages C & D)	97	None	FAC
Service call routing #3 (Packages C & D)	98	None	FAC
Service call routing #4 (Packages C & D)	99	None	FAC
Service call routing #5 (Packages C & D)	100	None	FAC
Service call routing #6 (Packages C & D)	101	None	FAC
Service call routing #7 (Packages C & D)	102	None	FAC

DN = Station Directory Number
 ODN = Outgoing Directory Number
 FNO = FEATURE NUMBER
 [BTN] = Button on EKT
 See Table 4.2 for ADDn

Table 4.1. Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Name	Default Access Code (Basic/Expansion)	Numbering Scheme
Service call routing #8 (Packages C & D)	103	None	FAC
Service call routing #9 (Packages C & D)	104	None	FAC
Service call routing #10 (Packages C & D)	105	None	FAC
Station camp-on (activate)	150	**	FAC
Station camp-on (cancel)	90	# *	FAC
Station speed call user programmable	123	#0	FAC + ADD4
Station speed calling	48	*0	FAC + ADD1
System speed calling	49	##	FAC + ADD2
Trunk camp-on (activate)	151	*7	FAC
Trunk camp-on (cancel)	91	#7	FAC
Trunk access - direct trunk access	130	61*	FAC + ADD9 + ODN (See Note below)
Wake-up other (activate) (Packages C & D)	70	None	FAC + X + DN + time (HHMM) (X = 0/1/9:cnl/reg/verify)
Wake-up self (activate) (Packages C & D)	78	None	FAC + Wake-up calling time
Wake-up self (cancel) (Packages C & D)	79	None	FAC

DN = Station Directory Number

ODN = Outgoing Directory Number

FNO = FEATURE NUMBER

[BTN] = Button on EKT

See Table 4.2 for ADDn

NOTES:

- If the system is expanded (two cabinets), or if the system contains an SWBA card, FNO 130 requires the use of a 4-digit trunk access code. (By default the trunk access code is the same as the trunk equipment number.)
- If CMC 251 has been used to assign trunk directory numbers, the assigned directory number must be used in place of the trunk access code.

Table 4.2 Features and Additional Digits

ADDn	FNO	Feature Description	Number of Added Digits	Meaning of Added Digits
ADD1	48	StationSpeed Dialing	1 (fixed)	0 - 9
ADD2	49	System Speed Dialing	2 (fixed)	00 - 99
ADD3	51	EKT Paging Access	1 (fixed)	0 - 9
ADD4	123	Station Speed Dialing Change	max 20	SPC + TAC + DN SPC: Speed Dial Code TAC: Trunk Access Code DN: Outside Station Number
ADD5	153 93	Call Park Registration Call Park Retrieval	max 4	(It is desirable to use the station number of the parking station.)
ADD6	154	Account Code Entry	max 15	
ADD7	124	Off-Hook Signaling - Mode Change	1 (fixed)	0: No Off-Hook Signaling 1: Off-Hook Signaling
ADD8	126	Call Announce Change	1 (fixed)	0: Tone Ringer 1: Voice Calling
ADD9	130	Direct Trunk Access	max 4	Trunk Access Code
ADD10	131 132	Day/Night Mode Change (Self) Day/Night Mode Change (Tenants)	1 (fixed)	0: Day Mode 1: Night Mode
ADD11	133	Touch Tone Control	1 (fixed)	0: No Touch Tone 1: Touch Tone
ADD12	107	DSS Park	3 (fixed)	digit 1: DSS Number digts 2,3: DSS Button Number
ADD13	117	Attribute Change (Data Call)	max 5	Data Speed Change 1 + Baud Rate (110, 150, 300, 600, 1200, 2400, 4800, 9600, 19200) Answer Mode Change 2 + Mode (0: Manual/1: Auto)
ADD14	72	Room Status Change	1 (fixed)	1: Vacant 2: Occupied 3: Clean-up Cancel 4: Wake-up No Answer
ADD15	75	Controlled Restriction	1 (fixed)	1: Station Incoming Calls 2: All Incoming Calls 3: All Outgoing Trunk Calls 4: All calls
ADD16	136	Voice Message ID	2 (fixed)	01 - 58
ADD17	137	Silent Message ID	2 (fixed)	00 - 50

Table 4.3 Trunk Group Numbers

Trunk Group Number	Type of Trunk Group	Packages
1	DTMF	All
2	CHT	C, D
3	external paging	B, C, D
13	CO #1 (default for CO trunks)	All
14	CO #2	All
15	CO #3	All
16	CO #4	All
17	CO #5	All
18	CO #6	All
19	FX #1	All
20	FX #2	All
21	FX #3	All
22	FX #4	All
23	FX #5	All
24	FX #6	All
25	WATS #1	All
26	WATS #2	All
27	WATS #3	All
28	WATS #4	All
29	WATS #5	All
30	WATS #6	All
31	Tie #1 (default for E&M)	All
32	Tie #2 (default for loop)	All
33	Tie #3	All
34	Tie #4	All
35	Tie #5	All
36	Tie #6	All
51	SCC #1	All
52	SCC #2	All
53	SCC #3	All
54	SCC #4	All
55	SCC #5	All
56	SCC #6	All
57	DID #1	C, D
58	DID #2	C, D
59	DID #3	C, D
60	DID #4	C, D
61	DID #5	C, D
62	DID #6	C, D

Service Parameter Assignment (CMC 101)

4.2 The Service Parameter Assignment (CMC 101) table is used to set service flags for given situations. This CMC requires a HIGH level security code.

CMC = 101
 P1:FID
 P2:FLG

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	FID	system flag ID	See Table 4.4	None
X	X	X	X	P2	FLG	flag value	0 or 1	See Table 4.4

DISPLAY

1. Enter an FID at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of FIDs.
- The system will release the CMC table if the FID exceeds a value of 32.

CHANGE

1. Enter the FID to be changed at parameter P1.
2. Enter the selected FLG value at parameter P2.
3. Press ADD/CHG.

Table 4.4 Service Parameter Assignment

CMC 101		
FID (P1)	Definition	FLG (P2)
1	Send warning burst on override. (Packages B, C, & D)	<u>0 = Send</u> 1 = Don't Send
2	Permit trunk-to-trunk connection during transfer. (All Packages)	<u>0 = Allow all connections</u> 1 = Deny connections not listed in CMC 410
3	Send warning tone for executive override. (All Packages)	<u>0 = Don't send</u> 1 = Send
4	Voice/Tone signal for intercom (All Packages)	<u>0 = Tone</u> 1 = Voice
5-7	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
8	No-dial alarm sent to Attendant Console (time-out = 40 seconds) (Packages C & D)	<u>0 = Don't Send</u> 1 = Send
9-12	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
13	Disconnect supervision option of CO loop (outgoing) trunk (Package D)	<u>0 = Detect</u> 1 = Don't Detect
14-32	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE

NOTE: The underlined values in Table 4.4 are the defaults.

**System Parameter
Assignment Form
(CMC 102)**

4.3 The System Parameter Assignment (CMC 102) table is used to set system flags that govern how the system will interpret user input. This CMC requires a HIGH level security code.

CMC = 102
P1:FLGN
P2:STV

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	FLGN	flag number	See Table 4.5	None
X	X	X	X	P2	STV	set value	See Table 4.5	See Table 4.5

DISPLAY

1. Enter an FLGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of FLGNs.
- The system will exit the CMC table if the FLGN exceeds a value of 125.

CHANGE

1. Enter an FLGN to be changed at parameter P1.
2. Enter the selected STV at parameter P2.
3. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
RG BUSY	Ringer phase for message waiting is busy.	Try again later.

Table 4.5 System Parameter Assignment

CMC 102		
FLGN (P1)	Definition	STV (P2)
1	Trunk sharing among tenants (All Packages)	<u>0 = own trunks incoming & outgoing</u> 1 = own trunks outgoing, share incoming 2 = own trunks incoming, share outgoing
2	Ringer pattern for off-premise stations (All Packages)	1 = <u>station call</u> 2 = incoming call 3 = recall
3	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
4	Call charges (SMDR) for transferred call (All Packages)	<u>0 = divided between stations</u> 1 = charge transferred station
5	Check trunk signaling before allowing trunk-to-trunk transfer (See also CMC 410) (All Packages)	<u>0 = yes</u> 1 = no
6	Hunt for outgoing trunks based on tenant number (All Packages)	<u>0 = yes</u> 1 = no
7	Hunt for bothway trunks based on tenant number (All Packages)	<u>0 = yes</u> 1 = no
8-9	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
10	Number of digits for call park orbits (All Packages)	1 to 4 digits <u>3 digits</u>
11	Number of digits in user account codes (All Packages)	1 to 15 digits <u>15 digits</u>
12	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
13	Meaning of pound sign (#) sent to Tie trunk (All Packages)	<u>0 = end of dialing</u> 1 = dial code

NOTE: The underlined values in Table 4.5 are the defaults.

Table 4.5 System Parameter Assignment (Continued)

CMC 102		
FLGN (P1)	Definition	STV (P2)
14	Meaning of pound sign (#) sent to CO trunk (All Packages)	<u>0 = end of dialing</u> 1 = dial code
15	Message waiting for SLTs with message waiting lamp (Packages B, C, D)	<u>0 = not applicable</u> 1 = applicable
16	Digits in personal account code for SCC #1 (Packages C & D)	1, 2, or 3 digits (input required)
17	Digits in personal account code for SCC #2 (Packages C & D)	1, 2, or 3 digits (input required)
18	Digits in personal account code for SCC #3 (Packages C & D)	1, 2, or 3 digits (input required)
19	Digits in personal account code for SCC #4 (Packages C & D)	1, 2, or 3 digits (input required)
20	Digits in personal account code for SCC #5 (Packages C & D)	1, 2, or 3 digits (input required)
21	Digits in personal account code for SCC #6 (Packages C & D)	1, 2, or 3 digits (input required)
22-26	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
27	Attendant Console for all tenants (Packages C & D)	<u>0 = all tenants</u> 1 = self tenant only
28	Type of intercept for a call to a vacant number (DID application) (Packages C & D)	<u>0 = attendant</u> 1 = reorder tone
29	Number of times the flash button is effective (Packages C & D)	0 to 255 times <u>3 times</u>
30-125	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE

NOTE: The underlined values in Table 4.5 are the defaults.

**System Timing
Parameter Assignment
(CMC 103)**

4.4 The System Timing Parameter Assignment (CMC 103) table is used to alter the service timing parameters set by the system. This CMC requires a HIGH level security code.

CMC = 103
P1:STID
P2:NTIM

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	STID	service timing ID	1 to 80	See Table 4.6
X	X	X	X	P2	NTIM	normalized timing (number of time units)	0 to 255	See Table 4.6

DISPLAY

1. Enter an STID at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of STIDs.
- The system will release the CMC table if the maximum STID value is exceeded.

CHANGE

1. Enter the STID to be changed at parameter P1.
2. Enter the normalized timing value (NTIM) at parameter P2.
3. Press <ADD/CHG> .

Table 4.6 Timing Values

CMC 103			
STID (P1)	Definition	Unit of Time (ms)	Number of Time Units NTIM (P2) (Default)
1	Station hookswitch signal range maximum	50	21
2	Length of time after all digits are dialed by the station user before the call will be timed for SMDR and shown on the display on the CS-20 or CSD	1000	16
10	Confirmation Tone (CFT) burst timing	100	7
11	Time between depressing a feature button and CFT	1000	2
12	Ringing duration before call is forwarded on no answer condition	1000	13 (approx. 3 rings)
14	Ringing duration for call return of station camp-on before abandoning call back attempt	1000	31 (approx. 7 rings)
15	Station camp-on release timing	10000	0
16	Trunk camp-on cancel timing	10000	0
17	Time interval during which a parked call is held before returning to the parking station	1000	61
18	Time interval during which a trunk call is held before returning to the holding station (only applicable if trunk appears on a button at the station.)	1000	181
19	Time interval during which a call is camped on to a station before returning to the DSS	1000	31
20	Time interval during which a parked call is held before returning to the parking DSS	1000	31
22	Ringing duration after a call has been transferred to a station, before it returns to the holding station on a no answer condition	1000	31 (approx. 7 rings)
23	Service registration reminder	100	7
24	Pre-selection timing	1000	4
25	Camp-on burst timing (Packages B, C, & D)	100	2

NOTE: Do NOT change the P2 value for STIDs 10 or 11.

Table 4.6 Timing Values (Continued)

CMC 103			
STID (P1)	Definition	Unit of Time (ms)	Number of Time Units NTIM (P2) (Default)
27	Direct-in line party busy burst timing	100	2
28	Override warning burst timing	1000	2
29	Paging EKT warning burst timing	1000	2
30	BT (Busy Tone), ROT (Reorder Tone) duration timing [Time out routing to Attendant]	1000	31
33	Time interval for ROT start after other party goes on-hook	1000	1
34	Call announce warning burst	1000	2
35	CFT (Confirmation Tone) time out (Time between CFT and ROT)	1000	11
36	Called party release timing	1000	1
37	Trunk camp-on call back cancel timing	1000	11
38	Pre-pause for second DT (LCR, SCC)	1000	1
39	Recalled station lock-in timing	1000	2
40	Station camp-on recall timing	1000	31
42	Paging EKT call timing	1000	1
43	Station hold loop recall timing	1000	181
44	Direct-in line called party busy timing	1000	2
45	External paging warning burst timing (Packages B, C, & D)	1000	2
46	Account code registration confirmation timing	100	11
47	Verify display timing (Packages C & D)	1000	31
48	Attendant camp-on recall timing (Packages C & D)	1000	31
49	Attendant call park recall timing (Packages C & D)	1000	31

NOTES:

- Packages A, B, and C use STID 33 to prevent ROT coming through speakers when using an SLC interface paging unit.
- Do NOT change the P2 value for STIDs 39, 42, or 44.

Table 4.6 Timing Values (Continued)

CMC 103			
STID (P1)	Definition	Unit of Time (ms)	Number of Time Units (P2) (Default)
50	Attendant trunk camp-on (Packages C & D)	1000	0
51	Attendant long hold recall timing (Packages C & D)	1000	61
52	Attendant transfer call recall timing (Packages C & D)	1000	31
53	Amount of time that a call should wait to be answered at the Attendant Console before it overflows to alternate destination (Packages C & D)	1000	61
54	Initial ACD answer recall timing (Package D)	1000	7
55	ACD recall timing (Package D)	1000	181
56	Time between 1st & 2nd ACD message (Package D)	1000	31
57	Silent message confirmation display timing (Package D)	1000	4
60	Common hold wait timing (Packages C & D)	100	16
61	Amount of time applicable for delayed ringing on key system lines (Packages C & D)	1000	11
62	Automatic pause timing (Packages C & D)	100	21
63	Automatic disconnect timing after sending ROT in DISA-standard (Packages C & D)	1000	11
64	CFT timing for wake-up answer (Packages C & D)	1000	21
65	Retry timing for seizure of DTMF port after DTMF seizure failure in Tie/DID termination (Packages C & D)	1000	2

NOTES:

- STIDs 3 - 9, 13, 21, 26, 31, 32, 41, 58, 59, and 66 - 120 (126 in Packages A, B, and C) are reserved for use by R&D and Tech. Support. Do NOT try to change these STIDs.
- Actual timing values for the STIDs may be determined by multiplying the Unit of Time by the Number of Time Units (P2). (The actual value used by the system may be as much as one Number of Units less than the calculated value.)

**COS (Class of Service)
Assignment (CMC 104)**

4.5 The COS (Class of Service) Assignment (CMC 104) table may be used to register a list of features for each class of service. This CMC requires a LOW level security code.

<p>CMC = 104 P1: COS P2: FNO</p>
--

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	COS	class of service	1 to 16	See Table 4.7
X	X	X	X	P2	FNO	feature number	1 to 255	See Table 4.7

DISPLAY

1. Enter a COS at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of FNOs.
- The system will release the CMC table after the last registered FNO has been displayed.
- Each COS must be displayed separately.

ADD

1. Enter a COS at parameter P1.
2. Enter an FNO at parameter P2.
3. Press <ADD/CHG>.
4. Repeat steps 1, 2, and 3 for each COS/FNO pair to be entered.

REMOVE

1. Enter a COS at parameter P1.
2. Enter the FNO to be removed at parameter P2.

3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
OVERLAP	An attempt was made to enter an FNO which is already registered.	Check the parameter for accuracy and try again.
NO FOUND	An attempt was made to remove an FNO which was not registered.	Abandon the attempt.

Table 4.7 Class of Service Default Values

FNO (P2)	Feature Description	Class of Service (P1)														Package		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16
3	Least Cost Routing	X	X	X	X	X	X	X	X	X	X	X						All
4	CO #1 Access	X	X	X	X	X	X	X	X	X	X	X						All
5	CO #2 Access	X	X	X	X	X	X	X	X	X	X	X						All
6	CO #3 Access	X	X	X	X	X	X	X	X	X	X	X						All
7	CO #4 Access	X	X	X	X	X	X	X	X	X	X	X						All
8	CO #5 Access	X	X	X	X	X	X	X	X	X	X	X						All
9	CO #6 Access	X	X	X	X	X	X	X	X	X	X	X						All
10	FX #1 Access	X	X	X	X	X	X	X	X	X	X	X						All
11	FX #2 Access	X	X	X	X	X	X	X	X	X	X	X						All
12	FX #3 Access	X	X	X	X	X	X	X	X	X	X	X						All
13	FX #4 Access	X	X	X	X	X	X	X	X	X	X	X						All
14	FX #5 Access	X	X	X	X	X	X	X	X	X	X	X						All
15	FX #6 Access	X	X	X	X	X	X	X	X	X	X	X						All
16	WATS #1 Access	X	X	X	X	X	X	X	X	X	X	X						All
17	WATS #2 Access	X	X	X	X	X	X	X	X	X	X	X						All
18	WATS #3 Access	X	X	X	X	X	X	X	X	X	X	X						All
19	WATS #4 Access	X	X	X	X	X	X	X	X	X	X	X						All
20	WATS #5 Access	X	X	X	X	X	X	X	X	X	X	X						All
21	WATS #6 Access	X	X	X	X	X	X	X	X	X	X	X						All
22	Tie #1 Access	X	X	X	X	X	X	X	X	X	X	X						All
23	Tie #2 Access	X	X	X	X	X	X	X	X	X	X	X						All
24	Tie #3 Access	X	X	X	X	X	X	X	X	X	X	X						All
25	Tie #4 Access	X	X	X	X	X	X	X	X	X	X	X						All
26	Tie #5 Access	X	X	X	X	X	X	X	X	X	X	X						All
27	Tie #6 Access	X	X	X	X	X	X	X	X	X	X	X						All
42	SCC #1 Access	X	X	X	X	X	X	X	X	X	X	X						All
43	SCC #2 Access	X	X	X	X	X	X	X	X	X	X	X						All
44	SCC #3 Access	X	X	X	X	X	X	X	X	X	X	X						All
45	SCC #4 Access	X	X	X	X	X	X	X	X	X	X	X						All

Table 4.7 Class of Service Default Values (Continued)

FNO (P2)	Feature Description	Class of Service (P1)															Package	
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		16
46	SCC # 5 ACCESS	X																All
47	SCC # 6 ACCESS	X																All
48	Station Speed Calling	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	All
49	System Speed Calling	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
50	Save/Repeat Last Number Dialed	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
51	EKT Paging Access	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	B, C, D
52	EKT Paging Answer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	B, C, D
53	External Paging Access	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	B, C, D
54	External Paging Answer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
70	Wake-Up Other (activate)	X																C, D
71	Do Not Disturb Other (activate)	X																C, D
72	Room Status Change	X																C, D
74	Call Charges Add/Clear (Message Registration)	X																C, D
75	Controlled Restriction	X																C, D
78	Wake-Up Self (activate)	X																D
	Time Reminder (activate)*	X																All
80	Call Forward - All Calls (activate)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
82	Call Forward - Busy/No Answer (activate)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
83	Call Forward - No Answer (activate)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
85	Do Not Disturb (activate)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
87	Message Leaving (activate)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
89	Message Pickup	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
92	Group Pickup	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
94	Night Answer any Station This Tenant Only	X																All
95	Night Answer any Station All Tenants	X																All

* Time Reminder is a special application of the Wake-Up (Self) feature which may be used outside of the Hotel/Motel feature package.

Table 4.7 Class of Service Default Values (Continued)

FNO (P2)	Feature Description	Class of Service (P1)																Package
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
106	Directed Call Pickup	X	X	X	X	X	X	X	X	X	X							All
107	DSS Park Answer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
117	Data Call Attribute Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	B, C, D
120	Do Not Disturb Override (activate)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
122	Automatic Intercom User Programmable	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
123	Station Speed Call User Programmable	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
124	Off-Hook Incoming Signal Change User Programmable	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
126	Call Announce Receive On/Off	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
127	Pre-selection Mode Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
128	Ringing Line Preference Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
129	Idle Line Preference Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
130	Direct Trunk Access	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
131	Day/Night Mode Change Self Tenant Only	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
132	Day/Night Mode Change All Tenants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
133	Key Touch Tone Control - EKT Only	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
134	Programming From Key Telephone (Button Programming)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
135	DSS Speed Dial (Program)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
136	Recorded Voice Announcement	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	D
137	DND With Silent Message Registration	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	D
150	Station Camp-on (activate)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
151	Trunk Camp-on (activate)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
152	Executive Override (Limited)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
153	Call Park	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
154	Account Code/Client Billing	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
160	Add Data Call Setup	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	B, C, D

Table 4.7 Class of Service Default Values (Continued)

FNO (P2)	Feature Description	Class of Service (P1)																Package
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
200	Executive Override (Full)																	All
201	LCR #1 - Least Cost Route Only							X	X	X								All
202	LCR #2 - All Routes Except Highest Route				X	X												All
203	LCR #3 - All Routes	X	X	X														All
205	DND Override By DSS/BLF	X	X															C, D
206	Time-out Route To Attendant	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
207	Display of DND Silent Message - Full	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
222	Attendant Break-in Button	X																C, D
223	Attendant DND Override Button	X																C, D
224	Attendant Night Mode Button	X																C, D
234	DID #1 Termination	X	X	X														C, D
235	DID #2 Termination	X	X	X	X	X												C, D
236	DID #3 Termination	X	X	X	X	X												C, D
237	DID #4 Termination	X	X	X	X	X												C, D
238	DID #5 Termination	X	X	X	X	X												C, D
239	DID #6 Termination	X	X	X	X	X												C, D

COR (Class of Restriction) Assignment (CMC 105)

4.6 The COR (Class of Restriction) Assignment (CMC 105) table may be used to restrict connections to CO, FX, WATS, and Tie line for stations and trunks connected to the system. This CMC requires a LOW level security code.

CMC = 105	
P1:COR	P4:TIEO
P2:COO	P5:TIEI
P3:COI	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	COR	class of restriction	1 to 16	None
X	X	X	X	P2	COO	outgoing CO, FX, WATS connections	0 = denied 1 = allowed	1
X	X	X	X	P3	COI	incoming CO, FX, WATS connections	0 = denied 1 = allowed	1
X	X	X	X	P4	TIEO	outgoing Tie connections	0 = denied 1 = allowed	1
X	X	X	X	P5	TIEI	incoming Tie connections	0 = denied 1 = allowed	1

DISPLAY

1. Enter a COR at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display each COR and associated data in numerical order of CORs.
- The system will release the CMC table when the COR value exceeds 16.

ADD

1. Enter the parameter(s) to be changed.
2. Press <ADD/CHG>.

**Network Loss
Plan Assignment
(CMC 106)**

4.7 The Network Loss Plan Assignment (CMC 106) table is used to assign digital padding values (PAD) to incoming and outgoing route connections. A digital PAD is a resistance network under the control of system software which is used to reduce the strength of incoming and outgoing signals. This CMC requires a HIGH level security code.

CMC = 106
 P1: ICR
 P2: OGR
 P3: PAD

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>ICR</u>	incoming route	1 to 15	See Table 4.8
X	X	X	X	P2	<u>OGR</u>	outgoing route	5 to 15	See Table 4.8
X	X	X	X	P3	PAD	digital padding value	0 to 7	See Table 4.8

DISPLAY

1. Enter an ICR at parameter P1 and an OGR at parameter P2 that correspond to the PAD value to be changed.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display the PAD values for each OGR in numerical order.
- The system will release the CMC table if the OGR value exceeds 15.

CHANGE

1. Enter the ICR and OGR corresponding to the PAD value to be changed in parameters P1 and P2 respectively.
2. Enter the new PAD value at P3.
3. Press <ADD/CHG> .

Table 4.8 Network Loss Plan

Incoming Route		Outgoing Route									
ICR	Description	MXT (5)	STA, ATT (6)	DMT (7)	Tie LD (8)	Tie E&M 1 (9)	Tie E&M 2 (10)	DID E&M (11)	CO (12)	RVAC (13)	DID LD (15)
1	DT, RDT, CFT	0	0	0	3	3	3	3	5	0	3
2	RBT, BT, ROT, DBT	0	5	0	6	6	6	3	5	0	3
3	CWT	0	2	0	5	5	5	3	5	0	3
4	OVT	0	6	0	6	6	6	6	6	0	6
5	MXT	0	4	0	4	4	4	4	4	0	4
6	STA, ATT	0	0	0	0	0	0	7	0	0	7
7	DTMF	0	0	0	7	7	7	7	0	0	7
8	Tie LD	0	0	0	0	0	0	0	3	0	0
9	Tie E&M1	0	0	0	0	0	0	0	3	0	0
10	Tie E&M2	0	0	0	0	0	0	0	3	0	0
11	DID E&M	0	7	0	0	0	0	0	3	0	0
12	CO	0	0	0	3	3	3	3	5	0	3
13	RVAC Package D	0	0	0	0	0	0	7	0	0	7
15	DID LD Packages C & D	0	7	0	0	0	0	0	3	0	0

NOTES:

- ICR = 14 is reserved for future use.
- The abbreviations and PAD values used above are defined in tables 4.8 and 4.9.

Table 4.9 Key to Abbreviations in Table 4.8

Abbreviation	Definition
ATT	attendant
BT	busy tone
CO	central office trunk
CFT	success tone
CWT	call waiting tone
DBT	distinctive busy tone
DID	direct-in dialing trunk
DT	dial tone
DTMF	dual tone multi-frequency for ICR/DTMF receiver for OGR
E&M1	E&M type 1 trunk
E&M2	E&M type 2 trunk
ICR	incoming route
LD	loop dial trunk
MXT	mixing circuit
OGR	outgoing route
OVT	overriding tone
RBT	ringback tone
RDT	recall dial tone
ROT	reorder tone
RVAC	recorded voice announcement circuit
STA	station

Table 4.10 Key to PAD Values in Table 4.8

PAD Number	Value of PAD
0	0 dB
1	-1 dB
2	-1.5 dB
3	-2.5 dB
4	-3.5 dB
5	-5 dB
6	-8.5 dB
7	+ 2.5 dB

**Station Assignment
(CMC 200)**

4.8 The Station Assignment (CMC 200) table is used to assign or modify directory numbers and instrument types for each voice station connected to the system. Additionally, this CMC is used to copy most button assignments from one station to another (provided the stations are of the same terminal types). This CMC requires a LOW level security code.

CMC = 200
 P1:EN P4:CDN
 P2:DN
 P3:TOT

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	EN	equipment number	3 or 4 digits (See NOTES)	None
X	X	X	X	P2	DN	station directory number	1 to 4 digits	See Tables 4.11, 4.12
X				P3	TOT	type of terminal	1 = SLT 2 = CS-10 3 = CS-20	None
	X						1 = SLT 2 = CS-10 3 = CS-20 4 = CSD	None
		X	X				1 = SLT 2 = CS-10 3 = CS-20 4 = CSD 8 = hot line to attendant	None
X	X	X	X	P4	CDN	copied station directory number	1 to 4 digits or blank	None

NOTES:

- When parameter P4 is used, CO buttons, line buttons, intercom buttons, and alarm indicators are not copied. The TOT of the original and copied stations must be the same.
- Ensure that the station numbers assigned in parameter P2 do not duplicate access codes assigned at CMC 100. If a duplication is entered the system will disable the access code.
- Equipment numbers must be entered in the format XYYZ, where:
 - X = cabinet number (blank in basic system: 0 or 1 in expanded system)
 - YY = card slot number (00 - 14)
 - Z = circuit number (0 - 7)

DISPLAY

1. Enter an EN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of installed ENs.
- Data display mode will terminate after the last installed EN is displayed.
- Parameter P4 will always be displayed as blank.

ADD

NOTE: Do not assign an SLT to card slot 09 of a Package C expansion cabinet.

1. Enter all required parameters.
2. Press <ADD/CHG>.

CHANGE

1. Enter the EN for the station which is being changed.
2. Press <DSP>.
3. Move the cursor to the parameter(s) to be changed using the cursor control keys or <RETURN>.
4. Enter the new data.

5. Repeat steps 3 and 4 until all desired changes have been made.

6. Press <ADD/CHG>.

DUPLICATE

1. Enter at least one set of data using the ADD or DISPLAY procedures.

2. Press <DUP>.

3. The next installed EN will be displayed at parameter P1.

4. Make any needed changes.

5. Press <ADD/CHG>.

REMOVE

1. Enter the EN of the station to be removed.

2. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified EN has not been installed.	Check the EN for accuracy or install the EN.
DISAGREE	The specified TOT does not match the other terminal types on the circuit card.	Install a like terminal or install the terminal on a different card.
CHKPKG	The card for the specified TOT is not installed or the TOT is mismatched.	Install or change the card.
OVERLAP	The specified DN has already been registered.	Specify a different DN.
DENIED 1	The specified EN has been registered as an MCT.	Remove service at CMC 702 and try again.
DENIED 2	The specified EN has been registered as an ACD group member.	Remove service at CMC 308 and try again.
DENIED 3	The specified EN has been registered as a hunt group member.	Remove service at CMC 301 and try again.
DENIED 4	The specified EN has been registered as a pickup group member.	Remove service at CMC 302 and try again.
DENIED 6	The specified EN has been paired with a DSS/BLF.	Remove at the DSS/BLF at CMC 210 and try again.
DENIED 7	The specified EN has been registered as a hot line.	Remove service at CMC 304 and try again.
DENIED 8	The specified EN has been registered as a EKT paging zone member.	Remove service at CMC 303 and try again.
DENIED 9	The specified EN has been paired with a data station.	Remove the data station at CMC 220 and try again.
DENIED 10	The specified EN has been registered as a night answer group member	Remove service at CMC 306 and try again.
DENIED 21	The specified EN has registered automatic wake-up.	Cancel the wake-up call using the front desk console.

**Table 4.11 Default Voice Directory Numbers - CMC 200/P2 (Basic Cabinet)
Cabinet Number 0 or Blank**

Circuit Number	Card Slot Number														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
0	200	208	216	224	232	240	248	256	264	272	280	288	296	304	312
1	201	209	217	225	233	241	249	257	265	273	281	289	297	305	313
2	202	210	218	226	234	242	250	258	266	274	282	290	298	306	314
3	203	211	219	227	235	243	251	259	267	275	283	291	299	307	315
4	204	212	220	228	236	244	252	260	268	276	284	292	300	308	316
5	205	213	221	229	237	245	253	261	269	277	285	293	301	309	217
6	206	214	222	230	238	246	254	262	270	278	286	294	302	310	318
7	207	215	223	231	239	247	255	263	271	279	287	295	303	311	319

**Table 4.12 Default Voice Directory Numbers - CMC 200/P2 (Expansion Cabinet)
Cabinet Number 1**

Circuit Number	Card Slot Number														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
0	320	328	336	344	352	360	368	376	384	392	400	408	416	424	432
1	321	329	337	345	353	361	369	377	385	393	401	409	417	425	433
2	322	330	338	346	354	362	370	378	386	394	402	410	418	426	434
3	323	331	339	347	355	363	371	379	387	395	403	411	419	427	435
4	324	332	340	348	356	364	372	380	388	396	404	412	420	428	436
5	325	333	341	349	357	365	373	381	389	397	405	413	421	429	437
6	326	334	342	350	358	366	374	382	390	398	406	414	422	430	438
7	327	335	343	351	359	367	375	383	391	399	407	415	423	431	439

Station Data Assignment (I) (CMC 201)

4.9 The Station Data Assignment (I) (CMC 201) table is used to register data pertaining to the operation of the station. This CMC requires a LOW level security code.

CMC = 201	
P1:DN	P4:TNN
P2:OPM	P5:MTRG/ ACCT
P3:TOD	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	DN	station directory number	1 to 4 digits	None
X	X	X	X	P2	OPM	operating mode	1 = two-way 2 = originating 3 = terminating 4 = no service	1
X	X	X	X	P3	TOD	type of dialing	1 = DP 10 pps 2 = DP 20 pps 3 = DTMF	3
X	X	X	X	P4	TNN	tenant number	1 to 4 or blank (blank = unassigned)	None
X	X	X	X	P5	MTRG	SMDR group number	1 to 255 or blank (blank = unassigned)	None
	X	X	X		ACCT	personal account code for SCC		None

NOTE: If no DMR card has been installed in the system, P3 will default to DP 10 pps on COLD restart.

DISPLAY

1. Enter a DN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DNs.
- The system will release the CMC table after the last registered DN is displayed.

CHANGE

1. Enter the parameters to be added or changed.
2. Press <ADD/CHG>.

DUPLICATE

1. Enter at least one complete record using the CHANGE or DISPLAY procedures.
2. Press <DUP>.
3. The DN (P1) will increment to the next registered DN; all other parameters will be carried forward on the screen.
4. Make any needed changes to the parameters.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN has not yet been installed.	Install the DN at CMC 200.

Station COS (Class of Service)/COR (Class of Restriction) Assignment (CMC 202)

4.10 This CMC is used to define which classes of service and classes of restriction are assigned to the station for both day and night modes of operation. The actual services provided by each COS are assigned at CMC 104. Classes of restriction are defined at CMC 105. This CMC requires a LOW level security code.

CMC = 202	
P1:DN	P4:COR
P2:COS	P5:NCOR
P3:NCOS	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	DN	station directory number	1 to 4 digits	None
X	X	X	X	P2	COS	class of service (day mode)	1 to 16 (See CMC 104)	1
X	X	X	X	P3	NCOS	class of service (night mode)	1 to 16 (See CMC 104)	1
X	X	X	X	P4	COR	class of restriction (day mode)	1 to 16 (See CMC 105)	1
X	X	X	X	P5	NCOR	class of restriction (night mode)	1 to 16 (See CMC 105)	1

DISPLAY

1. Enter a DN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of registered DNs.
- The system will exit the CMC table after the last registered DN has been displayed.

CHANGE

1. Enter the parameters to be changed.
2. Press <ADD/CHG>.

DUPLICATE

1. Enter at least one complete record using the CHANGE or DISPLAY procedures.
2. Press <DUP>.
3. The DN (P1) will increment to the next registered DN; all other parameters will be carried forward on the screen.
4. Make any needed changes to the parameters.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN has not yet been installed.	Install the DN at CMC 200.

EKT Button Assignment (CMC 203)

4.11 The EKT Button Assignment (CMC 203) table is used to assign feature access functions to the programmable button on an EKT instrument. This CMC must be used in connection with CMCs 200 - 202, 204, and 205. This CMC requires a LOW level security code.

CMC = 203	
P1:DN	P4:SUP
P2:BTN	P5:LTT
P3:FNO	P6:RGM

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>DN</u>	station directory number	1 to 4 digits	None
X	X	X	X	P2	<u>BTN</u>	button number	1 to 14	None
X	X	X	X	P3	FNO	feature number	1 to 255 (See Table 4.1 3) ⁴	See Figures 4.1 - 17
X	X	X	X	P4	SUP	supplemental data	(See Table 4.1 2) ³	See Table 4.12
X	X	X	X	P5	LTT	line termination type (for line buttons)	1 = personal line 2 = key system 3 = pooled outgoing 4 = pooled incoming 5 = pooled bothway blank = no termination	None
			X			directory number for station line	1 to 4 digits	None
			X			intercom group station number	1 to 4 digits	None
X	X			P6	RGM	ringing mode	0 = no ringing 1 = ringing	1
		X	X				0 = no ringing 1 = ringing 2 = delay ringing start (key system and station lines only) 3 = delay ringing stop (key system and station lines only)	1

NOTE: The Save/Repeat feature button (P3 = FNO 50) will not work for Tie line calls using trunk group access in Package A. It does work in Package B.

DISPLAY

1. Enter a DN at parameter P1 and a BTN at parameter P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of BTNs (buttons).
- The system will exit the CMC table when the BTN value exceeds 14.
- Each DN must be displayed separately.

ADD

1. Old data must be removed before entering new data.
2. Required parameters may be determined by using the following chart:

SERVICE	P1	P2	P3	P4	P5	P6
general service	X	X	X			
automatic ICM access/speed dialing ACD status	X	X	X	X		
CO/WATS/FX/SL/ intercom group access (If PSL is assigned,P5 maybe omitted)	X	X	X	X	X	X
EKT ICM HOLD/ ANSWER button	X	X	X		X	

3. Enter all required parameters.
4. Press <ADD/CHANGE>.

REMOVE

1. Enter the DN of the instrument at parameter P1.
2. Enter the BTN to be removed at parameter P2.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	<p>The specified DN has not been registered.</p> <p>The specified DN is not an EKT.</p> <p>No instrument is installed at the DN.</p> <p>The specified TTGN is not registered at CMC 253, P1.</p>	<p>Return to CMC 200 and register the DN.</p> <p>Buttons can only be assigned to EKTs.</p> <p>Install an EKT.</p> <p>Return to CMC 253 and register the terminating trunk group.</p>
NO AREA	The system has no more memory space for this function.	Abandon the attempt or remove a button feature to make room.
OVERLAP	<p>This button has already been assigned a feature or service.</p> <p>This feature has already been assigned to another button.</p>	<p>Abandon the attempt or remove the currently assigned feature or service to make room.</p> <p>Abandon the attempt or remove the feature from the other button and try again.</p>
NO FOUND	An attempt has been made to cancel a service from a button which is not yet assigned.	Abandon the attempt.
DISAGREE	The specified LTT does not match the TTF assigned at CMC 253, P3.	Return to CMC 253 and correct the TTF.

NOTE: The system will permit one or more OSL (other station line) buttons to be registered without checking for an associated PSL (primary station line). However, the OSL registrations will not operate unless the PSL is registered.

Table 4.13 EKT Feature Button Supplementary Data

if FNO (P3) =	and if LTT (P5) =	then SUP (P4) =	Package
1 (automatic intercom access)	blank	directory number (1 to 4 digits)	All
48 (station speed calling)	blank	speed calling code (0 - 9)	All
49 (system speed calling)	blank	speed calling code (00 - 99)	All
4 - 21 CO, FX, WATS access	1 (personal line)	TTGN (1 - 31) TTGN (1 - 63)	A B C D
	2 (key system line)	TTGN (1 - 31) TTGN (1 - 63)	A B C D
	3 (pooled outgoing)	TTGN (1 - 31) TTGN (1 - 63)	A B C D
	4 (pooled incoming)	TTGN (1 - 31) TTGN (1 - 63)	A B C D
	5 (pooled bothway)	TTGN (1 - 31) TTGN (1 - 63)	A B C D
183 (intercom station line)	directory number (1 to 4 digits)	blank = prime line 0 = prime line 1 = other line	D
191 (ACD status display)	blank	ACD group number (1 - 20)	D

The figures on the following pages illustrate the default button assignments. Figures 4.1 and 4.2 show the location of the buttons on CS-10, CS-20, and CSD telephones. Figures 4.3 and 4.4 show the default button assignments for CS-10 and CS-20 telephones in Packages A and B. Figure 4.5 shows the default button assignments for CSD telephones in Package B. Figures 4.6, 4.7, and 4.8 show the default button assignments for CS-10, CS-20, and CSD telephones in a PABX system arrangement in Package C. Figures 4.9, 4.10, and 4.11 show the default button assignments for CS-10, CS-20, and CSD telephones in a KEY system arrangement in Package C. Figures 4.12, 4.13, and 4.14 show the default button assignments for CS-10, CS-20, and CSD telephones in a PABX system arrangement in Package D. Figures 4.15, 4.16, and 4.17 show the default button assignments for CS-10, CS-20, and CSD telephones in a KEY system arrangement in Package D.

