SX-200" DIGITAL
PRIVATE AUTOMATIC BRANCH EXCHANGE (PABX)
SHIPPING, RECEIVING, AND INSTALLATION INFORMATION

NOTICE

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1. INTRODUCTION

General

1.01 This section provides a general identification, and shipping, receiving, and installation procedures for the SX-200® DIGITAL PABX. The PABX consists of one or two cabinets. The Control cabinet contains a control shelf and an optional peripheral shelf. The 2-cabinet configuration consists of the Control cabinet, and a Peripheral cabinet containing one or two peripheral shelves.

Reason for Issue

1.02 This Section is issued to provide information required for installing the SX-200 DIGITAL PABX, with Generic 1003 software, in a 336-port, a 456-port, a 480-port, or a 672-port configuration.

Notice to Installation Personnel

1.03 Only persons who have successfully completed a MITEL Installation and Maintenance training course for the SX-200 DIGITAL PABX should install an SX-200 DIGITAL PABX.

2. CONFIGURATION

General

2.01 The SX-200 DIGITAL PABX configuration rules are contained in Section MITL91 09-094-I 80-NA, Engineering information; refer to it for details about how an SX-200 DIGITAL PABX is to be configured. This Section describes the physical installation of the PABX, after the system has been configured.

2.02 The SX-200 DIGITAL PABX 480-port is configured in either one or two cabinets. In the Control cabinet, the Control shelf has Bay 1 on the left and Bay 2 on the right; the optional Peripheral shelf is Bay 3. In the Peripheral cabinet, the lower and upper shelves are Bays 4 and 5 respectively.

2.03 The SX-200 DIGITAL PABX 336-Port Configuration with the Universal cabinet is available with a digital Control shelf, containing Bay 1 on the left and Bay 2 on the right; the optional Peripheral shelf has digital Bay 3 on the right and Bay 4 on the left.

2.04 The SX-200 DIGITAL PABX 456-port configuration is configured in either one or two cabinets. In the Control cabinet, the digital Control shelf has Bay 1 on the left and Bay 2 on the right; the optional Peripheral shelf contains digital Bay 3. In the Peripheral cabinet, the lower and upper shelves are analog Bays 4 and 5 respectively.

2.05 The SX-200 DIGITAL 672-port configuration, is configured in either one or two cabinets. In the Control cabinet, the digital Control shelf has Control Bay 0 on the left and Bay 1 on the right; the optional Peripheral shelf contains Bays 2 and 3. In the Peripheral cabinet, the lower shelf contains Bays 4 and 5, while the upper shelf contains Bays 6 and 7.

2.06 All configurations are compatible with most existing station, key telephone, private branch exchange, and central office equipment, and provide:

- use of a flexible numbering plan
- simultaneous use of DTMF and rotary dial stations
- optional use of attendant consoles
- extensive selection of standard and optional features
- data port facility for traffic analysis and other requirements
- automatic diagnostics
- six to 36 power fail transfer trunks
  - maximum 18 PFT (336 ports)
  - maximum 24 PFT (480 ports)
  - maximum 30 PFT (456 ports)
  - maximum 36 PFT (672 ports)
- optional reserve power supply or uninterruptable power supply
- *SUPERSET 3*™ telephone
- *SUPERSET 4*® telephone
- *SUPERSET 3*™DN telephone
- *SUPERSET 4*™DN telephone.

Welded Control Cabinet

2.07 The SX-200 DIGITAL PABX Welded Control cabinet consists of a metal frame enclosed by back, top, and side panels. The digital Control shelf in the lower position has two Bays; Bay 1 is on the left, and Bay 2 on the right. Access to the Bays is through the front door of the cabinet. The rear panel allows access to line, trunk, and Inter-cabinet PCM Cable entries. Figure 2-l shows an SX-200 DIGITAL, PABX Welded Control Cabinet; it can include only an Analog peripheral shelf, but not a digital peripheral shelf.

Universal Control Cabinet

2.08 The Universal Control cabinet is similar to the welded Control cabinet. The major differences are: its maintenance panel is located immediately above the digital Control shelf, its Floppy Disk Drive plugs directly into the backplane, it can have a digital Peripheral shelf, and its Main Control Card directly controls up to three g-circuit Power Fail Transfer cards. Figure 2-2 shows an SX-200 DIGITAL PABX with an analog Bay 3 in a Universal Control Cabinet. Figure 2-3 shows an SX-200 DIGITAL PABX Universal Control Cabinet with a Digital Peripheral Shelf. Either a digital or an analog peripheral shelf may be added to the Universal cabinet. The Control Cabinet for 336-port and 456-port configurations use a Universal Cabinet.

672-port Control Cabinet

2.09 The 672-Port Control cabinet is similar to the existing 336-port Universal cabinet. The Control Shelf contains two Bays; Bay 0 on the left is the Control Bay, and Bay 1 on the right is a Peripheral Bay. The upper shelf contains two digital peripheral Bays, Bay 2 on the right and Bay 3 on the left. The Control Bay contains a Main Control Card (MCC), a Switch Matrix Card (SMC), a Bay Power Supply (BPS), and two Floppy Disk Drives (FDD). Its maintenance panel is located immediately above the digital Control shelf, its Floppy Disk Drives plug directly into the backplane, its Main Control Card directly controls up to six 6-circuit Power Fail Transfer cards. The Switch Matrix Card interfaces the MCC to up to seven Digital Peripheral Bays. Figure 2-5 shows an SX-200 DIGITAL PABX 672-Port Control Cabinet.

Analog Peripheral Cabinet

2.10 The Peripheral cabinet (shown in Figure 2-4) is a welded SX-200 cabinet with one or two shelves (Bays) equipped with Control cards and Peripheral cards. The Peripheral Cabinet can be added to a Control cabinet. If Bay 3 is an analog bay, the configuration is 480 ports; if Bay 3 is a digital bay, the configuration is 456 ports (Digital Bay 4 cannot be present in the Control cabinet).

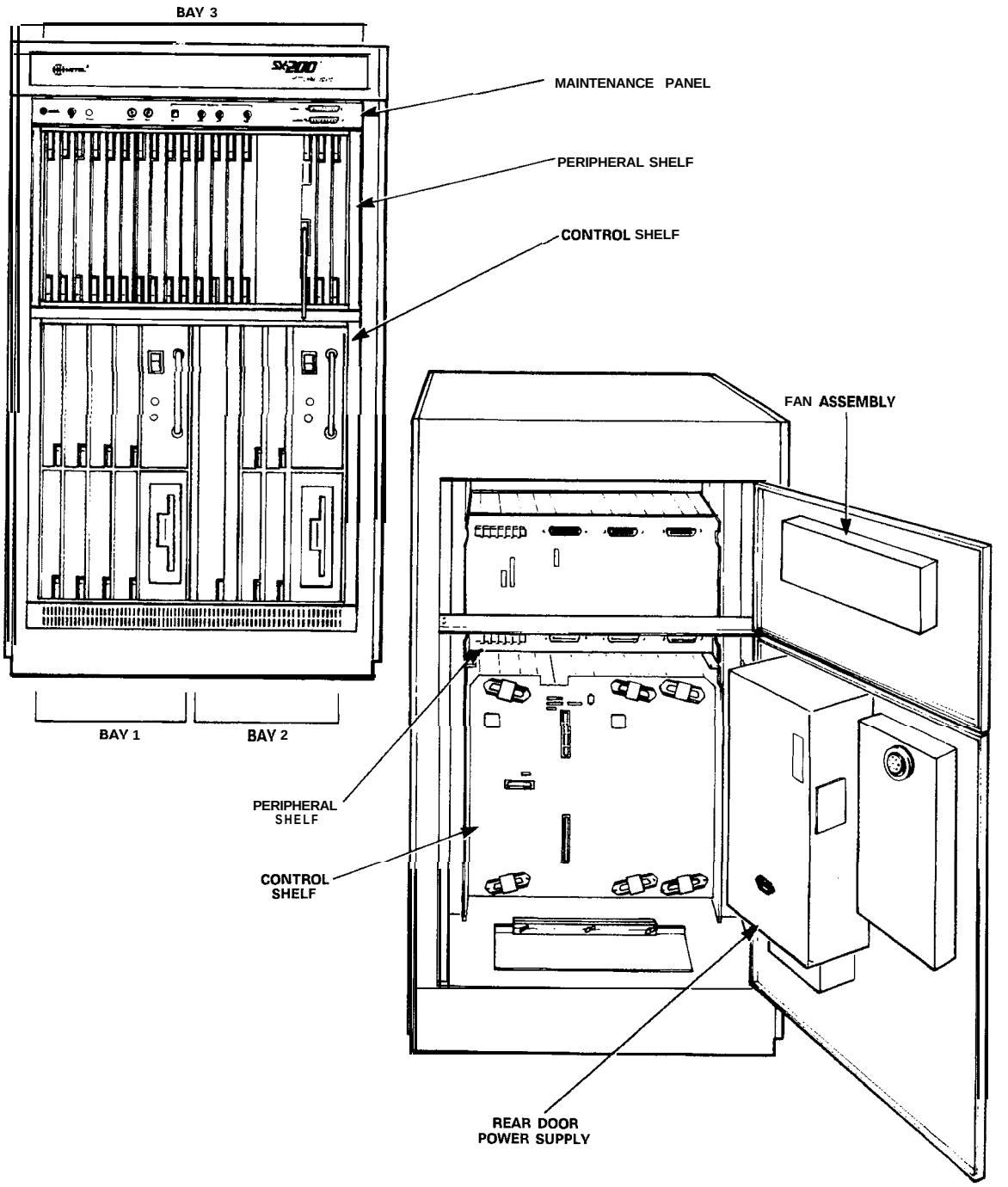


Figure 2-I SX-200 DIGITAL PABX Welded Control Cabinet

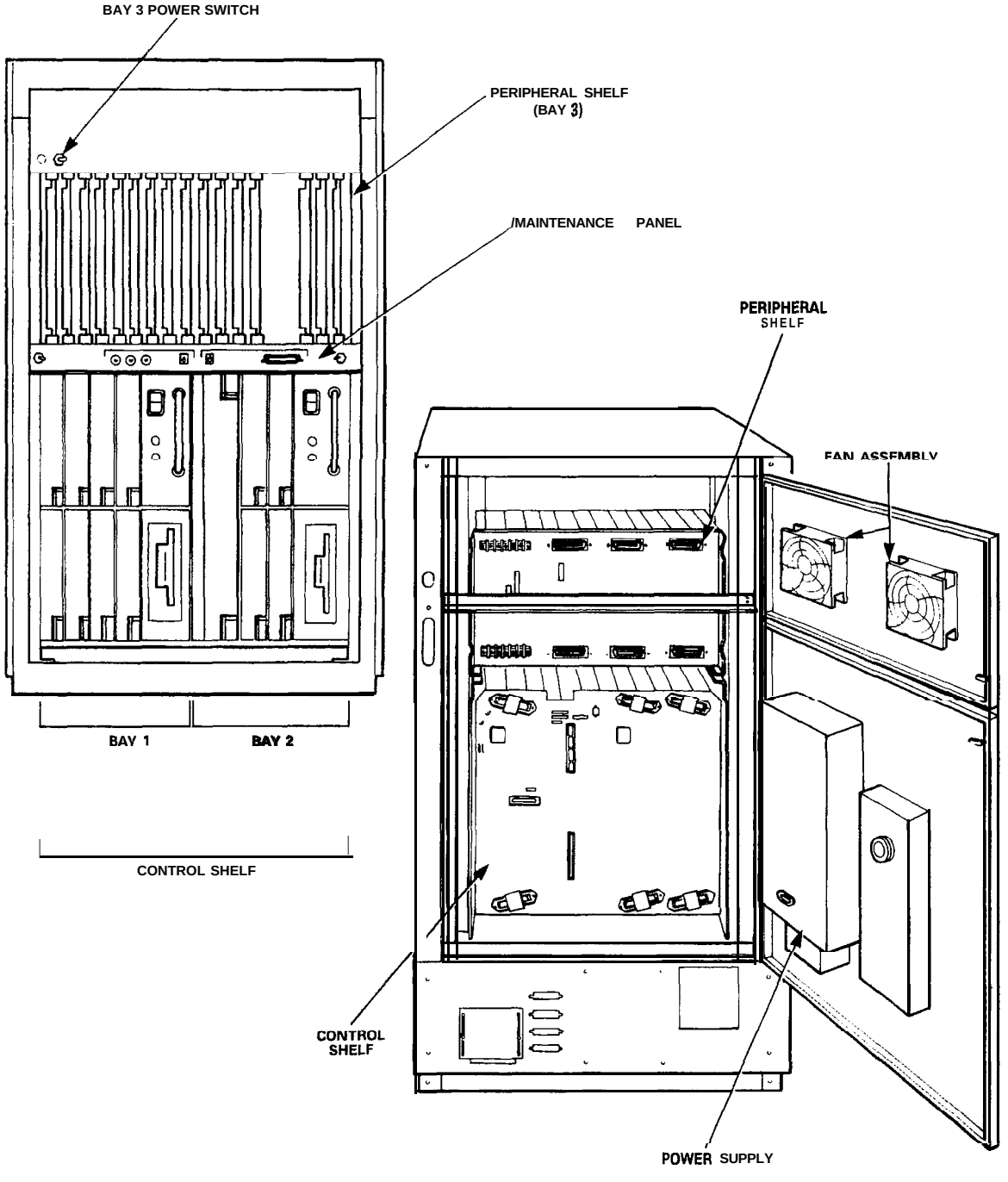


Figure 2-2 SX-200 Universal Control Cabinet

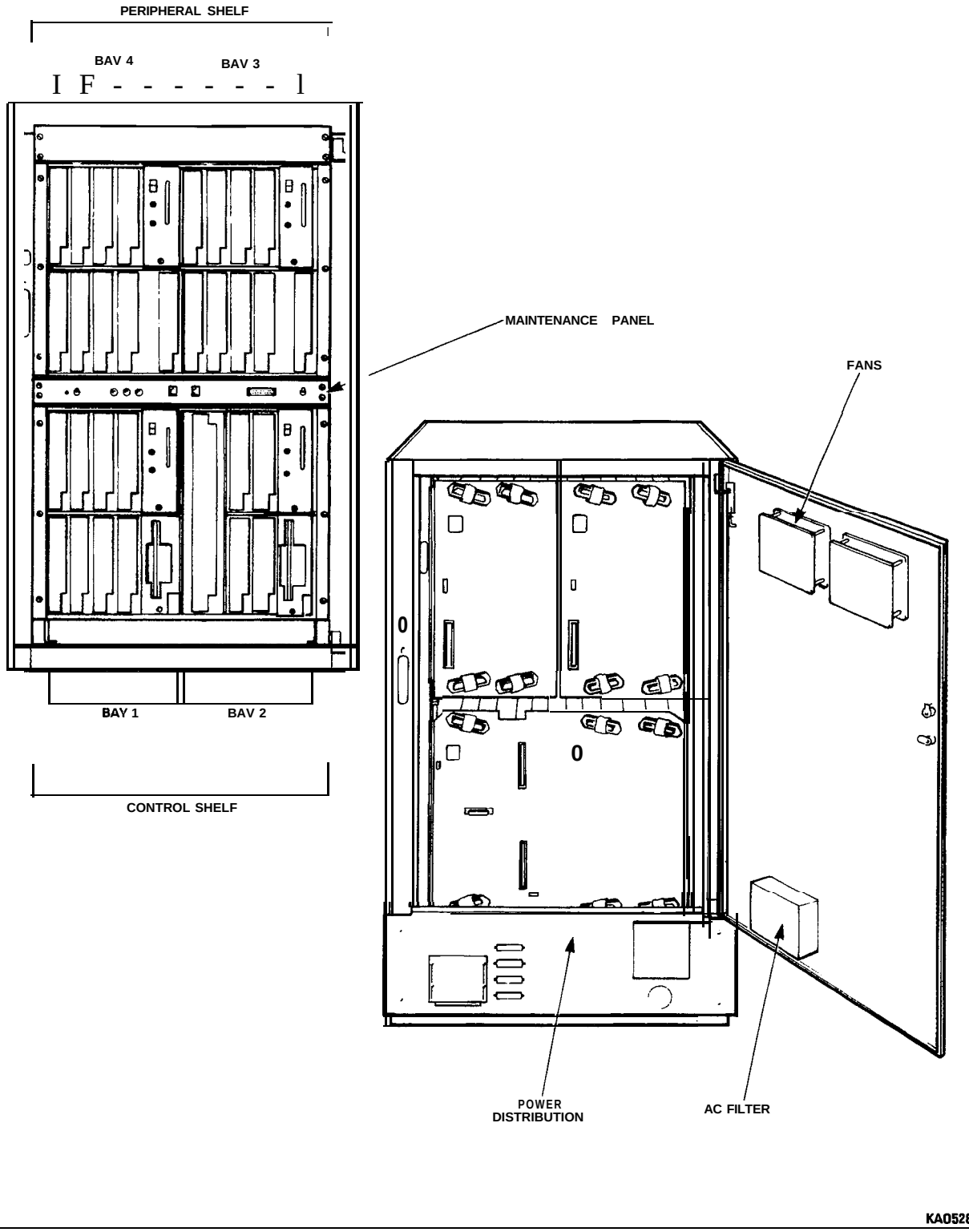


Figure 2-3 Universal Control Cabinet with Digital Peripheral Shelf

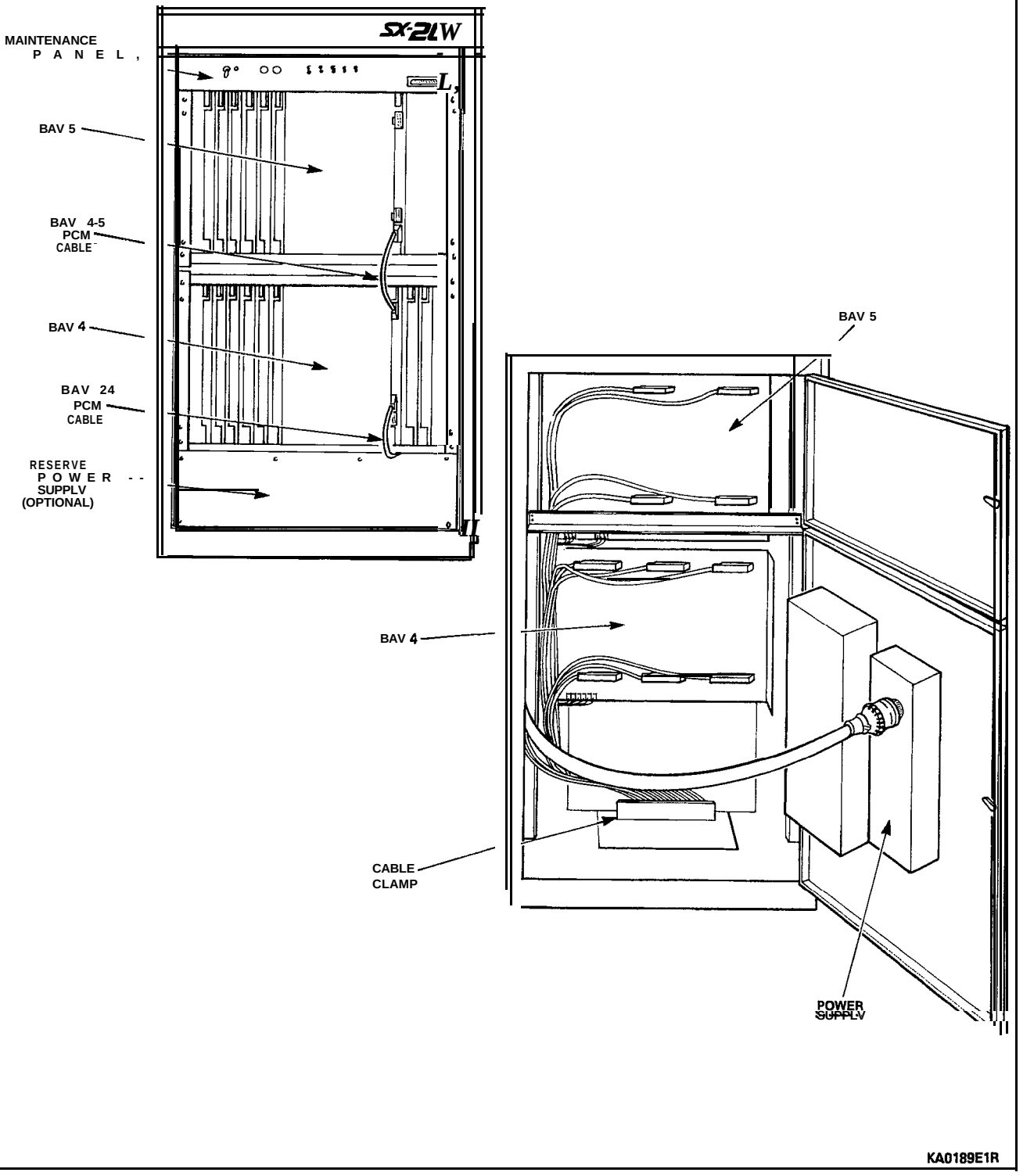


Figure 2-4 SX-200 DIGITAL PABX Peripheral Cabinet

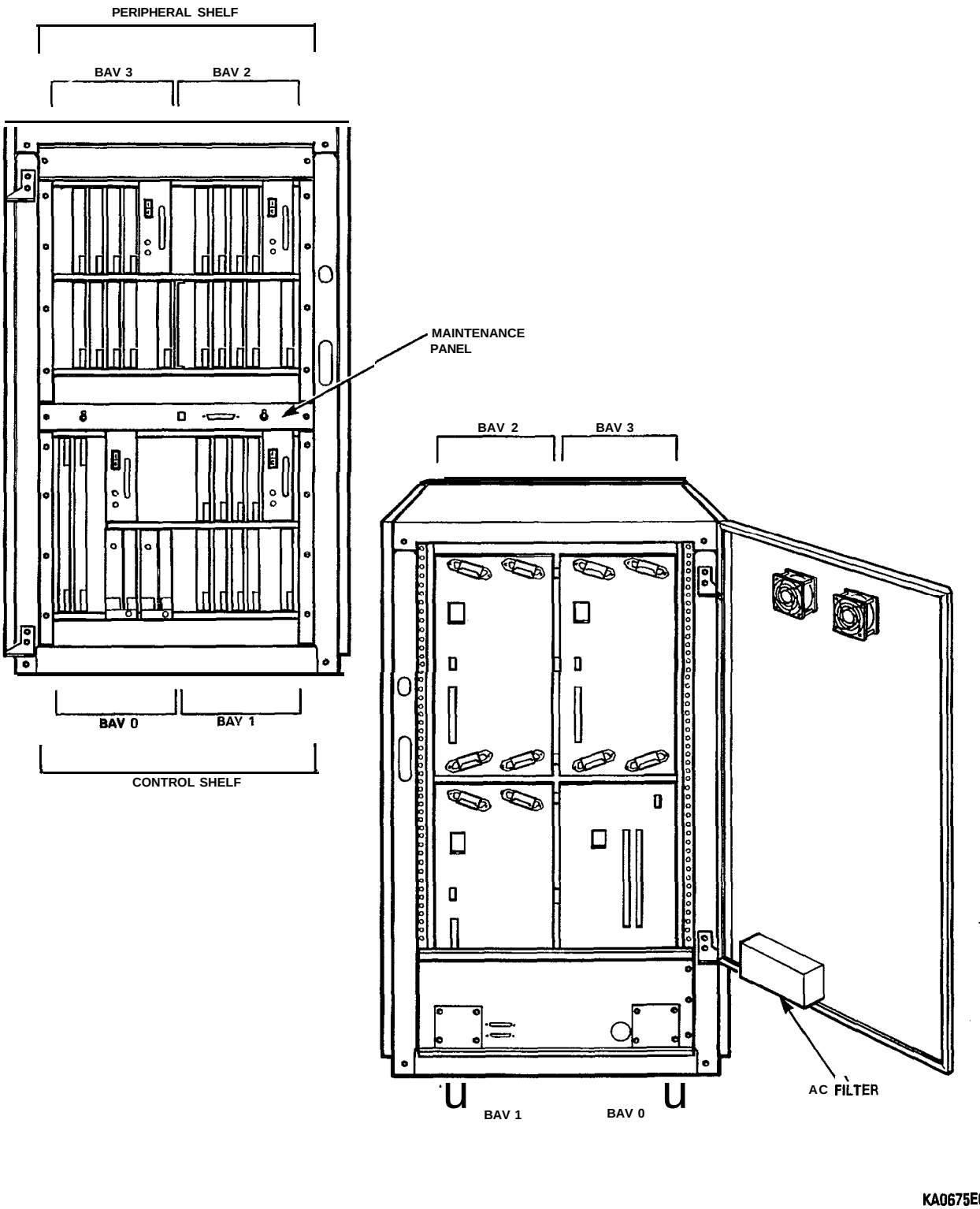


Figure 2-5 SX-200 672 port DIGITAL PABX Control Cabinet

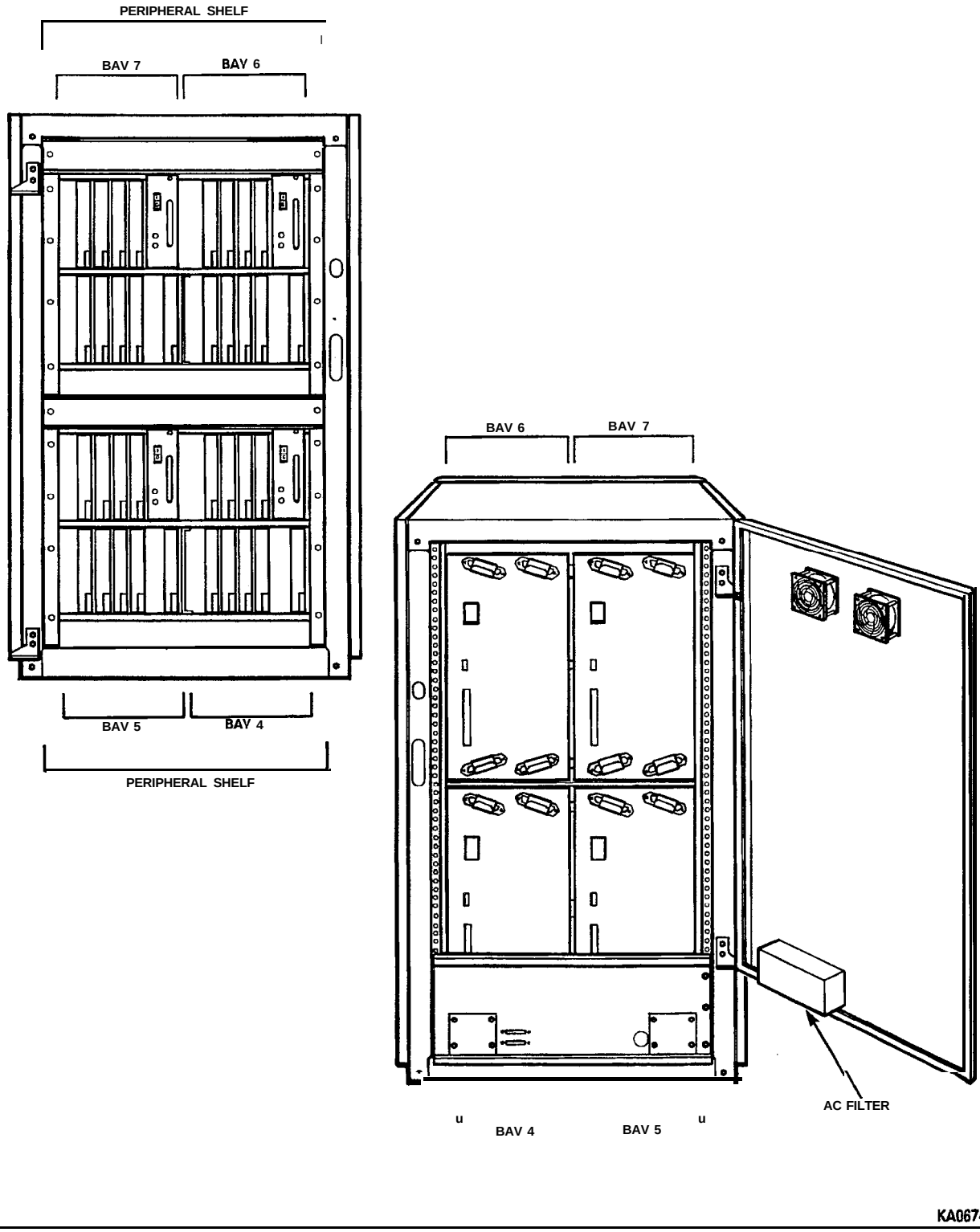


Figure 2-6 SX-200 672 port DIGITAL PABX Peripheral Cabinet

672-Port Peripheral Cabinet

2.11 The 672-Port Peripheral cabinet (shown in Figure 2-6) contains one or two digital shelves (with one or two digital bays each). It is similar to the Control Cabinet except for having no Control Bay (Bay 0); it can be configured with one, two, three, or four digital peripheral bays.

Printed Circuit Cards

2.12 All printed circuit cards are packed separately and sent in shipping cartons, usually five or 10 to a carton.

CAUTION: Always wear an antistatic wrist strap when handling cards. Handle printed circuit cards by their edges only. Handling the board faces or components may cause damage. Do not touch the gold edge connectors.

2.13 Each printed circuit card has one or two card extractors which enable the card to be easily removed. In the closed position, the card extractors ensure that the circuit cards are held firmly in position.

2.14 Cards which must not be removed or inserted while the system power is on, carry a Caution notice.

Control Shelf

2.15 Main Control Card: The Main Control Card (MCC) is located in the COMBO Control shelf between Bay 1 and Bay 2 and provides overall control of PABX operation. It has a digital interface, through the backplane to the cards in the Control shelf (336, 456, and 480 ports), and through the PCM cables to each Peripheral Bay.

2.16 In the 672-port cabinet the MCC is in the left slot of the Control bay, and provides overall control of PABX through the PCM cables to each Peripheral Bay.

2.17 The MCC holds the Decryption module which is associated with the software (each diskette release of system software has its own unique Decryption module). Whenever the system software release is changed, the Decryption module must also be changed. The MCC also contains alarm LEDs, RESET switch, and other system indicators. Figure 2-7 shows the MCC and the Decryption module.

2.18 Universal Card: A Universal card can plug into any of the upper peripheral slots in a digital shelf. The card is capable of carrying four plug-in modules.

2.19 The total power rating allowed per universal card is 10. Up to four modules (as long as the total power rating is 10 or less) may be mounted on a universal card.

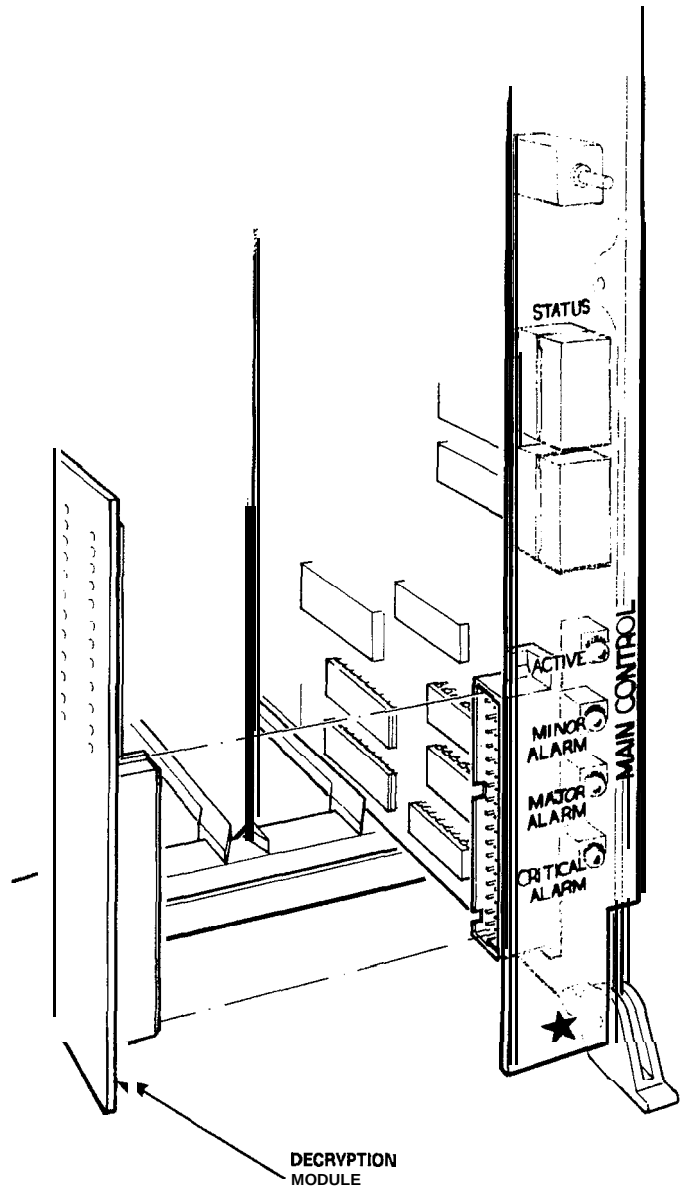


Figure 2-7 Main Control Card and Decryption Module

2.20 Four types of modules are available that can be plugged into the Universal card. These are:

DTMF Receiver/Relay Module – Has four Dual-Tone Multi-Frequency (DTMF) receiver circuits and two relays. The relays can be used for night bells, alarms, etc. Module power rating is 2.

Music/Paging Module – Provides one 600 ohm balanced audio (music) input and a 200 ohm output, to a paging amplifier. There is also one relay contact, which can be used for controlling an amplifier. Module power rating is 1.

Console Module – Provides interface to a DLIC-based Attendant Console which requires a CONSOLE module to interface it to the PABX. Module power rating is 5. Any position may be used, maximum of two per Universal card.

E&M Trunk Module – Interfaces the PABX to a standard E&M trunk; its power rating is 3.

2.21 Bay Power Supply: Each Digital bay has its own plug-in power supply. Before inserting or removing a Bay Power Supply, turn off the unit and remove its line cord connection at the back of the card.

Analog Peripheral Shelf

2.22 Line or trunk cards can be placed in positions identified with blue or black colour-coded stripes. It is recommended that line cards be placed in the lowest numbered card positions and trunk cards in the highest numbered card positions to allow ease of identification of card type during installation and maintenance.

2.23 Digital Interface Card: The Digital Interface Card (DIC) is installed in slot 18 of analog Bays 3, 4 and 5 to interface between the MCC and each analog Peripheral shelf through a PCM cable. Within each shelf, speech paths are analog, but speech paths over the PCM cable are digital. Figure 2-8 shows the Digital Interface Card.

2.24 Peripheral Control Card: The Peripheral Control Card (PCC) is installed in slot 20 of analog Bays 3 and 4, to control the interface between the analog cards and the DIC on each Peripheral shelf. The PCC in Bay 3 controls Bay 3, and the PCC in Bay 4 controls both Bay 4 and Bay 5.

2.25 Scanner Card: The Scanner Card scans all ports to determine which require service, and informs the DIC accordingly; it is installed in Slot 19 of an analog Bay.

Digital Peripheral Shelf

2.26 Bay Control Card: The Bay Control Card (BCC) is installed in the lower rightmost slot of digital peripheral Bays. This card monitors lines, trunks, and other circuits within the bay.

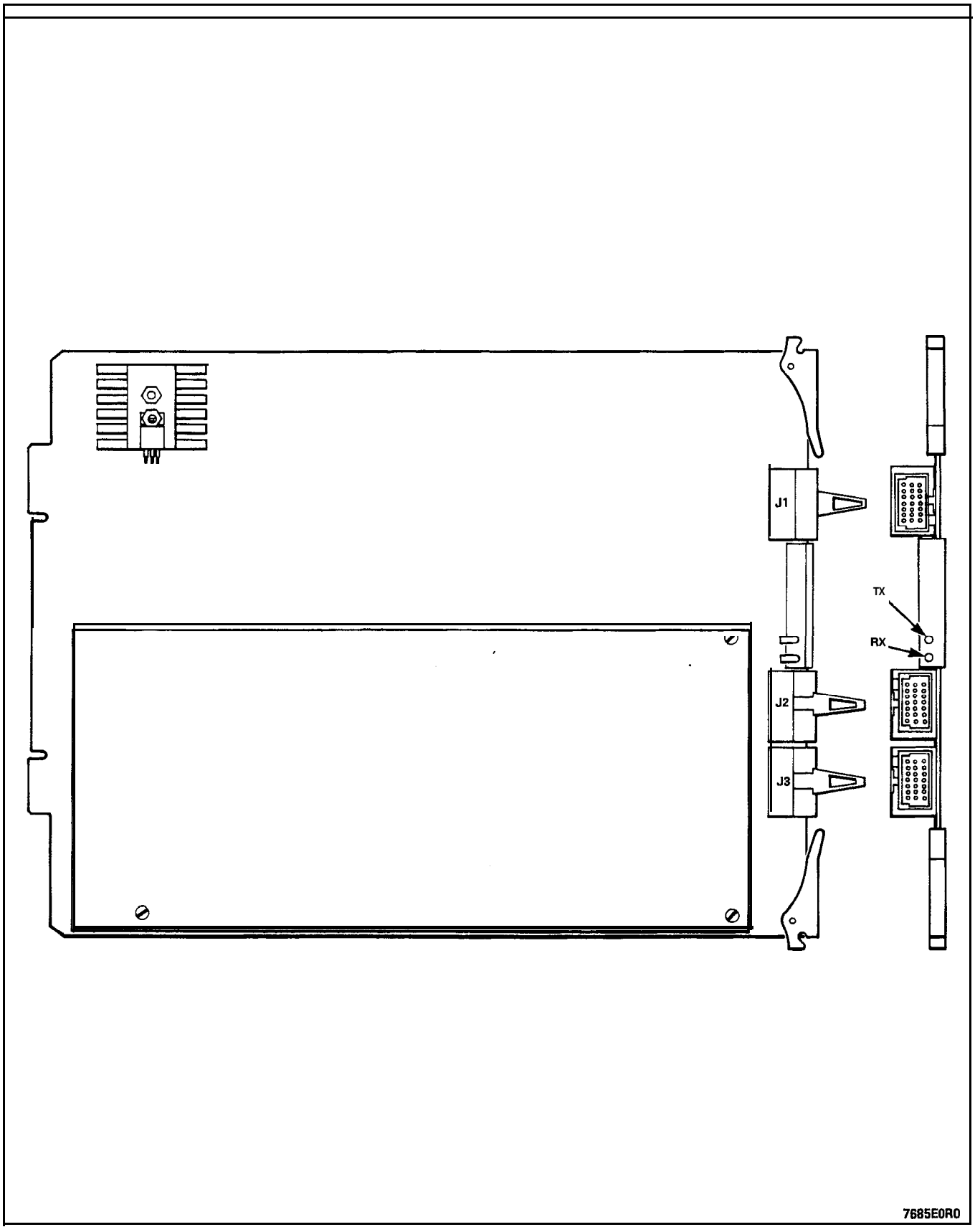


Figure 2-8 Digital Interface Card

Maintenance Panels

2.27 Control Cabinet. The maintenance panel is located at the top front of the control cabinet, behind the door, and contains the following controls and connections for the PABX:

Top Shelf Power - controls bay 3 power

Test line - system test line (bay 2, slot 1, cct 1)

Power Fail Control Switches - controls source of power fail transfer initiation

Master Switch - operate to TRANSFER position to force system power fail transfer

Maintenance Port - connect either LOCAL or REMOTE terminal but not both at once

Maintenance Console Jack - connect a maintenance console (not terminal) here; bay 2, slot 3 must have' Universal card with console module in position 1.

2.28 Universal Control Cabinet. The Maintenance panel is located between the Control shelf and the peripheral shelf, and contains the following controls and connections for the PABX:

Power Fail Transfer Control Switch - controls source of power fail transfer initiation

Maintenance Ports - console jack - connector for an RS-232 terminal

Maintenance Ports Selection Switch - Selects whether a terminal is connected directly to maintenance panel or through a modem to connector at rear of cabinet.

The POWER switch for the upper shelf (and its LED) is located on the filler plate above Bay 3.

2.29 Peripheral Cabinet. The maintenance panel is located at the top of the cabinet, inside the front door. Set the console power switches to DISABLE and the master PFT switch to NORMAL. The maintenance port is not used; the Test Line is connected to Bay 4, Slot 1, Circuit 1, but has no special features associated with it. The following switches are functional:

System Power Supply - turns cabinet DC power ON or OFF

PFT Switches - control source of power fail transfer initiation.

2.30 672-Port Control Cabinet. The Maintenance panel is located between the Control shelf and the peripheral shelf, and contains the following controls and connections for the PABX:

Power Fail Transfer Control Switch - controls source of power fail transfer initiation

-connector for an RS-232 terminal

Maintenance Ports Selection Switch - Selects whether a terminal is connected directly to maintenance panel or through a modem to connector at rear of cabinet.

2.31 672-Port Peripheral Cabinet. It has no maintenance panel; the only controls are the ON/OFF switches on the Bay Power Supplies.

Connecting Cables

2.32 The connections between the Main Control Card and the Peripheral Bays are made using connector-ended 12-pair PCM cables.

TABLE 2-I
PCM CABLE CONNECTIONS

336/456/480 PORT BACKPLANE CONTROL	PERIPHERAL	672 PORT BACKPLANE CONTROL	PERIPHERAL
J17A to	J17A BAY 3	J40A to	J17A BAY 1
J17B to	J17A BAY 4	J40B to	J17A BAY 2
		J40C to	J17A BAY 3
J17A to	DIC Analog Bay 3	J40D to	J17A BAY 4
J17B to	DIC Analog Bay 4	J42A to	J17A BAY 5
		J42B to	J17A BAY 6
DIC Analog Bay 4 to DIC Analog Bay 5		J42C to	J17A BAY 7

Connect only the PCM cables that will be used. Unused PCM cables should be coiled and placed on the cabinet base.

Power Fail Transfer

2.33 In the event of a major alarm condition, the Power Fail Transfer (PFT) relays located on the PFT card, will connect Central Office (CO) trunks to selected station lines. Calls in progress when PFT occurs are dropped; calls made while in PFT mode and in progress when the system returns to normal operation, are not dropped but will terminate normally at the end of the call.

DTMF Receiver/Relay Module

2.34 The DTMF Receiver/Relay module contains four DTMF receivers for translating tones received from industry standard DTMF telephone sets, and converts them to binary digits for the PABX. The number of receiver modules is determined by the calculations given in Section MITL9109-094-180-NA, Engineering Information. Two relays

(not associated with the DTMF receivers) are also provided on the module, which can be operated under control of the program, to control various system functions such as night bells or alarms. Each relay provides a contact closure across a tip-ring pair.

relay contact ratings	90 Vrms at 0.1 A 48 Vdc at 0.5 A

CAUTION: This relay contact may be connected only to a secondary circuit that has no direct connection to a primary circuit, and receives its power from a transformer, converter, or equivalent isolation device situated within the equipment.

Night Bell Connection

2.35 The night bell connection in the Universal cabinet (336, 456, and 480 port configurations) must be made from the ringing voltage connector on the backplane, and the relay module must also be on a Universal card plugged into this backplane (Bay 1 or 2). The backplane in the welded cabinet does not have a ringing voltage connection. In a 672 port configuration, the ringing voltage connector is on Bay 0; the Universal card with the relay module may be in any Peripheral bay. Refer to Figure 5-25. For other connections, the contact from the relay module must be connected to the control circuit of the external power source for an external ringer.

Attendant Console/Console Module

2.36 Console modules interface a DLIC Attendant Console with the PABX, through the Universal Card. Each DLIC console must be connected to the PABX through its associated Console Module. The system maximum is 11 consoles. Refer to Section MITL91 09-094-315-NA, Console Description, for a detailed description of the Attendant Console.

Paging, Music on Hold Equipment

2.37 The paging equipment and the music source for the 'music on hold' are located outside the SX-200 DIGITAL PABX. They should be in an environment specified by the suppliers of the individual equipment and connected to the SX-200 DIGITAL PABX through the cross-connect field.

Music on Hold/Paging Module Specifications

MOH i/p	input impedance	600 ohms
	input level	-6 dBm
PAGING o/p	output impedance (low)	200 ohms
	output level into 600 ohms	-6 dBm
RELAY CONTACT	maximums	90 Vrms at 0.1 A 48 Vdc at 0.5 A.

CAUTION: This relay contact may be connected only to a secondary circuit that has no direct connection to a primary circuit, and receives its power from a transformer, converter, or equivalent isolation device situated within the equipment.

Alternate Music Source - ACD only

2.38 An alternate music source for the Automatic Call Distribution Feature Package must be either an FCC Part 68 and DOC approved Recorded Announcement Device which is connected to an ONS circuit, or another source which is connected through an FCC Part 68 and DOC approved "voice coupler" or "voice connecting arrangement" to an ONS circuit.

E&M Trunk Module

2.39 The E&M Trunk Module plugs into the Universal Card. It provides interface to Type 1 and Type 5 E&M trunks. The module has a power rating of 3. Because of this, a maximum of three E&M modules can be used per Universal Card. The E&M Trunk Module is set for the type of trunk in use by setting its eight DIP switches.

Reserve Power Supply

2.40 The reserve power supply for the Control Cabinet is a stand-alone, uninterruptable power supply (UPS) or Standby Power Supply (SPS) comprising a battery pack, a charger, and an inverter. The Peripheral cabinet can have its own standard reserve power supply (in the base of the cabinet), or can be supported by an additional UPS. The UPS is an assembly not manufactured by MITEL Corporation. Please note that compliance to electrical installation and building codes is the responsibility of the purchaser of the equipment. Consult local municipal and electrical utility authorities before proceeding with the installation of equipment.

Remote Maintenance of an SX-200 DIGITAL PABX

2.41 An auto-answer modem must be connected to the remote terminal connector on the maintenance panel and a remote terminal and modem connected to the local external auto-answer modem. Local and remote maintenance are performed in the same way; the only difference is the use of modems to extend overall cable length. Access is by dedicated trunk, CO trunk using DISA, or by Attendant transfer to a station port.

Data Cabinet, Datashelf, and Datasets

2.42 The Digital Line Card interfaces the PABX to DNIC-based DATASETs which are connected to the PABX through tip-ring pairs. The wiring to the DLC is the same as to other 12-circuit line cards, and is described in CABLING AND CROSS-CONNECTIONS of this Section.

2.43 Installation instructions for the data cabinet are included in Section MITL9141-753-525-NA, DATACABINET 9000, and Installation instructions for the data shelf are included in Section MITL9 141-753-526-NA, DATASHELF 9 100; installation instructions for data sets are included in Section MITL9141-753-503-NA, DATASET 1100 Series and Section MITL9141-753-506-NA, DATASET 2100 Series. Installation instructions for the Modem Interconnect Panel are included in Section MITL9141-753-528-NA, Modem Interconnect Panel.

Modem Pooling Installation

2.44 Modem pooling allows a group of modems to be connected to the PABX to be shared by data set users also connected to the PABX; similarly, incoming calls may be directed to a hunt group to access these pooled modems to be connected to data sets on the PABX. CDE programming must be completed to define the association between the Digital Line Card circuits, the ONS circuits, and the associated modems; refer to Section MITL9 109-094-2 1 0-NA, Customer Data Entry. Refer to Chart 5-25 for Modem Pooling installation instructions.

3. INSTALLATION REQUIREMENTS

Environmental Requirements

3.01 The SX-200 DIGITAL PABX equipment may be installed in any location which is within the following temperature and humidity ranges and fulfills the space requirements described in the next paragraph.

Temperature +10 to +40°C (+50 to +104°F)

Relative Humidity 20–80% (non-condensing)

Maximum Altitude 4000 meters.

Floor Space

3.02 The minimum floor space for installation and subsequent maintenance of the SX-200 DIGITAL PABX is 75 cm (30 in.) front and rear, 60 cm (24 in.) at one side, and 5 cm (2 in.) at the other side. The minimum room size is 215 cm x 230 cm (7 ft x 7.5 ft).

Equipment Location

3.03 The following requirements must be met when selecting a location for the SX-200 DIGITAL PABX equipment. For cooling purposes, the Control cabinet has a fan assembly mounted in the rear door of the cabinet; the Peripheral cabinet relies on natural air flow. It is therefore mandatory that the bottom areas of the cabinets be unobstructed so that the air vents are clear, and not too close to a wall or other equipment.

The location MUST be

- dry, clean, and well ventilated
- well lit
- readily accessible.

The location MUST NOT be

- near a sprinkler system, sweating pipes, steam pipes, or steam vents
- in areas of extreme heat or cold (less than 10°C or greater than 40°C)
- in areas where corrosive fumes or exhaust from machinery is present
- in passageways

- near a reproducing or copying machine. A minimum clearance of 3 m (10 ft) must be provided if the reproducing machine is not equipped with a filtering system, and the room should be ventilated by an exhaust fan.

Power Supply Requirements

3.04 The customer must provide one single-phase power receptacle for each cabinet, as follows:

- Each cabinet should have its own 120 V, 60 Hz, 15 A branch circuit.
- The power receptacle must be a 3-wire type, with the ground wire connected to the ground of the electrical system.
- Each equipment cabinet is provided with a line cord terminated in a 5-15P 3-prong plug.

Recommendations

3.05 It is recommended that the following suggestions be adhered to .

- A warning tag should be attached to circuit breakers to prevent unauthorized manual operation.
- There must be no attempt to defeat the grounding conductor.
- The power receptacle must not be controlled by a switch.
- For 2-cabinet installations, a split receptacle is recommended.
- The receptacle location should be selected to prevent accidental removal of the power cord, while remaining accessible for removal of the plug for maintenance.
- The routing of the power cord between the cabinet and the receptacle should not present a hazard to the user.
- A warning tag should be attached to the plug end of the power cord to prevent accidental removal of the cord by anyone.

Equipment Grounding

3.06 The following grounding procedures must be followed for the SX-200 DIGITAL PABX:

(a) All circuit commons within each cabinet shall derive ground from a single ground concentration point within one of the cabinets. This ground concentration point shall derive ground from a cold water pipe or other equally grounded point, using a

#6 AWG insulated green wire connected directly to both points only.

(b) The system cabinets and associated ducting hardware shall not be exposed to any ground source other than that described in subparagraph (a) above.

(c) AC service wires bringing AC to the cabinets shall not share an enclosure or raceway with other system grounds, DC power distribution wires, or signaling wires.

(d) All system hardware shall be provided with connections to the system single point ground which in turn shall be provided with a reliable path to the equipment grounding conductor (i.e., green wire ground or safety ground), which shall be connected to an approval building ground (cold water pipe).

(e) All sources of external ground (e.g., system signaling ground to the approved ground source) shall connect only to the system single point ground.

(f) A separate grounding conductor (minimum size 14 AWG) shall be run from the system single point ground to the communications ground system on the cross-connect field.

(g) All doors, shelves, and similar assemblies are to be connected by straps to their designated connection points on the cabinet.

4. CONTROL SHELF AND PERIPHERAL SHELF BACKPLANES AND WIRING

Control Shelf (with COMBO backplane – 336, 456, and 480 ports)

4.01 The Control Shelf combination backplane is an integral part of the Control Shelf and serves Bay 1 and Bay 2 to connect the various circuit cards.

4.02 The 12 Peripheral cards are arranged in two rows; the upper row designated by square and circular identifications, and the lower row by circular identifications. Four of the Peripheral cards are on Bay 2 (two rows of two cards) and Bay 1 contains eight Peripheral cards (two rows of four). Cards with a square on their faceplate may only be installed in upper card slots; cards with a circle on their faceplate may be installed in either upper or lower card slots. Similarly, the MCC has a star, the Bay Control Card has a semi-circle, the Bay Power Supply has a right triangle, and the Disk Drive has an equilateral triangle to identify their respective card slots.

4.03 SX-200 Welded Control Cabinet – Figure 4-1 shows the approximate locations of the backplane connectors as viewed from the rear of a Control cabinet. Note that the floppy disk drive connects to the backplane with a ribbon cable and a power cable. Figure 4-2 shows Control cabinet grounding connections; Figure 4-3 shows Control cabinet power distribution; Figure 4-4 shows signal cable routing.

4.04 SX-200 Universal Control Cabinet – Figure 4-5 shows the approximate locations of the backplane connectors as viewed from the rear of an SX-200 Control cabinet. Note that the floppy disk drive plugs directly into this backplane. Figure 4-6 shows Control cabinet grounding connections; Figure 4-7 shows Control cabinet power distribution; Figure 4-8 shows signal cable routing.

672-Port Control Cabinet and Control Backplane

4.05 672-Port Control Cabinet – Figure 2-5 shows a 672-Port Control Cabinet; Figure 4-15 shows the power and ground wiring for the 672-Port Control Cabinet, and Figure 4-16 shows the signal wiring. The Control bay (Bay 0) contains a Main Control Card, a Switch Matrix Card, a Bay Power Supply, and two Floppy Disk Drives; it does not contain any peripheral cards.

4.06 672 Port Control Backplane – Figure 4-14 shows the approximate locations of the backplane connectors as viewed from the rear of a Control Cabinet.

Peripheral Shelf – 480-Port Configuration

4.07 Up to three analog Peripheral shelves may be supplied with an SX-200 DIGITAL PABX. The peripheral shelf in the Control cabinet is Bay 3; the lower peripheral shelf in the peripheral cabinet is Bay 4; the upper shelf in the peripheral cabinet is Bay 5. Bays 3 and 4 are

identical, while Bay 5 has fewer printed circuit boards. In an SX-100® PABX upgrade, the SX-100 cabinet contains only Bay 4.

Analog Peripheral Shelf PCB Assignments

PCB Type	Slots	Bay 3	Bay 4	Bay 5
Trunk or Station	1-12	x	x	x
Trunk or Station	13,14,15	x	x	
DIC	18	x	x	x
Scanner	19	x	x	
PCC	20	x	x	

Figure 4-9 shows wiring in the peripheral cabinet.

Figure 4-10 shows Power Fail Transfer wiring.

Figure 4-l 1 shows Peripheral cabinet backplane wiring.

4.08 An Analog Peripheral Shelf may have a Surge Clamp on its backplane at Slot 16, Pin 10 as shown in Figure 4-l 1; these surge clamps are optional.

Peripheral Shelf - 336-Port Configuration

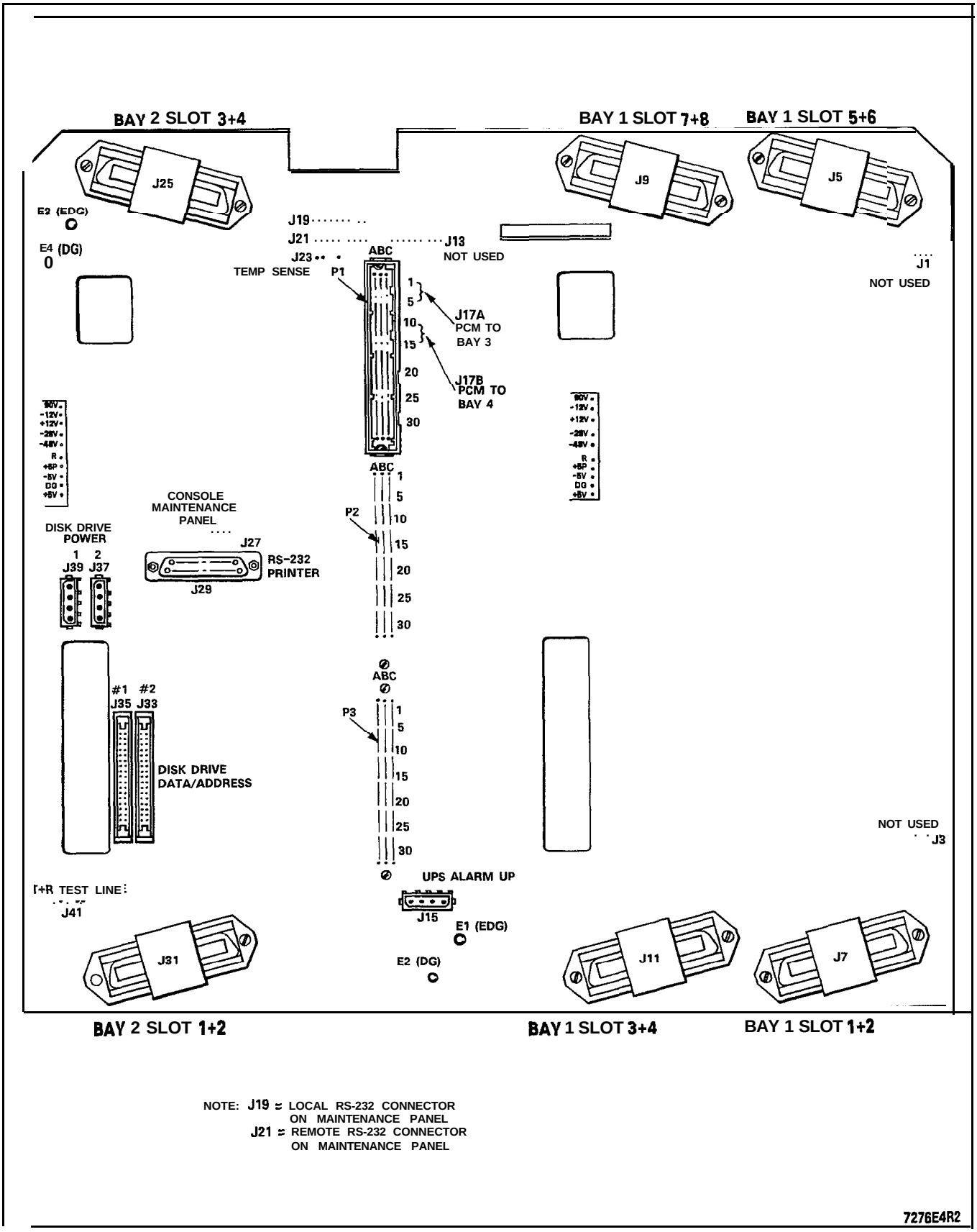
4.09 The Universal Cabinet can be expanded by adding a Digital Peripheral shelf above the Control shelf; it contains Digital Bay 3 and (optionally) Digital Bay 4; each Bay contains 96 ports. These bays are the same as Bay 1, except each contains a Bay Control Card instead of a Floppy Disk Drive. Figure 4-12 shows AC and ground distribution, while Figure 4-13 shows signal cable distribution within the Universal cabinet.

Peripheral Shelf 456-Port Configuration

4.10 The Universal Cabinet can be expanded by adding a Digital Peripheral shelf above the Control shelf; it contains Digital Bay 3 only (96 ports). An analog Peripheral cabinet (Bays 4 and 5) may be connected instead of Digital Bay 4, to provide up to 456 ports.

672-Port Peripheral Cabinet and Shelves

4.11 The 672-Port Peripheral Cabinet contains up to two shelves and four Peripheral Bays. Each Bay contains a Bay Power Supply, a Bay Control Card, and up to eight peripheral cards. The digital bays are the same as used in the 336-port and 456-port systems, and for the three Peripheral bays in the Control cabinet. The 672-Port Peripheral Cabinet is shown in Figure 2-6; Figure 4-16 shows the signal wiring. The 672-Port Peripheral Cabinet power and ground wiring is shown in Figure 4-17; Figure 4-18 shows its signal wiring.



NOTE: J19 = LOCAL RS-232 CONNECTOR ON MAINTENANCE PANEL
J21 = REMOTE RS-232 CONNECTOR ON MAINTENANCE PANEL

7276E4R2

Figure 4-l SX-200 Welded Cabinet Control Shelf Backplane

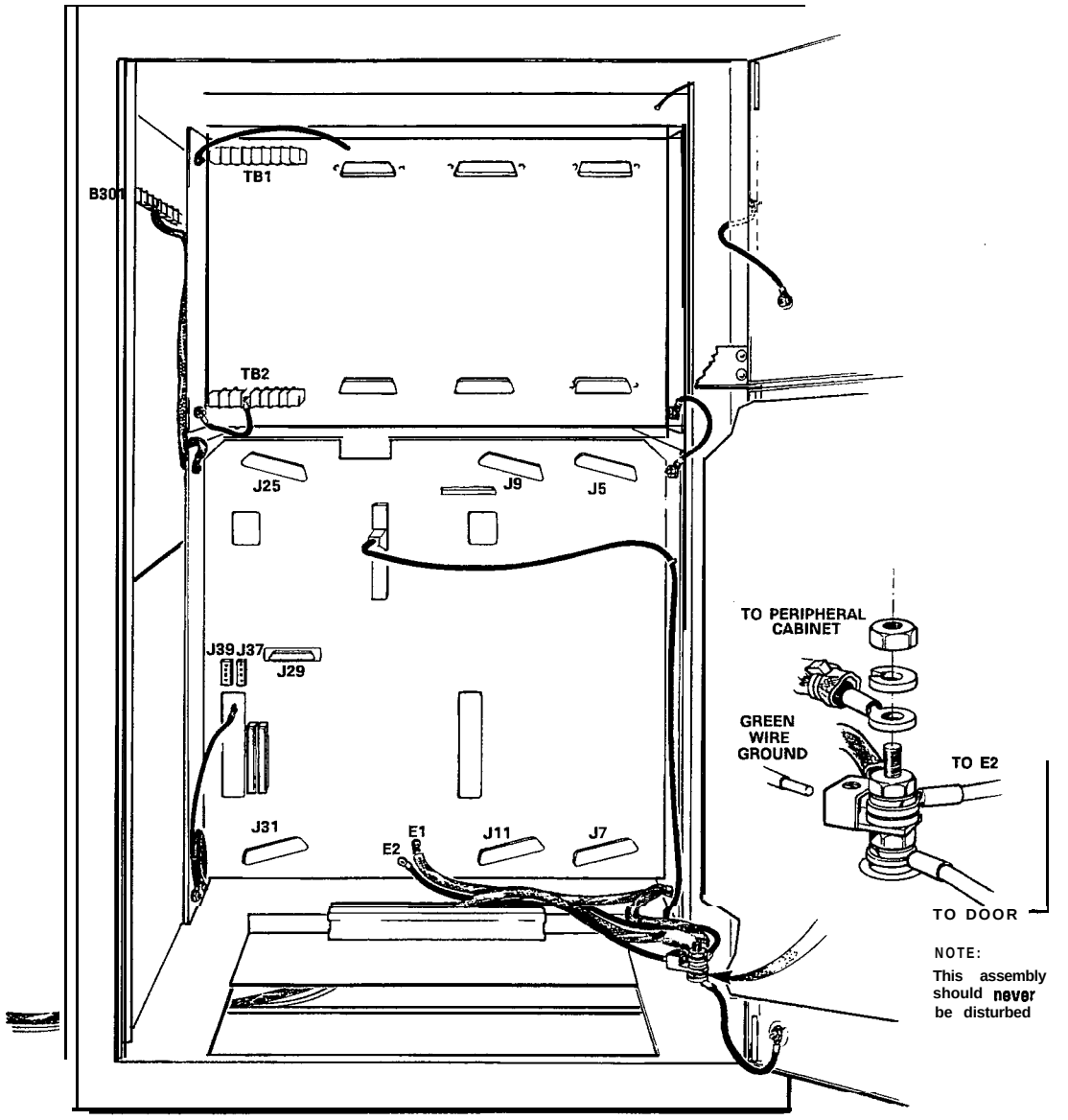


Figure 4-2 Rear View of SX-200 Control Cabinet – Grounding

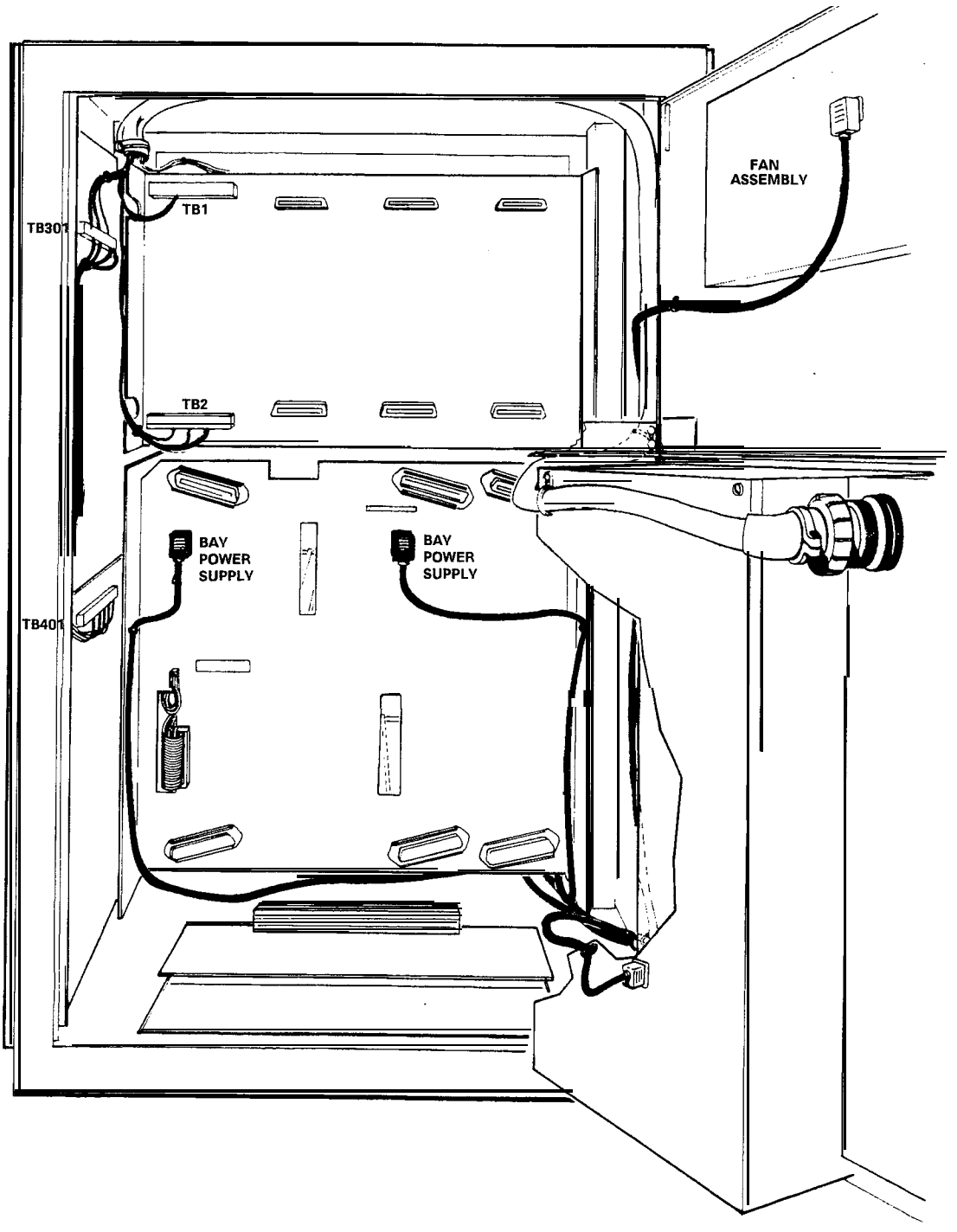


Figure 4-3 Rear View of SX-200 Control Cabinet – Power

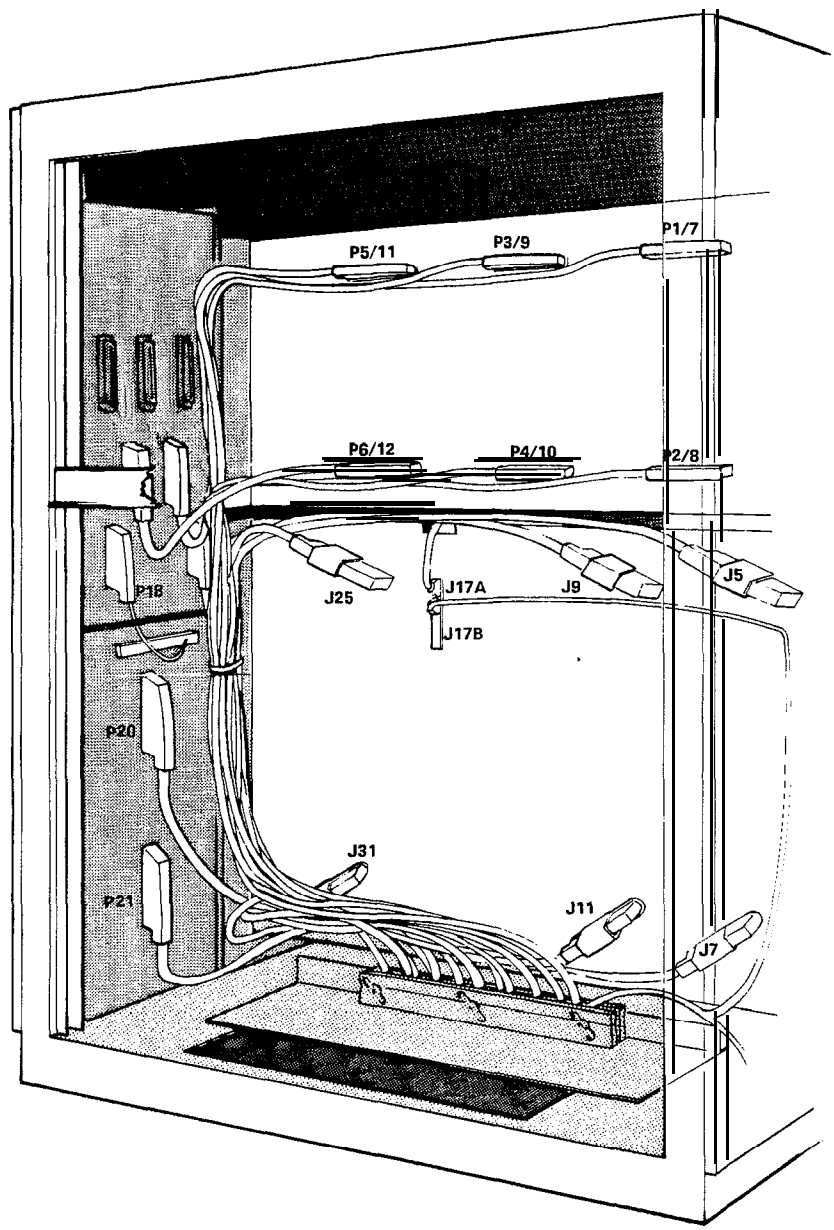
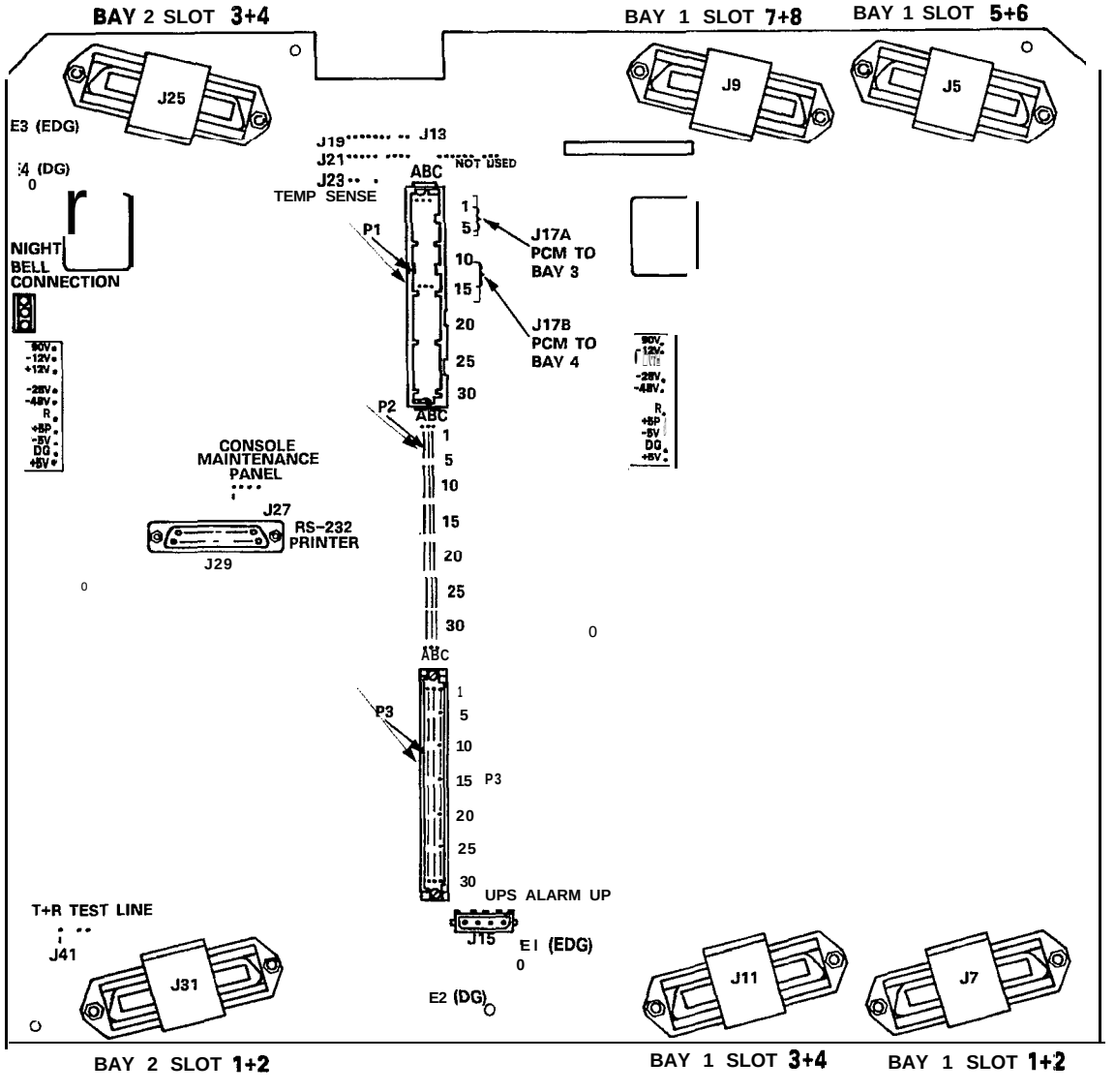


Figure 4-4 Rear View of SX-ZOO Control Cabinet - Signal Cables



NOTE: J19 = LOCAL RS-232 CONNECTOR ON MAINTENANCE PANEL
J21 = REMOTE RS-232 CONNECTOR ON CABINET REAR CABLE PANEL

B544E3R1

Figure 4-5 SX-200 Universal Cabinet Control Shelf Backplane

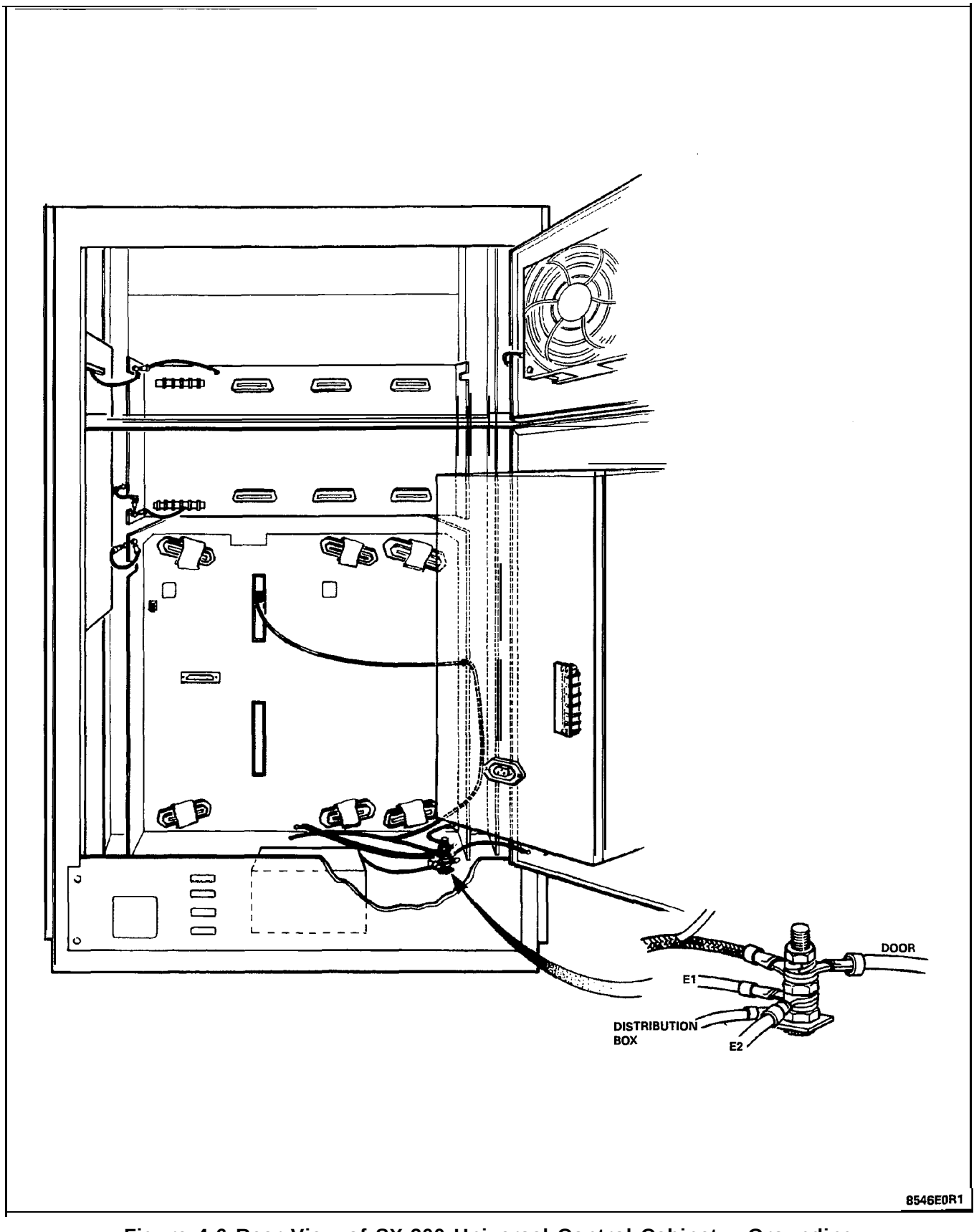


Figure 4-6 Rear View of SX-200 Universal Control Cabinet - Grounding

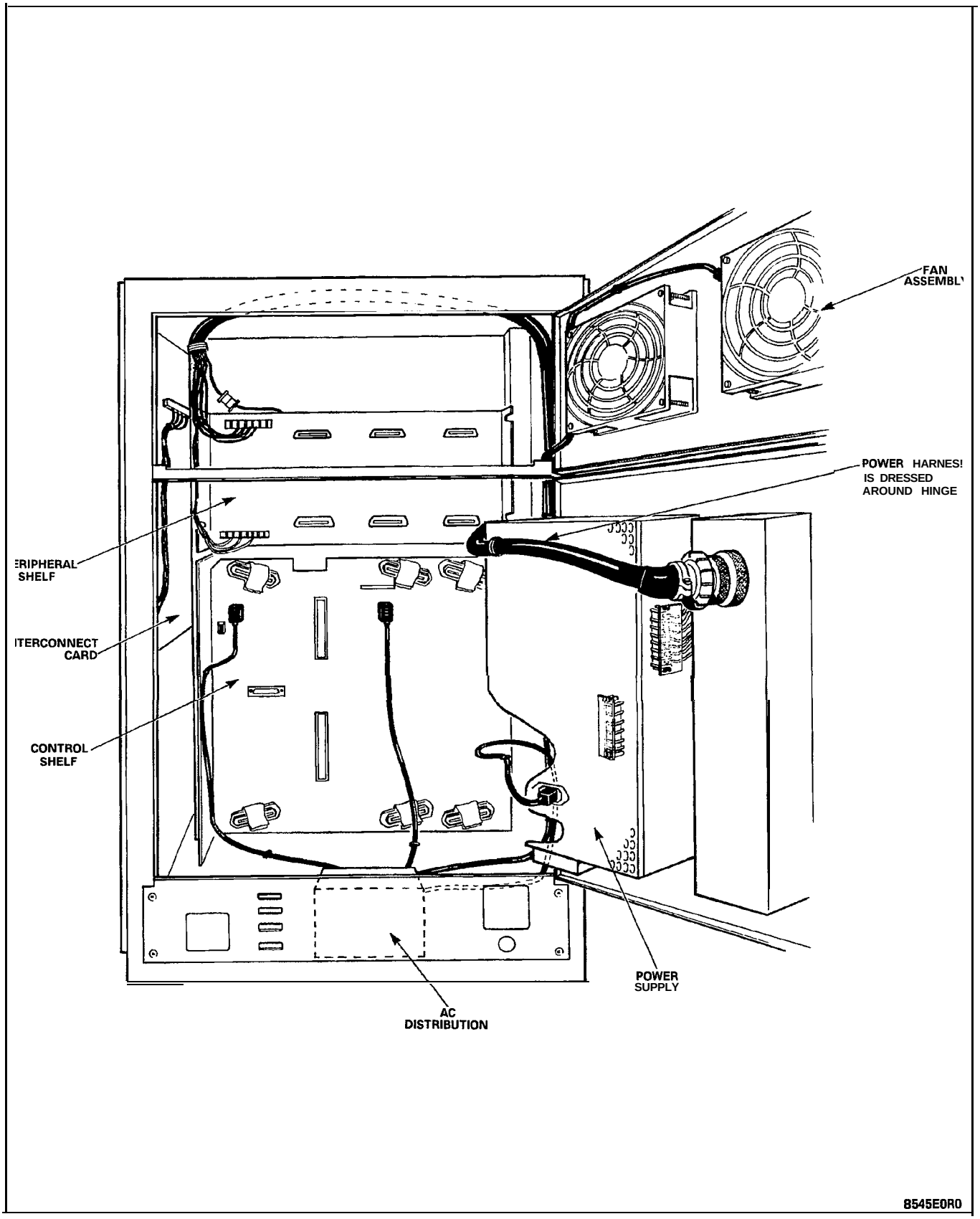


Figure 4-7 Rear View of SX-ZOO Universal Control Cabinet – Power

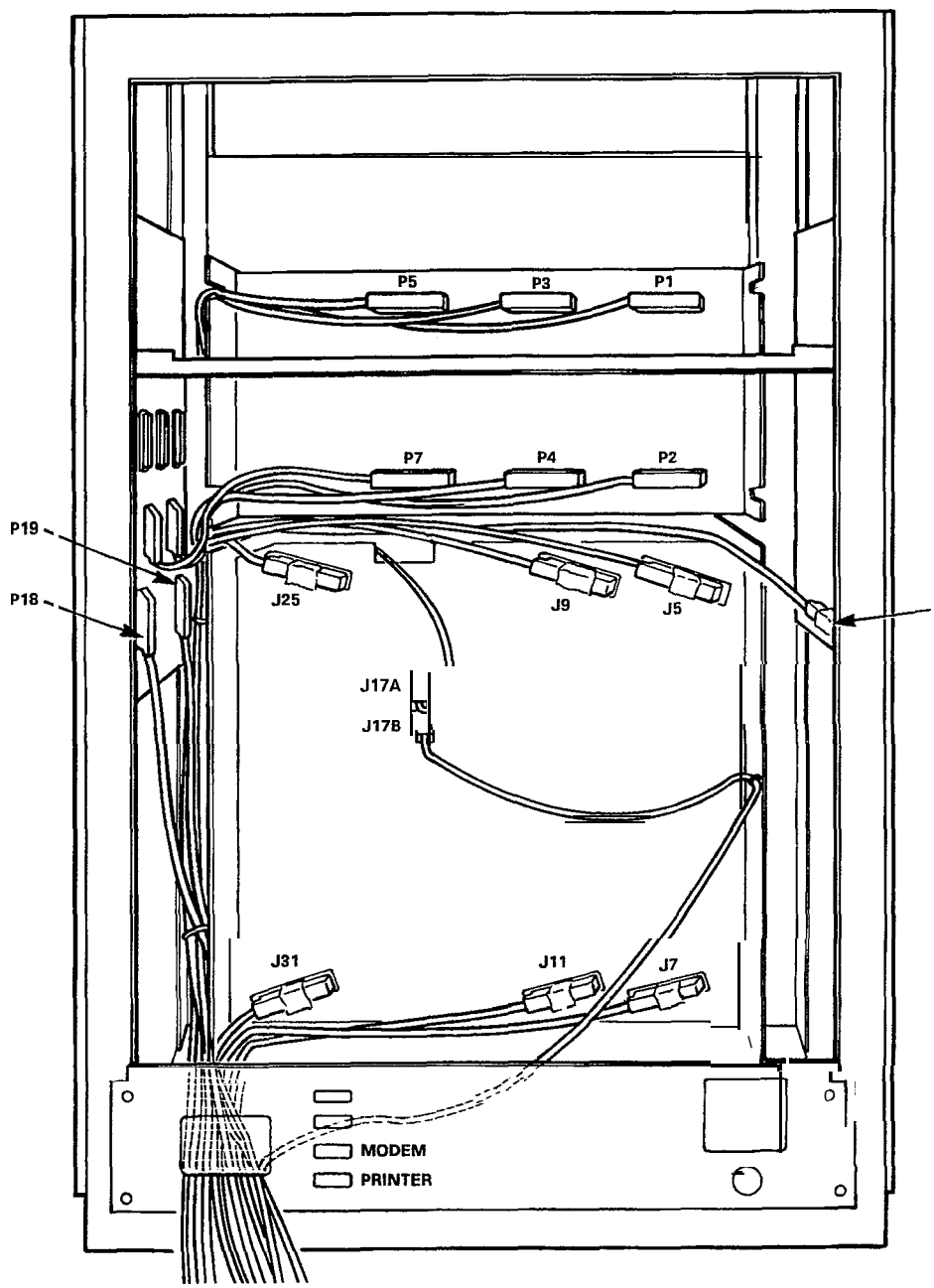


Figure 4-8 Rear View of SX-200 Universal Control Cabinet - Signal Cables

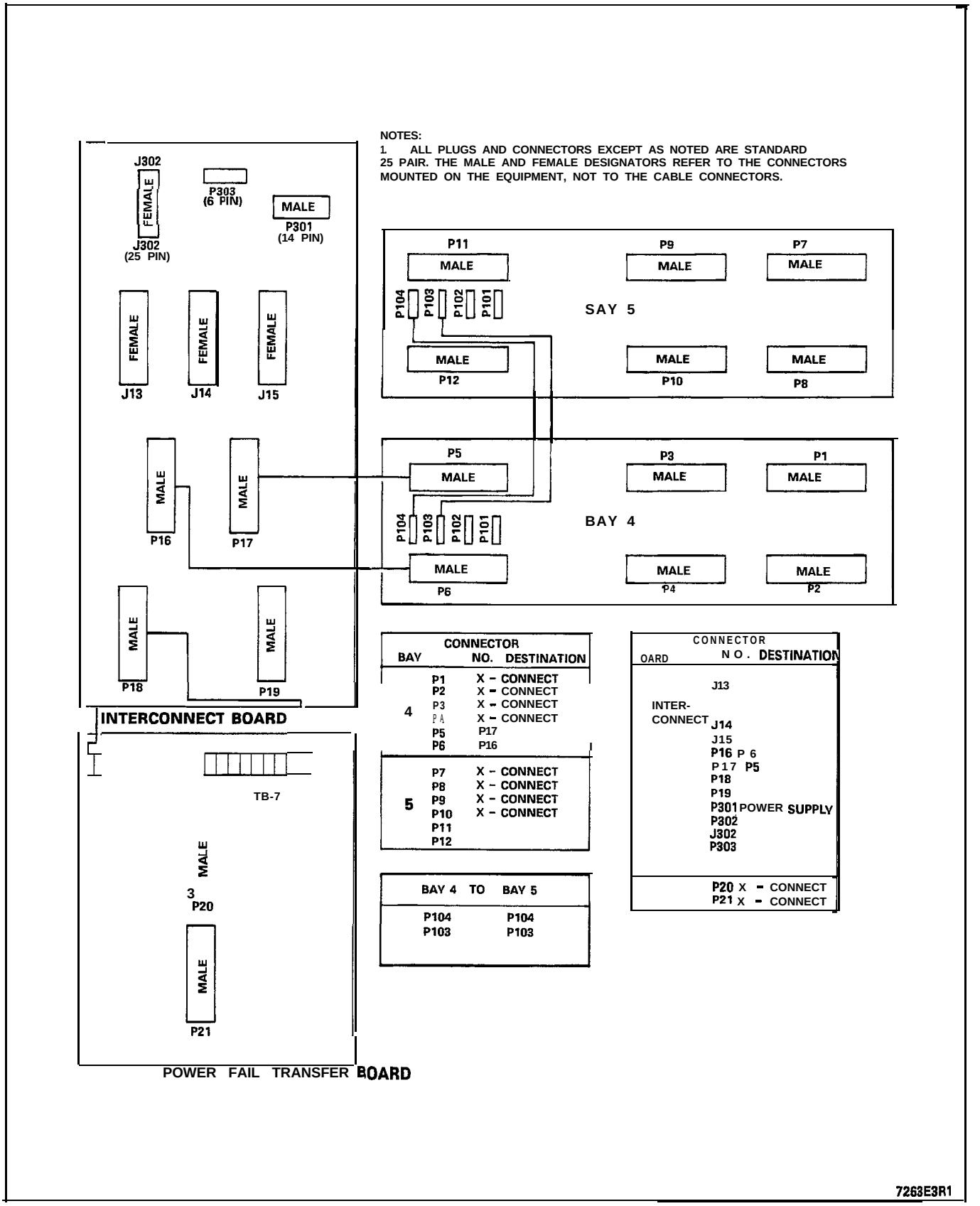


Figure 4-9 SX-200 Connector Locations (Peripheral Cabinet)

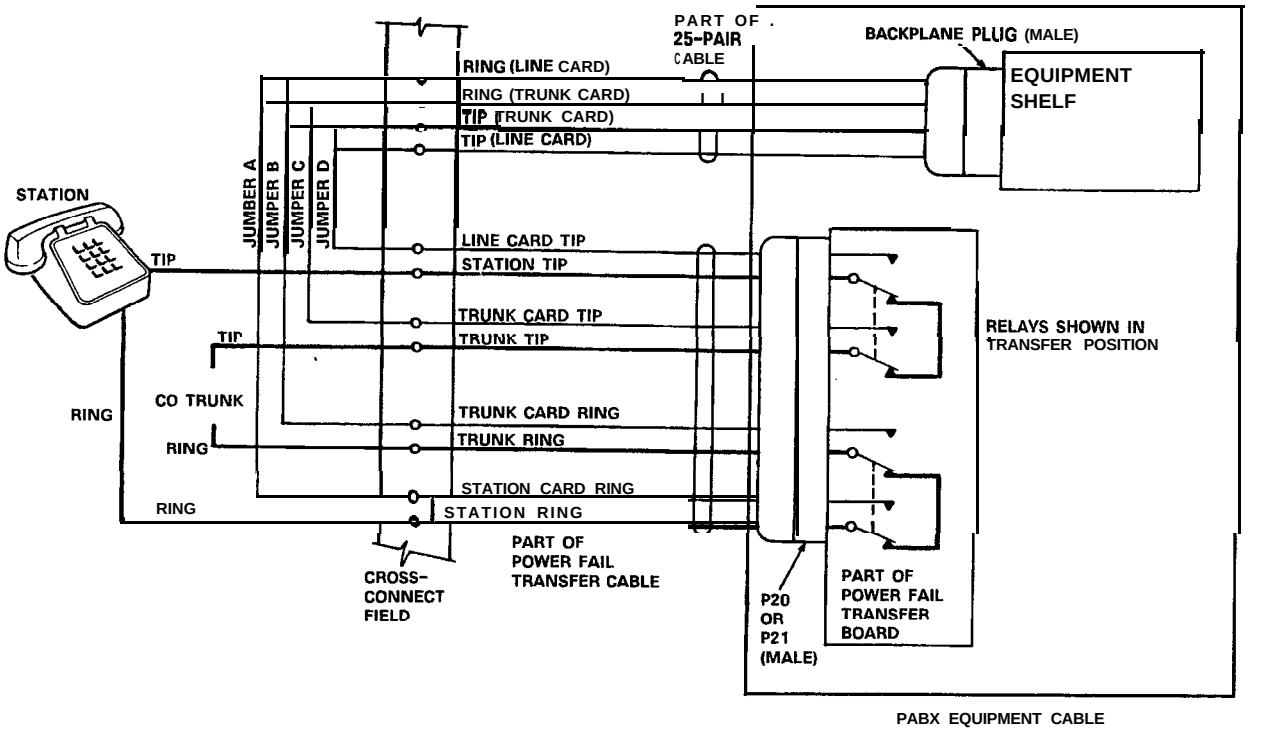


Figure 4-10 Power Fail Transfer Wiring Diagram

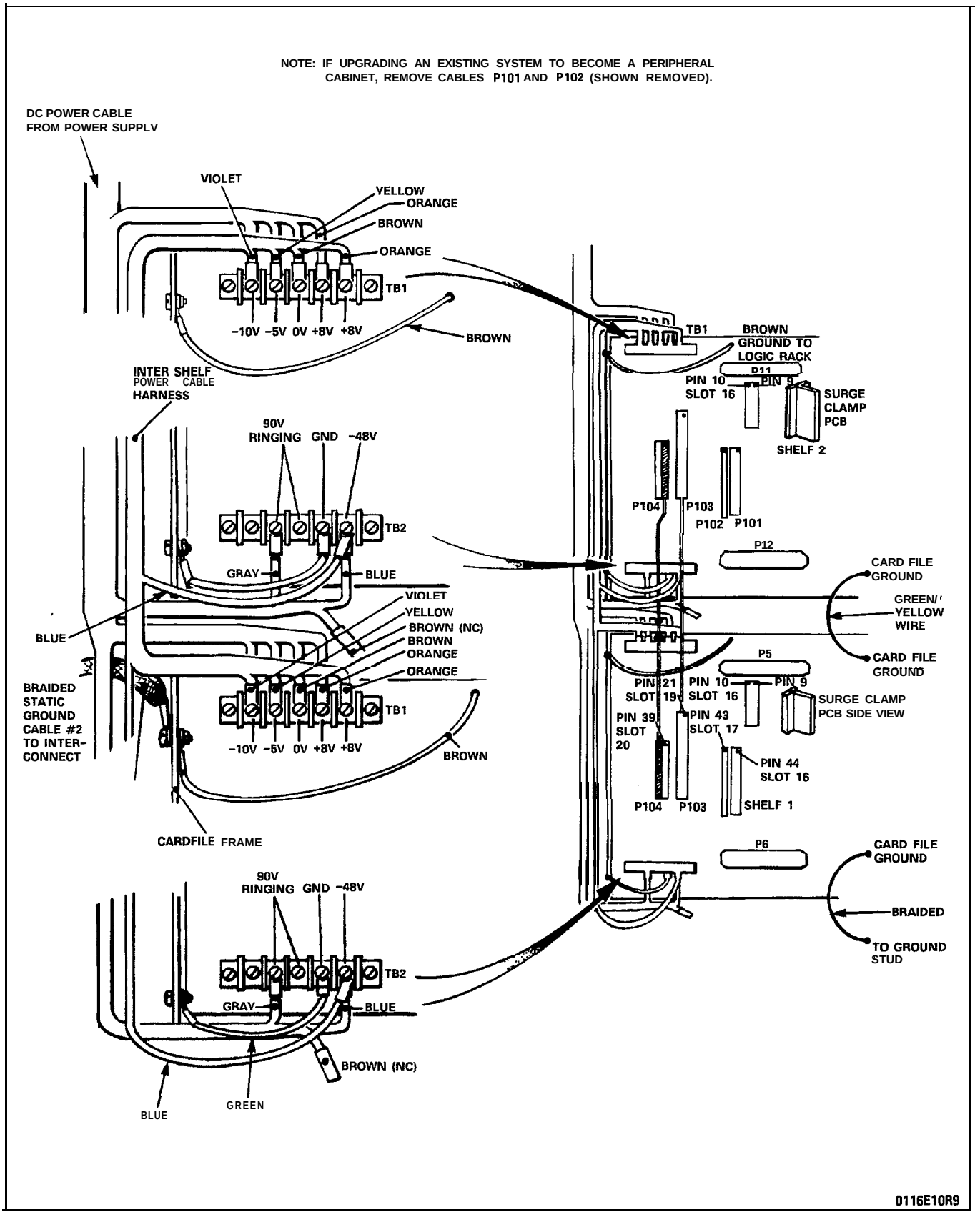


Figure 4-l 1 SX-200 Peripheral Cabinet Backplanes

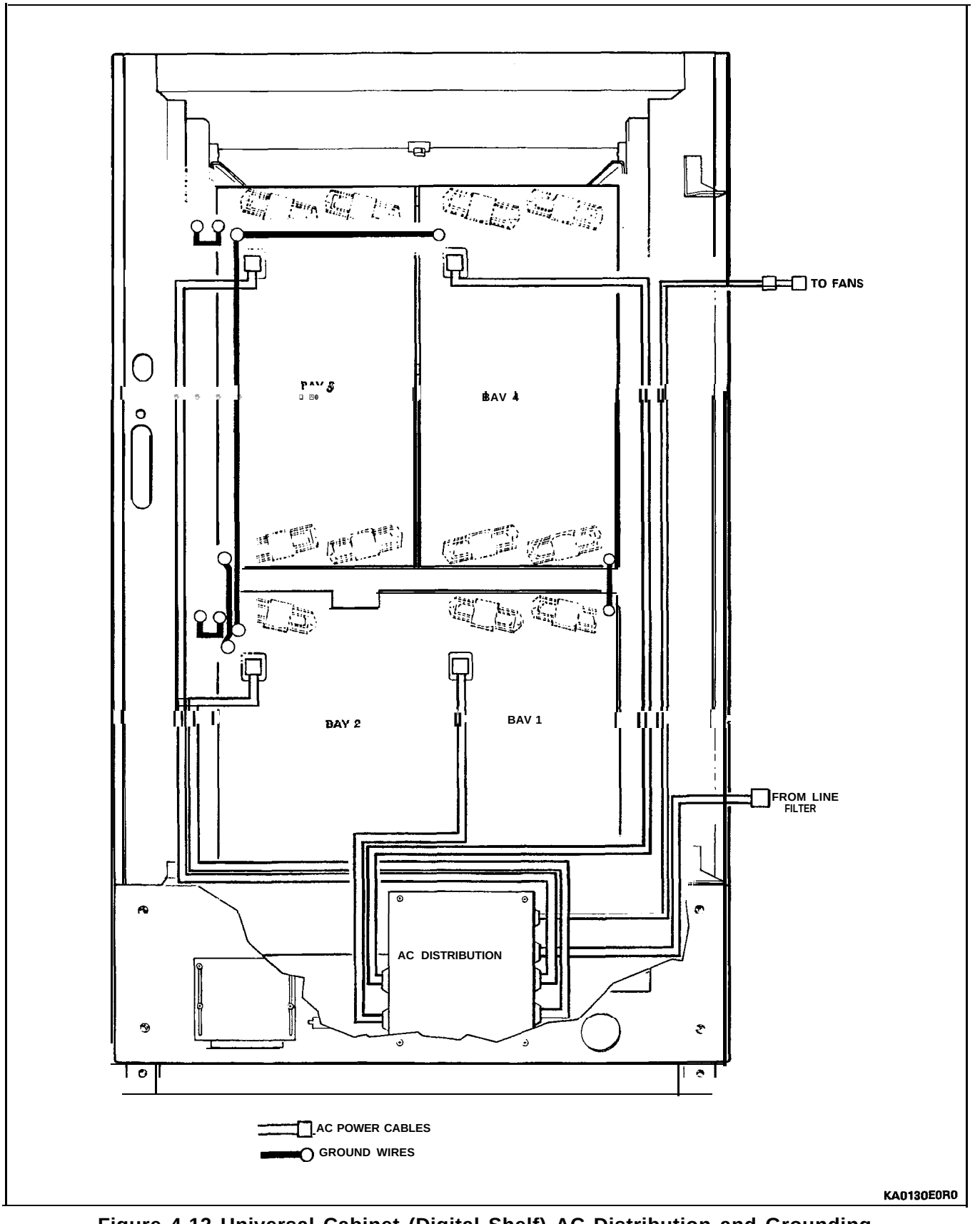


Figure 4-12 Universal Cabinet (Digital Shelf) AC Distribution and Grounding

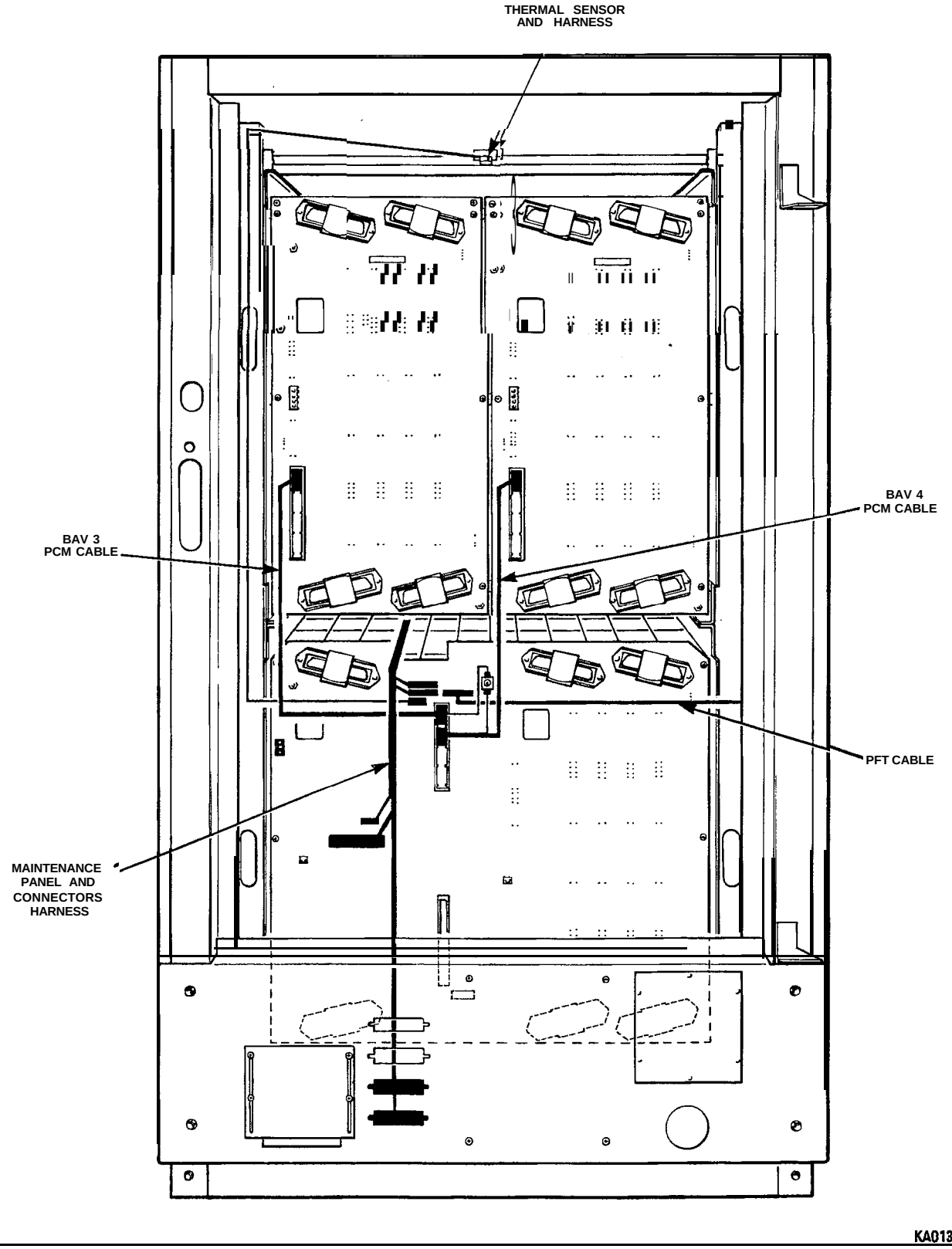
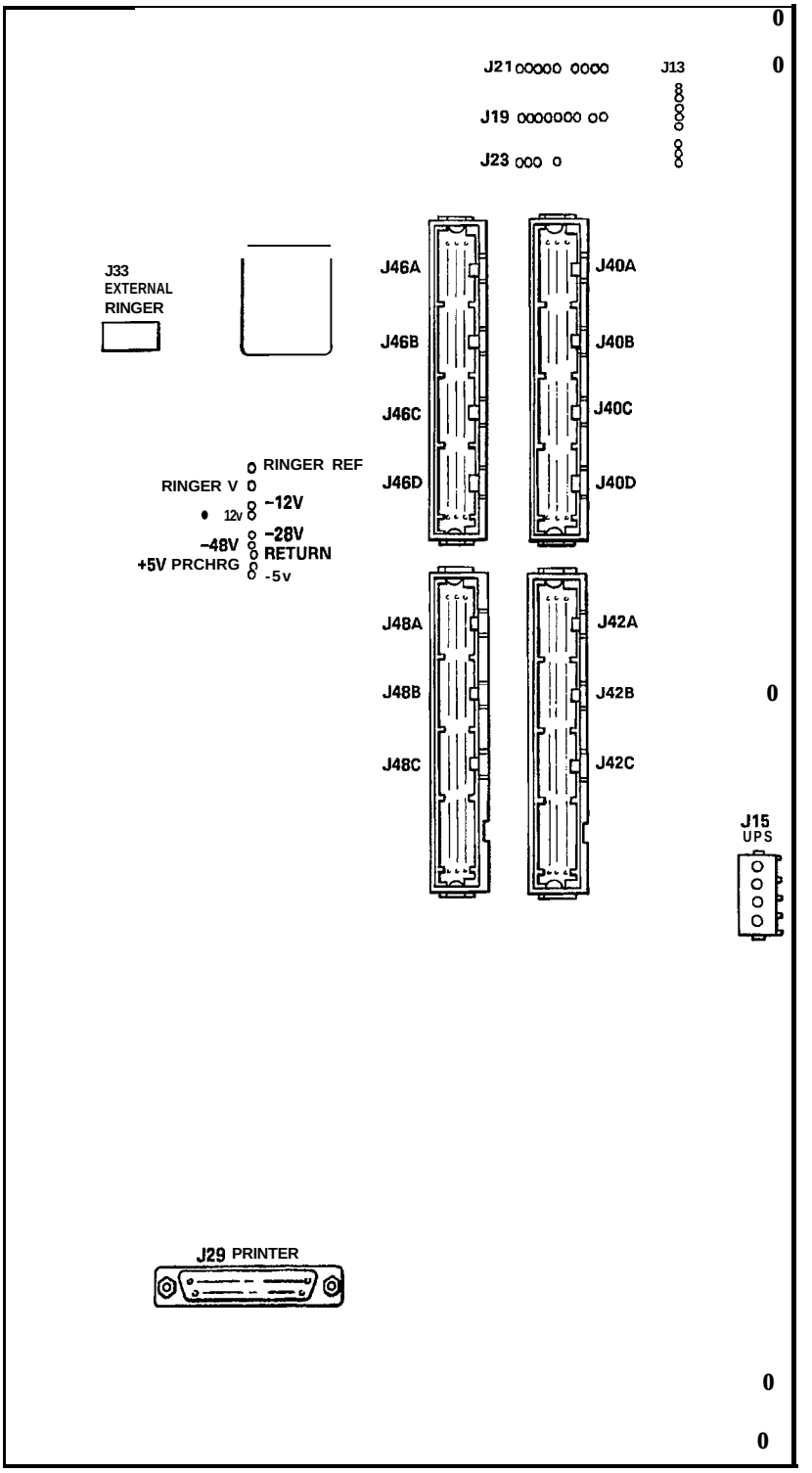


Figure 4-13 Universal Cabinet (Digital Shelf) Signal Cables except to MDF



KA0658E1R0

Figure 4-14 672-Port Control Backplane

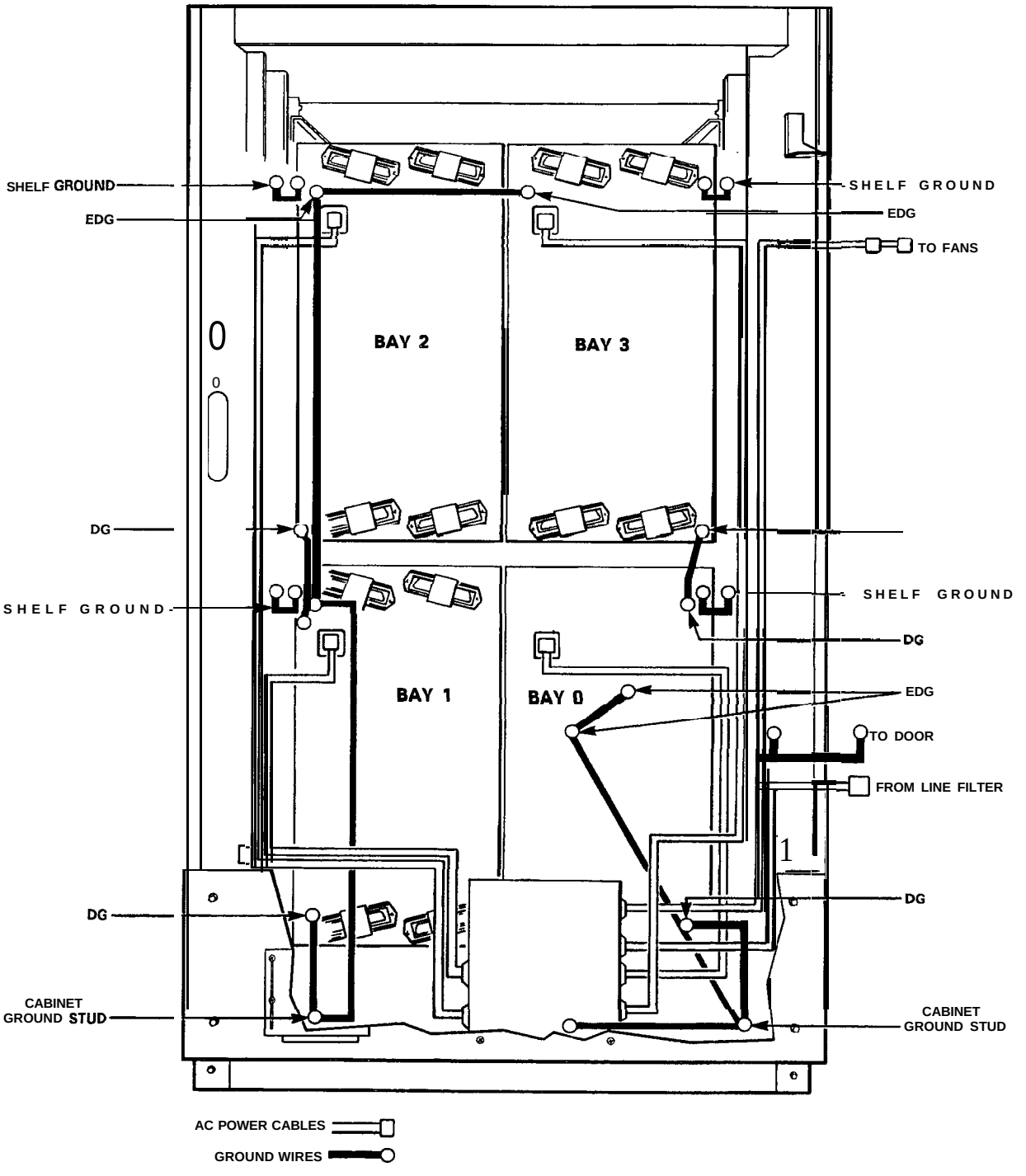


Figure 4-15 Rear View of 672-Port Control Cabinet – Power and Grounding

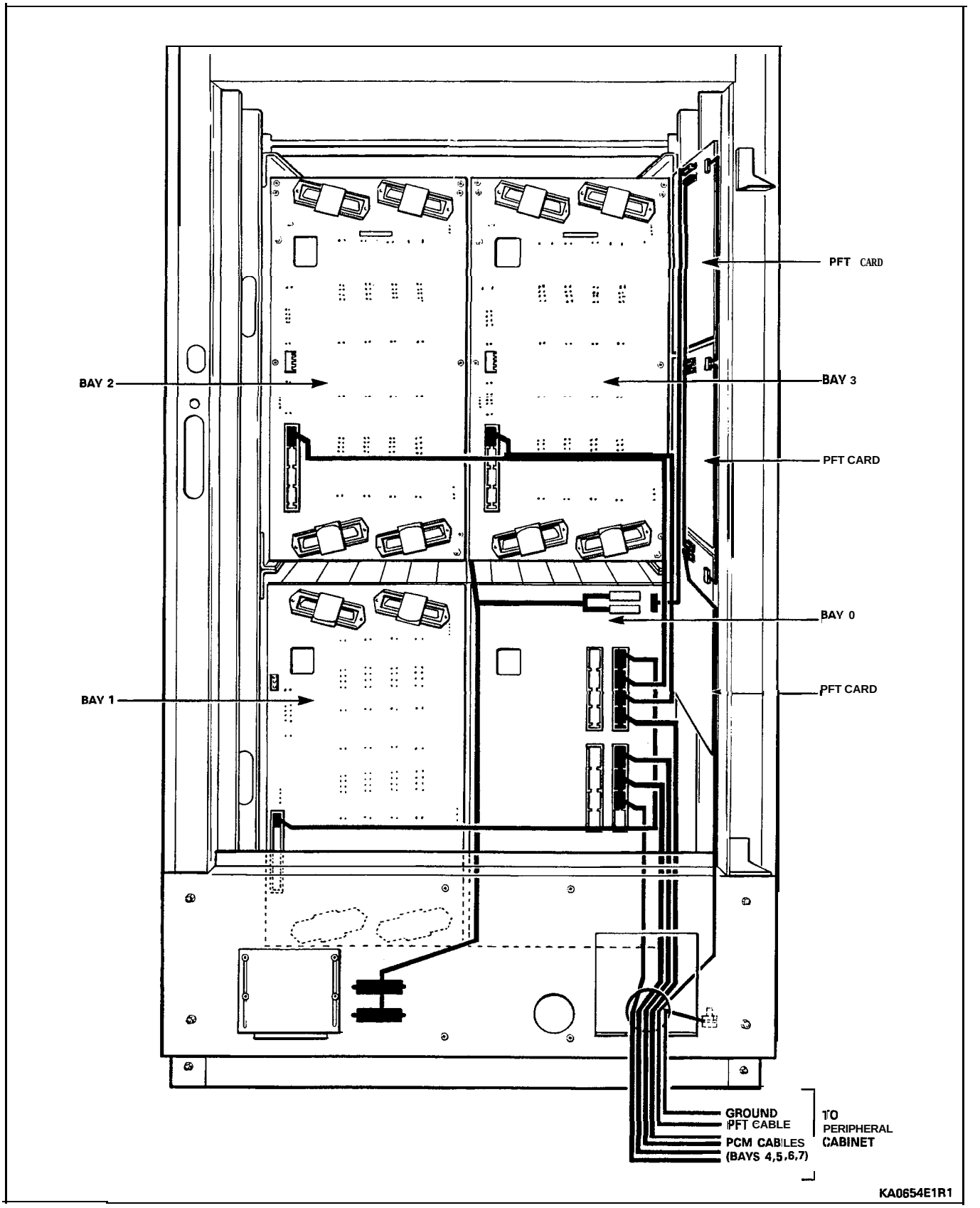


Figure 4-16 Rear View of 672-Port Control Cabinet - PCM Signal Cables

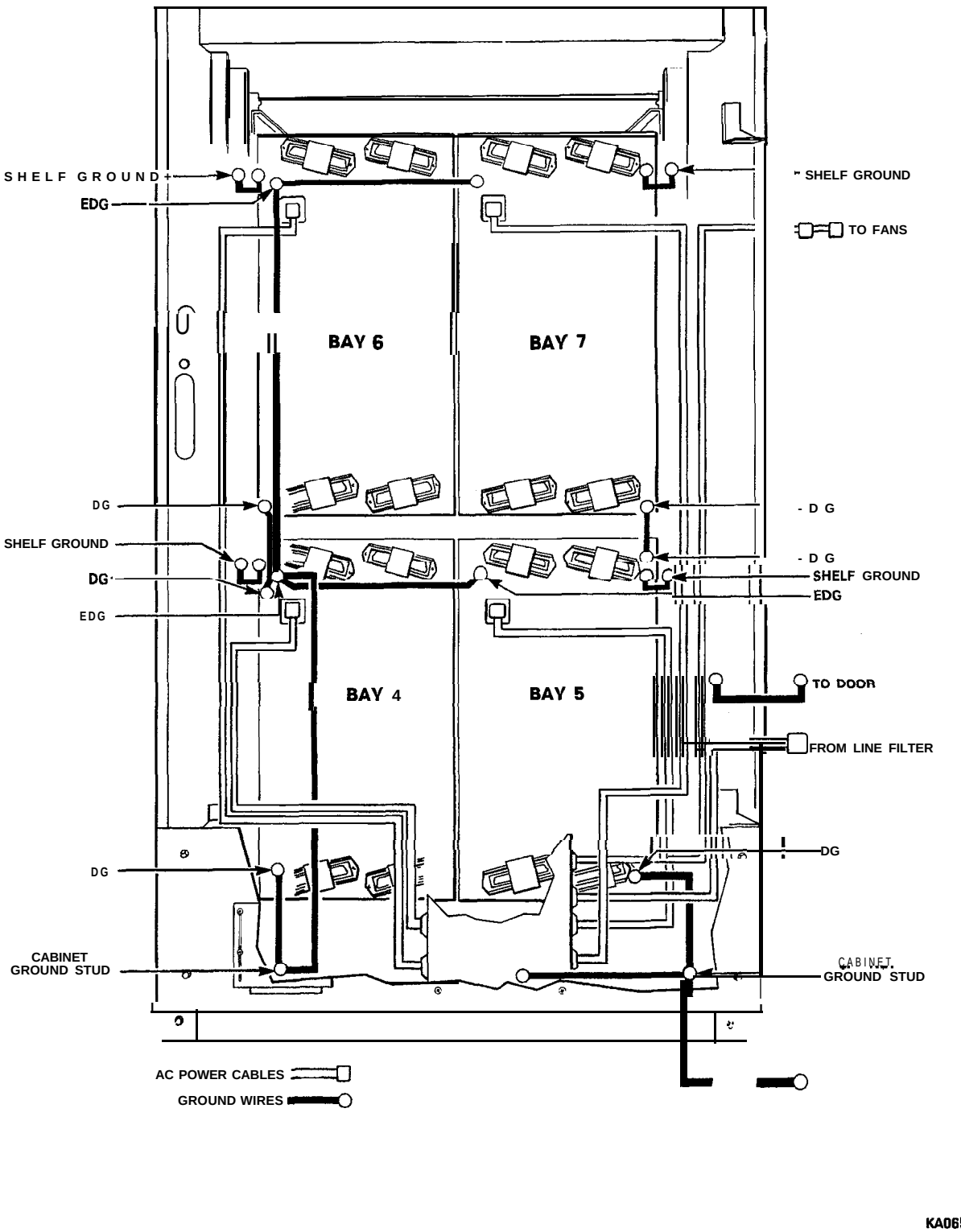


Figure 4-17 Rear View of 672-Port Peripheral Cabinet – Power and Grounding

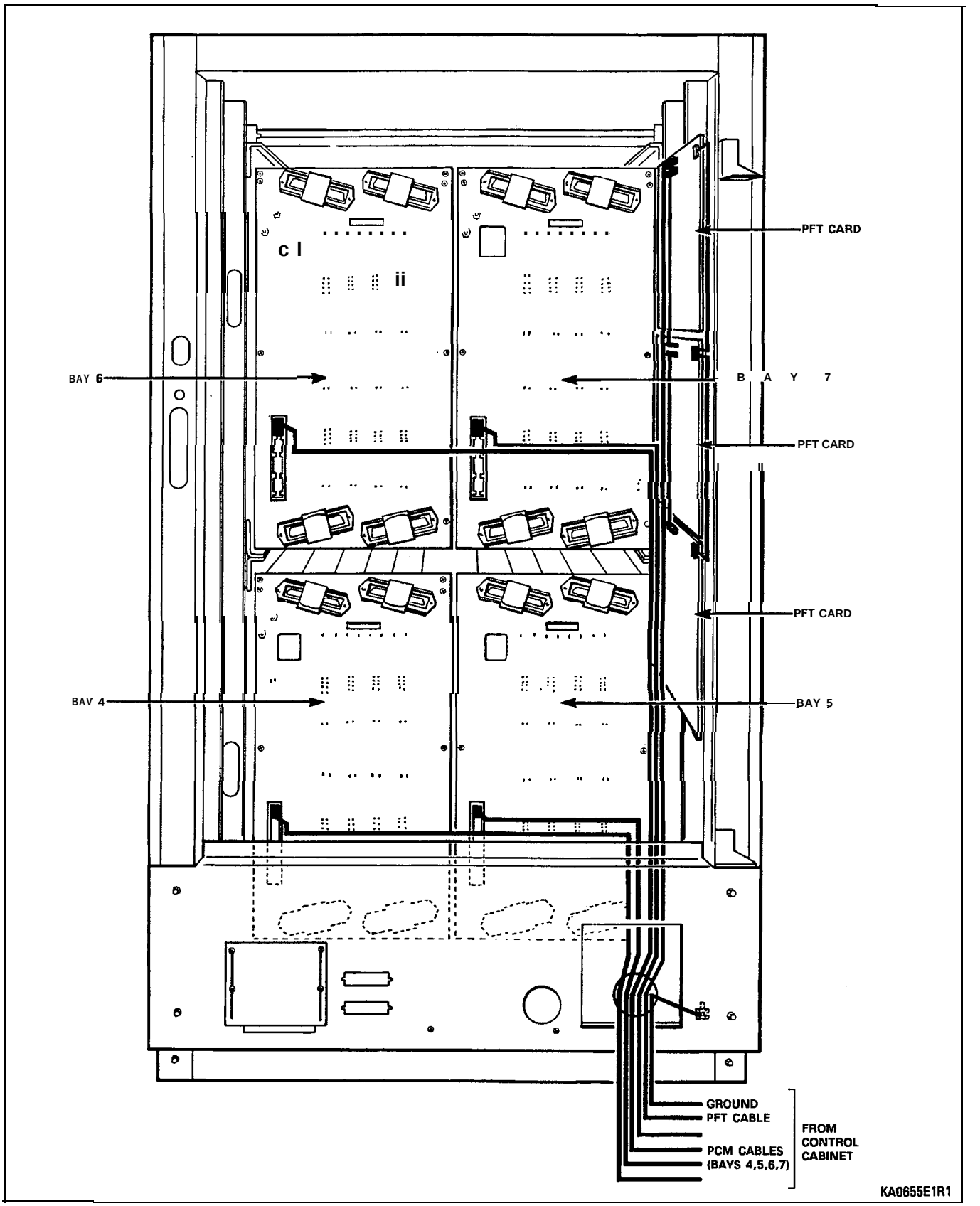


Figure 4-18 Rear View of 672-Port Peripheral Cabinet - PCM Signal Cables

5. INSTALLATION CHARTS

5.01 Follow the Installation Charts, in sequence, to install an SX-200 DIGITAL PABX. Skip those charts for equipment that is not being installed at this site.

