

SX- 100"

SX-200"

SUPER SWITCH[®]

VOLUME II
(GENERIC 217)



sx-200

WARNING

This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference, in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

sx-100

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**SX-100®/SX-200®
SUPERSWITCH™
ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE
SHIPPING, RECEIVING AND INSTALLATION INFORMATION
GENERIC 217**

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1. INTRODUCTION

General

1.01 This Section provides general identification, installation, shipping, receiving and cabling information for the SX-100 and SX-200 PABX systems. The systems consist of two major components: the equipment cabinet, containing the switching equipment and power supply; and the attendant console(s).

Reason for Reissue

1.02 This Section has been issued to provide additional information concerning the SUPERSET 4 set, the SUPERSET 3 set and the MITEL Recorded Announcement Card.

Documentation

1.03 Table 1-1 lists all MITEL practices, associated with the PABX system.

The SUPERSET 4 Set

1.04 For information on the SUPERSET 4 set, see 'Section MITL9105/9110-096-107-NA.

TABLE 1-1
DOCUMENTATION

Document No.	Title	Applicable to	
		sx-100	sx-200
MITL9105/9110-096-100-NA	General Description	*	*
MITL9105/9110-096-105-NA	Features and Services Description	*	*
MITL9105/91 10-096-150-NA	Physical Description and Ordering Information	*	*
MITL9105/9110-096-180-NA	Engineering Information	*	*
MITL9105/9110-096-200-NA	Shipping, Receiving and Installation	*	*
MITL9105/91 10-096-210-NA	System Programming	*	*
MITL9105/9110-096-212-NA	Multi-Digit Toll Control	*	*
MITL9105/9110-096-213-NA	Automatic Route Selection	*	*
MITL9105/9110-096-215-NA	System Test Procedures (Installation)	*	*
MITL9105/9110-096-220-NA	Speed Call	*	*
MITL9105/9110-096-315-NA	Attendant Console Description	*	*
MITL9105/9110-096-320-NA	Station Test Procedures	*	*
MITL9105/91 10-096-350-NA	Troubleshooting Instructions	*	*
MITL9105/9110-096-450-NA	Traffic Measurement	*	*
MITL9105/9110-096-451-NA	Station Message Detail Recording	*	*
MITL9105/91 10-096-500-NA	General Maintenance Information	*	*

The SUPERSET 3 Set

1.05 For information on the SUPERSET 3 set, see Section MITL9 105/9110-096-I 06-NA.

2. IDENTIFICATION

General

2.01 The SX-100 and SX-200 systems provide the following capacities:

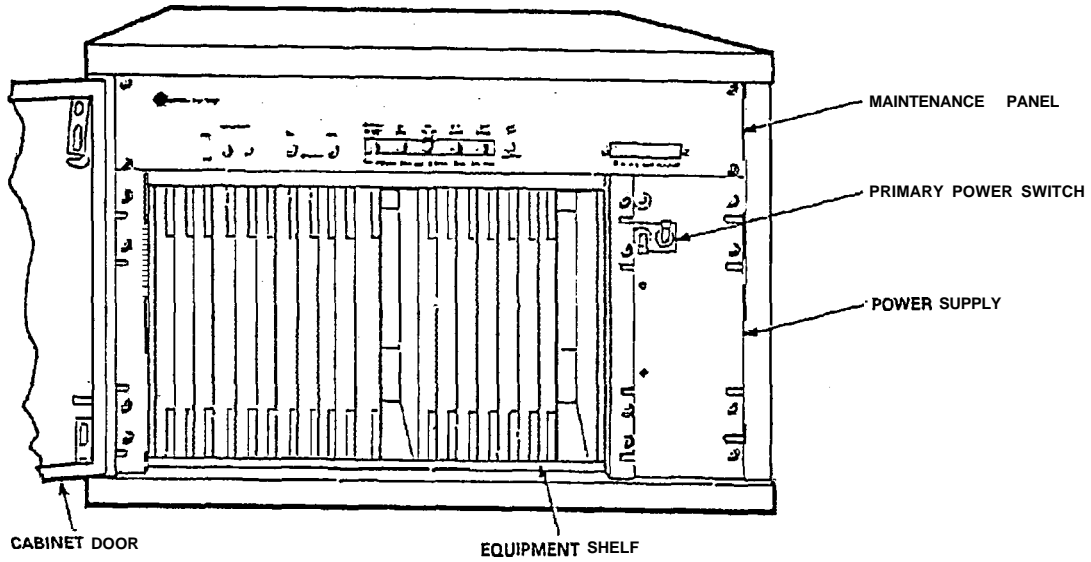
- **SX-100.** Capacity of 160 ports with 112 ports available for lines, trunks and additional receivers.
- **SX-200.** Capacity of 256 ports with 208 ports available for lines, trunks and additional receivers.

2.02 The systems are electrically compatible with most existing station, key telephone, Private Branch Exchange (PABX) and Central Office (CO) equipment. The PABXs provide:

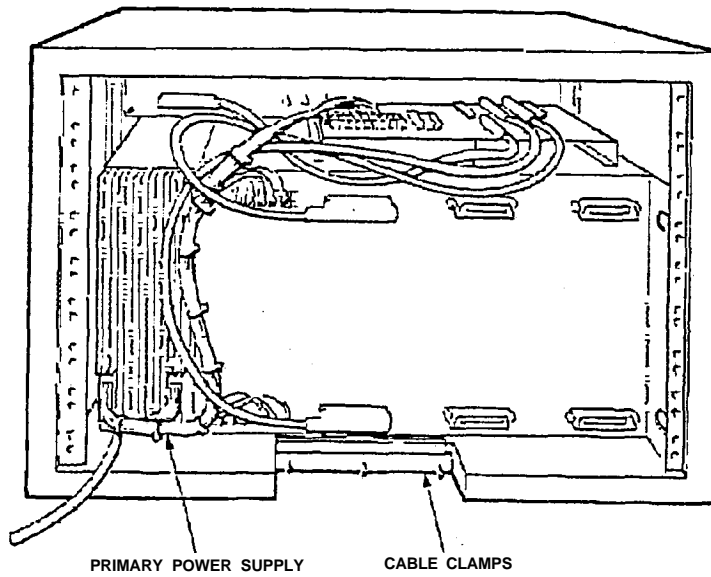
- The use of a flexible numbering plan.
- The simultaneous use of DTMF and rotary dial stations.
- Optional use of Attendant Consoles - two maximum.
- Extensive selection of standard and optional features.
- A data port facility for traffic analysis and other requirements.
- Freedom from scheduled maintenance.
- Automatic diagnostics.
- Six power fail transfer trunks (SX-100).
- Twelve power fail transfer trunks (SX-200).
- Optional reserve power supply.
- The SUPERSET 4 set.
- The SUPERSET 3 set.

Equipment Cabinet, SX-100

2.03 The SX-100 equipment cabinet (Figure 2-1) consists of a metal frame enclosed by back and top panels. Access to the equipment shelf is provided by the front door of the cabinet. The rear panel allows access to the line and trunk cable plugs.



FRONT VIEW



REAR VIEW

WEIGHT	HEIGHT	WIDTH	DEPTH
31.8 kg (70 lb)	422 mm (16.62 in.)	635 mm (25.0 in.)	470 mm (18.5 in.)

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Figure 2-1 SX-100 Equipment Cabinet

Equipment Cabinet, SX-200

2.04 The SX-200 equipment cabinet (Figure 2-2) consists of a metal frame which is enclosed by side and top panels. Access to the equipment shelves is provided by the front door of the cabinet. The hinged rear panels hold the power supply and allow access to the line and trunk cable plugs.

2.05 Reserve power for the SX-200 system, if required, may be supplied from the optional battery pack shelf located at the bottom of the equipment cabinet. In the case of the SX-100 reserve power supply, it forms a separate base unit upon which the SX-100 system can be installed.

Equipment Shelves

2.06 The SX-100 system is equipped with one shelf, but the SX-200 system may be equipped with one or two equipment shelves depending on the number of lines and trunks required. Each equipment shelf (Figure 2-3) is 273 mm (10.75 in.) high, 485 mm (19 in.) wide and 415 mm (16.375 in.) deep. The shelves are mounted in the equipment cabinet with the backplane assembly towards the rear of the cabinet. The shelves are held in position by mounting screws which locate the shelves in the main frame.

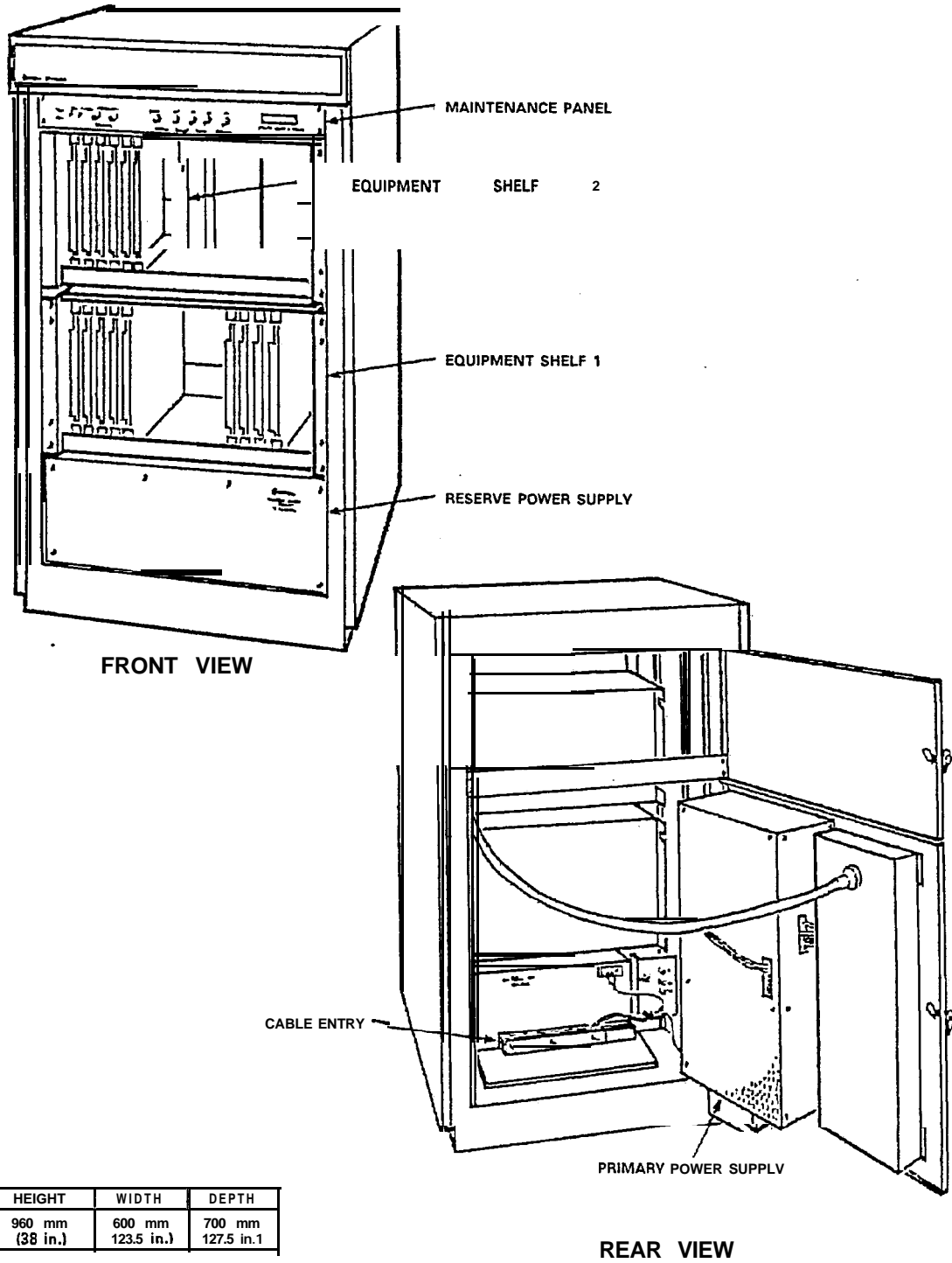
2.07 The physical characteristics and part numbers of the shelves, power supplies and maintenance panel are given in Table 2-1. The weight for each shelf is for a shelf containing a full complement of circuit cards.

2.08 The equipment shelves used in the SX-100 system and the SX-200 system are identical. Figure 2-3 shows two views of an equipment shelf.

2.09 The equipment shelves hold up to 20 circuit cards. Each card plugs into a connector mounted on the shelf backplane. A locking bar assembly which passes through the sides of the shelf ensures that the circuit packs are seated correctly in the backplane connectors.

**TABLE 2-1
PHYSICAL CHARACTERISTICS**

Shelf Type	SX-100 Part Number	SX-200 Part Number	Weight		Maximum No. Circuit Cards
			kg	lb	
Maintenance Panel	9105-025-000-NA	91 10-125-000-NA	0.9	2	
Equipment Shelf	91 10-012-000-NA	91 10-012-000-NA	17	38	21
Reserve Power	9105-014-000-NA	31 10-014-000-NA	57	125	-
Primary Power	9105-008-000-NA	9110-008-000-NA or 9110-108-000-NA	7/32	16/70	-



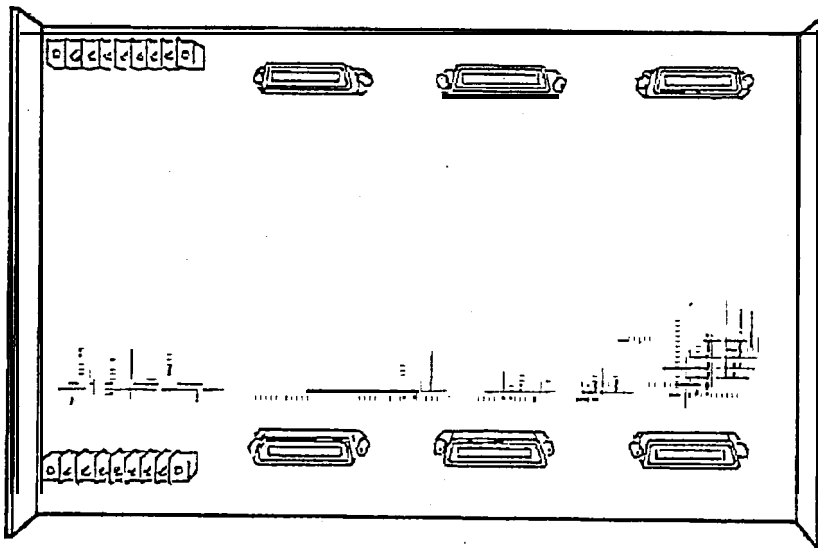
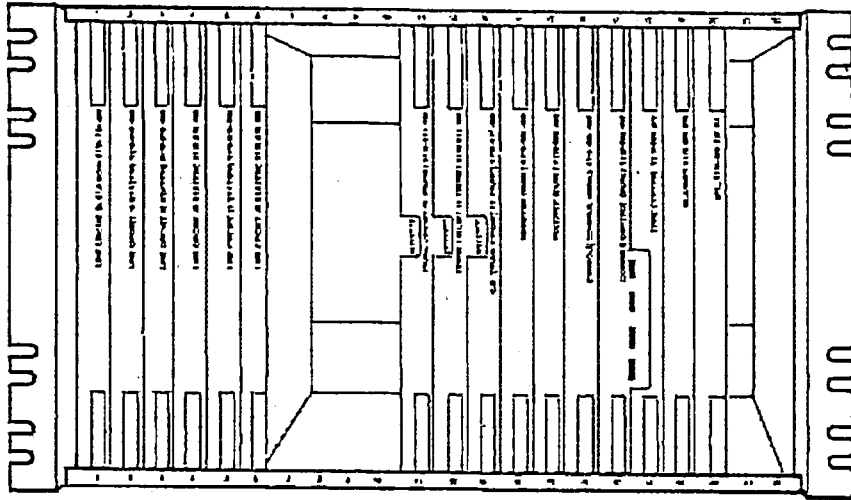
FRONT VIEW

REAR VIEW

WEIGHT	HEIGHT	WIDTH	DEPTH
131.7 kg (290 lb)	960 mm (38 in.)	600 mm (23.5 in.)	700 mm (27.5 in.)

X5610

Figure 2-2 SX-200 Equipment Cabinet



X5612

Figure 2-3 Equipment Shelf

2.10 A number of card positions within each shelf are reserved for control cards. These card positions are identified by color-coded identification strips along the top and bottom edges of the shelf. Only cards with locking clips of the same color as the identification strip should be plugged into that card position. Circuit card and/or system damage may otherwise occur.

2.11 Card positions 14, 13 and 12 on equipment shelf 1, may be used for line, trunk or receiver cards. These positions are marked with a blue and black identification strip, indicating that any card coded with either of the identification color codes may be used in these positions.

2.12 Line or trunk cards can be placed in any position identified with black color-coded strips. It is recommended that line cards be placed in the lowest numbered card positions and trunk cards in the highest card positions for the following reasons:

- The maintenance test line is permanently wired to card position 1, hardware position 001.
- Separation of line and trunk cards allow ease of identification of card type during installation and maintenance.
- Ease of system programming.

Note: If more than one receiver card is used, the second receiver card **MUST** be placed in card position 14, the third **MUST** be placed in position 13 and the fourth **MUST** be placed in position 12. It is therefore recommended that these card positions be used for trunk cards only when all other card positions are in use.

Circuit Cards

2.13 The circuit cards (Figure 2-4) used in the equipment shelves measure 254 mm (10 in.) high, 330 mm (13 in.) deep, and are manufactured from fiberglass board. The light-emitting diodes (**LEDs**) mounted at the front of each card indicate the operational status of the card. The transparent front panel protects the **LEDs** while allowing their status to be observed.

2.14 On the front panel of each card, is the card **part** number and its type. Cards which must not be removed or inserted while the system power is on, carry a Caution notice as shown in Figure 2-4.

2.15 Each card is equipped with two card extractors which enable the card to be easily removed. In the locked position the card extractors, in conjunction with the locking bar, ensure that the circuit cards are held firmly in position.

Equipment Shelf and Card Identification

2.16 Table 2-2 lists all shelf and card part numbers, and color codes.

Features and Services

2.17 The features and service codes are entered into the system memory through a console. No wiring or strapping is required when assigning features.

Attendant Console

2.18 The Attendant Console (Figure 2-5) is a self-contained unit, connected to the equipment cabinet by a plug-ended 25-pair cable.

2.19 The console is equipped with two sets of handset/headset jacks. These jacks will accept all standard handsets or headsets presently in general use.

Connecting Cables

2.20 All connections to the Attendant Console and the equipment cabinet are made using plug- or connector-ended 25-pair cables.

**TABLE 2-2
EQUIPMENT CODING**

Type	Part Number	Card Extractor Color Code
Equipment Shelf (refer to Note 1)	91 10-012-000-NA	
IPC Card	91 10-203-217-NA	Red
Scanner Card	91 10-104-000-NA	Orange
Tone Control Card	911 0-005-000-NA	Yellow
Console Control Card	9110-006-000-NA	Green
Remote Control - PABX Card	911 0-017-000-NA (see Note 2)	Green
Receiver Card (Dual or Quad)	91 10-109-000-NA or -016-000-NA	Blue
CO Trunk Card (4-trunk)	91 10-011-000-NA or -211-000-NA	Black
E&M Trunk Card (2-trunk)	91 10-013-000-NA	Black
DID/Tie Trunk Card (2-trunk)	91 10-031-000-NA	Black
Line Card (8-station)	9110-1 10-000-NA	Black
RAC Module	911 0-073-000-NA	
RAC Card - one module	91 10-072-001-NA	Black
RAC Card - two modules	911 0-072-000-NA	Black

Notes: 1. All equipment shelves are identical.

2. The RCP is supplied only if required that the PABX be accessed by RMAT facilities (see Section MITL9105/911 0-098-101-NA, Remote Maintenance Administration and Test System).

Power Fail Transfer

2 . In the event of a major alarm condition, the power fail transfer relays located on the Power Fail Transfer card, will connect Central Office trunks to selected station lines (maximum six trunks for SX-100, 12 trunks for SX-200). Power fail transfer will take place under any of the following conditions:

- Commercial power failure (if no reserve power supply is used).
 - Common control failure.
 - Operating voltage out of accepted tolerance.
 - Manual transfer from a console or the equipment cabinet.
- (a) **Incoming Calls.** After a power fail transfer has occurred; ringing of extensions for incoming calls is applied directly to the selected extension line from the Central Office (CO).
- (b) **Outgoing Calls.** To place an outgoing call through a ground start CO trunk, with the system in the power fail transfer mode,

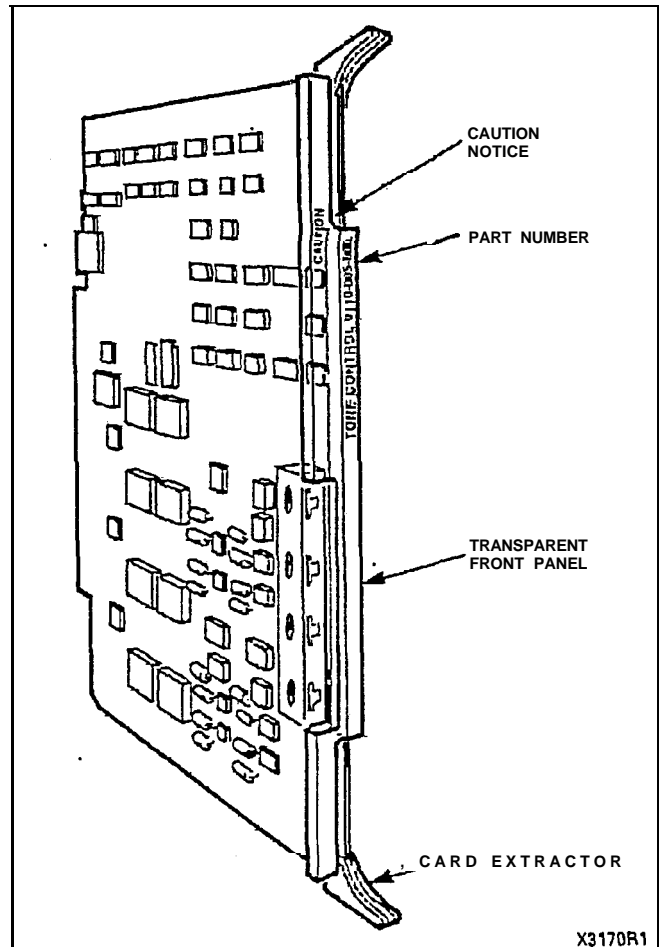
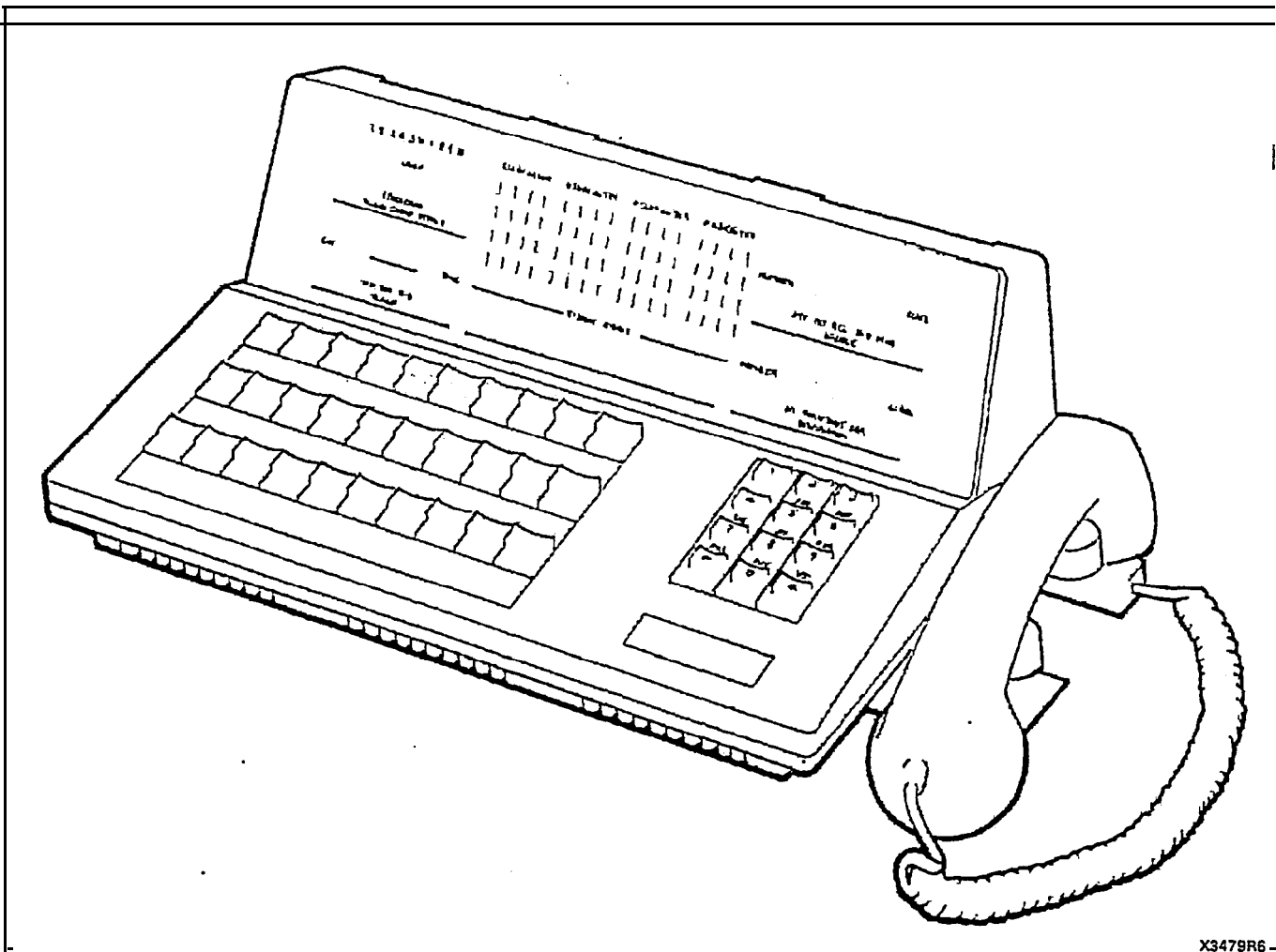


Figure 2-4 Typical Circuit Card



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Figure 2-5 Attendant Console

the extension originating the call must be equipped with a ground key. When the ground key is momentarily pressed, a ground is applied to the Ring side of the line, energizing the CO equipment. One side of the ground key must be connected to a ground and the other side must be connected to the Ring conductor of the station line. Call origination over loop start trunks does not require the use of a ground start key.

Power Fail Transfer Reset

2.22 The system may be returned to normal operation from power fail transfer in one of three ways:

- (a) **Major Alarm.** If the system was placed in the power fail transfer mode because of a major alarm condition, it will return to normal operation and turn off the major alarm lamp when the alarm condition is corrected.
- (b) **Manual Reset.** When the system has been placed in the power fail transfer mode by operation of the switch, the major alarm lamp will light, indicating that transfer has taken place. Setting

the transfer switch to NORMAL will reset the system to normal operation and turn off the alarm lamp if the alarm condition has been corrected. If the alarm condition has not been corrected, the alarm lamp will remain lit, indicating that the system has remained in the power fail transfer mode.

- (c) **Reset from Commercial Power Failure.** The system will automatically return to normal operation when commercial power is restored.

Note: When the system returns to normal operation from the power fail transfer mode, all connections established through the power fail transfer circuits will be maintained until the completion of the calls.

Test Line

2.23 The test line, permanently assigned to hardware position 001, has the Tip and Ring connections wired to the two terminals on the face of the maintenance panel. The service can:

- seize individual trunks
- seize individual receivers
- seize individual speech paths
- initialize card slot
- busy out selected receivers, trunks or speech paths
- clear all alarms and raise associated busy-out conditions
- reset the system
- initiate a system dump
- control the printer.

Reserve Power Supply

2.24 The optional reserve power supply (in the form of batteries and charging system) is housed in the SX-200 equipment cabinet or in a package that forms a base for the SX-100 cabinet. The power supply is designed to maintain system operation for a minimum of 2 hours in the event of main power failure.

Paging, Dictation and Music-on-Hold Equipment

2.25 All paging, dictation and Music-on-Hold equipment is located external to the PABX. This equipment should be located in an environment specified by the individual supplier and connected to the PABX through the cross-connect field.

Night Relays

2.26 Four relays are provided for use during night service. One is operated permanently during night service and the other three may be assigned to various trunks to ring night bells. Power, supplied from the supply and required to operate night bells, must be connected at the cross-connect field.

3. SHIPPING AND RECEIVING

Introduction

3.01 This Part describes the procedures to be used when shipping or receiving the Electronic PABX equipment.

System Shipment

3.02 The PABX cabinet is shipped in a single carton containing the equipment cabinet. The consoles and reserve power supply, if required, are packaged and shipped separately from the system equipment package.

4. PACKAGING

System Package

4.01 The equipment is shipped complete with one shelf and with some cards in position. The equipment cabinet is enclosed in a polyethylene sheet and positioned on the shock-absorbant shipping pallet. A Styrofoam sheet is placed around and on top of the cabinet to protect it from damage, and the complete assembly is encased in a triwall sleeve. Four transportation straps are then fastened to the pallet to prevent any movement of the cabinet package. The triwall cap is placed over the sleeve and the complete assembly is secured to the shipping pallet by two metal retaining straps. Figures 4-1 and 4-2 respectively, show the packaging arrangements for the SX-100 and **SX-200** systems.

Consoles

4.02 Each console is wrapped in a polyethylene sheet and placed in a cardboard packing carton and protected with **shock-**absorbant foam inserts. The handset and cradle are placed in bags and inserted in the corners of the box at one end. The console manual is placed at the other end of the box, and the Extension Features Operation booklets are distributed in the box to fill the available space. The completed package is secured with fiberglass **tape** (Figure 4-3).

Equipment Shelves

4.03 Equipment shelves, when shipped separately, are packaged in a similar manner. A shelf, with all cards removed, is enclosed in a cardboard protector to prevent damage to the shelf backplane. The protected shelf is then wrapped in a polyethylene sheet and placed in

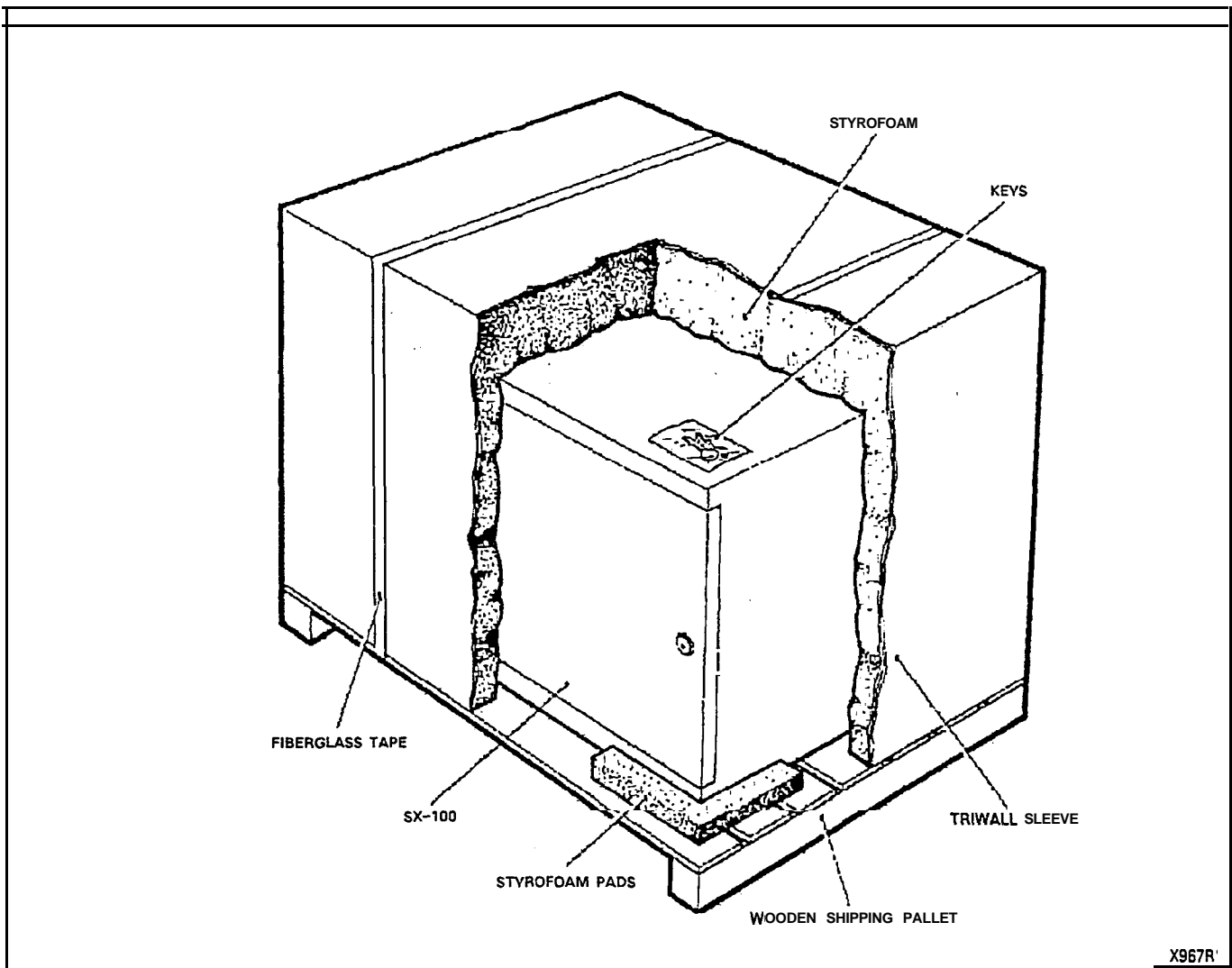


Figure 4-1 SX-100 System Packaging

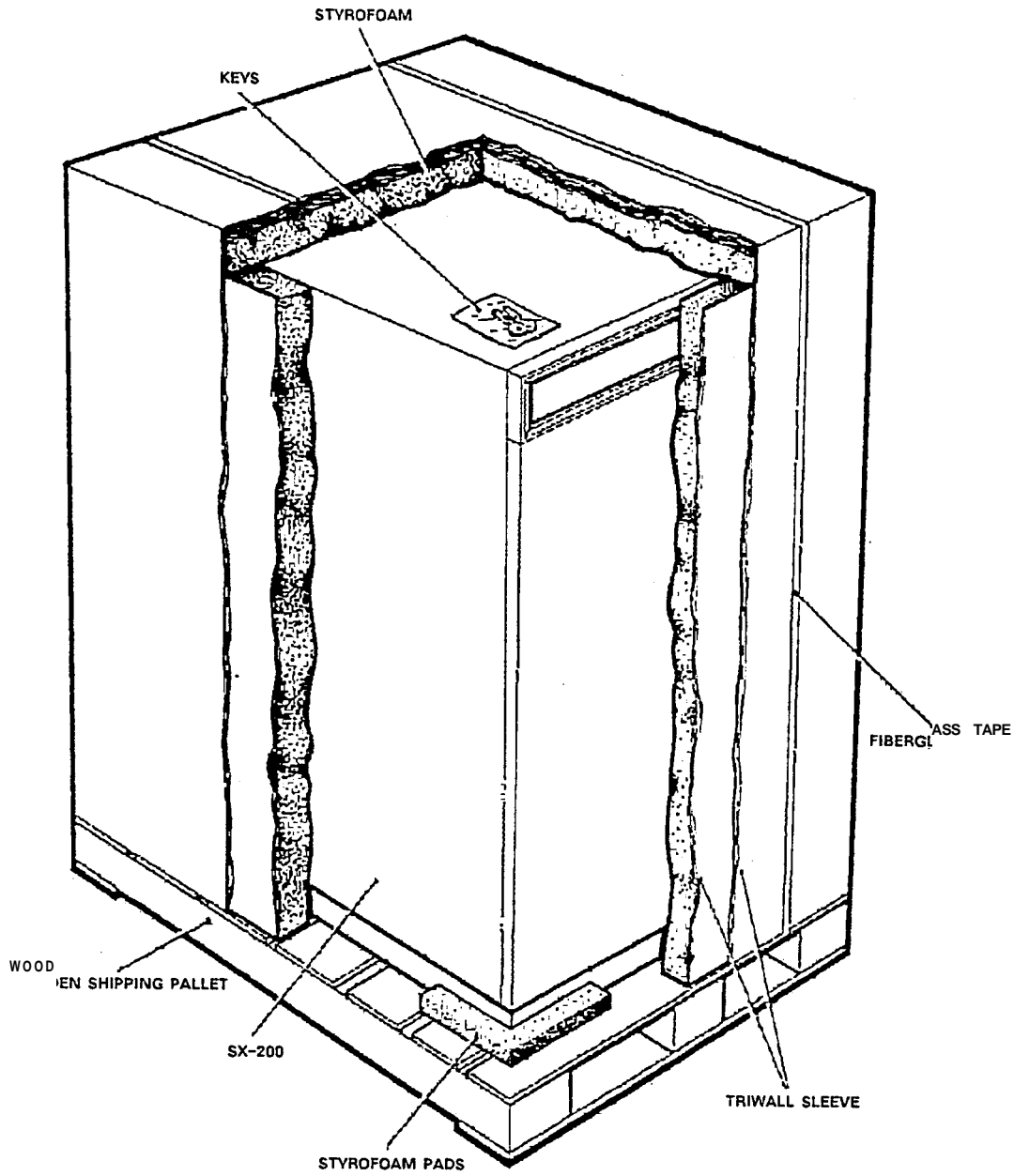
a formed foam insert. The complete assembly is finally encased in a packing carton and **secured** by fiberglass tape (Figure 4-4).

Reserve Power Shelf

4.04 The method of packaging the reserve power shelf is the same as for equipment shelves, except a heavy duty commercial packing carton is used in place of the regular packing cartons, due to the weight of the battery packs in the reserve power shelf.

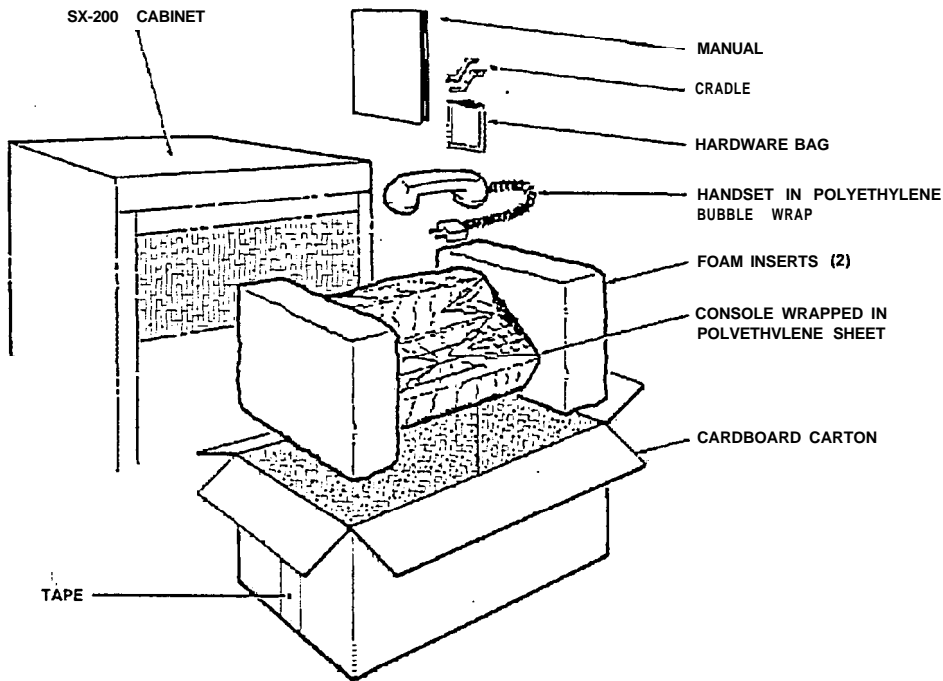
Printed Circuit Cards

4.05 All printed circuit cards, if shipped separately, are packaged as shown in Figure 4-5. If a larger number of circuit cards are to be shipped, they are individually packed and shipped in groups of 10 per carton.

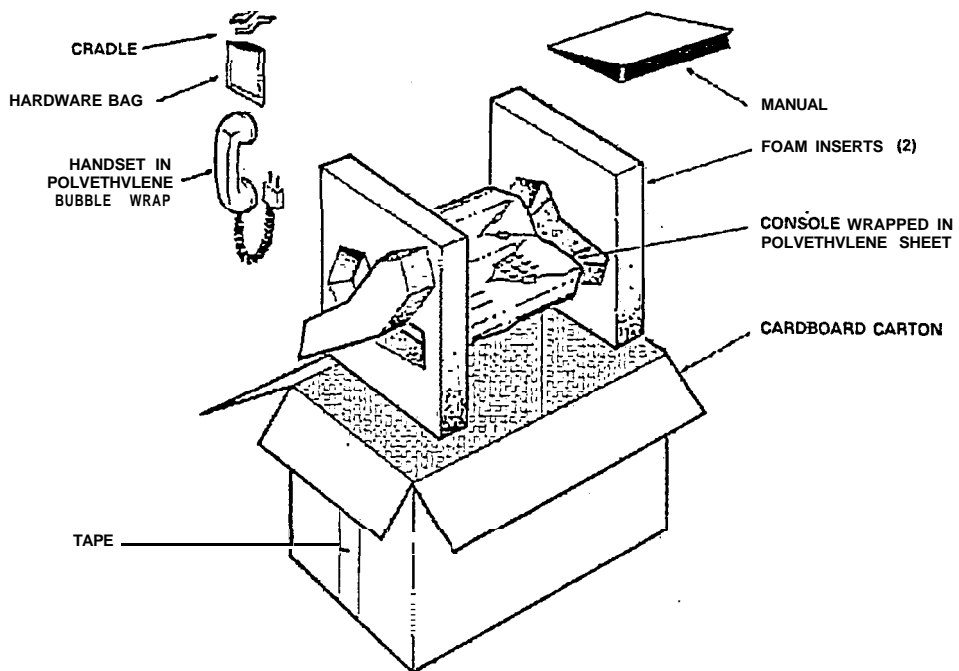


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Figure 4-2 SX-200 System Packaging



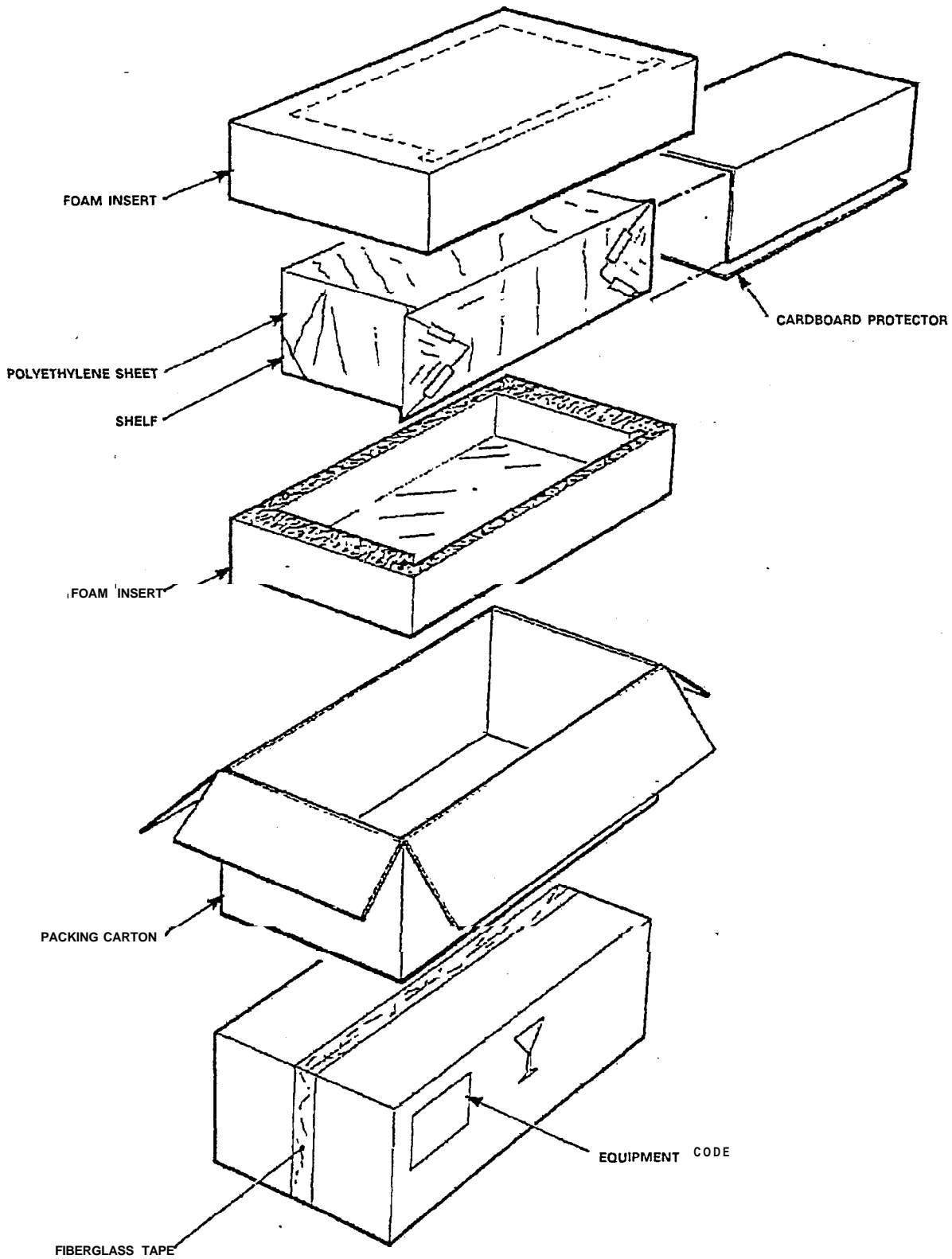
(a) CONSOLE PACKAGING -
(FOR SHIPMENT IN SX-200 - 1 SHELF CABINET)



(b) CONSOLE PACKAGING -
(FOR SEPARATE SHIPMENT)

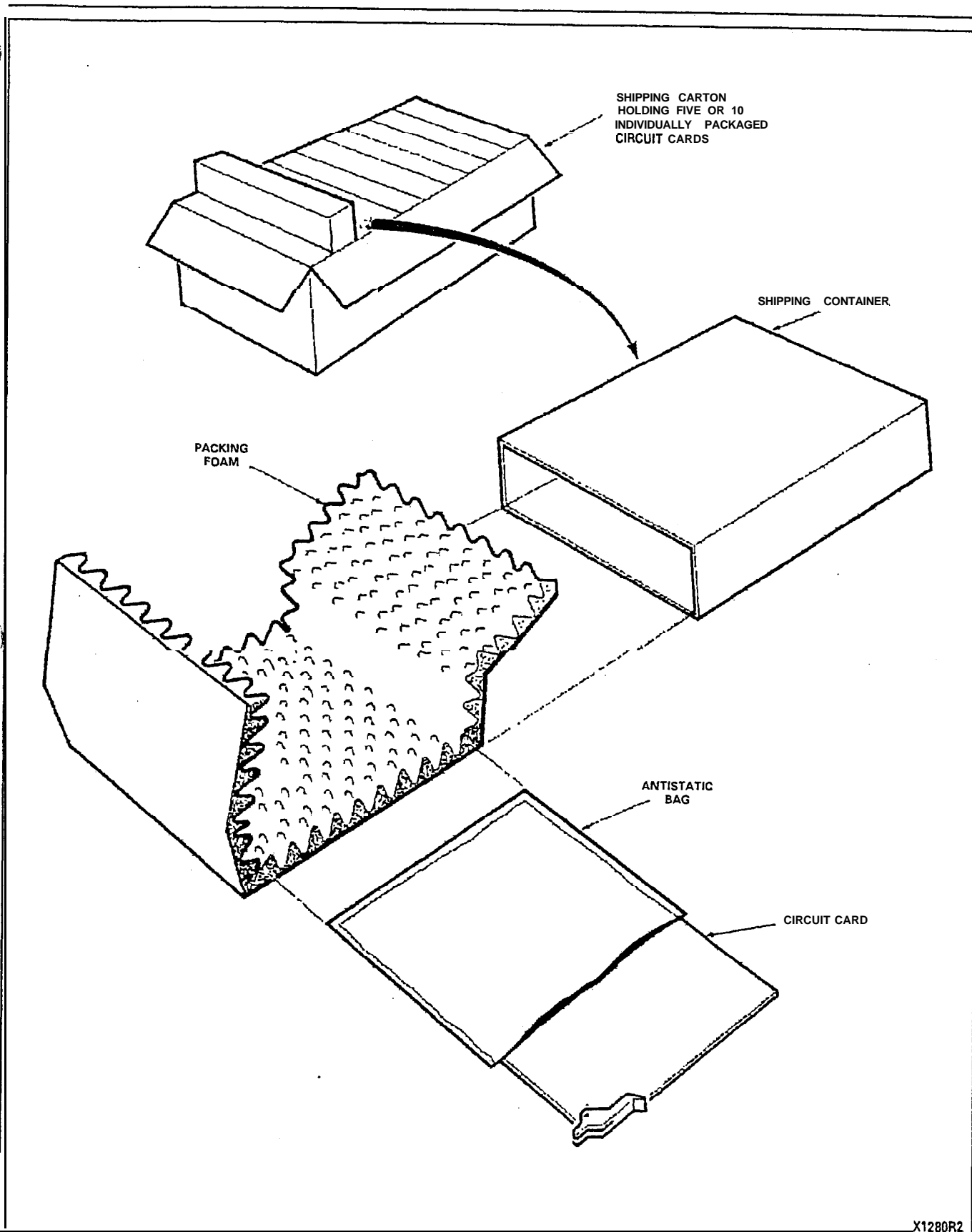
X284R2

Figure 4-3 Console Packaging



WI

Figure 4-4 Equipment Shelf Packaging



X1280R2

Figure 4-5 Circuit Card Packaging

5. DELIVERY CHECK

5.01 At the time of delivery at the installation site, all items delivered must be checked against the order form and packaging slip. Any discrepancies must be reported immediately.

6. UNPACKING AND HANDLING

Cabinet

6.01 The procedures to be used when handling and unpacking the equipment are detailed in Appendices C and D.

Shelves and Circuit Cards

6.02 Shelves and circuit cards shipped separately from the equipment cabinet should not be unpacked before they are required for use. When required, the shelf and cards are to be transported to the equipment location packaged in their original containers when possible.

7. INSPECTION

Cabinet

7.01 After positioning and unpacking the equipment, a visual inspection should be performed prior to installation to ensure that:

- (a) The cabinet has not been dented or scratched during shipment.
- (b) The door on the front of the cabinet opens and closes easily.
- (c) The shelves are mounted firmly in the cabinet.
- (d) The shelves are not bent or otherwise damaged.
- (e) All cards are seated firmly in their connectors.
- (f) Rear doors open and close easily.
- (g) All components mounted in the rear panel power supply are secure.
- (h) All interconnecting cables and plugs are secure.
- (j) All connections to the power supply are tight.

Shelves

7.02 Inspect the shelf to ensure that:

- (a) Edge connector contacts are undamaged and do not contain any foreign matter.

- (b) No circuit card guides are broken.
- (c) No wires are broken.
- (d) The backplane is not cracked.
- (e) No connector pins are broken or bent.

Cards

CAUTION: Handle Circuit Cards by their edges only. Handling the board faces or components may cause damage. At all times wear a static-preventing wrist strap.

- 7.03 If printed circuit cards are shipped separately from the equipment, inspect each circuit card to ensure that:
- (a) The fiberboard is not cracked.
 - (b) No loose leads or components are apparent.
 - (c) The card front panel is not broken. Circuit cards shipped- in the equipment do not require individual inspection unless equipment shelf damage has been found.

Defective Items

- 7.04 If any defective item is found, it should be tagged and returned to the supplier in accordance with accepted procedures (see Part 8).

8. REPACKING FOR SHIPMENT

8.01 When the PABX equipment is shipped from one location to another, all items must be packaged to prevent damage. Figures 4-1 through 4-5 show how the equipment was originally packaged. This method of packaging should be followed as closely as possible.

8.02 If the original packaging material is no longer available, the returned parts should be wrapped in several layers of air-cushion type wrap, placed in a suitable container, and surrounded with paper to minimize movement of the items.

9. INSTALLATION REQUIREMENTS

Environmental Requirements

9.01 The PABX equipment cabinet may be installed in any location which fulfills the requirements of paragraph 9.02, and is within the following temperature and humidity limits:

- Temperature 0-40°C (32-104°F)
- Relative Humidity 10-90 % (noncondensing).

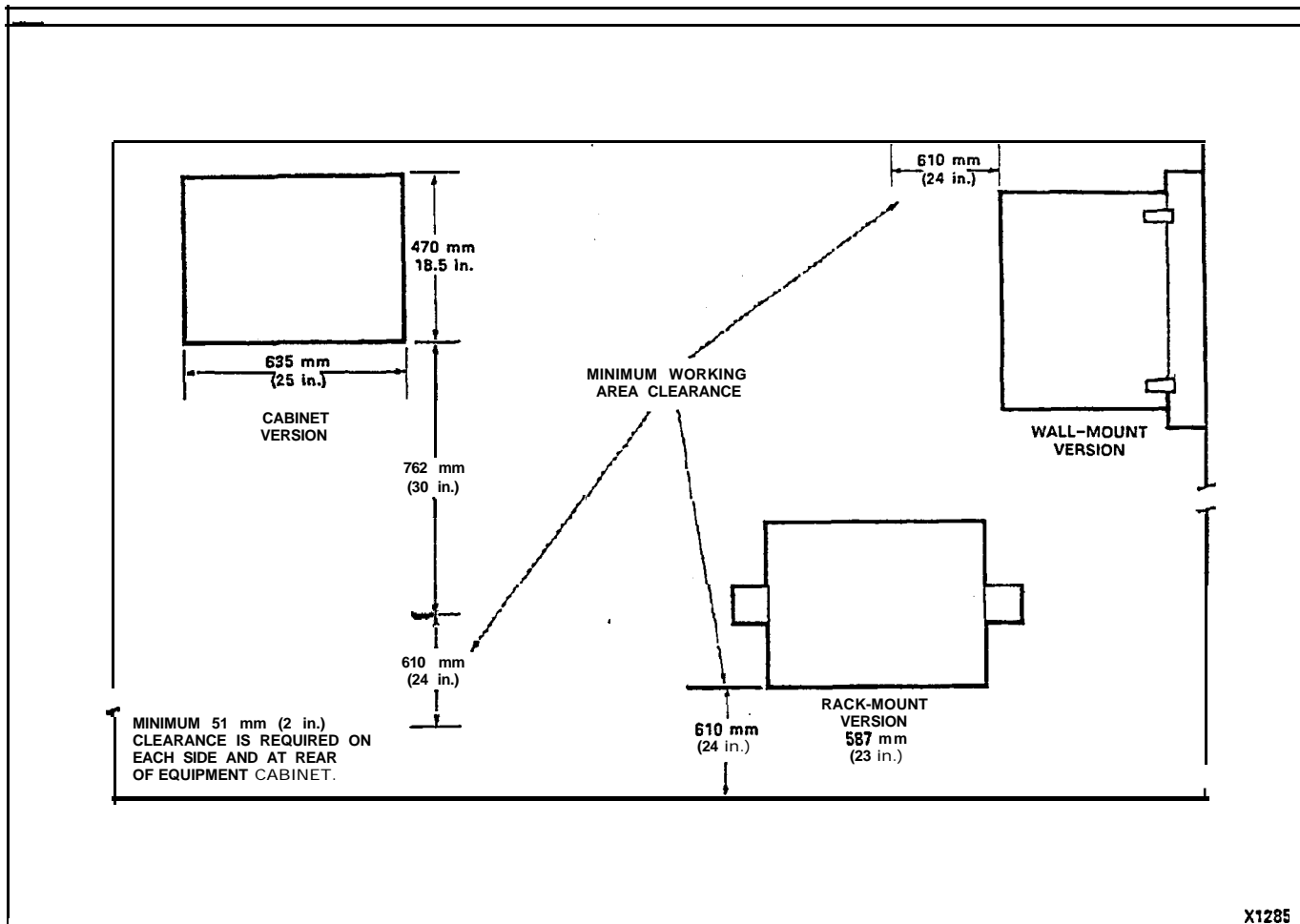


Figure 9-1 SX-100 Minimum Equipment Cabinet Floor Space Requirements

Floor Space

9.02 The minimum floor space for installation and subsequent maintenance of the SX-100 and SX-200 PABXs is shown in Figures 9-1 and 9-2 respectively.

Equipment Cabinet Location

9.03 The following requirement must be met when selecting a location for the PABX equipment. For cooling purposes the PABX cabinet equipments use natural air convection flow. For this reason the bottom areas of the cabinets must be allowed free air flow and must not be obstructed; for example, by rug pile blocking the air vent entries.

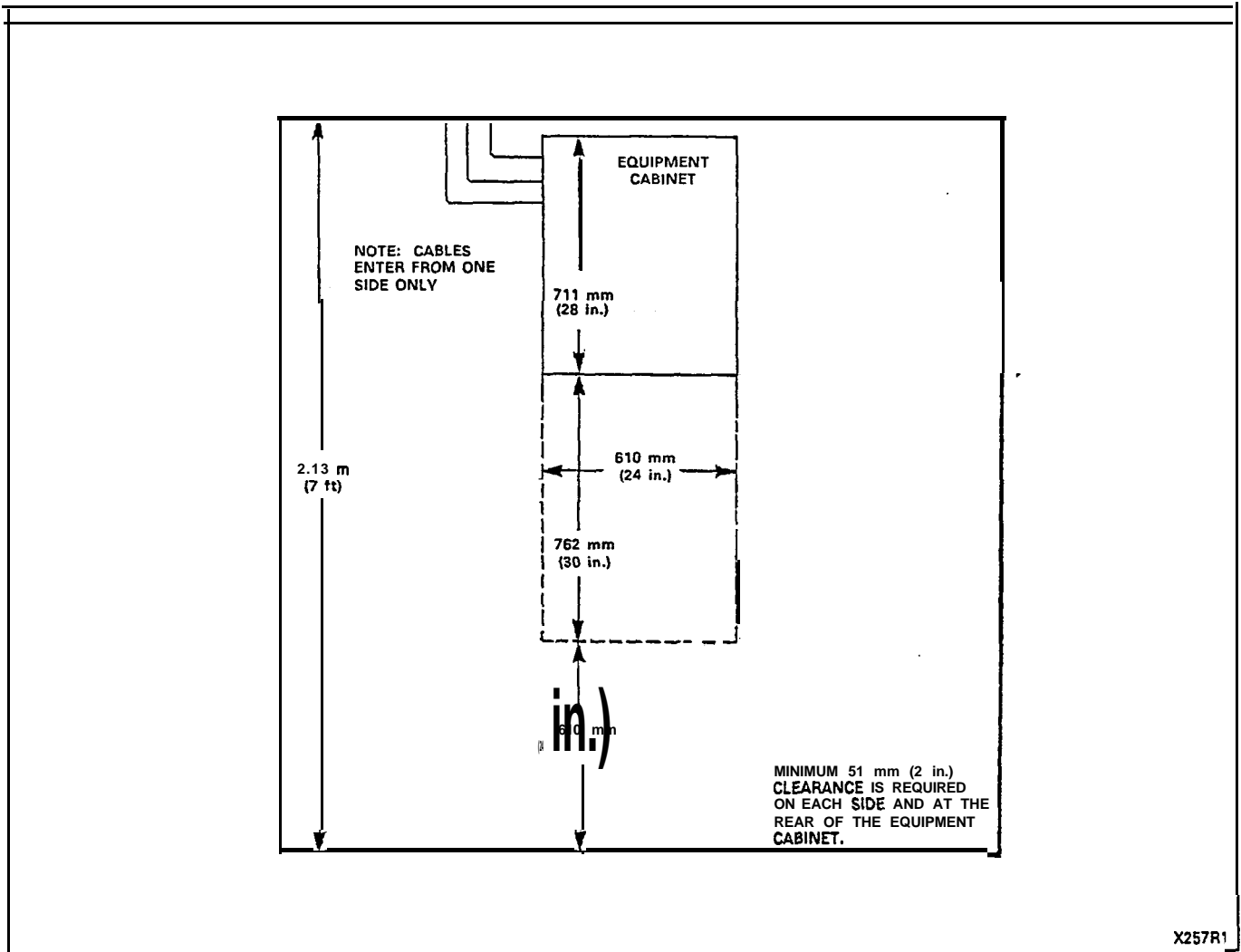


Figure 9-2 SX-200 Minimum Equipment Cabinet Floor Space Requirements

The location MUST BE:

- Dry and clean
- Well ventilated
- Well lit
- Easily accessible.

The location MUST NOT BE:

- Near a sprinkler system, sweating pipes, steam pipes or steam vents
- In areas with extreme heat or cold
- In areas where corrosive fumes or exhaust from machinery is present

- In passageways used for moving equipment
- Next to a reproducing or copying machine. A minimum clearance of 3 m (10 feet) must be provided and the room should be ventilated by an exhaust fan if the reproducing machine is not equipped with a filtering system.

Power Supply Requirements

- 9.04 The customer must provide a single phase power receptacle, with the following recommendations:
- 115 V, 60 Hz fused, and capable of delivering 4 A; or 250 V, 50 Hz fused, and capable of delivering 2 A.
 - The power receptacle should be wired and fused independently from all other receptacles.
 - A warning tag should be attached to circuit-breaker-type fuses to prevent unauthorized manual operation.
 - The power receptacle must not be controlled by a switch.
 - The live and neutral conductors at the receptacle shall be wired to their proper respective connections.
 - The power receptacle must be a 3-wire type, with the wire connected to the ground of the electrical system.
 - The receptacle should be easily accessible for the removal of the plug for maintenance.
 - The receptacle location should be selected to prevent accidental removal of the power cord.
 - The power cord between the cabinet and the receptacle should not present a hazard to the subscriber.
 - A warning tag should be attached to the plug-end of the power cord to prevent accidental removal of the cord by the subscriber.

Equipment Grounding

- 9.05 The following is a description of the required PABX equipment grounding practice:
- (a) All circuit commons within the cabinet shall derive ground from a single ground concentration point within the cabinet. Each cabinet's ground concentration point shall derive ground from a single ground concentration point serving all system cabinets and peripherals collocated with the system.

- (b) The system cabinets and all associated ducting hardware along with all **colocated** peripherals shall not be exposed to any ground source other than the system single point ground described in (a) above.
- (c) AC service wires bringing AC power to the cabinets shall not share an enclosure or raceway with other system grounds, DC power distribution wires, or signaling wires. All **nonconnec-**torized AC power terminations shall be enclosed by raceways and termination boxes whether these enclosures appear outside or within system cabinets. This is to ensure AC service wires cannot fault the circuitry within system cabinets or associated ducting hardware.
- (d) All system hardware shall be provided with an AC fault return path 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). The path from system equipment to system single point ground need not be a direct dedicated path but can be any reliable path to other system hardware which receives the above grounding path.
- (e) All sources of external ground (i.e., system signaling ground to the approved ground source, etc.) shall connect only to the system single point ground. The intent of providing for a system point ground is to minimize ground loops and prevent lightning from finding a path through system components.
- (f) A separate grounding conductor (minimum size, 14 AWG) shall be separately run from the system single point ground to the communications ground system on the cross-connect field.

10. CABLING AND CROSS-CONNECTIONS

General

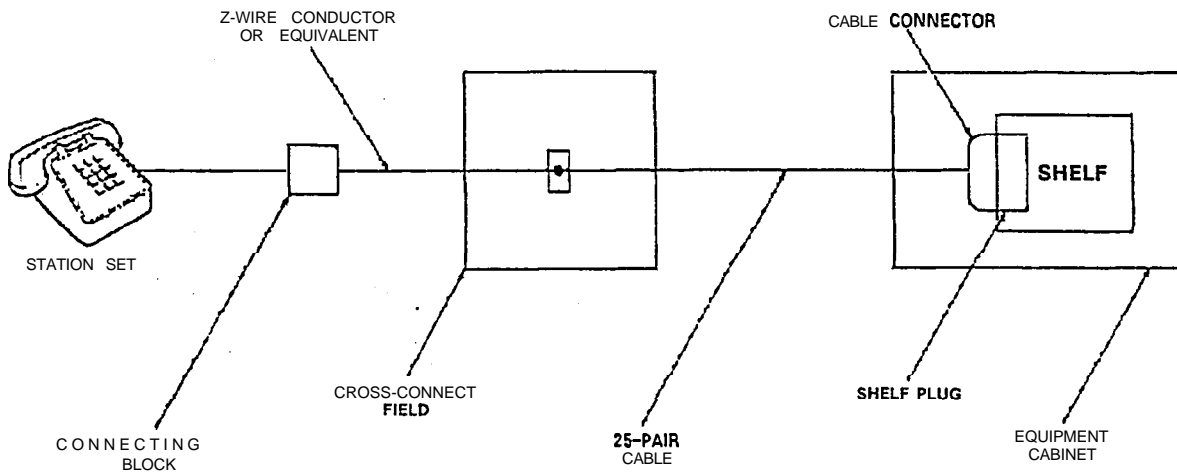
10.01 This Part details the cabling and cross-connections required when installing the PABX.

Telephone Set and Trunk Cabling

10.02 Telephone set and trunk cabling terminates on the building cross-connect terminal in the normal manner. The cabling requirements and limits for stations and consoles are shown in Figure 10-1 (a) and 10-1 (b).

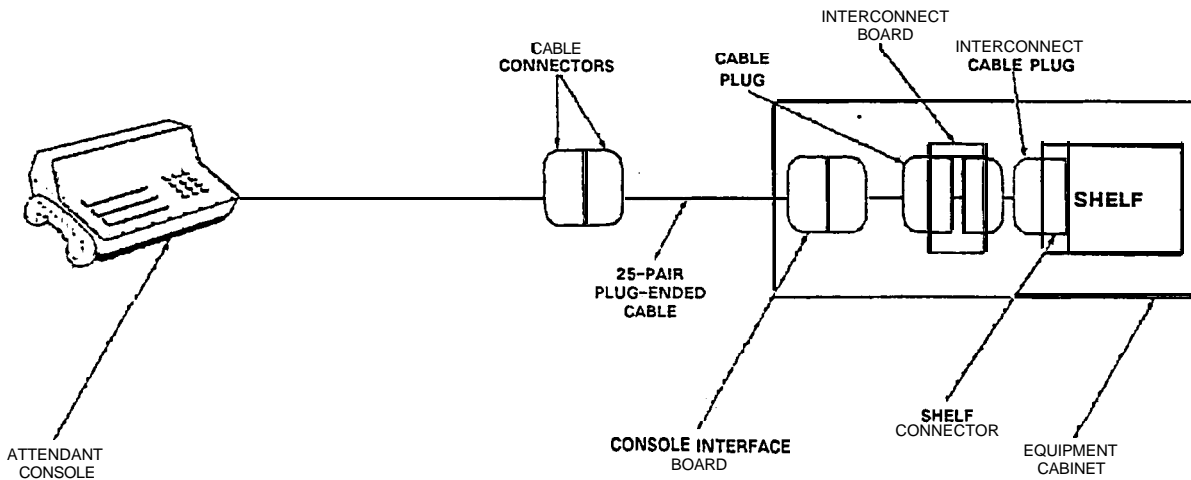
Cable Terminations, SX-100

10.03 All interconnecting cables must be terminated in accordance with Tables 10-1 and 10-2, and Figure 10-2.



NOTE: STATION LOOP LIMIT 1200 OHMS (INCLUDING STATION SET).
SUPERSET LOOP LIMIT 200 OHMS.

(a) STATION CABLING & LIMITS

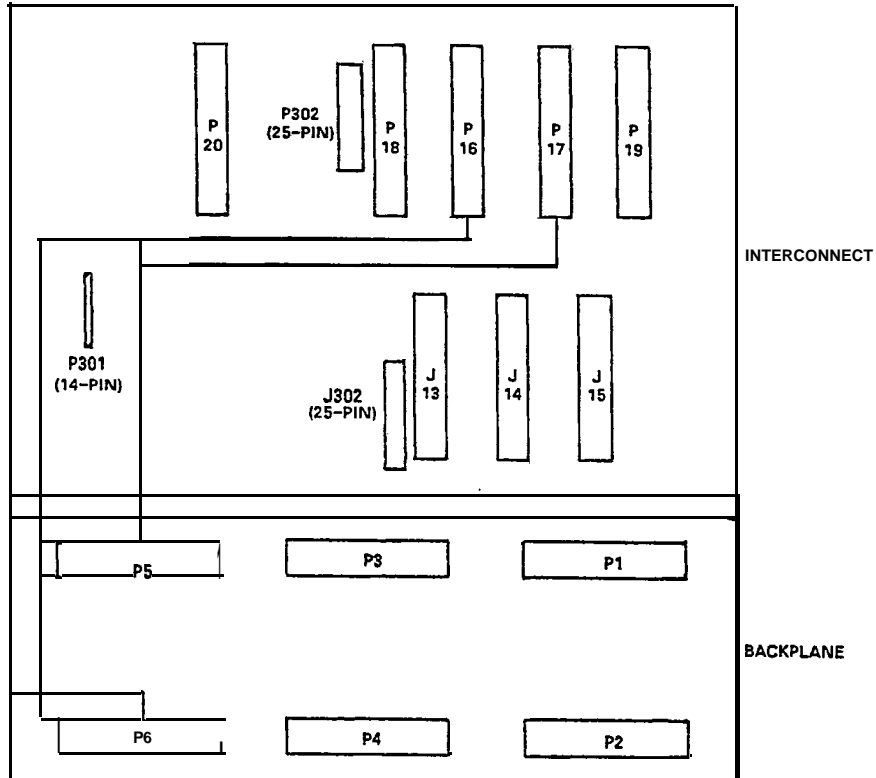


NOTE: CABLING LIMIT 305 m (1000 ft) • 26 AWG MINIMUM
 CABLE CONSOLE TO EQUIPMENT CABINET.

(b) ATTENDANT CONSOLE CABLING & LIMITS

X287R2

Figure 10-1 Station and Console Cabling Requirements



BOARD	CONNECTOR NO.	DESTINATION	BOARD	CONNECTOR NO.	DESTINATION
SHELF BACKPLANE	P1	X = CONNECT	INTERCONNECT	J13	MAINTENANCE CONSOLE
	P2	X = CONNECT		J14	ATTENDANT CONSOLE 2
P3	X = CONNECT	J15		ATTENDANT CONSOLE 1	
P4	X = CONNECT	P16		P6	
P5	P17	P5		X = CONNECT	
P6	P18	X = CONNECT		P19	X = CONNECT
NOTE: ALL PLUGS AND CONNECTORS EXCEPT AS NOTED ARE STANDARD 25-PAIR (AMPHENOL TYPE). THE MALE AND FEMALE DESIGNATORS REFER TO THE CONNECTORS MOUNTED ON THE EQUIPMENT, NOT TO THE CABLE CONNECTORS. MALE = P FEMALE = J				P20	X = CONNECT
				J302	LOCAL TERMINAL
				P301	MAINTENANCE PANEL

X1315R2

Figure 1 O-2 SX-100 Connector Locations

Cable Terminations, SX-200

10.04 All interconnecting cables must be terminated in accordance with Figure 10-3 and Tables 10-1, 10-2, 10-3 and 10-5. In addition, if shelf 2 is installed, the interconnecting cables listed in Table 10-4 must be terminated.

Cross-Connections

10.05 Jumpers should be run using Z-type 24 AWG cross-connecting cables.

10.06 Connection between the equipment cabinet, cross-connect field, stations, trunks and consoles should be made using 26 AWG connector-ended cable in accordance with Tables 10-1 through 10-5.

10.07 Cabling connections between shelf 1, the interconnect board, and cross-connect field are shown in Figures 10-2 and 10-3.

10.08 Figures 10-4 and 10-5 illustrate typical block and wiring diagrams for a power fail transfer circuit. Figure 10-6 illustrates typical night bell wiring connections and Figure 10-7 shows the connections for music and PA requirements.

10.09 When backplane translator boards are used with the lines and trunk circuits, different terminal connections result. In this case the cabling arrangements must conform to the termination connections shown in Figure 605-2, MAP200-605, Appendix F.

FCC Cross-Connect Field Recommendations

10.10 Trunk circuits must be connected to the telephone company interface jack sequentially. A cross-connect field is necessary to separate the lines and trunks which occur in the same cable that is connected to the shelf connector.

10.11 All cables containing trunk circuit pairs must be connectorized; thus, the cross-connect field must also be connectorized. Refer to Appendix B for details.

TABLE 10-I
SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG PI (Connects to Cross-Connect Field)						
26	W-BL	T1 reserved for	T1	T1	T1	1
	BL-W	R1 test line	R1	R1	R1	
2:	w-o	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	
28	W-G	T3	T2		E1	
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	W-S	T1	T1	T1	T1	
5	s-w	R1	R1	RI	R1	
31	R-BL	T2	XT2		TR1	2
6	BL-R	R2	XT1		RR1	
32	R-O	T3	T2		E1	
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR	T1	T1	T1	T1	
9	BR-R	R1	R1	RI	R1	
35	R-S	T2	XT2		TR1	3
10	S-R	R2	XT1		RR1	
36	BK-BL	T3	T2		E1	
11	BL-BK	R3	R2		M1	
37	BK-O	T4				
12	O-BK	R4				
38	BK-G	T1	T1	T1	T1	
13	G-BK	R1	R1	RI	R1	
39	BK-BR	T2	XT2		TR1	
14	BR-BK	R2	XT1		RR1	
40	BK-S	T3	T2		E1	4
15	S-BK	R3	R2		M1	
41	Y-BL	T4				
16	BL-Y	R4				
42	Y-O	T1	T1	T1	T1	
17	O-Y	R1	R1	RI	R1	
43	Y-G	T2	XT2		TR1	
18	G-Y	R2	XT1		RR1	
44	Y-BR	T3	T2		E1	5
19	BR-Y	R3	R2		M1	
45	Y-S	T4				
20	S-Y	R4				
46	V-BL	T1	T1	T1	T1	
21	BL-V	R1	R1	RI	R1	
47	v-o	T2	XT2		TR1	
22	O-V	R2	XT1		RR1	
48	V-G	T3	T2		E1	6
23	G-V	R3	R2		M1	
49	V-BR	T4				
24	BR-V	R4				
50	v-s	SPARE	SPARE			
25	s-v	SPARE	SPARE			

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

TABLE 10-1
SHELF 1 EXTERNAL PLUG AND JACK CONNECTORS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P2 (Connects to Cross-Connect Field)						
26	W-BL	T5	T3	T2	T2	1
1	BL-W	R5	R3	R2	R2	
27	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	
28	W-G	T7	T4		E2	
3	G-W	R7	R4		M2	
29	W-BR	T8				
4	BR-W	R8				
30	w-s	T5	T3	T2	T2	2
5	s-w	R5	R3	R2	R2	
31	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR	T5	T3	T2	T2	3
9	BR-R	R5	R3	R2	R2	
35	R-S	T6	XT4		TR2	
10	S-R	R6	XT3		RR2	
36	BK-BL	T7	T4		E2	
11	BL-BK	R7	R4		M2	
37	BK-O	T8				
12	O-BK	R8				
38	BK-G	T5	T3	T2	T2	4
13	G-BK	R5	R3	R2	R2	
39	BK-BR	T6	XT4		TR2	
14	BR-BK	R6	XT3		RR2	
40	BK-S	T7	T4		E2	
15	S-BK	R7	R4		M2	
41	Y-BL	T8				
16	BL-Y	R8				
42	Y-O	T5	T3	T2	T2	5
17	O-Y	R5	R3	R2	R2	
43	Y-G	T6	XT4		TR2	
18	G-Y	R6	XT3		RR2	
44	Y-BR	T7	T4		E2	
19	BR-Y	R7	R4		M2	
45	Y-S	T8				
20	S-Y	R8				
46	V-BL	T5	T3	T2	T2	6
21	BL-V	R5	R3	R2	R2	
47	V-O	T6	XT4		TR2	
22	O-V	R6	XT3		RR2	
48	V-G	T7	T4		E2	
23	G-V	R7	R4		M2	
49	V-BR	T8				
24	BR-V	R8				
50	v-s	SPARE	SPARE			
25	s-v	SPARE	SPARE			

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

TABLE 10-I
SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation L i n e s	Lead Designation, Trunks			Card Positions
			co	DID/TIE	E&M†	
PLUG P3 (Connects to Cross-Connect Field)						
26	W-BL	T1	T1	T1	T1	7
	BL-W	R1	R1	R1	R1	
27	w-o	T2	XT2		TR1	
28	O-W	R2	XT1		RR1	
29	W-G	T3	T2		E1	a
30	G-W	R3	R2		M1	
31	W-BR	T4				
32	BR-W	R4				
33	w-s	T1	T1	T1	T1	9
34	s-w	R1	R1	R1	R1	
35	R-BL	T2	XT2		TR1	
36	BL-R	R2	XT1		RR1	
37	R-O	T3	T2		E1	10
38	O-R	R3	R2		M1	
39	R-G	T4				
40	G-R	R4				
41	R-BR	T1	T1	T1	T1	11
42	BR-R	R1	R1	R1	R1	
43	R-S	T2	XT2		TR1	
44	S-R	R2	XT1		RR1	
45	BK-BL	T3	T2		E1	12 (see Note)
46	BL-BK	R3	R2		M1	
47	BK-O	T4				
48	O-BK	R4				
49	BK-G	T1	T1	T1	T1	12 (see Note)
50	G-BK	R1	R1	R1	R1	
51	BK-BR	T2	XT2		TR1	
52	BR-BK	R2	XT1		RR1	
53	BK-S	T3	T2		E1	12 (see Note)
54	S-BK	R3	R2		M1	
55	Y-BL	T4				
56	BL-Y	R4				
57	Y-O	T1	T1	T1	T1	12 (see Note)
58	O-Y	R1	R1	R1	R1	
59	Y-G	T2	XT2		TR1	
60	G-Y	R2	XT1		RR1	
61	Y-BR	T3	T2		E1	12 (see Note)
62	BR-Y	R3	R2		M1	
63	Y-S	T4				
64	S-Y	R4				
65	V-BL	T1	T1	T1	T1	12 (see Note)
66	BL-V	R1	R1	R1	R1	
67	v-o	T2	XT2		TR1	
68	O-V	R2	XT1		RR1	
69	V-G	T3	T2		E1	12 (see Note)
70	G-V	R3	R2		M1	
71	V-BR	T4				
72	BR-V	R4				
73	v-s	SPARE	SPARE			12 (see Note)
74	s-v	SPARE	SPARE			

Note: Position 12 can be used for lines, trunks, or receiver #4 card.

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

TABLE 10-I
SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P4 (Connects to Cross-Connect Field)						
26	W-BL	T5	T3	T2	T2	7
	BL-W	R5	R3	R2	R2	
2:	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	
28	W-G	T7	T4		E2	8
3	G-W	R7	R4		M2	
29	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	9
5	s-w	R5	R3	R2	R2	
31	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	
32	R-O	T7	T4		E2	10
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR	T5	T3	T2	T2	11
9	BR-R	R5	R3	R2	R2	
35	R-S	T6	XT4		TR2	
10	S-R	R6	X T 3		RR2	
36	BK-BL	T7	T4		E2	12 (see Note)
11	BL-BK	R7	R4		M2	
37	BK-O	T8				
12	O-BK	R8				
38	BK-G	T5	T3	T2	T2	12 (see Note)
13	G-BK	R5	R3	R2	R2	
39	BK-BR	T6	XT4		TR2	
14	BR-BK	R6	XT3		RR2	
40	BK-S	T7	T4		E2	12 (see Note)
15	S-BK	R7	R4		M2	
41	Y-BL	T8				
16	BL-Y	R8				
42	Y-O	T5	T3	T2	T2	12 (see Note)
17	O-Y	R5	R3	R2	R2	
43	Y-G	T6	XT4		TR2	
18	G-Y	R6	XT3		RR2	
44	Y-BR	T7	T4		E2	12 (see Note)
19	BR-Y	R7	R4		M2	
45	Y-S	T8				
20	S-Y	R8				
46	V-BL	T5	T3	T2	T2	12 (see Note)
21	BL-V	R5	R3	R2	R2	
47	V-O	T6	XT4		TR2	
22	O-V	R6	XT3		RR2	
48	V-G	T7	T4		E2	12 (see Note)
23	G-V	R7	R4		M2	
49	V-BR	T8				
24	BR-V	R8				
50	v-s	SPARE	SPARE			
25	s-v	SPARE	SPARE			

Note: Position 12 can be used for lines, trunks or receiver card #4.

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

TABLE 10-I
SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions	
			c o	DID/TIE	E&M†		
PLUG P5 (Connects to Cross-Connect Field)							
26	W-BL	T1	T1	T1		13 (see Note)	
	BL-W	R1	R1	RI	R1		
2:	W-O	T2	XT2		TR1		
2	O-W	R2	XT1		RR1		
28	W-G	T3	T2		E1		
3	G-W	R3	R2		M1		
29	W-BR	T4					
4	BR-W	R4					
30	W-S	T1	T1	T1	T1		
5	s - w	R1	RI	RI	R1		
31	R-BL	T2	XT2		TR1		
6	BL-R	R2	XT1		RR1		
32	R-O	T3	T2		E1		
7	O-R	R3	R2		M1		
33	R-G	T4				14 (see Note)	
8	G-R	R4					
34	R-BR						
9	BR-R						
35	R-S						
10	S-R	RECEIVER No. 1					15
36	BK-BL						
11	BL-BK						
37	BK-O						
12	O-BK						
38	BK-G	T (A)					
13	G-BK	R (A)					
39	BK-BR	S DATA OUT T (A)		ATTENDANT CONSOLE			
14	BR-BK	S DATA OUT R (A)		No. 2			
40	BK-S	S DATA IN T (A)					
15	S-BK	S DATA IN R (A)					
41	Y-BL	PA2 Control B					
16	BL-Y	PA2 Control A					
42	Y-O	T (A)					
17	O-Y	R (A)					
43	Y-G	S DATA OUT T (A)		ATTENDANT CONSOLE			
18	G-Y	S DATA OUT R (A)		No. 1		17	
44	Y-BR	S DATA IN T (A)					
19	BR-Y	S DATA IN R (A)					
45	Y-S	PA1 Control B					
20	S-Y	PA1 Control A					
46	V-BL	MUSIC IN B					
21	BL-V	MUSIC IN A					
47	v-o	TEST LINE					
22	O-V	TEST LINE		MUSIC ON HOLD			18
48	V-G	PA1 OUT B					
23	G-V	PA1 OUT A					
49	V-BR	PA2 OUT B					
24	BR-V	PA2 OUT A					
50	v - s	SPARE	SPARE				
25	s-v	SPARE	SPARE				

Note: Positions 14 and 13 can be used for lines or trunks, or for receiver cards #2 and #3 respectively..

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

TABLE 10-1
SHELF 1 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P6 (Connects to Cross-Connect Field)						
26	W-BL	T5	T1	T1	T1	13 (see Note)
	BL-W	R5	R1	R1	R1	
27	w-o	T6	XT2		TR1	
28	O-W	R6 Lines	XT1		RR1	
29	W-G	T7	T2		E1	
30	G-W	R7	R2		M1	
31	W-BR	T8				
32	BR-W	R8				
33	W-S	T5	T1	T1	T1	14 (see Note)
34	s-w	R5	R1	R1	R1	
35	R-BL	T6	XT2		TR1	
36	BL-R	R6 Lines	XT1		RR1	
37	R-O	T7	T2		E1	
38	O-R	R7	R2		M1	
39	R-G	T8				
40	G-R	R8				
41	R-BR					15
42	BR-R					
43	R-S	RECEIVER No. 1				
44	S-R					
45	BK-BL					
46	BL-BK					
47	BK-O					
48	O-BK					
49	BK-G	T (A)				
50	G-BK	R (A)				
51	BK-BR	S DATA OUT T (B)	ATTENDANT CONSOLE			16
52	BR-BK	S DATA OUT R (B)	SPARE			
53	BK-S	S DATA IN T (B)				
54	S-BK	S DATA IN R (B)	NOT USED			
55	Y-BL	R (K1)				
56	BL-Y	K1	NIGHT BELL 1			
57	Y-O	T (A)				
58	O-Y	R (A)				
59	Y-G	S DATA OUT T (B)	MAINTENANCE			
60	G-Y	S DATA OUT R (B)	CONSOLE			
61	Y-BR	S DATA IN T (B)				17
62	BR-Y	S DATA IN R (A)(B)				
63	Y-S	UART IN				
64	S-Y	UART OUT				
65	V-BL	R (K5)	SOFTWARE ALARM			
66	BL-V	K5				
67	v-o	R (K4)	NIGHT SERVICE			
68	O-V	K4				
69	V-G	R (K3)	NIGHT BELL 3			
70	G-V	K3				
71	V-BR	R (K2)	NIGHT BELL 2			18 (See Notes for PLUG 18)
72	BR-V	K2				
73	v-s	SPARE	SPARE			
74	S-V	SPARE,	SPARE			

Note: Positions 14 and 13 can be used for lines or trunks, or for receiver cards #2 and #3 respectively.

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

TABLE 10-2
INTERCONNECT BOARD PLUG AND JACK CONNECTIONS

Pin	Pair Color	Lead Designation
CONNECTOR J13 MAINTENANCE CONSOLE (Connected To Maintenance Panel)		
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON
5	s - w	DATA IN
31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	0 v
18	G-Y	-48 v
44	Y-BR	0 v
19	BR-Y	-48 v
45	Y-S	0 v
20	S-Y	-48 v
46	V-BL	0 v
21	BL-V	-48 v
47	v-o	0 v
22	O-V	-48 v
48	V-G	0 v
23	G-V	-48 v
49	V-BR	0 v
24	BR-V	-48 v
50	v-s	0 v
25	s-v	-48 v

Pin	Pair Color	Lead Designation
CONNECTOR J14 ATTENDANT CONSOLE NO. 2 (see Note For J15)		
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	w-s	DATA IN COMMON
5	s - w	DATA IN
31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	0 v
18	G-Y	-48 v
44	Y-BR	0 v
19	BR-Y	-48 v
45	Y-S	0 v
20	S-Y	-48 v
46	V-BL	0 v
21	BL-V	-48 v
47	V-O	0 v
22	O-V	-48 v
48	V-G	0 v
23	G-V	-48 v
49	V-BR	0 v
24	BR-V	-48 v
50	v-s	0 v
25	s-v	-48 v

TABLE 10-2
INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation	Pin	Pair Color	Lead Designation
CONNECTOR J15 ATTENDANT CONSOLE NO.1 (see Note)					
26	W-BL	ELECTROSTATIC GROUND	13	G-BK	RING
	BL-W	ELECTROSTATIC GROUND	39	BK-BR	ELECTROSTATIC GROUND
2:	w-o	ELECTROSTATIC GROUND	14	BR-BK	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND	40	BK-S	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND	15	S-BK	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND	41	Y-BL	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND	16	BL-Y	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND	42	Y-O	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON	17	O-Y	ELECTROSTATIC GROUND
5	s - w	DATA IN	43	Y-G	0 V
31	R-BL	ELECTROSTATIC GROUND	18	G-Y	-48 v
6	BL-R	ELECTROSTATIC GROUND	44	Y-BR	0 V
32	R-O	DATA OUT COMMON	19	BR-Y	-48 V
7	R-O	DATA OUT	45	Y-S	0 v
33	R-G	ELECTROSTATIC GROUND	20	S-Y	-48 V
8	G-R	ELECTROSTATIC GROUND	46	V-BL	0 v
34	R-BR	ELECTROSTATIC GROUND	21	BL-V	-48 V
9	BR-R	ELECTROSTATIC GROUND	47	V-O	0 v
35	R-S	CUTOVER SWB	22	O-V	-48 V
10	S-R	CUTOVER SWA	48	V-G	0 v
36	BK-BL	ELECTROSTATIC GROUND	23	G-V	-48 V
11	BL-BK	ELECTROSTATIC GROUND	49	V-BR	0 V
37	BK-0	MAJOR ALARM	24	BR-V	-48 V
12	0-BK	MAJOR ALARM	50	v-s	ov
38	BK-G	TIP	25	s-v	-48 V

Note: Connector J15 connected either direct to Attendant Console 1 or via plug P23 and jack J22 to console. Connector J14 similarly connected either direct to attendant console 2 or via plug P25 and jack J24.

TABLE 'IO-2
INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P16 (Interconnect Cable to P6)						
26	W-BL	T5	T3	T2	T2	13
	BL-W	R5	R3	R2	R2	
2:	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	
28	W-G	T7	T4		E2	
3	G-W	R7	R4		M2	
29	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	
	s - w	R5	R3	R2	T2	
3:	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR					
9	BR-R					
35	R-S					
10	S-R			RECEIVER 1		
36	BK-BL				15	
11	BL-BK					
37	BK-O					
12	O-BK					
38	BK-G	SPARE				
13	G-BK	SPARE				
39	BK-BR	SPARE				
14	BR-BK	SPARE			16	
40	BK-S	SPARE				
15	S-BK	SPARE				
41	Y-BL	NIGHT BELL 1B				
16	BL-Y	NIGHT BELL 1A				
42	Y-O	TIP				
17	O-Y	RING				
43	Y-G	DATA IN COMMON				
18	G-Y	DATA IN				
44	Y-BR	DATA OUT COMMON				
19	BR-Y	DATA OUT				
45	Y-S	U A R T B				
20	S-Y	UART A				
46	V-BL	ALARM B				
21	BL-V	ALARM A				
47	V-O	NIGHT SERVICE B				
22	O-V	NIGHT SERVICE A				
48	V-G	NIGHT BELL 3B				
23	G-V	NIGHT BELL 3A				
49	V-BR	NIGHT BELL 2B				
24	BR-V	NIGHT BELL 2A				
50	v - s	SPARE				
25	s-v	SPARE				

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

TABLE 10-2
INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P17 (Interconnect Cable to P5)						
26	W-BL	T1	T1	TI	T1	13
	BL-W	R1	R1	R1	R1	
2:	w-o	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	
28	W-G	T3	T 2		E1	
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	w-s	T1	TI	TI	TI	
5	s-w	R1	R1	RI	R1	
31	R-BL	T2	XT2		TR1	
6	BL-R	R2	XT1		RR1	
32	R-O	T3	T2		E1	
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR					
9	BR-R					
35	R-S					
10	S-R			RECEIVER 1		
36	BK-BL				15	
11	BL-BK					
37	BK-O					
12	O-BK					
38	BK-G	TIP (A)				
13	G-BK	RING (A)				
39	BK-BR	S DATA IN R (A)		AI-I-ENDANT CONSOLE No. 2		
14	BR-BK	S DATA IN T (A)				
40	BK-S	S DATA OUT R (A)			16	
15	S-BK	S DATA OUT T (A)				
41	Y-BL	PA2 CONTROL B				
16	BL-Y	PA2 CONTROL A				
42	Y-O	TIP				
17	O-Y	RING		ATTENDANT CONSOLE No. 1		
43	Y-G	DATA IN COMMON				
18	G-Y	DATA IN			17	
44	Y-BR	DATA OUT COMMON				
19	BR-Y	DATA OUT				
45	Y-S	PA1 CONTROL B				
20	S-Y	PA1 CONTROL A				
46	V-BL	MUSIC IN B				
21	BL-V	MUSIC IN A				
47	V-O	MAINT TIP			18	
22	O-V	MAINT RING				
48	V-G	PA1 OUT B				
23	G-V	PA1 OUT A				
49	V-BR	PA2 OUT B				
24	BR-V	PA2 OUT A		(see Notes For Plug P18)		
50	v-s	SPARE				
25	s-v	SPARE				

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

**TABLE 10-2
INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)**

Pin	Pair Color	Lead Designation	Pin	Pair Color	Lead Designation
PLUG P18 (Miscellaneous Connections to (Cross-Connect field))					
26	W-BL	SPARE	13	G-BK	SPARE
	BL-W	SPARE	39	BK-BR	SPARE
2:	W-O	SPARE	14	BR-BK	SPARE
2	O-W	SPARE	40	BK-S	SPARE
28	W-G	SPARE	15	S-BK	SPARE
3	G-W	SPARE	41	Y-BL	SPARE
29	W-BR	SPARE	16	BL-Y	SPARE
4	BR-W	SPARE	42	Y-O	MUSIC IN B
30	W-S	SPARE	17	O-Y	MUSIC IN A
5	s - w	SPARE	43	Y-G	PA2 OUT B
31	R-BL	SPARE	18	G-Y	PA2 OUT A
6	BL-R	SPARE	44	Y-BR	NIGHT BELL 2B
32	R-O	SPARE	19	BR-Y	NIGHT BELL 2A
7	R-O	SPARE	45	Y-S	PA1 OUT B
33	R-G	SPARE	20	S-Y	PA1 OUT A
8	G-R	SPARE	46	V-BL	NIGHT BELL 1B
34	R-BR	SPARE	21	BL-V	NIGHT BELL 1A
9	BR-R	SPARE	47	V-O	PA1 CONTROL B
35	R-S	SPARE	22	O-V	PA1 CONTROL A
10	S-R	SPARE	48	V-G	PA2 CONTROL B
36	BK-BL	SPARE	23	G-V	PA2 CONTROL A
11	BL-BK	SPARE	49	V-BR	NIGHT SERVICE B
37	BK-O	SPARE	24	BR-V	NIGHT SERVICE A
12	O-BK	SPARE	50	v - s	NIGHT BELL 3B
38	BK-G	SPARE	25	s-v	NIGHT BELL 3A

- Notes:**
1. Night service relay operates permanently when in night service.
Night Bell continuous rating:
Open circuit voltage 120 Vrms
Closed circuit current 75 mArms.
 2. Music in 100 mV
Impedance 600 ohms.
 3. PA Output Level 100 mV
Impedance 600 ohms.

TABLE 10-2
INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P19 (ON INTERCONNECT CARD)						
26	W-BL	SPARE				
1	BL-W	SPARE				
27	W-O					
2	O-W					
28	W-G					
3	G-W	RECEIVER 1				15
29	W-BR					
4	BR-W					
30	W-S					
	S-W					
3:	R-BL	T8				
6	BL-R	R8				
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	14
33	R-G	T6	XT3		TR2	
8	G-R	R6	XT4		RR2	
34	R-BR	T5	T3	T2	T2	
9	BR-R	R5	R3	R2	R2	
35	R-S	T8				
10	S-R	R8				
36	BK-BL	T7	T4		E2	
11	BL-BK	R7	R4		M2	13
37	BK-O	T6	XT3		TR2	
12	O-BK	R6	XT4		RR2	
38	BK-G	T5	T3	T2	T2	
13	G-BK	R5	R3	R2	R2	
39	BK-BR					
14	B R -	B K				
40	BK-S					
15	S-BK	RECEIVER 1				15
41	Y-BL					
16	BL-Y					
42	Y-O					
17	O-Y					
43	Y-G	T4				
18	G-Y	R4				
44	Y-BR	T3	T2		E1	
19	BR-Y	R3	R2		M1	14
45	Y-S	T2	XT1		TR1	
20	S-Y	R2	XT2		RR1	
46	V-BL	T1	T1	T1	T1	
21	BL-V	R1	R1	R1	R1	
47	V-O	T4				
22	O-V	R4				
48	V-G	T3	T2		E1	
23	G-V	R3	R2		M1	
49	V-BR	T2	XT1		TR1	13
24	BR-V	R2	XT2		RR1	
50	V-S	T1	T1	T1	T1	
25	S-V	R1	R1	R1	R1	

TABLE 10-2
INTERCONNECT BOARD PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Lead Designation
JACK J302	
DATA PORT (see Notes)	
1	0 V
2	TRANSMIT DATA
3	RECEIVE DATA
4	
5	CLEAR TO SEND
6	DATA SET READY
7	SIGNAL GROUND
8	CARRIER DETECT
9	(RESERVED FOR DATA SET TESTING)
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	DATA TERM READY
21	
22	
23	
24	
25	

- Notes:**
1. Jack J302 is provided on the SX-100 and SX-200 PABXs for external recording devices.
 2. **Use** Connector J302 when connected to terminal equipment; e.g., magnetic tape recorder or printer.
 3. Use a null modem when connected to a modem.
 4. See Appendix E, MAP200-504 for details of switch settings for data characteristics.
 5. See Section MITL9105/911 0-096-450-NA, Traffic Measurement, for applications of the connectors.

TABLE 10-3
POWER FAIL TRANSFER BOARD PLUG AND JACK CONNECTIONS

Pin	Pair Color	Lead Designation	Pin	Pair Color	Lead Designation
PLUG P20 (Power Fail Transfer Connections to Cross-Connect Field)			PLUG P21 (Power Fail Transfer Connections to Cross-Connect Field)		
26	W-BL	STATION T1	26	W-BL	STATION T7
	BL-W	STATION R1		BL-W	STATION R7
2:	w-o	LINE CARD T1	2:	W-O	LINE CARD T7
2	o-w	LINE CARD R1	2	O-W	LINE CARD R7
28	W-G	TRUNK T1	28	W-G	TRUNK T7
3	G-W	TRUNK R1	3	G-W	TRUNK R7
29	W-BR	TRUNK CARD T1	29	W-BR	TRUNK CARD T7
4	BR-W	TRUNK CARD R1	4	BR-W	TRUNK CARD R7
30	W-S	STATION T2	30	W-S	STATION T8
5	s-w	STATION R2	5	s-w	STATION R8
31	R-BL	LINE CARD T2	31	R-BL	LINE CARD T8
6	BL-R	LINE CARD R2	6	BL-R	LINE CARD R8
32	R-O	TRUNK T2	32	R-O	TRUNK T8
7	R-O	TRUNK R2	7	R-O	TRUNK R8
33	R-G	TRUNK CARD T2	33	R-G	TRUNK CARD T8
8	G-R	TRUNK CARD R2	8	G-R	TRUNK CARD R8
34	R-BR	STATION T3	34	R-BR	STATION T9
9	BR-R	STATION R3	9	BR-R	STATION R9
35	R-S	LINE CARD T3	35	R-S	LINE CARD T9
10	S-R	LINE CARD R3	10	S-R	LINE CARD R9
36	BK-BL	TRUNK T3	36	BK-BL	TRUNK T9
11	BL-BK	TRUNK R3	11	BL-BK	TRUNK R9
37	BK-O	TRUNK CARD T3	37	BK-O	TRUNK CARD T9
12	O-BK	TRUNK CARD R3	12	O-BK	TRUNK CARD R9
38	BK-G	STATION T4	38	BK-G	STATION T10
13	G-BK	STATION R4	13	G-BK	STATION R10
39	BK-BR	LINE CARD T4	39	BK-BR	LINE CARD T10
14	BR-BK	LINE CARD R4	14	BR-BK	LINE CARD R10
40	BK-S	TRUNK T4	40	BK-S	TRUNK T10
15	S-BK	TRUNK R4	15	S-BK	TRUNK R10
41	Y-BL	TRUNK CARD T4	41	Y-BL	TRUNK CARD T10
16	BL-Y	TRUNK CARD R4	16	BL-Y	TRUNK CARD R10
42	Y-O	STATION T5	42	Y-O	STATION T11
17	O-Y	STATION R5	17	O-Y	STATION R11
43	Y-G	LINE CARD T5	43	Y-G	LINE CARD T11
18	G-Y	LINE CARD R5	18	G-Y	LINE CARD R11
44	Y-BR	TRUNK T5	44	Y-BR	TRUNK T11
19	BR-Y	TRUNK R5	19	BR-Y	TRUNK R11
45	Y-S	TRUNK CARD T5	45	Y-S	TRUNK CARD T11
20	S-Y	TRUNK CARD R5	20	S-Y	TRUNK CARD R11
46	V-BL	STATION T6	46	V-BL	STATION T12
21	BL-V	STATION R6	21	BL-V	STATION R12
47	V-O	LINE CARD T6	47	V-O	LINE CARD T12
22	O-V	LINE CARD R6	22	O-V	LINE CARD R12
48	V-G	TRUNK T6	48	V-G	TRUNK T12
23	G-V	TRUNK R6	23	G-V	TRUNK R12
49	V-BR	TRUNK CARD T6	49	V-BR	TRUNK CARD T12
24	BR-V	TRUNK CARD R6	24	BR-V	TRUNK CARD R12
50	v-s	SPARE	50	v-s	SPARE
25	s-v	SPARE	25	s-v	SPARE

Note: Plug 21 is not installed on the SX-100 equipment.

TABLE 10-4
SHELF 2 EXTERNAL PLUG AND JACK CONNECTIONS

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P7 (Connects to Cross-Connect Field)						
26	W-BL	T1 reserved for	T1	T1	T1	1
1	BL-W	R1 test line	R1	R1	R1	
27	w - o	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	
28	W-G	T3	T2		E1	2
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	w - s	T1	T1	T1	T1	3
5	s - w	R1	R1	R1	R1	
31	R-BL	T2	XT2		TR1	
6	BL-R	R2	XT1		RR1	
32	R-O	T3	T2		E1	4
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR	T1	T1	T1	T1	5
9	BR-R	R1	R1	R1	R1	
35	R-S	T2	XT2		TR1	
10	S-R	R2	XT1		RR1	
36	BK-BL	T3	T2		E1	6
11	BL-BK	R3	R2		M1	
37	BK-O	T4				
12	O-BK	R4				
38	BK-G	T1	T1	T1	T1	1
13	G-BK	R1	R1	R1	R1	
39	BK-BR	T2	XT2		TR1	
14	BR-BK	R2	XT1		RR1	
40	BK-S	T3	T2		E1	2
15	S-BK	R3	R2		M1	
41	Y-BL	T4				
16	BL-Y	R4				
42	Y-O	T1	T1	T1	T1	3
17	O-Y	R1	R1	R1	R1	
43	Y-G	T2	XT2		TR1	
18	G-Y	R2	XT1		RR1	
44	Y-BR	T3	T2		E1	4
19	BR-Y	R3	R2		M1	
45	Y-S	T4				
20	S-Y	R4				
46	V-BL	T1	T1	T1	T1	5
21	BL-V	R1	R1	R1	R1	
47	v - o	T2	XT2		TR1	
22	O-V	R2	XT1		RR1	
48	V-G	T3	T2		E1	6
23	G-V	R3	R2		M1	
49	V-BR	T4				
24	BR-V	R4				
50	V-S	SPARE	SPARE			1
25	s - v	SPARE	SPARE			

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

TABLE 10-4
SHELF 2 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG	P8 (Connects to	Cross-Connect	Field)			
26	W-BL	T5	T3	T2	T2	1
	BL-W	R5	R3	R2	R2	
2:	w-o	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	
28	W-G	T7	T4		E2	
3	G-W	R7	R4		M2	
29	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	
5	s-w	R5	R3	R2	R2	
31	R-BL	T6	XT4		TR2	2
6	BL-R	R6	XT3		RR2	
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR	T5	T3	T2	T2	
9	BR-R	R5	R3	R2	R2	
35	R-S	T6	XT4		TR2	
10	S-R	R6	xi-3		RR2	
36	BK-BL	T7	T4		E2	3
11	BL-BK	R7	R4		M2	
37	BK-O	T8				
12	O-BK	R8				
38	BK-G	T5	T3	T2	T2	
13	G-BK	R5	R3	R2	R2	
39	BK-BR	T6	XT4		TR2	
14	BR-BK	R6	XT3		RR2	
40	BK-S	T7	T4		E2	
15	S-BK	R7	R4		M2	
41	Y-BL	T8				
16	BL-Y	R8				
42	Y-O	T5	T3	T2	T2	4
17	O-Y	R5	R3	R2	R2	
43	Y-G	T6	XT4		TR2	
18	G-Y	R6	XT3		RR2	
44	Y-BR	T7	T4		E2	
19	BR-Y	R7	R4		M2	
45	Y-S	T8				
20	S-Y	T8				
46	V-BL	T5	T3	T2	T2	
21	BL-V	R5	R3	R2	R2	
47	V-O	T6	XT4		TR2	5
22	O-V	R6	XT3		RR2	
48	V-G	T7	T4		E2	
23	G-V	R7	R4		M2	
49	V-BR	T8				
24	BR-V	R8				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

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

TABLE 10-4
SHELF 2 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P9 (Connects to Cross-Connect Field)						
26	W-BL	T1	T1	T1	T1	7
1	BL-W	R1	R1	R1	R1	
27	W-O	T2	XT2		TR1	
2	O-W	R2	XT1		RR1	
28	W-G	T3	T2		E1	a
3	G-W	R3	R2		M1	
29	W-BR	T4				
4	BR-W	R4				
30	W-S	T1	T1	T1	T1	9
5	S-W	R1	R1	R1	R1	
31	R-BL	T2	XT2		TR1	
6	BL-R	R2	XT1		RR1	
32	R-O	T3	T2		E1	10
7	O-R	R3	R2		M1	
33	R-G	T4				
8	G-R	R4				
34	R-BR	T1	T1	T1	T1	11
9	BR-R	R1	R1	R1	R1	
35	R-S	T2	XT2		TR1	
10	S-R	R2	XT1		RR1	
36	BK-BL	T3	T2		E1	12
11	BL-BK	R3	R2		M1	
37	BK-O	T4				
12	O-BK	R4				
38	BK-G	T1	T1	T1	T1	10
13	G-BK	R1	R1	R1	R1	
39	BK-BR	T2	XT2		TR1	
14	BR-BK	R2	XT1		RR1	
40	BK-S	T3	T2		E1	11
15	S-BK	R3	R2		M1	
41	Y-BL	T4				
16	BL-Y	R4				
42	Y-O	T1	T1	T1	T1	12
17	O-Y	R1	R1	R1	R1	
43	Y-G	T2	XT2		TR1	
18	G-Y	R2	XT1		RR1	
44	Y-BR	T3	T2		E1	12
19	BR-Y	R3	R2		M1	
45	Y-S	T4				
20	S-Y	R4				
46	V-BL	T1	T1	T1	T1	12
21	BL-V	R1	R1	R1	R1	
47	V-O	T2	XT2		TR1	
22	O-V	R2	XT1		RR1	
48	V-G	T3	T2		E1	12
23	G-V	R3	R2		M1	
49	V-BR	T4				
24	BR-V	R4				
50	V-S	SPARE	SPARE			
25	S-V	SPARE	SPARE			

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

TABLE 10-4
SHELF 2 EXTERNAL PLUG AND JACK CONNECTIONS (CONT'D)

Pin	Pair Color	Lead Designation Lines	Lead Designation, Trunks			Card Positions
			c o	DID/TIE	E&M†	
PLUG P10 (Connects to Cross-Connect Field)						
26	W-BL	T5	T3	T2	T2	7
1	BL-W	R5	R3	R2	R2	
27	W-O	T6	XT4		TR2	
2	O-W	R6	XT3		RR2	
28	W-G	T7	T4		E2	
3	G-W	R7	R4		M2	
28	W-BR	T8				
4	BR-W	R8				
30	W-S	T5	T3	T2	T2	8
5	s-w	R5	R3	R2	R2	
31	R-BL	T6	XT4		TR2	
6	BL-R	R6	XT3		RR2	
32	R-O	T7	T4		E2	
7	O-R	R7	R4		M2	
33	R-G	T8				
8	G-R	R8				
34	R-BR	T5	T3	T2	T2	9
9	BR-R	R5	R3	R2	R2	
35	R-S	T6	XT4		TR2	
10	S-R	R6	XT3		RR2	
36	BK-BL	T7	T4		E2	
11	BL-BK	R7	R4		M2	
37	BK-O	T8				
12	O-BK	R8				
38	BK-G	T5	T3	T2	T2	10
13	G-BK	R5	R3	R2	R2	
39	BK-BR	T6	XT4		TR2	
14	BR-BK	R6	XT3		RR2	
40	BK-S	T7	T4		E2	
15	S-BK	R7	R4		M2	
41	Y-BL	T8				
16	BL-Y	R8				
42	Y-O	T5	T3	T2	T2	11
17	O-Y	R5	R3	R2	R2	
43	Y-G	T6	XT4		TR2	
18	G-Y	R6	XT3		RR2	
44	Y-BR	T7	T4		E2	
19	BR-Y	R7	R4		M2	
45	Y-S	T8				
20	S-Y	T8				
46	V-BL	T5	T3	T2	T2	12
21	BL-V	R5	R3	R2	R2	
47	V-O	T6	XT4		TR2	
22	O-V	R6	XT3		RR2	
48	V-G	T7	T4		E2	
23	G-V	R7	R4		M2	
49	V-BR	T8				
24	BR-V	R8				
50	v-s	SPARE	SPARE			
25	s-v	SPARE	SPARE			

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

TABLE 10-5
CONSOLE INTERFACE BOARD PLUG AND JACK CONNECTIONS (SX-200 ONLY)

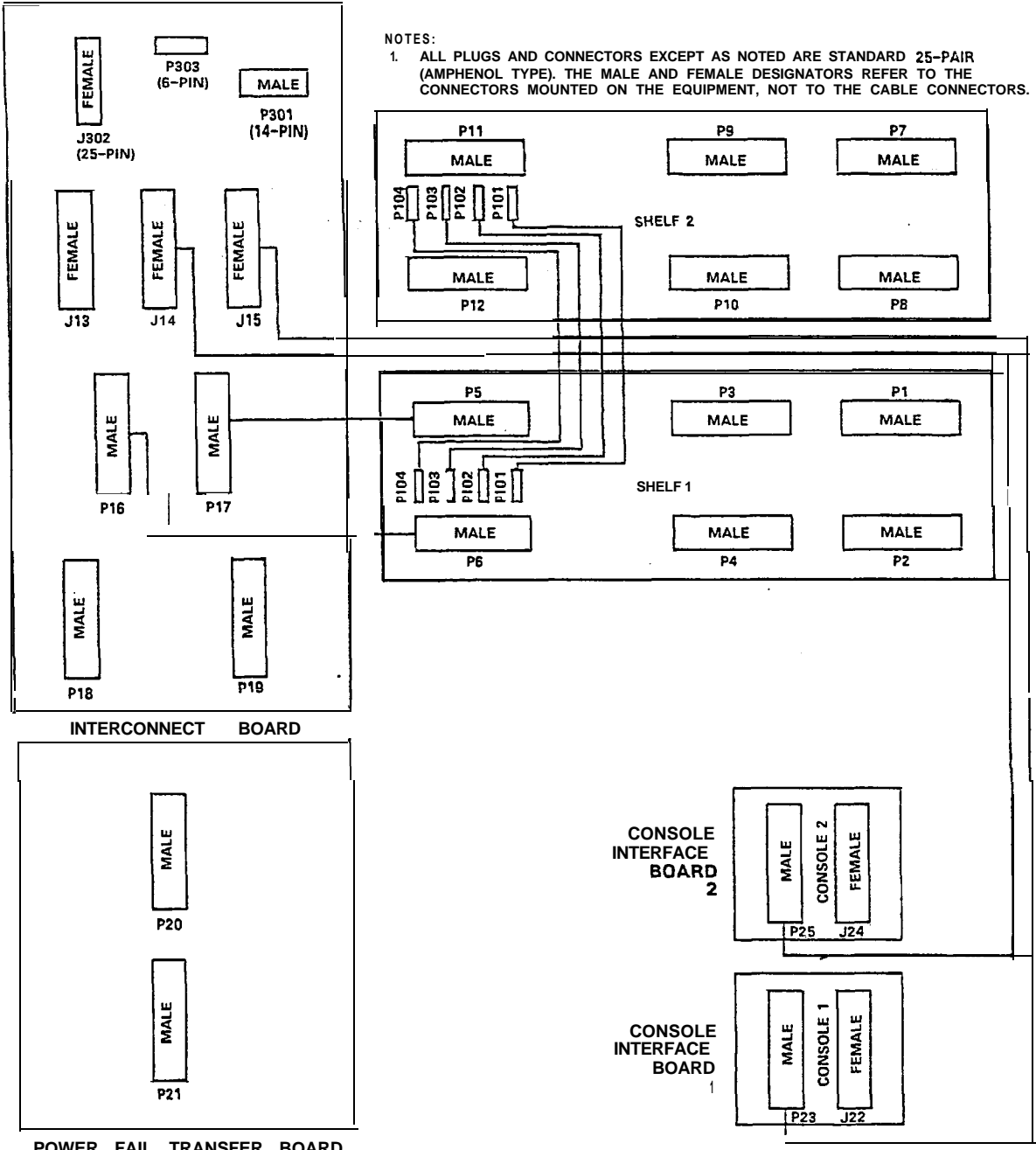
Pin	Pair Color	Lead Designation
JACK J22		
Connects to Attendant Console 1)		
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	w-s	DATA IN COMMON
	S-W	DATA IN
3:	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	ov
18	G-Y	-48 V
44	Y-BR	0 V
19	BR-Y	-48 V
45	Y-S	0 v
20	S-Y	-48 V
46	V-BL	0 V
21	BL-V	-48 V
47	V-O	0 v
22	O-V	-48 V
48	V-G	ov
23	G-V	-48 V
49	V-BR	0 V
24	BR-V	-48 V
50	v-s	0 v
25	s-v	-48 V

Pin	Pair Color	Lead Designation
PLUG P23		
(Connects to Jack J15)		
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
2	O-W	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	W-S	DATA IN COMMON
5	S-W	DATA IN
31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	R-O	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	ov
18	G-Y	-48 V
44	Y-BR	0 V
19	BR-Y	-48 V
45	Y-S	0 v
20	S-Y	-48 V
46	V-BL	0 v
21	BL-V	-48 V
47	v-o	0 v
22	O-V	-48 V
48	V-G	0 v
23	G-V	-48 V
49	V-BR	0 V
24	BR-V	-48 V
50	v-s	ov
25	s-v	-48 V

TABLE 10-5
CONSOLE INTERFACE BOARD PLUG AND JACK CONNECTIONS (SX-200 ONLY)

Pin	Pair Color	Lead Designation
JACK J24 (Connects to Attendant Console 1)		
26	W-BL	ELECTROSTATIC GROUND
	BL-W	ELECTROSTATIC GROUND
27	W-O	ELECTROSTATIC GROUND
28	O-W	ELECTROSTATIC GROUND
29	W-G	ELECTROSTATIC GROUND
30	G-W	ELECTROSTATIC GROUND
31	W-BR	ELECTROSTATIC GROUND
32	BR-W	ELECTROSTATIC GROUND
33	W-S	DATA IN COMMON
34	S-W	DATA IN
35	R-BL	ELECTROSTATIC GROUND
36	BL-R	ELECTROSTATIC GROUND
37	R-O	DATA OUT COMMON
38	R-O	DATA OUT
39	R-G	ELECTROSTATIC GROUND
40	G-R	ELECTROSTATIC GROUND
41	R-BR	ELECTROSTATIC GROUND
42	BR-R	ELECTROSTATIC GROUND
43	R-S	CUTOVER SWB
44	S-R	CUTOVER SWA
45	BK-BL	ELECTROSTATIC GROUND
46	BL-BK	ELECTROSTATIC GROUND
47	BK-O	MAJOR ALARM
48	O-BK	MAJOR ALARM
49	BK-G	TIP
50	G-BK	RING
51	BK-BR	ELECTROSTATIC GROUND
52	BR-BK	ELECTROSTATIC GROUND
53	BK-S	ELECTROSTATIC GROUND
54	S-BK	ELECTROSTATIC GROUND
55	Y-BL	ELECTROSTATIC GROUND
56	BL-Y	ELECTROSTATIC GROUND
57	Y-O	ELECTROSTATIC GROUND
58	O-Y	ELECTROSTATIC GROUND
59	Y-G	0 v
60	G-Y	-48 V
61	Y-BR	0 v
62	BR-Y	-48 V
63	Y-S	0 v
64	S-Y	-48 V
65	V-BL	0 v
66	BL-V	-48 V
67	V-O	0 v
68	O-V	-48 V
69	V-G	0 v
70	G-V	-48 V
71	V-BR	0 v
72	BR-V	-48 V
73	V-S	0 v
74	S-V	-48 V

Pin	Pair Color	Lead Designation
PLUG P25 (Connects to Jack J14)		
26	W-BL	ELECTROSTATIC GROUND
27	BL-W	ELECTROSTATIC GROUND
28	W-O	ELECTROSTATIC GROUND
29	O-W	ELECTROSTATIC GROUND
30	W-G	ELECTROSTATIC GROUND
31	G-W	ELECTROSTATIC GROUND
32	W-BR	ELECTROSTATIC GROUND
33	BR-W	ELECTROSTATIC GROUND
34	W-S	DATA IN COMMON
35	S-W	DATA IN
36	R-BL	ELECTROSTATIC GROUND
37	BL-R	ELECTROSTATIC GROUND
38	R-O	DATA OUT COMMON
39	R-O	DATA OUT
40	R-G	ELECTROSTATIC GROUND
41	G-R	ELECTROSTATIC GROUND
42	R-BR	ELECTROSTATIC GROUND
43	BR-R	ELECTROSTATIC GROUND
44	R-S	CUTOVER SWB
45	S-R	CUTOVER SWA
46	BK-BL	ELECTROSTATIC GROUND
47	BL-BK	ELECTROSTATIC GROUND
48	BK-O	MAJOR ALARM
49	O-BK	MAJOR ALARM
50	BK-G	TIP
51	G-BK	RING
52	BK-BR	ELECTROSTATIC GROUND
53	BR-BK	ELECTROSTATIC GROUND
54	BK-S	ELECTROSTATIC GROUND
55	S-BK	ELECTROSTATIC GROUND
56	Y-BL	ELECTROSTATIC GROUND
57	BL-Y	ELECTROSTATIC GROUND
58	Y-O	ELECTROSTATIC GROUND
59	O-Y	ELECTROSTATIC GROUND
60	Y-G	0v
61	G-Y	-48 V
62	Y-BR	0 v
63	BR-Y	-48 V
64	Y-S	0 v
65	S-Y	-48 V
66	V-BL	0 v
67	BL-V	-48 V
68	V-O	0 v
69	O-V	-48 V
70	V-G	0 v
71	G-V	-48 V
72	V-BR	0 v
73	BR-V	-48 V
74	V-S	0 v
75	S-V	-48 V



NOTES:
1. ALL PLUGS AND CONNECTORS EXCEPT AS NOTED ARE STANDARD 25-PAIR (AMPHENOL TYPE). THE MALE AND FEMALE DESIGNATORS REFER TO THE CONNECTORS MOUNTED ON THE EQUIPMENT, NOT TO THE CABLE CONNECTORS.

X1286R!

Figure 10-3(a) SX-200 Connector Locations

CONNECTOR			CONNECTOR			CONSOLE INTERFACE CONNECTOR		
SHELF	NO.	DESTINATION	BOARD	NO.	DESTINATION	BOARD	NO.	DESTINATION
1	P1	X-CONNECT	INTER-CONNECT	J13	MAINTENANCE CONSOLE		J22	CONSOLE 1
	P2	X-CONNECT		J14	P25		P23	J15
	P3	X-CONNECT		J15	P23		J24	CONSOLE 2
	P4	X-CONNECT		P16	P6		P25	J14
	P5	P17		P17	P5			
	P6	P16		P18	X-CONNECT			
2	P7	X-CONNECT		P19	X-CONNECT			
	P8	X-CONNECT		P301	MAINTENANCE PANEL			
	P9	X-CONNECT		J302	RS-232			
	P10	X-CONNECT		P303	POWER SUPPLY			
	P11	NC		P20	X-CONNECT			
	P12	NC		P21	X-CONNECT			

Figure 10-3(b) SX-200 Connector Locations

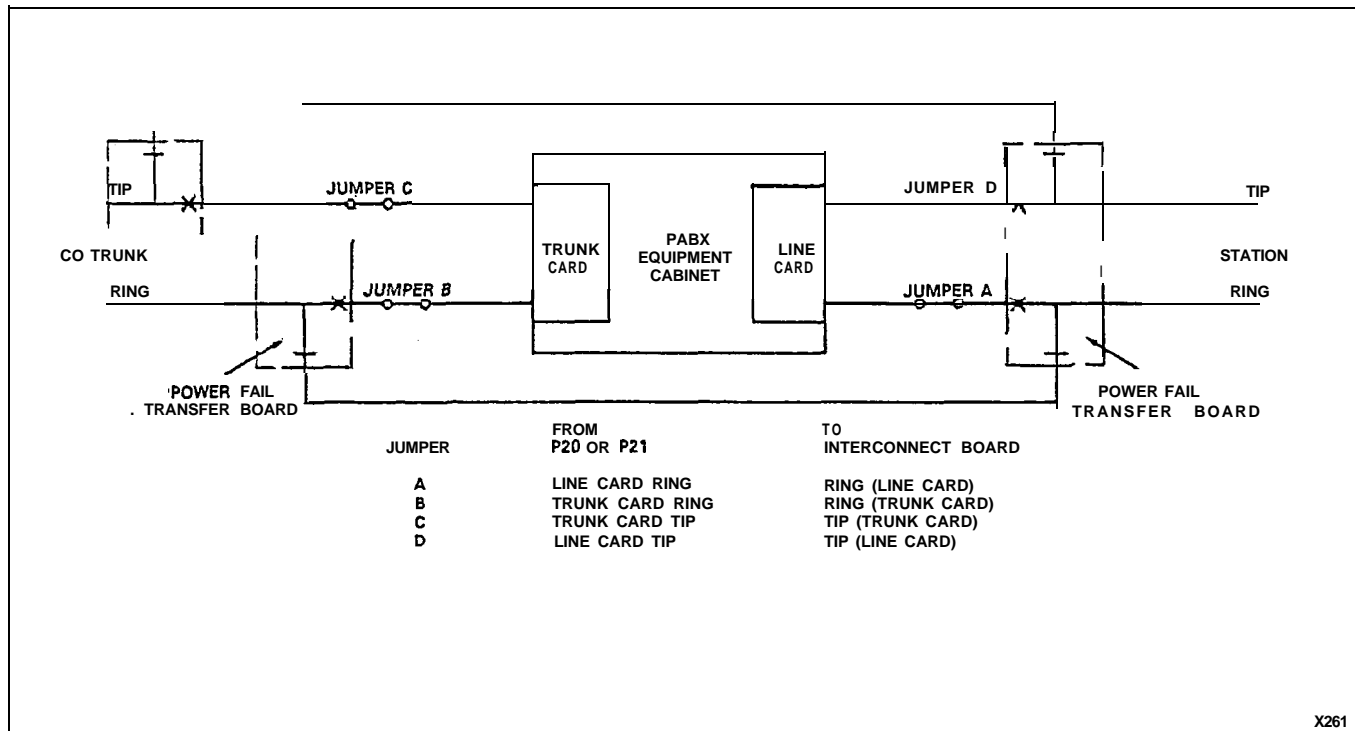


Figure 10-4 Power Fail Transfer Block Diagram

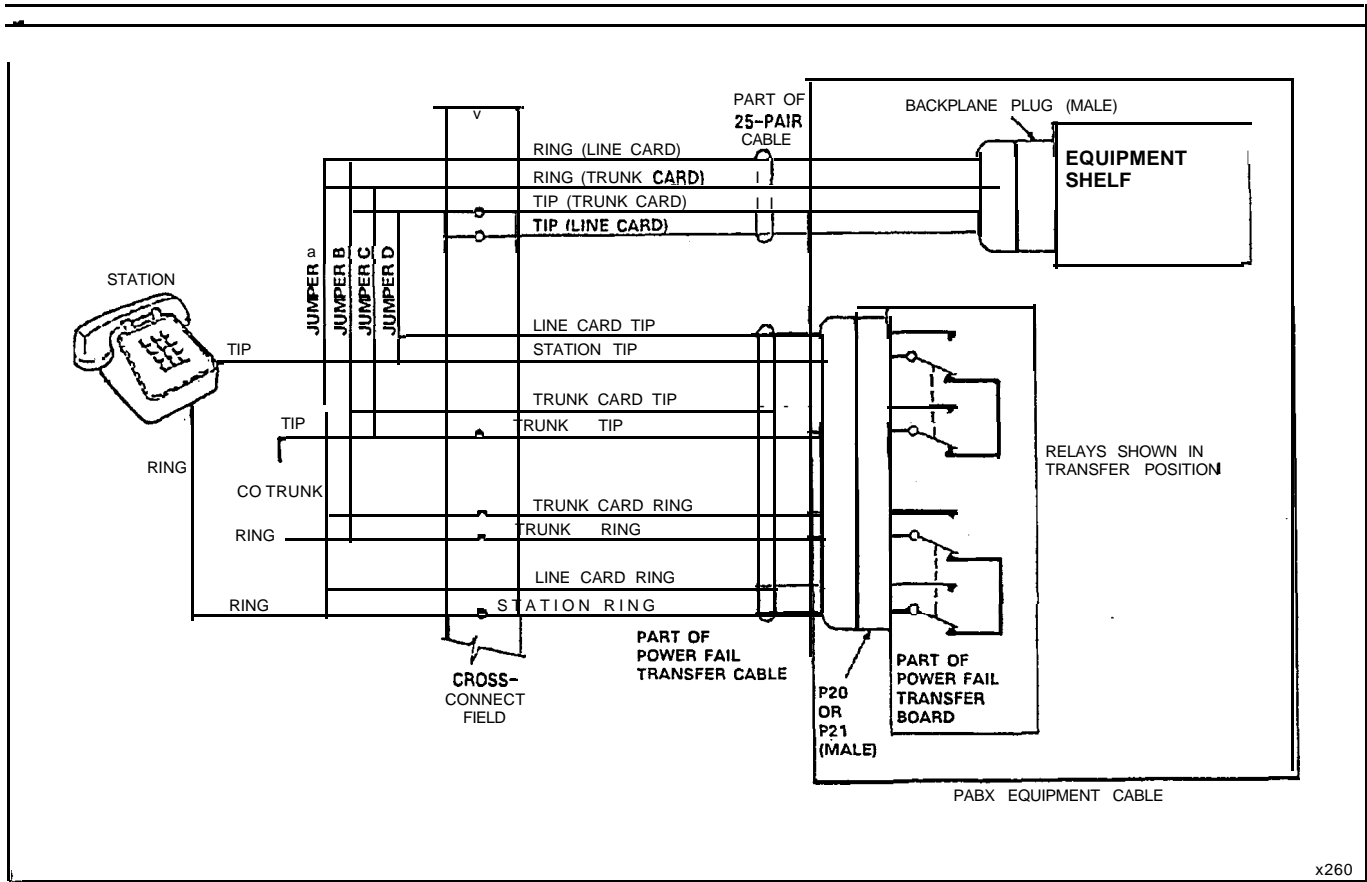
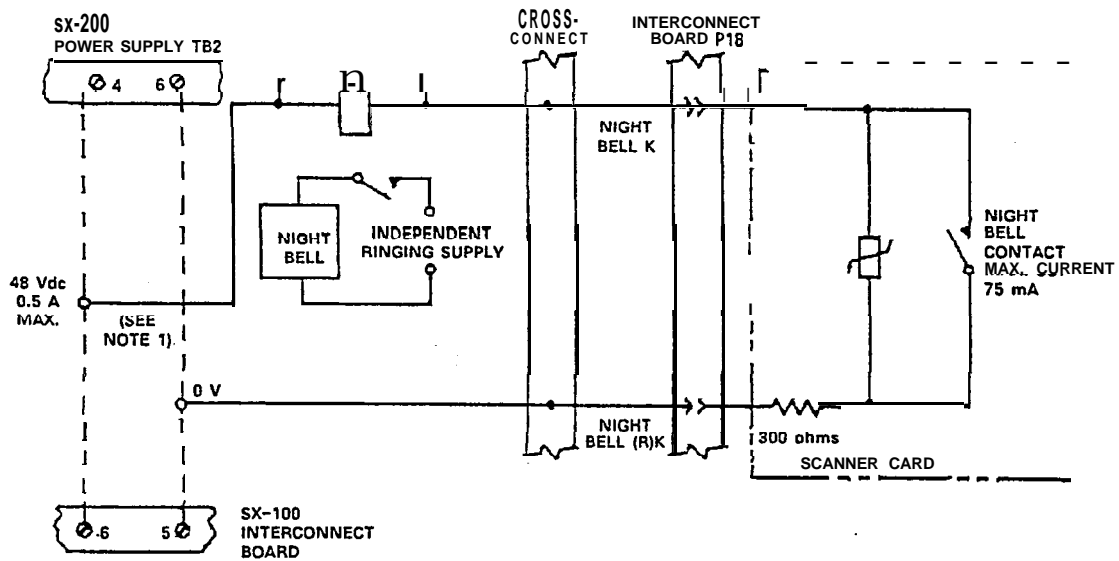


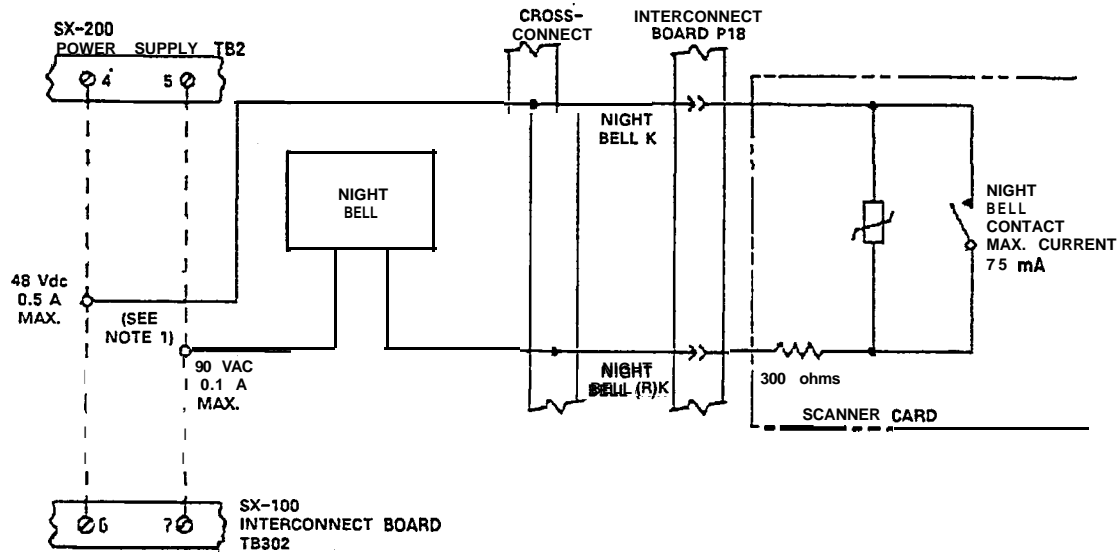
Figure 10-5 Power Fail Transfer Wiring Diagram

x260

NIGHT BELL CONNECTION AUXILIARY RELAY



NIGHT BELL RELAY DIRECT

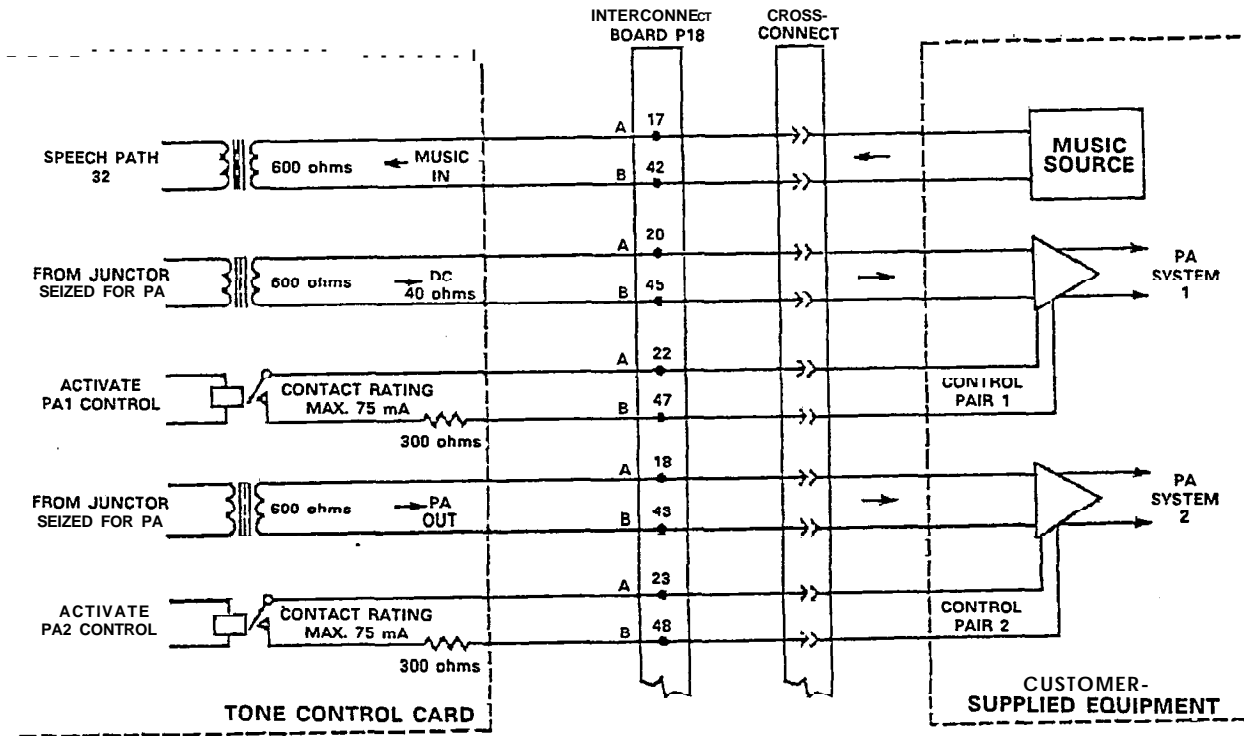


INTERCONNECT BOARD PLUG P18							
PIN	DESTINATION	PIN	DESTINATION	PIN	DESTINATION	PIN	DESTINATION
46	NIGHT BELL 1 K1	44	NIGHT BELL 2 K2	50	NIGHT BELL 3 K3	49	NIGHT SERVICE A K4
21	NIGHT BELL 1 R(K1)	19	NIGHT BELL 2 R(K2)	25	NIGHT BELL 3 R(K3)	24	NIGHT SERVICE B(K4)

- NOTES: 1. THE FACILITY IS WIRED TO EITHER THE SX-100 OR THE SX-200 TERMINAL BLOCKS AS INDICATED BY THE DASHED LINES.
 2. THE NIGHT SERVICE RELAY K4 CONTACTS ARE IDENTICAL TO THE NIGHT BELL CONTACT ARRANGEMENTS. IT MAY BE USED TO OPERATE A LAMP TO SHOW WHEN THE PABX IS IN NIGHT SERVICE, OR SIGNAL THE CO FOR THIS CONDITION.

X572R4

Figure 10-6 Night Bell Connections



X5373

Figure 10-7 Music and PA Connections

11. DESIGNATIONS

General

11.01 Designations are an integral part of the installation procedures. Correct identification of all cables and terminations improves service by reducing search time.

11.02 Modular cross-connecting fields are referenced to throughout **this** description. The procedure for terminating the cables and equipment are shown in Table 1 I-I and Figure 1 I-I.

**TABLE 1 I-I
TERMINATING PROCEDURE**

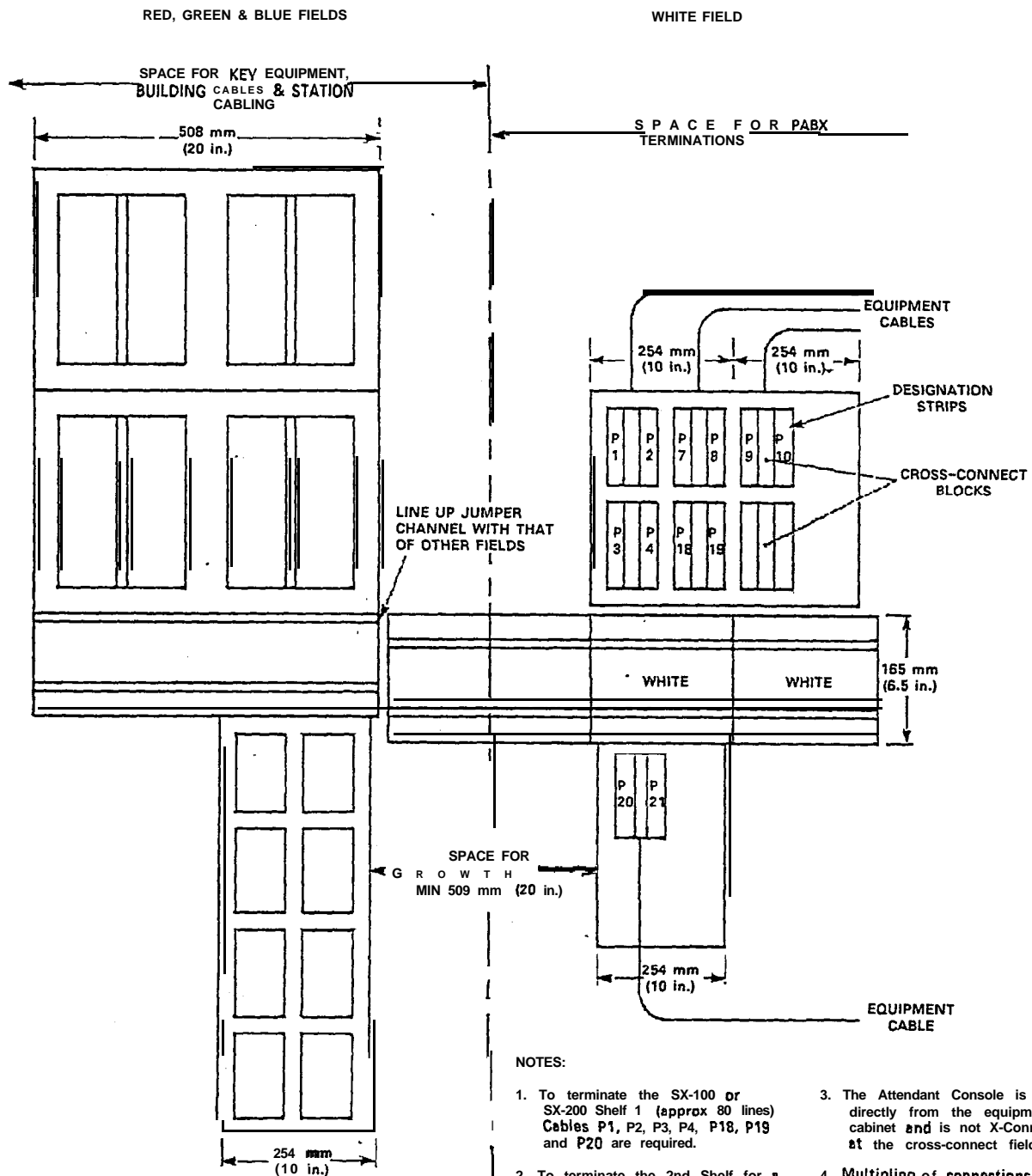
Step	Action
1.	Mount cross-connecting blocks.
2.	Run and connect building cables.
3.	Identify cables using identification tape.
4.	Attach designation strips if required to cross-connecting blocks.
5.	Run and connect equipment cables .
6.	Run and connect required jumpers.

12. INSTALLATION

General

12.01 The SX-100 and SX-200 systems should be installed in accordance with the following steps:

- (a) Consult Appendix A for a review of MITEL Action Procedures (MAPs).
- (b) Consult Appendix B for certain FCC interconnection requirements.
- (c) For installation of the SX-100 equipment, proceed with the steps listed in Table CI-I, Appendix C.
- (d) For installation of the SX-200 equipment, proceed with the steps listed in Table DI-1, Appendix D.
- (e) Appendix E lists setting of card switches which are required to be pet-formed during the installation of the PABX equipment. Appendix E also outlines the SUPERSET 3/SUPERSET 4 set installation.



NOTES:

1. To terminate the SX-100 or SX-200 Shelf 1 (approx 80 lines) Cables P1, P2, P3, P4, P18, P19 and P20 are required.
2. To terminate the 2nd Shelf for a full SX-200 system, the following additional cables must be terminated: P7, P8, P9, P10 and P21.
3. The Attendant Console is cabled directly from the equipment cabinet and is not X-Connected at the cross-connect field.
4. Multiplying of connections will be made on a 25-pair connecting block located in the Red Field.
5. An alternate layout may be to place all connecting blocks in the White Field, above or below the jumper channel.

X794R1

Figure 11-1 Typical Terminal Layout

- (f) Appendix F lists miscellaneous installation procedures which may be required during the PABX installation or the installation of additional equipment.

Precautions

12.02 When installing the system, certain precautions must be observed, particularly when handling PCB cards, replacing modules thereon or 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.
- (b) Handle PCB cards, as far as is practicable, only by the edges and avoiding contact with any exposed electrical connections. When removing a new card from its package, touch the ground bar first to equalize any static voltage buildup, prior to inserting it in the equipment. A wrist ground strap should be worn (Figure 12-1), but failing availability, ensure that one hand is grounded to the system cabinet immediately prior to removing or inserting a PCB card.
- (c) Modules, when removed for testing, should have their pins inserted into conductive foam to equalize buildup.
- (d) Conductive packages 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.

13. The SUPERSET Set

General

13.01 The SUPERSET 3 and the SUPERSET 4 are advanced microprocessor-controlled electronic telephone sets. Because of this, certain considerations must be taken into account when installing the SUPERSET sets.

- (a) The SUPERSET set requires no special cabling as it is a 2-wire telephone set with a maximum loop resistance of 200 ohms (typically 63.5 m (2500 ft) of 26 AWG).
- (b) The SUPERSET set requires a special line card. The SUPERSET line card is not compatible with standard telephone sets. When this line card is installed in a slot only the SUPERSET telephone sets may be connected to the equipment numbers associated with that slot.
- (c) Only one SUPERSET set may be connected to each port.
- (d) When troubleshooting or testing a SUPERSET equipment or line, a SUPERSET set must be used as a "butt-in". A standard tele-

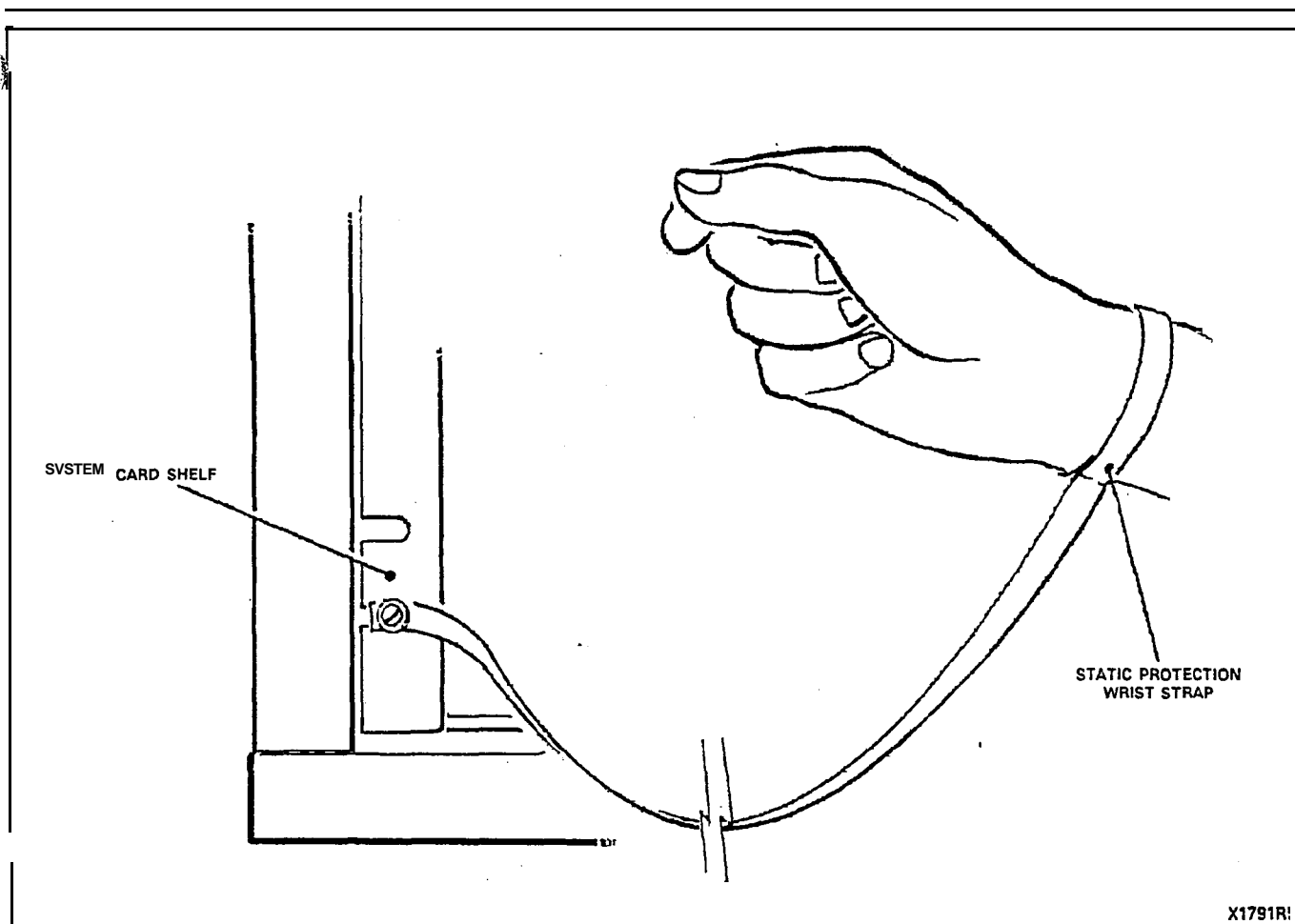


Figure 12-1 Static Protection Ground Strap

phone set will not work on a **SUPERSET** equipment number or line.

- (e) The **SUPERSET** set derives its power from the SX-100 system or the SX-200 system. For this reason, a **SUPERSET** set cannot be used as a Power Fail Transfer Extension, as the **SUPERSET** set will not be functional during power failures.
- (f) If the announce port on the **SUPERSET** set is to be used, an associated equipment number must be used other than the **SUPERSET** equipment number.

Installation

13.02 For specific installation instructions for the **SUPERSET** set, see MAP200-509. For specific programming instructions, see Section MITL9105/9110-096-210-NA.

APPENDIX A

MITEL ACTION PROCEDURES

GENERAL

AI.01 Task oriented functions in this Section are implemented using MITEL Action Procedures (MAPs).

AI.02 A MAP is a step-by-step procedure using a flow chart principle, written and illustrated where necessary to a level of detail that allows both experienced and inexperienced personnel to carry out the tasks detailed. A MAP contains two levels of information as follows:

- (a) For experienced personnel, a series of steps (level one) each numbered (n) and annotated with minimal information.
- (b) For inexperienced personnel, each step referred to in (a) above is amplified by a connected series of numbered **substeps (nA)** (level two).

AI.03 A typical example of a MAP is shown in Figure AI-I, with the two levels detailed.

MAP SYMBOLS

AI.04 There are four basic symbol shapes which may be used in a MAP, and are defined as follows.

AI.05 AND Block. Used to indicate a level one step that must be performed. Consists of a square with the word AND centered in the block.

AI.06 OR Block. Used to indicate a choice of level one steps, one of which must be performed. Consists of a rectangle, with the text centered in the block, and with the word OR appearing between the alternative operations.

AI.07 The rectangle is also used to border instructions which imply that the operative must perform a task outside the scope of the MAP. The text is centered in the rectangle.

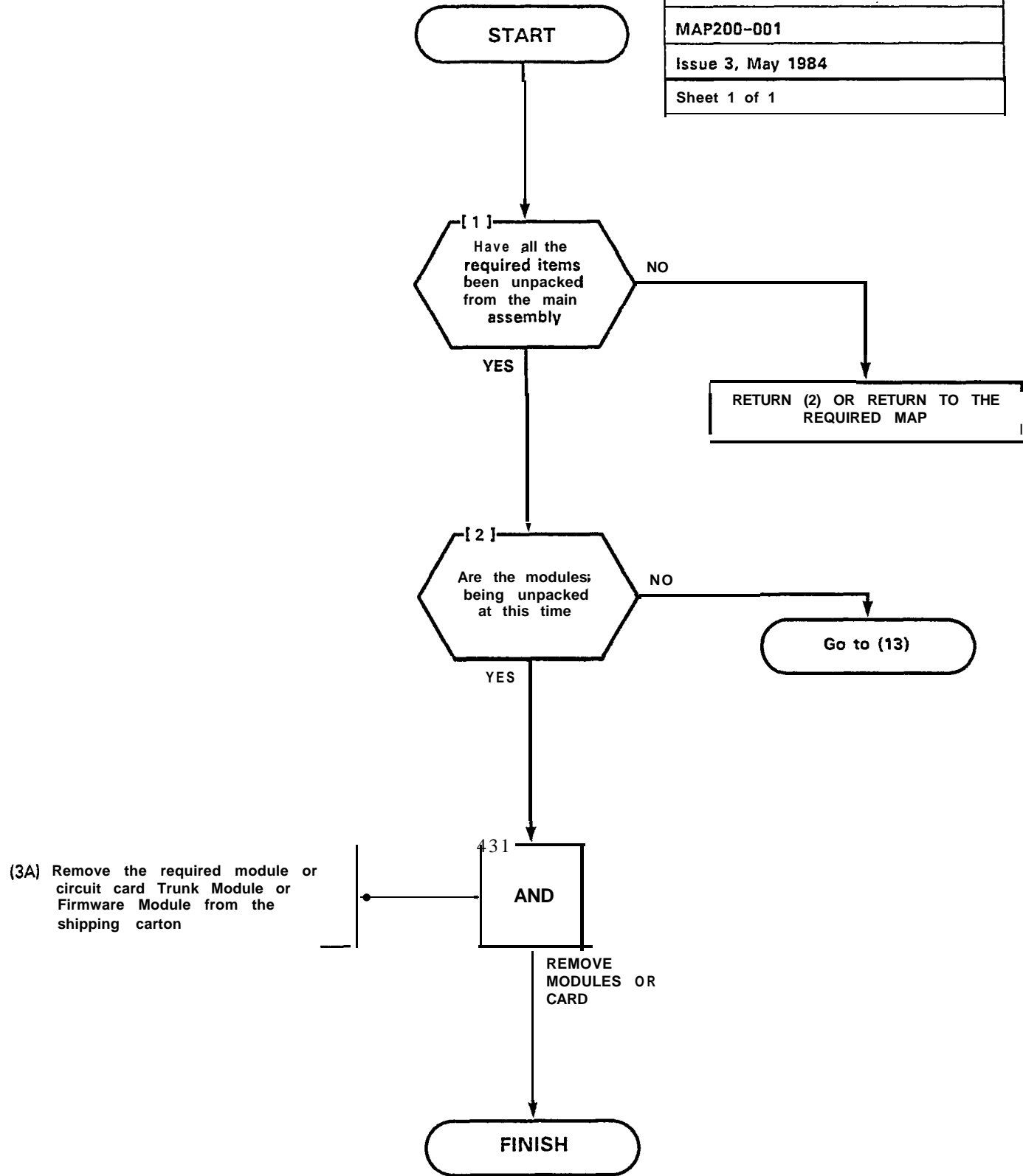
AI.08 Decision Block. Used to indicate a decision within the level one steps which must be made. The symbol is based on a hexagon with the top and bottom sides extended. Decision text is centered in the symbol.

UNPACKING AND INSPECTION
OF EQUIPMENT

MAP200-001

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M101R1

Figure A1-1 Typical Map Page

AI.09 START/FINISH/Jump to Block. Used to indicate the start and finish of a MAP. Also used to indicate "jump to" points within the MAP, for example "go to (n)" or "from (n)" or "return to (n)". The symbol is a rectangle with semicircular ends. Text is centered in the symbol.

THE OPERATOR'S USE OF MAPS

Experienced Operator

AI.10 For the experienced operator to complete a task using a MAP, reference to the sequential short form level one steps is usually all that is necessary. Using Figure AI-I as an example, the experienced operator would proceed as follows.

AI.11 At (1) makes a decision based on the information within the block. If the answer is YES, the operator must proceed to a different MAP. If the answer is NO, the operator is faced with another decision at block (2).

AI.12 At (2) if the decision is NO, there is no requirement to proceed further and the test is abandoned. This naturally results in a FINISH block. If the decision is YES, the operator proceeds to (3) and (4) in succession (i.e., dials the DID station number and completes the call to the check extension).

AI.13 The description of the instructions carried out in paragraphs AI.05 and AI.06 have assumed that the level of competence of the operator is such that short form level one steps contain sufficient information, and therefore the operator reads only the center column of the MAP, top to bottom of the page.

inexperienced Operator

AI.14 If the operator's experience is such that the level one instructions do not contain sufficient information, the level two sub-steps should be referred to as follows.

AI.15 Using Figure AI-I as an example, the path followed should be:

- (a) At (1) and (2) make the decisions called for at these steps as before.
- (b) At Step (3) dial the DID station number by performing substeps (3A), (3B) and (3C).

In terms of steps and substeps, the operative follows a decision, then step and substep paths in the example shown.

TOOLS, TEST EQUIPMENT AND SPECIAL INSTRUCTIONS

AI.16 Any tools, test equipment or special instructions that the operator requires or needs to know are stated on the first page of each MAP. If the MAP is long, and contains a number of subprocedures, these are listed in synopsis form on the first page.



APPENDIX B

FCC INTERCONNECTION REQUIREMENTS

TELEPHONE COMPANY INTERCONNECTION

General

81.01 This equipment has been approved by the Federal Communications Commission (FCC) as not being harmful to the telephone network when connected directly to the telephone lines through the standard 50-pin blue ribbon prescribed by the FCC Rule. This Part is applicable to telephone interconnection in the United States.

Notification

B1.02 Prior to the interconnection of this equipment, the local telephone company is to be notified; inform the company that you have FCC-registered equipment which you wish to connect to their trunks. Give them the following information:

- The PABX being connected is a **MITEL** incorporated Model **SX-100** or a Model **SX-200**.
- The 14-digit FCC Registration Number for the **SX-100** system is **BN285B64724MFE**.
- The 14-digit FCC Registration Number for the **SX-200** system is **BN285B64724MFE**.
- The Ringer Equivalence number which is **2.1B**.
- The jacks or connectors required are **RJ2IX**, **RJ2EX** or **RJ2GX** as shown in Table **B1-1**.

Connection Limitations

B1.03 Due to the FCC Part 68 Rule, no connection can be made to party lines and to coin telephone service.

Network Changes

81.04 The telephone company may make changes to its communication service; such changes may include the change of trunk circuits, changes in the operational characteristics of its trunk, etc. Before doing this, however, the company shall provide official notification, so that the operation of the PABX service will not be interrupted.

Maintenance Limitations

B1.05 This equipment has been registered with the FCC for direct connection to the telephone network. Under the FCC Program, the user is restricted from making any changes or repairs and from performing any maintenance operations other than those specifically included in this Standard Practice.

B1.06 Circuit cards may be removed by the user, however, replacement cards are to be supplied only by MITEL or its authorized agent. No field repair of circuit cards by the user is authorized.

B1.07 No cabling or wiring changes within the console are permitted by the user. Plug-ended cables, as detailed in this Standard Practice, are to be used for all external connections between the console and the telephone company interface jack.

81.08 Power supply components and cabling is only to be changed or maintained by MITEL or by an authorized agent of MITEL.

Trouble Corrections

B1.09 Most troubles are diagnosed by the circuitry of the system, and the console readout indicates the circuit and card that is malfunctioning. Card replacement can be made by the user.

81.10 For more complex malfunctions, appropriate field service is provided by MITEL or its authorized agents.

.

TABLE B1-1
USOC CONNECTOR PIN DESIGNATIONS

Pin	Pair Color	Connector Type			Pin	Pair Color	Connector Type		
		RJ2IX	RJ2EX	RJ2GX			RJ2IX	RJ2EX	RJ2GX
26	W-BL	T	T	T	38	BK-G	T	T	T
1	BL-W	R	R	R	13	G-BK	R	R	R
27	W-O	T	E	T1	39	BK-BR	T	E	T1
2	o-w	R	M	R1	14	BR-BK	R	M	R1
28	W-G	T	T	E	40	BK-S	T	T	E
3	G-W	R	R	M	15	S-BK	R	R	M
29	W-BR	T	E	T	41	Y-BL	T	E	T
4	BR-W	R	M	R	16	BL-Y	R	M	R
30	w-s	T	T	T1	42	Y-O	T	T	T1
5	s-w	R	R	R1	17	O-Y	R	R	R1
31	R-BL	T	E	E	43	Y-G	T	E	E
6	BL-R	R	M	M	18	G-Y	R	M	M
32	R-O	T	T	T	44	Y-BR	T	T	T
7	O-R	R	R	R	19	BR-Y	R	R	R
33	R-G	T	E	T1	45	Y-S	T	E	T1
8	G-R	R	M	R1	20	S-Y	R	M	R1
34	R-BR	T	T	E	46	V-BL	T	T	E
9	BR-R	R	R	M	21	BL-V	R	R	M
35	R-S	T	T	E	47	V-O	T	E	T
10	S-R	R	M	R	22	O-V	R	M	R
36	BK-BL	T	T	T1	48	V-G	T	T	T1
11	BL-BK	R	R	R1	23	G-V	R	R	R1
37	BK-O	T	E	E	49	V-BR	T	E	E
12	O-BK	R	M	M	24	BR-V	R	M	M
					50	V-S	SPARE		
					25	S-V	SPARE		

Remarks

The types of Universal Service Order Code (USOC) connectors shown have pin designations according to the type of interface required by the Telephone Company. Use of these connectors are determined as follows:

RJ2IX: 2-wire loop, or ground start trunk
 2-wire reverse battery (DID)
 2-wire off-premises extension
 (Class A through E)
 2-wire Automatic Identified Outward
 Dialing (AIOD)
 2-wire message register

RJ2EX: 2-wire tie trunk with E and M Type I signaling

RJ2GX: 4-wire tie trunk with E and M Type I signaling

APPENDIX C

SX-100 INSTALLATION PROCEDURES

GENERAL

CI.01 The MAPs contained in this Appendix detail the procedures to be performed to complete the installation of an SX-100 PABX system.

TABLE CI-I
SX-100 INSTALLATION PROCEDURE

Step	Procedure	Reference
1.	Unpack SX-100 Equipment	MAP200-301
2.	Unpack Console(s)	MAP200-302
3.	Install Console Faceplate Designations	MAP200-303
4.	Inspect Equipment	MAP200-304
5.	Install and Connect Equipment	MAP200-305
6.	Set Card Switches (Appendix E)	MAP200-306
7.	Power-Up System (see Note)	MAP200-307
8.	Program System	Section MITL9105/911 0-096-21 0-NA
9.	Perform System Tests	Section MITL9105/91 10-096-215-NA
10.	Perform Extension Test	Section MITL9105/91 10-096-320-NA

Note: Appendix F lists miscellaneous installation requirements which may be required prior to power-up of system. This Appendix should be reviewed for applicability.

UNPACK SX-100 EQUIPMENT
MAP200-301
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TOOLS REQUIRED
1. Set of strap cutters

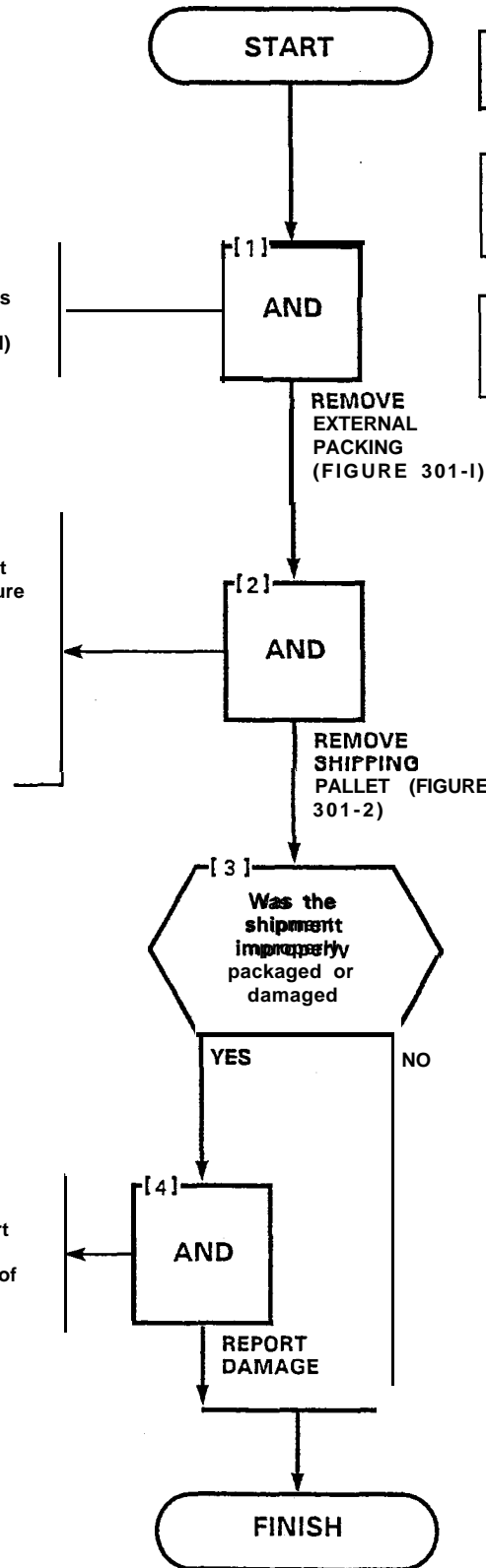
WARNING
GLOVES MUST BE WORN WHEN UNPACKING EQUIPMENT CABINET.

CAUTION
CARE MUST BE TAKEN WHILE MOVING EQUIPMENT TO AVOID DAMAGE.

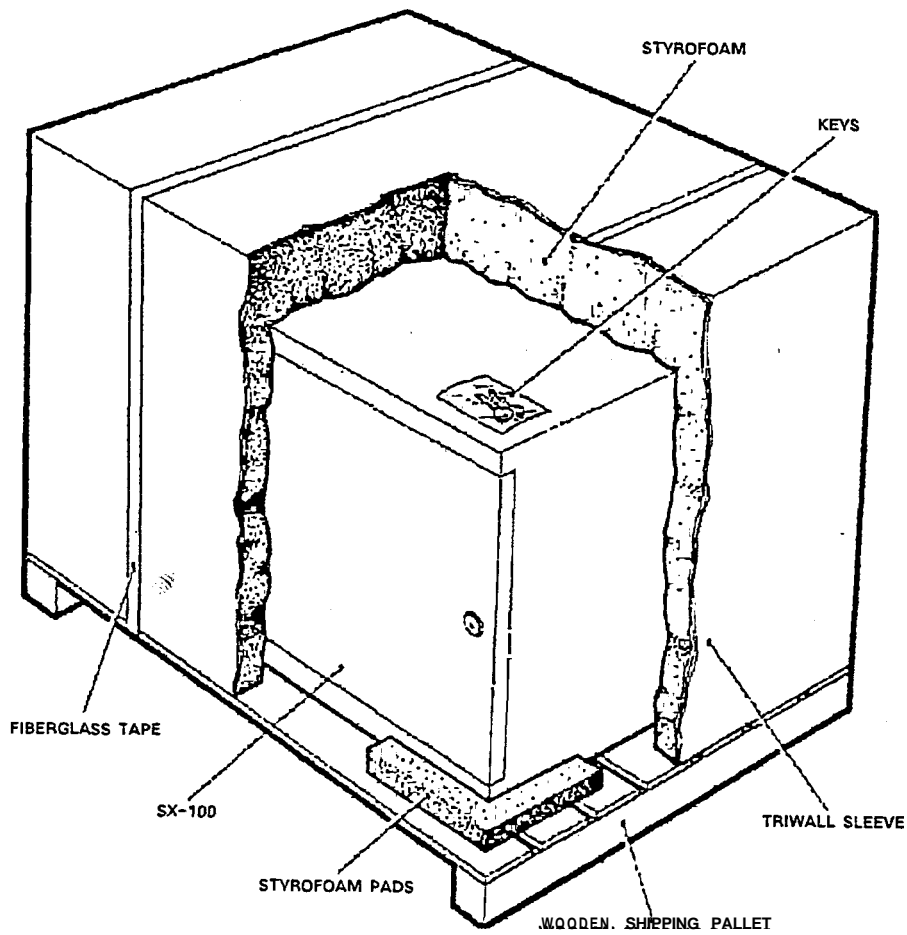
AT RECEIVING DOCK
(1A) Cut and remove retaining straps
(1B) Remove triwall box from shipping package (Figure 301-1)

(2A) Position equipment so that approx. 10 inches of equipment overhangs shipping pallet (Figure 301-2)
(2B) Tip equipment so that rear of cabinet touches floor
(2C) Remove shipping pallet from under equipment
(2D) Gently lower equipment onto floor

(4A) Identify type of damage by referring to the Damage Report Form at end of this Section
(4B) Complete appropriate portion of Form



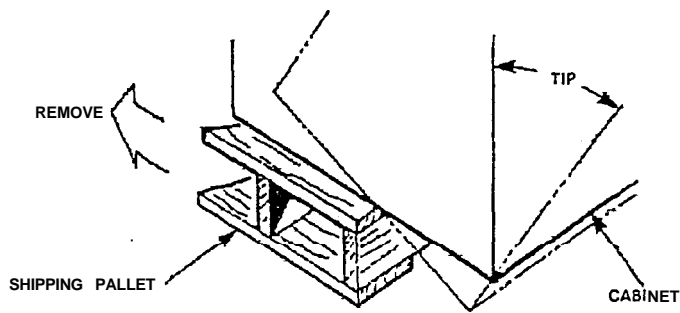
UNPACK SX-100 EQUIPMENT
MAP200- 301
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X967R1

Figure 301-I Remove External Packing

UNPACK SX-100 EQUIPMENT
MAP200-301
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X264

Figure 301-2 Remove Shipping Pallet

1. The first part of the document is a list of names and titles, including "The Hon. Mr. Justice" and "The Hon. Mr. Justice".



UNPACK CONSOLE(S)

MAP200-302

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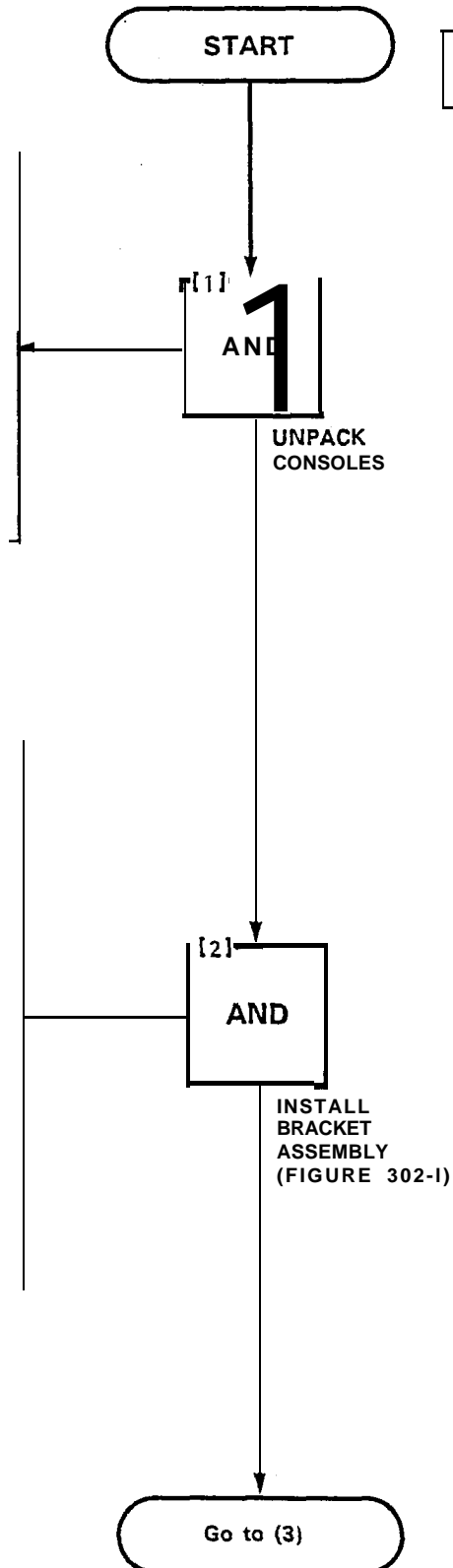
TOOLS REQUIRED

1 Screwdriver 0.25 inch blade

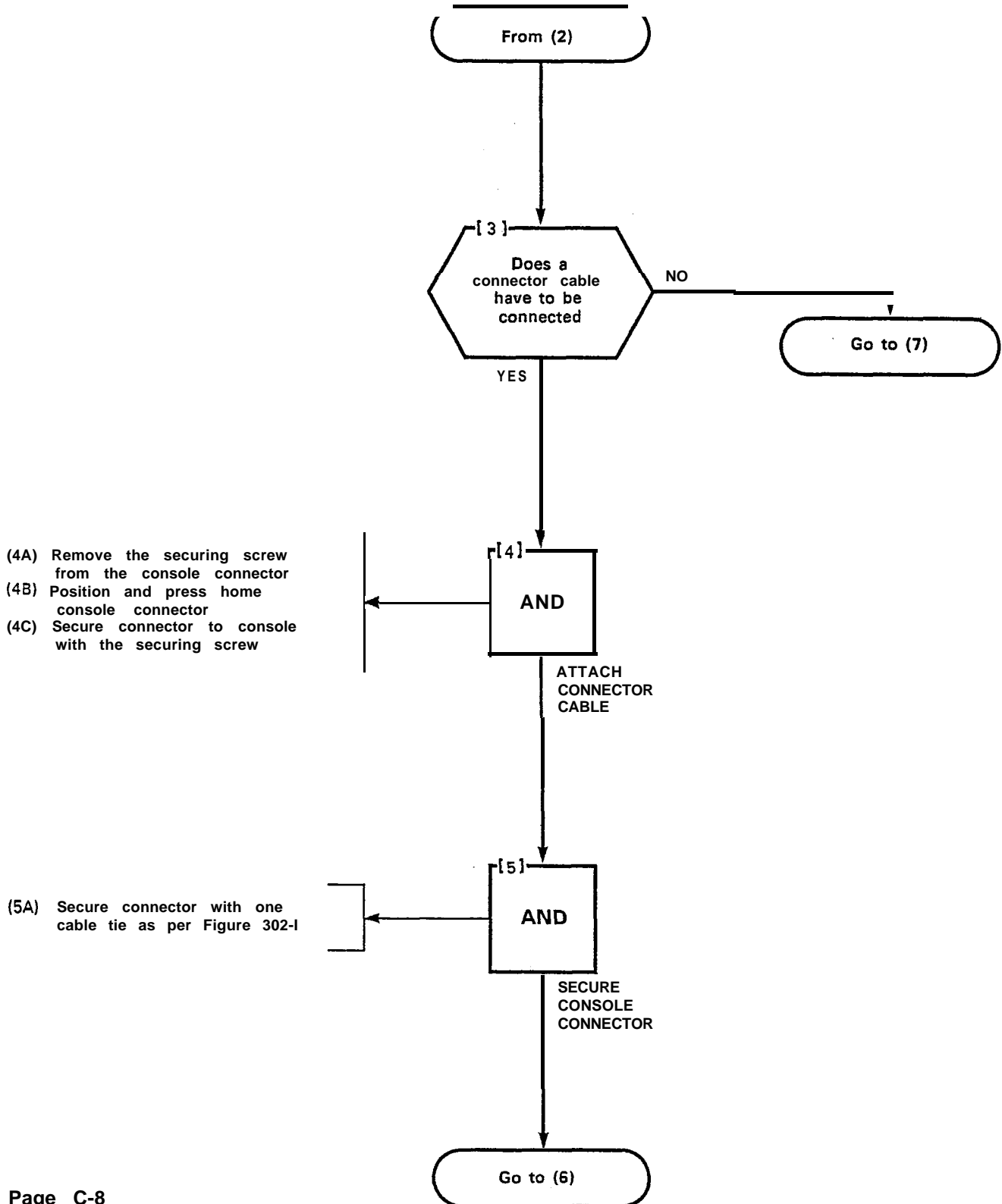
AT CONSOLE LOCATION

- (1A) Remove fiberglass tape from top of packing case
- (1B) Open packing case and remove foam sheet
- (1C) Remove cardboard insert
- (1D) Remove console accessory bag from insert
- (1E) Remove console from packing case
- (1F) Remove polyethylene sheet from console
- (1G) Place all packing material in packing case for use in reshipment

- (2A) Remove the two pieces of the bracket assembly and the five securing screws (Figure 302-1) from the accessory bag
- (2B) Determine to which side of the console the cradle assembly is to be mounted, and assemble the two brackets accordingly. Figure 302-1 shows a right-mounted assembly
- (2C) Secure the two brackets together with two 8-32 hex screws and felt washers using the wrench supplied
- (2D) Place console face-down on desk top
- (2E) Position bracket as shown in Figure 302-1 (or the dotted outline if it is a left-mount assembly)
- (2F) Attach bracket to base of console with three 6-32 screws



UNPACK CONSOLE(S)
MAP200- 302
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UNPACK CONSOLE(S)
MAP200-302
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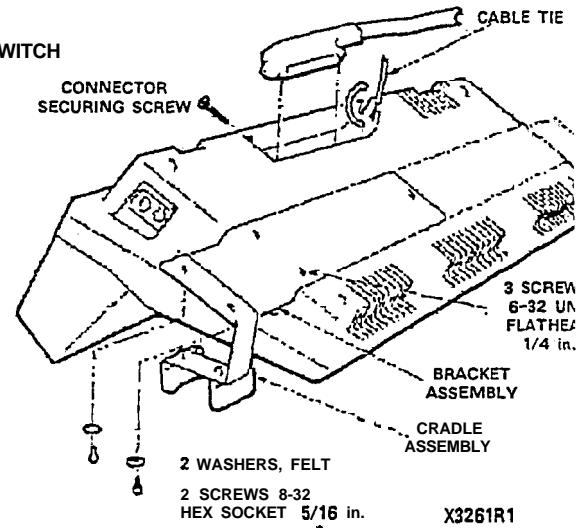
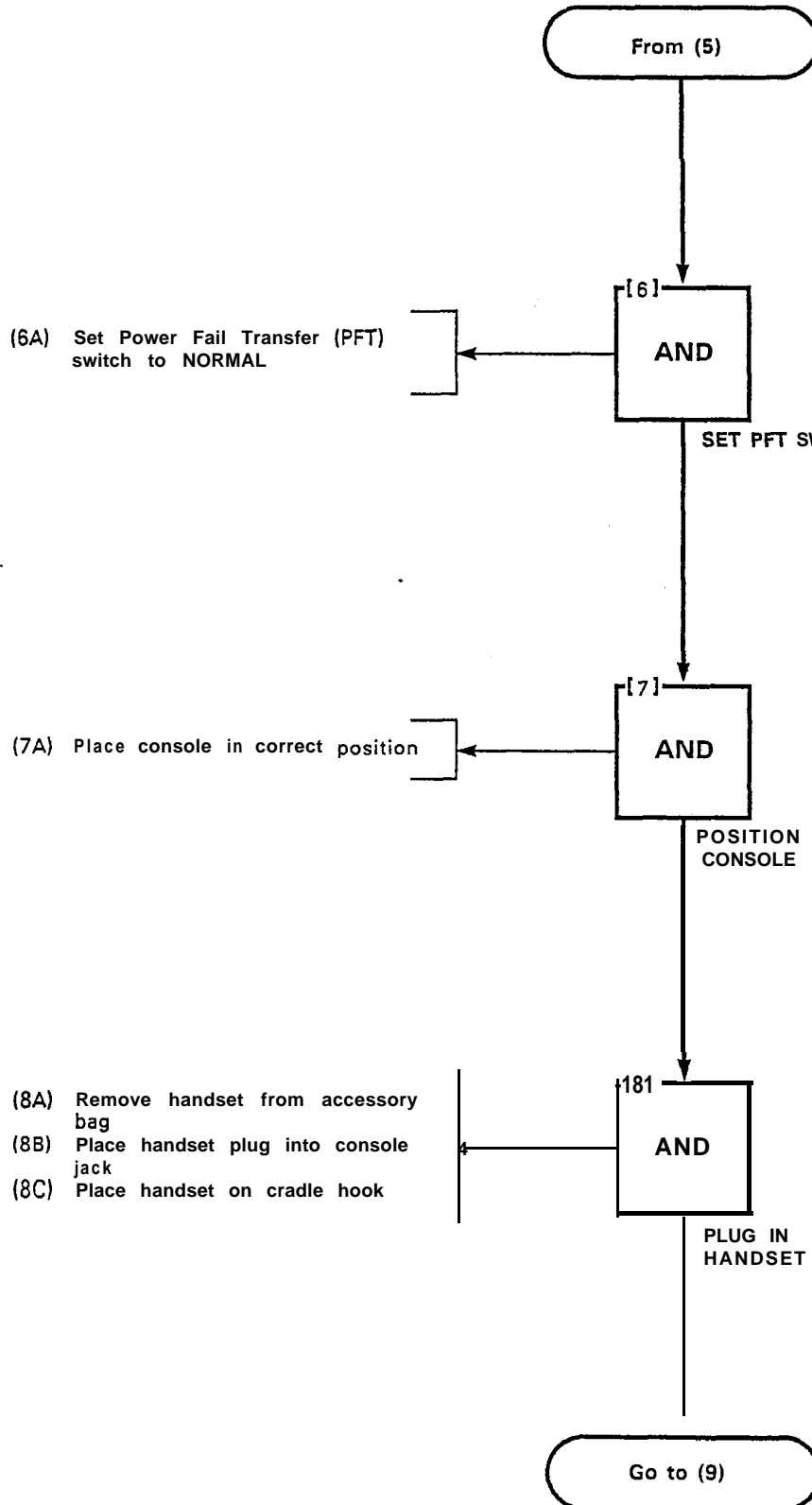
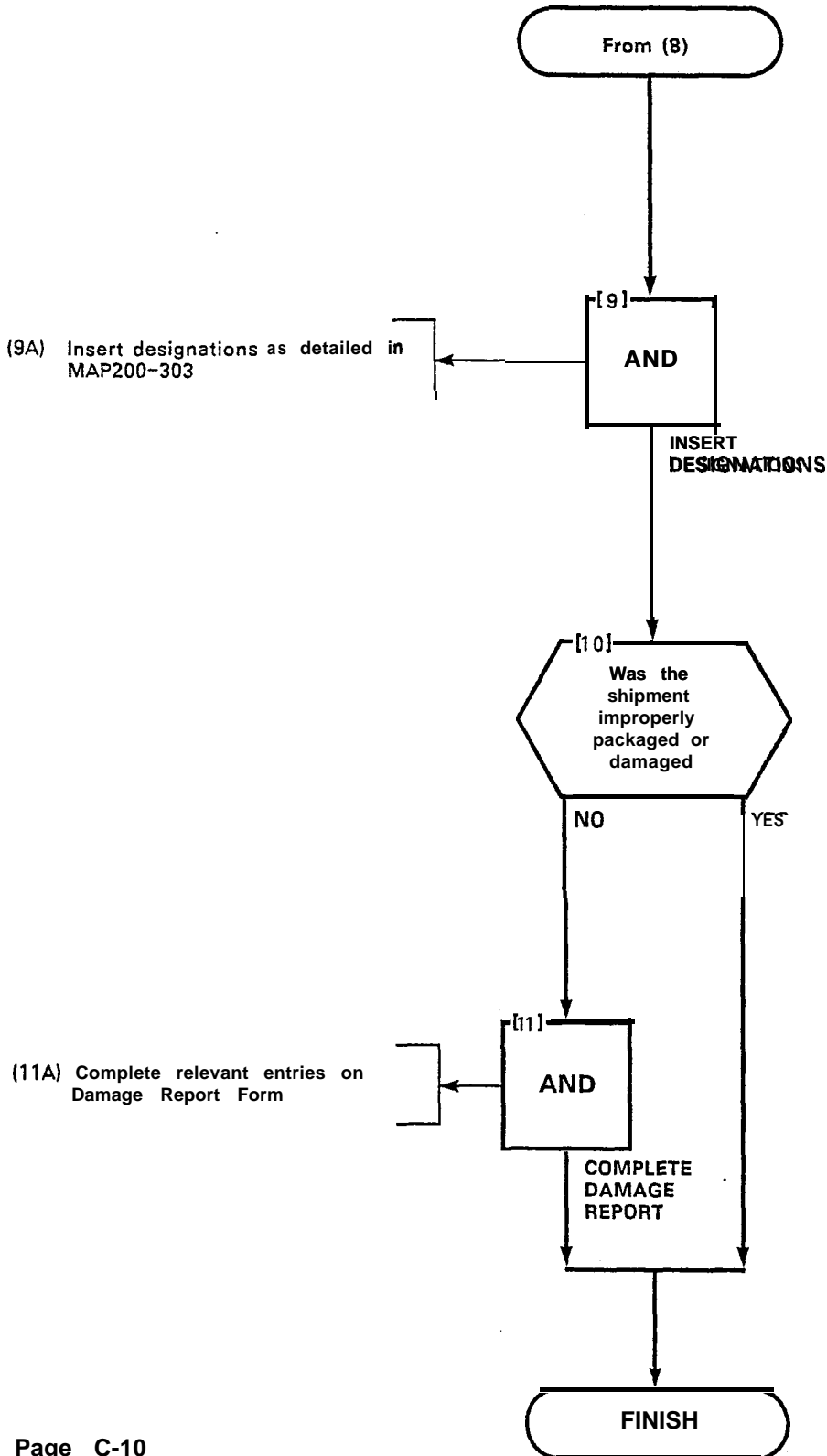


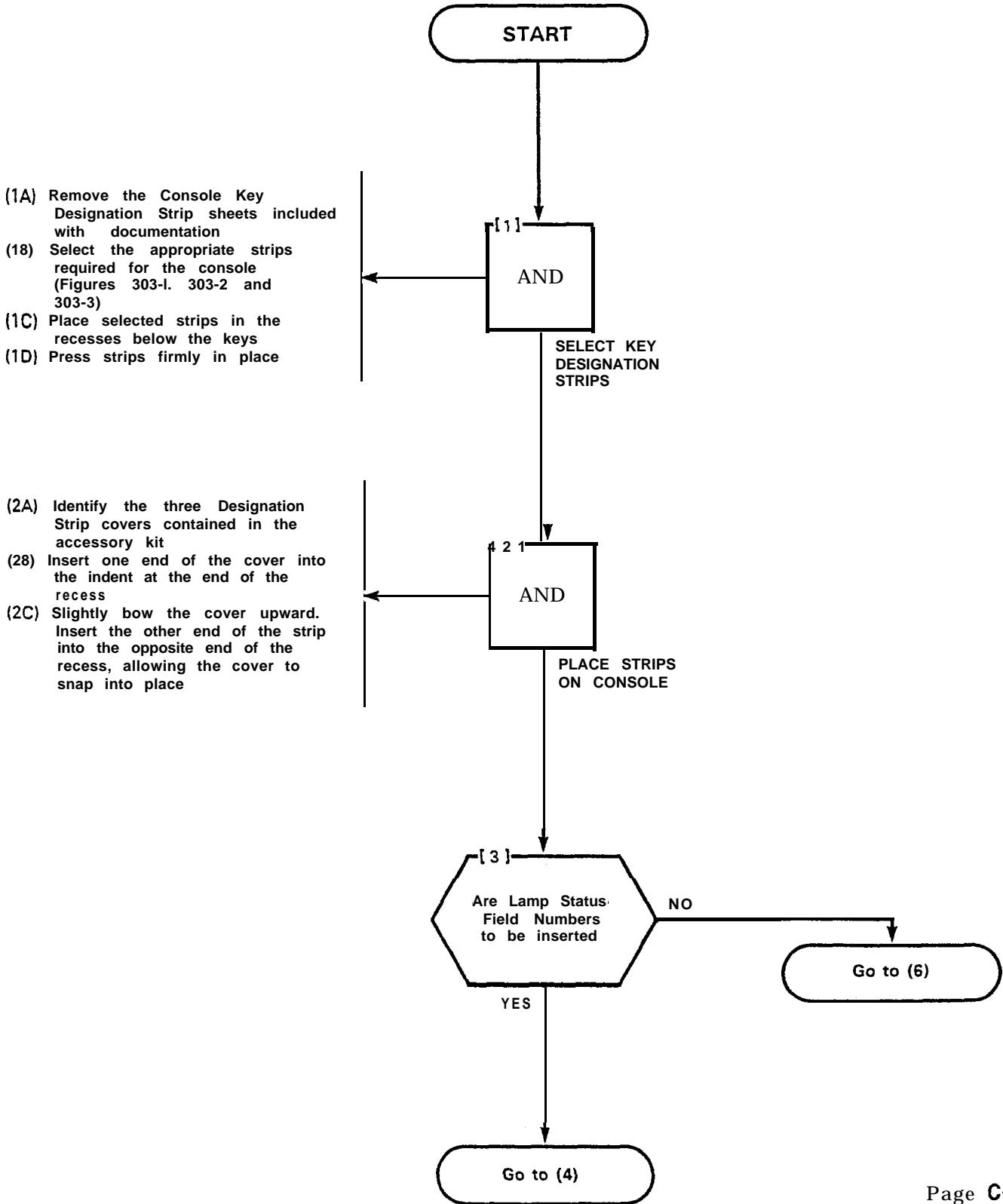
Figure 302-1
Install Bracket Assembly

SECTION MITL9105/911 0-096-200-NA

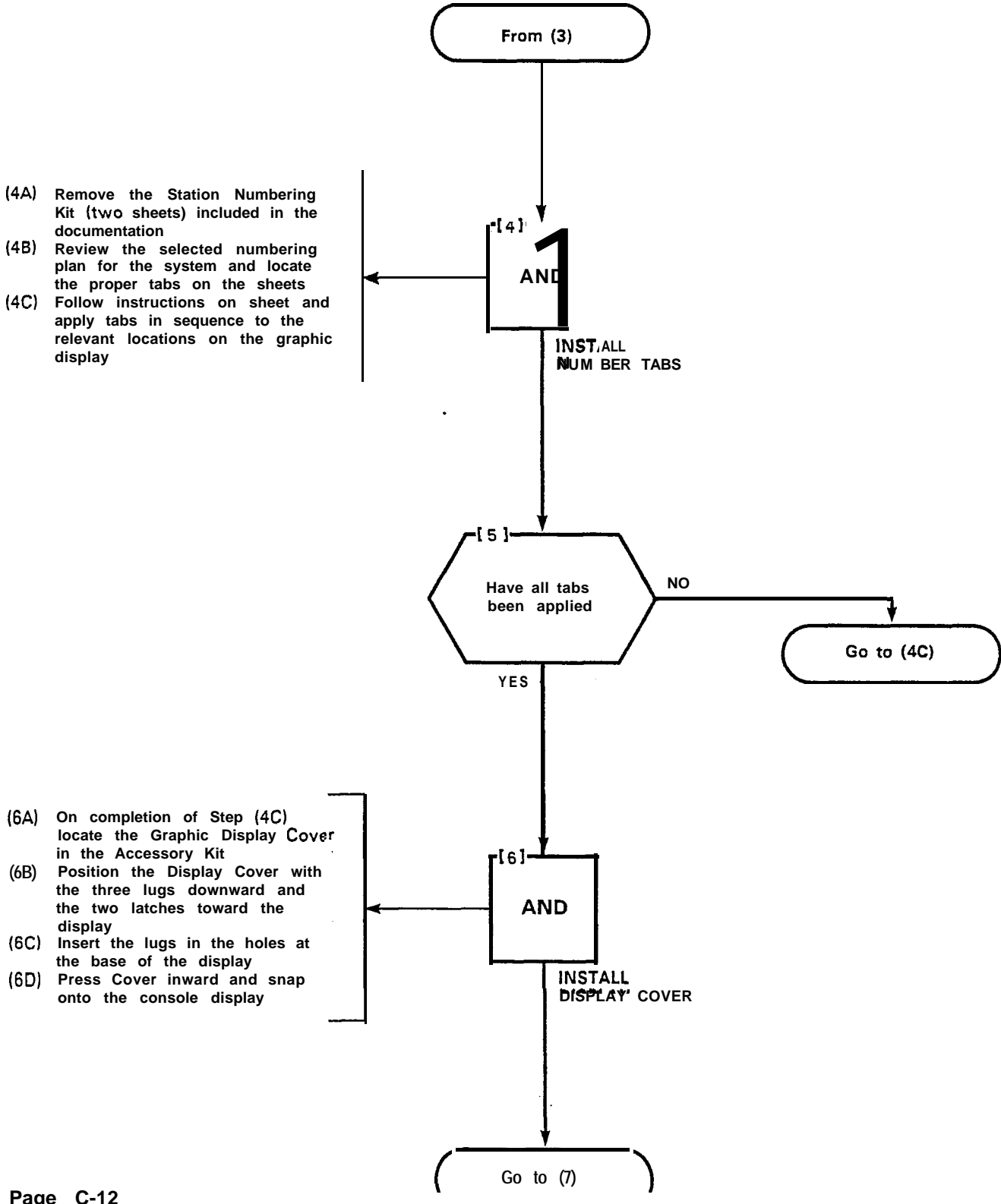
UNPACK CONSOLE(S)
MAP200- 302
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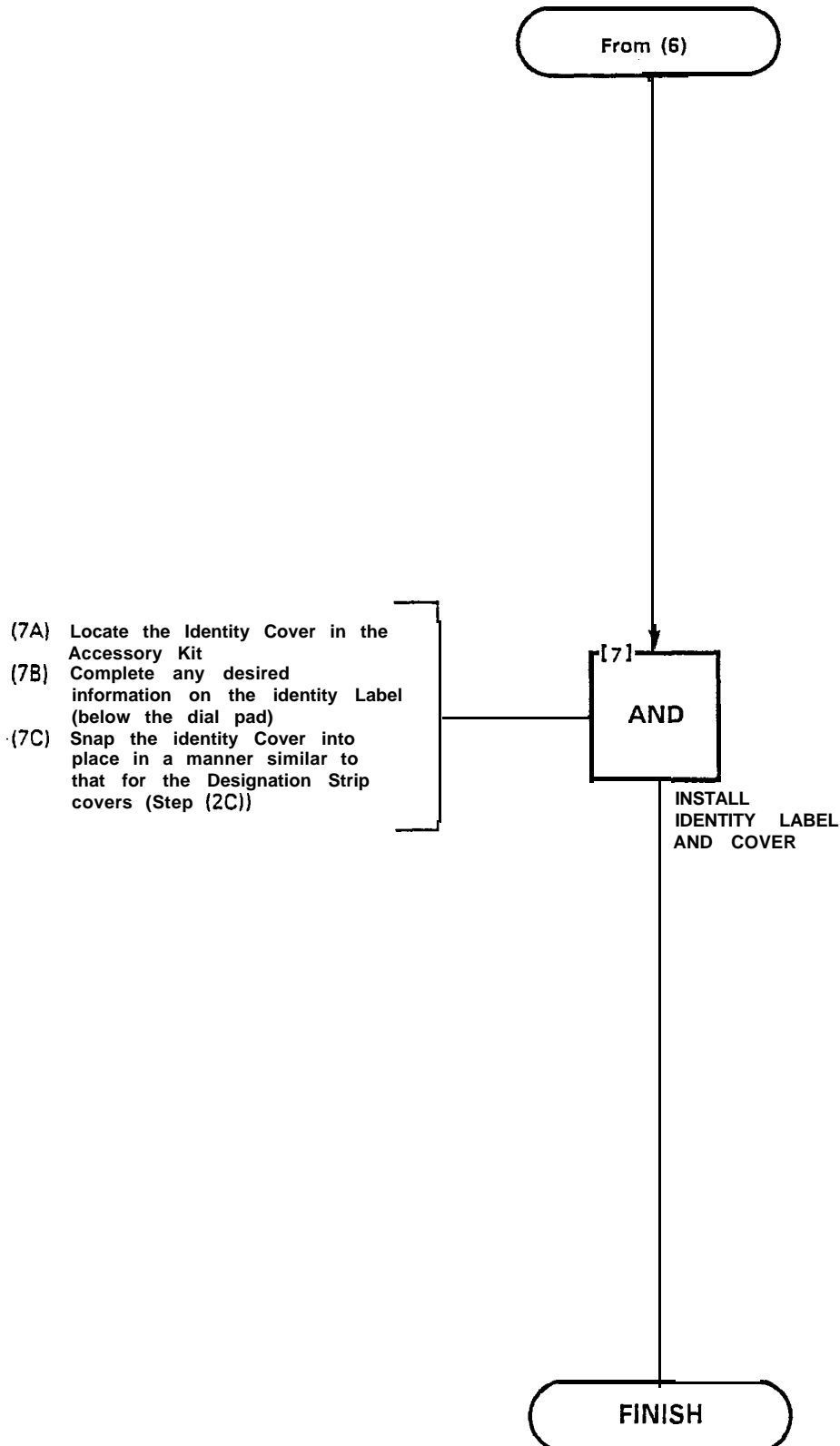
INSTALL CONSOLE FACEPLATE DESIGNATIONS
MAP200- 303
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INSTALL CONSOLE FACEPLATE DESIGNATIONS
MAP200- 303
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INSTALL CONSOLE FACEPLATE DESIGNATIONS
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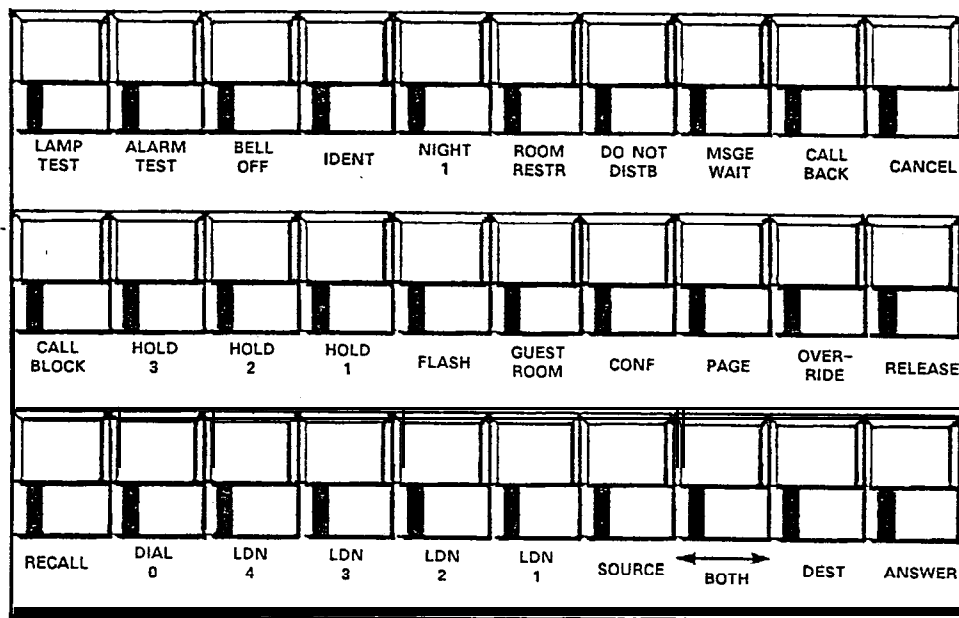


INSTALL CONSOLE FACEPLATE
DESIGNATIONS

MAP200- 303

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X3103

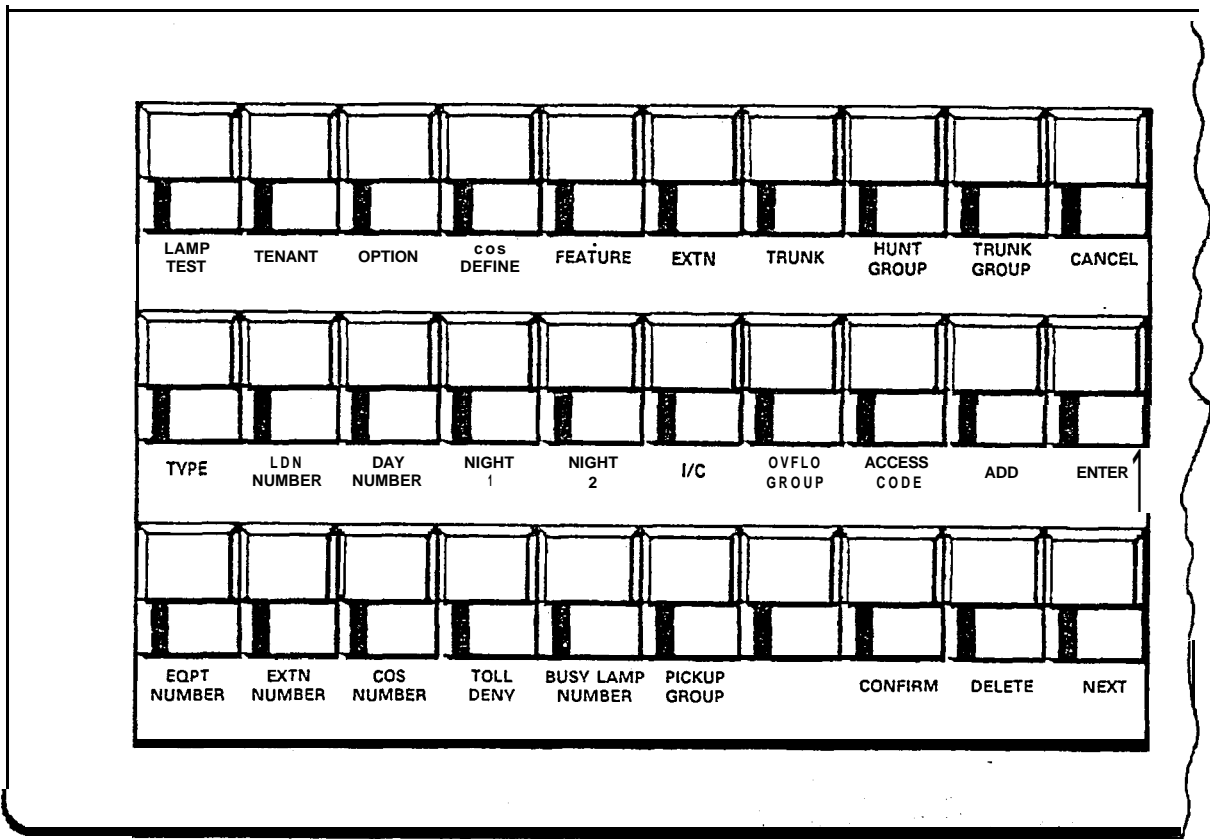
Figure 303-I Attendant - Console Key Designation, Hotel/Motel

INSTALL CONSOLE FACEPLATE
DESIGNATIONS

MAP200- 303

Issue 3. May 1984

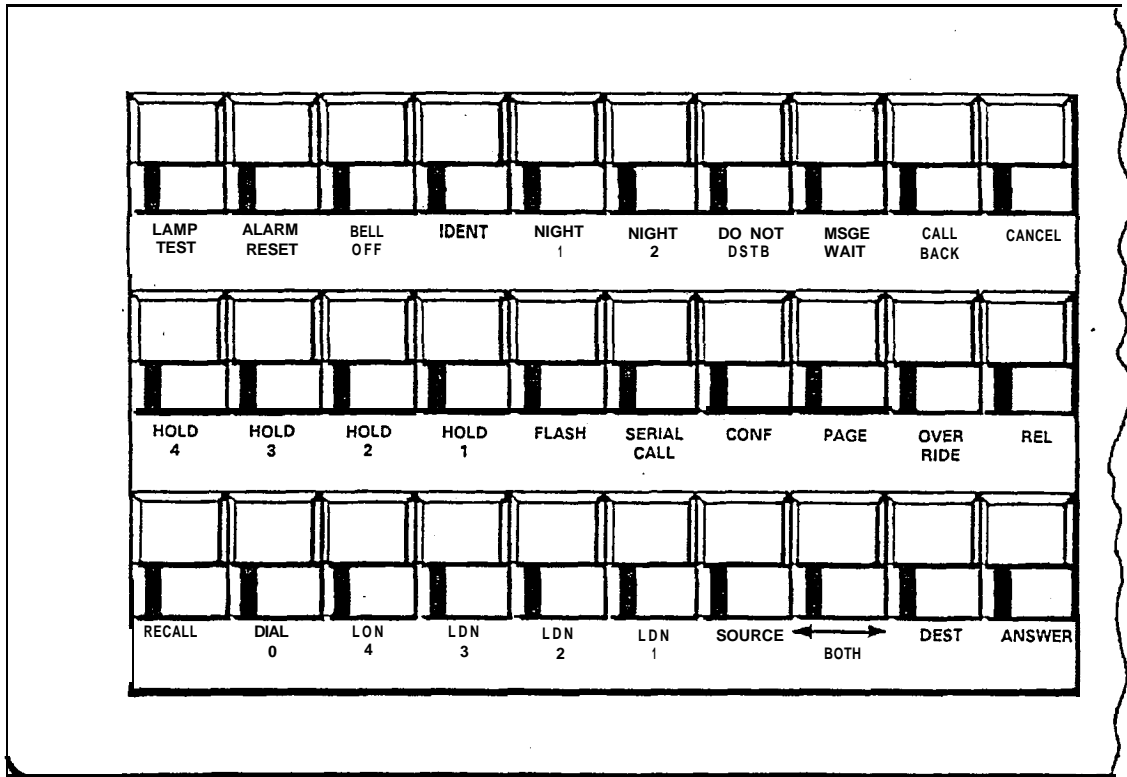
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X3102

Figure 303-2 Standard Programming Console

INSTALL CONSOLE FACEPLATE DESIGNATIONS
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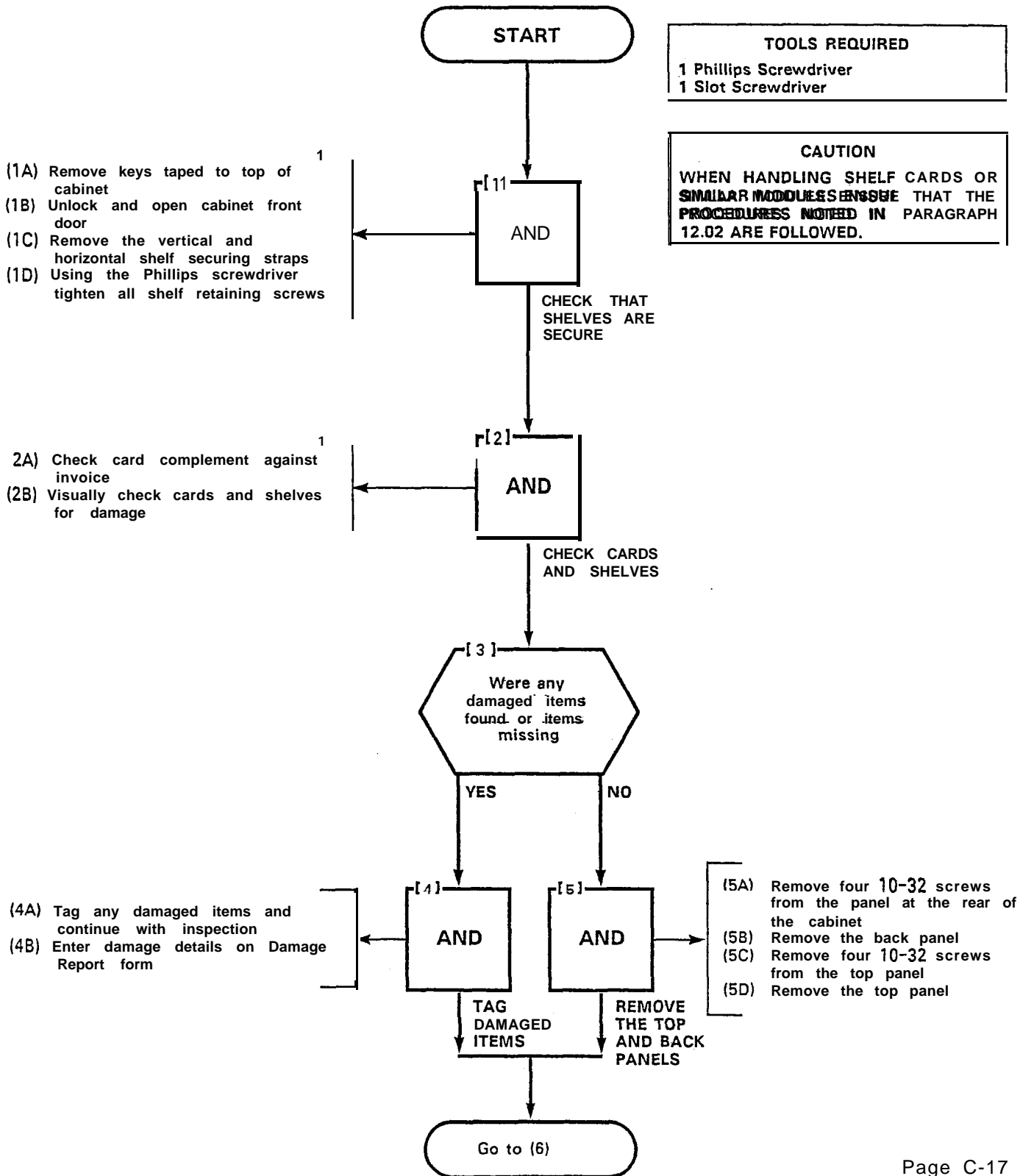
X5357

Figure 303-3 Commercial Key Designations

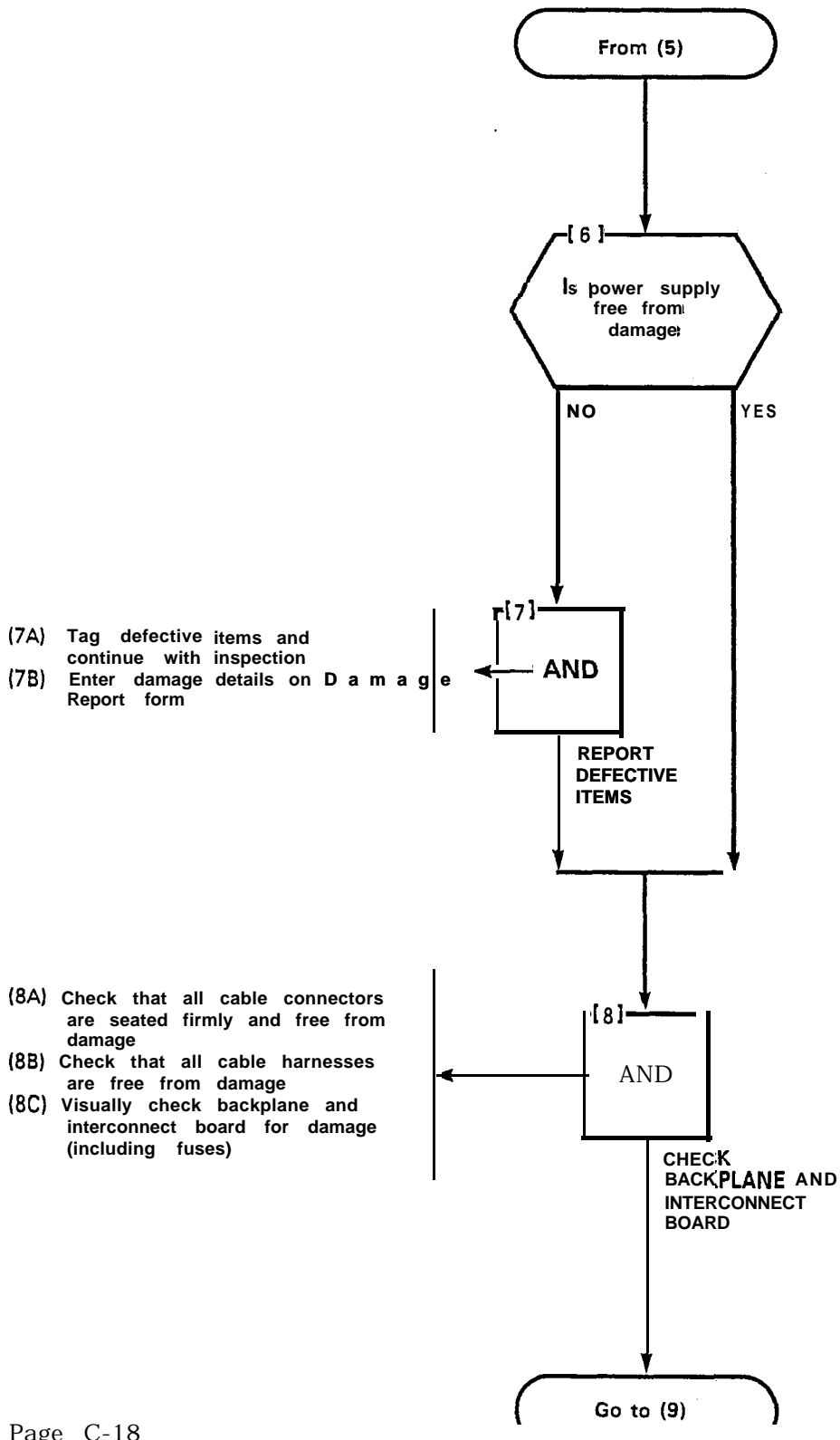
INSPECT EQUIPMENT
MAP200-304
Issue 3, May 1984
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TOOLS REQUIRED
1 Phillips Screwdriver
1 Slot Screwdriver

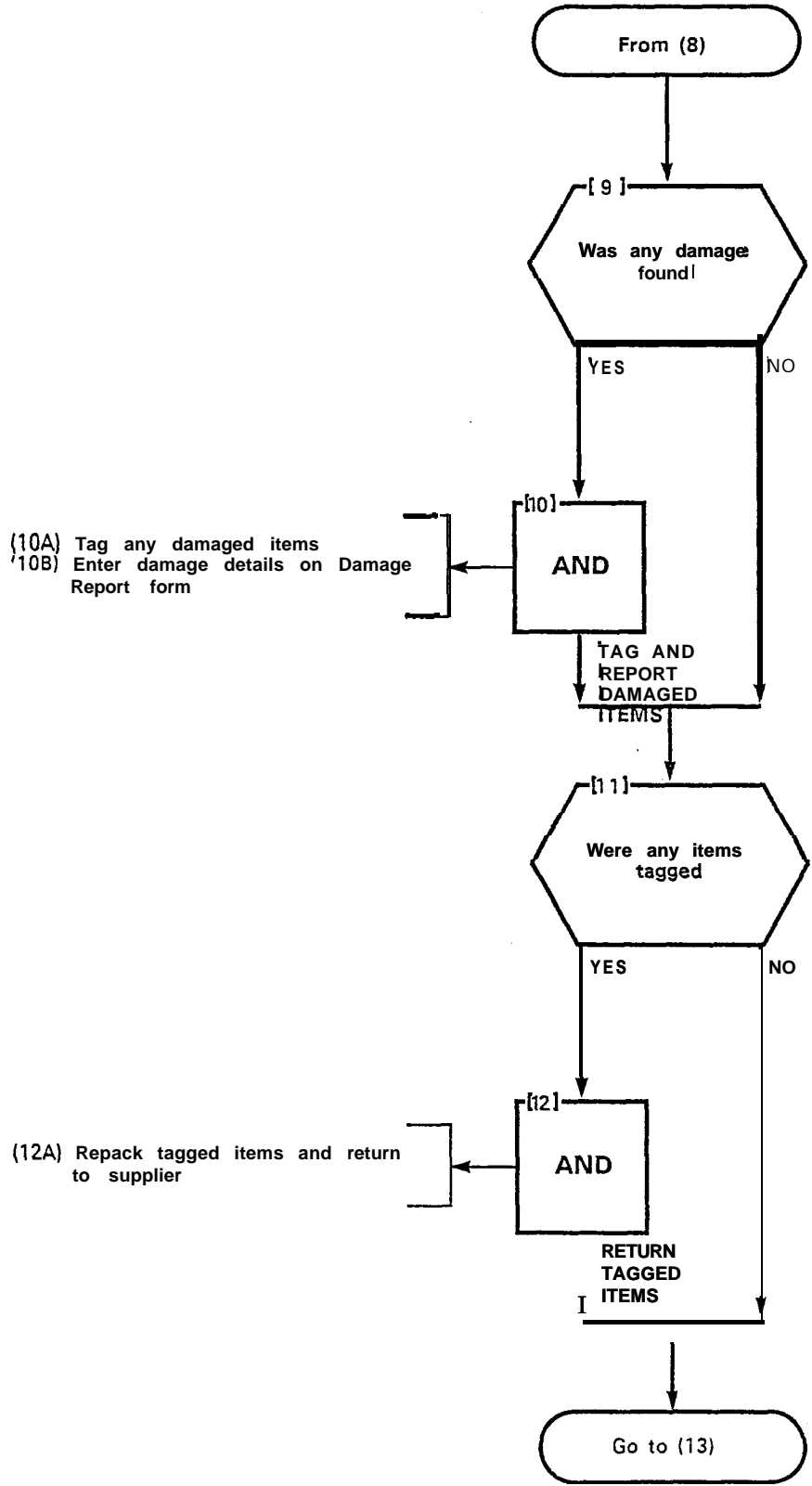
CAUTION
WHEN HANDLING SHELF CARDS OR SIMILAR MODULES BE SURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.