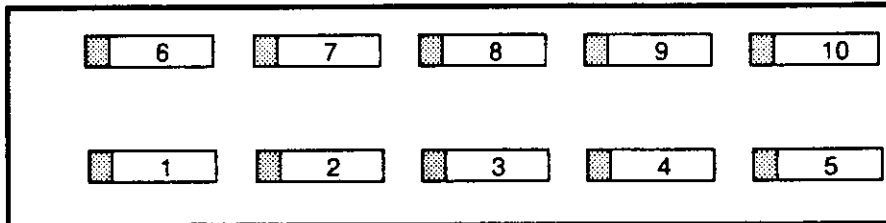


Figure 4.1 CS-10 and CS-20 Button Number Positions

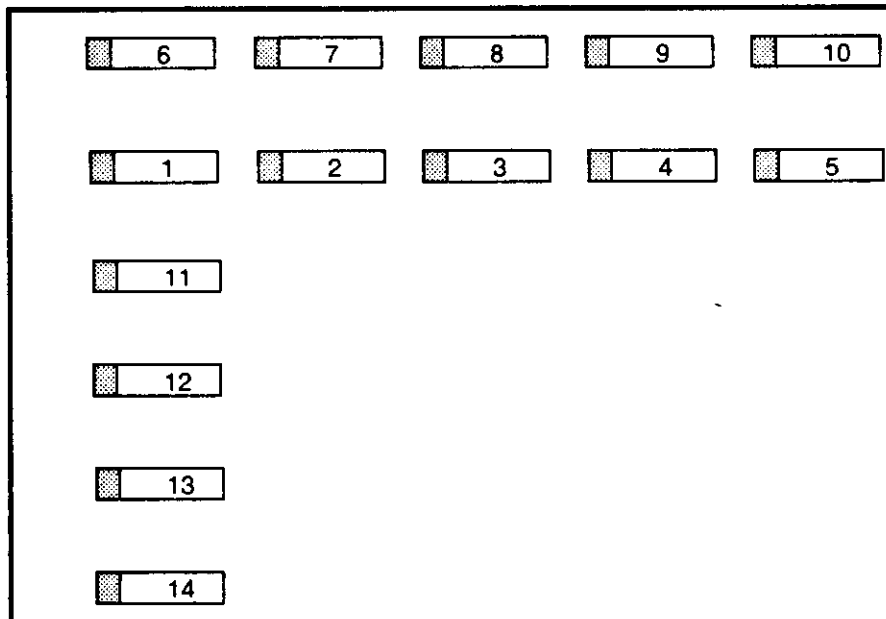


Figure 4.2 CSD Button Number Positions

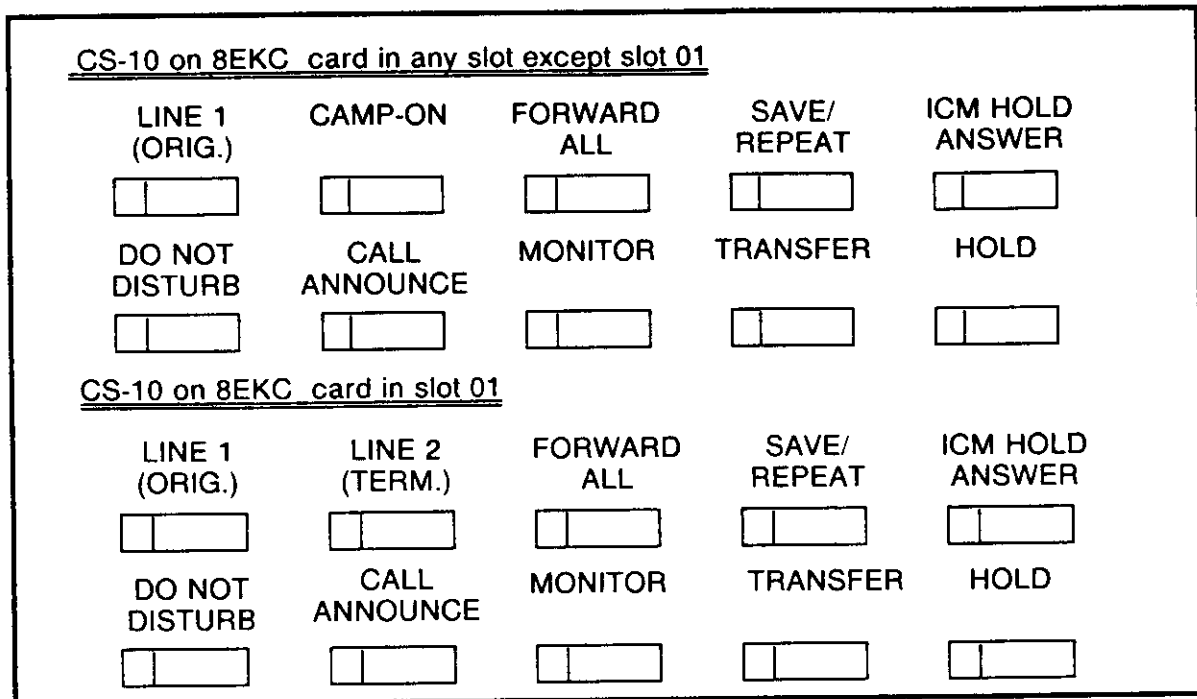


Figure 4.3 CS-10 Button Assignments - Packages A and B

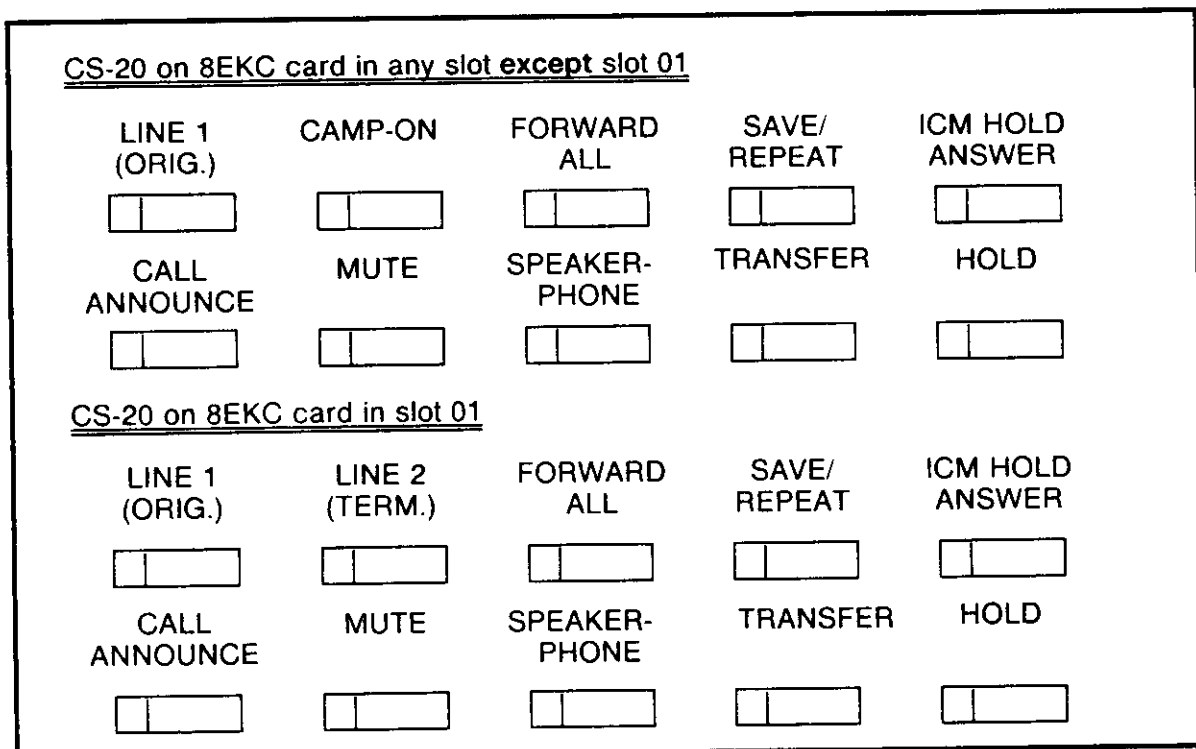


Figure 4.4 CS-20 Button Assignments - Packages A and B

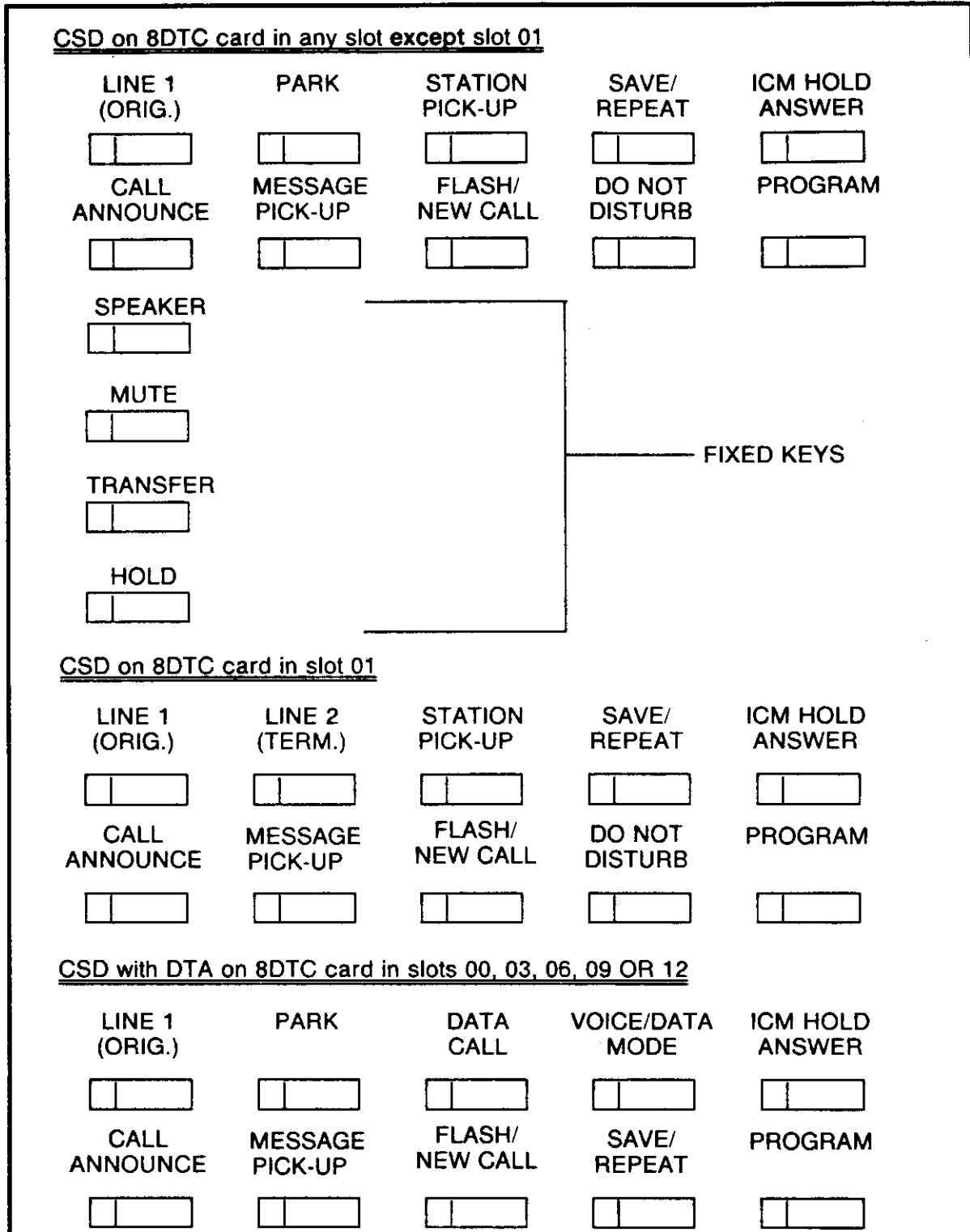


Figure 4.5 CSD Button Assignments - Package B

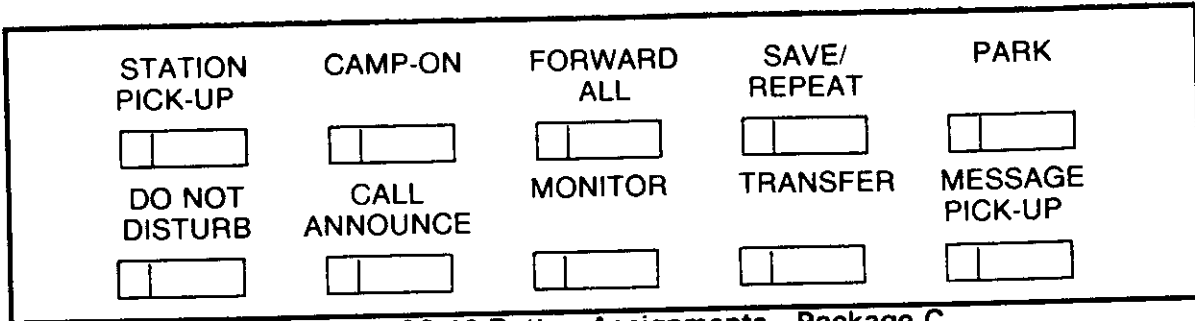


Figure 4.6 CS-10 Button Assignments - Package C
PABX System Arrangement

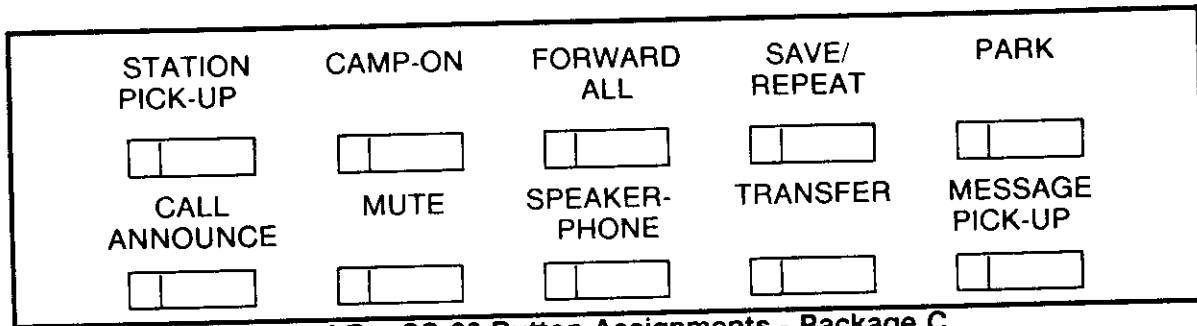


Figure 4.7 CS-20 Button Assignments - Package C
PABX System Arrangement

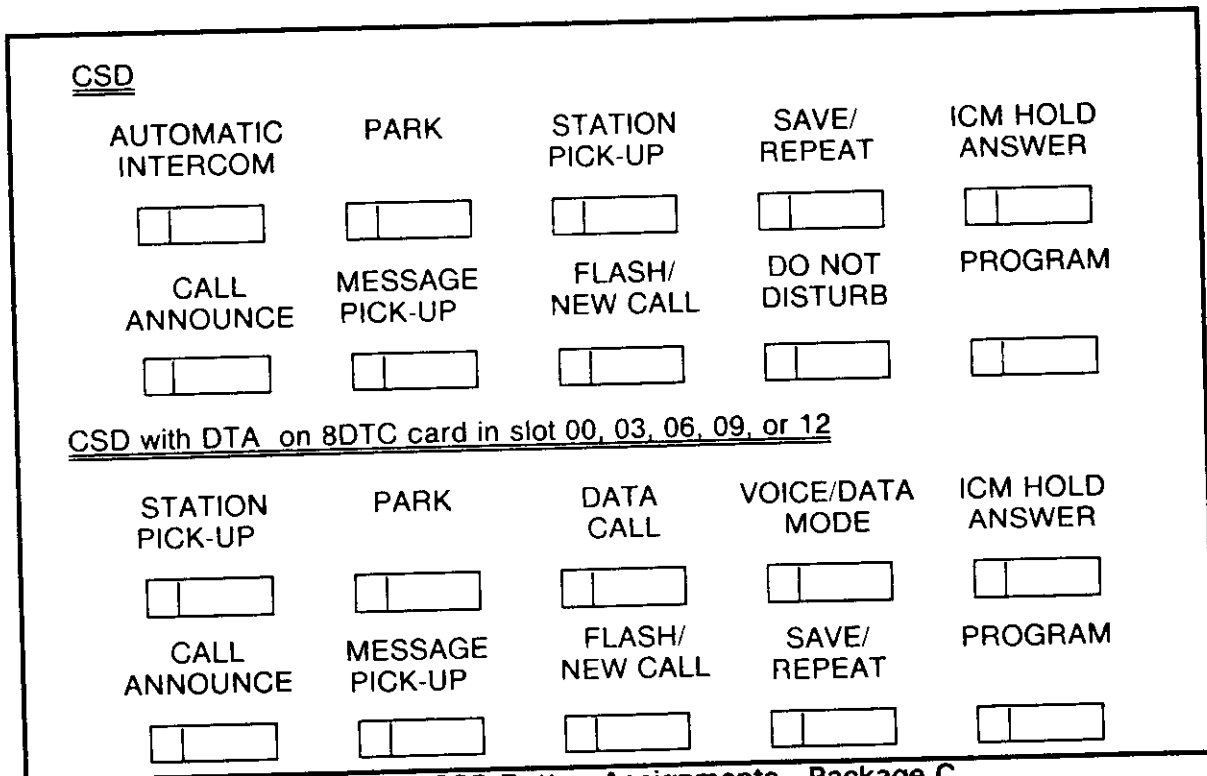


Figure 4.8 CSD Button Assignments - Package C
PABX System Arrangement

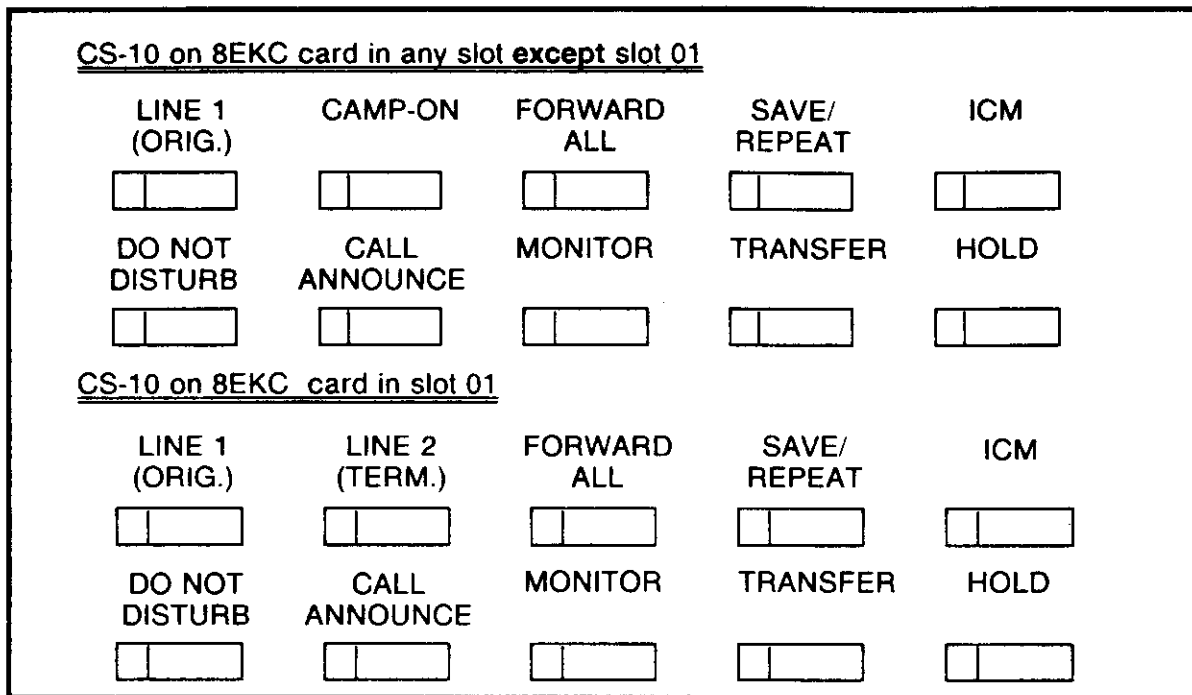


Figure 4.9 CS-10 Button Assignments - Package C
KEY System Arrangement

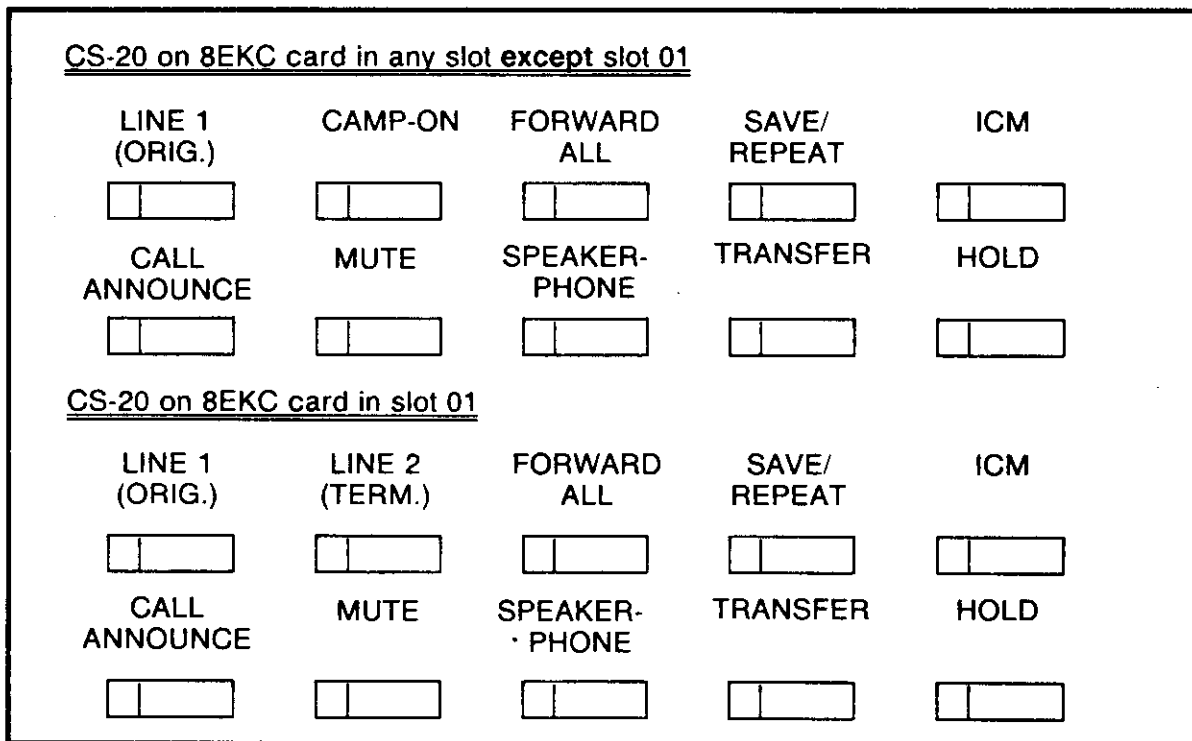


Figure 4.10 CS-20 Button Assignments - Package C
KEY System Arrangement

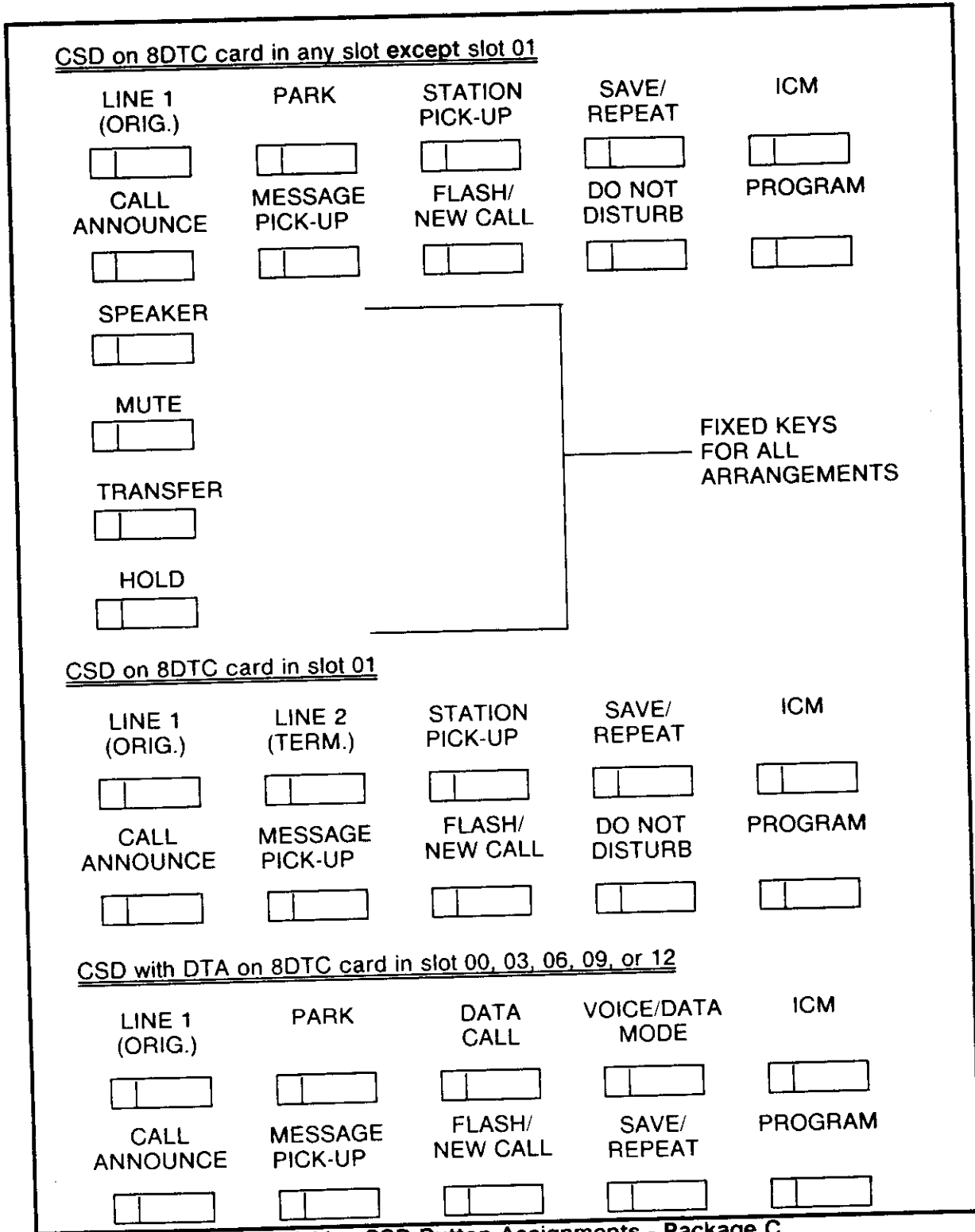


Figure 4.11 CSD Button Assignments - Package C
KEY System Arrangement

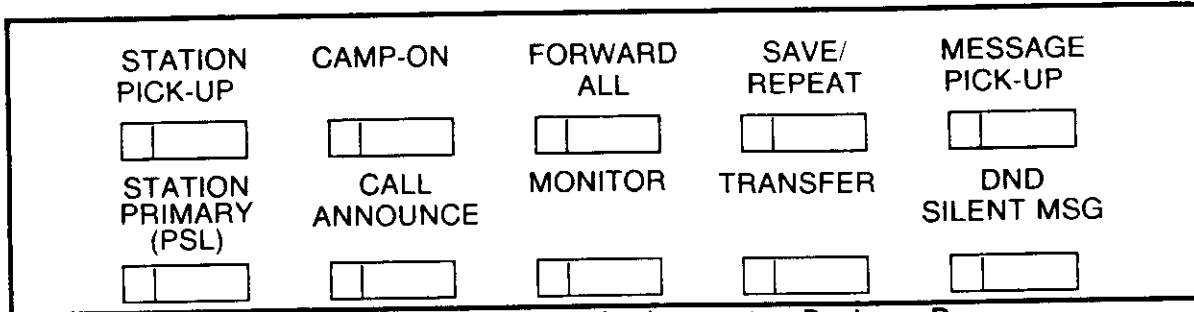


Figure 4.12 CS-10 Button Assignments - Package D
PABX System Arrangement

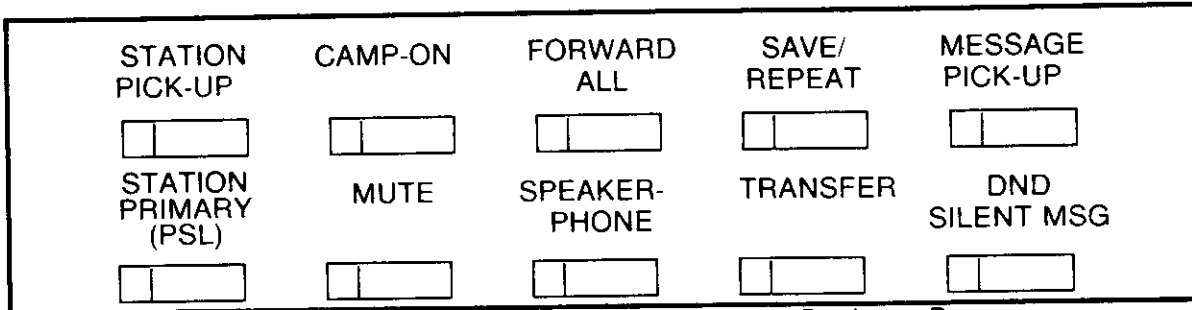


Figure 4.13 CS-20 Button Assignments - Package D
PABX System Arrangement

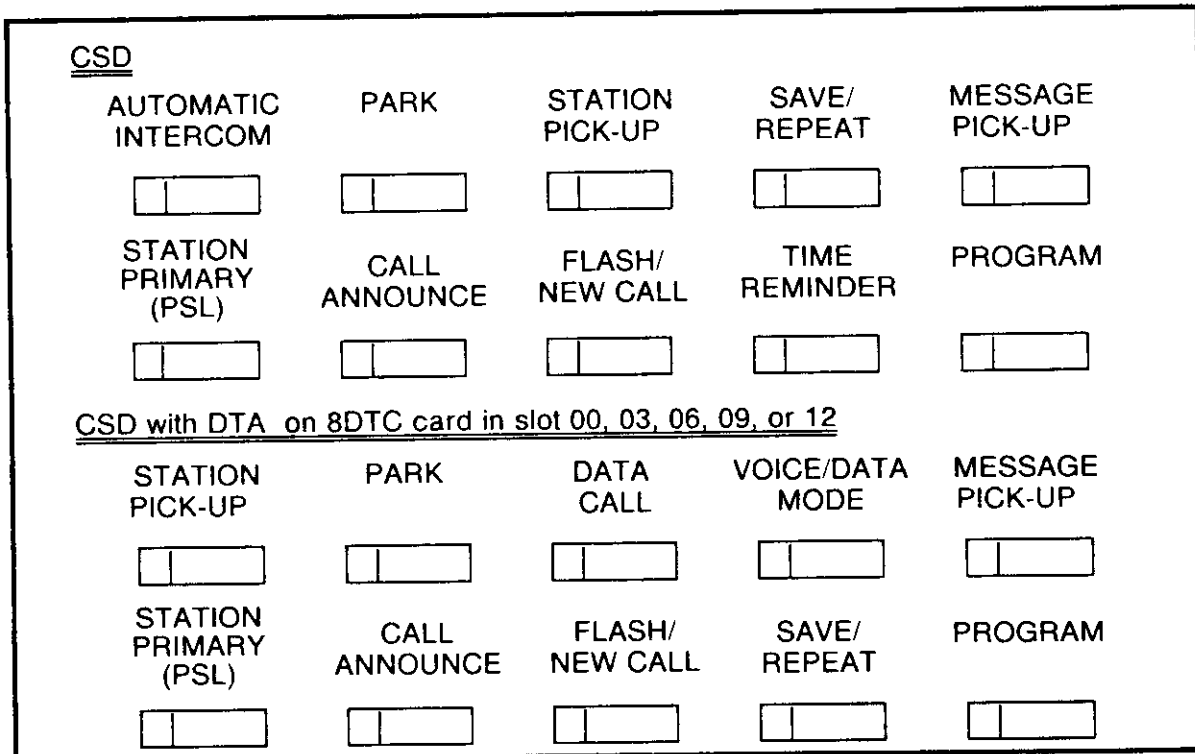


Figure 4.14 CSD Button Assignments - Package D
PABX System Arrangement

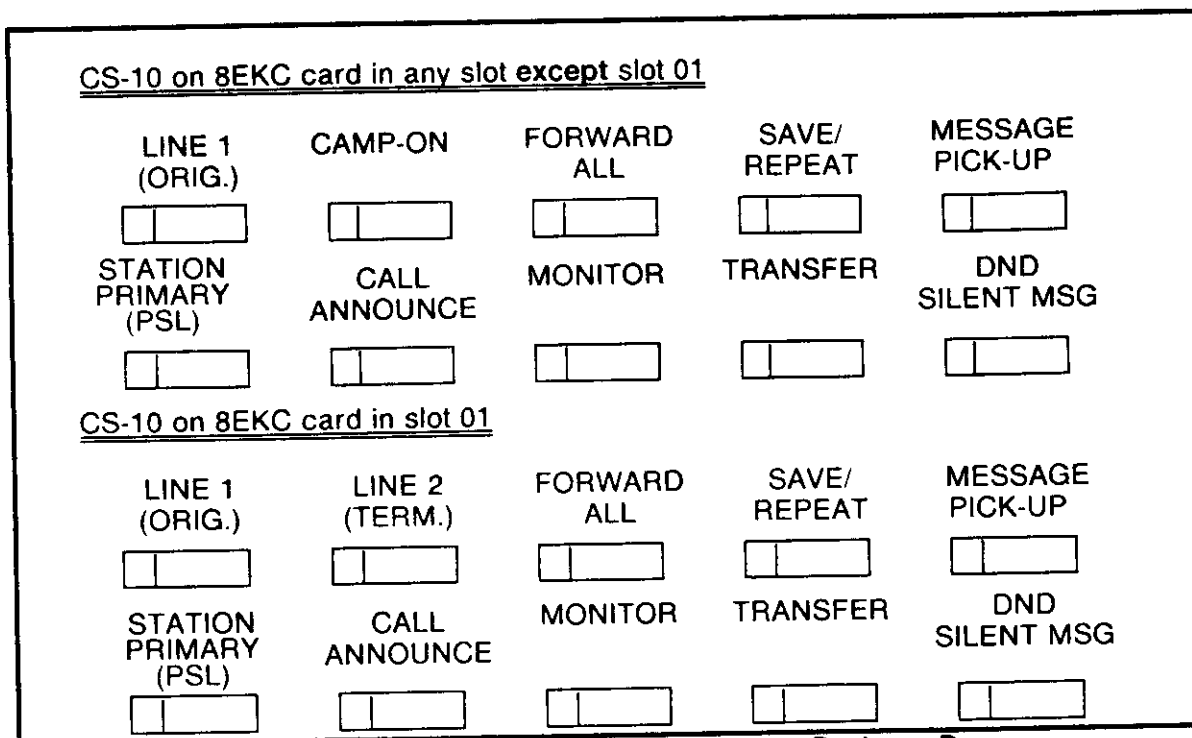


Figure 4.15 CS-10 Button Assignments - Package D
KEY System Arrangement

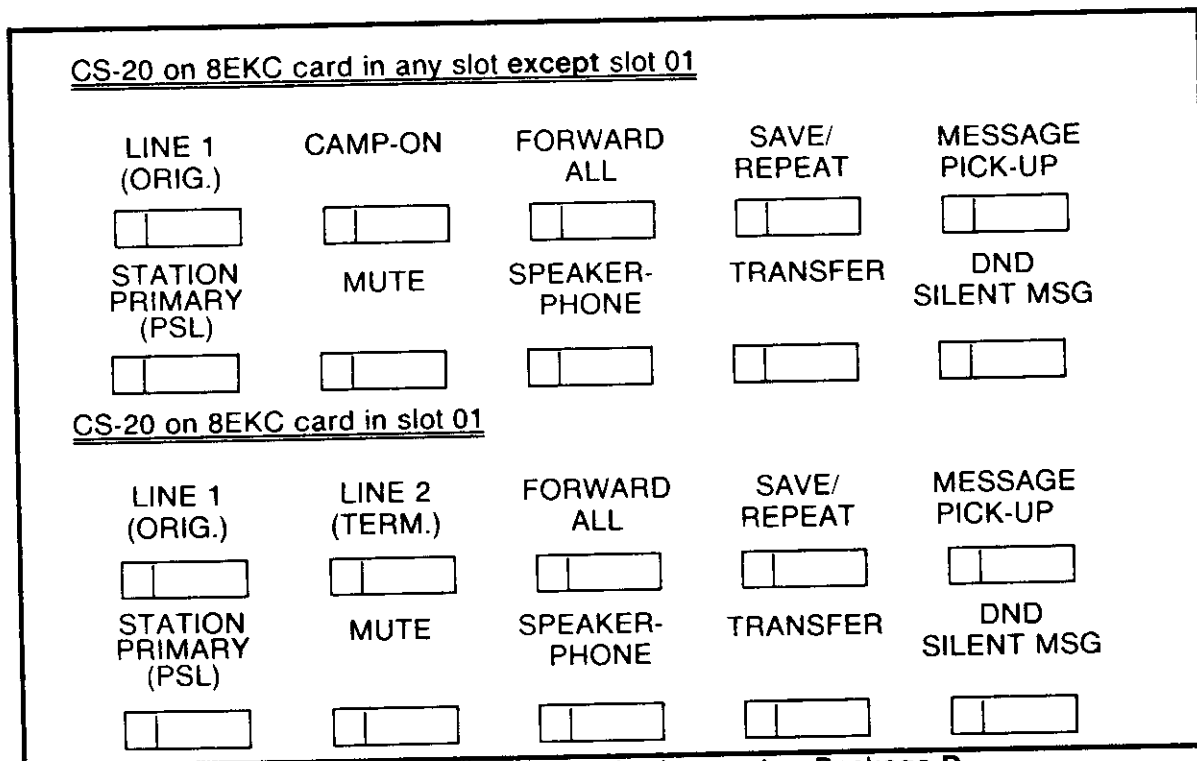


Figure 4.16 CS-20 Button Assignments - Package D
KEY System Arrangement

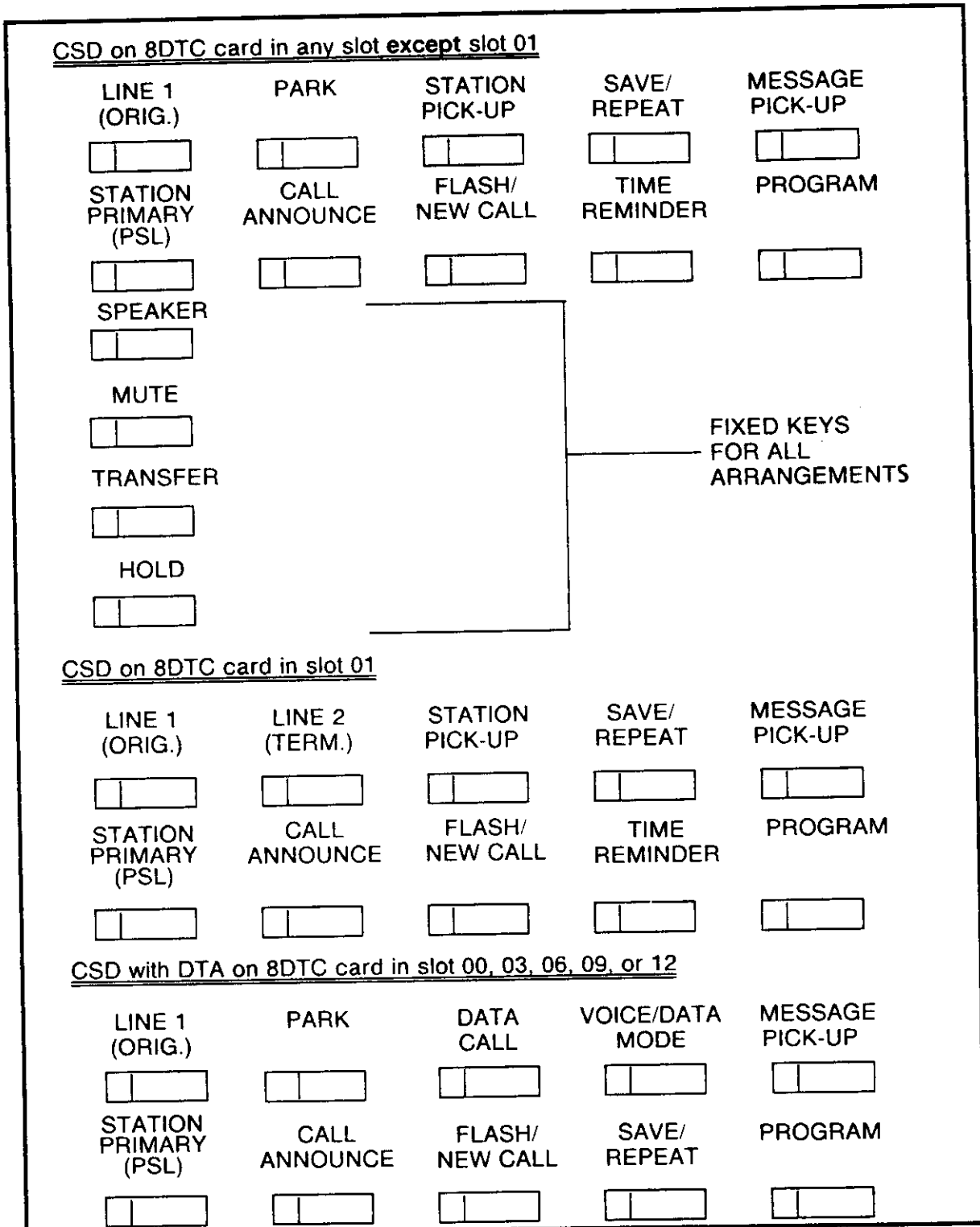


Figure 4.17 CSD Button Assignments - Package D
KEY System Arrangement

Table 4.14 Assigned Feature Numbers

FNO	Feature Name	Button Name	Package
4	CO #1 Access	LINE	All
5	CO #2 Access	LINE	All
6	CO #3 Access	LINE	All
7	CO #4 Access	LINE	All
8	CO #5 Access	LINE	All
9	CO #6 Access	LINE	All
10	FX #1 Access	LINE	All
11	FX #2 Access	LINE	All
12	FX #3 Access	LINE	All
13	FX #4 Access	LINE	All
14	FX #5 Access	LINE	All
15	FX #6 Access	LINE	All
16	WATS #1 Access	LINE	All
17	WATS #2 Access	LINE	All
18	WATS #3 Access	LINE	All
19	WATS #4 Access	LINE	All
20	WATS #5 Access	LINE	All
21	WATS #6 Access	LINE	All
154	Account Code/Client Billing	ACCOUNT CODE	All
191	ACD Status Display Button	ACD STATUS	D
160	Add Data Call Setup	ADD DATA	B C D
1	Automatic Intercom Access (Station Access)	AUTOMATIC INTERCOM	All
74	Call Charges (Message Registration) Add/Clear	CALL CHARGES	C, D
80	Call Forward All Calls (activate)	FORWARD ALL	All
153	Call Park	PARK	All
75	Controlled Restriction	CALL RESTRICT	C, D

NOTE: A numerical listing of features by feature numbers will be found in section 5.0.

Table 4.14 Assigned Feature Numbers (Continued)

FNO	Feature Name	Button Name	Package
106	Directed Call Pickup	STATION PICK-UP	All
117	Data Call Attribute Change	DATA CHANGE	B, C, D
85	Do Not Disturb (activate)	DO NOT DISTURB	All
71	Do Not Disturb Other (activate)	FRONT DESK DND	C, D
223	DND Override Button	DND OVERRIDE	C, D
137	DND with Silent Message Registration	DND SILENT MSG	D
179	EKT Alarm Button	ALARM	All
181	EKT Call-Splitting Button	CALL SPLIT	B C D
185	EKT Data Call Button	DATA CALL	B C D
174	EKT Flash Button	FLASH/ NEW CALL	All
171	EKT Hands-Free Button	MONITOR	All
173	EKT Hold Button	HOLD	All
180	EKT Intercom-Hold/Answer Button	ICM HOLD ANSWER	All
172	EKT Microphone-Mute Button	MUTE	All
51	EKT Paging Access - Zone /All Zone	STATION PAGE	All
187	EKT Program Button	PROGRAM	B C D
176	EKT Release Button	TRANSFER/ RELEASE	C D
170	EKT Speaker Button	SPEAKER- PHONE	All
175	EKT Transfer Button	TRANSFER	All
177	EKT Voice-Announce Button	CALL ANNOUNCE	All
186	EKT Voice/Data Change-Mode Button	VOICE/DATA MODE	B C D

Table 4.14 Assigned Feature Numbers (Continued)

FNO	Feature Name	Button Name	Package
200	Executive Busy Override (Full) **	OVERRIDE	All
152	Executive Override (Limited) **	OVERRIDE	All
53	External Paging Access	EXTERNAL PAGE	B, C, D
188	Front Desk Console Program Button	FRONT DESK	C D
92	Group Pickup	GROUP PICK-UP	All
182	Hook Switch Button (for Head Set operation)	HEADSET	C D
194	Intercom Group Button	ICM GROUP	D
* 183	Intercom/Station Line Button * D-136	ICM	All
50	Last Number Redial	SAVE/ REPEAT	All
87	Message Leaving (activate)	MESSAGE LEAVING	All
89	Message Pickup	MESSAGE PICK-UP	All
184	Privacy Release Button	PRIVACY RELEASE	C D
136	Recorded Voice Announcement	RECORDED VOICE	D
72	Room Status Change	ROOM STATUS	C, D
150	Station Camp-on Register	CAMP-ON	All
48	Station Speed Calling	STATION SPEED CALL	All
49	System Speed Calling	SYSTEM SPEED CALL	All
151	Trunk Camp-on (activate)	TRUNK CAMP-ON	All
70	Wake-up Other (activate)	FRONT DESK WAKE-UP	C, D
79	Wake Up Self / Time Reminder Cancel	- - -	C, D
78	Wake Up Self / Time Reminder Register	TIME REMINDER	C, D

* For a Multi-Station Appearance, an extension line is referred to as a Station Line (STATION _____) not an Intercom (ICM).

** FNO 152 (Executive Busy Override (Limited)) and FNO 200 (Executive Busy Override (Full)) cannot be simultaneously assigned to buttons on the same phone.

Station Data Assignment (II) (CMC 204)

4.12 The Station Data Assignment (II) (CMC 204) table is used to register or remove additional data associated with a station. This CMC requires a LOW level security code.

CMC = 204	
P1:DN	P4:MW
P2:INTD	P5:GST
P3:OPS	P6:DM

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	DN	station directory number	1 to 4 digits	None
X	X	X	X	P2	INTD	speech path interruption denial (data secure path)	0 = no 1 = yes	0
X	X	X	X	P3	OPS	off-premises station	0 = no 1 = yes (fixed ringing pattern)	0
	X	X	X	P4	MW	SLT with message waiting lamp <small>CMC: 102</small>	0 or blank = no 1 = yes	0
		X	X	P5	GST	guest room flag ?	0 or blank = no 1 = yes	0
			X	P6	DM	8-1 SLC interface for dictation machine	0 or blank = no 1 = yes	0

NOTE: Distinctive ringing for off-premises stations is set at CMC 102, P2.

DISPLAY

1. Enter a DN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DNs.
- The system will release this CMC after the last registered DN is displayed.

CHANGE

1. Enter all required parameters.
2. Press <ADD/CHG>.

DUPLICATE

1. Enter at least one complete record using the CHANGE or DISPLAY procedures.
2. Press <DUP>.
3. The DN (P1) will increment to the next registered DN; all other parameters will be carried forward on the screen.
4. Make any needed changes to the parameters.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN is not registered	Return to CMC 200 and register the DN.



CMC 203

P1 208
 P2 2
 P3 183
 P4 0 - PSL
 P5 208
 P6 1

P1 209
 P2 2
 P3 183
 P4 0 - PSL
 P5 209
 P6 1

P1 208
 P2 3
 P3 183
 P4 1 - OSL
 P5 209
 P6 1

P1 209
 P2 3
 P3 183
 P4 1 - OSL
 P5 208
 P6 1

**Station Data
Assignment (III)
(CMC 206) (Package D)**

4.13 The Station Data (III) (CMC 206) table is used to designate whether a particular station will receive a warning burst of tone when a silent message is being sent. It also controls whether a silent message will be displayed while the receiving station is engaged in a conversation. This CMC requires a LOW level security code.

CMC = 206
P1:DN
P2:SMGF

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
			X	P1	DN	station directory number	1 to 4 digits	None
			X	P2	SMGF	receive warning tone with silent message and/or receive silent message while in conversation	0 = yes 1 = no	0

DISPLAY

1. Enter a DN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DNs.
- The system will release this CMC after the last registered DN is displayed.

CHANGE

1. Enter all required parameters.
2. Press <ADD/CHG>.

DUPLICATE

1. Enter at least one complete record using the CHANGE or DISPLAY procedure.
2. Press <DUP>.
3. The DN (P1) will increment to the next registered DN; the other parameter will be carried forward on the screen.
4. Make any needed changes to the parameters.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN is not registered.	Return to CMC 200 and register the DN.

**DSS/BLF Assignment
(CMC 210)**

4.14 The DSS/BLF Assignment (CMC 210) table is used to assign a DSS/BLF console. This CMC requires a HIGH level security code.

CMC = 210	
P1:DSN	P4:DN
P2:TYP	P5:CDSN
P3:EN	P6:DSO

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	DSN	DSS/BLF Console number	1 to 8	See Notes
X	X	X	X	P2	TYP	DSS/BLF type	1 = 40 button 2 = 80 button	See Notes
X	X			P3	EN	equipment number	3 digits	See Notes
		X	X				3 or 4 digits	See Notes
X	X			P4	DN	number of instrument DSS/BLF is paired with	1 to 4 digit EKT directory number	See Notes
		X	X				1 to 4 digit EKT directory number or ATT access code + ATT number	See Notes
X	X	X	X	P5	CDSN	copied DSN	1 to 8 or blank (blank = no copy)	None
		X	X	P6	DSO	DSS/BLF order	See Table 4.15	None

when bringing system up in default for
Package: A, B, C

CARD SLOT-01 - USE ODD CIRCUIT

0 - ATTN console

1 - BLF/DSS

2 -

3 - BLF/DSS

Package: D ANY CIRCUIT OF 8 EKC

NOTES:

- A maximum of two 80-button DSS/BLF Consoles can be assigned.
- A maximum of eight 40-button DSS/BLF Consoles can be assigned (six if two 80-button consoles are assigned).
- A DSS/BLF installed in card slot 01, assigned to an odd circuit number, associates with the EKT assigned to the next lowest circuit number. (i.e., A DSS/BLF on circuit 1 associates with the EKT on circuit 0)
- ENs must be entered in XYZ format where:
 X = 0, 1, or blank (cabinet number) - This digit is never entered in Packages A or B
 YY = 00 - 14 (card slot)
 Z = 0 - 7 (circuit number)

Table 4.15 DSO (P6) Values

DSO Value	Meaning
blank	no DSS/BLF or one DSS/BLF paired with an EKT/Attendant Console
1	two DSS/BLF paired with an EKT/Attendant Console and this is the first DSS/BLF
2	two DSS/BLF paired with an EKT/Attendant Console and this is the second DSS/BLF

DISPLAY

1. Enter a DSN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DSNs.
- The system will release this CMC when the DSN value exceeds 8.

ADD

1. Old data must be removed before entering new data.
2. Enter any required parameters.
3. Press <ADD/CHG>.

NOTES:

- A second DSS/BLF console may not be installed on an EKT/Attendant Console until the first console is installed.
- The station paired with a DSS/BLF console must be an EKT, CSD, or Attendant Console.
- Only direct station selection buttons can be assigned to a second DSS/BLF paired with an Attendant Console or proprietary telephone.
- The following buttons are not copied when the CDSN is set:
 - line buttons
 - alarm buttons
 - automatic intercom buttons ALT button (In the case of a DSS/BLF paired with an Attendant Console.)
 - feature buttons other than automatic intercom buttons.(In the case of a 2nd DSS/BLF.)
- The destination directory number registered on DSS speed dialing is not copied when CDSN is set.

REMOVE

1. If any DSS/BLF buttons are in use when <RMV> is pressed, the system will wait until those stations are idle before acting on the remove command.
2. A first DSS/BLF cannot be removed until after the second DSS/BLF is removed.
3. Enter a DSN at parameter P1.
4. Press <RMV> .

ERROR CODES

Error Code	Cause	Correction
OVERLAP	An attempt was made to register a DSN, EN, or DN which is already registered as a DSS/BLF.	Check the entry for accuracy and try again.
NOT RGTR	An attempt was made to specify an EN or DN which is not registered.	Check the entry for accuracy and try again.
DISAGREE	<p>There is a mismatch between the specified EN and the equipment which is installed.</p> <p>The specified EN is already installed as another instrument.</p> <p>The specified DN is not a proprietary telephone or Attendant Console.</p>	<p>Try a different EN or change the installation</p> <p>Try a different EN.</p> <p>Try a different EN or change the installation</p>
CHK PKG	There is a mismatch between the specified DN and the installed hardware.	Check the installed instrument and if necessary, change the hardware.
NO FOUND	An attempt was made to display a DSN which is not installed.	Check the DSN and try again.
DENIED	An attempt was made to remove a 1st DSS/BLF when the 2nd DSS/BLF was still registered.	Remove the 2nd DSS/BLF before removing the 1st.

DSS/BLF Button Assignment (CMC 211)

4.15 The DSS/BLF Button Assignment (CMC 211) table is used to register the functions of the individual buttons on DSS/BLF Consoles. Terminating trunk groups must be assigned at CMC 253 before they can be registered in this CMC. This CMC requires a LOW level security code.

Only direct station selections buttons can be assigned to a second DSS/BLF Console paired with an Attendant Console or a proprietary telephone.

CMC = 211	
P1:DN	P4:DN
P2:BN	P5:LTT
P3:TYP	P6:RGM

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X			P1	<u>DN</u>	station directory number of the instrument paired with the specified DSS/BLF	1 to 4 digits (proprietary telephone directory number)	DN
		X	X				1 to 4 digits (proprietary telephone directory number) or ATT access code + the ATT Number.	DN
X	X			P2	<u>BN</u>	button number	1 to 80	1 to 80
		X	X				1 to 160	1 to 160
X				P3	TYP	button type	blank, 1 - 6 (See Table 4.16)	See Table 4.17 - 22
	X						blank, 1 - 7 (See Table 4.16)	See Table 4.17 - 22
		X	X				blank, 1 - 9 (See Table 4.16)	See Table 4.17 - 22
X	X	X	X	P4	DN	directory number of intercom station (P3 = 1)	1 to 4 digits	None
X	X	X	X			directory number of ALT station (P3 = 4)	1 to 4 digits	None
	X	X	X			zone number (P3 = 7)	0 to 9	None
		X	X			terminating trunk group (P3 = 9)	1 to 63	None
		X	X			P3 = 2, 3, 5, 6, or 8	blank	None

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P5	LTT	line termination types (P3 = 9)	1 = personal 2 = key system 3 = pooled outgoing 4 = pooled incoming 5 = pooled bothway	None
		X	X	P6	RGM	ringing mode (P3 = 9)	0 = no ringing 1 = ringing 2 = delayed start ringing (direct line only) 3 = delayed stop ringing (direct line only)	None

DISPLAY

1. Enter a DN at parameter P1 and a BN at parameter P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of BNs.
- The system will release the CMC after the last BN is displayed.
- Each DN must be entered and displayed separately.