5.02 Section MITL9 109-094-2 1 0-NA, Customer Data Entry, describes how to enter data into the system to make it operational. Installation Forms, Section MITL9109−094−206−NA, includes Tip and Ring assignment forms for all card positions in the system.

Precautions

5.03 When installing the system certain precautions must be observed, particularly when handling PCB cards, using test equipment to measure voltages. These precautions are detailed below:

(a) When replacing PCB cards ensure that power is first switched off (where this is possible), but maintain the ground connections to the equipment. Power must be OFF, when inserting or removing common control cards, as identified on the card front panels.

(b) Always wear an antistatic wrist strap when handling printed circuit cards. Handle PCB cards only by the edges and avoid contact with any exposed electrical connections. When removing a new card from its package, touch the ground bar first to release any static voltage buildup, prior to insetting it in the equipment.

(c) Conductive packages (antistatic bags) should be grounded prior to opening them to remove the contents, and similarly grounded prior to placing a card in the package. Suspected faulty cards should be placed in conductive packages to prevent further possible damage to the cards. Cards that are not correctly packed in antistatic bags when returned will not be covered by any warranty.

Overview of System Installation

5.04 The Installation charts are designed to instruct an installer how to install a maximum configured system. Whenever less than a maximum system is being installed, some of the instructions will not be applicable. It is imperative that the System Configuration for each installation be completed accurately, to allow the installer to identify which equipment is being installed and which instructions are relevant.

5.05 An upgrade from an SX-200 PABX to an SX-200 DIGITAL PABX is performed in the same method as an installation of a 2-cabinet system, except that the Peripheral cabinet and some of its equipment is already in place (note that equipment which is not used in an SX-200 DIGITAL PABX configuration must be removed from the existing configuration).

System Configuration

5.06 The System Configuration identifies all equipment that is part of this installation, defines where each is located within the PABX, and to which circuit or equipment each is connected external to the PABX. The Configuration also identifies the information that must be programmed into the database to define this equipment to the processor. Refer to Section MITL9109-094-180-NA, Engineering Information, for the configuration rules for the PABX.

672 Port System installation

5.07 The Control Cabinet has a Control shelf installed in its lower position, which contains Bay 0 (Control Bay) and Bay 1 (Peripheral Bay); the Peripheral cabinet has a Peripheral shelf with one or two Peripheral Bays (4 and 5) in its lower position. The Peripheral cabinet also includes an Intercabinet Cable Assembly (672 port) which connects to the Control cabinet. Chart 8-l describes how to convert a 336 port Control cabinet into a 672 port Peripheral cabinet.

5.08 The expansion procedure for the 672 port system is to add a peripheral shelf (with Bay 2), then add the second backplane (Bay 3), then add the Peripheral cabinet with one shelf (Bay 4), then a second backplane (Bay 5), then to add the second shelf (with Bay 6) to the Peripheral cabinet, and finally to add Bay 7.

5.09 The following list summarizes the procedure for installing a 672-Port PABX using the Installation Charts contained in this Part.

Verify the ground connection; refer to Chart 5-5.

If upgrading a 336 port system, complete the conversion of the existing cabinet to a 672 port Peripheral cabinet now; refer to Chart 8-l.

Install the Control cabinet (and the Peripheral cabinet if two cabinets are being installed concurrently). Refer to Chart 5-4.

Install the Intercabinet Cable Assembly (672 port) between the cabinets, and connect the ground lead of the cable to the ground stud in each cabinet.

Install digital peripheral shelves or bays, if required, at this time, Refer to Chart 5-10.

Install Power Fail Transfer cards; the first three must be installed in the Control cabinet, the fourth, fifth, and sixth must be in the Peripheral cabinet. Refer to Chart 5-l 1.

Install the PCM cables between the peripheral backplanes and the Control Bay.

Install the cables between the backplanes and the MDF; refer to Chart 5-16.

Install Bay Power Supply cards into each Bay; at the rear of the cabinet, connect the ac power cords to each BPS.

At the front of the cabinet, put on the antistatic wrist strap and install the cards (except MCC and SMC); select the required options on trunk cards and other cards which have selectable options. Refer to Chart 5-22.

Install the Floppy Disk Drives into their slots in the Control Bay.

Install the Switch Matrix Card into its slot in the Control Bay.

Install the memory module onto the Main Control Card, and install the Decryption Module onto the MCC; install the MCC into its slot in the Control Bay. Refer to Chart 5-23.

CHART 5-I
PREPARE SYSTEM CONFIGURATION

Step	Action	Comments
1.	Identify all stations, trunks, and other equipment to be connected to the system.	This information may be prepared before the installation begins, by a customer service representative for the installer.
2.	Identify the quantities and types of printed circuit cards to be installed.	
3.	Assign stations and trunks to specific cards and assign cards to appropriate slots within the system.	This ensures proper handling and distribution of traffic.
4.	Ensure that all material required for the installation is present, such as telephone sets, cables, cross-connection blocks.	This practice describes the installation of the equipment cabinets only; however, this other equipment is required to make the system function.
5.	Complete a Tip & Ring Assignment form for each 25-pair cable terminated at the cross-connection field.	Keep these forms with the system to assist in troubleshooting and changing the configuration. Keep them up-to-date since they cross-reference all peripheral equipment, connections, and cards.

CHART 5-2
UNPACK EQUIPMENT CABINETS AND EQUIPMENT EXCEPT PRINTED CIRCUIT BOARDS

step	Action	Comments
1.	Cut and remove retaining straps.	
2.	Open and remove triwall cartons and other packing material.	Refer to Figure 5-l.
3.	Remove the cabinet from the shipping pallet.	
4.	Remove plastic sheet from cabinet.	CAUTION: Do not open or unpack any printed circuit board cartons.
5.	Unpack cartons and check contents against paging lists.	Retain some packing material in case any items must be returned.

CHART 5-3
INSPECT EQUIPMENT

Step	Action	Comments
1.	Remove keys taped to top of cabinet.	
2.	Unlock and open cabinet front door.	Ensure that cabinet doors open and close easily.
3.	Tighten all shelf retaining screws.	Make sure that all components within the cabinet are secure and undamaged.
4.	Verify cards received against invoices.	DO NOT UNPACK PCB CARTONS OR REMOVE cards from their antistatic bags at this time.
5.	Visually check shelves for damage. Ensure that all connector contacts are free of foreign matter and undamaged.	
6.	Tag any damaged items and complete relevant section of Damage Report.	
7.	Close and lock cabinet door.	
8.	Remove shipping screws from rear door power supply.	Not applicable for single shelf cabinet.
9.	Unlock and open rear door.	
10.	Open power supply door, if present.	
11.	Visually inspect power supply for loose or damaged components.	
12.	Check that power supply cable harness is secure and free from damage.	
13.	Tag any defective item and continue with inspection; complete relevant portion of Damage Report.	

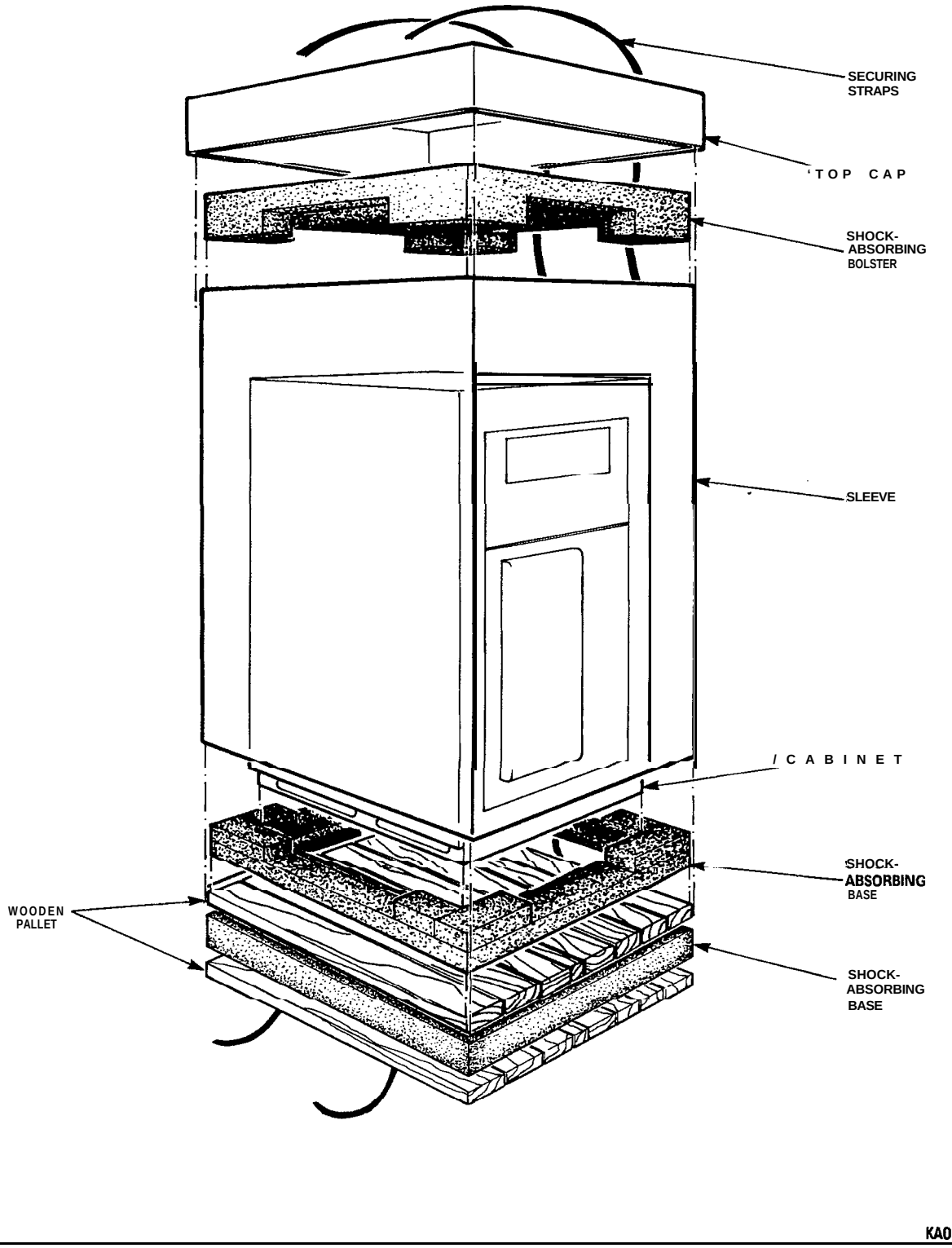


Figure 5-l Remove External Packaging

CHART 5-3 (CONT'D)
INSPECT EQUIPMENT

Step	Action	Comments
14.	Check that all cable connectors are seated firmly and free from damage.	
15.	Visually inspect backplane for damage.	
16.	Close power supply door.	
17.	Tag defective items and continue. Fill in relevant portion of Damage Report.	
18.	Repack tagged items and return according to local procedures.	

CHART 5-4
INSTALL CONTROL CABINET

Note: Ideally, a Control cabinet is installed beside a Peripheral cabinet (existing SX-200 cabinet if upgrading). The cabinets may be separated by up to the length of the cable which connects them together.

Step	Action	Comments
1.	Place the Control cabinet into its assigned position.	
2.	Ensure that the doors open freely, that there is adequate room for access, and that the AC receptacle and cross-connect blocks are within reach of the cables from the cabinet.	
3.	Before making any connections, perform the "Verify Ground Connection" chart to ensure an adequate ground. When the ground has been verified, connect the ground wire to the ground stud within the Control cabinet.	
4.	Allow enough room for cables to enter the base of the Control cabinet from the sides or rear.	
5.	Remove the Bay numbering labels from inside the front door, and affix the appropriate labels onto the inside of each cardfile at the back, beside each backplane. Bay numbering is shown in Figure 4-15 and Figure 4-17.	These numbers are supplied for both cabinets; keep unused numbers to apply to new Bays as the PABX is expanded.

WARNING

THE FANS INSTALLED IN THE UPPER BACK DOOR OF THE CONTROL CABINET ARE HIGH AIR-FLOW DEVICES. LOOSE FOREIGN OBJECTS PLACED IN CLOSE PROXIMITY TO THE FANS MAY BE PULLED INTO THE IMPELLERS. SERVICE AND INSTALLATION PERSONNEL MUST MAINTAIN A SAFE DISTANCE FROM THE FANS IN ORDER TO PREVENT LOOSE PARTS OF CLOTHING OR HAIR FROM BECOMING ENTANGLED IN THE FAN. THE COVERS OVER THE FANS PREVENT ACCIDENTAL CONTACT WITH THE ROTATING PARTS, AND MUST ALWAYS BE INSTALLED.

CHART 5-5
VERIFY GROUND CONNECTION

Step	Action	Comments
	Before installation can begin, an insulated #6 AWG green ground wire must be connected between the equipment location and an approved ground (metallic cold water pipe or equivalent where it enters building).	
1.	Before plugging any cards into the cabinet, or connecting the Equipment Ground wire, ensure the equipment circuit breakers are turned off.	Do not power up the PABX.
2.	Plug the AC line cord into the building AC receptacle.	The #6 AWG green ground wire should be connected to an approved ground, but not to the PABX.
3.	Measure the AC voltage between the PABX ground lug and the "approved" ground wire.	Use a good quality, calibrated, digital multimeter, and always begin measurements at the highest range setting.
4.	If the voltage is greater than 1.0 V, stop, and locate another approved ground.	If help is needed, consult your engineering support group.
5.	When the voltage is less than 1.0 V, measure the resistance; it should be less than 5 ohms. If the resistance is greater than 5 ohms, take corrective action to reduce the resistance to less than 5 ohms.	Begin the measurements at the highest resistance range. If help is needed, consult your engineering support group.
6.	Connect the verified ground wire to the common ground stud in the control cabinet.	

CHART 5-6
INSTALL ANALOG PERIPHERAL CABINET

Step	Action	Comments
1.	Unpack the cabinet and other items, except printed circuit cards. Check items received against packing list.	
2.	Inspect the cabinet, shelf, and other items for loose, missing, or damaged parts.	Ensure that the doors open and close freely, and all cables are secure and in place. Remove shipping screws from rear door.
3.	Place the peripheral cabinet beside of the control cabinet.	
4.	Route PCM cable PN9 108-026-000-NA between the two cabinets; at this time connect only the ground braid to the ground stud in each cabinet, and the Control cabinet end to J17B of the Control shelf backplane.	
5.	Install Surge Clamp on Bay 4, Slot 16, pin 10. Ensure that the top of Surge Clamp is towards the top of the shelf. The top of the clamp plugs onto pins 9 and 10.	Refer to Figure 4-l 1.

CHART 5-7
INSTALL A 672-PORT DIGITAL PERIPHERAL CABINET

Step	Action	Comments
1.	Unpack the cabinet and other items, except printed circuit cards. Check items received against packing list.	
2.	Inspect the cabinet, shelf, and other items for loose, missing, or damaged parts.	Ensure that the doors open and close freely, and all cables are secure and in place. Remove shipping screws from rear door.
3.	Place the peripheral cabinet beside the control cabinet.	
4.	Route Intercabinet Cable Assembly (672 port) between the two cabinets; at this time connect only the ground lead to the ground stud in each cabinet; the Intercabinet Cable Assembly (672 port) is installed into the rear power distribution panel of each cabinet (the adapter plate is not used if the cable flange matches the panel opening). Ensure that all screws are installed securely to hold the Intercabinet Cable Assembly (672 port) flange (and the adapter plate if required) to each cabinet.	Refer to Figure 5-2.

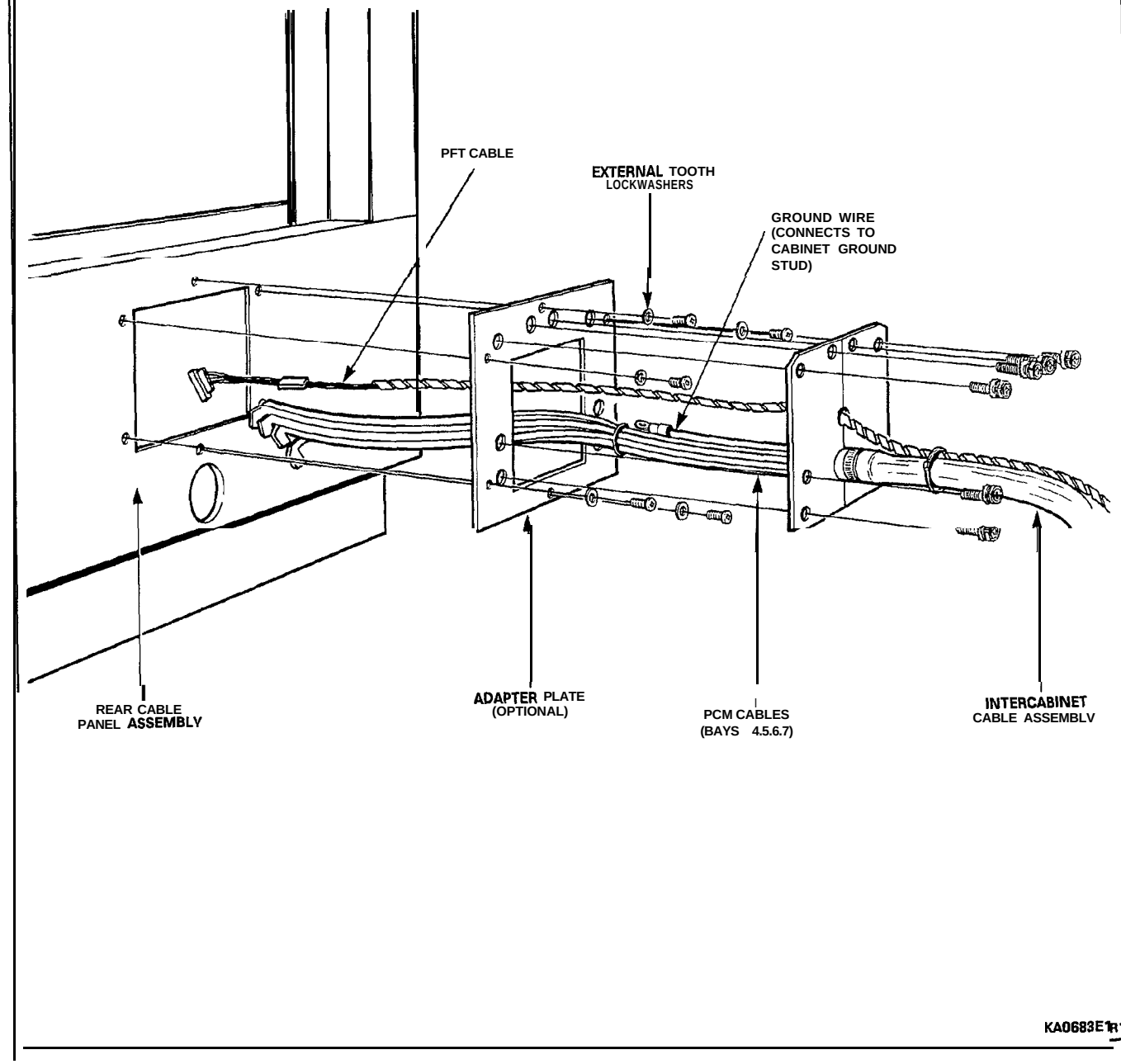


Figure 5-2 Installation of an Intercabinet Cable Assembly (672 port)

CHART 5-8
INSTALL AN ANALOG BAY 3 KIT INTO AN SX-200 CABINET

WARNING

THESE INSTRUCTIONS MUST BE FOLLOWED EXPLICITLY SINCE THEY INVOLVE WORK WITH AND CHANGES TO THE PRIMARY POWER SUPPLY TO THE UNIT.

Only persons who have successfully completed a MITEL Installation and Maintenance training course for the SX-200 DIGITAL PABX should perform this procedure.

Step	Action	Comments
1.	Unpack kit and inspect contents for loose, damaged, or missing items.	
2.	Open Control cabinet doors, set power switches to OFF, set main breaker on rear door to OFF, and remove line cord from wall outlet.	
3.	Install the ground wire (between frame and Bay 3 card file) to the frame.	Refer to Figure 5-3.
4.	Remove rear door fan assembly - unplug fan supply cord, detach cord strain relief at stud - remove door ground wire at door stud - remove door - retain hardware	
5.	Remove rear door - unplug AC distribution unit supply cord and unfasten cord strain relief - remove door ground wire at cabinet ground stud - loosen four screws securing rear door retaining bar - slide retaining bar up, releasing the rear door - replace lower right hand retaining bar securing screw with #10 x 7/8" screw from kit (to secure main power cable strain relief).	
6.	Unpack the Interconnect and Power Fail Transfer (PFT) cards; inspect for loose, damaged, or missing items.	The optional PFT card should be installed concurrently.
7.	Install the Interconnect card on the upper left side of the cabinet (from rear) with six sets (screws, lockwashers, and flat washers).	
8.	If a PFT card is to be installed also, remove the eight securing screws from the front of the Control shelf and slide it forward.	

CHART 5-8 (CONT'D)
INSTALL AN ANALOG BAY 3 KIT INTO AN SX-200 CABINET

Step	Action	Comments
9.	Install the PFT card below the Interconnect card with six sets (8-32 x 3/8" screws, lockwashers, flat washers).	The PFT card is optional.
10.	Replace the Control shelf with its associated hardware.	Be sure that the antistatic wrist strap is securely in its original location.
11.	Connect the wiring harness, 2nd D.C., (pn 103148501) between the Interconnect card and the PFT card. Interconnect / Colour / PFT TB301-1 / Brown / TB-3 TB30 I-2 / Blue / TB-5 TB30 I-3 / nc TB30 I-4 / White / TB-6 TB30 I-5 / Red / TB-7 TB30 I-6 / Orange / TB-4 TB30 I-7 / Yellow / TB-2	
12.	Install cutover monitor cable (pn 114905501) from P18 on Interconnect card to TB-7 on PFT card. Secure connector with a tie wrap.	
13.	Connect ground strap (pn 105671501) from TB301-3 to Control shelf frame with 6-32 x 5/16" screw, lockwasher and external tooth lockwasher.	Refer to Figure 5-4.
14.	Unpack shelf; check backplane and shelf for cracks, bent pins, loose or missing items, or other damage. Connect brown backplane wire near TB1 to shelf frame with 6-32 x 3/8" screw, external tooth lockwasher, lockwasher, nut, if not already connected.	
15.	Place shelf onto shelf guides and secure from Front with eight 10-32 screws, lockwashers, and flat washers.	
16.	Connect ground wire found attached to upper right corner of Control shelf frame to lower right corner of Peripheral shelf (Bay 3), using 6-32 x 3/8" screw, external lock washer, lockwasher, and nut.	
17.	Route the DC power cable (pn 114904501) within the cabinet. The cable is routed up from the power supply, across the top of the cabinet, and down to the terminal blocks on the backplane and interconnect card.	Refer to Figure 4-7 for cable routing. Refer to Figure 5-5 for cable connections.

CHART 5-8 (CONT'D)
INSTALL AN ANALOG BAY 3 KIT INTO AN SX-200 CABINET

Step	Action	Comments
18.	Connect the DC power cable leads to the Bay 3 backplane, as follows: TBI-1 purple (-10 V) TBI-2 yellow (-5 V) TBI-3 brown (0 V) TBI-4 orange (+8 V) TBI-5 nc TB2-1 nc TB2-2 gray (90 V) TB2-3 nc TB2-4 grn/yel (gnd to card file frame) TB2-5 blue (-48 V)	
19.	Connect the DC power cable to the Interconnect card as follows: TB301-1 brown (0 V) TB301-2 blue (-48 V) TB301-3 braided gnd cable to Control shelf frame and green/yellow from cable TB301-4 nc TB301-5 nc TB301-6 orange (+8 V) TB301-7 yellow (-5 V)	
20.	Route intershelf PCM Control cabinet cable into space between shelves; connect marked end to J17A on the Control backplane.	
21.	Install cables between Bay 3 and Interconnect card; 18 inch (pn 114909501) between P6 and P16, and 25 inch (pn 114910501) between P5 and P17. Secure each cable with a cable tie and a connector screw.	
22.	Install a surge clamp onto the Bay 3 backplane at slot 16, pins 9 to 32; ensure that surge clamp is installed right side up (see label on clamp).	
23.	Install cables between Bay 3 and distribution frame.	
24.	Unpack rear door power supply assembly; inspect for physical damage, and correct type.	If damaged or wrong type, repack in original container and return with completed Damage Report.

CHART 5-8 (CONT'D)
INSTALL AN ANALOG BAY 3 KIT INTO AN SX-200 CABINET

Step	Action	Comments
25.	Place rear door power supply onto shim washer and lower door support and lock into closed position (this will hold the rear door power supply while installing upper support).	
26.	Install upper support over power supply hinge pin and secure to cabinet with 4 sets (IO-32 screw, lockwasher).	
27.	Connect ground lead to cabinet ground stud using hardware from original door.	
28.	Plug AC distribution unit assembly supply cord into the power supply outlet. Attach cable strain relief to power supply door by removing power supply cover screw and replacing it with an 8-32 x 5/8" long screw which also secures the cable strain relief.	
29.	Connect the DC power cable connector to the power supply. Attach power cable strain relief by removing a power supply cover hold down screw and replacing it with an 8-32 x 5/8" screw to fasten cable strain relief to cover.	
30.	Install rear door fan assembly and two nuts on hinge bracket.	
31.	Attach door ground wire to door ground stud; use previously removed hardware.	
32.	Plug fan power supply cord into connector on fan door and attach cord strain relief to stud on fan door; use previously removed hardware.	
33.	Put on the antistatic wrist strap.	Always wear the antistatic wrist strap when handling printed circuit cards.
34.	Unpack each printed circuit card and insert it into its assigned slot.	
35.	Connect PCM cable previously routed between the shelves to connector J2 on the front of the Digital Interface Card at Bay 3, Slot 18.	
36.	Power up PABX and reprogram using Customer Data Entry.	

CHART 5-9
INSTALL AN ANALOG BAY 3 KIT INTO AN SX-200 UNIVERSAL CABINET

WARNING

THESE INSTRUCTIONS MUST BE FOLLOWED EXPLICITLY SINCE THEY INVOLVE WORK WITH AND CHANGES TO THE PRIMARY POWER SUPPLY OF THE UNIT.

Only persons who have successfully completed a MITEL Installation and Maintenance training course for the SX-200 DIGITAL PABX should perform this procedure.

Step	Action	Comments
1.	Unpack kit contents and inspect for loose, damaged, or missing items. Refer to parts list.	
2.	Open Control cabinet doors, set BPS switches to OFF, set main breaker on rear door to OFF, and remove line cord from wall outlet.	
3.	Install ground wire (between frame and Bay 3 card file) to frame (note: the card file has not been installed yet), therefore connect only frame end now).	Refer to Figure 5-3.
4.	Install Interconnect card with five screws (IO-32 x 1/2) on the upper left side of the cabinet (viewed from rear).	Top right mounting hole goes to sixth hole from top of center side rail.
5.	Install shelf rails 1/2 inch above Control shelf, and secure to cabinet vertical frame using IO-32 x 1/2 screws (shorter brackets - 13 inches long).	Screws into third hole above Control shelf, with horizontal support below, pointing inward.
6.	Unpack shelf; check backplane and shelf for cracks, bent pins, loose or missing items, or other damage.	
7.	Place shelf onto shelf rails and secure to front frame with eight 10-32 screws.	
8.	Connect ground wires from frames and from backplane (brown wire near TB1, grn/yel wire from TB2-4) to card file side panel. Use a 6-32 screw, external tooth washer, lockwasher and nut.	Refer to Figure 5-3 and Figure 5-4 for installation details.
9.	Install power supply control panel above shelf and route leads from switch and LED to rear of cabinet.	
10.	At rear of cabinet, unplug AC wiring from door, fan assembly, and remove ground strap from frame stud; retain hardware. Remove door.	
11.	Connect braided wire (120832501) from upper side panel to Interconnect card (TB301-3).	Refer to Figure 5-4.

CHART 5-g (CONT'D)
INSTALL AN ANALOG BAY 3 KIT INTO AN SX-200 UNIVERSAL CABINET

Step	Action	Comments
12.	Route the DC power cable (pn 114904501) within the cabinet. The cable is routed up from the power supply, across the top of the cabinet, and down to the terminal blocks on the backplane and Interconnect card.	Refer to Figure 4-7 and Figure 5-5.
13.	Connect the DC power cable leads to the Bay 3 backplane, as follows: TBI-1 purple (-10 V) TBI-2 yellow (-5 V) TB1-3 brown (0 V) TB1-4 orange (+8 V) TB1-5 nc TB2-1 nc TB2-2 gray (90 V) TB2-3 nc TB2-4 grn/yel (gnd to card file frame) TB2-5 blue (-48 V)	
14.	Connect the DC power cable to the Interconnect card as follows: TB301-1 brown (0 V) TB301-2 blue (-48 V) TB301-3 braided gnd cable to Control shelf frame and green/yellow wire from cable. TB301-4 nc TB301-5 nc TB301-6 orange (+8 V) TB301-7 yellow (-5 V)	
15.	Connect leads from switch and LED on power supply control panel to mating connector on main DC harness; connect OOT cable connector to P303 on Interconnect card.	
16.	Route intershelf PCM Control cabinet cable into space between shelves; connect marked end to J17A on the Control backplane; the cable should point downwards from the connector.	
17.	Install cables between Bay 3 and Interconnect card; 18 inch (pn 114909501) between P6 and P16, and 25 inch (pn 114910501) between P5 and P17. Secure each cable with a cable tie and a connector screw.	

CHART 5-9 (CONT'D)
INSTALL AN ANALOG BAY 3 KIT INTO AN SX-ZOO UNIVERSAL CABINET

Step	Action	Comments
18.	install a surge clamp onto the Bay 3 backplane at slot 16, pins 9 to 32; ensure that surge clamp is installed right side up (see label on clamp).	
19.	Install cables between Bay 3 and distribution frame.	
20.	Remove six screws that hold the rear cable panel to cabinet; install lower door support onto cabinet and secure with IO-32 screws in eleventh hole from bottom, with the bracket above screw pointing out.	Refer to Figure 5-6.
21.	Replace rear cable panel onto cabinet.	
22.	Unpack rear door power supply assembly; inspect for physical damage, and correct type.	If damaged or wrong type, repack in original container and return with completed Damage Report.
23.	Place rear door power supply onto lower door support, using shim washer, and lock door into closed position (this will hold the rear door power supply while installing upper support).	
24.	Install upper support and shim washer over power supply hinge pin and secure to cabinet with 10-32 screws.	Refer to Figure 5-7.
25.	Open rear door and install blanking plate to cover openings in left side frame, and fasten with screw, lockwasher, and nut. Remove hinges from right side of frame.	
26.	Connect ground lead from rear door power supply to frame ground stud using existing hardware.	
27.	Plug AC distribution unit assembly supply cord into the power supply outlet. Attach cable strain relief to power supply door by removing power supply cover screw and replacing it with an 8-32 x 5/8" long screw which also secures the cable strain relief. Secure AC cable to frame of cabinet near center of power supply.	
28.	Connect the DC power cable connector to the power supply. Attach power cable strain relief by removing a power supply cover hold down screw and replacing it with an 8-32 x 5/8" screw to fasten cable strain relief to cover.	

CHART 5-9 (CONT'D)
INSTALL AN ANALOG BAY 3 KIT INTO AN *SX-200* UNIVERSAL CABINET

Step	Action	Comments
29.	Install rear door fan assembly and tighten two nuts on hinge bracket.	
30.	Attach door ground wire from door ground stud to frame using IO-32 screw and external tooth lockwasher.	
31.	Plug fan power supply cord into connector on fan door and attach cord strain relief to stud on fan door.	
32.	Remove the old hinge brackets for the rear door from the cabinet frame.	
33.	Put on the antistatic wrist strap.	Always wear the antistatic wrist strap when handling printed circuit cards.
34.	Unpack each printed circuit card and insert it into its assigned slot.	
35.	Connect PCM cable previously routed between the shelves to connector J2 on the front of the Digital Interface Card at Bay 3, slot 18.	
36.	Power up PABX and reprogram using Customer Data Entry.	

CHART 5-10
INSTALL DIGITAL PERIPHERAL BAY

CAUTION: This upgrade and installation procedure is to be performed only by qualified personnel who have successfully completed a MITEL Installation and Maintenance Course for the SX-200 DIGITAL PABX.

Step	Action
	INSTALL DIGITAL BAY AND SHELFS
1.	Unpack and inspect contents of kit.
2.	Power down system.
3.	Open front door and slide digital peripheral shelf onto top of existing shelf, and fasten to front rails with eight 10-32 x 0.5 in. screws, as shown in Figure 5-8.
4.	Install filler plate above shelf, and fasten to front rails with two 10-32 x 0.5 in. screws, as shown in Figure 5-8.
5.	At front of cabinet, attach antistatic wrist strap to your wrist, and install Bay Power Supply.
6.	Open rear door, and connect ground wires from new shelf as shown in Figure 5-9. Use 10-32 x 0.5 in. screw and external tooth lock washer to connect to side frame. Refer to Figure 5-10 and Figure 5-12 for details of ground connections. A 336 port peripheral shelf is shown; however, 672 port peripheral shelves are the same.

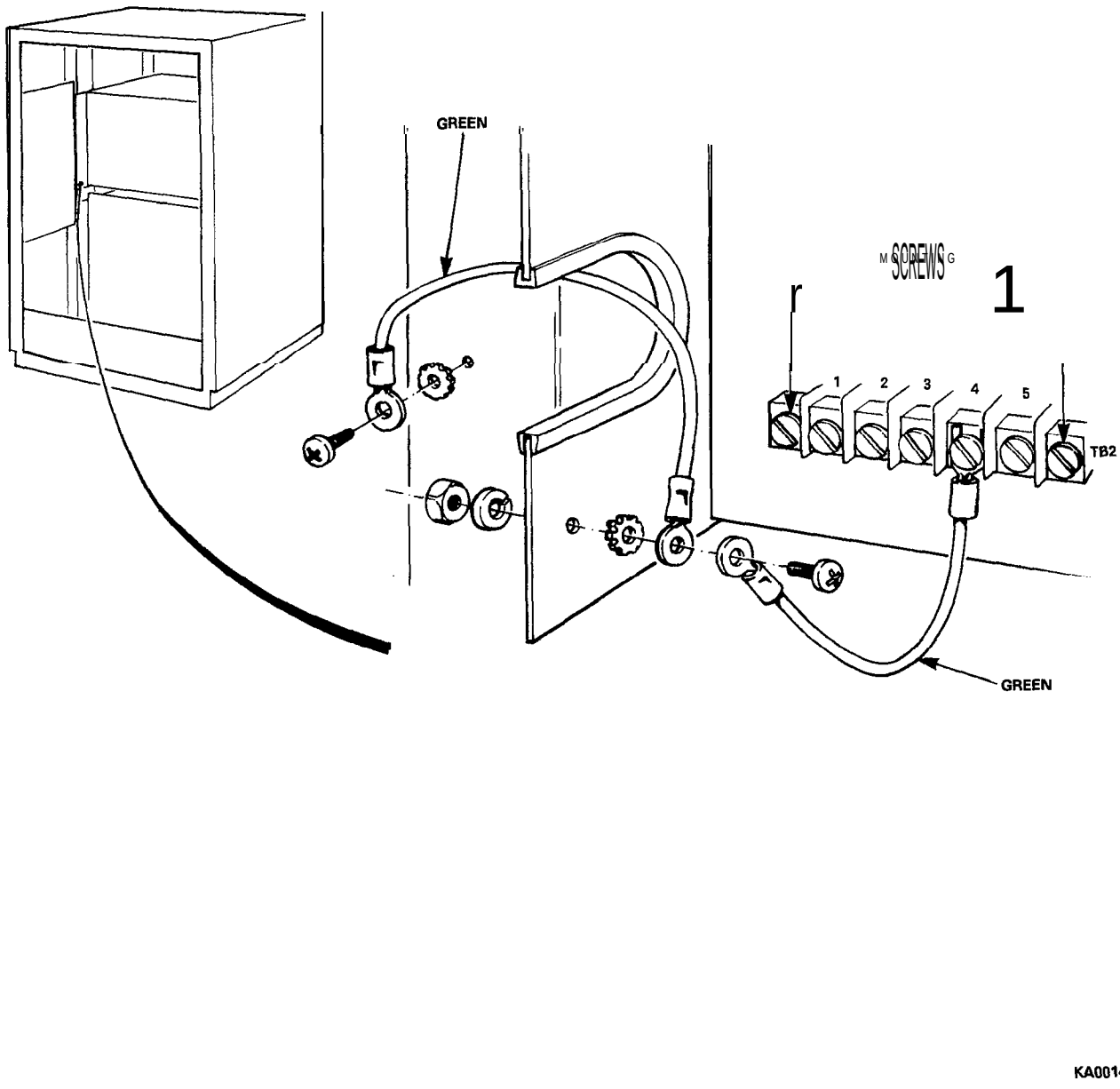


Figure 5-3 Cardfile to Frame and Backplane Ground Connections

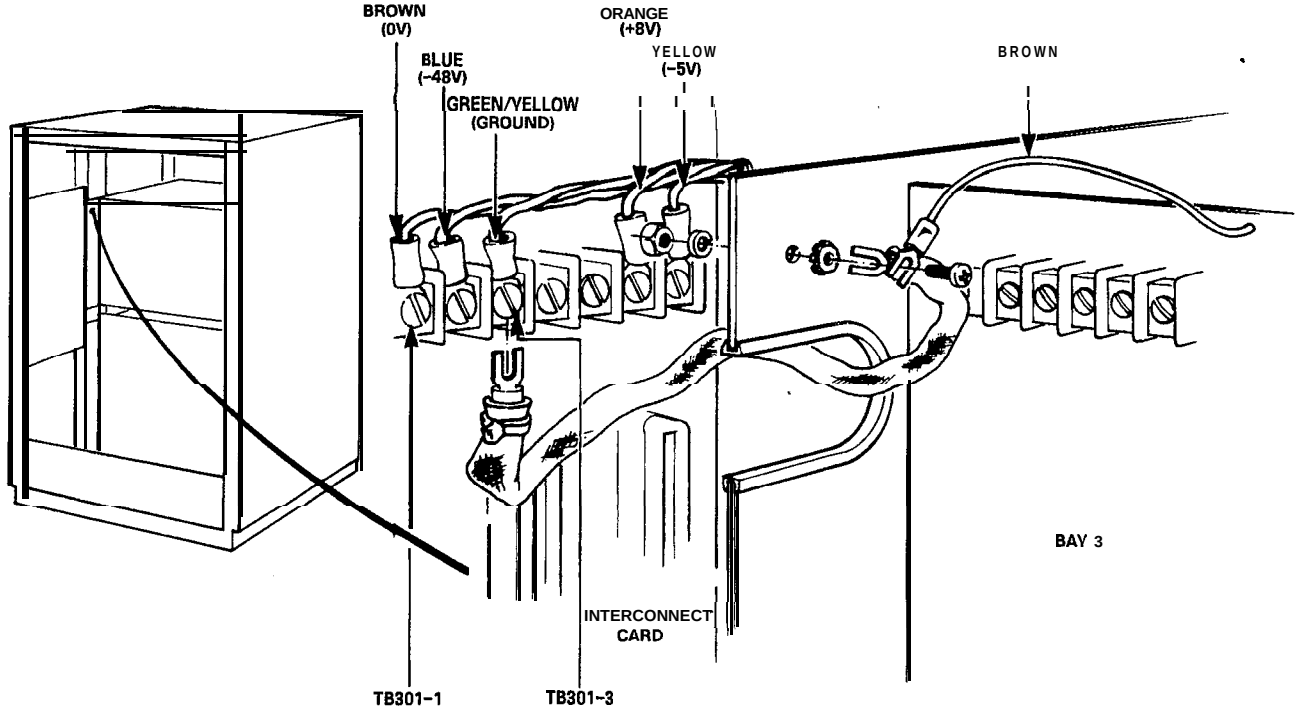


Figure 5-4 Interconnect Card Ground and DC Power Cable Connections

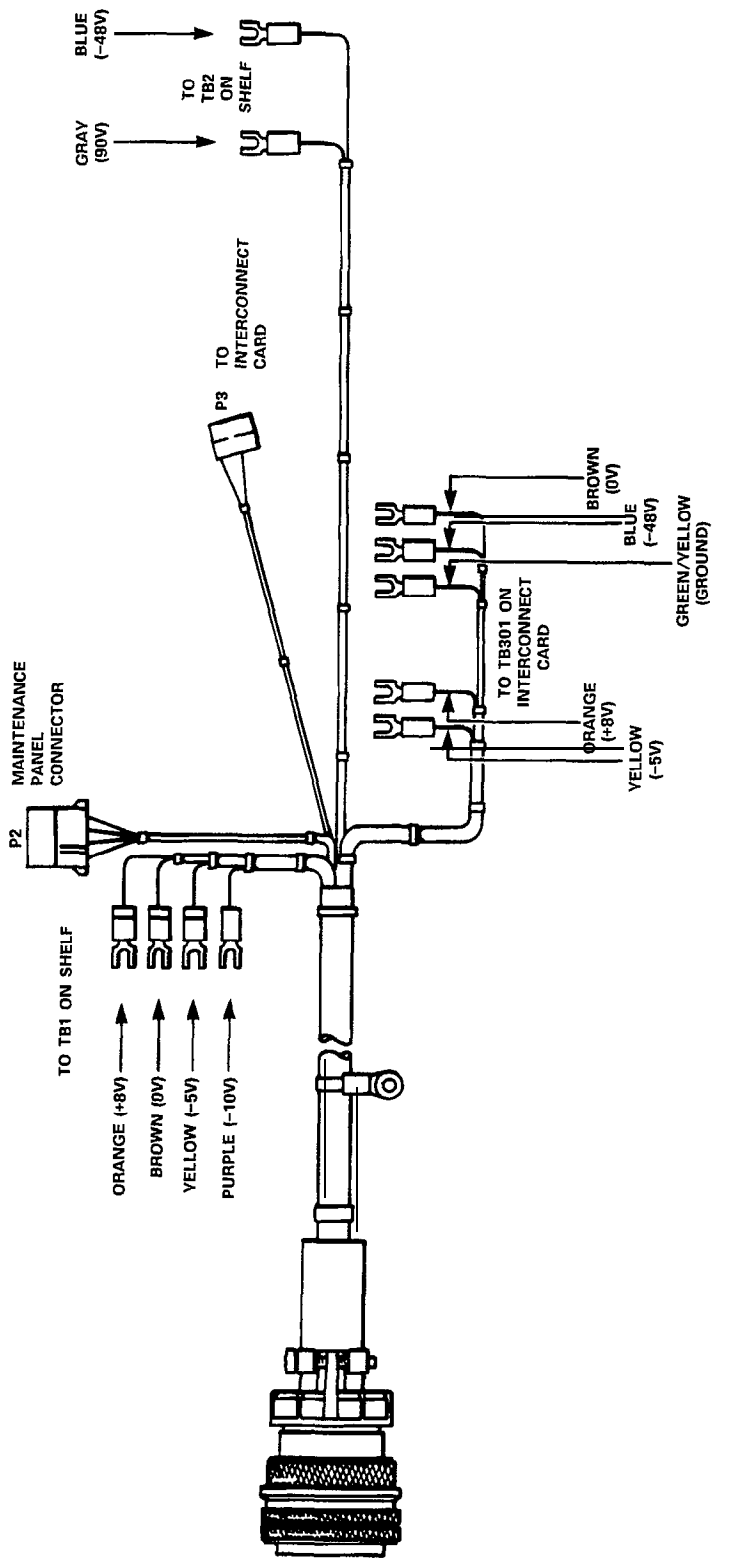


Figure 5-5 DC Power Cable (PN114904501)

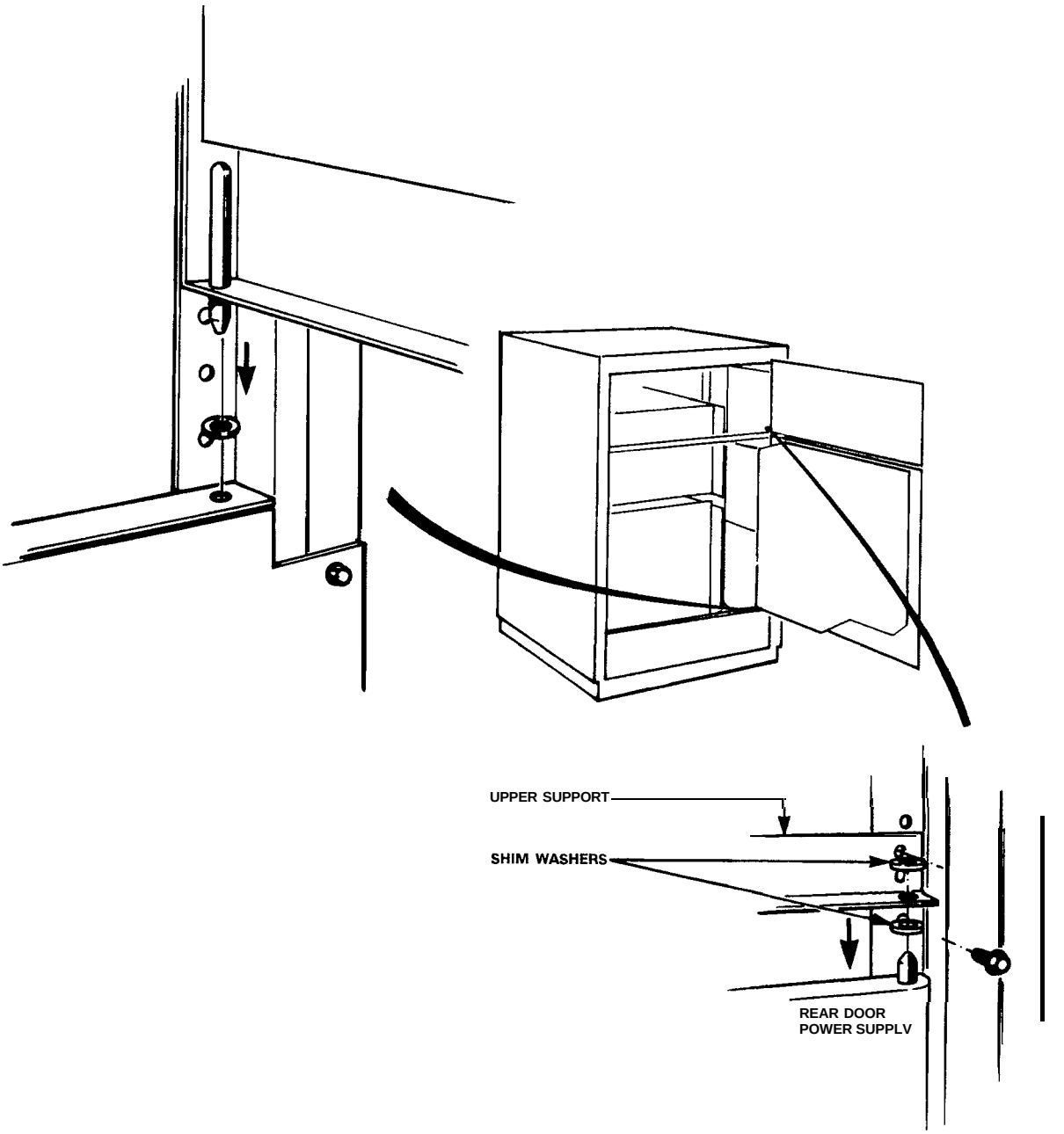


Figure 5-6 Installation of Rear Door Power Supply and Supports

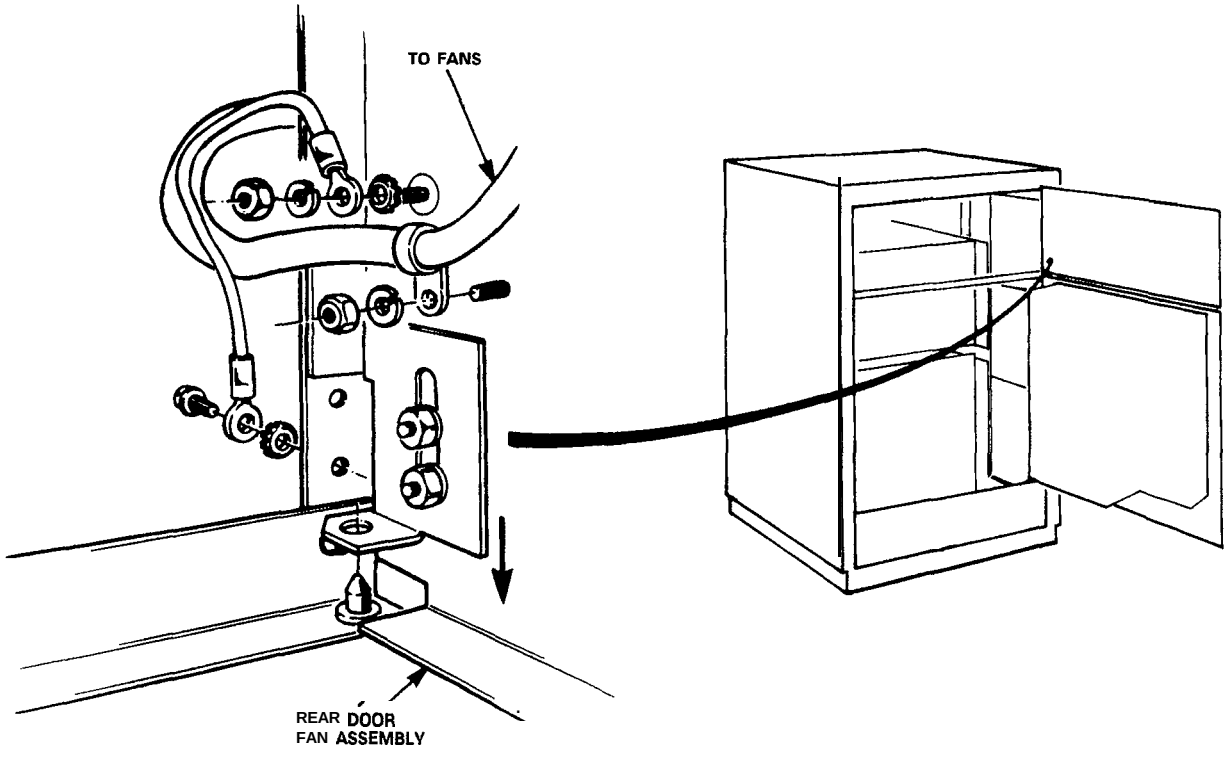


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Figure 5-7 Installation of Fan Assembly

CHART 5-10 (CONT'D)
INSTALL DIGITAL PERIPHERAL BAY

Step	Action
7.	At rear of cabinet, connect PCM cable to J17A of Bay backplane; connect PCM ground leads to associated faston connectors. In a 336 port system, Bay 3 connects to J17A and Bay 4 connects to J17B of the COMBO backplane. In a 672 port system, PCM cables come from Bay 0 or from the Intercabinet Cable Assembly (672 port).
8.	At rear of cabinet, cut off cable ties securing power cable to bottom of cabinet in a 336 port configuration, or to side rail in a 672 port configuration.
9.	Route power cable from AC distribution along inside side of cardfile side plates, tying power cable and braided ground cable to cardfile, and connect plug to Bay Power Supply.
10.	If installing Digital Backplane kit concurrently, proceed to INSTALL DIGITAL BACKPLANE ASSEMBLY instructions.
11.	Connect signal cables to Bay backplane, route out of cabinet with existing signal cables, and cross connect at MDF.
12.	At front of cabinet, attach antistatic wrist strap to your wrist, and install Bay Control Card and new peripheral cards.
13.	Close doors, power up system, and update CDE to include new equipment.
	INSTALL DIGITAL BACKPLANE ASSEMBLY
1.	Unpack and inspect Digital Backplane kit.
2.	Power down system, and open rear door.
3.	Attach backplane to cardfile with six screws, flat washers, and lock washers (as existing Bay); place double tab connector at lower left corner instead of a flat washer.
4.	Connect two ground wires to Bays, as shown in Figure 5-9, using hex nuts and split lock washers. Refer to Figure 5-10 and Figure 5-12 for details of ground connections.
5.	Open front door and install Bay Power Supply in its slot.
6.	At rear of cabinet, cut off cable ties securing power cable to bottom of cabinet in a 336 port configuration, or to side rail in a 672 port configuration.
7.	Route Bay AC power cord up inside side of cardfile, tie-wrap in place, and plug into Bay Power Supply.
8.	At rear of cabinet, connect PCM cable between Control Bay backplane and J17A of digital peripheral Bay backplane; connect PCM ground leads to associated faston connectors.
9.	Connect signal cables to connectors, and route out of cabinet with existing signal cables, and cross connect at MDF.
10.	At front of cabinet, while wearing the antistatic wrist strap, unpack and install new circuit cards.
11.	Close doors, power up system, and update CDE to include new equipment.

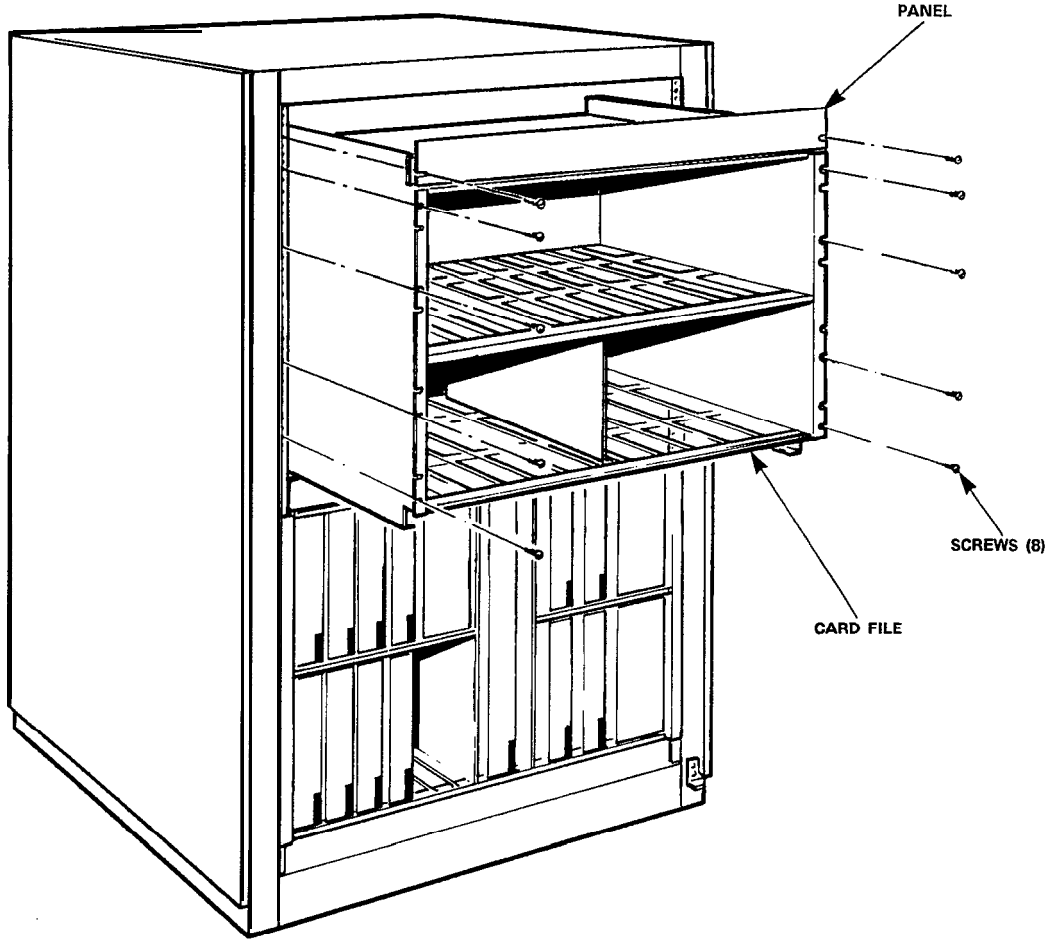


Figure 5-8 Install Digital Peripheral Bay and Panel

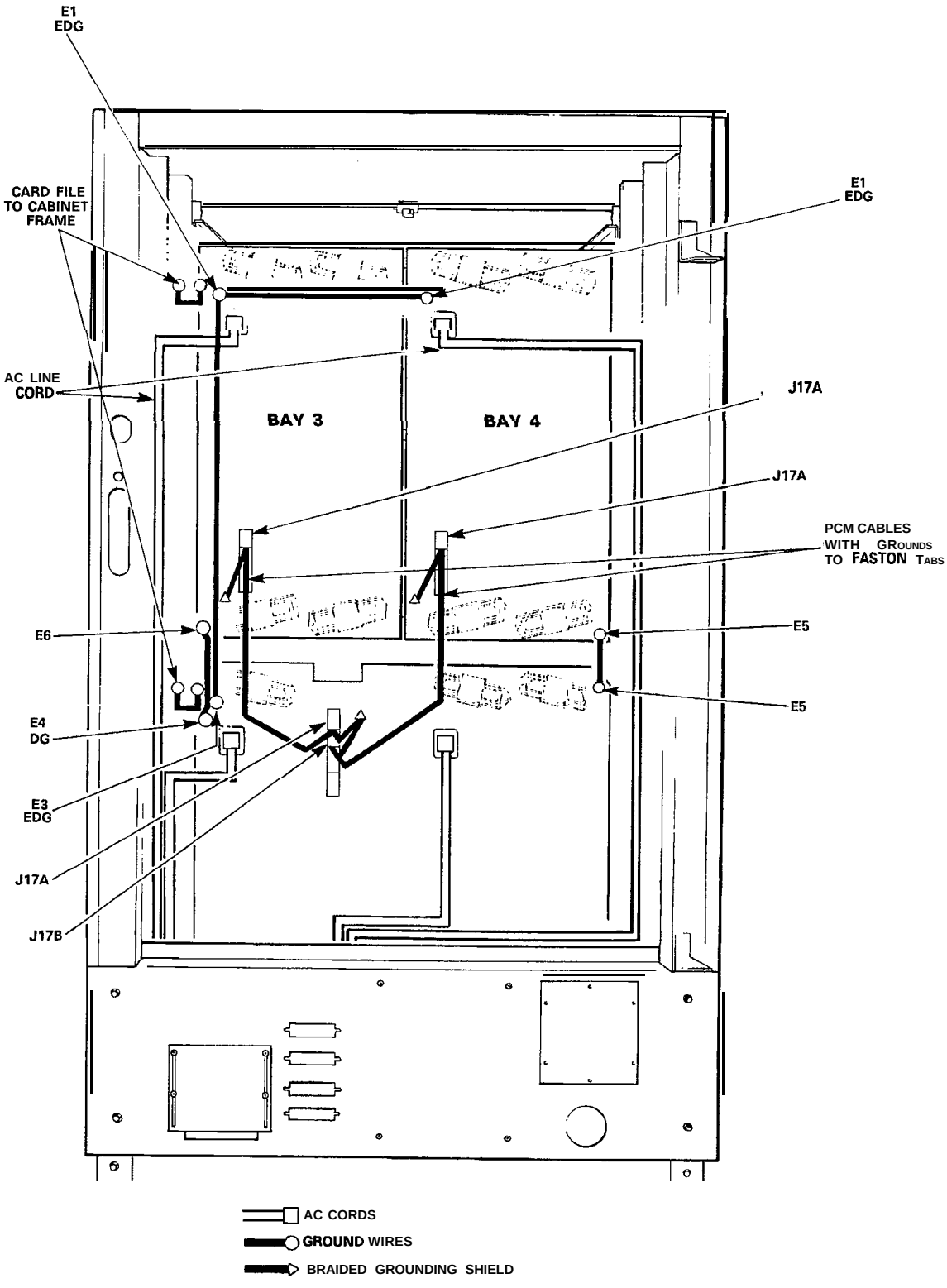


Figure 5-9 Digital Peripheral Bay Connections

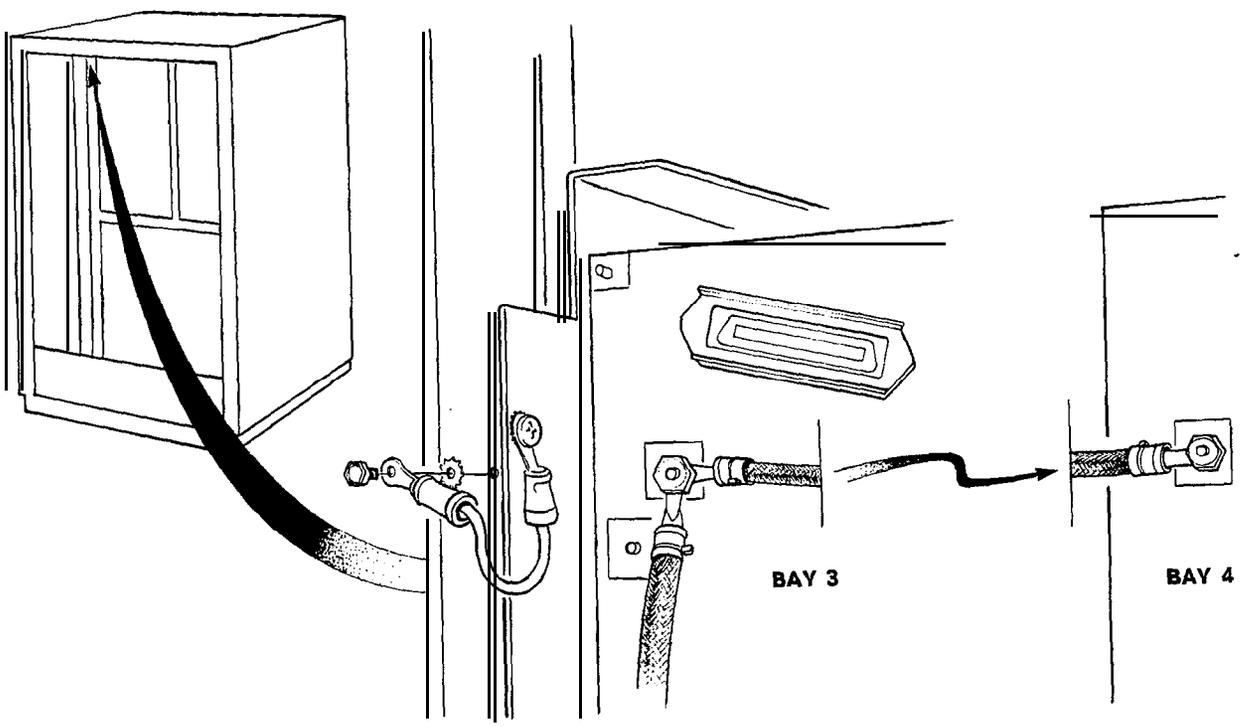


Figure 5-10 Digital Peripheral Cardfile Ground Connection Details

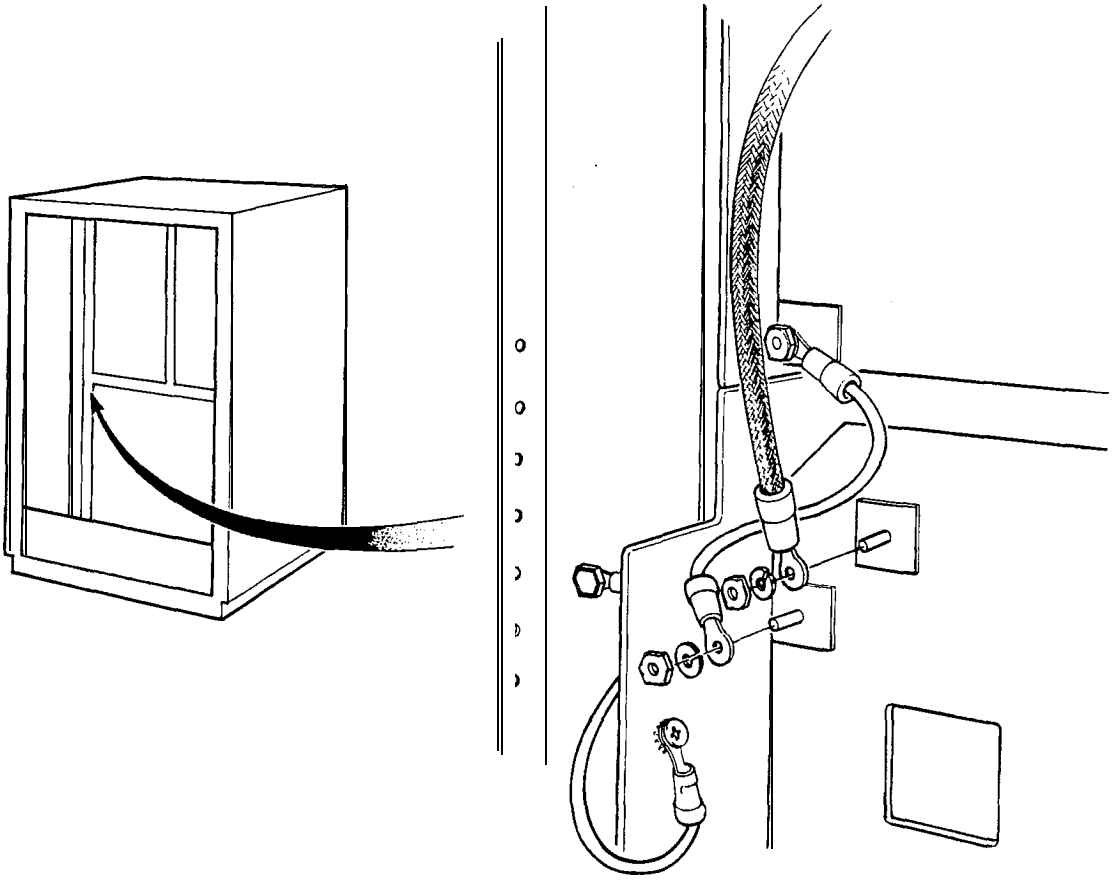


Figure 5-l 1 Digital Peripheral Ground Connection Details

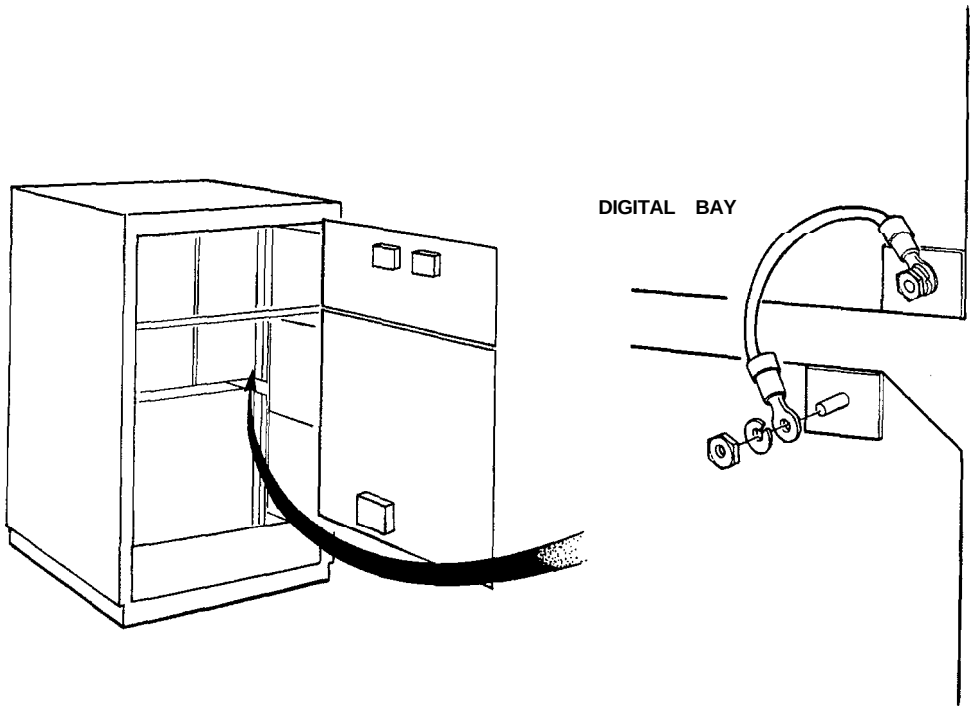


Figure 5-12 Digital Peripheral Backplane Ground Connection Details

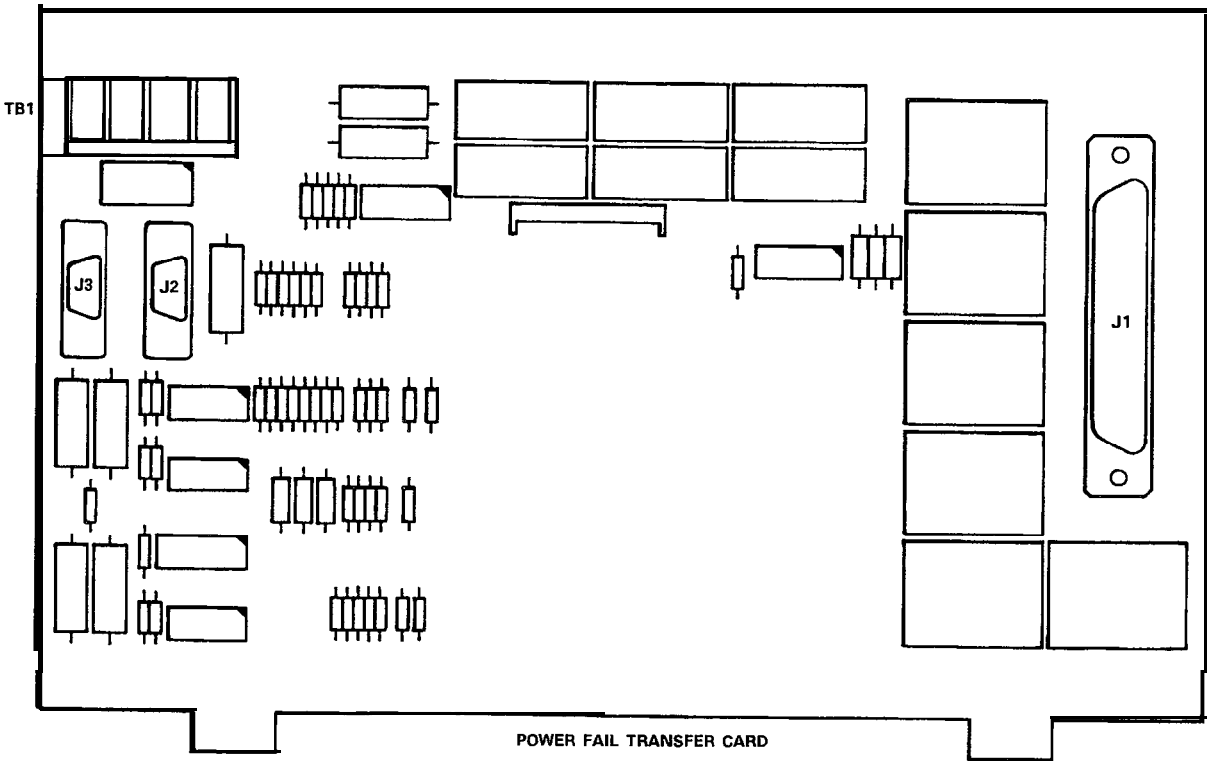
CHART 5-11
PFT KIT INSTALLATION INSTRUCTIONS - UNIVERSAL CABINET

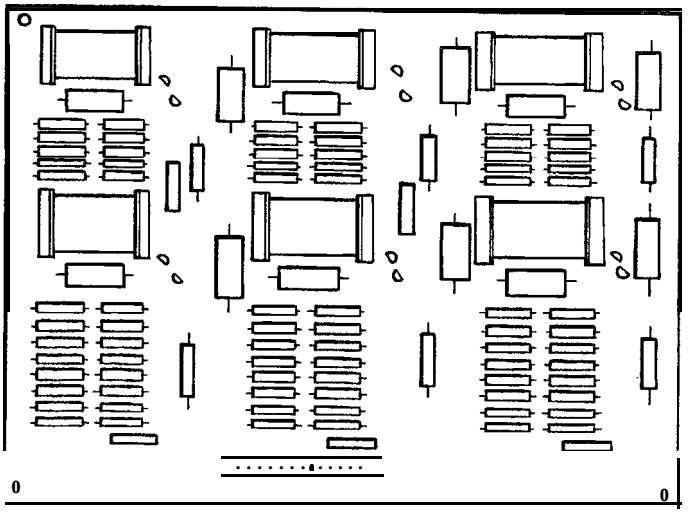
Step	Action	Comments
1.	Unlock and open rear door of cabinet.	
2.	Attach antistatic wrist strap to your wrist and carefully unpack PFT card(s).	A PFT card is shown in Figure 5-13.
3.	Power down system.	
4.	Place PFT card into the upper position, identify its two mounting holes on frame, and remove card. Refer to Figure 5-14.	Following this sequence minimizes the chance of damaging a PFT card when initially installing self-tapping screws.
5.	Insert two self-tapping screws into identified holes, creating threads. Remove screws.	
6.	Install a loop start to ground start module (as required) onto each card and attach it to the standoffs with the screws supplied.	
7.	Install PFT card and secure with two self-tapping screws.	
8.	Install remaining PFT cards using the above sequence.	
9.	Connect the wiring harness from J13 of the Control Shelf backplane to J3 of the upper PFT card.	Refer to Figure 5-15.
10.	If more than one card is being installed, connect the wiring harness from J2 of the upper card to J3 of the middle card (repeat from the middle card to the lower card, if present).	
11.	Connect an optional remote alarm (customer-supplied) to TBI-2 and TBI-4 of the upper PFT card in the Control cabinet.	The PFT card supplies a closed contact signal when in PFT mode.
12.	Connect the ALARM pair from TBI-1 and TBI-3 of the upper card to TBI-2 and TBI-4 respectively, of the middle card (repeat from the middle card to the lower card, if present).	Refer to Figure 5-15.
13.	Connect the Intercabinet Cable Assembly (672 port) to J2 of the lower (third) PFT card in the Control cabinet; in the Peripheral cabinet, connect the PFT cable to J3 of the upper PFT card. Connect the wiring harness from J2 of the upper card (if present) to J3 of the middle card (repeat from the middle card to the lower card, if present).	Do not connect the Intercabinet Cable Assembly (672 port) to J2 if there are no PFT cards in the Peripheral cabinet.

CHART 5-11 (CONT'D)
PFT KIT INSTALLATION INSTRUCTIONS - UNIVERSAL CABINET

Step	Action	Comments
14.	Connect the ALARM pair of the Intercabinet Cable Assembly (672 port) to TBI-1 and TB1-3 of the lower (third) card in the Control cabinet; in the peripheral cabinet, connect the Intercabinet Cable Assembly (672 port) to TB1-2 and TB1-4 of the upper card. Connect the ALARM pair from TB1-1 and TB1-3 of the upper card to TBI-2 and TB1-4 respectively, of the middle card (repeat from the middle card to the lower card, if present).	Do not connect the intercabinet Cable Assembly (672 port) to J2 if there are no PFT cards in the Peripheral cabinet.

Note: With a 480-, 336-, or 456-port Control cabinet backplane, the PFT relays are controlled from Bays 1 and 2. All lines and trunks through the PFT cards should originate from Bays 1 and 2, since these bays are controlled independently of the rest of the PABX when power fails or a fault is detected. In a 672 port system, the PFT relays are controlled from the Control backplane (Bay 0) so this restriction does not apply.





OPTIONAL LS/GS CONVERSION MODULE FOR PFT CARD

8538E2R2

Figure 5-13 Power Fail Transfer Card

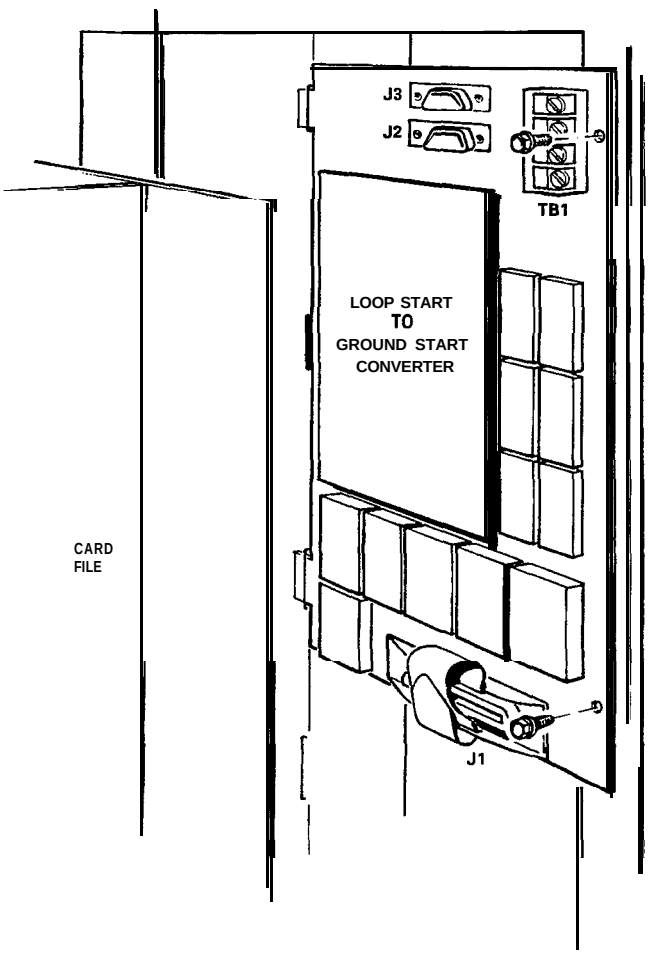


Figure 5-14 Locating PFT Card in an SX-200 Universal Cabinet

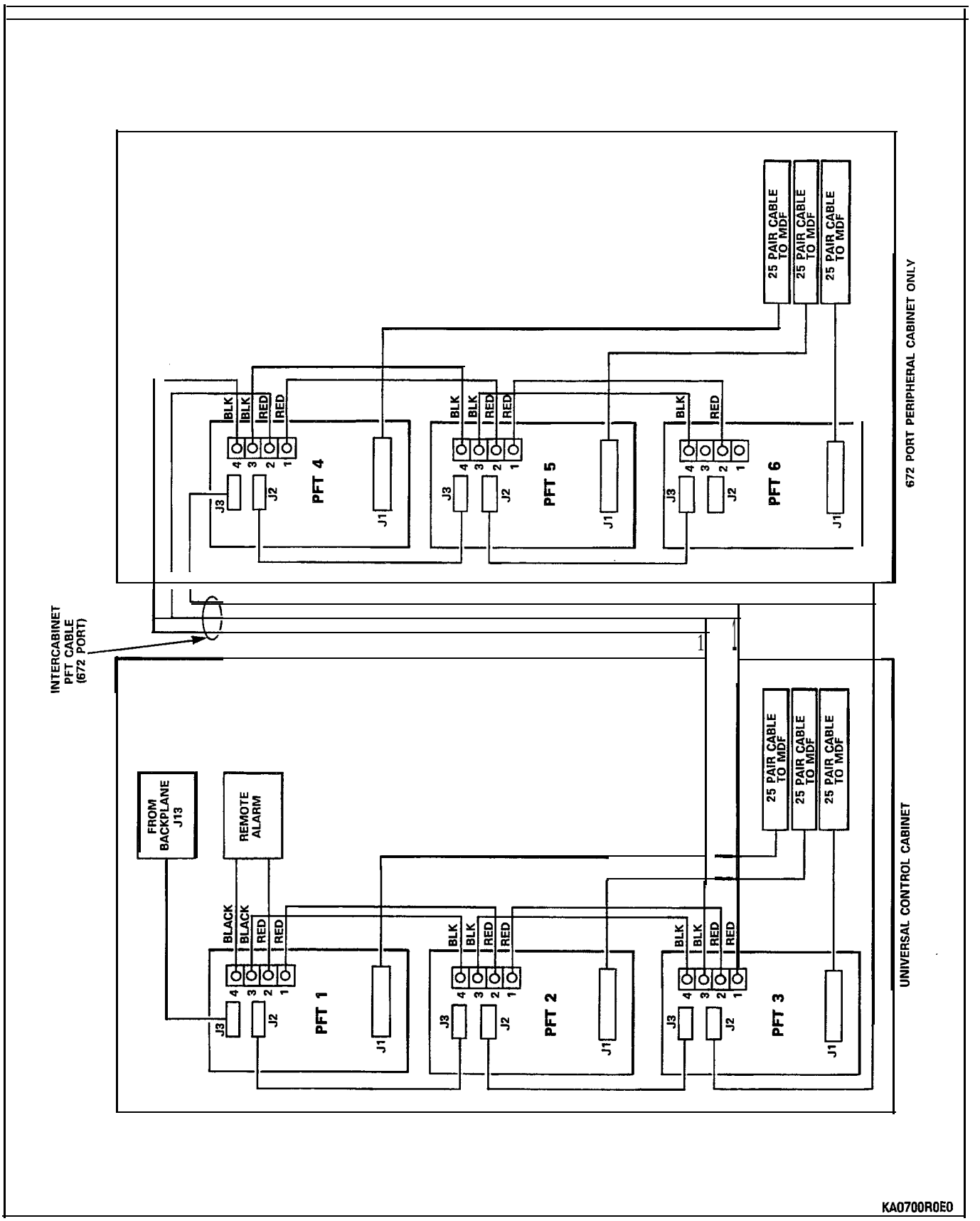


Figure 5-15 PFT Card Connections

CHART 5-12
INSTALL BAY 5

Step	Action	Comments
1.	Unpack shelf. Check backplane for cracks, bent pins, loose or missing items, and other damage. Check hardware against packing slip. Check fuses (if supplied).	
2.	Set POWER and BATTERY switches off and remove line cords from AC outlets.	
3.	Unlock and open front door. Attach ground wire to side of shelf before installing shelf into cabinet.	
4.	Place shelf onto shelf guides.	
5.	Fasten shelf to equipment cabinet using eight screws.	
6.	At rear of cabinet, on Bay 5, remove insulation from terminals, and connect to terminal strips. Connect ground wires between card files.	Refer to Figure 4-l 1.
7.	Install Surge Clamp on Bay 5. Ensure that the top of the Surge Clamp is towards the top of the shelf; its top pins plug onto pins 9 and IO.	Refer to Figure 4-l 1.
8.	Connect interconnect cable 103 to Bay 4 P103 and Bay 5 P103.	
9.	Connect interconnect cable 104 to Bay 4 P104 and Bay 5 P104.	
10.	Install printed circuit cards into shelf according to line and trunk assignments. Route 25-pair cables through bottom of cabinet to distribution frame, and secure to associated connections with cable ties.	Cross connect distribution frame according to Tables in CABLING AND CROSS-CONNECTIONS.
11.	Connect PCM cable PN9108-027-000-NA between DICs in Bay 4, Slot 18, Jl and Bay 5, Slot 18, J3.	
12.	Power up system according to “INITIAL SYSTEM POWER-ON” chart.	

CHART 5-13
ANALOG PERIPHERAL CABINET RESERVE POWER SUPPLY INSTALLATION

WARNING

RESERVE SUPPLY IS FOR ANALOG PERIPHERAL CABINET ONLY. DO NOT ATTEMPT TO CONNECT IT TO CONTROL CABINET OR DIGITAL PERIPHERAL CABINET, WHICH REQUIRES A UPS.

CAUTION: Check that the BATTERY switch on the reserve battery pack is set to OFF. Check that the three switches on the battery charging unit are set to OFF.

Step	Action	Comments
1.	Unpack reserve power supply equipment.	
2.	Inspect items for damage.	
3.	Check items received against packing slip; report missing items.	Complete a damage report form, repack, and return damaged items.
4.	Unlock and open front and rear doors of cabinet.	
5.	Set all power switches to OFF position.	
6.	Remove power cords from power outlets.	
7.	Locate the mounting holes for the charging unit on the bottom of the vertical cabinet support bar.	Refer to Figure 5-16.
8.	Place the charging unit into position.	Refer to Figure 5-16.
9.	Secure the charging unit to the cabinet support bar using three IO-32 screws.	
10.	Slide the reserve battery pack into the bottom of the equipment cabinet from the front.	CAUTION: The reserve battery pack weight is 57 kg (125 lb). Care must be taken when lifting the battery pack.
II.	Secure the reserve battery pack to the cabinet with four pan-head screws.	
12.	Route the Red, Black, and Green leads marked "TO BATTERY" from the charging unit to the battery pack.	
13.	Check that the BATTERY switch on the battery pack is set to OFF.	
14.	Connect the Red lead to the terminal on rear of reserve battery pack marked +RED.	
15.	Connect the Black lead to the terminal on rear of reserve battery pack marked -BLACK.	
16.	Connect the Green lead to the ground screw on the rear of the battery pack.	
17.	Route the Red, Black, and Green leads marked 'TO POWER SUPPLY" from the charging unit to the power supply.	

CHART 5-13 (CONT'D)
ANALOG PERIPHERAL CABINET RESERVE POWER SUPPLY INSTALLATION

Step	Action	Comments
18.	Connect the Red, Black and Green leads.	Refer to Figure 5-17.
19.	Route the charging unit power lead to the adapter, and plug the adapter into the receptacle on the rear door power supply.	
20.	Plug system power cord into its receptacle.	AC Power LED is on.
21.	On Battery Pack, set BATTERY switch to ON.	
22.	On Charging Unit, set AC switch to ON, set DC switch to ON and set BATTERY switch to ON.	BATTERY CHARGING LED lights.
23.	On Power Supply set CONVERTER INPUT switch to ON.	CONVERTER INPUT LED and RESERVE BATTERY CONNECTED LED light
24.	On Maintenance Panel set SYSTEM POWER switch to ON.	SYSTEM POWER LED lights; Power Supply EQUIPMENT SHELF POWER LED lights.
25.	Close and lock all cabinet doors.	
26.	Place cabinet in final position.	

CHART 5-14
INSTALL UNINTERRUPTABLE POWER SUPPLY (UPS)

Step	Action	Comments
1.	Unpack, and inspect the UPS.	
2.	Position the UPS near the PABX and its power receptacle.	
3.	Install batteries and make connections, except to plug PABX line cord into UPS, according to manufacturer's instructions.	Currently, alarm leads from the UPS are not connected to the UPS connection on the Control backplane.

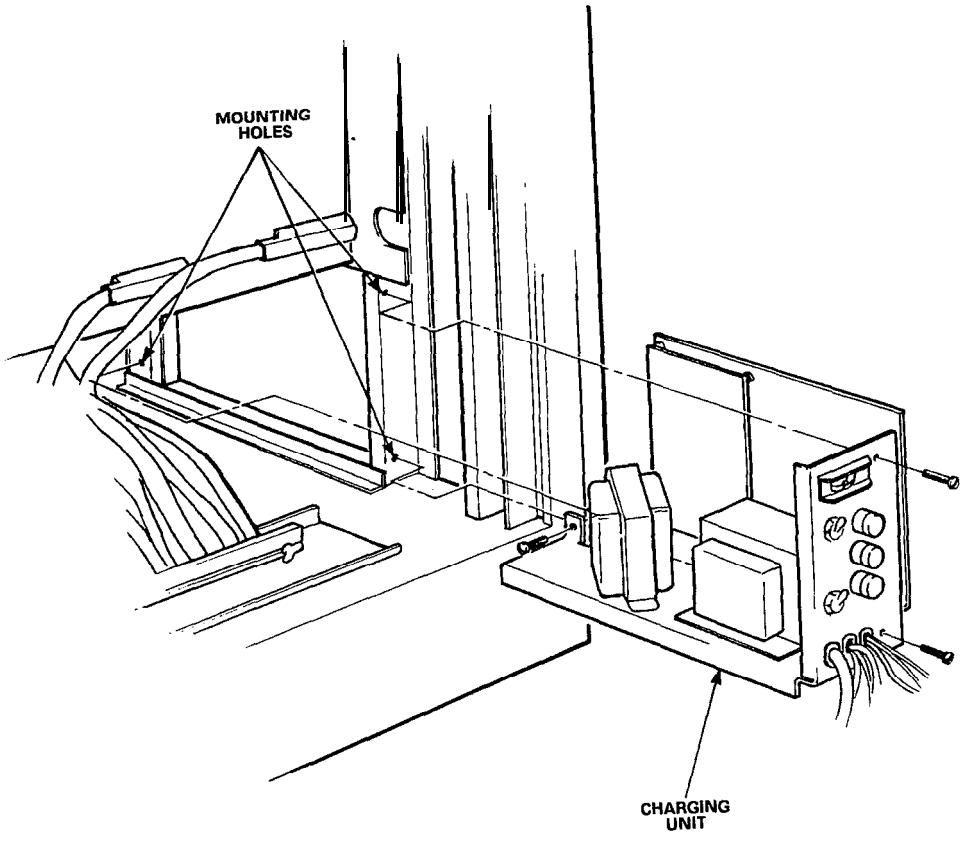


Figure 5-16 Charging Unit

CHART 5-17
INSTALL MAINTENANCE TERMINAL TO AN SX-200 CONTROL CABINET

Action	Comments
Unpack and install the maintenance terminal (VT-100 or equivalent) in its assigned position.	Set terminal BAUD rate to 9600.
Connect an RS-232 cable betwetn the terminal and the local port on the maintenance panel on the front of the system.	The maximum length of the RS-232 cable is 15 m (50 ft).
If installing a remote terminal, connect a modem to the remote port on the maintenance panel, or on the power distribution panel at the lower rear of the cabinet (depending on cabinet type) Connect another modem to the remote terminal. Refer to Figure 4-8.	Note: Connection may be made to only one port at a time, either local or remote, but not both.
Connect the modems to each other; as required by their installation instructions, and local wiring requirements. Refer to Figure 5-18 and Figure 5-I 9.	A modem may be connected to the maintenance panel port if the switch is set to DCE. Modems may be interconnected through the public switched network, on a when required basis; however, an auto-answer modem is then required at the PABX.
Plug in line cords and turn on both modems and the terminal.	

es: 1. An RS-232 type cable that is to be permanently connected to either the local or remote MAINTENANCE PORT connector of the maintenance panel must be a flat ribbon type to allow the front door to be closed with the cable connected. A permanently connected cable is to be routed between the maintenance panel and the Peripheral shelf to the back of the cabinet, and is to exit with the connectorized cables.

2. LOCAL (DTE) port is designed to interface with a terminal. It is wired as a DCE port designed to interface with a DTE device.

3. REMOTE (DCE) port is designed to interface with a modem. It is wired as a DTE port designed to interface with a DCE device.

TABLE 5-I
MAINTENANCE PANEL RS-232 CONNECTOR PIN ASSIGNMENTS

RS-232 pin	RS-232 signal	DTE data terminal equipment [local (dte) port]	DCE data communication equipment [remote (dce) port]
2	TRANSMIT DATA	from terminal	to modem
3	RECEIVE DATA	to terminal	from modem
4	REQUEST TO SEND	from terminal	to modem
5	CLEAR TO SEND	to terminal	
6	DATA SET READY	to terminal	
7	SIGNAL GROUND		
8	CARRIER DETECT	to terminal	from modem
20	DATA TERMINAL READY	from terminal	to modem

Notes:

Remote (DCE) connector may be on the Maintenance Panel or on the Power Distribution Panel at rear of cabinet.

On the Universal Cabinet, RS-232 and PRINTER port connectors are wired as follows:

J5 DTE pins 6, 8, and 20 are tied together.

DCE pin 5 and DTE pin 20 are tied together.

J8 PRINTER pins 6, 8, and 20 are tied together.

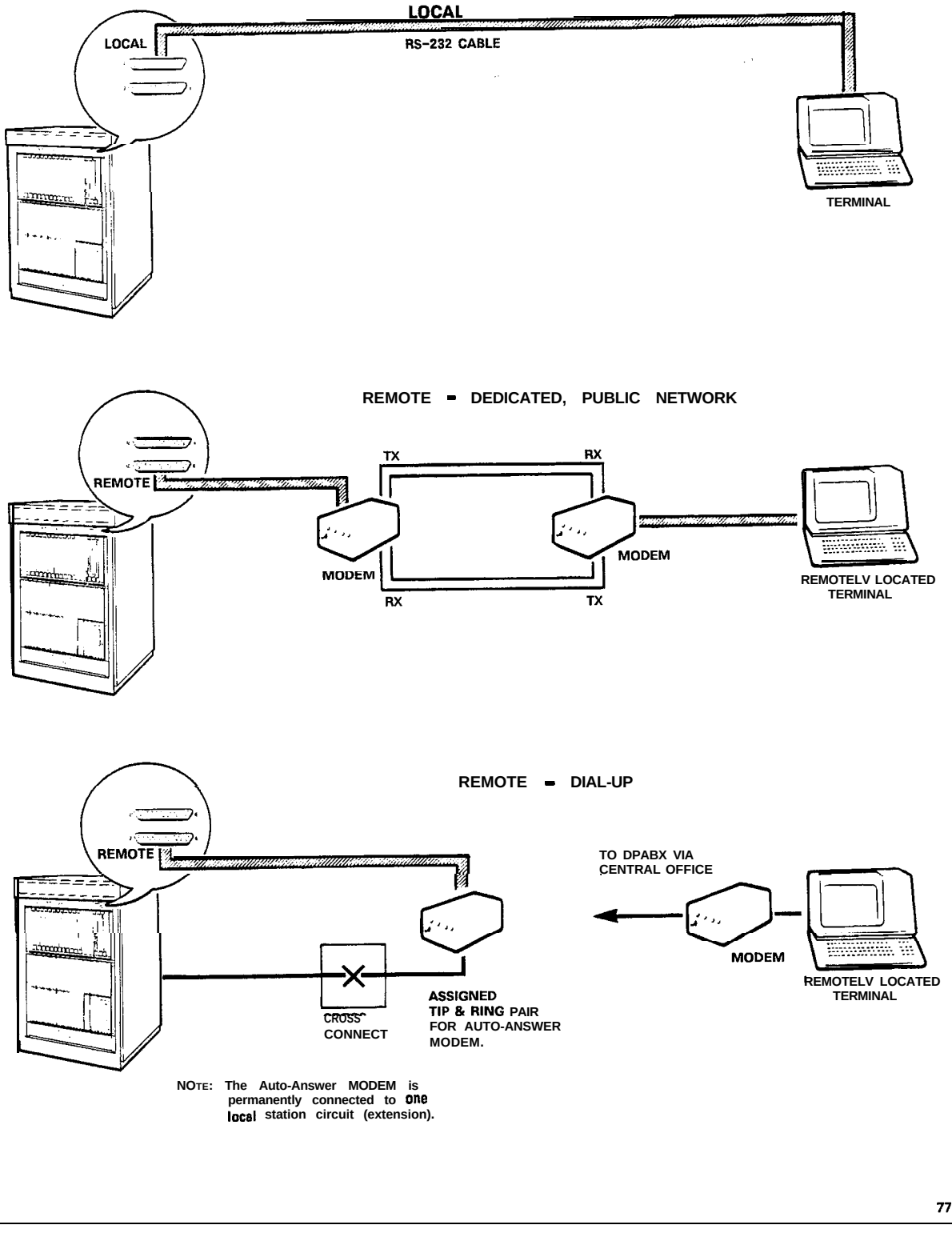


Figure 5-18 Maintenance Terminal Connections - SX-200 Cabinet

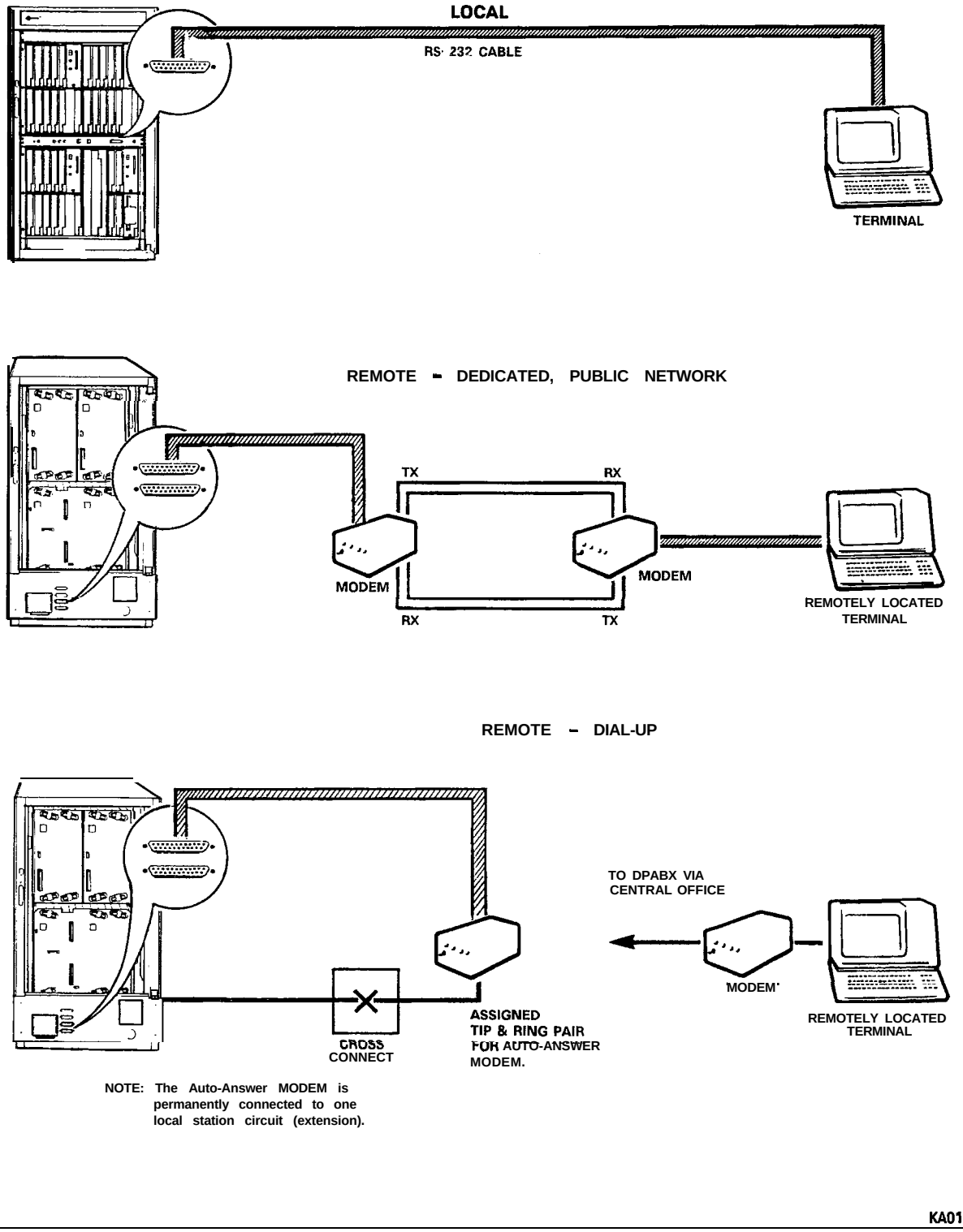


Figure 5-19 Maintenance Terminal Connections - SX-200 Universal Cabinet

CHART 5-18
INSTALL ATTENDANT CONSOLE

Step	Action	Comments
1.	Unpack console and place it in position at Attendant workstation.	Refer to Figure 5-20.
2 .	Connect headset (or handset) to its cord, and plug cord into jack at side of console.	The two jacks are in parallel; either may be used.
3.	Plug the console modular cord into the jack at the back of the console and into its assigned modular telephone jack.	Jack is marked LINE PORT.
4.	At the distribution frame, cross connect the cable from the modular jack to the PABX; to the console module of the Universal card. Refer to Figure 5-21.	For wiring information for the consoles and the console modular jacks, refer to Figure 5-25.

Notes:

The LCD Console connects to a Console Module on the Universal Card using a four-wire connection.

The Console jack on the Maintenance panel must be connected to its default position (Bay 2, Slot 3, Position 1 of a COMBO backplane or Bay 1 Slot 5 of a 672-port Control Cabinet), to allow access to the default connected to this jack, during installation and initial Customer Data Entry. The card slot must contain a Universal Card with a Console module in position 1.

The maximum loop length from the cabinet to the console is 300 m (1000 ft) using 26-AWG wire.

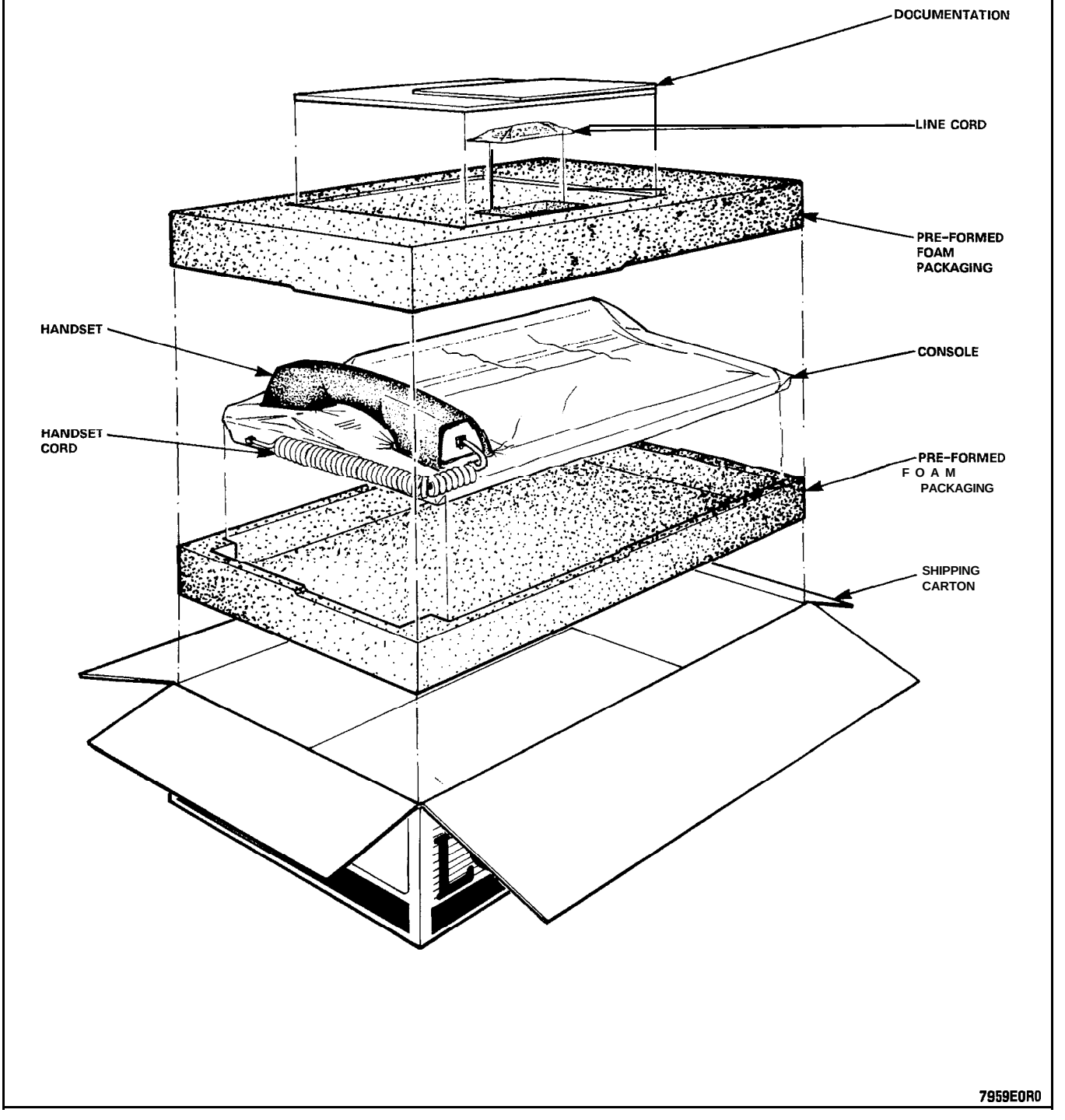


Figure 5-20 Unpacking Attendant Console

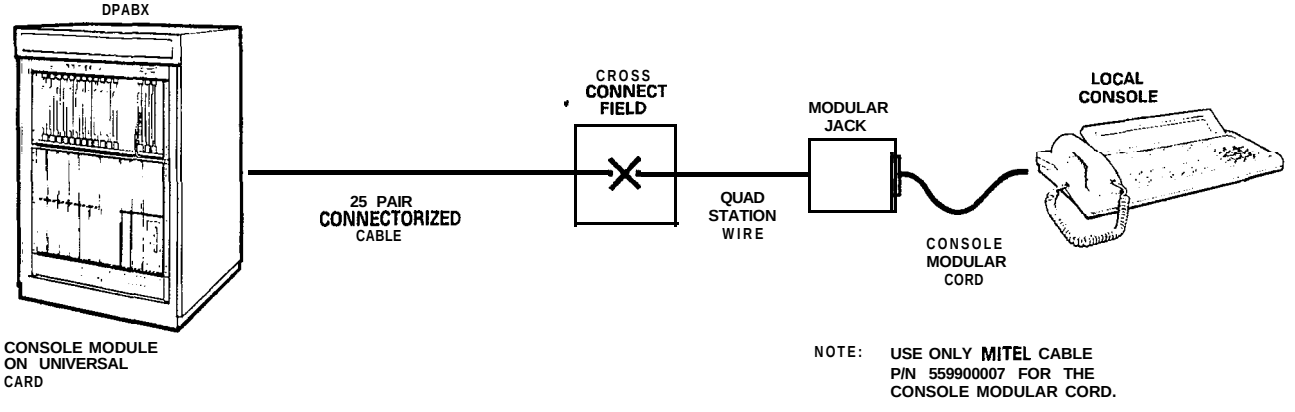


Figure 5-21 Console Installation

CHART 5-19
INSTALL SUPERCONSOLE *1000*™ ATTENDANT CONSOLE

Step	Action	Comments
1.	Unpack console and place it in position at Attendant workstation.	
2	Connect handset (or headset) to its cord, and plug cord into jack at side of console.	The two jacks are in parallel; either may be used.
3.	Plug the console modular cord into the LINE PORT jack at the back of the console and into its assigned modular telephone jack.	
4.	At the distribution frame, cross connect the cable from the modular jack to its assigned Digital Line Card in the PABX. Refer to Figure 5-22.	For console modular jack wiring information, refer to Figure 5-25.

Notes:

The Superconsole 1000 attendant console uses a two-wire connection to connect to one circuit on a Digital Line Card (tip to tip and ring to ring).

The Console jack on the Maintenance panel must be connected to its default position (Bay 2, Slot 3, Circuit 2 of a COMBO backplane or Bay 1, Slot 5, Circuit 2 of a 672-port Control Cabinet), to allow access to the default database from a Superconsole 7000 attendant console connected to this jack, during installation and initial Customer Data Entry. The card slot must contain a Digital Line Card.

The maximum loop length from the cabinet to the console is 1000 m (3300 ft) using 26-AWG wire.

The RS-232 printer connector on the back of the Superconsole 1000 attendant console uses the following pins:

pin	signal	pin	signal
1	frame ground	6	data set ready
2	transmit data	7	signal ground
3	receive data	8	carrier detect
4	ready to send	20	data terminal ready
5	clear to send		

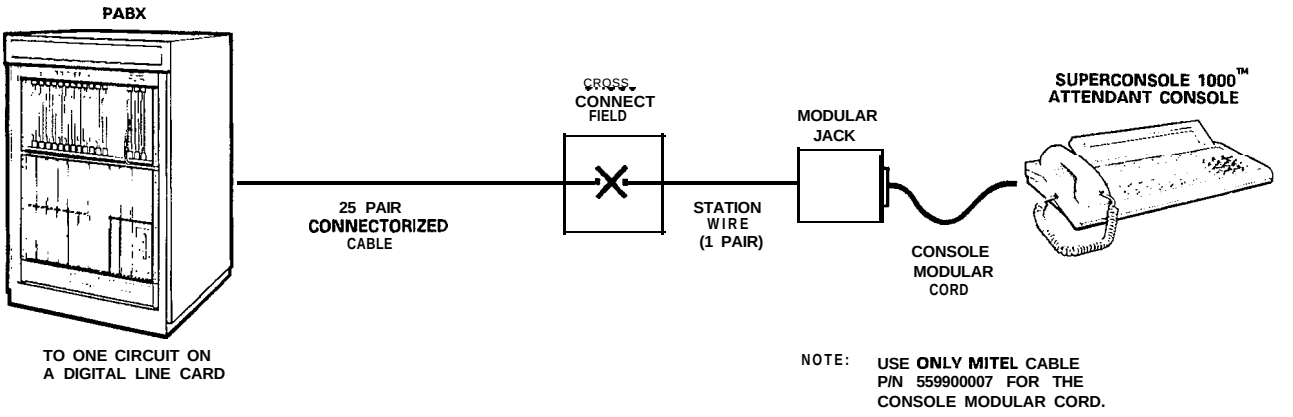


Figure 5-22 Superconsole 1000 Attendant Console Installation

CHART 5-20
INSTALL UNIVERSAL CARD AND MODULES

Step	Action	Comments
1.	While wearing the antistatic wrist strap, unpack the universal card(s) and its modules.	Figure 5-23 shows a Universal Card and Modules.
2.	Inspect for loose or missing components, and for damage.	Complete repair tag, repack, and return any damaged or incorrect items.
3.	Insert the modules into their assigned locations, press them until they snap into their standoffs and then insert the Universal card into its assigned slot in the card shelf. Refer to Figure 5-24.	Total power rating per universal card cannot exceed 10.
4.	Complete the Tip & Ring Assignment form for each module on the Universal Card. Ensure that the correct equipment cross-connections are performed at the MDF to connect this card with its associated equipment.	For Tip & Ring assignments for each Universal Card module, refer to Figure 5-25, Table 5-2, and Table 5-3. For module power ratings, refer to Table 5-4.
5.	If a Console Module is not being installed in Bay 2, Slot 3, Circuit 1, remove the maintenance panel cable from J27 of the backplane.	

TABLE 5-2
BACKPLANE T&R ASSIGNMENTS FOR EACH MODULE POSITION

Module Position	Module TxRx		
	T1 R1	T2 R2	T3 R3
1	T1 R1	T2 R2	T3 R3
2	T4 R4	T5 R5	T6 R6
3	T7 R7	T8 R8	T9 R9
4	T10 R10	T11 R11	T12 R12

TABLE 5-3
TIP & RING ASSIGNMENTS

Module	T1 R1	T2 R2	T3 R3
Console	Rx	Tx	nc
Receiver/relay	nc	Relay 1 (subcircult 5)	Relay 2 (subcircuit 6)
MOH/Pager	music input	PA output	relay contacts
E&M Trunk	T1 R1	TR1RR1	EI MI

Note: The relays on the Receiver card are program-controlled (and are NOT associated with the DTMF receivers). The relay on the MOH/Pager is operated when the paging circuit is in use (primarily for controlling an external amplifier). The system will indicate an alarm and ignore the universal card if its total module power rating is greater than 10. The relay contacts must not be used to switch AC mains power to a device, even if the device draws less current than the contact rating of 0.5 A.

TABLE 5-4
MODULE POWER RATING

Module	Power Rating
Console	5
Receiver/Relay	2
MOH/Pager	1
E&M Trunk	3

TABLE 5-5
CONSOLE MODULAR JACK CONNECTIONS

Jack Pin	Pair Colour	Description
2	yellow	T1 - line out
5	black	R1 - line out
3	green	T2 - line in
4	red	R2 - line in
1	blue	not used
6	white	not used

Refer to Figure 5-25.