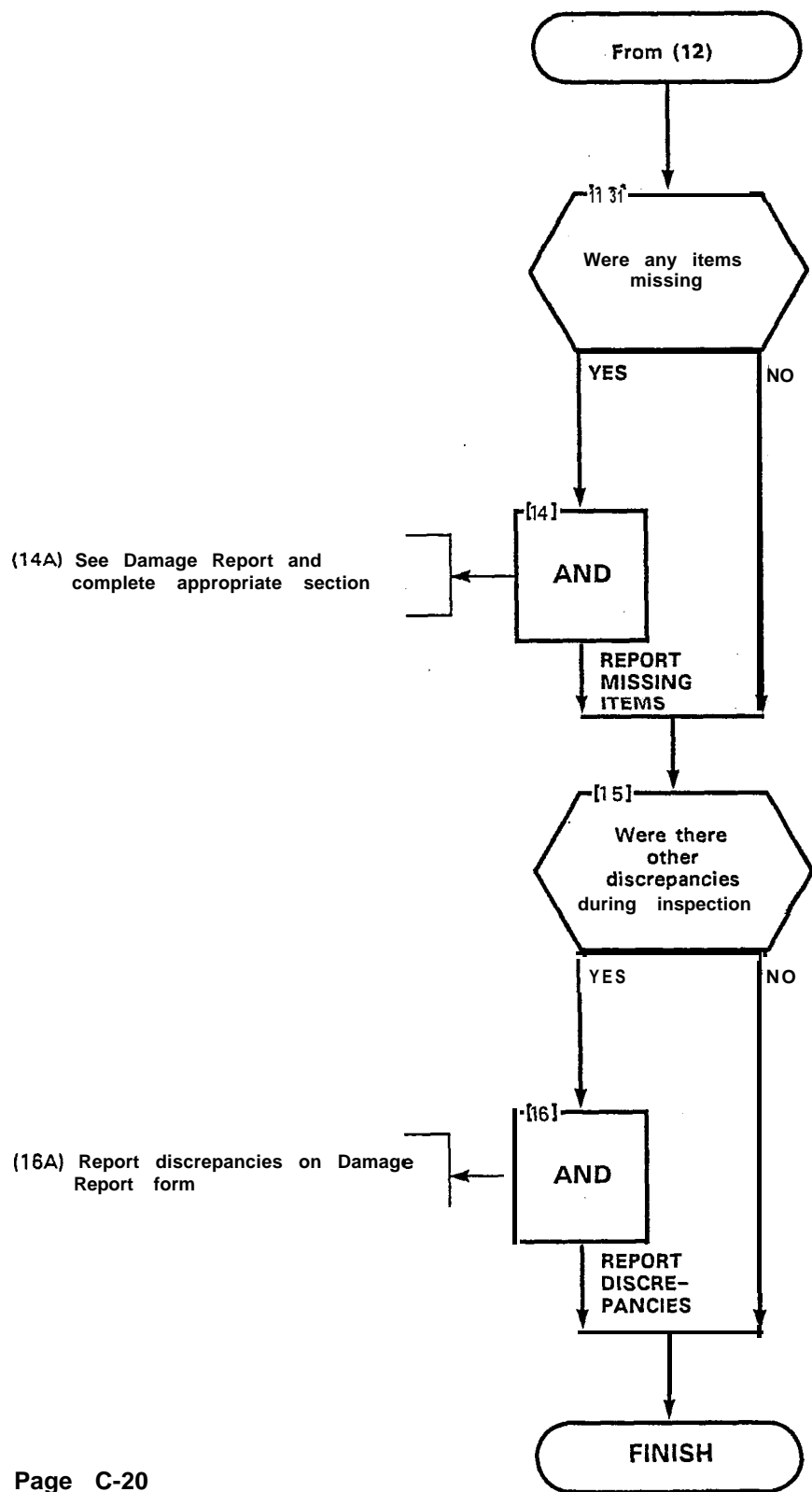
INSPECT EQUIPMENT
MAP200- 304
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INSPECT EQUIPMENT
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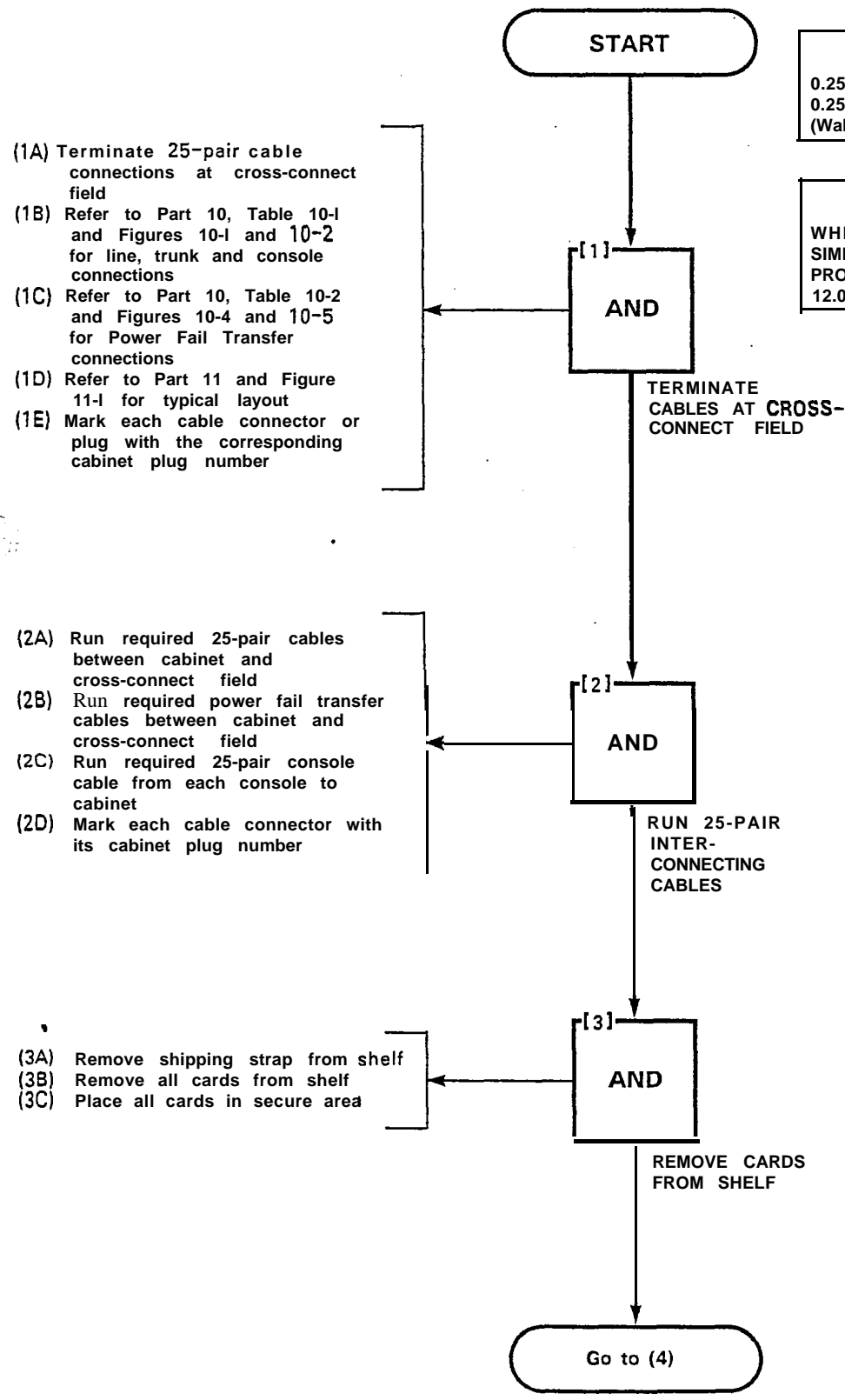
INSPECT EQUIPMENT
MAP200- 304
Issue 3, May 1984
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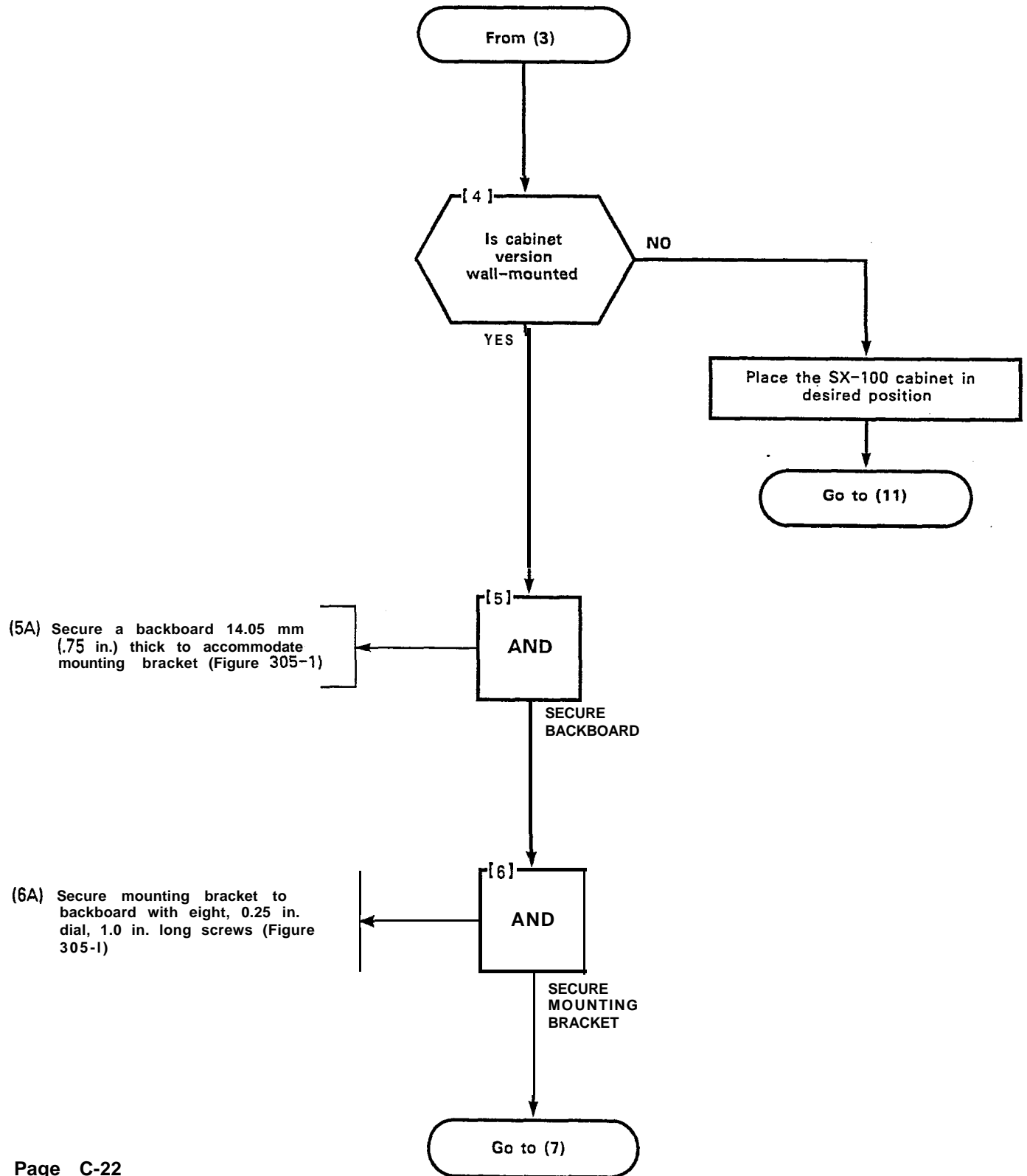
INSTALL EQUIPMENT
MAP200- 305
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<p>TOOLS REQUIRED</p> <p>0.25 in. Slotted Screwdriver 0.25 in. thick wooden backboard (Wall-mount installation only)</p>

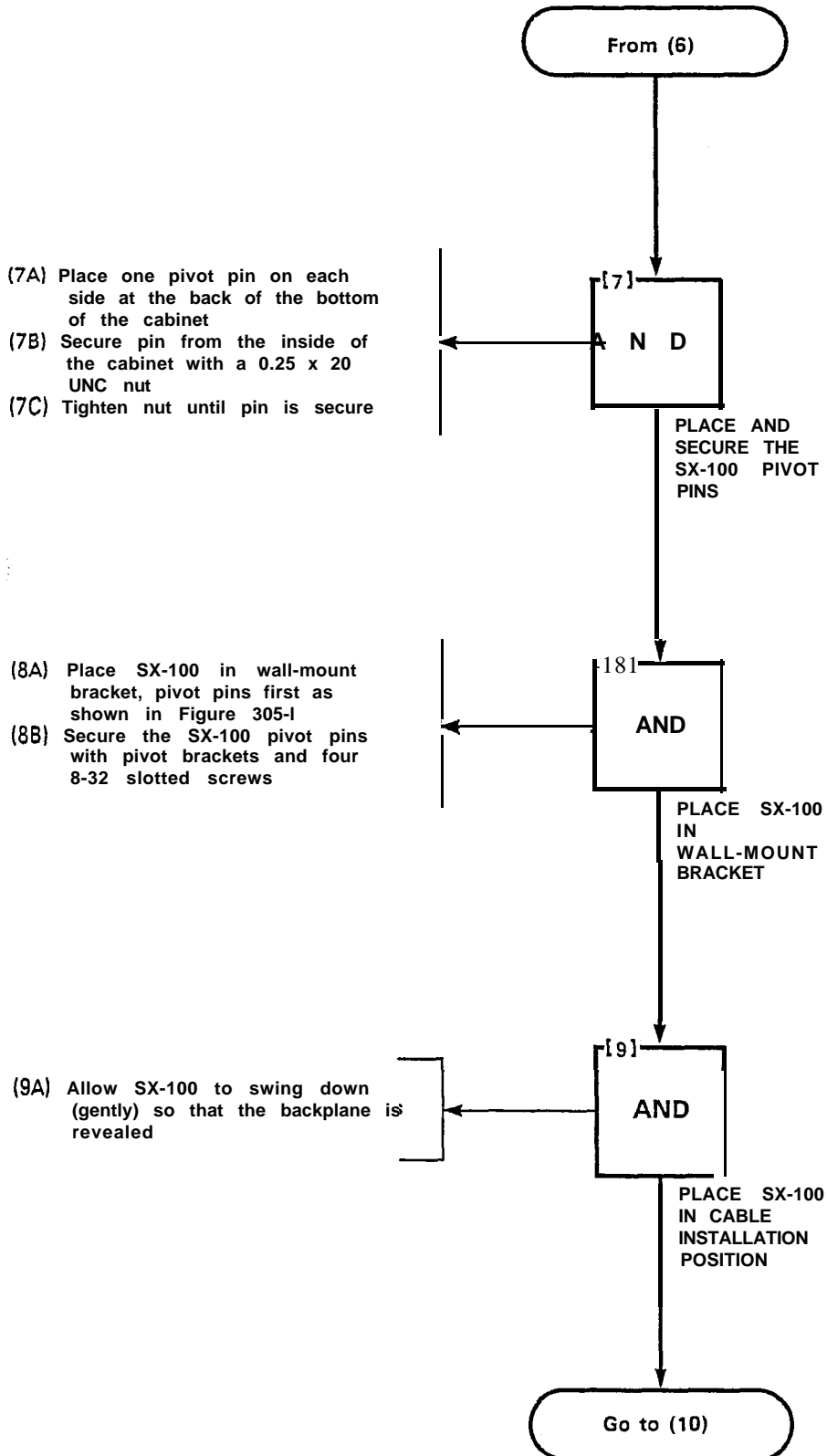
<p>CAUTION</p> <p>WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.</p>



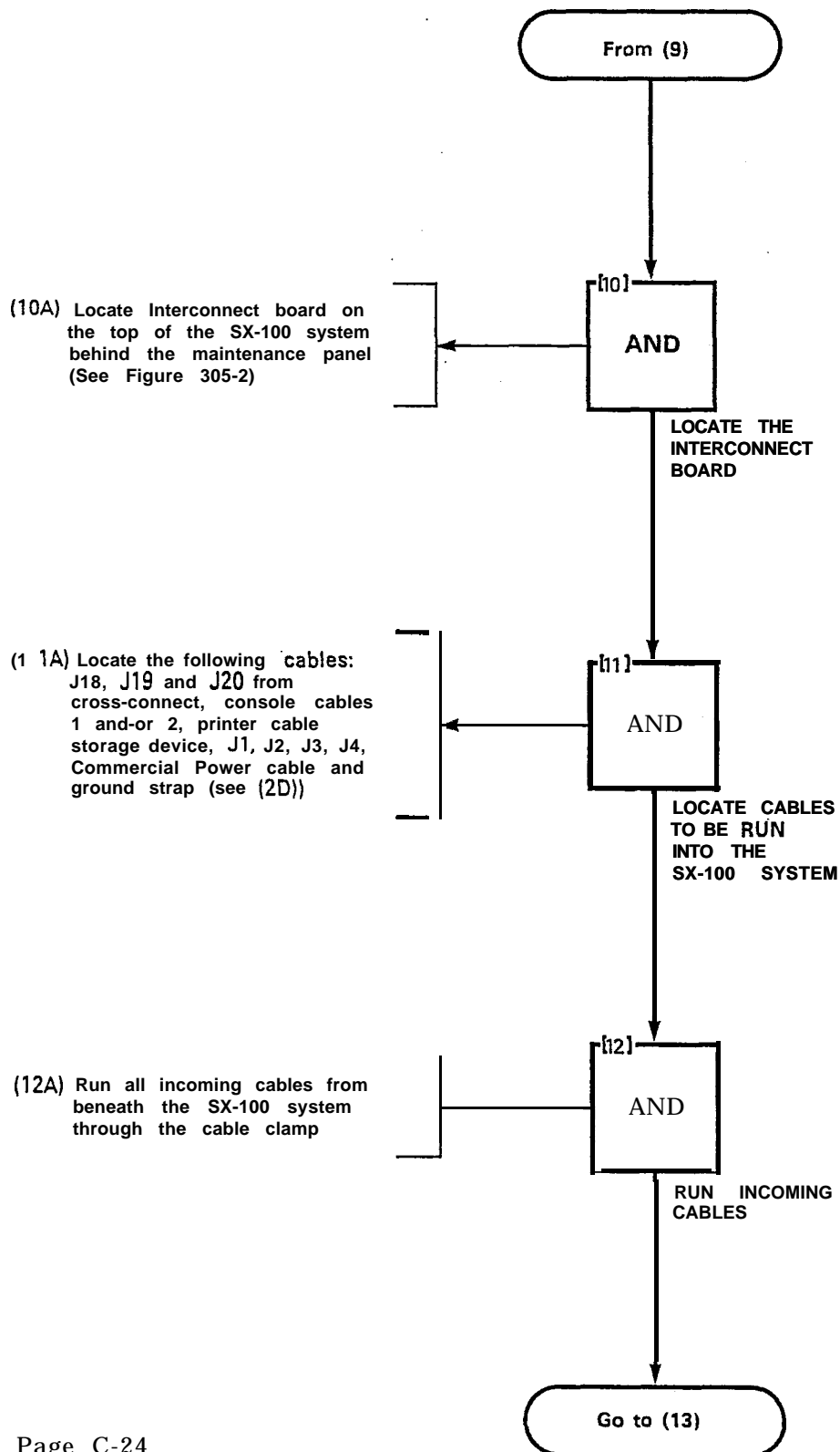
INSTALL EQUIPMENT
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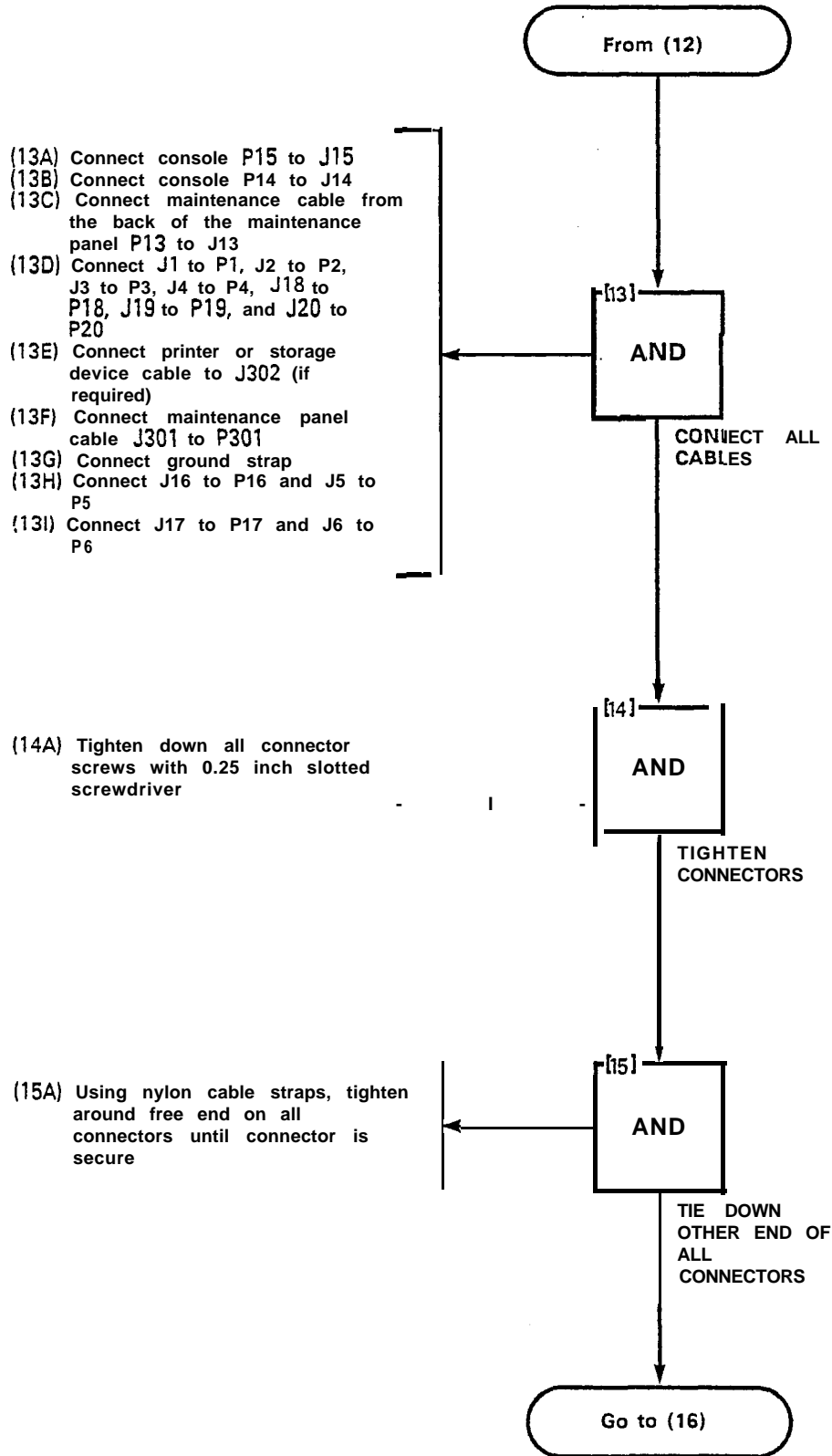
INSTALL EQUIPMENT
MAP200- 305
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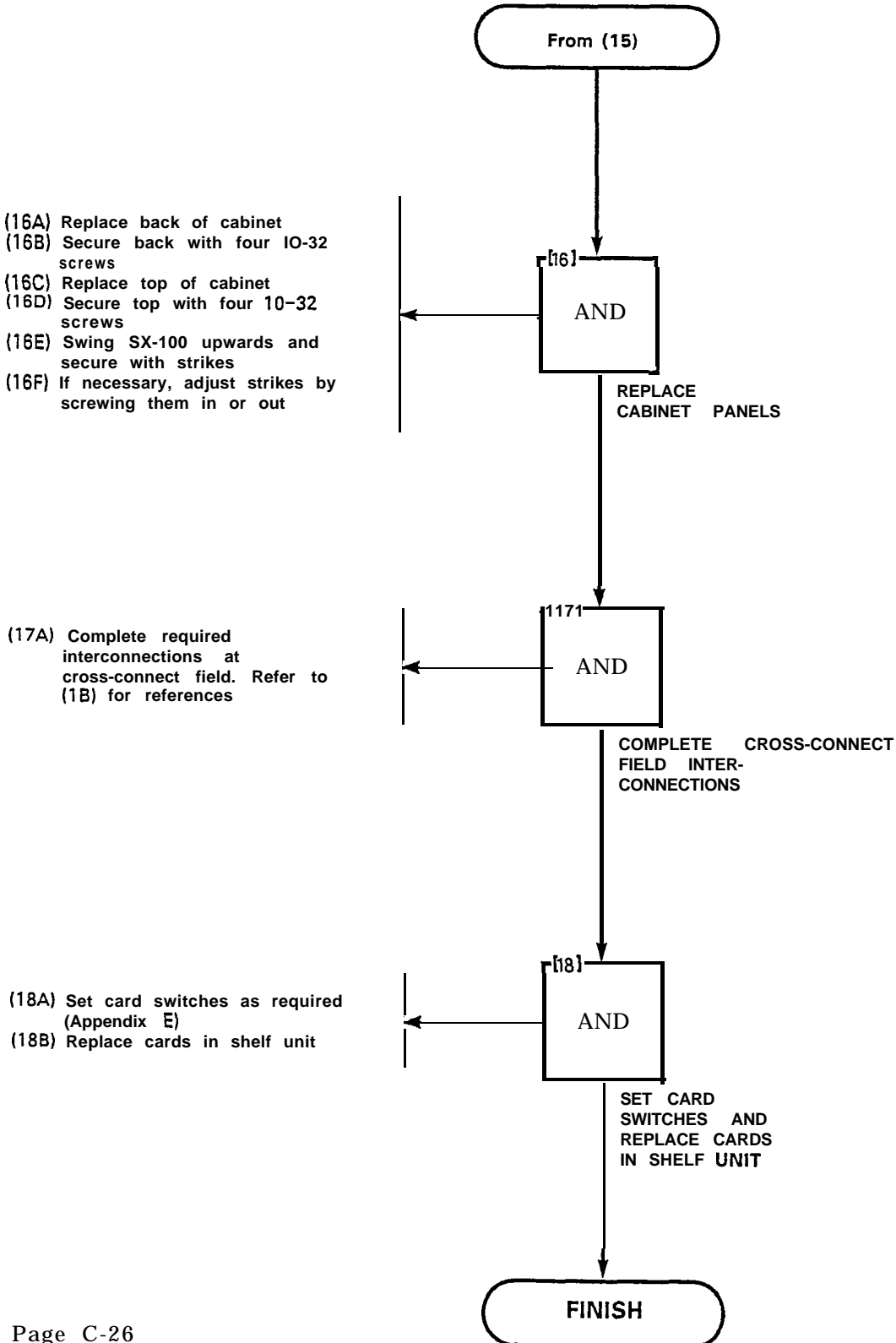
INSTALL EQUIPMENT
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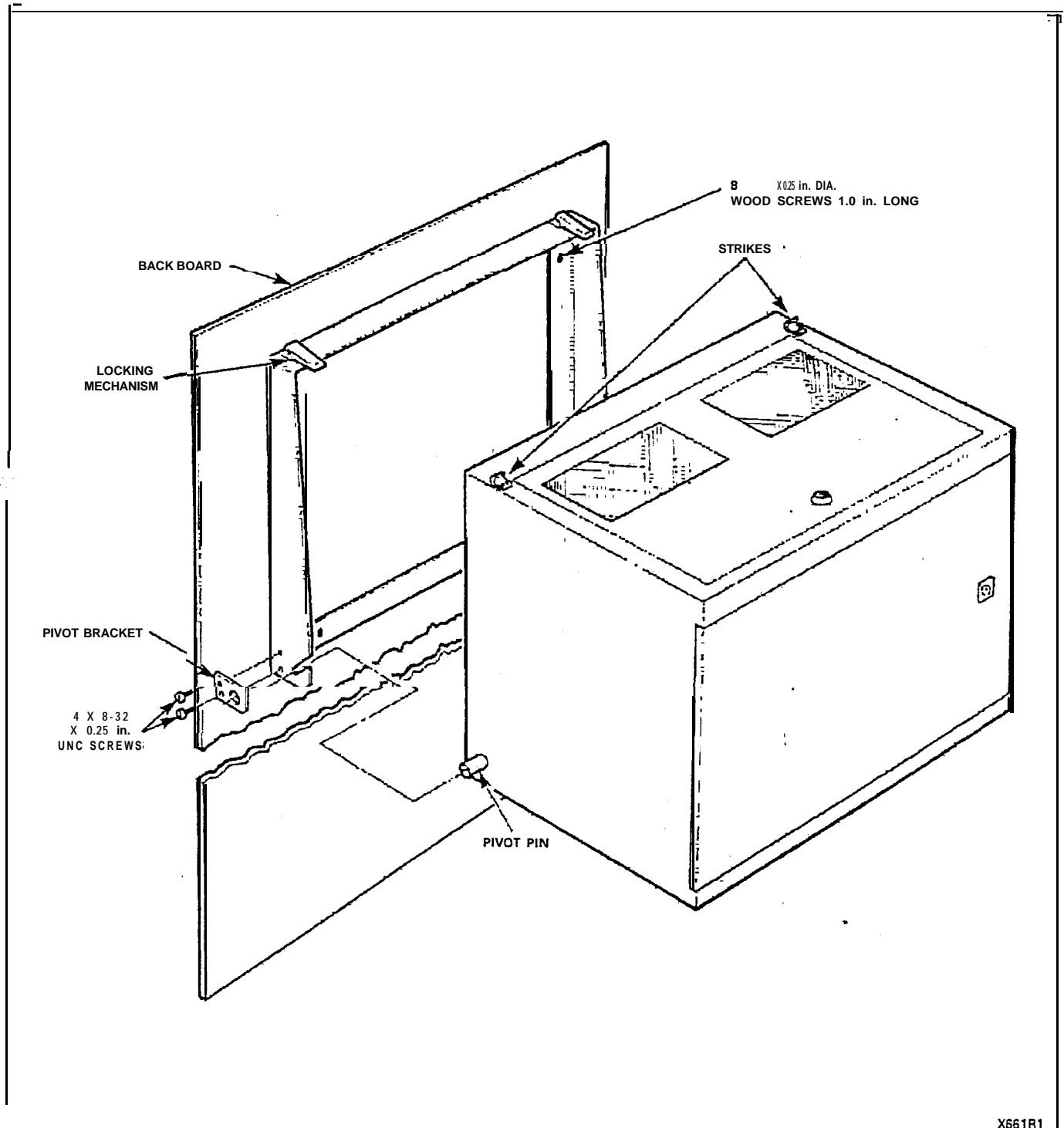
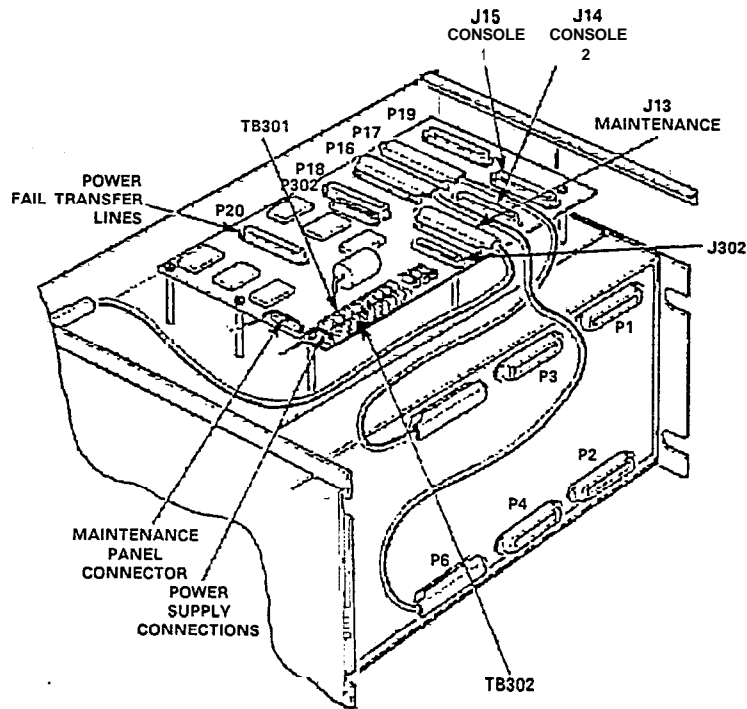


Figure 305-I Wall-Mounting

X661R1

SECTION MITL9105/911 0-096-200-NA

INSTALL EQUIPMENT
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X952R3

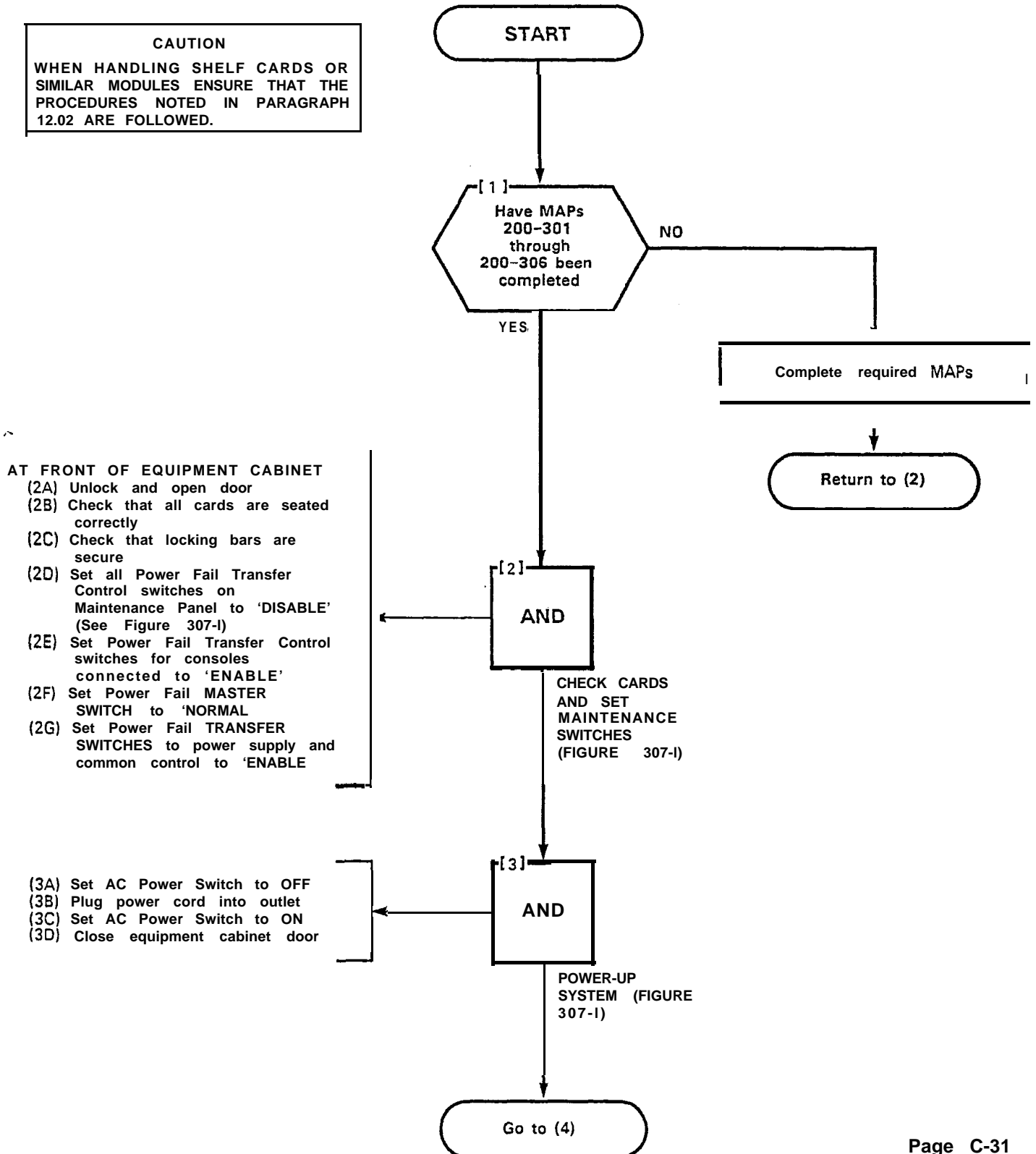
Figure 305-2 Cable Connections

SET CARD SWITCHES
MAP200- 306
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The setting of switches, to result in the required mode of operation on the Trunk Cards is detailed in the MAPs contained in Appendix E. The installer should ensure that these cards are properly switched for the correct mode of operation prior to performing "Power-Up" as detailed in MAP200-307.

POWER-UP SYSTEM
MAP200-307
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CAUTION
 WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.



POWER-UP SYSTEM
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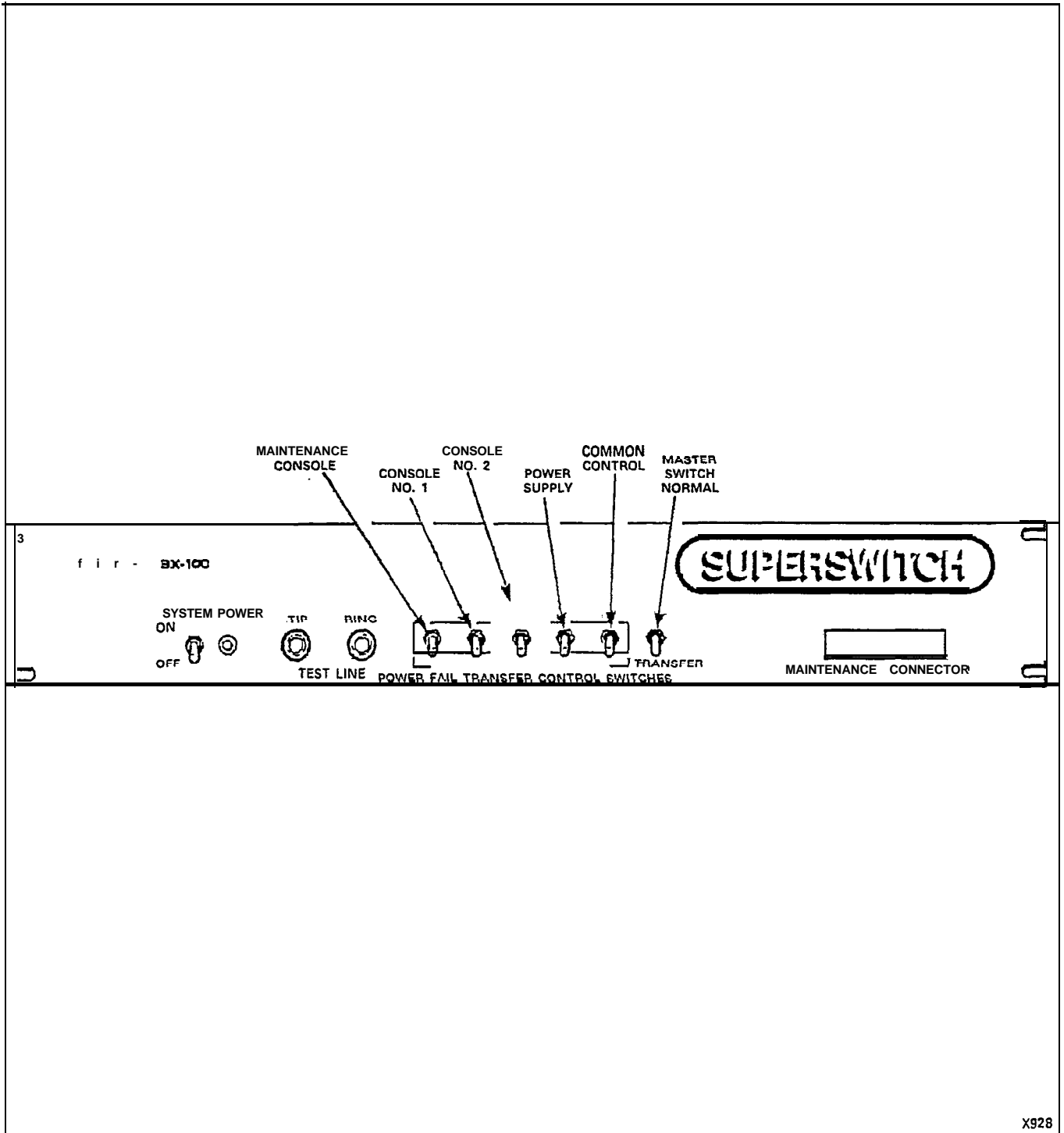


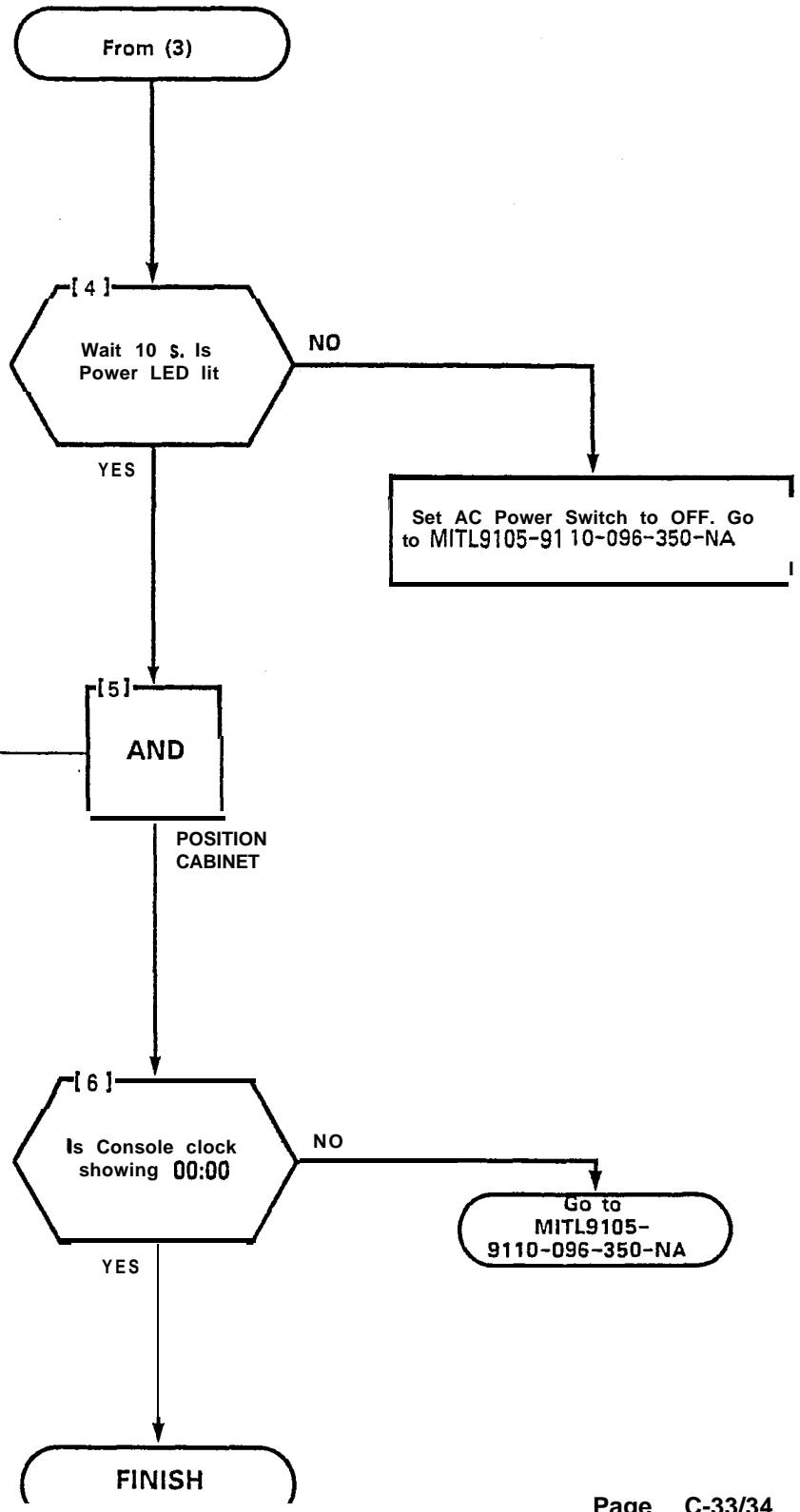
Figure 307-I Maintenance Panel

POWER-UP SYSTEM
MAP200- 307
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NOTE
 To program the system go to Section MITL9105/9110-090-210-NA.

NOTE
 Occasionally, when circuit cards are plugged into the ACD system, the logic circuits on the card may not reset completely. In order to guarantee complete reset of all card logic, a slot initialization procedure must be performed. This procedure allows the service personnel to insert a card into a shelf and initialize the card slot. To initialize the card slot dial 555 + 5 + nn, where nn is the 2-digit card slot number (01-17 shelf 1, 31-42 shelf 2). Since inserting a card may cause diagnostic errors, this procedure is normally followed by dialing 555 + 1 to clear all system errors.

(5A) Place equipment cabinet in its final position if required



APPENDIX D
SX-200 INSTALLATION PROCEDURES

GENERAL

D1.01 Table D1-1 details the procedures to be performed to complete the installation of an SX-200 PABX system.

D1.02 The SX-100 and SX-200 systems may utilize the same consoles. For this reason, refer to MAPs 200-302 and 200-303 of Appendix C when dealing with the console.

TABLE D1-1
SX-200 INSTALLATION

Step	Procedure	Reference
1.	Unpack Equipment Cabinet	MAP200-401
2.	Unpack Console(s)	MAP200-302
3.	Install Console Faceplate Designations	MAP200-303
4.	Inspect Equipment	MAP200-404
5.	Connect Cables	MAP200-405
6.	Set Card Switches (Appendix E)	MAP200-406
7.	Power-Up System (See Note)	MAP200-407
8.	Program System	Section MITL9105/91 10-096-210-NA
9.	Perform System Tests	Section MITL9105/91 10-096-215-NA
10.	Perform Extension Tests	Section MITL9105/911 0-096-320-NA

Note: Appendix F lists miscellaneous installation requirements which may be required prior to power-up of the system. This Appendix should be reviewed for applicability.



UNPACK EQUIPMENT CABINET
MAP200-401
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TOOLS REQUIRED
1. Set of strap cutters

WARNING
GLOVES MUST BE WORN WHEN UNPACKING EQUIPMENT CABINET.

CAUTION
CARE MUST BE TAKEN WHEN MOVING CABINET TO AVOID DAMAGE.

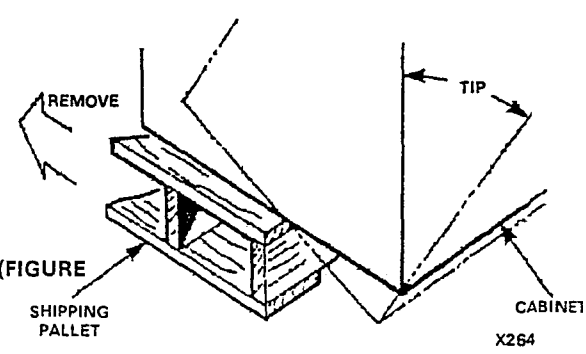
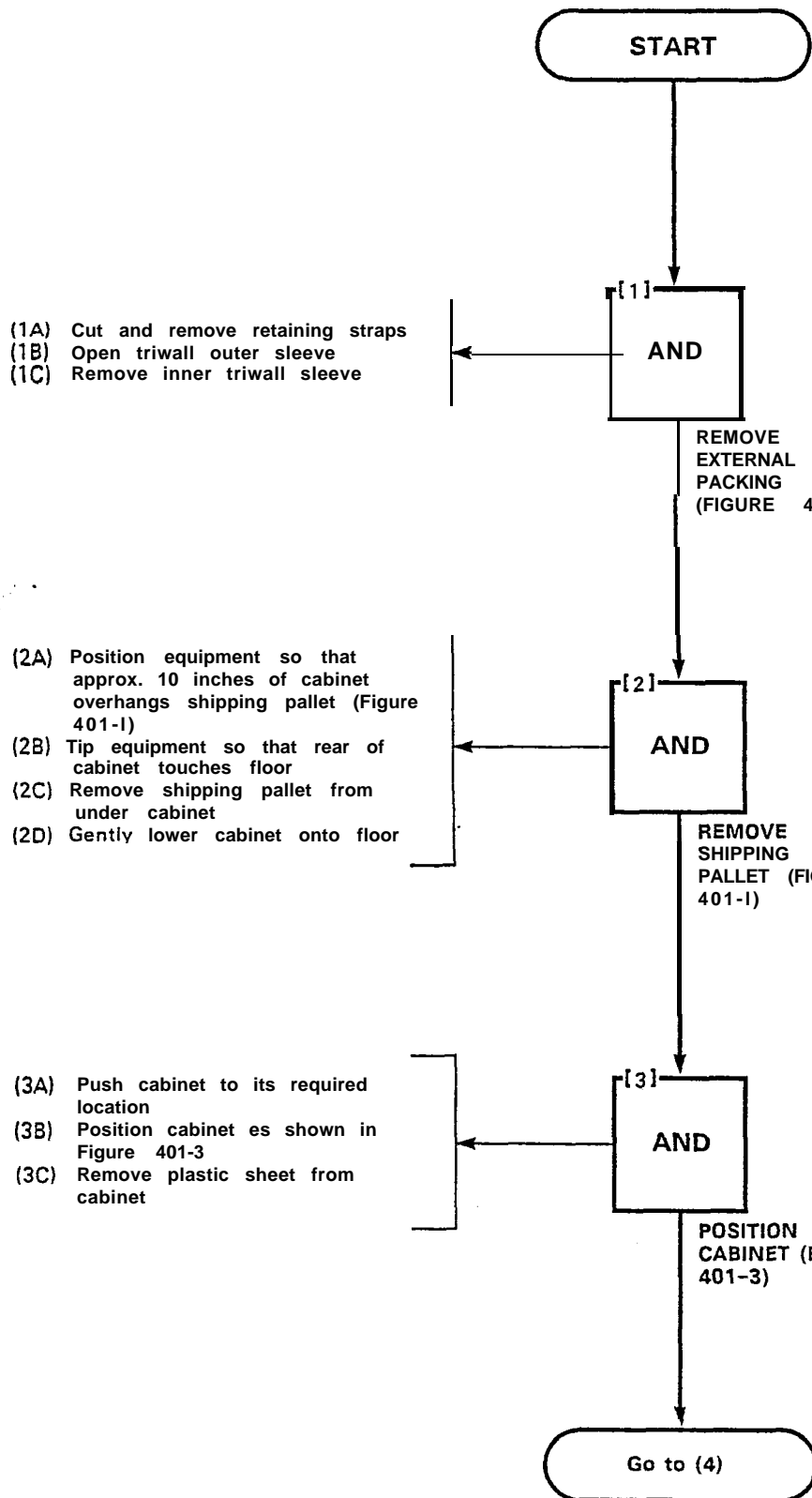
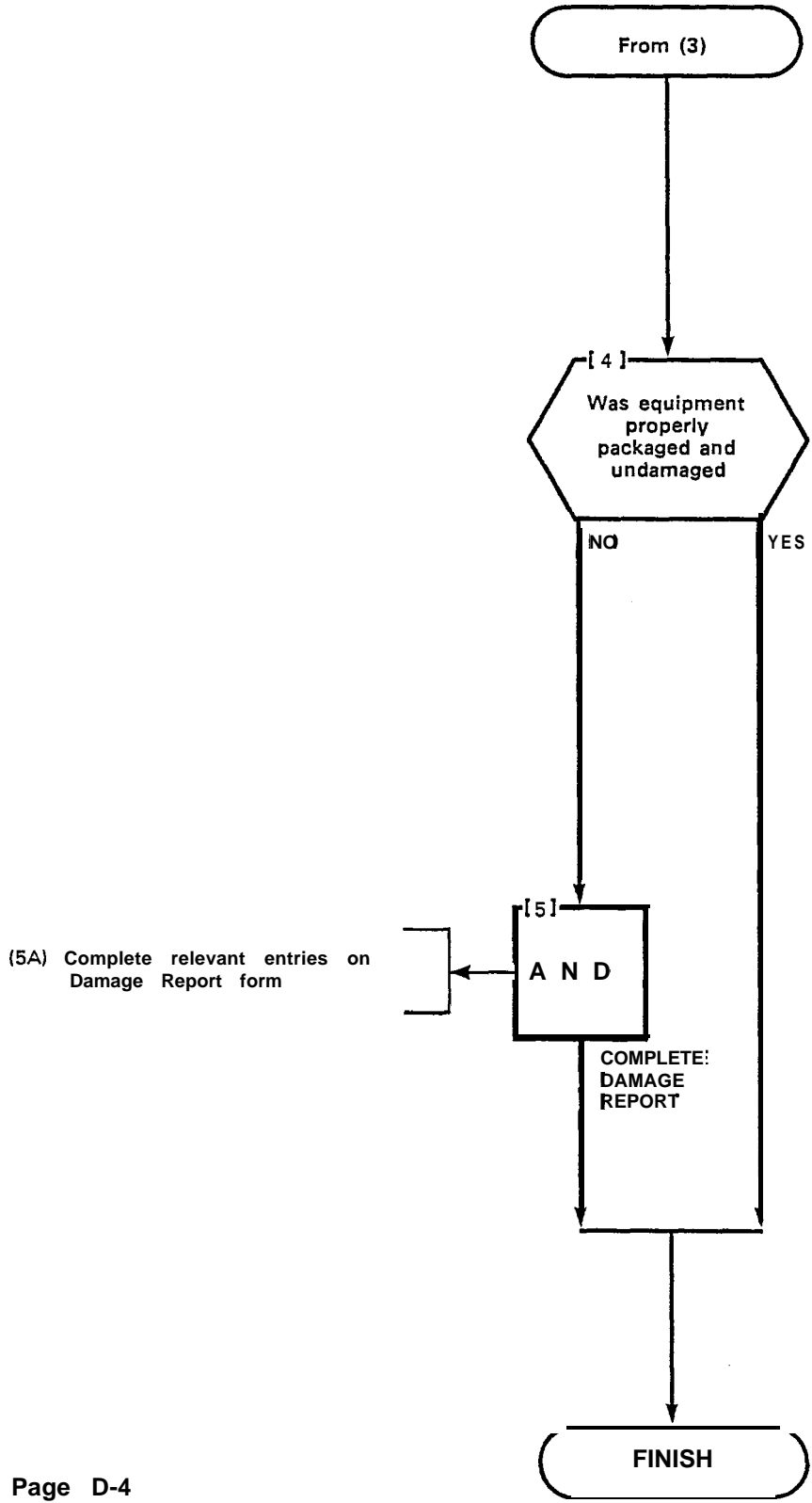


Figure 401-1
Remove Shipping Pallet

SECTION MITL9105/911 0-096-200-NA

UNPACK EQUIPMENT CABINET
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UNPACK EQUIPMENT CABINET
MAP200-401
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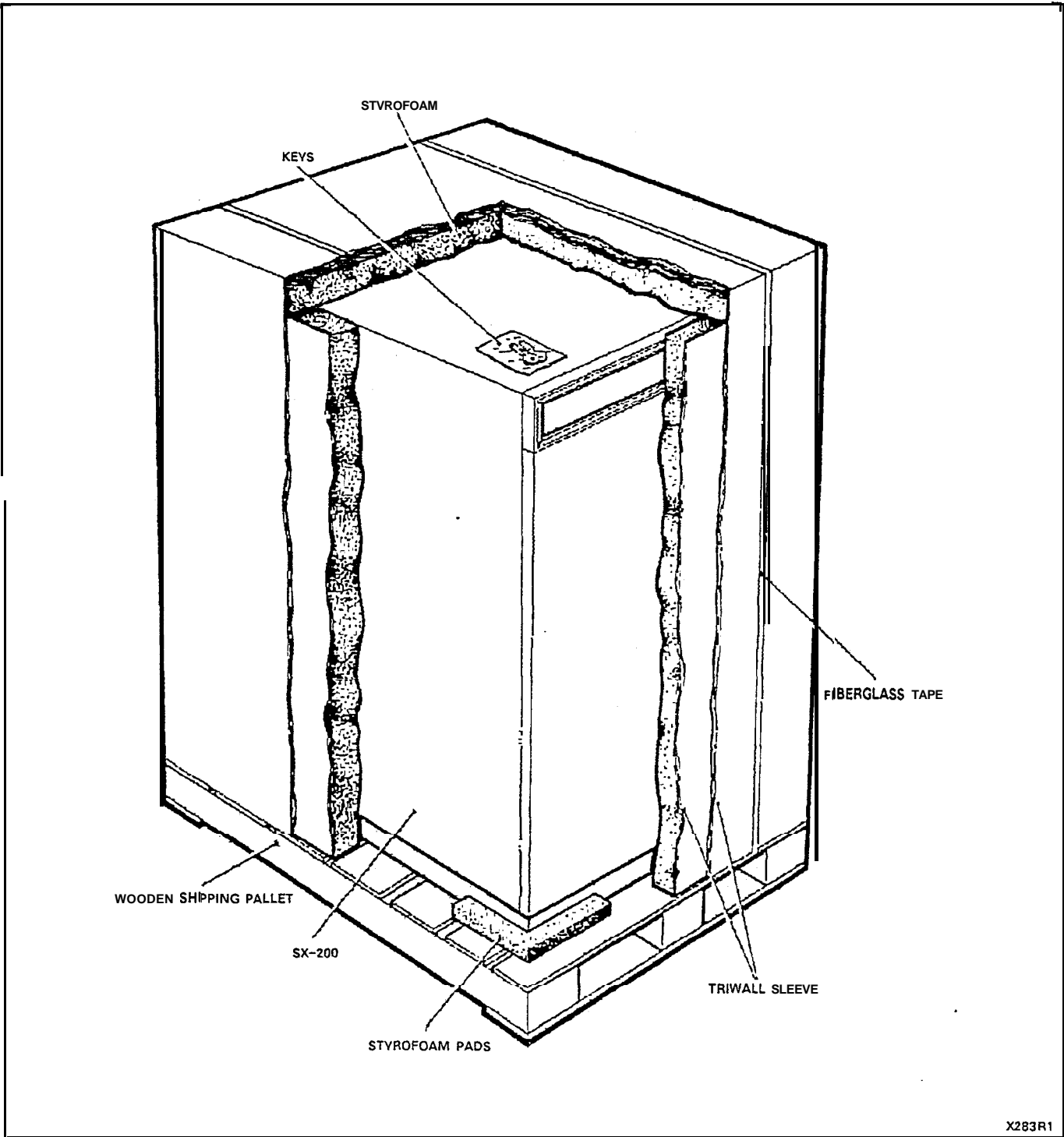
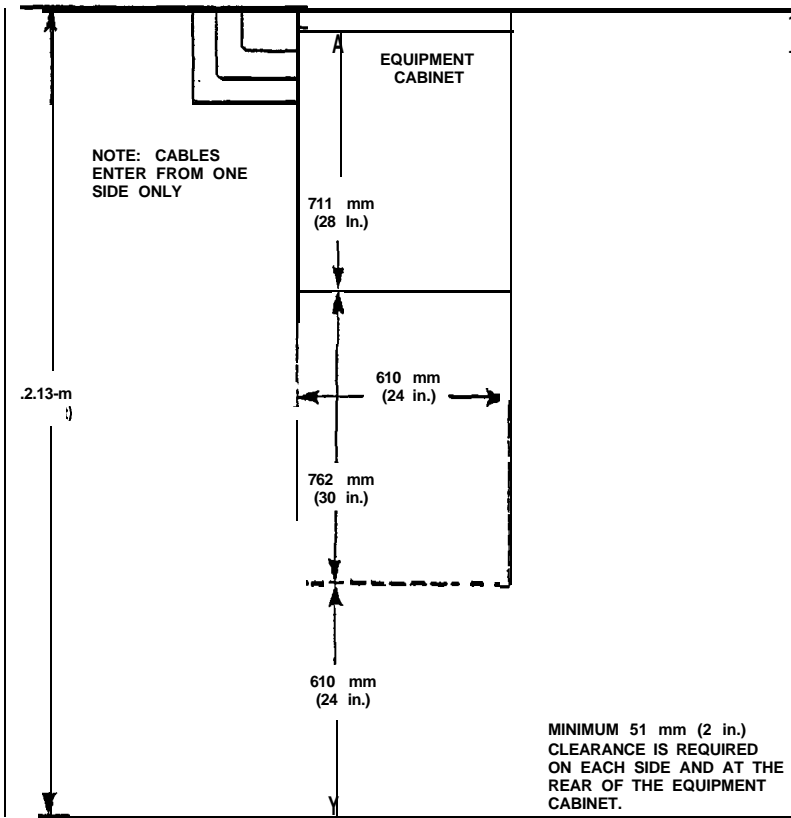


Figure 401-2 Remove External Packing

X283R1

SECTION MITL9105/911 0-096-200-NA

UNPACK EQUIPMENT CABINET
MAP200- 401
Issue 3, May 1984
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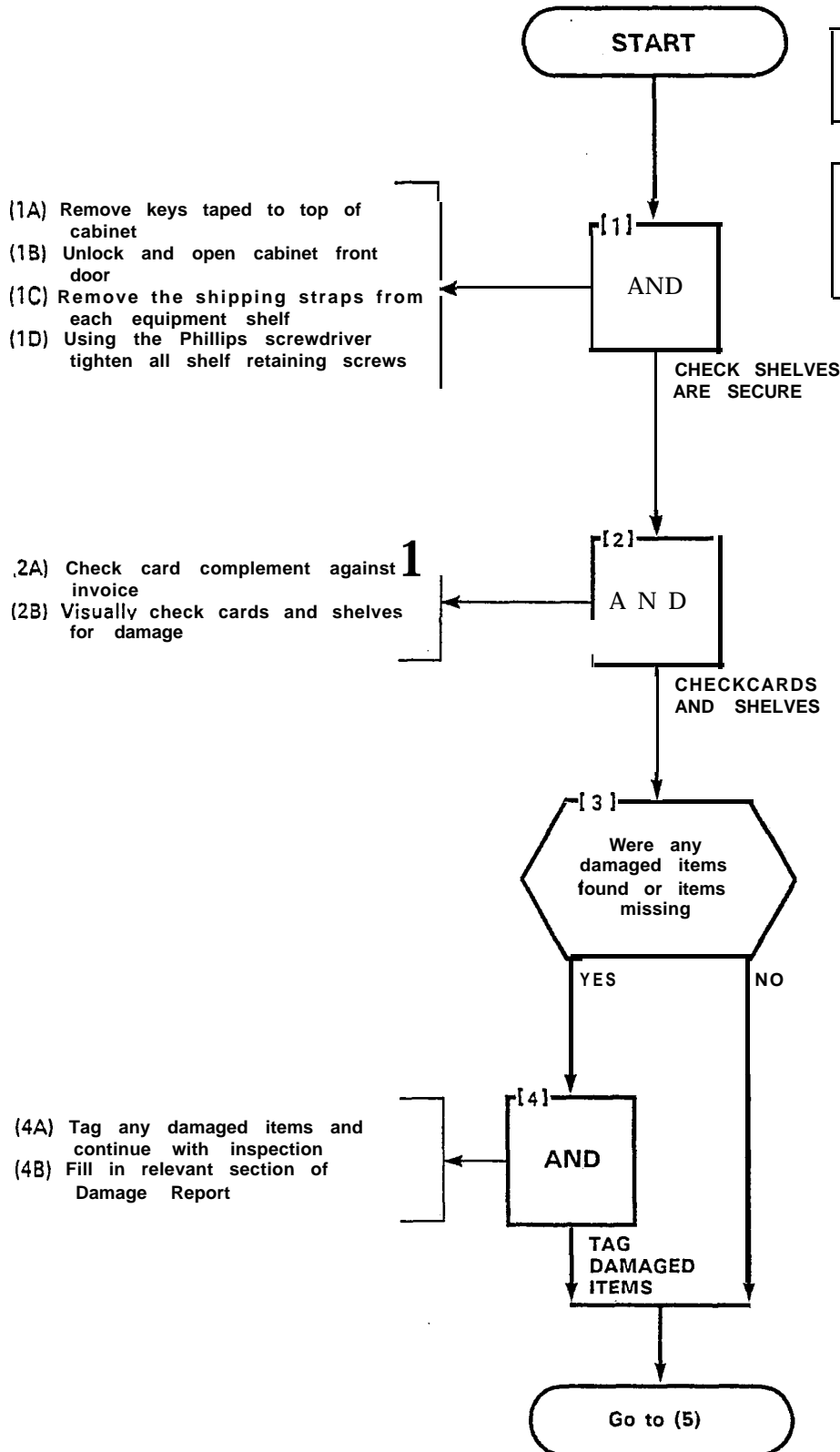


X257R1

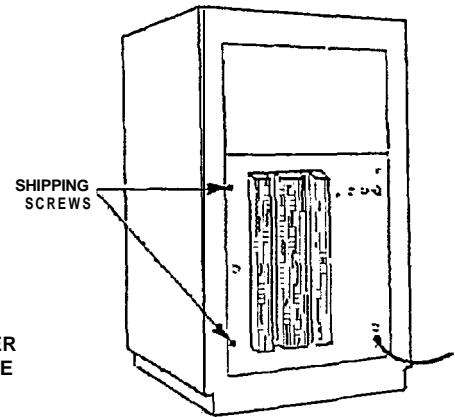
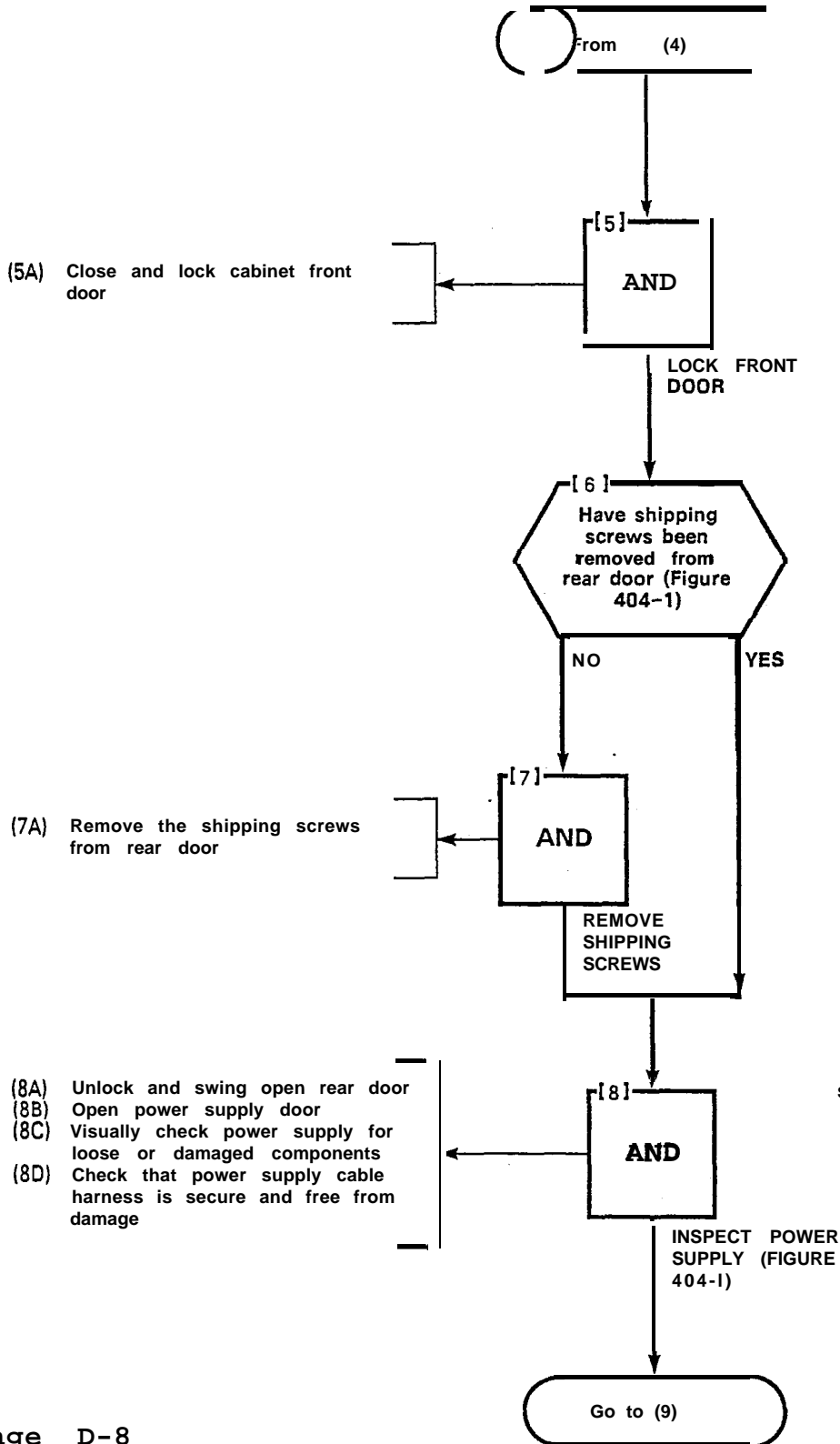
INSPECT EQUIPMENT
MAP200- 404
issue 3. May 1984
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TOOLS REQUIRED
1 Phillips Screwdriver
1 Slot Screwdriver - 1/4 in.

CAUTION
WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.



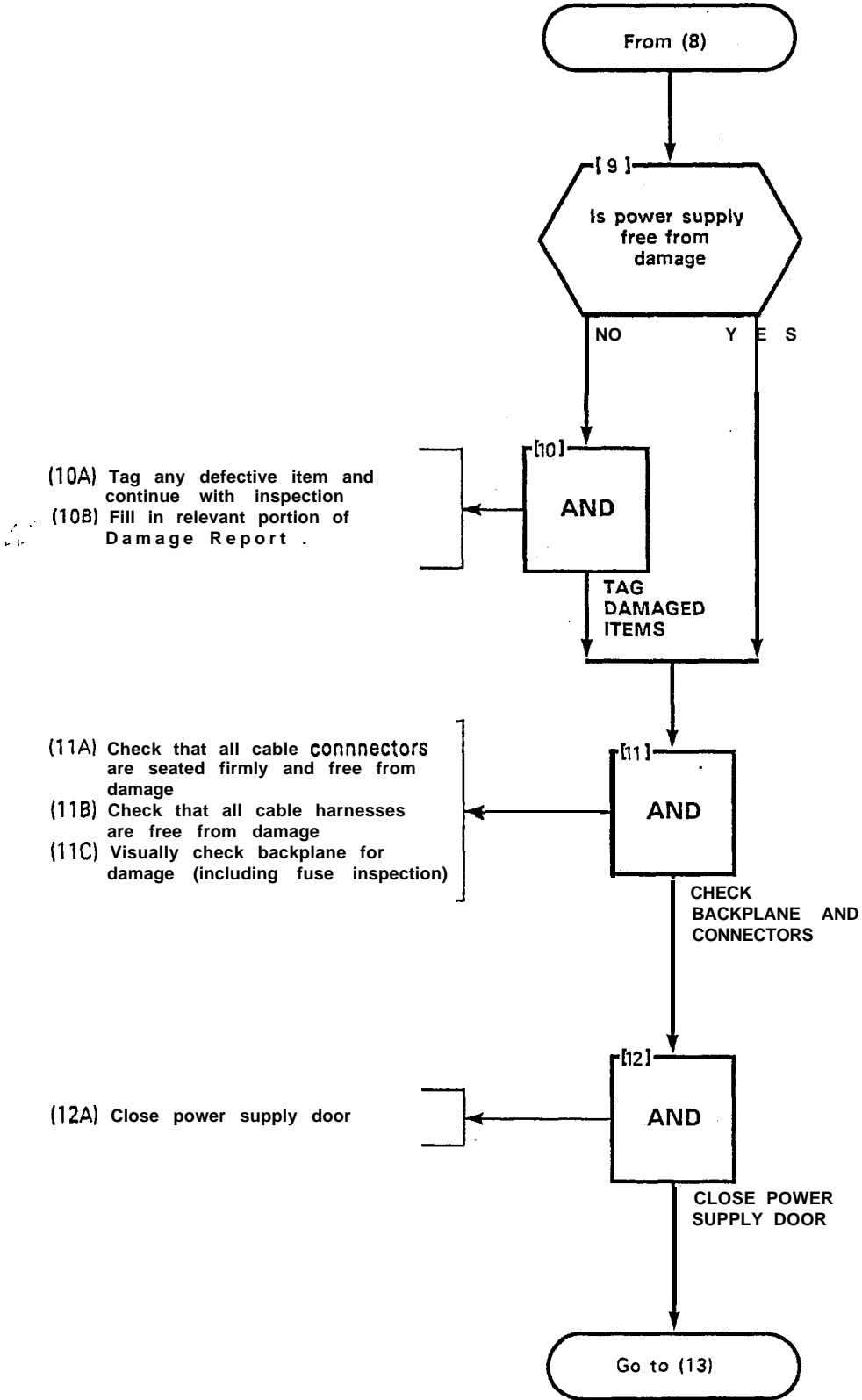
INSPECT EQUIPMENT
MAP200- 404
Issue 3, May 1984
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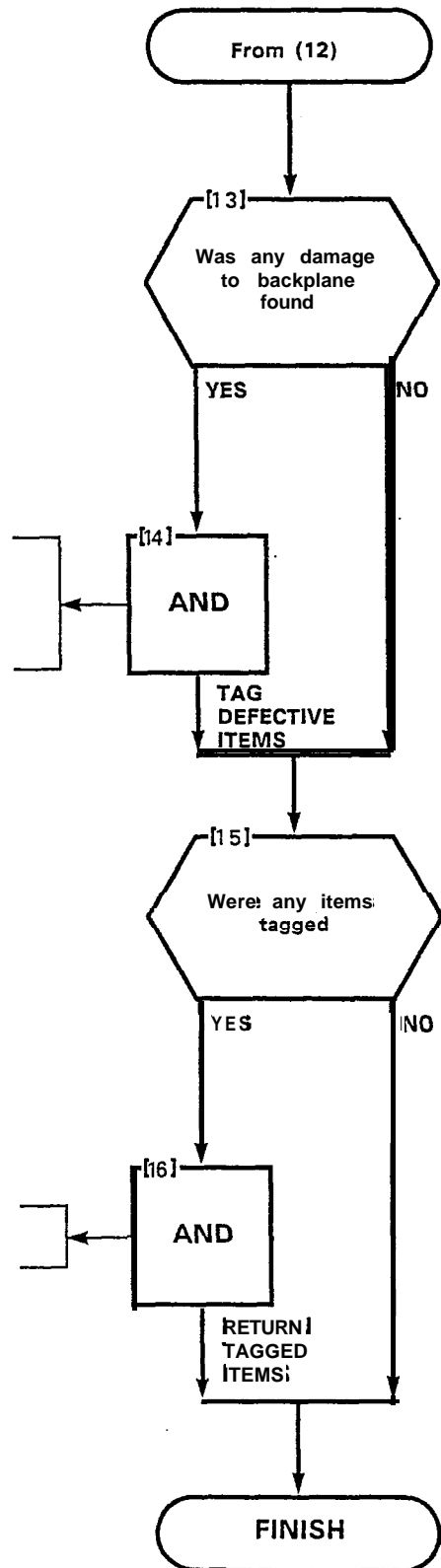
X262

Figure 404-1

INSPECT EQUIPMENT
MAP200- 404
Issue 3, May 1984
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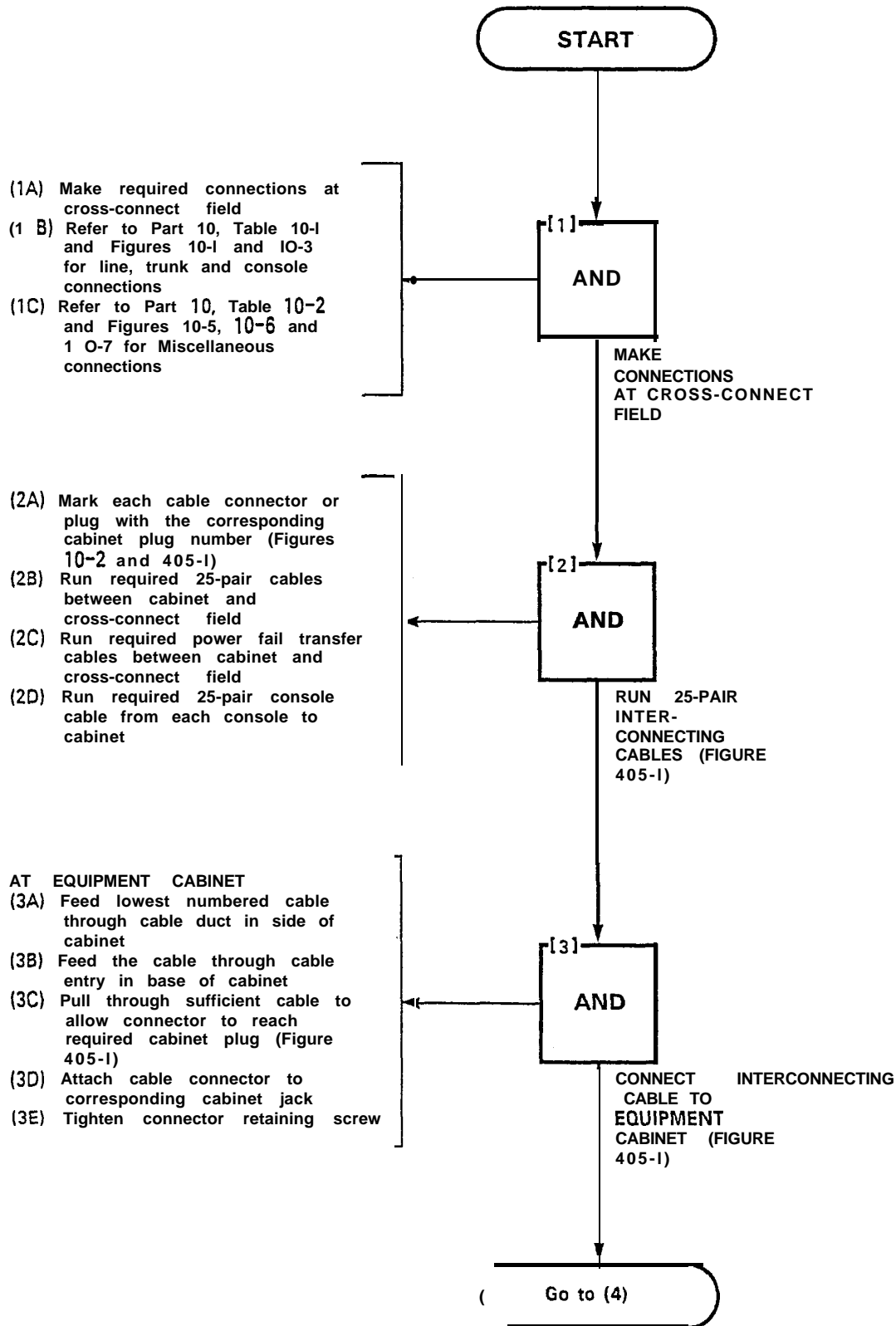
INSPECT EQUIPMENT
MAP200- 404
Issue 3, May 1984
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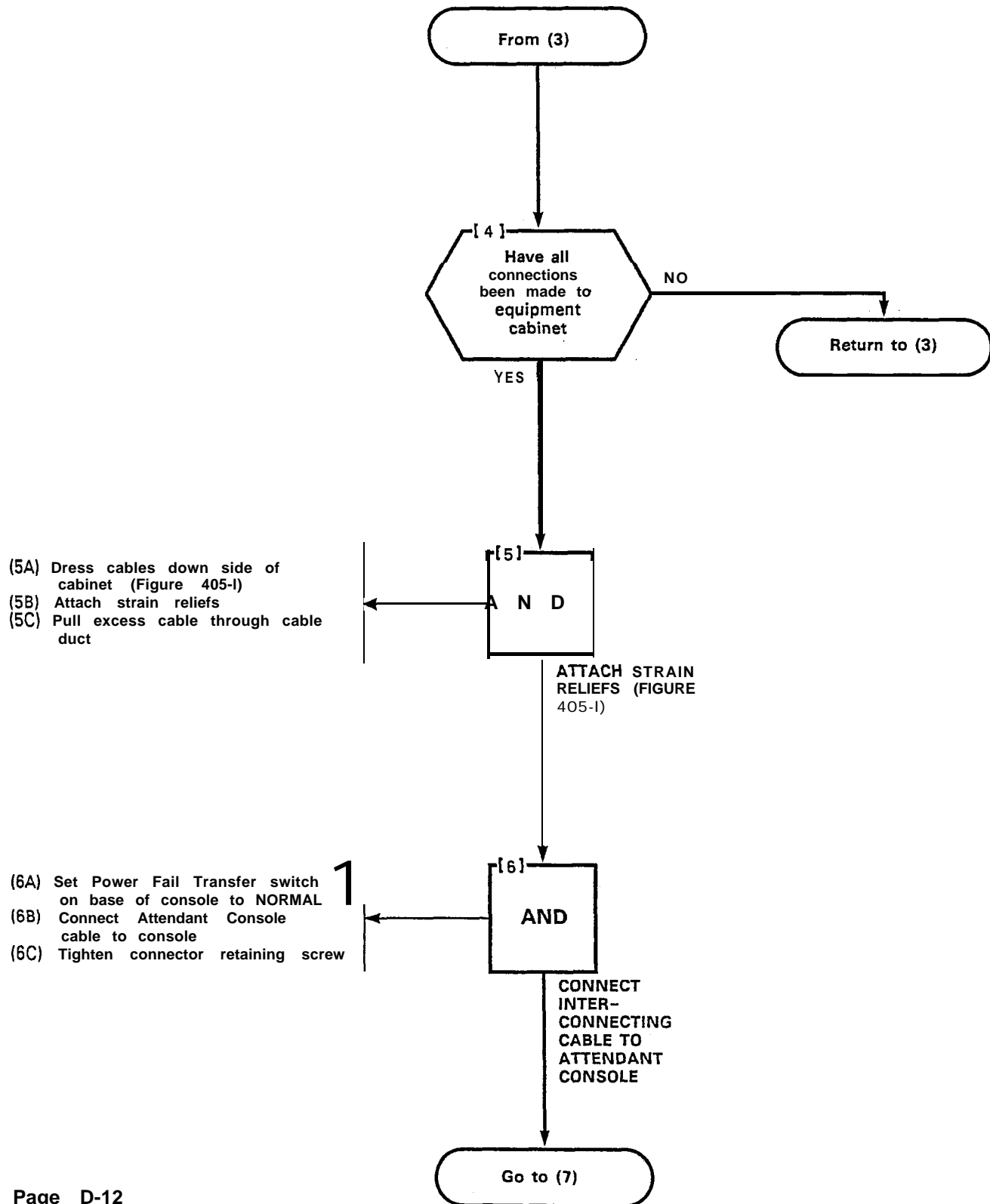
(14A) Tag defective items and continue with inspection
 (148) Fill in relevant portion of Damage Report

(16A) Repack tagged items

CONNECT CABLES
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CONNECT CABLES
MAP200- 405
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CONNECT CABLES
MAP200- 405
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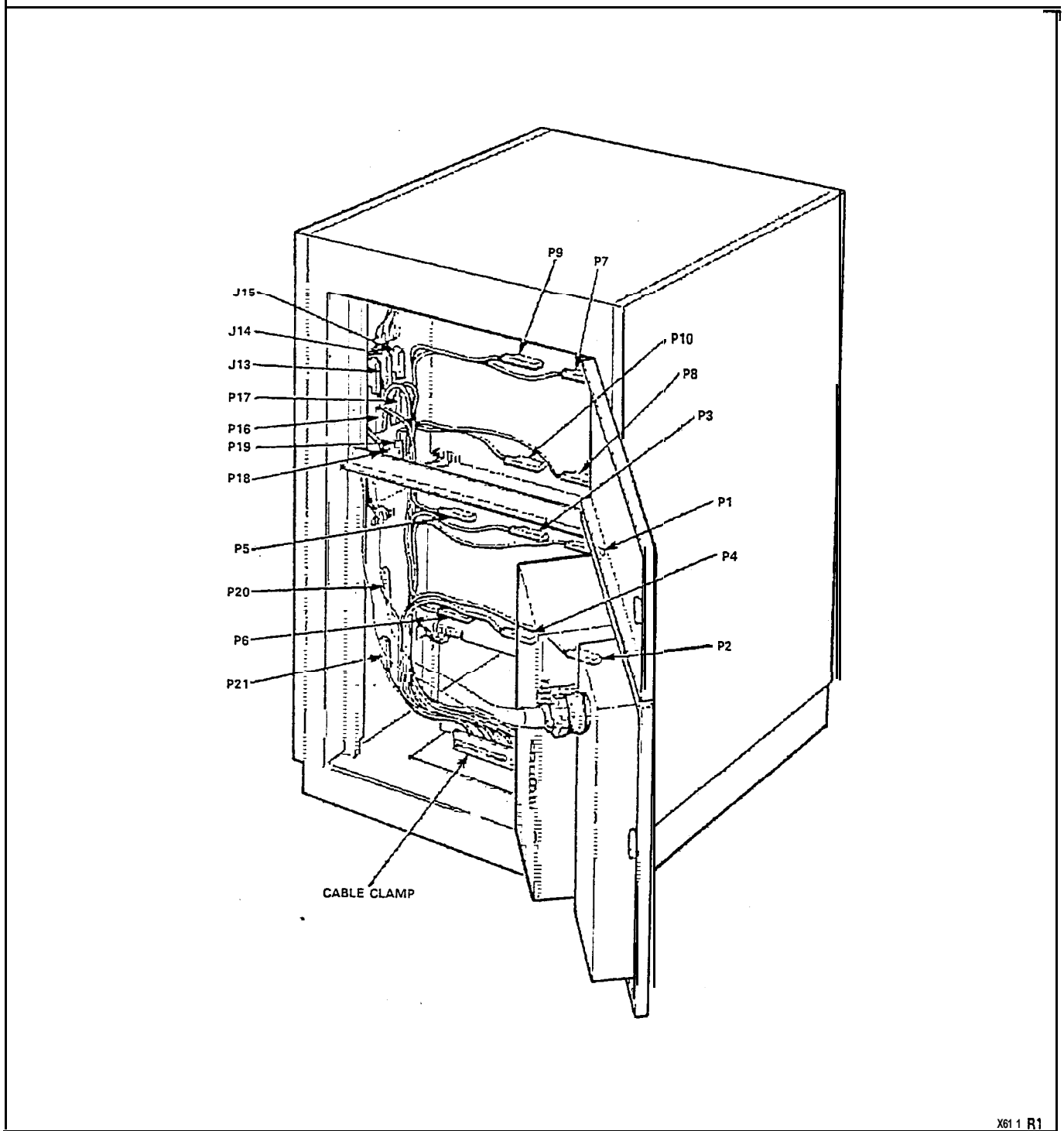
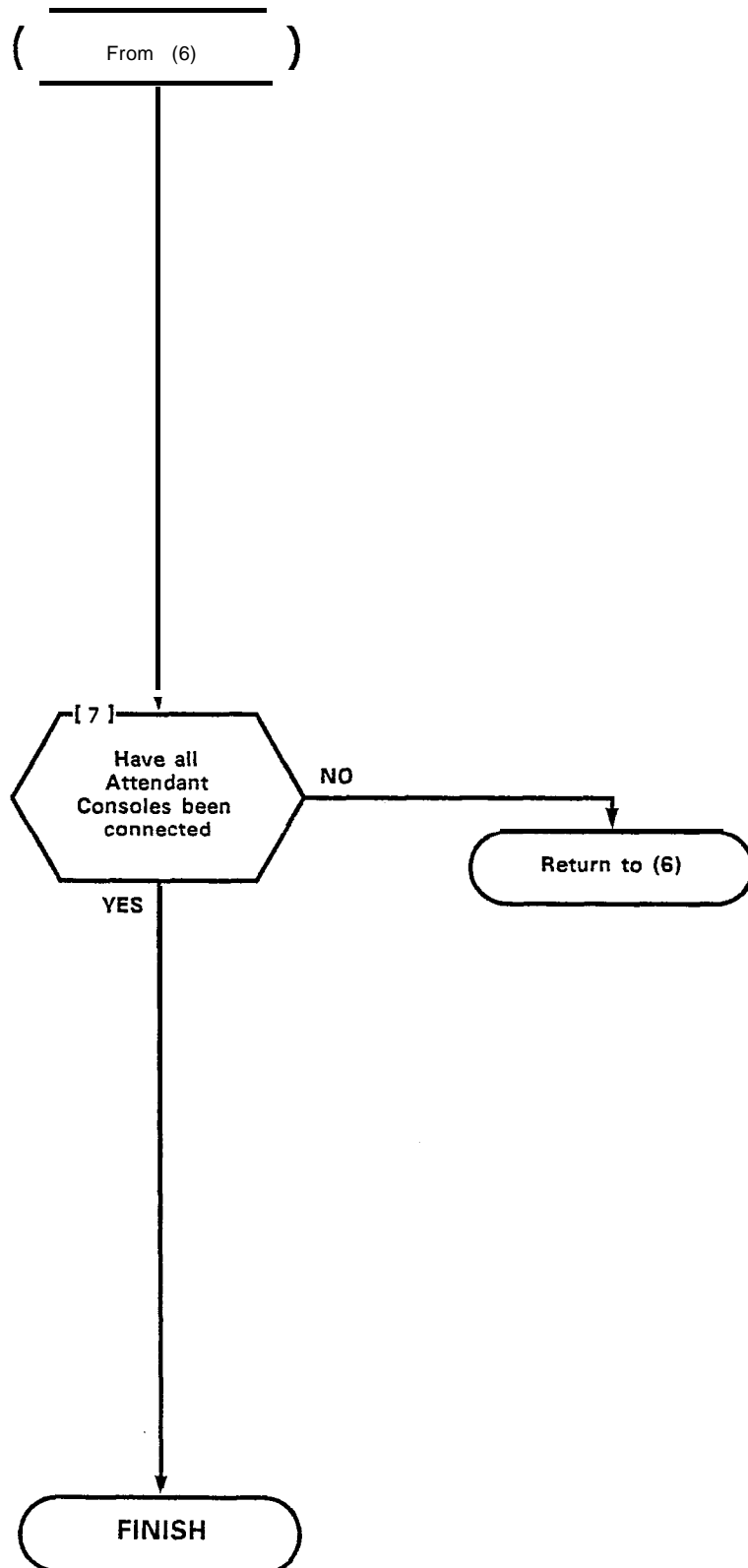


Figure 405-I SX-200 Rear View

CONNECT CABLES
MAP200- 405
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SET CARD SWITCHES
MAP200- 406
Issue 3, May 1984
Sheet 1 of 1

The setting of switches, to result in the required mode of operation on the Trunk Cards is detailed in the **MAPs** contained in Appendix E. The installer should ensure that these cards are properly switched for the correct mode of operation prior to performing "Power-Up" as detailed in MAP200-407.

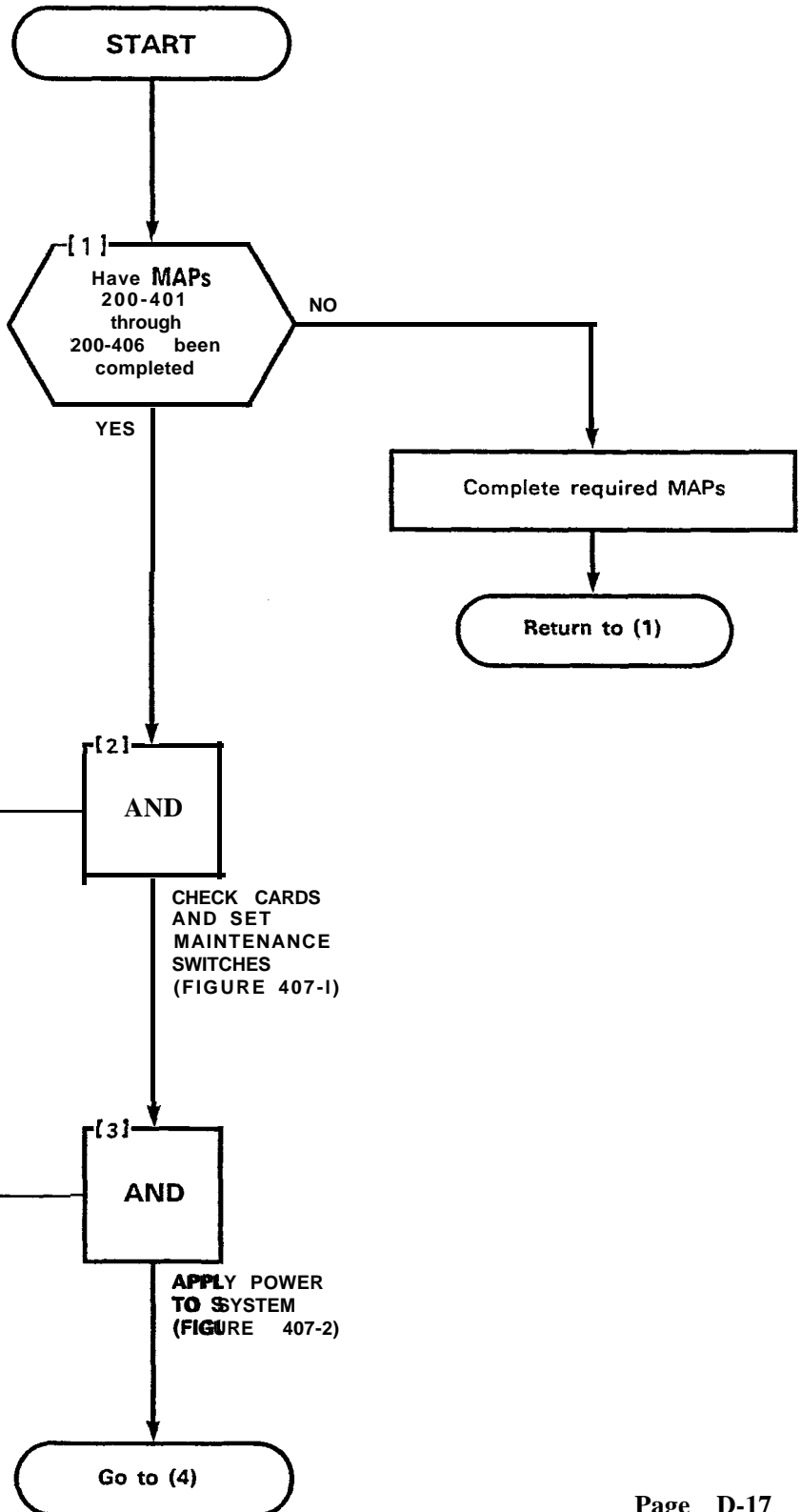
END

POWER-UP SYSTEM
MAP200- 407
Issue 3, May 1984
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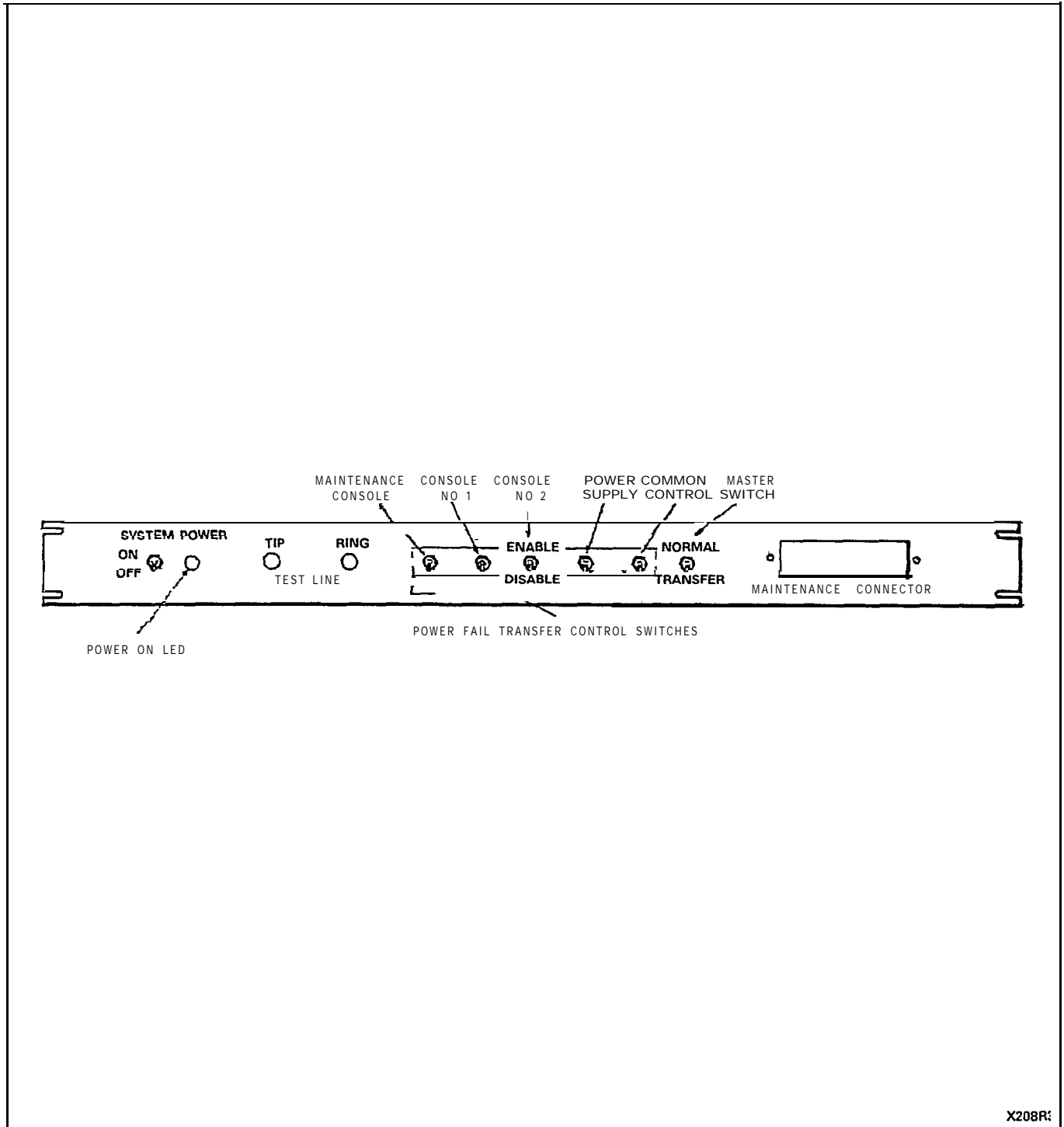
CAUTION
 WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES IN PARAGRAPH 12.02 ARE FOLLOWED.

- AT FRONT OF CABINET**
- (2A) Unlock and open door
 - (2B) Check that all cards are seated correctly
 - (2C) Check that locking bar(s) are secure
 - (2D) Set all POWER FAIL TRANSFER CONTROL switches to DISABLE (Figure 407-1)
 - (2E) Set POWER FAIL TRANSFER CONTROL switches for consoles connected to ENABLE
 - (2F) Set MASTER switch to NORMAL
 - (2G) Set POWER FAIL TRANSFER switches for power supply and common control to ENABLE
 - (2H) Set SYSTEM POWER switch to OFF

- AT REAR OF CABINET**
- (3A) Plug power supply power cord into the power outlet
 - (3B) AC POWER ON LED lit set CONVERTER INPUT switch to ON CONVERTER INPUT LED lit



POWER-UP SYSTEM
MAP200- 407
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X208R:

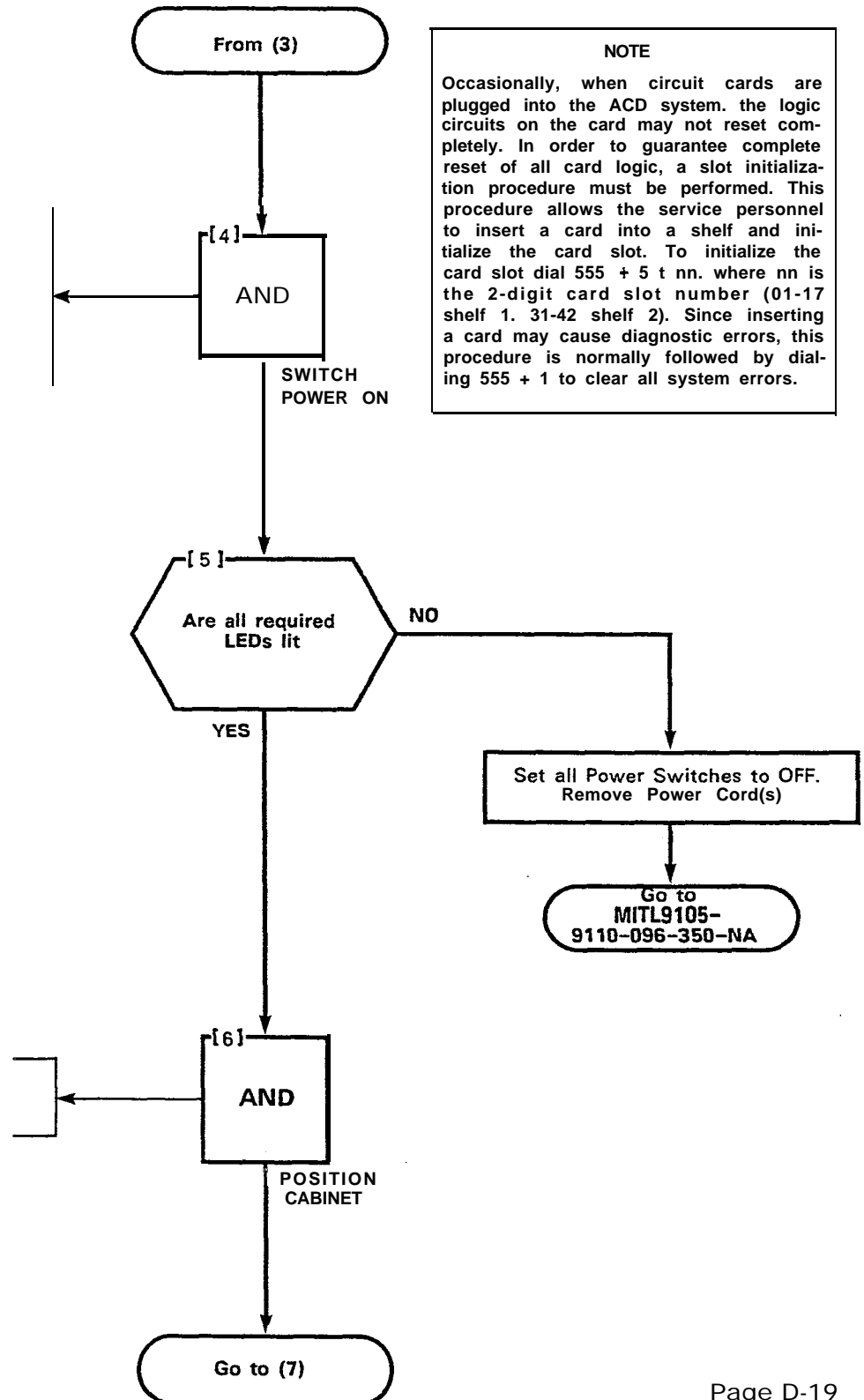
Figure 407-I Maintenance Panel

POWER-UP SYSTEM
MAP200- 407
issue 3, May 1984
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NOTE

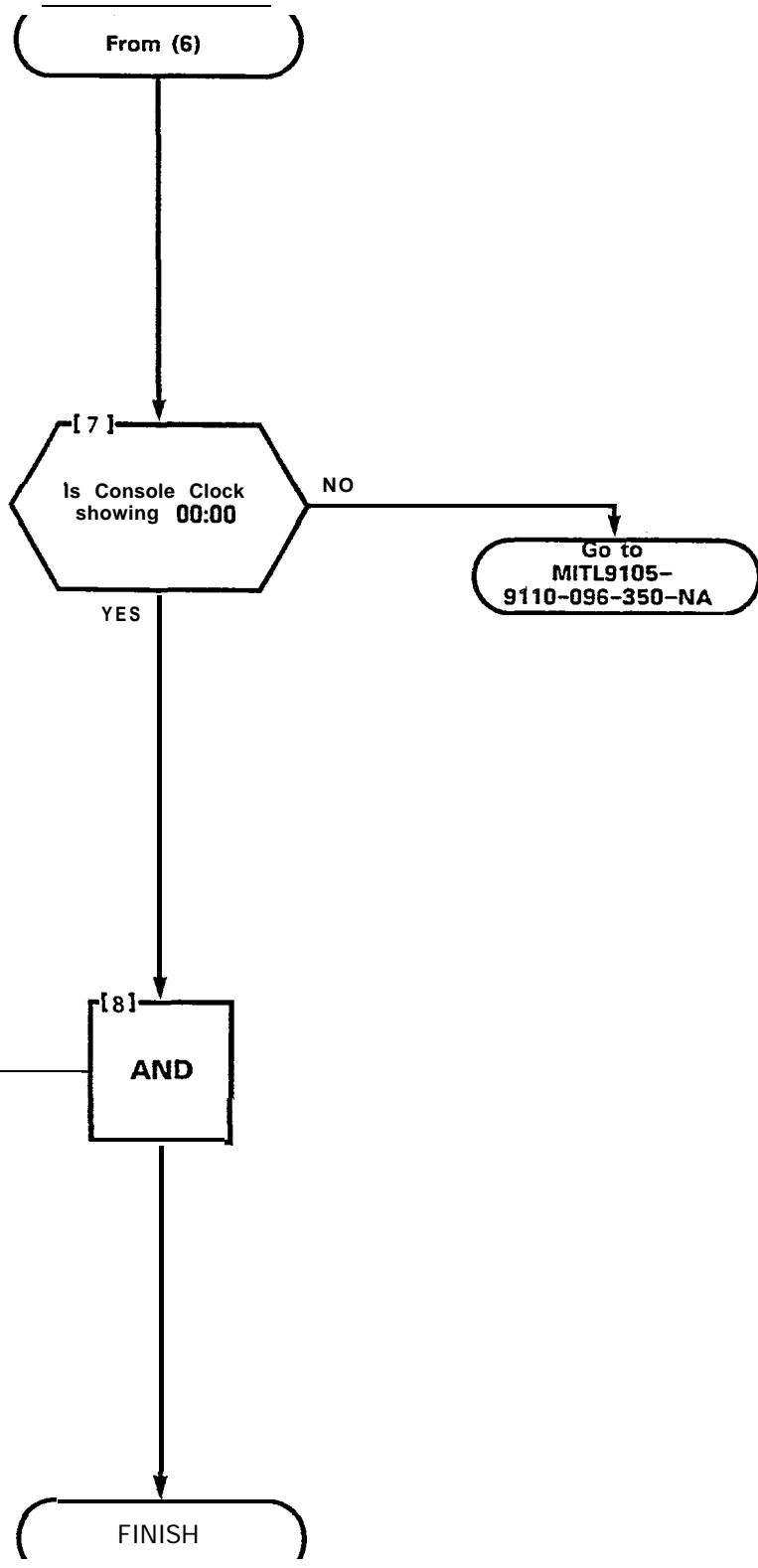
Occasionally, when circuit cards are plugged into the ACD system, the logic circuits on the card may not reset completely. In order to guarantee complete reset of all card logic, a slot initialization procedure must be performed. This procedure allows the service personnel to insert a card into a shelf and initialize the card slot. To initialize the card slot dial 555 + 5 t nn, where nn is the 2-digit card slot number (01-17 shelf 1, 31-42 shelf 2). Since inserting a card may cause diagnostic errors, this procedure is normally followed by dialing 555 + 1 to clear all system errors.

AT FRONT OF CABINET
 (4A) Set SYSTEM POWER switch to ON
 (4B) SYSTEM POWER LED lit ON POWER SUPPLY
 (4C) EQUIPMENT SHELF POWER ON LED lit on power supply



(6A) Close and lock all doors
 (6B) Position cabinet

POWER-UP SYSTEM
MAP200- 407
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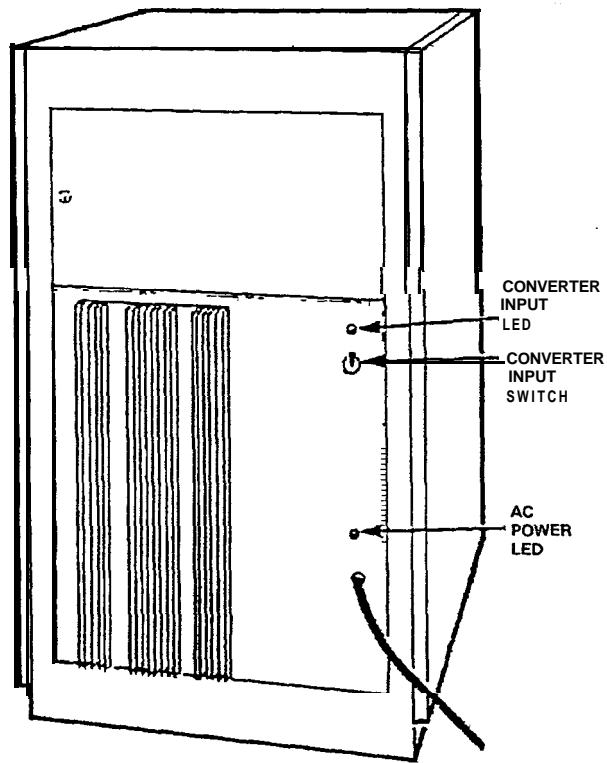
(8A) Go to MITL9105-9110-096-210-NA and program system

POWER-UP SYSTEM

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X3274

Figure 407-2 SX-200 Rear View



APPENDIX E

CARD SWITCH SETTINGS

GENERAL

EI.01 The MAPs contained in this Appendix (see Table EI-I) detail the procedures to be performed to result in the correct settings of the Trunk Card switches (i.e., those required to meet the particular needs of the installation).

EI.02 These procedures are performed during the installation of the SX-100 or SX-200 PABX systems (referenced in Appendices C and D).

TABLE EI-I
SETTING TRUNK CARD SWITCHES

Step	Procedure	Reference
1.	Set CO Trunk Switches (Types -01 1/-1 11)	MAP200-501
2.	Set E&M/Tie Trunk Option Switches	MAP200-502
3.	Set DID/Tie Trunk Option Switches	MAP200-503
4.	Set Scanner Card Switches	MAP200-504
5.	Set RAM/COS Switches	MAP200-505
6.	Set CO Trunk Switches (Types -211/-311)	MAP200-506
7.	Set IPC Battery Switch	MAP200-507
8.	Install the SX-100 Fan Update Kit	MAP200-508
9.	Install the SUPERSET 3/SUPERSET 4 Set	MAP200-509

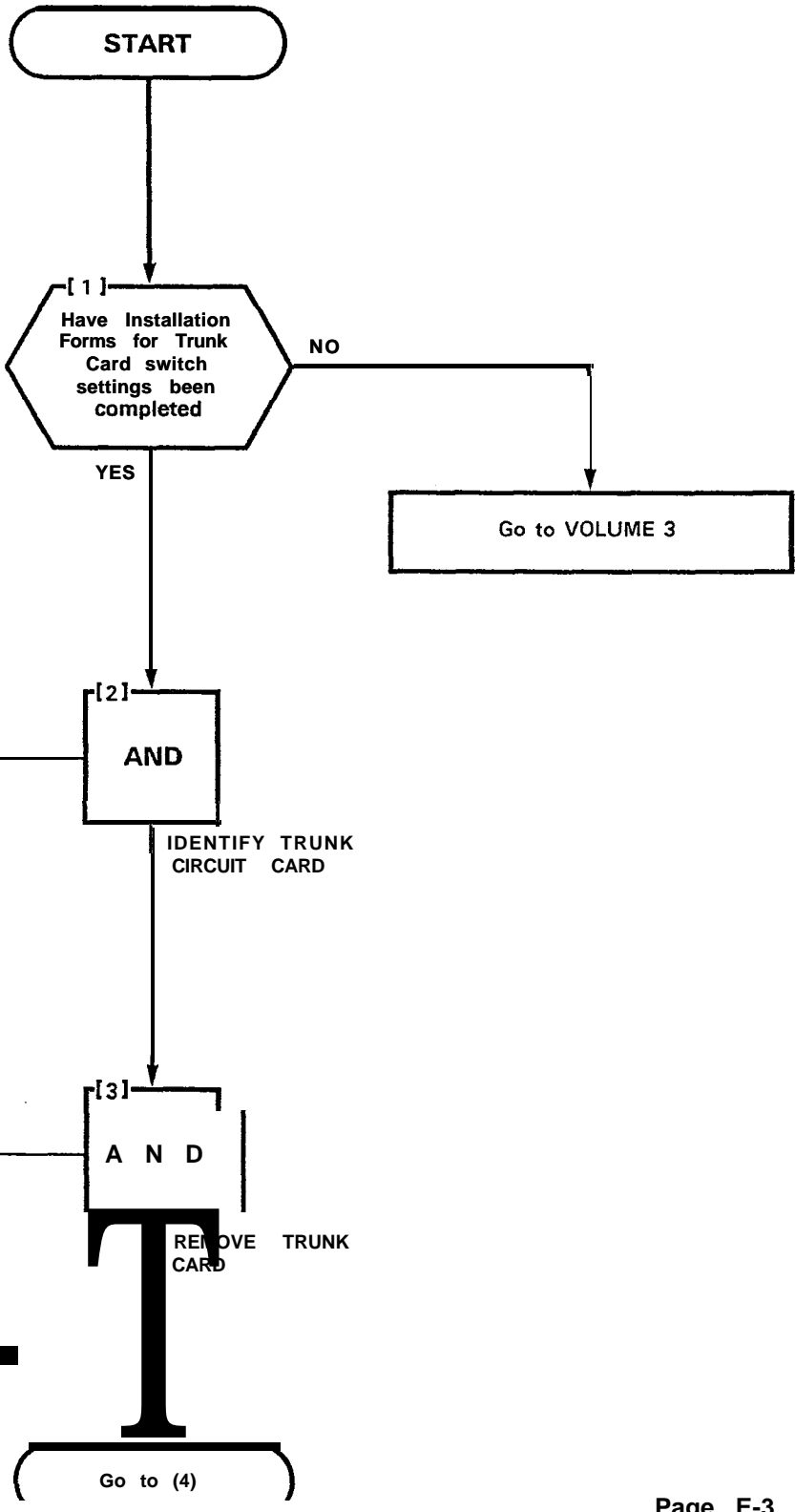


SET CO TRUNK SWITCHES (TYPES -011/-111)
MAP200- 501
Issue 3, May 1984
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CAUTION
WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.

NOTE
Use MAP200406 when setting switches on Trunk Card Types 91 10-211-000-NA or 9110-311-000-NA.

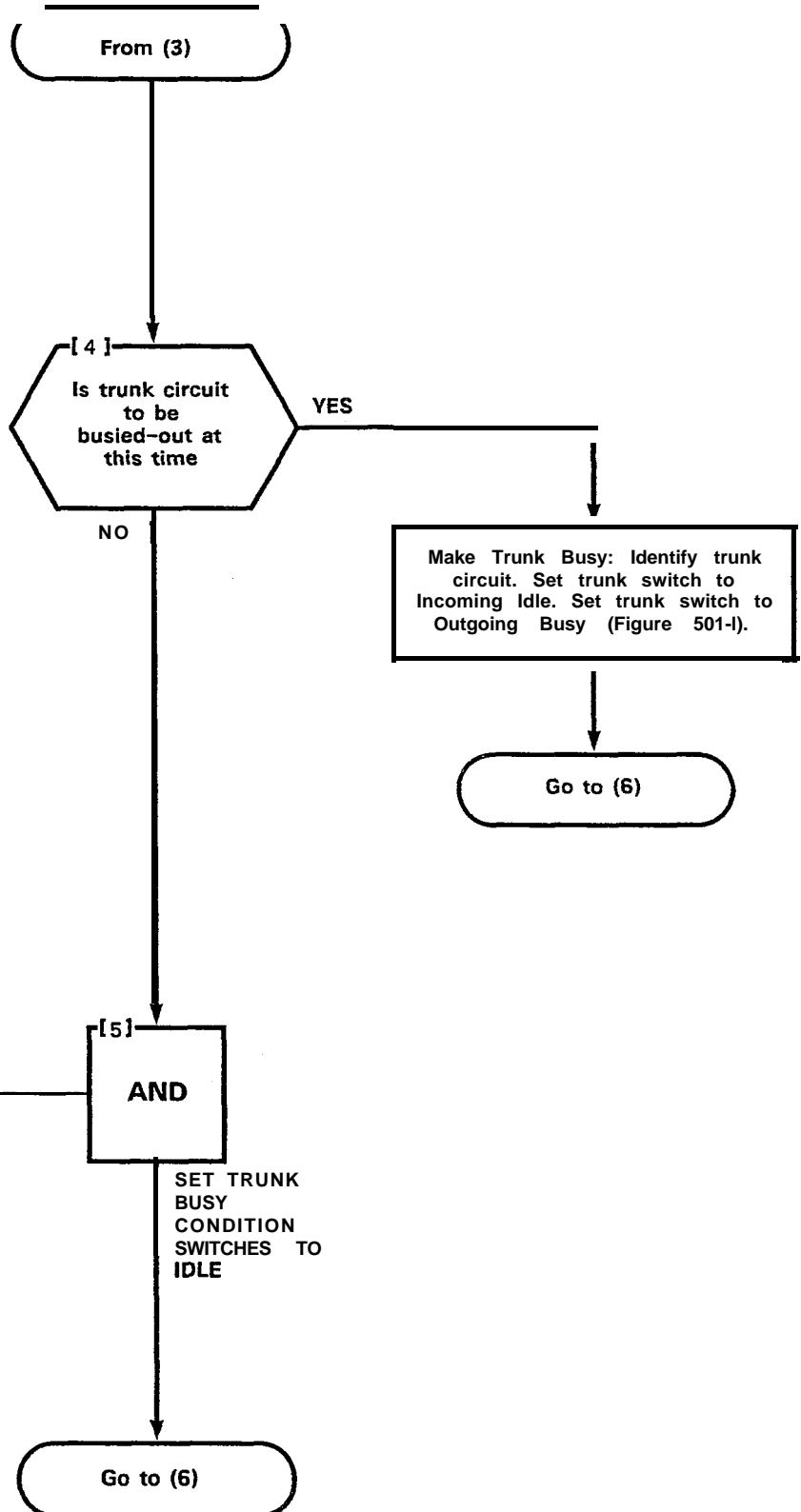
NOTE
Installation Forms for trunk card settings, in VOLUME 3 must be completed before proceeding with this MAP.



(2A) Identify trunk circuit by card position type and unit number

(3A) Lift card extractors at top and bottom of card
(3B) Remove trunk card from the shelf

SET CO TRUNK SWITCHES (TYPES -011/-111)
MAP200- 501
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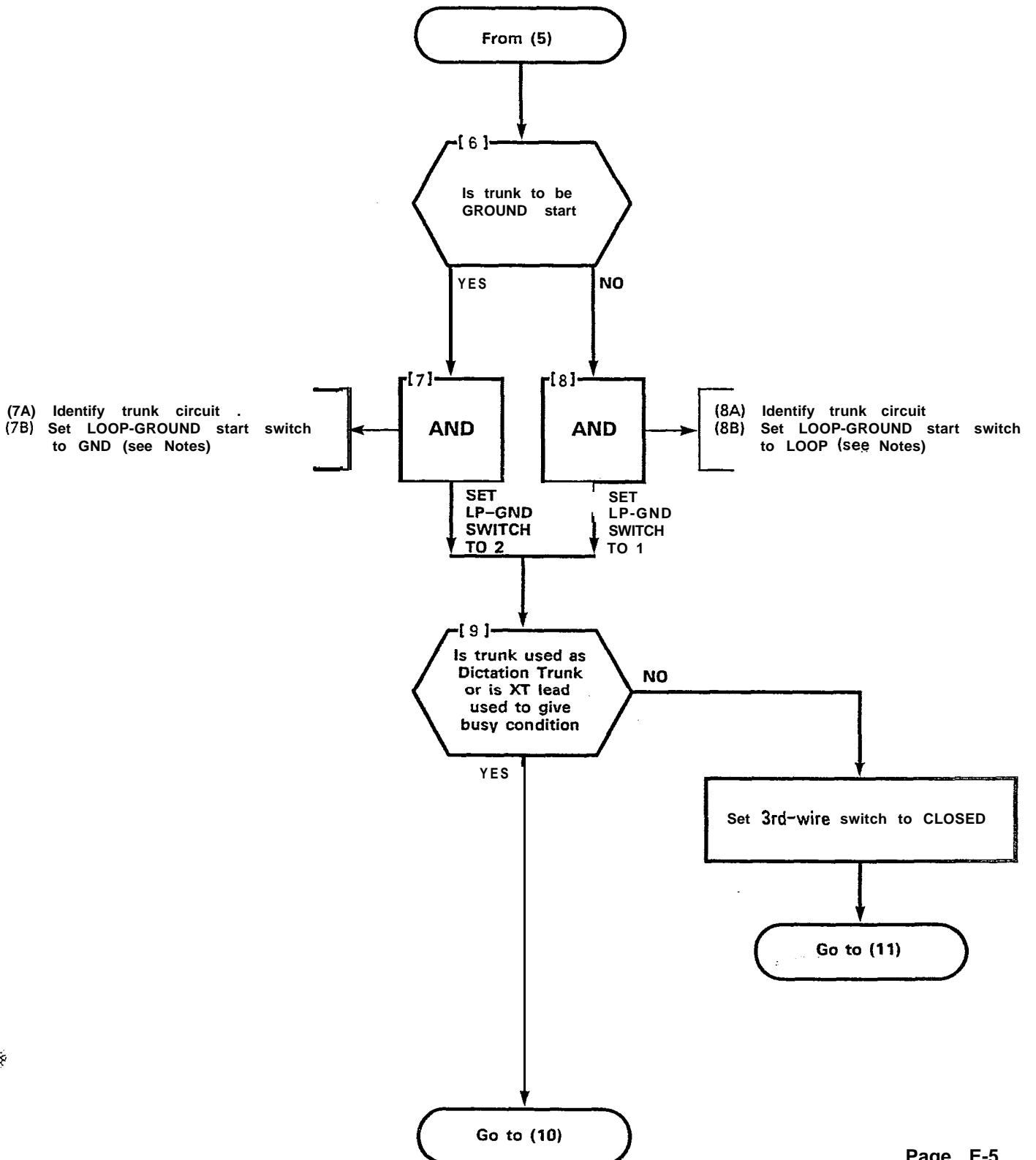
(5A) Identify trunk circuit
 (5B) Set idle conditions on trunk BUSY switch (see Notes)

**SET CO TRUNK SWITCHES
(TYPES -011/-111)**

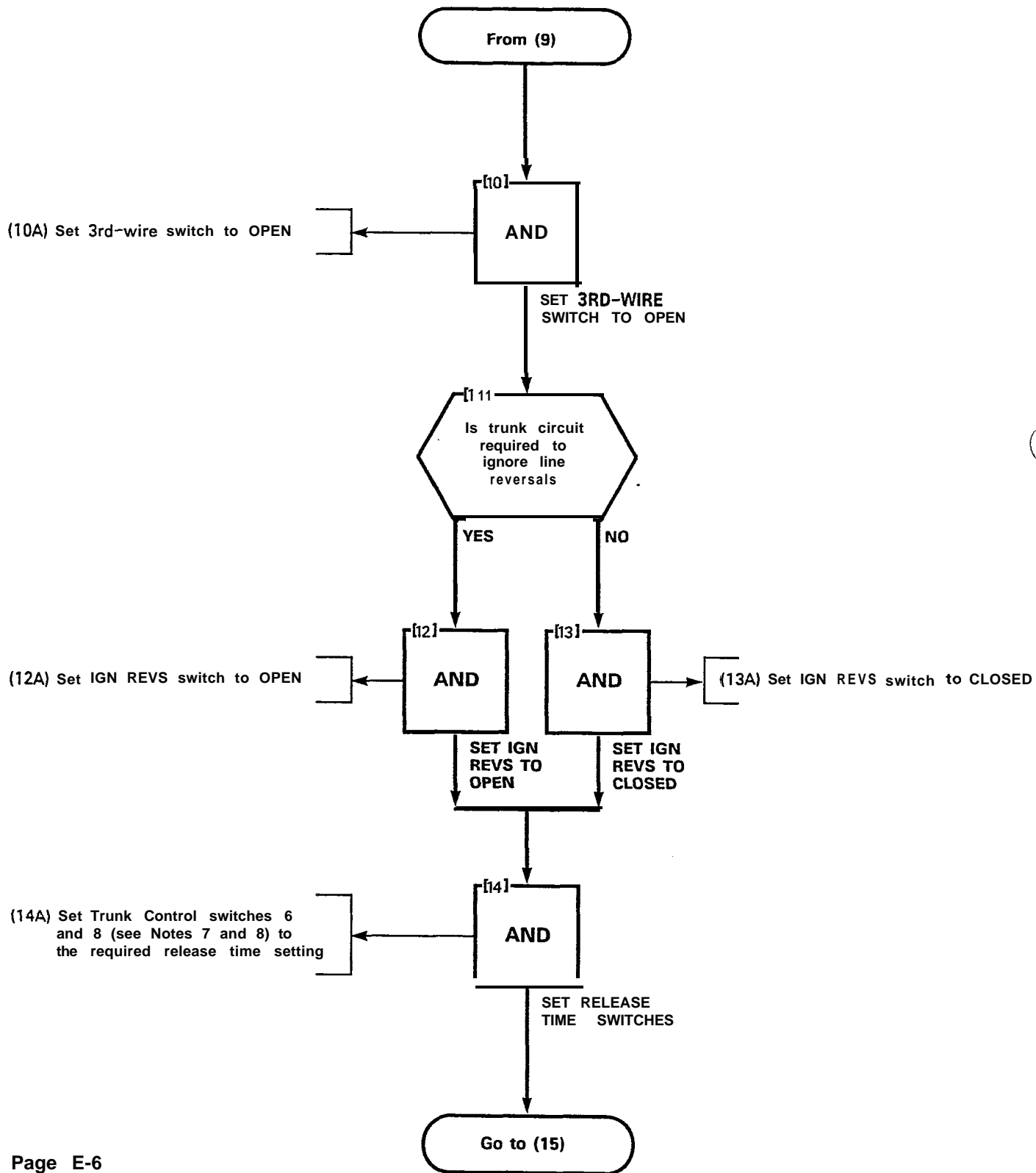
MAP200-501

issue 3, May 1984

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SET CO TRUNK SWITCHES (TYPES -011/-111)
MAP200- 501
Issue 3, May 1984
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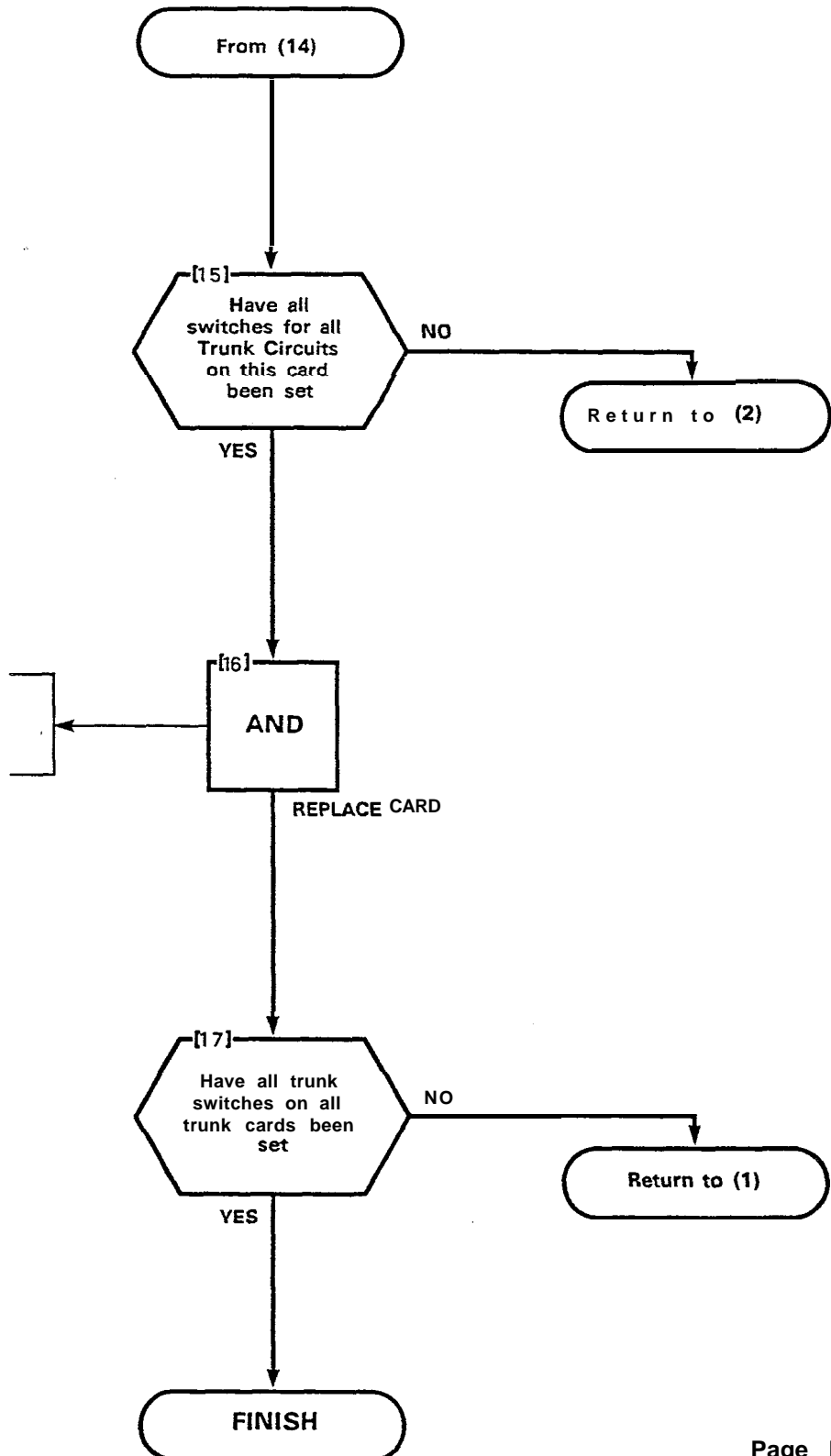
SET CO TRUNK SWITCHES
(TYPES -011/-111)

MAP200-501

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(16A) Check extractor color code
machines slot color code
(16B) Lock card in position

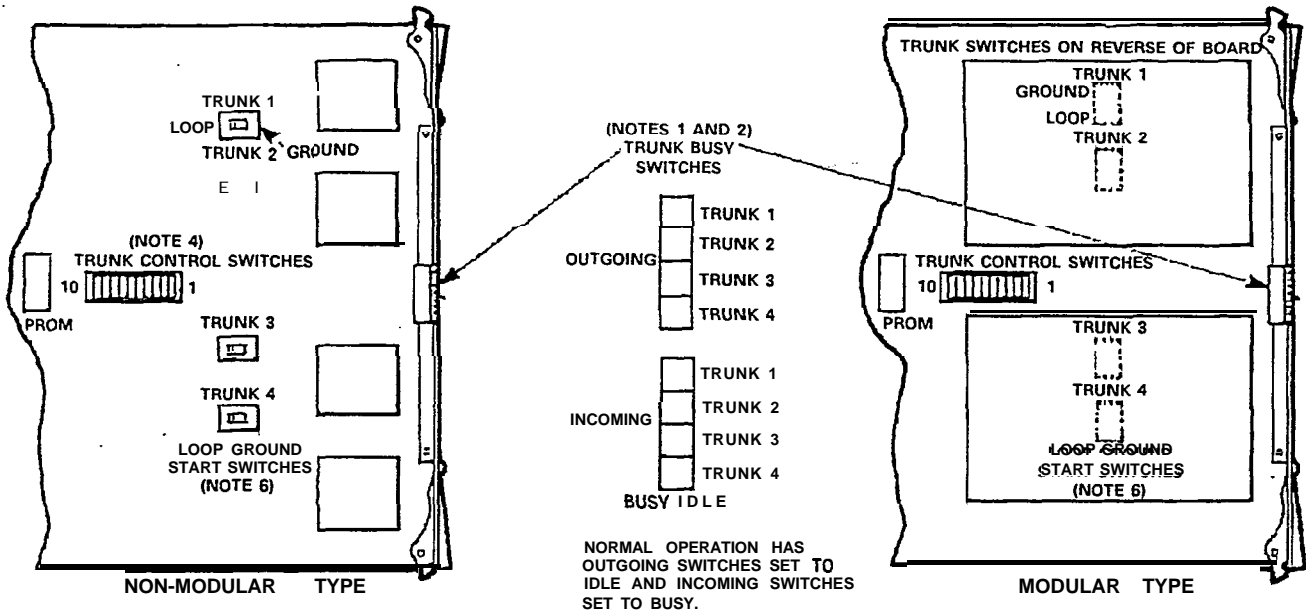


**SET CO TRUNK SWITCHES
(TYPES -011/-111)**

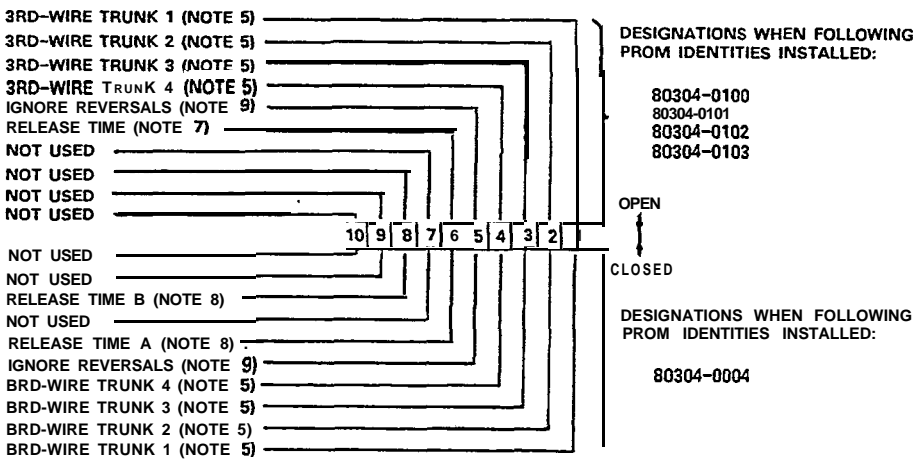
MAP200- 501

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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.



X1267R3

Figure 501-I Trunk Card Types 91 10-011 and -111

SET CO TRUNK SWITCHES (TYPES -011/-111)
--

MAP200-501

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NOTES TO FIGURE 501-I:

TRUNK BUSY SWITCHES

- OUTGOING BUSY SWITCHES (ONE PER TRUNK) CAN BE SET FOR EITHER:
 - IDLE • NORMAL TRUNK OPERATION
 - BUSY • TRUNK CANNOT BE SEIZED FOR OUTGOING CALL.
- 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 CO CALLS
 - BUSY • A PERMANENT SEIZURE CONDITION IS GIVEN TOWARDS THE CO.
- INCOMING BUSY HAS NO EFFECT WHILE OUTGOING BUSY IS NOT SET.

TRUNK CONTROL SWITCHES.

- ACTIVE TRUNK CONTROL SWITCHES ON NONMODULAR CARD ARE CONFINED TO SWITCHES 1, 2,3 AND 4. CORRESPONDING TO TRUNK 1, 2, 3 AND 4, BRD-WIRE CONDITIONS. RESPECTIVELY (NOTE 5).

BRD-WIRE SWITCHES

- THE BRD-WIRE LEAD WHEN REQUIRED IS CONNECTED TO THE CO 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 CO HAS BEEN TAKEN INTO SERVICE BY OTHER TRUNKS. THE SWITCH SETTING IS EITHER:
 - OPEN • RECOGNIZED GROUND FROM THE CO AS A BUSY CONDITION
 - CLOSED • BRD-WIRE SWITCH IS INEFFECTIVE.

LOOP/GROUND START SWITCHES

- THE LOOP/GROUND START SWITCHES (ONE PER TRUNK) CAN BE SET TO RESULT IN THE FOLLOWING CONDITIONS:
 - LOOP (1) SETTING • USED FOR LOOP START TYPE TRUNKS
 - GROUND (2) SETTING • USED FOR GROUND START TYPE TRUNKS.

RELEASE TIME SWITCHES

- 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.
- 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 (NONRELEASE).

IGNORE REVERSALS :

- 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.

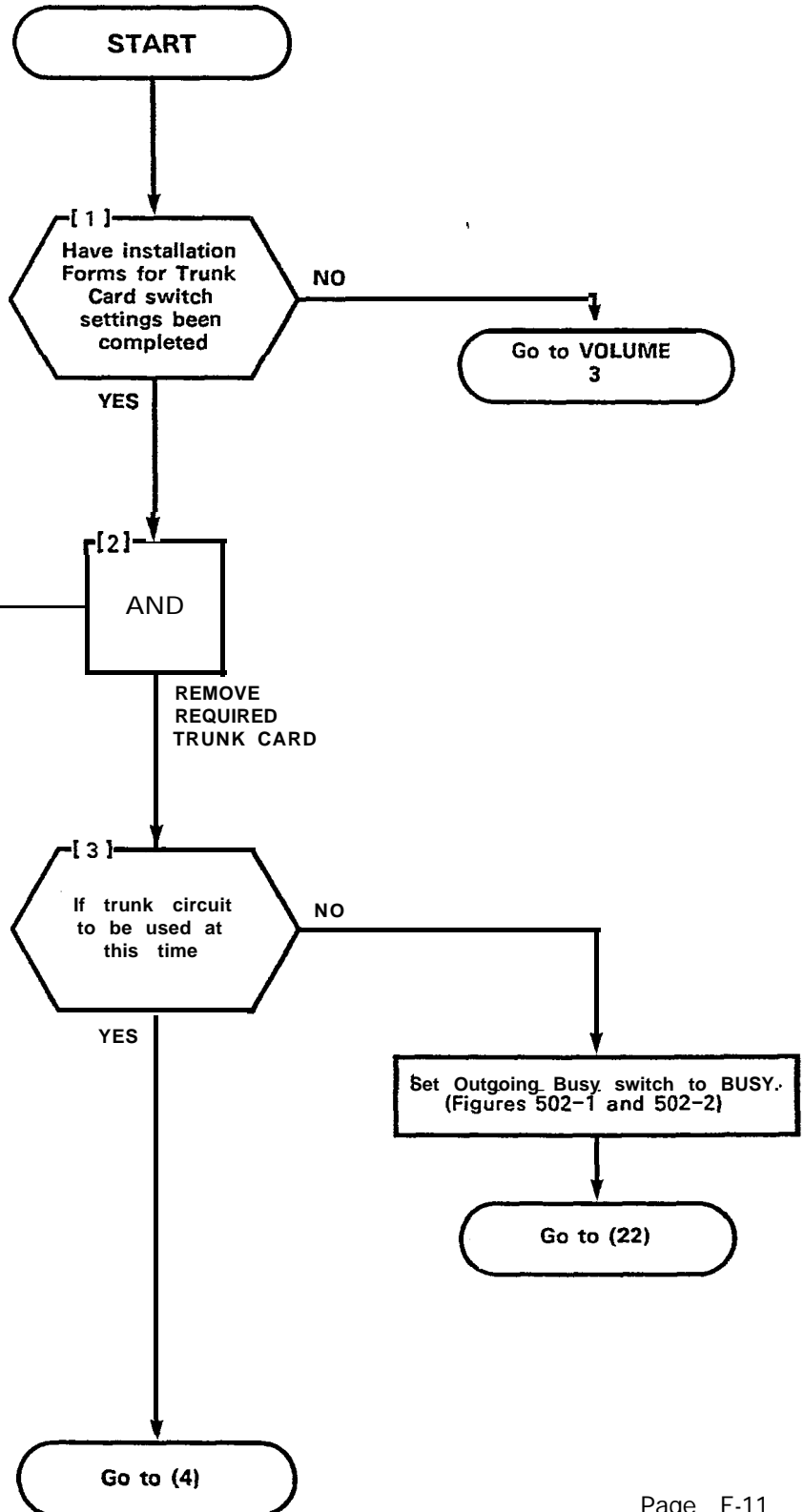


SET E&M/TIE TRUNK OPTION SWITCHES
MAP200- 502
Issue 3, May 1984
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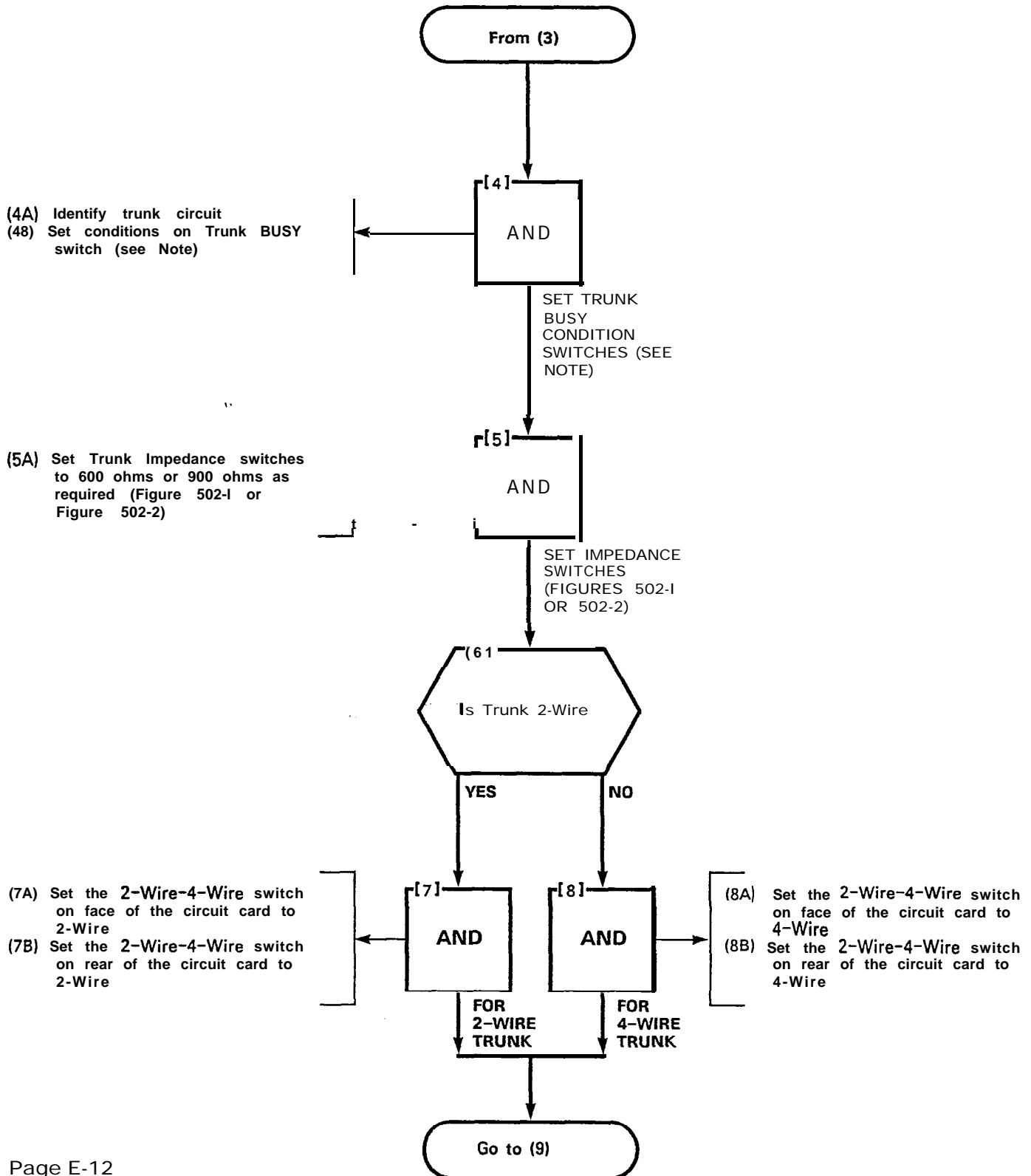
CAUTION
WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES IN PARAGRAPH 12.02 ARE FOLLOWED.

NOTE
Installation Forms for trunk card settings, Volume 3, must be completed before proceeding with this MAP.

- (2A) Locate required trunk circuit card 91 10-013-000-NA
- (2B) Note card position
- (2C) Lift card locking clips located at the top and bottom of the card
- (2D) Remove trunk card 9110-031-000-NA



SET E&M/TIE TRUNK OPTION SWITCHES
MAP200- 502
Issue 3. Mav 1984
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SET E&M/TIE TRUNK
OPTION SWITCHES

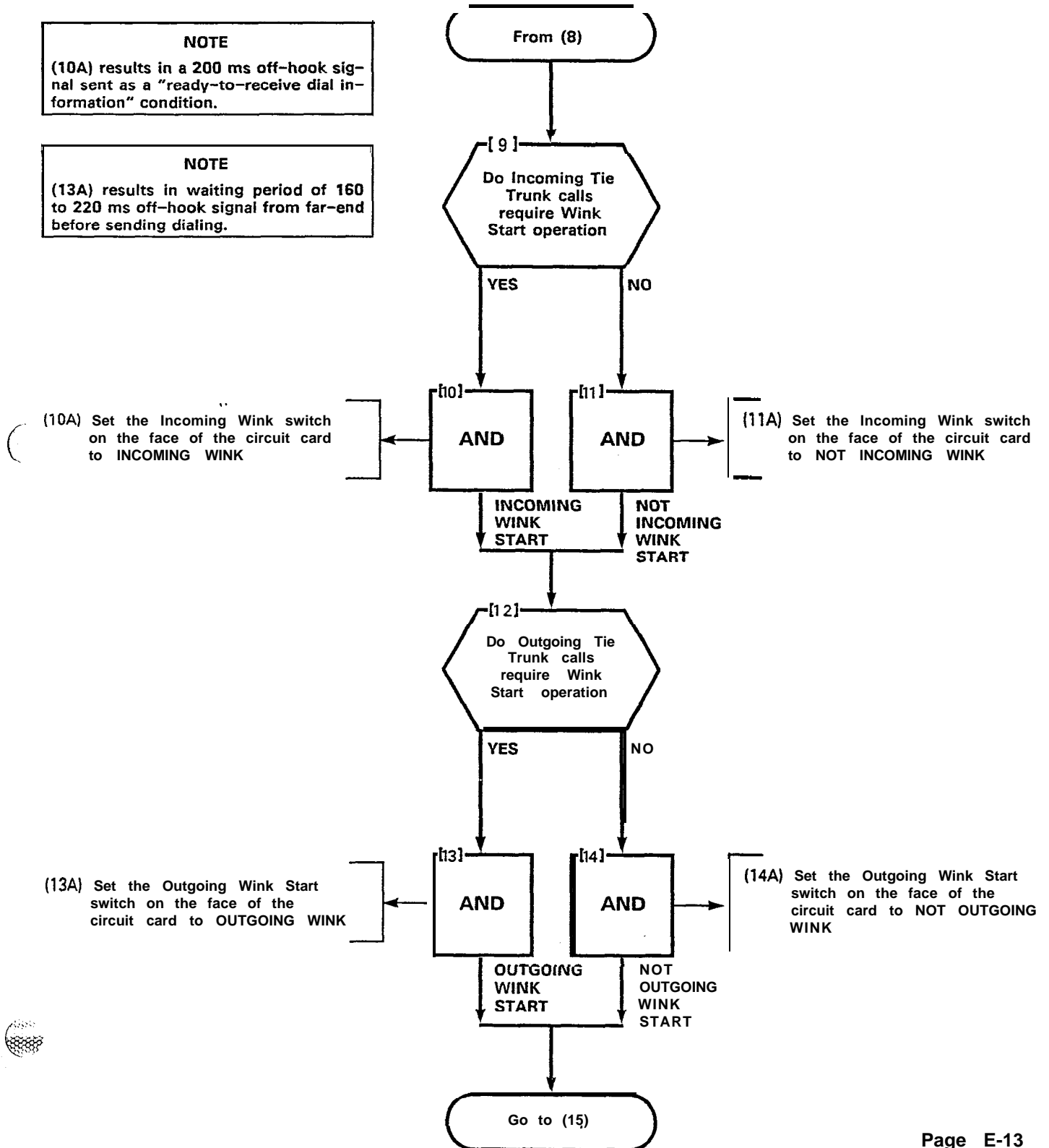
MAP200-502

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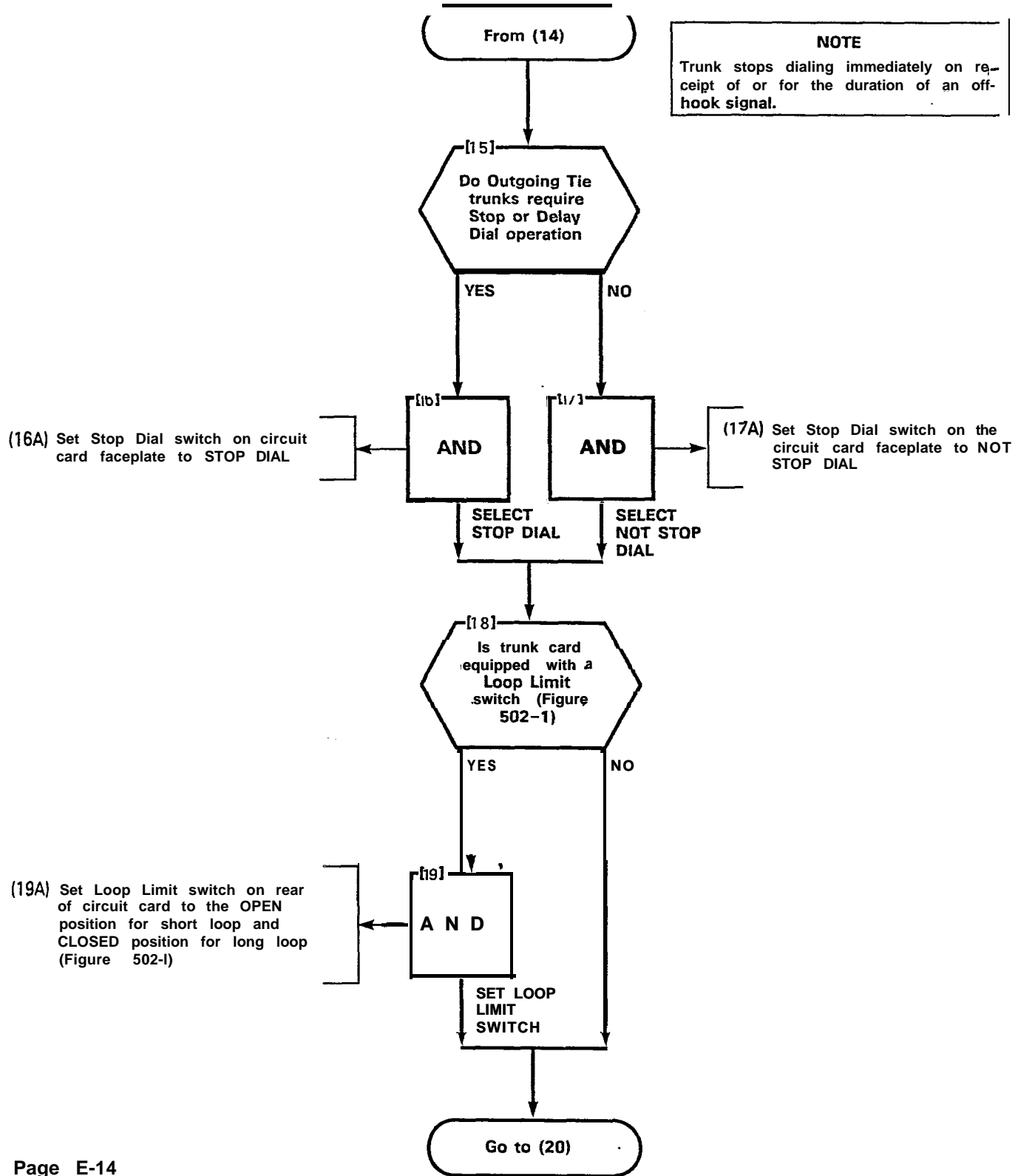
Sheet 3 of 8

NOTE
(10A) results in a 200 ms off-hook signal sent as a "ready-to-receive dial information" condition.

NOTE
(13A) results in waiting period of 160 to 220 ms off-hook signal from far-end before sending dialing.



SET E&M/TIE TRUNK OPTION SWITCHES
MAP200- 502
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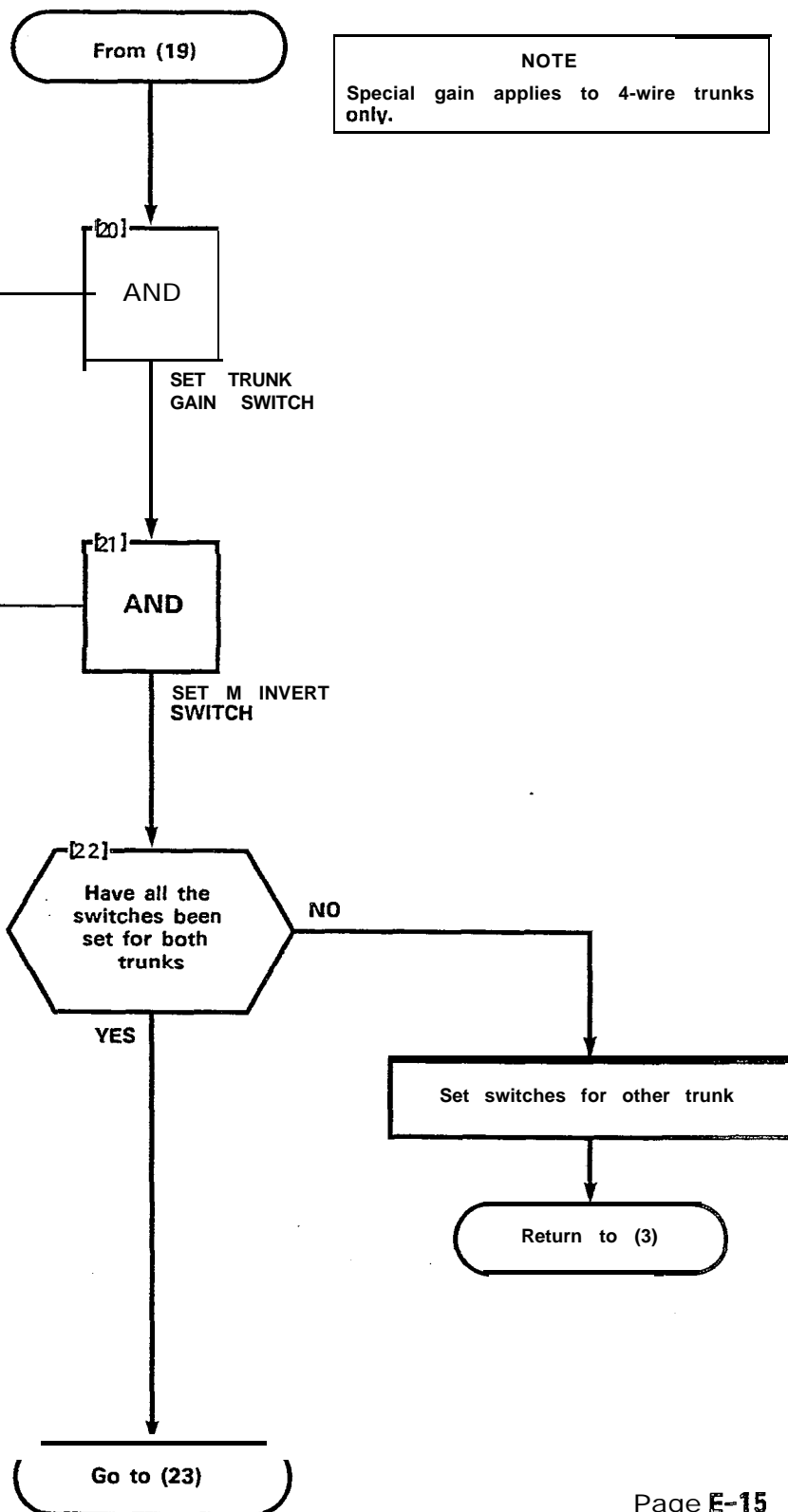


SET E&M/TIE TRUNK OPTION SWITCHES
MAP200- 502
Issue 3, May 1984
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NOTE
Special gain applies to 4-wire trunks only.

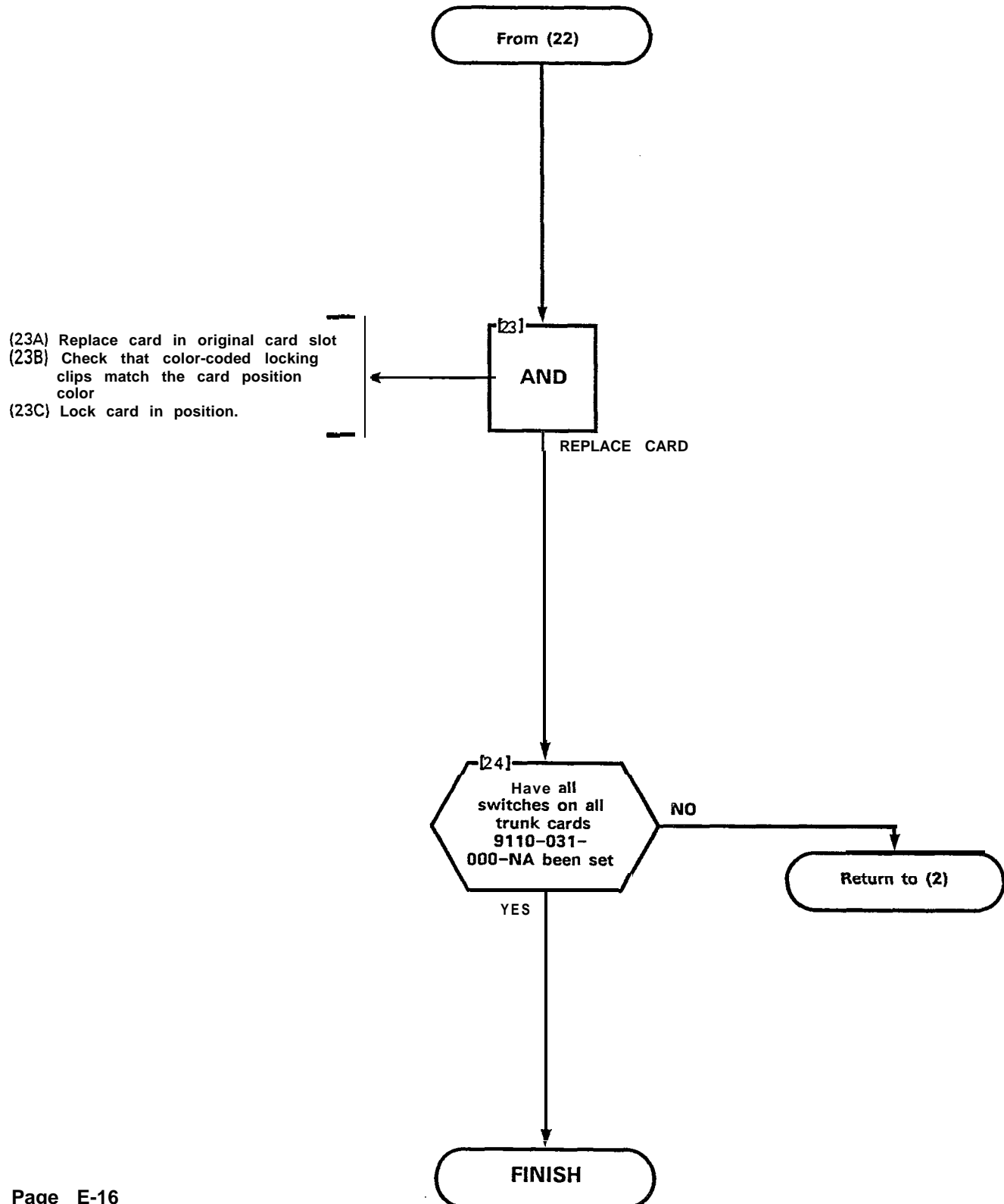
(20A) Set Gain Switches to Normal GAIN (0 dB) or SPECIAL GAIN as required. (+7 dB Incoming, -16 dB Outgoing). See Note 3, Figure 502-2

(21A) Set M LEAD switch to M INV if inversion of the M lead signal is required (Figure 502-2, Note 4)



SECTION MITL9105/911 0-096-200-NA

SET E&M/TIE TRUNK OPTION SWITCHES
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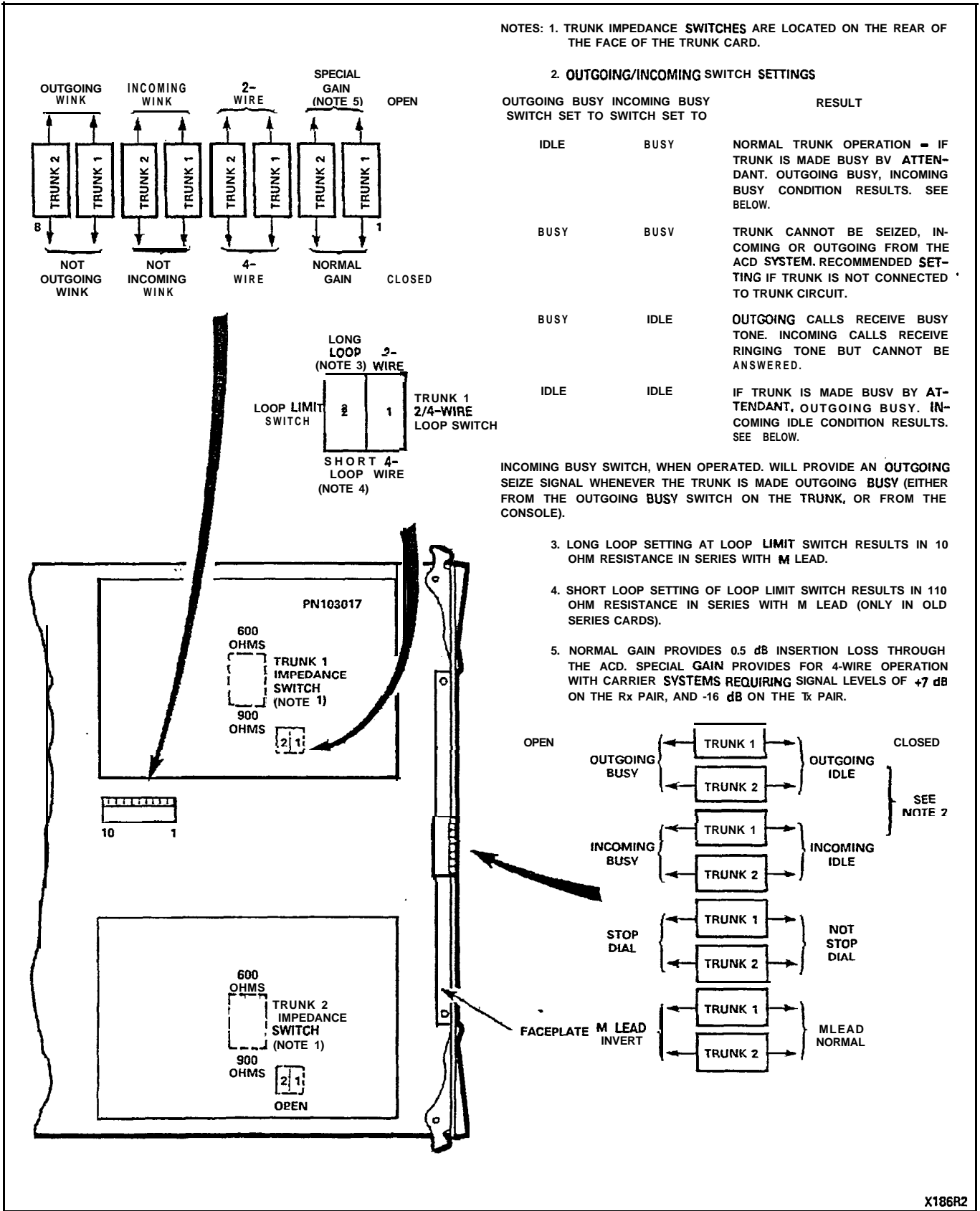


Figure 502-I E&M/Tie Trunk Switches

X186R2

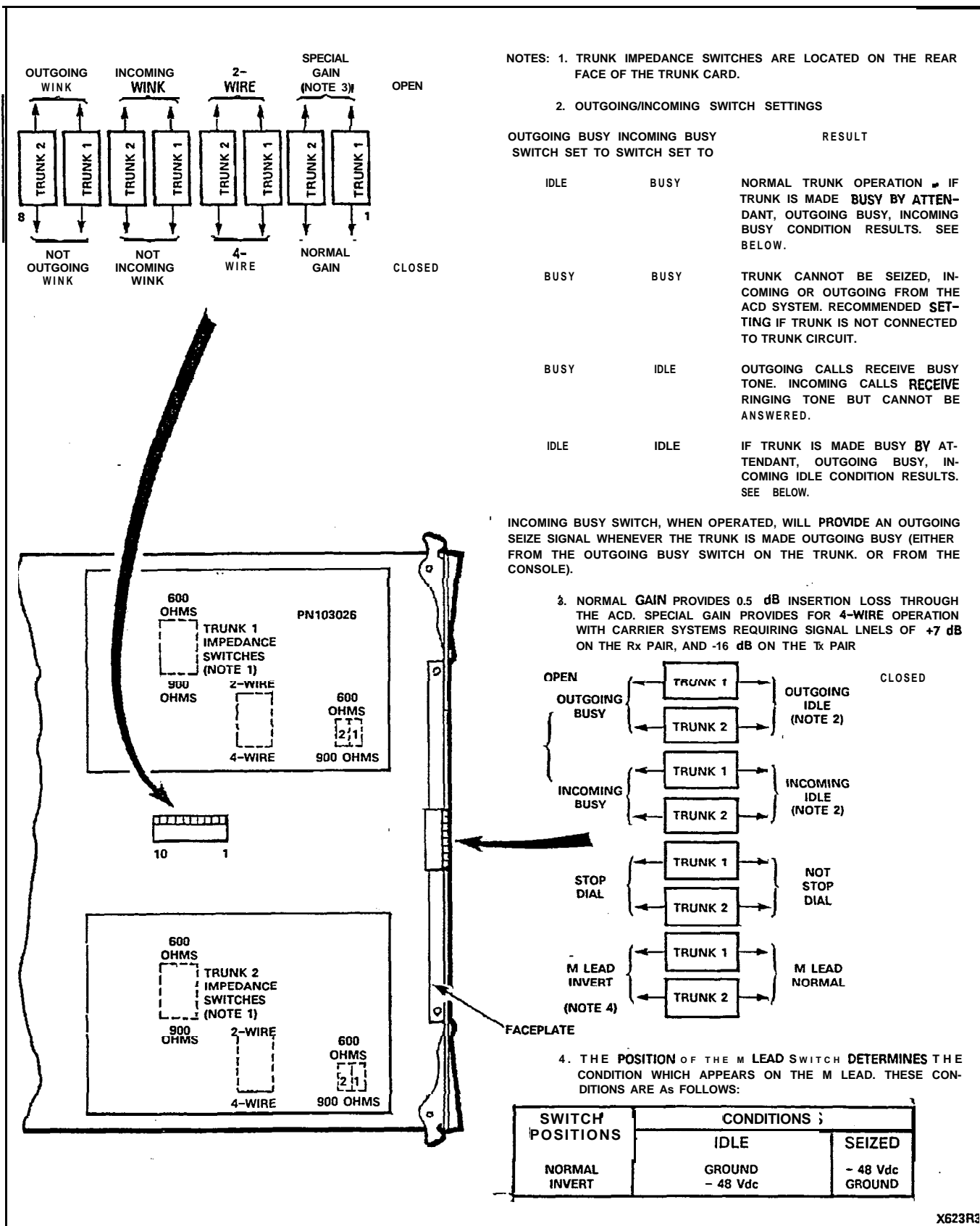


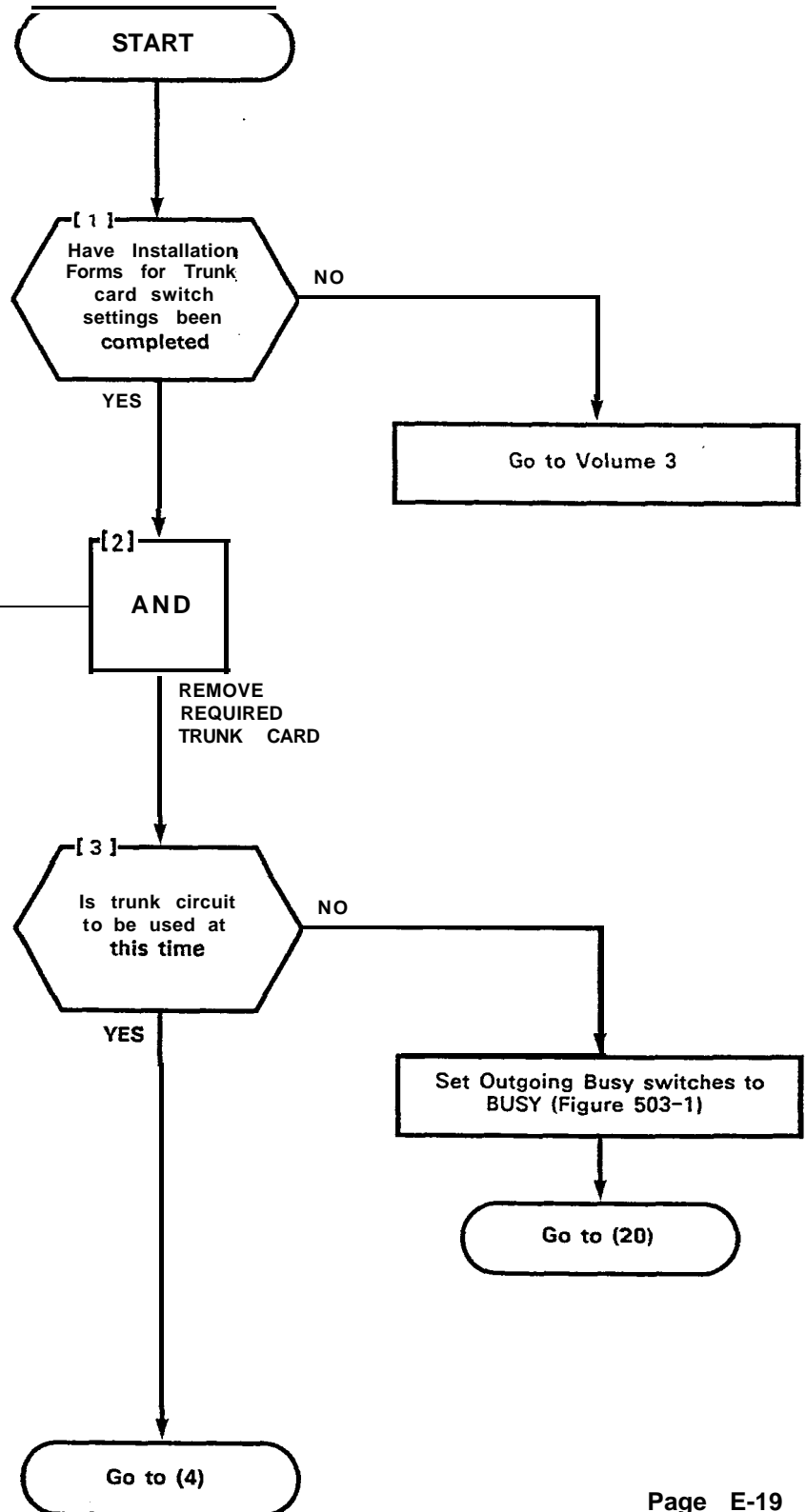
figure 502-2 E&M 911 0-013-000

SET DID/TIE TRUNK OPTION SWITCHES
MAP200- 503
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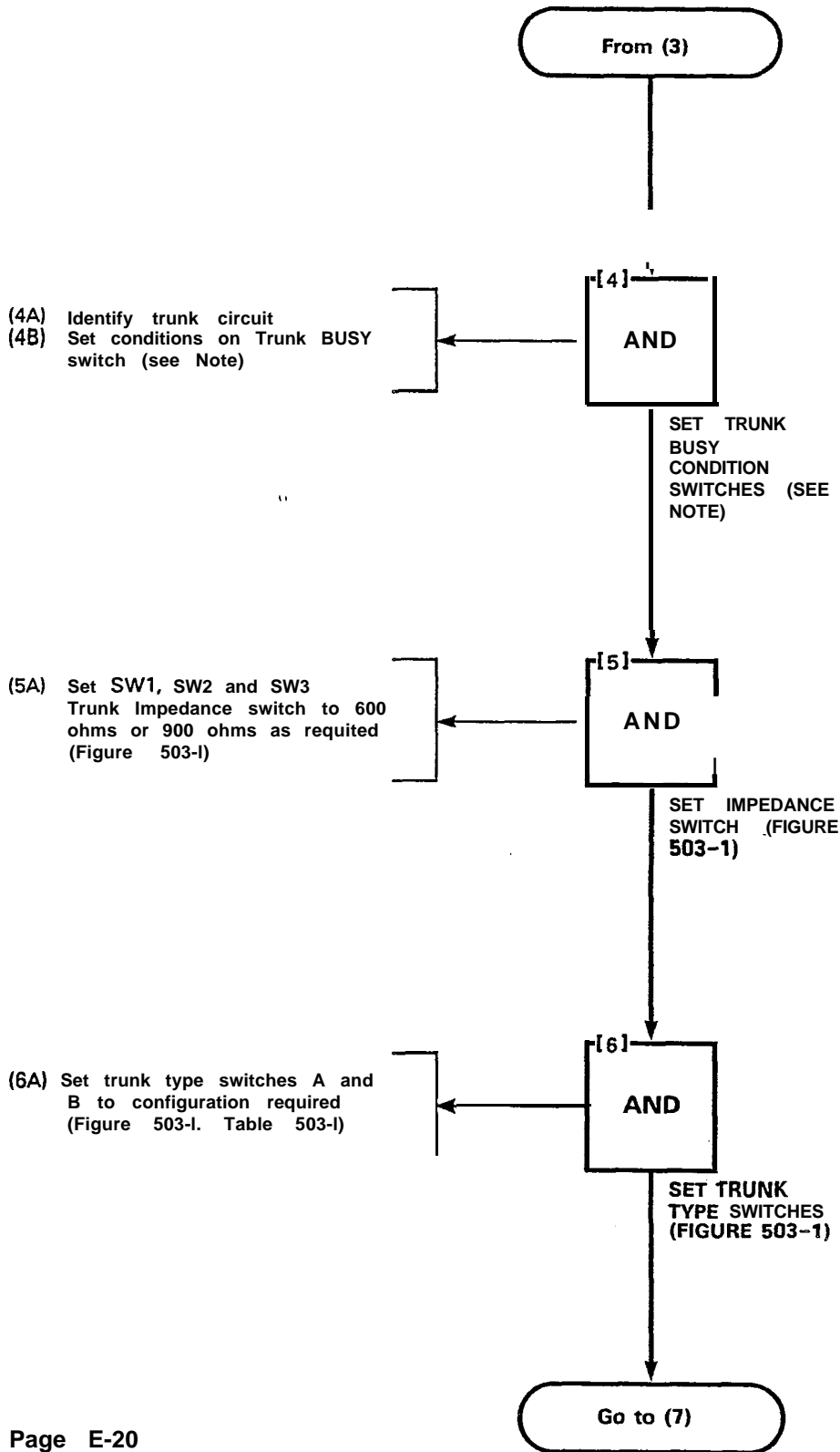
CAUTION
WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES IN PARAGRAPH 12.02 ARE FOLLOWED.

NOTE
Installation Forms for trunk card settings, Volume 3, must be completed before proceeding with this MAP.

- (2A) Locate required trunk circuit card 911 0-031-000-NA
- (2B) Note card position
- (2C) Lift card locking clips located at the top and bottom of the card
- (2D) Remove trunk card 911 0-031 -000-NA



SET DID/TIE TRUNK OPTION SWITCHES
MAP200- 503
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SET DID/TIE TRUNK OPTION SWITCHES
MAP200-503
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NOTE
(8A) results in a 200 ms off-hook signal sent as a "ready-to-receive dial information" condition.

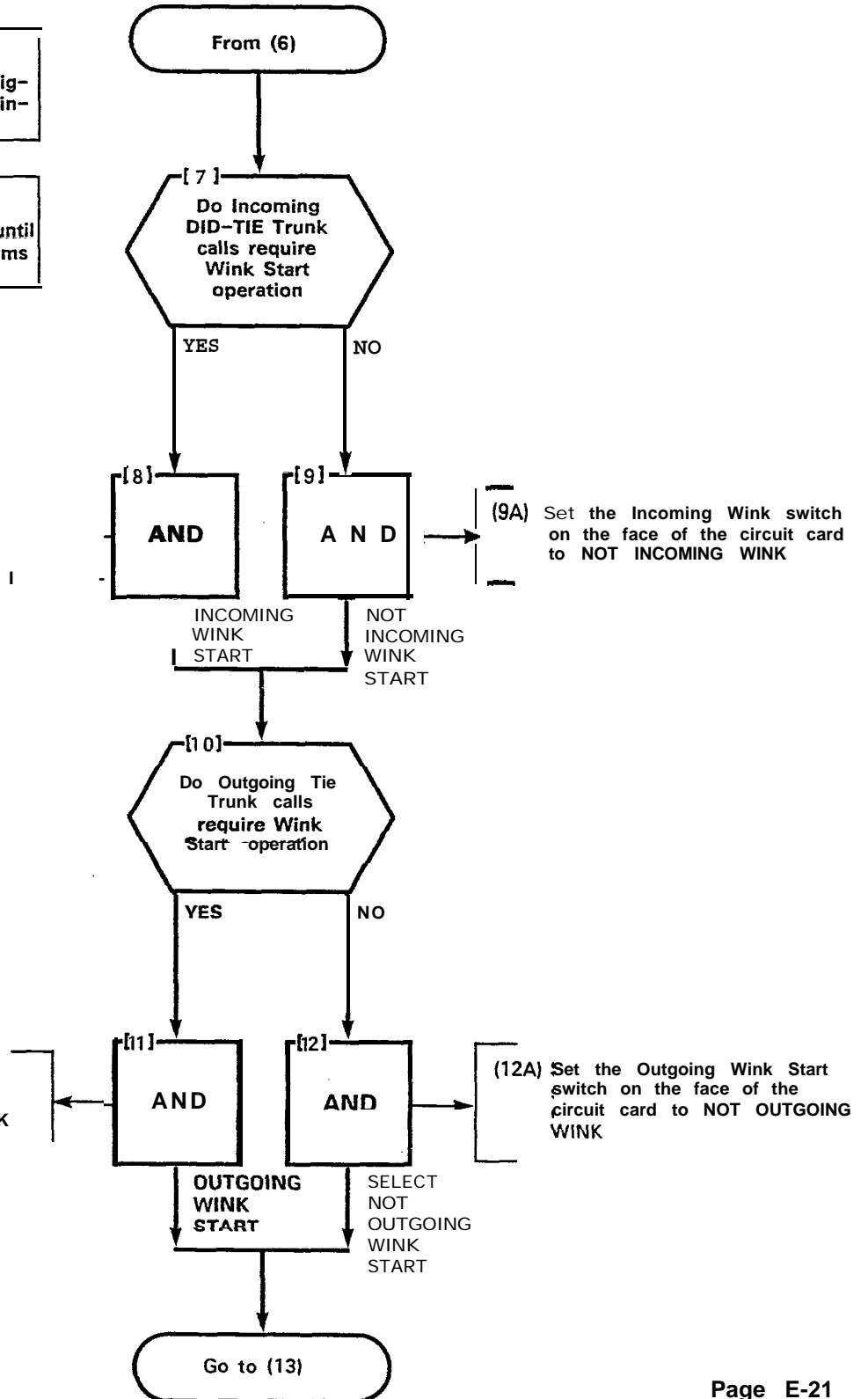
NOTE
(11A) results in an waiting period until off-hook signal of from 160 - 200 ms is received from far-end.

(8A) Set the incoming Wink switch on the face of the circuit card to INCOMING WINK

(9A) Set the Incoming Wink switch on the face of the circuit card to NOT INCOMING WINK

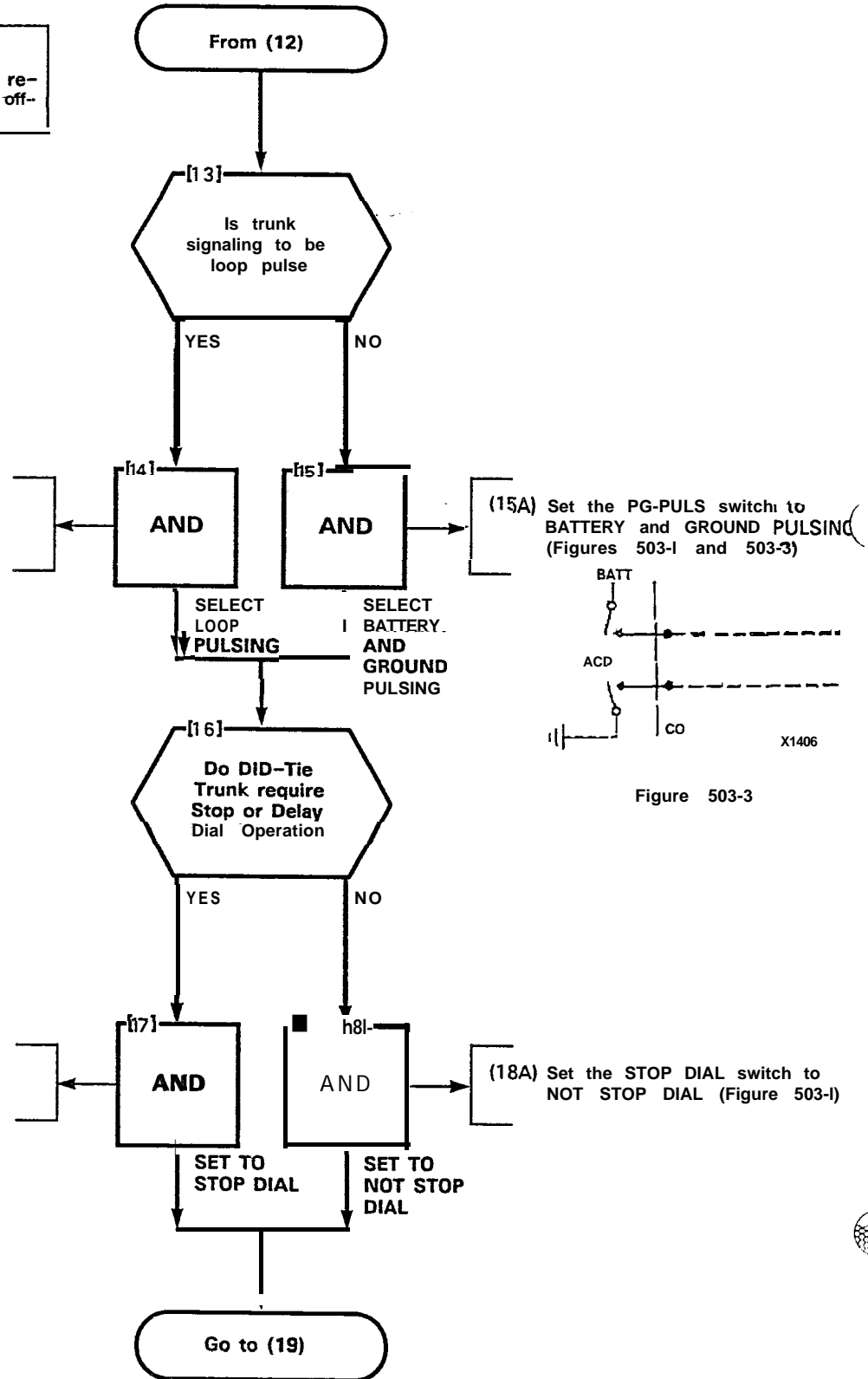
(11A) Set the Outgoing Wink Start switch on the face of the circuit card to OUTGOING WINK

(12A) Set the Outgoing Wink Start switch on the face of the circuit card to NOT OUTGOING WINK



SET DID/TIE TRUNK OPTION SWITCHES
MAP200- 503
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NOTE
Trunk stops dialing immediately on receipt of or for the duration of an off-hook signal.



(14A) Set the BG-PULS switch to LOOP PULSING (Figures 503-1 and 503-2)

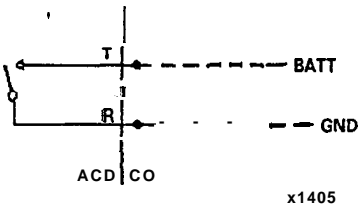


Figure 503-2

(17A) Set the STOP DIAL switch to STOP DIAL (Figure 503-1)

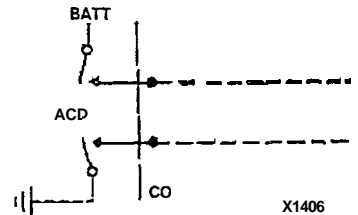
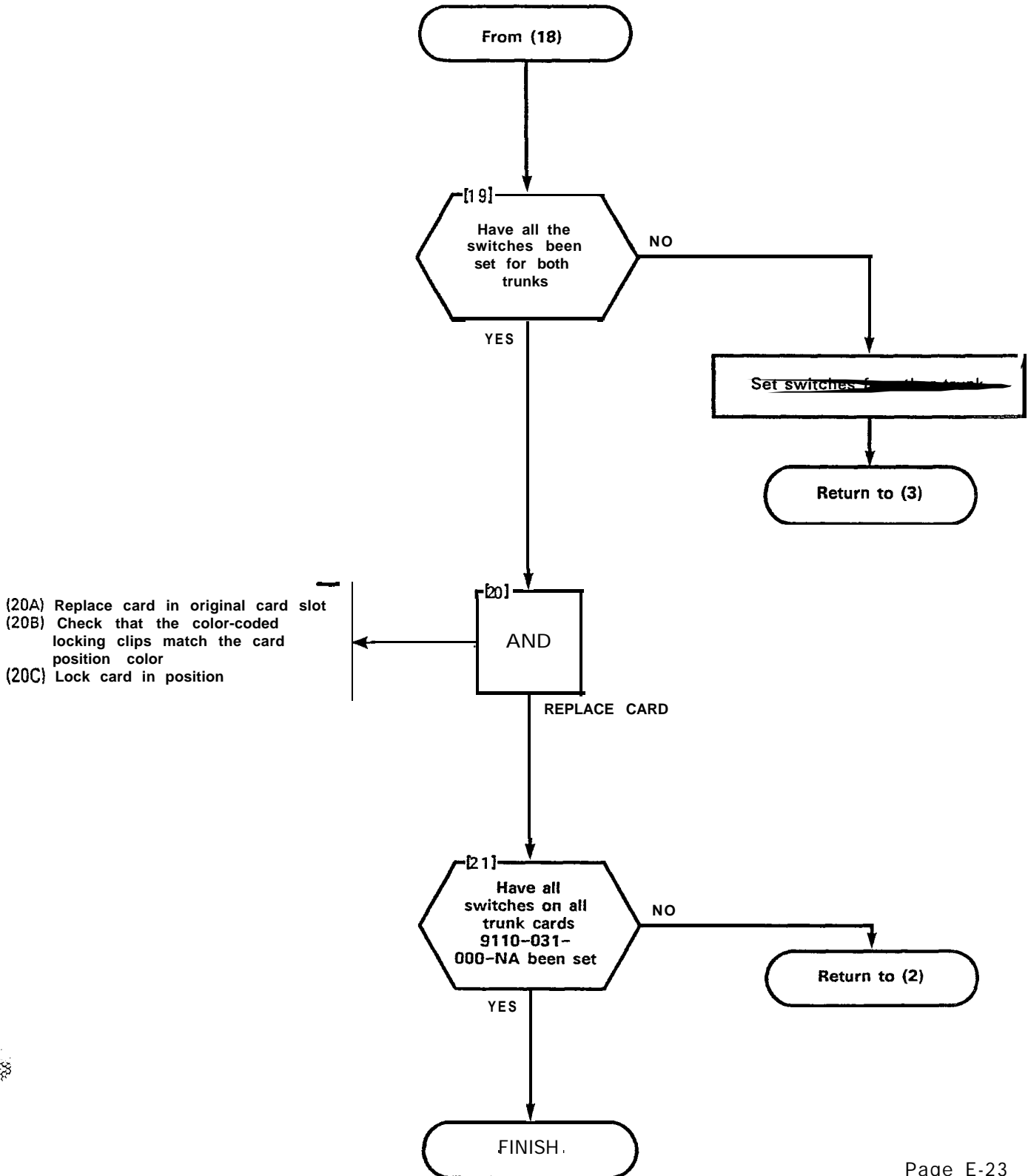


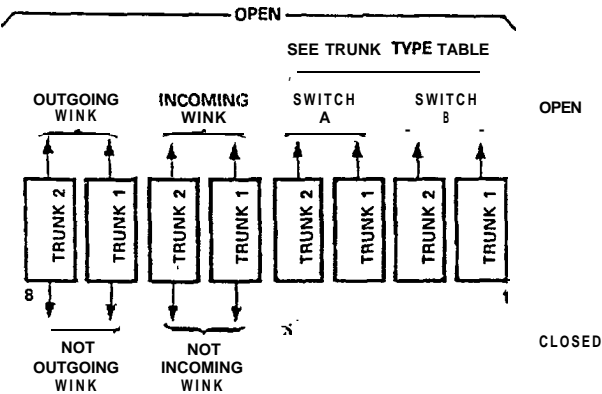
Figure 503-3

SET DID/TIE TRUNK OPTION SWITCHES
MAP200-503
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TRUNK TYPE TABLE 1

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



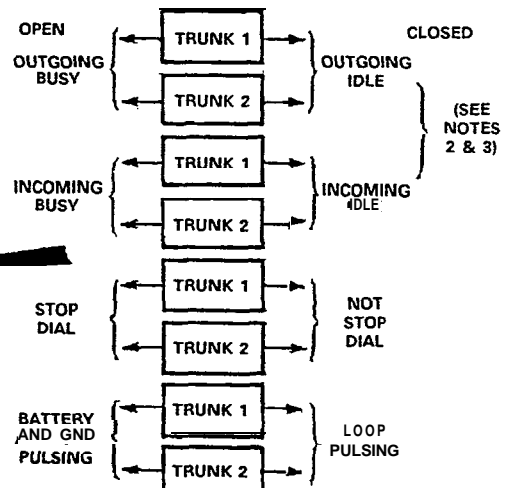
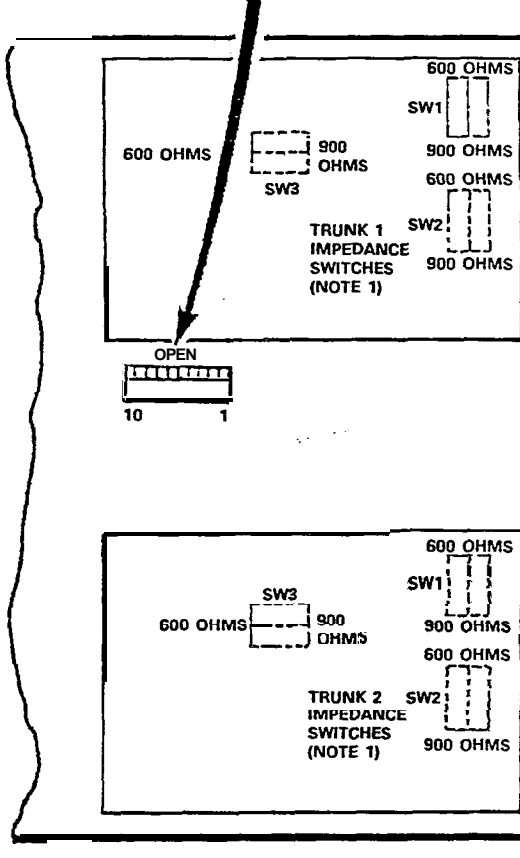
NOTES:

1. TRUNK IMPEDANCE SWITCHES ARE LOCATED ON THE REAR FACE OF THE TRUNK CARD.

TRUNK BUSY SWITCHES

2. **OUTGOING BUSY** SWITCHES (ONE 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.



X579R2

Figure 503-I DID/Tie Trunk Switches

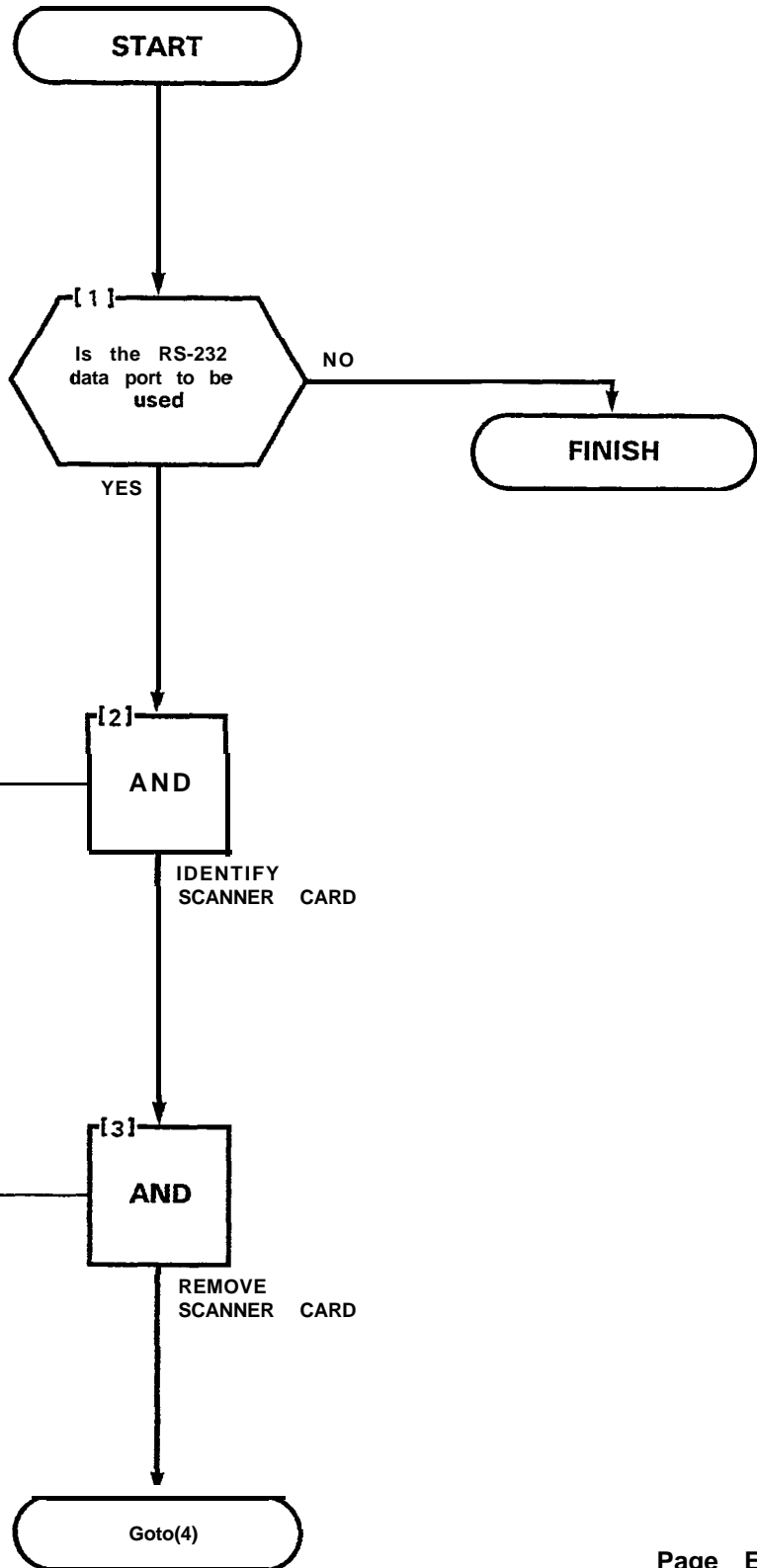
SET SCANNER CARD SWITCHES
MAP200-504
Issue 3, May 1984
Sheet 1 of 5

CAUTION
WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.

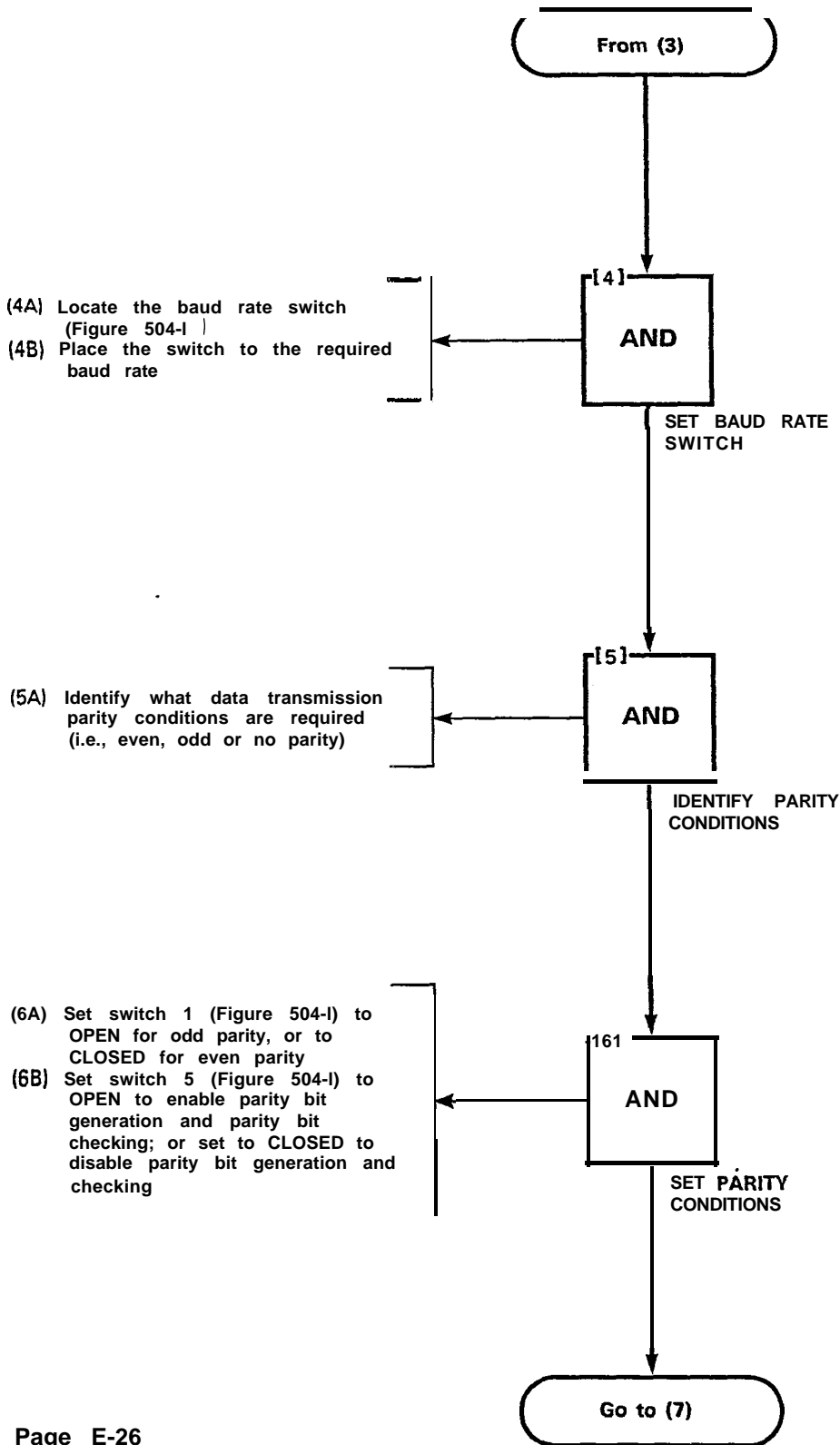
CAUTION
DO NOT REMOVE SCANNER CARD FROM AN ACTIVE ACD SYSTEM WITHOUT FOLLOWING RELEVANT PROCEDURES IN MAP200-602.

(2A) Locate Scanner card by card slot position (19) in shelf 1

(3A) Lift card extractors at top and bottom of card
(3B) Remove Scanner card from the shelf



SET SCANNER CARD SWITCHES
MAP200- 504
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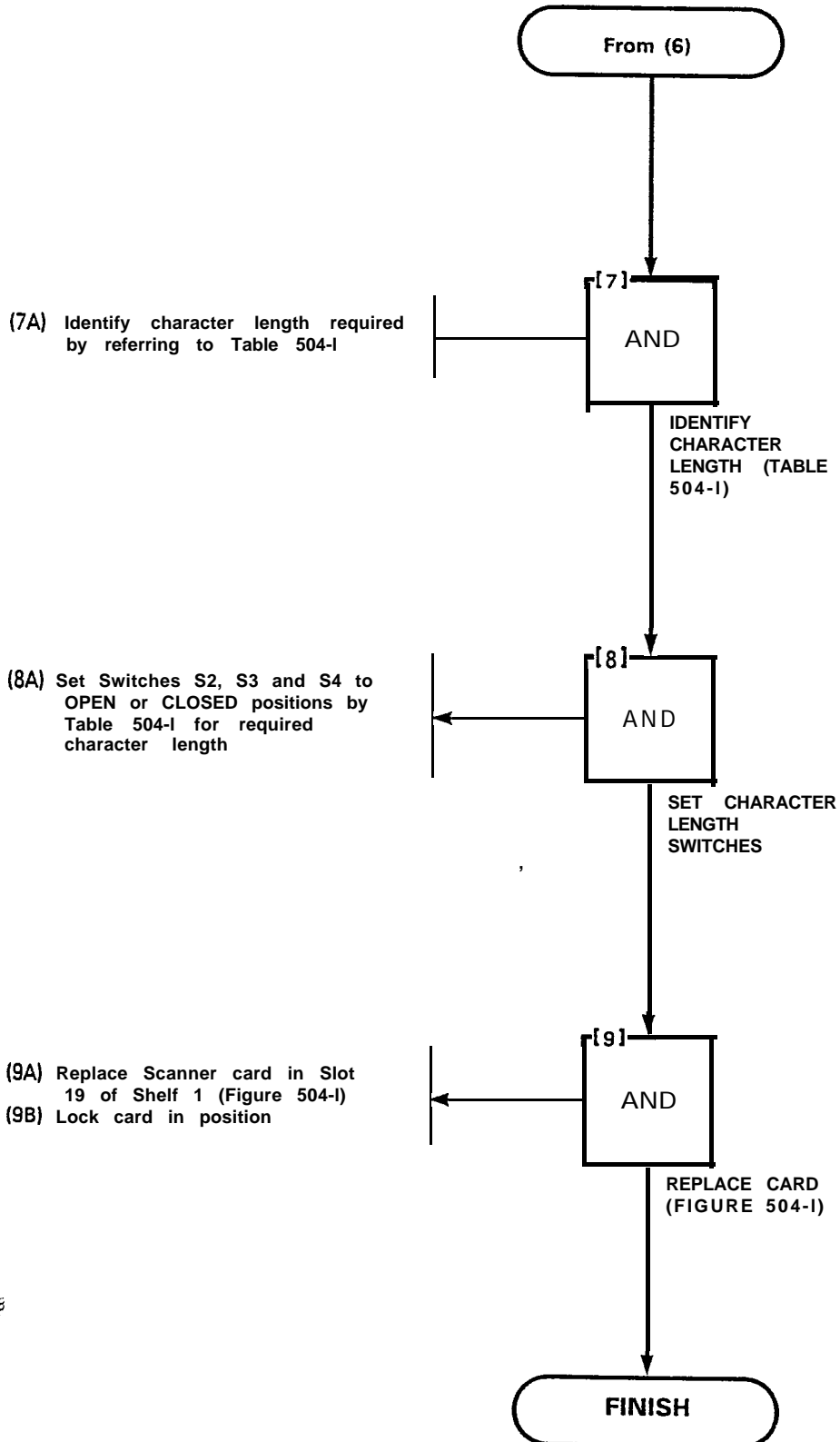


SET SCANNER CARD SWITCHES

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SET SCANNER CARD SWITCHES
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TABLE 504-I

Data Character Length (Le., number of data and stop bits) is determined by switch settings as shown in the Table. These switches are as follows:

S2 - Character length A

S3 - Character length B

S4 - Stop bits

Switch Position			Data	Stop
S2	S3	S4	Bits	Bits
Closed	Closed	Closed	5	1
Closed	Closed	Open	5	1.5
Open	Closed	Closed	6	1
Open	Closed	Open	6	2
Closed	Open	Closed	7	1
Closed	Open	Open	7	2
Open	Open	Closed	8	1
Open	Open	Open	8	2

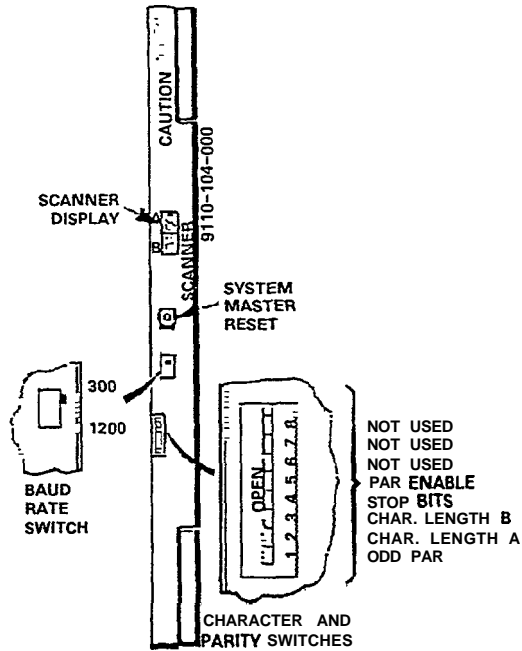
The Start Bit is always 1 bit long.

SET SCANNER CARD SWITCHES

MAP200- 504

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X3272R

Figure 504-I Scanner Card Type 91 10-104-000-NA



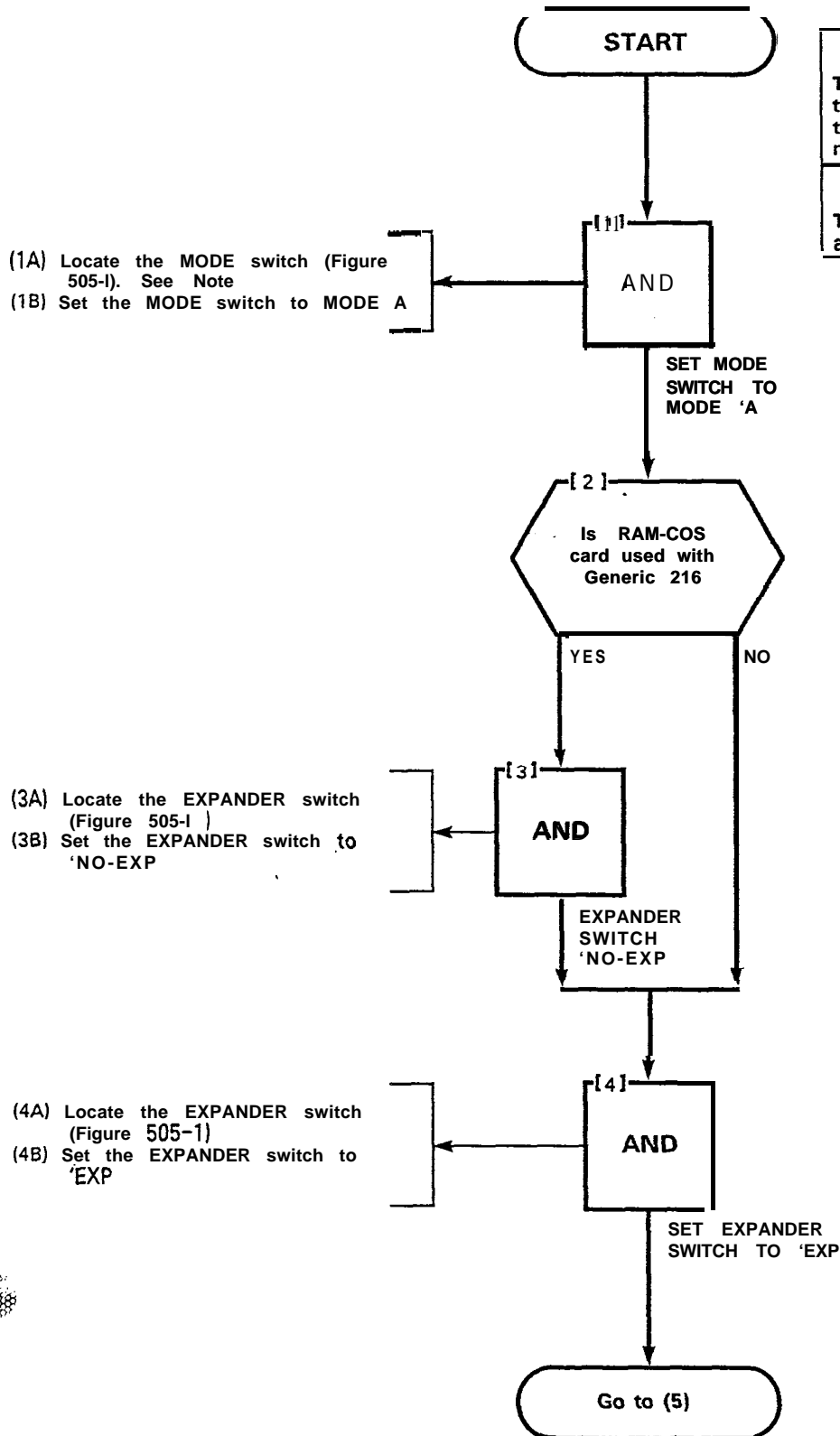
1. 4

1. 4

1. 4

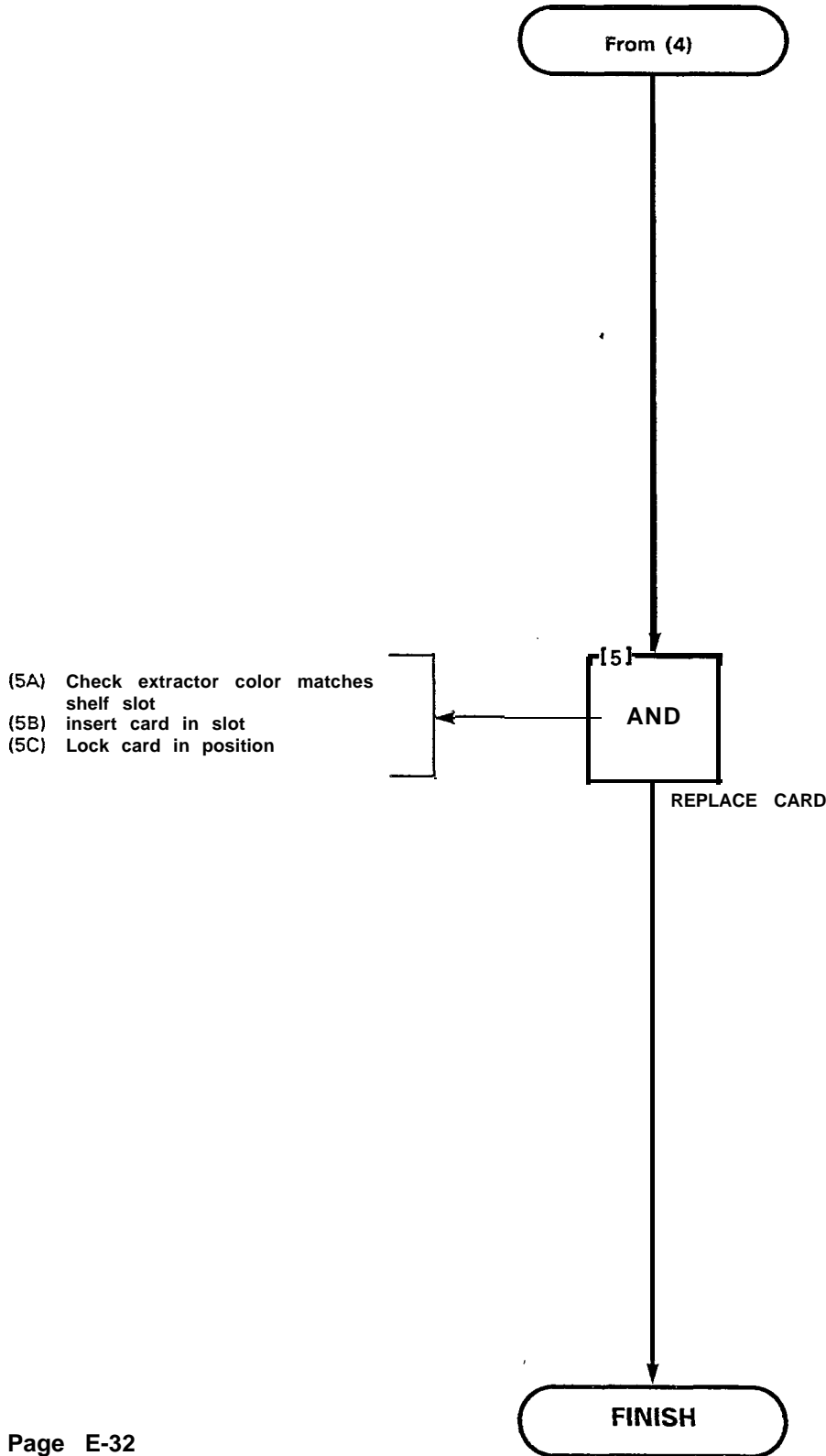
SET RAM/COS SWITCHES
MAP200-505
Issue 3, May 1984
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NOTE
This MAP concerns RAM/COS card type 9110-102-000-NA switch settings. Type 9110-002-000-NA does not have these switches.
NOTE
This MAP applies to Generics 204, 205 and 216.

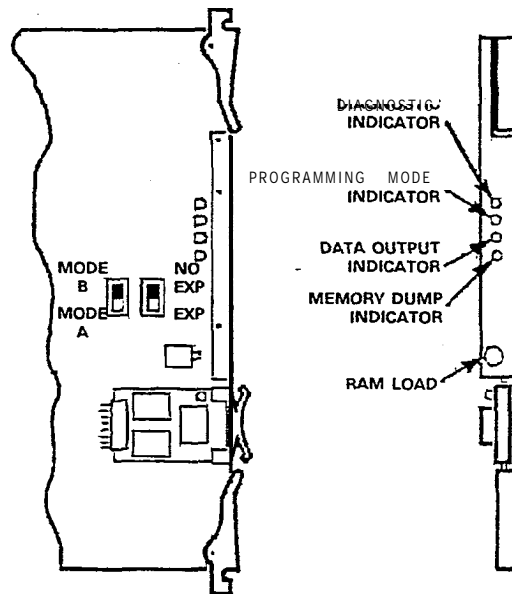


SECTION MITL9105/911 0-096-200-NA

SET RAM/COS SWITCHES
MAP200- 505
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SET RAM/COS SWITCHES
MAP200- 505
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x3165

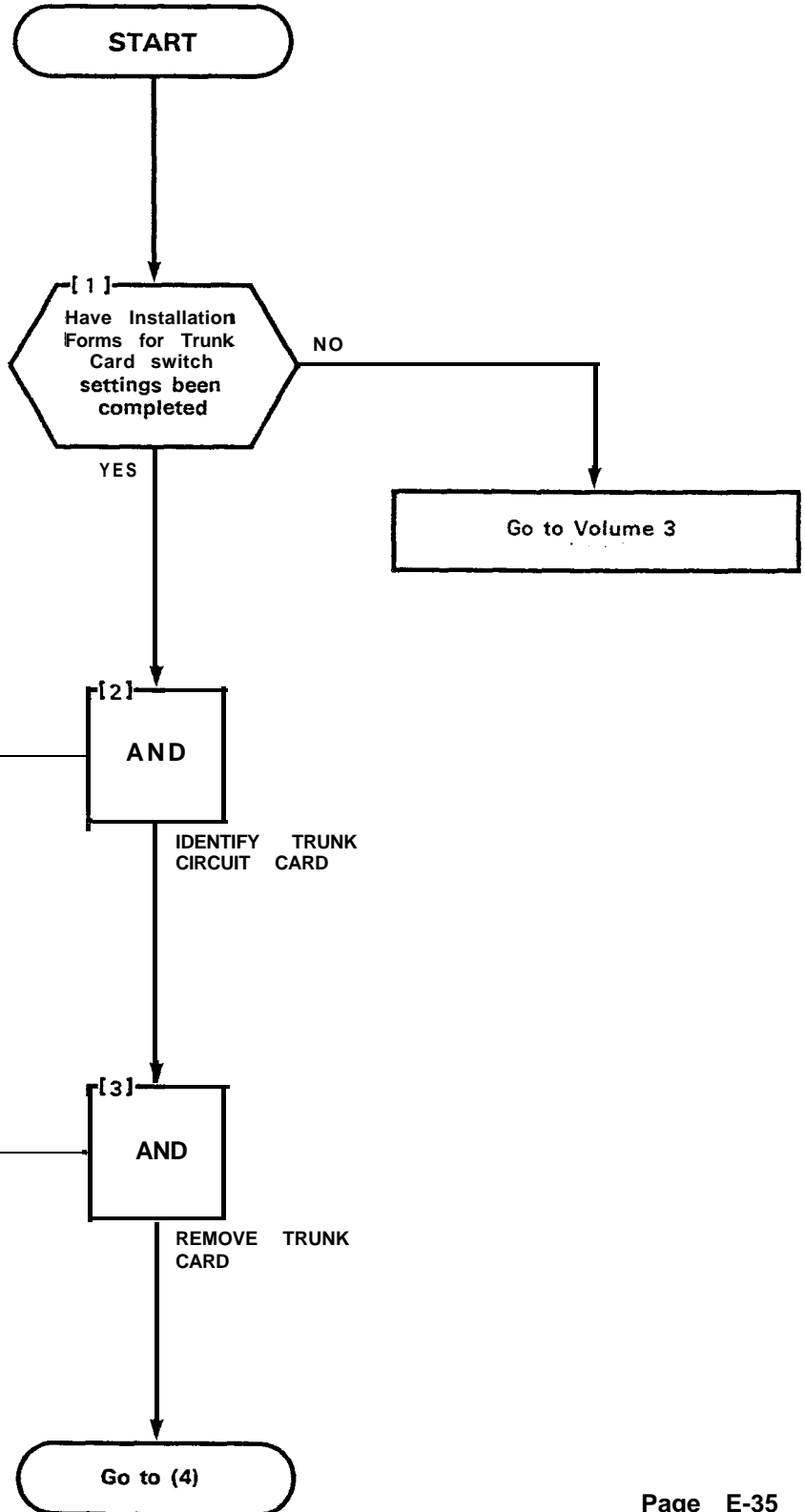
Figure 505-I RAM COS Card

SET CO TRUNK SWITCHES (TYPES -211/-311)
MAP200-506
Issue 3, May 1984
Sheet 1 of 9

CAUTION
WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.

NOTE
Use MAP200-501 when setting switches on Trunk Card Types 9110-011-000-NA or 9110-111-000-NA.

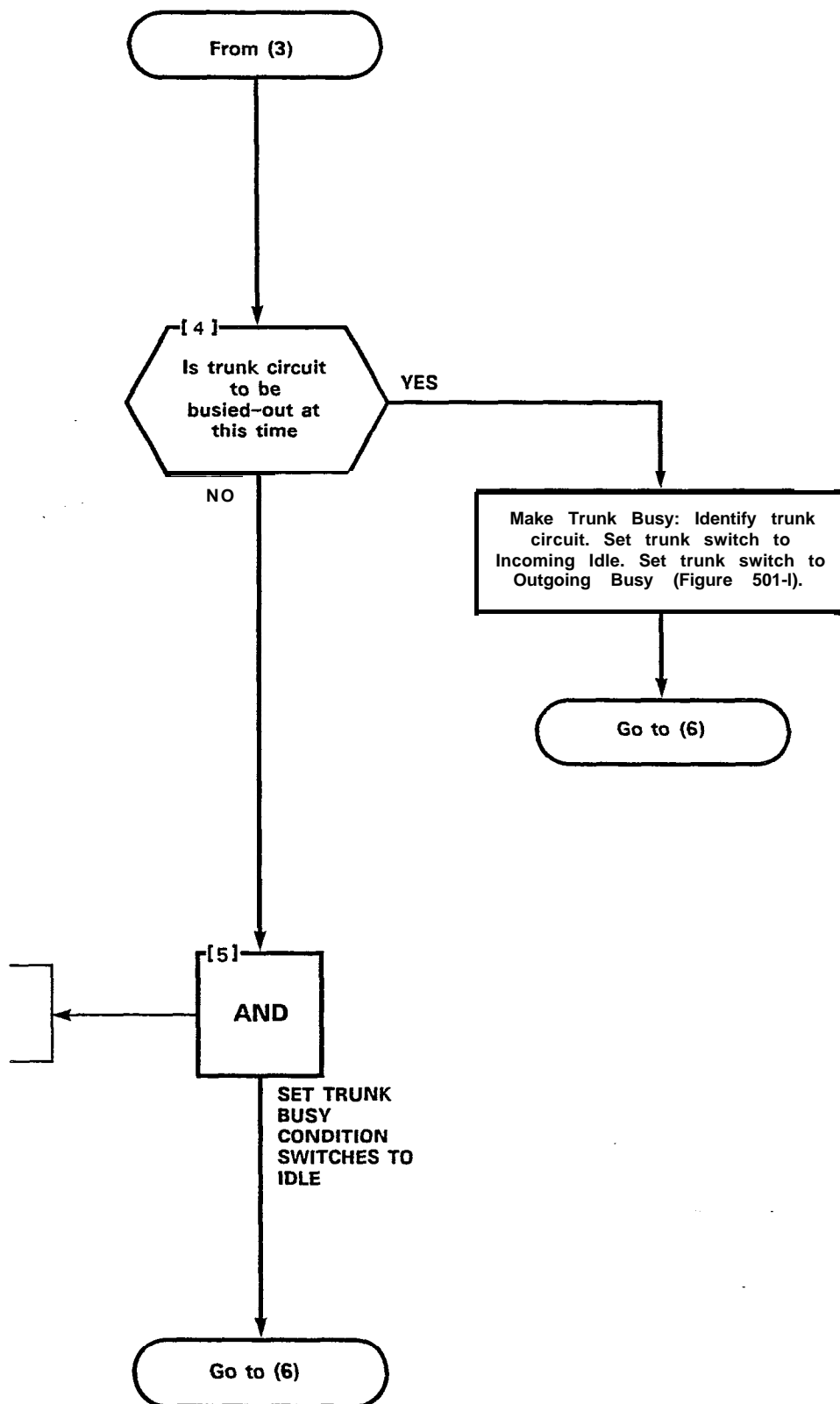
NOTE
Installation Forms for trunk card settings, Volume 3 must be completed before proceeding with this MAP.



(2A) Identify trunk circuit by card position type and unit number

(3A) Lift Card extractors at top and bottom of card
(3B) Remove trunk card from the shelf

SET CO TRUNK SWITCHES (TYPES -211/-311)
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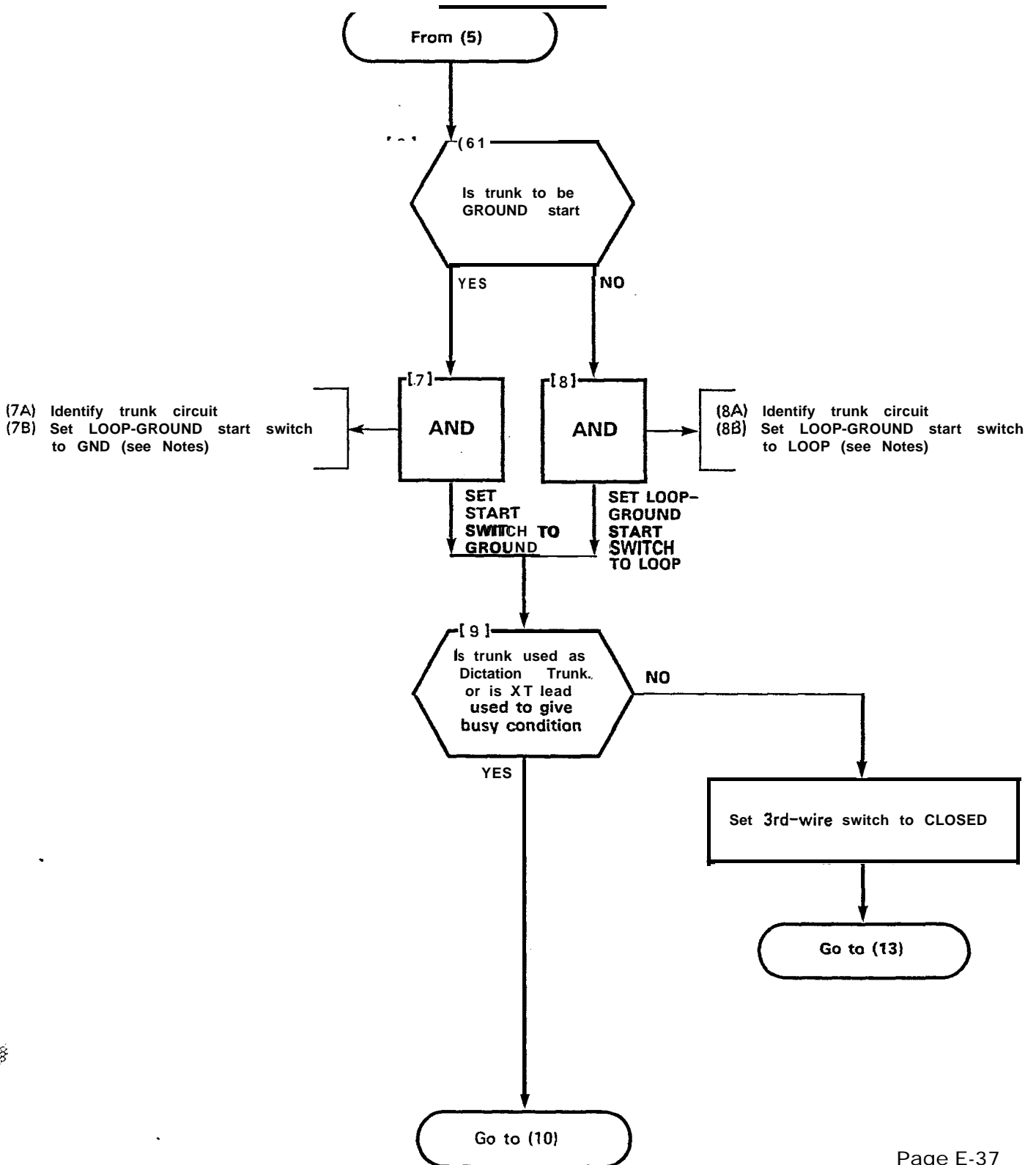
(5A) Identify trunk circuit
(5B) Set idle conditions on Trunk BUSY switch (see Notes)

SET CO TRUNK SWITCHES
(TYPES -21 1/-31 1)

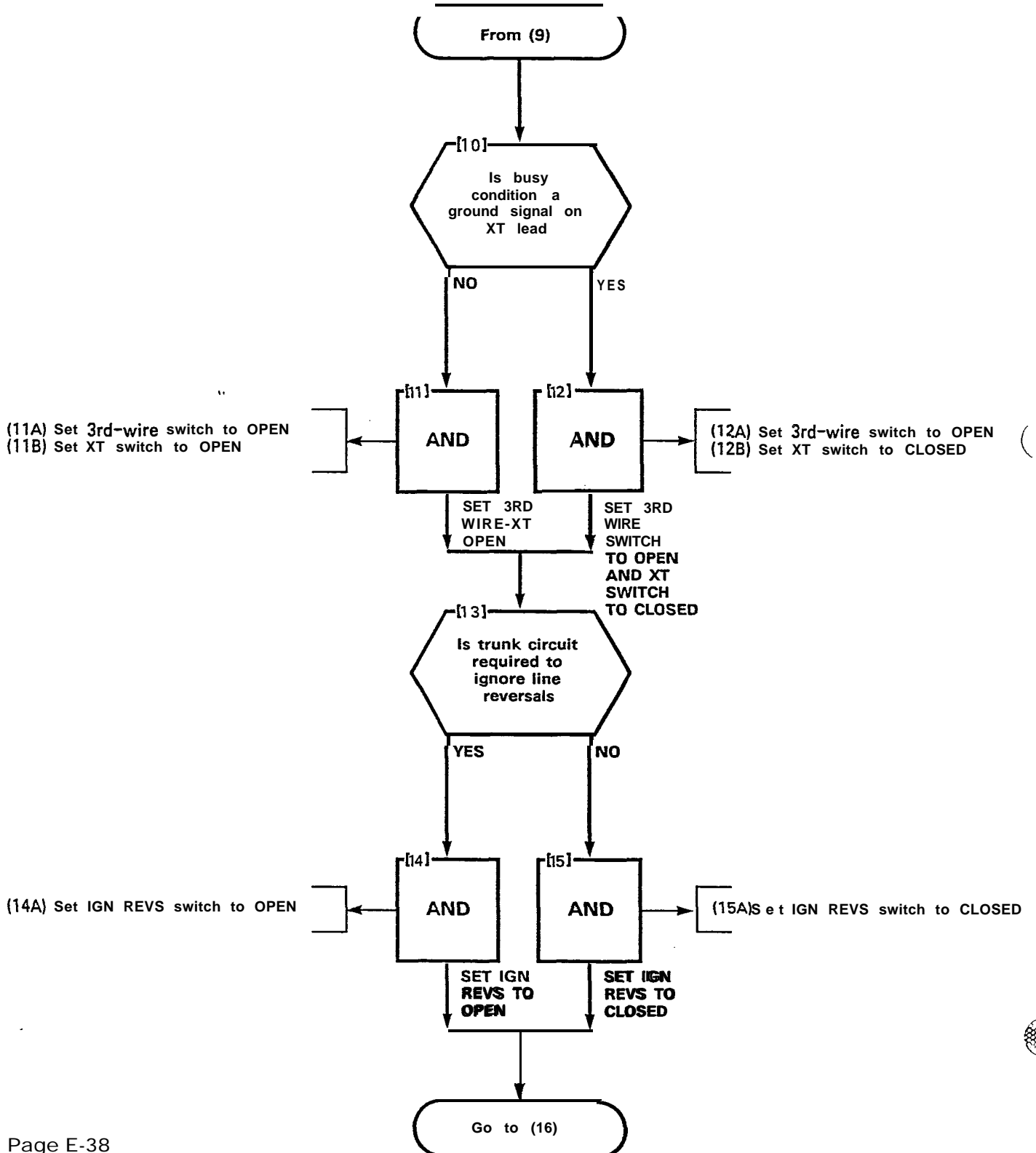
MAP200-506

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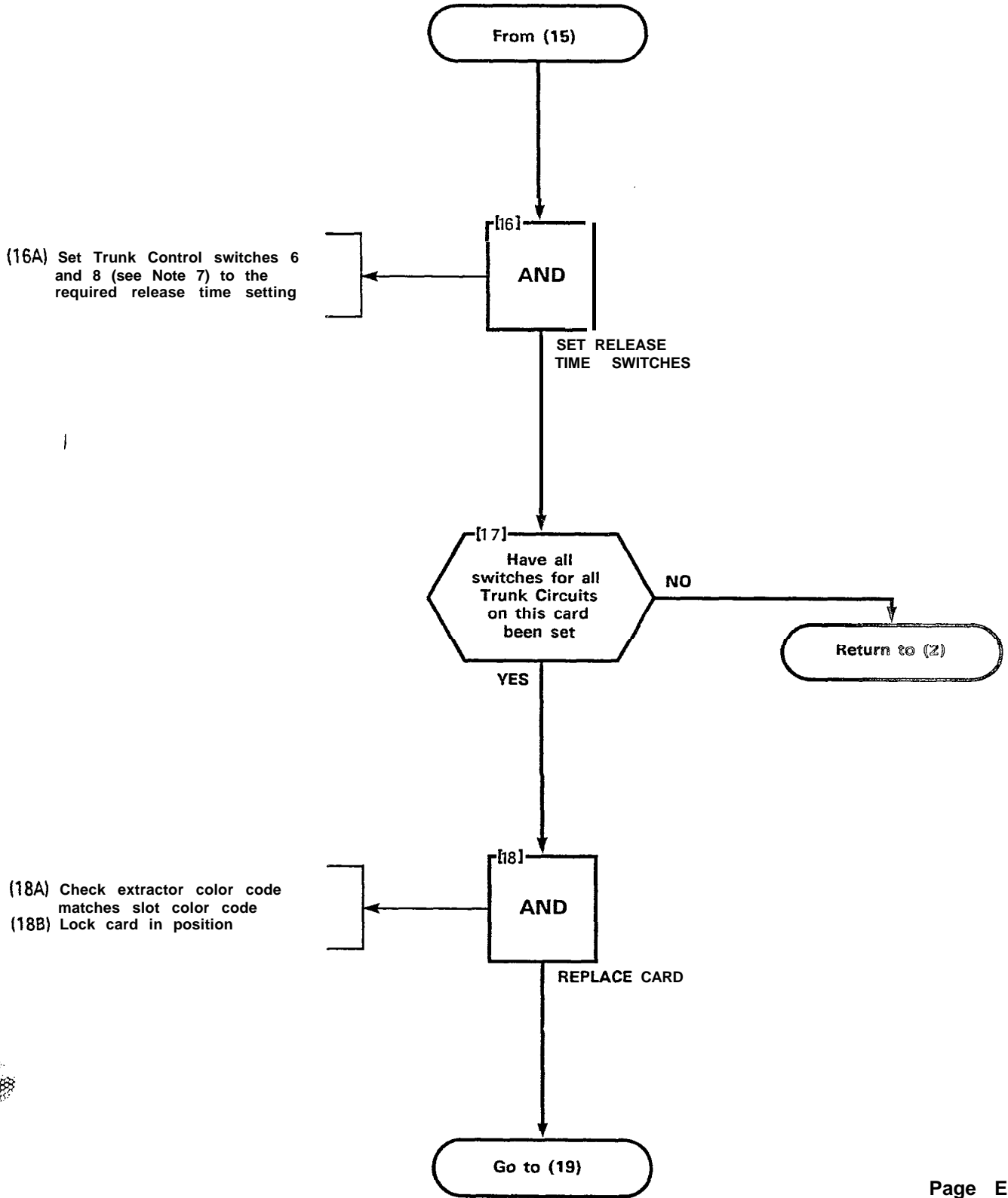
Sheet 3 of 8



SET CO TRUNK SWITCHES (TYPES -211/-311)
MAP200- 506
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SET CO TRUNK SWITCHES (TYPES -211/-311)
MAP200- 506
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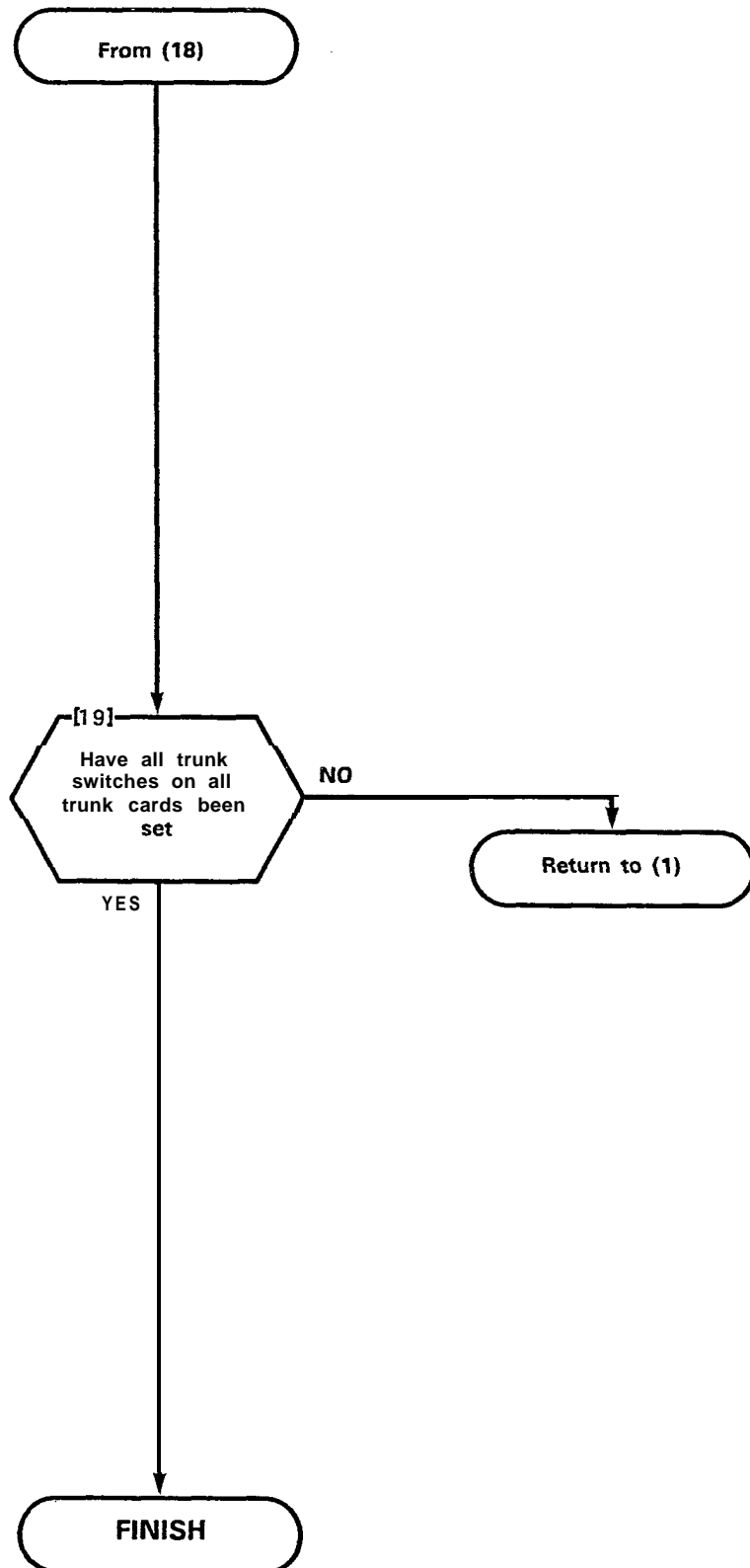


SET CO TRUNK SWITCHES
(TYPES -211/-311)

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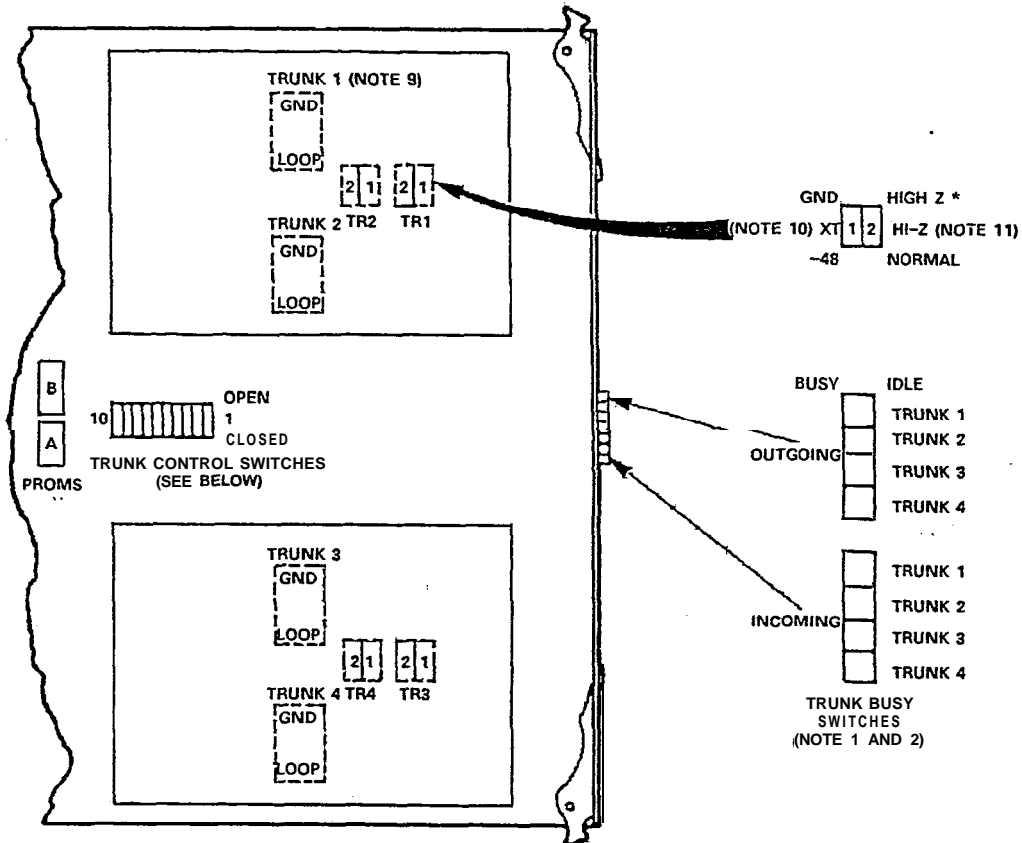


SET CO TRUNK SWITCHES
(TYPES -21 1/-31 1)

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TRUNK CONTROL SWITCH FUNCTIONS

SWITCH NO.	FUNCTION	TYPE		NOTES
		-211	-311	
1	3RD-WIRE TRUNK 1	X	X	6
2	BRD-WIRE TRUNK 2	X	X	5
3	BRD-WIRE TRUNK 3	X	X	6
4	BRD-WIRE TRUNK 4	X	X	5
5	IGNORE REVERSALS	X	X	6
6	RELEASE TIME "A"	X	X	7
7	MAKWBREAK RATIO	X	X	8
8	RELEASE TIME "B"	X	X	7
9	NOT USED			
10	NOT USED			

"X" INDICATES THAT FUNCTION STATED IS APPLICABLE FOR THE TYPE 9110-211-000-NA OR 9110-311-000-NA TRUNK CARDS: AS NOTED UNDER THE COLUMN HEADINGS.

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

X1266R4

Figure 506-I Trunk Card Switch Identification

SET CO TRUNK SWITCHES (TYPES -211/-311)
MAP200- 506
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NOTES TO FIGURE 506-I:

TRUNK BUSY SWITCHES

- OUTGOING BUSY SWITCHES (ONE PER TRUNK) CAN BE SET FOR EITHER:
 - NORMAL TRUNK OPERATION
 - TRUNK CANNOT BE SEIZED FOR OUTGOING CALL.
- 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:
 - NO ANSWER WILL BE GIVEN TO INCOMING CO CALLS
 - A PERMANENT SEIZURE CONDITION IS GIVEN TOWARDS THE CO.
- INCOMING BUSY HAS NO EFFECT WHILE OUTGOING BUSY IS NOT SET.

TRUNK CONTROL SWITCHES

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

BRD-WIRE SWITCHES

- THE BRD-WIRE LEAD WHEN REQUIRED IS CONNECTED TO THE CO 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 CO HAS BEEN TAKEN INTO SERVICE BY OTHER TRUNKS. THE SWITCH SETTING IS EITHER:
 - RECOGNIZES GROUND FROM THE CO AS A BUSY CONDITION
 - 3RD-WIRE SWITCH IS INEFFECTIVE.