ADD

1. Required parameters may be determined by using the following chart. Blank parameters may be omitted.

SERVICE	P1	P2	P3	P4	P5	P6
automatic intercom	X	X	X	X		
alternate	X	X	X	X		
external Paging	X	X	X	X		
DSS hold	X	X	X			
DSS camp-on	X	X	X			
alarm	X	X	X			
night	X	X	X			
DSS speed dialing	X	X	X			
line access	X	X	X	X	X	X

2. Enter any required parameters.
3. Press <ADD/CHG>.

NOTES:

- To change the service assigned to a button, the old service must be deleted.
- ALT function can only be assigned to one button on one pair of DSS/BLF Consoles.
- A DN can only be assigned to one button for each DSS/BLF Console(s) paired with a proprietary telephone or Attendant Console.
- ALT and line access buttons cannot be assigned to a DSS/BLF Console paired with an Attendant Console.
- Line access buttons should be assigned on buttons 1 through 40 (up to 40 line access buttons can be assigned on each DSS/BLF Console).
- Up to 40 DSS speed dialing buttons can be assigned on each DSS/BLF Console.
- Only direct station selection buttons can be assigned on a second DSS/BLF Console.

REMOVE

1. If any station buttons are in use when <RMV> is pressed, the system will wait until those stations are idle before acting on the remove command.
2. If the <RLS> key is pressed while the system is holding a remove command in the wait state, the command is canceled.
3. Enter a DN at parameter P1 and a BN at parameter P2.
4. Press <RMV> .

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DSN or DN number does not exist.	Check the parameters for accuracy and try again.
NO AREA	There is no available system memory for the addition of an alarm button.	Abandon the attempt or remove a previously assigned alarm button.
NO FOUND	An attempt was made to remove a BN which is not registered.	Abandon the attempt.
OVERLAP	Service is already registered on this button. ALT is already registered on another button. The specified station number is already registered.	Select another button. Abandon the attempt. Check the station number for accuracy and try again.

Table 4.16 DSS/BLF Button Type Descriptions

Button Type	Description	Button Name
1	Direct Station Selection (Default) *	####
2	DSS Park	DSS PARK
3	DSS Camp-on	DSS CAMP-ON
4	ALT	ALTERNATE
5	Alarm	ALARM
6	Night	NIGHT ANSWER
7	External Paging	DSS EXTERNAL PAGE
8	DSS Speed Dialing	DSS SPEED CALL
9	Line Access	LINE
blank	Unassigned	---

* Type 1 may also be called Auto-Intercom.

**Table 4.17 First EKT Type, 40-Button DSS/BLF
Default Assignment (All Packages)**

DN	200	201	202	203	204	205	206	207	208	209
BN	31	32	33	34	35	36	37	38	39	40
DN	210	211	212	213	214	215	216	217	218	219
BN	21	22	23	24	25	26	27	28	29	30
DN	220	221	222	223	224	225	226	227	228	229
BN	11	12	13	14	15	16	17	18	19	20
DN	230	231	232	233	234	235	236	237	238	239
BN	1	2	3	4	5	6	7	8	9	10

**Table 4.18 Second EKT Type, 40-Button DSS/BLF
Default Assignment (Packages C and D)**

DN	280	281	282	283	284	285	286	287	288	289
BN	111	112	113	114	115	116	117	118	119	120
DN	290	291	292	293	294	295	296	297	298	299
BN	101	102	103	104	105	106	107	108	109	110
DN	300	301	302	303	304	305	306	307	308	309
BN	91	92	93	94	95	96	97	98	99	100
DN	310	311	312	313	314	315	316	317	318	319
BN	81	82	83	84	85	86	87	88	89	90

**Table 4.19 ATT Type, 40-Button DSS/BLF
Default Assignment (First/Second)
(Packages C and D)**

DN BN	239/319 10/90	229/309 20/100	219/299 30/110	209/289 40/120
DN BN	238/318 9/89	228/308 19/99	218/298 29/109	208/288 39/119
DN BN	237/317 8/88	227/307 18/98	217/297 28/108	207/287 38/118
DN BN	236/316 7/87	226/306 17/97	216/296 27/107	206/286 37/117
DN BN	235/315 6/86	225/305 16/96	215/295 26/106	205/285 36/116
DN BN	234/314 5/85	224/304 15/95	214/294 25/105	204/284 35/115
DN BN	233/313 4/84	223/303 14/94	213/293 24/104	203/283 34/114
DN BN	232/312 3/83	222/302 13/93	212/292 23/103	202/282 33/113
DN BN	231/311 2/82	221/301 12/92	211/291 22/102	201/281 32/112
DN BN	230/310 1/81	220/300 11/91	210/290 21/101	200/280 31/111

NOTE: The ATT type and EKT type DSS/BLF consoles are physically different and have different button assignments. The 40-button EKT type button assignments are shown in Tables 4.15 and 4.16. The 40-button ATT type button assignments are shown in Table 4.17. The 40-button ATT type button assignments are valid even when the ATT type DSS/BLF console is associated with an EKT instead of with an Attendant Console.

**Table 4.20 First EKT type, 80-Button DSS/BLF
Default Assignment (All Packages)**

DN BN	200 71	201 72	202 73	203 74	204 75	205 76	206 77	207 78	208 79	209 80
DN BN	210 61	211 62	212 63	213 64	214 65	215 66	216 67	217 68	218 69	219 70
DN BN	220 51	221 52	222 53	223 54	224 55	225 56	226 57	227 58	228 59	229 60
DN BN	230 41	231 42	232 43	233 44	234 45	235 46	236 47	237 48	238 49	239 50
DN BN	240 31	241 32	242 33	243 34	244 35	245 36	246 37	247 38	248 39	249 40
DN BN	250 21	251 22	252 23	253 24	254 25	255 26	256 27	257 28	258 29	259 30
DN BN	260 11	261 12	262 13	263 14	264 15	265 56	266 17	267 18	268 19	269 20
DN BN	270 1	271 2	272 3	273 4	274 5	275 6	276 7	277 8	278 9	279 10

**Table 4.21 Second EKT type, 80-Button DSS/BLF
Default Assignment (Packages C and D)**

DN BN	280 151	281 152	282 153	283 154	284 155	285 156	286 157	287 158	288 159	289 160
DN BN	290 141	291 142	292 143	293 144	294 145	295 146	296 147	297 148	298 149	299 150
DN BN	300 131	301 132	302 133	303 134	304 135	305 136	306 137	307 138	308 139	309 140
DN BN	310 121	311 122	312 123	313 124	314 125	315 126	316 127	317 128	318 129	319 130
DN BN	320 111	321 112	322 113	323 114	324 115	325 116	326 117	327 118	328 119	329 120
DN BN	330 101	331 102	332 103	333 104	334 105	335 106	336 107	337 108	338 109	339 110
DN BN	340 91	341 92	342 93	343 94	344 95	345 96	346 97	347 98	348 99	349 100
DN BN	350 81	351 82	352 83	353 84	354 85	355 86	356 87	357 88	358 89	359 90

**Table 4.22 ATT type, 80-Button DSS/BLF Default Assignment (First/Second)
(Packages C and D)**

DN BN	279/359 10/90	269/349 20/100	259/339 30/110	249/329 40/120	239/319 50/130	229/309 60/140	219/299 70/150	209/289 80/160
DN BN	278/358 9/89	268/348 19/99	258/338 29/109	248/328 39/119	238/318 49/129	228/308 59/139	218/298 69/149	208/288 79/159
DN BN	277/357 8/88	267/347 18/98	257/337 28/108	247/327 38/118	237/317 48/128	227/307 58/138	217/297 68/148	207/287 78/158
DN BN	276/356 7/87	266/346 17/97	256/336 27/107	246/326 37/117	236/316 47/127	226/306 57/137	216/296 67/147	206/286 77/157
DN BN	275/355 6/86	265/345 16/96	255/335 26/106	245/325 36/116	235/315 46/126	225/305 56/136	215/295 66/146	205/285 76/156
DN BN	274/354 5/85	264/344 15/95	254/334 25/105	244/324 35/115	234/314 45/125	224/304 55/135	214/294 65/145	204/284 75/155
DN BN	273/353 4/84	263/343 14/94	253/333 24/104	243/323 34/114	233/313 44/124	223/303 54/134	213/293 64/144	203/283 74/154
DN BN	272/352 3/83	262/342 13/93	252/332 23/103	242/322 33/113	232/312 43/123	222/302 53/133	212/292 63/143	202/282 73/153
DN BN	271/351 2/82	261/341 12/92	251/331 22/102	241/321 32/112	231/311 42/122	221/301 52/132	211/291 62/142	201/281 72/152
DN BN	270/350 1/81	260/340 11/91	250/330 21/101	240/320 31/111	230/310 41/121	220/300 51/131	210/290 61/141	200/280 71/151

NOTE: The ATT type and EKT type DSS/BLF consoles are physically different and have different button assignments. The 80-button EKT type button assignments are shown in Tables 4.18 and 4.19. The 80-button ATT type button assignments are shown in Table 4.20. The 80-button ATT type button assignments are valid even when the ATT type DSS/BLF console is associated with an EKT instead of with an Attendant Console.

**Data Station Assignment
(CMC 220)**

4.16 The Data Station Assignment (CMC 220) table is used to register or remove data station information. The link between a data station and an associated voice station is also made at this CMC. This CMC requires a LOW level security code.

CMC = 220
P1:EN P4:DN
P2:DN
P3:DTT

30 CSD w/DTAs
or 40 DIU

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
	X			P1	EN	equipment number of data station	3 digits	See Notes
		X	X				3 or 4 digits	See Notes
	X	X	X	P2	DN	directory number of data station	1 to 4 digits	See Tables 4.23 & 24
	X			P3	DTT	data terminal type	1 = CSD with DTA	1
		X	X				1 = CSD with DTA 2 = DIU + CS-10/20 3 = DIU + CSD 4 = DIU <small>HOTEL MOTEL STAND ALONE</small>	1
	X	X	X	P4	DN	directory number of associated voice station	1 to 4 digits or blank	None

NOTES:

- If parameter P3 = 1 or 4, then parameter P4 may be omitted.
- ENs must be entered in the format XYZ where:
 X = 0, 1 or blank (cabinet number) - (This digit is never entered in Package B)
 YY = (card slot) - (00 - 14 for DIUs)
 (00, 03, 06, 09, or 12 for DTAs)
 Z = (circuit number) - (0 - 7 for DIUs) (0 - 5 for DTAs)
- DIUs default to voice station directory numbers. DTAs (installed in card slots 00, 03, 06, 09, or 12) default to data directory numbers.

DISPLAY

1. Enter an EN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of ENs.
- The system will release this CMC after the last registered EN has been displayed.

ADD

1. Enter the new EN at parameter P1.
2. Enter the new DN (data station directory number) at parameter P2.
3. Enter the appropriate DTT at parameter P3.
4. If parameter P3 is not 4, enter the DN (associated voice station directory number) at parameter P4.
5. Press <ADD/CHG>.

NOTE: Ensure that the DN assigned at parameter P2 does not conflict with the feature access codes assigned at CMC 100. If such conflicts are created the system will disable the feature access codes.

DUPLICATE

1. Enter at least one record using the ADD or DISPLAY procedure.
2. Press <DUP>.
3. The EN (P1) will increment and all other parameters will be carried forward on the screen.
4. Use the cursor control commands or <RETURN> to move the cursor to parameters which must be changed.
5. Enter any changes right over the displayed data.
6. Press <ADD/CHG>.

REMOVE

1. Enter the EN to be removed at parameter P1.

2. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to enter an EN or voice DN which is not registered.	Check the data and try again or go to CMC 200 and register the EN.
DENIED 1	The station registered to the entered EN is assigned as an MCT.	Remove the MCT assignment at CMC 702.
DENIED 2	The station registered to the entered EN is in an ACD group.	Remove the station from the ACD group at CMC 308 and try again.
DENIED 3	The station registered to the entered EN is in a hunt group.	Remove the station from the hunt group at CMC 301 and try again.
DENIED 7	The station registered to the entered EN is a hot line.	Remove the station's hot line status at CMC 304 and try again.
DENIED 20	The station registered to the entered EN is an Hotel/Motel printer.	Remove the station's Hotel/Motel printer status at CMC 356 and try again.
CHK PKG	An attempt was made to enter an EN in which no card, or a card mismatched to the DTT is installed.	Check the installed card and try again.
DISAGREE	An attempt was made to enter an EN which is not a data port.	Check the data and try again.
	A mismatch exists between the entered DTT and the installed equipment.	Check the data and try again.
	An attempt was made to enter a voice DN which cannot support data.	Check the data and try again.
NOT EXEC	The CHT or DIU/DTA is faulty.	Check the installed card and try again.
	The specified hardware is in the "make busy" condition.	Release the "make busy" condition at CMC 706 and try again
OVERLAP	An attempt was made to enter a data DN which is already registered.	Check the data and try again or abandon the attempt.
	An attempt was made to enter a voice DN which is already associated with a data station.	Check the data and try again or abandon the attempt.

Table 4.23 Default Directory Numbers for Data Stations - CMC 220/P2 (Basic System) - Cabinet Number 0 or Blank

Circuit Number	Card Slot Number														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
0	350			356			362			368			374		
1	351			357			363			369			375		
2	352			358			364			370			376		
3	353			359			365			371			377		
4	354			360			366			372			378		
5	355			361			367			373			379		
6	-			-			-			-			-		
7	-			-			-			-			-		

Table 4.24 Default Directory Numbers for Data Stations - CMC 220/P2 (Expansion System) - Cabinet Number 1

Circuit Number	Card Slot Number														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
0	4400			4406			4412			4418			4424		
1	4401			4407			4413			4419			4425		
2	4402			4408			4414			4420			4426		
3	4403			4409			4415			4421			4427		
4	4404			4410			4416			4422			4428		
5	4405			4411			4417			4423			4429		
6	-			-			-			-			-		
7	-			-			-			-			-		

NOTE: DIUs will default to voice station directory numbers (See CMC 200).

STATION VOICE DEFAULT FOR DIRECTORY NUMBER. cmc 200

**Data Station COS/COR
(Class of Service/
Class of Restriction)
Assignment (CMC 221)**

4.17 This CMC is used to designate the classes of service and classes of restriction for a data station for both day and night modes of operation. The actual services provided by each COS is assigned at CMC 104. The CORs are defined at CMC 105. This CMC requires a LOW level security code.

CMC = 221	
P1:DN	P4:COR
P2:COS	P5:NCOR
P3:NCOS	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
	X	X	X	P1	DN	data station directory number	1 to 4 digits	None
	X	X	X	P2	COS	class of service (day mode)	1 to 16 (See CMC 104)	1
	X	X	X	P3	NCOS	class of service (night mode)	1 to 16 (See CMC 104)	1
	X	X	X	P4	COR	class of restriction (day mode)	1 to 16 (See CMC 105)	1
	X	X	X	P5	NCOR	class of restriction (night mode)	1 to 16 (See CMC 105)	1

DISPLAY

1. Enter a DN at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of registered DNs.
- The system will release the CMC after the last registered DN has been displayed.

CHANGE

1. Enter the parameters to be added or changed.
2. Press <ADD/CHG> .

DUPLICATE

1. Enter at least one complete record using the ADD/CHANGE or DISPLAY procedures.
2. Press <DUP>.
3. The DN (P1) will increment to the next registered DN; all other parameters will be carried forward on the screen.
4. Make any needed changes to the parameters.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN has not yet been installed	Install the DN at CMC 220.

**Data Station
Data Assignment (I)
(CMC 222)**

4.18 The Data Station Data Assignment (I) (CMC 222) table is used to establish the communications attributes for data terminals. This CMC requires a LOW level security code.

CMC = 222
 P1:DN P4:STB/WLE
 P2:DSP P5:PAR
 P3:SYNC/COM P6:ECH

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
	X	X	X	P1	DN	data station directory number	1 to 4 digits	None
	X	X	X	P2	DSP	data speed	1 = 110 bps 2 = 150 bps 3 = 300 bps 4 = 600 bps 5 = 1200 bps 6 = 2400 bps 7 = 4800 bps 8 = 9600 bps 9 = 19,200 bps 10 to 16 are reserved	5
	X	X	X	P3	SYNC/ COM	synchronization and communications	1 = syn/full dup 2 = syn/half dup 3 = asyn/full dup 4 = asyn/half dup	3
	X	X	X	P4	STB/WLE	word structure (stop bits/word length)	1 = (1/7) 2 = (1.5/7) 3 = (2/7) 4 = (1/8) 5 = (1.5/8) 6 = (2/8) blank = not assigned	1
	X	X	X	P5	PAR	parity	1 = odd 2 = even 3 = none 4 = mark 5 = space blank = not assigned	5
	X	X	X	P6	ECH	echoplex	0 = not used 1 = used blank = not assigned	0

DISPLAY

1. Enter a DN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DNs.
- The system will release this CMC after the last registered DN is displayed.

CHANGE

1. Enter the parameters to be changed.
2. Press <ADD/CHG>.

NOTES:

- If parameter P3 = 1 or 2, then parameters P4, P5, and P6 must be blank.
- If parameter P2 = 1, 2, or 3, then parameter P3 ≠ 1 or 2.

DUPLICATE

1. CHANGE or DISPLAY a complete record.
2. Press <DUP>.

NOTE: The DN (P1) will increment to the next registered DN; all other parameters will be carried forward on the screen.

3. Make any needed changes to the parameters.
4. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN has not yet been installed	Install the DN at CMC 220.
DENIED 20	The station registered to the entered EN is an H/M printer.	Remove the station's H/M printer status at CMC 356 and try again.
PARA.ERR	An attempt was made to enter data in P4, P5, and/or P6 when P3 = 1 or 2.	Remove the entries in P4, P5, and P6 and try again.
NO PARA	Blank was entered in P4, P5, and/or P6 when P3 = 3 or 4.	Enter appropriate values in P4, P5, and P6

**Data Station Data
Assignment (II)
(CMC 223)**

4.19 The Data Station Data Assignment (II) (CMC 223) table is used to set the control and interface modes for each data terminal. This CMC requires a LOW level security code.

CMC = 223
 P1:DN P4:RSM2
 P2:CCM
 P3:RSM1

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
	X	X	X	P1	DN DATA	directory number	1 to 4 digits	None
	X	X	X	P2	CCM	call control mode	4 digits (See Table 4.25)	0001
	X	X	X	P3	RSM1	RS-232C interface signal/mode 1	3 digits (See Table 4.26)	000
	X	X	X	P4	RSM2	RS-232C interface signal/mode 2	0 = RI steady on 1 = RI 1 sec. on/ 3 sec. off blank = RI not assigned	0

DISPLAY

1. Enter a DN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DNs.
- The system will release this CMC after the last registered DN is displayed.

CHANGE

1. Enter the parameters to be changed.
2. Press <ADD/CHG>.

NOTES:

- Digits 1 and 3 of parameter P2 cannot both be set to 1.
- Parameter P2, digit 2, and parameter P3, digit 1, cannot both be set to 1 (i.e., auto originate and forced DTR option cannot be assigned simultaneously).

DUPLICATE

1. CHANGE or DISPLAY complete record.
2. Press <DUP>.
3. The DN (P1) will increment to the next registered DN; all other parameters will be carried forward on the screen.
4. Make any needed changes to the parameters.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN has not yet been installed	Install the DN at CMC 220.
DENIED 20	The station registered to the entered EN is an H/M printer.	Remove the station's H/M printer status at CMC 356 and try again.
PARA.ERR	An attempt was made to enter conflicting data.	Check the data and try again. (See the NOTES in the CHANGE paragraph above.)
DENIED	Originate mode cannot be set when the DN has been assigned the subordinate button.	Check the data and try again.

Table 4.25 Key to CMC 223, P2 Digits

Call Control Mode	0	1
Originate mode (first digit)	manual	auto
Answer Mode (second digit)	manual	auto
Disconnect Mode (third digit)	normal	forced on
One burst ring option in auto answer mode (forth digit)	not used	used

Table 4.26 Key to CMC 223, P3 Digits

RS-232C Interface Signal Mode (1)	0	1
DTR option (first digit)	normal	forced on
RTS option (second digit)	normal	forced on
DSR option (third digit)	normal	DSR off after DTR off

Data Station Data Assignment (III) (CMC 224)

4.20 The Data Station Data Assignment (III) (CMC 224) table is used to register data pertaining to the operation of the data station. This CMC requires a LOW level security code.

CMC = 224	
P1:DN	P4:TNN
P2:OPM	P5:MTRG
P3:TIM	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
	X	X	X	P1	DN	data station directory number	1 to 4 digits	None
	X	X	X	P2	OPM	operating mode	1 = two-way 2 = originating 3 = terminating 4 = no service	1
	X	X	X	P3	TIM	dialing mode	0 = TEL dial 1 = character dial [not available] (blank = unassigned)	0
	X	X	X	P4	TNN	tenant number	1 to 4 or blank (blank = no tenant service)	None
	X	X	X	P5	MTRG	SMDR group number	1 to 99 or blank (blank = no assignment)	None

DISPLAY

1. Enter a DN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DNs.
- The system will release this CMC after the last registered DN is displayed.

CHANGE

1. Enter the parameters to be added or changed.
2. Press <ADD/CHG>.

DUPLICATE

1. CHANGE or DISPLAY a complete record.
2. Press <DUP>.
3. The DN (P1) will increment to the next registered DN; all other parameters will be carried forward on the screen.
4. Make any needed changes to the parameters.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN has not yet been installed.	Install the DN at CMC 220.
DENIED 20	The station registered on the entered EN is a Hotel/Motel printer.	Remove the Hotel/Motel printer at CMC 356 and try again.

Attendant Console Assignment (CMC 230)

4.21 The Attendant Console Assignment (CMC 230) table is used to register one or two Attendant Consoles for use with the system. This CMC requires a HIGH level security code.

CMC = 230	
P1:ATTN	P4:ATTN
P2:EN	P5:
P3:TNN	P6:

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	ATTN	Attendant Console number	1 = 1st console 2 = 2nd console	1 or 2
		X	X	P2	EN	equipment number	3 or 4 digits	EN
		X	X	P3	TNN	tenant number	1 - 4 = tenant service blank = unassigned	blank
		X	X	P4	ATTN	Attendant Console to copy button data from	1 or 2 = ATT to copy blank = no copy	blank

NOTES:

- The Attendant Console must be put in position busy mode before removal.
- When an Attendant Console is installed by CMC command, it will be in the position busy mode.

DISPLAY

1. Enter an ATTN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> again will display the other Attendant Console if it is installed.
- The system will release this CMC after the last installed ATTN has been displayed.

ADD

1. Enter any required parameters.
2. Press <ADD/CHG>.

NOTE: If an ATTN is not specified, no button functions are copied.

REMOVE

1. Remove all DSS/BLF Consoles associated with the Attendant Console at CMC 210.
2. Place the Attendant Console in position busy mode.
3. Enter an ATTN at parameter P1.
4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to display an ATTN which is not installed.	Check the ATTN and try again.
PARA.ERR	An attempt was made to copy an ATTN which is not yet installed.	Select the installed ATTN for copying.
OVERLAP	The specified EN has already been installed as an EKT or Attendant Console.	Select an EN which has not been installed.
DISAGREE	ATTN installation is refused.	Check all parameters for accuracy and try again.
CHK PKG	The Attendant Console specified for the EN has not been physically installed.	Install the Attendant Console on the EN.
NO FOUND	An attempt was made to remove data which is not installed.	Abandon the attempt.
DENIED 1	An attempt was made to remove an ATTN having MCT assignment.	Remove the MCT assignment at CMC 702 and try again.
DENIED 6	An attempt was made to remove an ATTN which is associated with a DSS/BLF Console.	Remove the DSS/BLF Console at CMC 210.

Attendant Console Button Assignment (CMC 231)

4.22 The Attendant Console Button Assignment (CMC 231) table is used to program the button functions of an Attendant Console. This CMC requires a LOW level security code.

CMC = 231
 P1:ATTN P4:SUP
 P2:BTN
 P3:FNO

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	<u>ATTN</u>	Attendant Console number	1 or 2	None
		X	X	P2	<u>BTN</u>	button number	1 to 16	None
		X	X	P3	FNO	feature number	1 to 255 See Figure 4.18 and Table 4.28	See Table 4.27
		X	X	P4	SUP	supplementary data	See Table 4.29	None

DISPLAY

1. Enter an ATTN at parameter P1 and a BTN at parameter P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of BTNs.
- The system will release this CMC when the BTN value exceeds 16.
- Each ATTN must be entered and displayed separately.

ADD

1. Remove old data.
2. Enter any required parameters.
3. Press <ADD/CHG>.

NOTE: Required parameters may be determined by using the following chart. Blank parameters may be omitted.

SERVICE	P1	P2	P3	P4
General Service	X	X	X	
Automatic Intercom Access	X	X	X	X
Station/System Speed Dialing	X	X	X	X
Trunk Busy buttons	X	X	X	X

REMOVE

1. Enter an ATTN at parameter P1 and a BTN at parameter P2.
2. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified ATTN has not been installed	Check the ATTN and try again.
PARA.ERR	An incorrect parameter has been entered.	Check all the parameters for accuracy and try again.
NO PARA	A parameter has been omitted.	Enter all parameters.
OVERLAP	An attempt was made to register a service/feature on a button which already has a service/feature.	Remove old service and try again.
NO FOUND	An attempt was made to remove a button which has no registered service.	Check the button number and try again.
NO AREA	The system has no memory left for this assignment.	Remove a button to make space.

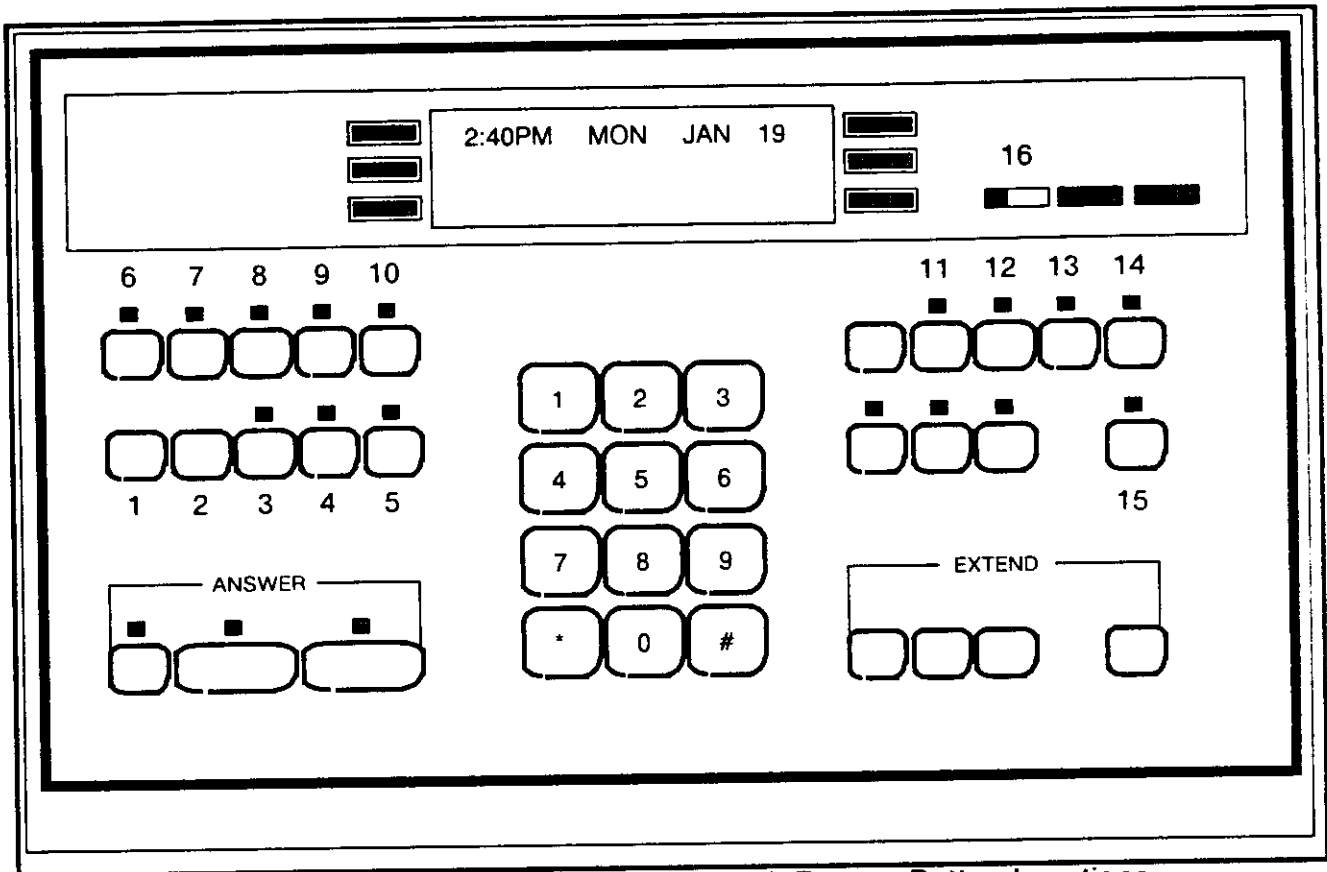


Figure 4.18 Attendant Console Default Feature Button Locations

Table 4.27 Attendant Console Default Feature Assignments

Button Number	Default Feature Number	Button Number	Default Feature Number
1	221	9	50
2	87	10	154
3	151	11	153
4	53	12	177
5	51	13	223
6	179	14	222
7	227	15	150
8	224	16	225

Table 4.28 Assigned Feature Numbers

FNO	Feature Name	Button Name
154	Account Code/Client Billing	ACCT CODE
179	Attendant Console Alarm Button	ALARM
222	Attendant Console Break-in Button	BREAK-IN
223	Attendant Console DND Override Button	DND OVRD
174	Attendant Console Flash Button	FLASH
224	Attendant Console Night Mode Button	NIGHT
225	Attendant Console Position Busy Button	POS. BUSY
227	Attendant Console Trunk Busy /Trunk Access Button	TRUNK ACCESS
177	Attendant Console Voice Announce Button	CALL ANNCE
1	Automatic Intercom Access (Station Access)	AUTO ICOM
153	Call Park	PARK
75	Controlled Restriction	CALL RESTRICT
221	COS/COR Display Button	COS/COR
106	Directed Call Pickup	STA. PICK-UP
51	EKT Paging Access - Zone/All Zone	STA. PAGE
53	External Paging Access	EXTRNL PAGE
188	Front Desk Console Program Button	FRONT DESK
87	Message Leaving (activate)	MESG. LEAVE
50	Save/Repeat Last Number Dialed	SAVE/ REPEAT
150	Station Camp-On (activate)	CAMP-ON
48	Station Speed Calling	STA. SPD
49	System Speed Calling	SYST. SPD
151	Trunk Camp-On (activate)	TRUNK CAMP-ON

NOTE: A numerical listing of features by feature numbers will be found in section 5.0.

**Table 4.29 Attendant Console Feature Button
Supplementary Data**

Feature Number if P3 =	Feature Description	Supplementary Data then P4 =
1	automatic intercom access	directory number (1 to 4 digits)
48	station speed calling	speed calling code (0 - 9)
49	system speed calling	speed calling code (00 - 99)
227	trunk busy button/ trunk access button	TGN 13 - 63 (trunk group number)

Attendant COS/COR Assignment (CMC 232)

4.23 The Attendant COS/COR Assignment (CMC 232) table is used to assign day and night mode classes of service and restriction to Attendant Consoles. The actual features contained in each COS are assigned at CMC 104. The actual restrictions comprising the CORs are assigned at CMC 105. This CMC requires a LOW level security code.

CMC = 232	
P1:ATTN	P4:COR
P2:COS	P5:NCOR
P3:NCOS	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	ATTN	Attendant Console number	1 or 2	None
		X	X	P2	COS	class of service (day mode)	1 to 16 (See CMC 104)	1
		X	X	P3	NCOS	class of service (night mode)	1 to 16 (See CMC 104)	1
		X	X	P4	COR	class of restriction (day mode)	1 to 16 (See CMC 105)	1
		X	X	P5	NCOR	class of restriction (night mode)	1 to 16 (See CMC 105)	1

DISPLAY

1. Enter an ATTN at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> again will display the other Attendant Console if it is installed.
- The system will release this CMC after the last installed ATTN has been displayed.

CHANGE

1. Enter any required parameters.
2. Press <ADD/CHG> .

DUPLICATE

1. Enter at least one complete set of data using the CHANGE or DISPLAY procedures.
2. Press <DUP>.
3. The ATTN value displayed on the screen from the last ADD procedure will be incremented by one. All other parameters will be carried forward on the screen.
4. Make any needed changes to the parameters.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified ATTN is not installed.	Try again with an installed ATTN or install the ATTN at CMC 230.

Attendant Priority Assignment (CMC 233)

4.24 The Attendant Priority Assignment (CMC 233) table is used to change the answering priority level for any trunk group in the system. This CMC requires a HIGH level security code.

CMC = 233
P1:TGN
P2:ICMP

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	TGN	trunk group number	1 to 63	None
		X	X	P2	ICMP	answering priority	1 = high 2 = medium 3 = low	1

NOTE: This CMC can only be used to adjust the answering priority for CO, FX, and WATS trunk groups.

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC when the TGN value exceeds 63.

CHANGE

1. Enter a TGN and an ICMP.
2. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
PARA.ERR	An incorrect parameter has been entered.	Check all the parameters for accuracy and try again.
	The specified TGN is out of range.	Enter the correct TGN and try again.

**Trunk Assignment
CMC 250**

4.25 The Trunk Assignment (CMC 250) table is used to assign or remove a trunk to or from a trunk group. This table may also be used to assign trunk types, operations mode, signaling, and start mode. This CMC requires a HIGH level security code.

CAUTION

Changes to this table will return the circuit parameters at CMC 251 to the default values and remove the changed trunk from CMC 253, Terminating Trunk Group Assignments. Removing a trunk from this table does not remove it from all other table entries. When removing or changing a trunk, check CMCs 251 and 307.

CMC = 250**P1:EN****P4:OPM****P2:TOT****P5:SG****P3:TGN****P6:SM/ZN/DIS**

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	EN	trunk equipment number	4-digits	EN
X	X	X	X	P2	TOT	type of trunk	1 = DTMF card 2 = Tie (LOOP) 3 = Tie (E&M) 5 = DID (E&M) [Packages C & D] 6 = CO 7 = FX 8 = WATS 9 = external paging [Packages B, C, & D] 11 = music source 12 = character trunk [Packages C & D] 13 = DID (LOOP) [Packages C & D]	See Table 4.31
X	X	X	X	P3	TGN	trunk group number	1 - 63 (See Table 4.30)	See Table 4.31
X	X	X	X	P4	OPM	operations mode	1 = incoming only 2 = outgoing only 3 = bothway	See Table 4.31
X	X	X	X	P5	SG	signaling	1 = ground 2 = loop	See Table 4.31
X	X	X	X	P6	SM	start mode (P2 = 2, 3, 5, 13)	1 = wink start 2 = delay dial 3 = immediate start	See Table 4.31
	X	X	X		ZN	zone number (P2 = 9)	1 to 9	None
		X	X		DIS	DISA mode (P2 = 6, 7, 8)	1 = not DISA 2 = DISA-S	None

NOTES:

- When P2 is 11 (music source), parameters P3, P4, P5, and P6 must not be entered. The parameters will be displayed as blanks.
- When P2 is 1 (DTMF), parameters P4, P5, and P6 must not be entered and will be displayed as blanks.
- When P2 is 12 (character trunk), parameters P4, P5, and P6 must not be entered and will be displayed as a blank.
- A character trunk (P2 = 12) is a \$CHT interface between the system and a printer.

Table 4.30 Permissible Trunk Group Assignment Numbers

Trunk Group Number	Type of Trunk	Packages
1	DTMF	All
2	CHT	C, D
3	external paging	B, C, D
13	CO #1 (default for CO trunks)	All
14	CO #2	All
15	CO #3	All
16	CO #4	All
17	CO #5	All
18	CO #6	All
19	FX #1	All
20	FX #2	All
21	FX #3	All
22	FX #4	All
23	FX #5	All
24	FX #6	All
25	WATS #1	All
26	WATS #2	All
27	WATS #3	All
28	WATS #4	All
29	WATS #5	All
30	WATS #6	All
31	TIE #1 (default for E&M)	All
32	TIE #2 (default for loop)	All
33	TIE #3	All
34	TIE #4	All
35	TIE #5	All
36	TIE #6	All
51	SCC #1	All
52	SCC #2	All
53	SCC #3	All
54	SCC #4	All
55	SCC #5	All
56	SCC #6	All
57	DID #1	C, D
58	DID #2	C, D
59	DID #3	C, D
60	DID #4	C, D
61	DID #5	C, D
62	DID #6	C, D

Table 4.31 Default Matrix for CMC 250

P2 (TOT)	P3 (TGN)	P4 (OPM)	P5 (SG)	P6 (SM)
1 (DTMF card)	1	-	-	-
32 (Tie loop)	32	3	2	2
31 (Tie E&M)	31	3	1	2
CO	13	3	2	1
character trunk	2	-	-	-

DISPLAY

1. Enter the EN of the installed trunk at parameter P1.
2. Press <DSP>.

ADD

1. Display the EN for the trunk data set which is to be installed.
2. Press <RMV>.
3. Enter all the required parameter values.
4. Press <ADD/CHG>.

DUPLICATE

1. ADD or DISPLAY a complete record.
2. Press <DUP>.
3. The EN value displayed on the screen will be incremented. All other parameters will be carried forward on the screen.
4. Make any needed changes to the parameter.
5. Press <ADD/CHG>.

REMOVE

1. Enter the EN for the trunk data set to be removed.
2. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified EN has not been installed.	Install a trunk card in the required card slot
DENIED 5	The specified EN has been assigned to a line button on an EKT or Attendant Console.	Remove the button assignment and try again. (CMCs 203 and 231)
DENIED 10	The specified EN has been registered as a night answer group member.	Remove the EN from the night answer group and try again. (CMC 306)
DENIED 11	The specified EN has been assigned to a terminating trunk group.	Remove the assignment at CMC 253 and try again.
DENIED 12	The specified EN has been assigned as a direct-in line.	Remove the assignment at CMC 307 and try again.
DENIED 20	The H/M printer is being registered.	Release the H/M printer with CMC 706 and try again.
DISAGREE	The specified type of trunk does not match the trunk type of the other circuits on the card. The specified EN is out of range for the card. The specified EN has already been installed. A RVAC card is installed on the specified EN.	All trunks on a trunk card must be the same type. Trunk cards have only 4 circuits. Try a different EN. Try a different EN. Try a different EN or remove the RVAC at CMC 260.
CHK PKG	The card for the specified EN is not installed or the type of trunk does not match the type of trunk card.	Install or change the trunk card.
OVERLAP	The paging zone number (ZN) in P6 has already been assigned to another paging trunk.	Select another paging zone number.

**Trunk Data Assignment
(CMC 251)**

4.26 The Trunk Data Assignment (CMC 251) table is used to modify the default dialing mode, equipment/directory number, and tenant number associated with an installed trunk. This CMC requires a HIGH level security code.

CMC = 251	
P1:EN	P4:TNN
P2:DM	
P3:TDN	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	EN	trunk equipment number	3 or 4 digits	None
X	X	X	X	P2	DM	dial mode and break ratio	1 = DP 10 pps/66% 2 = DP 10 pps/60% 5 = DTMF	2 (A, B) 5 (C, D)
X	X	X	X	P3	TDN	trunk directory number	1 to 4 digits or blank (blank = not assigned)	EN
X	X	X	X	P4	TNN	tenant number (optional)	1 to 4 or blank (blank = not assigned)	blank

DISPLAY

1. Enter an EN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display CMC 251 data in numeric order of the installed ENs.
- The system will release this CMC after the last installed EN has been displayed.

CHANGE

1. Enter all the required parameters.
2. Press <ADD/CHG>.

DUPLICATE

1. CHANGE or DISPLAY a complete set of data.
2. Press <DUP>.
3. The EN value displayed on the screen from the last ADD procedure will be incremented to the next installed EN. All other parameters will be carried forward on the screen.
4. Modify the parameters as needed.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified EN is not installed.	Install the trunk card and register the trunks at CMC 250.
OVERLAP	The specified TDN has been assigned to another trunk.	Check the data and try again.
DISAGREE	The specified EN is not assigned to a trunk card.	Check the EN and try again.

**Trunk COS/COR
(Class of Service/
Class of Restriction)
Assignment (CMC 252)**

4.27 This CMC is used to change the COS and COR assigned to a given trunk for both day and night modes of operation. The feature assignments for each COS are made at CMC 104. The restriction assignments associated with each COR are made at CMC 105. This CMC requires a HIGH level security code.

CMC = 252	
P1:TGN	P4:COR
P2:COS	P5:NCOR
P3:NCOS	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	TGN	trunk group number	1 to 63	None
X	X	X	X	P2	COS	class of service (day mode)	1 to 16 (See CMC 104)	1
X	X	X	X	P3	NCOS	class of service (night mode)	1 to 16 (See CMC 104)	1
X	X	X	X	P4	COR	class of restriction (day mode)	1 to 16 (See CMC 105)	1
X	X	X	X	P5	NCOR	class of restriction (night mode)	1 to 16 (See CMC 105)	1

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTE:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC after the TGN value exceeds 63.

CHANGE

1. Enter a TGN at P1.
2. Press <DSP>.
3. Modify the displayed parameters as required.
4. Press <ADD/CHG>.

Terminating Trunk Group Assignment (CMC 253)

4.28 The Terminating Trunk Group Assignment (CMC 253) table is used to create or remove a terminating trunk group. (Trunk groups having an appearance on one or more EKT/CSD line buttons.) This CMC requires a HIGH level security code. Direct-in lines, Tie lines, and DID cannot be assigned to a terminating trunk group.

CMC = 253
 P1:TTGN
 P2:EN
 P3:TTF

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	TTGN	terminating trunk group	1 to 31	See Notes
X	X	X	X	P2	EN	equipment number	3 or 4 digits	See Notes
X	X	X	X	P3	TTF	trunk termination flag	1 = personal line 2 = key system 3 = pooled outgoing 4 = pooled incoming 5 = pooled bothway	See Notes

NOTES:

- The defaults for this CMC differ according to which instrument the trunks will terminate upon:

Parameter	Attendant Console	EKT/CSD
P1	None	1
P2	None	ENs
P3	None	5

- ENs must be entered in the format XYZ, where:
 X = 0, 1 or blank (cabinet number) - (This digit is never entered in Packages A or B.
 YY = 06 - 18 (card slot)
 Z = 0-3 (circuit number)

DISPLAY

1. Enter a TTGN at P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display the next DN and TTF for the same TTGN. If no EN has been assigned to a TTGN, or if all ENs associated with a TTGN have been displayed, pressing <DSP> will cause blanks to be displayed in P2, P3, and P4. Pressing <DSP> after these blanks have been displayed will return the display to the first EN.
- Each TTGN must be displayed separately.

ADD

1. Enter parameters P1, P2, and P3.
2. Press <ADD/CHG>.

REMOVE

1. Enter the TTGN which is to be removed at parameter P1.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
DISAGREE	<p>An attempt was made to assign or remove an EN with a TTGN which does not match the TTGN of the existing trunks in the group.</p> <p>An attempt was made to assign or remove an EN with a TTF which does not match the TTF of the existing trunks in the group.</p>	<p>Check the data and try again.</p> <p>Check the data and try again.</p>
OVERLAP	<p>An attempt was made to assign an EN which already belongs to another terminating trunk group.</p> <p>An attempt was made to assign two ENs to a personal line termination.</p>	<p>Remove the EN from the group to which it currently belongs before trying to reassign it.</p> <p>Select a different termination and try again.</p>
NOT RGTR	An attempt was made to assign an EN which is not valid.	Check the EN and try again.
DENIED 5	An attempt was made to remove a TTGN which terminates on an EKT button.	Remove the line button assignment using CMC 203.
PARA. ERR	The specified EN is not a CO, WATS, FX, or DISA-S.	Check the EN data and try again.

**Trunk Route Timing
Parameter Assignment
(CMC 254)**

4.29 The Trunk Route Timing Parameter Assignment (CMC 254) table is used to alter the trunk route timing set by system default. This CMC requires a HIGH level security code.

CMC = 254
P1:TGN
P2:RTID
P3:NTIM

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X			P1	<u>TGN</u>	trunk group number	0 = Station 13-30 = CO 31-36 = Tie	None
		X	X				0 = Station 13-30 = CO 31-36 = Tie 57-62 = DID 64 = Attendant Console	None
X	X	X	X	P2	<u>RTID</u>	route timing ID	1 to 15	See Table 4.32
X	X	X	X	P3	NTIM	number of timing units	0 to 255	See Table 4.32

NOTE: Fixed timing values for the TGNs which are outside the ranges shown are in P1, see Table 4.33.

DISPLAY

1. Enter a TGN at parameter P1 and an RTID at parameter P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display NTIMs in numerical order of RTIDs.
- The system will release this CMC if the RTID value exceeds 15.
- Each TGN must be entered separately.

CHANGE

1. Enter a TGN at parameter P1 and an RTID at parameter P2 respectively.
2. Enter an NTIM at parameter P3.
3. Press <ADD/CHG>.

Table 4.32 Adjustable Trunk Route Timing Defaults

RTID	Description	Unit of Time (ms)	Number of Timing Units (NTIM)					Meaning if NTIM = 0
			TGN 0	TGN 13-30	TGN 31-36	TGN 57-62	TGN 64	
1	Permanent signal timing	1024	11	11	11	26	0	261 - 262 s
2	Receive interdigit timing	1024	7	7	7	16	0	261 - 262 s
3	Central Office line withdrawal timing	50	*	101	*	*	*	0 - 8 s
4	CT timing (Protect Tip Ring noise)	50	*	3	*	*	*	0 ms
6	Pre-pause timing (manual)	1024	*	2	2	*	*	DP:230 - 340 ms DTMF:200 - 270 ms
7	Pre-pause timing (speed dialing)	1024	*	3	3	*	*	DP:230 - 340 ms DTMF:200 - 270 ms
8	Minimum pause (DP 10pps)	64	*	12	12	*	*	16474 - 16618 ms
9	Minimum pause (DP 20pps)	64	*	8	8	*	*	16474 - 16618 ms
10	Minimum pause (DTMF)	64	1	1	1	*	*	64 ms
11	Digit pause (speed dialing)	1024	*	2	2	*	*	DP:17.4 - 17.6 s DTMF:1.1 s
12	Flash timing	100	*	10	10	*	*	Infinity
13	Ground trunk seizure timing	100	*	51	51	*	*	Infinity
15	Trunk guard timing	100	*	10	10	10	*	Infinity

NOTES:

- RTIDs 5 and 14 are used internally. Do NOT change the NTIM values for these RTIDs.
- An entry of * in the table above means an unused parameter fixed at a value of zero.
- Actual timing may be up to 200 ms less than the calculated value (RTID x NTIM).

The following are the fixed trunk route timing values for the TGNs not appearing in Table 4.32.