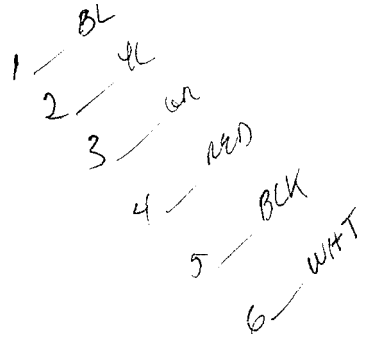


TABLE 5-6
E&M TRUNK MODULE SWITCH SETTINGS

Function	Switches 1 2 3 4 5 6 7 8
PABX to Line Gain	
3 dB	o x x x x x x x
-13 dB	I x x x x x x x
Line to PABX Gain	
-4 dB	x o x x x x x x
-11 dB	x l x x x x x x
Termination	
600 ohm	x x 1 0 x x x x
Complex	x x 0 1 x x x x
Transmission	
2 wire	x x x x l x x x
4 wire	x x x x o x x x
Signaling	
Type 1	x x x x x l x x
Type 5	x x x x x o x x

0= open, 1= closed, x= not applicable

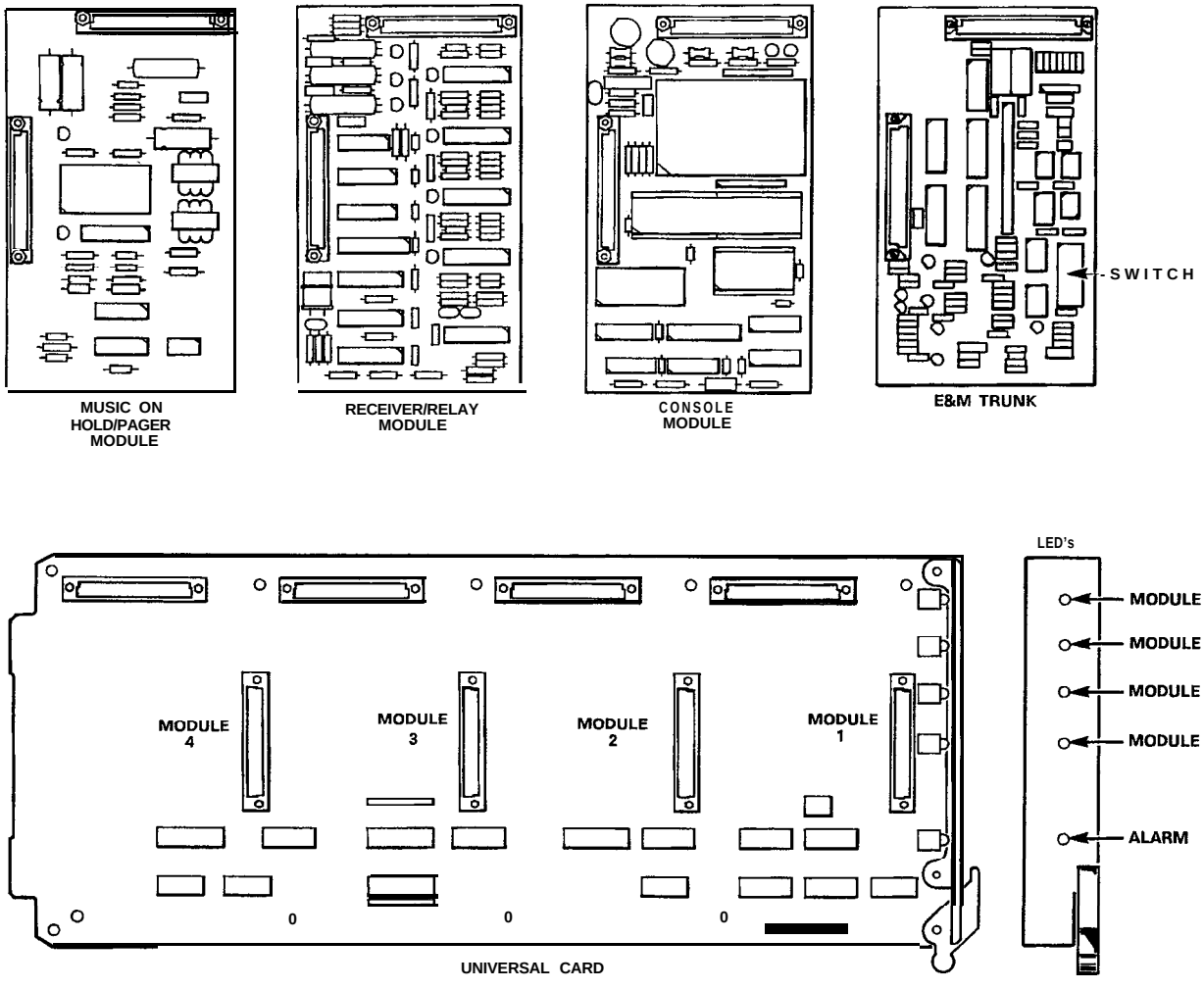


Figure 5-23 Universal Card and Modules

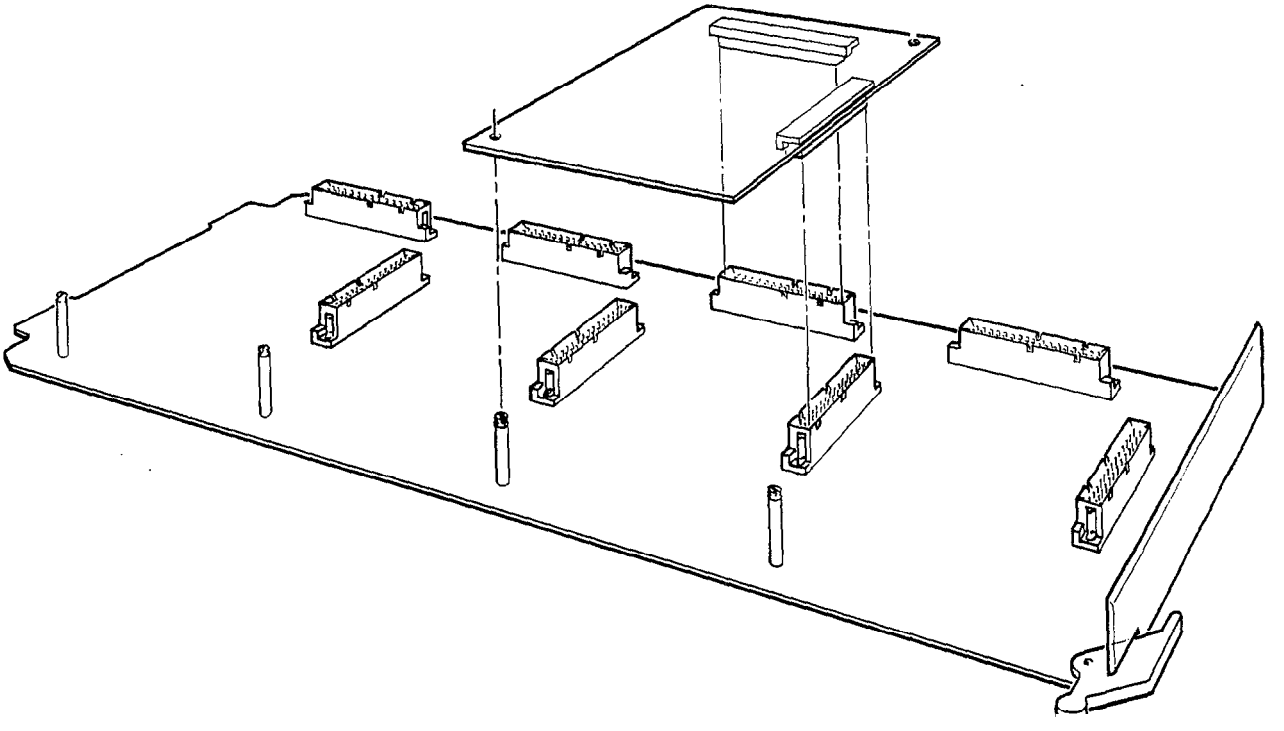


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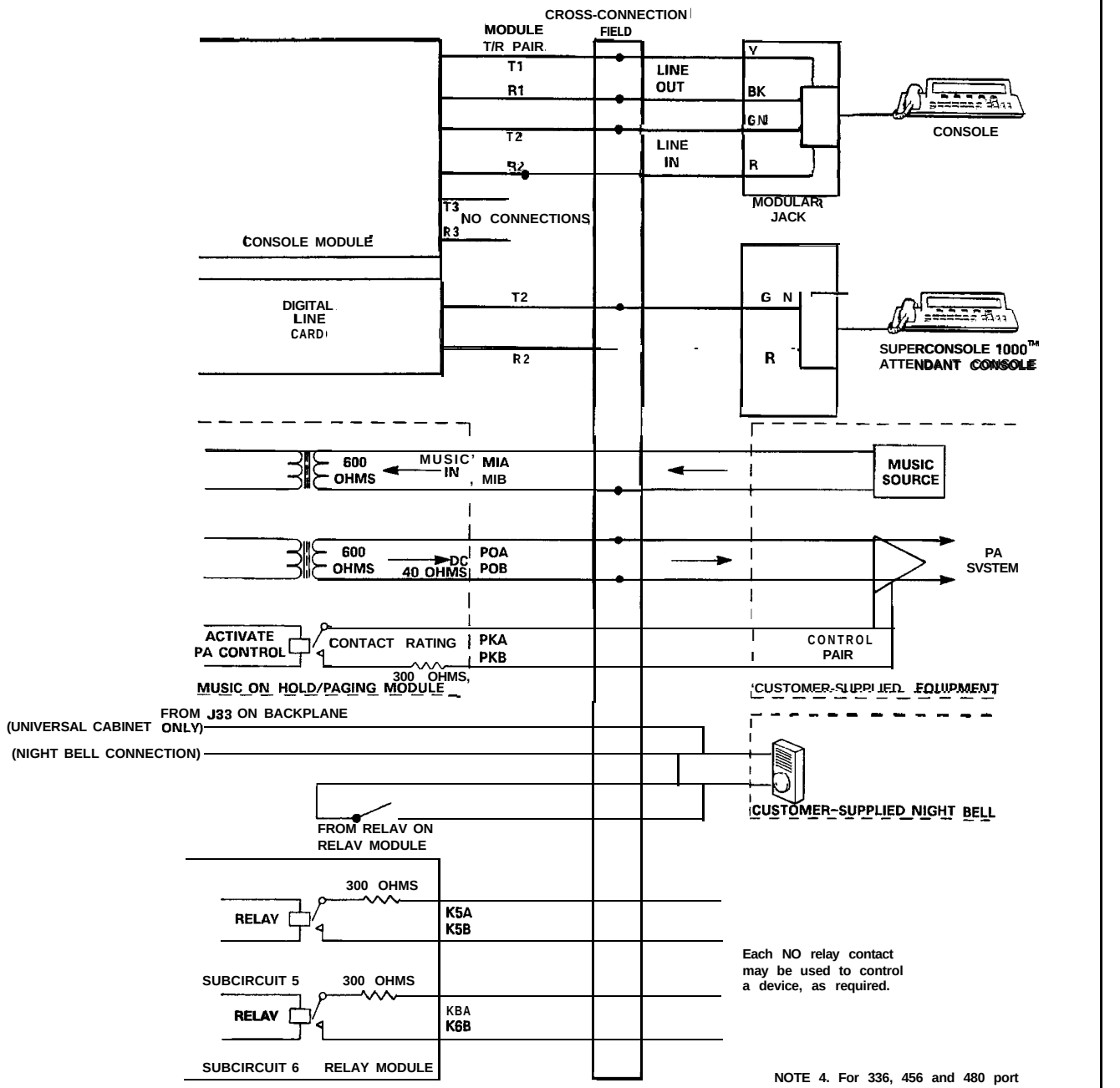
Figure 5-24 Installation of Module onto Universal Card



NOTE 1. All wiring must be done in accordance with the National Electrical Code (USA) or Canadian Electrical Code and/or local electrical inspection authorities.

NOTE 2. Refer to Part 6 of this Section for Cross-connect Field pin numbers for each module; their assignment depends upon the position of the Universal Card and Module.

NOTE 3. This relay contact may be connected only to a secondary circuit that has no direct connection to a primary circuit, and receives its power from a transformer, converter, or equivalent isolation device situated within the equipment.

NOTE 4. For 336, 456 and 480 port configurations, the relay for the night ball must be in digital bay 1 or 2.

NOTE 5. For 672 pert configuration, the relay for the night bell may be in any peripheral bay.

NOTE 6. The Superconsole 1000" attendant console which connects to the default position must use circuit 2 to match default wiring from the maintenance panel. Other Superconsole 1000™ attendant consoles may connect to any port on a Digital Line Card.

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Figure 5-25 Music, Paging, and Relay Connections

CHART 5-21
INSTALL FLOPPY DISK DRIVE PN 9109-124-000

Remove or install diskette in drive while power is on and LED is off.

Remove power from the Bay before removing or installing a disk drive.

Step	Action	Comments
1.	While wearing antistatic wrist strap, unpack and inspect new disk drive.	
2.	Install drive into its slot in Bay 2, and secure it with its latch and locking screw.	Install second disk drive in Bay 1.
3.	If installing drive into an SX-200 welded cabinet, open rear door of cabinet.	Disk drive 9109-124-000 requires Disk Drive Adapter 9109-038-000.
4.	Remove ground wire and tie strap which holds it, from side of shelf.	Refer to Figure 5-27.
5.	Attach ground wire from adapter to frame of shelf using screw, external tooth washer, and nut.	
6.	Plug adapter into DIN connector of floppy disk drive.	
7.	Connect adapter ribbon cable to J35 and power cable to J39 on Control Shelf backplane. Refer to Figure 5-27.	Note: Bay 1 adapter, 9 109-037-000, connects to J37 and J33.
8.	Power up and initialize system.	

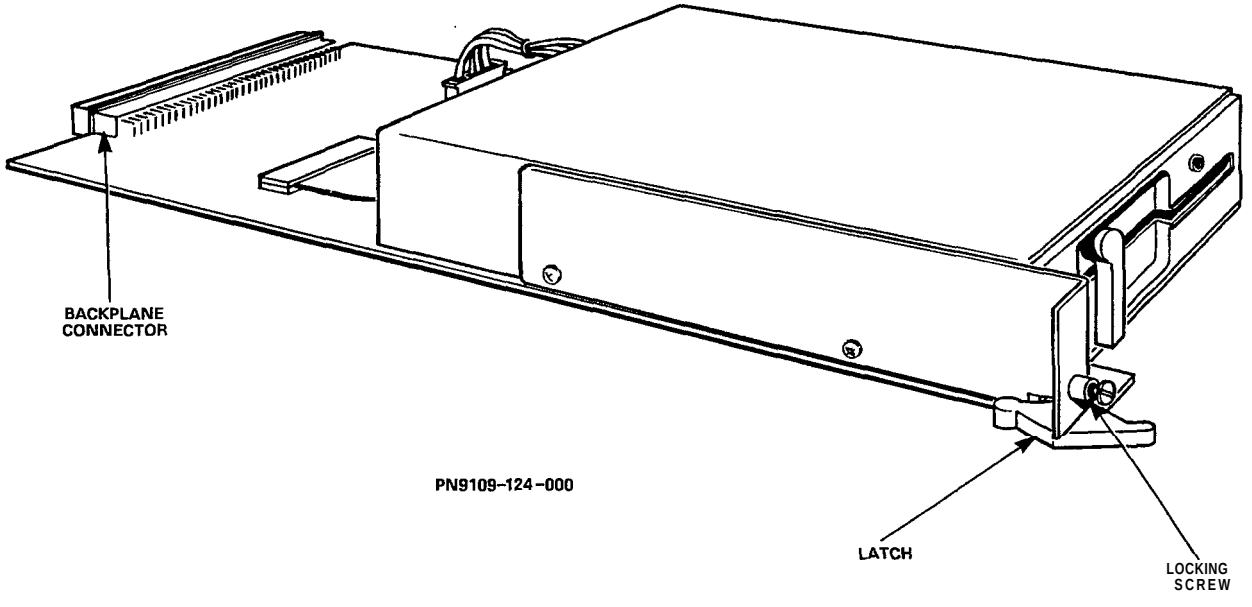


Figure 5-26 Floppy Disk Drives

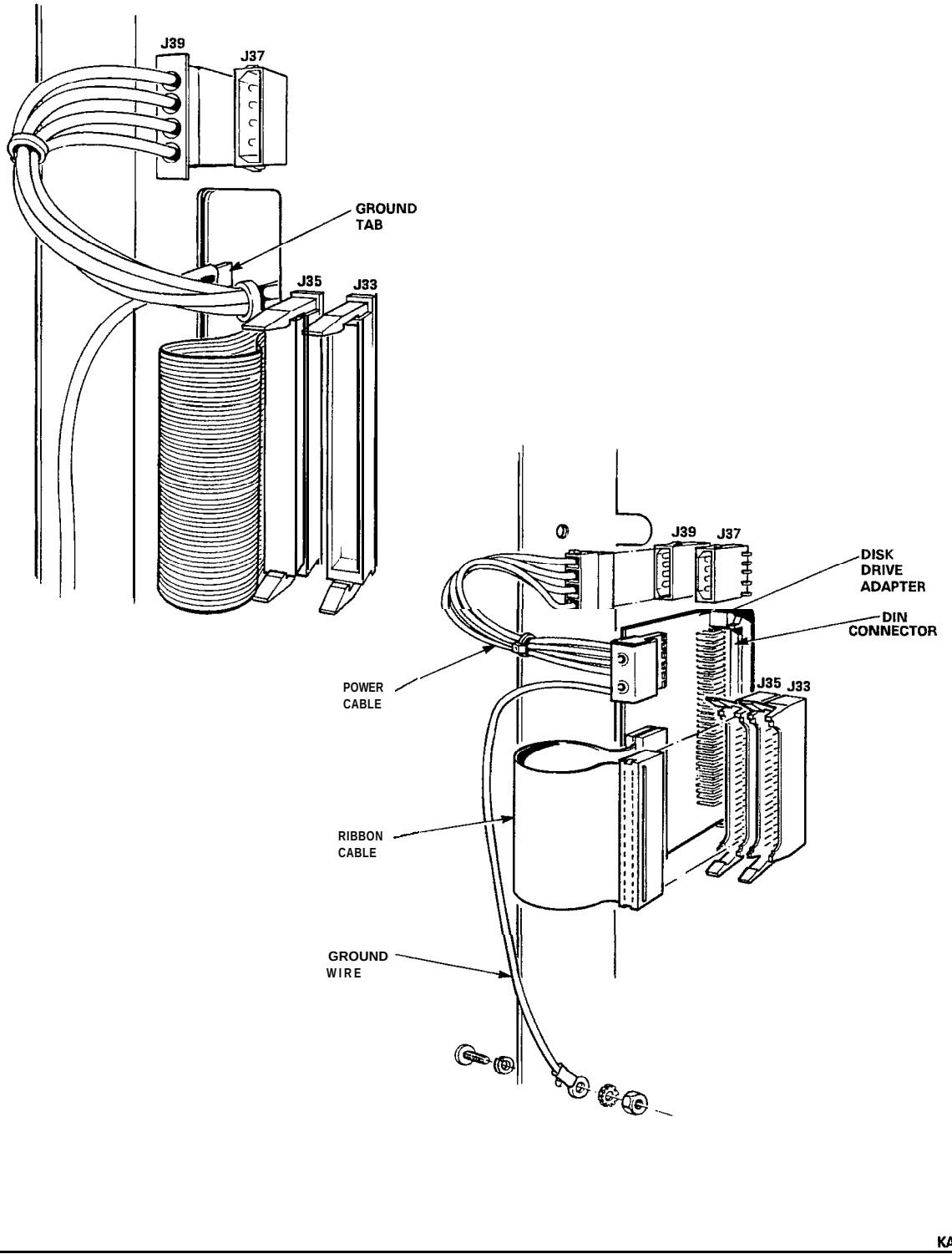


Figure 5-27 Disk Drive Connections

CHART 5-22
UNPACK AND INSTALL PRINTED CIRCUIT CARDS

WARNING

ANY CONNECTION OF AN ONS LINE CARD, A DIGITAL LINE CARD, OR A COV LINE CARD, TO AN OFF PREMISE APPLICATION, AN OUT OF PLANT APPLICATION, OR TO ANY OTHER EXPOSED PLANT APPLICATION MAY RESULT IN A SAFETY HAZARD, AND/OR DEFECTIVE OPERATION, AND/OR EQUIPMENT DAMAGE.

Step	Action	Comments
	CAUTION: Do not open or unpack any printed circuit card cartons unless you are wearing the antistatic wrist strap.	THE ANTISTATIC WRIST STRAP MUST BE CONNECTED TO THE PABX CHASSIS, WHICH MUST BE CONNECTED TO AN APPROVED GROUND TO PROVIDE PROTECTION FROM STATIC DISCHARGES.
1.	Attach the antistatic wrist strap to your wrist, and handle printed circuit cards by their edges only. Typical card packaging is shown in Figure 5-28.	The system configuration and/or the Tip & Ring Assignment forms identify which card type goes into each slot.
2.	Unpack and inspect the Bay Power Supply (BPS) module.	Return damaged or defective items, and report missing items according to local procedures.
3.	Insert the BPS into its slot in Bay 2, and tighten the thumbscrew at the upper front of the BPS to secure it to the cardfile.	Ensure that the BPS I/O (ON/OFF) switch is in the 0 (OFF) position. The first BPS must be in Bay 2; if any cards are to be installed in Bay 1, a BPS must also be installed in Bay 1.
4.	At the rear of the Control cabinet, connect the AC line cord to the BPS plug.	Refer to Figure 4-3.
5.	Unpack and inspect the Main Control Card and the Decryption module, which is packaged with the system software diskette.	Note: Whenever a new release of system software is received, the system must be powered down, so that the new Decryption module can be installed on the MCC. Each software release has a unique Decryption module associated with it.
6.	Install a RAM module, a DX module, and a Decryption module onto the MCC as defined in Chart 5-23.	Jumper and switch settings for the MCC are factory set and do not require changing. Refer to Figure 5-31.
7.	Install the MCC into its slot in the Control Shelf.	

CHART 5-22 (CONT'D)
UNPACK AND INSTALL PRINTED CIRCUIT CARDS

Step	Action	Comments
8.	480-PORT CONFIGURATION Install Digital Interface Cards (DIC) in Bays 3, 4, and 5. Connect PCM cables to their associated DIC (each PCM cable connector is labeled to identify the DIC it connects with). 336-PORT CONFIGURATION Install Bay Control Card (BCC), Bay Power Supply (BPS), and PCM cables to each digital Bay. 456-PORT CONFIGURATION Install Bay Control Card (BCC) and Bay Power Supply (BPS) in Bay 3. Install Digital Interface Cards (DIC) in Bays 4 and 5. Connect PCM cables to their associated DIC (each PCM cable connector is labeled to identify the DIC it connects with). 672 PORT In Bay 0, install Main Control Card (with modules), Switch Matrix Card (replaces DX module on MCC), two Floppy Disk Drives, Install Bay Control Card into each Peripheral bay.	
9.	Unpack trunk cards (for Control and Peripheral bays), set switches or jumpers, and install into assigned slots.	Refer to Chart 5-26 through Chart 5-30.
IO.	Unpack, inspect, and install the remaining PCB cards according to the equipment assignment for this system.	
11.	Retain some packing material for returning cards for repair. Discard the remainder according to local practice.	

Note: The following Digital Peripheral Cards are high power cards and are installed only in upper slots:

- COV Line Card
- OPS
- DID
- Universal

The LS/GS, DLC and ONS cards are low power cards and can be installed in upper or lower slots.

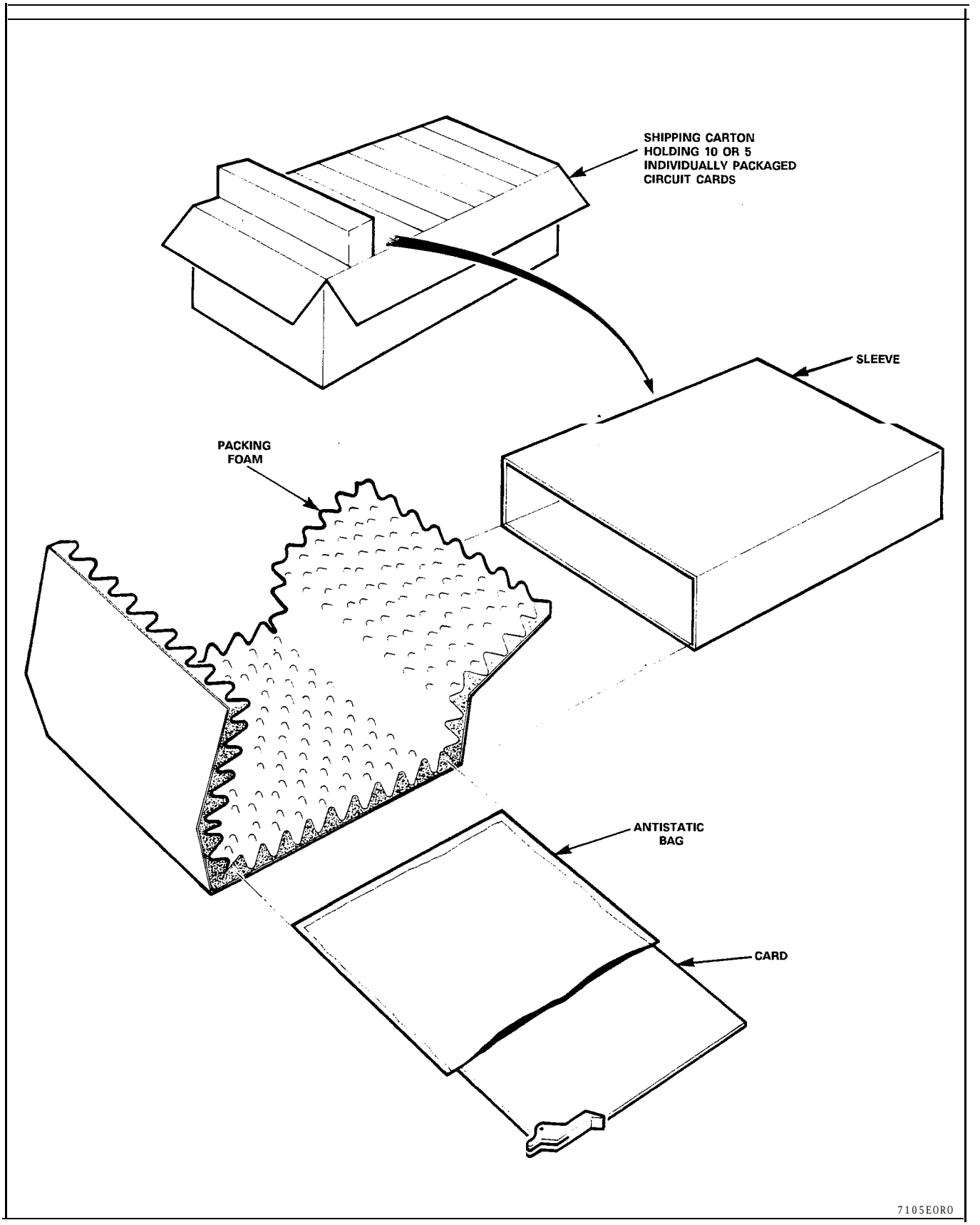


Figure 5-28 Printed Circuit Card Packaging

CHART 5-23
INSTALL A MAIN CONTROL CARD

CAUTION: Always wear a properly grounded antistatic wrist strap when handling a printed circuit board (pcb); the PABX #6 AWG ground wire must be correctly connected to an approved ground as described in the installation manual.

CAUTION: Remove conductive articles such as rings and watches before handling the Main Control Card (MCC).

CAUTION: Hold a pcb by its non-conductive edges, and avoid touching the components or conducting surfaces, except when seating connectors.

CAUTION: Never place a pcb onto a metallic or conductive surface; only place a pcb onto its antistatic bag, which has been placed onto a clean flat area.

Step	Action	Comments
	MODULE INSTALLATION	
1.	Verify that the antistatic wrist strap is correctly connected to the PABX, and that the PABX is correctly grounded; then attach the strap to your wrist.	The PABX must be properly grounded for the wrist strap to be effective.
2.	Unpack the Main Control Card (MCC) from its packing box and antistatic bag; place the MCC component side up onto the bag on top of the PABX or any nearby firm surface. Do not place it onto a deformable surface since the pcb may bend as pressure is applied to seat the connectors.	
3.	Verify that the jumpers are correctly positioned on the MCC and that the S1 switches are set to the OFF or OPEN position (refer to Figure 5-29).	Notes: Only Revision 3 and 4 MCCs require properly installed jumpers. For 672-port systems, WI must be in the upper position and W2 must be in the left position (opposite to that shown in Figure 5-31). Remove all jumpers from Revision A MCCs.
4.	Install the plastic standoffs into the MCC (where required to mate with the modules). Do not attempt to install standoffs into holes that are obstructed by components or wire.	
5.	Unpack the memory module and place it onto the MCC; press its connector into place with the palm of your hand, press the standoffs into place, then reseat the connector.	
6.	Unpack the DX module and place it onto the MCC; press each connector into place with the palm of your hand, press the standoffs into place, then reseat the connectors.	672 port systems use a Switch Matrix Card instead of a DX module.

CHART 5-23 (CONT'D)
INSTALL A MAIN CONTROL CARD

Step	Action	Comments
7.	Install the Decryption module; there are no standoffs for it.	
8	Install a T1 Clock Module.	Refer to Figure 5-30.
	MODULE REMOVAL - Read this BEFORE attempting to remove modules	
1.	Pop the module pcb from the standoffs by applying pressure with your thumb onto the short portion of the standoff projecting through the hole in the module, while pinching with one or two fingers on the opposite side of the module right near the standoff.	This "pinching action" avoids bending the pcb any more than is necessary to release it from the standoff.
2.	Carefully separate the connectors by applying pressure at each end of connector; lift the module from the MCC. DO NOT BEND OR FLEX the module by pulling up on the corners.	
3.	DO NOT USE a screwdriver or any similar object to pry the modules away from the MCC; damage to components or pcb tracks may result.	

CHART 5-24
INSTALL A T1 TRUNK CARD - INCLUDING ADAPTER AND T1 CLOCK MODULE

Step	Action	Comments
1.	With system power off, install the T1 Clock Module onto the Main Control Card; refer to Chart 5-23 and Figure 5-30.	Wear an anti-static wrist strap and follow all pcb handling procedures.
2.	While wearing an anti-static wrist strap, unpack the T1 Trunk Card and insert it into its designated upper slot within a digital peripheral bay.	The first T1 Trunk Card of a Bay must be installed into slot 6; in a COMBO Bay 2, it must be slot 4.
3.	At the backplane connector associated with the T1 Trunk card slot, install a T1 Adapter Card.	Refer to Figure 5-32.
4.	Attach the T1 Trunk Adapter Cable to the T1 Adapter Card.	Refer to Figure 5-33.
5.	Connect the T1 Trunk Cable to the T1 Trunk Adapter Cable and to the Channel Service Unit.	
6.	Install the cable adapter to the side of the cabinet with two self-tapping screws (and external tooth washers).	Refer to Figure 5-33.

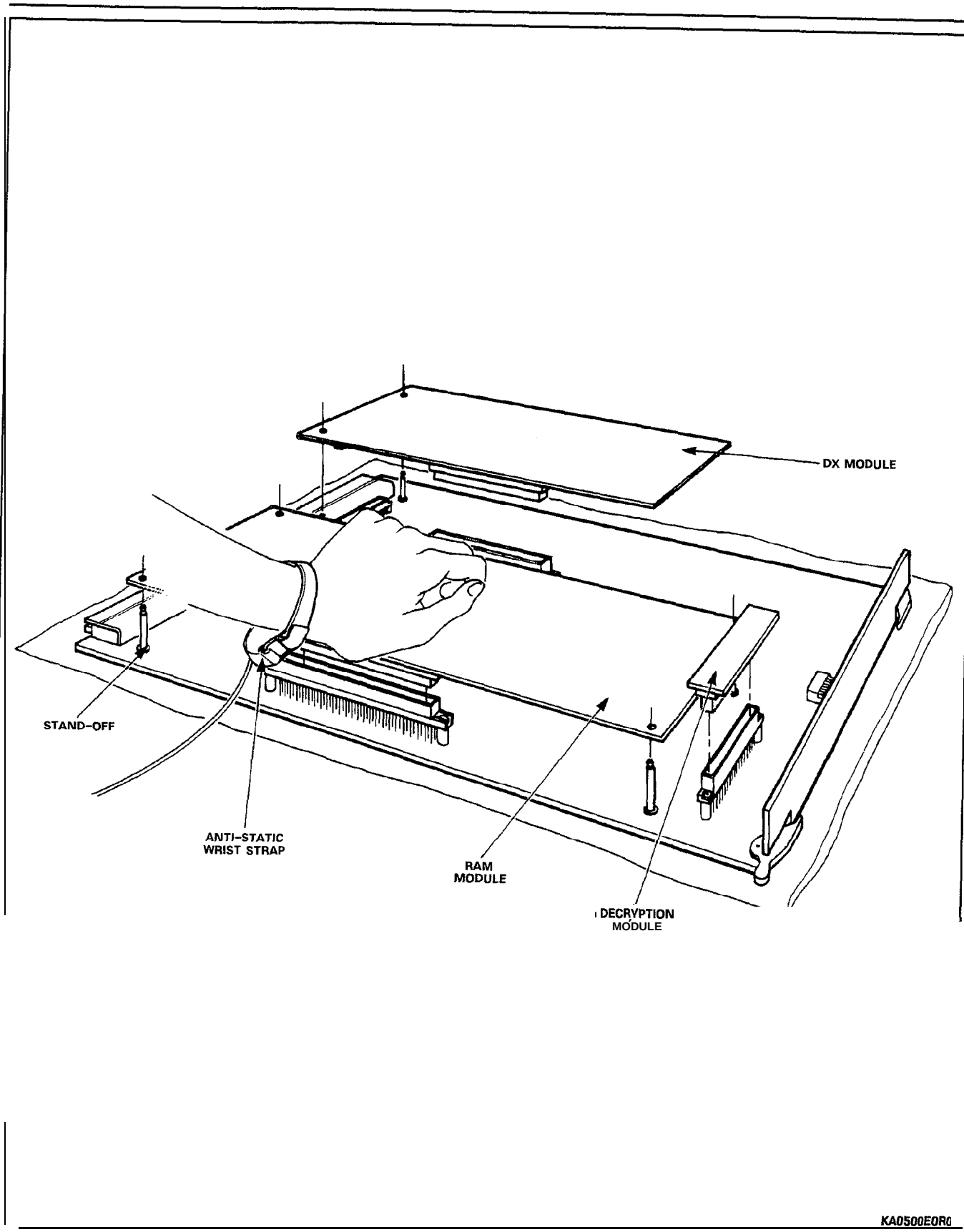
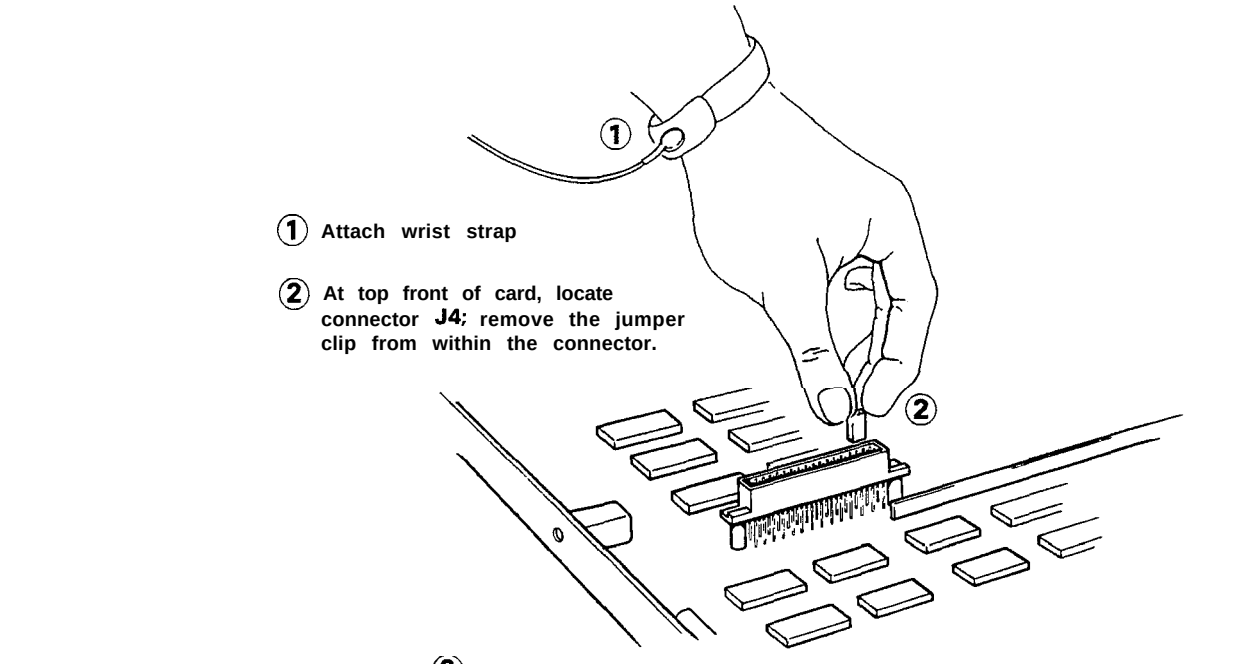
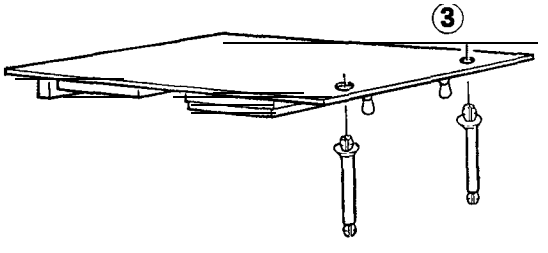


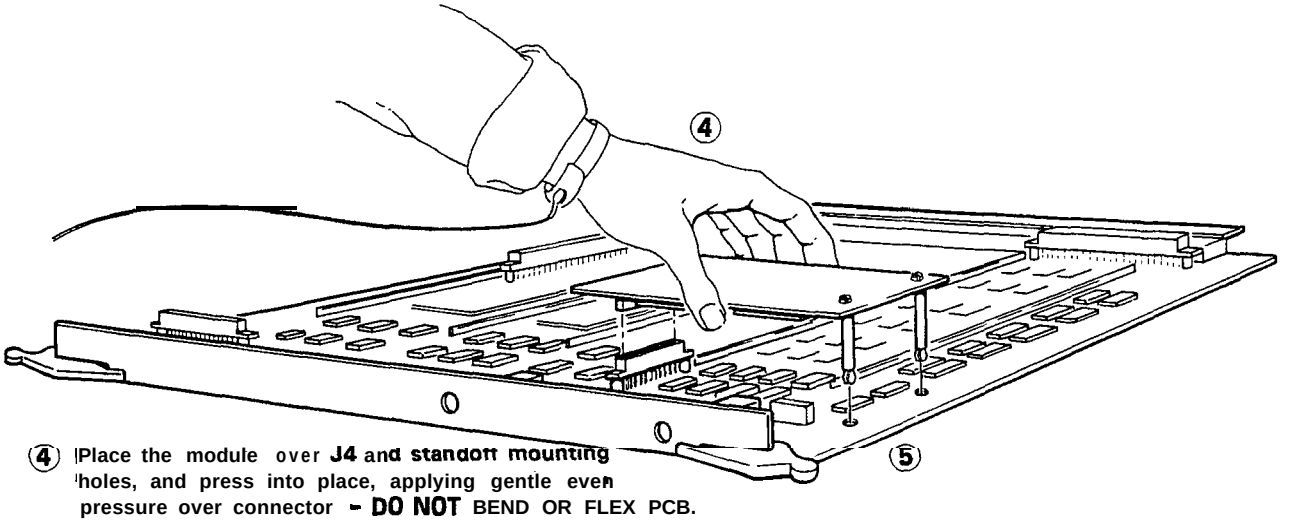
Figure 5-29 Installation of Modules onto an MCC



1. Attach wrist strap
2. At top front of card, locate connector J4; remove the jumper clip from within the connector.



3. Place the standoffs into the T1 clock module, flanged end.



4. Place the module over J4 and standoff mounting holes, and press into place, applying gentle even pressure over connector - DO NOT BEND OR FLEX PCB.
5. Press standoffs into place also.

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Figure 5-30 Installation of a T1 Clock Module onto an MCC

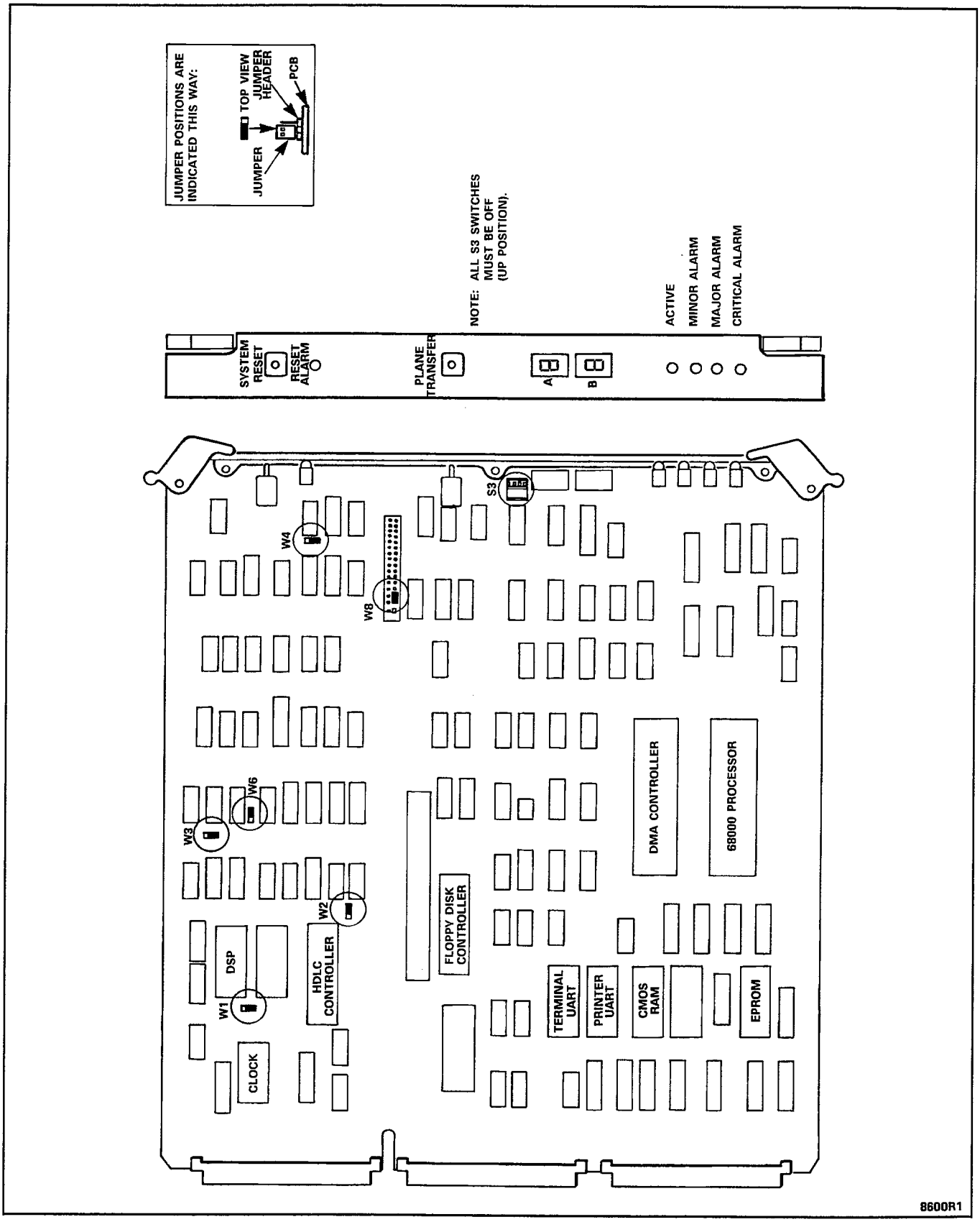


Figure 5-31 Main Control Card Jumpers and Switches

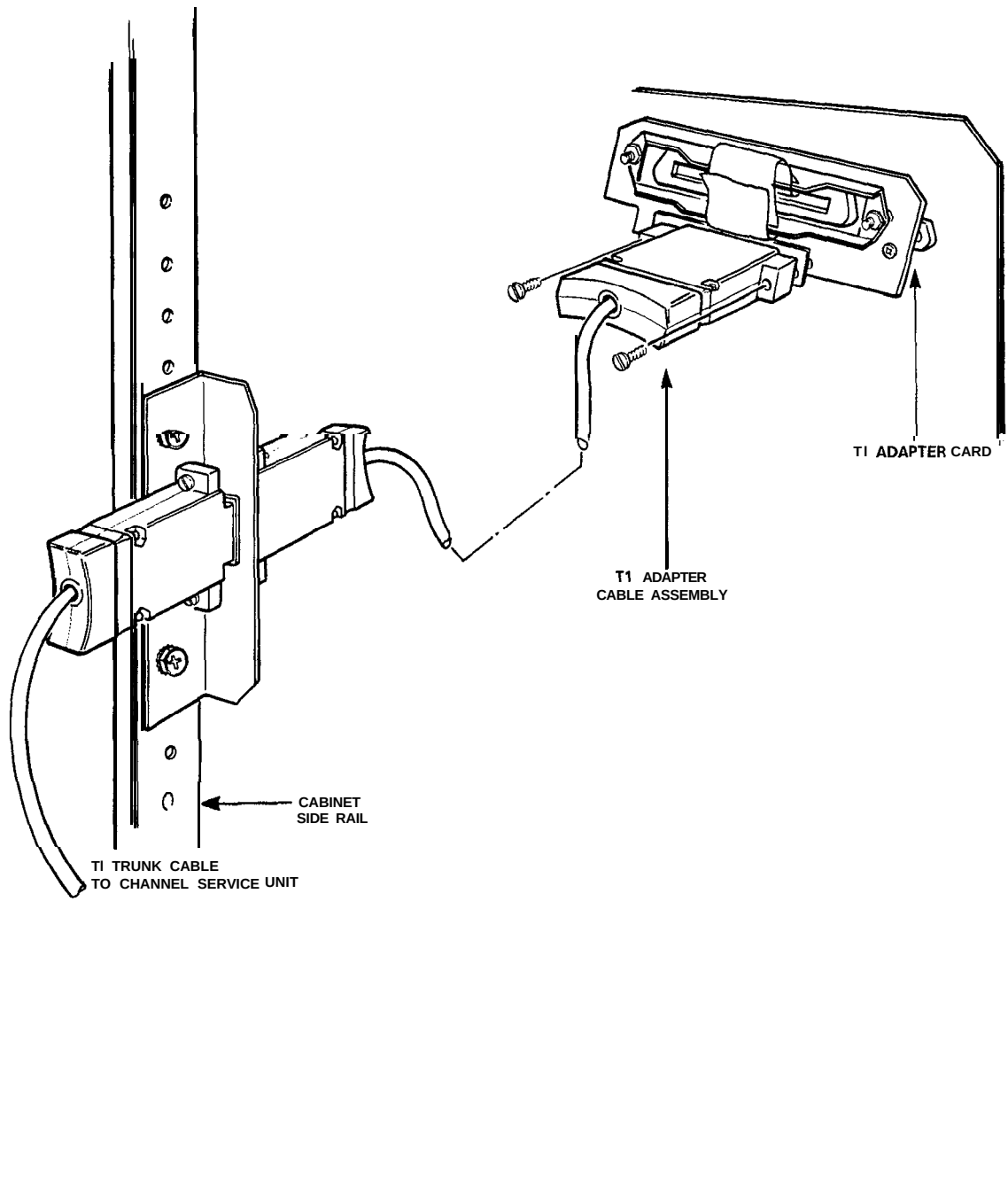
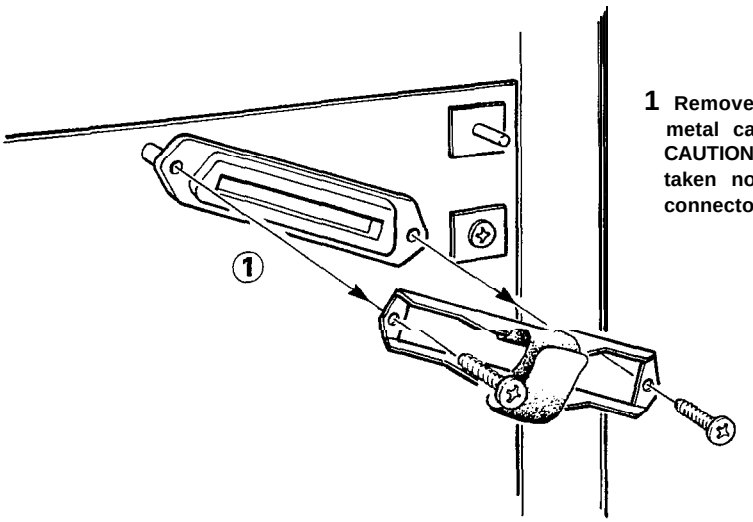
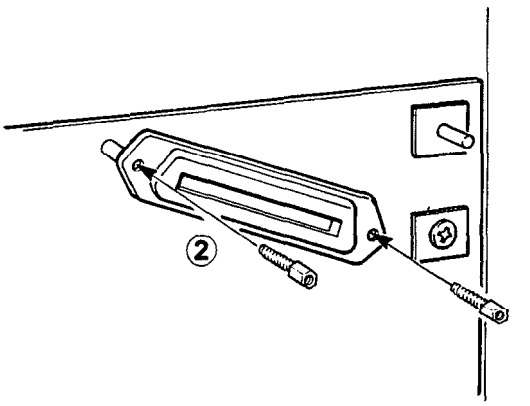


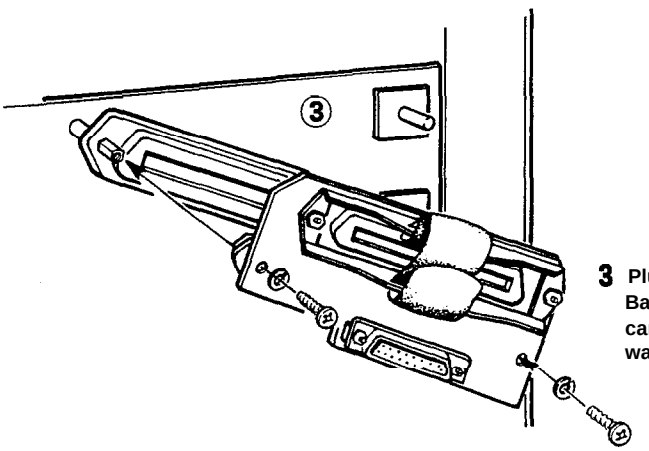
Figure 5-32 Installation of a T1 Adapter Cable Assembly



1 Remove the screws and metal cable strain relief, CAUTION: care must be taken not to remove the connector plastic shroud.

2 Replace the screws and washers with the hex slotted standoffs in the kit. Do not place a washer under the standoff. Tighten the standoffs with a screwdriver, firm but do not overtighten.





3 Plug the T1 Adapter Card into the Backplane connector. Fasten the card using the two screws and the washers in the kit.

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Figure 5-33 Installation of a T1 Adapter Card onto a Backplane

CHART 5-25
INSTALLATION OF MODEM POOLING ON AN SX-200 DIGITAL PABX

Step	Action	Comments
	For rack mounted DATASET 2102	
1.	Install the rack mounted data sets as required.	Refer to Figure 5-34.
2.	Install a Modem Interconnect Panel.	
3.	Connect a Modem Adapter to the RS-232 port on the DATASET 2102.	
4.	Connect the Modem to the Modem Adapter with an RS-232 cable.	
5.	Connect the Modem LINE plug to the FROM MODEM jack of the Modem Interconnect Panel.	
6.	Connect the DATASET plug of the DATASET 2102 to the TO DATASET plug of the Modem Interconnect Panel (required if the MI/MIC leads are used).	The Teledapt jacks are paired, one above the other; each Data Set must have its associated Modem connected to the jack above its connection.
7.	Connect the Modem Interconnect Panel and the DATASHELF 9100 25-pair cables to the MDF, and cross-connect as required.	The 25-pair cable from the DATASHELF 9100 connects to the assigned Digital Line Cards; the 25-pair cable from the Modem Interconnect Panel connects to the assigned ONS ports.
	For Standalone DATASET 2103 (Desk-top)	
1.	Connect a Modem Adapter to the DATASET 2103 RS-232 port.	Refer to Figure 5-35.
2.	Connect the Modem to the Modem Adapter with an RS-232 cable.	
3.	Connect the Modem LINE plug to the DATASET 2103 PHONE jack.	The Modem tip and ring leads pass through the DATASET 2103 directly to an ONS line card. The MI and MIC leads from the DATASET 2103 go to the Modem on the second pair of the cable (black and yellow).
4.	Connect the DATASET 2103 LINE connector to the MDF for connection to the PABX.	The Data Tip and Ring leads connect to a Digital Line Card; the Voice Tip and Ring leads connect to an ONS Line card.

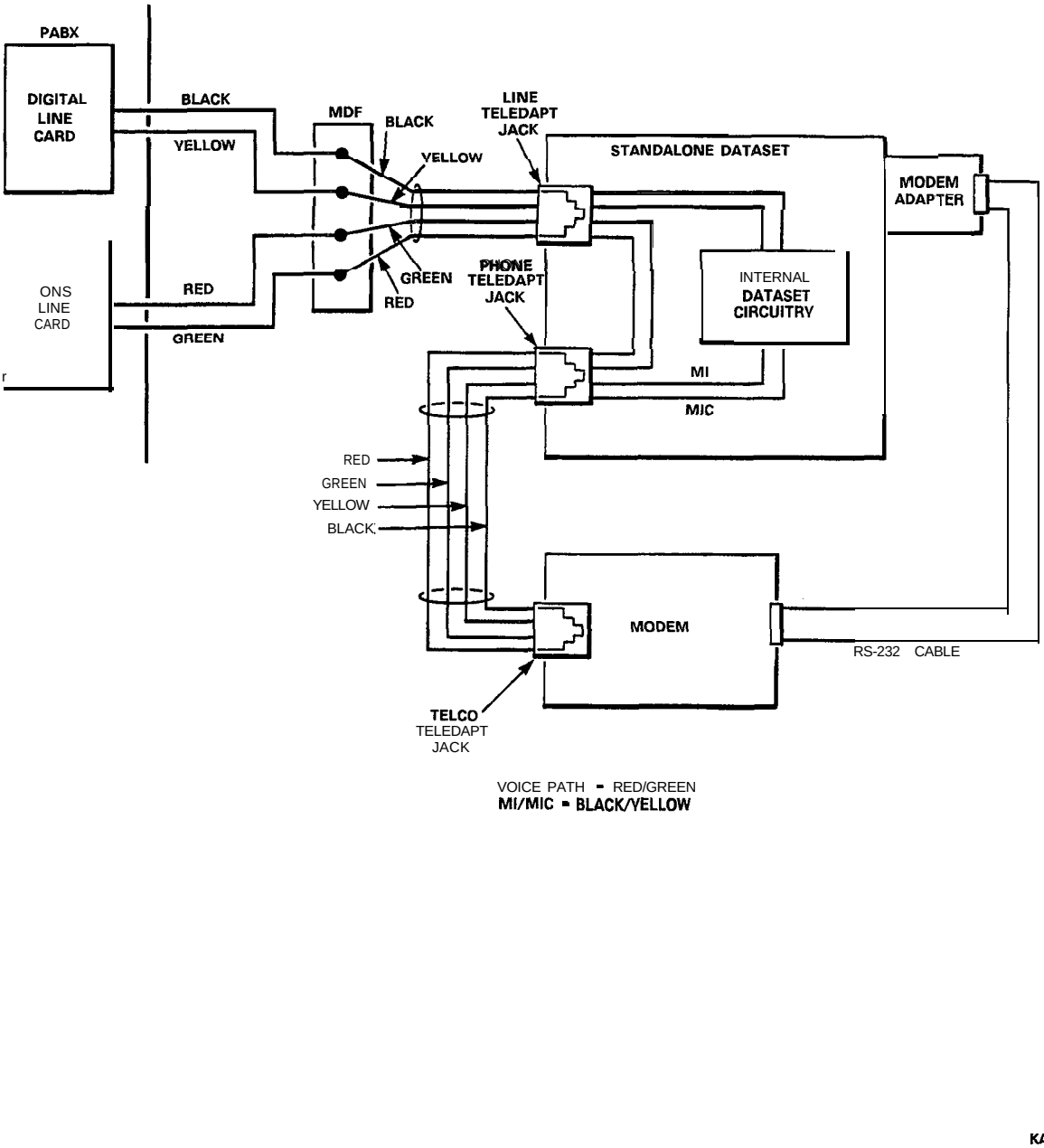


Figure 5-34 Modem Pooling with a Standalone DATASET

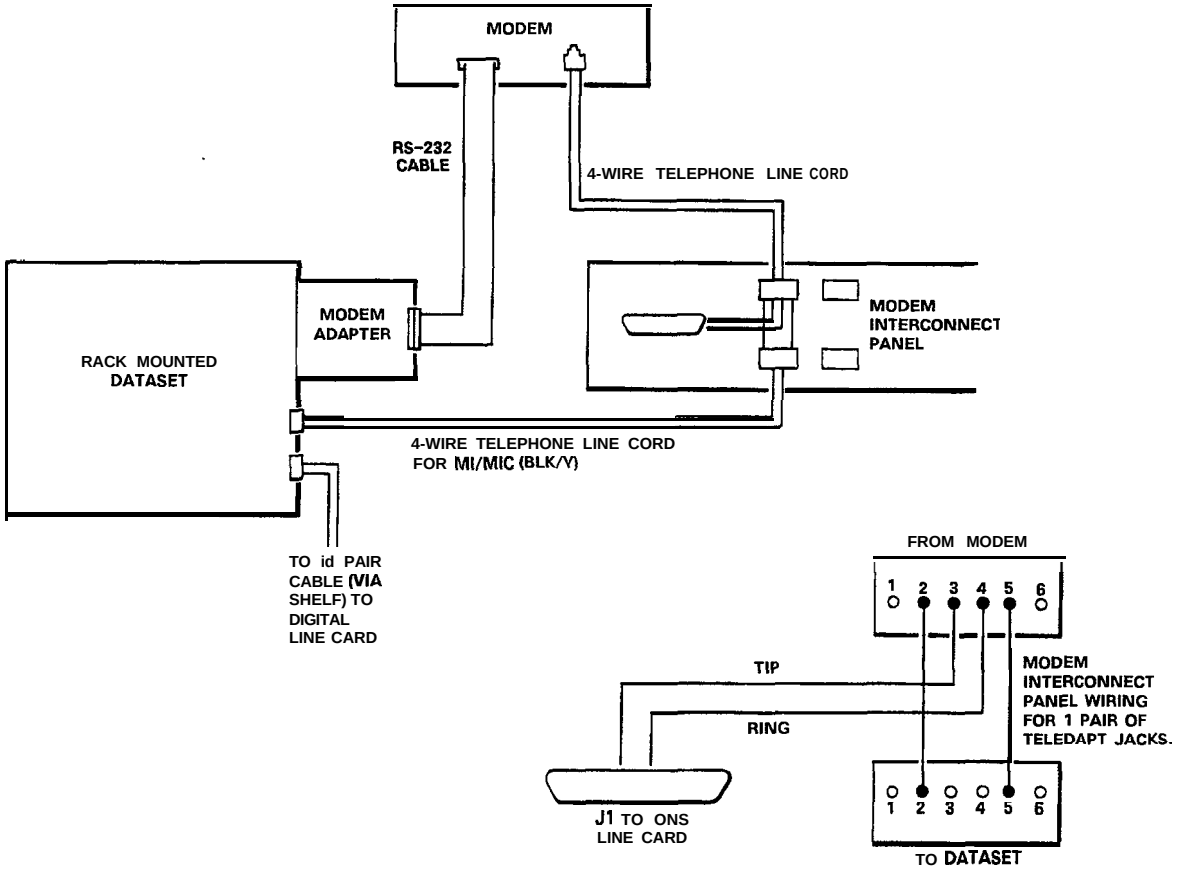


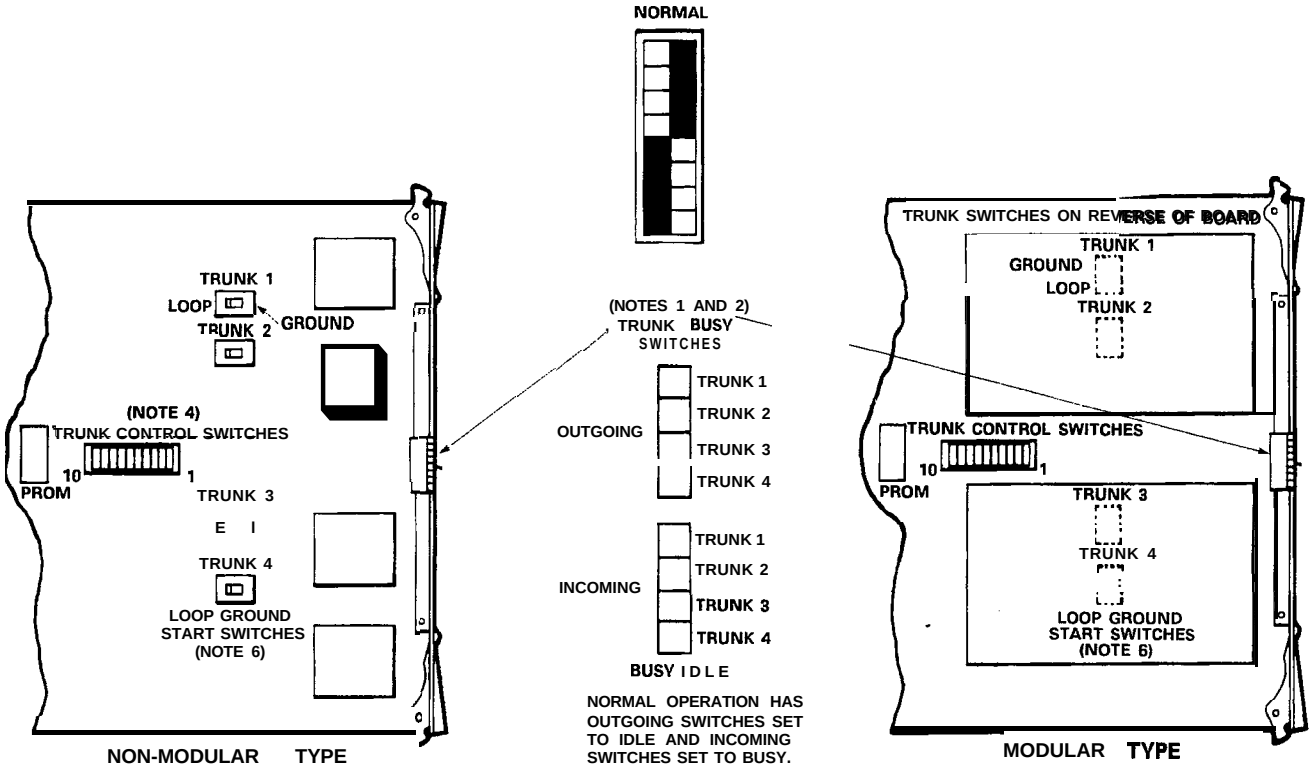
Figure 5-35 Modem Pooling with Rack Mounted DATASET and Modem Interconnect Panel

CHART 5-26
SET CO TRUNK CARD SWITCHES (TYPES -01 I/I 11)

CAUTION: Follow the procedures outlined in paragraph 5.03 while handling printed circuit cards or modules.

Note: Complete installation forms for trunk card switch settings before setting switches.

Step	Action	Comments
1.	Identify trunk circuit by card position, type, and circuit number.	
2.	While wearing the antistatic wrist strap, remove the card from its package or from the equipment shelf.	
3.	Set TRUNK BUSY switches to the required configuration.	Refer to notes for all switch settings and Figure 5-36.
4.	Set the LOOP-GROUND start switch to LOOP for a loop start trunk, or to GROUND for a ground start trunk.	
5.	Set 3rd-wire switch to OPEN if trunk is to be used as Dictation Trunk or XT lead is to give busy condition (otherwise to CLOSED).	
6.	Set IGN REVS to OPEN if trunk is to ignore line reversals as an incoming call, or to CLOSED if it is to recognize line reversals as an incoming call.	
7.	Set Trunk Control switches 6 and 6 to the required release time setting - normally closed is 500 ms release time.	
d.	Install card in shelf.	



INDIVIDUAL TRUNK CONTROL SWITCHES HAVE MEANINGS ACCORDING TO THE IDENTITY OF THE PROM INSTALLED ON THE CARD. THESE MEANINGS ARE SHOWN IN THE FOLLOWING DIAGRAM.

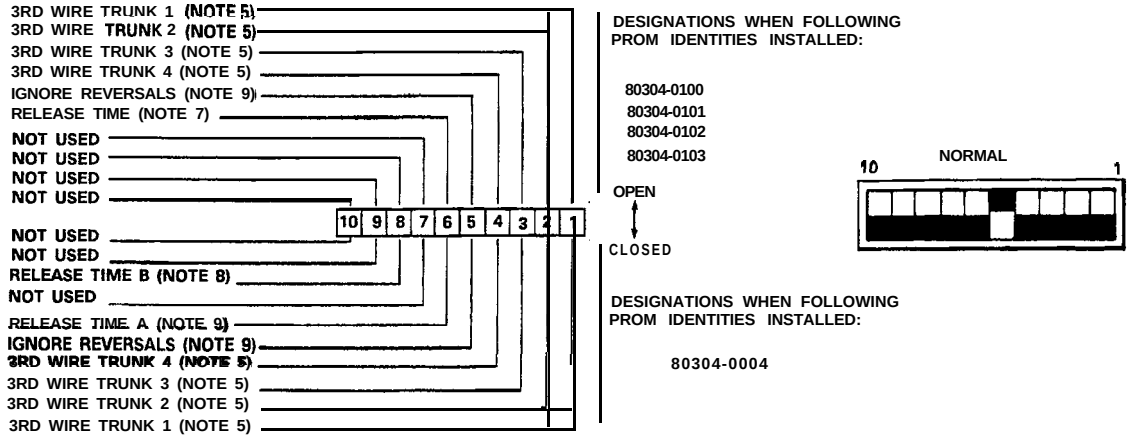


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Figure 5-36 CO Trunk Card Types 9110-011 and -111

NOTES TO FIGURE 5-36 CO TRUNK CARD TYPES 91 IO-01 1 AND -111

TRUNK BUSY SWITCHES

1. OUTGOING BUSY SWITCHES (I PER TRUNK) CAN BE SET FOR EITHER:
   IDLE NORMAL TRUNK OPERATION
   BUSY TRUNK CANNOT BE SEIZED FOR OUTGOING CALL.
2. THE "OUTGOING BUSY" CONDITION MAY BE SET EITHER BY THE OUTGOING BUSY SWITCH (NOTE I), OR BY THE CONSOLE "TRUNK BUSY OUT" FUNCTION. WHEN THIS CONDITION IS IN EFFECT THE INCOMING BUSY SWITCH AFFECTS THE TRUNK CONDITION AS FOLLOWS:
   IDLE NO ANSWER WILL BE GIVEN TO INCOMING LOCAL EXCHANGE CALLS
   BUSY A PERMANENT SEIZURE CONDITION IS GIVEN TOWARDS THE LOCAL EXCHANGE.
3. INCOMING BUSY HAS NO EFFECT WHILE OUTGOING BUSY IS NOT SET.

TRUNK CONTROL SWITCHES

4. ACTIVE TRUNK CONTROL SWITCHES ON NON-MODULAR ASUs ARE CONFINED TO SWITCHES I, 2, 3 AND 4, CORRESPONDING TO TRUNK I, 2, 3 AND 4, 3RD WIRE CONDITIONS RESPECTIVELY (NOTE 5).

3RD-WIRE SWITCHES

5. THE 3RD-WIRE LEAD WHEN REQUIRED IS CONNECTED TO THE LOCAL EXCHANGE TO PROVIDE CERTAIN FACILITIES. THESE INCLUDE THE RECORDING OF METER PULSES (EXTENDED FROM THE CO); OR ANOTHER REQUIREMENT MAY BE A BUSY CONDITION WHEN DICTATION OR CODE CALLING EQUIPMENT AT THE LOCAL EXCHANGE HAS BEEN TAKEN INTO SERVICE BY OTHER TRUNKS. THE SWITCH SETTING IS EITHER:
   OPEN RECOGNIZED EARTH FROM THE LOCAL EXCHANGE AS A BUSY CONDITION
   CLOSED 3RD WIRE SWITCH IS INEFFECTIVE

LOOP/GROUND CALLING SWITCHES

6. THE LOOP/GROUND CALLING SWITCHES (I PER TRUNK) CAN BE SET TO RESULT IN THE FOLLOWING CONDITIONS:
   LOOP (I) SETTING - USED FOR LOOP-CALLING TYPE TRUNKS
   GROUND (2) SETTING - USED FOR EARTH-CALLING TYPE TRUNKS

RELEASE TIME SWITCHES

7. VALID TRUNK RELEASE TIMES ARE RECOGNIZED BY THE FOLLOWING RELEASE TIME SETTINGS ON -0100 TO -0103 TYPE PROMS:
   OPEN GREATER THAN 50 ms OF NO LOOP CURRENT
   CLOSED GREATER THAN 500 ms OF NO LOOP CURRENT
8. VALID TRUNK RELEASE TIMES ARE RECOGNIZED BY THE FOLLOWING RELEASE TIME SETTINGS FOR PROM TYPE -0004 WITH SWITCHES "A" AND "B":

"A" SE-I-I-ING	"B" SETTING	RELEASE TIME
OPEN	CLOSED	**50** ms
CLOSED	CLOSED	**500** ms
OPEN	OPEN	**2.5 s**
CLOSED	OPEN	INFINITE (NON-RELEASE)

IGNORE REVERSALS

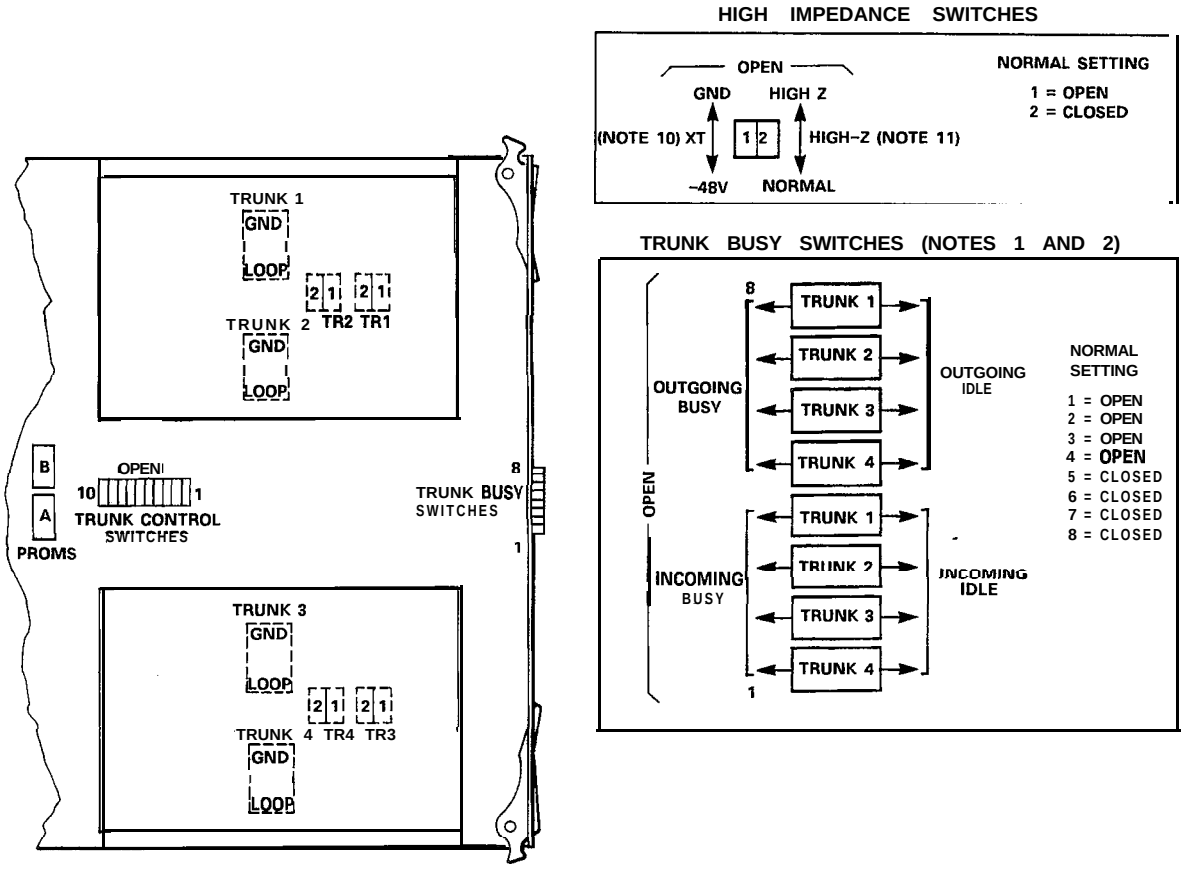
9. IF LINE REVERSALS ON THE TRUNK CIRCUIT ARE REQUIRED TO HAVE NO EFFECT THE IGNORE REVERSALS SWITCH IS SET TO "OPEN". IF LINE REVERSALS ARE TO BE RECOGNIZED THE SWITCH IS SET TO CLOSED.

CHART 5-27
SET CO TRUNK CARD SWITCHES (TYPES -211/311)

CAUTION: Follow the procedures outlined in paragraph 5.03 while handling printed circuit cards or modules.

Note: Complete installation forms for trunk card switch settings before setting switches.

Step	Action	Comments
1.	Attach antistatic wrist strap to your wrist.	
2.	Identify the trunk circuit by card position, type, and circuit.	
3.	Set the Trunk Busy switches to the required configuration.	Refer to notes for all switch settings and Figure 5-37.
4.	If trunk is to be GROUND start, set the LOOP-GROUND switch to GROUND; if LOOP start, set switch to LOOP.	
5.	Set the 3rd-wire switch to OPEN if this is a Dictation Trunk or if the XT lead is used to give busy condition. If busy condition is a ground on the XT lead, set XT switch to GROUND; if not, set XT switch to -48. If trunk is not used as a Dictation trunk and XT lead is not used to give busy condition, set 3rd-wire switch to CLOSED.	
6.	If trunk circuit is to ignore line reversals as an incoming call, set IGN REVS switch to OPEN; if it is to recognize reversals as an incoming call, set to CLOSED.	
7.	Set Trunk Control Switches 6 and 8 to the required release time setting, normally 500 ms.	
8.	Set switches for remaining trunks on this card.	
9.	Install card into its assigned slot in the card shelf.	



TRUNK CONTROL SWITCHES

NORMAL SETTING	SWITCH NUMBER	FUNCTION	TYPE -211	TYPE -311	NOTES
CLOSED	1	3RD WIRE TRUNK 1	X	X	5
CLOSED	2	3RD WIRE TRUNK 2	X	X	5
CLOSED	3	3RD WIRE TRUNK 3	X	X	5
CLOSED	4	3RD WIRE TRUNK 4	X	X	5
OPEN	5	IGNORE REVERSALS	X	X	6
CLOSED	6	RELEASE TIME "A"	X	X	7
CLOSED	7	MAKE/BREAK RATIO	-	X	8
CLOSED	8	RELEASE TIME "B"	X	X	7
CLOSED	9	NOT USED	-	-	
CLOSED	10	NOT USED	-	-	

"X" INDICATES THAT FUNCTION IS APPLICABLE FOR THE TVPE 9110-211-000 OR 9110-311-000 TRUNK CARDS.

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Figure 5-37 CO Trunk Card Switch Functions

NOTES FOR FIGURE 5-37 CO TRUNK CARD SWITCH FUNCTIONS

TRUNK BUSY SWITCHES

1. OUTGOING BUSY SWITCHES (1 PER TRUNK) CAN BE SET FOR EITHER:
   IDLE NORMAL TRUNK OPERATION
   BUSY TRUNK CANNOT BE SEIZED FOR OUTGOING CALL.
2. THE "OUTGOING BUSY" CONDITION MAY BE SET EITHER BY THE OUTGOING BUSY SWITCH (NOTE 1), OR BY THE CONSOLE "TRUNK BUSY OUT" FUNCTION. WHEN THIS CONDITION IS IN EFFECT THE INCOMING BUSY SWITCH AFFECTS THE TRUNK CONDITION AS FOLLOWS:
   IDLE NO ANSWER WILL BE GIVEN TO INCOMING LOCAL EXCHANGE CALLS
   BUSY A PERMANENT SEIZURE CONDITION IS GIVEN TOWARDS THE LOCAL EXCHANGE.
3. INCOMING BUSY HAS NO EFFECT WHILE OUTGOING BUSY IS NOT SET.

TRUNK CONTROL SWITCHES

4. THE TRUNK CONTROL SWITCHES ARE PROGRAMMED TO RESULT IN THE FEATURES SHOWN BELOW.

3RD-WIRE SWITCHES

5. THE 3RD-WIRE LEAD WHEN REQUIRED IS CONNECTED TO THE LOCAL EXCHANGE TO PROVIDE CERTAIN FACILITIES. THESE INCLUDE THE RECORDING OF METER PULSES (EXTENDED FROM THE CO); OR ANOTHER REQUIREMENT MAY BE A BUSY CONDITION WHEN DICTATION OR CODE CALLING EQUIPMENT AT THE LOCAL EXCHANGE HAS BEEN TAKEN INTO SERVICE BY OTHER TRUNKS. THE SWITCH SETTING IS EITHER:
   OPEN RECOGNIZES EARTH FROM THE LOCAL EXCHANGE AS A BUSY CONDITION.
   CLOSED 3RD WIRE SWITCH IS INEFFECTIVE.

IGNORE REVERSALS

6. IF LINE REVERSALS ON THE TRUNK CIRCUIT ARE REQUIRED TO HAVE NO EFFECT THE IGNORE REVERSALS SWITCH IS SET TO "OPEN". IF LINE REVERSALS ARE TO BE RECOGNIZED THE SWITCH IS SET TO CLOSED.

RELEASE TIME SWITCHES

7. VALID TRUNK RELEASE TIMES ARE RECOGNIZED BY THE FOLLOWING RELEASE TIME SETTINGS FOR PROM TYPE -0004 WITH SWITCHES "A" AND "B":

"A" SETTING	"B" SETTING	RELEASE TIME
OPEN	CLOSED	50 ms
CLOSED	CLOSED	500 ms
OPEN	OPEN	2.5 s
CLOSED	OPEN	INFINITE (NON-RELEASE)

MAKE/BREAK RATIO

8. THE MAKE/BREAK RATIO SWITCH FUNCTION IS PROGRAMMED FOR TYPE 91 10-31 1 ONLY. THE SWITCH SETTINGS RESULT IN THE FOLLOWING RATIOS:
   OPEN 33/66 (33% MAKE; 66% BREAK)
   CLOSED 40/60 (40% MAKE; 60% BREAK)

TYPE 911 O-21 1 IS FIXED AT 40/60 RATIO.

LOOP/GROUND CALLING SWITCHES

9. THE LOOP/GROUND CALLING SWITCHES (1 PER TRUNK) CAN BE SET TO:

LOOP USED FOR LOOP-CALLING TYPE TRUNKS

GROUND USED FOR EARTH-CALLING TYPE TRUNKS

XT SWITCH

10. THE XT SWITCH (1 PER TRUNK) IS USED IN CONJUNCTION WITH THE 3RD WIRE SWITCH (NOTE 5) AND CAN BE SET TO PROVIDE THE FOLLOWING CONDITIONS:

-48 V THE CIRCUIT RESPONDS TO A -48 Vdc SIGNAL (E.G., WHEN IT IS A METER PULSE OR A BUSY CONDITION). AN EARTH IS EQUIVALENT TO AN OPEN.

GND THE CIRCUIT RESPONDS TO AN EARTH SIGNAL (E.G., WHEN IT IS A METER PULSE OR A BUSY CONDITION). A -48 Vdc SIGNAL IS EQUIVALENT TO OPEN.

HI-Z SWITCH

11. THE HI-Z SWITCH ALLOWS THE PROPER IMPEDANCE ON INCOMING CALLS, TO BE PRESENTED ACCORDING TO REQUIREMENTS. THE TWO SETTINGS FOR THE SWITCH RESULT IN THE FOLLOWING:

HI-Z SETTING - PRESENTS THE NORMAL IMPEDANCE TO INCOMING RINGING SIGNALS, BUT A HIGH BLOCKING IMPEDANCE TO VOICE SIGNALS

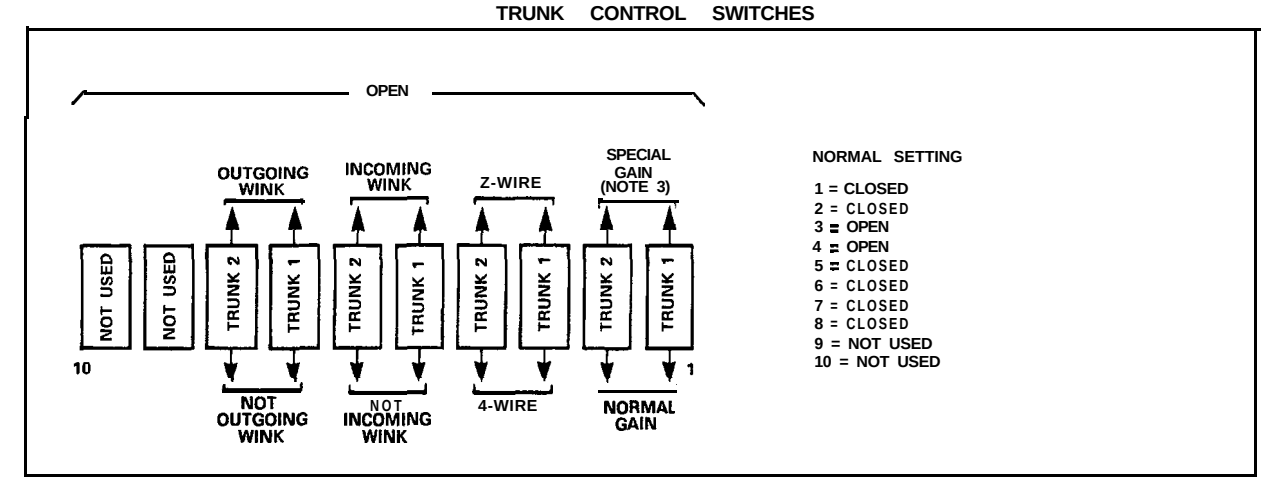
NORM SETTING - PRESENTS A NORMAL IMPEDANCE TO BOTH RINGING SIGNALS AND VOICE SIGNALS. IN CANADA THE HI-Z SWITCH MUST BE SET TO HI-Z.

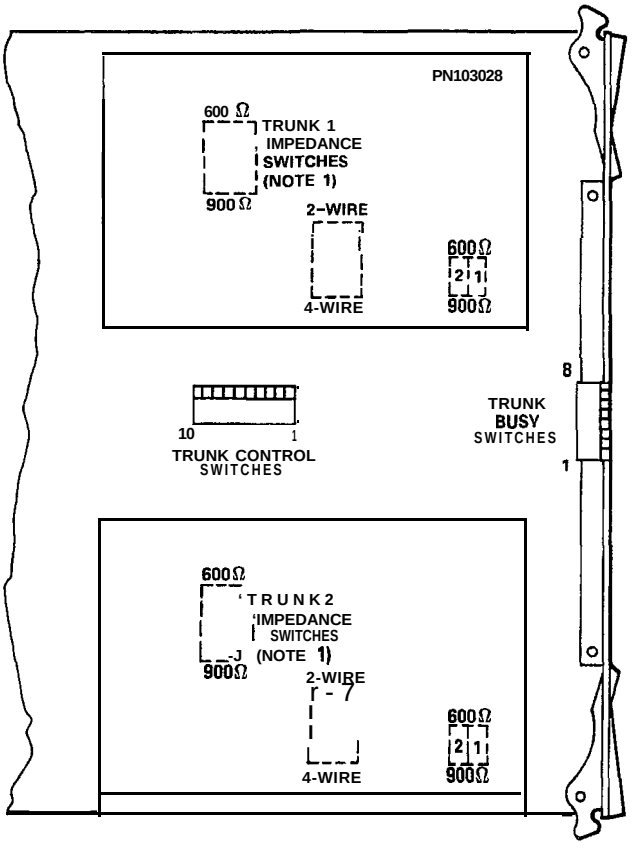
CHART 5-28
SET E&M/TIE TRUNK CARD OPTION SWITCHES

CAUTION: Follow the procedures outlined in paragraph 5.03 while handling printed circuit cards or modules.

Note: Complete installation forms for Trunk Card switch settings before setting any switches on the card.

Step	Action	Comments
1.	Attach the antistatic wrist strap to your wrist.	
2.	Select the required trunk card and set the busy switches to idle or busy as required.	Refer to notes for setting of switches and Figure 5-38.
3.	Set the trunk impedance switches to 600 ohms or 900 ohms as required.	
4.	Set the 2-wire/4-wire switches on the front and back of the card for either 2-wire or 4-wire as required for this trunk.	
5.	Set the INCOMING WINK switch on the face of the trunk card to INCOMING WINK or to NOT INCOMING WINK as required for this trunk.	
6.	Set the OUTGOING WINK switch on the face of the trunk card to OUTGOING WINK or to NOT OUTGOING WINK as required for this trunk.	
7.	Set the STOP DIAL switch on the circuit card faceplate to STOP DIAL or to NOT STOP DIAL as required for this trunk.	
8.	Set the GAIN switch to either NORMAL or to SPECIAL as required for the trunk.	
9.	Set M LEAD switch to M INV if inversion of the M lead signal is required.	
10.	Set switches for other trunk on this card.	
11.	Insert card into its assigned slot in the card shelf.	





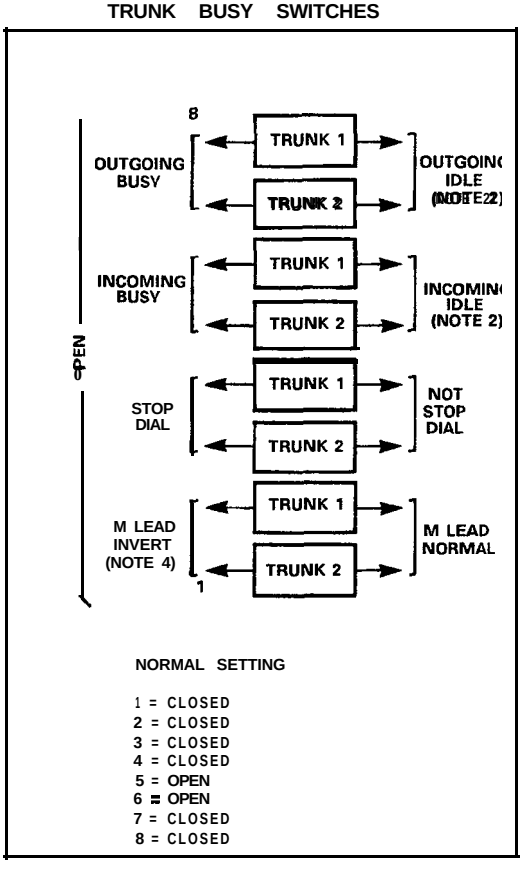


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Figure 5-38 E&M/Tie Trunk Card Switch Settings

NOTES FOR FIGURE 5-38

E&M/TIE TRUNK CARD SWITCH FUNCTIONS

1. Trunk impedance switches are located on the rear face of the trunk card.
2. Outgoing/incoming switch settings:

Outgoing Busy Switch Set to	Incoming Busy Switch Set to	Result
Idle	Busy	Normal trunk operation - if trunk is made busy by attendant, outgoing busy, incoming busy condition results. See below.
Busy	Busy	Trunk cannot be seized, incoming or outgoing from the PABX. Recommended setting if trunk is not connected to trunk circuit.
Busy	Idle	Outgoing calls receive busy tone. Incoming calls receive ringing tone but cannot be answered.
Idle	Idle	If trunk is made busy by attendant, outgoing busy, incoming idle condition results. See below.

Incoming busy switch, when operated, will provide an outgoing seize signal whenever the trunk is made outgoing busy (either from the outgoing busy switch on the trunk, or from the console).

3. Normal gain provides 0.5 dB insertion loss through the PABX. Special gain provides for 4-wire operation with carrier systems requiring signal levels of +7 dB on the Rx pair, and -16 dB on the Tx pair.
4. The position of the M lead switch determines the condition which appears on the M lead. These conditions are as follows:

SWITCH POSITION	CONDITIONS IDLE	SEIZED
normal	ground	-48 vdc
invert	-48 vdc	ground

CHART 5-29
SET DID/TIE TRUNK CARD OPTION SWITCHES

CAUTION: Follow the procedures outlined in paragraph 5.03 while handling printed circuit cards or modules.

Note: Complete installation forms for Trunk Card settings before setting any switches on the card.

Step	Action	Comments
1.	Attach the antistatic wrist strap to your wrist and select the required trunk card.	Refer to notes for setting of switches and Figure 5-39.
2.	Set TRUNK BUSY switches as required for this trunk.	
3.	Set SW1, SW2, SW3 switches to either 600 ohms or 900 ohms as required.	
4.	Set trunk type switches A and B to required configuration.	
5.	Set INCOMING WINK switch to INCOMING WINK or to NOT INCOMING WINK, as required for this trunk.	INCOMING WINK results in a 180 ms off-hook signal sent as a "ready to receive dial information" condition.
6.	Set OUTGOING WINK START switch to OUTGOING WINK or to NOT OUTGOING WINK as required for this trunk.	OUTGOING WINK results in a waiting period until an off-hook signal of 100 ms is received from far end.
7.	Set the BG-PULS switch to select either LOOP pulsing or BATTERY and GROUND pulsing.	
8.	Set the STOP DIAL switch to either STOP DIAL or to NOT STOP DIAL as required for this DID/TIE trunk.	
9.	Set all switches for the other trunk on this card.	
10.	Install the trunk card into its assigned slot in the card shelf.	

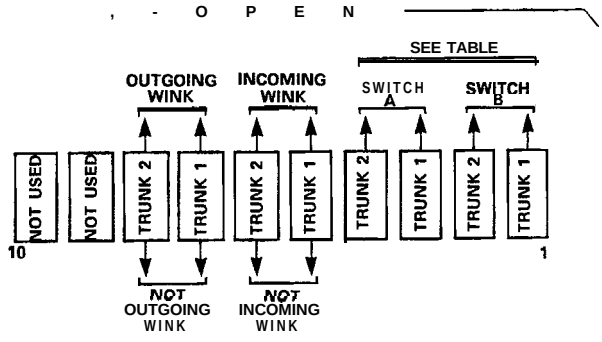
TRUNK CONTROL SWITCHES

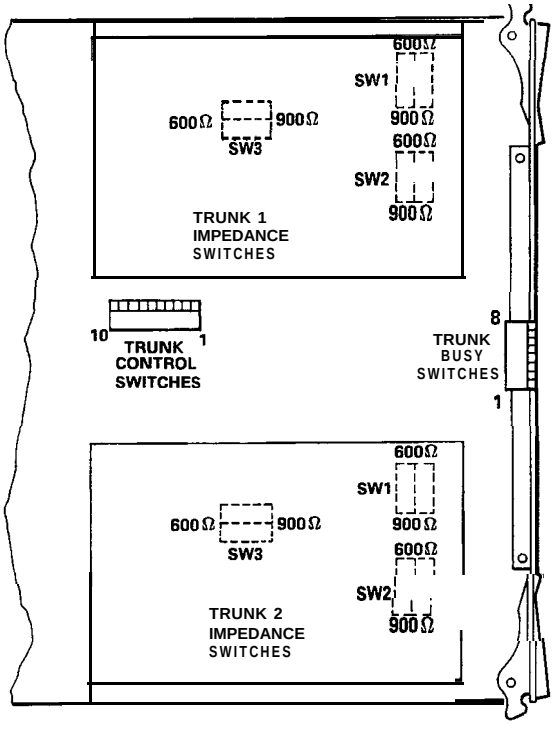
TABLE

TRUNK TYPE	SWITCH A	SWITCH B
DID TRUNK	CLOSED	CLOSED
LOOP TIE TRUNK	CLOSED	OPEN
INCOMING DIAL - OUTGOING AUTO	OPEN	CLOSED
NOT USED	OPEN	OPEN

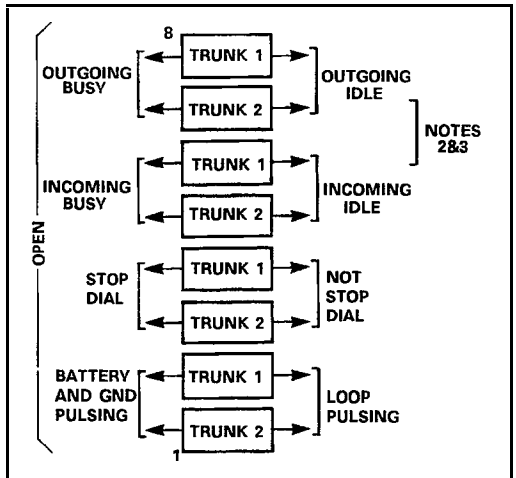
NORMAL SETTING

5 = CLOSED
6 = CLOSED
7 = CLOSED
9 = CLOSED
9 = NOT USED
10 = NOT USED





TRUNK BUSY SWITCHES



NORMAL SETTING

1 = CLOSED
2 = CLOSED
3 = CLOSED
4 = CLOSED
5 = OPEN
6 = OPEN
7 = CLOSED
8 = CLOSED

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Figure 5-39 DID / TIE Trunk Card Switch Functions

NOTES FOR FIGURE 5-39

DID / TIE TRUNK CARD SWITCH FUNCTIONS

1. Trunk impedance switches are located on the rear face of the Trunk Card.

Trunk Busy Switches

2. Outgoing Busy Switches (1 per trunk) can be set for either of the following conditions:
   Idle setting - normal trunk operation
   Busy setting - trunk cannot be seized for outgoing call.
3. The "outgoing busy" condition may be set either by the outgoing busy switch (Note 2), or by the console "Trunk Busy Out" function. When this condition is in effect the incoming Busy Switch affects the trunk condition as follows:
   Idle setting - no answer will be given to incoming trunk calls
   Busy setting - a permanent seizure condition is given towards the trunk.

CHART 5-30
SET LS/GS TRUNK CARD JUMPERS

CAUTION: Follow the procedures outlined in paragraph 5.03 while handling printed circuit cards or modules.

Step	Action	Comments
1.	Identify trunk circuit by bay, slot, circuit and type (loop start or ground start).	
2.	While wearing the antistatic wrist strap, remove the card from its package or from the equipment bay.	
3.	Set the jumpers into position for each of the six trunks on the card. Position the marked end to G for a Ground start or L for a Loop start trunk.	Refer to Figure 5-40.
4.	Install card into its assigned bay/slot position.	

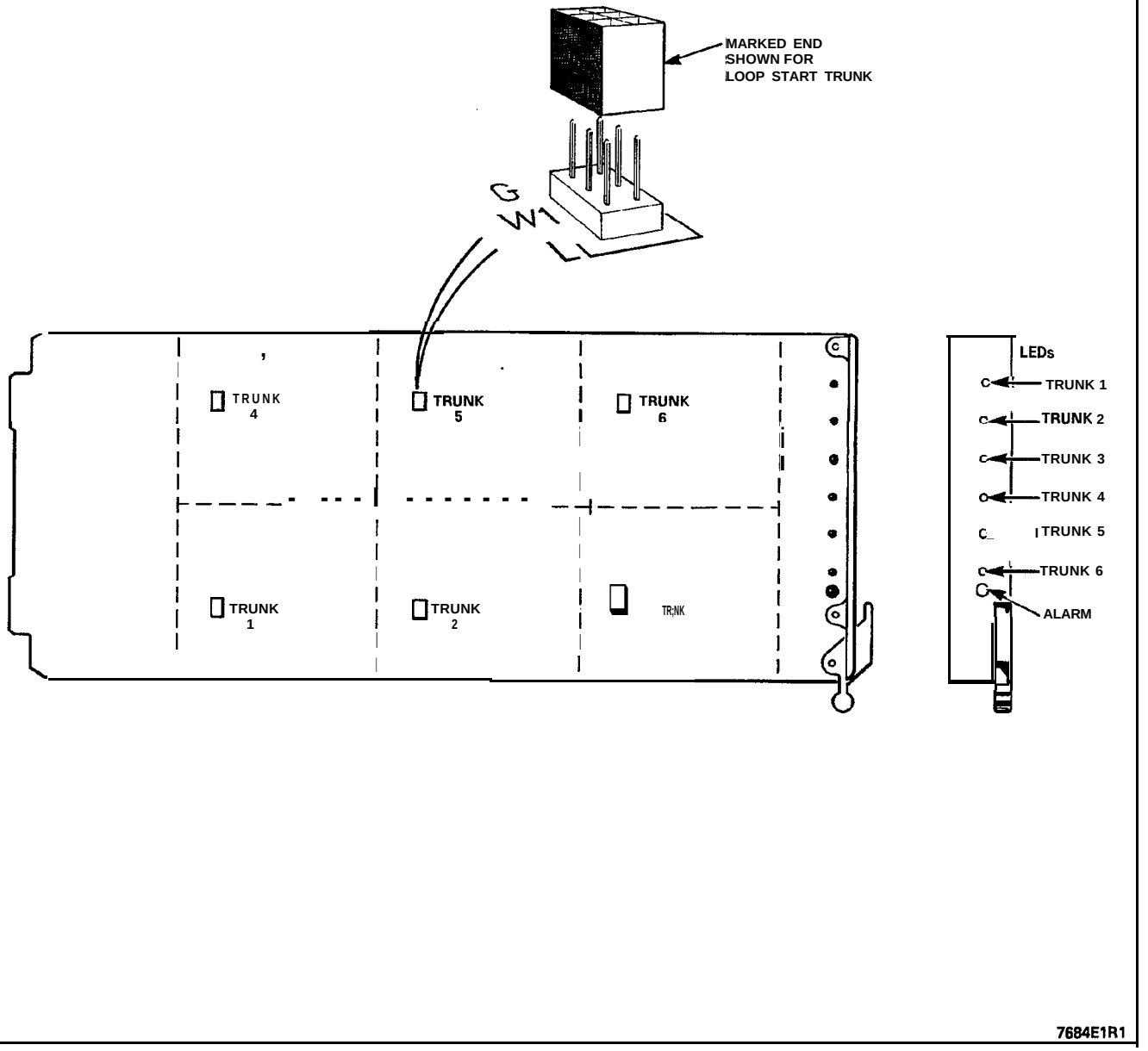


Figure 5-40 LS/GS Trunk Card

CHART 5-31
INITIAL SYSTEM POWER-ON

Step	Action	Comments
1.	Check that all cards are in place and that all cables within the cabinets, including uninterruptable power supply, are connected.	
2.	Plug line cord(s) into AC receptacles.	If Control cabinet has a UPS, plug line cord into UPS and UPS line cord into AC receptacle, according to manufacturer's instructions.
3.	Turn on main circuit breakers and UPS.	
4.	Turn on power switch on maintenance panels, and bay power supplies.	
5.	Insert diskette into floppy disk drive.	Refer to Chart 5-32.
6.	At console, after diagnostics are completed, press the FUNCTION key.	Function **softkey** prompts are displayed.
7.	Press the APPLICATION **softkey.**	Attendant Console LCD responds by displaying the message: Select An Application OR Press Any Hard Key To Return and MAINTENANCE and CDE **softkeys** are displayed.
8.	Press MAINTENANCE or CDE **softkey.**	LCD displays the message: Choose a Username. . . The following **softkeys** are displayed: INSTALLER MAINT1 MAINT2 SUPERVISOR ATTENDANT
9.	Press the INSTALLER or another **softkey.**	LCD responds by displaying the message: Enter Password: The ENTER **softkey** is displayed:
10.	Enter the numeric password from the telephony keypad.	Digits are not displayed.
11.	Press the ENTER **softkey.**	LCD display responds with the message: PLEASE WAIT. . . Disk drive is accessed. LCD display updates with a display of Maintenance or CDE **softkeys** and menu.

CHART 5-31 (CONT'D)
INITIAL SYSTEM POWER-ON

Step	Action	Comments
12.	Proceed with Maintenance or CDE application, as required.	Refer to Section MITL9109-094-35 1 -NA, RS-232 Maintenance Terminal, or Section MITL9109-094-210-NA, Customer Data Entry.

Note: The console may be connected to the console jack on the front of the maintenance panel for working on the PABX, rather than being at the usual attendant console location. This jack is wired to the default DLIC console position (Bay 2, Slot 3, Circuit 1, through J27 of the Combo backplane).

CHART 5-32
INSTALL DISKETTE INTO DISK DRIVE

Step	Action	Comments
	Note: The disk drive must have system power ON before removing or inserting a diskette.	
1.	Put the system into maintenance mode at the terminal (not in CDE mode).	This inhibits system reading and writing to the disk.
2.	Open the door of the disk drive.	Hold the door open with one hand.
3.	Unlatch the disk; refer to Figure 5-41.	Note that there are two types of disk drive latches.
4.	Carefully grasp the diskette between thumb and index finger and pull straight out.	Refer to Figure 5-41.
5.	To install a diskette, hold it as shown, and insert it straight into the drive, then latch the drive.	

Disk Handling Procedures

- Do not touch the magnetic media
- Keep disks away from magnetic fields
- When necessary to write on a disk envelope, only use a felt tipped marker (no pen or pencil) and press very softly
- Do not place paper clips onto disk envelope
- Do not bend, squeeze, or put pressure onto a disk or its envelope
- Disks must be stored in the same environment as they operate: +10 to 40°C, 20 to 80% R.H. (non-condensing)

- Before using a disk, it must be acclimatized for 24 hours in the environment in which it will operate
- System power must be on before inserting a disk into or removing a disk from the drive
- Whenever the disk is to be removed or inserted, ensure that there is no read or write activity in progress from the system, the LED on the disk drive must be OFF.

CHART 5-33
REPACKING FOR SHIPMENT

Step	Action	Comments
	Note: Do not disconnect the system ground connection until after all printed circuit cards have been properly packed.	Whenever possible, re-use original packing material to repack an SX-200 DIGITAL PABX.
1.	Repack all items carefully, and list the contents of each carton on the label.	Ensure that items within the carton cannot shift about, and will not get scratched or damaged.
2.	Wrap all items with air-cushion type material, and surround with loose paper to minimize movement within the carton.	
3.	Pack all printed circuit cards in antistatic bags and in regular PC card shipping cartons. Handle cards by the edges only, and follow all the usual card handling procedures.	Wear the antistatic wrist strap while handling cards.

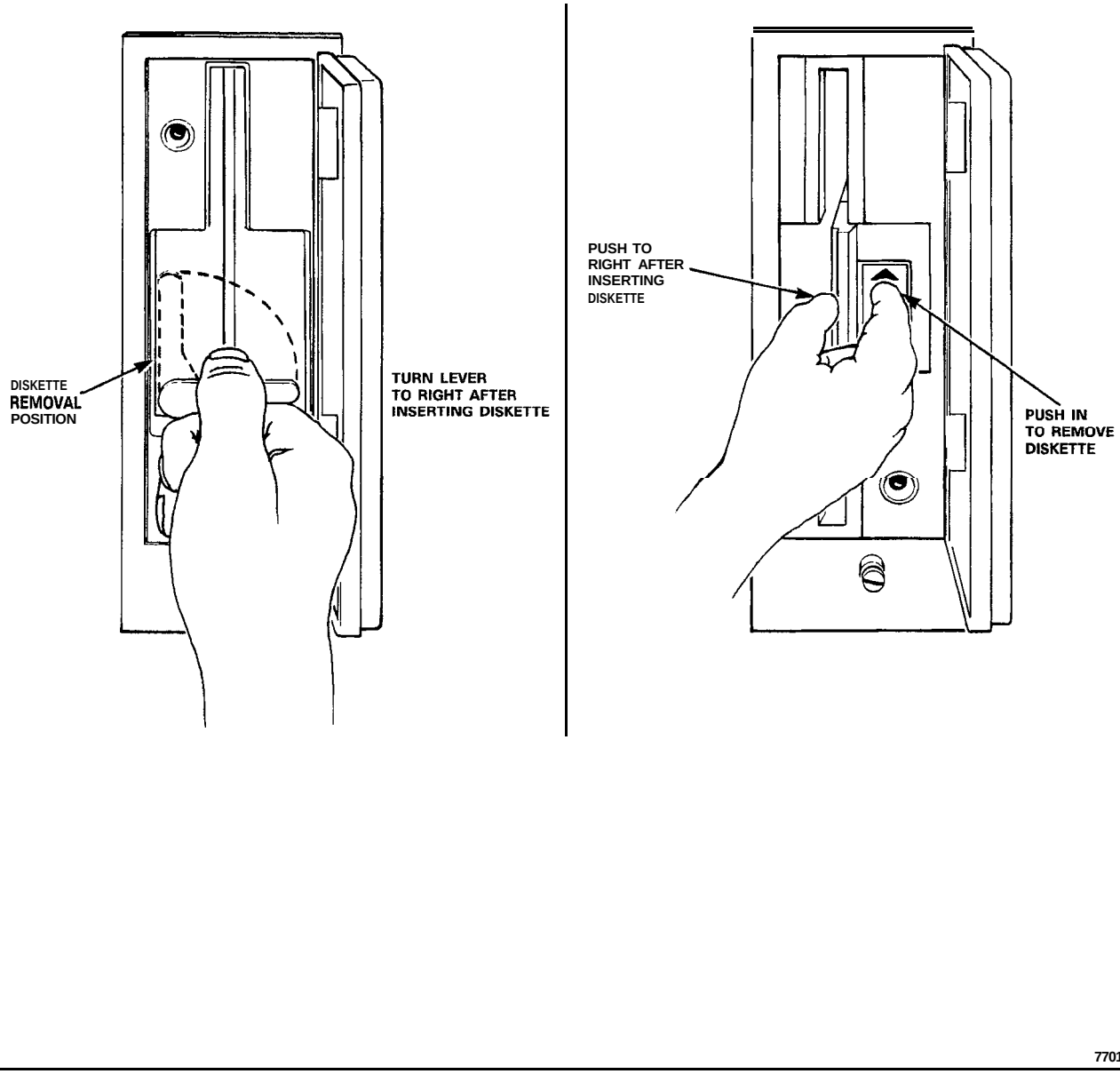


Figure 5-41 Disk Drive Latches

6. CABLING AND CROSS-CONNECTIONS

General

6.01 This Part details the cabling and cross-connections required when installing the SX-200 DIGITAL PABX.

Telephone Set and Trunk Cabling

6.02 Telephone set and trunk cabling terminates on the building cross-connect terminals in the normal manner.

System Cable Terminations

6.03 All interconnecting cables must be terminated in accordance with the following tables according to the number of bays supplied and equipped. Complete the Tip & Ring Assignment forms for the stations, trunks, and other equipment being installed. These forms will provide a permanent on-site record of this installation and should be maintained up-to-date.

TABLE 6-I
CONTROL SHELF TIP & RING ASSIGNMENTS

Plugs J5 and J9 for Digital Bays 1 through 7 (J25 for COMBO Bay 2)

Slot	Plug	Pin	Pair	Cct	ONS or DLC	Cct	LS/GS	Cct	Designation cov	Cct	OPS or DID
		26	W-BL	1	T1	1	T1	1	T1	1	T1
		1	BL-W		RI		RI		R1		RI
		27	w-o	2	T2	2	T2		MM1		
		2	o-w		R2		R2		M I		
		28	W-G	3	T3	3	T3	2	T2	2	T2
6	J5	3	G-W		R3		R3		R2		R2
or		29	W-BR	4	T4	4	T4		MM2		
8	J9	4	BR-W		R4		R4		M2		
or		30	w-s	5	T5	5	T5	3	T3	3	T3
4	J25	5	s-w		R5		R5		R3		R3
		31	R-BL	6	T6	6	T6		MM3		
		6	BL-R		R6		R6		M3		
		32	R-O	7	T7			4	T4	4	T4
		7	O-R		R7				R4		R4
		33	R-G	8	T8				MM4		
		8	G-R		R8				M4		
		34	R-BR	9	T9			5	T5	5	T5
		9	BR-R		R9				R5		R5
		35	R-S	10	T10				MM5		
		10	S-R		RIO				M5		
		36	BK-BL	11	T11			6	T6	6	T6
		11	BL-BK		RI1				R6		R6
		37	BK-0	12	T12				MM6		
		12	0-BK		R12				M6		
		38	BK-G					spare			
		13	G-BK					spare			
		39	BK-BR	1	T1	1	T1	1	TI	1	T1
		14	BR-BK		RI		RI		R1		RI
		40	BK-S	2	T2	2	T2		MM1		
		15	S-BK		R2		R2		M1		
		41	Y-BL	3	T3	3	I-3	2	T2	2	T2
5	J5	16	BL-Y		R3		R3		R2		R2
or		42	Y-O	4	T4	4	T4		MM2		
7	J9	17	O-Y		R4		R4		M2		
or		43	Y-G	5	T5	5	T5	3	T3	3	T3
3	J25	18	G-Y		R5		R5		R3		R3
		44	Y-BR	6	T6	6	T6		MM3		
		19	BR-Y		R6		R6		M3		
		45	Y-S	7	T7			4	T4	4	T4
		20	S-Y		R7				R4		R4
		46	V-BL	8	T8				MM4		
		21	BL-V		R8				M4		
		47	v-o	9	T9			5	T5	5	T5
		22	o-v		R9				R5		R5
		48	V-G	10	T10				MM5		
		23	G-V		RIO				M5		
		49	V-BR	11	T11			6	T6	6	T6
		24	BR-V		RI1				R6		R6
		50	v-s	12	T12				MM6		
		25	s-v		RI2				M6		

TABLE 6-2
CONTROL SHELF TIP & RING ASSIGNMENTS

Plugs J5 and J9 of Digital Bays 1 through 7 (525 for COMBO Bay 2)

Slot	Plug	Pin	Pair	Universal Card Modules							
				Cct	DLIC	Cct	MOH/pag	Cct	DTMF Rly	Cct	E&M Trunk
		26	W-BL	1	T1	1		1	MIA1	1	T1
		1	BL-W		RI				MIB1		RI
		27	w-o		T2		K5A1		POA1		TR1
		2	o-w		R2		K5B1		POB1		RR1
		28	W-G				K6A1		PKA1		EI
6	J5	3	G-W				K6B1		PKB1		MI
or		29	W-BR	2	T1	2		2	MIA2	2	T2
8	J9	4	BR-W		RI				MIB2		R2
or		30	w-s		T2		K5A2		POA2		TR2
4	J25	5	s-w		R2		K5B2		POB2		RR2
		31	R-BL				K6A2		PKA2		E2
		6	BL-R				K6B2		PKB2		M2
		32	R-O	3	TI	3		3	MIA3	3	T3
		7	O-R		RI				MIB3		R3
		33	R-G		T2		K5A3		POA3		TR3
		8	G-R		R2		K5B3		POB3		RR3
		34	R-BR				K6A3		PKA3		E3
		9	BR-R				K6B3		PKB3		M3
		35	R-S	4	TI	4		4	MIA4	4	T4
		10	S-R		RI				MIB4		R4
		36	BK-BL		T2		K5A4		POA4		TR4
		11	BL-BK		R2		K5B4		POB4		RR4
		37	BK-0				K6A4		PKA4		E4
		12	0-BK				K6B4		PKB4		M4
		38	BK-G	spare							
		13	G-BK	spare							
		39	BK-BR	1	T1	1		1	MIA1	1	T1
		14	BR-BK		RI				MIB1		RI
		40	BK-S		T2		K5A1		POA1		TR1
		15	S-BK		R2		K5B1		POB1		RR1
		41	V-BL				K6A1		PKA1		EI
5	J5	16	BL-V				K6B1		PKB1		MI
or		42	v-o	2	T1	2		2	MIA2	2	T2
7	J9	17	o-v		RI				MIB2		R2
or		43	V-G		T2		K5A2		POA2		TR2
3	J25	18	G-V		R2		K5B2		POB2		RR2
		44	V-BR				K6A2		PKA2		E2
		19	BR-V				K6B2		PKB2		M2
		45	v-s	3	TI	3		3	MIA3	3	T3
		20	s-v		RI				MIB3		R3
		46	V-BL		T2		K5A3		POA3		TR3
		21	BL-V		R2		K5B3		POB3		RR3
		47	v-o				K6A3		PKA3		E3
		22	o-v				K6B3		PKB3		M3
		49	V-G	4	TI	4			MIA4	4	T4
		23	G-V		RI				MIB4		R4
		49	V-BR		T2		K5A4		POA4		TR4
		24	BR-V		R2		K5B4		POB4		RR4
		50	v-s				K6A4		PKA4		E4
		25	s-v				K6B4		PKB4		M4

TABLE 6-3
CONTROL SHELF TIP & RING ASSIGNMENTS

Plugs J7 and Jll for Digital Bays 1 through 7 (J31 for COMBO Bay 2)

Slot	Plug	Pin	Pair	Cct	ONS or DLC	Cct	LS/GS
		26	W-BL	1	T1	1	T1
		1	BL-W		R1		R1
		27	w-o	2	T2		MM1
		2	o-w		R2		M I
		28	W-G	3	T3	2	T2
2	J7	3	G-W		R3		R2
	or	28	W-BR	4	T4		MM2
4	J l l	4	BR-W		R4		M2
	or	30	w-s	5	T5	3	T3
2	J31	5	S-W		R5		R3
		31	R-BL	6	T6		MM3
		6	BL-R		R6		M3
		32	R-O	7	T7	4	T4
		7	O-R		R7		R4
		33	R-G	8	T8		MM4
		8	G-R		R8		M4
		34	R-BR	9	T9	5	T5
		9	BR-R		R9		R5
		35	R-S	10	T10		MM5
		10	S-R		R10		M5
		36	BK-BL	11	T11	6	T6
		11	BL-BK		R11		R6
		37	BK-0	12	T12		MM6
		12	0-BK		R12		M6
		38	BK-G		spare		
		13	G-BK		spare		
		39	BK-BR	1	T1	1	T1
		14	BR-BK		R1		RI
		40	BK-S	2	T2		MM1
		15	S-BK		R2		M I
		41	V-BL	3	T3	2	T2
1	J7	16	BL-V		R3		R2
	or	42	v-o	4	T4		MM2
3	J l l	17	o-v		R4		M2
	or	43	V-G	5	T5	3	T3
1	J31	18	G-V		R5		R3
		44	V-BR	6	T6		MM3
		19	BR-V		R6		M3
		45	v-s	7	T7	4	T4
		20	s-v		R7		R4
		46	V-BL	8	T8		MM4
		21	BL-V		R8		M4
		47	v-o	9	T9	5	T5
		22	o-v		R9		R5
		48	V-G	10	T10		MM5
		23	G-V		RIO		M5
		49	V-BR	11	T11	6	T6
		24	BR-V		R11		
		50	v-s	12	T12		MM6
		25	s-v		R12		M6

TABLE 6-4
POWER FAIL TRANSFER J1 CONNECTIONS

Pin	Color	Lead Designation
26	W-BL	TRUNK R1
	BL-W	TRUNK T1
2:	w-o	TRUNK R2
2	O-W	TRUNK T2
28	W-G	TRUNK R3
3	G-W	TRUNK T3
29	W-BR	TRUNK R4
4	BR-W	TRUNK T4
30	W-S	TRUNK R5
5	s - w	TRUNK T5
31	R-BL	TRUNK R6
6	BL-R	TRUNK T6
32	R-O	TRUNK CARD RI
7	O-R	TRUNK CARD T1
33	R-G	TRUNK CARD R2
8	G-R	TRUNK CARD T2
34	R-BR	TRUNK CARD R3
9	BR-R	TRUNK CARD T3
35	R-S	TRUNK CARD R4
10	S-R	TRUNK CARD T4
36	BK-BL	TRUNK CARD R5
11	BL-BK	TRUNK CARD T5
37	BK-0	TRUNK CARD R6
12	0-BK	TRUNK CARD T6
38	BK-G	SPARE
13	G-BK	SPARE
39	BK-BR	LINE CARD RI
14	BR-BK	LINE CARD T1
40	BK-S	LINE CARD R2
15	S-BK	LINE CARD T2
41	Y-BL	LINE CARD R3
16	BL-Y	LINE CARD T3
42	Y-O	LINE CARD R4
17	O-Y	LINE CARD T4
43	Y-G	LINE CARD R5
18	G-Y	LINE CARD T5
44	Y-BR	LINE CARD R6
19	BR-Y	LINE CARD T6
45	Y-S	STATION R1
20	S-Y	STATION T1
46	V-BL	STATION R2
21	BL-V	STATION T2
47	V-O	STATION R3
22	O-V	STATION T3
48	V-G	STATION R4
23	G-V	STATION T4
49	V-BR	STATION R5
24	BR-V	STATION T5
50	V-S	STATION R6
25	S-V	STATION T6

Note: There are six circuits per PFT card; multiple PFT cards may be present.