IGNORE REVERSALS

- 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

- 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 6
CLOSED	OPEN	INFINITE (NONRELEASE)

MAKE/BREAK RATIO

- THE MAKE/BREAK RATIO SWITCH FUNCTION IS PROGRAMMED FOR TYPE 91 10-31 1 ONLY. THE SWITCH SETTINGS RESULT IN THE FOLLOWING RATIOS:
 - 33/66 (33 % MAKE; 66 % BREAK)
 - 40/60 (40 % MAKE; 60 % BREAK)
 TYPE 9110-211 IS FIXED AT 40/60 RATIO.

LOOP/GROUND START SWITCHES

- THE LOOP/GROUND START SWITCHES (ONE PER TRUNK) CAN BE SET TO:
 - USED FOR LOOP START TYPE TRUNKS
 - GROUND USED FOR GROUND START TYPE TRUNKS.

XT SWITCH

- THE XT SWITCH (ONE PER TRUNK) IS USED IN CONJUNCTION WITH THE BRD-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), A GROUND IS EQUIVALENT TO AN OPEN.
 - GND THE CIRCUIT RESPONDS TO A GROUND SIGNAL (E.G., WHEN IT IS A METER PULSE OR A BUSY CONDITION), A -48 Vdc SIGNAL IS EQUIVALENT TO OPEN.

HI-Z SWITCH

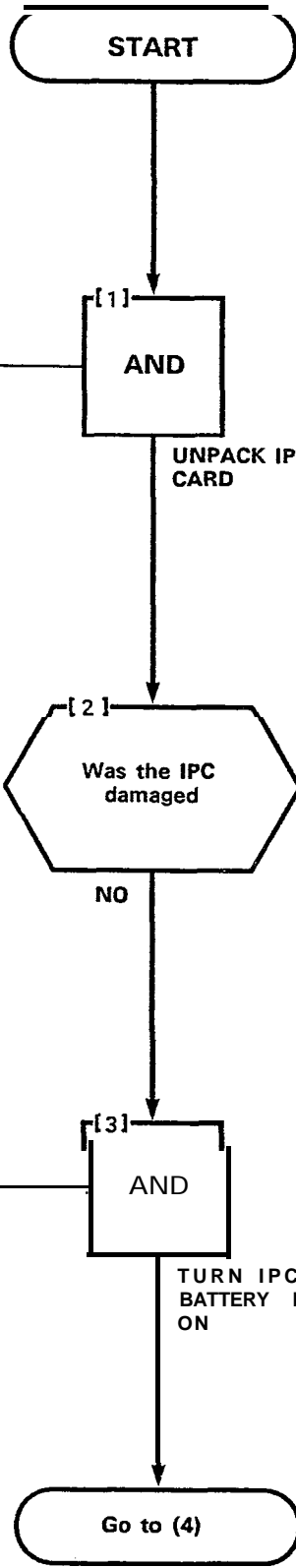
- THE HI-Z SWITCH ALLOWS THE PROPER IMPEDANCE ON INCOMING CALLS TO BE PRESENTED ACCORDING TO REQUIREMENTS. THE TWO SETTINGS FOR THE SWITCH RESULT IN THE FOLLOWING:
 - HI-Z SETTING PRESENTS THE NORMAL IMPEDANCE TO INCOMING RINGING SIGNALS, BUT A HIGH BLOCKING IMPEDANCE TO VOICE SIGNALS.
 - NORM SETTING PRESENTS A NORMAL IMPEDANCE TO BOTH RINGING SIGNALS AND VOICE SIGNALS.
 IN CANADA THE HI-Z SWITCH MUST BE SET TO HI-Z.

SET IPC BATTERY SWITCH
MAP200-507
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NOTE
It may be desirable to use the Customer Data Dump/Load feature of the SX-100/SX-200 system. See MAP200-610.

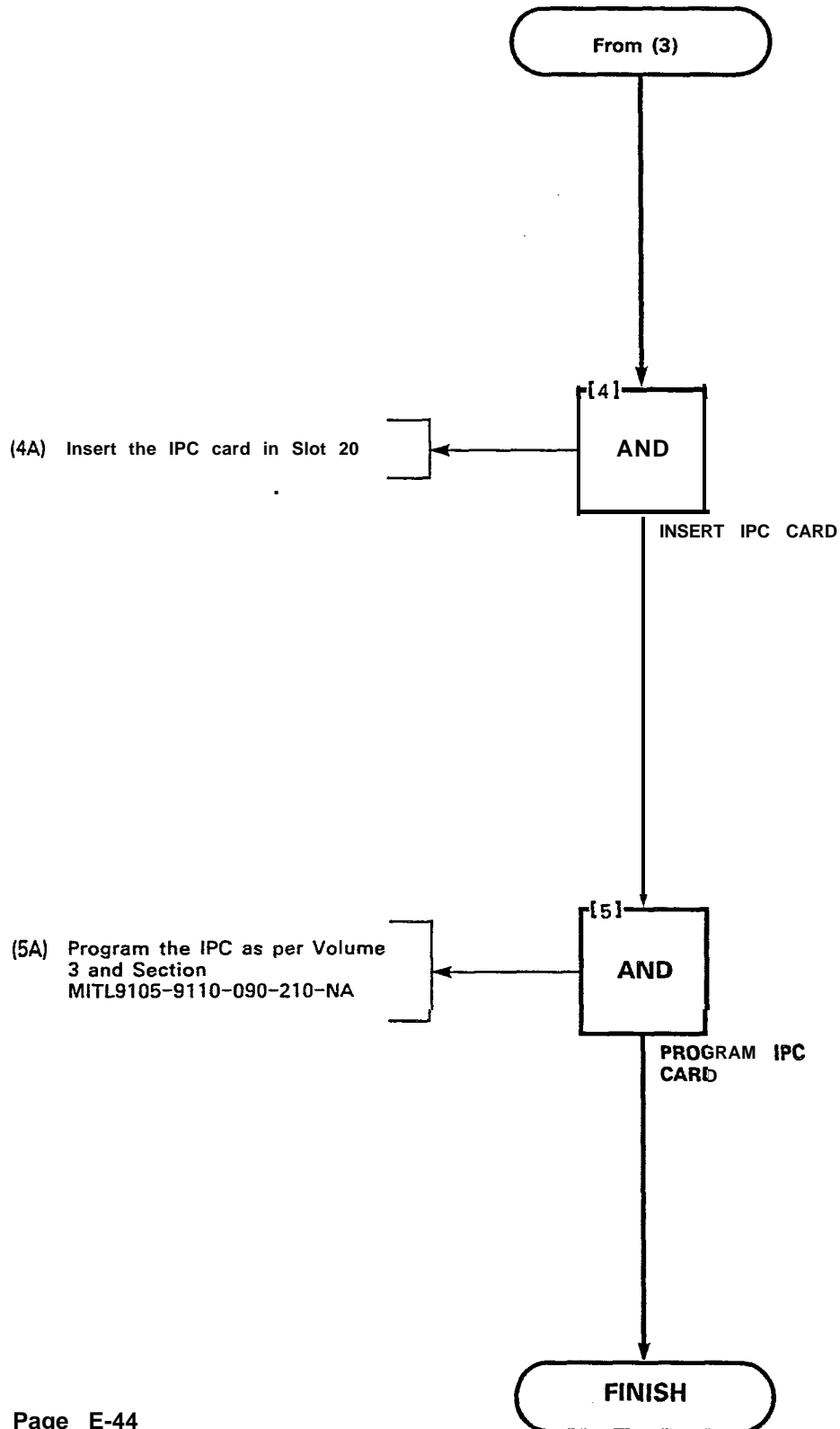
WARNING
IF AN IPC IS TO BE INSTALLED IN AN SX-100 SYSTEM, AN SX-100 FAN UPDATE KIT MUST BE INSTALLED. SEE MAP200-508.

- (1A) Put on a static wrist strap
- (1B) Unpack the IPC card and inspect it for damage



- (3A) Turn the IPC card battery pack switches to the ON position as per Figure 506-1

SET IPC BATTERY SWITCH
MAP200- 5 0 7
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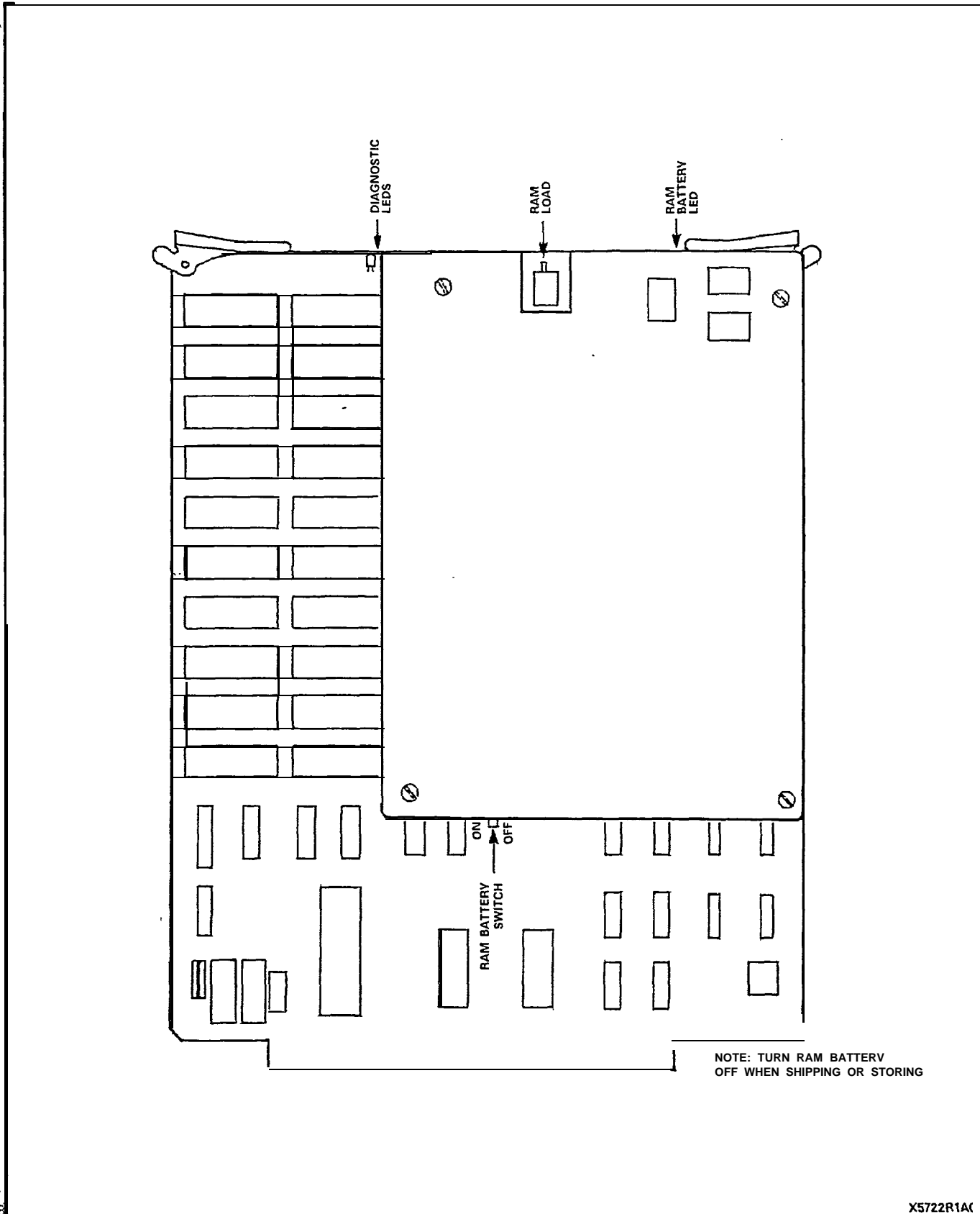


Figure 507-I IPC Card



INSTALL SX-100 FAN
UPDATE KIT

MAP200- 508

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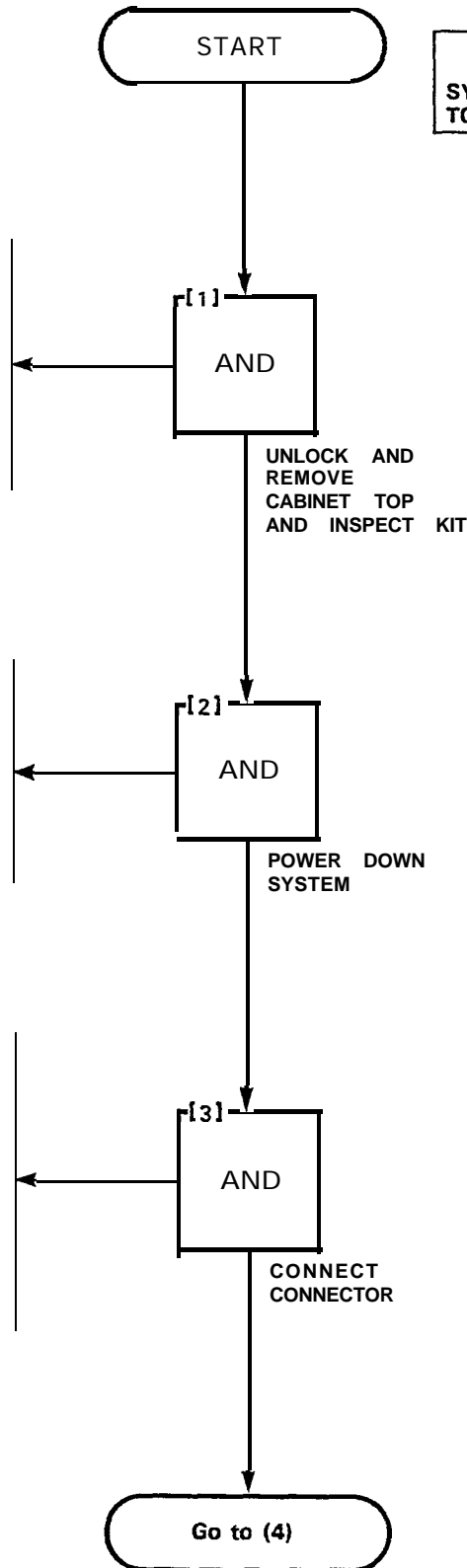
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WARNING
SYSTEM MUST BE POWERED DOWN
TO INSTALL KIT.

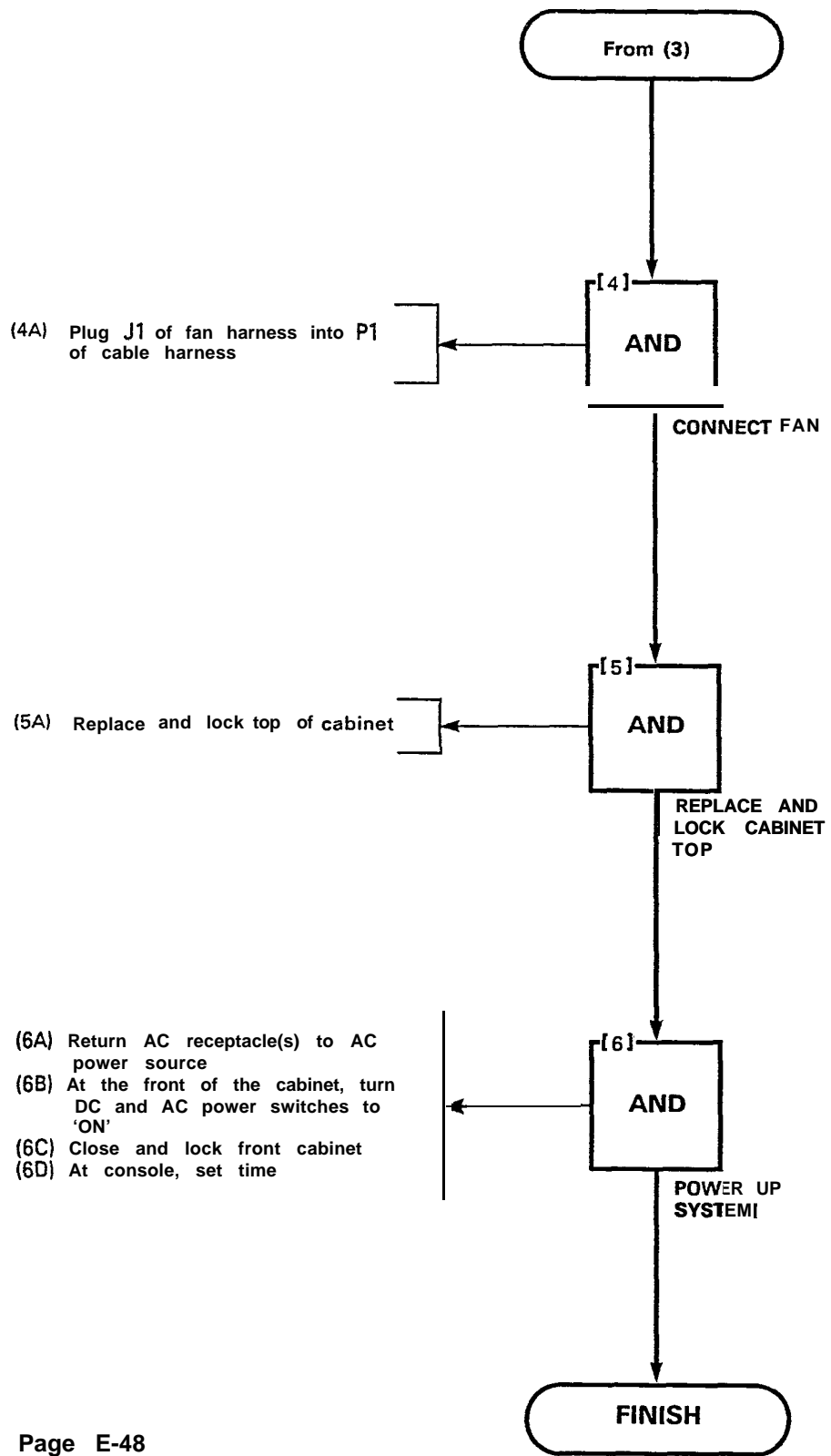
- (1A) Unlock and remove the top of the cabinet
- (1B) if a ground wire is attached to the top of the cabinet, disconnect it
- (1C) Unpack the SX-100 fan kit
- (1 D) Report any discrepancies immediately to MITEL and correct before proceeding

- (2A) Unlock and open the front door
- (2B) Power system down by turning the DC and AC power switches on the power supply to the 'OFF' position
- (2C) Disconnect the commercial power source by pulling the AC receptacle from the socket

- (3A) Unscrew mounting screw and attach cable harness and cable as per Figure 508-1
- (3B) Connect Red wire of fan to pin 4 of TB302, and Black wire of fan to pin 2 of TB302 (Figure 508-1)
- (3C) If a ground wire was connected to the top of the cabinet, connect it to the new top with the hex-nut provided



INSTALL SX-100 FAN UPDATE KIT
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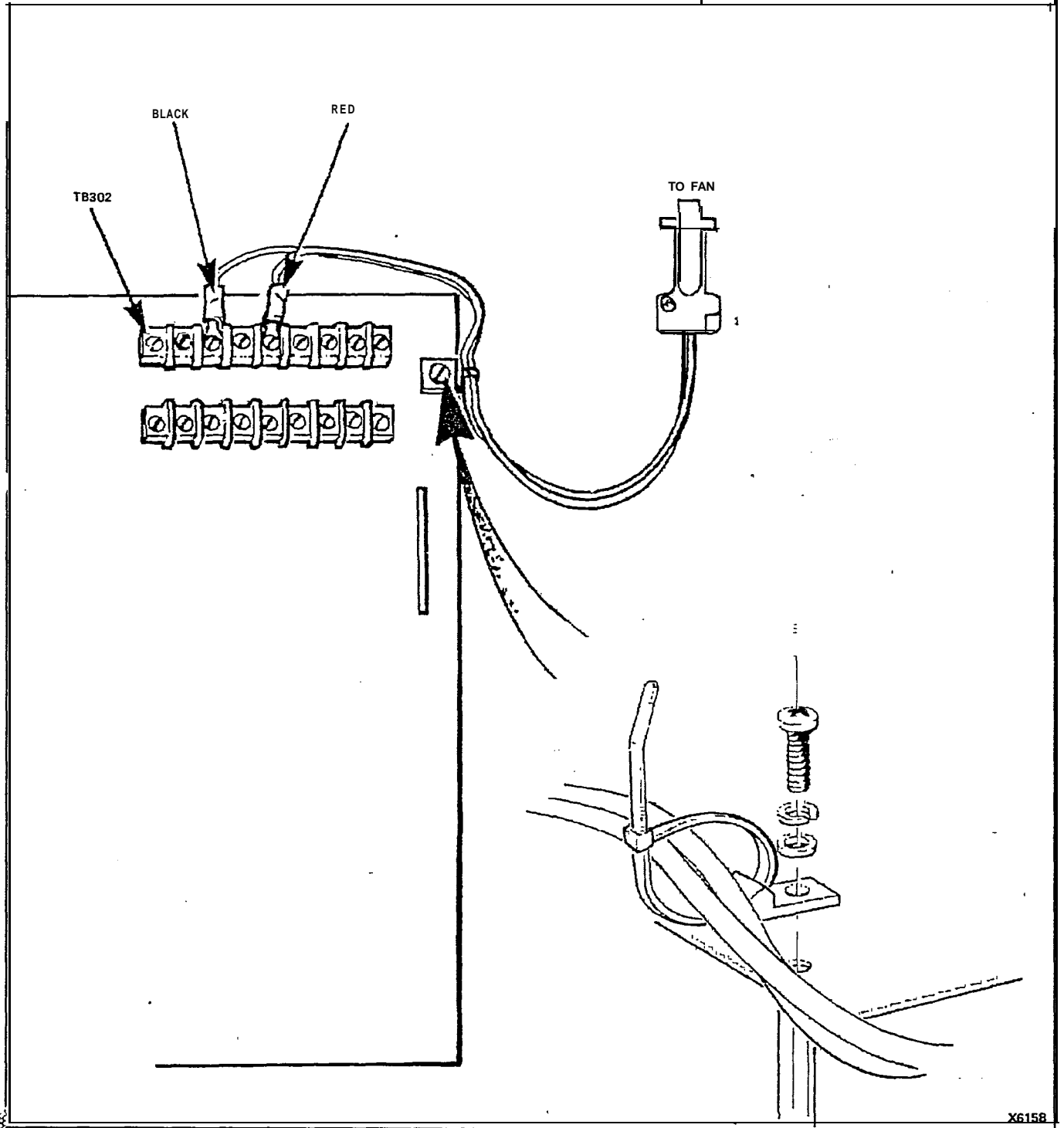


INSTALL SX-100 FAN
UPDATE KIT

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X6158

Figure 508-I Fan Connections



1000

1000

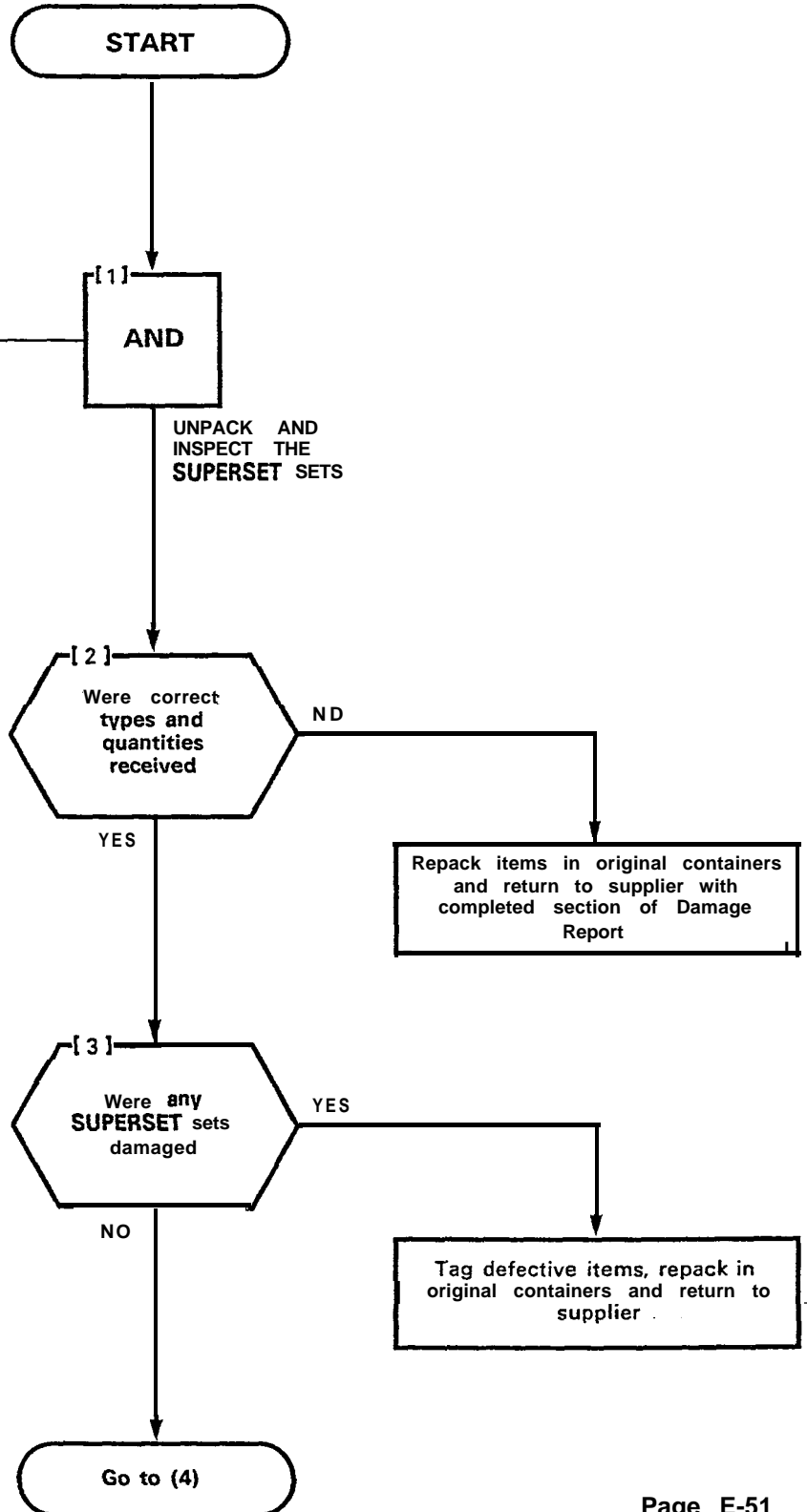
1000

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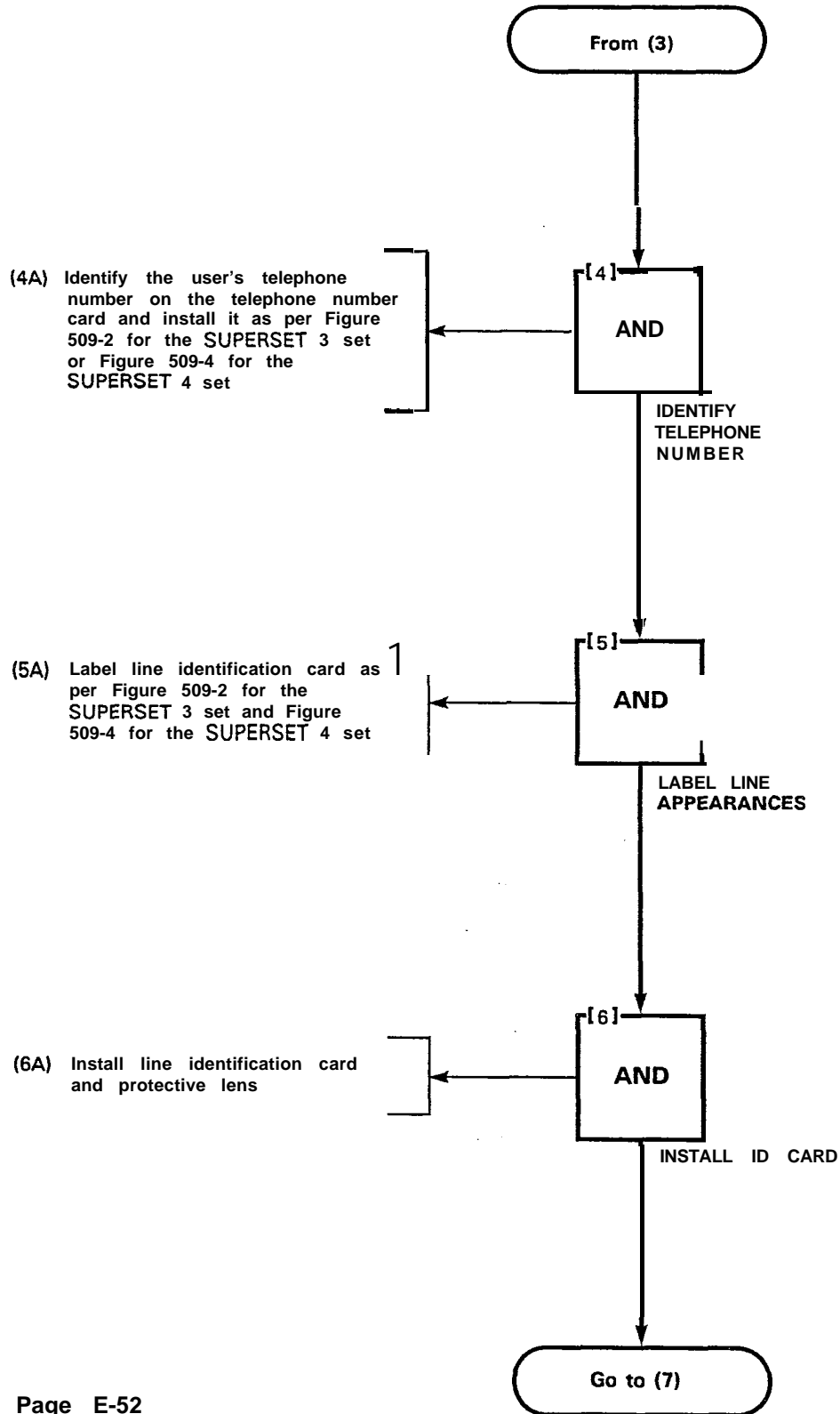
1000

INSTALL THE SUPERSET 3/ SUPERSET 4 SET
MAP200- 509
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- (1A) Unpack the SUPERSET 3 sets as per Figure 509-1 or unpack the SUPERSET 4 sets as per Figure 509-3
- (1B) Check the SUPERSET sets for damage



INSTALL THE SUPERSET 3/ SUPERSET 4 SET
MAP200- 509
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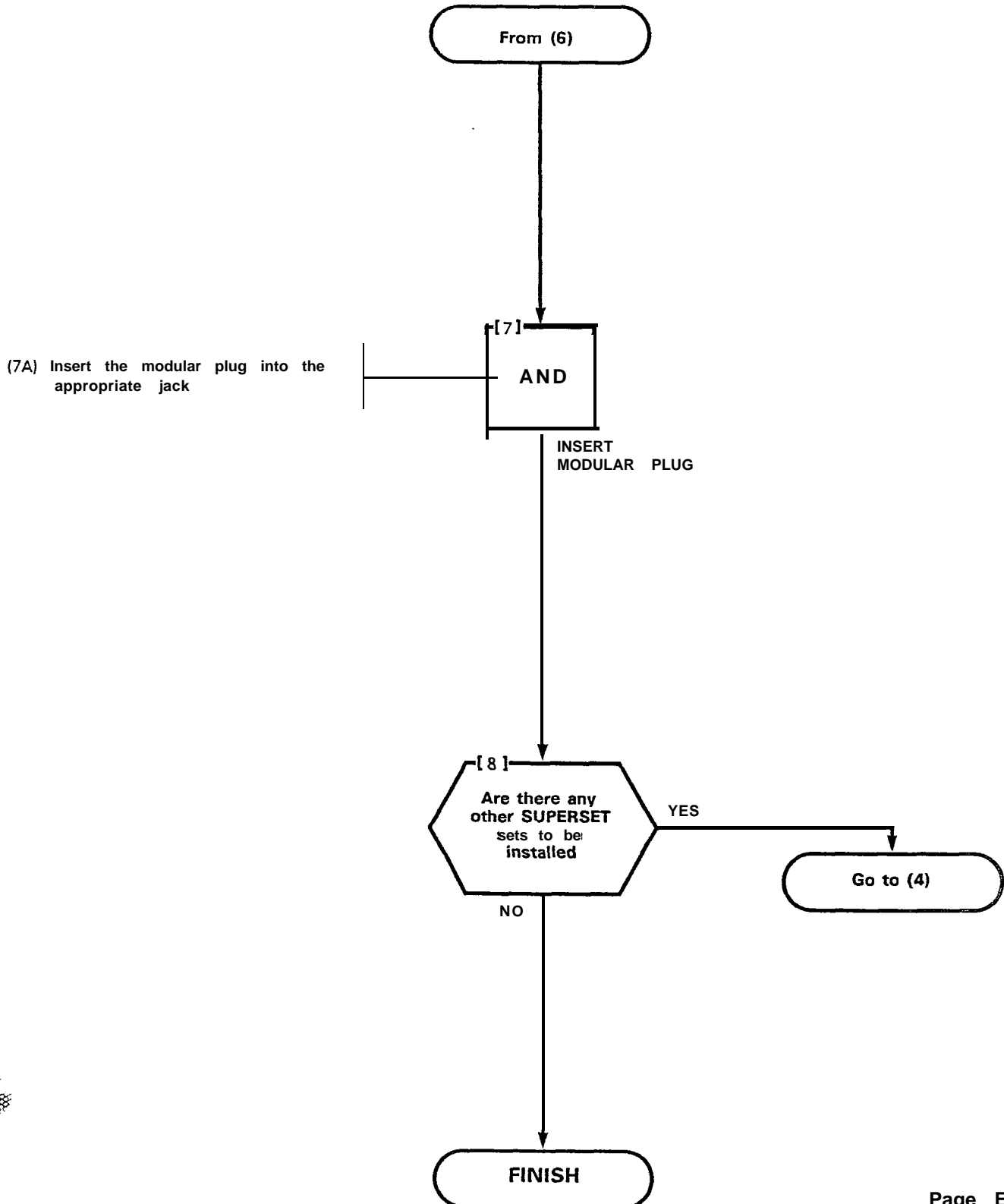


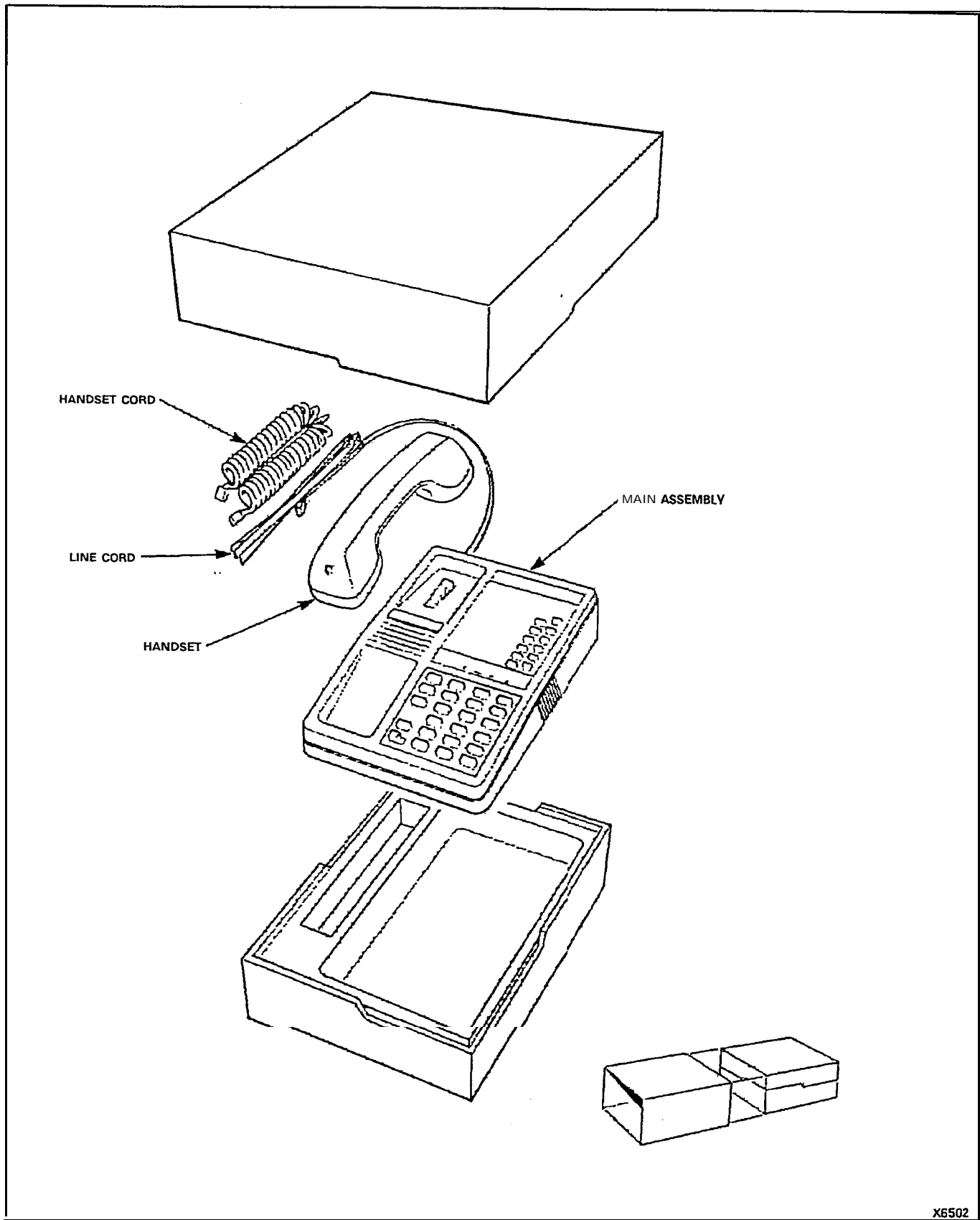
INSTALL THE SUPERSET 3/
SUPERSET 4 SET

MAP200- 509

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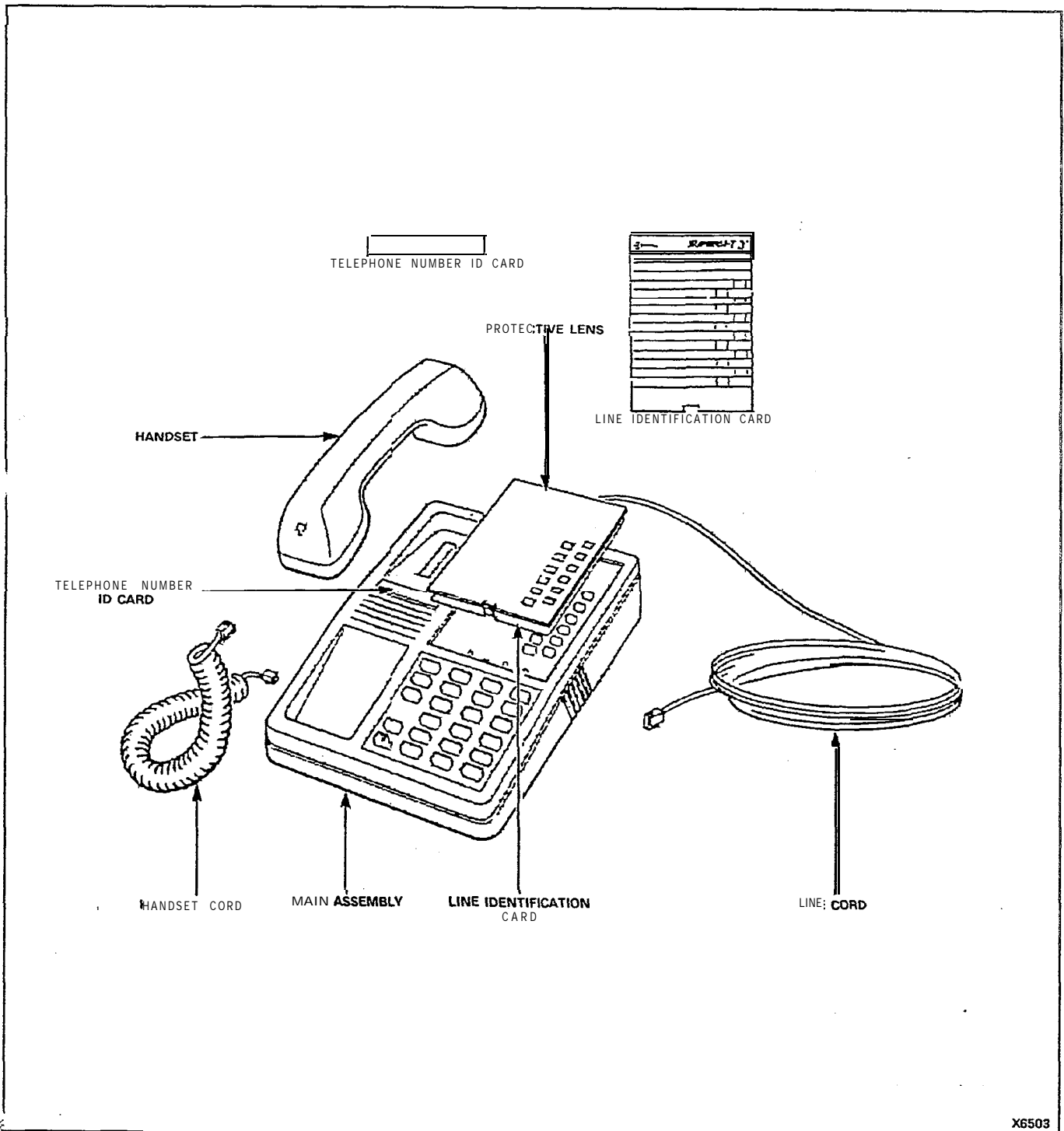




X6502

Figure 509-1 The SUPERSET 3 Set and Packaging

INSTALL THE SUPERSET 3/ SUPERSET 4 SET
MAP200-509
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X6503

Figure 509-2 The SUPERSET 3 Set

INSTALL THE SUPERSET 3/
SUPERSET 4 SET

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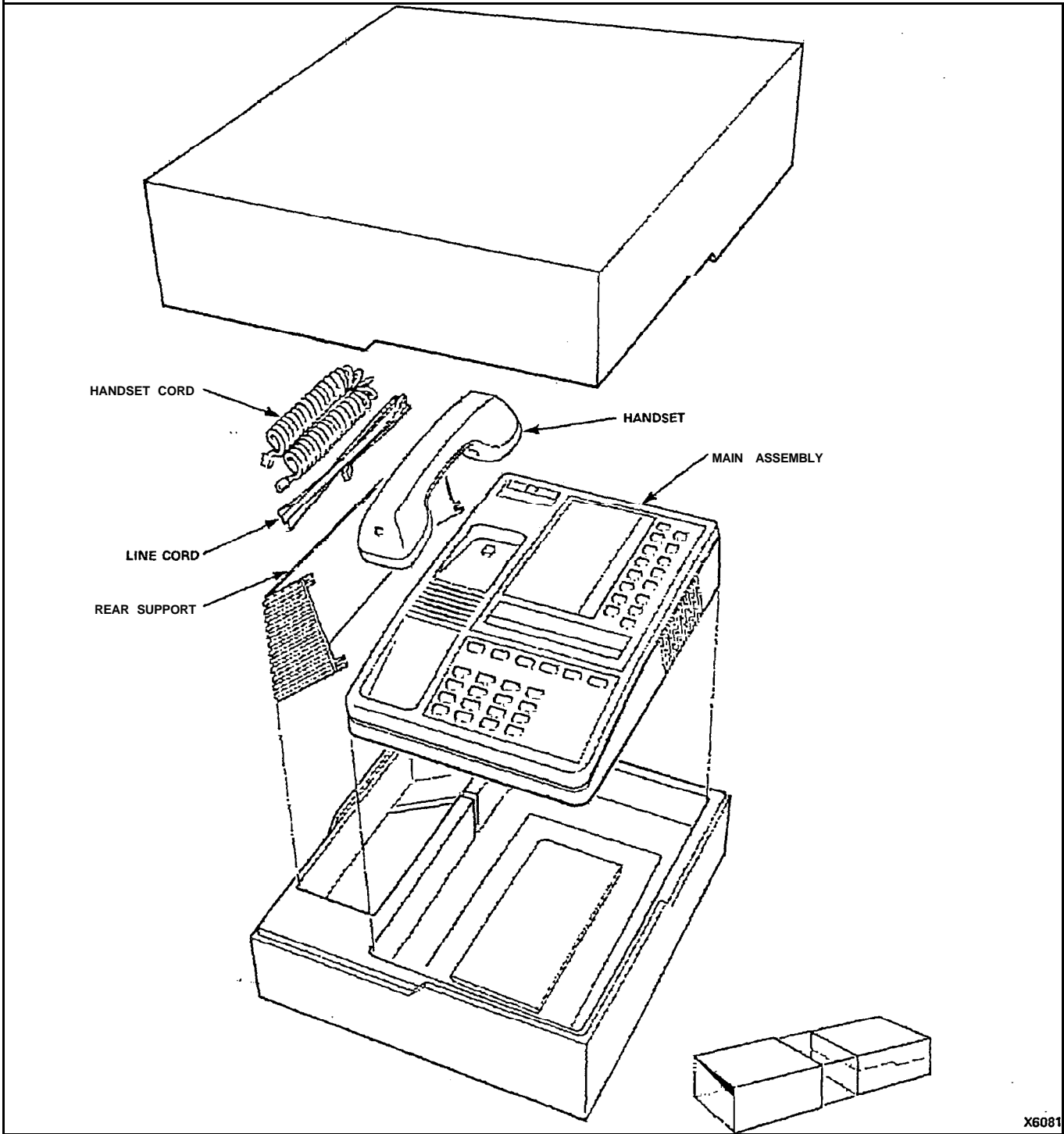


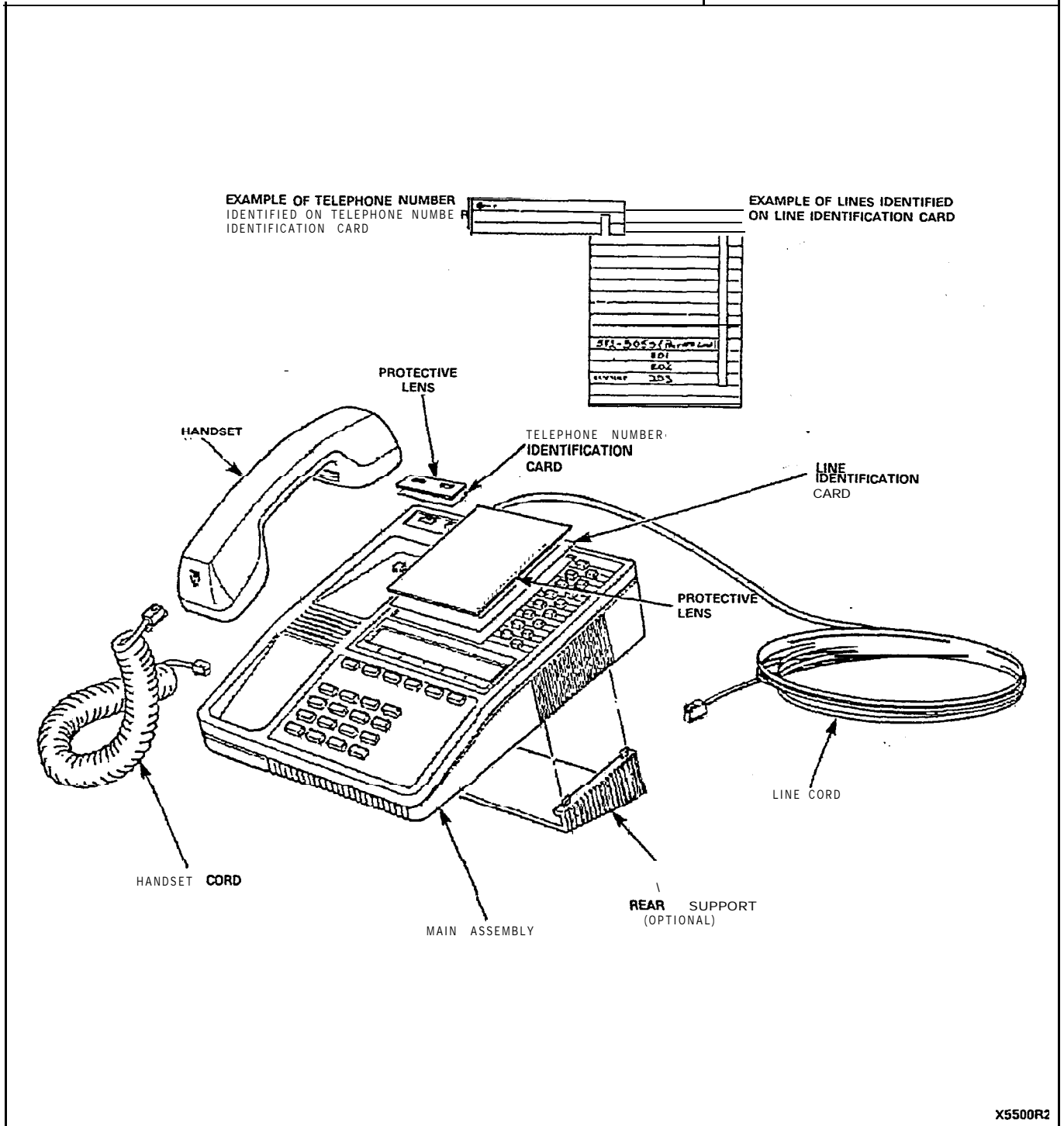
Figure 509-3 The SUPERSET 4 Set and Packaging

**INSTALL THE SUPERSET 3/
SUPERSET 4 SET**

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X5500R2

Figure 509-4 The **SUPERSET** 4 Set Assembly



APPENDIX F

ADDITIONAL EQUIPMENT INSTALLATION

GENERAL

F1.01 The MAPs contained in this Appendix are concerned with additional installation requirements which may be required during initial or subsequent installation phases.

F1.02 A list of these additional requirements is shown in Table F1-1.

TABLE FI-1
ADDITIONAL INSTALLATION REQUIREMENTS

Step	Procedure	Reference
1.	Shelf 2 Installation (SX-200)	MAP200-601
2.	Install New Cards	MAP200-602
3.	Reserve Power Supply installation (SX-200)	MAP200-603
4.	Console Interface Board Installation (SX-200)	MAP200-604
5.	Backplane Translator Board Installation	MAP200-605
6.	Installation of RCP Card	MAP200-606
7.	Reserve Power Supply Installation (SX-100)	MAP200-607
8.	Printer installation	MAP200-608
9.	Static Wrist Strap Installation	MAP200-609
10.	Customer Data Dump/Load	MAP200-6 10
11.	Installation of RAC Card	MAP200-6 11



SHELF 2 INSTALLATION (SX-200)
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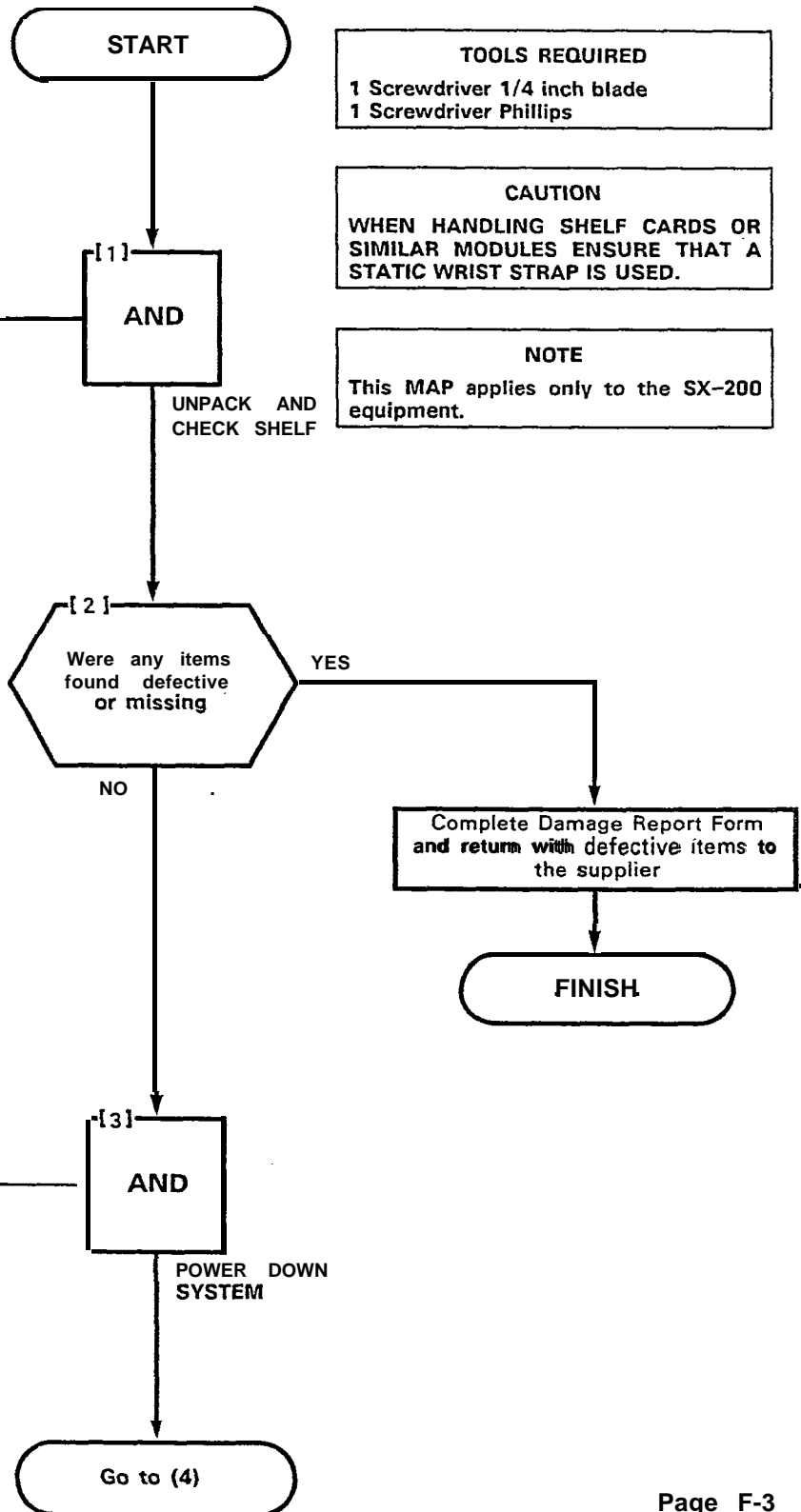
TOOLS REQUIRED
 1 Screwdriver 1/4 inch blade
 1 Screwdriver Phillips

CAUTION
 WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT A STATIC WRIST STRAP IS USED.

NOTE
 This MAP applies only to the SX-200 equipment.

- (1A) Unpack shelf
- (1B) Check backplane for cracks and bent pins
- (1C) Check hardware against packing slip
- (1D) Check fuses (if supplied)

WARNING
 IF THE SYSTEM HAS ANY POWER TO IT (48 VDC RESERVE OR AC POWER), THIS POWER MUST BE REMOVED (STEP 3).



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SHELF 2 INSTALLATION (SX-200)
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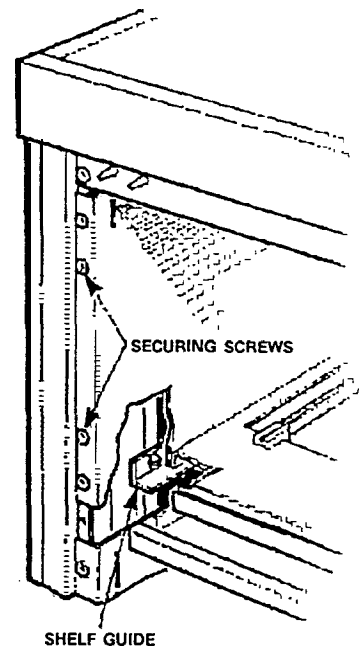
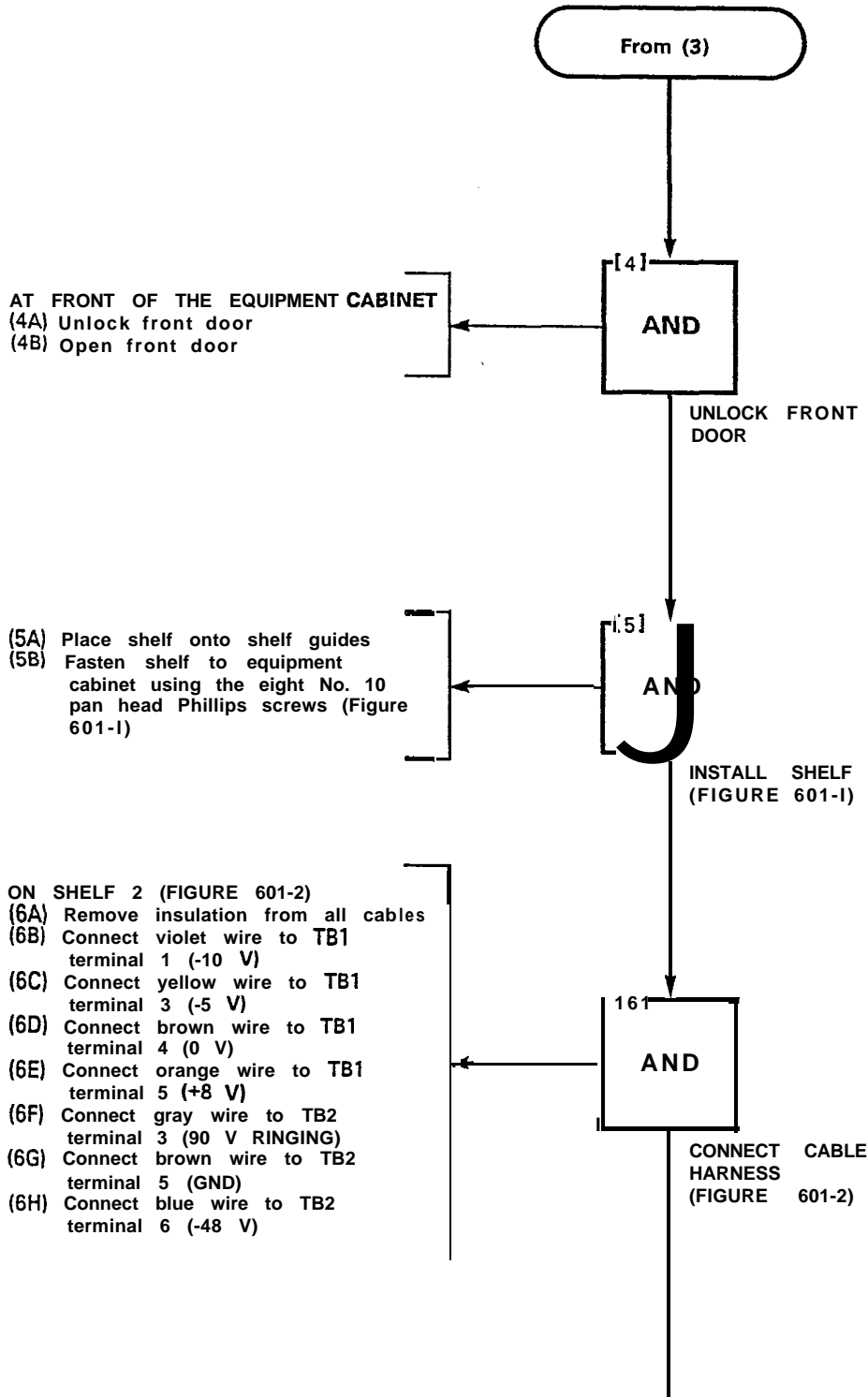


Figure 601-1

X239

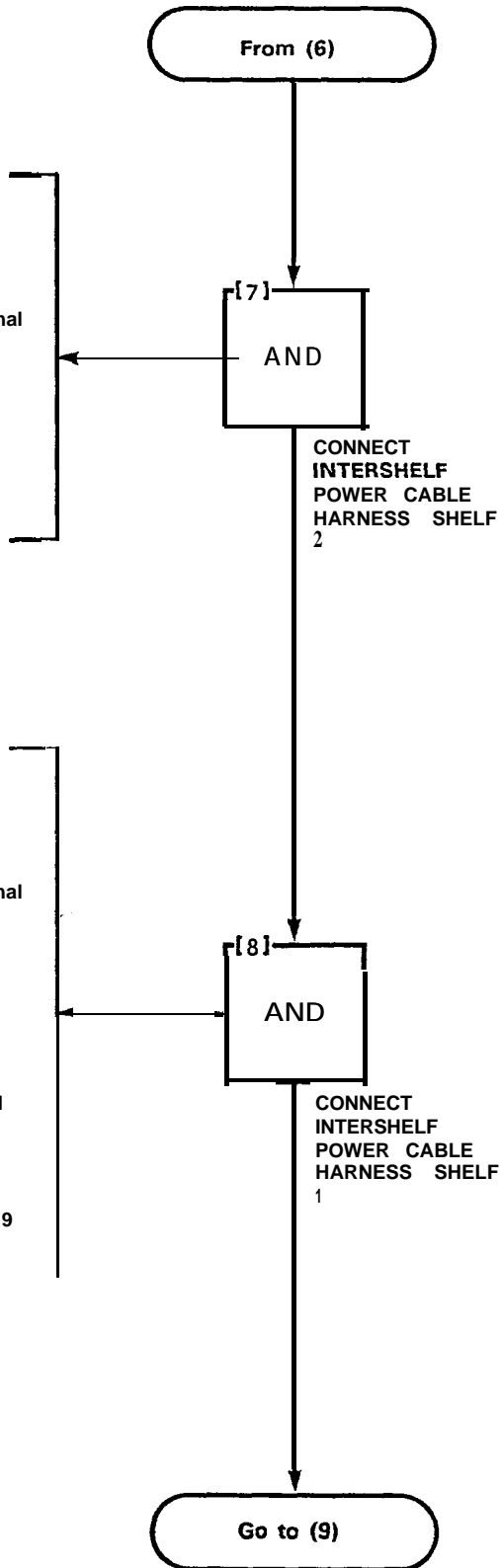
SHELF 2 INSTALLATION (SX-200)
MAP200-601
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ON SHELF 2 (FIGURE 601-2)

- (7A) Connect orange wire to the spare 8 Vdc terminal on TB1. Tighten both 8 Vdc terminals
- (7B) Connect brown wire to TB1 terminal 4 (0 V). Tighten terminal
- (7C) Connect violet wire to TB1 terminal 2 (-10 Vdc). Tighten terminal
- (7D) Connect yellow wire to TB1 terminal 3 (-5 Vdc). Tighten terminal
- (7E) Connect blue wire to TB2 terminal 6 (-48 Vdc)

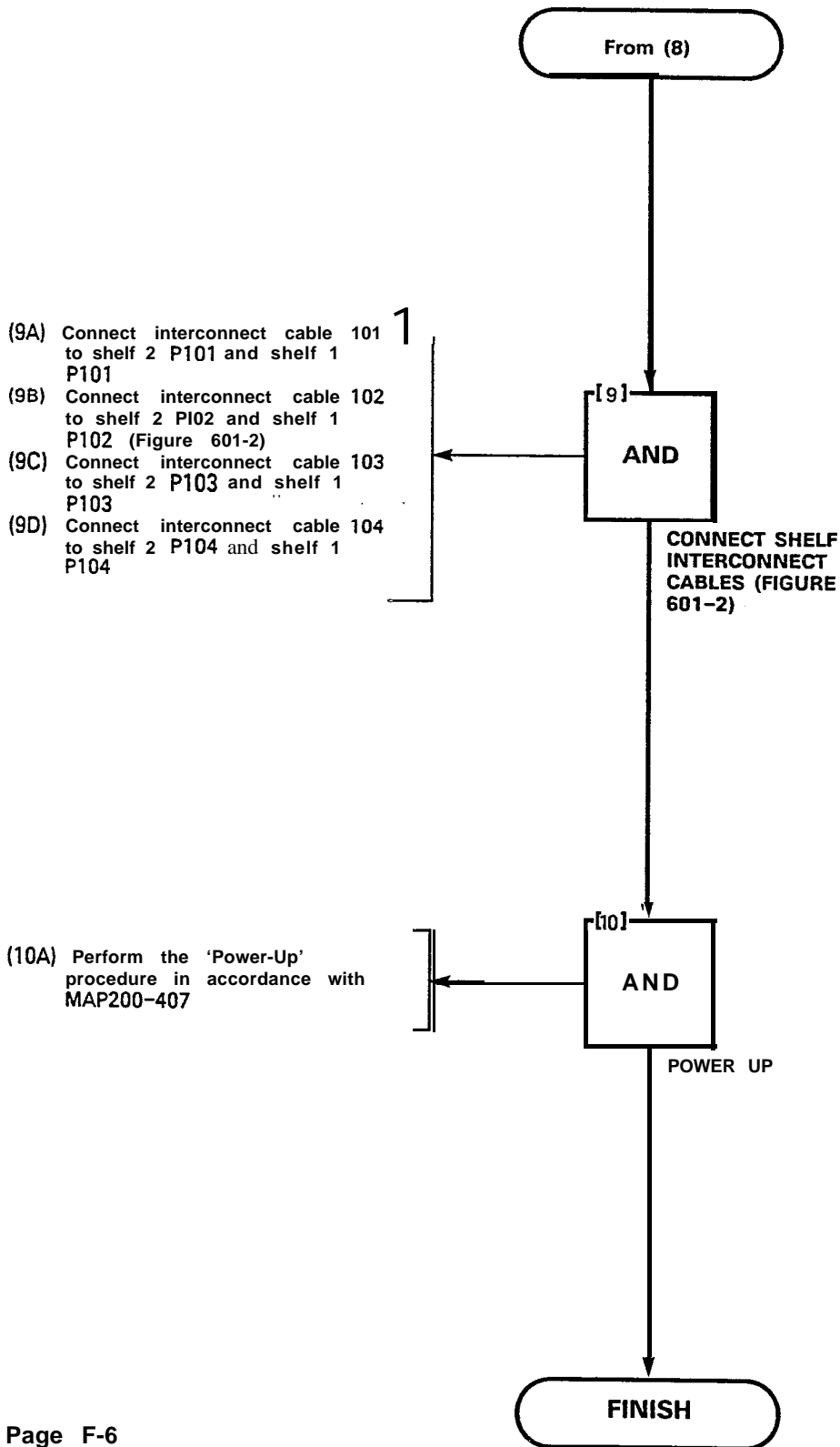
ON SHELF 1 (FIGURE 601-2)

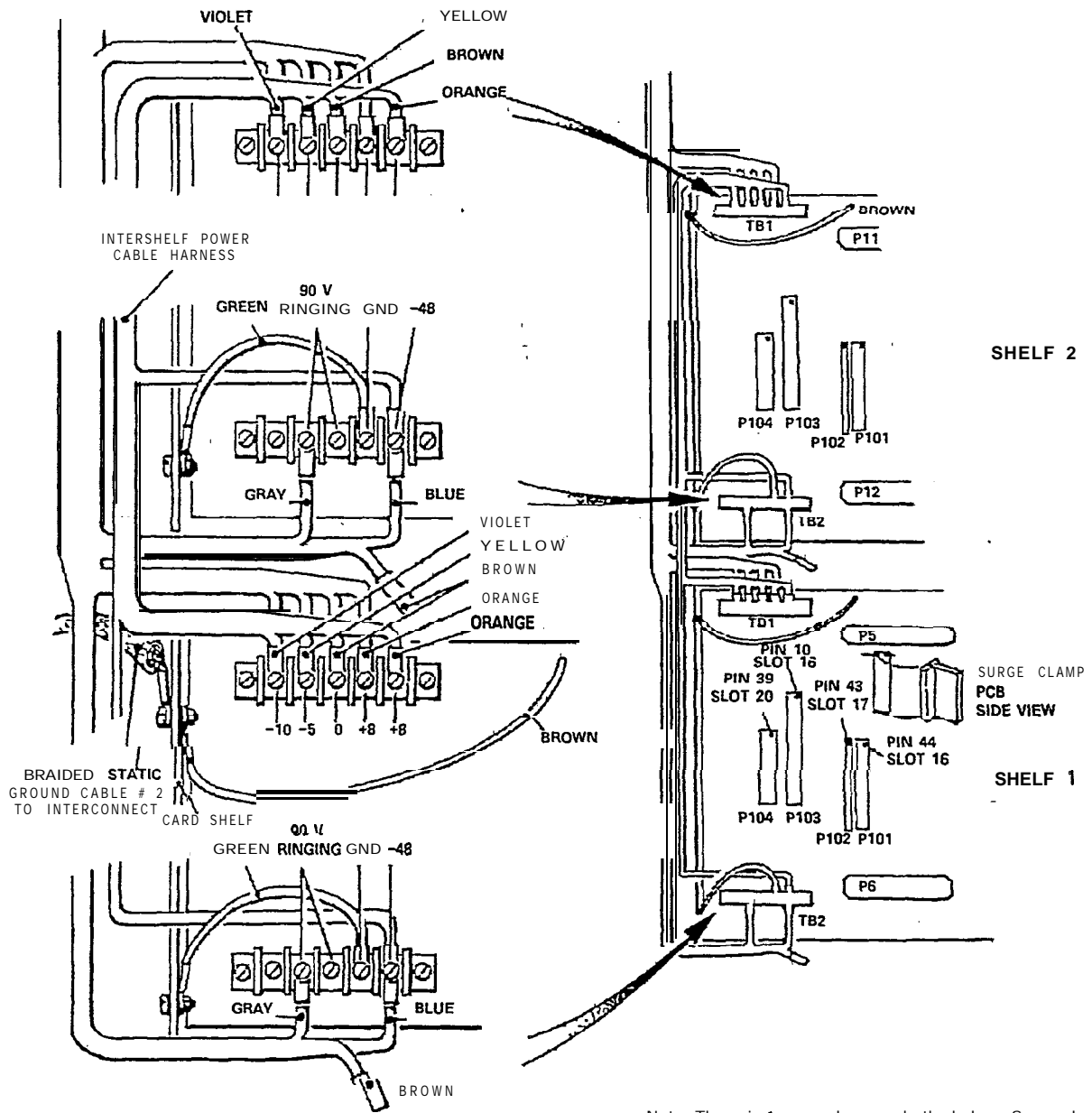
- (8A) Connect orange wire to the spare 8 Vdc terminal on TB1. Tighten terminal
- (8B) Connect brown wire to TB1 terminal 4 (0 V). Tighten terminal
- (8C) Connect violet wire to TB1 terminal 2 (-10 Vdc). Tighten terminal
- (8D) Connect yellow wire to TB1 terminal 3 (-5 Vdc). Tighten terminal
- (8E) Connect blue wire to TB2 terminal 6 (-48 Vdc)
- (8F) Take the Surge Clamp PCB and install it on Shelf 1 as per Figure 601-2. Ensure the TOP of the PCB is towards the top of the shelf. The first pins on the PCB should plug into pins 9 and 10



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SHELF 2 INSTALLATION (SX-200)
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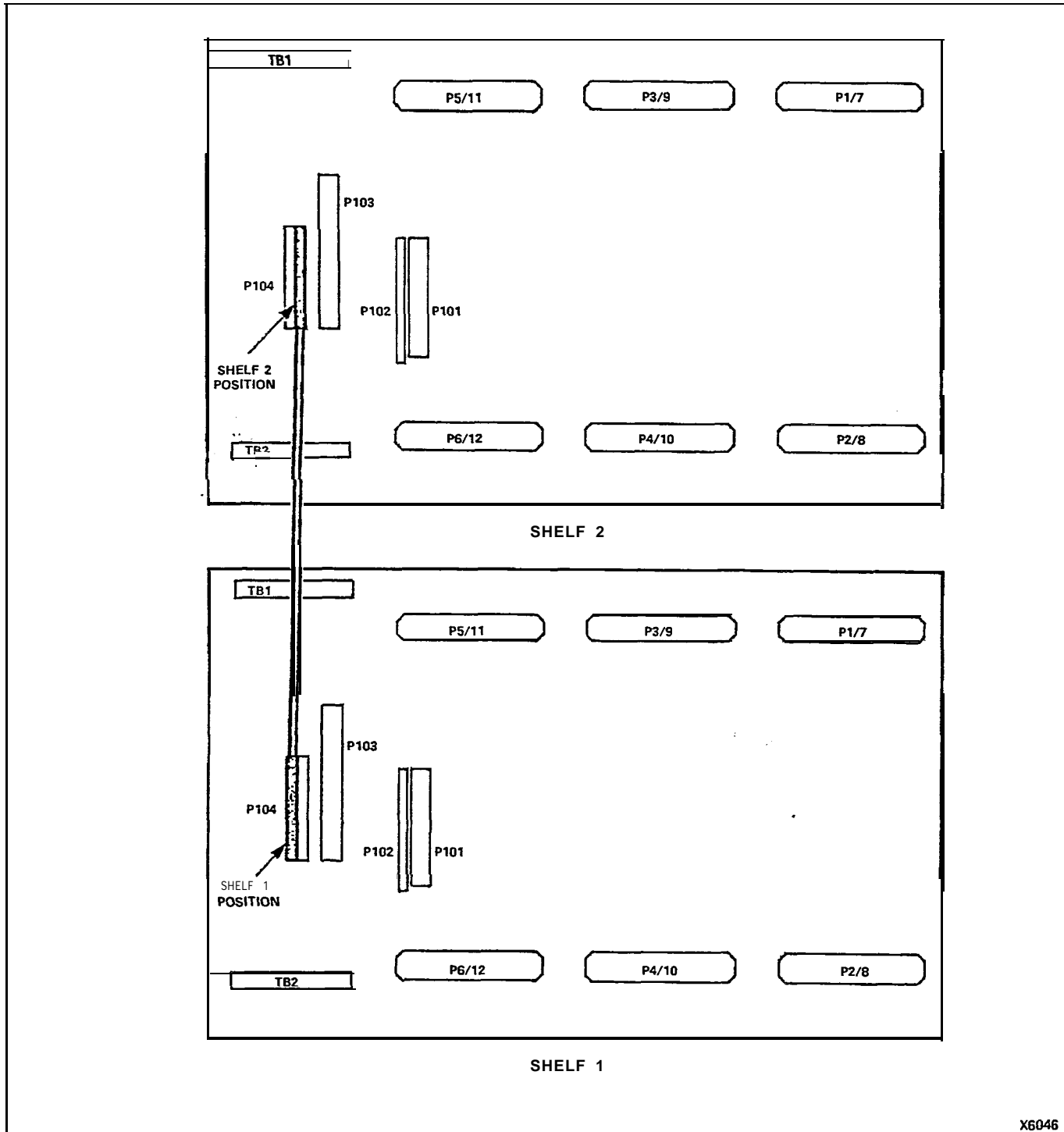


Note: There is a surge clamp on both shelves. Surge clamp on second shelf **not** shown. Second shelf surge clamp in **same** positions **as** first shelf clamp.

X116R4

Figure 601-2 SX-200 Backplanes

SHELF 2 INSTALLATION (SX-200)
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X6046

Figure 601-3 P104 Backplane Connections

INSTALL NEW CARDS

MAP200- 602

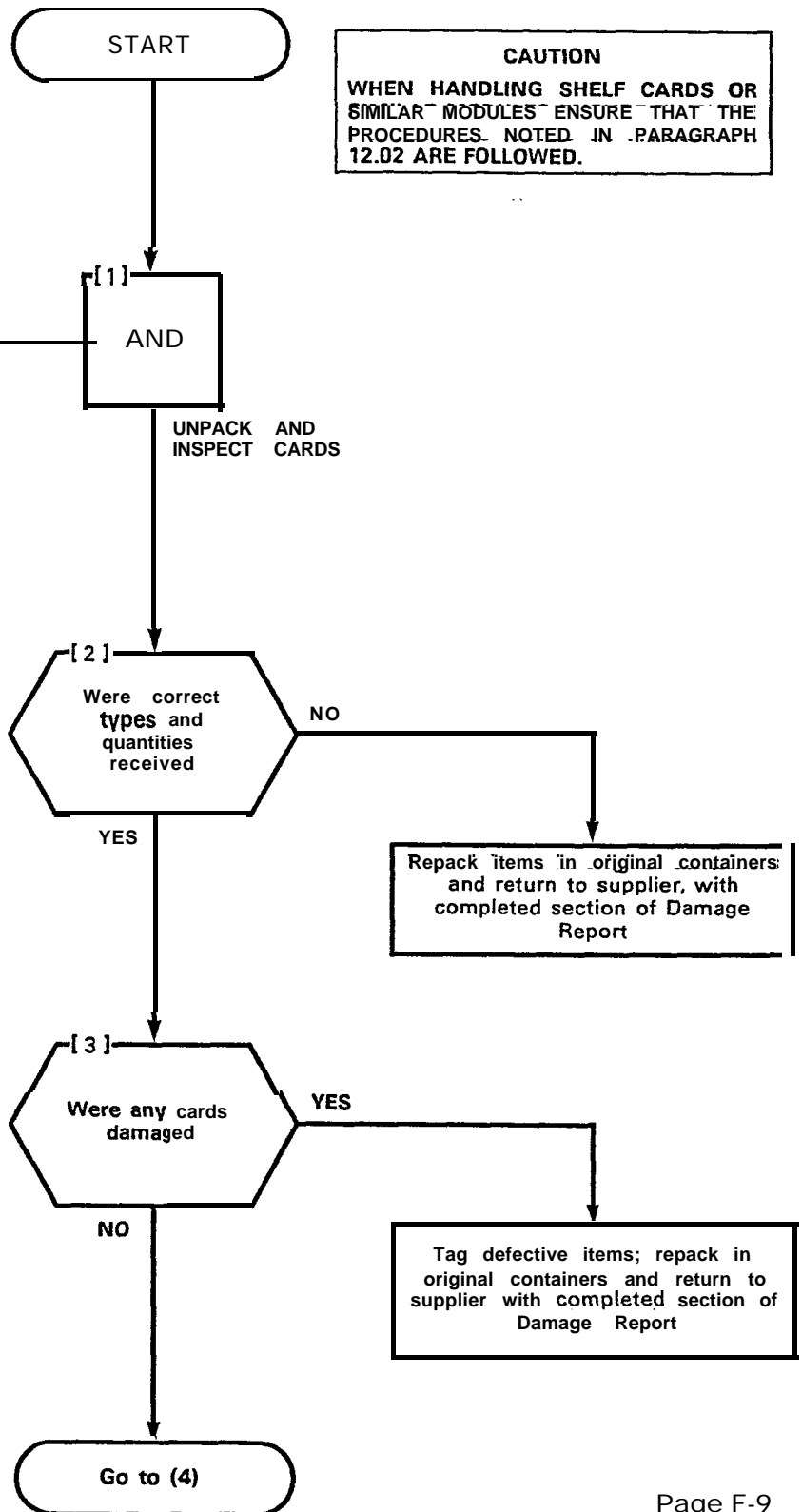
Issue 3, May 1984

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CAUTION

WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.

- (1A) Unpack cards from containers
- (1B) Inspect cards for physical damage
- (1C) Check card types and quantities against invoice

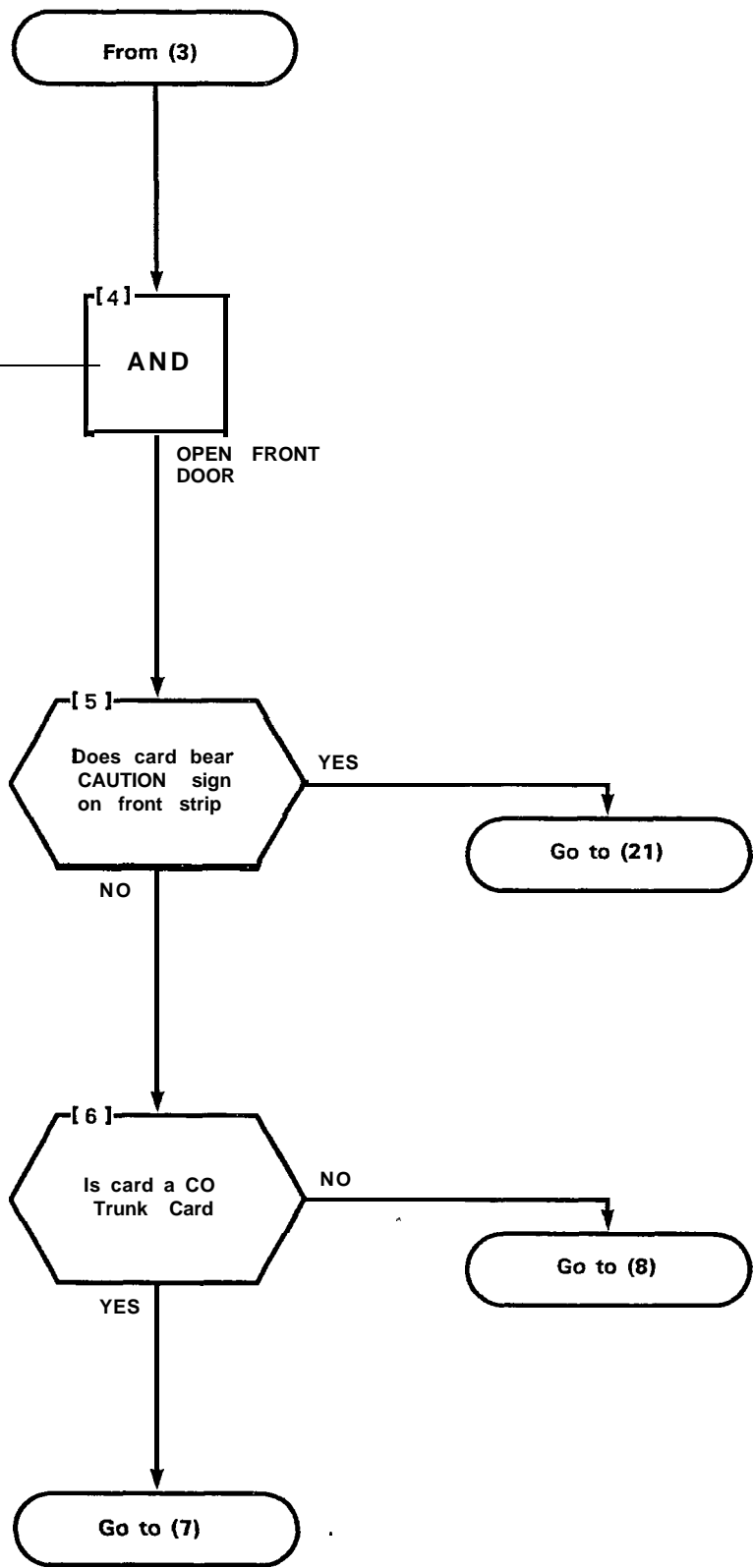


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INSTALL NEW CARDS
MAP200- 602
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NOTE
Trunk card switches must be set to proper positions as detailed in Appendix E to give correct configuration for trunk circuit.

- (4A) Unlock and open front door of cabinet
- (4B) Remove locking bars from shelf

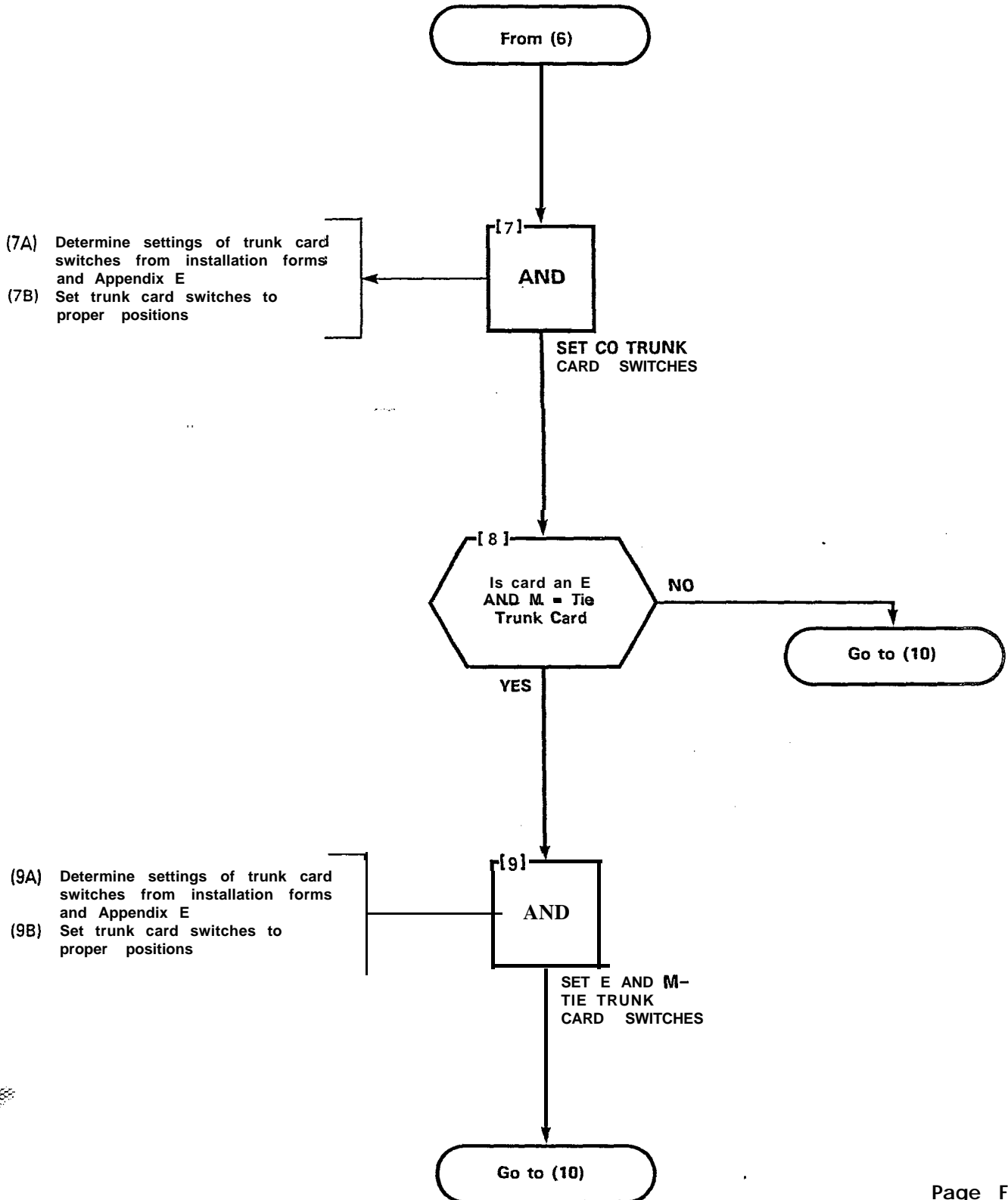


INSTALL NEW CARDS

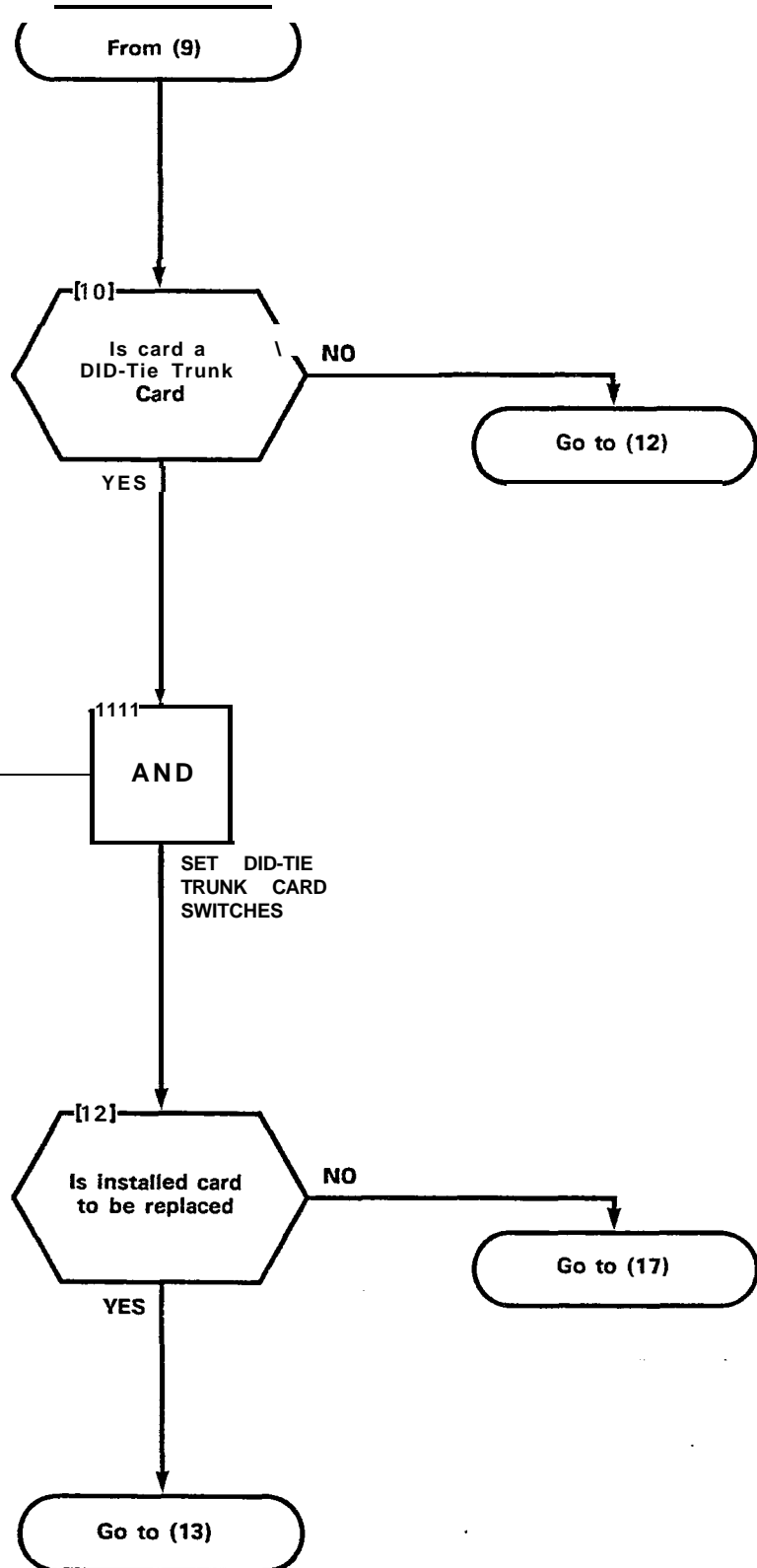
MAP200- 602

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INSTALL NEW CARDS
MAP200- 602
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(11A) Determine settings of trunk card switches from installation forms and Appendix E
(11B) Set trunk card switches to proper positions

INSTALL NEW CARDS
MAP200- 602
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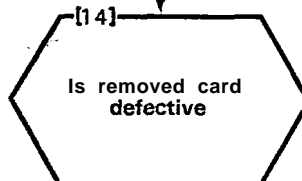
From (12)

AND

(13A) Release card extractor and remove card from shelf slot

7

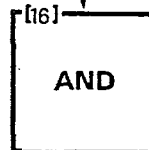
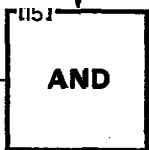
REMOVE INSTALLED CARD



[14] Is removed card defective

YES

NO



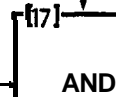
(16A) Place card in stock

(15A) Tag defective item
(15B) Package item and return to supplier

RETURN DEFECTIVE ITEM

RETURN TO STOCK

(17A) Check proper card slot and color codes of card extractor against shelf slot
(17B) Slide new card into shelf slot
(17C) Lock card by pressing the extractors inward



PLUG IN NEW CARD

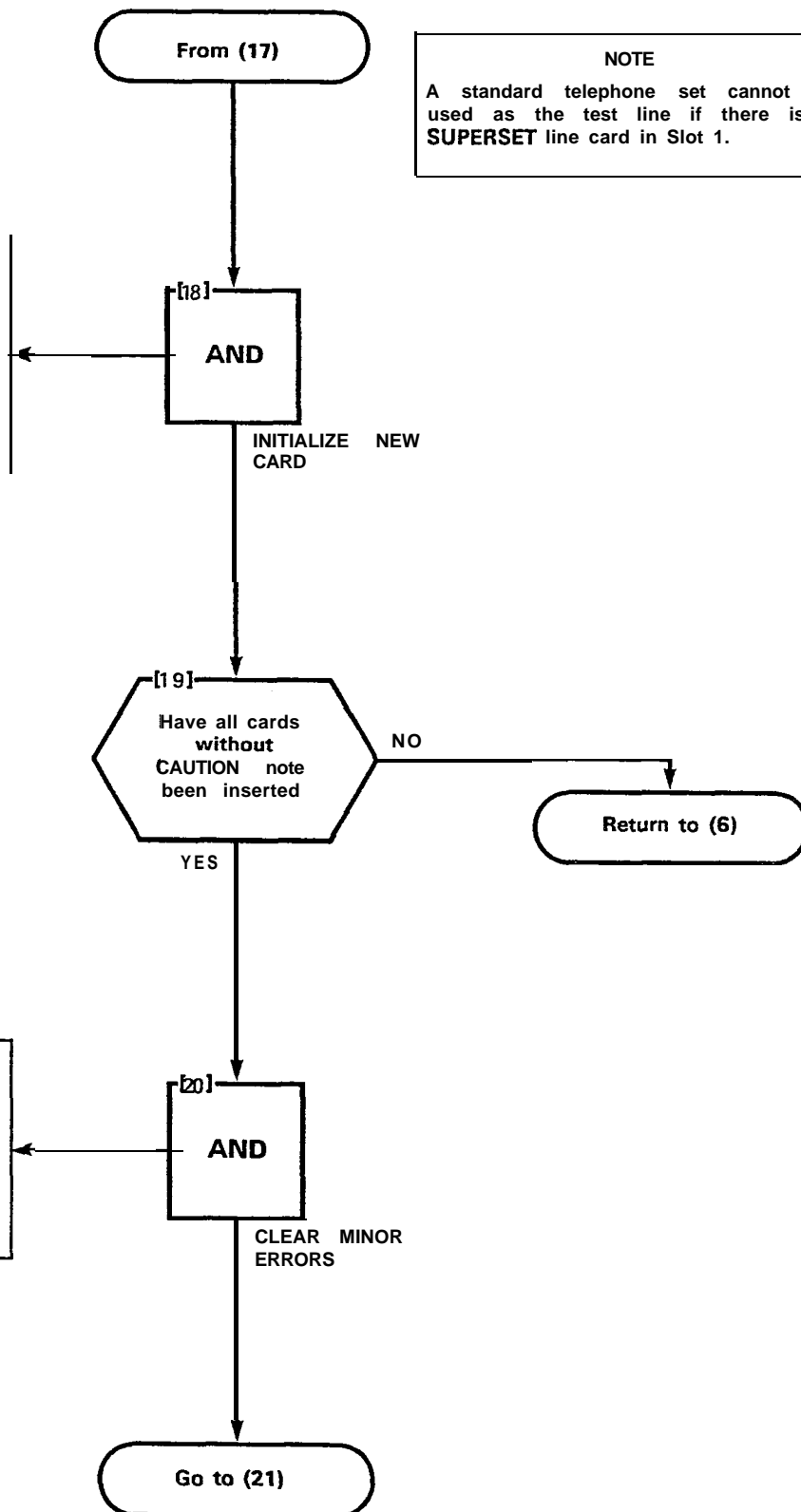
Go to (18)

INSTALL NEW CARDS
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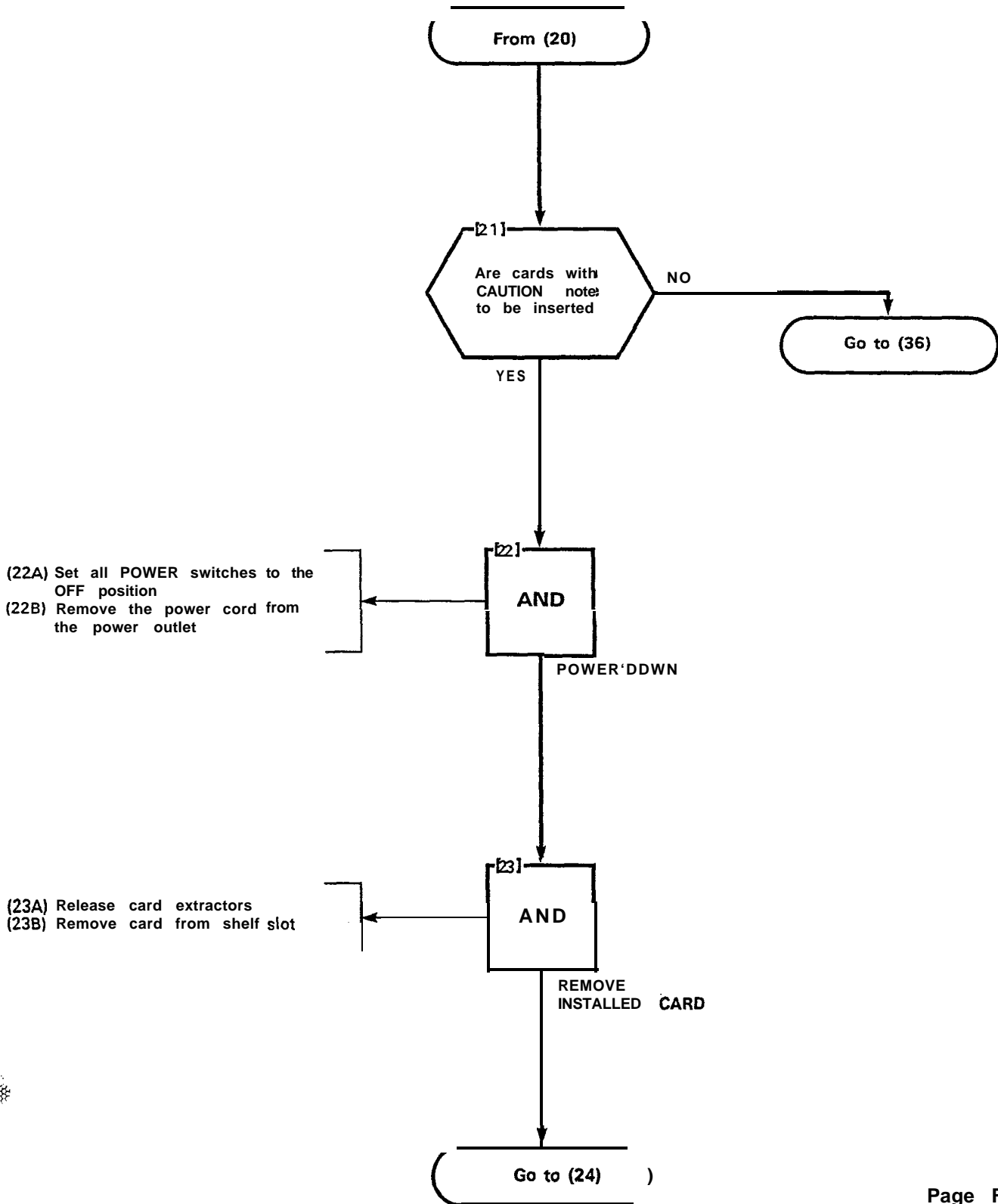
NOTE
 A standard telephone set cannot be used as the test line if there is a **SUPERSET** line card in Slot 1.

- (18A) Access the test line
- (18B) Dial the maintenance access code (555 used for the purpose of this documentation)
- (18C) Dial 5
- (18D) Dial card slot number (1 - 17-31 - 42)
- (18E) Replace handset of test line telephone

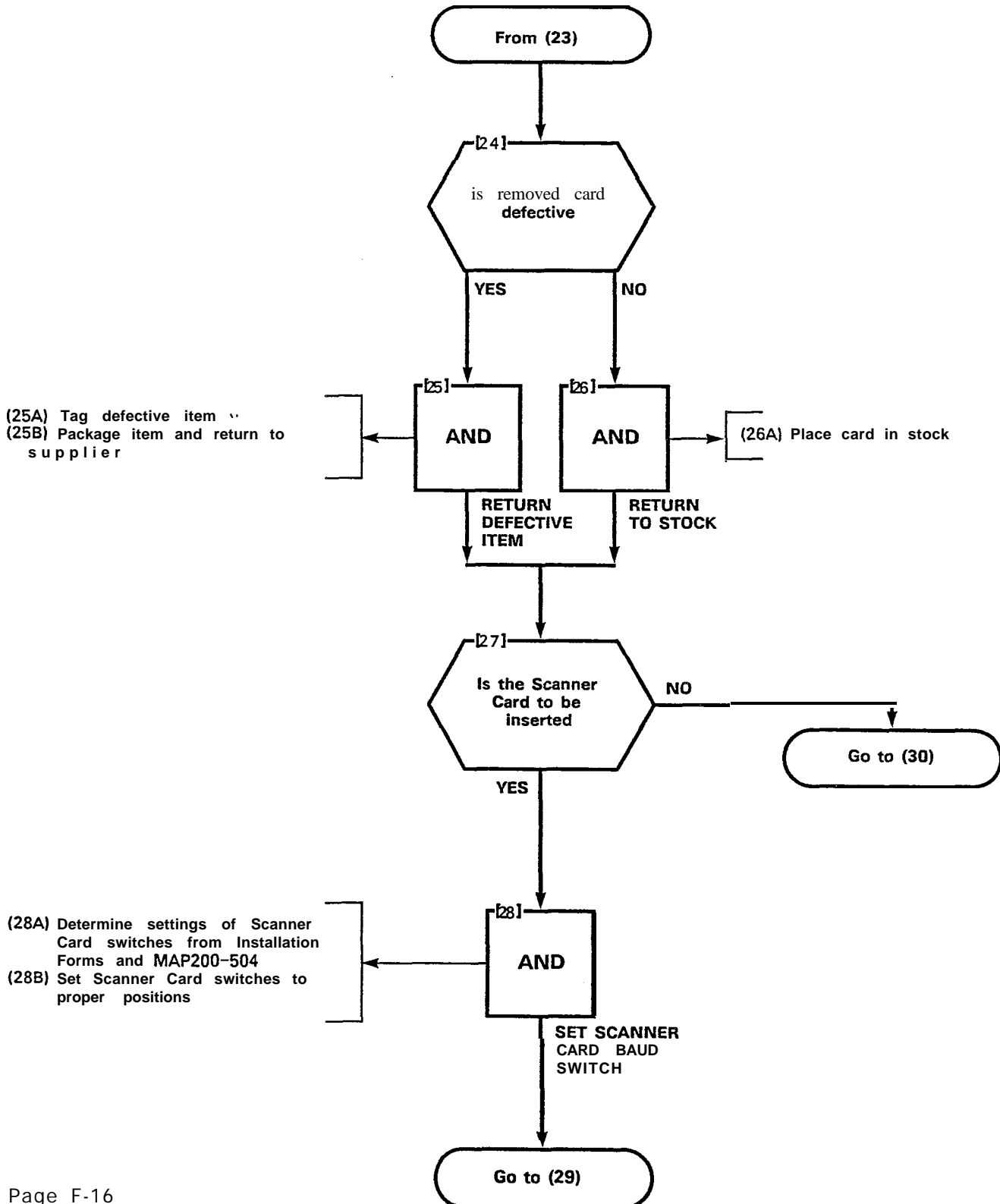
- (20A) Access the test line
- (20B) Dial the test access code (555 used for the purpose of this documentation)
- (20C) Dial 1 and press the RELEASE button
- (20D) Replace handset of the test line telephone



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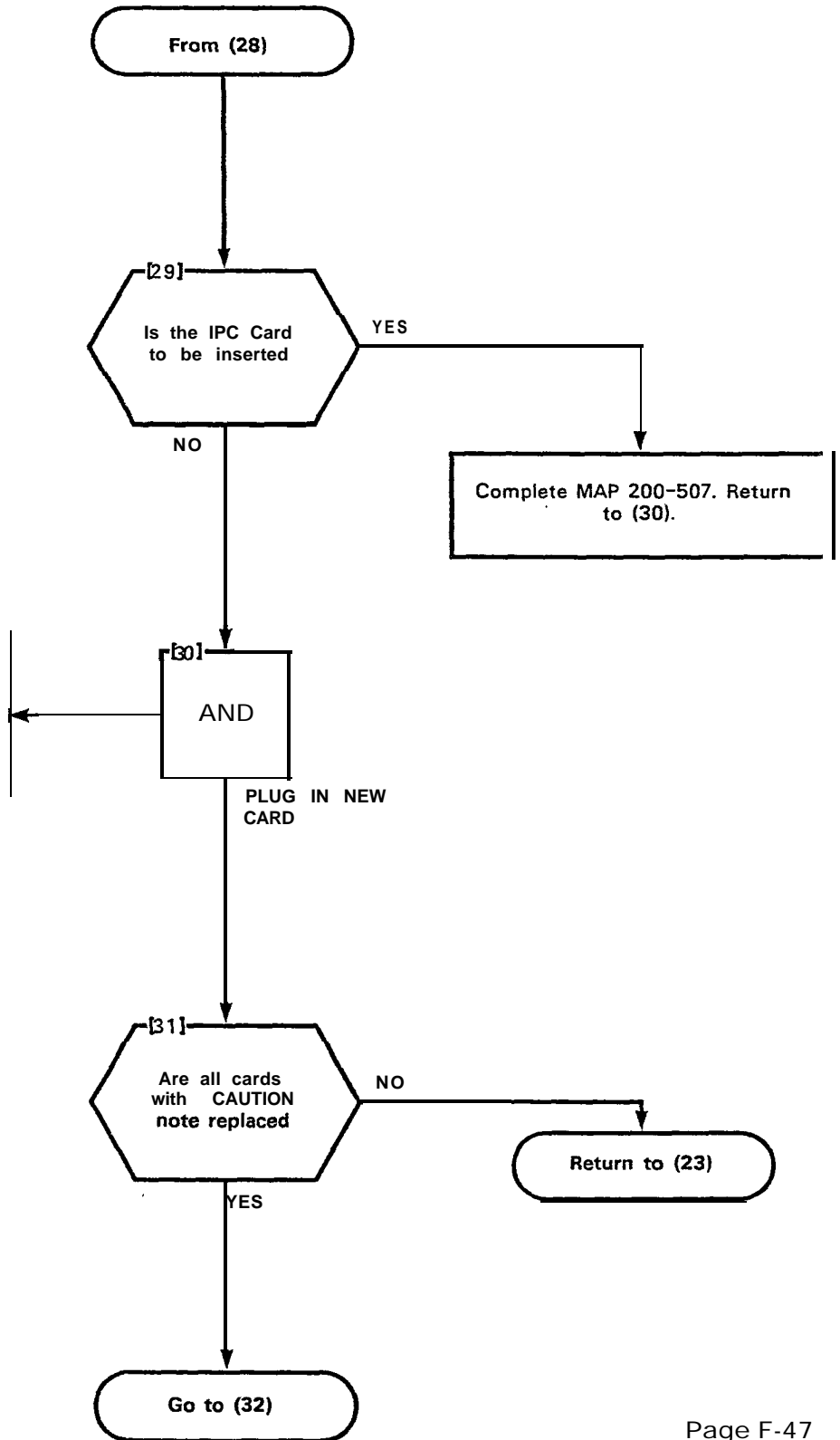


INSTALL NEW CARDS
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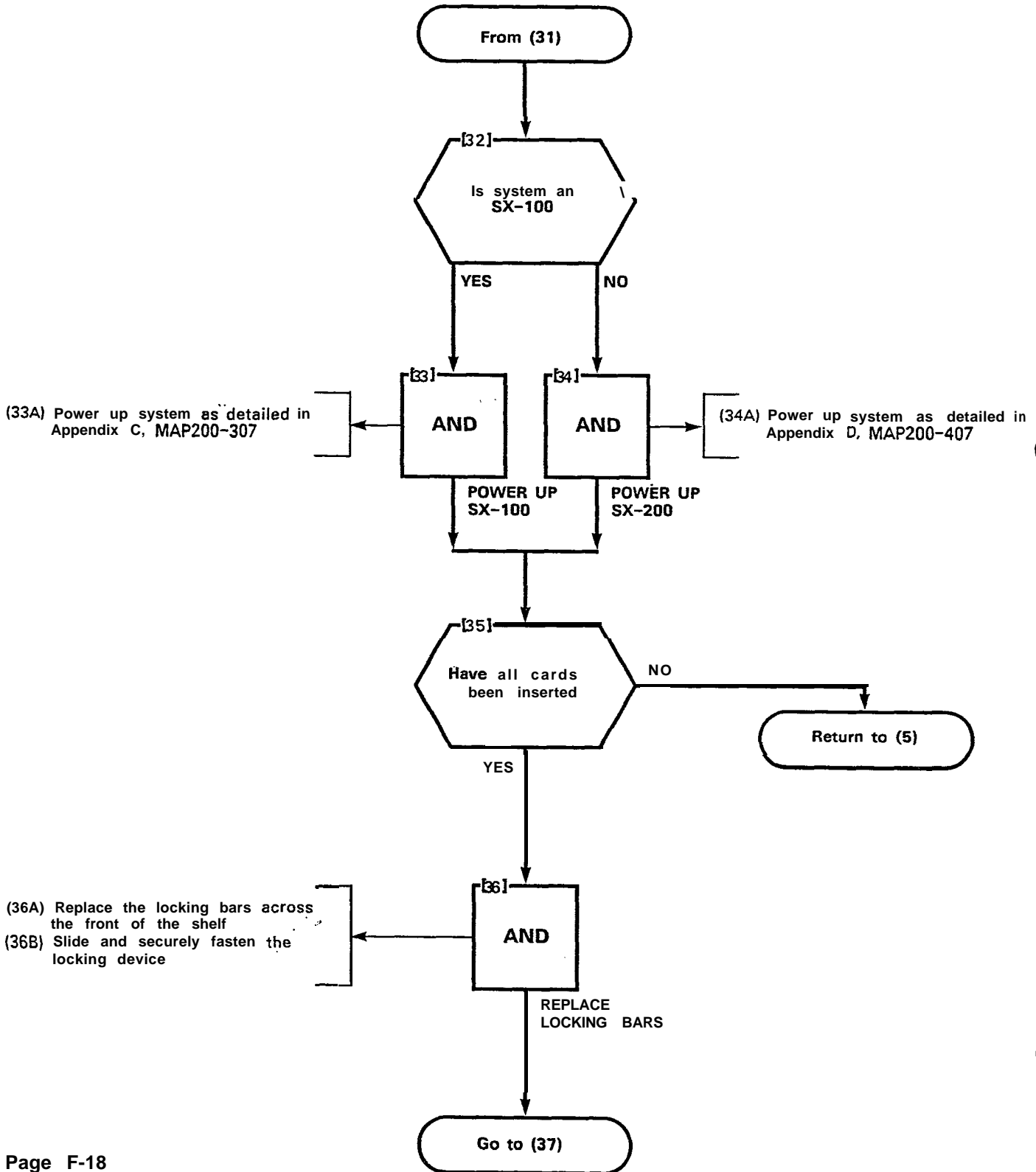


INSTALL NEW CARDS
MAP200-602
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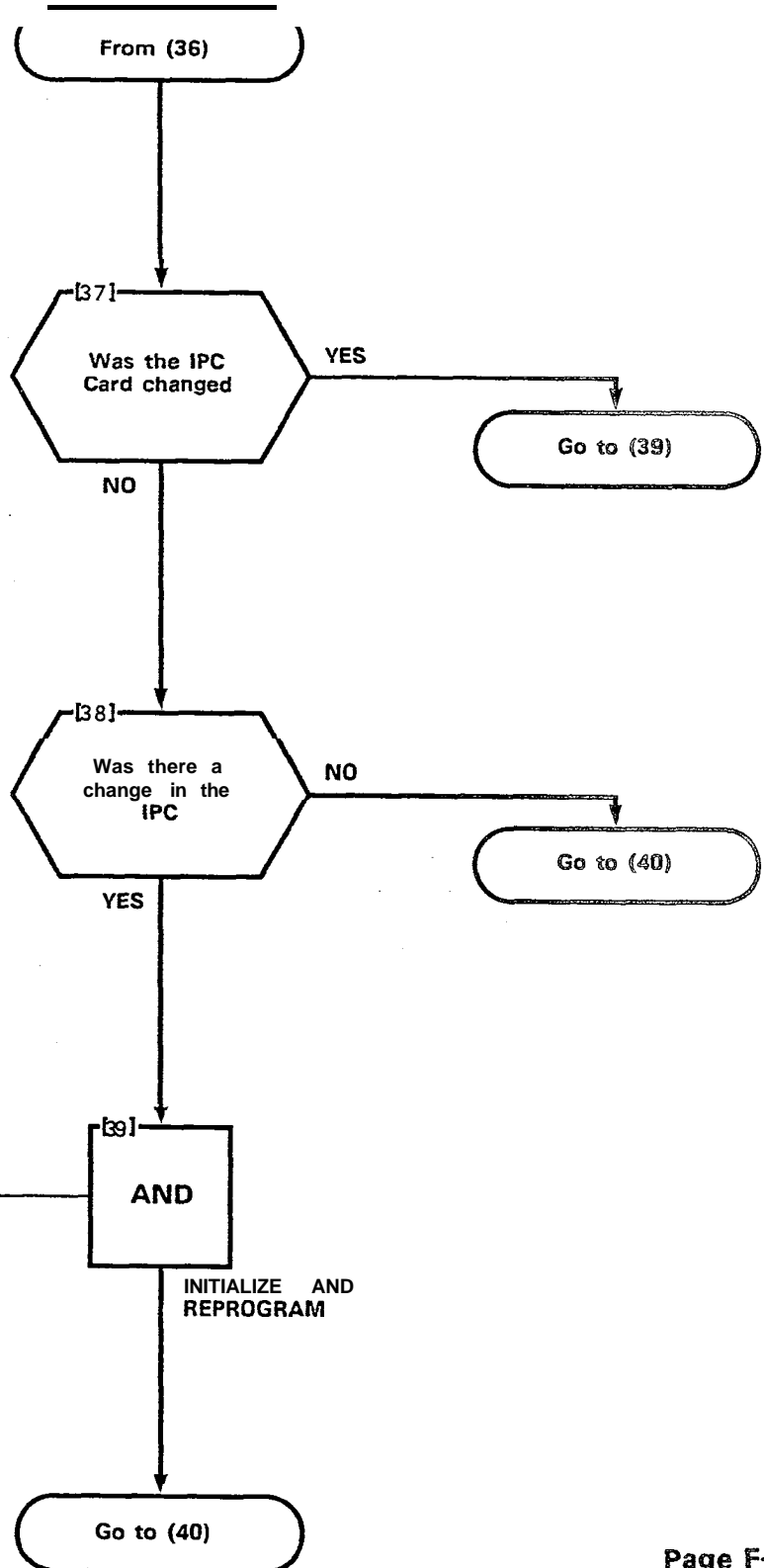
- (30A) Check proper card slot and color codes of card extractor against shelf slot
- (30B) Slide new card into shelf slot
- (30C) Lock card by pressing the extractors inward



INSTALL NEW CARDS
MAP200- 602
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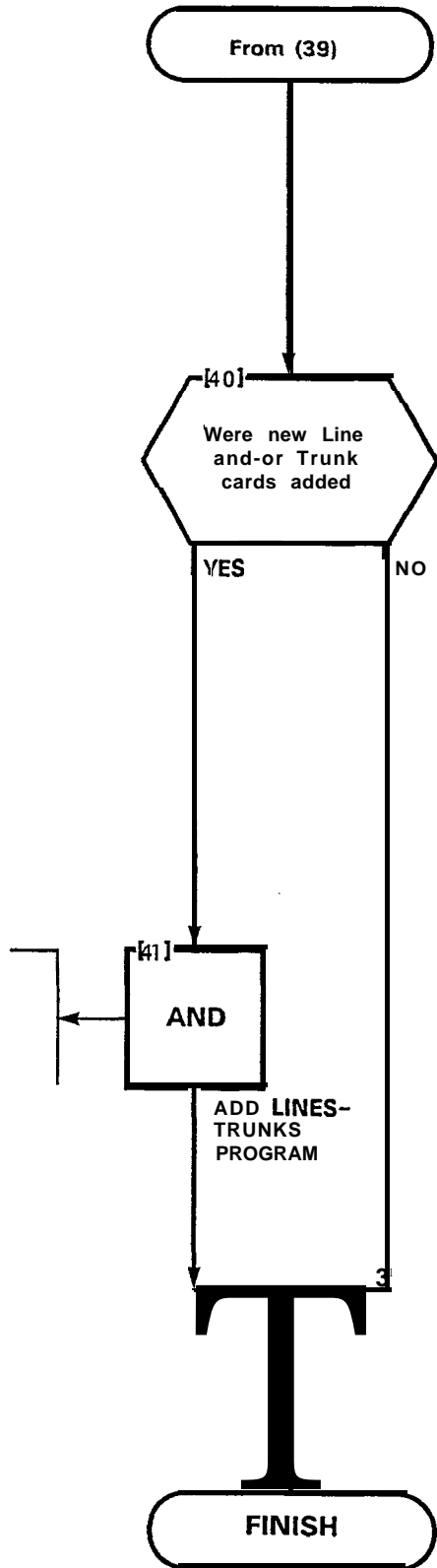


INSTALL NEW CARDS
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(39A) Perform initialization procedure as in Steps (18) and (20)
 (39B) Reprogram the system in accordance with the procedures stated in Section MITL9105-911 0-090-21 0-NA or see MAP200-610

INSTALL NEW CARDS
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(41A) Add new line and trunk programs following procedure stated in Section MITL9105-911 0-096-21 0-NA

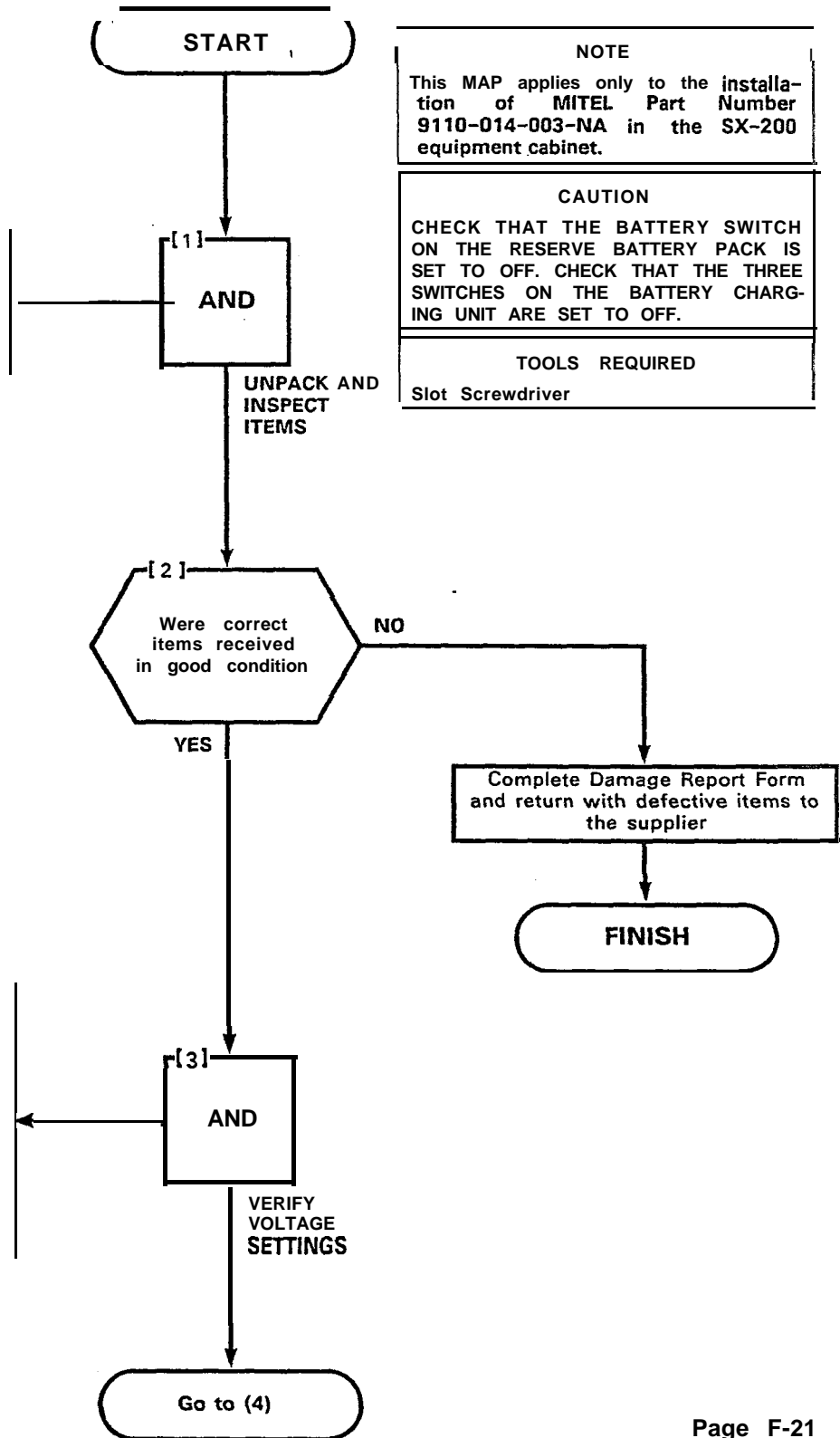
RESERVE POWER SUPPLY INSTALLATION (SX-200)
MAP200- 603
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NOTE
This MAP applies only to the installation of MITEL Part Number 9110-014-003-NA in the SX-200 equipment cabinet.

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.

TOOLS REQUIRED
Slot Screwdriver

- (1A) Unpack reserve power supply equipment
- (16) Inspect items for physical damage
- (1C) Check item types against invoice



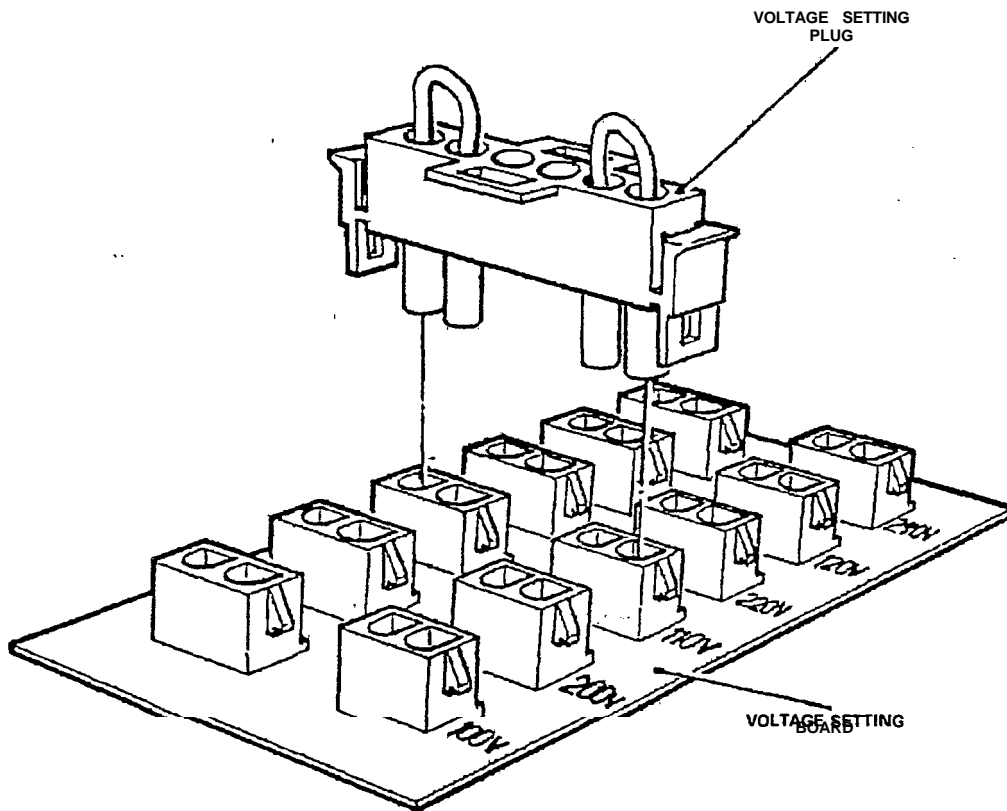
- (3A) Verify, by checking through the inspection 'window' at the top of the charging unit, that the voltage setting plug is in the correct position for the supply voltage. If incorrect, the setting may be changed by removing the voltage setting plug and reinserting it in the receptacle corresponding to the voltage setting required (Figure 603-1)

RESERVE POWER SUPPLY
INSTALLATION (SX-200)

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NOTE: PLUG IS LINED UP FOR INSERTION INTO RECEPTACLE CORRESPONDING TO 110 V INPUT POWER.

X5578

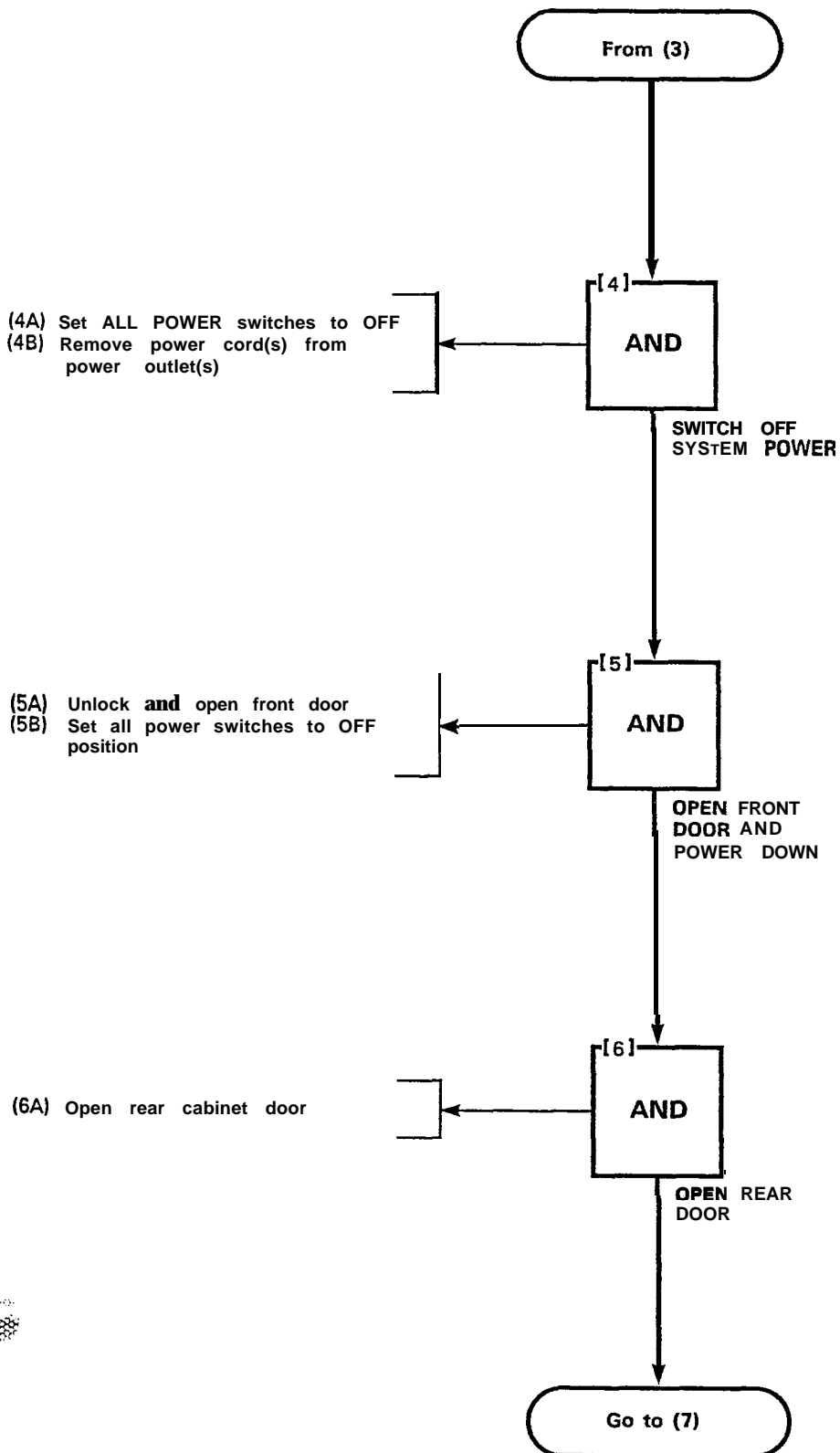
Figure 603-I Voltage Setting Board and Plug

RESERVE POWER SUPPLY INSTALLATION (SX-200)

MAP200- 603

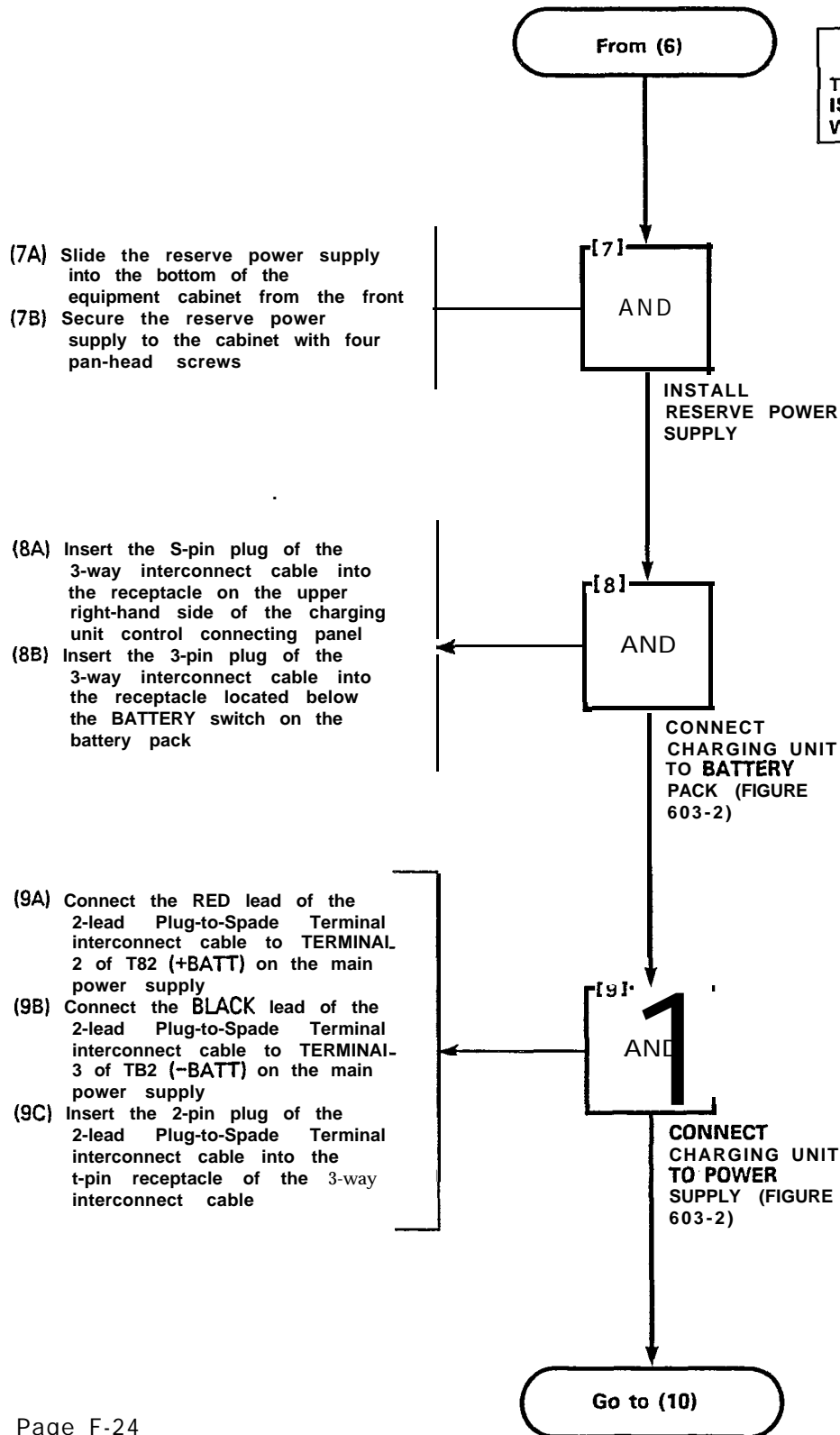
Issue 3, May 1984

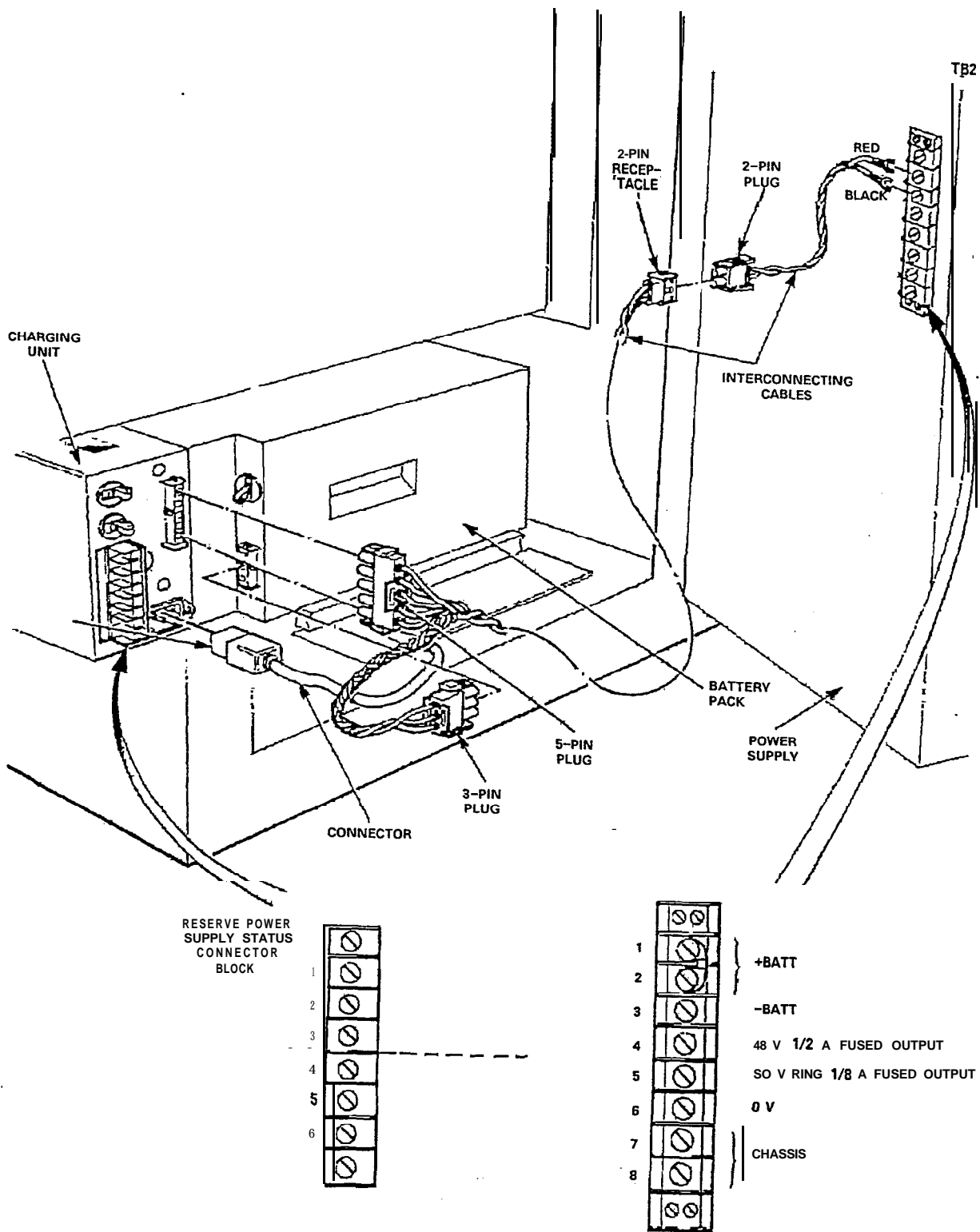
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RESERVE POWER SUPPLY INSTALLATION (SX-200)
MAP200- 603
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CAUTION
THE RESERVE POWER SUPPLY WEIGHT IS 125 LB. CARE MUST BE TAKEN WHEN LIFTING THE BATTERY PACK.



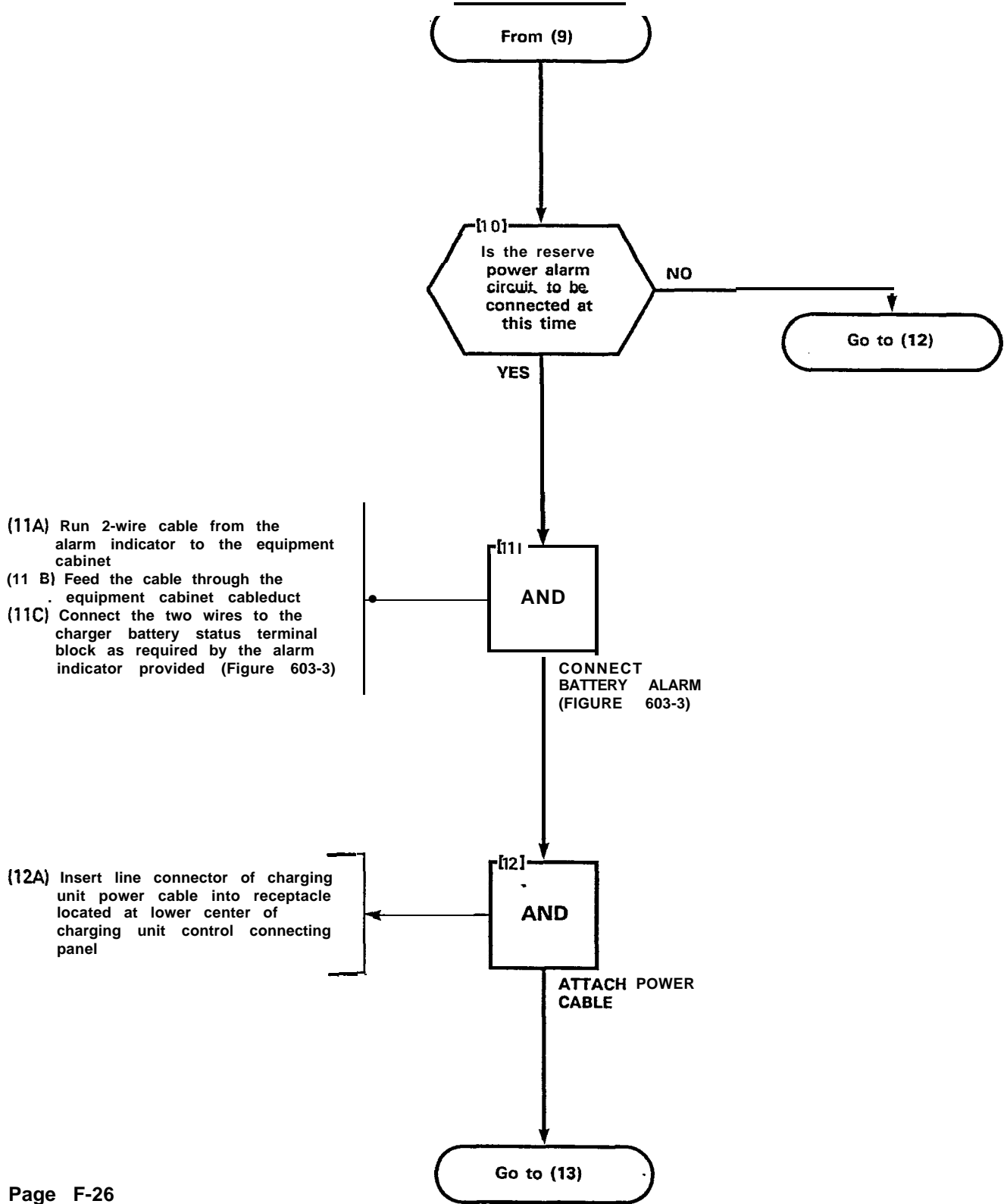


X5579-

Figure 603-2 Reserve Power Supply

SECTION MITL9105/91 10-096-200-NA

RESERVE POWER SUPPLY INSTALLATION (SX-200)
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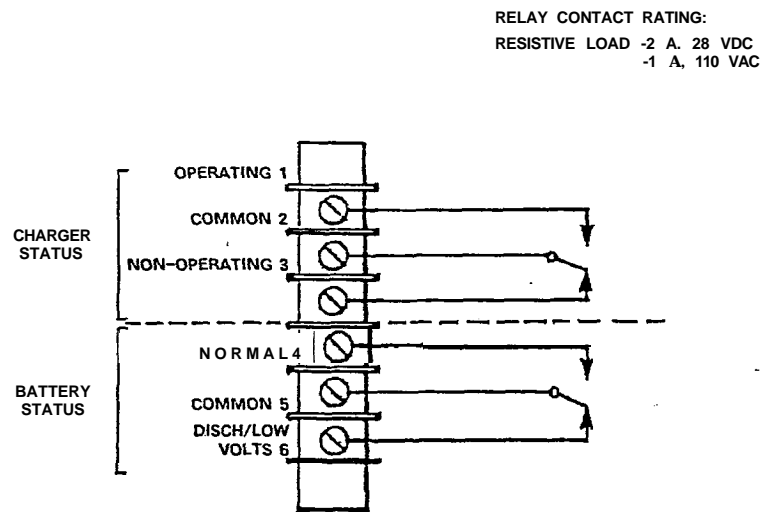


RESERVE POWER SUPPLY
INSTALLATION (SX-200)

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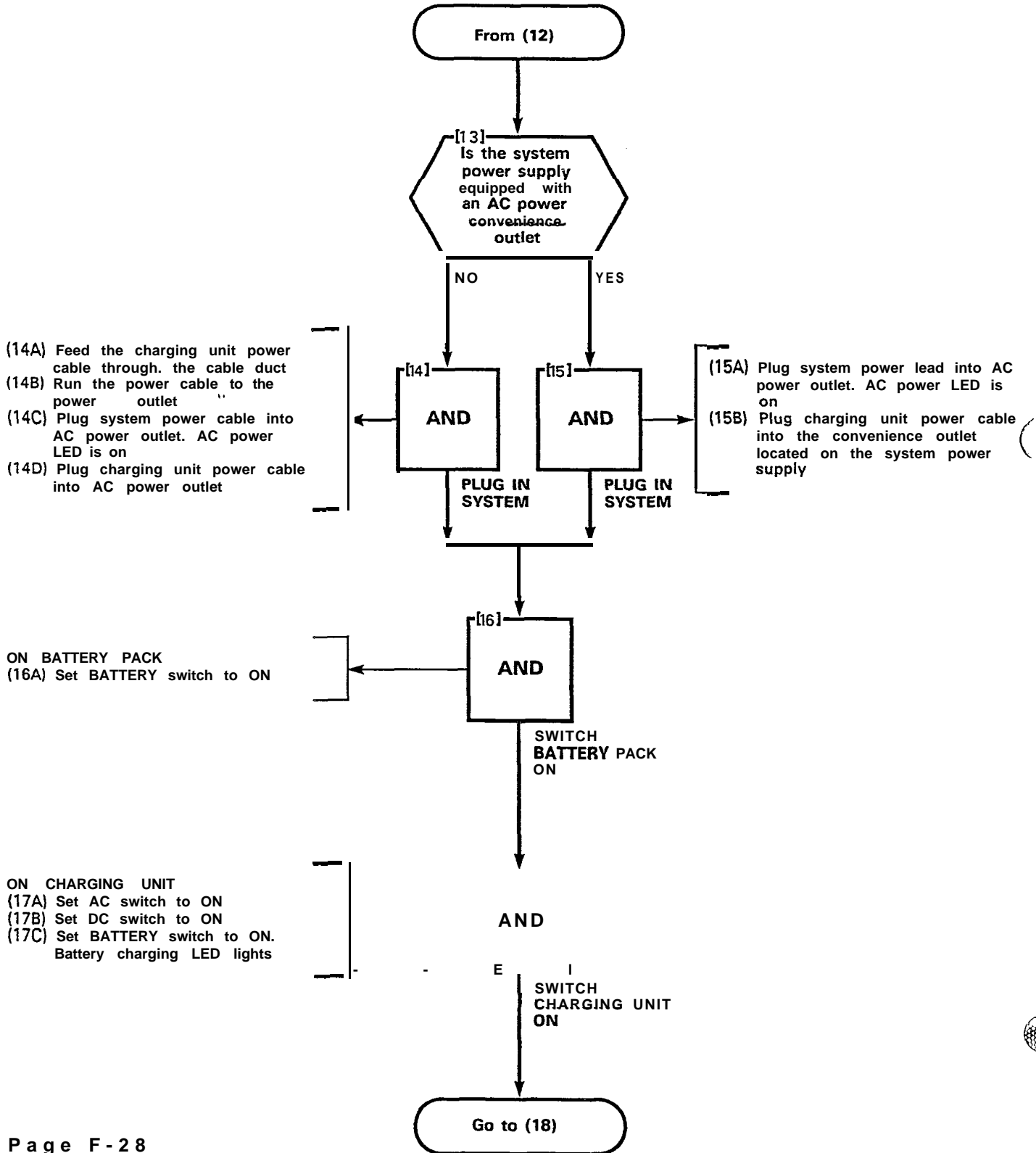
- NOTES:
1. WHERE CHARGER STATUS INDICATION IS REQUIRED, USE TERMINALS 1, 2 AND 8. WHERE RESERVE BATTERY STATUS INDICATION IS REQUIRED, USE TERMINALS 4, 5 AND 6.
 2. CONNECT ONE LEAD OF THE ALARM INDICATOR TO THE COMMON TERMINAL OF THE STATUS INDICATION REQUIRED (TERMINAL 2 FOR CHARGER STATUS; TERMINAL 5 FOR BATTERY STATUS).
 3. WHERE ALARM INDICATOR REQUIRES A LOOP FOR ACTIVATION. CONNECT THE SECOND LEAD TO TERMINAL 3 (FOR CHARGER STATUS) OR TERMINAL 6 (FOR BATTERY STATUS).
 4. WHERE ALARM INDICATOR REQUIRES A LOOP DISCONNECTION FOR ACTIVATION CONNECT THE SECOND LEAD TO TERMINAL 1 (FOR CHARGER STATUS) OR TERMINAL 4 (FOR BATTERY STATUS).

X5580

Figure 603-3 Alarm Indicator Connections

SECTION MITL91 05/91 10-096-200-NA

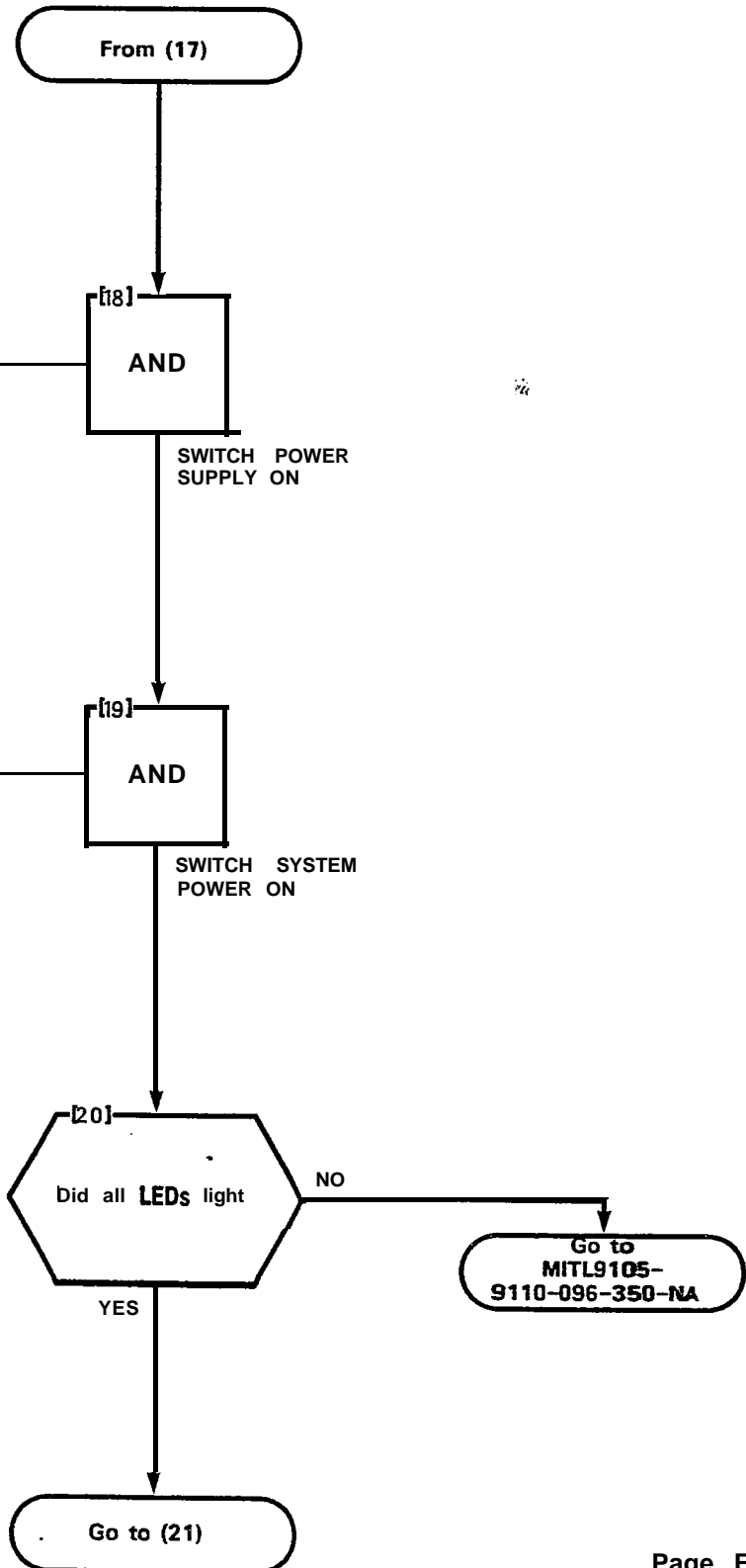
RESERVE POWER SUPPLY INSTALLATION (SX-200)
MAP200- 603
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RESERVE POWER SUPPLY INSTALLATION (SX-200)
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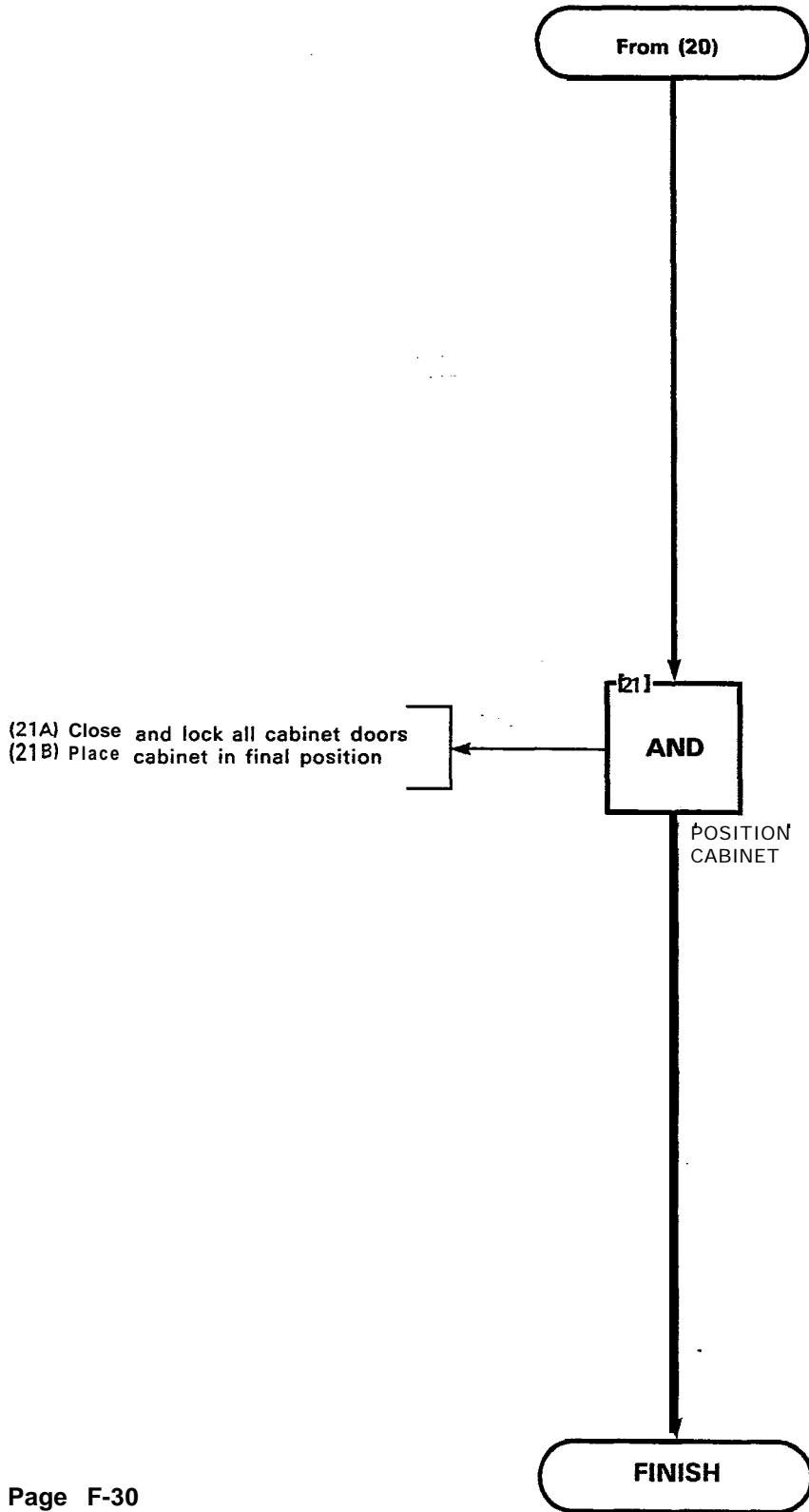
ON POWER SUPPLY
 (18A) Set CONVERTER INPUT switch to ON
 (18B) CONVERTER INPUT LED lit
 (18C) RESERVE BATTERY CONNECTED LED lit

ON MAINTENANCE PANEL
 (19A) Set SYSTEM POWER switch to ON
 (19B) SYSTEM POWER LED lit
 (19C) Power supply EQUIPMENT SHELF POWER LED lit



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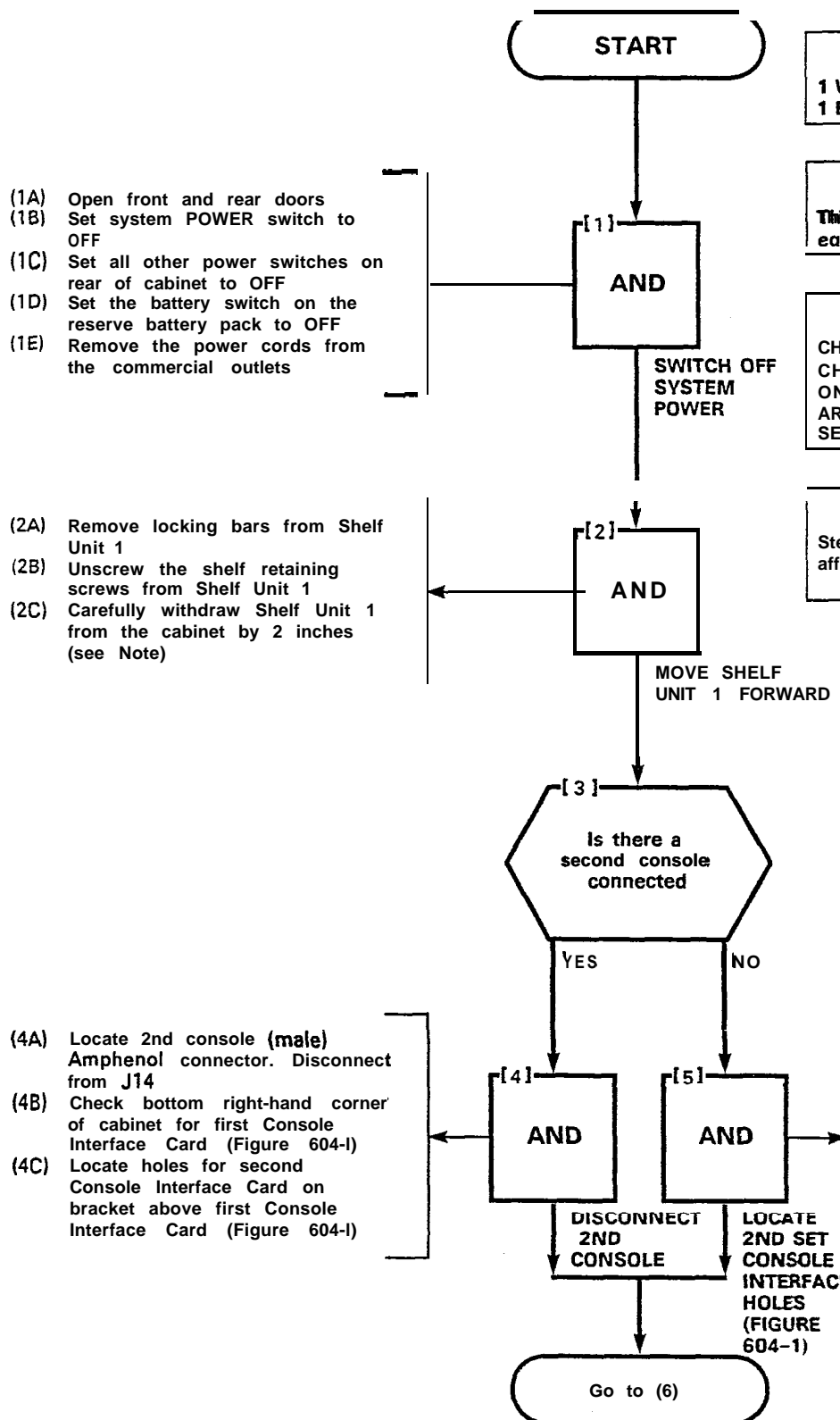
CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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TOOLS REQUIRED
1 Wrench 1/2 inch 1 Flat blade screwdriver

This MAE equipment	SXX-200
--------------------	---------

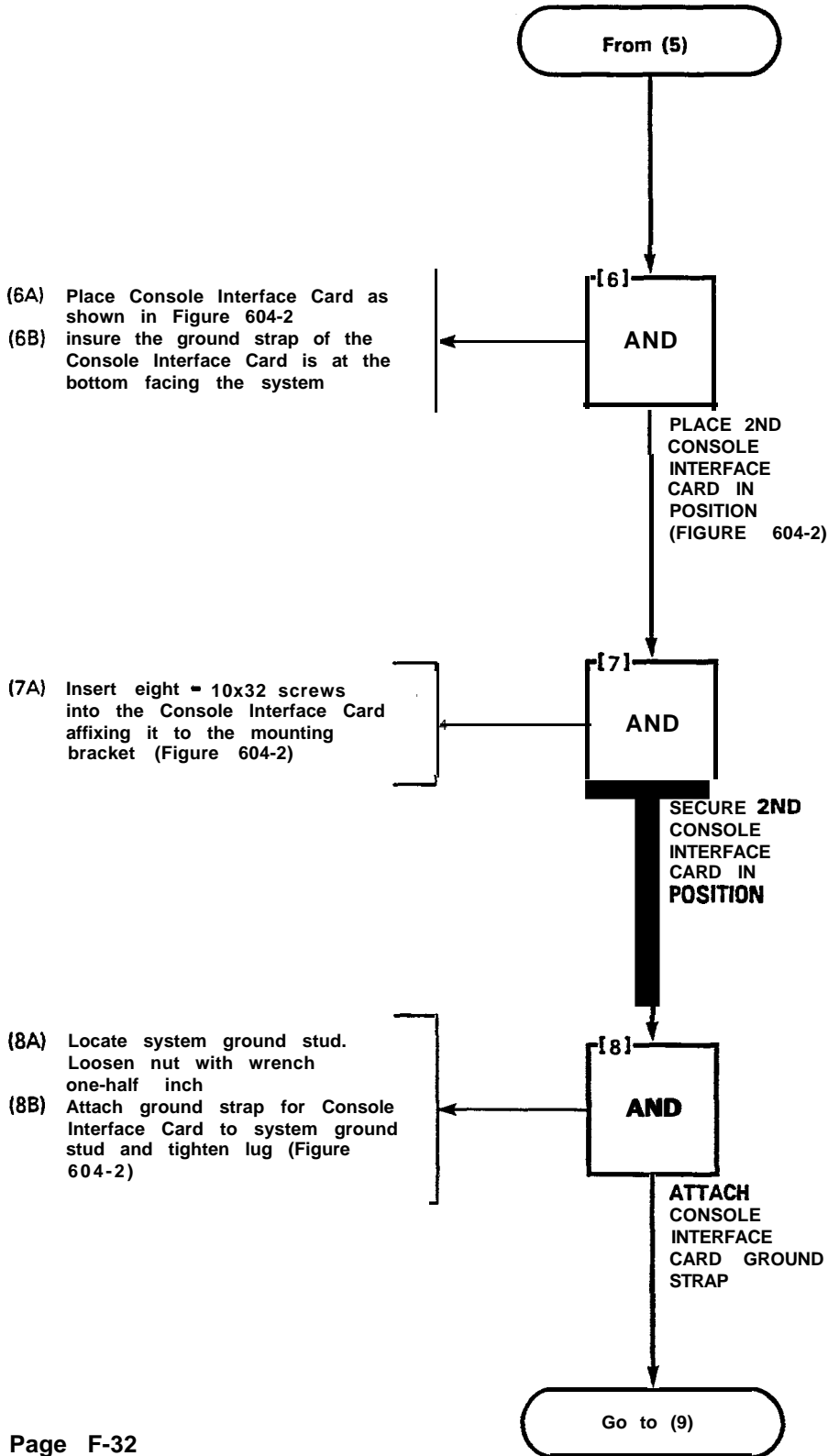
CAUTION
CHECK THAT MAIN POWER IS OFF. CHECK THAT THE THREE SWITCHES ON THE BATTERY. CHARGING UNIT ARE SET TO OFF. IF THERE IS A RESERVE BATTERY PACK, SET IT TO OFF.

NOTE
Step 2 is required to make room to affix Console card to bracket in Step 7.

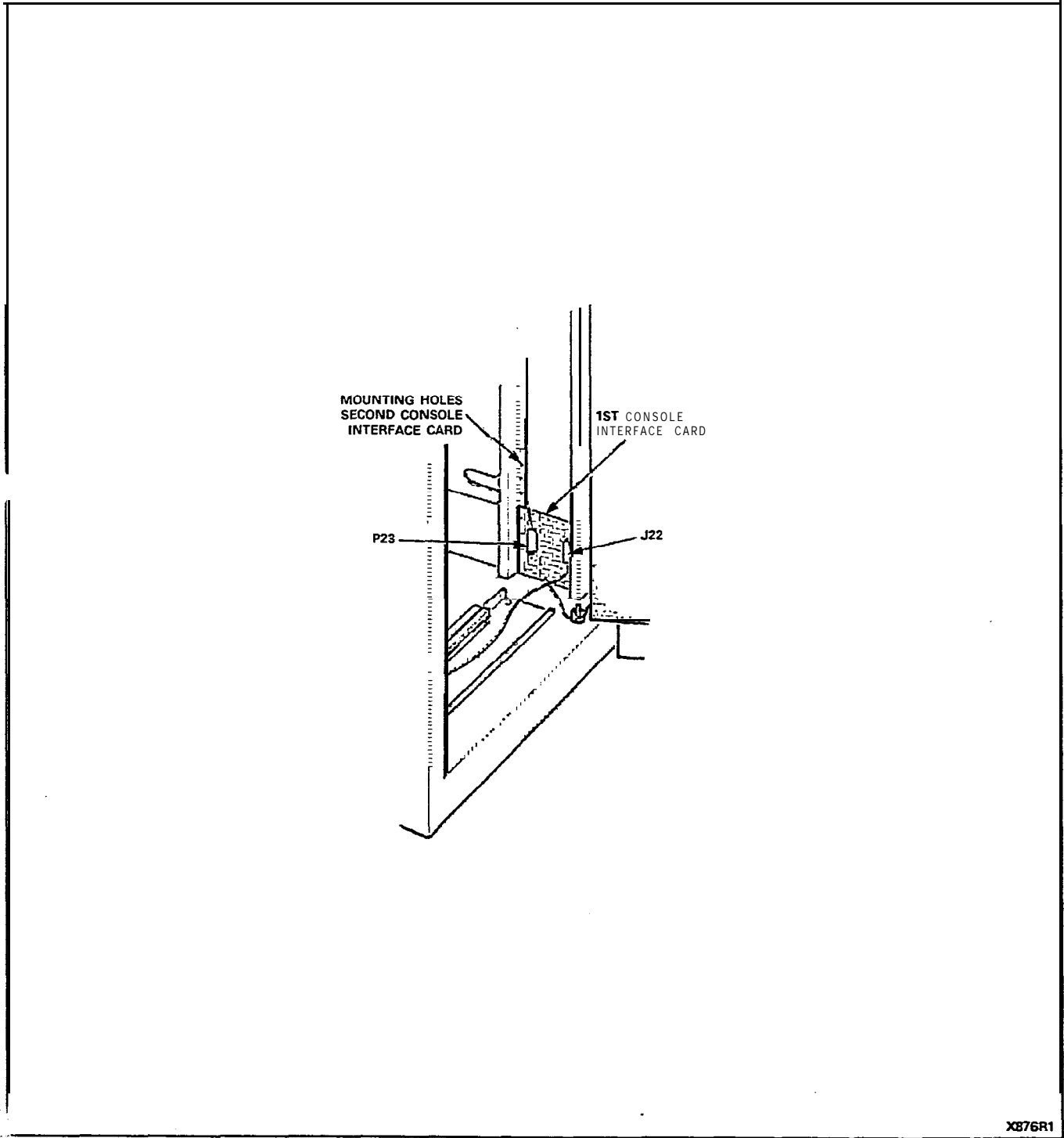


SECTION MITL9105/911 0-096-200-NA

CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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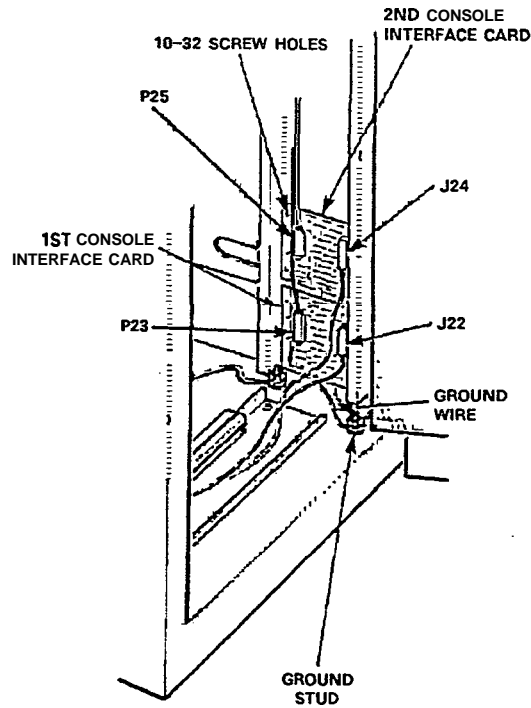
CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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X876R1

Figure 604-I 1st Console Interface PCB

CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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X875R

Figure 604-2 2nd Console Interface PCBs

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(9A) Locate the incoming Amphenol connector of the 2nd console and install it into J24 (Figure 604-2)

(9B) Tighten the screw on the connector with a slotted screwdriver one-quarter inch

From (8)

[9]
AND

AFFIX 2ND CONSOLE AMPHENOL CONNECTOR TO J24 OF CONSOLE INTERFACE CARD

[10]
Is there an Interconnect Console Interface Card unit cable

NO

Construct Cable in accordance with Tables 604-1 and 604-2

Go to (11)

YES

(11A) Connect the Interconnect Console Interface Card cable between J14 and P25 (Figure 604-3)

(11B) Tighten down top screws on Amphenol connectors

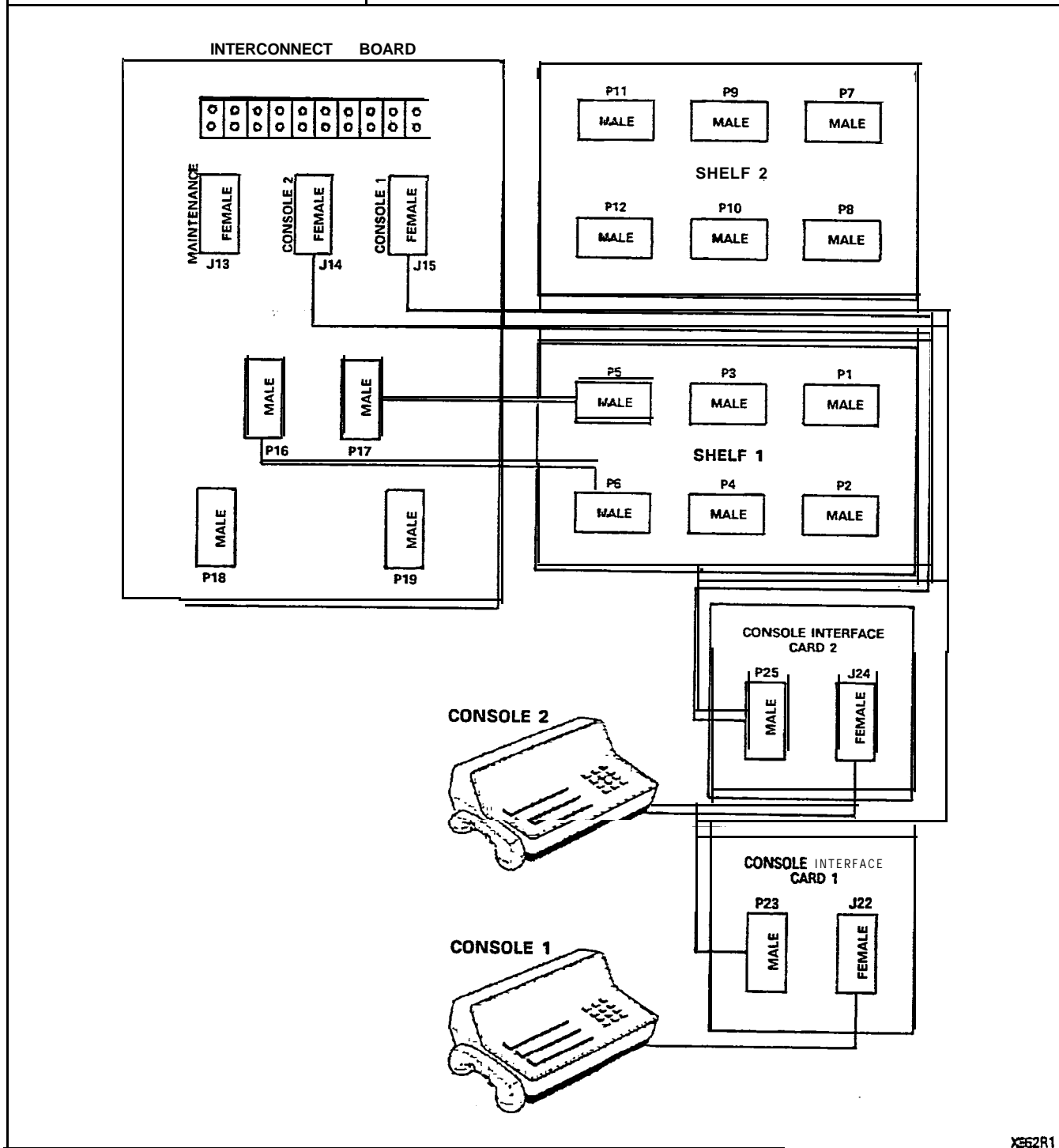
[11]
AND

CONNECT INTERCONNECT CABLE TO CONSOLE INTERFACE CARD

Go to (12)

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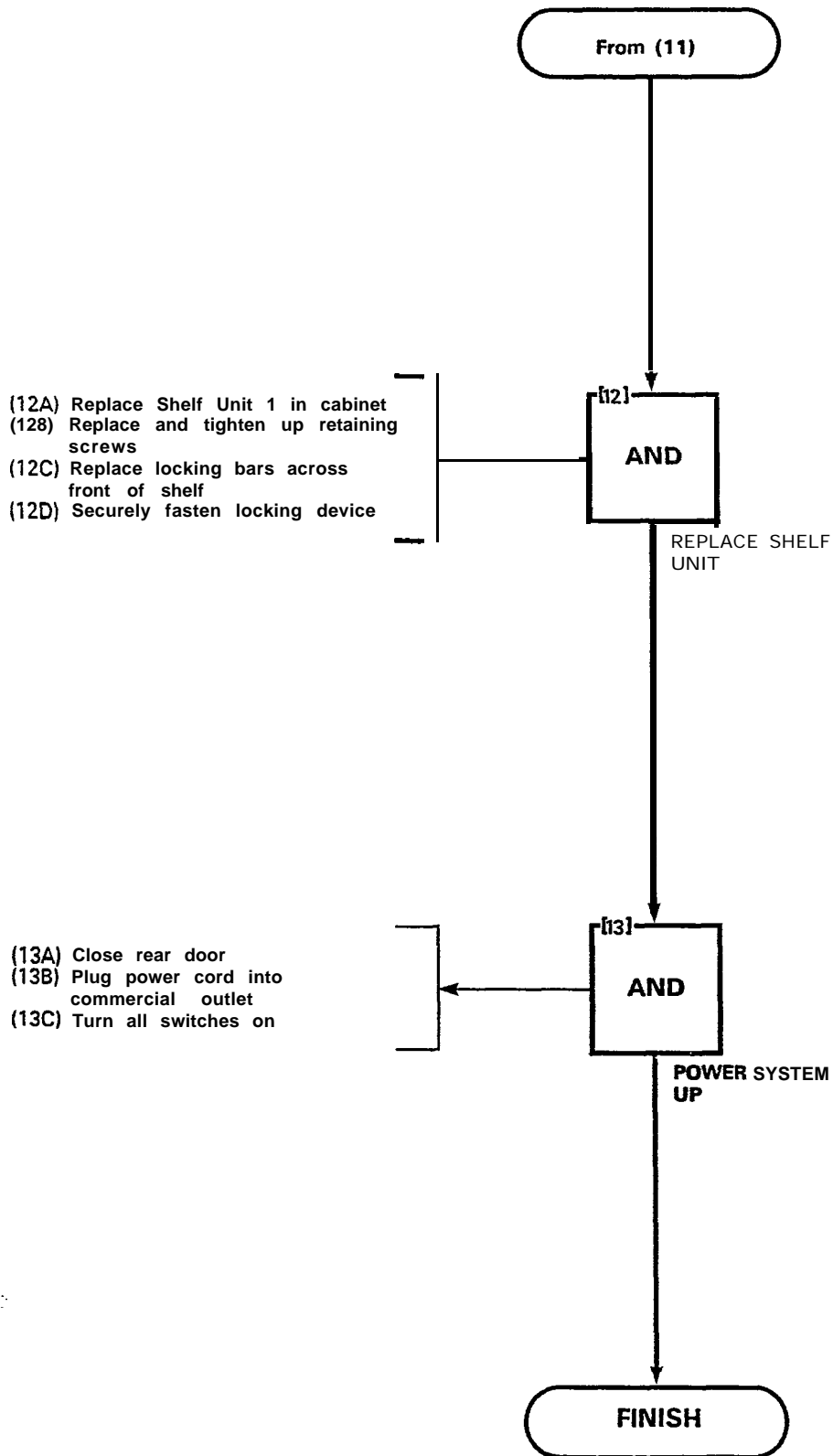
CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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X862R1

figure 604-3 Interconnect Wiring

CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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TABLE 604-I
INTERCONNECT BLOCK - CONSOLE INTERFACE CARD

Pin No.	Pair Color	Lead Designation
26	W-BL	ELECTROSTATIC GROUND
1	BL-W	ELECTROSTATIC GROUND
27	w - o	ELECTROSTATIC GROUND
2	o - w	ELECTROSTATIC GROUND
28	W-G	ELECTROSTATIC GROUND
3	G-W	ELECTROSTATIC GROUND
29	W-BR	ELECTROSTATIC GROUND
4	BR-W	ELECTROSTATIC GROUND
30	w - s	DATA IN COMMON
5	s - w	DATA IN
31	R-BL	ELECTROSTATIC GROUND
6	BL-R	ELECTROSTATIC GROUND
32	R-O	DATA OUT COMMON
7	O-R	DATA OUT
33	R-G	ELECTROSTATIC GROUND
8	G-R	ELECTROSTATIC GROUND
34	R-BR	ELECTROSTATIC GROUND
9	BR-R	ELECTROSTATIC GROUND
35	R-S	CUTOVER SWB
10	S-R	CUTOVER SWA
36	BK-BL	ELECTROSTATIC GROUND
11	BL-BK	ELECTROSTATIC GROUND
37	BK-O	MAJOR ALARM
12	O-BK	MAJOR ALARM
38	BK-G	TIP
13	G-BK	RING
39	BK-BR	ELECTROSTATIC GROUND
14	BR-BK	ELECTROSTATIC GROUND
40	BK-S	ELECTROSTATIC GROUND
15	S-BK	ELECTROSTATIC GROUND
41	Y-BL	ELECTROSTATIC GROUND
16	BL-Y	ELECTROSTATIC GROUND
42	Y-O	ELECTROSTATIC GROUND
17	O-Y	ELECTROSTATIC GROUND
43	Y-G	o v
18	G-Y	-48 V
44	Y-BR	o v
19	BR-Y	-48 v
45	Y-S	o v
20	S-Y	-48 V
46	V-BL	o v
21	BL-V	-48 V
47	v - o	o v
22	o - v	-48 v
48	V-G	o v
23	G-V	-48 V
49	V-BR	o v
24	BR-V	-48 v
50	v - s	o v
25	s - v	-48 v

CONSOLE INTERFACE BOARD INSTALLATION (SX-200)
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TABLE 604-2
CONSOLE WIRING

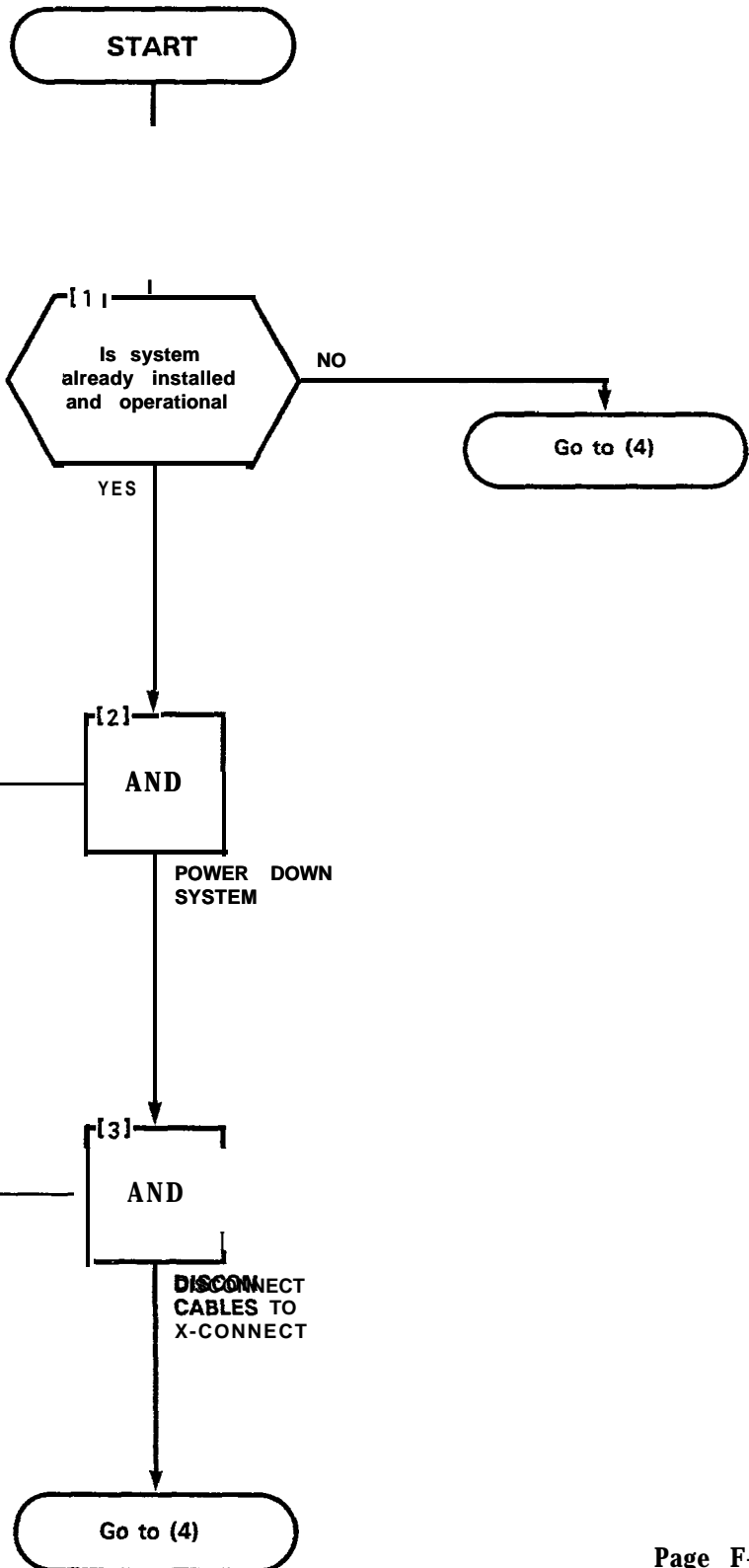
POSITION	LEAD DESIGNATION	P5	P17	J14	P25	J24
16	CONSOLE 2					
	T (A)	38	38	38	38	38
	R (A)	13	13	13	13	13
	S DATA OUT T (A)	39	39	32	32	32
	S DATA OUT R (A)	14	14	7	7	7
	S DATA IN T (A)	40	40	31	30	30
	S DATA IN R (A)	15	15	5	5	5
	MAJOR ALARM TB1-5			12 37	12 37	12 37
	48 V TB301			18 19 20	18 19 20	18 19 20
				21 22 23	21 22 23	21 22 23
				24 25	24 25	24 25
	0 V TB301-1			43 44 45	43 44 45	43 44 45
				46 47 48	46 47 48	46 47 48
				49 50	49 50	49 50
	CUT OVER SWA			35	35	35
	CUT OVER SWB			10	10	10
	ALL UNLISTED PINS GO TO ESG TB301-3					
17	CONSOLE 1					
	T (A)	42	42	38	38	38
	R (A)	17	17	13	13	13
	S DATA IN T (A)	18	18	5	5	5
	S DATA IN R (A)	43	43	31	30	30
	S DATA OUT T (A)	19	19	7	7	7
	S DATA OUT R (A)	44	44	32	32	32
	MAJOR ALARM TB1-5			12 37	12 37	12 37
	48 V TB301			18 19 20	18 19 20	18 19 20
				21 22 23	21 22 23	21 22 23
				24 25	24 25	24 25
	0 V TB301-1			43 44 45	43 44 45	43 44 45
				46 47 48	46 47 48	46 47 48
				49 50	49 50	49 50
	CUT OVER SWB			35	35	35
	CUT OVER SWA			10	10	10
	ALL UNLISTED PINS GO TO ESG TB301-3					



BACKPLANE TRANSLATOR BOARD INSTALLATION
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TOOLS REQUIRED
1 Slotted screwdriver 1/4 inch

WARNING
A **SUPERSET LINE CARD** AND THE EQUIPMENT NUMBERS ASSOCIATED WITH THE CARD, MAY BE USED ONLY WITH THE **SUPERSET ELECTRONIC TELEPHONE SETS**. THIS SHOULD BE TAKEN INTO ACCOUNT WHEN USING BACKPLANE TRANSLATORS.



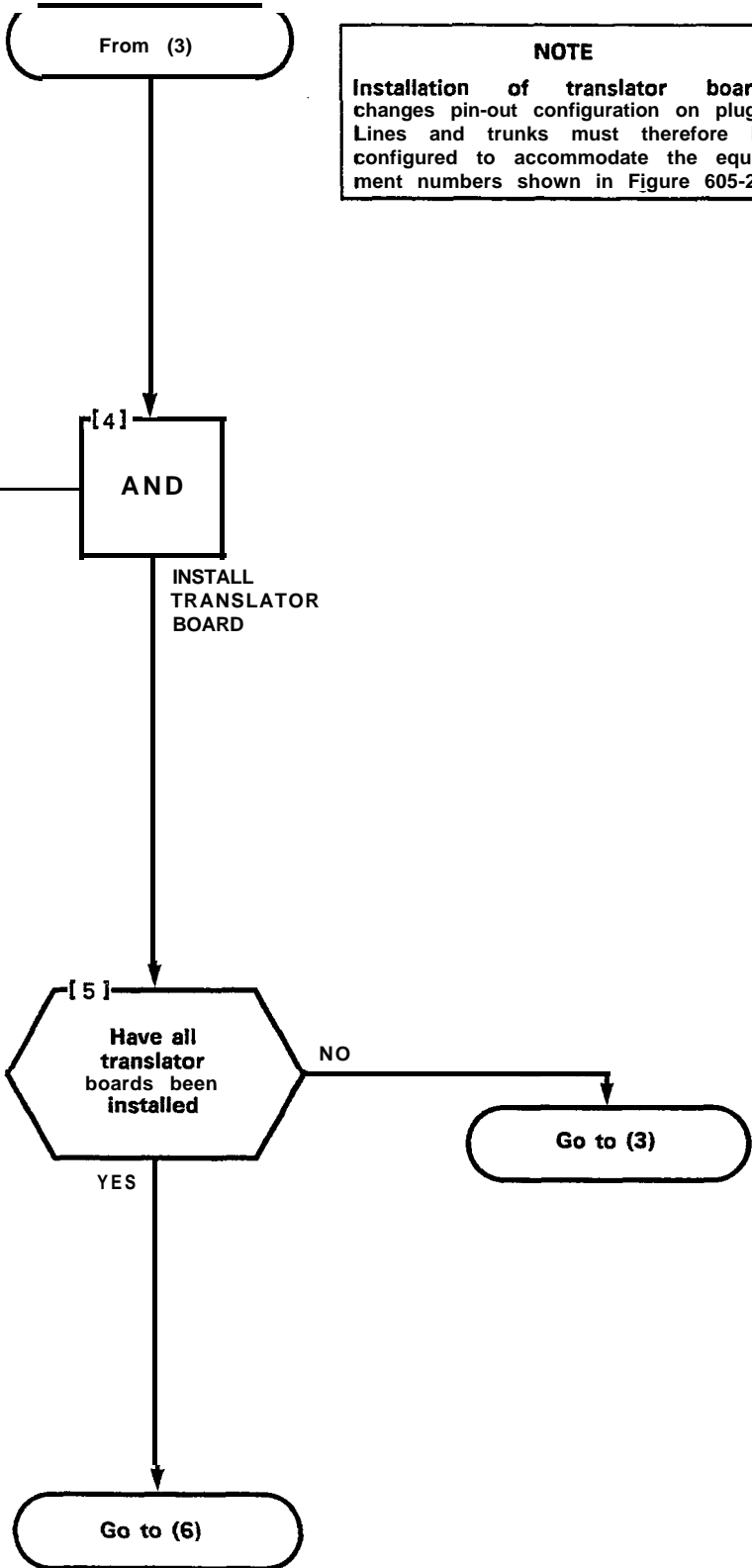
- (2A) Open front door
- (2B) Open rear door 6X-200
- (2C) Set SYSTEM POWER switch to OFF
- (2D) Set all power switches on rear door to OFF
- (2E) Set battery switch (SX-200) to OFF
- (2F) Remove power cable(s) from power outlet(s)

- (3A) Unscrew the 4-40 screw from the cable connectors on the backplane (Figure 605-1)
- (3B) Remove cable connectors

BACKPLANE TRANSLATOR BOARD INSTALLATION
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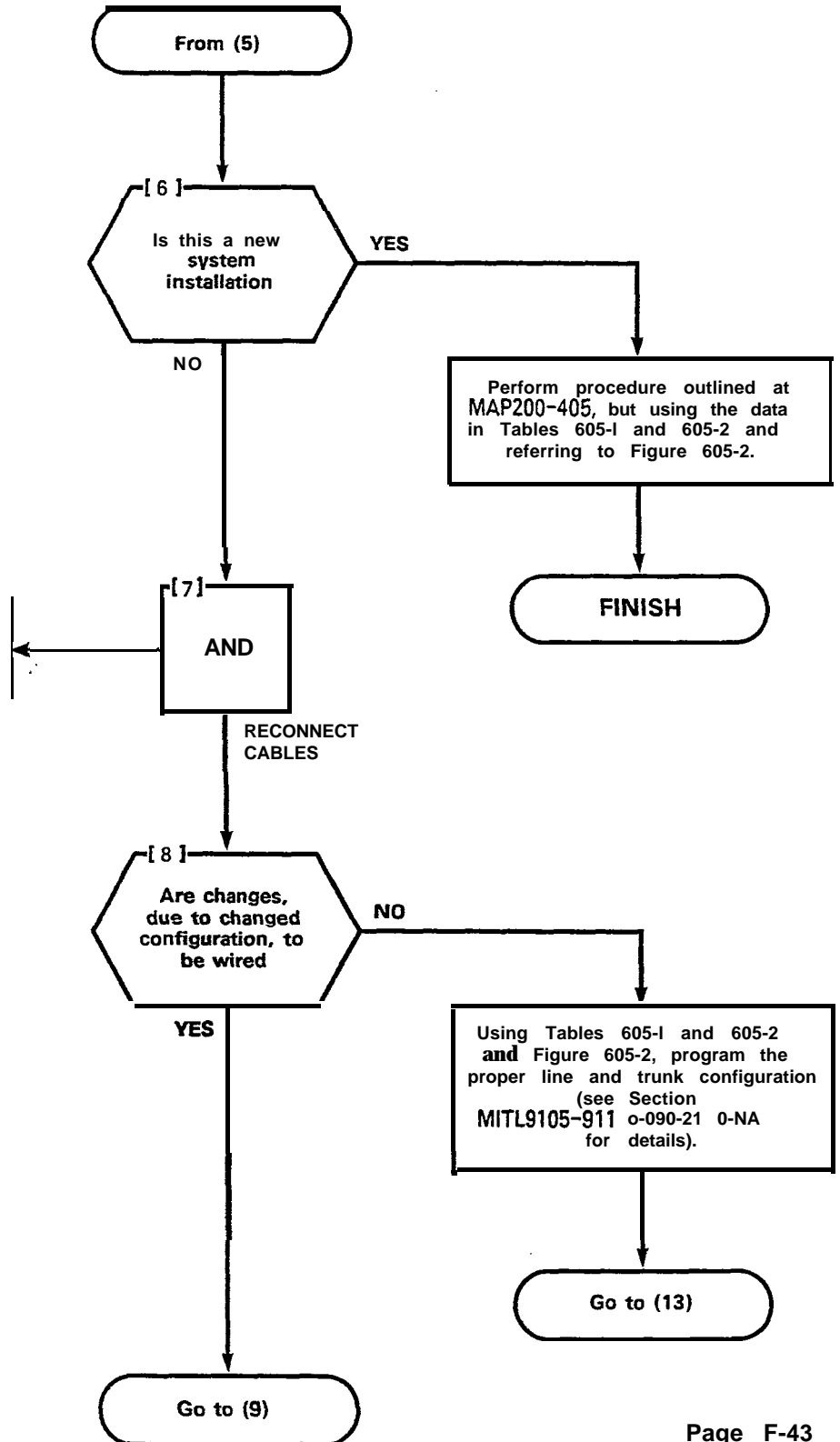
NOTE
 Installation of translator boards changes pin-out configuration on plugs. Lines and trunks must therefore be configured to accommodate the equipment numbers shown in Figure 605-2.

- (4A) Plug the translator board into the backplane connectors (Figure 605-1)
- (4B) Install four 6-32 screws (Figure 605-1)
- (4C) Tighten all screws with a slotted 0.25 inch blade screwdriver



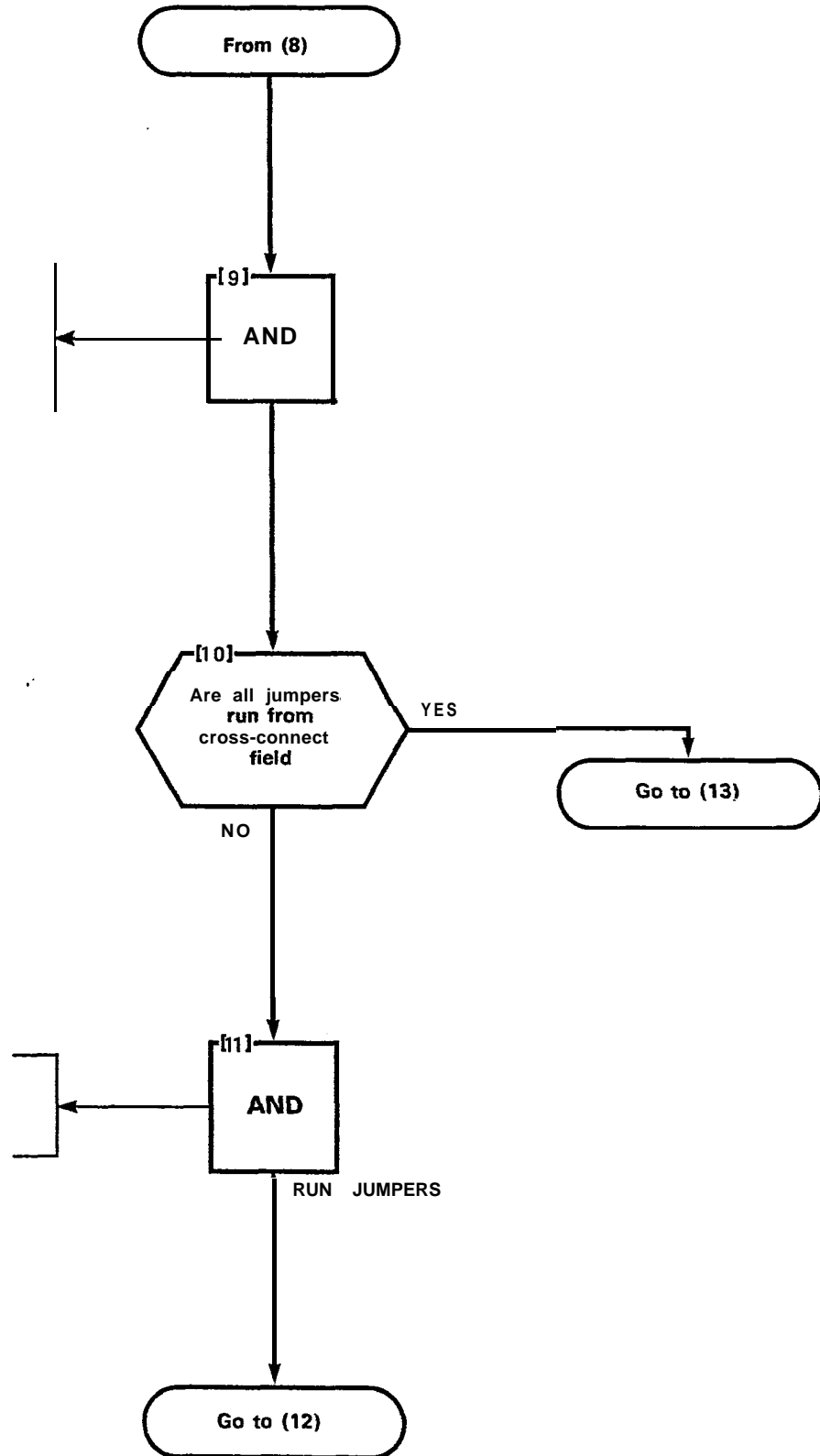
BACKPLANE TRANSLATOR BOARD INSTALLATION
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(7A) Reconnect connector plugs according to Figure 605-1
 (7B) Tighten connector screws



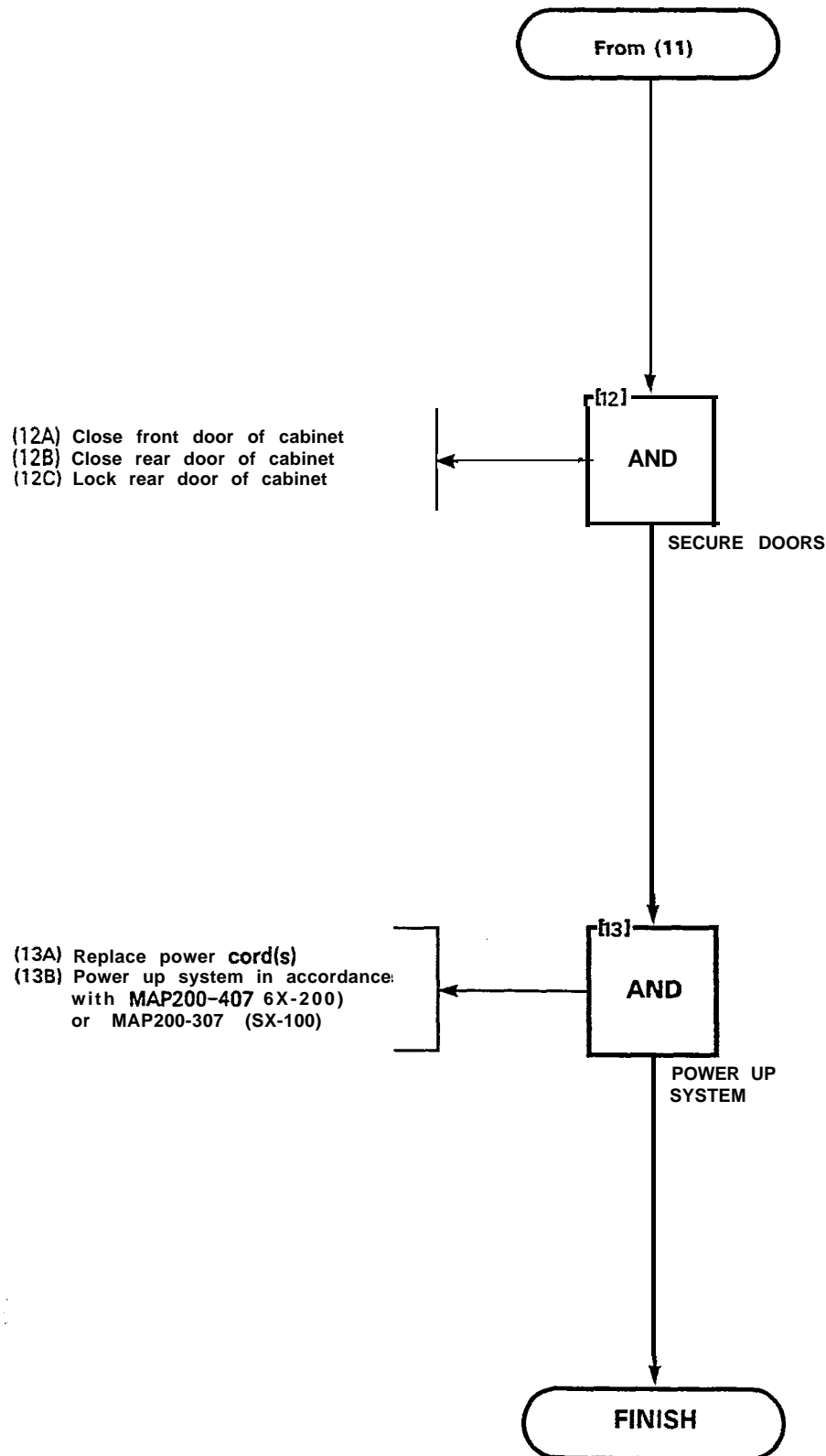
BACKPLANE TRANSLATOR BOARD INSTALLATION
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(9A) Change the jumpers on the cross-connect field *to* reflect the new configuration, using Tables 605-1 and 605-2 and Figure 605-2



(11A) Run jumpers as per Figure 605-2 and reference MAP200-604

BACKPLANE TRANSLATOR BOARD INSTALLATION
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BACKPLANE TRANSLATOR BOARD
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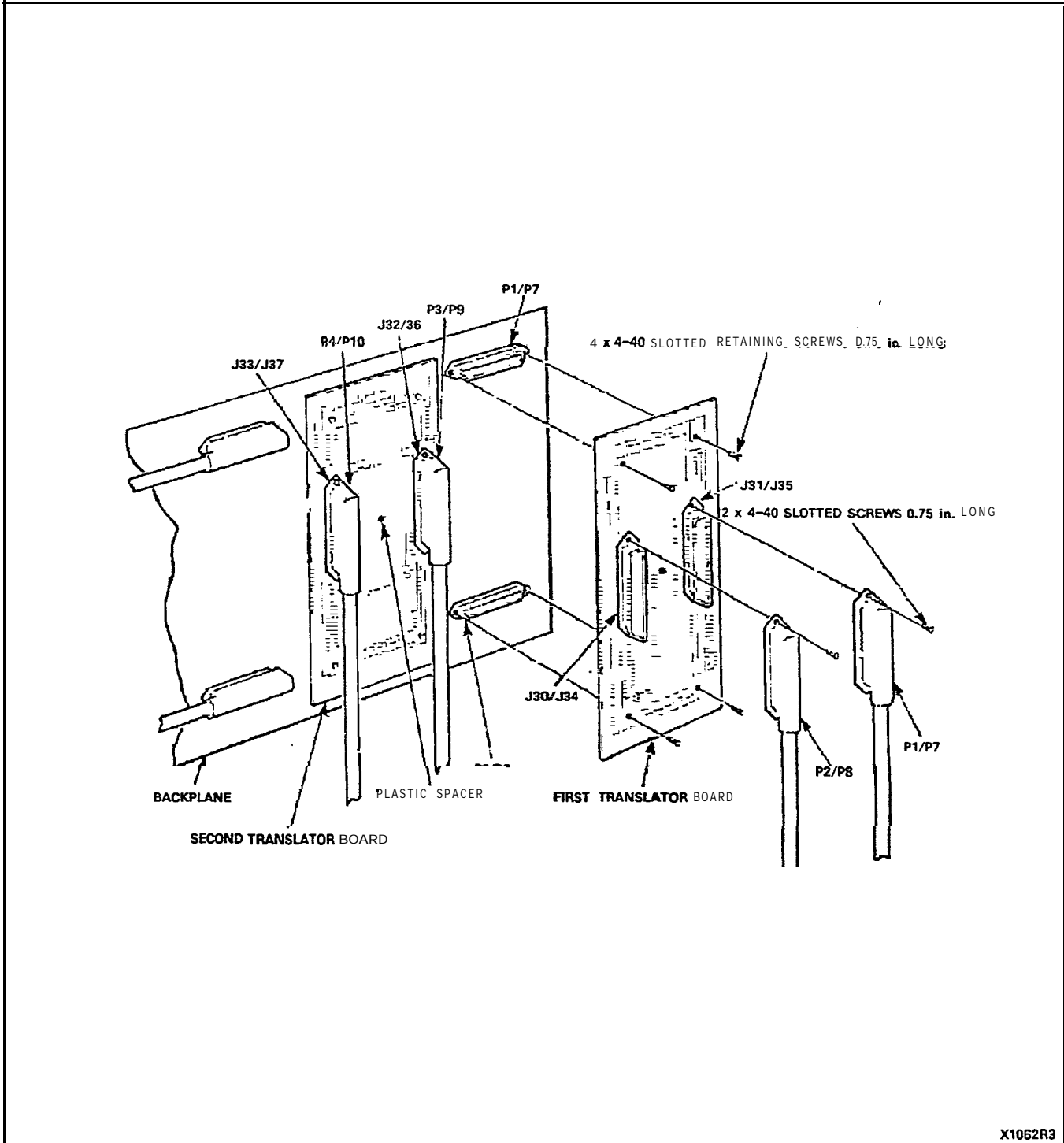


Figure 605-I Translator Board Installation

BACKPLANE TRANSLATOR BOARD INSTALLATION
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TABLE 605-I
BACKPLANE TRANSLATOR BOARD CONNECTIONS (SHELF 1) TO CROSS-CONNECT FIELD

Pin	Pair Color	Line and Trunk Connections				Shelf 1 Translator Board Plug Numbers							
		Extn	Co	ID/Tie	E&M+	P1	P2	P3	P4				
26	W-BL	T1	T1	T1	T1	021	Equipment Numbers Card Position 1	025	Equipment Numbers Card Position 4	049	Equipment Numbers Card Position 7	073	Equipment Numbers Card Position 10
1	BL-W	R1	R1	R1	R1	022		026		050		074	
27	w-o	T2	XT2		TR1	023		027		051		075	
2	O-W	R2	XT1		RR1	024		028		052		076	
28	W-G	T3	T2		E1	025		029		053		077	
3	G-W	R3	R2		M1	026		030		054		078	
29	W-BR	T4		T2	T2	027		031		055		079	
4	BR-W	PA		R2	R2	028		032		056		080	
30	w-s	T5	T3		T2	029	Equipment Numbers Card Position 2	033	Equipment Numbers Card Position 5	057	Equipment Numbers Card Position 8	081	Equipment Numbers Card Position 11
5	s-w	R5	R3		R2	030		034		058		082	
31	R-BL	T6	XT4		TR2	031		035		059		083	
6	BL-R	R6	XT3		RR2	032		036		060		084	
32	u-o	T7	T4		E2	033		037		061		085	
7	O-R	R7	R4		M2	034		038		062		086	
33	R-G	T8				035		039		063		087	
8	G-R	R8				036		040		064		088	
34	R-BR	T1	T1	T1	T1	039	Equipment Numbers Card Position 3	041	Equipment Numbers Card Position 6	065	Equipment Numbers Card Position 9	089	Equipment Numbers Card Position 12 (See Note)
9	BR-R	R1	R1	R1	R1	040		042		066		090	
35	u-s	T2	X1-2		TR1	041		043		067		091	
10	S-R	R2	XT1		RR1	042		044		068		092	
36	BK-BL	T3	T2		E1	043		045		069		093	
11	BL-BK	R3	R2		M1	044		046		070		094	
37	BK-O	T4		T2	T2	045		047		071		095	
12	O-BK	R4		R2	R2	046		048		072		096	
38	BK-G	T5	T3		T2	047	Equipment Numbers Card Position 4	049	Equipment Numbers Card Position 7	073	Equipment Numbers Card Position 10		
13	G-BK	R5	R3		R2	048		050		074		074	
39	BK-BR	T6	XT4		TR2	049		051		075		075	
14	BR-BK	R6	XT3		RR2	050		052		076		076	
40	BK-s	T7	T4		E2	051		053		077		077	
15	S-BK	R7	R4		M2	052		054		078		078	
41	Y-BL	T8				053		055		079		079	
16	BL-Y	R8				054		056		080		080	
42	Y-O	T1	T1	T1	T1	017	Equipment Numbers Card Position 5	041	Equipment Numbers Card Position 6	065	Equipment Numbers Card Position 9	089	Equipment Numbers Card Position 12 (See Note)
17	O-Y	R1	R1	R1	R1	018		042		066		090	
43	Y-G	T2	XT2		TR1	019		043		067		091	
18	G-Y	R2	XT1		RR1	020		044		068		092	
44	Y-BR	T3	T2		E1	021		045		069		093	
19	ER-Y	R3	R2		M1	022		046		070		094	
45	Y-S	T4		T2	T2	023		047		071		095	
20	S-Y	R4		R2	R2	024		048		072		096	
48	V-BL	T5	T3		T2	021	Equipment Numbers Card Position 6	049	Equipment Numbers Card Position 7	073	Equipment Numbers Card Position 10		
21	BL-V	R5	R3		R2	022		050		074		074	
47	V-O	T6	XT4		TR2	023		051		075		075	
22	o-v	R6	XT3		RR2	024		052		076		076	
46	V-G	T7	T4		E2	025		053		077		077	
23	G-V	R7	R4		M2	026		054		078		078	
49	V-BR	T8				027		055		079		079	
24	BR-V	R8				028		056		080		080	
50	v-s	SPARE											
25	s-v	SPARE											

NOTE: Position 12 can be used for lines, trunks or receiver #4 card.
+ For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads

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BACKPLANE TRANSLATOR BOARD INSTALLATION
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TABLE 605-2
BACKPLANE TRANSLATOR BOARD CONNECTIONS (SHELF 2) TO CROSS-CONNECT FIELD

Pin	Pair Color	Line and Trunk Connections				Shelf 2 Translator Board Plug Numbers			
		Extn	CO	DID/Tie	E&M+	P7	P8	P9	P10
26	W-BL	T1	T1	T1	T1	161 Equipment Numbers Card Position 1	185 Equipment Numbers Card Position 4	209 Equipment Numbers Card Position 7	233 Equipment Numbers Card Position 10
1	BL-W	R1	R1	R1	R1				
27	w - o	T2	XT2		TR1				
2	o - w	R2	XT1		RR1				
26	W-G	T3	T2		E1				
3	G-W	R3	R2		M1				
29	W-BR	T4							
4	BR-W	R4							
30	w - s	T5	T3	T2	T2	165 Equipment Numbers Card Position 2	189 Equipment Numbers Card Position 5	213 Equipment Numbers Card Position 8	237 Equipment Numbers Card Position 11
5	s - w	R5	R3	R2	R2				
31	R-BL	T6	XT4		TR2				
6	BL-R	R6	XT3		RR2				
32	R-O	T7	T4		E2				
7	O-R	R7	R4		M2				
33	R-G	T8							
8	G-R	R8							
34	R-BR	T1	T1	T1	T1	169 Equipment Numbers Card Position 3	193 Equipment Numbers Card Position 6	217 Equipment Numbers Card Position 9	241 Equipment Numbers Card Position 12 (See Note)
9	BR-R	R1	R1	R1	R1				
35	R-S	T2	XT2		TR1				
10	S-R	R2	XT1		RR1				
36	BK-BL	T3	T2		E1				
11	EL-BK	R3	R2		M1				
37	BK-O	T4							
12	O-BK	R4							
36	EK-G	T5	T3	T2	T2	173 Equipment Numbers Card Position 4	197 Equipment Numbers Card Position 7	221 Equipment Numbers Card Position 10	245 Equipment Numbers Card Position 13
13	G-BK	R5	R3	R2	R2				
39	BK-BR	T6	XT4		TR2				
14	BA-BK	R6	XT3		RR2				
40	BK-S	T7	T4		E2				
15	S-BK	R7	R4		M2				
41	Y-BL	T8							
16	BL-Y	R8							
42	Y-O	T1	T1	T1	T1	177 Equipment Numbers Card Position 5	201 Equipment Numbers Card Position 8	225 Equipment Numbers Card Position 11	249 Equipment Numbers Card Position 14 (See Note)
17	O-Y	R1	R1	R1	R1				
48	O-Y	R2	XT2		RR1				
44	Y-BR	T3	T2		E1				
19	BR-Y	R3	R2		M1				
45	Y-S	T4							
20	S-Y	R4							
46	V-BL	T5	T3	T2	T2				
21	BL-V	R5	R3	R2	R2				
47	v - o	T6	XT4		TR2				
22	o - v	R6	XT3		RR2				
48	V-G	T7	T4		E2				
23	G-V	R7	R4		M2				
49	V-BR	T8							
24	BR-V	R8							
50	v - s	SPARE							
25	s - v	SPARE							

NOTE: Position 12 can be used for lines, trunks or receiver #4 card.
+ For 2-Wire E&M Trunk operation DO NOT connect RR and TR leads.

HARDWARE/EQUIPMENT NUMBERING

HARDWARE POSITION NUMBER	PLUG 7			PLUG 8			PLUG 9			PLUG 10		
	161	169	177	185	193	201	209	217	225	233	241	248
	162	170	178	188	194	202	210	218	226	234	242	250
	163	171	179	187	195	203	211	219	227	235	243	251
	164	172	180	188	196	204	212	220	228	238	244	252
	165	173	181	189	197	205	213	221	229	237	246	253
	166	174	182	190	198	206	214	222	230	238	246	254
	167	175	183	191	199	207	215	223	231	239	247	255
	168	176	184	192	200	208	216	224	232	240	248	256
	1	2	3	4	5	6	7	8	9	10	11	12

SHELF 2 (SX-200)

HARDWARE POSITION NUMBER	PLUG P1			PLUG P2			PLUG P3			PLUG P4		
	001	009	017	025	033	041	049	057	065	073	081	089
	002	010	018	026	034	042	050	058	066	074	082	090
	003	011	019	027	035	043	051	059	067	075	083	091
	004	012	020	028	036	044	052	060	068	076	084	092
	005	013	021	029	037	045	053	061	069	077	085	093
	006	014	022	030	038	046	054	062	070	078	086	094
	007	015	023	021	039	047	055	063	071	079	087	095
	008	016	024	032	040	048	056	064	072	080	088	096
		1	2	3	4	5	6	7	8	9	10	11

SHELF 1 SX-100/SX-200

NOTE: EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE. EQUIPMENT NUMBERS ASSIGNED TO SUPERSET 4 LINE CARDS CAN ONLY BE USED WITH SUPERSET 4 ELECTRONIC TELEPHONE SETS.

X131E

Figure 605-2 Backplane Translator Board Plug Appearances

■

■

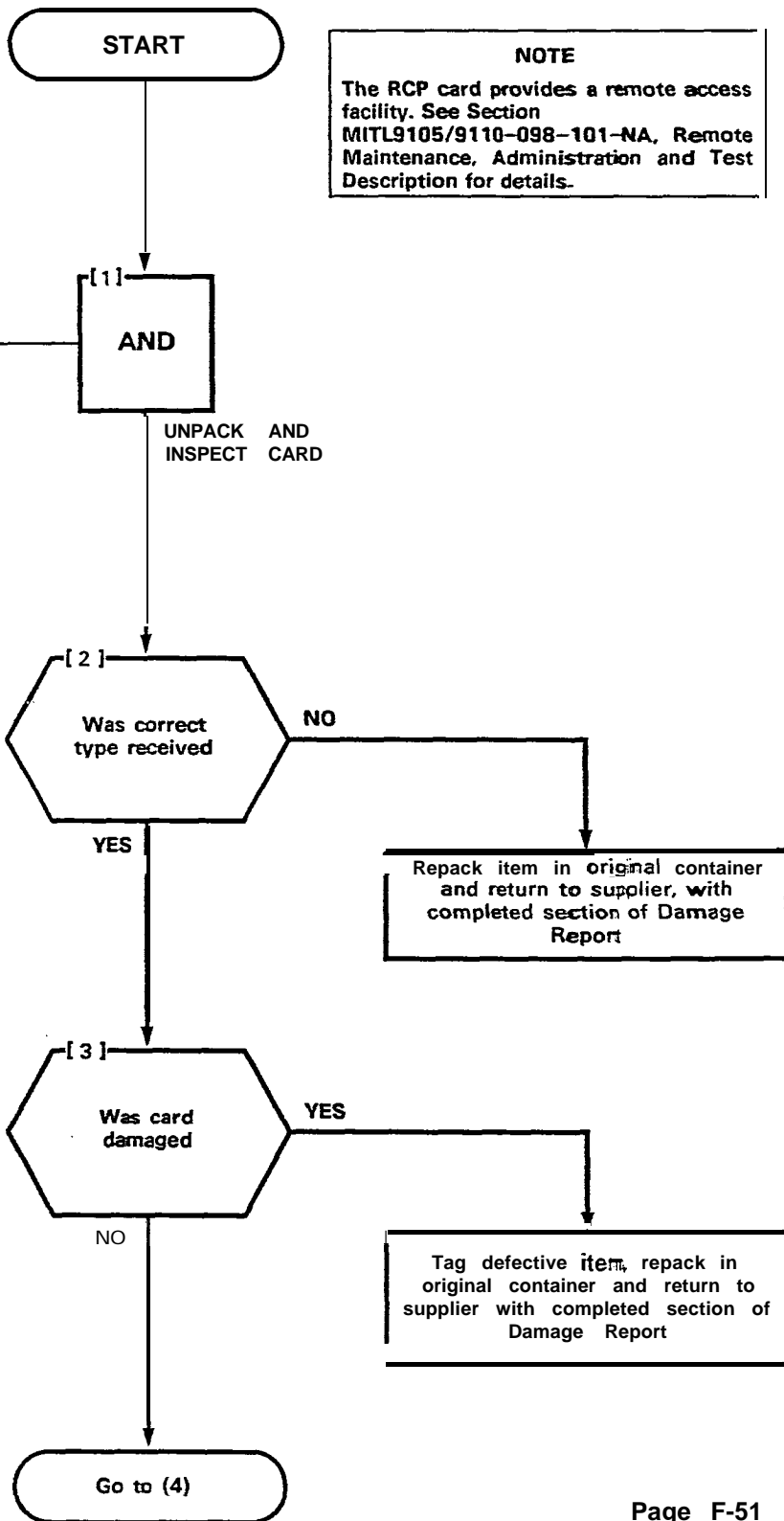
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INSTALLATION OF RCP CARD
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NOTE
The RCP card provides a remote access facility. See Section MITL9105/9110-098-101-NA, Remote Maintenance, Administration and Test Description for details.

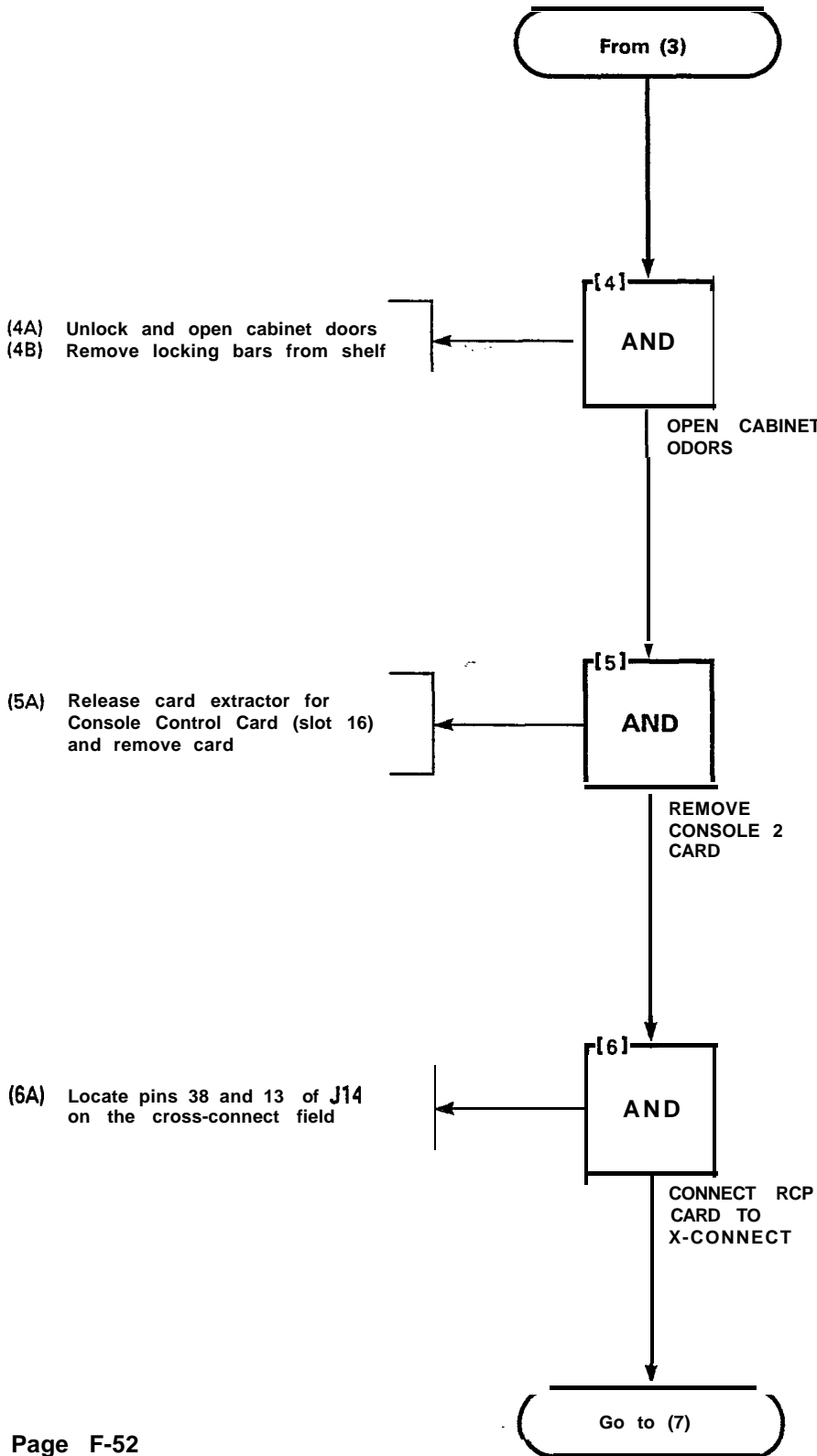
- (IA) Unpack card from container
- (IB) Inspect card for physical damage
- (1C) Check card type against invoice



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INSTALLATION OF RCP CARD
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NOTE
 RCP card is to be used in Shelf 1 Slot 16. The existing console control card (if installed) must be removed.



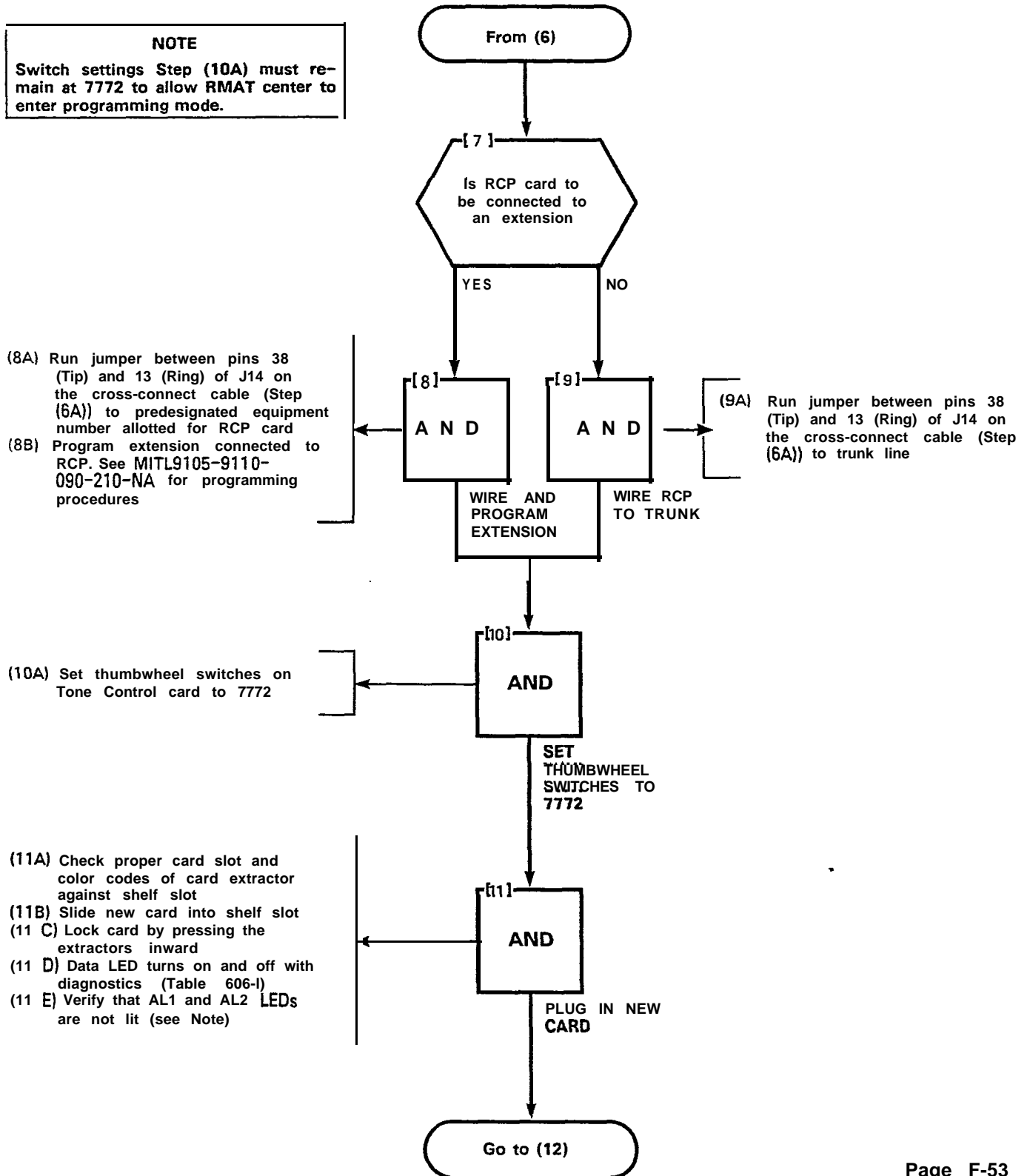
INSTALLATION OF RCP CARD

MAP200-606

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NOTE
Switch settings Step (10A) must remain at 7772 to allow RMAT center to enter programming mode.



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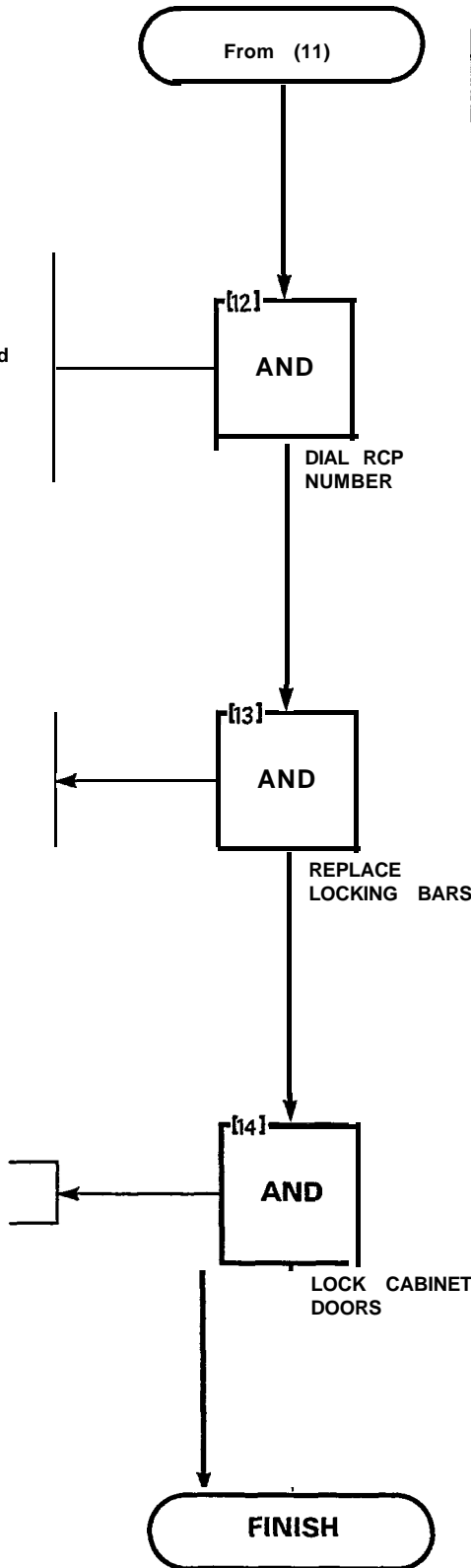
INSTALLATION OF RCP CARD
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NOTE
 If AL2 LED is lit at Step (11D), replace the RCP card.

- (12A) Dial allotted RCP number
- (12B) Answer tone heard
- (12C) Term LED turns on
- (12D) Verify that during a 10 second period the answer tone increased in level in three distinct steps
- (12E) Release connection to RCP

- (13A) Replace locking bars across front of shelf
- (13B) Slide and securely fasten locking device

- (14A) Lock cabinet doors



INSTALLATION OF RCP CARD

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TABLE 606-I
RCP LED INDICATIONS

Designation	Description of Indications
DATA	<ol style="list-style-type: none"> 1. LED lit when the RCP is connected to the RMAT Controller and data is being transmitted. 2. LED lit during diagnostic tests. Tests consist of three 10 second periods followed by 17 seconds during which LED is off.
TERM	LED is lit when the RCP answers the RMAT Controller.
AL1	Alarm LED AL1 is lit when alarm is activated by the watchdog timer.
AL2	Alarm LED flashes if failure occurs during the RCP self-test diagnostics. The LED is lit steadily if a checksum or RAM failure occurs during initialization.