Table 4.33 Fixed Trunk Route Timing

RTID	Description	Number of Timing Units (NTIM)						Meaning if NTIM = 0
		TGN 1-2	TGN 3	TGN 4-9	TGN 10-12	TGN 51-56	TGN 63	
1	Permanent signal timing	11	0	11	11	11	11	261 - 262 s
2	Receive interdigit timing	7	0	7	7	7	7	261 - 262 s
3	Central Office line withdrawal timing	0	0	101	0	101	101	0 - 8 s
4	CT timing (Protect Tip Ring noise)	0	0	3	0	3	3	0 ms
6	Pre-pause timing (manual)	0	0	2	0	2	2	DP:230 - 340 ms DTMF:200 - 270 ms
7	Pre-pause timing (speed dialing)	0	0	3	0	3	3	DP:230 - 340 ms DTMF:200 - 270 ms
8	Minimum pause (DP 10pps)	0	0	12	0	12	12	16474 - 16618 ms
9	Minimum pause (DP 20pps)	0	0	8	0	8	8	16474 - 16618 ms
10	Minimum pause (DTMF)	0	0	2	0	1	2	64 ms
11	Digit pause (speed dialing)	0	0	2	0	2	2	DP:17.4 - 17.6 s DTMF:1.1 s
12	Flash timing	0	0	10	0	10	10	Infinity
13	Ground trunk seizure timing	0	0	51	0	51	51	Infinity
15	Trunk guard timing	0	0	10	0	10	10	Infinity

**Reverse Signal
Data Assignment
(CMC 255)**

4.30 This table is used to assign answer detection for outgoing trunk groups and reverse control for Tie/DID incoming trunk groups. This CMC requires a HIGH level security code.

CMC = 255
 P1:TGN
 P2:OGT
 P3:ICT

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	TGN	trunk group number	1 to 63	1 to 63
X	X	X	X	P2	OGT	answer detection for outgoing trunk group	0 = no answer detection 1 = answer detection	0
X	X	X	X	P3	ICT	reverse control for Tie/DID incoming trunk group	0 = no reverse control 1 = reverse control	0

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC when the TGN value exceeds 63.

CHANGE

1. Enter the parameters to be changed.
2. Press <ADD/CHG>.

**RVAC (Recorded Voice
Announcement Card)
Assignment (CMC 260)**

4.31 This table is used to register and/or display the equipment number of card slots where recorded voice announcement cards have been physically installed. This CMC requires a HIGH level security code.

CMC = 260
P1:VEN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
			X	P1	VEN	RVAC equipment number	3 or 4 digits	None

NOTE: The VEN must be entered in the format XYYZ, where:
 X = 0, 1, or blank (cabinet number)
 YY = 00 - 14 (card slot)
 Z = 0 (circuit number)

DISPLAY

Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of VENs.
- The system will release the CMC after the last registered VEN has been displayed.

ADD

1. Enter a VEN.
2. Press <ADD/CHG>.

REMOVE

1. Enter a VEN.
2. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
CHK PKG	An attempt was made to display a VEN which has not been installed.	Check the data and try again - ensure that the RVAC is installed.
NOT RGTR	An attempt was made to display a VEN which is not registered.	Check the data and try again.
NO FOUND	An attempt was made to remove a VEN which has not been installed.	Check the data and try again - ensure that the RVAC is installed.
DISAGREE	The specified VEN does not contain a card which is not an RVAC. An attempt was made to install more than two RVACs in one cabinet.	Check the data and try again - ensure that the RVAC is installed. Check the data and try a different cabinet or abandon the attempt.
DENIED	An attempt was made to remove a RVAC having assigned messages.	Remove the previously entered messages and try again.

**Recorded Voice
Announcement
Assignment (CMC 261)**

4.32 The Recorded Voice Announcement Assignment (CMC 261) table is used to assign or remove a recorded voice announcements. This CMC requires a HIGH level security code.

CMC = 261	
P1:VEN	P4:RF
P2:MSGID	P5:RDCNT
P3:BLK	

*P1: 0 = Regular
1 = SHARED
(use separate circuit
for each shared)*

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
			X	P1	<u>VEN</u>	RVAC equipment number	3 or 4 digits	None
			X	P2	MSGID	message ID	1 to 58 (See Table 4.34)	None
			X	P3	BLK	voice message block	14 digit binary number	None
			X	P4	RF	recorded flag	blank = not recorded 0 = not recorded 1 = recorded	None
			X	P5	RDCNT	number of playbacks	0 = endless 1 to 255 = times blank = (See NOTES below.)	0 or 1

NOTES:

- The VEN must be entered in the format XYYZ, where:
X = 0, 1, or blank (cabinet number)
YY = 00 - 14 (card slot)
Z = (circuit number) 0 for regular messages, 1-7 for shared messages
- If the RVAC message is a shared message the P5 default is 0. If the message is a regular message the P5 default is 1.
- If an RVAC port is to be used for a music source interface, refer to CMC 305.

DISPLAY

1. Enter a VEN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of MSGIDs. Continuing to press <DSP> after the last registered MSGID has been displayed will start the data display for the next VEN.
- The system will release this CMC when the last registered VEN and associated data has been displayed.

ADD

1. Enter all parameters.
2. Press <ADD/CHG>.

REMOVE

1. Enter the VEN associated with the message to be removed.
2. Press <DSP> as needed to display the data to be removed.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to display a VEN which is not registered.	Check the data and try again.
OVERLAP	An attempt was made to add an MSGID which is already registered. An attempt was made to assign a memory block which is already in use. An attempt was made to assign a VEN which is already in use.	Check the data and try again or abandon the attempt. Check the data and try again or abandon the attempt. Check the data and try again or abandon the attempt.
DISAGREE	The final digit of the VEN disagrees with the entered MSGID.	Check the data and try again.
DENIED	An attempt was made to remove an MSGID which is in endless playback	Stop the playback (FAC + 0 + MSGID) and try again. (See CMC 100 for the FAC.)
NO FOUND	An attempt was made to display an MSGID which is not registered.	Check the data and try again or abandon the attempt.

Table 4.34 Available Message ID Numbers

Message ID	Definition	Message Type
01 - 10	Announcement Message	regular
11	ACD Answering Message (Reserved for ACD Group 1)	regular
12	ACD Answering Message (Reserved for ACD Group 2)	regular
13	ACD Answering Message (Reserved for ACD Group 3)	regular
14 - 30	ACD Answering Message (not reserved)	regular
31	ACD Waiting Message (Reserved for ACD Group 1)	regular
32	ACD Waiting Message (Reserved for ACD Group 2)	regular
33	ACD Waiting Message (Reserved for ACD Group 3)	regular
34 - 50	ACD Waiting Message (not reserved)	regular
51	DID Vacant Number Message	regular
52	DISA Authorization Code Entry Message	regular
53	DISA Invalid Authorization Code Message	regular
54	H/M Wake-Up Message	regular
55	Time Reminder Message	regular
56	Hold Message (endless)	shared
57	ACD Music (endless)	shared
58	Waiting Message for H/M Wake-Up / Time Reminder Message (endless)	shared

NOTE:

- A shared message is a message which can be played back to callers which have been placed on hold.
- A regular message is a message which is played back to a caller for some particular reason (office closed, all agents busy, show times, etc.).

Recording a Recorded Voice Announcement

An RVAC card contains a total of 7 blocks of RAM memory. Each block can contain 4 seconds of message recording time. The following procedures can be used to record a voice message or music.

To register the RVAC message in the data base:

1. Use CMC 260 to register an installed RVAC card.
2. Use CMC 261 to register the message.
 - (a) If the message is to be a regular message, enter circuit 0 as the final digit of the VEN in parameter P1. If the message is to be a shared message, enter a circuit in the range 1 through 7 as the final digit of the VEN in parameter P1.
 - (b) Enter the message ID for the type of message to be recorded in parameter P2. (See Table 4.28)
 - (c) Assign the recording time (number of message blocks) needed to record the message. (e.g., Each message block on the RVAC card is represented by a 0 or 1 in the 14 digit number at parameter P3. A 1 represents a block to be used, a 0 represents a block which is not to be used.)

NOTE: Digits 8 through 14 of parameter P3 must be 0.

- (d) Enter a 0 in parameter P4.
- (e) Enter the number of times the message is to be played back in parameter P5. Enter 0 at P5 if the message is to be played back endlessly.

The message can only be recorded from an SLT, CS-10, CS-20, CSD, or Attendant Console which has been given access to FNO 136, Recorded Voice Announcement Access, under class of service (CMC 104). To record the RVAC message:

1. Enter the feature access code, then enter 1, and then enter the message ID from step 2(b) of the data base registration procedure.
2. Speak or play the text of the message into the mouth piece of the station.
3. The message will be played back twice for confirmation after the recording time set in step 2(c) of the data base registration has expired.

4. If the message is correct, hang up the station and go on to step 5. If the message is incorrect, hang up the station, return to step 1, and repeat the process.
5. Use CMC 263 to protect the message from accidental erasure.
6. If the message is to be used as music-on-hold, register the VEN from step 2(a) at CMC 305, parameter P1.

NOTE: A Recorded Voice Message cannot be continued from one RVAC card to another. Therefore, the maximum length of a recorded message is 28 seconds.

Removing a Recorded Voice Announcement

To remove a Recorded Voice Announcement:

1. Use CMC 263 to release the accidental erasure block from the message.
2. From any station with access to FNO 136, Recorded Voice Announcement Access, enter the feature access code, then enter 0, and then enter the message ID. (Access to FNO 136 is given at CMC 104. The feature access code for FNO 136 is set at CMC 100.)
3. Hang up the station when confirmation tone is heard.
4. Use the REMOVE procedure at CMC 261.
5. If the message was used as music-on-hold, use the REMOVE procedure at CMC 305.

**Recorded Voice
Announcement Copy
(CMC 262)**

4.33 The Recorded Voice Announcement Copy (CMC 262) table is used to copy the recording associated with one message ID to another message ID. This CMC requires a HIGH level security code.

CMC = 262

P1:VMC1

P2:VMC2

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
			X	P1	VMC1	target MSGID	1 to 58	None
			X	P2	VMC2	source MSGID	1 to 58	None

DISPLAY

1. Enter a VMC1 at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of VMC1s.
- The system will release the CMC if the VMC1 value exceeds 58.

ADD

1. Enter a VMC1 at parameter P1.
2. Enter a VMC2 at parameter P2.
3. Press <ADD/CHG>.

REMOVE

1. Enter a VMC1 at parameter P1.
2. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The source MSGID has not been registered.	Check the data and try again or abandon the attempt.
DISAGREE	The target MSGID has already been registered.	Check the data and try again or remove the previously registered MSGID.

**Recorded Voice
Announcement
Protect Assignment
(CMC 263)**

4.34 The Recorded Voice Announcement Protect Assignment (CMC 263) table is used to protect a message block defined in CMC 261 or CMC 262 from being recorded over or erased. This CMC requires a HIGH level security code.

CMC = 263
P1:MSGID
P2:PRO

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
			X	P1	MSGID	message ID	1 to 58	None
			X	P2	PRO	protect mode	0 = off 1 = on	0

DISPLAY

1. Enter an MSGID at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display the protection mode in numerical order of MSGIDs.
- The system will release this CMC when the MSGID value exceeds 58.

CHANGE

1. Enter the MSGID at parameter P1
2. Enter the new PRO value at parameter P2.
3. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to add or change an MSGID which is not registered	Check the data and try again or abandon the attempt.

System Speed Calling Assignment (CMC 300)

4.35 The System Speed Calling Assignment (CMC 300) table is used to establish a directory of up to 100 telephone numbers in the system speed calling table. This list can be used by any station with the appropriate class of service. This CMC requires a LOW level security code.

CMC = 300	
P1:SPD	P4:
P2:ACD	P5:
P3:DG	P6:

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	SPD	system speed call number	00 - 99	None
X	X	X	X	P2	ACD	access code	use feature access code for trunk group (See CMC 100) or 9 (LCR) (see NOTES)	None
X	X	X	X	P3	DG	sent digits	1 to 15 digits (0 - 9, *, #)	None

NOTES:

- The dialed phone number consists of digits specified in parameter P2 plus P3. Up to 20 digits can be sent. (Packages C and D.) Since P3 has a maximum digit count of 15, part of the 20 digit string can be appended to the end of the access code entered in P2.
- If the dialed number is being sent out on a dial pulse trunk, and if an asterisk (*) is included as a part of the dialed number, the call will be connected to reorder tone.
- A pound sign (#) entered in parameter P3 indicates a pause.

DISPLAY

1. Enter an SPD at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of SPDs.
- The system will release this CMC when the SPD value exceeds 99.

CHANGE

1. Enter an SPD at parameter P1.
2. Enter an ACD at parameter P2.
3. Enter a DG at parameter P3.
4. Press <ADD/CHG>.

REMOVE

1. Enter an SPD at parameter P1.
2. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to display an SPD which is not registered.	Check the data and try again.

Hunt Group Number Assignment (CMC 301)

4.36 The Hunt Group Number Assignment (CMC 301) table is used to create hunt groups and to add or delete stations from hunt groups. There are three types of hunt groups, circular, terminating, and pilot. This CMC requires a LOW level security code.

Circular Hunt Groups

A hunting sequence starts with the called hunt group member and continues through all other members until an unbusy group member, or until all group members have been tried once.

Terminating Hunt Groups

A hunting sequence starts with the called hunt group member and continues through the remaining group members (members with a higher terminating sequence number only) until an idle member is found or the last group member has been tried.

Pilot Hunt Groups

A hunting sequence starts only when a call is directed to a pilot number. The pilot number must always be assigned as the first number in the group.

CMC = 301
 P1:STHN P4:HT
 P2:TO
 P3:DN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X				P1	STHN	hunt group number	1 to 10 voice	None
	X						1 to 10 voice 51 to 60 data	None
		X	X				1 to 20 voice 51 to 60 data	None
X	X	X	X	P2	TO	terminating sequence	1 to 16	None
X	X	X	X	P3	DN	station/data directory number	1 to 4 digits	None
X	X	X	X	P4	HT	hunt group type	1 = circular 2 = terminating 3 = pilot	None

DISPLAY

1. Enter an STHN at parameter P1 and a TO at parameter P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display the DNs in numerical order of TOs.
- Data display mode will terminate after the TO (16) has been displayed.
- Each STHN must be displayed separately.

CHANGE

1. Enter a STHN at parameter P1.
2. Enter the TO to be added/changed at parameter P2.
3. Enter the DN to be added at parameter P3.
4. Enter the HT for the TO at parameter P4.
5. Press <ADD/CHG>.

REMOVE

1. Enter an STHN at parameter P1 and a TO at parameter P2.
2. Enter the DN to be removed at parameter P3.
3. Press <DSP>.
4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
OVERLAP	<p>An attempt was made to ADD a DN which is already part of another hunt group.</p> <p>The specified STHN and TO are already registered to another station.</p>	<p>Remove the DN from the other hunt group and try again.</p> <p>Try another TO.</p>
NO FOUND	<p>An attempt was made to delete a DN which is not registered.</p>	<p>Abandon the attempt.</p>
NOT RGTR	<p>The EN for the specified DN has not been installed.</p> <p>The terminal type of the EN for the specified DN is mismatched.</p>	<p>Install the needed EN at CMC 200 or abandon the attempt.</p> <p>Check the entered data for accuracy and try again.</p>

**Group Pickup
Member Assignment
(CMC 302)**

4.37 The Group Pickup Member Assignment (CMC 302) table is used to assign or remove stations from specified pickup groups. Group pickup allows a station user to answer calls for other stations in the same pick-up group. A station with an alphanumeric display shows the originating trunk or station which was originally called. Each station can only belong to one pickup group. This CMC requires a LOW level security code.

CMC = 302	
P1:PKUN	P4:
P2:DN	P5:
P3:	P6:

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X			P1	PKUN	pickup group number	1 to 10	None
		X	X				1 to 20	None
X	X	X	X	P2	DN	directory number of member station	1 to 4 digits	None

NOTE: The maximum number of member stations is 32. (Station maximum applies to all packages.)

DISPLAY

1. Enter a PKUN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DNs.
- Each PKUN must be displayed separately.

ADD/CHANGE

1. Enter a PKUN at parameter P1.
2. Enter the DN to be added at parameter P2.
3. Press <ADD/CHG>.

REMOVE

1. Enter a PKUN at parameter P1.
2. Enter the DN to be removed at parameter P2.
3. Press <DSP>.
4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to enter a DN which is not registered.	Return to CMC 200 and register the station DN.
OVERLAP	An attempt was made to enter a DN which is already registered.	Abandon the attempt.
NO FOUND	An attempt was made to remove a DN which is not registered.	Check the entry for accuracy and try again.
NO AREA	Available system memory is exhausted.	Abandon the attempt or delete a different DN and try again.

**EKT Speaker Paging
Group Assignment
(CMC 303)**

4.38 The EKT Speaker Paging Group Assignment (CMC 303) table may be used to assign up to four stations to each of nine paging zones. This CMC requires a LOW level security code.

CMC = 303
P1:PGN
P2:DN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	PGN	paging zone number	1 to 9	None
X	X	X	X	P2	DN	station directory number of zone member station	1 to 4 digits	None

DISPLAY

1. Enter a PGN at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DNs.
- After the last registered DN has been displayed, pressing <DSP> will display a blank. Pressing <DSP> again will recycle the DN list.
- Each PGN must be displayed separately.

ADD

1. Enter a PGN at parameter P1.
2. Enter a DN at parameter P2.
3. Press <ADD/CHG> .

REMOVE

1. Enter a PGN at parameter P1.
2. Enter a DN at parameter P2.
3. Press <RMV> .

ERROR CODES

Error Code	Cause	Correction
NO AREA	An attempt was made to add a DN to a group which already has four members	Remove one or more entries from the existing list of stations or select a different zone.
OVERLAP	An attempt was made to enter a DN which is already registered.	Check the entry and try again or abandon the attempt.
NO FOUND	An attempt was made to display a DN which is not registered.	Check the entry and try again or register the DN.
NOT RGTR	An attempt was made to add a DN which is not installed.	Check the entry and try again or install the DN at CMC 200.

Hot Line Station Assignment (CMC 304)

4.39 The Hot Line Station Assignment (CMC 304) table is used to assign or remove voice and data hot lines. This CMC requires a LOW level security code.

CMC = 304
 P1:HNO
 P2:ODN
 P3:TDN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X				P1	HNO	hot line number	1 to 10 voice	None
	X						1 to 10 voice 51 to 60 data	None
		X	X				1 to 20 voice 51 to 90 data	None
X	X	X	X	P2	ODN	originating directory number	1 to 4 digits	None
X	X	X	X	P3	TDN	terminating directory number	1 to 4 digits	None

DISPLAY

1. Enter an HNO at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of HNOs.
- The system will release this CMC after the HNO value exceeds the maximum flag value.

CHANGE

1. Enter an HNO at parameter P1.
2. Enter the ODN to be added at parameter P2.
3. Enter the TDN to be added at parameter P3.
4. Press <ADD/CHG>.

REMOVE

1. Enter an HNO at parameter P1.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	<p>A specified DN has not been installed.</p> <p>The terminal type of the EN for the specified DN is mismatched</p>	<p>Install the needed DN at CMC 200 (voice) or CMC 220 (data) or abandon the attempt.</p> <p>Check the entered data for accuracy and try again.</p>

**Music-on-Hold
Assignment (CMC 305)**

4.40 The Music-on-Hold Assignment (CMC 305) table is used to designate a trunk circuit EN or RVAC circuit EN (Package D) as a music source. This CMC requires a LOW level security code.

CMC = 305
P1:EN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	EN	EN for music source connection.	3 or 4 digits	None

NOTE: The EN must be entered in the format XYYZ, where:
 X = 0, 1, or blank (cabinet number) This digit is never entered for Packages A or B
 YY = (card slot) 06 - 18 for 4BWCs; 00 - 14 for RVACs
 Z = (circuit number) 0 - 3 for 4BWCs; 1 - 7 for RVACs

DISPLAY

Press <DSP> .

NOTES:

- If no music source is registered, the display will show a blank.
- Pressing <DSP> again will release the CMC.

CHANGE

1. Enter the EN where the music source has been connected.
2. Press <ADD/CHG> .

NOTE: Adjust CMC 250 for trunk terminations or CMC 261 for RVAC port terminations.

REMOVE

Press <RMV> .

ERROR CODES

Error Code	Cause	Correction
DISAGREE	The specified EN is neither a trunk nor a RVAC.	Enter the correct EN.
NOT RGTR	<p>The specified trunk EN is not the music source,</p> <p>The specified RVAC circuit EN is not the playback port.</p> <p>The specified RVAC circuit EN was not marked for endless playback.</p>	<p>Confirm that the EN is marked as TOT = 11 at CMC 250, and try again.</p> <p>Confirm that the EN is marked as MSGID = 56 at CMC 261 and try again.</p> <p>Confirm that the EN is marked for endless playback (RDCNT = 0) at CMC 261, and try again.</p>

**Night Answer
Station Assignment
(CMC 306)**

4.41 The Night Answer Station Assignment (CMC 306) table is used to create night answer groups. This CMC is also used to establish attendant overflow. This CMC requires a LOW level security code.

CMC = 306
P1:NTAG
P2:TSFG
P3:EN/TNN

2 TIMES

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X			P1	NTAG	night answer group number	1 to 16	None
		X	X				1 to 32	None
X	X			P2	TSFG	trunk/station flag	1 = station 2 = trunk	None
		X	X				trunk/station/ tenant flag	1 = station 2 = trunk 3 = tenant
X	X			P3	EN	equipment number	3 digits	None
		X	X		EN/TNN	equipment number (P2 = 1 or 2) or tenant number (P2 = 3)	3 or 4 digits or 1 - 4 = tenant number * = all tenants 0 = no tenants	None

NOTES:

- The EN must be entered in the format XYYZ, where:
 X = 0, 1, or blank (cabinet number) This digit is never entered for Packages A or B
 YY = (card slot) 00 - 14 for line cards; 06 - 18 for trunk cards
 Z = (circuit number) 0 - 7 for line cards; 0 - 3 for trunk cards
- When P2 is 3 (tenant), P3 must be 1-4, *, or 0.

DISPLAY

1. Enter an NTAG at parameter P1 and a TSFG at parameter P2.
2. Press <DSP>.

NOTES: Pressing <DSP> repeatedly will display data in numerical order of subsequent ENs or TNNs.

After all registered data has been displayed, pressing <DSP> will cause blanks to be displayed. Pressing <DSP> again will recycle the first EN or EN/TNN.

Each NTAG/TSFG pair must be displayed separately.

ADD

1. Enter the key parameters.
2. Enter the EN/TNN at parameter P3.
3. Press <ADD/CHG>.

REMOVE

1. Enter the key parameters.
2. Enter the EN/TNN to be removed at parameter P3.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NO AREA	An attempt was made to add an EN to a group which already has eight members.	Remove one or more entries from the existing list of stations.
OVERLAP	An attempt was made to enter an EN which is already registered.	Check the entry and try again or abandon the attempt.
NO FOUND	An attempt was made to remove data which is not registered.	Check the entry and try again.
NOT RGTR	The specified TSFG does not match the specified EN.	Check the entry and try again.
PARA.ERR	The specified TNN is out of range.	Check the entry and try again.

Direct-In Line Assignment (CMC 307)

4.42 The Direct-In Line Assignment (CMC 307) table is used to enter or remove a direct-in line. A direct-in line rings directly to a station bypassing the Attendant or DSS/BLF Console. This CMC requires a LOW level security code.

CMC = 307
 P1:EN
 P2:DN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	EN	trunk equipment number	3 or 4 digits	None
X	X	X	X	P2	DN	station directory number	1 to 4 digits	None

NOTE: The EN must be entered in the format XYYZ, where:
 X = 0, 1, or blank (cabinet number) This digit is never entered for Packages A or B
 YY = 06 - 18 (card slot)
 Z = 0 - 3 (circuit number)

DISPLAY

1. Enter an EN at parameter P1.
2. Press <DSP>.

NOTE: Pressing <DSP> repeatedly will display each subsequent EN and the DN associated with it.

The system will release this CMC when the last EN is displayed.

CHANGE

1. Enter an EN at parameter P1 and a DN at parameter P2.
2. Press <ADD/CHG>.

REMOVE

1. Enter the EN of the data to be removed.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified EN is not for a trunk.	Select a trunk circuit EN and try again.
	The specified DN is not registered yet.	Register the DN and try again.

ACD (Automatic Call Distribution) Group Assignment (CMC 308)

4.43 This table is used to establish the list of stations in each of the ACD Groups. This CMC requires a LOW level security code.

CMC = 308
 P1:ACDNO
 P2:DN
 P3:TYP

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
			X	P1	ACDNO	ACD group number	1 to 20	None
			X	P2	DN	station directory number	1 to 4 digits	None
			X	P3	TYP	type of member	0 = agent DN 1 = pilot DN	None

DISPLAY

1. Enter an ACDNO at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display subsequent DNs and TYPs in numerical order of DNs.
- Pressing <DSP> after the last registered DN has been displayed will cause blanks to be displayed. Pressing <DSP> again will recycle the DN list for the same ACDNO.
- Each ACDNO must be displayed separately.

ADD

1. Enter an ACDNO at parameter P1, a DN at parameter P2, and a TYP at parameter P3.
2. Press <ADD/CHG>.

REMOVE

1. Enter the ACDNO and DN of the extension to be removed from ACD service.
2. Press <RMV>.

Pilot station should be a CSD as MCT

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	<p>An attempt was made to enter a DN which is not installed.</p> <p>An attempt was made to register a terminal which is not a station</p>	<p>Check to be sure the DN equipment has been installed and try again.</p> <p>Try again using a DN for a phone terminal.</p>
OVERLAP	<p>An attempt was made to enter a DN which is already registered as a ACD member.</p> <p>An attempt was made to enter a pilot DN when one is already registered for that ACDNO.</p>	<p>Check the data and try again or abandon the attempt.</p> <p>Remove the pilot status from its current station and try again.</p>
NO FOUND	<p>An attempt was made to remove a station which is not registered.</p>	<p>Check the data and try again.</p>

Silent Message Assignment (CMC 309)

4.44 The Silent Message Assignment (CMC 309) table is used to create, change, or remove up to 50 silent messages with a maximum of 15 characters in each message. This CMC can only be used from a PMP or PcMP and requires a LOW level security code.

CMC = 309
 P1:MID
 P2:MSG

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
			X	P1	MID	message ID	00 to 50	None
			X	P2	MSG	message text	1 to 15 characters	See Table 4.35

NOTE: Message 00 is fixed. The text cannot be changed.

DISPLAY

1. Enter an MID at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of MIDs.
- The system will release this CMC when the MID value exceeds 50.
- If no message has been entered for an MID, blanks will be displayed.

CHANGE

1. Enter an MID at parameter P1.
2. Enter the text of an MSG at parameter P2.
3. Press <ADD/CHG>.

REMOVE

1. Enter an MID at parameter P1.
2. Press <DSP>.
3. Press <RMV>.

Table 4.35 Default Silent Message Number Assignment

Number	Silent Message
00	Call Me Back (Default Message) *
01	Will Call Back
02	Returned Call
03	Urgent
04	To My Office
05	In a Meeting
06	Out to Lunch
07	In Tomorrow
08	Out of Town
09	On Vacation
10 - 50	Not Assigned

* If the message leaving feature is activated, but no message is specified, the system will send message 00 by default.

**Message
Registration TGN
Screening
Assignment (CMC 350)**

4.45 The Message Registration (Call Charge) TGN Screening Assignment (CMC 350) table is used to designate which trunk groups will be designated for local call charges. This CMC requires a HIGH level security code.

CMC = 350
P1:TGN
P2:FLAG

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	<u>TGN</u>	trunk group number	13 to 30, 51 to 56	None
		X	X	P2	FLAG	call charge flag	0 = no registration 1 = registration	0

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC after the last registered TGN has been displayed.

CHANGE

1. Enter the TGN to be changed at parameter P1.
2. Enter new FLAG value at P2.
3. Press <ADD/CHG> .

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified TGN is outside the allowed range.	Check the data and try again.

**Message Registration
(Call Charge) Office
Code Assignment
(CMC 351)**

4.46 This table is used to assign local office codes to a billing group. These billing groups are used to assess charges for local calls in Hotel/Motel operation. This CMC requires a HIGH level security.

CMC = 351
P1:BRN
P2:OC

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	BRN	billing group number	1 to 6	None
		X	X	P2	OC	office code	100 to 999	None

DISPLAY

1. Enter a BRN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of OCs.
- If <DSP> is pressed after the last registered OC has been displayed, a blank will be shown. Pressing <DSP> again will recycle the OC list.
- Each BRN must be displayed separately.

ADD

1. Enter a BRN at parameter P1.
2. Enter an OC at parameter P2.
3. Press <ADD/CHG>.

REMOVE

1. Enter the BRN to be removed at parameter P1.
2. Enter the OC to be removed at parameter P2.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
PARA.ERR	An attempt was made to enter an OC which is out of range.	Check the data and try again.
OVERLAP	An attempt was made to enter an OC which has already been used.	Remove the OC from the list where it was previously entered or abandon the attempt.
NO FOUND	The specified OC has not been registered.	Check the data and try again.

**Message Registration
(Call Charges) Billing
Rate Assignment
(CMC 352)**

4.47 The Message Registration (Call Charges) Billing Rate Assignment (CMC 352) table is used to establish the call duration periods and the billing rate per period for up to six billing groups. This CMC requires a HIGH level security code.

CMC = 352	
P1:BRN	P4:DTIM
P2:ITIM	P5:DCST
P3:ICST	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	BRN	billing group number	1 to 6	None
		X	X	P2	ITIM	initial time period for call	1 to 400 seconds	1
		X	X	P3	ICST	initial charge for call	0 to 255 cents	0
		X	X	P4	DTIM	length of additional time periods	1 to 400 seconds	1
		X	X	P5	DCST	charge for additional time periods	0 to 255 cents	0

DISPLAY

1. Enter a BRN at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of BRNs.
- The system will release this CMC when the BRN exceeds 6.

CHANGE

1. Enter values for parameters 1 through 6.
2. Press <ADD/CHG> .

ERROR CODES

Error Code	Cause	Correction
PARA.ERR	An attempt was made to enter a parameter which is out of range.	Check the data and try again.

**Special Service Code/
Service Call Routing
Assignment (CMC 353)**

4.48 The Special Service Code/Service Call Routing Assignment (CMC 353) table is used to register special service codes and service call routing for Hotel/Motel use. A special service code permits the user to call hotel services such as room service or housekeeping. These services are accessed by dialing access codes assigned at CMC 100. Service call routing permits the system to route these service calls for efficiency. For example, dialing the code for maid service causes the call to be routed to the maid-in-charge of the floor of the calling room. This CMC requires a HIGH level security code.

CMC = 353
 P1:FAC P4:FLR
 P2:CLT
 P3:DN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	FAC	feature access code	1 to 4 digits (set at CMC 100)	None
		X	X	P2	CLT	feature selection control	1 = special service code 2 = service call routing	None
		X	X	P3	DN	destination directory number	1 to 4 digits	None
		X	X	P4	FLR	guest room floor number	1 to 99 (when P2 = 2) blank (when P2 = 1)	None

DISPLAY

Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of FACs.
- The system will release this CMC after the last registered FAC is displayed.

ADD

1. Enter the required parameters.
2. Press <ADD/CHG>.

NOTE: A maximum of 20 floors can be assigned at P4.

REMOVE

1. Enter the data parameters to be removed.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to register floor routing when no base floor has been registered.	Register flag number 15 at CMC 358.
	An attempt was made to enter a DN which is not registered.	Check the data entry and try again.
PARA.ERR	An attempt was made to register more than 20 floors.	Check the data entry and try again.
	An attempt was made to enter an FLR when the CLT = 1.	Remove the FLR entry and try again.
	An attempt was made to enter an FAC which is not registered.	Return to CMC 100 and register the FAC or use a registered FAC.
NO FOUND	An attempt was made to enter an unregistered DN.	Check the data and try again.
	An attempt was made to enter a DN which is not registered on the indicated FLR.	Check the data and try again.
	An attempt was made to enter an FAC which is not registered.	Return to CMC 100 and register the FAC or use a registered FAC.
OVERLAP	An attempt was made to enter an FAC which has already been used.	Remove the service previously assigned to the FAC or try a different FAC.
	An attempt was made to enter an FLR which has already been used.	Remove the service previously assigned to the FAC or try a different FAC.

Room Status Indicator Assignment (CMC 354)

4.49 The Room Status Indicator Assignment (CMC 354) table may be used to register up to two DSS/BLF consoles as Room Status Indicators. The Room Status Indicator uses a series of light patterns to show room vacant, room occupied, etc. This CMC requires a HIGH level security code.

CMC = 354
 P1:RSIN
 P2:TYP
 P3:EN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	RSIN	Room Status Indicator number	1 or 2	None
		X	X	P2	TYP	room status indicator type	1 = 40 button 2 = 80 button	None
		X	X	P3	EN	equipment number	3 or 4 digits	None

NOTES:

- The EN must be entered in the format XYYZ, where:
 X = 0, 1, or blank (cabinet number)
 YY = 00 - 14 (card slot)
 Z = 0 - 7 (circuit number)
- A DSS/BLF must be removed at CMC 210 before being assigned at CMC 354.

DISPLAY

1. Enter 1 at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> again will display the other Room Status Indicator if it is installed.
- The system will release this CMC when the RSIN value exceeds 2.

ADD

1. Enter a RSIN at parameter P1.
2. Enter the new TYP value at parameter P2.
3. Enter the new EN value at parameter P3.
4. Press <ADD/CHG>.

REMOVE

1. Enter the RSIN for the Room Status Indicator to be removed at parameter P1.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NO FOUND	The specified RSIN's EN is not installed.	Ensure that the EN has been installed and try again.
OVERLAP	The specified EN is already registered as an RSIN.	Remove the current service registered to the EN and try again.
CHK PKG	The Room Status Indicator is not installed on the specified EN.	Check the physical installation and try again.
DISAGREE	The specified EN has been registered as a DSS/BLF at CMC 210.	Go to CMC 210 and remove the DSS/BLF before registering the Room Status Indicator.

**Room Status Indicator
Button Assignment
(CMC 355)**

4.50 The Room Status Indicator Button Assignment (CMC 355) table is used to assign guest room directory numbers to the Room Status Indicator(s). This CMC requires a LOW level security code.

CMC = 355
P1:RSIN
P2:BTN
P3:DN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	<u>RSIN</u>	Room Status Indicator number	1 or 2	None
		X	X	P2	<u>BTN</u>	button number	1 to 160	None
		X	X	P3	DN	directory number	1 to 4 digits	None

NOTE: Buttons 41 through 80 may be assigned even if the Room Status Indicator is the 40-button type.

DISPLAY

1. Enter an RSIN at parameter P1 and a BTN at parameter P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of BTNs.
- The system will release this CMC when the BTN value exceeds 80.
- Each RSIN must be displayed separately.

ADD

1. Enter an RSIN at parameter P1.
2. Enter a BTN at parameter P2.
3. Enter the new DN value at parameter P3.
4. Press <ADD/CHG>.

REMOVE

1. Enter an RSIN at parameter P1 and a BTN at parameter P2.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to enter a DN which is not installed.	Enter an installed DN and try again.
OVERLAP	<p>The specified BTN is already registered.</p> <p>The specified DN is already registered.</p>	<p>Remove the previously registered data or try a different BTN.</p> <p>Remove the previously registered data or try a different DN.</p>
NO FOUND	An attempt was made to display a BTN which is not registered.	Check the data and try again.

Hotel/Motel Printer Assignment (CMC 356)

4.51 The Hotel/Motel Printer Assignment (CMC 356) table is used to register up to two Hotel/Motel printers. This CMC requires a HIGH level security code.

CMC = 356
 P1:PRN
 P2:CEN
 P3:DEN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	PRN	printer number	1 or 2	None
		X	X	P2	CEN	character trunk equipment number	3 or 4 digits	None
		X	X	P3	DEN	DIU/DTA directory number (VOICE)	1 to 4 digits	None

NOTES:

- The EN must be entered in the format XYYZ, where:
 X = 0, 1, or blank (cabinet number)
 YY = 00 - 18 (card slot)
 Z = 0 - 3 (circuit number)
- Data line attributes must be assigned prior to assigning the printer. (See CMCs 220 - 224)

DISPLAY

1. Enter 1 at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> again will display the other printer if it is installed.
- The system will release this CMC when the PRN value exceeds 2.

ADD

1. Enter a PRN at parameter P1.
2. Enter a CEN value at parameter P2.

3. Enter a DEN value at parameter P3.

4. Press <ADD/CHG>.

REMOVE

1. Enter the PRN of the printer to be removed at parameter P1.

2. Press <DSP>.

3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified CEN or DEN has not been installed yet.	Check that the CEN and DEN have been installed and try again.
DISAGREE	Terminal types disagree. The DIU/DTA attributes are set to synchronous mode and half duplex mode and forced RTS signal on option is set.	Check the data and try again. Adjust P3 at CMCs 222 and P3 at CMC 223.
DENIED 1	An attempt was made to assign the printer to an instrument having MCT registration.	Cancel the MCT registration at CMC 702.
OVERLAP	An attempt was made to register a PRN which is already installed.	Try another PRN or abandon the attempt.

**Hotel/Motel Print Out
Message Allocation
(CMC 357)**

4.52 The Hotel/Motel Print Out Message Allocation (CMC 357) table is used to mark messages for printout on specific printers. This CMC requires a HIGH level security code.

CMC = 357
P1:PRTN
P2:MID
P3:FDC

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	<u>PRTN</u>	printer number	1 or 2	None
		X	X	P2	MID	message type ID code	1 = independent 2 = common (See Table 4-36)	None
		X	X	P3	FDC	Front Desk Console directory number	1 to 4 digits (EKT) or ATT Code + ATT #	None

DISPLAY

1. Enter 1 at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> again will display the other printer if it is installed.
- The system will release this CMC when the PRTN value exceeds 2.

ADD

1. Enter a PRTN at parameter P1.
2. Enter the new MID value at parameter P2.
3. If parameter P2 = 1, then enter the new FDC value at parameter P3. If parameter P2 = 2 enter a blank at parameter P3.
4. Press <ADD/CHG> .

REMOVE

1. Enter the PRTN for the printer to be removed at parameter P1.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified FDC has not been installed.	Check that the FDC has been installed and try again.
OVERLAP	The PRTN which was entered has already been registered to the specified FDC.	Try another PRTN or FDC or abandon the attempt.
PARA.ERR	An attempt was made to enter an FDC when MID = 2.	Cancel the FDC entry and try again or make the MID = 1.
NO PARA	An FDC was not entered and MID = 1.	Enter an FDC and try again or make the MID = 2.
NO FOUND	An attempt was made to display a printer which is not installed	Check the data at CMC 356 and try again.
NO AREA	An attempt was made to exceed the system maximum of 8 FDCs associated with the H/M printer.	Remove one or more of the registered FDCs or abandon the attempt.

Table 4.36 Independent and Common Messages

Independent Messages
Automatic wake-up status (for all guestrooms with wake-up activated).
Automatic wake-up activation/cancellation by Front Desk Console (can be omitted at CMC 358).
Message registration status (for all guest room stations with charges).
Message registration added/initialized/verified (can be omitted at CMC 358).
Common Messages
Automatic wake-up activation/cancellation by guest room (can be omitted at CMC 358).
Automatic wake-up execution (can be omitted at CMC 358).
Real-Time source failure (system clock)

Hotel/Motel Parameter Assignment (CMC 358)

4.53 The Hotel/Motel Parameter Assignment (CMC 358) table is used to revise or confirm the system defaults for the Hotel/Motel parameters. This CMC requires a HIGH level security code.

CMC = 358
 P1:FLGN
 P2:STV

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	FLGN	flag number	1 to 17	None
		X	X	P2	STV	status value	0 or 1 [1 to 99 for flag number 15 only - base floor number]	See Table 4.37

DISPLAY

1. Enter an FLGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of FLGNs.
- The system will release this CMC when the FLGN value exceeds 32.

CHANGE

1. Enter an FLGN at parameter P1.
2. Enter the new STV value at parameter P2.
3. Press <ADD/CHG>.

Table 4.37 Hotel/Motel Feature Flags

Parameter Flag Number (P1)	Definition	Default (P2)
1	Wake-Up Registration Print Out (0 = no print out, 1 = printout)	1
2	Wake-Up Cancellation Print Out (0 = no print out, 1 = printout)	1
3	Wake-Up Answered Print Out (0 = no print out, 1 = printout)	1
4	Wake-Up, No Answer Print Out (0 = no print out, 1 = printout)	1
5	Call Charges Added Print Out (0 = no print out, 1 = printout)	1
6	Call Charges Initialized Print Out (0 = no print out, 1 = printout)	1
7	Call Charges Verified Print Out (0 = no print out, 1 = printout)	1
8	Auto Apply Cleanup When Change Room Status From Occupied to Vacant (0 = do not apply, 1 = do apply)	1
9	Indicate Guest Phone Lockout on Room Status Indicator (0 = do not display, 1 = do display)	1
10	Indicate "Wake-Up, No Answer" on Room Status Indicator (0 = do not display, 1 = do display)	1
11	Indicate "Do-Not-Disturb" on Room Status Indicator (0 = do not display, 1 = do display)	1
12	Room-to-Room Calls Blocked (0 = do not block, 1 = do block)	0
13	Incoming Station Calls to Vacant Room Permitted (0 = do not block, 1 = do block)	1
14	Incoming Trunk Calls from Vacant Room Permitted (0 = do not block, 1 = do block)	1
15	Base Floor for Service Call Routing (1 - 99)	1
16	Use tone (0) or music (1) for Wake-Up call (N/A if using RVAC)	0
17	Indicate "Needs Clean Up" for occupied room on Room Status Indicator (0 = do not apply, 1 = do apply)	1
18 - 32	RESERVED DO NOT USE	0

**Trunk Dialing Group (DGN)/
Restriction Group (RGN)
Assignment (CMC 400)**

4.54 The Trunk Dialing Group (DGN)/Restriction Group (RGN) Assignment (CMC 400) table is used to assign trunk groups to a dial group and a restriction group. Each trunk group can be assigned to only one dialing group and only one restriction group.

NOTE: If the system is operating behind a PABX, assign no restrictions (the PABX will handle all restrictions).

CMC = 400
P1:TGN
P2:DGN
P3:RGN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X			P1	TGN	trunk group number	13 to 56	See Table 4.38
		X	X				13 to 63	See Table 4.38
X	X	X	X	P2	DGN	dialing group number	1 to 3 or blank	See Table 4.38
X	X	X	X	P3	RGN	restriction group number	1 to 3 or blank	See Table 4.38

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC when the TGN value exceeds 63.

CHANGE

1. Enter a TGN at parameter P1.
2. Press <DSP>.
3. Use the cursor control keys or <RETURN> to move the cursor to the parameter to be changed.

**Customer and Operator
Toll Prefix Codes
Assignment (CMC 401)**

4.55 This table is used to assign the customer and operator toll prefix codes for each dialing group. This CMC requires a HIGH level security code.

CMC = 401
P1:DGN
P2:CTP
P3:OTP

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	DGN	dial group number	1 to 3	1 to 3
X	X	X	X	P2	CTP	customer toll prefix code	1 - 3 digits or blank	1 +
X	X	X	X	P3	OTP	operator toll prefix code	1 - 3 digits or blank	0 +

NOTE: If P3 = 110 then P2 ≠ 1.

DISPLAY

1. Enter a DGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DGNs.
- The system will release this CMC when the DGN value exceeds 3.

ADD

1. Enter a DGN at parameter P1.
2. Enter a CTP at parameter P2.
3. Enter an OTP at parameter P3.
4. Press <ADD/CHG>.

CANCEL

1. Enter a DGN at parameter P1.
2. Press <DSP> .
3. Use the cursor control keys or <RETURN> to move the cursor to the toll prefix code to be canceled.
4. Press <CAN> .
5. Press <ADD/CHG> .

Conflicting Area/Office Code Assignment (CMC 402)

4.56 The Conflicting Area/Office Code Assignment (CMC 402) table is used to register conflicting area and office codes. This list is limited to 30 conflicting codes in each dialing group. This CMC requires a HIGH level security code.

CMC = 402
 P1:TPC P4:DG
 P2:DGN
 P3:FLG

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	TPC	toll prefix code	0 = required 1 = not required	None
X	X	X	X	P2	DGN	dial group number	1 to 3	None
X	X	X	X	P3	FLG	registration digit flag	0 = office code 1 = area code	0
X	X	X	X	P4	DG	registration digit	3 digits	None

DISPLAY

1. Enter a TPC at parameter P1 and a DGN at parameter P2.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display subsequent DGs in numerical order.
- A blank will be displayed after the last registered DG has been displayed. Pressing <DSP> again will recycle the list.
- Each TPC/DGN combination must be displayed separately.

ADD

1. Enter the key parameters.
2. Press <DSP> .
3. Use the cursor controls or <RETURN> to move the cursor to the parameter to be added.
4. Enter the new value over any previously entered value which may be displayed.

5. Press <ADD/CHG>.

REMOVE

1. Enter the key parameters.
2. Enter the appropriate TPC and DGN values.
3. Press <DSP>.
4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NO AREA	An attempt was made to make an entry when no more system memory was available.	Remove one or more entries on this table
OVERLAP	An attempt was made to add a DG which is already registered.	Check the data and try again or abandon the attempt.
NO FOUND	An attempt was made to remove a DG which is not currently registered.	Check the data and try again or abandon the attempt.

**Routing Digit Assignment
(CMC 403)**

4.57 The Routing Digit Assignment (CMC 403) table is used to set the routing digit prefix needed for some of the dialing patterns which may be elected in CMC 420, P4 and CMC 421, P4. This CMC requires a HIGH level security code.

CMC = 403	
P1:DGN	P4:RD3
P2:RD1	P5:RD4
P3:RD2	P6:RD5

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	DGN	dial group number	1 to 3	None
X	X	X	X	P2	RD1	routing digits #1	1 or 2 digits blank = no RDs	None
X	X	X	X	P3	RD2	routing digits #2	1 or 2 digits blank = no RDs	None
X	X	X	X	P4	RD3	routing digits #3	1 or 2 digits blank = no RDs	None
X	X	X	X	P5	RD4	routing digits #4	1 or 2 digits blank = no RDs	None
X	X	X	X	P6	RD5	routing digits #5	1 or 2 digits blank = no RDs	None

DISPLAY

1. Enter a DGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of DGNs.
- The system will release this CMC when the DGN value exceeds 3.

ADD

1. Enter a DGN at parameter P1.
2. Enter RD numbers 1 - 5 at parameters P2 through P6.
3. Press <ADD/CHG>.

CANCEL

1. Enter a DGN at parameter P1.
2. Press <DSP>.
3. Use the cursor control keys or <RETURN> to move the cursor to the RD to be canceled.
4. Press <CAN>.
5. Press <ADD/CHG>.

**SCC Assignment
(CMC 404)**

4.58 The SCC Assignment (CMC 404) table is used to register the SCC gateway telephone number, SCC security access code, and signal timing values for each SCC connection. This CMC requires a HIGH level security code.

CMC = 404	
P1:RTNO	P4:TIM
P2:SDN	P5:
P3:SCO	P6:

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	RTNO	SCC route number	1 to 6 (See Table 4.39)	None
X	X	X	X	P2	SDN	SCC gateway telephone number	1 - 15 digits (0 - 9)	None
X	X	X	X	P3	SCO	SCC security access code	1 - 15 characters (0 - 9, *, and #)	None
X	X	X	X	P4	TIM	signal timing values	XXYY XX = 00 - 15 YY = 00 - 15	0000

NOTES:

- If the characters * or # are part of the SCO (P2) the outgoing trunk must have DTMF assigned at CMC 251, P2 (DTMF = 5).
- Parameter P4 is in two parts:
 - The first two digits are the time in seconds between sending the SCC gateway directory number and sending the security access code.
 - The second two digits are the time in seconds between sending the security access code and sending the called party's directory number.

DISPLAY

1. Enter an RTNO at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of RTNOs.
- The system will release the CMC when the RTNO value exceeds 6.