TABLE 6-5
EXTERNAL PLUG AND JACK CONNECTIONS (TO CROSS-CONNECT FIELD)

Bay 3 Plug PI, or Bay 4 Plug PI, or Bay 5 Plug P7

Slot	Cct	Pin	Color	Lead Designation			
				Lines	c o	DID/TIE	E&M
1	1	26	W-BL	T1	T I	T I	T I
		1	BL-W	R1	R1	RI	R1
	2	27	w - o	T2	XT2		TR1
		2	O-W	R2	XT1		RR1
	3	28	W-G	T3	T2		E1
		3	G-W	R3	R2		M1
	4	29	W-BR	T4			
		4	BR-W	R4			
2	1	30	w - s	T1	T I	T I	T I
		5	s - w	R1	R1	RI	R1
	2	6	R-BL	T2	XT2		TR1
		32	BL-R	R2	XT1		RR1
	3		R-O	T3	T2		E1
		7	O-R	R3	R2		M1
		33	R-G	T4			
	4	8	G-R	R4			
3	1	34	R-BR	T1	T I	T I	T I
		9	BR-R	R1	R1	RI	R1
	2	10	R-S	T2	XT2		TR1
		36	S-R	R2	XT1		RR1
	3		BK-BL	T3	T2		E1
		11	BL-BK	R3	R2		M1
	4	37	BK-0	T4			
		12	0-BK	R4			
4	1	38	BK-G	T I	T I	T I	T I
		13	G-BK	R1	R1	RI	R1
	2	39	BK-BR	T2	XT2		TR1
		14	BR-BK	R2	XT1		RR1
	3	40	BK-S	T3	T2		E1
		15	S-BK	R3	R2		M1
	4	41	Y-BL	T4			
		16	BL-Y	R4			
5	1	42	Y-O	T I	T I	T I	T I
		17	O-Y	R1	R1	RI	R1
	2	18	G-Y	R2	XT2		TR1
		44	Y-BR	T3	XT1		RR1
	3				T2		E1
		19	BR-Y	R3	R2		M1
	4	45	Y-S	T4			
		20	S-Y	R4			
6	1	46	V-BL	T I	T I	T I	T I
		21	BL-V	R1	R1	RI	R1
	2	22	O-V	R2	XT2		TR1
		48	V-G	T3	XT1		RR1
	3				T2		E1
		23	G-V	R3	R2		M1
	4	49	V-BR	T4			
		24	BR-V	R4			
		50	v - s	SPARE			
		25	s - v	SPARE			

For 2-wire E&M Trunk operation DO NOT connect RR and TR leads.

TABLE 6-6
EXTERNAL PLUG AND JACK CONNECTIONS (TO CROSS-CONNECT FIELD)

Bay 3 Plug P2, or Bay 4 Plug P2, or Bay 5 Plug P8

Slot	Cct	Pin	Color	Lead Designation			
				Lines	c o	DID/TIE	E&M
	5	26	W-BL	T5	T3	T2	T2
		1	BL-W	R5	R3	R2	R2
	6	27	w - o	T6	XT4		TR2
1		2	O-W	R6	XT3		RR2
	7	28	W-G	T7	T4		E2
		3	G-W	R7	R4		M2
	8	29	W-BR	T8			
		4	BR-W	R8			
	5	30	w - s	T5	T3	T2	T2
		5	s - w	R5	R3	R2	R2
	6	31	R-BL	T6	XT4		TR2
2		6	BL-R	R6	XT3		RR2
	7	32	R-O	T7	T4		E2
		7	O-R	R7	R4		M2
		33	R-G	T8			
	8	34	G-R	R8			
	5	9	R-BR	T5	T3	T2	T2
			R-R	R5	R3	R2	R2
	6	35	R-S	T6	XT4		TR2
		10	S-R	R6	XT3		RR2
3	7	36	BK-BL	T7	T4		E2
		11	BL-BK	R7	R4		M2
	8	37	BK-0	T8			
		12	0-BK	R8			
	5	38	BK-G	T5	T3	T2	T2
		13	G-BK	R5	R3	R2	R2
	6	39	BK-BR	T6	XT4		TR2
		14	BR-BK	R6	XT3		RR2
4	7	40	BK-S	T7	T4		E2
		15	S - B K	R7	R4		M2
	8	41	Y-BL	T8			
		16	BL-Y	R8			
	5	42	Y-O	T5	T3	T2	T2
		17	O-Y	R5	R3	R2	R2
	6	43	Y-G	T6	XT4		TR2
		18	G-Y	R6	XT3		RR2
5	7	44	Y-BR	T7	T4		E2
		19	BR-Y	R7	R4		M2
	8	45	Y-S	T8			
		46	S-Y	R8			
	5	21	V-BL	T5	T3	T2	T2
		47	BL-V	R5	R3	R2	R2
	6	22	v - o	T6	XT4		TR2
			o - v	R6	XT3		RR2
6	7	48	V-G	T7	T4		E2
		23	G-V	R7	R4		M2
	8	49	V-BR	T8			
		24	BR-V	R8			
		50	v - s	SPARE			
		25	s - v	SPARE			

For 2-wire E&M Trunk operation DO NOT connect RR and TR leads.

TABLE 6-7
EXTERNAL PLUG AND JACK CONNECTIONS (TO CROSS-CONNECT FIELD)

Bay 3 Plug P3, or Bay 4 Plug P3, or Bay 5 Plug P9

Slot	Cct	Pin	Color	Lead Designation			
				Lines	c o	DID/TIE	E&M
7	1	26	W-BL	T I	T I	T I	T I
		1	BL-W	R1	R1	RI	R1
	2	27	w - o	T2	XT2		TR1
		2	O-W	R2	XT1		RR1
	3	28	W-G	T3	T2		E1
		3	G-W	R3	R2		M1
	4	29	W-BR	T4			
		4	BR-W	R4			
8	1	30	w - s	T I	T I	T I	T I
		5	s - w	R1	R1	RI	R1
	2	31	R-BL	T2	XT2		TR1
		6	BL-R	R2	XT1		RR1
	3	32	R-O	T3	T2		E1
		7	O-R	R3	R2		M1
	4	33	R-G	T4			
		8	G-R	R4			
9	1	34	R-BR	T I	T I	T1	T I
		9	BR-R	R1	R1	RI	R1
	2	35	R-S	T2	XT2		TR1
		10	S-R	R2	XT1		RR1
	3	36	BK-BL	T3	T2		E1
		11	BL-BK	R3	R2		M1
	4	37	BK-0	T4			
		12	0-BK	R4			
10	1	38	BK-G	T I	T1	T1	T I
		13	G-BK	R1	R1	RI	R1
	2	39	BK-BR	T2	XT2		TR1
		14	BR-BK	R2	XT1		RR1
	3	40	BK-S	T3	T2		E1
		15	S-BK	R3	R2		M1
	4	41	Y-BL	T4			
		16	BL-Y	R4			
11	1	42	Y-O	T I	T I	T I	T I
		17	O-Y	R1	R1	R1	RI
	2	43	Y-G	T2	XT2	TR1	
		18	G-Y	R2	XT1		RR1
	3	44	Y-BR	T3	T2		E1
		19	BR-Y	R3	R2		M1
	4	45	Y-S	T4			
		20	S-Y	R4			
12	1	46	V-BL	T I	T I	T I	T I
		21	BL-V	R1	R1	RI	R1
	2	47	v - o	T2	XT2		TR1
		22	O-V	R2	XT1		RR1
	3	48	V-G	T3	T2		E1
		23	G-V	R3	R2		M1
	4	49	V-BR	T4			
		24	BR-V	R4			
		50	v - s	SPARE			
		25	s - v	SPARE			

For 2-wire E&M Trunk operation DO NOT connect RR and TR leads.

TABLE 6-8
EXTERNAL PLUG AND JACK CONNECTIONS (TO CROSS-CONNECT FIELD)

Bay 3 Plug P4, or Bay 4 Plug P4, or Bay 5 Plug P10

Slot	Cct	Pin	Color	Lead Designation			
				Lines	c o	DID/TIE	E&M
7	5	26	W-BL	T5	T3	T2	T2
		1	BL-W	R5	R3	R2	R2
	6	27	w - o	T6	XT4		TR2
		2	O-W	R6	XT3		RR2
	7	28	W-G	T7	T4		E2
		3	G-W	R7	R4		M2
	a	29	W-BR	T8			
		4	BR-W	R8			
8	5	30	w - s	T5	T3	T2	T2
		5	s - w	R5	R3	R2	R2
	6	31	R-BL	T6	XT4		TR2
		6	BL-R	R6	XT3		RR2
	7	32	R-O	T7	T4		E2
		7	O-R	R7	R4		M2
	8	33	R-G	T8			
		8	G-R	R8			
9	5	34	R-BR	T5	T3	T2	T2
		9	BR-R	R5	R3	R2	R2
	6	35	R-S	T6	XT4		TR2
		10	S-R	R6	XT3		RR2
	7	36	BK-BL	T7	T4		E2
		11	BL-BK	R7	R4		M2
	a	37	BK-0	T8			
		12	0-BK	R8			
10	5	38	BK-G	T5	T3	T2	T2
		13	G-BK	R5	R3	R2	R2
	6	39	BK-BR	T6	XT4		TR2
		14	BR-BK	R6	XT3		RR2
	7	40	BK-S	T7	T4		E2
		15	S-BK	R7	R4		M2
	a	41	Y-BL	T8			
		16	BL-Y	R8			
11	5	42	Y-O	T5	T3	T2	T2
		17	O-Y	R5	R3	R2	R2
	6	43	Y-G	T6	XT4		TR2
		18	G-Y	R6	XT3		RR2
	7	44	Y-BR	T7	T4		E2
		19	BR-Y	R7	R4		M2
	8	45	Y-S	T8			
		20	S-Y	R8			
12	5	46	V-BL	T5	T3	T2	T2
		21	BL-V	R5	R3	R2	R2
	6	47	v - o	T6	XT4		TR2
		22	O-V	R6	XT3		RR2
	7	48	V-G	T7	T4		E2
		23	G-V	R7	R4		M2
	8	49	V-BR	T8			
		24	BR-V	R8			
		50	v - s	SPARE			
		25	S-V	SPARE			

For 2-wire E&M Trunk operation DO NOT connect RR and TR leads.

TABLE 6-9
INTERCONNECT CARD CONNECTIONS BAY 3 PLUG P19 OR BAY 4 PLUG P19

Slot	Cct	Pin	Color	Lead Designation			
				Lines	c o	DID/TIE	E&M
		26	W-BL	SPARE			
		1	BL-W	SPARE			
	8	27	w - o	T8			
		2	o - w	R8			
	7	28	W-G	T7	T4		E2
I5		3	G-W	R7	R4		M2
	6	29	W-BR	T6	XT3		TR2
		4	BR-W	R6	XT4		RR2
	5	30	w - s	T5	T3	T2	T2
		5	s - w	R5	R3	R2	R2
	8	31	R-BL	T8			
		6	BL-R	R8			
	7	7	R-O	R7	R4		E2
14		33	O-R	T6	XT3		M2
			R-G				TR2
	6	8	G-R	R6	XT4		RR2
	5	34	R-BR	T5	T3	T2	T2
		9	BR-R	R5	R3	R2	R2
	8	35	R-S	T8			
		10	S-R	R8			
	7	36	BK-BL	T7	T4		E2
I3		11	BL-BK	R7	R4		M2
	6	37	BK-0	T6	XT3		TR2
		12	0-BK	R6	XT4		RR2
	5	38	BK-G	T5	T3	T2	T2
		I3	G-BK	R5	R3	R2	R2
	4	39	BK-.BR	T4			
		14	BR-BK	R4			
	3	15	BK-S	T3	T2		E1
15		41	S-BK	R3	R2		M1
	2		Y-BL	T2	XT1		TR1
		16	BL-Y	R2	XT2		RR1
	I	42	Y-O	T1	T1	T1	T1
		17	O-Y	RI	R1	RI	R1
	4	43	Y-G	T4			
		18	G-Y	R4			
	3	19	Y-BR	R3	R2		E1
14		45	BR-Y	T2	XT1		M1
	2		Y-S				TRI
		20	S-Y	R2	XT2		RR1
	1	46	V-BL	T1	T1	T1	T1
		21	BL-V	RI	R1	RI	RI
	4	47	v - o	T4			
		22	O-V	R4			
	3	23	G-V	R3	R2		E1
13		49	V-BR	T2	XT1		M1
	2			R2			TRI
		24	BR-V	T1	XT2		RR1
	1	50	v - s		T1	T1	T1
		25	s - v	RI	RI	R1	R1

For 2-wire E&M Trunk operation DO NOT connect RR and TR leads.

TABLE 6-10
BAY 3 OR BAY 4 POWER FAIL TRANSFER CARD CONNECTIONS

PLUG P20

Pin	Color	Lead Designation
26	W-BL	STATION T1
1	BL-W	STATION RI
1	BL-W	STATION RI
27	w-o	LINE CARD T1
2	o-w	LINE CARD RI
28	W-G	TRUNK T1
3	G-W	TRUNK RI
29	W-BR	TRUNK CARD T1
4	BR-W	TRUNK CARD RI
30	w-s	STATION T2
5	s-w	STATION R2
31	R-BL	LINE CARD T2
6	BL-R	LINE CARD R2
32	R-O	TRUNK T2
7	R-O	TRUNK R2
33	R-G	TRUNK CARD T2
8	G-R	TRUNK CARD R2
34	R-BR	STATION T3
9	BR-R	STATION R3
35	R-S	LINE CARD T3
10	S-R	LINE CARD R3
36	BK-BL	TRUNK T3
11	BL-BK	TRUNK R3
37	BK-0	TRUNK CARD T3
12	0-BK	TRUNK CARD R3
38	BK-G	STATION T4
13	G-BK	STATION R4
39	BK-BR	LINE CARD T4
14	BR-BK	LINE CARD R4
40	BK-S	TRUNK T4
15	S-BK	TRUNK R4
41	Y-BL	TRUNK CARD T4
16	BL-Y	TRUNK CARD R4
42	Y-O	STATION T5
17	O-Y	STATION R5
43	Y-G	LINE CARD T5
18	G-Y	LINE CARD R5
44	Y-BR	TRUNK T5
19	BR-Y	TRUNK R5
45	Y-S	TRUNK CARD T5
20	S-Y	TRUNK CARD R5
46	V-BL	STATION T6
21	BL-V	STATION R6
47	v-o	LINE CARD T6
22	o-v	LINE CARD R6
48	V-G	TRUNK T6
23	G-V	TRUNK R6
49	V-BR	TRUNK CARD T6
24	BR-V	TRUNK CARD R6
50	V-S	SPARE
25	S-V	SPARE

PLUG P21

Pin	Color	Lead Designation
26	W-BL	STATION T7
1	Si-W	STATION R7
27	w-o	LINE CARD T7
2	o-w	LINE CARD R7
28	W-G	TRUNK T7
3	G-W	TRUNK R7
29	W-BR	TRUNK CARD T7
4	BR-W	TRUNK CARD R7
30	w-s	STATION T8
5	s-w	STATION R8
31	R-BL	LINE CARD T8
6	BL-R	LINE CARD R8
32	R-O	TRUNK T8
7	R-O	TRUNK R8
33	R-G	TRUNK CARD T8
8	G-R	TRUNK CARD R8
34	R-BR	STATION T9
9	BR-R	STATION R9
35	R-S	LINE CARD T9
10	S-R	LINE CARD R9
36	BK-BL	TRUNK T9
11	BL-BK	TRUNK R9
37	BK-0	TRUNK CARD T9
12	0-BK	TRUNK CARD R9
38	BK-G	STATION T10
13	G-BK	STATION RIO
39	BK-BR	LINE CARD T10
14	BR-BK	LINE CARD RIO
40	BK-S	TRUNK T10
15	S-BK	TRUNK RIO
41	Y-BL	TRUNK CARD T10
16	BL-Y	TRUNK CARD RIO
42	Y-O	STATION T11
17	O-Y	STATION RI 1
43	Y-G	LINE CARD T11
18	G-Y	LINE CARD RI1
44	Y-BR	TRUNK T11
19	BR-Y	TRUNK RI1
45	Y-S	TRUNK CARD T11
20	S-Y	TRUNK CARD RI1
46	V-BL	STATION T12
21	BL-V	STATION RI 2
47	v-o	LINE CARD T12
22	O-V	LINE CARD R12
48	V-G	TRUNK T12
23	G-V	TRUNK R12
49	V-BR	TRUNK CARD T12
24	BR-V	TRUNK CARD R12
50	V-S	SPARE
25	S-V	SPARE

TABLE 6-11
USOC CONNECTOR PIN DESIGNATIONS

Pair		Connector Type		
Pin	Colour	RJ21X	RJ2EX	RJ2GX
26	W-BL	T	T	T
1	BL-W	R	R	R
27	W-O	T	E	T1
2	O-W	R	M	R1
28	W-G	T	T	E
3	G-W	R	R	M
29	W-BR	T	E	T
4	BR-W	R	M	R
30	W-S	T T		T1
5	S-W	R	R	R1
31	R-BL	T	E	E
6	BL-R	R	M	M
32	R-O	T	T	T
7	O-R	R	R	R
33	R-G	T	E	T1
8	G-R	R	M	R1
34	R-BR	T	T	E
9	BR-R	R	R	M
35	R-S	T	E	T
10	S-R	R	M	R
36	BK-BL	T	T	T1
11	BL-BK	R	R	R1
37	BK-O	T	E	E
12	O-BK	R	M	M

Pair		Connector Type		
Pin	Colour	RJ21X	RJ2EX	RJ2GX
38	BK-G	T	T	T
13	G-BK	R	R	R
39	BK-BR	T	E	T1
14	BR-BK	R	M	R1
40	BK-S	T	T	E
15	S-BK	R	R	M
41	Y-BL	T	E	T
16	BL-Y	R	M	R
42	Y-O	T	T	T1
17	O-Y	R	R	R1
43	Y-G	T	E	E
18	G-Y	R	M	M
44	Y-BR	T	T	T
19	BR-Y	R	R	R
45	Y-S	T	E	T1
20	S-Y	R	M	R1
46	V-BL	T	T	E
21	BL-V	R	R	M
47	V-O	T	E	T
22	O-V	R	M	R
48	V-G	T	T	T1
23	G-V	R	R	R1
49	V-BR	T	E	E
24	BR-V	R	M	M
50	v-s	SPARE		
25	S-V	SPARE		

7. UPGRADING AN EXISTING SX-200 PABX TO AN SX-200 DIGITAL PABX

Strategy

7.01 The control cabinet will be installed beside the existing SX-200 PABX cabinet, equipped with the new attendant console, new stations, trunks, or features for Bays, 1, 2 or 3, and powered up. All testing can be completed and the new database entered with CDE, including all equipment in the existing SX-200 system. The existing SX-200 DIGITAL PABX is then reconfigured as a Peripheral cabinet and added to the SX-200 DIGITAL PABX Control cabinet. This procedure assumes that most of the existing stations and trunks will remain the same in the peripheral cabinet, and that expansion will be provided by the control cabinet. All reassignments and wiring changes will be performed at the time of installation.

General Comments

7.02 The following special circuits must be disconnected from the SX-200 PABX and connected to the SX-200 DIGITAL PABX at the cross-connect field during final cutover:

- Music on hold source
- Paging voice lines
- Paging control lines
- Night bell control lines.

7.03 The following SX-200 PABX (Peripheral Cabinet) connections are not used after an upgrade to SX-200 DIGITAL PABX:

- Console connections, including connector on maintenance panel
- Test line terminals (still connected to Bay 4, Slot 1, Circuit 1)
- Special connections described above (now connect to Control cabinet cables)
- RMATS modem or modules
- Recorded Announcement Cards (RAC).

CHART 7-I
SX-200 PABX UPGRADE TO SX-200 DIGITAL PABX

This upgrade and installation procedure is to be performed only by qualified personnel who have successfully completed a MITEL Installation and Maintenance Course for the SX-200 DIGITAL PABX.

Step	Action	Comments
1.	Unpack the Control cabinet and place it in its assigned location according to Chart 5-4.	
2.	Relocate the #6 AWG system ground to the common ground stud in the Control cabinet. Concurrently install the PCM cable between the cabinets connecting the braid to the ground stud in each cabinet. Do not connect the signal part of the PCM cable.	Note: Connect a temporary jumper between the SX-200 cabinet and the ground wire so that an electrical connection is continuously maintained between the PABX and the building ground (to keep ground start trunks operational). Since the connection is for only a few minutes, lighter wire may be used.
3.	Install the control cabinet as a stand-alone installation, following the instructions provided in INSTALLATION CHARTS of this Section.	
4.	Install the attendant console, maintenance terminal, stations, and at least one trunk, and make the PABX operational.	The stations may be located alongside the Digital PABX, for ease of testing, and to minimize disruption to the existing PABX.
5.	Add the existing stations, trunks and related features, COS, COR, and other information to the SX-200 DIGITAL PABX database.	To minimize wiring changes, keep existing station and trunk connections the same for both systems.
6.	At a period of no traffic, complete the upgrade as follows.	
7.	Power down the SX-200 DIGITAL PABX system, including its reserve power supply if equipped, and remove the line cord from the wall receptacle.	It is not necessary to power down the Control cabinet.
8.	While wearing the antistatic wrist strap, remove the following printed circuit boards and pack them in antistatic bags and PCB shipping cartons: Console, RCP, Tone, IPC, memory (if present in position 21 or 22), Receiver, RAD, RAC.	Existing station and trunk cards, and the Scanner card remain in their present positions.
9.	From the rear of the cabinet, remove the following: console cables, intershelf jumpers P101 and P102, printer cable, console interface boards.	To remove the console interface boards it is necessary to loosen the shelf and move it forward to access the screws in the boards.

CHART 7-1 (CONT'D)
SX-200 PABX UPGRADE TO SX-200 DIGITAL PABX

Step	Action	Comments
10.	Connect the printer cable, if present, to J29 on the Control Shelf backplane.	
11.	Remove all existing consoles from the system and repack them.	
12.	Connect a PFT monitor wire between P18 of the Interconnect Card and TBI-7 of the PFT card in an SX-200 cabinet. In an SX-100 cabinet, connect the PFT monitor wire between P18 and J14.	
13.	If peripheral shelf card assignments are to be changed, reposition the cards at this time.	
14.	Continue with the installation by following the charts for installing a peripheral cabinet (Bays 4 and 5).	To minimize wiring changes, it is recommended that existing station and trunk assignments in the peripheral cabinet not be changed at this time. Note: Many of the steps can be skipped since the cabinet and cables are in place and have been working. The main steps are to add the new cards, PCM cables, and miscellaneous features such as Music on Hold, Paging, and Night Bells.

8. UPGRADE A 336 PORT PABX TO A 672 PORT PERIPHERAL CABINET

General

8.01 This upgrade and installation procedure is to be performed only by qualified personnel who have successfully completed a MITEL Installation and Maintenance Course for the SX-200 DIGITAL PABX.

8.02 This procedure identifies how to convert an existing 336-port PABX Control cabinet to a 672-port PABX Peripheral cabinet; the actual installation of the 672-port PABX is described in Section MITL9109-094-200-NA, Shipping, Receiving, and Installation. This Section, and other relevant Sections, are contained in the set of Practices which are part of the 672-port Control cabinet software package.

8.03 Sufficient antistatic bags are required to enclose each of the cards from the 336-port system, when they are temporarily removed from the shelves during the conversion.

8.04 Reconfigure the new Peripheral cabinet similarly to the existing 336-port cabinet to minimize wiring changes at the MDF; it will be necessary only to reassign Bay numbers for these circuits during Customer Data Entry.

Parts List

Control Cabinet	Intercabinet Cable Assembly (672 port)
Switch Matrix Card	Bay Power Supply
Bay Control Card	Adapter Plate
Blanking Panel (narrow)	Peripheral Cardfile (with one backplane)
Blanking Panel (wide)	EDG Cable 75 cm (30 in.)
Conversion Hardware	Bay Number Labels

CHART 8-1
CONVERT A 336 PORT CONTROL CABINET TO A 672 PORT PERIPHERAL CABINET

Step	Action	Comments
1.	Unlock and open the front door of the cabinet. Remove the diskettes from the disk drives; ensure that the drives are not active when removing the diskettes (LED must be off).	
2.	Turn off power at the Bay Power Supplies, then at the rear door; remove line cord from their outlets. Unlock and open the rear door and remove line cords from Bay Power Supply cards. Cut tie wraps which hold power cords to sides of both card files.	Retain all hardware that is removed for use during installation.
3.	Identify and remove the signal cables and PCM cables from the backplanes.	

CHART 8-I (CONT'D)
CONVERT A 336 PORT CONTROL CABINET TO A 672 PORT PERIPHERAL CABINET

Step	Action	Comments
4.	Open the front door, and put on the antistatic wrist strap. Remove all cards from the cabinet, storing each in an antistatic bag. Place in a safe and secure location until required for installation.	
5.	Remove the panel (if present) above the upper card file (2 screws).	
6.	Remove the upper (Peripheral) cardfile (if present). - Identify and record all ground connections to each cardfile - Disconnect the ground wires from the cabinet, leave them attached to the cardfile. - Disconnect the PCM cables. - Disconnect ground wires attached to Control cardfile; do not disconnect from Peripheral backplane. - Remove the screws at the front and slide the cardfile out.	
7.	Remove the maintenance panel connectors from the rear panel; do not disconnect from the Control backplane. Install the small blanking panel in the back panel to cover the unused maintenance connector holes, using 4-32 self-tapping screws and washers.	
8.	Pass the antistatic wrist strap through the cabinet and put it onto your wrist while you are at the back of the cabinet. Remove the PFT cards and inter-card wiring harnesses from the cabinet storing each card in an antistatic bag. Place in a safe and secure location until required for installation.	The top PFT card cannot be removed until the upper cardfile has been removed.
9.	Remove the Control cardfile. - Disconnect the ground wires from the cabinet, leave them attached to the cardfile. - Remove the maintenance panel and place diagonally across the Control cardfile and tie wrap it to the cardfile.	

CHART 8-I (Cont'd)
CONVERT A 336 PORT CONTROL CABINET TO A 672 PORT PERIPHERAL CABINET

Step	Action	Comments
9 (Cont'd	- Remove the PFT harness assembly from the PFT card and tie wrap harness to Control cardfile. - Remove the temperature sensor assembly, if present, and tie wrap it and its wiring harness to the Control cardfile. - Remove the screws at the front, and slide the cardfile and attached assemblies out.	
10.	Remove the #6 AWG ground wire from its lug on the cabinet ground stud; remove the lug; replace the other washers and nuts onto the stud until installation.	This ground wire will be reconnected to the new Control Cabinet.
11.	Install the Peripheral cardfile (which has two bays). - Slide the cardfile into the cabinet and fasten with 8 hex head screws (removed before). - Install the smaller Blanking panel at the top of the cardfile using 2 screws (removed before) (replaces the maintenance panel). - Connect the two safety ground wires to the cabinet rails using #10-32 screws. - Connect the DG black ground wire to the main ground stud in the lower left cabinet base. If there is no stud, attach it to the cabinet side rail. - Connect the EDG braid ground wire to the main ground stud in the left side of the cabinet base.	The lower cardfile must have two backplanes to allow grounding connections to be extended to the upper backplane. On cabinets with only one ground stud on the right side (as viewed from the rear), use the 30 cm (12 inch) EDG braided ground wire from the removed Control cardfile to connect the bottom right DG stud of Bay 4 to the cabinet ground stud. Use the 75 cm (30 inch) ground cable supplied in the kit to connect the top left corner EDG stud of Bay 4 to the cabinet ground stud.
12.	Replace the upper Peripheral cardfile if one had been present. - Slide the cardfile into position above the lower cardfile, and fasten the front with 8 1 O-32 screws removed previously. - Reconnect all grounds wires to cabinet and to ground studs.	Both peripheral shelves are the same; second backplanes are optional.
13.	Attach Bay Number Labels to each inside cardfile at the back of the cabinet.	Refer to Section MITL9 109-094-200-NA for details of Bav numbering.

CHART 8-I (Cont'd)
CONVERT A 336 PORT CONTROL CABINET TO A 672 PORT PERIPHERAL CABINET

Step	Action	Comments
14.	Install the larger Blanking panel at the top front of the cabinet using 2 IO-32 screws provided.	
15.	Remove the cover plate on the right side of the cable exit panel at the back of the cabinet. If the panel was a flat one replace the cover plate with the cable adapter plate. Fasten the plate with 6 #6-32 self-tapping screws with an external tooth lockwasher under each screw head. The plate must be positioned with the cable hole towards the bottom. Refer to Figure 5-2.	
16.	Install the Intercabinet Cable Assembly (672 port) to the rear panel (or adapter plate) and connect the ground cable from the Intercabinet Cable Assembly (672 port) to the ground stud in the Peripheral cabinet, as shown in Figure 5-2. Connect the other end of this cable as part of the Control cabinet installation.	The cabinet is now converted to a 672 port Peripheral cabinet. Note: Installation is not complete; refer to Section MITL9109-094-200-NA, Shipping, Receiving, and Installation for instructions to install a 672 port system consisting of a Control cabinet and a Peripheral cabinet.

SX-200" DIGITAL
PRIVATE AUTOMATIC BRANCH EXCHANGE (PABX)
INSTALLATION FORMS

NOTICE

CONTENTS PAGE

LIST OF TABLES

LIST OF TABLES (CONT'D)

LIST OF CHARTS

LIST OF ILLUSTRATIONS

1. INTRODUCTION

General

1.01 This document contains the forms required to install and program the *SX-200*® DIGITAL PABX with Generic 1003 software. These forms differ from those that appear on the CDE terminal; they are intended for planning prior to data entry. Forms which cannot be edited are excluded from this Section; specifically, Review List for Form 09, Review List for Form 11, Review List for Form 13, Review List for Form 29, Review List for Form 30, Form 32 Customer Data Print, and Form 35, Global Find Access Code. This document is used as an installer's guide; therefore a comprehensive knowledge of Section MITL91 09-094-2 1 0-NA, Customer Data Entry and Section MITL9109-094-200-NA, Shipping, Receiving and Installation Information is required before these forms are completed.

1.02 Certain features require more than one COS Option setting. To ensure the correct operation of all features, these forms should be completed in accordance with the information contained in Section MITL9109-094-105-NA, Features Description.

Reason for Issue

1.03 This section is issued to provide the installation forms for the SX-200 DIGITAL PABX, with Generic 1003 software.

Section Overview

1.04 This Section is divided into five Parts as described below:

Part 1 - Introduction
Part 2 - System Initialization
Part 3 - Customer Data Entry Forms
Part 4 - Trunk Card Switch Assignment Forms
Part 5 - Cabling and Cross-Connection Forms.

2. SYSTEM INITIALIZATION

General

2.01 When the system is first installed, the default data must be loaded into the system. Refer to Chart 2-1, Initial Power-up Procedures From the Terminal, Chart 2-2, Initial Power-up Procedures From the Attendant Console and to Section MITL9109-094-200-NA, Shipping, Receiving, and Installation Information for details.

CHART 2-I
INITIAL POWER-UP PROCEDURES FROM THE TERMINAL

1. Ensure that the correct Decryption Module is installed. Refer to Section MITL9109-094-200-NA, Shipping, Receiving, and Installation Information.

2. Turn power supplies ON.

3. Inset-t diskette A in the Bay 2 disk drive (left drive of 672-port Bay 0) and diskette B in Bay 1 disk drive (right drive of 672-port Bay 0). Refer to the illustration on the disk drive door for the correct diskette orientation. Do not power-up/down while diskettes are in place.

4. Close the disk drive doors. The disk drives should begin to operate. If not, depress the System Reset button on the Main Control Card.

5. Power-up or reset the terminal.

6. Press the RETURN key twice; the terminal display returns the following:

1 - VT-100 COMPATIBLE
2 - TTY TYPE
3 - IBM PC
SELECT A TERMINAL TYPE :

7. Select the terminal type by entering “1”. The display returns the following:

1 - **MAINTENANCE**
2 - **CDE**
6 - QUIT
SELECT AN APPLICATION (OR QUIT TO START OVER) :

3. Select the Customer Data Entry application by entering “2”. The display returns the following:

ENTER USERNAME :

3. Enter the INSTALLER level of access. The display returns the following:

ENTER PASSWORD :

IO. Enter the required password to gain Customer Data Entry access. The password is defined in Form 27, Form Access Restriction Definition. The default password is 1000. If the correct password is entered, the display returns the following:

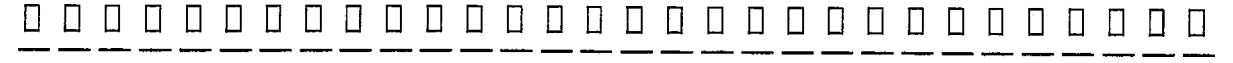
PLEASE WAIT...

and then shows a list of the system’s forms. Refer to Table 3-I.

CHART 2-2
INITIAL POWER-UP PROCEDURES FROM THE ATTENDANT CONSOLE

1. **Repeat Steps 1 to 4 from Chart 2-1, Initial Power-up Procedures from the Terminal.**

2. **All LEDs on the console light and the LCD displays the following on two rows:**



3. **If the HOLD 1 LED flashes, the RAM Test failed.**
   If the HOLD 2 LED flashes, the EPROM Test failed.
   If the HOLD 3 LED flashes, the IRQ Interrupt Test failed. Refer to Section MITL9109-094-350-NA, Troubleshooting and Section MITL9109-094-353-NA, General Maintenance Information for details.

4. **The Attendant Console LEDs go dark and the LCD now displays the console EPROM versior in the top right corner.**

5. **If any one of the following messages appear on the LCD, refer to Section MITL9109-094-350-NA, Troubleshooting and Section MITL9109-094-353-NA, General Maintenance Information:**

   CONSOLE HARDWARE PROBLEM
   ERROR CODE 1
   PLEASE NOTE DETAILS ON REPAIR TAG

6. **While the system establishes communication with the Attendant Console, the LCD displays** NO COMMUNICATION. **If communication is not established within 5 seconds, the LCD displays the following:**

   POSSIBLE WIRING ERROR OR SYSTEM FAILURE
   CHECK FOR CROSSED PAIRS
   CHECK CUSTOMER DATA ENTRY

7. **When communication is established, the Attendant Console LCD displays the following:**

   TUE. JUN 21, 1998 8:54 AM
   NIGHT 1
   [F1 > [F2 > [F3 > [F4 > [F5 >
   [F6 > [F7 > [F8 > [F9 > [F0 >

8. **Press the FUNCTION key; the console LCD returns the following:**

   TUE. JUN 21, 1988 8:54 AM
   NIGHT 1
   [F1 >EXIT [F2 >ATT FUNCTION [F3 >DAY SERVICE [F4 >NIGHT 2 [F5 >GUEST ROOM
   [F6 >APPLICATION [F7 >ALARM [F8 > [F9 >FRANCAIS [F0 > IDENTITY

9. **Press the APPLICATION softkey; the console LCD returns the following:**

   Press Quit to Return
   [F1 >MAINTENANCE [F2 >CDE [F3 > [F4 > [F5 >
   [F6 >QUIT [F7 > [F8 > [F9 > [F0 >

10. **Press the CDE softkey; the console LCD returns the following:**

    Choose a Username . . .
    [F1 >INSTALLER [F2 >MAINT1 [F3 >MAINT2 [F4 >SUPERVISOR [F5 >ATTENDANT
    [F6 > [F7 > [F8 > [F9 > [F0 >

CHART 2-2 (CONT'D)
INITIAL POWER-UP PROCEDURES FROM THE ATTENDANT CONSOLE

11. Press the INSTALLER softkey; the console LCD returns the following:

```
Enter Password :
[F1 >          [F2 >          [F3 >          [F4 >          [F5 >
[F6 >          [F7 >          [F8 >          [F9 >          [F0 >ENTER
```

12. Enter the required password and press the ENTER softkey to gain Customer Data Entry access. The password is defined in Form 28, Form Access Restriction Definition. The default password is 1000. If the correct password is entered, then the Attendant Console LCD returns the following:

```
                                   FORMS
   01 = SYSTEM CONFIGURATION              02 = FEATURE ACCESS CODES
   ENTER FORM NUMBER: _
[F6 >QUIT      [F7 >TOP       [F8 >BOTTOM    [F9 >          [F0 >
```

3. CUSTOMER DATA ENTRY FORMS

General

3.01 The following forms enable the installer to configure the system prior to the initial system power-up sequence. Space is allocated to record the customer data. Table 3-1 lists the available forms for the Customer Data Entry package. Special notes for each form appear at the end of the form.

TABLE 3-I
AVAILABLE FORMS

FORMS	
01 = SYSTEM CONFIGURATION	02 = FEATURE ACCESS CODES
03 = COS DEFINE	04 = SYSTEM OPTIONS/SYSTEM TIMERS
05 = TENANT INTERCONNECTION TABLE	06 = TENANT NIGHT SWITCHING CONTROL
07 = CONSOLE ASSIGNMENTS	08 = ATTENDANT LDN ASSIGNMENTS
09 = STATIONS/*SUPERSET*® TELEPHONES	10 = PICKUP GROUPS
11 = DATA CIRCUIT DESCRIPTOR	12 = DATA ASSIGNMENT
13 = TRUNK CIRCUIT DESCRIPTORS	14 = NON-DIAL-IN TRUNKS
15 = DIAL-IN TRUNKS	16 = TRUNK GROUPS
17 = HUNT GROUPS	18 = MISCELLANEOUS SYSTEM PORTS
19 = CALL REROUTING TABLE	20 = ARS: COR GROUP DEFINITION
21 = ARS: DAY ZONE DEFINITION	22 = ARS: MODIFIED DIGIT TABLE
23 = ARS: ROUTE DEFINITION	24 = ARS: ROUTE LISTS
25 = ARS: ROUTE PLANS	26 = ARS: DIGIT STRINGS
27 = ARS: MAXIMUM DIALED DIGITS	28 = FORM ACCESS RESTRICTION DEFINITION
29 = DTE PROFILE	30 = DEVICE INTERCONNECTION TABLE
31 = SYSTEM ABBREVIATED DIAL ENTRY	32 = CDE DATA PRINT
33 = ACCOUNT CODE ENTRY	34 = DIRECTED IO
35 = GLOBAL FIND ACCESS CODE	36 = MODEM ASSIGNMENT
37 = GUEST RM *SUPERSET* KEYS TEMPLATE	38 = ACD KEYS TEMPLATE
39 = ACD AGENT GROUPS	40 = ACD SENIOR SUPERVISORS
41 = ACD PATHS	42 = T1 LINK DESCRIPTORS
43 = T1 LINK ASSIGNMENT	44 = NETWORK SYNCHRONIZATION

TABLE 3-2
FORM 01 - SYSTEM CONFIGURATION
336-PORT VARIANT

BAY	SLT	CCT	PROGRAMMED	COMMENTS
1	1	-		
1	2	-		
1	3	-		
1	4	-		
1	5	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	6	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	8	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
2	1	-		
2	2	-		
2	3	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
2	4	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	1	-		
3	2	-		
3	3	-		
3	4	-		

BAY	SLT	CCT	PROGRAMMED	COMMENTS
3	5	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	6	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	8	-		--------
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
4	1	-		
4	2	-		
4	3	-		
4	4	-		
4	5	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
4	6	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
4	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
4	8	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------

TABLE 3-3
FORM 01 - SYSTEM CONFIGURATION
456-PORT VARIANT

BAY	SLT	CCT	PROGRAMMED	COMMENTS
1	1	-		
1	2	-		
1	3	-		
1	4	-		
1	5	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	6	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	8	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
2	1	-		
2	2	-		
2	3	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
2	4	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	1	-		
3	2	-		
3	3	-		
3	4	-		
3	5	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------

BAY	SLT	CCT	PROGRAMMED	COMMENTS
3	6	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	8	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
4	1	-		
4	2	-		
4	3	-		
4	4	-		
4	5	-		
4	6	-		
4	7	-		
4	8	-		
4	9	-		
4	10	-		
4	11	-		
4	12	-		
4	13	-		
4	14	-		
4	15	-		
5	1	-		
5	2	-		
5	3	-		
5	4	-		
5	5	-		
5	6	-		
5	7	-		
5	8	-		
5	9	-		
5	10	-		
5	11	-		
5	12	-		

TABLE 3-4
FORM 01 - SYSTEM CONFIGURATION
480-PORT VARIANT

SAY	SLT	CCT	PROGRAMMED	COMMENTS
1	1	-		
1	2	-		
1	3	-		
1	4	-		
1	5	-		
for		1		--------
universal		2		---me---
modules		3		--------
only		4		--------
116		-		
for		1		--m-c---
universal		2		-a------
modules		3		---em---
only		4		--------
1 1 7 1 - 1				
for		1		--------
universal		2		--------
modules		3		--------
only		4		--------
1	8	-		
far		1		--------
universal		2		---me---
modules		3		--------
only		4		---De---
2	1	-		
2	2	-		
2 1 3 1 - 1				
for		1		--m-e---
universal		2		--m-m---
modules		3		--------
only		4		-m--e---
2	4	-		
for		1		--------
universal		2		---Be---
modules		3		--m-e---
only		4		--------
3	1	-		
3	2	-		
3	3	-		

BAY	SLT	CCT	PROGRAMMED	COMMENTS
3	4	-		
3	5	-		
3	6	-		
3	7	-		
3	8	-		
3	9	-		
3	10	-		
3	11	-		
3	12	-		
3	13	-		
3	14	-		
3	15	-		
4 1 1 1 - 1				
4 1 2 1 - 1				
4	3	-		
4	4	-		
4	5	-		
4	6	-		
4	7	-		
4	8	-		
4	9	-		
4	10	-		
4	11	-		
4	12	-		
4	13	-		
4	14	-		
4	15	-		
5	1	-		
5	2	-		
5	3	-		
5	4	-		
5	5	-		
5	6	-		
5	7	-		
5	B	-		
5	9	-		
5	10	-		
5	11	-		
5	12	-		

TABLE 3-5
FORM 01 – SYSTEM CONFIGURATION
672-PORT VARIANT

BAY	SLT	CCT	PROGRAMMED	COMMENTS
1	1	–		
1	2	–		
1	3	–		
1	4	–		
1	5	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	6	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	7	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
1	8	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
2	1	–		
2	2	–		
2	3	–		
2	4	–		
2	5	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
2	6	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
2	7	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------

BAY	SLT	CCT	PROGRAMMED	COMMENTS
2 1 8 1 -				
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	1	–		
3	2	–		
3	3			
3	4			
3	5			
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	6			
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3 1 7		–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
3	8	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
4	1	–		
4	2	–		
4	3	–		
4	4	–		
4	5	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
4	6	–		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------

TABLE 3-5 (CONT'D)
FORM 01 - SYSTEM CONFIGURATION
672-PORT VARIANT

BAY	SLT	CCT	PROGRAMMED	COMMENTS
4	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
4	8	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
5	1	-		
5	2	-		
5	3	-		
5	4	-		
5	5	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
5	6	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
5	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
5	8	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
6	1	-		
6	2	-		
6	3	-		
6	4	-		
6	5	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------

BAY	SLT	CCT	PROGRAMMED	COMMENTS
6	6	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
6	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
6	8	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
7	1	-		
7	2	-		
7	3	-		
7	4	-		
7	5	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
7	6	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
7	7	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------
7	8	-		
for universal modules only		1		--------
		2		--------
		3		--------
		4		--------

NOTES FOR FORM 01
SYSTEM CONFIGURATION

Notes: 1. Enter the card type in the PROGRAMMED column. Most slots have no circuit designations (represented by a "–" in the CCT column), as the cards for these slots have identical circuit types.

2. Slots with circuit designations are high powered slots. The circuit designations refer only to the four module positions on a Universal Card; circuit designations for lines, trunks and DATASETs are recorded in the appropriate forms. Universal Cards can be installed only in high powered slots.

3. Receiver/Relay modules are automatically entered in the system's data base when they are physically present in the system. They cannot be programmed into the system as no "receiver/relay" softkey is given during CDE entry. The receiver/relay modules should however be accounted for on Form 01 as they affect the sum "power rating" of the Universal cards.

4. The Attendant Console default location is Bay 2, Slot 3, Circuit 1 on 336, 456 and 480-port systems; on 672-port systems it is Bay 1, Slot 5, Circuit 1.

5. Refer to Section MITL9109-094-210 for definitions of the programming options for Form 01. The following is a summary of the card designations accepted by the system. See Note 3 above for programming the Receiver/Relay Module (designated by "DTMF RECEIVER" in the system).

ANALOG BAY CARD DESIGNATIONS INCLUDE:

1 -LINE CARDS
- STATION line card
- *SUPERSET* line card

P-TRUNK CARDS
- CO TRUNK card
- DID/TIE card
- E&M TRUNK card

DIGITAL BAY CARD DESIGNATIONS INCLUDE:

1 -LINE CARDS
- ONS LINE card
- COV LINE card
- OPS LINE card
- DIGITAL LINE card

P-TRUNK CARDS
- LS/GS TRUNK card
- 6 CCT DID trunk card
- T1 TRUNK card

3-UNIVERSAL
- MUSIC PAGER module
- E&M module
- CONSOLE module

TABLE 3-6
FORM 02 - FEATURE ACCESS CODES

Feature Number	Feature Name	Assigned Access Code
01	Account Code Access	
02	Auto-Answer Activation	
03	Call Forwarding - Busy	
04	Call Forwarding - Don't Answer	
05	Call Forwarding - Busy/Don't Answer	
06	Call Forwarding - Follow Me	
07	Call Forwarding - I'm Here	
08	Dial Call Pickup	
09	Directed Call Pickup	
10	Do Not Disturb	
11	Extension General Attendant Access	
12	Paging Access to Default Zone(s)	
13	Paging Access to Specific Zones	
14	TAFAS - Any	
15	TAFAS - Local Tenant	
16	Hold Pickup Access (Attendant Hold Slots)	
17	Console Lockout Access Code	
18	Maintenance Function (Test Line)	
19	Direct Inward System Access	
20	Callback Busy (Single Digit)	
21	Call Hold	
22	Call Hold Retrieve (Local)	
23	Call Hold Retrieve (Remote)	
24	Abbreviated Dialing Access	
25	Clear All Features	
26	*SUPERSET 4®* Telephone Loopback Test	
27	Tone Demonstration	
28	ADL Call Setup	
29	ADL Disconnect	
30	RESERVED	
31	Executive Busy Override (single digit)	
32	Automatic Wake-Up	

TABLE 3-6 (CONT'D)
FORM 02 - FEATURE ACCESS CODES

Feature Number	Feature Name	Assigned Access Code
33	Call Park	
34	Node ID	
35	Maid in Room	
36	*SUPERSET 4* Telephone Room Status Display	
37	Direct to ARS	
38	UCD Agent Login/Logout	
39	Analogue Network Accept Caller's Extension	
40	*SUPERSET 4* Maid in Room Status Display	
41	Send Message	
42	Call Sender of Oldest Message	
43	Callback - No Answer	
44	ACD Login/Logout	
45	ACD Silent Monitoring	

Notes: 1. Specify the Feature Access Code in the Assigned Access Code column.

2. Feature Access Codes can be a maximum of five digits (except for the Callback Busy Access Code and the Executive Busy Override Access Code which are only one digit).

3. Feature Access Codes cannot conflict with extension numbers or other access codes, For example, there cannot be a Feature Access code 18 and extension numbers 1801, 1802, etc.

TABLE 3-7
FORM 03 – CLASS-OF-SERVICE OPTIONS

SHEET_ OF _

Option Number	Class-of-Service Option Name	Class-of-Service Number (1 → 50)									
		_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
		Class-of-Service Status									
ATTENDANT-RELATED											
100	Attendant Bell-Off										
101	Attendant Outgoing Restriction/Room Status Setup										
102	Attendant Display of System Alarms										
103	Attendant DISA Code Setup										
104	Attendant Flexible Night Service Setup										
105	Attendant Guest Room Key										
106	Attendant New Call Tone										
107	Attendant Call Forward – No Answer										
108	Attendant Audible Lockout Alarm										
109	Attendant Serial Call										
110	Attendant Abbreviated Dialing Confidential Number Display										
111	Attendant Abbreviated Dial Programming										
112	Attendant Station Busy-Out										
113	Attendant Call Block Key										
114	Attendant Trunk Busy-Out										
115	Attendant-Timed Recall (NO ANSWER) 10 → 240 Seconds (Default 30 s)										
116	Attendant-Timed Recall (HOLD) 10 → 240 Seconds (Default 30 s)										
117	Attendant-Timed Recall (CAMP-ON) 10 → 240 Seconds (Default 30 s)										
118	Attendant Automatic Call Forward – No Answer Timer 10 → 240 Seconds (Default 30 s)										
119	Attendant Tone Signaling										
120	Attendant Conference Disable										
STATION/*SUPERSET*- RELATED											
200	Account Code, Forced Entry – External Calls										
201	Account Code, Forced Entry – Long Distance Calls										
202	Alarm Call										
203	Broker's Call										
204	Call Block Applies (Room to Room)										
205	RESERVED										
206	Call Forwarding – Busy										
207	Call Forwarding – Don't Answer										
208	Call Forwarding – External										

TABLE 3-7 (CONT'D)
FORM 03 - CLASS-OF-SERVICE OPTIONS

SHEET __ OF __

STATION/*SUPERSET*- RELATED (CONT'D)

Option Number	Class-of-Service Option Name	Class-of-Service Number (1 → 50)									
		__1	1 - 2	1 - 3	__4	__5	__6	__7	__8	__9	__0
		Class-of-Service Status									
209	Call Forwarding - Follow Me										
210	Call Forwarding Inhibit on Dial-In Trunks										
211	Call Hold and Retrieve Access										
212	Can Flash if Talking to an Incoming Trunk										
213	Can Flash if Talking to an Outgoing Trunk										
214	Cannot Dial a Trunk After Flashing										
215	Cannot Dial a Trunk if Holding or Conferencing with One										
216	Data Security										
217	Direct to ARS										
218	Directed Call Pickup										
219	Discriminating Dial Tone										
220	Do Not Disturb										
221	Clear All Features										
222	RESERVED										
223	Flash Disable										
224	Flash for Attendant										
225	Hold Pickup (Attendant Paged Access)										
226	Inward Restriction (DID)										
227	Lockout Alarm Applies										
228	Manual Line										
229	RESERVED										
230	Message Register Overflow Alarm										
231	Message Waiting Setup - Bell										
232	Message Waiting Setup - Lamp										
233	Never a Consultee										
234	Never a Forwardee										
235	Originate Only										
236	Outgoing Trunk Callback										
237	Outgoing Trunk Camp-on										
238	Override Security										
239	Priority Dial 0										
240	Line Privacy										
241	Receive Only										
242	Repeated Camp-on Beeps										
243	Non-Busy Extension										

TABLE 3-7 (CONT'D)
FORM 03 - CLASS-OF-SERVICE OPTIONS

SHEET __ OF __

Option Number	Class-of-Service Option Name	Class-of-Service Number (1 → 50)									
		_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
		Class-of-Service Status									
STATION/*SUPERSET*- RELATED (CONT'D)											
244	Room Status Applies										
245	Abbreviated Dial Access										
246	SMDR - Extended Record										
247	SMDR - Record Meter Pulses										
248	TAFAS Any Access										
249	TAFAS Access Tenant										
250	TAFAS Access During Day Service										
251	Transfer Dial Tone										
252	Transfer with Privacy										
253	Call Forward - Don't Answer Timer (2 → 6 Rings)										
254	Call Hold Recall Timer (1 → 10 Minutes)										
255	Repeated Camp-on Beeps Timer (5 → 15 Seconds)										
256	UCD Music on Hold Timer (0 → 50 Minutes)										
259	Message Sending										
ATTENDANT/STATION/*SUPERSET*- RELATED											
300	Automatic Callback										
301	Camp-on										
302	Flash-in Conference										
303	Paging Access - Zone 1										
304	Paging Access - Zone 2										
305	Paging Access - Zone 3										
306	Paging Access - Zone 4										
307	Paging Access - Zone 5										
308	Paging Access - Zone 6										
309	Paging Access - Zone 7										
310	Paging Access - Zone 8										
311	Paging Access - Zone 9										
312	Default Paging Zone (0 → 9) (0 Gives All Enabled Zones)										
313	CO Trunk To CO Trunk Connect										
314	CO Trunk To Tie Trunk Connect										
315	CO Trunk To DID Trunk Connect										
316	Tie Trunk To Tie Trunk Connect										
317	Tie Trunk To DID Trunk Connect										
318	DID Trunk To DID Trunk Connect										

TABLE 3-7 (CONT'D)
FORM 03 - CLASS-OF-SERVICE OPTIONS

SHEET_ OF _

Option Number	Class-of-Service Option Name	Class-of-Service Number (1 → 50)									
		_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
		Class-of-Service Status									
ATTENDANT/STATION/*SUPERSET*- RELATED (CONT'D)											
319	Extension Non-Co Trunk to Trunk Connect										
326	Account Code, Forced Entry - Data Internal Calls										
327	Account Code, Forced Entry - Data External Calls										
328	Account Code, Forced Entry - Data Long Dist Calls										
STATION-RELATED											
400	Contact Monitor										
401	Call Park										
402	Long Loop (Off-Premises Extension Only)										
403	Trunk Recall Partial Inhibit										
404	Recording Failure to Hangup Timer										
ATTENDANT/*SUPERSET*- RELATED											
500	Override										
501	Override Announce										
***SUPERSET*- RELATED**											
600	*SUPERSET* - Auto Answer										
601	*SUPERSET* - Auto-Hold Disable										
602	*SUPERSET* - Background Music										
603	*SUPERSET* - Disconnect Alarm										
604	*SUPERSET* - Immediate Line Select										
605	*SUPERSET* - Message Program										
606	*SUPERSET* - Sub-Attendant										
607	*SUPERSET* - Associated Modem Line										
608	*SUPERSET* - Room Status Display										
609	*SUPERSET* - Night Service Switching										
610	*SUPERSET* 3™DN/*SUPERSET* 4™DN Guest Room Template (0-3)										
611	*SUPERSET* - Limited New Call Ring										
612	*SUPERSET* - Headset Operation										
650	ACD - Agent Template (0 - 3, 0 = disable)										
651	ACD - Supervisor Template (0 - 3, 0 = disable)										
652	ACD - Senior Supervisor Template (0 - 3, 0 = disable)										
653	ACD - Agent Always Auto-Answer										

TABLE 3-7 (CONT'D)
FORM 03 - CLASS-OF-SERVICE OPTIONS

SHEET __ OF __

Option Number	Class-of-Service Option Name	Class-of-Service Number (1 → 50)									
		_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
		Class-of-Service Status									
	DATA STATIONS-RELATED										
	ALL DEVICES										
700	SMDR - Does Not Apply										
701	No Dial Tone										
702	SMDR - Overwrite Buffer										
703	Message Register Applies										
704	Incoming/Internal Modem Pooling Access										
	TRUNK-RELATED										
800	ANI Applies										
801	Incoming Trunk Call Rotary										
802	Limited Wait For Dial Tone										
803	SMDR - Drop Calls Less Than N Digits (N= 0 to 11, 0= Disabled)										
804	SMDR - Drop Incomplete Outgoing Calls										
805	Trunk No Dial Tone Alarm										
806	Record Incoming Calls										
807	RESERVED										
808	Special DISA										
809	Standard Ring Applies										
810	DISA During Night Service Only										
811	Disable Trunk Conferencing										
812	Loop Start Trunk to ACD Path Connect										
	DATA-RELATED										
900	Data Station Queuing										
901	DTRX Herald										
902	DTRX Message Code										
903	DTRX Message Code Text										
904	DTRX Complete Message Text										
905	DTRX Herald Text Select (1-4)										
906	DATA SMDR - Does Not Apply										
907	DATA SMDR - Extended Record										
908	DATA SMDR - Overwrite Buffer										

Notes:
1. Specify the Class-of-Service number (1 → 50).
2. Specify the enabled options with an "E" for each Class of Service.
3. Specify the disabled options with a "D" for each Class of Service.
4. Specify the timer value for the timer options.
5. Options 121-123, 205, 222, 229, 257, 258, 320-325, 405-407, 502, 503, 613-615, 654-658, 705-707, 807, 813, 814,909 and 910 are RESERVED.

TABLE 3-8
FORM 04 – SYSTEM OPTIONS/SYSTEM TIMERS

Option No.	System Options/System Timers	Status
01	24 Hour Clock	
03	Single Paging Amplifier	
04	Message Waiting and Message Register Clear Print	
05	Verified Account Codes	
09	Attendant Call Block	
10	Attendant Conference Beeps	
11	Automatic Wake-Up	
12	Automatic Wake-up Alarm	
13	Automatic Wake-up Print	
14	Automatic Wake-up Music	
15	Data Demultiplexer	
16	DID to Non-Co Trunk Via Attendant Inhibit	
17	Discriminating Ringing	
18	Discriminating Ringing Always	
20	Holiday Messages	
21	Incoming to Outgoing Call Forward	
22	Last Party Clear – Dial Tone	
23	Message Register Count Additional Supervisions	
24	Message Register Audit	
25	Message Register Zero After Audit	
26	No Overlap Outpulsing	
27	Room Status Audit	
28	SMDR Indicate Long Calls	
29	*SUPERSET* Telephone Last Number Redial	
31	Satellite PBX	
32	Outgoing Call Restriction	
33	Room Status	
34	Auto Room Status Conversion/Auto Wake-up Print	
35	Property Management System	

Option No.	System Options/System Timers	Status
36	End-of-Dial Character (#)	
37	Calibrated Flash	
38	Switch-hook Flash	
39	DATA SMDR Indicate Long Calls	
40	Message Register Follows Talker	
41	Automatic Call Distribution	
42	ACD Silent Monitoring	
43	ACD Silent Monitoring Beeps	
44	ACD Plus External ACD Reports	
45	Host Command Interface	
46	Digit Translation Plan (0 → 3)	
47	ARS Unknown Digit Length Time-Out 2 → 15 seconds	
48	Limited Wait for Dial Tone 1 → 15 seconds	
49	Pseudo-Answer Supervision Timer 10 → 60 seconds	
50	Dialing Conflict Timer 2 → 10 seconds	
51	Final Ring Time-Out 1 → 30 minutes	
52	Minimum Flash Timer (10 ms inc) 20 → 50 ms	
53	Maximum Flash Timer (10 ms inc) 20 → 150 ms	
54	DISA Answer Timer 1 → 8 seconds	
55	Account Code Length Variable or 4 → 12 units	
56	Auto Room Status Conversion/Wake-Up Print Timer	
57	Vacant/Reserved Room Default Call Restriction	
58	Occupied Room Default Call Restriction	

Notes:

1. Specify the enabled options with an "E".
2. Specify the disabled options with a "D".
3. Specify a timer value for the timer options.
4. Options 2, 6, 7, 8, 19 and 30 are reserved for future use.

TABLE 3-9
FORM 05 - TENANT INTERCONNECTION TABLE

TENANT NAME		01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	01	--																								
	02		--																							
	03			- -																						
	04				- -																					
	05					- -																				
	06						- -																			
	07							- -																		
	08								- -																	
	09									- -																
	10										- -															
	11											- -														
	12												- -													
	13													- -												
	14														- -											
	15															- -										
	16																- -									
	17																	- -								
	18																		- -							
	19																			- -						
	20																				- -					
	21																					- -				
	22																						- -			
	23																							- -		
	24																								- -	
	25																									- -

Notes: 1. Specify all inhibited connections with an X (indicated by a period on the CRT). Tenant Group interconnection is inhibited unidirectionally. For example, an X in row 21 column 1 prevents Tenant Group 21 from communicating with Tenant Group 1, but Tenant Group 1 can still call Tenant Group 21.

2. On initialization, the system interconnects all Tenant Groups (indicated by asterisks on the CRT).

3. For each line, is the tenant number at left allowed to connect to tenant numbers at the right? By default “YES”.

TABLE 3-10
FORM 06 - TENANT NIGHT SWITCHING CONTROL

TENANT NAME		01	02	03	04	05	06	07	08	08	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
	01	--																								
	02		--																							
	03			--																						
	04				--																					
	05					--																				
	06						--																			
	07							--																		
	08								--																	
	09									--																
	10										--															
	11											--														
	12												--													
	13													--												
	14														--											
	15															--										
	16																--									
	17																	--								
	18																		--							
	19																			--						
	20																				--					
	21																					--				
	22																						--			
	23																							--		
	24																								--	
	25																									--

Notes:
1. Specify with an X those Tenant Groups allowed to switch into Night Service simultaneously (indicated by an asterisk on the CRT). For example, an X in row 10 column 1 allows Tenant Group 10 to switch both Tenant Groups 10 and 1 into Night Service simultaneously, but Tenant Group 1 can only switch itself into Night Service.
2. On initialization, the system defaults to Tenant Groups switching to Night Service one at a time (indicated by a period on the CRT).
3. For each line, is the tenant number at left allowed to switch DAY/NIGHT SERVICE for the tenant numbers at the right? By default "NO".

TABLE 3-I 1
FORM 07 - CONSOLE ASSIGNMENTS

BAY	SLT	CCT	EXT NUM	COS	COR	TENANT	COMMENTS

Notes:

1. There are a maximum of 11 consoles. The Attendant Console default location is Bay 2, Slot 3, Circuit 1 on 336, 456 and 480-port systems; on 672-port systems it is Bay 1, Slot 5, Circuit 2. This Attendant Console is required if the VT-100 compatible terminal is not used for Customer Data Entry.
2. Specify the physical location (bay, slot and circuit) of each console.
3. Specify the extension number of each console. Calls directed to the console's extension number route to softkey 2. However, another extension number can be assigned in Form 08, Attendant LDN Assignments for softkey 2. In other words, two different extension numbers share the same softkey.
4. Specify the COS, COR and Tenant Group number of each console.
5. The COMMENTS field stores additional information for each console; it is not used by the system and can have a maximum of 15 characters.

TABLE 3-12
FORM 08 - ATTENDANT LDN ASSIGNMENTS

Bay/Slt/Cct: _____ **Console Extension Number:**

KEY	DIR NUMBER	LABEL	COMMENTS
2			
3			
4			
5			
6			
7			
8			
9			
0			

Bay/Slt/Cct: _____ **Console Extension Number:**

KEY	DIR NUMBER	LABEL	COMMENTS
2			
3			
4			
5			
6			
7			
8			
9			
0			

Notes: 1. There are a maximum of 11 consoles

2. The directory number is a maximum of five digits. It links this form to Form 19, Call Rerouting Table, where the actual call type is defined for each directory number. The directory number programmed for softkey 2 shares the softkey with calls to the console's extension number (as defined in the EXT NUM field of Form 07, Console Assignments).

3. The LABEL field specifies the actual text that the console LCD displays as softkey prompts. Console softkey 2 label defaults to INTERNAL.

4. Console softkey 1 is reserved for the RECALL softkey. It cannot be modified.

5. The COMMENTS field further specifies the Attendant LDN assignments with text. It is stored by the system but not used and can have a maximum of 15 characters.

TABLE 3-13
FORM 09 - STATION/*SUPERSET*® TELEPHONES

SHEET __ OF __

BAY	SLT	CCT	TEN	EXTN	COS	COR	TYP	ANNOUNCE			NAME	ASSOC	COMMENTS

Notes: Notes for this form follow on next page.

NOTES FOR FORM 09
STATION/*SUPERSET* TELEPHONES

Notes: 1. Specify the Tenant Group, Extension Number, COS number and COR number for each device.

2. Specify the device type in the **TYP** field as a Rotary Dial or DTMF set (STN), *SUPERSET* telephone (SET) or Call Announce Port (CAP). The CAP can be a Station Circuit, a *SUPERSET* telephone circuit, COV circuit, or OPS circuit. Hardware restrictions prevent a digital ONS circuit from being a CAP.

3. Specify the physical location (by the bay, slot and circuit numbers) of the Call Announce Port in the **ANNOUNCE** field for the appropriate *SUPERSET* telephone. (Ensure the circuit to be programmed as a CAP has not been previously assigned).

4. If desired, specify the set user's name in the **NAME** field. The name can be up to **10** characters long. It appears on the console and display sets when calling or in conversation with them.

5. Specify the Access Code of the Associated Modem Line (if equipped) in the **ASSOC** field.

6. The **COMMENTS** field stores additional information for each device. It is not used by the system and can have a maximum of 15 characters.

7. Refer to Section MITL9 109-094- 105-NA, Features Description, for details.

TABLE 3-14
FORM 09* - *SUPERSET* TELEPHONE LINES

SHEET __ OF __

SUPERSET 3™ telephone ____
SUPERSET 4® telephone ____
SVPERSET 3™DN telephone ____
SVPERSET 4™DN telephone ____

BAY/SLT/CCT: _____ EXTENSION NUMBER:

KEY	TYPE	DIRECTION	RING	SECRETARIAL	EXT NUM	TRUNK NUMBER
01	Prime	In/Out	Immed	No		
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13*						
14*						
15*						

* See note 4.

Notes: 1. * This form is a nested form and can only be accessed from Form 09 (Station/*SUPERSET* Telephones).

2. **KEY 01** is the Prime Line and cannot be modified.

3. If the set is a *SUPERSET* 3DN or a *SUPERSET* 4DN Telephone, the form shows 12 keys (01 to 12).

4. If the set is a *SUPERSET* 3 Telephone, the form shows 3 line keys (01, 02 and 03) and 12 Speed Call keys (04 to 15).

NOTES FOR FORM 09* (CONT'D)
SUPERSET TELEPHONE LINES

5. Line Select keys can be programmed as line appearances. Select the appearance type and variants from the following list:

TYPE
- KEY = Key Line
- Multiple = Multiple Call Line
- Personal = Personal Outgoing Line
- DTS = Direct Trunk Select
- Private = Private Trunk
- Speed Call (default for keys 2 → 15)

RING
- IMMED = Immediate Ring
- DELAY = Delay Ring
- NO = No Ring

SECRETARIAL (Multiple call lines only)
- NON = Non-Secretarial
- SEC = Secretarial

DIRECTION
- BOTH = Both Way
- IN = In Only

6. The **TYPE** field defaults to Speed Dial (undefined) and must be defined before the other categories can be assigned. Refer to Section MITL9109-094-106-NA, Features Description.

7. The **EXT NUM** field must be specified for each line appearance. If however, the **TYPE** field is set to Direct Trunk Access or Private Trunk, the **TRUNK NUMBER** field must be specified. The **EXT NUM** and **TRUNK NUMBER** fields are mutually exclusive.

8. Unassigned Line Keys (2 → 12) on SUPERSEJ 3DN and SUPERSEJ 4DN telephones can be programmed as feature access keys for the following features:

Auto Answer	Paging	Call Forward	Data Disc
Do Not Disturb	Camp-On	Call Pickup	Swap
Privacy Release	Music	Night Answer	Override
Callback	Call/Attn		

9. Specify the feature for the corresponding line key in the **TYPE** field.

TABLE 3-15
FORM 10 - PICKUP GROUPS

SHEET __ OF __

GROUP NUMBER (1 - 50):

EXTENSION NUMBERS

GROUP NUMBER (1 - 50):

EXTENSION NUMBERS

GROUP NUMBER (1 - 50):

EXTENSION NUMBERS

Notes: 1. The system supports a maximum of 50 Pickup Groups and each Pickup Group supports a maximum of 50 members.

2. The order in which the Pickup Group members are entered is not significant.

3. Pickup Group members are restricted to extension numbers of Rotary Dial or DTMF sets or Prime Line numbers of SUPERSEJ telephones. Attendant Consoles are not allowed in Pickup Groups.

TABLE 3-16
FORM 11 - DATA CIRCUIT DESCRIPTORS

DESCRIPTOR	NUMBER OF DATA CIRCUITS ASSIGNED	COMMENTS
01	(Note 1)	
02	(Note 1)	
03	(Note 1)	
04	(Note 1)	
05	(Note 1)	
06	(Note 1)	
07	(Note 1)	
08	(Note 1)	
09	(Note 1)	
10	(Note 1)	
11	(Note 1)	
12	(Note 1)	
13	(Note 1)	
14	(Note 1)	
15	(Note 1)	
16	(Note 1)	
17	(Note 1)	
18	(Note 1)	
19	(Note 1)	
20	(Note 1)	
21	(Note 1)	
22	(Note 1)	
23	(Note 1)	
24	(Note 1)	
25	(Note 1)	

Notes: 1. The number of circuits assigned to a particular descriptor is automatically displayed by the system.

2. The comments field stores additional information. It is not used by the system and can have a maximum of 20 characters.

TABLE 3-17
FORM 11* - DATA CIRCUIT DESCRIPTOR OPTIONS

OPTION	DATA CIRCUIT DESCRIPTOR NUMBER (1 → 25)									
	_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
Session Inactivity Disconnect Timer O-255 minutes										
Guard Timer O-99 seconds										
Minimum Baud Rate 110, 150, 300, 600, 1200, 2400, 4800, 9600, or 19200										
Default Baud Rate 110, 150, 300, 600, 1200, 2400, 4800, 9600, or 19200										
Maximum Baud Rate 110, 150, 300, 600, 1200, 2400, 4800, 9600, or 19200										
Always Use Default Baud Rate When Called YES or NO										
DTR Off Disconnect Timer O-99 seconds										
DTR To CTS Delay Timer O-9900 msec, (100 msec inc)										
DTR Forced High YES or NO										
RTS Forced High YES or NO										
DSR Is Held High When Device Is Idle YES or NO										
CTS Is Held High When Device Is Idle YES or NO										
Originate A DTRX Call With A Low → High Transition of DTR YES or NO										
Action Taken If The Idle DTE Has DTR Low (Auto Answer) TOGGLE RI, DSR, DCD, or REFUSE										
Pooled Modem Communication Established Indicator DCD or DSR										
ASYNC: Keyboard Origination Allowed (Auto Baud)										
ASYNC: ADL Auto Baud										
ASYNC: Flow Control CTS, XON/OFF or NONE										

TABLE 3-17 (CONT'D)
FORM 11* - DATA CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

OPTION	DATA CIRCUIT DESCRIPTOR NUMBER (1 - 25)									
	__1	__2	__3	__4	__5	__6	__7	__8	__9	__0
ASYNC: XON character 0-127, Decimal value of ASCII code										
ASYNC: XOFF character O-127, Decimal value of ASCII code										
ASYNC: Break Key Function SYS ATT or TRANSPARENT										
ASYNC: PBX Attention Character 0 - 127, Decimal value of ASCII code										
ASYNC: Parity ODD, EVEN or NONE										
ASYNC: Character Length 7 or 8; 8 bits implies no parity										
ASYNC: Number of Stop Bits 1 or 2										
ASYNC: Autobaud to Host Character 1 0 - 127, Decimal value of ASCII code										
ASYNC: Autobaud to Host Character 2 0 - 127, Decimal value of ASCII code										
ASYNC: Delay Between Autobaud Characters O-1270 msec (IO msec increments)										
DS2100: Operating Mode ASYNCHRONOUS or SYNCHRONOUS										
SYNC: Rate Adaptation Scheme MiNET or X.31										
SYNC: Clock Source INTERNAL, SYSTEM, TX EXT or TX & RX EXT										

Notes: 1. * This form is nested and can only be accessed from Form 11, Data Circuit Descriptors.

2. Specify the options for the selected data circuit descriptor number.

TABLE 3-18
FORM 12 - DATA ASSIGNMENT

SHEET ___ OF ___

BAY	SLT	CCT	TYP	TEN	EXT NUM	COS	COR	CDN	DTE	AVL	HOTLINE	COMMENTS

Notes: 1. When a DNI card is programmed in the System Configuration form (Form 01), the system automatically enters the Bay/Slot/Circuit locations in Form 09, Station/*SUPERSET* Assignment, and in Form 12, Data Assignment.

2. Enter Bay/Slot/Circuit numbers of the programmed device.

3. Enter the type of device programmed. The available types are DATASET 1101, DATASET 1102, DATASET 1103, DATASET 2102, DATASET 2103 and DSCONS (Superconsole *1000*™ Printer Port).

4. Assign the Tenant number, extension number, COS, COR and Circuit Descriptor number for the device.

5. If the device is to have access to a Data Transceiver (DTRX), assign an appropriate Data Terminal Equipment (DTE) Profile number. Otherwise, leave this field blank. DTE Profiles are assigned in Form 29.

6. Assign the Associated Voice Line (AVL), if applicable.

7. Assign the Hotline number, if applicable.

TABLE 3-19
FORM 13 – TRUNK CIRCUIT DESCRIPTORS

DESCRIPTOR NO.	TYPE	COMMENTS
01		
02		
03		
04		
05		
06		
07		
08		
09		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
25		

Notes: 1. Specify a Trunk Type for the required trunk circuit descriptors. The Trunk Types include: 4-CCT CO, 4-CCT DISA, 6-CCT CO, 6-CCT DISA, E&M MODULE, E&M MODULE DISA, E&M CARD, E&M TRK DISA, 2-CCT DID/TIE, 2-CCT TIE DISA, 6-CCT DID, T1 E&M, T1 E&M DISA, T1 DID/TIE, T1 TIE DISA, T1 LS/GS, and T1 CO DISA,

2. The COMMENTS field stores additional information. It is not used by the system and can have a maximum of 20 characters.

TABLE 3-20
FORM 13* - TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

4-CIRCUIT CO TRUNK and 4-CIRCUIT DISA OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 - 25)									
	_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
Reverse to Idle (Y or N)										
Far-End Gives Answer Supervision (Y or N)										
Inhibit Automatic Supervision (Y or N)										
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Impedance (600 Ohms or Complex)										
Dictation Trunk (Y or N)										

Notes: 1. * This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS softkeys.

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number,

TABLE 3-20 (CONT'D)
FORM **13*** **- TRUNK CIRCUIT DESCRIPTOR OPTIONS**

SHEET __ OF __

6-CIRCUIT CO TRUNK and 6-CIRCUIT **DISA** OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 → 25)									
	__1	__2	- 3	__4	- 5	__6	__7	__8	__9	__0
Reverse to Idle (Y or N)										
Far-End Gives Answer Supervision (Y or N)										
Inhibit Automatic Supervision (Y or N)										
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Impedance (600 Ohms or Complex)										
Dictation Trunk (Y or N)										
Post Call Metering 0 → 15 seconds										
Calling Party Disconnect Timer 1 → 12 minutes										
Ignore Remote Disconnect (Y or N)										
Disconnect Timer 100 → 9900 ms (100 ms inc)										
Supervision Direction: Incoming Trunk Calls Also (Y or N)										
Guard Timer 0 → 3000 ms (100 ms inc)										
Ring Cycle Timer 6 → 10 seconds										
Ignore Line Reversal During Seizure (Y or N)										
Ringing Expected (Y or N)										
Ringing Debounce Timer 5 → 12 seconds										
Seize Timer 10 → 60 s (10 s increments)										
Flash Timer 200 → 700 ms (100 ms inc)										
Interdigit Timer 300 → 800 ms (100 ms inc)										
Digit Outpulsing Ratio (60/40, 80/20, 66/33)										

Notes: 1. * This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS softkeys.

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number.

TABLE 3-20 (CONT'D)
FORM 13* - TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

E&M MODULE and E&M MODULE DISA OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 → 25)									
	_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
Reverse to Idle (Y or N)										
Far-End Gives Answer Supervision (Y or N)										
Inhibit Automatic Supervision (Y or N)										
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Impedance (600 Ohms or Complex) ** Use Module DIP Switches to Set **										
E Lead Invert (Y or N)										
M Lead Invert (Y or N) ** required for type 5 operation **										
Disconnect Timer 150 → 300 ms (50 ms inc)										
Release Acknowledge Timer 2000 → 9900 ms (100 ms inc)										
Guard Timer 200 → 1000 ms (100 ms inc)										
Dictation Trunk (Y or N)										
Incoming Start Type (Immed, Wink or Delay)										
Debounce Timer 20 → 150 ms (10 ms inc)										
Wink Timer 150 → 300 ms (50 ms inc)										
Outgoing Start Time (Immed, Wink, Delay or Delay Integ)										
Digit Outpulsing Ratio (60/40, 80/20, 66/33)										
Outpulse Delay Timer 100 → 2000 ms (100 ms inc)										
Flash Timer 200 → 700 ms (100 ms inc)										
Interdigit Timer 300 → 800 ms (100 ms inc)										
Wait for Delay Timer 300 → 5000 ms (100 m s inc)										

TABLE 3-20 (CONT'D)
FORM 13* - TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

E&M MODULE and E&M MODULE DISA OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 → 25)									
	_1	_2	_3	-4	_5	-5	_7	_8	_9	_0
Remote End is a Satellite (Y or N)										
Remote End is a Satellite with OPS Lines (Y or N)										

Notes: 1. * This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS **softkeys**.

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number.

TABLE 3-20 (CONT'D)
FORM 13* - TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET _ OF _

E&M CARD and E&M TRUNK DISA OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 - 25)									
	_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
Reverse to Idle (Y or N)										
Far-End Gives Answer Supervision (Y or N)										
Inhibit Automatic Supervision (Y or N)										
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Impedance (600 Ohms or Complex)										
Remote End is a Satellite (Y or N)										
Remote End is a Satellite With OPS Lines (Y or N)										
Dictation Trunk (Y or N)										

Notes: 1. * This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS softkeys.

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number.

TABLE 3-20 (CONT'D)
FORM 13⁎ – TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

P-CIRCUIT DID/TIE and 2–CIRCUIT TIE DISA OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 → 25)									
	__1	__2	__3	__4	__5	__6	__7	__8	__9	__0
Reverse to Idle (Y or N)										
Far–End Gives Answer Supervision (Y or N)										
Inhibit Automatic Supervision (Y or N)										
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Impedance (600 Ohms or Complex)										
Remote End is a Satellite (Y or N)										
Remote End is a Satellite with OPS Lines (Y or N)										

Notes: 1. ⁎ This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS **softkeys.**

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number.

TABLE 3-20 (CONT'D)
FORM 13x - TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

6-CIRCUIT DID OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 → 25)									
	_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
Reverse to Idle (Y or N)										
Far-End Gives Answer Supervision (Y or N)										
Inhibit Automatic Supervision (Y or N)										
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Impedance (600 Ohms or Complex)										
Disconnect Timer 150 → 300 ms (50 ms inc)										
Release Acknowledge Timer 2 → 120 seconds										
Start Type (Immed, Wink or Delay)										
Guard Timer 200 → 1000 (100 ms inc)										
Debounce Timer 20 → 150 ms (10 ms inc)										
Wink Timer 150 → 300 ms (50 ms inc)										
Remote End is a Satellite (Y or N)										
Remote End is a Satellite With OPS Lines (Y or N)										

Notes: 1. * This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS softkeys.

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number.

TABLE 3-20 (CONT'D)
FORM 13x * TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

T1 E&M and T1 E&M DISA OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 - 25)									
	_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
Reverse to Idle (Y or N)										
Far-End Gives Answer Supervision (Y or N)										
Inhibit Automatic Supervision (Y or N)										
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Disconnect Timer 150 - 300 ms (50 ms inc)										
Release Acknowledge Timer 2000 - 9900 ms (100 ms inc)										
Guard Timer 200 - 1000 (100 ms inc)										
Incoming Start Type (Immed, Wink or Delay)										
Debounce Timer 20 - 150 ms (10 ms inc)										
Wink Timer 150 - 300 ms (50 ms inc)										
Outgoing Start Type (Immed, Wink, Delay or Delay Integ)										
Digit Outpulsing Ratio (60/40, 80/20, 66/33)										
Outpulse Delay Timer 100 - 2000 ms (100 ms inc)										
Flash Timer 200 - 700 ms (100 ms inc)										
Interdigit Timer 300 - 800 ms (100 ms inc)										
Wait for Delay Timer 300 - 5000 ms (100 ms inc)										
Remote end is a satellite (Y or N)										
Remote end is a satellite with OPS Lines (Y or N)										

Notes: 1. * This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS softkeys.

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number.

TABLE 3-20 (CONT'D)
FORM 13* - TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

T1 DID/TIE and T1 TIE DISA OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 - 25)									
	_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
Far-End Gives Answer Supervision (Y or N)										
Inhibit Automatic Supervision (Y or N)										
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Disconnect Timer 150 → 300 ms (50 ms inc)										
Release Acknowledge Timer 2 → 120 s										
Guard Timer 200 → 1000 (100 ms inc)										
Start Type (Immed, Wink or Delay)										
Debounce Timer 20 → 150 ms (o ms inc)										
Wink Timer 150 → 300 ms (50 ms inc)										
Outgoing Start Type (Immed, Wink, Delay or Delay Integ)										
Digit Outpulsing Ratio (60/40, 80/20, 66/33)										
Outpulse Delay Timer 100 → 2000 ms (100 ms inc)										
Flash Timer 200 → 700 ms (100 ms inc)										
Interdigit Timer 300 → 800 ms (100 ms inc)										
Wait for Delay Timer 300 → 5000 ms (100 ms inc)										
Remote End is a Satellite (Y or N)										
Remote End is a Satellite with OPS Lines (Y or N)										

Notes: 1. * This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS softkeys.

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number.

TABLE 3-20 (CONT'D)
FORM 13⁎ - TRUNK CIRCUIT DESCRIPTOR OPTIONS

SHEET __ OF __

T1 LS/GS TRUNK and T1 CO DISA OPTIONS	TRUNK CIRCUIT DESCRIPTOR NUMBER (1 - 25)									
	_1	_2	_3	_4	_5	_6	_7	_8	_9	_0
No Seize Alarm (Y or N)										
No Release Alarm (Y or N)										
Toll Office (Y or N)										
Is this a CO (Y or N)										
DTMF (Y or N)										
Loop Start or Ground Start (LS or GS)										
Calling Party Disconnect Timer 1 - 12 minutes										
Guard Timer (0 - 3000 ms) (100 ms inc)										
Ring Cycle Timer (6 - 10 s)										
Ringing Expected (Y or N)										
Ringing Debounce Timer 5 - 12 seconds										
Seize Timer (10 - 60 s) (10 s increments)										
Flash Timer (200 - 700 ms) (100 ms inc)										
Interdigit Timer (300 - 800 ms) (100 ms inc)										

Notes: 1. ⁎ This form is a nested form and can only be accessed from Form 13 (Trunk Circuit Descriptors), via the SEL. OPTIONS softkeys.

2. Specify the hardware options for the selected trunk circuit descriptor number. The options can be specified only after a trunk type has been assigned to a trunk circuit descriptor number.

TABLE 3-21
FORM 14 - NON-DIAL-IN TRUNKS

SHEET __ OF __

BAY	SLT	CCT	COS	TEN	DAY	N1	N2	CDN	TK NUM	TK NAME	COMMENTS

Notes:
1. Specify the COS number, Tenant Group number and the trunk number (1 → 200).
2. Specify the answer points for Day, Nightl, and Night2 Service Modes. The answer points may be specified as an LDN on the Attendant Console, a station number (or a SUPERSET telephone Prime Line number), a Hunt Group Access Code or a Night Bell equipment extension number. An LDN and Night Bell cannot be rung simultaneously.
3. Assign a trunk circuit descriptor number in the CDN field for each Non-Dial-In Trunk. The CDN field links this form to Form 13, Trunk Circuit Descriptors which defines the trunk hardware parameters.
4. The COMMENTS field is reserved for additional information. It is not used by the system and can have a maximum of 15 characters.
5. If desired, assign the trunk a name in the NAME field.

TABLE 3-22
FORM 15 - DIAL-IN TRUNKS

SHEET __ OF __

BAY	SLT	CCT	COS	COR	TEN	N	M	X	CDN	TK NUM	TK NAME	COMMENTS

Notes: 1. Specify COS number, COR number, Tenant Group number and the trunk number (1 → 200).

2. Assign a trunk circuit descriptor number in the CDN field for each Dial-In Trunk. The CDN field links this form to Form 13, Trunk Circuit Descriptors which defines the trunk hardware parameters.

3. Specify the number of expected digits (1 to g), if required, in the N field. Digit translation on incoming calls occurs after the system receives the specified number of digits (if the N field is filled in).

4. Specify the number of digits (0 to 8) in the M field that must be absorbed after the incoming trunk is seized.

5. Specify the actual digits (if required, a maximum of 2) in the X field that will be inserted before the digit string. IF NONE LEAVE BLANK.

6. If desired, specify a trunk name in the TK NAME field. The name can be up to 8 characters long.

7. The COMMENTS field is reserved for additional information. It is not used by the system and can have a maximum of 15 characters.

TABLE 3-23
FORM 16 – TRUNK GROUPS

Trunk Group Function: SHEET __ OF __

TRUNK GROUP NUMBER (1 → 50):	TRUNK GROUP NAME:
HUNTING (TERMINAL/CIRCULAR):	SMDR (Y/N):

TRUNK NUMBERS								

Trunk Group Function:

TRUNK GROUP NUMBER (1 → 50):	TRUNK GROUP NAME:
HUNTING (TERMINAL/CIRCULAR):	SMDR (Y/N):

TRUNK NUMBERS								

Notes: 1. There are maximum of 50 members per Trunk Group and the system supports a maximum of 50 Trunk Groups.

2. Specify each member of the Trunk Group by trunk number. Trunk Group hunting occurs in the order that the members are entered.

3. The Trunk Group name can be a maximum of eight characters in length.

TABLE 3-24
FORM 17 - HUNT GROUPS

Hunt Group Function: SHEET __ OF __

HUNT GROUP NUMBER (1 → 50):	ACCESS CODE :	OVERFLOW :
HUNTING (TERMINAL/CIRCULAR):	HUNT GROUP TYPE:	
HUNT GROUP NAME		

EXTENSION NUMBERS								

Hunt Group Function:

HUNT GROUP NUMBER (1 → 50):	ACCESS CODE :	OVERFLOW :
HUNTING (TERMINAL/CIRCULAR):	HUNT GROUP TYPE:	
HUNT GROUP NAME:		

EXTENSION NUMBERS								

Notes: 1. There are a maximum of 50 members per Hunt Group; the system supports a maximum of 50 Hunt Groups.

2. Specify an Access Code for the Hunt Group.

3. Specify each member of the Hunt Group by extension number. Hunting occurs in the order that the members are entered.

4. Specify the Hunt Group Type. The following conditions apply:
   - If the first member of a Hunt Group is a station or *SUPERSET* telephone, the Default Group type will be STN/SET. If the first member is a DATASET, the Group Type will be DATA. A Data Hunt Group is created only when a DATASET is entered as the first extension of an empty group.
   - A Hunt Group of stations (2500 sets only) can be of group type Recording. A Hunt Group of stations or *SUPERSET* telephones can also be of group type Agent.

5. Choose the type of hunting desired, Terminal or Circular.

6. If desired, specify an Overflow point. It must be of a compatible type.

7. If desired, specify a Hunt Group Name.

TABLE 3-25
FORM 18 - MISCELLANEOUS SYSTEM PORTS

ENTRY NUMBER	DESCRIPTION	BAY	SLT	CCT	SCT	EXTENSION NUMBER
01	Music on Hold				—	———
02	Pager 1				—	———
03	Pager 2				—	———
04	Pager 3				—	———
05	Pager 4				—	———
06	Pager 5				—	———
07	Pager 6				—	———
08	Pager 7				—	———
09	Pager 8				—	———
10	Pager 9				—	———
11	Minor Alarm					
12	Major Alarm					
13	Critical Alarm					
14	Night Bell 1					
15	Night Bell 2					
16	Night Bell 3					
17	Night Bell 4					
18	Night Bell 5					
19	Night Bell 6					
20	Night Bell 7					
21	Night Bell 8					
22	Night Bell 9					
23	Night Bell 10					
24	Night Bell 11					
25	Night Bell 12					
26	Night Bell 13					
27	Night Bell 14					
28	Night Bell 15					
29	Night Bell 16					
30	Night Bell 17					
31	Night Bell 18					
32	Night Bell 19					
33	Night Bell 20					

TABLE 3-25 (CONT'D)
FORM 18 - MISCELLANEOUS SYSTEM PORTS

ENTRY NUMBER	DESCRIPTION	BAY	SLT	CCT	SCT	EXTENSION NUMBER
34	Night Bell 21					
35	Night Bell 22					
36	Night Bell 23					
37	Night Bell 24					
38	Night Bell 25					

Notes: 1. Specify the physical location (bay, slot, circuit and subcircuit numbers) of the miscellaneous devices.

2. Specification of the extension numbers is only required for the Night Bell relays. Night Bell definitions are restricted to Universal Card slots.

3. The subcircuit (SCT) fields for the music on hold module and the nine paging zones will be filled in by the system.

TABLE 3-26
FORM 19 - CALL REROUTING TABLE

SHEET __ OF __

TENANT GROUP (1 → 25): Tenant Name: _____

TYPE OF CALL.	DAY	N1	N2
Station Dial 0 Routing			
Priority Dial 0 Routing			
DID Recall Points On Busy			
DID Recall Points On No Answer			
DID Routing For Calls Into This Tenant			
DID Intercept Routing For Calls Into This Tenant			
DID Vacant Number Routing For This Tenant			
DID Attendant Night Access Points			
Non-Dial-In Trunks Alternate Recall Points			
Dial-In Tie Recall Points On Busy			
Dial-In Tie Recall Points On No Answer			
Dial-In Tie Routing For Calls Into This Tenant			
Dial-In Tie Intercept for Calls into this Tenant			
Dial-In Tie Vacant Number Routing for this Tenant			
Dial-In Tie Attendant Access Night Points			
DND Intercept Routing for this Tenant			
Automatic Wake-up Routing for this Tenant			
UCD Recording Routing for this Tenant			
UCD on Hold Time-out for this Tenant			
DISA Day Service Routing for this Tenant		-	-
Station Vacant Number Routing for this Tenant			
Station Illegal Number Routing for this Tenant			

Notes: 1. Assign an extension number, an Attendant Console directory number, an Attendant Console LDN number, Key Line appearance, Hunt Group Access Code or a Night Bell number for each type of call in Day Service Mode, Night1 Service Mode and Night2 Service Mode.

2. A Call Rerouting Table is required for each Tenant Group in the system.

3. Attendant Console directory numbers are not valid for all routing points; restrictions apply.

TABLE 3-27
FORM 20 ➡ ARS: COR GROUP DEFINITION

SHEET __ OF __

COR GROUP NUMBER (1 ➡ 50):					
COR GROUP MEMBERS (Enter the COR numbers of the denied devices below)					
COMMENTS:					

COR GROUP NUMBER (1 ➡ 50):					
COR GROUP MEMBERS (Enter the COR numbers of the denied devices below)					
COMMENTS:					

COR GROUP NUMBER (1 ➡ 50):					
COR GROUP MEMBERS (Enter the COR numbers of the denied devices below)					
COMMENTS:					

Notes: **1.** The system supports a maximum of 50 COR Groups numbered 1 ➡ 50.

2. Each COR Group accommodates a maximum of 25 members numbered 1 ➡ 25.
3. COR Group members are separated by a space. Consecutive numbered COR Group members are separated by a dash. For example, 3-7 instead of 3 4 5 6 7.
4. The COMMENTS field is reserved for additional information. It is not used by the system and can accommodate a maximum of 20 characters.

TABLE 3-28
FORM 21 - ARS: DAY ZONE DEFINITION

DAY ZONE	MON.	TUE.	WED.	THU.	FRI.	SAT.	SUN.
01							
02							
03							

Notes: 1. Specify a Day Zone for each day of the week with an asterisk **(*)**.

2. Only one Day Zone can be assigned to each day.

3. A Day Zone must be assigned to each day of the week before this form can be saved.

TABLE 3-29
FORM 22 - ARS: MODIFIED DIGIT TABLE

SHEET __ OF __

ENTRY NUM	QTY TO DELETE	DIGITS TO BE INSERTED	COMMENTS
_1			
_2			
_3			
_4			
_5			
_6			
_7			
_8			
_9			
_0			
_1			
2			
_3			
_4			
_5			
_6			
_7			
_8			
_9			
_0			

Notes: 1. Specify the number of digits (a maximum of 25) that will be deleted for each Entry Number (1 → 100).

2. Specify digits (a maximum of 38) that will be inserted for each Entry Number. Special number sequences that can be included in the DIGITS TO BE INSERTED field are:
   - *1 = Pause 5 Seconds
   - *2 = Wait for Dial Tone
   - *3 = Switch to DTMF for Subsequent Digits
   - *4 = Do Not Display Further Modified Digits on Sets or SMDR
   - *5 = Pause for 10 Seconds
   - ** = *

3. The COMMENTS field is reserved for additional information and is not used by the system. It can have a maximum of 20 characters.

TABLE 3-30
FORM 23 - ARS: ROUTE DEFINITION

SHEET __ OF __

ROUTE NUM	TRUNK GROUP (1 - 50)	COR GROUP (1 - 50)	MOD DIGIT ENTRY (1 - 100)	COMMENTS
_1				
_2				
_3				
_4				
_5				
_6				
_7				
_8				
_9				
_0				
_1				
_2				
_3				
_4				
_5				
_6				
_'				
_8				
_9				
_0				

Notes: 1. Valid Route numbers are 1 through 200.

2. Assign a Trunk Group number, COR Group number (optional) and a Mod Digit Entry number (1 - 100) for each Route number.

3. The COR GROUP number links this form to Form 20, COR Group Definition. Members of the listed COR Group are denied access to the route.

4. The COMMENTS field stores a maximum of 20 characters.

TABLE 3-31
FORM 24 – ARS: ROUTE LISTS

SHEET __ OF __

LIST NUM	FIRST	SECOND	WT	THIRD	WT	FOURTH	WT	FIFTH	WT	SIXTH	WT
_1											
_2											
_3											
_4											
_5											
_6											
_7											
_8											
_9											
_0											
_1											
_2											
_3											
_4											
_5											
_6											
_7											
_8											
_9											
_0											

Notes: 1. Specify the Route List numbers (01 → 100).

2. Assign the required Route numbers for each Route List number. Route selection occurs in the order that the Route numbers are entered.

3. Indicate the expensive routes with an "E" in the WT (Warning Tone) field. An enabled warning tone is represented by ON on the display.

TABLE 3-32
FORM 25 - ARS: ROUTE PLANS

ROUTE PLAN: ___ Route Plan Function: _____ SHEET __ OF __

TIME ZONE	DAY ZONE 1 START HOUR	DAY ZONE 1 ROUTE LIST	DAY ZONE 2 START HOUR	DAY ZONE 2 ROUTE LIST	DAY ZONE 3 START HOUR	DAY ZONE 3 ROUTE LIST
01						
02						
03						
04						
05						
06						

ROUTE PLAN: - Route Plan Function: _____

TIME ZONE	DAY ZONE 1 START HOUR	DAY ZONE 1 ROUTE LIST	DAY ZONE 2 START HOUR	DAY ZONE 2 ROUTE LIST	DAY ZONE 3 START HOUR	DAY ZONE 3 ROUTE LIST
01						
02						
03						
04						
05						
06						

ROUTE PLAN: ___ Route Plan Function: _____

TIME ZONE	DAY ZONE 1 START HOUR	DAY ZONE 1 ROUTE LIST	DAY ZONE 2 START HOUR	DAY ZONE 2 ROUTE LIST	DAY ZONE 3 START HOUR	DAY ZONE 3 ROUTE LIST
01						
02						
03						
04						
05						
06						

Notes: 1. There are a maximum of 50 Route Plan numbers.

2. Specify the starting hour and Route List number for each time zone.

TABLE 3-33
FORM 26 – ARS: DIGIT STRINGS

SHEET __ OF __

LEADING DIGITS	RETURN DIAL TONE	RESTRICTED COR GROUP

Notes: 1. List the digits that will be dialed for external trunk access in the LEADING DIGITS field. The system supports a maximum of 100 Leading Digit entries. Each entry can be a maximum of five digits. Leading digits must not conflict with feature access codes. Users with COS Option 244 (Room Status Applies) and Option 33 (Room Status) of internal enabled are denied calls to these numbers.

2. Specify which entries require dial tone with a "YES" in the RETURN DIAL TONE field. The default value for this field is "NO".

3. Specify the COR Group that is denied access to each leading digit entry.

TABLE 3-34
FORM 26X - ARS: NESTED DIGIT STRINGS

SHEET _ OF _

LEADING DIGITS:_____ RETURN DIAL TONE (YES/NO): RESTRICTED COR GROUP: ____

DIGITS TO BE ANALYZED	QTY TO FOLLOW	LONG DISTANCE	TERM TYPE AND NUM	

Notes: Notes for this form follow on next page.

NOTES FOR FORM 26*
ARS: NESTED DIGIT STRINGS

Notes: 1. Specify the leading digits, the presence of dial tone and the restricted COR Groups.

2. Specify the user dialed digits that require analysis, BEFORE routing occurs, in the DIGITS TO BE ANALYZED field. The total number of digits in the DIGITS TO BE ANALYZED field, the QTY TO FOLLOW field and LEADING DIGITS field in the previous form (refer to Table 3-33, ARS: Digits Strings) cannot exceed 26. Specify the number of user dialed digits that follow the analyzed digits in the QTY TO FOLLOW field.

3. Wild card digits that can be included in the DIGITS TO BE ANALYZED field are: NOX, **NIX** and X, where N is any digit from 2 to 9 and X is any digit from 0 to 9. The X wild card can be used at the end of a digit string but not in the middle. The NOX, and **N1X** wild cards can only be used at the beginning of a digit string.

4. Specify the route termination and number for each entry. Enter ROUTE if for a Route, PLAN for a Route Plan and LIST for a Route List.

5. Specify which entries are long distance (a YES in the LONG DISTANCE field). Users with COS Option 244 enabled (Room Status) and a Room Status condition of LOCAL are denied long distance calls.

TABLE 3-35
FORM 27 - ARS: MAXIMUM DIALED DIGITS

COR	MAXIMUM NUMBER OF DIALED DIGITS
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	

Notes: 1. The purpose of this form is to accommodate countries with open numbering plans such as Malaysia.

2. The default value of UNLIMITED is used in North America.

TABLE 3-36
FORM 28 - FORM ACCESS RESTRICTION DEFINITION

FORM NAME	INST	MAINT1	MAINT2	SUPER	ATT
01 = SYSTEM CONFIGURATION	R/W				
02 = FEATURE ACCESS CODES	R/W				
03 = COS DEFINE	R/W				
04 = SVS OPTIONS/SYS TIMERS	R/W				
05 = TENANT INTERCONNECTION	R/W				
06 = TENANT NIGHT SWITCHING	R/W				
07 = CONSOLE ASSIGNMENTS	R/W				
08 = ATTENDANT LDN ASGN	R/W				
09 = STATION/*SUPERSET* TELEPHONES	R/W				
10 = PICKUP GROUPS	R/W				
11 = DATA CIRCUIT DESCRIPTOR	R/W				
12 = DATA ASSIGNMENT	R/W				
13 = TRUNK CIRCUIT DESCRIPTORS	R/W				
14 = NON-DIAL-IN TRUNKS	R/W				
15 = DIAL-IN TRUNKS	R/W				
16 = TRUNK GROUPS	R/W				
17 = HUNT GROUPS	R/W				
18 = MISCELLANEOUS SYSTEM PORTS	R/W				
19 = CALL REROUTING TABLE	R/W				
20 = ARS: COR GROUP DEFINITION	R/W				
21 = ARS: DAY ZONE DEFINITION	R/W				
22 = ARS: MODIFIED DIGIT TABLE	R/W				
23 = ARS: ROUTE DEFINITION	R/W				
24 = ARS: ROUTE LIST	R/W				
25 = ARS: ROUTE PLANS	R/W				
26 = ARS: DIGIT STRINGS	R/W				
27 = ARS: MAXIMUM DIALED DIGITS	R/W				
28 = FORM ACCESS RESTRICTION DEF'N	R/W				
29 = DTE PROFILE	R/W				

TABLE 3-36 (CONT'D)
FORM 28 - FORM ACCESS RESTRICTION DEFINITION

FORM NAME	INST	MAINT1	MAINT2	SUPER	ATT
30 = DEVICE INTERCONNECTION TABLE	R/W				
31 = SYSTEM ABBREVIATED DIAL ENTRY	R/W				
32 = CDE DATA PRINT	R/W				
33 = ACCOUNT CODE ENTRY	R/W				
34 = DIRECTED IO	R/W				
35 = GLOBAL FIND ACCESS CODE	R/W				
36 = MODEM ASSIGNMENT	R/W				
37 = GUEST ROOM *SUPERSET* KEYS	R/W				
38 = ACD KEYS TEMPLATE	R/W				
39 = ACD AGENT GROUPS	R/W				
40 = ACD SUPERVISORS	R/W				
41 = ACD PATHS	R/W				
42 = T1 LINK DESCRIPTORS	R/W				
43 = T1 LINK ASSIGNMENT	R/W				
44 = NETWORK SYNCHRONIZATION	R/W				

Notes: 1. The Installer **(INST)** and the Maintenance 1 **(MAINT1)** levels of access default to a **Read/Write** (R/W) access for each form. All other levels of access default to No Access (none).

2. The Installer level of access has the highest degree of access and cannot be modified.

3. Specify an access type: Read/Write (R/W), Read Only (R) or No Access (none) for each required form.

TABLE 3-37
FORM 29 - DTE PROFILE

SHEET __ OF __

PROFILE NUMBER	NUMBER OF DATA SETS ASSIGNED	COMMENTS
01	(Note 4)	
02	(Note 4)	
03	(Note 4)	
04	(Note 4)	
05	(Note 4)	
06	(Note 4)	
07	(Note 4)	
08	(Note 4)	
09	(Note 4)	
10	(Note 4)	
11	(Note 4)	
12	(Note 4)	
13	(Note 4)	
14	(Note 4)	
15	(Note 4)	
16	(Note 4)	
17	(Note 4)	
18	(Note 4)	
19	(Note 4)	
20	(Note 4)	
21	(Note 4)	
22	(Note 4)	
23	(Note 4)	
24	(Note 4)	
25	(Note 4)	

Notes: 1. The DTE Profile number provides 25 programmable profiles.

2. Enter the profile number and the number of users for each profile.

3. The comments field stores additional information. It is not used by the system and can have a maximum of 20 characters.

4. The number of data sets assigned is automatically displayed by the system.

TABLE 3-38
FORM 29* - DTE PROFILE OPTIONS

SHEET __ OF __

DTE OPTIONS	PROFILE NUMBER 1 → 25									
	__1	__2	__3	__4	__5	__6	__7	__8	__9	__0
Terminal Type (Enter Video Term or Teleprinter)										
Language (English or French)										
DTRX Echoplex (Enabled or Disabled)										
DTRX Editing (Enabled or Disabled)										
DTRX Editing Delete Character (0 → 127, decimal value of ASCII code)										
DTRX Editing Display Line (0 → 127, decimal value of ASCII code)										
Inject < LF> after <CR> (ALWAYS, NEVER)										
Number of pads after < CR> (0 → 7)										
Number of pads after < LF > (0 → 7)										
DTRX Inactivity Timer 1 → 60 seconds										

Notes: 1. * This form is nested and can only be accessed from Form 29 (DTE Profile).
2. Specify the options selected for each profile.

TABLE 3-39
FORM 30 - DEVICE INTERCONNECTION TABLE

DEVICE TYPE		01	02	03	04	05	06	07	...	...	25
Station/Set	01										
Console	02										
Loop Start Trunk	03										
Ground Start Trunk	04										
DID/Tie Trunk	05										
E&M Trunk (2 or 4-Wire)	06										
Reserved	07										
Reserved	.										
Reserved	.										
Reserved	.										
Reserved	25										

Notes:
1. Specify all inhibited connections with an X (indicated by a period on the CRT). Device interconnection is inhibited unidirectionally. An X in row 6 column 1 prevents device 6 from communicating with device 1. However, device 1 can still communicate with device 6.
2. Default is set so the system allows interconnection of Station/Sets and Consoles only. (Permitted interconnections are indicated by an asterisk on the CRT).
3. Device 07 to 25 are reserved for future use.

TABLE 3-40
FORM 31 - SYSTEM ABBREVIATED DIAL ENTRY

SHEET __ OF __

INDEX NUMBER	DIGIT STRING	PRIVATE (Y OR N)

Notes: 1. Specify the Index Number; a maximum of three digits.

2. Specify the Digit String; a maximum of 26 digits (25 if private).

3. Specify which entries are Private (Y) or Non-Private (N).

TABLE 3-41
FORM 33 – ACCOUNT CODE ENTRY

SHEET __ OF __

ACCOUNT CODE	COS	COR	ACTIVE

Notes: 1. Specify the Account Code number. System Option 04, Account Code Length is set to VARIABLE or a fixed value from 4 to 12 digits. System Options, Verified Account Code must be enabled.

2. If desired, specify the COS and COR numbers. Otherwise, the caller's COS and COR will be applied.

3. Account Codes are marked "Active" in the ACTIVE field when entered. Specify Account Codes which are denied access with "Inactive" in the ACTIVE field.

TABLE 3-42
FORM 34 - DIRECTED IO

SHEET __ OF __

EXT NUM	PRINTOUT	PRINTOUT TYPE	GUARANTEED

Notes: 1. Specify Printer Port or the extension number of a DATASET in the EXT NUM field.

2. List the data outputs in the Printout field (i.e., SMDR, Hotel/Motel), etc.

3. List the Printout Type (i.e., autoprint, monitor, directed). The choices available depend on the option chosen in the Printout field. Monitor is available for Maintenance Logs only. Autoprint is the only option for SMDR, Hotel/Motel Wake-up or PMS. Directed is the only option for CDE Data Print or Hotel/Motel Audit.

4. Specify whether the printout is guaranteed or not (will print or not).

TABLE 3-43
FORM 36 - MODEM ASSIGNMENT

SHEET __ OF __

BAY	SLT	CCT	CDN	BAY	SLT	CCT	EXTN	TEN	DTE	COS	COR	MODE	DIAL	COMMENTS

Notes: 1. A Pooled Modem consists of a Modem and a DATASET.

2. Specify the location of each Pooled Modem's modem component in the leftmost BAY/SLT/CCT columns.
3. Specify the Circuit Descriptor Number for each Pooled Modem's DATASET component in the CDN column. Circuit Descriptors are defined in Form 11, Data Circuit Descriptors.
4. Specify the location of each Pooled Modem's DATASET component in the second set of BAY/SLT/CCT columns.
5. Specify each Pooled Modem's extension number in the EXTN column.
6. Specify the tenant assignment of each Pooled Modem in the TEN column.
7. Optionally, specify Data Terminal Equipment (DTE) Profile numbers for Pooled Modems in the DTE column. A DTE Profile is required for Pooled Modems serving incoming calls that use a DTRX. DTE Profiles are defined in Form 29, DTE Profile.
8. Specify each Pooled Modem's Class of Service in the COS column.
9. Specify each Pooled Modem's Class of Restriction in the COR column.
10. For each Pooled Modem, specify ANSWER, ORIGINATE or BOTH in the MODE column.
11. For each Pooled Modem, specify AUTO (autodial) or NON (non-autodial) in the DIAL column.
12. The COMMENTS field stores up to 15 characters.

TABLE 3-44
FORM 37 – GUEST ROOM *SUPERSET* KEYS TEMPLATE

TEMPLATE 1

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			

TEMPLATE 2

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			

TABLE 3-44 (CONT'D)
FORM 37 - GUEST ROOM *SUPERSET* KEYS TEMPLATE

TEMPLATE 3

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			

Notes: 1. Guest Room *SUPERSET* Keys Templates apply to the *SUPERSET* 3DN and *SUPERSET* 4DN telephones.

2. For each key in the **TYPE** column, specify "SPEED DIAL" or one of the following features:

AUTO ANSWER	CALL FORWARD
DO NOT DISTURB	CALL PICKUP
PRIVACY RELEASE	NIGHT ANSWER
OVERRIDE	CALLBACK
PAGING	SWAP
CAMPON	CALL/All-N
MUSIC	DATA DISCONNECT

3. For each key labled "SPEED DIAL", specify the Speed Dial number in the **SPEED DIAL NUMBER** column.

4. If a Speed Dial number is not to be displayed on sets or SMDR printouts, specify "private" in the **PRIVATE** column.

TABLE 3-45
FORM 38 - ACD KEYS TEMPLATE

AGENT TEMPLATE 1

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

AGENT TEMPLATE 2

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

TABLE 3-45 (CONT'D)
FORM 38 – ACD KEYS TEMPLATE

AGENT TEMPLATE 3

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03-			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

Notes: 1. ACD Keys Templates apply to *SUPERSET* 4 telephones only.

2. Up to nine (9) templates may be defined. Three (3) for AGENT positions, three for SUPERVISOR positions and three for SENIOR SUPERVISOR positions.

3. The system allows only one template for one type of ACD position in each Class of Service.

4. Specify the function of each key in the **TYPE** field. The keys may have an "ACD KEYS" function or Speed Dial function. The default is Speed Dial.

5. If the key function is "ACD KEYS", select the key type QUEUE STATUS or MAKE BUSY for the Agent Templates.

6. If the key is a Speed Dial number, specify the number in the **SPEED DIAL NUMBER** field.

7. To prohibit display of a Speed Dial number at the set, specify "Private" in the **PRIVATE** field.

TABLE 3-45 (CONT'D)
FORM 38 - ACD KEYS TEMPLATE

SUPERVISOR TEMPLATE 1

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

SUPERVISOR TEMPLATE 2

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

TABLE 3-45 (CONT'D)
FORM 38 - ACD KEYS TEMPLATE

SUPERVISOR TEMPLATE 3

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

Notes: 1. ACD Keys Templates apply to *SUPERSET* 4 telephones only.

2. Up to nine (9) templates may be defined. Three (3) for AGENT positions, three for SUPERVISOR positions and three for SENIOR SUPERVISOR positions.

3. The system allows only one template for one type of ACD position in each Class of Service.

4. Specify the function of each key in the TYPE field The keys may have an "ACD KEYS' function of Speed Dial function. The default is Speed Dial.

5. If the key function is "ACD KEYS", select QUEUE STATUS, AGENT STATUS, or SHIFT for Supervisor Templates.

6. If the key is a Speed Dial number, specify the number in the SPEED DIAL NUMBER field.

7. To prohibit display of a Speed Dial number at the set, specify "Private" in the PRIVATE field.

TABLE 3-45 (CONT'D)
FORM 38 - ACD KEYS TEMPLATE

SENIOR SUPERVISOR TEMPLATE 1

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

SENIOR SUPERVISOR TEMPLATE 2

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

TABLE 3-45 (CONT'D)
FORM 38 - ACD KEYS TEMPLATE

SENIOR SUPERVISOR TEMPLATE 3

KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
02			
03			
04			
05			
06			
07			
08			
09			
10			
11			
12			
13			
14			
15			

Notes: 1. ACD Keys Templates apply to *SUPERSET* 4 telephones only.

2. Up to nine (9) templates may be defined. Three (3) for AGENT positions, three for SUPERVISOR positions and three for SENIOR SUPERVISOR positions.

3. The system allows only one template for one type of ACD position in each Class of Service.

4. Specify the function of each key in the **TYPE** field. The keys may have an "ACD KEYS" function or Speed Dial function. The default is Speed Dial.

5. If the key function is "ACD KEYS", select QUEUE STATUS, or SHIFT for Senior Supervisor Templates.

6. If the key is a Speed Dial number, specify the number in the **SPEED DIAL NUMBER** field.

7. To prohibit display of a Speed Dial number at the set, specify Private in the **PRIVATE** field.

TABLE 3-46
FORM 39 - ACD AGENT GROUPS

SHEET __ OF __

ACD Group Number: _____ ACD Group Name: _____

AGENT ID	AGENT NAME	COS	REPORT ID
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)
			(Note 5)

Notes: 1. Specify the ACD Group number (1 - 50).

2. Specify the ACD Group name (8 characters maximum), if assigned.

3. Specify the Agent ID in the AGENT ID column. The total number of ACD agents, supervisors and senior supervisors must not exceed 999.

4. Specify the Agent Name in the AGENT NAME field. The Agent name can be up to 10 characters, and cannot start with '*'.

5. The REPORT ID field is automatically assigned by the system.

TABLE 3-47
FORM 39x - ACD AGENT GROUP OPTIONS

SHEET __ OF __

ACD Group Number: _____ **ACD Group Name:** _____

OPTION		STATUS
Afterwork Timer	(MM:SS) 0 - 15:00 (Default is 0:00)	
Overflow Timer	(MM:SS) 0 - 54:00 (Default is 9:OO)	
First Status Threshold	(MM:SS) 0 - 54:00 (Default is 03:00)	
Second Status Threshold	(MM:SS) 0 - 54:00 (Default is 06:00)	

ACD Group Number: _____ **ACD Grouo Name:** _____

OPTION		STATUS
Afterwork Timer	(MM:SS) 0 - 15:OO (Default is 0:00)	
Overflow Timer	(MM:SS) 0 - 54:00 (Default is 9:00)	
First Status Threshold	(MM:SS) 0 - 54:00 (Default is 03:00)	
Second Status Threshold	(MM:SS) 0 - 54:00 (Default is 06:00)	

ACD Group Number: _____ **ACD Group Name:** _____

OPTION		STATUS
Afterwork Timer	(MM:SS) 0 - 15:00 (Default is 0:00)	
Overflow Timer	(MM:SS) 0 - 54:00 (Default is 9:00)	
First Status Threshold	(MM:SS) 0 - 54:00 (Default is 03:00)	
Second Status Threshold	(MM:SS) 0 - 54:00 (Default is 06:00)	

ACD Group Number: _____ **ACD Group Name:** _____

OPTION		STATUS
Afterwork Timer	(MM:SS) 0 - 15:OO (Default is 0:00)	
Overflow Timer	(MM:SS) 0 - 54:00 (Default is 9:OO)	
First Status Threshold	(MM:SS) 0 - 54:00 (Default is 03:00)	
Second Status Threshold	(MM:SS) 0 - 54:00 (Default is 06:00)	

Notes: 1. * This form is nested and can only be accessed from Form 39 (ACD Agent Groups).

2. Specify timer lengths in the **STATUS** column.

TABLE 3-48
FORM 40 - ACD SENIOR SUPERVISORS

ACD SENIOR SUPERVISOR ID CODES	NAME	COS	REPORT ID
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)
			(Note 4)

Notes: 1. Specify the ACD Senior Supervisor ID Code in the ACD Senior Supervisor ID Code column. The ID is a 1 → 5 digit access code, subject to the same rules as access codes for stations and sets.

2. Specify the Senior Supervisor Name in the Name column.

3. Specify the Senior Supervisor COS in the COS column.

4. The **REPORT ID** field is automatically assigned by the system.

TABLE 3-49
FORM 40* - ACD SENIOR SUPERVISOR GROUPS

SHEET __ OF __

Senior Supervisor ID _____ Senior Supervisor Name: _____

ACD GROUP NUMBER	SUPERVISOR ID	SUPERVISOR NAME	COS	REPORT ID
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)
				(Note 5)

Notes: 1. Specify the Senior Supervisor ID.

2. Specify the Senior Supervisor Name, if assigned. The name can be up to 10 characters long; it must not begin with the character "*".

3. Specify the IDs of the Supervisors that report to the Senior Supervisor in the SUPERVISOR ID column. List all groups reporting directly to the Senior Supervisor (with no Supervisor) at the beginning of the form. Mark "No Supervisor" in the SUPERVISOR ID column.

4. Specify the name of each Supervisor in the Supervisor Name column.

5. The REPORT ID field is automatically assigned by the system.

6. * This form is a nested form and can only be accessed from Form 40 (ACD Senior Supervisors).

TABLE 3-50
FORM 41 – ACD PATH

SHEET __ OF __

ACD PATH NUMBER:_____ ACD PATH NAME: _____

OPTIONS		STATUS
Access Code For This ACD Path		
Primary ACD Agent Group		
Delay For Ringback	(MM:SS)	
Recording 1 : Start Time	(MM:SS) 00:00 → 54:00	
Recording 1 : Access Code		
Recording 1 : Music Source Following		
Recording 2 : Start Time	(MM:SS) 00:00 → 54:00	
Recording 2 : Access Code		
Recording 2 : Music Source Following		
Recording 3 : Start Time	(MM:SS) 00:00 → 54:00	
Recording 3 : Access Code		
Recording 3 : Music Source Following		
Recording 4 : Start Time	(MM:SS) 00:00 → 54:00	
Recording 4 : Access Code		
Recording 4 : Music Source Following		
Overflow 1 Agent Group		
Overflow 2 Agent Group		
Overflow 3 Agent Group		
Interflow Timeout	(MM:SS) 00:00 → 54:00 (Default 54:00)	
Interflow Point Access Code	(Default is DROP CALL)	
Do an Overflow to Interflow Point	(Default is FALSE)	
Priority	1 → 99 (Default is 99, the lowest priority)	

Notes: 1. Specify the ACD Path Number.

2. Specify the ACD Path Name, if assigned. It can be up to 8 characters long.

3. By default:
   No recordings will be played
   The system music source is heard between recordings
   No rerouting to overflow agent groups will be done
   No Interflow will be done.

4. Recordings and Overflow Agent Groups must be specified in order. For example, the programmer cannot edit "Recording 3 Start Time", unless "Recording 1" and "Recording 2" are both assigned.

NOTES FOR FORM 41 (CONT'D)
ACD PATH

5. "Recording 1: Start Time" must be greater than or equal to "Delay Before Answer by Agent".
6. Recording access codes must be for recording hunt groups.
7. Start time is counted from when the caller enters the ACD system. The programmer must specify both the Start Time and the Recording Access Code.

TABLE 3-51
FORM 42 - T1 LINK DESCRIPTORS

DESCRIPTOR	LINK TYPE	NUMBER OF LINKS ASSIGNED	COMMENTS
01	(Note 1)	(Note 2)	
02	(Note 1)	(Note 2)	
03	(Note 1)	(Note 2)	
04	(Note 1)	(Note 2)	
05	(Note 1)	(Note 2)	
06	(Note 1)	(Note 2)	
07	(Note 1)	(Note 2)	
08	(Note 1)	(Note 2)	
09	(Note 1)	(Note 2)	
10	(Note 1)	(Note 2)	

Notes: 1. The Link Type selection in the LINK TYPE column is limited to "T1DS1".

2. The number of links in the NUMBER OF LINKS ASSIGNED column is automatically assigned by the system when the descriptor number is used in Form 43 (T1 Link Assignment).