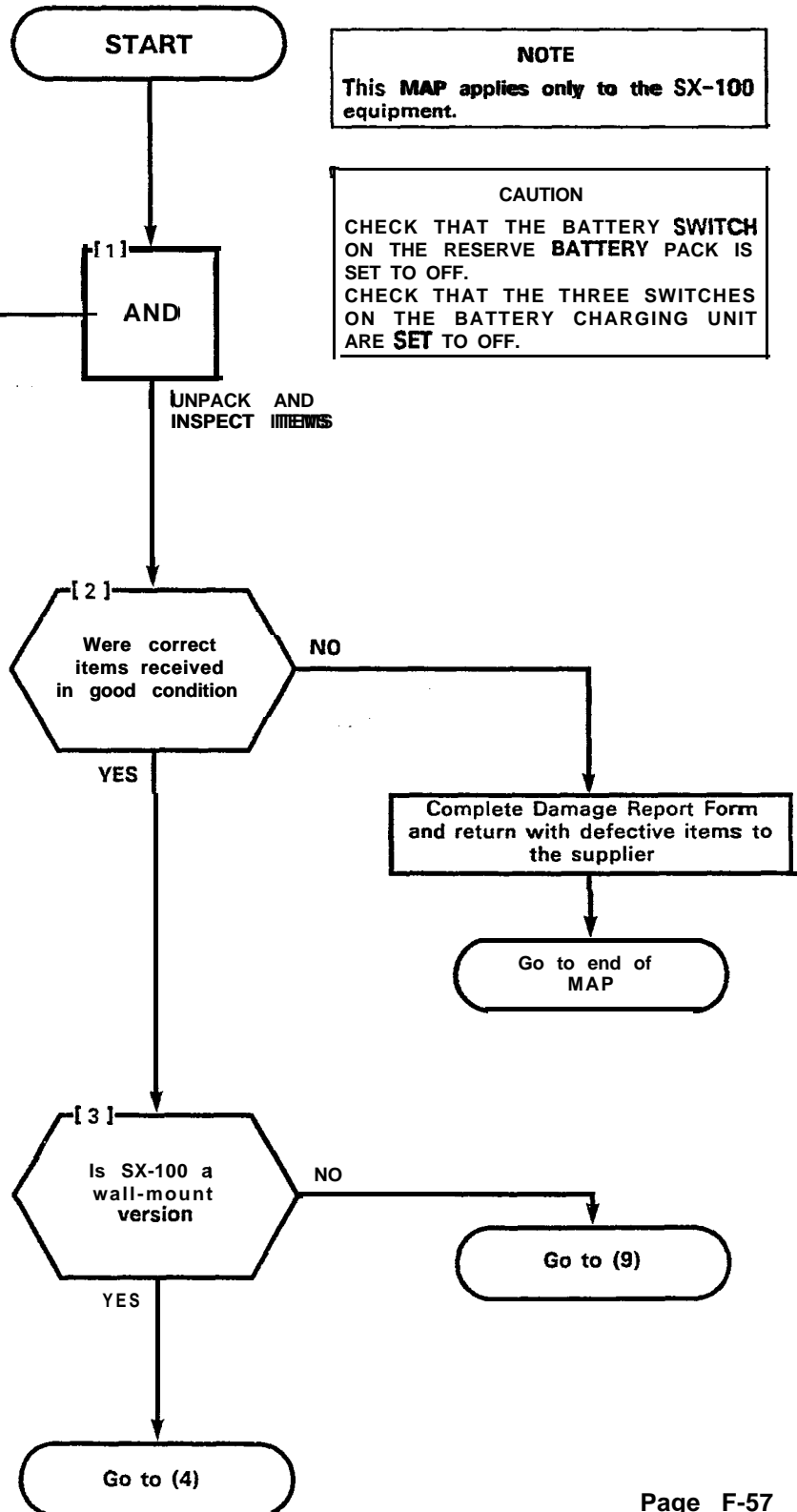


RESERVE POWER SUPPLY INSTALLATION (SX-100)	- 1
MAP200- 607	
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NOTE
This MAP applies only to the SX-100 equipment.

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.

- (1A) Unpack reserve power supply equipment
- (1B) Inspect items for physical damage
- (1C) Check item types against invoice



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RESERVE POWER SUPPLY INSTALLATION (SX-100)
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NOTE
Interconnecting cable must be of equal construction to standard cable harness; i.e., red, black and green insulated flexible strand leads of at least 14 AWG gauge.

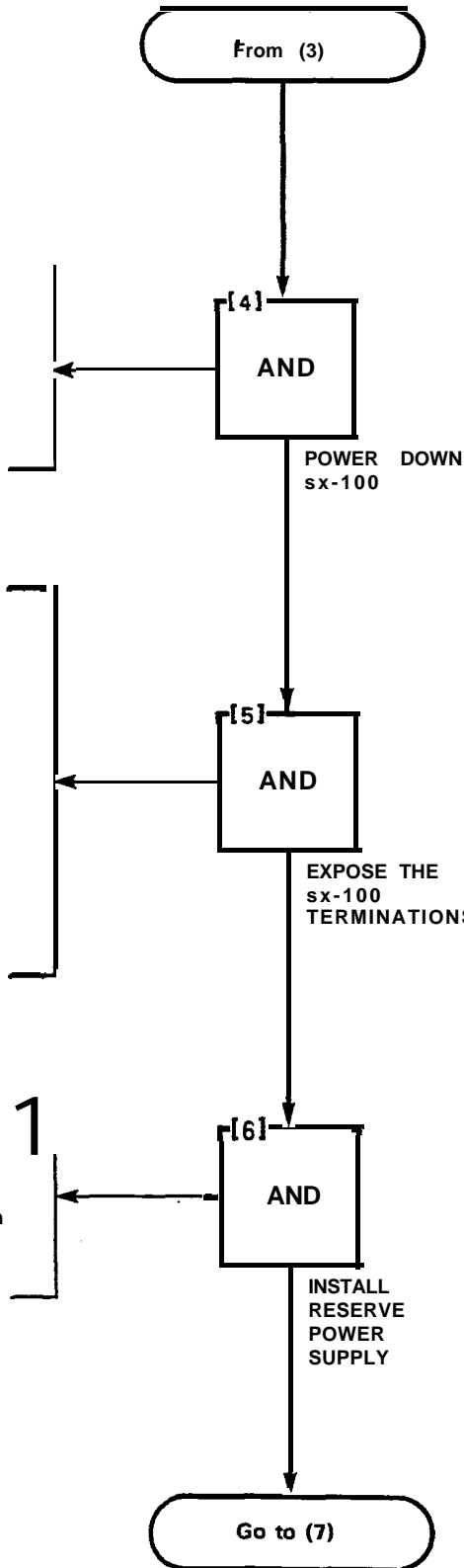
SX-100 EQUIPMENT

- (4A) Unlock and open front door
- (4B) Switch off AC and DC circuit breakers
- (4C) Remove AC cord from power receptacle
- (4D) Close and lock front door

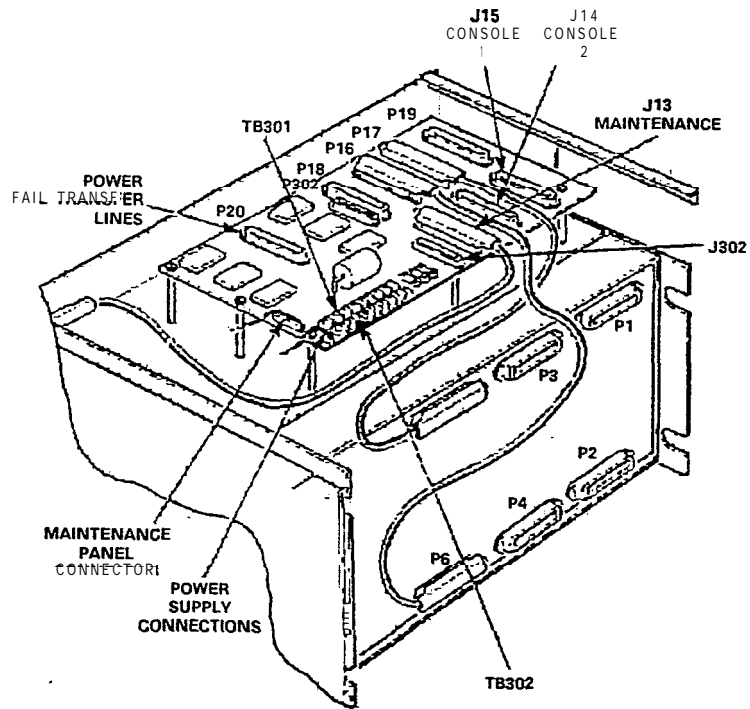
- (5A) Release the strikes at the top of the SX-100 system (supporting the weight of the unit by hand)
- (5B) Allow the SX-100 system to be gently pivoted down, and rest against the backboard
- (5C) Unlock (or remove the four 10-32 screws from) the top cover of the SX-100 system
- (5D) Remove the top cover
- (5E) Remove the four 10-32 screws from the rear panel of the SX-100 system
- (5F) Remove the rear panel

RESERVE POWER SUPPLY

- (6A) Ensure all switches and circuit breakers are off (see CAUTION block and Figure 607-1)
- (6B) Install Reserve Power Supply in a suitably protected location near the SX-100 equipment



RESERVE POWER SUPPLY INSTALLATION (SX-100)
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X952R3

Figure 607-I Cable Connections

RESERVE POWER SUPPLY INSTALLATION (SX-100)
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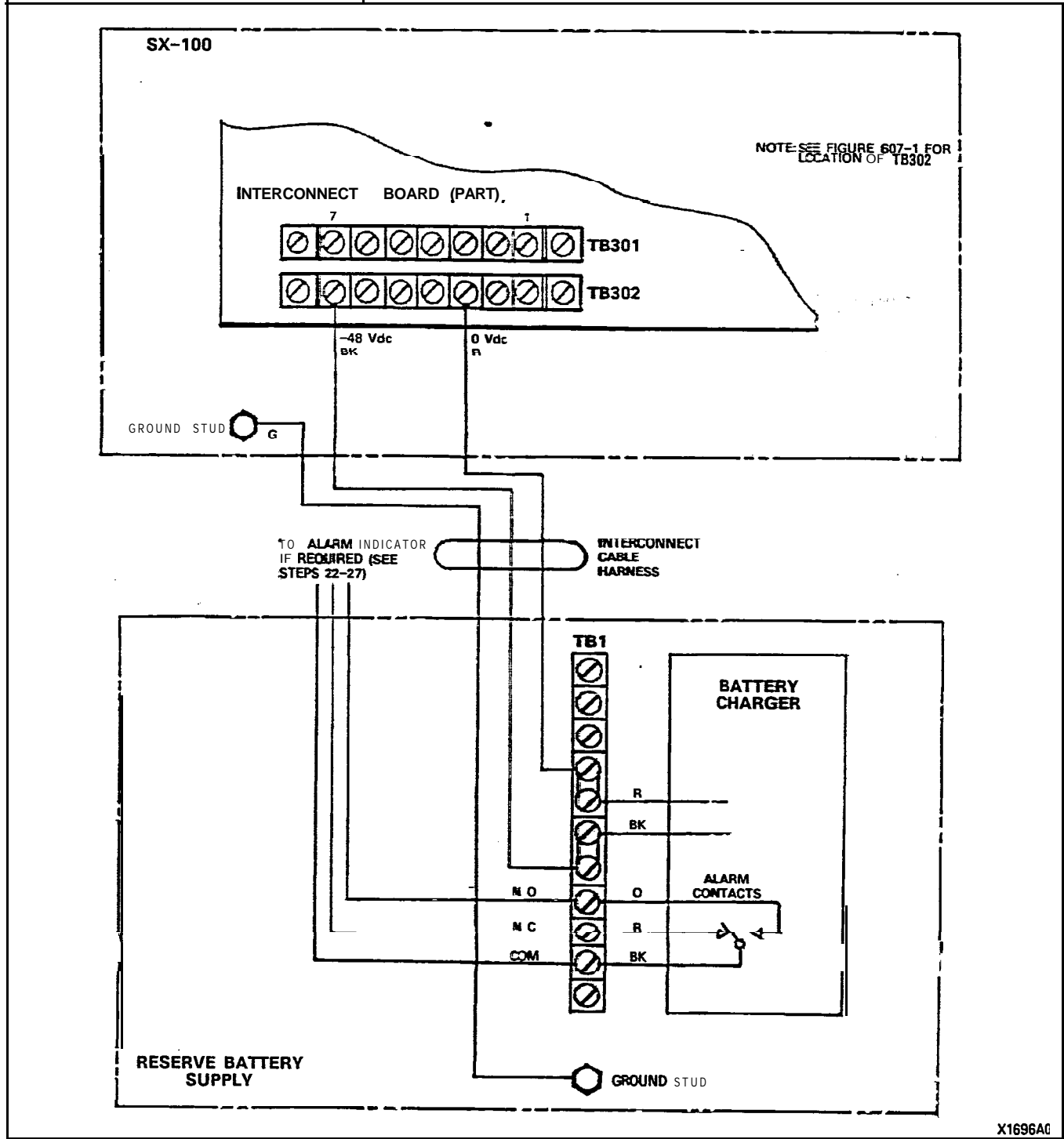


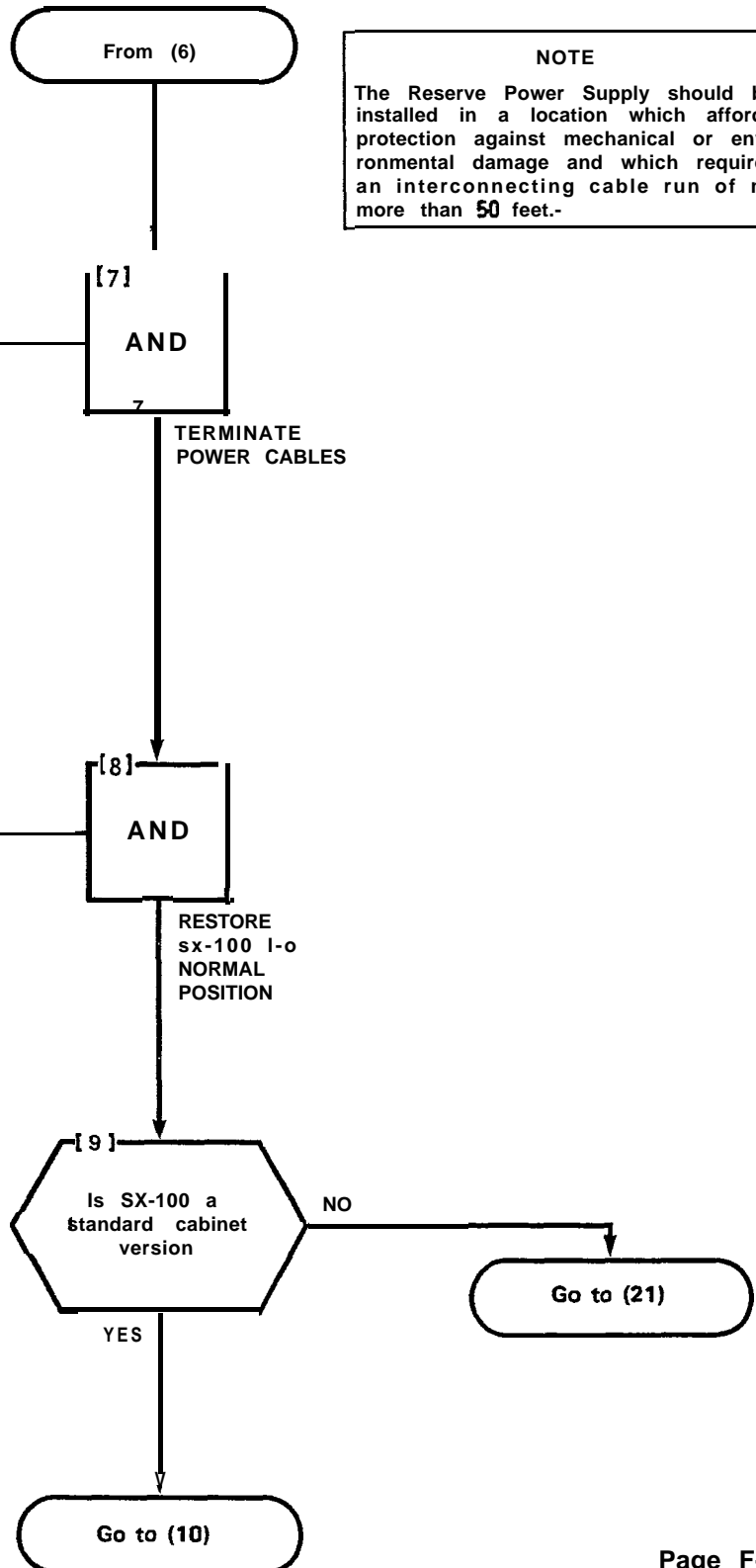
Figure 607-2 Cable Harness Interconnections

RESERVE POWER SUPPLY INSTALLATION (SX-100)
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NOTE
The Reserve Power Supply should be installed in a location which affords protection against mechanical or environmental damage and which requires an interconnecting cable run of no more than 50 feet.-

- (7A) Loosen cable securing clamps of the SX-100 system
- (7B) Run cable (of Figure 607-2) to terminal block TB302 on the SX-100 interconnect card through the cable clamps (see Figure 607-3 and Notes 1 and 2)
- (7C) Terminate cable to TB302 as shown in Figure 607-2
- (7D) Tighten cable securing clamps
- (7E) Join connector plug of cable to connector jack of reserve power supply

- (8A) Replace the back panel removed at Step (5F)
- (8B) Secure the back panel with the screws removed at Step (5E)
- (8C) Replace the top cover removed at Step (5D)
- (8D) Lock the cover for secure with the screws removed at Step (5C)
- (8E) Swing the SX-100 equipment up to its normal position, and ensure that the strikes latch and engage properly



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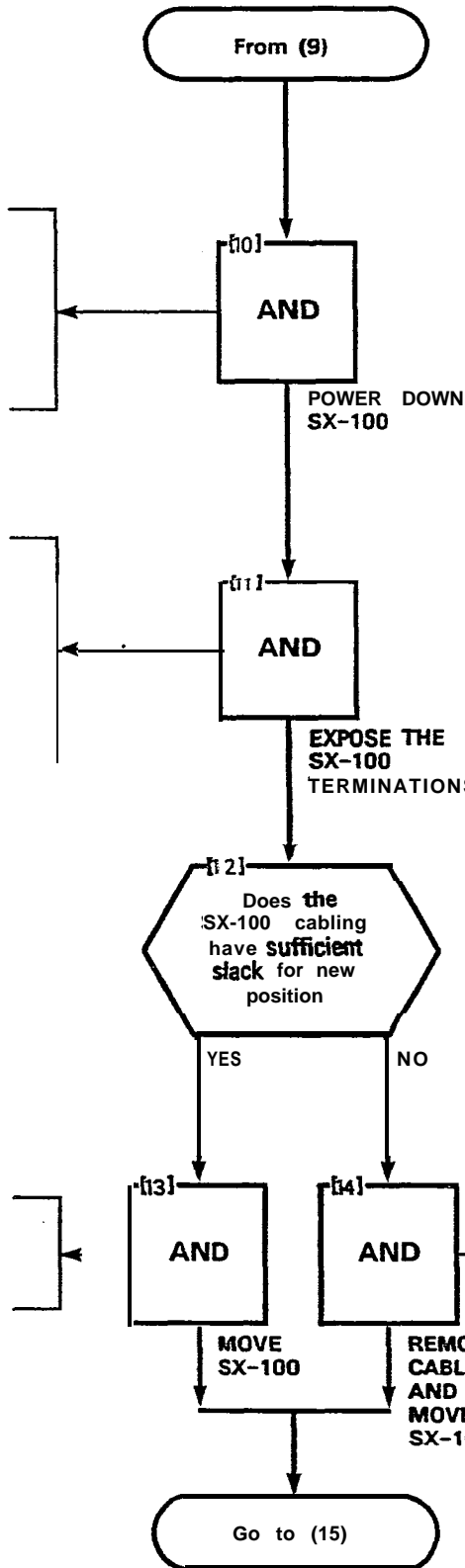
NOTE
Interconnecting cable must be of equal construction to standard cable harness; i.e., red, black and green insulated flexible strand leads of at least 14 AWG gauge.

- SX-100 EQUIPMENT**
 (10A) Unlock and open front door
 (10B) Switch off AC and DC circuit breakers
 (10C) Remove AC cord from power receptacle
 (10D) Close and lock front door

- (11A) Unlock (or remove the four IO-32 screws from) the top cover of the SX-100 system
 (11B) Remove the top cover
 (11C) Remove the four IO-32 screws from the rear panel of the SX-100 system
 (11D) Remove the rear panel

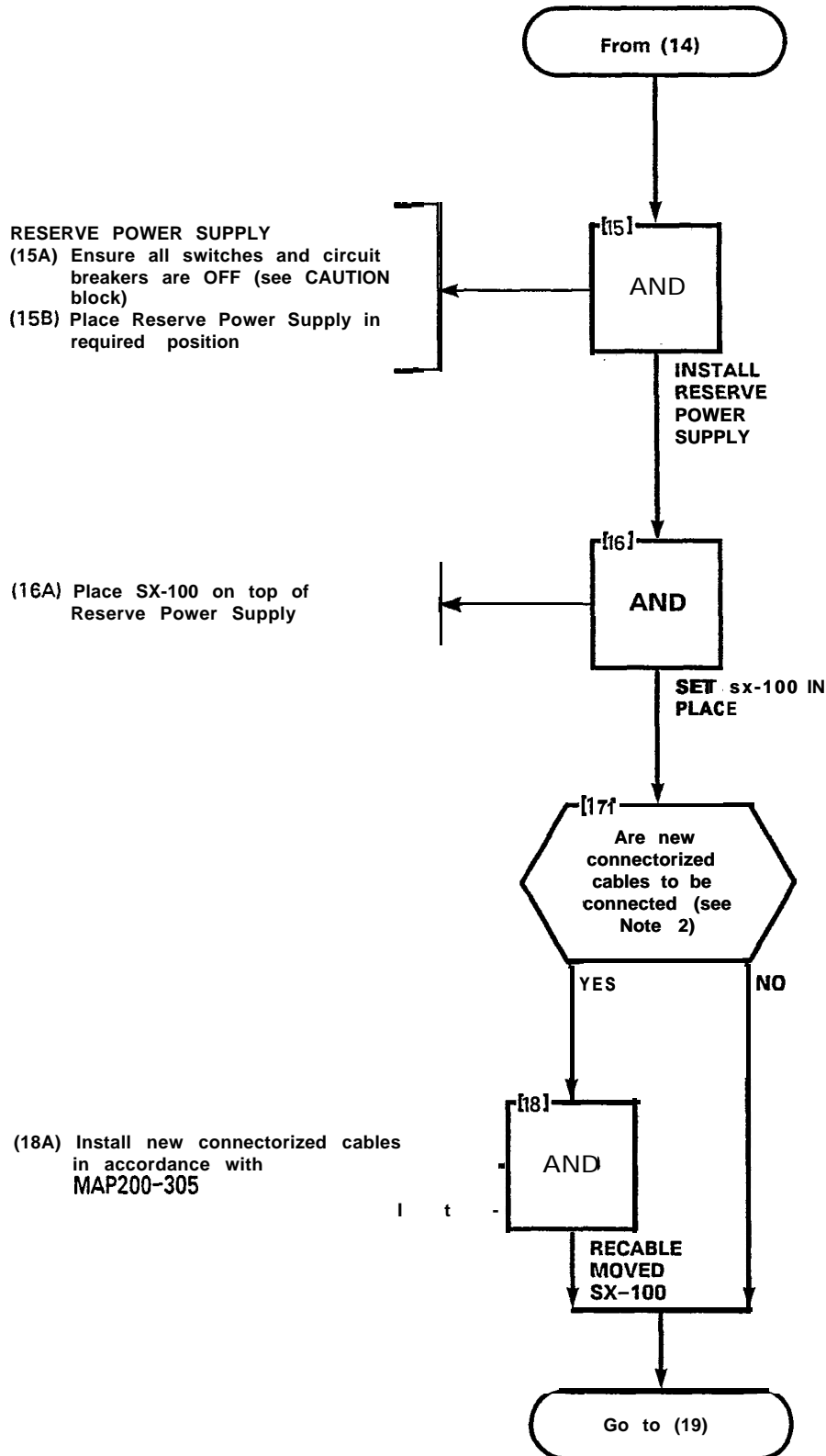
- (13A) Move SX-100 aside to make room for new reserve power supply position

- (14A) Remove all connectorized communication cables from the SX-100 system
 (14B) Move the SX-100 equipment to make room for the Reserve Power Supply

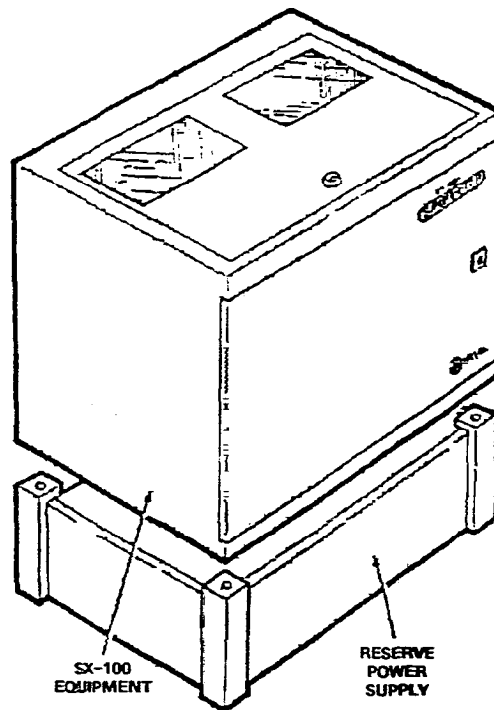


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NOTES
1. The SX-100 system, when used with the Reserve Power Supply is mounted on top of the Reserve Power Supply (Figure 607-3). If sufficient slack in cables exist to permit new configuration, proceed as in Step 13. If a new location is selected or the SX-100 system otherwise requires new connectorized cables, proceed as in Step 14.
2. Refer to all instructions in MAP200-305 regarding marking, identification and cable locations for review and reference prior to proceeding with Step 14.



RESERVE POWER SUPPLY INSTALLATION (SX-100)
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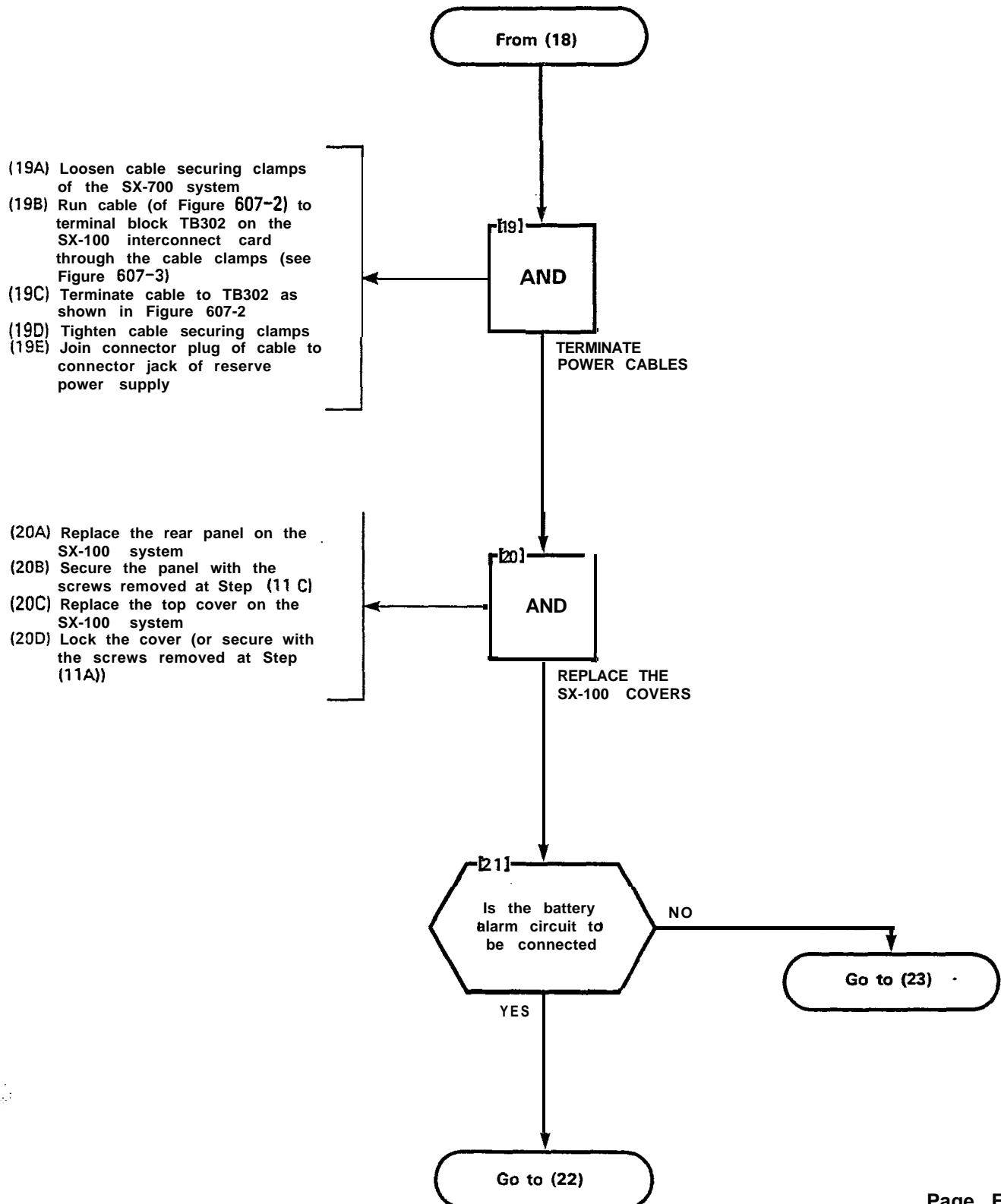
Figure 607-3 Combined SX-100/Reserve Power Supply Grouping

RESERVE POWER SUPPLY INSTALLATION (SX-100)

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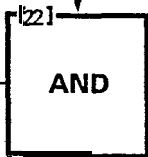
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RESERVE POWER SUPPLY INSTALLATION (SX-100)
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From (21)

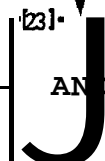
NOTE
 Alarm contacts are provided by the charging unit. These are available for customer-provided alarm indicating equipments to indicate power-fail conditions. Figure 607-2 shows the normal operational condition; i.e., a power-fail condition causes the normally open (NO) and common (COM) contacts to close. The alarm contact electrical ratings are as follows:
 Resistive Load
 2A, 28 Vdc
 1 A, 40 Vdc

- (22A) Locate alarm wires from connector inside the unit (see Figure 607-2)
- (22B) Connect alarm wires as required



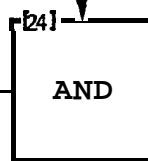
CONNECT ALARM INDICATOR

- RESERVE POWER SUPPLY
- (23A) Insert power cord into power outlet receptacle
 - (23B) Set the battery circuit breaker to the ON position
 - (23C) Set the two switches on the charger to the ON position
 - (23D) Set the circuit breaker on the charger to the ON position
 - (23E) Battery charging LED lights



CONNECT POWER TO RESERVE POWER SUPPLY

- SX-100 EQUIPMENT
- (24A) Unlock and open front door
 - (24B) Insert power cord into power outlet receptacle
 - (24C) Switch AC and DC circuit breakers to ON
 - (24D) CONVERTER LED lit

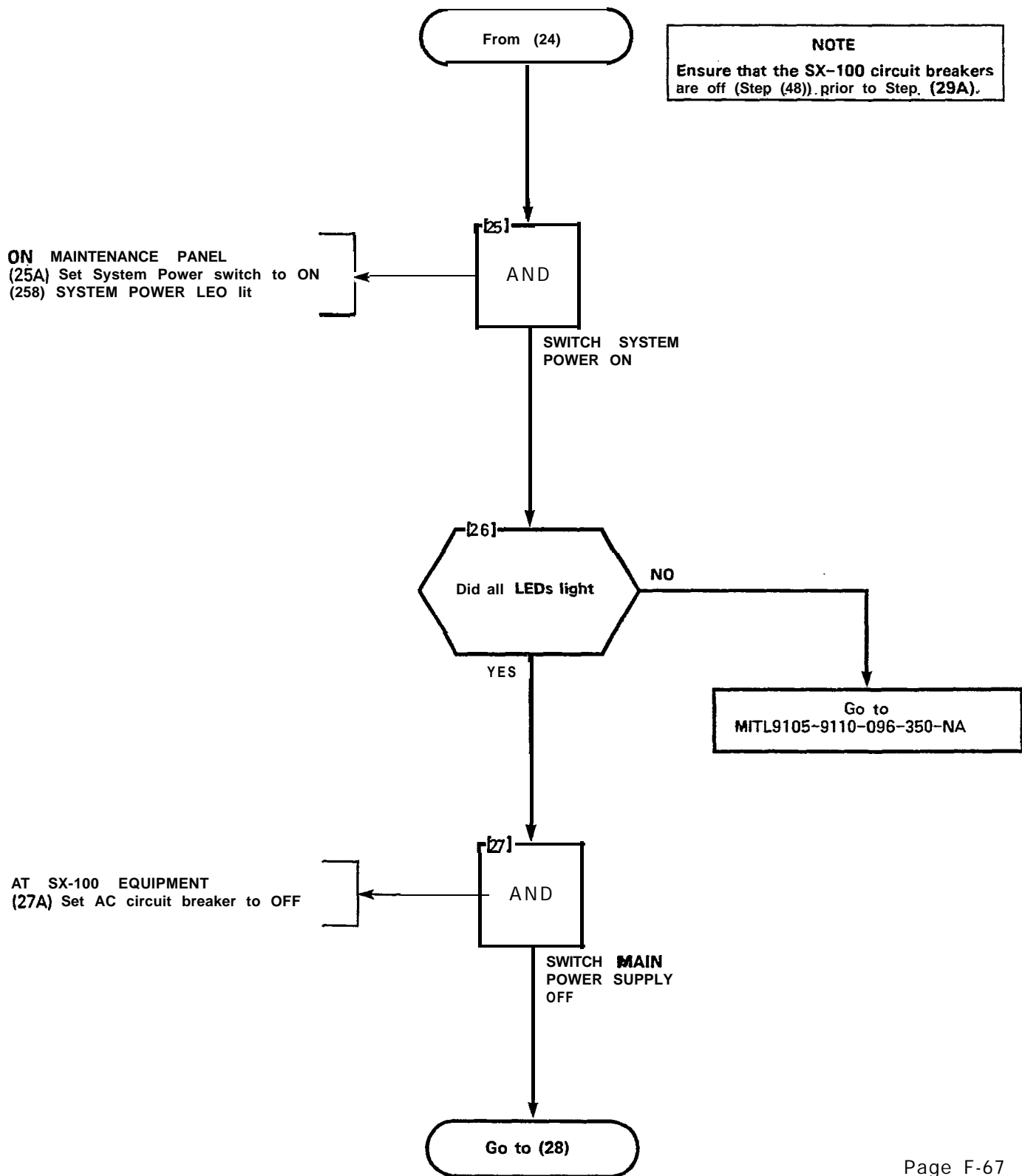


SWITCH POWER SUPPLY ON

Go to (25)

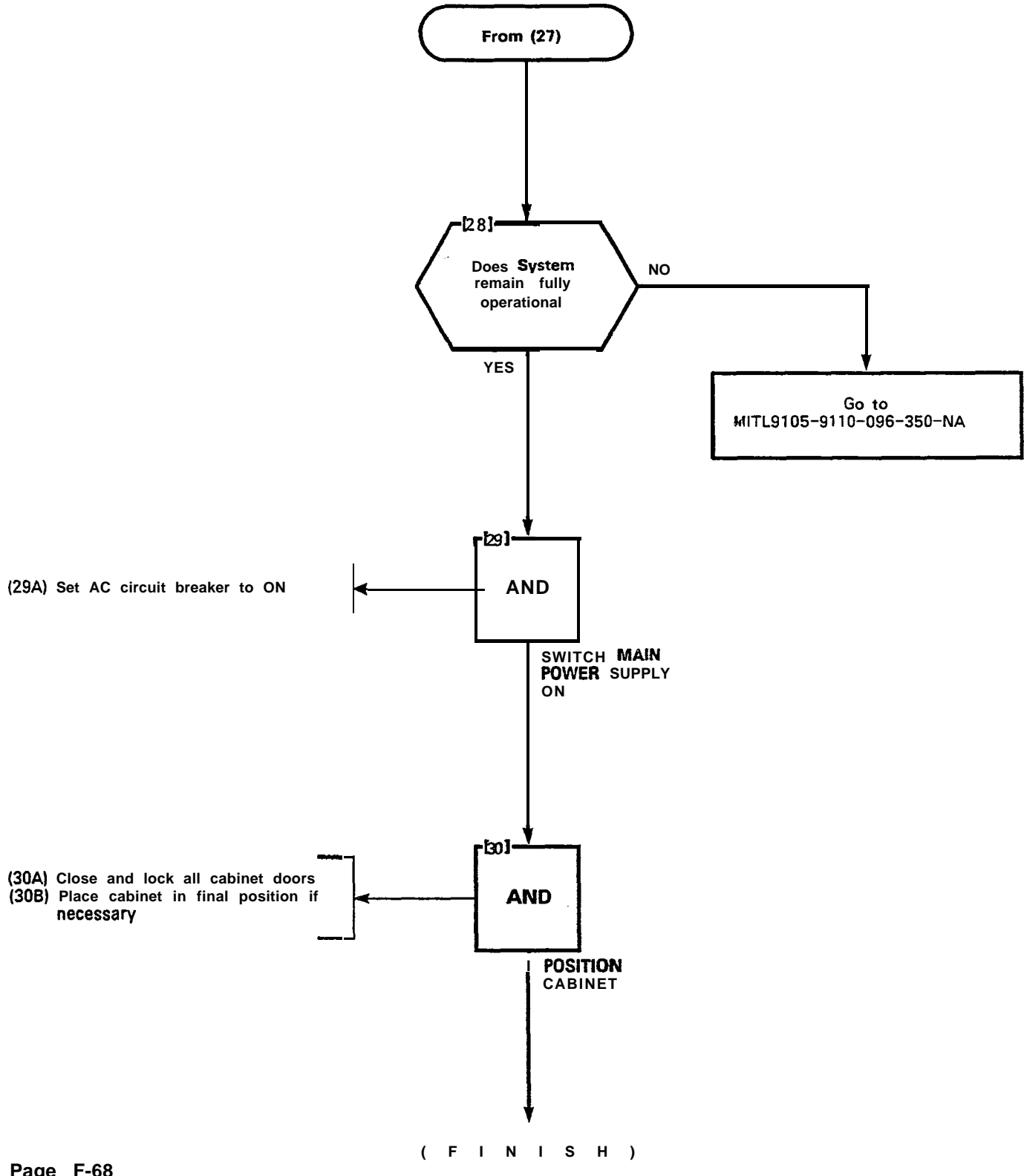
RESERVE POWER SUPPLY INSTALLATION (SX-100)
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NOTE
Ensure that the SX-100 circuit breakers are off (Step (48)) prior to Step. (29A).



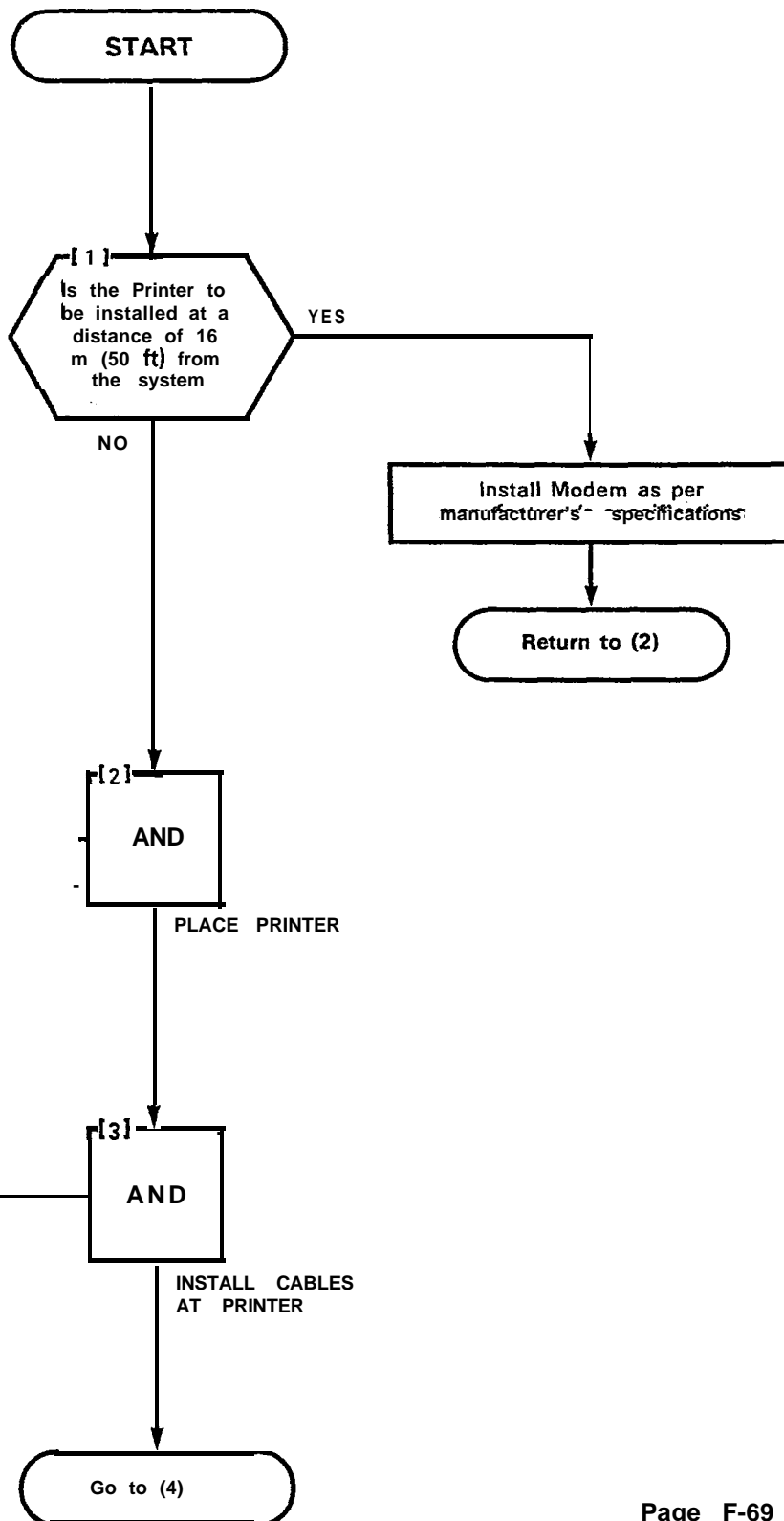
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PRINTER	INSTALLATION
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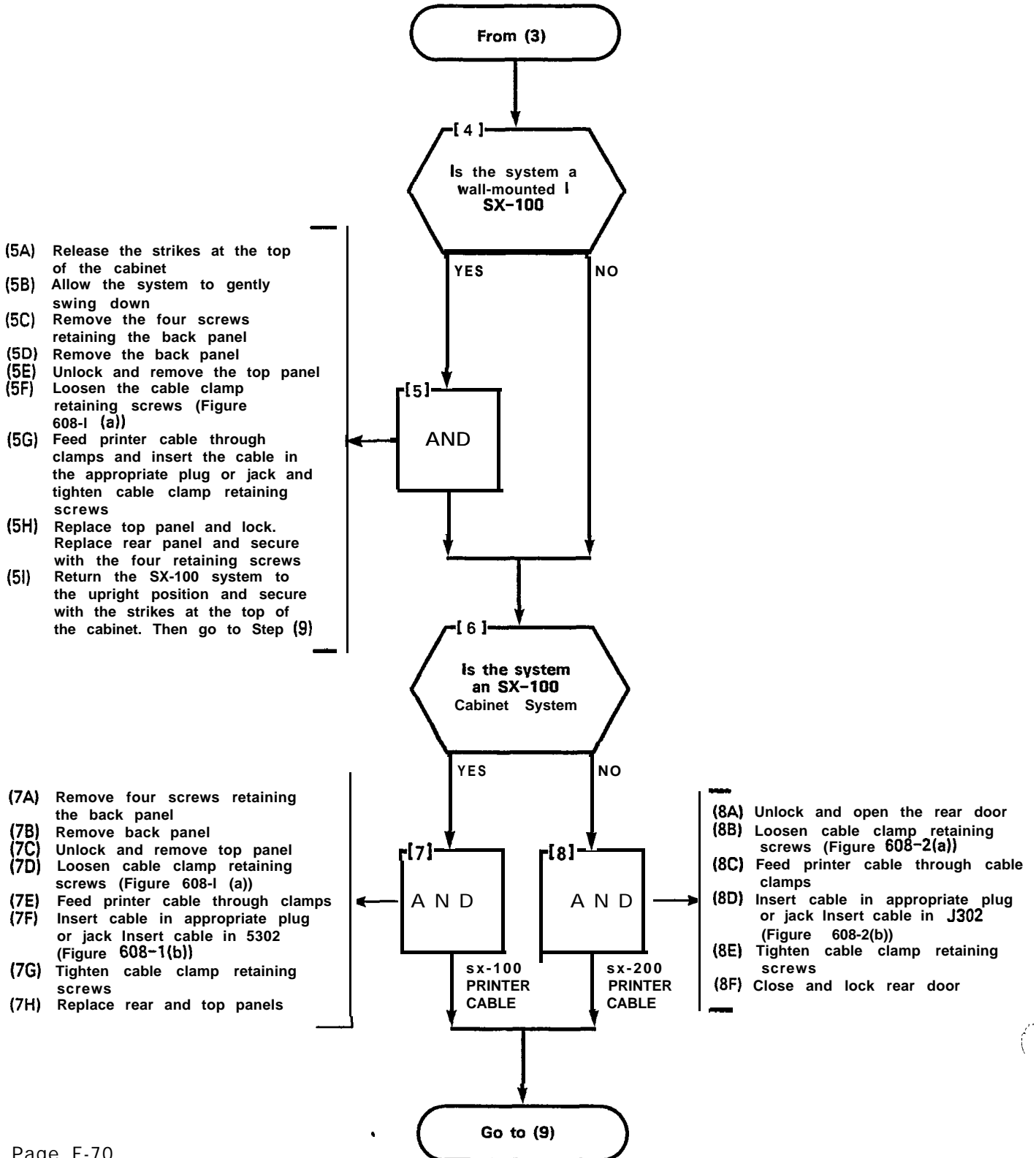
NOTE
 Do not run cables close to:
 AM/FM transmission lines,
 large AC/DC transmission lines,
 close to any electrical equipment or in
 hallways.



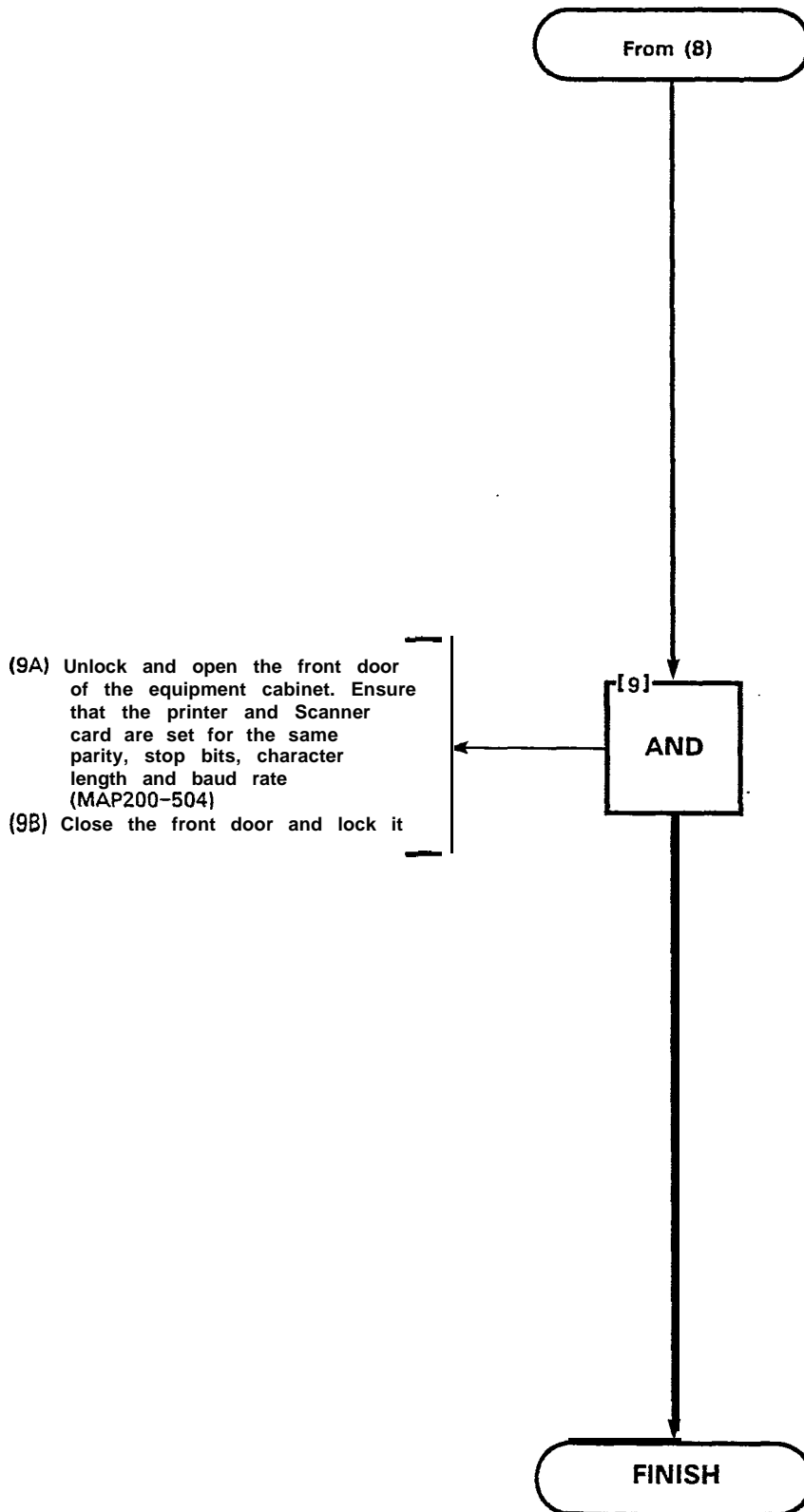
(2A) Locate the printer in a location that meets all the printer specifications

(3A) Install all cables as per printer specifications

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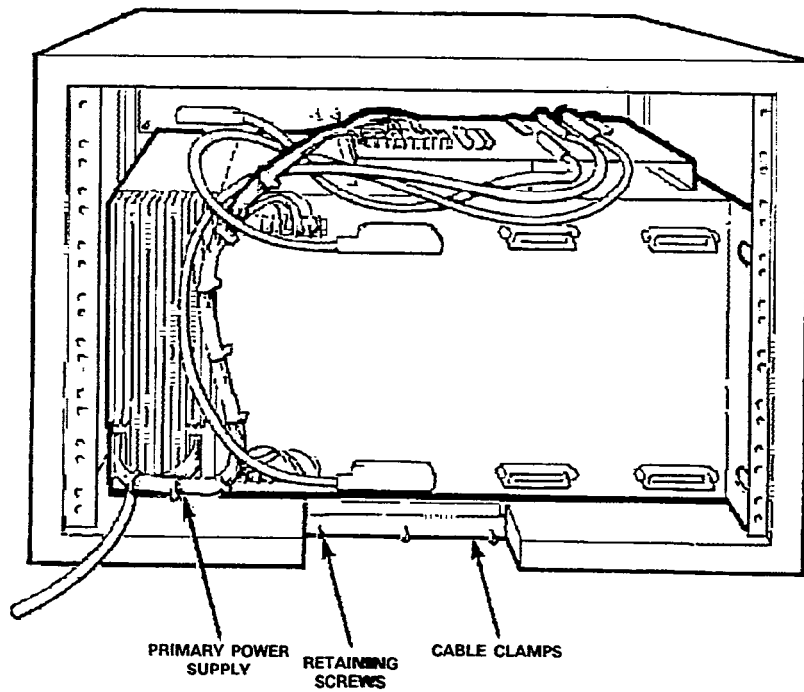


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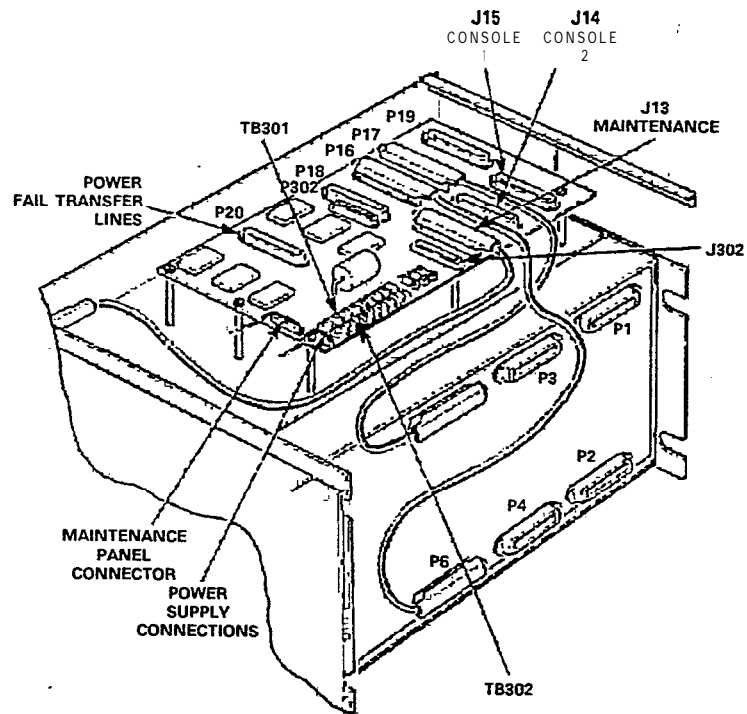
PRINTER INSTALLATION
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Figure 608-I(a) SX-100 Rear View

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Figure 608-I(b) SX-100 Top View

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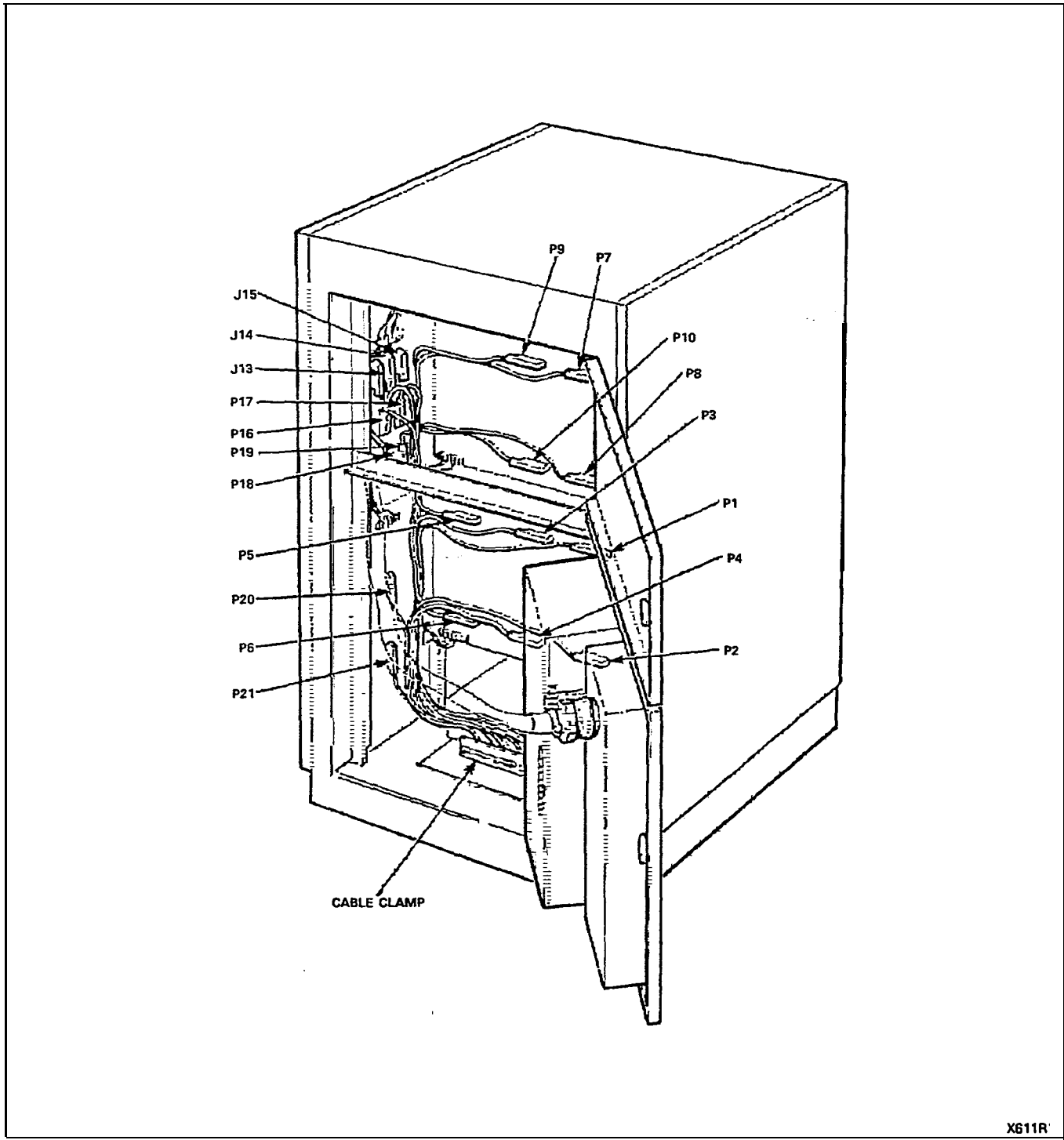


Figure 608-2(a) SX-200 Rear View

X611R

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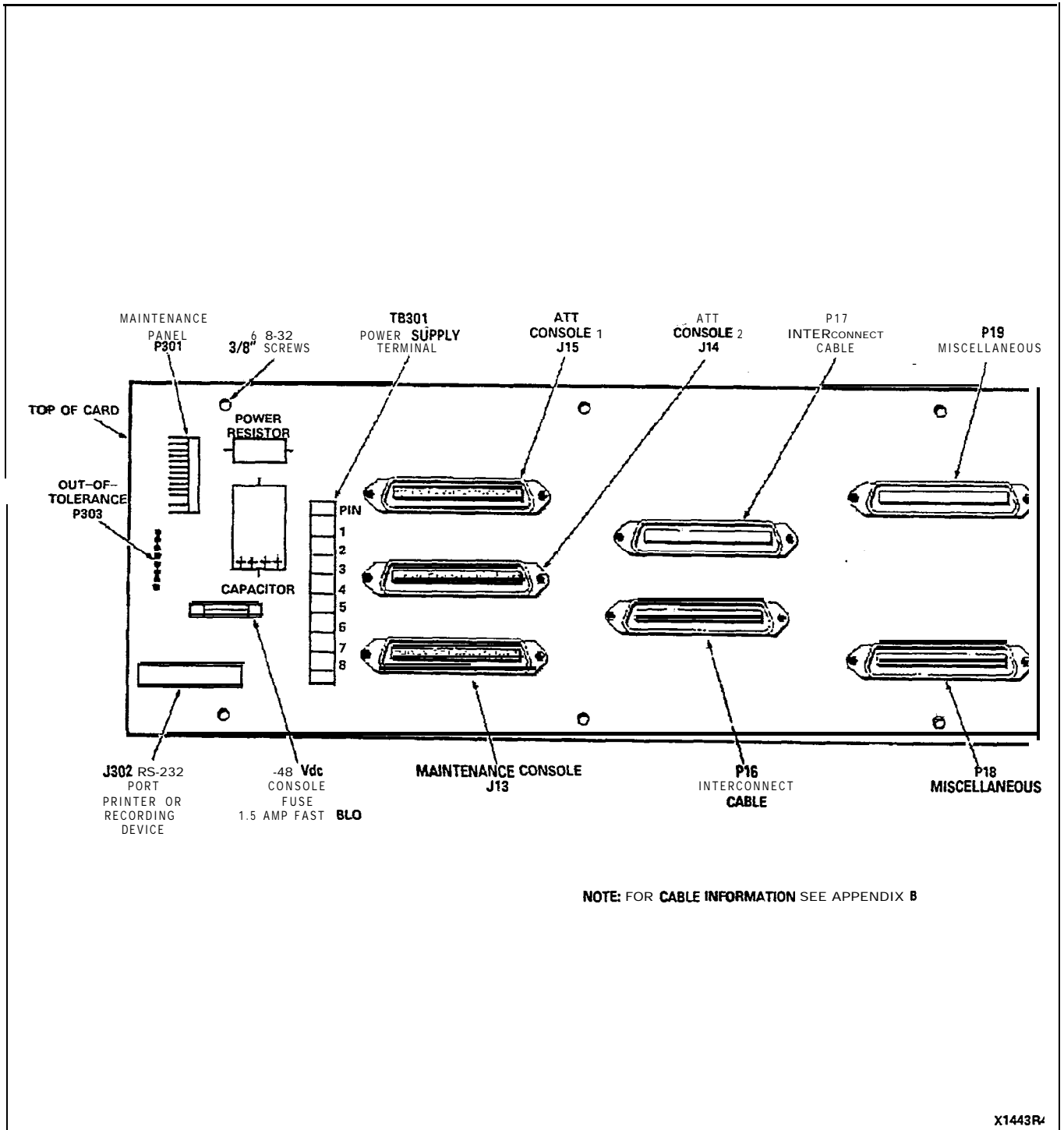


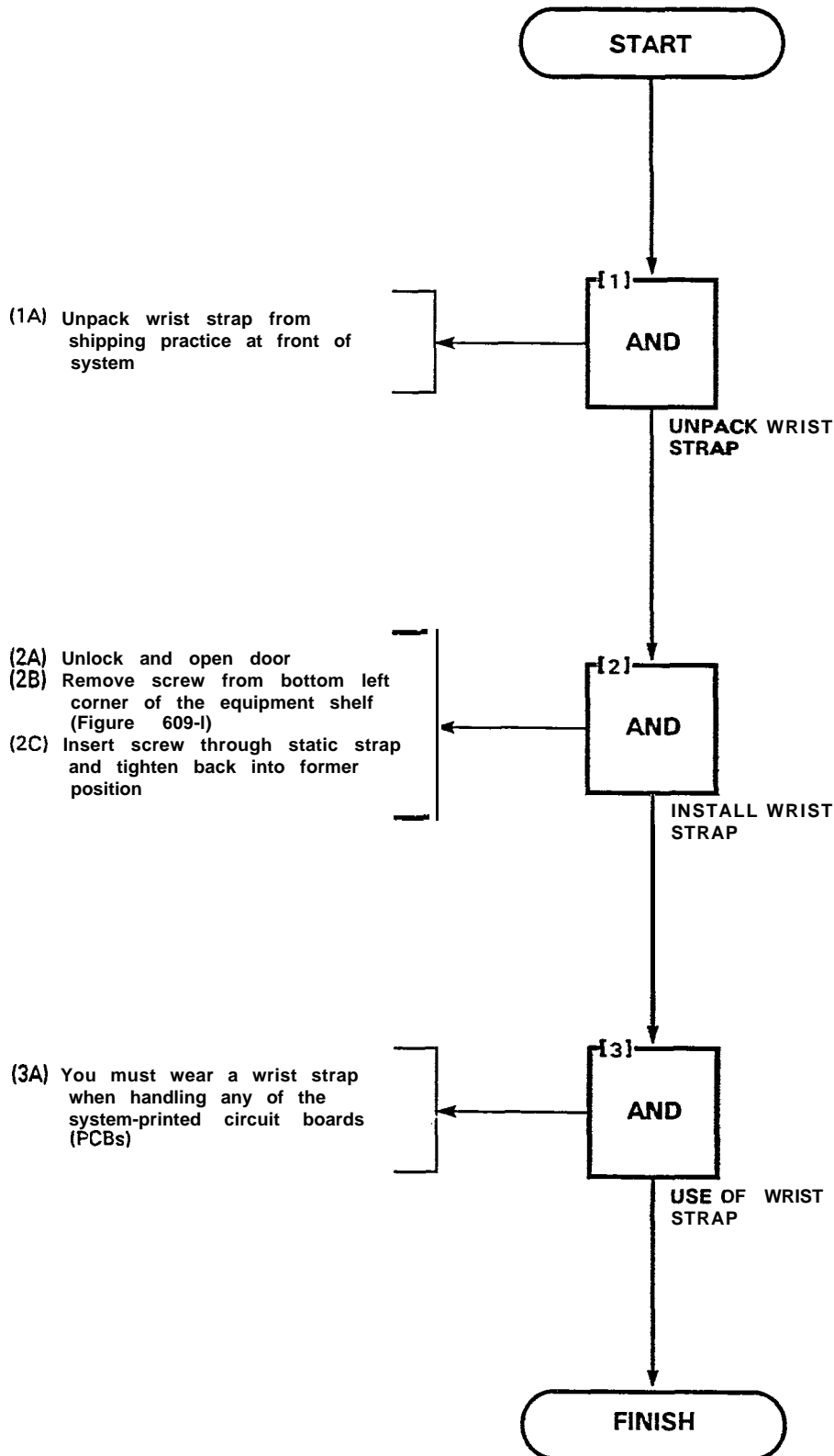
Figure 608-2(b) SX-200 Interconnect Board

10

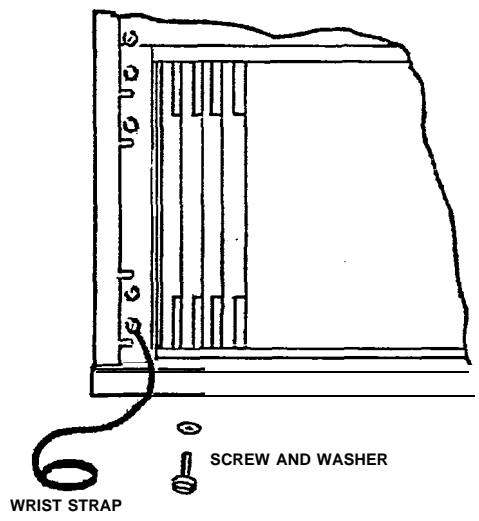


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STATIC WRIST STRAP INSTALLATION
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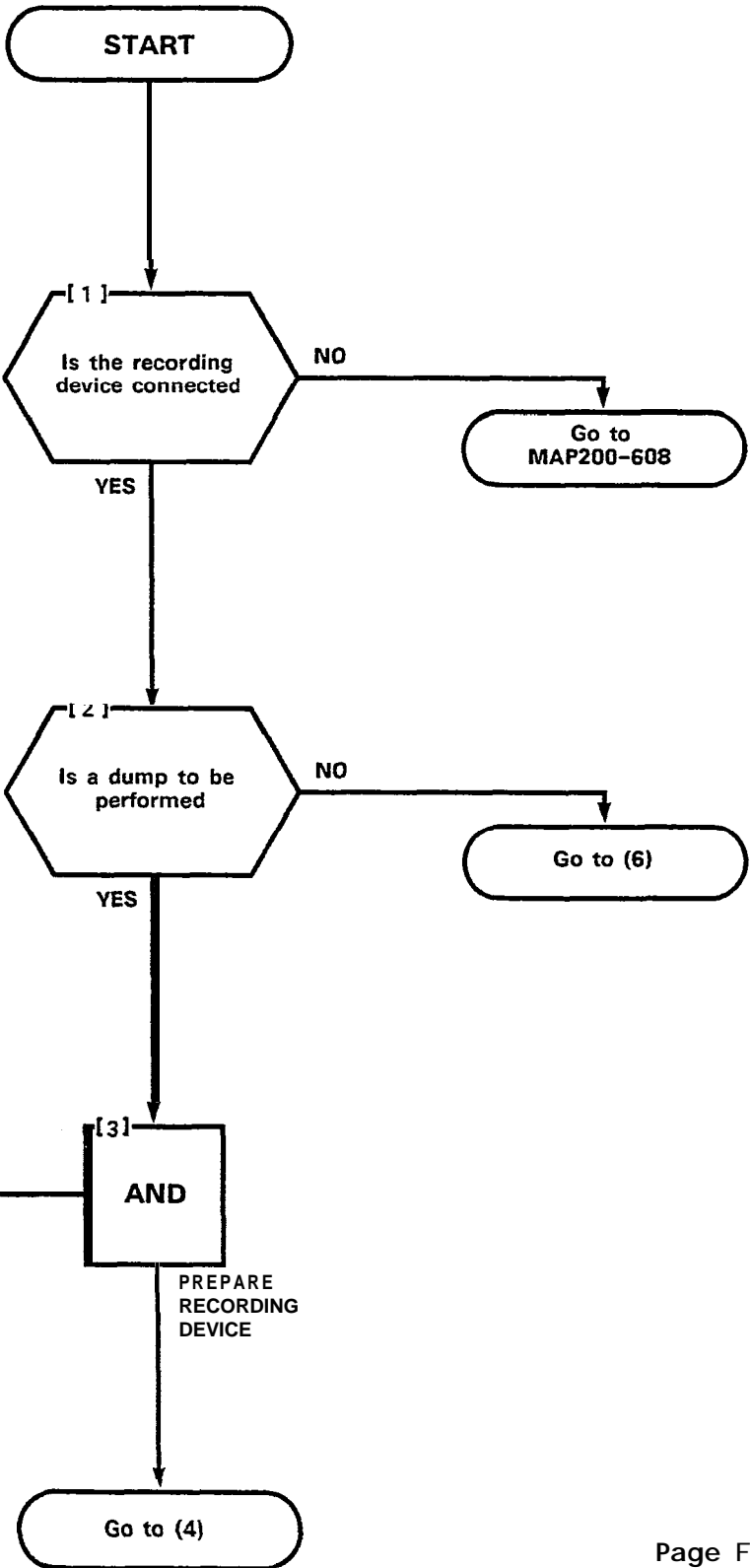
STATIC WRIST STRAP INSTALLATION
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Figure 609-I Wrist Strap Installation

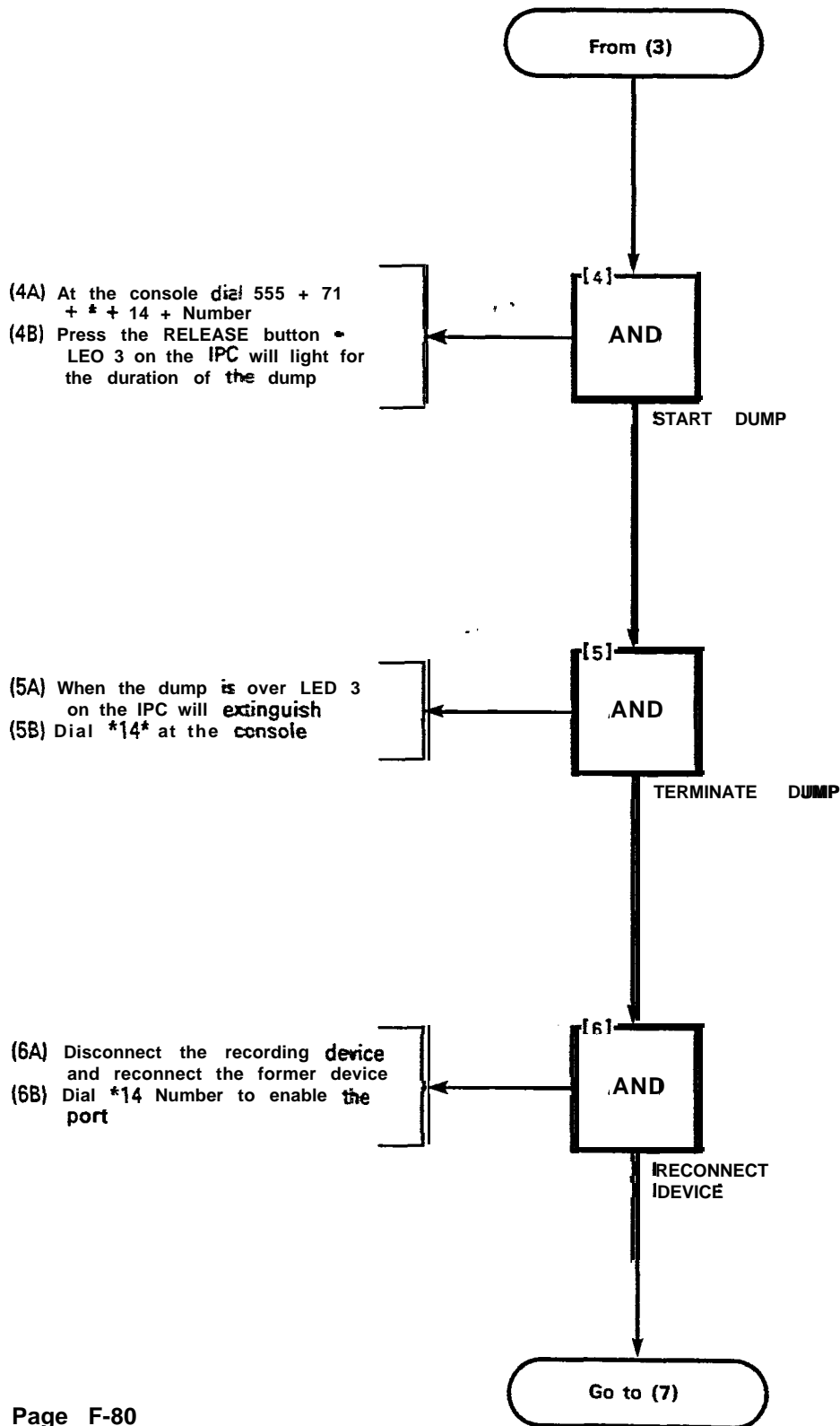
CUSTOMER DATA DUMP/LOAD
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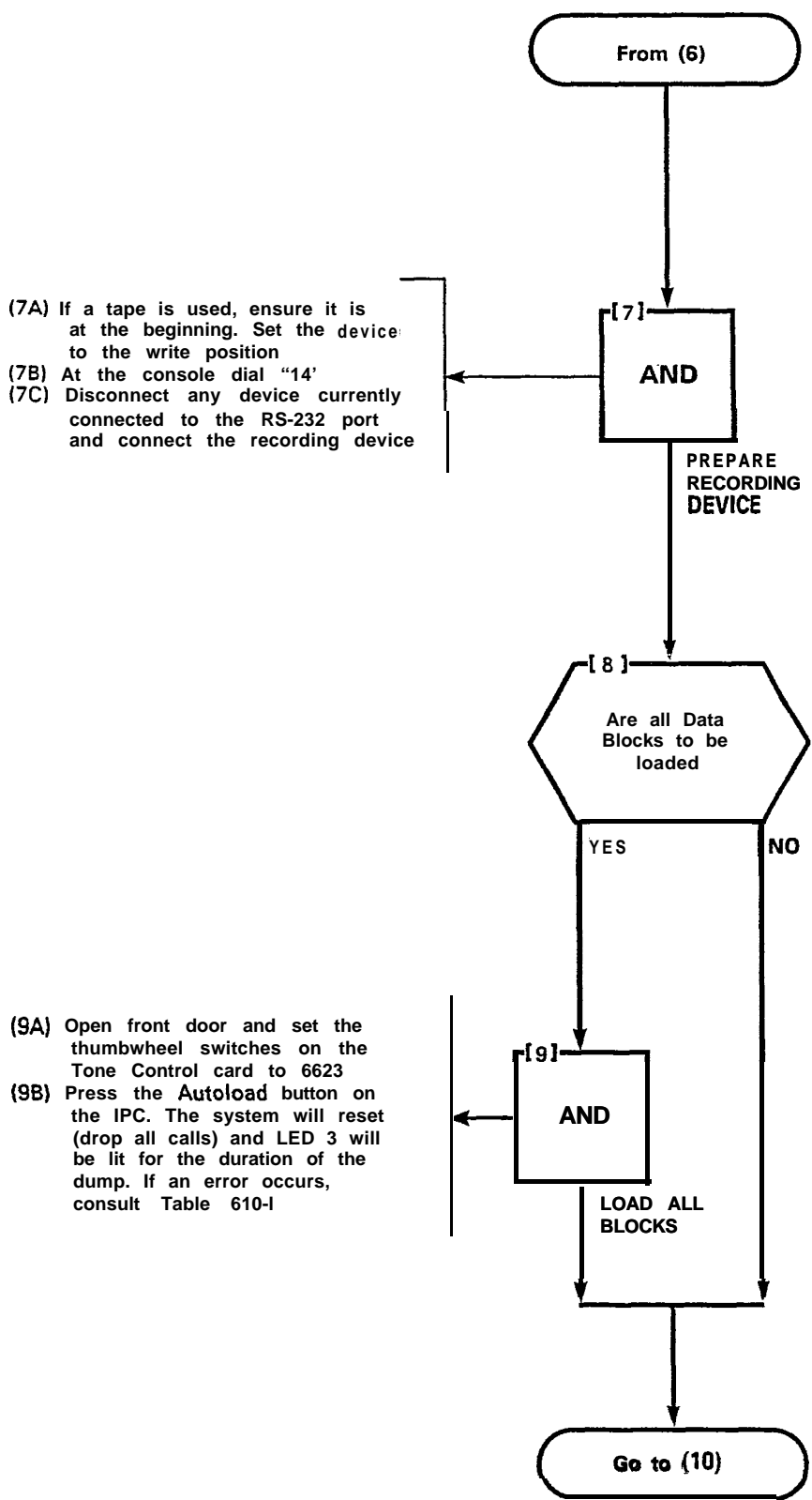
- (3A) At the console, dial *14*
- (3B) If a tape is used, ensure that it is wound to the beginning and is of the correct length
- (3C) Set the recording device to record
- (3D) Disconnect any device currently connected to the RS-232 and connect the recording device

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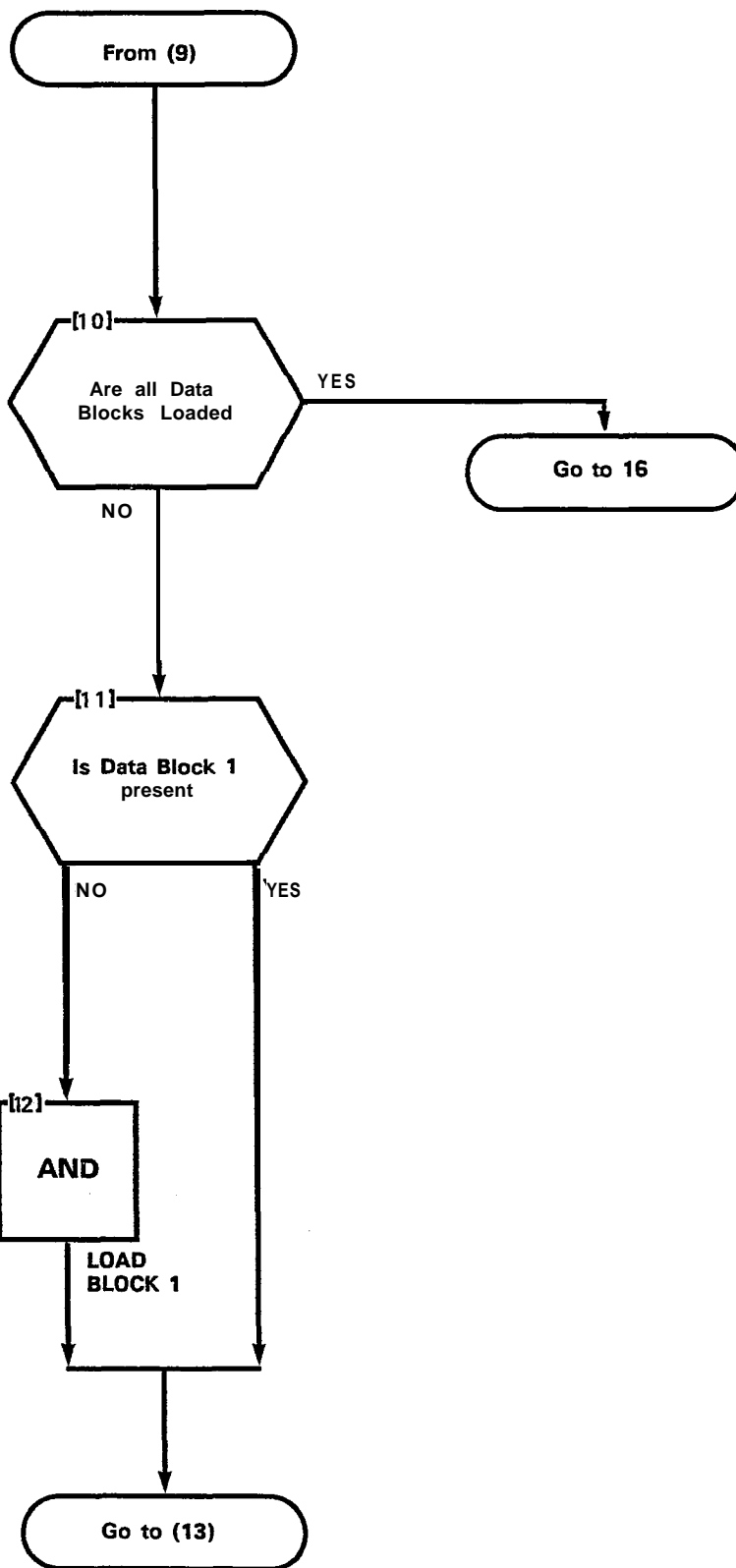
CUSTOMER DATA DUMP/LOAD
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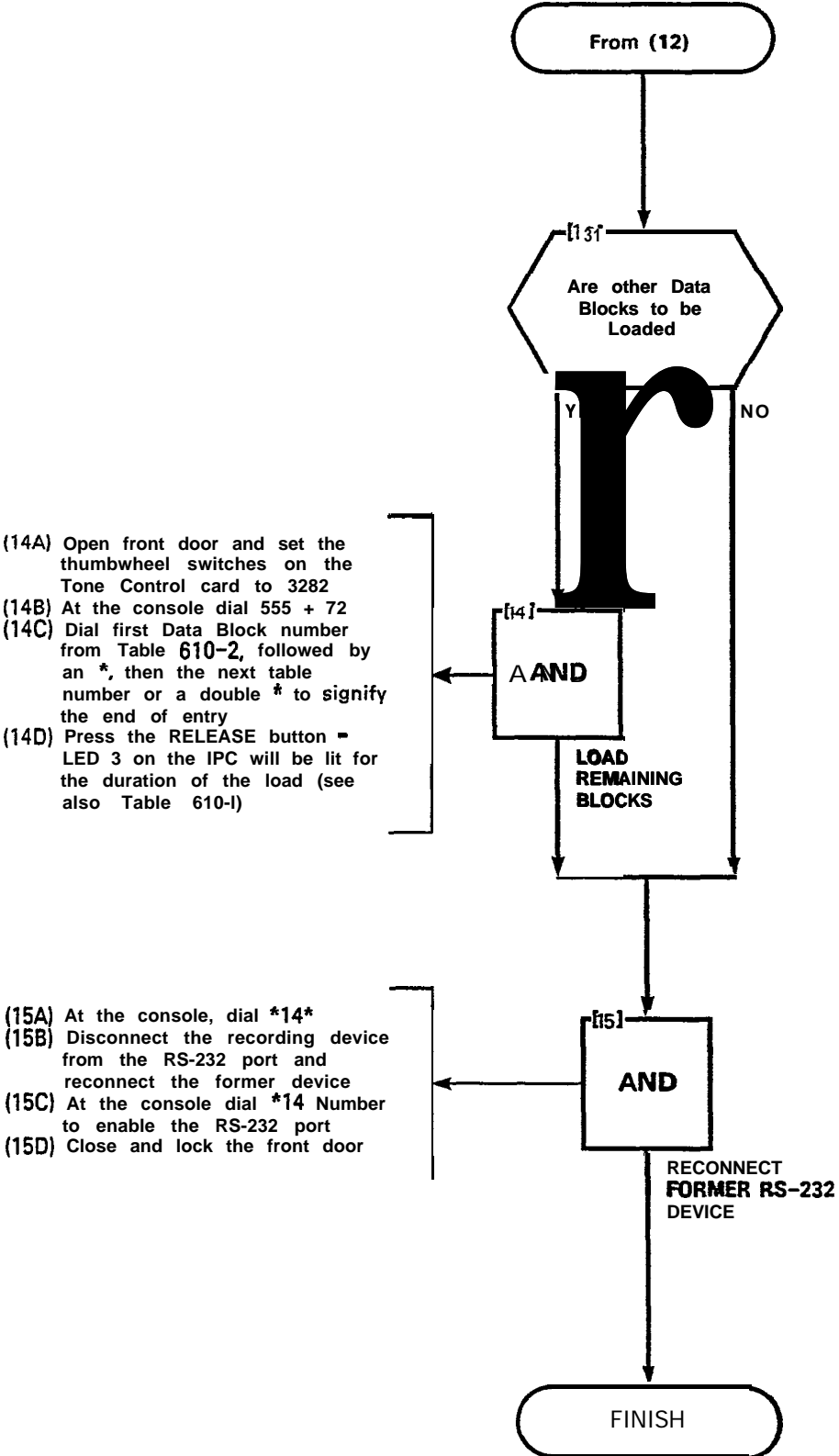


CUSTOMER DATA DUMP/LOAD
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- (12A) Open front door and set the thumbwheel switches on the Tone Control Card to 4646
- (128) Press the **Autoload** button on the IPC - system will reset; LED 3 on the IPC card will be lit for the duration of the dump; (see also Table 610-I)

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**TABLE 61 O-1
LOAD ERRORS**

Display	Meaning
A#	Number of records written inconsistent with the number on the tape.
B#	Checksum line does not verify.
C#	Checksum line does not verify. If the display is CO, it is a label error. If the error is a C + a number, it is a Data Block error.
D#	Data Block found but not on label.
E0	Data block requested not on tape.
F0	Load attempted but no Data Block numbers entered.

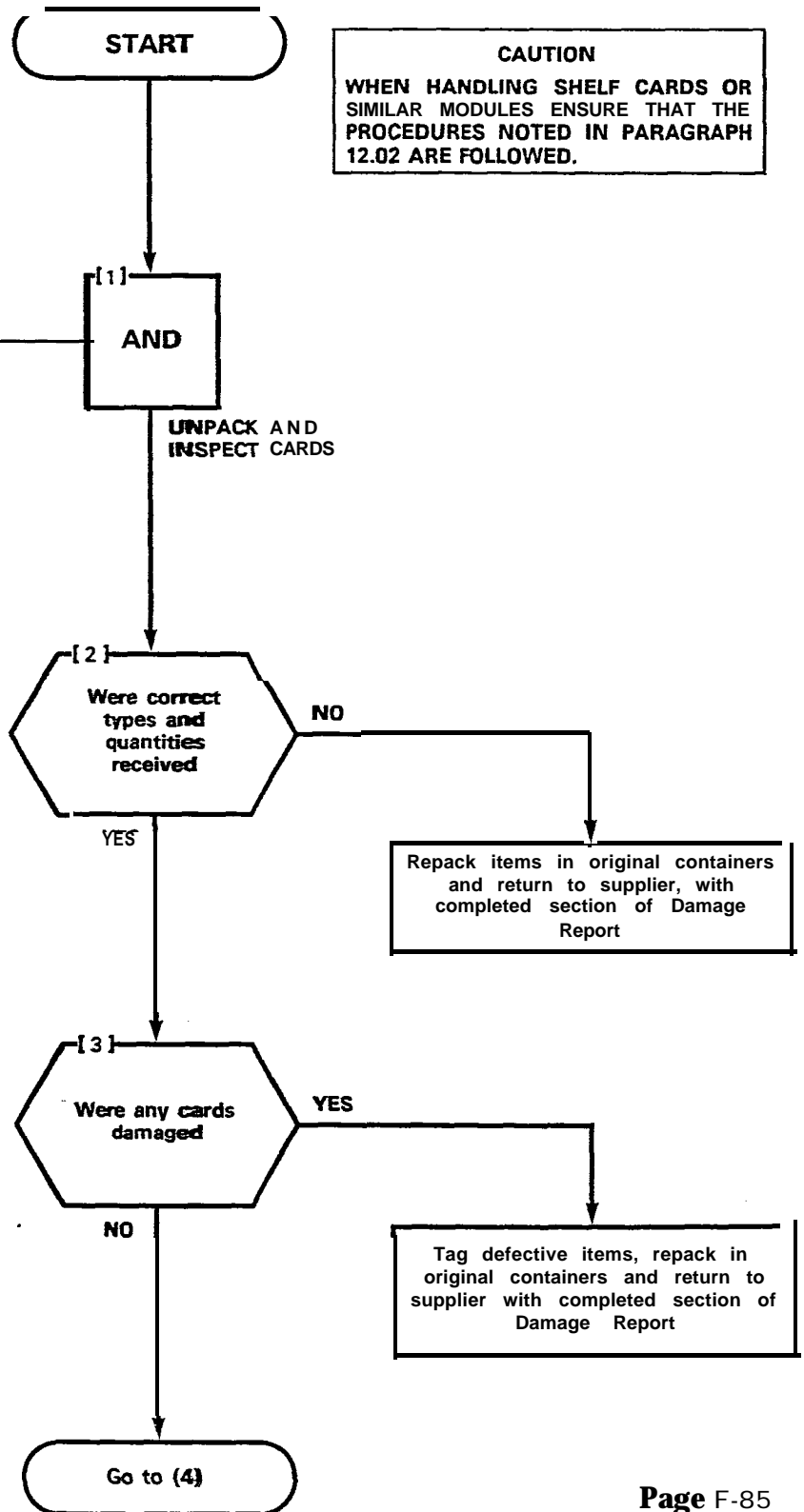
**TABLE 61 O-2
CUSTOMER DATA BLOCKS**

Data Block Number	Customer Data Block Information
1	All Standard Programming and SUPERSET Customer Data
3	ARS
5	Station Information (extension meters, room status, etc.)
6	Alarm Call
7	System Speed Call
8	SUPERSET Speed Call

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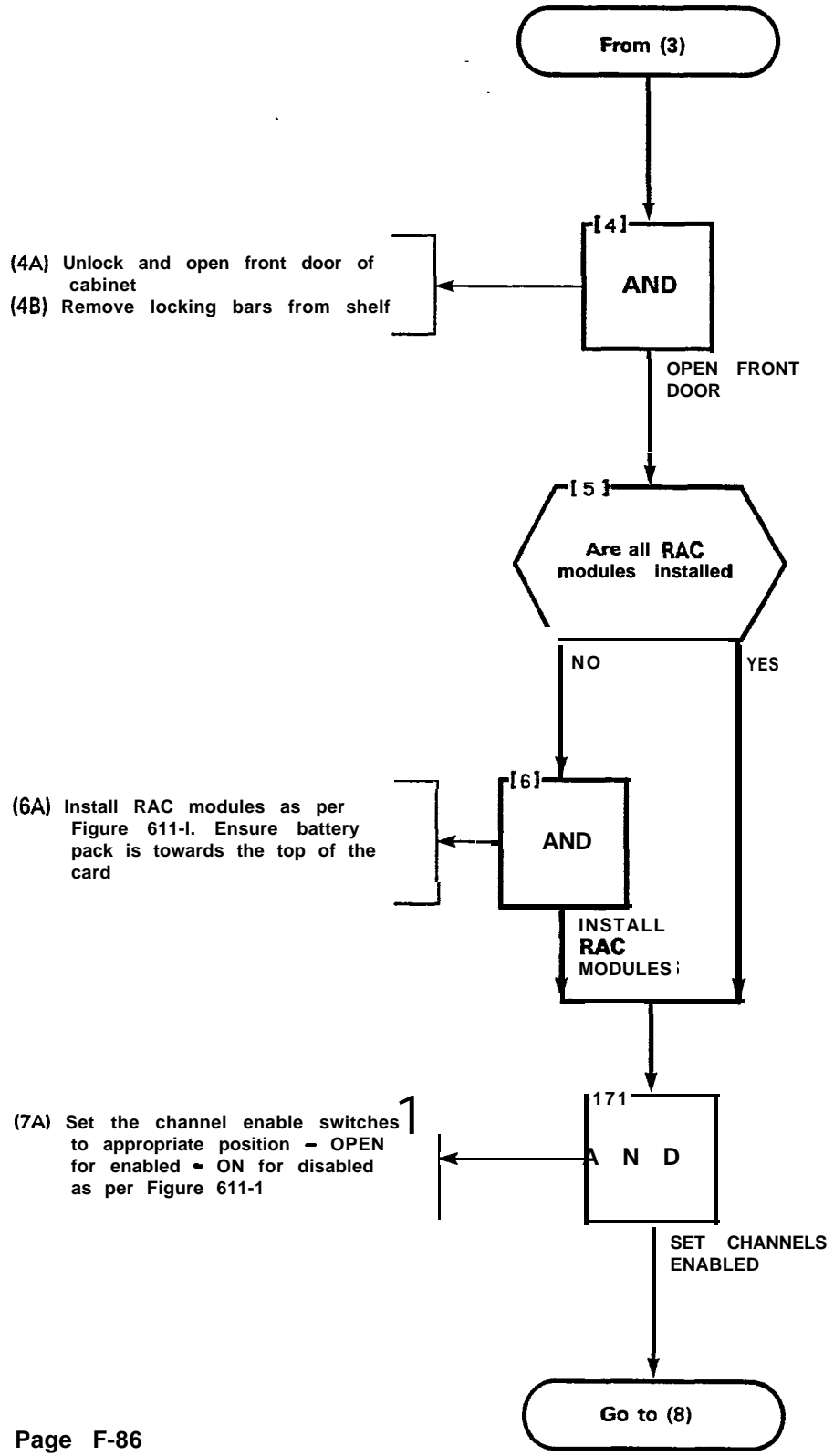
CAUTION
 WHEN HANDLING SHELF CARDS OR SIMILAR MODULES ENSURE THAT THE PROCEDURES NOTED IN PARAGRAPH 12.02 ARE FOLLOWED.

- (1A) Unpack **cards** from containers
- (1B) Inspect cards for physical damage
- (1C) Check card types and quantities against invoice



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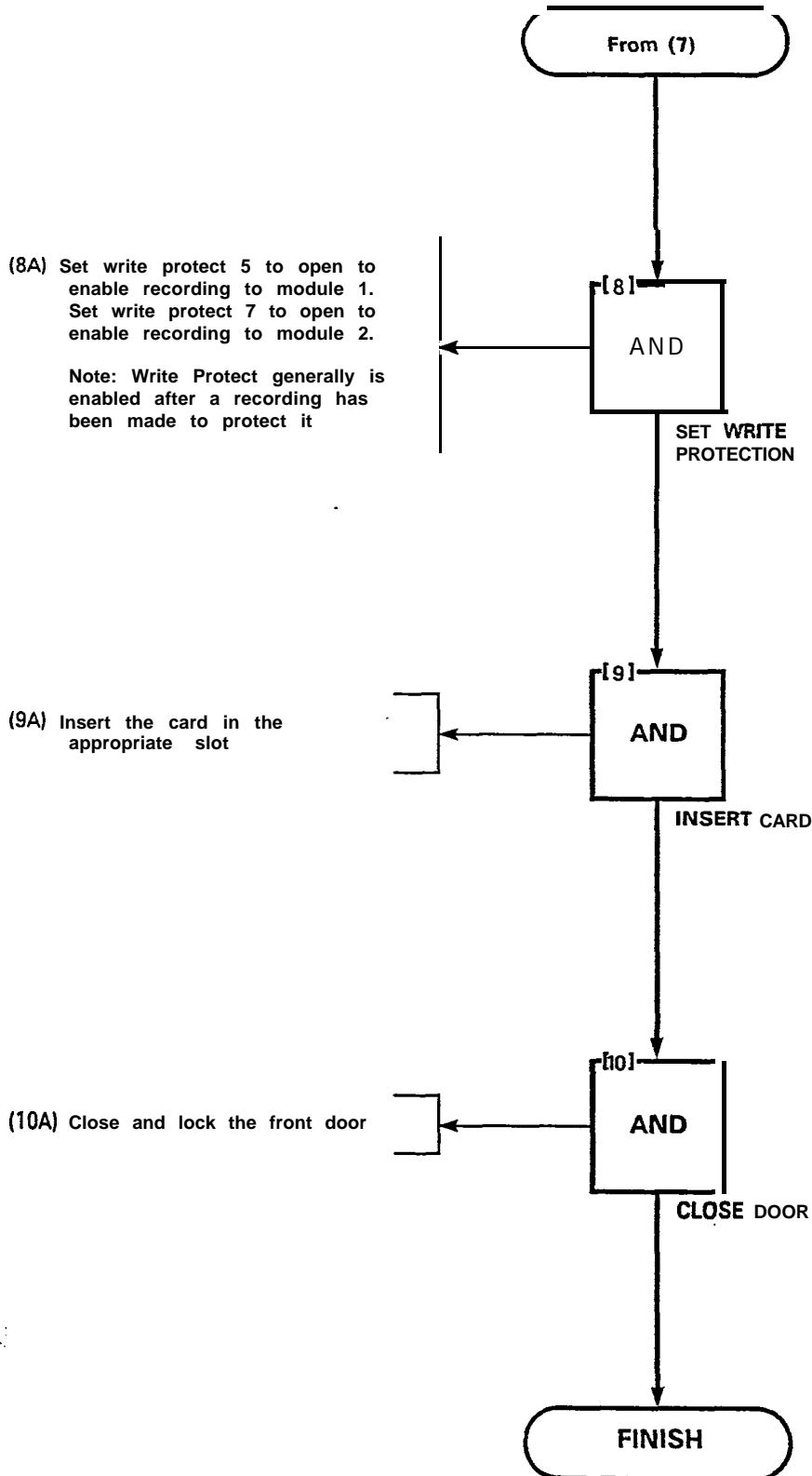


INSTALLATION OF RAC CARD

MAP200-611

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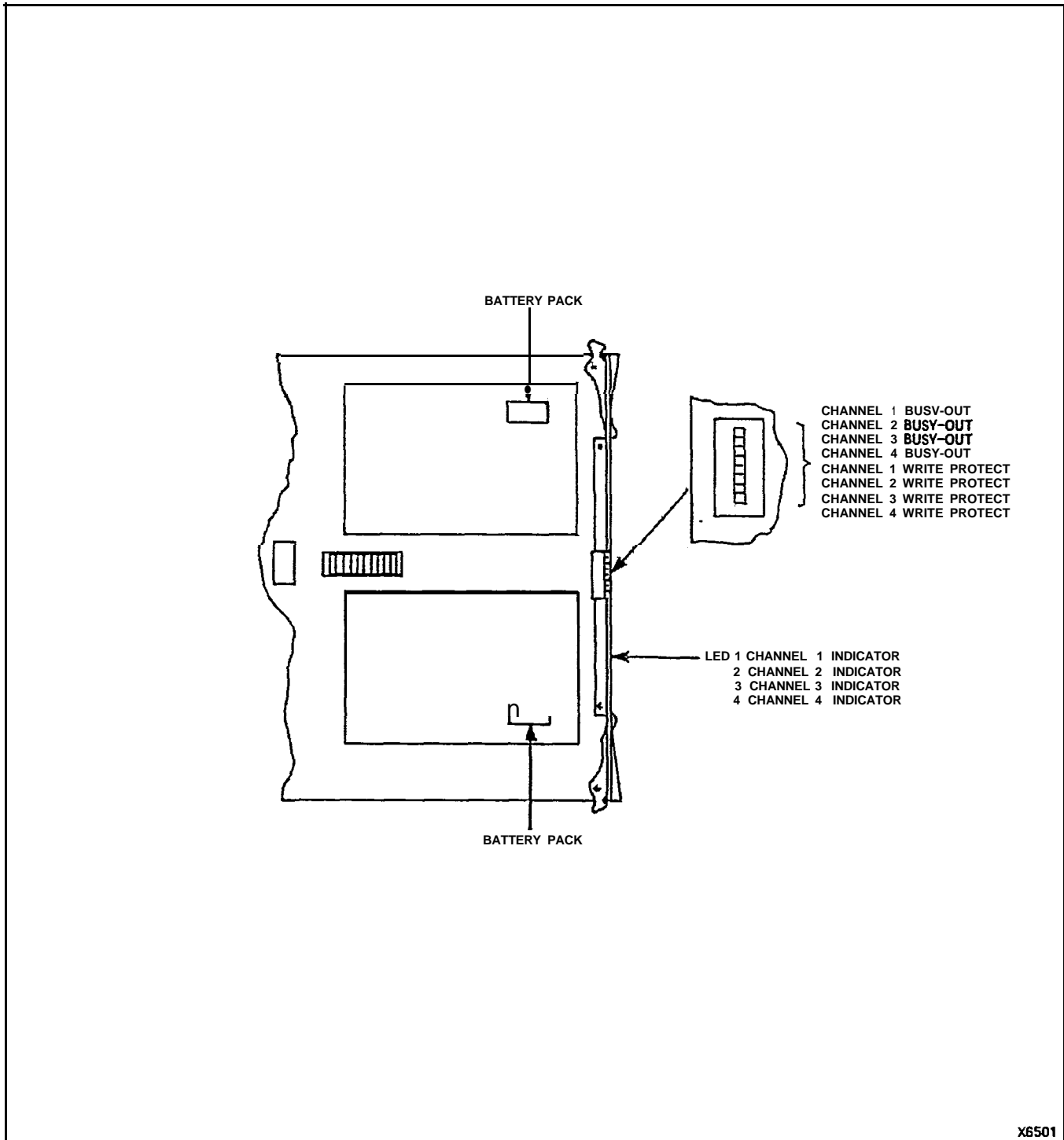


Figure 61 I-I Recorded Announcement Card

SX-100®/SX-200®
SUPERSWITCH®
ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE
SYSTEM PROGRAMMING
GENERIC 217

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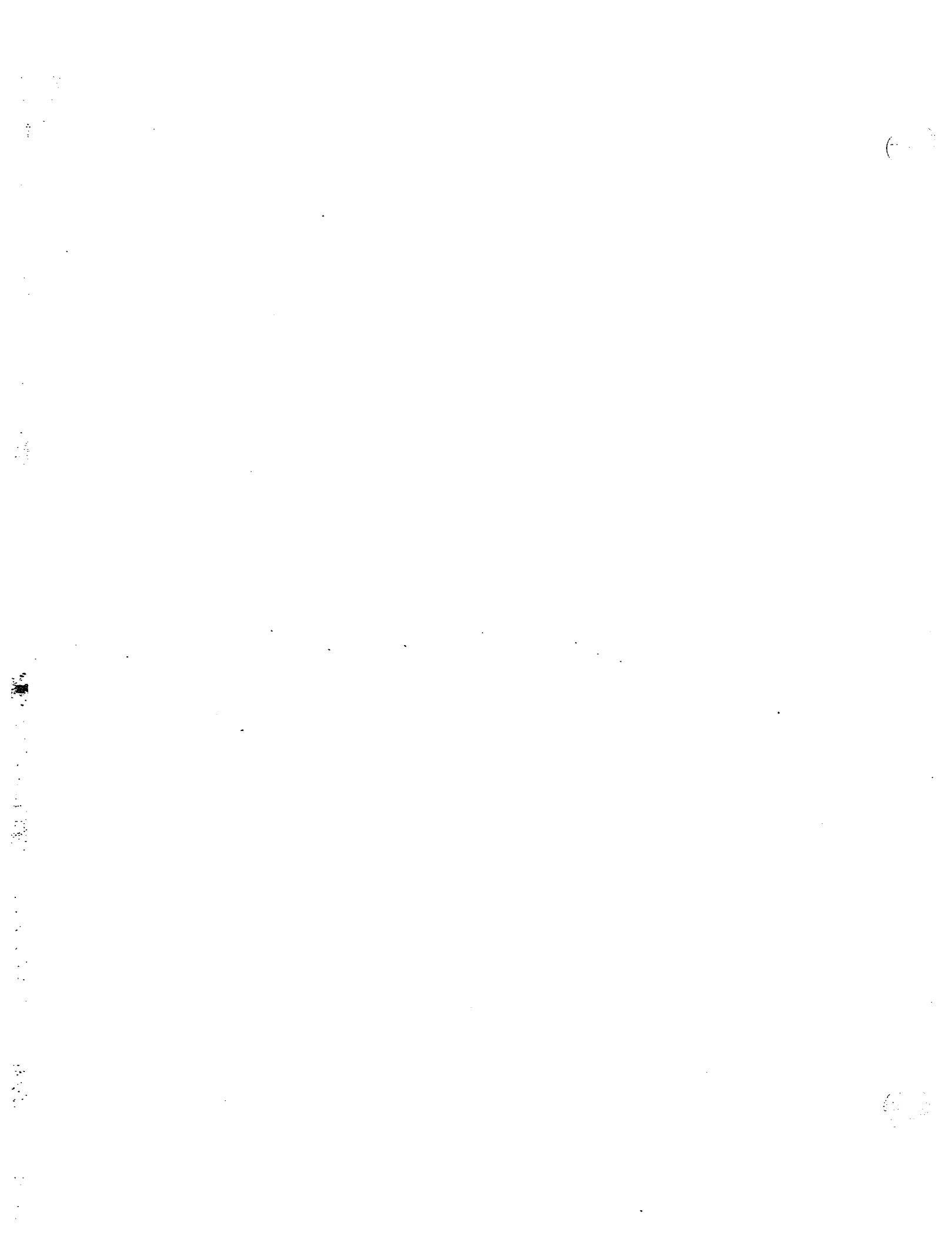
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1. GENERAL

Introduction

1.01 The SX-100/SX-200 is a processor-controlled Electronic Private Automatic Branch Exchange (PABX). In order to process calls, the central processor needs to know certain information about the calling and called equipment. This information is described by blocks of data held in the system memories. A number of service change programs are provided to allow additions, deletions and changes to be made to the equipment configuration. The seven service change programs provided are:

1. **System Options.** Describes the options which may be enabled on a system basis.
2. **Class-of-Service Options.** Each class of service specifies the features which may be used by stations assigned that Class of Service (COS). A maximum of 16 different classes of service may be specified for each system.
3. **Feature Access Codes.** A number of features within the system are accessed by dialing a special access code. This program allows the access codes for the features to be defined.
4. **Extensions.** This program allows the equipment number, extension number, Class of Service (features allowed), toll access, Busy Lamp Field assignment and Pickup Group assignment for each extension to be made.
5. **Hunt Groups.** This program allows the extensions within each Hunt Group to be specified, together with the Hunt Group master number (access code).
6. **Trunks.** This program allows each trunk to be described in terms of the equipment number, trunk type, listed directory number, day and night numbers, busy lamp number, COS and toll access.
7. **Trunk Group.** This program allows the trunks within each group to be specified, together with trunk group type, access code and overflow group.

Reason for Reissue

- 1.02** This Section is reissued to provide the UCD programming information for the SX-100/SX-200 UCD System.
- 1.03** Other additional service programs, dependent upon the type of software Generic installed in the system, may be implemented. These are listed below and include relevant MITEL Practice references, which should be consulted for descriptions and programming requirements.

- (a) **Traffic Measurement:** see Section MITL9105/9110-096-450-NA.
- (b) **Multi-Digit Toll Control:** see Section MITL9105/9110-096-212-NA.
- (c) **Station Message Detail Recording:** see Section MITL9105/9110-096-451-NA.
- (d) **Speed Call:** see Section MITL9105/9110-096-220-NA.
- (e) **Automatic Route Selection:** see Section MITL9105/9110-096-222-NA.

Purpose

1.04 This Section consists of three parts, each part explaining a different facet of the system programming:

Part 1 General - general description of system programming contents and purpose of the programming manual.

Part 2 Program Description - a description of each program and definition of each entry and possible response.

Part 3 Programming - a general introduction to the system programming and MITEL Action Procedures (MAPs), which detail how to use each program. When entering data, the system checks each entry to ensure that the codes entered are correct, and if an error is detected, it sounds the console ringer and displays the required error code. These codes and their meaning are defined in this Part.

2. PROGRAM DESCRIPTION

General

2.01 Because the system is controlled by a processor, data describing each extension, trunk, feature, etc., must be entered into the system. This is done by pressing keys and dialing codes. The codes dialed are held in the system memories and used by the system during call processing. Seven basic programs are provided which allow data to be entered into the system as equipment is added, or existing data to be changed or removed as the system configuration changes. The following paragraphs describe the seven programs (see paragraph 1.01). These programs specify the keys to be pressed and explain the entries that may be made. The Appendices to this Section contain an introduction to MITEL Action Procedures (MAPs) and the actual MAPs which detail each step in system programming. A complete description of each feature and option is given in Section MITL9105/9110-096-105-NA, Features and Services Description. Other types of programs are referenced in paragraph 1.03.

System Options

- 2.03** The System Options are selected by the console keys, as described below:
- (a) **OPTION.** This key selects the option program which allows the system to set up or change the active option list. The code entered (Table 2-1) after selecting the option program, defines the option to be added or removed from the active option list; see Table 2-2 for possible option conflicts.
 - (b) **ADD.** When pressed, this key adds the option code to the active system option list, making the option available for use by the system.
 - (c) **DELETE.** Pressing the DELETE key, after dialing an option code, removes the code from the active option list inhibiting further use of that option.
 - (d) **CANCEL.** As entries are made during the option program, they are stored in a temporary memory. If after making a number of entries, an error is discovered, all new entries may be removed by pressing the CANCEL key.
 - (e) **ENTER.** After all entries have been made to the system option, they may be moved from the temporary storage to permanent storage by pressing the ENTER key. Additional changes may be made by re-entering the option program.

Class-of-Service Options

- 2.04** Each system may contain up to 16 different Classes of Service (COS). The COS defines which of the available options (Table 2-3) are active, and therefore available for use by any extensions assigned that COS.
- 2.05** The individual Classes of Service (COS) are selected by the console keys, as described below:
- (a) **COS DEFINE.** This key selects the Class-of-Service program which permits changes to be made to any of the 16 individual COS. The entry made after selecting the program identifies which COS is to be modified.
 - (b) **OPTION.** The code entered (Table 2-3) after pressing the OPTION key, defines the extension option which is to be added or removed from the COS specified.
 - (c) **ADD.** Add the option to this COS.
 - (d) **DELETE.** Remove the option from the COS.

**TABLE 2-1
SYSTEM OPTIONS**

Option Number	Option	Description
100	BELL OFF Enable	Enables the BELL OFF button. If this option is not selected, the "BELL OFF" button is ineffective; i.e., the console ringer cannot be turned off.
101	BOTH Button Enable	Enables the "BOTH" button. If this feature is not selected, the attendant will be able to split between Source and Destination, but will not be able to speak to both Source and Destination at the same time.
102	Both Mode Standard	Causes the attendant to be normally connected to both the Source and Destination of calls through the console. Manual splitting can be achieved using the SOURCE and DEST buttons. If this option is not selected, the console will operate in an automatic split mode; i.e., the attendant will always be split toward the source upon answering calls, and will be split toward the destination as soon as the destination number is dialed. Manual splitting can still be achieved using the SOURCE and DEST buttons.
103	Attendant Busy Override	Allows attendant override.
104	CALLBACK Button Enable	Enables the "CALLBACK" button; i.e., gives the attendant access to the Callback feature.
105	Controlled Station-to-Station Restriction Setup	Enables the CALL BLOCK button; i.e., allows the attendant to inhibit calls between stations with "H/M Station-to-Station Restrict Applies" feature in their Class of Service. If this feature is selected, attendant HOLD 4 button is unavailable.
106	Attendant Camp-On	Allows attendant camp-on. If this option is not selected, pressing the RELEASE button when attempting to connect a call to a busy station, will release the call. See "Attendant-Timed Recall Camp-On" options.
107	Attendant CO Trunk - CO Trunk Connect Enable	Allows the attendant to make CO trunk to CO trunk connections via the console.
108	Attendant CO Trunk - Non-CO Trunk Connect Enable	Allows the attendant to make CO trunk to non-CO trunk connections via the console.
109	Attendant Non-CO Trunk - Non-CO Trunk	Allows the attendant to connect non-CO trunks together via the console.

TABLE 2-1 (CONTD)
SYSTEM OPTIONS

Option Number	Option	Description
110	Attendant Conference	Allows attendant conference.
111	Attendant DISA Code Setup Enable	Allows the attendant to change the Direct Inward Systems Access (DISA) security code from the console.
112	Do Not Disturb and Message Waiting Display	Enable the attendant to display which extensions have Do Not Disturb active and extensions that have a message waiting active.
113	GUEST ROOM Button Enable	Allows use of the GUEST ROOM button which allows the attendant to display and change the feature in use by a hotel room.
115	Lockout Alarm Enable	Causes a minor alarm when an extension is locked out.
116	New Call Tone Enable	Causes the first incoming call to signal the attendant with a single tone ringer burst, if the attendant is already busy on another call. If the option is not selected, incoming calls which arrive while the attendant is handling another call, will not provide any audible signal, until the attendant releases from that call.
117	PAGE Button Enable	Allows the attendant access to the paging equipment by pressing the PAGE button.
118	Attendant Printer Control Enable	This option allows the attendant to control the printer from the console.
119	ROOM STATUS Button Enable	Allows the attendant to display and change status of a hotel room.
120	Attendant Serial Call	Allows attendant serial call. If this option is selected, hotel/motel guest room capability is unavailable unless the FLASH button is programmed as the SERIAL CALL button (System Option 121).
121	Serial Call Override Flash Button	This option allows both the Guest Room feature and the Serial Call feature to be used in the same system. This is done by enabling the FLASH button as the SERIAL CALL button.
122	Attendant Station Busy-Out Enable	Enables the attendant to make an extension inoperative and to also remove the busy-out condition.
123	Attendant-Timed Recall Camp-On, 20 seconds	Causes Attendant-Timed Recall Camp-On after 20 seconds.

**TABLE 2-1 (CONT'D)
SYSTEM OPTIONS**

Option Number	Option	Description
124	Attendant-Timed Recall Camp-On, 40 seconds	Causes Attendant-Timed Recall Camp-On after 40 seconds. If neither of these two options is selected, the Attendant Camp-On Recall time-out will be 30 seconds. These time-outs are only effective if the "Attendant Camp-On" feature has been selected.
125	Attendant-Timed Recall - Don't Answer, 10 s	This option when set, recalls attendant-handled calls (to the attendant that are not answered within 10 s) to the Attendant Console.
126	Attendant-Timed Recall - Don't Answer, 20 seconds	Causes Attendant-Timed Recall - Don't Answer after 20 seconds.
127	Attendant-Timed Recall - Don't Answer, 40 seconds	Causes Attendant-Timed Recall - Don't Answer after 40 seconds. If neither of these two options is selected, Attendant Timed Recall - Don't Answer will be 30 seconds.
128	Attendant-Timed Recall Hold, 20 seconds	Causes Recall Hold after 20 seconds.
129	Attendant-Timed Recall Hold, 40 seconds	Causes Recall Hold after 40 seconds. If neither of these two options is selected, Attendant Recall Hold time will be 30 seconds.
130	Trunk Busy-out Enable	Allows the attendant to "busy out" and "debusy" individual trunks. If this option is not selected, the attendant will still be able to access individual trunks, but will not be able to busy them out or remove a busy-out condition.
133	DID, CCSA to Non-CO Trunks via Attendant Inhibit	Prevents DID trunks from being connected to Non-CO trunks via the attendant.
134	End-of-Dial Signal for Outgoing Trunks (#)	Enables the use of the octothorp (#) button to signal end-of-dialing to the system on outgoing trunk calls from the attendant console or extension.
135	DID/Dial-In/CCSA Vacant/Illegal Intercept to Attendant	This option causes calls on DID/Dial-In and CCSA trunk calls that attempt access to a vacant or not-allowed number, to intercept to the attendant.
136	Illegal Access Intercept to Attendant	Causes all calls, other than DID or Dial-In Tie Trunk calls to unauthorized access codes, to be routed to the attendant for intercept. If this option is not selected, such calls will receive reorder tone.

**TABLE 2-1 (CONT'D)
SYSTEM OPTIONS**

Option Number	Option	Description
137	Vacant Number Intercept to Attendant	Causes all calls, other than DID or Dial-In Tie Trunk calls to vacant levels and numbers, to be routed to the attendant for intercept. If this option is not selected, such calls will receive reorder tone.
138	Do Not Disturb Intercept to the Attendant	Causes calls directed to extensions with Do Not Disturb active to be routed to the attendant.
150	24-Hour Clock	Enables the console digital clock to display 24-hour time. If this option is not selected, the clock will display 12-hour time.
151	Data Demultiplexer Enable	This option allows the RS-232 information to be output to four different recording devices through a Data Demultiplexer. See Section MITL9160-080-300-NA.
152	DID Intercept to the Attendant	This option, when set, allows vacant or illegal DID calls to be intercepted to the attendant.
153	Digit Translation Plan 1	If this option is selected, the digit: 1 produces 2 pulses, 2 produces 3 pulses, 3 produces 4 pulses, 4 produces 5 pulses, 5 produces 6 pulses, 6 produces 7 pulses, 7 produces 8 pulses, 8 produces 9 pulses, 9 produces 10 pulses, 0 produces 1 pulse.
154	Digit Translation Plan 2	If this option is selected, the digit: 1 produces 9 pulses, 2 produces 8 pulses, 3 produces 7 pulses, 4 produces 6 pulses, 5 produces 5 pulses, 6 produces 4 pulses, 7 produces 3 pulses, 8 produces 2 pulses, 9 produces 1 pulses, 0 produces 1 pulse.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
155	Digit Translation Plan 3	If this option is selected, the digit: 1 produces 10 pulses, 2 produces 9 pulses, 3 produces 8 pulses, 4 produces 7 pulses, 5 produces 6 pulses, 6 produces 5 pulses, 7 produces 4 pulses, 8 produces 3 pulses, 9 produces 2 pulses, 0 produces 1 pulse.
156	Flexible Night Service	Enables flexible night service.
157	Identified Trunk Group Enable	This option allows trunks to be programmed as Identified Trunks.
158	Incoming to Outgoing Call Forwarding Enable	This option allows incoming calls to be forwarded (by speed call) to an external number.
159	Inhibit Automatic Supervision	This option allows an Incoming tie to dial a CO trunk through the system. This allows any supervisions from the CO to be passed on to the tie trunk.
160	Limited Wait for Dial Tone	Limits the "Wait for Dial Tone" Trunk Group option to wait a maximum of 5 seconds and then, cut through even if no dial tone is detected. If this option is not selected, there is no time limit on the "Wait for Dial Tone" Trunk Group option.
161	Music on Hold Disable	If Music on Hold is not provided, this option should be selected.
162	Night Bell 3 with Minor Alarm Enable	This option allows Night Bell 3 to be rung in the event of a minor system alarm.
163	Night Service Automatic Switching	Enables night service automatic switching.
164	Night Service Time-Out 20 seconds	Sets night service automatic switching at 20 seconds.
165	Night Service Time-Out 40 seconds	Sets night service automatic switching time-out at 40 seconds. If neither of these two options is selected, the night service automatic switching time-out will be 30 seconds. These time-outs are only effective if the night service automatic switching option has been selected.

**TABLE 2-1 (CONT'D)
SYSTEM OPTIONS**

Option Number	Option	Description
166	Remote System Reset - Protection Override	This option allows the system to be reset from the test line on the console, without setting the thumbwheel switches on the Tone Control card to 777n.
167	Final Ring Time-Out: 1 minute	If this option is selected, the ringing time-out will be reduced to 1 minute (from 5 minutes).
168	System ID Enable	This option allows the System ID to be printed with all Traffic Measurements, Data Dumps and SMDR reports.
169	Station Transfer Security Partial Inhibit	Sets the minimum switchhook-flash time as 250 ms.
171	Digits Store and Forward	This option when enabled causes the system to store all digits dialed before seizing a trunk and outpulsing.
172	Receiver Time-Out 15 seconds	This option changes the receiver time-out on trunk calls to 15 seconds.
180	Can Flash if Talking to Station	Allows extensions to switchhook flash on extension calls.
181	Can Flash if Talking to an Incoming Trunk	Allows extensions to switchhook flash on incoming trunk calls.
182	Can Flash if Talking to an Outgoing Trunk	Allows extensions to switchhook flash on outgoing trunk calls.
183	Cannot Dial a Trunk After Flashing	Inhibits dialing a trunk after flashing. This option does not apply to dialing a trunk for broker's call.
184	Cannot Dial a Trunk After Flashing if Holding or in Conference with a Trunk	Inhibits dialing a trunk after flashing, only if the existing call has a trunk party. This option does not apply to broker's call.
185	Discriminating Dial Tone	An extension having Do Not Disturb or Call Forwarding - Follow Me in effect, will receive a distinct dial tone.
186	Discriminating Ringing	Enables discriminating ringing for trunk and attendant-handled calls.
187	Controlled Station Restriction Setup	Enables the (DO NOT DISTB) button; i.e., allows the attendant to use the controlled station restriction feature.
188	Extension Non-Co Trunk to Trunk Connect Enable	This option allows an extension to connect a non-CO trunk to a CO trunk, then go on-hook and leave the two trunks connected.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
189	Flash Timer - 0.7 second	Sets the switchhook-flash recognition time to lie between 190 ms and 700 ms.
190	Flash Timer - 0.9 second	Sets the switchhook-flash recognition time to lie between 190 ms and 900 ms.
191	Flash Timer - 1.1 second	Set the switchhook-flash recognition time to lie between 190 ms and 1100 ms.
192	Message Registration Enable	Allows the system to keep count of the number of completed local Central Office calls made from each extension.
193	Message Registration Count Additional Supervisions	Counts all real (pseudo answer supervisions are ignored) answer supervisions received during each call.
194	Message Registration Timer, 20 seconds	Causes a single pseudo answer supervision signal to be generated after 20 seconds if the serving CO does not provide answer supervision.
195	Message Registration Timer, 40 seconds	Causes a pseudo answer supervision signal to be generated after 40 seconds, if the serving CO does not provide answer supervision. If neither of these two options are selected, the pseudo answer supervision signal is generated after 30 seconds. If both options are enabled, the answer supervision is generated after 60 seconds.
196	Message Registration Multiplier - two units	Multiplies the Message Register count by 2.
197	Message Registration Multiplier - three units	Multiplies the Message Register count by 3.
198	Message Registration Multiplier - four units	Multiplies the Message Register count by 4.
199	Message Registration Surcharge - one unit	Adds a surcharge of one unit to the FIRST answer supervision signal received.
200	Message Registration Surcharge - two units	Adds a surcharge of two units to the FIRST answer supervision signal received.
201	Message Registration Surcharge - three units	Adds a surcharge of three units to the FIRST answer supervision signal received.
202	Message Registration Surcharge - four units	Adds a surcharge of four units to the FIRST answer supervision signal received.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
203	Message Registration Surcharge - five units	Adds a surcharge of five units to the FIRST answer supervision signal received on each call.
204	Message Registration Surcharge - six units	Adds a surcharge of six units to the FIRST answer supervision signal received on each call.
205	Message Registration Surcharge - seven units	Adds a surcharge of seven units to the FIRST answer supervision signal received on each call.
206	Message Registration Surcharge - eight units	Adds a surcharge of eight units to the FIRST answer supervision signal received on each call.
207	Discriminating Ringing All Calls	This option provides discriminating ringing on all calls - internal and external.
208	Outgoing Trunk Camp-On	Allows station camp-on feature to be used on trunks. If station camp-on is not enabled, this option is ineffective on trunks.
209	Outgoing Trunk Callback	Allows busy callback feature to be used on trunks.
210	Call Park Recall - 2 minutes	Sets the Call Park and Call Hold Recall time-out at 2 minutes.
211	Call Park Recall - 4 minutes	Sets the Call Park and Call Hold Recall time-out at 4 minutes. If neither of these two options is selected, the Call Park and Call Hold Recall timer will be 3 minutes. These time-outs are only effective if the "Call Park" or "Call Hold" stations feature has been selected.
212	Range Programming Enable	This option enables the Range Programming feature.
213	Single Digit Dialing Enable	Allows single digit codes to be used for special services even if the codes conflict with the numbering plan.
214	Single Digit Dialing Time-Out - 3 seconds	Completes a single digit dialed call after 3 seconds.
215	Single Digit Dialing Time-Out - 5 seconds	Completes a single digit dialed call after 5 seconds. If neither of these options are selected, single digit calls are completed after 4 seconds.
217	Repeated Camp-On Tones - 5 seconds	This option, when enabled with the COS Option 107, specifies the repeated Camp-On to occur every 5 seconds. The call will not recall to the attendant.

**TABLE 2-1 (CONT'D)
SYSTEM OPTIONS**

Option Number	Option	Description
218	Repeated Camp-on Tones - 15 seconds	This option when enabled with the COS Option 107 specifies the repeated camp-on to occur every 15 seconds. The call will not recall to the attendant.
219	TAFAS Available During Day	Enables TAFAS during day.
220	Transfer Dial Tone	Enables transfer dial tone.
230	Account Code Enable	This option enables the Account Code Feature.
232	Account Code Length: - Four Digits	This option specifies the Account Code length to be four digits.
233	Account Code Length: - Eight Digits	This option specifies the Account Code length to be eight digits.
234	Account Code Length: - 12 Digits	This option specifies the Account Code length to be 12 digits.
235	Variable Length Account Codes	This option allows Account Codes to be of a variable length of up to 12 digits.
238	ARS Enable	This option enables the ARS feature.
239	ARS: Return Dial Tone	If this option is selected, dial tone will be returned after dialing the ARS code. This will encourage the user to continue dialing, after the ARS code has been dialed.
240	ARS Dial Tone Time-Out - 5 seconds	If this option is selected, "Dial 0" long-distance calls are subject to a 5 second time-out (on first digit zero).
241	ARS Dial Tone Time-Out - 10 seconds	If this option is selected, "Dial 0" long-distance calls are subject to a 10 second time-out (on first digit zero).
242	ARS Interchangeable Office Code Enable	Allows area and office codes to be used interchangeably.
245	Automatic Wake-Up Enable	Allows the attendant to enable the system to ring an extension at a prearranged time.
246	Wake-Up Alarm Enable	This option allows an extension to set its own Wake-Up alarm.
247	Automatic Wake-Up Music on Hold	This option allows an extension answering a Wake-Up call to receive Music on Hold.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
248	Automatic Wake-Up Print	This option enables all Wake-Ups that are attempted, not answered and answered, to be printed.
253	Call Forwarding - Busy (System DID, Dial-In CCSA)	Enables the DID, Dial-In, or CCSA Trunk Call Forwarding - Busy feature.
254	Call Forwarding - Don't Answer Time-Out (System, DID, Dial-In, CCSA)	Enables the DID, Dial-In, or CCSA Trunk Call Forwarding - Don't Answer feature. See Call Forwarding - Don't Answer Time-Out system options.
255	Call Forwarding - Don't Answer Time-Out - 10 seconds	This option limits the Call Forwarding - Don't Answer Time-Out to 10 seconds.
256	Call Forwarding - Don't Answer Time-Out - 20 seconds	Causes Call Forwarding - Don't Answer to forward after 20 seconds of ringing.
257	Call Forwarding - Don't Answer Time-Out - 40 seconds	Causes Call Forwarding - Don't Answer to forward after 40 seconds of ringing. If neither of these two options is selected, the Call Forwarding - Don't Answer time-out will be 30 seconds. These time-outs are only effective, if the "Call Forwarding - Don't Answer" features are selected. The time-out selected will apply to both the station and system features.
258	Controlled Outgoing Restriction Setup	Enables the (ROOM RESTR) button; i.e., allows the attendant to set up the controlled outgoing restriction feature. If this feature is selected, Night Service 2 is not available.
259	Customer Printout Enable	This option allows the Customer RAM data to be output in a logical format on a printer.
260	Customer Programming Enable	This option enables programming from the attendant console by the attendant.
261	Customer Programming of ARS Enable	This option enables ARS definition by the attendant.
262	Customer Programming of COS Definitions Enable	This option enables COS definition by the attendant.
263	Customer Programming of Extensions Enable	This option enables Extension definition by the attendant.
264	Customer Programming of Features Enable	This option enables Feature definition (of access codes) by the attendant.

**TABLE 2-1 (CONT'D)
SYSTEM OPTIONS**

Option Number	Option	Description
265	Customer Programming of Hunt Groups Enable	This option enables Hunt Group definition by the attendant.
266	Customer Programming of Speed Call Enable	This option enables Speed Call definition by the attendant.
267	Customer Programming of System Options Enable	This option enables System Options programming by the attendant.
268	Customer Programming of Toll Control Enable	This option enables Toll Control definition by the attendant.
269	Customer Programming of Trunk Groups Enable	This option enables Trunk Group definition by the attendant.
270	Customer Programming of Trunks Enable	This option enables Trunk definition by the attendant.
271	Customer Range Programming Enable	This option enables Range programming.
272	Customer Programming of the SUPERSET 4 Set Enable	This option, when set, allows the attendant to program equipment as a SUPERSET 4 set or change the programming of a SUPERSET 4 set.
273	External Call Forwarding Enable	This option enables the External Call Forwarding feature.
274	Handsfree Enable	This option enables the Handsfree feature.
275	Message Waiting Setup (Bell)	Enables the "MSGE WAIT" button and allows the attendant to cause the system to distinctively ring extension every 20 minutes, to signal a "message waiting" condition.
276	Message Waiting Setup (Lamp)	Enables the "MSGE WAIT" button and allows the attendant to cause the system to light "message waiting" lamps on extension.
277	Station Message Detail Recording Outgoing Calls	This option when activated initiates SMDR on outgoing calls.
278	Station Message Detail Recording Incoming Calls	This option when enabled initiates SMDR on all incoming calls.
279	SMDR: Record Only Incoming CO Calls (CCSA & Non-Dial Tie Trunks)	This option records all incoming calls in the switch.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
280	SMDR: Record Meter Pulses	This option allows the system to record all meter pulses from the CO.
281	SMDR: Drop Incomplete Outgoing Call	If this option is selected, outgoing calls that are not complete are not recorded.
282	SMDR: Drop Calls of Less than Eight Digits	This option will eliminate all trunk calls of eight digits or less from the SMDR records.
283	SMDR Extended Record	This option allows the length of the SMDR record to be extended from 80 to 88 characters. This allows 4-digit to 12-digit Account Codes and the system ID to be printed.
284	SMDR: Indicate Long Calls	This option flags all calls that are longer than 5 minutes.
285	SMDR Overwrite Enable	If this option is enabled, SMDR record buffers will be written over when the printer has been suspended (*14*) and all the buffers are full.
286	Special ANI Feature	This option enables the special Automatic Number Identification feature.
287	Speed Call Enable	This option enables the system Speed Call feature.
288	Speed Call Programming Enable	This option allows the attendant to program a Common Use table.
289	Speed Call Confidential Number Display	This option allows the attendant to observe a Common Use number.
291	First Digit Toll Deny	Causes toll denial if the first digit dialed is 1, 0, * or #. If this option is not selected, toll denial will be on the first or second digit.
292	Multi-Digit Toll Control Enable	This option enables the Multi-Digit Toll Control feature.
295	Traffic Measurement Autoprint	This option allows traffic data to be output automatically at the end of each hour.
296	Traffic Measurement: Compact Traffic Report	This option causes the Traffic Measurements to be output in a compact format.
297	Traffic Measurement: Console Function Enable	If this option is selected, the Traffic Measurement may be controlled from the Attendant Console.
298	Traffic Measurement Enable	This option enables the Traffic Measurement feature.

TABLE 2-1 (CONT'D)
SYSTEM OPTIONS

Option Number	Option	Description
299	Traffic Measurement: Extreme Value Mode	This option allows an active register's contents to be transferred to a storage register, if the active register is greater than the storage register.
300	Traffic Measurement Polling	This option allows traffic data to be polled by an external device.
310	MITEL Printer Condensed SMDR Print	This option when used with the MITEL printer will condense the printout from 132 to 88 characters.
311	Ignore Print Enable	Allows the attendant to dial a code that will purge and ignore the RS-232 output.
312	Message Register & Message Waiting Change Print Enable	This option allows all Message Registers and Message Waiting to be printed.
313	Printer Carriage Return Delay	This option allows additional time for the printer carriage to return.
314	Printer Transmit Additional Nulls	This option allows the transmission of additional nulls to the printer.
315	Printouts: Extra Line Feeds	This option allows for two extra line feeds for the printer in Hotel/Motel applications.
316	Room Message Register Audit Enable	This option allows an audit of all extension Message Registers that have any contents.
317	Room Status Audit Enable	This option will allow the Room Status of all rooms to be printed.
318	Zero Message Register After Room Register Audit	If this option is selected, the Message Registers will be zeroed after an audit.
330	The SUPERSET Set Disconnect Alarm	This option raises a minor alarm at the Attendant Console if a SUPERSET 4 set is disconnected.
331	The SUPERSET Set Immediate Line Selection Enable	This option allows the SUPERSET 4 user to always have a free line to access.
332	The SUPERSET 4 Set Last Number Redial Enable	This option allows the SUPERSET 4 user to use a softkey on the SUPERSET set as a last number redial.
334	The SUPERSET 4 Set Auto-Hold Disable	This option disables the auto-hold button on the SUPERSET 4 set.

**TABLE 2-2
SYSTEM OPTION CONFLICTS**

The following System Options are mutually exclusive; i.e., they cannot be simultaneously enabled on the same system:

208 and 286	Outgoing Trunk Camp-On & Special ANI Feature.
209 and 286	Outgoing Trunk Callback & Special ANI Feature.
209 and 230	Outgoing Trunk Callback & Account Code Enable.
120 and 113	Attendant Serial Call & GUEST ROOM Button Enable.
120 and 119	Room Status Enable & Attendant Serial Call.
276 and 275	Message Waiting Setups (lamp or bell).
248 and 300	Automatic Wake-Up Print & Traffic Measurement Polling.
316 and 300	Room Audit Enable & Traffic Measurement Polling.
317 and 300	Message Register Print & Traffic Measurement Polling.
312 and 300	Message Register and Message Waiting Change Print Enable & Traffic Measurement Polling.
300 and 295	Traffic Measurement Polling & Traffic Measurement Autoprint.

In addition to the above system options, some console service features are mutually exclusive. These features are listed below:

ROOM RESTRICT and NIGHT 2
 ROOM STATUS and NIGHT 2
 CALL BLOCK and HOLD 4
 SERIAL CALL and GUEST ROOM (Unless System Option 121 is enabled).

Note: The Room Restriction and Room Status features utilize the same button, but are not mutually exclusive, as the Room Status feature can be arranged to include the Room Restriction function, if System Option 258 is selected.

- (e) **CANCEL.** If after entering a number of codes for a COS, an error is discovered, the new entries may be removed from the system by pressing the CANCEL key.
- (f) **ENTER.** After all entries have been made for the COS, the entries may be transferred to permanent storage by pressing the ENTER key.

Feature Access Codes

2.06 A number of features (Table 2-4) require access codes to allow the extension users to select and use the features. Each feature access code must be unique within the system. The feature access codes are programmed from the console keys as described below:

- (a) **FEATURE.** This key selects the feature program and allows the access codes to be defined. The number dialed (Table 2-4) after pressing the FEATURE key, specifies the feature to which the access code is to be assigned.
- (b) **ACCESS CODE.** After pressing this key, the number dialed (one to four digits) is assigned as the access code of the feature selected. The system automatically checks to see if the code is

assigned to any other equipment or feature within the system and if a match is found, the system displays an error message.

- (c) **CANCEL.** The access just assigned to a feature may be removed by pressing the CANCEL key. The new access code may be assigned immediately.
- (d) **DELETE.** Pressing this key deletes the access code assigned to the feature, rendering the feature inoperative.
- (e) **ENTER.** Transfers all new entries to permanent memory.

Extensions

2.07 The extension program allows all data associated with extensions to be specified, changed, or removed from the system memories. The extension program is selected by the console keys as described below:

- (a) **RANGE.** To enable faster programming, extensions may be programmed in a range (i.e., extension numbers 200-250). The following information must be common for the range: Hunt Group, COS and Toll Control. A starting and ending point must be defined for equipment numbers, and a starting point must be defined for busy lamp numbers and extension access codes. No conflicts are allowed with equipment numbers, extension access codes, busy lamp numbers and Hunt Groups.
- (b) **EXTN.** Pressing this key enables the extension program, which allows new data to be entered or existing data to be changed or removed.
- (c) **EQPT NUMBER.** The number (1-112, 161-256) entered after pressing the EQPT NUMBER key defines the equipment number of the line circuit serving the extension (Figure 2-1).
- (d) **EXTN NUMBER.** The 1-, 2-, 3- or 4-digit number entered after pressing the EXTN NUMBER key specifies the extension number of the telephone set being added or changed. This number must not conflict with other extension numbers or access codes. If nonconflicting single digit dialing is required, enter N#, where N is the single digit.
- (e) **COS NUMBER.** The number (1-16) entered after pressing the COS NUMBER key, specifies the Class of Service, and therefore the features that may be accessed by the extension (see paragraph 2.04, Class-of-Service Option).
- (f) **TOLL DENY.** Each extension may be defined as: TOLL-ALLOWED - allowed to originate calls to the toll network; or TOLL-DENIED - not allowed to make calls to the toll network. To make the extension TOLL-ALLOWED, press the TOLL DENY key, then the DELETE key. To make the extension TOLL-DENIED,

press the TOLL DENY key, then the ADD key. The extension will be TOLL-DENIED, only if the extension and the Trunk Group are TOLL-DENIED. This allows Toll Denial on a Trunk Group basis if System Option 292 was enabled. See also Section MITL9105/9110-096-212-NA, Multi-Digit Toll Control.

- (g) **BUSY LAMP NUMBER.** After pressing this key, the number entered (1-200) defines the position (Figure 2-2) of the busy lamp to be associated with the extension. If the extension is not to be assigned a busy lamp, no entry is required.
- (h) **DELETE.** Pressing the DELETE key removes the existing busy lamp assignment.
- (i) **PICKUP GROUP.** The system may hold up to 30 independent Call Pickup Groups. An extension may be made a member of any group, by entering the Pickup Group number after pressing the PICKUP GROUP key. Any number of extensions may be assigned to a Pickup Group, but an extension may only be a member of one group at any time.
- (j) **CANCEL.** Pressing the CANCEL key, prior to the operation of the ENTER key, removes any data entered during the foregoing Extension Program sequence.
- (k) **ENTER.** Transfer all new data for the extension to permanent memory.

Hunt Groups

2.08 The system can hold up to 12 different Hunt Groups. Each Hunt Group may contain an unlimited number of members and be specified as:

- (a) **TERMINAL HUNTING.** The Hunt Group sequence starts at the first equipment number and ends at the last number in the hunt chain. The call is completed at the first idle number encountered.
- (b) **CIRCULAR HUNTING.** Hunting starts at the last equipment number reached and hunts over all members of the Hunt Group. The call is completed at the first idle number found.
- (c) **SECRETARIAL HUNTING.** This is terminal hunting where the last number is common to two or more extension Hunt Groups.

**TABLE 2-3
CLASS-OF-SERVICE OPTIONS**

Option Number	Option	Description
33	Automatic Callback	Allows Automatic Callback - Busy and Automatic Callback - Don't Answer. See system option "Outgoing Trunk Callback".
34	Call Forwarding - Busy	Allows Call Forwarding - Busy.
35	Call Forwarding - Don't Answer	Allows Call Forwarding - Don't Answer.
36	Call Forwarding - Follow Me	Allows Call Forwarding - Follow Me.
37	Call Park	Allows Call Park. See "Park Recall" system options.
38	Never a Forwarded	Prevents calls being forwarded to this line.
39	Directed Call Pickup	Allows Directed Call Pickup - this is required for remote access of Call Park.
40	Executive Busy Override	Allows Executive Busy Override.
41	Data Security	Provides security against any audio intrusion.
42	Station Override Security	Provides security against Executive Busy Override.
43	Inward Restriction (DID)	Denies Direct-In Dial calls.
44	Originate Only	Denies all incoming calls.
45	Receive Only	Denies all outgoing calls.
46	Flash Disable	Inhibits recognition of switchhook flash.
47	Never a Consultee	Denies incoming calls that originated from a Consultation Hold.
48	Broker's Call	Allows Broker's Call. Denies transfer and add-on. Cannot be provided together with Station Conference, or Flash for Attendant.
49	Station Conference	Allows Station-Controlled Conference.
50	Meet-Me Conference	Allows access to Meet-Me Conference.
51	Camp-On	Allows Station Camp-On. See system option "Outgoing Trunk Camp-On".
52	Do Not Overflow	Prevents an extension from accessing trunk groups via overflow.

**TABLE 2-3 (CONT'D)
CLASS-OF-SERVICE OPTIONS**

Option Number	Option	Description
53	Pager Access	Allows access to both paging amplifiers.
54	TAFAS Access	Allows Trunk Answer From Any Station access.
55	Hold Pickup	Allows access to the Hold Pickup feature.
56	Account Code Access	Allows an extension to use an account code on trunk calls.
57	Manual Line	Routes all originating calls directly to the attendant for completion.
58	Contact Monitor	Allows the line to be used for contact monitoring and to call the attendant upon detection of contact closure.
59	Non-CO Trunk via Attendant Inhibit	Denies access to non-CO trunks via the attendant.
60	CO Trunks via Attendant Inhibit	Denies access to CO trunks via the attendant.
61	No Dial Tone	Denies dial tone to originating calls from incoming tie-lines.
62	Flash for Attendant	Provides automatic connection to the Attendant Console when the switchhook is flashed (Attendant Transfer). Cannot be provided together with Broker's Call, Consultation Hold, Transfer and Add-On, or Station Conference.
63	H/M Station-to-Station Restrict Applies	Allows controlled station-to-station restriction to apply, when activated by the attendant. See system option "Controlled Station-to-Station Restriction".
64	Message Register	Allows the system to keep count of the local call units made from this extension.
65	Trunk Group 1	Allows access to individual trunk groups.
66	Trunk Group 2	Allows access to individual trunk groups.
67	Trunk Group 3	Allows access to individual trunk groups.
68	Trunk Group 4	Allows access to individual trunk groups.
69	Trunk Group 5	Allows access to individual trunk groups.
70	Trunk Group 6	Allows access to individual trunk groups.

**TABLE 2-3 (CONTD)
CLASS-OF-SERVICE OPTIONS**

Option Number	Option	Description
71	Trunk Group 7	Allows access to individual trunk groups.
72	Trunk Group 8	Allows access to individual trunk groups.
73	Trunk Group 9	Allows access to individual trunk groups.
74	Trunk Group 10	Allows access to individual trunk groups.
75	Trunk Group 11	Allows access to individual trunk groups.
76	Trunk Group 12	Allows access to individual trunk groups.
77	Message Waiting Applies	Allows the attendant to set a message waiting indication at the extension.
78	Room Do Not Disturb Setup Enable	Allows the extension user to set up and cancel Do Not Disturb for the extension by dialing appropriate access codes.
79	Call Hold and Retrieve Access	Allows the extension access to the Call Hold and Retrieve feature.
80	Room Status Applies	Allows the Room Status of the extension to be displayed at the Attendant Console.
81	Call Forwarding System Inhibit	The system Call Forwarding Options 253 and 254 are inactive on extensions with this Class-of-Service option.
82	Alarm Call Setup Enable	Allows either the extension to change or cancel its own wake-up time.
83	Forced Account Code Entry	An extension, with this option in its COS, must dial a 1- to 12-digit Account Code before dialing a client's number.
84	No SMDR Record Applies	An extension with this option in its COS will not be recorded by Station Message Detail Recording.
85	Speed Call Table 1 & 2 Access	Allows access to common-use Speed Call tables specified.
86	Speed Call Table 3 & 4 Access	Allows access to common-use Speed Call tables specified.
87	Speed Call Table 5 & 6 Access	Allows access to common-use Speed Call tables specified.
88	Speed Call Table 7 & 8 Access	Allows access to common-use Speed Call tables specified.

**TABLE 2-3 (CONT'D)
CLASS-OF-SERVICE OPTIONS**

Option Number	Option	Description
89	Speed Call Table 9 & 10 Access	Allows access to common-use Speed Call tables specified.
90	Speed Call Table 11 & 12 Access	Allows access to common-use Speed Call tables specified.
91	Speed Call Table 13 & 14 Access	Allows access to common-use Speed Call tables specified.
92	Speed Call Table 15 & 16 Access	Allows access to common-use Speed Call tables specified.
93	Speed Call Table 17 & 18 Access	Allows access to common-use Speed Call tables specified.
94	Cannot Dial a Trunk After Flashing	An extension, with this option in its COS, will not be able to dial a trunk after flashing.
95	Incoming Trunk Rotary Dial Only	An incoming trunk, with this option in its COS, will ignore DTMF signaling.
96	ARS Restricted	An extension, with this option in its COS, will not have access to the last route selected by ARS.
97	External Call Forwarding Connect Enable	An extension must have this option in its COS, in order to have a call it makes to an extension with External Call Forwarding in effect completed.
98	Transfer with Privacy	An extension with this option in its COS will be able to: put a call on hold, dial a new number and consult privately or hang up and the call on hold and the new number will be connected.
99	Handsfree Station	An extension with this option in its COS need not go off-hook to answer a call since it should be in the off-hook position.
100	ARS Allowed	An ARS user with this option will be able to access a Trunk Group, even though the user's COS was not enabled for that Trunk Group. This will occur when the ARS feature finds that the only Trunk Group free is not in the user's COS but will force a connection. This option must be enabled for an extension to use ARS.
101	Earth Ground Button	This option allows the use of a Earth Ground button on an extension's telephone set. Note: A special line card is required when using this COS option.

**TABLE 2-3 (CONTD)
CLASS-OF-SERVICE OPTIONS**

Option Number	Option	Description
102	Call Announce Override	This COS option allows an extension user to use an alternate equipment number to override an announcement port.
103	Extension Call Forwarding Reset	This option allows an extension to clear Call Forwarding at another extension by using the access code for feature number 48.
106	The SUPERSET Set Sub-Attendant Enable	This COS option allows a SUPERSET 4 set to be used as sub-attendant position. All calls handled to the sub-attendant will recall to the sub-attendant.
107	Repeated Camp-On Beeps	This COS option, when enabled in an extension or trunk's COS, will enable the trunk or extension to camp on to a party and not recall. The camped-on party will receive continuous camp-on tones at 5, 10 or 15 second intervals (as programmed). If neither System Options 217 or 218 are programmed, the repeated tones will be every 10 seconds.
108	The SUPERSET Set Background Music	This option, when enabled, allows the SUPERSET 4 user to access the Music-on-Hold path and listen to the music by pressing the softkey indicating the musical note.
109	The SUPERSET 4 Set Sub-Attendant Programming of Messages	This option allows only the sub-attendant to program SUPERSET set messages.
110	Special DISA Access Code	If this option is enabled in a DISA trunk's COS, the incoming caller need only dial the Verifiable Account code to dial back out of the system. If this option is not enabled, both the DISA code and the Account Code would have to be dialed.
111	DISA/Extension Routing Direct to ARS	If this option is enabled in a DISA or extension's COS routes, all calls are made on the trunk or extension through the ARS feature.
112	Off-Premise Extension	This option must be enabled for any off-premise extension to improve the extension gain.
113	ARS Disallow Schedule A	This option when enabled, restricts access to ARS Schedule A.
114	ARS Disallow Schedule B	This option when enabled, restricts access to ARS Schedule B.

**TABLE 2-3 (CONT'D)
CLASS-OF-SERVICE OPTIONS**

Option Number	Option	Description
115	ARS Disallow Schedule C	This option when enabled, restricts access to ARS Schedule C.
116	ARS Limited Access	This option when enabled, restricts access to trunks routed by ARS to trunks in the caller's COS.
118	ARS Most Expensive Route Warning Tone	This option when enabled, provides an audible tone indication to the SUPERSET 3 set and standard telephones and a visual note (EXPENSIVE ROUTE) to the SUPERSET 4 users when the last ARS route is used.
119	Low Conference Gain Enable	This option enables the low gain feature of the system during conferencing. If this option is not enabled, high gain will be employed.
120	Privacy Disable	This option disables privacy on Key Line appearances.
Class-of-Service Option Conflicts		
45	Receive Only	and 58 Contact Monitor
46	Flash Disable	and 48 Broker's Call
46	Flash Disable	and 49 Station Conference
46	Flash Disable	and 62 Flash for Attendant
48	Broker's Call	and 49 Station Conference
62	Flash for Attendant	and 49 Station Conference
62	Flash for Attendant	and 48 Broker's Call

**TABLE 2-4
FEATURE ASSIGNMENTS**

Feature Number	Description
1	Attendant Access
2	Callback - Don't Answer
3	Call Forwarding - Busy
4	Call Forwarding - Don't Answer
5	Call Forwarding - Follow Me
6	Call Park
7	Dial Call Pickup
8	Directed Call Pickup
9	Meet-Me Conference
10	Pager 1
11	Pager 2
12	Hold Pickup Access
13	Pager 1 and 2
14	TAFAS-All
15	TAFAS-1
16	TAFAS-2
17	TAFAS-3
18	Attendant Function
19	Maintenance Function
20	DID Attendant Access Code
21	Direct Inward System Access
22	Executive Busy Override (Single Digit)†
23	Callback - Busy (Single Digit)†
24	Room Do Not Disturb Setup and Cancel
25	Call Hold
26	Call Retrieve (Local)
27	Call Retrieve (Remote)
28	Room Status Update (Maid in Room)
29	Programming Security Code
30	Alarm Call
31	Account Code
32	Speed Call
33-42	Assign access code features 33-42 for Trunk Group 1 if necessary
43	Customer Programming Security Code
44	ARS Access Code
45	Handsfree Activation
46	Call Forwarding - Busy/Don't Answer
47	Extension Reset
48	The SUPERSET 4 Set Loopback Test
49	ACD Agent

† First digit conflicts between these codes and other access codes are allowed. See Section MITL9105/9110-090-105-NA for complete description of feature operation.

HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11						EXTENSION UNIT NO.	TRUNK UNIT NO. (4-TRUNK)	TRUNK UNIT NO. (2-TRUNK)							
	161	169	177	185	193	201	209	217	225	233	241	249												1	2	3	4	5
	162	170	178	186	194	202	210	218	226	234	242	250																
	163	171	179	187	195	203	211	219	227	235	243	251																
	164	172	180	188	196	204	212	220	228	236	244	252																
	165	173	181	189	197	205	213	221	229	237	245	253																
	166	174	182	190	198	206	214	222	230	238	246	254																
	167	175	183	191	199	207	215	223	231	239	247	255																
	168	176	184	192	200	208	216	224	232	240	248	256																
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION					
	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	SLOT NUMBER					
	PLUG 8						PLUG 10						PLUG 12															

SHELF 2 (SX-200 ONLY)

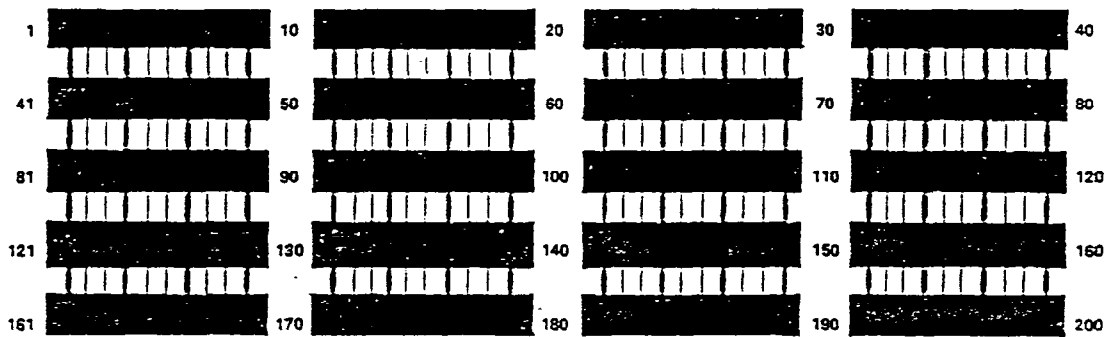
HARDWARE POSITION NUMBER	PLUG 1				PLUG 3				PLUG 5				EXTENSION UNIT NO.	TRUNK UNIT NO. (4-TRUNK)	TRUNK UNIT NO. (2-TRUNK)											
	001	009	017	025	033	041	049	057	065	073	081	089				097	105	113	1	2	3	4	5	6	7	8
	002	010	018	026	034	042	050	058	066	074	082	090	098	106	114											
	003	011	019	027	035	043	051	059	067	075	083	091	099	107	115											
	004	012	020	028	036	044	052	060	068	076	084	092	100	108	116											
	005	013	021	029	037	045	053	061	069	077	085	093	101	109	117											
	006	014	022	030	038	046	054	062	070	078	086	094	102	110	118											
	007	015	023	031	039	047	055	063	071	079	087	095	103	111	119											
	008	016	024	032	040	048	056	064	072	080	088	096	104	112	120											
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	SLOT NUMBER			
	PLUG 2				PLUG 4				PLUG 6																	

SHELF 1

NOTES:

- DUAL-/QUAD-RECEIVER EQUIPMENT NUMBERS ARE 090, 098, 106, 114, 092, 100, 108 AND 116.
- QUAD-RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
- EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
- TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
- SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
- MAXIMUM NUMBER OF SUPERSET 4 SETS = 64
- THE EQUIPMENT NUMBERS FOR RACS WILL BE THE SECOND AND SIXTH EQUIPMENT NUMBERS OF THE SLOT THE CARD IS IN.

Figure 2-1 Equipment Number



200 Lamp Console

X3481

Figure 2-2 Busy Lamp Position Numbering

- (d) **DUAL NUMBER ACCESS.** An extension may be programmed to allow it to be accessed by two different numbers. The first number is assigned when programming the extension and the second number is assigned by programming a Hunt Group with the extension as the only member. The extension may therefore be accessed by dialing the extension number or the Hunt Group master number (see Section MITL9105/9110-090-105-NA, Single Digit Dialing).

Note: When changing the list of members of a Hunt Group in any way, all members of the Hunt Group must be re-entered.

2.09 The following console keys are activated to program the Hunt Groups:

- (a) **HUNT GROUP.** Allows the Hunt Group required to be selected by dialing the Hunt Group number (1-12).
- (b) **ACCESS CODE.** Allows the 1-, 2-, 3- or 4-digit code identifying the Hunt Group master number to be entered.
- (c) **DELETE.** Pressing this key deletes the Hunt Group from the system memory.
- (d) **EQPT NUMBER.** This key must be pressed before dialing the

equipment number of each extension in the Hunt Group. If circular hunting is to be defined, the last entry in the hunt group must be the same as the first entry. Membership in a Hunt Group is mutually exclusive with "message registration" and "room status" for this extension.

- (e) **CANCEL**. Deletes all new data entered associated with the Hunt Group.
- (f) **ENTER**. Transfers all new data for the Hunt Group to permanent memory.

Trunks

2.10 This program allows the type console appearances, day and night assignment, COS and toll deny codes of each trunk to be specified.

2.11 The following console keys are employed to enter this program:

- (a) **TRUNK**. Selects the trunk program.
- (b) **EQPT NUMBER**. The number entered (10-112; 162-256, even numbers only) specifies the equipment number of the trunk circuit serving this trunk (Figure 2-1).
- (c) **TYPE**. The code entered, defines the type of trunk being specified.

- Code 1 - CO trunk + VNL
- Code 2 - DISA trunk + VNL
- Code 3 - DID trunk + VNL
- Code 4 - Dial-In tie trunk + VNL
- Code 5 - Non-Dial-In tie trunk + VNL
- Code 6 - CCSA trunk + VNL
- Code 11 - CO trunk + NON-VNL
- Code 21 - DISA trunk + NON-VNL
- Code 31 - DID trunk + NON-VNL
- Code 41 - Dial-In tie trunk + NON-VNL
- Code 51 - Non-Dial-In tie trunk + NON-VNL
- Code 61 - CCSA trunk + NON-VNL

- (d) **DELETE**. If this key is pressed, the information associated with

- this trunk is removed from the system memory.
- (e) **BUSY LAMP NUMBER.** The number (1-200) defines the position (Figure 2-2) of the busy lamp to be associated with this trunk. If the trunk is not to be assigned, a busy lamp no entry is required.
- (f) **DELETE.** If this key is pressed, the busy lamp assignment for this trunk is deleted.
- (g) **LDN NUMBER (Types 1, 5, 11, 51 only).** This single digit entry defines the Listed Directory Number Key (LDN 1, 2, 3 or 4) on the Attendant Console which is to be associated with the trunk. If the trunk is not to appear on the Attendant Console, no entry is required. DID trunk calls to the attendant always appear on LDN 4.
- (h) **DAY NUMBER (Types 1, 5, 11, 51 only).** The code entered for Day Number specifies any special assignments of the trunk during normal daytime service. These assignments may be:
- no assignment to bells, extensions or Hunt Groups, console appearance only (Default code #0)
 - assigned to ring bell 1, code #1
 - assigned to ring bell 2, code #2
 - assigned to ring bell 3, code #3
 - assigned to one extension - enter equipment number of extension
 - assigned to a Hunt Group, codes 1 to 12.
- (i) **I/C (Types 3, 6, 31, 61 only).** This 2- or 3-digit entry for DID or CCSA trunks defines the number of incoming digits, the number of digits to be absorbed and the digit to be added to the incoming number after absorption.
- (j) **NIGHT 1 (Types 1, 5, 11, 51 only).** This entry defines the assignment of the trunk during Night Service 1. Assignment is made in the same manner as for DAY NUMBER assignment.
- (k) **NIGHT 2.** The entry defines the assignment of the trunk during Night Service 2. This assignment is made in the same manner as for DAY NUMBER assignment.
- (l) **COS NUMBER (Types 2, 4, 21, 41 only).** The number (1-16) entered, after pressing this key, specifies the Class of Service and therefore the features, that may be accessed by the Dial-In trunk. See paragraph 2.04, Class-of-Service Option.
- (m) **TOLL DENY (Types 2, 4, 21, 41 only).** Each Dial-In trunk may be

defined as: TOLL-ALLOWED - allowed to originate calls to the toll network; or TOLL-DENIED - not allowed to make calls to the toll network. To make the tie trunk TOLL-ALLOWED, press the TOLL DENY key, then the DELETE key. To make the tie trunk TOLL-DENIED, press the TOLL DENY key, then the ADD key. If System Option 292 is enabled, see also Section MITL9105/9110-090-212-NA, Multi-Digit Toll Control.

- (n) **CANCEL.** Pressing this key, prior to the operation of the ENTER key, removes any data entered in the temporary storage.
- (o) **ENTER.** Deletes previous data associated with this trunk and stores the new data.

Trunk Groups

2.12 The Trunk Group program specifies the trunks forming the Trunk Group and the restrictions and options common to all trunks in the group. The Trunk Group may employ terminal or circular hunting (see paragraph 2.08). When making any change to the list of members of a Trunk Group, all members of the group must be re-entered. The following console keys are activated to program the Trunk Groups:

- (a) **TRUNK GROUP.** The number (1-12) entered specifies the Trunk Group to be set up or changed.
- (b) **ACCESS CODE.** Allows the 1-, 2-, 3- or 4-digit code identifying the Trunk Group to be specified.
- (c) **DELETE.** Pressing this key deletes the Trunk Group from the system memory.
- (d) **TYPE.** The 4-digit code entered after pressing the TYPE key specifies the Trunk Group type parameters as detailed in Table 2-5.
- (e) **TOLL DENY.** Each Trunk Group may be specified as: TOLL-ALLOWED - allowed to originate calls to the toll network; or TOLL-DENIED - not allowed to make calls to the toll network. To make the Trunk Group TOLL-ALLOWED, press the TOLL DENY key, then the DELETE key. To make the Trunk Group TOLL-DENIED, press the TOLL DENY key, then the ADD key. Toll Denial is effective only when both the Trunk Group and the extension or Dial-In trunk involved are TOLL-DENIED and are ignored by the system. This prevents circumvention of the toll denial by dialing a fast valid digit before CO dial tone is received.
- (f) **OVERFLOW.** The number entered (1-12), specifies the trunk overflow group number. If all trunks within the Trunk Group being defined are busy, any additional calls directed to the Trunk Group will be rerouted to the overflow group. Overflow arrangements which direct the callback to the original group must NOT be specified.

**TABLE 2-5
TRUNK GROUP TYPE CODES**

First Digit (Note 1)	Second Digit	Third Digit (Note 2)	Fourth Digit (Note 3)
1. No supervision	1. No Message Register	1. Dial pulse, no wait for dial tone	1. CO trunk
2. Answer supervision	2. Message Register	2. Dial pulse, wait for dial tone	2. Non-CO trunk
3. Toll Reversal	3. SMDR Enable and no Message Register	3. DTMF, no wait for dial tone	3 = Identified Trunk Group - repeat one digit 4 = Identified Trunk Group - repeat two digits 5 = Identified Trunk Group - repeat three digits 6 = Identified Trunk Group - repeat four digits
4. Outgoing audio inhibited until answer supervision	4. SMDR Enable and Message Register Enable	4. DTMF, wait for dial tone	

Notes:

- If answer supervision is not required (or not provided by the CO), then use 1 (No supervision).
If trunks provide answer supervision and tandem trunking or message registration is used, then specify 2 (Answer supervision).
If supervision is used to indicate toll calls, and this feature is required, then use 3 (Toll supervision).
If audio cut-through on tie-trunk tandem calls is required only after receipt of answer supervision, then use 4 (Outgoing audio inhibit until answer supervision). In addition, the audio is inhibited until timed out or unless a # is dialed.
- If "wait for dial tone" is selected, then any digits dialed prior to receipt of CO dial tone are stored.
- For Identified Trunk Groups, program the fourth digit as 3, 4, 5 or 6 (see Section MITL 9105/9110-096-105-NA, Identified Trunk Groups).

- (g) **EQPT NUMBER.** This key must be pressed before dialing the equipment number (2-112; 162-256) of each trunk in the group. If circular hunting is to be defined, the last entry in the Hunt Group must be the same as the first entry. If circular hunting is not required, the Trunk Group is terminal hunting (see paragraph 2.08).
- (h) **CANCEL.** Pressing the CANCEL key removes all new data entered for the Trunk Group, leaving any existing data unchanged.
- (i) **ENTER.** Removes all old data associated with the Trunk Group and transfers the new data entered to permanent memory.

3. PROGRAMMING

General

3.01 After all installation procedures have been completed in accordance with Section MITL9105/9110-090-200-NA, the system should be programmed as detailed in the MITEL Action Procedures (MAPs) contained in Appendices A and B. Each MAP in Appendix B also contains a sample programming form pertinent to the MAP.

Error/Confirm Codes

3.02 During standard system programming, the console DESTINATION display may show "error" or "confirm" codes, with the meanings indicated in Tables 3-1 and 3-2, respectively. These tables also indicate required action when the code is displayed. In the extended programming mode, errors may also be displayed at the console. Tables 3-3, 3-4, 3-5 and 3-6 show the meanings of these errors.

Attendant Function Access Codes

3.03 Table 3-7 is a listing of the attendant function access codes. To select any of the attendant functions, the access code for feature 18 must have been dialed. The code * is used in Table 3-7.

Maintenance Function Access Codes

3.04 Table 3-8 lists the maintenance function access codes. To select any of the maintenance functions, the access code assigned for the maintenance function must be dialed (Feature Number 19). The code 555 is used in Table 3-8, for the maintenance code and may be dialed from the test line or console.

Attendant UCD Access

3.05 The Attendant UCD Access Codes (Table 3-9) outline all the function codes necessary for the implementation of UCD.

Time-Out Information

3.06 During programming, it may be necessary to know the time-out information with regard to certain functions. Table 3-10 is a listing of the time-out information.

**TABLE 3-1
PROGRAMMING ERROR CODES**

Error Code	Cause	Key Affected	Key Flashing	Meaning	Action Required
E0	Invalid key pressed.	ALL	None	The last key pressed is invalid at this time.	Check procedure and press correct key.
E1	Invalid number.	ALL	None	The number entered is out-of-range or contains corrupted data.	Press key associated with entry and re-entry number.
E2	Key other than ENTER or CANCEL pressed.	LAMP TEST, COS OPTION, FEATURE, EXTN NUMBER, TRUNK/HUNT GROUP, TRUNK GROUP, NEXT, EQPT NUMBER	ENTER, CANCEL	An attempt was made to leave the current mode, after some parameters were changed, but before ENTER or CANCEL was pressed. ENTER may be used to write the new programming information back to the non-volatile RAM, or use CANCEL to ignore all programming changes made, since the last time ENTER was pressed.	Press ENTER to transfer the data to permanent or CANCEL to remove the data from the temporary store.
E3	Access code has not been entered.	HUNT GROUP, TRUNK GROUP	ACCESS CODE	Attempting to enter members into a Hunt or Trunk Group before an access code has been assigned to the group.	Press ACCESS CODE key and enter required access code.
E4	The extension number or access code entered is already assigned.	EXTN, ACCESS CODE	None	The extension number of access code entered is already assigned to an extension, feature, Hunt Group or Trunk Group. In Trunk mode, an attempt is made to delete a member of a Trunk Group. Equipment numbers desired must be entered. In Trunk Group mode, an attempt is made to place a trunk into a Trunk Group while that trunk is currently programmed into another Trunk Group. Callback and Executive Override conflict: i.e., trying to enter a Callback code while same code is assigned to Executive Busy Override and vice versa.	Check code entered. 1. If code is correct, terminate entry, remove other appearance of code and re-enter all new data. 2. If code is incorrect, press key associated with entry and re-enter extension number or access code.
E5	Number entered contains incorrect number of digits or conflicting option enabled in this COS.	EXTN NUMBER, ACCESS CODE	None	The extension number or access code is in conflict with the existing numbering plan. Attempting to add an option to a COS in which a conflicting option is enabled. Attempting to add a System Option when a conflicting option exists.	Check entry. Press key associated with entry and re-enter number.

**TABLE 3-1 (CONT'D)
PROGRAMMING ERROR CODES**

Error Code	Cause	Key Affected	Key Flashing	Meaning	Action Required
E6				During trunk or extension programming and attempting to assign an equipment number as a line or a trunk when other equipment numbers previously programmed for that slot, identify the slot as other than the type being programmed (i.e., line, trunk, or the SUPERSET set).	
E6				During trunk programming an attempt has been made to change the programming for the trunk and the trunk has an appearance on a SUPERSET 4 set. The trunk appearance must be deleted from any SUPERSET 4 keys before changing the trunk.	
E6				During extension programming an attempt has been made to delete an extension which has an appearance on a SUPERSET 4 set. The extension appearance must be deleted from any SUPERSET 4 keys before deleting the extension.	
E6	Incorrect equipment number entered.	EQPT NUMBER	None	Attempting to assign an equipment number that is: <ul style="list-style-type: none"> - undefined - defined as a trunk to an extension Hunt Group or extension - defined as an extension to a Trunk Group or a trunk - an extension with message registration to Hunt Group or Pickup Group. An equipment number assigned to an extension must be deleted as an extension, before being programmed as a trunk. An equipment number assigned to a trunk must be deleted as a trunk, before being programmed as an extension.	Remove conflicting option: (a) Assign equipment number correctly. (b) Enter new equipment number.
E6	In extension mode, the equipment number is assigned as a call announce port, a programmed SUPERSET set or a single line set with appearances.	EQPT NUMBER	None	The equipment number selected to be programmed has already been programmed in the SUPERSET set programming as a SUPERSET set, single line set with appearances or an announce port.	Enter correct equipment number or delete the conflicting SUPERSET set programming.

**TABLE 3-1 (CONT'D)
PROGRAMMING ERROR CODES**

Error Code	Cause	Key Affected	Key Flashing	Meaning	Action Required
E6	In trunk mode the trunk selected has appearances on a SUPERSET set.	EQPT NUMBER	None	The trunk equipment number already has an appearance on a SUPERSET set.	Delete appearances on the SUPERSET set.
E7	System is busy.	ENTER	None	(a) Attempting to initialize a system while system is in use. (b) Attempting to change data of an extension or trunk while that extension or trunk is in use. It must be idle or busied-out.	(a) Wait until system is idle. (b) Wait until extension or trunk is idle.
	Extension has a message register that is not zeroed, has a message waiting or has Do Not Disturb set.	ENTER	None	- A valid message register exists for this extension. - Extension has a message waiting or Do Not Disturb set.	Zero message register, reset message waiting or Do Not Disturb and reprogram.
E8	Trunk or equipment number already assigned.	ENTER	None		(a) Enter proper trunk or equipment number. (b) Press ENTER.
E9	Non-volatile RAM error.	ENTER	None	Ones and Zeros test failed.	
E020			None		Non-volatile RAM must be initialized and/or reprogrammed.
E022 -20	At Power Up		None		Non-volatile RAM must be initialized and/or reprogrammed.
E023 -20	At Power Up	None	None	RAM battery switches not enabled.	Turn RAM battery switches on.

**TABLE 3-2(a)
STANDARD CONFIRM CODES**

Confirm Code	Cause	Key Affected	Flashing Lamp	Action Required
C0	Attempting to assign an equipment number for an extension to a slot containing a trunk card.	EQPT NUMBER	CONFIRM	Check assignment: - If correct, press CONFIRM key. Equipment number entered is accepted as the number for the equipment type being programmed. All data associated with the original appearance of the equipment number is removed.
C0	Attempting to assign an equipment number for a trunk to an empty slot or a slot containing an extension card.	EQPT NUMBER	CONFIRM	- If incorrect, press EQPT NUMBER and re-enter new equipment number.
C1	Attempting to assign an extension that already exists.	EXTN NUMBER	CONFIRM	Check assignment: - If correct, press CONFIRM key. The extension number entered is accepted as the extension number for the equipment being defined. All data associated with the original appearance of the extension number is removed.
C2	The busy lamp assignment already exists.	BUSY LAMP	CONFIRM	- If incorrect, press EXTN NUMBER and re-enter extension number. Check assignment: - If correct, press CONFIRM key. Busy lamp assignment is accepted for this equipment. All data associated with original assignment is removed. - If incorrect, press BUSY LAMP and re-enter busy lamp assignment.

**TABLE 3-2(b)
AUTOMATIC ROUTE SELECTION CONFIRM CODE**

Error	Applies to:	Meaning
C6	Area Code	A request has been made to delete all entries in a table.

TABLE 3-2(c)
TOLL CONTROL PROGRAMMING CONFIRM CODES

Error	Applies to:	Meaning
C5	Control Plan mode Table mode	An attempt was made to assign a table which is currently assigned elsewhere. Pressing the confirm key will deassign the table from wherever it was previously assigned to assign it to the specified place.
C6	Table mode	A request has been made to delete all entries in a table. If CONFIRM is pressed, all entries will be deassigned. The old data in the non-volatile RAM will not be destroyed until the ENTER key is pressed, and the table itself can be reprogrammed as desired before the ENTER key is used.

TABLE 3-3
EXTENDED PROGRAMMING ERROR CODES - TOLL CONTROL

Error	Applies to:	Meaning
E0	All modes	Invalid key pressed. Consult MAPs for correct procedure. System Option 292 may not be enabled.
E1	Trunk Group mode Control Plan mode	Number is not within the range of the parameter being defined. Re-enter parameter key defined.
E2	All modes	An attempt was made to leave the current mode after some parameters were changed but before ENTER or CANCEL was pressed. ENTER may be used to write the new programming information back to the non-volatile RAM, or use CANCEL to ignore all programming changes made since the last time ENTER was pressed.
E3	Control Plan mode	The number entered is not valid. Re-enter a number which is valid.
E4	Table mode	The table entry code is invalid for the table programmed. This occurs in the following situation: <ol style="list-style-type: none"> 1. A code of more than three digits in the length for an 800-entry or 20-range table. 2. A code not in the range of 200-999 for an 800-entry table. 3. A code which already exists or a code which would be ambiguous in conjunction with the existing table entries, for a 4-entry table.
E5	Table mode	The table is full and cannot hold the entry.
E7	Configuration mode	Initialization is not allowed because the Tone Control card switches are not 7776 or the system is not idle.
E9	Configuration mode	A hardware failure was detected while clearing the extended customer non-volatile RAM.

TABLE 3-4
EXTENDED PROGRAMMING ERROR CODES - SPEED CALL

Error Code	Key Involved	Explanation
E1	EQPT NUMBER	The Equipment Number entered is outside the range of valid numbers. Check procedures and press key, then redial proper digits.
E1	ACCESS NUMBER	The Access Number entered is not the first of the 5-number group. Enter the proper Access Number.
E1	NUMBER REDIAL	An invalid Number Redial value was entered. Enter the proper redial value.
E2	All modes	An attempt was made to leave the current mode after some parameters were changed but before ENTER or CANCEL was pressed. ENTER may be used to write the new programming information back to the non-volatile RAM, or use CANCEL to ignore all programming changes made since the last time ENTER was pressed.
E3	TABLE	The Table number entered is not allowed.
E4	ACCESS NUMBER	An attempt was made to enter an Access Number for a common-use table.
E4	NUMBER REDIAL	An attempt was made to enter a Number Redial digit for a common-use table.
E5	ACCESS NUMBER	The Access Number entered already exists for another table assigned to the same equipment number.
E5	NUMBER REDIAL	Number Redial already exists for another table assigned to the same equipment number (only one Number Redial attribute per user is allowed).
E6	SPEED CALL	Speed Call feature not enabled.

**TABLE 3-5
EXTENDED PROGRAMMING ERROR CODES - AUTOMATIC ROUTE SELECTION**

Error Code	Key Involved	Explanation
E0	All modes	Invalid key pressed.
E1	Area Code Table mode Office Code Table mode Routing Table mode Local Area mode Table Quantity mode	Number is not within range.
E2	All modes	An attempt was made to leave the current mode after parameters were changed, but before ENTER or CANCEL was pressed.
E3	Office Code mode	The Office Code table number is not valid for this configuration.
E4	Routing Table mode	An attempt was made to enter a trunk group number that is not defined.
E5	Office Code Table mode	The 9-entry Office Code Table is full and cannot hold the entry.
E6	Routing Table mode	Schedule A hours and Schedule B hours are not mutually exclusive.
E7	Configuration mode	Initialization is not allowed because the Tone Control card switches are not 7776 or the system is not idle.
E9	Configuration mode	A hardware failure was detected while clearing the extended customer non-volatile RAM.

TABLE 3-6
EXTENDED PROGRAMMING ERROR CODES - SUPERSET PROGRAMMING

Error Code	Key Involved	Explanation
E0		This error is given when entering the SUPERSET set programming if either the SUPERSET sets are not enabled, or the attendant attempts to use Customer Programming of the SUPERSET set and System Option 272 is not enabled. This error is also given throughout the SUPERSET set programming when an invalid key is pressed.
E1	PRIME KEY	Entering a SUPERSET set equipment number as slot 1 (equipment numbers 001-008).
E1	PRIME KEY	Number out-of-range error. Given in PRIME KEY mode when attempting to enter COS number Toll Deny, Busy Lamp number, Pickup Group number or Call Announce Port number.
E3	SET EQPT NUMBER	Given when entering a SUPERSET set equipment number if the number supplied is defined within the system as something other than a SUPERSET set. Also given if the key type supplied is not valid.
E3	PRIME KEY	Attempting to assign an equipment number as a SUPERSET set when other equipment numbers previously programmed for that slot identify the slot as other than a SUPERSET Line card.
E4	SET KEY NUMBER	Given if the key number supplied is invalid (other than 2-15).
E10	LISTED NUMBER	Directory number was not entered when attempting to define a Prime key.
E11	TYPE	Type was not entered when attempting to define a Non-Prime key.
E12	LISTED NUMBER	Directory number was not entered before defining a Non-Prime key.
E13	TRUNK EQPT NUMBER	Trunk equipment number was not entered when required when defining a Non-Prime key.
E20	LISTED NUMBER	The directory number supplied is conflicting with an existing system access code. This error is also given when attempting to add a key line appearance of a single line set. The appearance of a single line set must be multiple call.
E21	LISTED NUMBER	The directory supplied is invalid, because it would result in mixing key line and multiple call appearances with the same directory number. This error occurs when attempting to add a Non-Prime key, and the directory number exists as either a prime with the wrong type of appearances or a primeless list of the wrong type (i.e., key line or multiple call).

**TABLE 3-6 (CONT'D)
EXTENDED PROGRAMMING ERROR CODES - SUPERSET PROGRAMMING**

Error Code	Key Involved	Explanation
E22	PRIME KEY	<p>This occurs when attempting to add a prime, but the directory number supplied exists, and does not exist as a primeless list.</p> <p>This error is also given if the directory number supplied (when adding a prime) does not exist, but conflicts with an existing system access code.</p>
E23	REVIEW	<p>This is given in Review mode, when the directory number supplied does not exist, or is in conflict with an existing system access code.</p>
E24	REVIEW	<p>This is given in Review mode, when the directory number supplied exists, but not as either a prime line access code or the access code for a primeless appearance list. This error indicates in the first three digits of the SOURCE display who the actual owner is.</p> <p>If the first digit is 0:</p> <ul style="list-style-type: none"> -000 - 135 equipment numbers 1 to 136 -136 - 147 Trunk Group numbers 1 to 12 -148 - 159 Hunt Group numbers 1 to 12 -160 - 255 equipment numbers 161 to 256 <p>If the first digit is a 1:</p> <ul style="list-style-type: none"> 000 - 063 service routines 1 to 64 (features)
E25	LISTED NUMBER	<p>An attempt has been made to change the DN of a Prime key, but the new directory number (listed number) is in use or is in conflict with an existing access code. The new listed number for a Prime key must be unique, and cannot even be that of a primeless list.</p>
E26	TRUNK EQPT NUMBER	<p>The equipment number entered (after pressing TRUNK EQPT NUMBER) is not that of a defined CO trunk or Dial-In trunk. The equipment number entered here must have been defined in Standard Programming as a trunk. Also, if in Review mode, this error means that the equipment number entered (after pressing TRUNK EQPT NUMBER) has not been used for either a DTS or private line key.</p>
E27		<p>The trunk is currently assigned to a DTS appearance list. An attempt has been made to use it for a private line key.</p>
E28		<p>An attempt has been made to assign a port for call announce use but the port is currently programmed for another function. The Call Announce Port must be dedicated to the call announce function.</p>

TABLE 3-6 (CONT'D)
EXTENDED PROGRAMMING ERROR CODES - SUPERSET PROGRAMMING

Error Code	Key Involved	Explanation
E28	ANNOUNCE EQPT NUMBER	Attempting to assign an equipment number as a Call Announce Port when other equipment numbers previously programmed for that slot identify the slot as other than a Line card.
E30		An attempt has been made to delete a Prime key (this is equivalent to deleting the set) and a Non-Prime key on the set was defined. Before a set can be deleted, all Non-Prime keys must be undefined (deleted).
E31		An attempt has been made to define a Non-Prime key when the prime for the equipment number has not yet been defined (the set itself has not been defined). The Prime key must be the first key defined for a set.
E32	NEW SET EQPT NUMBER	When attempting to move a set, the equipment number specified cannot be moved as it is not programmed as a SUPERSET set.
E33	NEW SET EQPT NUMBER	When attempting to move a set to a new equipment number that has been programmed already.
E33	NEW SET EQPT	Attempting to move a SUPERSET set to an equipment number when other equipment numbers previously programmed for that slot identify the slot as other than a SUPERSET Line card.
E40		A Prime key is being added, and the listed number is the same as an existing primeless list. This can normally be done, but in this case the primeless list is not idle, so the addition of the prime cannot be performed.
E41		Addition of a key line appearance is attempted, but cannot be performed because the listed number is not idle. Or, addition of a DTS or private line was attempted, but cannot be performed because the trunk chosen for the key is not idle.
E42		An attempt has been made to delete a Prime key, but the listed number is not completely idle. Note: All multiple call appearances of a prime must be idle if the prime is to be deleted; i.e., when a multiple call appearance 'somewhere' is busy it will prevent prime deletion although the prime appears idle. When this happens, use the REVIEW mode to find where all the appearances are, then delete each individually. The busy one will cause an error.

TABLE 3-6 (CONT'D)
EXTENDED PROGRAMMING ERROR CODES - SUPERSET PROGRAMMING

Error Code	Key Involved	Explanation
E43		An attempt was made to delete a prime, but the set has a message waiting, and deletion is not allowed.
E44		An attempt was made to delete a prime, but the set has a nonzero message register, and deletion is not allowed.
E45		An attempt was made to delete a Non-Prime key, but the key was not idle, and deletion is not allowed. Also given when one of the Non-Prime keys is not idle when a deletion is attempted.
E50		An attempt was made to add a Prime key, but 64 sets have already been defined.
E51		An attempt was made to add a Non-Prime which requires an internal system resource, of which all have been used. If any multiple call key, or an entire primeless key line list is deleted, one (1) resource will be freed.
E52		An attempt was made to add a Non-Prime key which requires an internal system resource. This time, if either a complete DTS or private line list is deleted, one (1) internal resource will be freed.

Special set error numbers are arranged in groups, with each numerical group having a general significance. The groups are:

E0 - E9 No special significance.

E10 - E19 The required parameters were not entered.

E20 - E29 There are incompatibilities with the database values and the parameter values being entered to define or change a key.

E30 - E39 There are prerequisites to the operation being attempted which have not been satisfied.

E40 - E49 The desired operation cannot be performed due to system activity involving the set or key selected.

E50 - E59 The desired operation cannot be performed due to internal system limitations.

Note: An E5 error will be given when entering (or moving) a SUPERSET equipment number to a slot that would indicate more than eight slots programmed.

TABLE 3-7
ATTENDANT FUNCTION ACCESS CODES

These codes assume the use of * as the Attendant Function code (Feature Number 18). For Attendant Function codes used in Traffic Measurement, see Section MITL9105/9110-090-450-NA.

To cancel all call forwarding:

- (a) Dial *1, or *11
- (b) Dial #
- (c) Press RELEASE button.

To access an individual trunk:

- (a) Dial *20
- (b) Dial individual trunk access number (equipment number)
- (c) Dial *
- (d) Press RELEASE button.

To force-release an individual trunk:

- (a) Dial *20
- (b) Dial individual trunk access number (equipment number)
- (c) Dial # #
- (d) Press RELEASE button.

To make flexible night service assignments (Note 3):

- (a) Dial *3
- (b) Dial individual trunk access number (equipment number)
- (c) Press NIGHT 1 or NIGHT 2
- (d) Dial extension number
- (e) Press RELEASE button.

To cancel all system callbacks:

- (a) Dial *4
- (b) Dial #
- (c) Press RELEASE button.

To set the clock time:

- (a) Dial *5
- (b) Dial time (2-digit hour plus 2-digit minutes)
- (c) Dial * for PM; otherwise AM
- (d) Press RELEASE button.

To make Trunk Group attendant access only:

- (a) Dial *6
- (b) Dial Trunk Group (1 through 10)
- (c) Dial *
- (d) Press RELEASE button.

To make Trunk Group extension and attendant access:

- (a) Dial *6
- (b) Dial trunk group (1 through 10)
- (c) Dial #
- (d) Press RELEASE button.

To change the Direct Inward System Access Code:

- (a) Dial *7
- (b) Dial DISA code
- (c) Press RELEASE button.

To cancel a minor alarm (Note 1):

- (a) Dial *8
- (b) Dial #
- (c) Press RELEASE button.

To busy out an individual trunk (Note 3):

- (a) Dial *9
- (b) Dial individual access number (equipment number)
- (c) Dial *
- (d) Press RELEASE button.

To debusy an individual trunk (Note 3):

- (a) Dial *9
- (b) Dial individual trunk access number (equipment number)
- (c) Dial #
- (d) Press RELEASE button.

To change the status of all occupied clean rooms to occupied and needs cleaning:

- (a) Dial *10
- (b) Dial *
- (c) Press RELEASE button.

To change the status of all occupied rooms in the need of cleaning to occupied clean:

- (a) Dial *10
- (b) Dial #
- (c) Press RELEASE button.

**TABLE 3-7 (CONT'D)
ATTENDANT FUNCTION ACCESS CODES**

<p>To set up call forwarding:</p> <ul style="list-style-type: none"> (a) Dial *11nnn, where nnn is the extension number of the forwarding extension (b) Dial call forwarding code (1-4) (c) Dial mmm, where mmm is the number to which the calls are to be forwarded (d) Press RELEASE button. 	<p>To purge and ignore the printer (Note 3):</p> <ul style="list-style-type: none"> (a) Dial *1400 (b) Press RELEASE button
<p>To cancel call forwarding for an extension:</p> <ul style="list-style-type: none"> (a) Dial *11nnn, where nnn is the extension number of the forwarding extension (b) Dial # (c) Press RELEASE button. 	<p>To enable the printer (Note 3):</p> <ul style="list-style-type: none"> (a) Dial *14# (b) Press RELEASE button.
<p>To display call forwarding set for an extension:</p> <ul style="list-style-type: none"> (a) Dial *11nnn, where nnn is the extension number of the forwarding extension (b) Press RELEASE button. 	<p>To change the date:</p> <ul style="list-style-type: none"> (a) Dial *15 and 3- or 4-digit date (1- or 2-digit month, 2-digit day) (b) Press RELEASE button.
<p>To cancel all call forwarding:</p> <ul style="list-style-type: none"> (a) Dial *1# or *11# (b) Press RELEASE button. 	<p>To print the room register audit (Notes 2 & 3):</p> <ul style="list-style-type: none"> (a) Dial *16 (b) Press RELEASE button.
<p>To busy out an extension (Note 3):</p> <ul style="list-style-type: none"> (a) Dial *12nnn, where nnn is the number of the extension to be busied-out (b) Dial * (c) Press RELEASE button. 	<p>To change the system identity (Note 3):</p> <ul style="list-style-type: none"> (a) Dial *17nnn (1- to 3-digit ID, 0-999) (b) Press RELEASE button.
<p>To debusy an extension (Note 3):</p> <ul style="list-style-type: none"> (a) Dial *12nnn, where nnn is the number of the extension to be debused (b) Dial # (c) Press RELEASE button. 	<p>To display current system identity:</p> <ul style="list-style-type: none"> (a) Dial *17 (b) Press RELEASE button.
<p>To suspend the printer (Note 3):</p> <ul style="list-style-type: none"> (a) Dial *14* (b) Press RELEASE button. 	<p>To print the "room status" audit (Note 2):</p> <ul style="list-style-type: none"> (a) Dial *18 (b) Press RELEASE button.
	<p>To print stored customer data (Note 4):</p> <ul style="list-style-type: none"> (a) Dial *19 + n, where n is: <ul style="list-style-type: none"> 0 A complete print (Note 5) 1 System Options, Feature Access Codes, Classes of Service, Hunt Groups and Extensions 2 Trunk and Trunk Group Data 3 Special Set Data 4 Toll Control Data 5 Speed Call Data 6 Automatic Route Selection Data * Systemwide Data (Note 6) (b) Press RELEASE button.

NOTES TO TABLE 3-7:

1. The errors will be sequentially stacked in the memory and may be recalled sequentially (most recent first) by repeating the above procedure.
2. Printer starts after release button is pressed.
3. Requires system options programming.
4. The customer must have programming access to the features in order to request a printout.
5. This prints all sections provided the customer has programming access to the features.
6. This will print only the systemwide speed call tables and the system special set messages.

TABLE 3-8
MAINTENANCE FUNCTION ACCESS CODES (see Note 1)

To select any of the functions, the access code assigned for the maintenance function must be dialed (Feature Number 19). The code 555 is used in the following part for the maintenance code. This may be dialed from the test line or console.

Clear all errors:

- (a) Dial 555 + 1.

Direct trunk or station access:

- (a) Dial 555 + 20
(b) Dial individual equipment number (3-digit equipment number for trunk or station).

Busy out of a receiver:

- (a) Dial 555 + 3
(b) Dial equipment number of receiver.

Busy out of a speech path:

- (a) Dial 555 + 33
(b) Dial speech path number (01-31).

Debusy a receiver:

- (a) Dial 555 + 4
(b) Dial equipment number of receiver.

Debusy a speech path:

- (a) Dial 555 + 43
(b) Dial speech path number (01-31).

Initialize card slot:

- (a) Dial 555 + 5
(b) Dial card slot number (01-17, 31-42).

System reset (Notes 2 and 3):

- (a) Dial 555 + 6.

To initiate system dump (from test line):

- (a) Dial 555 + 7 + * and hang up
(b) Go off-hook
(c) Dial 555 + 8 + # (or 2).

To initiate system dump (from console):

- (a) Dial 555 + 7
(b) Dial *14#
(c) Press RELEASE button.

To suspend printer (Note 3):

- (a) Dial 555 + 8 + * (or 1), or
(b) Dial *14* console only.

To enable printer (Note 3):

- (a) Dial 555 + 8 + * (or 2), test line
(b) Dial *14# console only
(c) Press RELEASE button.

To purge and ignore printer (Note 3):

- (a) Dial 555 + 8 + 00, test line
(b) Dial *1400 console only
(c) Press RELEASE button.

To print stored Customer Data:

- (a) Dial 555 + 9 + n, where n is:
- 0 A complete print (Note 4)
 - 1 System Options, Feature Access Codes, Classes of Service, Hunt Groups and Extensions
 - 2 Trunk and Trunk Group Data
 - 3 Special Set Data
 - 4 Toll Control Data
 - 5 Speed Call Data
 - 6 Automatic Route Selection Data
 - * Systemwide Data (Note 5)
- (b) Press RELEASE button.

- Notes:**
1. For Traffic Measurement Access Codes, see MITL9105/9110-096-450-NA.
 2. The thumbwheel switches on the Tone Control card should be set to XXYX, where X = any digit 0 - 9 and Y cannot be the digit 7.
 3. Requires System Options Programming.
 4. This prints all sections.
 5. This will print only the systemwide speed call tables and the system special set messages.

**TABLE 3-9
ATTENDANT UCD ACCESS CODES**

To program a RAD from the console:

Dial *230.
Dial RAD equipment number.
Dial * to advance to next equipment number.
Press RELEASE to terminate.

To program a RAC from the console:

Dial *231.
Dial RAC equipment number.
Dial * to advance to next equipment number.
Press RELEASE to terminate.

If a RAD/RAC is already programmed there it can be deleted. To delete a RAD/RAC, type number at this point.

To review all defined RADs and RACs:

Dial *232.
Continue to dial * to advance to next RAD/RAC.
Press RELEASE to terminate.
The SOURCE display will show the equipment number in the left corner and a 0 or 1 in the right corner to indicate a RAD or RAC, respectively.

To record a message on the MITEL RAC, the following procedure is used:

Dial *240.
Dial RAC equipment number.
Dial *.

When the attendant hears a 50 ms tone, the message may be spoken into handset. The recording can be up to 8 seconds in duration. Press RELEASE to terminate.

To playback a recorded message from a RAC:

Dial *241.
Dial RAC equipment number.
Dial *.
The message will be heard with handset; otherwise busy tone will be heard if the recording is currently in use.
Press RELEASE to terminate.

The length of the messages on the devices in each Recording Group must be specified:

Dial *242.
Dial Recording Group access code
recording duration, in 2-digit seconds.
Press RELEASE to terminate.

**TABLE 3-9 (CONT'D)
ATTENDANT UCD ACCESS CODES**

To specify the recording and delay time for an Agent Group:

Dial *243.
Dial Agent Group access code.
Dial 1.
Dial Recording Group access code.
Dial time delay, in 2-digit seconds.
Dial *.
Press RELEASE to terminate.

To review a recording assignment:

Dial *244.
Dial Agent Group access code.
Dial 1.
Dial *.
Press RELEASE to terminate.

To delete all data associated with an Agent Group (Recording Group and delay time assignments):

Dial *243.
Dial Agent Group access code number.
Press RELEASE to terminate.

To define which Recording group a DID Intercept will be routed to:

Dial *233.
Dial Recording Group access code.
Press RELEASE to terminate.

To delete an existing DID Intercept recording:

Dial *233.
Dial #.
Press RELEASE to terminate.

To define which Recording Group an Automatic Wake-Up will be routed to:

Dial *234.
Dial Recording Group access code.
Press RELEASE to terminate.

To delete an existing Automatic Wake-Up recording:

Dial *234.
Dial #.
Press RELEASE to terminate.

TABLE 3-10
SYSTEM TIME-OUT INFORMATION

Description	Time-Out
Attendant Timed Recall (Don't Answer)	10 s, 20 s, 30 s or 40 s
Attendant Timed Recall (Camp-On)	20 s, 30 s or 40 s
Attendant Timed Recall (Hold)	20 s, 30 s or 40 s
Automatic Night Switching	20 s, 30 s or 40 s
Dial Tone Time-Out	15 s
Interdigit Time-Out (Extensions)	15 s
Interdigit Time-Out (Trunks)	10 s
Lockout Time-Out	45 s
Callback Clear Time-Out	8 hours
Callback Don't Answer Reset	six rings
Call Park Recall	2, 3 or 4 minutes
Call Hold Recall	2, 3 or 4 minutes
Call Forwarding - Don't Answer Time-Out	10 s, 20 s, 30 s or 40 s
Call Forwarding - Busy/Don't Answer Time-Out	10 s, 20 s, 30 s or 40 s
Switchhook Flash	Min. 200 ms Max. 0.7 s, 0.9 s, 1.1 s or 1.5 s
Ringing Time-Out	5 minutes, 1 minute programmable
Automatic Wake-Up Ringing	six rings, 3 s each
Automatic Wake-Up Attempts	three at 5 minute intervals

APPENDIX A

MITEL ACTION PROCEDURES

GENERAL

A1.01 Task-oriented functions in this Section are implemented using MITEL Action Procedures (MAPs).

A1.02 A MAP is a step-by-step procedure using a flow chart principle, written and illustrated where necessary to a level of detail that allows both experienced and inexperienced personnel to carry out the tasks detailed. A MAP contains two levels of information as follows:

- (a) For experienced personnel, a series of steps (level one) each numbered (n) and annotated with minimal information.
- (b) For inexperienced personnel, each step referred to in (a) above is amplified by a connected series of numbered substeps (nA) (level two).

A1.03 A typical example of a MAP is shown in Figure A1-1, with the two levels detailed.

MAP SYMBOLS

A1.04 There are four basic symbol shapes which may be used in a MAP, and are defined as follows.

A1.05 AND Block: Used to indicate a level one step that must be performed. Consists of a square with the word AND centered in the block.

A1.06 OR Block: Used to indicate a choice of level one steps, one of which must be performed. Consists of a rectangle, with the text centered in the block and the word OR appearing between the alternative operations.

A1.07 The rectangle is also used to border instructions which imply that the operator must perform a task outside the scope of the MAP. The text is centered in the rectangle.

A1.08 Decision Block: Used to indicate a decision within the level one steps which must be made. The symbol is based on a hexagon with the top and bottom sides extended. Decision text is centered in the symbol.

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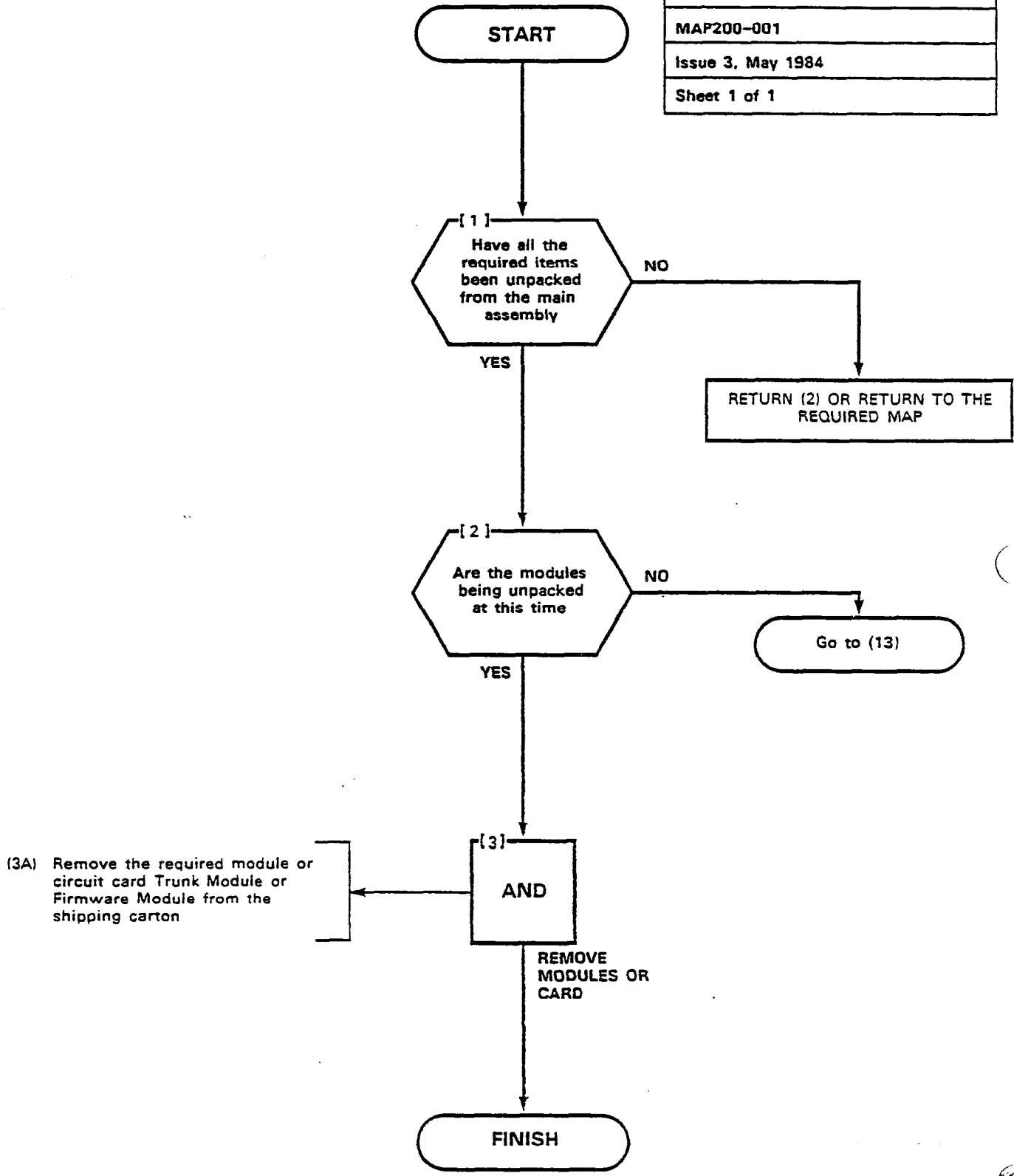


Figure A1-1 Typical Map Page

A1.09 START/FINISH/Jump to Block: Used to indicate the start and finish of a MAP. Also used to indicate "jump to" points within the MAP; for example "go to (n)" or "from (n)" or "return to (n)". The symbol is a rectangle with semicircular ends. Text is centered in the symbol.

THE OPERATOR'S USE OF MAPS

Experienced Operator

A1.10 For the experienced operator to complete a task using a MAP, reference to the sequential short form level one step is usually all that is necessary. Using Figure A1-1 as an example, the experienced operator would proceed as follows.

A1.11 At (1) the operator makes a decision based on the information within the block. If the answer is YES, the operator must proceed to a different MAP. If the answer is NO, the operator is faced with another decision at block (2).

A1.12 At (2) if the decision is NO, there is no requirement to proceed further and the test is abandoned. This naturally results in a FINISH block. If the decision is YES, the operator proceeds to (3) and (4) in succession; i.e., dials the DID station number and completes the call to the check extension.

A1.13 The description of the instructions, carried out in paragraphs A1.05 and A1.06 have assumed the level of competence of the operator, is such that short form level one steps contain sufficient information, and therefore, the operator reads only the center column of the MAP, top to bottom of the page.

A1.14 Using Figure A1-1 as an example, the path followed should be:

- (a) At (1) and (2), make the decisions called for at these steps as before.
- (b) At Step (3), dial the DID station number by performing substeps (3A), (3B) and (3C).

TOOLS, TEST EQUIPMENT AND SPECIAL INSTRUCTIONS

A1.15 Any tools, test equipment or special instructions that the operator requires or needs to know are stated on the first page of each MAP. If the MAP is long and contains a number of sub-procedures, these are listed in synopsis form on the first page.



APPENDIX B

SYSTEM PROGRAMMING PROCEDURES

GENERAL

B1.01 This Appendix details the preferred order in which the SX-100/SX-200 system should be programmed for features and options required by the customer. This Appendix also includes procedures for programming Multi-Digit Toll Control, Speed Call and Automatic Route Selection.

B1.02 Table B1-1 details the order of the standard system programming procedures. Table B1-2 details the order of the Multi-Digit Toll Control programming procedures. Table B1-3 details the order of Speed Call programming of the system. Table B1-4 details the order of Route Selection programming of the system. Table B1-5 lists all the SUPERSET 4 set programming MAPs.

TABLE B1-1
STANDARD PROGRAMMING

Step	Title	MAP
1.	System Programming	210-201
2.	Select Programming Mode	210-202
3.	Program System Options	210-203
4.	Program COS Options	210-204
5.	Assign Feature Access Codes	210-205
6.	Program Extensions	210-206
7.	Program Extension Hunt Groups.	210-207
8.	Program Non-Dial-In Trunks	210-208
9.	Program Dial-In Trunks	210-209
10.	Program DID Trunks	210-210
11.	Program Trunk Groups	210-211
12.	Range Programming for Extensions	210-212
13.	Terminating Standard Programming Mode	210-213

**TABLE B1-2
MULTI-DIGIT TOLL CONTROL**

Order	Option	MAP No.
1	Selection of Extended Programming	210-221
2	Absorb Plan	210-222
3	Control Plan	210-223
4	Trunk Group Class of Restriction	210-224
5	Restriction Tables	210-225
6	Add an Entry	210-226
7	Displaying Sequential Entries	210-227
8	Search for an Entry	210-228
9	Delete an Entry	210-229
10	Terminating Programming	210-284

**TABLE B1-3
SPEED CALL**

Order	Option	MAP No.
1	Selection of Extended Programming	210-221
2	Programming Personal Tables	210-242
3	Convert Table from Personal to Common-Use	210-243
4	Terminating Programming	210-284

**TABLE B1-4
AUTOMATIC ROUTE SELECTION**

Order	Option	MAP No.
1	Code Table Quantity Selection or Change	210-250
2	Area Code Table Programming	210-251
3	Review Area Code Table Programming	210-252
4	Delete an Area Code Table	210-253
5	Area Code/Office Code Programming	210-254
6	Review or Delete Part or All Area Code/Office Code	210-255
7	Program Modify Digits	210-256
8	To Review or Delete Modify Digit Tables	210-257
9	Route Table Programming	210-258
10	To Review or Delete a Route Table	210-259
11	Review or Delete Routes	210-260
12	Terminate Programming	210-284

**TABLE B1-5
SUPERSET PROGRAMMING**

Order	Option	MAP No.
1	Program a Prime Key	210-270
2	Program a Non-Prime Key	210-271
3	Delete a Non-Prime Key	210-272
4	Delete a Prime Key	210-273
5	Changing Any Key	210-274
6	Moving a SUPERSET 4 Set	210-275
7	Review the SUPERSET Set Programming	210-276

Button Definition

B1.03 For a description of buttons in each programming mode, consult Table B1-6.

**TABLE B1-6
BUTTON DESCRIPTIONS**

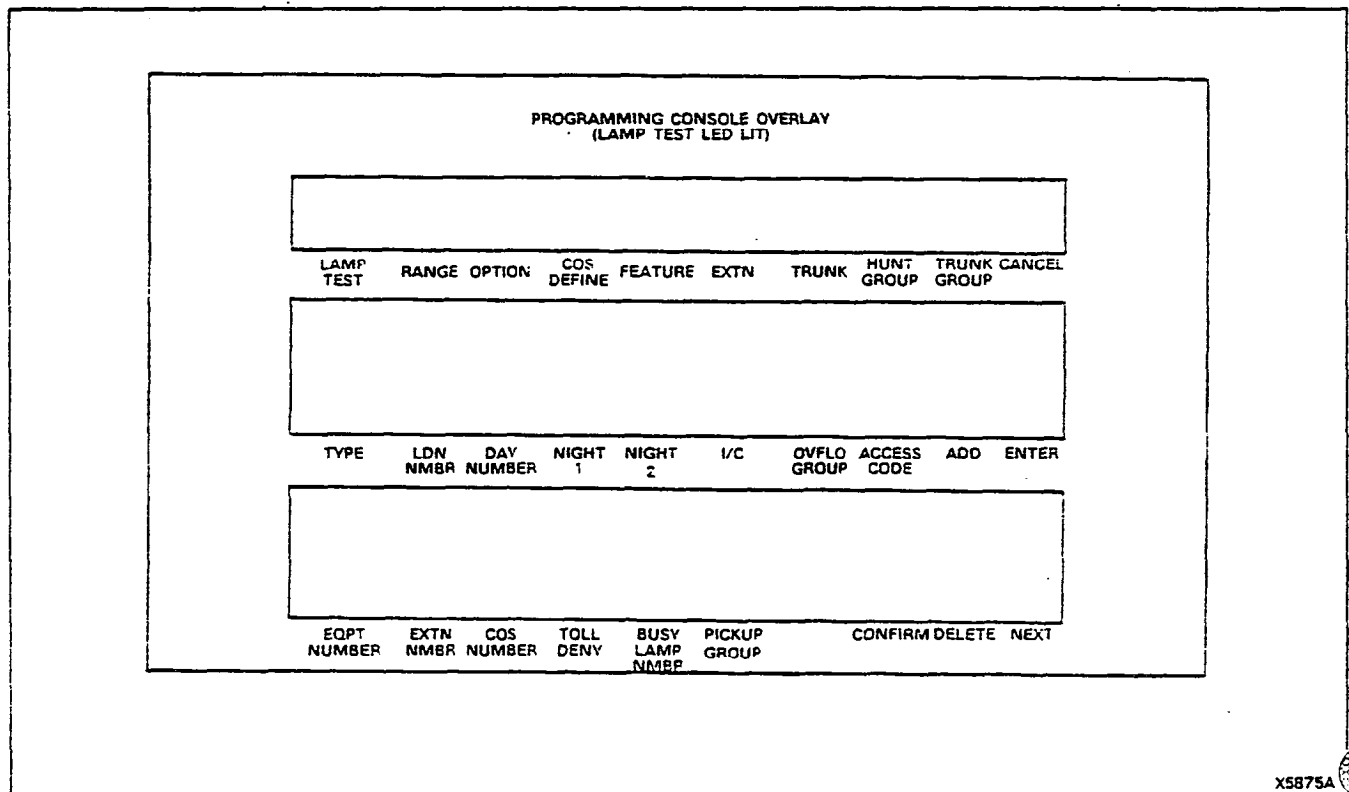
Feature	Practice
Standard Programming	MITL9105/9110-096-315-NA
Multi-Digit Toll Control	MITL9105/9110-096-315-NA MITL9105/9110-096-212-NA
Speed Call	MITL9105/9110-096-315-NA MITL9105/9110-096-220-NA
Automatic Route Selection	MITL9105/9110-096-315-NA MITL9105/9110-096-213-NA
The SUPERSET Set	MITL9105/9110-096-315-NA

Programming Overlays

B1.04 The appropriate programming overlay must be used to program each feature. To ensure using the correct overlay, see Table B1-7.

**TABLE B1-7
PROGRAMMING OVERLAYS**

Feature	Refer to Figure
Standard Programming	Figure B1-1
Multi-Digit Toll Control	Figure B1-2
Speed Call	Figure B1-2
Automatic Route Selection	Figure B1-3
The SUPERSET Set	Figure B1-4



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Figure B1-1 Standard Programming Overlay

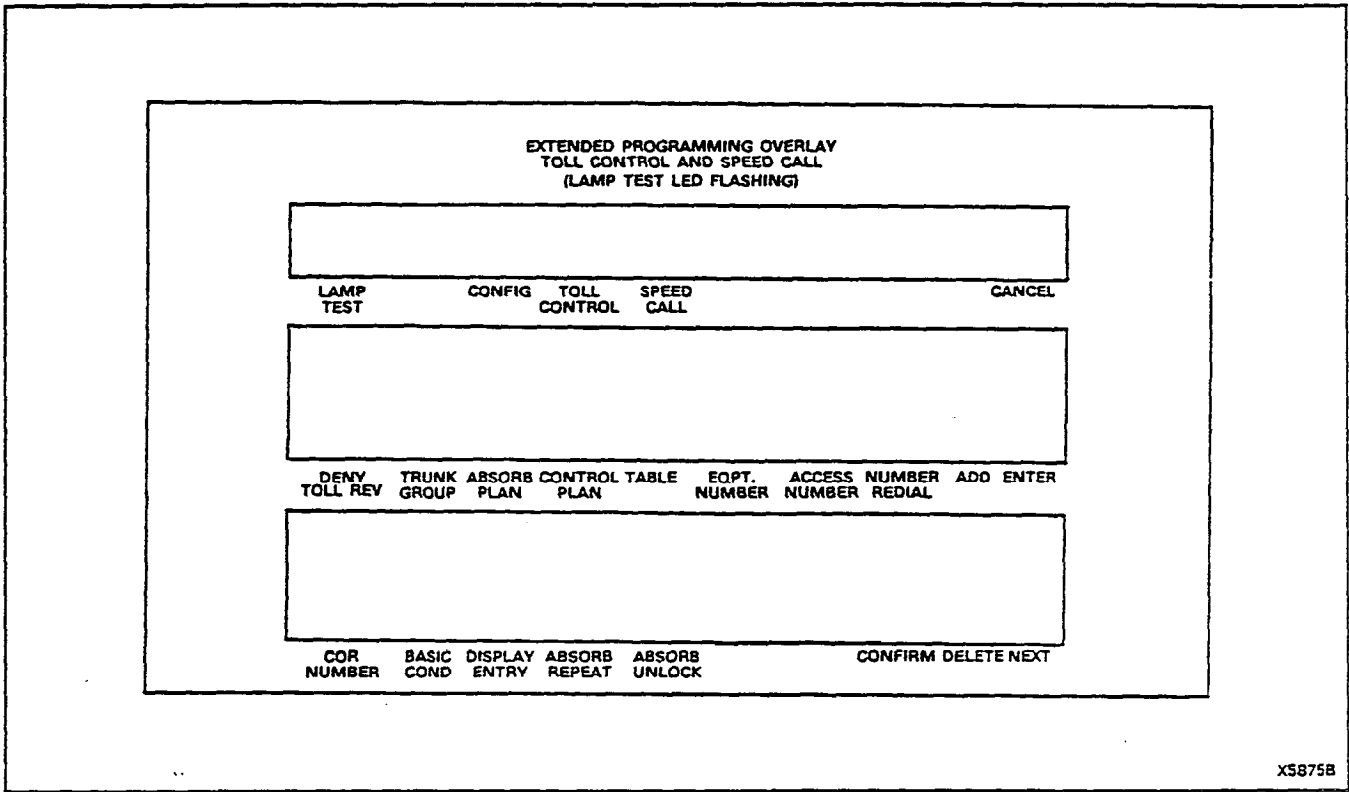


Figure B1-2 Extended Programming Overlay

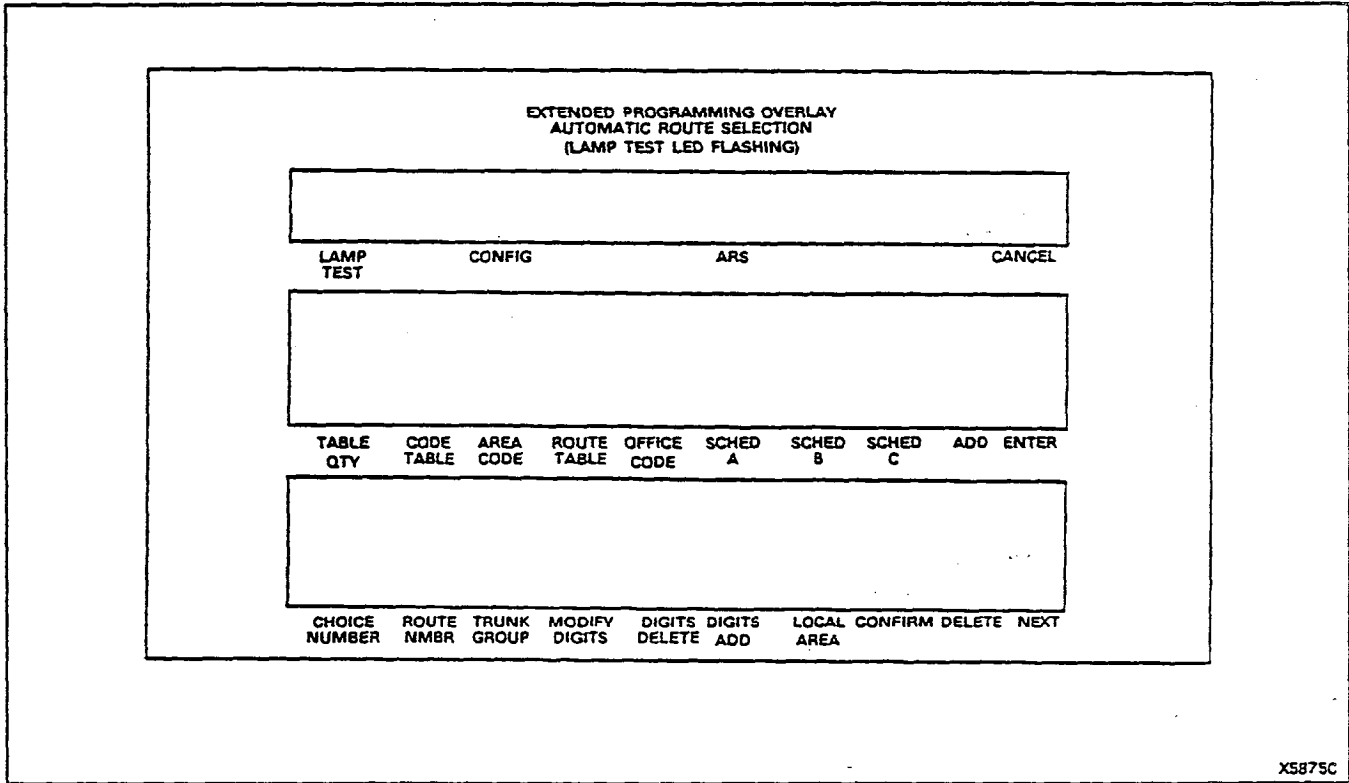


Figure B1-3 ARS Overlay

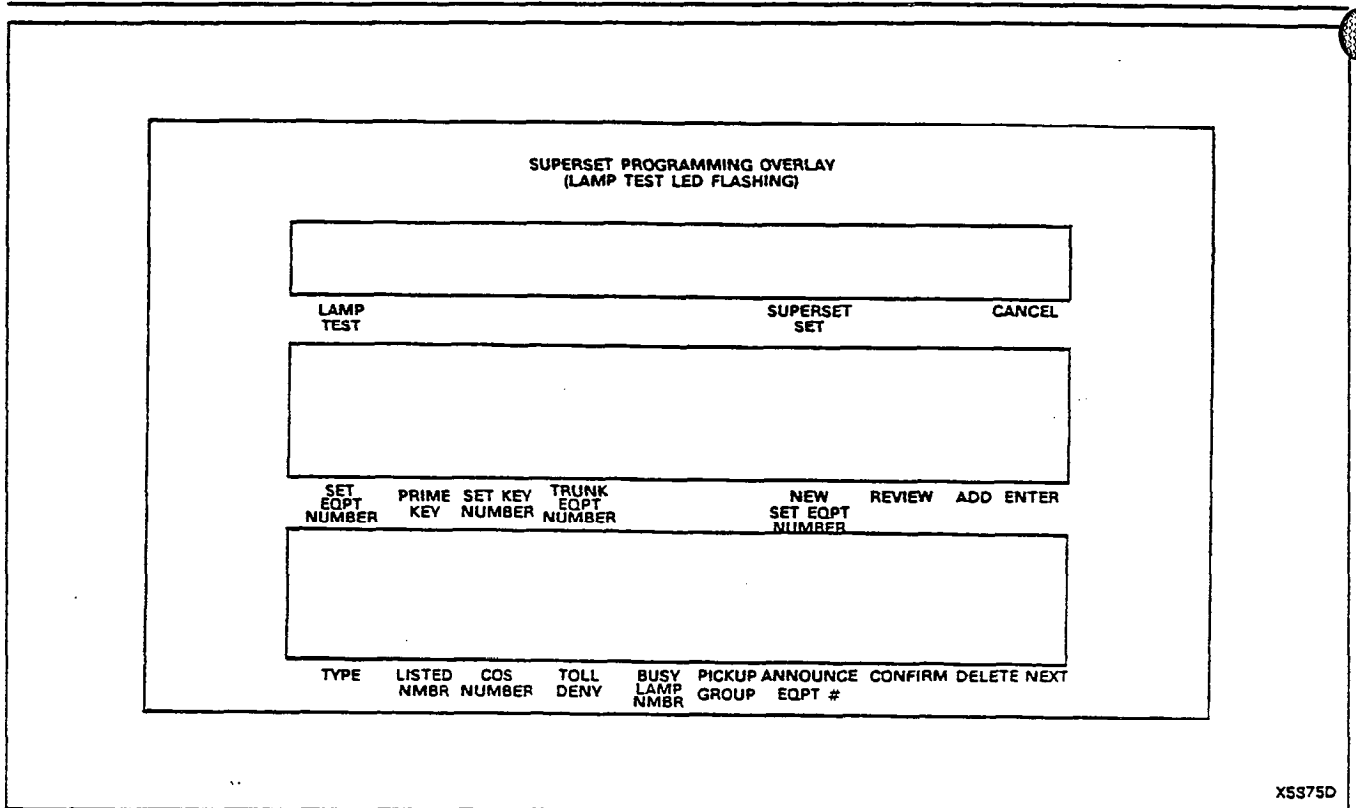
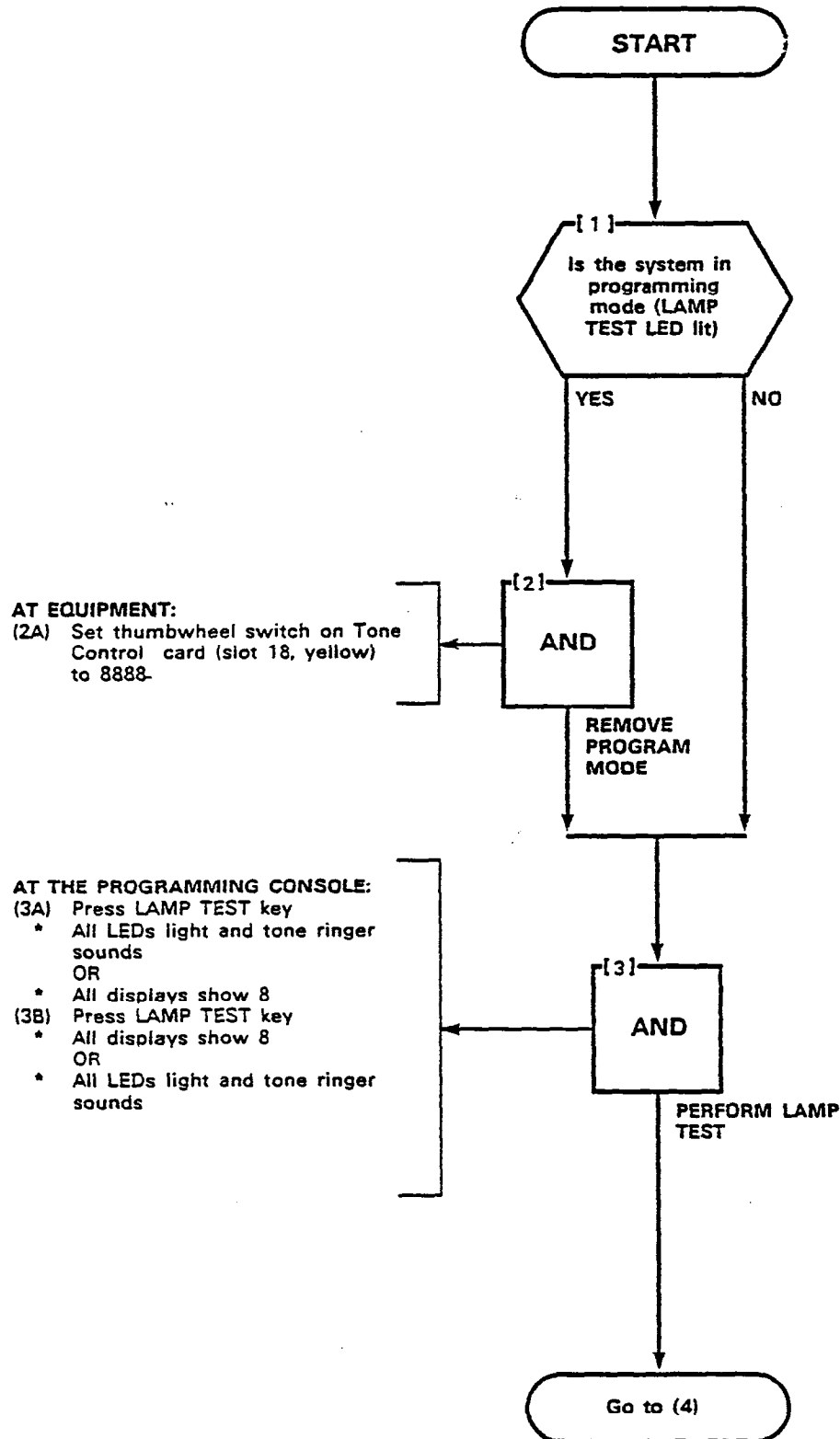
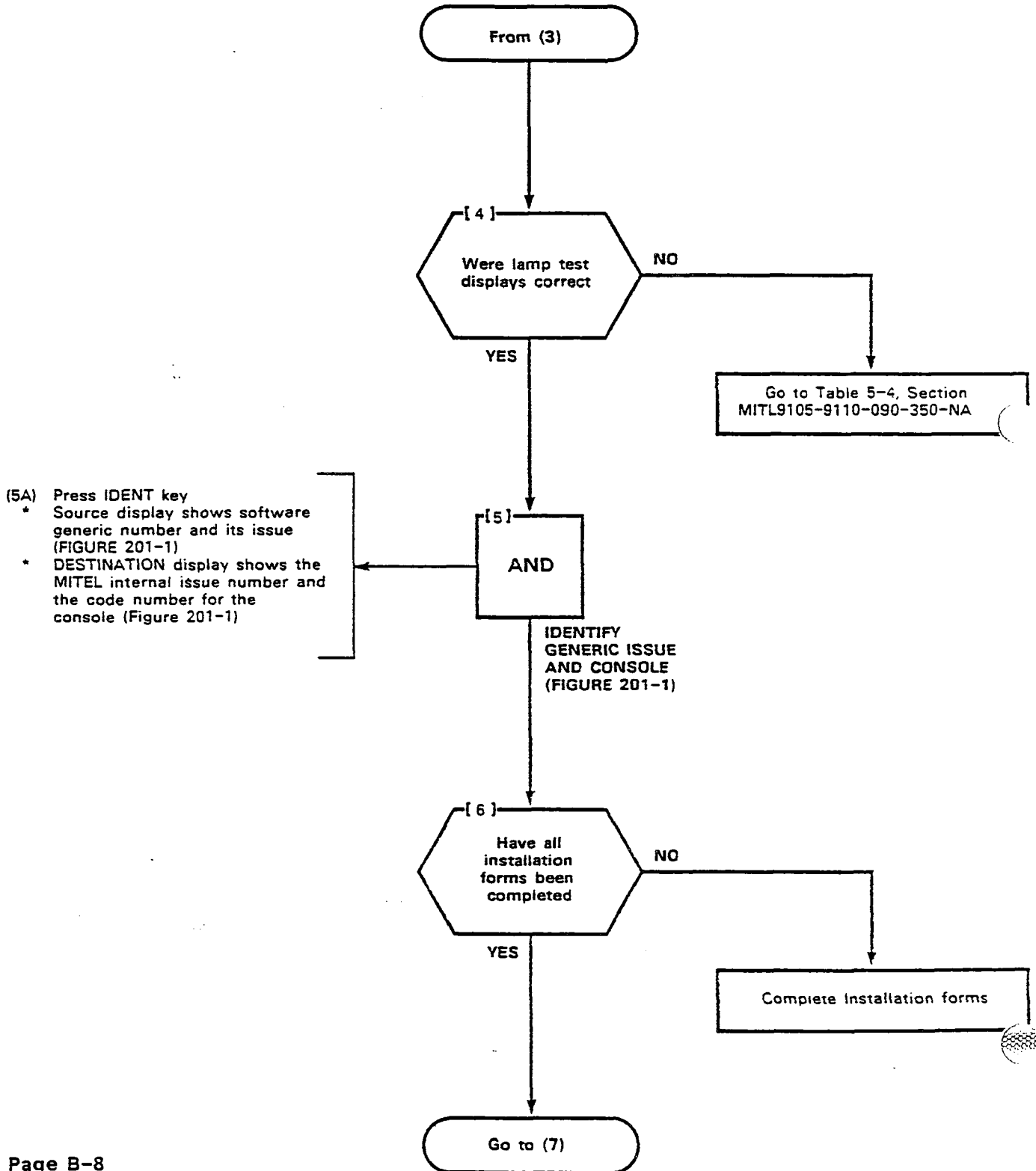


Figure B1-4 SUPERSET Overlay

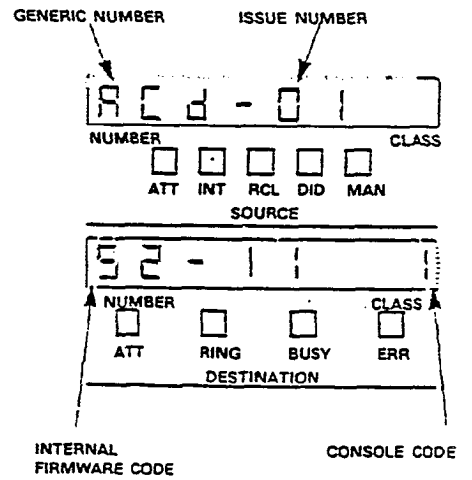
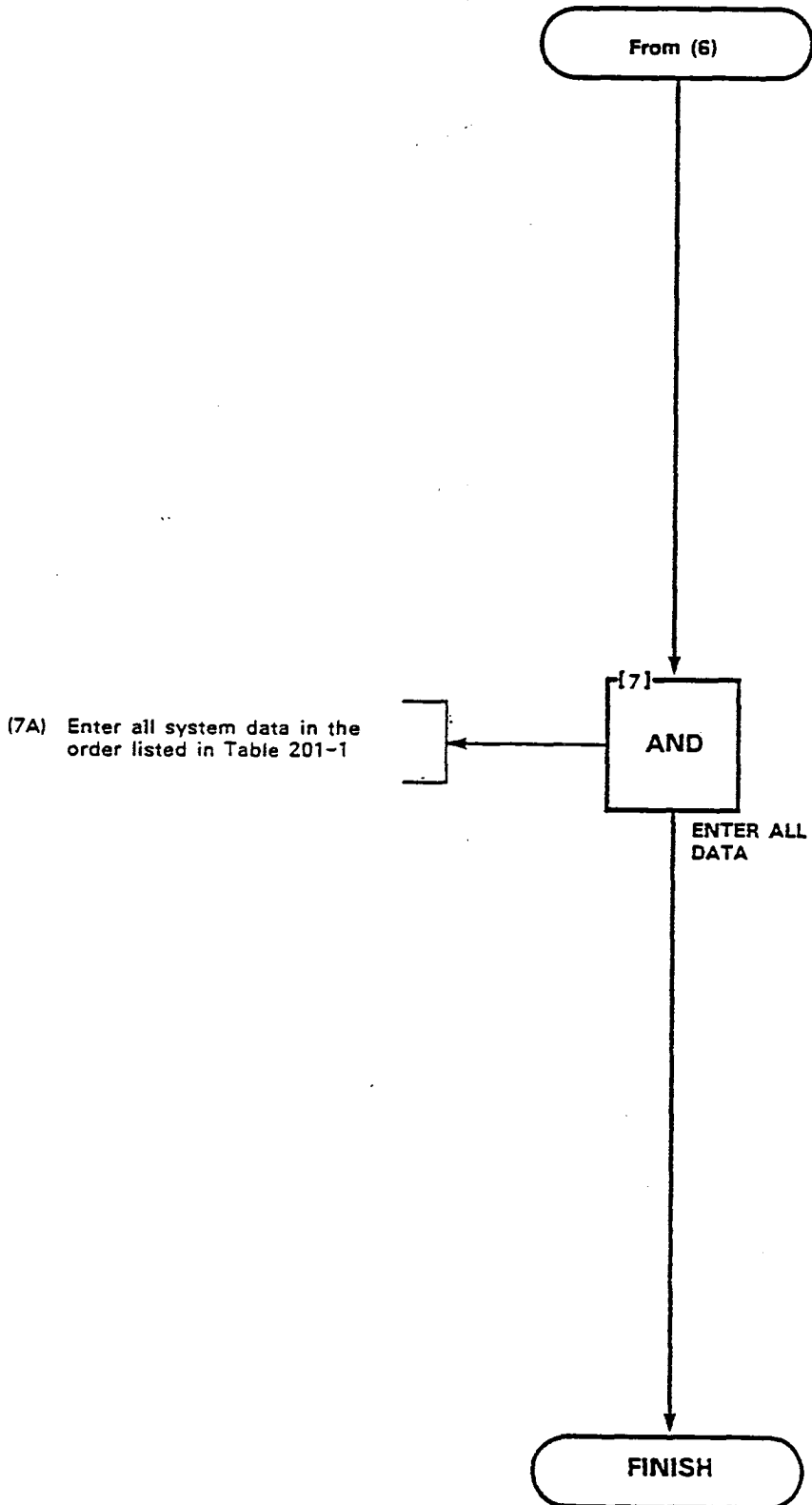
SYSTEM PROGRAMMING
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X6494

CODE	CONSOLE
0	Maintenance
1	Attendant 1
2	Attendant 2

Figure 201-1

SECTION MITL9105/9110-096-210-NA

SYSTEM PROGRAMMING
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TABLE 201-1
STANDARD PROGRAMMING

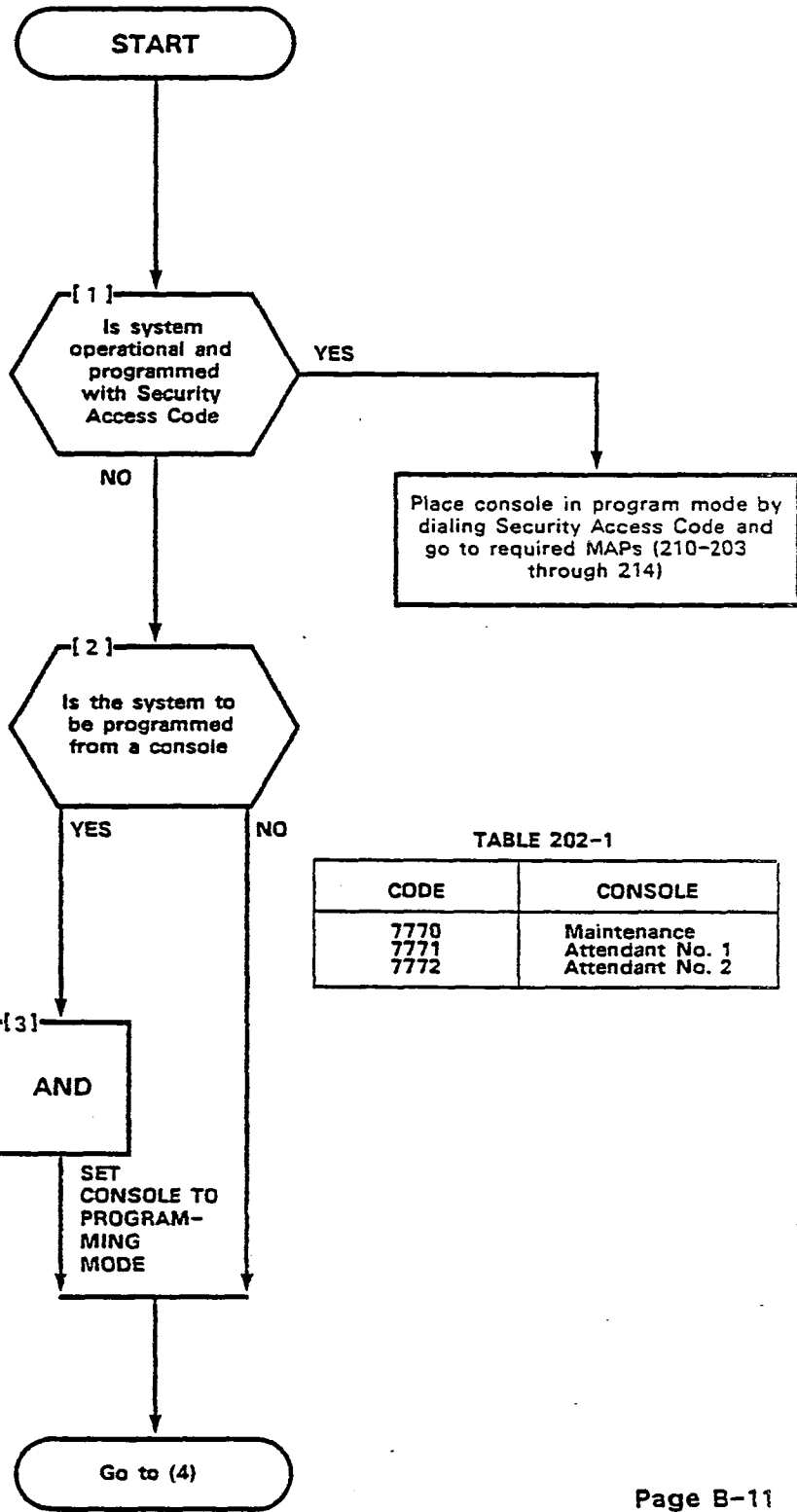
Step	Title	MAP
1.	Select Programming Mode	210-202
2.	Program System Options	210-203
3.	Program COS Options	210-204
4.	Assign Feature Access Codes	210-205
5.	Program Extensions	210-206
6.	Program Extension Hunt Groups	210-207
7.	Program Non-Dial-In Trunks	210-208
8.	Program Dial-In Trunks	210-209
9.	Program DID Trunks	210-210
10.	Program Trunk Groups	210-211
11.	Range Programming for Extensions	210-212
12.	Terminate Standard Programming Mode	210-213

SELECT PROGRAMMING MODE
MAP210-202
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CAUTION
EQUIPMENT MUST BE IN NONPROGRAMMING MODE AT START. SEE MAP210-201, STEP (2).