ADD/CHANGE

1. Enter parameters P1 through P4.
2. Press <ADD/CHG>.

REMOVE

1. Enter an RTNO at P1.
2. Press <DSP>.
3. Press <RMV>.

Table 4.39 SCC Route Numbers (CMC 404) and Trunk Group Numbers (CMC 405)

Feature Name/Number	RTNO (P1) Values for CMC 404	STGN (P1) Values for CMC 405
SCC #1 Access/42	1	51
SCC #2 Access/43	2	52
SCC #3 Access/44	3	53
SCC #4 Access/45	4	54
SCC #5 Access/46	5	55
SCC #6 Access/47	6	56

SCC Routing TGN Assignment (CMC 405)

4.59 The SCC Routing TGN Assignment (CMC 405) table is used if there are no dedicated SCC trunks. This table routes outgoing SCC calls through standard CO lines. This CMC requires a HIGH level security code.

CMC = 405
 P1:STGN
 P2:RTGN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	STGN	SCC trunk group number	51 to 56	None
X	X	X	X	P2	RTGN	routing destination trunk group number	13 to 36	None

NOTE: P1 values 1 - 50 and 57 - 63 and P2 values 1 - 12 and 37 - 63 are normally not used.

DISPLAY

1. Enter an STGN at parameter P1.
2. Press <DSP>.

NOTE: Pressing <DSP> repeatedly will display data in numerical order of STGNs.

ADD/CHANGE

1. Enter an STGN/RTGN pair at P1 and P2 respectively.
2. Press <CHG>.

REMOVE

1. Enter an STGN at parameter P1.
2. Press <DSP>.
3. Press <RMV>.

**Tie Trunk Level
Change Assignment
(CMC 406)**

4.60 The Tie Trunk Level Change Assignment (CMC 406) table is used to enter any necessary dialed digit manipulations which must be made by the system to incoming digits received over a Tie trunk. This CMC requires a HIGH level security code.

CMC = 406
 P1:TGN P4:LCD
 P2:ADD
 P3:RPD

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	TGN	trunk group number	1 to 63	None
X	X	X	X	P2	ADD	additional digits	1 or 2 digits or blank blank = no additional digits	None
X	X	X	X	P3	RPD	digits to be replaced	1 to 4 digits or blank blank = no digits cut	None
X	X	X	X	P4	LCD	level change digits (replacement digits)	1 to 4 digits or blank blank = no digits cut	None

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC when the TGN value exceeds 63.

ADD/CHANGE

1. Enter the TGN for which entries are to be made or changed at parameter P1.
2. Press <DSP>.

NOTE: If any data is returned by the system, press <RMV>.

3. Enter appropriate values for the other parameters.
4. Press <ADD/CHG>.

CANCEL

1. Use the cursor control codes or the <RETURN> key to move the cursor to the parameter to be canceled.
2. Press <CAN>.

REMOVE

1. Enter the TGN of the data to be removed at parameter P1.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
PARA.ERR	An attempt was made to add a TGN for which an LCD was entered but an RPD was not.	Enter the missing parameter and try again.
NO PARA	An attempt was made to add a TGN for which an RPD was entered but an LCD was not.	Enter the missing parameter and try again.

**Trunk to Trunk
Connection Assignment
(CMC 410)**

4.61 The Trunk to Trunk Connection Assignment (CMC 410) table is used to list those trunk to trunk connections which are to be allowed. (See also CMC 102, flag 5.) This CMC requires a HIGH level security code.

CMC = 410
P1:TGN
P2:TGN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	TGN	trunk group number of the originating trunk	1 to 63	See NOTE
X	X	X	X	P2	TGN	trunk group number of the connecting trunk	1 to 63	See NOTE

NOTE: By default, all trunks are permitted access to all other trunks.

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display the list of TGNs which can be connected to the TGN entered at parameter P1. Blanks will be displayed when the list is complete. Continued pressing of <DSP> will display the list again.
- To display the next originating TGN, repeat this procedure from step 1.

ADD/CHANGE

1. Enter an originating TGN at parameter P1.
2. Enter a connecting TGN at parameter P2.
3. Press <ADD/CHG>.

REMOVE

1. Enter an originating TGN at parameter P1.
2. Enter the connecting TGN to be removed at P2.
3. Press <RMV> .

ERROR CODES

Error Code	Cause	Correction
OVERLAP	An attempt was made to add a connecting TGN which has already been entered.	Check to be sure the TGN was not typed incorrectly.
NO FOUND	An attempt was made to display an originating TGN which has not been entered.	Check to be sure the TGN was not typed incorrectly or add the TGN.

**Toll and Operator Call
Restriction Assignment
(CMC 411)**

4.62 The Toll and Operator Call Restriction Assignment (CMC 411) table is used to define the ability of each class of restriction to access international calls, operator toll calls, customer toll calls, etc. This CMC requires a HIGH level security code.

CMC = 411	
P1:RGN	P4:FVA
P2:COR	
P3:FLID	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>RGN</u>	restriction group number	1 to 3	See Table 4.41
X	X	X	X	P2	<u>COR</u>	class of restriction	1 to 16	See Table 4.41
X	X	X	X	P3	<u>FLID</u>	flag ID	1 to 7 (See Table 4.40)	See Table 4.41
X	X	X	X	P4	FVA	flag value	0 or 1 (See Table 4.40)	See Table 4.41

DISPLAY

1. Enter an RGN, COR, and FLID at parameters P1, P2, and P3.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of FLIDs.
- Each RGN/COR combination must be displayed separately.

CHANGE

1. Enter the key parameters.
2. Press <DSP> .
3. Enter the new flag value over any previously entered value which may be displayed.
4. Press <ADD/CHG> .

Table 4.40 CMC 411, P3 Flag Meanings

P3	Flag Definition	Allowed Flag	Denied Flag
1	International Toll Prefix	0	1
2	Operator Toll Prefix	0	1
3	Customer Toll Prefix	0	1
4	Toll Assistance	1	0
5	All Area Codes	0	1
6	All Office Codes	0	1
7	Long Distance Assistance	1	0

Table 4.41 CMC 411, Default Matrix

Class of Restriction	Restriction Groups 1, 2, and 3						
	01/001	0+	1+	411	ALL AC	ALL OC	XXX/555-1212
1	A	A	A	A	A	A	A
2	A	A	A	A	A	A	A
3	A	A	A	A	A	A	A
4	D	D	A	A	A	A	A
5	D	D	A	A	A	A	A
6	D	D	A	A	A	A	A
7	D	D	A	A	A	A	D
8	D	D	D	A	D	A	D
9	D	D	D	D	D	A	D
10 - 16	D	D	D	D	D	D	D

A = Allowed
D = Denied

Office Code Restriction Assignment (CMC 412)

4.63 The Office Code Restriction Assignment (CMC 412) table is used to create a list of office codes to which connections are allowed or denied for each class of restriction within a restriction group. Figure 4.19 shows the hierarchy of this table's organization. This CMC requires a HIGH level security code.

CMC = 412	
P1:RGN	P4:OC
P2:COR	
P3:FLG	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>RGN</u>	Restriction Group Number	1 to 3	None
X	X	X	X	P2	<u>COR</u>	Class of Restriction	1 to 16	None
X	X	X	X	P3	<u>FLG</u>	Allowed/Denied Flag	0 = Allowed 1 = Denied	None
X	X	X	X	P4	<u>OC</u>	Office Code	3 digits	None

DISPLAY

1. Enter an RGN and COR at parameters P1 and P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of OCs.
- A blank will be displayed after the last registered OC has been displayed. Pressing <DSP> again will recycle the OC list.
- Each RGN/COR combination must be displayed separately.

ADD

1. Enter the key parameters.
2. Press <DSP>.
3. Use the cursor controls or <RETURN> to move the cursor to the parameter to be added.
4. Enter the new value over any previously entered value which may be displayed.

5. Press <ADD/CHG>.

REMOVE

1. Enter the key parameters.
2. Enter the appropriate FLG and OC values.
3. Press <DSP>.
4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NO AREA	An attempt was made to add to an OC when no more system memory was available.	Remove one or more OCs from any RGN.
OVERLAP	An attempt was made to add an OC which is already registered.	Check the entry and try again or abandon the attempt.
NO FOUND	An attempt was made to remove an OC which is not currently registered.	Check the entry and try again or abandon the attempt.

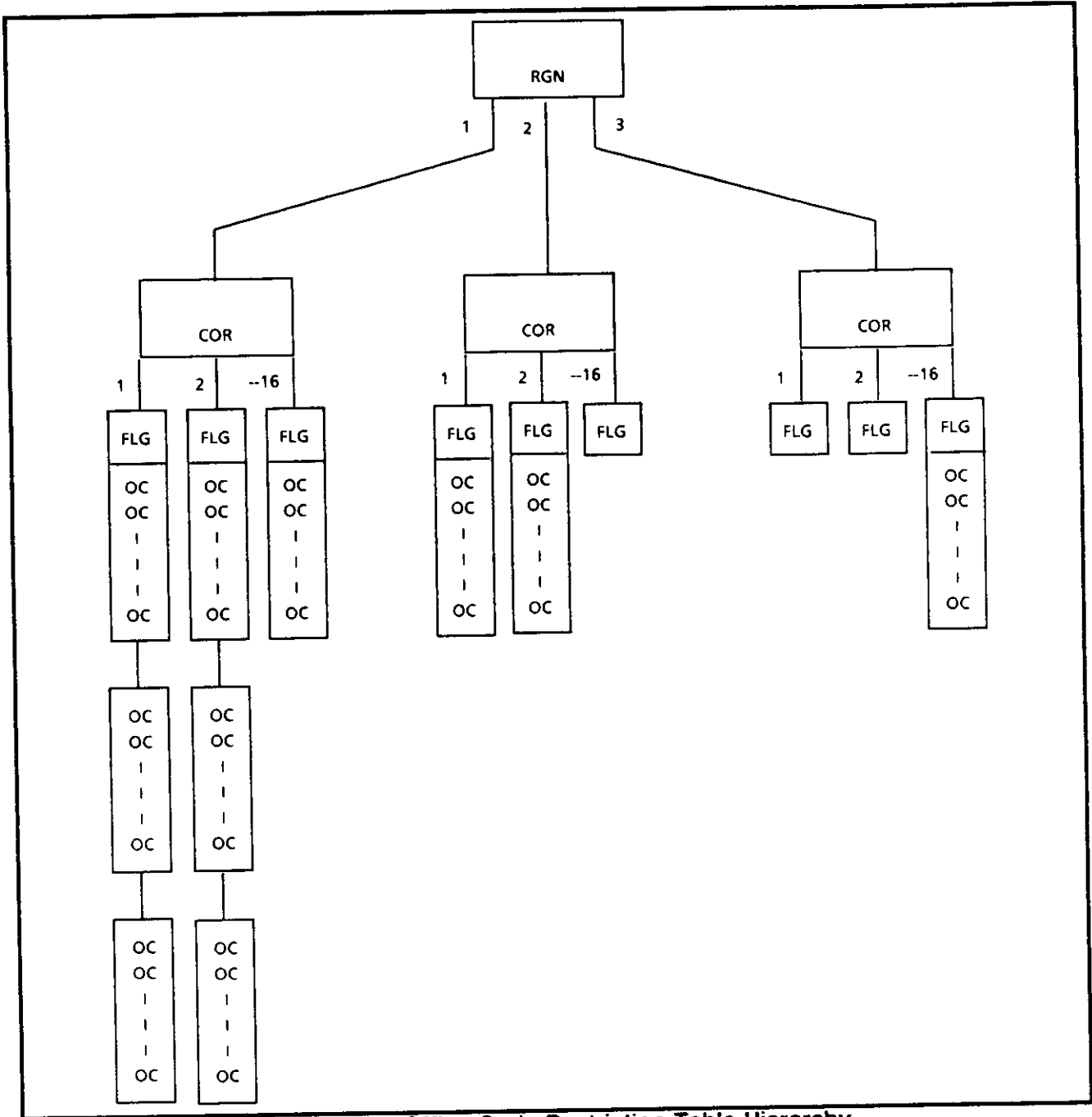


Figure 4.19 Office Code Restriction Table Hierarchy.

Area Code Restriction Assignment (CMC 413)

4.64 The Area Code Restriction Assignment (CMC 413) table is used to create a list of Area Codes to which connections are allowed or denied for each Class of Restriction within a Restriction Group. Figure 4.20 shows the hierarchy of this table's organization. This CMC requires a HIGH level security code.

CMC = 413	
P1:RGN	P4:AC
P2:COR	P5:
P3:FLG	P6:

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>RGN</u>	restriction group number	1 to 3	None
X	X	X	X	P2	<u>COR</u>	class of restriction	1 to 16	None
X	X	X	X	P3	FLG	allowed/denied flag	0 = allowed 1 = denied	None
X	X	X	X	P4	AC	area code	3 digits	None

DISPLAY

1. Enter an RGN and COR at parameters P1 and P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of ACs.
- A blank will be displayed after the last registered AC has been displayed. Pressing <DSP> again will recycle the AC list.
- Each RGN/COR combination must be displayed separately.

ADD

1. Enter the key parameters.
2. Press <DSP>.
3. Use the cursor controls or <RETURN> to move the cursor to the parameter to be added.

4. Enter the new value over any previously entered value which may be displayed.

5. Press <ADD/CHG>.

REMOVE

1. Enter the key parameters.

2. Enter the appropriate FLG and AC values.

3. Press <DSP>.

4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NO AREA	An attempt was made to add an AC when no more system memory was available.	Remove one or more ACs from any RGN.
OVERLAP	An attempt was made to add an AC which is already registered.	Check the entry and try again or abandon the attempt.
NO FOUND	An attempt was made to remove an AC which is not registered.	Check the entry and try again or abandon the attempt.

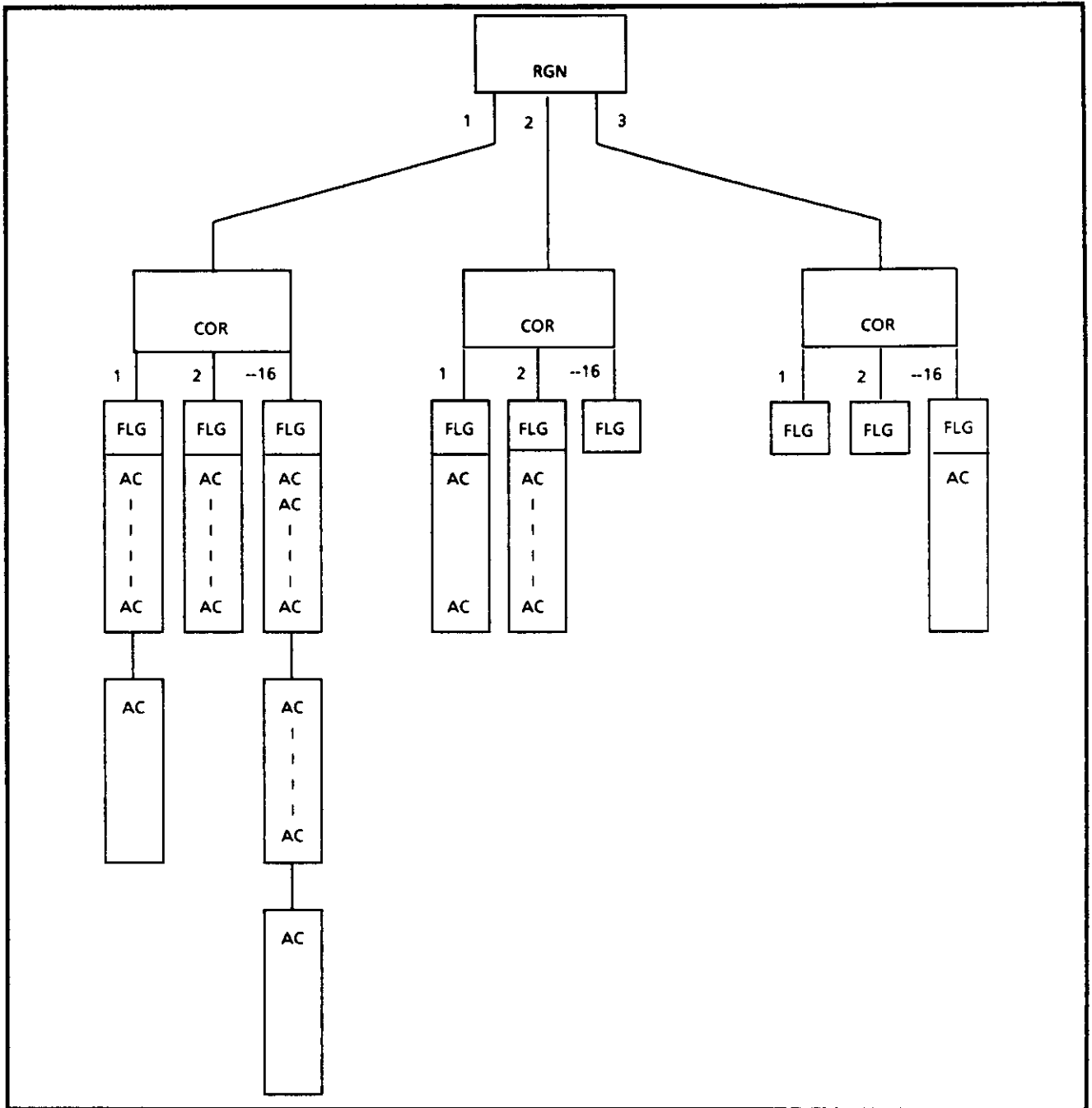


Figure 4.20 Area Code Restriction Table Hierarchy.

**Area/Office Code
Restriction Assignment
(CMC 414)**

4.65 The Area/Office Code Restriction Assignment (CMC 414) table is used to create a list of office codes within a specified area code. For each list, connections are allowed or denied for each class of restriction within a restriction group. Figure 4.21 shows the hierarchy of this table's organization. This CMC requires a HIGH level security code.

CMC = 414	
P1:RGN	P4:AC
P2:COR	P5:OC
P3:FLG	

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>RGN</u>	restriction group number	1 to 3	None
X	X	X	X	P2	<u>COR</u>	class of restriction	1 to 16	None
X	X	X	X	P3	FLG	allowed/denied flag	0 = allowed 1 = denied	None
X	X	X	X	P4	AC	area code	3 digits	None
X	X	X	X	P5	OC	office code	3 digits	None

DISPLAY

1. Enter RGN and COR at parameters P1 and P2.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display subsequent AC/OC combinations in numerical order.
- A blank will be displayed after the last registered AC/OC combination has been displayed. Pressing <DSP> again will recycle the list.
- Each RGN/COR combination must be displayed separately.

ADD

1. Enter the key parameters.
2. Press <DSP> .
3. Use the cursor controls or <RETURN> to move the cursor to the parameter to be added.

4. Enter the new value over any previously entered value which may be displayed.

5. Press <ADD/CHG>.

REMOVE

1. Enter the key parameters.

2. Enter the appropriate FLG, AC, and OC values.

3. Press <DSP>.

4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NO AREA	An attempt was made to add an AC/OC combination when no more system memory was available.	Remove one or more an AC/OC combinations from any RGN.
OVERLAP	An attempt was made to add an AC/OC combination which is already registered.	Check the entry and try again or abandon the attempt.
NO FOUND	An attempt was made to remove an AC/OC combination which is not currently registered.	Check the entry and try again or abandon the attempt.

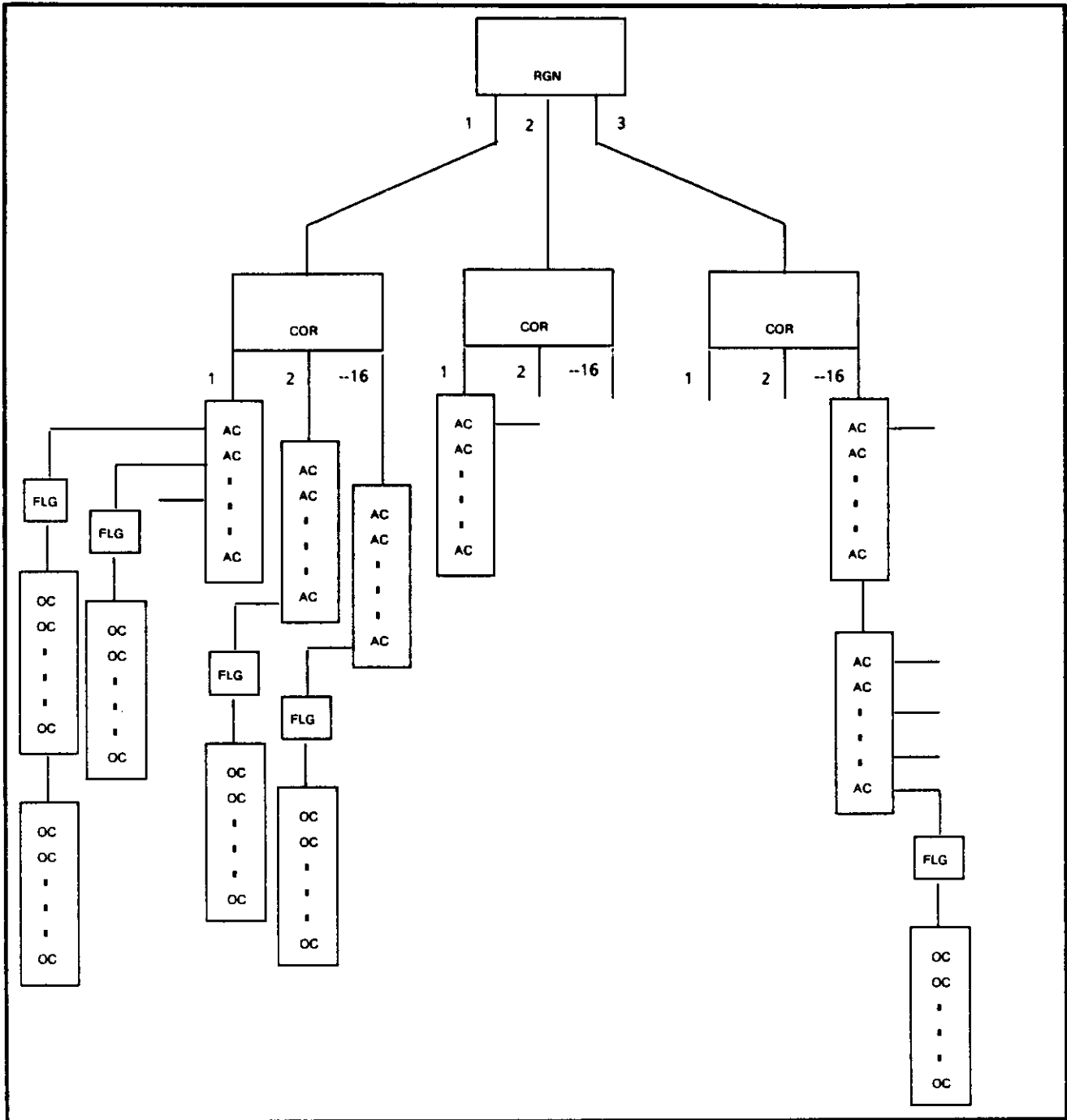


Figure 4.21 Area/Office Code Restriction Table Hierarchy.

Carrier Identification Code Restriction Assignment (CMC 415)

4.66 The Carrier Identification Code Restriction Assignment (CMC 415) table is used to register or change carrier access codes to which access is to be restricted. A maximum of 10 carrier access codes can be restricted using this CMC. This CMC requires a HIGH level security code.

CMC = 415
 P1:RGN
 P2:COR
 P3:CAC

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	RGN	restriction group number	1 to 3	None
X	X	X	X	P2	COR	class of restriction	1 to 16	None
X	X	X	X	P3	CAC	carrier access code	5 digits (10XXX)	None

AT: 208

DISPLAY

1. Enter an RGN and COR at parameters P1 and P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display subsequent data in numerical order of COR and CAC within each class.
- Pressing <DSP> again will recycle the list.
- Each RGN must be displayed separately.

ADD

1. Enter an RGN at parameter P1.
2. Enter a COR at parameter P2.
3. Enter a CAC at parameter P3.
4. Press <ADD/CHG>.

REMOVE

1. Enter the key parameters.
2. Enter the appropriate CAC value.
3. Press <DSP>.
4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NO AREA	An attempt was made to enter more than 10 CACs.	Remove one or more CACs from this table.
OVERLAP	An attempt was made to add a CAC which is already registered.	Check the entry and try again or abandon the attempt.
NO FOUND	An attempt was made to remove a CAC which is not currently registered.	Check the entry and try again or abandon the attempt.

LCR Office Code Route Selection Assignment (CMC 420)

4.67 The LCR Office Code Route Selection Assignment (CMC 420) table is used to assign up to fifteen (15) different routing tables for least cost routing. Each of these routes can contain up to ten (10) different route selections. This CMC requires a HIGH level security code.

CMC = 420
 P1:ORTN P4:FLAG
 P2:RSC
 P3:TGN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>ORTN</u>	office code routing table number	1 to 15	None
X	X	X	X	P2	<u>RSC</u>	route selection sequence	1 to 10	None
X				P3	TGN	trunk group number	13 to 30	None
	X	X	X				13 to 30, 51 to 56	None
X				P4	FLAG	dialing pattern flag	1 to 10	See Table 4.42
	X	X	X				1 to 50	See Table 4.42

DISPLAY

1. Enter an ORTN at parameter P1.
2. Enter an RSC at parameter P2.
3. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of RSCs.
- The system will release this CMC when the RSC value exceeds 10.
- Each ORTN must be displayed separately.

CHANGE

1. Enter an ORTN at parameter P1.
2. Enter an RSC at parameter P2.
3. Enter a TGN at parameter P3.
4. Enter a FLAG at parameter P4.
5. Press <ADD/CHG>.
6. Repeat steps 1 through 5 for each change being made.

REMOVE

1. Enter an ORTN at parameter P1.
2. Enter an RSC at parameter P2.
3. Press <DSP>.
4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
OVERLAP	An attempt was made to create two identical routing tables under different ORTNs.	Each ORTN must be unique. Check the data and try again.

Table 4.42 Dialing Pattern Assignments

FLAG (P4)	Definition	For Use With CMC	
		420	421
1	CTP + 10 digits (CTP, if not dialed, added)		x
2	10 digits (CTP, if dialed, deleted)		x
3	7 digits	x	x
4	CTP + 7 digits	x	x
5	RD#1 + 7 digits	x	x
6	RD#2 + 7 digits	x	x
7	RD#3 + 7 digits	x	x
8	RD#4 + 7 digits	x	x
9	RD#5 + 7 digits	x	x
10	All received digits	x	x
11	CAC#1 + CTP + 10 digits		x
12	CAC#1 + 10 digits		x
13	CAC#1 + CTP + 7 digits	x	x
14	CAC#1 + 7 digits	x	x
15	CAC#2 + CTP + 10 digits		x
16	CAC#2 + 10 digits		x
17	CAC#2 + CTP + 7 digits	x	x
18	CAC#2 + 7 digits	x	x
19	CAC#3 + CTP + 10 digits		x
20	CAC#3 + 10 digits		x
21	CAC#3 + CTP + 7 digits	x	x
22	CAC#3 + 7 digits	x	x
23	CAC#4 + CTP + 10 digits		x
24	CAC#4 + 10 digits		x
25	CAC#4 + CTP + 7 digits	x	x

CTP: Customer toll prefix code (See CMC 401)

RD: Routing digit (See CMC 403)

AC: Carrier access code (See CMC 425)

Table 4.42 Dialing Pattern Assignments (Continued)

FLAG (P4)	Definition	For Use With CMC	
		420	421
26	CAC#4 + 7 digits	x	x
27	CAC#5 + CTP + 10 digits		x
28	CAC#5 + 10 digits		x
29	CAC#5 + CTP + 7 digits	x	x
30	CAC#5 + 7 digits	x	x
31	CAC#6 + CTP + 10 digits		x
32	CAC#6 + 10 digits		x
33	CAC#6 + CTP + 7 digits	x	x
34	CAC#6 + 7 digits	x	x
35	CAC#7 + CTP + 10 digits		x
36	CAC#7 + 10 digits		x
37	CAC#7 + CTP + 7 digits	x	x
38	CAC#7 + 7 digits	x	x
39	CAC#8 + CTP + 10 digits		x
40	CAC#8 + 10 digits		x
41	CAC#8 + CTP + 7 digits	x	x
42	CAC#8 + 7 digits	x	x
43	CAC#9 + CTP + 10 digits		x
44	CAC#9 + 10 digits		x
45	CAC#9 + CTP + 7 digits	x	x
46	CAC#9 + 7 digits	x	x
47	CAC#10 + CTP + 10 digits		x
48	CAC#10 + 10 digits		x
49	CAC#10 + CTP + 7 digits	x	x
50	CAC#10 + 7 digits	x	x

CTP: Customer toll prefix code (See CMC 401)

AC: Carrier access code (See CMC 425)

LCR Area and Area/Office Code Route Selection Assignment (CMC 421)

4.68 The LCR Area and Area/Office Code Route Selection Assignment (CMC 421) table is used to assign up to 15 different routing tables for least cost routing. Each of these routes can contain up to 10 different route selections. This CMC requires a HIGH level security code.

NOTE: In each routing table, route number 10 may be excluded from use if feature number 202 is selected at CMC 104. Be sure to place any route which is to be excluded in RSC 10. RSC numbers may be skipped to do this.

CMC = 421
 P1:ARTN P4:FLAG
 P2:RSC
 P3:TGN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	ARTN	area and area/office code routing table number	1 to 15	None
X	X	X	X	P2	RSC	route selection sequence	1 to 10	None
X				P3	TGN	trunk group number	13 to 30	None
	X	X	X				13 to 30, 51 to 56	None
X				P4	FLAG	dialing pattern flag	1 to 10	See Table 4.42
	X	X	X				1 to 50	See Table 4.42

NOTE: Tie lines cannot be used as an LCR route.

DISPLAY

1. Enter an ARTN at parameter P1.
2. Enter an RSC at parameter P2.
3. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of RSCs.
- The system will release this CMC when the RSC value exceeds 10.
- Each ARTN must be displayed separately.

CHANGE

1. Enter an ARTN at parameter P1.
2. Enter an RSC at parameter P2.
3. Enter a TGN at parameter P3.
4. Enter a FLAG at parameter P4.
5. Press <ADD/CHG>.
6. Repeat steps 1 through 5 for each change being made.

REMOVE

1. Enter an ARTN at parameter P1.
2. Enter an RSC at parameter P2.
3. Press <DSP>.
4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
OVERLAP	An attempt was made to create two identical routing tables under different ARTNs.	Each ARTN must be unique. Check the data and try again.

LCR Office Code Assignment (CMC 422)

4.69 The LCR Office Code Assignment (CMC 422) table is used to assign office code numbers to an office code route table (CMC 420). This CMC requires a HIGH level security code.

CMC = 422
 P1:ORTN
 P2:OC

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	ORTN	office code route table number	1 to 15	None
X	X	X	X	P2	OC	office code	3 digits	None

DISPLAY

1. Enter an ORTN at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of OCs.
- After the last registered OC is displayed, pressing <DSP> again will display a blank. Continued pressing of <DSP> will cycle the OC list again.
- Each ORTN must be displayed separately.

ADD

1. Enter an ORTN at parameter P1.
2. Enter an OC at parameter P2.
3. Press <ADD/CHG> .

REMOVE

1. Enter an ORTN at parameter P1.
2. Enter an OC at parameter P2.
3. Press <RMV> .

ERROR CODES

Error Code	Cause	Correction
DENIED	An attempt was made to enter an OC which is already registered to a different ORTN.	Remove the OC from the other ORTN list and try again.

LCR Area Code Assignment (CMC 423)

4.70 The LCR Area Code Assignment (CMC 423) table is used to assign area code numbers to an area code route table (CMC 421). This CMC requires a HIGH level security code.

CMC = 423	
P1:ARTN	P4:
P2:AC	P5:
P3:	P6:

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>ARTN</u>	area code route table number	1 to 15	None
X	X	X	X	P2	AC	area code	3 digits	None

DISPLAY

1. Enter an ARTN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of ACs.
- After the last registered AC is displayed, pressing <DSP> again will display a blank. Continued pressing of <DSP> will cycle the AC list again.
- Each ARTN must be displayed separately.

ADD

1. Enter an ARTN at parameter P1.
2. Enter an AC at parameter P2.
3. Press <ADD/CHG>.

REMOVE

1. Enter an ARTN at parameter P1.
2. Enter an AC at parameter P2.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
DENIED	An attempt was made to enter an AC which is already registered to a different ARTN.	Remove the AC from the other ARTN list and try again.

LCR Area/Office Code Assignment (CMC 424)

4.71 The LCR Area/Office Code Assignment (CMC 424) table is used to assign an office code within an area code to an area/office code route table (See CMC 421). This CMC requires a HIGH level security code.

CMC = 424
 P1:ARTN
 P2:AC
 P3:OC

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	ARTN	area/office code route table number	1 to 15	None
X	X	X	X	P2	AC	area code	3 digits	None
X	X	X	X	P3	OC	office code	3 digits	None

NOTE: The maximum number of ACs which may be registered with this CMC is 8. All possible office codes may be registered with each AC in this CMC.

DISPLAY

1. Enter an ARTN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of area/office code combinations.
- After the last registered area/office combination is displayed, pressing <DSP> again will display a blank. Continued pressing of <DSP> will cycle the area/office combination list again.
- Each ARTN must be displayed separately.

ADD

1. Enter an ARTN at parameter P1.
2. Enter an AC at parameter P2.
3. Enter an OC at parameter P3.

4. Press <ADD/CHG>.

REMOVE

1. Enter an ARTN at parameter P1.

2. Enter an AC at parameter P2.

3. Enter an OC at parameter P3.

4. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
DENIED	An attempt was made to enter an area/office code combination which is already registered to a different ARTN.	Remove the area/office code combination from the other ARTN and try again.
NO AREA	An attempt was made to enter an area/office code combination and 8 other area codes have already been entered.	Abandon the attempt or remove all records connected to one of the other area codes and try again.
NO FOUND	An attempt was made to display an ARTN which is not registered.	Check the data and try again.

LCR Carrier Access Code Assignment (CMC 425)

4.72 The LCR Carrier Access Code Assignment (CMC 425) table is used to record carrier access codes which will be outpulsed to the CO if LCR selects an alternate carrier in an equal access area. This CMC requires a HIGH level security code.

CMC = 425
 P1:LCN
 P2:CAC

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
	X	X	X	P1	LCN	LCR CAC number	1 to 10 (See Table 4.42)	None
	X	X	X	P2	CAC	carrier access code	5 digits (10XXX)	None

DISPLAY

1. Enter an LCN at parameter P1.
2. Press <DSP> .

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of LCNs.
- The system will release this CMC when the LCN value exceeds 10.

ADD

1. Enter an LCN at parameter P1.
2. Enter a CAC at parameter P2.
3. Press <ADD/CHG> .

REMOVE

1. Enter an LCN at parameter P1.
2. Press <DSP> .
3. Press <RMV> .

DID-DISA Additional Code Assignment (CMC 430)

4.73 The DID-DISA Additional Code Assignment (CMC 430) table is used to record the length of the received digit string and to assign the prefix codes, DISA directory numbers, and DISA access codes. This CMC requires a HIGH level security code.

CMC = 430
 P1:TGN P4:DDN
 P2:RDN P5:AZC
 P3:PFX

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	TGN	trunk group number	57 to 62	None
		X	X	P2	RDN	number of received digits	1, 2, 3, or 4	None
		X	X	P3	PFX	prefix code	1 to 3 digits or blank (blank means no prefix is needed)	None
		X	X	P4	DDN	DISA directory number	1 to 4 digits or blank (blank means DISA is not assigned)	None
		X	X	P5	AZC	DISA authorization code	1 to 4 digits or blank (blank means DISA is not assigned)	None

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC when the last TGN is displayed.

ADD/CHANGE

1. Enter a TGN at parameter P1.
2. Enter the appropriate RDN at parameter P2.
3. Enter a PFX at parameter P3 (if required).

4. Enter a DDN at parameter P4 (if required).
5. Enter an AZC at parameter P5 (if required).
6. Press <ADD/CHG>.

REMOVE

1. Enter the TGN with the parameters to be removed at P1.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
OVERLAP	An attempt was made to register data for a trunk before removing old data.	Remove old data and try again.
PARA.ERR	RDN plus PFX is more than 4 digits.	Change RDN or PFX to correct values.
	RDN plus PFX does not match DDN.	Change RDN or PFX to correct values.

Listed Directory Number Assignment (CMC 431)

4.74 The Listed Directory Number Assignment (CMC 431) table is used to designate up to five listed directory numbers to be associated with each DID Trunk Group. These directory numbers, when called, will ring at the Attendant Console. This CMC requires a HIGH level security code.

CMC = 431	
P1:TGN	P4:LDN3
P2:LDN1	P5:LDN4
P3:LDN2	P6:LDN5

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	TGN	trunk group number	57 to 62	None
		X	X	P2	LDN1	listed directory number	1 to 4 digits or blank	None
		X	X	P3	LDN2	listed directory number	1 to 4 digits or blank	None
		X	X	P4	LDN3	listed directory number	1 to 4 digits or blank	None
		X	X	P5	LDN4	listed directory number	1 to 4 digits or blank	None
		X	X	P6	LDN5	listed directory number	1 to 4 digits or blank	None

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC when the TGN value exceeds 62.

ADD/CHANGE

1. Enter the TGN for which additions or changes are to be made at parameter P1.
2. Press <DSP>.

3. Use the cursor control keys or <RETURN> to move the cursor to the parameter at which the ADD or CHANGE is to be made.
4. Enter the desired parameter value.
5. Press <ADD/CHG>.

CANCEL

1. Enter the TGN at which the LDN is registered at parameter P1.
2. Press <DSP>.
3. Use the cursor control keys or <RETURN> to move the cursor to the parameter which is to be canceled.
4. Press <CAN>.
5. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
PARA.ERR	<p>A required RDN was not registered at CMC 430.</p> <p>The number of digits in an LDN does not match the number of digits registered at CMC 430, P2 (RDN).</p>	<p>Return to CMC 430 and register the appropriate RDN.</p> <p>Return to CMC 430 and adjust the RDN value.</p>

Authorization Code Assignment (CMC 432)

4.75 The Authorization Code Assignment (CMC 432) table is used to register the access code that will allow an outside caller to access DISA over a standard ground start trunk. This CMC requires a HIGH level security code.

CMC = 432
P1:ACZ

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	ACZ	authorization code	1 to 8 digits or blank	None

DISPLAY

Press <DSP>.

NOTE: Pressing <DSP> again will release the CMC.

ADD/CHANGE

1. Enter an authorization code at parameter P1.
2. Press <ADD/CHG>.

REMOVE

Press <RMV>.

DID Trunk Level Change Assignment (CMC 433)

4.76 This table is used to strip the first digit of the CO digit stream transmission and replace it with another digit. This CMC requires a HIGH level security code.

CMC = 433
 P1:TGN
 P2:RPD
 P3:LND

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	TGN	trunk group number	57 to 62	None
		X	X	P2	RPD	digit to be replaced.	0 to 9	None
		X	X	P3	LDN	replacement digit	0 to 9	None

DISPLAY

1. Enter a TGN at parameter P1 and an RPD at parameter P2.
2. Press <DSP> .

NOTES: Pressing <DSP> repeatedly will display data in numeric order of RPDs.

The system will release this CMC when the last registered RPD has been displayed.

Each TGN must be displayed separately.

ADD/CHANGE

1. Enter the TGN and RPD for which a LPD is to be added or changed.
2. Press <DSP> .
3. Enter the LDN.
4. Press <ADD/CHG> .

**SMDR Outgoing
Connection Screening
Assignment (CMC 500)**

4.77 The SMDR Outgoing Connection Screening Assignment (CMC 500) table is used to assign SMDR output for CO outgoing, Tie outgoing, account code calls, and toll calls. This CMC requires a LOW level security code.

CMC = 500
 P1:COFG P4:TLC
 P2:POGF
 P3:ACC

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	COFG	CO outgoing connection	0 = no SMDR 1 = SMDR	1
X	X	X	X	P2	POGF	Tie outgoing connection	0 = no SMDR 1 = SMDR	1
X	X	X	X	P3	ACC	account flag	0 = SMDR all calls 1 = SMDR for account code calls only	0
X	X	X	X	P4	TLC	toll call flag	0 = SMDR all calls 1 = SMDR for toll calls only	0

DISPLAY

Press <DSP>.

NOTES:

- The values for parameters 1 through 4 will be displayed.
- Pressing <DSP> again will release the CMC.

CHANGE

1. Press <DSP>.
2. Use <RETURN> or the cursor control keys to move the cursor to the parameter(s) to be changed.
3. Enter the new data.
4. Press <ADD/CHG>.

**SMDR Trunk Group
Screening Assignment
(CMC 501)**

4.78 The SMDR Trunk Group Screening Assignment (CMC 501) table is used to mark each trunk group as subject to or exempt from SMDR. This CMC requires a HIGH level security code.

CMC = 501
P1:TGN
P2:FLAG

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X			P1	TGN	trunk group number	1 to 31	1 to 31
		X	X				1 to 63	1 to 63
X	X	X	X	P2	FLAG	output ID flag	0 = no SMDR 1 = SMDR	1

DISPLAY

1. Enter a TGN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of CORs.
- The system will release this CMC when the TGN value exceeds 63.

CHANGE

1. Enter the TGN to be changed at parameter P1.
2. Enter the new FLAG value at parameter P2.
3. Press <ADD/CHG>.

SMDR Class of Restriction Screening Assignment (CMC 502)

4.79 The SMDR Class of Restriction Screening Assignment (CMC 502) table is used to mark each class of restriction as subject to or exempt from SMDR. This CMC requires a LOW level security code.

Refer to CMC 105 (COS)

CMC = 502
P1:COR
P2:FLAG

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	<u>COR</u>	class of restriction	1 to 16	1 to 16
X	X	X	X	P2	FLAG	output ID flag	0 = no SMDR 1 = SMDR	1

DISPLAY

1. Enter a COR at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of CORs.
- The system will release this CMC when the COR value exceeds 16.

CHANGE

1. Enter the COR to be modified at parameter P1.
2. Enter the new FLAG value at parameter P2.
3. Press <ADD/CHG>.

SMDR Tenant Screening Assignment (CMC 503)

4.80 The SMDR Tenant Screening Assignment (CMC 503) table is used to mark each tenant group as subject to or exempt from SMDR. This CMC requires a LOW level security code.

CMC = 503
 P1:TEN
 P2:FLAG

5 possible TENANTS

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	TEN	tenant group	1 to 4	1 to 4
X	X	X	X	P2	FLAG	output ID flag	0 = no SMDR 1 = SMDR	1

DISPLAY

1. Enter a TEN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TENS.
- The system will release this CMC when the TEN value exceeds 4.

CHANGE

1. Enter the TEN to be changed at parameter P1.
2. Enter the new FLAG value at parameter P2.
3. Press <ADD/CHG>.

**SMDR Call Duration
Screening Assignment
(CMC 504)**

4.81 The SMDR Call Duration Screening Assignment (CMC 504) table is used to register the minimum duration of a call before an SMDR record is created. This CMC requires a LOW level security code.

CMC = 504
P1:HH
P2:MM
P3:SS

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	HH	hours of minimum duration	0 to 23	0
X	X	X	X	P2	MM	minutes of minimum duration	0 to 59	0
X	X	X	X	P3	SS	seconds of minimum duration	0 to 59	0

DISPLAY

Press <DSP>.

NOTES:

- The values for parameters 1 through 3 will be displayed.
- Pressing <DSP> again will release this CMC.

CHANGE

1. Press <DSP>.
2. Use <RETURN> or the cursor control keys to move the cursor to the parameter(s) to be changed.
3. Enter the new data.
4. Press <ADD/CHG>.

TGN Screening Assignment (CMC 600)

4.82 The TGN Screening Assignment (CMC 600) table is used to list trunk groups for traffic measurement. This CMC requires a LOW level security code.

CMC = 600
 P1:RNO
 P2:TGN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	RNO	traffic registration number	1 to 10	None
X	X	X	X	P2	TGN	trunk group number	13 to 63	None

DISPLAY

1. Enter an RNO at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TGNs.
- The system will release this CMC after the last registered TGN has been displayed.
- Each RNO must be displayed separately.

ADD/CHANGE

1. Enter an RNO at parameter P1.
2. Enter a TGN at parameter P2.
3. Press <ADD/CHG>.

REMOVE

1. Enter an RNO at parameter P1.
2. Press <DSP>.
3. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
TRF MEAS	An attempt was made to add, change, or remove a TGN while traffic measurement was active.	Use CMC 601 to shut off traffic measurement before using CMC 600.

Traffic Measurement Activation (CMC 601)

4.83 The Traffic Measurement Activation (CMC 601) table is used to activate and deactivate traffic measurement in the system. This CMC requires a LOW level security code.

CMC = 601
P1:TSF

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	TSF	traffic measurement start/stop flag	0 = stop 1 = start	0

DISPLAY

Press <DSP> to display the current TSF.

CHANGE

1. Enter the new flag value.
2. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
TRF MEAS	An attempt was made to activate traffic measurement while it was already activated.	Abandon the attempt.

Traffic Measurement Data Display (CMC 602)

4.84 The Traffic Measurement Data Display (CMC 602) table is used to display the traffic data which has been collected for each traffic group. Traffic data for each traffic group is held in two buffers. Each buffer can contain 10 hours of data. Buffer two is filled first; and when it is full, the contents of the buffer are put into buffer one. When buffer two fills again, it will empty into buffer one overwriting any data in buffer one. The system can hold 20 hours of data for any one traffic group. This CMC requires a LOW level security code.

CMC = 602
 P1:FLG P4:TIM
 P2:RNO P5:TRF
 P3:TGN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	FLG	traffic measurement data buffer.	1 = 10 hours old 2 = current data	None
X	X	X	X	P2	RNO	traffic registration number	1 to 10	None
X	X	X	X	P3	TGN	trunk group number	13 to 63	None
X	X	X	X	P4	TIM	traffic measurement period	1 to 10 hours	None
X	X	X	X	P5	TRF	traffic density	0 to 100%	None

DISPLAY

1. Enter an FLG and RNO at parameters P1 and P2.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of TIMs.
- The system will release this CMC when the last TIM has been displayed.
- The value displayed in P4 will be the number of hours for which traffic measurement was active.
- If the specified buffer is empty, TRF will display a 0.

**Time and Date Setting
(CMC 700)**

4.85 The Time and Date Setting (CMC 700) table is used to set the system hardware and software clocks. The time and date are used when faults are logged in the system (See CMC 801). The time and date are also displayed on LCD display telephones. This CMC requires a HIGH security level code.

CMC = 700
 P1: YEAR P4: TIME
 P2: DAY
 P3: WEEK

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	YEAR	year	4-digits 0001 to 9999	None
X	X	X	X	P2	DAY	month and day	2-digits (month) 01 to 12 and 2-digits (day) 01 to 31	None
X	X	X	X	P3	WEEK	day of the week	1-digit 1 = Sunday 2 = Monday 3 = Tuesday 4 = Wednesday 5 = Thursday 6 = Friday 7 = Saturday	None
X	X	X	X	P4	TIME	hour and minute	2-digits (hour) 00 to 23 2-digits (minute) 00 to 59	None

DISPLAY

Press <DSP>.

ADD/CHANGE

1. Enter the data for all parameters.
2. Press <ADD/CHG>.

NOTES:

- Seconds will always start from 00 when setting the clock.
- There is no check for dates which are within range but are illegal, e.g.; February 30. However, the system will not display an illegal date on phone instruments or consoles.

ERROR CODES

ERROR CODES	CAUSE	CORRECTION
HARD ERR	The hardware clock is faulty.	Replace the CPM card (See Installation, 484-310-200).

**Make Busy Assignment
(CMC 701)**

4.86 The Make Busy Assignment (CMC 701) table is used to make a card circuit busy or to release a make-busy condition. When a trunk is made busy, the system will send a trunk-busy signal to the connected system. This CMC requires a HIGH level security code.