TABLE 3-52
FORM 42x - T1 LINK DESCRIPTOR OPTIONS

	T1 Link Descriptor Number									
OPTION	**01**	**02**	**03**	**04**	**05**	**06**	**07**	**08**	**09**	**10**
Alarm debounce timer 300 → 3200 ms (Default is 2500)										
B8ZS zero code suppression YES or NO (Default is YES)										
Slip rate - maintenance limit 0 → 9000/24 hrs (Default is 255)										
Slip rate = service limit 0 → 9000/24 hrs (Default is 7000)										
Slip rate - network sync limit 0 → 9000/24 hrs (Default is 7)										
BER - maintenance limit IO**-n (n=3,4,5,6)/hr (Default is 4)										
BER - service limit 1 0**-n(n=3,4,5,6)/hr (Default is 3)										
Framing losses = maintenance limit 0 → 9000/24 hrs (Default is 255)										
Framing losses = sync source limit 0 → 9000/24 hrs (Default is 9000)										
RTS timer - service limit exceeded 1 - 255 min (Default is 30)										
RTS timer - net slip limit exceeded 1 - 255 min (Default is 30)										
RTS timer - after alarm 0 - 300 sec (Default is IO)										

Note: Specify the required value for each parameter.

TABLE 3-53
FORM 43 - T1 LINK ASSIGNMENT

SHEET __ OF __

TRUNK TYPE	BAY	SLOT	LINK DESC NUM	COMMENTS

Notes: 1. The TRUNK TYPE field is not used and should be left blank.

2. Specify the T1 Trunk Card location in the BAY and SLOT columns.

3. Specify the Link Descriptor from Form 42 to be assigned to the T1 Link in the LINK DESC NUM column.

TABLE 3-54
FORM 44 - T1 NETWORK SYNCHRONIZATION

DESCRIPTION	BAY	SLOT	COMMENTS
First clock source			
Second clock source			
Third clock source			
Fourth clock source			
Fifth clock source			
Sixth clock source			
Seventh clock source			
Eighth clock source			

Note: Specify the BAY and SLOT location of the T1 Link to be used as first, second, third, etc. clock source. It is not necessary to specify all 8 clock sources.

4. TRUNK CARD SWITCH ASSIGNMENT FORMS

General

4.01 The following forms enable the installer to configure the switches of the system's Trunk Cards. There are switch assignments for CO Trunk Cards, E&M/Tie Trunk Cards and DID/Tie Trunk Cards. These forms complement Form 13 – Trunk Circuit Descriptors (refer to Table 3-17, in this Section). Each form is accompanied by a diagram indicating the switch locations and special notes.

TABLE 4-l TRUNK CARD SWITCH SETTINGS - CO TRUNK CARD

SHEET __ OF __

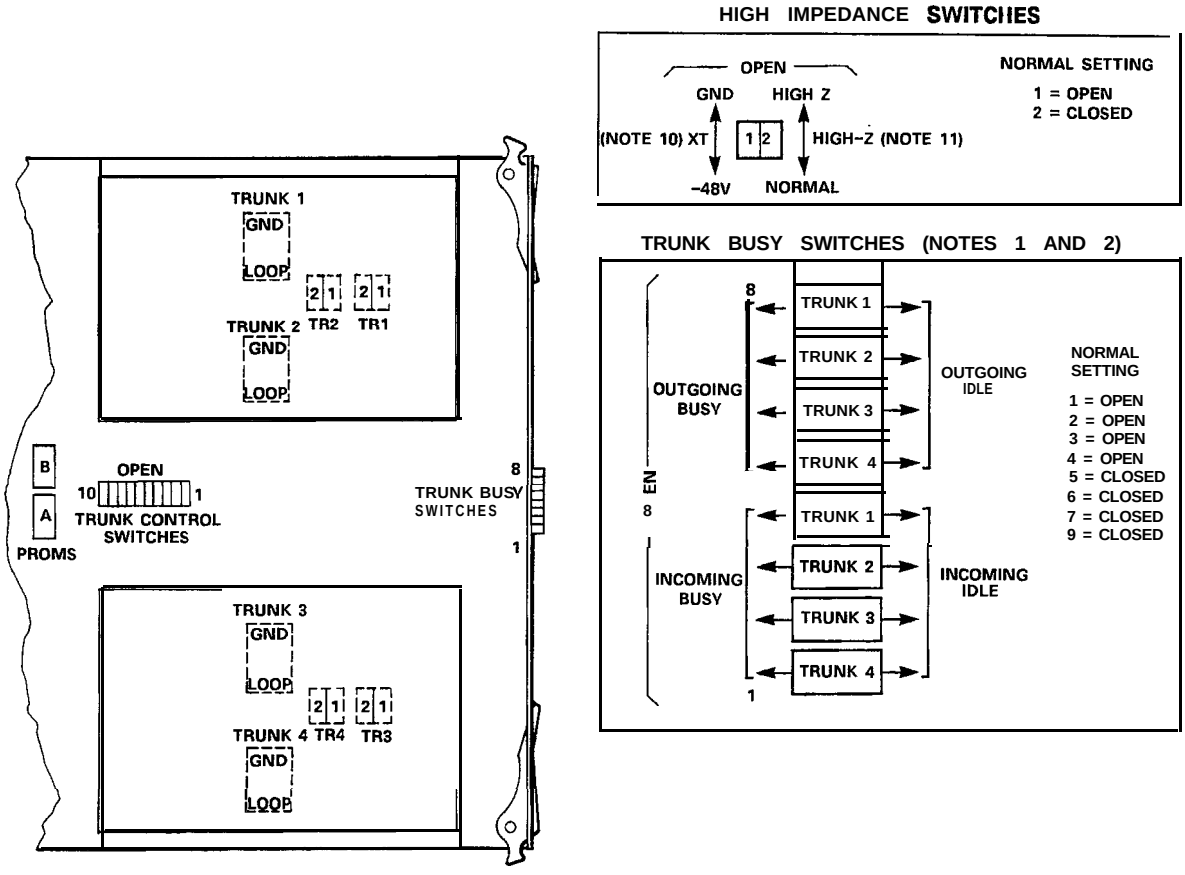
	CO DIRECTORY NO.	BAY NO. 3,4 or 5	CIRCUIT NUMBER	TRUNK NUMBER (1-200)	INCOMING CONDITION		OUTGOING CONDITION		LOOP/GND START		3RD WIRE CONDITION		SENSE REVERSALS		RELEASE TIME "B" SHRT		RELEASE TIME "B" LONG		M/B RATIO		XT		*HI-Z	
					BUSY	IDLE	BUSY	IDLE	LOOP	GND	ENAB	DIS	IGN	EFF	"A" SHRT	"A" LONG	"A" SHRT	"A" LONG	33/60	40/60	GND	-48V	HI-Z	NORM
SLOT NO.			1																					
			2																					
			3																					
			4																					
SLOT NO.			1																					
			2																					
			3																					
			4																					
SLOT NO.			1																					
			2																					
			3																					
			4																					
SLOT NO.			1																					
			2																					
			3																					
			4																					
SLOT NO.			1																					
			2																					
			3																					
			4																					

NOTES

1. EARLIER TRUNK CARD VERSIONS DO NOT HAVE ALL SWITCH S LISTED ABOVE.
2. CHECK APPROPRIATE COLUMN E.G. "BUSY" OR "IDLE FOR DE IRED SETTING.'
3. REFER TO SECTION MITL9108-095-200-NA, SHIPPING. RECEIVING AND INSTALLATION INFORMATION FOR PROCEDURES USED IN SETTING TRUNK CARD SWITCHES.

* IN CANADA THE CO TRUNK HI - Z SWITCH MUST ALWAYS BE SET TO THE HI - Z POSITION

FRM0130R1



TRUNK CONTROL SWITCHES

NORMAL SETTING	SWITCH NUMBER	FUNCTION	TYPE -211	TYPE -311	NOTE!
CLOSED	1	3RD WIRE TRUNK 1	X	X	6
CLOSED	2	3RD WIRE TRUNK 2	X	X	6
CLOSED	3	3RD WIRE TRUNK 3	X	X	5
CLOSED	4	3RD WIRE TRUNK 4	X	X	5
OPEN	5	IGNORE REVERSALS	X	X	6
CLOSED	6	RELEASE TIME "A"	X	X	7
CLOSED	7	MAKE/BREAK RATIO		X	8
CLOSED	9	RELEASE TIME "B"	X	X	7
CLOSED	10	NOT USED	-	-	
CLOSED		NOT USED	-	-	

"X" INDICATES THAT FUNCTION IS APPLICABLE FOR THE TYPE 9110-211-000 OR 9110-311-000 TRUNK CARDS.

5493E1R1

Figure 4-l CO TRUNK CARD SWITCH FUNCTIONS

NOTES FOR FIGURE 4-I
CO TRUNK CARD SWITCH FUNCTIONS

TRUNK BUSY SWITCHES

1. OUTGOING BUSY SWITCHES (1 PER TRUNK) CAN BE SET FOR EITHER:
   - IDLE – NORMAL TRUNK OPERATION
   - BUSY – TRUNK CANNOT BE SEIZED FOR OUTGOING CALL

2. THE "OUTGOING BUSY" CONDITION MAY BE SET EITHER BY THE OUTGOING BUSY SWITCH (NOTE I), OR BY THE CONSOLE "TRUNK BUSY OUT" FUNCTION. WHEN THIS CONDITION IS IN EFFECT, THE INCOMING BUSY SWITCH AFFECTS THE TRUNK CONDITION AS FOLLOWS:
   - IDLE – NO ANSWER WILL BE GIVEN TO INCOMING LOCAL EXCHANGE CALLS
   - BUSY – A PERMANENT SEIZURE CONDITION IS GIVEN TOWARDS THE LOCAL EXCHANGE

3. INCOMING BUSY HAS NO EFFECT WHILE OUTGOING BUSY IS NOT SET.

TRUNK CONTROL SWITCHES

4. THE TRUNK CONTROL SWITCHES ARE PROGRAMMED TO RESULT IN THE FEATURES BELOW.

3RD WIRE SWITCHES

5. THE 3RD WIRE LEAD WHEN REQUIRED IS CONNECTED TO THE LOCAL EXCHANGE TO PROVIDE CERTAIN FACILITIES. THESE INCLUDE THE RECORDING OF METER PULSES (EXTENDED FROM THE CO); OR ANOTHER REQUIREMENT MAY BE A BUSY CONDITION WHEN DICTATION OR CODE CALLING EQUIPMENT AT THE LOCAL EXCHANGE HAS BEEN TAKEN INTO SERVICE BY OTHER TRUNKS. THE SWITCH SETTING IS EITHER:
   - OPEN – RECOGNIZES EARTH FROM THE LOCAL EXCHANGE AS A BUSY CONDITION.
   - CLOSED – 3RD WIRE SWITCH IS INEFFECTIVE.

IGNORE REVERSALS

6. IF LINE REVERSALS ON THE TRUNK CIRCUIT ARE REQUIRED TO HAVE NO EFFECT, THEN THE IGNORE REVERSALS SWITCH IS SET TO "OPEN". IF LINE REVERSALS ARE TO BE RECOGNIZED, THEN THE SWITCH IS SET TO CLOSED.

RELEASE TIME SWITCHES

7. VALID TRUNK RELEASE TIMES ARE RECOGNIZED BY THE FOLLOWING RELEASE TIME SETTINGS FOR PROM TYPE -0004 WITH SWITCHES "A" AND "B":

"A" SETTING	"B" SETTING	RELEASE TIME
OPEN	CLOSED	50 ms
CLOSED	CLOSED	500 ms
OPEN	OPEN	2.5 s
CLOSED	OPEN	INFINITE (NON-RELEASE)

MAKE/BREAK RATIO

8. THE MAKE/BREAK SWITCH FUNCTION IS PROGRAMMED FOR TYPE 911 O-31 1 ONLY. THE SWITCH SETTINGS RESULT IN THE FOLLOWING RATIOS:
   - OPEN – 33/66 (33% MAKE; 66% BREAK)
   - CLOSED – 40/60 (40% MAKE; 60% BREAK)

TYPE 911 O-21 1 IS FIXED AT 40/60 RATIO.

LOOP/GROUND CALLING SWITCHES

9. THE LOOP/GROUND CALLING SWITCHES (1 PER TRUNK) CAN BE SET TO:
   - LOOP – USED FOR LOOP-CALLING TYPE TRUNKS
   - GROUND – USED FOR EARTH-CALLING TYPE TRUNKS

XT SWITCH

10. THE XT SWITCH (1 PER TRUNK) IS USED IN CONJUNCTION WITH THE 3RD WIRE SWITCH (NOTE 5) AND CAN BE SET TO PROVIDE FOLLOWING CONDITIONS:
   - -48 V – THE CIRCUIT RESPONDS TO A -48 Vdc SIGNAL (E.G., WHEN IT IS A METER PULSE OR A BUSY CONDITION). AN EARTH IS EQUIVALENT TO AN OPEN.
   - GND – THE CIRCUIT RESPONDS TO AN EARTH SIGNAL (E.G., WHEN IT IS A METER PULSE OR A BUSY CONDITION). A -48 Vdc SIGNAL IS EQUIVALENT TO OPEN.

HI-Z SWITCH

11. THE HI-Z SWITCH ALLOWS THE PROPER IMPEDANCE ON INCOMING CALLS, TO BE PRESENTED ACCORDING TO REQUIREMENTS. THE TWO SETTINGS FOR THE SWITCH RESULT IN THE FOLLOWING:

HI-Z SETTING – PRESENTS THE NORMAL IMPEDANCE TO INCOMING RINGING SIGNALS, BUT A HIGH BLOCKING IMPEDANCE TO VOICE SIGNALS

NORM SETTING – PRESENTS A NORMAL IMPEDANCE TO BOTH RINGING SIGNALS AND VOICE SIGNALS. IN CANADA THE HI-Z SWITCH MUST BE SET TO HI-Z.

TABLE 4-2
TRUNK CARD SWITCH SETTINGS - E&M/TIE TRUNK CARD

TRUNK 1 _____
TRUNK 2 _____
BAV NUMBER _____
SLOT NUMBER _____
CIRCUIT NUMBER _____
TRUNK NUMBER (1-200) _____

SWITCH SETTINGS		TRUNK 1	TRUNK 2
INCOMING CONDITIONS	BUSY		
	IDLE		
OUTGOING CONDITIONS	BUSY		
	IDLE		
OUTGOING WINK	WINK		
	NO WINK		
INCOMING WINK	WINK		
	NO WINK		
2/4 WIRE CONDITIONS	2 WIRE		
	4 WIRE		
GAIN	SPECIAL		
	NORMAL		
TRUNK IMPEDANCE	600 OHM		
	900 OHM		
LOOP CONDITION	SHORT		
	LONG		
DIALING CONDITION	STOP DIAL		
	NOT STOP DIAL		
M-LEAD CONDITION	NORMAL		
	INVERT		

TRUNK 1 _____
TRUNK 2 _____
BAV NUMBER _____
SLOT NUMBER _____
CIRCUIT NUMBER _____
TRUNK NUMBER (1-200) _____

SWITCH SETTINGS		TRUNK	TRUNK 2
INCOMING CONDITIONS	BUSY		
	IDLE		
OUTGOING CONDITIONS	BUSY		
	IDLE		
OUTGOING WINK	WINK		
	NO WINK		
INCOMING WINK	WINK		
	NO WINK		
2/4 WIRE CONDITIONS	2 WIRE		
	4 WIRE		
GAIN	SPECIAL		
	NORMAL		
TRUNK IMPEDANCE	600 OHM		
	900 OHM		
LOOP CONDITION	SHORT		
	LONG		
DIALING CONDITION	STOP DIAL		
	NOT STOP DIAL		
M-LEAD CONDITION	NORMAL		
	INVERT		

NOTE: TRUNK CARD SWITCHES MUST BE SET TO ONE OF THE TWO POSSIBLE SETTINGS FOR EACH SWITCH AS DETAILED IN SECTION MITL9108-095-200-NA, SHIPPING, RECEIVING AND INSTALLATION INFORMATION.

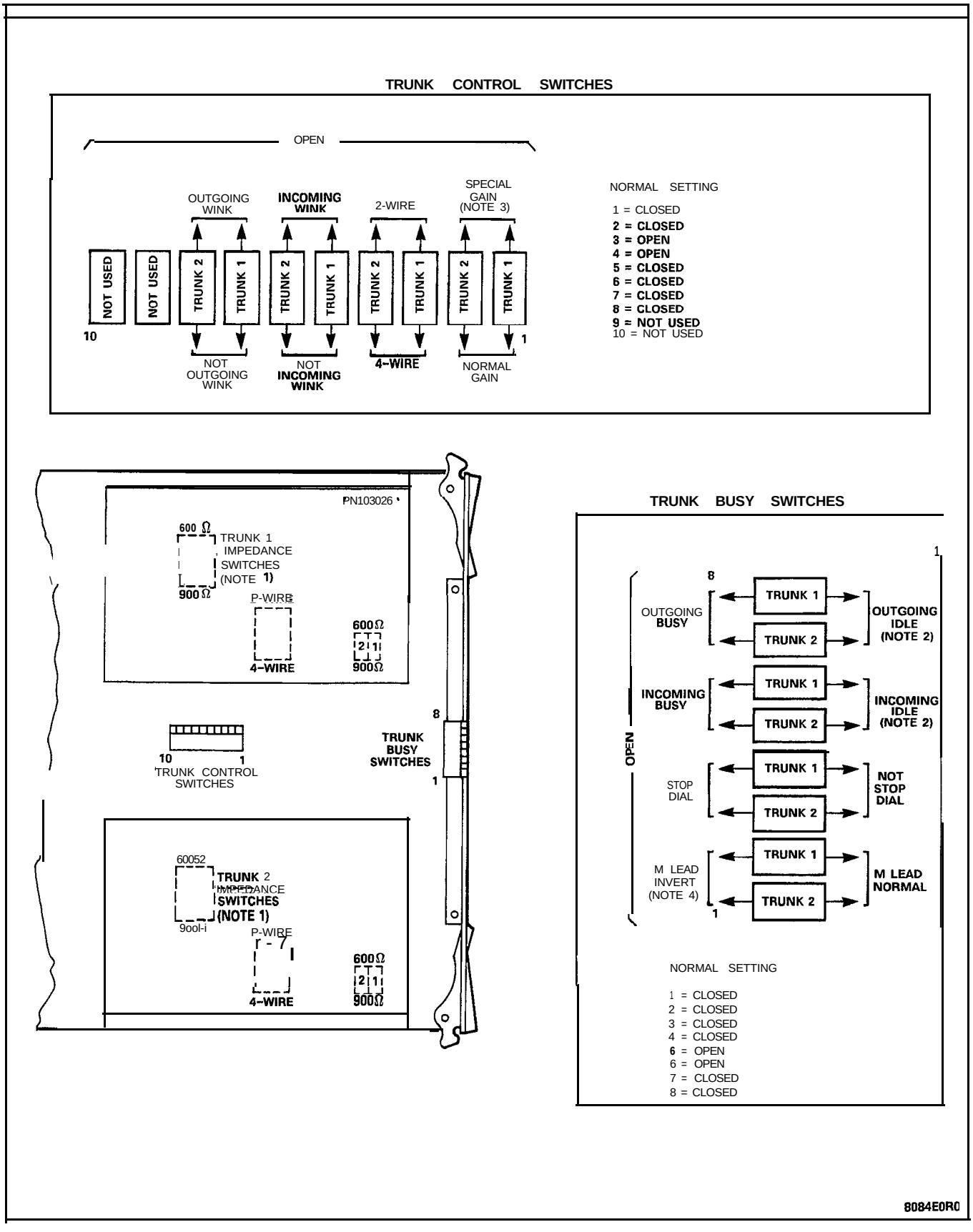


Figure 4-2 E&M/TIE TRUNK CARD SWITCH FUNCTIONS

NOTES FOR FIGURE 4-2
E&M/TIE TRUNK CARD SWITCH FUNCTIONS

Notes: 1. Trunk impedance switches are located on the rear face of the Trunk Card.

2. Outgoing/incoming switch settings:

Outgoing Busy Switch Set to	Incoming Busy Switch Set to	Result
Idle	Busy	Normal trunk operation – if trunk is made busy by attendant, outgoing busy, incoming busy condition results. See below.
Busy	Busy	Trunk cannot be seized, incoming or outgoing from the ACD system. Recommended setting if trunk is not connected to trunk circuit.
Busy	Idle	Outgoing calls receive busy tone. Incoming calls receive ringing tone but cannot be answered.
Idle	Idle	Trunk is made busy by attendant, outgoing busy, incoming idle condition results. See below.

The Incoming busy switch, when operated, will provide an outgoing seize signal whenever the trunk is made outgoing busy (either from the outgoing busy switch on the trunk, or from the console).

3. Normal gain provides 0.5 dB insertion loss through the ACD. Special gain provides for 4-wire operation with carrier systems requiring signal levels of +7 dB on the Rx pair, and -16 dB on the Tx pair.

TABLE 4-3
TRUNK CARD SWITCH SETTINGS - DID/TIE TRUNK CARD

TRUNK 1 _____
TRUNK 2 _____
BAV NUMBER _____
SLOT NUMBER _____
CIRCUIT NUMBER _____
TRUNK NUMBER (I-200) _____

SWITCH SETTINGS		TRUNK 1	TRUNK 2
INCOMING CONDITIONS	BUSY		
	IDLE		
OUTGOING CONDITIONS	BUSY		
	IDLE		
SWITCH "A" SETTING	CLOSED		
	OPEN		
SWITCH "B" SETTING	CLOSED		
	OPEN		
INCOMING WINK	WINK		
	NO WINK		
OUTGOING WINK	WINK		
	NO WINK		
TRUNK IMPEDANCE SWITCHES (3)	600 OHM		
	900 OHM		
PULSING CONDITION	BATTERY/GROUND		
	LOOP		
DIALING CONDITIONS	STOP DIAL		
	NOT STOP DIAL		

TRUNK 1 _____
TRUNK 2 _____
BAV NUMBER _____
SLOT NUMBER _____
CIRCUIT NUMBER _____
TRUNK NUMBER (I-200) _____

SWITCH SETTINGS		TRUNK 1	TRUNK 2
INCOMING CONDITIONS	BUSY		
	IDLE		
OUTGOING CONDITIONS	BUSY		
	IDLE		
SWITCH "A" SETTING	CLOSED		
	OPEN		
SWITCH "B" SETTING	CLOSED		
	OPEN		
INCOMING WINK	WINK		
	NO WINK		
OUTGOING WINK	WINK		
	NO WINK		
TRUNK IMPEDANCE SWITCHES (3)	600 OHM		
	900 OHM		
PULSING CONDITION	BATTERY/GROUND		
	LOOP		
DIALING CONDITIONS	STOP DIAL		
	NOT STOP DIAL		

NOTE: TRUNK CARD SWITCHES MUST BE SET TO ONE POSSIBLE SETTING FOR EACH SWITCH AS DETAILED IN SECTION MITL9108-095-200-NA, SHIPPING, RECEIVING AND INSTALLATION INFORMATION.

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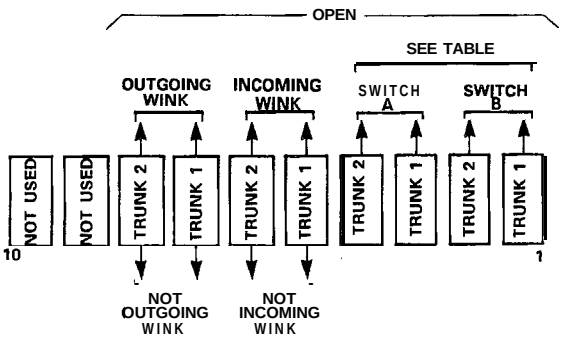
TRUNK CONTROL SWITCHES

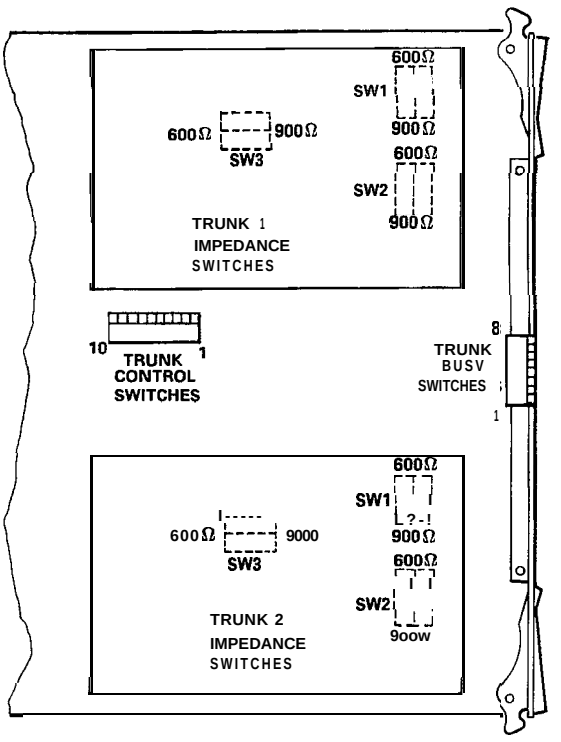
TABLE

TRUNK TYPE	SWITCH A	SWITCH B
DID TRUNK	CLOSED	CLOSED
LOOP TIE TRUNK	CLOSED	OPEN
INCOMING DIAL – OUTGOING AUTO	OPEN	CLOSED
NOT USED	OPEN	OPEN

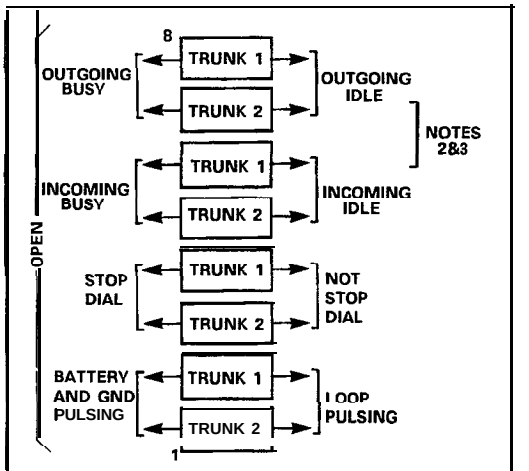
NORMAL SETTING

5 = CLOSED
6 = CLOSED
7 = CLOSED
8 = CLOSED
9 = NOT USED
10 = NOT USED





TRUNK BUSY SWITCHES.



NORMAL SETTING

1 = CLOSED
2 = CLOSED
3 = CLOSED
4 = CLOSED
5 = OPEN
6 = OPEN
7 = CLOSED
8 = CLOSED

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Figure 4-3 DID/Tie Trunk Card Switch Functions

NOTES FOR FIGURE 4-3
DID/TIE TRUNK CARD SWITCH FUNCTIONS

Notes: 1. Trunk impedance switches are located on the rear face of the Trunk Card.

Trunk Busy Switches

2. Outgoing Busy Switches (I per trunk) can be set for either of the following conditions:
   Idle setting - normal trunk operation
   Busy setting - trunk cannot be seized for outgoing call

3. The "outgoing busy" condition may be set either by the outgoing busy switch (Note 2), or by the console "Trunk Busy Out" function. When this condition is in effect the incoming Busy Switch affects the trunk condition as follows:
   Idle setting - no answer will be given to incoming trunk calls
   Busy setting - a permanent seizure condition is given towards the trunk.

TABLE 4-4
E&M TRUNK MODULE SWITCH SETTINGS

Function	Switch Positions 1 2 3 4 5 6 7 8
Digital PABX to Line Gain (3 dB)	o x x x x x x x
Digital PABX to Line Gain (-13 dB)	1 x x x x x x x
Line to Digital PABX Gain (-4 dB)	x o x x x x x x
Line to Digital PABX Gain (-11 dB)	x l x x x x x x
600 Ohm Termination	x x 1 0 x x x x
Complex Termination	x x 0 1 x x x x
2-Wire Transmission	x x x x l x x x
4-Wire Transmission	x x x x o x x x
Type 1 Signaling	x x x x x l x x
Type 5 Signaling	x x x x x o x x

Note: 0 = Open, 1 = Closed and x = Not Applicable

5. CABLING AND CROSS-CONNECTIONS

General

5.01 The forms contained in this Part show the plug assignments for each circuit of each bay. The first four forms cover the four bays in the all-digital variant. Plug assignment forms are also included for analog Bay 3 and Peripheral Cabinet, if needed. Power Fail Transfer card assignment forms are included for both Control and Peripheral cabinets. For more information, refer to Section MITL9 109-094-200-NA, Shipping, Receiving and Installation Information.

TABLE 5-I
BAY 1 PLUG ASSIGNMENTS

PLUG J7 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
I-2		1	W-BL	
		27	BL-W	
			w - o	
		2	o - w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		5	W-S	
		31	s - w	
			R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	Not Used
		13	G-BK	
I-I		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		46	S-Y	
		21	V-BL	
			BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-I (CONT'D)
BAY 1 PLUG ASSIGNMENTS

PLUG J11 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
I-4		1	W-BL	
		27	BL-W	
			w - o	
		2	o - w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		5	w - s	
		31	S-W	
			R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	_____ Not Used _____
		13	G-BK	
I-3		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-I (CONT'D)
BAY 1 PLUG ASSIGNMENTS

PLUG J5 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
I-6		1	W-BL	
		27	BL-W	
			w - o	
		2	o - w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	w - s	
		51	s - w	
			R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	Not Used
		13	G-BK	
I-5		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-I (CONT'D)
BAY 1 PLUG ASSIGNMENTS

PLUG J9 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
1-8		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 5 31 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 33 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
1-7		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-2
BAY 2 PLUG ASSIGNMENTS (at Cross-Connect Field)

336, 456, 480 Port Systems: PLUG J31
672 Port System: PLUG J7

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
2-2		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 11 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 33 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
2-1		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v-s s - v	

TABLE 5-2 (CONT'D)
BAY 2 PLUG ASSIGNMENTS (at Cross-Connect Field)

336, 456, 480 Port Systems: PLUG J25
672 Port System: PLUG J11

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
2-4		26	W-BL	
		1	BL-W	
		27	w-o	
		2	o-w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	w-s	
		5	s-w	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	Not Used
		13	G-BK	
2-3		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v-o	
		22	o-v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v-s	
		25	s-v	

TABLE 5-2 (CONT'D)
BAY 2 PLUG ASSIGNMENTS (at Cross-Connect Field)

PLUG J11 (672 Port System only)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
2-6		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 51 3 6	W-BR BR-W W-S S-W R-BL BL-R	
		32 7 33 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
2-5		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-2 (CONT'D)
BAY 2 PLUG ASSIGNMENTS (at Cross-Connect Field)

PLUG J9 (672 Port System only)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
2-8		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	W-S	
		5	S-W	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	Not Used
		13	G-BK	
!-7		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		48	V-BL	
		21	BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-3
DIGITAL BAY 3 PLUG ASSIGNMENTS

PLUG J7 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-2		1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 51 6	W-BR BR-W W-S s - w R-BL BL-R	
		32 7 33 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
3-I		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-3 (CONT'D)
DIGITAL BAY 3 PLUG ASSIGNMENTS

PLUG J11 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-4		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	W-S	
		5	S-W	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-O	
		12	0-BK	
		38	BK-G	_____ Not Used _____
		13	G-BK	
3-3		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-3 (CONT'D)
DIGITAL BAY 3 PLUG ASSIGNMENTS

PLUG J5 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-6		1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 51 3 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 33 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
3-5		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O - Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-3 (CONT'D)
DIGITAL BAY 3 PLUG ASSIGNMENTS

PLUG J9 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-8		26	W-BL	
		1	BL-W	
		27	w - o	
		2	o - w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	w - s	
		5	s - w	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	Not Used
		13	G-BK	
3-7		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-4
DIGITAL BAY 4 PLUG ASSIGNMENTS

PLUG J7 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
4-2		26 1 27 2 28 3	W-BL BL-W w - o o - w W - G G - W	
		29 4 30 5 31 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		36 13	BK-G G-BK	Not Used
4-1		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-4 (CONT'D)
DIGITAL BAY 4 PLUG ASSIGNMENTS

PLUG J11 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
4-4		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 5 31 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
4-3		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-4 (CONT'D)
DIGITAL BAY 4 PLUG ASSIGNMENTS

PLUG J5 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
1-6		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 5 31 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 33 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
P-5		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-4 (CONT'D)
DIGITAL BAY 4 PLUG ASSIGNMENTS

PLUG J9 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
4-8		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	W-S	
		5	S-W	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-O	
		12	0-BK	
		38	BK-G	_____ Not Used _____
		13	G-BK	
4-7		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v-o	
		22	o-v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v-s	
		25	S-V	

TABLE 5-5
DIGITAL BAY 5 PLUG ASSIGNMENTS

PLUG J7 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
j-2		1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 5 31 6	W-BR BR-W W - S s - w R-BL BL-R	
		32 7 33 8 34 9	R - O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 O-BK	
		38 13	BK-G G-BK	Not Used
i-l		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y - O O - Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y - S S - Y V-BL BL-V V-O O-V	
		48 23 49 24 50 25	V-G G - V V-BR BR-V v - s s - v	

TABLE 5-5 (CONT'D)
DIGITAL BAY 5 PLUG ASSIGNMENTS

PLUG J1 1 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
5-4		26	W-BL	
		1	BL-W	
		27	w - o	
		2	o - w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	w - s	
		5	s - w	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	Not Used
		13	G-BK	
5-3		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-5 (CONT'D)
DIGITAL BAY 5 PLUG ASSIGNMENTS

PLUG J5 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
5-6		1	W-BL	
		27	BL-W	
			w - o	
		2	o - w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	w - s	
		5	s - w	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	Not Used
		13	G-BK	
j-5		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-5 (CONT'D)
DIGITAL BAY 5 PLUG ASSIGNMENTS

PLUG J9 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
5-8		26 1 27 2 28 3	W-BL BL-W w - o o - w W - G G - W	
		29 4 30 5 31 6	W-BR BR-W w - s S - W R-BL BL-R	
		32 7 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
5-7		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		46 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v-s s - v	

TABLE 5-6
DIGITAL BAY 6 PLUG ASSIGNMENTS

PLUG J7 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-2		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 5 31 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 33 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-O 0-BK	
		38 13	BK-G G-BK	Not Used
6-1		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-6 (CONT'D)
DIGITAL BAY 6 PLUG ASSIGNMENTS

PLUG J1 1 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
6-4		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	W-S	
			S-W	
		51	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		IO	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-O	
		12	0-BK	
		38	BK-G	_____ Not Used _____
		13	G-BK	
6-3		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	V-O	
		22	0-V	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	V-S	
		25	S-V	

TABLE 5-6 (CONT'D)
DIGITAL BAY 6 PLUG ASSIGNMENTS

PLUG J5 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
6-6		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 5 31 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
6-5		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-6 (CONT'D)
DIGITAL BAY 6 PLUG ASSIGNMENTS

PLUG J9 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
6-8		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	W-S	
		5	S-W	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-O	
		12	O-BK	
		38	BK-G	Not Used
		13	G-BK	
j-7		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v-o	
		22	o-v	
		48	V-G	
		49	G-V	
		24	V-BR	
			BR-V	
		50	v-s	
		25	s-v	

TABLE 5-7
DIGITAL BAY 7 PLUG ASSIGNMENTS

PLUG J7 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
7-2		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 30 51 3 6	W-BR BR-W w - s s - w R-BL BL-R	
		32 7 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 IO 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		36 13	BK-G G-BK	Not Used
7-I		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v-s S-V	

TABLE 5-7 (CONT'D)
DIGITAL BAY 7 PLUG ASSIGNMENTS

PLUG J11 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
7-4		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	W-S	
		5	S-W	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-O	
		12	0-BK	
		38	BK-G	_____ Not Used _____
		13	G-BK	
7-3		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v-o	
		22	o-v	
		46	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v-s	
		25	s-v	

TABLE 5-7 (CONT'D)
DIGITAL BAY 7 PLUG ASSIGNMENTS

PLUG J5 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
7-6		26 1 27 2 28 3	W-BL BL-W w - o o - w W-G G-W	
		29 4 5) 31 6	W-BR BR-W W-S s - w R-BL BL-R	
		32 7 33 8 34 9	R-O O-R R-G G-R R-BR BR-R	
		35 10 36 11 37 12	R-S S-R BK-BL BL-BK BK-0 0-BK	
		38 13	BK-G G-BK	Not Used
7-5		39 14 40 15 41 16	BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
		42 17 43 18 44 19	Y-O O-Y Y-G G-Y Y-BR BR-Y	
		45 20 46 21 47 22	Y-S S-Y V-BL BL-V v - o o - v	
		48 23 49 24 50 25	V-G G-V V-BR BR-V v - s s - v	

TABLE 5-7 (CONT'D)
DIGITAL BAY 7 PLUG ASSIGNMENTS

PLUG J9 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
7-8		26	W-BL	
		1	BL-W	
		27	w - o	
		2	o - w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	w - s	
		5	s - w	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	Not Used
		13	G-BK	
		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v - s	
		25	s - v	

TABLE 5-8
CONTROL CABINET POWER FAIL TRANSFER CARD ASSIGNMENTS

CARD 1

Pin	Pair Colour	Lead Designation	Connection/Comments (Extension Circuit Feature)
26	W-BL	TRUNK RI	
1	BL-W	TRUNK T1	
27	w - o	TRUNK R2	
2	o - w	TRUNK T2	
28	W-G	TRUNK R3	
3	G-W	TRUNK T3	
29	W-BR	TRUNK R4	
4	BR-W	TRUNK T4	
30	w - s	TRUNK R5	
5	s - w	TRUNK T5	
31	R-BL	TRUNK R6	
6	BL-R	TRUNK T6	
32	R-O	TRUNK CARD RI	
7	O-R	TRUNK CARD T1	
33	R-G	TRUNK CARD R2	
8	G-R	TRUNK CARD T2	
34	R-BR	TRUNK CARD R3	
9	BR-R	TRUNK CARD T3	
35	R-S	TRUNK CARD R4	
10	S-R	TRUNK CARD T4	
36	BK-BL	TRUNK CARD R5	
11	BL-BK	TRUNK CARD T5	
37	BK-0	TRUNK CARD R6	
12	0-BK	TRUNK CARD T6	
38	BK-G	SPARE	
13	G-BK	SPARE	
39	BK-BR	LINE CARD RI	
14	BR-BK	LINE CARD T1	
40	BK-S	LINE CARD R2	
15	S-BK	LINE CARD T2	
41	Y-BL	LINE CARD R3	
16	BL-Y	LINE CARD T3	
42	Y-O	LINE CARD R4	
17	O-Y	LINE CARD T4	
43	Y-G	LINE CARD R5	
18	G-Y	LINE CARD T5	
44	Y-BR	LINE CARD R6	
19	BR-Y	LINE CARD T6	
45	Y-S	STATION R1	
20	S-Y	STATION T1	
46	V-BL	STATION R2	
21	BL-V	STATION T2	
47	v - o	STATION R3	
22	o - v	STATION T3	
48	V-G	STATION R4	
23	G-V	STATION T4	
49	V-BR	STATION R5	
24	BR-V	STATION T5	
50	v - s	STATION R6	
25	s - v	STATION T6	

TABLE 5-8 (CONT'D)
CONTROL CABINET POWER FAIL TRANSFER CARD ASSIGNMENTS

CARD 2 **(optional)**

Pin	Pair Colour	Lead Designation	Connection/Comments (Extension Circuit Feature)
26	W-BL	TRUNK RI	
1	BL-W	TRUNK T1	
27	w - o	TRUNK R2	
2	o - w	TRUNK T2	
26	W-G	TRUNK R3	
3	G-W	TRUNK T3	
29	W-BR	TRUNK R4	
	BR-W	TRUNK T4	
30	w - s	TRUNK R5	
5	S-W	TRUNK T5	
31	R-BL	TRUNK R6	
6	BL-R	TRUNK T6	
32	R-O	TRUNK CARD RI	
7	O-R	TRUNK CARD T1	
33	R-G	TRUNK CARD R2	
8	G-R	TRUNK CARD T2	
34	R-BR	TRUNK CARD R3	
9	BR-R	TRUNK CARD T3	
35	R-S	TRUNK CARD R4	
10	S-R	TRUNK CARD T4	
36	BK-BL	TRUNK CARD R5	
11	BL-BK	TRUNK CARD T5	
37	BK-0	TRUNK CARD R6	
12	0-BK	TRUNK CARD T6	
38	BK-G	SPARE	
13	G-BK	SPARE	
39	BK-BR	LINE CARD RI	
14	BR-BK	LINE CARD T1	
40	BK-S	LINE CARD R2	
15	S-BK	LINE CARD T2	
41	Y-BL	LINE CARD R3	
16	BL-Y	LINE CARD T3	
42	Y-O	LINE CARD R4	
17	O-Y	LINE CARD T4	
43	Y-G	LINE CARD R5	
18	G-Y	LINE CARD T5	
44	Y-BR	LINE CARD R6	
19	BR-Y	LINE CARD T6	
45	Y-S	STATION RI	
20	S-Y	STATION T1	
46	V-BL	STATION R2	
21	BL-V	STATION T2	
47	v - o	STATION R3	
22	o - v	STATION T3	
48	V-G	STATION R4	
23	G-V	STATION T4	
49	V-BR	STATION R5	
24	BR-V	STATION T5	
50	v - s	STATION R6	
25	s - v	STATION T6	

TABLE 5-8 (CONT'D)
CONTROL CABINET POWER FAIL TRANSFER CARD ASSIGNMENTS

CARD 3 (optional)

Pin	Pair Colour	Lead Designation	Connection/Comments (Extension Circuit Feature)
26	w-BL	TRUNK RI	
1	BL-W	TRUNK T1	
27	w - o	TRUNK R2	
2	o - w	TRUNK T2	
28	W-G	TRUNK R3	
3	G-W	TRUNK T3	
29	W-BR	TRUNK R4	
4	BR-W	TRUNK T4	
30	w - s	TRUNK R5	
5	S-W	TRUNK T5	
31	R-BL	TRUNK R6	
6	BL-R	TRUNK T6	
32	R-O	TRUNK CARD RI	
7	O-R	TRUNK CARD T1	
33	R-G	TRUNK CARD R2	
8	G-R	TRUNK CARD T2	
34	R-BR	TRUNK CARD R3	
9	BR-R	TRUNK CARD T3	
35	R-S	TRUNK CARD R4	
10	S-R	TRUNK CARD T4	
36	BK-BL	TRUNK CARD R5	
11	BL-BK	TRUNK CARD T5	
37	BK-0	TRUNK CARD R6	
12	0-BK	TRUNK CARD T6	
38	BK-G	SPARE	
13	G-BK	SPARE	
39	BK-BR	LINE CARD RI	
14	BR-BK	LINE CARD T1	
40	BK-S	LINE CARD R2	
15	S-BK	LINE CARD T2	
41	Y-BL	LINE CARD R3	
16	BL-Y	LINE CARD T3	
42	Y-O	LINE CARD R4	
17	O-Y	LINE CARD T4	
43	Y-G	LINE CARD R5	
18	G-Y	LINE CARD T5	
44	Y-BR	LINE CARD R6	
19	BR-Y	LINE CARD T6	
45	Y-S	STATION RI	
20	S-Y	STATION T1	
46	V-BL	STATION R2	
21	BL-V	STATION T2	
47	v - o	STATION R3	
22	o - v	STATION T3	
48	V-G	STATION R4	
23	G-V	STATION T4	
49	V-BR	STATION R5	
24	BR-V	STATION T5	
50	v - s	STATION R6	
25	s - v	STATION T6	

TABLE 5-9
ANALOG BAY 3 PLUG ASSIGNMENTS

PLUG P1 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-1		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
3-2		30	W-S	
		5	S-W	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
3-3		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-O	
		12	O-BK	
3-4		38	BK-G	
		13	G-BK	
		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
3-5		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
3-6		46	V-BL	
		21	BL-V	
		47	V-O	
		22	O-V	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v-s	SPARE
		25	s-v	SPARE

TABLE 5-9 (CONT'D)
ANALOG BAY 3 PLUG ASSIGNMENTS

PLUG P2 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-1		26 1 27 2 28 3 29 4	W-BL BL-W w - o o - w W-G G-W W-BR BR-W	
3-2		5 31 6 32 7 33 6	W-S S-W R-BL BL-R R-O O-R R-G G-R	
3-3		34 9 35 10 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-0 0-BK	
3-4		36 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
3-5		42 17 43 18 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
3-6		46 21 47 22 48 23 49 24	V-BL BL-V v - o o - v V-G G-V V-BR BR-V	
		50 25	v - s s - v	SPARE SPARE

TABLE 5-9 (CONT'D)
ANALOG BAY 3 PLUG ASSIGNMENTS

PLUG P3 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-7		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
3-8		30	W-S	
		5	S-W	
		31	BL-R	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
3-9		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-O	
		12	O-BK	
3-10		38	BK-G	
		13	G-BK	
		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
3-11		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
3-12		46	V-BL	
		21	BL-V	
		47	V-O	
		22	O-V	
		48	V-e	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v-s	SPARE
		25	s-v	SPARE

TABLE 5-9 (CONT'D)
ANALOG BAY 3 PLUG ASSIGNMENTS

PLUG P4 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-7		26 1 27 2 28 3 29 4	W-BL BL-W w - o o - w W-G G-W W-BR BR-W	
3-8		30 5 31 6 32 7 33 8	w - s s - w R-BL BL-R R-O O-R R-G G-R	
3-9		34 9 10 36 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-0 0-BK	
3-10		38 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
3-l 1		42 17 43 18 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
3-12		46 21 47 22 48 23 49 24	V-BL BL-V v - o o - v V-G G-V V-BR BR-V	
		50 25	v - s S-V	SPARE SPARE

TABLE 5-9 (CONT'D)
ANALOG BAY 3 PLUG ASSIGNMENTS

PLUG P5 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
3-13		26 1 27 2 28 3 29 4	W-BL BL-W w - o o - w W-G G-W W-BR BR-W	
3-14		30 5 6 32 7 33 8	w - s s - w R-BL BL-R R-O O-R R-G G-R	
3-15		34 9 35 IO 36 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-0 0-BK	
PLUG P6 (at Cross-Connect Field)				
3-13		38 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
3-14		42 17 43 18 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
3-15		46 21 47 22 48 23 49 24	V-BL BL-V v - o o - v V-G G-V V-BR BR-V	
		50 25	v - s s - v	SPARE SPARE

TABLE 5-10
ANALOG BAY 4 PLUG ASSIGNMENTS

PLUG P2 (at Cross-Connect Field)

Bay/ Blot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
4-I		1 27 2 28 3 29 4	W-BL BL-W w - o o - w W-G G-W W-BR BR-W	
4-2		30 5 31 6 7 33 8	w - s s - w R-BL BL-R R-O O-R R-G G-R	
4-3		34 9 35 10 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-0 0-BK	
1-4		38 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
1-5		42 17 43 18 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
1-6		46 21 4 : 48 23 49 24	V-BL BL-V v - o o - v V-G G-V V-BR BR-V	
		50 25	v - s S-V	SPARE SPARE

TABLE 5-10 (CONT'D)
ANALOG BAY 4 PLUG ASSIGNMENTS

PLUG P3 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
4-7		26	W-BL	
		1	BL-W	
		27	W-O	
		2	O-W	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
4-8		30	W-S	
		5	S-W	
		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
4-9		34	R-BR	
		9	BR-R	
		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-O	
		12	O-BK	
4-10		38	BK-G	
		13	G-BK	
		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
4-11		42	Y-O	
		17	O-Y	
		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
4-12		46	V-BL	
		21	BL-V	
		47	V-O	
		22	O-V	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v-s	SPARE
		25	s-v	SPARE

TABLE 5-10 (CONT'D)
ANALOG BAY 4 PLUG ASSIGNMENTS

PLUG P4 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
4-7		1 27 2 28 3 29 4	W-BL BL-W w-o o-w W-G G-W W-BR BR-W	
4-8		30 5 6 32 7 33 8	W-S s-w R-BL BL-R R-O O-R R-G G-R	
4-9		34 9 35 10 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-0 0-BK	
4-10		38 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
4-11		42 17 43 18 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
4-12		46 21 47 22 48 23 49 24	V-BL BL-V v-o o-v V-G G-V V-BR BR-V	
		50 25	v-s s-v	SPARE SPARE

TABLE 5-10 (CONT'D)
ANALOG BAY 4 PLUG ASSIGNMENTS

PLUG PI9 on Interconnect Card (Miscellaneous Connections to Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
		26	W-BL	SPARE
		1	BL-W	SPARE
4-15		27	w - o	
		2	o - w	
		28	W-G	
		3	G-W	
		29	W-BR	
		4	BR-W	
		30	w - s	
		5	s - w	
4-14		31	R-BL	
		6	BL-R	
		32	R-O	
		7	O-R	
		33	R-G	
		8	G-R	
		34	R-BR	
		9	BR-R	
4-13		35	R-S	
		10	S-R	
		36	BK-BL	
		11	BL-BK	
		37	BK-0	
		12	0-BK	
		38	BK-G	
		13	G-BK	
4-15		39	BK-BR	
		14	BR-BK	
		40	BK-S	
		15	S-BK	
		41	Y-BL	
		16	BL-Y	
		42	Y-O	
		17	O-Y	
4-14		43	Y-G	
		18	G-Y	
		44	Y-BR	
		19	BR-Y	
		45	Y-S	
		20	S-Y	
		46	V-BL	
		21	BL-V	
4-13		47	v - o	
		22	o - v	
		48	V-G	
		23	G-V	
		49	V-BR	
		24	BR-V	
		50	v-s	
		25	S-V	

TABLE 5-11
ANALOG BAY 5 PLUG ASSIGNMENTS

PLUG P7 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
5-I		26 1 27 2 28 3 29 4	W-BL BL-W w - o o - w W-G G-W W-BR BR-W	
5-2		30 5 31 6 7 33 8	w - s s - w R-BL BL-R R-O O-R R-G G-R	
5-3		34 9 35 10 36 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-0 0-BK	
5-4		38 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
5-5		42 17 43 18 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
5-6		46 21 47 22 48 23 49 24 50	V-BL BL-V v - o o - v V-G G-V V-BR BR-V	
		25	v - s s - v	SPARE SPARE

TABLE 5-11 (CONT'D)
ANALOG BAY 5 PLUG ASSIGNMENTS

PLUG P8 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
5-1		26 1 27 2 28 3 29 4	W-BL BL-W W-O O-W W-G G-W W-BR BR-W	
5-2		30 5 31 6 32 7 33 8	W-S S-W R-BL BL-R R-O O-R R-G G-R	
5-3		9 35 10 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-O O-BK	
5-4		38 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
5-5		42 17 43 18 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
5-6		46 21 47 22 48 23 49 24 50	V-BL BL-V V-O O-V V-G G-V V-BR BR-V	
		25	V-S S-V	SPARE SPARE

TABLE 5-11 (CONT'D)
ANALOG BAY 5 PLUG ASSIGNMENTS

PLUG P9 (at Cross-Connect Field)

Bay/ Slot	Cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
5-7		26 1 27 2 26 19 4	W-BL BL-W w - o o - w W-G G-W W-BR BR-W	
5-6		30 5 31 6 32 7 33 6	w - s s - w R-BL BL-R R-O O-R R-G G-R	
5-9		34 9 35 10 36 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-0 0-BK	
5-10		36 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
5-I 1		42 17 43 16 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
5-12		46 21 47 22 46 23 49 24	V-BL BL-V v - o o - v V-G G-V V-BR BR-V	
		50 25	v - s s - v	SPARE SPARE

TABLE 5-11 (CONT'D)
ANALOG BAY 5 PLUG ASSIGNMENTS

PLUG Pl0 (at Cross-Connect Field)

Bay/ Slot	cct	Pin	Pair Colour	Connection/Comments (Extension Circuit Feature)
5-7		26 1 27 2 28 3 29 4	VI-BL BL-W w - o o - w W-G G-W W-BR BR-W	
5-8		30 5 6 32 7 33 8	w - s s - w R-BL BL-R R-O O-R R-G G-R	
5-9		34 9 35 10 36 11 37 12	R-BR BR-R R-S S-R BK-BL BL-BK BK-0 0-BK	
5-10		38 13 39 14 40 15 41 16	BK-G G-BK BK-BR BR-BK BK-S S-BK Y-BL BL-Y	
5-I 1		42 17 43 18 44 19 45 20	Y-O O-Y Y-G G-Y Y-BR BR-Y Y-S S-Y	
5-12		46 21 4 : 48 23 49 24	V-BL BL-V v - o o - v V-G G-V V-BR BR-V	
		50 25	v - s S-V	SPARE SPARE

TABLE 5-12
PERIPHERAL CABINET POWER FAIL TRANSFER CARD ASSIGNMENTS

PLUG P20 (Power Fail Connections to to Cross-Connect Field)

Pin	Pair Colour	Lead Designation	Connection/Comments (Extension Circuit Feature)
26	W-BL	STATION T1	
1	BL-W	STATION RI	
27	w - o	LINE CARD T1	
2	o - w	LINE CARD RI	
28	W-G	TRUNK T1	
3	G-W	TRUNK RI	
29	W-BR	TRUNK CARD T1	
4	BR-W	TRUNK CARD RI	
30	w - s	STATION T2	
	s - w	STATION R2	
51	R-BL	LINE CARD T2	
6	BL-R	LINE CARD R2	
32	R-O	TRUNK T2	
7	O-R	TRUNK R2	
33	R-G	TRUNK CARD T2	
8	G-R	TRUNK CARD R2	
34	R-BR	STATION T3	
9	BR-R	STATION R3	
35	R-S	LINE CARD T3	
10	S-R	LINE CARD R3	
36	BK-BL	TRUNK T3	
11	BL-BK	TRUNK R3	
37	BK-0	TRUNK CARD T3	
12	0-BK	TRUNK CARD R3	
38	BK-G	STATION T4	
13	G-BK	STATION R4	
39	BK-BR	LINE CARD T4	
14	BR-BK	LINE CARD R4	
40	BK-S	TRUNK T4	
15	S-BK	TRUNK R4	
41	Y-BL	TRUNK CARD T4	
16	BL-Y	TRUNK CARD R4	
42	Y-O	STATION T5	
17	O-Y	STATION R5	
43	Y-G	LINE CARD T5	
18	G-Y	LINE CARD R5	
44	Y-BR	TRUNK T5	
19	BR-Y	TRUNK R5	
45	Y-S	TRUNK CARD T5	
20	S-Y	TRUNK CARD R5	
46	V-BL	STATION T6	
21	BL-V	STATION R6	
47	v - o	LINE CARD T6	
22	o - v	LINE CARD T6	
48	V-G	TRUNK T6	
23	G-V	TRUNK R6	
49	V-BR	TRUNK CARD T6	
24	BR-V	TRUNK CARD R6	
50	s - v	SPARE	
25	v - s	SPARE	

TABLE 5-12 (CONT'D)
PERIPHERAL CABINET POWER FAIL TRANSFER CARD ASSIGNMENTS

PLUG P21 (Power Fail Connections to to Cross-Connect Field)

Pin	Pair Colour	Lead Designation	Connection/Comments (Extension Circuit Feature)
26	W-BL	STATION T1	
1	BL-W	STATION RI	
27	w - o	LINE CARD T1	
2	o - w	LINE CARD RI	
28	W-G	TRUNK T1	
3	G-W	TRUNK RI	
29	W-BR	TRUNK CARD T1	
4	BR-W	TRUNK CARD RI	
30	w - s	STATION T2	
5	s - w	STATION R2	
31	R-BL	LINE CARD T2	
6	BL-R	LINE CARD R2	
32	R-O	TRUNK T2	
7	O-R	TRUNK R2	
33	R-G	TRUNK CARD T2	
8	G-R	TRUNK CARD R2	
34	R-BR	STATION T3	
9	BR-R	STATION R3	
35	R-S	LINE CARD T3	
10	S-R	LINE CARD R3	
36	BK-BL	TRUNK T3	
11	BL-BK	TRUNK R3	
37	BK-0	TRUNK CARD T3	
12	0-BK	TRUNK CARD R3	
38	BK-G	STATION T4	
13	G-BK	STATION R4	
39	BK-BR	LINE CARD T4	
14	BR-BK	LINE CARD R4	
40	BK-S	TRUNK T4	
15	S-BK	TRUNK R4	
41	Y-BL	TRUNK CARD T4	
16	BL-Y	TRUNK CARD R4	
42	Y-O	STATION T5	
17	O-Y	STATION R5	
43	Y-G	LINE CARD T5	
18	G-Y	LINE CARD R5	
44	Y-BR	TRUNK T5	
19	BR-Y	TRUNK R5	
45	Y-S	TRUNK CARD T5	
20	S-Y	TRUNK CARD R5	
46	V-BL	STATION T6	
21	BL-V	STATION R6	
47	v - o	LINE CARD T6	
22	o - v	LINE CARD T6	
48	V-G	TRUNK T6	
23	G-V	TRUNK R6	
49	V-BR	TRUNK CARD T6	
24	BR-V	TRUNK CARD R6	
50	s - v	SPARE	
25	v - s	SPARE	

SX-200” DIGITAL
PRIVATE AUTOMATIC BRANCH EXCHANGE (PABX)
CUSTOMER DATA ENTRY (CDE)

NOTICE .

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LIST OF ILLUSTRATIONS

1. INTRODUCTION

General

1.01 After the successful mechanical installation of the SX-200 DIGITAL PABX with Generic 1003 software (refer to Section MITL9109-094-200-NA, Shipping, Receiving and Installation Information), the system is ready for programming. This Section describes the Customer Data Entry package and outlines the procedures for entering Customer Data Entry (CDE) Mode.

Reason for Issue

1.02 This Section has been issued to describe Customer Data Entry procedures and forms for Generic 1003.

2. EQUIPMENT USED FOR CUSTOMER DATA ENTRY

General

2.01 The programming of the system is supported by four devices: the two Floppy Disk Drives, the Attendant Console and an ASCII CRT terminal (VT-100 compatible).

Attendant Console

2.02 On-site Customer Data Entry can be performed via the Attendant Console. The Console's softkeys and LCD display facilitate this task. The LCD has four lines of 80 characters. These lines are: the header line, the command line (which displays the data that can be edited) and two lines for the 10 softkeys. Note that there are some forms which have two header lines and only one line for the softkey display.

ASCII CRT Terminal

2.03 A terminal is required for remote programming. A modem is connected to the REMOTE (DCE) connector on the cabinet's lower rear panel. This modem is connected, usually by telephone, to a modem connected to the remote terminal.

2.04 The terminal can also be used for local programming, instead of the Attendant Console. For local programming, the terminal is connected via an RS-232 connection to the LOCAL (DTE) connector on the Maintenance Panel.

2.05 A VT-100 compatible terminal displays the full screen version of the CDE forms. This consists of the header line, 12 lines of data, the command line and two rows of softkeys. Softkeys are selected by pressing the ESC key followed by the softkey number. There are 10 softkeys numbered 1 through 9, then 0.

Form Editing

2.06 The forms in the CDE package have several columns and lines of information. On the Attendant Console, or on a terminal that has cursor control keys, the left and right arrow keys (← and →) move the cursor from field to field on the command line. On a terminal, the TAB and DEL keys perform an equivalent function. Note that both the DEL and left arrow keys delete edited data as the cursor moves left. The up and down arrow keys move the cursor up and down the form. On a terminal, the LINE FEED key also moves the cursor down the form. Note also that the RETURN key on a terminal performs the same function as the ENTER softkey. On the Attendant Console, cursor movement is indicated by the underscore character (_). On the terminal, cursor movement is indicated by a flashing solid block and by a line pointer (represented by > < characters at the ends of the screen line).

Levels of Access to Customer Data Entry

2.07 The system provides five levels of CDE access. These levels are, in descending order of priority:

- Installer
- Maint 1
- Maint 2
- Supervisor
- Attendant

The access for any of these levels can be set to 'read/write access', 'no access' or 'read only access' for each CDE form.

2.08 An attendant may be restricted, for example, to moves of station numbers and review of Pickup Groups only. Similarly, a maintenance person may be given access to Class-of-Service modifications and station/*SUPERSET*® telephone additions but not to ARS programming. Installers must be able to access the entire database.

2.09 The user can exit CDE Mode (for Call Handling) by pressing any hardkey on the Attendant Console. Pressing the FUNCTION key and then the APPLICATION softkey automatically returns the console to CDE Mode.

3. CDE PACKAGE GROUPING

General

3.01 The system is programmed in groups. Classes of Service group together users with the same COS restrictions. Pickup Groups assemble users in a department. Hunt Groups classify users together with a common knowledge about how to handle certain calls. Trunks are grouped together with common incoming answering points and common outgoing characteristics.

3.02 Tenant Groups also relate to this grouping theme. Tenant Groups facilitate separate attendant services for different areas of a corporation. These services include handling "DIAL 0" calls locally, routing and recalling incoming trunk calls as required and locally switching to Night Service Mode.

3.03 One variant of this multi-tenant operation occurs when each group may be separate customers that cannot access each other's trunks. Another variant occurs when DID Trunk service handles incoming calls into a number of different customers. For this plan, each customer requires identification of its incoming calls.

4. OPERATION

Loading of System Software

4.01 When initializing the system, the following steps are necessary for correct operation:

1. Bay 2 or Bay 0 (672-port systems) power supply must be on before the two diskettes are inserted.

2. Position diskette A in Bay 2 disk drive and diskette B in Bay 1 disk drive; refer to the illustration on the disk drive door for proper diskette insertion. Refer also to Section MITL9109-094-200-NA, Shipping, Receiving, and Installation Information for the power-up procedures.

CAUTION: Bay power supply must not be turned on/off while diskettes are in place.

4.02 The following tables describe the CDE forms and their associated commands for both the CRT terminal and the console LCD.

Customer Data Entry Access from a terminal

4.03 The login procedure for initial CDE access (from a terminal) consists of four basic steps. These steps are:

1. Specify the terminal type:

   1- VT-100 COMPATIBLE
   2- TTY TYPE (reserved for future use)

2. Select the function:

   1- MAINTENANCE
   2- CDE
   6- QUIT

3. Enter the level of access:

   INSTALLER,
   MAINT1,
   MAINT2,
   SUPERVISOR or
   ATTENDANT

4. Enter the password. The default password is 1000.

4.04 For the programmer's reference, the terminal displays a list of the names and numbers of the available forms. See Table 4-2, Available Forms (CDE Terminal Display). The line at the cursor position is displayed on the command line. Press the cursor control keys to move the cursor through the list a line at a time. When the cursor reaches the bottom (or top) data line, the list will scroll up (or down) if

there are more items on the list to display. Press the TOP or BOTTOM softkeys to move immediately to the top or bottom of the list. Refer to Table 4-1, List of Customer Data Entry Forms for the complete list. The top screen line displays the system date, time and alarm status

4.05 The command line displays ENTER FORM NUMBER:. Select a form by entering a valid form number. It is not necessary for the desired form number to be displayed on the command line. Press the ENTER softkey.

Customer Data Entry Access from the Attendant Console

4.06 The login procedure for initial CDE access from the Attendant Console consists of the following steps:

1. Press the FUNCTION key.
2. Press the APPLICATION softkey (refer to Figure 4-1, Console Application Menu).
3. Press the CDE softkey.
4. Select a level of access.
5. Enter the password. Default is 1000.
6. Press the ENTER softkey.

```
Choose An Application OR Press QUIT to Return
 F1>MAINTENANCE F2>CDE          F3>          F4>          F5>
 F6>QUIT        F7>             F8>          F9>          F0>
```

Figure 4-I Console Application Menu

4.07 When the CDE application has been selected, the Console LCD displays the word FORMS on its header line. Under this are two command lines and one row of softkeys. See Table 4-2, Available Forms (Attendant Console Display). For the programmer's reference, the upper command line displays the names and numbers of the first two available forms. Press the cursor control keys to display the names and numbers of subsequent forms, two at a time. Press the TOP or BOTTOM softkeys to move immediately to the top or bottom of the list. Refer to Table 4-1, List of Customer Data Entry Forms for the complete list.

4.08 The lower command line displays ENTER FORM NUMBER:. Select a form by entering a valid form number. It is not necessary to have the desired form number displayed on the upper command line. Press the ENTER softkey.

TABLE 4-1
LIST OF CUSTOMER DATA ENTRY FORMS

Number	Title
01	System Configuration
02	Feature Access Codes
03	Class-of-Service Define
04	System Options/System Timers
05	Tenant Interconnection Table
06	Tenant Night Switching Control
07	Console Assignments
08	Attendant LDN Assignments
09	Stations/SUPERSET Telephones
10	Pickup Groups
11	Data Circuit Descriptor
12	Data Assignment
13	Trunk Circuit Descriptors
14	Non-Dial-In Trunks
15	Dial-In Trunks
16	Trunk Groups
17	Hunt Groups
18	Miscellaneous System Ports
19	Cal l Rerouting Table
20	ARS: COR Group Definition
21	ARS: Day Zone Definition
22	ARS: Modified Digit Table
23	ARS: Route Definition
24	ARS: Route Lists
25	ARS: Route Plans
26	ARS: Digit Strings
27	ARS: Maximum Dialed Digits
28	Form Access Restriction Definition
29	DTE Profile
30	Device Interconnection Table
31	System Abbreviated Dial Entry
32	CDE Data Print
33	Account Code Entry
34	Directed IO
35	Global Find Access Code
36	Modem Assignment
37	Guest Room SUPERSET Keys Template
38	ACD Keys Template
39	ACD Agent Groups
40	ACD Supervisors
41	ACD Paths
42	T1 Link Descriptors
43	T1 Link Assignment
44	Network Synchronization

TABLE 4-2
AVAILABLE FORMS
CDE TERMINAL DISPLAY

10:15 P M 15-JAN-88 alarm status = NO ALARM

FORMS	
01 = SYSTEM CONFIGURATION	02 = FEATURE ACCESS CODES
03 = CDS DEFINE	04 = SYSTEM OPTIONS/SYSTEM TIMERS
05 = TENANT INTERCONNECTION TABLE	06 = TENANT NIGHT SWITCHING CONTROL
07 = CONSOLE ASSIGNMENTS	08 = ATTENDANT LDN ASSIGNMENTS
09 = STATIONS/SUPERSET TELEPHONES	10 = PICKUP GROUPS
11 = DATA CIRCUIT DESCRIPTOR	12 = DATA ASSIGNMENTS
13 = TRUNK CIRCUIT DESCRIPTORS	14 = NON-DIAL-IN TRUNKS
15 = DIAL-IN TRUNKS	16 = TRUNKS GROUPS
17 = HUNT GROUPS	18 = MISCELLANEOUS SYSTEM FORTS
19 = CALL REROUTING TABLE	20 = ARS: COR GROUP DEFINITION
21 = ARS: DAY ZONE DEFINITION	22 = ARS: MODIFIED DIGIT TABLE
23 = ARS: ROUTE DEFINITION	24 = ARS: ROUTE LISTS
25 = ARS: ROUTE PLANS	26 = ARS: DIGIT STRINGS
27 = ARS: MAXIMUM DIALED DIGITS	28 = FORM ACCESS RESTRICTION DEF'N
ENTER FORM NUM:	
6-QUIT	7-TOP	8-BOTTOM	9-	0-

ATTENDANT CONSOLE DISPLAY

```
                              FORMS
01 = SYSTEM CONFIGURATION          02 = FEATURE ACCESS CODES
ENTER FORM NUM:
F6>QUIT        F7>TOP        F8>BOTTOM        F9>            F0>
```

Exit from CDE

4.09 To exit from CDE, press the QUIT softkey at the Available Forms level. The console returns to the level that is displayed in Figure 4-1, Console Application Prompt. The terminal returns to the level of selecting an application; the system is now ready for another application (such as Maintenance).

Form 01 - System Configuration

4.10 This form specifies the intended location of each peripheral card for the system. Refer to Table 4-3, FORM 01 - System Configuration. If the peripheral cards are installed before the system is programmed, this form enables the configuration of the system according to the actual installation. If the system is programmed prior to the peripheral card installation, then this form acts as a guide during the installation process. If the installed card type does not match the card type in the PROGRAMMED field, then that device does not function. No error message is provided, but the card alarm LED will flash.

4.11 When the system is programmed, the CDE software uses the PROGRAMMED field of this form to generate a list of physical location (bay, slot and circuit) numbers that can be programmed in subsequent forms. These forms include:

- Form 07, Console Assignments,
- Form 08, Attendant LDN Assignments,
- Form 09, Station and *SUPERSET* Telephones,
- Form 12, Data Assignment,
- Form 14, Non-Dial-In Trunks,
- Form 15, Dial-In Trunks,
- Form 18, Miscellaneous System Ports and
- Form 36, Modem Assignment.

When a device is assigned to a physical location, the system first checks the appropriate card type in this form.

TABLE 4-3
FORM 01 - SYSTEM CONFIGURATION

CDE TERMINAL DISPLAY

10:15 PM 15-JAN-88 alarm status = NO ALARM

BAY	SLT	CCT	PROGRAMMED	INSTALLED	COMMENTS
01	06	-			
01	07	-			
01	08				
02	01	-	ONS LINE CARD	ONS LINE CARD	
02			LS/GS TRUNK CARD	LS/GS TRUNK CARD	
02	83	-	UNIVERSAL CARD	UNIVERSAL CARD	
02		01	MUSIC PAGER MODULE		----------
02	83	02	CONSOLE MODULE	CONSOLE MODULE	----------
02	03	03	DTMF RECEIVER	DTMF RECE I VER	----------
02	03	04			----------
02	04	-	DIGITAL LINE CARD	DIGITAL LINE CARD	
02	04	-	DIGITAL LINE CARD	DIGITAL LINE CARD	

I-LINE CARDS	2-TRUNK CARDS	3-UNIVERSAL	4-SYSTEM TYPE	B-CONFIGURE
6-QUIT	7-BAY/SLT/CCT	8-DELETE	9-VERI FY DATA	0-

ATTENDANT CONSOLE DISPLAY

BAY	SLT	CCT	PROGRAMMED	INSTALLED	COMMENTS
02	04	-	DIGITAL LINE CARD	DIGITAL LINE CARD	

F1>LINE CARDS F2>TRUNK CARDS F3>UNIVERSAL F4>SYSTEM TYPE F5>CONFIGURE
F6>QUIT F7>BAY/SLT/CCT F8>DELETE F9>VERIFY DATA FO>

4.12 Field Description

BAY, SLT and CCT: These fields specify the physical location of each card type. The circuit number represents the physical location of each module on the Universal Card.

PROGRAMMED: This field specifies the intendsd location of the required card types. Data can be assigned to the PROGRAMMED field before the cards are installed.

INSTALLED: The data in the INSTALLED field reflects the actual installed cards. The system updates this field; the installer cannot edit it.

COMMENTS: This field stores additional data (a maximum of 20 characters), for the programmer's reference. The system does not use this information.

4.13 Commands

I-LINE CARDS: Pressing this **softkey** programs the selected card slot as a line card. If the slot is in a digital peripheral bay, four **softkeys** appear for selection of line card type. Refer to Figure 4-2, Line Card Types for Digital Bays for this **softkey** presentation. Otherwise, two line card type **softkeys** appear. Refer to Figure 4-3, Other Line Card Types for Analog Bays for this **softkey** presentation. In either case, pressing the QUIT **softkey** returns the display to its previous state.

I-ONS LINE	2-OPS LINE	3-DIGITAL LINE	4-COV LINE	5-
6-QUIT	7-	8-	9-	0-

Figure 4-2 Line Card Types for Digital Bays

I-ONS LINE: Pressing this **softkey** programs the selected card slot as an ONS Line Card. Pressing the ENTER **softkey** completes the selection and the PROGRAMMED field displays the ONS LINE CARD prompt.

2-OPS LINE: Pressing this **softkey** programs the selected card slot as an OPS Line Card. Pressing the ENTER **softkey** completes the selection and the PROGRAMMED field displays the OPS LINE CARD prompt. The OPS Line Card is a high power card **and** is restricted to the upper slots of any digital bay. Placing this card in any other slot results in the following error message:

High power card cannot be programmed at Bay/slot/circuit - xx/xx/xxx.

3-DIGITAL LINE: Pressing the DIGITAL LINE **softkey** programs the selected card slot as a DIGITAL line card. Pressing the ENTER **softkey** completes the selection and the PROGRAMMED field displays the DIGITAL LINE prompt.

4-COV LINE: Pressing the COV LINE **softkey** programs the selected card slot as a COV Line Card. Pressing the ENTER **softkey** completes

the selection and the PROGRAMMED field displays the COV LINE prompt. The COV Line Card is a high power card and is restricted to the upper slots of any digital bay. If the COV Line Card is placed in any other slot, the system returns the following error message: High power card cannot be programmed at Bay/slot/circuit – xx/xx/xx.

I-STATION	2 -	3 -	4–SUPERSET	5–
6-W IT	7 -	8 -	9–	0–

Figure 4-3 Other Line Card Types for Analog Bays

1 -STATION: Pressing the STATION **softkey** programs the selected card slot as a Station Line Card. Pressing the ENTER **softkey** completes the selection and the PROGRAMMED field displays the STATION LINE CARD prompt.

4-SUPERSET: Pressing the **SUPERSET softkey** designates the selected card slot as a ***SUPERSET*** Line Card. Pressing the ENTER **softkey** completes the selection and the PROGRAMMED field displays the **SUPER–**SET LINE CARD prompt.

P-TRUNK CARDS: Pressing the TRUNK CARDS **softkey** programs the selected card slot as a trunk card. If the slot is in a digital peripheral bay, three **softkeys** appear for selection of trunk card type. Refer to Figure 4-4, Trunk Card Types for Digital Bays, for this **softkey** presentation. Otherwise, three card type **softkeys** appear. Refer to Figure 4-5, Other Trunk Card Types for this **softkey** presentation. In either case, pressing the QUIT **softkey** returns the display to its previous state.

1–LS/GS TRUNK	2–T1 TRUNK	3 -	4-6 CCT DID	5 -
6-QUIT	7 -	8 -	9–	0–

Figure 4-4 Trunk Card Types for Digital Bays

1–LS/GS TRUNK: Pressing the LS/GS TRUNK **softkey** programs the selected card slot as a LS/GS Trunk Card. Pressing the ENTER **softkey** completes the selection and the PROGRAMMED field displays the LS/GS TRUNK CARD prompt.

2–T1 TRUNK: Pressing the T1 TRUNK **softkey** programs the selected card slot as a T1 Trunk Card. Pressing the ENTER **softkey** completes the selection and the PROGRAMMED field displays the T1 TRUNK CARD prompt. T1 Trunk cards can be programmed in even-numbered **high–**power slots only. Only 1 T1 Trunk card is permitted per bay.

4-6 **CCT DID:** Pressing the 6 CCT DID **softkey** programs the selected card slot as a DID Trunk Card. Pressing the ENTER **softkey** completes the selection and the PROGRAMMED field displays the DID TRUNK CARD prompt. The 6 CCT DID card is a high powered card and is restricted to the upper slots of any digital bay. The system generates

an error message if this card is placed in any other slot.

I-CO TRUNK	2-	3-E&M TRUNK	4-6 DID/TIE	5-
6-QUIT	7-	8-	9-	0-

Figure 4-5 Other Trunk Card Types

I-CO TRUNK: Pressing the CO TRUNK softkey programs the selected card slot as a CO Trunk Card. Pressing the ENTER softkey completes the selection and the PROGRAMMED field displays the CO TRUNK CARD prompt.

3-E & M TRUNK: Pressing the E & M TRUNK softkey programs the selected card slot as an E&M Trunk Card. Pressing the ENTER softkey completes the selection and the PROGRAMMED field displays the E & M TRUNK CARD prompt.

4-DID/TIE: Pressing this softkey programs the selected card slot as a DID/Loop Tie Trunk Card. Pressing the ENTER softkey completes the selection and the PROGRAMMED field displays DID/TIE TRUNK CARD prompt.

3-UNIVERSAL: Pressing the UNIVERSAL softkey designates that card slot as the Universal Card and displays the module types on the softkeys. Refer to Figure 4-6, Module Types for this softkey presentation. (No softkey appears for the DTMF Receiver module. The system enters this module in the PROGRAMMED field automatically). Note that the Universal Card can only be assigned to those card slots rated for high power consumption. These are the upper slots of any digital bay. Pressing the QUIT softkey returns the display to the previous state.

1-	2-MUSIC PAGER	3-E&M MODULE	4-CONSOLE	5-
6-QUIT	7-	8-	9-	0-

Figure 4-6 Module Types

P-MUSIC PAGER: Pressing this softkey programs the selected module as a Music on Hold/Pager Module. The PROGRAMMED field displays MUSIC PAGER MODULE. Each MOH/Pager Module has a power rating of 1. Therefore, a Universal Card can support four of these modules.

3-E&M MODULE: Pressing this softkey programs the selected module as an E&M module. The PROGRAMMED field displays E&M. Each E&M module has a power rating of 3 (a maximum of three per Universal Card).

4-CONSOLE: Pressing the CONSOLE softkey programs the selected circuit as a Console Module. The PROGRAMMED field displays CONSOLE MODULE. Since the Universal Card has a power rating of 10, and each Console Module has a power rating of 5, a Universal Card can support a maximum of two Console Modules.

Note: The system automatically programs DTMF Receivers where they are installed, **provided nothing is already programmed for that circuit.**

4-SYSTEM TYPE: The SX-200 DIGITAL Generic 1003 software can support 4 system variants, two of which are interchangeable;

336 Port - This variant is digital and cannot be changed.
456-Port - This variant can be interchanged with the 480-port.
480-Port - This variant can be interchanged with the 456-port.
672-Port - This variant is digital and cannot be changed.

The SYSTEM TYPE softkey appears only on 336, 456, or 480-port systems. On these systems the programmer cannot select the 672-port variant.

Pressing the SYSTEM TYPE softkey identifies the current system type and displays a prompt requesting the user to enter the new system type via one of two softkeys available (only alternate variants are displayed). (Refer to Figure 4-7, System Type). Entering a new system type, and pressing the ENTER softkey, resets the system and the following is displayed on the command line:

Update is in progress and SYSTEM RESET will follow. Please wait.

If a device is programmed in either Bays 3, 4 or 5 the following error message is displayed to inform the user to deprogram these bays:

Bay/Slot/Circuit - XX/XX/XX has device programmed. Cannot change system.

1-480-PORT	2-336 PORT	3-456 PORT	4-	5-
6-	7-	8-	9-	O-ENTER

Figure 4-7 System Type

5-CONFIGURE: Before the system can function properly, the PROGRAMMED field must match the INSTALLED field. Pressing the CONFIGURE softkey matches the PROGRAMMED field to the INSTALLED field. Note that devices can be assigned to the cards in the PROGRAMMED field but the card type cannot change. The CONFIGURE softkey cannot be pressed if any device is specified (e.g., defining a station in Form 09, Station/*SUPERSET* Telephones). When a new peripheral card is added to the system, it is necessary to manually update the PROGRAMMED field. The INSTALLED field updates upon exiting and re-entering this form.

6-QUIT: If another softkey was activated (e.g., LINE CARDS), then pressing the QUIT softkey returns the display to the previous state. At all other times, pressing the QUIT softkey exits Form 01 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-BAY/SLT/CCT: Instead of moving the line pointer to the desired line of the form, the programmer can call it up directly by specifying the bay, slot and circuit.

Pressing the BAY/SLT/CCT softkey displays **Bay: Slot: Circuit:** on the command line. The cursor appears to the right of the **Bay:** prompt. A single digit specifies the bay location. When a valid digit has been entered, the TAB or → cursor key can move the cursor to the Slot field. If the programmer enters an invalid number, the system inhibits subsequent cursor movement. Use the DEL or ← cursor key to delete the incorrect entry.

When the slot number has been entered, the ENTER softkey appears. Entry of a circuit number is optional. If none is specified, the command line displays data about the first circuit of the selected bay/slot number. The cursor moves to the PROGRAMMED field.

8-DELETE: This softkey appears when the command line is displaying data. Pressing the DELETE softkey followed by the ENTER softkey removes the selected entry from the form. Note that any devices programmed on the card in that slot must be deleted first, using the appropriate form.

O-VERIFY DATA: Pressing the VERIFY DATA softkey begins a series of system tests on the database. The command line displays a message as each test completes successfully. These messages are:

PLID TO SWID CONVERSION SUCCESSFUL
ALL RECEIVERS ARE IN VALID STATES
ALL HUNT GROUPS ARE VALID
ALL TRUNK GROUPS ARE VALID
ALL PICKUP GROUPS ARE VALID
ALL SUPERSET KEYS ARE VALID
ALL TRUNK NUMBERS ARE VALID
DISK TO RAM DATABASE COMPARISON INITIATED PLEASE WAIT
DISK DATA BASE IS (VALID)/(CORRUPTED)

If a test fails, the command line displays an error message and creates a maintenance log. Refer to Section MITL9 109-094-350-NA, Troubleshooting. When all tests are complete, the form reverts to the original softkey display (refer to Table 4-3, Form 01 - System Configuration).

O-ENTER: This softkey appears only after data for a'n entry has been modified. Pressing the ENTER softkey stores the change in the database.

Form 02 - Feature Access Codes

4.14 This form specifies the Feature Access Codes for the system (refer to Table 4-4, Feature Access Codes). Feature Access Codes can be a maximum of five digits (except Call'back Busy and Executive Busy Override access codes which must be only one digit). The codes must be unique; they cannot match any listed directory number or other access code in the system. Refer to Table 4-5, Programmable Feature Access Codes for a complete list of the access codes. To check assigned access codes, refer to Form 35, Global Find Access Code. The system updates this form each time a code is entered during CDE.

TABLE 4-4
FORM 02 - FEATURE ACCESS CODES

CDE TERMINAL DISPLAY

10:15 PM 15-JAN-88 alarm status = NO ALARM

FEATURE	FEATURE NAME	ACCESS CODE
01	Account Code Access	75
02	Auto-Answer Activation	
03	Call Forwarding - Busy	61
04	Call Forwarding - Don't Answer	66
05	Call Forwarding - Busy/Don't Answer	67
06	Call Forwarding - Follow Me	60
07	Call Forwarding - I'm Here	62
08	Dial Call Pickup	64
09	Directed Call Pickup	65
10	Do Not Disturb	80
11	Extension General Attendant Access	0
12	Paging Access To Default Zone(s)	68
01	Account Code Access	75

	2 -	3 -	4-TOP	5-BOTTOM
6-QUIT	7-FEATURE NUM	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

FEATURE	FEATURE NAME			ACCESS CODE
01	Account Code Access			75
F1>	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>FEATURE NUM	F8>DELETE	F9>	F0>

4.15 Field Description

FEATURE: This field lists the feature numbers in numerical order. The FEATURE field cannot be modified.

FEATURE NAME: This field lists the names of the features. The FEATURE NAME field cannot be modified.

ACCESS CODE: This field displays the access code for each feature.

4.16 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 02 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-FEATURE NUM: The FEATURE NUM softkey allows the user to select a Feature Access Code by number. Pressing this key clears the command line and positions the cursor after the ENTER FEATURE NUM: prompt. Entering the I- or 2-digit feature number displays that access code with its name on the command line. The cursor moves to the start of the ACCESS CODE field on the command line ready for a new access code entry.

8-DELETE: This softkey appears only when the line pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the access code from the database. The deletion is completed by pressing the ENTER softkey. This feature is no longer accessible; the code is available for use elsewhere in the database. Note that the ENTER softkey must be pressed to save the deletion in the database.

O-ENTER: Pressing the ENTER softkey (or the RETURN key on a terminal) stores the access code in the database. Note that the ENTER softkey appears only after a Feature Access Code is changed.

TABLE 4-5
PROGRAMMABLE FEATURE ACCESS CODES

Number	Feature Name
01	Account Code Access
02	Auto-Answer Activation
03	Call Forwarding - Busy
04	Call Forwarding - Don't Answer
05	Call Forwarding - Busy/Don't Answer
06	Call Forwarding - Follow Me
07	Call Forwarding - I'm Here
08	Dial Call Pickup
09	Directed Call Pickup
10	Do Not Disturb
11	Extension General Attendant Access
12	Paging Access to Default Zone(s)
13	Paging Access to Specific Zones
14	TAFAS - Any
15	TAFAS - Local Tenant
16	Hold Pickup Access (Attendant Hold Slots)
17	Console Lockout Access Code
18	Maintenance Functions (Test Line)
19	Direct Inward System Access
20	Callback Busy <<Single Digit>>
21	Call Hold
22	Call Hold Retrieve (Local)
23	Call Hold Retrieve (Remote)
24	Abbreviated Dial Access
25	Clear All Features
28	SUPERSET 4 Telephone Loopback Test
27	Tone Demonstration
28	ADL Call Setup
29	ADL Disconnect
30	RESERVED
31	Executive Busy Override <<Single Digit>>
32	Automatic Wake-up
33	Call Park
34	Node ID
35	Maid In Room
36	SUPERSET 4 Telephone Room Status Display
37	Direct to ARS
38	UCD Agent Login/Logout
39	Analogue Network Accept Caller's Extension
40	SUPERSET 4 Telephone Maid In Room Status Display
41	Send Message
42	Call Message Sender of Oldest Message
43	Callback - No Answer
44	ACD Login/Logout
45	ACD Silent Monitoring

Form 03 - COS Define

4.17 This form defines the Classes of Service for the system (refer to Table 4-6, COS Define for the form layout). Classes of Service group together stations with common feature operations and restrictions. The SX-200 DIGITAL PABX accommodates a maximum of 50 Classes of Service. Each device (including attendants and all trunks) are supplied with a Class of Service. This provides for the multi-attendant environment where one attendant may access the night service assignments. Also, each console can disable or enable on a per-trunk basis incoming SMDR recordings. COS options are listed in groups. Refer to Table 4-7, Class-of-Service Options for the total list of COS options.

TABLE 4-6
FORM 03 - COS DEFINE
CDE TERMINAL DISPLAY

10:15 PM 15-JAN-88 alarm status = NO ALARM

[COS : 1] OPTION (DISPLAYING ENABLED)	STATUS	OPTION NUM
Attendant Bell-Off	ENABLED	100
Attendant Display of System Alarms	ENABLED	102
Attendant DISA Code Setup	ENABLED	103
Attendant Flexible Night Service Setup	ENABLED	104
Attendant New Call Tone	ENABLED	106
Attendant Automatic Call Forward - No Answer	ENABLED	107
Attendant Serial Call .	ENABLED	109
Attendant Abbr. Dial Confidential Number Display	ENABLED	110
Attendant Abbreviated Dial Programning	ENABLED	111
Attendant Station Busy-out	EN30LED	112
Attendant-Timed Recall (NO ANSWER) IO-240 seconds	30	116 115
Attendant-Timed Recall (HOLD) IO-240 seconds		
Attendant Bell-Off	ENABLED	100

I-DISABLE	P-COPY COS	3-COS NUMBER	4-TOP	5-BOTTOM
6-QUIT	7-OPTION NUM	8-SHOW DISABLE	9-COS NAME	0-

ATTENDANT CONSOLE DISPLAY

```
[ COS : 1 ] OPTION (DISPLAYING ENABLED)          STATUS          OPTION NUM
Attendant Bell-Off                                ENABLED             100
F1>DISABLE   F2>COPY COS   F3>COS NUMBER   F4>TOP          F5>BOTTOM
F6>QUIT      F7>OPTION NUM F8>SHOW DISABLE F9>COS NAME     F0>
```

4.18 Field Description: The header line indicates the Class of Service being programmed and which set of options are selected; either the enabled or disabled options. The command line displays the current indexed option. When Form 03 - COS Define is selected, the command line displays the first enabled option of the first Class of Service.

OPTION NAME: This field lists the option titles. The actual option names cannot be modified. The option names are classified into two

groups: enabled options and disabled options.

STATUS: This field displays the status of each option; either DISABLED, ENABLED or a timer value.

OPTION NUM: This field displays the number of each Class of Service option. The actual option number cannot be modified.

4.19 Commands

l-DISABLE/ENABLE: This softkey enables and disables COS options. The DISABLE softkey appears when the form shows the enabled options. Pressing the DISABLE softkey followed by pressing the ENTER softkey twice disables the selected option. The ENABLE softkey appears when the form shows the disabled options. Pressing the ENABLE softkey followed by pressing the ENTER softkey twice enables the selected option.

Notes: 1. For those COS options which have a status other than 'ENABLED' or 'DISABLED', this softkey has no function or indication.

2. If the ENTER softkey is not pressed twice after each selection, softkeys 2 and 3 are not available until the data is completely entered.

2-COPY COS: Pressing the COPY COS softkey copies the contents of one Class of Service to another. This is useful when two Classes of Service are similar. The command line displays the COPY FROM COS prompt; the user enters the 1- or 2-digit COS number. The command line then displays the TO COS prompt; the user enters the second 1- or 2-digit COS number. Pressing the ENTER softkey completes the copy process.

3-COS NUMBER: Pressing the COS NUMBER softkey prompts the user for a COS number (one or two digits) which selects a specific COS number. The header line displays the new COS number.

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the disabled or enabled options. The command line displays the first line.

B-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the disabled or enabled options. The command line displays this line.

6-QUIT: Pressing the QUIT softkey after a field has been edited restores the form to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 03 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has oc-

curred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-OPTION NUM: This softkey selects a specific COS option. Pressing the OPTION NUM softkey displays the ENTER OPTION NUM: prompt on the command line. The selection is completed by entering a valid option number (100 to 908). The command line displays that COS option name, status and number.

8-SHOW DISABLE/SHOW ENABLE: This softkey has two functions; it displays the disabled and enabled COS options. Pressing the SHOW DISABLE softkey displays the currently disabled COS options. This softkey now shows the SHOW ENABLE prompt and softkey 1 displays the ENABLE prompt. Pressing the SHOW ENABLE softkey shows those COS options that are enabled. This softkey returns to the SHOW DISABLE prompt and softkey 1 displays the DISABLE prompt. Note: Those options with a status other than "ENABLED" or "DISABLED" are listed when the SHOW ENABLE softkey is pressed.

9-COS NAME: When the programmer presses the COS NAME softkey, the system requests a name for the Class of Service.

O-ENTER: Pressing the ENTER softkey once converts the working copy of the COS Define Form to reflect the modification to the COS option. If the QUIT softkey is pressed after the ENTER softkey has been pressed only once, then the command line displays a warning message. The message is: DATA HAS BEEN CHANGED, BUT NOT YET SAVED IN DATABASE -- "ENTER" TO SAVE. The ENTER softkey must be pressed again to commit the COS to the database.

TABLE 4-7
CLASS-OF-SERVICE OPTIONS

ALL-ENDANT-RELATED	
Option Number	Class-of-Service Name
100	Attendant Bell-Off
101	Attendant O/G Restriction/Room Status Setup
102	Attendant Display of System Alarms
103	Attendant DISA Code Setup
104	Attendant Flexible Night Service Setup
105	Attendant Guest Room Key
106	Attendant New Call Tone
107	Attendant Automatic Call Forward - No Answer
108	Attendant Audible Lockout Alarm
109	Attendant Serial Call
110	Attendant Abbr. Dial Confidential Number Display
111	Attendant Abbreviated Dial Programming
112	Attendant Station Busy-Out
113	Attendant Call Block Key
114	Attendant Trunk Busy-Out
115	Attendant-Timed Recall (No Answer) IO ⟶ 240 Seconds Default is 30 Seconds
116	Attendant-Timed Recall (Hold) 10 ⟶ 240 Seconds Default is 30 Seconds
117	Attendant-Timed Recall (Camp-on) 10 ⟶ 240 Seconds Default is 30 Seconds
118	Attendant Call Forward - No Answer Timer 10 ⟶ 240 Seconds Default is 30 Seconds
119	Attendant Tone Signaling
120	Attendant Conference Disable
121	RESERVED
122	RESERVED
123	RESERVED
STATION/SUPERSET-RELATED	
Option Number	Class-of-Service Name
200	Account Code, Forced Entry - External Calls
201	Account Code, Forced Entry - Long Distance Calls
202	Alarm Call
203	Broker's Call
204	Call Block Applies (Room To Room)
205	RESERVED
206	Call Forwarding - Busy
207	Call Forwarding - Don't Answer
208	Call Forwarding - External
209	Call Forwarding - Follow Me
210	Call Forwarding Inhibit on Dial-In Trunks
211	Call Hold and Retrieve Access

TABLE 4-7 (CONT'D)
CLASS-OF-SERVICE OPTIONS

STATION/SUPERSET-RELATED (CONT'D)

Option Number	Class-of-Service Name
212	Can Flash if Talking to an Incoming Trunk
213	Can Flash if Talking to an Outgoing Trunk
214	Cannot Dial a Trunk After Flashing
215	Cannot Dial a Trunk If Holding or Conferencing With One
216	Data Security
217	Direct to ARS
218	Directed Call Pickup
219	Discriminating Dial Tone
220	Do Not Disturb
221	Clear All Features
222	RESERVED
223	Flash Disable
224	Flash for Attendant
225	Hold Pickup (Attendant Paged Access)
226	Inward Restriction (DID)
227	Lockout Alarm Applies
228	Manual Line
229	RESERVED
230	Message Register Overflow Alarm
231	Message Waiting Setup - Bell
232	Message Waiting Setup - Lamp
233	Never a Consultee
234	Never a Forwardee
235	Originate Only
236	Outgoing Trunk Callback
237	Outgoing Trunk Camp-on
238	Override Security
239	Priority Dial 0
240	Line Privacy
241	Receive Only
242	Repeated Camp-on Beeps
243	Non-Busy Extension
244	Room Status Applies
245	Abbreviated Dial Access
246	SMDR - Extended Record
247	SMDR - Record Meter Pulses
248	TAFAS Any Access
249	TAFAS Access Tenant
250	TAFAS Access During Day Service
251	Transfer Dial Tone
252	Transfer With Privacy
253	Call Forward - Don't Answer Timer (2 → 6 Rings)
254	Call Hold Recall Timer (1 → 10 Minutes)
255	Repeated Camp-on Beeps Timer (5 → 15 Seconds)
256	UCD Music on Hold Timer (0 → 50 Minutes)
257	RESERVED
258	RESERVED
259	Message Sending

TABLE 4-7 (CONT'D)
CLASS-OF-SERVICE OPTIONS

ATTENDANT/STATION/SUPERSET-RELATED	
Option Number	**Class-of-Service Name**
300	Automatic Callback
301	Camp-on
302	Flash-in Conference
303	Paging Zone 1 Access
304	Paging Zone 2 Access
305	Paging Zone 3 Access
306	Paging Zone 4 Access
307	Paging Zone 5 Access
308	Paging Zone 6 Access
309	Paging Zone 7 Access
310	Paging Zone 8 Access
311	Paging Zone 9 Access
312	Paging Default (0 ⟶ 9) (0 Gives All Enabled Zones)
313	CO Trunk To CD Trunk Connect
314	CO Trunk To Tie Trunk Connect
315	CD Trunk To DID Trunk Connect
316	Tie Trunk To Tie Trunk Connect
317	Tie Trunk To DID Trunk Connect
318	DID Trunk To DID Trunk Connect
319	Extension Non-CD Trunk To Trunk Connect
320	RESERVED
321	RESERVED
322	RESERVED
323	RESERVED
324	RESERVED
325	RESERVED
326	Account Code, Forced Entry - Data Internal Calls
327	Account Code, Forced Entry - Data External Calls
328	Account Code, Forced Entry - Data Long Distance Calls
STATION-RELATED	
Option Number	**Class-of-Service Name**
400	Contact Monitor
401	Call Park
402	Long Loop (Off-Premises Extension Only)
403	Trunk Recall Partial Inhibit
404	Recording Failure to Hangup Timer
405	RESERVED
406	RESERVED
407	RESERVED

TABLE 4-7 (CONT'D)
CLASS-OF-SERVICE OPTIONS

ATTENDANT/SUPERSET-RELATED	
Opt i on Number	Class-of-Service Name
500	Override
501	Override Announce
502	RESERVED
503	RESERVED
ATTENDANT/STAT I DN/SUPERSET-RELATED	
Option Number	Class-of-Service Name
600	SUPERSET - Auto-Answer
601	SUPERSET - Auto-Hold Disable
602	SUPERSET - Background Music
603	SUPERSET - Disconnect Alarm
604	SUPERSET - Immediate Line Select
605	SUPERSET - Message Program
606	SUPERSET - Sub-Attendant
607	SUPERSET - Associated Modem Line
608	SUPERSET - Room Status Display
609	SUPERSET - Night Service Switching
610	SUPERSET - 3DN/4DN Guest Room Template (O-3)
611	SUPERSET - Limited New Call Ring
612	SUPERSET - Headset Operation
613	RESERVED
614	RESERVED
615	RESERVED
650	ACD - Agent Template (0 - 3, 0 = disable)
651	ACD - Supervisor Template (0 - 3, 0 = disable)
652	ACD - Senior Supervisor Template (0 - 3, 0 = disable)
653	ACD - Agent Always Auto-Answer
654	RESERVED
655	RESERVED
656	RESERVED
657	RESERVED
658	RESERVED
ALL DEVICES	
Option Number	Class-of-Service Name
700	SMDR - Does Not Apply
701	No Dial Tone
702	SMDR - Overwrite Buffer
703	Message Register Applies
704	Incoming/Internal Modem Pooling Access
705	RESERVED
706	RESERVED
707	RESERVED

TABLE 4-7 (CONT'D)
CLASS-OF-SERVICE OPTIONS

TRUNK-RELATED	
Option Number	Class-of-Service Name
800	ANI Applies
801	incoming Trunk Call Rotary
802	Limited Wait For Dial Tone
803	SMDR - Drop Calls < n Digits (0.. 11, 0 = disable)
804	SMDR - Drop Incomplete Outgoing Calls
805	Trunk No Dial Tone Alarm
808	SMDR - Record Incoming Calls
807	RESERVED
808	Special DISA
809	Standard Ring Applies
810	DISA During Night Service Only
811	Disable Trunk Conferencing
812	Loop Start Trunk to ACD Path Connect
813	RESERVED
814	RESERVED
DATASET-RELATED	
Option Number	Class-of-Service Name
900	Data Station Queuing
901	DTRX Herald
902	DTRX Message Code
903	DTRX Message Code Text
904	DTRX Complete Message Text
905	DTRX Herald Text Select (1 → 4)
906	DATA SMDR - Does Not Apply
907	DTRX SMDR - Extended Record
908	DTRX SMDR - Overwrite Buffer
909	RESERVED
910	RESERVED

Form 04 - System Options/System Timers

4.20 This form specifies the system's options and timers that are systemwide. Refer to Table 4-9, System Options and Timers for the complete list and refer to Table 4-8, System Options/System Timers for the form layout.

TABLE 4-8
FORM 04 - SYSTEM OPTIONS/SYSTEM TIMERS

CDE TERMINAL DISPLAY

10:15 PM 15-JAM-88 alarm status = NO ALARM

System Options (Displaying ENABLED Options)		STATUS	OPTION NUM
Discriminating Ringing		ENABLED	17
Holiday Messages		ENABLED	20
Incoming to Outgoing Call Forward		ENABLED	21
SUPERSET Telephone Last Number Redial		ENABLED	29
Property Management System		ENABLED	35
End of Dial Character (#)		ENABLED	36
Limited Wait For Dial Tone	1-15 seconds	5	42
Pseudo Answer Supervision Timer	IO-60 seconds	20	43
Dialing Conflict Timer	2-10 seconds	5	44
Final Ring Time-out	I-30 minutes	1	45
Minimum Flash Timer 20-50 ms	10 ms increments	20	46
Maximum Flash Timer 20-150 ms	10 ms increments	100	47
Discriminating Ringing		ENABLED	17

-DISABLE	2 -	3 -	4-TOP	5-BOTTOM
-QUIT	7-OPTION NUM	8-SHOW DI SABLE	9-	0-

ATTENDANT CONSOLE DISPLAY

System Options (Displaying ENABLED Options)			STATUS	OPTION NUM
Discriminating Ringing			ENABLED	17
F1>DISABLE	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>OPTION NUM	F8>SHOW DISABLE	F9>	F0>

4.21 **Field Description.** The header line indicates which set of options are selected; either the enabled or disabled options. Note that the system timers are included with the enabled options.

STATUS: This field specifies which options are enabled, disabled or the value of the timers.

OPTION NUM: This field lists the option number for each option or timer.

4.22 Commands

I-DISABLE/ENABLE: This softkey has two functions; it disables and enables System Options. The DISABLE softkey appears when the form shows the enabled options. Pressing the DISABLE softkey disables the selected option. The STATUS field shows the DISABLED prompt. The ENABLE softkey appears when the form displays the disabled options.

Pressing the ENABLE softkey enables the selected option. The STATUS field shows the ENABLED prompt. Note: The enable (or disable) process is completed by pressing the ENTER softkey.

I-VARIABLE: This softkey appears only when System Option 55 is selected (displayed on the command line). Pressing the VARIABLE softkey sets the status of System Option 55 to Variable; the STATUS field shows the VARIABLE prompt. The selection is completed by pressing the ENTER softkey. Now, Account Codes entered into Form 33, Account Code Entry, can be from 1 to 12 digits in length.

I-INTERNAL: This softkey appears only when System Options 57 and 58 are selected (displayed on the command line). Pressing the INTERNAL softkey sets the status of System Options 57 and 58 to Internal; only internal calls can be made. The selection is completed by pressing the ENTER softkey; the INTERNAL prompt disappears from the softkey display and the STATUS field now displays the INTERNAL prompt to indicate this selection.

2-LOCAL: This softkey appears only when System Options 57 and 58 selected (displayed on the command line). Pressing the LOCAL softkey sets the status of System Options 57 and 58 to Local; only local calls can be made. The selection is completed by pressing the ENTER softkey; the LOCAL prompt disappears from the softkey display and the STATUS field now displays the LOCAL prompt.

3-LONG DIST: This softkey appears only when System Options 57 and 58 are selected (displayed on the command line). Pressing the LONG DIST softkey enables long distance calls. The selection is completed by pressing the ENTER softkey; the LONG DIST prompt disappears from the softkey display and the STATUS field displays the LONG DIST prompt.

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the disabled or enabled options. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the disabled or enabled options. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 04 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: Pressing the CANCEL softkey cancels the entry. This softkey appears after a programming error. It is accompanied with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-OPTION NUM: This softkey selects a specific System Option or System Timer. Pressing the OPTION NUM softkey displays the ENTER

OPTION NUM: prompt on the command line. The selection is completed by entering a valid option number (1 to 58). The command line displays that System Option (or System Timer) name, status and number.

8-SHOW DISABLE/SHOW ENABLE: This softkey has two functions; it displays the disabled and enabled System Options. Pressing the SHOW DISABLE softkey displays the currently disabled System Options; the softkey now shows the SHOW ENABLE prompt. Pressing the SHOW ENABLE softkey shows those System Options that are enabled; the softkey returns to the SHOW DISABLE prompt. Note: Those options with a timer value are listed when the SHOW ENABLE softkey is pressed.

O-ENTER TIME: This softkey only appears when System Timer 56, Auto Room Status Conversion/Auto Wake-up Print Timer, is selected (displayed on the command line). Pressing the ENTER TIME softkey, displays the ENTER TIME (HH:MM): prompt on the command line. The time selection is completed by entering the time (00:00 to 23:59 are valid) in a 24-hour format and then pressing the ENTER softkey.

O-ENTER: For this form, the ENTER softkey must be pressed twice to store a change in the database. Pressing the ENTER softkey once adds the modification to the form only. Pressing the QUIT softkey at this time displays the DATA HAS BEEN CHANGED, BUT NOT YET SAVED -- "ENTER" TO SAVE prompt on the command line. Pressing the ENTER softkey twice stores the edited option in the database; the softkey display returns to its original format (refer to Table 4-8, System Options/System Timers). Subsequent modification to the form can now occur.

TABLE 4-9
SYSTEM OPTIONS AND TIMERS

Option Number	System Options/System Timers
01	24 Hour Clock
02	RESERVED
03	Single Paging Amplifier
04	Message Waiting and Message Regieter Clear Print
05	Verified Account Codes
06	RESERVED
07	RESERVED
08	RESERVED
09	Attendant Call Block
10	Attendant Conference Beeps
11	Automatic Wake-up
12	Automatic Wake-up Alarm
13	Automatic Wake-up Print
14	Automatic Wake-up Music
15	Data Demultiplexer
16	DID To Non-Co Trunk Via Attendant Inhibit
17	Discriminating Ringing
18	Discriminating Ringing Always
20	Holiday Messages
21	Incoming to Outgoing Call Forward
22	Last Party Clear - Dial Tone
23	Message Register Count Additional Supervisions
24	Message Register Audit
25	Message Register Zero After Audit
26	No Overlap Outpulsing
27	Room Status Audit
28	SMDR Indicate Long Calls
29	SUPERSET Telephone Last Number Redial
30	RESERVED
31	Satell ite PBX
32	Outgoing Call Restriction
33	Room Status
34	Auto Room Status Conversion/Auto Wake-up Print
35	Property Management System
36	End-of-Dial Character (#)
37	Calibrated Flash
38	Switch-hook Flash
39	DATA SMDR indicate Long Calls
40	Message Register Follows Talker
41	Automatic Call Distribution
42	ACD Silent Monitoring
43	ACD Silent Monitoring Beeps
44	ACD Plus External ACD Reports
45	Host Command Interface
46	Digit Translation Plan 0 - 3
47	ARS Unknown Digit Length Time-out 2 - 15 Seconds
48	Limited Wait for Dial Tone 1 - 15 Seconds
49	Pseudo Answer Supervision Timer 10 - 60 Seconds
50	Dialing Conflict Timer 2 - 10 Seconds
51	Final Ring Time-Out 1 - 30 Minutes
52	Minimum Flash Timer 20 - 50 ms (IO ms increments)
53	Maximum Flash Timer 20 - 150 ms (IO ms increments)
54	DISA Answer Timer 1 - 8 Seconds
55	Account Code Length VARIABLE or 4 - 12 digits
56	Auto Room Status Conversion/Auto Wake-up Print Timer
57	Vacant/Reserved Room Default Call Restriction
58	Occupied Room Default Call Restriction

Form 05 - Tenant Interconnection Table

4.23 This form specifies which Tenant Groups may be connected together. Refer to Table 4-10, Tenant Interconnection Table. The system allows for a maximum of 25 Tenant Groups. Each group specifies its own trunk answering points, attendant answering points and night service status.

TABLE 4-10
FORM 05 - TENANT INTERCONNECTION TABLE

CDE TERMINAL DISPLAY

10:15 PM 15-JAN-88 alarm status = NO ALARM

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
01	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05	*	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06	*	*	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07	*	*	*	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08	*	*	*	*	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09	*	*	*	*	*	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	*	*	*	*	*	*	*	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*	0	*	*	*	*	*	*	*	*	*	*	*	*	*
01	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

1-	2 -	3-	4-TOP	5-BOTTOM
6-QUIT	7-TENANT NUM	8-D I SALLOW	9-	0-

ATTENDANT CONSOLE DISPLAY

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
01	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

F1>	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>TENANT NUM	F8>D I SALLOW	F9>	F0>

4.24 Field Description: Initially, the system interconnects all Tenant Groups. The asterisk (*) character indicates this condition. When the system inhibits Tenant Group interconnection, it is indicated by the period (.) character. The Tenant Group numbers are listed in the header line and the first column. The letter (0) functions as a marker and cannot be modified.

4.25 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form displays the following warning on the command line: DATA HAS BEEN CHANGED

BUT NOT YET SAVED -- "ENTER" TO SAVE. Pressing this softkey again exits Form 05 and returns the display to the level where the forms are selected. The change is not saved. Refer to Table 4-2, Available Forms.

6-CANCEL: Pressing the CANCEL softkey cancels the tenant number entry. This softkey appears after a programming error. It is accompanied with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

II-TENANT NUM: The TENANT NUM softkey allows a user to select a Tenant Group by number. Pressing this softkey displays the ENTER TENANT GROUP NUM: prompt. Entering the 2-digit tenant number (1 to 25) displays that Tenant Group with a series of '*' characters (allow interconnection) and '.' characters (disallow interconnection). Cursor movement on the command line is controlled by the right and left cursor control keys.

8-DISALLOW/ALLOW: This softkey has two functions; it enables and disables interconnection between Tenant Groups. Pressing the DISALLOW softkey disables the interconnection between those two Tenant Groups unidirectionally. For example, when modifying connections for Tenant Group 5 (the command line displays line 5) and the DISALLOW softkey is pressed when the cursor is under the sixth column, then Tenant Group 5 cannot call Tenant Group 6. However, Tenant Group'6 can still call Tenant Group 5. Total interconnection is inhibited only when a '.' (disallow) character is inserted at row 6 (Tenant Group 6) under the fifth column (Tenant Group 5). The softkey now displays the ALLOW prompt. Pressing the ALLOW softkey enables the unidirectional interconnection between the selected Tenant Groups; the '*' character replaces the '.' character.

O-ENTER: This softkey appears only after data for a Tenant Number has been modified. Pressing the ENTER softkey stores the modifications in the database.

Form 06 - Tenant Night Switching Control

4.26 **In some systems it is necessary for one attendant to control the Night Service switching of more than one Tenant Group.** This form specifies which Tenant Groups are switched to Night Service simultaneously. Note that the system defaults to Tenant Groups switching to Night Service independently of each other. Refer to Table 4-l 1, Tenant Night Switching Control.

TABLE 4-11
FORM 06 - TENANT NIGHT SWITCHING CONTROL

CDE TERMINAL DISPLAY

11:26 AM 15-JAN-88 alarm status = NO ALARM

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
01 0 .
02 . 0 : : : : : : : : : :
03 . . 0 . .
04 . . . 0 . : : : : : :
05 . . . . 0 . . . . . .
06 . . . . . 0 . . . . .
07.. . . . 0 : :
08. . . . . 0 . : :
09 . 0 .
10. : : : : : : : . 0 :
11. . . . . 0 . . . . .
12 . . . . . 0 . . . . .
01 0 . . . . .

1-	2-	3-	4-TOP	5-BOTTOM
6-QUIT	7-TENANT NUM	8-SWITCHED	9-	0-

ATTENDANT CONSOLE DISPLAY

01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25
0 1 0 . . . . .
F1> . . . . F5>BOTTOM
F6>QUIT FZ>TENANT NUM F8>SWITCHED F9>TOP F0>

4.27 **Field Description: Initially, the system inhibits Tenant Groups from switching each other into Night Service. This condition is indicated by the period (.) character. When the system permits Tenant Groups to switch each other into Night Service, it is indicated by the asterisk (*) character. The Tenant Group numbers are listed in the header line and the first column. The letter (0) functions as a marker and cannot be modified.**

4.28 **Commands**

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form displays the following warning on the command line: DATA HAS BEEN CHANGED BUT NOT YET SAVED -- "ENTER" TO SAVE. Pressing this softkey again exits Form 06 and returns the display to the level where the forms are selected. The change is not saved. Refer to Table 4-2, Available Forms.

B-CANCEL: This softkey appears after a programming error has occurred. Pressing the -CANCEL softkey returns the display to the level where the programming error occurred. The CANCEL softkey appears with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-TENANT NUM: The TENANT NUM softkey allows a user to select a Tenant Group by number. Pressing this softkey displays the ENTER TENANT GROUP NUM: prompt. Entering the 1- or 2-digit tenant number displays that Tenant Group with a series of '.' characters (single Tenant Group entry into Night Service) and '*' characters (multiple Tenant Group entry into Night Service). Cursor movement on the command line is controlled by the right and left cursor control keys.

8-SWITCHED/NOT SWITCHED: This softkey has two functions. It enables and disables multiple Tenant Group switching into Night Service. This softkey displays the SWITCHED prompt when the cursor is at a period (.) character. Pressing the SWITCHED softkey specifies that the Tenant Group being programmed (as indicated by the row number) can switch the other Tenant Group (as indicated by the column number) into Night Service. The system reflects this modification by replacing the '.' character with the '*' character. The softkey now displays the NOT SWITCHED prompt. Pressing the NOT SWITCHED softkey specifies that the Tenant Group being programmed cannot switch the other Tenant Group into Night Service. The '.' character replaces the '*' character and the softkey now displays the SWITCHED prompt.

O-ENTER: This softkey appears only after data for a Tenant Number has been modified. Pressing the ENTER softkey stores the modifications in the database.

Form 07 - Console Assignments

4.29 This form specifies the physical location of each Attendant Console. Refer to Table 4-12, Console Assignments for the form layout. The system provides an entry line in Form 07 for each Console Module and for each Digital Line circuit in a high power (upper) slot not assigned to a *SUPERSET* Telephone or DATASET. The system can support a maximum of 11 Attendant Consoles. There can be no more than two Console Modules per Universal Card or four per Digital Line Card.

4.30 The default location for an Attendant Console is Bay 2, Slot 3, Circuit 1 in 336, 456 and 480-port systems; in 672-port systems it is Bay 1, Slot 5, Circuit 1.

4.31 Each Attendant Console is provided with a Class of Service (COS), a Class of Restriction (COR), a Tenant Group number and an extension number. The extension number enables calls between Attendant Consoles. These calls appear on the INTERNAL softkey. Note that the provision of a COR means that Attendant Consoles are not necessarily toll-allowed on all calls.

TABLE 4-12
FORM 07 - CONSOLE ASSIGNMENTS

CDE TERMINAL DISPLAY

10:15 PM 15-JAN-88 alarm status = NO ALARM

BAY	SLT	CCT	EXT NUM	COS	COR	TENANT	COMMENTS
1	08	02	122	1	1	1	RECEPTION
1	08	04	125	1	1	2	PURCHASING
2	03	02	131	1	1	3	MARKETING
2	03	04					
1	08	02	122	1	1	1	RECEPTION

1-	2-	3-	4-	5-
6-QUIT	7-BAY/SLT/CCT	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

BAY	SLT	CCT	EXT NUM	COS	COR	TENANT	COMMENTS
1	08	02	122	1	1	1	RECEPTION

F1>	F2>	F3>	F4>	F5>
F6>QUIT	F7>BAY/SLT/CCT	F8>DELETE	F9>	F0>

4.32 Field Description

BAY, SLT and CCT: These fields specify the physical location of each Attendant Console. They are generated by the system based on what was entered in the PROGRAMMED field in Form 01, System Configuration. This field cannot be modified.

EXT NUM: This field displays the extension number of each Attendant Console. Calls directed to the console's extension number route to softkey 2 on the Attendant Console.

COS: This field lists the Class-of-Service number specification for each console (1 to 50).

COR: This field lists the Class-of-Restriction number specification for each console (1 to 25).

TENANT: The Tenant Group for each Attendant Console is specified in this field (1 to 25).

COMMENTS: This field is reserved for notes about each console. It contains a maximum of 15 alphanumeric characters. The COMMENTS field is stored by the system but not used.

6-QUIT: Pressing the QUIT softkey when editing this form returns the' display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 07 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after the occurrence of a programming error. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. The CANCEL softkey appears with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-BAY/SLT/CCT: Pressing this softkey locates an Attendant Console via its bay, slot and circuit numbers. The command line displays the Bay: Slot: Circuit: prompts. The cursor appears to the right of the Bay: prompt. Entering a l-digit number specifies the bay location. Note that if the user enters an invalid number, then the system inhibits subsequent cursor movement. Refer to Table 5-1, Programming Error Messages. Similarly, the user specifies the slot and circuit locations. Once the location is fully designated, the command line updates with the information about that console and the cursor moves to the EXT NUM field. The TAB key and ➡ cursor key control cursor movement.

8-DELETE: This softkey appears only when the line pointer is pointing to data (i.e., data is on the command line). Pressing the DELETE softkey removes an Attendant Console from the system. The deletion is completed by pressing the ENTER softkey. The Attendant Console must first be located by specifying the BAY/SLT/CCT number or by positioning the line pointer at the selected Attendant Console. Note that the Attendant LDN assignment must be removed from Form 08, Attendant

LDN Assignments first.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits the data for each Attendant Console to the database. Attendant Consoles can only be programmed one at a time. Therefore, the ENTER softkey must be pressed after each Attendant Console is modified.

Form 08 - Console LDN Assignments

4.33 This form specifies the LDN assignments for the consoles (refer to Table 4-13, Attendant LDN Assignments). A maximum of nine LDN assignments can be programmed for each Attendant Console. The attendant LDNs are assigned to the softkeys. Console softkey 1 is reserved for the RECALL function. Each LDN assignment is identified by a directory number. The directory numbers are subject to the same constraints as all Listed Directory Numbers (i.e., number conflicts are not allowed). If there are many Attendant Consoles in one Tenant Group and if "DIAL 0" calls are shared, then a common Listed Directory Number must be specified for the consoles.

TABLE 4-13
FORM 08 - ATTENDANT LDN ASSIGNMENTS

CDE TERMINAL DISPLAY

10:15 PM 15-JAN-88 alarm status = ND ALARM

[BAY/SLT/CCT :01_08_02]	KEY	DIR NUMBER	LABEL	COMMENTS
	2	211	INTERNAL	
	3	0	DIAL 0	
	4	222	LDN 2	
	5	223	LDN 3	
	6	224	LDN4	
	7	225	LDN5	
	8	226	LDN6	
	9	227	LDN 7	
	0	228	LDN8	
	2	211	INTERNAL	

1-	2-	3-	4-TOP	5-BOTTOM
8-W IT	7-BAY/SLT/CCT	8-DELETE	9-NEXT	0-

ATTENDANT CONSOLE DISPLAY

[BAY/SLT/CCT :01_08_02] K E Y		DIR NUMBER	LABEL	COMMENTS
2		211	INTERNAL	
F1>	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>BAY/SLT/CCT	F8>DELETE	F9>NEXT	F0>

4.34 Field Description

BAY/SLT/CCT: This field specifies the physical location of each Attendant Console. The list is generated by the system based on what was entered in the PROGRAMMED field of Form 01, System Configuration. Note that this field cannot be modified.

KEY: This field displays the console softkeys 2 through 10 (10 is displayed as 0). The KEY field cannot be modified.

DIR NUMBER: This field is reserved for assigning a directory number for console softkeys 2 to 10. This number (a maximum of five digits) links this form to Form 19 (refer to Table 4-33, Call Rerouting Table) and to Form 14 (refer to Table 4-27, Non-Dial-In Trunks) where the call type is defined for the directory number. An LDN directory number can

only appear once per console. If it is required that two consoles share the same LDN, then both consoles must be in the same Tenant Group.