NOTE
To use Programming Security Access Code, the following criteria must apply: Feature 29 (MAP210-205) is programmed with the code.

NOTE
When using the maintenance console, plug it in to the maintenance connector on the cabinet maintenance panel.



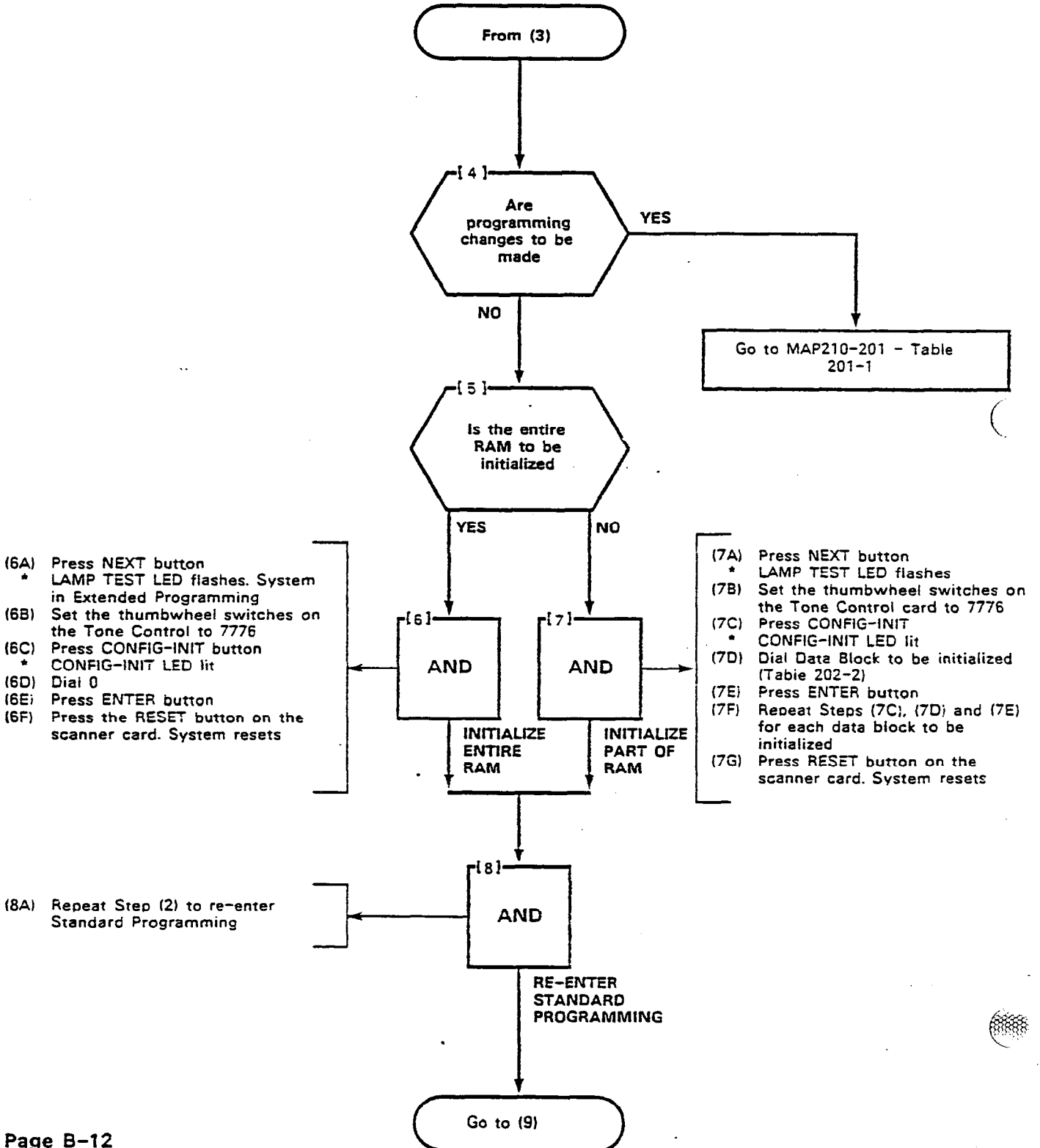
- PLACE CONSOLE IN PROGRAMMING MODE**
- (3A) Place programming console overlay over console faceplate
 - (3B) Set thumbwheel switches on Tone Control card (card position 18, yellow) to appropriate position (Table 202-1)
 - (3C) Press LAMP TEST button. LAMP TEST lamp lit. The second LED on the IPC card will be lit for the duration of programming. If the system is not idle, an E7 error will be presented

TABLE 202-1

CODE	CONSOLE
7770	Maintenance Attendant No. 1
7771	
7772	

SECTION MITL9105/9110-096-210-NA

SELECT PROGRAMMING MODE
MAP210- 202
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Sheet 2 of 3



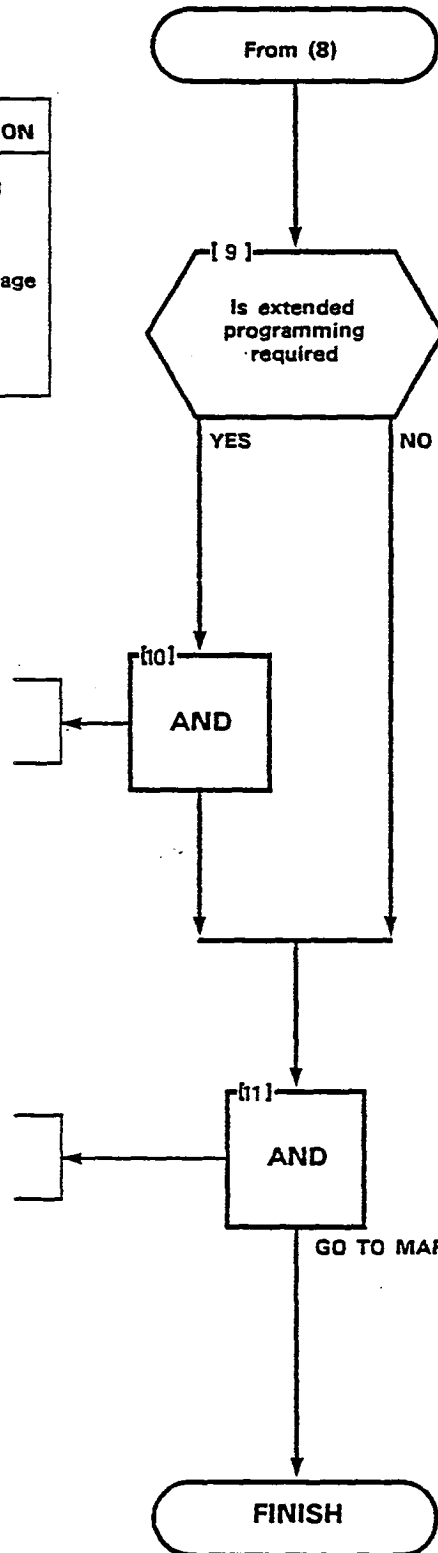
SELECT PROGRAMMING MODE
MAP210-202
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TABLE 202-2

NUMBER	DATA BLOCK INFORMATION
1	All Standard Programming and Customer Data
3	ARS
4	Toll Control
5	Station Information (Message Register, Room Status)
6	Alarm Call
7	System Speed Call
8	SUPERSET Speed Call

(10A) Press the NEXT button
 • LAMP TEST LED flashes

(11A) Go to relevant programming
 MAPs as per paragraph B1.02





PROGRAM SYSTEM OPTIONS
MAP210-203
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NOTES

1. All entries are made from the console dial pad.
2. OPTION lamp lit throughout procedure.
3. A display of E0 indicates that an incorrect key had been pressed. Press the button specified.

SYNOPSIS

Select option mode.
 Enter required system codes (100-339).
 Press ADD or DELETE buttons.
 Press ENTER button.

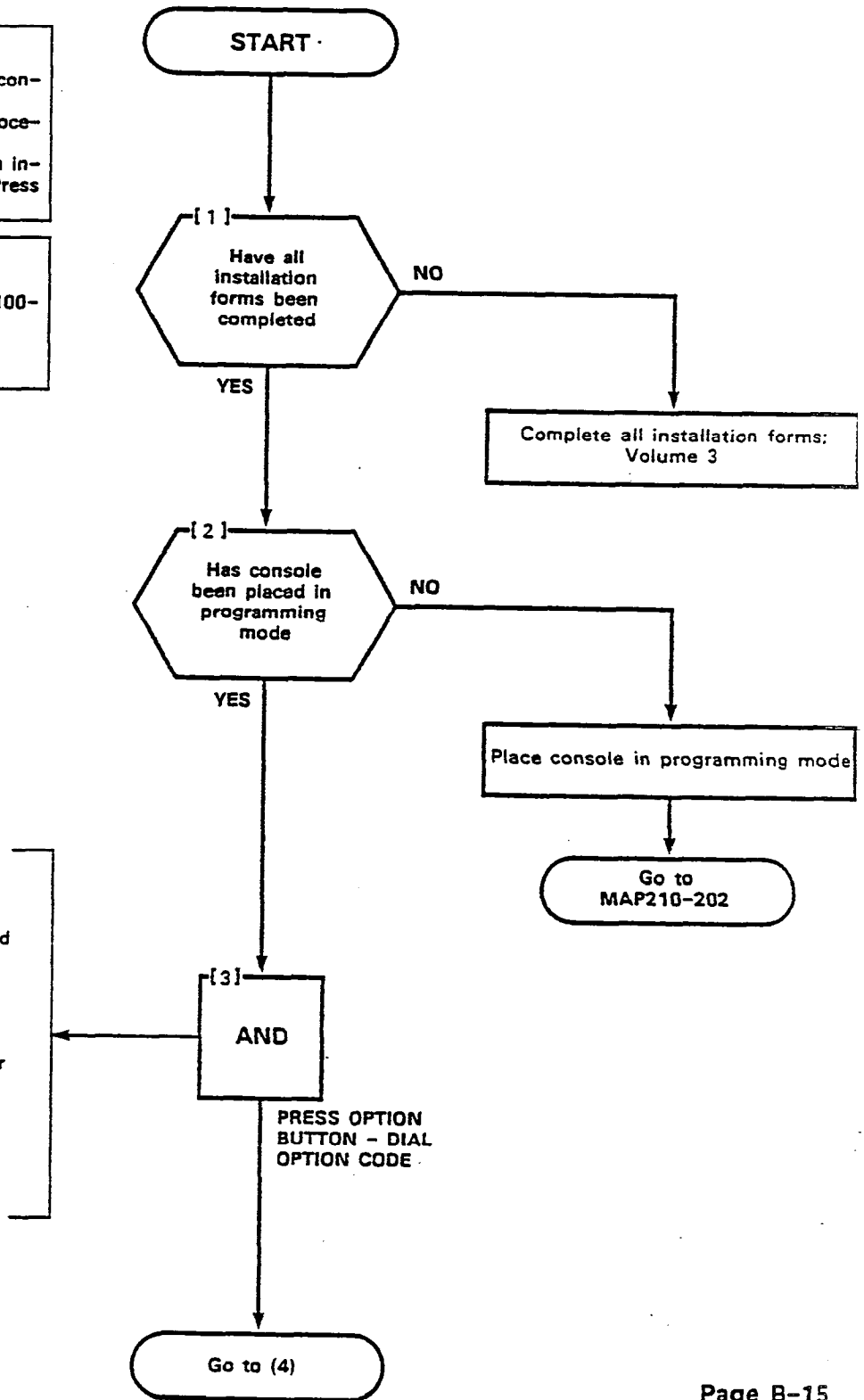
SELECT SYSTEM OPTION

(3A) Press OPTION button

- OPTION lamp lit
- SOURCE display shows 100 and 0 if no options enabled, or the number of the first option enabled and 1

(3B) Dial option number required (100-393) (Figure 203-1)

- SOURCE display shows number dialed and 1 if the option is enabled or 0 if the option is not enabled



OPTION NAME	OPTION NUMBER	OPTION NAME	OPTION NUMBER
		ATTENDANT RELATED OPTIONS	100
		ATTENDANT BELL OFF BUTTON ENABLE	101
		ATTENDANT BOTH BUTTON ENABLE	102
		ATTENDANT BOTH MODE STANDARD	103
		ATTENDANT BUSY OVERRIDE	104
		ATTENDANT CALL BACK BUTTON ENABLE	105
		ATTENDANT CALL-BLOCK ENABLE (HOLD BUTTON 4)	106
		ATTENDANT CAMP ON	107
		ATTENDANT CO TRUNK-CO TRUNK CONNECT ENABLE	108
		ATTENDANT CO TRUNK-NON CO TRUNK CONNECT ENABLE	109
		ATTENDANT NON CO TRUNK-NON CO TRUNK CONNECT ENABLE	110
		ATTENDANT DISA CODE SET-UP ENABLE	111
		ATTENDANT DO NOT DISTURB AND MESSAGE WAITING DISPLAY	112
		ATTENDANT GUEST ROOM BUTTON ENABLE	113
		RESERVED	114
		ATTENDANT LOCK OUT ALARM ENABLE	115
		ATTENDANT NEW CALL TONE ENABLE	116
		ATTENDANT PAGE BUTTON ENABLE	117
		ATTENDANT PRINTER CONTROL ENABLE	118
		ATTENDANT ROOM STATUS BUTTON ENABLE & DISPLAY ENABLE	119
		ATTENDANT SERIAL CALL	120
		ATTENDANT BUTTON CHANGE FLASH TO SERIAL CALL	121
		ATTENDANT STATION BUSY OUT ENABLE	122
		ATTENDANT TIMED RECALL - CAMP ON 20S	123
		ATTENDANT TIMED RECALL - CAMP ON 40S	124
		ATTENDANT RELATED OPTIONS	125
		ATTENDANT TIMED RECALL - DONT ANSWER 10S	126
		ATTENDANT TIMED RECALL - DONT ANSWER 20S	127
		ATTENDANT TIMED RECALL - DONT ANSWER 40S	128
		ATTENDANT TIMED RECALL - HOLD 40S	129
		ATTENDANT TRUNK BUSY OUT ENABLE	130
		RESERVED	131
		RESERVED	132
		DID TO NON-CO TRUNK VIA ATTENDANT INHIBIT	133
		END OF DIAL SIGNAL FOR OUTGOING TRUNKS (#)	134
		INTERCEPT TO ATTENDANT - DID DIAL - IN CCSA VACANT/ILLEGAL	135
		INTERCEPT TO ATTENDANT - ILLEGAL ACCESS	136
		INTERCEPT TO ATTENDANT - VACANT NUMBER	137
		INTERCEPT TO ATTENDANT - DO NOT DISTURB	138
		RESERVED	139
		RESERVED	140
		RESERVED	141
		RESERVED	142
		RESERVED	143
		RESERVED	144
		RESERVED	145
		RESERVED	146
		RESERVED	147
		RESERVED	148
		RESERVED	149
		SYSTEM RELATED OPTIONS	150
		24 HOUR CLOCK	151
		DATA DEMULTIPLEX ENABLE	152
		RESERVED	153



SYSTEM OPTIONS

Figure 203-1

SYSTEM OPTIONS

OPTION



		ADD			ADD
OPTION NAME	OPTION NUMBER		OPTION NAME	OPTION NUMBER	
DIGIT TRANSLATION PLAN 1	153		CANNOT DIAL TRUNK AFTER FLASH	183	
DIGIT TRANSLATION PLAN 2	154		CANNOT DIAL TRUNK AFTER FLASH IF HOLDING OR IN CONFERENCE WITH TRUNK	184	
DIGIT TRANSLATION PLAN 3	155		DISCRIMINATING DIAL TONE	185	
FLEXIBLE NIGHT SERVICE	156		DISCRIMINATING RINGING	186	
IDENTIFIED TRUNK GROUP ENABLE	157		DO NOT DISTURB ENABLE	187	
INCOMING TO OUTGOING CALL FORWARD ENABLE	158		EXTENSION NON - CO TRUNK TO TRUNK CONNECT ENABLE	188	
INHIBIT AUTOMATIC SUPERVISION	159		FLASH TIMING = .7 SECONDS	189	
LIMITED WAIT FOR DIAL TONE 5S	160		FLASH TIMING = .9 SECONDS	190	
MUSIC ON HOLD DISABLE	161		FLASH TIMING = 1.1 SECONDS	191	
NIGHT BELL 3 WITH MINOR ALARM ENABLE	162		MESSAGE REGISTRATION ENABLE	192	
NIGHT SERVICE AUTOMATIC SWITCHING	163		MESSAGE REGISTRATION COUNT ADDITIONAL SUPERVISIONS	193	
NIGHT SERVICE TIMEOUT - 20S	164		MESSAGE REGISTRATION TIMER = 20 SECONDS	194	
NIGHT SERVICE TIMEOUT - 40S	165		MESSAGE REGISTRATION TIMER = 40 SECONDS	195	
REMOTE SYSTEM RESET - PROTECTION OVERRIDE	166		MESSAGE REGISTRATION MULTIPLIER = 2 UNITS	196	
RINGING TIMEOUT 1 MINUTE	167		MESSAGE REGISTRATION MULTIPLIER = 3 UNITS	197	
SYSTEM ID ENABLE	168		MESSAGE REGISTRATION MULTIPLIER = 4 UNITS	198	
TRUNK RE-CALL PARTIAL INHIBIT	169		MESSAGE REGISTRATION SURCHARGE = 1 UNITS	199	
RESERVED	170		MESSAGE REGISTRATION SURCHARGE = 2 UNITS	200	
STORE AND FORWARD	171		MESSAGE REGISTRATION SURCHARGE = 3 UNITS	201	
15 SEC EXTERNAL INTERDIGIT TIMEOUT	172		MESSAGE REGISTRATION SURCHARGE = 4 UNITS	202	
TRUNK ALARM ENABLE: NO SEIZE ACKNOWLEDGE	173		MESSAGE REGISTRATION SURCHARGE = 5 UNITS	203	
TRUNK ALARM ENABLE: NO RELEASE ACKNOWLEDGE	174		MESSAGE REGISTRATION SURCHARGE = 6 UNITS	204	
RESERVED	175		MESSAGE REGISTRATION SURCHARGE = 7 UNITS	205	
RESERVED	176		MESSAGE REGISTRATION SURCHARGE = 8 UNITS	206	
RESERVED	177		DISCRIMINATING RINGING - ALL CALLS	207	
RESERVED	178		OUTGOING TRUNK CALL - BACK	208	
RESERVED	179		OUTGOING TRUNK CAMP ON	209	
STATION RELATED OPTIONS			PARK AND CALL - HOLD RECALL - 2 MINUTES	210	
CAN FLASH IF TALKING TO A STATION	180		PARK AND CALL - HOLD RECALL - 4 MINUTES	211	
CAN FLASH IF TALKING TO A INCOMING TRUNK	181				
CAN FLASH IF TALKING TO A OUTGOING TRUNK	182				

Figure 203-1 (Cont'd)

SYSTEM OPTIONS

OPTION



OPTION		ADD	OPTION		ADD
OPTION NAME	OPTION NUMBER	DIAL OPTION NUMBER (100-339)	OPTION NAME	OPTION NUMBER	DIAL OPTION NUMBER (100-339)
RANGE PROGRAMMING ENABLE	212		ARS DIAL 0 TIMEOUT 10 SEC	241	
SINGLE DIGIT DIALING ENABLE	213		ARS UNRESTRICTED OFFICE CODE ENABLE	242	
SINGLE DIGIT DIALING TIME OUT = 3 S	214		RESERVED	243	
SINGLE DIGIT DIALING TIME OUT = 5 S	215		RESERVED	244	
RESERVED	216		AUTOMATIC WAKE - UP ENABLE	245	
REPEATED CAMP ON BEEP - 5 SECONDS	217		AUTOMATIC WAKE - UP ALARM TO ATTENDANT ENABLE	246	
REPEATED CAMP ON BEEP - 15 SECONDS	218		AUTOMATIC WAKE - UP MUSIC ON HOLD	247	
TAFAS AVAILABLE DURING DAY	219		AUTOMATIC WAKE - UP PRINT	248	
TRANSFER DIAL TONE	220		RESERVED	249	
RESERVED	221		RESERVED	250	
RESERVED	222		RESERVED	251	
RESERVED	223		RESERVED	252	
RESERVED	224		CALL FORWARDING - BUSY (SYSTEM DIAL IN TIE TRUNK, CCSA)	253	
RESERVED	225		CALL FORWARDING - DON'T ANSWER SYS, DID, DIAL - IN TIE TK, CCSA	254	
RESERVED	226		CALL FORWARDING - DON'T ANSWER TIMEOUT - 10 SECONDS	255	
RESERVED	227		CALL FORWARDING - DON'T ANSWER TIMEOUT - 20 SECONDS	256	
RESERVED	228		CALL FORWARDING - DON'T ANSWER TIMEOUT - 40 SECONDS	257	
RESERVED	229		CONTROLLED OUTGOING RESTRICTION SET - UP	258	
FEATURE RELATED OPTIONS			CUSTOMER DATA PRINT OUT ENABLE	259	
ACCOUNT CODE ENABLE	230		CUSTOMER PROGRAMMING ENABLE	260	
VERIFIABLE ACCOUNT CODES	231		CUSTOMER PROGRAMMING OF ARS ENABLE	261	
ACCOUNT CODE LENGTH 4 DIGITS	232		CUSTOMER PROGRAMMING OF COS DEFINITIONS ENABLE	262	
RESERVED	233		CUSTOMER PROGRAMMING OF EXTENSIONS ENABLE	263	
ACCOUNT CODE LENGTH 8 DIGITS	234		CUSTOMER PROGRAMMING OF FEATURES ENABLE	264	
ACCOUNT CODE LENGTH 12 DIGITS	235		CUSTOMER PROGRAMMING OF HUNT GROUPS ENABLE	265	
VARIABLE LENGTH ACCOUNT CODES	236				
RESERVED	237				
ARS ENABLE	238				
ARS RETURN DIAL TONE	239				
ARS DIAL 0 TIMEOUT 5 SECONDS	240				

Figure 203-1 (Cont'd)

SYSTEM OPTIONS

OPTION

		DIAL OPTION NUMBER (100 - 339)	ADD			DIAL OPTION NUMBER (100 - 339)	ADD
OPTION NAME	OPTION NUMBER			OPTION NAME	OPTION NUMBER		
ZERO MESSAGE REGISTER AFTER ROOM REGISTER AUDIT	318			SUPERSET RELATED OPTIONS			
RESERVED	319						
RESERVED	320			SUPERSET DISCONNECT ALARM	330		
RESERVED	321			SUPERSET IMMEDIATE LINE SELECTION ENABLE	331		
RESERVED	322			SUPERSET LAST NUMBER REDIAL ENABLE	332		
RESERVED	323			SUPERSET AUTO HOLD DISABLE	333		
RESERVED	324			RESERVED	334		
RESERVED	325			RESERVED	335		
RESERVED	326			RESERVED	336		
RESERVED	327			RESERVED	337		
RESERVED	328			RESERVED	338		
RESERVED	329			RESERVED	339		

AFTER ALL OPTIONS ARE ADDED PRESS

ENTER

NOTES
TO DELETE SYSTEM OPTIONS

DIAL OPTION
NUMBERS

OPTION
DELETE

AFTER ALL REQUIRED OPTIONS HAVE BEEN REMOVED

ENTER

TO REVIEW SYSTEM OPTIONS

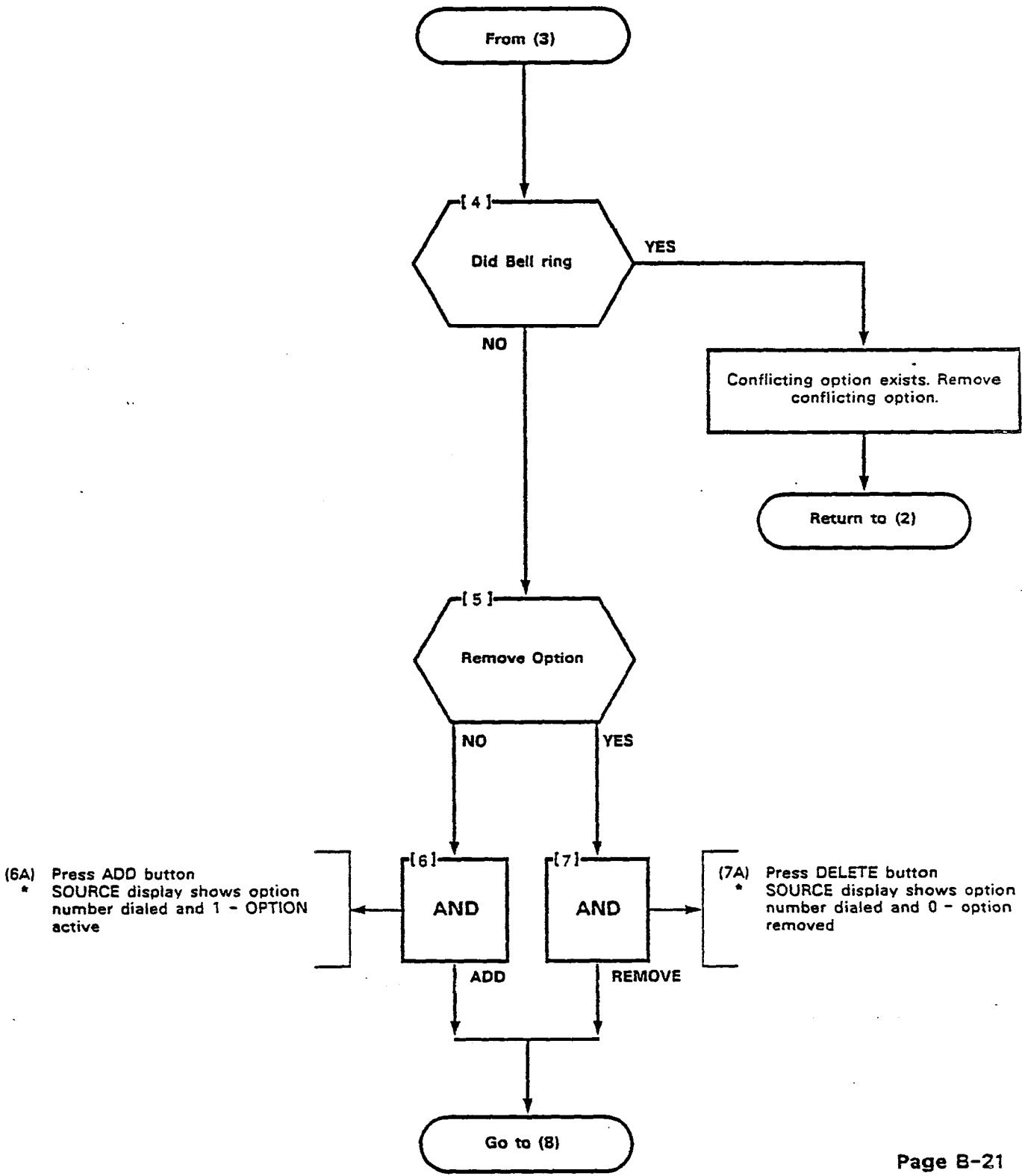
OPTION
NEXT
NEXT



Figure 203-1 (Cont'd)

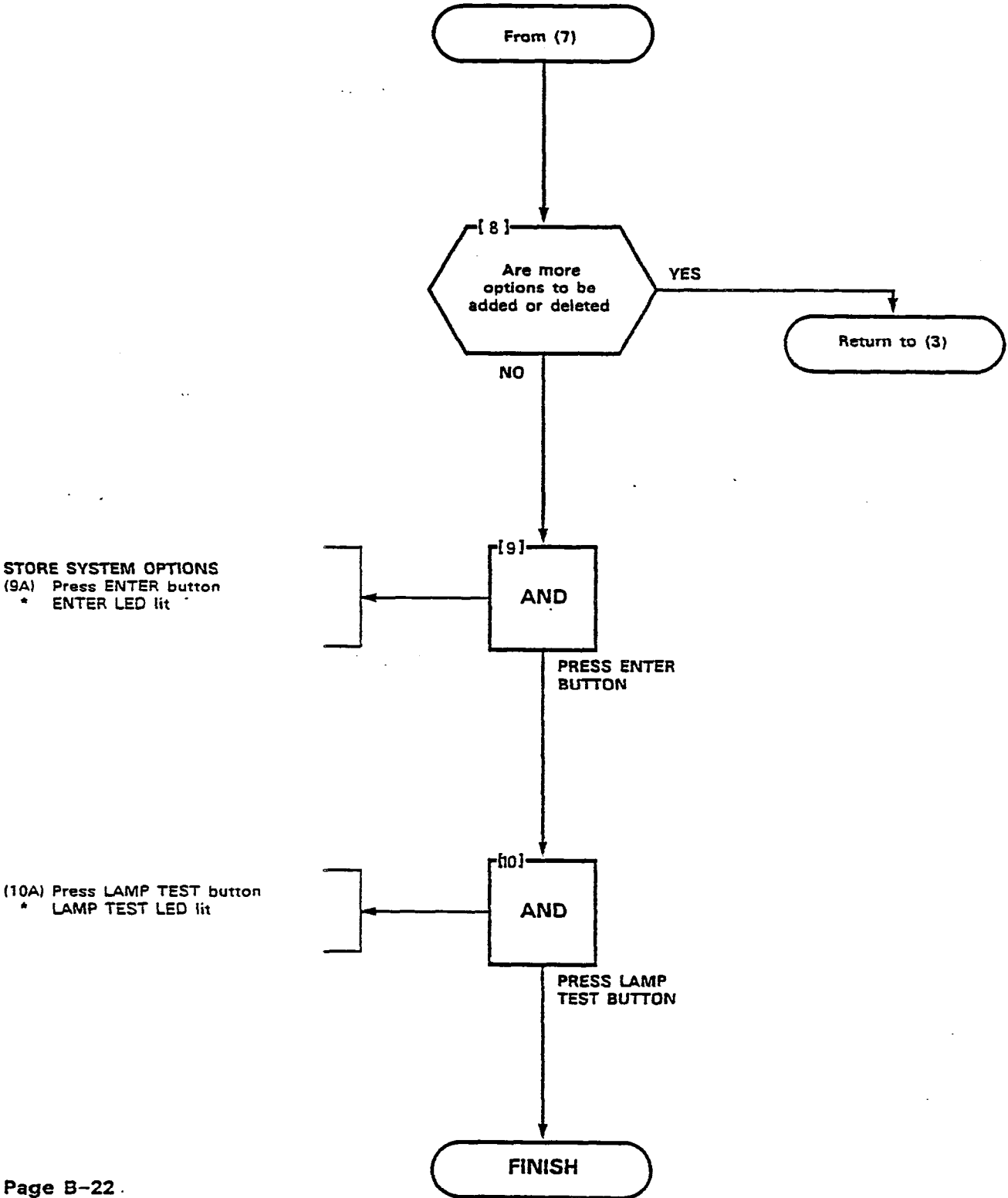
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SECTION MITL9105/9110-096-210-NA

PROGRAM SYSTEM OPTIONS
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PROGRAM COS OPTIONS
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NOTES

1. All entries are made from the console dial pad.
2. COS DEFINE lamp remains lit through procedure.
3. A display of EO indicates that an incorrect key was pressed; press key specified.

SYNOPSIS

Define COS group (1-16).
 Enter all option codes (33-120).
 Press ADD or DELETE keys.
 Press ENTER key.

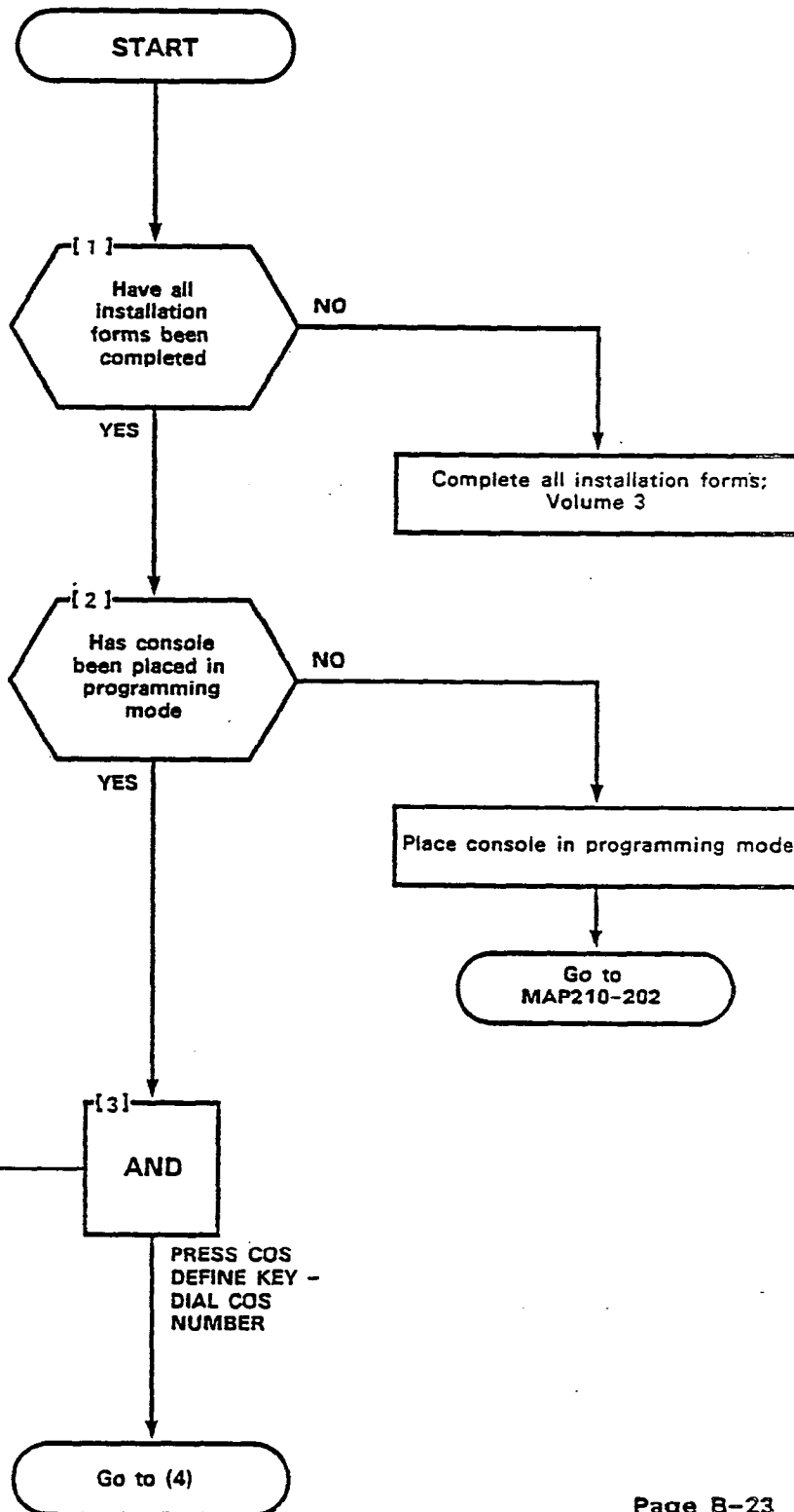
SELECT COS PROGRAM

(3A) Press COS DEFINE key

- COS DEFINE lamp lit
- SOURCE display shows current COS

(3B) Dial Class-of-Service number to be defined (1-16)

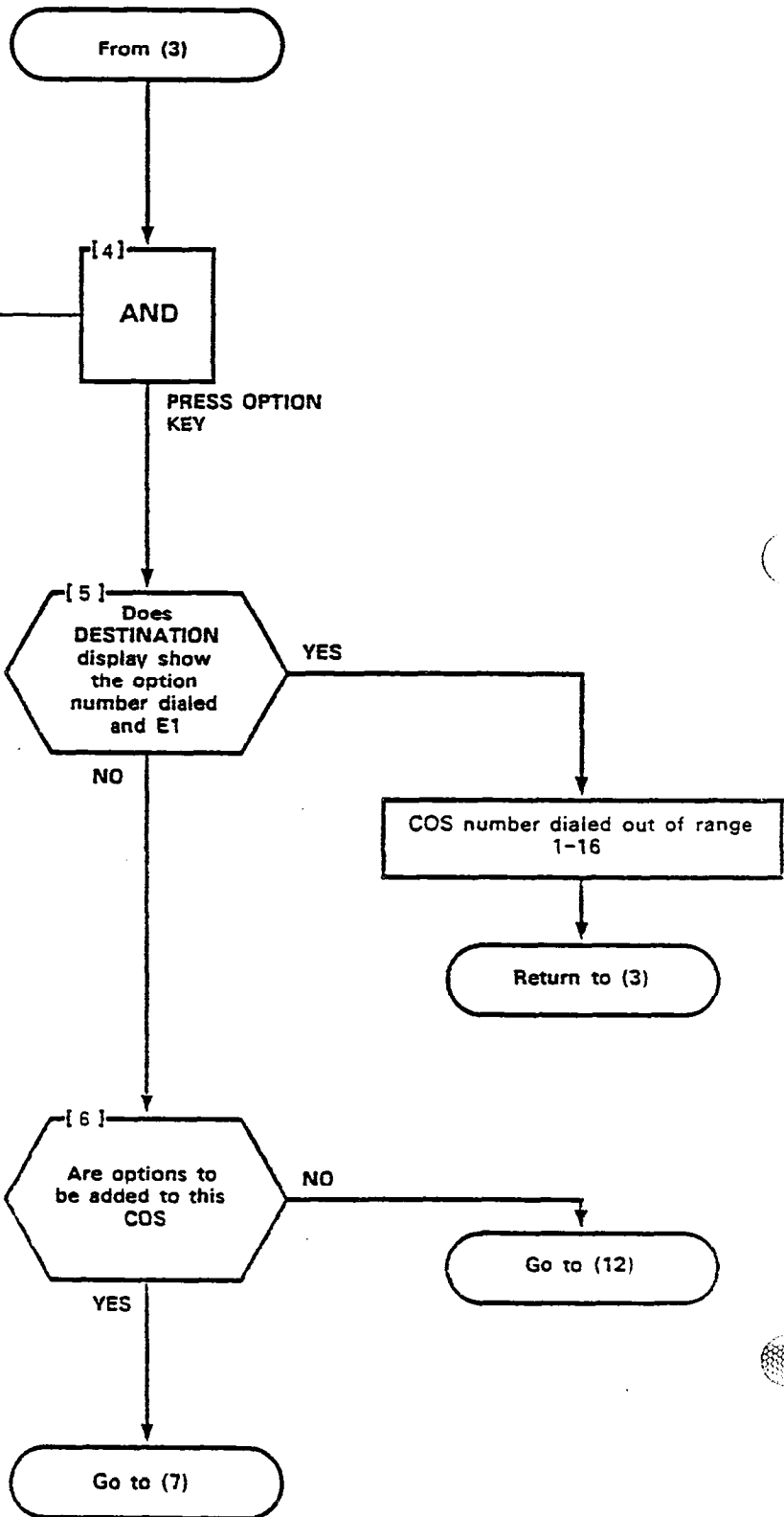
- DESTINATION display shows COS number dialed



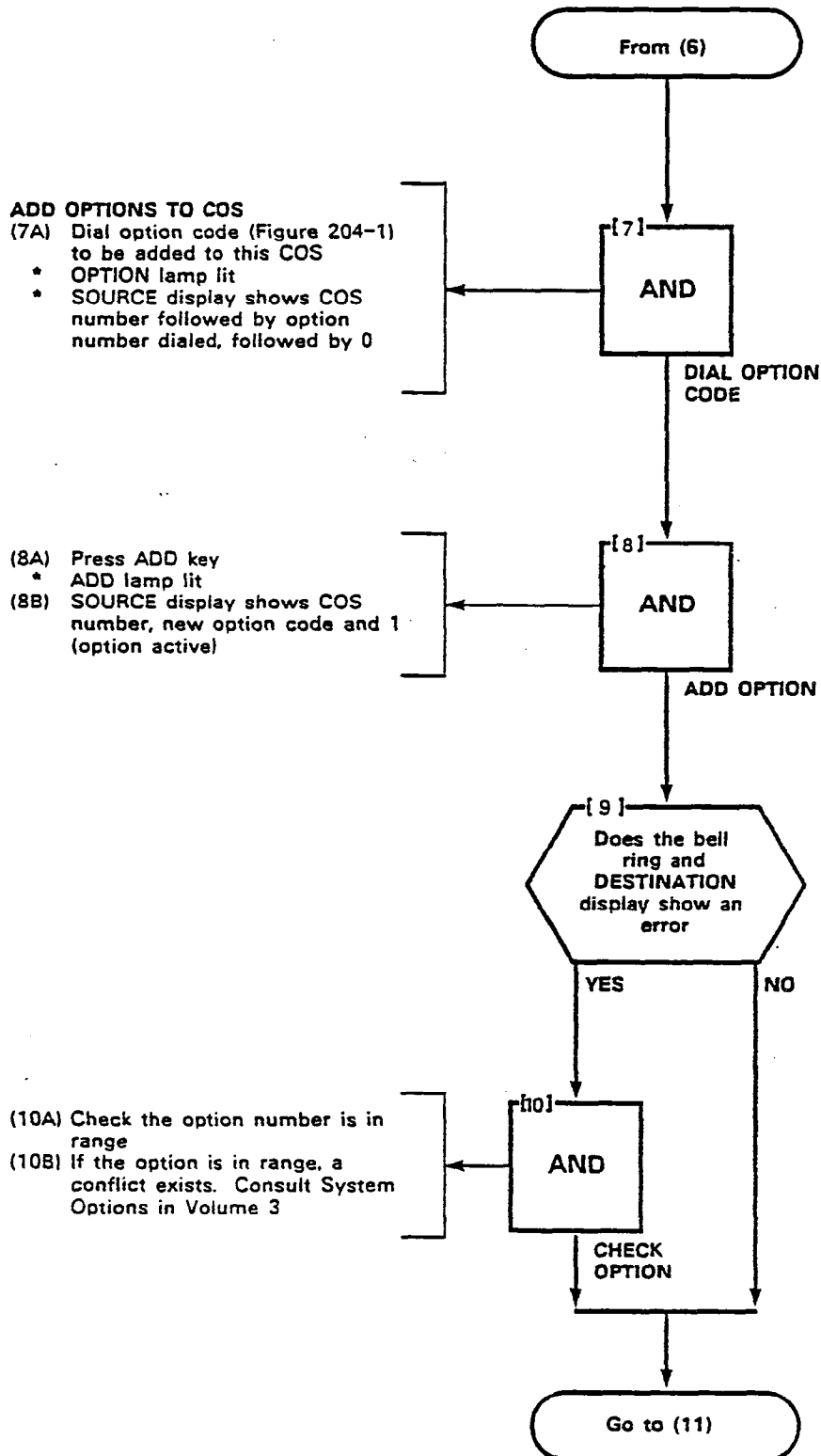
SECTION MITL9105/9110-096-210-NA

PROGRAM COS OPTIONS
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- (4A) Press OPTION key
- OPTION lamp lit
 - SOURCE display shows COS number dialed followed by 33 and 0 (no options assigned) or first option assigned to the COS followed by a 1




PROGRAM COS OPTIONS
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MITEL		TO CHANGE ANY OPTION FOR A COS 1-16 PRESS <input type="checkbox"/> COS DEFINE DIAL COS NUMBER 1-16 TO CHANGE ANY OPTION FOR A COS 1-16 PRESS <input type="checkbox"/> OPTION DIAL OPTION NUMBER 33-120 PRESS <input type="checkbox"/> ADD TO ENABLE OR PRESS <input type="checkbox"/> DELETE TO REMOVE																
OPTION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	OPTION NO.	OPTION NAME
33																	33	AUTOMATIC CALLBACK
34																	34	CALL FORWARDING - BUSY
35																	35	CALL FORWARDING - DONT ANSWER
36																	36	CALL FORWARDING - FOLLOW ME
37																	37	CALL PARK
38																	38	NEVER A FORWARDEE
39																	39	DIRECTED CALL PICKUP
40																	40	EXECUTIVE BUSY OVERRIDE
41																	41	DATA SECURITY
42																	42	STATION OVERRIDE SECURITY
43																	43	INWARD RESTRICTION (DID)
44																	44	ORIGINATE ONLY
45																	45	RECEIVE ONLY
46																	46	FLASH DISABLE
47																	47	NEVER A CONSULTEE
48																	48	BROKERS CALL
49																	49	STATION CONFERENCE
50																	50	MEET ME CONFERENCE
51																	51	CAMP-ON
52																	52	DO NOT OVERFLOW
53																	53	PAGING ACCESS
54																	54	TAFAS ACCESS
55																	55	HOLD PICKUP
56																	56	ACCOUNT CODE ACCESS
57																	57	MANUAL LINE
58																	58	CONTACT MONITOR
59																	59	NON-CO TRUNKS VIA SUPERVISOR INHIBIT
60																	60	CO TRUNKS VIA SUPERVISOR INHIBIT
61																	61	NO DIAL TONE
62																	62	FLASH FOR SUPERVISOR
63																	63	H/M STN-STN RESTRICT APPLIES
64																	64	MESSAGE REGISTER
65																	65	TRUNK GROUP 1 ACCESS
66																	66	TRUNK GROUP 2 ACCESS
67																	67	TRUNK GROUP 3 ACCESS
68																	68	TRUNK GROUP 4 ACCESS
69																	69	TRUNK GROUP 5 ACCESS
70																	70	TRUNK GROUP 6 ACCESS
71																	71	TRUNK GROUP 7 ACCESS
72																	72	TRUNK GROUP 8 ACCESS
73																	73	TRUNK GROUP 9 ACCESS
74																	74	TRUNK GROUP 10 ACCESS
75																	75	TRUNK GROUP 11 ACCESS
76																	76	TRUNK GROUP 12 ACCESS

Figure 204-1



NOTES YOU CANNOT CHANGE AN EXTENSION OR TRUNK IF THE EXTENSION OR TRUNK IS BUSY, HAS MESSAGE WAITING OR DO NOT DISTURB SET. IT ALSO CANNOT BE CHANGED UNLESS MESSAGE REGISTER IS CLEARED.

COS DEFINE

DIAL COS NUMBER

DIAL COS DEST

ENTER

TO REVIEW THE OPTIONS WITHIN A COS

COS DEFINE

DIAL COS NUMBER

DIAL COS DEST

ENTER

TO ENTER ALL INFORMATION IN THAT COS AFTER ALL OPTIONS IN THAT COS HAVE BEEN DEFINED

COS DEFINE

DIAL COS NUMBER

DIAL COS DEST

ENTER

TO REVIEW THE OPTIONS WITHIN A COS

COS DEFINE

DIAL COS NUMBER

DIAL COS DEST

ENTER

TO ENTER ALL INFORMATION IN THAT COS AFTER ALL OPTIONS IN THAT COS HAVE BEEN DEFINED

OPTION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	OPTION NAME
77																	MESSAGE WAITING APPLIES
78																	ROOM DO NOT DISTURB ENABLE
79																	CALL HOLD AND RETRIEVE ACCESS
80																	ROOM STATUS APPLIES
81																	CALL FORWARDING SYSTEM INHIBIT
82																	ALARM CALL ENABLE
83																	FORWARD ACCOUNT CODE ENTRY
84																	NO SMDR RECORD APPLIES
85																	SPEED CALL TABLE 18.2 ACCESS
86																	SPEED CALL TABLE 38.4 ACCESS
87																	SPEED CALL TABLE 58.6 ACCESS
88																	SPEED CALL TABLE 78.8 ACCESS
89																	SPEED CALL TABLE 98.10 ACCESS
90																	SPEED CALL TABLE 118.12 ACCESS
91																	SPEED CALL TABLE 138.14 ACCESS
92																	SPEED CALL TABLE 158.16 ACCESS
93																	SPEED CALL TABLE 178.18 ACCESS
94																	CANNOT DIAL A TRUNK AFTER FLASHING
95																	INCOMING TRUNK ROTARY DIAL ONLY
96																	AAS RESTRICTED
97																	EXTERNAL CALL FORWARDING ENABLE
98																	TRANSFER WITH PRIVACY
99																	HANDS - FREE STATION
100																	AAS ALLOWED
101																	EARTH GROUND BUTTON
102																	CALL ANNOUNCE PONT
103																	EXTENSION RESET
104																	RESERVED
105																	RESERVED
106																	SUPPLEMENT 4 SUB - ATTENDANT
107																	REPEATED CAMP - ON BEEPS

CLASS OF SERVICE OPTIONS

COS DEFINE

DIAL COS NUMBER

DIAL COS DEST

ENTER

TO CHANGE

OPTION

DIAL OPTION NUMBER 33-120 PRESS

ADD

DELETE

DELETE TO REMOVE

REPEAT FOR EACH OPTION IN THE COS

Figure 204-1 (Cont'd)

CLASS OF SERVICE OPTIONS

PRESS COS DEFINE DIAL COS NUMBER 1-16 TO CHANGE ANY OPTION FOR A COS 1-16 PRESS OPTION DIAL OPTION NUMBER 33-120 PRESS ADD TO ENABLE OR PRESS DELETE TO REMOVE

REPEAT FOR EACH OPTION IN THE COS

OPTION NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	OPTION NO.	OPTION NAME
108																	108	BACKGROUND MUSIC
109																	109	SUPERSET 4 SUB ATTENDANT MESSAGE PROGRAM
110																	110	SPECIAL DISA
111																	111	DIRECT TO ARS
112																	112	OFF PREMISE EXTENSION
113																	113	DISALLOW ARS SCHEDULE A
114																	114	DISALLOW ARS SCHEDULE B
115																	115	DISALLOW ARS SCHEDULE C
116																	116	ARS LIMITED ACCESS
117																	117	CALL DISTRIBUTION AGENT POSITION
118																	118	ARS MOST EXPENSIVE ROUTE BEEP
119																	119	LOW GAIN CONFERENCE ENABLE
120																	120	PRIVACY DISABLE

PRESS ENTER TO ENTER ALL INFORMATION IN THAT COS AFTER ALL OPTIONS IN THAT COS HAVE BEEN DEFINED

TO REVIEW THE OPTIONS WITHIN A COS COS DEFINE DIAL COS NUMBER OPTION NEXT NEXT

NOTES YOU CANNOT CHANGE AN EXTENSION OR TRUNK IF THE EXTENSION OR TRUNK IS BUSY, HAS MESSAGE WAITING OR DO NOT DISTURB SET. IT ALSO CANNOT BE CHANGED UNLESS MESSAGE REGISTER IS CLEARED.


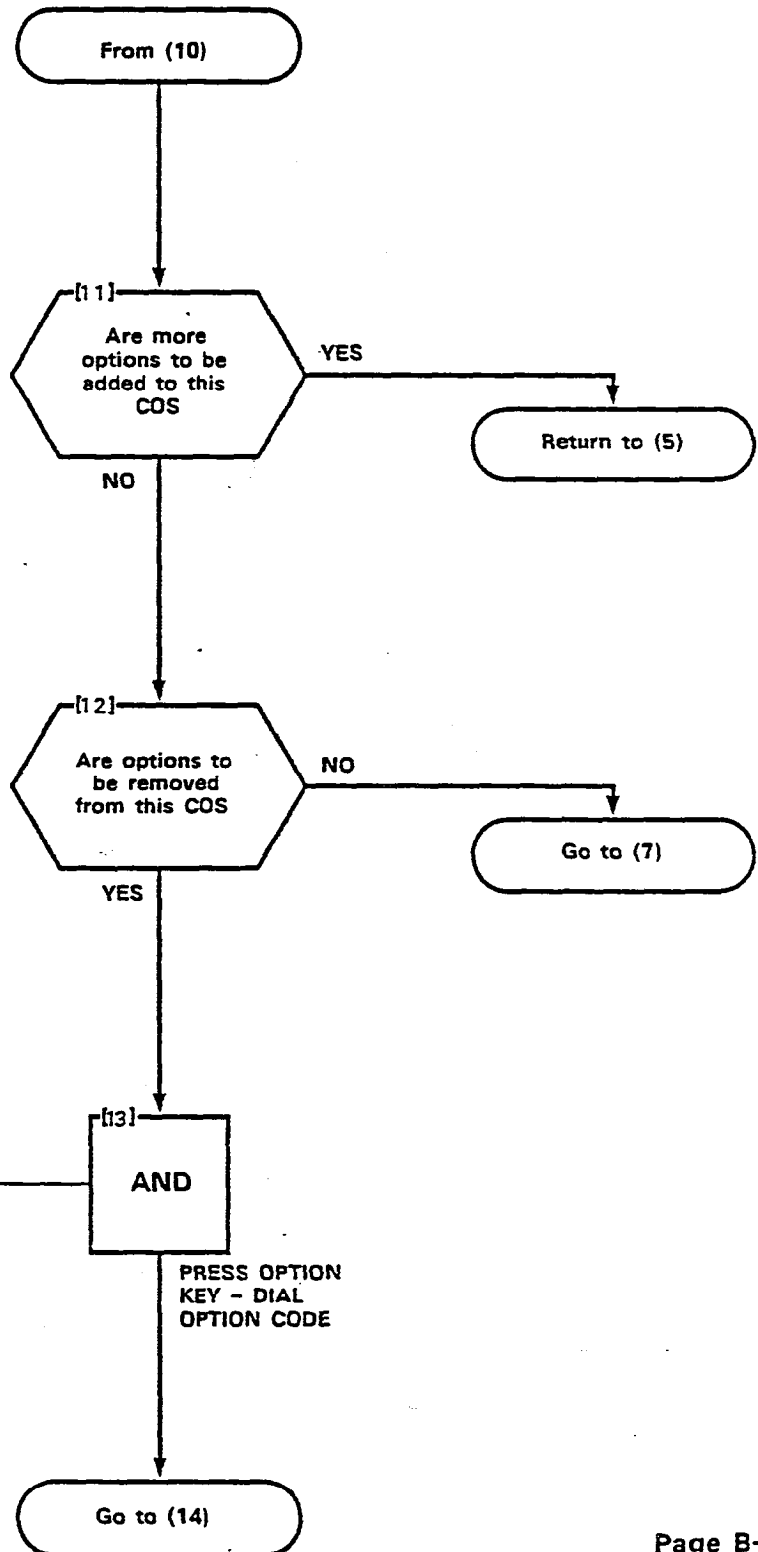


Figure 204-1 (Cont'd)

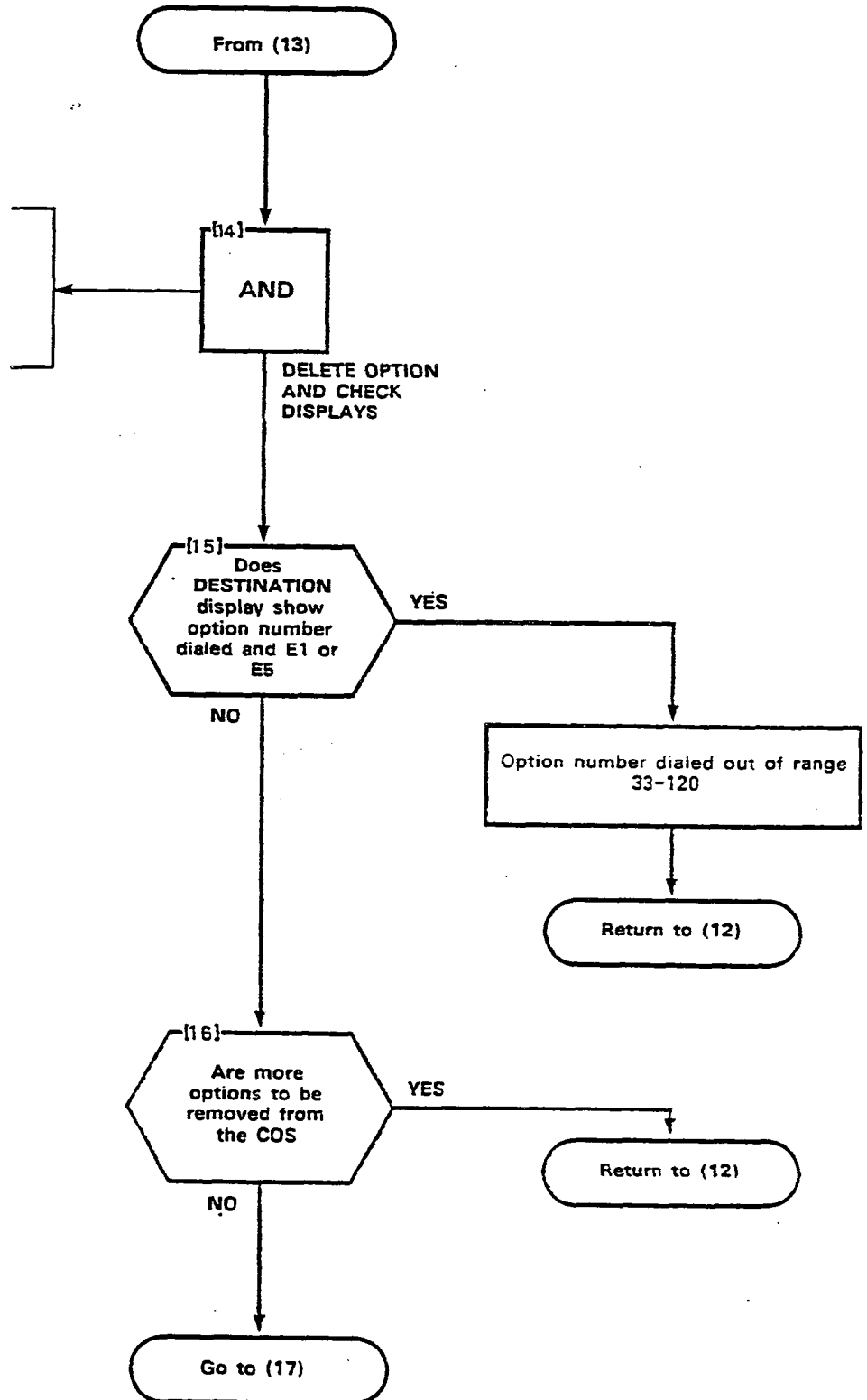
PROGRAM COS OPTIONS
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REMOVE OPTION FROM COS
 (13A) Press OPTION key
 (13B) Dial option code (33-120) to be removed from the COS
 * SOURCE display shows COS number, option code and 1 (option active)

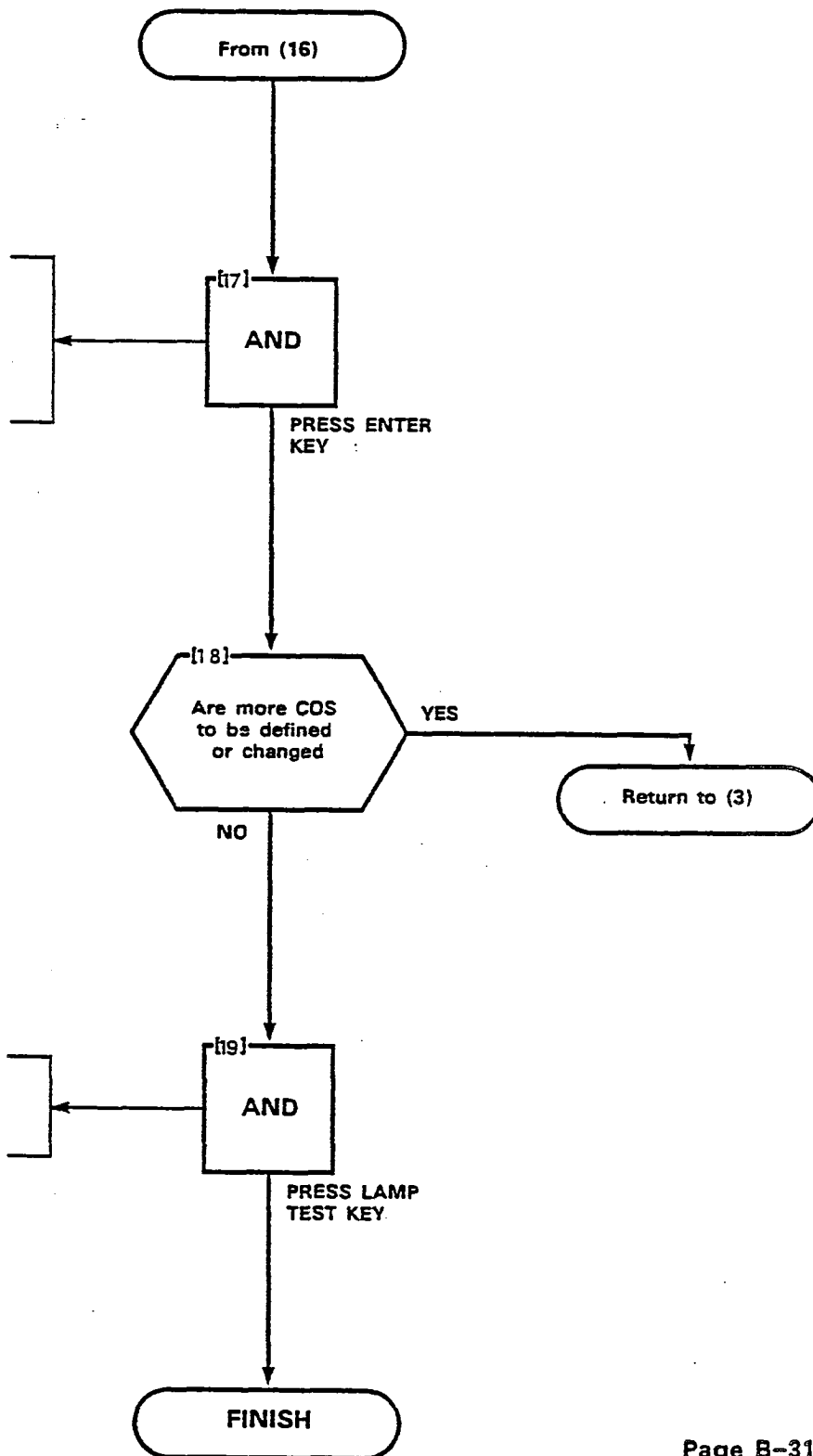
PROGRAM COS OPTIONS
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(14A) Press DELETE key
 * DELETE lamp lit
 * SOURCE display shows COS number, option code and 0 (option inactive)



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STORE COS OPTIONS
 (17A) Press ENTER key
 * ENTER lamp lit
 * SOURCE display shows current COS number



(19A) Press LAMP TEST key
 * LAMP TEST lamp



ASSIGN FEATURE ACCESS CODES
MAP210-205
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NOTES

1. All entries are made from the console dial pad.
2. FEATURE lamp lit throughout procedure.
3. A display of E0 indicates that an incorrect key was pressed; check procedure and press correct key.

SYNOPSIS

Enter feature number (1-49).
 Assign or delete access code.
 Press ENTER key.
 Repeat for all required features.

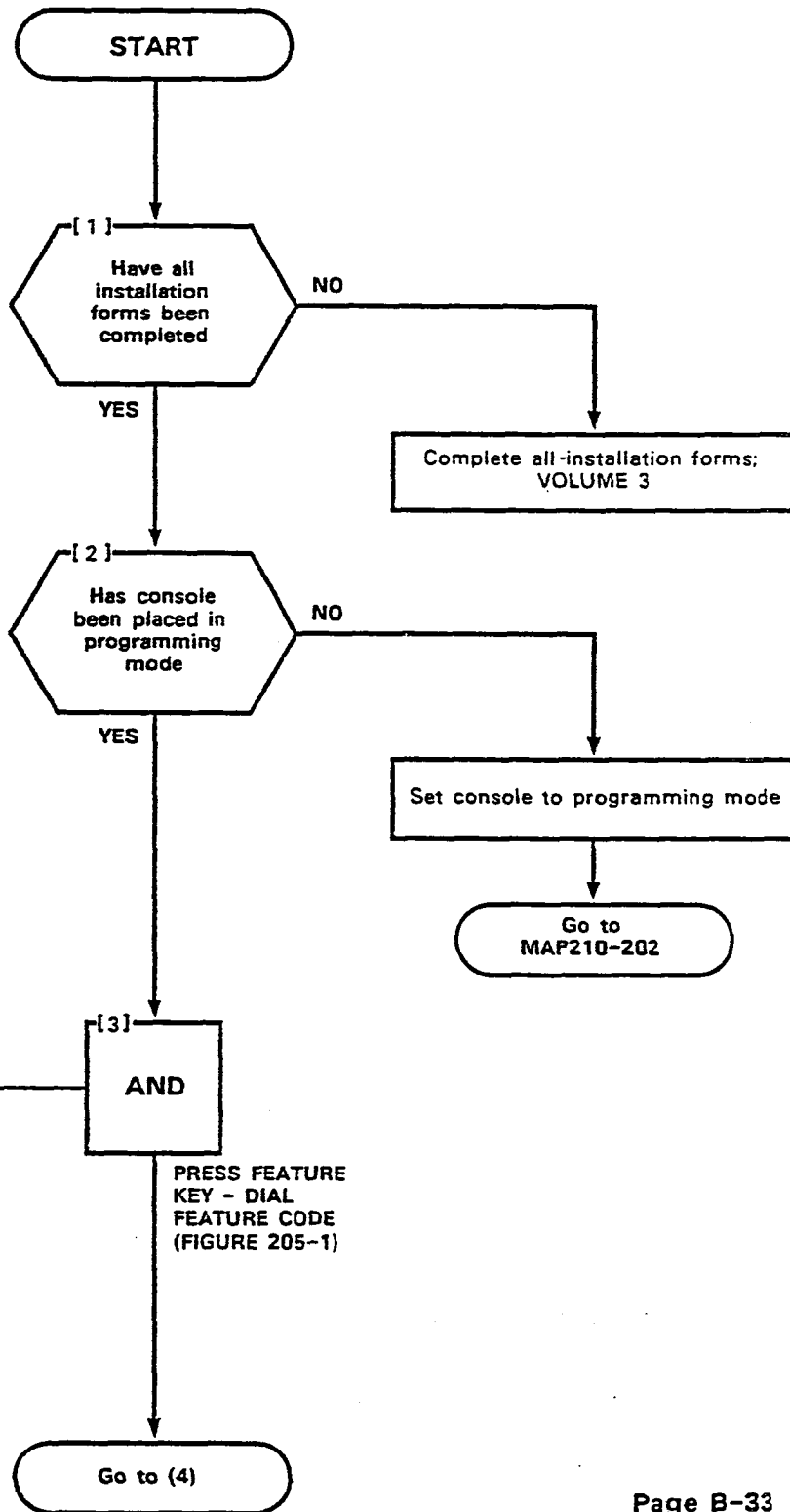
SELECT FEATURE ACCESS CODE PROGRAM

(3A) Press FEATURE key

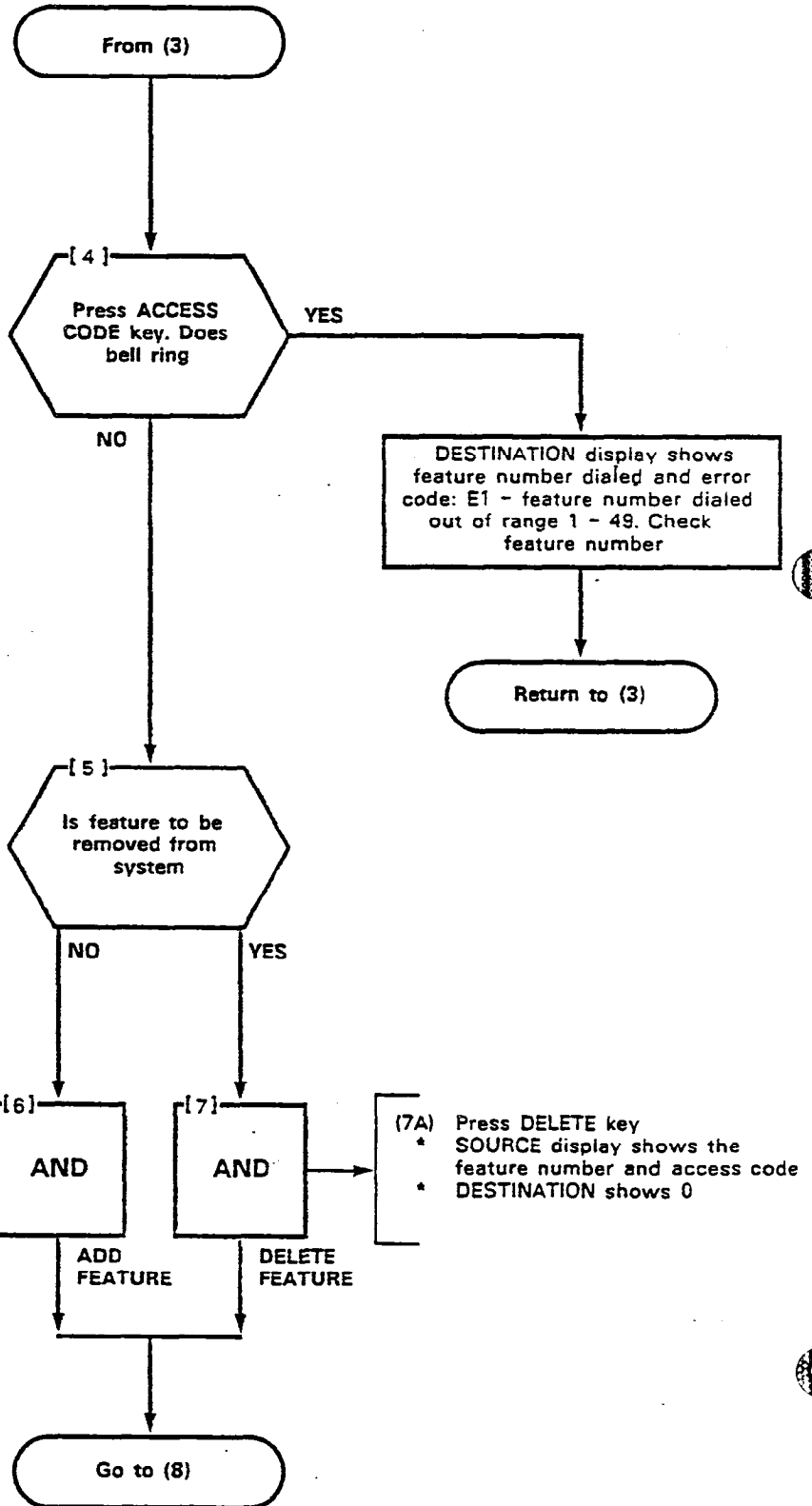
- * SOURCE display shows feature number and its assigned access code, or the feature number and ---- (no access code assigned to the feature)

(3B) Dial number of feature to be added or changed (Figure 205-1)

- * SOURCE display shows feature number and its assigned access code, or the feature number and ---- (no access code assigned to the feature)
- * DESTINATION display shows feature number dialed



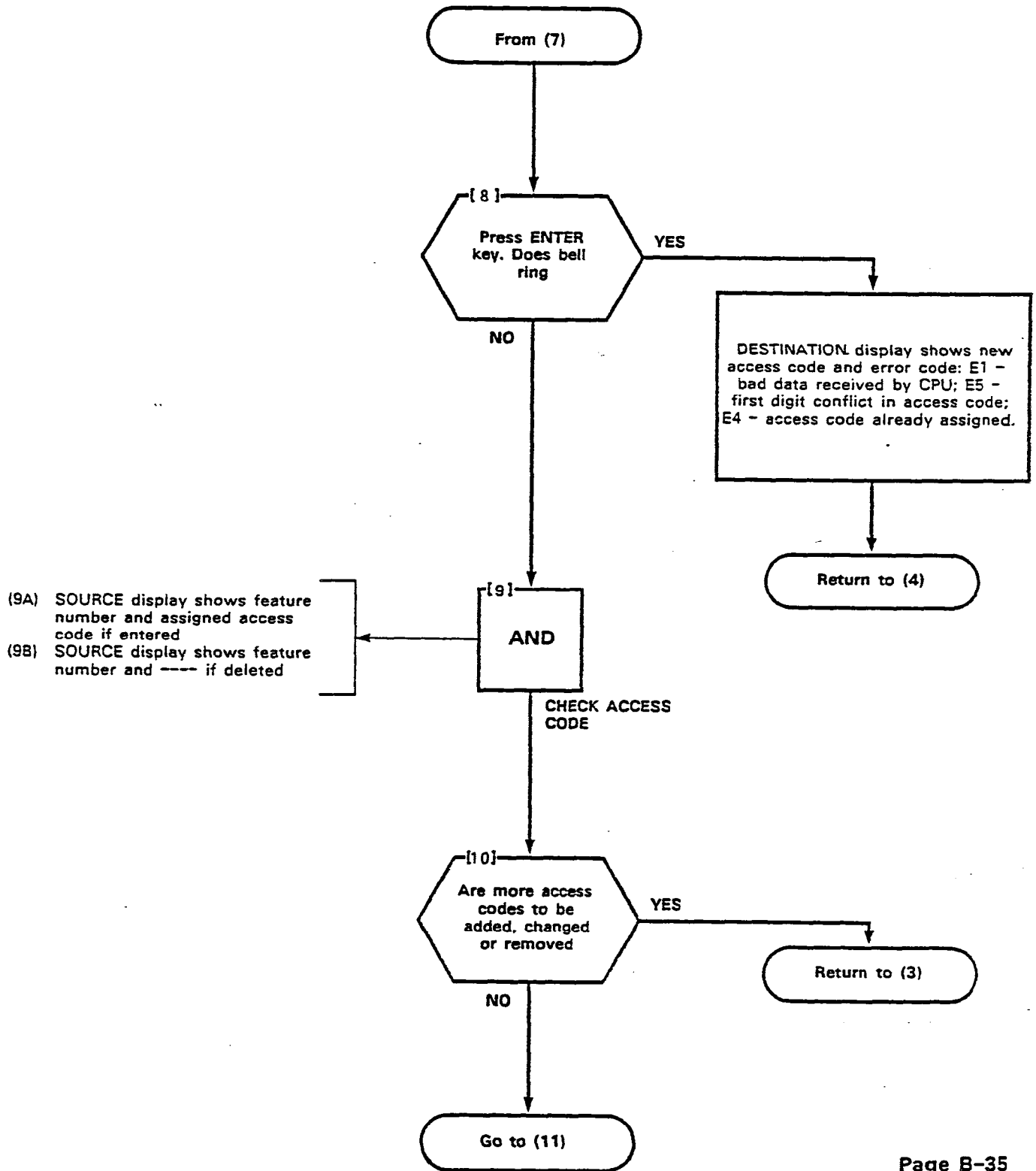
ASSIGN FEATURE ACCESS CODES
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ASSIGN FEATURE ACCESS CODE
 (6A) Dial new access code
 * ACCESS CODE lamp lit
 * SOURCE display shows new feature number and its access code, or the feature number and ---- (if no access code is assigned to the feature)
 * DESTINATION display shows access code to be assigned

(7A) Press DELETE key
 * SOURCE display shows the feature number and access code
 * DESTINATION shows 0

ASSIGN FEATURE ACCESS CODES
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SYSTEM FEATURE ACCESS CODES

Figure 205-1

DESCRIPTION	FEATURE	DIAL 1-48	ACCESS CODES	ASSIGN AND DIAL ACCESS CODE	ENTER
ATTENDANT ACCESS	1				
CALLBACK - DONT ANSWER	2				
CALL FORWARDING - BUSY	3				
CALL FORWARDING - DONT ANSWER	4				
CALL FORWARDING - FOLLOW ME	5				
CALL PARK	6				
DIAL CALL PICKUP	7				
DIRECTED CALL PICKUP	8				
MEET ME CONFERENCE	9				
PAGER 1	10				
PAGER 2	11				
HOLD PICKUP ACCESS	12				
PAGER 1 AND 2	13				
TAFAS - ALL	14				
TAFAS - 1	15				
TAFAS - 2	16				
TAFAS - 3	17				
ATTENDANT FUNCTION	18				
MAINTENANCE FUNCTION	19				
DID ATTENDANT ACCESS CODE	20				
DIRECT INWARD SYSTEM ACCESS	21				
EXECUTIVE BUSY OVERRIDE (SINGLE DIGIT)***	22				
CALLBACK - BUSY (SINGLE DIGIT)***	23				
ROOM DO NOT DISTURB	24				
CALL HOLD	25				
CALL RETRIEVE (LOCAL)	26				
<p>CALL RETRIEVE (REMOTE) 27</p> <p>ROOM STATUS UPDATE (MAID IN ROOM) 28</p> <p>PROGRAMMING SECURITY CODE 29</p> <p>ALARM CALL (AUTOMATIC WAKE - UP) 30</p> <p>ACCOUNT CODE 31</p> <p>SPEED CALL 32</p> <p>ASSIGN ACCESS CODES TO FEATURES 33-42 FOR TRUNK GROUP 1 IF NECESSARY</p> <p>TRUNK GROUP 1 ACCESS CODE 2 33</p> <p>TRUNK GROUP 1 ACCESS CODE 3 34</p> <p>TRUNK GROUP 1 ACCESS CODE 4 35</p> <p>TRUNK GROUP 1 ACCESS CODE 5 36</p> <p>TRUNK GROUP 1 ACCESS CODE 6 37</p> <p>TRUNK GROUP 1 ACCESS CODE 7 38</p> <p>TRUNK GROUP 1 ACCESS CODE 8 39</p> <p>TRUNK GROUP 1 ACCESS CODE 9 40</p> <p>TRUNK GROUP 1 ACCESS CODE 10 41</p> <p>TRUNK GROUP 1 ACCESS CODE 11 42</p> <p>CUSTOMER PROGRAMMING SECURITY CODE 43</p> <p>A.R.S. ACCESS CODE 44</p> <p>HANDS-FREE ACTIVATION 45</p> <p>CALL FORWARDING BUSY - DONT ANSWER 46</p> <p>EXTENSION RESET 47</p> <p>SUPERSET 4 LOOPBACK TEST 48</p>					

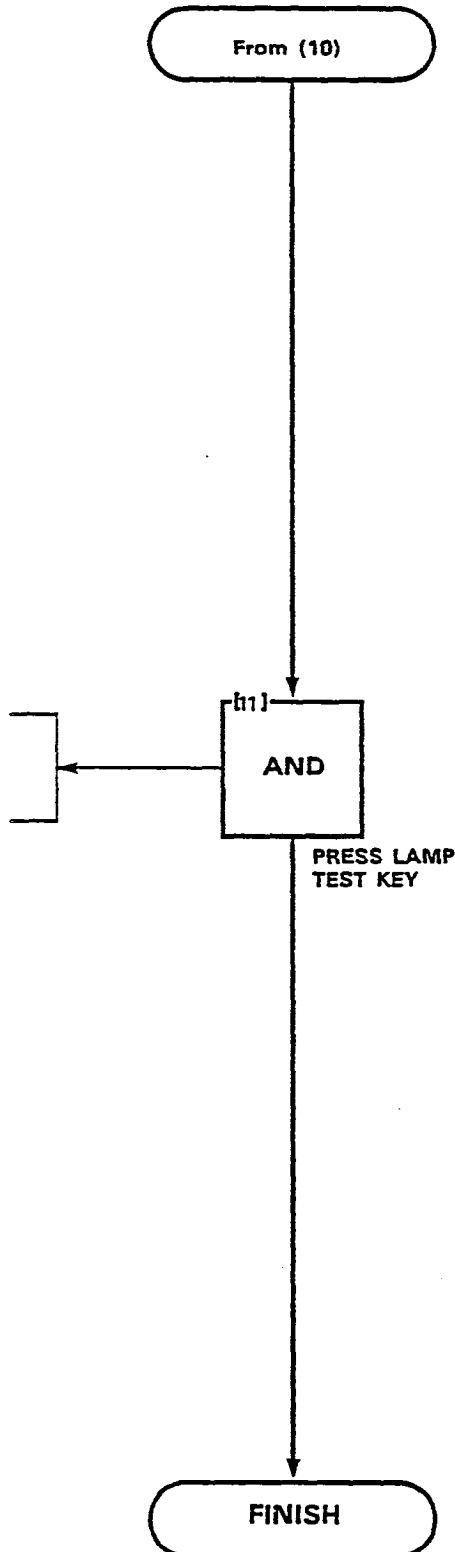
NOTES TO DELETE A FEATURE					TO REVIEW ACCESS CODES		
FEATURE	ACCESS CODE	DELETE	ENTER		FEATURE	NEXT	NEXT

MITEL

***FIRST DIGIT CONFLICT ALLOWED WITH OTHER ACCESS CODES

ASSIGN FEATURE ACCESS CODES
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(11A) Press LAMP TEST key
* All lamps dark

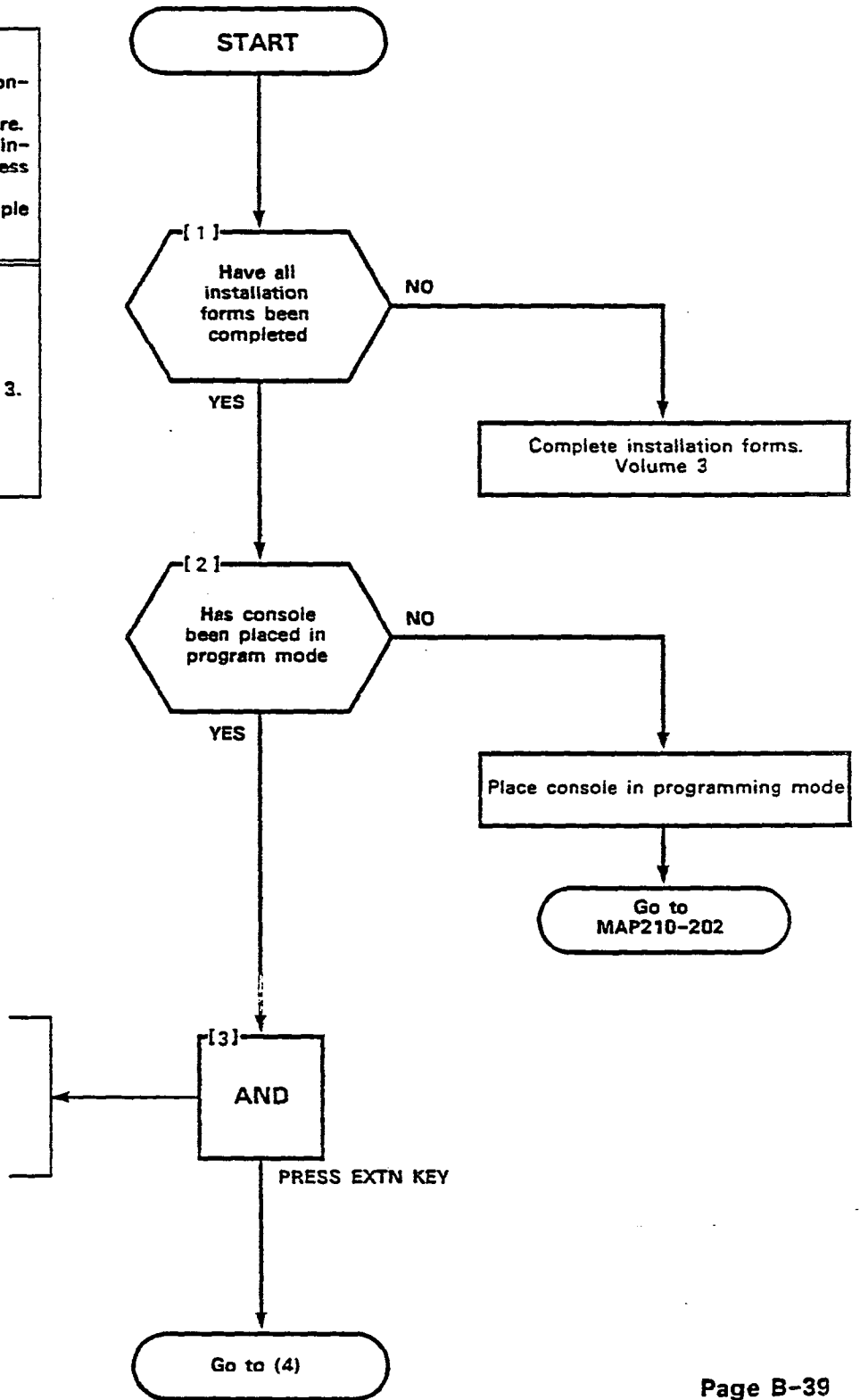




PROGRAM EXTENSIONS
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NOTES
<ol style="list-style-type: none"> 1. All entries are made from the console dial pad. 2. EXTN lamp lit throughout procedure. 3. A display of ED indicates that an incorrect key has been pressed. Press the key specified in the MAP. 4. Refer to Figure 206-3 for an example of the form.
SYNOPSIS
Enter EXTN programming. Enter extension equipment number. Enter extension number. Enter COS number. Enter toll-allow/deny or COR 1, 2 or 3. Enter busy lamp position number. Enter pickup group number. Press ENTER key.

SELECT EXTENSION PROGRAM
 (3A) Press EXTN key
 * EXTN lamp lit



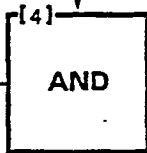
PROGRAM EXTENSIONS
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ENTER EQUIPMENT NUMBER

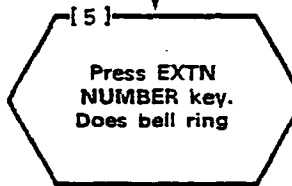
- (4A) Press EQPT NUMBER key
 - * EQPT NUMBER lamp lit
 - * SOURCE display shows lowest assigned equipment number or 001 if no equipment number is assigned
- (4B) Dial equipment number to be defined, (Figure 206-1). (1-112 161-256)
 - * EQPT NUMBER lamp lit
 - * SOURCE display shows current equipment number
 - * DESTINATION display shows equipment number dialed

NOTE
Equipment number 001 is reserved for the test line and should not be assigned to a working extension.

From (3)



PRESS EQUIPMENT NUMBER KEY DIAL EQUIPMENT NUMBER (FIGURE 206-1)

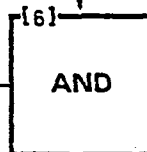


YES

DESTINATION display shows equipment number and error code. E1 number dialed out of range 1-112 161-256. Check number. Figure 206-1

Return to (4)

NO



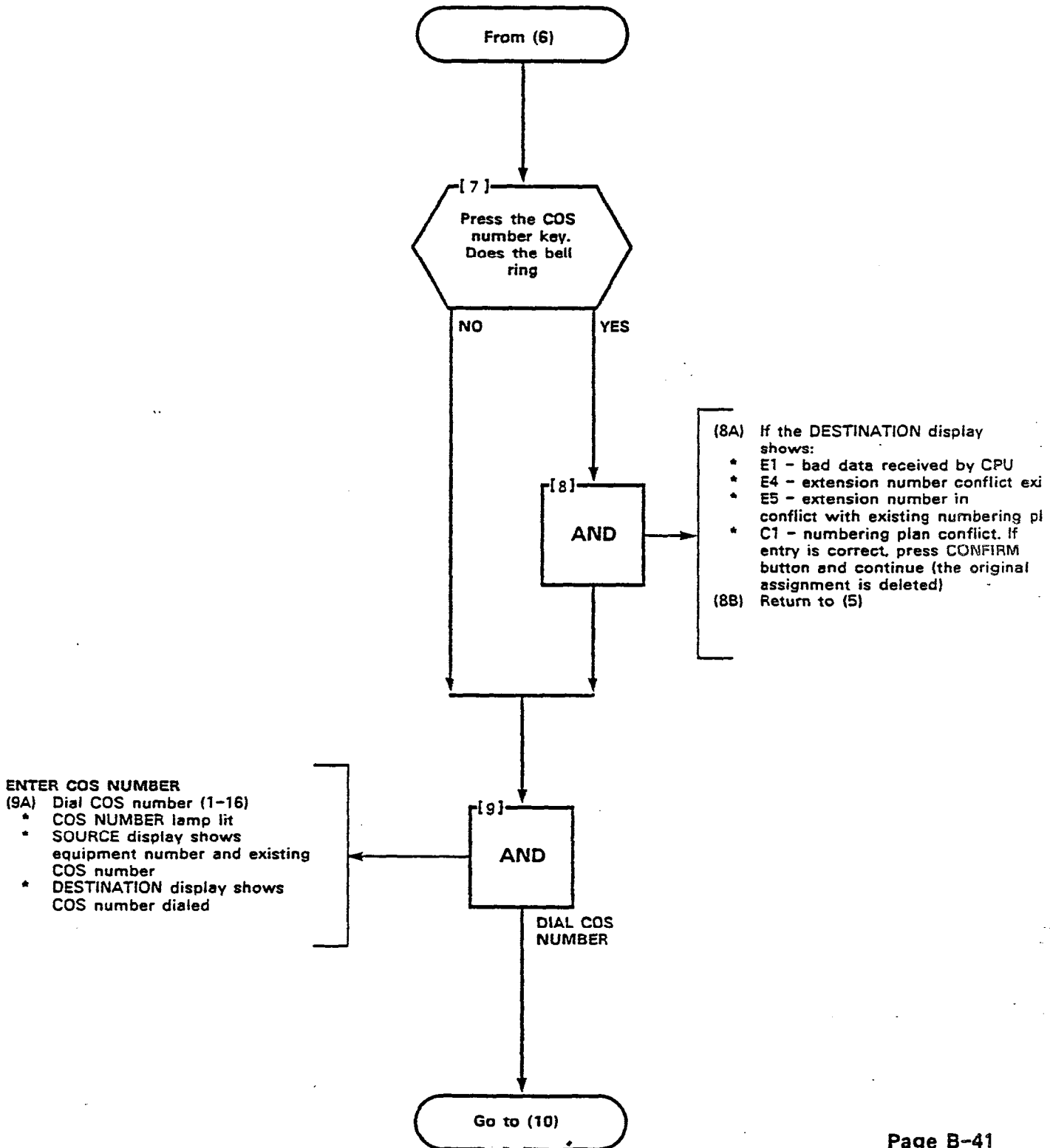
DIAL EXTENSION NUMBER

Go to (7)

ENTER EXTENSION NUMBER

- (6A) Dial extension number
 - * EXTN NUMBER lamp lit
 - * SOURCE display shows equipment number and existing extension number if assigned
 - * DESTINATION display shows dialed extension number

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HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11						EXTENSION UNIT NO.	TRUNK UNIT NO. (4-TRUNK)	TRUNK UNIT NO. (2-TRUNK)						
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				19	20	21	22		
161	169	177	185	193	201	209	217	225	233	241	249												1				
162	170	178	186	194	202	210	218	226	234	242	250												2	1	1		
163	171	179	187	195	203	211	219	227	235	243	251												3				
164	172	180	188	196	204	212	220	228	236	244	252												4	2			
165	173	181	189	197	205	213	221	229	237	245	253												5				
166	174	182	190	198	206	214	222	230	238	246	254												6	3	2		
167	175	183	191	199	207	215	223	231	239	247	255												7				
168	176	184	192	200	208	216	224	232	240	248	256												8	4			
																						CARD POSITION					
																						SLOT NUMBER					
PLUG 8						PLUG 10						PLUG 12															

SHELF 2 (SX-200 ONLY)

HARDWARE POSITION NUMBER	PLUG 1						PLUG 3						PLUG 5						EXTENSION UNIT NO.	TRUNK UNIT NO. (4-TRUNK)	TRUNK UNIT NO. (2-TRUNK)																																																																																																		
	001	009	017	025	033	041	049	057	065	073	081	089	097	105	113	002	010	018				026	034	042	050	058	066	074	082	090	098	106	114	003	011	019	027	035	043	051	059	067	075	083	091	099	107	115	004	012	020	028	036	044	052	060	068	076	084	092	100	108	116	005	013	021	029	037	045	053	061	069	077	085	093	101	109	117	006	014	022	030	038	046	054	062	070	078	086	094	102	110	118	007	015	023	031	039	047	055	063	071	079	087	095	103	111	119	008	016	024	032	040	048	056	064	072	080	088
																						1																																																																																																	
																						2	1	1																																																																																															
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																						4	2																																																																																																
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																						6	3	2																																																																																															
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																						8	4																																																																																																
																						CARD POSITION																																																																																																	
																						SLOT NUMBER																																																																																																	
PLUG 2						PLUG 4						PLUG 6																																																																																																											

SHELF 1

- NOTES:
1. DUAL-/QUAD-RECEIVER EQUIPMENT NUMBERS ARE 090, 098, 106, 114, 092, 100, 108 AND 116.
 2. QUAD-RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
 3. EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
 4. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
 5. SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
 6. MAXIMUM NUMBER OF SUPERSSET 4 SETS = 64

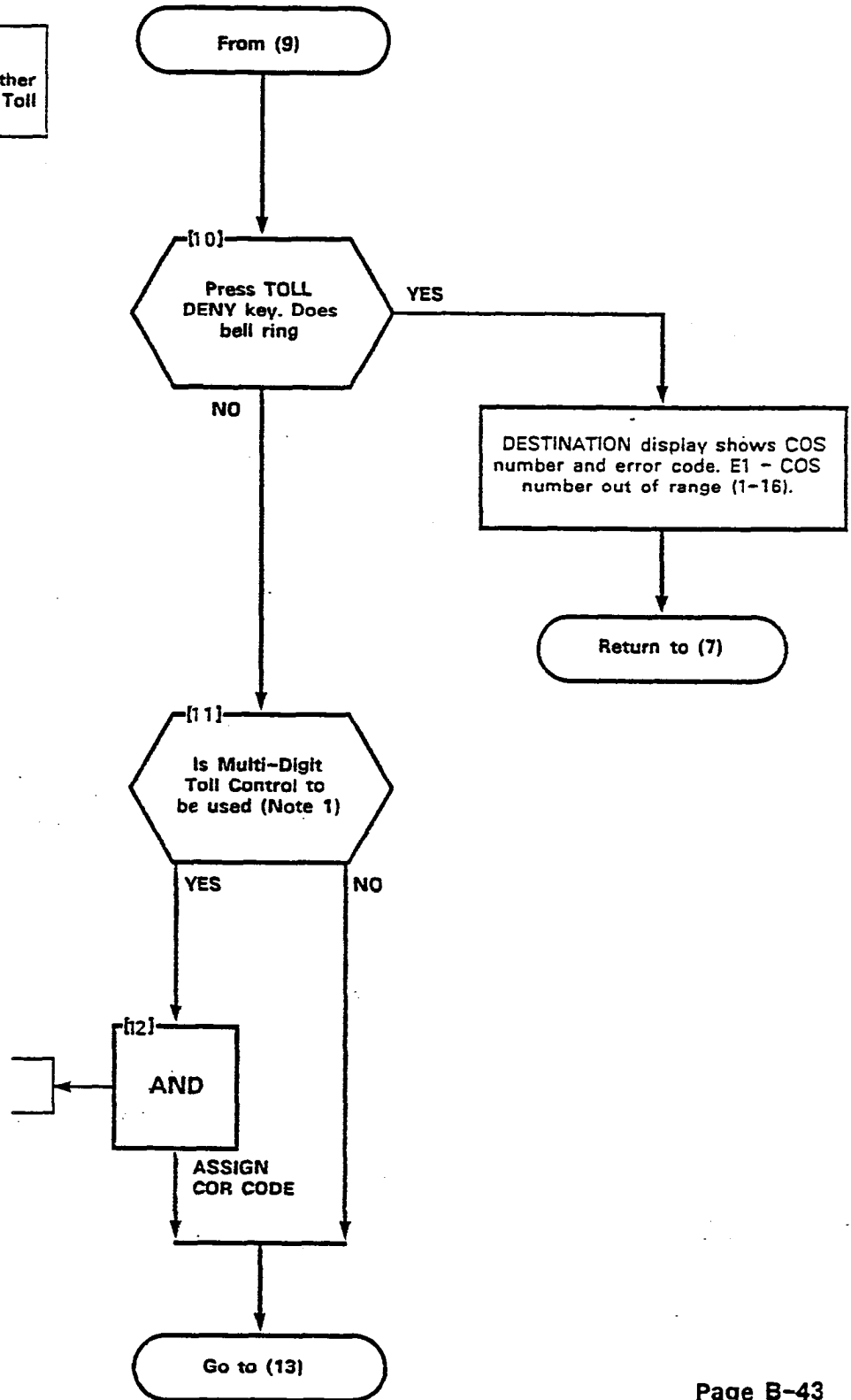
T642

Figure 206-1 Hardware/Equipment Number

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NOTE
 An extension may be subject to either 0/1 Toll-Allowal or Multi-Digit Toll Control, but not both.

(12A) Dial COR code 1, 2 or 3

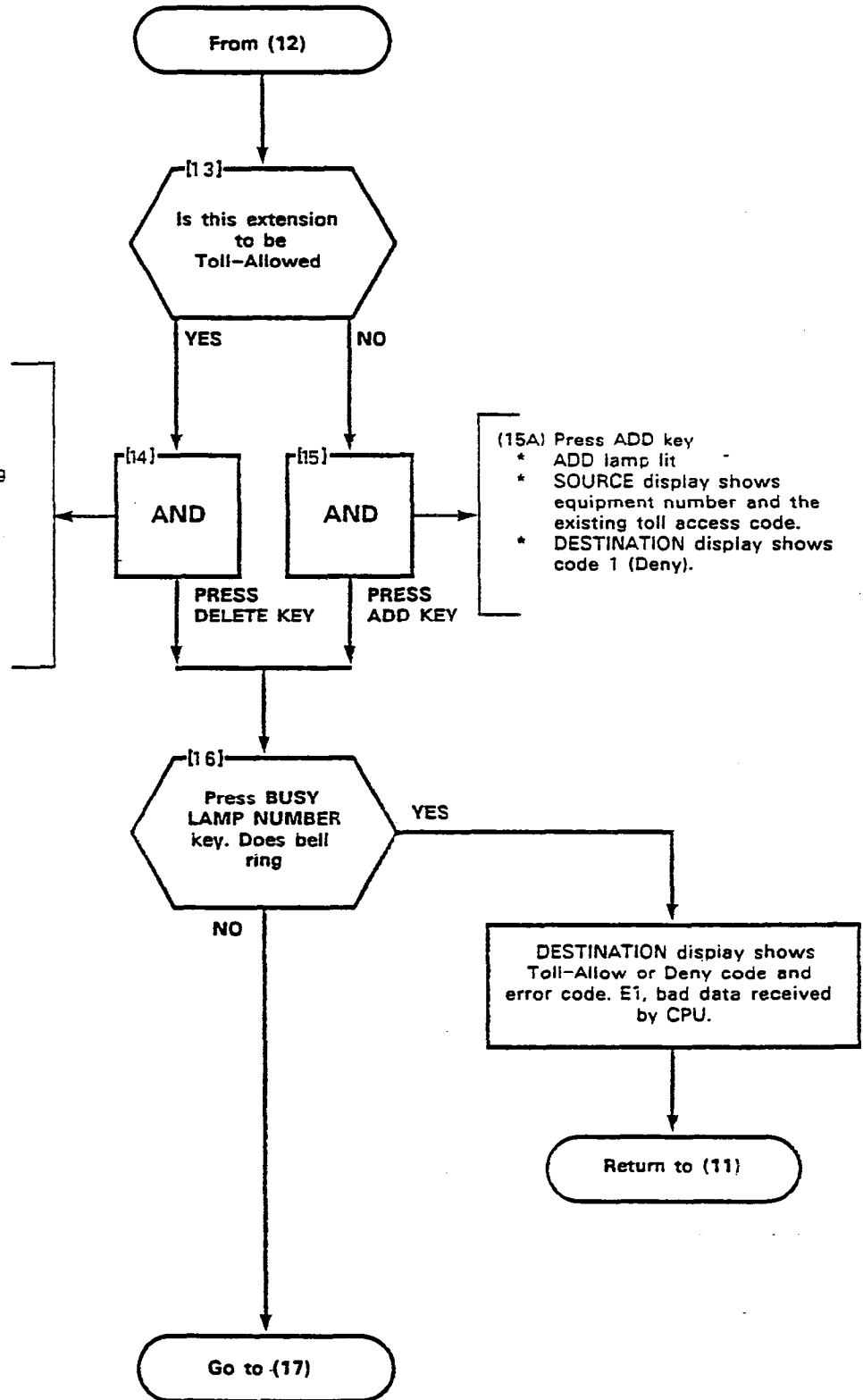


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ASSIGN TOLL ACCESS

- (14A) Press DELETE key
- * DELETE lamp lit
 - * SOURCE display shows equipment number and existing Toll-Allow-Deny code (0 = Allow, 1 = Deny).
 - * If Multi-Digit Toll Control is enabled 0 = Allow, 1 = COR1, 2 = COR2, 3 = COR3.
 - * DESTINATION display shows 0 - Toll-Allow.

- (15A) Press ADD key
- * ADD lamp lit
 - * SOURCE display shows equipment number and the existing toll access code.
 - * DESTINATION display shows code 1 (Deny).



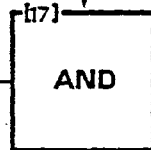
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NOTE
See NOTES at start of MAP210-206.

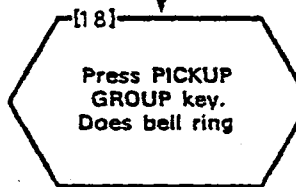
ASSIGN EXTENSION TO BUSY LAMP FIELD
(17A) Dial BUSY LAMP NUMBER (1-200) to be assigned to extension (See Figure 206-2)

- BUSY LAMP NUMBER lamp lit.
- SOURCE display shows equipment number and existing Busy Lamp assignment.
- DESTINATION display shows new Busy Lamp Number.

From (16)



DIAL REQUIRED BUSY LAMP NUMBER (Figure 206-2)



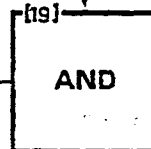
YES

DESTINATION display shows Busy Lamp Number and error code. E1 - number entered out of range (1-200). Check entry and return to (13). C2 - position dialed already assigned. If this is a valid change press the CONFIRM key and continue, noting that this will eliminate the assignment that was there before. If Busy Lamp position is in error return to (13).

NO

ASSIGN EXTENSION TO PICKUP GROUP
(19A) Dial Pickup Group number to which extension is assigned

- PICKUP GROUP lamp lit
- SOURCE display shows equipment number, and current pickup group assignment 0 is displayed if no assignment is made
- DESTINATION display shows new pickup group assignment

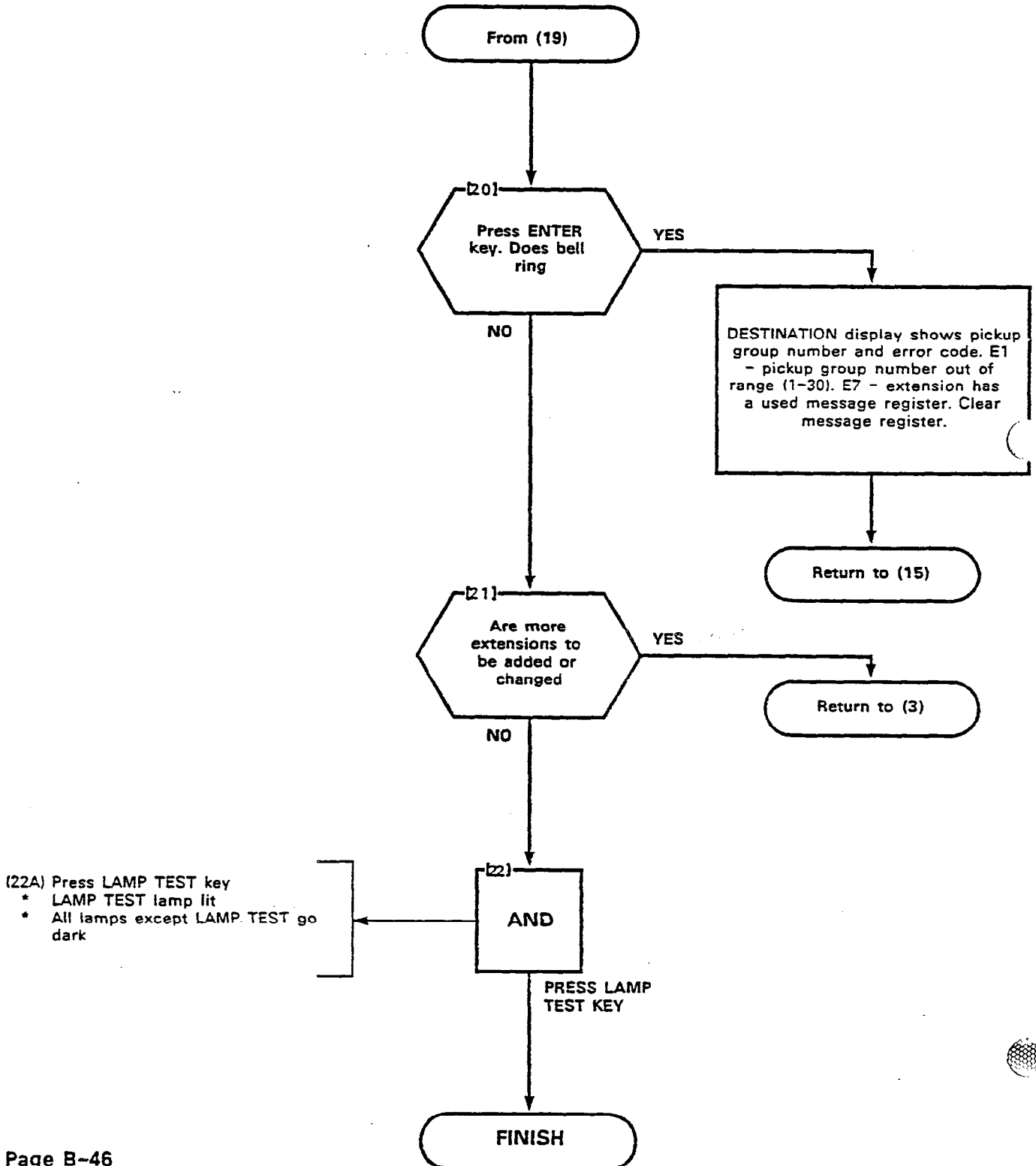


DIAL PICKUP GROUP NUMBER

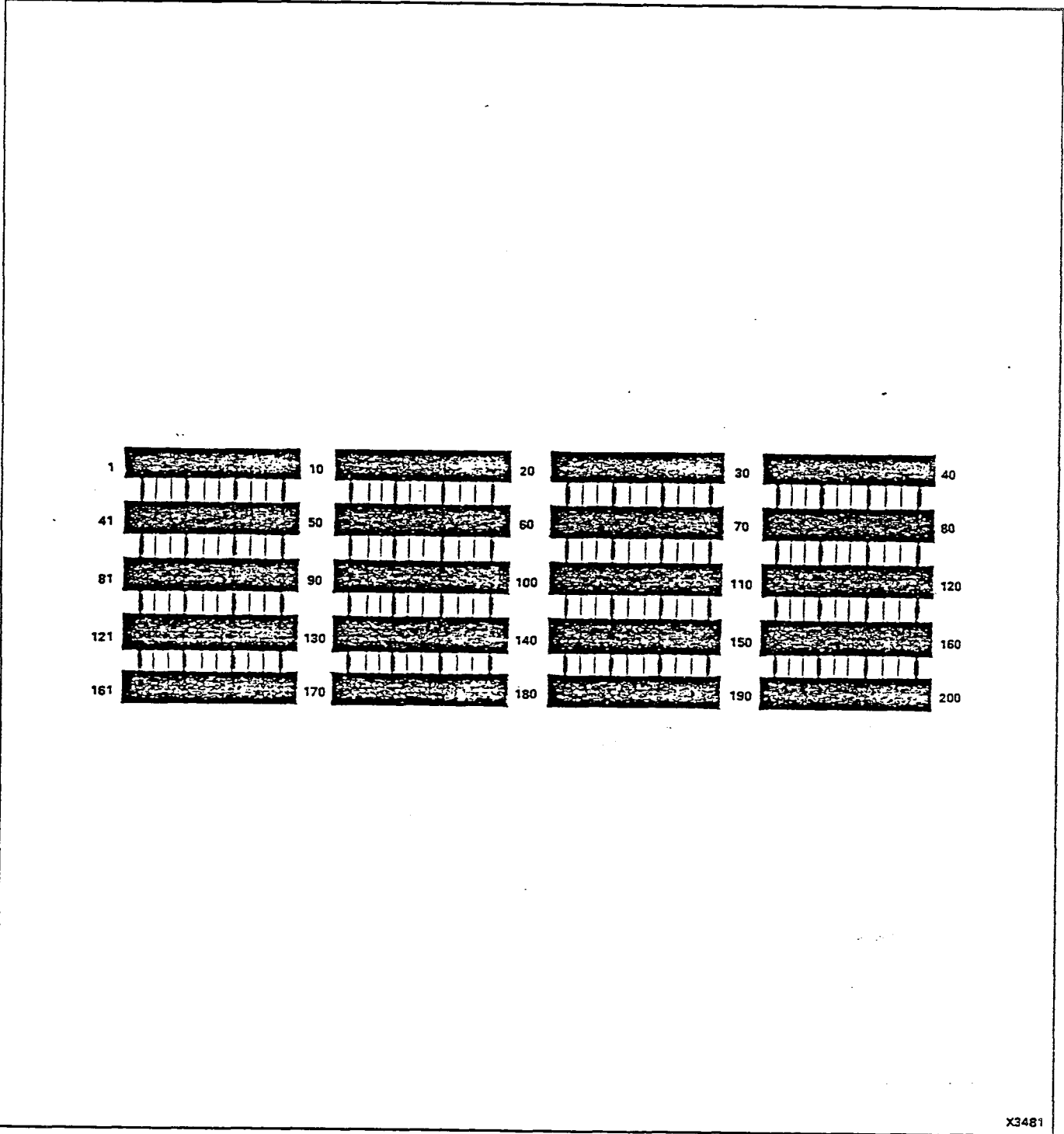
Go to (20)

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X3481

Figure 206-2 Busy Lamp Position Numbering

EXTENSION

TO ENTER EXTENSION PROGRAMMING PRESS

EXTN

NAME	EQPT NUMBER	EXTN NUMBER	DIAL CODE OR SEE NOTES 2,3, OR 4	COS NUMBER	TOLL DENY	ADD	BUSY LAMP NUMBER	DIAL BUSY LAMP NUMBER 1-200	PICKUP GROUP	DIAL 1-30 OR	ENTER
	DIAL 1-112 OR 161-256 (SEE NOTE 1)			DIAL 1-16	TOLL DENY TOLL ALLOW (SEE NOTES 5)	OR DIAL EXT CODE 1,2 OR 3	DELETE	DELETE	DELETE	DELETE	DELETE

NOTES

1. EQUIPMENT NUMBERS 161-256 APPLIES TO SX-200 ONLY

2. TO ASSIGN NON CONFLICTING SINGLE DIGIT DIRECTORY NUMBER, ENTER N# WHERE N IS THE SINGLE DIGIT

3. TO REMOVE EXTENSION PROGRAMMING

4. TO SEE THE NEXT EQPT. NUMBER ASSIGNED AS AN EXTENSION:

5. COR 1-3 APPLIES ONLY IF MULTI DIGIT TOLL CONTROL IS USED

(EXTENSION MUST BE REMOVED FROM ANY HUNT GROUP BEFORE REMOVING THE EXTENSION PROGRAMMING)



Figure 206-3

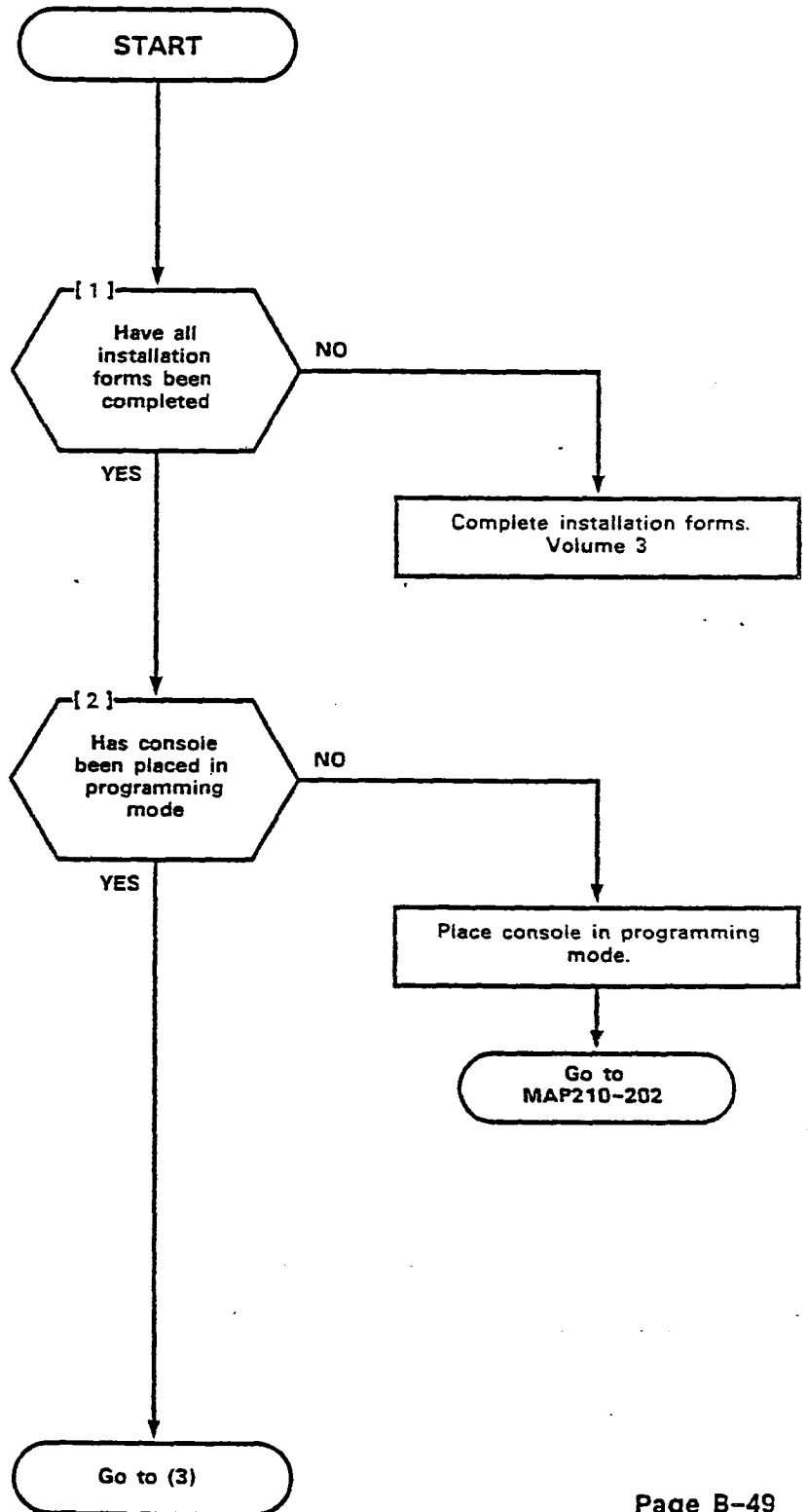
PROGRAM EXTENSION HUNT GROUPS
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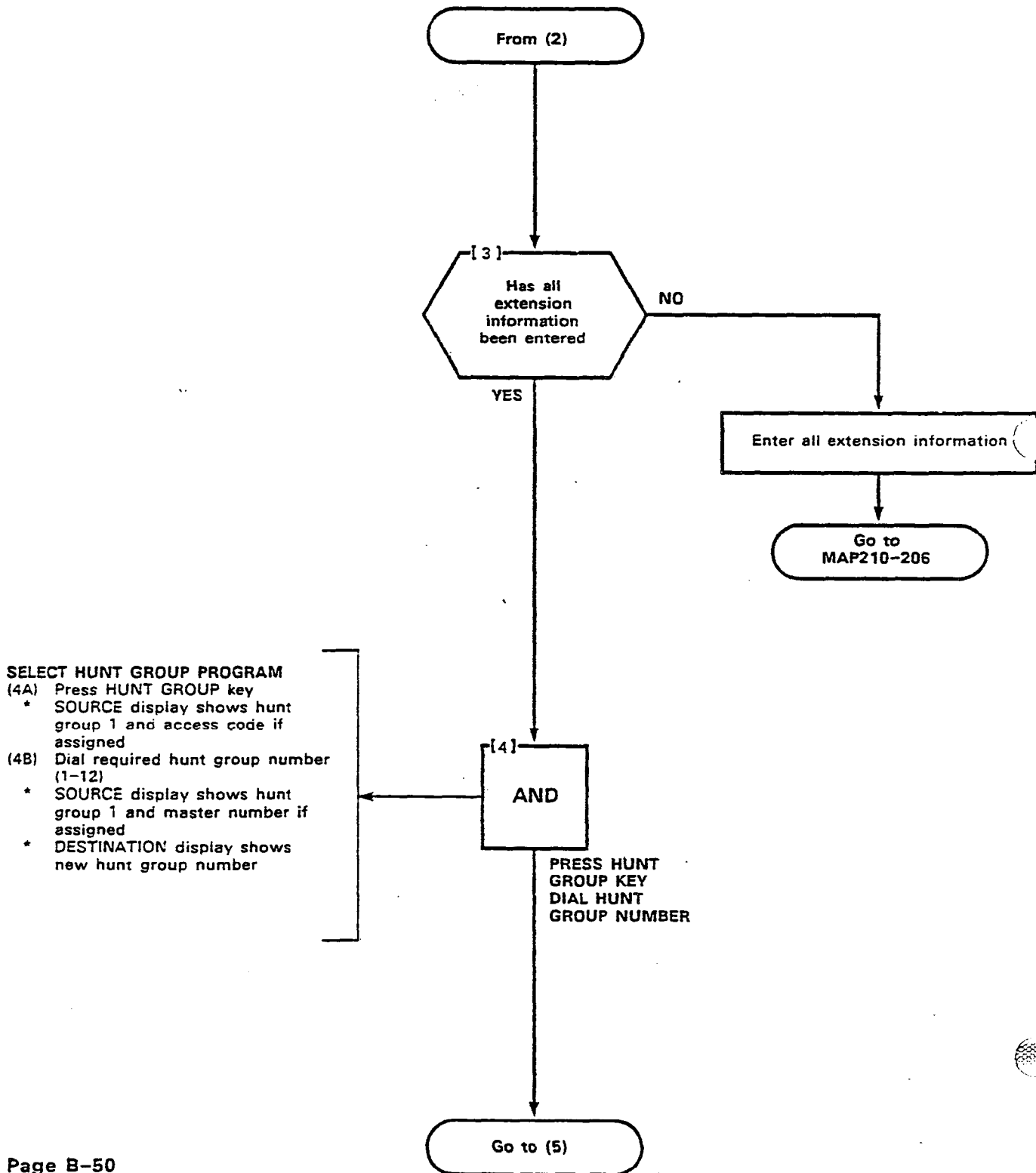
1. All entries are made from the console dial pad.
2. HUNT GROUP lamp remains lit throughout procedure.
3. A display of E0 indicates that an incorrect key has been pressed. Press the key specified in the MAP.
4. If any equipment number is to be changed within a hunt group, the hunt group must be re-entered.
5. Refer to Figure 207-1 for an example of the programming form.

SYNOPSIS

Enter hunt group number (1-12).
 Enter master hunt number.
 Enter all required equipment numbers.
 Determine type of hunting.
 Press ENTER key.



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- NOTE
1. EACH HUNT GROUP MUST CONSIST OF EITHER AGENTS ONLY, OR RECORDINGS ONLY
 2. ALL RECORDINGS IN THE SAME HUNT GROUP SHOULD HAVE THE SAME MESSAGE.

HUNT GROUPS AGENT/RECORDING GROUPS

TO ENTER HUNT GROUP PROGRAMMING PRESS

HUNT
GROUP

(EXTENSIONS OR TRUNK INFORMATION MUST BE ENTERED BEFORE TRUNK GROUP DATA)

HUNT GROUP	DIAL 1-12 (SEE NOTES 1 AND 2)	ACCESS CODE	DIAL CODE OR	DELETE	PRESS	FIRST NUMBER	BEFORE DIALING EACH EQUIPMENT NUMBER ENTRY											ENTER				

TO SEE EQUIPMENT NUMBERS CURRENTLY IN A GROUP

HUNT GROUP DIAL NUMBER 1-12 EQPT NUMBER NEXT NEXT

TO SEE ALL GROUPS

HUNT GROUP NEXT NEXT

TO MAKE A CHANGE TO A GROUP, THE LIST OF MEMBERS MUST BE RE ENTERED. INDIVIDUAL MEMBERS CANNOT BE DELETED OR CHANGED. THE EXISTING GROUP LIST IS AUTOMATICALLY DELETED WHEN YOU START TO ENTER A NEW ONE

FOR CIRCULAR GROUPS FIRST AND LAST NUMBERS MUST BE IDENTICAL

TO DELETE A GROUP

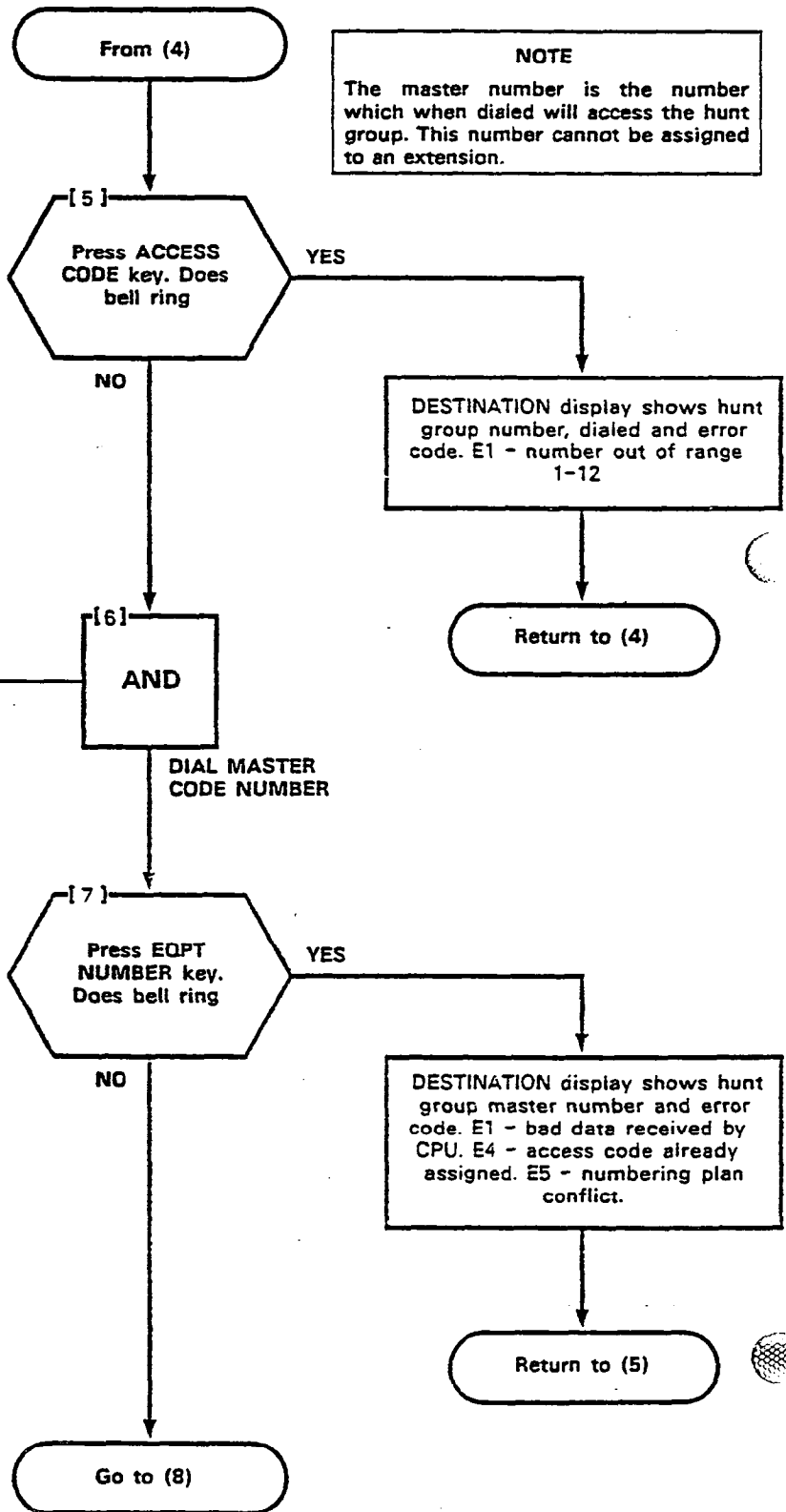
HUNT GROUP DIAL NUMBER 1-12 ACCESS CODE DELETE ENTER

Figure 207-1

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ASSIGN HUNT GROUP MASTER NUMBER
 (6A) Dial hunt group master code
 (See Note)

- * ACCESS CODE lamp lit
- * SOURCE display shows hunt group number and existing master number
- * DESTINATION display shows master number dialed



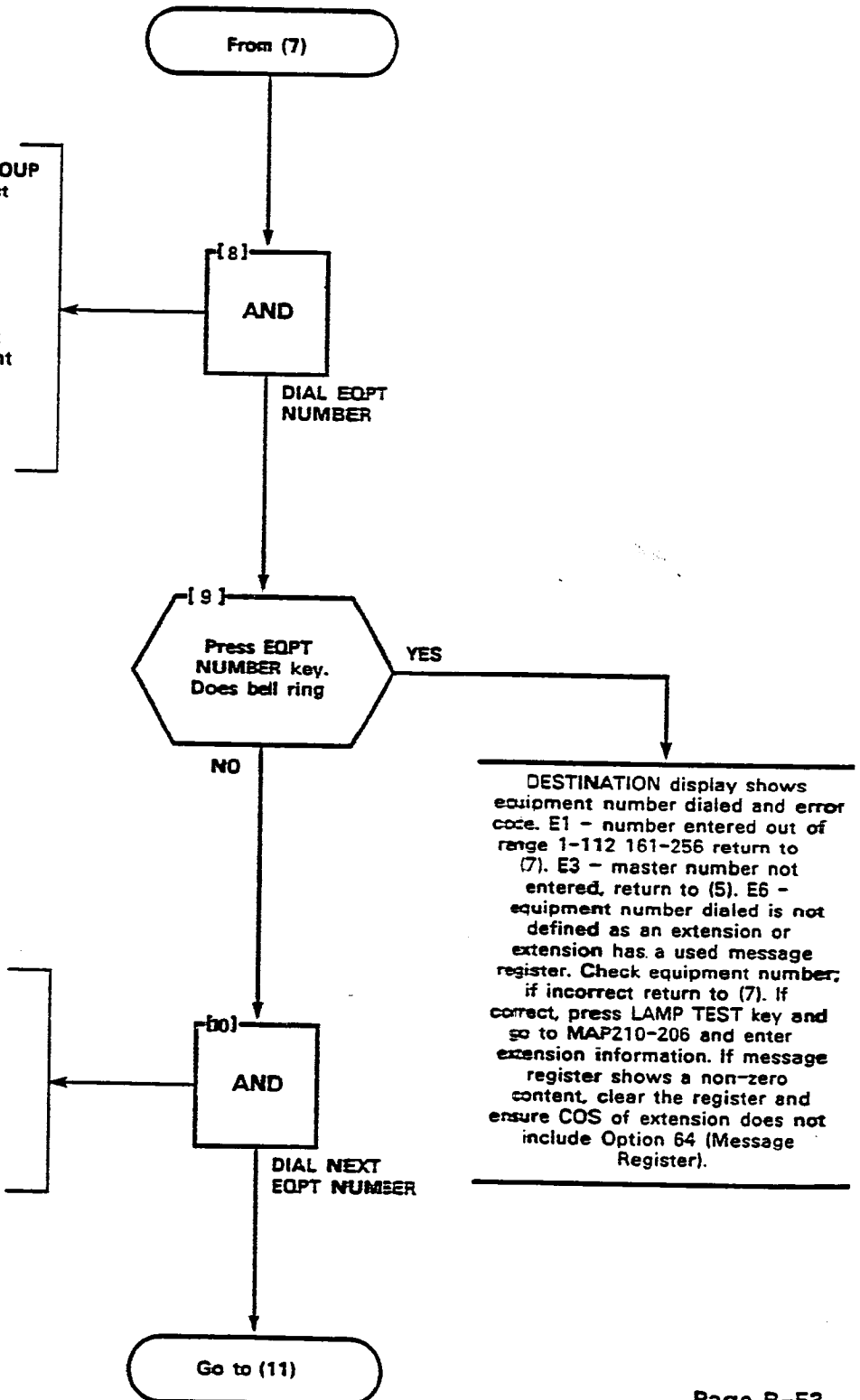
NOTE
 The master number is the number which when dialed will access the hunt group. This number cannot be assigned to an extension.

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ASSIGN EXTENSIONS TO HUNT GROUP

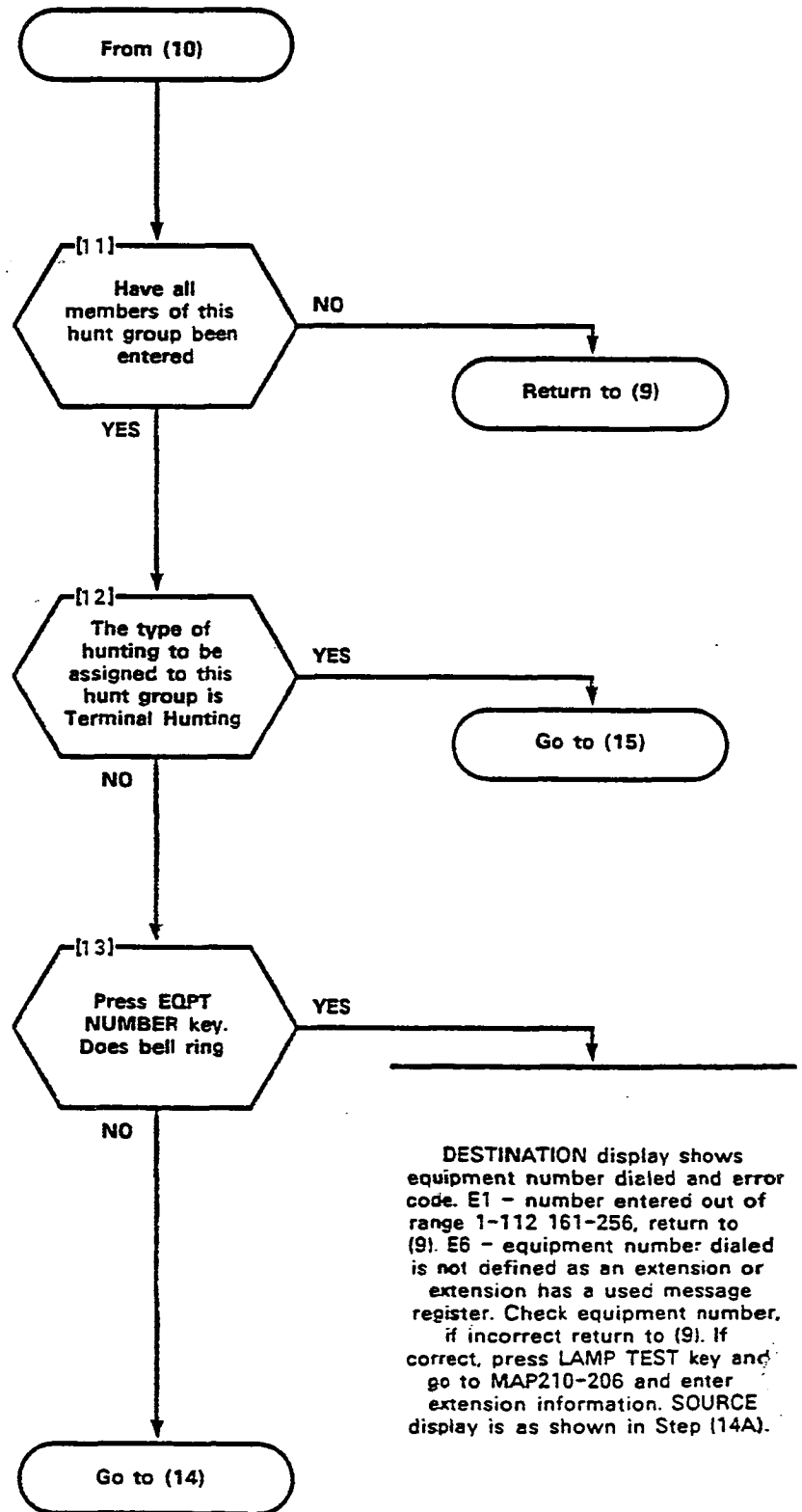
- (8A) Dial equipment number of first extension in this hunt group
- EQPT NUMBER lamp lit
 - SOURCE display shows hunt group number and existing equipment number if one is assigned or the hunt group number alone if no equipment number is assigned to the hunt group
 - DESTINATION display shows equipment number dialed

- (10A) Dial equipment number of next extension in this hunt group
- EQPT NUMBER lamp lit
 - SOURCE display shows hunt group number and existing equipment number
 - DESTINATION display shows equipment number dialed

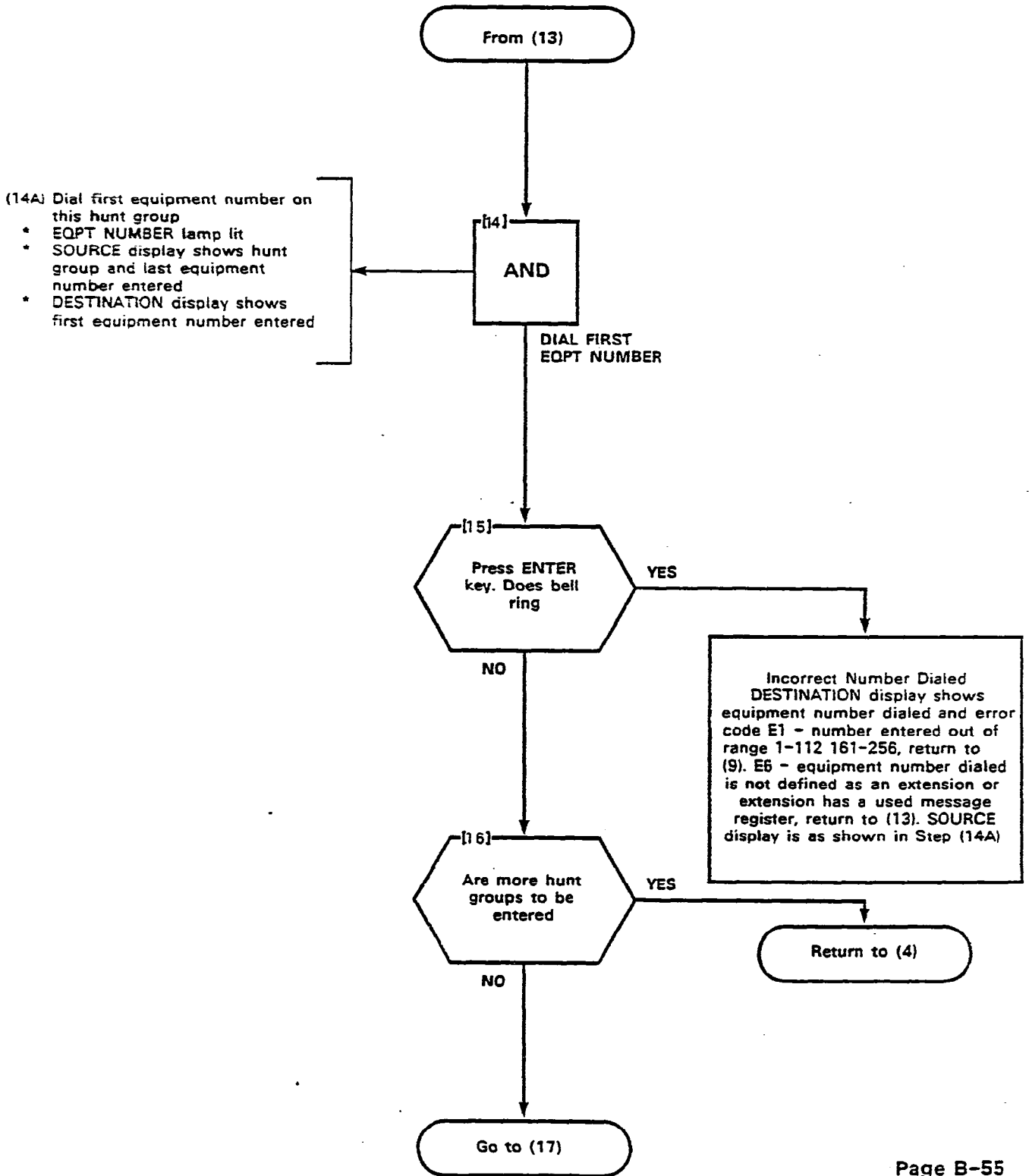


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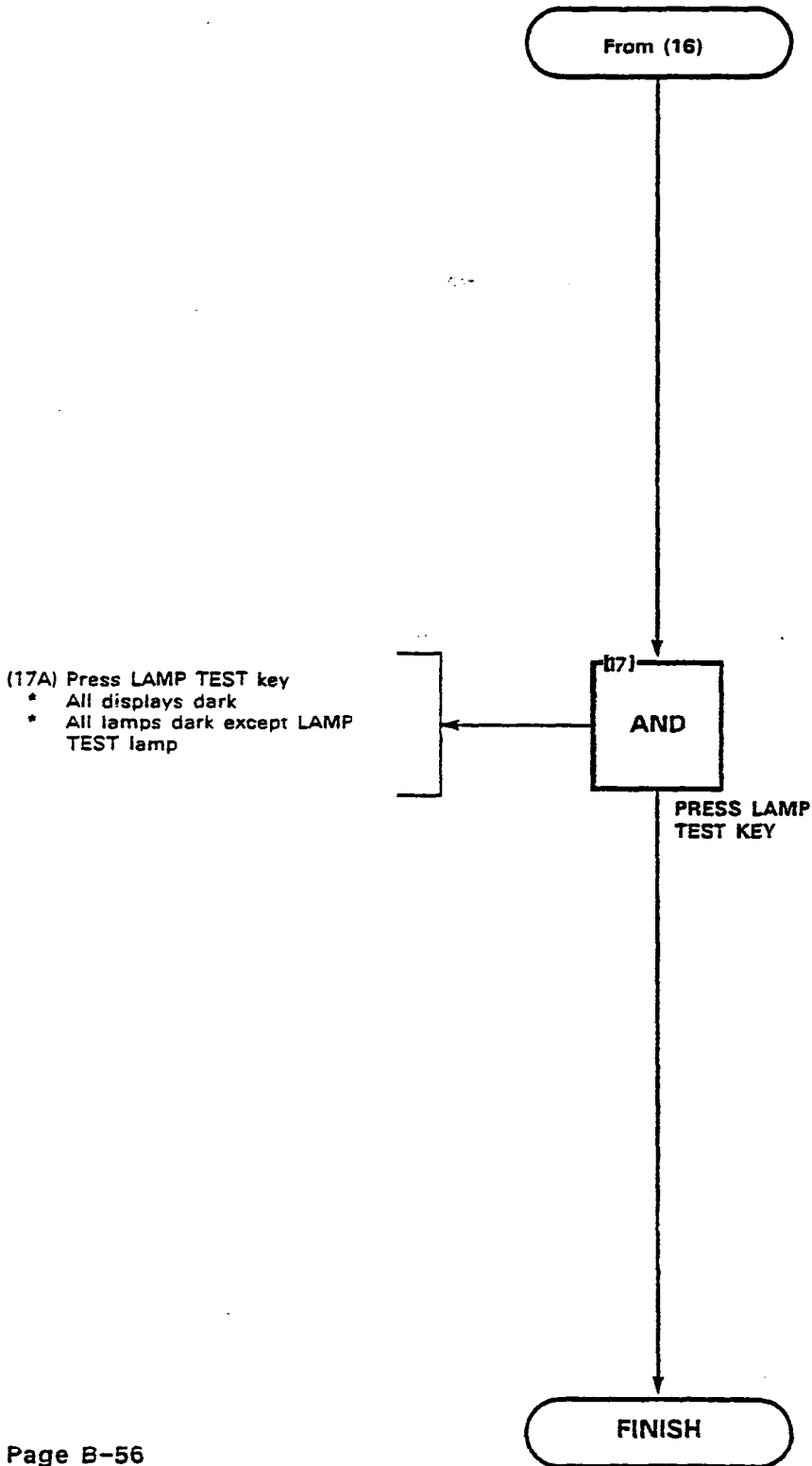


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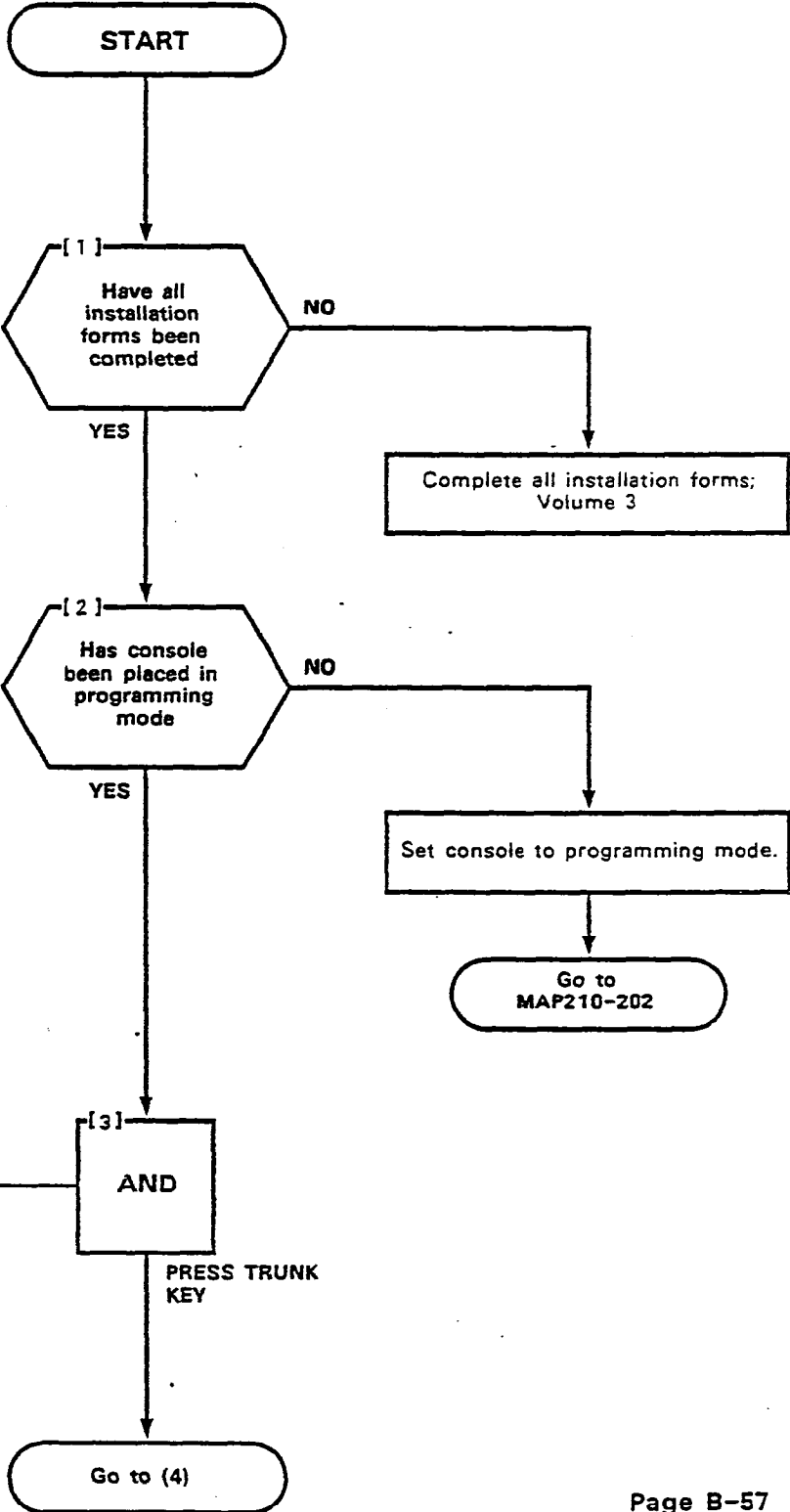
NOTES

1. All entries are made from the console dial pad.
2. TRUNK lamp remains lit throughout procedure.
3. A display of E0 indicates that an incorrect key was pressed. Press the key specified in MAP and proceed.
4. For an example of the programming form, refer to Figure 208-3.

SYNOPSIS

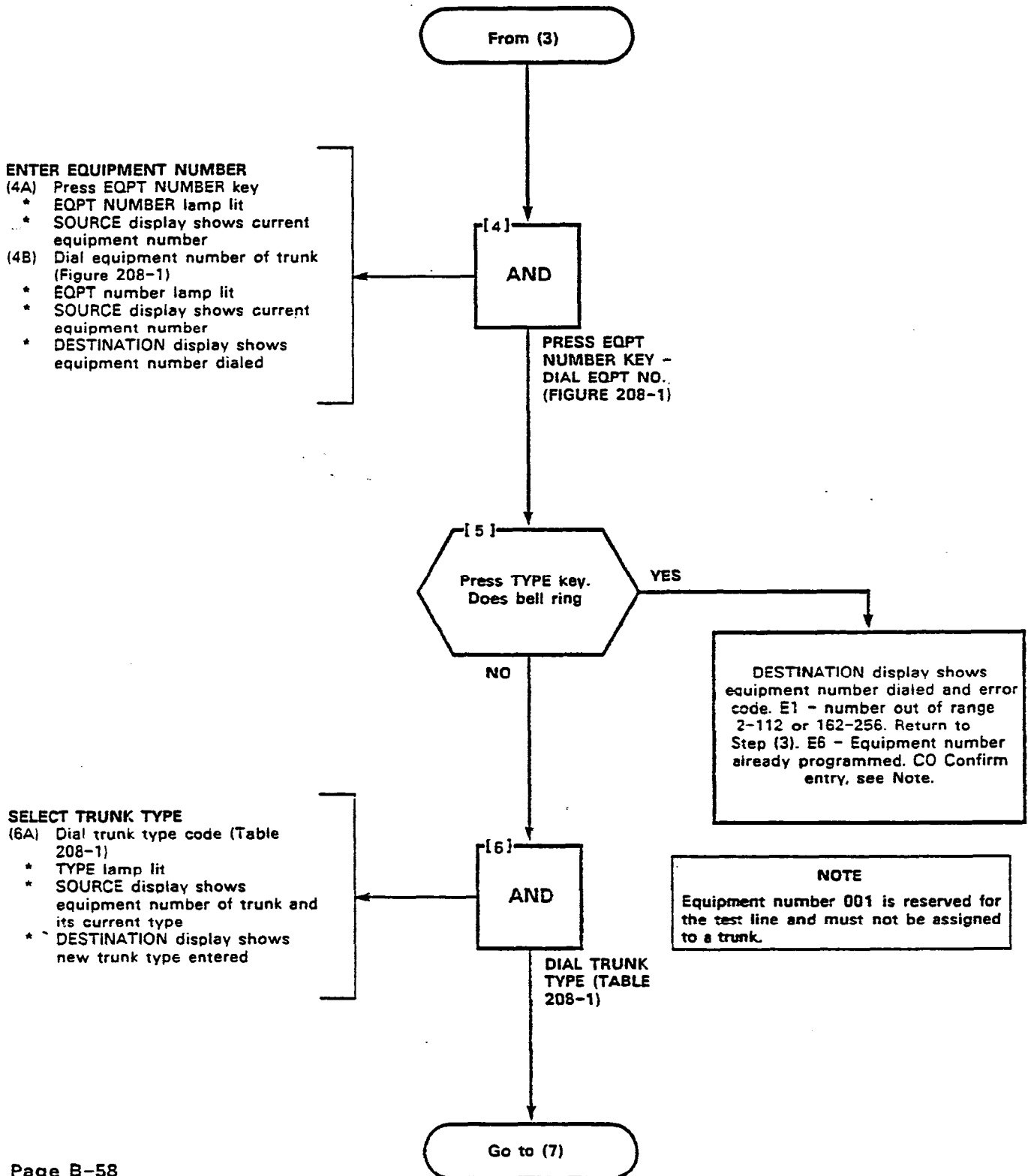
Enter Trunk type number (10-112/162-256).
 Enter Trunk type number (1 or 5, 11 or 51).
 Enter LDN assignment.
 Enter DAY assignment.
 Enter NIGHT 1 assignment.
 Enter NIGHT 2 assignment.
 Enter Busy Lamp Position number.
 Press ENTER key.

SELECT TRUNK PROGRAM
 (3A) Press TRUNK key
 * TRUNK lamp lights and remains lit throughout procedure



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HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11						EXTENSION UNIT NO.	TRUNK UNIT NO. (4-TRUNK)	TRUNK UNIT NO. (2-TRUNK)	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				19
161	169	177	185	193	201	209	217	225	233	241	249								1			
162	170	178	186	194	202	210	218	226	234	242	250								2	1	1	
163	171	179	187	195	203	211	219	227	235	243	251								3			
164	172	180	188	196	204	212	220	228	236	244	252								4	2		
165	173	181	189	197	205	213	221	229	237	245	253								5			
166	174	182	190	198	206	214	222	230	238	246	254								6	3	2	
167	175	183	191	199	207	215	223	231	239	247	255								7			
168	176	184	192	200	208	216	224	232	240	248	256								8	4		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	SLOT NUMBER
	PLUG 8						PLUG 10						PLUG 12									

SHELF 2 (SX-200 ONLY)

HARDWARE POSITION NUMBER	PLUG 1						PLUG 3						PLUG 5						EXTENSION UNIT NO.	TRUNK UNIT NO. (4-TRUNK)	TRUNK UNIT NO. (2-TRUNK)				
	001	009	017	025	033	041	049	057	065	073	081	089	097	105	113	CONSOLE CONTROL/ICF CARD	CONSOLE CONTROL CARD	TONE CONTROL				1	2	3	4
002	010	018	026	034	042	050	058	066	074	082	090	098	106	114				RESERVED	2	1	1				
003	011	019	027	035	043	051	059	067	075	083	091	099	107	115				FOR	4	2					
004	012	020	028	036	044	052	060	068	076	084	092	100	108	116				COMMON	5						
005	013	021	029	037	045	053	061	069	077	085	093	101	109	117				CONTROLS	6	3	2				
006	014	022	030	038	046	054	062	070	078	086	094	102	110	118					7						
007	015	023	031	039	047	055	063	071	079	087	095	103	111	119					8	4					
008	016	024	032	040	048	056	064	072	080	088	096	104	112	120											
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	CARD POSITION			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	SLOT NUMBER			
	PLUG 2						PLUG 4						PLUG 6												

SHELF 1

- NOTES:
1. DUAL-/QUAD-RECEIVER EQUIPMENT NUMBERS ARE 090, 092, 106, 114, 092, 100, 108 AND 116.
 2. QUAD-RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
 3. EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
 4. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
 5. SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
 6. MAXIMUM NUMBER OF SUPERSET 4 SETS = 64

Figure 208-1 Hardware/Equipment Number

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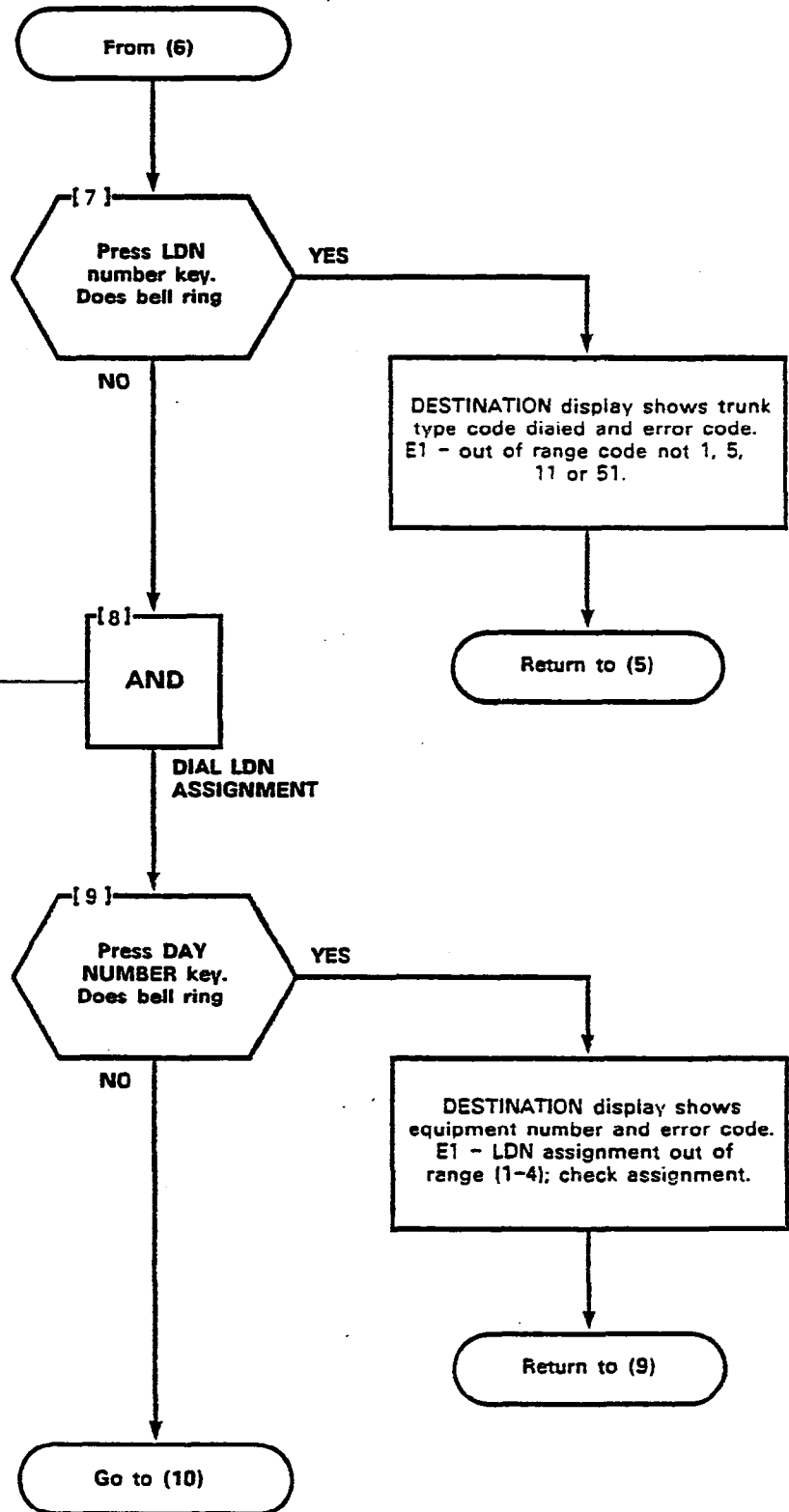
NOTE
 The equipment number dialed is either assigned to an extension or does not contain a trunk card. Check equipment number and card slot. If you wish to remove the previous assignment and assign this equipment position to the trunk, press CONFIRM key and return to Step (3). If you wish to change the equipment entry, return to Step (3).

ASSIGN TRUNK TO LDN KEY
 (8A) Dial LDN key number (1-4) to be assigned to trunk

- * LDN lamp lit
- * SOURCE display shows equipment number and current LDN key assignment
- * DESTINATION display shows new LDN assignment

TABLE 208-1

Code	Type
1	Both way CO trunk VNL
5	Non-Dial-In Trunk VNL
11	Both way CO Trunk Non-VNL
51	Non-Dial-In Tie Trunk Non-VNL



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TABLE 208-2

Code Assignment	Display
#0 Attendant	0
#1 Bell 1 plus Attendant	1
#2 Bell 2 plus Attendant	2
#3 Bell 3 plus Attendant	3
nnn Equipment Number of extension	nnn
* as Hunt Group number 1-12	Laa

NOTE
The # key is displayed as --1 on the console display. The * key is displayed as L on the console display.

ENTER DAY ASSIGNMENT

(10A) Dial DAY assignment of trunk (see Table 208-2)

- * DAY lamp lit
- * SOURCE display shows equipment number and current day assignment (Table 208-2)
- * DESTINATION display shows new day assignment (Table 208-2)

From (9)

[10] AND

DIAL DAY ASSIGNMENT (TABLE 208-2)

[11] Press NIGHT 1 key. Does bell ring

YES

DESTINATION display shows day number dialed and E1 assignment entered incorrect; check assignment.

Return to (9)

NO

[12] Is this Trunk to be assigned to NIGHT service 1

YES

NO

[13] AND

ASSIGN NIGHT 1

Go to (14)

ENTER NIGHT 1 ASSIGNMENT

(13A) Dial code of equipment to which trunk is to be connected (Table 208-3)

- * NIGHT 1 lamp lit
- * SOURCE display shows current assignment of trunk
- * DESTINATION display shows code dialed

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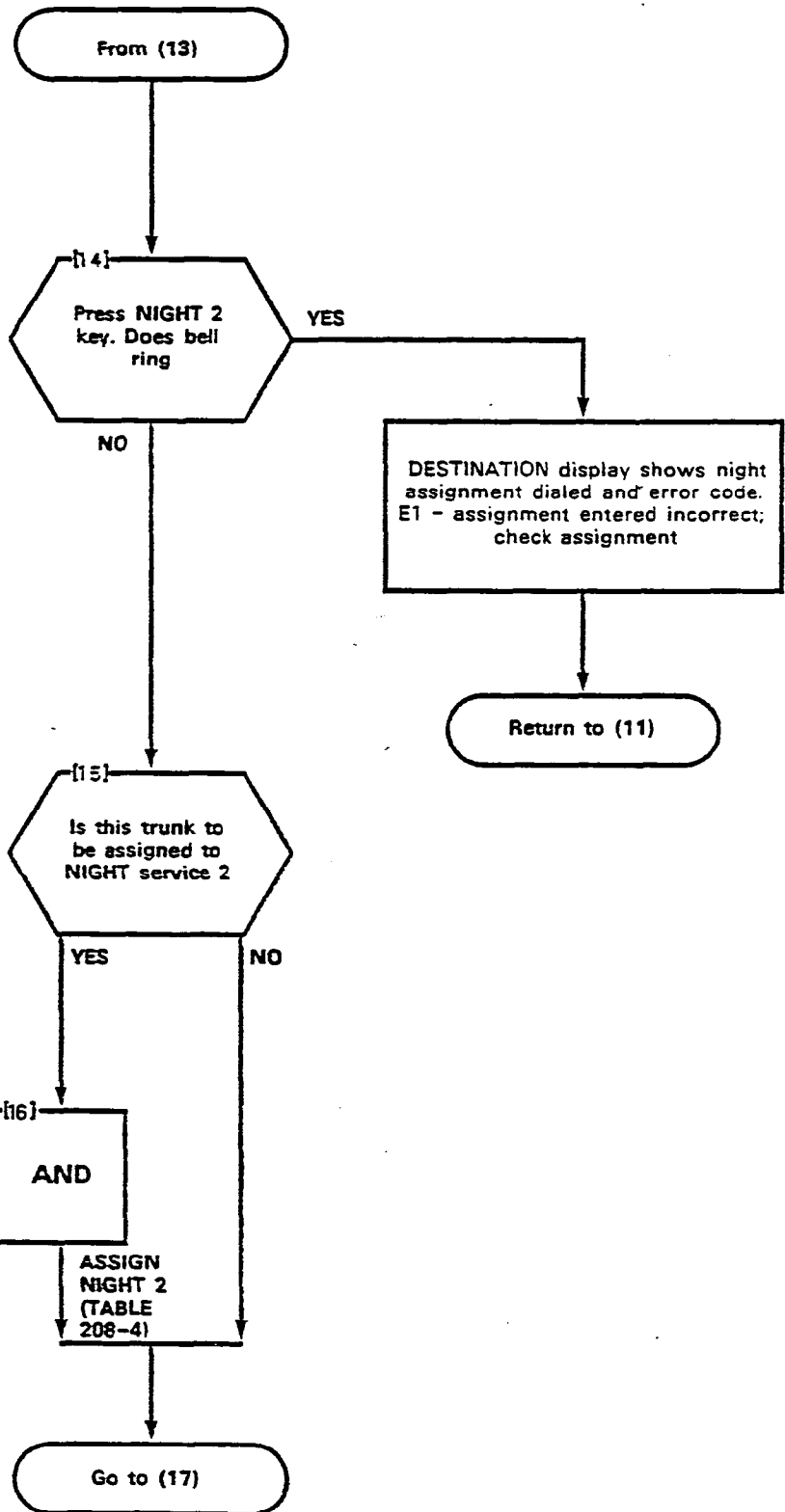
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TABLE 208-3

Code Assignment	Display
#0 Attendant Console	0
#1 Bell 1 plus Attendant	1
#2 Bell 2 plus Attendant	2
#3 Bell 3 plus Attendant	3
nnn Equipment Number of extension	nan
* as Hunt Group number 1-12	Laa

NOTE

The # key is displayed as --| on the console display. The * key is displayed as L on the console display.



ENTER NIGHT 2 ASSIGNMENT
 (16A) Dial code of equipment to which trunk is to be connected (Table 208-4)

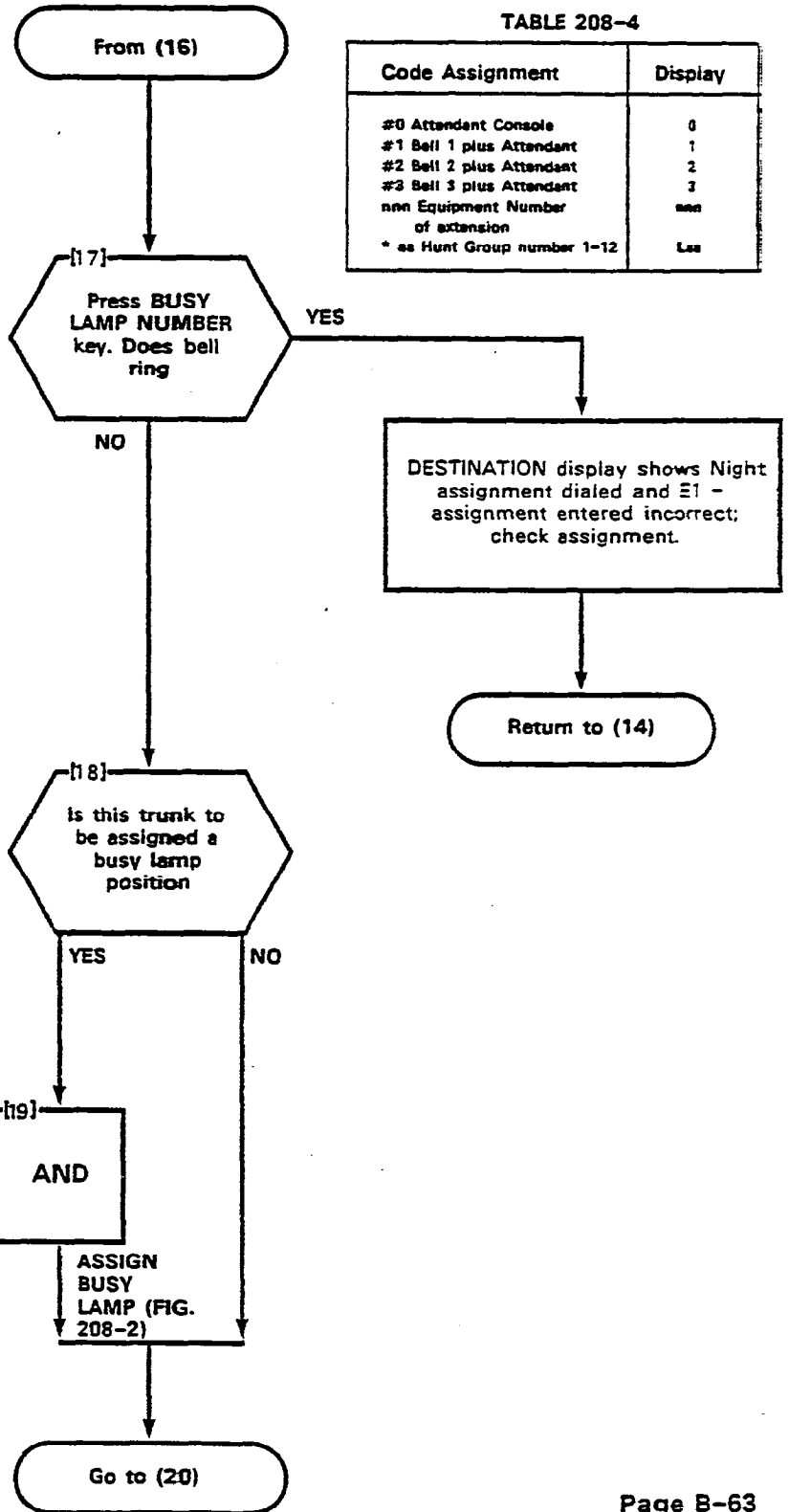
- * NIGHT 2 lamp lit
- * SOURCE display shows current assignment of trunk
- * DESTINATION display shows code dialed

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NOTE
 The # key is displayed as --I on the console display. The * key is displayed as L on the console display.

TABLE 208-4

Code Assignment	Display
#0 Attendant Console	0
#1 Bell 1 plus Attendant	1
#2 Bell 2 plus Attendant	2
#3 Bell 3 plus Attendant	3
nnn Equipment Number of extension	nnn
* as Hunt Group number 1-12	Lnn



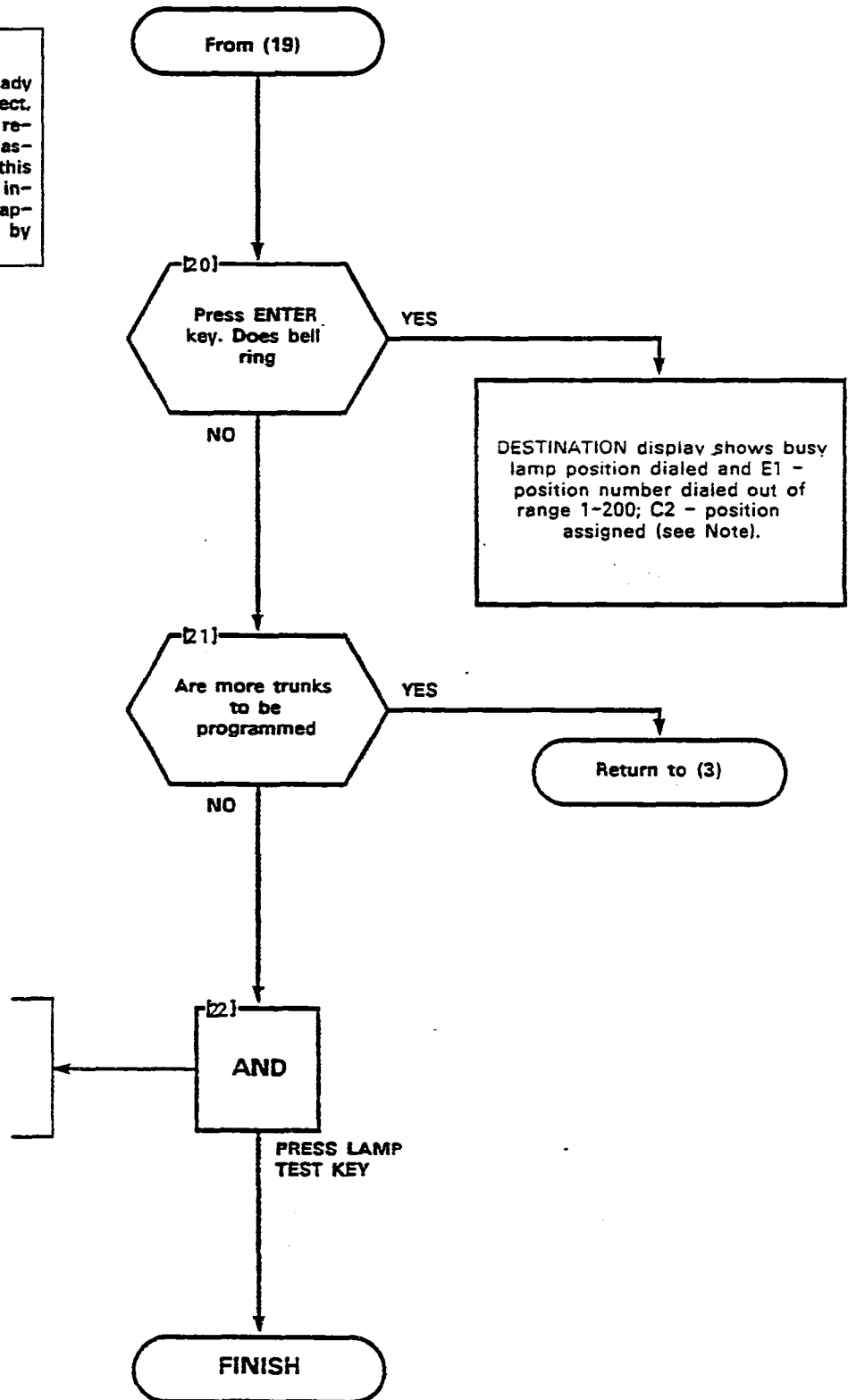
ASSIGN TRUNK TO BUSY LAMP FIELD

- (19A) Dial busy lamp position assigned to the trunk (Figure 208-2)
- * BUSY LAMP number lamp lit
 - * SOURCE display shows equipment number of trunk and current busy lamp assignment
 - * DESTINATION display shows new busy lamp assignment

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NOTE
 The busy lamp position dialed already exists. If assignment dialed is correct, press the CONFIRM key. This will remove the original assignment and assign the busy lamp position to this trunk. The busy lamp will therefore, indicate multiple numbers. Multiple appearances may be removed by proceeding through this MAP.



(22A) Press LAMP TEST key
 * All displays dark
 * All lamps dark except LAMP TEST lamp

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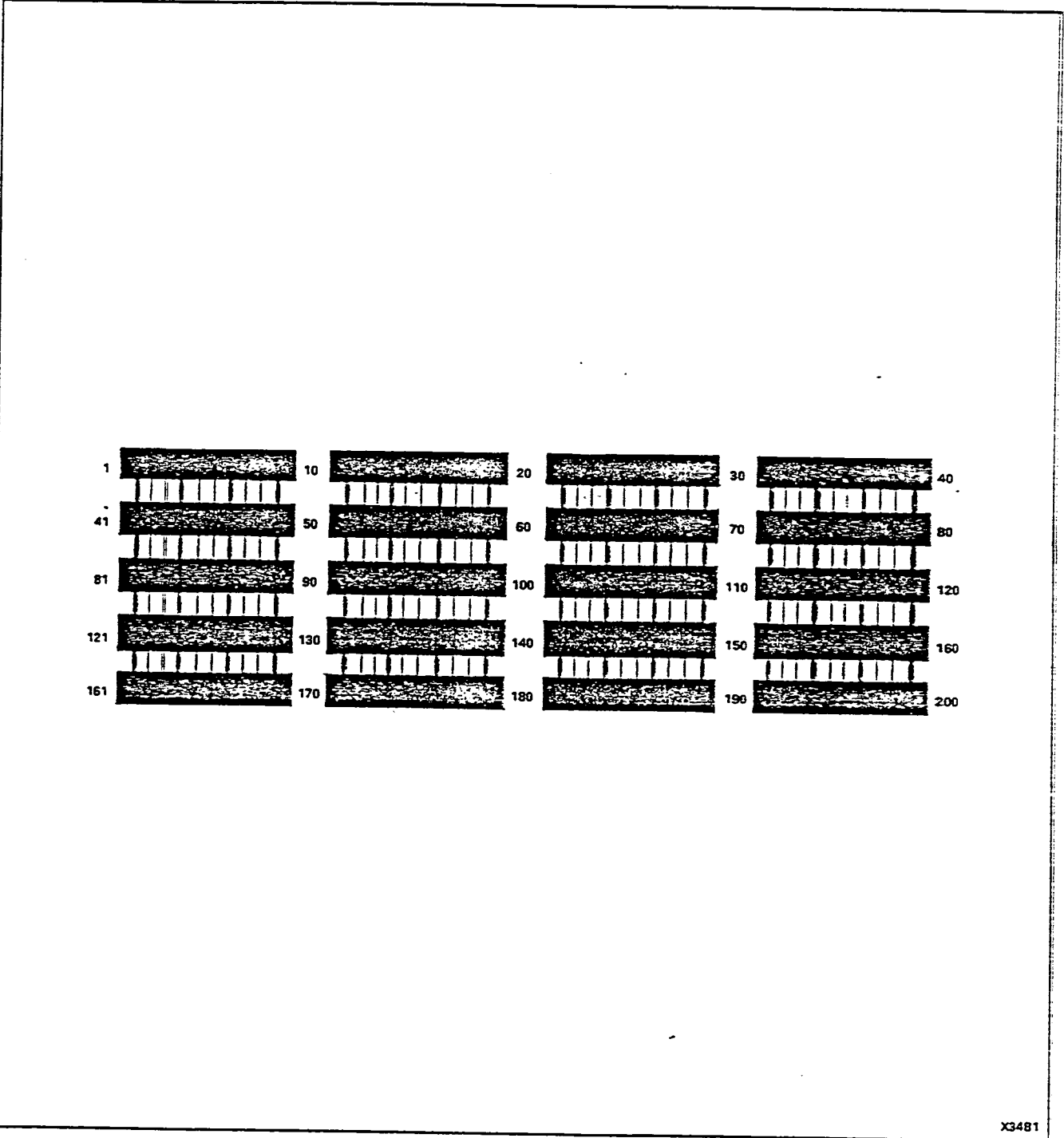


Figure 208-2 Busy Lamp Position Numbering

NON DIAL-IN TRUNKS

TO ENTER TRUNK PROGRAMMING PRESS

TRUNK

LDN NUMBER	EQPT NUMBER DIAL 10-112 OR 162-256 (SEE NOTES 1,2 AND 7)	(SEE NOTE 3) DIAL 1, 5, 11 51 OR TYPE DELETE	LDN NUMBER DIAL 1-4	(SEE NOTE 4 AND 8) DIAL NO-N3 OR DAY NUMBER +1-+12 OR 1-112 OR 161-256	(SEE NOTE 4 AND 8) DIAL NO-N3 OR NIGHT 1 +11-+12 OR 1-112 OR 161-256	(SEE NOTE 4 AND 8) DIAL NO-N3 OR NIGHT 2 +1-+12 OR 1-112 OR 161-256	BUSY LAMP NUMBER DIAL 1-200 OR DELETE	ENTER

NOTES

- 1. EQUIPMENT NUMBERS 162-256 APPLY TO 5X-200 ONLY
- 2. ONLY EVEN EQUIPMENT NUMBERS MAY BE ASSIGNED TO TRUNKS
- 3. TYPE 1 = STANDARD BOTHWAY CO TRUNK VNL
TYPE 5 = NON DIAL-IN TIE TRUNK (NON CO) VNL
TYPE 11 = STANDARD BOTHWAY CO TRUNK NON VNL
TYPE 51 = NON DIAL-IN TIE TRUNK (NON-CO) NON VNL

- 4. #0-CONSOLE ONLY
#1-CONSOLE AND NIGHT BELL 1 #2 - CONSOLE AND NIGHT BELL 2
#3-CONSOLE AND NIGHT BELL 3
- 5. TO REMOVE A TRUNK ASSIGNMENT:
NOTE: TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP

- #1-#12 ASSIGNS THE TRUNK TO THE HUNT GROUP SELECTED
1-112, 161-256 ASSIGNS THE TRUNK TO THE SPECIFIED EXTENSIONS
- 6. TO SEE THE NEXT EQUIPMENT NUMBER PROGRAMMED AS A TRUNK
- 7. SLOT 1 SHOULD CONTAIN A LINE CARD, SO FIRST TRUNK EQUIPMENT NUMBER SHOULD BE 010
- 8. TRUNK GROUP 12 HAS PRIORITY OVER ALL OTHER TRUNK GROUPS FOR SERVICE FROM AN AGENT GROUP.

EQPT NUMBER DIAL EQUIPMENT NUMBER TYPE DELETE ENTER

EQPT NUMBER NEXT



Figure 208-3

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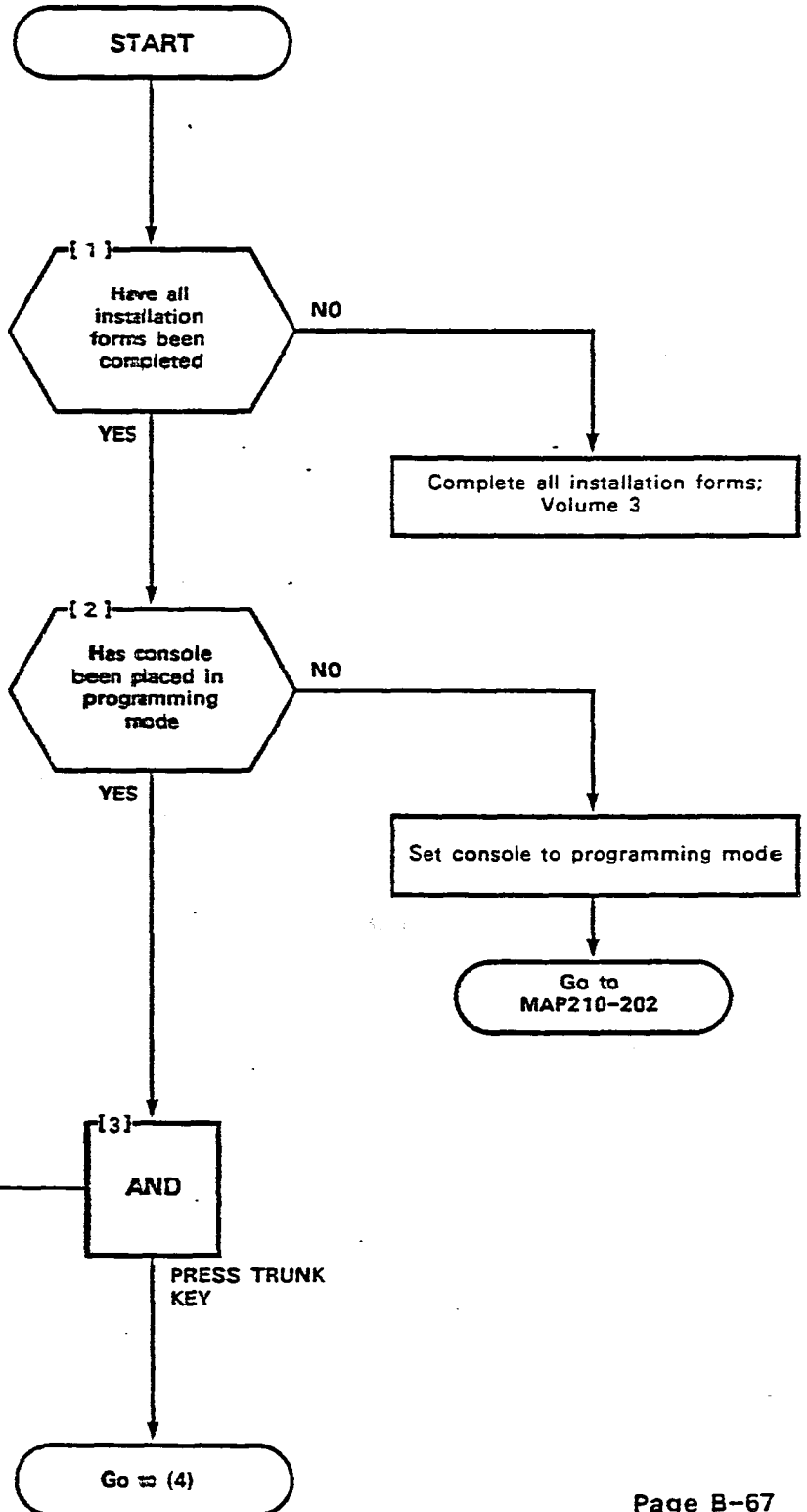
NOTES

1. All entries are made from the console dial pad.
2. TRUNK lamp remains lit throughout procedure.
3. A display of EO indicates that an incorrect key was pressed. Press the key specified in MAP and proceed.
4. This flow chart applies to E&M, LOOP and DX Tie Trunks.
5. Refer to Figure 209-3 for an example of the form.

SYNOPSIS

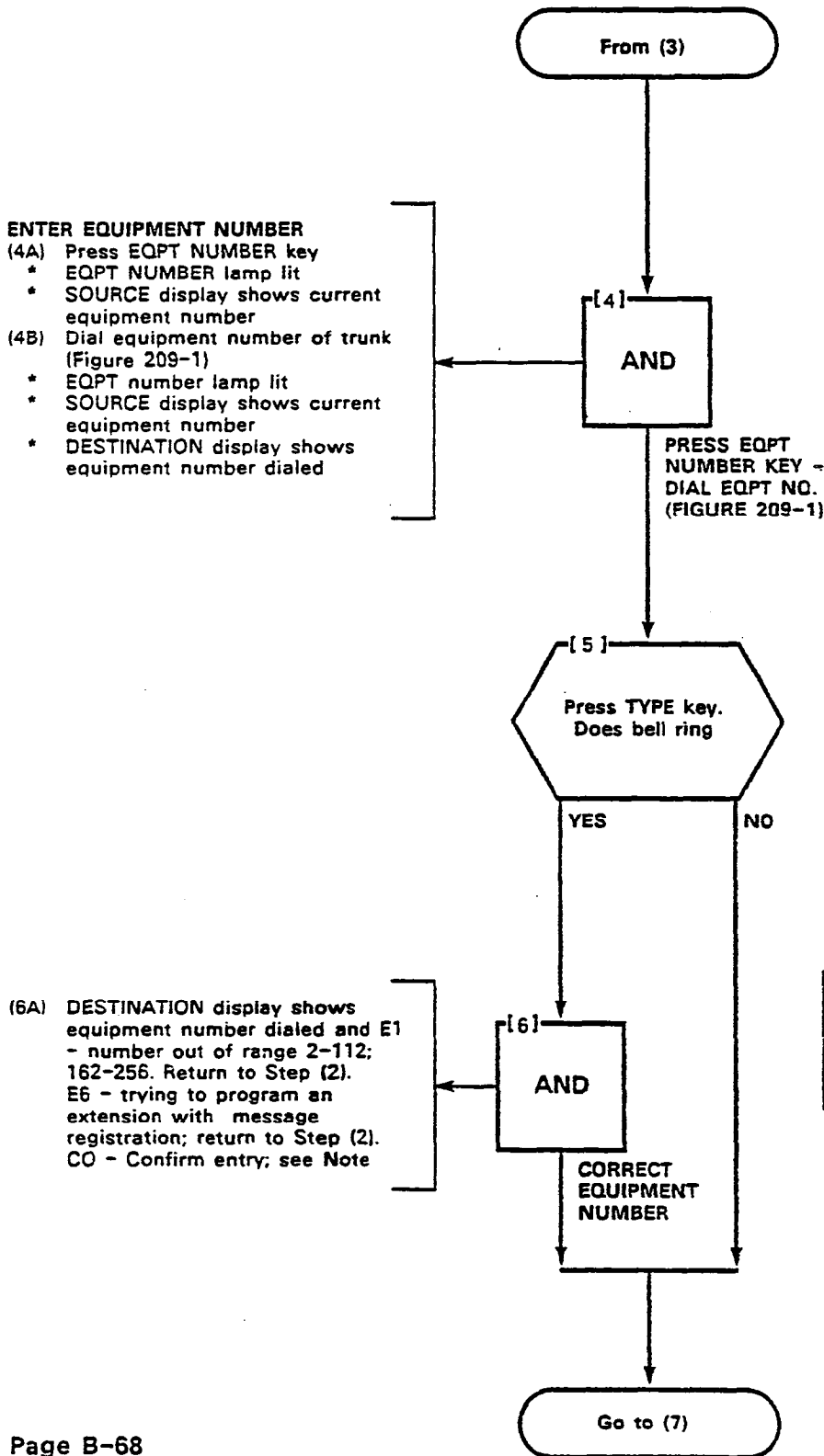
Press TRUNK key.
 Enter Equipment number (10-161/162-256).
 Enter Trunk type number 2 or 4; 21 or 41.
 Enter Trunk COS.
 Enter Toll-Allow/Deny code.
 Enter Busy Lamp Position number.
 Press ENTER.

SELECT TRUNK PROGRAM
 (3A) Press TRUNK key
 * TRUNK lamp lights and remains lit throughout procedure



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NOTE
 Equipment number 001 is reserved for the test line. Trunks therefore cannot be assigned to equipment numbers 001-008.

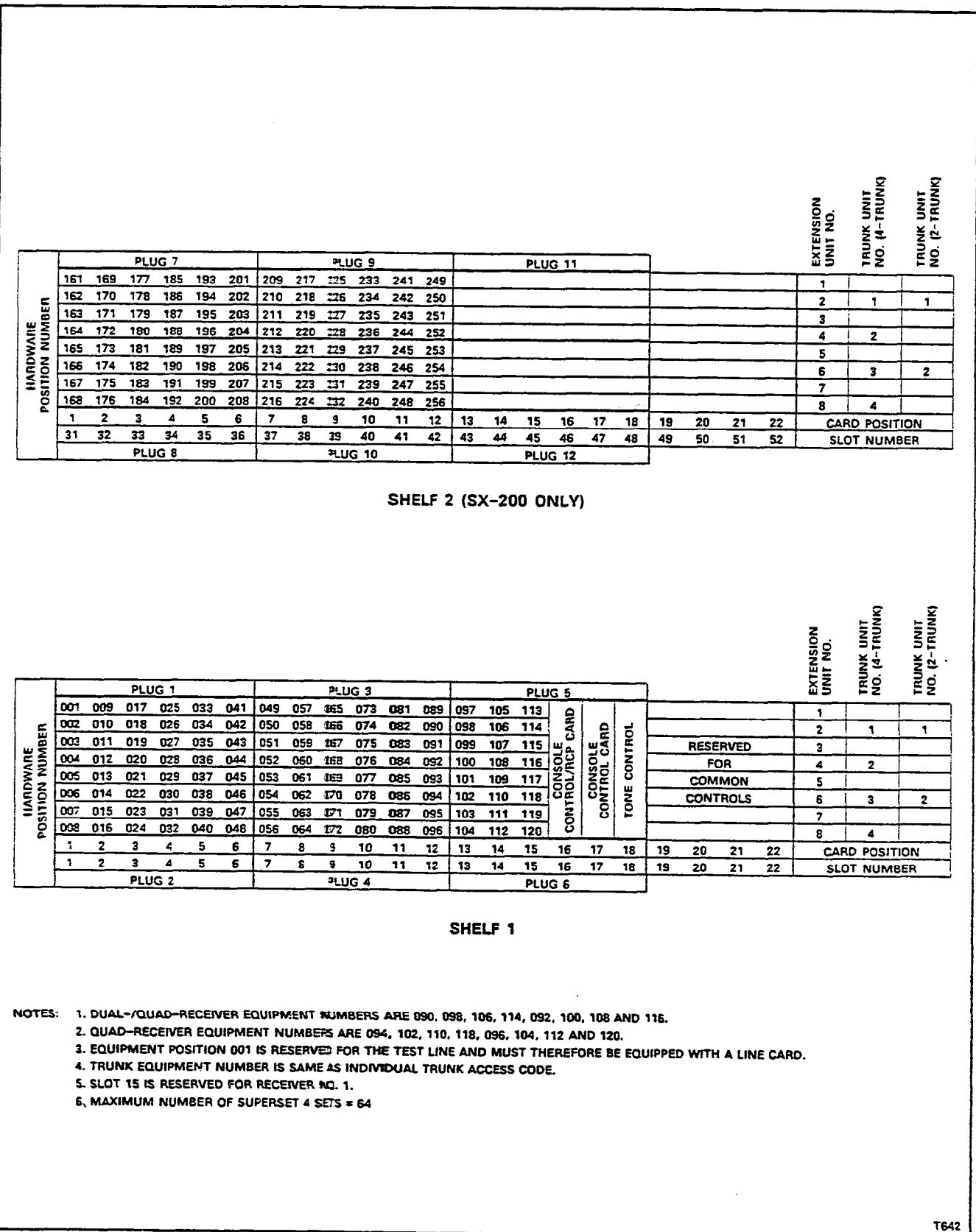


Figure 209-1 Hardware/Equipment Number

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NOTE
 The equipment number dialed is either assigned to an extension or does not contain a trunk card. Check equipment number and card slot. If you wish to remove the previous assignment and assign this equipment position to the trunk, press CONFIRM button so the present entry will be eliminated, and return to Step (5). If you wish to change the equipment entry, return to Step (4).

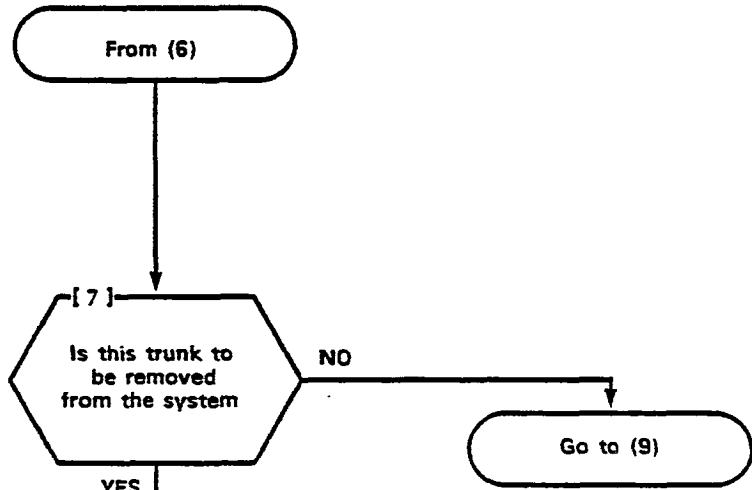
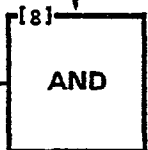


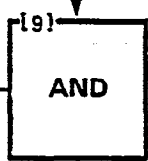
TABLE 209-1

Code	Type
2	Direct Inward System Access VNL
4	Dial-In Trunk VNL
21	Direct Inward System Access Non-VNL
41	Dial-In Trunk VNL

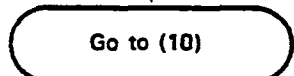
(8A) Press DELETE key
 * DELETE lamp lit
 * SOURCE display shows equipment number and its current class
 * DESTINATION display shows 0



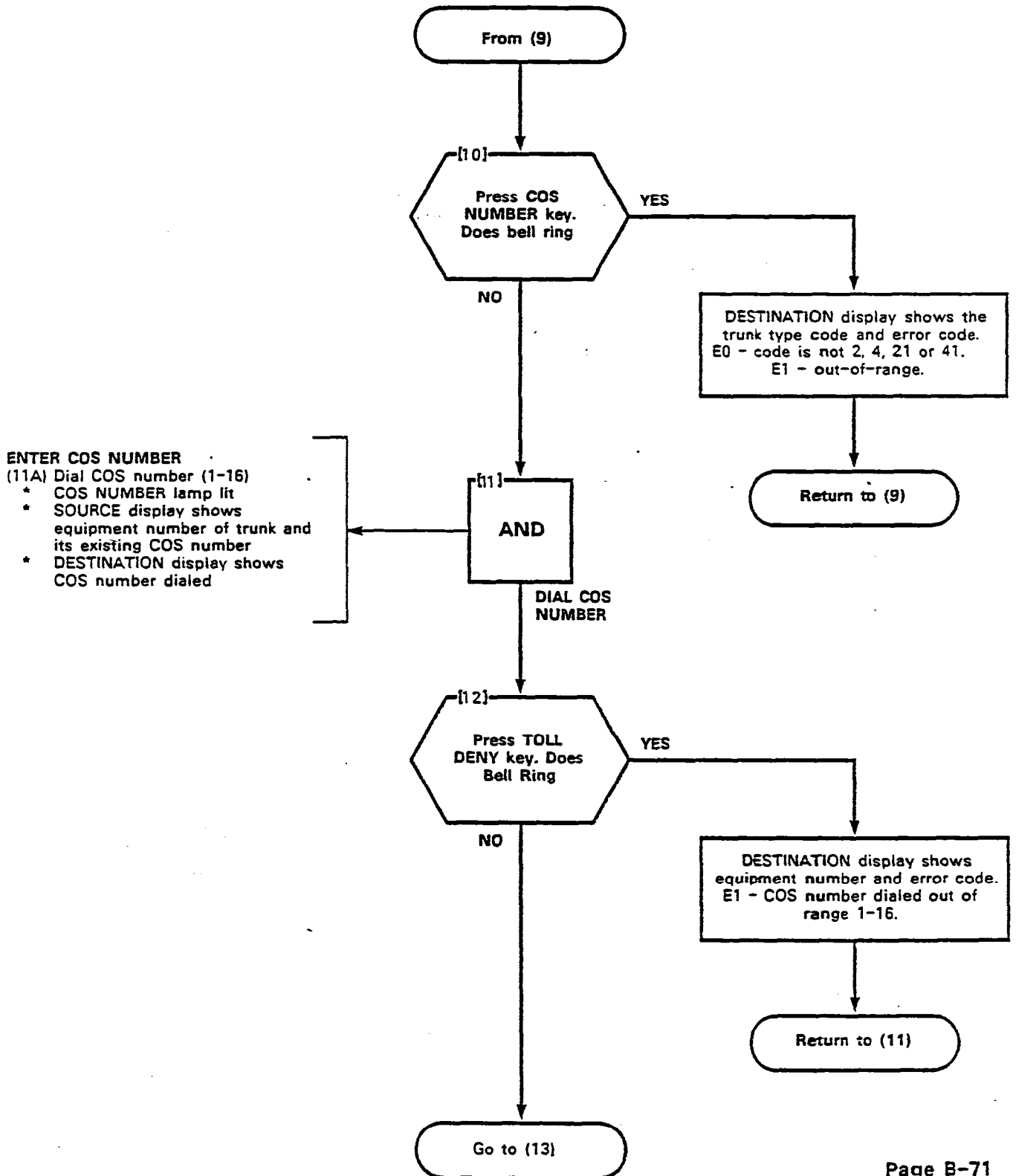
SELECT TRUNK TYPE
 (9A) Dial trunk code (Table 209-1)
 * TYPE lamp lit
 * SOURCE display shows the equipment number of the trunk and its current type
 * DESTINATION display shows trunk type entered



CAUTION
 TRUNKS MUST BE REMOVED FROM TRUNK GROUPS BEFORE BEING REMOVED FROM THE SYSTEM. TRUNKS CANNOT BE DELETED OR CHANGED WHILE THEY ARE IN USE.



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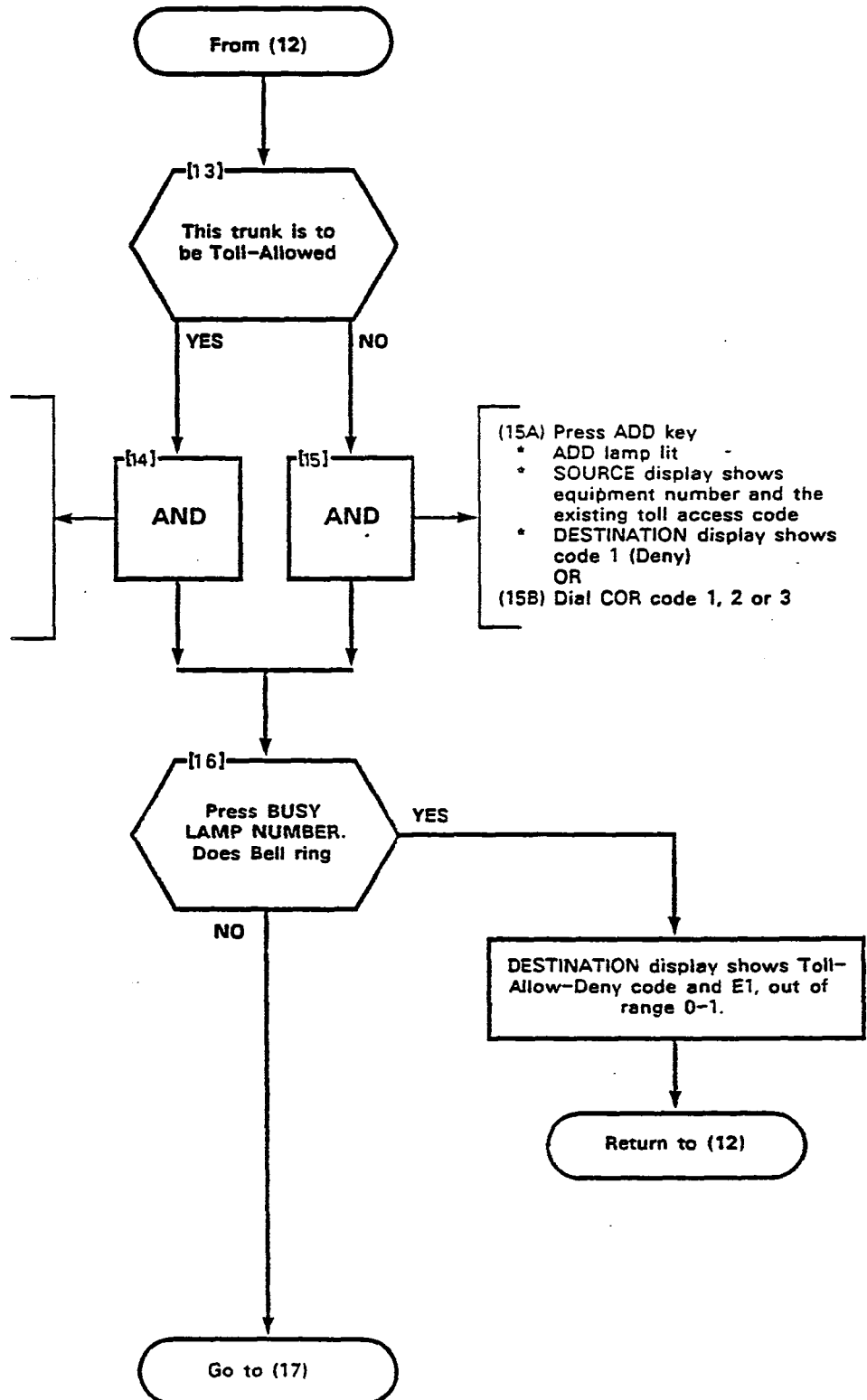


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ASSIGN TOLL ACCESS
 (14A) Press DELETE key
 * DELETE lamp lit
 * SOURCE display shows equipment number and the existing Toll-Allow-Deny code (0 = Allow, 1 = Deny)
 * DESTINATION display shows 0 TOLL-ALLOWED

(15A) Press ADD key
 * ADD lamp lit
 * SOURCE display shows equipment number and the existing toll access code
 * DESTINATION display shows code 1 (Deny)
 OR
 (15B) Dial COR code 1, 2 or 3

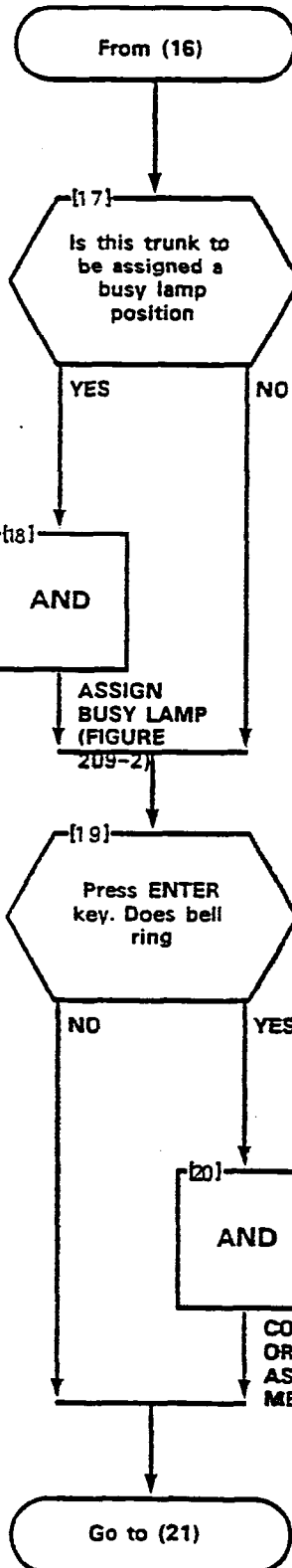


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ASSIGN TRUNK TO BUSY LAMP FIELD

(18A) Dial busy lamp position assigned to the trunk (Figure 209-2)

- BUSY LAMP NUMBER lamp lit
- SOURCE display shows equipment number of trunk and current busy lamp assignment
- DESTINATION display shows new busy lamp assignment

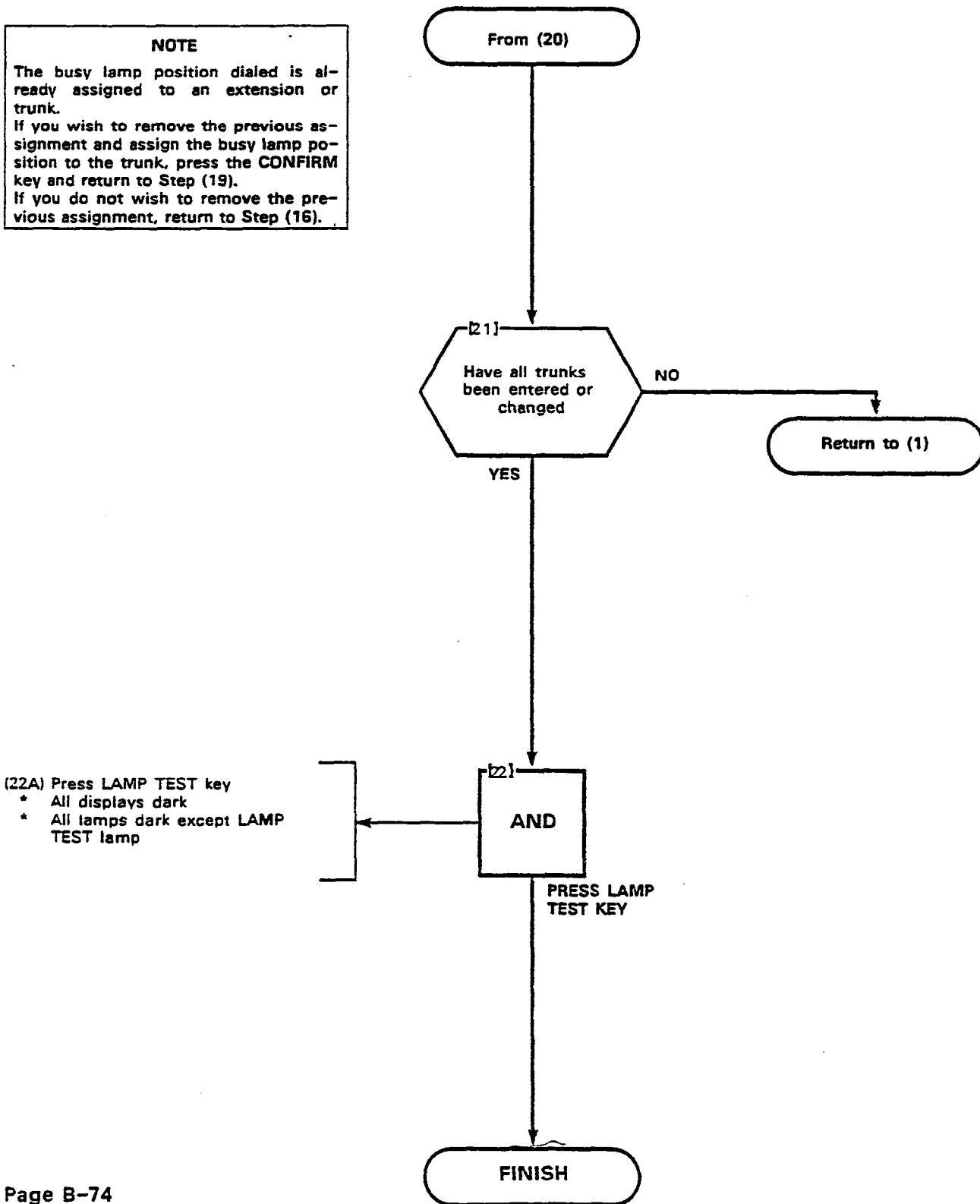


(20A) DESTINATION display shows busy lamp position dialed and E1 - position number dialed out of range 1-200. C2 Position Assigned (see Note)

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NOTE
 The busy lamp position dialed is already assigned to an extension or trunk.
 If you wish to remove the previous assignment and assign the busy lamp position to the trunk, press the CONFIRM key and return to Step (19).
 If you do not wish to remove the previous assignment, return to Step (16).



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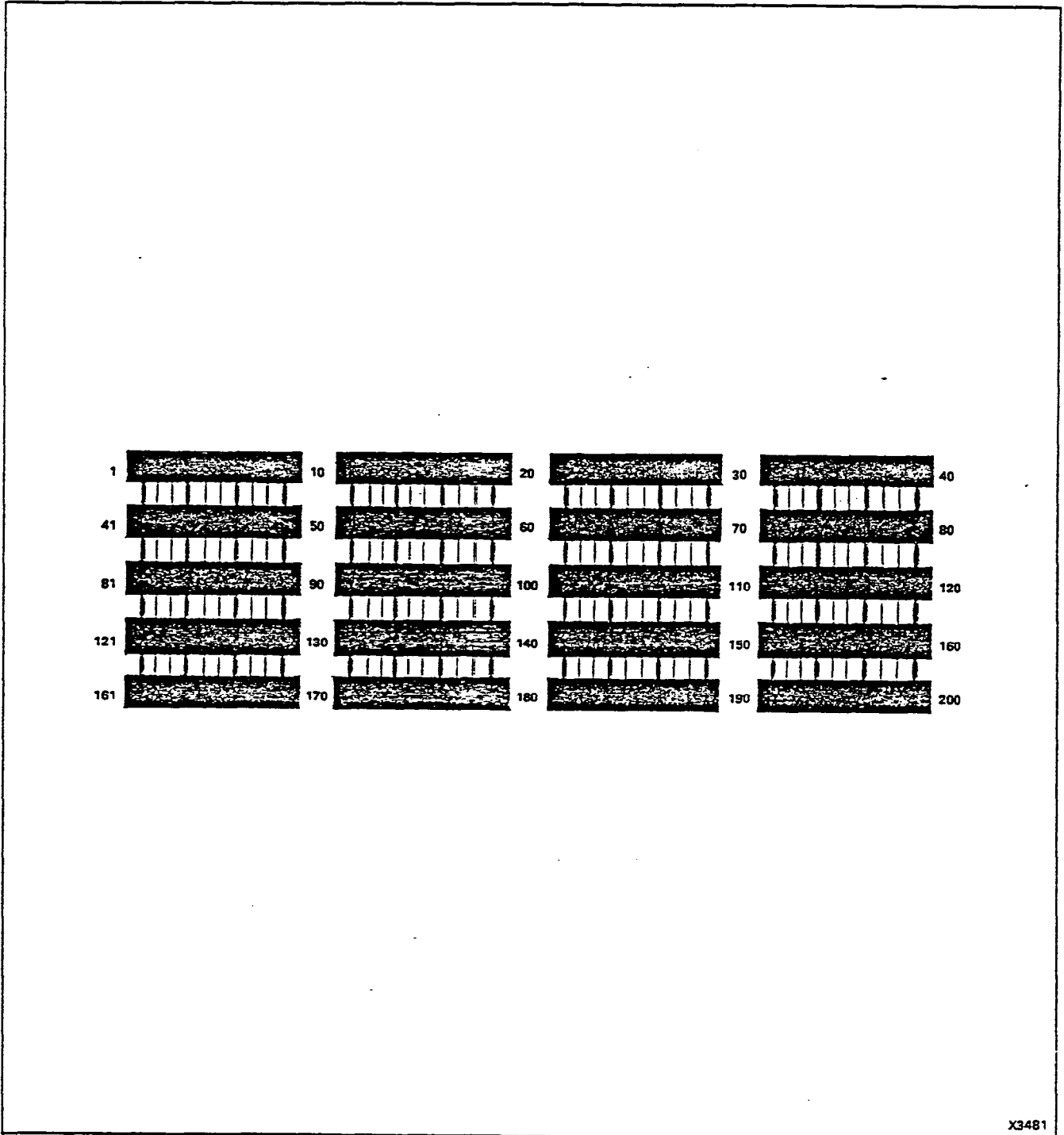


Figure 209-2 Busy Lamp Position Numbering

DIAL-IN TRUNKS

TO ENTER TRUNK PROGRAMING PRESS

TRUNK

<p>LDN NUMBER</p>	<p>EQPT NUMBER DIAL 10-112 OR 102-256 (SEE NOTES 1,2 AND 7)</p>	<p>SEE NOTE 3 TYPE DIAL 2,4,21 OR 41 OR DELETE</p>	<p>COS NUMBER DIAL 1-16</p>	<p>TOLL DENY ADD TOLL DENY OR DIAL COR CODE 1,2, OR 3 OR TOLL ALLOW DELETE NOTE 6</p>	<p>RISKY LAMP NUMBER DIAL 1-200 OR DELETE</p>	<p>ENTER</p>

NOTES

- 1. EQUIPMENT NUMBERS 102-256 APPLIES TO SX-200 ONLY
- 2. EVEN EQUIPMENT NUMBERS ONLY MAY BE ASSIGNED TO TRUNKS
- TYPE 2 = DIRECT INWARD SYSTEM ACCESS VMI
- TYPE 4 = DIAL IN THE TRUNK (NON CO) VMI
- TYPE 21 = DIRECT INWARD SYSTEM ACCESS NON VMI
- TYPE 41 = DIAL IN THE TRUNK (NON CO) NON VMI

- 6. COR 1-3 APPLIES ONLY IF MULTI DIGIT TOLL CONTROL IS USED
- 7. SLOT 1 SHOULD CONTAIN A LINE CARD SO FIRST TRUNK EQUIPMENT NUMBER SHOULD BE 010

4. TO REMOVE A TRUNK ASSIGNMENT
NOTE TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP

EQPT NUMBER DIAL EQUIPMENT NUMBERS TYPE DELETE

5. TO SEE THE NEXT EQUIPMENT NUMBER ASSIGNED AS A TRUNK

EQPT NUMBER NEXT



Figure 209-3

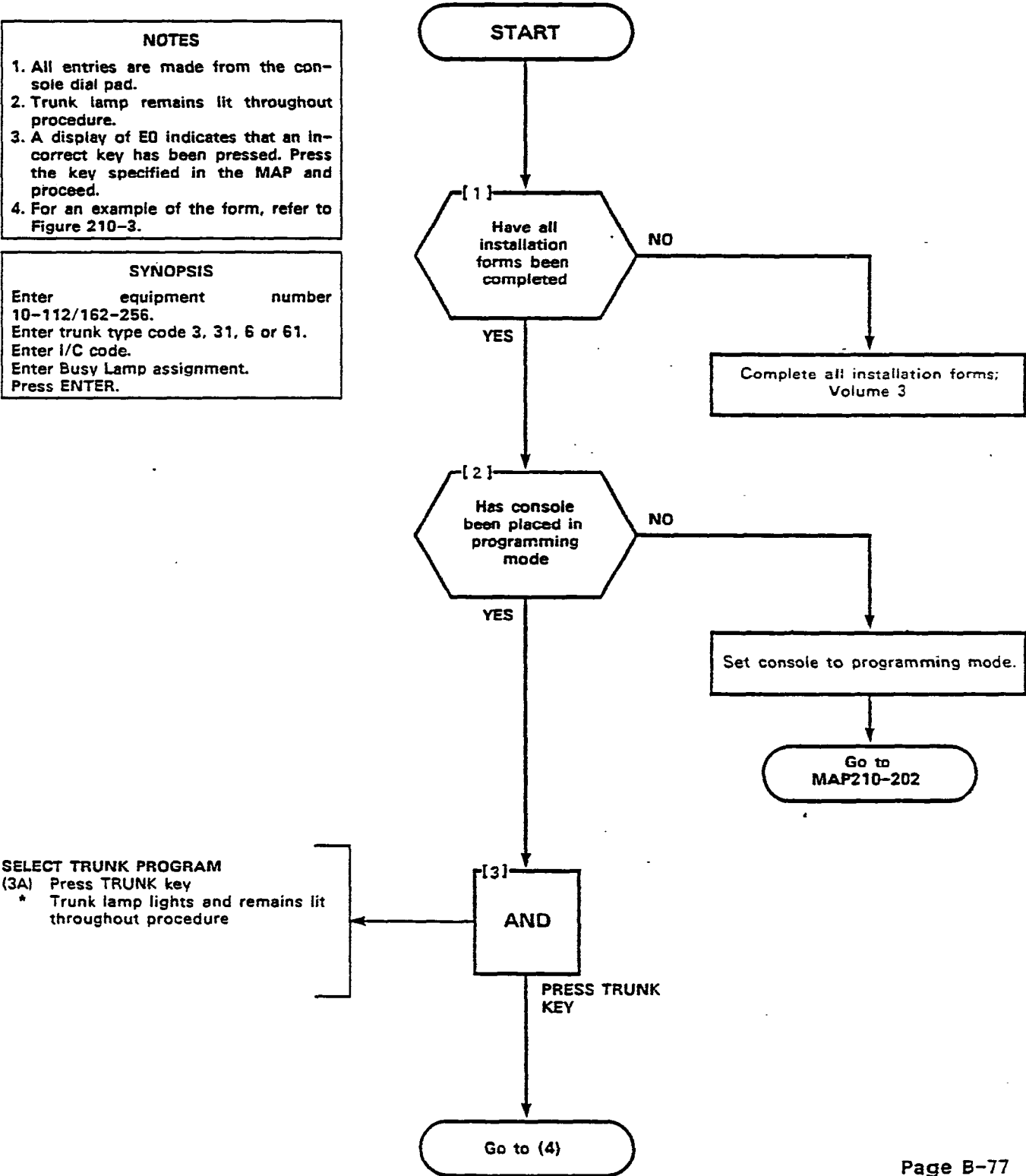
PROGRAM DID TRUNKS
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NOTES

1. All entries are made from the console dial pad.
2. Trunk lamp remains lit throughout procedure.
3. A display of E0 indicates that an incorrect key has been pressed. Press the key specified in the MAP and proceed.
4. For an example of the form, refer to Figure 210-3.

SYNOPSIS

Enter equipment number 10-112/162-256.
 Enter trunk type code 3, 31, 6 or 61.
 Enter I/C code.
 Enter Busy Lamp assignment.
 Press ENTER.



SELECT TRUNK PROGRAM
 (3A) Press TRUNK key
 * Trunk lamp lights and remains lit throughout procedure

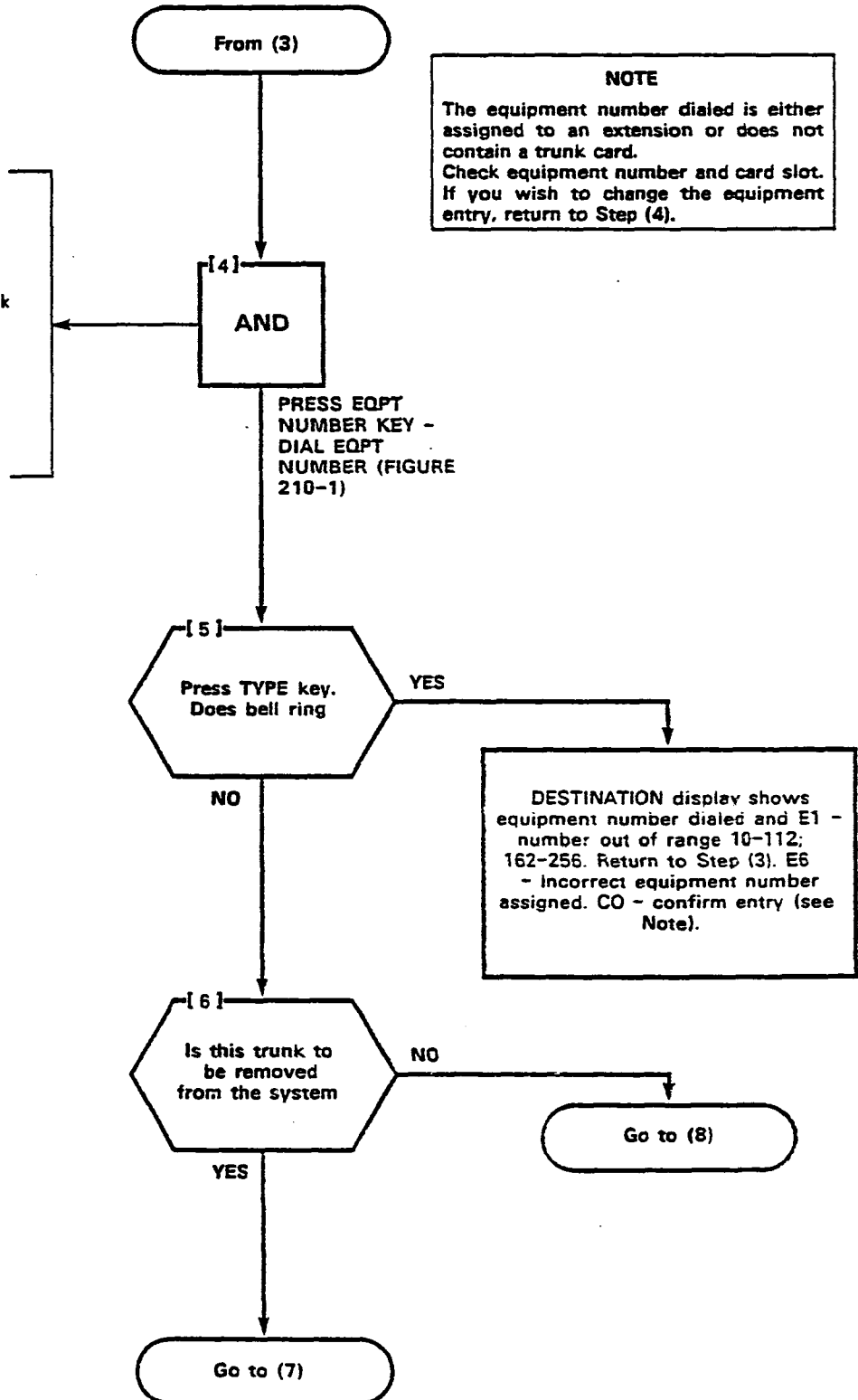
SECTION MITL9105/9110-096-210-NA

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- ENTER EQUIPMENT NUMBER**
- (4A) Press EQPT NUMBER key
- * EQPT NUMBER lamp lit
 - * SOURCE display shows current equipment number
- (4B) Dial equipment number of trunk (Figure 210-1)
- * EQPT NUMBER lamp lit
 - * SOURCE display shows current equipment number
 - * DESTINATION display shows equipment number entered

NOTE

The equipment number dialed is either assigned to an extension or does not contain a trunk card. Check equipment number and card slot. If you wish to change the equipment entry, return to Step (4).