CMC = 701
P1:EN
P2:BI

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X			P1	EN	equipment number	3 digits	None
		X	X				3 or 4 digits	None
X	X	X	X	P2	BI	make busy/release flag	0 = make-busy release 1 = make-busy blank = not installed	0

NOTE: The EN must be entered in the format XYZZ, where:
 X = 0, 1, or blank (cabinet number) This number is never entered in Packages A or B
 YY = (card slot) 00 - 14 for stations; 06 - 18 for trunks
 Z = (circuit number) 0 - 7 for stations; 0 - 3 for trunks

DISPLAY

1. Enter an EN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of ENs.
- The system will release this CMC when the <DSP> key is pressed after the last EN has been displayed.

CHANGE

1. Enter the EN to be changed at parameter P1.
2. Enter the new value for BI at parameter P2.
3. Press <ADD/CHG>.

NOTES:

- When a 4BWC, 2TTL, or 2TTE trunk is made busy by use of CMC 701, the system will send a trunk-busy signal to the connecting system. The type of signal sent is as follows:

TRUNK TYPE	SIGNAL TYPE
4BWC (ground start)	Send a ground signal - then close the loop.
4BWC (loop start)	Close the loop.
2TTE, 2TTL (wink start, delay dial, immediate start)	Close the loop.

- In the case of a DID (2TTE or 2TTL) trunk, the trunk-busy signal is sent to the connected system.
- When a power failure or HOT restart occurs, the system will close the loop of any trunk in the make-busy state.
- If an MCT is being used to perform this function, the system will deny any attempt to make the MCT circuit busy.
- Use CMC 705 to make the SMDR printer busy.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to enter an EN which is not registered.	Check the data and try again.
DENIED 1	The station registered to the entered EN or the station paired with the data station registered to the entered EN is assigned as an MCT.	Remove the MCT assignment at CMC 702 and try again.
DISAGREE	An attempt was made to enter an EN which is assigned as an RVAC port.	Abandon the attempt.

**Master Control Telephone
(MCT) Assignment
(CMC 702)**

4.87 The MCT Assignment (CMC 702) table is used to give MCT duties to CSD instruments and Attendant Consoles attached to the system. This CMC requires a HIGH level security code.

CMC = 702
P1:MNO
P2:MDN

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
	X	X		P1	<u>MNO</u>	MCT number	1 to 4	See Note
			X				1 to 20	See Note
	X			P2	MDN	MCT directory number	1 to 4 digits	See Note
		X	X			MCT directory number or Attendant Console MCT directory number	1 to 4 digits or ATT access code + ATT number	See Note

NOTE: The system will assign the first four CSD instruments or Attendant Consoles to the MCT assignment table based on EN sequence.

DISPLAY

1. Enter an MNO at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of MNOs.
- The system will release this CMC when the MNO value exceeds 20.

ADD/CHANGE

1. Enter an MNO at P1 and a MDN at P2.
2. Press <ADD/CHG>.

REMOVE

1. Enter an MNO at parameter P1.
2. Press <RMV>.

NOTE: The system will deny any attempt to remove an active MCT.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The specified DN is not registered.	Check the entry for accuracy or register the specified DN.
DENIED	An attempt was made to remove your own MCT.	Abandon the attempt or try again from a different MCT.
DISAGREE	The specified DN is not for a CSD or Attendant Console.	Specify only DNs for CSDs or Attendant Consoles.

Security Code Assignment (CMC 704)

4.88 The Security Code Assignment (CMC 704) table is used to assign the system data base access security codes. This CMC requires a HIGH level security code.

CMC = 704
 P1:LSD
 P2:HSD

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	LSD	low level security code	4-digits (0 - 9, #)	#380
X				P2	HSD	high level security code	fixed value	703
	X	X	X				4-digits (0 - 9, #)	#803

The Package A HIGH level security code cannot be entered when the system is first powered up. The Package A HIGH level security code can be entered at the CMC = prompt.

DISPLAY

Press <DSP>.

ADD/CHANGE

1. Enter the LSD or HSD to be changed at parameter(s) P1 and/or P2.
2. Press <ADD/CHG>.

**SMDR Printer Make Busy
(CMC 705)**

4.89 The SMDR Printer Make Busy (CMC 705) command is used to create an artificial busy state on the SMDR printer port. This CMC requires a LOW level security code.

CMC = 705
P1:PORT
P2:MBF

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	PORT	port number	0 or 1	None
X	X	X	X	P2	MBF	make busy/release flag	0 = release 1 = make busy	None

DISPLAY

1. Enter the PORT at parameter P1.
2. Press <DSP>.

NOTE: Pressing <DSP> again will release the CMC.

CHANGE

1. Enter the PORT at parameter P1.
2. Press <DSP>.
3. Enter the new value for MBF at parameter P2.
4. Press <ADD/CHG>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	An attempt was made to display a PORT which does not host an SMDR printer.	Enter the other PORT and try again.

**Hotel/Motel Printer
Make Busy Assignment
(CMC 706)**

4.90 The Hotel/Motel Printer Make Busy Assignment (CMC 706) command is used to put an Hotel/Motel printer into the busy state for maintenance. This CMC requires a LOW level security code.

CMC = 706
P1:PNO
P2:MBF

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	PNO	printer number	1 or 2	None
		X	X	P2	MBF	make-busy flag	0 = release 1 = make busy	0

DISPLAY

1. Enter 1 at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> again will display the other printer if it is installed.
- The system will release this CMC when the PNO value exceeds 2.

CHANGE

1. Enter a PNO at parameter P1.
2. Enter the new MBF value at parameter P2.
3. Press <ADD/CHG>.

**Device Status Display
(CMC 800)**

4.91 The Device Status Display table (CMC 800) is used to determine the current status of each device connected to the system. The status information is shown in three screen displays. This CMC requires a HIGH level security code.

DISPLAY

1. Press <DSP> .

NOTE: If the system detects a faulty card or terminal the following screen is displayed. This CMC will be released if no faults are detected.

Screen 1

CMC = 800				
P1:	CC	RAM	RTS	BAT
P2:	SWC	ICG	TRM	SCI
P3:	RG	VMC		

NOTE: Each fault indicator will be shown in the actual position illustrated above.

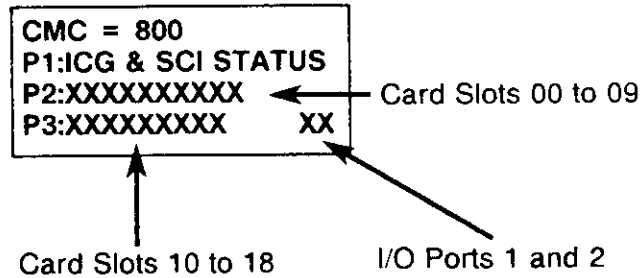
Table 4.43 Key to Screen 1 of CMC 800

Abbr.	Device Name
CC	CPM card or MEM card
RAM	RAM on CPM card or MEM card
RTS	Real-Time Source on CPM card
BAT	Battery
SWC	SWC card
ICG	Trunk or Line card
TRM	Electronic Key Telephone terminal
SCI	Serial Communication Interface (RS-232C port)
RG	RGEN (Ring Generator) card
VMC	RVAC card

2. Press <DSP> again.

NOTE: When faulty cards are detected, the system will display 0s (no fault) and 1s (fault). Press <DSP> again to display the second cabinet of an expanded system.

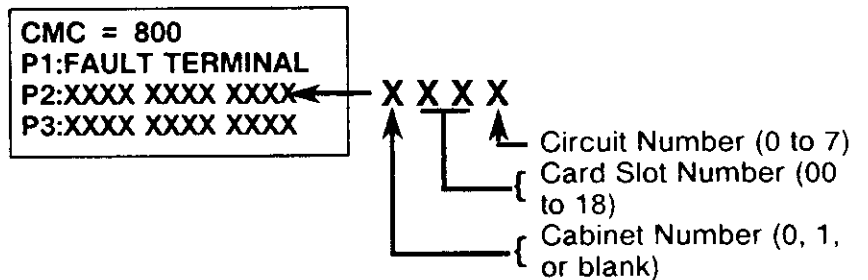
Screen 2



3. Press <DSP> again.

NOTE: When faulty terminals are detected, the system will display the terminal ENs. The screen can only display a maximum of 3 faulty terminal ENs per line for a maximum of 6 on the screen. If more than 6 terminals are faulty, they may be displayed by pressing <DSP> again. The system will release this CMC after the last EN has been displayed.

Screen 3



Fault Information Display (CMC 801)

4.92 The Fault Information Display (CMC 801) table provides a display of current fault data. Reading this data will reset the ALM and TO lamps and reset the watchdog timer.

CMC = 801
P1:DVN P4:DN
P2:TIME
P3:FACT

Release				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	DVN	device name	3 characters	See Table 4.43
X	X	X	X	P2	TIME	time and date of the fault or repair	HH:MM MM/DD	None
X	X	X	X	P3	FACT	fault cause and fault data	X HHHHHHHHHHHHHH See Table 4.45	See Table 4.44
X	X	X	X	P4	DN	device equipment number	XXXX See Table 4.45	See Table 4.44

DISPLAY

Press <DSP>.

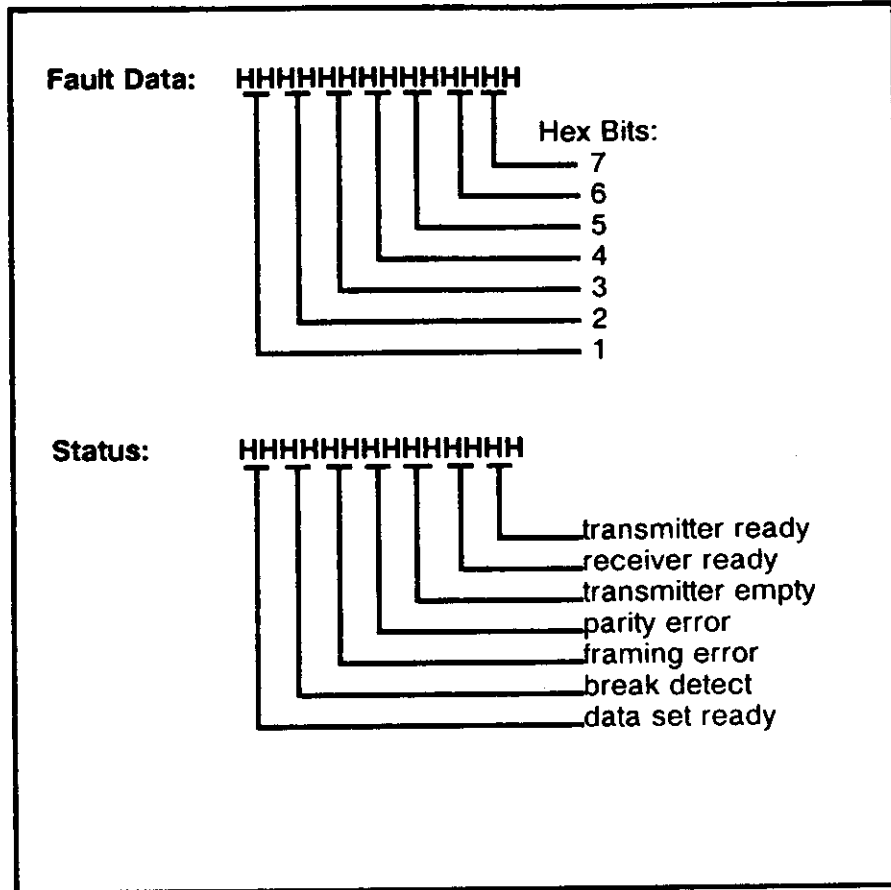
NOTES:

- Pressing <DSP> repeatedly will display the remaining fault data.
- Data display mode will terminate when the last faulty device has been displayed.
- Fault data is displayed in the order received. The maximum number of fault records is 16. When the number of fault records exceeds 16 the oldest fault record is replaced with the newest information.

Table 4.44 Key to CMC 801 Parameters

DVN (P1)	DN (P4)	FACT (P3)	
		Cause X	Fault Data HHHHHHHHHHHHHHH (See Table 4.45)
CC	None	0 = COLD restart 1 = watchdog timer overflow 2 = software maze 3 = RAM data problem 4 = illegal interruption	None
RAM	None	0 = turn ALM lamp off 1 = RAM memory stack 2 = RAM protection	1,2 = segment address 3,4 = offset address 5 = , 6,7 = stack data 1,2 = segment address 3,4 = offset address 5 = , 6 = read data 7 = write data
RTS	None	0 = recovery 1 = stop incrementing 2 = illegal time	
BAT	None	0 = recovery 1 = discharge	
SWC	None	0 = turn ALM lamp off 1 = clock down 2 = CM memory stack 3 = RSM memory stack 4 = SSM memory stack	1,2 = read after write data 6,7 = CM address 1,2 = read after write data 6,7 = RSM address 1,2 = read after write data 6,7 = SSM address
ICG	First EN on card	0 = recovery 1 = data transmission error 2 = ICG audit error	
TRM	EN	0 = recovery 1 = data transmission error 2 = EKT audit error	
SCI	Port No. 0/1	0 = recovery 1 = data transmission error 2 = send data time out	status (See Table 4.45)
RG	None	0 = recovery 1 = ring generator fault	
RVAC	None	0 = recovery 1 = RVAC battery discharge	

Table 4.45 Key to Fault and Status Data



**Diagnostic Trunk
Connection Assignment
(CMC 802)**

4.93 The Diagnostic Trunk Connections Assignment (CMC 802) table is used to create connections between specified stations and specified trunks for testing purposes. This CMC requires a HIGH level security code.

CMC = 802
P1:DN
P2:EN

Release				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	DN	station directory number	1 to 4 digits	None
X	X	X	X	P2	EN	trunk equipment number	3 or 4 digits	None

NOTES:

- The EN must be entered in the format XYYZ, where:
 X = 0, 1, or blank (cabinet number) This number is never entered in Packages A or B
 YY = 06 - 18 (card slot)
 Z = 0 - 3 (circuit number)
- When this CMC is activated, the specified station will always seize the assigned trunk until the values for P1 and P2 are deleted using the REMOVE procedure

DISPLAY

Press <DSP>. (The system will display the current test connections.)

NOTE: Pressing <DSP> a second time will release the CMC.

ADD/CHANGE

1. Enter the DN of the station to be tested at parameter P1.
2. Enter the EN of the trunk to be tested at parameter P2.
3. Press <ADD/CHG>.

REMOVE

1. Press <DSP>.
2. Press <RMV>.

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The entered DN has not yet been installed, or the entered EN is not a trunk.	Check the data entry and physical equipment for accuracy and try again.
DISAGREE	An attempt has been made to enter a DN which is not yet registered.	Check the data and try again. If necessary, return to CMC 200 and register the DN.

**CHT Loop Test
(CMC 810)**

4.94 The CHT Loop Test (CMC 810) is used to perform a loop test on the CHT card and between the CHT card and the DIU/DTA. This CMC requires a HIGH level security code.

CMC = 810
 P1:TTP P4:ANS1
 P2:CEN P5:ANS2
 P3:DEN

Release				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
		X	X	P1	TTP	test type	0 = loop test on CHT 1 = loop test between CHT and DIU/DTA	None
		X	X	P2	CEN	character trunk EN	3 or 4 digits	None
		X	X	P3	DEN	DIU/DTA DN (only when TTP = 1)	1 to 4 digits	None
		X	X	P4	ANS1	test result 1	4 digits (See Table 4.46)	None
		X	X	P5	ANS2	test result 2	3 digits (See Table 4.46)	None

NOTE: The EN must be entered in the format XYYZ, where:
 X = 0, 1, or blank (cabinet number)
 YY = 00 - 18 (card slot)
 Z = 0 - 3 (circuit number)

DISPLAY

1. Enter the TTP for the desired test at parameter P1.
2. Enter the CEN for the CHT to be tested at parameter P2.
3. Press <DSP>.

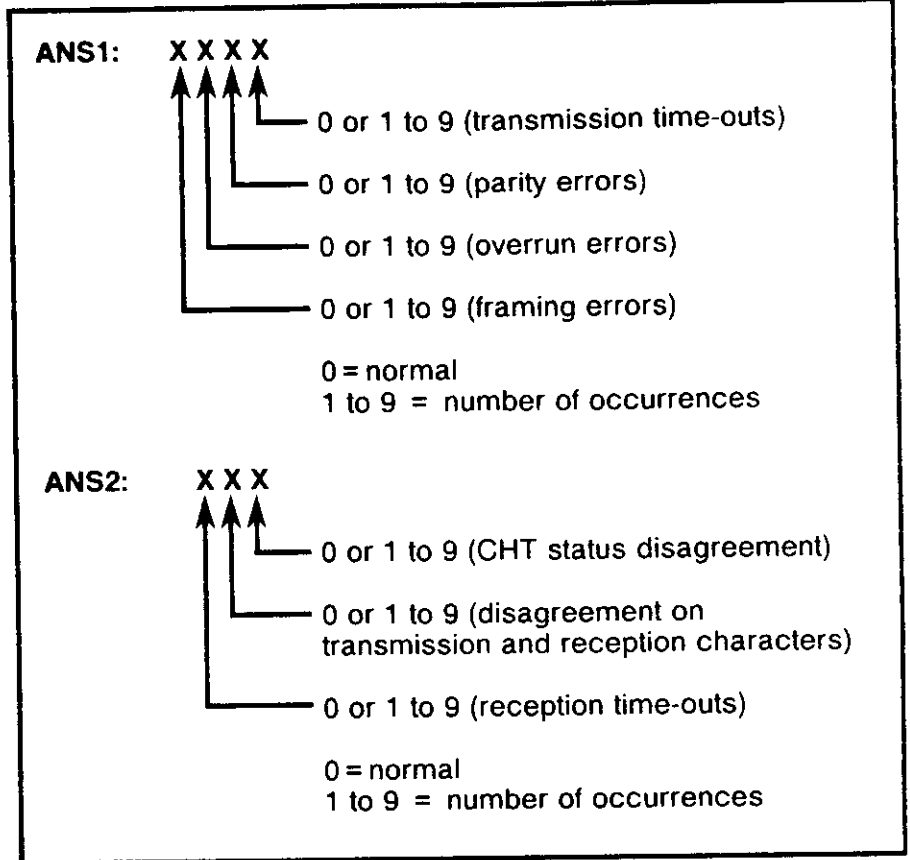
NOTES:

- Repeated pressing of <DSP> will display data in numerical order of CENs.
- The system will release this CMC when all registered CENs have been displayed.
- ANS1 and ANS2 will be blank if the test fails before completion.
- Figures 4.18 and 4.19 show the location of the DIU and DTA test switches used for extended loop testing (P3 = 1).

ERROR CODES

Error Code	Cause	Correction
NOT RGTR	The entered CEN is not installed.	Check the data entry and installation and try again.
DISAGREE	An attempt was made to test a trunk which is not a CHT. The DIU/DTA is set to synchronous mode.	Check the data entry and installation and try again. Return to CMC 222 and remove synchronous mode from the terminal.
DENIED	An attempt was made to test a Hotel/Motel printer which is in the make-busy state.	Return to CMC 706 and release the Hotel/Motel printer.
NOT EXEC	The CHT or DIU/DTA is faulty or in the make-busy state.	Replace faulty cards. Return to CMC 701 to release equipment.

Table 4.46 Key to ANS1 and ANS2



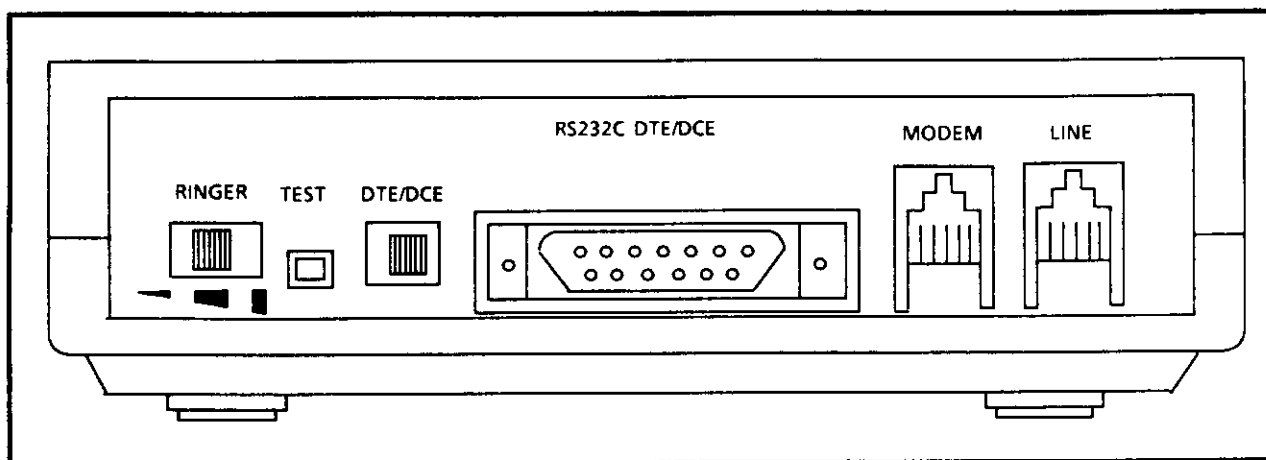


Figure 4.22 DIU Back Panel

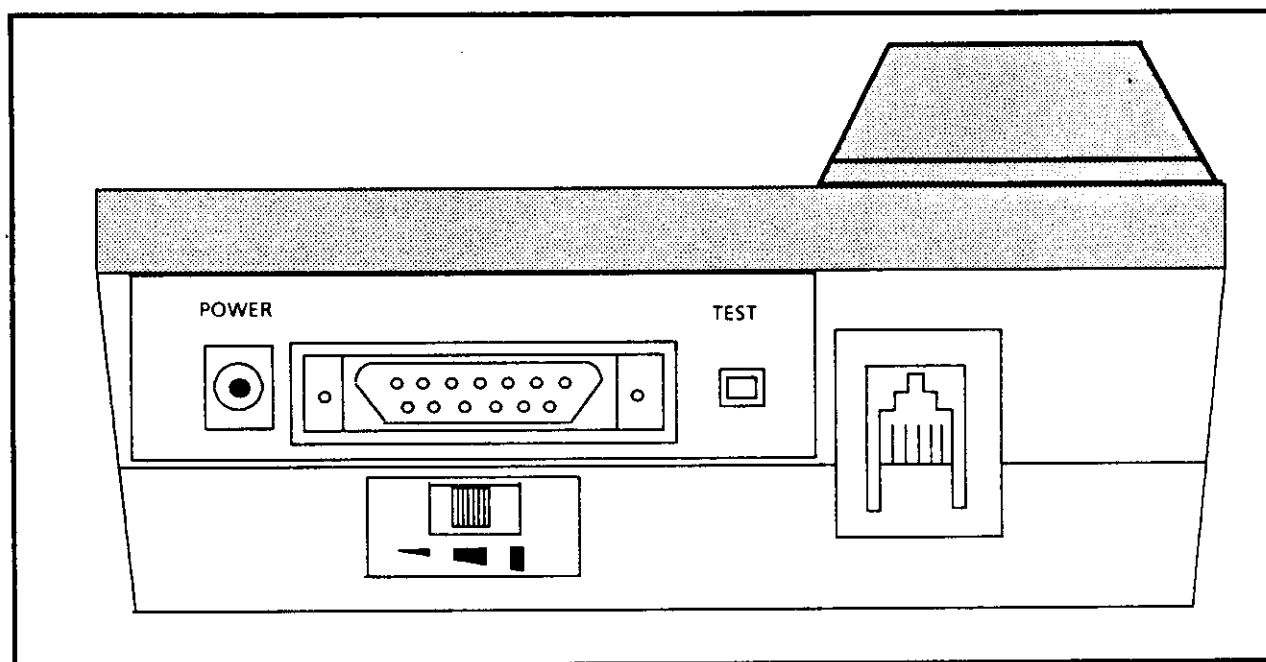


Figure 4.23 CSD With DTA Back Panel

RS-232C Port Configuration Assignment (CMC 900)

4.95 The RS-232C Port Configuration Assignment (CMC 900) table is used to change the configuration of the system I/Oports.

CMC = 900	
P1:PORT	P4:CHR
P2:RATE	P5:STOP
P3:PRTY	P6:ECHO

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	PORT	port number	0 or 1	0 or 1
X	X	X	X	P2	RATE	bit rate	1 = 110 bps 2 = 150 bps 3 = 300 bps 4 = 600 bps 5 = 1200 bps 6 = 2400 bps 7 = 4800 bps	5 (port 0) 3 (port 1)
X	X	X	X	P3	PRTY	parity	1 = none 2 = odd 3 = even	3
X	X	X	X	P4	CHR	character length	7 = 7 bits 8 = 8 bits	7
X	X	X	X	P5	STOP	stop bit	1 = 1 bit 2 = 2 bits	1
X	X	X	X	P6	ECHO	echo back	1 = echo off 2 = echo on	1

DISPLAY

1. Enter the port number at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> again will display the other port.
- The system will release this CMC when the PORT exceeds 1.

CHANGE

1. Enter the number of the port to be changed.
2. Press <DSP>.
3. Use the cursor control keys or <RETURN> to move the cursor to the parameter(s) to be changed.
4. Enter any new values.
5. Press <ADD/CHG>.

SMDR Printer Control (CMC 901)

4.96 The SMDR Printer Control (CMC 901) table is used to assign a printer to a system port which will print SMDR data. In addition, this table is used to establish the control codes needed for printer operation. This CMC requires a HIGH level security code.

CMC = 901	
P1:PORT	P4:ONT
P2:XON	P5:OFFT
P3:PC	P6:PRTF

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	PORT	port number	0, 1, or blank (blank = no printer assignment)	None
X	X	X	X	P2	XON	X-on/X-off control characters	1, 2, or blank (See Table 4.47)	None
X	X	X	X	P3	PC	power control characters	1 to 12 or blank (See Table 4.48)	None
X	X	X	X	P4	ONT	power on timing	1 to 255 or blank (Time Unit = 200 ms)	None
X	X	X	X	P5	OFFT	power off timing	1 to 255 or blank (Time Unit = 10 sec.)	None
X	X	X	X	P6	PRTF	printout format	1 = 80 digits/one line 2 = 80 digits/two lines 3 = 136 digits/one line	None

NOTE: The actual timing generated by the ONT and OFFT values may be up to one time unit less than the calculated timing.

DISPLAY

Press <DSP>.

NOTES:

- The values for parameters 1 through 6 will be displayed.
- Pressing <DSP> again will terminate data display mode.

CHANGE

1. Press <DSP> .
2. Use <RETURN> or the cursor control keys to move the cursor to the parameter(s) to be modified.
3. Enter the new data.
4. Press <ADD/CHG> .

REMOVE

1. Press <DSP> .
2. Press <RMV> .

ERROR CODES

Error Code	Cause	Correction
OVERLAP	An attempt was made to register an SMDR printer when one is already installed.	Abandon the attempt.
DENIED	An attempt was made to designate a port for use by the SMDR printer which is already being used by a programming tool.	Attempt to designate the other port for use by the SMDR printer.
I/O BUSY	An attempt was made to designate a port for use by the SMDR printer which is already being used.	Attempt to designate the other port for use by the SMDR printer.

Table 4.47 X-on/X-off Characters

P2	X-on Characters	X-off Characters
1	DC1	DC3
2	DC2	DC4
Blank	None	None

Table 4.48 Power On/Power Off Characters

P3	Power On Character	Power Off Character
1	null	none
2	null	null
3	null	del
4	null	esc J
5	del	none
6	del	null
7	del	del
8	del	esc J
9	esc H	none
10	esc H	null
11	esc H	del
12	esc H	esc J
13	none	none

**Load ODDB
Into System Memory
(CMC 902)**

4.97 This CMC is used to load the ODDB into the system using the PMP. This CMC cannot be used from an MCT. This CMC requires a HIGH level security code.

CMC = 902
P1:CHK

Release				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	CHK	verification parameter	LOAD	None

NOTE: The procedure for using this CMC can be found in section 2.

**Save System ODDB
(CMC 903)**

4.98 This CMC is used to record the system ODDB using the PMP. This CMC cannot be used from an MCT. This CMC requires a HIGH level security code.

CMC = 903
P1:CHK

Release				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	CHK	verification parameter	SAVE	None

NOTE: The procedure for using this CMC can be found in section 2.

**System Software
Version ID Display
(CMC 904)**

4.99 This table is used to learn the software version operating the system. This CMC requires a LOW level security code.

CMC = 904
P1:VID

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X	X	X	P1	VID	version ID	15 characters (maximum)	None

DISPLAY

Press <DSP>.

NOTE: Pressing <DSP> again will release this CMC.

**Distributed Processor
Version ID Display
(CMC 907)**

4.100 The Distributed Processor Version ID Display (CMC 907) command is used to display the processor version of cards installed in card slots 00 - 18 in each cabinet of the system. This CMC requires a LOW level security code.

CMC = 907
P1:EN
P2:TYP
P3:VNO

Package				P#	Mnem.	Description	Data Range	Default
A	B	C	D					
X	X			P1	EN	equipment number	3 digits	See NOTES
		X	X				3 or 4 digits	See NOTES
X	X			P2	TYP	card types	1 = 8SLC 2 = 4BWC 3 = 2TTE 4 = 2TTL 5 = 4DMR	See NOTES
		X					1 = 8SLC 2 = 4BWC 3 = 2TTE 4 = 2TTL 5 = 4DMR 6 = 4CHT	See NOTES
			X				1 = 8SLC 2 = 4BWC 3 = 2TTE 4 = 2TTL 5 = 4DMR 6 = 4CHT 7 = RVAC	See NOTES
X	X	X	X	P3	VNO	version number	0 to 127	See NOTES

NOTES:

- The system will display the processor versions for the cards which are installed in the system cabinet.
- The EN must be entered in the format XYYZ, where:
 - X = 0, 1, or blank (cabinet number) This number is never entered in Packages A or B
 - YY = 00 - 18 (card slot)
 - Z = 0 - 7 (circuit number)
- If an EN is not installed, or if the EN contains an 8EKC or 8DTC, the EN is skipped and the next installed EN is displayed.

DISPLAY

1. Enter an EN at parameter P1.
2. Press <DSP>.

NOTES:

- Pressing <DSP> repeatedly will display data in numerical order of ENs.
- The system will release this CMC after the last installed EN has been displayed.

DEFAULT DATA BASE

5.0 The system is delivered with a default data base stored in ROM (Read Only Memory) located on the CPM and MEM cards. The system will automatically generate station and trunk assignment data from the default data base to provide a working network for any instruments and trunks physically connected to the system when it is first powered on, and each time the system goes through a COLD restart.

The system assigns default data in one of four patterns depending upon:

- **System capacity.** Different numbering plans are implemented depending on the system capacity.
 - The system recognizes a basic configuration if a SWC card is installed.
 - The system recognizes an expansion configuration if a SWB-A card is installed in the basic cabinet.
- **Attendant Console installation.** Instrument button assignments differ based on whether an Attendant Console is installed.
 - The system defaults to a PABX if an Attendant Console is installed.
 - The system defaults to a Key Telephone System if no Attendant Console is installed.

The system's default data base is presented in tables 5.1 through 5.30.

System Capacity

5.1 The following table lists the capacity and default status of items in the data base. Installed cards and instruments are assigned to specific groups, features, class of service, and station numbers.

The CAPACITY column lists the capacities for the **Basic** and **Expanded** systems.

The DEFAULT STATUS column indicates the status of items in the default data base. Items assigned in the default data base which can be changed by CMC command are indicated by ASSIGNED. Items assigned in the default data base which cannot be changed by CMC command are indicated by FIXED. Items not assigned in the default data base which can be programmed by CMC commands are indicated by CMC. Items not assigned in the default data base, and which can be programmed by station users are indicated by STATION.

Table 5.1 System Capacity

Item Description	Capacity		Default Status	Package
	Basic	Expanded		
ACD Group	20	20	CMC	D
ACD Member	120	240 *	CMC	D
Area and Office Code Restriction Table	Total of 1000 Codes	Total of 1000 Codes	CMC	ALL
Attendant Console	2	2	FIXED	C, D
Data Terminal (DIU)	80	80	ASSIGNED	C, D
Data Terminal (DTA)	30	30	ASSIGNED	B, C, D
Conflicting Area/Office Code Table	30	30	CMC	ALL
Dial Intercom Group	10	10	CMC	D
Dial Intercom Member	16	16	CMC	D
DSS (Direct Station Select) 80-Button**	2	2	ASSIGNED	ALL
DSS (Direct Station Select) 40-Button**	8	8	ASSIGNED	ALL
EKT	120	120	ASSIGNED	ALL
EKT Speaker Paging Zone	9	9	CMC	ALL
EKT Speaker Paging Members/Paging Zone	4	4	CMC	ALL
External Paging Zone	9	9	CMC	B, C, D
Front Desk Console (FDC)	120	120	CMC	C, D
Hot Line	10		CMC	A, B
	20	20	CMC	C, D
Hotel/Motel Printer	2	2	CMC	C, D
Hunt Group	10		CMC	A, B
	20	20	CMC	C, D
Hunt Group Member	16	16	CMC	ALL

* Only SLT instruments can be installed in the expanded cabinet.

** The system has a combined restriction of 8 DSS/BLFs.

Table 5.1 System Capacity (Continued)

Item Description	Capacity		Default Status	Package
	Basic	Expanded		
LCR Area Code Route Table	15	15	CMC	ALL
LCR Area Code Routes	10	10	CMC	ALL
LCR Area Codes	160	160	CMC	ALL
LCR Office Code Route Table	15	15	CMC	ALL
LCR Office Code Routes	10	10	CMC	ALL
LCR Office Codes	800	800	CMC	ALL
Master Control Telephone	4	4	ASSIGNED	B, C
	20	20	ASSIGNED	D
Message Waiting (Silent Messages/instrument)	4	4	STATION	ALL
Multi-Station Line Appearance (Number of line appearances)	16	16	CMC	D
Night Answering Group	16		CMC	A, B
	32	32	CMC	C, D
Night Answering Member - Stations/group	8	8	CMC	ALL
Pickup Group	10		CMC	A, B
	20	20	CMC	C, D
Pickup Group Member	32	32	CMC	ALL
Simultaneous TGN Traffic Measurement	10	10	CMC	ALL
Simultaneous Calls	40		FIXED	A
Simultaneous Calls	76		FIXED	B
Simultaneous Calls	96	96	FIXED	C, D
Simultaneous Message Waiting Ringer	50	100	FIXED	B, C, D
Simultaneous Ringer	24	48	FIXED	ALL

Table 5.1 System Capacity (Continued)

Item Description	Capacity		Default Status	Package
	Basic	Expanded		
Simultaneous Trunk Camp-on	20	20	STATION	ALL
Simultaneous Use Of EKT Speaker	48	48	FIXED	ALL
Special Common Carrier (SCC) Route	6	6	CMC	B, C, D
Stations	120	240	ASSIGNED	ALL
Station Camp On	30	30	STATION	ALL
Station Speed Dialing Lists (Number of entries per station)	10	10	STATION	ALL
System Speed Dialing Directory Numbers	100	100	CMC	ALL
Tenant	5	5	ASSIGNED	ALL
Terminating TGN	31		CMC	A, B
	63	63	CMC	C, D
Three-Way Conference	5	10	FIXED	ALL
Trunk	40		ASSIGNED	A, B
	52 *	104	ASSIGNED	C, D
Trunk Dialing Group (DGN)	3	3	ASSIGNED	ALL
Trunk Group (TGN)	32		ASSIGNED	A, B
	36	36	ASSIGNED	C, D
Trunk Line Appearance	16		CMC	A, B
	52	52	CMC	C, D
Trunk Restriction Group (RGN)	3	3	ASSIGNED	ALL

* SWBA card must be installed to acheive this limit.

System Feature Access Codes (CMC 100)

5.2 The system sets default access codes for most features in the data base. In the Default Access code column any code to the left of a slash (/) is the default for a basic system, any number to the right of a slash is the default for an expanded system.

Table 5.2 Access Code Assignment

Trunk Group/ Feature Name	Feature Number	Default Access Code (Basic/Expansion)	Numbering Scheme
CO #1 Access (default)	4	75	FAC* + DN
CO #2 Access	5	76	FAC + ODN
CO #3 Access	6	85	FAC + ODN
CO #4 Access	7	86	FAC + ODN
CO #5 Access	8	45/None	FAC + ODN
CO #6 Access	9	46/None	FAC + ODN
FX #1 Access	10	10	FAC + ODN
FX #2 Access	11	12	FAC + ODN
FX #3 Access	12	13	FAC + ODN
FX #4 Access	13	14	FAC + ODN
FX #5 Access	14	15	FAC + ODN
FX #6 Access	15	16	FAC + ODN
WATS #1 Access	16	70	FAC + ODN
WATS #2 Access	17	72	FAC + ODN
WATS #3 Access	18	73	FAC + ODN
WATS #4 Access	19	74	FAC + ODN
WATS #5 Access	20	None	FAC + ODN
WATS #6 Access	21	None	FAC + ODN
Tie #1 Access (Loop - default)	22	80	FAC + ODN
Tie #2 Access (E&M - default)	23	82	FAC + ODN
Tie #3 Access	24	83	FAC + ODN
Tie #4 Access	25	84	FAC + ODN
Tie #5 Access	26	None	FAC + ODN
Tie #6 Access	27	None	FAC + ODN
SCC #1 Access	42	40/46	FAC + ODN
SCC #2 Access	43	42/47	FAC + ODN
SCC #3 Access	44	43/48	FAC + ODN
SCC #4 Access	45	44/49	FAC + ODN
SCC #5 Access	46	None	FAC + ODN
SCC #6 Access	47	None	FAC + ODN

* = 1 Digit

DN = Station Directory Number

ODN = Outgoing Directory Number

See Table 5.3 for ADDn

FAC = FEATURE ACCESS CODE

Table 5.2 Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Number	Default Access Code (Basic/Expansion)	Numbering Scheme
Account code entry	154	56	FAC + ADD6
Add data call setup (Packages B, C, & D)	160	67	FAC
Attendant access (Packages C & D)	55	0	FAC
Automatic intercom - user programmable	122	#4	FAC + [BTN] + SPC + ADD1/ADD2 or FAC + [BTN] + DN
Call announce receive on/off	126	#8	FAC + ADD8
Call charges (message registration) add/clear (Packages C & D)	74	None	FAC + X + DN + charge (\$\$\$cc) X = 0/1/9: cni/reg/verify
Call forward - all calls (activate)	80	*34	FAC + DN
Call forward - all calls (cancel)	81	*30	FAC
Call forward - busy/no answer (activate)	82	*33	FAC + DN
Call forward - no answer (activate)	83	*32	FAC + DN
Call forward - busy/no answer & no answer (cancel)	84	*31	FAC
Call park	153	*9	FAC + ADD5
Call park answer	93	#9	FAC + ADD5
Controlled restriction (Packages C & D)	75	None	FAC + ADD15 + X + COS (X = 0/1:reg/cni)
Data call attribute change (Packages B, C, & D)	117	69	FAC + ADD13
Day/Night mode change - self tenant only	131	*#	FAC + ADD10
Day/Night mode change - all tenants	132	0# (Packages A & B) 8# (Packages C & D)	FAC + ADD10
DSS Park answer	107	18	FAC

DN = Station Directory Number
 ODN = Outgoing Directory Number
 [BTN] = Button on EKT
 SPC = System/Station Speed Dialing Access Code
 See Table 5.3 for ADDn

Table 5.2 Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Name	Default Access Code (Basic/Expansion)	Numbering Scheme
DSS Speed dial (program) (Packages C & D)	135	52	FAC + [BTN] + TAC + ODN (TAC = 2nd DIGIT)
Directed call pickup	106	17	FAC
Do-not-disturb (activate)	85	*6 (Packages A, B, & C) None (Package D)	FAC
Do-not-disturb - other (activate) (Packages C & D)	71	None	FAC + X + DN + ADD17 (X = 0/1/2/9:cnl/reg/with Silent Message/verify)
Do-not-disturb (cancel)	86	#6	FAC
Do-not-disturb override (activate)	120	*2	FAC + DN
Do-not-disturb override (cancel)	121	#2	FAC
Do-not-disturb with silent message registration (Package D)	137	*6	FAC + ADD17
EKT paging access zone/all zone	51	77	FAC + ADD3
EKT paging answer (Packages B, C, & D)	52	87	FAC + ADD3
Executive override (limited)	152	#5	FAC
External paging access (Packages B, C, & D)	53	78	FAC + ADD3
External paging answer (Packages B, C, & D)	54	88	FAC + ADD3
Guestroom cleanup (Packages C & D)	73	None	FAC
Group pickup	92	*4	FAC
Idle line preference change (Packages C & D)	129	541	FAC + X (X = 0/1/2/3: Not Available/ICM/ ICM-TRK/ D-ICM,ICM,TRK)

DN = Station Directory Number
 ODN = Outgoing Directory Number
 [BTN] = Button on EKT
 See Table 5.3 for ADDn

Table 5.2 Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Name	Default Access Code (Basic/Expansion)	Numbering Scheme
Key touch tone control - EKT only (Packages B, C, & D)	133	58	FAC + ADD11
Least cost routing system access	3	9	FAC + ODN
Message leaving (activate)	87	*1	FAC + DN + ADD17
Message leaving (cancel)	88	#1	FAC + DN
Message pickup	89	*5	FAC
Night answer any station - this tenant only	94	#30	FAC
Night answer any station - all tenants	95	#31	FAC
Off-hook incoming signal change - user programmable	124	57	FAC + ADD7
Pre-selection mode change (Packages C & D)	127	542	FAC + X (X = 0/1:One touch ops/ pre-selection)
Programming from key telephone (button programming) (Packages C & D)	134	53	FAC + [BTN] + FNO + X (X = DN, ZONE #, RGN, SPD)
Recorded voice announcement (Package D)	136	89	FAC + X + ADD16 (X = 0/1/9:cnl/reg/verify)
Ringing line preference change (Packages C & D)	128	540	FAC + X (X = 0/1/2/3: Not Available/ICM/ ICM-TRK/ D-ICM,ICM,TRK)
Room status change (Packages C & D)	72	None	FAC + ADD14 + X + COS (1 - 16) (X = 0/1:reg/cnl)
Save/repeat last number dialed	50	*8	FAC
Service call routing #1 (Packages C & D)	96	None	FAC
Service call routing #2 (Packages C & D)	97	None	FAC
Service call routing #3 (Packages C & D)	98	None	FAC
Service call routing #4 (Packages C & D)	99	None	FAC

DN = Station Directory Number
See Table 5.3 for ADDn

Table 5.2 Access Code Assignment (Continued)

Trunk Group/ Feature Name	Feature Name	Default Access Code (Basic/Expansion)	Numbering Scheme
Service call routing #5 (Packages C & D)	100	None	FAC
Service call routing #6 (Packages C & D)	101	None	FAC
Service call routing #7 (Packages C & D)	102	None	FAC
Service call routing #8 (Packages C & D)	103	None	FAC
Service call routing #9 (Packages C & D)	104	None	FAC
Service call routing #10 (Packages C & D)	105	None	FAC
Station camp-on (activate)	150	**	FAC
Station camp-on (cancel)	90	#*	FAC
Station speed call user programmable	123	#0	FAC + ADD4
Station speed calling	48	*0	FAC + ADD1
System speed calling	49	##	FAC + ADD2
Trunk camp-on (activate)	151	*7	FAC
Trunk camp-on (cancel)	91	#7	FAC
Trunk access - direct trunk access	130	61*	FAC + ADD9 + ODN (See Note below)
Wake-up other (activate) (Packages C & D)	70	None	FAC + X + DN + time (HHMM) (X = 0/1/9:cnl/reg/verify)
Wake-up self (activate) (Packages C & D)	78	None	FAC + Wake-up calling time
Wake-up self (cancel) (Packages C & D)	79	None	FAC

DN = Station Directory Number
 ODN = Outgoing Directory Number
 FNO = FEATURE NUMBER
 [BTN] = Button on EKT
 See Table 5.3 for ADDn

NOTES:

- If the system is expanded (two cabinets), or if the system contains an SWBA card, FNO 130 requires the use of a 4-digit trunk access code. (By default the trunk access code is the same as the trunk equipment number.)
- If CMC 251 has been used to assign trunk directory numbers, the assigned directory number must be used in place of the trunk access code.

Table 5.3 Features and Additional Digits

ADDn	FNO	Feature Description	Number of Added Digits	Meaning of Added Digits
ADD1	48	StationSpeed Dialing	1 (fixed)	0 - 9
ADD2	49	System Speed Dialing	2 (fixed)	00 - 99
ADD3	51	EKT Paging Access	1 (fixed)	0 - 9
ADD4	123	Station Speed Dialing Change	max 20	SPC + TAC + DN SPC: Speed Dial Code TAC: Trunk Access Code DN: Outside Station Number
ADD5	153 93	Call Park Registration Call Park Retrieval	max 4	(It is desirable to use the station number of the parking station.)
ADD6	154	Account Code Entry	max 15	
ADD7	124	Off-Hook Signaling - Mode Change	1 (fixed)	0: No Off-Hook Signaling 1: Off-Hook Signaling
ADD8	126	Call Announce Change	1 (fixed)	0: Tone Ringer 1: Voice Calling
ADD9	130	Direct Trunk Access	max 4	Trunk Access Code
ADD10	131 132	Day/Night Mode Change (Self) Day/Night Mode Change (Tenants)	1 (fixed)	0: Day Mode 1: Night Mode
ADD11	133	Touch Tone Control	1 (fixed)	0: No Touch Tone 1: Touch Tone
ADD12	107	DSS Park	3 (fixed)	digit 1: DSS Number digts 2,3: DSS Button Number
ADD13	117	Attribute Change (Data Call)	max 5	Data Speed Change 1 + Baud Rate (110, 150, 300, 600, 1200, 2400, 4800, 9600, 19200) Answer Mode Change 2 + Mode (0: Manual/1: Auto)
ADD14	72	Room Status Change	1 (fixed)	1: Vacant 2: Occupied 3: Clean-up Cancel 4: Wake-up No Answer
ADD15	75	Controlled Restriction	1 (fixed)	1: Station Incoming Calls 2: All Incoming Calls 3: All Outgoing Trunk Calls 4: All calls
ADD16	136	Voice Message ID	2 (fixed)	01 - 58
ADD17	137	Silent Message ID	2 (fixed)	00 - 50

Table 5.4 Button Assignment Feature Numbers

FNO	Feature Name	Phone	Package
1	Automatic Intercom Access (Station Access)	EKT	All
		ATT	C, D
4	CO #1 Access	EKT	All
5	CO #2 Access	EKT	All
6	CO #3 Access	EKT	All
7	CO #4 Access	EKT	All
8	CO #5 Access	EKT	All
9	CO #6 Access	EKT	All
10	FX #1 Access	EKT	All
11	FX #2 Access	EKT	All
12	FX #3 Access	EKT	All
13	FX #4 Access	EKT	All
14	FX #5 Access	EKT	All
15	FX #6 Access	EKT	All
16	WATS #1 Access	EKT	All
17	WATS #2 Access	EKT	All
18	WATS #3 Access	EKT	All
19	WATS #4 Access	EKT	All
20	WATS #5 Access	EKT	All
21	WATS #6 Access	EKT	All
48	Station Speed Dialing	EKT	All
		ATT	C, D
49	System Speed Dialing	EKT	All
		ATT	C, D
50	Last Number Redial	EKT	All
		ATT	C, D

Table 5.4 Button Assignment Feature Numbers (Continued)

FNO	Feature Name	Phone	Package
51	Paging Access - All Zone / Zone	EKT	All
		ATT	C, D
52	EKT Paging Answer - All Zone / Zone	EKT	All
53	External Paging Access	EKT	B, C, D
		ATT	C, D
54	External Paging Answer	EKT	B, C, D
70	Wake Up (Other) Register/Cancel	EKT	C, D
71	Do Not Disturb (Other) Register/Cancel	EKT	C, D
72	Room Status Change	EKT	C, D
74	Add/Clear Call Charges	EKT	C, D
75	Controlled Restriction	EKT	C, D
		ATT	C, D
78	Wake Up (Self) / Time Reminder Register	EKT	C, D
78	Wake Up (Self) / Time Reminder Cancel	EKT	C, D
80	Call Forwarding All Calls Register	EKT	All
85	Do Not Disturb Register	EKT	All
87	Message Waiting Registration	EKT	All
		ATT	C, D
89	Message Pick Up	EKT	All
92	Group Pick Up	EKT	All
106	Directed Call Pick Up	EKT	All
		ATT	C, D
117	Attribute Change (Data Call)	EKT	B, C, D
136	Recorded Voice Announcement	EKT	D
137	DND with Silent Message	EKT	D
150	Station Call Camp On Registration	EKT	All
		ATT	CD

Table 5.4 Button Assignment Feature Numbers (Continued)

FNO	Feature Name	Phone	Package
151	Trunk Queueing Registration	EKT	All
		ATT	C, D
152	Executive Busy Override (Limited)	EKT	All
153	Call Park Registration	EKT	All
		ATT	C, D
154	Account Code Entry	EKT	All
		ATT	C, D
160	Subordinate Data Call	EKT	B, C, D
170	EKT Speaker Button	EKT	All
171	EKT Hands-Free Button	EKT	All
172	EKT Microphone-Mute Button	EKT	All
173	EKT Hold Button	EKT	All
174	Flash Button	EKT	All
		ATT	C, D
175	EKT Transfer Button	EKT	All
176	EKT Release Button	EKT	C, D
177	Call-Announce Button	EKT	All
		ATT	C, D
179	Alarm Button	EKT	All
		ATT	C, D
180	EKT Intercom-Hold/Answer Button	EKT	All
181	EKT Call-Splitting Button	EKT	B, C, D
182	Hook Switch Button (for Head Set operation)	EKT	C, D
183	Intercom/Station Line Button *	EKT	All

* In the case of a Multi-Station Appearance feature, an extension line is referred to as a Station Line (SL) not an Intercom (ICM).