LABEL: This field specifies the actual text that the console LCD displays as softkey prompts. The LABEL field provides for a maximum of 12 characters. The label for console softkey 1 defaults to RECALL and cannot be modified. The label for console softkey 2 defaults to INTERNAL. Softkey 2 is shared between the extension number programmed in the DIR NUMBER field and calls directed to the Attendant Console's extension number (as defined in the EXT NUM field of Form 07, Console Assignments). Console softkeys 2 to 10 can be edited.

COMMENTS: This field further specifies the Attendant LDN assignments with text. The COMMENTS field has a maximum of 15 characters. It is stored by the system but not used.

4.35 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 08 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: Pressing the CANCEL softkey cancels the last entry. This softkey appears after the occurrence of a programming error. It is accompanied with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-BAY/SLT/CCT: Pressing this softkey locates an Attendant Console via its bay, slot and circuit numbers. The command line displays the Bay: Slot: Circuit: prompts. The cursor appears to the right of the Bay: prompt. Entering a l-digit number specifies the bay location. Note that if the user enters an invalid number, then the system inhibits subsequent cursor movement. Refer to Table 5-1, Programming Error Messages. Similarly, the user specifies the slot and circuit locations. Once the location is fully designated, the display updates with the new information about that console.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes an Attendant LDN appearance from the form. The ENTER softkey must be pressed to complete the deletion. The softkey for that LDN appearance remains blank when a call rings the Attendant Console. Note: Before an Attendant LDN appearance can be deleted, the Attendant Console must first be located by specifying the BAY/SLT/CCT number,

or by positioning the line pointer at the selected LDN key.

9-NEXT: Pressing the NEXT softkey displays the physical location (bay, slot and circuit numbers) of the next programmed Attendant Console. If the physical location of the last programmed console is displayed, then pressing this softkey again displays the bay, slot and circuit numbers of the first programmed console.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits the LDN assignments for each Attendant Console to the database. Attendant Console LDN assignment can only be programmed one at a time. Therefore, the ENTER softkey must be pressed after each LDN assignment is modified.

Form 09 - Stations/*SUPERSET* Telephones

4.36 This form assigns stations and SUPERSEJ telephones to the system. Refer to Table 4-14, Station/*SUPERSET* Telephones.

TABLE 4-14
FORM 09 - STATION/SUPERSET TELEPHONES

CDE TERMINAL DISPLAY

10:15 PM 5-JAN-88 alarm status = NO ALARM

BAY	SLT	CCT	TEN	EXTN	COS	COR	TYP	ANNOUNCE NAME	ASSOC	COMMENTS
1	01	01	1	311	1	1	Set	SUE C.		
1	01	02	1	312	1	1	Set	T. HILL		
1	01	03	1	313	1	1	Set	NANCY M.		
1	01	04	1	314	1	1	Set	PETER S.		
1	01	05	1	315	1	1	Set	J. BARKER		
1	01	06		316	1	1	Set	NORM MCM.		
1	01	07	1	317	1	1	Set	S. KRITSCH		
1	01	08		318	1	1	Set	KEITH A.		
1	02	01	1	301	1	1	Stn	J. COLES		
1	02	03	1	302	1	1	Stn	S. DUNCAN		
1	02	04	1	303	1	1	Stn	M. HENDREN		
1	02			304	1	1	Stn	P. TINSLEY		
1	01	01	1	311	1	1	Set	SUE C.		

1 -MOVE	2-FIND EXT	3-EXPAND SET	4 -	5-RANGE
6-QUIT	7-BAY/SLT/CCT	8-DELETE	9-REVIEW	0-

ATTENDANT CONSOLE DISPLAY

```
BAY SLOT CCT TEN EXTN    COS COR TYP ANNOUNCE NAME ASSOC COMMENTS
 1   01   01   1   311     1   1   Set           SUE C.
F1>MOVE     F2>FIND EXT     F3>EXPAND SET     F4>          F5>RANGE
F6>QUIT     F7>BAY/SLT/CCT  F8>DELETE         F9>REVIEW    F0>
```

4.37 Field Description

BAY, SLOT and CCT: These fields list the physical location number of each station or SUPERSEJ telephone. They are generated by the system based on what was entered in the PROGRAMMED field of Form 01, System Configuration. This field cannot be modified.

TEN: This field lists the Tenant Group number for each station or SUPERSEJ telephone. Default tenant number is one.

EXT NUM: This field lists the extension number of each station or the Prime Line extension number of each SUPERSEJ telephone.

COS: This field lists the Class-of-Service number for each station or SUPERSEJ telephone. Default COS number is 1.

COR: This field lists the Class-of-Restriction number for each station or SUPERSEJ telephone. Default COR number is 1.

TYP: When a station is being programmed, the TYP field displays the STN prompt. For a SUPERSEJ telephone, this field displays the SET

prompt. When a physical location (Bay, Slot and Circuit) is defined as a Call Announce Port, this field displays the CAP prompt. The Call Announce Port can be a Station Circuit, a SUPERSET Telephone Circuit, a COV Circuit or OPS Circuit. Hardware restrictions prevent an ONS Circuit from being a Call Announce Port and only a SUPERSET telephone can OWN one. Note that this field cannot be modified; it is generated by the system based on what was entered in the PROGRAMMED field of Form 01, System Configuration.

ANNOUNCE: This field is reserved for programming the call announce port to SUPERSET telephones. Refer to Section MITL9109-094-105-NA, Features Description, for details on the CALL ANNOUNCE feature. A Call Announce port cannot be a Digital ONS port.

NAME: This field is reserved for a set name up to 10 characters long. The name's first letter must NOT be *.

ASSOC: The programmer can enter a modem extension number (ONS Port only) to be associated with a SUPERSET Telephone. Refer to the Associated Modem Line feature description in Section MITL9109-094-105-NA, Features Description, for more information.

COMMENTS: This field is reserved for additional data (a maximum of 15 characters). It is stored by the system but not used.

4.38 Commands

I-MOVE: This softkey relocates a device via its bay slot, and circuit numbers. When the MOVE softkey is pressed, the command line requests the FROM location (BAY: SLOT: CCT:). When the location is specified and the ENTER softkey is pressed, the command line requests the TO location. The new location is designated and the ENTER softkey is pressed. Note entering invalid numbers inhibits cursor movement.

2-FIND EXT: This softkey selects a device by its extension number. Pressing the FIND EXT softkey displays the ENTER EXTENSION NUM: prompt on the command line. The selection is completed by entering an extension number of a station or the Prime Line number of a SUPERSET telephone. The selected device information appears on the command line.

3-EXPAND SET: Pressing this softkey displays the SUPERSET Telephone and Digital SUPERSET Telephone Lines form. Refer to Table 4-15, SUPERSET Telephone Lines. Note: This softkey is valid only when reviewing or programming a SUPERSET telephone and appears only when the TYP field on the command line says SET.

B-RANGE: This softkey facilitates block programming for stations and SUPERSET telephones. Pressing this softkey displays the prompt: FROM BAY: SLOT: CIRCUIT:. Enter valid Bay, Slot and Circuit numbers for the first device and press the ENTER softkey. The system then prompts TO BAY: SLOT: CIRCUIT:. Enter valid Bay, Slot and Circuit numbers for the last device and press the ENTER softkey. Enter Tenant

Group, Extension Number, COS and COR for the first device, if this has not been done already. Press the ENTER softkey. The system automatically assigns incremented extension numbers, the same COS, COR and Tenant Group numbers to the rest of the devices in the block.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 09 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred and is accompanied with an error message. Pressing the CANCEL softkey cancels the last entry. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-BAY/SLT/CCT: Pressing this softkey locates a device via its bay, slot and circuit numbers. The command line displays the Bay: Slot: Circuit: prompts. The cursor appears to the right of the Bay: prompt. When the Bay, Slot, Circuit number is entered and the ENTER softkey is pressed, the command line updates with the information about the device and the cursor moves to the TEN NUM field. The TAB key and → cursor key control cursor movement. If an invalid number is entered the system inhibits subsequent cursor movement. Refer to Table 5-1, Programming Error Messages.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the selected station (or *SUPERSET* telephone) data from the form. The deletion is completed by pressing the ENTER softkey. The system deletes the selected data regardless of the cursor location on the command line. Note that pressing the DELETE softkey also removes the selected device from Form 10 (Pickup Groups) and Form 17 (Hunt Groups). NOTE: A station or *SUPERSET* telephone cannot be deleted if it is a line appearance elsewhere and a *SUPERSET* telephone cannot be deleted if it has any line appearances.

O-REVIEW: Pressing the REVIEW softkey displays a new form (refer to Table 4-16, Review List for Form 09). This form lists all programmed appearances of the selected extension number (or the Prime Line number) on other *SUPERSET* telephones. This key appears only when a station/*SUPERSET* has been defined.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey stores the data on the command line in the database.

SUPERSET Telephone Lines

4.39 This form appears when the EXPAND SET softkey is pressed in the Station/*SUPERSET* Telephones form. It is used to program *SUPERSET* telephone line appearances and feature keys. Refer to Table 4-l 5, *SUPERSET* Telephone Lines for the form layout.

TABLE 4-15
SUPERSET TELEPHONE LINES

CDE TERMINAL DISPLAY

10:15 PM 15-JAN-88 alarm status = NO ALARM

KEY	TYPE	DIRECTION	RING	SECRETARIAL	EXT NUM	TRUNK NUMBER
01	Prime	In/Out	Immed	No	2110	
02	Multiple	In/Out	Delay	No	2111	
03	Auto Answer					
04	Do Not Dist					
05	Override					
06	Privacy Rel					
07	Music					
08	Camp-On					
09	Callback					
10	Speed Dial					
11	Speed Dial					
12	Speed Dial					
03	Auto Answer					

I-KEY LINE	2-MULTI-CALL	3-FEATURE	4-DIR TRK ACC	5-** MORE **
6-QUIT	7-KEY	8-DELETE	9-REVIEW	0-

ATTENDANT CONSOLE DISPLAY

KEY	TYPE	DIRECTION	RING	SECRETARIAL	EXT NW	TRUNK NUMBER
03	Auto Answer					

F1>KEY LINE	F2>MULTI-CALL	F3>FEATURE	F4>DIR TRK ACC	F5>** MORE **
F6>QUIT	F7>KEY	F8>DELETE	F9>REVIEW	F0>

4.40 Field Description

KEY: This field lists the *SUPERSET* Telephone Line Select key numbers and cannot be modified.

TYPE: This field lists the key function. If it is a Speed Dial key, the default assignment, the words "Speed Dial" are shown. If it is a line appearance, the line type is shown. If it is a feature key, the feature name is shown.

DIRECTION: If the key is a line appearance, the directional variant of the line (In/Out or Incoming) is shown.

RING: If the key is a line appearance, the ringing variant of the line (Immed, Delay, or None) is shown.

SECRETARIAL: If the key is a line appearance, this field indicates (Yes or No) whether the secretarial variant is enabled.

EXT NUM: This field contains the extension number of the line, This applies to the Prime Line, Key lines, Multiple Call lines or Personal Outgoing lines. When this field is filled for a specific key, no entry is allowed in the corresponding TRUNK NUMBER field. The EXT NUM field is blank if the *SUPERSET* key directly selects a trunk.

TRUNK NUMBER: If the *SUPERSET* key is assigned as DTS or Private Trunk, this field contains the trunk number. Trunk numbers are defined in Form 14, Non-Dial-In Trunks and Form 15, Dial-In Trunks. Note that when this field is filled for a specific key, no entry is allowed in the corresponding EXT NUM field.

4.41 Commands

The following **softkeys** appear only when the command line is showing an unassigned *SUPERSET* key. (The type field shows Speed Dial). To change the type of an assigned key, the existing assignment must be deleted. Key 1 defaults to Prime and cannot be deleted or modified. See the DELETE command description. Refer to Section MITL9 109-094- 105-NA, Features Description, for details on line types.

I-KEY LINE: Pressing this **softkey** assigns the selected *SUPERSET* key as a Key Line appearance. “Key” appears in the TYPE field. Then use the TAB or → key to move the cursor to the DIRECTION field. See Directional Variants, below.

I-PERSONAL O/G: This **softkey** appears after the ** MORE ** **softkey** is pressed. Pressing the PERSONAL O/G **softkey** designates the selected *SUPERSET* key as a personal outgoing line. No other fields can be edited. Press the ENTER **softkey.** “Personal” appears in the TYPE field. “Outgoing” appears in the DIRECTION field. “None” appears in the RING field.

P-MULTI-CALL: Pressing this **softkey** assigns the selected *SUPERSET* key as a Multiple Call Line appearance. “Multiple” appears in the TYPE field. Then use the TAB or → key to move the cursor to the DIRECTION field. See Directional Variants, below.

2-PRIVATE TRK: This **softkey** appears after the ** MORE ** **softkey** is pressed. Pressing PRIVATE TRK designates the selected *SUPERSET* key as a Private Trunk.

3-FEATURE: Pressing this **softkey** assigns the selected *SUPERSET* key as a feature access key. This **softkey** appears only if the set is a *SUPERSET 3*™DN or *SUPERSET 4*™DN telephone. See Feature Keys, below.

Feature Keys: Digital *SUPERSET* line appearance keys 2-12 can be programmed as feature access keys. The following **softkeys** appear when the cursor is at the TYPE field and the FEATURE **softkey** is pressed. Refer to Figure 4-8, Programmable Feature Keys and Figure 4-9, More Programmable Feature Keys. The second set of feature keys is displayed when the ** MORE ** **softkey** is pressed. Pressing the **

MORE ** softkey again returns the display to the first set of feature keys. Press the desired softkey followed by the ENTER softkey to assign that particular feature to the *SUPERSET* key displayed on the command line. The selected feature appears in the TYPE field.

1-AUTO ANSWER	2-DO NOT DIST	3-PRIVACY REL	4-OVERRIDE	5-** MORE **
6-QUIT	7-PAGING	8-CAMPON	9-MUSIC	0-

Figure 4-8 Programmable Feature Keys for Digital Sets

1 -CALL FORWARD	P-CALL PICKUP	3-NIGHT ANSWER	4-CALLBACK	5-** MORE **
6-QUIT	7-SWAP	8-CALL/ATTN	9-DATA DISC	0-

Figure 4-9 More Programmable Feature Keys for Digital Sets

Refer to Section MITL9109-094-105-NA, Features Description for a description of the programmable feature keys available for digital *SUPERSET* telephones.

4-DIR **TRK ACC:** Pressing this softkey programs the selected *SUPER-*SET key as a Direct Trunk Access line. “DTS” appears in the TYPE field. Then use the TAB or → key to move the cursor to the DIRECTION field. See Directional Variants, below.

5- MORE **:** When the MORE softkey is pressed, a new set of softkeys are displayed. Pressing the **MORE** softkey again returns the display to the original set of softkeys.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing the QUIT softkey returns the display to the previous form at the entry where the EXPAND SET softkey was pressed.

6-CANCEL: When a programming error is made, the system displays an error message on the command line and displays CANCEL at the sixth softkey. Pressing the CANCEL softkey returns the display to the level where the programming error occurred.

'I-KEY: This softkey selects a *SUPERSET* key by number. It only appears if keys other than Key 1 are already programmed for the set. Pressing the KEY softkey displays the ENTER KEY NUM: prompt on the command line. Any *SUPERSET* key may be selected except for Key 01 (Prime Line).

8-DELETE: This softkey appears when the command line shows an assigned key. Pressing the DELETE softkey followed by the ENTER softkey sets the selected *SUPERSET* key to the default value, Speed Dial.

O-REVIEW: Pressing the REVIEW softkey displays a new form (refer to Table 4-16, Review List for Form 09). This form displays a list of all

programmed appearances of the selected Line Select key on all stations and *SUPERSET* telephones.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits the Line Select Key information in the database.

Directional Variants: When the cursor is at the DIRECTION field on the command line, the softkeys display the directional variants (refer to Figure 4-10, Directional Variants). Refer to Section MITL9109-094-105-NA, Features Description for details on these directional variants. When the direction has been chosen, move the cursor to the Ring field.

1-BOTH WAY	2-IN ONLY	3 -	4 -	5 -
6-QUIT	7 -	8 -	9-	0-

Figure 4-l 0 Directional Variants

I-BOTH WAY: Pressing this softkey enables the selected *SUPERSET* key (line appearance) to originate and receive calls. The DIRECTION field displays the In/Out indication.

2-IN **ONLY:** Pressing this softkey restricts the selected *SUPERSET* key (line appearance) to receiving incoming calls only. No call originations are permitted. The DIRECTION field displays “Incoming”.

Ringing Variants: When the cursor is at the RING field on the command line, the softkeys display three ring types (refer to Figure 4-l 1, Ring Types). Refer to Section MITL9109-094-105-NA, Features Description. When the Ring type has been chosen, move the cursor to the Secretarial field.

1-IMMED RING	2-DELAY RING	3-NO RING	4 -	5 -
6-QUIT	7 -	8 -	9-	0-

Figure 4-11 Ring Types

1-IMMED RING: Pressing this softkey programs the selected *SUPER-*SET key (line appearance) to ring the *SUPERSET* telephone immediately for incoming calls. The form displays Immed in the RING field to indicate this condition.

P-DELAY RING: Pressing this softkey causes incoming calls to flash the selected key (line appearance) for a programmable period of time and then ring the *SUPERSET* telephone for incoming calls. The Delay indication appears in the RING field.

3-NO **RING:** Pressing this softkey prevents incoming calls from ringing the *SUPERSET* telephone ringer. Only the line appearance flashes. The None indication appears in the RING field.

Secretarial Variants: When the cursor is at the SECRETARIAL field on the command line, and when the TYPE field is set to Multiple, the softkeys display two selections (refer to Figure 4-12, Secretarial Variants). The two variants are secretarial and non-secretarial. Refer to Section MITL9109-094-105-NA, Features Description for details. When the variant has been chosen, move the cursor to the EXT NUM or TRUNK NUMBER field, as appropriate.

I-NON SECR	2-SECRETARIAL	3 -	4 -	5 -
6-QUIT	7 -	8 -	9-	0-

Figure 4-l 2 Secretarial Variants

I-NON SECR: Pressing this softkey disables the secretarial function for the selected *SUPERSET* key (line appearance). The No indication appears in the SECRETARIAL field.

2-SECRETARIAL: Pressing this softkey enables the secretarial function for the selected *SUPERSET* key (line appearance). The Yes indication appears in the SECRETARIAL field. When a Line Select key is set as a secretarial key, then the user can override the DO NOT DISTURB feature on the *SUPERSET* telephone corresponding to that line appearance.

Review List for Form 09

4.42 This form appears when the REVIEW softkey is pressed in the Station/*SUPERSET* Telephones Form or the *SUPERSET* Telephone Lines Form. When entered from the Station/*SUPERSET* Form, this form displays a list of all programmed appearances of the selected station extension number or *SUPERSET* Prime Line number. When entered from the *SUPERSET* Telephone Lines Form, this form displays all appearances of the selected key's extension number or trunk number. If the cursor was at an undefined key in the *SUPERSET* Telephone Lines Form, this form displays the Prime Line appearance of the *SUPERSET* telephone. Refer to Table 4-16, Review List for Form 09 for the form layout. Note that the data in this form cannot be modified.

TABLE 4-16
REVIEW LIST FOR FORM 09

CDE TERMINAL DISPLAY

4:26 PM 15-JAN-88 alarm status = NO ALARM

LINE : 1101	BAY	SLOT	CCT	STN/SUPERSET	KEY	PRIME EXT NUM
	1	1	01	SUPERSET	1	1101
	1	1	02	SUPERSET	2	1102
	1	1	03	SUPERSET	2	1103
	1	1	01	SUPERSET	1	1101

1-	2-	3-TRUNK NUMBER 4-		5-
6-QUIT	7-	8-	9-EXT NUM	0-

ATTENDANT CONSOLE DISPLAY

LINE : 1101	BAY	SLOT	CCT	STN/SUPERSET	KEY	PRIME EXT NUM
	1	1	01	SUPERSET	1	

F1>	F2>	F3>TRUNK NUMBER	F4>	F5>
F6>QUIT	F7>	F8>	F9>EXT NUM	F0>

4.43 Field Description.: The header line displays the selected line appearance extension number.

BAY, SLT and CCT: These fields list the bay, slot and circuit numbers of each extension or *SUPERSET* telephone that has an appearance of the selected line. These fields cannot be modified. The system generates them based on the PROGRAMMED field of Form 01, System Configuration.

STN/SUPERSET: This field displays the listed device type; STATION indicates a Rotary Dial or DTMF set and SUPERSET indicates a *SUPERSET* telephone.

KEY: For listed *SUPERSET* telephones, the KEY field displays the key number where the line appears.

PRIME EXT NUM: This field displays the prime extension number assigned to a particular Bay/Slot/Circuit.

4.44 Commands

3-TRUNK NUMBER: This softkey selects a trunk by its trunk number. Pressing this sof-tkey displays ENTER TRUNK NUM: prompt on the command line. The trunk selection is completed by entering a valid trunk number (1 → 200), and pressing the ENTER softkey.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing the QUIT softkey returns the display to the previous form at the entry where the EXPAND SET softkey was pressed.

6-CANCEL: This softkey appears after a programming error has been made. It appears with an error message. Pressing this softkey returns the display to the level where the programming error occurred. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-EXT NUM: This softkey selects a device by its extension number. Pressing this softkey displays the ENTER EXTENSION NUM: prompt. The selection is completed by entering a valid Station Number or *SUPER-*SET telephone Number and then pressing the ENTER sof-tkey.

O-ENTER: Since this form reviews the programmed data, pressing the ENTER softkey completes a request for viewing a particular extension number or trunk number. No data changes occur and no data is stored in the database.

Form 10 - Pickup Groups

4.45 This form specifies the members of each Pickup Group. Refer to Table 4-17, Pickup Groups for the form layout. Memberships are specified by the extension number of a Rotary Dial or DTMF set or the Prime Line number of a *SUPERSET* telephone. Attendant Consoles are not allowed. The SX-200 DIGITAL PABX with Generic 1003 software supports a maximum of 50 Pickup Groups; each group supports a maximum of 50 members.

TABLE 4-17
FORM 10 - PICKUP GROUPS

CDE TERMINAL DISPLAY

4:26 PM 15-JAN-88 alarm status = NO ALARM

[: PICKUP NUMBER : 1]	EXT NUM	BAY	SLT	CCT	COMMENTS
		2		1	
	1131	2	1	2	FURCHASING
	1132		1		PURCHASING
	1134	2	1	3	PURCHASING
	1131	2	1	1	PURCHASING

1-	2 -	3 - INSERT	4 -	5-P I CKUP GROUP
6-QU IT	7 -	8-DELETE	9-EXT NUM	0-

ATTENDANT CONSOLE DISPLAY

I PICKUP GROUP : 1]	EXT NUM	BAY	SLT	CCT	COMMENTS
	1131	2	1	1	PURCHASING
FI> F2>	F3> INSERT	F4>	F5>P I CKUP GROUP		
F6>QUIT F7>	F8>DELETE	F9>EXT NUM	F0>		

4.46 Field Description

EXT NUM: This field displays the Pickup Group member extension number.

BAY/SLT/CCT and COMMENTS : These fields cannot be modified. The form displays the BAY/SLT/CCT and COMMENTS fields from the corresponding lines of Form 09, Station/*SUPERSET* Telephones.

4.47 Commands

3-INSERT: This softkey adds a new member to the Pickup Group on a new line just above the current line pointer. Pressing the INSERT softkey clears the command line and moves the cursor to the EXT

NUM field. Enter a valid extension number and press the ENTER softkey.

Note: This softkey only appears if there is data present in this form.

5-PICKUP GROUP: This softkey selects the Pickup Group to be displayed. Pressing the PICKUP GROUP softkey displays the ENTER PICKUP GROUP NUM: prompt on the command line. Enter the Pickup Group number and press the ENTER softkey.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 10 and returns the display to the level where the forms are selected.

6-CANCEL: This softkey appears after the occurrence of a programming error. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the selected Pickup Group member from the form. The deletion is completed by pressing the ENTER softkey.

9-EXT NUM: This softkey selects a Pickup Group member by its extension number (or Prime Line number). Pressing the EXT NUM softkey displays the ENTER EXTENSION NUM: prompt on the command line. Entering the extension number displays that member with its bay, slot and circuit location, and (if any) comments. Note that if the selected extension number is not in the current Pickup Group, then the system automatically displays the Pickup Group where the selected device is located.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 11 - Data Circuit Descriptor

4.48 A data circuit descriptor specifies the parameters the data processing software and attached DTE (Data Terminal Equipment) require. This form provides 25 programmable descriptors. The main form displays the descriptor numbers and the number of circuits associated with each descriptor. (Refer to Table 4-18, Data Circuit Descriptor). The system generates the data in this form based on the entries in Form 12, Data Assignment. The user can modify only the COMMENTS field. A softkey provides access to the individual parameters of each descriptor via a sub-form.

TABLE 4-18
FORM 11 - DATA CIRCUIT DESCRIPTOR

CDE TERMINAL DISPLAY

10:15 FM 15-JAN-88 alarm status = NO ALARM

DESCRIPTOR	NUMBER OF CIRCUITS ASSIGNED	COMMENTS
01	1	
02	0	
03	0	
04	0	
05	0	
06	0	
07	0	
08	0	
09	0	
10	0	
11	0	
12	0	
01	1	

1-	2-	3-	4-	5-
6-QUIT	7-DESC NUM	8-SEL. OPTION	9-REVIEW	0-

ATTENDANT CONSOLE DISPLAY

DESCRIPTOR	NUMBER OF DATA CIRCUITS ASSIGNED	COMMENTS
01	1	

F1>	F2>	F3>	F4>	F5>
F6>QUIT	F7>DESC NUM	F8>SEL. OPTION	F9>REVIEW	F0>

4.49 Field Description

DESCRIPTOR: This field lists the circuit descriptors, numbered 01 to 25.

NUMBER OF DATA CIRCUITS ASSIGNED: This field records the number of devices assigned to each descriptor.

COMMENTS: This field is reserved for additional data (a maximum of 20 characters). It is stored by the system but not used.

4.50 Commands

6-QUIT: Pressing the QUIT **softkey** at this level returns the display to the Available Forms menu.

7-DESCRIPTOR NUMBER: The DESC NUM **softkey** allows the user to select a DESC NUM by number. Pressing this **softkey** displays the ENTER DESC NUM: prompt. Entering a valid descriptor number and pressing the ENTER **softkey,** completes the selection.

8-SELECT OPTION: Pressing this **softkey** displays a new form. This form provides the options associated with the data circuit that is assigned to a descriptor number. Refer to Table 4-19, Data Circuit Descriptor Options.

9-REVIEW: The REVIEW **softkey** appears only if at least one circuit has been assigned the descriptor displayed on the command line. Pressing this **softkey** displays a new form (refer to Table 4-21, Review List for Form 11). This form displays the BAY, SLOT, CIRCUIT and SUBCIRCUIT location of all devices assigned that descriptor.

4.51 This form appears when the SEL. OPTION softkey is pressed (refer to Table 4-18, Data Circuit Descriptor). It lists the programmable parameters of the descriptor. Refer to Table 4-19, Data Circuit Descriptor Options.

TABLE 4-19
DATA CIRCUIT DESCRIPTOR OPTIONS

CDE TERMINAL DISPLAY

12:17 PM 15-JAN-88 alarm status = NO ALARM

[DESCRIPTOR NUMBER : 1] PARAMETER NAME	VALUE
Session Inactivity Disconnect Timer O-255 minutes	0
Guard Timer O-99 seconds	0
Minimum Baud Rate	110
Default Baud Rate	9600
Maximum Baud Rate	19200
Always Use Default Baud Rate When Called	NO
DTR Off Disconnect Timer O-99 seconds	
DTR To CTS Delay Timer O-9900 msec (100 msec inc)	8
DTR Forced High	No
RTS Forced High	NO
DSR Is Held High When Device Is Idle	YES
CTS Is Held High When Device Is Idle	YES
Session Inactivity Disconnect Timer O-255 minutes	0

1-	2-	3-	4-	5-
6-QUIT	7-	8-	9-	0-

ATTENDANT CONSOLE DISPLAY

[DESCRIPTION NUMBER : 1]	PARAMETER NAME	VALUE
Session Inactivity Disconnect Timer	O-255 minutes	0

F1>NO	F2>	F3>	F4>	F5>
F6>QUIT	F7>	F8>	F9>	F0>

4.52 Field Description: The header line displays the descriptor number.

PARAMETER NAME: This field lists the parameters. For numerical parameters, it lists the valid range of values.

VALUE: This field lists the option or numeric value selected for each parameter.

4.53 Commands

6-QUIT: Pressing the QUIT softkey while editing this form returns the display to the previous level. If a field was modified, the following warning appears on the command line:

DATA HAS BEEN CHANGED BUT NOT YET SAVED IN DATABASE--"ENTER" TO SAVE

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database. After all changes have been completed, the user must press the ENTER softkey again to commit all modifications to the database.

The other softkeys depend on the parameter displayed on the command line. Generally:

- **for numeric parameters, only the QUIT softkey appears. When the user keys a value, the ENTER softkey appears. The programmer presses ENTER once to terminate the entry, then again to commit it to the database. While the ENTER softkey is present and has not been pressed, the programmer can press the QUIT softkey to cancel the new entry and restore the previous value.**

- **for parameters with YES and NO options, softkey 1 appears, marked with the option opposite to the current setting.**

The following table lists the option sof-tkeys which appear for all options. Following the table is an explanation of each parameter.

TABLE 4-20
DATA CIRCUIT DESCRIPTORS - PARAMETERS AND OPTION SOFTKEYS

Parameter	Option Softkeys
Session Inactivity Disconnect Timer O-255 minutes	
Guard Timer O-99 seconds	
Minimum Baud Rate	1-110, 2-150, 3-300, 4-600, 5-**MORE**, 1-1200, 2-2400, 3-4800, 4-9600, 8-19200
Default Baud Rate	1-110, 2-150, 3-300, 4-600, 5-**MORE**, 1-1200, 2-2400, 3-4800, 4-9600, 6-1 9200
Maximum Baud Rate	1-110, 2-150, 3-300, 4-600, 5-**MORE**, 1-1200, 2-2400, 3-4800, 4-9600, 8-19200
Always Use Default Baud Rate When Cal led	1-YES/ND
DTR Off Disconnect Timer O-99 seconds	
DTR To CTS Delay Timer O-9900 msec, (100 msec inc)	
DTR Forced High	1-YES/ND
RTS Forced High	1-YES/ND
DSR Is Held High When Device Is Idle	1-YES/ND
CTS Is Held High When Device Is Idle	1-YES/ND
Originate A DTRX Call With A Low->High Transition of DTR	1 -YES/NO
Action Taken If The Idle DTE Has DTR Low (Auto Answer)	TOGGLE RI, 2-RAISE DSR, 3-RAISE DCD, 4-REFUSE

TABLE 4-20 (CONT'D)
DATA CIRCUIT DESCRIPTORS - PARAMETERS AND OPTION SOFTKEYS

Parameter	Option Softkeys
Pooled Modem Communication Established indicator	1-DSR, 2-DCD
ASYNC: Keyboard Origination Allowed (Auto Baud)	1 -YES/NO
ASYNC: ADL Auto Baud	I - Y E S / N O
ASYNC: Flow Control	I-CTS, 2-XON/XOFF, 3-NONE
ASYNC: XON character (o-127, Decimal value of ASCII code)	
ASYNC: XOFF character (O-127, Decimal value of ASCII code)	
ASYNC: Break Key Function	I-TRANSPARENT, I-SYS ATTN
ASYNC: PBX Attention Character (0 - 127)	
ASYNC: Parity	I-NONE, 2-MARK, 3-SPACE, 4-EVEN, 8-ODD
ASYNC: Character Length (7 - 8 ; 8 bits implies no parity)	
ASYNC: Number of Stop Bits (1 - 2)	
ASYNC: Autobaud to Host Character 1 (0 - 127)	
ASYNC: Autobaud to Host Character 2 (0 - 127)	
ASYNC: Delay Between Autobaud Characters O-1270 msec (10msec inc)	
DS2100: Operating Mode (ASYNC, SYNC)	1-ASYNC, P-SYNC
SYNC: Rate Adaptation Scheme (MiNET, X.31)	1-MINET. 2-X.31
SYNC: Clock Source (INTERNAL, SYSTEM, TX EXT, TX & RX EXT)	I-INTERNAL, 2-SYSTEM, 3-TX EXTERNAL, 4-TX & RX EXT

Abbreviations used in Table 4-20

Abbreviation	Term
CTS	clear to send
DCD	data carrier detect
DCE	data communication equipment
DSR	data set ready
DTE	data terminal equipment
DTR	data terminal ready
DTRX	data transceiver
RI	ring indicator

Data Circuit Descriptor Parameters

The Data Circuit Descriptor is used by ADL calls, DTRX calls, printer monitors, the PMS port and Pooled Modems. The parameters are ordered so that timers and baud rate options appear at the top of the form. These parameters apply to all data device types. Next are the parameters dealing with EIA leads. These also apply to all data devices but the parameter's meaning can depend on whether a modem adapter is in the RS-232 connection. The last options are device type dependent parameters, usually indicated by a prefix.

Session Inactivity Disconnect Timer

The DATASET monitors the time from the last transmitted or received character. If the programmed time period is exceeded, the data call is dropped. This timer has a range of 0 to 255 minutes. It is disabled if set to 0 minutes.

Guard Timer

After a DATASET has disconnected, the Guard Timer keeps the DATASET unavailable for a short time period to allow the far end to clear down. This timer has a range of 0 to 99 seconds in 1 second increments.

Minimum And Maximum Baud Rate

These two fields specify the minimum and maximum data rate capacities of the attached device. The maximum baud rate must be set greater than or equal to the minimum baud rate. Valid baud rates are 110, 150, 300, 600, 1200, 2400, 4800, 9600, 19200.

If a range of baud rates is specified, it is assumed the system can use any of these baud rates to establish communications. If it is undesirable to have the system change the baud rate, a range should NOT be programmed. That is, the baud rate parameters should all be set equal.

Default Baud Rate

The specified default baud rate is used as the initial baud rate for non-autobaud datasets.

Always Use Default Baud Rate When Called

When this parameter is enabled, the system will set the baud rate of the destination dataset to the default, even if a range of baud rates has been programmed. The system will not change the data rate when attempting to establish communications.

DTR Off Disconnect Timer

This timer specifies how long the system will wait to disconnect the data call after the attached device has dropped DTR. If a modem adapter is inserted in the RS-232 connection, the system monitors DSR instead. This timer has a range of 0 to 99 seconds, in 1 second increments.

If the attached device is a Pooled Modem, the timer has no effect; when the Pooled Modem drops DSR, the data call is dropped immediately.

DTR To CTS Delay Timer

This timer specifies how long the system waits before asserting CTS

to the dataset after the attached device has asserted DTR. The timer has a range of 0 to 9900 milliseconds, in 100 millisecond increments.

DTR Forced High

With this option enabled, the system assumes DTR of the attached device is high, regardless of its actual state. If a modem adapter is inserted in the RS-232 connection, this option applies to DSR instead.

RTS Forced High

With this option enabled, the system assumes RTS of the attached device is high, regardless of its actual state. If a modem adapter is inserted in the RS-232 connection, this option applies to DCD instead.

DSR Is Held High When Device Is Idle

This option specifies the state of system DSR to an idle device, until a data call is connected. When enabled, DSR is held high; when disabled, DSR is held low. If a modem adapter is inserted in the RS-232 connection, this option applies to DTR instead.

Note: This parameter MUST be enabled to provide Keyboard Origination.

CTS Is Held High When Device Is Idle

This option specifies the state of system CTS to an idle device, until a data call is connected. When enabled, CTS is held high; when disabled, CTS is held low. With this parameter disabled, the DTR to CTS Delay Timer is not applicable because CTS will not be asserted until the call is connected.

Note: This parameter MUST be enabled to provide Keyboard Origination.

Originate A DTRX Call With A Low->High Transition Of DTR

With this option enabled, the system initiates a DTRX call when the attached device changes DTR from low to high (e.g. when the attached terminal is turned on). This option is typically enabled for Hotline services.

Action To Be Taken If The Called DTE Has DTR Low (Auto Answer)

This parameter specifies which EIA signal the system applies to an idle DTE which is called and has DTR low. The attached DTE must respond with DTR high within one minute. The options available are:

- **Toggle RI:** The system alerts the DTE by toggling RI with a cadence of 2.5 seconds on, 2.5 seconds off. If DTR is high when the **DTE** is called, the call is barred.

- DSR: The system alerts the DTE by raising DSR. If DTR is high when the DTE is called, the call is barred.
- DCD: The system alerts the DTE by raising DCD. If DTR is high when the DTE is called, the call is barred.
- REFUSE: The DTE is only seized when DTR is high. If DTR is low when the DTE is called, the call is barred.

Pooled Modem Communication Established Indicator

When the system is establishing data communication between a Pooled Modem and a remote modem, this parameter identifies which EIA lead indicates that communication is established. The options available are DCD and DSR.

ASYNC: Keyboard Origination Allowed (Auto Baud)

The dataset can perform autobaud detection 'on a carriage return <CR> character. With this option enabled, the system receives a baud rate report from the dataset and attempts to establish the data call at this rate. If the originator's baud rate must be changed, the system notifies the user with a message on the terminal. The following parameters must also be enabled:

- DSR Is Held High When Device Is Idle
- CTS Is Held High When Device Is Idle

ASYNC: ADL Auto Baud

With this option enabled, after dialing the ADL access code an ADL caller must enter a carriage return to set the baud rate. With this option disabled, the system attempts to establish the ADL call at the originator's last used baud rate.

ASYNC: Flow Control

This parameter specifies the flow control method the dataset uses. The options are CTS, XON/XOFF or NONE.

Note: The CTS method of flow control is unidirectional. When instructed to stop the data flow, the dataset drops CTS. The attached DTE should recognize this signal and stop transmitting data. When the dataset is instructed to start the flow again, it raises CTS and the attached DTE should begin transmitting again.

ASYNC: XON Character

This character resumes transmission between the dataset and the attached device. It is programmed as the decimal equivalent of the desired ASCII character. The most widely used XON character is Control-Q, whose decimal equivalent is 17.

ASYNC: XOFF Character

This character stops transmission between the dataset and the attached device. It is programmed as the decimal equivalent of the desired ASCII character. The most widely used XOFF character is Control-S, whose decimal equivalent is 19.

ASYNC: Break Key Function

This parameter specifies the function of the BREAK key. The options are:

- **SYS ATT:** the current DTRX data call is dropped and the user is prompted to dial another data call. If the current data call is via ADL, SYS ATT simply drops the call.
- **TRANSPARENT:** No action by DTRX. Passed on to destination.

ASYNC: PBX Attention Character

This parameter specifies the incoming character the dataset expects as the Attention character. When the dataset detects this character, it informs the PABX. If the current data call is via DTRX, the user is prompted to dial another data call; if the call is via ADL, it is simply dropped. The value of the parameter is decimal equivalent of the desired ASCII character. The NUL character (00) should be programmed to disable this feature.

ASYNC: Parity

This parameter specifies the parity type of the device attached to the dataset. The options are: mark parity, space parity, even parity, odd parity or no parity. If the character length is set to 8 bits, NO PARITY is assumed.

ASYNC: Character Length

This parameter specifies the UART character length, 7 or 8 bits. If 8 bits are selected, NO PARITY is assumed.

ASYNC: Number Of Stop Bits

This parameter specifies the number of stop bits per character, 1 or 2.

ASYNC: Autobaud To Host Character 1 And 2

These are the characters sent to the attached device when the Dataset is switched to the B-channel. The value of the parameter is the decimal equivalent of the desired ASCII character.

To disable this feature, program a NULL (00) character into both Autobaud To Host Characters. If Character 1 is non-zero and Character 2 is zero, only Character 1 is sent. However, if Character 1 is zero and

Character 2 is non-zero, both characters are sent.

This feature is designed for attached devices which can automatically set their baud rate and/or parity from specific characters. If the attached device does not have this capability, one of the following should be done:

- Set Minimum Baud Rate = Maximum Baud Rate = Default Baud Rate

  or,

- Enable the "Always Use Default Baud Rate When Called" parameter

With one of the above options selected, the Autobaud To Host characters can still be programmed for other purposes. For example, some data devices return a prompt in response to a carriage return (decimal equivalent = 13).

ASYNC: Delay Between Autobaud Characters

This timer specifies the interval between the start of transmission of one autobaud character and the next. It is also applied after the Dataset has disconnected from the D channel and before the first autobaud character is sent to the attached device. The timer has a range of 0 to 1270 msecs in increments of 10 msecs. To disable this timer, set it to 0 msecs.

DS2100: Operating Mode

This parameter is for the DATASET 2100 series only. It selects the operating mode of the Dataset, Asynchronous or Synchronous.

SYNC: Rate Adaptation Scheme

In synchronous operation of the DATASET 2100, this parameter defines synchronous operation as either Transparent Mode (MiNET) or X.31 Mode.

SYNC: Clock Source

This parameter selects the clock source for synchronous operation of the DATASET 2100. The options are:

- **INTERNAL:** This option applies when the DATASET 2100 is operated as a DCE. The DTE Transmit clock signal comes from the DATASET's internal baud rate generator which is not synchronized to the PBX timing. The DTE Receive clock signal comes from the DATASET's receiver Phase Locked Loop (PLL). The PLL extracts the timing from the data received from the far end DATAS ET.

- **SYSTEM:** This option applies when the DATASET 2100 is operated as a DCE. Both the DTE Transmit and Receive clock

signals come from the DATASET's receiver Phase Locked Loop (PLL). The PLL extracts the timing from the data received from the far end data set.

- **TX EXT:** This option applies to both DCE and DTE operation. The DTE Receive clock signal comes from the DATASET's receiver Phase Locked Loop (PLL). The PLL extracts the timing from the data received from the far end DATASET. When the DATASET 2100 is operated as a DCE, the DTE Transmit clock signal comes from an external clock signal on RS-232 pin 24 from the attached device. When the DATASET 2100 is operated as a DTE, the external clock signal is derived from the DCE's received data.

- **TX & RX EXT:** This option applies when the DATASET 2100 is operated as a DTE. Both the Receive and Transmit data clocks come from the attached DCE. The external Transmit clock is derived from the modem's received data (Pin 17) and is remapped to pin 24 on the dataset via the DCE adapter. The external Receive clock is derived from the modem's transmit data (Pin 15) and is remapped to the dataset pin 18 using the DCE adapter.

Review List for Form 11

4.54 This form appears when the REVIEW softkey is pressed in Form 11 - Data Circuit Descriptor. This form lists all the users of a particular descriptor, identified by their physical location (BAY/SLOT/CIRCUIT). Refer to Table 4-21, Review List for Form 11. Note the data in this form cannot be modified.

TABLE 4-21
REVIEW LIST FOR FORM 11

CDE TERMINAL DISPLAY

8:40 AM 15-JAN-88 alarm status = NO ALARM

[DESCRIPTOR NUMBER : 1]	BAY	SLT	CCT	SCT	COMMENTS
	2	4	1	2	
	2	4	1	2	

1-	2-	3-	4 -	5 -
6-QUIT	7 - DESC NUMBER	8 -	9 -	0-

ATTENDANT CONSOLE DISPLAY

[DESCRIPTOR NUMBER : 1]	BAY	SLT	CCT	SCT	COMMENTS
	2	4	1	2	

F1>	F2>	F3>	F4>	F5>
F6>QUIT	F7>DESC NUMBER	F8>	F9>	F0>

4.55 **FIELD DESCRIPTION:** The header line displays the descriptor number and the location of the descriptor.

DESCRIPTOR NUMBER: This field displays the descriptor number selected for review.

BAY, SLT, CCT, SCT: These fields list the physical location of each data circuit.

COMMENTS: This field displays any additional information that was entered in Form 12 (refer to Table 4-22, Data Assignment). The data in this field is stored by the system but not used.

4.56 Commands

6-QUIT: Pressing this softkey returns the display to Form 11, Data Circuit Descriptors.

7-DESC NUMBER: Pressing this softkey causes the system to request which Descriptor number to display. Complete the entry by pressing ENTER.

Form 12 - Data Assignment

4.57 When a Digital Line card is programmed in the System Configuration Form, the system creates an entry line for each of its circuits in Form 09, Stations/*SUPERSET* Telephones and in Form 12, Data Assignment. (Refer to Table 4-22, Data Assignment). If the card is in an upper (high power) slot, the system also creates entry lines for its circuits in Form 07, Console Assignments.

When the programmer assigns a Digital Line Card port as a DATASET, the system removes the corresponding line from Form 09. The exception is the DATASET 1101 Data Cartridge; when one of these is programmed, the line in Form 09 remains to allow programming of the Digital *SUPERSET* telephone.

When the programmer assigns a Digital Line Card port as a *SUPERSET* 4DN Telephone, the only data device type that can be selected on the corresponding line in Form 12 is the Data Cartridge, DATASET 1101.

Digital Line Card ports which appear in Form 07 are removed if assigned as a Digital *SUPERSET* telephone or DATASET. Likewise, a port assigned as a console is removed from Form 09. Then the only data device type that can be selected on the corresponding line in Form 12 is DSCONS, the console printer port.

TABLE 4-22
FORM 12 - DATA ASSIGNMENT

CDE TERMINAL DISPLAY

9:51 PM 15-JAN-88 alarm status = NO ALARM

BAY	SLT	CCT	TYPE	TEN	EXT NUM	COS	COR	CDN	DTE	AVL	OTLINE	COMMENTS
2	04	01	DS1101	1	1204	1	1	1	1			
2	04	02										
2	04	03 04										
2	04	05 06										
2	04	07 08										
2	04	09 10										
2	04	11 12										
2	04	02										

1-DATA DEV TYP	2-FIND EXT	3-FIND AVL	4-	5-RANGE
6-QUIT	7-BAY/SLT/CCT	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

BAY SLT CCT TYPE TEN EXT NUM COS COR CDN DTE AVL HOTL INE COMMENTS
2 04 02
F1>DATA DEV TYP F2>FIND EXT F3>FIND AVL F4> F5>RANGE
F6>QUIT F7>BAY/SLT/CCT F8>DELETE F9> F0>

4.58 Field Description

BAY/SLT/CCT/: This field specifies the physical location of each device. This list is generated by the system based on what was entered in the programmed field of Form 01, System Configuration. Note this field cannot be modified.

TYP: This field identifies the type of data device programmed. The available devices are: DATASET 1101, DATASET 1102, DATASET 1103, DATASET 2102, DATASET 2103 and DSCONS.

TEN: The tenant group for each device is specified in this field.

EXT NUM: This field displays the assigned extension number of a data line.

COS: This field lists the Class-of-Service number specification of each device (1 to 50).

COR: This field lists the Class-of-Restriction number specification of each device (1 to 25).

CDN: This field lists the Circuit Descriptor Number assigned to a device (1 to 25).

DTE: This field lists the Data Terminal Equipment Profile number (1 to 25). A data device must have a DTE Profile number to access a DTRX. Otherwise, this field should be left blank.

AVL: This field lists the Associated Voice Line (directory number) used to associate a DATASET with a Voice set, so the ADL (Associated Data Line) can be used.

HOTLINE: This field lists the directory number of the destination DTE.

COMMENTS: This field is reserved for additional data (a maximum of 15 characters). It is stored by the system but not used.

4.59 Commands

I-DATA DEV TYP: Pressing the DATA DEV TYP softkey displays softkeys which assign the type of data device connected to the circuit displayed on the command line. If a *SUPERSET* telephone is programmed for the circuit, only the DATASET 1101 device type softkey appears.

I-DS1103: This softkey appears after the DATA DEV TYPE softkey has been pressed. Pressing this softkey assigns the device as an Asynchronous Stand-alone dataset.

2-DS1102 CCT1: This softkey appears after the DATA DEV TYPE softkey has been pressed. Pressing this softkey assigns the device type for subcircuit 1 of the port as an Asynchronous Rack Mount

Dataset. Because the DATASET 1102 is a dual DATASET, a second line appears for subcircuit 2 of the port.

3-DS1 102 CCT2: This softkey appears after the DATA DEV TYPE softkey has been pressed on the second line of a port assigned as a DATASET 1102. It is the only softkey available in this situation. Pressing the DS1102 CCT2 softkey assigns the device type for subcircuit 2 of the port as an Asynchronous Rack Mount Dataset.

4-DS1101: This softkey appears after the DATA DEV TYPE softkey has been pressed. Pressing this softkey assigns the device type as a data cartridge.

7-DS2102: This softkey appears after the DATA DEV TYPE softkey has been pressed. Pressing this softkey assigns the device type as an Asynchronous/Synchronous Rack Mount DATASET.

8-DS2103: This softkey appears after the DATA DEV TYPE softkey has been pressed. Pressing this softkey assigns the device type as an Asynchronous/Synchronous Rack Mount DATASET.

9-DSCONS: This softkey appears after the DATA DEV TYPE softkey has been pressed. Pressing this softkey assigns the device type as a Mk 2 Console printer port.

P-FIND EXT: Pressing the FIND EXT softkey displays the ENTER EXTENSION NUM prompt. When a valid extension number of a DATASET is entered, its physical location is displayed on the command line.

3-FIND AVL: Pressing this softkey prompts the user to enter an extension number. When a valid extension number of an associated voice set is entered, and the ENTER softkey is pressed, the physical location of the DATASET which is associated with the selected voice set is displayed on the command line.

5-RANGE: This softkey facilitates block programming of data devices. Pressing this softkey displays FROM BAY; SLOT: and CIRCUIT: TO BAY: SLOT: CIRCUIT: prompts on the command line. The range of devices is then specified by entering valid bay, slot and circuit numbers for the first and last devices. The entry is completed by pressing the ENTER softkey. When the extension number for the first device is entered, the system automatically assigns incremented extension numbers, the same COS, COR, CDN, and DTE for each device in the block. A dual circuit DATASET cannot be included in range programming.

6-QUIT: Pressing this softkey returns the display to the level before DATASET DEV TYPE was selected.

7-BAY/SLT/CCT: When this softkey is pressed the command line displays: BAY: SLOT: CIRCUIT: prompts. Once the location is specified, and the softkey ENTER is pressed, the command line updates with information about the device and the cursor moves to the TYP field. If an invalid number is entered the system inhibits subsequent cursor movement.

8-DELETE: This softkey appears when the cursor is positioned at data on the command line. Pressing the DELETE softkey removes the entry from the form. The deletion is completed by pressing the softkey: ENTER.

O-DELETE FIELD: This softkey appears when the cursor is positioned in the AVL or HOTLINE field, when a value has been already programmed. Pressing the DELETE FIELD softkey removes the value which is programmed in that field. The deletion is completed by pressing the ENTER softkey.

O-ENTER: This softkey appears after data has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 13 - Trunk Circuit Descriptors

4.60 Trunk circuit descriptors are similar to Classes of Service. A trunk circuit descriptor specifies the hardware options for each type of Trunk Card. Refer to Table 4-23, Trunk Circuit Descriptors for the form layout. Trunk circuit descriptors are complemented by the switch settings on the SX-200 type Trunk Cards. Refer to the Trunk Card Switch Assignments Forms in Part Number 9109-094-206-NA, Installation Forms. There are 12 Trunk Card types and are as follows:

4-Circuit CO	6-Circuit DID
6-Circuit CO	E&M Trunk
4-Circuit DISA	E&M Trunk DISA
6-Circuit DISA	E&M Trunk Module DISA
2-Circuit DID/TIE	2 Circuit TIE DISA
EM MOD DISA	T1 Trunk

Each Trunk Card type has its own set of parameters as detailed in Table 4-25, Trunk Hardware Options. The system supports a maximum of 25 trunk circuit descriptors.

TABLE 4-23
FORM 13 - TRUNK CIRCUIT DESCRIPTORS

CDE TERMINAL DISPLAY

12:01 AM 15-JAN-88 alarm status = NO ALARM

DESCR I PTOR	TRUNK TYPE	NUMBER OF TRKS ASSIGNED	COMMENTS
01	4-CIRCUIT CO	0	
02	4-CIRCUIT CO	0	
03	4-CIRCUIT CO	0	
04	6-CIRCUIT Co	4	
05	6-CIRCUIT CO	3	
06	2-CCT DID/TIE	0	
07	4-CIRCUIT DISA	0	
08	2-CCT DID/TIE	0	
09	2-CCT DID/TIE	0	
10	2-CCT DID/TIE	0	
11	4-CIRCUIT DISA		
12	4-CIRCUIT DISA	8	
01	4-CIRCUIT CO	0	

I-6 CCT CO	2-6 CCT DISA	3-E&M MODULE	4-6 CCT DID	5-** MORE **
6-QUIT	7-DESC NUMBER	8-SEL. OPTION	9-EM MOD DISA	0-

ATTENDANT CONSOLE DISPLAY

DESCR I PTOR	TRUNK TYPE	NUMBER OF TRKS ASSIGNED	COMMENTS
01	4-CIRCUIT CO	0	

F1>6 CCT CO	F2>6 CCT DISA	F3>E&M MODULE	F4>6 CCT DID	F5>
F6>QUIT	F7>DESC NUMBER	F8>SEL. OPTION	F9>	F0>

4.61 Field Description

DESCRIPTOR: This field lists the trunk circuit descriptors, numbers 01 **to 25.**

TRUNK TYPE: This field lists one of eight trunk types for each trunk circuit descriptor. Note that the selected trunk type (the one that appears on the command line) is not displayed on the softkeys.

NUMBER OF TRKS ASSIGNED: This field records the number of trunks which use each trunk circuit descriptor. The trunk circuit descriptor can be assigned a new trunk type only if this field is zero. To clear the NUMBER OF TRKS ASSIGNED field, the trunks must first be deassigned. Refer to Table 4-27, Non-Dial-In Trunks and Table 4-28, Dial-In Trunks. When a trunk type is assigned to a trunk circuit descriptor, the system prohibits any changes by clearing those softkeys that can alter the trunk types.

COMMENTS: This field is reserved for additional data (a maximum of 20 characters). It is stored by the system but not used.

4.62 Commands

l-6 **CCT** CO: Pressing this softkey specifies the selected trunk circuit descriptor as a CO Trunk type. Pressing the ENTER softkey completes the selection and the TYPE field displays the 6-CIRCUIT CO prompt.

1-4 **CCT CO:** This softkey appears when the MORE softkey has been pressed. Pressing this softkey assigns the CO Trunk type to the selected trunk circuit descriptor. Pressing the ENTER softkey completes the selection and the TYPE field displays the 4-CIRCUIT CO prompt.

1-T1 LS/GS: This softkey appears when the MORE softkey has been pressed for the second time. Pressing this softkey defines the selected trunk circuit descriptor as a T1 Trunk simulating an LS/GS Trunk.

1-T1 CO **DISA:** This softkey appears when the MORE softkey has been pressed for the third time. Pressing this softkey defines the selected trunk circuit descriptor as a T1 Trunk simulating a CO DISA Trunk.

2-6 CCT DISA: Pressing this softkey assigns the DISA Trunk type to the selected trunk circuit descriptor. Pressing the ENTER softkey completes the selection and the TYPE field displays the 6-CIRCUIT DISA prompt.

2-4 **CCT DISA:** This softkey appears when the MORE softkey has been pressed. Pressing this softkey selects the DISA Trunk type for that trunk circuit descriptor. Pressing the ENTER softkey completes the selection and the TYPE field displays the 4-CIRCUIT DISA prompt.

2-T1 E&M: This softkey appears when the MORE softkey has been pressed for the second time. Pressing this softkey defines the selected trunk circuit descriptor as a T1 Trunk simulating an E&M Trunk.

2-T1 E&M DISA: This softkey appears when the MORE softkey has been pressed for the second time. Pressing this softkey defines the selected trunk circuit descriptor as a T1 Trunk simulating an E&M DISA Trunk.

3-E&M MODULE: Pressing this softkey programs the selected trunk circuit descriptor as an E&M Trunk Module. Pressing the ENTER softkey completes the selection and the TYPE field displays the E&M MODULE prompt.

3-E&M TRUNK: This softkey appears when the MORE softkey has been pressed. Pressing this softkey programs the selected trunk circuit descriptor as an E&M Trunk Card. Pressing the ENTER softkey completes the selection and the TYPE field displays the E&M CARD prompt.

3-T1 DID/TIE: This softkey appears when the MORE softkey has been pressed for the second time. Pressing this softkey defines the selected trunk circuit descriptor as a T1 Trunk simulating a DID/TIE Trunk.

3-T1 TIE DISA: This softkey appears when the MORE softkey has been pressed for the third time. Pressing this softkey defines the selected trunk circuit descriptor as a T1 Trunk simulating a TIE/DISA Trunk.

4-6 **CCT DID:** Pressing this softkey programs the selected trunk circuit descriptor as a DID Trunk. Pressing the ENTER softkey completes the selection and the TYPE field displays the 6 CCT DID prompt.

4-DID/TIE: This softkey appears when the MORE softkey has been pressed. Pressing this softkey specifies the selected trunk circuit descriptor as a DID/Tie Trunk. Pressing the ENTER softkey completes the selection and the TYPE field displays the 2-CCT DID/TIE prompt.

5- MORE **:** This softkey presents mbre trunk type selections, each time it is pressed until it returns the softkeys to their original format. (Refer to Table 4-23, Trunk Circuit Descriptors and Figure 4-13, More Trunk Types). Note that the current selected trunk type softkey is left blank.

1-4 CCT co	2-4 CCT DISA	3-E & M TRUNK	4-DID/TIE	5-
6-QUIT	7-DESC NUMBER	8-SEL. OPTION	9-EM TRK DISA	O-TIE DISA

1-T1 LS/GS	2-T1 E&M	3-T1 DID/TIE	4-	5-
6-QUIT	7-DESC NUMBER	8 - S E L . OPTION	9-	0-

1-T1 DISA	2-	3-	4-	5-
B-QUIT	7-DESC NUMBER	8-SEL. OPTION	9-	0-

Figure 4-13 More Trunk Types

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 13 and returns the display to the level where the forms are selected.

B-CANCEL: This softkey appears after a programming error has oc-

curred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. The CANCEL softkey appears with an error message.

7-DESC NUM: Pressing this softkey displays ENTER DESC NUM: prompt. This softkey selects a trunk circuit descriptor number. The selection is completed by entering a valid number (1 to 25).

8-SEL. OPTIONS: Pressing the SEL. OPTIONS softkey displays a new form. This form displays the options (parameters) associated with the trunk type that is assigned to that trunk circuit descriptor. Refer to Table 4-24, Trunk Circuit Descriptor Options.

9-EM TRK DISA: This softkey appears when the MORE softkey has been pressed. Pressing this softkey commits the (E&M) analogue trunk as a DISA trunk.

9-EM MOD DISA: Pressing this softkey programs the selected trunk circuit descriptor as an EM MOD DISA.

O-REVIEW: Pressing the REVIEW softkey displays a new form (refer to Table 4-26, Review List for Form 13). This form displays a list of trunks that use the selected trunk circuit descriptor. Note that this softkey appears only if "NUMBER OF TRKS ASSIGNED" on command line is greater than zero.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

O-TIE DISA: This softkey appears when the MORE softkey has been pressed. Pressing this softkey commits the DID/TIE (analog) trunk as a DISA trunk.

Options for Trunk Circuit Descriptors

4.63 This form appears only when the SEL. OPTIONS **softkey** is pressed (refer to Table 4-23, Trunk Circuit Descriptors). This form displays the options (parameters) associated with each trunk type assigned to each trunk circuit descriptor. Refer to Table 4-24, Trunk Circuit Descriptor Options.

TABLE 4-24
TRUNK CIRCUIT DESCRIPTOR OPTIONS FOR FORM 13

CDE TERMINAL DISPLAY

4:26 PM 15-JAN-88 alarm status = NO ALARM

[4 CCT CO TRUNK: 2] OPTION NAME [SUPERVISION PARAMETER]	STATUS
Far-end gives answer supervision	NO
Inhibit automatic supervision	NO
No seize alarm	YES
No release alarm	YES
Toll office	No
Is this a CO	YES
DTMF	YES
Impedance	COMPLEX
Dictation Trunk	NO
Far-end gives answer supervision	No

1 -YES	2 -	3 -	4 -	5 -
6-QUIT	7 -	8 -	9-	0-

ATTENDANT CONSOLE DISPLAY

[4 CCT CO TRUNK : 2] OPTION NAME [SUPERVISION PARAMETER]				STATUS
Far-end gives answer supervision				NO
F1>YES	F2>	F3>	F4>	F5>
F6>QU IT	F7>	F8>	F9>	FO>

4.64 Field Description.: The header line displays the trunk type, the trunk circuit descriptor number and the type of parameter under observation. The parameter types are: Supervision, Transmission, Incoming, Outgoing and In/Out Going. Refer to Table 4-25, Trunk Hardware Options for a complete list of these options.

STATUS: This field lists the option selected for each parameter.

4.65 Commands

I-YES, NO, COMPLEX, 600 OHM, 60/40, IMMEDIATE: This **softkey** toggles the status of the parameters.

2-30/20, WINK: This **softkey** toggles the status of the parameters.

3-66/33, DELAY: This **softkey** toggles the status of the parameters.

4-DELAY INTEG: This **softkey** toggles the status of the parameters.

6-QUIT: Pressing the QUIT **softkey** when editing this form returns the

display to the level before the field was modified. The change is not saved. The following warning prompt appears on the command line: DATA HAS BEEN CHANGED BUT NOT YET SAVED IN DATABASE -- "ENTER" TO SAVE. At all other times, pressing this softkey returns the display to the point where the SEL. OPTION softkey was pressed.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database. After all changes have been completed, the user must press the ENTER softkey again to commit the form to the database.

TABLE 4-25
TRUNK HARDWARE OPTIONS

4-CIRCUIT CO TRUNK and 4-CIRCUIT DISA
Reverse to Idle Far-End Gives Answer Supervision Inhibit Automatic Supervision No Seize Alarm No Release Alarm Toll Office Is this a CC DTMF Impedance (600 Ohms or Complex) Dictation Trunk
6-CIRCUIT CO TRUNK and 6-CIRCUIT DISA
Reverse to Idle Far-End Gives Answer Supervision Inhibit Automatic Supervision No Seize Alarm No Release Alarm Toll Office Is this a CC DTMF Impedance (600 Ohms or Complex) Post Call Metering (0 → 15 seconds) Calling Party Disconnect Timer (1 → 12 minutes) Dictation Trunk Ignore Remote Disconnect Disconnect Timer (100 → 9900 ms) (100 ms increments) Supervision Direction: Incoming Trunk Calls Also Guard Timer (0 → 3000 ms) (100 ms increments) Ring Cycle Timer (6 → 10 seconds) Ignore Line Reversal During Seizure Ringing Expected Ringing Debounce Timer (5 → 12 seconds) Seize Timer (10 → 60 s) (10 s increments) Flash Timer (200 → 700 ms) (100 ms increments) Interdigit Timer (300 → 600 ms) (100 ms increments) Digit Outpulsing Ratio (60/40, 30/20, 66/33)

TABLE 4-25 (CONT'D)
TRUNK HARDWARE OPTIONS

Type : E&M MODULE and E&M MODULE DISA
Reverse to Idle Far-End Gives Answer Supervision Inhibit Automatic Supervision No Seize Alarm No Release Alarm Toll Office Is this a CC DTMF Impedance ** Use Module Dip Switches to Program ** (600 Ohms or (Complex) E Lead Invert M Lead Invert ** required for type 5 operation ** Disconnect Timer (150 → 300 ms) (50 ms increments) Release Acknowledge Timer (2000 → 9900 ms) (100 ms inc) Guard Timer (200 → 1000 ms) (100 ms increments) Dictation Trunk Incoming Start Type (Immed, Wink, Delay) Debounce Timer (20 → 150 ms) (IO ms increments) Wink Timer (150 → 300 ms) (50 ms increments) Outgoing Start Type (lamed, Wink, Delay or Delay Integ) Digit Outpulsing Ratio (60/40, 30/20, 66/33) Outpulse Delay Timer (100 → 2000 ms) (100 ms inc) Flash Timer (200 → 700 ms) (100 ms increments) Interdigit Timer (300 → 800 ms) (100 ms increments) Wait for Delay Timer (300 → 5000 ms) (100 ms inc) Remote End is a Satellite Remote End is a Satellite with OPS Lines
E&M TRUNK CARD
Reverse to Idle Far-End Gives Answer Supervision Inhibit Automatic Supervision No Seize Alarm No Release Alarm Toll Office Is this a CC DTMF Impedance (600 Ohms or Complex) Remote End is a Satellite Remote End is a Satellite with OPS Lines Dictation Trunk
2-CCT DID/TIE and 2 CCT TIE DISA
Reverse to Idle Far-End Gives Answer Supervision Inhibit Automatic Supervision No Seize Alarm No Release Alarm Toll Office Is this a CO DTMF Impedance (600 Ohms or Complex) Remote End is a Satellite Remote End is a Satellite with OPS Lines
6-CCT DID
Reverse to Idle Far-End Gives Answer Supervision Inhibit Automatic Supervision

TABLE 4-25 (CONT'D)
TRUNK HARDWARE OPTIONS

6-CCT DID (CONT'D)
No Seize Alarm No Release Alarm Toll Office Is this a- CD DTMF Impedance (600 Ohms or Complex) Disconnect Timer (150 → 300 ms) (50 ms increments) Release Acknowledge Timer (2000 → 9900 ms) (100 ms inc) Guard Timer (200 → 1000 ms) (100 ms increments) Start Type (Immed) Debounce Timer (20 → 150 ms) (10 ms increments) Wink Timer (150 → 300 ms) (50 ms increments) Remote End is a Satellite Remote End is a Satellite with OPS Lines
'1 E&I and T1 E&M DISA
Reverse to Idle Far-End Gives Answer Supervision Inhibit Automatic Supervision No Seize Alarm No Release Alarm Toll Office Is this a CD DTMF Disconnect Timer (150 → 300 ms) (50 ms inc) Release Acknowledge Timer (2000 → 9900 ms) (100 ms inc) Guard Timer (200 → 1000) (100 ms inc) Incoming Start Type (Immed, Wink or Delay) Debounce Timer (20 → 150 ms) (10 ms inc.) Wink Timer (150 → 300 ms) (50 ms inc) Outgoing Start Type (Imned, Wink, Delay or Delay Integ) Digit Outpulsing Ratio (60140, 80/20, 66/33) Outpulse.Delay Timer (100 → 2000 ms) (100 ms inc) Flash Timer (200 → 700 ms) (100 ms inc) Interdigit Timer (300 → 600 ms) (100 ms inc) Wait for Delay Timer (300 → 5000 ms) (100 ms inc) Remote end is a satellite Remote end is a satellite with OPS Lines
'1 DID/TIE and T1 TIE DISA
Far-End Gives Answer Supervision Inhibit Automatic Supervision No Seize Alarm No Release Alarm Toll Office Is this a CD DTMF Disconnect Timer (150 → 300 ms) (50 ms inc) Release Acknowledge Timer (2→ 120 s) Guard Timer (200 → 1000) (100 ms inc) Start Type (Immed, Wink or Delay) Debounce Timer (20 → 150 ms) (10 ms inc) Wink Timer (150 → 300 ms) (50 ms inc) Outgoing Start Type (Immed, Wink, Delay or Delay Integ) Digit Outpulsing Ratio (60140, 80/20, 66/33) Outpulse Delay Timer (100 → 2000 ms) (100 ms inc) Flash Timer (200 → 700 ms) (100 ms inc) Interdigit Timer (300 → 800 ms) (100 ms inc) Wait for Delay Timer (300 → 5000 ms) (100 ms inc) Remote End is a Satellite Remote End is a Satellite With OPS Lines

TABLE 4-25 (CONT'D)
TRUNK HARDWARE OPTIONS

T1 LS/GS TRUNK and T1 CO DISA
No Seize Alarm
No Release Alarm
Toll Office
Is this a CO
DTMF
Dictation Trunk
Loop Start or Ground Start
Calling Party Disconnect Timer (1 → 12 minutes)
Guard Timer (0 → 3000 ms) (100 ms inc)
Ring Cycle Timer (6 → 10 s)
Ringing Expected
Ringing Debounce Timer (5 → 12 seconds)
Seize Timer (10 → 60 s) (10 s increments)
Flash Timer (200 → 700 ms) (100 ms inc)
Interdigit Timer (300 → 800 ms) (100 ms inc)
Reverse to Idle

Review List for Form 13

4.66 This form appears when the REVIEW softkey is pressed in Form 13 - Trunk Circuit Descriptors. The form lists the trunks that use the selected trunk circuit descriptor. Refer to Table 4-26, Review List for Form 13 for the form layout. Note that the data in this form cannot be modified.

TABLE 4-26
REVIEW LIST FOR FORM 13

CDE TERMINAL DISPLAY

12:00 AM 15-JAN-88 alarm status = NO ALARM

[6 CCT CO TRUNK :2 1	TRK NUM	BAY	SLT	CCT	COMMENTS
	2	1	5	2	
	9	3	5	1	
	10	3	5	2	
	11	3	5	3	
	13	3	6	4	
	14	3	6	11	
	15	4	5	1	
	16	4	5	2	
	17	4		3	
	18	4	5	4	
	19	4	6	1	
	2	1	5	2	

1-	2 -	3 -	4-	5 -
6-QUIT	7-DESC NUMBER	8 -	9 -	0-

ATTENDANT CONSOLE DISPLAY

[6 CCT CO TRUNK: 21	TRK NUM 2	BAY 1	SLT 5	CCT 2	COMMENTS
F1>	F2>	F3>	F4>		F5>
F6>QUIT	F7>DESC NUMBER	F8>	F9>		F0>

4.67 Field Description.: The header line displays the descriptor number and the trunk type.

TRK NUM: This field lists the trunk numbers assigned to the selected trunk circuit descriptor number. Trunk numbers are arbitrarily assigned to the trunks in Form 14 (refer to Table 4-27, Non-Dial-In Trunks) and Form 15 (refer to Table 4-28, Dial-In Trunks).

BAY, SLT and CCT: These fields list the physical location of each trunk number according to their bay, slot and circuit numbers.

COMMENTS: This field displays any additional information about each trunk as it was entered on Form 14 (refer to Table 4-27, Non-Dial-In Trunks) and Form 15 (refer to Table 4-28, Dial-In Trunks). The COMMENTS field stores a maximum of 15 characters. The data in this field is stored by the system but not used.

4.68 Commands

6-QUIT: Pressing the QUIT softkey returns the display to the point where the REVIEW softkey was pressed.

6-CANCEL: This softkey appears after a programming error has occurred Pressing the CANCEL softkey returns the display to the level where the programming error occurred. The CANCEL softkey appears with an error message.

7-DESC NUMBER: This softkey selects a trunk circuit descriptor number. Pressing the DESC NUMBER softkey displays the ENTER DESC. NUM: prompt. The selection is completed by entering a valid number (1 to 25).

O-ENTER: Since this form is reserved for reviewing programmed data, pressing the ENTER softkey completes a request for viewing a trunk circuit descriptor number. No data changes occur and no data is stored in the database.

Form 14 - Non-Dial-In Trunks

4.69 This form specifies the characteristics of the system's Non-Dial-In Trunks. These trunks cannot dial any digits into the PABX and are usually a CO Trunk. The Day, N1, N2 answer points are assigned in this form. Alternate recall points are assigned in Form 19 (refer to Table 4-33, Call Rerouting Table). Refer to Table 4-27, Non-Dial-In Trunks for the form layout.

TABLE 4-27
FORM 14 - NON-DIAL-IN TRUNKS

CDE TERMINAL DISPLAY

4:26 PM 15-JAN-88 alarm status = NO ALARM

BAY	SLT	CCT	COS	TEN	DAY	N1	N2	CDN	TK NUM	TK NAME	COMMENTS
1	05	01	1	1	110	3302					
1	05	02	1	1	112						
1	05	03	1	1	113						
1	05	04	1	1	114						
1	05	05	1	1	115						
1	05	06	1	1	116						
2											
2 02	02	01 02	1 1 1	1	117 118						
2	02	03									
2											
2 02	02	04 05									
2	02	06									
1	05	01	1	1	110	3302					

1-	2-	3-TRUNK NUMBER 4	-	5-
6-QUIT	7-BAY/SLT/CCT	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

BAY	SLT	CCT	CDS	TEN	DAY	N1	N2	CDN	TK NUM	TK NAME	COMMENTS
1	05	01	1	1	110	3302					

F1>	F2>	F3>TRUNK NUMBER	F4>	F5>
F6>QUIT	F7>BAY/SLT/CCT	F8>DELETE	F9>	F0>

4.70 Field Description

BAY, SLT, and CCT: These fields list the physical location of each Non-Dial-In Trunk. They are generated by the system based on what was entered in the PROGRAMMED field in Form 01, System Configuration. This field cannot be modified.

COS: This field specifies the Class of Service of each Non-Dial-In Trunk. The default COS is 1.

TEN: This field specifies the Tenant Group number of each Non-Dial-In Trunk. The default Tenant Group number is 1.

DAY, N1 and N2: These fields are reserved for the Day, Night1 and Night2 answer points. The answer points may be specified as an LDN on the Attendant Console, an extension number of a Rotary Dial, DTMF

set or a *SUPERSET* telephone, a Hunt Group Access Code , a Night Bell extension number or an ACD Path access code. Note then that an LDN and Night Bell cannot be rung simultaneously. Note that the DAY field must be filled in before any changes for the selected physical location are stored in the database. If the N1 or N2 field is not specified, then the system defaults the night answer points to the day answer point. If only one of the night answer points is specified, then the other night answer point defaults to the specified night answer point.

CDN: The CDN (Circuit Descriptor Number) field links this form to Form 13, Trunk Circuit Descriptors (Table 4-23) which defines the trunk hardware parameters. Note that this field must be filled in before any changes for the selected physical location are stored in the database.

TK NUM: This field lists the trunk locations. Note that this field must be filled in before any changes for the selected physical location are stored in the database. In this field, trunks are listed according to their trunk number (1 to 200). This method of identifying trunks is used for the following:

- SMDR records of a trunk call (only three digits are allocated for trunk identification)
- Identification of a trunk in a call on the Attendant Console or on the *SUPERSET* 4 telephone LCD,
- Attendant Direct Trunk Select (DTS) capability,
- Form 09 for *SUPERSET* telephone line appearance programming (DTS or Private Trunk)

  and
- Form 16 for listing members of Trunk Groups.

TK NAME: This field lists the trunk names. Names can be up to 8 characters long.

COMMENTS: This field is reserved for additional data (a maximum of 15 characters). It is stored by the system but not used.

4.11 Commands

3-TRUNK NUMBER: This softkey selects a trunk by its trunk number. Trunk numbers are assigned in Form 14 and Form 15. Pressing the TRUNK NUMBER softkey displays the ENTER TRUNK NUM: prompt on the command line. Entering a valid trunk number (1 to 200) selects that Non-Dial-In Trunk and displays it on the command line.

B-QUIT: Pressing the QUIT softkey after a field has been edited restores the form to the level before the field was modified. The change is not saved. At all other times, pressing this softkey returns the display to the level where the forms are selected.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message.

7-BAY/SLT/CCT: Pressing this softkey locates trunk via its bay, slot and circuit numbers. The command line displays the Bay:, Slot: and Circuit: prompts. The cursor appears to the right of the Bay: prompt. Entering a l-digit number specifies the bay location. Note that if the user enters an invalid number, then the system inhibits subsequent cursor movement. Similarly, the user specifies the slot and circuit locations. Once the location is fully designated, the command line updates with the information about that trunk and the cursor moves to the COS field. The TAB key and → cursor key control cursor movement.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the selected entry from the form. The deletion is completed by pressing the ENTER softkey. Note that the system also removes the selected trunk from Form 16, Trunk Groups.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 15 - Dial-h Trunks

4.72 This form specifies the characteristics of the system's Dial-In Trunks. This form also designates where incoming calls on Dial-In Trunks are routed by modifying the incoming digits. Refer to Table 4-28, Dial-In Trunks for form layout.

TABLE 4-28
FORM 15 - DIAL-IN TRUNKS

CDE TERMINAL DISPLAY

4:26 PM 15-JAN-88 alarm status = NO ALARM

BAY	SLT	CCT	COS	COR	TEN	N	M	)	CDN	TK NUM	TK NAME	COMMENTS
			1	1	1	0	0		2	1		
1	02	04										
2	02	05										
2												
2	02	03										
3	06	04										
3			1	1	1	0	0		16	27		
3	07	01	1	1	1	0	0		16	28		
2	08	01	1	1	1	0	0		16	29		
			1	1	1	0	0		16	30		
4	06	03										
4	06	04										
2	02	03	1	1	1	0	0		2	1		

1-	2-	3-TRUNK NUMBER	4-	5-
6-QUIT	7-BAY/SLT/CCT	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

BAY	SLT	CCT	CDS	COR	TEN	N	M	X	CDN	TK NUM	TK NAME	COMMENTS
2	02	03	1	1	1	0	0		2	1		

F1> F2> F3>TRUNK NUMBER F4> F5>
F6>QUIT F7>BAY/SLT/CCT F8>DELETE F9> F0>

4.73 Field Description

BAY, SLT and CCT: These fields list the physical location identification of each Dial-In Trunk. They are generated by the system based on what was entered in the PROGRAMMED field of Form 01, System Configuration. This field cannot be modified.

COS: This field specifies the Class of Service for each entry. The COS defaults to 1.

COR: This field lists the Class of Restriction for each entry. The COR defaults to 1.

TEN: Tenant Group specifications are listed in this field. The Tenant Group number defaults to 1.

N: This field lists the number of expected digits (1 to 9). If a value is specified in this field, then digit translation on incoming calls does not

commence until the system receives the specified number of digits. Note: This field must be filled for a DID Trunk. Otherwise, this field defaults to 0.

M: This field specifies the number of digits (0 to 8) that must be absorbed after the incoming trunk is seized. The M field defaults to 0. This field is applicable for any type of Dial-In Trunk.

X: This field specifies a maximum of two digits that may be inserted before the digit string. This field is applicable for any type of Dial-In Trunk.

CDN: The CDN (Circuit Descriptor Number) field lists the circuit descriptor numbers for each Dial-in Trunk. This field links this form to Form 13 (Trunk Circuit Descriptors), which defines the trunk hardware parameters. Note that this field must be filled in before any changes for the selected physical location are stored in the database.

TK NUM: This field displays the Dial-In Trunks according to their trunk number. Note that this field must be filled in before any changes for the selected physical location are stored in the database. Trunk numbers range from 1 to 200 and are used for the following:

- SMDR records of a trunk call (only three digits are allocated for trunk identification),
- Identification of a trunk in a call on the Attendant Console or on the *SUPERSET* 4 telephone LCD,
- Attendant Direct Trunk Select (DTS) capability,
- Form 09 for *SUPERSET* telephone line appearance programming (DTS or Private Trunk) and
- Form 16 for listing members of Trunk Groups.

TK NAME: This field lists the trunk names. Names can be up to 8 characters long.

COMMENTS: This field is reserved for additional data (a maximum of 15 characters). It is stored by the system but not used.

4.74 Commands

3-TRUNK NUMBER: This softkey selects a trunk by its trunk number. Pressing the TRUNK NUMBER softkey displays the ENTER TRUNK NUM: prompt on the command line. Entering a valid trunk number (1 to 200) selects that Dial-In Trunk and displays it on the command line.

6-QUIT: Pressing the QUIT softkey directly after a field has been modified restores the form to the level before the field was edited. The change is not saved. At all other times, pressing this softkey returns the display to the level where the forms are selected.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message.

7–BAY/SLT/CCT: Pressing this softkey locates a trunk via its bay, slot and circuit numbers. The command line displays the Bay:, Slot: and Circuit: prompts. The cursor appears to the right of the Bay: prompt. Entering a l-digit number specifies the bay location. Note that if the user enters an invalid number, then the system inhibits subsequent cursor movement. Similarly, the user specifies the slot and circuit locations. Once the location is fully designated, the command line updates with the information about that trunk and the cursor moves to the COS field. The TAB key and → cursor key control cursor movement.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the selected entry from the form. The deletion is completed by pressing the ENTER softkey. Note that the system also removes the selected trunk from Form 16, Trunk Groups.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 16 - Trunk Groups

4.75 This form specifies the members of each Trunk Group by trunk numbers. The trunk number is assigned in Form 14 (refer to Table 4-27, Non-Dial-In Trunks) and Form 15 (refer to Table 4-28, Dial-In Trunks). The system supports a maximum of 50 Trunk Groups; each group supports a maximum of 50 members. Refer to Table 4-29, Trunk Groups for the form layout.

TABLE 4-29
FORM 16 - TRUNK GROUPS

CDE TERMINAL DISPLAY

4:26 PM 15-JAN-88 alarm status = NO ALARM

[GRP : I-TORONTO] [NO SMDR][TERM]	TK NUM	BAY	S L T	CCT	COMMENTS
	1	03	09	01	
	2	03	10	01	
	1	03	09	01	

1-SMDR	2-C I RCULAR	3- INSERT	4-TK GRP NAME	5-TRUNK GROUP
6-QUIT	7 -	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

[GRP: I-TORONTO] [NO SMDR][TERM] TK NUM BAY SLT CCT COMMENTS
1 03 09 01

F1>SMDR	F2>C I RCULAR	F3> INSERT	F4>TK GRP NAME	F5>TRUNK GROUP
F6>QUIT	F7>	F8>DELETE	F9>	F0>

4.76 Field Description

Header: The header line indicates the Trunk Group being programmed, via a number and a name (maximum of eight characters). This line also indicates the presence of the SMDR option and whether the Trunk Group is subjected to Terminal Hunting or Circular Hunting.

TK NUM: This field lists the members of each Trunk Group according to their trunk number. Members are added by entering a valid trunk number (1 to 200) when the cursor is at the TK NUM field on the command line. The Trunk Group is displayed on the header line.

BAY, SLT, CCT and COMMENTS: These fields are informational fields only. They cannot be modified in this form. When a trunk number is added to the Trunk Group, the physical identification (BAY, SLT and CCT) and the COMMENTS fields from Form 14 (Non-Dial-In Trunks) or Form 15 (Dial-In Trunks) are automatically displayed.

4.77 Commands

1-SMDR/NO SMDR: This softkey enables and disables the Station Message Detail Recording (SMDR) feature for the Trunk Group. When the SMDR feature is enabled, the header line displays [SMDR] and the softkey displays NO SMDR. Pressing the NO SMDR softkey disables the SMDR feature for that Trunk Group. The softkey now displays SMDR and the header line displays [NO SMDR].

P-CIRCULAR/TERMINAL: This softkey selects Circular or Terminal hunting. When the Trunk Group is defined as a Terminal type, the header line displays [TERM] and the softkey displays CIRCULAR. Pressing the CIRCULAR softkey programs the selected Trunk Group as a Circular type. The header line now displays [CIRC] and the softkey displays TERMINAL. Refer to Section MITL9109-094-105-NA, Features Description for details on Circular and Terminal Trunk Groups.

3-INSERT: This softkey adds new members to the Trunk Group. Pressing the INSERT softkey clears the command line and moves the cursor to the TK NUM field. The addition is completed by entering a valid trunk number. The system inserts the addition before the line previously displayed on the command line. Note that this softkey only appears if there is data present in this form.

4-TK GRP NAME: This softkey specifies a character name for the selected Trunk Group. Pressing the TK GRP NAME softkey displays the following prompt on the command line: ENTER TRUNK GROUP NAME:. The name specification is completed by entering a character name (a maximum of eight characters). The Trunk Group name is displayed on the header line beside the Trunk Group number.

5-TRUNK GROUP: This softkey selects a Trunk Group. Pressing the TRUNK GROUP softkey displays the ENTER TRUNK GROUP NUM: prompt on the command line. The selection is completed by entering a valid Trunk Group number (1 to 50).

6-QUIT: Pressing the QUIT softkey directly after a field has been edited restores the form to the level before the field was modified. The change is not saved. At all other times, pressing the QUIT softkey returns the display to the level where the forms are selected.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message.

8-DELETE: Pressing the DELETE softkey removes the selected trunk from the Trunk Group. The deletion is completed by pressing the ENTER softkey.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 17 - Hunt Groups

4.78 This form specifies the members of each Hunt Group by extension or DATASET numbers. Refer to Table 4-30, Hunt Groups. The system supports a maximum of 50 Hunt Groups; each group supports a maximum of 50 members. Only DATASETs can be added to a data hunt group and data hunt groups can only contain DATASETs. Only modems can be added to a modem hunt group and modem hunt groups can only contain modems.

TABLE 4-30
FORM 17 - HUNT GROUPS

CDE TERMINAL DISPLAY

4:26 PM 15-JAN-88 alarm status = NO ALARM

[GRP 1:21 1 [CIRC][STN/SET]	EXT NUM	BAY	SLT	CCT	COMMENTS
	111	01	03	01	N. MIDDLETON
	112	01	03	02	P. SHERIFF
	113	01	03	03	M. HENDREN
	114	01	03	04	J. HENRY
	111	01	03	01	N. MIDDLETON

1-GROUP TYPE	2-TERMINAL	3-INSERT	4-OPTIONS	5-W GROUP
6-QUIT	7-ACCESS CODE	8-DELETE	9-EXT NUM	0-

ATTENDANT CONSOLE DISPLAY

[GRP 1:21 1 [CIRC][STN/SET]	EXT NUM	BAY	SLT	CCT	COMMENTS
	111	01	03	01	N. MIDDLETON

F1>GROUP TYPE F2>TERMINAL F3>INSERT F4>OPTIONS F5>HUNT GROUP
F6>QUIT F7>ACCESS CODE F8>DELETE F9>EXT NUM F0>

4.79 Field Description

Header: The header line indicates which Hunt Group is being programmed, its access code, the type of hunting used (Terminal or Circular) and the type of hunt group (Stn/set, Agent, Recording).

EXT NUM: This field lists the members of each Hunt Group according to their extension numbers. Valid numbers include extension numbers of Rotary Dial or DTMF sets and *SUPERSET* Prime Line and DATASET numbers.

BAY, SLT, CCT and COMMENTS : These fields are informational fields only. They cannot be modified in this form. When an extension or DATASET number is added to a Hunt Group, the corresponding physical location number (BAY, SLT and CCT) and the COMMENTS fields

from Form 09 (Station/*SUPERSET* Telephones) and Form 12 (Data Assignment) are automatically displayed.

4.80 Commands

I-GROUP TYPE: Pressing this softkey displays softkeys which represent the alternative Hunt Group types. (Softkeys GROUP TYPE and CIRCULAR/TERMINAL do not appear until the hunt group exists. A hunt group is not created until the first member is defined). Refer to Figure 4-14, Hunt Group Types. Note that the selected group type does not appear on the softkey display.

1-	2-RECORDING	3-AGENT	4-	5-
6-QUIT	7 -	8 -	9-	0-

Figure 4-14 Hunt Group Types

1-STN/SET: Pressing this softkey programs the selected Hunt Group as a Station/*SUPERSET* Telephone type. A bay/slot/circuit number of any type of line card can be used with this type of Hunt Group. The header line displays the [STN/SET] prompt to indicate this type of Hunt Group.

I-DEFAULT: This softkey appears when the first modem hunt group is established. (All the devices are modems; the header reads MODEM). Pressing the DEFAULT softkey makes the hunt group the default modem pool; the header reads MODEM/D. All members of the Default Modem Pool must be in BOTH mode.

I-DEFAULT OFF: This softkey appears only if the hunt group is the default modem pool. Pressing it removes the hunt group's -default status.

P-RECORDING: Pressing this softkey programs the selected Hunt Group as a Recording type. Only those bay/slot/circuit numbers referring to the ONS Line Card can be used with this type of Hunt Group. The header line displays the [RECORD.] prompt. The RECORD prompt appears only if the hunt group contains 2500 sets.

3-AGENT: Pressing this softkey programs the selected Hunt Group as an Agent type. The header line displays the [AGENT 1 prompt.

2-CIRCULAR/TERMINAL: This softkey has two functions. It specifies the selected Hunt Group as a Circular or Terminal type. Refer to Section MITL9109-094-105-NA, Features Description for details on Circular and Terminal Hunt Groups. When the Hunt Group is defined as a Terminal type, the header line displays [TERM] and the softkey displays CIRCULAR. Pressing the CIRCULAR softkey programs the Hunt Group as a Circular type. The header line now displays [CIRC] and the softkey displays TERMINAL.

3-INSERT: This softkey adds new members to the selected Hunt

Group. Pressing the INSERT softkey clears the command line and moves the cursor to the EXT NUM field. The addition is completed by entering a valid extension number. The system inserts the addition on the line preceding the current line. Note that this softkey only appears if there is data present in this form.

4-OPTIONS: This softkey selects, in order, the following characteristics of the Hunt Group: Overflow destination, Hunt Group Name, Message Length (Recording Hunt Groups only) and Report ID (ACD only). In each case, softkey 2 is used to change the characteristic. Value inputs are entered on the command line in the usual manner.

P-OVERFLOW: This softkey allows the programmer to assign a destination where calls can be answered when all members of the hunt group are busy.

P-NAME: This softkey appears only if an access code has been programmed for the Hunt Group. The NAME softkey allows the programmer to assign a name to the Hunt Group. The name can be up to 12 characters long. The first character must not be *, # or a number; the name cannot contain blanks or dashes.

2-DTRX ON/OFF: This softkey appears only when the Hunt Group is of the Modem type. The DTRX ON option provides immediate DTRX access. DTRX OFF also provides DTRX access, but only after the inter-digit time-out has expired (about 15 seconds).

2-MSG LENGTH: This softkey appears only if the Hunt Group is of the Recording type. However, it applies only to ACD Recorded Announcement Device hunt groups. The length is entered in minutes and seconds. The default value is 10 seconds; the maximum is 4 minutes. The timer should be set at least 3 seconds longer than the actual message length.

2-NEW REP ID: This softkey applies only for ACD Agent Hunt Groups. A Report ID is created when the Hunt Group is created. This softkey assigns a new ID.

5-HUNT GROUP: This softkey selects a Hunt Group. Pressing the HUNT GROUP softkey displays the ENTER HUNT GROUP NUM: prompt on the command line. The selection is completed by entering a valid Hunt Group number (1 to 50).

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 17 and returns the display to the level where the forms are selected.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message.

7-ACCESS CODE: This softkey assigns an access code for each Hunt

Group. Pressing the ACCESS CODE softkey displays the ENTER NEW ACCESS CODE: prompt on the command line. The access code specification is completed by entering a valid number which must be unique in the database. The access code is displayed on the header line and can be a maximum of five digits.

8-DELETE: Pressing the DELETE softkey removes the selected extension number from the Hunt Group. The deletion is completed by pressing the ENTER softkey. After the last member is deleted from the Hunt Group, the system deletes the access code from the database.

9-EXT NUM: Pressing this softkey displays ENTER EXTENSION NUM on the command line. When a valid number is entered, followed by pressing the ENTER softkey, the screen displays the appropriate Hunt Group and the command line displays the number and its location BAY/SLT/CCT.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 18 - Miscellaneous System Ports

4.81 This form assigns a physical location to three types of devices and three alarms. The devices are a Music on Hold source, Paging equipment and Night Bells equipment. The alarms are Minor, Major and Critical. The system supports 25 night bells, nine paging zones and one Music on Hold source. Refer to Table 4-32, Entry Number Designations and Table 4-31, Miscellaneous System Ports for the form layout.

TABLE 4-31
FORM 18 - MISCELLANEOUS SYSTEM PORTS

CDE TERMINAL DISPLAY

11:01 PM 15-JAN-88 alarm status = NO ALARM

ENTRY NUMBER	DESCRIPTION	BAY	SLT	CCT	SCT	EXTENSION NUMBER
01	Music on Hold	12	13	01	01	
02	Pager 1	12	13	01	02	
03	Pager 2					
04	Pager 3					
05	Pager 4					
06	Pager 5					
07	Pager 6					
08	Pager 7					
09	Pager 8					
10	Pager 9					
11	Minor Alarm					
12	Major Alarm					
01	Music on Hold	02	03	01	01	

1-	2-	3-	4-TOP	5-BOTTOM
6-QUIT	7-ENTRY NUM	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

ENTRY NUM	DESCRIPTION	BAY	SLT	CCT	SCT	EXTENSION NUMBER
01	Music on Hold	02	03	01	01	
F1>	F2>	F3>		F4>TOP		F5>BOTTOM
F6>QUIT	F7>ENTRY NUM	F8>DELETE		F9>		F0>

4.82 Field Description

ENTRY NUMBER: This field lists the entry numbers for the miscellaneous ports. There is a total of 38 entry numbers. The ENTRY NUMBER field cannot be modified.

DESCRIPTION: This field lists the titles assigned to the entry numbers. The DESCRIPTION field cannot be modified.

BAY, SLT and CCT: These fields list the bay, slot and circuit numbers of the device being programmed.

SCT: The SCT (subcircuit) field specifies the relay location on each module for each night bell and each alarm circuit. Refer to Figure 4-15, Universal Card Circuits and Subcircuits.

EXTENSION NUMBER: This field applies only to the night bell entries. The EXTENSION NUMBER field lists the extension numbers (a maximum of five digits) assigned to the night bells. This field links the night bell designations to Form 19 (refer to Table 4-33, Call Rerouting Table). This field also links the incoming trunks of Form 14 (refer to Table 4-27, Non-Dial-In Trunks) to the night bell designations.

4.83 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays the last line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 18 and returns the display to the level where the forms are selected.

6-CANCEL: This softkey appears when a programming error occurs. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message.

7-ENTRY NUM: This softkey selects an entry number. Pressing the ENTRY NUM softkey displays the ENTER ENTRY NUM: prompt on the command line. The selection is completed by entering a valid entry number (1 to 38). This entry number can now be specified by its bay, slot, circuit and (if applicable) subcircuit numbers.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey deletes the selected entry number. The deletion is completed by pressing the ENTER softkey. This entry number can now be assigned to a new physical location.

O-ENTER: This softkey appears only after data for an entry number has been modified. Pressing the ENTER softkey stores the modifications in the database.

TABLE 4-32
MISCELLANEOUS SYSTEM PORTS ENTRY NUMBER DESIGNATIONS

Entry Number	Title
01	Music on Hold
02	Pager 1
03	Pager 2
04	Pager 3
05	Pager 4
06	Pager 5
07	Pager 6
08	Pager 7
09	Pager 8
10	Pager 9
11	Minor Alarm
12	Major Alarm
13	Critical Alarm
14	Night Bell 1
15	Night Bell 2
16	Night Bel I 3
17	Night Bel I 4
18	Night Bell 5
19	Night Bell 6
20	Night Bell 7
21	Night Bel I 8
22	Night Bel I 9
23	Night Bel I IO
24	Night Bell 11
25	Night Bel I 12
26	Night Bell 13
27	Night Bell 14
28	Night Bell 15
29	Night Bell 16
30	Night Bel I 17
31	Night Bel I 18
32	Night Bel I 19
33	Night Bell 20
34	Night Bel I 21
35	Night Bell 22
36	Night Bel I 23
37	Night Bell 24
38	Night Bell 25

Note: In 336-port systems only Bays 1 and 2 support Night Bells.

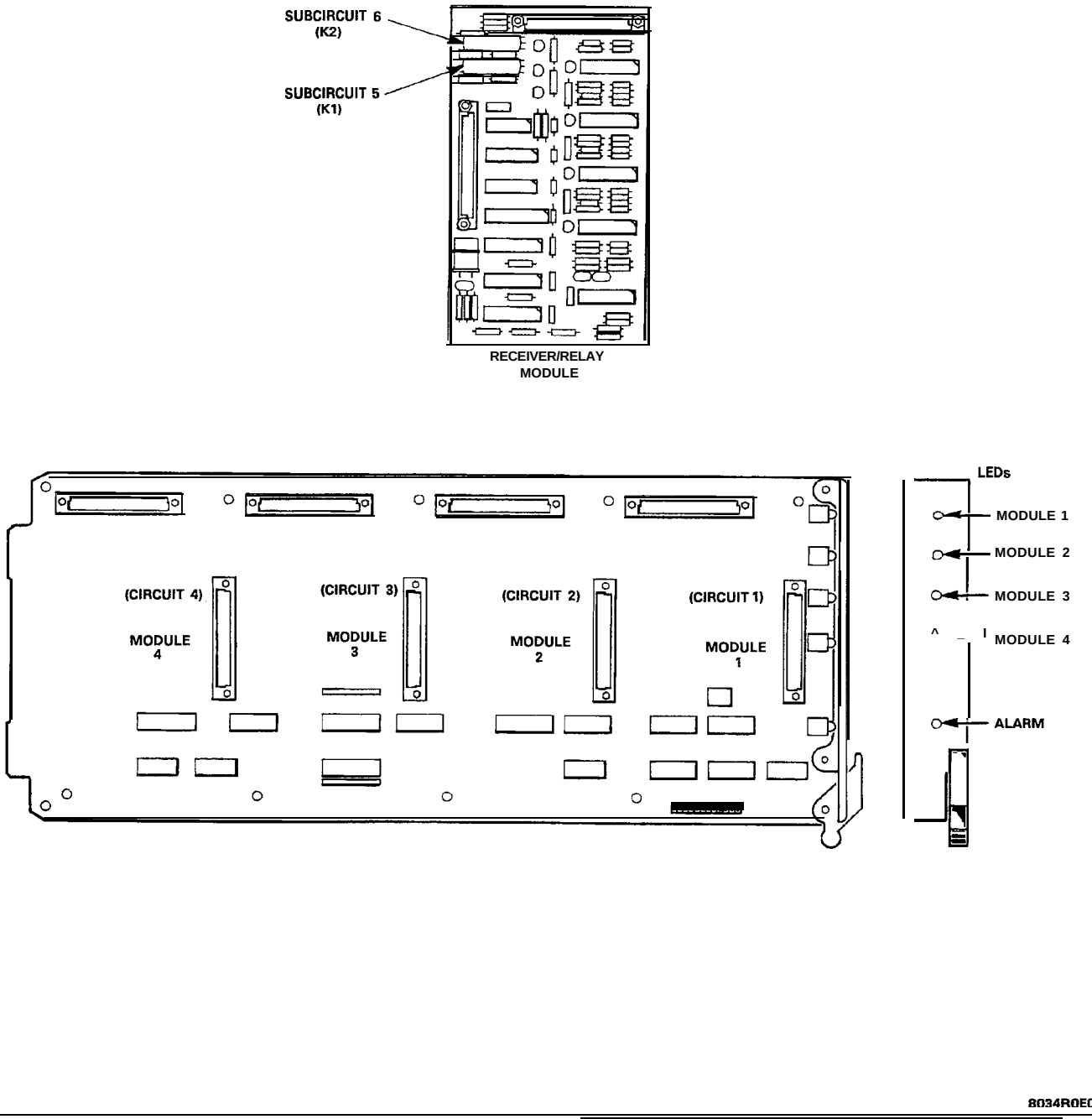

Figure 4-15 Universal Card Circuits and Subcircuits

Form 19 - Call Rerouting Table

4.84 This form designates where intercepted and attendant-directed calls will route based on Day Service, Night1 Service and Night2 Service. Refer to Call Rerouting Options (on next page). Refer also to Table 4-33, Call Rerouting Table for the form layout. Each Tenant Group requires a Call Rerouting Table. "DIAL 0" calls can be directed to an LDN, Rotary Dial or DTMF set, *SUPERSET* telephone or Night Bell extension number, or to an individual console.

TABLE 4-33
FORM 19 - CALL REROUTING TABLE

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

[TENANT : 1	TYPE OF CALL	DAY	N1	N2
	Station Dial 0 Routing	1821	1821	
	Priority Dial 0 Routing			
	DID Recall Points On Busy			
	DID Recall Points On No Answer			
	DID Routing For Calls Into This Tenant			
	DID Intercept Routing For Calls Into This Tenant			
	DID Vacant Number Routing For This Tenant			
	DID Attendant Night Access Points	-----		
	Non-Dial-In Trunks Alternate Recall Points			
	Dial-In Tie Recall Points On Busy			
	Dial-In Tie Recall Points On No Answer			
	Dial-In Tie Routing For Calls Into This Tenant			
	Station Dial 0 Routing	1821	1821	

1-	2-TENANT NAME	3-	4-TOP	5-BOTTOM
6-QUIT	7-TENANT	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

[TENANT : 1] TYPE OF CALL			DAY	N1 N2
Station Dial 0 Routing			1821	1821
F1>	F2>TENANT NAME	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>TENANT	F8>DELETE	F9>	F0>

4.85 **Field Description.:** The header line displays the Tenant Group number being programmed.

DAY: This field designates a directory number for each type of call in Day Service Mode. The directory number is defined in one of the following forms:

Form 07, Console Assignments,
Form 08, Attendant LDN Assignments,
Form 09, Station/*SUPERSET* Telephones,
Form 17, Hunt Groups,
Form 18, Miscellaneous System Ports or
Form 41, ACD Paths.

If this field is blank, then the call does not reroute (such as no answer or busy forwarding) or reorder tone is heard (such as vacant number

intercept or Do Not Disturb intercept).

N1: This field specifies where calls route during Night1 Service Mode by the extension number. If this field is blank, then the call reroutes to the number specified in the DAY field.

N2: This field specifies where calls route during Night2 Service Mode by the extension number. If this field is blank, then the call does not reroute.

CALL REROUTING OPTIONS

Call Type
Station Dial 0 Routing
Priority Dial 0 Routing
DID Recall Points on Busy
DID Recall Points on No Answer
DID Routing for Calls into this Tenant
DID Intercept Routing for Calls into this Tenant
DID Vacant Number Routing for this Tenant
DID Attendant Access Night Points
Non-Dial-In Trunks Alternate Recall Points
Dial-In Tie Recall Points on Busy
Dial-In Tie Recall Points on No Answer
Dial-In Tie Routing for Calls into this Tenant
Dial-In Tie Intercept for Calls into this Tenant
Dial-In Tie Vacant Number Routing for this Tenant
Dial-In Tie Attendant Access Night Points
DND Intercept Routing for this Tenant
Automatic Wake-up Routing for this Tenant
UCD Recording Routing for this Tenant
UCD on Hold Time-out for this Tenant
DISA Day Service Routing for this Tenant
Station Vacant Number Routing for this Tenant
Station Illegal Number Routing for this Tenant

4.86 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

B-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 19 and returns the display to the level where the forms are selected.

B-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message.

'I-TENANT: This softkey selects a Tenant Group. Pressing the TENANT softkey displays the ENTER TENANT GROUP NUM: prompt on the command line. The selection is completed by entering a valid number (1 to

25). The system displays the selected Tenant Group number on the header line.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the selected rerouting designation from the form. The deletion is completed by pressing the ENTER softkey.

O-ENTER: This softkey appears only after data for an entry number has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 20 - ARS: COR Group Definition

4.87 Class of Restriction groups together users with the same outside call capabilities. A COR is assigned to each Attendant Console, station, *SUPERSET* telephone and Dial-In Trunk. This form specifies the Class-of-Restriction (COR) Group memoers. Refer to Table 4-34, ARS: COR Group Definition for the form layout. The system supports a maximum of 50 COR Groups with up to 25 CORs per group. Each COR Group specifies by COR number those extensions which are restricted from accessing the route.

TABLE 4-34
FORM 20 - ARS: COR GROUP DEFINITION

CDE TERMINAL DISPLAY

11:01 PM 15-JAN-88 **alarm status = NO ALARM**

COR GROUP	CDR GROUP MEMBERS (SEPARATE WITH SPACES1	COMMENTS
01	15 18 20-22	LONG DISTANCE - DDD
02	1-12	WATS BAND 2 ACCESS
03	5 7 13	
04		
05		
06		
07		
08		
09		
10		
11		
12		
01	15 18 20-22	LONG DISTANCE - DDD

1-	2 -	3 -	4-TOP	5-BOTTOM
6-QUIT	7-COR GROUP	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

COR GROUP	COR GROUP MEMBERS (SEPARATE WITH SPACES)			COMMENTS
01	15 18 20-22			LONG DISTANCE - DDD
F1>	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>COR GROUP	F8>DELETE	F9>	F0>

4.88 Field Description

COR GROUP: This field lists the COR Group numbers from 1 to 50. Note that the COR GROUP field cannot be modified.

COR GROUP MEMBERS: This field lists the separate members of each COR Group. Note that the COR Group members must be separated by a space (the → key, TAB key or space bar on the terminal or the → key on the console). Consecutive numbered CORs can be separated by a dash (by pressing the "-" key on the terminal or the ninth **softkey** on the console).

COMMENTS: This field is reserved for additional data (a maximum of 20 characters). It is stored by the system but not used.

4.89 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

S-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 20 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. The CANCEL softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-COR GROUP: This softkey selects a Class-of-Restriction (COR) Group. Pressing the COR GROUP softkey displays the ENTER COR GROUP NUM: prompt on the command line. The selection is completed by entering a valid number (1 to 50). The selected COR Group number is displayed on the command line.

I-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the members from the selected COR Group. The deletion is completed by pressing the ENTER softkey.

9-'-': This softkey is available only while a COR group is being edited. Pressing this softkey inserts a dash between a set of consecutive COR Group members. It is valid only when it is inserted between consecutive COR Group members. For example, 1 2 3 4 5 is equivalent to 1-5.

O-ENTER: Pressing the ENTER softkey commits the edited COR Group to the database.

Form 21 - ARS: Day Zone Definition

4.90 This form defines the day zones for each day of the week. There are a maximum of three day zones. Note that all days of the week must have a zone specification before this form can be saved. Refer to Table 4-35, ARS Day Zone Definition for the form layout.

TABLE 4-35
FORM 21 - ARS: DAY ZONE DEFINITION

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

DAY ZONE	MON.	TUE.	WED.	THU.	FRI.	SAT.	SW.
01 02 03	*	*	*	*	*	*	*
01	*	*	*	*	*		

1 -ENABLE	2 -	3 -	4-TOP	5 -
6-QUIT	7 -	8 -	9-	0-

ATTENDANT CONSOLE DISPLAY

DAY ZONE	MON.	TUE.	WED.	THU.	FRI.	SAT.	SUN.
01	*	*	*	*	*		
F1>ENABLE	F2>	F3>		F4>		F5>	
F6>QUIT	F7>	F8>		F9>		F0>	

4.91 Field Description

DAY ZONE: This field lists the day zones for the system. Pressing the up and down arrow keys select different day zones. Note that this field cannot be modified.

MON., TUE., WED., THU., FRI., SAT. and SUN.: These fields list the zone specification. Pressing the right and left arrow keys (or the TAB key on the CRT terminal) select separate days. Note that only one Day Zone number can be assigned to each day of the week. When a day is assigned to a day zone, the form displays an asterisk (*) in that day field.

4.92 Commands

l-ENABLE/DISABLE: This softkey has two functions; it enables and disables the day zone specification for each day. Pressing the ENABLE

softkey sets the selected day to the day zone that is displayed on the command line. The form displays an asterisk (*) in the selected day field opposite the chosen day zone. When the cursor is at an asterisk, this softkey displays DISABLE. Pressing the DISABLE softkey removes that day specification from the selected day zone. The asterisk disappears and the softkey displays ENABLE again.

6-QUIT: Pressi-ng the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 21 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears when a programming error occurs. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

O-ENTER: This softkey appears only after data for a day of the week has been modified. Pressing the ENTER softkey stores each modification one at a time in the database. Note that there must be a Day Zone specification (asterisk) in each day of the week before the database can be updated.

Form 22 – ARS: Modified Digit Table

4.93 This form specifies those digits that modify the user-dialed digits. The digit modification prepares the dialed digits for dialing out on certain trunks such as FX, TIE and WATS. Refer to Section MITL9109-094-220-NA, Automatic Route Selection and Toll Control for details. Refer to Table 4-36, ARS: Modified Digit Table for the form layout.

TABLE 4-36
FORM 22 – ARS: MODIFIED DIGIT TABLE

CDE TERMINAL DISPLAY

11:01 PM 15-JAN-88 alarm status = NO ALARM

ENTRY NUM	QTY TO DELETE	DIGITS TO BE INSERTED	COMMENTS
01 83 04 05 06 07 08 09 10 11 12	1	"1416	TIE LINE TO TORONTO
01	1	'1416	TIE LINE TO TORONTO

1-	2-	3-	4-TOP	5-BOTTOM
6-QUIT	7-ENTRY NUM	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

ENTRY NUM	QTY TO DELETE	DIGITS TO BE INSERTED		COMMENTS
01	1	*1416		TIE LINE TO TORONTO
F1>	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QU IT	F7>ENTRY NUM	F8>DELETE	F9>	FO>

4.94 Field Description

ENTRY NUM: This field lists the entry numbers. There are a maximum of 50 entry numbers. The ENTRY NUM field links this form to Form 23 (refer to Table 4-37, ARS: Route Definition). This field cannot be modified.

QTY TO DELETE: This field lists the quantity of digits that the system removes from the user-dialed digits before outpulsing on a trunk. A maximum of 25 digits can be deleted from each entry number. The digit "1" instructs the system to delete the first dialed digit.

DIGITS TO BE INSERTED: This field lists those digits that the system adds to the user-dialed digits for each entry number. A maximum of 38 digits can be inserted; including any pauses and wait for dial tone symbols. Special number sequences are:

*1 = Pause for 5 Seconds
*2 = Wait for Dial Tone
*3 = Switch to DTMF for Subsequent Digits
*4 = Do not Display Further Modified Digits on Sets or SMDR
*5 = Pause 10 Seconds.

The asterisk (*) character above is generated on the Attendant Console and the terminal by pressing the * key. If however, the asterisk character is required in a string of characters, the * key must be pressed twice.

COMMENTS: This field is reserved for additional data (a maximum of 20 characters). It is stored by the system but not used.

4.95 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 22 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-ENTRY NUM: This softkey selects an entry number and displays it on the command line. Pressing the ENTRY NUM softkey displays the ENTER ENTRY NUM: prompt on the command line. The selection is completed by entering a valid number (1 to 100).

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the data from the selected field. The deletion is completed by pressing the ENTER softkey. The field is ready for new data.

O-ENTER: This softkey appears only after data for an entry number has been modified. Pressing the ENTER softkey commits the entry to the database.

Form 23 – ARS: Route Definition

4.96 This form defines each ARS Route by specifying the Trunk Group number, COR Group number and the Modified Digit Entry. Refer to Table 4-37, ARS: Route Definition for the form layout.

TABLE 4-37
FORM 23 – ARS: ROUTE DEFINITION

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

ROUTE NUM	TRUNK GROUP	COR GROUP	MOD DIGIT ENTRY	COMMENTS
02	1	1	2	LOCAL DDD
03	11	11	3	BANDLONG DISTANCE 2 DDD
04				
05				
06				
07				
08				
09				
10				
11				
12				
01	1	1	1	LOCAL DDD

	2-	3-	4-TOP	5-BOTTOM
1-QUIT	7-ROUTE NUM	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

ROUTE NUM	TRUNK GROUP	COR GROUP	MOD DIGIT ENTRY	COMMENTS
01	1	1	1	LOCAL DDD
F1>	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>ROUTE NUM	F8>DELETE	F9>	F0>

4.97 Field Description

ROUTE NUM: This field lists the Route numbers. Note that the ROUTE NUM field cannot be modified. There is a maximum of 200 Route numbers.

TRUNK GROUP: This field displays the Trunk Group number specification (1 to 50) for each Route number.

COR GROUP: This field lists the COR Group number specification (1 to 50) for each Route number. This field links this form to Form 20 (refer to Table 4-34, ARS: COR Group Definition). Those users with CORs in the listed COR Group number are restricted from using this route. If no COR Group number is specified, then all users can use this route.

MOD DIGIT ENTRY: This field lists the entry number specification (1 to 50) for each Route number. This field links this form to Form 22 (refer to Table 4-36, ARS: Modified Digit Table).

COMMENTS: This field is reserved for additional data (a maximum of 20 characters). It is stored by the system but not used.

4.9% Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 23 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-ROUTE NUM: This softkey selects a Route number and displays it on the command line. Pressing the ROUTE NUM softkey displays the ENTER ROUTE NUM: prompt on the command line. The selection is completed by entering a valid number (1 to 200).

8-DELETE: This softkey appears when there is data on the command line. Pressing the DELETE softkey removes the data from the field where the cursor is positioned. The entire line is deleted if the cursor is positioned in the first field. Pressing the ENTER softkey, completes the deletion. The field is ready for new data.

O-ENTER: This softkey appears only after data for a Route number has been modified. Pressing the ENTER softkey stores any changes in the database.

Form 24 – ARS: Route Lists

4.99 This form specifies the order that the Route numbers are selected. There are 100 Route List numbers; each Route List number accommodates a maximum of six Route numbers. Refer to Table 4-38, ARS: Route Lists for the form layout.

TABLE 4-38
FORM 24 – ARS: ROUTE LISTS

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

LIST NUM	FIRST	SECOND	WT	THIRD	WT	FOURTH	WT	FIFTH	WT	SIXTH	WT
01	3	2	ON								
02	2	3									
03											
04											
05											
06											
07											
08											
09											
10											
11											
12											
01	3	2	ON								
1-	2-		3-			4-TOP				5-BOTTOM	
6-QUIT	7-LIST NUM		8-DELETE			9-				0-	

ATTENDANT CONSOLE DISPLAY

LIST NUM	FIRST	SECOND	WT	THIRD	WT	FOURTH	WT	FIFTH	WT	SIXTH	WT
01	3	2	ON								
F1>	F2>		F3>			F4>TOP		F5>BOTTOM			
F6>QUIT	F7>LIST NUM		F8>DELETE			F9>		F0>			

4.100 Field Description

LIST NUM: This field displays the Route List numbers. Note that the LIST NUM field cannot be modified. There is a maximum of 100 list numbers.

FIRST, SECOND, THIRD, FOURTH, FIFTH and SIXTH: These fields specify the Route numbers for each Route List number. Valid entries are 01 to 200. These fields link this form to Form 23 (refer to Table 4-37, ARS: Route Definition).

WT: There are five of these; one for each of the SECOND, THIRD, FOURTH, FIFTH and SIXTH fields. ON in this field indicates that the chosen Route number is an expensive route. The system indicates this by providing an audible warning tone when that route is selected.

4.101 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT sof-tkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 24 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-LIST NUM: This softkey selects a Route List number and displays it on the command line. Pressing the LIST NUM softkey displays the ENTER ROUTE LIST NUM: prompt on the command line. The selection is completed by entering a valid Route List number (01 to 100).

&DELETE/ADD: This softkey appears when the pointer is pointing to data (i.e., data on the command line). This softkey has two functions; it deletes and adds data to the form. Pressing the DELETE sof-tkey removes the data from the selected field. The deletion is completed by pressing the ENTER softkey. If the delete key is pressed while the cursor is in the [FIRST] field, data on that line is deleted. The field is ready for new data and the softkey blanks. When the cursor is at a blank WT field on the command line, this softkey displays ADD . Pressing the ADD softkey enables the warning tone. The WT field displays ON and the softkey now displays DELETE.

O-ENTER: This softkey appears only after data for a List number has been modified. Pressing the ENTER softkey stores any modifications in the database.

Form 25 - ARS: Route Plans

4.102 This form assigns the Route Lists to the time and day **zones.** There are 18 time zones (six for each day zone). Each time zone has a start time that can be set by the installer. The last specified start time creates a time period from its start time to the first specified start time of that day zone. If a time zone has no assigned Route List number, then all calls during that time period are restricted from this Route Plan. There are a maximum of 50 Route Plans. Refer to Table 4-39, ARS: Route Plans for the form layout.

4.103 Field Description

TIME ZONE: This field lists the six time zones for each day zone. The TIME ZONE field cannot be modified.

START HOUR: There are three of these fields (one for each day zone). The START HOUR field specifies the starting time of each time zone. The time is represented by two digits in 24 hour format. For example, 18 represents 18:00.

TABLE 4-39
FORM 25 - ARS: ROUTE PLANS

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

TIME ZONE	DAY ZONE 1 START HOUR	DAY ZONE 1 ROUTE LIST	DAY ZONE 2 START HOUR	DAY ZONE 2 ROUTE LIST	DAY ZONE 3 START HOUR	DAY ZONE 3 ROUTE LIST
01	12	003	14	005	18	010
02						
03						
04						
05						
06						

01	12	003	14	005	18	010

6-QUIT	7-ROUTE PLAN	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

TIME ZONE	DAY ZONE 1 START HOUR	DAY ZONE 1 ROUTE LIST	DAY ZONE 2 START HOUR	DAY ZONE 2 ROUTE LIST	DAY ZONE 3 START HOUR	DAY ZONE 3 ROUTE LIST
01	12	003	14	005	18	010

F6>QUIT F7>ROUTE PLAN F8>DELETE F9> F0>

ROUTE LIST: There are three of these fields (one for each day zone). The ROUTE LIST field displays the Route List numbers and links this form to Form 24 (refer to Table 4-38, ARS: Route Lists). Valid entries are 01 to 100.

4.104 Commands

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 25 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

B-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-ROUTE PLAN: This softkey has two functions. It displays the selected Route Plan number and enables the user to select an alternate Route Plan. Pressing the ROUTE PLAN softkey displays the following on the command line: CURRENT ROUTE PLAN: XX ENTER ROUTE PLAN NUM: ROUTE PLAN: where XX is Route Plan number 01 to 50. The Route Plan selection is completed by entering a new Route Plan number.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the data from the selected field. The deletion is completed by pressing the ENTER softkey. The field is ready for new data.

O-ENTER: This softkey appears only after data for a Route Plan number has been modified. Pressing the ENTER softkey stores any changes in the database.

Form 26 - ARS: Digit Strings

4.105 This form (and its nested form) link the digits dialed by the user to the appropriate Route, Route List or Route Plan. It selects the relevant Route (if there is only one route), or Route List (if there is more than one route and the time of day is not important), or Route Plan (if the choice of routes vary with the time of day) by the user-dialed digits. Refer to Table 4-40, ARS: Digit Strings for the form layout. Refer to Section MITL9109-094-220-NA, Automatic Route Selection and Toll Control for details.