HARDWARE POSITION NUMBER	PLUG 7						PLUG 9						PLUG 11						EXTENSION UNIT NO.	TRUNK UNIT NO. (4-TRUNK)	TRUNK UNIT NO. (2-TRUNK)	
	161	169	177	185	193	201	209	217	225	233	241	249										1
162	170	178	186	194	202	210	218	226	234	242	250							2	1	1		
163	171	179	187	195	203	211	219	227	235	243	251							3				
164	172	180	188	196	204	212	220	228	236	244	252							4	2			
165	173	181	189	197	205	213	221	229	237	245	253							5				
166	174	182	190	198	206	214	222	230	238	246	254							6	3	2		
167	175	183	191	199	207	215	223	231	239	247	255							7				
168	176	184	192	200	208	216	224	232	240	248	256							8	4			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18				CARD POSITION	
31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	SLOT NUMBER

SHELF 2 (SX-200 ONLY)

HARDWARE POSITION NUMBER	PLUG 1						PLUG 3						PLUG 5						EXTENSION UNIT NO.	TRUNK UNIT NO. (4-TRUNK)	TRUNK UNIT NO. (2-TRUNK)								
	001	009	017	025	033	041	049	057	065	073	081	089	097	105	113														1
002	010	018	026	034	042	050	058	066	074	082	090	098	106	114												2	1	1	
003	011	019	027	035	043	051	059	067	075	083	091	099	107	115												3			
004	012	020	028	036	044	052	060	068	076	084	092	100	108	116												4	2		
005	013	021	029	037	045	053	061	069	077	085	093	101	109	117												5			
006	014	022	030	038	046	054	062	070	078	086	094	102	110	118												6	3	2	
007	015	023	031	039	047	055	063	071	079	087	095	103	111	119												7			
008	016	024	032	040	048	056	064	072	080	088	096	104	112	120												8	4		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22							CARD POSITION	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22							SLOT NUMBER	

SHELF 1

- NOTES: 1. DUAL-/QUAD-RECEIVER EQUIPMENT NUMBERS ARE 090, 098, 106, 114, 122, 100, 108 AND 116.
 2. QUAD-RECEIVER EQUIPMENT NUMBERS ARE 094, 102, 110, 118, 096, 104, 112 AND 120.
 3. EQUIPMENT POSITION 001 IS RESERVED FOR THE TEST LINE AND MUST THEREFORE BE EQUIPPED WITH A LINE CARD.
 4. TRUNK EQUIPMENT NUMBER IS SAME AS INDIVIDUAL TRUNK ACCESS CODE.
 5. SLOT 15 IS RESERVED FOR RECEIVER NO. 1.
 6. MAXIMUM NUMBER OF SUPERSET 4 SETS = 64

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Figure 210-1 Hardware/Equipment Number

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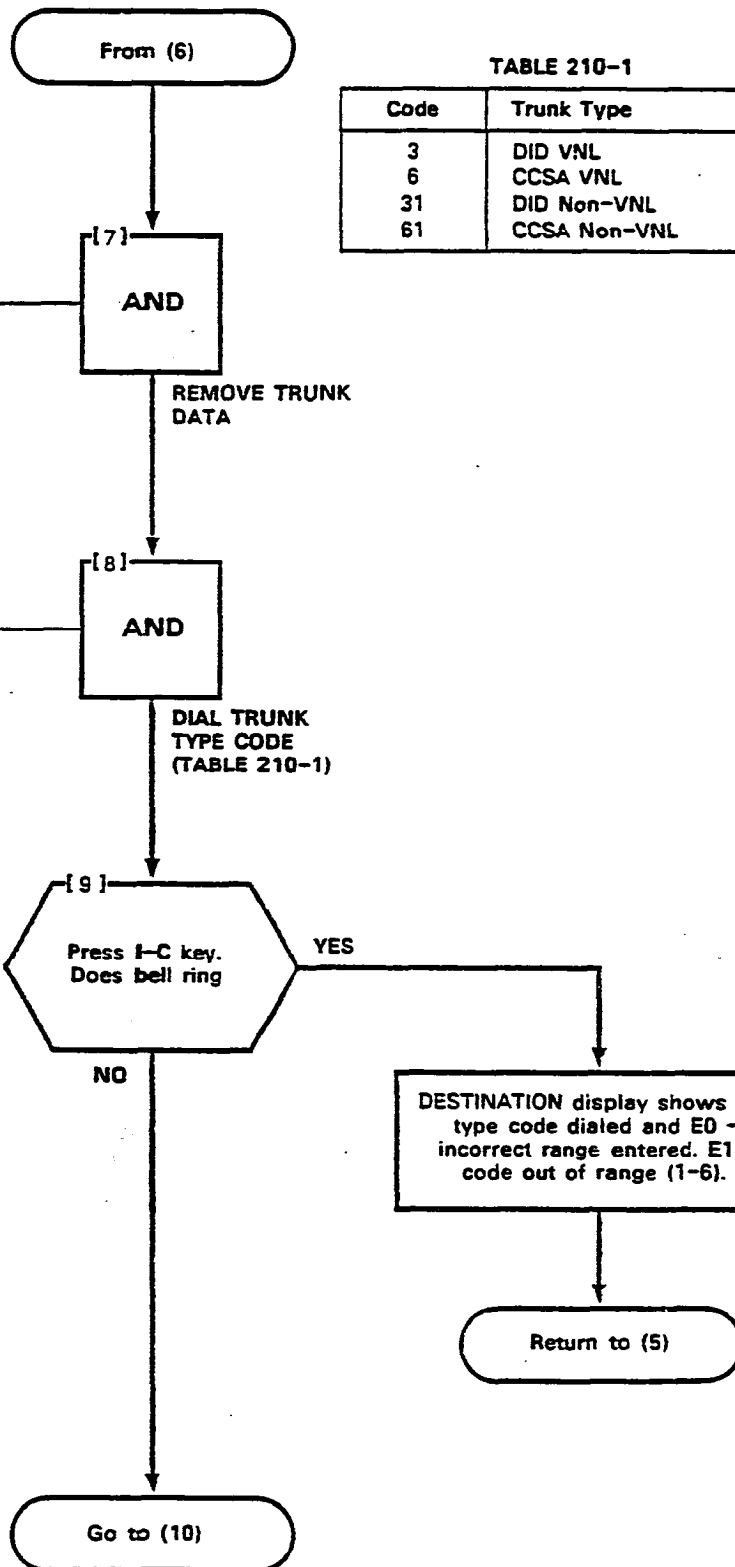
TABLE 210-1

Code	Trunk Type
3	DID VNL
6	CCSA VNL
31	DID Non-VNL
61	CCSA Non-VNL

- (7A) Press DELETE key
- * DELETE lamp lit
 - * SOURCE display shows equipment number and its current class
 - * DESTINATION display shows 0

- ENTER TYPE CODE
- (8A) Dial type code (Table 210-1)
- * TYPE lamp lit
 - * SOURCE display shows equipment number of the trunk and its current type code
 - * DESTINATION display shows new trunk type code

CAUTION
 TRUNKS MUST BE REMOVED FROM TRUNK GROUPS BEFORE BEING REMOVED FROM THE SYSTEM. TRUNKS CANNOT BE DELETED OR CHANGED WHILE THEY ARE IN USE.



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ENTER I-C CODE
 (10A) Enter number of digits to be received after the trunk has been seized (1-9)
 (10B) Enter number of digits to be absorbed after the trunk is seized (0-8)
 (10C) If a leading digit is to be inserted, dial the actual digit to be inserted

From (9)

[10]
 AND

DIAL I-C CODE

[11]
 Press BUSY LAMP NUMBER key. Does bell ring

YES

NO

DESTINATION display shows the I-C code entered and E1 - digit length incorrect.

Return to (7)

[12]
 Is trunk to be assigned to a Busy Lamp

YES

NO

[13]
 AND

ASSIGN BUSY LAMP POSITION

Go to (14)

ENTER BUSY LAMP ASSIGNMENT
 (13A) Dial the busy lamp position assigned to the trunk (Figure 210-2)
 * BUSY LAMP lamp lit
 * SOURCE display shows the equipment number of the trunk and its current busy lamp assignment
 * DESTINATION display shows the new busy lamp assignment

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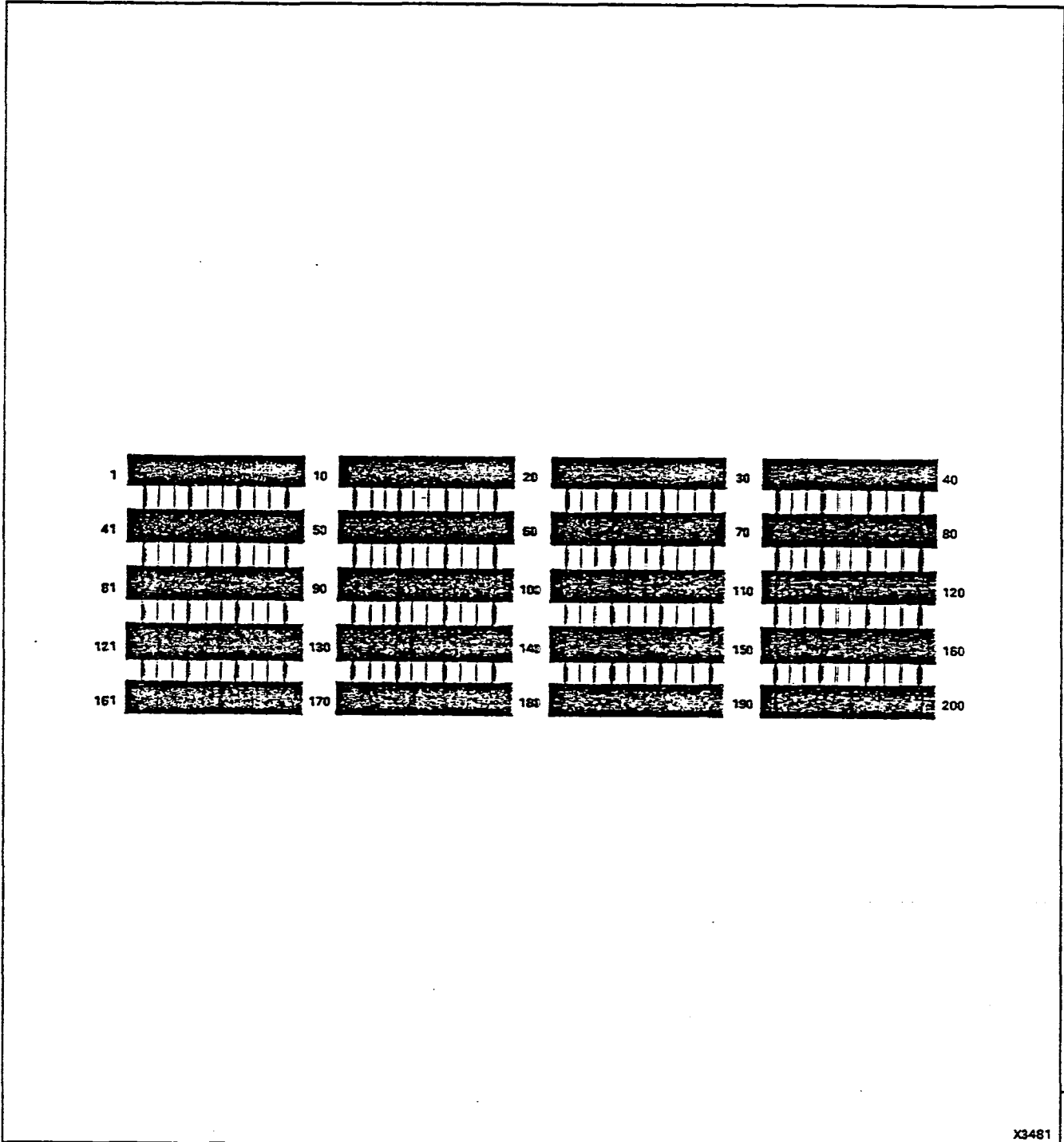
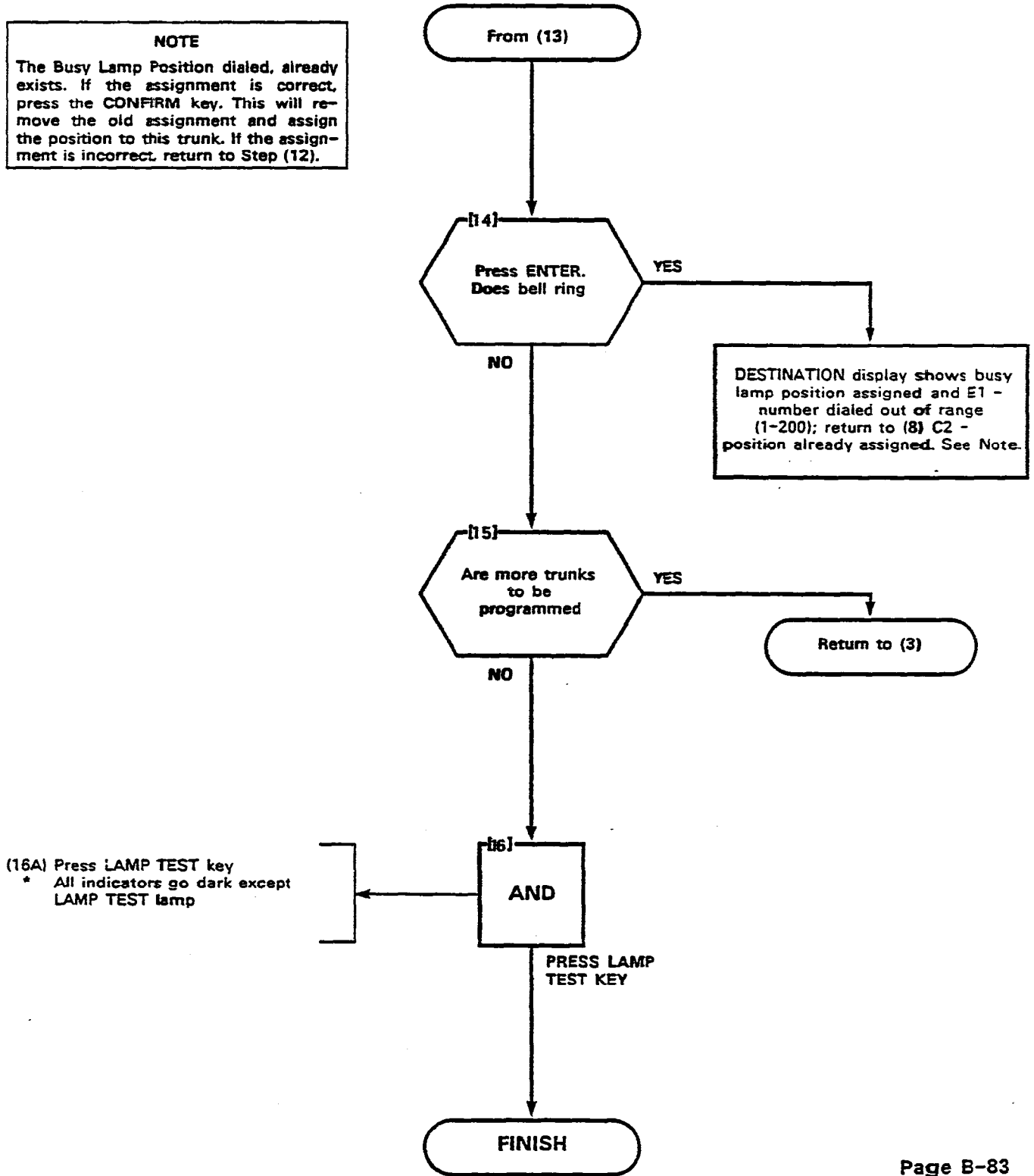


Figure 210-2 Busy Lamp Position Numbering

X3481

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NOTE
 The Busy Lamp Position dialed, already exists. If the assignment is correct, press the CONFIRM key. This will remove the old assignment and assign the position to this trunk. If the assignment is incorrect, return to Step (12).



DID/CCSA TRUNKS

TO ENTER TRUNK PROGRAMMING PRESS



LDN NUMBER	EQPT NUMBER DIAL 10-110 OR 162-254 (SEE NOTES 1,2 AND 7)	SEE NOTES 3 TYPE	DIAL 3,6 31 OR 61 DELETE	I/C	DIAL NMX CODE (NOTE 4)	BUSY LAMP NUMBER DELETE	DIAL 1-200 OR	NIGHT 1 (SEE NOTE 8) DIAL #0-#3 OR #1-#12 OR 1-112 OR 161-256	NIGHT 2 (SEE NOTE 8) DIAL #0-#3 OR #1-#12 OR 1-112 OR 161-256	ENTER

NOTES:

- EQUIPMENT NUMBERS 162-254 APPLY TO SX-200 ONLY
- ALTERNATE EVEN NUMBERS ONLY MAY BE ASSIGNED TO DID/CCSA TRUNKS
- TYPE 3 = DID VNL
TYPE 31 = DID NON VNL
TYPE 6 = CCSA VNL
TYPE 61 = CCSA NON VNL
- N = NUMBER OF DIGITS TO BE RECEIVED AFTER TRUNK IS SEIZED (1-9)
M = NUMBER OF DIGITS TO BE ABSORBED AFTER TRUNK IS SEIZED (0-9)
X = LEADING DIGIT TO BE INSERTED, IF REQUIRED
MAXIMUM NUMBER OF DIGITS IS 4 AFTER ABSORPTION (M)
AND ADDING A DIGIT (X).
- TO REMOVE A TRUNK ASSIGNMENT: (TRUNK MUST FIRST BE REMOVED FROM TRUNK GROUP)
- TO SEE THE NEXT EQPT NUMBER ASSIGNED AS A TRUNK
- SLOT 1 SHOULD CONTAIN A LINE CARD, SO FIRST TRUNK EQUIPMENT NUMBER SHOULD BE 010
- # 0 - CONSOLE ONLY, #1 - CONSOLE AND NIGHT BELL 1

EQPT NUMBER TYPE DELETE

EQPT NUMBER NEXT

Figure 210-3

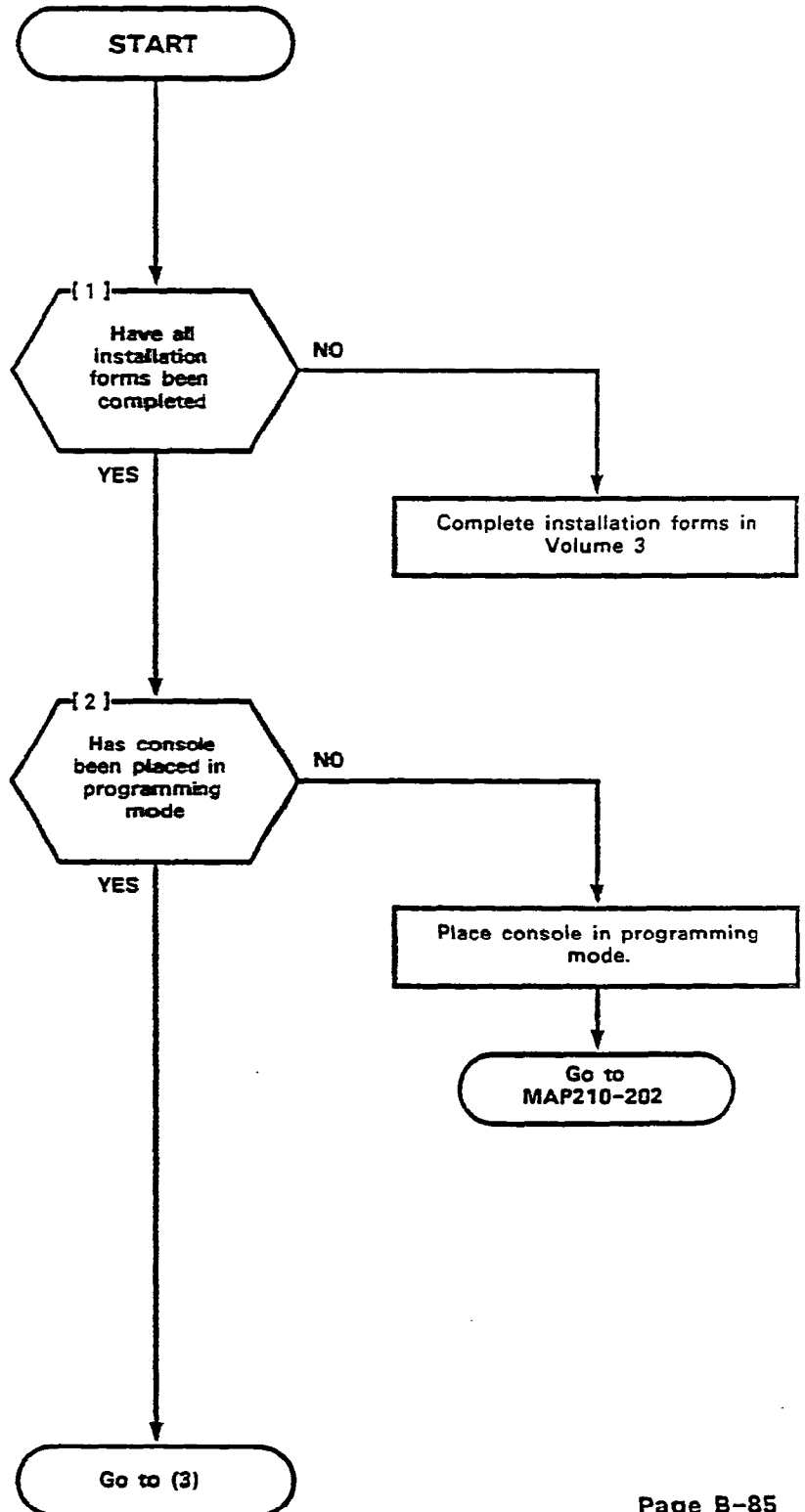
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NOTES

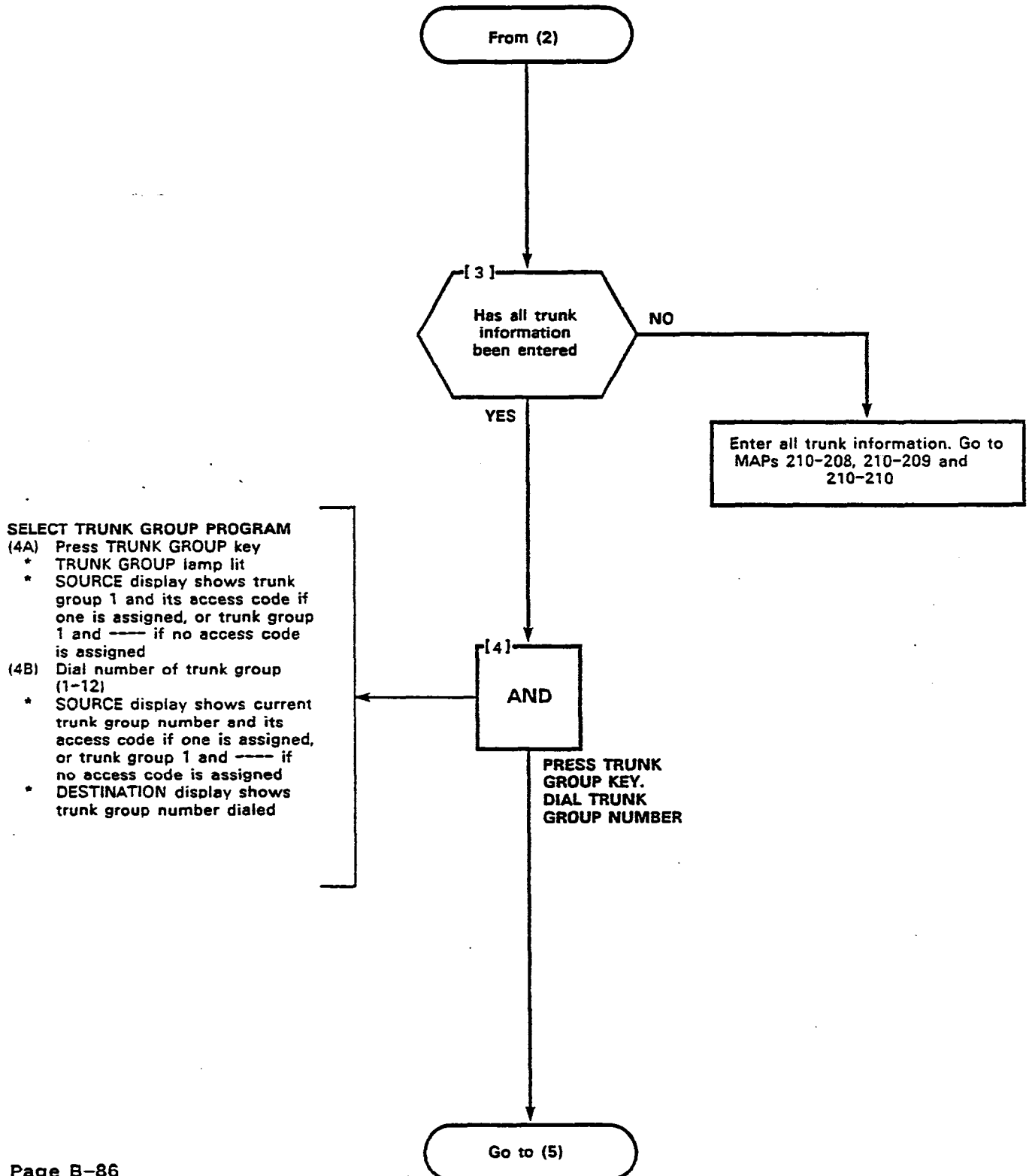
1. All entries are made from the console dial pad.
2. TRUNK GROUP lamp remains lit throughout procedure.
3. A display of E0 indicates that an incorrect key has been pressed. Press the key specified in the MAP.
4. If an equipment number is to be changed, all trunks within the trunk group must be re-entered.
5. For an example of the programming form, refer to Figure 211-1.

SYNOPSIS

Set up trunk.
 Assign trunk group type, Toll-Deny and Overflow Group codes.
 Enter all trunk equipment numbers assigned to the trunk group.



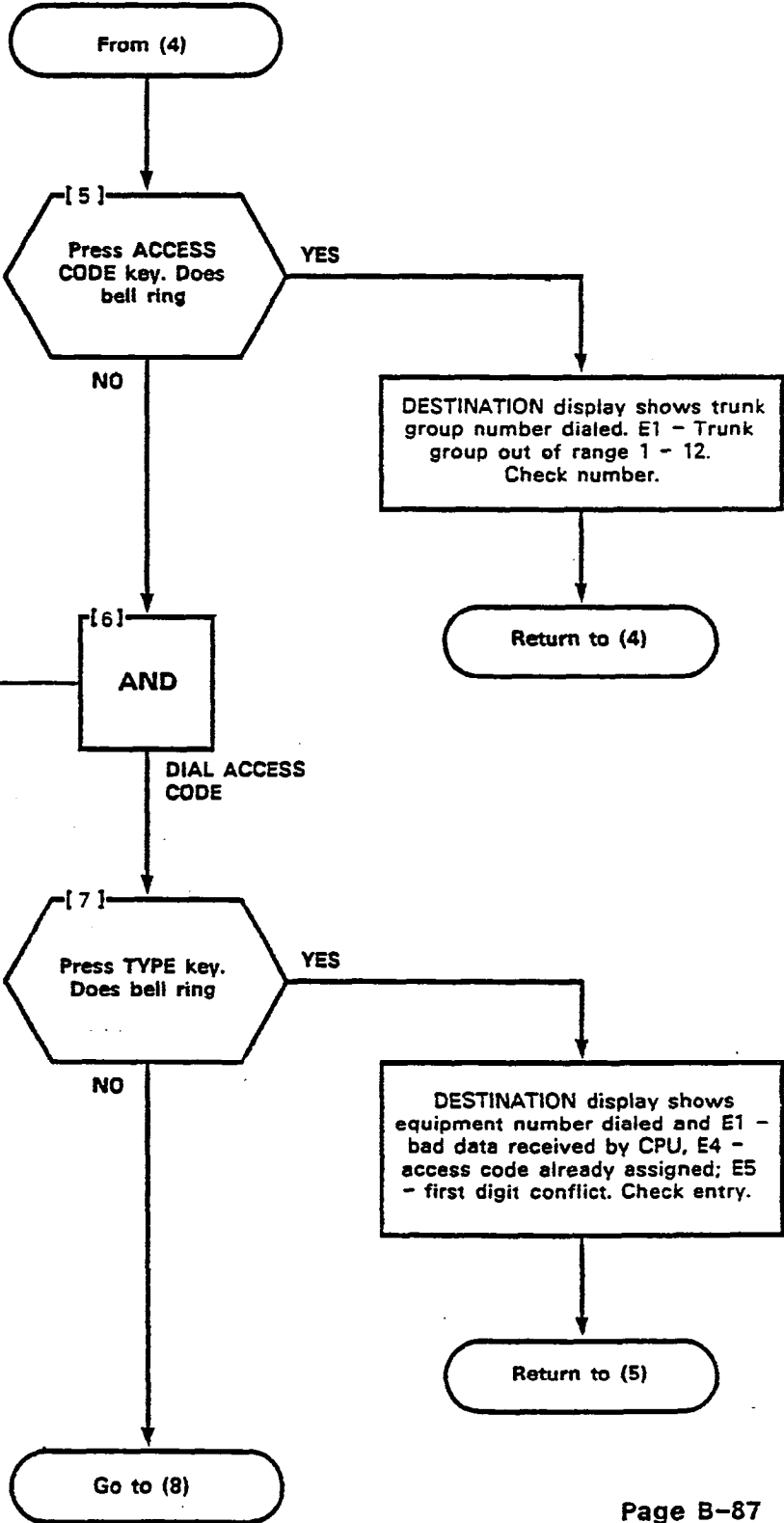
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ASSIGN TRUNK GROUP ACCESS CODE
 (6A) Dial access code to be assigned to this trunk group

- * ACCESS CODE lamp lit
- * SOURCE display shows new trunk group and existing access code if assigned, or the new trunk group and — if no access code is assigned
- * DESTINATION display shows new access code dialed



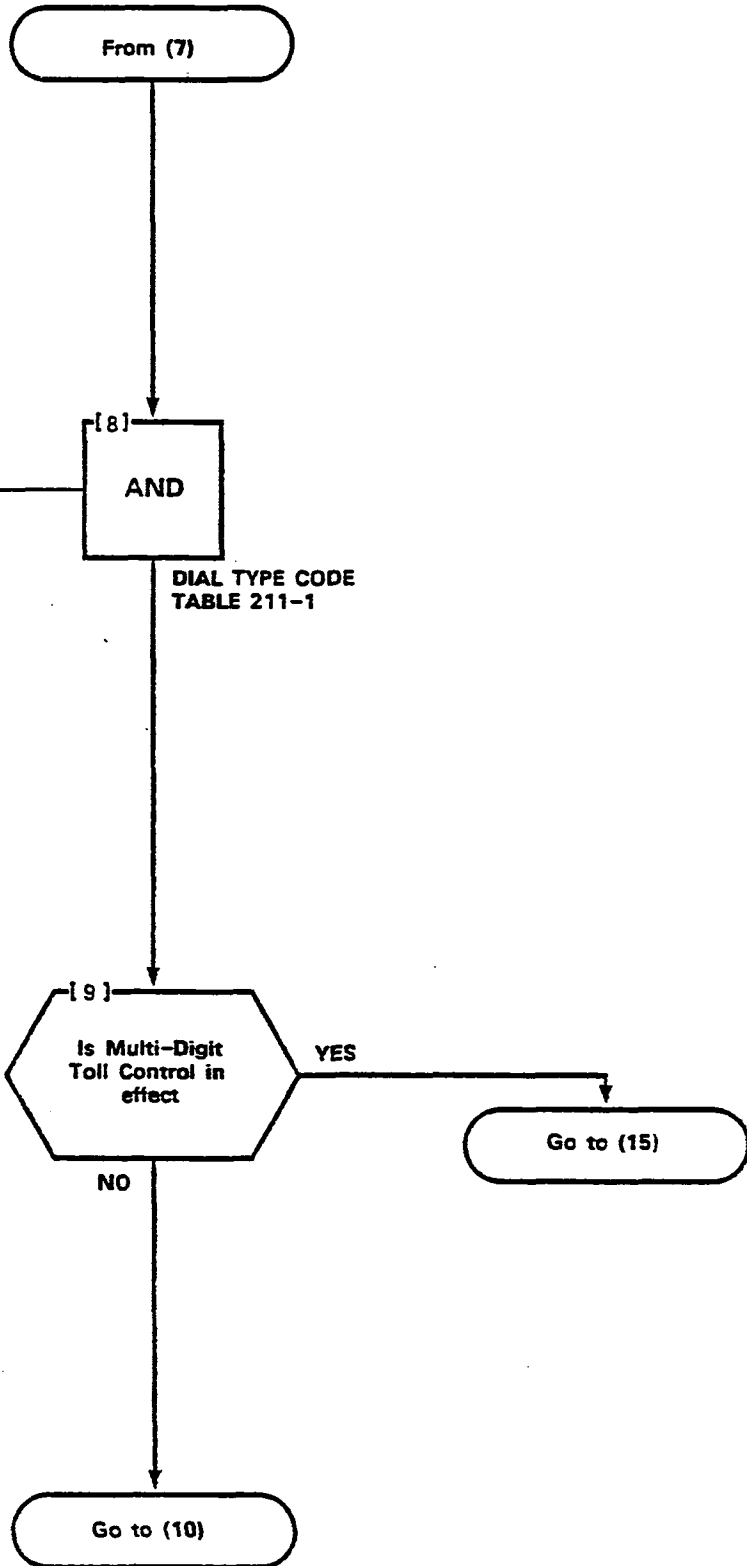
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ASSIGN TRUNK TYPE

(8A) Dial trunk type code (Table 211-1)

- * TYPE lamp lit
- * SOURCE display shows trunk group number and current type
- * DESTINATION display 4-digit type code dialed



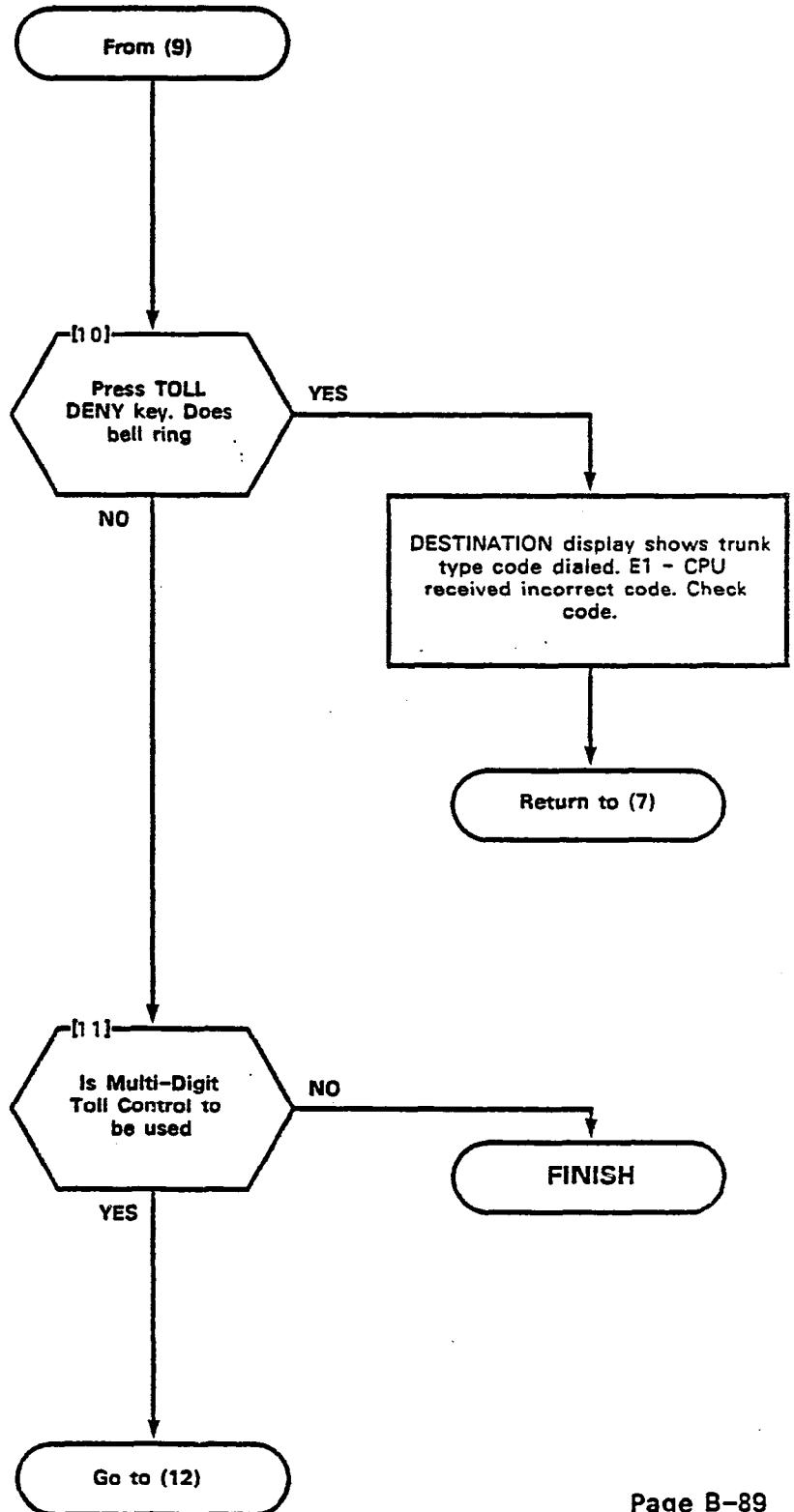
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TABLE 211-1

Entry	Code	Description
First digit (Note 1)	1	No Answer Supervision
	2	Answer Supervision
	3	Toll Supervision
	4	Outgoing audio inhibited until answer supervision
Second digit	1	No message register
	2	Message register
	3	SMDR without message register
	4	SMDR with message register
Third digit (Note 2)	*1	Rotary dial office, no wait for dial tone
	*2	Rotary dial office, wait for dial tone
	**3	DTMF dial office, no wait for dial tone
	**4	DTMF dial office, wait for dial tone
Fourth digit (Note 3)	1	CO trunk
	2	Non-CO trunk
	3	Identified Trunk Group (Non-CO)

NOTES

- 1.- If answer supervision is not required (or not provided by the CO), then use 1 - No Answer Supervision.
- If tandem trunking or Message Registration is used, then use 2 - Answer Supervision. If supervision is used to indicate toll calls, and this feature is required, then use 2 - Toll Supervision.
- If audio cut-through or tie trunk tandem calls is required only after receipt of answer supervision, then use 4 - Outgoing Audio Inhibit until Answer Supervision.
2. If "wait for dial tone" is selected, then any digits dialed prior to receipt of CO dial tone are ignored by the PABX. This prevents circumvention of the toll denial by dialing a fast valid digit before CO dial tone is received.
3. If the fourth digit selected is 3, the third digit must be 1.
- * If extensions are DTMF, the trunk will convert to dial pulse. Early line split is not provided.
- ** Trunks will repeat DTMF or dial pulse signals.



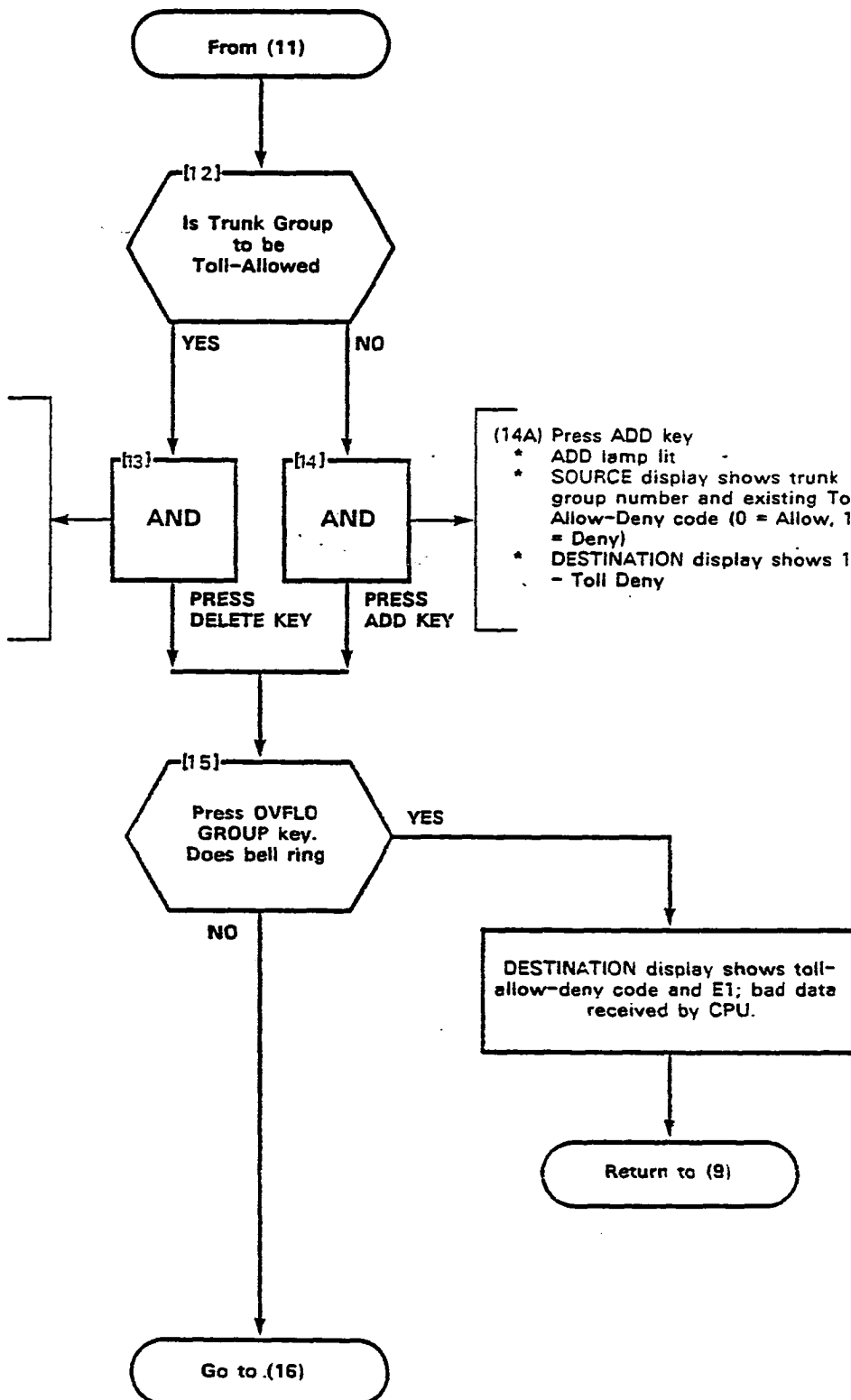
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ASSIGN TOLL ACCESS

- (13A) Press DELETE key
- * DELETE lamp lit
 - * SOURCE display shows trunk group number and existing Toll-Allow-Deny code (0 = Allow, 1 = Deny)
 - * DESTINATION display shows 0 - Toll Allow

- (14A) Press ADD key
- * ADD lamp lit
 - * SOURCE display shows trunk group number and existing Toll Allow-Deny code (0 = Allow, 1 = Deny)
 - * DESTINATION display shows 1 - Toll Deny



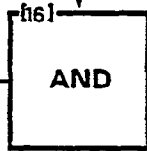
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NOTE
 Overflow group number must not be the same as the current trunk group number. If a call to a trunk group is routed to the overflow group, the restrictions of the overflow group are in force for that call.

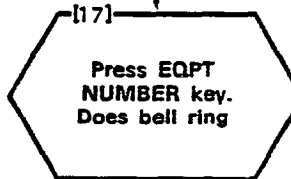
ASSIGN OVERFLOW GROUP

- (16A) Dial overflow group number (1-12)
- * OVFL0 GROUP lamp lit
 - * SOURCE display shows trunk group number and assigned overflow group number
 - * DESTINATION display shows new overflow group number
- (16B) If no overflow group required, press DELETE

From (15)



DIAL OVERFLOW GROUP NUMBER



YES

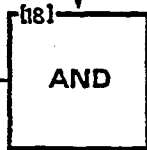
NO

DESTINATION display shows trunk group number and E1 - overflow group number out of range 1-12

Return to (15)

ASSIGN EQUIPMENT NUMBERS TO THIS TRUNK GROUP

- (18A) Dial equipment number of trunk in trunk group (10-112 162-256)
- * EQPT NUMBER lamp lit
 - * SOURCE display shows the trunk group number and existing equipment number

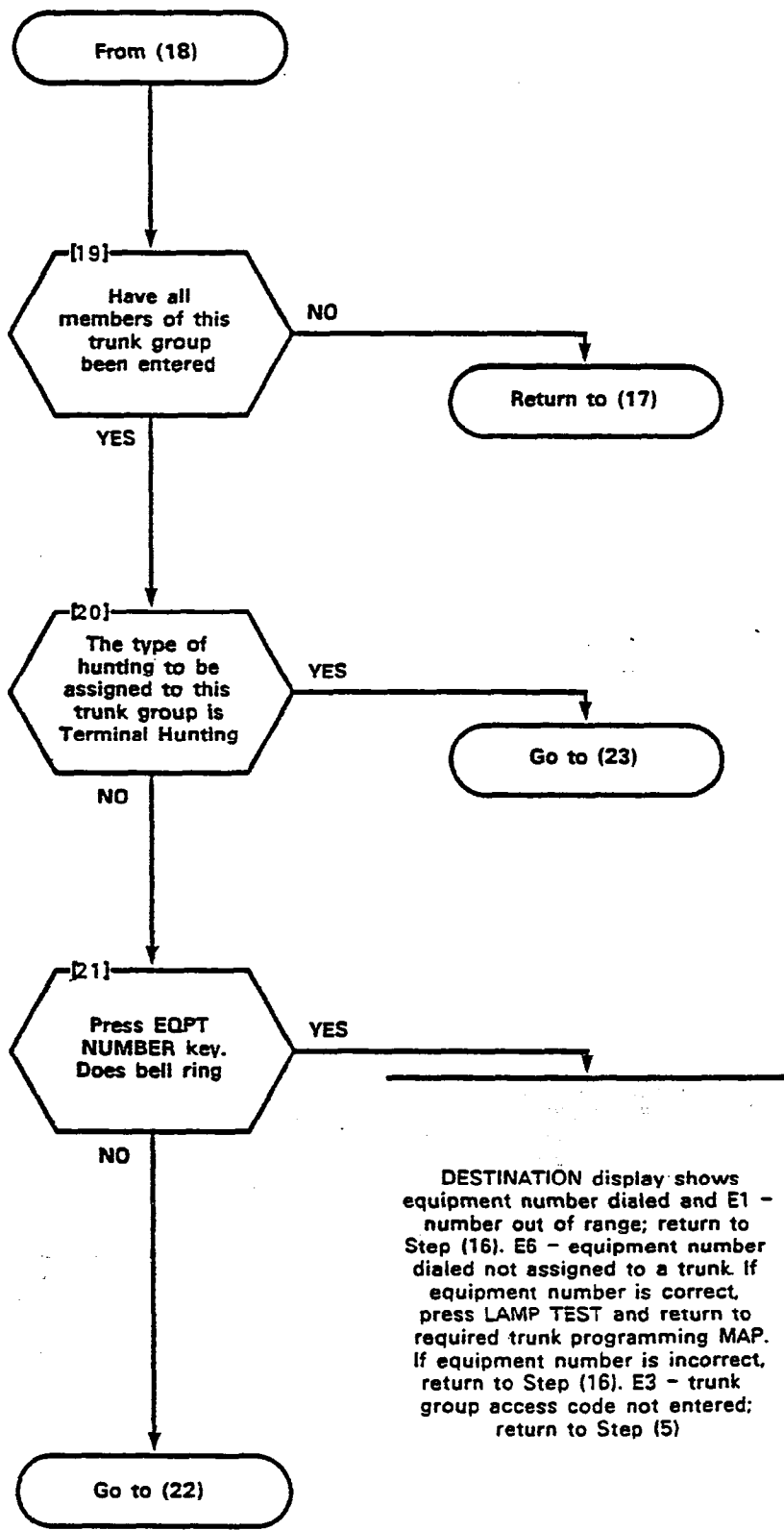


DIAL EQUIPMENT NUMBER

Go to (19)

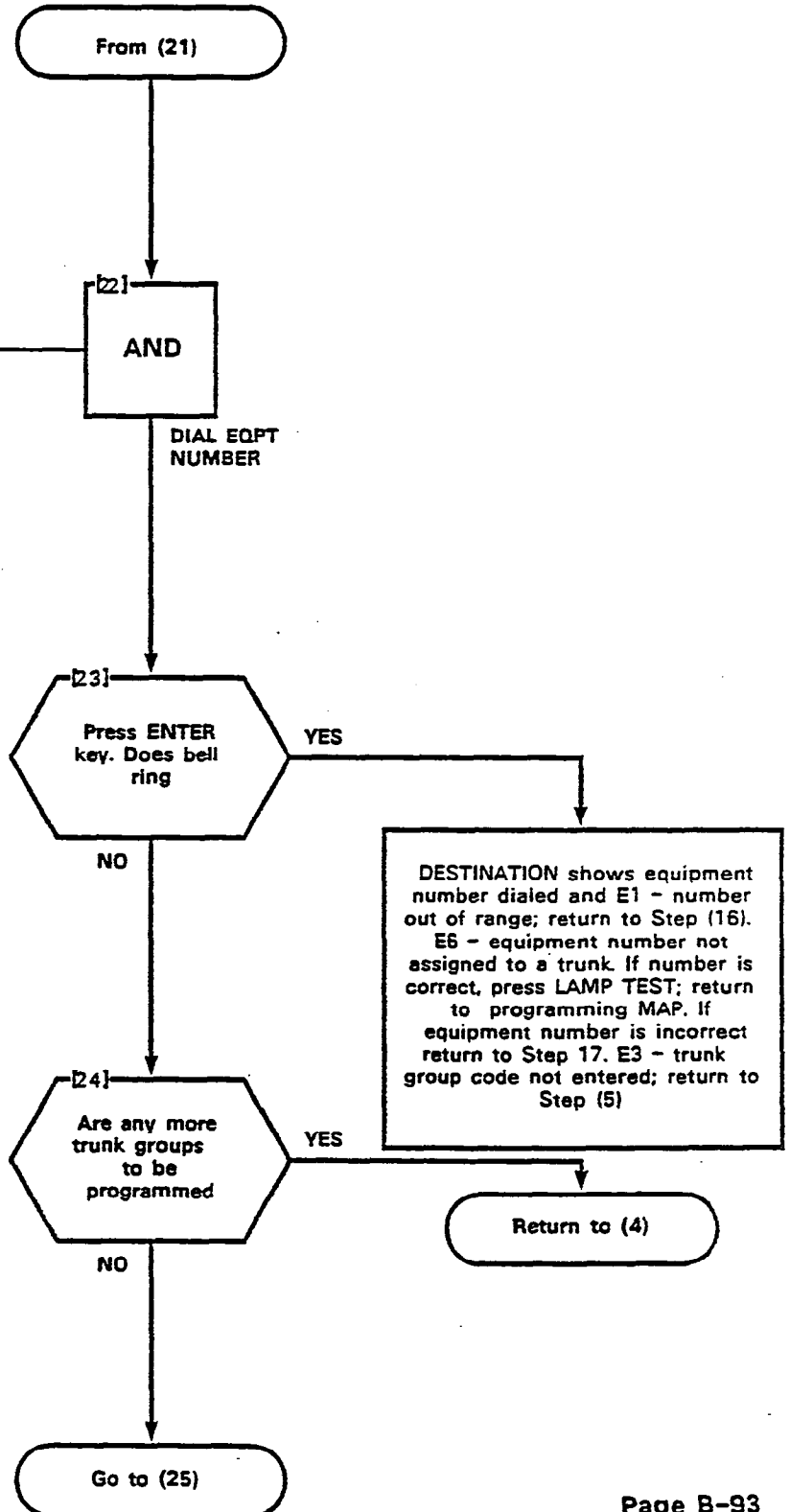
SECTION MITL9105/9110-096-210-NA

PROGRAM TRUNK GROUPS
MAP210- 211
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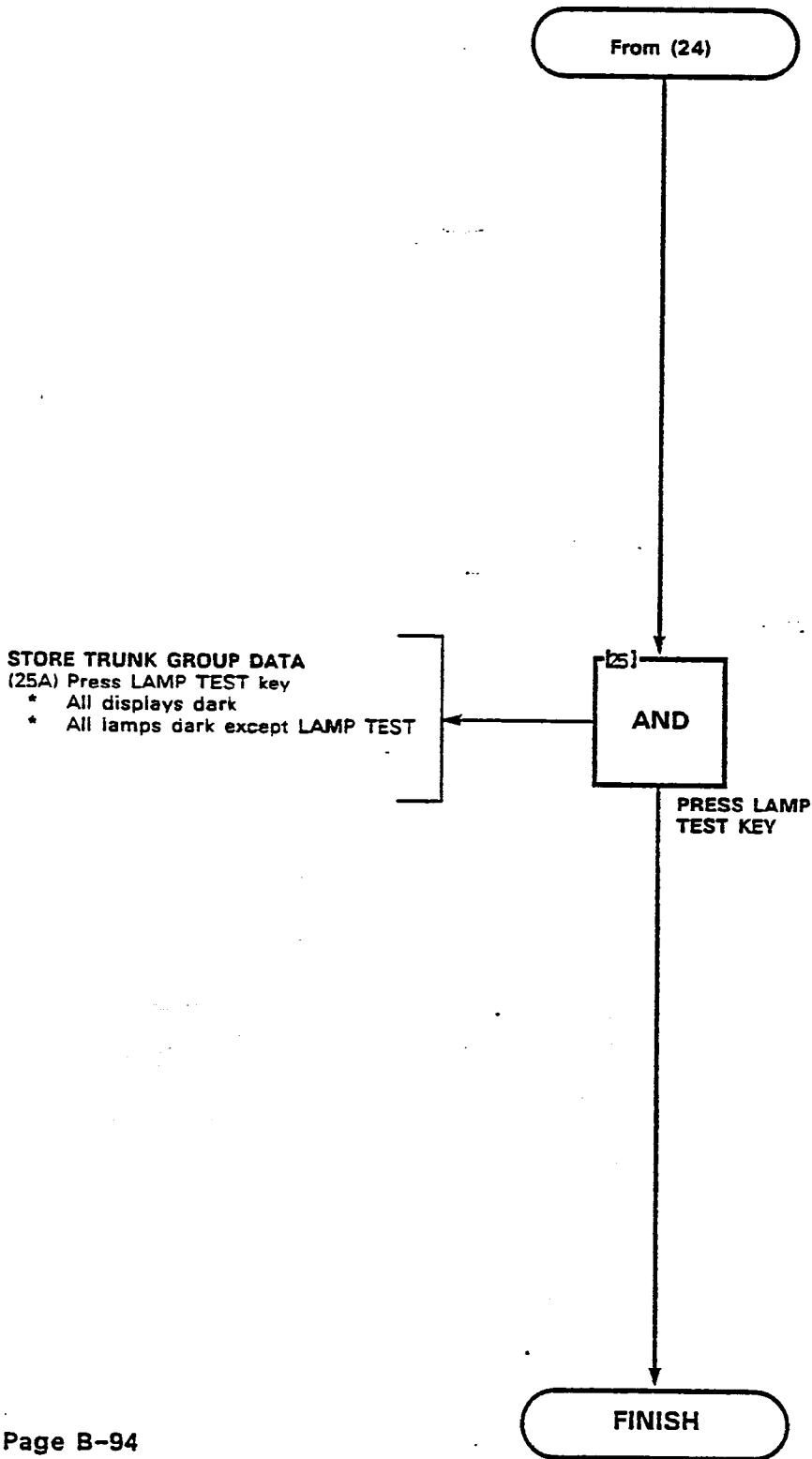


PROGRAM TRUNK GROUPS
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- (22A) Dial first equipment number on this trunk group
- * EQPT NUMBER lamp lit
 - * SOURCE display shows trunk group and last equipment number entered
 - * DESTINATION display shows first equipment number entered



PROGRAM TRUNK GROUPS
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TRUNK GROUPS

TO ENTER TRUNK GROUP PROGRAMMING PRESS TRUNK GROUP (TRUNK INFORMATION MUST BE ENTERED BEFORE TRUNK GROUP DATA)

	TRUNK GROUP	DIAL 1-12	ACCESS CODE	DIAL CODE OR DELETE	TYPE	SEE NOTES 6 & 7	TOLL DENY	ADD OR DELETE	OVERFLOW GROUP NOTE 5	DIAL 1-12 OR DELETE	SEE NOTE 4 AND 8 PRESS FOPJ NUMBER BEFORE DIALING EACH EQUIPMENT NUMBER ENTRY AFTER LAST ENTRY PRESS ENTER
NOTE 11						1ST DIGIT	2ND DIGIT	3RD DIGIT	4TH DIGIT	NOTES 9 & 10	

NOTES

1. TO SEE THE TRUNKS IN A TRUNK GROUP TRUNK GROUP DIAL NUMBER (1-12) EQUIPMENT NUMBER NEXT NEXT

2. TO SEE ALL TRUNK GROUPS TRUNK GROUP NEXT NEXT

3. TO DELETE TRUNK GROUP TRUNK GROUP DIAL NUMBER (1-12) ACCESS CODE DELETE ENTER

4. TO MAKE A CHANGE TO A TRUNK GROUP, THE LIST OF MEMBERS MUST BE RE-ENTERED. INDIVIDUAL MEMBERS CANNOT BE DELETED OR CHANGED. THE EXISTING TRUNK GROUP LIST IS AUTOMATICALLY DELETED WHEN YOU START TO ENTER A NEW ONE

5. ORIGINAL AND OVERFLOW TRUNK GROUPS MUST BE THE SAME TYPE AND HAVE THE SAME TOLL RESTRICTION CHARACTERISTICS.

6. TRUNK GROUP TYPE IS 4 DIGITS

1ST DIGIT
 1. NO SUPERVISION
 2. ANSWER SUPERVISION
 3. TOLL REVERSAL
 4. OUTGOING AUDIO INHIBITED UNTIL ANSWER SUPERVISION TIMEOUT OR DELAYED

2ND DIGIT
 1. NO MESSAGE REGISTER
 2. MESSAGE REGISTER
 3. SMDR WITHOUT MESSAGE REGISTER
 4. SMDR WITH MESSAGE REGISTER

3RD DIGIT
 1. ROTARY DIAL OFFICE, NO WAIT FOR DIAL TONE
 2. ROTARY DIAL OFFICE, WAIT FOR DIAL TONE
 3. TOUCH TONE DIAL OFFICE, NO WAIT FOR DIAL TONE
 4. TOUCH TONE DIAL OFFICE, WAIT FOR DIAL TONE

4TH DIGIT
 1. CENTRAL OFFICE
 2. NON CO
 3. IDENTIFIED TRUNK GROUP + 1 DIGIT
 4. IDENTIFIED TRUNK GROUP + 2 DIGITS
 5. IDENTIFIED TRUNK GROUP + 3 DIGITS
 6. IDENTIFIED TRUNK GROUP + 4 DIGITS (NOTE 11)

7. TRUNK GROUPS TYPE 4X3X AND 4X4X ARE NOT VALID AND SHOULD NOT BE PROGRAMMED

8. THE TRUNKS WITHIN A TRUNK GROUP MAY BE PROGRAMMED FOR EITHER TERMINAL OR CIRCULAR PRINTING. IF TERMINAL PRINTING IS REQUIRED ENTER TRUNK EQUIPMENT NUMBERS IN REQUIRED SEQUENCE
 IF CIRCULAR PRINTING IS REQUIRED MAKE LAST TRUNK EQUIPMENT NUMBER THE SAME AS THE FIRST TRUNK EQUIPMENT NUMBER

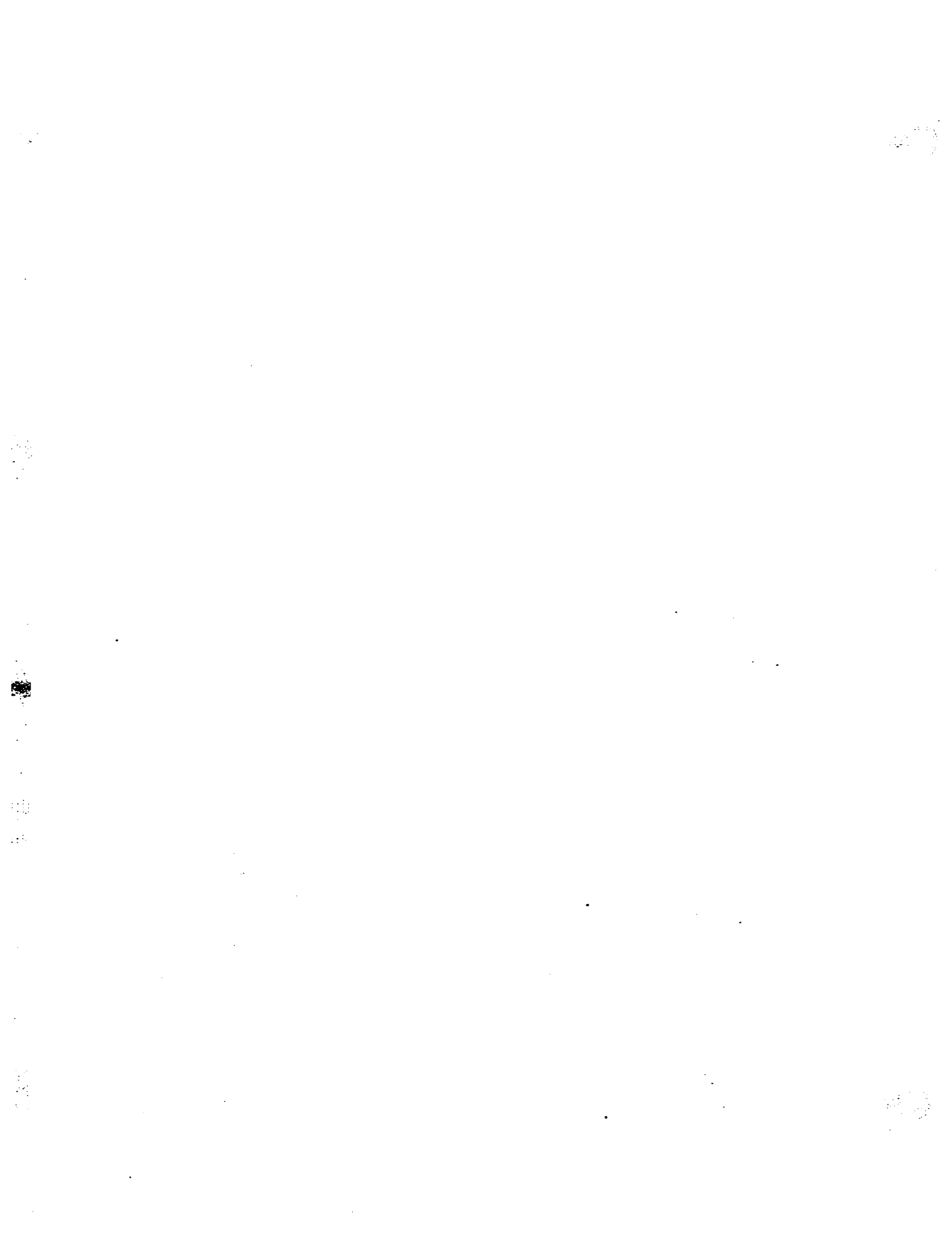
9. USE OF TOLL DENY KEY DOES NOT APPLY IF TOLL CONTROL IS USED

10. SEE SECTION MITL9105 9110-096 212 NA OR TOLL CONTROL FORMS IN THIS SECTION

11. THE NUMBER OF DIGITS (1-4) IS THE NUMBER OF DIGITS THAT MUST BE DIALLED BEFORE THE TRUNK IS SELECTED

Figure 211-1



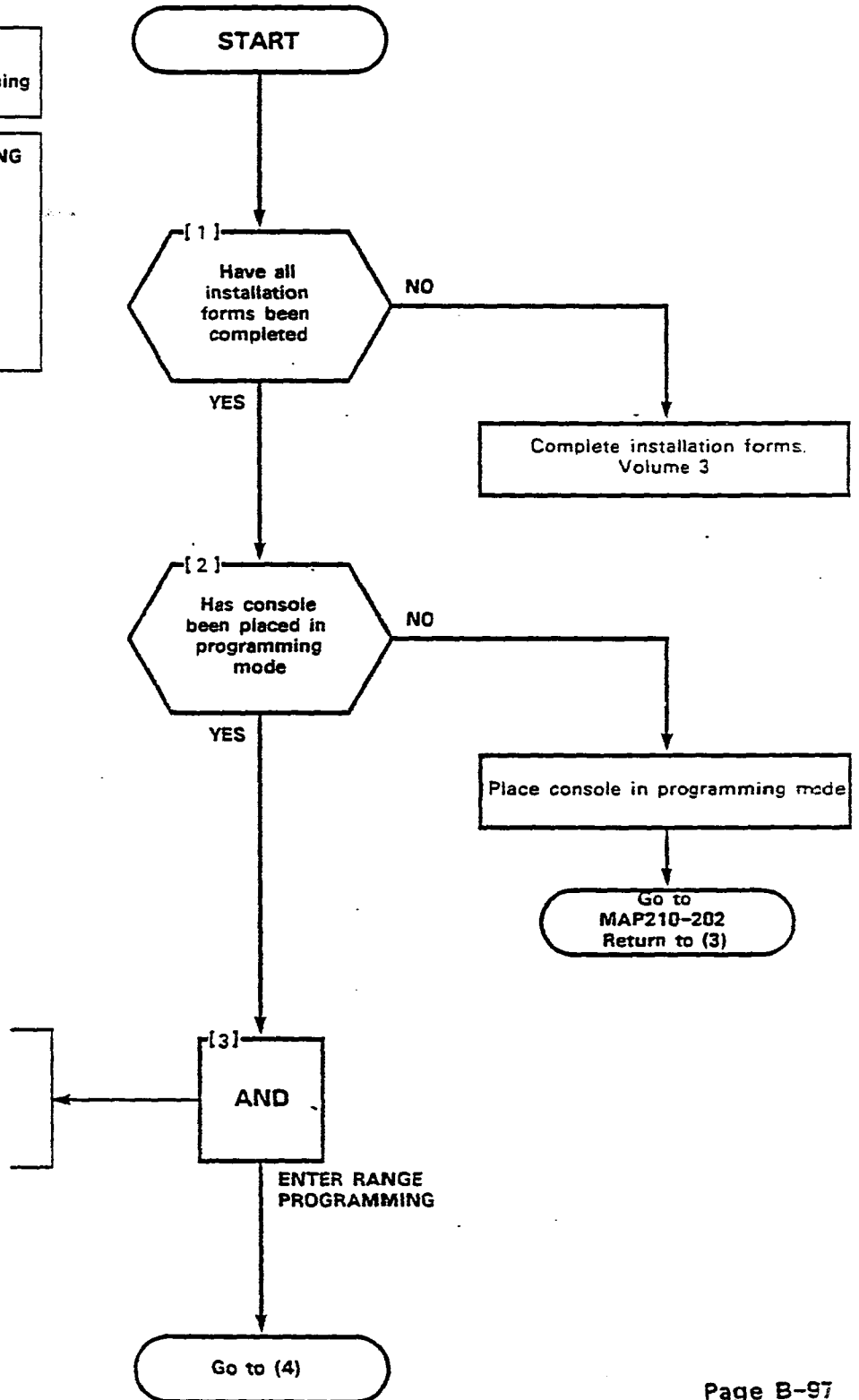


RANGE PROGRAMMING FOR EXTENSIONS
MAP210-212
Issue 3, May 1984
Sheet 1 of 5

NOTE
For an example of the programming form, refer to Figure 212-2.

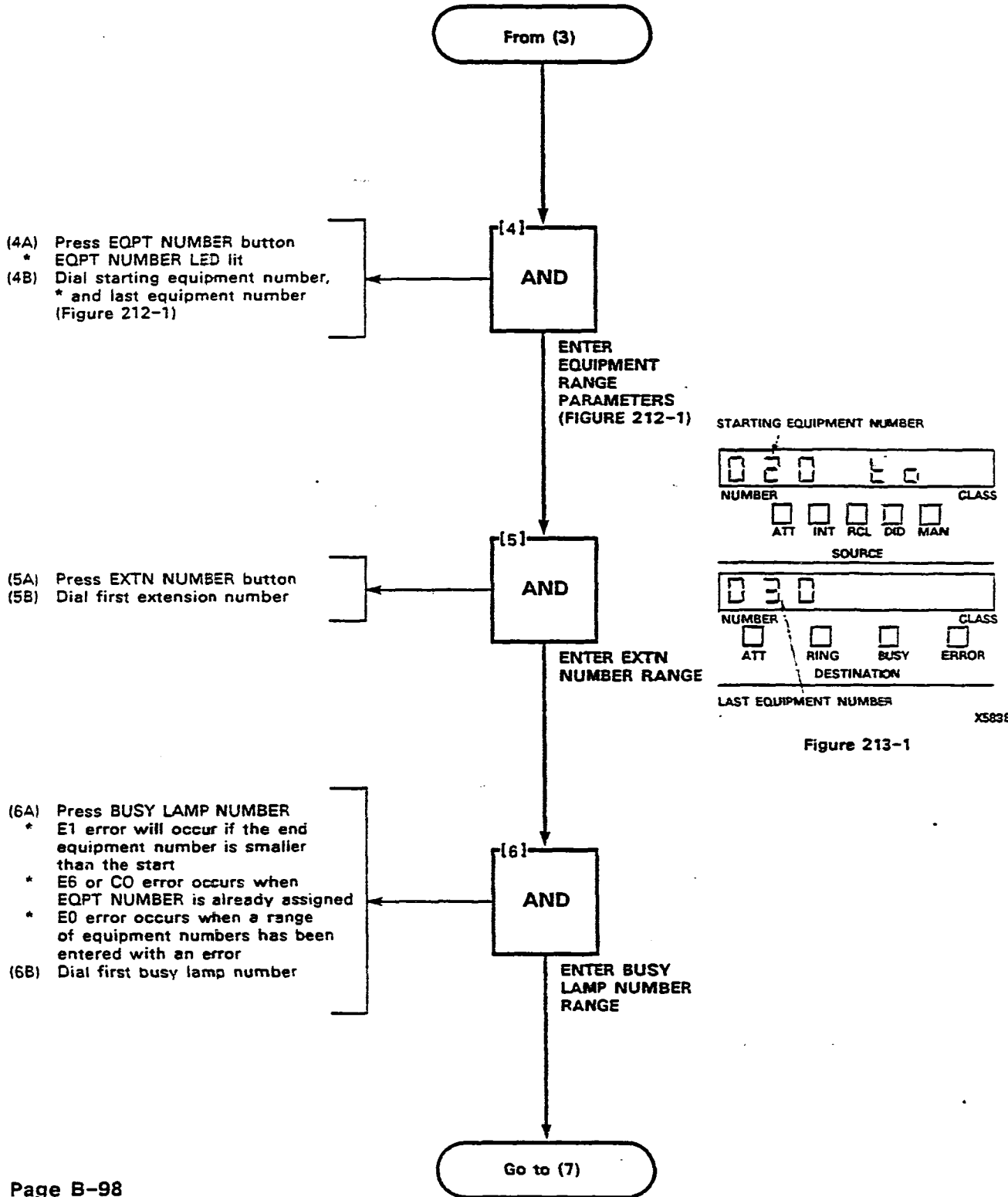
SYNOPSIS - RANGE PROGRAMMING
Enter RANGE programming.
Enter first equipment number; dial *.
Enter last equipment number.
Enter first extension number.
Enter first BUSY LAMP NUMBER.
Enter COS number for Range.
Enter Toll-Deny.
Enter Pickup Group.
Enter Data.

(3A) Press the RANGE button
* RANGE LED lit



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RANGE PROGRAMMING FOR EXTENSIONS
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RANGE PROGRAMMING FOR EXTENSIONS
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(7A) Press COS NUMBER
 * E1 error will occur if the busy lamp exceeds 200
 * E6 or CO error will occur if the busy lamp is already assigned
 (7B) Dial COS NUMBER

From (6)

[7]
 AND

ASSIGN A COS TO THE RANGE

[8]
 Is Toll Control to be used for the Range

NO

Go to (12)

YES

[9]
 Is Multi-Digit Toll Control to be used

YES

NO

[10]
 AND

[11]
 AND

(10A) Press TOLL-DENY button
 * E1 COS number entered out of range
 (10B) Dial COR 1, 2 or 3

(11A) Press TOLL DENY button
 * E1 COS number entered out of range
 (11B) Press ADD to enforce 0-1 toll restriction or press DELETE to remove 0-1 toll restriction

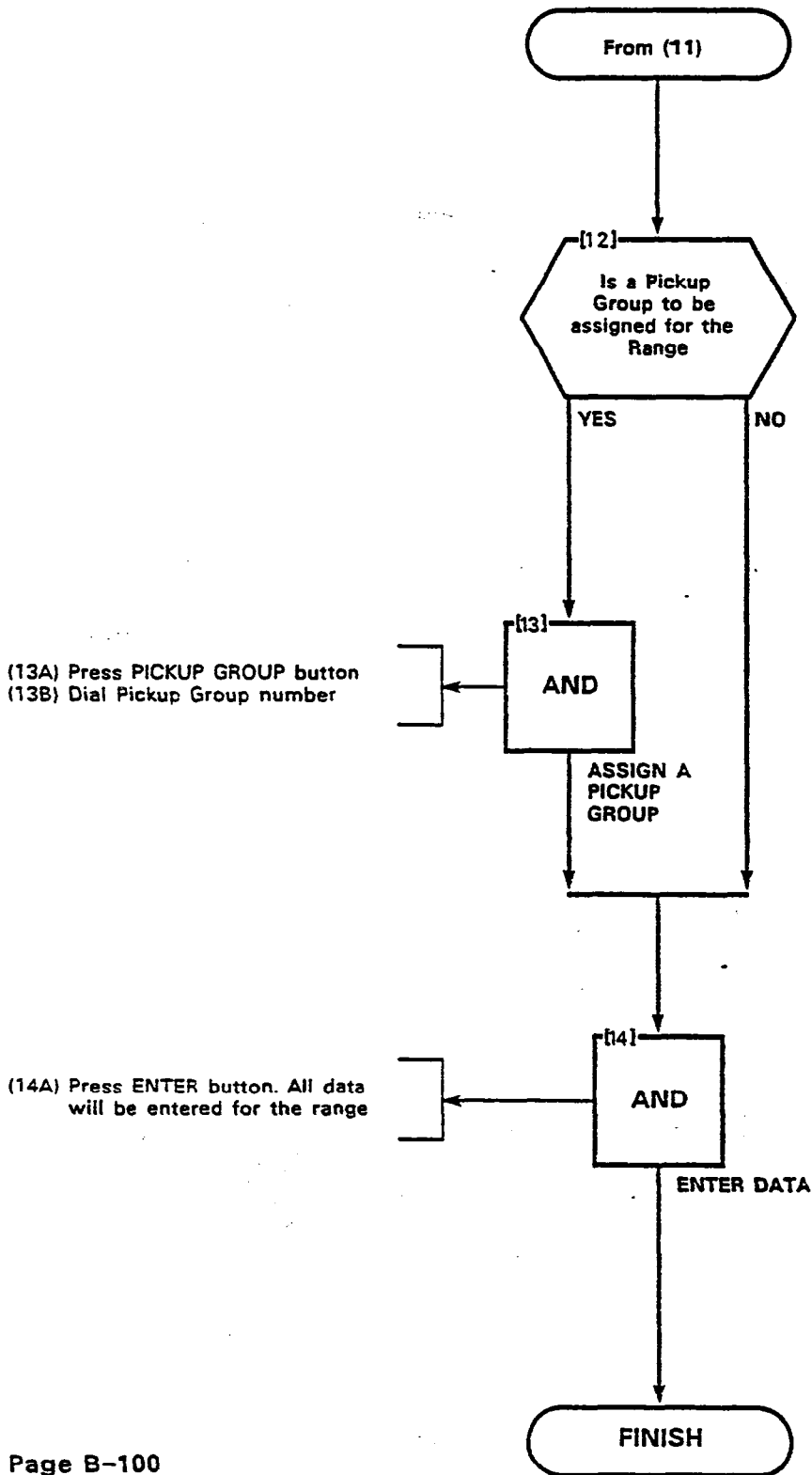
MULTI-DIGIT TOLL

0-1 TOLL

Go to (12)

SECTION MITL9105/9110-096-210-NA

RANGE PROGRAMMING FOR EXTENSIONS
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EXTENSION RANGE PROGRAMMING

TO ENTER EXTENSION RANGE PROGRAMMING PRESS RANGE

NAME	EQPT NUMBER DIAL FIRST EQPT NUMBER DIAL * DIAL LAST EQPT NUMBER NOTE 1	EXTN NUMBER	DIAL FIRST CODE OF RANGE OR SEE NOTES 2,3 OR 4	COS NUMBER	DIAL COS 1-16 FOR RANGE	TOLL DENY	ADD OR DIAL COR CODE 1,2,OR 3 OR DELETE	BUSY LAMP NUMBER	DIAL FIRST BUSY LAMP 1-200 OR DELETE	PICKUP GROUP	DIAL 1-30 FOR RANGE OR DELETE	ENTER

NOTES

1. 001 - 101 BK-200 & BK-100 101 - 200 APPLIES TO BK-200 ONLY

2. TO ASSIGN NON-CONFLICTING SINGLE DIGIT DIRECTORY NUMBER ENTER NO

3. TO REMOVE EXTENSION PROGRAMMING

4. TO SEE THE NEXT EQPT NUMBER AS AN EXTENSION

5. COR 1-3 APPLIES ONLY IF TOLL CONTROL IS USED

EQPT NUMBER
NEXT

EXTN
EQPT NUMBER
DIAL EQUIPMENT NUMBER
EXTN NUMBER
DELETE

EXTENSION MUST BE REMOVED FROM ANY INHT GROUP BEFORE REMOVING THE EXTENSION PROGRAMMING


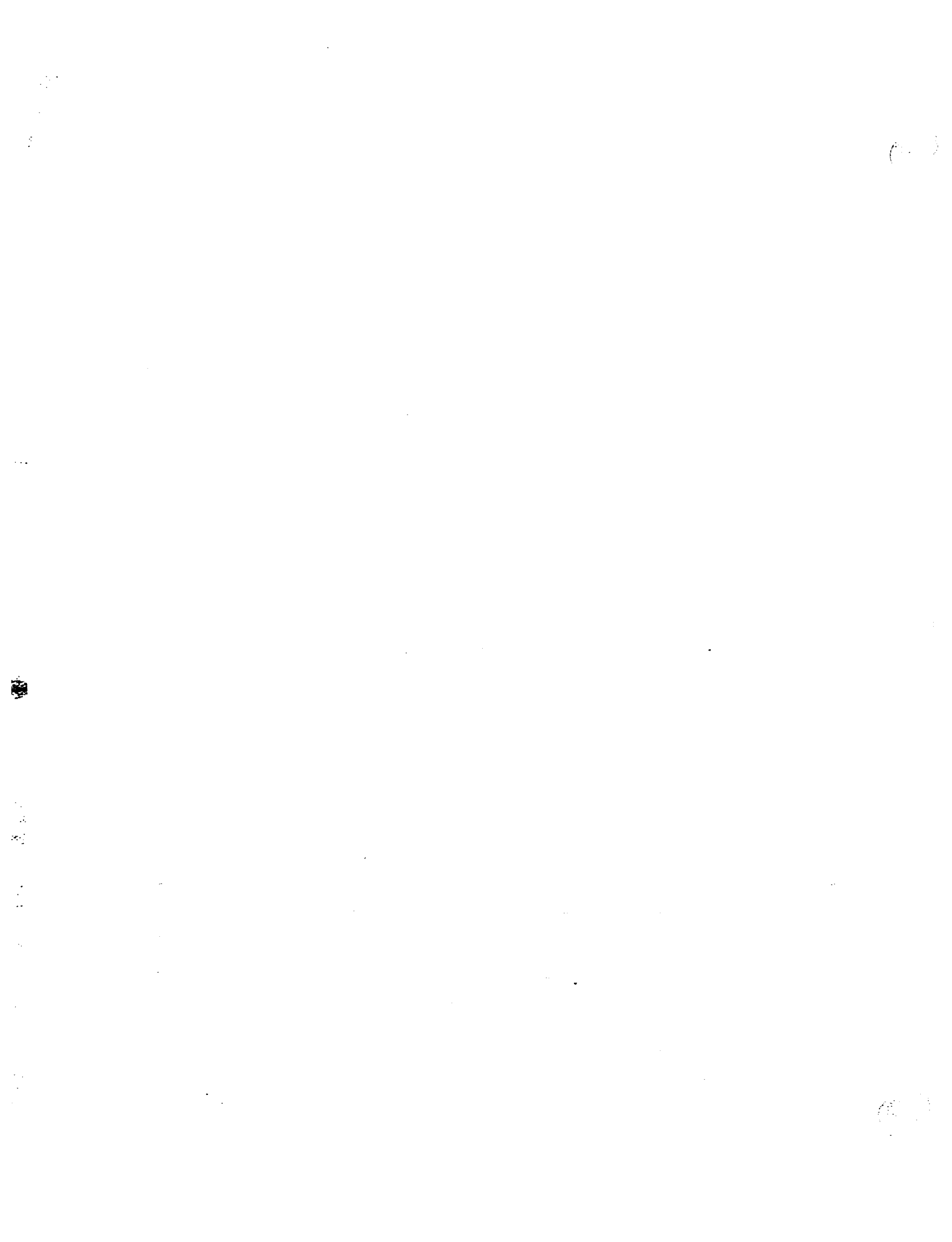
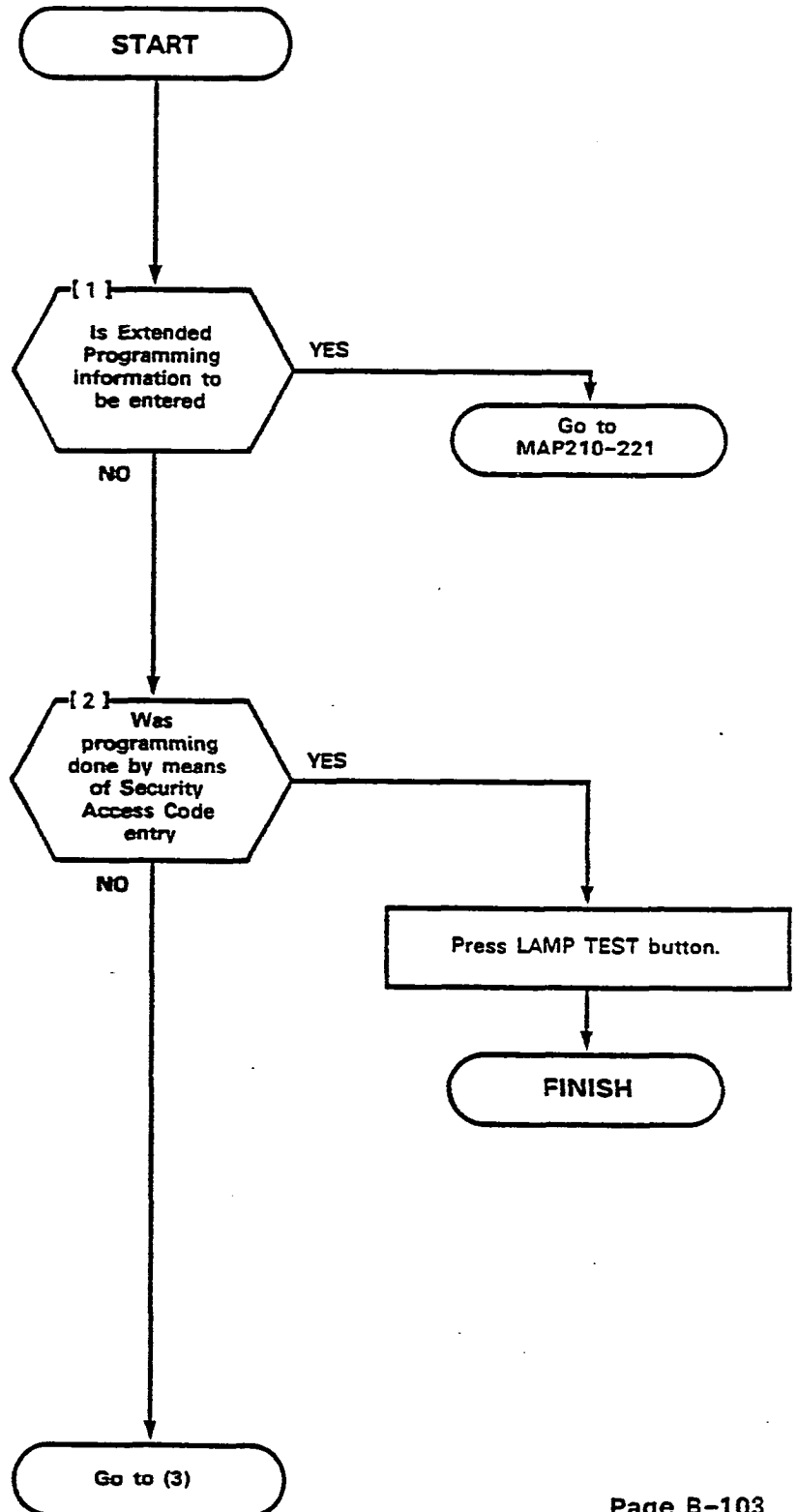


Figure 212-2

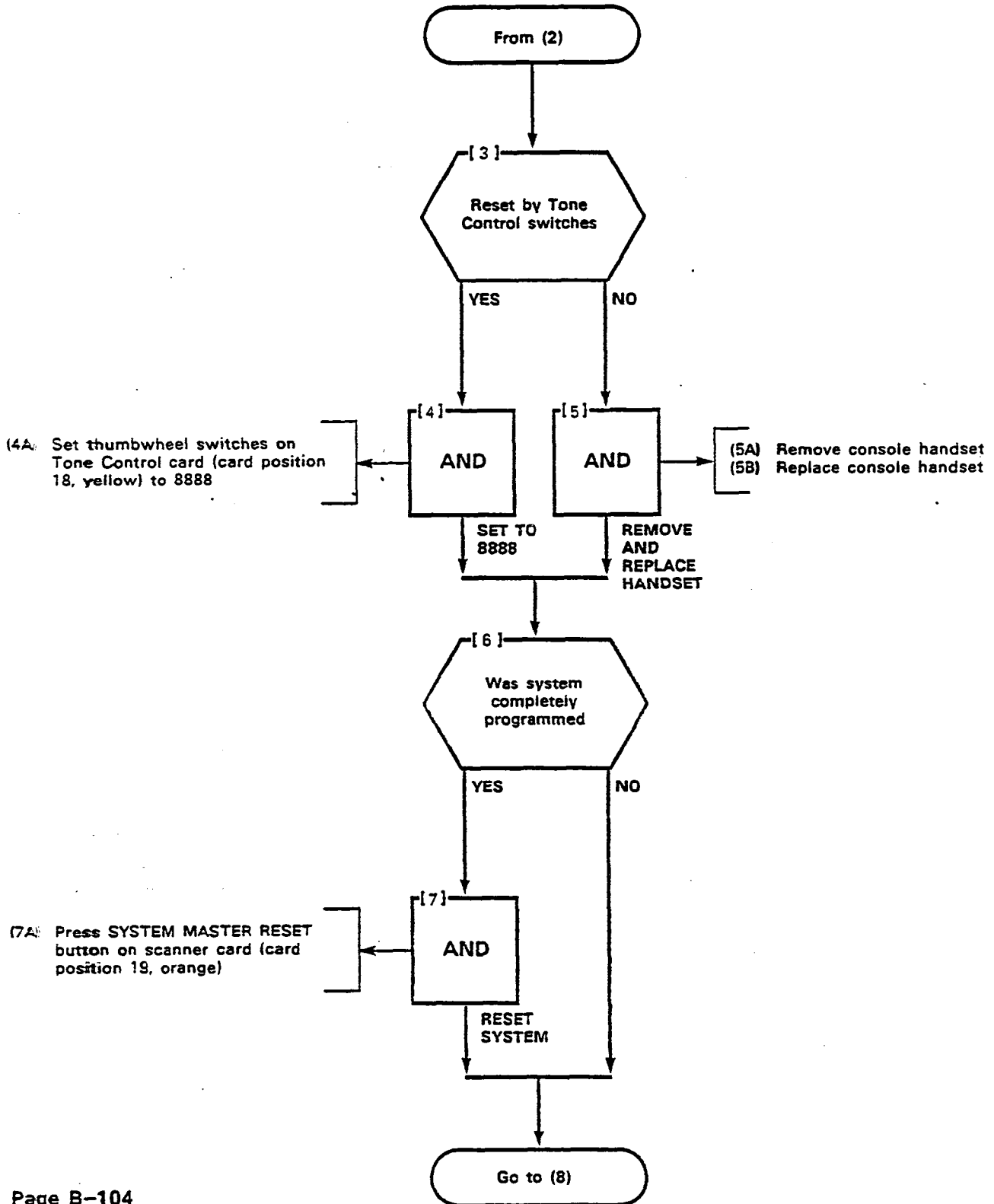


TERMINATING STANDARD PROGRAMMING MODE
MAP210- 213
Issue 3, May 1984
Sheet 1 of 3

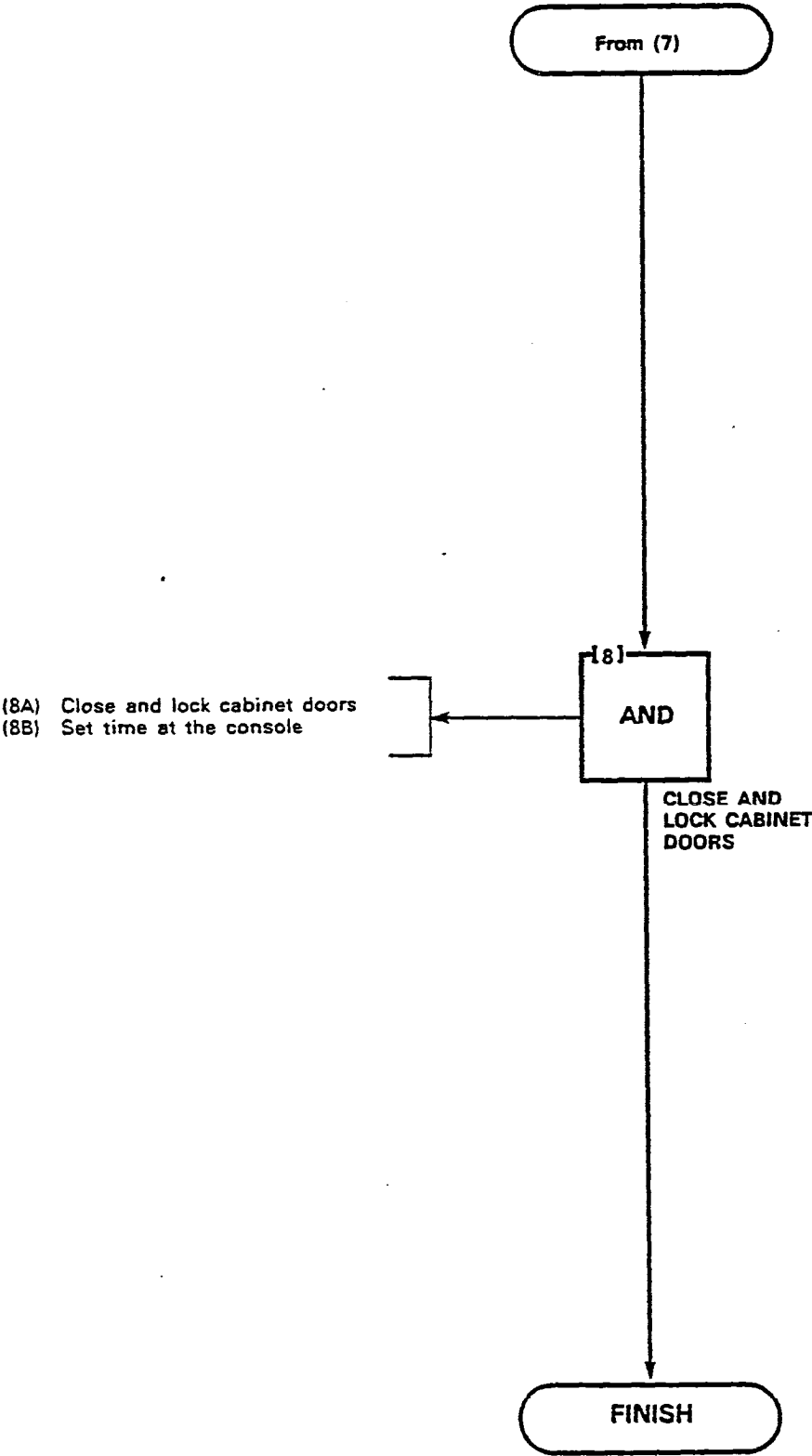


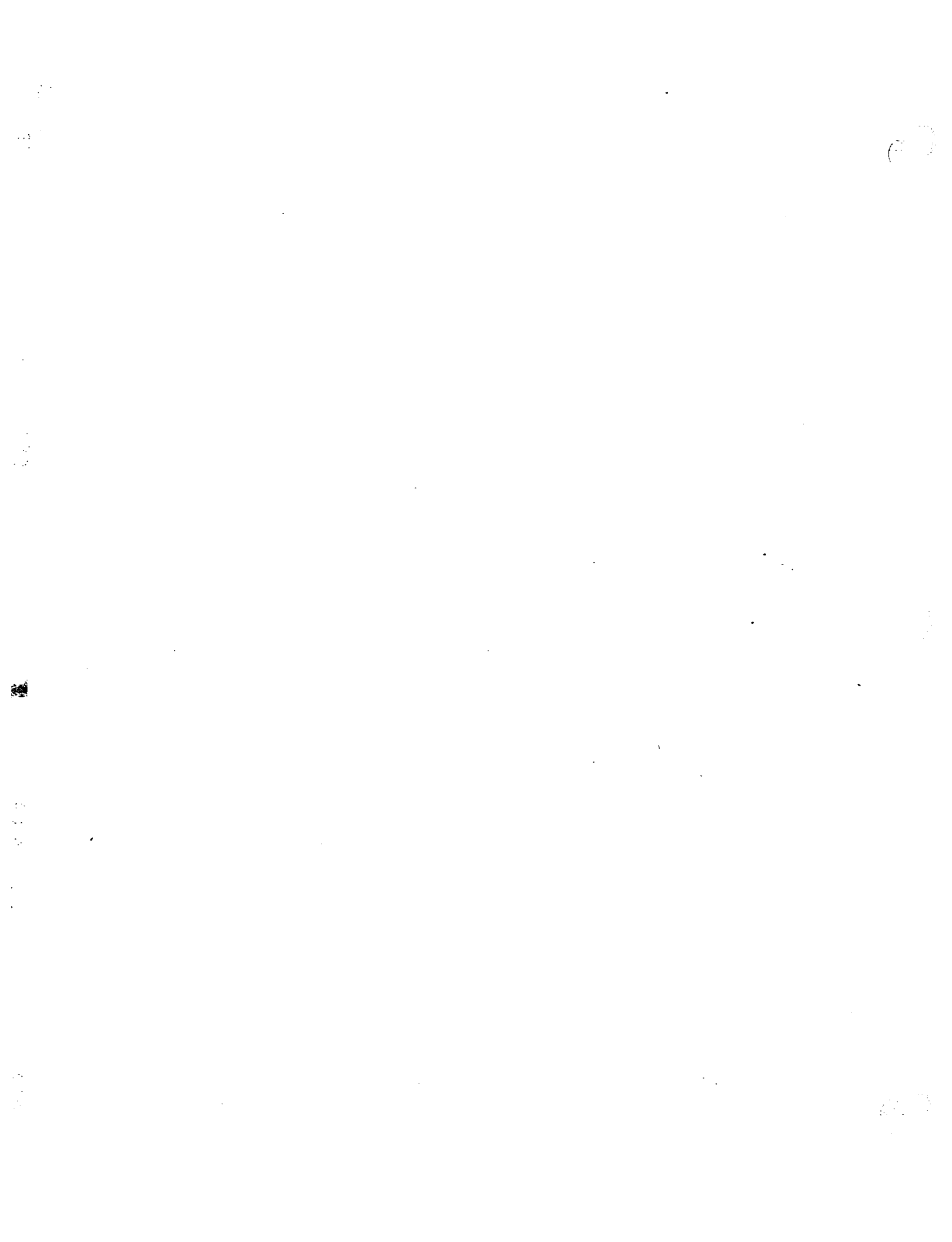
SECTION MITL9105/9110-096-210-NA

TERMINATING STANDARD PROGRAMMING MODE
MAP210- 213
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Sheet 2 of 3



TERMINATING STANDARD PROGRAMMING MODE
MAP210- 213
Issue 3, May 1984
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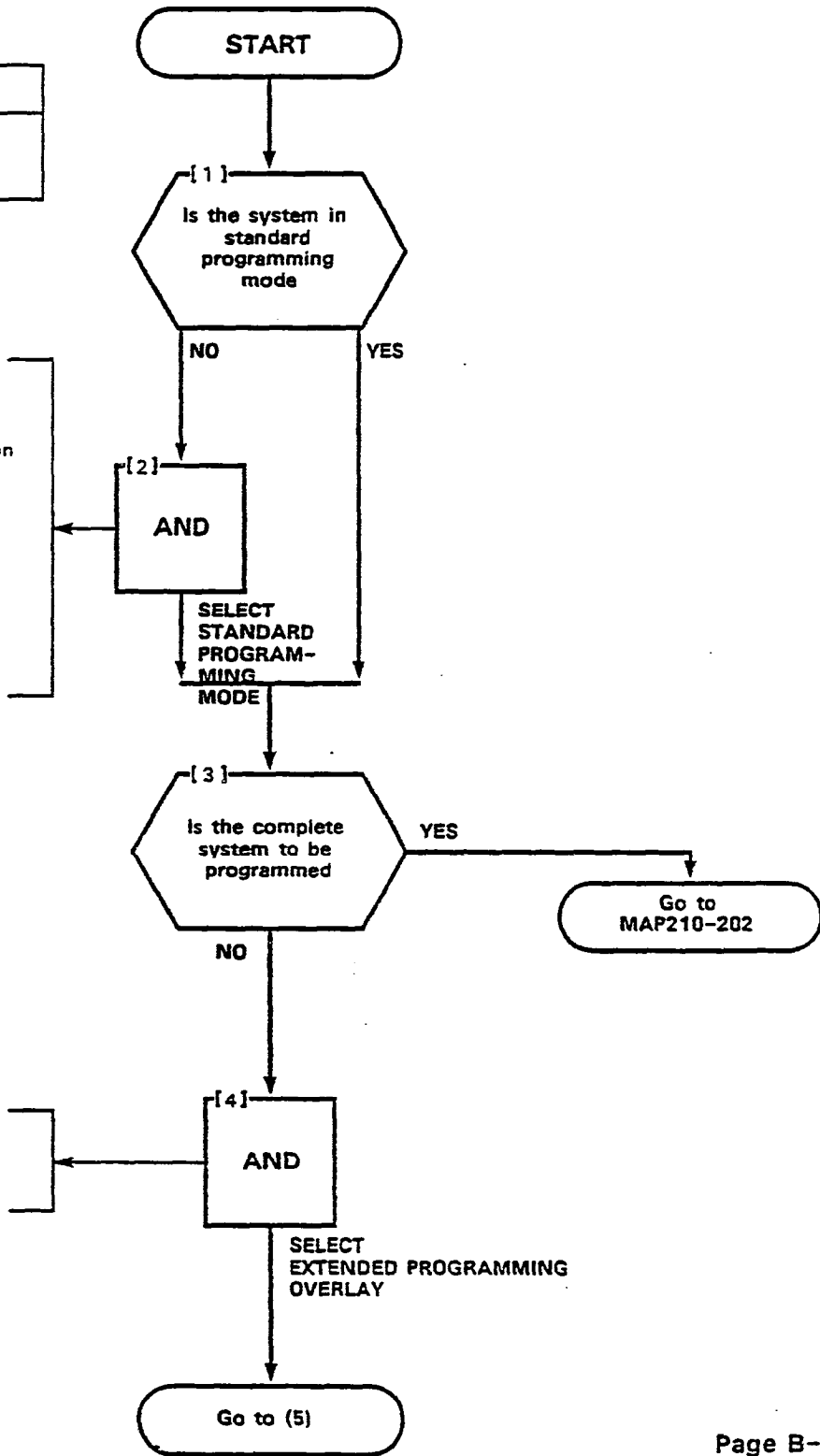
SELECTION OF EXTENDED PROGRAMMING
MAP210-221
Issue 3, May 1984
Sheet 1 of 2

TABLE 221-1

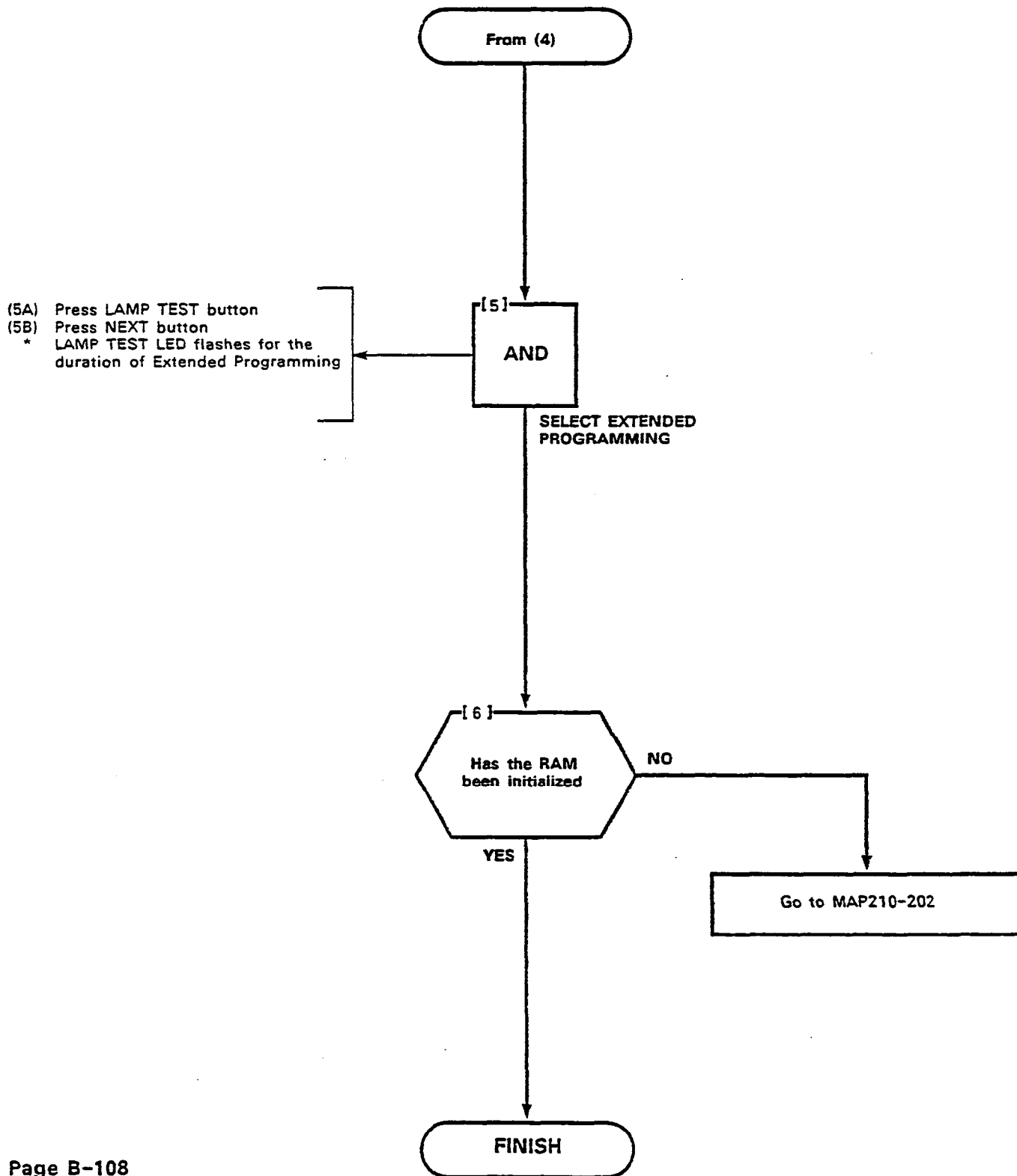
Code	Console
7770	Maintenance
7771	Attendant 1
7772	Attendant 2

- (2A) Press RELEASE button several times
- (2B) Set thumbwheel switches on Tone Control card (card position 18 yellow) for console to be used in programming (Table 221-1)
- (2C) Press LAMP TEST button * LAMP TEST LED lit
- (2D) Alternately enter Programming Security Code from console (Feature 29)

- (4A) Place Extended Programming console overlay over console buttons

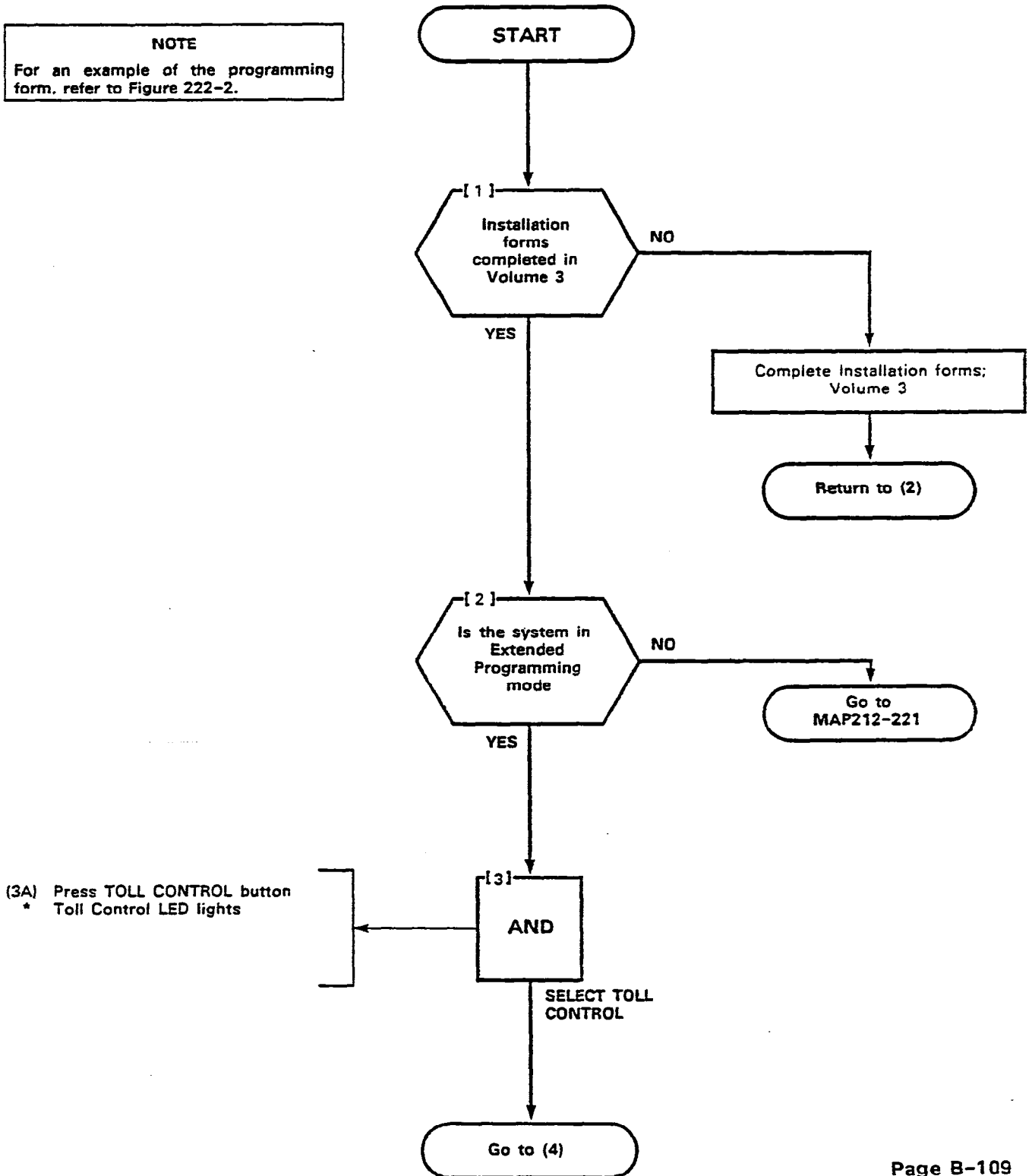


SELECTION OF EXTENDED PROGRAMMING
MAP210- 221
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Sheet 2 of 2



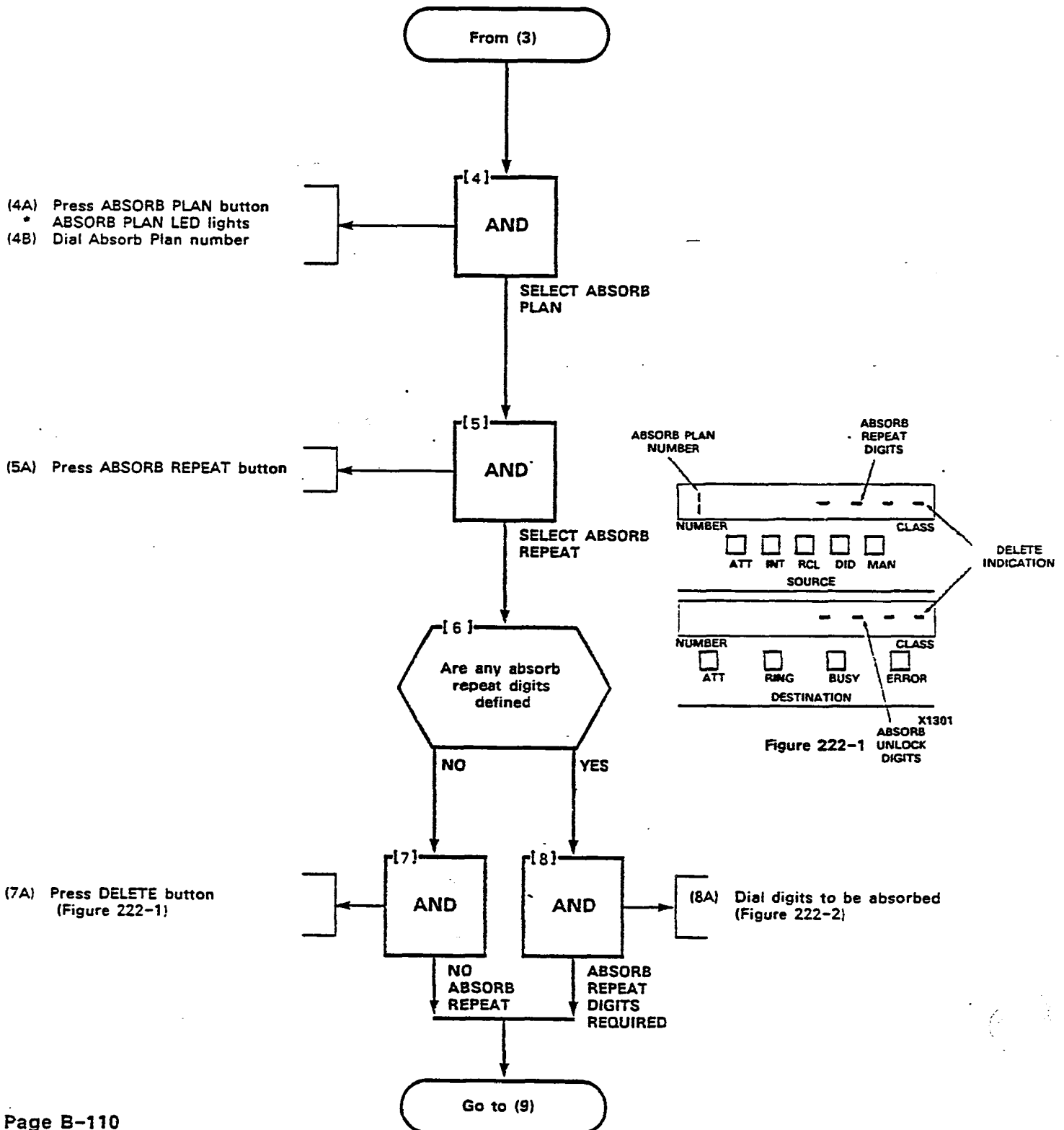
ABSORB PLAN
MAP210-222
Issue 3, May 1984
Sheet 1 of 5

NOTE
For an example of the programming form, refer to Figure 222-2.

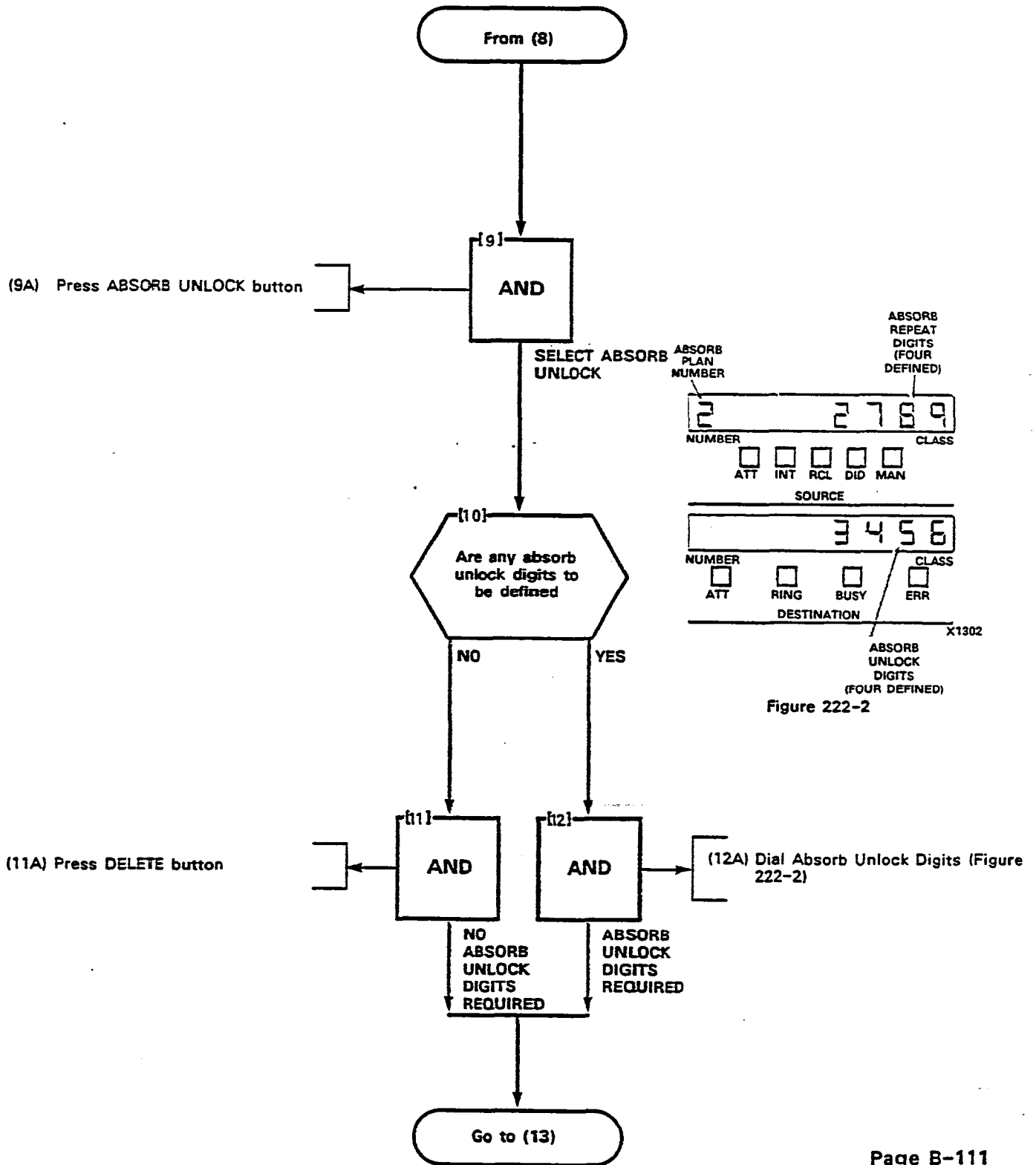


SECTION MITL9105/9110-096-210-NA

ABSORB PLAN
MAP210- 222
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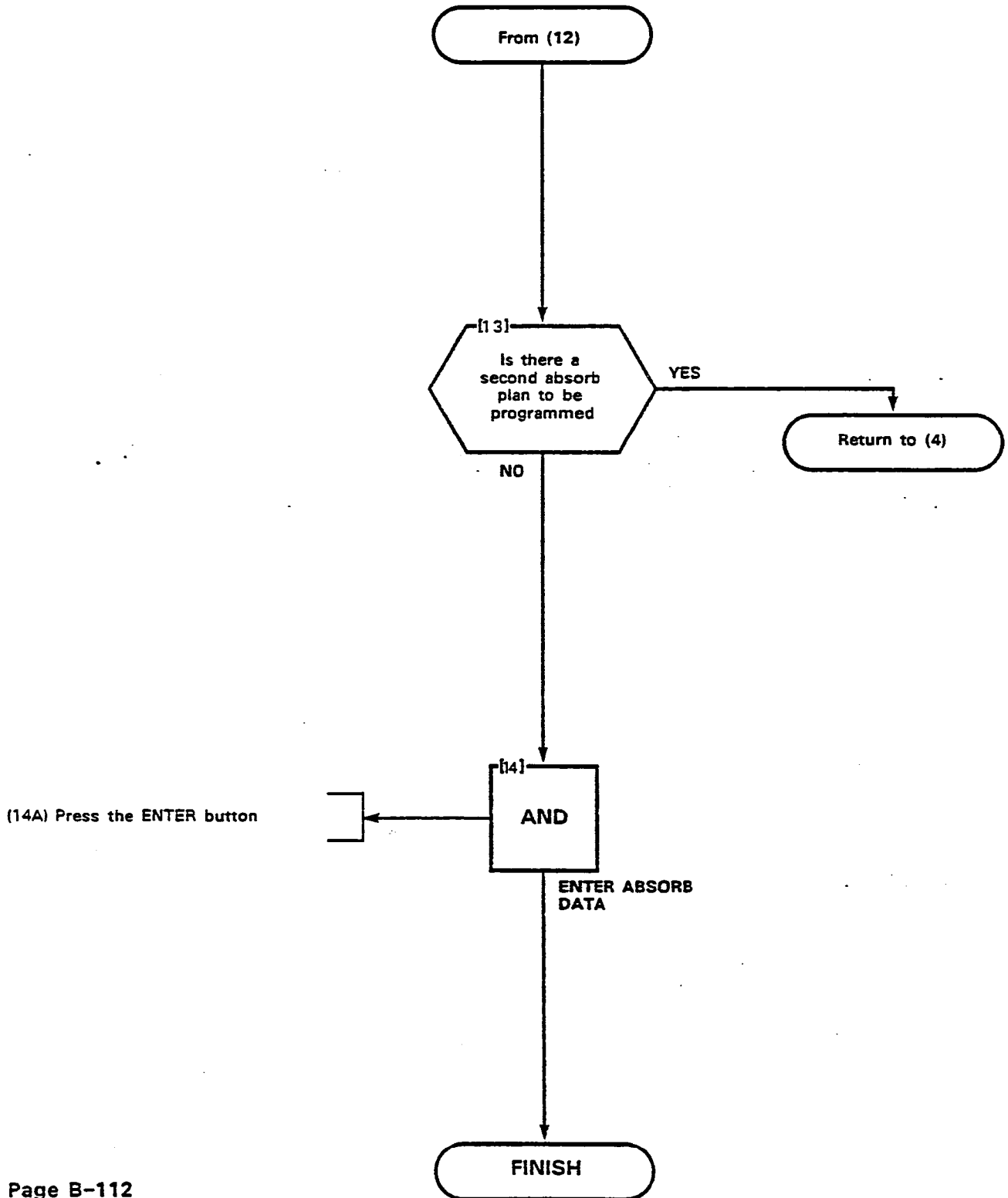


ABSORB PLAN
MAP210-222
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SECTION MITL9105/9110-096-210-NA

ABSORB PLAN
MAP210- 222
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TOLL CONTROL

ABSORB PLAN

<input type="button" value="ABSORB PLAN"/> DIAL 1 OR 2	<input type="button" value="ABSORB REPEAT"/> DIAL REPEAT DIGITS (MAX 4) OR <input type="button" value="DELETE"/>	<input type="button" value="ABSORB UNLOCK"/> DIAL UNLOCK DIGITS (MAX 4) OR <input type="button" value="DELETE"/>	
ABSORB PLAN NUMBER 1			
ABSORB PLAN NUMBER 2			
			<input type="button" value="ENTER"/>

TO VIEW THE ABSORB PLANS:

<input type="button" value="ABSORB PLAN"/>	<input type="button" value="NEXT"/>	<input type="button" value="NEXT"/>
PLAN NUMBER 1 DISPLAYED		PLAN NUMBER 2 DISPLAYED




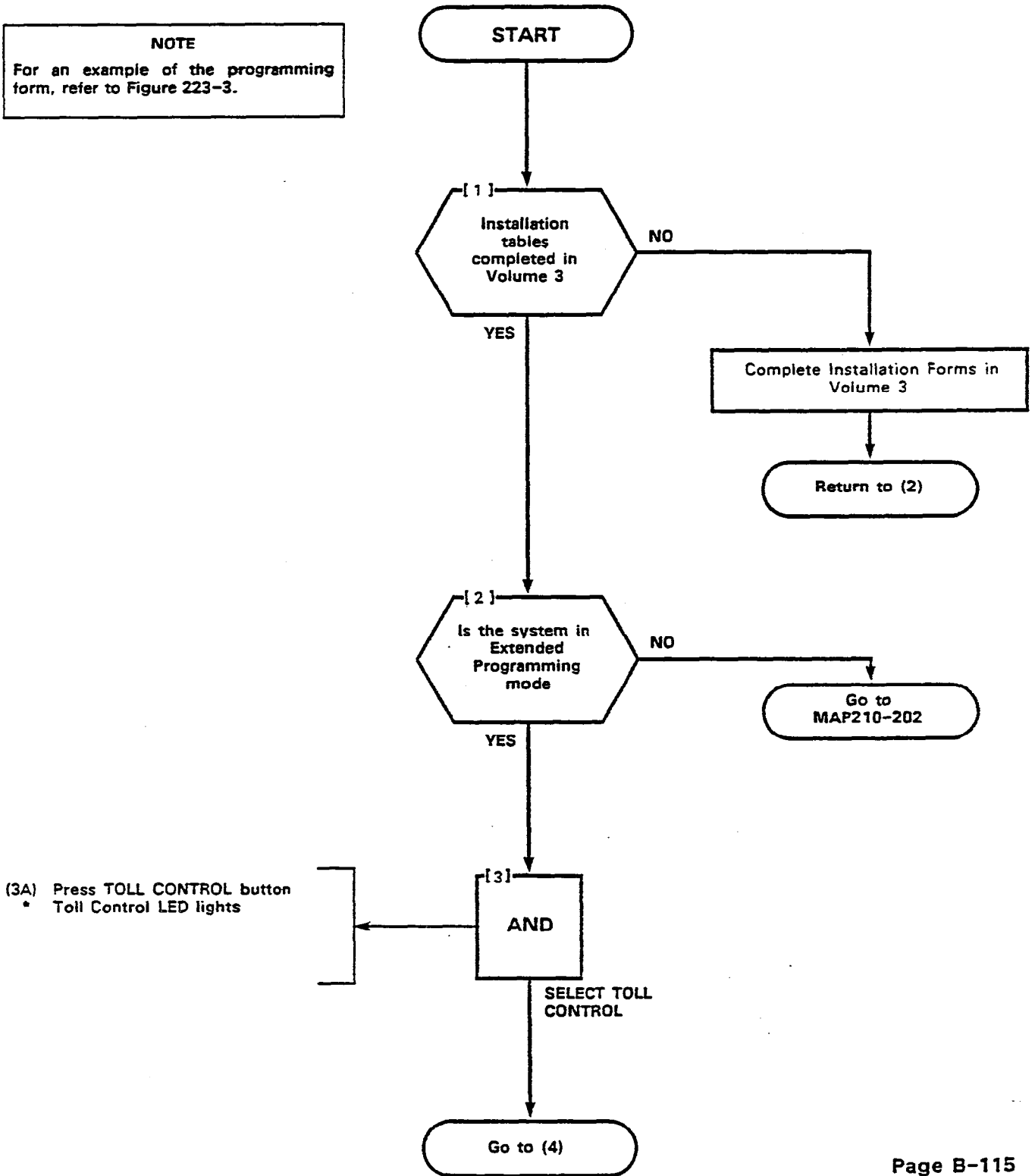
Figure 222-2

(13)

(13)

CONTROL PLAN
MAP210-223
Issue 3, May 1984
Sheet 1 of 6

NOTE
For an example of the programming form, refer to Figure 223-3.



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CONTROL PLAN
MAP210- 223
Issue 3, May 1984
Sheet 2 of 6

- (4A) Press CONTROL PLAN button
- * Control Plan LED lights
- (4B) Dial Control Plan number
- * DESTINATION Display shows Control Plan Number

- (6A) Press DENY TOLL REV button
- (6B) Press DELETE button (Figure 223-1)

- (8A) Press BASIC COND button
- (8B) Dial Basic Cond. number
- * Destination Display shows Basic Cond. number

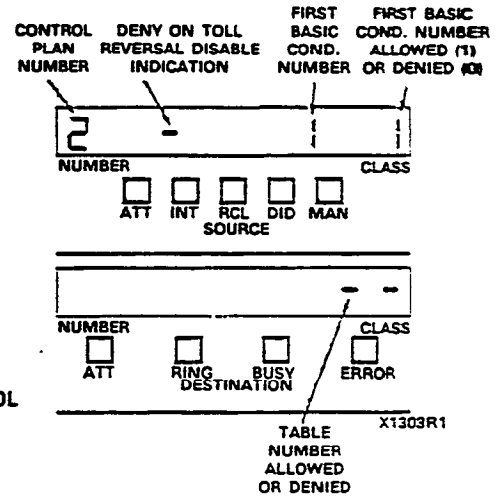
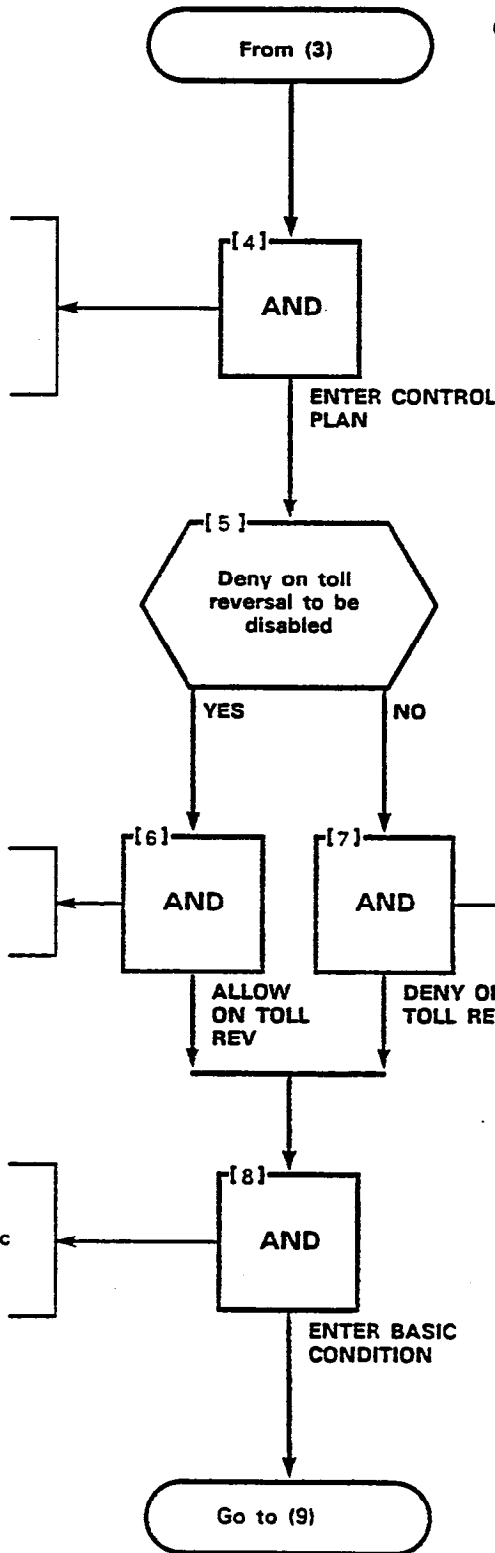


Figure 223-1

- (7A) Press DENY TOLL REV button
- (7B) Press ADD button (Figure 223-2)

CONTROL PLAN
MAP210-223
Issue 3, May 1984
Sheet 3 of 6

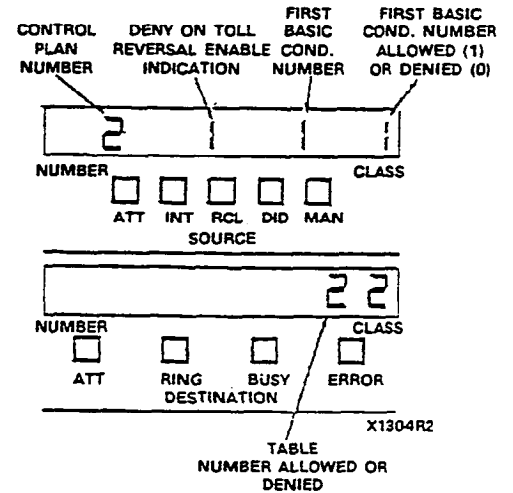
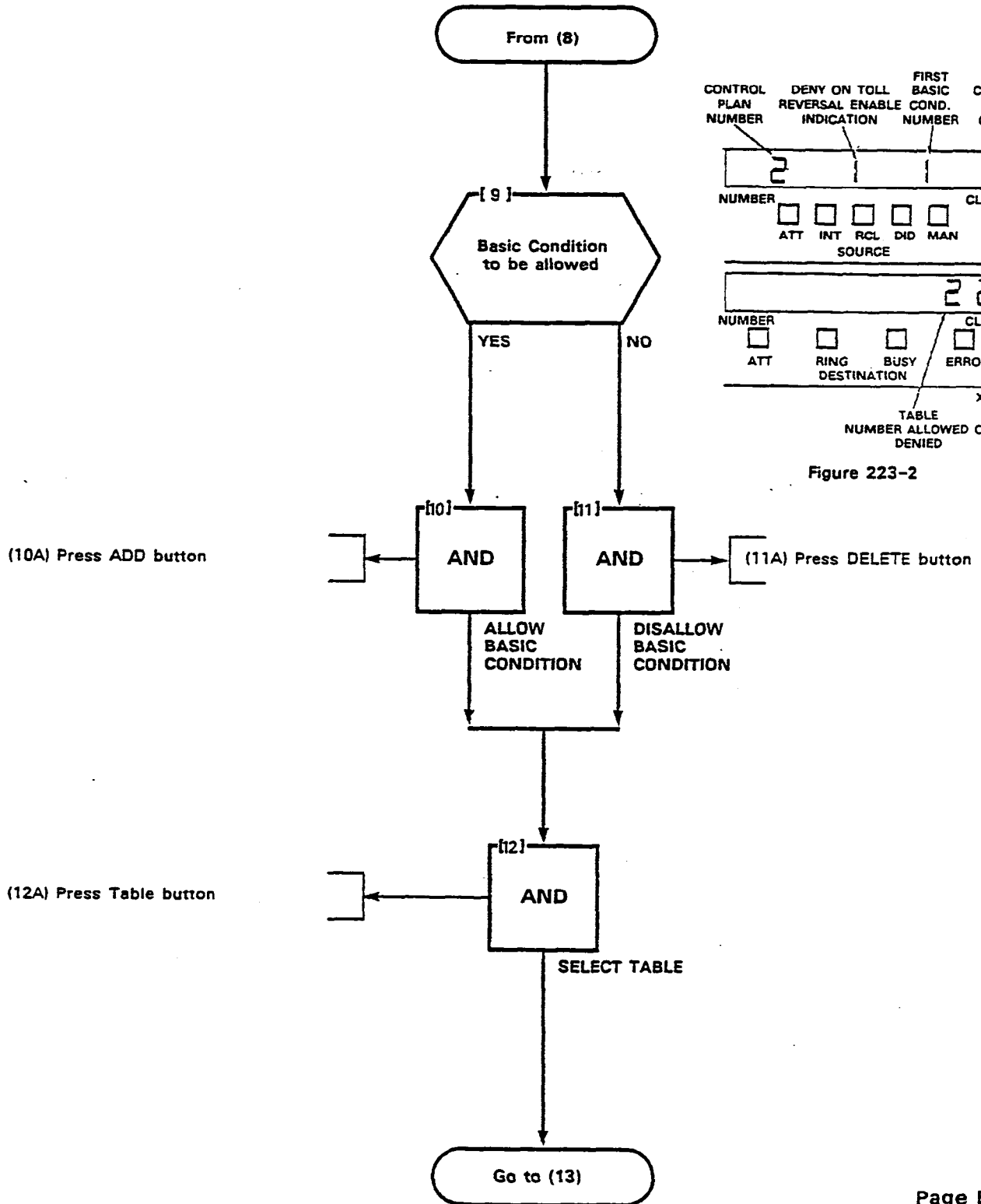
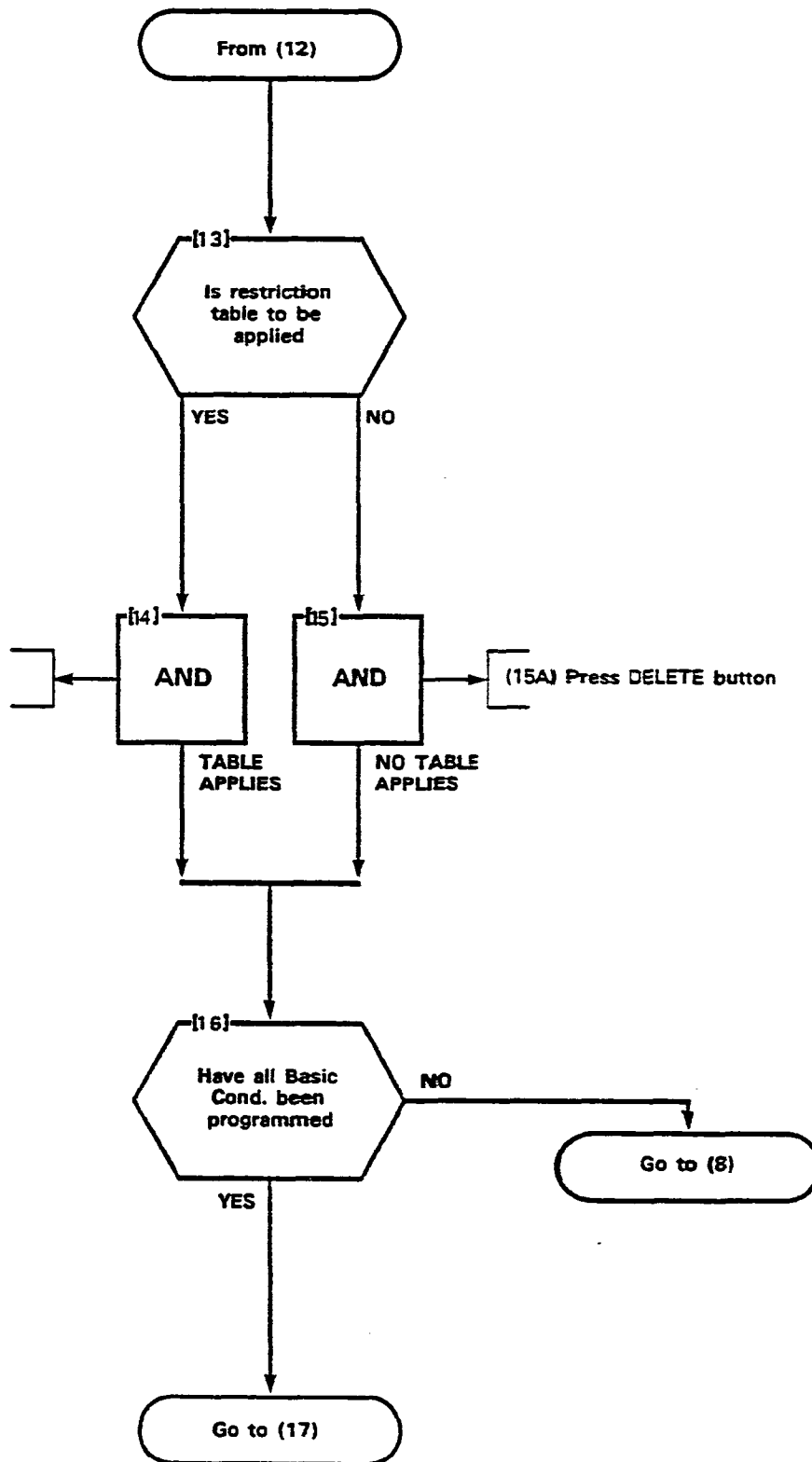


Figure 223-2

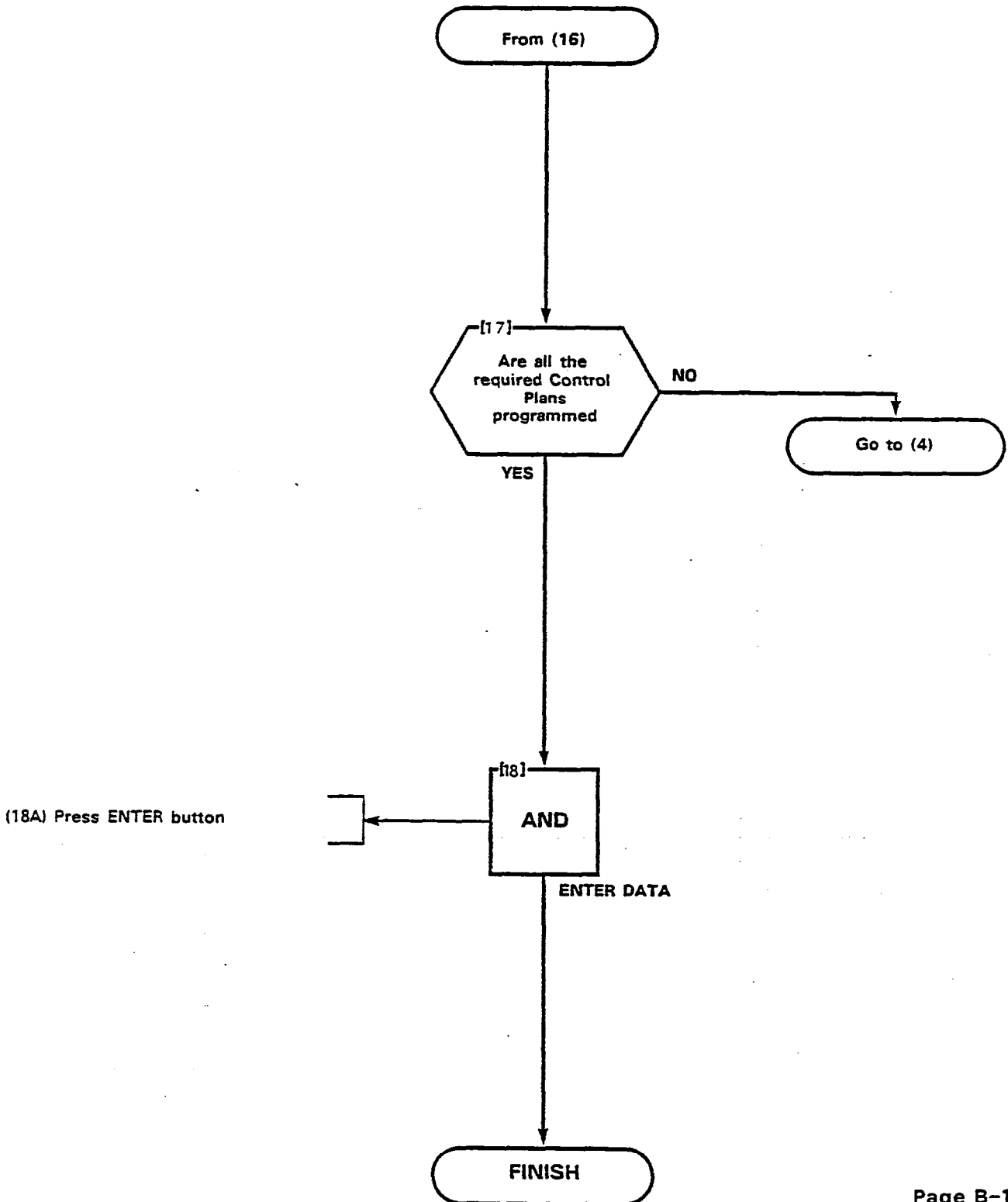
SECTION MITL9105/9110-096-210-NA

CONTROL PLAN
MAP210- 223
Issue 3, May 1984
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(14A) Dial Table number



CONTROL PLAN
MAP210-223
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CONTROL PLAN

TOLL CONTROL

CONTROL PLAN DIAL 1-15	DENY TOLL REV	ADD OR DELETE DIAL 1-5 (NOTE 2)	BASIC COND DIAL 1-5 (NOTE 2)	ADD OR DELETE (NOTE 1)	TABLE DIAL 1-9 (ADD ENTRY) 21-33 (ZO RANGE) 51-73 (4 ENTRY) OR DELETE	ENTER
CONTROL PLAN		1 (0)	1 (0)			
		2 (1-XXN)	2 (1-XXN)			
		3 (1-XO/1X)	3 (1-XO/1X)			
		4 (NNX)	4 (NNX)			
		5 (NO/1X)	5 (NO/1X)			
		1 (0)	1 (0)			
		1 (1-MNH)	1 (1-MNH)			
		3 (1-XO/1X)	3 (1-XO/1X)			
		4 (NNX)	4 (NNX)			
		5 (NO/1X)	5 (NO/1X)			

NOTE 1

ADD

DELETE

-ALLOW ALL CODES EXCEPT THOSE LISTED IN THE TABLE SPECIFIED

DENY ALL CODES EXCEPT THOSE LISTED IN THE TABLE SPECIFIED

TO REVIEW CONTROL PLAN ASSIGNMENTS

TO REVIEW THE BASIC CONDITIONS OF THE CONTROL PLAN

CONTROL PLAN

CONTROL PLAN

DISPLAY ENTRY

DISPLAY ENTRY

DISPLAY

DISPLAY

DISPLAY

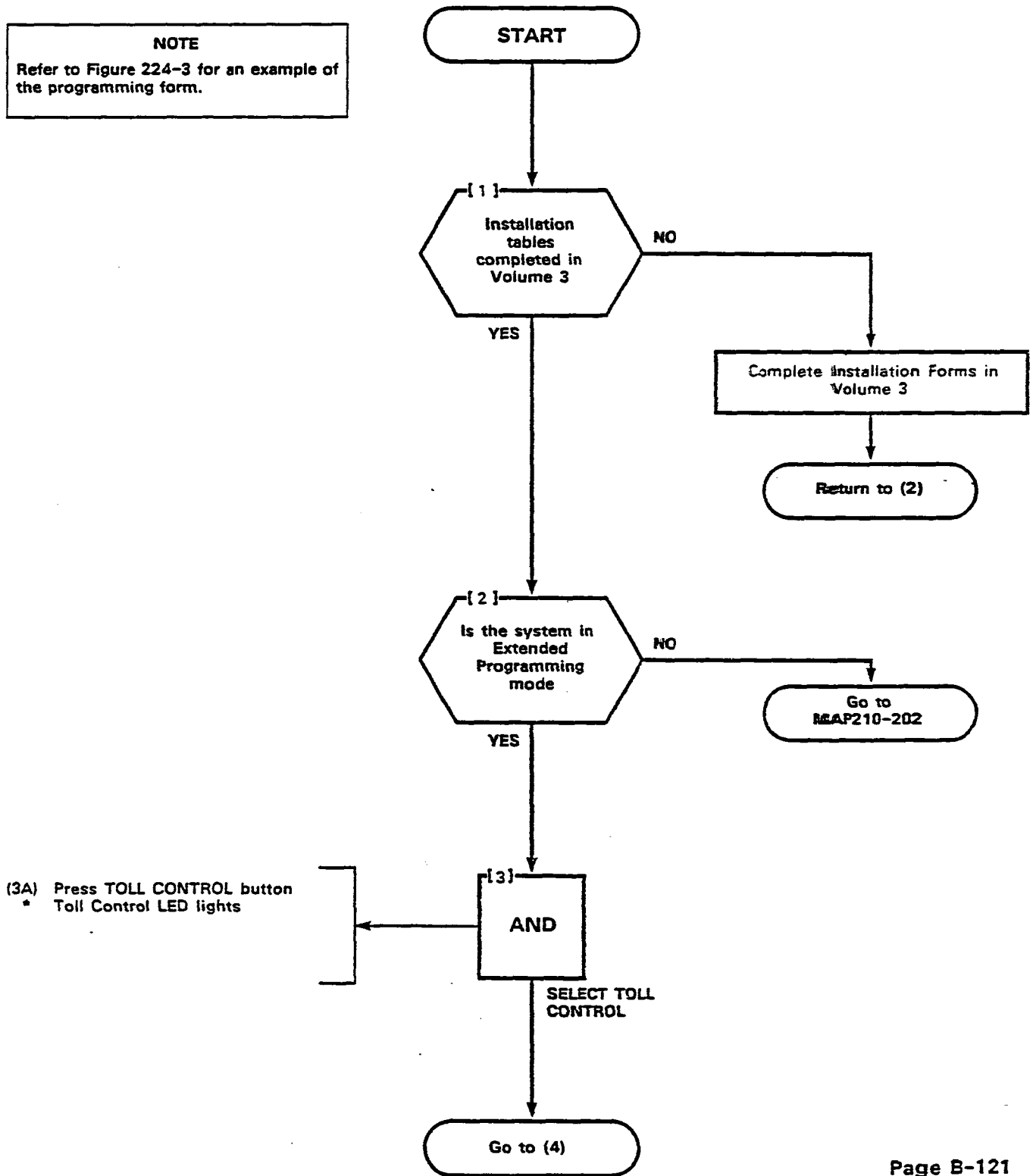
DISPLAY

NOTE 2. N IS ANY NUMBER 2-9
X IS ANY NUMBER 0-9

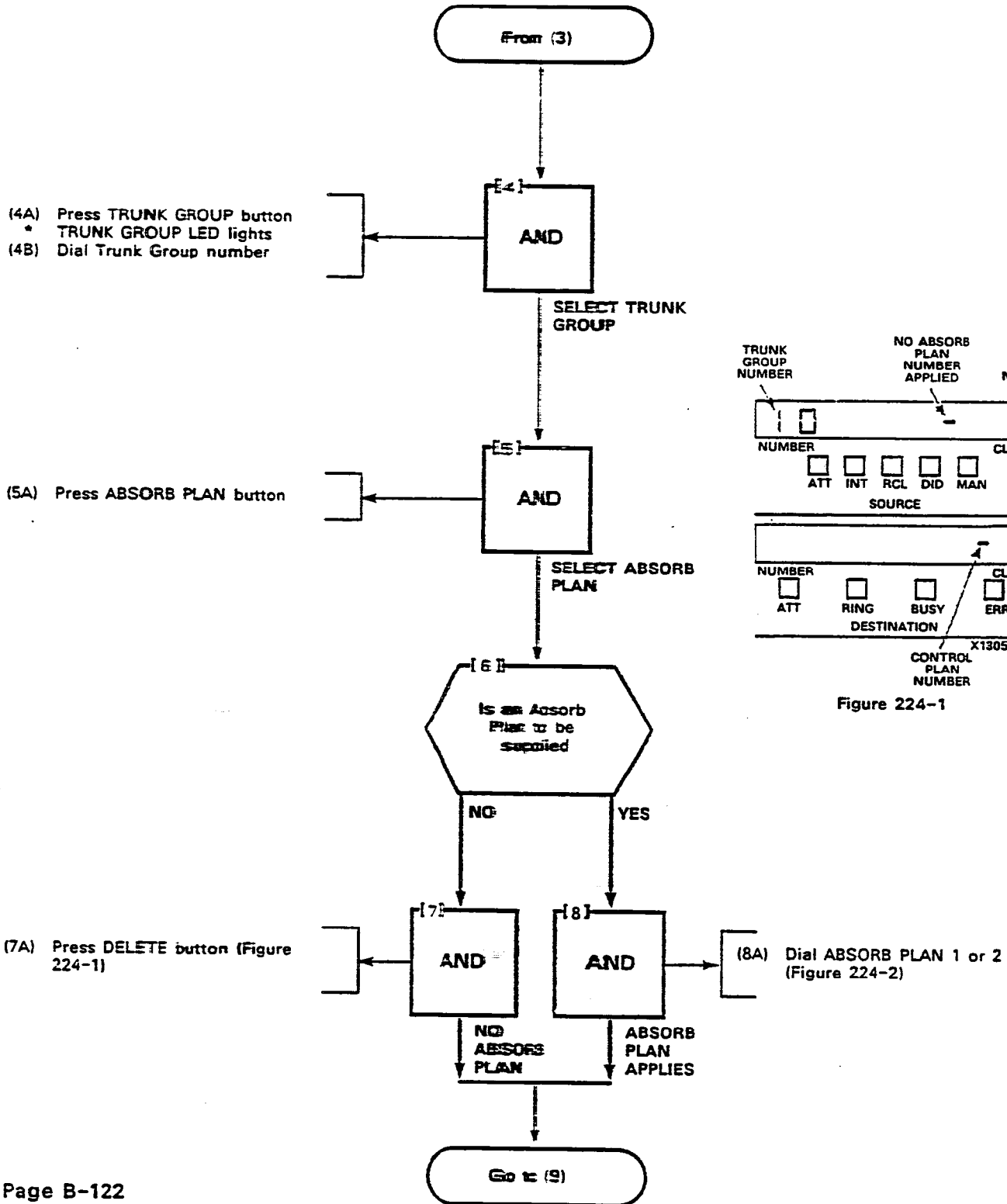
Figure 223-3

TRUNK GROUP CLASS OF RESTRICTION
MAP210-224
Issue 3, May 1984
Sheet 1 of 5

NOTE
Refer to Figure 224-3 for an example of the programming form.



TRUNK GROUP CLASS OF RESTRICTION
MAP210- 224
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TRUNK GROUP CLASS OF RESTRICTION
MAP210-224
Issue 3, May 1984
Sheet 3 of 5

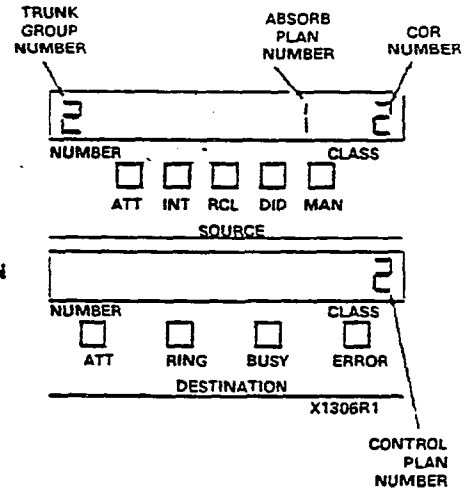
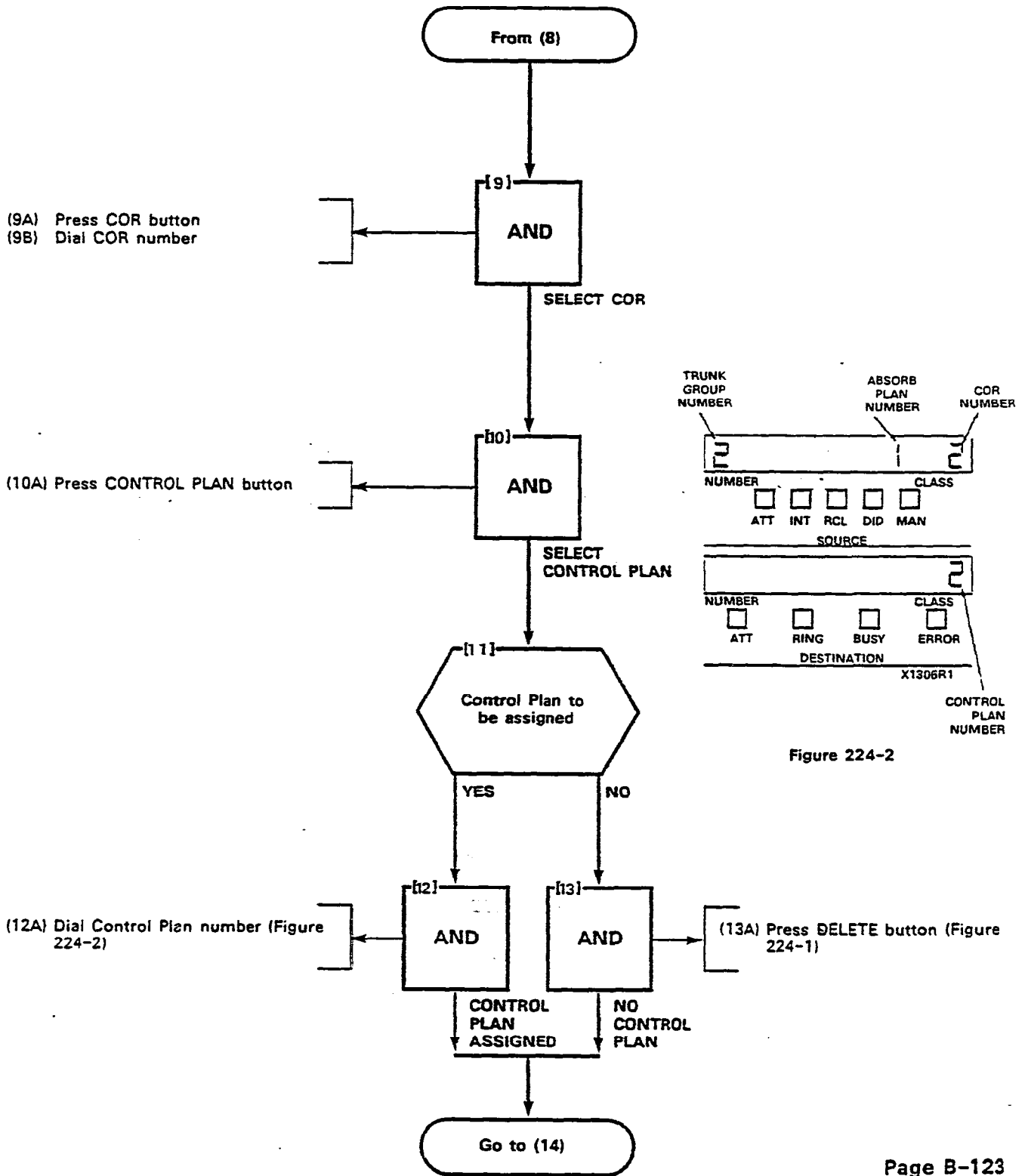
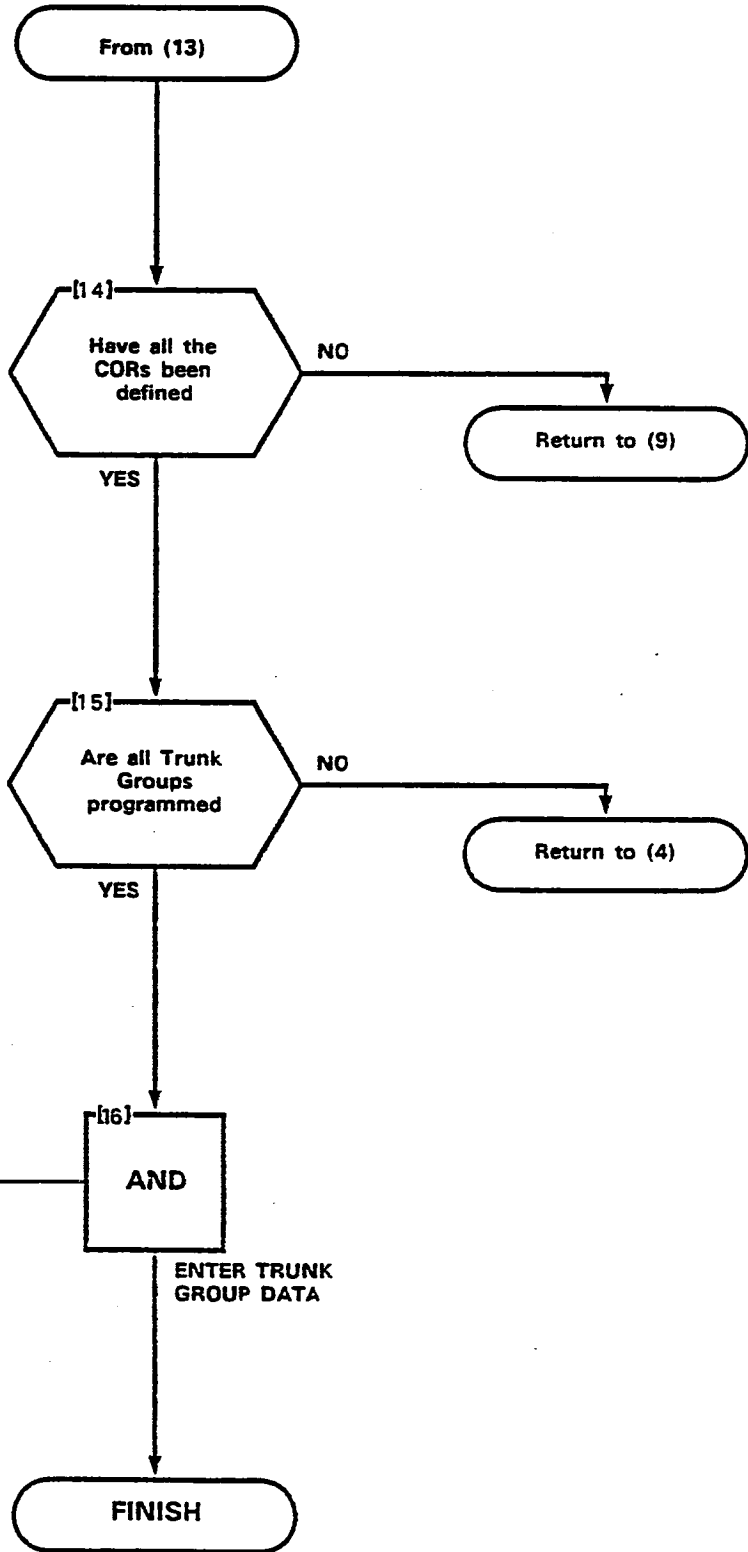


Figure 224-2

SECTION MITL9105/9110-096-210-NA

TRUNK GROUP CLASS OF RESTRICTION
MAP210- 224
Issue 3, May 1984
Sheet 4 of 5



(16A) Press ENTER button



ENTER TRUNK GROUP DATA

CLASS OF RESTRICTION

TOLL CONTROL

(TRUNK GROUP)

TRUNK GROUP DIAL 1-12	ABSORB PLAN DIAL 1, 2 OR DELETE	COR NUMBER DIAL 1-3	CONTROL PLAN DIAL 1, 15 OR DELETE	
		1		ENTER
		2		
		3		
		1		
		2		
		3		
		1		
		2		
		3		
		1		
		2		
		3		

TO REVIEW CLASS OF RESTRICTION OF A TRUNK GROUP

TRUNK GROUP DIAL 1-12 COR DIAL 1 DISPLAY ENTRY NEXT NEXT

COR 1 COR 2 COR 3

TO SEE NEXT TRUNK GROUP CLASS OF RESTRICTION

TRUNK GROUP DIAL 1-12 DISPLAY ENTRY NEXT


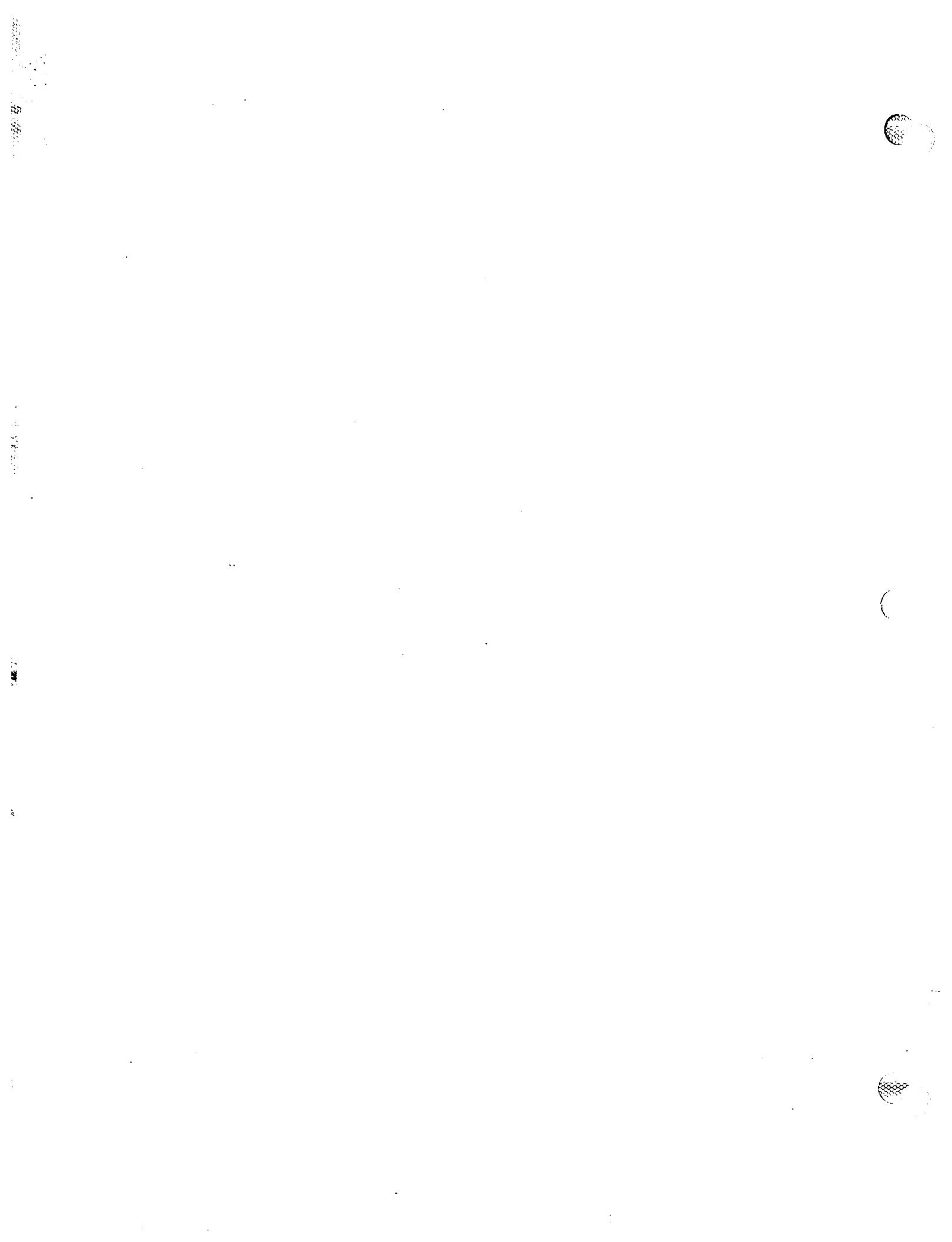


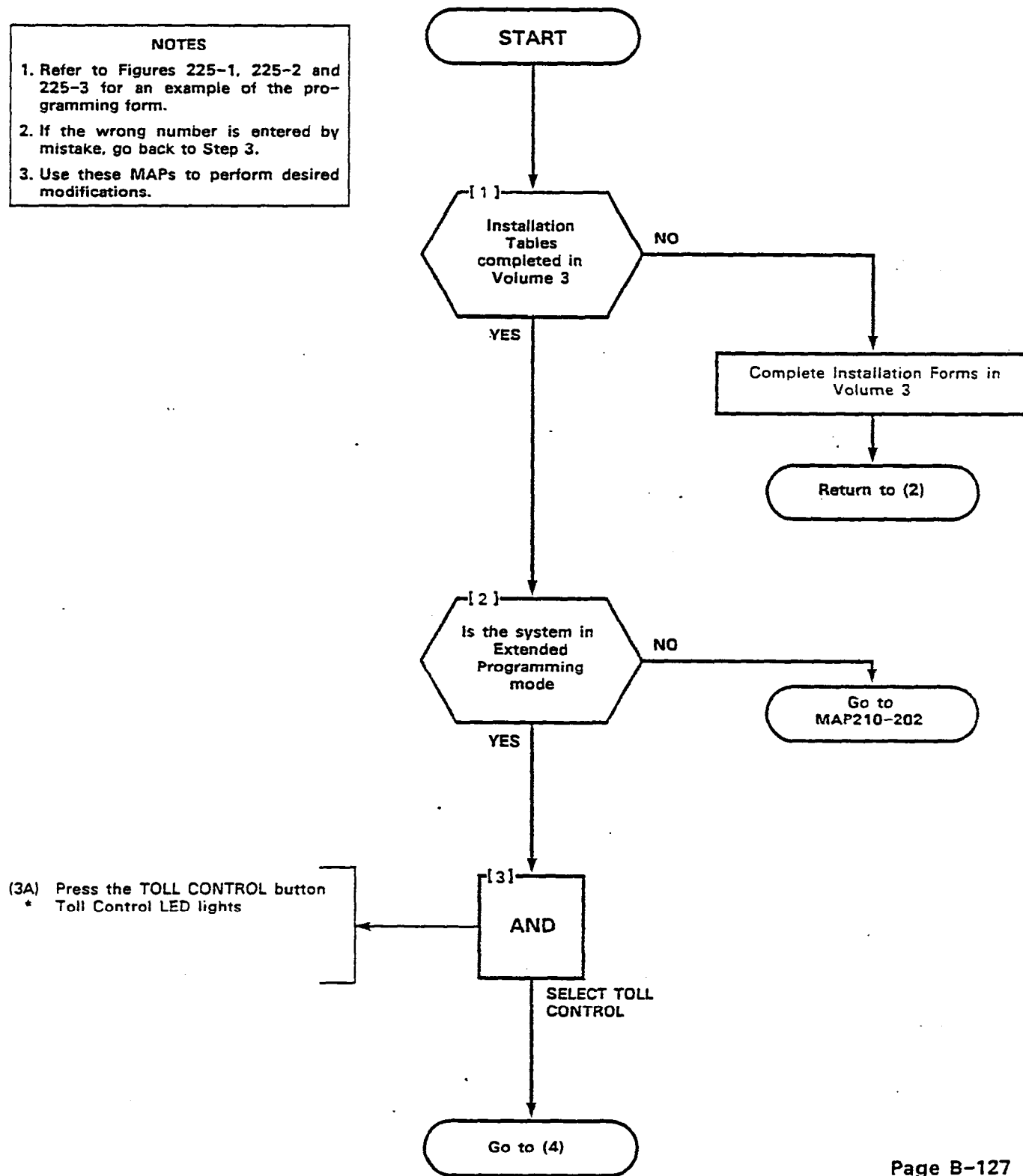
Figure 224-3



RESTRICTION TABLES
MAP210-225
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NOTES

1. Refer to Figures 225-1, 225-2 and 225-3 for an example of the programming form.
2. If the wrong number is entered by mistake, go back to Step 3.
3. Use these MAPs to perform desired modifications.



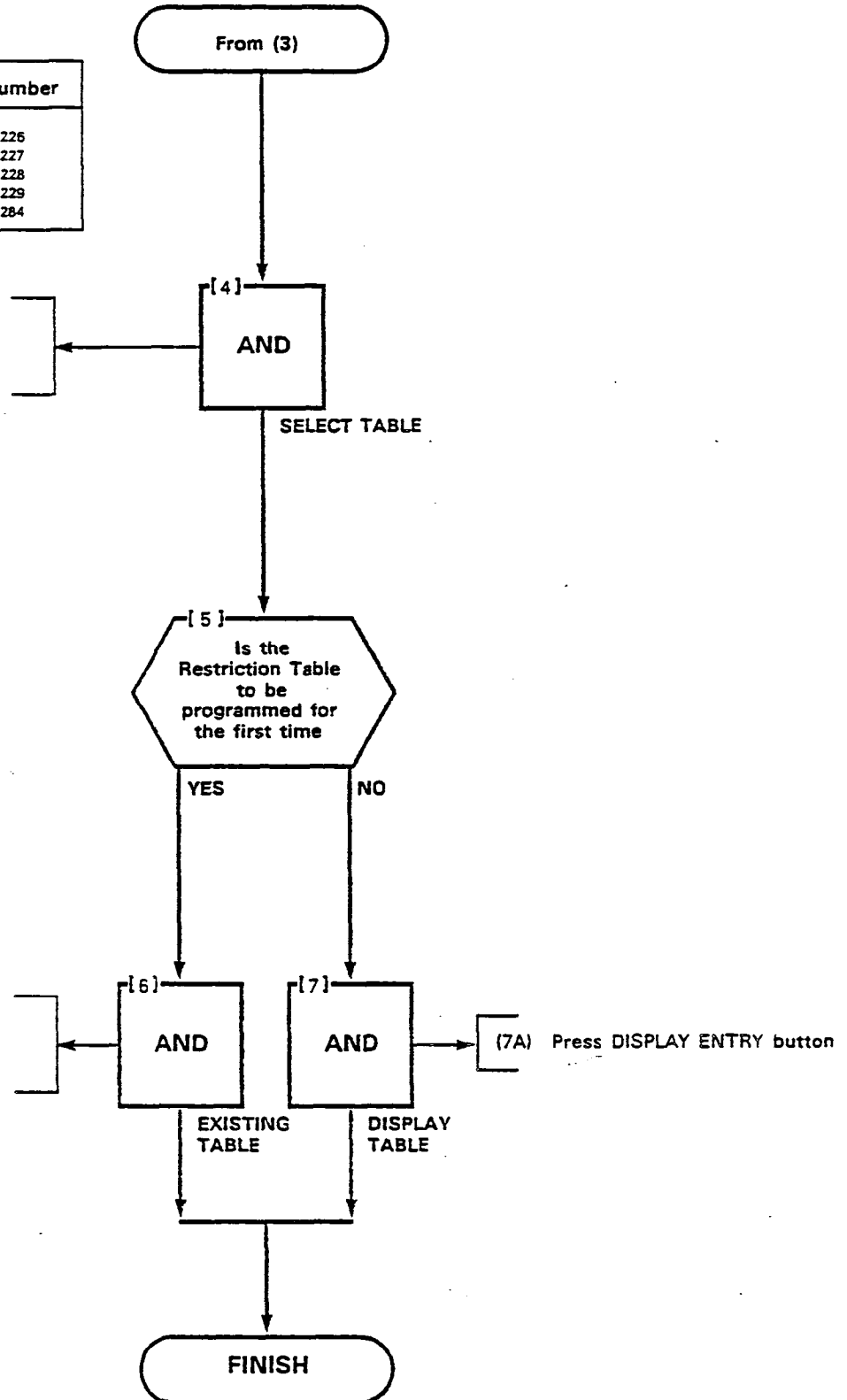
SECTION MITL9105/9110-096-210-NA

RESTRICTION TABLES
MAP210- 225
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TABLE 225-1 (see Note 1)

Option	Map Number
Add an entry	210-226
Display sequential entries	210-227
Search for a specific entry	210-228
Delete entry being displayed	210-229
Terminated Programming	210-284

(4A) Press TABLE button
 * TABLE BUTTON LED lights
 (4B) Dial Table number.



(6A) Press DELETE button
 (6B) Press CONFIRM button
 (6C) Press ENTER button

800 ENTRY EXCEPTION TABLE

FROM BASIC CONDITION _____ **TOLL CONTROL**
 OR TABLE NUMBER _____ CONTROL PLAN _____

THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED
 THIS TABLE LISTS ALL THE CODES THAT ARE DENIED

<input type="checkbox"/> TABLE DIAL 1-9 <input type="checkbox"/> DISPLAY ENTRY	PRESS <input type="checkbox"/> ADD BEFORE DIALING EACH ENTRY		IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY <input type="checkbox"/> TABLE DIAL TABLE NUMBER 1-9 OR 21-33 OR 51-73	
				<input type="checkbox"/> ENTER

TO SEARCH FOR A SPECIFIC ENTRY
 DISPLAY ENTRY DIAL ENTRY DISPLAY ENTRY IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY

TO DELETE THE ENTRY BEING DISPLAYED
 DELETE ENTER NOTE: ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.

TO DISPLAY THE NEXT ENTRY IN THE TABLE AFTER THE TABLE HAS BEEN SELECTED
 NEXT

TO DELETE ALL ENTRIES FROM A TABLE
 TABLE DIAL TABLE NUMBER DELETE CONFIRM ENTER


 MITEL

Figure 225-1

4 ENTRY EXCEPTION TABLE

FROM BASIC CONDITION _____

TOLL CONTROL

THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED

OR TABLE NUMBER _____ **CONTROL PLAN** _____

THIS TABLE LISTS ALL THE CODES THAT ARE DENIED


<p>TABLE DIAL 51-73 DISPLAY ENTRY</p>	<p>PRESS ADD BEFORE DIALING EACH ENTRY</p>				<p>IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY</p> <p>TABLE DIAL TABLE NUMBER 1-73</p>			
<p>TABLE NUMBER</p>								
						<p>ENTER</p>		
<p>TO SEARCH FOR A SPECIFIC ENTRY</p> <p>DISPLAY ENTRY DIAL ENTRY DISPLAY ENTRY IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY</p> <p>NEXT TO DISPLAY THE NEXT ENTRY HAS Y IN THE TABLE AFTER THE ENTRY HAS BEEN SELECTED</p>				<p>TO DELETE THE ENTRY BEING DISPLAYED</p> <p>DELETE ENTER NOTE: ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.</p> <p>TO DELETE ALL ENTRIES FROM A TABLE</p> <p>TABLE DIAL TABLE NUMBER DELETE CONFIRM ENTER</p>				

Figure 225-2

20 RANGE EXCEPTION TABLE

FROM BASIC CONDITION _____
OR TABLE NUMBER _____ CONTROL PLAN _____

TOLL CONTROL

THIS TABLE LISTS ALL THE CODES THAT ARE ALLOWED
THIS TABLE LISTS ALL THE CODES THAT ARE DENIED


TABLE	DIAL 21-33	DISPLAY ENTRY	PRESS ADD BEFORE DIALING EACH ENTRY	IF AN EXPANSION TABLE IS TO BE APPLIED TO THIS ENTRY									
				TABLE	DIAL TABLE NUMBER 1-23								
					ENTER								
<p>TO SEARCH FOR A SPECIFIC ENTRY</p> <table style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 2px;">DISPLAY ENTRY</td> <td style="padding: 2px;">DIAL ENTRY</td> <td style="border: 1px solid black; padding: 2px;">DISPLAY ENTRY</td> <td style="padding: 2px;">IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY</td> </tr> </table> <p>TO DISPLAY THE NEXT ENTRY IN THE TABLE AFTER THE TABLE HAS BEEN SELECTED</p> <table style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 2px;">NEXT</td> </tr> </table>						DISPLAY ENTRY	DIAL ENTRY	DISPLAY ENTRY	IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY	NEXT			
DISPLAY ENTRY	DIAL ENTRY	DISPLAY ENTRY	IF THE ENTRY DOES NOT EXIST DASHES ARE SHOWN IN THE ENTRY DISPLAY										
NEXT													
<p>TO DELETE THE ENTRY BEING DISPLAYED</p> <table style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 2px;">DELETE</td> <td style="border: 1px solid black; padding: 2px;">ENTER</td> <td style="padding: 2px;">NOTE ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.</td> </tr> </table> <p>TO DELETE ALL ENTRIES FROM A TABLE</p> <table style="width: 100%;"> <tr> <td style="border: 1px solid black; padding: 2px;">TABLE</td> <td style="padding: 2px;">DIAL TABLE NUMBER</td> <td style="border: 1px solid black; padding: 2px;">DELETE</td> <td style="border: 1px solid black; padding: 2px;">CONFIRM</td> <td style="border: 1px solid black; padding: 2px;">ENTER</td> </tr> </table>						DELETE	ENTER	NOTE ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.	TABLE	DIAL TABLE NUMBER	DELETE	CONFIRM	ENTER
DELETE	ENTER	NOTE ANY OPERATIONS MAY BE PERFORMED IN ANY ORDER.											
TABLE	DIAL TABLE NUMBER	DELETE	CONFIRM	ENTER									
													

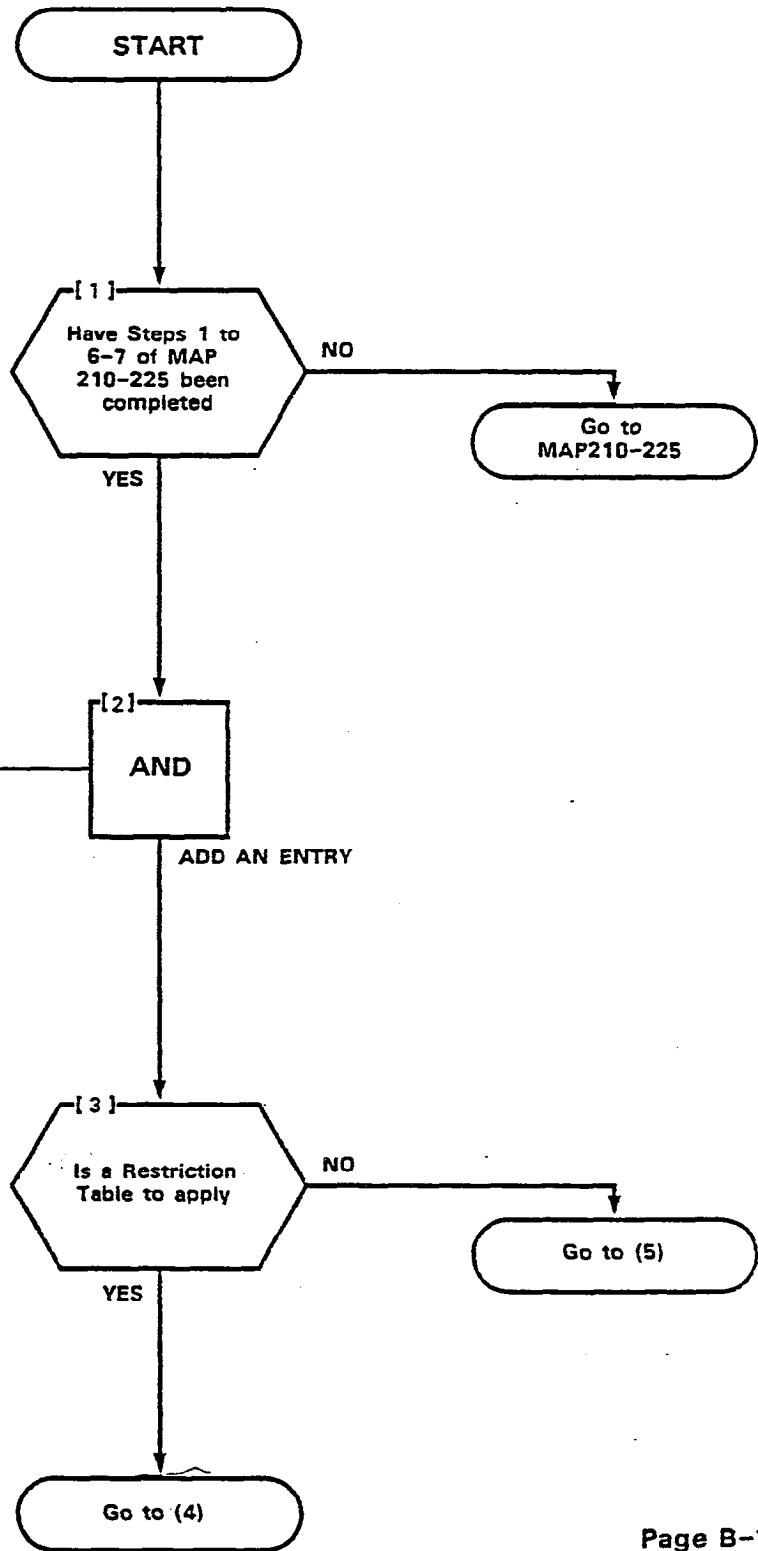
Figure 225-3



ADD AN ENTRY
MAP210- 226
Issue 3, May 1984
Sheet 1 of 2

NOTE
 If the wrong entry digits are keyed by mistake, attempt to add the entry as it was keyed. If the entry is accepted, remove it with the delete key. If an error is given, no further action is required as the entry was ignored.

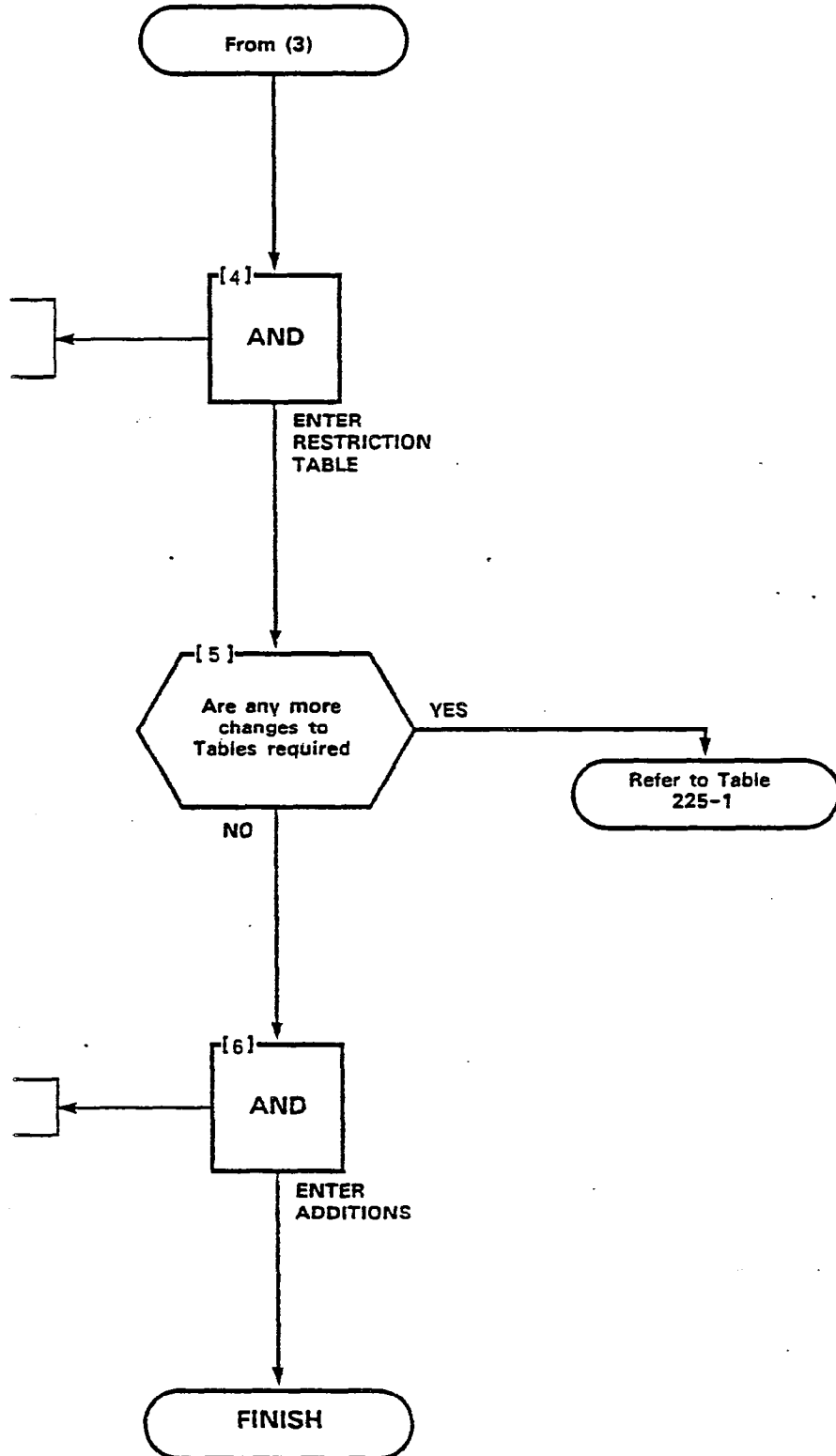
(2A) Press ADD button
 (2B) Dial ENTRY digits (see Note)



SECTION MITL9105/9110-096-210-NA

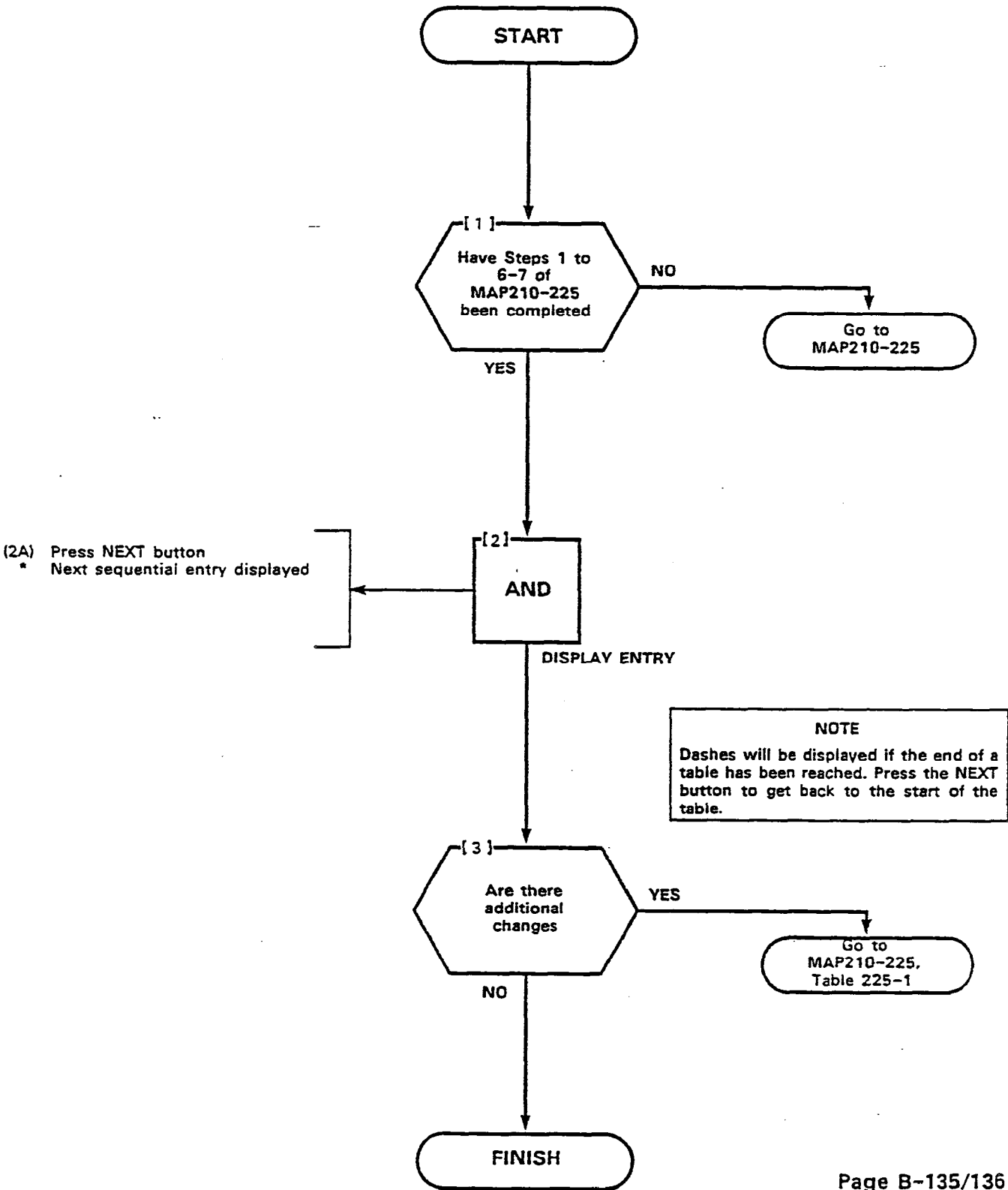
ADD AN ENTRY
MAP210- 226
Issue 3, May 1984
Sheet 2 of 2

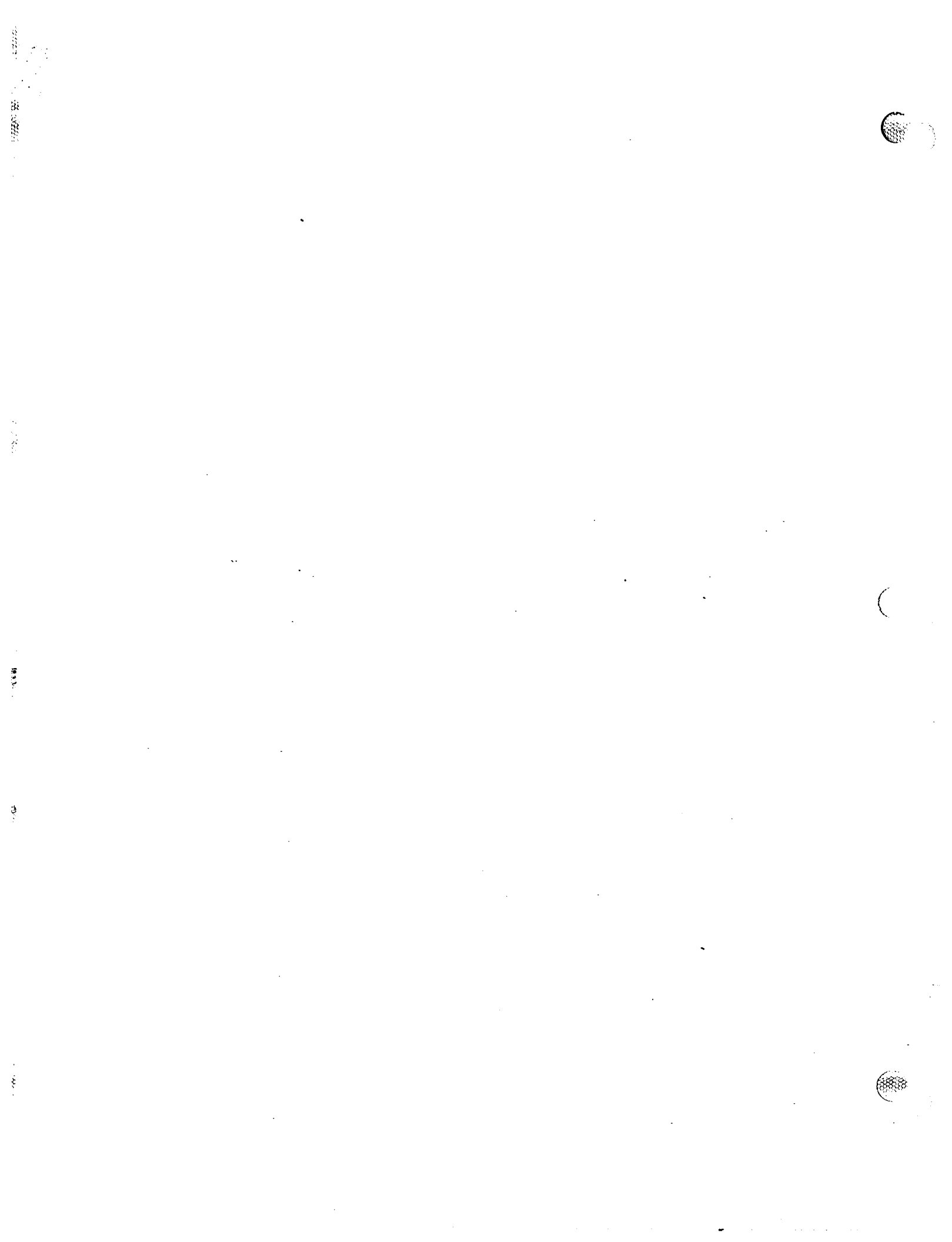
(4A) Press TABLE button
(4B) Dial Table number



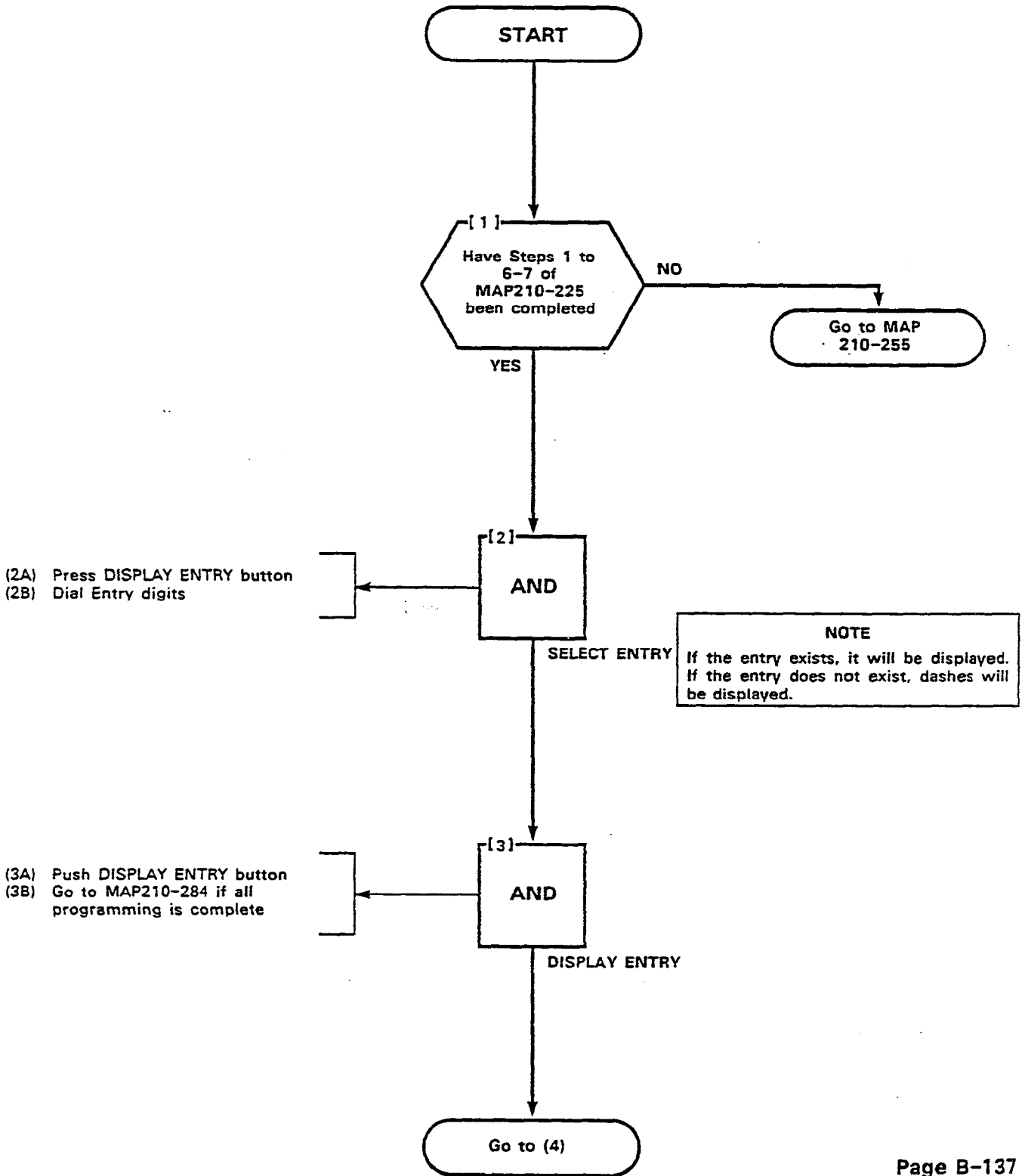
(6A) Press ENTER button

DISPLAYING SEQUENTIAL ENTRIES
MAP210-227
Issue 3, May 1984
Sheet 1 of 1

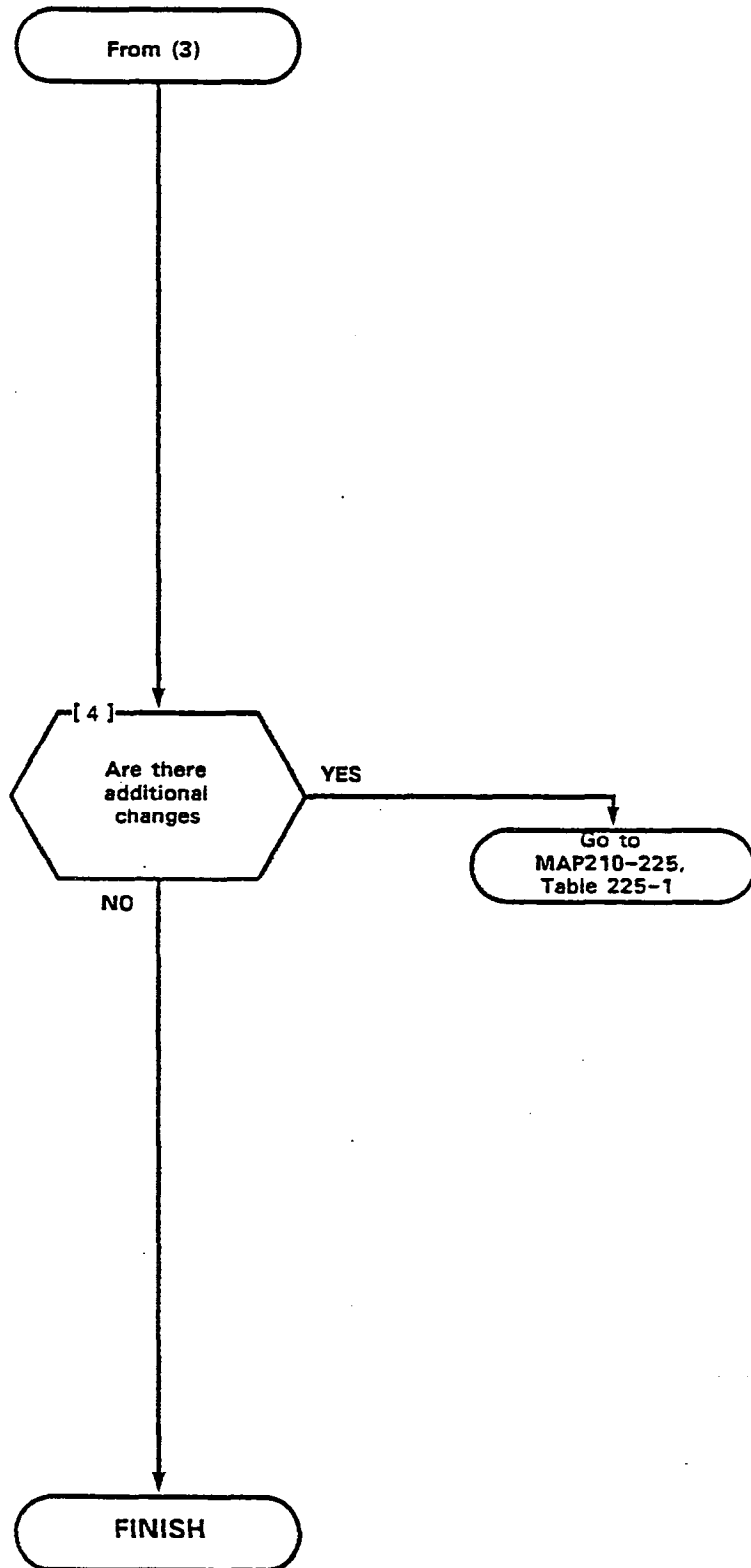




SEARCH FOR AN ENTRY
MAP210-228
Issue 3, May 1984
Sheet 1 of 2

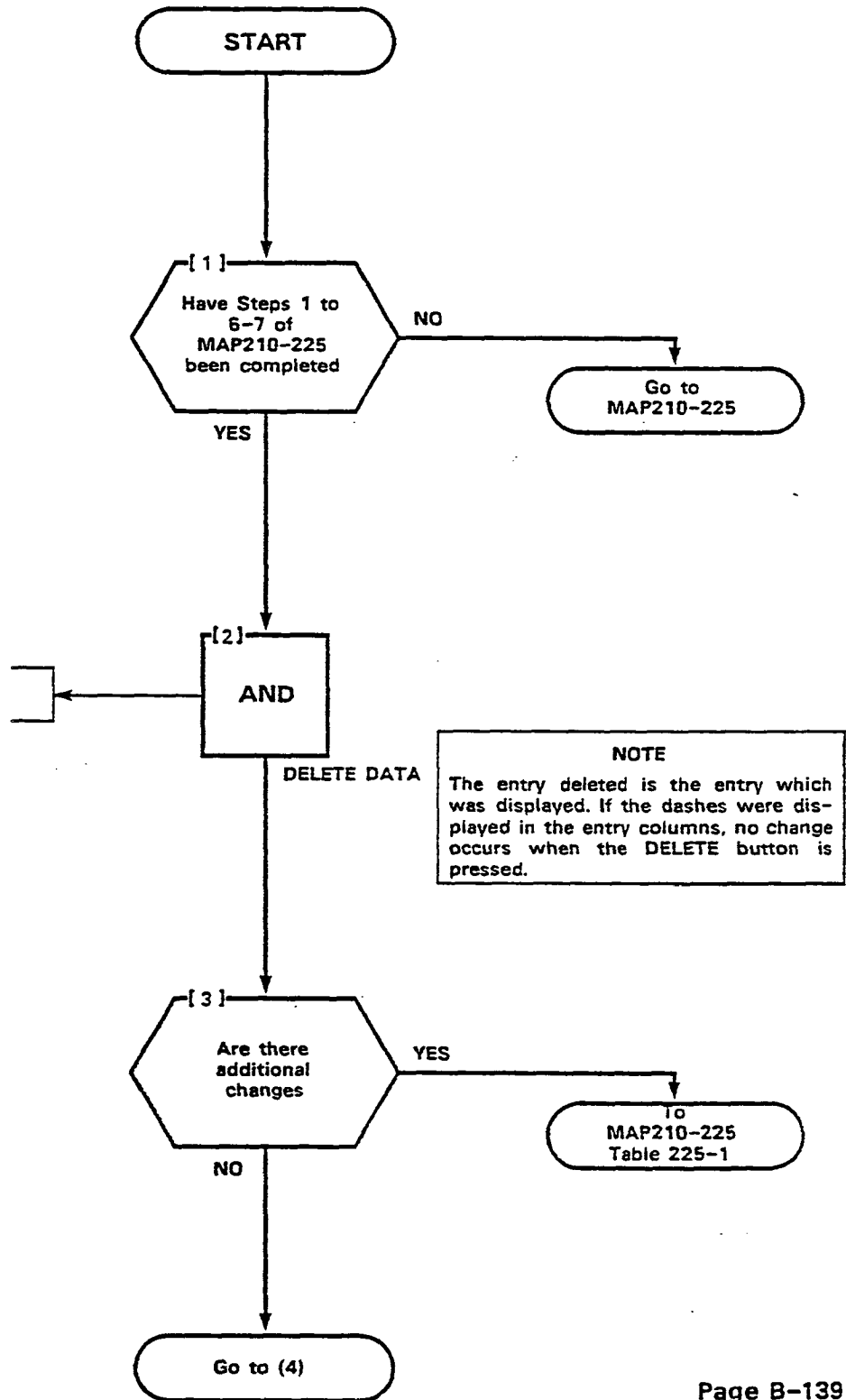


SEARCH FOR AN ENTRY
MAP210- 228
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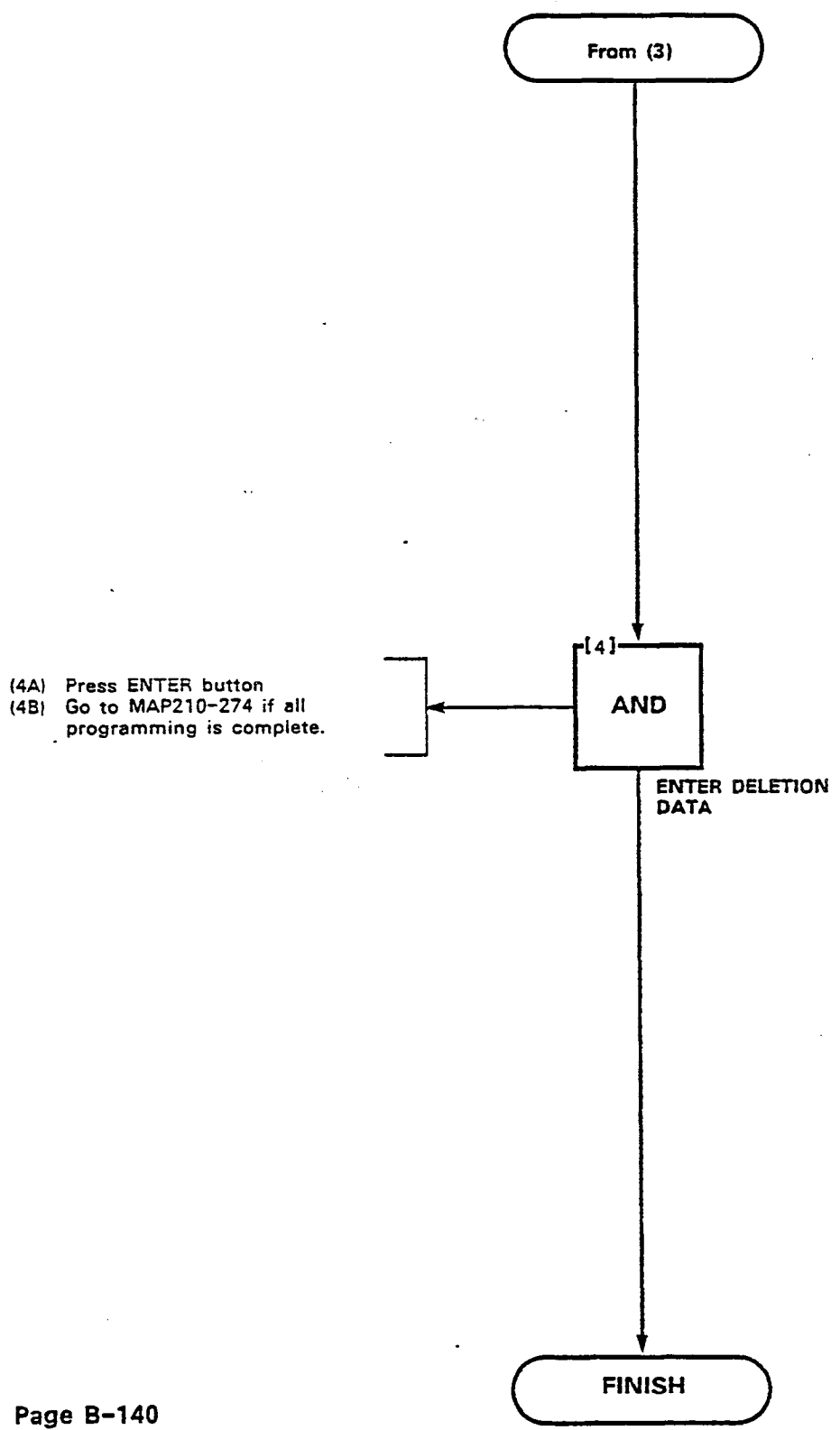
DELETE AN ENTRY
MAP210-229
Issue 3, May 1984
Sheet 1 of 2

(2A) Press DELETE button



NOTE
 The entry deleted is the entry which was displayed. If the dashes were displayed in the entry columns, no change occurs when the DELETE button is pressed.

DELETE AN ENTRY
MAP210- 229
Issue 3, May 1984
Sheet 2 of 2



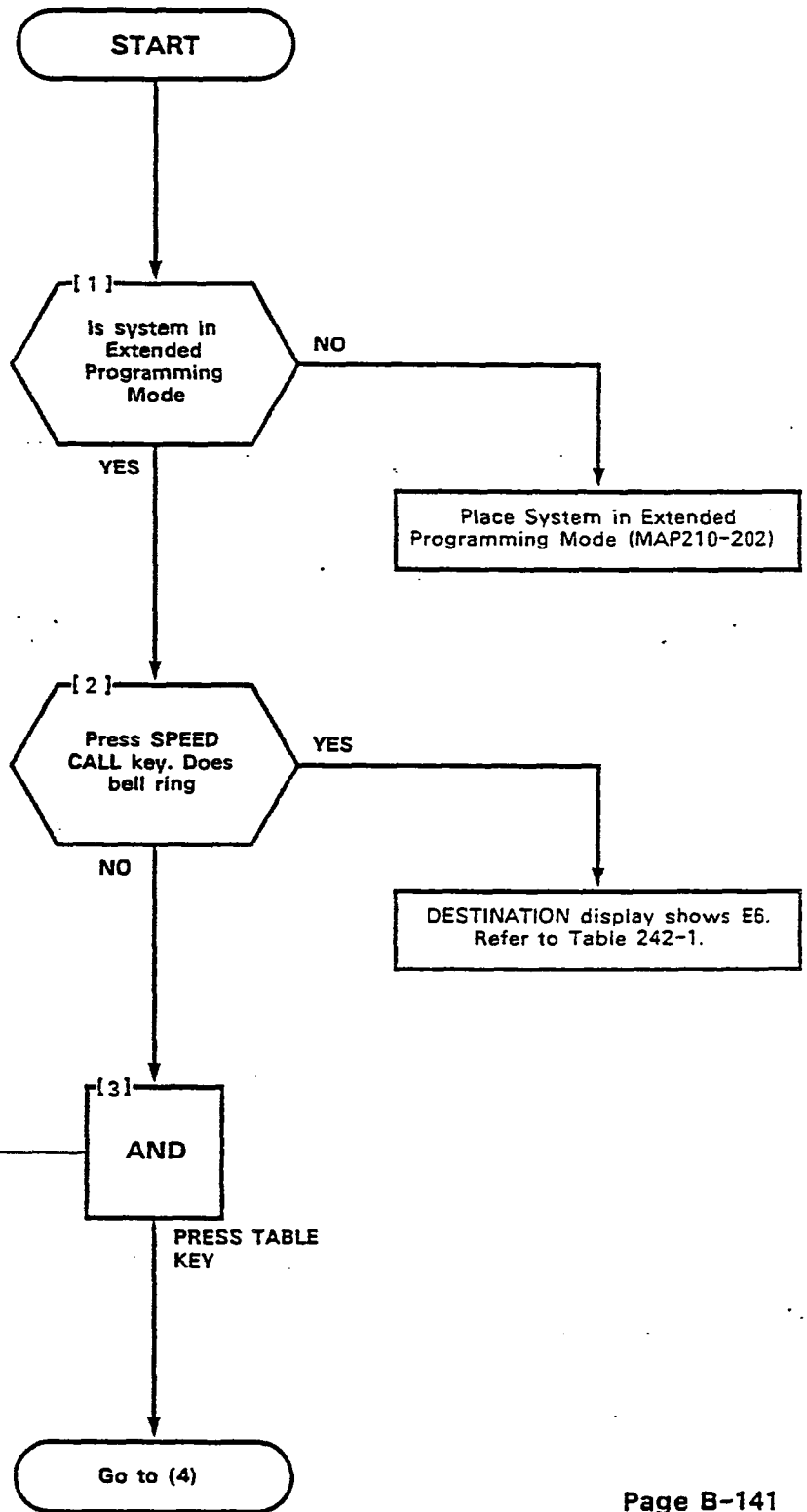
PROGRAMMING PERSONAL TABLES
MAP210-242
Issue 3, May 1984
Sheet 1 of 11

NOTES

1. Prior to making programming entries on this MAP, Form SC-2 must have been completed. The completed form is used in conjunction with the relevant steps noted in this MAP.
2. After digit entries are made (e.g., Step (4)), the bell may ring and an error code may appear in the DESTINATION display when the key in the next sequence is pressed. In this event, refer to Tables 242-1 or 242-2, and repeat the sequence; i.e., the relevant function key and its digit entries, in order to correct the previous entry. Figure 242-2 shows a typical error code entry.
3. Refer to Figures 242-4, 242-5, 242-6, 242-7, 242-8 and 242-9 for an example of the programming forms.

NOTE
The SPEED CALL LED remains lit during programming in the Speed Call mode.

(3A) Press TABLE key



PROGRAMMING PERSONAL TABLES
MAP210- 242
Issue 3, May 1984
Sheet 2 of 11

NOTE
 Error E3 (Table 242-1) may occur after a subsequent key operation. See Note 2 and Figure 242-2.

- (4A) Enter Table number required (see Form SC-2)
- * DESTINATION display shows number entered (Figure 242-1)
 - * When a subsequent key operation occurs, the number is transferred to the SOURCE display and three hyphens appear as shown in Figure 242-1

TABLE 242-1

Error Code	Description
E1	The equipment number entered is not that for a station
E3	The table number entered is not valid for the current size CONFIGURATION
E5	The CONFIGURATION (MAP210-221) entered does not include Speed Call

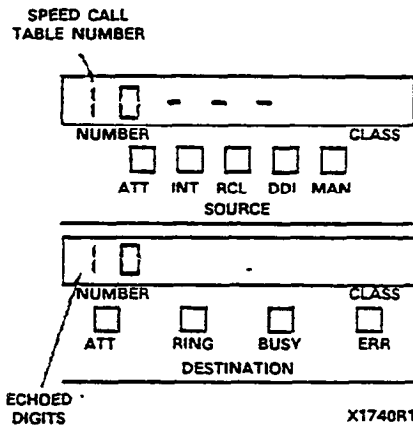
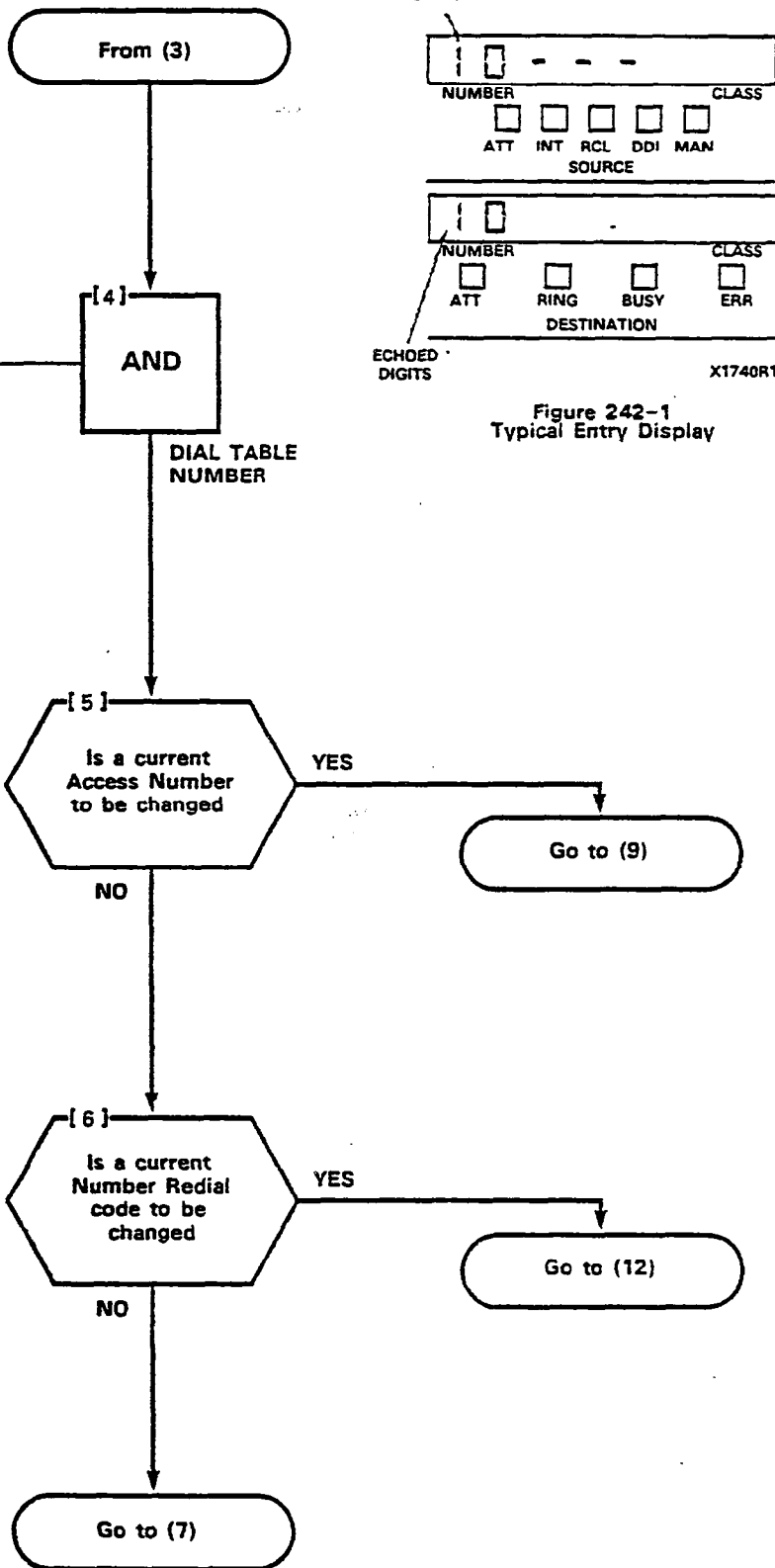
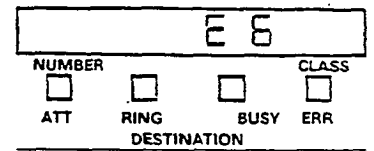
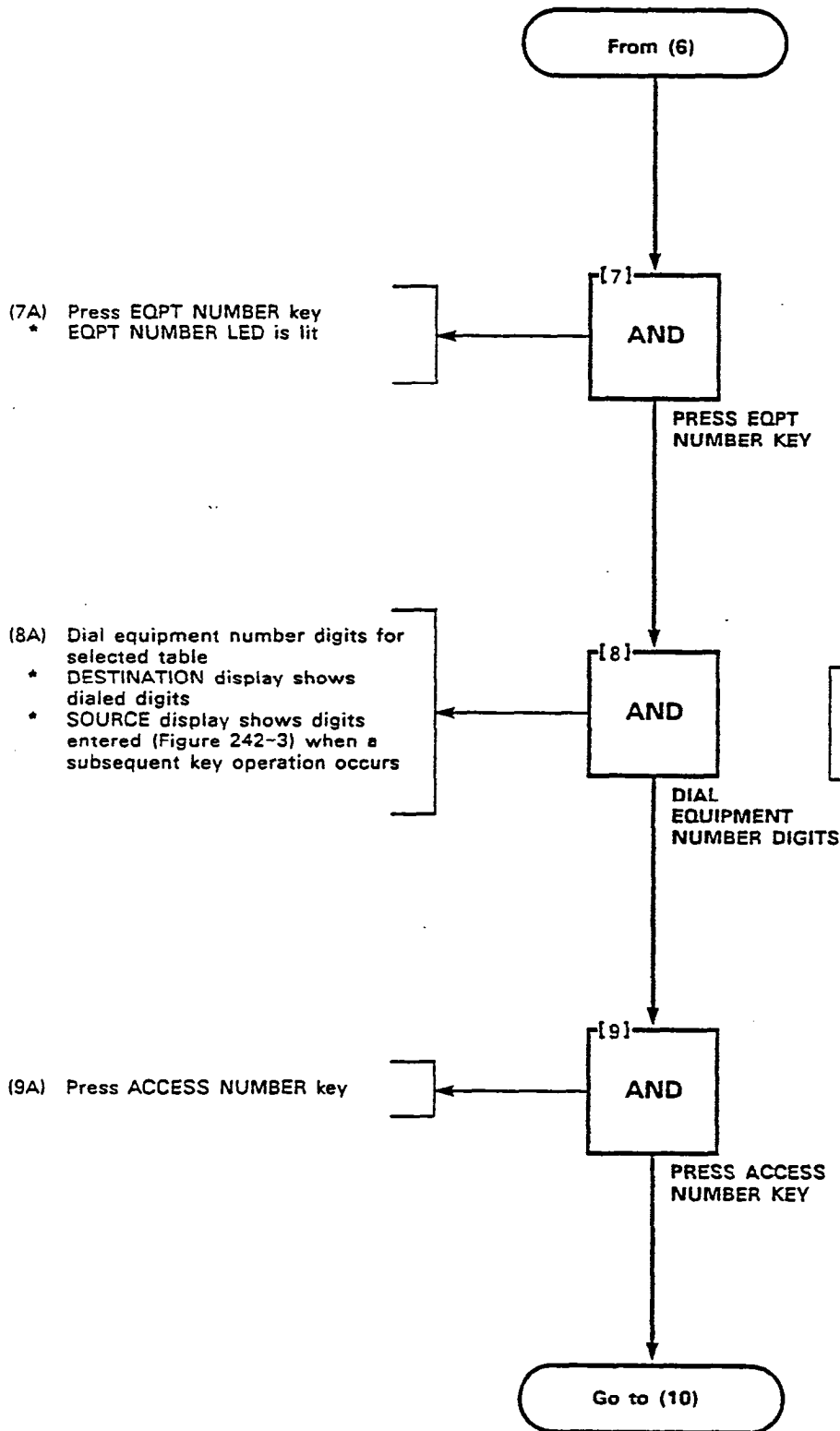


Figure 242-1
 Typical Entry Display

PROGRAMMING PERSONAL TABLES
MAP210-242
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X1741

Figure 242-2
 Typical Error
 Code Display

NOTE
 Error E1 (Table 242-1) may occur after a subsequent key operation. See Note 2 and Figure 242-2.

SECTION MITL9105/9110-096-210-NA

PROGRAMMING PERSONAL TABLES
MAP210- 242
Issue 3, May 1984
Sheet 4 of 11

NOTE
 Error E1 (Table 242-1), or Error E5 (Table 242-2) may occur after Step (10). See Note 2 and Figure 242-2.

(10A) Dial first speed call access number digits for the selected table (see Form SC-2)
 * DESTINATION display shows dialed digits in first two positions which go to the last two positions when a subsequent key operation occurs (Figure 242-3)

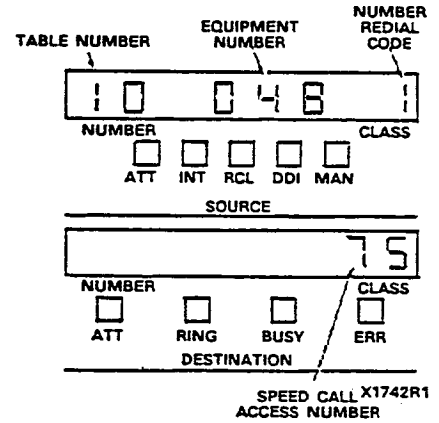
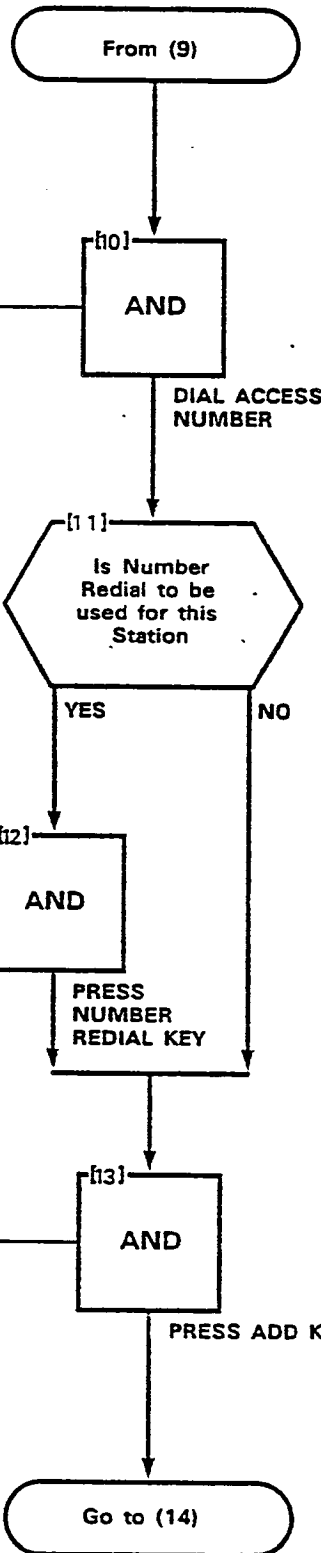


Figure 242-3
 Completed Entries Display



(12A) Press Number Redial key

NOTE
 Error E5 (Table 242-3) may occur after Step (13). See Note 2 and Figure 242-2.

(13A) Press ADD key
 * DESTINATION display shows Access Number
 * SOURCE display shows digit 1

TABLE NUMBER		ENTRY ACCESS NUMBERS		EQPT NUMBER	REDIAL	CLASS OF SERVICE															
		COMMON-USE	PERSONAL			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10-14																				
2	15-19																				
3	20-24																				
4	25-29																				
5	30-34																				
6	35-39																				
7	40-44																				
8	45-49																				
9	50-54																				
10	55-59																				
11	60-64																				
12	65-69																				
13	70-74																				
14	75-79																				
15	80-84																				
16	85-89																				
17	90-94																				
18	95-99																				
19																					
20																					
21																					
22																					
23																					
24																					
25																					

NOTES: 1. IF TABLE IS TO BE ASSIGNED AS A PERSONAL TABLE, STRIKE OUT COMMON-USE ENTRY ACCESS NUMBERS. ENTER NEW ENTRY ACCESS NUMBERS IN PERSONAL COLUMN.
 2. CHECK IN REMAINING COLUMNS AS REQUIRED FOR EACH TABLE

Figure 242-4

TABLE		COS	ENTRY ACCESS NUMBER	SPEED CALL NUMBER																DIGITS		CALLED PARTY					
				1			5				10				15				20					25			28
1			10																								
2			15																								
3			20																								

SPEED CALL NUMBER
Special sequences can be entered at any point in the telephone number listing:
(EXCEPT *5, IT MUST BE ENTERED AT THE END)
*1 occupies 1 digit space and causes a 5 sec. pause in use
*2 occupies 1 digit space and causes a 5 sec. wait for dial tone
*3NN occupies 2 digit spaces and enables manually dialed digits to be entered
NN represents the number of digits to be dialed
*8 Specifies intercom connection

LISTING YOUR NUMBERS

1. Tables available for use are indicated on the form by the installer. Your Feature Access Code and Classes of Service also have been entered.
2. Opposite the first available entry access number, write in your first telephone number including the trunk group access code. You can use special sequences (see above).
3. Write in the next entry access number, under the first entry number, using a fresh line and continuing with the next telephone number opposite this second entry number.
4. Complete your list of numbers following the above procedure.

INSTRUCTIONS FOR USER (ATTENDANT)

How to Enter or Change a Number

5. Dial Feature Access Code.
6. Dial 0.
7. Dial entry access number required.
8. Dial telephone number for that entry number.
9. Press the RELEASE button.
10. Repeat the above sequences for each of the remaining entries on the list.