Table 5.4 Button Assignment Feature Numbers (Continued)

FNO	FEATURE NAME	INST	PACK
184	Privacy Release Button	EKT	CD
185	EKT Data Call Button	EKT	BCD
186	EKT Voice/Data Change-Mode Button	EKT	BCD
187	EKT Program Button	EKT	BCD
188	Front Desk Console Program Button	EKT ATT	CD
191	ACD Status Display Button	EKT	D
194	Intercom Group Button	EKT	D
200	Executive Busy Override (Full) **	EKT	ALL
221	COS/COR Display Button	ATT	CD
222	ATT Break In Button	ATT	CD
223	DND Override Button	EKT	ALL
		ATT	CD
224	ATT Night Mode Button	ATT	CD
225	ATT Position Busy Button	ATT	CD
227	ATT Trunk Busy / Trunk Access Button	ATT	CD

** FNO 152 (Executive Busy Override (Limited)) and FNO 200 (Executive Busy Override (Full)) cannot be simultaneously assigned to buttons on the same phone.

Class of Service (CMC 104) 5.3 The system sets default configurations for all classes of service. By default, the system assigns class of service 1 to all station and trunk connections. Class of service is set at CMC 104.

Table 5.5 Class of Service Default Values

FNO (P2)	Feature Description	Class of Service (P1)																Package
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
3	Least Cost Routing	X	X	X	X	X	X	X	X	X	X							All
4	CO #1 Access	X	X	X	X	X	X	X	X	X	X							All
5	CO #2 Access	X	X	X	X	X												All
6	CO #3 Access	X	X	X	X	X												All
7	CO #4 Access	X	X	X	X													All
8	CO #5 Access	X	X	X														All
9	CO #6 Access	X																All
10	FX #1 Access	X	X	X	X	X	X	X	X	X	X							All
11	FX #2 Access	X	X	X	X	X	X	X	X	X	X							All
12	FX #3 Access	X	X	X	X													All
13	FX #4 Access	X	X	X														All
14	FX #5 Access	X	X															All
15	FX #6 Access	X																All
16	WATS # 1 Access	X	X	X	X	X	X	X	X	X	X							All
17	WATS # 2 Access	X	X	X	X	X	X	X	X	X	X							All
18	WATS # 3 Access	X	X	X	X													All
19	WATS # 4 Access	X	X	X														All
20	WATS # 5 Access	X	X															All
21	WATS # 6 Access	X																All
22	Tie # 1 Access	X	X	X	X	X	X	X	X	X	X							All
23	Tie # 2 Access	X	X	X	X	X	X	X	X	X	X							All
24	Tie # 3 Access	X	X	X	X													All

Table 5.5 Class of Service Default Values (Continued)

FNO (P2)	Feature Description	Class of Service (P1)																Package
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
25	Tie # 4 ACCESS	X	X	X													All	
26	Tie # 5 ACCESS	X	X	X													All	
27	Tie # 6 ACCESS	X	X	X													All	
42	SCC # 1 ACCESS	X	X	X	X	X	X	X	X	X							All	
43	SCC # 2 ACCESS	X	X	X	X	X	X	X	X	X							All	
44	SCC # 3 ACCESS	X															All	
45	SCC # 4 ACCESS	X															All	
46	SCC # 5 ACCESS	X															All	
47	SCC # 6 ACCESS	X															All	
48	Station Speed Calling	X	X	X	X	X	X	X	X	X							All	
49	System Speed Calling	X	X	X	X	X	X	X	X	X							All	
50	Save/Repeat Last Number Dialed	X	X	X	X	X	X	X	X	X							All	
51	EKT Paging Access	X	X	X	X	X	X	X	X	X							All	
52	EKT Paging Answer	X	X	X	X	X	X	X	X	X							B, C, D	
53	External Paging Access	X	X	X	X	X	X	X	X	X							B, C, D	
54	External Paging Answer	X	X	X	X	X	X	X	X	X							B, C, D	
70	Wake-Up Other (activate)	X															C, D	
71	Do Not Disturb Other (activate)	X															C, D	
72	Room Status Change	X															C, D	
74	Call Charges Add/Clear (Message Registration)	X															C, D	
75	Controlled Restriction	X															C, D	
78	Wake-Up Self (activate)	X															C, D	
	Time Reminder (activate)*	X															D	
80	Call Forward - All Calls (activate)	X	X	X	X	X	X	X	X	X							All	
82	Call Forward - Busy/No Answer (activate)	X	X	X	X	X	X	X	X	X							All	

* Time Reminder is a special application of the Wake-Up (Self) feature which may be used outside of the Hotel/Motel feature package.

Table 5.5 Class of Service Default Values (Continued)

FNO (P2)	Feature Description	Class of Service (P1)															Package		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15		16	
83	Call Forward - No Answer (activate)	X	X	X	X	X													All
85	Do Not Disturb (activate)	X	X	X	X														All
87	Message Leaving (activate)	X	X	X	X														All
89	Message Pickup	X	X	X	X														All
92	Group Pickup	X	X	X	X														All
94	Night Answer any Station This Tenant Only	X																	All
95	Night Answer any Station All Tenants	X																	All
106	Directed Call Pickup	X	X	X	X	X	X	X	X	X	X								All
107	DSS Park Answer	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
117	Data Call Attribute Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	B, C, D
120	Do Not Disturb Override (activate)	X	X	X	X														All
122	Automatic Intercom User Programmable	X	X	X	X	X													All
123	Station Speed Call User Programmable	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
124	Off-Hook Incoming Signal Change User Programmable	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
126	Call Announce Receive On/Off	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
127	Pre-selection Mode Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
128	Ring Line Preference Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
129	Idle Line Preference Change	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
130	Direct Trunk Access	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
131	Day/Night Mode Change Self Tenant Only	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
132	Day/Night Mode Change All Tenants	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
133	Key Touch Tone Control - EKT Only	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	All
134	Programming From Key Telephone (Button Programming)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
135	DSS Speed Dial (Program)	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D

Table 5.5 Class of Service Default Values (Continued)

FNO (P2)	Feature Description	Class of Service (P1)														Package		
		1	2	3	4	5	6	7	8	9	10	11	12	13	14		15	16
136	Recorded Voice Announcement	X	X	X	X	X	X	X	X	X	X							D
137	DND With Silent Message Registration	X	X	X	X	X	X	X	X	X	X							D
150	Station Camp-on (activate)	X	X	X	X													All
151	Trunk Camp-on (activate)	X	X	X	X													All
152	Executive Override (Limited)	X	X	X	X	X												All
153	Call Park	X	X	X	X	X												All
154	Account Code/Client Billing	X	X	X	X	X	X	X	X	X	X							All
160	Add Data Call Setup	X	X	X	X	X												All
200	Executive Override (Full)																	B, C, D
201	LCR #1 - Least Cost Route Only							X	X	X	X							All
202	LCR #2 - All Routes Except Highest Route						X											All
203	LCR #3 - All Routes	X	X	X														All
205	DND Override By DSS/BLF	X	X															All
206	Time-out Route To Attendant	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
207	Display of DND Silent Message - Full	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	C, D
222	Attendant Break-in Button	X																C, D
223	Attendant DND Override Button	X																C, D
224	Attendant Night Mode Button	X																C, D
234	DID #1 Termination	X	X	X	X	X												C, D
235	DID #2 Termination	X	X	X	X	X												C, D
236	DID #3 Termination	X	X	X	X	X												C, D
237	DID #4 Termination	X	X	X	X	X												C, D
238	DID #5 Termination	X	X	X	X	X												C, D
239	DID #6 Termination	X	X	X	X	X												C, D

Default System Timing Parameters (CMC 103) 5.4 The system sets internal timing parameters by default. Timing values are set at CMC 103.

Table 5.6 Timing Values

CMC 103				
STID	Definition	Unit of Time (ms)	Number of Time Units NTIM (Default)	If Number of Units = 0 Flag is:
1	Station hook signal range maximum	50	21	Meaningless
2	Length of time after all digits are dialed by the station user before the call will be timed for SMDR and the display on the CS-20 or CSD.	1000	16	Infinity
10	Confirmation Tone (CFT) burst timing	100	7	255 - 256 sec
11	Time between depressing a feature button and CFT	1000	2	Infinity
12	Ringing duration before call is forwarded on no answer condition	1000	13 (approx. 3 rings)	Infinity
14	Ringing duration for call return of station camp-on before abandoning call back attempt.	1000	31 (approx. 3 rings)	255 - 256 sec
15	Station camp-on release timing	10000	0	Infinity
16	Trunk camp-on cancel timing	10000	0	Infinity
17	Time interval during which a parked call is held before returning to the parking station.	1000	61	Station = Infinity Trunk = 255-256 sec
18	Time interval during which a trunk call is held before returning to the holding station. (Only applicable if trunk appears on a button at the station.)	1000	181	255 - 256 sec
19	Time interval during which a call is camped on to a station before returning to the DSS.	1000	31	Station = Infinity Trunk = 255-256 sec
20	Time interval during which a parked call is held before returning to the parking DSS.	1000	31	255 - 256 sec

NOTE: Do NOT change the P2 value for STIDs 10 or 11.

Table 5.6 Timing Values (Continued)

CMC 103				
STID	Definition	Unit of Time (ms)	Number of Time Units NTIM (Default)	If Number of Units = 0 Flag is:
22	Ringling duration after a call has been transferred to a station, before it returns to the holding station on a no answer condition.	1000	31 (approx. 3 rings)	255 - 256 sec
23	Service registration reminder	100	7	Infinity
24	Pre-selection timing	1000	4	255 - 256 sec
25	Camp-on burst timing (Packages B, C, & D)	100	2	Infinity
27	Direct-in line party busy burst timing	100	2	Infinity
28	Override warning burst timing	1000	2	255 - 256 sec
29	Paging EKT warning burst timing	1000	2	Infinity
30	BT (Busy Tone), ROT (Reorder Tone) duration timing [Time out routing to Attendant]	1000	31	Station = Infinity Trunk = 255-256 sec
33	Time interval for ROT start after other party goes on-hook.	1000	1	255 - 256 sec
34	Call Announce warning burst	1000	2	255 - 256 sec
35	CFT (Confirmation Tone) time out (Time between CFT and ROT)	1000	11	255 - 256 sec
36	Called party release timing	1000	1	Infinity
37	Trunk camp-on call back cancel timing	1000	11	255 - 256 sec
38	Pre-pause for second DT (LCR, SCC)	1000	1	Infinity
39	Recalled station lock-in timing	1000	2	255 - 256 sec
40	Station camp-on recall timing	1000	31	255 - 256 sec
42	Paging EKT call timing	1000	1	Infinity

NOTES:

- Packages A, B, and C use STID 33 to prevent ROT coming through speakers when using an SLC interface paging unit.
- Do NOT change the P2 value for STIDs 39, 42.

Table 5.6 Timing Values (Continued)

CMC 103				
STID	Definition	Unit of Time (ms)	Number of Time Units NTIM (Default)	If Number of Units = 0 Flag is:
43	Station hold loop recall timing	1000	181	255 - 256 sec
44	Direct-in line called party busy timing	1000	2	Infinity
45	External paging warning burst timing (Packages B, C, & D)	1000	2	255 - 256 sec
46	Account code registration confirmation timing	100	11	255 - 256 sec
47	Verify display timing (Packages C & D)	1000	31	255 - 256 sec
48	Attendant camp-on recall timing (Packages C & D)	1000	31	255 - 256 sec
49	Attendant call park recall timing (Packages C & D)	1000	31	255 - 256 sec
50	Attendant trunk camp-on (Packages C & D)	1000	0	Infinity
51	Attendant long hold recall timing (Packages C & D)	1000	61	255 - 256 sec
52	Attendant transfer call recall timing (Packages C & D)	1000	31	255 - 256 sec
53	Amount of time that a call should wait to be answered at the Attendant Console before it overflows to alternate destination (Packages C & D)	1000	61	255 - 256 sec
54	Initial ACD answer recall timing (Package D)	1000	7	255 - 256 sec
55	ACD recall timing (Package D)	1000	181	Infinity
56	Time between 1st & 2nd ACD message (Package D)	1000	31	255 - 256 sec
57	Silent message confirmation display timing (Package D)	1000	4	255 - 256 sec

NOTE: Do NOT change the P2 value for STID 44.

Table 5.6 Timing Values (Continued)

CMC 103				
STID	Definition	Unit of Time (ms)	Number of Time Units (Default)	If Number of Units = 0 Flag is:
60	Common hold wait timing (Packages C & D)	100	16	255 - 256 sec
61	Amount of time applicable for delayed ringing on key system lines (Packages C & D)	1000	11	Infinity
62	Automatic pause timing (Packages C & D)	100	21	255 - 256 sec
63	Automatic disconnect timing after sending ROT in DISA-standard (Packages C & D)	1000	11	255 - 256 sec
64	CFT timing for wake-up answer (Packages C & D)	1000	21	255 - 256 sec
65	Retry timing for seizure of DTMF port after DTMF seizure failure in Tie/DID termination (Packages C & D)	1000	2	255 - 256 sec

NOTES:

- Parameters 3 - 9, 13, 21, 26, 31, 32, 41, 50, 58, 59, and 66 - 120 (126 in packages A, B, and C) are reserved for internal use. Do NOT try to change these parameters.
- Actual timing values for the STIDs may be found by multiplying the UNIT OF TIME by the NUMBER OF UNITS. (The actual value used by the system may be as much as one NUMBER OF UNITS less than the calculated value.)

**System Option Parameters
(CMCs 101 & 102)**

5.5 Certain internal parameters are set to default values on COLD restart.

Table 5.7 System Parameter Assignment

CMC 102		
FLGN (P1)	Definition	STV (P2)
1	Trunk sharing among tenants (All Packages)	<u>0 = own trunks incoming & outgoing</u> 1 = own trunks outgoing, share incoming 2 = own trunks incoming, share outgoing
2	Ringer pattern for off-premise stations (All Packages)	<u>1 = station call</u> 2 = incoming call 3 = recall
3	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
4	Call charges (SMDR) for transferred call (All Packages)	<u>0 = divided between stations</u> 1 = charge transferred station
5	Check trunk signaling before allowing trunk-to-trunk transfer (See also CMC 410) (All Packages)	<u>0 = yes</u> 1 = no
6	Hunt for outgoing trunks based on tenant number (All Packages)	<u>0 = yes</u> 1 = no
7	Hunt for bothway trunks based on tenant number (All Packages)	<u>0 = yes</u> 1 = no
8-9	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
10	Number of digits for call park orbits (All Packages)	<u>1 to 4 digits</u> 3 digits
11	Number of digits in user account codes (All Packages)	<u>1 to 15 digits</u> 15 digits
12	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
13	Meaning of pound sign (#) sent to Tie trunk (All Packages)	<u>0 = end of dialing</u> 1 = dial code

NOTE: The underlined values in Table 4.5 are the defaults.

Table 5.7 System Parameter Assignment (Continued)

CMC 102		
FLGN (P1)	Definition	STV (P2)
14	Meaning of pound sign (#) sent to CO trunk (All Packages)	<u>0</u> = end of dialing 1 = dial code
15	Message waiting for SLTs with message waiting lamp (Packages B, C, D)	<u>0</u> = not applicable 1 = applicable
16	Digits in personal account code for SCC #1 (Packages C & D)	1, 2, or 3 digits (input required)
17	Digits in personal account code for SCC #2 (Packages C & D)	1, 2, or 3 digits (input required)
18	Digits in personal account code for SCC #3 (Packages C & D)	1, 2, or 3 digits (input required)
19	Digits in personal account code for SCC #4 (Packages C & D)	1, 2, or 3 digits (input required)
20	Digits in personal account code for SCC #5 (Packages C & D)	1, 2, or 3 digits (input required)
21	Digits in personal account code for SCC #6 (Packages C & D)	1, 2, or 3 digits (input required)
22-26	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
27	Attendant Console for all tenants (Packages C & D)	<u>0</u> = all tenants 1 = self tenant only
28	Type of intercept for a call to a vacant number (DID application) (Packages C & D)	<u>0</u> = attendant 1 = reorder tone
29	Number of times the flash button is effective (Packages C & D)	0 to 255 times <u>3</u> times
30-125	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE

NOTE: The underlined values in Table 4.5 are the defaults.

Table 5.8 Service Parameter Assignment

CMC 101		
FID (P1)	Definition	FLG (P2)
1	Send warning burst on override. (Packages B, C, & D)	<u>0 = Send</u> 1 = Don't Send
2	Permit trunk-to-trunk connection during transfer. (All Packages)	<u>0 = Allow all connections</u> 1 = Deny connections not listed in CMC 410
3	Send warning tone for executive override. (All Packages)	<u>0 = Don't send</u> 1 = Send
4	Voice/Tone signal for intercom (All Packages)	<u>0 = Tone</u> 1 = Voice
5-7	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
8	No-dial alarm sent to Attendant Console (time-out = 40 seconds) (Packages C & D)	<u>0 = Don't Send</u> 1 = Send
9-12	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE
13	Disconnect supervision option of CO loop (outgoing) trunk (Package D)	<u>0 = Detect</u> 1 = Don't Detect
14-32	RESERVED DO NOT CHANGE	RESERVED DO NOT CHANGE

NOTE: The underlined values in Table 4.3 are the defaults.

User Services 5.6 The following table shows which services have default values and which are reset to no service on COLD restart.

Table 5.9 Customer Service Default Data

Item	Note	Reference
Trunk Group (TGN)	1	See Table 5.10
Trunk Dialing Group (DGN)	1	See Table 5.11
Trunk Restriction Group (RGN)	1	See Table 5.12
ACD Group	2	
ACD Member	2	
LCR Area Code Route Group	2	
LCR Area Code Route Table	2	
LCR Area Code Table	2	
LCR Area/Office Code Table	2	
LCR Office Code Route Group	2	
LCR Office Code Route Table	2	
LCR Office Code Table	2	
Area/Office Code Restriction Table	2	
Area Code Restriction Table	2	
Office Code Restriction Table	2	
Hunt Group Group	2	
Hunt Group Member	2	
Tenants	2	
Informal Office Code Table	2	
Pickup Group	2	
Pickup Member	2	
Hot Line	2	
Night Answering Group	2	
Night Answering Member	2	
EKT Speaker Paging Zone	2	
EKT Speaker Paging Member	2	
SCC Route	2	
Station Speed Dialing	2	
System Speed Dialing	2	

NOTE 1: Data entries for these items are generated on COLD restart. See the referenced tables for details.

NOTE 2: All data entries for these items are reset on COLD restart and must be entered again.

**Trunk Group
Data Defaults**

5.7 The system sets default assignments for Trunk Groups.

Table 5.10 Trunk Group Data

Trunk Group Number	Definition	Trunk Dialing Group	Trunk Restriction Group
13	CO #1	1	1
14	CO #2	1	1
15	CO #3	1	1
16	CO #4	1	1
17	CO #5	1	1
18	CO #6	1	1
19	FX #1	1	1
20	FX #2	1	1
21	FX #3	1	1
22	FX #4	1	1
23	FX #5	1	1
24	FX #6	1	1
25	WATS #1	1	Not Assigned
26	WATS #2	1	Not Assigned
27	WATS #3	1	Not Assigned
28	WATS #4	1	Not Assigned
29	WATS #5	1	Not Assigned
30	WATS #6	1	Not Assigned
31	Tie #1	Not assigned	Not Assigned
32	Tie #2	Not assigned	Not Assigned
33	Tie #3	Not assigned	Not Assigned
34	Tie #4	Not assigned	Not Assigned
35	Tie #5	Not assigned	Not Assigned
36	Tie #6	Not assigned	Not Assigned
51	SCC #1	1	1
52	SCC #2	1	1
53	SCC #3	1	1
54	SCC #4	1	1
55	SCC #5	1	1
56	SCC #6	1	1
57	DID #1	Not assigned	Not assigned
58	DID #2	Not assigned	Not assigned
59	DID #3	Not assigned	Not assigned
60	DID #4	Not assigned	Not assigned
61	DID #5	Not assigned	Not assigned
62	DID #6	Not assigned	Not assigned

Toll Prefix Assignment 5.8 The system sets default values for customer and operator toll prefixes for each trunk dialing group number.

Table 5.11 Toll Prefix Assignments

Toll Prefix Assignments		
Dialing Group Number	Customer Toll Prefix	Operator Toll Prefix
1	1	0
2	1	0
3	1	0

Outgoing Call Access 5.9 The system defaults permit or deny access to outgoing calls based on the class of restriction and restriction group membership.

Table 5.12 Outgoing Call Connection Default Matrix

Class of Restriction	Restriction Groups 1, 2, and 3						
	01/001	0+	1+	411	ALL AC	ALL OC	XXX/555-1212
1	A	A	A	A	A	A	A
2	A	A	A	A	A	A	A
3	A	A	A	A	A	A	A
4	D	D	A	A	A	A	A
5	D	D	A	A	A	A	A
6	D	D	A	A	A	A	A
7	D	D	A	A	A	A	D
8	D	D	D	A	D	A	D
9	D	D	D	D	D	A	D
10 - 16	D	D	D	D	D	D	D

A = Allowed
D = Denied

Trunk-to-Trunk Connections 5.10 The system's default data base permits all trunk-to-trunk connections.

Trunk Card Default Data 5.11 The system sets the following defaults for the various trunk card types.

Table 5.13 Default System Data for Trunk Cards

Data Type	Trunk Card Type				
	2TTE	2TTL	4DMR	4BWC	4CHT
Termination Type	Tie E&M	Tie Loop	DTMF	CO	Data
Incoming/Outgoing	Bothway	Bothway	Bothway	Bothway	Bothway
Trunk Group Number	32	31	1	13	2
Line Type	Ground (CO) (E&M) (Tie)	Loop (CO) (Tie)	None	Loop (CO) (Tie)	None
Dial Receive/Send	Delay Dial	Delay Dial	None	None	None
Dial Signal Type and Break Ratio	DTMF*	DTMF*	None	DTMF*	None
Class of Service (Day Mode)	1	1	None	1	None
Class of Service (Night Mode)	1	1	None	1	None
Class of Restriction (Day Mode)	1	1	None	1	None
Class of Restriction (Night Mode)	1	1	None	1	None

* Package A default is Dial Pulse.

Station Default Data 5.12 The system sets values for the data associated with the various station types.

Table 5.14 Default Data Assignment for Stations (Part1)

Type of Data	SLT	CS-10	CS-20	CSD
Operating Mode	2 WAY	2 WAY	2 WAY	2 WAY
Dialing Type	DP 10 pps*	DTMF	DTMF	DTMF
Class of Service (Day Mode)	1	1	1	1
Class of Service (Night Mode)	1	1	1	1
Class of Restriction (Day Mode)	1	1	1	1
Class of Restriction (Night Mode)	1	1	1	1
Data Secure	NO	NO	NO	NO
Off-Premises Station	NO	NO	NO	NO
SLT with MSG Waiting Lamp	NO	NO	NO	NO
Guest Room Status	NO	NO	NO	NO
Dictation Access	NO	NO	NO	NO

* If a DMR is installed, the system defaults to DTMF.

Table 5.15 Default Data Assignment for Stations (Part 2)

Feature Type	Assignment
Call Forward - All Calls	Not Registered
Call Forward - Busy/Don't Answer	Not Registered
Call Forward - Don't Answer	Not Registered
Do Not Disturb with/without Silent Message	Not Registered
Message Waiting	Not Registered
Station Camp On	Not Registered
Trunk Camp On	Not Registered
Secretary	Not Registered
Automatic Intercom Access	Not Registered
Station Speed Dialing	Not Registered
Off-Hook Signaling	In Off-Hook Signal Mode
Call Announce	Call Announce Receive
System Mode (Day/Night)	In Day Mode
Key Touch System	System Available
DSS Speed Dial	Not Registered
Idle Line Preference	Intercom
One Touch ICM/Line Button	Available
Ringing Line Preference	Intercom Preference
Automatic Wake Up	Not Registered
Controlled Restriction	Not Registered
Room Status	Vacant
Call Change	Not Registered
Silent Message Display	Display with Burst Tone Indication

Data Port Defaults

5.13 The system provides the following default settings for I/O ports 0 and 1 (PMR and SMDR). Changes may be made at CMCs 900 and 901.

Table 5.16 RS-232C Port Default Assignments (Part 1)

Item Description	Port 0	Port 1
Mode	Full Duplex	Full Duplex
Speed	1200 Bps.	300 Bps
Character Length	7 Bits	7 Bits
Parity Bit	EVEN	EVEN
Stop Bit	1 Bit	1 Bit
Echo Back	Not Used	Not Used
XON/XOFF Control	Not Used	Not Used
Power Control	Not Used	Not Used

Table 5.17 RS-232C Port Default Assignments (Part 2)

Item Description	Default Value
Line Disconnect Timing	1 Second
Character Transmission Completion Timing	1 Second
XOFF Character Receive Timing	30 Seconds
Character Receive Timing	1 Minute

Network Loss Plan 5.14 The system provides the following pad values for connection to the outside network.

Table 5.18 Network Loss Plan

Incoming Route		Outgoing Route									
ICR	Description	MXT (5)	STA ATT (6)	DMT (7)	Tie LD (8)	Tie E&M 1 (9)	Tie E&M 2 (10)	DID E&M (11)	CO (12)	RVAC (13)	DID LD (15)
1	DT, RDT, CFT	0	0	0	3	3	3	3	5	0	3
2	RBT, BT, ROT, DBT	0	5	0	6	6	6	3	5	0	3
3	CWT	0	2	0	5	5	5	3	5	0	3
4	OVT	0	6	0	6	6	6	6	6	0	6
5	MXT	0	4	0	4	4	4	4	4	0	4
6	STA, ATT	0	0	0	0	0	0	7	0	0	7
7	DTMF	0	0	0	7	7	7	7	0	0	7
8	TIE LD	0	0	0	0	0	0	0	3	0	0
9	TIE E&M1	0	0	0	0	0	0	0	3	0	0
10	TIE E&M2	0	0	0	0	0	0	0	3	0	0
11	DID E&M	0	7	0	0	0	0	0	3	0	0
12	CO	0	0	0	3	3	3	3	5	0	3
13	RVAC Package D	0	0	0	0	0	0	7	0	0	7
15	DID LD Packages C & D	0	7	0	0	0	0	0	3	0	0

NOTE: ICR = 14 is reserved for future use.

Table 5.19 Key to Abbreviations in Table 5.18

Abbreviation	Definition
ATT	attendant
BT	busy tone
CO	central office trunk
CFT	success tone
CWT	call waiting tone
DBT	distinctive busy tone
DID	direct-in dialing trunk
DT	dial tone
DTMF	dual tone multi-frequency for ICR/DTMF receiver for OGR
E&M1	E&M type 1 trunk
E&M2	E&M type 2 trunk
ICR	incoming route
LD	loop dial trunk
MXT	mixing circuit
OGR	outgoing route
OVT	overriding tone
RBT	ringback tone
RDT	recall dial tone
ROT	reorder tone
RVAC	recorded voice announcement circuit
STA	station

Table 5.20 Key to Pad Values

Pad Number	Value of Pad
0	0 dB
1	-1 dB
2	-1.5 dB
3	-2.5 dB
4	-3.5 dB
5	-5 dB
6	-8.5 dB
7	+ 2.5 dB

Silent Message Defaults

5.15 The following default silent messages are provided by the system on COLD restart. The text of silent messages can be set at CMC 309.

Table 5.21 Default Silent Message Number Assignments

Number	Silent Message
00	Call Me Back (Fixed text - Default)
01	Will Call Back
02	Returned Call
03	Urgent
04	To My Office
05	In a Meeting
06	Out to Lunch
07	In Tomorrow
08	Out of Town
09	On Vacation
10 - 50	Not Assigned

Call Connection Defaults

5.16 The following call connections are permitted or denied by default. Call connections are permitted/denied at CMC 102.

Table 5.22 Trunk Signaling or Type of Call Connection

Originating	Terminating Trunk		
	CO-Loop Outgoing	CO-Ground Outgoing	Tie Outgoing
CO-Loop Outgoing/Incoming	Restricted	Permitted	Restricted
CO-Ground Outgoing	Permitted	Permitted	Permitted
CO-Ground Incoming	Permitted	Permitted	Permitted
Tie Outgoing	Restricted	Permitted	Restricted
Tie Incoming	Permitted	Permitted	Permitted

Default Voice Station Directory Numbers 5.17 The system provides the following default numbers for each potential voice circuit EN in the basic and expanded cabinets. These directory numbers may be changed at CMC 200.

**Table 5.23 Default Voice Directory Numbers - CMC 200/P2 (Basic Cabinet)
Cabinet Number 0 or Blank**

Circuit Number	Card Slot Number														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
0	200	208	216	224	232	240	248	256	264	272	280	288	296	304	312
1	201	209	217	225	233	241	249	257	265	273	281	289	297	305	313
2	202	210	218	226	234	242	250	258	266	274	282	290	298	306	314
3	203	211	219	227	235	243	251	259	267	275	283	291	299	307	315
4	204	212	220	228	236	244	252	260	268	276	284	292	300	308	316
5	205	213	221	229	237	245	253	261	269	277	285	293	301	309	217
6	206	214	222	230	238	246	254	262	270	278	286	294	302	310	318
7	207	215	223	231	239	247	255	263	271	279	287	295	303	311	319

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**Table 5.24 Default Voice Directory Numbers - CMC 200/P2 (Expansion Cabinet)
Cabinet Number 1**

Circuit Number	Card Slot Number														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
0	320	328	336	344	352	360	368	376	384	392	400	408	416	424	432
1	321	329	337	345	353	361	369	377	385	393	401	409	417	425	433
2	322	330	338	346	354	362	370	378	386	394	402	410	418	426	434
3	323	331	339	347	355	363	371	379	387	395	403	411	419	427	435
4	324	332	340	348	356	364	372	380	388	396	404	412	420	428	436
5	325	333	341	349	357	365	373	381	389	397	405	413	421	429	437
6	326	334	342	350	358	366	374	382	390	398	406	414	422	430	438
7	327	335	343	351	359	367	375	383	391	399	407	415	423	431	439

**Phone Instrument
Button Defaults**

5.18 The system provides each EKT and Attendant Console with the following default button assignments. Button assignments differ depending on the system configuration (PBX or Key Telephone) as shown in the following figures. These buttons are assigned at CMC 203.