TABLE 4-40
FORM 26 - ARS: DIGIT STRINGS

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = ND ALARM

LEADING DIGITS	RETURN DIAL TONE	RESTRICTED COR GROUP
9 8 7	NO YES YES	2 1 UNRESTRICTED
9	NO	2

1-	2 -	3- INSERT	4 -	5 -
B-QUIT	7-LEADING DIG	8-DELETE	9-SHOW STRINGS	0-

ATTENDANT CONSOLE DISPLAY

LEADING DIGITS	RETURN DIAL TONE	RESTRICTED COR GROUP
9	NO	2

F1>	F2>	F3> INSERT	F4>	F5>
F6>QUIT	F7>LEADING DIG	F8>DELETE	F9>SHOW STRINGS	F0>

4.106 Field Description

LEADING DIGITS: This field displays the first digits of each digit string for digit analysis. The maximum number of digits in this field is five.

RETURN DIAL TONE: If this field displays YES, the system provides a dial tone after the leading digits have been dialed.

Alternately, the system does not provide a temporary dial tone when NO is displayed in this field. Refer to Section MITL9109-094-220-NA, Automatic Route Selection and Toll Control for details.

RESTRICTED COR GROUP: This field lists the COR Group which

cannot dial the specified leading digit(s). If this field is left blank, then every COR Group can access the specified leading digit(s).

4.107 Commands

1 -YES/NO: This softkey has two functions; it enables or disables system dial tone for each entry. Pressing the YES softkey enables the system dial tone when that leading digit is accessed. The RETURN DIAL TONE field displays YES and the softkey now displays NO . Pressing the NO softkey disables the system dial tone when that leading digit is accessed. The RETURN DIAL TONE field displays NO and the softkey displays YES again. Note that this softkey only appears when the cursor is in the "RETURN DIAL TONE" field.

3-INSERT: This softkey adds new entries to the form. Pressing the INSERT softkey clears the command line and moves the cursor to the LEADING DIGITS field. The addition is completed by entering the new data for each field and pressing the ENTER softkey. Note that the system inserts the addition after the line that was displayed on the command line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 26 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-LEADING DIG: This softkey selects an entry in the LEADING DIGITS field. Pressing the LEADING DIG softkey displays the ENTER LEADING DIGITS: prompt on the command line. The selection is completed by entering a valid number.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the data from the selected field. The deletion is completed by pressing the ENTER softkey. The field is ready for new data. This softkey does not appear if there is data in the "SHOW STRINGS" nested form of the leading digit displayed on the command line.

O-SHOW STRINGS: Pressing this softkey accesses the nested form for any defined Leading Digits entry. Refer to Table 4-41, ARS: Nested Digit Strings.

O-ENTER: This softkey appears only after data for an entry number has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 26 - ARS: Nested Digit Strings

4.108 This form is reserved for specifying subsequent digits for each entry in the LEADING DIGITS field of the previous form. It can only be accessed from the previous form. Refer to Table 4-41, ARS: Nested Digit Strings for the form layout. Refer to Section MITL9109-094-220-NA, Automatic Route Selection and Toll Control for details.

TABLE 4-41
ARS: NESTED DIGIT STRINGS

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

DIGITS TO BE ANALYZED	QTY TO FOLLOW	LONG DISTANCE	TERM TYPE AND NUM
116	7	NO	ROUTE 1
io4	7	NO	LIST 1
IOX	7	YES	PLAN 3
i1X	7	No	LIST 2
lo Digits To Analyze	7	NO	ROUTE 1
i16	7	No	ROUTE 1

	2 -	3- INSERT	4-NOX	5-x
i-QUIT	7-FIND STRING	&DELETE	9-N1X	0-

ATTENDANT CONSOLE DISPLAY

DIGITS TO BE ANALYZED	QTY TO FOLLOW	LONG DISTANCE	TERM TYPE AND NUM
416	7	NO	ROUTE 1

F1>	F2>	F3> INSERT	F4>NOX	F5>X
F6>QUIT	F7>FIND STRING	F8>DELETE	F9>N1X	F0>

4.109 Field Description

DIGITS TO BE ANALYZED: This field displays those digits for digit analysis. Digit analysis is required so that the appropriate Route, Route List or Route Plan can be selected. The total number of digits in this field, the number of digits in the QTY TO FOLLOW field plus the digits in the LEADING DIGITS field in the previous form (refer to Table 4-40, ARS: Digit Strings) cannot exceed 26.

QTY TO FOLLOW: This field lists the number of digits that the user dials AFTER the analyzed digits. The Unknown prompt in this field indicates that the number of subsequent digits is unknown to the system.

LONG DISTANCE: This field specifies which digit string entries require "long distance" management. When this field displays YES, the system

expects an account code for that digit string entry from users with COS Option 201 (Account Code, Forced Entry – Long Distance Calls) enabled. Default condition is NO.

TERM TYPE AND NUM: This field specifies where the digit string terminates. If there is only one route, then ROUTE is selected. If there is more than one route, but the time of day is not important, then LIST is selected. If the choice of routes vary with the time of day, then PLAN is selected.

4.110 Commands

I-YES/NO: This softkey only appears when the cursor is at the LONG DISTANCE field. Pressing the YES softkey indicates to the system that this entry requires "long distance" management. While NO indicates no "long distance" YES appears in the LONG DISTANCE field. The default condition is no "long distance" management required as indicated by the NO prompt.

2-UNKNOWN: This softkey appears only when the cursor is at the QTY TO FOLLOW field. Pressing the UNKNOWN softkey indicates to the system that the quantity of dialed digits AFTER the analyzed digits is unknown.

3-INSERT: This softkey adds new entries to the form. Pressing the INSERT softkey clears the command line and moves the cursor to the DIGITS TO BE ANALYZED field. The addition is completed by entering the new data for each field and pressing the ENTER softkey. Note that the system inserts the addition one line after the line that was displayed on the command line. The system automatically places all inserted or added strings in numerical ascending order with relation to existing strings.

4-N0X: This softkey functions as a wild card sequence; it represents half of the area codes in North America. Pressing this softkey displays NOX in the DIGITS TO BE ANALYZED field. Note that this softkey can only be pressed at the beginning of a digit string.

4-ROUTE: This softkey only appears when the cursor is at the TERM TYPE AND NUM field. Pressing the ROUTE softkey terminates that entry at a Route (the Route number must still be defined). ROUTE appears in the TERM TYPE AND NUM field.

5-X: This softkey functions as a wild card digit; it represents any digit from 0 to 9. Pressing this softkey displays X in the DIGITS TO BE ANALYZED field. Note that this softkey can only be pressed at the end of a digit string.

5-PLAN: This softkey only appears when the cursor is at the TERM TYPE AND NUM field. Pressing the PLAN softkey terminates that entry at a Route Plan (the number must still be defined). PLAN appears in the TERM TYPE AND NUM field.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey returns the display to the previous form at the entry where the SHOW STRINGS softkey was pressed.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-FIND STRING: This softkey selects an entry in the DIGITS TO BE ANALYZED field. Pressing the FIND STRING softkey displays the ENTER DIGIT STRING: prompt on the command line. The selection is completed by entering a valid digit string. Note: The entered digit string does not have to be an exact match; the system accepts subsets of digit strings-and moves the cursor to the closest entry.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the data from the selected field. The deletion is completed by pressing the ENTER softkey. The field is ready for new data.

9-N1X: This softkey functions as a wild card sequence; it represents half of the area codes in North America. Pressing this softkey displays NIX in the DIGITS TO BE ANALYZED field. Note that this softkey can only be pressed at the beginning of a digit string.

O-LIST: This softkey appears only when the cursor is at the TERM TYPE AND NUM field. Pressing the LIST softkey terminates that entry at a Route List (the number must still be defined). LIST appears in the TERM TYPE AND NUM field.

O-ENTER: This softkey appears only after data for an entry number has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 27 - ARS: Maximum Dialed Digits

4.111 This form specifies the maximum number of dialed digits allowed for each Class of Restriction. The purpose of this form is to accommodate countries with open numbering plans such as Malaysia, where it is generally not possible to determine from the leading digits the number of digits to follow. NOTE for North America the specified default value of Unlimited applies. Refer to Section MITL9109-094-220-NA (ARS), for detailed information and additional CDE considerations if a value other than Unlimited is chosen.

TABLE 4-42
FORM 27 - ARS: MAXIMUM DIALED DIGITS

CDE TERMINAL DISPLAY

9:15 AM 15-JAN-88 alarm status = NO ALARM

COR	MAXIMUM NUMBER OF DIALED DIGITS
1	Unlimited
2	Unlimited
3	Unlimited
4	Unlimited
5	Unlimited
6	Unlimited
7	Unlimited
8	Unlimited
9	Unlimited
10	Unlimited
11	Unlimited
12	Unlimited
1	Unlimited

1-	2- 3	-	4-TOP	5-BOTTOM
6-QUIT	7-	8-COR	9-	0-

ATTENDANT CONSOLE DISPLAY

COR 1		MAXIMUM NUMBER OF DIALED DIGITS UNLIMITED		
F1>	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>	F8>COR	F9>	F0>

4.112 Field Description

COR: This field lists the COR (1 → 25). Note that the COR field cannot be modified.

Maximum Number of Dialed Digits: This field lists the allowed number of dialed digits, 1 → 25, plus the default value of Unlimited.

Note: 26 is equivalent to UNLIMITED. therefore, when 26 is entered the value UNLIMITED is displayed.

4.113 Commands

1 -UNLIMITED: Pressing the UNLIMITED softkey enters the default value of unlimited in the Maximum Number of Dialed Digits field. If the cursor is positioned at the default value, "Unlimited" is not displayed.

4-TOP: This softkey positions the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey positions the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 27 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

8-COR: When this softkey is pressed the user is prompted with ENTER COR NUMBER. After entering the COR number and pressing the ENTER softkey, the cursor is positioned to the COR specified. If the COR selected is out of range, the message "The value xx is outside valid range for COR (1 → 25)" is displayed.

O-ENTER: This softkey appears only after data for an entry has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

Form 28 - Form Access Restriction Definition

4.114 This form specifies the level of access for Forms 01 to 44. There are five levels of access; the installer level has the highest degree of access and the Attendant has the lowest. Each form is defined as Read Only, Read/Write or No Access. When the system is first initialized, the Installer and MAINTI level have a Read/Write access for each form; the rest of the levels default to No Access. Note that at each level of access the user can only modify those forms plus the forms at the lower levels of access. For example, the user at the SUPERVISOR level can only modify those forms at SUPERVISOR and ATTENDANT levels. Refer to Table 4-43, Form Access Restriction Definition for the form layout.

TABLE 4-43
FORM 28 - FORM ACCESS RESTRICTION DEFINITION

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

[FORM NAME]	INST	MAIM1	MAINT2	SUPER	ATT
01 = SYSTEM CONFIGURATION	R/W	R/W	R/W	R/W	R/W
02 = FEATURE ACCESS CODES	R/W	R/W	R/W	R/W	R/W
03 = COS DEFINE	R/W	R/W	R/W	R/W	R/W
04 = SYS OPTIONS/SYS TIMERS	R/W	R/W	R/W	R/W	R/W
65 = TENANT INTERCONNECTION	R/W	R/W	R/W	R/W	R/W
06 = TENANT NIGHT SWITCHING	R/W	R/W	R/W	R/W	R/W
07 = CONSOLE ASSIGNMENTS	R/W	R/W	R/W	R/W	R/W
08 = ATTENDANT LDN ASGN	R/W	R/W	R/W	R/W	R/W
0 9 = STATION/SUPERSET TELEPHONES	R/W	R/W	R/W	R/W	R/W
10 = PICKUP GROUPS	R/W	R/W	R/W .	R/W	R/W
11 = DATA CIRCUIT DESCRIPTOR	R/W	R/W	R/W	R/W	R/W
12 = DATA ASSIGNMENT	R/W	R/W	R/W	R/W	R/W
01 = SYSTEM CONFIGURATION	R/W	R/W	R/W	R/W	R/W

1-	2-	3-	4-TOP	5-BOTTOM
6-QUIT	7-SET PASSWORD	8-	9-FORM NUM	0-

ATTENDANT CONSOLE DISPLAY

FORM NAME			INST	MAINT1	MAINT2	SUPER	ATT
01 = SYSTEM CONFIGURATION			R/W	R/W	R/W	R/W	R/W
F1>	F2>	F3>		F4>TOP		F5>BOTTOM	
F6>QUIT	F7>SET PASSWORD	F8>		F9>FORM NUM		F0>	

4.115 Field Description

FORM NAME: This field lists all the form numbers and names of the CDE package. The FORM NAME field cannot be modified.

INST, MAINT1, MAINT2, SUPER and ATT: These fields represent the five levels of access and list the access type (Read Only, Read/Write or No Access) for each form. Note that the selected level of access is not displayed on the softkeys. The INST field cannot be modified.

4.116 Commands

l-READ ONLY: Pressing the READ ONLY softkey restricts the user to viewing the selected form; no modifications can occur. The R prompt appears beside the selected form and under the selected access level.

2-READ/WRITE: Pressing the READ/WRITE softkey enables the user to view and modify the selected form. The form displays the R/W prompt to indicate this state.

3-NO ACCESS: Pressing the NO ACCESS softkey restricts form access. The form displays the none prompt to indicate this state.

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays the last line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 28 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error occurred. This softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-SET PASSWORD: This softkey changes the password for Customer Data Entry. Pressing the SET PASSWORD softkey shows a new softkey display (refer to Figure 4-16, Levels of Access) and the following prompt: SELECT LEVEL OF ACCESS:. The user cannot change the password for a level of access higher than the current one. For example, a user logged on as MAINT2 cannot change the password for MAINT1. After the user selects a level of access, the system prompts ENTER XXXXXXXX NEW PASSWORD:. When the new password is entered, the system prompts ENTER XXXXXXXX NEW PASSWORD TO VERIFY:. When changing the current level's password, the system first prompts

ENTER XXXXXXXX OLD PASSWORD:, where XXXXXXXX is the selected level of access.

O-FORM NUM: This softkey selects a form by number. Pressing the FORM NUM softkey displays the ENTER FORM NUMBER: prompt on the command line. The selection is completed by entering a valid form number (1 to 35).

O-ENTER: This softkey appears only after data for an entry number has been modified. Pressing the ENTER softkey commits each modification one at a time to the database.

1-ATTENDANT	2-SUPERVISOR	3-MAINT2	4-MAINT1	5-
6-QUIT	7-INSTALLER	6 -	9 -	0-

Figure 4-16 Levels of Access

Form 29 - DTE Profile

4.117 In order for the Data transceiver (DTRX) to communicate with the attached data terminal equipment (DTE), it is necessary to specify the programmable options which define the characteristics of the terminal. The Data transceiver circuit provides data devices with the ability to dial a destination via a keyboard. The DTE profile form provides 25 programmable profiles.

TABLE 4-44
FORM 29 - DATA TERMINAL EQUIPMENT PROFILE

CDE TERMINAL DISPLAY

12:10 PM 15-JAN-88 alarm status = NO ALARM

PROFILE NUMBER	NUMBER OF DATA SETS ASSIGNED	COMMENTS
01	4	
02	0	
	0	
83	0	
05	0	
06	0	
07	0	
08	0	
09	0	
IO	0	
11	0	
12	0	
01	4	

I-	2-	3-	4-TOP	5-BOTTOM
6-QUIT	7-PROFILE NUM	8-SEL. OPTION	9-REVIEW	0-

ATTENDANT CONSOLE DISPLAY

PROFILE NUMBER	NUMBER OF DATA SETS ASSIGNED	COMMENTS
01	4	

F1>	F2>	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>PROFILE NUM	F8>SEL. OPTION	F9>REVIEW	F0>

4.118 Field Description

PROFILE NUMBER: This field lists all the profile numbers 01 to 25. The PROFILE NUMBER field cannot be modified.

NUMBER OF DATA SETS ASSIGNED: This field lists the number of data sets assigned to each profile number.

COMMENTS: This field is reserved for additional data (a maximum of 20 characters). It is stored by the system but not used.

4.119 Commands

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Form 29 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-PROFILE NUM: The PROFILE NUM softkey allows a user to select a device by number. Pressing this softkey displays the ENTER PROFILE NUM: prompt. When the number has been entered, the command line updates and the line pointer moves to profile number. The selection is completed by pressing the ENTER softkey.

8-SEL. OPTION: A new form is displayed when the SEL. OPTION softkey is pressed. Refer to Table 4-45, Options for Form 29.

9-REVIEW: A new form is displayed when the REVIEW softkey is pressed. Refer to Table 4-46, Review List for Form 29. This softkey appears when the number of DATASETs is greater than 0.

O-ENTER: This softkey appears only after data in the comments field has been modified. Pressing the ENTER softkey stores any changes in the database.

Options For Form 29

4.120 The system displays this form when the programmer presses the SEL. OPTION softkey in Form 29, Data Terminal Equipment Profile. The options displayed are for the Profile Number that was on the command line of Form 29.

TABLE 4-45
OPTIONS FOR FORM 29

CDE TERMINAL DISPLAY

12:10 PM 15-JAN-88 alarm status = NO ALARM

PROFILE NUMBER : 1	VALUE
Terminal Type	VIDEO TERM
Language	ENGLISH
DTRX Echoplex	DISABLED
Editing	DISABLED
Editing character delete (0 - 127, Decimal value of ASCII code)	0
Editing line display (O-127, Decimal value of ASCII code)	0
Inject <LF> after <CR>	ALWAYS
Number of pads after <CR> (0 - 7)	0
Number of pads after <LF> (0 - 7)	0
DTRX Inactivity Timer 1 - 60 seconds	IO

Terminal Type				VIDEO TERM
I-TELEPRINTER	2-	3-	4-TOP	5-BOTTOM
6-QUIT	7-	8-	9-	0-

ATTENDANT CONSOLE DISPLAY

[PROFILE NUMBER : 1]	DTE OPTIONS	VALUE
Terminal type		VIDEO TERM
F1>TELEPRINTER F2>	F3> F4>TOP	F5>BOTTOM F6>QUIT
F7> F8>	F9> F0>	

4.121 Field Description

Header: The header displays the Profile Number.

VALUE: The VALUE field displays the current setting for each option.

4.122 Commands

Some of the softkeys displayed are the alternative settings for the option displayed on the command line. Refer to Options Description, below. The following softkeys are continuously present:

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form returns the

display to the level before the field was modified. The change is not saved. At all other times, pressing this softkey exits Options for Form 29 and returns the display to Form 29.

4.123 Options Description

Terminal Type: This parameter is used to determine how the delete character is defined on a video or teleprinter terminal. A teleprinter terminal displays a "/" when the delete character is used and the video terminal transmits a <backspace>, <space>, <backspace>.

Language: Commands and responses for the DTRX can be English or French.

DTRX Echoplex: This parameter determines whether the DTRX (Data Transceiver), will echo back transmitted characters to the originating station. The exception is programmed keys in the DTE and data circuit descriptor forms.

Editing: Enabled, this option provides the user with editing function DTRX delete character, and DTRX display line.

Editing Character Delete: An ASCII code in decimal form is used to define a character as a delete key. If echoplex and DTRX editing options are enabled, a "/" appears as the delete character on a teleprinter and a <backspace>, <space>, <backspace>, is transmitted back to a video terminal.

Editing Line Display: An ASCII code in decimal form is used to define a character as a display line key. When DTRX editing is enabled and the ASCII code for Display Line is transmitted, the current DTRX command line and the input digits are displayed on a new line.

Inject <LF> After <CR>: This field is used to accommodate terminal variations in the handling of carriage returns (<CR>). Some terminals automatically insert line feed (<LF>) after carriage return. While connected to the Data Transceiver the following options are available:

1. NEVER

   No linefeed insertions after <CR> detected.

2. FROM DTE

   Insert <LF> after <CR> from DTE if the echoplex feature is enabled. The <CR> and <LF> is returned to the Data Terminal Equipment by the Data Transceiver after a <CR> was received from the DTE. All messages originated by the DTRX (Data Transceiver) would only have a <CR>. The DTE would typically provide this.

3. FROM SYSTEM (DTRX)

   Insert <LF> after <CR> from DTRX. All messages originated by

the DPABX that have a <CR> will have a <LF> injected. This does not include <CR> which are echoed back to the DTE. This option would be used if the DTE provided local echoing of characters transmitted.

4. ALWAYS

The <LF> will be injected if the <CR> is originated from the DTE or DTRX.

*Number of Pads after <CR>: This field is used for terminals that require delays after a carriage return before receiving printable characters (printers with small or no buffers). Values entered range from 0 to 7. This option is valid only if echoplex is enabled.

Number of Pads after <LF>: This field is used for terminals that require delays after a line feed return before receiving printable characters (printers with small or no buffers). Values entered range from 0 to 7. This option is valid only if echoplex is enabled.

DTRX Inactivity Timer: This field specifies the length of time between the last character received or transmitted from a data device and the DTRX being dropped. Values range between 1 to 60 seconds; default is 10 seconds.

Review List for Form 29

4.124 This form appears when the REVIEW **softkey** is pressed in Form 29, DTE Profile. The form provides a list of users of a particular profile identified by their physical location. Refer to Table 4-46, Review for Form 29.

TABLE 4-46
REVIEW LIST FOR FORM 29

CDE TERMINAL DISPLAY

12:15 PM 15-JAN-88 alarm status = NO ALARM

[PROFILE NUMBER : 1]	BAY	SLT	CCT	SCT	COMMENTS
	2	4	1 2	2	
	2	4		2	
	2			1	
	2	11	11	2	
	2	4	1	2	

-	2 -	3 -	4 -	5 -
6-QUIT	7-PROFILE NUM	8 -	9 -	0-

ATTENDANT CONSOLE DISPLAY

[PROFILE NUMBER : 1]	BAY	SLT	CCT	SCT	COMMENTS
	2	4	1	2	

F1>	F2>	F3>	F4>	F5>
F6>QUIT	F7>PROFILE NUM	F8>	F9>	F0>

4.125 Field Description: The header line displays the Profile number.

BAY, SLT, CCT, SCT: These fields list the bay, slot, circuit and **subcircuit** of the device programmed. These fields cannot be modified.

COMMENTS: This field displays the comments for each device from the Data Assignment form. It cannot be modified.

4.126 Commands

6-QUIT: Pressing the QUIT **softkey** after a field has been edited restores the original contents of the field. At all other times, pressing this **softkey** exits this form and returns the display to Form 29 - DTE Profile.

6-CANCEL: This **softkey** appears after a programming error has occurred. Pressing the CANCEL **softkey** returns the display to the level where the programming error was made. The CANCEL **softkey** appears

with an error message. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-PROFILE NUM: When this softkey is pressed the command line displays "ENTER PROFILE NUM:". After entering a valid number and pressing the ENTER softkey, the screen will display the list of users of that DTE Profile, if any.

O-ENTER: Since this form reviews the programmed data, pressing the ENTER softkey completes a request for viewing a particular profile number. No changes occur and no data is stored in the database.

Form 30 - Device Interconnection Table

4.127 This form specifies which devices may be connected together. Refer to Table 4-47, Device Interconnection Table. The system allows for a maximum of 25 devices.

4.128 Field Description: Initially, the system interconnects all devices except trunks. The asterisk (*) character indicates the device the row represents is allowed to connect to the device the column represents. When the system inhibits device interconnection, it is indicated by the period (.) character. The device numbers are listed in the header line and the first column. The devices these numbers represent are listed in the nested REVIEW form.

TABLE 4-47
FORM 30 - DEVICE INTERCONNECTION TABLE

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
01	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
02	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
03	*	*	.	.	.	.	.	.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
04	*	*	.	.	.	.	.	.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
05	*	*	.	.	.	.	.	.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
06	*	*	.	.	.	.	.	.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
07	*	*	.	.	.	.	.	.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
08	*	*	.	.	.	.	.	.	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
09	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
10	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
11	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
12	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

01	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*

1-	2 -	3 -	4-TOP	5-BOTTOM
6-QUIT	7-INTERCON NUM	8-DISALLOW	9-REVIEW	0-

ATTENDANT CONSOLE DISPLAY

	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
01	0	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	6	*	*	*	*	*	*	*	*

F1> F2> F3> F4>TOP F5>BOTTOM
F6>QUIT F7>INTERCON NUM F8>DISALLOW F9>REVIEW F0>

4.129 Commands

4-TOP: Pressing the TOP **softkey** moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM **softkey** moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT **softkey** when editing this form displays the following warning on the command line: DATA HAS BEEN CHANGED BUT NOT YET SAVED -- “ENTER” TO SAVE. Pressing this **softkey** again

exits Form 30 and returns the display to the level where the forms are selected. The change is not saved. Refer to Table 4-2, Available Forms.

B-CANCEL: Pressing the CANCEL softkey cancels the tenant number entry. This softkey appears after a programming error. It is accompanied with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7-INTERCON NUM: The INTERCON NUM softkey allows a user to select a device by number. Pressing this softkey displays the ENTER INTERCONNECT NUM: prompt. Entering the interconnect number (1 to 25) displays that device with a series of '*' characters (allow interconnection) and '.' characters (disallow interconnection). Cursor movement on the command line is controlled by the right and left cursor control keys.

8-DISALLOW/ALLOW: This softkey has two functions; it enables and disables interconnection between devices. Pressing the DISALLOW softkey disables the interconnection between those two devices unidirectionally. For example, when modifying connections for device 5 (the command line displays line 5) and the DISALLOW softkey is pressed when the cursor is under the sixth column, then device 5 cannot communicate with device 6. However, device 6 can still communicate with device 5. Total interconnection is inhibited only when a '.' (disallow) character is inserted at row 6 (device 6) under the fifth column (device 5). The softkey now displays the ALLOW prompt. Pressing the ALLOW softkey enables the unidirectional interconnection between the selected devices; the '*' character replaces the '.' character.

9-REVIEW: Pressing the REVIEW softkey displays a new form (refer to Table 4-48, Review List for Form 30). This form lists all the device types.

O-ENTER: This softkey appears only after data for an interconnect number has been modified. Pressing the ENTER softkey stores the changes in the database.

Review List for Form 30

4.130 This form appears when the REVIEW softkey is pressed in Device Interconnection Table Form. When entered from Form 30, this form displays a list of the device types. Refer to Table 4-48, Review List for Form 30 for the form layout. Note that the data in this form cannot be modified.

TABLE 4-48
REVIEW LIST FOR FORM 30

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

ENTRY NUM	DEVICE TYPE DESCRIPTION	INTERCONNECT NUM
01	Station/Set	1
02	Console	
03	Loop Start Trunk	3
04	Ground Start Trunk	4
05	DID/Tie Trunk	5
06	E&M Trunk (2-Wire or 4-Wire)	6
07	RESERVED	7
08	RESERVED	8
09	RESERVED	9
10	RESERVED	10
11	RESERVED	11
12	RESERVED	12
01	Station/Set	1

	2-ENTRY NUM	3-	4-TOP	5-BOTTOM
6-QUIT	7-INTERCON NUM	8-	9-	0-

ATTENDANT CONSOLE DISPLAY

ENTRY NUM	DEVICE TYPE DESCRIPTION			INTERCONNECT NUM
01	Station/Set			1
F1>	F2>ENTRY NUM	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>INTERCON NUM	F8>	F9>	F0>

4.131 Field Description

ENTRY NUM: This field lists the entry numbers for the device types. There is a total of 25 entry numbers. The ENTRY NUM field cannot be modified.

DEVICE TYPE DESCRIPTION: This field lists the titles assigned to the entry numbers. The DEVICE TYPE DESCRIPTION field cannot be modified. The last 13 entries are reserved for future use.

INTERCONNECT NUM: This field lists all the interconnect numbers; it links this form to the previous form (refer to Table 4-47, Device Interconnection Table). The interconnect numbers range from 1 to 25.

The INTERCONNECT NUM field cannot be modified.

4.132 Commands

2-ENTRY NUM: This softkey selects an entry number. Pressing the ENTRY NUM softkey displays the ENTER ENTRY NUM: on the command line. The selection is completed by entering a valid entry number (1 to 25).

4-TOP: Pressing the TOP softkey moves the iine pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey returns the display to the point where the REVIEW softkey was pressed. Refer to Table 4-47, Form 30 – Device Interconnection Table.

6-CANCEL: Pressing the CANCEL softkey cancels the last entry. This softkey appears after a programming error. It is accompanied with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

7–INTERCON NUM: This softkey selects a device type by its interconnect number. Pressing the INTERCON NUM softkey displays ENTER INTERCONNECT NUM: on the command line. The selection is completed by entering a valid interconnect number (1 to 25).

O-ENTER: Since this form reviews the programmed data, pressing the ENTER softkey completes a request for viewing a particular interconnect number or entry number. No data changes occur and no data is stored in the database.

Form 31 - System Abbreviated Dial Entry

4.133 This form specifies System Abbreviated Dial numbers. Refer to Section MITL9109-094-223-NA, Abbreviated Dialing for details.

TABLE 4-49
FORM 31 - SYSTEM ABBREVIATED DIAL ENTRY

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

INDEX NUMBER	DIGIT STRING	PRIVATE	
22	8367965	PRIVATE	
77	5922122		
123	2240667	PRIVATE	
123	5922122		

1-	2-FIND INDEX	3- INSERT	4-TOP	5-BOTTOM
6-QUIT	7-	8-DELETE	9-PRIVATE	0-

ATTENDANT CONSOLE DISPLAY

INDEX NUMBER	DIGIT STRING	PRIVATE		
123	5922122			
F1>	F2>FIND INDEX	F3>INSERT	F4>TOP	F5>BOTTOM
F6>QUIT	F7>	F8>DELETE	F9>PRIVATE	F0>

4.134 Field Description

INDEX NUMBER: This field lists the index numbers; one for each entry in the form. The System Abbreviated Dial Access Code followed by the Index number forms the Abbreviated Dial number. Each index number can be a maximum of three digits.

DIGIT STRING: This field lists the digit strings; one for each Index number. The digit string can be a maximum of 26 digits for a non-private number, 25 digits for a private number.

PRIVATE: This field specifies which entries are Private (as indicated with the PRIVATE prompt) and which are non-Private (as indicated by a blank).

4.135 Commands

P-FIND INDEX: This softkey selects an Index Number. Pressing the FIND INDEX softkey displays ENTER INDEX NUM: on the command line. The selection is completed by entering a valid Index Number (a maxi-

mum of three digits).

3-INSERT: This softkey adds new digit strings to this form. Pressing the INSERT softkey clears the command line and moves the cursor to the INDEX NUMBER field. The addition is completed by entering a valid index number and digit string. The system inserts the addition in numerical ascending order according to the "INDEX NUMBER field. Note that if there is no data in this form or the line pointer is pointing to the last line of data, then this softkey does not appear.

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey when editing this form erases the data on the command line. The change is not saved. Pressing the QUIT softkey again exits Form 31 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

6-CANCEL: Pressing the CANCEL softkey cancels the last entry. This softkey appears after a programming error. It is accompanied with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the data from the selected field. The deletion is completed by pressing the ENTER softkey. The field is ready for new data.

9-PRIVATE/NON-PRIVATE: This softkey has two functions. Pressing the PRIVATE softkey sets the selected digit string entry to Private; the PRIVATE prompt appears in the PRIVATE field and the softkey now displays the NON-PRIVATE prompt. Pressing the NON-PRIVATE softkey sets the selected digit string to non-private; the PRIVATE field blanks and the softkey displays the PRIVATE prompt once again.

O-ENTER: This softkey only appears after an Index Number has been modified. Pressing the ENTER softkey stores the modifications in the database.

Form 32 - Customer Data Print

4.136 This form lists all the Customer Data options that can be sent to an output device, such as a printer or a terminal. The options are selected by Print Option Number. Note that this form cannot be modified. Refer to Table 4-51, Customer Data Print Options for a complete list of these options and to Table 4-50, Form 32 - Customer Data Print for the form layout. Note, Print Options with "*" are sub-forms of the preceding form.

TABLE 4-50
FORM 32 - CDE DATA PRINT

CDE TERMINAL DISPLAY

3:49 PM 15-JAN-88 alarm status = NO ALARM

PRINT OPTION	WE DATA PRINT
01	System Configuration
02	Feature Access Codes
03	COS Definition
04	System Options/System Timers
05	Tenant interconnection Table
06	Tenant Night Switching
07	Console Assignments
08	Attendant LDN Assignments
09	Station/SUPERSET Telephones
09*	SUPERSET/Line Appearances
10	Pickup Groups
11	Data Circuit Descriptors
01	System Configuration

1-	2-PRINT ALL	3 -	4-TOP	5-BOTTOM
6-QUIT	7-PRINT OPTION	8 -	9-PRINT	0-

ATTENDANT CONSOLE DISPLAY

PRINT OPTION 01		SYSTEM CONFIGURATION CDE DATA PRINT		
F1>	F2>PRINT ALL	F3>	F4>TOP	F5>BOTTOM
F6>QUIT	F7>PRINT OPTION	F8>	F9>PRINT	F0>

4.137 Field Description

PRINT OPTION: This field lists the print option numbers for the CDE options that can be sent to an output device (a terminal or a printer). There is a maximum of 50 print option numbers. The PRINT OPTION field cannot be modified.

CDE DATA PRINT: This field lists the titles associated with the print option numbers. The CDE DATA PRINT field cannot be modified. Refer to Table 4-51, Customer Data Print Options for a complete list of these electives.

TABLE 4-51
CUSTOMER DATA PRINT OPTIONS

Print Option	CDE Data Print
31	System Configuration
32	Feature Access Codes
33	CDS Definition
34	System Options/System Timers
35	Tenant Interconnection Table
36	Tenant Night Switching
07	Console Assignments
08	Attendant LDN Assignments
39	Station/SUPERSET Telephones
39"	SUPERSET/Line Appearances
10	Pickup Groups
11	Data Circuit Descriptors
11*	Data Circuit Descriptor Reviews
12	Data Assignment
13	Trunk Circuit Descriptors
13"	Trunk Circuit Descriptor Reviews
14	Non-Dial-In Trunks
15	Dial-In Trunks
16.	Trunk Groups
17	Hunt Groups
18	Miscellaneous System Ports
19	Call Rerouting Table
20	ARS: COR Group Definition
21	ARS: Day Zone Definition
22	ARS: Modified Digit Table
23	ARS: Route Definition
24	ARS: Route Lists
25	ARS: Route Plans
26	ARS: Leading Digit Strings
26*	ARS: Digit Strings
27	ARS: Maximum Dialed Digits Table
26	Form Access Restriction
29	DTE Profile
29*	DTE Profile Review
30	Device Interconnect Table
30*	Device Interconnect Translation
31	Abbreviated Dial Numbers
32	RESERVED
33	Account Codes
34	Directed IO
35	Global Find Access Codes
36	Modem Assignment
37	Guest Room SUPERSET Keys Template
38	ACD Keys Template
39	ACD Agent Groups
39'	ACD Agent Groups Options
40	ACD Supervisors
40*	ACD Supervisors Groups
41	ACD Paths
42	T1 Link Descriptors
42'	T1 Link Descriptors Review
43	T1 Link Assignment
44	Network Synchronization
50	Automatic Route Selection

4.138 Commands

2-PRINT ALL: This softkey transmits the contents of all the CDE Data Print option ranges to an output device (printer or terminal).

Pressing the PRINT ALL softkey blanks the softkey display (with the

exception of the QUIT softkey).

Further CDE is prohibited while the command PRINT ALL is in effect. The command line sequentially prompts the user to enter the desired ranges for options. The softkey ENTER must be pressed after each entry. The following lists the Data Print options:

PRINT FROM COS START: TO COS END
PRINT FROM TRK CCT DESC START: TO TRK CCT DESC END
PRINT FROM DATA CCT DESC START: TO DATA CCT DESC END
PRINT FROM DTE PROFILE START: TO DTE PROFILE NUM. END

When printing starts, the command line displays: CDE DATA PRINT IN PROGRESS and the only softkey available is ABORT.

Note: The system does not generate an error message if the specified printer is not operational.

When completed, the system displays "CDE DATA PRINT ALL HAS COMPLETED PRINTING". The normal softkeys reappear (refer to Table 4-50, Form 32, Customer Data Print).

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last line of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey during a print operation while the system is prompting for option or range values cancels the print process. At all other times, pressing the QUIT softkey exits Form 32 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

B-ABORT: This softkey appears whenever a print is in progress, Pressing this softkey cancels the current active printout. The command line displays:

CDE DATA PRINT ALL OPTION HAS BEEN ABORTED

or,

CDE DATA PRINT OPTION XX HAS BEEN ABORTED

as appropriate.

6-CANCEL: This softkey appears if a print is requested when there are no printers assigned to CDE Data Print. The command line displays:

NO PRINTERS HAVE BEEN ASSIGNED TO CDE DATA PRINT

'I-PRINT OPTION: This softkey selects a print option number. Pressing the PRINT OPTION softkey displays ENTER PRINT OPTION: on the command line. The selection is completed by entering a valid print option number. The command line displays the selected option.

9–PRINT: This softkey transmits the contents of the selected print option to an output device (printer or terminal). Pressing the PRINT softkey blanks the softkey display (except for the ABORT softkey) for the duration of the print operation. When completed, the system displays CDE DATA PRINT OPTION XX HAS COMPLETED PRINTING where XX is the Print Option number. The softkey display returns to the original format (refer to Table 4-50, Form 32 - Customer Data Print).

O-ENTER: This softkey appears when the programmer has selected a Print Option number or has selected PRINT ALL and entered the requested Start and End values.

Form 33 - Account Code Entry

4.139 This form specifies the Account Codes in the database. If the Account Codes are verified, they are stored in the Account Code database. Refer to Table 4-52, Form 33 - Account Code Entry for the form layout. Refer also to Section MITL9109-094-221-NA, Station Message Detail Recording (SMDR). Note that this form can only be accessed if System Option 05, Verified Account Codes is enabled (refer to Form 04, System Options/System Timers).

TABLE 4-52
FORM 33 - ACCOUNT CODE ENTRY

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

ACCOUNT CODE	COS	COR	ACTIVE
123456	1	1	ACTIVE
345678	3	2	INACTIVE
445679			ACTIVE
123456	1	1	ACTIVE

1	P-NULL COS	3- INSERT	4-TOP	5-BOTTOM
6-QUIT	7-DELETE RANGE	8-DELETE	9-FIND	0-

ATTENDANT CONSOLE DISPLAY

ACCOUNT CODE	COS	COR	ACTIVE
123456	1	1	ACTIVE

F1>	F2>NULL COS	F3> INSERT	F4>TOP	F5>BOTTOM
F6>QUIT	F7>DELETE RANGE	F8>DELETE	F9>FIND	F0>

4.140 Field Description

ACCOUNT CODE: This field lists the stored Account Codes entries. The length of the Account Code is specified in Form 04, System Options/ System Timers (System Option 55, Account Code Length). Depending on the status of System Option 55, Account Codes can be variable from 1 to 12 digits or fixed to a set value from 4 to 12 digits.

COS: This field specifies a COS number for each ACCOUNT CODE entry. This COS number replaces the caller's COS number for the duration of the call. When the call is finished, the system restores the caller's original COS number. If this field remains blank, then the caller's original COS number is used for the call.

COR: This field specifies a COR number for each Account Code entry. The system replaces the caller's COR number with this COR number

for the tenure of the call. Upon call completion, the caller's original COR number is restored. If there is no specified COR number, then the caller's original COR number is used for the call.

ACTIVE: This field specifies which Account Codes can be accessed (as marked by the ACTIVE prompt) and which Account Codes are denied access (as marked by the INACTIVE prompt).

4.141 Commands

1 -ACTIVE/INACTIVE: This softkey has two functions. Pressing the ACTIVE softkey sets the selected Account Code entry to Active; that Account Code can now be accessed. The ACTIVE prompt appears in the ACTIVE field and the softkey now displays the INACTIVE prompt. Pressing the INACTIVE softkey sets the selected Account Code entry to Inactive; that Account Code can no longer be accessed. The ACTIVE field now displays the INACTIVE prompt and the softkey displays the ACTIVE prompt once again. Note that this softkey only appears when the cursor is in the ACTIVE field.

2-NULL COS/NULL COR: This softkey has two functions; it deletes selected COS and COR number entries. When the cursor is in a COS field which has a COS number, the NULL COS prompt appears on the softkey display. Pressing the NULL COS softkey erases the data in the COS field; the NULL COS prompt disappears only when the cursor moves to the next field. Similarly, when the cursor is in a COR field which has a COR number, the NULL COR prompt appears on the softkey display. Pressing the NULL COR softkey erases the data in the COR field; the NULL COR prompt disappears only when the cursor moves to the next field.

3-INSERT: The INSERT softkey adds a new account code to this form. Pressing this softkey opens a window with a clear command line and moves the cursor to the ACCOUNT CODE field. The new account code is programmed by entering an Account Code value, a COS number and a COR number (if required). The system inserts the new account in its appropriate sequential position. The line pointer now points to the new account code. Note that if there is no data in this form or if the line pointer is pointing to the last line of data, then this softkey does not appear.

4-TOP: Pressing the TOP softkey moves the line pointer to the first line of the form. The command line displays the first account code.

5-BOTTOM: Pressing the BOTTOM softkey moves the line pointer to the last account code of the form. The command line displays this line.

6-QUIT: Pressing the QUIT softkey while editing this form, clears the command line. Pressing this softkey again exits Form 33 and returns the display to the level where the forms are selected. Refer to /TAF, Available Forms.

6-CANCEL: Pressing the CANCEL softkey cancels the last entry. This

softkey appears after a programming error. It is accompanied with an error message on the command line. Refer to Table 5-1, Programming Error Messages for a list of these error messages.

'I-DELETE RANGE: Pressing the DELETE RANGE softkey displays the FIRST ACCOUNT CODE TO DELETE: prompt on the command line. After an Account Code has been entered, the display returns the LAST ACCOUNT CODE TO DELETE: prompt. The deletion is completed by entering an Account Code. All Account Code entries between and including these specified Account Codes are removed from the form. If an invalid account code is entered the system will display 'Non-existent account code value has been entered'. Pressing CANCEL followed by QUIT returns the display without any modifications.

8-DELETE: This softkey appears when the pointer is pointing to data (i.e., data on the command line). Pressing the DELETE softkey removes the data from the selected field. The deletion is completed by pressing the ENTER softkey.

9-FIND: This softkey selects an Account Code and appears only when there is an account code in the form. Pressing the FIND softkey displays the ENTER ACCOUNT CODE: prompt on the command line. The selection is completed by entering a valid Account Code.

O-ENTER: This softkey appears only after an Account Code entry has been modified or added. That is, the length of the Account Code must match the specified Account Code length (refer to System Option 55 in Form 04, System Options/System Timers). Pressing the ENTER softkey stores the addition or modifications in the database.

Form 34 - Directed IO

4.142 This form allows the user to specify the printers available in the system. Printouts and printout types will also be defined for each printer, as well as designating whether the printout is guaranteed or not (will or will not print.) Data outputs such as Traffic Measurement, SMDR, Hotel/Motel can be routed to any data port with an asynchronous DATASET. If no new point is specified, printouts continue to default to the system printer RS-232 port. If the printer specified is currently active, then any request to print is queued. The system can support 7 different printers. When the form is entered for the first time the default printer routing is displayed for all valid printouts. Refer to Table 4-53, Directed IO.

TABLE 4-53
FORM 34 - DIRECTED IO

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

EXT NUM	PRINTOUT	PRINTOUT TYPE	GUARANTEED
Printer Port	Maintenance Logs	Autopr int	NO
Printer Port	Maintenance Log	Di rected	No
Printer Port	Maintenance Logs	Monitor	NO
Printer Port	Traffic Measurement	Autopr int	NO
Printer Port	Traffic Measurement	Di rected	No
Printer Port	SMDR	Autopr int	YES
Printer Port	DATA SMDR	Autopr int	NO
Printer Port	CDE Data Print	Di rected	NO
Printer Port	Hotel/Motel Wakeup	Autopr int	NO
Printer Port'	Hotel/Motel Audit	Directed	NO
Printer Port	Maintenance Logs	Autopr int	NO

1-	2 -	3-ADD	4-TOP	5-BOTTOM
6-QUIT	7 -	8-DELETE	9-	0-

ATTENDANT CONSOLE DISPLAY

EXT NUM	PRINTOUT	PRINTOUT TYPE	GUARANTEED
PRINTER PORT	MAINTENANCE LOGS	AUTOPR I NT	No
F1> F2>	F3>ADD	F4>TOP	F5>BOTTOM
F6>QUIT F7>	F8>DELETE	F9>	F0>

4.143 Field Description

EXT NUM: This field lists printer ports and extension numbers of programmed DATASETs. This form is linked to Form 12, Data Assignment.

PRINTOUT: This field lists the specified data outputs from each programmed printer such as Traffic Measurement, SMDR, Hotel/Motel, DATA SMDR, etc. Values in this field are entered through softkey commands. Refer to Figure 4-17, Available Printouts and Figure 4-18 More Available Printouts. Note the PMS (Property Management System) softkey is displayed only if the PMS system option is enabled.

PRINTOUT TYPE: This field lists the type of printout provided for each data output such as Autoprint, Directed and Monitor. Values in this field are entered through softkeys. The softkeys displayed will depend upon the data output programmed in the PRINTOUT field. The following is a list of available softkeys as determined by the PRINTOUT field.

PRINTOUT	PRINTOUT TYPE OPTIONS
Maintenance Logs	AUTOPRINT, DIRECTED, MONITOR
Traffic Measurement	AUTOPRINT, DIRECTED
SMDR	AUTOPRINT
CDE Data Print	DIRECTED
Hotel/Motel Wake-up	AUTOPRINT
Hotel/Motel Audit	DIRECTED
PMS	AUTOPRINT

GUARANTEED: This field is only modifiable for SMDR and Data SMDR printouts. The field defaults to NO in all other cases. If yes, SMDR records are guaranteed to print without losing records.

4.144 Commands

3-ADD: This softkey appears upon entry to the form and is used to insert additional printer locations and/or extension numbers of DATA-SETs. When the ADD softkey is pressed, the form is in the ADD mode. See Commands: Add Mode below.

4-TOP: Pressing this softkey positions the line printer at the top of the form and displays this line on the command line.

5-BOTTOM: Pressing this softkey positions the line pointer at the bottom of the form and displays this line on the command line.

6-QUIT: Pressing the QUIT softkey while editing this form erases the data on the command line and the change is not saved. Pressing the QUIT softkey again exits Form 34 and returns the display to the level where the forms are selected. Refer to Table 4-2, Available Forms.

8-DELETE: Pressing the DELETE softkey deletes from the form the printout listed at the cursor position. The ENTER softkey must then be pressed to change the database. The user is alerted if the printout is currently active (printing or queued to print) before the delete is performed. If the printout is active, the user can cause the immediate deletion of the printout by pressing the CONTINUE softkey or cancel the delete operation by pressing the CANCEL softkey. When the deletion is completed the message 'DELETION COMPLETED' is returned. The printer is deleted when the last printout directed to it is deleted.

O-ENTER: The ENTER softkey appears after an entry has been modified, added or deleted. Pressing the ENTER softkey commits the change to the database.

4.145 Commands: Add Mode

I-PRINTER PORT: This softkey appears when the cursor is positioned on the EXT NUM field. The programmer can enter a valid DATASET number or press the PRINTER PORT softkey to enter Printer Port in the EXT NUM field.

6-QUIT: Pressing the QUIT softkey exits Add- Mode.

O-ENTER: The ENTER softkey appears when the programmer has supplied sufficient information to make -an entry in the database.

The following softkeys appear when the programmer moves the cursor to the PRINTOUT field:

1-SMDR	2-DATA SMDR IO-TRAFFIC		4-MAINT LOGS	5-** MORE **
6-QUIT	7-I-M WAKEUP	8-HM AUDIT	9-PMS	0-

Figure 4-17 Available Printouts

1-CDE DATA	2-ACD AGT SUM	3-	4-	5-** MORE **
6-QUIT	7-	8-		0-

Figure 4-18 More Available Printouts

1-SMDR: This softkey defines the printout as an SMDR printout.

1-CDE DATA: This softkey appears after the MORE softkey has been pressed. It defines the selected printout as a CDE DATA record, allowing the user to print the CDE programmable data to a specified printer.

P-DATA SMDR: This softkey defines the printout as a DATA SMDR. DATA SMDR is a record of internal data calls.

2-ACD AGT SUM: This softkey appears after the MORE softkey has been pressed.

3-TRAFFIC: This softkey defines the printout as a Traffic Measurement report.

4-MAINT LOGS: This softkey defines the printout as a Maintenance Log printout.

5- MORE **:** Pressing this softkey presents the other set of Data Output Types. See Figure 4-18.

6-QUIT: Pressing the QUIT cancels the printout entry.

7-HM WAKEUP: This softkey defines the printout as a report of Wakeup calls.

8-HM AUDIT: This softkey defines the printout as an Audit report.

9-PMS: This **softkey** appears only if Property Management System is enabled in the CDE System Options/System Timers form. When the programmer presses the PMS **softkey**, "PMS Port" appears in the PRINTOUT field the AUTOPRINT **softkey** appears. Pressing the **AUTO-PRINT softkey** completes programming of the PMS port.

After the programmer has selected the desired Printout in the PRINT-OUT field and moved the cursor to the PRINTOUT TYPE field, the following **softkeys** appear:

2-AUTOPRINT: The printout occurs automatically when a certain condition in the system is met.

3-DIRECTED: The printout occurs at the user's request.

4-MONITOR: This **softkey** is available only if the PRINTOUT field is set to Maintenance Logs. The logs are printed as they occur.

When the programmer has chosen SMDR or DATA SMDR as the Print-out Type and moves the cursor to the GUARANTEED field, one of the following **softkeys** appears:

l-YES: Pressing YES guarantees the printing of the record. By default, the GUARANTEED field is set to NO.

l-NO: This **softkey** appears if the GUARANTEED field has been set to YES. Pressing this **softkey** restores it to NO.

Form 35 - Global Find Access Code

4.146 This form lists the access codes in the CDE database, including ARS Leading Digits. Callback Busy and Executive Busy Override are excluded, as they can only be dialed when receiving busy tone. This form exists to provide access code information conveniently to the user. Codes can be assigned, modified or deleted only in the appropriate forms.

TABLE 4-54
FORM 35 - GLOBAL FIND ACCESS CODE

CDE TERMINAL DISPLAY

11:01 PM 15-JAN-88 alarm status = ND ALARM

ACCESS CODE	DEFINED	BAY	SLT	CCT	SCT	MULTIPLE APP.
0	Cons0 l e	2	03	02	1	N/A
1002	SUPERSET		04	01	1	N/A
1003	Logical Line					N/A
1004	Logical Line					N/A
1007	SUPERSET	2	04	02	1	N/A
1008	Logical Line					N/A
1009	Logical Line					N/A
1200	Data Station	2	04	02	2	N/A
2101	Stat ion	2	01	02		N/A
2312	LDN	2	03	02		NO
2313	LDN		03	02		NO
1002	SUPERSET	2	04	01	01	N/A

1-	2-	3-	4-TOP	5-BOTTOM
6-QUIT	7-ACCESS CODE	8-	9-	0-

ATTENDANT CONSOLE DISPLAY

ACCESS CODE	DEFINED	BAY SLT CCT SCT	MULTI PLE APP.
1002	SUPERSET	2 04 01 1	N/A
F1>	F2>	F3> F4>TOP	F5>BOTTOM
F6>QUIT	F7>ACCESS CODE	F8> F9>	F0>

4.147 Field Description

ACCESS CODE: This field lists all programmed access codes as assigned in numerical order by the first digits, for example 10, 111, 1210, 132, 20.

DEFINED: This field lists the areas where access codes have been assigned.

BAY, SLOT, CCT and SCT: These fields list the physical location of devices, and LDNs.

***MULTIPLE APP.:** This field lists multiple appearances of LDNs.

4.148 Commands

4-TOP: Pressing the TOP softkey places the line pointer to the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey places the line pointer to the last line of the form. The command line displays the last line.

6-QUIT: Pressing the QUIT softkey exits Form 35 and returns the display to the level where forms are selected. This softkey can also be used to exit a search for an access code.

6-CANCEL: This softkey appears when the entered access code is not presently assigned. When CANCEL is pressed, the QUIT and NEXT softkeys appear.

'I-ACCESS CODE: Pressing the ACCESS CODE softkey displays ENTER ACCESS CODE prompt on the command line. Upon entering the access code and pressing the ENTER softkey, the code is then verified by the system. If the number entered is not presently used as an access code, the following message is displayed: The access code xxx does not exist.

9-NEXT: This softkey is displayed when an unassigned number is entered at the ENTER ACCESS CODE prompt. Pressing this softkey displays the next access code that exists numerically after the one requested.

O-ENTER: This softkey appears after an access code has been entered at the ENTER ACCESS code prompt.

Form 36 – Modem Assignment

4.149 This form assigns Pooled Modems to the system database. A Pooled Modem consists of a modem connected to an ONS or OPS circuit and a DATASET connected to a Digital Line Circuit. Each line of the form establishes the software association between the ONS or OPS circuit and the Digital Line Circuit for one Pooled Modem.

TABLE 4-55
FORM 36 – MODEM ASSIGNMENT

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

BAY	SLT	CCT	CDN	BAY	SLT	CCT	EXTN	TEN	DTE	COS	COR	MODE	DIAL	COMMENTS
2	02	01	1	2	01	05	2227	1	1	1	1	ORIG	AUTO	
2	02	01	1	2	01	05	2227	1	1	1	1	ORIG	AUTO	

1 -MOVE	2-	3 -	4 -	5-
6-QUIT	7-BAY/SLT/CCT 8	-	9 -	0-

ATTENDANT CONSOLE DISPLAY

```
BAY SLT CCT CDN BAY SLT CCT EXTN TEN DTE COS COR MODE DIAL     COMMENTS
 2   02  01  1   2   01  05  2227   1   1   1   1  ORIG AUTO
F1>MOVE       F2>                F3>          F4>          F5>
F6>QUIT       F7>BAY/SLT/CCT     F8>          F9>          F0>
```

4.150 Field Description

BAY/SLT/CCT: The three left-most columns contain the BAY/SLT/CCT numbers of all unassigned ONS and OPS circuits. The system provides this information.

CDN: A Circuit Descriptor Number (CDN) must be assigned to each DNIC device. The default CDN is 1. Circuit Descriptors are programmed in the CDE Data Circuit Descriptor Form.

BAY/SLT/CCT: The second set of BAY/SLT/CCT columns lists the DNIC circuits associated with each ONS (or OPS) circuit. BAY/SLT/CCT numbers assigned here do not appear in the Data Assignment form or the Stations/*SUPERSET* Telephones form.

EXTN: This column lists the extension numbers assigned to the pooled modems.

TEN: This column lists the tenant numbers to which the pooled modems are assigned. The default tenant number is 1.

DTE: This column lists the optional DTE Descriptor that applies to each pooled modem. The DTE Descriptor is needed for incoming or internal modem pooling calls that require a DTRX. DTE Descriptors are programmed in the CDE DTE Descriptor Form.

COS: This column lists the Class of Service (COS) of each pooled modem. The default COS is 1.

COR: This column lists the Class of Restriction (COR) of each pooled modem. The default COR is 1. This is required because outgoing calls connect to trunks and are routed via ARS.

MODE: This column lists the mode of operation for each modem. The options are ANSWER, ORIGINATE, or BOTH. The default is BOTH.

DIAL: This column lists the auto-dial capability of each modem. The options are AUTODIAL or NON AUTODIAL. The default is NON AUTODIAL.

COMMENTS: There is a COMMENTS field of 15 characters for each modem listed.

4.151 Commands

I-MOVE: This softkey relocates a device via its bay slot, and circuit numbers. When the MOVE softkey is pressed, the command line requests the FROM location (BAY: SLOT: CCT:). When the location is specified and the ENTER softkey is pressed, the command line requests the TO location. The new location is designated and the ENTER softkey is pressed. Note entering invalid numbers inhibits cursor movement.

2-FIND EXT: This softkey locates a pooled modem by its extension number.

4-ANSWER: This softkey appears when the cursor is on the MODE field. Pressing it enables the modem to operate in Answer mode only.

4-NON AUTODIAL: This softkey appears when the cursor is on the DIAL column. Pressing it tells the system that the modem does not dial automatically.

5-AUTODIAL: This softkey appears when the cursor is on the DIAL column. Pressing it tells the system that the modem can dial automatically.

5-ORIGINATE: This softkey appears when the cursor is on the MODE field. Pressing it enables the modem to operate in Originate mode only.

6-QUIT: Pressing the QUIT softkey exits Form 36 and returns the display to the level where forms are selected. Refer to Table 4-2,

Available Forms.

7-BAY/SLT/CCT: Pressing this softkey locates a pooled modem via its ONS or OPS Bay, Slot and Circuit numbers. The command line displays **Bay: Slot: Circuit:** . The cursor appears to the right of the Bay: prompt. Enter the bay location. The TAB key or → cursor key moves the cursor for the Slot and Circuit entries. If the user enters an invalid number, the system irhibits subsequent cursor movement.

8-DELETE: This softkey appears when the command line contains data. Pressing it deletes the entire line from the system database.

B-BOTH This softkey appears when the cursor is on the MODE field and the ANSWER or ORIGINATE softkey has been pressed. Pressing the BOTH softkey enables the modem to operate in both Answer and Originate modes.

9-DELETE FIELD: This softkey appears when the cursor is on the DTE field and a DTE Descriptor number has been entered. Pressing the DELETE FIELD softkey restores the field to its default, blank.

Form 37 - Guest Room *SUPERSET* Keys Template

4.152 This form provides 3 preprogrammed sets (templates) of Speed Dial and Feature Access Keys for Hotel/Motel guest room phones. In each COS, the programmer can enable one template which will apply to all *SUPERSET* 3DN or *SUPERSET* 4DN Telephones in that COS that have Room Status Applies enabled.

TABLE 4-56
FORM 37 - GUEST ROOM *SUPERSET* KEYS TEMPLATE

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

TEMPLATE 1	KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
	02	Speed Dial	95922122	PRIVATE
	03	Speed Dial	95925660	
	04	Do Not Dist		
	05	Speed Dial		
	06	Speed Dial		
	07	Speed Dial		
	08	Speed Dial		
	09	Speed Dial		
	10	Speed Dial		
	11	Speed Dial		
	12	Speed Dial		
	02	Speed Dial	95922122	PRIVATE

1-	2 -	3-FEATURE	4-TEMPLATE NO	5-
6-QUIT	7-KEY	&DELETE	9-NON PRIVATE	0-

ATTENDANT CONSOLE DISPLAY

TEMPLATE 1	KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
	02	Speed Dial	95922122	PRIVATE
F1>	F2>	F3>FEATURE	F4>TEMPLATE N D	F5>
F6>QUIT	F7>KEY	F8>DELETE	F9>NON PRIVATE	F0>

4.153 Field Description

KEY*: The *SUPERSET* 3DN Telephone and *SUPERSET* 4DN Telephone column of line appearance keys are numbered from the bottom. Key 01 is the Prime Line key and cannot be re-programmed. This field cannot be changed. The form provides a line for each key.

TYPE: This field lists the function of each key, either Speed Dial (the default) or a feature (e.g. Do Not Disturb).

SPEED DIAL NUMBER: If the key is a Speed Dial key, the programmer enters the number here.

PRIVATE: If the key is a Speed Dial key, the programmer can prevent the user from displaying the number by selecting the PRIVATE feature for this field.

4.154 Commands

3-FEATURE Pressing this softkey makes the set key a Feature Access key. The following softkeys appear:

1-AUTO ANSWER	2-DO NOT DIST	3-PRIVACY REL	4-OVERRIDE	5-** MORE **
6-QUIT	7-PAGING	8-CAMPON	9-MUSIC	0-

MORE: Pressing the MORE softkey displays these softkeys:

1 -CALL FORWARD	2-CALL PICKUP	3-NIGHT ANSWER	4-CALLBACK	5-** MORE **
6-QUIT	7-SWAP	8-CALL/AI-TN	B-DATA DISC	0-

These softkeys are the same ones that appear in the nested Expand Set form of the Stations/*SUPERSET* Telephones form. Refer there for more information.

4-TEMPLATE NO Pressing the TEMPLATE NO softkey prompts the user to "ENTER TEMPLATE NUMBER: ". Valid template numbers are 1, 2 and 3. When a valid template number is entered, the new template form is displayed.

6-QUIT Pressing this softkey returns the display to the main menu.

6-CANCEL The CANCEL softkey appears when the system finds an error in the entered data. When the softkey is pressed, the entry on the work line is erased and the user is prompted to make another entry.

7-KEY Pressing this key prompts the user to "ENTER KEY NUM:". The valid range for the key number is 2 - 12.

8-DELETE This key is displayed when a key has either a speedcall number or a feature programmed. This softkey deletes the speedcall number or feature programmed for the key. The deletion is completed when the ENTER softkey is pressed.

O-PRIVATE This softkey appears when a speed dial number has been entered and the cursor is on the PRIVATE field. Pressing this key makes a non-private speed dial number private. When a speed dial number is entered under the SPEED DIAL NUMBER column, just tab over to the PRIVATE column and press the PRIVATE softkey to make the number private. The word PRIVATE will appear under the PRIVATE column.

9-NON PRIVATE This softkey appears when the cursor is on the PRIVATE field of a line containing a private speed dial number. Pressing this key makes a private speed dial number non-private.

O-ENTER This softkey appears when a number is entered or when the DELETE key is pressed. The user has to press the ENTER key to confirm the selected action.

Form 38 - ACD Keys Template

4.155 The ACD KEYS TEMPLATE FORM provides up to 3 different function key configurations for each ACD position: Agent, Supervisor and Senior Supervisor. In each COS, however, only one template for one position type can be enabled.

Note: Line appearance keys assigned in the Stations/*SUPERSET* Telephones form have priority over ACD Feature keys.

TABLE 4-57
FORM 38 - ACD KEYS TEMPLATE

CDE TERMINAL DISPLAY

7:50 AM 15-JAN-88 alarm status = NO ALARM

AGENT [1]	KEY	TYPE	SPEED DIAL NUMBER	PRIVATE
	02	Speed Dial		
	03	Speed Dial		
	04	Speed Dial		
	05	Speed Dial		
	06	Speed Dial		
	07	Speed Dial		
	08	Speed Dial		
	09	Speed Dial		
	10	Speed Dial		
	11	Speed Dial		
	12	Queue Status		
	02	Speed Dial		

1 -AGENT	2-SUPERVISOR	3-SENIOR	4-ACD KEYS	5-
6-QUIT	7-KEY	8-DELETE	9-PRIVATE	0-

ATTENDANT CONSOLE DISPLAY

AGENT [1]	KEY 02	TYPE Speed Dial	SPEED DIAL NUMBER	PRIVATE
F1>AGENT	F2>SUPERVISOR	F3>SENIOR	F4>ACD KEYS	F5>
F6>QUIT	F7>KEY	F8>DELETE	F9>PRIVATE	F0>

4.156 Field Description

Header: The Header lists the ACD position to which the template applies and the template number (I, 2 or 3).

Key: This field lists the Line Select keys. The keys are numbered on the set from bottom to top. Key 01, the Prime Line key, is not shown because it cannot be reprogrammed.

Type: This field lists the function of each key. The default is Speed Dial.

Speed Dial Number: This field lists the Speed Dial number for each Speed Dial key.

Private: The word Private in this field indicates the Speed Dial number is private and cannot be displayed at the set.

4.157 Commands

l-AGENT Pressing the AGENT softkey prompts the user to enter an agent template number "ENTER AGENT TEMPLATE NUMBER: ". When a valid template number (l-3) is entered, the selected agent keys template is displayed. The title line is updated with the agent template number.

P-SUPERVISOR: Pressing the SUPERVISOR softkey prompts the user to enter a supervisor template number "ENTER SUPERVISOR TEMPLATE NUMBER: ". When a valid template number (l-3) is entered, the selected supervisor keys template is displayed. The title line is updated with the supervisor template number.

3-SENIOR: Pressing the SENIOR softkey prompts the user to enter a senior supervisor template number "ENTER SENIOR SUPERVISOR TEMPLATE NUMBER: ". When a valid template number (l-3) is entered, the selected senior supervisor keys template is displayed. The title line is updated with the senior supervisor template number.

4-ACD KEYS: Pressing the ACD KEYS softkey provides a set of softkeys used to assign ACD feature keys to the set's Line Select keys. The feature keys presented depend on the type of keys template being programmed. All templates have a QUEUE STATUS key available. In addition, an Agent template can have a MAKE BUSY key and a Supervisor template can have an AGENT STATUS key. Both the SUPERVISOR and SENIOR SUPERVISOR can be provided with a SHIFT key.

7-KEY: Pressing the KEY softkey prompts the user to enter a key number (2-15). When a valid line key number is entered, the cursor points to that line. The command line displays the line, ready for editing.

8-DELETE: This softkey appears only when a line is already programmed with an ACD feature key or a Speed Dial number. Pressing the DELETE softkey deletes the feature or speed dial number programmed for the key displayed on the command line.

O-PRIVATE: Pressing the PRIVATE softkey makes the programmed Speed Dial number private.

9-NON PRIVATE: Pressing the NON PRIVATE softkey makes a private Speed Dial number non-private.

Form 39 - ACD Agent Groups

4.158 The ACD AGENT GROUPS CDE form lists the agents in each ACD group. It cannot be accessed unless the "ACD Enable" system option is enabled. The title line contains the agent group number and name. Entries in this form a-e sorted by ID.

TABLE 4-58
FORM 39 - ACD AGENT GROUPS

CDE TERMINAL DISPLAY

11 :01 PM 15-JAN-88 alarm status = NO ALARM

ACD GRP: 50 SERVICES R00018] AGENT ID	GENT NAME	COS	REPORT I D
111	SUZY BOYD	20	ROOOOI
112	HARRY ADAM	20	R00002
111	SUZY BOYD	20	ROOOOI

1-ACD GRP NAME	2-FIND ID	3-ADD	4-TOP	5-BOTTOM
6-W IT	7-AGENT GROUP	8-DELETE	9-OPTIONS	0-

ATTENDANT CONSOLE DISPLAY

[ACD GRP: 50 SERVICES R00018] AGENT ID 111			AGENT NAME SUZY BOYD	CDS 20 REPORT I D ROOOOI
F1>ACD GRP NAME	F2>FIND ID	F3>ADD	F4>TOP	F5>BOTTOM
F6>QU IT	F7>AGENT GROUP	F8>DELETE	F9>OPTIONS	F0>

4.159 Field Description

Header: The header shows the ACD Group Number, ACD Group Name and Report ID the form is listing.

AGENT ID: This field lists the Agent ID. This is an access code that identifies the agent to the system. The form lists the Agents in numerical order by Agent ID.

AGENT NAME: This field lists the Agent Name. Use of this field is optional, but recommended.

COS: This field lists the Agent's Class of Service.

REPORT ID: This field lists the system-assigned Report ID. The ACD Reporting package uses this information to identify uniquely each individual agent. The programmer has no control over the codes the system generates and cannot edit this field.

4.160 Commands

1-ACD GRP NAME: Pressing the ACD GRP NAME key displays ENTER ACD GROUP NAME : on the command line. This softkey appears only if there is at least one agent in the group, because a group cannot exist without members. The name can be up to 8 characters long.

2-FIND ID: Pressing the FIND ID key displays ENTER AGENT ID :on the command line. The system searches the data base for the requested agent. If found, the group containing this agent is displayed, with the cursor pointing at the agent.

2-NEW REP ID: This softkey appears only when the Agent ID or Agent Name fields are changed. Pressing the softkey causes the system to generate a new code in the Report ID field. There is no other way to modify the Report ID field.

3-ADD: Pressing the ADD key permits the programmer to enter the information needed to add an agent to the displayed group. When the Agent ID has been entered, the ENTER softkey appears. Optionally, the programmer can fill in the Agent Name and COS fields prior to pressing the ENTER softkey. If nothing is entered, the name defaults to blanks and the COS to 1. The added agent will appear in the correct position in the sorted list. If the agent is already assigned to another agent group, the system warns the programmer on the command line and asks the programmer to CONFIRM or CANCEL the entry via softkeys. If the programmer confirms it, any previous group assignment for that agent is deleted. Agents can be reassigned in this way at any time, even while the agent is active. When reassigning an agent, only the ID field should be filled in. The NAME and COS fields will be filled automatically when the ENTER key is pressed.

4-TOP: Pressing the TOP softkey places the line pointer at the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey places the line pointer at the last line of the form. The command line displays the last line.

B-QUIT: Pressing the QUIT softkey exits Form 39 and returns the user to the main menu. Refer to Table 4-2, Available Forms.

'I-AGENT GROUP: Pressing the AGENT GROUP softkey displays ENTER ACD GROUP NUM: on the command line. When the ACD Group number is entered, the requested group is displayed.

8-DELETE: Pressing the DELETE key deletes an agent from the group. An Agent cannot be deleted while engaged in a call.

O-OPTIONS: Pressing the OPTIONS key displays the Options subform. This softkey is not provided if the group is empty.

ACD Group Options For Form 39

4.161 For each Agent Group a set of options can be set to control the ACD Group environment.

TABLE 4-59
ACD GROUP OPTIONS FOR FORM 39

CDE TERMINAL DISPLAY

11 :01 PM 15-JAN-88 alarm status = NC ALARM

[ACD GRP: 50 SERVICES R000181 OPTIONS	STATUS
Afterwork Timer (MM:SS)	00:00
Overflow Timer (MM:SS)	09:00
First Status Threshold (MM:SS)	03:00
Second Status Threshold (MM:SS)	06:00

Afterwork Timer (MM:SS)	00:00			
1-	2-NEW REPORT ID	3-	4-	5-
1-QUIT	7-	8-	9-	0-

ATTENDANT CONSOLE DISPLAY

[ACD GRP: 50 SERVICES R000181	OPTIONS	STATUS
Afterwork Timer (MM:SS)		00:00
F1>	F2>NEW REPORT ID F3>	F4> F5>
F6>QUIT	F7> F8>	F9> F0>

4.162 Field Description

OPTIONS: This field displays the Option name. For options that have a numerical value, the format and units of measure are given in brackets (e.g. MM:SS for minutes:seconds).

STATUS: This field displays the current setting of the option.

4.163 Commands

The NEW REPORT ID and QUIT softkeys perform the same functions as described for Form 39.

4.164 Options Description

Afterwork Timer: After an ACD call has ended, this timer provides a time period for the Agent to complete paperwork. The Agent will receive no ACD calls during this period. The timer has a range of 00:00 to 15:O0. The default is 00:00.

Overflow Timer: This timer specifies the maximum time a call can wait for answer in this ACD Group. When the time period has elapsed, the call is sent to the Overflow destination. The timer has a range of 00:00 to 54:00 (Minutes:Seconds). The default is 00:00.

First Status Threshold: This threshold time provides a visual indication to the Supervisor that the system has reached a defined level of activity. When any call has waited for the defined time period, the supervisor's Queue Status LCD shows a light circle in a dark square. The threshold has a range of 00:00 to 54:00 (Minutes:Seconds). The default is 03:00. The First Threshold time must be less than the Second Threshold time.

Second Status Threshold: This threshold time provides a visual indication to the Supervisor that the system has reached a defined level of activity. This is a higher level of activity than the First Status Threshold represents. When any call has waited for the defined time period, the supervisor's Queue Status LCD shows a dark square. The threshold has a range of 00:00 to 54:00 (Minutes:Seconds). The time must exceed that defined for the First Status Threshold.

Form 40 - ACD Supervisors

4.165 The ACD SUPERVISORS form shows the ID numbers and names of ACD senior supervisors. A **subform** lists the supervisors. These forms cannot be accessed unless the "ACD Enable" system option is enabled.

TABLE 4-60
FORM 40 - ACD SENIOR SUPERVISORS

CDE TERMINAL DISPLAY

11:01 PM 15-JAN-88 alarm status = NO ALARM

ACD SENIOR SUPERVISOR ID CODES	NAME	COS	REPORT ID
278		11	R00015
342	JUDY SMITH	10	R00025
345	J. SUMMERS	12	R00031
342	JUDY SMITH	10	R00025

-FIND GROUP	Z-FIND SUPER	3-ADD	4-TOP	5-BOTTOM
i-QUIT	7-	8-DELETE	9-EXPAND	0-

ATTENDANT CONSOLE DISPLAY

ACD SENIOR SUPERVISOR ID CODES	NAME	COS	REPORT ID
342	JUDY SMITH	10	R00025

F1>FIND GROUP	F2>FIND SUPER	F3>ADD	F4>TOP	F5>BOTTOM
F6>QUIT	F7>	F8>DELETE	F9>EXPAND	F0>

4.166 Field Description

AGENT IDS: This field lists the Agent ID codes. The form is sorted by ID code.

NAME: Senior supervisor and supervisor names are carried to the set where they log on. Their ID's are used for logging on.

COS: This field specifies the Class of Service of each Senior Supervisor. The range is 1 to 50.

REPORT ID: These are system-generated numbers the ACD Reporting package uses to track each Senior Supervisor.

4.167 Commands

I-FIND GROUP: The FIND GROUP **softkey** displays **ENTERACD GROUP** NUM:on the command line. When the group number is entered, the

requested group is displayed. If the requested group is assigned to a senior supervisor, that senior supervisor's sub-form is shown, with the cursor pointing at the requested group.

2-FIND SUPER: The FIND SUPER softkey displays **ENTER SUPERVISOR OR SENIOR SUPERVISOR ID** : on the command line. The data base is searched for this senior supervisor or supervisor ID. If the requested senior supervisor exists, the top level form is shown, with the cursor pointing at the requested ID. If the requested supervisor exists, the sub-form is shown, with the cursor pointing at the requested ID.

2-NEW REP ID: This softkey appears when the programmer modifies the NAME or SUPERVISOR ID field. Pressing the softkey causes the system to generate a new code in the REPORT ID field. There is no other way to modify the Report ID.

3-ADD: This softkey appears upon entry to the form and is used to add additional senior supervisors to the form. When assigning an agent as a Senior Supervisor, only the ID field needs to be filled in. The NAME field will be filled automatically when the ENTER key is pressed. When the ADD softkey is pressed, the form is in the ADD mode. To leave ADD mode, use the QUIT sof-tkey.

4-TOP: Pressing the TOP softkey places the line pointer at the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey places the line pointer at the last line of the form. The command line displays the last line.

6-QUIT: Pressing the QUIT softkey returns the user to the main menu. Refer to Table 4-2, Available Forms.

8-DELETE: The DELETE softkey deletes the current senior supervisor.

O-EXPAND: The EXPAND softkey displays the Expand sub-form, which lists all the groups of the supervisors under the current senior supervisor. The sub-form is sorted by supervisor ID code. All groups reporting directly to the Senior Supervisor are listed at the end of the form in order of group number.

Expand Sub-form for Form 40

4.168 For each senior supervisor, this form lists the assigned ACD Groups and their supervisors. The programmer positions the line pointer at the desired Senior Supervisor in the ACD Senior Supervisors form and presses the EXPAND softkey.

TABLE 4-61
EXPAND SUBFORM FOR FORM 40

CDE TERMINAL DISPLAY

11:01 PM 15-JAN-88 alarm status = NO ALARM

GRPS OF JUDY SMITH 342 R00025	SUPER ID	SUPER NAME	CDS	REP ID
1	110	GARY SMITH	23	ROOOI 0
7	112		20	ROOOI 1
2	115	PAT OAK	22	ROOOI 2
6	115	PAT OAK	22	ROOOI 2
23	115	PAT OAK	22	ROOOI 2
	137		20	R00008
IX	NO SUPER			
12	NO SUPER			
31	ND SUPER			
1	110	GARY SMITH	23	ROOOI 0

1-FIND GROUP	2-FIND SUPER	3-ADD	4-TOP	B-BOTTOM
6-QUIT	7-	8-DELETE	9-NO SUPER	0-

ATTENDANT CONSOLE DISPLAY

GRPS OF JUDY SMITH 342 R00025		SUPER ID SUPER NAME CDS		REP ID
1		110 GARY SMITH 2 3		R00010
F1>FIND GROUP	F2>FI ND SUPER	F3>ADD	F4>TOP	F5>BOTTOM
F6>QUIT	F7>	F8>DELETE	F9>NO SUPER	F0>

4.169 Field Description

Header: The subform header shows the senior supervisor's name, ID and Report ID. If the senior supervisor has no name programmed, the header will show the senior supervisor's number.

GRPS OF: This field lists the Agent Groups reporting to the Senior Supervisor. All groups reporting directly to the Senior Supervisor (with no Supervisor) are listed at the bottom of the form, sorted by Agent Group number. Groups that have Supervisors are sorted by Supervisor ID. Groups with the same Supervisor are sorted by Agent Group number.

SUPER ID: This field lists the Supervisor ID number for each Supervisor under the Senior Supervisor. If a group has no supervisor, the field displays NO SUPER.

SUPER NAME: The Supervisor's name can be programmed in this column. It can be up to 10 characters long; it must not begin with the

character "*".

COS: This field lists the Class of Service of each Supervisor.

REPORT ID: These are system-generated numbers the ACD Reporting package uses to track each Supervisor.

4.170 Commands

1 -FIND GROUP: The FIND GROUP softkey displays **ENTER ACD GROUP NUM:** on the command line. When the group number is entered, the requested group is displayed. If the requested group is assigned to a senior supervisor, that senior supervisor's sub-form is shown, with the cursor pointing at the requested group.

2-FIND SUPER: The FIND SUPER softkey displays **ENTER SUPERVISOR** OR **SENIOR SUPERVISOR ID** : on the command line. If the requested senior supervisor exists, the top level form is shown, with the cursor pointing at the requested ID. If the requested supervisor exists, the sub-form is shown, with the cursor pointing at the requested ID.

2-NEW REP ID: This softkey appears when the programmer modifies the SUPER NAME or SUPER ID field. Pressing the softkey causes the system to generate a new code in the REP ID field. There is no other way to modify the Report ID.

3-ADD: Pressing the ADD key assigns a group and its supervisor to the displayed senior supervisor. Any previous assignment for that group is deleted. Groups can be reassigned at any time, even while active.

4-TOP: Pressing the TOP softkey places the line pointer at the first line of the form. The command line displays the first line.

5-BOTTOM: Pressing the BOTTOM softkey places the line pointer at the last line of the form. The command line displays the last line.

6-QUIT: Pressing the QUIT softkey exits Form 39 and returns the user to the main menu. Refer to Table 4-2, Available Forms.

8-DELETE: The DELETE softkey deletes the current group from the current senior supervisor. This is permitted even if the agent group has agents assigned to it. It will result in the group having no senior supervisor, and no supervisor.

9-NO SUPER: The NO SUPER key assigns the Agent Group directly to the Senior Supervisor; the group has no Supervisor.

Form 41 - ACD Path

4.171 This CDE form defines routing for ACD calls. It cannot be accessed unless the "ACD Enable" System option is enabled. Each path has its own form.

TABLE 4-62
FORM 41 - ACD PATH

CDE TERMINAL DISPLAY

11:01 PM 15-JAN-88 alarm status = NO ALARM

[ACD PATH: 37 SALES I OPTIONS	STATUS
Access Code For This ACD Path	2322
Primary ACD Agent Group	9
Delay For Ringback (MM:SS)	00:03
Recording 1 : Start Time (MM:SS)	00:03
Access Code	4001
Music Source Following	7701
Recording 2 : Start Time (MM:SS)	10:03
Access Code	4002
Music Source Following	7701
Recording 3 : Start Time (MM:SS)	20:03
Access Code	4003
Music Source Following	
Access Code For This ACD Path	2322

	Z-NEW REP ID	3-PATH NAME	4-TOP	5-BOTTOM
i-QUIT	7-ACD PATH	8-DELETE PATH	9-DELETE F I E L D	0-

ATTENDANT CONSOLE DISPLAY

```
[ ACD PATH: 37 SALES . ] OPTIONS                          STATUS
Access Code For This ACD Path                             2322
F1>          F2>NEW REP ID F3>PATH NAME    F4>TOP         F5>BOTTOM
F6>QUIT      F7>ACD PATH   F8>DELETE PATH F9>DELETE FIELD FO>
```

4.172 Field Description

Header: The header displays the ACD Path number and name.

OPTIONS: The Options field lists the programmable timers and options for the ACD Path.

STATUS: The status field is the only field that can be edited; however, no fields on an ACD path can be edited without first assigning the "Access Code For This ACD Path", and the "Primary ACD Agent Group" (the first two lines on the form).

4.173 Options Description

```
OPTIONS FOR ACD PATH

Access Code For This ACD Path
Primary ACD Agent Group
Delay For Ringback (MM:SS)
Recording 1 : Start Time (MM:SS)
              Access Code
              Music Source Following
Recording 2 : Start Time (MM:SS)
              Access Code
              Music Source Following
Recording 3 : Start Time (MM:SS)
              Access Code
              Music Source Following
Recording 4 : Start Time (MM:SS
              Access Code
              Music Source Following
Overflow 1 Agent Group
Overflow 2 Agent Group
Overflow 3 Agent Group
Interflow Enabled
Interflow Timeout (MM:SS)
Interflow Point Access Code (Default = DROP CALL)
Allow Overflow to Interflow Point Before Timeout
Priority
```

Access Code For This ACD Path and **Primary ACD Agent Group** must be defined to establish an ACD Path. Until this is done, no other options can be edited.

Recording n: Start Time (MM:SS) is counted from when a caller has finished the Delay For Ringback period. The range of this timer is 00:00 to 54:oo.

Recording 1 must be defined before Recording 2, Recording 2 **before** Recording 3, Recording 3 before Recording 4. For example, the programmer cannot edit “Recording 3: Start Time”, unless “Recording 2” and “Recording 1” are both defined. If <cursor down> is pressed **from** a blank “Recording n: Start Time” field, the cursor moves to “Overflow 1 Agent Group”.

Each recording’s start time must be later than the preceding recording’s start time.

Recording n: Access Code must be an access code for a Recording Hunt Group. The programmer cannot make an entry for this option until a Start Time is defined for the recording. Once a recording start time is entered, the programmer can only move back and forth between the Start Time and Access Code fields for that recording, until both fields are filled or deleted (by the DELETE FIELD key). PATH NAME, ACD PATH, and DELETE PATH keys are removed during this time **too.**

Music Source Following defines, for each recording, an ONS port to which the caller will be connected when the recording ends. The ONS

port is permanently off-hook with a music source connected. The caller stays connected until the call is answered or another scheduled recording plays. If no music source is defined, the Music on Hold source is used. If this is not provided, the caller receives silence.

Overflow 1 Agent Group must be defined before **Overflow 2 Agent Group,** Overflow 2 Agent Group before **Overflow 3 Agent Group.** If <cursor down> is pressed from a blank "Overflow X Agent Group", the user is positioned at the "Inter-flow Timeout" field.

Interflow Enabled, when set to YES, allows the waiting ACD call to exit ACD and be answered at a defined Interflow Point. Default is NO.

Interflow Timeout (MM:SS) specifies when a waiting ACD call should be directed to the Interflow Point. The timer has a range of 00:01 to 54:O0. The default is 54 minutes.

Interflow Point Access Code can be an extension number, another ACD Path, a Hunt Group (including a UCD Agent Hunt Group), a System Abbreviated Dial number, Night Bells or DROP CALL.

Priority for the ACD Path has a range of 1 (highest priority) to 99. Calls are answered in order of priority. Default priority is 99.

4.174 Commands

P-NEW REP ID: Pressing the softkey causes the system to generate a new code in the header Report ID field. There is no other way to modify the Report ID.

3-PATH NAME: The PATH NAME softkey displays ENTER PATH NAME: on the command line. When the name (up to 8 characters) is entered, it appears on the form top line, beside the path number. This softkey appears only after the first two lines of the form are both filled.

7-ACD PATH: Pressing the ACD PATH softkey displays ENTER ACD PATH NUMBER: on the command line. This softkey appears whenever the first two lines of the form are either both filled or both empty.

8-DELETE PATH: Pressing the DELETE PATH softkey displays the QUIT and ENTER softkeys. Pressing ENTER deletes the ACD path. Pressing QUIT restores the softkeys without deleting the ACD Path.

O-DELETE: Pressing the DELETE FIELD softkey blanks the specified status field. It is provided at the following lines only:

- Recording X Start Time
- Recording X Access Code
- Recording X Music Source Following
- Overflow X Agent Group
- Inter-flow Point Access Code

If the DELETE FIELD key is used on the "Inter-flow Point Access Code"

line, the STATUS will automatically be set to "DROP CALL".

A TRUE or FALSE softkey will appear in softkey position 1 when the user is editing the "Allow Overflow to Inter-flow Point Before Timeout" or "Inter-flow Enabled" lines.

Functional Constraints

1. MIN & MAX ACD PATHS: 1 – 99
2. MIN & MAX INTERFLOW TIMEOUT: 00:00 – 54:00
3. MIN & MAX START TIMES: 00:00 – 54:00
4. MIN & MAX PRIORITIES: 1 – 99 (1 is highest priority)

Form 42 - T1 Link Descriptors

4.175 The T1 Link Descriptors define the parameters that control the behaviour of each Tl link. The form provides 10 programmable descriptors. The main form displays the number of users of each descriptor. A 20 character comment field is provided for each descriptor.

TABLE 4-63
FORM 42 - T1 LINK DESCRIPTORS

CDE TERMINAL DISPLAY

11 :01 PM 15-JAN-88 alarm status = NO ALARM

DESCRIPTOR	LINK TYPE	NUMBER OF LINKS ASSIGNED	COMMENTS
01	T1 DS1	0	
02	T1 DS1		
03	T1 DS1	8	
04	T1 DS1	0	
05	T1 DS1	0	
06	T1 DS1	0	
07	T1 DS1	0	
08	T1 DS1	0	
09	T1 DS1	0	
10	T1 DS1	0	
01	T1 DS1	0	

1-	2 -	3 -	4 -	5 -
B-QUIT	7-	8-SEL. OPTION	9-REVIEW	O-ENTER

ATTENDANT CONSOLE DISPLAY

DESCRIPTOR	LINK TYPE	NUMBER OF LINKS ASSIGNED		COMMENTS
01	T1 DS1	0		
1>	2>	3>	4>	5>
6>QUIT	7>	8>SEL. OPTION	9>REVIEW	0>ENTER

4.176 Field Description

DESCRIPTOR: This field lists the Descriptor numbers. It cannot be edited.

LINK TYPE: This field lists the type of link for each descriptor. Only T1 DS1 is available. This field cannot be changed.

NUMBER OF LINKS ASSIGNED: This field lists the number of links assigned this descriptor in the T1 Link Assignment form.

COMMENTS: This 20-character field is provided for the programmer's notes. The system does not use this information.

4.177 Commands

6-QUIT: Pressing the QUIT softkey exits from the form.

8-SEL. OPTION: Pressing the SELECT OPTION softkey displays the Link Descriptor Options subform for the descriptor on the command line.

O-REVIEW: Pressing the REVIEW softkey displays the Review List subform for the descriptor on the command line.

Link Descriptor Options for Form 42

TABLE 4-64
LINK DESCRIPTOR OPTIONS FOR FORM 42

CDE TERMINAL DISPLAY

11 :01 PM 15-JAN-88 alarm status = NO ALARM

[LINK DESCRIPTOR NUMBER : 1] IN/CUT GOING	VALUE
Alarm debounce timer (300 - 3200 ms)	2500
B8ZS zero code suppression	YES
Slip rate - maintenance limit (0 - 9000) /24 hrs	255
Slip rate - service limit (0 - 9000) /24 hrs	7000
Slip rate - network sync limit (0 - 9000) /24 hrs	7
BER - maintenance limit (10**-n , n = (3,4,5,6)) / hour	4
BER - service limit (IO**-n , n = (3,4,5,6)) / hour	3
Framing losses - maintenance limit (0 - 9000) /24 hrs	255
Framing losses - sync source limit (0 - 9000) /24 hrs	5000
RTS timer - service limit exceeded (1 - 255 min)	30
RTS timer - net slip limit exceeded (1 - 255 min)	30
RTS timer - after alarm (0 - 300 sec)	10
Alarm debounce timer (300 - 3200 ms)	2500

1-	2-	3-	4-	5-
6-QUIT	7-	8-	9-	O-ENTER

ATTENDANT CONSOLE DISPLAY

[LINK DESCRIPTOR NUMBER : 1]	IN/OUT GOING	VALUE
Alarm debounce timer	(300 - 3200 ms)	2500

1>	2>	3>	4>	5>
6>QUIT	7>	8>	9>	0>ENTER

4.178 Field Description: The Header line displays the Link Descriptor number and the direction of the link.

Value: This field lists the selected value for each parameter.

4.179 Commands

I-YES/NO: This softkey appears only when the command line displays the B8ZS Zero Code Suppression parameter. (All other parameters require numeric entries and have no softkeys). Pressing the softkey changes the state of the parameter. If the parameter is set to YES, the softkey is NO, if the parameter is set to NO, the softkey is YES.

6-CANCEL: This softkey appears after a programming error has occurred. Pressing the CANCEL softkey returns the display to the level where the programming error was made. The CANCEL softkey appears with an error message. Refer to Table 5-1, Programming Error

Messages for a list of these error messages.

6-QUIT: Pressing the QUIT softkey returns the display to the T1 Link Descriptors form.

8-CONFIRM: This softkey appears when an option value has been changed. Press the CONFIRM softkey to enter the change in the database.

O-ENTER: Pressing the ENTER softkey (or the RETURN key on a terminal) stores the changed parameter in the database.

4.180 Option Descriptions

Alarm Debounce Timer

The Alarm Debounce Timer defines the length of time a fault condition must be present before it is reported to the main controller. The range of the timer is 300 to 3200 ms.

The reportable fault conditions are:

- Failure of power supply
- Loss of incoming signals at 1544 Kbps
- Loss of frame alignment (syncronization)
- Alarm indication received from the remote end

B8ZS Zero Code Suppression

Special encoding is used when a data byte for a channel contains consecutive bits of the same level. There are two of these line code options available: Alternate Mark Inversion (AMI) and Bipolar 8 Zero Substitution (B8ZS).

In AMI, a 1 is transmitted as a pulse and a 0 is transmitted as no pulse. Consecutive l's are sent as pulses of opposite polarity. If a channel data byte contains all O's, bit 2 is forced to a 1.

In B8ZS encoding, consecutive l's are sent as pulses of opposite polarity, as in AMI. A block of eight O's is replaced by a special eight bit sequence.

Slip Rate Limits

Slip is the deletion or repetition of a single frame of information in a digital bit stream. There are 3 slip rate limits: maintenance, service and network. The slip rate limit is between 0 and 9000 slips over a 24 hour period.

BER Limits

BER is the Bit Error Rate over the last hour. There are 2 BER rate limits: maintenance and service. The bit error rate limit is between 10**-3 (1 error per 1000 bits) and 10**-6 (1 error per 1,000,000 bits) over a 24 hour period.

Framing Loss Limits

Framing loss occurs when the digital trunk cannot find the proper framing bit sequence in the incoming bit stream. It is thus unable to ensure correct decoding of the channels. There are 2 framing loss limits maintenance and service. The framing loss error rate is between 0 and 9000 losses over a 24 hour period.

Limit Definitions

Maintenance: When a maintenance limit is exceeded, the system generates a maintenance log.

Service: When a service limit is exceeded, the system generates a maintenance log and removes the link from service.

Slip Rate - Network Sync Limit: When this limit is exceeded, the system generates a maintenance log and selects a new sync source.

RTS Timer - Service Limit Exceeded

This timer specifies the minimum time for which the link is removed from service after a service limit has been exceeded. When the timer expires, the link is returned to service only if the error rate on the link is less than 1/24th the maintenance limit. The range of the timer is 1 to 255 minutes.

RTS Timer - Net Slip Limit Exceeded

This timer specifies the minimum time for which the link is removed as the sync source after the net slip limit has been exceeded. When the timer expires, the link is again available to the system as a sync source only if the number of slips on the link is less than the net slip limit. The range of the timer is 1 to 255 minutes.

RTS Timer - After Alarm

This timer specifies how long the link will remain unavailable after an alarm condition has cleared.

Review List for Form 42

4.181 The review form provides a **list of users for each descriptor, identified by their physical location. There are no fields that the programmer can edit.**

TABLE 4-65
REVIEW LIST FOR FORM 42

CDE TERMINAL DISPLAY

11:01 **PM 15-JAN-88** **alarm status = NO** ALARM

: LINK DESC NO: 011	BAY	SLOT	COMMENTS

	2 -	3 -	4-	5-
i-QUIT	7 -	8 -	9-	O-ENTER

ATTENDANT CONSOLE DISPLAY

4.182 Field Description: The header line identifies the link descriptor being reviewed.

BAY, SLOT: These fields list the bay and slot location of the T1 trunk cards using this link descriptor.

Comments: The text in this field comes from the Comments field of Form 43, T1 Link Assignment.

Form 43 - T1 Link Assignment

4.183 This form assigns one of the ten link descriptors to each link.

TABLE 4-66
FORM 43 - T1 LINK ASSIGNMENT

CDE TERMINAL DISPLAY

11 : 01 F M 15-JAN-88 alarm status = NO ALARM

TRUNK TYPE	BAY	SLOT	LINK DESC NUM	COMMENTS

1-	2-	3-	4-	5-
6-QUIT	7-	8-	9-	0-ENTER

ATTENDANT CONSOLE DISPLAY

TRUNK TYPE	BAY	SLOT	LINK DESC NUM	COMMENTS
[BLANK]				
1>	2>	3>	4>	5>
6>QUIT	7>	8>	9>	0>ENTER

4.184 Field Description

TRUNK TYPE: This field cannot be edited.

BAY, SLOT: This field lists the Bay and Slot location of the T1 trunk cards in the system.

LINK DESC NUM: This field lists the Link Descriptor that applies to each T1 trunk card.

COMMENTS: The comments field can store 20 characters.

4.185 Commands

6-QUIT: Pressing the QUIT softkey returns the user to the main menu. Refer to Table 4-2, Available Forms.

8-CONFIRM: This softkey appears when an option value has been changed. Press the CONFIRM softkey to enter the change in the data-

base.

O-ENTER: This softkey appears after the programmer has entered a Link Descriptor Number for a T1 trunk card.

Form 44 - T1 Network Sync

4.186 This form determines the order in which the links will be used as the network synchronization clock source. When the error threshold of the first clock source is crossed, the second clock is used as the sync source, etc.

TABLE 4-67
FORM 44 - T1 NETWORK SYNC

CDE TERMINAL DISPLAY

11:01 PM 15-JAN-88 alarm status = NO ALARM

DESCR I PTOR	BAY	SLOT	COMMENTS
First clock source Second clock source Third clock source Fourth clock source Fifth clock source Sixth clock source Seventh clock source Eighth clock source			
First clock source			

1-	2-	3-	4-	5-
6-QU IT	7-	8-	9-	O-ENTER

ATTENDANT CONSOLE DISPLAY

DESCRIPTOR		BAY	SLOT	COMMENTS
First clock source				
1>	2>	3>	4>	5>
6>QUIT	7>	8>	9>	0>ENTER

4.187 Field Description

DESCRIPTOR: This field lists the clock sources, first through eighth, for system synchronization to the T1 network. This field cannot be edited.

BAY, SLOT: This field lists the Bay/Slot location of the T1 trunk cards in the system.

LINK DESC NUM: This field lists the Link Descriptor that applies to each T1 trunk card.

COMMENTS: The comments field can store 20 characters.

4.188 Commands

6-QUIT: Pressing the QUIT softkey returns the user to the main menu. Refer to Table 4-2, Available Forms.

8-CONFIRM: This softkey appears when an option value has been changed. Press the CONFIRM softkey to enter the change in the database.

O-ENTER: This softkey appears after the programmer has entered a T1 trunk card Bay/Slot location as a clock source.

5. PROGRAMMING ERROR MESSAGES

TABLE 5-I
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
XXXXX is an ACD agent ID	A Supervisor'with ACD ID XXXXX, cannot be displayed, as requested via the FIND SUPER key, because this ID belongs to an agent, not a supervisor.
XXXXX is an ACD supervisor	The ID entered for the FIND ID key belongs to a senior supervisor or supervisor.
XXXXX already has day zone X specified	The selected day already has a day zone specification. Only one day zone can be specified per day. Refer to Form 25, ARS: Route Plans.
XXXXX has no zone specified	All days of the week must have a day zone specification.
*3 must be followed by 01 to 14	In Form 31, System Abbreviated Dial Entry, the "*3" indicates that the subsequent digits will be manually dialed. The number of digits that will be manually dialed follows the "*3" indicator, and can be from 01 to 14.
*5 cannot be followed by further digits	In Form 31, System Abbreviated Dial Entry, the "*5" indicates that the previous number is an Intercom Number. Therefore, no digits can follow the "*5" terminator.
* must be followed by 3 or 5	In Form 31, System Abbreviated Dial Entry, only the numbers "3" and "5" are valid entries after an "*" entry.
The access code XXXXX is already assigned	The access code is used elsewhere in the database. Select another access code. Refer tc Form 35, Global Find Access Code, for a list of assigned codes.
Access Code XXXXX conflicts with the Access Code for HUNT GROUP NUM XX	The code entered has already been defined as a Hunt Group Access Code in Form 17, Hunt Groups. Select a new code or change the Hunt Group Access Code.
Access Code XXXXX conflicts with an ARS Leading Digits Entry	The system does not allow a partial match between an ARS Leading Digit and an access code. Leading Digit strings must be unique. Refer to Form 26, ARS: Digit Strings and select a new code or change the ARS Leading Digit entry.
Access Code XXXXX conflicts with an Attendant LDN Access	The code entered has already been defined as an LDN Access Code in Form 08, Attendant LDN

TABLE 5-1 (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
Code	Assignments. Select a new code or change the LDN assignment.
Access Code XXXXX conflicts with a Console Access Code	The code entered has already been defined as an extension number for a console in Form 07, Console Assignments. Select a new code or change the console extension number.
Access Code XXXXX conflicts with the Feature Access Code for FEATURE NUMBER XX	The code entered has already been defined as a Feature Access Code. Select a new code or change the code in Form 02, Feature Access Codes.
Access Code XXXXX conflicts with a Night Bell Access Code	The code entered has already been defined as an extension number for a night bell in Form 18, Miscellaneous System Ports. Select a new code or change the night bell extension number .
Access Code XXXXX conflicts with a station number or SUPERSET Prime Line number	The code entered has already been defined as a station number or the prime line number of a SUPERSET telephone. Select a new code or change the station number (or Prime Line number) in Form 09, Station/SUPERSET Telephones.
Access Code XXXXX conflicts with SUPERSET line number	The code entered has already been defined as a SUPERSET line extension number in the SUPERSET telephone Lines form. Select a new code or change the SUPERSET line extension number
Access code XXXXX does not correspond to a Stn, Set or logical line	Only those access codes (extension numbers) which correspond to a station, SUPERSET key or logical line can be used.
The access code XXXXX does not exist	The selected access code has not been assigned.
Access Code XXXXX does not match with ARS Leading Digits Entry	The access code entered does not match the Direct to ARS access code assigned in Form 02, Feature Access Codes.
The access code for field XXX is invalid	The extension number, Hunt Group Access Code, Night Bell extension number or Attendant Console directory number assigned to one of the DAY, N1 or N2 fields in Form 19, Call Rerouting Table is invalid. Assign a new code in that field.
The access codes for fields XXX & XXX are invalid	The extension numbers, Hunt Group Access Codes, Night Bell extension numbers, or Attendant Console directory numbers assigned to two of the DAY, N1 or N2 fields in Form 19,

TABLE 5-I (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
	Call Rerouting Table are invalid. Assign new codes in the fields.
'he access codes for fields XX, XXX & XXX are invalid	The extension numbers, Hunt Group Access Codes, Night Bell extension numbers or Attendant Console directory numbers assigned to the DAY, N1 and N2 fields in Form 19, Call Rerouting Table are invalid. Assign new codes in the fields.
\ccess code XXXXX is not a 'alid answer point	The following are valid answer points for the DAY, N1 and N2 fields in Form 14, Non-Dial-In Trunks: • an LDN on the Attendant Console, • a Rotary Dial or DTMF set extension number, • a SUPERSET te l ephone directory number, • a Hunt Group Access Code or a • a Night Bell extension number .
\ccount codes of unspecified engths exist; delete these irst.	Ensure that all of the account codes in Form 33, Account Code Entry are equal to the specified account code length in Form 04, System Options/System Timers.
\ccount code value exists in :he database.	In Form 33, Account Code Entry, the entered Account Code already exists. Select a new Account Code.
\CD agent group XX has no nembers	The agent group added to the form is empty. It must have members before it can be put in this form.
\CD agent group XX already ssigned to a supervisor	The ACD Agent Group which has been edited or inserted into the sub-form, is already programned under some other supervisor.
\CD Agent Group XX not ssigned to a supervisor	ACD group XX, requested by the FIND GROUP key. cannot be displayed, because it has not been assigned to a supervisor yet.
\CD groups under XXXXX must first be deleted	This senior supervisor cannot be deleted from the first-level form by the DELETE key, because there are ACD groups defined under this senior supervisor.
\gent XXXXX does not exist	The ID entered for the FIND ID key does not exist in the database.
\gent XXXXX is on line and :annot be deleted	The DELETE key cannot be used on an agent who is on line.
'he agent group XX does not :xist	The selected overflow agent group does not exist.

TABLE 5-I (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
Agent Group XX has no members	The selected Primary ACD Agent Group or Overflow Agent Group is empty. It must have members before it can be put in this form.
Alternate music sources cannot have keyline or multi-call line appearances .	Music sources cannot be line appearances.
Attempting to add more than XXX members to this group	There are a maximum of 50 members for each Pickup Group, Trunk Group and Hunt Group, voice and Data Hunt Groups.
Attempting to define multiple KEY LINE appearances of XXXXX on this SET	An access code for a Key Line appearance cannot be duplicated on another Key Line appearance on that SUPERSET telephone. Refer to the SUPERSET Telephone Lines form.
Attempting to define multiple key types for Access Code XXX	In the SUPERSET Telephone Lines form only one key type can be assigned to each station number.
Attempting to define multiple key types for Trunk Number XX	In the SUPERSET Telephone Lines form only one key type can be assigned to each Trunk Number .
Attempting to delete an ACD path that is currently in use	This ACD path cannot be deleted, because there are ACD calls currently being handled via this path.
Attempting to delete a device for which a disk operation is pending - retry	Attempting to delete data not fully written to disk yet. Try again later.
Attempting to enter invalid access code	A blank access code is not allowed.
Attempting to remove an Agent Group that has calls waiting.	This message will be displayed if the Primary Agent group or the Overflow agent groups have calls waiting and the user is attempting to change or delete the agent group or delete the path.
Attempting to remove a Music Source that is currently in use	Someone is listening to the Music source so it cannot be removed. This message can occur when attempting to change or delete a music source, deleting the recording that the music source is in, or deleting the path.
Attempting to remove a Recording that is currently in use	Someone is using the Recording hunt group so cannot be removed. This message can occur when attempting to change or delete the recording or when deleting the path.

TABLE 5-I (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
Attempting update/delete of a device that is currently in use	The selected device is being used; modify this device at a later time.
Bay/Slot/Circuit XX/XX/XX is already assigned	The specified bay/slot/circuit is assigned elsewhere. Select a new bay/slot/circuit number or change the assignment of that bay/slot/circuit number. Refer to Form 01, System Configuration and Form 09, Station/ SUPERSET Telephones.
Bay/Slot/Circuit XX/XX/XX is already programned elsewhere	The specified bay/slot/circuit is assigned elsewhere. Select a new bay/slot/circuit number or change the assignment of that bay/slot/circuit number. Refer to Form 07, Console Assignment, Form 09, Station/SUPERSET Telephones and Form 12, Data Assignment.
The Bay/Slot/Circuit - XX/XX/XX cannot be programed	Devices are assigned to the selected bay/slot/circuit. These devices must be deleted before a new card type can be programed for the bay/slot/circuit.
Bay/Slot/Circuit XX/XX/XX has device programmed. Cannot change system.	Attempting to change system type (336-Port/456-Port) while devices are programned for bays, 3, 4, and/or 5. Delete devices in these bays. Refer to Form 01, System Configuration.
The Bay/Slot/Circuit - XX/XX/XX is not present	The specified circuit number is not applicable for these bay and slot numbers. Re-enter the bay and slot numbers without the circuit number or enter 0 for the circuit number .
The Bay/Slot/Circuit - XX/XX/XX is not programmed as a console	The selected bay/slot/circuit is not a console. Refer to Form 01, System Configuration and reprogram this bay/slot/circuit as a console.
The Bay/Slot/Circuit - XX/XX/XX is not programned as a DIAL-IN trunk	The selected bay/slot/circuit is programmed as a Non-Dial-In Trunk. Refer to Form 14, Dial-In Trunks.
The Bay/Slot/Circuit - XX/XX/XX is not programmed as a DNIC	The selected bay/slot/circuit is not a DNIC circuit.
The Bay/Slot/Circuit - XX/XX/XX is not programned as a MUSIC/PAGER MODULE	The selected bay/slot/circuit is not a music/pager assignment. Refer to Form 01, System Configuration and reprogram this bay/slot/circuit as a Music/Pager Module.

TABLE 5-1 (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
The Bay/Slot/Circuit - XX/XX/XX is not programmed as a NON-DIAL-IN trunk	The selected bay/slot/circuit is programned as a Dial-In Trunk. Refer to Form 15, Dial-In Trunks.
The Bay/Slot/Circuit - XX/XX/XX is not programned as RECE I VER MODULE	Relays (Subcircuits 5 and 6) are located on a the Receiver/Relay Module only. Ensure that there is a Receiver/Relay Module on a Universal Card at that location in Form 01, System Configuration.
The Bay/Slot/Circuit - XX/XX/XX is not programmed as a STATION or SUPERSET	The selected bay/slot/circuit must first be assigned to a card that supports Rotary Dial or DTMF sets or to a card that supports SUPERSET telephones in Form 01, System Configuration.
The Bay/Slot/Circuit - XX/XX/XX is not programmed as trunk	The selected trunk number corresponds to a a bay/slot/circuit that is not programmed as a trunk.
The Bay/Slot/Circuit - XX/XX/XX is not programed as a UNIVERSAL CARD	The selected bay/slot/circuit is not a Universal Card assignment. Refer to Form 01, System Configuration and reprogram this bay/slot/circuit as a Universal Card.
Cannot delete last agent while callers are waiting on ACD Group XX	The user attempted to delete the last agent from ACD group XX, which would delete group X) itself. However, there are ACD calls waiting for this group, so the deletion cannot be permitted at this time.
Cannot modify LEADING DIGITS until digit strings deleted	In Form 26, Digit Strings, the digit entries in the DIGITS TO BE ANALYZED field must be deleted before the digit entries in the LEADING DIGITS field can be modified.
Cannot update music/pager assignment - must delete and re-enter	To modify the selected music/pager assignment, it must first be deleted and then re-entered.
Can only use "X" wildcard at end of strings.	The X softkey can only be pressed at the end of a digit string entry. Refer to Form 26, Digit Strings.
Circuit descriptor type must match programmed trunk hardware type	The selected trunk circuit descriptor type in Form 13, Trunk Circuit Descriptors must match the specified Trunk Card type in Form 01, System Configuration.
Configuration can not be changed for the Bay/Slot/Circuit - XX/XX/XX	In Form 01, System Configuration, the data in the PROGRAMMED field cannot be matched to the data in the INSTALLED field as devices are

TABLE 5-1 (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
	already assigned to that physical location. Cannot change the configuration until the devices are deassigned.
This console has LDN assigned - cannot delete	An Attendant Console can only be deleted from the system if all of its LDN assignments are removed first. Refer to Form 08, Attendant LDN Assignments.
Consoles that share an LDN access code must be in the same TENANT GROUP	Attendant Consoles that share the same LDN Access Code must also share the same Tenant Group. Refer to Form 07, Console Assignments.
COR group out of range. Valid range is (1 - 50)	There are a maximum of 50 COR Groups.
CCJR value is out of range.	In Form 32, CDE Data Print, the COR value specified must be valid (1 → 25 for each COR Group). There are a maximum of 50 COR Groups. Refer to Form 20, ARS: COR Group Definition.
CDS number must be 1 to 50	Valid range for COS numbers is 1 to 50.
COS value is out of range.	In Form 32, CDE Data Print, the CDS value specified must be valid (1 → 50).
Database is out of sync.	The database copy in RAM does not match the database copy on the diskette. Delete the selected device and re-enter the device in the appropriate form.
Delete ACD Group XX from ACD PATH YY before deleting last agent	The user attempted to delete the last agent from group XX, which would have the effect of deleting group XX itself. However, group XX is referenced in the ACD PATH form, for path number YY, so it must be deleted from that form first. Then the user will be allowed to delete the last agent, and thus delete the group.
Delete ACD Group XX from ACD SUPERVISORS form before deleting last agent	The user attempted to delete the last agent from group XX, which would delete group XX itself. However, group XX is referenced in the ACD SUPERVISORS form, so it must be deleted from that form first.
Disk I/O failure - database may be corrupted	Due to the disk I/O failure, the database may be corrupted. Exit CDE Mode, reset the system and then re-enter WE Mode.
Disk is not ready - data was not written to disk	The disk was not ready. Initiate the write process at a later time.

TABLE 5-1 (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
Disk is write-protected - data was not written to disk	Remove the write-protect tag from the disk. Re-insert the disk in the disk drive and activate the write process again.
Entered string is not in the system	In Form 26, ARS Nested Digit String, the selected digit string is not defined.
Error in "*" sequences. * (1,2,3,4,5,*) are the only valid sequences	The asterisk sequence in the DIGITS TO BE INSERTED field in Form 22, ARS: Modified Digit Table is restricted to the following: *1 = Pause for 5 seconds, *2 = Wait for Dial Tone, "3 = Switch to DTMF for subsequent digits, *4 = Do not display further modified digits on sets or SMDR, *5 = Pause 10 seconds or ** = asterisk character.
Error in COR members. Use spaces between CORs. eg. 1 3 5-14 25	The members for each COR Group must be separated by a space. For consecutive CORs, a dash is inserted.
Error in QTY TO DELETE field. Can only delete up to 25	Only 25 digits can be deleted. Refer to the QTY TO DELETE field in Form 22, ARS: Modified Digit Table.
The extension number XXXXX does not exist	The selected extension number is undefined. The extension number must first be defined in Form 09, Station/SUPERSET Telephones.
EXTENSION NUMBER XXXXX is a member of HUNT GROUP XX.	The selected extension number is a member of the Hunt Group shown. An extension number can be a member of only one Hunt Group at a time.
EXTENSION NUMBER XXXXX is a member of PICKUP GROUP XX.	The selected extension number is a member of the Pickup Group shown. An extension number can be a member of only one Pickup Group at a time.
A FATAL disk error has been detected, check with your supervisor	The diskette could be damaged. Read and write operations cannot occur. See your supervisor.
Feature Number out of range. Valid range is (1 - 37)	Feature numbers range from 1 to 37. Refer to Form 02, Feature Access Codes.
First account code position value greater than last.	When Print Option number 14 in (Form 32, CDE Data Print) is selected, the first specified Account Code must be less than the last specified Account Code.
Form access disallowed; enable verified account codes system option.	To access Form 33, Account Code Entry, System Option 05, Verified Account Code must first be enabled. Refer to Form 04, System

TABLE 5-1 (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
	Options/System Timers.
Form number XX cannot be accessed	The selected form number is reserved for future use or the selected form number has restricted user access. Refer to Form 28, Forn Access Restriction Definition for the level of access for each form.
Form number out of range	The selected Form number is invalid. The range is 1 to 44 with Form 37 reserved for future use. Refer to Table 4-2 Available Forms.
High power card cannot be programned at this location	The Universal Card can only be assigned to those card slots rated for high power consumption. These are the upper slots of any digital bay.
The hour value XX is out of range.	The hour value can range from 01 to 24. Refer to Form 04, System Options/System Timers.
Incorrect specification of Bay/Slot/Circuit for range programming	The specified start bay/slot/circuit numbers must be less than the end bay/slot/circuit numbers.
Inserted too many digits. Up to 38 allowed, with '*n' counted as 1	The specified entry exceeds the maximum. A maximum of 38 entries are allowed in the DIGITS TO BE INSERTED field in Form 22, ARS: Modified Digit Table. Each asterisk entry is considered as one entry.
Invalid digit to insert. Use O-9 or "* (1,2,3,4,5,*)" only	The specified entry is invalid. The entries in the DIGITS TO BE INSERTED field are restricted to the following: . 0 to 9 and · the valid asterisk sequences.
The maximum ACD positions allowed are already assigned	The user attempted to insert a 1000th ACD position into the system. Only 999 are allowed. ACD positions include agents, supervisors and senior supervisors.
Maximum Afterwork Timer is 15:oo	The user entered a timer out of range.
Maximum Waiting Too Long Timer is 54:00	The user entered a timer out of range.
The minute value XX is out of range.	The minute value can range from 01 to XX, where XX is option specific. Refer to Form 04, System Options/System Timers.
MODIFIED DIGIT ENTRY out of range. Valid range is (1 - 50)	The selected Entry Number is invalid. The range is 1 to 50. Refer to Form 22, ARS:

TABLE 5-1 (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
	Modified Digit Table.
Modified digit table entries are from 1 to 50	The selected Entry number is invalid. The range is 01 to 50. Select a new Entry number. Refer to Form 22, ARS: Modified Digit Table.
Must delete all appearances of XXX from CALL REROUTING TABLE	This ACD path cannot be deleted, because its access code appears in the CALL REROUTING table (Form 19).
Must delete all appearances of XXXXX from CALL REROUTING TABLE	The selected device must have its access code or extension number deleted from the Call Rerouting Table before it can be removed from the system. Refer to Form 19, Call Rerouting Table.
Must delete all appearances of XXX in NON-DIAL-IN trunks	This ACD path cannot be deleted, because its access code appears in the NON-DIAL-IN TRUNKS form (Form 14).
Must delete all key definitions before deleting set	The selected SUPERSET telephone must have all its key definitions deleted before it can be removed from the system. Refer to the SUPERSET Telephone Lines form.
Must delete appearances of XXXXX from answer points in NW-DIAL-IN TRUNKS	The selected device must have its access code or extension number deleted from the answer points in Form 14, Non-Dial-In Trunks before it can be removed from the system.
Must delete the appearances of XXXXX on all sets before deleting set	All appearances of the station number (or Prime Line number) must be deleted before that set can be removed from the system.
Must enter first choice for route list to be defined (leave no gaps)	In Form 24, ARS: Route Lists, the FIRST field must be specified with a valid Route List number before the SECOND field is specified.
Must enter LEADING DIGITS	To complete the entry in Form 26, ARS Digit Strings, must enter digits in the LEADING DIGITS field.
Neither Option #248 Nor #249 are enabled yet	One of these CDS Options must be enabled for correct system operation.
No CONSOLE MODULES are programned	The Console Module must be assigned to a bay/slot/circuit/subcircuit in Form 01, Systen Configuration.
No DIAL-IN trunk cards are programed	A card that supports Dial-In Trunks must be defined in Form 01, System Configuration.
No more space available for	Subsequent comments that are entered in the

TABLE 5-I (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
comments	CDE Forms are not saved.
Non-existent account code value has been entered.	During a search in Form 32, CDE Data Print, the entered Account Code does not exist. Select another Account Code.
No NON-DIAL-IN trunk cards are programned	A card that supports Non-Dial-In Trunks must be defined in Form 01, System Configuration.
No STATION or SUPERSET cards are programmed	A card that supports Rotary Dial or DTMF sets or a card that supports SUPERSET telephones must be defined in Form 01, System Configuration.
No trunks are assigned to circuit descriptor number X	The trunk circuit descriptor number entered has not been specified in Form 13, Trunk Circuit Descriptor.
NUMBER OF DIGITS TO ABSORB must be in the range (0 - 8)	In the M field of Form 15, Dial-In Trunks, the maximum quantity of digits allowed is 8.
ONS Port access code XXXXX does not exist	The access code entered for the Music Source Following a Recording is non-existant or illegal.
Dption XX conflicts with this opt ion.	The selected option is mutually exclusive with the option number shown.
Option number XXX is out of range; must be between XXX and xxx	The selected option number is out of range. For CDS Options, the valid range is 100 to 908. For System Options, the valid range is 1 to 52.
Overflow Agent Groups must be un i que	The selected overflow agent group is a duplicate of an overflow already specified for this path, or it is the primary agent group for this ACD path.
Recording access code XXXXX does not exist	The access code entered for a recording is non-existant or illegal. The code must be for a recording hunt group.
The power rating of the UNIVERSAL CARD is exceeded.	The power rating of the Universal Card is 10. Therefore, the number of modules that can be installed on the Universal Card depends on the individual power rating of the modules. The Console Module has a power rating of 5, the Receiver/Relay Module has a power rating of 2, the Music on Hold/Pager Module has a power rating of 1 and the E&M Trunk Module has a power rating of 3.
Previous transaction encountered a permanent I/O	Due to the I/O failure, the last write process did not occur. Exit CDE Mode, reset

TABLE 5-1 (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
failure; data was not written to disk	the system and re-enter CDE Mode.
Print Option out of range. Valid range is (1 - 50).	In Form 32, Customer Data Print, there are only 50 Print Option numbers. Select a new Print Option number.
This printer specification has already been programned.	System already contains printer parameters.
Recording 1 Start Time must be > = Delay For Ringback	The values for these two i terns must be adjusted as indicated.
ROUTE LIST out of range. Valid range is (1 - 100)	The selected Route List number is invalid. The range is 1 to 100. Refer to Form 24, ARS: Route Lists.
ROUTE out of range. Valid range is (1 - 200)	The selected Route number is invalid. The range is 1 to 200. Refer to Form 23, ARS: Route Definition.
ROUTE PLAN out of range. Valid range is (1 - 501	The selected Route Plan number is invalid. The range is 1 to 50. Refer to Form 25, ARS: Route Plans.
RTE PLN= X, DZ= X, TZ= X, Field= ROUTE LIST: Error= entry must be blank	The entered Route List number does not have a corresponding entry in the START HOUR field. Therefore, the ROUTE LIST field must be cleared or a starting time must be specified in the START HOUR field. Refer to Form 25, ARS: Route Plans.
RTE PLN= X, DZ= X, TZ= X, Field= START HOUR, Error = Entry < = previous entry	The START HOUR field entry is less than or equal to the previous START HOUR field entry. The entries in the START HOUR field must be listed in ascending order. Refer to Form 25, ARS: Route Plans.
RTE PLN= X, DZ= X, TZ= X, Field= START HOUR, Error= Entry cannot be deleted	A blank entry in the START HOUR field represents 24 hours. Therefore, the subsequent entry in the START HOUR field is less than or equal to the blank entry. Starting times must be listed in ascending order. Refer to Form 25, ARS: Route Plans.
Start time of a recording must be < Interflow timeout	Adjust the start time as indicated.
Start time of a recording must be < start time of the next recording	The recording start times should be adjusted as indicated.
Supervisor XXXXX does not	A Supervisor with ID XXXXX, cannot be

TABLE 5-I (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
exist	displayed, as requested via the FIND SUPER key, because this access code has not been assigned to a supervisor.
TENANT NUMBER is out of range. Valid is 1 to 25.	There are a maximum of 25 Tenant Groups.
The TRUNK NUMBER XXX is already assigned	Trunk numbers can be assigned to only one trunk. Trunk numbers are assigned in Form 14, Non-Dial-In Trunks and Form 15, Dial-In Trunks.
The TRUNK NUMBER XXX has not been assigned	Entered trunk number does not correspond to a trunk. It must be defined in Form 14, Non-Dial-In Trunks or Form 15, Dial-In Trunks.
The value X is outside valid range for BAY (1 - 5)	The selected bay number is invalid. The range is 1 to 5.
The value XX is outside valid range for CIRCUIT (1 - XX)	The selected circuit number is invalid.
The value XX is outside valid range for CIRCUIT DESCRIPTORS (1 - 25)	There are a maximum of 25 trunk circuit descriptors.
The value XX is outside valid range for CDR (1 - 25)	The selected COR Group number is out of range. The range is 1 to 25.
The value XX is outside valid range for CDS (1 - 50)	The selected CDS number is out of range; the range is 1 to 50.
The value XX is outside valid range for ENTRY NUMBER (1 - XX)	In Form 18, Miscellaneous System Ports, there are only 38 Entry Numbers.
The value X is outside valid range for HUNT GROUP (1 - 50)	The selected Hunt Group number is invalid. The range is 1 to 50.
The value XX is outside valid range for INTERCONNECT NUMBER (1 - XX)	In Form 30, Device Interconnection Table, there are only 25 Interconnect Numbers.
The value XX is outside the valid range for KEY NUMBERS (2 - 15)	The selected SUPERSET key number is invalid. Key numbers range from 2 to 15. SUPERSET key 1 is reserved for the Prime Line and cannot be programmed in the SUPERSET Telephone Lines form.
The value XX is outside valid range for PICKUP GROUP (1 - 50)	The selected Pickup Group number is invalid; the range is 1 to 50.