How to Delete a Number

11. Perform Steps 5 through 9 but omit Step 8.

How to Dial a Speed Call Number

12. Dial Feature access code.
13. Dial entry access number.
14. Call proceeds in usual manner.

SEE CONSOLE OPERATING INSTRUCTIONS FOR OTHER DETAILS

SPEED CALL FEATURE CODE

(CONFIDENTIAL WHEN COMPLETED)

SPEED CALL NUMBER RECORDS FORM SC-3 (Sheet 1 of 4)

Figure 242-5



SPEED CALL NUMBER RECORDS FORM SC-3 (Sheet 2 of 4)

(CONFIDENTIAL WHEN COMPLETED)

SPEED CALL FEATURE CODE

SPEED CALL NUMBER

Special sequences can be entered at any point in the telephone number listing. (EXCEPT *5, IT MUST BE ENTERED AT THE END)

- *1 occupies 1 digit space and causes a 5 sec. pause in use
- *2 occupies 1 digit space and causes a 5 sec. wait for dial tone
- *3NN occupies 2 digit spaces and enables manually dialed digits to be entered
- NN represents the number of digits to be dialed
- *5 Specifies intercom connection

TABLE	COS	ENTRY ACCESS NUMBER	SPEED CALL NUMBER																												DIGITS		CALLED PARTY																										
			1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0	1	2	3	4	5	6	7	8	9	0		USED	DIALED																								
4		25																																																									
5		30																																																									
6		35																																																									
7		40																																																									
8		45																																																									

Figure 242-6

MITEL		SPEED CALL NUMBER RECORDS FORM SC-3 (Sheet 3 of 4)															SPEED CALL FEATURE CODE														
(CONFIDENTIAL WHEN COMPLETED)																															
SPEED CALL NUMBER																															
Special sequences can be entered at any point in the telephone number listing. EXCEPT *5, IT MUST BE ENTERED AT THE END!																															
*1 occupies 1 digit space and causes a 5 sec. pause in use																															
*2 occupies 1 digit space and causes a 5 sec. wait for dial tone																															
*JNN occupies 2 digit spaces and enables manually dialed digits to be entered																															
NN represents the number of digits to be dialed																															
*5 Specifies intercom connection																															
TABLE	COS	ENTRY ACCESS NUMBER	DIGITS																												CALLED PARTY
			USED														DIALED														
			1			5				10					15					20					25			30	56		
9		50																													
10		55																													
11		60																													
12		65																													
13		70																													

Figure 242-7

SC-3 02/1981



SPEED CALL NUMBER RECORDS FORM SC-3 (Sheet 4 of 4)

(CONFIDENTIAL WHEN COMPLETED)


SPEED CALL FEATURE CODE

SPEED CALL NUMBER

Special sequences can be entered at any point in the telephone number listing.
 (EXCEPT *5, IT MUST BE ENTERED AT THE END)
 *1 occupies 1 digit space and causes a 5 sec. pause in use
 *2 occupies 1 digit space and causes a 5 sec. wait for dial tone
 *3NN occupies 2 digit spaces and enables manually dialed digits to be entered
 NN represents the number of digits to be dialed
 *5 Specifies intercom connection

TABLE	COS	ENTRY ACCESS NUMBER	DIGITS																												USED	DIALED	CALLED PARTY							
			1				5																																56	
14		75																																						
15		80																																						
16		85																																						
17		90																																						
18		95																																						

Figure 242-8



PRESS SPEED CALL

PERSONAL TABLE PROGRAMMING FORM SC-2 (SYSTEM MUST BE IN EXTENDED PROGRAMMING MODE)

TABLE	FORM NUMBER	NOTE 2 & 101	NOTE 31
DIAL TABLE NO.	DIAL EQUIPMENT NO. 11-112, 101-2501 OR DELETE	ACCESS NUMBER	NUMBER REDIAL
		DIAL ACCESS NO.	ADD OR DELETE
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			

SEE NOTE 5 TO ENTER DATA

NOTES

1. USE THE ENTRIES MADE ON FORM SC-1 FOR THE PERSONAL TABLES BY TRANSCRIBING THESE IN TURN TO THEIR RESPECTIVE COLUMNS AGAINST THE SAME TABLE NUMBERS ON FORM SC-2. COMMON - USE TABLES HAVE BLANK ENTRIES.
2. ONLY THE FIRST ACCESS NUMBER FOR EACH PERSONAL TABLE IS REQUIRED TO BE ENTERED THE REMAINING ACCESS NUMBERS ARE AUTOMATICALLY ALLOCATED FOR THE TABLE.
3. THE SAVED NUMBER REDIAL OPERATION IS INITIALLY OMITTED IF NOT REQUIRED FOR SUBSEQUENT PROGRAMMING; SEE NOTES 8 & 9.
4. PERSONAL TABLE DATA IS PROGRAMMED IN EXTENDED PROGRAMMING MODE. SEE SECTION MITL9105/9110-096-210-NA APPENDIX 2 FOR FULL DETAILS.
5. THE ENTER BUTTON MUST BE PRESSED TO ENTER EACH TABLE'S DATA.
6. REMOVING A PERSONAL TABLE REMOVES ALL ITS CONTENTS, ACCESS NUMBERS AND REDIAL VALUE (IF ANY).
7. TO REMOVE A PERSONAL TABLE

SPEED CALL
TABLE
DIAL TABLE NUMBER
FORM NUMBER
DELETE
ENTER
8. TO ADD A REDIAL ATTRIBUTE

SPEED CALL
TABLE
DIAL TABLE NUMBER
NUMBER REDIAL
ADD
ENTER
9. TO REMOVE A REDIAL ATTRIBUTE

SPEED CALL
TABLE
DIAL TABLE NUMBER
NUMBER REDIAL
DELETE
ENTER
10. TO CHANGE A SPEED CALL ACCESS NUMBER

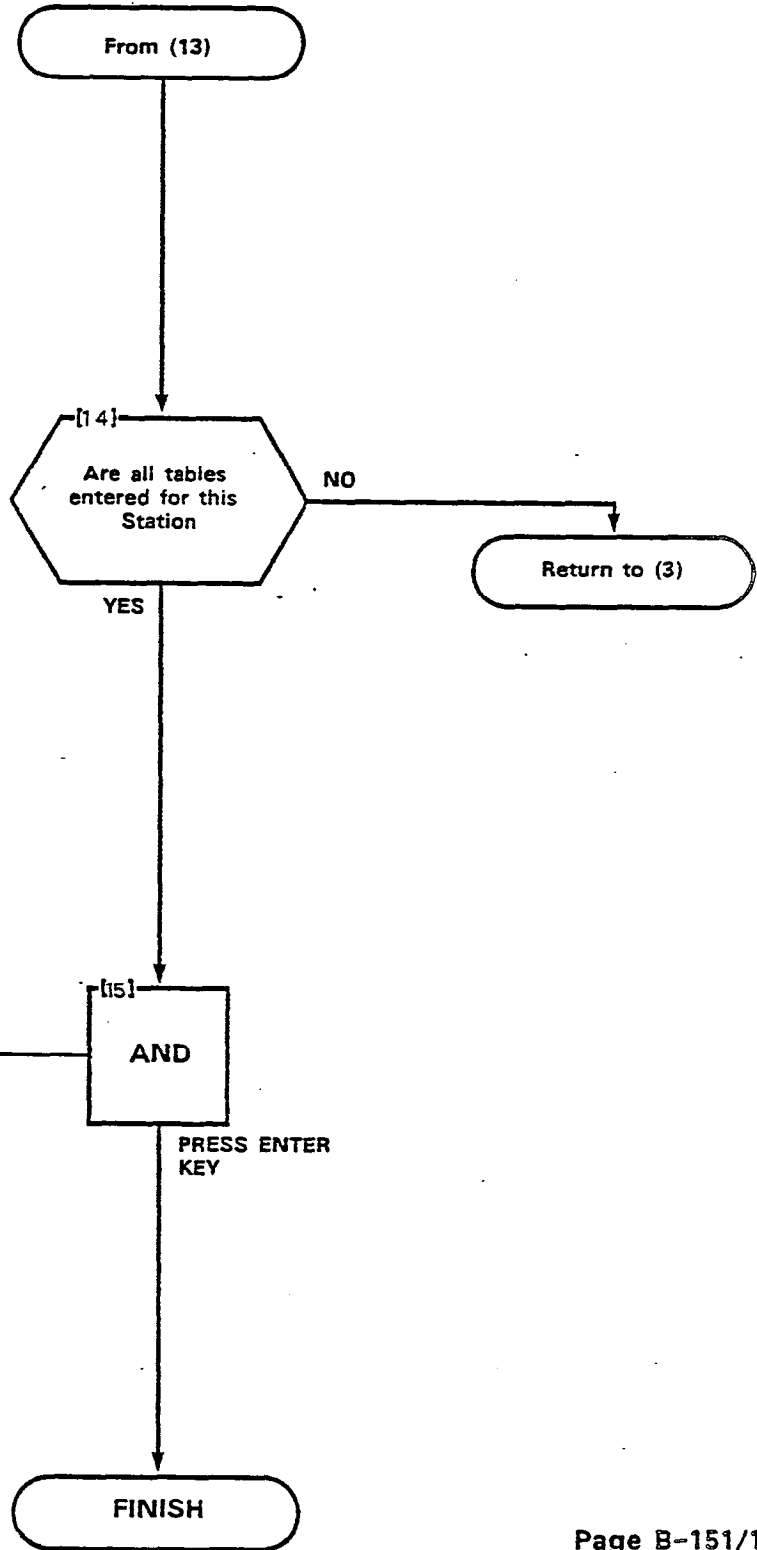
SPEED CALL
TABLE
DIAL TABLE NUMBER
ACCESS NUMBER
DIAL NEW ACCESS NUMBER
ENTER

Figure 242-9

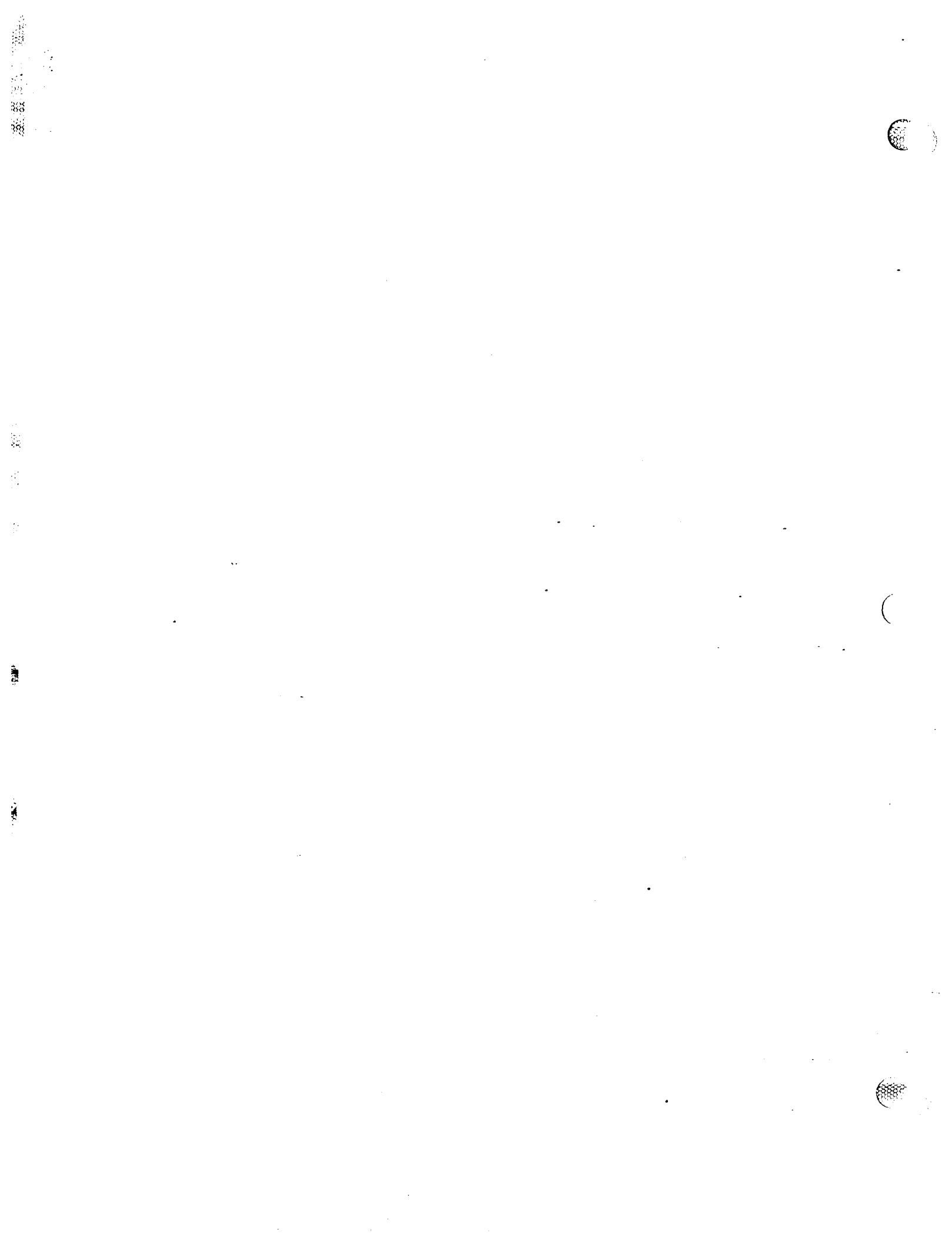
PROGRAMMING PERSONAL TABLES
MAP210-242
Issue 3, May 1984
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TABLE 242-2

Error Code	Description
E4	Indicates attempt to enter access number (Step 10) for a common-use table
E4	Indicates attempt made to allocate number radial digits in a common-use table (Step 12)
E5	Indicates number radial already exists for another table (Step 13) assigned to the same equipment
E5	Indicates access number (Step 10) already exists for another table assigned to the equipment



(15A) Press ENTER key
 (15B) Go to MAP210-284 if all programming is complete



CONVERT TABLE FROM PERSONAL TO COMMON-USE
MAP210-243
Issue 3, May 1984
Sheet 1 of 3

NOTE
Common-use Tables do not require programming. This MAP is the procedure used to convert a Personal Table to a Common-use Table.

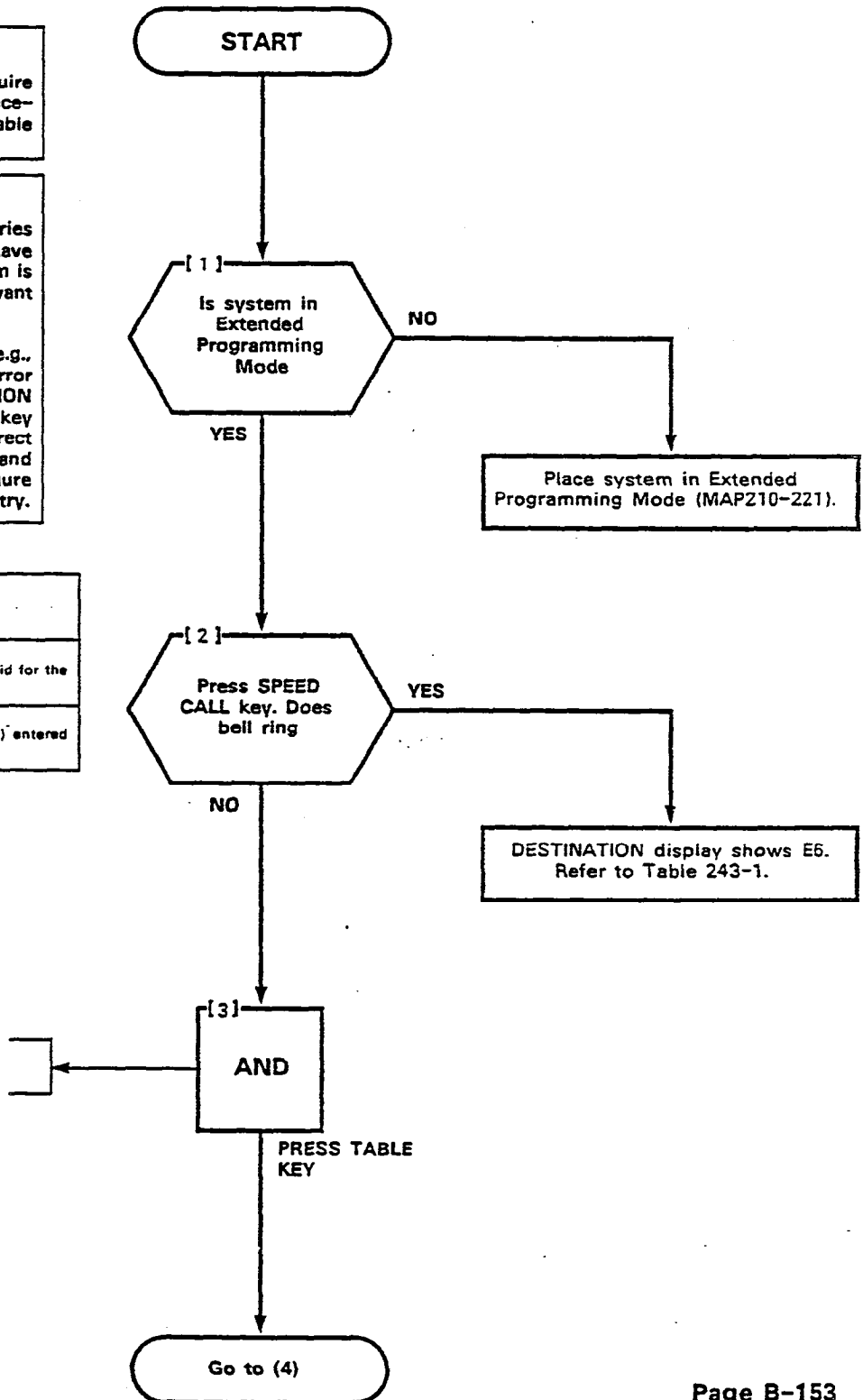
NOTES

1. Prior to making programming entries on this MAP, Form SC-2 must have been completed. The completed form is used in conjunction with the relevant steps noted in this MAP.
2. After digit entries are made (e.g., Step (4)), the bell may ring and an error code may appear in the DESTINATION display (i.e., the relevant function key and its digit entries). In order to correct the previous entry, press CANCEL and re-enter the key sequence. Figure 243-2 shows a typical error code entry.

TABLE 243-1

Error Code	Description
E3	The table number entered is not valid for the current size CONFIGURATION
E5	The CONFIGURATION (MAP210-221) entered does not include Speed Call

(3A) Press TABLE key



<p>CONVERT TABLE FROM PERSONAL TO COMMON-USE</p>
<p>MAP210- 243</p>
<p>Issue 3, May 1984</p>
<p>Sheet 2 of 3</p>

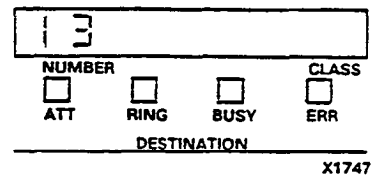
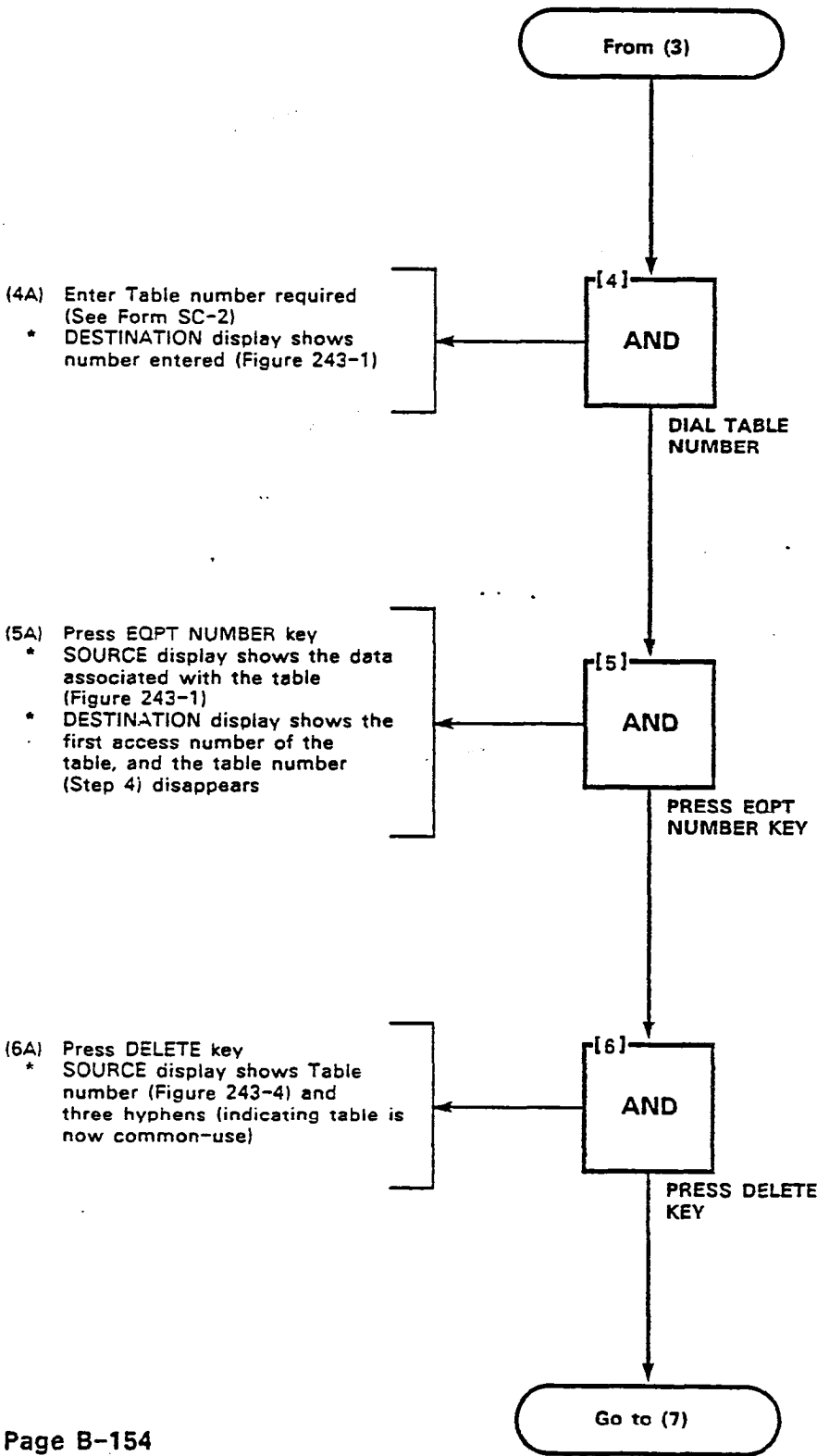


Figure 243-1
Table Number Display

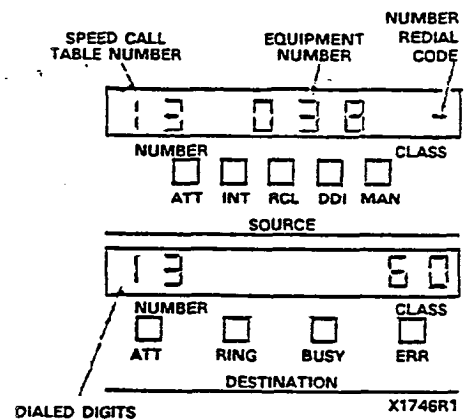


Figure 243-2
Typical Entry Display

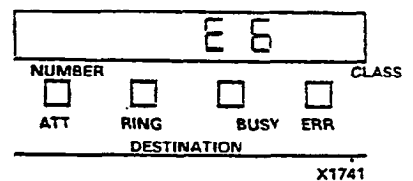


Figure 243-3
Typical Error Code Display

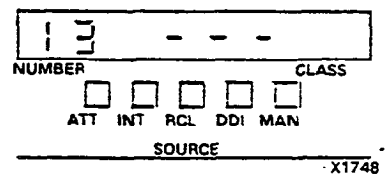
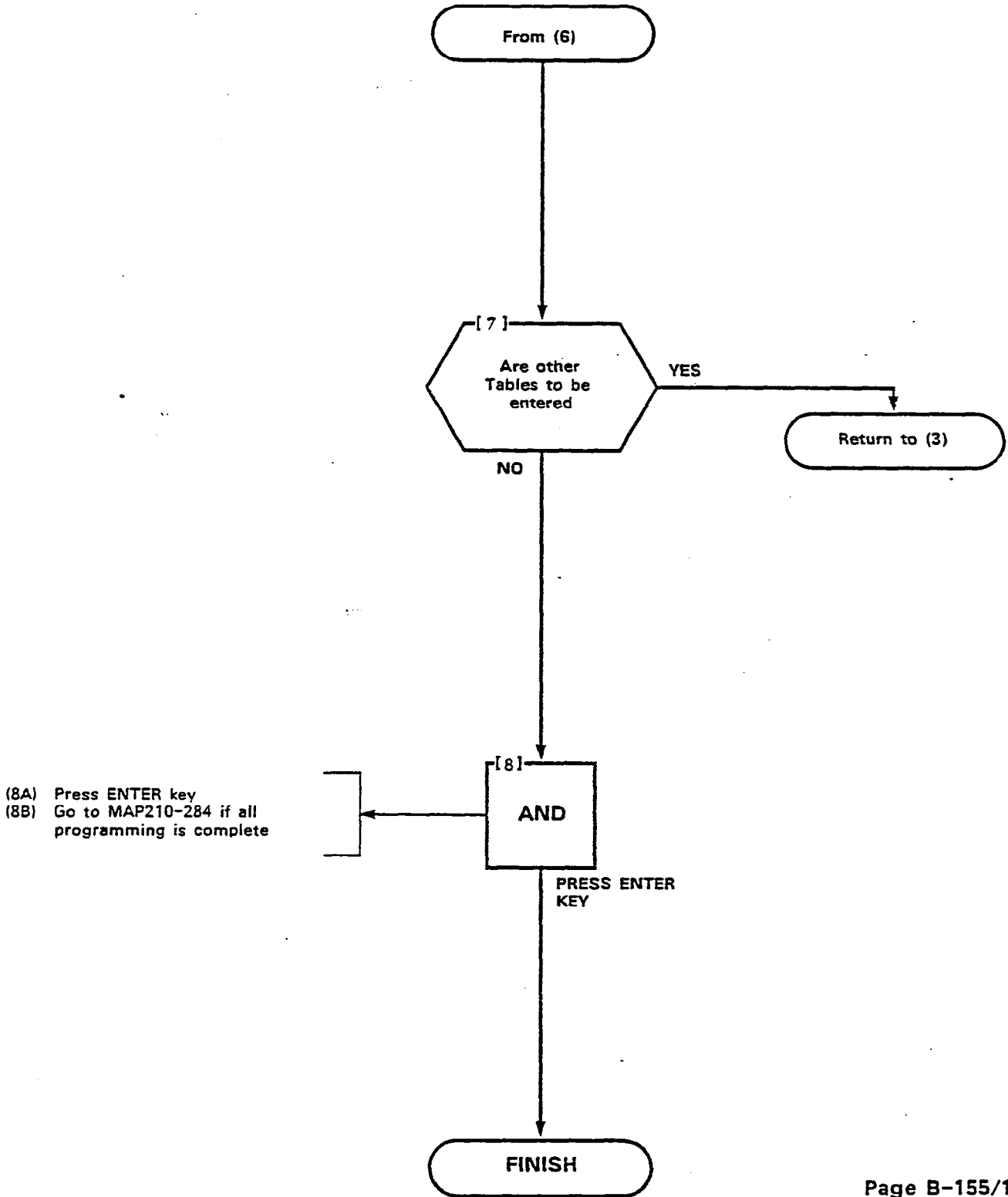


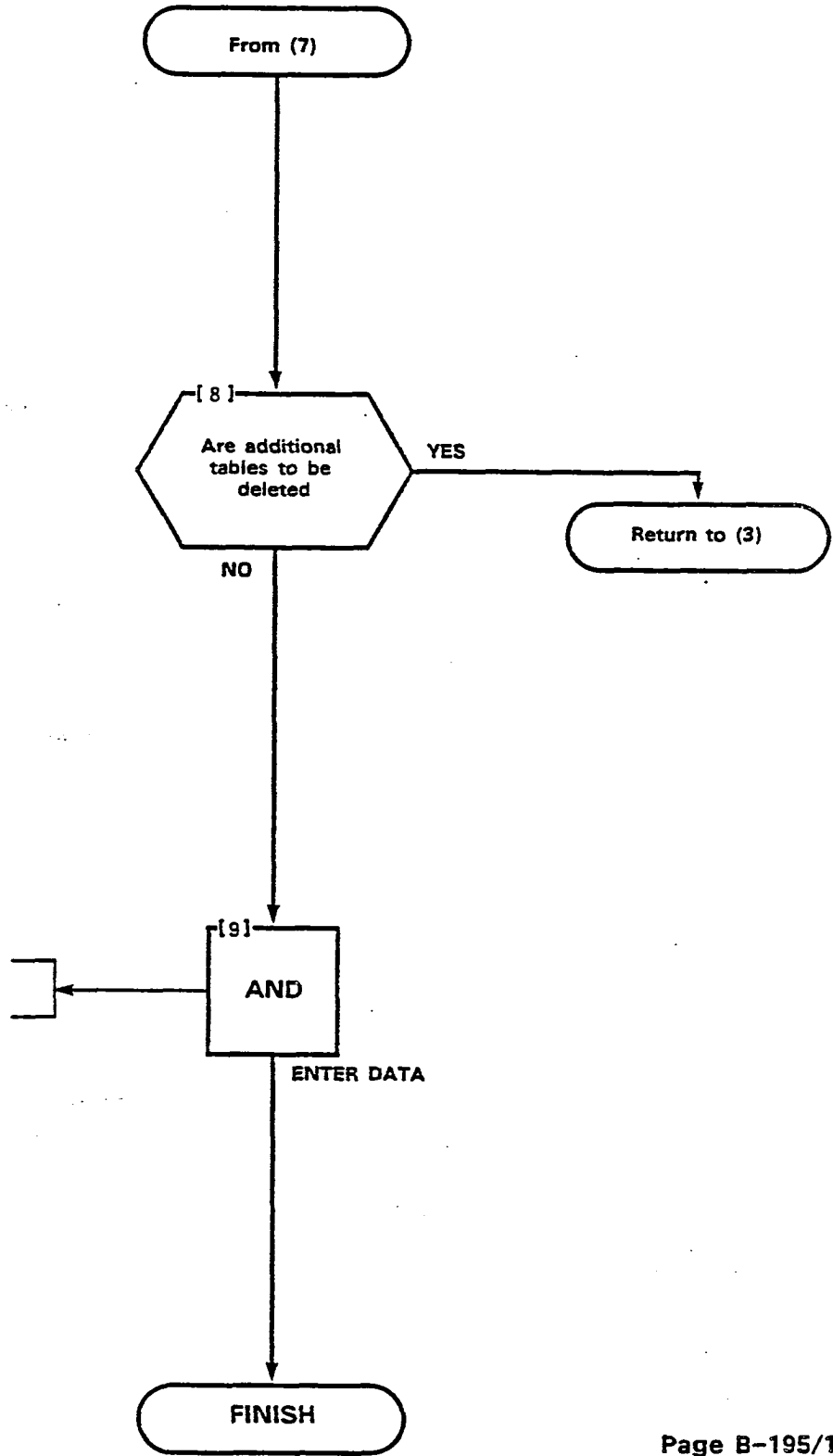
Figure 243-4
Completed Entry Display

CONVERT TABLE FROM PERSONAL TO COMMON-USE
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TO REVIEW OR DELETE A ROUTE TABLE
MAP210-259
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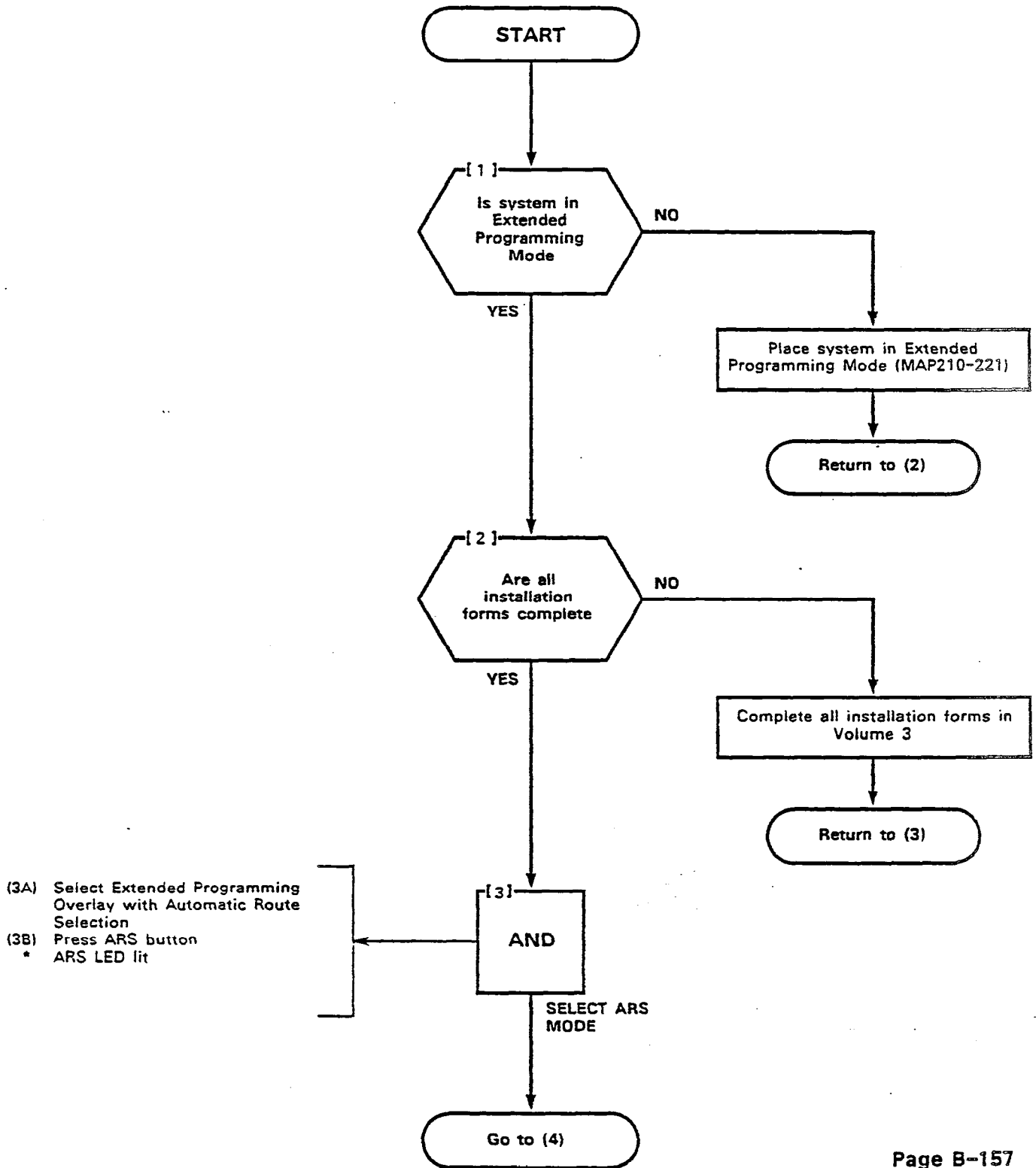


(9A) Press ENTER button

10/10/10



CODE TABLE QUANTITY SELECTION OR CHANGE
MAP210- 250
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Sheet 1 of 2



CODE TABLE QUANTITY SELECTION OR CHANGE
MAP210- 250
Issue 3, May 1984
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- (4A) Press TABLE QUANT.
- (4B) Dial Table quantity digits
(Figure 250-1)
- (4C) Press ENTER

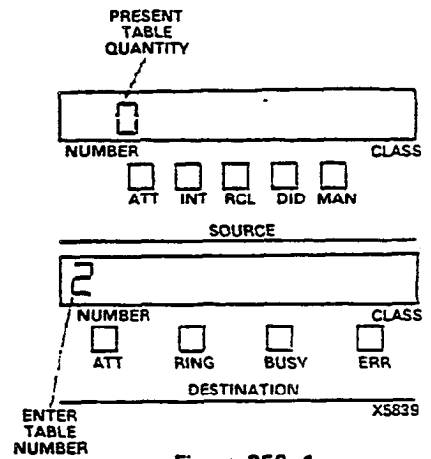
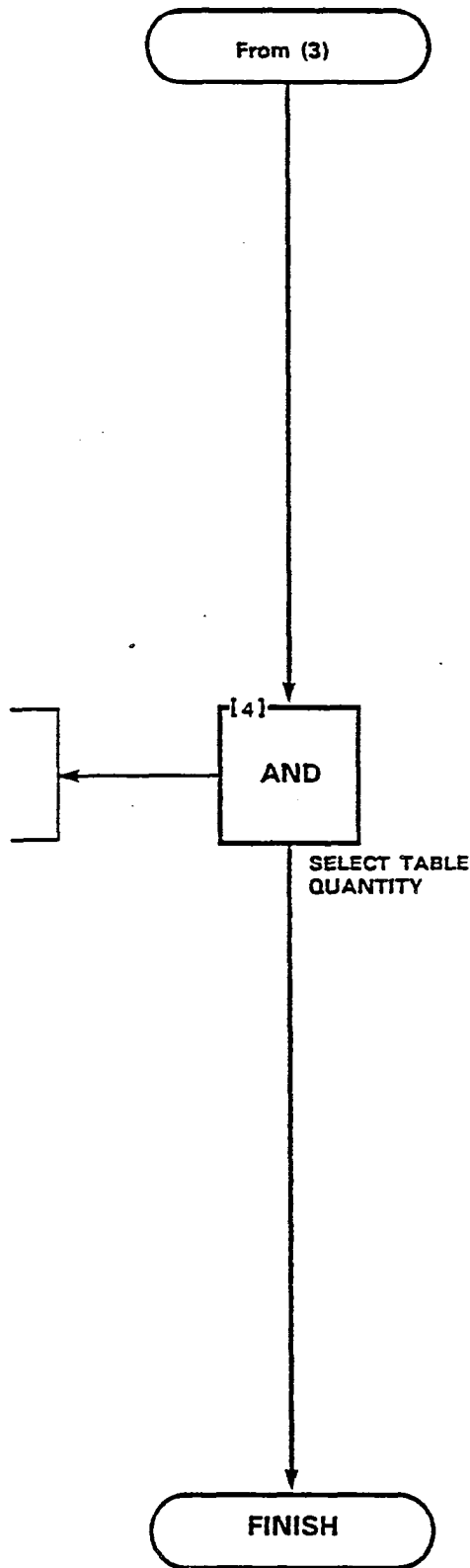
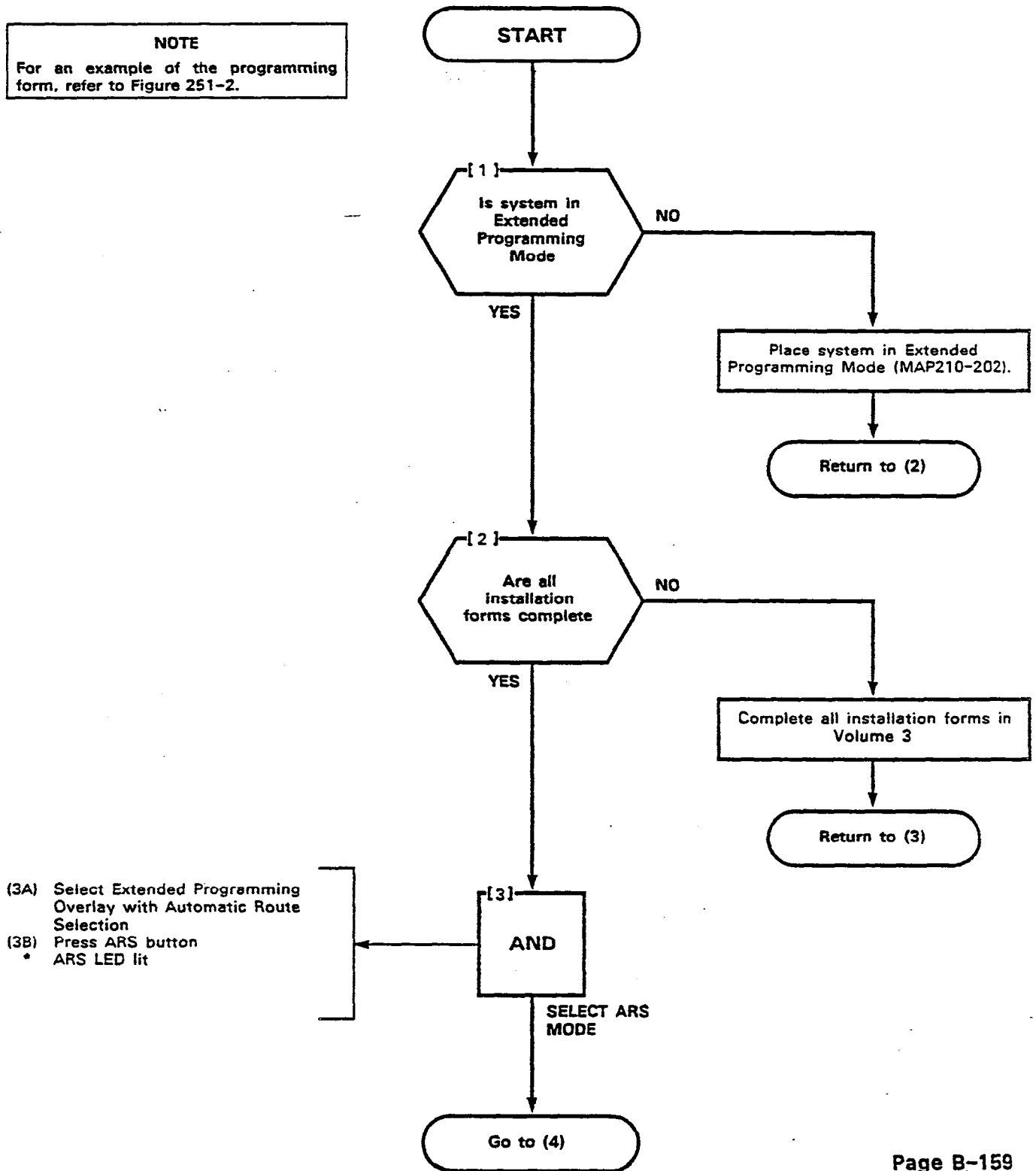


Figure 250-1

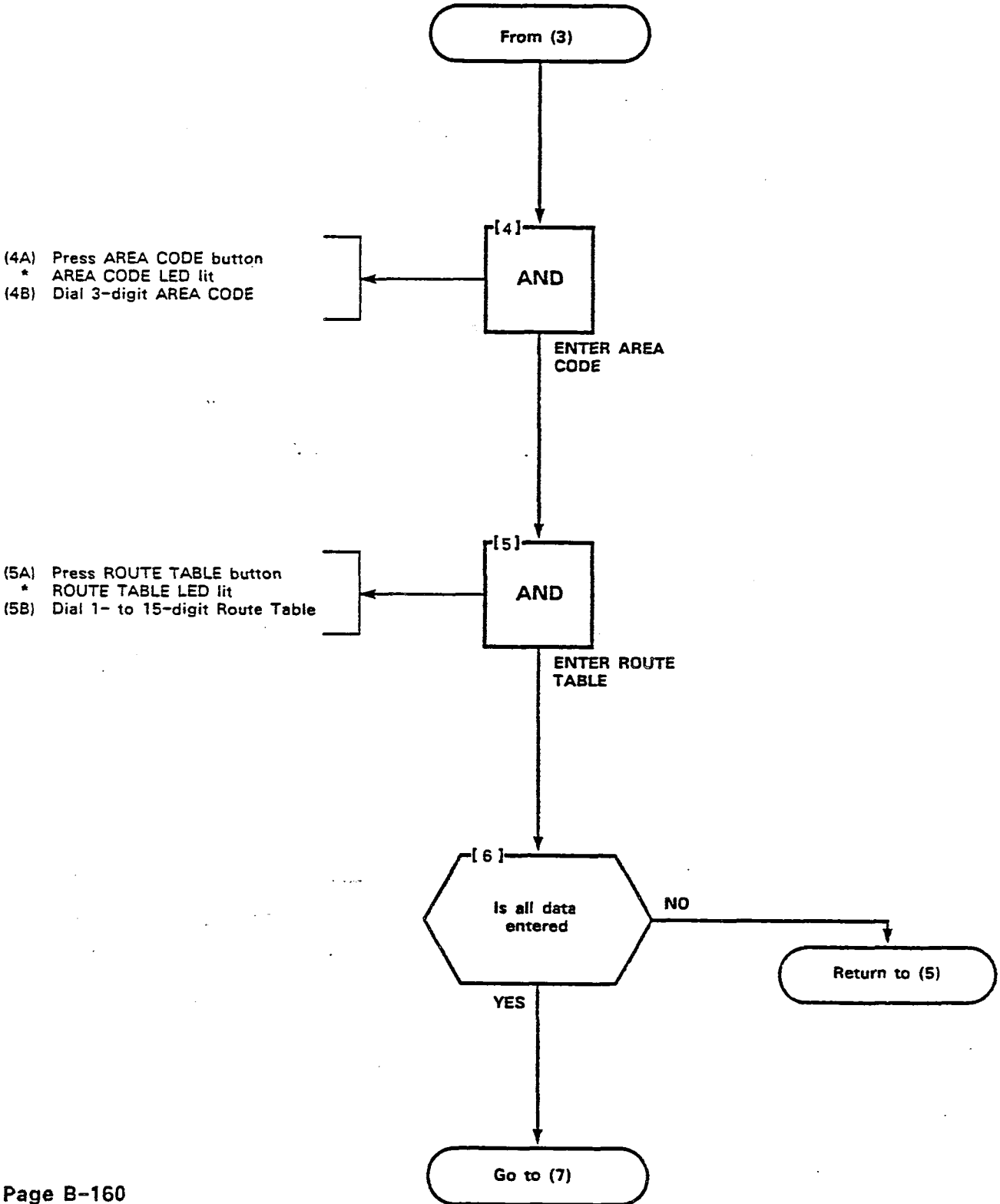
AREA CODE TABLE PROGRAMMING
MAP210-251
Issue 3, May 1984
Sheet 1 of 4

NOTE
For an example of the programming form, refer to Figure 251-2.



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AREA CODE TABLE PROGRAMMING
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AREA CODE TABLE PROGRAMMING
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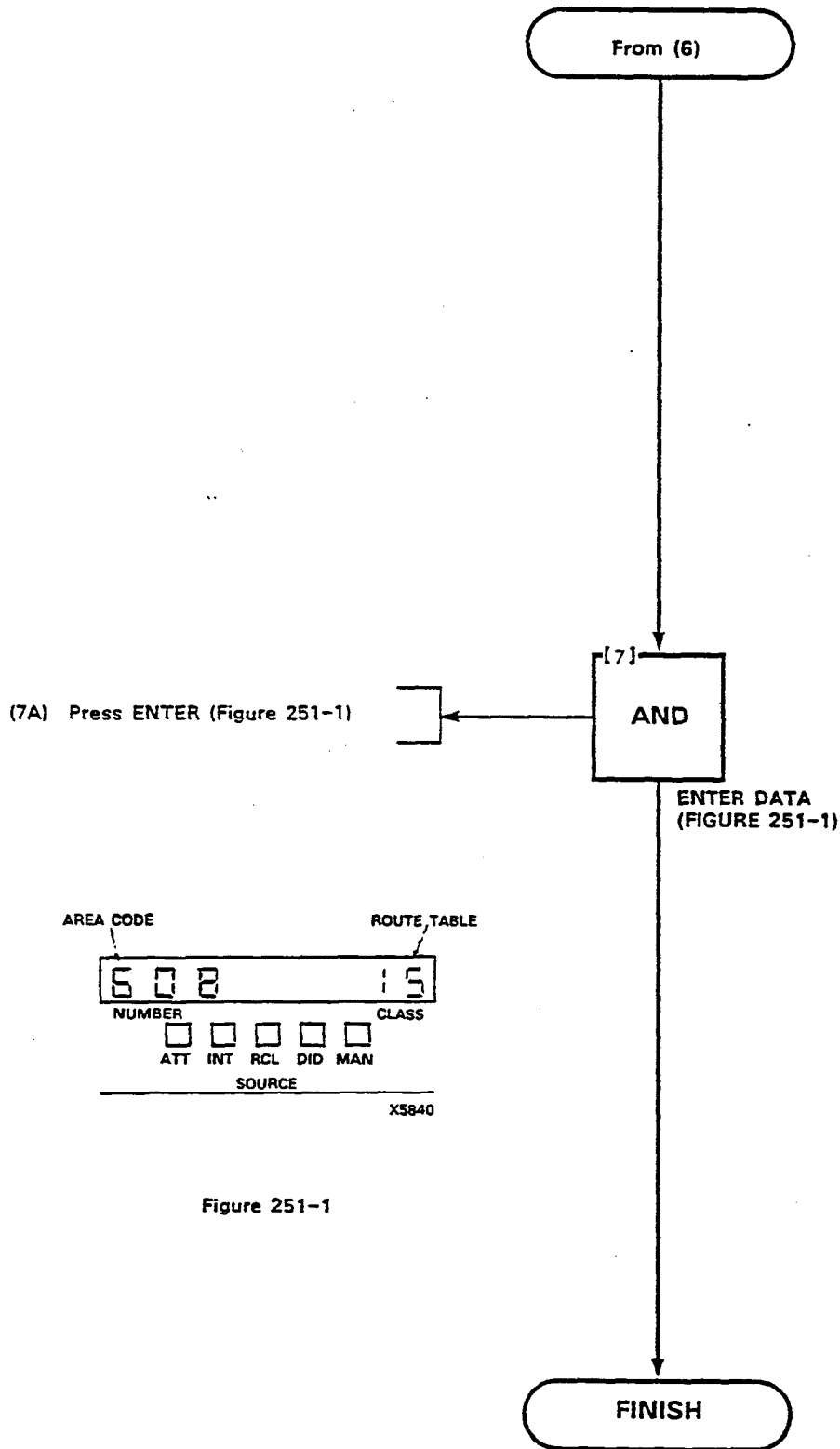


Figure 251-1

Figure 251-2


ROUTE TABLE PROGRAMMING FORM ARS-6 (1 OF 2)

PRESS ARS

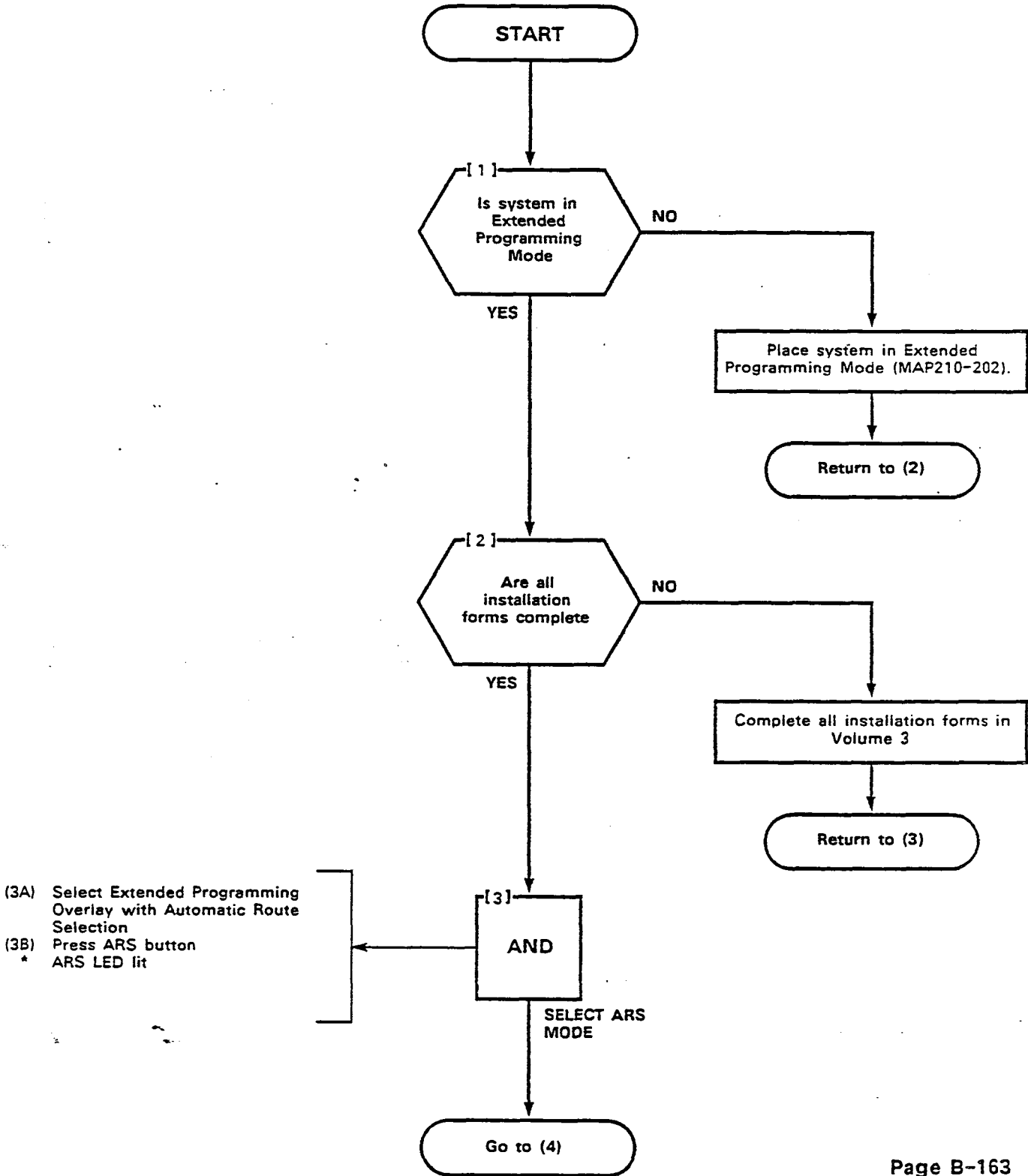
BASIC SCHEDULE DATA				SCHEDULE CHOICES										
PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS	PRESS
ROUTE TABLE	ROUTE NUMBER	TRUNK GROUP	MODIFY DIGITS	SCHED A	CHOICE NUMBER	ROUTE NUMBER	SCHED B	CHOICE NUMBERS	ROUTE NUMBER	SCHED C	CHOICE NUMBER	ROUTE NUMBER	ENTER	
DIAL 1-15 OR PRESS DELETE	DIAL 1-4	DIAL 1-12 OR DELETE		DIAL 4 DIGITS OR PRESS DELETE	DIAL 1-4	DIAL 1-4	DIAL 4 DIGITS OR PRESS DELETE	DIAL 1-4	DIAL 1-4	NOTE: 1	DIAL 1-4	DIAL 1-4	AFTER EACH BLOCK	
	1				1			1			1		ENTER	
	2				2			2			2			
	3				3			3			3			
	4				4			4			4			
	1				1			1			1		ENTER	
	2				2			2			2			
	3				3			3			3			
	4				4			4			4			
	1				1			1			1		ENTER	
	2				2			2			2			
	3				3			3			3			
	4				4			4			4			

NOTE 1
DO NOT DIAL TIME AFTER PRESSING SCHEDULE C. IT WILL BE IN EFFECT ANY TIME A OR B ARE NOT.

SCHED C BUTTON.



REVIEW AREA CODE TABLE PROGRAMMING
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- (3A) Select Extended Programming Overlay with Automatic Route Selection
- (3B) Press ARS button
* ARS LED lit

REVIEW AREA CODE TABLE PROGRAMMING
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Issue 3, May 1984
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- (4A) Press AREA CODE button
- AREA CODE LED lit
- (4B) Dial 3-digit Area Code

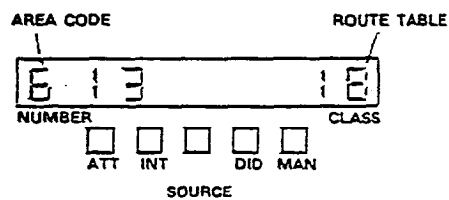
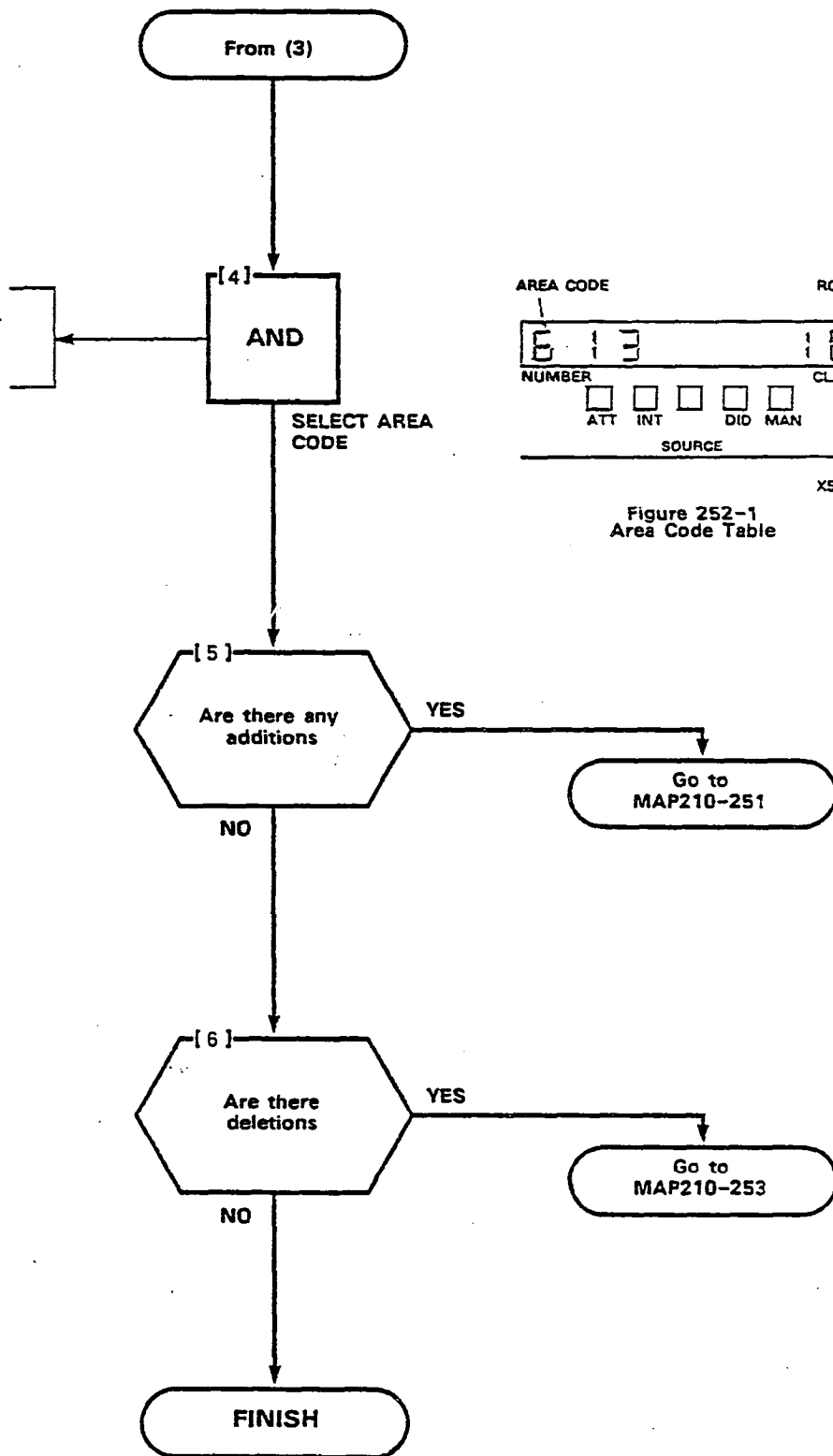
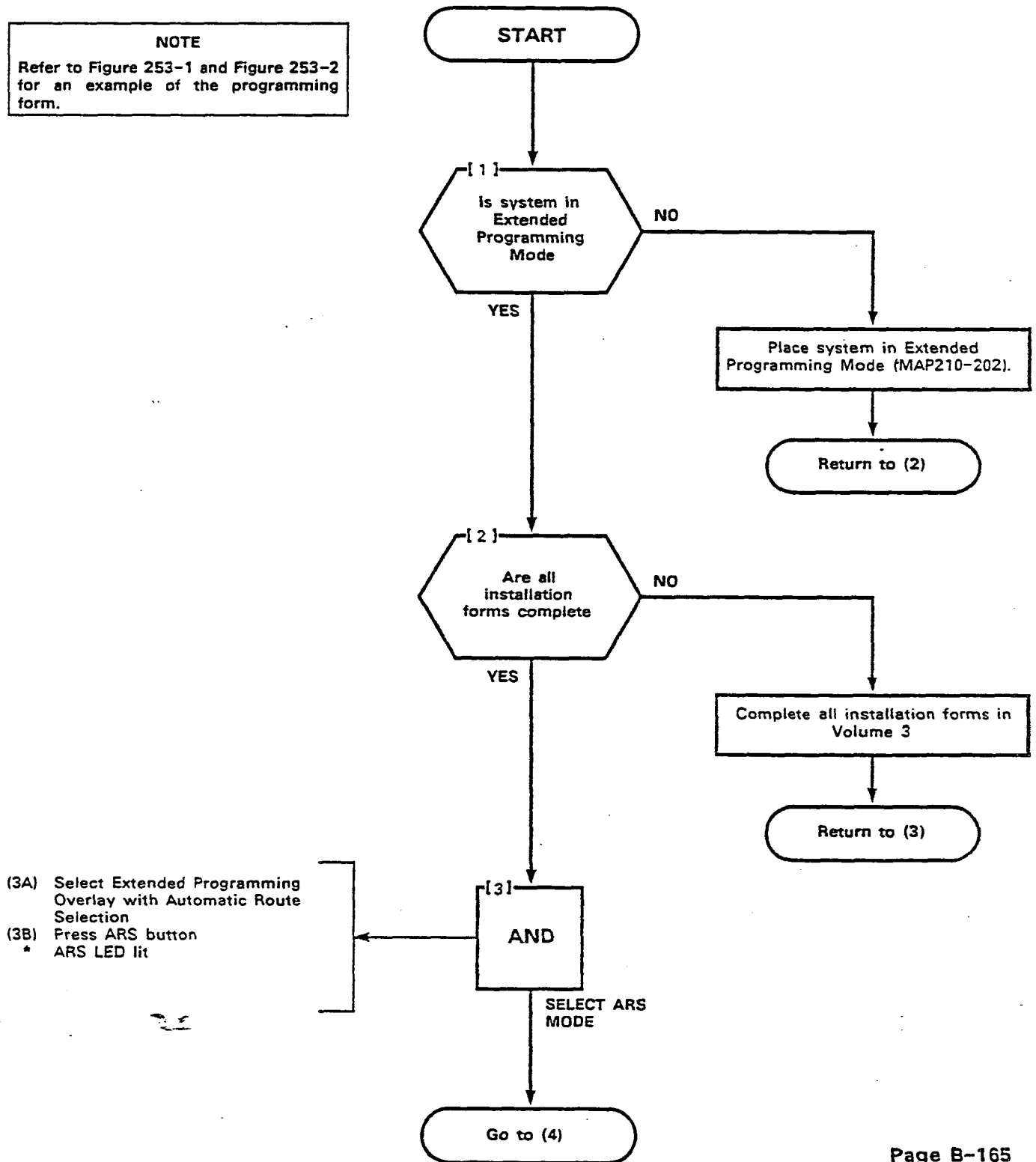


Figure 252-1
Area Code Table

X5841

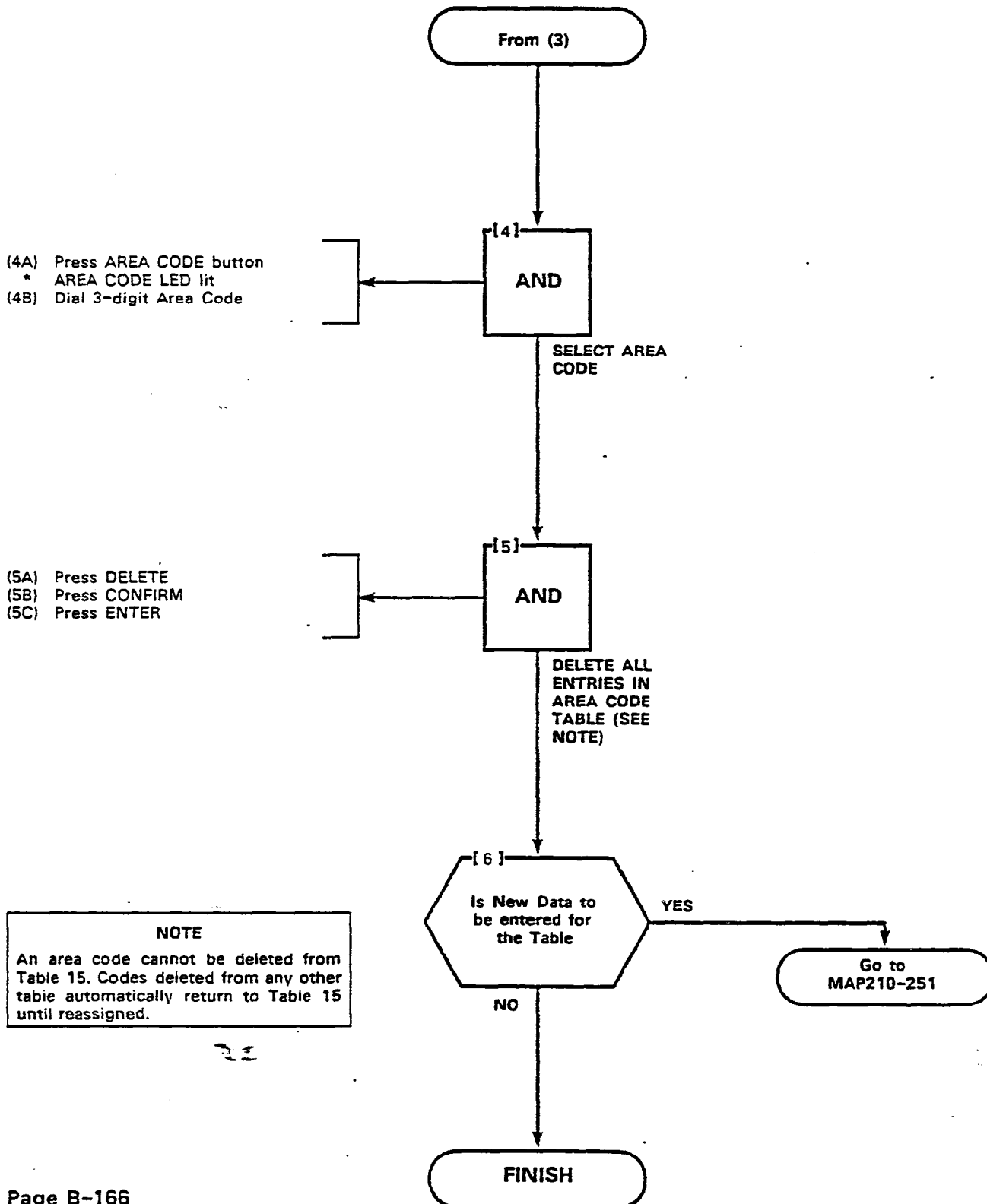
DELETE AN AREA CODE TABLE
MAP210-253
Issue 3, May 1984
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NOTE
Refer to Figure 253-1 and Figure 253-2 for an example of the programming form.



SECTION MITL9105/9110-096-210-NA

DELETE AN AREA CODE TABLE
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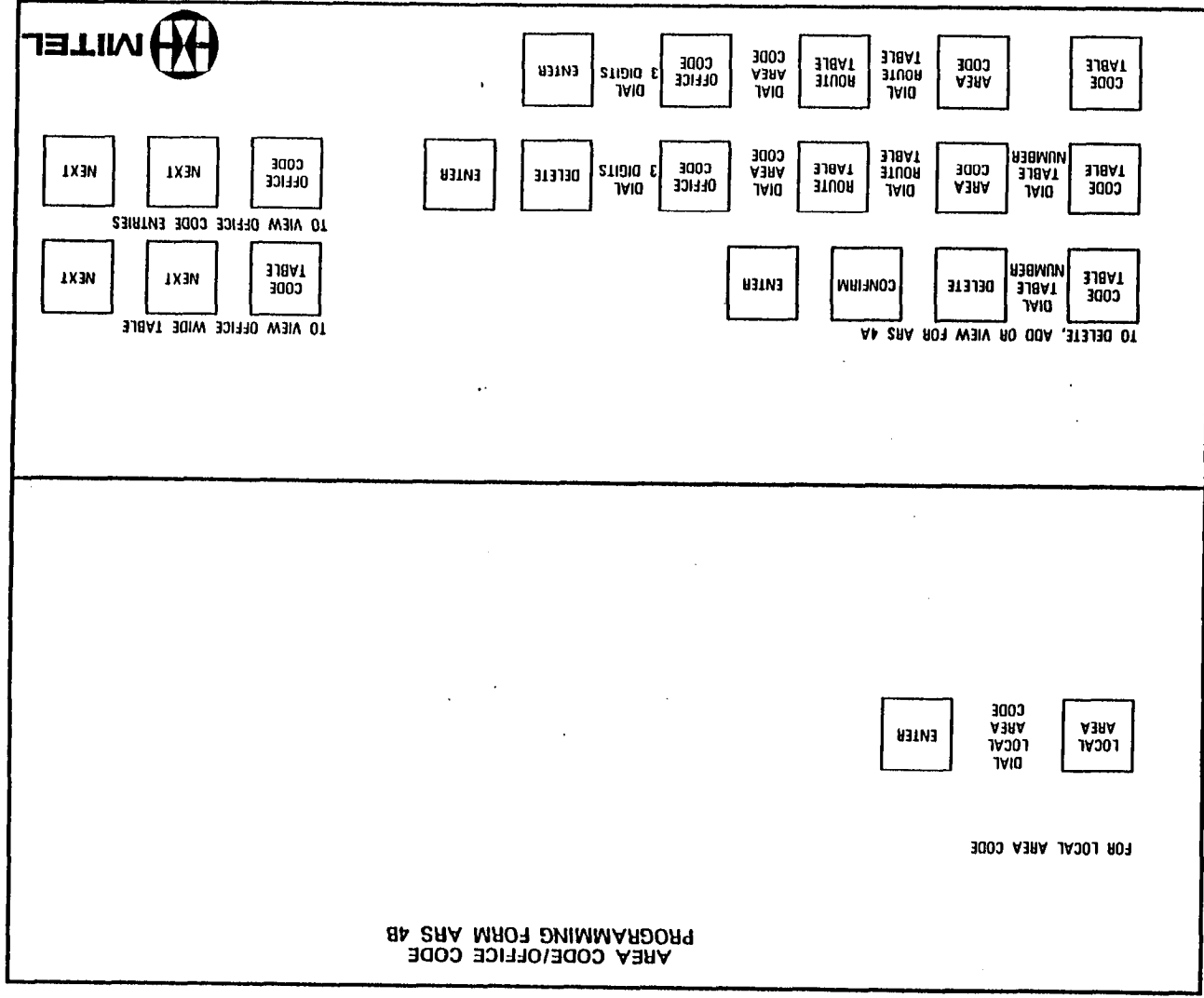
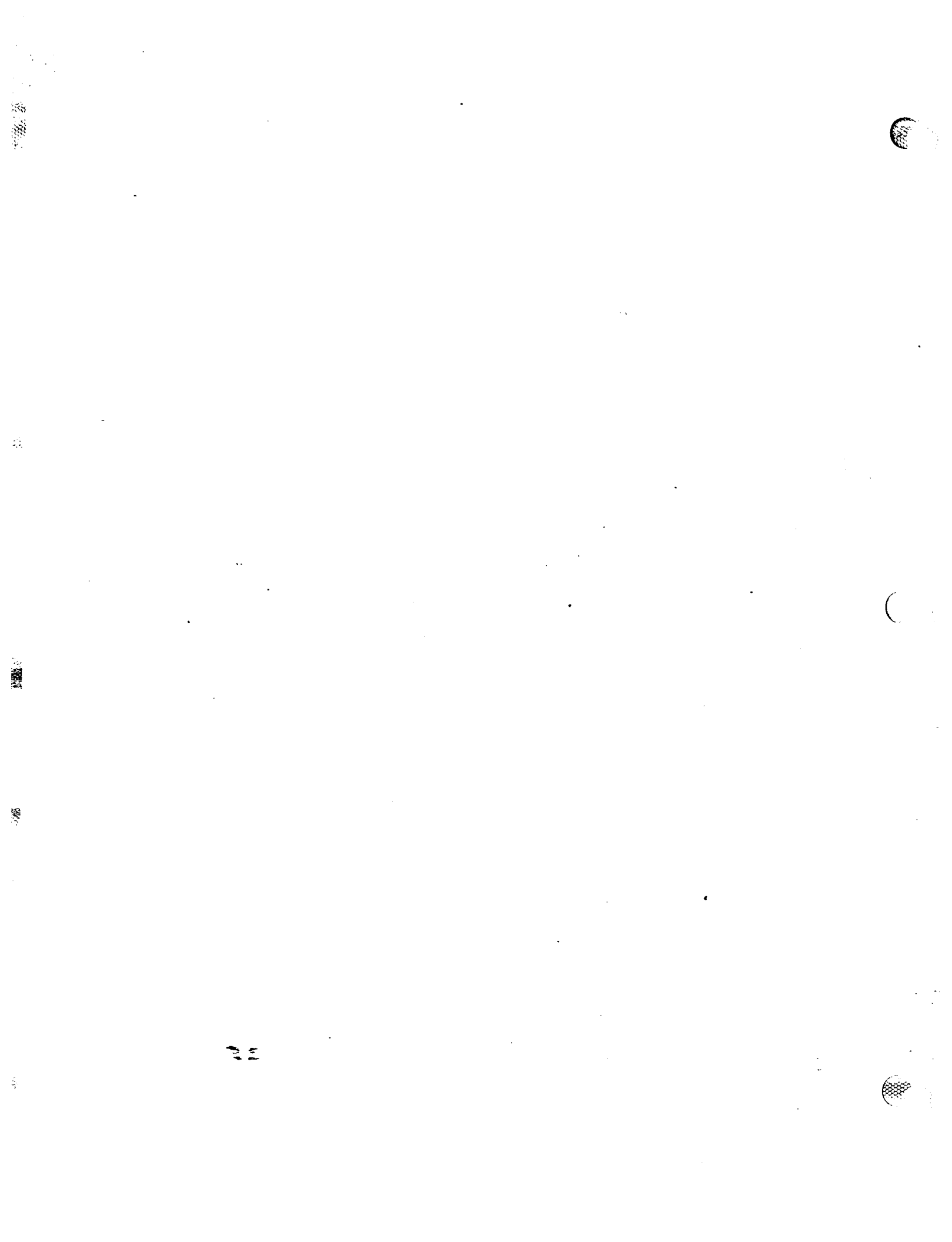
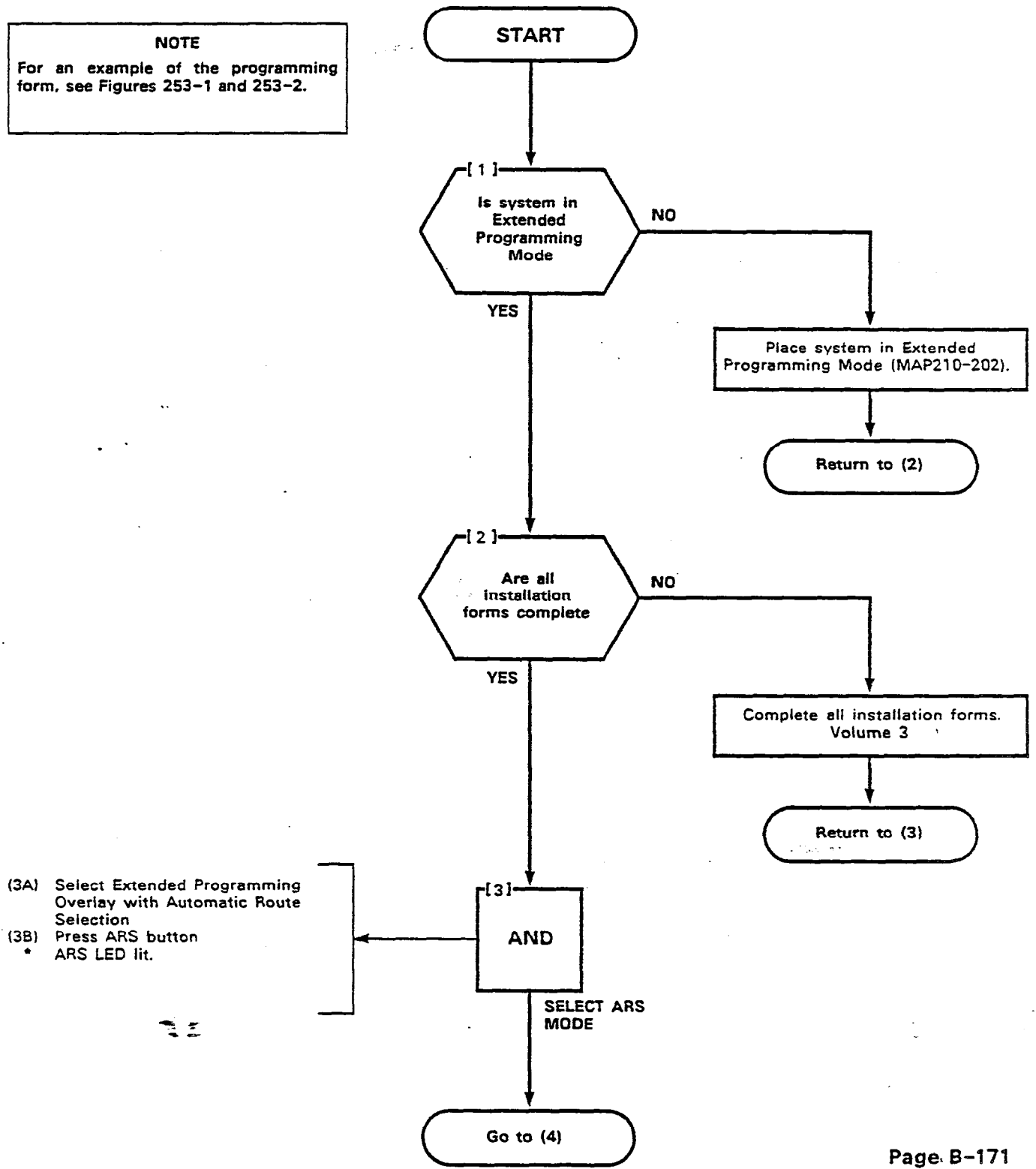


Figure 253-2 (Cont'd)



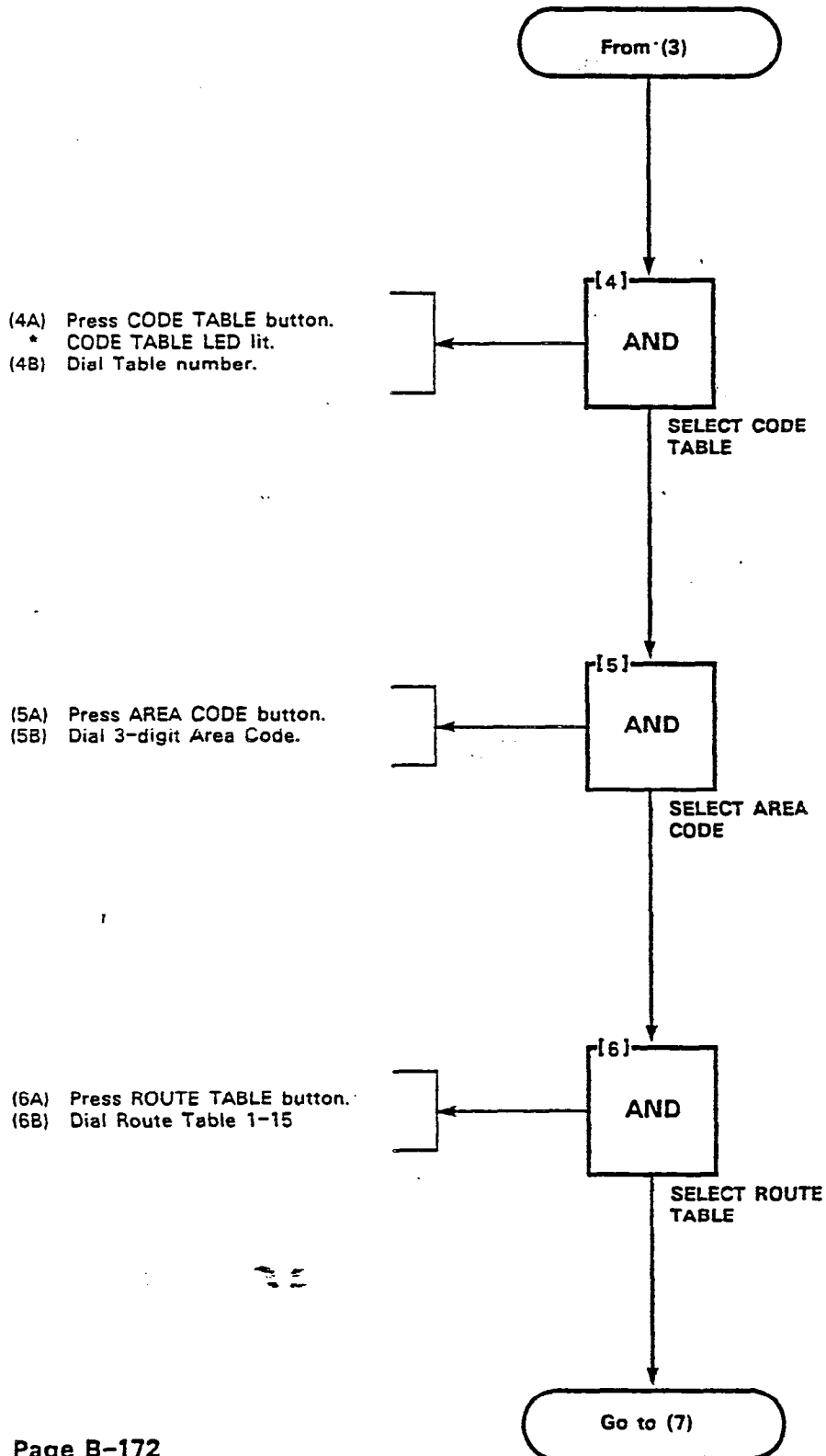
AREA CODE/OFFICE CODE PROGRAMMING
MAP210-254
Issue 3, May 1984
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NOTE
For an example of the programming form, see Figures 253-1 and 253-2.



SECTION MITL9105/9110-096-210-NA

AREA CODE/OFFICE CODE PROGRAMMING
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AREA CODE/OFFICE CODE PROGRAMMING
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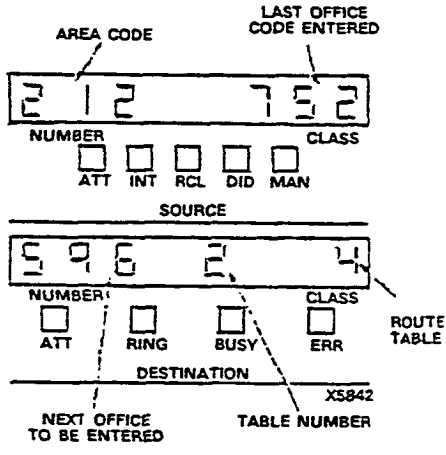
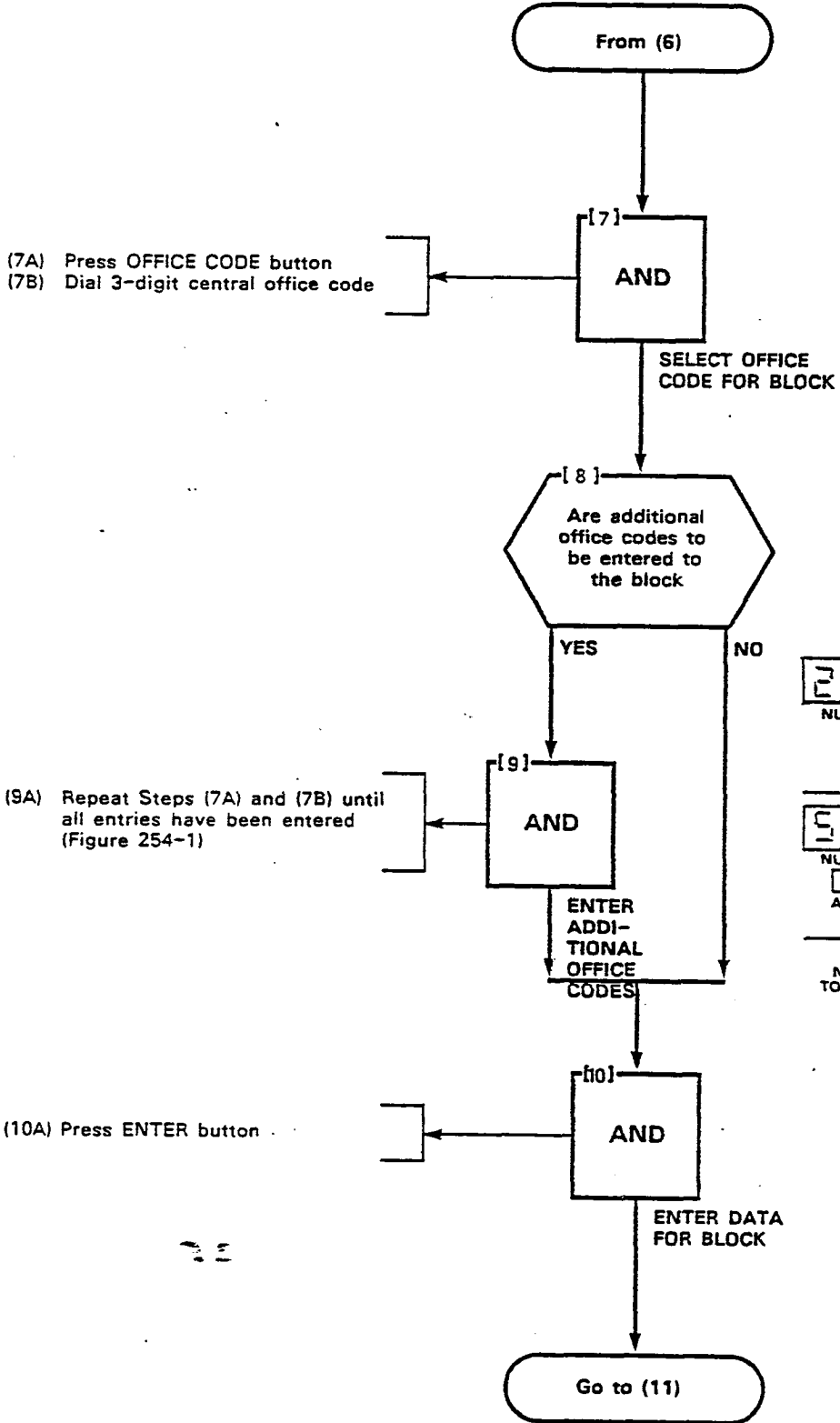
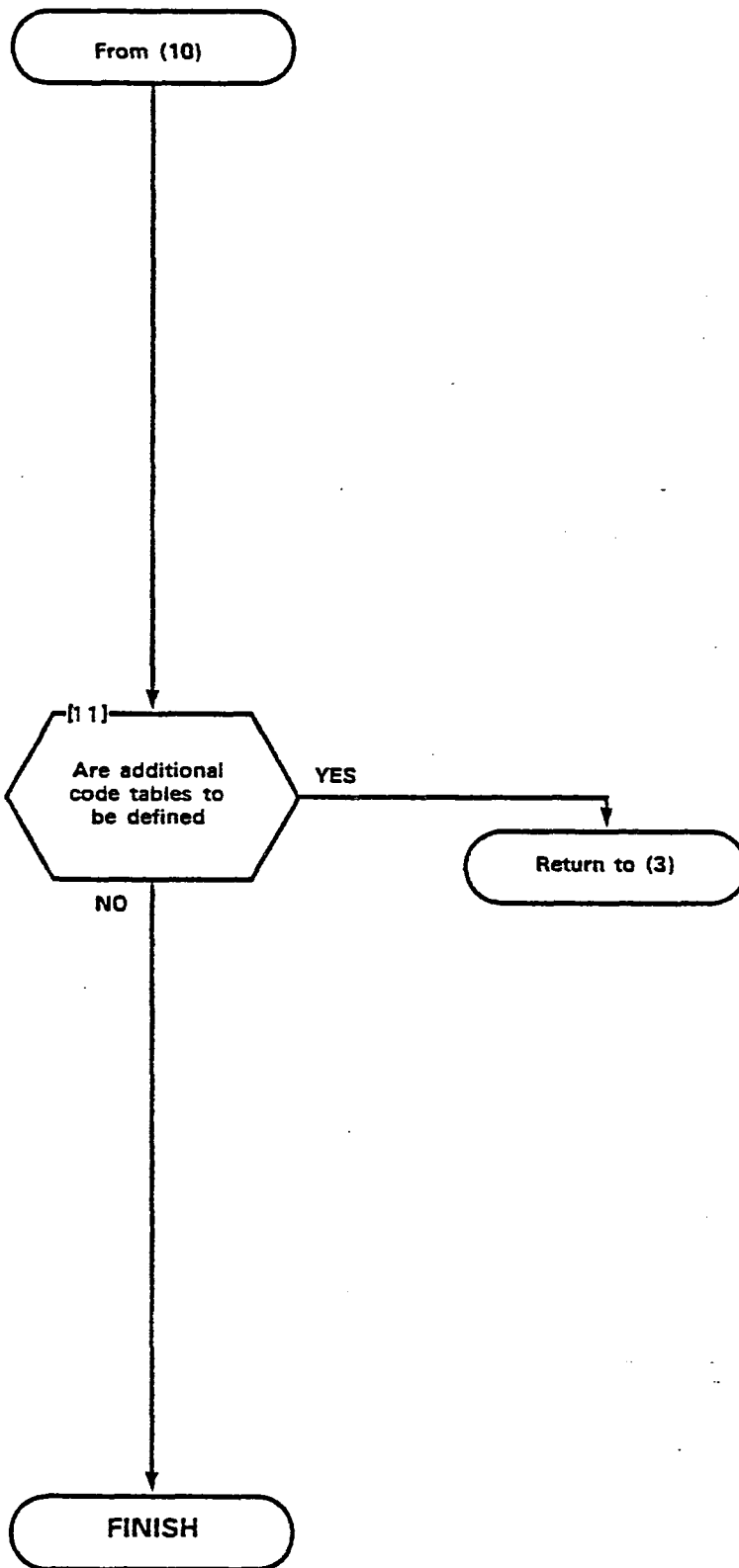


Figure 254-1

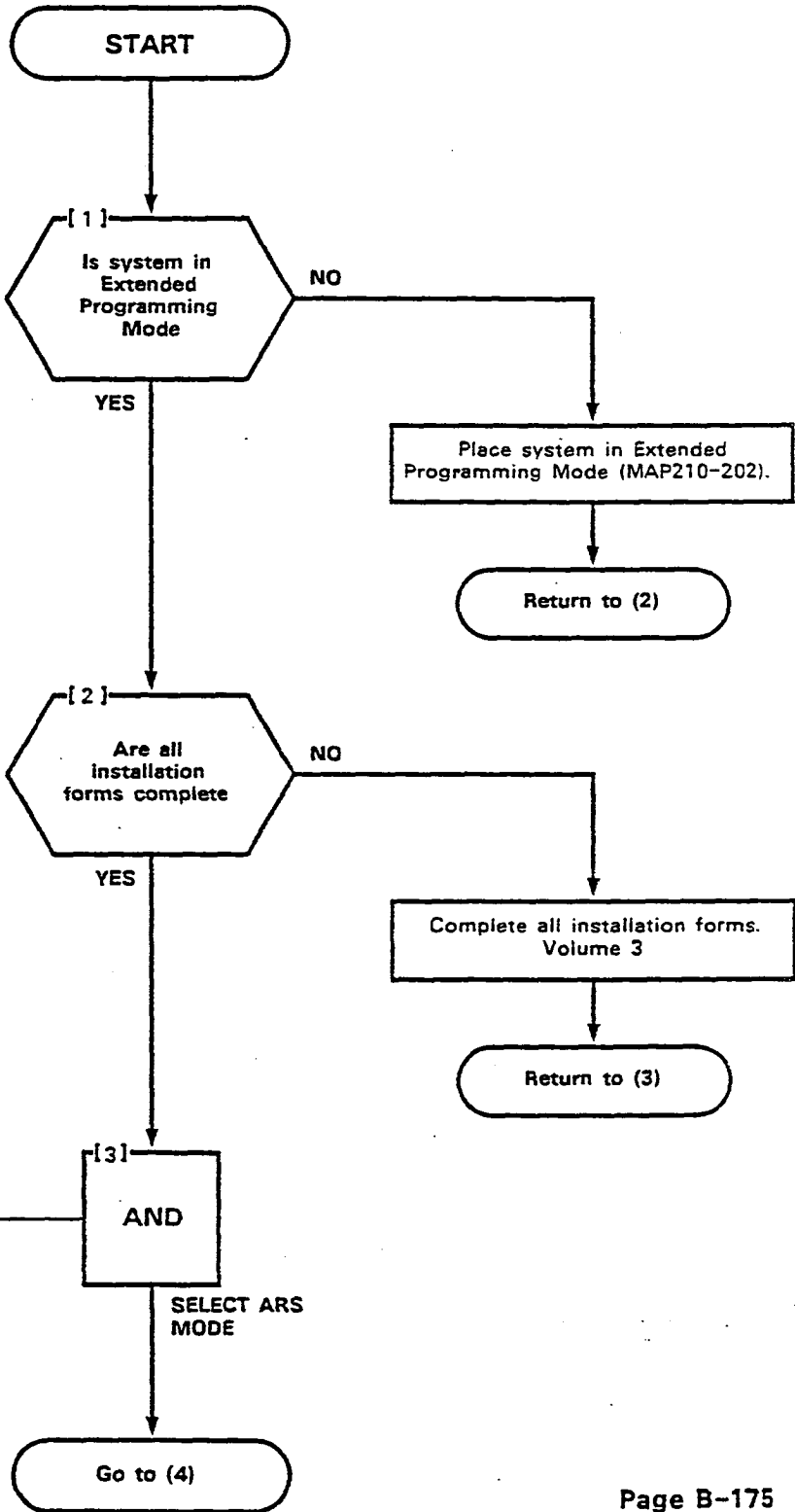
SECTION MITL9105/9110-096-210-NA

AREA CODE/OFFICE CODE PROGRAMMING
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REVIEW OR DELETE PART OR ALL AREA CODE/OFFICE CODE
MAP210-255
Issue 3, May 1984
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NOTE
For an example of the programming form, refer to Figures 253-1 and 253-2.



- (3A) Select Extended Programming Overlay with Automatic Route Selection
- (3B) Press ARS button
- * ARS LED lit

REVIEW OR DELETE PART OR ALL AREA CODE/OFFICE CODE
MAP210- 255
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(4A) Press CODE TABLE button
 * CODE TABLE LED lit
 * The first Office Code table will be displayed in the DESTINATION display (Figure 255-1)

From (3)

[4] AND

SELECT CODE TABLE, AREA CODE AND ROUTE TABLE

[5] Was correct code table displayed

YES NO

[6] AND

SELECT CODE TABLE

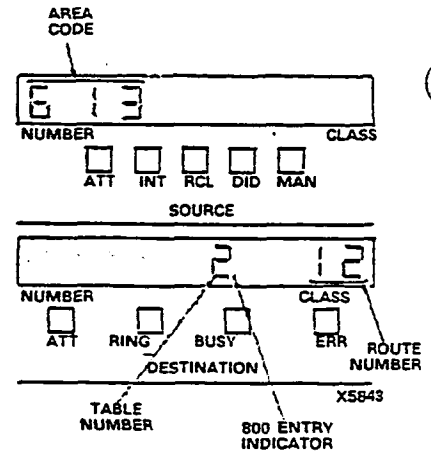
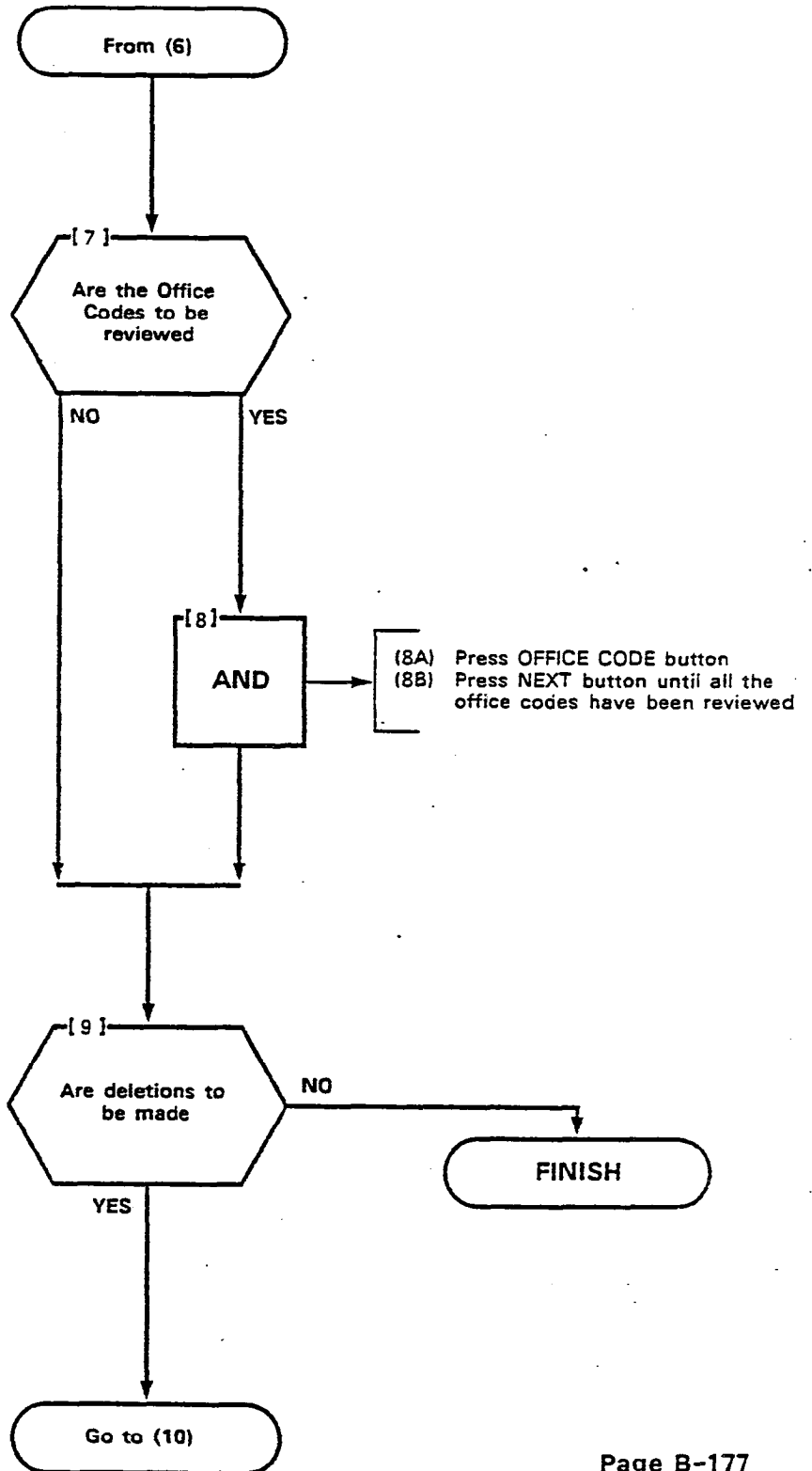


Figure 255-1 Code Table

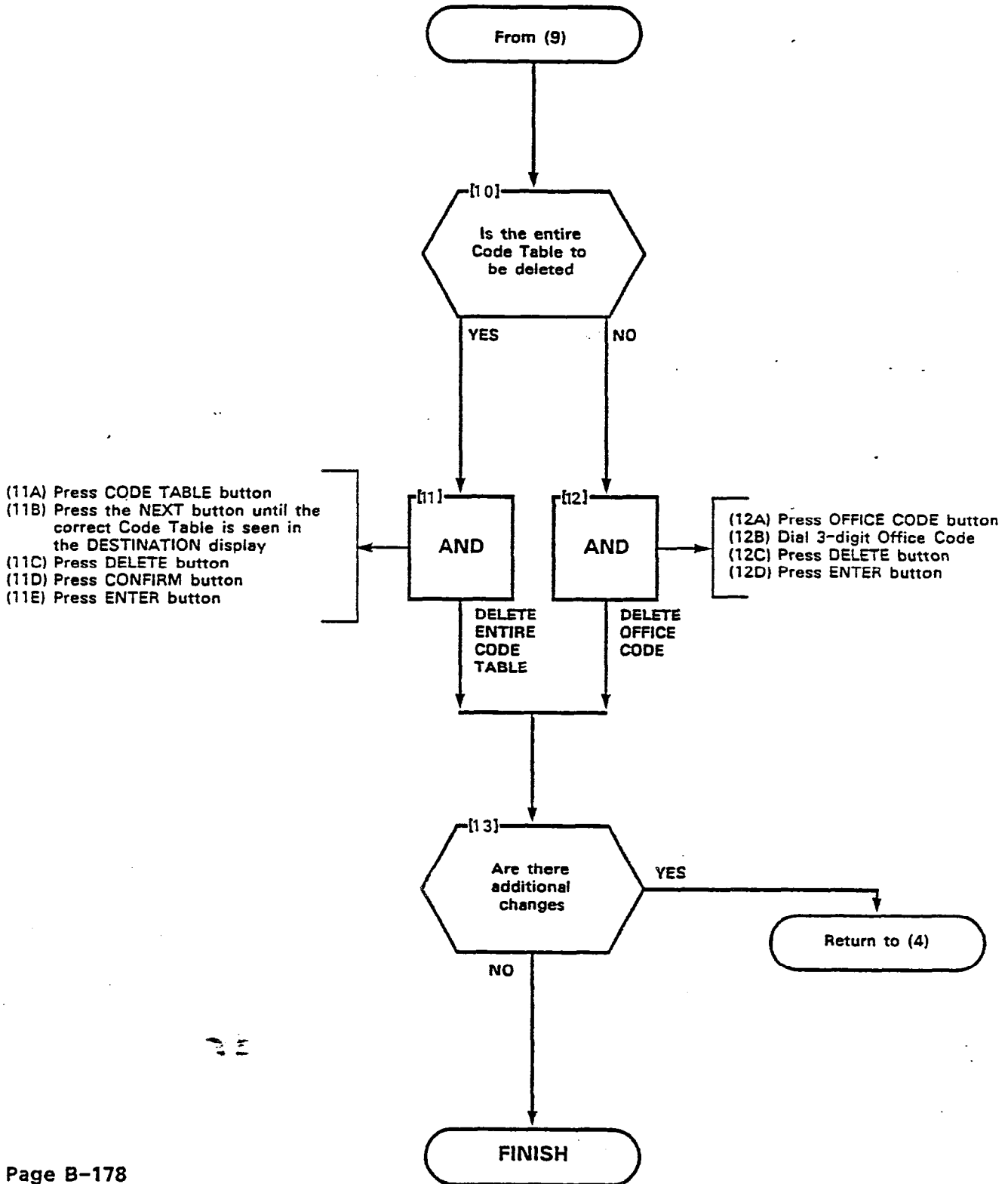
(6A) Press the NEXT button until the correct (or all the) Code Tables is seen in the DESTINATION display

Go to (7)

REVIEW OR DELETE PART OR ALL AREA CODE/OFFICE CODE
MAP210-255
Issue 3, May 1984
Sheet 3 of 4

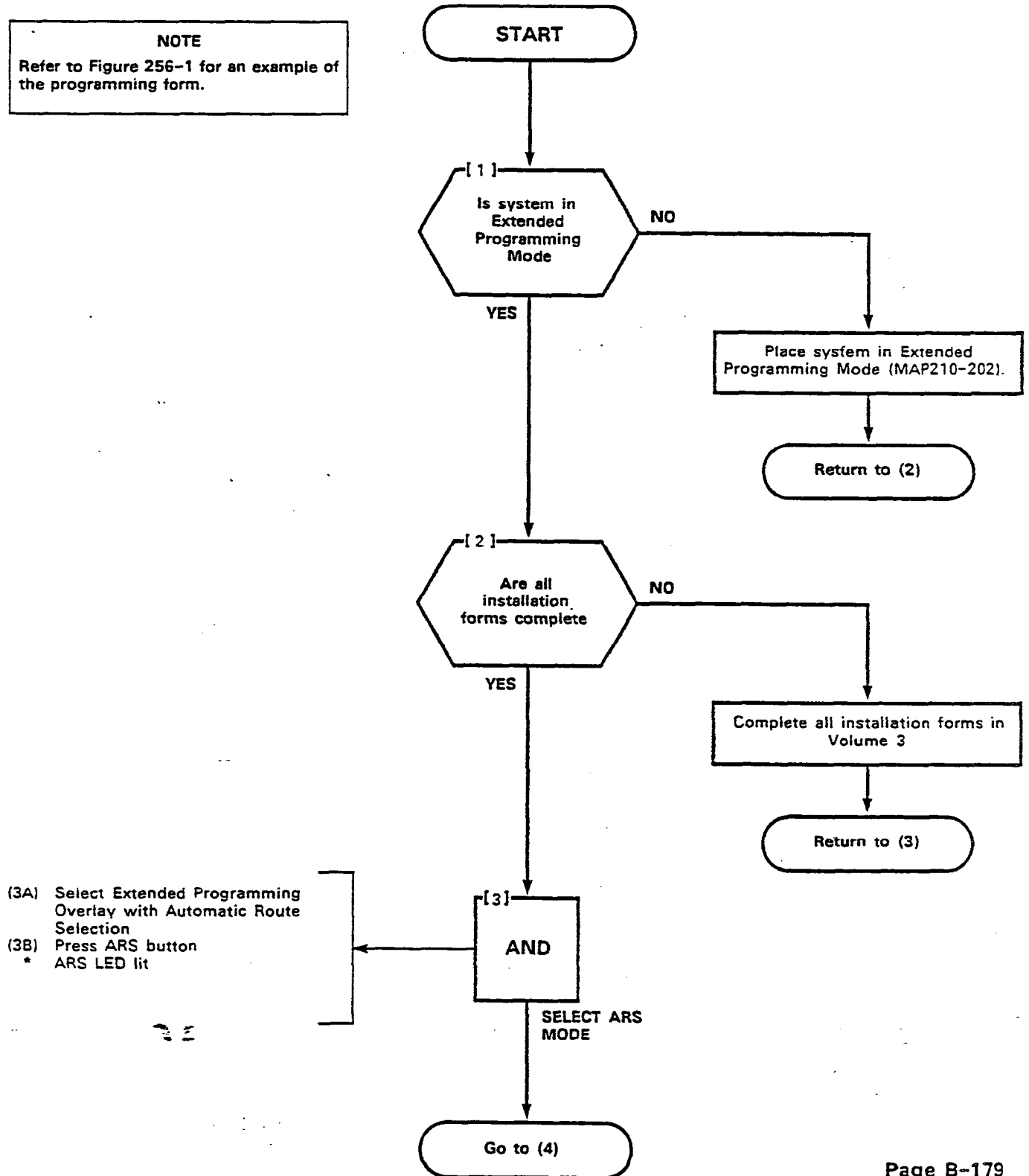


REVIEW OR DELETE PART OR ALL AREA CODE/OFFICE CODE
MAP210- 255
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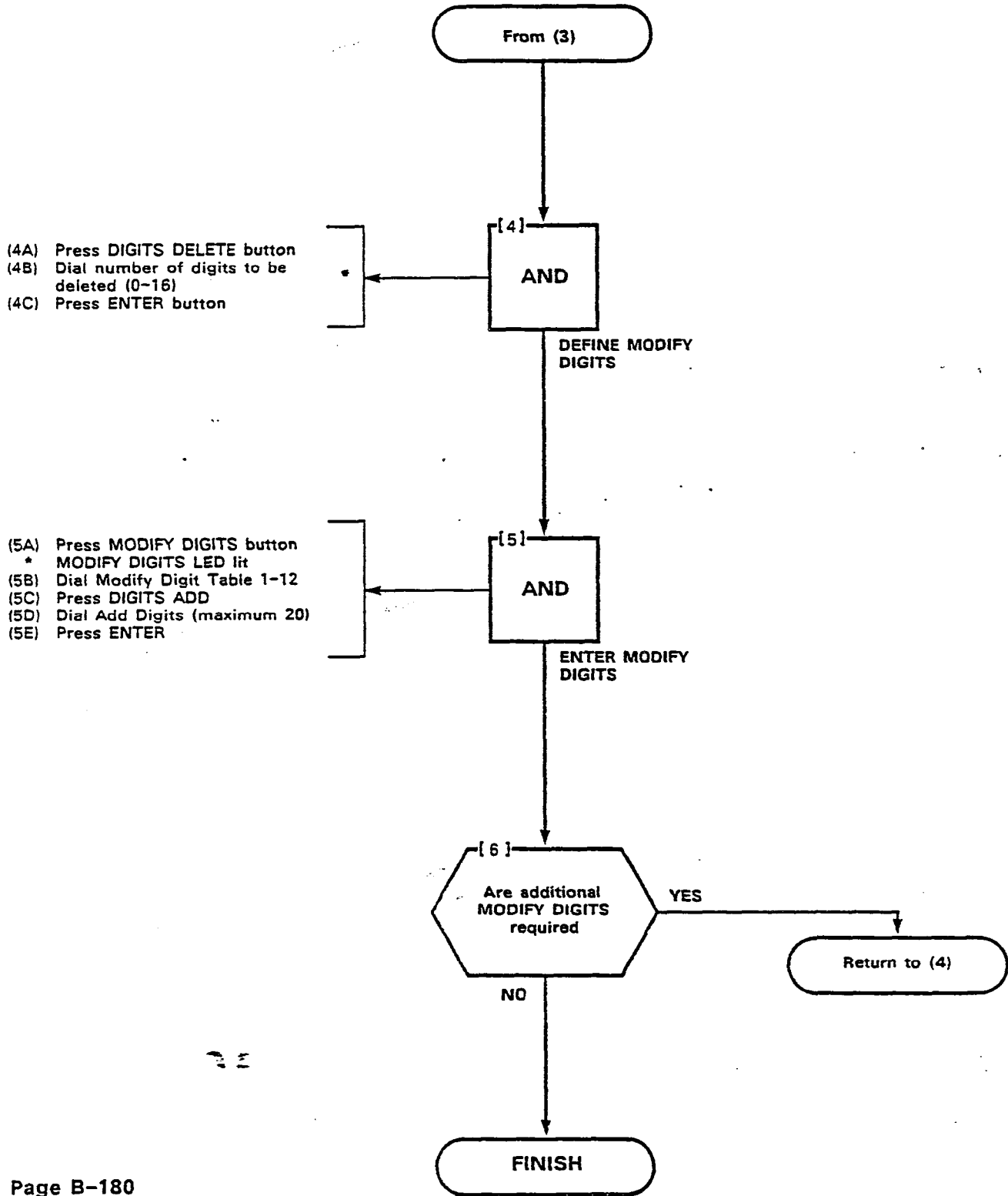
PROGRAM MODIFY DIGITS
MAP210-256
Issue 3, May 1984
Sheet 1 of 3

NOTE
Refer to Figure 256-1 for an example of the programming form.



- (3A) Select Extended Programming Overlay with Automatic Route Selection
- (3B) Press ARS button
- * ARS LED lit

PROGRAM MODIFY DIGITS
MAP210- 256
Issue 3, May 1984
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AREA CODE/OFFICE CODE
PROGRAMMING FORM ARS 4B

FOR LOCAL AREA CODE



TO DELETE, ADD OR VIEW FOR ARS 4A



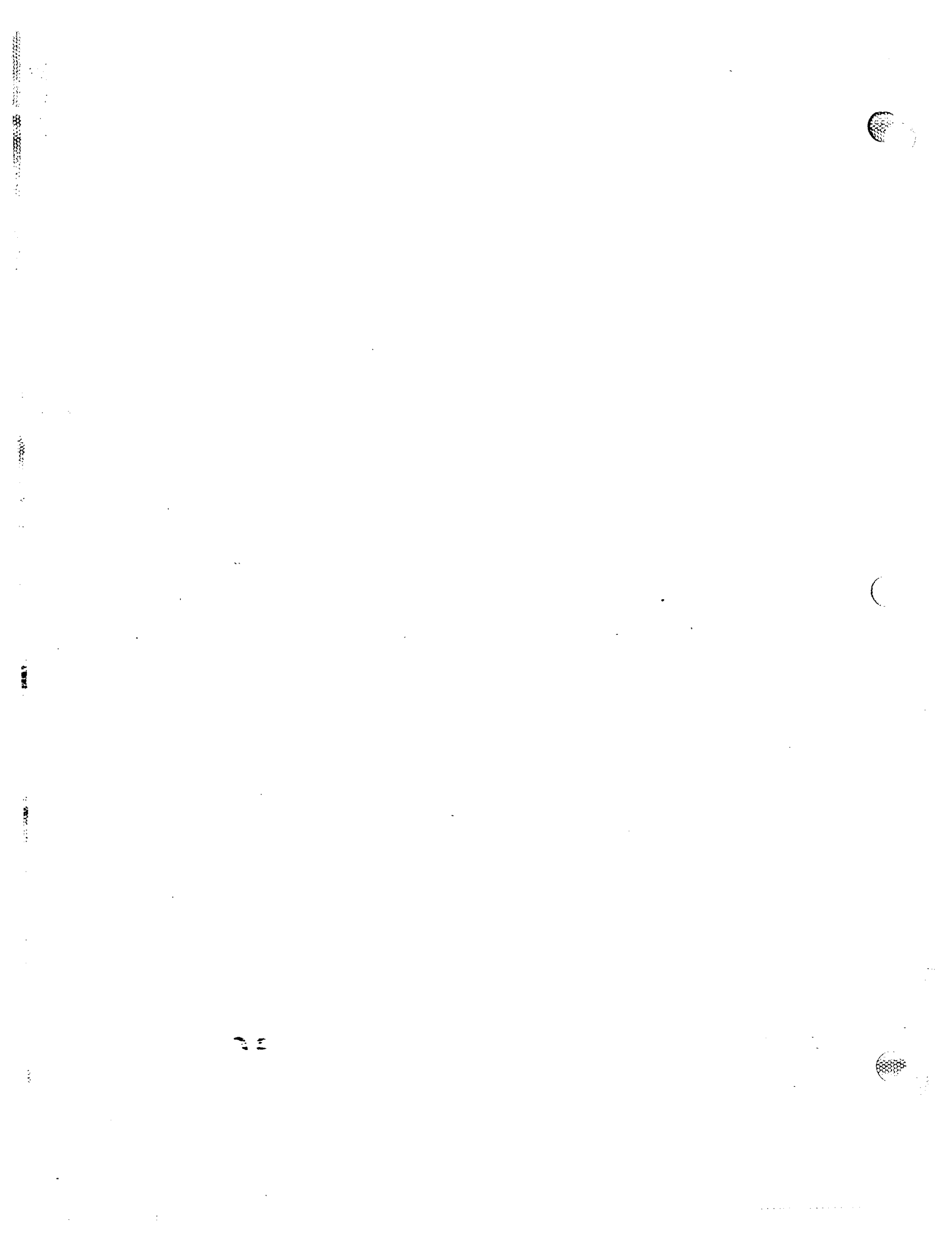
TO VIEW OFFICE WIDE TABLE



TO VIEW OFFICE CODE ENTRIES

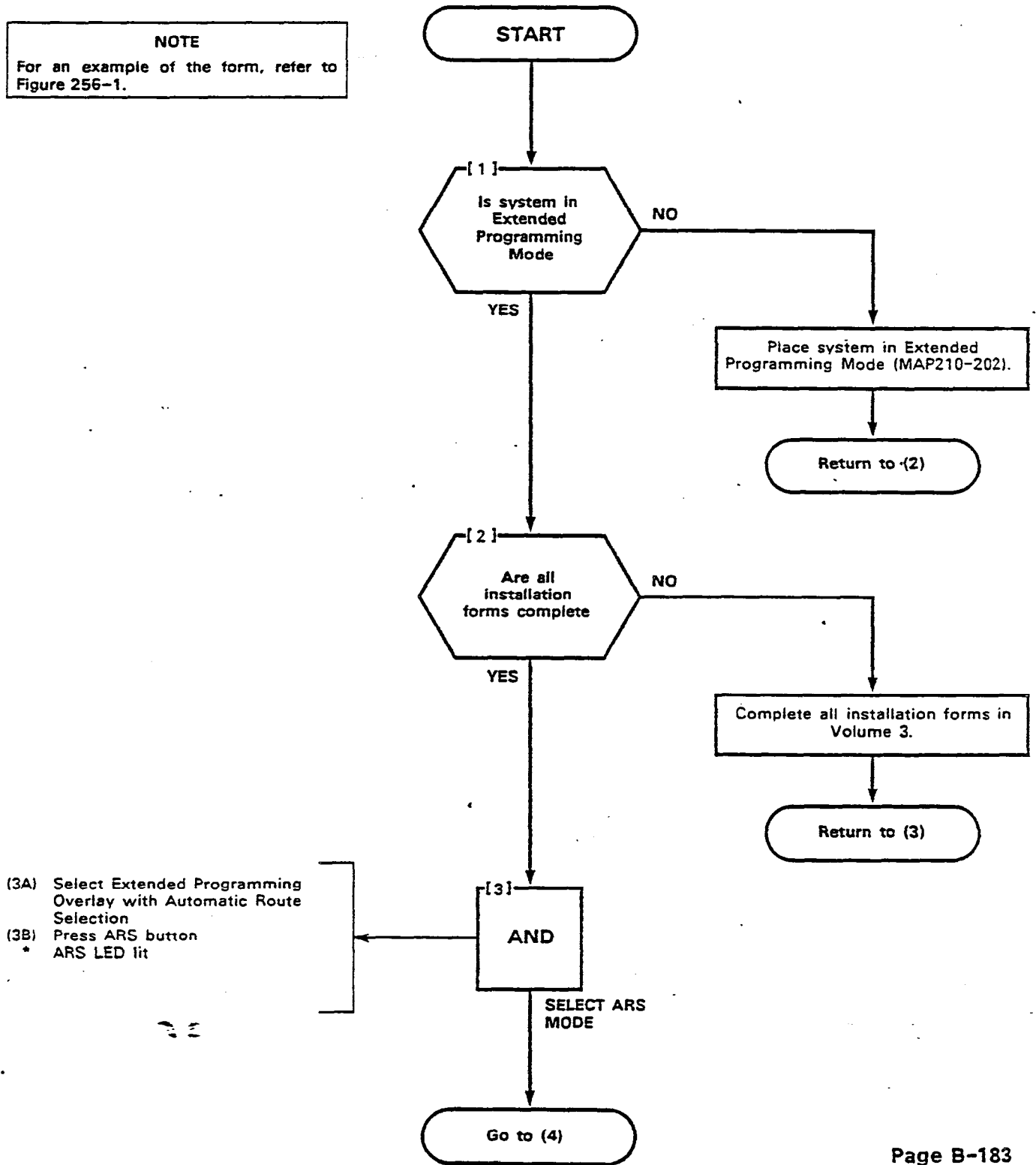


Figure 256-1



TO REVIEW OR DELETE MODIFY DIGIT TABLES
MAP210-257
Issue 3, May 1984
Sheet 1 of 4

NOTE
For an example of the form, refer to Figure 256-1.



TO REVIEW OR DELETE MODIFY DIGIT TABLES
MAP210- 257
Issue 3, May 1984
Sheet 2 of 4

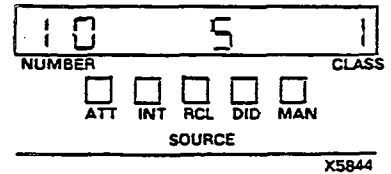
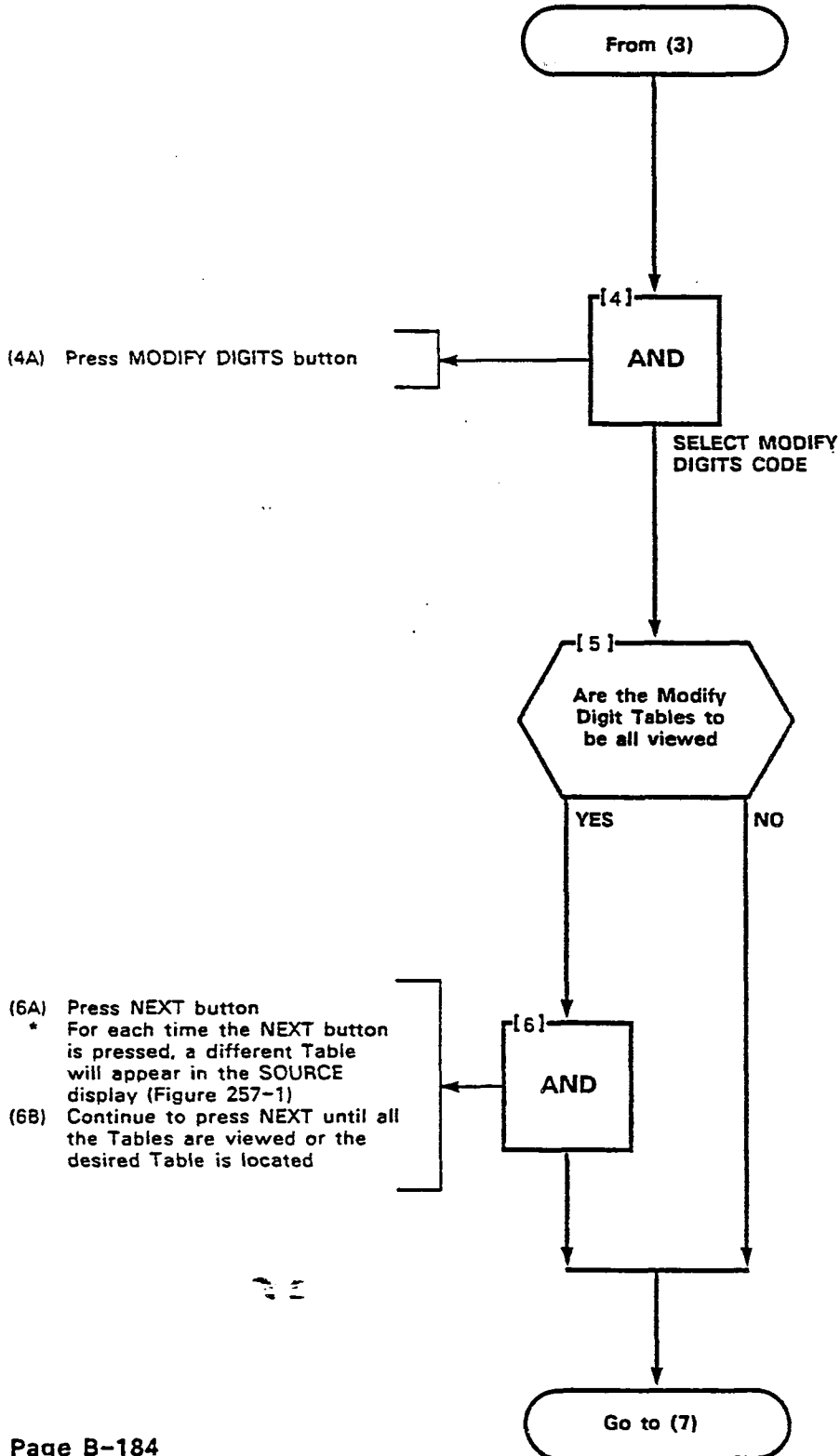
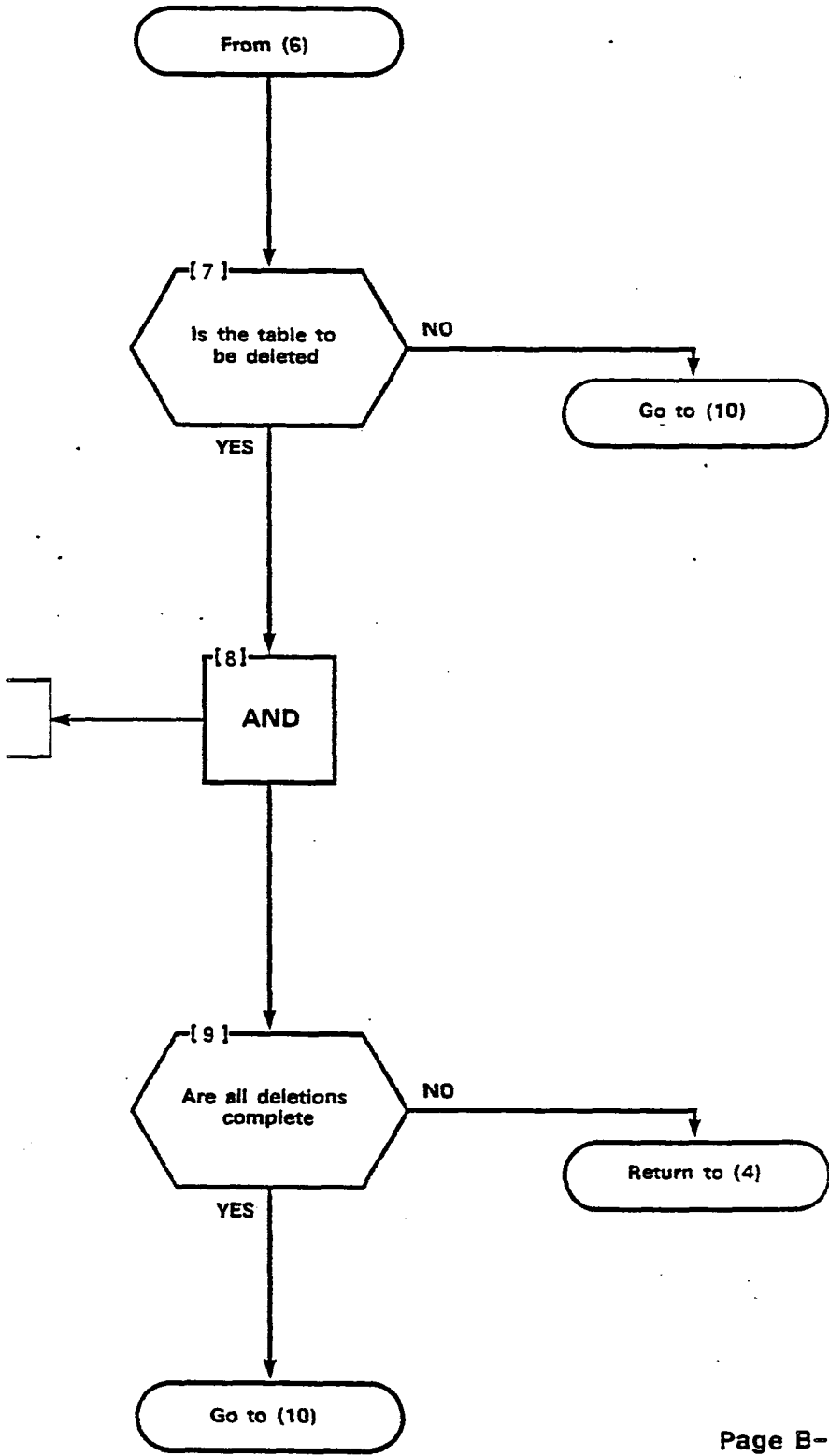


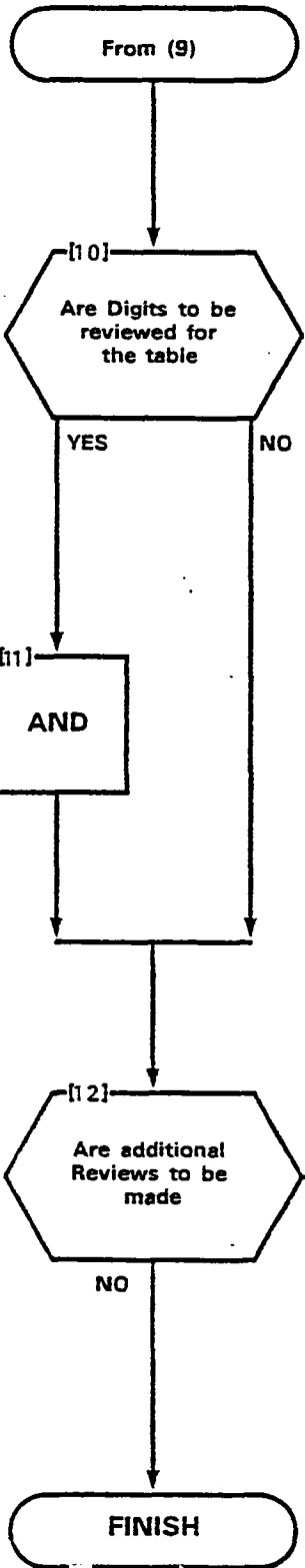
Figure 257-1
Modify Digits

TO REVIEW OR DELETE MODIFY DIGIT TABLES
MAP210-257
Issue 3, May 1984
Sheet 3 of 4

(8A) Press DELETE button
(8B) Press ENTER button



TO REVIEW OR DELETE MODIFY DIGIT TABLES
MAP210- 257
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(11A) Press DIGITS ADD
 (11B) Press NEXT for each time the NEXT button is pressed. A new digit (DIGIT ADD) will appear in the SOURCE display (Figure 257-2)

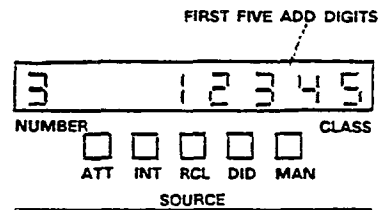
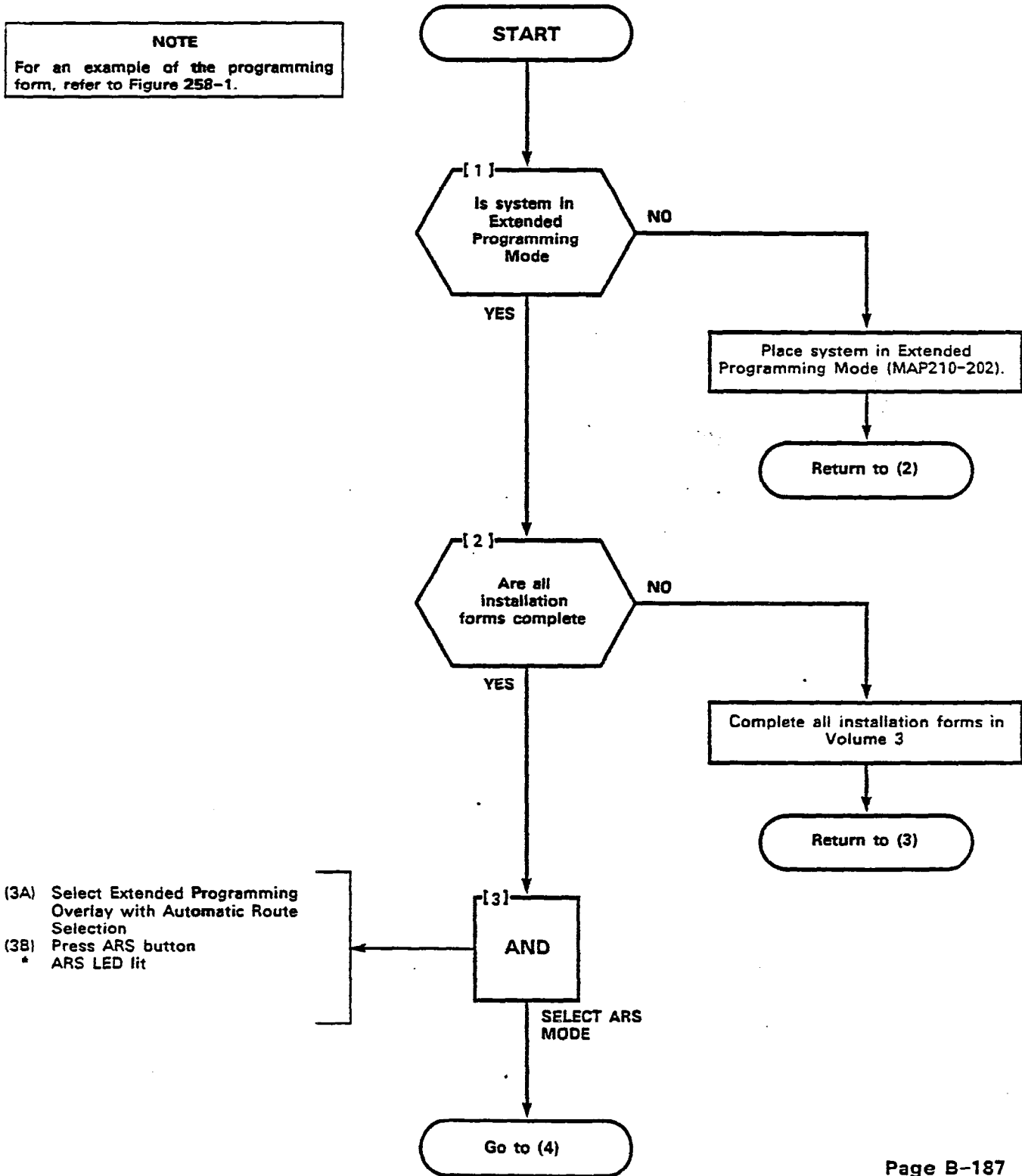


Figure 257-2
Digits Dialed

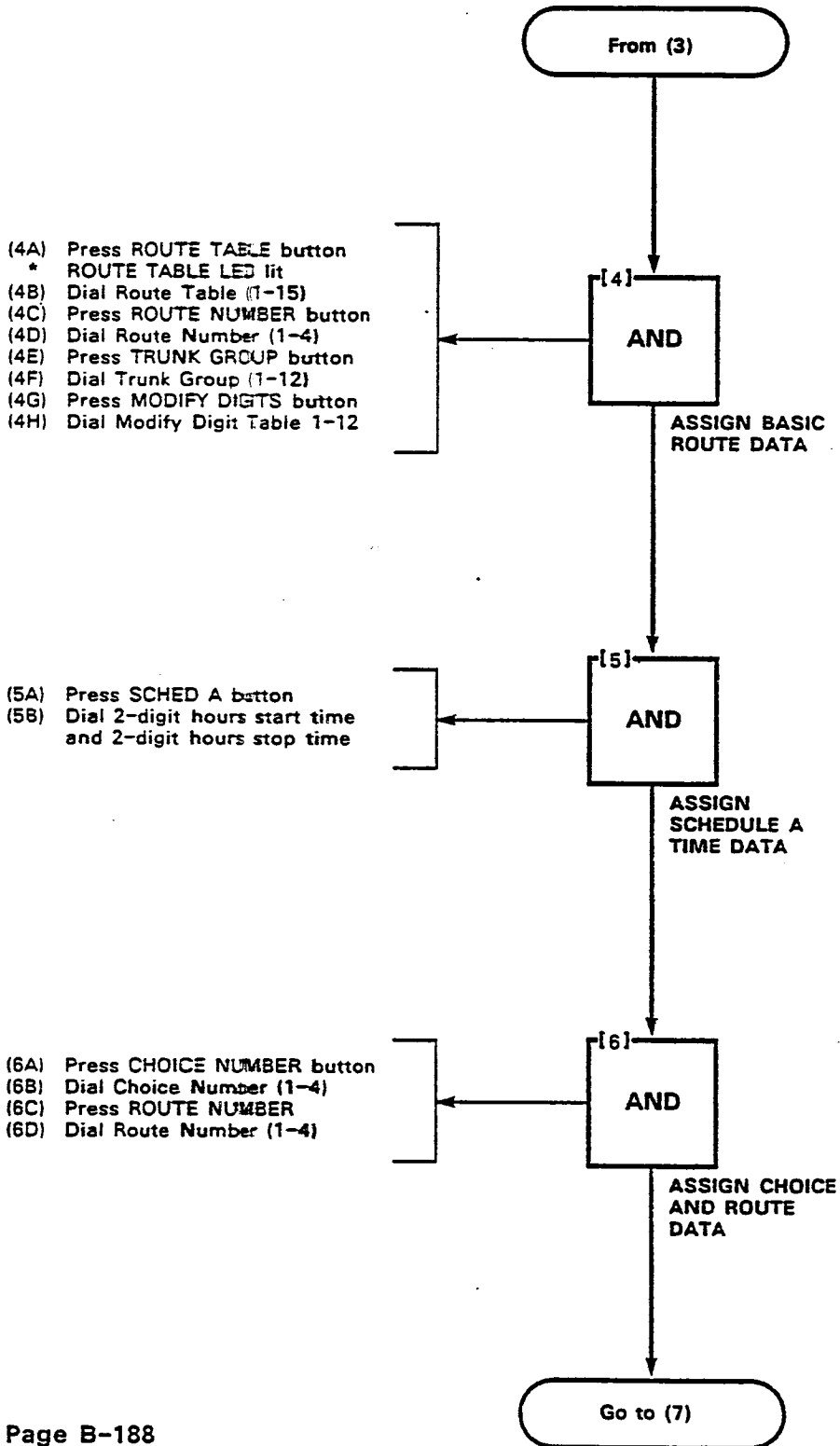
X5845

ROUTE TABLE PROGRAMMING
MAP210- 258
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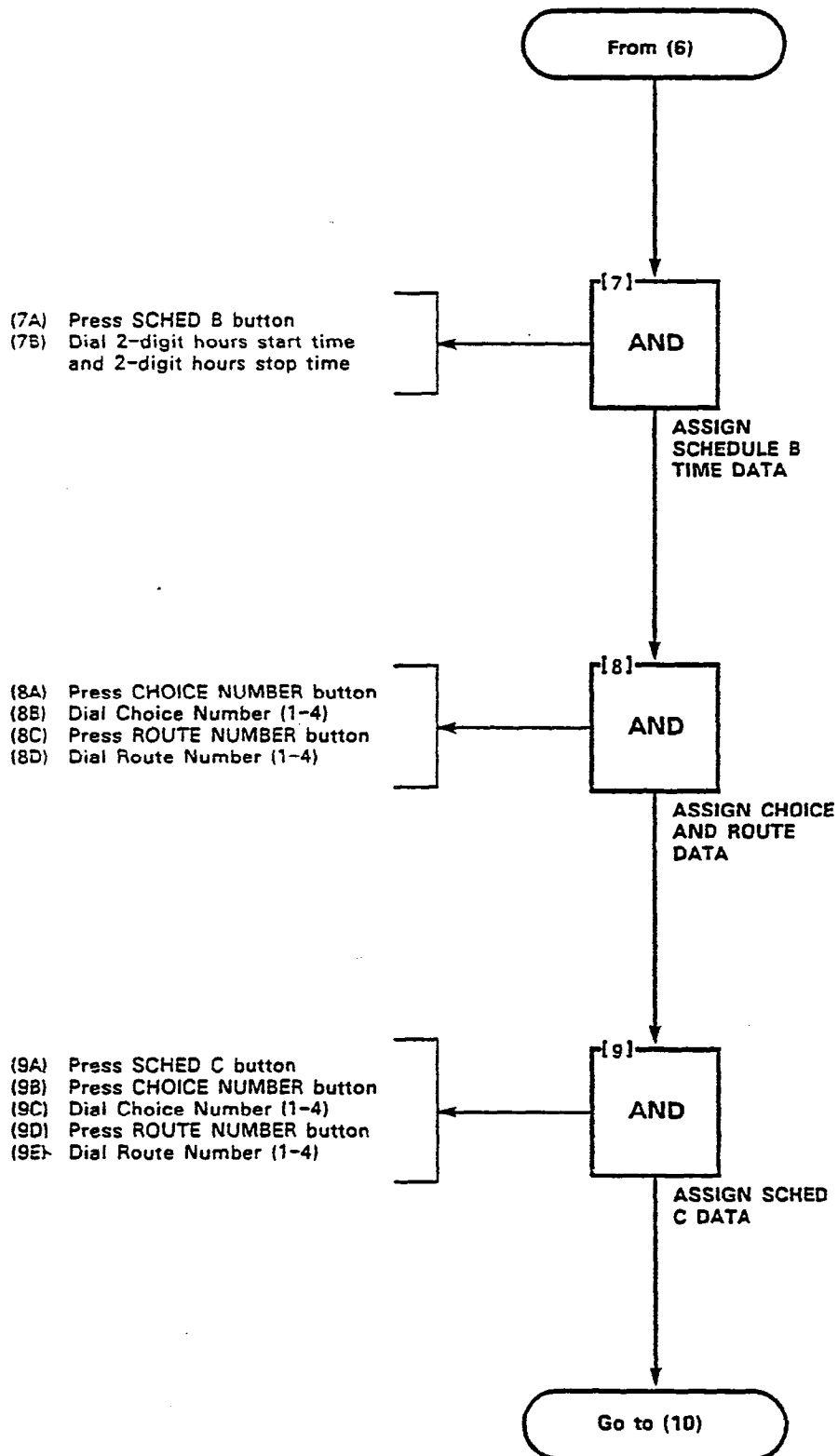
NOTE
For an example of the programming form, refer to Figure 258-1.



ROUTE TABLE PROGRAMMING
MAP210- 258
Issue 3, May 1984
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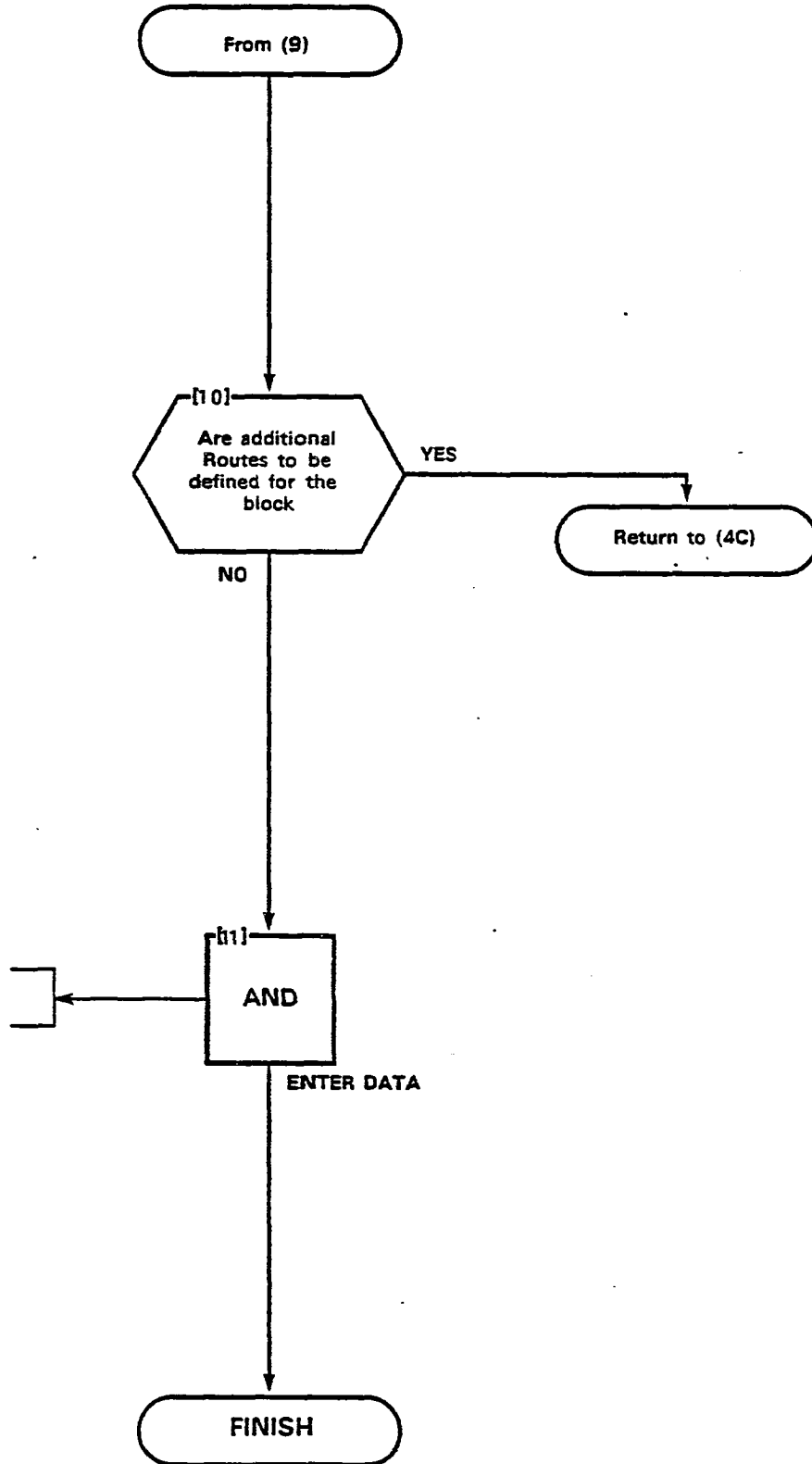


ROUTE TABLE PROGRAMMING
MAP210-258
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ROUTE TABLE PROGRAMMING
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(11A) Press ENTER button

AREA CODE TABLE PROGRAMMING FORM ARS - 3

PRESS

PRESS	PRESS	PRESS
AREA CODE	ROUTE TABLE	ENTER
DIAL 3 DIGITS	DIAL 1-15 OR DELETE	NOTE 2

AREA CODE	ROUTE TABLE	ENTER
DIAL 3 DIGITS	DIAL 1-15 OR DELETE	NOTE 2

AREA CODE	ROUTE TABLE	ENTER
DIAL 3 DIGITS	DIAL 1-15 OR DELETE	NOTE 2

1. TO VIEW AN ENTRY

PRESS

TO REASSIGN ROUTE TABLE NUMBERS

PRESS

- NOTE:
1. ROUTE TABLE 15 IS THE UNIVERSAL ROUTING TABLE I.E. AREA CODE DIGITS NOT ENTERED ARE AUTOMATICALLY IN ROUTE TABLE 15.
 2. ENTER BUTTON MAY BE PRESSED AFTER ROUTE TABLE ENTRY OR AFTER ALL ROUTE ENTRIES

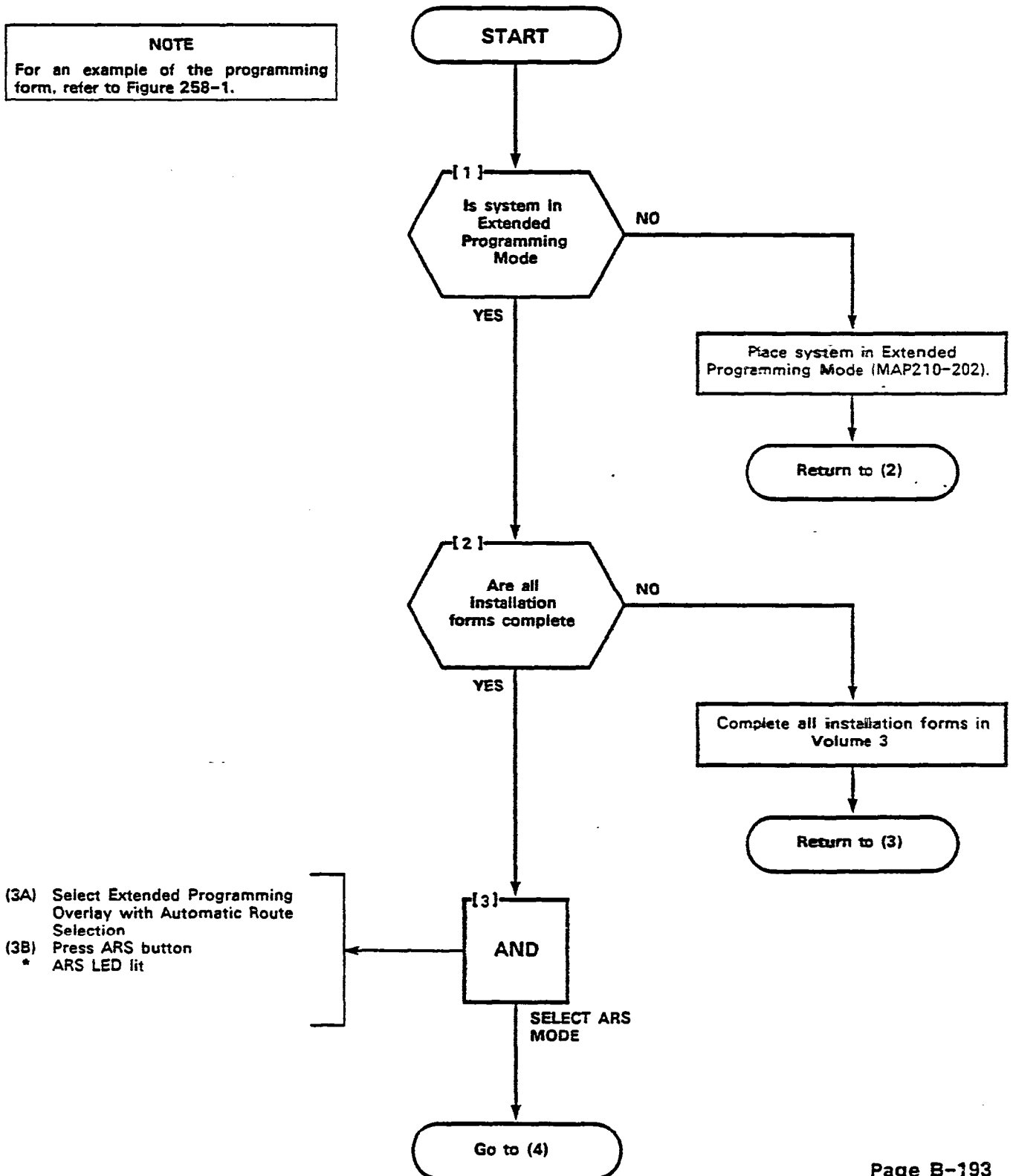


Figure 258-1

(This page intentionally left blank)

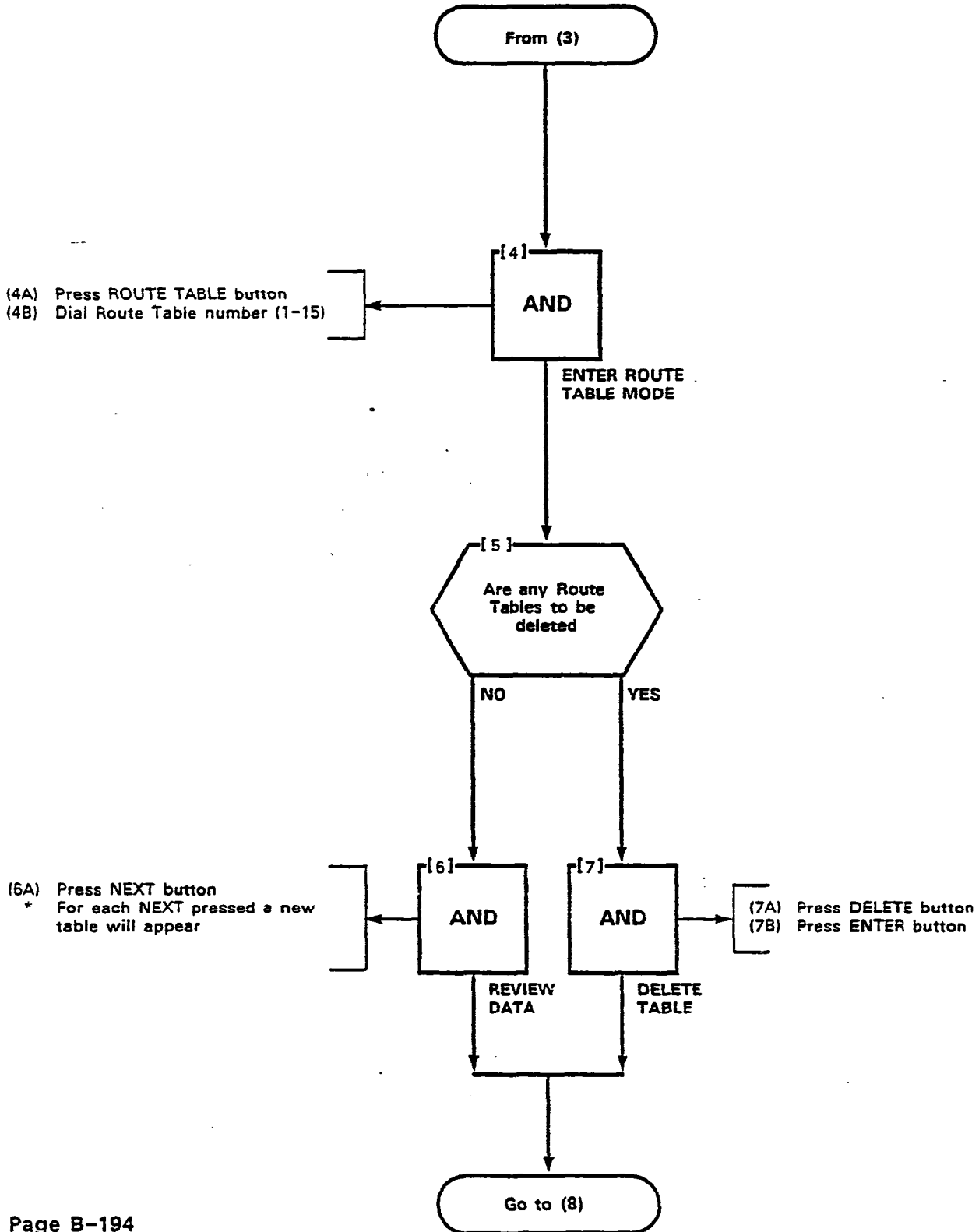
TO REVIEW OR DELETE A ROUTE TABLE
MAP210-259
Issue 3, May 1984
Sheet 1 of 3

NOTE
For an example of the programming form, refer to Figure 258-1.

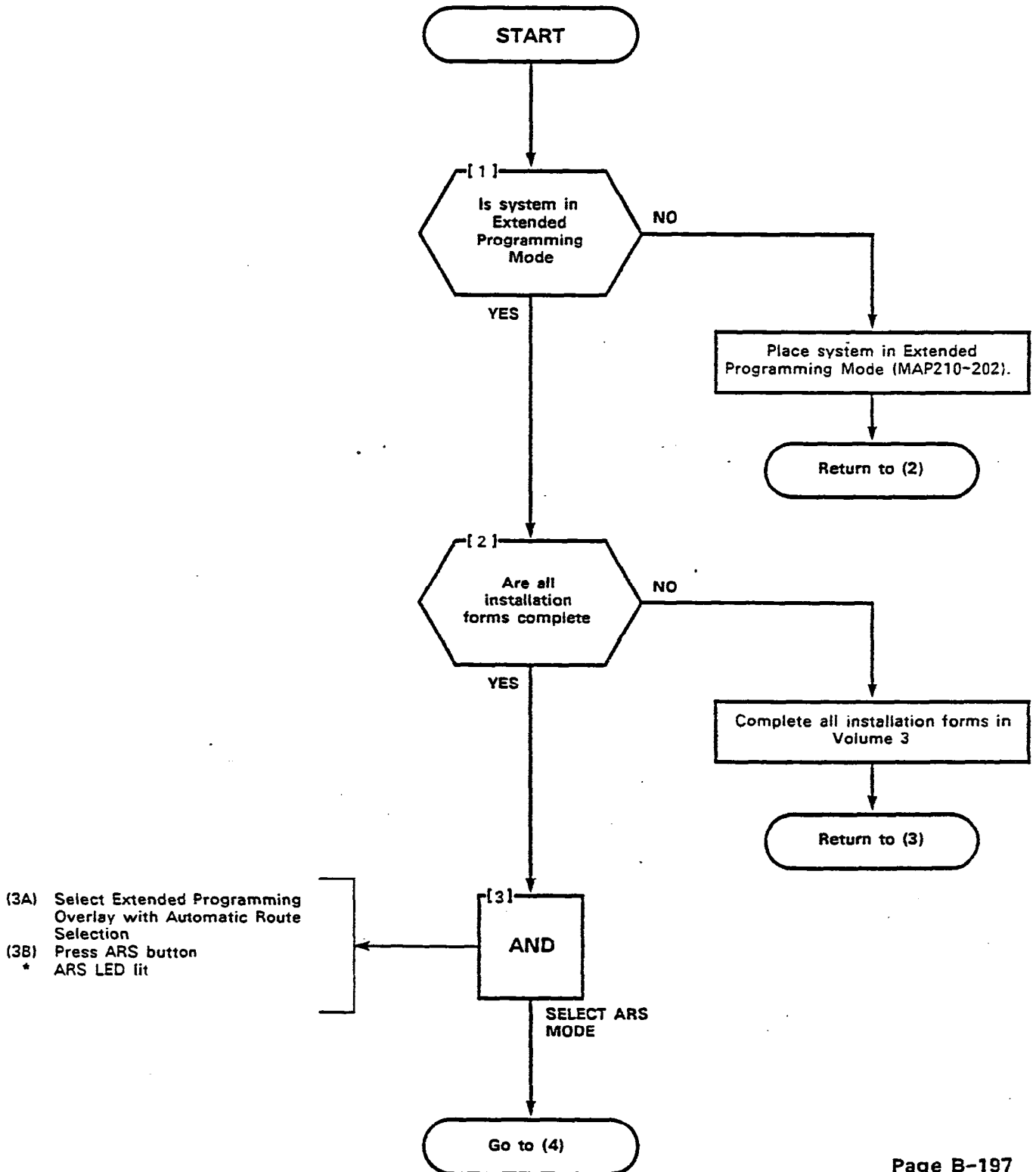


SECTION MITL9105/9110-096-210-NA

TO REVIEW OR DELETE A ROUTE TABLE
MAP210- 259
Issue 3, May 1984
Sheet 2 of 3

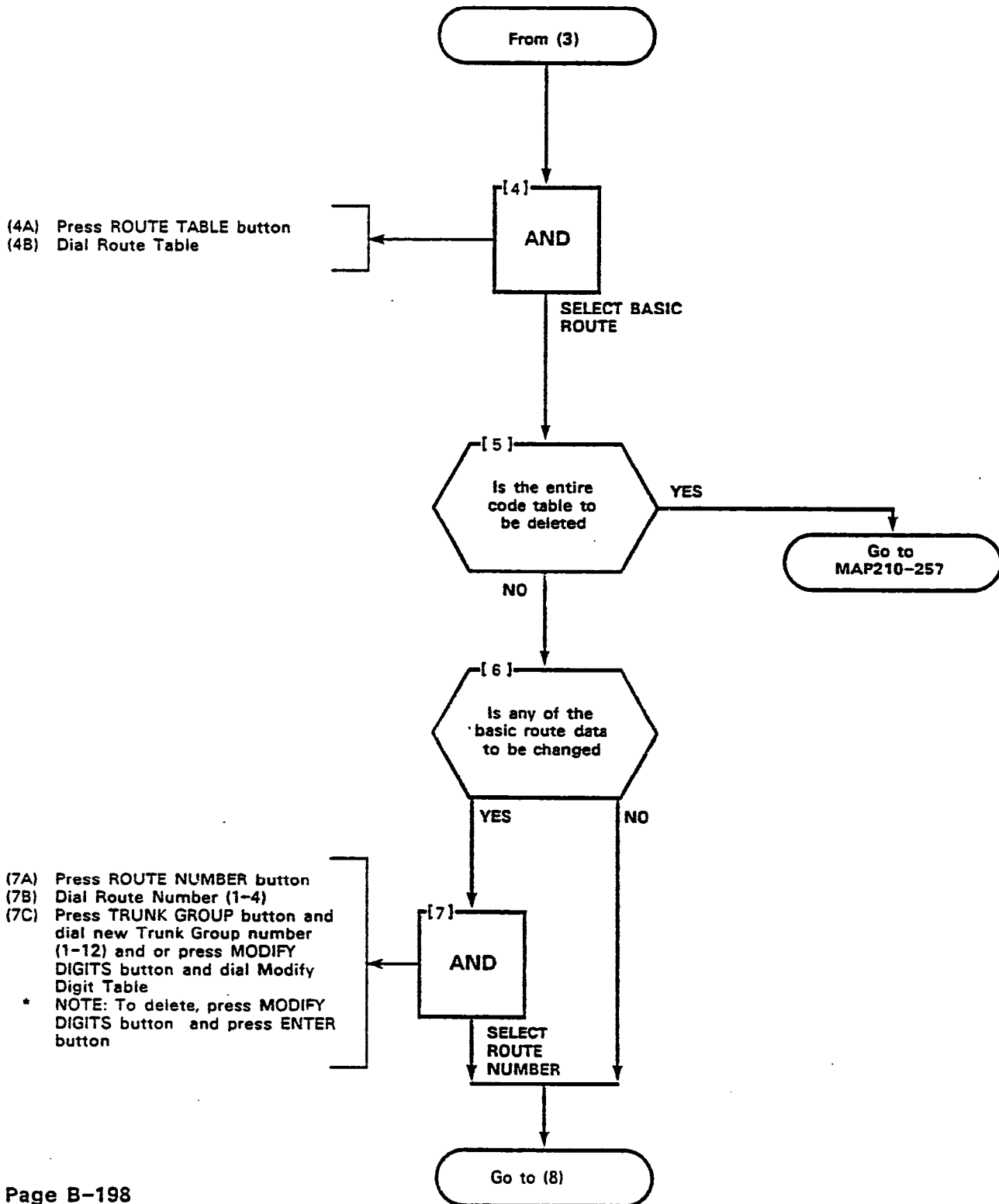


REVIEW OR DELETE ROUTES
MAP210-260
Issue 3, May 1984
Sheet 1 of 3

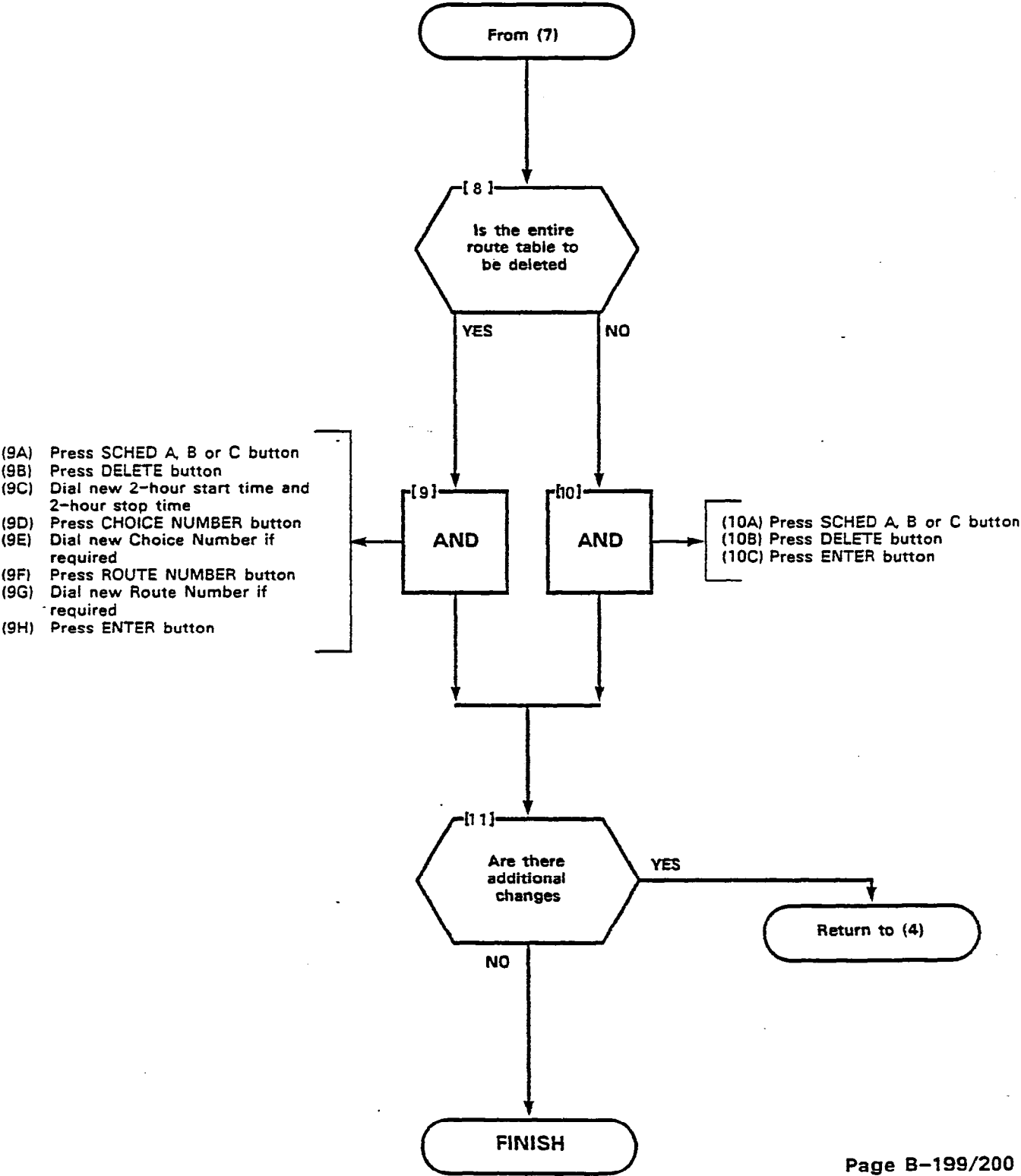


SECTION MITL9105/9110-096-210-NA

REVIEW OR DELETE ROUTES
MAP210- 260
Issue 3, May 1984
Sheet 2 of 3

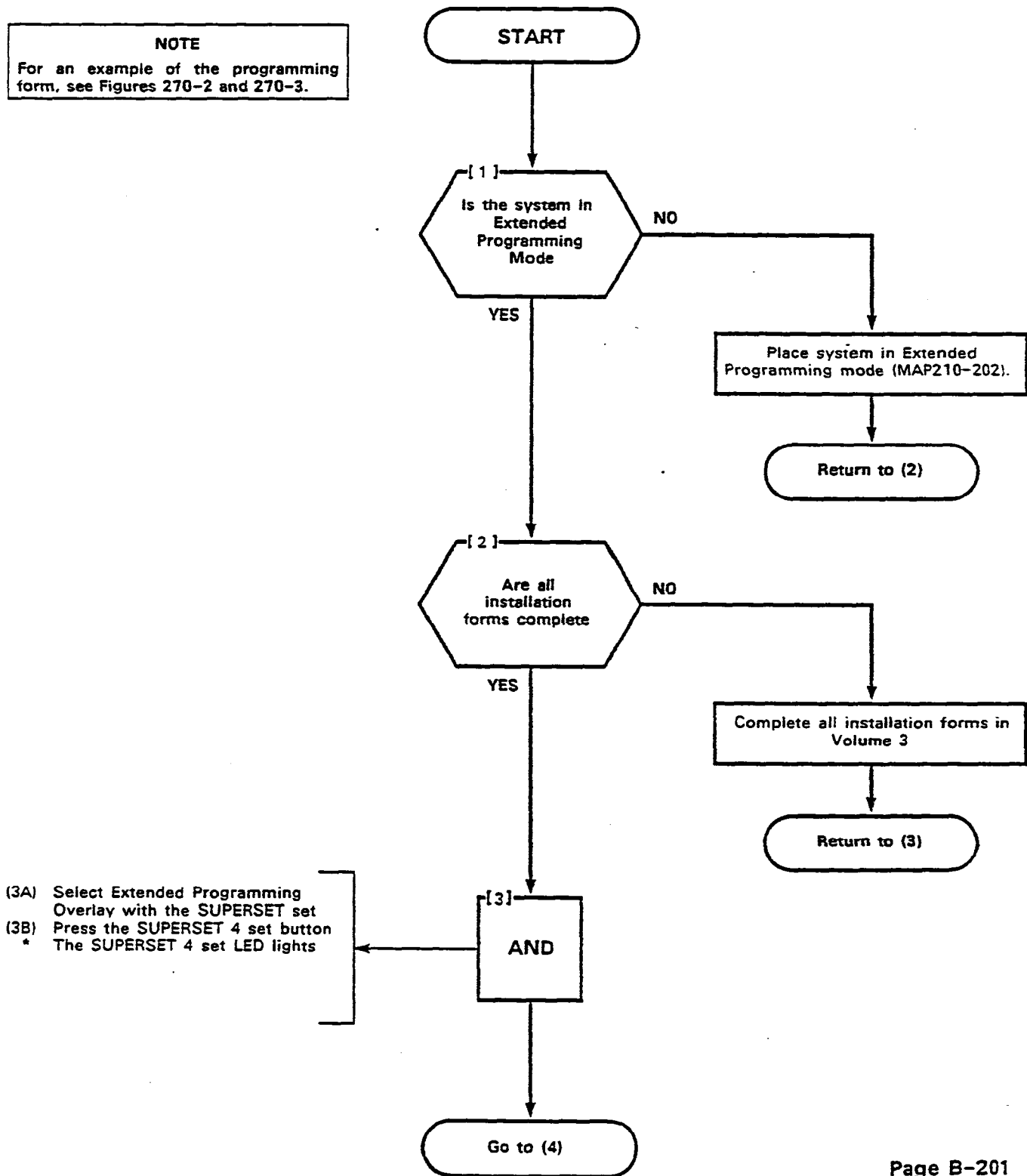


REVIEW OR DELETE ROUTES
MAP210-260
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PROGRAM A PRIME KEY
MAP210- 270
Issue 3, May 1984
Sheet 1 of 10

NOTE
For an example of the programming form, see Figures 270-2 and 270-3.



SECTION MITL9105/9110-096-210-NA

PROGRAM A PRIME KEY
MAP210- 270
Issue 3, May 1984
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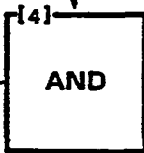
WARNING
 0 OR 1 TOLL CONTROL CANNOT BE ENABLED WITH MULTI-DIGIT TOLL CONTROL

- (4A) Press SET EQPT NUMBER button
 - * SET EQPT NUMBER lit
 - * Dial the SUPERSET equipment number
- (4B) Press PRIME KEY

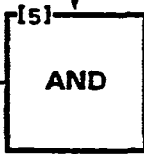
- (5A) Press LISTED NUMBER button
 - * LISTED NUMBER LED lit
 - * Dial 1- to 4-digit directory number

- (6A) Press COS NUMBER button
 - * COS NUMBER LED lit (Figure 270-1)
 - * Dial COS number (1-16) (Figure 270-1)

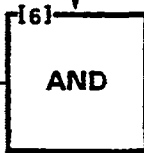
From (3)



ENTER EQUIPMENT NUMBER



ENTER LISTED NUMBER (FIGURE 270-1)



ENTER COS (FIGURE 270-1)

Go to (7)

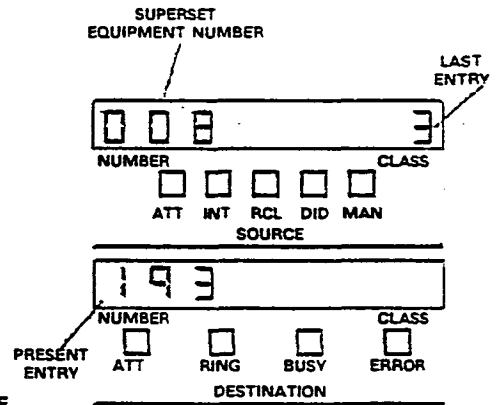


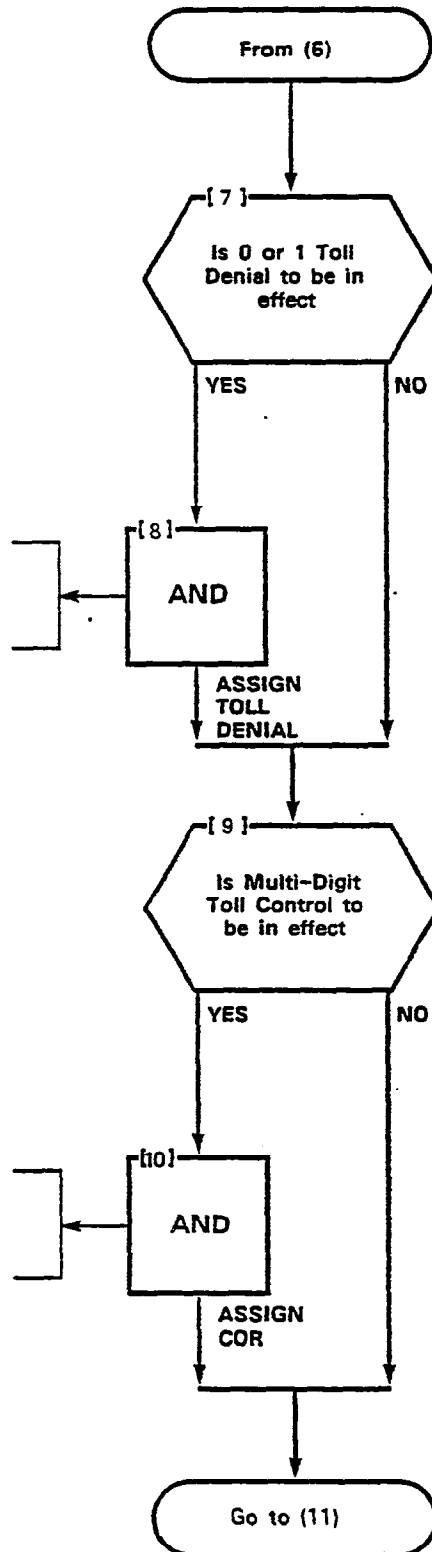
Figure 270-1

X6043

PROGRAM A PRIME KEY
MAP210-270
Issue 3, May 1984
Sheet 3 of 10

(8A) Press TOLL DENY button
 * TOLL DENY LED lit
 * Press ADD button

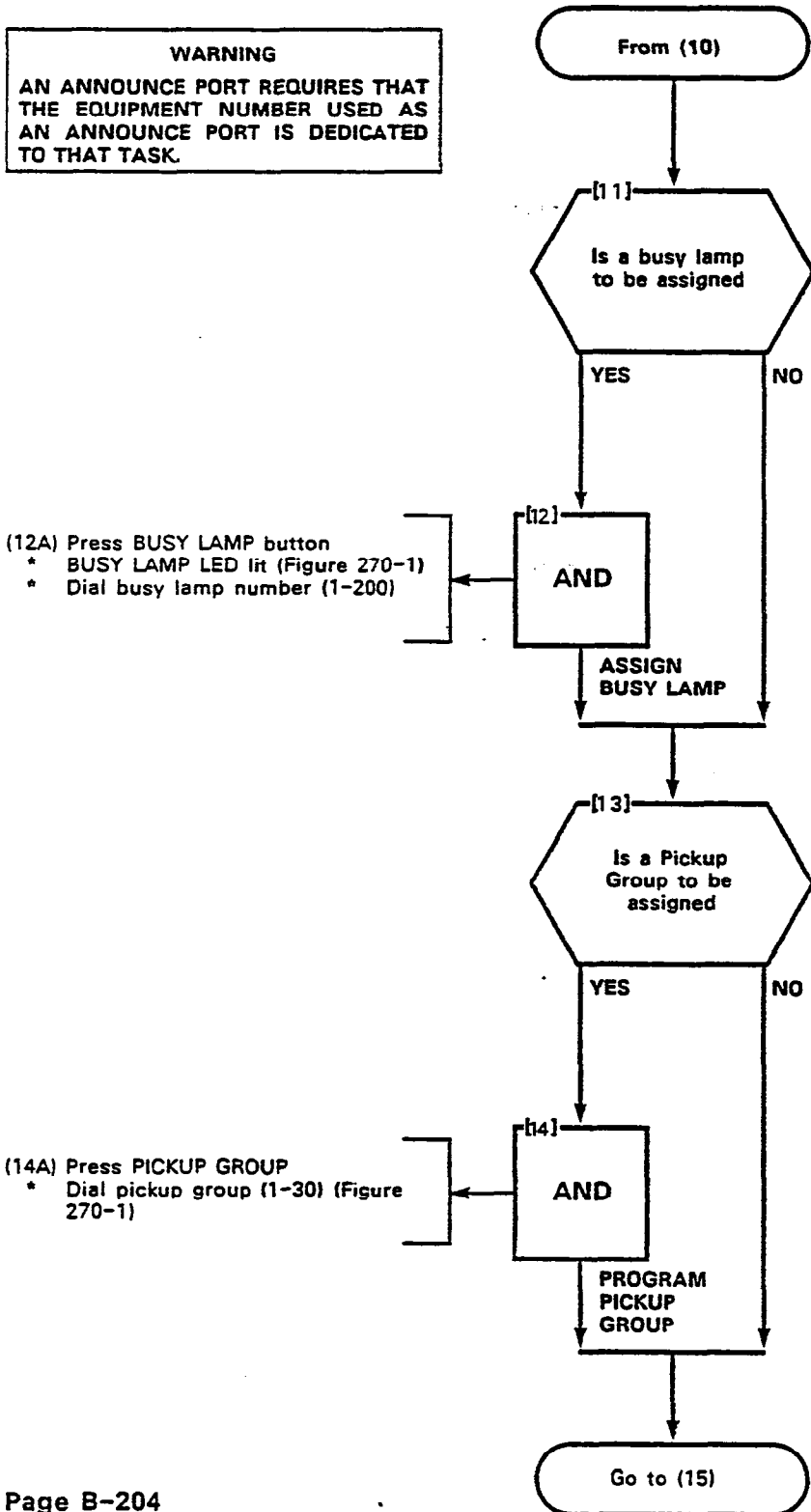
(10A) Press TOLL DENY button
 * TOLL DENY LED lit
 * Dial COR 1, 2 or 3



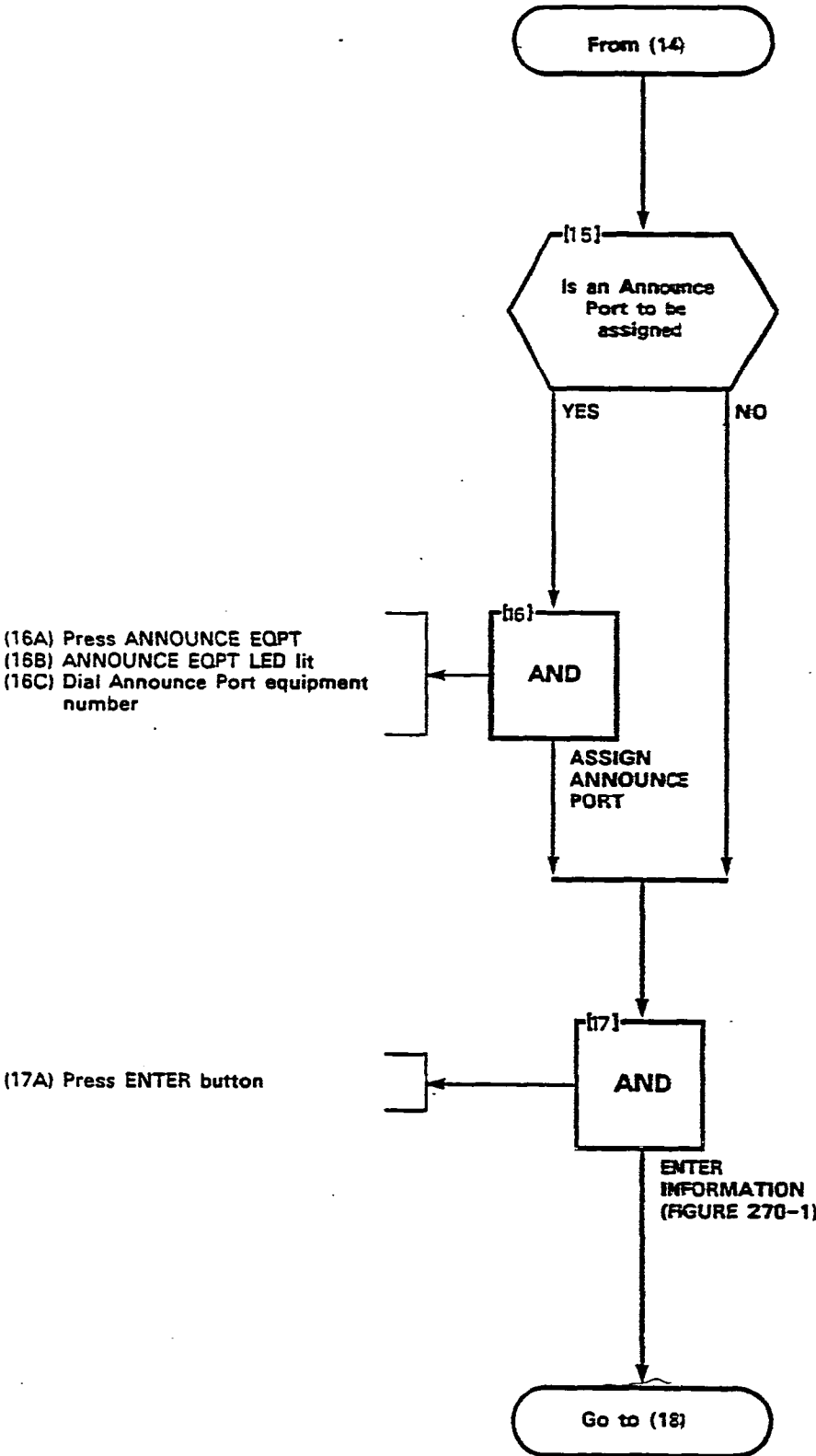
SECTION MITL9105/9110-096-210-NA

PROGRAM A PRIME KEY
MAP210- 270
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WARNING
AN ANNOUNCE PORT REQUIRES THAT THE EQUIPMENT NUMBER USED AS AN ANNOUNCE PORT IS DEDICATED TO THAT TASK.



PROGRAM A PRIME KEY
MAP210-270
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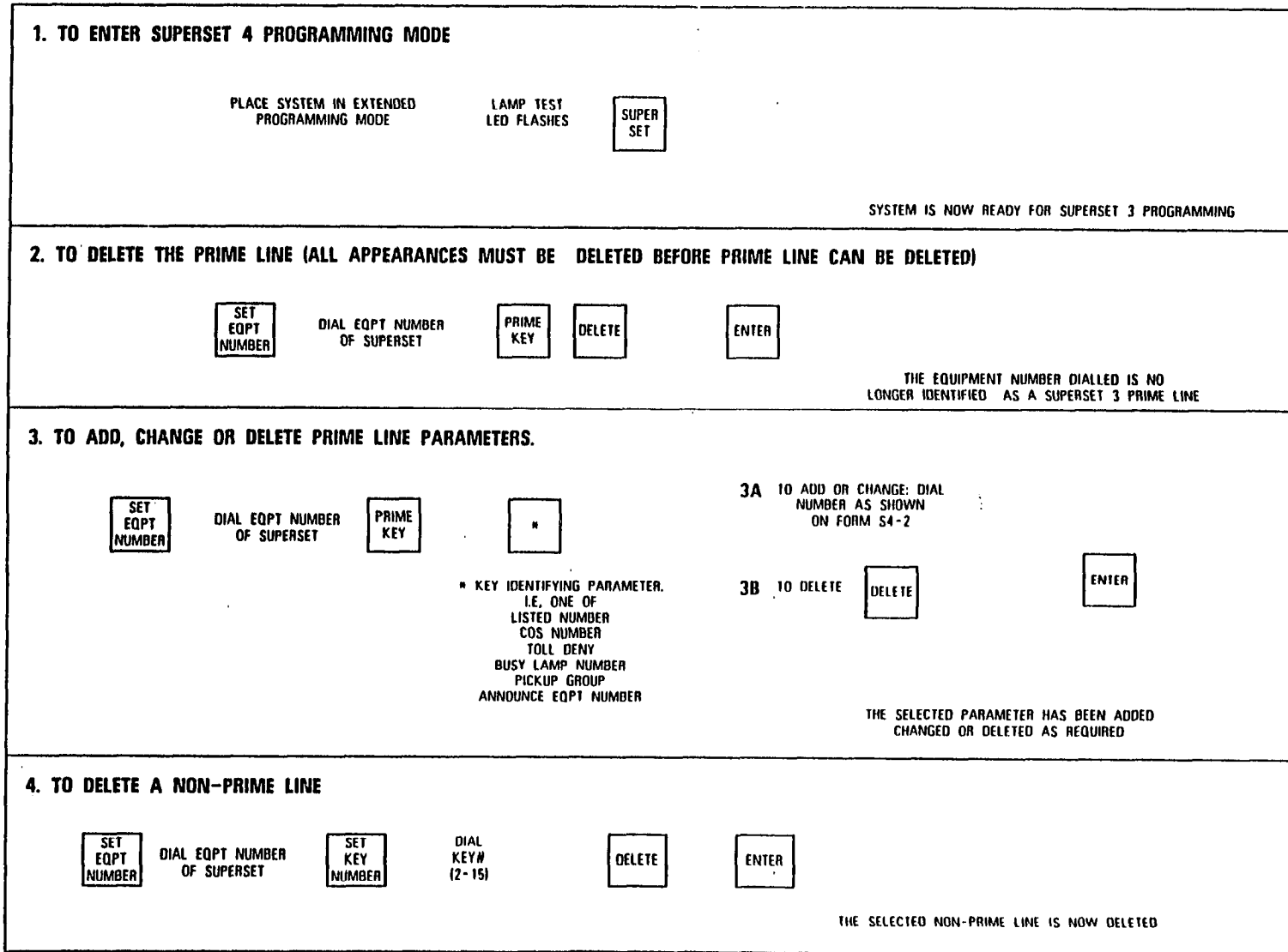


SUPERSET 4 PROGRAMMING S4-1

SHEET 1 OF 2

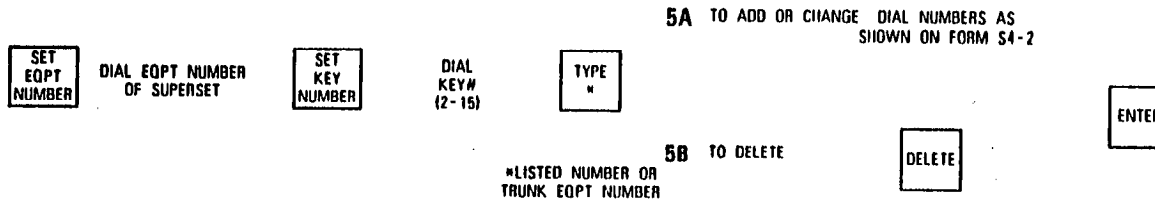


Figure 270-2

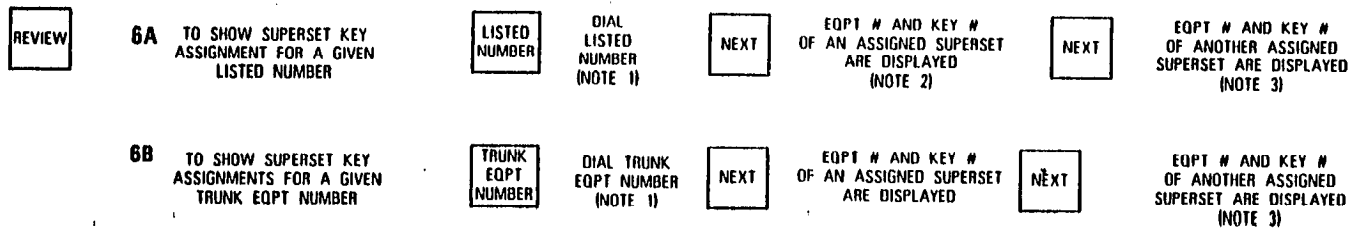




5. TO ADD, CHANGE OR DELETE NON-PRIME LINE DATA



6. TO REVIEW PREVIOUSLY ENTERED DATA



NOTE 1:- DIALING AN INVALID LISTED NUMBER OR TRUNK EQPT NUMBER WILL RESULT IN AN ERROR CODE DISPLAY

NOTE 2:- IF A LISTED NUMBER IS ASSIGNED TO THE PRIME KEY OF THE SUPERSET 4 THE PRIME KEY DATA IS ALWAYS THE FIRST TO BE DISPLAYED

NOTE 3:- NON-PRIME LINE ASSIGNMENT OF A LISTED NUMBER OR TRUNK EQPT NUMBER ARE SHOWN IN NO PRESCRIBED ORDER. WHEN ALL DATA HAS BEEN DISPLAYED THE 'NEXT' KEY IS INEFFECTIVE

7. TO TRANSFER SUPERSET 4 DATA TO ANOTHER EQUIPMENT NUMBER



NOTE 1:- DIRECTORY NUMBER IS DISPLAYED AT RIGHT OF SOURCE FOR VERIFICATION. EXISTING EQPT NUMBER IS DISPLAYED AT LEFT OF SOURCE.

NOTE 2:- NEW EQPT NUMBER IS DISPLAYED AT LEFT OF DESTINATION DISPLAY

NOTE 3:- EXISTING EQPT NUMBER IS REPLACED AT LEFT OF SOURCE DISPLAY BY NEW EQPT NUMBER

SUPERSET 4 PROGRAMMING S4 - 2

(SEE FORM S4-1 FOR PROGRAMMING PROCEDURES)



SET EQPT NUMBER
 DIAL EQPT NUMBER OF SUPERSET _____
 9-112
 OR
 181-256

1. PRIME KEY DEFINITION

<input type="checkbox"/> PRIME KEY	<input type="checkbox"/> LISTED NUMBER DIAL 1-4 DIGIT DIRECTORY NUMBER	<input type="checkbox"/> COS NUMBER DIAL 1-16	<input type="checkbox"/> TOLL DENY PRESS OR OR COR 1,2,3	<input type="checkbox"/> ADD OR <input type="checkbox"/> DELETE	<input type="checkbox"/> BUSY LAMP DIAL 1-200 OR <input type="checkbox"/> DELETE	<input type="checkbox"/> PICKUP GROUP DIAL 1-30 OR <input type="checkbox"/> DELETE	<input type="checkbox"/> ANNOUNCE EQPT # DIAL 2-256 OR <input type="checkbox"/> DELETE	<input type="checkbox"/> ENTER
------------------------------------	---	--	---	---	---	---	---	--------------------------------

2. NON - PRIME KEY DEFINITION

NOTE 1 <input type="checkbox"/> SET KEY NUMBER DIAL 2-15	TYPE	DIAL KEY TYPE (1,3, OR 4 DIGITS DEPENDING ON TYPE) OR DELETE (NOTE 2)	LISTED NUMBER DIAL 1-4 DIGIT DIRECTORY NUMBER	TRUNK EQPT NUMBER DIAL 10-256 FOR OTS TYPE (NOTE 3)		NOTES																																																
2						<p>NOTES</p> <p>1. UNDEFINED KEYS DEFAULT TO SPEED CALL</p> <p>2. USE LISTINGS BELOW TO PRODUCE THE ONE, THREE, OR FOUR DIGIT KEY TYPE CODES</p> <p>A LINE TYPE FIRST DIGIT</p> <table style="border: none;"> <tr> <td>PRIME LINE</td> <td>1</td> <td rowspan="2">} NO VARIANTS</td> </tr> <tr> <td>PERSONAL O/G LINE</td> <td>6</td> </tr> <tr> <td>MULTIPLE CALL</td> <td>3</td> <td rowspan="2">} SPECIFY VARIANTS (B,C,D, BELOW)</td> </tr> <tr> <td>DIRECT TRUNK SELECT</td> <td>4</td> </tr> <tr> <td>PRIVATE LINE</td> <td>5</td> <td rowspan="2">} SPECIFY VARIANTS (B,C BELOW)</td> </tr> <tr> <td>KEY LINE</td> <td>2</td> </tr> <tr> <td colspan="2">B DIRECTION VARIANT SECOND DIGIT</td> <td></td> </tr> <tr> <td>BOTH WAY</td> <td>1</td> <td></td> </tr> <tr> <td>INCOMING ONLY</td> <td>2</td> <td></td> </tr> <tr> <td>OUTGOING ONLY</td> <td>3</td> <td></td> </tr> <tr> <td colspan="2">C RING VARIANT THIRD DIGIT</td> <td></td> </tr> <tr> <td>IMMEDIATE RING</td> <td>1</td> <td></td> </tr> <tr> <td>DELAYED RING</td> <td>2</td> <td></td> </tr> <tr> <td>NO RING</td> <td>3</td> <td></td> </tr> <tr> <td colspan="2">D SECRETARIAL VARIANT FOURTH DIGIT</td> <td></td> </tr> <tr> <td>NON - SECRETARIAL</td> <td>1</td> <td></td> </tr> <tr> <td>SECRETARIAL</td> <td>2</td> <td></td> </tr> </table> <p>3. IT IS RECOMMENDED THAT SLOT 1 CONTAIN A LINE CARD, IF SO THE FIRST POSSIBLE TRUNK EQPT. NUMBER IS 010 (SLOT 2)</p>	PRIME LINE	1	} NO VARIANTS	PERSONAL O/G LINE	6	MULTIPLE CALL	3	} SPECIFY VARIANTS (B,C,D, BELOW)	DIRECT TRUNK SELECT	4	PRIVATE LINE	5	} SPECIFY VARIANTS (B,C BELOW)	KEY LINE	2	B DIRECTION VARIANT SECOND DIGIT			BOTH WAY	1		INCOMING ONLY	2		OUTGOING ONLY	3		C RING VARIANT THIRD DIGIT			IMMEDIATE RING	1		DELAYED RING	2		NO RING	3		D SECRETARIAL VARIANT FOURTH DIGIT			NON - SECRETARIAL	1		SECRETARIAL	2	
PRIME LINE	1	} NO VARIANTS																																																				
PERSONAL O/G LINE	6																																																					
MULTIPLE CALL	3	} SPECIFY VARIANTS (B,C,D, BELOW)																																																				
DIRECT TRUNK SELECT	4																																																					
PRIVATE LINE	5	} SPECIFY VARIANTS (B,C BELOW)																																																				
KEY LINE	2																																																					
B DIRECTION VARIANT SECOND DIGIT																																																						
BOTH WAY	1																																																					
INCOMING ONLY	2																																																					
OUTGOING ONLY	3																																																					
C RING VARIANT THIRD DIGIT																																																						
IMMEDIATE RING	1																																																					
DELAYED RING	2																																																					
NO RING	3																																																					
D SECRETARIAL VARIANT FOURTH DIGIT																																																						
NON - SECRETARIAL	1																																																					
SECRETARIAL	2																																																					
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15																																																						

PRESS

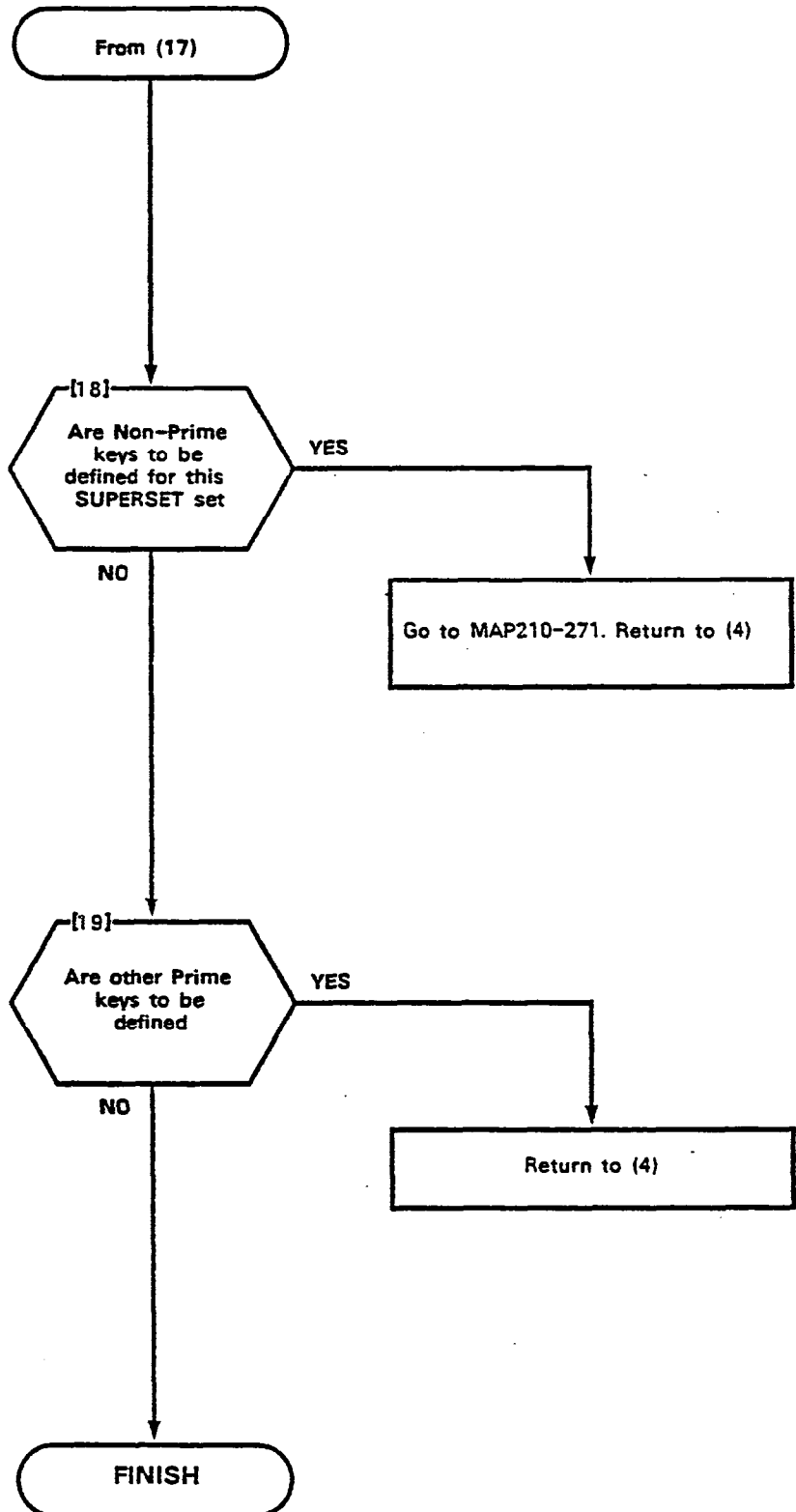
ENTER

AFTER DEFINING EACH KEY

Figure 270-3 (Cont'd)

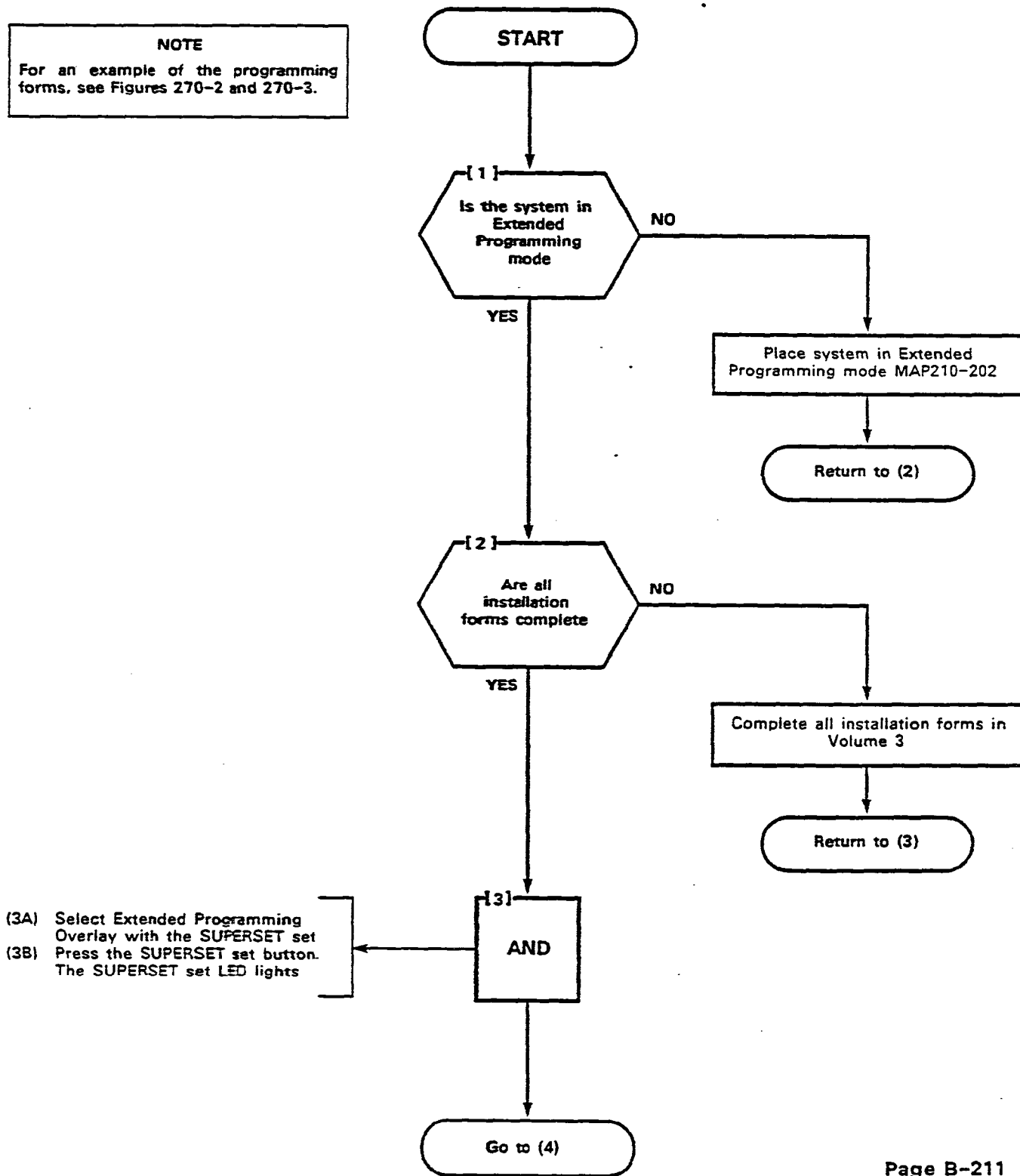
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PROGRAM A PRIME KEY
MAP210- 270
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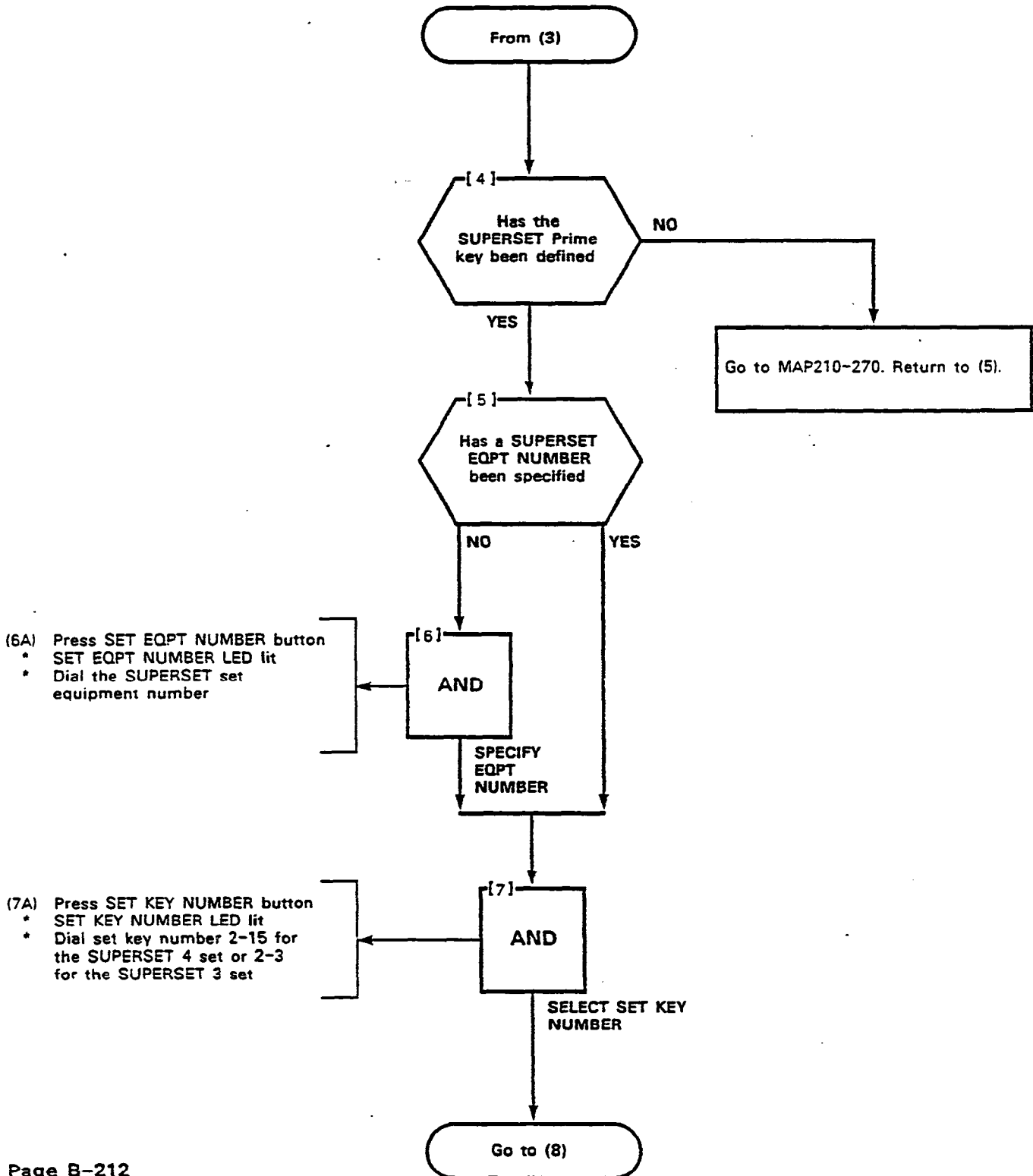
PROGRAM A NON-PRIME KEY
MAP210-271
Issue 3, May 1984
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NOTE
For an example of the programming forms, see Figures 270-2 and 270-3.



SECTION MITL9105/9110-096-210-NA

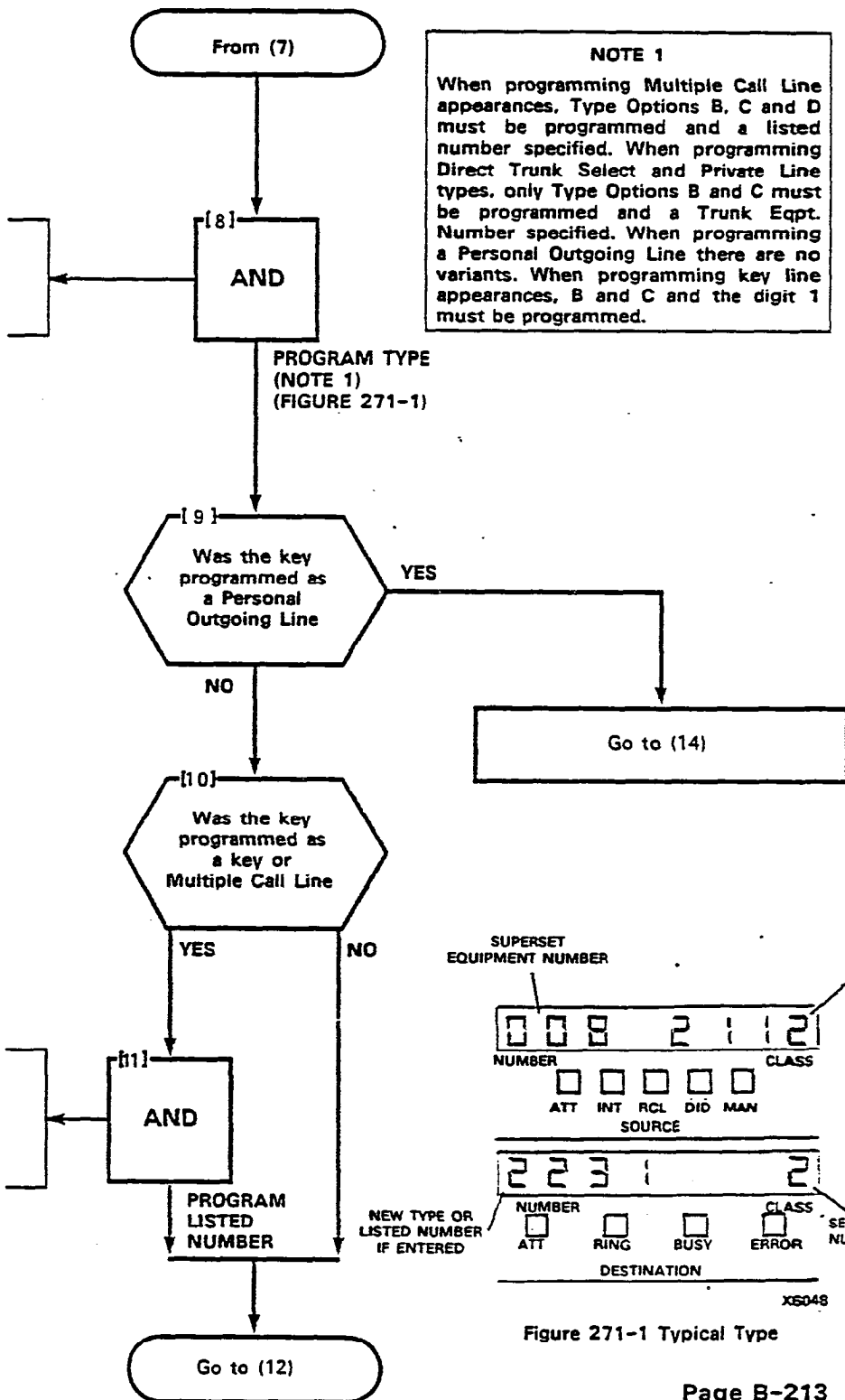
PROGRAM A NON-PRIME KEY
MAP210- 271
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PROGRAM A NON-PRIME KEY
MAP210-271
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NOTE 1
 When programming Multiple Call Line appearances, Type Options B, C and D must be programmed and a listed number specified. When programming Direct Trunk Select and Private Line types, only Type Options B and C must be programmed and a Trunk Eqpt. Number specified. When programming a Personal Outgoing Line there are no variants. When programming key line appearances, B and C and the digit 1 must be programmed.

(8A) Press TYPE button
 * TYPE LED lit
 * Dial type (Note 1) (Figure 271-1) (Table 271-1) (Note 2)



(11A) Press LISTED NUMBER button
 * LISTED NUMBER LED lit
 * Dial 1- to 4-digit directory number (Figure 271-1)
 (11B) Press ENTER button

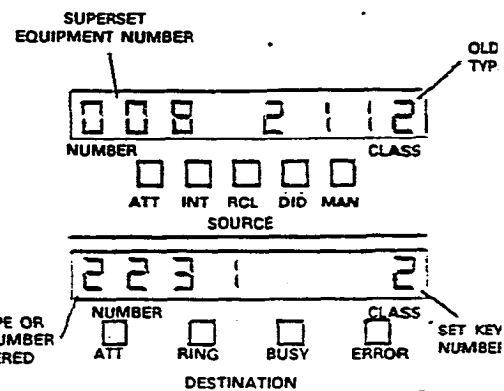


Figure 271-1 Typical Type

SECTION MITL9105/9110-096-210-NA

PROGRAM A NON-PRIME KEY
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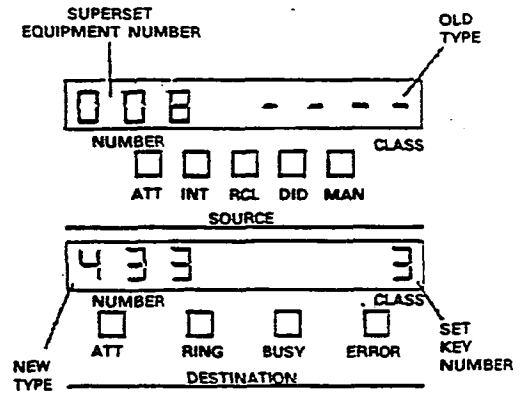
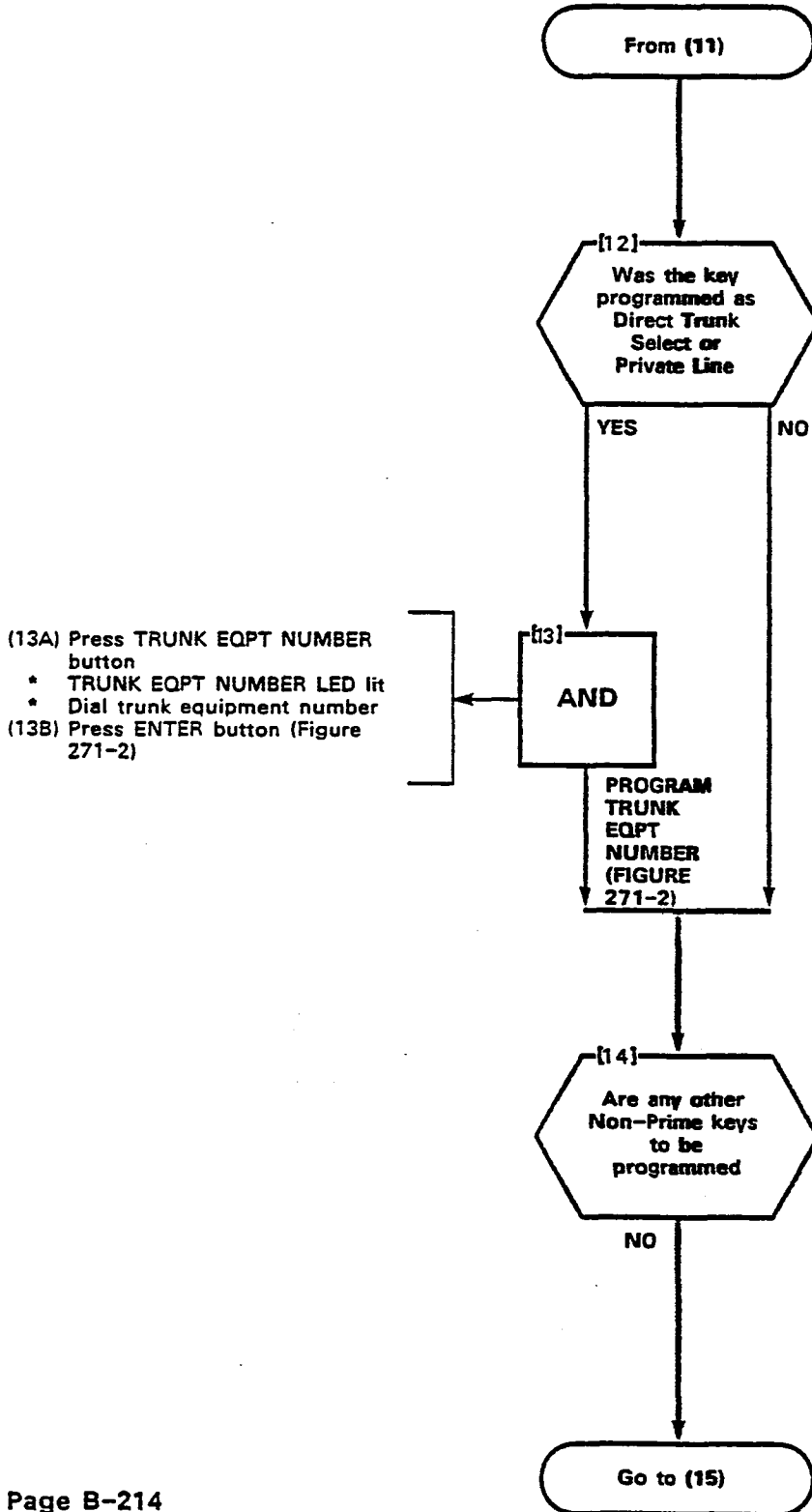


Figure 271-2
Typical Entry

X6049

PROGRAM A NON-PRIME KEY
MAP210-271
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NOTE 2

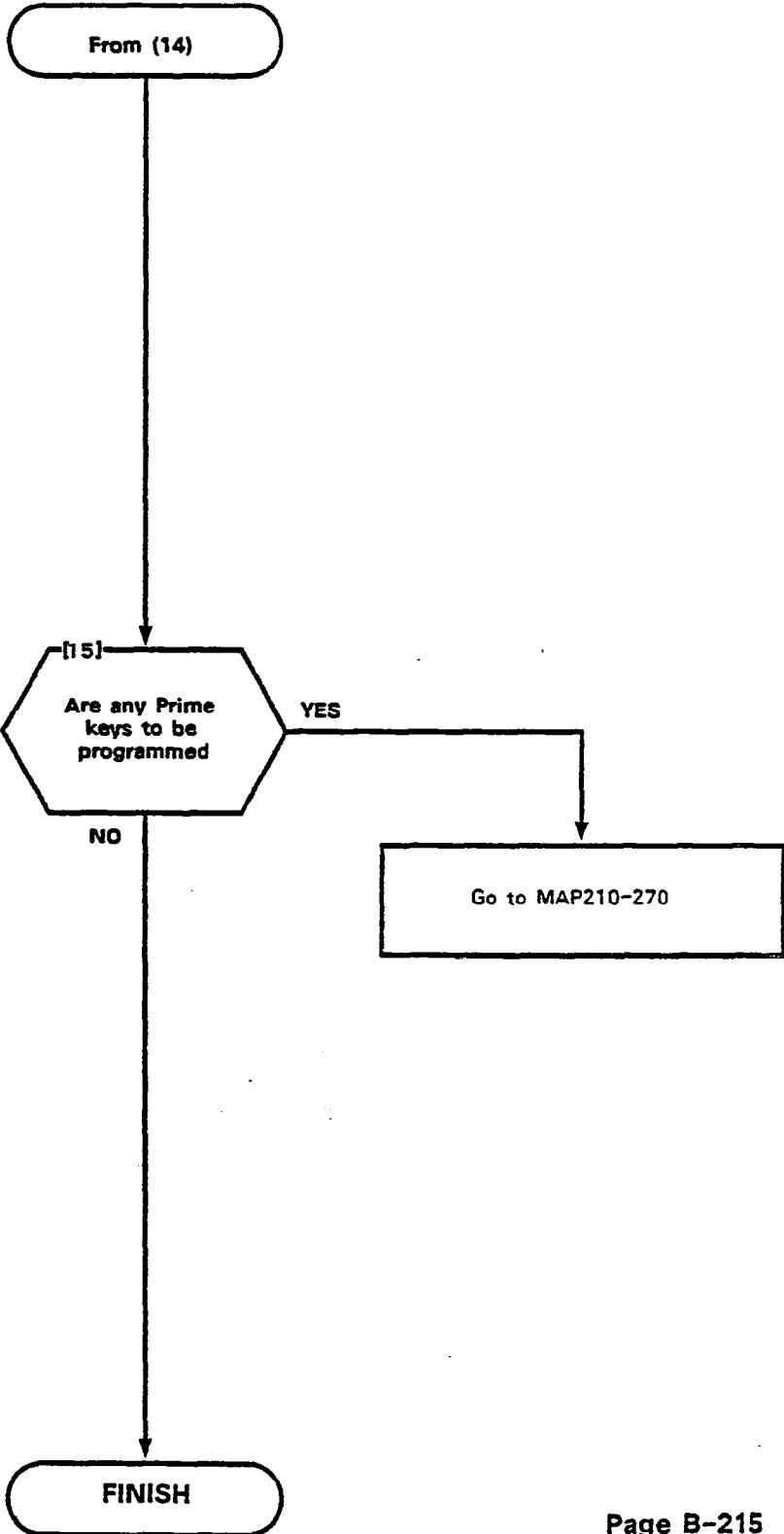
(a) **KEY LINE:** Key Lines are "appearances" of a listed number in the system. The listed number may be that of a prime line or may only exist on the particular key. When one set seizes the line, all other appearances of that listed number are busy.

(b) **MULTIPLE CALL:** MULTIPLE CALL keys are also appearances of a listed number in the system. They are different from key line appearances in that while one appearance of the listed number may be busy, other appearances of that listed number will be idle.

(c) **DIRECT TRUNK SELECT:** The DIRECT TRUNK SELECT key is used to represent specified trunks. Each DTS key is assigned a trunk equipment number. DIRECT TRUNK SELECT keys may share the same trunk equipment number. When a shared DTS trunk is in use by one user in the system, all other DTS keys assigned to that trunk are busy.

(d) **PRIVATE LINE:** A Private Line is similar to a DTS line except that a Transfer/Conference cannot be performed.

(e) **PERSONAL OUTGOING LINE:** A Personal Outgoing Line is similar to a Multiple Call appearance of a prime key on a SUPERSET set. It is considered to be an appearance of the set's prime line. Having this key guarantees that there is always at least one free line on the set (for an outgoing call) should all other lines be busy.



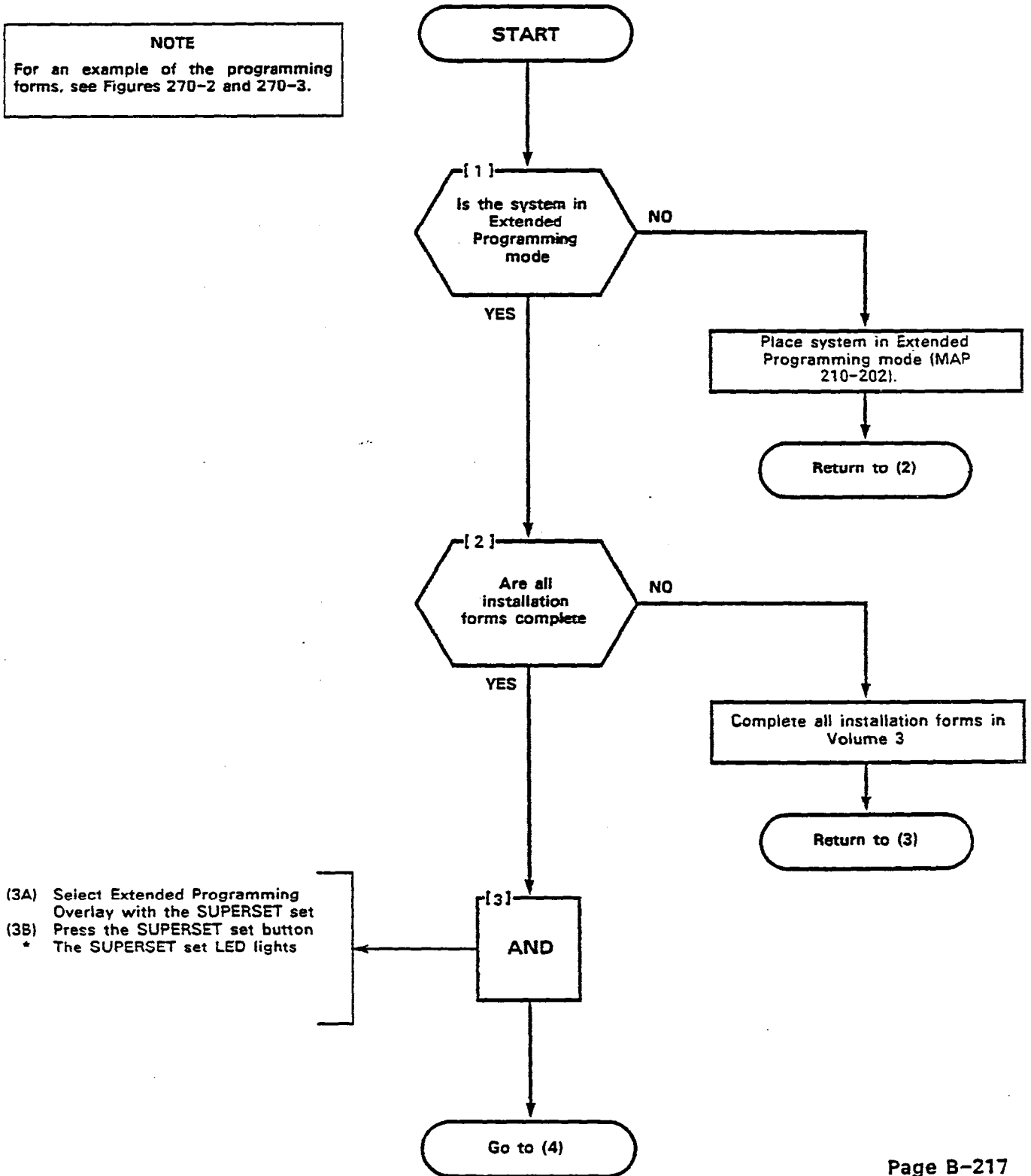
PROGRAM A NON-PRIME KEY
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TABLE 271-1
TYPE OPTIONS

A TYPE (major)
<ul style="list-style-type: none"> ● *1st digit: represents the line type for the key. <p>1 = PRIME KEY 2 = KEY LINE 3 = MULTIPLE CALL 4 = DIRECT TRUNK SELECT 5 = PRIVATE LINE 6 = PERSONAL OUTGOING LINE</p>
B TYPE
<ul style="list-style-type: none"> ● *2nd digit: represents the Direction Variant. <p>1 = BOTH WAY 2 = INCOMING ONLY 3 = OUTGOING ONLY</p>
C TYPE
<ul style="list-style-type: none"> ● *3rd digit: represents the Ring Variant. <p>1 = IMMEDIATE RING 2 = DELAYED RINGING 3 = NO RING</p>
D TYPE
<ul style="list-style-type: none"> ● *4th digit: represents the Secretarial Variant. <p>1 = NON-SECRETARIAL 2 = SECRETARIAL</p>

DELETE A NON-PRIME KEY
MAP210-272
Issue 3, May 1984
Sheet 1 of 3

NOTE
For an example of the programming forms, see Figures 270-2 and 270-3.