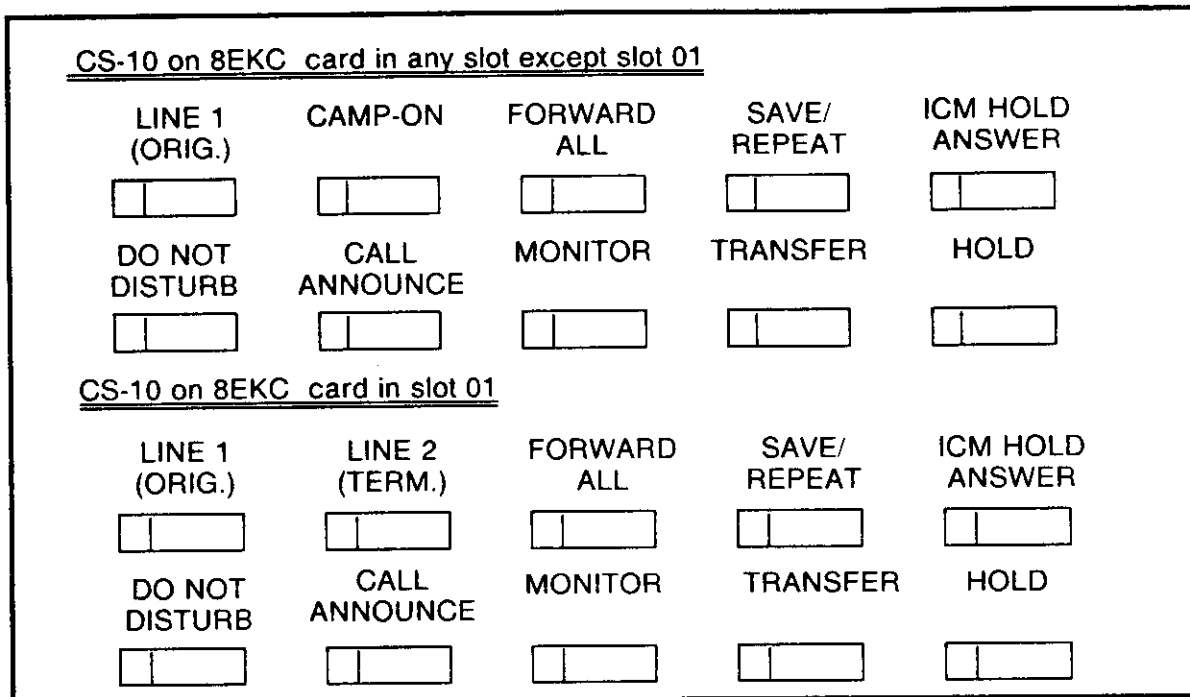


Figure 5.1 CS-10 Button Assignments - Packages A and B

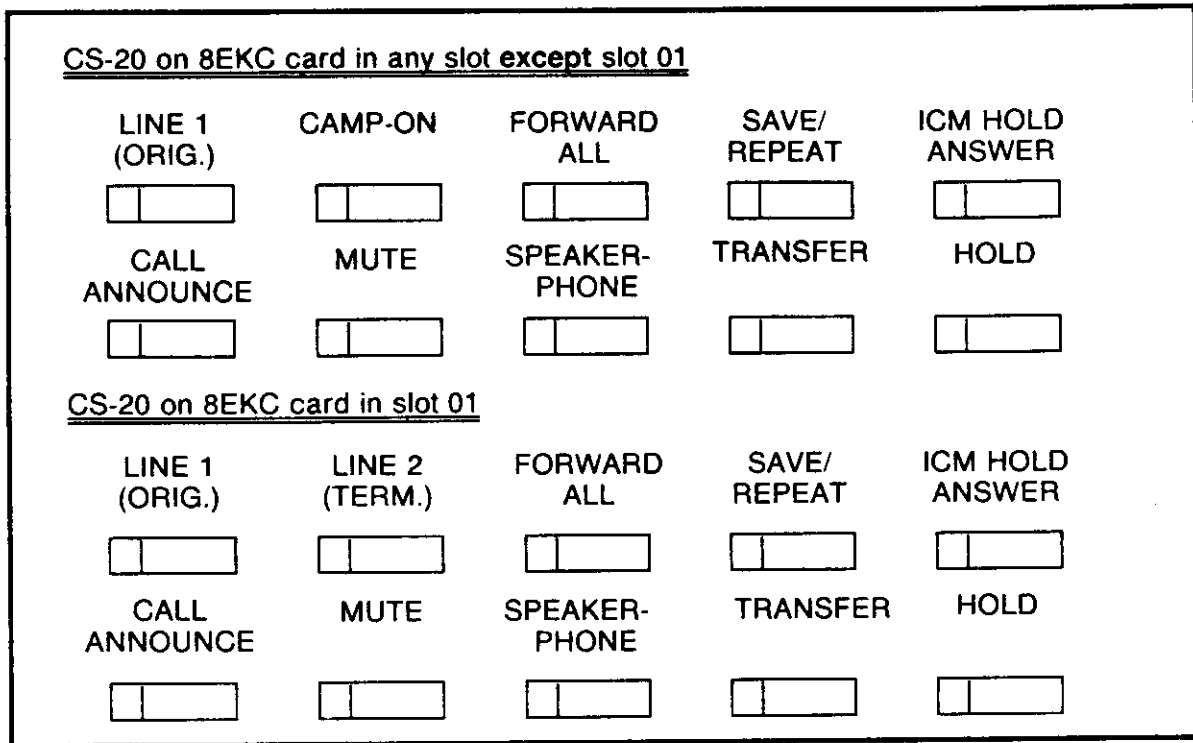


Figure 5.2 CS-20 Button Assignments - Packages A and B

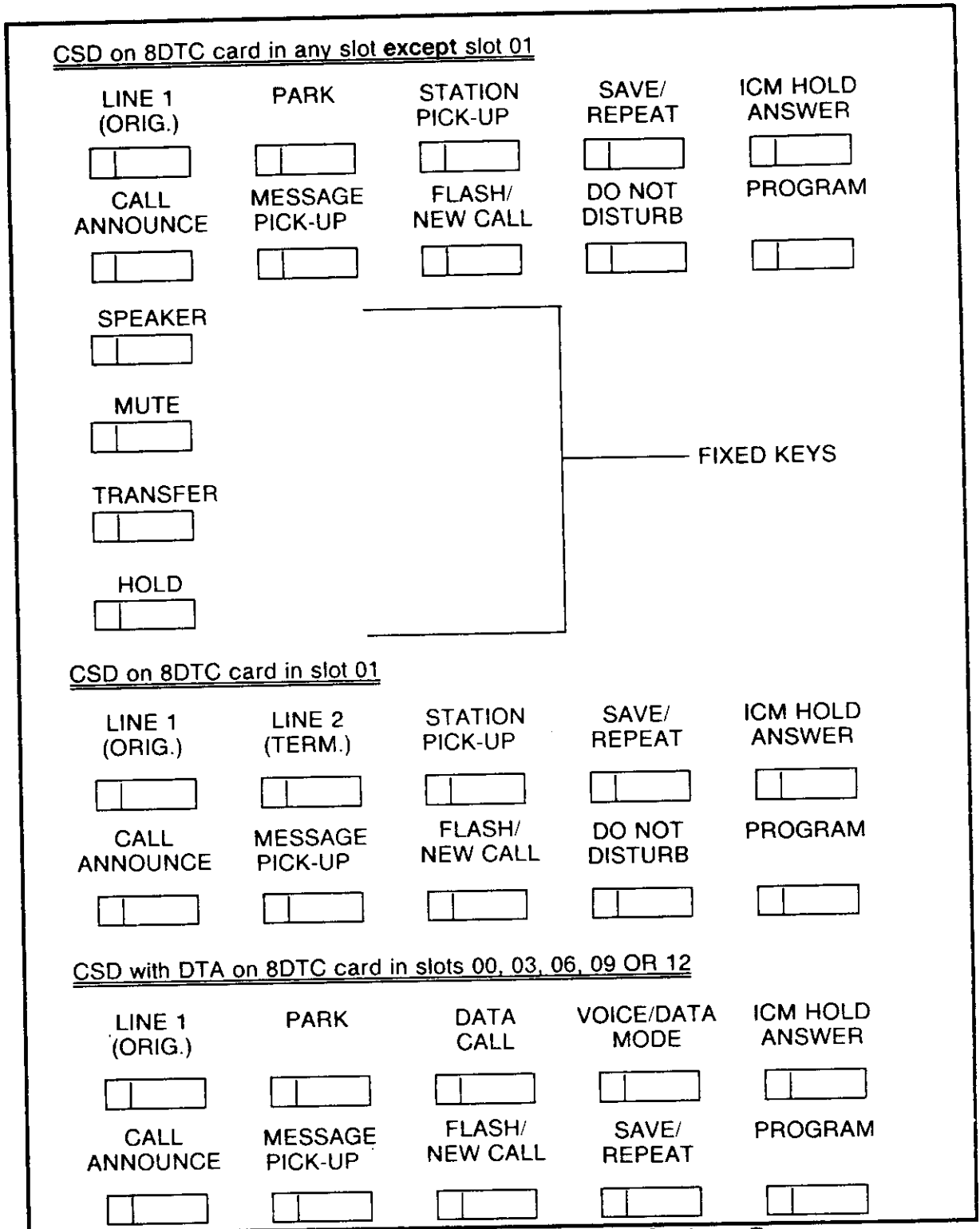


Figure 5.3 CSD Button Assignments - Package B

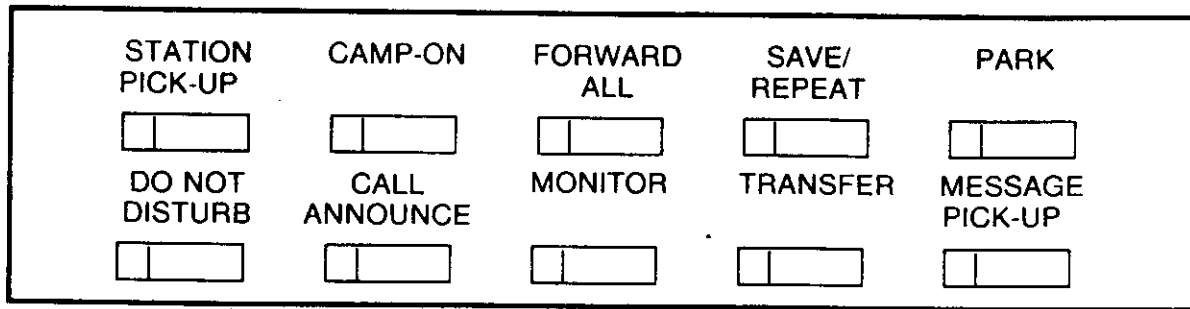


Figure 5.4 CS-10 Button Assignments - Package C
PABX System Arrangement

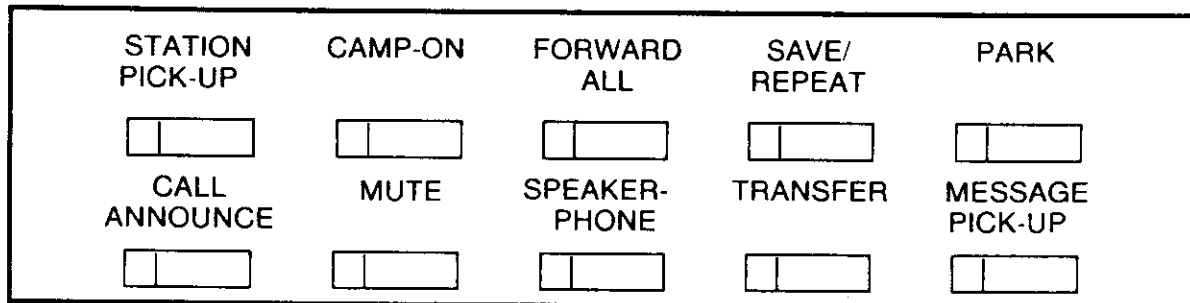


Figure 5.5 CS-20 Button Assignments - Package C
PABX System Arrangement

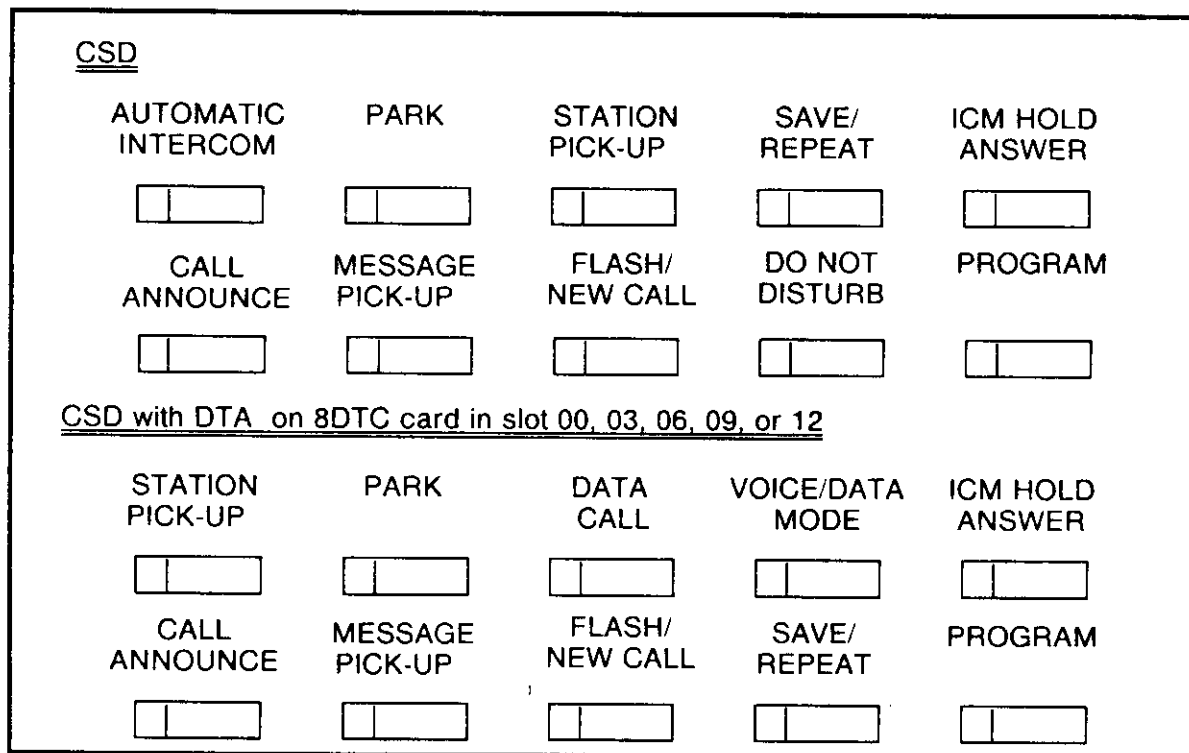


Figure 5.6 CSD Button Assignments - Package C
PABX System Arrangement

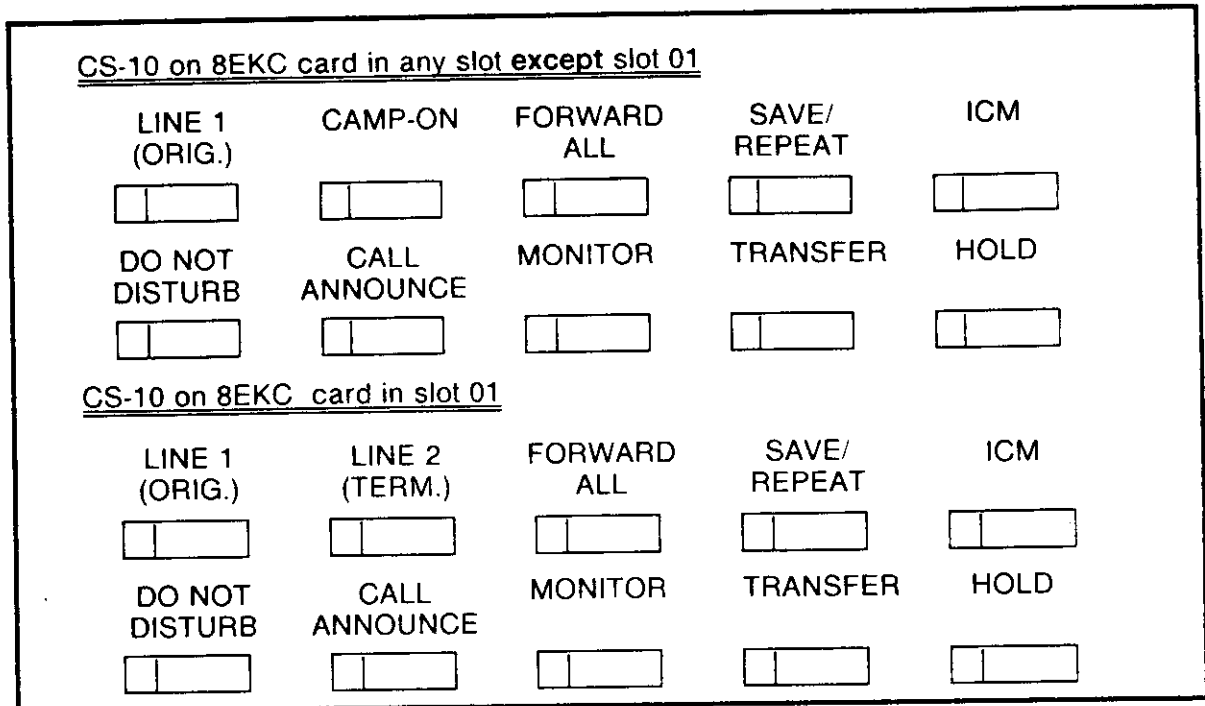


Figure 5.7 CS-10 Button Assignments - Package C
KEY System Arrangement

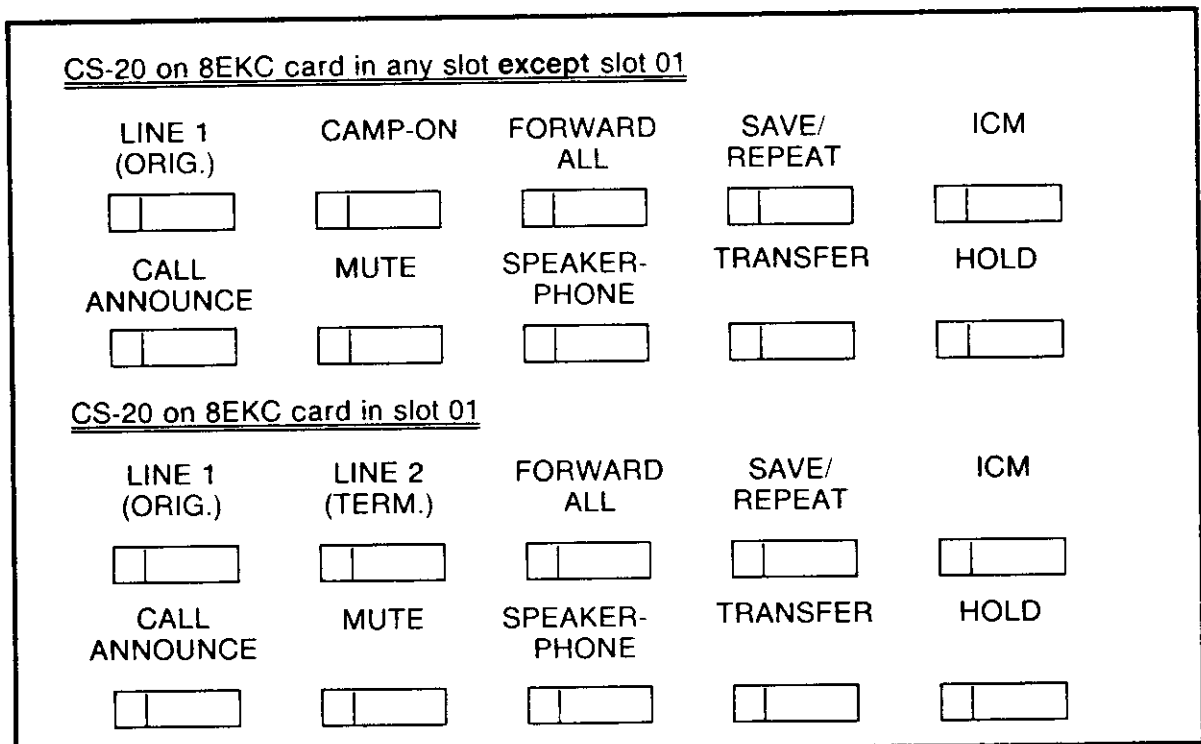


Figure 5.8 CS-20 Button Assignments - Package C
KEY System Arrangement

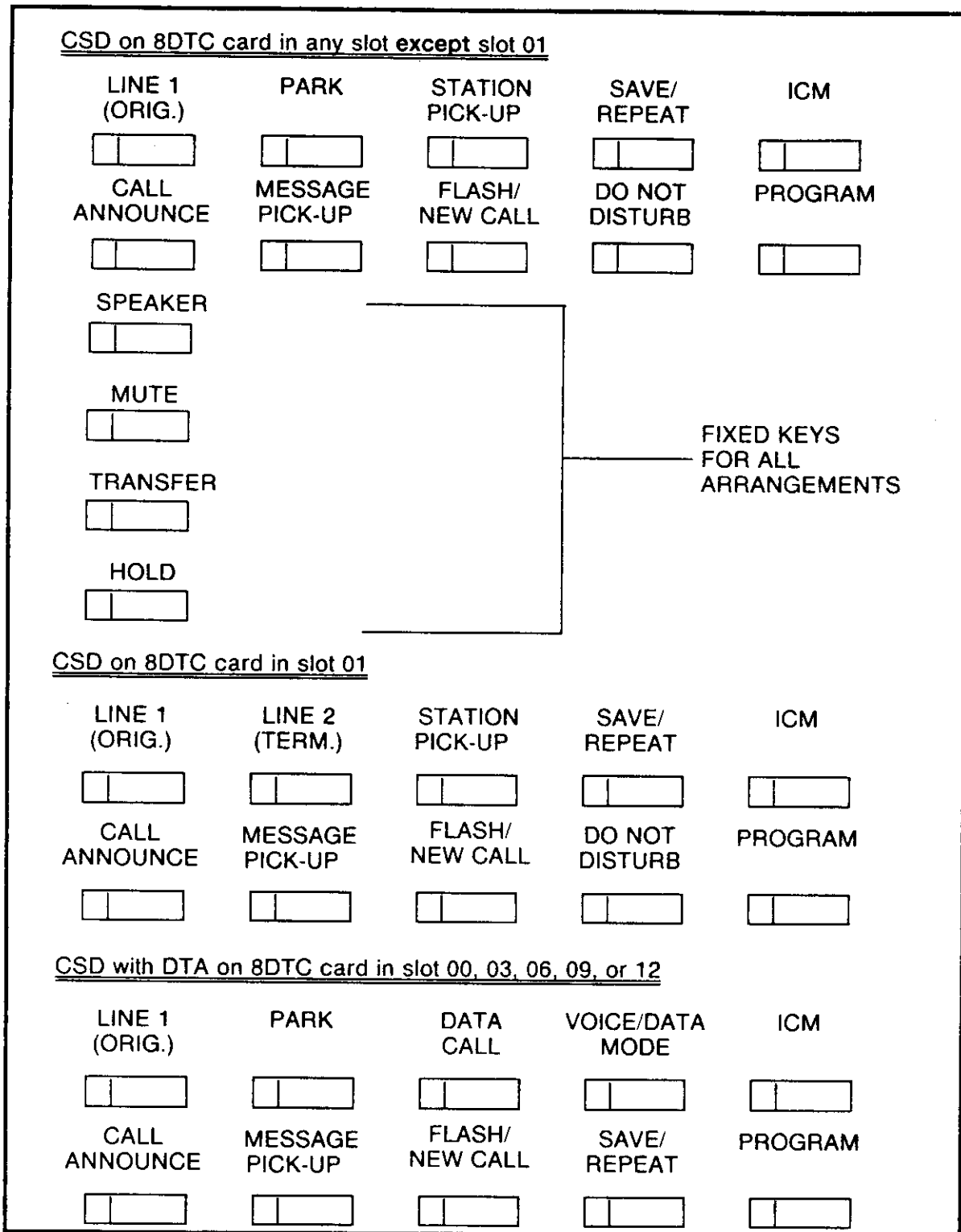


Figure 5.9 CSD Button Assignments - Package C
KEY System Arrangement

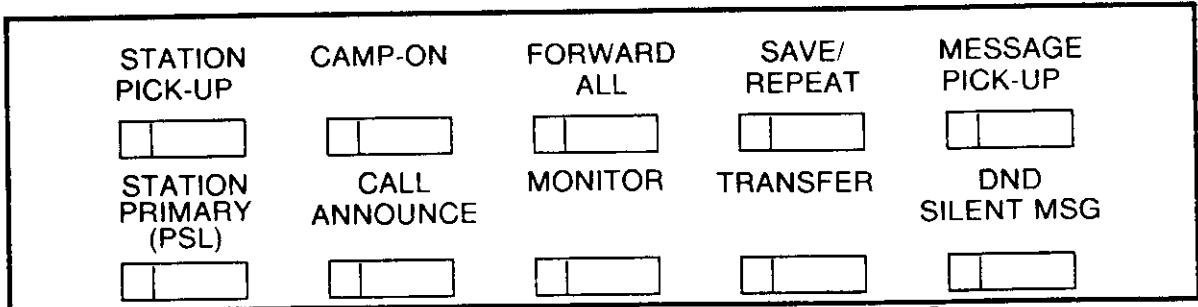


Figure 5.10 CS-10 Button Assignments - Package D PABX System Arrangement

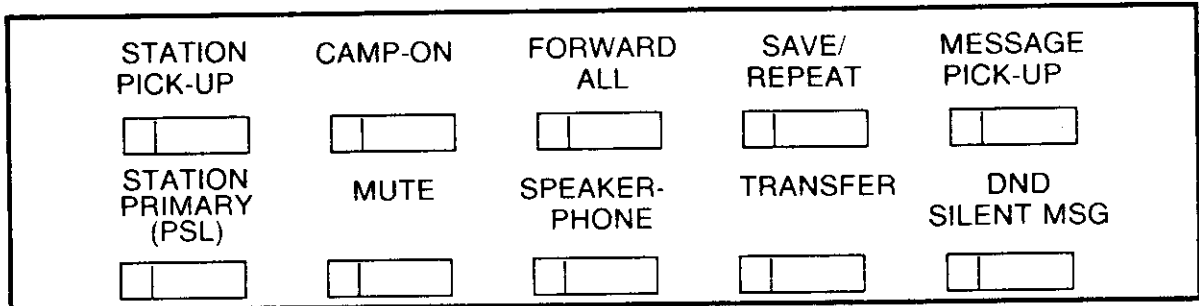


Figure 5.11 CS-20 Button Assignments - Package D PABX System Arrangement

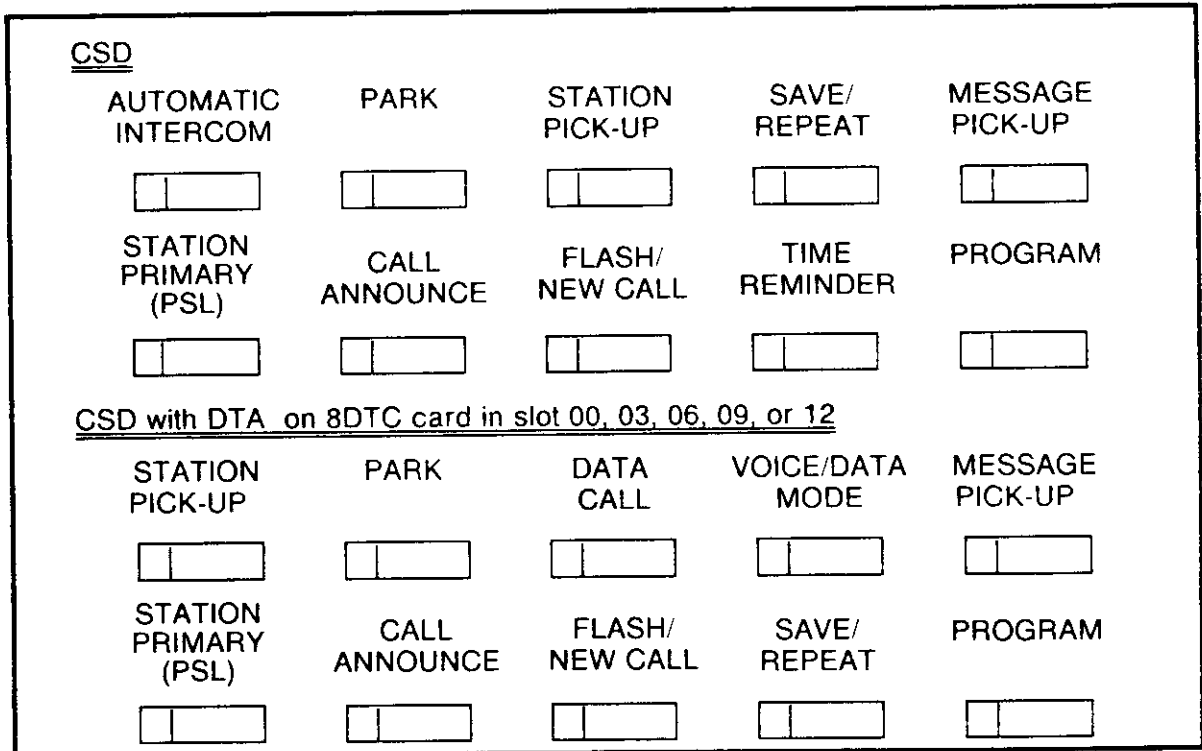


Figure 5.12 CSD Button Assignments - Package D PABX System Arrangement

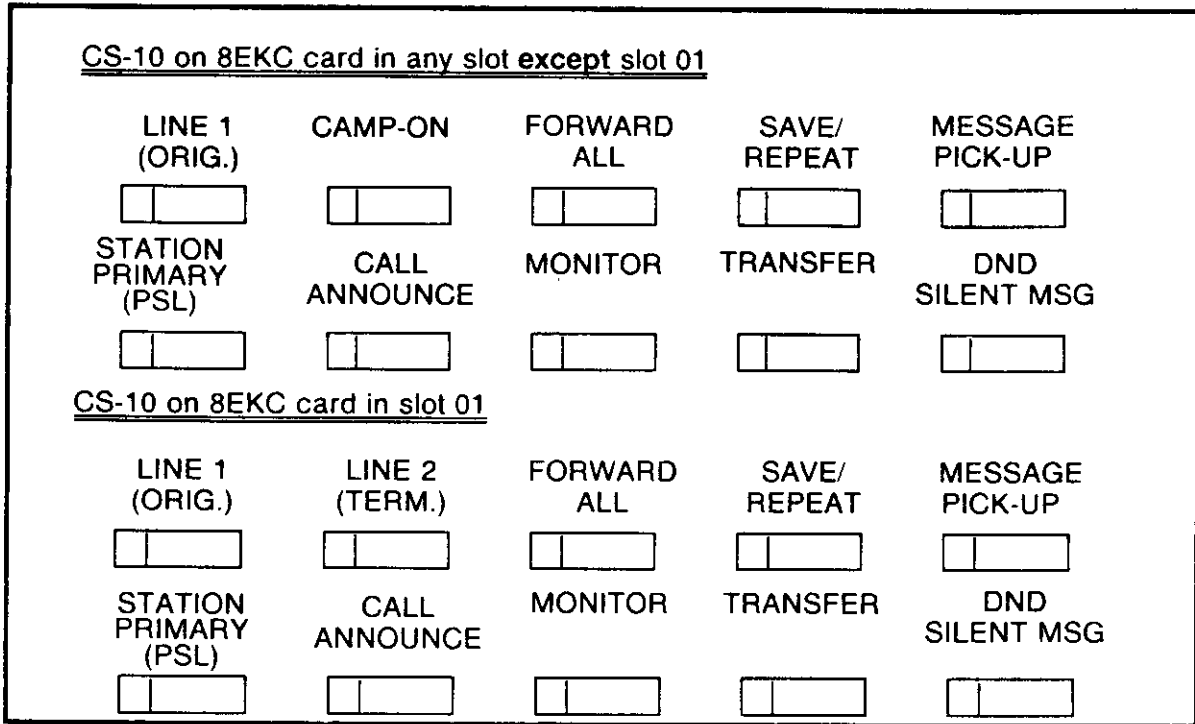


Figure 5.13 CS-10 Button Assignments - Package D
KEY System Arrangement

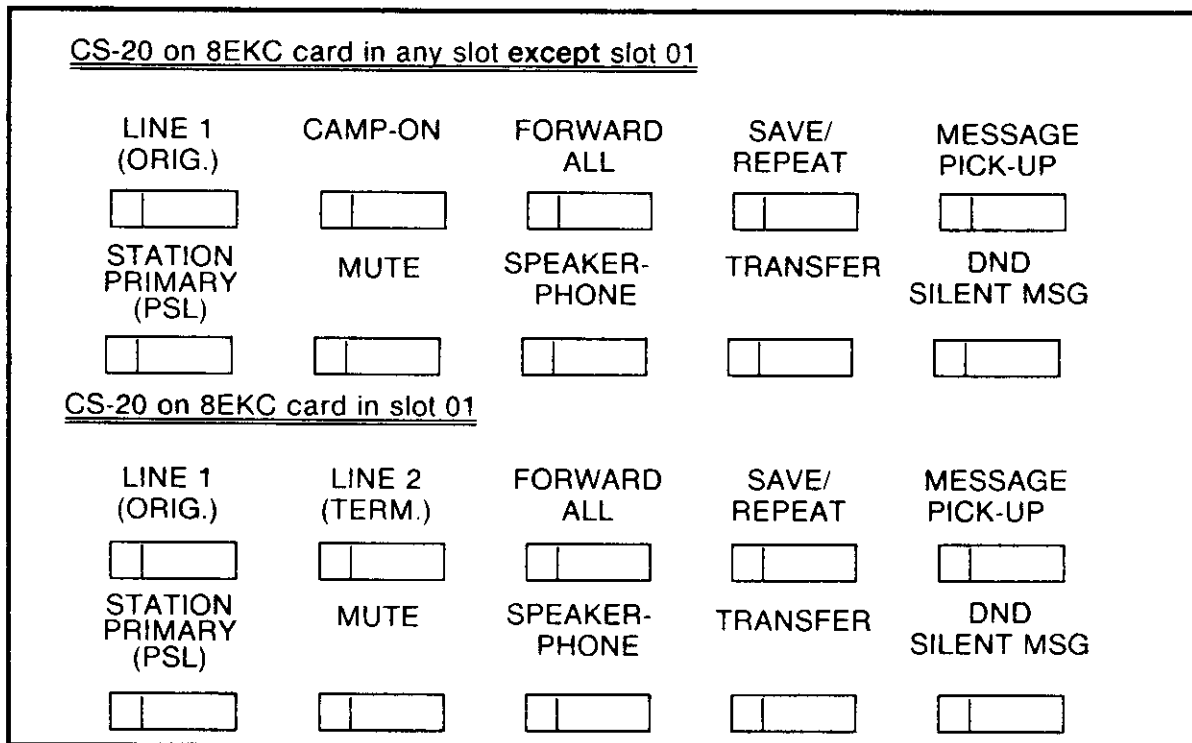


Figure 5.14 CS-20 Button Assignments - Package D
KEY System Arrangement

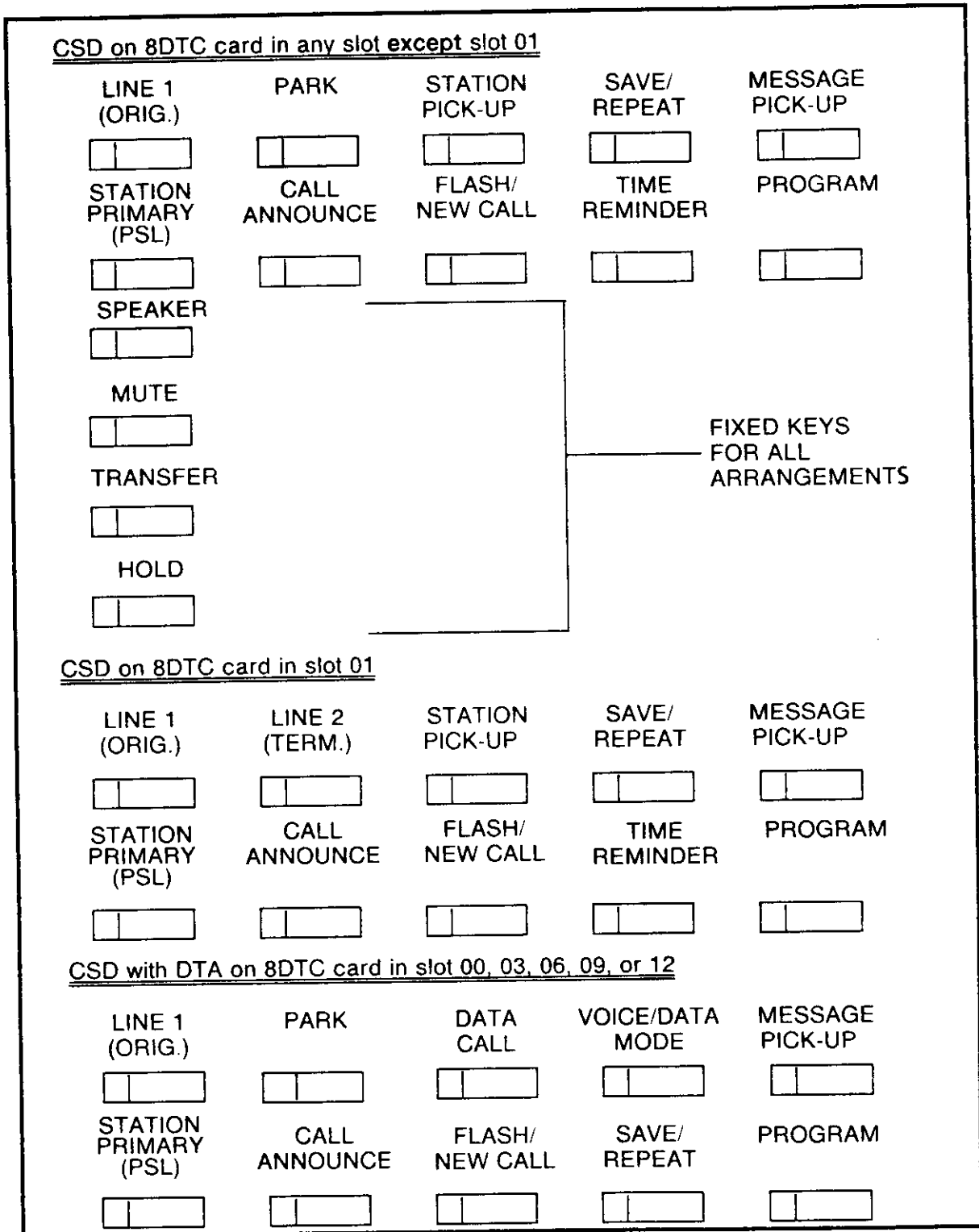


Figure 5.15 CSD Button Assignments - Package D
KEY System Arrangement

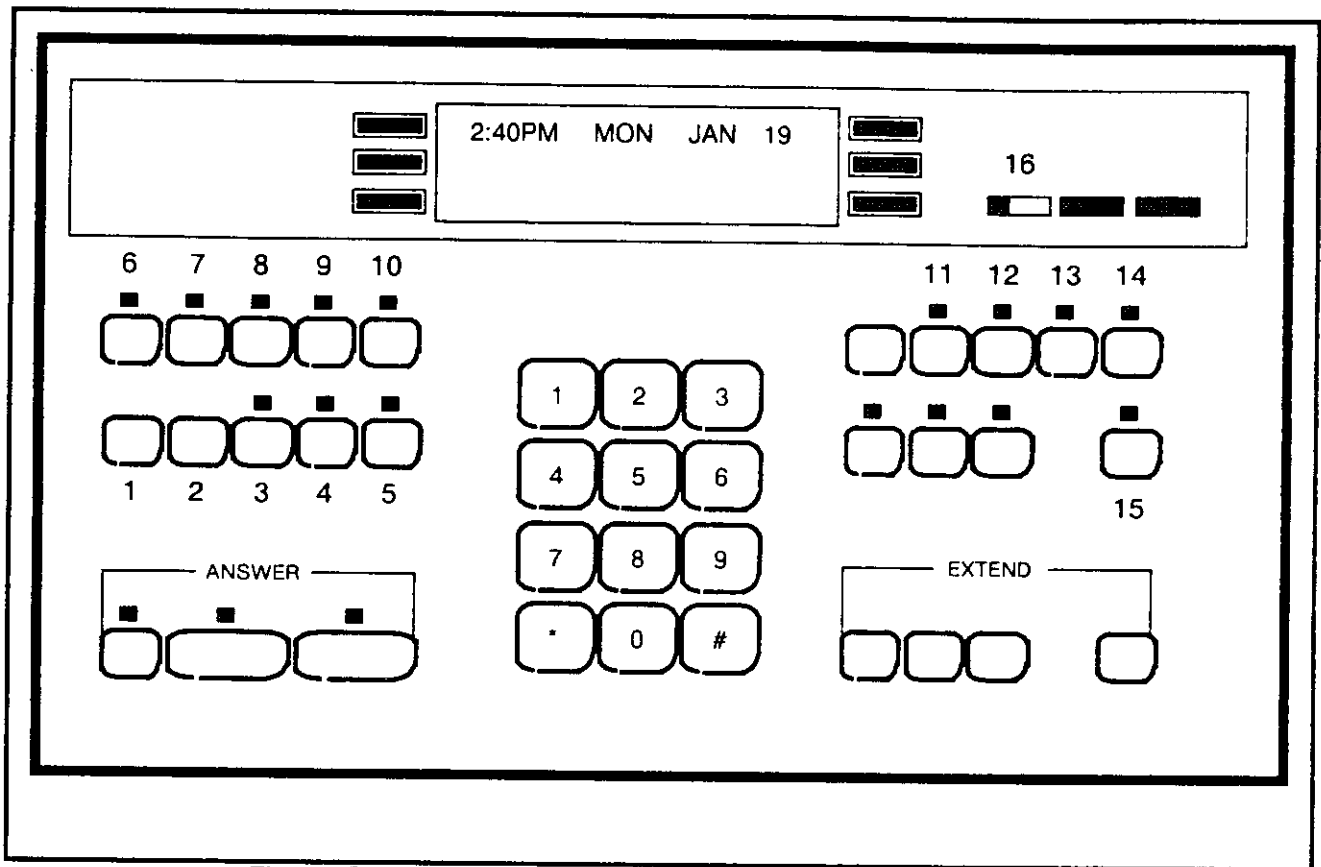


Figure 5.16 Attendant Console Feature Button Locations

Figure 5.25 Attendant Console Default Feature Assignments

Button Number	Feature Number	Button Number	Feature Number
1	221	9	50
2	87	10	154
3	151	11	153
4	53	12	177
5	51	13	223
6	179	14	222
7	227	15	150
8	224	16	225

**DSS/BLF Console
Default Button
Assignments**

5.19 The following tables present the default button assignments for each type of DSS/BLF console connected to the system. These assignments are made at CMC 211.

**Table 5.26 First EKT Type, 40-Button DSS/BLF
Default Assignment (All Packages)**

DN	200	201	202	203	204	205	206	207	208	209
BN	31	32	33	34	35	36	37	38	39	40
DN	210	211	212	213	214	215	216	217	218	219
BN	21	22	23	24	25	26	27	28	29	30
DN	220	221	222	223	224	225	226	227	228	229
BN	11	12	13	14	15	16	17	18	19	20
DN	230	231	232	233	234	235	236	237	238	239
BN	1	2	3	4	5	6	7	8	9	10

**Table 5.27 Second EKT Type, 40-Button DSS/BLF
Default Assignment (Packages C and D Only)**

DN	240	241	242	243	244	245	246	247	248	249
BN	71	72	73	74	75	76	77	78	79	80
DN	250	251	252	253	254	255	256	257	258	259
BN	61	62	63	64	65	66	67	68	69	70
DN	260	261	262	263	264	265	266	267	268	269
BN	51	52	53	54	55	56	57	58	59	60
DN	270	271	272	273	274	275	276	277	278	279
BN	41	42	43	44	45	46	47	48	49	50

**Table 5.28 ATT Type, 40-Button DSS/BLF
Default Assignment (First/Second)
(Packages C and D)**

DN BN	239/319 10/90	229/309 20/100	219/299 30/110	209/289 40/120
DN BN	238/318 9/89	228/308 19/99	218/298 29/109	208/288 39/119
DN BN	237/317 8/88	227/307 18/98	217/297 28/108	207/287 38/118
DN BN	236/316 7/87	226/306 17/97	216/296 27/107	206/286 37/117
DN BN	235/315 6/86	225/305 16/96	215/295 26/106	205/285 36/116
DN BN	234/314 5/85	224/304 15/95	214/294 25/105	204/284 35/115
DN BN	233/313 4/84	223/303 14/94	213/293 24/104	203/283 34/114
DN BN	232/312 3/83	222/302 13/93	212/292 23/103	202/282 33/113
DN BN	231/311 2/82	221/301 12/92	211/291 22/102	201/281 32/112
DN BN	230/310 1/81	220/300 11/91	210/290 21/101	200/280 31/111

NOTE: The ATT type and EKT type DSS/BLF consoles are physically different and have different button assignments. The 40-button EKT type button assignments are shown in Tables 4.15 and 4.16. The 40-button ATT type button assignments are shown in Table 4.17. The 40-button ATT type button assignments are valid even when the ATT type DSS/BLF console is associated with an EKT instead of with an Attendant Console.

**Table 5.29 First EKT Type, 80-Button DSS/BLF
Default Assignment (All Packages)**

DN BN	200 71	201 72	202 73	203 74	204 75	205 76	206 77	207 78	208 79	209 80
DN BN	210 61	211 62	212 63	213 64	214 65	215 66	216 67	217 68	218 69	219 70
DN BN	220 51	221 52	222 53	223 54	224 55	225 56	226 57	227 58	228 59	229 60
DN BN	230 41	231 42	232 43	233 44	234 45	235 46	236 47	237 48	238 49	239 50
DN BN	240 31	241 32	242 33	243 34	244 35	245 36	246 37	247 38	248 39	249 40
DN BN	250 21	251 22	252 23	253 24	254 25	255 26	256 27	257 28	258 29	259 30
DN BN	260 11	261 12	262 13	263 14	264 15	265 56	266 17	267 18	268 19	269 20
DN BN	270 1	271 2	272 3	273 4	274 5	275 6	276 7	277 8	278 9	279 10

**Table 5.30 Second EKT Type, 80-Button DSS/BLF
Default Assignment (Package C and D only)**

DN BN	280 151	281 152	282 153	283 154	284 155	285 156	286 157	287 158	288 159	289 160
DN BN	290 131	291 132	292 133	293 134	294 135	295 136	296 137	297 138	298 139	299 140
DN BN	300 121	301 122	302 123	303 124	304 125	305 126	306 127	307 128	308 129	309 130
DN BN	310 121	311 122	312 123	313 124	314 125	315 126	316 127	317 128	318 129	319 120
DN BN	320 111	321 112	322 113	323 114	324 115	325 116	326 117	327 118	328 119	329 120
DN BN	330 101	331 102	332 103	333 104	334 105	335 106	336 107	337 108	338 109	339 110
DN BN	340 91	341 92	342 93	343 94	344 95	345 96	346 97	347 98	348 99	349 100
DN BN	350 81	351 82	352 83	353 84	354 85	355 86	356 87	357 88	358 89	359 90

**Table 5.31 ATT type, 80-Button DSS/BLF Default Assignment (First/Second)
(Packages C and D)**

DN BN	279/359 10/90	269/349 20/100	259/339 30/110	249/329 40/120	239/319 50/130	229/309 60/140	219/299 70/150	209/289 80/160
DN BN	278/358 9/89	268/348 19/99	258/338 29/109	248/328 39/119	238/318 49/129	228/308 59/139	218/298 69/149	208/288 79/159
DN BN	277/357 8/88	267/347 18/98	257/337 28/108	247/327 38/118	237/317 48/128	227/307 58/138	217/297 68/148	207/287 78/158
DN BN	276/356 7/87	266/346 17/97	256/336 27/107	246/326 37/117	236/316 47/127	226/306 57/137	216/296 67/147	206/286 77/157
DN BN	275/355 6/86	265/345 16/96	255/335 26/106	245/325 36/116	235/315 46/126	225/305 56/136	215/295 66/146	205/285 76/156
DN BN	274/354 5/85	264/344 15/95	254/334 25/105	244/324 35/115	234/314 45/125	224/304 55/135	214/294 65/145	204/284 75/155
DN BN	273/353 4/84	263/343 14/94	253/333 24/104	243/323 34/114	233/313 44/124	223/303 54/134	213/293 64/144	203/283 74/154
DN BN	272/352 3/83	262/342 13/93	252/332 23/103	242/322 33/113	232/312 43/123	222/302 53/133	212/292 63/143	202/282 73/153
DN BN	271/351 2/82	261/341 12/92	251/331 22/102	241/321 32/112	231/311 42/122	221/301 52/132	211/291 62/142	201/281 72/152
DN BN	270/350 1/81	260/340 11/91	250/330 21/101	240/320 31/111	230/310 41/121	220/300 51/131	210/290 61/141	200/280 71/151

NOTE: The ATT type and EKT type DSS/BLF consoles are physically different and have different button assignments. The 80-button EKT type button assignments are shown in Tables 4.18 and 4.19. The 80-button ATT type button assignments are shown in Table 4.20. The 80-button ATT type button assignments are valid even when the ATT type DSS/BLF console is associated with an EKT instead of with an Attendant Console.

Data Terminal Defaults

5.20 The system presumes the following parameters for each connected data terminal. These attributes may be changed at CMCs 222, 223, and 224.

Table 5.32 Data Terminal Default Attributes

CMC	Item Description	Default Value
222	Speed Synchronous/Asynchronous Duplex Mode Stop Bit Length Word Length Parity Echoplex	1200 Bps Asynchronous Full 1 Bit 7 Bits Space Not Used
223	Originate Mode Answer Mode Disconnect Mode DTR Option RTS Option RI Option	Manual Manual Normal Normal Normal Steady on
224	DSR Option Dial Mode Operation Mode Auto Answer Option	None TEL - or not used Originate/Terminate One burst ringing

Default Data Station Directory Numbers 5.21 The system provides the following default data station directory numbers to each potential data EN in the basic cabinet. These directory numbers can be changed at CMC 220.

Table 5.33 Default Directory Numbers for Data Stations - CMC 220/P2 (Basic System) - Cabinet Number 0 or Blank

Circuit Number	<i>x 350 STARTS WHERE EVER DATA CARD (BDTC) IS</i> Card Slot Number														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
0	350			356			362			368			374		
1	351			357			363			369			375		
2	352			358			364			370			376		
3	353			359			365			371			377		
4	354			360			366			372			378		
5	355			361			367			373			379		
6	-			-			-			-			-		
7	-			-			-			-			-		

Table 5.34 Default Directory Numbers for Data Stations - CMC 220/P2 (Expansion System) - Cabinet Number 1

Circuit Number	Card Slot Number														
	00	01	02	03	04	05	06	07	08	09	10	11	12	13	14
0	4400			4406			4412			4418			4424		
1	4401			4407			4413			4419			4425		
2	4402			4408			4414			4420			4426		
3	4403			4409			4415			4421			4427		
4	4404			4410			4416			4422			4428		
5	4405			4411			4417			4423			4429		
6	-			-			-			-			-		
7	-			-			-			-			-		

NOTE: DIUs will default to voice station directory numbers (See CMC 200).

APPENDIX I

ACRONYM LIST

ACD	Automatic Call Distribution
ALT	Alternate
ASCII	American Standard Code for Information Interchange
BER	Bit Error Rate
4BWC	Central Office Bothway Trunk card
CFA	Call Forward-All Calls
CFB	Call Forward-Busy/No Answer
CFN	Call Forward-No Answer
CFT	Confirmation Tone
4CHT	Character Trunk card
CMC	Change and Maintenance Command code
CO	Central Office
COR	Class of Restriction
COS	Class of Service
CPM	Central Processing Unit and Memory card
CS-10	(No translation)
CS-20	(No translation)
CSD	(No translation)
DDD	Direct Distance Dialing
DID	Direct Inward Dialing
DIL	Direct-In Line
DISA	Direct Inward System Access
DIU	Data Interface Unit
4DMR	Dual Tone Multi-Frequency Receiver card
DND	Do Not Disturb
DSS	Direct Station Selection
DSS/BLF	Direct Station Selection/Busy Lamp Field Console
DSR	Data Set Ready
DTA	Data Terminal Adapter
8DTC	Digital Telephone card
DTMF	Dual Tone Multi-Frequency
DTR	Data Terminal Ready
8EKC	Electronic Key Telephone card
EKT	Electronic Key Telephone
EN	Equipment Number
EXT	Extension
FGBS	Fujitsu GTE Business Systems
FDC	Front Desk Console
FX	Foreign Exchange
ICG	Interface Card Group
ICM	Intercom
Kbps	Kilobits per second
LCD	Liquid Crystal Diode
LCD Display	Liquid Crystal Diode Display
LCR	Least Cost Routing
LED	Light-Emitting Diode

MCT	Master Control Telephone
MEM	Memory card
MEMC	Memory card Package C
MEMD	Memory card Package D
MW	Message Waiting
NCOR	Night Class of Restriction
NCOS	Night Class of Service
OSL	Other Station Line
PABX	Private Automatic Branch Exchange
PcMP	Personal Computer Maintenance Processor
6PFE	Power Failure Transfer Extended card
6PFT	Power Failure Transfer Card
PMP	Portable Maintenance Processor
PNA	Predetermined Night Answer
PSL	Primary Station Line
RAM	Random Access Memory
RBT	Ring-Back Tone
RI	Ring Indication
RMS (rms)	Root Mean Square
RSI	Room Status Indicator
RTS	Ready to Send (data applications)
RTS	Real Time Source
RVAC	Recorded Voice Announcement Card
SBCS	Small Business Communications System
SCC	Special Common Carrier
8SLC	Single-Line Telephone card
SLT	Single-Line Telephone
SWC	Switch Control card
SWB-A	Switch Control card (basic cabinet card in two cabinet system)
SWE	Switch Control card (expanded cabinet card in two cabinet system)
TGN	Trunk Group Number
TTGN	Terminating Trunk Group Number
2TTE	Tie Trunk card
2TTL	Loop Dial Tie Trunk card
UNA	Universal Night Answer
WATS	Wide Area Telephone Service

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APPENDIX II

GLOSSARY

ACTION VERIFIED	A command sent to the telephone from the switch as the result of successful completion of a request.
ADDRESS	1. The destination of a message in a communication system. 2. The location in storage of information in a data processing system, i.e., a character or group of characters that identifies a register, a particular part of storage, or some other data source or destination.
ALGORITHM	A prescribed finite set of well-defined rules or processes for solution of a problem in a finite number of steps; the underlying numerical or computational method behind a piece of code.
ANSWER	A response generated by the telephone as a result of the user going off-hook on a line for which there is a ringing call.
AREA CODE	First three-digits of a 10-digit telephone number. This code has the format NYX, when N = 2 to 9, Y = 0 or 1, and X = 0 to 9.
AUTOMATIC CALL DISTRIBUTION (ACD)	This feature eliminates the need for attendant screening and processing of incoming calls.
BACKPLANE	An assembly of wires or printed buses which interconnect plug-in printed circuit cards in computers and other electronic equipment.
BAUD	A unit of transmission speed of digital signals.
BAUD RATE	Standard digital transmission rate in bits per second.
BIT	A single digit of a binary number.
BLOCK	An electrical connector which allows cables to be terminated quickly by punching into a notch in a split terminal lug.
BUS	1. A major electrical path consisting of only one conductor or multiple conductors connected in parallel. 2. In transmission, part of a circuit which is used in common from one of several to one of several circuit functions or modules.
BUSY TONE	Tone returned to the station user to indicate a busy condition.
CALL	The setting up of a connection between two stations.
CALLBACK	A feature which enables the originator of a call attempt to a busy station or trunk to request the network to establish the call when the busy station or trunk becomes free. A callback is also initiated to a station which has had a call on hold longer than the time allowed by data base programming.
CALL HOLD	To maintain a call connection while allowing the station to perform other functions.
CALL PARK	Allows the call to be parked at another station.
CALL PICKUP (Station)	Allows a station to answer a ringing call on another station.

CALL PICK-UP, GROUP	Allows a station to answer a ringing call in a group of stations.
CALL RETRIEVE	Retrieving a held call for further consultation.
CALLED PARTY	The party receiving a telephone call.
CALLING PARTY	The party placing a telephone call.
CAMP-ON	A feature which enables the originator of a call attempt to a busy station to request the network to establish the call when the busy station becomes free.
CLASS OF SERVICE (COS) CLASS OF RESTRICTION (COR)	Subgrouping of stations (lines) to distinguish different classes from others, e. g., those given higher priority, restricted from toll calls, or denied WATS access.
CLOCK	1. A reference source of timing information for equipment, machines, or systems. 2. Equipment providing a time base used in a transmission system to control the timing of certain functions, such as the control of the duration of signal elements or the sampling rate. 3. A primary source of synchronizing signals.
CO (Central Office) LINE	A two-way CO trunk circuit which the OMNI SBCS associates with one predetermined station; when the station goes off-hook on the line, the OMNI SBCS immediately connects the phone and the trunk; likewise, all incoming calls on the trunk terminate to that station.
COLD START	Starting the system during initialization or after a power outage which exceeds the hold-up time of the memory back-up battery. All memory is reset to default value and must be modified via backup tape reload or reprogrammed with CMC commands.
CONFERENCE	A telephone call between three or more parties.
CONFIRMATION (SUCCESS) TONE	An audible tone sent to the station to confirm receipt of digit(s) or command.
DATA	Basic element of information, usually numerically expressed, which can be processed by computers or machines.
DATA BASE	An organized collection of data, used by the operating program to control a system's initialization and operational functions.
DEFAULT DATA BASE	The preprogrammed data base resident in ROM to which the system defaults on COLD restart. This data base is a functional operating system configuration for any installed instruments and trunks.
DESTINATION	A trunk group that is to be used as a choice in LCR processing.
DIAL TONE	A tone indicating that the automatic switching equipment is ready to receive dial signals.

DIGIT	1. Any numeral from 1 to 9. 2. In digital transmission, a digit may be represented by a single element characterized by its nature, condition, and timing. 3. In digital-switching circuits, a digit may be represented by a physical condition or state, e.g., on or off ("1" or "0" binary).
DISCONNECT	The release of a switched circuit between two telephones or other communications equipment.
DOWNLOADING	A programming method. A program is sent via a data link from permanent Read-Only Memory (ROM) to Random Access Memory (RAM) and stored there for local use.
EXECUTIVE OVERRIDE	A feature that allows telephones with the appropriate Class of Service (COS) to override.
FLASH	1. A momentary signal, often generated by a depression and release of the hookswitch or a pushbutton, used to enable an intermediate function. 2. A response from the telephone representing the data link equivalent of a hookswitch flash and is translated to an OFF-HOOK event.
FORWARD	Relaying a call destined for one telephone to another location.
HOT RESTART	A restart which occurs within the hold-up period of the memory backup battery. All system memory will be recovered.
HUNT GROUP	A group of instruments logically linked in data base, whereby a call to the group will automatically hunt over the stations until an idle station is found.
INPUT/OUTPUT (I/O)	The process of introducing data into or receiving data from a data communication system.
KEYPAD	A set of pushbutton keys which can be used for sending address, precedence, or routing signals.
LEAST COST ROUTING (LCR)	The switch may be programmed to select the most economical route available when placing an outgoing trunk call.
LOOP	A two-wire circuit connecting the telephone switching equipment with the telephone, whether by cable pair or other medium.
MEMORY	A portion of the computer which stores information for later use.
MESSAGE WAITING	A feature that notifies system users that a message has been left for them at a message center; notification is by means of a visual signal (lamp or LED).
MICROPROCESSOR	A single package electronic logic unit capable of executing a series of instructions contained in external memory.
MODEM	Mnemonic for modulator-demodulator. Modems are used for converting digital signals into quasi-analog signals for transmission, and for reconverting the quasi-analog signals into digital signals.

MULTISET LINE	A line that makes an appearance on more than one station (set).
OFFICE DEPENDENT DATA BASE (ODDB)	The data base modified by programming to meet site requirements.
OFF-HOOK	1. In telephone operations, the conditions existing when the receiver or handset is removed from a switch. 2. One of two possible signaling states, such as tone or no tone, ground connection or battery connection. 3. The active state (closed loop) of a subscriber or PABX user's loop.
OFF-LINE	1. That condition wherein devices or subsystems are not connected into, do not form a part of, and are not subject to the same controls as an operational system. 2. A device which is not permanently connected to the processor or to external circuits.
OFFICE CODE	First three digits of a seven-digit telephone number. This code specifies the serving Central Office (CO) of the telephone associated with the number.
ON-HOOK	1. In telephone operation, the conditions existing when the receiver or handset is resting on the switch. 2. One of two possible signaling states, such as tone or no tone, ground connection or battery connection. 3. The idle state (open loop) of a subscriber or PABX line loop.
ON-LINE	1. Describing a method of operating whereby a teletypewriter message is transmitted and processed simultaneously. 2. Describing a device that is permanently connected to a computer or processor so that no delay is experienced in accessing the device.
OPTIONAL FEATURES	Nonstandard features that can be incorporated into the system software.
OVERRIDE	To gain access to a circuit even though it is busy.
PARK	To place or park a call presently on one station at another station.
PARK RETRIEVE	To retrieve a parked call on your station.
PARKING ORBIT	Available stations where a call can be parked.
PRESELECTION	The manual selection of a line when the user depresses the LINE button while the instrument is in an on-hook condition.
PRIVACY	Protection of a line in use from intrusion by others.
PROGRAM	An organized set of instructions used to control operations of an electronic system.
P VALUE	The numerical value either entered or displayed in a CMC Command Table or Display which defines a function within the data base.
QUEUE	Holding of calls in order of arrival and presenting them automatically, to an operator or to a subsystem, for attention.
REAL TIME	The actual time during which a process takes place.

REORDER (ERROR) TONE	A tone generated when an error is made or an action denied.
RETRY	A command sent to the telephone from the switch as the result of an unsuccessful attempt of a request.
RINGBACK TONE	A tone which is returned to the calling telephone to indicate that the called telephone is being signaled.
ROUTING PATTERN	An ordered list of destinations used to specify the first, second, third choice, etc, trunk groups used for routing to a particular area.
SHORT POWER FAILURE RECOVERY	A system recovery after a power interruption of less than 2 seconds. All current calls and call data will be preserved; however, calls being initiated (during dialing) may be dropped or disconnected.
SIGNAL	The information that is transferred over a communications system by electrical, electromagnetic, or optical means.
TIE LINE	A private or leased voice-grade communications line between two PABX's.
TIE TRUNK	A trunk between two PABX's.
TIMEOUT	The automatic release of equipment or circuits on calls which do not proceed to completion.
TOLL RESTRICTION	The action of preventing restricted stations from making calls to toll or other points.
TRANSFER	To move circuit or data from one place to another.
TRUNK	One telephone communication channel between the Central Office (CO) and the system.
WINK	A momentary interruption with a long ON and a short OFF cycle.

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