TABLE 5-I (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
The value XX is outside the valid range for the selected tirer option	The selected timer value is invalid. Refer to Table 4-25, Trunk Hardware Options for a list of valid timer values.
The value XX is outside valid range for SLOT (1 - XX)	The selected slot number is invalid.
The value XX is outside valid range for START HOUR (0 - 23)	In Form 25, ARS Route Plans, the START HOUR specifies the starting time for each time zone. The time is represented by two digits in 24 hour format.
The value XX is outside valid range for SUBCIRCUIT (X - X)	Subcircuits 1 to 4 refer to the DTMF Receivers; they cannot be accessed. The only subcircuits that can be accessed are the relays on the Receiver/Relay Module. These are Subcircuits 5 and 6.
The value XX is outside valid range for TENANT (1 - 25)	The selected Tenant Group number is invalid; the range is 1 to 25. Tenant Group numbers are used in the following forms: Form 05, Tenant Interconnection Table, Form 06, Tenant Night Switching Control, Form 07, Console Assignments, Form 09, Station/SUPERSET Telephones , Form 12, Data Assignment, Form 14, Non-Dial-In Trunks, Form 15, Dial-In Trunks and Form 19, Call Rerouting Table.
The value X is outside valid range for TRUNK GROUP (1 - 50)	The selected Trunk Group number is invalid. The range is 1 to 50.
The value XXX is outside valid range for TRUNK NUMBERS (1 - 200)	Trunk numbers range from 1 to 200.
TOTAL DIGITS EXPECTED must be in the range (1 - 9)	In Form 15, Dial-In Trunks, the N field (total digits expected) is restricted to digits 1 to 9.
Total number of SUPERSET sets programed in Bay 3 cannot exceed 64	The power supply restricts the total number of SUPERSET telephones for the Control Cabinet to 64.
Total number of SUPERSET sets programmed in Bays 4 and 5 cannot exceed 64	The power supply restricts the total number of SUPERSET telephones for the Peripheral Cabinet to 64.
Total string is too long. Limit is 26 digits	The total number of digits in the DIGITS TO BE ANALYZED field plus the digits in the LEADING DIGITS field cannot exceed 26. Refer to Form 26, ARS Digit Strings.

TABLE 5-I (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
TRUNK GROUP must be entered for a route to be defined	To complete the Route definition, the Trunk Group number must be specified. Refer to Form 23, ARS: Route Definition.
TRUNK NUMBER XX does not correspond to a CC trunk	Only CO trunks can be assigned as DTS in the SUPERSET Telephone Lines form.
TRUNK NUMBER XXX is a member of TRUNK GROUP XX.	The selected trunk number is a member of the Trunk Group shown. A trunk number can be a member of only one Trunk Group at a time.
Unable to delete - A device is programned for the Bay/Slot/Circuit - XX/XX/XX	Circuits are assigned to the selected card in that bay and slot. Cannot delete the card in that slot until the devices are deassigned from the forms.
Unable to locate extension XXXXX assigned to a PICKUP GROUP	The selected extension number is not assigned to any station or set. Refer to Form 09, Station/SUPERSET Telephones.
Unable to stop CDE print. Try again later.	The Customer Data print process cannot be halted. Try again later.
Undefined access number or digit string	In Form 31, System Abbreviated Dial Entry, either the Index Number or the Digit String is blank. Specify the required Index Number or Digit String.
Unmatched Account code length; system option account code length enabled.	The length of the entered Account Code does not match the Account Code Length specified in System Option 49. (See Form 04, System Options/System Timers). Enter a new Account Code or change the Account Code Length option.
Jpdate of database failed.	The changes to the database were not stored properly on the diskette(s). Ensure proper positioning of the diskette(s) in the drive(s).
Valid CDS range must be entered before CDS print is initiated	Before a print operation can occur, a valid CDS range must be entered (1 to 50). Refer to Form 03, COS Define.
Valid TRK CCT DESC range must be entered before print is initiated	This error occurs in Form 32, CDE Data Print. The valid Trunk Circuit Descriptor range is 1 to 25.
The value XX is outside valid range for ACD Agent Group (I-50)	The ACD Group number entered is out of range.
The value 0 is outside valid	The selected ACD Path or Priority is invalid.

TABLE 5-1 (CONT'D)
PROGRAMMING ERROR MESSAGES

Error Message	Meaning
range (1-99)	
Verified account codes system option must be enabled first.	In Form 33, Account Code Entry, the Account Code can only be modified if System Option 05, Verified Account Codes is enabled. Refer to Form 04, System Options/System Timers.
Warning: This path will be deleted unless 1st two status lines are assigned	The user attempted to QUIT this form with "Access Code for This ACD Path" or "Primary ACD Agent Group" field blank. A path is meaningless without these two pieces of information. The user is now provided with twc keys: QUIT, which quits the form and deletes this path, and BACK TO FORM (softkey 0), which returns the user to the form.
Warning: Reassigning agent from group XX. CONFIRM or CANCEL	The inserted ID is one that is already programmed in group XX. This agent will be reassigned now to the current ACD Group. Press either the CONFIRM or CANCEL softkey.
Warning: Rec X info will be deleted unless Start Time & Access Code assigned	The user attempted to QUIT the form while only one of the indicated status fields for Recording X was assigned. Recording info is meaningless without both these pieces of info. The user is provided with two keys now: QUIT, which quits the form and deletes all entered info about Recording X, and BACK TO FORM (softkey 0) which returns the user to the form.

SX-200" DIGITAL
PRIVATE AUTOMATIC BRANCH EXCHANGE (PABX)
SYSTEM TEST PROCEDURES

NOTICE

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LIST OF TABLES

LIST OF CHARTS

LIST OF CHARTS (CONT'D)

1. INTRODUCTION

General

1.01 This Section details the system tests to be performed after the system installation (refer to Section MITL9109-094-200-NA, Installation) and programming (refer to Section MITL9 109-094-2 IO-NA, Customer Data Entry) have been completed. Upon completion of the tests detailed in this Section, all programming system options and features will have been verified.

Reason for Issue

1.02 This Section has been issued to provide procedures for systematically testing the SX-200® DIGITAL PABX features and options, in 336-port, 480-port, 456-port and 672-port configurations.

SUPERSET 3™ and *SUPERSET* 4® Telephones

1.03 The *SUPERSET* 3 and *SUPERSET* 4 telephones are similar to standard telephones in that all are subject to Class-of-Service limitations. To ensure that all Class-of-Service-related features are activated it is only necessary to perform the system tests for that particular Class of Service at a standard telephone. To test the actual functionality of the *SUPERSET*® telephones, refer to Section MITL9109-094- 106-NA, *SUPERSET* 3 Telephone Information, and Section MITL91 09-094-I 07-NA, *SUPERSET* 4 Telephone Information.

SUPERSET 3™DN and *SUPERSET* 4™DN Telephones

1.04 The *SUPERSET* 3DN and *SUPERSET* 4DN telephones are similar to standard telephones in that all are subject to Class-of-Service limitations. To ensure that all Class-of-Service-related features are activated it is only necessary to perform the system tests for that particular Class of Service at a standard telephone. To test the actual functionality of the *SUPERSET* telephones, refer to Section MITL9 109-094- 108-NA, *SUPERSET* 3DN Telephone Information, and Section MITL9109-094-109-NA, SUPERSEJ 4DN Telephone Information.

Section Overview

1.05 This Section consists of a series of tests of the system and provides a system confidence check on individual features. The Section is divided into a number of parts, each of which deals with a specific area or function. These are:

- Maintenance Terminal Commands
- Alarm System Tests
- Station Features

- Attendant Console Features
- Customer Feature Tests.

Test Equipment

1.06 System tests are designed to be carried out without specialized test equipment.

Associated Sections

1.07 The following Sections are also associated with system tests:

- MITL9109-094-200-NA, Shipping, Receiving, and Installation
- MITL9109-094-206-NA, Installation Forms
- MITL9 109-094-315-NA, Attendant Console Description
- MITL91 09-094-350-NA, Troubleshooting
- MITL9109-094-351-NA, RS-232 Maintenance Terminal.

Initial System State

1.08 Before beginning system testing, the SX-200 DIGITAL PABX must have been installed and tested to verify correct operation from a hardware standpoint.

1.09 Ensure the Maintenance Terminal and a printer have been installed and function correctly.

1.10 Ensure the SX-200 DIGITAL PABX is programmed with Customer Data appropriate to the installation. Failure to program the PABX with Customer Data will prevent full testing of the system. For information concerning Customer Data Entry, refer to Sections MITL9109-094-206-NA, Installation Forms, and MITL9109-094-210-NA, Customer Data Entry.

1.11 Maintenance Terminal commands must be entered in accordance with the procedures detailed in Section MITL9109-094-351-NA, RS-232 Maintenance Terminal.

1.12 Ensure stations (extensions) and Attendant Consoles have the appropriate Class of Service allocated to them for the test involved. The tests performed must be appropriate to the system installed.

1.13 Ensure the Maintenance Terminal, Attendant Consoles, and installed cards do not indicate any CRITICAL, MAJOR or MINOR alarms. If alarm conditions exist, refer to Section MITL91 09-094-350-NA, Troubleshooting.

1.14 Ensure that Maintenance and Customer Data Entry are currently not accessed by any other user.

2. MAINTENANCE TERMINAL COMMAND VERIFICATION

General

2.01 Successful completion of the following tests will confirm that the Maintenance Terminal has been correctly installed and can access the SX-200 DIGITAL PABX to pat-form directed diagnostic and maintenance commands satisfactorily for each of the different levels of entry. Section MITL9109-094-351-NA, RS-232 Maintenance Terminal, is required for reference during these tests.

Note: In verifying the functions available at the Maintenance Terminal, it is possible that system-generated messages unrelated to the tests being performed will appear at the Maintenance Terminal. These messages do not affect the outcome of the tests, and should be disregarded for the duration of system tests.

System Access

2.02 There are five different levels of system access. Passwords for access by the various levels are programmable and alterable through Maintenance functions. Levels of access are shown in Table 2-1. Chart 2-1 describes the procedures to be followed to verify the correct operation of the system access facilities.

Maintenance Levels

2.03 There are several levels of maintenance functions available. These are: System Level, Diagnostics Level, Traffic Measurement Level, Logs Level, and Reports Level. The levels are accessed via softkeys from the Maintenance Menu. Various functions are available within each level. The following procedures test each function accessible within each level. Charts 2-l through 2-11 test the System Level functions.

TABLE 2-l
SYSTEM ACCESS

ACCESS LEVEL	USERNAME	DEFAULT PASSWORD
Installer	INSTALLER	1000
Maintenance 2	MAINT2	
Maintenance 1	MAINT1	
Supervisor	SUPERVISOR	
Attendant	ATTENDANT	

CHART 2-I
LOGGING IN AND OUT OF THE SYSTEM

Step	Action	Verify
1	Ensure the terminal is connected and turned on.	Screen displays a flashing cursor.
2	Press RETURN twice.	Screen displays: 1 - VT-100 2 - TTY TYPE SELECT A TERMINAL TYPE:
3	Press 1, and RETURN	Screen displays: 1 - MAINTENANCE 2 - CDE 6 - QUIT SELECT AN APPLICATION (OR QUIT TO START OVER):
4	Press 1, and RETURN	System responds with: ENTER USERNAME:
5	Enter INSTALLER, and press RETURN	System responds with: PASSWORD:
6	Enter 1000, and press RETURN	The password does not appear on screen. The system responds with: PLEASE WAIT... if **username** and password has been correctly entered, or: AUTHORIZATION FAILURE if **username** or password has been incorrectly entered. If Authorization Failure appears, return to Step 2, and repeat Steps 2 though 6. System clears screen, then draws the Maintenance menu.
7	Press 6 (QUIT **softkey)**	System responds with prompts to choose an application (Step 3). Go to Step 8.

CHART 2-I (CONT'D)
LOGGING IN AND OUT OF THE SYSTEM

Step	Action	Verify
8	Press 2, and RETURN.	System responds with prompt for username.
9	Enter INSTALLER, an-l press RETURN.	System responds with prompt for password.
10	Enter 1000, and press RETURN.	System responds as in Step 6. If Authorization Failure appears, return to Step 1. Repeat Steps 1 to 3, then Steps 8 and 9. System clears screen, then draws the Customer Data Entry menu (FORMS).
11	Press <ESC> 6 (QUIT softkey)	System responds with prompts to choose an application (Step 3).
12	Press 6, and RETURN.	System responds with prompts to choose a terminal type (Step 2). If passwords have been assigned to other levels of access (MAINT2, MAINT1, SUPERVISOR, ATTENDANT) return to Step 1 and repeat Steps 1 through 11 for each level of access. The softkeys displayed on the Maintenance menu will vary with each access level, permitting access to only those functions appropriate to the access level entered.

* In CDE from the maintenance terminal, the <ESC> key must be pressed before a softkey is pressed, in order for the key to be interpreted as a softkey; otherwise it is interpreted as the numeric value of that key.

Setting System Date

2.04 System date may be set from the Maintenance Terminal. The new date will be reflected on the Maintenance Terminal display, the Attendant Console LCD display, and SUPERSEJ 4 telephone LCD displays. Chart 2-2 shows the steps for testing setting of the system date.

CHART 2-2
SETTING SYSTEM DATE

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 1 (SET softkey).	Command line responds with: SET and softkey prompts change.
4	Press 1 (DATE softkey).	Command line responds with: SET DATE enter Date DD/MM/YY and no softkey prompts are displayed.
5	Enter date according to displayed numeric format (e.g., enter 010585)	Command line displays digits as they are entered; day, month, and year, separated by / . Softkey prompts change to display ENTER and CANCEL commands.
6	Press 0 (ENTER softkey).	New date is displayed on system, Attendant Consoles, and SUPERSEJ 4 telephones. Note: The date is shown on the Maintenance Terminal and SUPERSEJ 4 telephones in the format: 1 -MAY-85 and on Attendant Consoles in the format: WED. MAY 1, 1985 Softkey prompts change, returning to System Level format. Test completed.

Setting System Time

2.05 System time may be set from the Maintenance Terminal. The new time will be reflected on the Maintenance Terminal display, the Attendant Console LCD display, and the *SUPERSET* 4 telephone LCC display. Chart 2-3 shows the steps for testing setting of system time.

CHART 2-3
SETTING SYSTEM TIME

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 [SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 1 (SET softkey).	Command line responds with: SET and softkey prompts change.
4	Press 2 (TIME softkey).	Command line responds with: SET TIME enter Time HH:MM and softkeys are disabled.
5	Enter time in either 12- or 24-hour format.	Command line shows digits entered, and PM, ENTER and CANCEL softkeys are enabled.
6	Press 0 (ENTER softkey).	Command line clears, and new time is displayed. Softkey prompts return to system level functions.
7	Repeat Step 3 through Step 5.	Command line shows digits entered, and PM, ENTER and CANCEL softkeys are enabled.
8	Press 1 (PM softkey).	Command line shows: SET TIME XX:XX PM and ENTER and CANCEL softkeys are enabled.
9	Press 0 (ENTER softkey).	New time is displayed. Softkey prompts change, returning to system level format. Test completed.

Setting System Time

2.05 System time may be set from the Maintenance Terminal. The new time will be reflected on the Maintenance Terminal display, the Attendant Console LCD display, and the *SUPERSET* 4 telephone LCD display. Chart 2-3 shows the steps for testing setting of system time.

CHART 2-3
SETTING SYSTEM TIME

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 1 (SET softkey).	Command line responds with: SET and softkey prompts change.
4	Press 2 (TIME softkey).	Command line responds with: SET TIME enter Time HH:MM and softkeys are disabled.
5	Enter time in either 12- or 24-hour format.	Command line shows digits entered, and PM, ENTER and CANCEL softkeys are enabled.
6	Press 0 (ENTER softkey).	Command line clears, and new time is displayed. Softkey prompts return to system level functions.
7	Repeat Step 3 through Step 5.	Command line shows digits entered, and PM, ENTER and CANCEL softkeys are enabled.
8	Press 1 (PM softkey).	Command line shows: SET TIME XX:XX PM and ENTER and CANCEL softkeys are enabled.
9	Press 0 (ENTER softkey).	New time is displayed. Softkey prompts change, returning to system level format. Test completed.

Changing Passwords

2.06 Passwords may be changed by a user for his or her access level, and all lower access levels. At the INSTALLER access level, all passwords may be changed. Chart 2-4 shows the steps for testing changing passwords at the INSTALLER level. If a different access level is chosen, only those levels equal to or below the chosen level will be available for testing setting of passwords.

CHART 2-4
CHANGING PASSWORDS

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 1 (SET softkey).	Command line responds with: SET and softkey prompts change.
4	Press 3 (PASSWORD softkey).'	Command line responds with: SET PASSWORD and softkey prompts change.
5	Press 7 (INSTALLER softkey).	Command line responds with: SET PASSWORD INSTALLER and softkey prompts clear except for CANCEL and ENTER.
6	Press 0 (ENTER softkey).	Command line responds with: Enter Old Password then press RETURN/ENTER: and no softkey prompts are displayed.

CHART 2-4 (CONT'D)
CHANGING PASSWORDS

Step	Action	Verify
7	Enter Installer level password and press RETURN.	Password is not displayed. Command line responds with: Enter New Password then press RETURN/ENTER: if old password was correctly entered or: An invalid or incorrect password was entered if old password was incorrectly entered. If old password was correctly entered go to Step 8; if incorrectly entered, press 5 (CANCEL softkey) and go to Step 7.
8	Enter new Installer password and press RETURN.	Password is not displayed. Command line responds with: Enter New Password to verify then press RETURN:
9	Enter new Installer password again and press RETURN.	Password is not displayed. Command line clears and softkey prompts change to System Level format if password is verified. If password fails to verify, command line responds with: An invalid or incorrect password was entered. If password fails to verify, press 5 (CANCEL softkey) and go to Step 7.
10	Repeat Steps 3 through 9 for remaining levels of access (SUPERVISOR, MAINT1, MAINT2, ATTENDANT).	NOTE: When setting passwords for a lower level than the current level of access, the prompt "Enter old Password then press RETURN:" (as in step 6) will not appear. Instead the prompt to enter new password (as in step 7) appears immediately.
11	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

Setting Maintenance Terminal Port Baud Rate

2.07 The baud rate of the Maintenance Terminal port may be changed from the value set at the time of login. Any one of six baud rates may be chosen: 300, 600, 1200, 2400, 4800 or 9600 baud. Note that this operation changes the baud rate of the Maintenance Terminal port only; the baud rate of the terminal itself must be changed separately. Chart 2-5 shows the steps for testing changing of the Maintenance Terminal port baud rate.

CHART 2-5
SETTING MAINTENANCE TERMINAL PORT BAUD RATE

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 1 (SET softkey).	Command line responds with: SET and softkey prompts change.
4	Press 4 (SPEED softkey).	Command line responds with: SET SPEED and softkey prompts change.
5	Press 1 (MAINT-PORT softkey).	Command line responds with: SET SPEED MAINT-PORT enter Speed then press RETURN: baud rates and CANCEL softkey prompts are displayed.
6	Press the softkey with the corresponding baud rate	Command line responds with: SET SPEED MAINT PORT XXXX-BPS and CANCEL and ENTER softkeys are displayed
7	Press 0 (ENTER softkey).	Command line responds with: Change terminal speed and press RETURN when ready.

CHART 2-5 (CONT'D)
SETTING MAINTENANCE TERMINAL PORT BAUD RATE

Step	Action	Verify
8	Check to ensure terminal speed is the same value as the maintenance port; if different, change terminal speed to coincide with selected Maintenance Port value.	
9	Press RETURN.	Command line clears and softkey prompts return to System Level format.
10	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

Setting Printer Port Baud Rate

2.08 The baud rate of the Printer Port may be changed from its default value of 1200 baud. Any one of six baud rates may be chosen: 300, 600, 1200, 2400, 4800 or 9600 baud. Note that this operation changes the baud rate of the Printer Port only; the baud rate of the printer itself must be changed separately. Chart 2-6 shows the steps for testing changing of the Printer Port baud rate.

CHART 2-6
SETTING PRINTER PORT BAUD RATE

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 1 (SET softkey).	Command line responds with: SET and softkey prompts change.
4	Press 4 (SPEED softkey).	Command line responds with: SET SPEED and softkey prompts change.
5	Press 8 (PRINTER-PORT softkey).	Command line responds with: SET SPEED PRINTER-PORT enter Speed then press RETURN: and no softkey prompts are displayed.
6	Press the softkey with the corresponding baud rate.	Command line responds with: SET SPEED PRINTER-PORT XXXX-BPS and CANCEL and ENTER softkeys are displayed.

CHART 2-6 (CONT'D)
SETTING PRINTER PORT BAUD RATE

Step	Action	Verify
7	Ensure printer speed coincides with selected printer port speed. If speeds do not coincide, either change printer speed, or repeat Steps 8 and 9, selecting a printer port speed which coincides with the selected speed of the printer.	
8	Press 6 (QUIT **softkey)** to return to Maintenance menu.	Test completed.

Suspending Printer Device

2.09 The print device may be suspended from printing either by specifying its PLID or its port along with the SUSPEND-PRTR command.

CHART 2-7
SYSTEM LEVEL: SUSPEND-PRTR COMMAND

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 5 (SUSPEND-PRTR softkey).	Command line responds with: SUSPEND PRTS and softkey prompts change.
4	Press 7 (PRINTER-PLID softkey).	Command line responds with: SUSPEND-PRTR PRINTER-PLID BAY/SLOT/CIRCUIT EXT-NUM CANCEL
5	Select BAY/SLOT/CCT or EXT-NUM	System prompts for plid or extension number, softkey prompts change.
6	Press 0 (ENTER softkey).	Command line clears, and softkey prompts return to System Level format.
7	Press 6 (QUIT softkey) to return to Maintenance menu.	
ALTERNATIVELY		
4	Press 8 (PRINTER-PORT softkey)	Command line responds with: SUSPEND-PRTR PRINTER-PORT and softkeys CANCEL and ENTER
5	Press 5 (CANCEL softkey) or 0 (ENTER softkey).	
6	Press 6 (QUIT softkey) to return to Maintenance menu.	

Resume Print Device

2.10 The print device may be commanded to resume printing by specifying either its PLID or its port and the RESUME-PRTR command.

CHART 2-8
SYSTEM LEVEL: RESUME-PRTR COMMAND

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System level is accessed.
3	Press 7 (RESUME-PRTR softkey).	Command line responds with: RESUME-PRTR and softkey prompts change.
4	Press 7 (PRINTER-PLID softkey).	Command line responds with: RESUME-PRTR PRINTER-PLID BAY/SLOT/CIRCUIT EXT-NUM CANCEL
5	Select BAY/SLOT/CCT or EXT-NUM	System prompts for plid or extension number. Softkey prompts change to CANCEL and ENTER.
6	Press 0 (ENTER softkey)	Command line clears and softkey prompts return to System Level format.
7	Press 6 (QUIT softkey) to return to Maintenance menu.	
ALTERNATIVELY		
4	Press 8 (PRINTER-PORT softkey)	Command line responds with: RESUME-PRTR PRINTER-PORT and softkeys CANCEL and ENTER
5	PRESS 5 (CANCEL softkey) or 0 (ENTER softkey).	
6	Press 6 (QUIT softkey) to return to Maintenance menu.	

Restarting the System

2.11 The system may be restarted from the maintenance terminal or console by entering the RE-START command (this will cause a system reset).

CHART 2-9
SYSTEM LEVEL: RE-START COMMAND

Step	Action	Verify
1	Access MAINTENANCE application	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System level is accessed.
3	Press 8 (RE-START softkey).	Command line responds with RESTART and softkey prompts change to: RESET-SYSTEM CANCEL
4	Press 2 (RESET-SYSTEM)	Command line responds with: RE-START RESET-SYSTEM will reboot the system. . . press ENTER or CANCEL
5	Press 0 (ENTER softkey).	System is reset and reboots from disk.

SHOW Command

2.12 The SHOW command, accessed from the System Level, can be used to display current parameters, namely system date, system time, Maintenance Port and Printer Port parameters, system identity (including the current software load identification) and reset time. Chart 2-10 shows the steps for testing the SHOW command.

CHART 2-10
SYSTEM LEVEL: SHOW COMMAND

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 2 (SHOW softkey).	Command line responds with: SHOW and softkey prompts change.
4	Press 1 (DATE softkey).	Command line responds with: SHOW DATE and softkey prompts change.
5	Press 0 (ENTER softkey).	Command line clears and system date is displayed in maintenance display area. Softkey prompts return to System Level format.
6	Repeat Steps 3 through 5 for remaining parameters (TIME, DEVICE, IDENTITY, RESET-TIME). When testing DEVICE, test device options (MAINT-PORT, PRINTER-PORT, and Data STN_PLID).	
7	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

Database Copying

2.13 Customer Data may be copied from one floppy diskette to another for use as a backup source. When database copying takes place, only Customer Data is copied, not the system software. The diskette to which the data is being copied must already contain the system software. Chart 2-l 1 shows the steps for testing copying of the Customer Database.

CHART 2-11
SYSTEM LEVEL: DATABASE COPYING

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 3 (COPY softkey).	Command line responds with: COPY and softkey prompts change.
4	Press 1 (DATABASE softkey).	Command line responds with: COPY DATABASE and softkey prompts change.
5	Press 0 (ENTER softkey).	Command line responds with: Verifying database, please wait . . . then responds with: Reading database, please wait . . . and then responds with: Insert new disk, close door and press CONTINUE and softkey prompts change.
6	Press 5 (CANCEL softkey).	Command line clears, display area shows message: Copy operation aborted and softkeys return to System Level format.
7	Repeat Steps 3 through 5.	Command line responds with: Insert new disk, close door and press CONTINUE and softkey prompts change. Go to Step 8.

CHART 2-11 (CONT'D)
SYSTEM LEVEL: DATABASE COPYING

Step	Action	Verify
8	Insert a disk containing system software but no Customer Data, then go to Step 9. OR Go to Step 9.	
9	Press 0 (CONTINUE softkey).	Command line displays message: Please wait . . . then Writing database, please wait . . . System copies Customer Data to disk. When copy is complete, command line responds with: Copy successful. If upgrading then RESET - else press CANCEL to continue.
10	Press 5 (CANCEL softkey).	Softkey prompts return to System Level format.
11	Press 6 (QUIT softkey) to Maintenance menu.	Test completed.

MONITOR Command

2.14 The MONITOR command (accessed from the System Level functions of the Maintenance Terminal) allows the user to monitor the progress of system diagnostics as they are run, of maintenance logs as they occur, of SMDR and DATA SMDR reports as they occur. For further information regarding these, refer to Section MITL9109-094-351-NA, RS-232 Maintenance Terminal. Chart 2-12 shows the steps for testing the MONITOR command.

CHART 2-12
SYSTEM LEVEL: MONITOR COMMAND

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	Softkey prompts change. System Level is accessed.
3	Press 4 (MONITOR softkey).	Command line responds with: MONITOR and softkey prompts change.
4	Press 1 (SMDR softkey).	Command line responds with: MONITOR SMDR and softkey prompts change.
5	Press 5 (CANCEL softkey).	Command line clears. Softkey prompts return to System Level format.
6	Repeat Steps 3 through 5 for each MONITOR function (DIAGNOSTICS, LOGS). DATA SMDR	Command line clears. Refer to Section MITL9109-094-351-NA for the meaning of the displays and functions. (NOTE: For MONITOR-LOGS, MAINT-PORT and SYS-PRINTERS softkeys will appear. Selection of MAINT-PORT brings up CANCEL softkey, while selection of SYS-PRINTERS softkey returns the softkey prompts to the System Level format).
7	Press 6 (QUIT softkey) to return to Maintenance menu.	Test Completed.

STOP Command

2.15 The STOP command (accessed from the System Level) allows the user to stop the system monitoring of logs. For information regarding monitoring of logs, refer to MITL9109-094-351-NA, RS-232 Maintenance Terminal. Chart 2-13 shows the steps for testing the STOP command.

CHART 2-13
SYSTEM LEVEL: STOP COMMAND

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey).	**Softkey** prompts change. System Level is accessed.
3	Press 9 (STOP softkey).	Command line responds with: STOP MONITOR and **softkey** prompts change.
4	Press 7 (LOGS softkey).	Command line responds with: STOP MONITOR LOGS and **softkey** prompts change.
5	Press 0 (ENTER softkey).	Command line clears, and **softkey** prompts return to System Level format.
6	To reactivate logs monitor, press the following **softkeys** (refer to Chart 2-10): 4 (MONITOR **softkey)** 7 (LOGS **softkey)** 1 **(MAINT_PORT softkey)** or 2 **(SYS_PRINTERS softkey)** 0 (ENTER softkey).	
7	Press 6 (QUIT **softkey)** to return to Maintenance menu.	Test completed.

Diagnostics

2.16 The Diagnostics Level (accessed from the Maintenance menu) allows the user to enable, schedule, and initiate system diagnostic testing, take equipment out of service, and return it to service. For further information regarding these, refer to Section MITL9109-094-351-NA, RS-232 Maintenance Terminal. Charts 2-14 through 2-18 show the steps for testing the Diagnostics Level commands.

CHART 2-14
DIAGNOSTICS LEVEL: TEST COMMAND

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 3 (DIAGNOSTICS softkey).	Softkey prompts change. Diagnostics Level is accessed.
3	Press 1 (TEST softkey).	Command line responds with: TEST and softkey prompts change.
4	Press 1 (BAY/SLOT/CCT softkey).	Command line responds with: TEST enter Bay then press RETURN: and softkey prompts change.
5	Enter 01.	Command line responds with: TEST 01 enter Slot then press RETURN:
6	Enter 01.	Command line responds with: TEST 01 01 enter Circuit then press RETURN:
7	Enter 01.	Command line responds with: TEST 01 01 01 enter Sub-circuit then press RETURN:
8	Press RETURN.	Command line responds with: TEST 01 01 01 ** and softkey prompts change.

CHART 2-14 (CONT'D)
DIAGNOSTICS LEVEL: TEST COMMAND

Step	Action	Verify
9	Press 0 (ENTER softkey).	Command line clears, and the test command is displayed in the display area. If no cards are present in the Bay tested, no other action is seen, and softkey prompts return to the diagnostics level format. If an analog Bay is tested, the message: This function is not available for this device. appears and CANCEL softkey prompt is displayed. If a Bay/Slot/Circuit location is tested, a message in the format: TOTAL TESTS RUN = TOTAL TESTS FAILED = PLID = appears in the display area, and softkey prompts return to the Diagnostics Level format.
10	If necessary, press 5 (CANCEL). Press 1 (TEST softkey).	Command line responds with: TEST and softkey prompts change.
11	Press 2 (DEVICE TYPE softkey).	Softkey prompts change, displaying names of devices which can be tested: ONS, LS/GS-TRUNK, RECEIVERS, JUNCTOR, CONSOLE. DSP, EM, [COV, DID, OPS LINK/CHANNEL, DNIC, PRINTER-PLID, PRINTER-PORT, T1_TRUNK] displayed after pressing 0 (MORE-KEYS softkey).
12	Select a device type, then press 0 (ENTER softkey).	Test messages will appear in the display area. Refer to Section MITL9109-094-351-NA, RS-232 Maintenance Terminal, for further information. When test is completed, softkey prompts return to Diagnostics Level format. Go to Step 13.

CHART 2-14 (CONT'D)
DIAGNOSTICS LEVEL: TEST COMMAND

Step	Action	Verify
13	Repeat Steps 10 through 12 for remaining device types.	
14	Press 1 (TEST softkey).	Command line responds with: TEST and softkey prompts change.
15	Press 3 (EXT-NUM softkey)	Command line responds with: TEST EXT-NUM enter Ext. Number then press RETURN: and no softkey prompts are displayed.
16	Enter an extension number, press RETURN (if extension number is less than five digits) and press 0 (ENTER softkey).	Command line clears, and a test message appears in the display area in the format as given in Step 9, above. When test has been completed, softkey prompts return to Diagnostics Level format.
17	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

Accessing Enabling and Disabling of Diagnostic Functions

2.17 The MORE-KEYS command is used in the Diagnostics Level to access the enabling and disabling of diagnostics functions (either Power-up or Background diagnostics), removing equipment from service, or returning equipment to service. When the Diagnostics Level softkeys are displayed, press 0 (MORE-KEYS) to access these functions. Chart 2-15 shows the steps for testing enabling and disabling of diagnostic functions. Chart 2-16 shows the steps for testing the removal from service and return to service functions.

CHART 2-15
DIAGNOSTICS LEVEL: ENABLING AND DISABLING DIAGNOSTICS

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 3 (DIAGNOSTICS softkey).	Softkey prompts change. Diagnostics Level is accessed.
3	Press 0 (MORE-KEYS softkey).	Softkey prompts change.
4	Press 2 (ENABLE-DIAG softkey).	Command line responds with: ENABLE-DIAG and softkey prompts change.
5	Press 1 (BACKGROUND softkey).	Command line responds with: ENABLE-DIAG BACKGROUND and softkey prompts change, displaying Background Diagnostics choices: BAY/SLOT/CCT, DEVICE TYPE, or EXT-NUM.
6	Select Background Diagnostics qualifier, by pressing either 1 (BAY/SLOT/CCT), 2 (DEVICE TYPE), or 3 (EXT-NUM).	System prompts for input, and no softkeys are displayed.
7	Enter required information (press RETURN if required after entry) and press 0 (ENTER softkey).	Background Diagnostics enabled message appears in display area. The selected diagnostics are enabled. Softkey prompts return to Diagnostics Level format, Go to Step 8.

CHART 2-15 (CONT'D)
DIAGNOSTICS LEVEL: ENABLING AND DISABLING DIAGNOSTICS

Step	Action	Verify
8	Press 7 (DISABLE-DIAG softkey).	Command line responds with: DISABLE-DIAG and softkey prompts change.
9	Press 1 (BACKGROUND softkey).	Command line responds with: DISABLE-DIAG BACKGROUND and softkeys change, as in Step 5.
10	Repeat Steps 6 and 7.	Background Diagnostics disable message appears in display area. The selected diagnostics are disabled. Softkey prompts return to Diagnostics Level format.
11	Repeat for POWER-UP diagnostics.	
12	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

CHART 2-16
REMOVING EQUIPMENT FROM AND RETURNING EQUIPMENT TO SERVICE

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 3 (DIAGNOSTICS softkey).	Softkey prompts change. Diagnostics Level is accessed.
3	Press 0 (MORE-KEYS softkey).	Softkey prompts change.
4	Press 3 (BUSY-OUT softkey).	Command line responds with: BUSY-OUT and softkey prompts change.
5	Select qualifier, by pressing either 1 (BAY/SLOT/CCT), 2 (DEVICE TYPE) , or 3 (EXT-NUM).	System prompts for input, and no softkey prompts are displayed.
6	Enter required information (press RETURN if required after entry) and press 0 (ENTER softkey).	Busy-out message appears in display area. The selected equipment is removed from service.
7	Press 5 (CANCEL softkey).	Softkey prompts return to Diagnostics Level format.
8	Press 8 (RET-TO-SVC softkey).	Command line responds with: RET-TO-SVC and softkey prompts change.
9	Repeat Steps 5 through 7 for same device.	Return To Service message appears in display area. The selected equipment is returned to service. Softkey prompts return to Diagnostics Level format.
10	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

CHART 2-17
STOPPING PRINTER TESTS

Step	Action	Verify
1	Access MAINTENANCE application	System responds by displaying Maintenance menu.
2	Press 3 (DIAGNOSTICS softkey).	Softkey prompts change. Diagnostics Level is accessed.
3	Press 9 (STOP-TEST softkey).	Softkey prompts change.
4	Press 9 (PRINTERS softkey).	command line responds with: STOP-TEST PRINTERS
5	Press 5 (CANCEL softkey) or 0 (ENTER softkey).	

Traffic Measurement

2.18 The Traffic Measurement Level (accessed from the Maintenance menu of the Maintenance Terminal) allows the user to SET and SHOW, Traffic Measurement parameters, and PRINT and READ Traffic Measurement reports from the Maintenance Terminal. Chart 2-16 shows the steps for testing the Traffic Measurement Level.

CHART 2-18
TRAFFIC MEASUREMENT

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 5 (TRAFFIC MEAS softkey).	Softkey prompts change. Traffic Measurement Level is accessed.
3	Press 1 (SET softkey).	Command line responds with: SET and softkey prompts change.
4	Select a SET qualifier (UNITS, PERIOD, DURATION, AUTOPRINT, START TIME, or CONDENSED softkeys).	Command line prompts for information to be input, and softkey prompts change.
5	Enter appropriate information, either by pressing the required softkey, or by entering the required digits, then pressing ENTER.	Display area displays parameter set, and softkey prompts return to Traffic Measurement Level format.
6	Repeat Steps 4 and 5 for remaining SET qualifiers.	
7	Press 2 (SHOW softkey).	Command line responds with: SHOW and softkey prompts change.
8	Press 3 (STATUS softkey).	Command line responds with: SHOW STATUS TM and softkey prompts change. Go to Step 9.

CHART 2-18 (CONT'D)
TRAFFIC MEASUREMENT

Step	Action	Verify
9	Press 0 (ENTER softkey).	Command line clears, and display area displays Traffic Measurement status, measurement units, period, duration, autoprint status, and condensed report status. Softkey prompts return to Traffic Measurement Level format.
10	Press 3 (PRINT softkey).	Command line responds with: PRINT TRAFFRPT ALL and softkey prompts change.
11	Press 0 (ENTER softkey).	Command line clears, softkey prompts return to Traffic Measurement Level format, display area displays PRINT TRAFFRPT ALL message, and traffic report is printed on the printer.
12	Press 4 (READ softkey).	Command line responds with: READ TRAFFRPT ALL and softkey prompts change.
13	Press 0 (ENTER softkey).	Command line clears, softkey prompts return to Traffic Measurement Level format. The message: ***** No Traffic Report Available ***** appears in display area if no reports are available. Otherwise, traffic reports appear in display area.
14	Press 9 (STOP softkey).	Command line responds with: STOP and softkey prompts change. Go to Step 15.

CHART 2-18 (CONT'D)
TRAFFIC MEASUREMENT

Step	Action	Verify
15	Press 1 (TRAFFRPT softkey).	Command line responds with: STOP TRAFFRPT and softkey prompts change.
16	Press 0 (ENTER softkey).	Command line clears, STOP TRAFFRPT message appears in display area, traffic reports are halted, and softkey prompts return to Traffic Measurement Level format.
17	Repeat Step 14.	
18	Press 3 (PRINT softkey).	Command line responds with: STOP PRINT TM and softkey prompts change.
19	Press 0 (ENTER softkey).	Command line clears. STOP PRINT TM message appears in display area. Softkey prompts return to Traffic Measurement Level format.
20	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

Logs

2.19 The Logs Level (accessed from the Maintenance menu of the Maintenance Terminal) allows the user to read, print, and delete maintenance log entries made by the system. Log entries consist of anythirg which affects the functioning of the system, such as failed circuits, removed or installed cards, and Bay resets. Chart 2-19 shows the steps for testing the Logs Level.

CHART 2-19
LOGS LEVEL

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 7 (LOGS softkey).	Softkey prompts change. Logs Level is accessed.
3	Press 1 (SET softkey).	Command line responds with: SET
4	Press 4 (AUTOPRINT softkey).	Command line responds with: SET AUTOPRINT LOGS and softkey prompts change.
5	Press 1 (ON softkey).	Command line responds with: SET AUTOPRINT LOGS ON and softkey prompts change.
6	Press 0 (ENTER softkey).	Command line clears, SET AUTOPRINT LOGS ON message appears in display area, and softkey prompts return to Logs Level format. Log entries will be printed on the printer as they occur.

CHART 2-19 (CONT'D)
LOGS LEVEL

Step	Action	Verify
7	Repeat Steps 3 and 4.	As in Step 4. Go to Step 8.
8	Press 2 (OFF softkey).	Command line responds with: SET AUTOPRINT LOGS OFF and softkey prompts change.
9	Press 0 (ENTER softkey).	Command line clears, SET AUTOPRINT LOGS OFF message appears in display area, and softkey prompts return to Logs Level format. Autoprint is disabled.
10	Press 2 (READ softkey).	Command line responds with: READ LOGS and softkey prompts change.
11	Select READ LOGS qualifier by pressing 1 (NEWEST softkey), 2 (OLDEST softkey), or 4 (ALL softkey).	If NEWEST or OLDEST softkey pressed, command line responds with: enter Number Of Entries, then press RETURN:
12	If NEWEST or OLDEST softkeys pressed, enter number of entries desired (e.g., 5) either in the format 005 or 5. If entered as less than three digits, press RETURN.	Command line responds with: READ LOGS NEWEST 005 or READ LOGS OLDEST 005 or, if ALL softkey pressed, READ LOGS ALL
13	Press 0 (ENTER softkey).	Read Logs message appears in display area. Command line clears. Requested log entries scroll into display area. If more than four log entries are available, scrolling halts at end of fourth log entry.
14	If more than four log entries are available, press 0 (MORE softkey) to continue reading log entries, or 5 (CANCEL softkey) to cancel reading logs.	If MORE softkey pressed, next log entries scroll into display area. Scrolling halts at end of next four entries (or fewer, if no more entries are available). If CANCEL softkey pressed, command line clears, reading of logs is halted, and softkey prompts return to Logs Level format. Go to Step 15.

CHART 2-19 (CONT'D)
LOGS LEVEL

Step	Action	Verify
15	Generate a log entry by extracting then re-installing a vo.ce card. DO NOT extract any of the following: • Main Control Card • Digital Interface Cards • Peripheral Control Cards • Scanner Cards • Bay Control Card @Switch Matrix Card	
	Repeat Steps 13-15, selecting NEWEST as the READ LOGS qualifier, and when instructed enter 002 to read the two newest log entries.	Command line responds with: READ LOGS NEWEST 002 and softkey prompts change.
16	Press 0 (ENTER softkey).	Newest log entries are displayed in display area, reporting card extraction and re-installation. Command line clears, and softkey prompts return to Logs Level format.
17	Press 3 (PRINT softkey).	Command line responds with: PRINT LOGS and softkey prompts change.
18	Select a PRINT LOGS qualifier by pressing either 1 (NEWEST softkey), 2 (OLDEST softkey), or 4 (ALL softkey).	Command line responds with either: PRINT LOGS NEWEST enter Number of Entries: or PRINT LOGS OLDEST enter Number of Entries: or PRINT LOGS ALL depending on which softkey was pressed, and softkey prompts change. Go to Step 19.

CHART 2-19 (CONT'D)
LOGS LEVEL

Step	Action	Verify
19	Press 0 (ENTER softkey). NOTE: Printing of logs can be halted at any time by pressing 9 (STOP softkey) and 0 (ENTER softkey).	Selected logs are printed on printer. Softkey prompts return to Logs Level format.
20	Press 4 (DELETE softkey).	Command line responds with: DELETE LOGS and softkey prompts change.
21	Select DELETE LOGS qualifier by pressing either 1 (NEWEST softkey) or 2 (OLDEST softkey) or 3 (ALL softkeys)	Command line responds with: DELETE LOGS NEWEST enter Number Of Entries, then press RETURN: or DELETE LOGS OLDEST enter Number Of Entries, then press RETURN: or DELETE LOGS ALL (CONFIRM softkey appears. Skip step 22.)
22	Enter number of entries to be deleted. NOTE: Once deleted, entries cannot be recovered. If a record of log entries is required, print logs to be deleted, prior to executing step 26.	Command line displays entries to be deleted, in the format: DELETE LOGS OLDEST 002
23	Press 0 (ENTER softkey). (Press 8 (CONFIRM softkey) followed by 0 (ENTER softkey) in case of DELETE LOGS ALL.)	Selected log entries are deleted. Command line clears. Softkey prompts return to Logs Level format. Verify log entries have been deleted by reading log entries (Steps 10-13, above).
24	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

Reports

2.20 The Reports Level (accessed from the Maintenance Menu of the Maintenance Terminal) allows the user to have various maintenance reports displayed. The types of reports available are: System Configuration, Alarm Status, Circuit Status, CHANNEL-MAP, and ERRORS (SS3, SS4, DIGITAL-SETS, CONSOLE, DATASETS). For further information regarding these, refer to Section MITL91 09-094-351 -NA, RS-232 Maintenance Terminal. Chart 2-20 shows the steps for testing the Reports Level commands.

CHART 2-20
REPORTS

Step	Action	Verify
1	Access MAINTENANCE application.	System responds by displaying Maintenance menu.
2	Press 9 (REPORTS softkey).	Reports Level is accessed. Softkey prompts change.
3	Press 2 (SHOW softkey).	Command line responds with: SHOW and softkey prompts change.
4	Press 1 (CONFIG softkey).	Command line responds with: SHOW CONFIG and softkey prompts change.
5	Press one of the following: 1 (BAY/SLOT/CCT softkey), 3 (EXT-NUM softkey), or 4 (ALL softkey).	Command line responds with prompts for input corresponding to the qualifier selected (e.g., SHOW CONFIG enter Bay, then press RETURN: SHOW CONFIG EXT-NUM enter Ext: Number then press RETURN: or SHOW CONFIG ALL).
6	Enter required information.	Command line responds by displaying information as it is entered. NOTE: Depending on format chosen to enter information (e.g., 5 or 05) it may be necessary to press RETURN before prompts request next input.
7	Press 0 (ENTER softkey).	Screen updates. Requested report is displayed in display area. If the screen is full, press 0 (MORE softkey) to display more information or 5 (CANCEL softkey) to cancel the SHOW CONFIG Command. If CANCEL softkey pressed, command line clears. Softkey prompts return to Reports Level format (SHOW and QUIT softkeys displayed).

CHART 2-20 (CONT'D)
REPORTS

Step	Action	Verify
8	Repeat Steps 5 through 7 for remaining SHOW CONFIG qualifiers.	Go to Step 9.
9	Press 2 (SHOW softkey).	As in Step 3.
10	Press 2 (ALARMS softkey).	Command line responds with: SHOW ALARMS and softkey prompts change.
11	Select an ALARMS qualifier by pressing either 2 (DEVICE TYPE softkey) or 4 (ALL softkey).	Command line responds with: SHOW ALARMS or: SHOW ALARMS ALL and softkey prompts change.
12	If 2 was pressed in Step 11, select a DEVICE TYPE qualifier by pressing wither 1 (LINES softkey), 2' (TRUNKS softkey), or 3 (RECEIVERS softkey) or 4 (PCM_Channels softkey). If 4 was pressed in Step 11 (ALL softkey), select an ALL qualifier by pressing either 1 (BAY-NUM softkey) or 4 (ALL softkey).	Command line responds with: SHOW ALARMS LINES or: SHOW ALARMS TRUNKS or: SHOW ALARMS RECEIVERS if DEVICE TYPE was selected. If ALL was selected, and 1 (BAY-NUM softkey) was selected, command line responds with: SHOW ALARMS ALL BAY-NUM enter Bay # then press RETURN: or 4 (ALL softkey) was selected, Command line responds with: SHOW ALARMS ALL ALL

CHART 2-20 (CONT'D)
REPORTS

Step	Action	Verify
13	If a device type was selected in Step 12, select a location by pressing either 1 (BAY-NUM softkey) or 4 (ALL softkey). If ALL was selected in Step 12, go to Step 14.	Command line responds (for example) with: SHOW ALARMS LINES BAY-NUM enter Bay number then press RETURN: or: SHOW ALARMS LINES ALL and softkey prompts change. Go to Step 15.
14	Enter Bay number, if required.	Command line displays location as it is entered. Go to Step 16.
15	Enter Bay number, if required.	Command line displays Bay number as it is entered. Go to Step 16.
16	Press 0 (ENTER softkey).	Screen updates, and softkey prompts change. Requested report is displayed. CANCEL softkey is displayed. Press 5 (CANCEL softkey), then command line clears. Softkey prompts return to Reports Level format.
17	Press 2 (SHOW softkey).	Command line responds with: SHOW and softkey prompts change.
18	Press 3 (STATUS softkey).	Command line responds with: SHOW STATUS and softkey prompts change.
19	Select a STATUS qualifier by pressing 1 (BAY/SLOT/CCT softkey) or 3 (EXT-NUM softkey).	Command line responds with: SHOW STATUS enter Bay, then press RETURN; enter SLOT then press RETURN; enter CIRCUIT, then press RETURN; enter SUBCIRCUIT, then press RETURN; if 1 was pressed, or: SHOW STATUS EXT-NUM enter Ext. Number, then press RETURN: if 3 was pressed.

CHART 2-20 (CONT'D)
REPORTS

Step	Action	Verify
20	Enter required information, then press 0 (ENTER softkey).	Screen updates. Status of selected equipment is shown. Command line displays SHOW STATUS message. Softkey prompts change.
21	The equipment status report can be halted at any time by pressing 5 (CANCEL softkey).	Equipment status lines of Maintenance Terminal display updates continuously.
22	Change status of selected equipment by taking off-hook, or returning on-hook.	Status line shows change in equipment status.
23	Press 5 (CANCEL softkey).	Status report halts, screen clears, and softkey prompts return to Reports Level format.
24	Press 2 (SHOW softkey).	As in Step 17.
25	Press 7 (ERRORS softkey).	Command line responds with: SHOW ERRORS and softkey prompts change.
26	Press 2 (DEVICE-TYPE softkey).	Softkey prompts change.
27	Press either 1 (SS3_SS4 softkey), 3 (DIGITAL-SETS softkey), 7 (CONSOLE softkey), or 9 (DATASETs softkey).	Softkey prompts change to CANCEL or ENTER.
28	Press 0 (ENTER softkey).	Screen updates. Selected device errors are displayed. CANCEL softkey displayed. Press 5 (CANCEL softkey), command line clears. Softkey prompts return to Reports Level format.
29	Press 2 (SHOW softkey).	As in Step 17.
30	Press 6 (channel-map softkey).	Command line responds with: SHOW CHANNEL-MAP. Softkey prompts change.
31	Press 1 (LOGICAL softkey) or 2 (PHYSICAL softkey).	Command line responds with: SHOW CHANNEL-MAP LOGICAL if 1 was pressed (Go to step 30) or: SHOW CHANNEL-MAP PHYSICAL if 2 was pressed (Go to step 32). Softkey prompts change.

CHART 2-20 (CONT'D)
REPORTS

Step	Action	Verify
32	Press 1 (CHANNEL-NUM softkey).	Command line responds with SHOW CHANNEL-MAP LOGICAL CHANNEL-NUM enter channel # then press RETURN:
33	Enter required information then press 0 (ENTER softkey).	Screen updates. Channel map of selected logical channel # is displayed. CANCEL softkey is displayed. Go to step 34.
34	Press 1 (LINK-NUMBER softkey).	Command line responds with: SHOW CHANNEL-MAP PHYSICAL LINK-NUMBER enter link # then press RETURN:
35	Enter required information then press 0 (ENTER softkey).	Screen updates. Channel map of selected Physical link number is displayed. If the screen is full MORE softkey appears. Pressing 0 (MORE softkey) updates the screen with more information. Softkey prompts change.
36	Press 5 (CANCEL softkey).	Command line clears, and softkey prompts return to reports level format.
37	Press 3 (CLEAR softkey).	Command line responds with: CLEAR and softkey prompts change.
38	Press 7 (ERRORS softkey).	Command line responds with: CLEAR ERRORS and softkey prompts change.
39	Enter choice, either 1 (BAY/SLOT/CCT softkey), 3 (EXT-NUM softkey), or 4 (ALL softkey) 2-device-type	Command line prompts for appropriate information (i.e., Bay/Slot/Circuit or Extension Number).
40	Enter appropriate information and press 0; then press 0 (ENTER softkey).	A CLEAR ERRORS message appears in display area, and softkey prompts return to Reports Level format. (NOTE: If 4 (ALL softkey) is pressed then softkey prompts change and 5 (CANCEL softkey), 8 (CONFIRM softkey) are displayed. Press 8 (CONFIRM softkey) followed by 0 (ENTER softkey) to clear all ERRORS).
41	Press 6 (QUIT softkey) to return to Maintenance menu.	Test completed.

3. ALARM SYSTEM TESTS

General

3.01 Satisfactory completion of these tests confirms that the SX-200 Alarm System functions correctly. Alarms appear on the system in several ways: LED indications on individual cards; an alarm status message at the Maintenance Terminal; or an alarm status message on Attendant Consoles, when programmed to report alarms. The raising of an alarm also results in a flashing ALARM message appearing on Attendant Consoles. Canceling this message at the Attendant Console is not a solution to the problem which resulted in the alarm being raised. Cancellation of the message permits the Attendant Console to alert the Attendant to new alarms as they are raised.

3.02 Ensure the PABX is fully functional, and that no alarm conditions exist. If alarms are present, refer to Section MITL9109-094-350-NA, Troubleshooting, before carrying out Alarm System tests.

3.03 Chart 3-I shows the steps for testing the SX-200 Alarm System.

CHART 3-I
ALARMS

Step	Action	Verify
1	Generate an alarm condition by busying out a line circuit (refer to Chart 2-16).	Alarm status (displayed on Maintenance Terminal and, if programmed to do so, on Attendant Consoles) changes from NO ALARM to MINOR ALARM. Alarm LED on line card lights.
2	Return the busied line circuit to service.	Alarm status changes from MINOR ALARM to NO ALARM.
3	Busy enough line cards to exceed the major alarm threshold.	Alarm status changes from NO ALARM to MAJOR ALARM. Appropriate alarm LEDs light on line cards.
4	Return enough line cards to service to reduce the percentage of out-of-service cards to less than major alarm threshold value.	Alarm status changes from MAJOR to MINOR ALARM.
5	Return all line circuits to service.	Alarm status changes from MINOR to NO ALARM. Test complete.

Setting Alarm Threshold

3.04 The Alarm Threshold for either the system or one bay may be set from the Maintenance terminal or from the Console. The Alarm Threshold determines the percent quantity of devices that can be out of service before a Minor, or Major alarm is raised. (For critical alarm it is the absolute number of devices that can be out of service). Chart 3-2 shows how to set the Alarm Threshold.

CHART 3-2
SETTING ALARM THRESHOLD RATE

Step	Action	Verify
1	Access MAINTENANCE application	System responds by displaying Maintenance menu.
2	Press 1 (SYSTEM softkey)	Softkey prompts change. System level is accessed.
3	Press 1 (SET softkey)	Command line responds with SET and softkey prompts change.
4	Press 9 (ALARM-THRESH)	Command line responds with SET ALARM-THRESH and softkey prompts change.
5	Press 1 (SYSTEM softkey) or 2 (BAY softkey) (followed by BAY #) and 0 (ENTER softkey)	System responds with SET ALARM-THRESH SYSTEM or SET ALARM-THRESH BAY and the softkey prompts change to I-LINES 2-TRUNKS 3-RECEIVERS 4-PCM_CHANNELS 5-CANCEL.
6	Press 1 (LINES softkey)	System responds with SET ALARM THRESHOLD - LINES Minor =
7	Enter percent threshold (2 digits) or (1 digit and RETURN)	System responds with SET ALARM THRESHOLD - LINES Minor=xx, Major=
8	Enter percent threshold (2 digits) or (1 digit and RETURN)	System responds with SET ALARM THRESHOLD - Minor=xx, Major=xx, Critical=
9	Enter threshold (2 digits) OR (1 digit and RETURN)	System responds with SET ALARM THRESHOLD - Minor=xx, Major=xx, Critical=xx
10	Press 0 (ENTER softkey)	
11	Repeat above steps to set other alarm thresholds or to set Bay thresholds	

Testing Line Lockout Alarm

3.05 The Line Lockout Alarm is generated at all consoles 45 seconds after a station goes off-hook and remains idle; it is a distinctive cadence (long-short-long) which takes priority over all other ringing cadences.

CHART 3-3
TESTING LINE LOCKOUT ALARM

Step	Action	Verify
1	Place a station (with COS option 227 - Lockout alarm applies enabled) off-hook.	A lockout alarm occurs 45 seconds later. All consoles start to warble (long-short-long cadence); this cadence takes priority over all other cadences (no other cadences ring while the lockout alarm cadence is ringing).
2	The alarm icon flashes when a lockout alarm occurs if COS option 102 (Attendant Display of System Alarms) is enabled when the log is generated (COS option 227 must be enabled).	COV card failed at 01 07 02 00 ext 1702 OFF hook too long Alarm code = 101
3	While the console is warbling (long-short-long cadence), verify that the display lockout alarm has priority.	The user can log into maintenance or CDE from the maintenance terminal, but not from the console.
4	Verify that while the console is warbling (long-short-long cadence) it can do the following: - answer an incoming call - place an outgoing call - place or retrieve a call on hold (any hold slot) - use the pager - show identity - perform any ATT FUNCTION - set DAY SERVICE, NIGHT 1, or NIGHT 2 - set ENGLISH or FRANCAIS - read new logs through the ALARM function	

CHART 3-3 (CONT'D)
TESTING LINE LOCKOUT ALARM

Step	Action	Verify
5	Place a locked-out station or set on-hook.	The long-short-long cadence remains until 'CLEAR'ed from a console. The station or set is returned to service. The following log is generated: COV card passed at 01 07 02 00 ext 1702 OFF hook too long Alarm code = 101 The alarm totals are updated. A log is generated if the overall system alarm level changes.
6	Press the following keys to display a lockout alarm on a console: FUNCTION hardkey APPLICATION softkey SHOW LOCKOUT softkey	The lock-out alarm is displayed on the console.
7	While there is a lockout alarm at the console, press the APPLICATION softkey	If the maintenance terminal or another console is active in maintenance or CDE, the following is displayed: "MAINTENANCE or CDE in use by . . . . . Please Try again Later." If another console is showing lockout alarms the following is displayed: "Lockout alarm being displayed by . . . . . Press Any Hard Key to Return." Otherwise, for 10 seconds the following message and the SHOW LOCKOUT softkey (PF4) are displayed: "Press SHOW LOCKOUT to display lockout alarm. Press Any Hard key to Return." All other consoles stop their long-short-long cadence and resume any other cadence that may be active. After which the display is returned to the application state and all other consoles start the long-short-long cadence at which time thev can SHOW LOCKOUT.

CHART 3-3 (CONT'D)
TESTING LINE LOCKOUT ALARM

Step	Action	Verify
8	Press the SHOW LOCKOUT softkey.	The time-out time is set to infinite time-out. The SHOW LOCKOUT softkey is erased. The lockout alarm is displayed on the second line of the console in the following format: 1987-MAR-30 13:07: 10 Extension 1702 has been off hook too long. If there is only one lockout alarm, the long-short-long cadence is removed; any other active cadence is resumed, and the CLEAR softkey (PF9) is displayed. If there is more than one lockout alarm, the long-short-long cadence remains and the CLEAR softkey (PF9) and the MORE softkey (PFO) are displayed.
9	Press the CLEAR softkey.	If there is only one lockout alarm, the lockout alarm being shown is cleared; the user is prompted for 3 seconds with "SELECT AN APPLICATION" or "Press Any Hard key to Return" after which the display is returned to the application state. If there is more than one lockout alarm, the lockout alarm which is being shown is cleared and the next lockout alarm is displayed. If this is now the last lockout alarm, the MORE softkey is erased, otherwise the MORE softkey remains.
10	Press the MORE softkey.	The lockout alarm which is being shown is NOT cleared, and the next lockout alarm is displayed. The lockout alarms are displayed in a cyclical manner in the order of occurrence by repeatedly depressing the MORE softkey.
11	Press any hardkey while the SHOW LOCKOUT softkey is displayed.	The console display is returned to an idle state. 3 seconds later all other consoles start the long-short-long cadence again at which time they can SHOW LOCKOUT alarms.
12	Press any hardkey while a lockout alarm is being displayed.	The console display is returned to an idle state. If the long-short-long cadence is off, it is immediately turned on for this console. 3 seconds later all other consoles start the long-short-long cadence again at which time they can SHOW LOCKOUT alarms.
13	Generate another lockout alarm while a lockout alarm is being displayed.	If the MORE softkey (PFO) was NOT displayed, the MORE softkey is displayed. The long-short-long cadence is resumed.

CHART 3-3 (CONT'D)
TESTING LINE LOCKOUT ALARM

Step	Action	Verify
14	While a lockout alarm is active, exit from a maintenance or CDE user interface at a console (time-out or log out).	All other consoles stop their long-short-long cadence and resume any other cadence that may be active. The user at this console is prompted for 3 seconds to press SHOW LOCKOUT after which the display is returned to the application state and all other consoles start the long-short-long cadence again at which time they can show lockout alarms.

Notes:
1. There can be 32 lockout alarms active at any one time; any further lockout alarm(s) will only be recorded in the maintenance logs.
2. The long-short-long cadence will still ring if COS option 100 (Attendant Bell Off) is enabled.
3. The lockout alarm feature will operate with COS option 701 (No Dial Tone) enabled.
4. When a console is in restricted service, the long-short-long cadence will ring but the user will not be able to read the alarm or turn the warbling off; the restricted access code must be re-dialed before the user can press the APPLICATION hard key.
5. When there are no DTMF receivers available, the 45 second time period before the lockout alarm occurs will be increased by the time waiting for an available receiver.

4. STATION FEATURE TESTS

General

4.01 This Part describes the station tests for the SX-200 DIGITAL PABX. These tests are performed prior to the PABX being brought into service in order to verify the correct operation of the stations and the features associated with them. Refer to Section MITL9109-094-105-NA, Features Description, for details of the features tested.

4.02 Some of the features may be COS-restricted. Consequently, not all features may be accessed from all stations. Refer to the customer database (either by checking station COS levels at the Maintenance Terminal, or by referring to Section MITL9109-094-206-NA, Installation Forms) to determine which COS level is assigned to which stations, and to determine which COS options are enabled within each COS level.

4.03 Satisfactory completion of the station feature tests confirms that the stations have been installed and programmed correctly according to the instructions provided in Section MITL9109-094-206-NA, Installation Forms, and Section MITL9109-094-210-NA, Customer Data Entry, and that the features operate properly according to the features descriptions in Section MITL91 09-094-l 05-NA, Features Description.

4.04 The tests performed in this Part cover the following features:

- Abbreviated Dial
- Broker's Call
- Call Forwarding (All Types)
- Call Hold
- Call Hold Retrieve (Local and Remote)
- Callback Busy
- Callback No-Answer
- Camp-on
- Conflict Dialing
- Dial Call Pickup
- Directed Call Pickup
- Do Not Disturb
- Extension Reset
- Flash for Attendant
- Hunt Groups
- Line Lockout
- Station Conference
- Station-to-Station Call
- Station Transfer.

4.05 Charts 4-l through 4-19 show the steps for testing station features.

CHART 4-I
ABBREVIATED DIAL

Step	Action	Verifv
1	Station “A” lifts handset.	Station “A” receives dial tone.
2	Station “A” dials the Abbreviated Dial Access Code and number.	Dial tone is removed on the first dialed digit. Following the last dialed digit, outpulsing may be heard (if the selected number is external). Ringback or busy tone is returned.
3	Return handset.	Test complete.

CHART 4-2
BROKER’S CALL

Step	Action	Verify
1	Station “A” lifts handset.	Dial tone is returned.
2	Station “A” dials station “B’ directory number.	Station “B” rings. Ringback tone is heard at station “A”.
3	Station “B” lifts handset.	Station “B” stops ringing. Ringback tone removed from station “A”. Stations “A” and “B” are connected.
4	Station “A” flashes switchhook.	Station “A” receives Interrupted Dial Tone. Station “B” receives silence (Consultation Hold).
5	Station “A” dials station “C’ and establishes a connection.	As above, Steps 2 and 3, except for stations “A” and “C”.
6	Station “A” flashes switchhook.	Station “C” receives silence (Consultation Hold). Stations “A” and “B” are connected.
7	Station “A” flashes switchhook.	Station “B” receives silence (Consultation Hold). Stations “A” and “C” are connected.
6	Station “A” replaces handset.	Stations “B” and “C” are NOT connected together.
9	Station “A” lifts handset.	Station “C” receives silence, and goes to a locked-out condition if handset is not replaced. Station “B” receives ringback tone. Station “A” rings. Station “A” lifts handset. Station “A” and “B” are connected.
10	Replace all handsets.	Test completed.

CHART 4-3
CALL FORWARDING (ALL TYPES)

Step	Action	Verify
CALL FORWARDING – BUSY Part 1 – Testing activation of Call Forwarding – Busy		
1	Station “A” lifts handset.	Dial Tone returned.
2	Station “A” dials Call Forwarding – Busy access code, followed by station “C” directory number, then sets handset on-hook.	Dial Tone removed on first digit of access code dialed. Dial Tone returned after station “C” directory number has been entered. (Call Forwarding – Busy activated.)
3	Station “A” stays off-hook. Station “B” dials station “A” directory number.	Station “B” receives Ringback Tone. Station “C” rings.
4	Station “C” lifts handset.	Station “C” stops ringing. Ringback Tone removed from station “B”. Stations “B” and “C” are connected.
5	All stations replace handsets.	Part 1 completed.
Part 2 – Testing deactivation of Call Forwarding – Busy		
1	Station “A” lifts handset, dials any Call Forwarding access code and goes on-hook.	Dial tone removed on first digit of access code dialed. (Call Forwarding deactivated.)
2	Station “A” lifts handset. Station “B” dials station “A” directory number.	Station “A” receives Dial Tone. Station “B” receives Busy Tone.
3	Replace all handsets.	Test completed.

CHART 4-3 (CONT'D)
CALL FORWARDING (ALL TYPES)

Step	Action	Verify
CALL FORWARDING - NO ANSWER Part 1 - Testing activation of Call Forwarding - No Answer		
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials Call Forwarding - no Answer Access Code, followed by station "C" directory number, then sets handset on-hook.	Dial Tone removed on first digit of access code dialed. Dial Tone returned after last digit of station "C" directory number. (Call Forwarding - No Answer activated.)
3	Station "B" dials station "A" directory number.	Station "B" receives Ringback Tone. Station "A" rings for two ringing cycles. Station "A" stops ringing and station "C" rings.
4	Station "C" goes off-hook.	Station "C" stops ringing and Ringback Tone is removed from station "B". Stations "B" and "C" are connected together.
5	Set handsets on-hook.	Part 1 completed.
Part 2 - Testing deactivation of Call Forwarding - No Answer		
1	Station "A" lifts handset and dials any Call Forwarding Access Code and hangs up.	Dial Tone removed after first digit of access code dialed. (Call Forwarding - No Answer deactivated.)
2	Station "B" dials station "A" directory number. Allow station "A" to ring for more than two ringing cycles.	Station "A" rings; station "B" receives Ringback Tone.
3	Station "A" goes off-hook.	Station "A" stops ringing; Ringback Tone removed from station "B". Stations "A" and "B" are connected together.
4	Set handsets on-hook.	Test completed.

CHART 4-3 (CONT'D)
CALL FORWARDING (ALL TYPES)

Step	Action	Verify
CALL FORWARDING – BUSY/NO ANSWER		
Part 1 – Testing activation of Call Forwarding – Busy/No Answer		
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials Call Forwarding – Busy/No Answer access code, followed by Station "C" directory number, and remains off-hook.	Dial Tone removed on first digit of access code dialed. Dial Tone returned after last digit of Station "C" directory number. (Call Forwarding – Busy/No Answer activated.)
3	Station "B" dials Station "A" directory number.	Station "B" receives Ringback Tone. Station "C" rings.
4	Station "C" lifts handset.	Stations "B" and "C" are connected.
5	All stations replace handsets. Station "B" dials Station "A".	Station "B" receives Ringback Tone. Station "A" rings twice, then stops ringing. Station "C" rings.
6	Station "C" lifts handset.	Stations "B" and "C" are connected.
7	Replace handsets.	Part 1 completed.
Part 2 – Testing deactivation of Call Forwarding – Busy/No Answer		
1	Station "A" lifts handset and dials any Call Forwarding access code, then hangs up.	Dial Tone removed after first digit of access code dialed. (Call Forwarding – Busy/No Answer deactivated.)
2	Station "B" dials Station "A". Allow Station "A" to ring for more than two ringing cycles.	Station "A" rings. Station "B" receives Ringback Tone. Station "C" does not ring (call not forwarded to Station "C").
3	Station "B" goes on-hook.	Station "A" stops ringing.
4	Station "A" lifts handset, and Station "B" dials Station "A".	Station "A" receives Dial Tone. Station "B" receives Busy Tone.
5	Replace all handsets.	Test completed.

CHART 4-3 (CONT'D)
CALL FORWARDING (ALL TYPES)

Step	Action	Verify
CALL FORWARDING - FOLLOW ME Part 1 - Testing activation of Call Forwarding - Follow Me		
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials Call Forwarding - Follow Me Access Code, followed by station "C" directory number, then sets handset on-hook.	Dial Tone removed on first digit of access code dialed. Dial Tone returned after station "C" directory number has been dialed. (Call Forwarding - Follow Me activated.)
3	Station "B" lifts handset.	Dial Tone returned.
4	Station "B" dials station "A" directory number.	Station "B" receives Ringback Tone. Station "C" rings.
5	Station "C" goes off-hook.	Station "C" stops ringing. Ringback Tone removed from station "B". Stations "B" and "C" are connected together.
6	Set handsets on-hook.	Part 1 completed.
Part 2 - Testing deactivation of Call Forwarding - Follow Me		
1	Station "A" lifts handset.	Interrupted Dial Tone returned.
2	Station "A" dials any Call Forwarding Access Code, then sets handset on-hook.	Dial Tone removed on first digit of access code dialed.
3	Station "B" dials station "A" directory number and Station "A" lifts handset.	Station "A" rings. Station "B" receives Ringback Tone. When station "A" lifts handset, stations "A" and "B" are connected together.
4	Set handsets on-hook.	Test completed.

CHART 4-3 (CONT'D)
CALL FORWARDING (ALL TYPES)

Step	Action	Verify
CALL FORWARDING - I'M HERE Par,: 1 - Testing activation of Call Forwarding - I'm Here		
1	Station "B" lifts handset.	Dial Tone returned.
2	Station "B" dials Call Forwarding - I'm Here Access Code followed by station "A" directory number, then sets handset on-hook.	Dial Tone removed on first digit of access code dialed. Dial Tone returned after station "A" directory number dialed. (Call Forwarding - I'm Here activated.)
3	Station "C" lifts handset and dials station "A" directory number.	Station "C" receives Ringback Tone. Station "B" rings.
4	Station "B" lifts handset.	Station "B" stops ringing; Ringback Tone removed from station "C". Stations "B" and "C" are connected together.
5	Set handsets on-hook.	Part 1 completed.
Part 2 - Testing deactivation of Call Forwarding - I'm Here		
1	Station "A" lifts handset.	Interrupted Dial Tone returned.
2	Station "A" dials any Call Forwarding Access Code, then sets handset on-hook.	Dial Tone removed on first digit of access code dialed. (Call Forwarding - I'm Here deactivated.)
3	Station "C" lifts handset and dials station "A" directory number.	Station "C" receives Ringback Tone; station "A" rings.
4	Station "A" lifts handset.	Station "C" and station "A" are connected together.
5	Set handsets on-hook.	Test completed.

CHART 4-3 (CONT'D)
CALL FORWARDING (ALL TYPES)

Step	Action	Verify
CALL FORWARDING - EXTERNAL Part 1 - Testing activation of Call Forwarding - External		
1	At Attendant Console, program a number external to the PABX as an Abbreviated Dialing number.	Refer to Section MITL9109-094-315-NA, Attendant Console Description, for information regarding programming of Abbreviated Dialing numbers at the Attendant Console.
2	Station "A" lifts handset.	Dial Tone returned.
3	Station "A" dials a Call Forwarding Access Code, followed by Abbreviated Dialing access code and entry number.	Dial Tone removed on first digit of access code dialed. Dial Tone returns after last digit of Abbreviated Dialing entry number.
4	Station "A" sets handset on-hook.	
5	Station "A" remains on-hook if Call Forwarding - No Answer, Call Forwarding - Busy/No Answer, or Call Forwarding - Follow Me selected. Station "A" establishes a call to station "C" if Call Forwarding - Busy selected.	
6	Station "B" dials station "A" directory number.	Station "B" receives Ringback Tone. Station "B" is routed to external number. External number rings. Station "B" receives external call ringback (or Busy Tone, if external number is off-hook).
7	External line goes off-hook.	Station "B" and external number are connected together.
8	External line and station "B" set handsets on-hook.	Part 1 completed. Go to Part 2.

CHART 4-3 (CONT'D)
CALL FORWARDING (ALL TYPES)

Step	Action	Verify
CALL FORWARDING - EXTERNAL Part 2 - Testing Deactivation of Call Forwarding - External		
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials any call Forwarding Access Code, then sets handset on-hook.	Dial Tone removed on first digit of access code dialed. (Call Forwarding deactivated.)
3	Station "B" lifts handset then dials station "A" directory number.	Station "A" rings. Station "B" receives Ringback Tone.
4	Station "A" lifts handset.	Station "A" and station "B" are connected together.
5	Set handsets on-hook.	Test completed.

CHART 4-4
CALL HOLD

Step	Action	Verify
1	Station “A” lifts handset, dials station “B” directory number, and establishes a connection.	Dial Tone returned on first dialed digit. Ringback Tone heard at station “A” after station “B” directory number dialed, and station “B” rings. Connection established when station “B” goes off-hook.
2	Station “A” flashes switchhook.	Station “A” receives Transfer Dial Tone, station “B” hears Music On Hold if provided, or silence. (Station “B” is on Consultation Hold.)
3	Station “A” dials Call Hold Access Code.	Transfer Dial Tone is removed from station “A” on first digit of access code dialed, and returns when dialing completed. (Station “B” is on Call Hold.)
4	Station “A” sets handset on-hook.	Station “A” is free to make or receive calls.
5	Station “A” lifts handset.	Dial Tone returned.
6	Station “A” dials Call Hold Local Retrieve Access Code.	Dial Tone removed on first digit of access code dialed. Station “A” and station “B” are connected together.
7	Set handsets on-hook.	Test completed.

CHART 4-5
CALL HOLD RETRIEVE (LOCAL AND REMOTE)

Step	Action	Verify
CALL HOLD RETRIEVE - LOCAL		
1	Station "A" establishes a call to station "B".	Station "A" and station "B" are connected together.
2	Station "A" places station "B" on Call Hold (see Chart 4-4).	Station "B" hears Music on Hold, if provided, or silence. Station "A" receives Dial Tone, and is free to make or receive calls.
3	Station "A" dials Call Hold Local Retrieve Access Code.	Station "A" and station "B" are connected together.
4	Set all handsets on-hook.	Test completed.
CALL HOLD RETRIEVE - REMOTE		
1	Repeat Steps 1 and 2 above (CALL HOLD RETRIEVE - LOCAL).	As above, in Step 2.
2	Station "A" sets handset on-hook.	
3	Station "C" lifts handset, dials Call Hold Remote Retrieve Access Code, followed by station "A" directory number.	Dial Tone is removed from station "C" on first digit of access code dialed. Stations "C" and "B" are connected together after last digit of station "A" directory number dialed. Station "A" is free to make or receive calls.
4	Set all handsets on-hook.	Test completed.

CHART 4-6
CALLBACK BUSY

Step	Action	Verify
1	Stations “A” and “B” go off-hook, and station “A” dials station “B” directory number.	Station “A” receives Busy Tone.
2	Station “A” dials Callback Busy Access Code.	Station “A” receives Dial Tone when dialing of access code completed.
3	Station “A” then station “B” set handsets on-hook.	Station “A” rings.
4	Station “A” lifts handset.	Station “A” receives Ringback Tone. Station “B” rings.
5	Station “B” lifts handset.	Station “A” and station “B” are connected together.
6	Set handsets on-hook.	Test completed.

CHART 4-7
CALLBACK NO ANSWER

Step	Action	Verify
1	Station “A” dials station “B”.	Station “B” rings.
2	Station “A” receives ringback tone.	Station “B” does not answer.
3	Station “A” goes on-hook then off-hook, dials the No-Answer access code, dials Station B’s extension number.	Dial tone is returned to Station A.
4	Station “B” is used and returns to on-hook. Callback is activated.	Station “A” rings three times.
5	Station “A” lifts handset.	Ringback is returned to Station “A”.
6	Station “B” rings.	

CHART 4-8
CAMP-ON

Step	Action	Verify
1	Station “A” dials station “B” and establishes a call.	Station “A” and station “B” are connected together.
2	Station “C” goes off-hook and dials station “A” directory number.	Station “C” receives Busy Tone.
3	Station “C” remains off-hook for 10 seconds.	Busy Tone at station “C” changes. Station “A” receives Camp-on Warning Tone.
4	Stations “A” and “B” go on-hook.	Station “A” is rung.
5	Station “A” goes off-hook.	Stations “A” and “C” are connected together.
6	Set handsets on-hook.	Test completed.

Conflict Dialing

4.06 For this test, ensure that two stations are programmed with conflicting numbers (for example: 123, and 1234). After a CDE-programmed time-out period, the system resolves the conflicting numbers. Assign the 3-digit extension number to station "B", and the 4-digit extension number to station "C".

CHART 4-9
CONFLICT DIALING

Step	Action	Verify
1	Station "A" lifts handset, and dials a 3-digit directory number (station "B").	Dial Tone returned. Dial Tone removed after first digit of directory number dialed.
2	System waits the programmed time-out period, then rings station "B".	Station "A" receives Ringback Tone. Station "B" rings.
3	Station "B" goes off-hook.	Station "A" and station "B" are connected together.
4	Set handsets on-hook.	
5	Station "A" lifts handset, and dials a 4-digit directory number (station "C").	Dial Tone returned. Dial Tone removed after first digit of directory number dialed.
6	Station "C" rings.	Station "A" receives Ringback Tone. Station "C" rings.
7	Station "C" goes off-hook.	Station "A" and station "C" are connected together.
8	Set handsets on-hook.	Test completed.

Note: At no point during this test should stations "B" and "C" ring at the same time.

Dial Call Pickup

4.07 For this test, ensure that two of the three stations are in the same Pickup Group. Pickup Groups are programmed in CDE Form IO, PICKUP GROUPS.

CHART 4-10
DIAL CALL PICKUP

Step	Action	Verify
1	Station "C" lifts handset.	Dial Tone returned.
2	Station "C" dials station "B directory number.	Station "C" receives Ringback Tone. Station "B" rings.
3	Station "A" lifts handset.	Dial Tone returned.
4	Station "A" dials Dial Call Pickup Access Code.	Dial Tone removed on first digit of access code dialed. Station "A" and "C" are connected together. Ringing removed from station "B".
5	Set handsets on-hook.	Test completed.

Note: Callbacks cannot be picked up by Dial Call Pickup.

CHART 4-l 1
DIRECTED CALL PICKUP

Step	Action	Verify
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials station "B".	Station "A" receives Ringback Tone. Station "B" rings.
3	Station "C" lifts handset.	Dial Tone returned.
4	Station "C" dials Directed Call Pickup Access Code, followed by station "B" directory number.	Station "C" is connected to station "A" and ring is removed from station "B".
5	Set handsets on-hook.	Test completed.

CHART 4-12
DO NOT DISTURB

Step	Action	Verify
Part 1 - Setting Do Not Disturb		
1	Station "A" li 'ts handset.	Dial Tone returned.
2	Station "A" dials Do Not Disturb Access Code, followed by the digit 1.	Dial Tone removed on first digit of access code dialed. Dial Tone returned after digit 1 dialed.
3	Station "B" lifts handset.	Dial Tone returned.
4	Station "B" dials station "A" directory number.	Special Busy Tone returned after last digit dialed. Station "A" does not ring.
5	Station "B" sets handset on-hook.	Part 1 completed.
Part 2 - Canceling Do Not Disturb		
1	Station "A" lifts handset.	Station "A" receives Interrupted Dial Tone.
2	Station "A" dials Do Not Disturb Access Code, followed by the digit 2.	Dial Tone removed on first digit of access code dialed, and returned after digit 2 dialed.
3	Station "A" sets handset on-hook.	
4	Station "B" lifts handset.	Dial Tone returned.
5	Station "B" dials station "A" directory number.	Station "B" receives Ringback Tone. Station "A" rings.
6	Station "A" lifts handset.	Station "A" and station "B" are connected together. Ringback Tone removed from station "B". Ringing removed from station "A".
7	Set handsets on-hook.	Test completed.

Extension Reset (Clear All Features)

4.08 For this test, ensure that COS Option 221, Clear All Features, is enabled in the class of service of test station "A".

CHART 4-13
EXTENSION RESET (CLEAR ALL FEATURES)

Step	Action	Verify
1	Enable any type of Call Forwarding, and Do Not Disturb at station "A".	See Call Forwarding (All Types) and Do Not Disturb, above.
2	Station "A" lifts handset.	Interrupted Dial Tone returned. Station-to-station calls can be made at station "A" in the normal manner. Dialing can be done into Interrupted Dial Tone.
3	Station "A" dials the Clear All Features Access Code.	Dial Tone returned.
4	Station "A" sets handset on-hook.	
5	Station "B" dials station "A" directory number.	Station "B" receives Ringback Tone. Station "A" rings. (Do Not Disturb is disabled; Call Forwarding is disabled.)
6	Station "A" lifts handset.	Station "A" and station "B" are connected together.
7	Set handsets on-hook.	Test completed.

Flash For Attendant

4.09 For this test, ensure that COS Option 203, Broker's Call, is disabled, and that COS Option 224, Flash For Attendant, is enabled in the Class of Service of the test stations.

CHART 4-14
FLASH FOR ATTENDANT

Step	Action	Verify
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials station "B" directory number.	Dial Tone removed on first digit dialed. Station "B" rings. Station "A" receives Ringback Tone.
3	Station "B" lifts handset.	Ringback Tone removed from station "A". Ringing removed from station "B". Stations "A" and "B" are connected together.
4	Station "A" flashes switchhook.	Attendant Console shows appearance of call waiting. Station "B" receives silence (Consultation Hold). Station "A" receives Ringback Tone.
5	Attendant answers call.	Station "A" and Attendant Console are connected together. Attendant is free to act on call.
6	Set handsets on-hook.	Test completed.

CHART 4-15
HUNT GROUPS (CIRCULAR)

Note: Stations “A”, “B” and “C” are assumed to be in a circular hunt in the indicated order.

Step	Action	Verify
Part 1 - Testing Hunt Group Operation.		
1	Station “D” lifts handset.	Dial Tone returned.
2	Station “D” dials Hunt Group Access Code.	Station “A” rings. Station “D” receives Ringback Tone.
3	Station “A” answers.	Stations “A” and “D” are connected.
4	Set handsets on-hook.	
5	Repeat Steps 1 and 2.	Station “B” rings. Station “D” receives Ringback Tone.
6	Station “B” answers.	Stations “B” and “D” are connected.
7	Set handsets on-hook.	
8	Repeat Steps 1 and 2.	Station “C” rings. Station “D” receives Ringback Tone.
9	Station “C” answers.	Stations “C” and “D” are connected.
10	Set handsets on-hook.	Part 1 completed.
Part 2 - Testing Hunt Group for unwanted members.		
Step	**Action**	**Verify**
1	Stations “A”, “B” and “C” lift handsets.	Dial Tone returned at each station.
2	Station “D” lifts handset and dials Hunt Group Access Code.	Busy Tone returned following last digit of access code dialed.
3	Set all handsets on-hook.	Test completed.

CHART 4-16
HUNT GROUPS (TERMINAL)

Note: Stations "A", "B" and "C" are assumed to be in a terminal hunt group, in the indicated order.

Step	Action	Verify
Part 1 - Testing Hunt Group Operation.		
1	Station "D" lifts handset.	Dial Tone returned.
2	Station "D" dials Hunt Group Access Code.	Station "A" rings. Station "D" receives Ringback Tone.
3	Station "A" answers.	Stations "A" and "D" are connected,
4	Set handsets on-hook.	
5	Repeat Steps 1 through 3.	As above.
6	Set all handsets on-hook.	Part 1 completed.
Part 2 - Testing that hunting goes beyond first station.		
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "D" lifts handset and dials Hunt Group Access Code.	Station "B" rings. Station "D" receives Ringback Tone.
3	Station "B" lifts handset.	Station "B" and station "D" are connected together.
4	Set handsets on-hook.	Part 2 completed.
Part 3 - Testing Hunt Group for unwanted members.		
1	Stations "A" through "C" lift handsets.	Stations "A" through "C" receive Dial Tone.
2	Station "D" lifts handsets and dials Hunt Group Access Code.	Busy Tone returned after last digit of access code dialed.
3	Set handsets on-hook.	Test completed.

CHART 4-17
LINE LOCKOUT (WITHOUT LINE LOCKOUT ALARM ENABLED)

Step	Action	Verify
1	Station “A” lifts handset.	Dial Tone returned.
2	Station “A” remains off-hook.	Dial Tone changes to Reorder Tone.
3	Station “A” continues to remain off-hook.	Reorder Tone replaced by silence. Station “A” is locked out. If COS Option 227, Lockout Alarm Applies is enabled, a minor alarm is reported at the Attendant Console.
4	Station “B” lifts handset.	Dial Tone returned.
5	Station “B” dials station “A” directory number.	Busy Tone returned.
6	Set handsets on-hook.	Test completed.

Station Conference

4.10 For this test, ensure that COS Option 302, Flash-in Conference, is enabled, and that COS Option 224, Flash For Attendant, is disabled in the Class of Service for the test stations.

CHART 4-18
STATION CONFERENCE

Step	Action	Verify
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials station "B" directory number.	Station "B" rings. Station "A" receives Ringback Tone.
3	Station "B" lifts handset.	Station "A" and station "B" are connected together.
4	Station "A" flashes switchhook.	Station "A" receives Transfer Dial Tone. Station "B" receives Music On Hold, if provided, or silence. (Station "B" is on Consultation Hold.)
5	Station "A" dials station "C" directory number.	Station "A" receives Ringback Tone, and station "C" rings.
6	Station "C" lifts handset.	Station "A" and station "C" are connected together.
7	Station "A" flashes switchhook.	Stations "A", "B" and "C" are connected in conference.
8	Station "A", "B" or "C" repeats Steps 4 through 7.	New stations added into conference (maximum of five conferees).
9	Set all handsets on-hook.	Test completed.

CHART 4-19
STATION-TO-STATION CALL

Step	Action	Verify
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials station "B directory number.	Dial Tone removed on first digit dialed. Ringback Tone returned when dialing completed, if station "B" is on-hook. (If station "B" is off-hook, Busy Tone returned to station "A".)
3	Station "B" lifts handset.	Station "A" and station "B" are connected together.
4	Set handsets on-hook.	Test completed.

CHART 4-20
STATION TRANSFER

Step	Action	Verify
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials station "B" directory number.	Dial Tone removed on first digit dialed. Station "A" receives Ringback Tone. Station "B" rings.
3	Station "B" lifts handset.	Station "A" and station "B" are connected together.
4	Station "B" flashes switchhook.	Station "A" receives Music On Hold, if provided, or silence. Station "B" receives Transfer Dial Tone.
5	Station "B" dials station "C" directory number.	Station "B" receives Ringback Tone. Station "C" rings.
6	Station "C" lifts handset.	Station "B" and station "C" are connected together.
7	Station "B" sets handset on-hook.	Station "C" and station "A" are connected together.
8	Set handsets on-hook.	Test completed.

5. ATTENDANT CONSOLE TESTS

General

5.01 This Part provides a series of tests to verify the operation of the SX-200 DIGITAL PABX Attendant Console. Refer to Section MITL9109-094-315-NA, Attendant Console Description, and Section MITL91 09-094-I 05-NA, Features Description, for details on the features tested in this Part.

5.02 The features tested in this Part are:

- Answering Calls
- Originating Calls
- Call Hold and Retrieve
- Recall
- Serial Call
- Attendant-Controlled Conference
- Abbreviated Dial
- Do Not Disturb
- Override
- Flexible Night Service
- Trunk Busy Out Operation
- Message Waiting
- Attendant Call Forwarding
- Attendant Station Busy-out
- Attendant Direct Trunk Select
- Attendant DISA Code Setup
- Attendant Display of *SUPERSET* 4 Set Messages
- Attendant Last Number Redial
- Attendant Night Switching
- System Identifier
- Maintenance and Customer Data Entry Applications.

5.03 Charts 5-l through 5-21 show the steps for testing Attendant Console features.

CHART 5-I
ANSWERING CALLS

Step	Action	Verify
Part 1 - Internal Source		
1	Station "A" lifts handset.	Station "A" receives Dial Tone.
2	Station "A" dials the Attendant access code.	Dial Tone removed from station "A" and replaced by Ringback Tone. Attendant Console warbler sounds, and ANSWER LED flashes. INTERNAL softkey appears. Call Waiting indicator (C/W) shows one call waiting.
3	Attendant presses the ANSWER key.	Ringback Tone removed from station "A". Warbler stops. Call Waiting indicator shows 0 calls waiting. ANSWER LED is on. The SRC area is highlighted and returns data on station "A". Attendant Console and station "A" are connected together.
4	Attendant presses the RELEASE key.	Attendant Console returns to idle state. Attendant Console and station "A" are disconnected.
5	Set handsets on-hook.	Part 1 completed.
Part 2 - External Source		
1	Station "A" lifts handset.	Station "A" receives Dial Tone.
2	Station "A" accesses an outgoing trunk and dials the number of an incoming trunk.	Dial Tone removed on first digit dialed. Ringback Tone returned. Attendant Console warbler sounds. ANSWER LED flashes. Call Waiting indicator shows one call waiting. An LDN softkey appears.
3	Attendant presses ANSWER key.	Station "A" and console are connected. The SRC display is highlighted and displays data on the incoming trunk. SERIAL CALL softkey appears. ANSWER LED is on.
4	Attendant presses the RELEASE key.	Attendant Console returns to the idle state. Station "A" and Attendant Console are disconnected.
5	Set handsets on-hook.	-Test completed.

CHART 5-2
ORIGINATING CALLS

Step	Action	Verify
1	Attendant dials station "A" directory number.	Digits appear on LCD display in DST area as they are dialed. ANSWER LED lights. No softkey labels are displayed. Station "A" rings. Station "A" data is displayed. MSG WAITING and CALLBACK softkeys are displayed. DST area shows the message RINGING. Attendant Console receives Ringback Tone.
2	Station "A" answers.	Station "A" stops ringing. Ringback Tone removed from Attendant Console. NO DISTB and MSG WAITING softkeys are displayed. Station "A" and Attendant Console are connected together.
3	Attendant presses RELEASE key.	Station "A" and Attendant Console are disconnected. Attendant Console returns to idle display.
4	Set handsets on-hook.	Test completed.

CHART 5-3
CALL HOLD AND RETRIEVE

Step	Action	Verify
1	Station "A" lifts handset.	Dial Tone returned.
2	Station "A" dials Attendant Access Code.	See Chart 5-l.
3	Attendant presses HOLD 1 key.	Station "A" receives Music On Hold, if provided, or silence. The SRC area of the Attendant Console LCD is blanked. HOLD 1 LED is on. ANSWER LED is off.
4	Wait the time-out period.	HOLD 1 LED flashes. Warbler sounds with Attendant Console Recall Tone (one burst of tone for HOLD slot 1).
5	Press HOLD 1.	Call is retrieved. Station "A" and Attendant Console are connected together. HOLD 1 LED is off. ANSWER LED is on.
6	Press HOLD 2.	As above, in Step 3. HOLD 2 LED is on.
7	Wait the time-out period.	HOLD 2 LED flashes. Warbler sounds with Attendant Console Recall Tone (two bursts of tone for HOLD slot 2).
8	Press HOLD 2.	As above, in Step 5.
9	Press HOLD 4.	HOLD slots 4 through 8 are displayed as softkeys on LCD, along with the status of each hold slot (HOLD 4 through HOLD 8).
10	Press HOLD 6.	As above, in Step 3. HOLD 4 LED is on.
11	Wait the time-out period.	HOLD 4 LED flashes. Warbler sounds with Attendant Console Recall Tone (four bursts of tone for HOLD slot 4).
12	Press HOLD 4.	As above, in Step 9. HOLD 6 displays *RCL (recall) status.
13	Press HOLD 6 softkey.	As above, in Step 5.
14	Press the RELEASE key.	Station "A" and Attendant Console are disconnected. SRC display blanks. Attendant Console returns to idle condition.
15	Set handsets on-hook.	Test completed.

CHART 5-4
RECALL

Step	Action	Verify
1	Perform Steps 1 through 3 of Answering Calls – Part 1 (Internal).	See Chart 5-l.
2	Attendant dials station "B" directory number, then presses RELEASE.	Station "B" rings. Station "A" receives Ringback Tone. Attendant Console returns to idle condition.
3	Allow station "B" to ring until recall timer causes recall.	Attendant Console rings. ANSWER LED flashes. Station "B" stops ringing. RECALL softkey appears on Attendant Console LCD.
4	Press ANSWER key or RECALL softkey.	ANSWER LED is on. Attendant Console is connected to station "A". SRC display shows data on station "A". DST display shows data on station "B", and status of station "B" (NO ANSR). RING AGAIN softkey appears on Attendant Console LCD.
5	Press RELEASE.	Attendant Console and station "A" are disconnected. Station "B" rings. Station "A" receives Ringback Tone.
6	Station "B" lifts handset.	Stations "A" and "B" are connected.
7	Set handsets on-hook.	Test completed.

CHART 5-5
SERIAL CALL

Step	Action	Verify
1	Station "A" lifts handset, accesses an outgoing trunk, then accesses an incoming trunk.	Incoming trunk call appears at Attendant Console (see Chart 5-l). SERIAL CALL softkey is displayed.
2	Press SERIAL CALL sof-tkey.	SRC display shows incoming trunk data and SER status flag.
3	Attendant dials station "B" directory number, then presses RELEASE.	Station "B" rings. Station "A" receives Ringback Tone. Attendant Console returns to idle condition.
4	Station "B" lifts handset.	Station "A" and station "B" are connected together.
5	Station "B" sets handset on-hook.	Station "A" receives Ringback Tone. Attendant Console rings. RECALL softkey is displayed.
6	Attendant presses ANSWER key, or RECALL softkey.	Station "A" and Attendant Console are connected. SRC display shows incoming trunk data and SER status flag. SERIAL CALL softkey is displayed.
7	Attendant presses SERIAL CALL softkey.	SER status flag is removed from SRC display. SERIAL CALL softkey remains displayed.
8	Repeat Steps 3 through 5.	Incoming trunk call does not recall to Attendant Console.
9	Set handsets on-hook.	Test completed.

CHART 5-6
ATTENDANT-CONTROLLED CONFERENCE

Step	Action	Verify
1	Attendant dials station "A" directory number.	See Chart 5-2.
2	Attendant dials station "B" directory number, and station "B" answers.	The DST display is highlighted and station "B" data appears. SOURCE and CONF softkeys are displayed.
3	Attendant presses the CONF softkey.	Attendant, station "A" and station "B" are connected together. Both SRC and DST displays are highlighted. SOURCE and DEST softkeys are displayed.
4	Attendant presses the RELEASE key.	Attendant is removed from conference. Attendant Console returns to idle condition. Station "A" and station "B" remain connected together.
5	Set handsets on-hook.	Test completed.

CHART 5-7
ABBREVIATED DIAL

Part 1 - Programming Abbreviated Dial Numbers		
1	Press the FUNCTION key.	Softkey prompts change. SRC and DST displays blank.
2	Press ATT FUNCTION softkey (F2).	Softkey prompts change.
3	Press ABBR DIAL softkey (F6).	LCD responds by displaying the message: Enter Index Number:-
4	Enter Abbreviated Dial Entry Number (000-999).	Digits are displayed as they are entered from telephony keypad. The ← key can be used to back up to and clear incorrect entries. ENTER softkey is displayed (F2).
5	Press ENTER softkey (F2).	LCD responds by displaying entry number and the message: Dial Number:- **Note:** If a dial number is already applied to the entered Abbreviated Dial entry number, the dial number is displayed against the entry number in the format: 000 = 1234
6	Enter Dial Number.	Digits are displayed as they are entered from the telephony keypad. SET softkey is displayed (F2).
7	Press SET softkey (F2).	LCD responds by displaying the message: Enter index Number:-
8	Repeat Steps 4 and 5, using same Entry Number.	Number entered in Step 6 is displayed against entry number.
9	Press EXIT softkey (F1).	LCD responds by returning to Call Processing mode idle condition. Part 1 completed.
Part 2 - Testing operation of Abbreviated Dial		
1	Attendant dials Abbreviated Dial Feature Access Code and Entry Number.	Dialed digits are displayed in DST display area. Display updates and shows actual number being rung. Ringback Tone or Busy Tone returned. ANSWER LED is on.
2	Press RELEASE.	Test completed.

CHART 5-8
DO NOT DISTURB

Step	Action	Verify
1	Attendant dials station "A" directory number.	See Chart 5-2.
2	Station "A" lifts handset.	Station "A" and Attendant Console are connected. DST display shows station "A" data. NO DTSTB **softkey** is displayed.
3	Attendant presses F6 (NO DTSTB softkey).	DND status flag appears in DST display. (Do Not Disturb is enabled.)
4	Attendant presses F6 (NO DTSTB softkey).	DND status flag removed in DST display. (Do Not Disturb is disabled.)
5	Press RELEASE.	Station "A" and Attendant are disconnected. Attendant Console returns to idle condition.
6	Set handsets on-hook.	
7	Press FUNCTION key.	Function **softkeys** are displayed.
8	Press ATT FUNCTION **softkey.**	**Softkey** prompts change.
9	Press STATIONS **softkey.**	LCD responds by displaying message: Enter Extension Number:-
10	Dial station "A" directory number.	Digits appear on LCD as they are dialed. NO DTSTB **softkey** is displayed.
11	Press NO DTSTB **softkey.**	DND status flag is displayed for station "A".
12	Station "B" dials station "A" directory number.	Station "B" receives Reorder Tone.
13	Attendant presses NO DTSTB **softkey.**	DND status flag is removed for station "A".
14	Repeat Step 12.	Station "B" receives **Ringback** Tone. Station "A" rings.
15	Set handsets on-hook.	Ringing removed from station "A".
16	Press EXIT **softkey.**	Attendant Console display returns to idle condition. Test completed.

CHART 5-9
OVERRIDE

Step	Action	Verify
1	Enable Do Not Disturb on station "A".	See Chart 5-8.
2	Attendant dials station "A" directory number.	Reorder Tone returned. DST display shows DND status flag for station "A".
3	Press OVERRIDE softkey.	Ringback Tone returned. Station "A" rings.
4	Station "A" lifts handset.	Station "A" and Attendant Console are connected.
5	Press RELEASE.	Station "A" and Attendant Console are disconnected. Attendant Console display returns to idle condition.
6	Set handsets on-hook.	Test completed.

CHART 5-10
FLEXIBLE NIGHT SERVICE

Step	Action	Verify
1	Press FUNCTION key.	Function softkeys are displayed.
2	Press ATT FUNCTION softkey.	Softkey prompts change.
3	Press MORE... softkey.	Softkey prompts change.
4	Press FLEX NIGHT softkey.	LCD responds by displaying the message: Enter Trunk Number:-
5	Enter digits of trunk number.	Digits are displayed as they are entered from the telephony keypad.
6	Press either the NIGHT 1 or NIGHT 2 softkey.	LCD responds by displaying trunk data, and the message: Currently to:XXXX Forward to:_ where XXXX is the Night Service extension number for the given trunk.
7	Enter the extension number to which the selected trunk is to be forwarded.	Digits are displayed as they are entered. After last digit is entered, SET and EXIT softkeys are displayed.
8	Press SET softkey.	LCD display returns to idle condition.
9	Press FUNCTION key and NIGHT 1 or NIGHT 2 softkey (whichever was selected in Step 6).	Attendant Console shows NIGHT 1 or NIGHT 2.
10	Access the trunk number selected in Step 5.	Extension number selected in Step 7 rings. Ringback Tone returned on trunk.
11	Rung extension lifts handset.	Extension and trunk are connected.
12	Set handsets on-hook.	Test completed.

CHART 5-11
TRUNK BUSY OUT OPERATION

Step	Action	Verify
1	Press the FUNCTION key.	Function **softkeys** displayed.
2	Press ATT FUNCTION **softkey.**	**Softkey** prompts change.
3	Press TRUNKS **softkey.**	LCD responds by displaying the message: Enter Trunk Number:-
4	Enter trunk number digits.	**Softkey** prompts change. Digits appear as they are entered from telephony keypad.
5	Press BUSY OUT **softkey.**	Trunk data is displayed on LCD. IDLE status flag appears, and SET **softkey** appears.
6	Press SET **softkey.**	Display returns to idle console condition.
7	Access trunk selected in Step 4.	Reorder Tone returned. Trunk data is displayed on LCD.
8	Release trunk by pressing RELEASE key.	Trunk is released.
9	Repeat steps 1 through 5.	As in Step 5, but CLEAR **softkey** is displayed.
10	Press CLEAR **softkey.**	Display returns to idle console condition.
11	Access trunk selected in step 4.	Trunk is seized. Dial Tone returned.
12	Press RELEASE key.	Trunk is released. Test completed.

CHART 5-12
MESSAGE WAITING

Step	Action	Verify
1	Attendant dials station "A" directory number.	Station "A" rings. Attendant Console receives ringback tone. DST display shows station "A" data. MSG WAITING softkey is displayed.
2	Press MSG WAITING softkey.	MSW status flag appears against station "A" data.
3	Press RELEASE.	Attendant Console returns to idle condition. After a delay station "A" receives three bursts of ringing, indicating there is a message waiting.
4	Station "A" dials Attendant Console Access Code.	Call appears at Attendant Console. Station "A" receives Ringback Tone. INTERNAL softkey is displayed.
5	Press INTERNAL softkey or ANSWER key.	Station "A" is connected to Attendant Console. Attendant Console shows station "A" as the source (SRC) and displays station "A" data. MSW status flag is displayed. MSG WAITING softkey is displayed.
6	Press MSG WAITING softkey.	MSW status flag is removed.
7	Press RELEASE.	Attendant Console and station "A" are disconnected. Attendant Console display returns to idle condition.
8	Set handsets on-hook.	Station "A" does not ring (no message waiting). Test completed.

CHART 5-13
ATTENDANT CALL FORWARDING

Step	Action	Verify
1	Press FUNCTION key.	Function softkeys are displayed.
2	Press ATT FUNCTION softkey.	Softkey prompts change.
3	Press STATIONS softkey.	LCD display responds by displaying the message: Enter Extension Number:-
4	Enter station "A" directory number.	Digits appear on LCD as they are entered from telephony keypad. CALL FWD softkey is displayed.
5	Press CALL FWD softkey.	Softkey prompts change. LCD displays message: Currently not set Forward to:_
6	Dial station "B" directory number.	Digits appear on LCD display as they are dialed. Softkey prompts change.
7	Select Call Forwarding type by pressing the appropriate softkey (e.g., ALWAYS).	Attendant Console display returns to idle condition.
8	Ensure station "A" is in appropriate state (on-hook or off-hook) for type of Call Forwarding selected in Step 7.	
9	Attendant dials station "A" directory number.	DST display shows station "B" directory number and message: Fwd From XXXX (where XXXX is station "A" directory number). Station "B" rings. Attendant Console receives Ringback Tone.
10	Press RELEASE.	Station "B" stops ringing. Ringback Tone removed from Attendant Console.
11	Repeat Steps 1 through 5.	Station "A" data is displayed. LCD displays message: Currently to XXXX Forward to:_ where XXXX is station "B" directory number. Go to Step 12.

CHART 5-13 (CONT'D)
ATTENDANT CALL FORWARDING

Step	Action	Verify
12	Press CANCEL softkey.	LCD display returns to idle condition. (Call Forwarding is canceled at station "A".)
13	Repeat Step 9.	Station "A" rings. Attendant Console receives Ringback Tone. Station "A" appears as DST.
14	Press RELEASE.	Station "A" stops ringing. Ringback Tone removed from Attendant Console. Attendant Console display returns to idle condition.
15	Repeat Steps 1 through 5.	Call Forwarding is enabled for station "A".
16	Repeat Steps 1 through 7, forwarding station "B" to station "C" directory number.	Call Forwarding is enabled for station "B".
17	Press FUNCTION and the following softkeys: ATT FUNCTION, MORE..., CAN ALL FWD	Call Forwarding is canceled for all stations. Attendant Console returns to idle condition.
18	Dial station "A" directory number.	Station "A" rings. Ringback Tone returned to Attendant Console.
19	Press RELEASE.	Station "A" stops ringing. Ringback Tone removed from Attendant Console.
20	Dial station "B" directory number.	Station "B" rings. Ringback Tone returned to Attendant Console.
21	Press RELEASE.	Station "B" stops ringing. Ringback Tone removed from Attendant Console.
22	Set handsets on-hook.	Test completed.

CHART 5-14
ATTENDANT STATION BUSY-OUT

Step	Action	Verify
1	Press the FUNCTION key.	Function softkeys are displayed.
2	Press ATT FUNCTION softkey.	Softkey prompts change.
3	Press STATIONS softkey.	Attendant Console LCD displays the message: Enter Extension Number:-
4	Enter station "A" directory number.	Digits are displayed on LCD display as they are entered from telephony keypad. BUSY OUT softkey is displayed.
5	Press BUSY OUT softkey.	SET softkey is displayed.
6	Press SET softkey.	Attendant Console LCD display returns to idle condition.
9	Station "B" lifts handset and dials station "A" directory number.	Station "B" receives Reorder Tone. Station "A" does not ring.
8	Station "B" sets handset on-hook.	
9	Attendant dials station "A" directory number. .	DST display shows station "A" data and BSY OUT status flag. Attendant Console receives Reorder Tone.
10	Press RELEASE.	Attendant Console returns to idle condition.
11	Repeat Steps 1 through 5.	CLEAR softkey is displayed.
12	Press CLEAR softkey.	Attendant Console returns to idle condition.
13	Repeat Step 9.	Station "A" rings. Station "B" receives Ringback Tone.
14	Station "A" lifts handset.	Stations "A" and "B" are connected together.
15	Set handsets on-hook.	Test completed.

CHART 5-15
ATTENDANT DIRECT TRUNK SELECT

Step	Action	Verify
1	Press the FUNCTION key.	Function softkeys are displayed.
2	Press ATT FUNCTION softkey.	Softkey prompts change.
3	Press TRUNKS softkey.	Attendant Console LCD display responds by displaying the message: Enter Trunk Number:-
4	Enter trunk number.	Digits are displayed on LCD as they are entered from the telephony keypad. ATT ACCESS softkey is displayed.
5	Press ATT ACCESS softkey.	DST display shows selected trunk. If idle, trunk is accessed. Status flag BUSY is displayed if trunk is busy. If busy, FORCE RLS softkey is displayed.
6	Press RELEASE key, or FORCE RLS softkey.	Attendant Console is disconnected from trunk. Attendant Console returns to idle condition. Test completed.

CHART 5-16
ATTENDANT DISA CODE SETUP

Step	Action	Verify
1	Press the FUNCTION key.	Function softkey prompts are displayed.
2	Press the ATT FUNCTION softkey.	Softkey prompts change.
3	Press the MORE... softkey.	Softkey prompts change.
4	Press the DISA CODE softkey.	Attendant Console LCD responds by displaying the message: Enter DISA Access Code:-
5	Enter DISA Access Code. (Access Code may be up to five digits long.)	Digits are displayed on LCD as they are entered from the telephony keypad. SET softkey is displayed.
6	Press SET softkey.	DISA Code is set. Attendant Console returns to idle condition. Test completed.

CHART 5-17
ATTENDANT DISPLAY OF SUPERSET 4 TELEPHONE MESSAGES

Step	Action	Verify
1	At a SUPERSET 4 telephone, enable a message.	SUPERSET 4 LCD displays the message enabled.
2	Attendant dials the SUPERSET 4 telephone directory number.	Attendant Console DST display shows the SUPERSET 4 telephone data. The message enabled at the SUPERSET 4 telephone is displayed. The SUPERSET 4 telephone rings. The Attendant Console receives Ringback Tone.
3	Press the RELEASE key.	Attendant Console returns to idle condition. Ringing removed from the SUPERSET 4 telephone.
4	At the SUPERSET 4 telephone, disable the message.	SUPERSET 4 telephone LCD displays time and date. Test completed.

CHART 5-18
ATTENDANT LAST NUMBER REDIAL

Step	Action	Verify
1	Attendant dials trunk access code and external number, or internal number.	Attendant Console receives Ringback Tone or Busy Tone. The dialed number is displayed in DST area.
2	Press the RELEASE key.	Attendant Console returns to idle condition. REDIAL softkey is displayed.
3	Press the REDIAL softkey.	The last number dialed is redialed by the system. The dialed number is displayed in the DST area. Ringback or Busy Tone is returned.
4	Press the RELEASE key and set handset on-hook.	Test completed.

CHART 5-19
ATTENDANT NIGHT SWITCHING

Step	Action	Verify
1	Press the FUNCTION key.	Function softkey prompts are displayed.
2	Press the NIGHT 1 softkey.	Attendant Console returns to idle condition. System enters Night Service 1. NIGHT 1 status flag is displayed on Attendant Console LCD.
3	Station "A" lifts handset, accesses an outgoing trunk, then accesses an incoming trunk.	Night Service 1 night bells are rung. Station "A" receives Ringback Tone. Call does not appear at Attendant Console.
4	Set handset on-hook.	Night bells stop ringing.
5	Repeat Step 1.	As above, Step 1.
6	Press the NIGHT 2 softkey.	Attendant Console returns to idle condition. System enters Night Service 2. NIGHT 2 status flag is displayed on Attendant Console LCD.
7	Repeat Step 3.	Night Service 2 night bells are rung. Station "A" receives Ringback Tone. Call does not appear at Attendant Console.
8	Repeat Step 4.	As above, Step 4.
9	Repeat Step 1.	As above, Step 1.
10	Press DAY SERVICE softkey.	Attendant Console returns to idle condition. NIGHT 2 status flag is not displayed on LCD.
11	Repeat Step 3.	Attendant Console receives ringing. Station "A" receives Ringback Tone.
12	Attendant presses ANSWER.	Attendant Console and station "A" are connected.
13	Press the RELEASE key.	Attendant Console and station "A" are disconnected.
14	Set handsets on-hook.	Test completed.

CHART 5-20
SYSTEM IDENTIFIER

Step	Action	Verify
1	Press the FUNCTION key.	Function softkey prompts are displayed.
2	Press the IDENTITY SOFTKEY.	System identity (including software release) and Attendant Console LDN are displayed on Attendant Console LCD.
3	Press the EXIT softkey.	Attendant Console returns to idle condition. Test completed.

Maintenance and Customer Data Entry Applications

5.04 For this test, ensure that Maintenance and Customer Data Entry Applications are not accessed by any Maintenance Terminal or Attendant Console.

CHART 5-21
MAINTENANCE AND CUSTOMER DATA ENTRY APPLICATIONS

Step	Action	Verify
1	Press the FUNCTION key.	Function softkey prompts are displayed.
2	Press the APPLICATION SOFTKEY.	Attendant Console LCD responds by displaying the message: Select An Application OR Press QUIT To Return and MAINTENANCE, CDE, and QUIT softkeys are displayed.
3	Press MAINTENANCE softkey.	LCD displays the message: Choose a Username... and the following softkeys are displayed: INSTALLER MAINT1 MAINT2 SUPERVISOR ATTENDANT
4	Press the INSTALLER softkey.	LCD responds by displaying the message: Enter Password: and the ENTER softkey is displayed.
5	Enter the numeric password from the telephony keypad.	Digits are not displayed.
6	Press the ENTER softkey.	LCD display responds with the message: PLEASE WAIT... then PLEASE WAIT, loading form . . . and disk drive is accessed. LCD display updates with a display of Maintenance softkeys and menu.
7	Station “A” lifts handset and dials the Attendant Console Access Code.	ANSWER LED flashes at Attendant Console and warbler sounds.
8	Press any fixed key.	Attendant Console display returns to Call Processing mode. INTERNAL softkey is displayed. Go to Step 9.

CHART 5-21 (CONT'D)
MAINTENANCE AND CUSTOMER DATA ENTRY APPLICATIONS

Step	Action	Verify
9	Press ANSWER or INTERNAL softkey.	Station "A" and Attendant Console are connected. ANSWER LED is on. SRC display shows station "A" data.
10	Press FUNCTION key and APPLICATION softkey.	Attendant Console display returns to Maintenance Application, at point where Maintenance Application was exited. Attendant Console was not logged out of Maintenance Application.
11	Press the RELEASE key.	Attendant Console and station "A" are disconnected. Attendant Console display returns to an idle condition but is still engaged in Maintenance Application. Attendant Console is free to perform Maintenance functions, or to make or receive calls.
12	Press FUNCTION key and APPLICATION softkey.	Maintenance application display is returned.
13	Press the QUIT softkey.	Attendant Console LCD displays the message: Select An Application OR Press QUIT To Return and MAINTENANCE, CDE, and QUIT softkeys are displayed. Attendant Console is logged out of Maintenance Application.
14	Press the CDE softkey.	Attendant Console LCD display responds as in Step 3.
15	Repeat Steps 4 through 6.	Customer Data Entry softkeys and menu are displayed on LCD.
16	Repeat Steps 7 through 10.	Attendant Console was not logged out of Customer Data Entry Application.
17	Repeat Step 11.	As above. Attendant Console is free to perform CDE functions, or to make or receive calls.
18	Press the QUIT softkey.	Attendant Console LCD displays the message: Select An Application OR Press QUIT To Return and MAINTENANCE, CDE, and QUIT softkeys are displayed. Attendant Console is logged out of CDE Application.
19	Press any fixed key.	Attendant Console display returns to idle condition. Test completed.

6. CUSTOMER FEATURE TESTS

Class-of-Service Tests

6.01 The system has up to 50 Classes of Service. One station for each Class of Service is selected. Each option for that station is then tested.

1. Refer to the Class-of-Service Option forms. Make a note of each of the COS Numbers.

2. Refer to the Station Assignment forms. Each station is assigned a COS Number. For each COS Number, select a station number.

3. Again refer to the Class-of-Service Option forms. For each station selected, verify that each option available to the station is consistent with the options specified on the COS Option form. Refer to Section MITL9109-094-105-NA, Features Description, and test each COS Option enabled at each station.

Class-of-Restriction Tests

6.02 Test Class-of-Restriction operation by selecting various stations with different Classes of Restriction. Dial restricted and unrestricted numbers from these stations to verify that the appropriate Class of Restriction applies.