DELETE A NON-PRIME KEY
MAP210- 272
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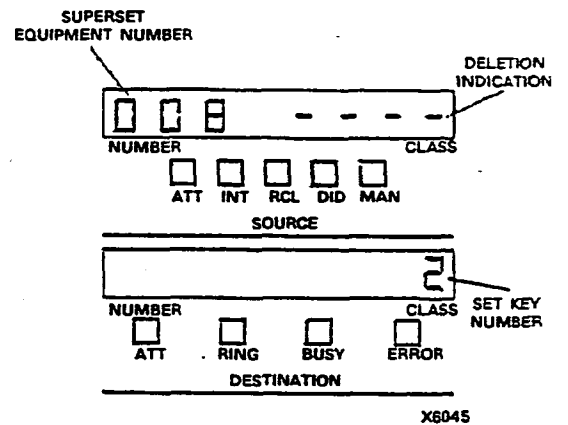
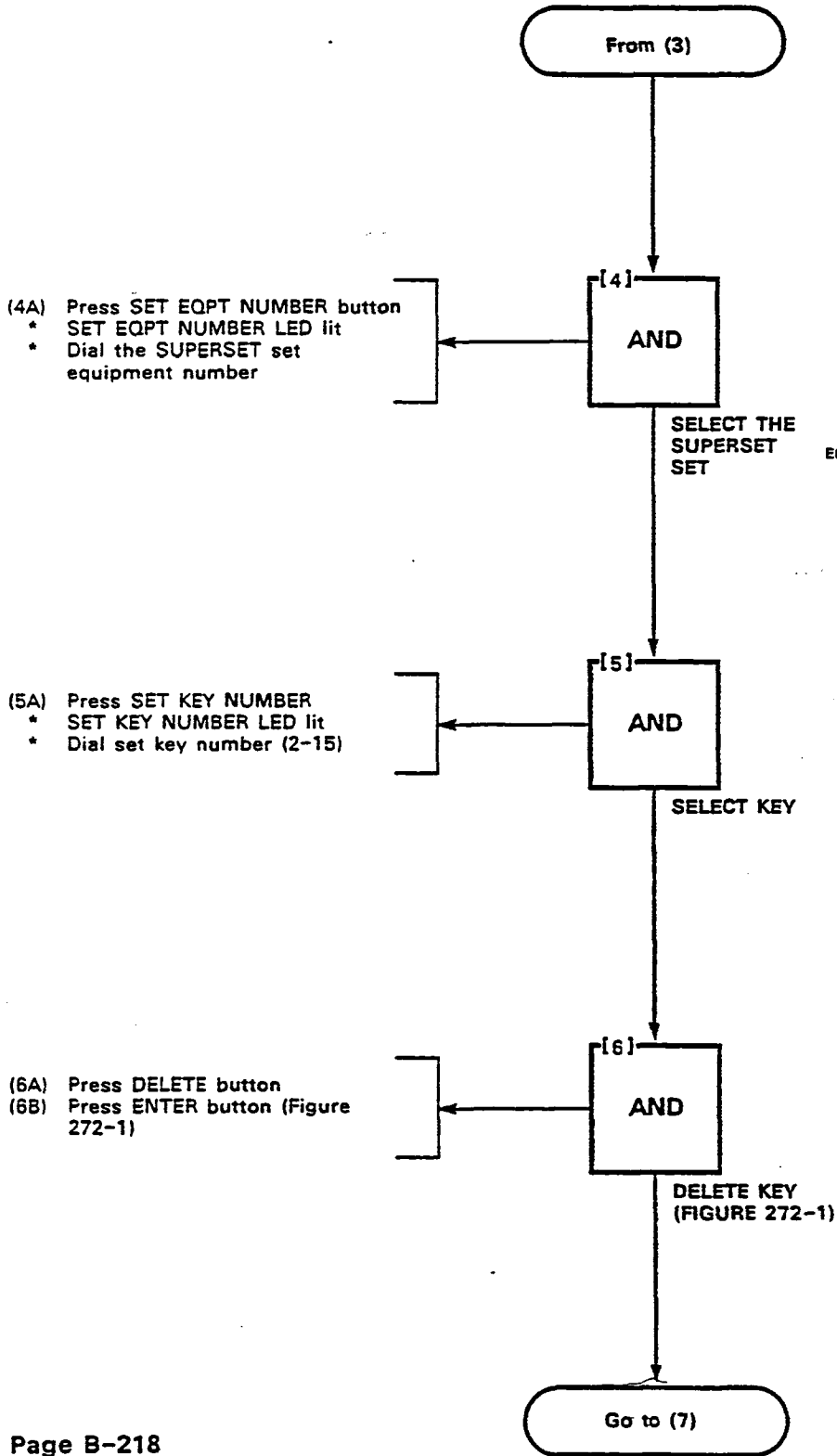
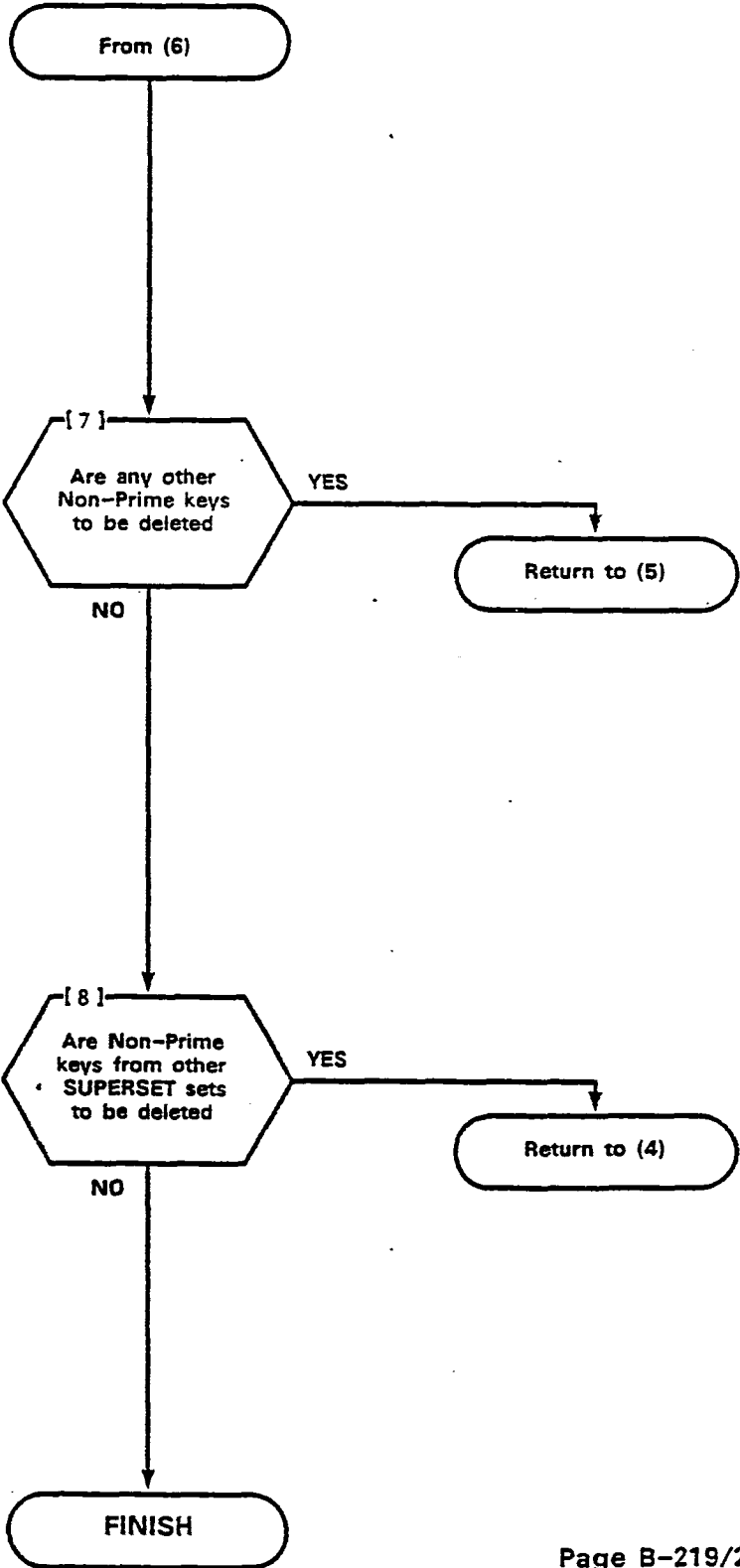
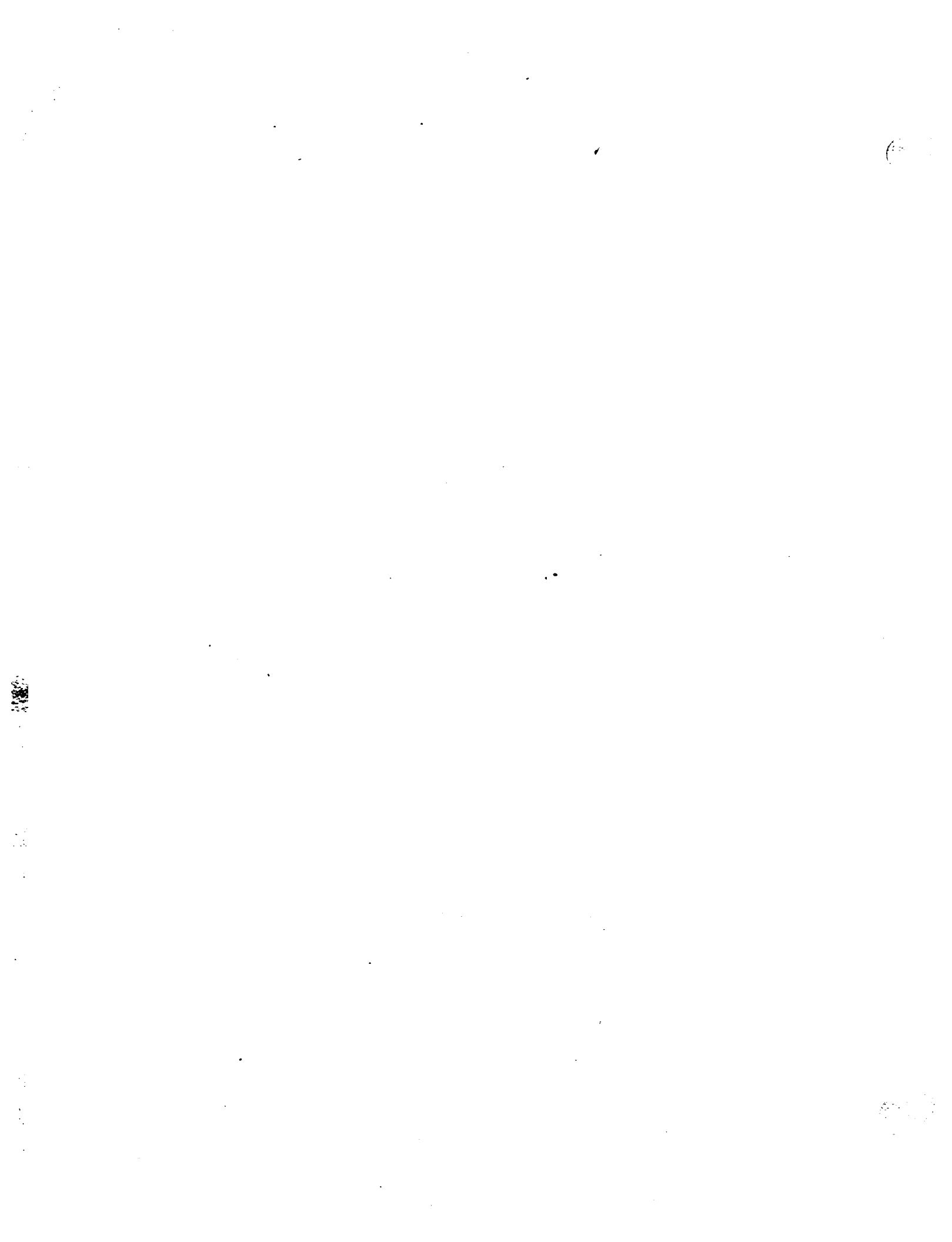


Figure 272-1
 Typical Deletion

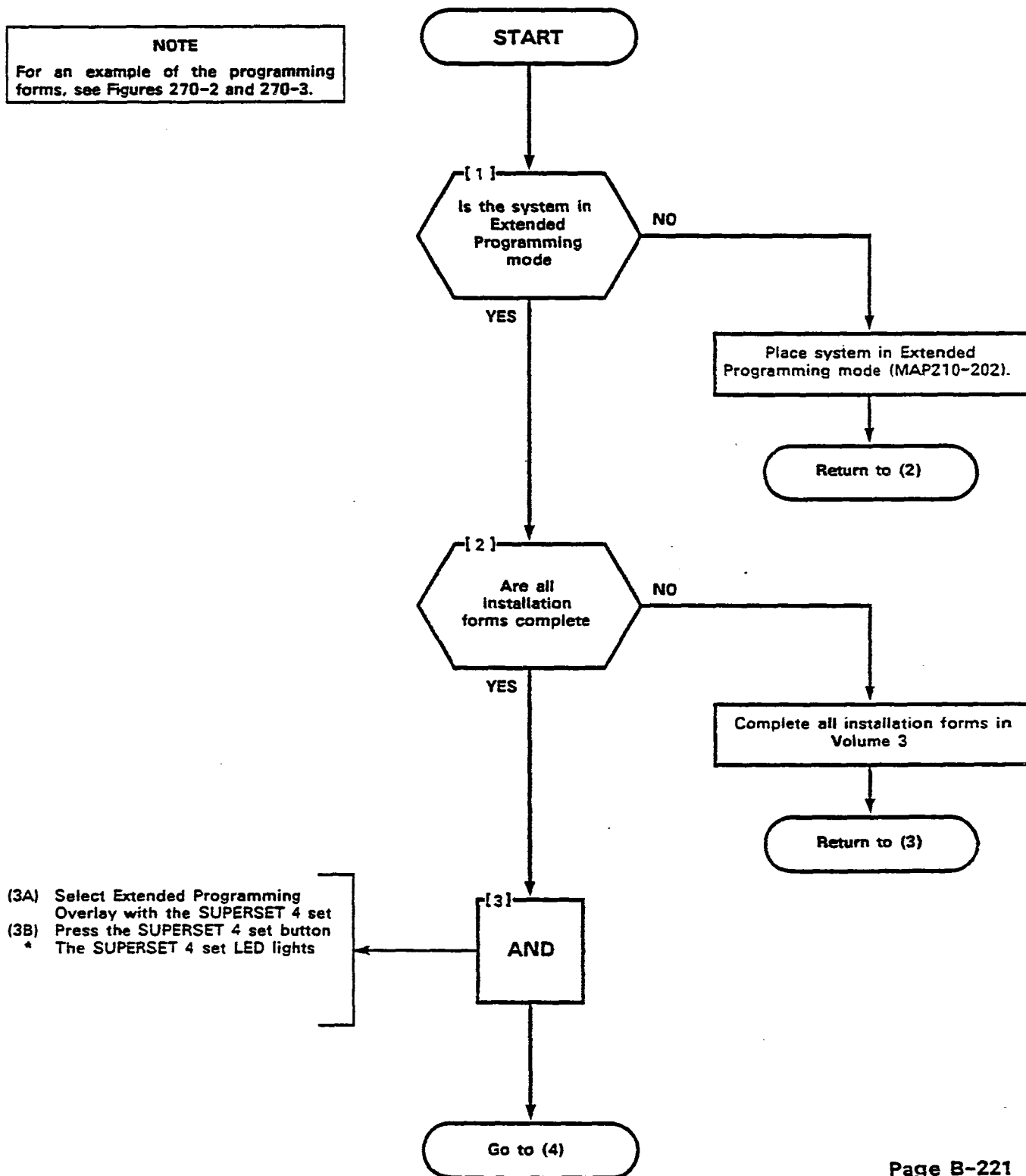
DELETE A NON-PRIME KEY
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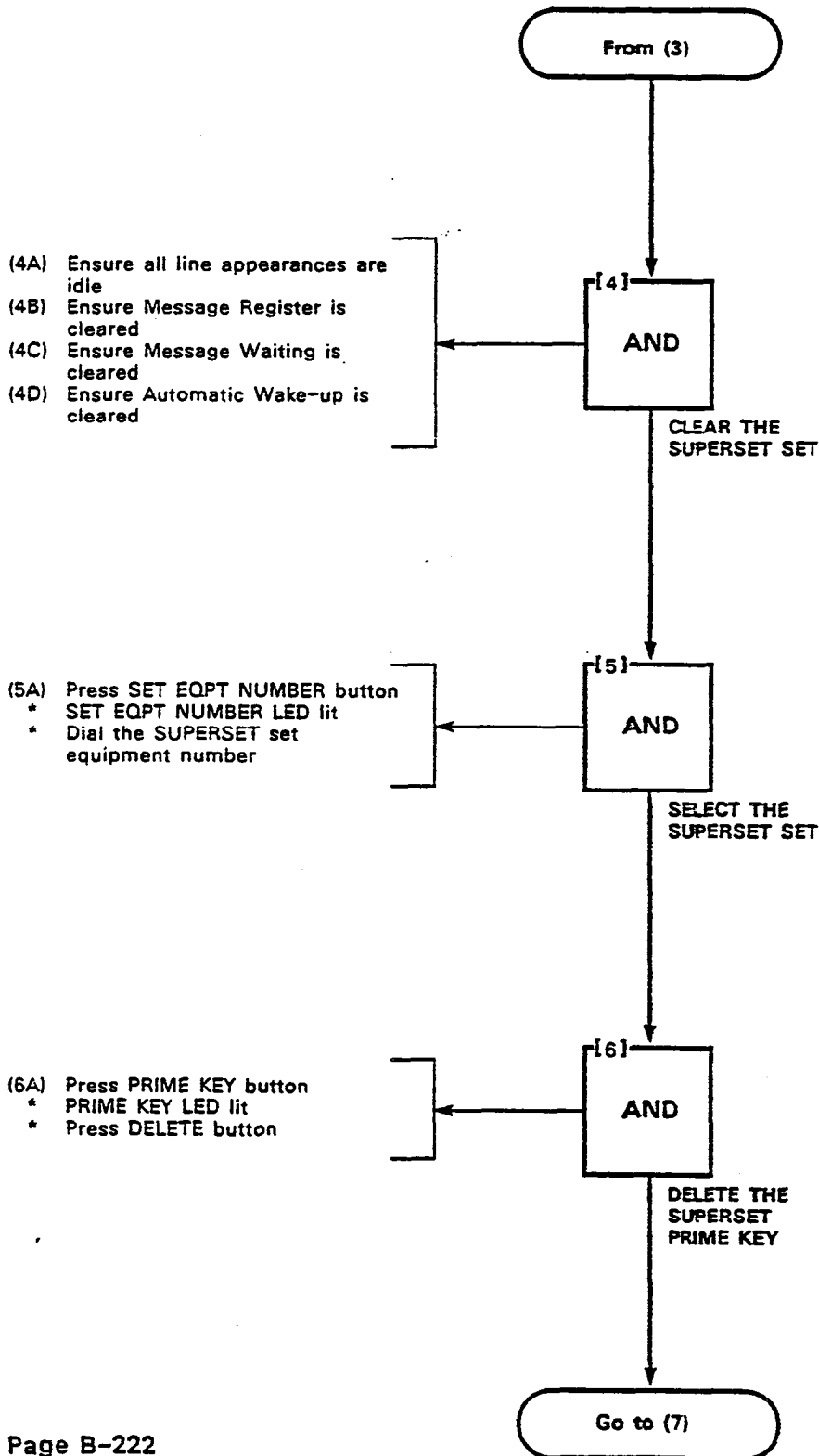
DELETE A PRIME KEY
MAP210-273
Issue 3, May 1984
Sheet 1 of 3

NOTE
For an example of the programming forms, see Figures 270-2 and 270-3.

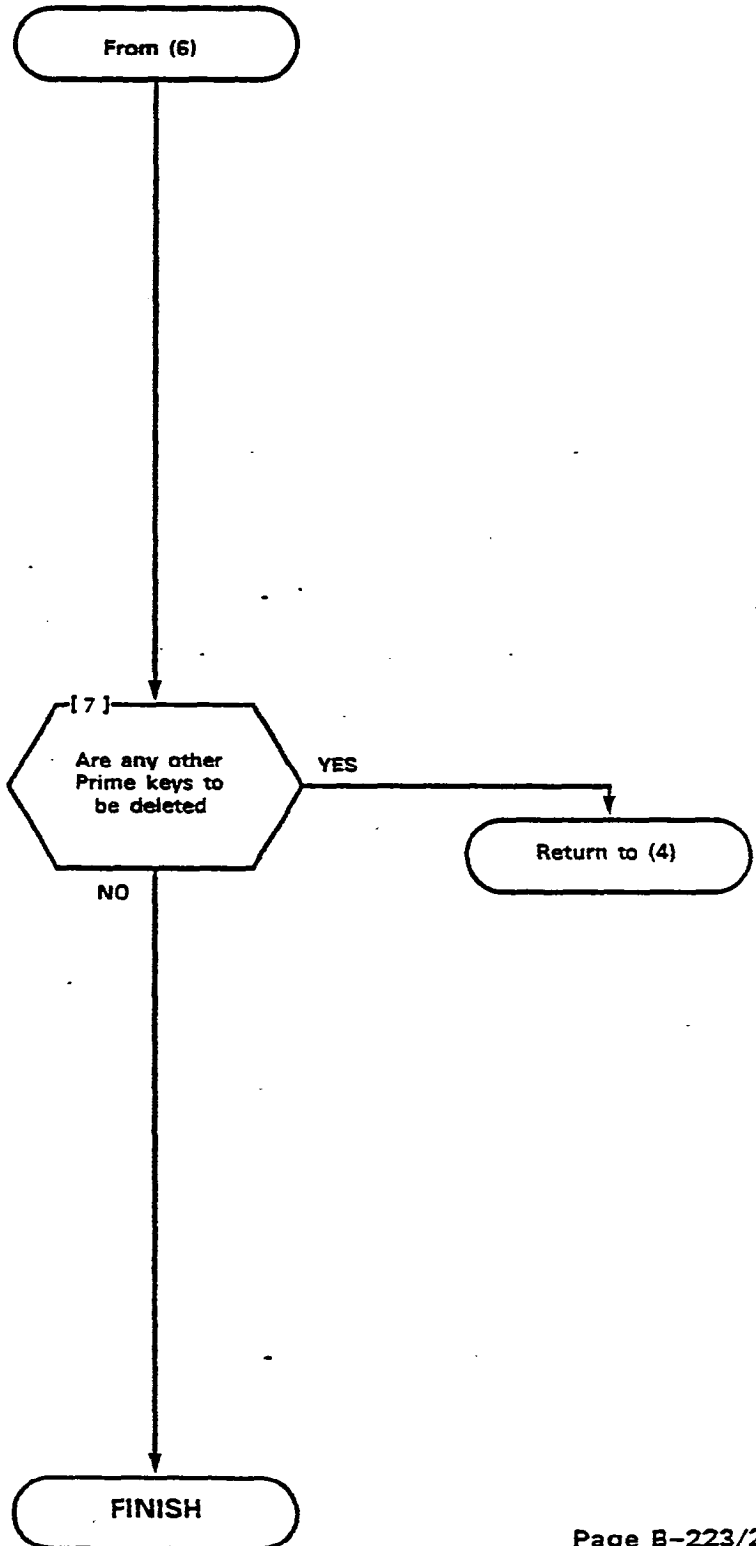


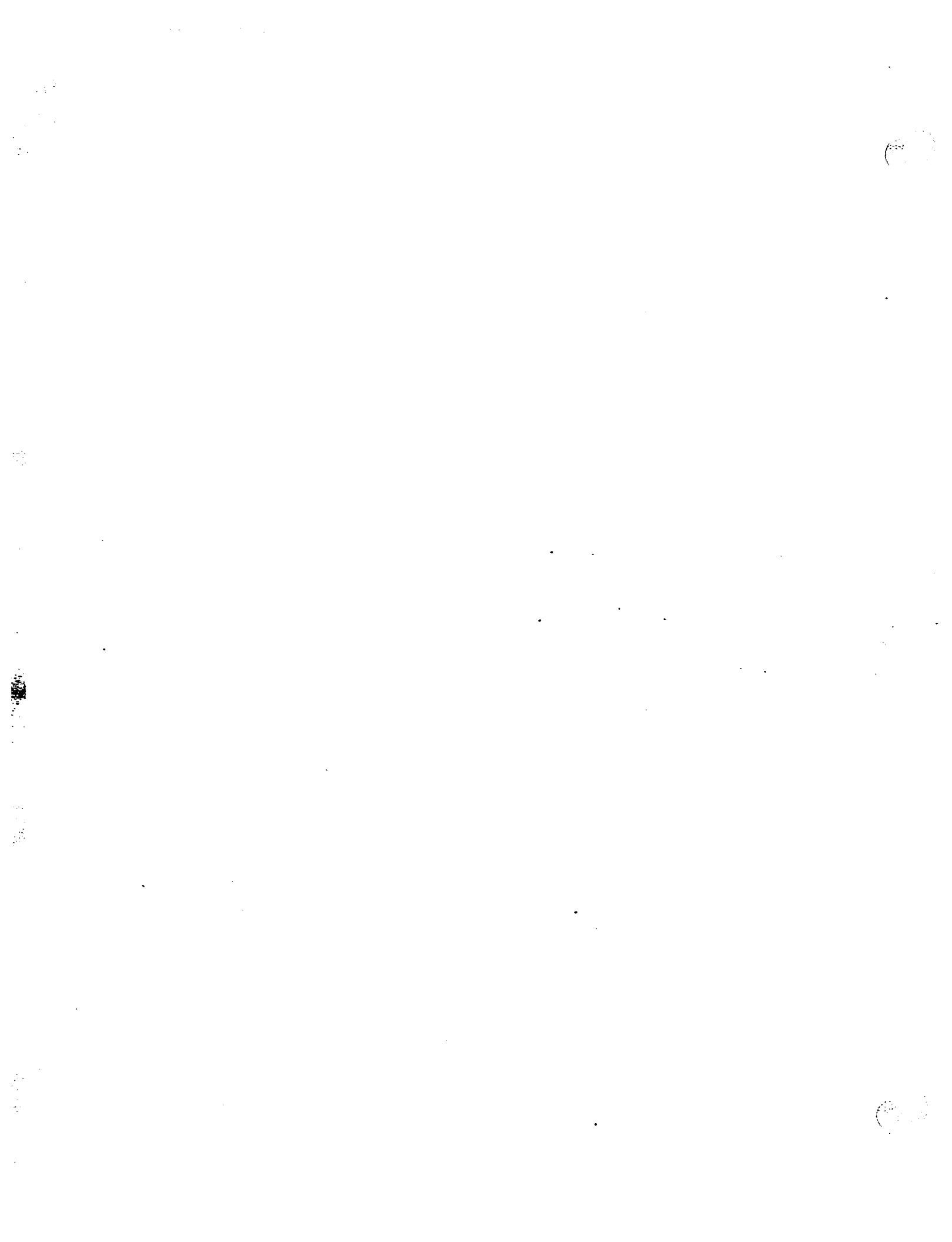
SECTION MITL9105/9110-096-210-NA

DELETE A PRIME KEY
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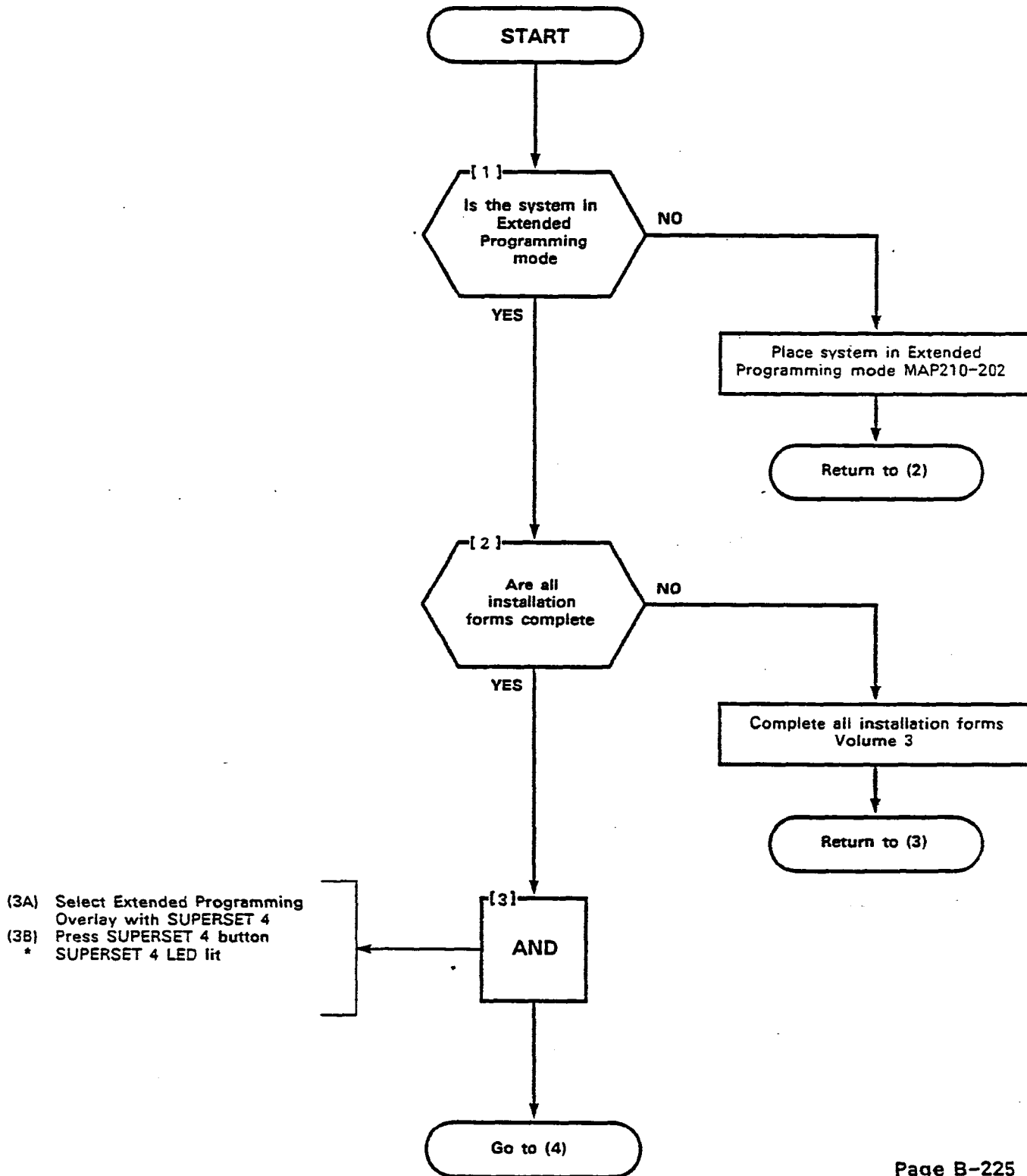


DELETE A PRIME KEY
MAP210-273
Issue 3, May 1984
Sheet 3 of 3



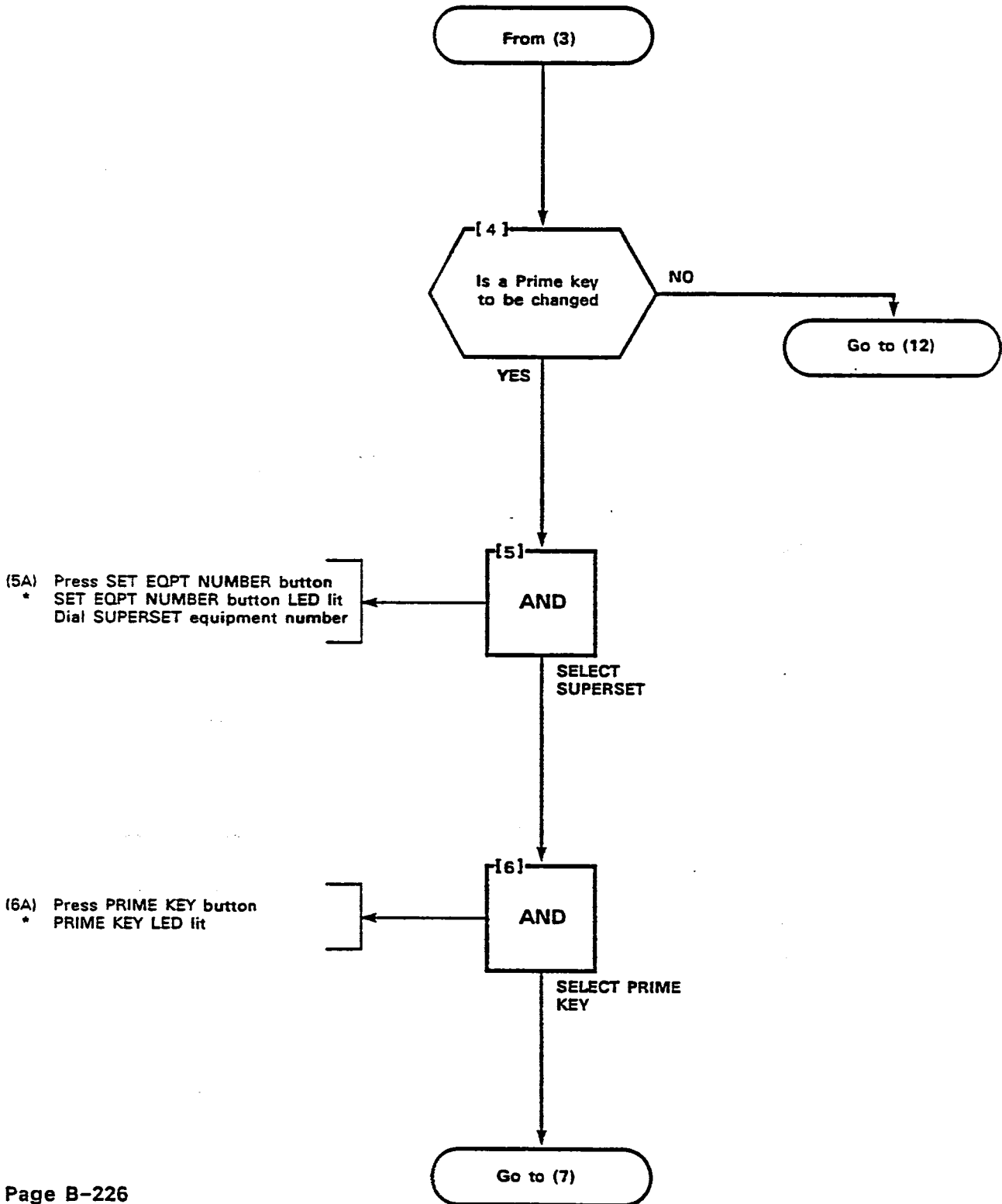


CHANGING ANY KEY
MAP210-274
Issue 3, May 1984
Sheet 1 of 5

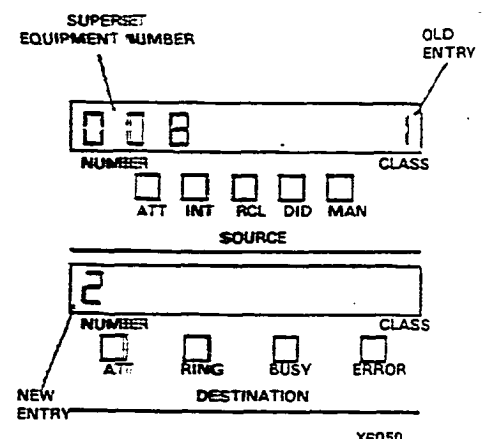
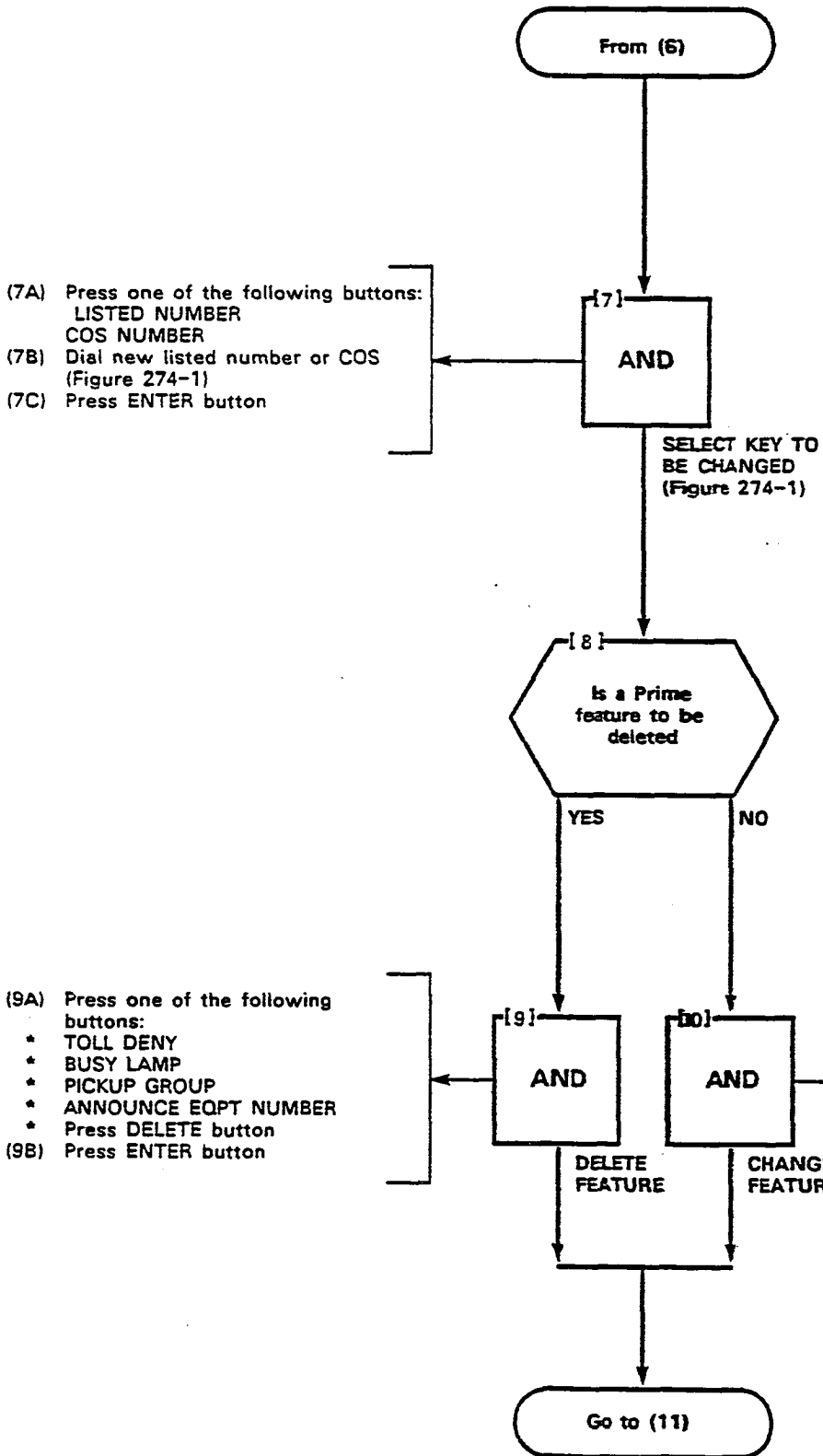


SECTION MITL9105/9110-096-210-NA

CHANGING ANY KEY
MAP210- 274
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CHANGING ANY KEY
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CHANGING ANY KEY
MAP210- 274
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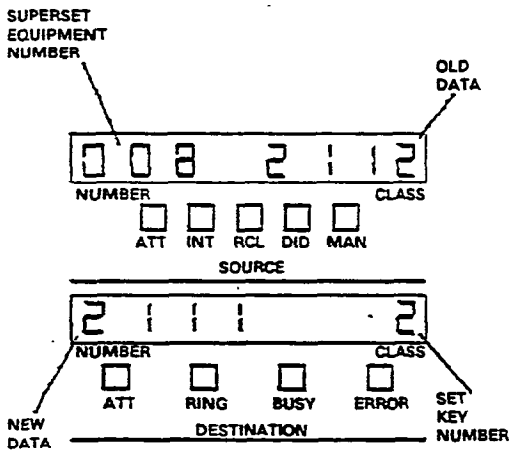
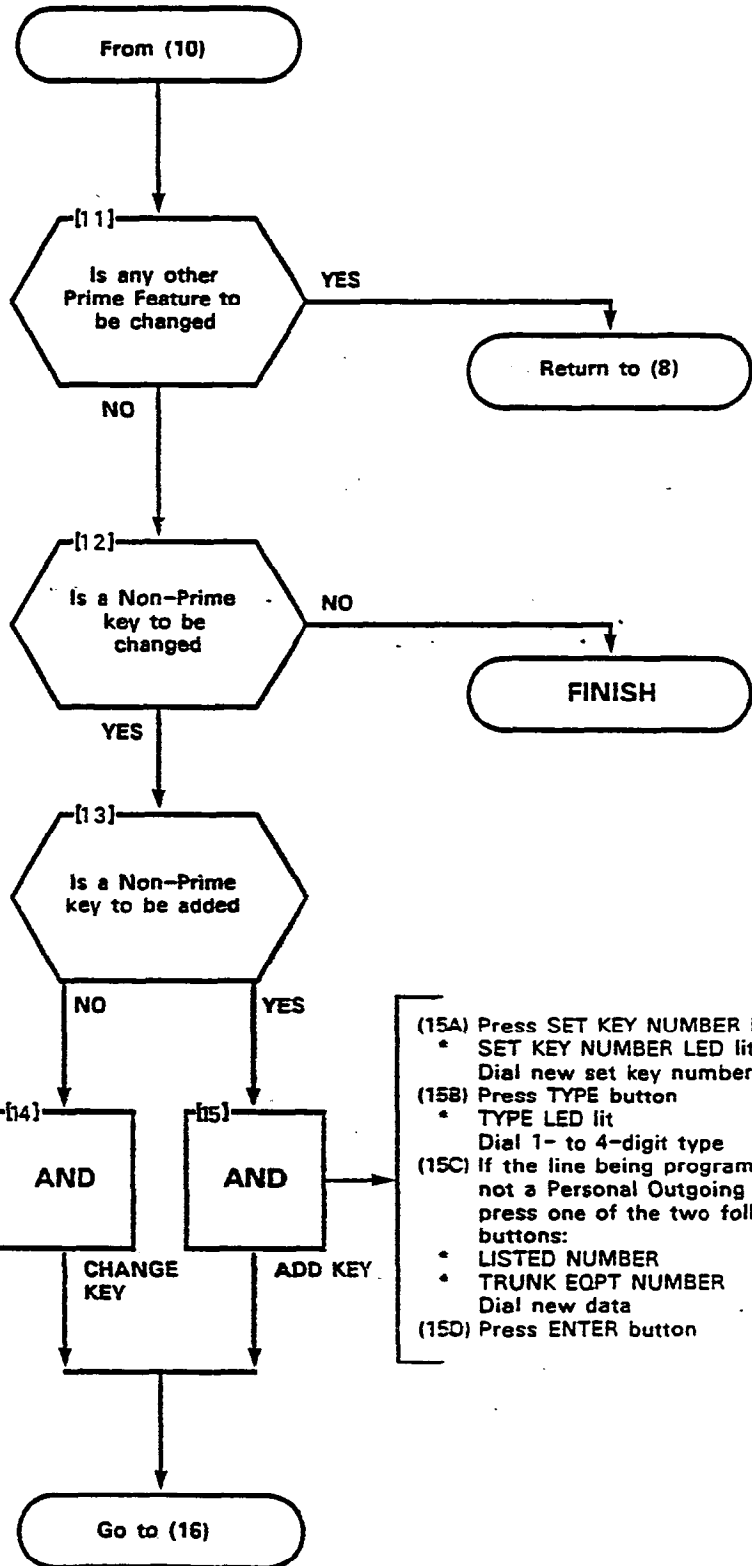


Figure 274-2 Typical Change

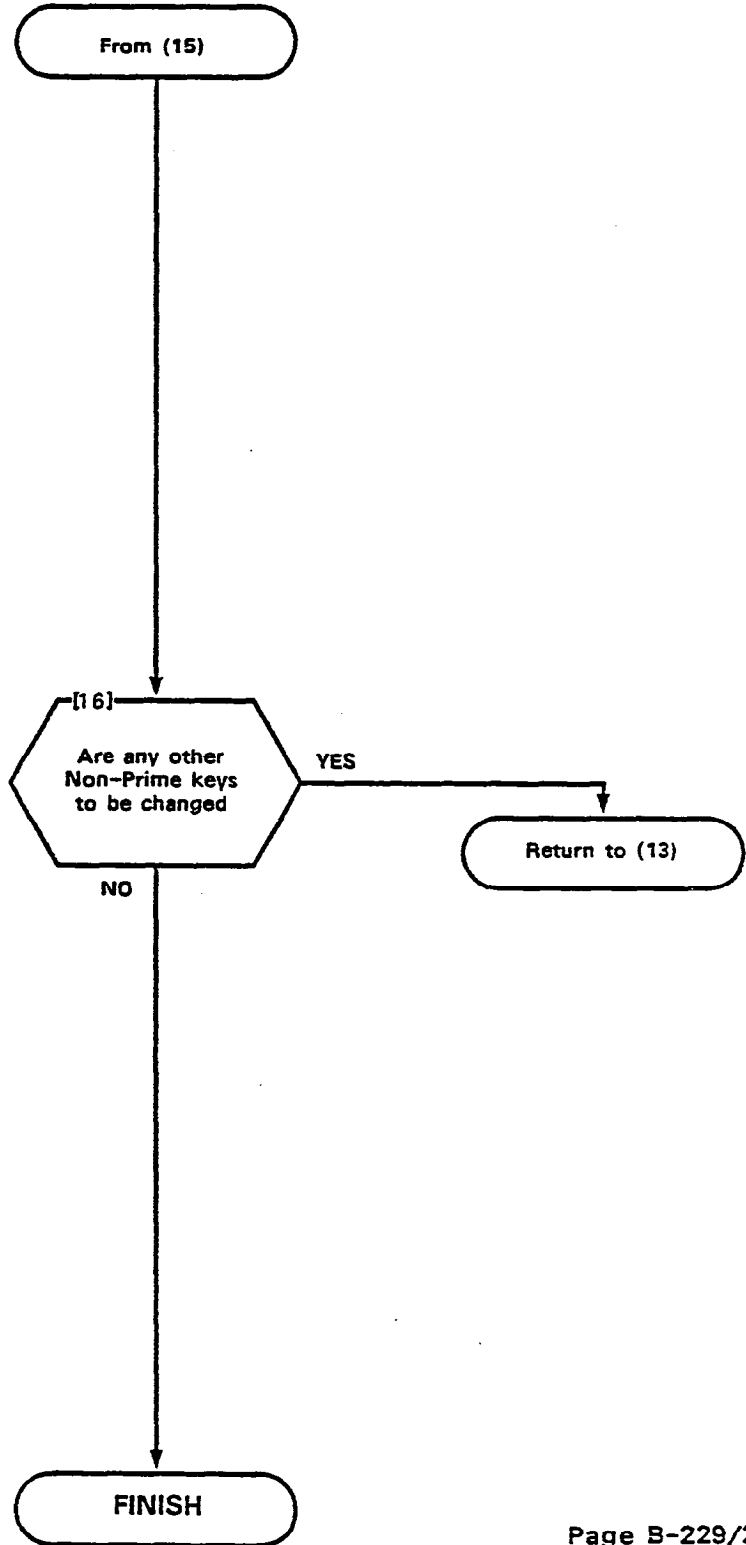
X6047

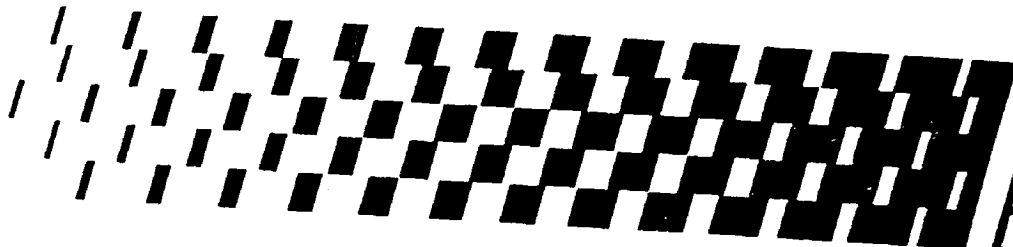
- (14A) Press SET KEY NUMBER button
 - * SET KEY NUMBER LED lit
 - Dial set key number
- (14B) Press one of the following buttons:
 - * TYPE
 - * LISTED NUMBER
 - * TRUNK EQPT NUMBER
 Dial new data
- (14C) Press ENTER button

- (15A) Press SET KEY NUMBER button
 - * SET KEY NUMBER LED lit
 - Dial new set key number
- (15B) Press TYPE button
 - * TYPE LED lit
 - Dial 1- to 4-digit type
- (15C) If the line being programmed is not a Personal Outgoing Line, press one of the two following buttons:
 - * LISTED NUMBER
 - * TRUNK EQPT NUMBER
 Dial new data
- (15D) Press ENTER button



CHANGING ANY KEY
MAP210- 274
Issue 3, May 1984
Sheet 5 of 5



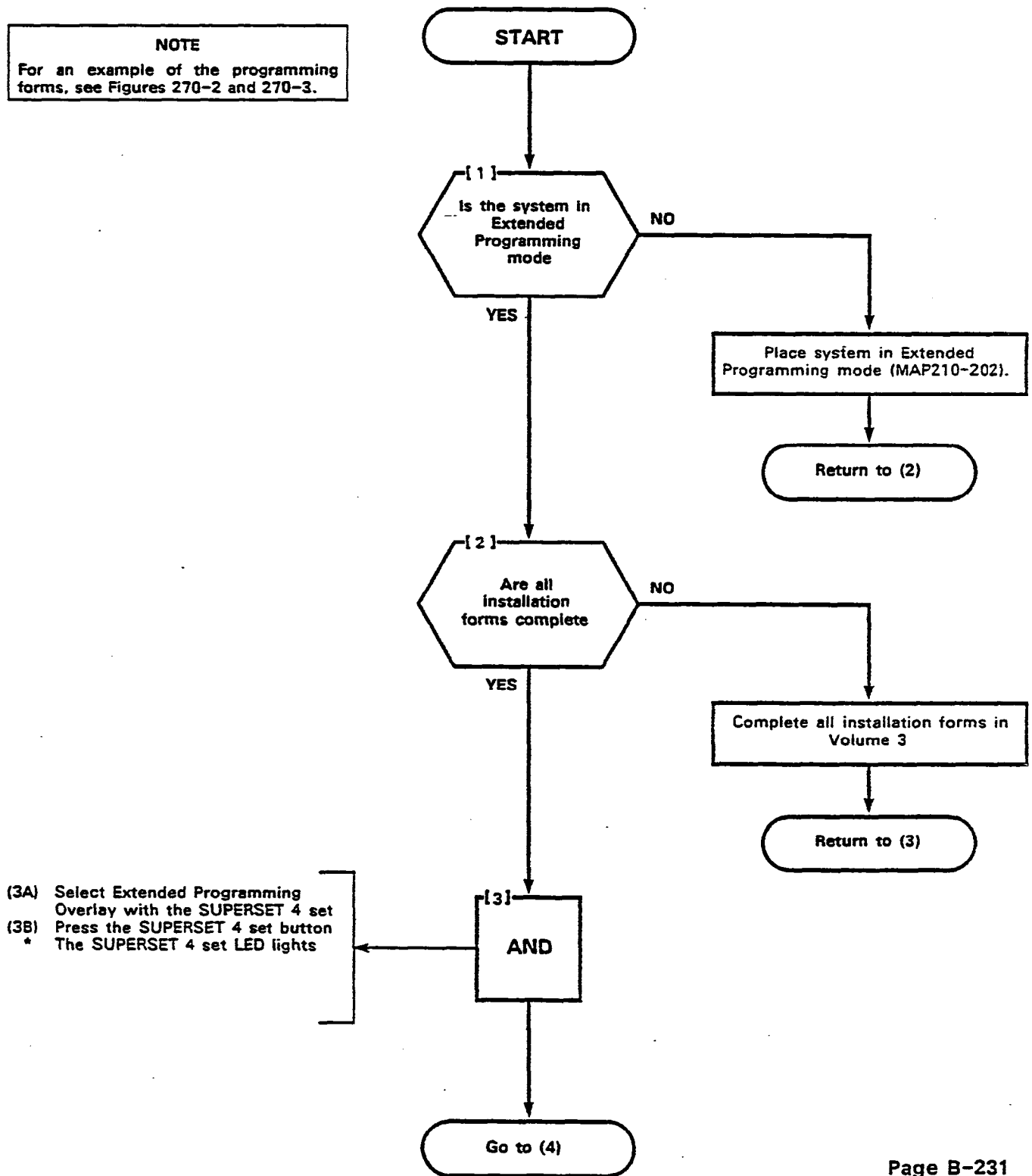


*Sales
Bulletin*



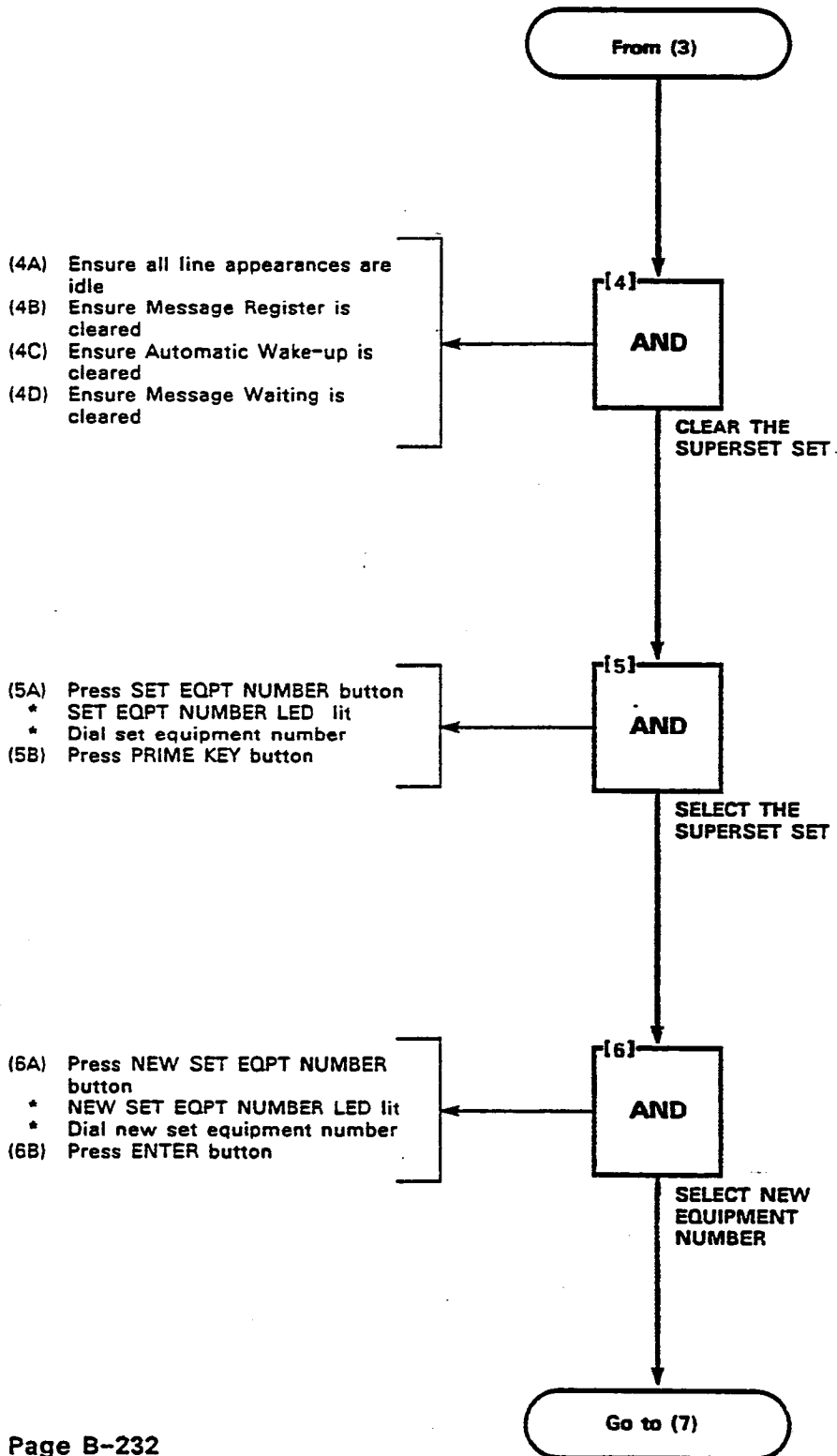
MOVING A SUPERSET 4 SET
MAP210-275
Issue 3, May 1984
Sheet 1 of 3

NOTE
For an example of the programming forms, see Figures 270-2 and 270-3.

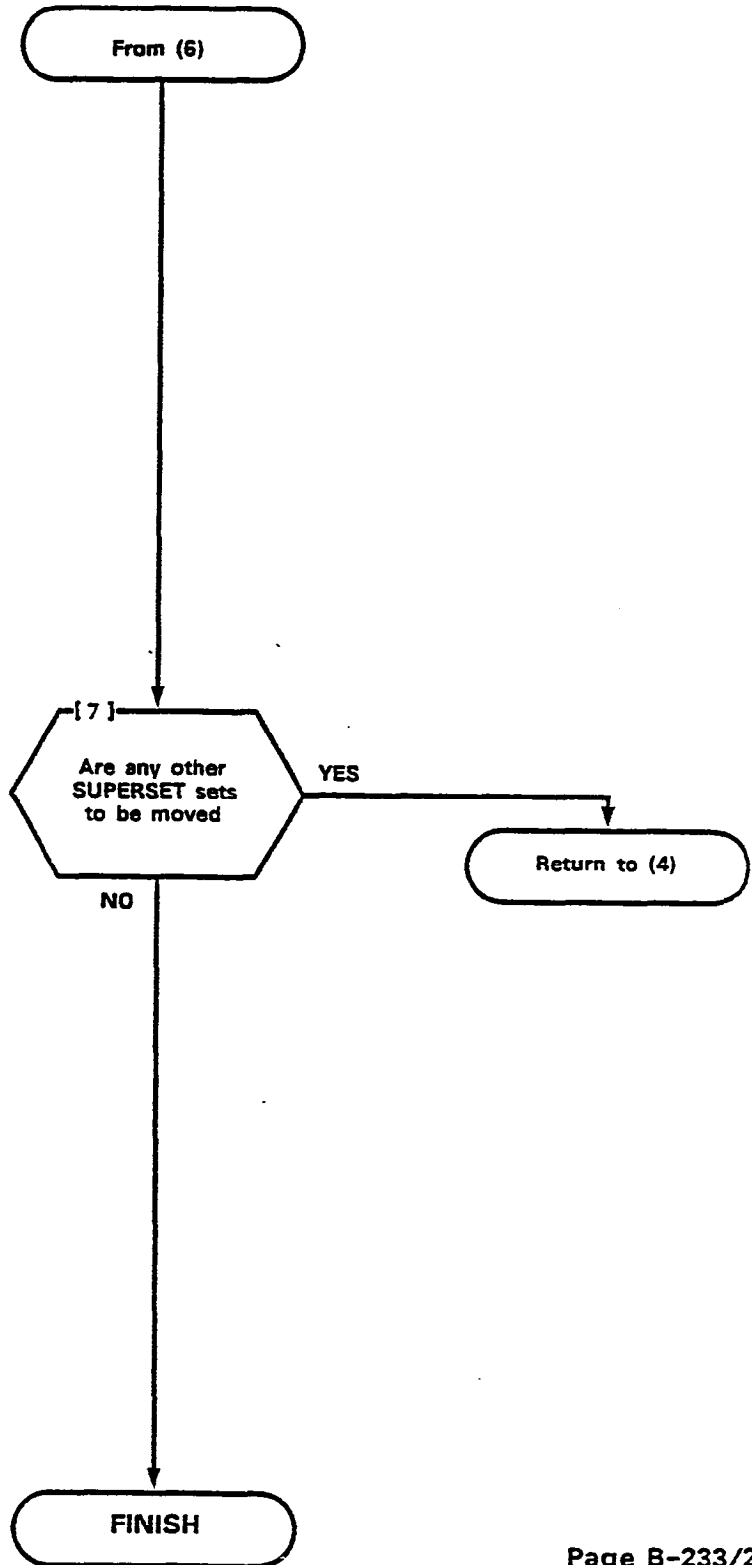


SECTION MITL9105/9110-096-210-NA

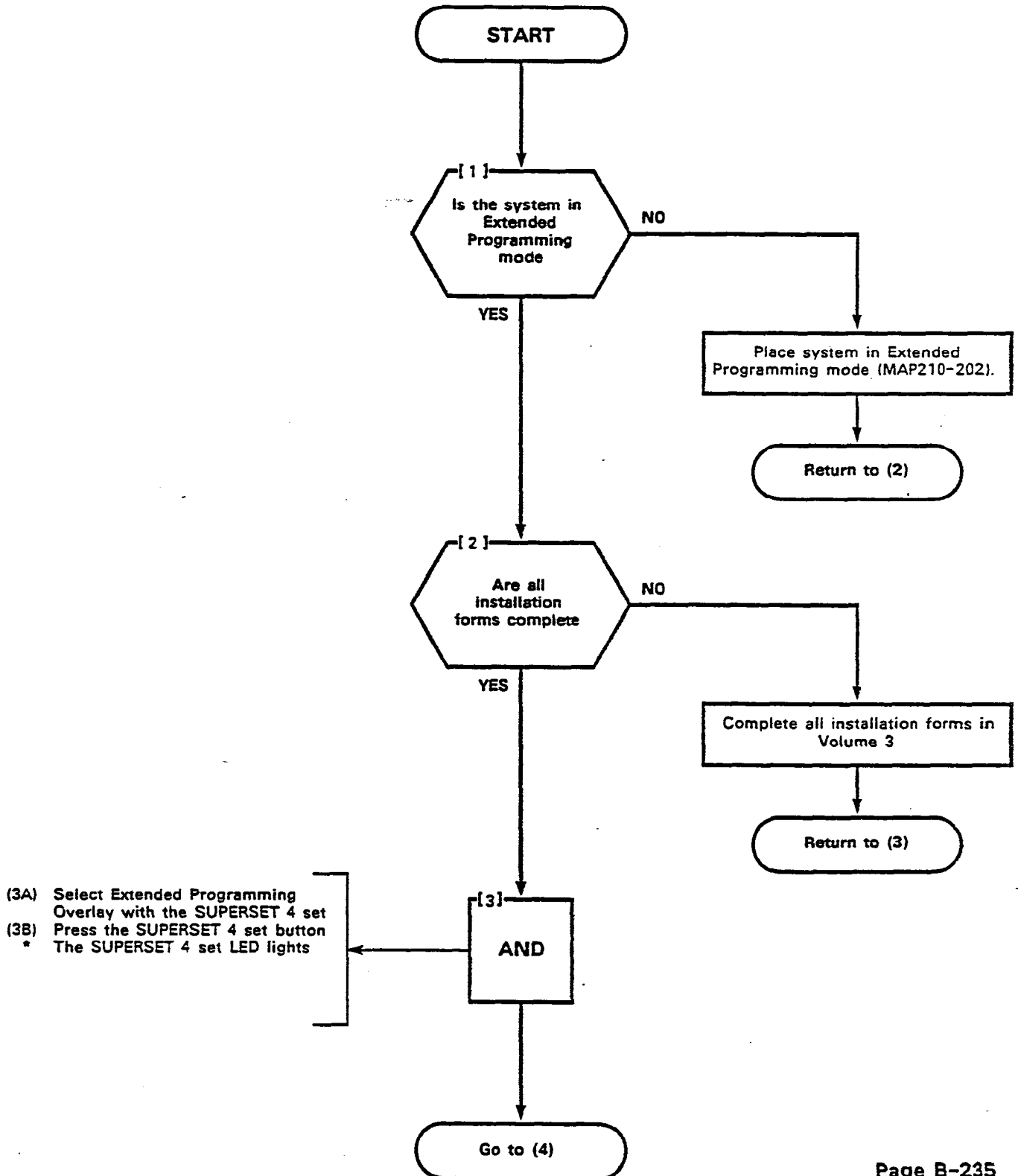
MOVING A SUPERSET 4 SET
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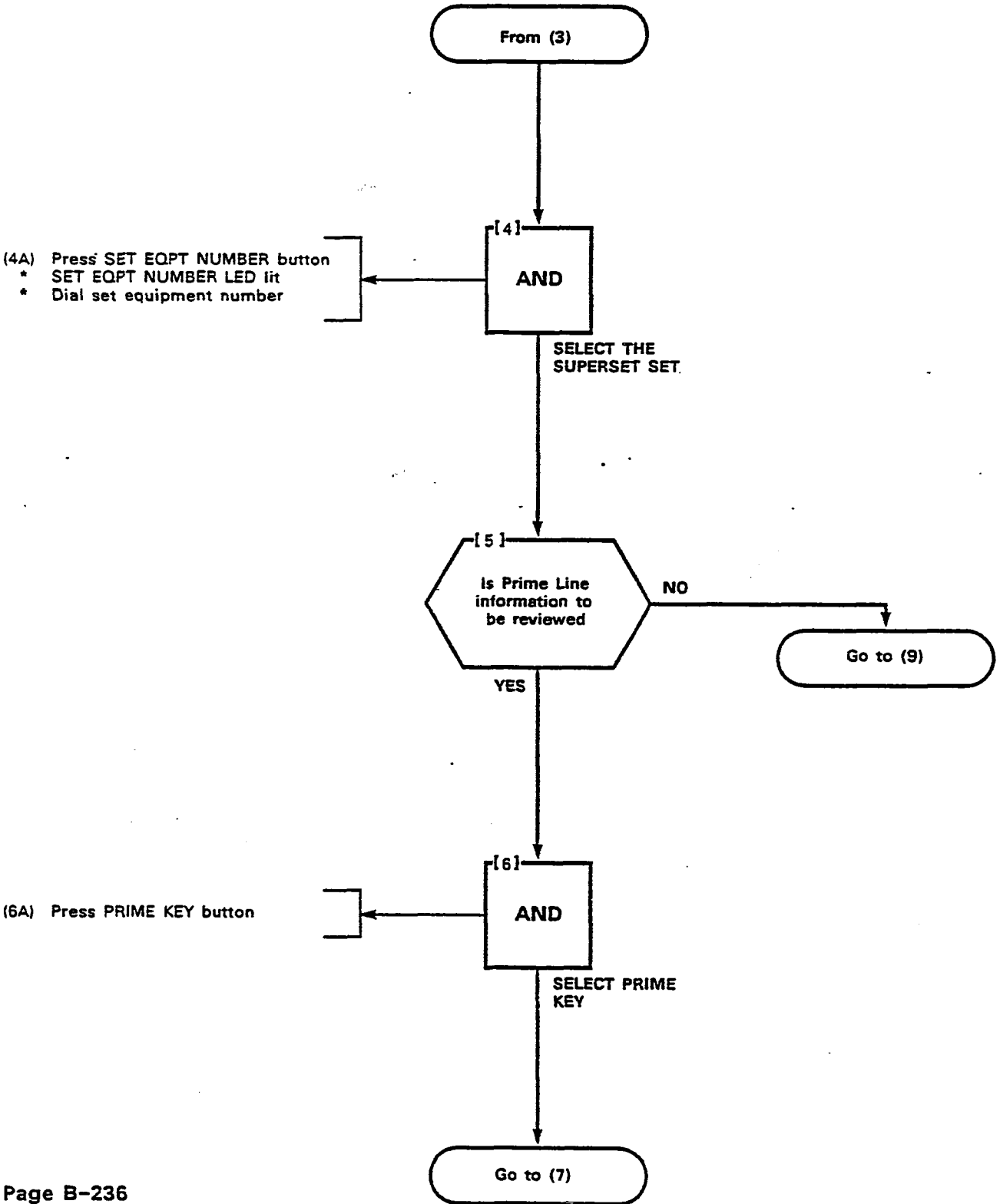
MOVING A SUPERSET 4 SET
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REVIEW THE SUPERSET SET PROGRAMMING
MAP210- 276
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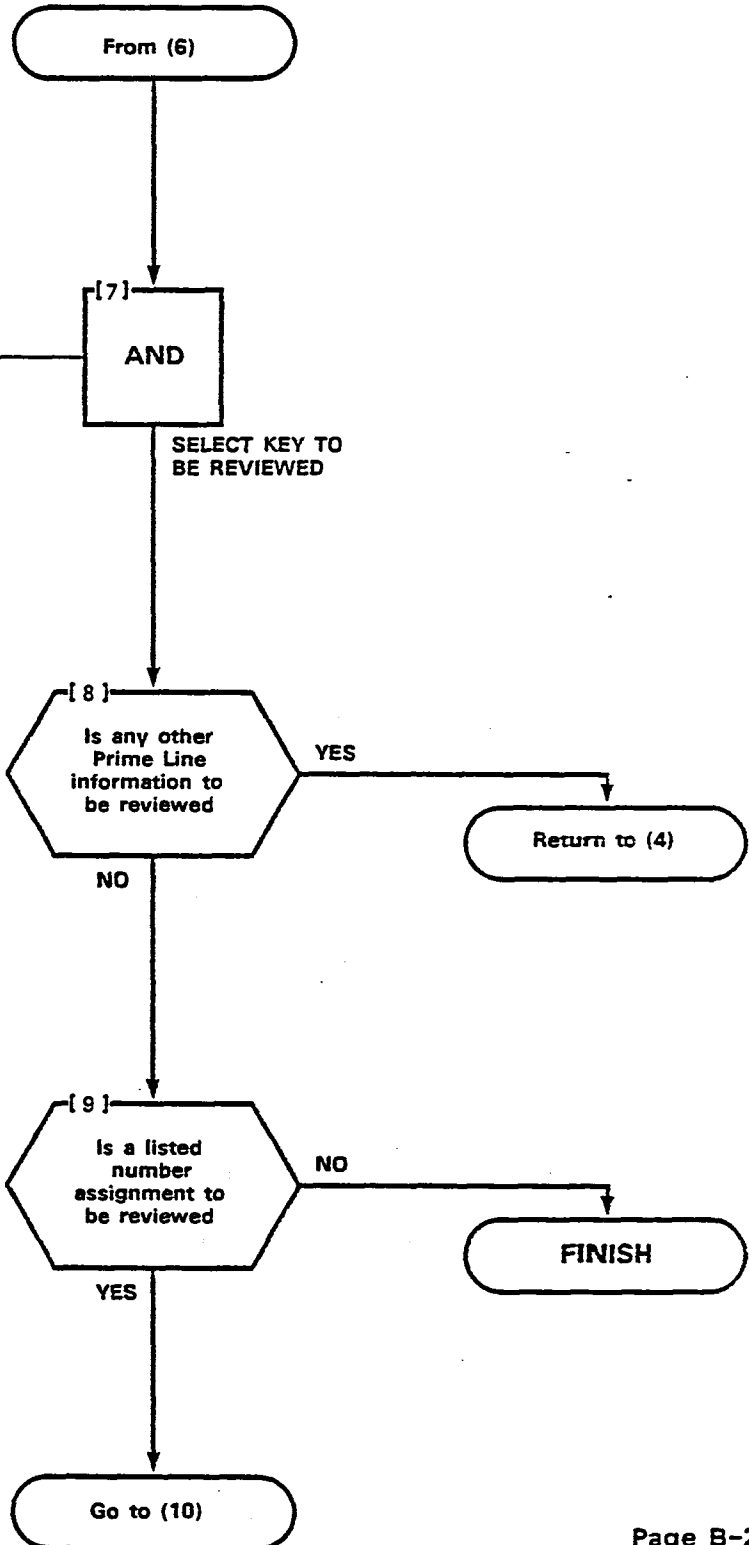


REVIEW THE SUPERSET SET PROGRAMMING
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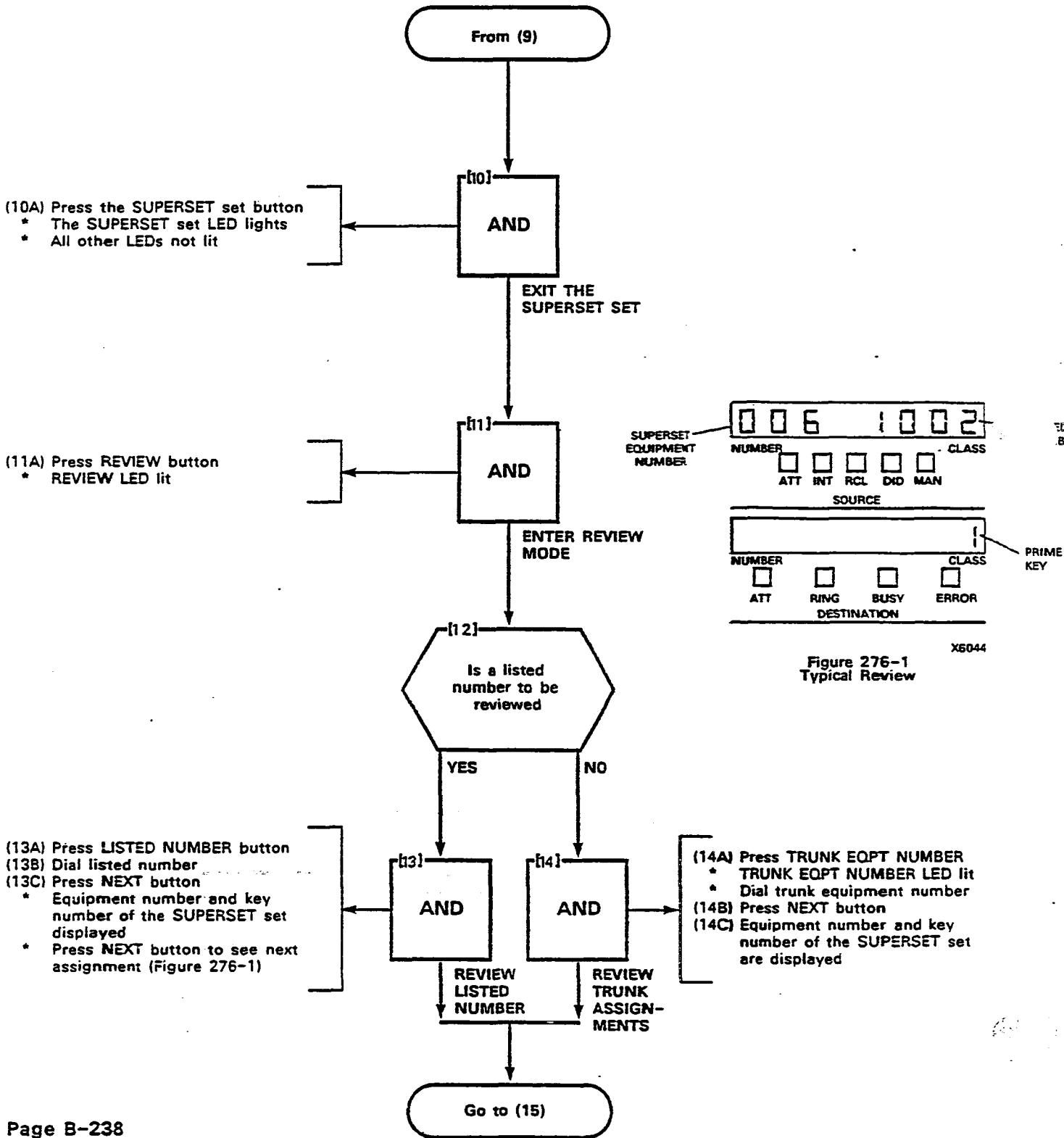


REVIEW THE SUPERSET SET PROGRAMMING
MAP210- 276
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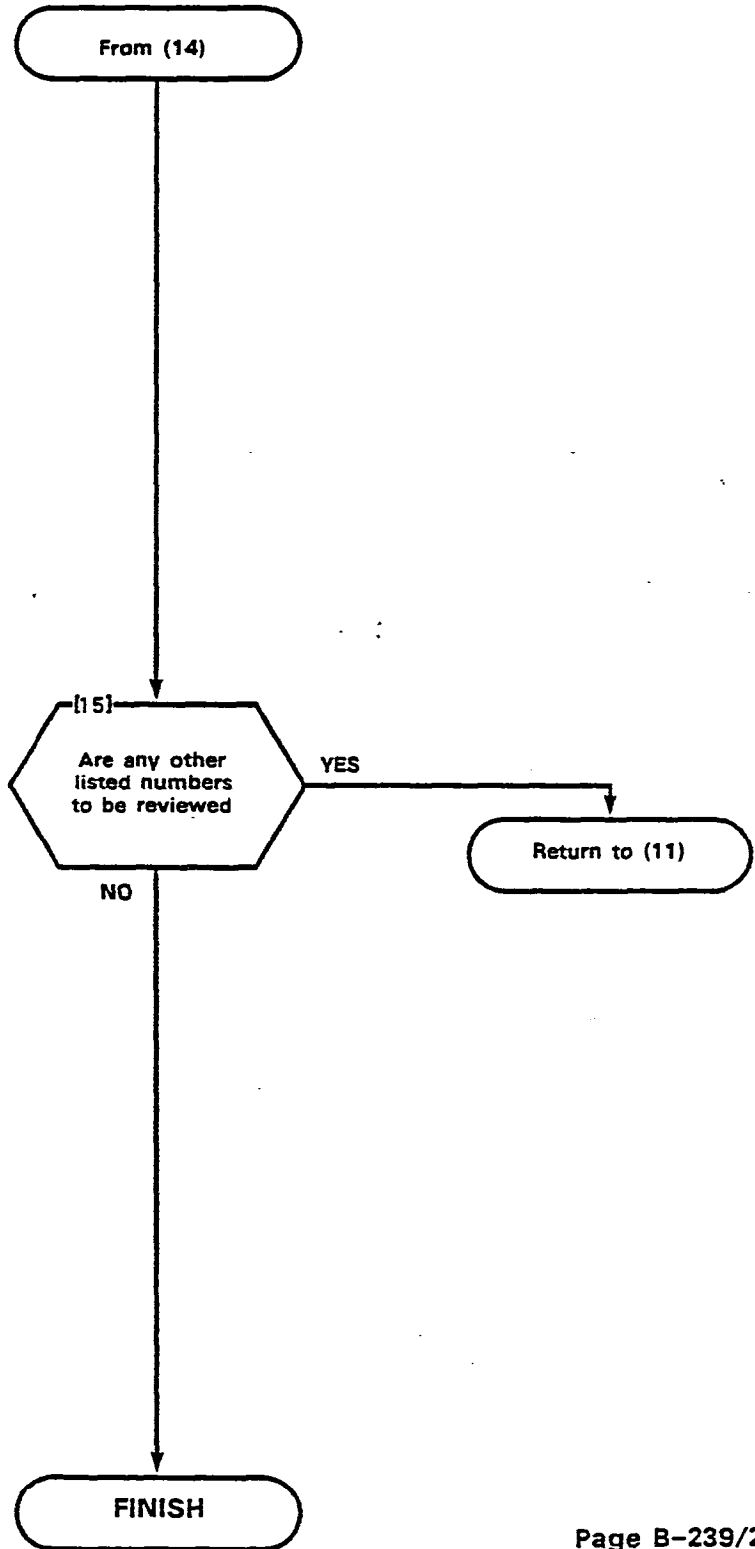
- (7A) Press one of the following keys to review the appropriate information:
- * LISTED NUMBER
 - * COS NUMBER
 - * TOLL DENY
 - * BUSY LAMP
 - * PICKUP GROUP
 - * ANNOUNCE EQPT NUMBER



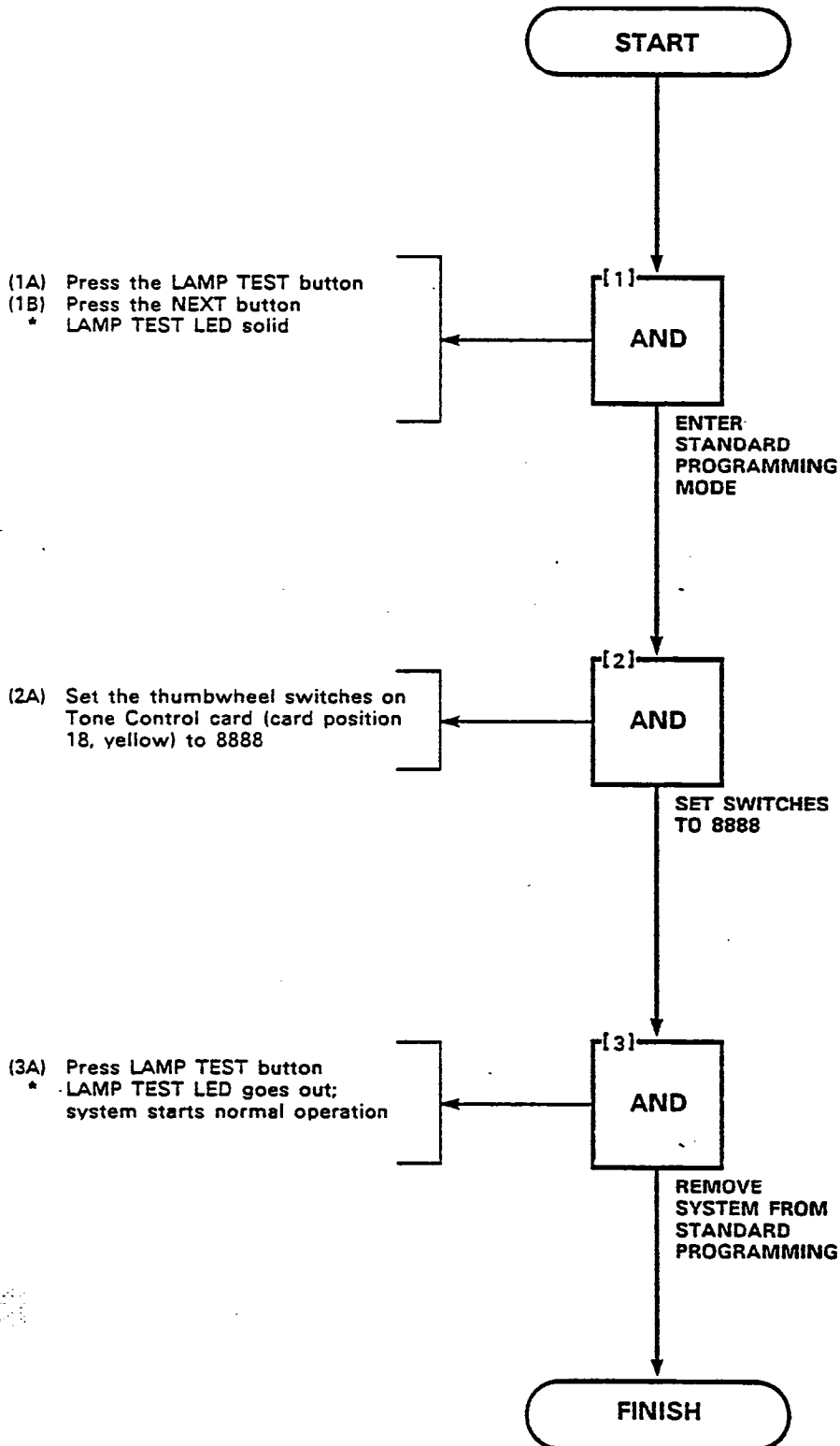
REVIEW THE SUPERSET SET PROGRAMMING
MAP210-276
Issue 3, May 1984
Sheet 4 of 5



REVIEW THE SUPERSET SET PROGRAMMING
MAP210- 276
Issue 3, May 1984
Sheet 5 of 5



TERMINATING PROGRAMMING
MAP210-284
Issue 3, May 1984
Sheet 1 of 1



**SX-100[®]/SX-200[®]
SUPERSWITCH[®]
ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE
SYSTEM TEST PROCEDURES
GENERIC 217**

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1. INTRODUCTION

General

1.01 This Section details the system test procedures to be performed after the system installation (Section MITL9105/9110-096-200-NA) and programming (Section MITL9105/9110-096-210-NA) have been completed. Upon completion of the tests listed in this Section, all programmed system options and features will have been checked.

Reason for Issue

1.02 This Section has been issued to include enhancements to the system test procedures for the extensions and the console for Generic 217.

The SUPERSET 4 Set

1.03 The SUPERSET 4 set is similar to a standard telephone in that both 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 mechanical functionality of the SUPERSET 4 set, see Section MITL9105/9110-096-320-NA.

The SUPERSET 3 Set

1.04 The SUPERSET 3 set is similar to a standard telephone in that both 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 mechanical functionality of the SUPERSET 3 set, see Section MITL9105/9110-096-320-NA.

2. DETAILED TEST PROCEDURES

General

2.01 All test procedures in this Section are performed in accordance with MITEL Action Procedures (MAPs). An outline of the purpose and use of MAPs is contained in Appendix A. Actual system test procedures to be used for the PABX are as detailed in the following paragraphs.

System Test Procedures

2.02 The System Test Procedures are divided into two appendices: Extension Tests and Console Tests. The test level relationship is given in Tables 2-1 and 2-2. Some tests may not be relevant; i.e., Hotel/Motel (H/M) options when the system is configured for a business arrangement. Tables 2-3 and 2-4 give the suggested applications of these tests as Hotel/Motel (H/M) and Business.

Note: In some situations some systems may use Options that seem out of context to the Hotel/Motel and Business sections, however, the relevant test should still be performed for these options.

**TABLE 2-1
EXTENSION TESTS**

Test	Application
Set Up Test Equipment	All
Broker's Call	All
Call Forwarding - Busy	All
Call Forwarding - Don't Answer	All
Call Forwarding - Follow Me	All
Call Park	All
Call Pickup	All
Camp-On	All
Consultation Hold/Transfer/Add-On	All
Automatic Callback - Don't Answer	All
Automatic Callback - Busy	All
Meet-Me Conference	All
Executive Busy Override	All
Paging	All
Do Not Disturb	All
Call Hold	All
Room Status	H/M
Automatic Wake-Up (Alarm Call)	All
Personal Speed Call	All
Common Use Speed Call	All
External Call Forwarding	All
Transfer with Privacy	All
Account Code	Business
Handsfree Station	All
Call Forwarding - Busy/Don't Answer	All
Enable Non-CO to Trunk Connect	All
Repeated Camp-On Tones	All
Extension Reset	All

**TABLE 2-2
CONSOLE TESTS**

Test	Application
Answer Incoming Call	All
Automatic Callback	All
Extending Internal Calls	All
Answering Recall	All
Override	All
Flexible Night Service	All
Trunk Busy Operation	All
Trunk Group Attendant Access	All
Trunk Group Dial Access	All
Test Termination	All
Answer Incoming CO Trunk Call	All
Attendant Do Not Disturb	All
Message Waiting	All
Attendant Call Forwarding - Busy	All
Attendant Call Forwarding - Don't Answer	All
Attendant Call Forwarding - Follow Me	All
Attendant Call Forwarding - Busy/Don't Answer	All
Attendant Controlled Conference	All
Attendant Station Busy-Out	All
Call Block	All
Attendant Do Not Disturb	All
Message Registration	H/M
Controlled Outgoing Call Restriction	All
Room Status	H/M
Automatic Wake-Up (Alarm Call)	All
Message Waiting (H/M)	All
Console Date Display and Date Utility	All
Customer Program Dump/Load	All
Controlling the Printer	All
Room Audit	(H/M)
System Identifier	All
Common Use Speed Call	Business
Customer Programming	All
External Call Forwarding	All
Test Audible Tone Indicators	All
SUPERSET Disconnect Alarm	All

**TABLE 2-3
EXTENSION APPLICATIONS**

Test	Application
Set Up Test Equipment	Both
Broker's Call	Business
Call Forwarding - Busy	Business
Call Forwarding - Don't Answer	Business
Call Forwarding - Follow Me	Business
Call Park	Business
Call Pickup	Business
Camp-On	Business
Consultation Hold/Transfer/Add-On	Business
Automatic Callback - Don't Answer	Business
Automatic Callback - Busy	Business
Meet-Me Conference	Business
Executive Busy Override	Business
Paging	Business
Do Not Disturb	Both
Call Hold	Business
Room Status	H/M
Automatic Wake-Up (Alarm Call)	H/M
Personal Speed Call	Business
Common Use Speed Call	Business
External Call Forwarding	Business
Transfer with Privacy	Business
Account Code	Business
Handsfree Station	Business
Call Forwarding - Busy/Don't Answer	Business
Enable Non-CO to Trunk Connect	Business
Repeated Camp-On Tones	Business

TABLE 2-4
CONSOLE APPLICATIONS

Test	Application
Answer Incoming Call	Both
Automatic Callback	Both
Extending Internal Calls	Both
Answering Recall	Both
Override	Business
Flexible Night Service	Both
Trunk Busy Operation	Both
Trunk Group Attendant Access	Both
Trunk Group Dial Access	Both
Test Termination	Both
Answer Incoming CO Trunk Call	Both
Attendant Do Not Disturb	Both
Message Waiting	H/M
Attendant Call Forwarding - Busy	Business
Attendant Call Forwarding - Don't Answer	Business
Attendant Call Forwarding - Follow Me	Business
Attendant Call Forwarding - Busy/Don't Answer	Business
Attendant Controlled Conference	Business
Attendant Station Busy-Out	Both
Call Block	H/M
Attendant Do Not Disturb	H/M
Message Registration	H/M
Controlled Outgoing Call Restriction	H/M
Room Status	H/M
Automatic Wake-Up (Alarm Call)	H/M
Message Waiting (H/M)	(H/M)
Console Date Display and Date Utility	Both
Customer Program Dump/Load	Both
Controlling the Printer	Both
Room Audit	H/M
System Identifier	Both
Common Use Speed Call	Business
Customer Programming	Both
External Call Forwarding	Business
Test Audible Tone Indicators	Both
SUPERSET Disconnect Alarm	Business

APPENDIX A

MITEL ACTION PROCEDURES

GENERAL

A1.01 Task-oriented functions in this Section are implemented using MITEL Action Procedures (MAPs).

A1.02 A MAP is a step-by-step procedure using a flow chart principle, written and illustrated where necessary to a level of detail that allows both experienced and inexperienced personnel to carry out the tasks detailed. A MAP contains two levels of information as follows:

- (a) For experienced personnel, a series of steps (level one) each numbered (n) and annotated with minimal information.
- (b) For inexperienced personnel, each step referred to in (a) above is amplified by a connected series of numbered substeps (nA) (level two).

A1.03 A typical example of a MAP is shown in Figure A1-1, with the two levels detailed.

MAP SYMBOLS

A1.04 There are four basic symbol shapes which may be used in a MAP, and are defined as follows.

A1.05 AND Block: Used to indicate a level one step that must be performed. Consists of a square with the word AND centered in the block.

A1.06 OR Block: Used to indicate a choice of level one steps, one of which must be performed. Consists of a rectangle, with the text centered in the block, and with the word OR appearing between the alternative operations.

A1.07 The rectangle is also used to border instructions which imply that the operator must perform a task outside the scope of the MAP. The text is centered in the rectangle.

A1.08 Decision Block: Used to indicate a decision within the level one steps which must be made. The symbol is based on a hexagon with the top and bottom sides extended. Decision text is centered in the symbol.

A1.09 START/FINISH/Jump To Block: Used to indicate the start and finish of a MAP. Also used to indicate "jump to" points within the MAP, for example "go to (n)" or "from (n)" or "return to (n)". The

symbol is a rectangle with semicircular ends. Text is centered in the symbol.

THE OPERATOR'S USE OF MAPS

Experienced Operator

A1.10 For the experienced operator to complete a task using a MAP, reference to the sequential short form level one steps is usually all that is necessary. Using Figure A1-1 as an example, the experienced operator would proceed as follows.

A1.11 A (1) makes a decision based on the information within the block. If the answer is YES, the operator must proceed to a different MAP. If the answer is NO, the operator is faced with another decision at block (2).

A1.12 At (2) if the decision is NO, there is no requirement to proceed further and the test is abandoned. This naturally results in a FINISH block. If the decision is YES, the operator proceeds to (3) and (4) in succession; i.e., dials the DID station number and completes the call to the check extension.

A1.13 The description of the instructions carried out in paragraphs A1.05 and A1.06 have assumed that the level of competence of the operator is such that short form level one steps contain sufficient information, and therefore the operator reads only the center column of the MAP, top to bottom of the page.

Inexperienced Operator

A1.14 If the operator's experience is such that the level two substeps should be referred to as follows:

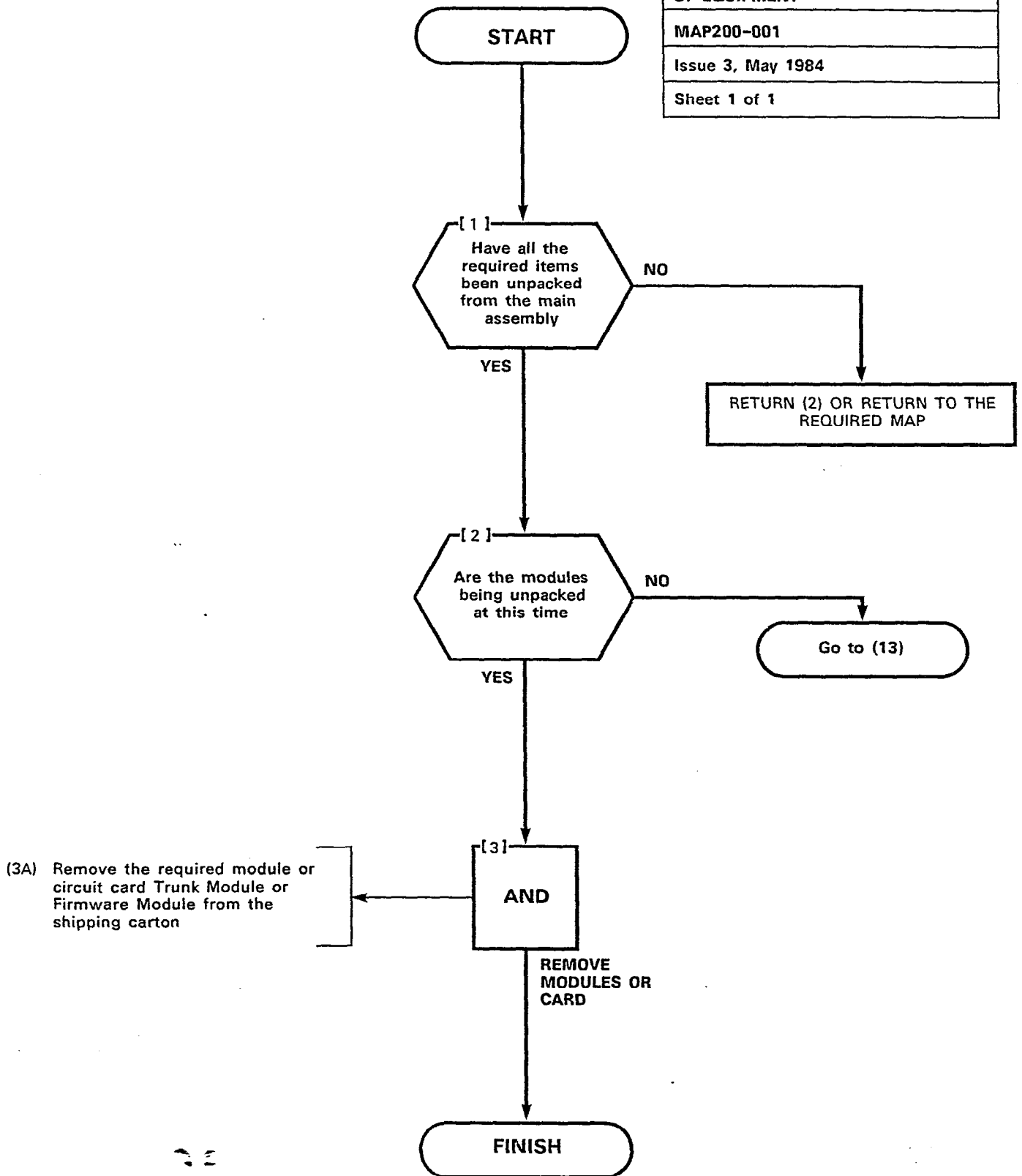
- (a) At Steps (1) and (2) make the decisions called for at these steps as before.
- (b) At Step (3) dial the DID station number by performing substeps (3A), (3B) and (3C).

In terms of steps and substeps, the operator follows a decision and then follows the step and substep paths in the example shown.

TOOLS, TEST EQUIPMENT AND SPECIAL INSTRUCTIONS

A1.15 Any tools, test equipment or special instructions that the operator required or needs to know are stated on the first page of each MAP. If the MAP is long, and contains a number of subprocedures, these are listed in synopsis form on the first page.

UNPACKING AND INSPECTION OF EQUIPMENT
MAP200-001
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M101R1

Figure A1-1 Typical Map Page

APPENDIX B

EXTENSION TESTS

B1.01 The following test are a series of extension tests. Specific reference should be made to Table 2-1 and Table 2-3. These Tables will determine if the test is relevant to the system application.

TABLE B1-1
EXTENSION TESTS

Order	Option	Map No.
1	Set Up Test Equipment	215-201
2	Broker's Call	215-202
3	Call Forwarding - Busy	215-203
4	Call Forwarding - Don't Answer	215-204
5	Call Forwarding - Follow Me	215-205
6	Call Park	215-206
7	Call Pickup	215-207
8	Camp-On	215-208
9	Consultation Hold/Transfer/Add-On	215-209
10	Automatic Callback - Don't Answer	215-210
11	Automatic Callback - Busy	215-211
12	Meet-Me Conference	215-212
13	Executive Busy Override	215-213
14	Paging	215-214
15	Do Not Disturb	215-215
16	Call Hold	215-216
17	Room Status	215-217
18	Automatic Wake-Up (Alarm Call)	215-218
19	Common Use Speed Call	215-219
20	Personal Speed Call	215-220
21	External Call Forwarding	215-221
22	Transfer with Privacy	215-222
23	Account Code	215-223
24	Handsfree Station	215-224
25	Call Forwarding - Busy/Don't Answer	215-225
26	Enable Non-CO to Trunk Connect	215-226
27	Repeated Camp-On Tones	215-227
28	Extension Reset	215-228

SET UP TEST EQUIPMENT
MAP215-201
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Sheet 1 of 2

TEST EQUIPMENT REQUIRED
 Maintenance Handset (BUTT-IN)
 Console 1, 2 and 3 Telephone
 Sets (Check Extensions located
 within reach of equipment
 cabinet).

NOTE
 Check extension must have access to
 all features to be tested.

- (1A) Unlock and open cabinet door
 on cabinet versions
ON MAINTENANCE PANEL
 (1B) Connect maintenance handset
 Tip lead to TIP stud (Figure
 201-1)
 (1C) Connect maintenance handset
 Ring lead to RING stud
 (1D) Insert console connector into
 MAINTENANCE CONNECTOR
**AT CHECK EXTENSION 1, 2
 AND 3**
 (1E) Connect check extension Tip
 and Ring lead to TIP and RING
 pins on Cross-Connect Field

- AT MAINTENANCE HANDSET**
 (2A) Set switch to OFF-HOOK
 * Dial tone
 (2B) Dial '0'
 * Ringing tone
 * Console rings
AT CONSOLE
 (2C) Press ANSWER
 * SOURCE display shows number
 and Class of Service of test
 line; ATT lamp lit
 (2D) Note number of test line
 (2E) Press RELEASE
 (2F) Set maintenance handset switch
 to ON-HOOK

- AT CHECK EXTENSION 1**
 (3A) Lift handset
 * Dial tone
 (3B) Dial '0'
 * Ringing tone
 * Console rings
AT CONSOLE
 (3C) Press ANSWER
 * SOURCE display shows number
 and Class of Service of check
 extension; ATT lamp lit
 (3D) Note number of check extension
 (3E) Press RELEASE
 (3F) Replace check extension handset

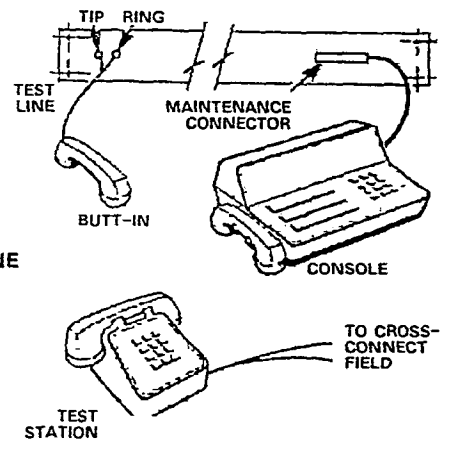
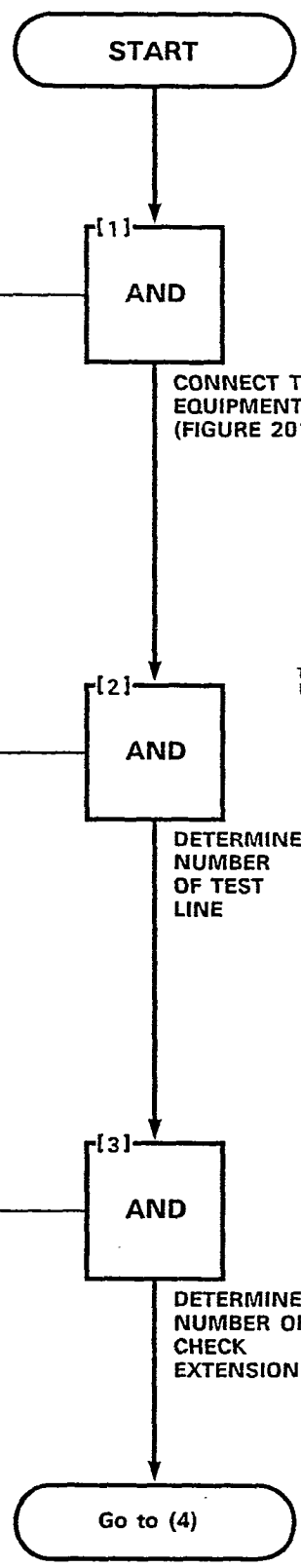
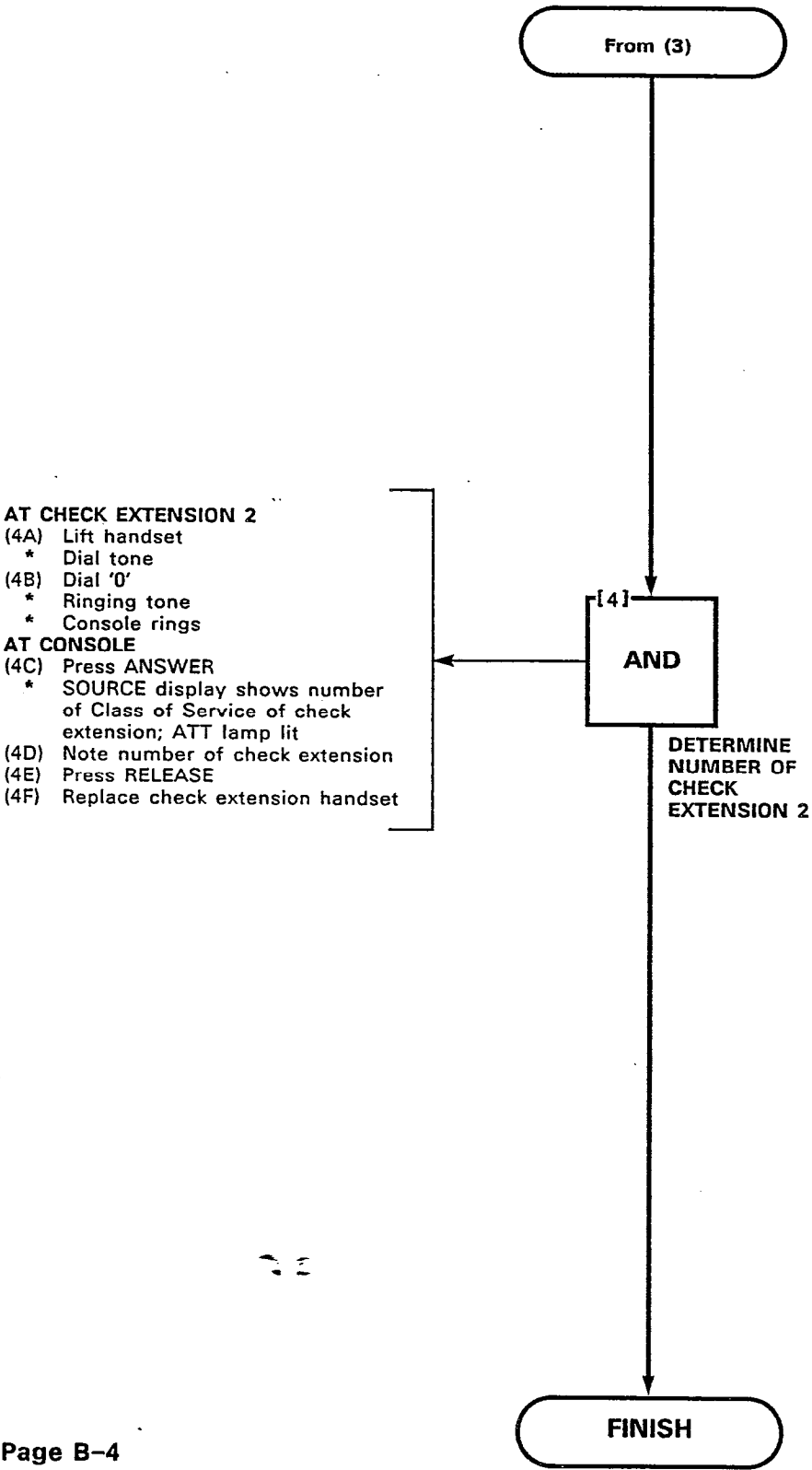


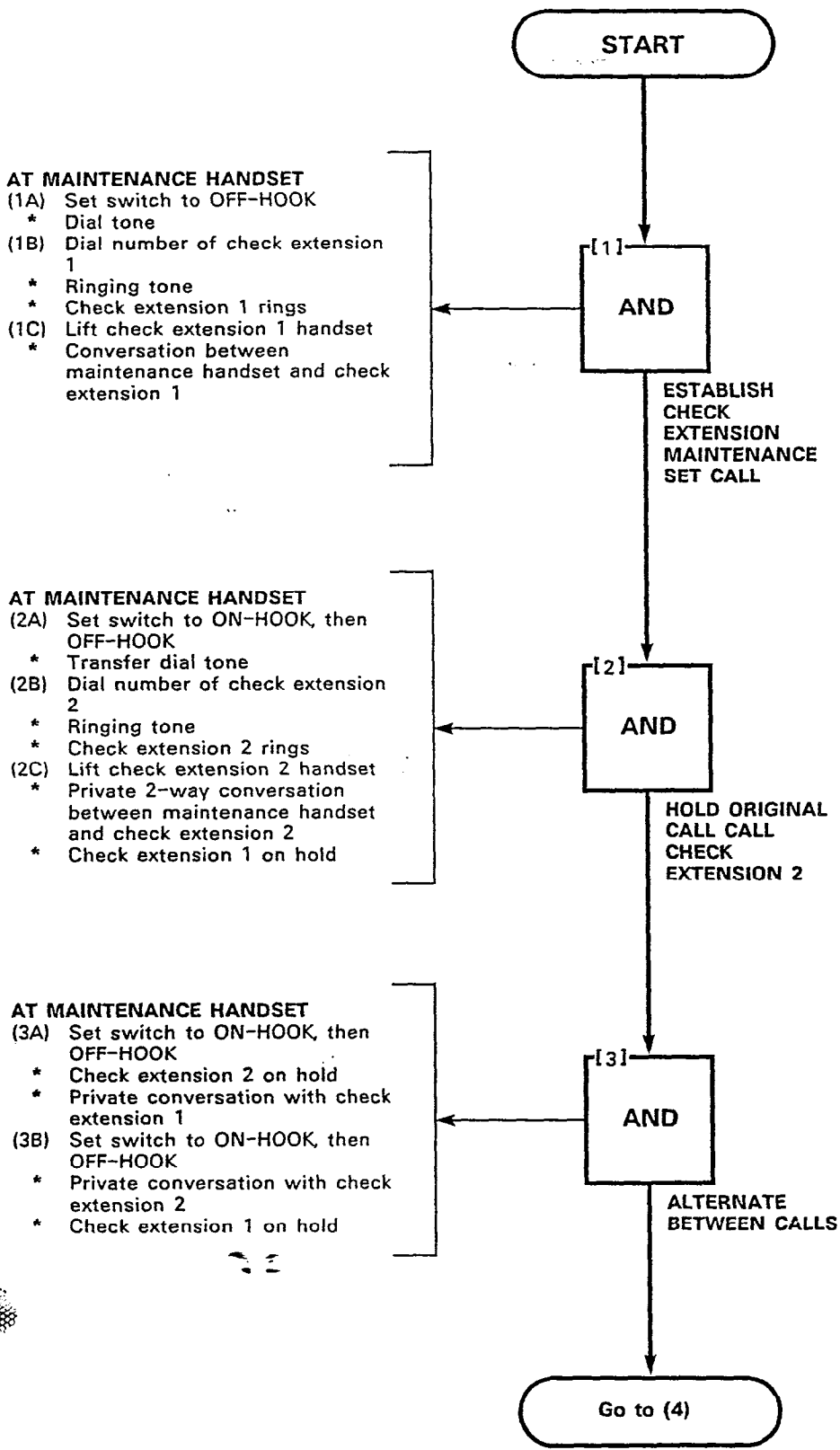
Figure 201-1

X266

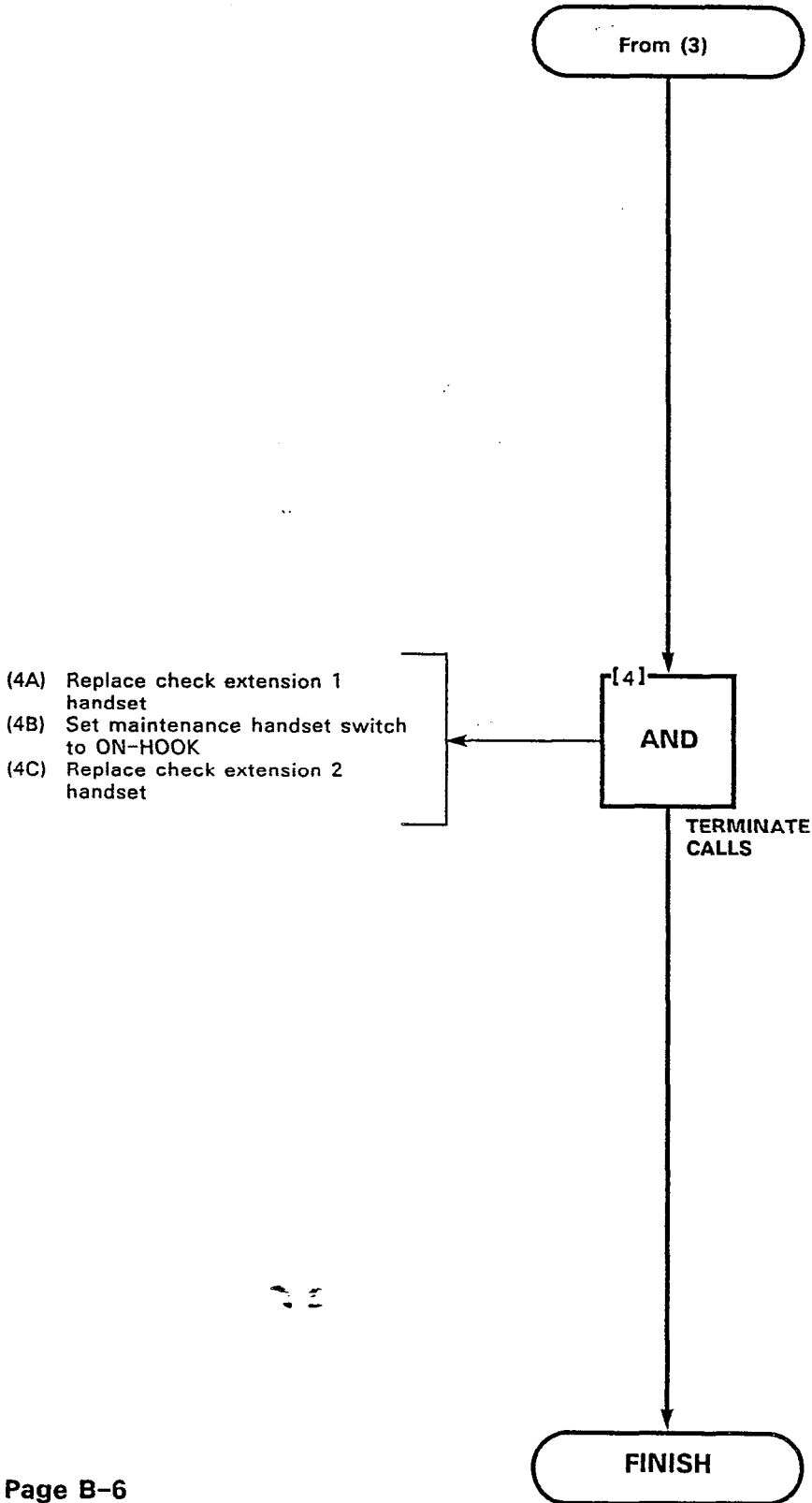
SET UP TEST EQUIPMENT
MAP215- 201
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BROKER'S CALL
MAP215-202
Issue 3, May 1984
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BROKER'S CALL
MAP215- 202
Issue 3, May 1984
Sheet 2 of 2

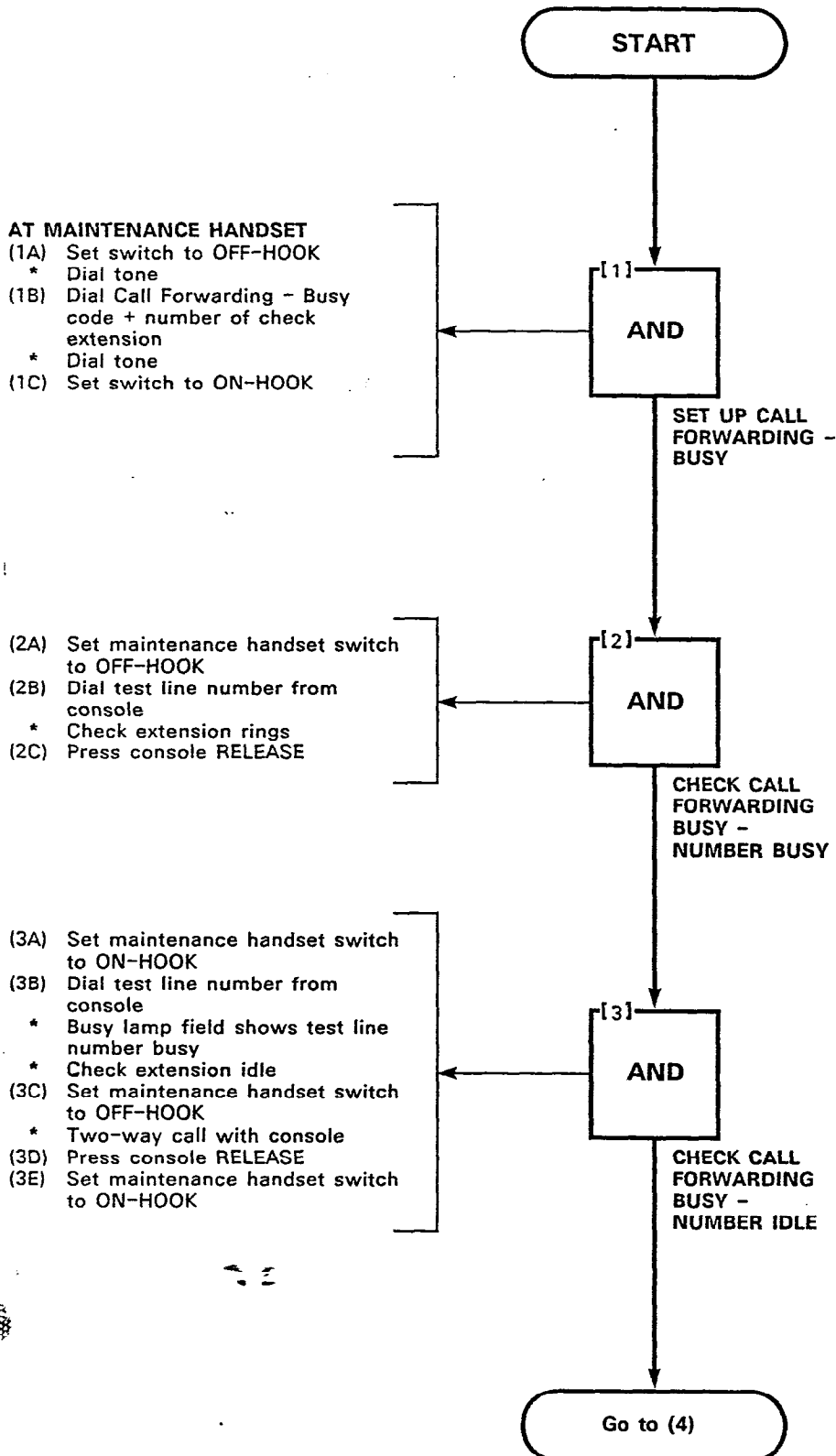


CALL FORWARDING - BUSY

MAP215-203

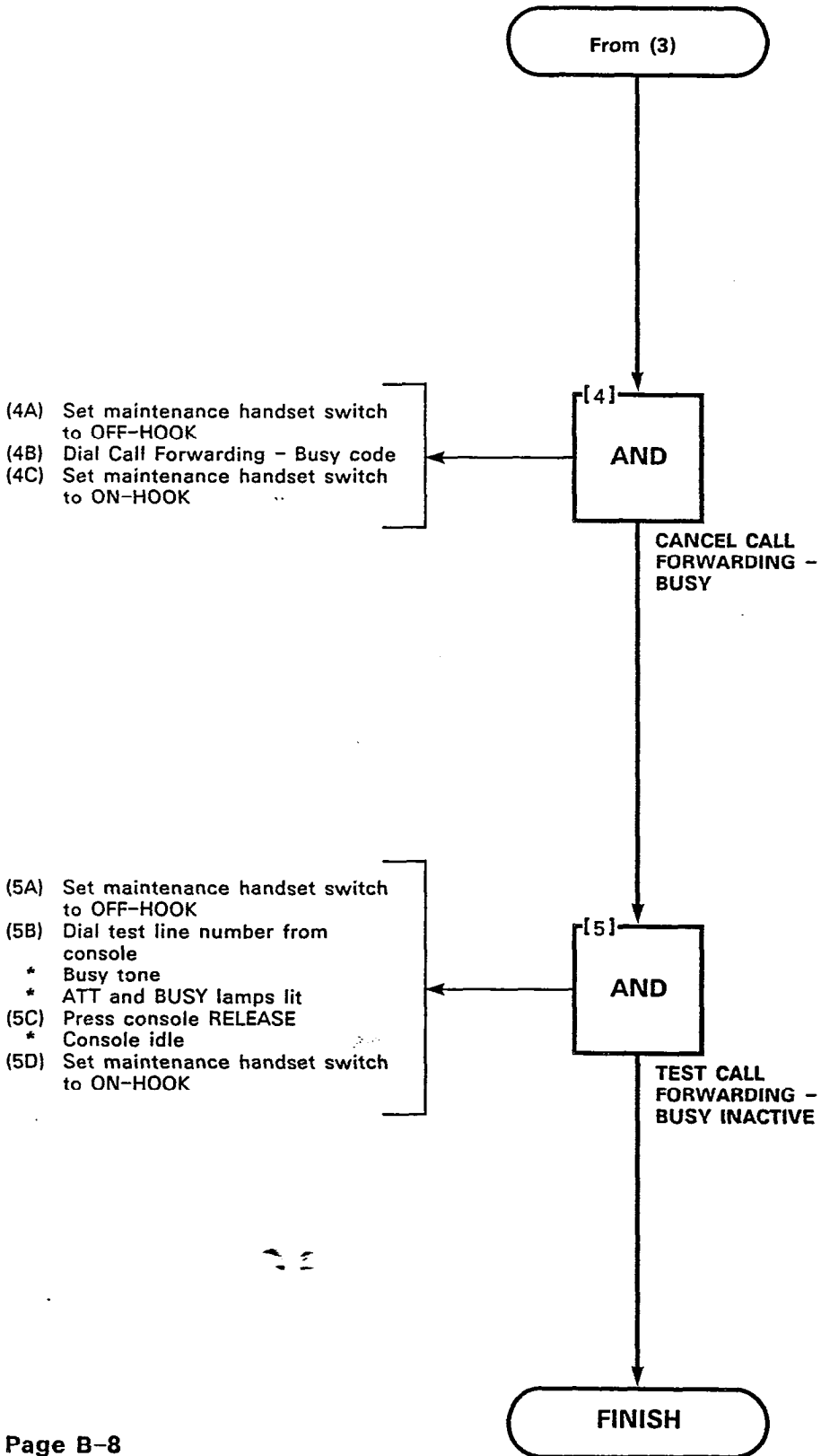
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CALL FORWARDING - BUSY
MAP215- 203
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CALL FORWARDING - DON'T ANSWER

MAP215-204

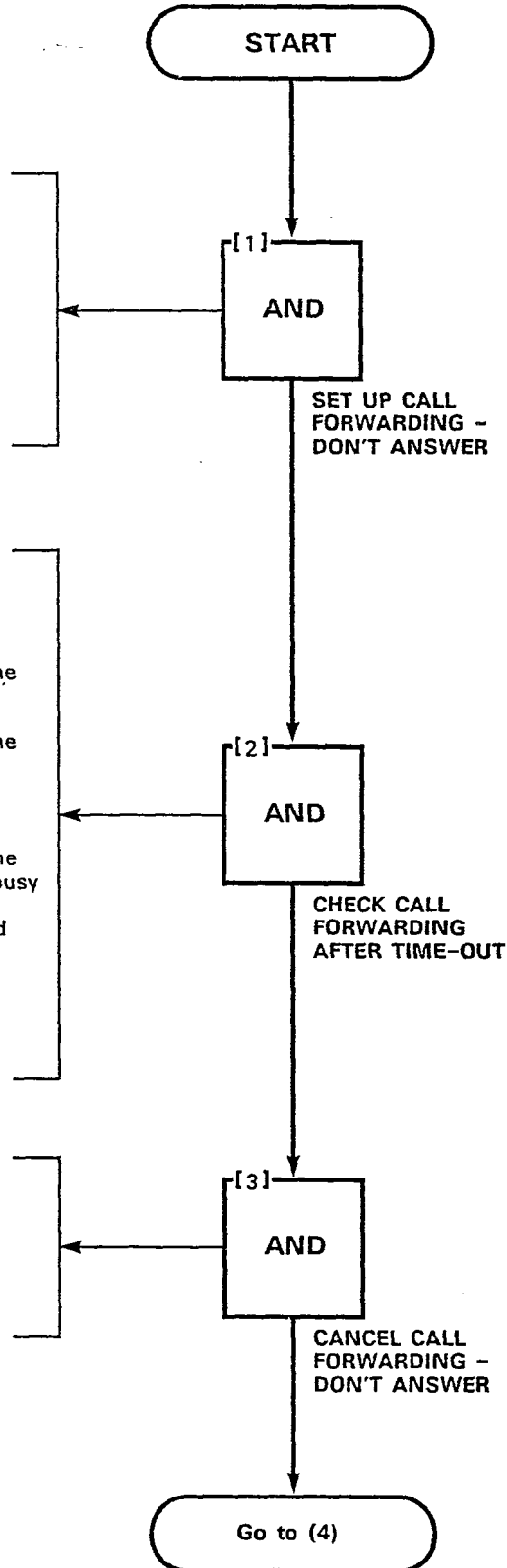
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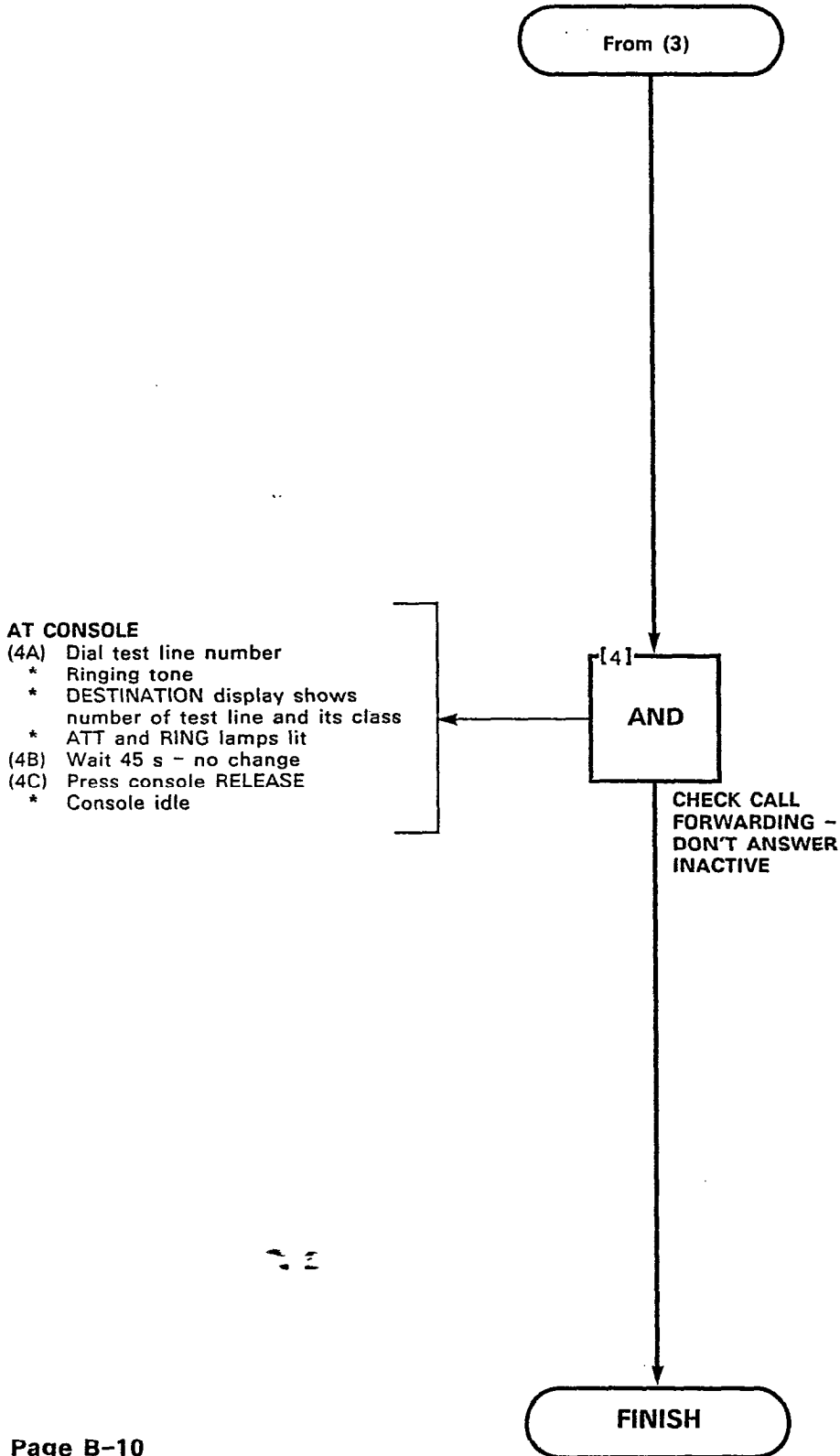
- AT MAINTENANCE HANDSET**
- (1A) Set switch to OFF-HOOK
 - * Dial tone
 - (1B) Dial Call Forwarding - Don't Answer code + number of check extension
 - * Dial tone
 - (1C) Set switch to ON-HOOK

- AT CONSOLE**
- (2A) Dial test line number from console
 - * Ringing tone
 - * DESTINATION display shows the test line number and its class; ATT and RING lamps lit
 - * Busy Lamp Field shows test line number busy
 - (2B) After time-out (10 s, 20 s, 30 s or 40 s):
 - * Check extension rings
 - * Busy Lamp Field shows test line number idle, check extension busy
 - * DESTINATION display shows number of check extension and its class
 - * ATT and RING lamps lit
 - (2C) Press console RELEASE
 - * Console idle

- AT MAINTENANCE HANDSET**
- (3A) Set switch to OFF-HOOK
 - * Dial tone
 - (3B) Dial Call Forwarding - Don't Answer code
 - (3C) Set switch to ON-HOOK



CALL FORWARDING - DON'T ANSWER
MAP215- 204
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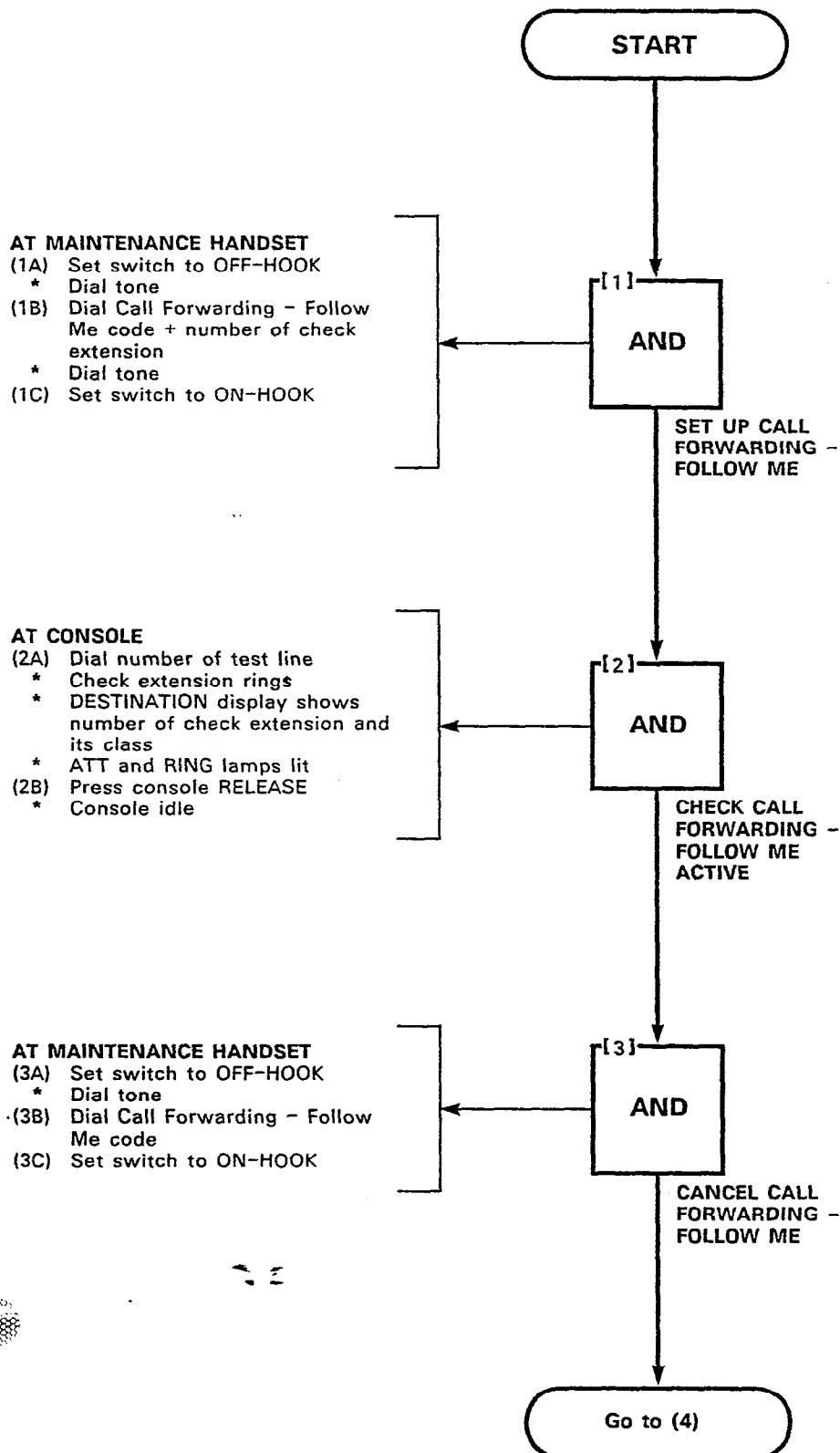


CALL FORWARDING - FOLLOW ME

MAP215-205

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CALL FORWARDING - FOLLOW ME
MAP215- 205
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From (3)

[4]
AND

CHECK CALL FORWARDING - FOLLOW ME INACTIVE

FINISH

AT CONSOLE

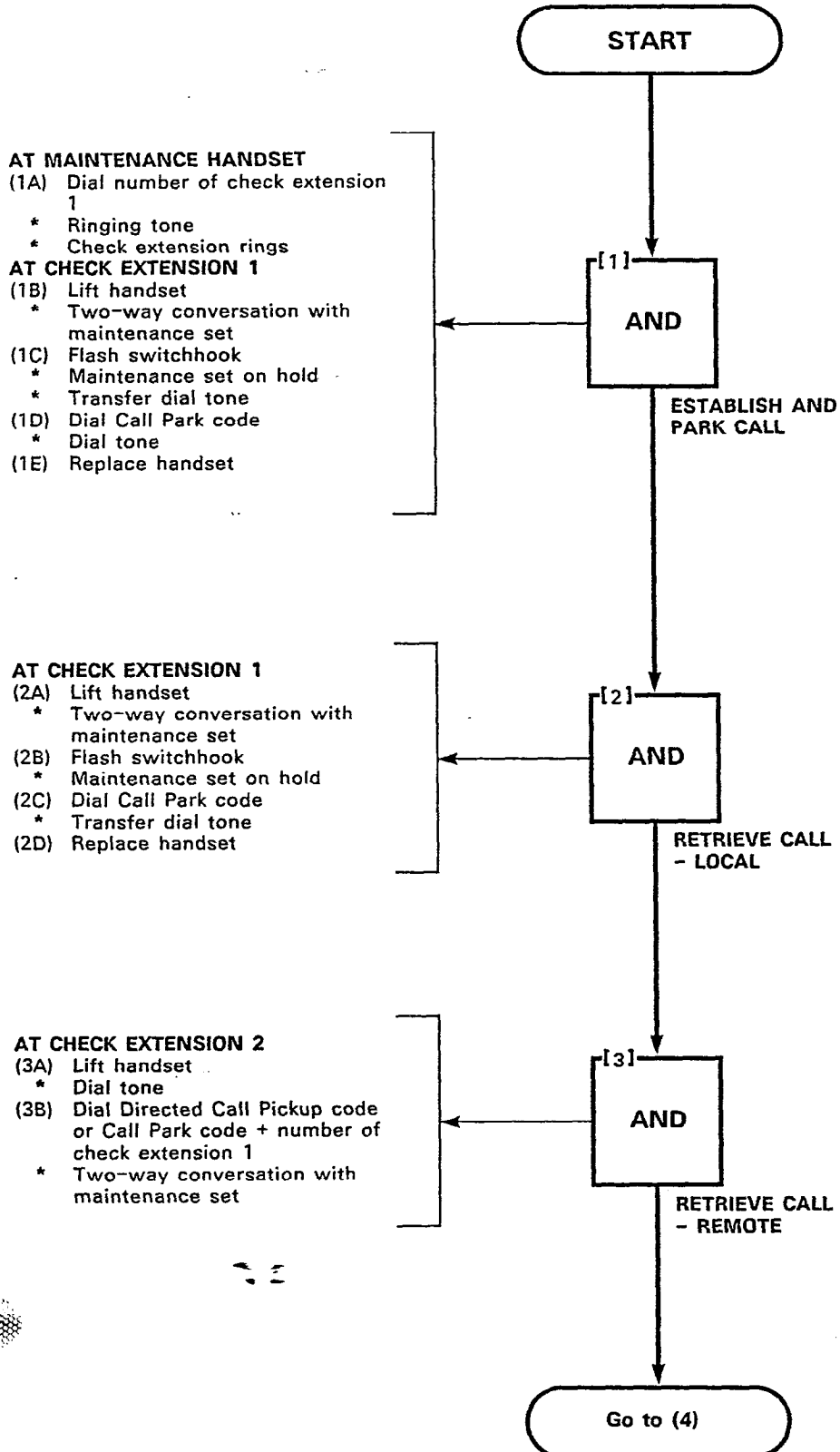
- (4A) Dial test line number
 - * DESTINATION display shows number of test line and its class
 - * ATT and RING lamps lit
- (4B) Press console RELEASE
 - * Console Idle

CALL PARK

MAP215-206

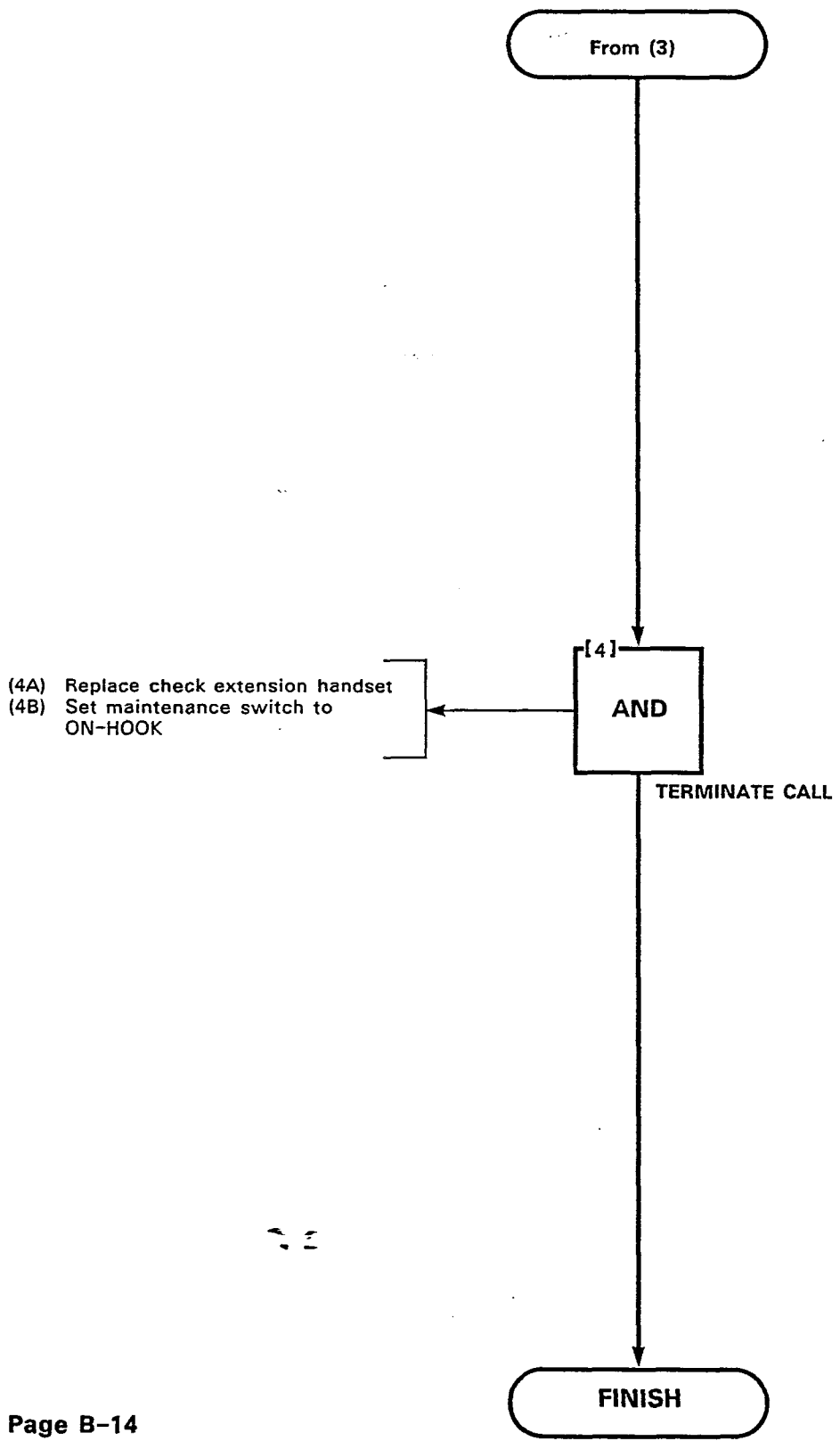
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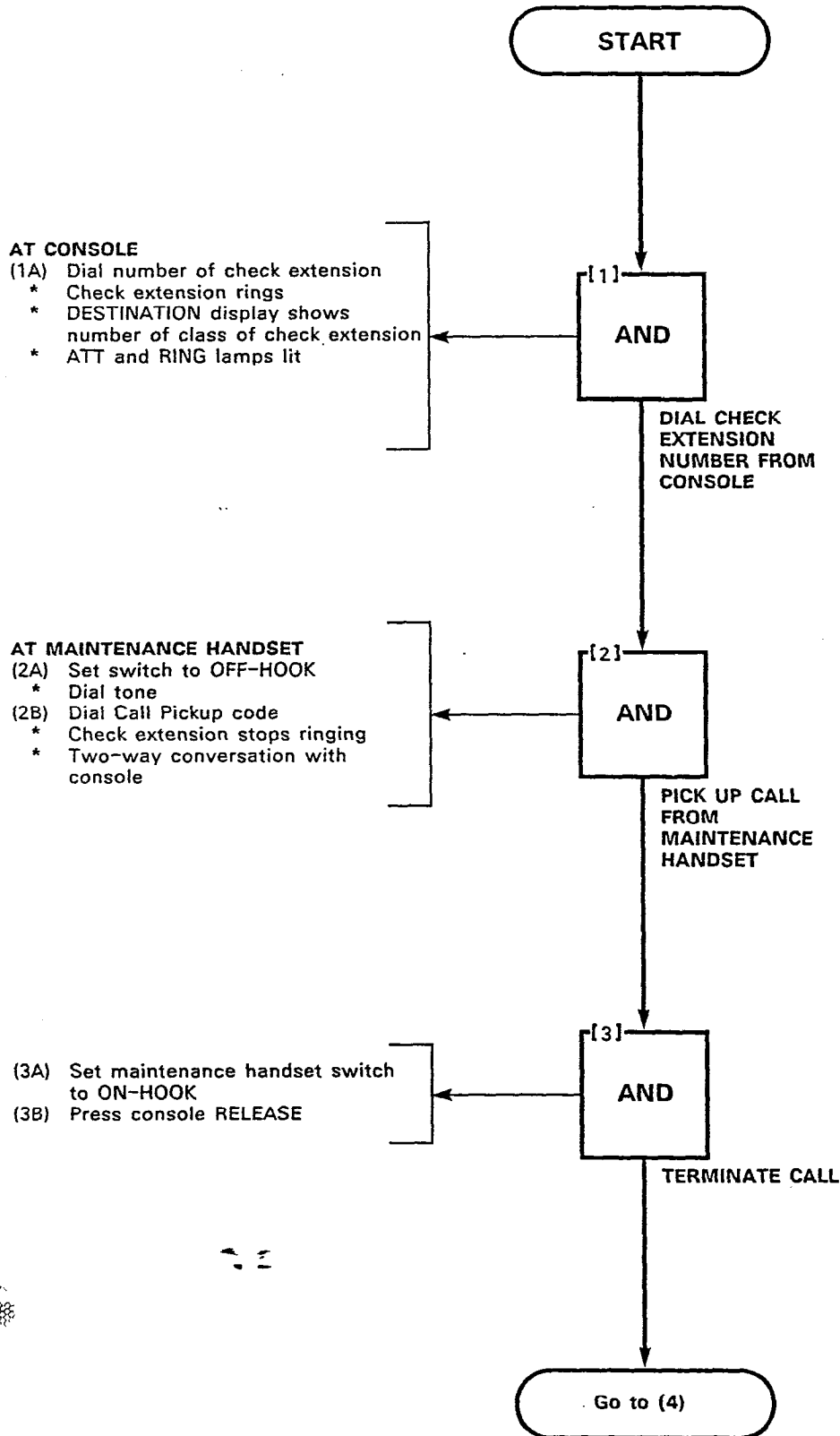


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CALL PARK
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CALL PICKUP
MAP215- 207
Issue 3, May 1984
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CALL PICKUP
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NOTE
Check extension and test line must be in the same Pickup Group.

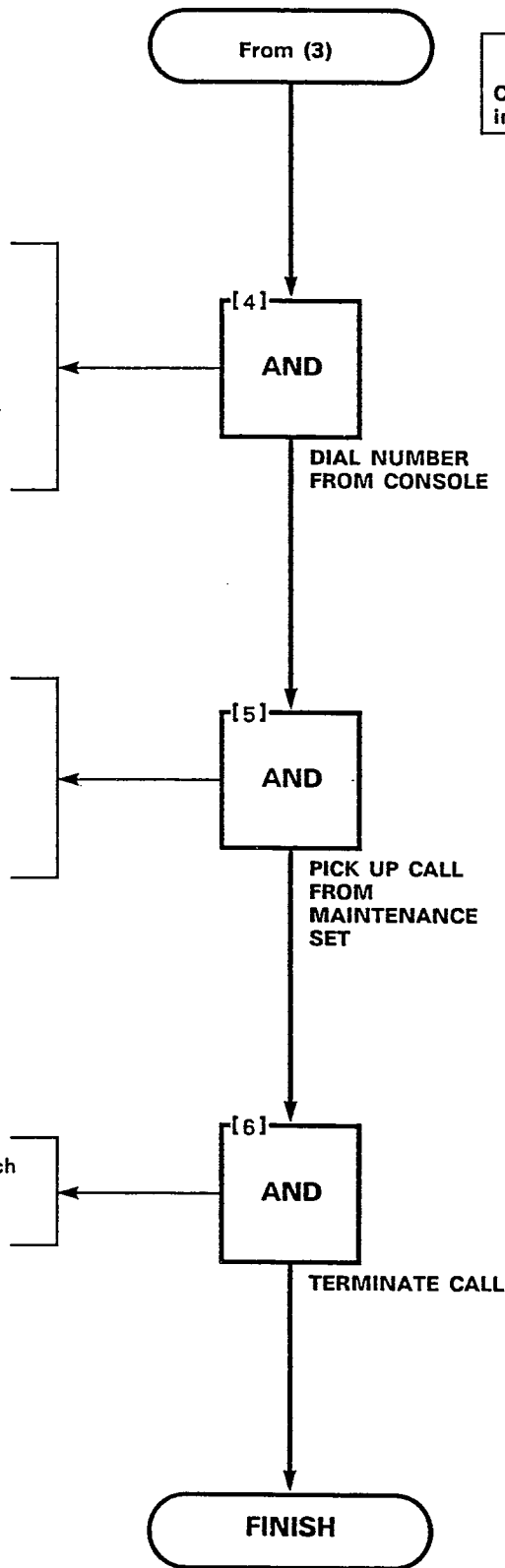
AT CONSOLE

- (4A) Dial number other than that of test line or check extension
- * DESTINATION display shows number dialed and class of extension dialed
 - * ATT and RING lamps lit
 - * Busy Lamp Field shows called number busy

AT MAINTENANCE HANDSET

- (5A) Set switch to OFF-HOOK
- * Dial tone
- (5B) Dial Directed Call Pickup code + number dialed in (4A)
- (5C) Two-way conversation with console

- (6A) Set maintenance handset switch to ON-HOOK
- (6B) Press console RELEASE

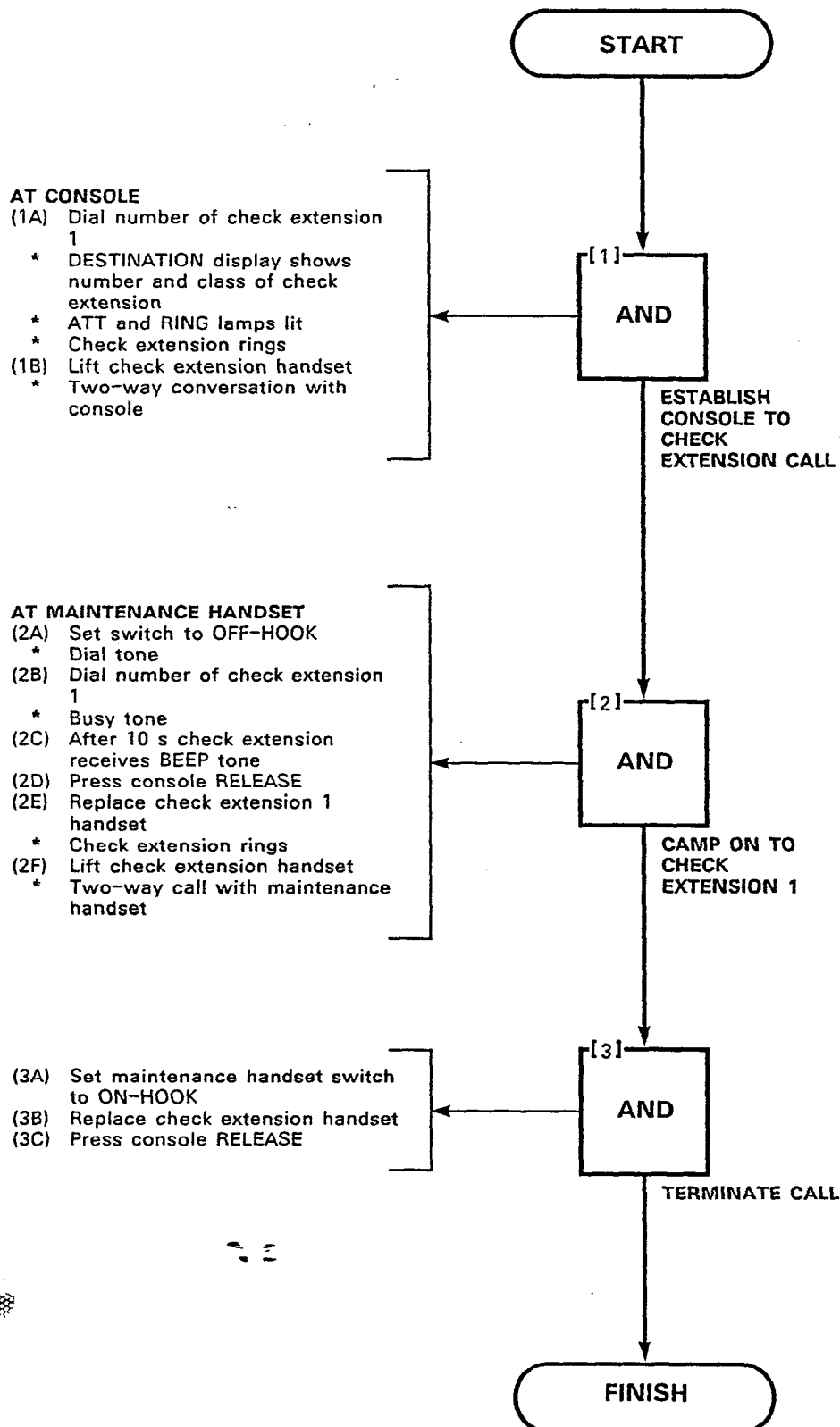


CAMP-ON

MAP215-208

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Sheet 1 of 1

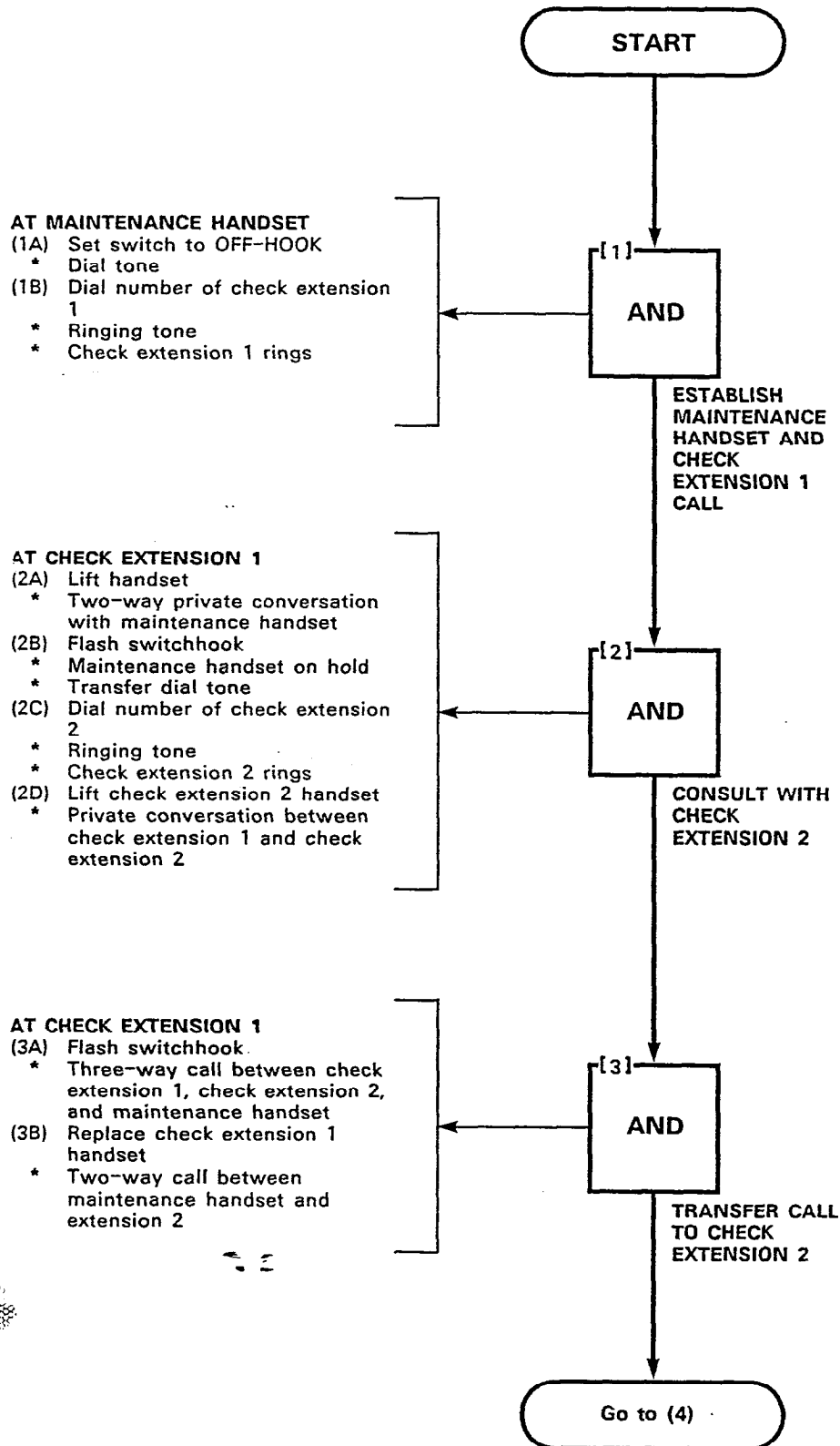


CONSULTATION HOLD/TRANSFER/ADD-ON

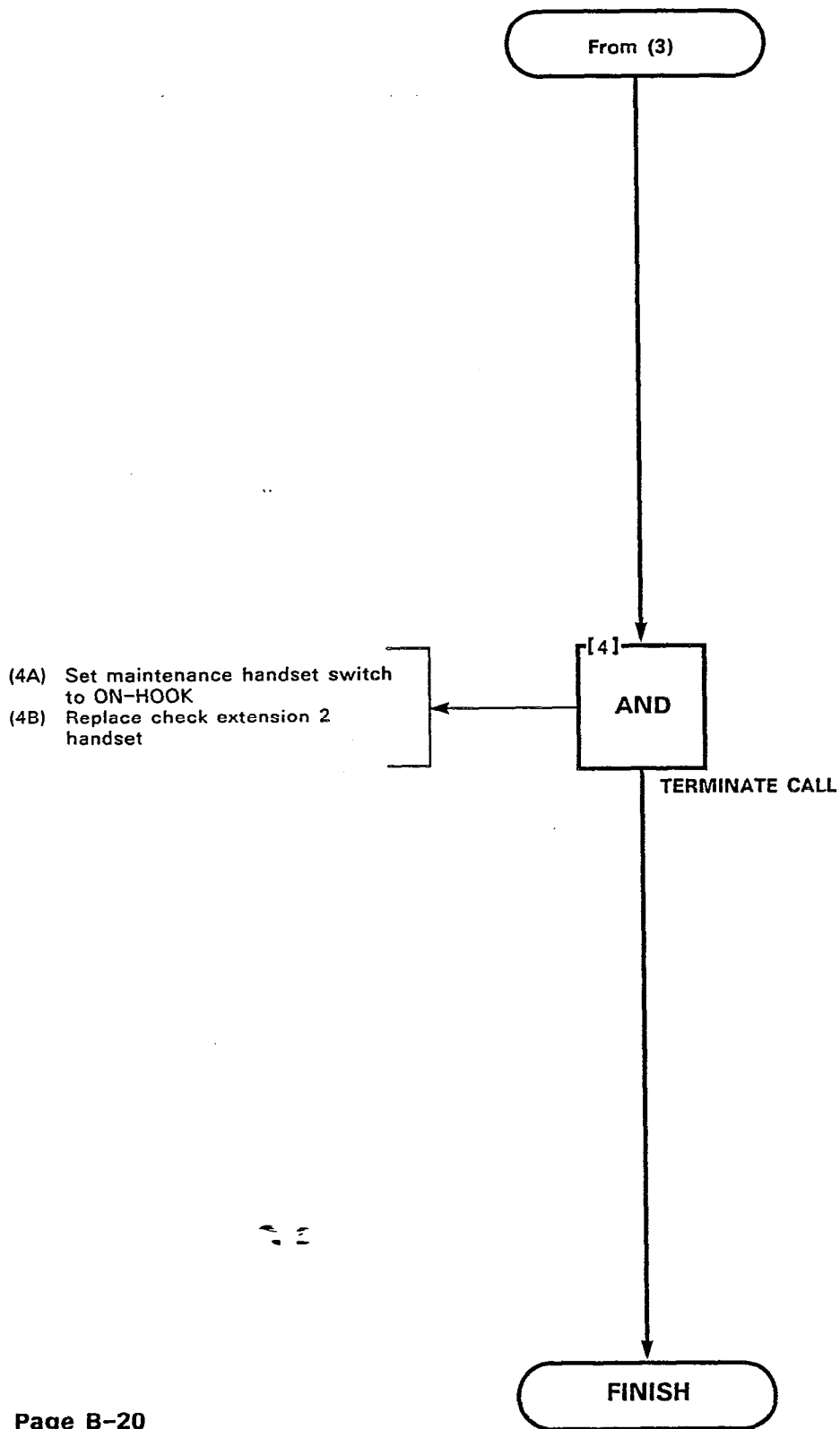
MAP215-209

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CONSULTATION HOLD/TRANSFER/ADD-ON
MAP200- 209
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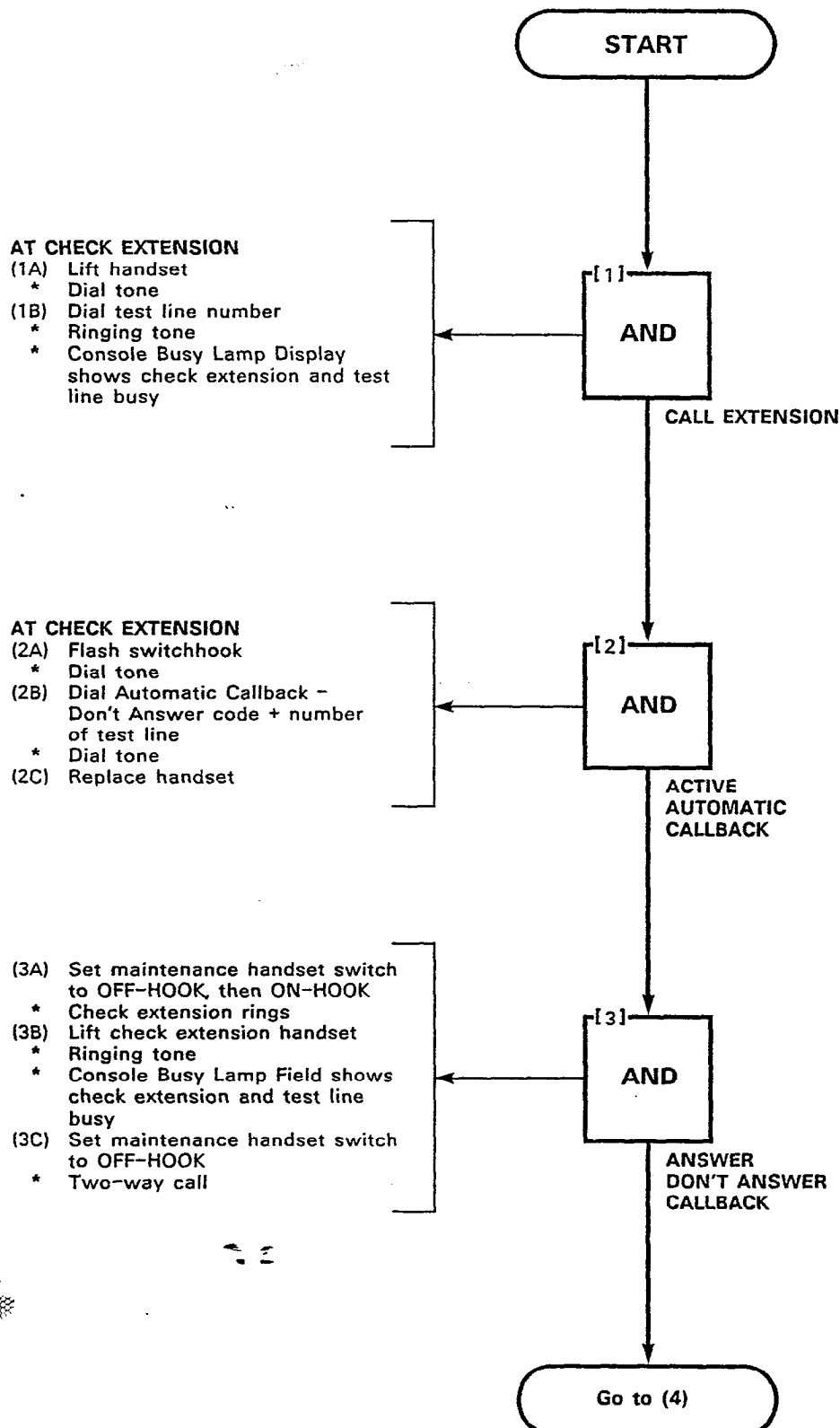


AUTOMATIC CALLBACK - DON'T ANSWER
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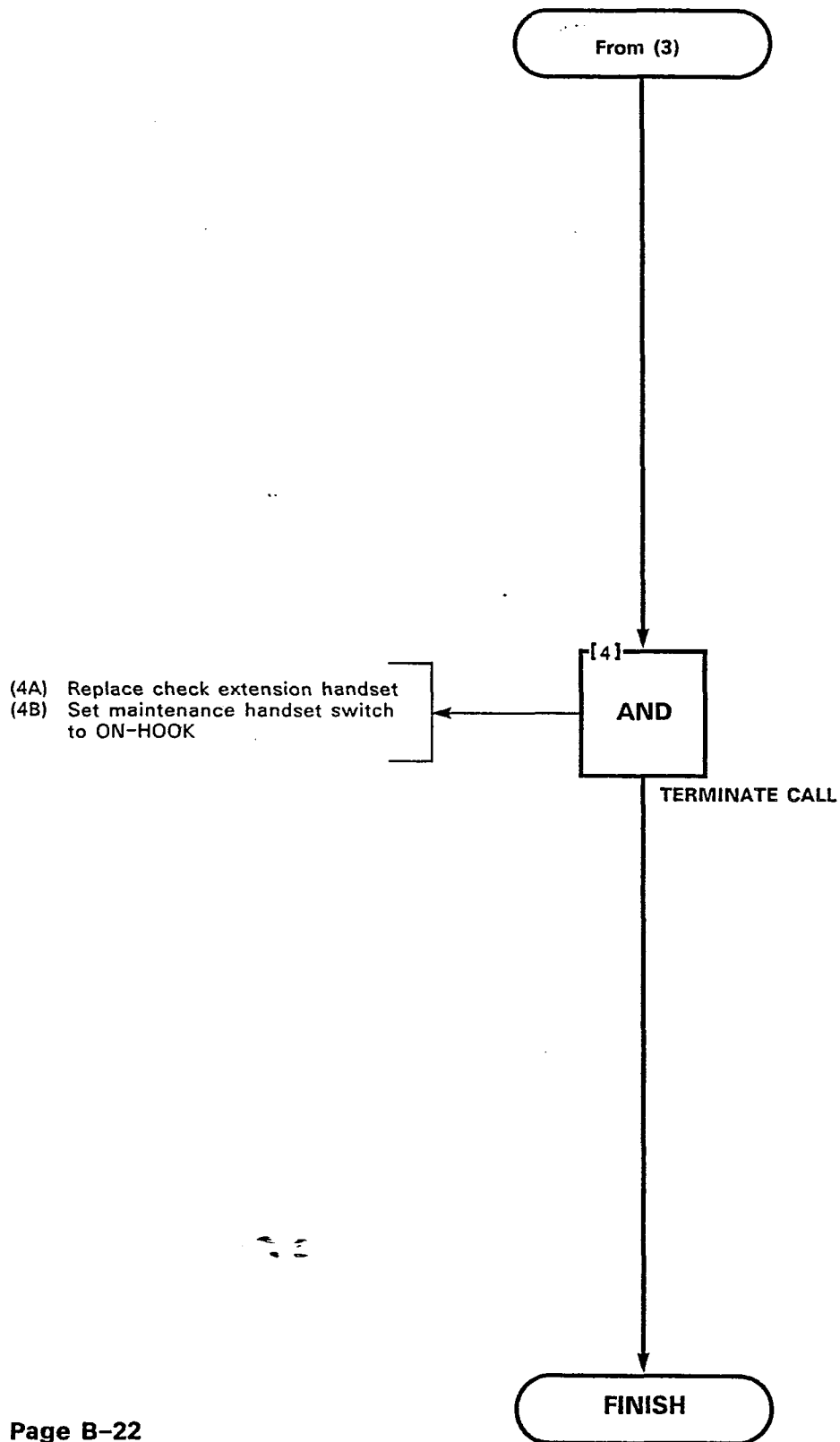
MAP215-210

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AUTOMATIC CALLBACK - DON'T ANSWER
MAP200- 210
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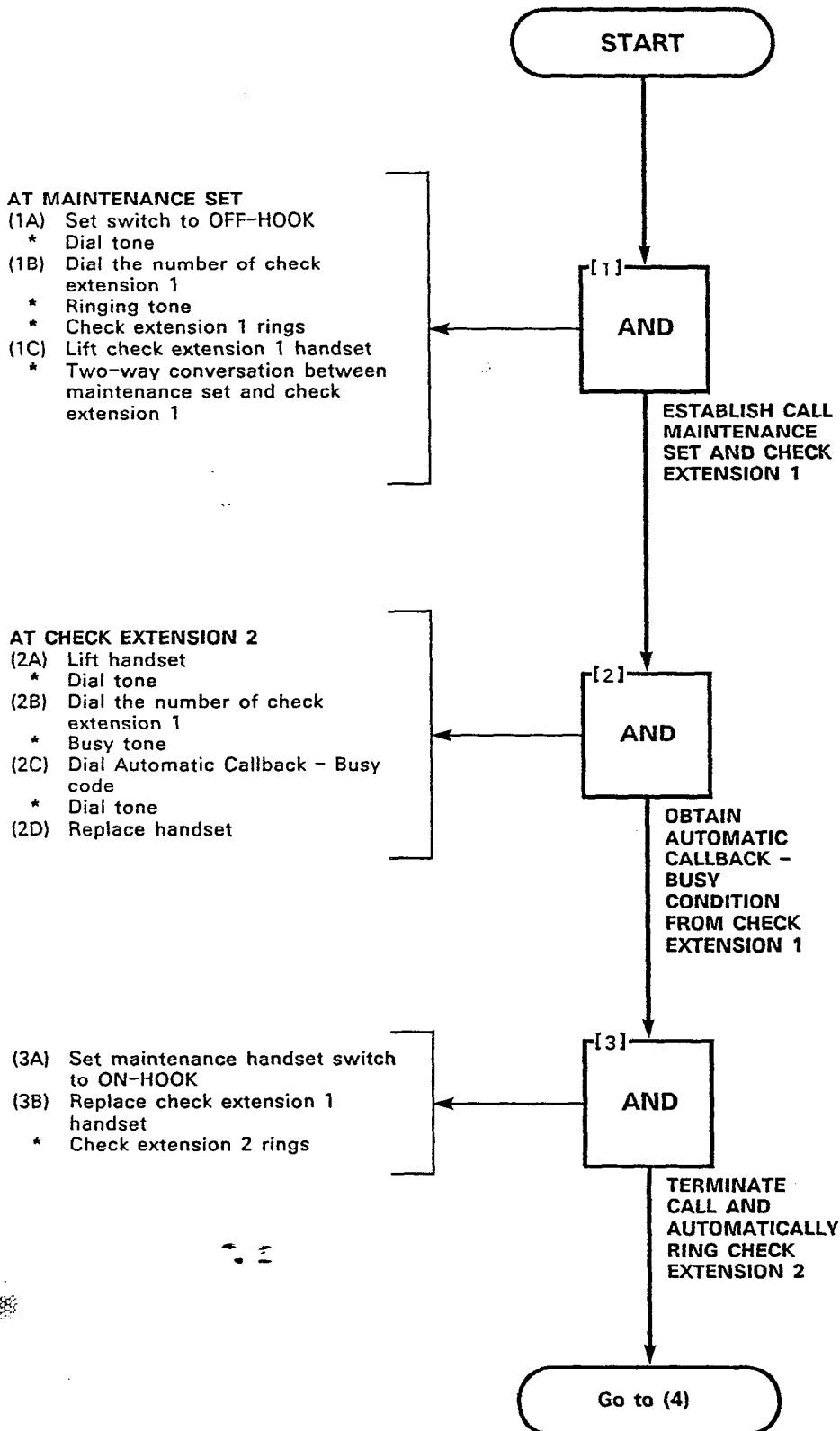


AUTOMATIC CALLBACK - BUSY

MAP215-211

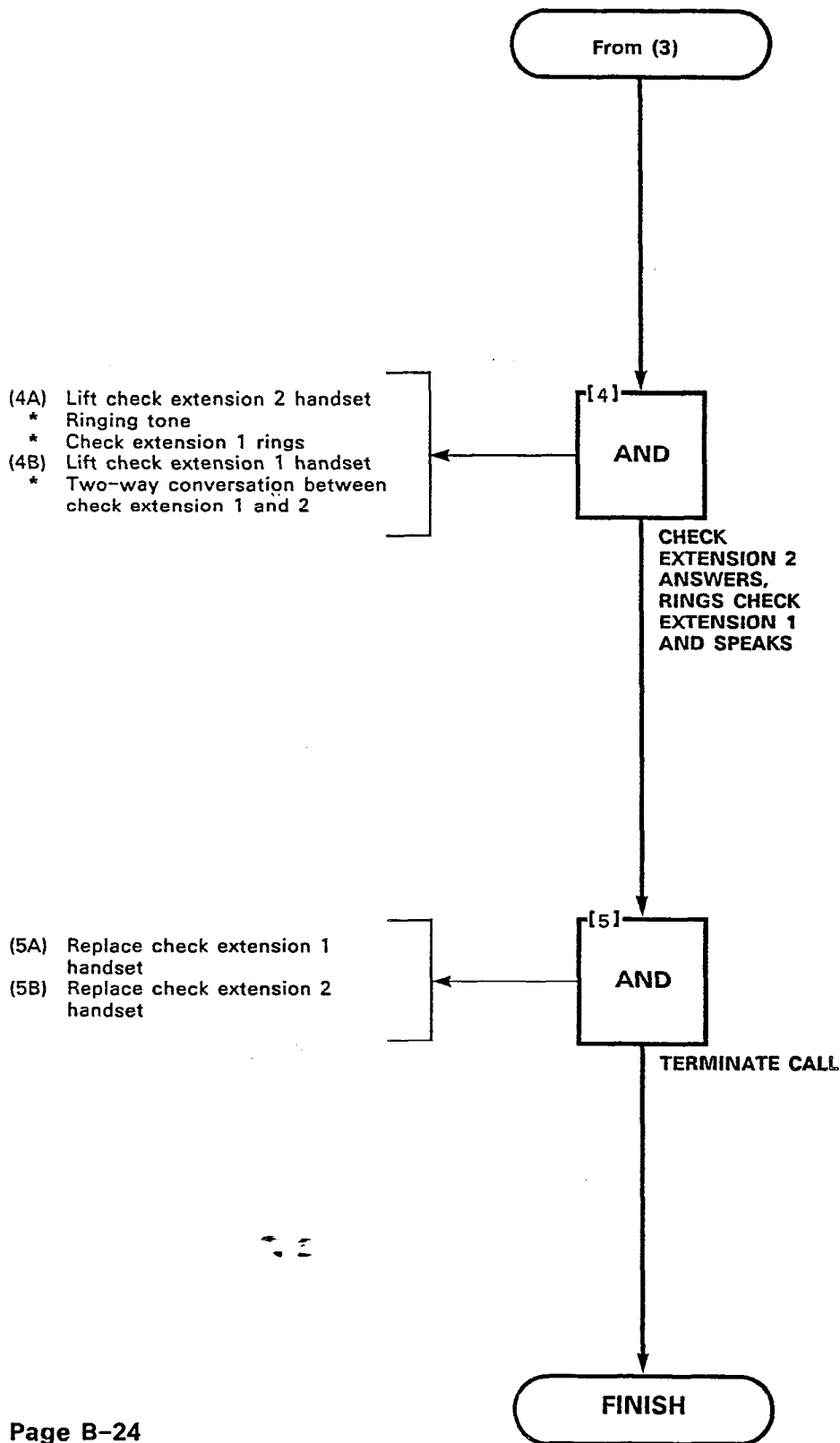
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AUTOMATIC CALLBACK - BUSY
MAP215- 211
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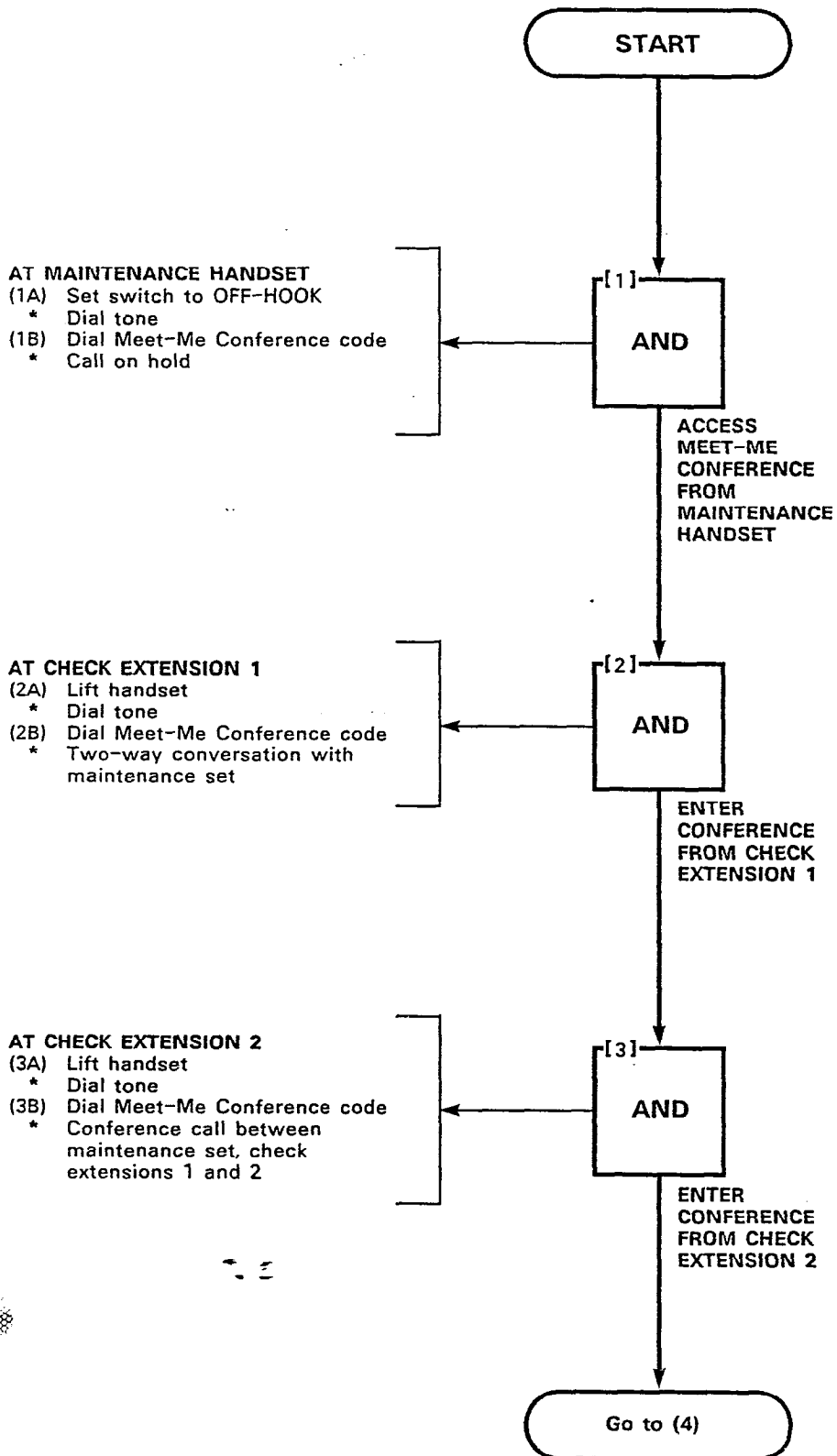


MEET-ME CONFERENCE

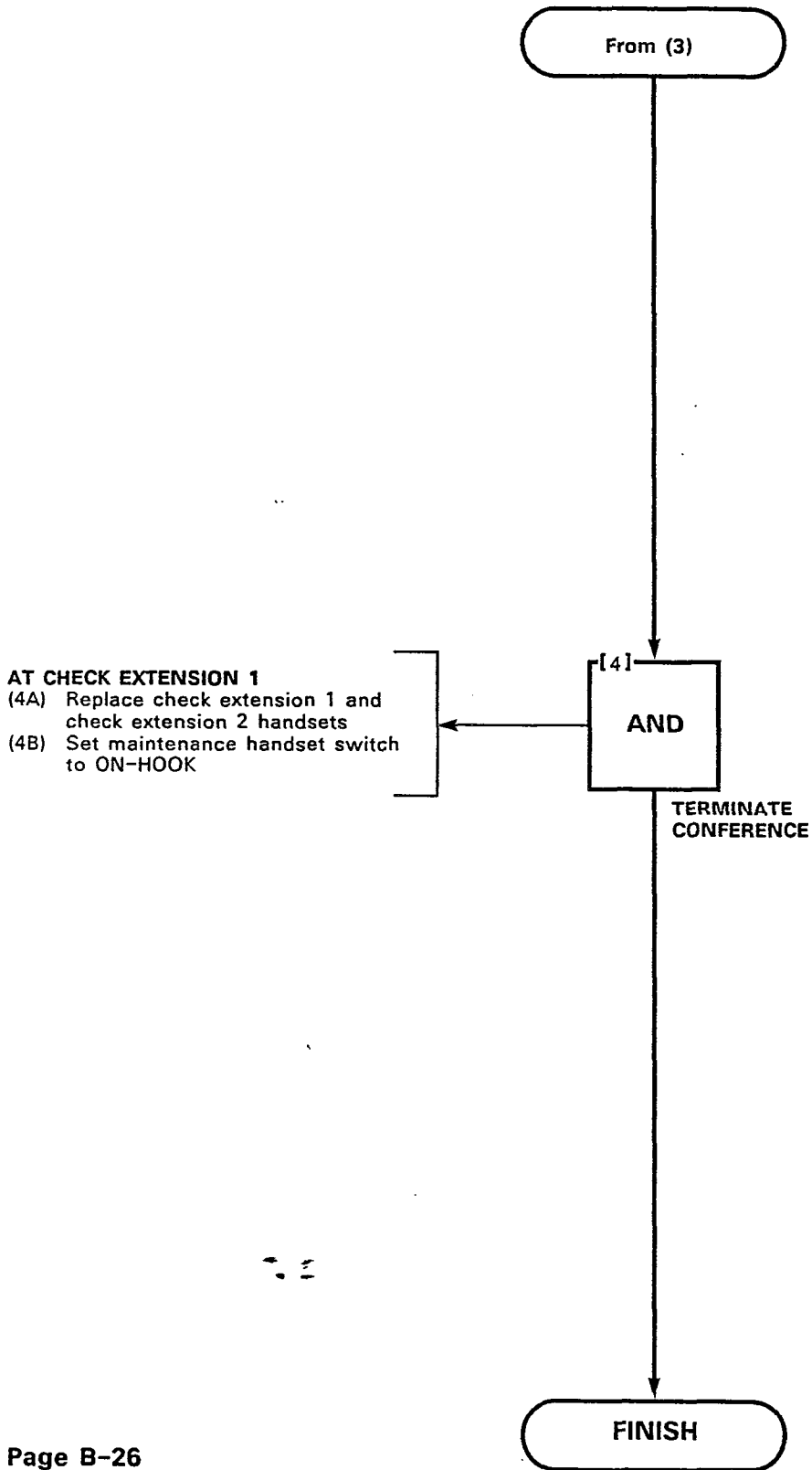
MAP215-212

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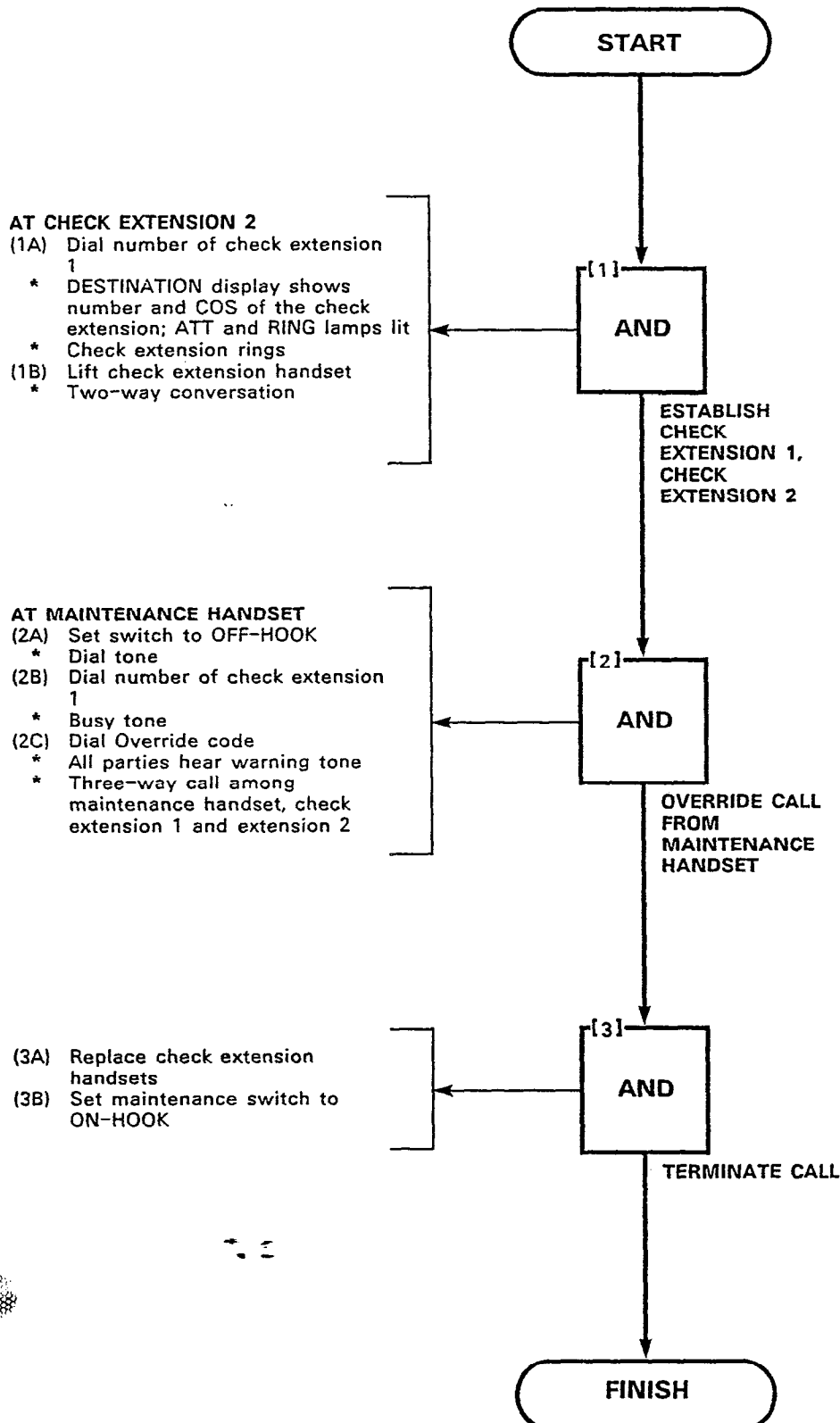
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MEET-ME CONFERENCE
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EXECUTIVE BUSY OVERRIDE
MAP215-213
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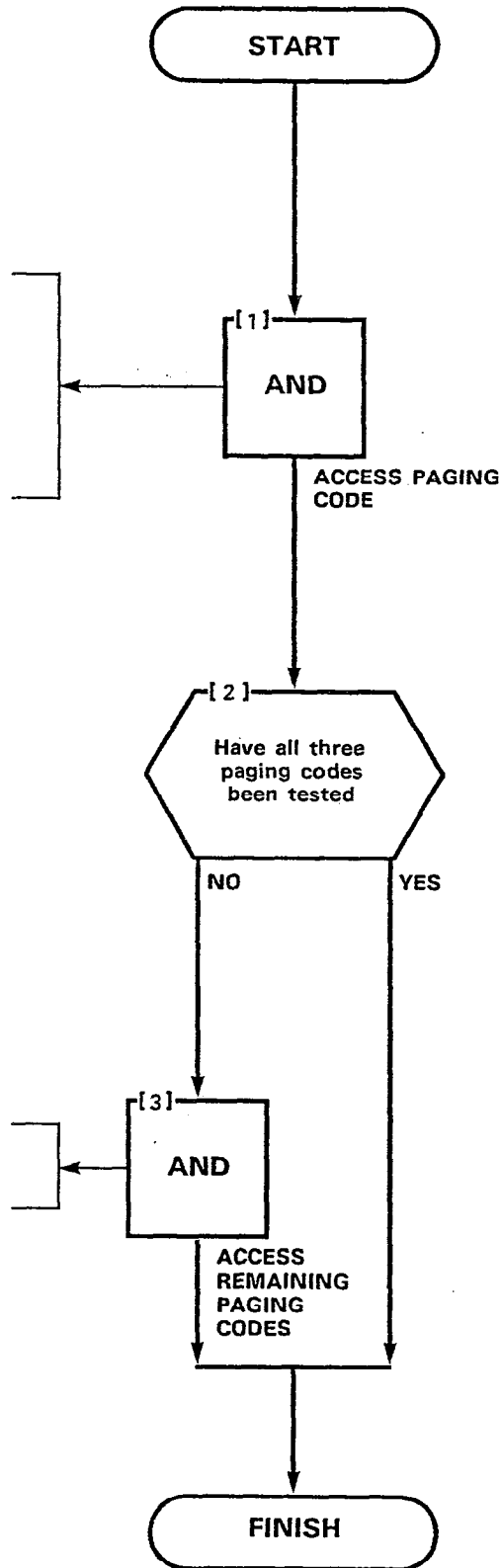


PAGING
MAP215-214
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AT CHECK EXTENSION

- (1A) Lift handset
 - * Dial tone
- (1B) Dial Paging access code
 - * Beep heard
 - * Check extension connected to paging equipment

- (3A) Repeat Step 1 for remaining paging codes



DO NOT DISTURB
MAP215-215
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AT CHECK EXTENSION

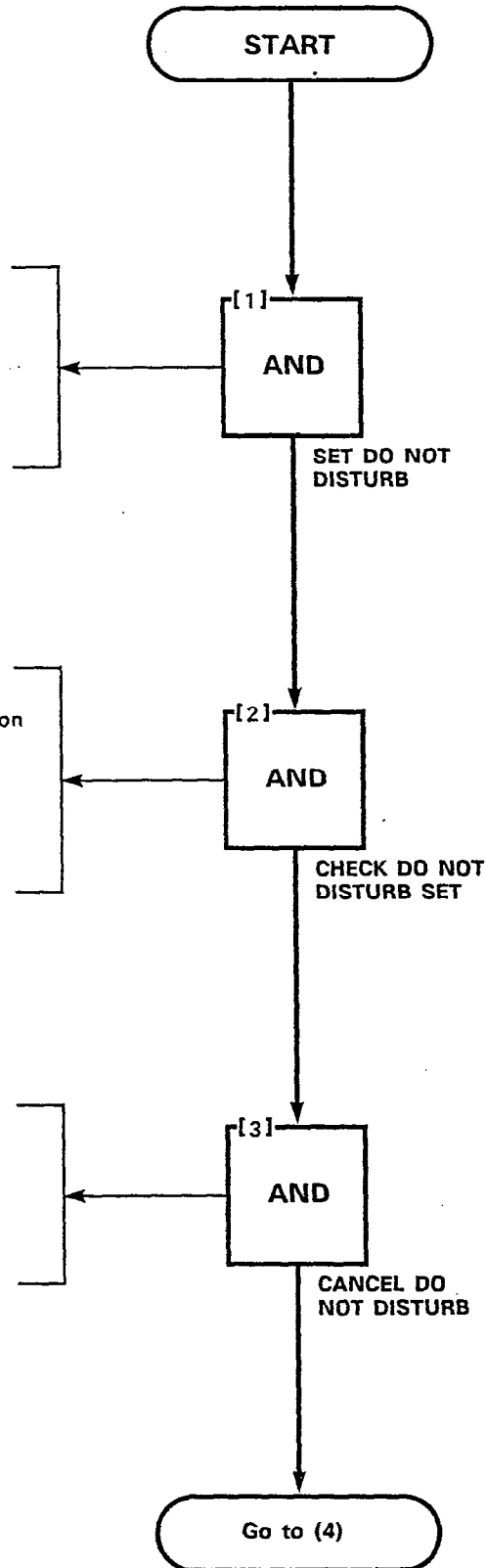
- (1A) Lift handset
 - * Dial tone
- (1B) Dial Do Not Disturb access code + 1
 - * Dial Tone

FROM THE CONSOLE

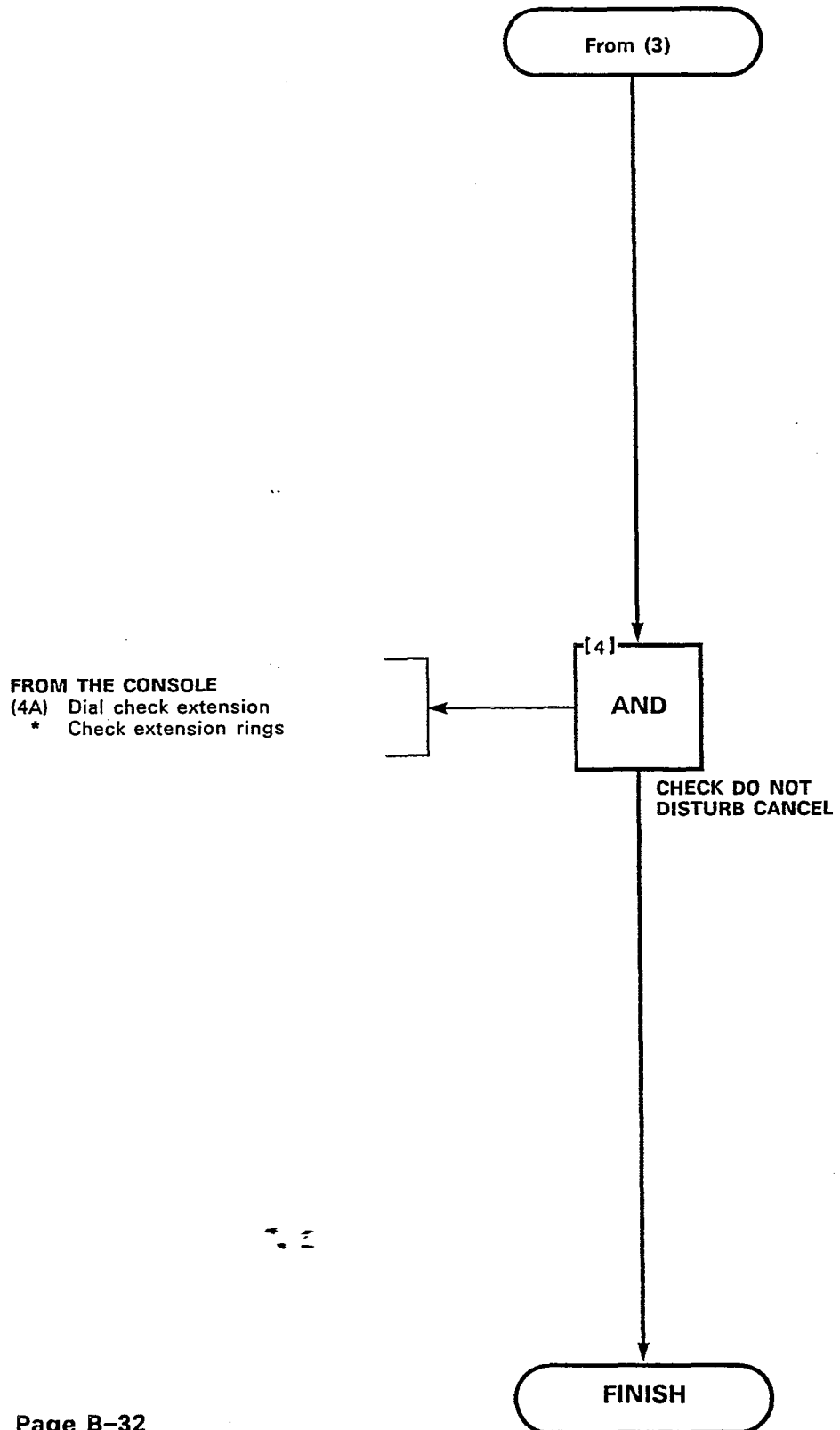
- (2A) Dial check extension. Destination shows:
 - * Extension number
 - * ATT lamp lit
 - * ERR lamp lit
 - * DO NOT DSTB lamp flashes
 - * Press RELEASE

AT CHECK EXTENSION

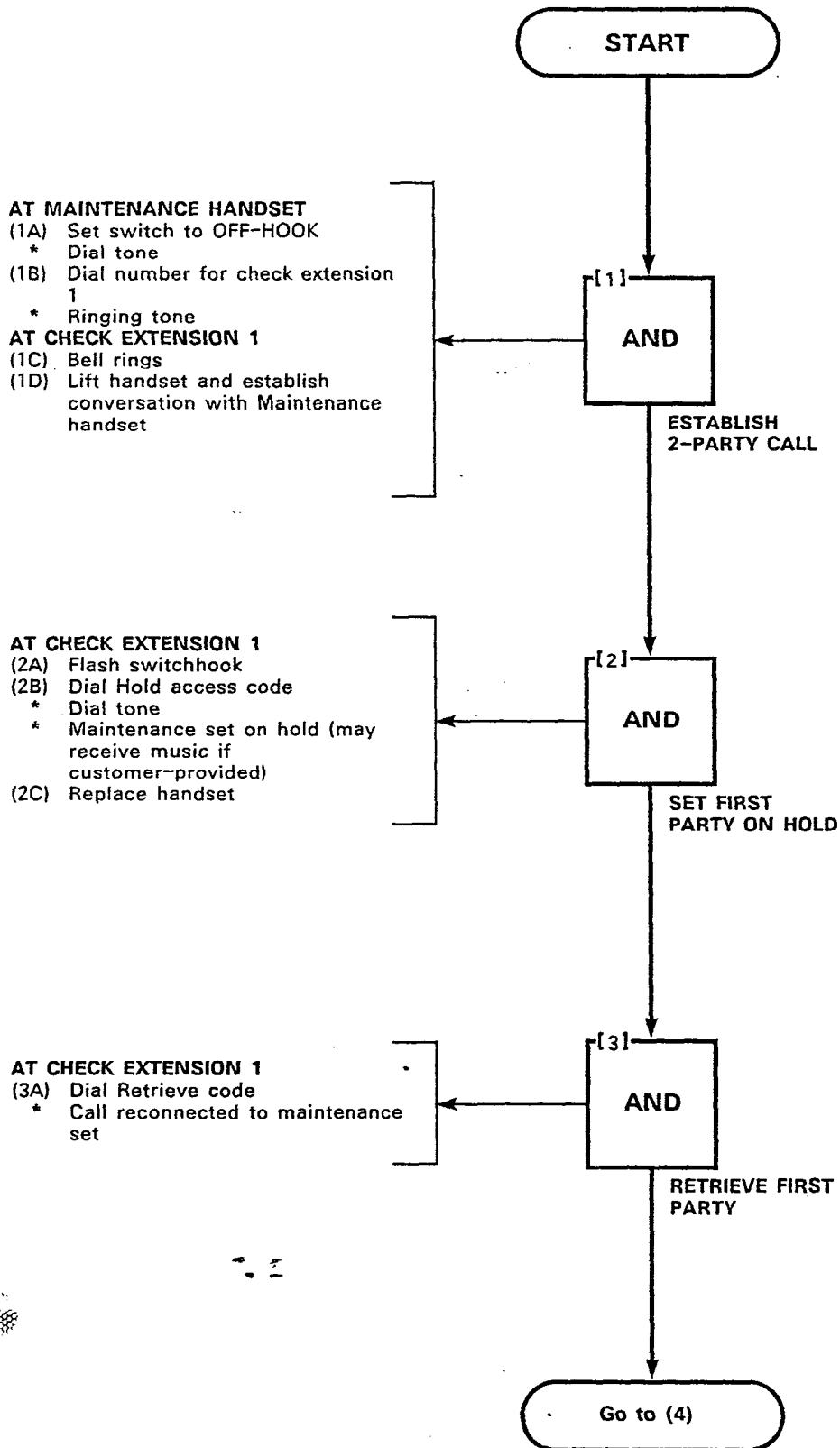
- (3A) Lift handset
 - * Dial tone
- (3B) Dial Do Not Disturb access code + 2
 - * Dial tone



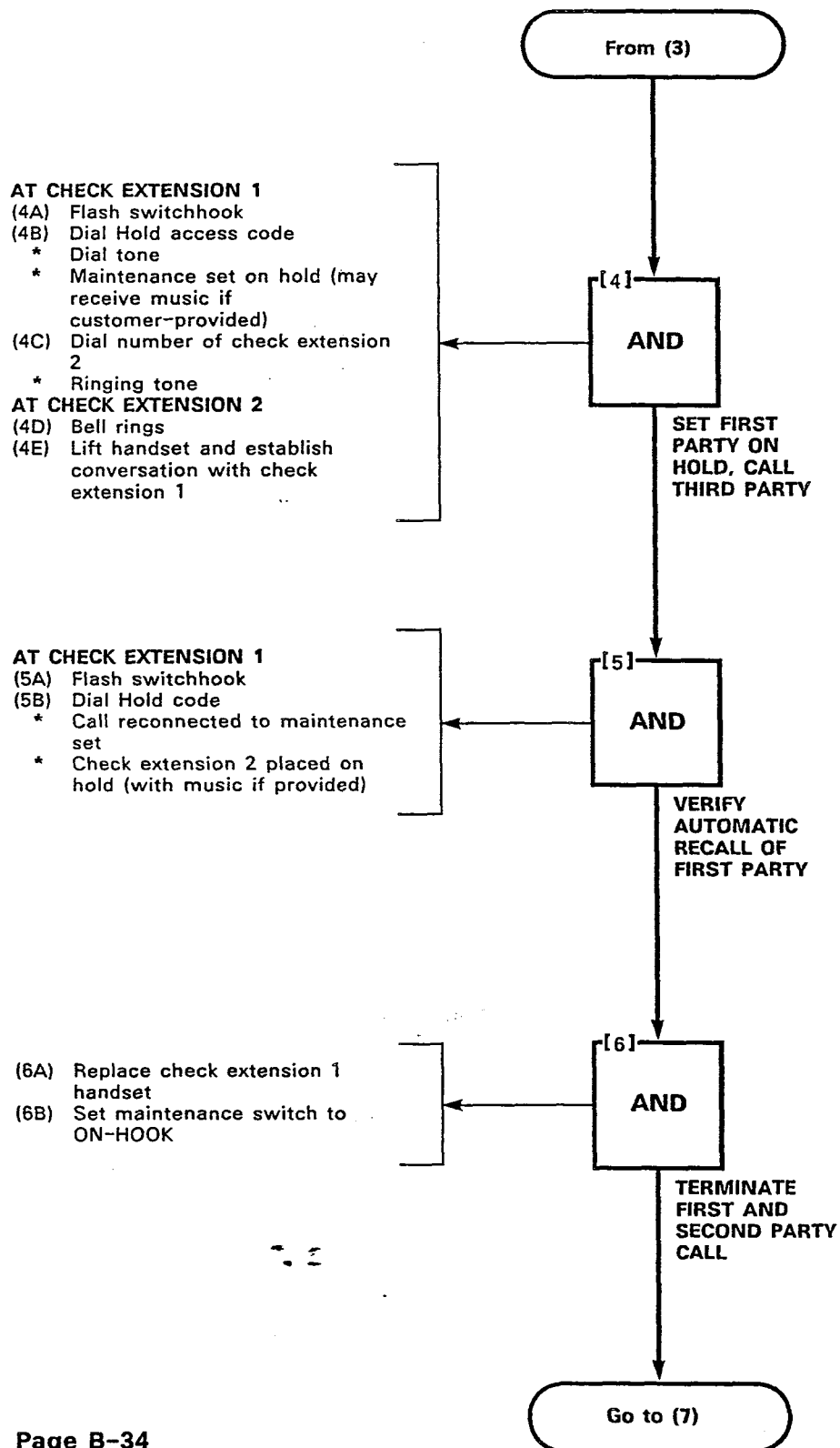
DO NOT DISTURB
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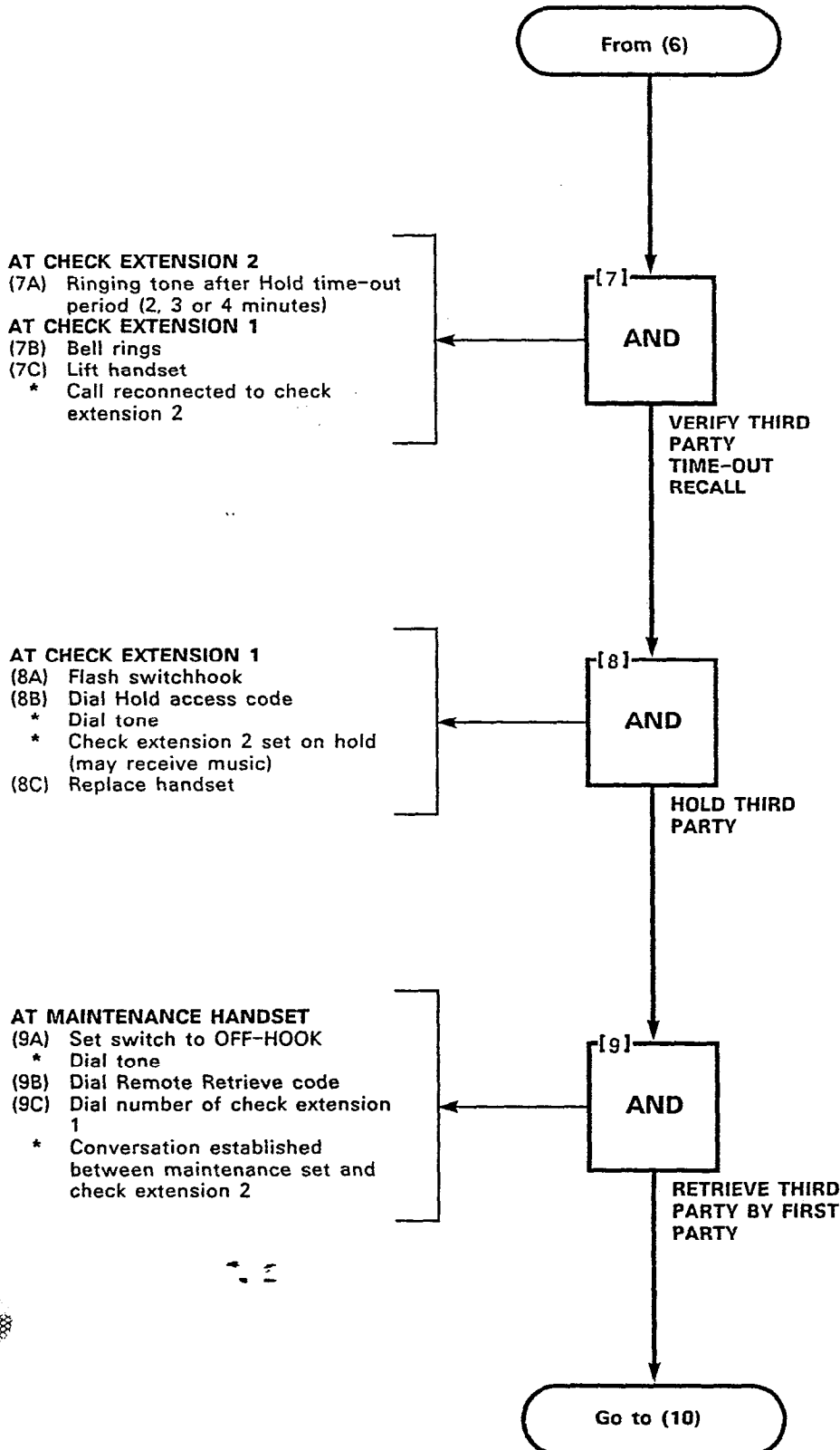
CALL HOLD
MAP215-216
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CALL HOLD
MAP215- 216
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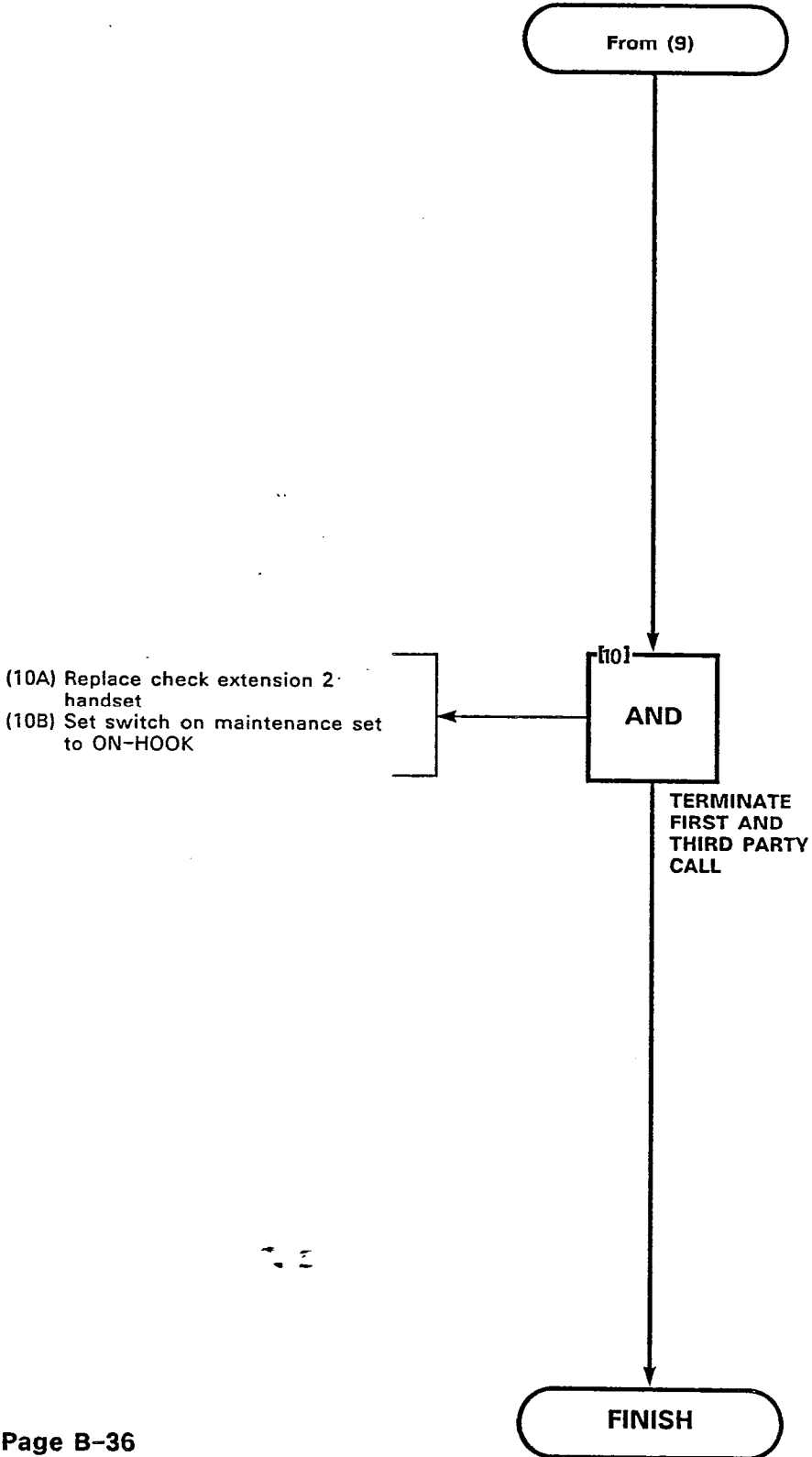


CALL HOLD
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CALL HOLD
MAP215- 216
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ROOM STATUS
MAP215-217
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Sheet 1 of 1

SYNOPSIS
The maid may update the Room Status from the room.

AT CHECK EXTENSION
(1A) Lift handset
* Dial tone
(1B) Dial Room Status access code + Maid code (Table 217-1)

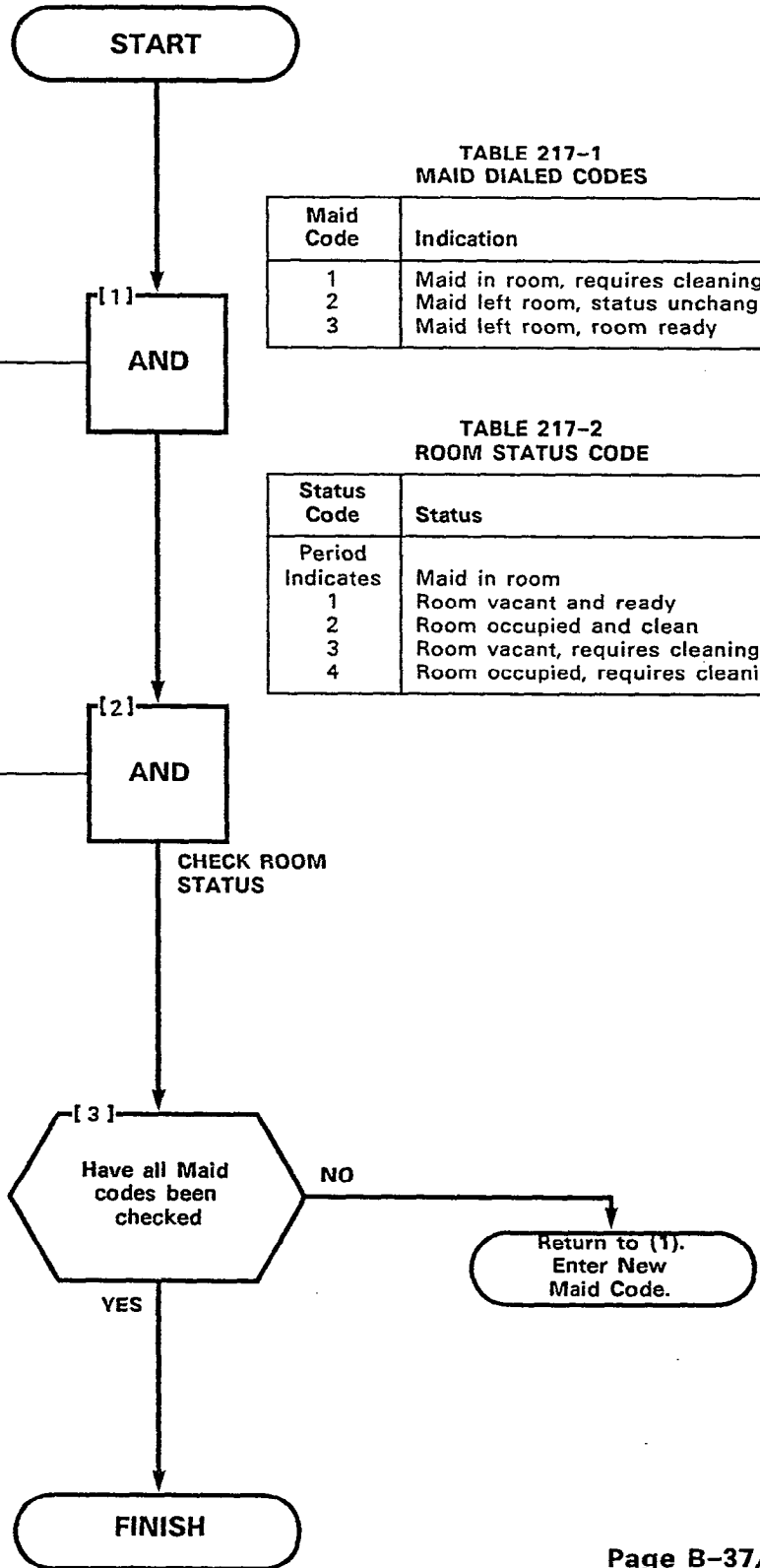
AT CONSOLE
(2A) Press GUEST ROOM
(2B) Dial check extension. Destination display shows numbers as in Table 217-2

**TABLE 217-1
MAID DIALED CODES**

Maid Code	Indication
1	Maid in room, requires cleaning
2	Maid left room, status unchanged
3	Maid left room, room ready

**TABLE 217-2
ROOM STATUS CODE**

Status Code	Status
Period Indicates	Maid in room
1	Room vacant and ready
2	Room occupied and clean
3	Room vacant, requires cleaning
4	Room occupied, requires cleaning



AUTOMATIC WAKE-UP (ALARM CALL)

MAP215-218

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Sheet 1 of 2

AT CHECK EXTENSION

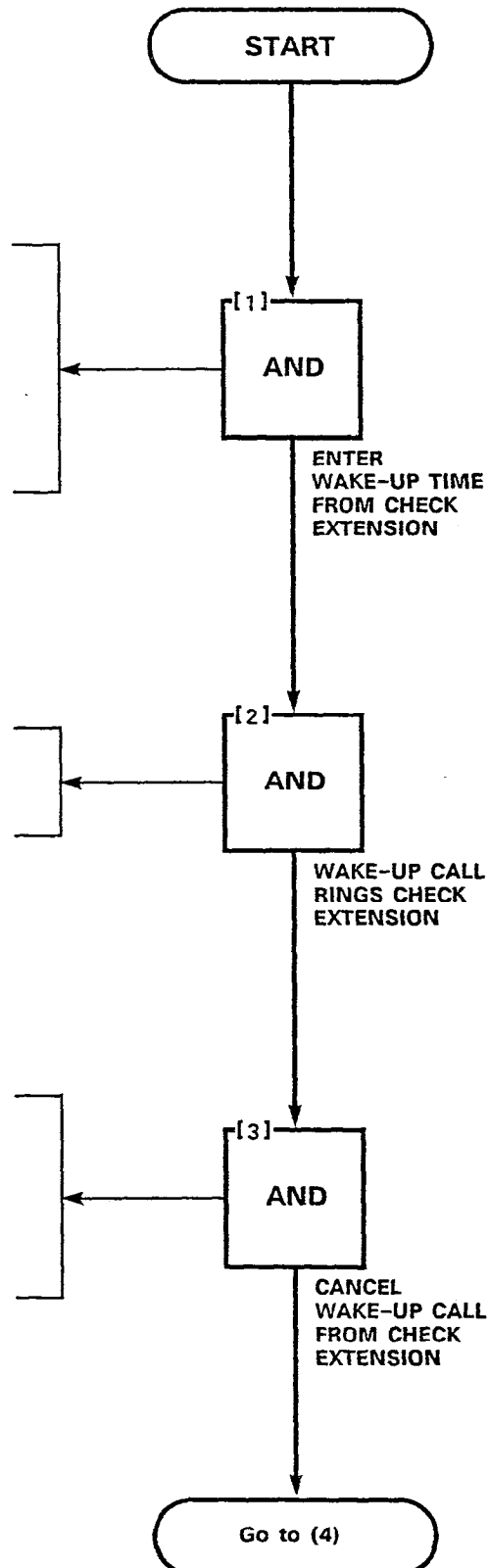
- (1A) Lift handset
 * Dial tone
 (1B) Dial Automatic Wake-Up access code and Wake-Up time (24-hour format)
 * Dial tone
 (1C) Replace handset

AT CHECK EXTENSION

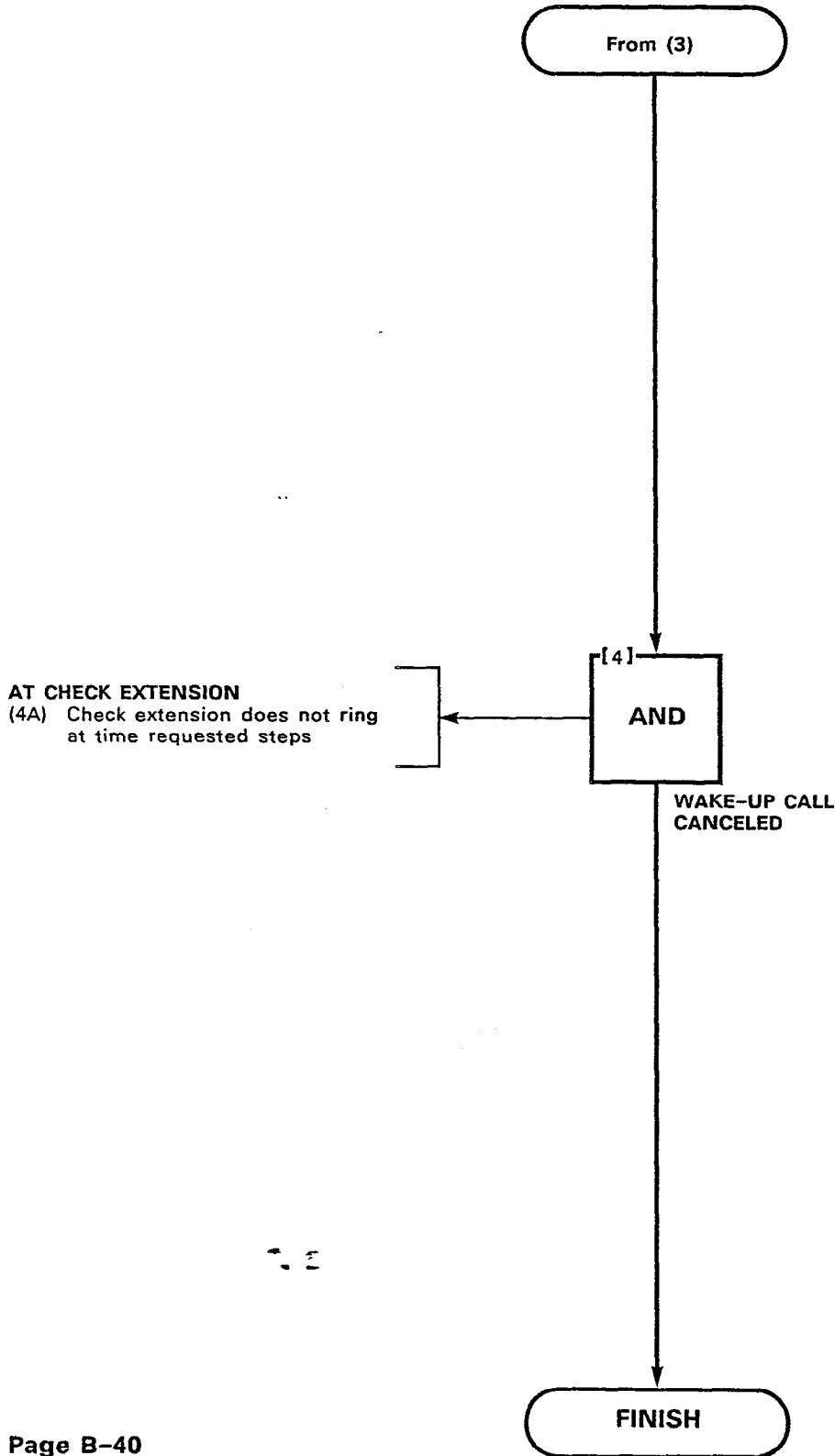
- (2A) Check extension rings at requested time

AT CHECK EXTENSION

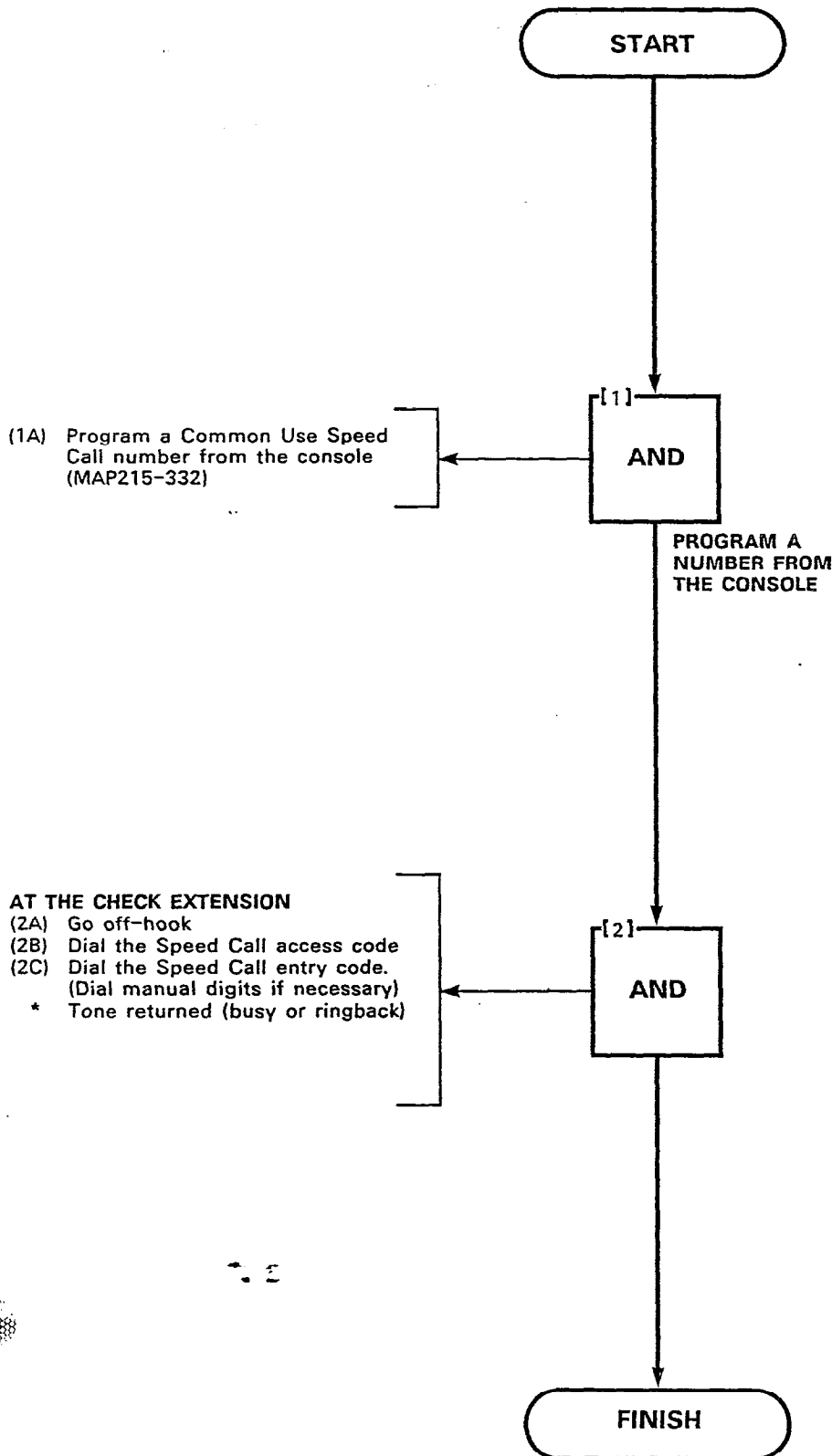
- (3A) Repeat Step (1A)
 * Dial tone
 (3B) Dial Automatic Wake-Up access code and 9999
 * Dial tone
 (3C) Replace handset



AUTOMATIC WAKE-UP (ALARM CALL)
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COMMON USE SPEED CALL
MAP215-219
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PERSONAL SPEED CALL
MAP215-220
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Sheet 1 of 1

TABLE 220-1

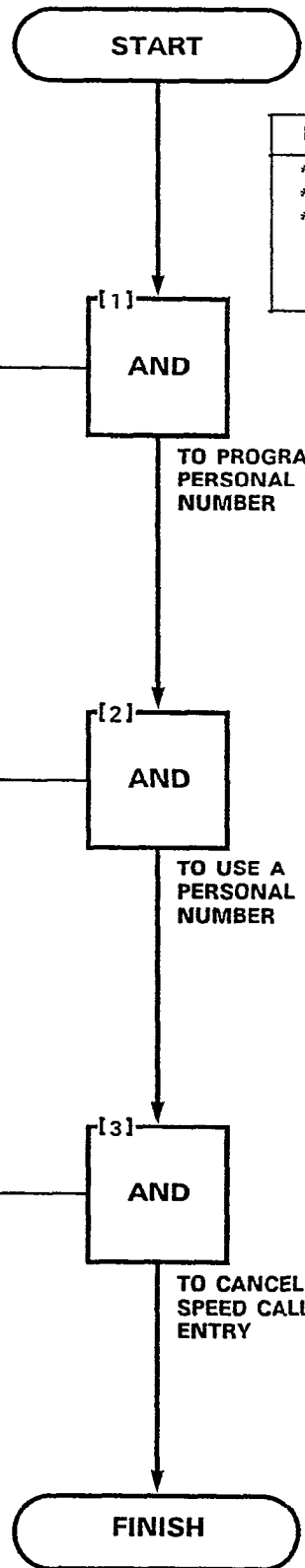
Digits	Meaning
*1	5 second pause
*2	Wait for dial tone
*3 (NN)	Allows the required number of digits to be dialed (NN denotes the required number of defined digits 01-16)

AT THE CHECK EXTENSION

- (1A) Lift handset
- (1B) Dial the Speed Call access code
- (1C) Dial 0 + Speed Call entry code
* Short burst dial tone
- (1D) Dial all digits including pauses and manual digit insertions (Table 220-1)
- (1E) Go on-hook

- (2A) Dial tone
- (2B) Dial the Speed Call access code
- (2C) Dial the Speed Call personal code
* Tone returned (busy or ringback)

- (3A) Dial tone
- (3B) Dial the Speed Call access code
- (3C) Dial 0
- (3D) Dial the Speed Call personal code
- (3E) Go on-hook



EXTERNAL CALL FORWARDING
MAP215- 221
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TABLE 221-1

Digits	Meaning
*1	5 second pause
*2	Wait for dial tone
*3 (NN)	Allows the required number of digits to be dialed (NN denotes the required number of defined digits 01-16)

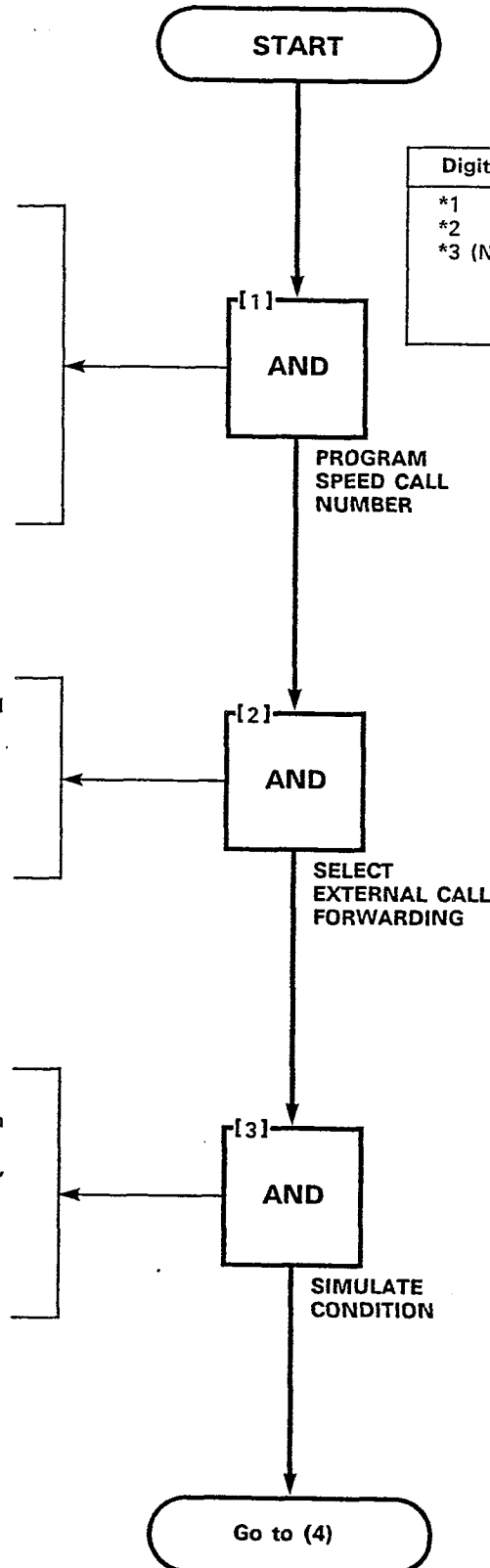
AT THE CHECK EXTENSION

- (1A) Lift handset
- * Dial tone
- (1B) Dial Speed Call access code
- (1C) Dial 0
- (1D) Dial Speed Call entry code
- * Short burst of dial tone
- (1E) Dial all LDN digits including pauses and manual digit insertions (Table 221-1)
- (1F) Go on-hook

- (2A) Dial Call Forwarding code (Call Forward - Busy; Follow Me; Busy-Don't Answer; Don't Answer)
- (2B) Dial Speed Call access code
- (2C) Dial Speed Call entry code
- (2D) Go on-hook

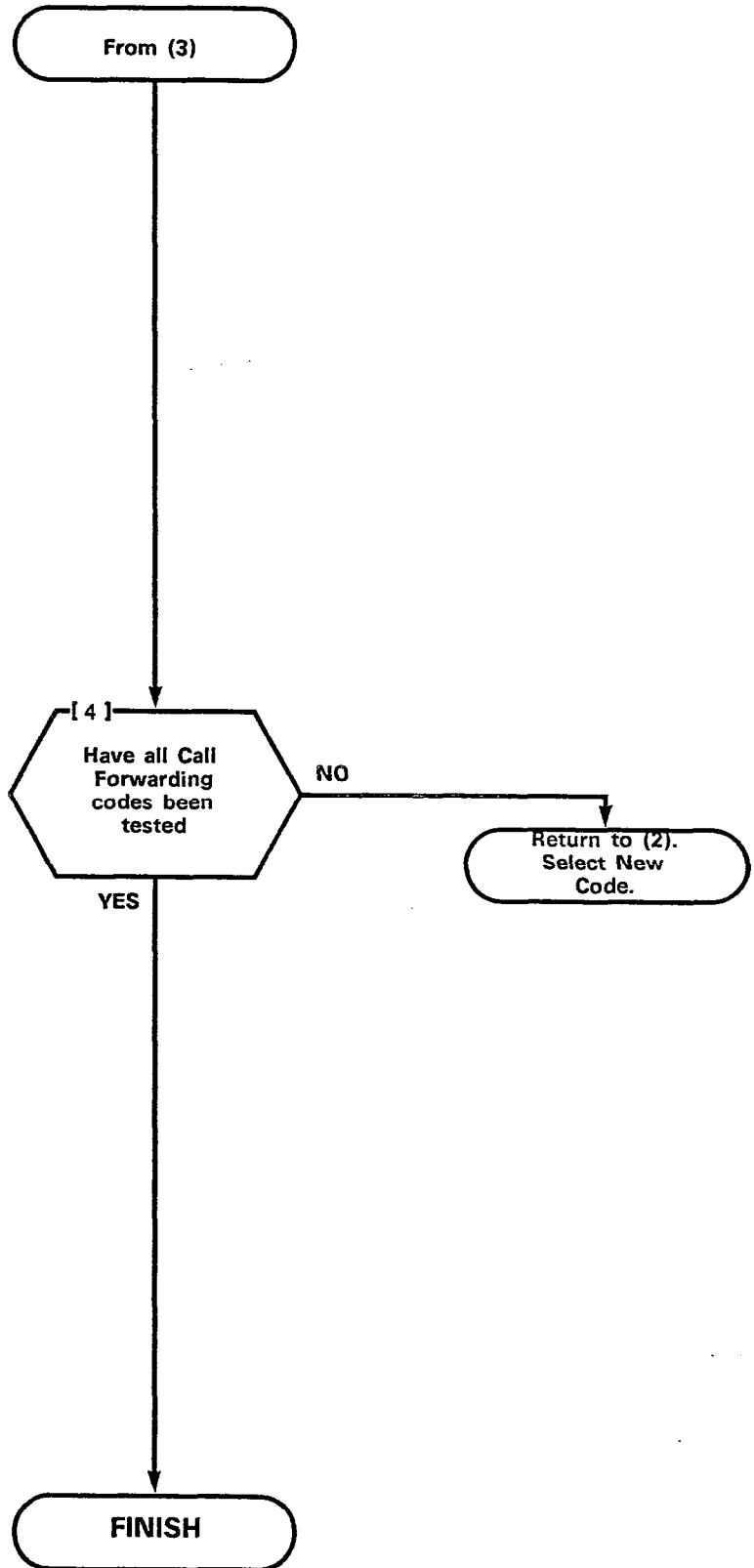
AT CHECK EXTENSION 1

- (3A) SIMULATE the code selected in Step 1; i.e., busy take phone off hook, do not answer phone, etc.
- (3B) Dial check extension 1 from check extension 2
- * Call will be forwarded to local directory number



SECTION MITL9105/9110-096-215-NA

EXTERNAL CALL FORWARDING
MAP215- 221
Issue 3, May 1984
Sheet 2 of 2



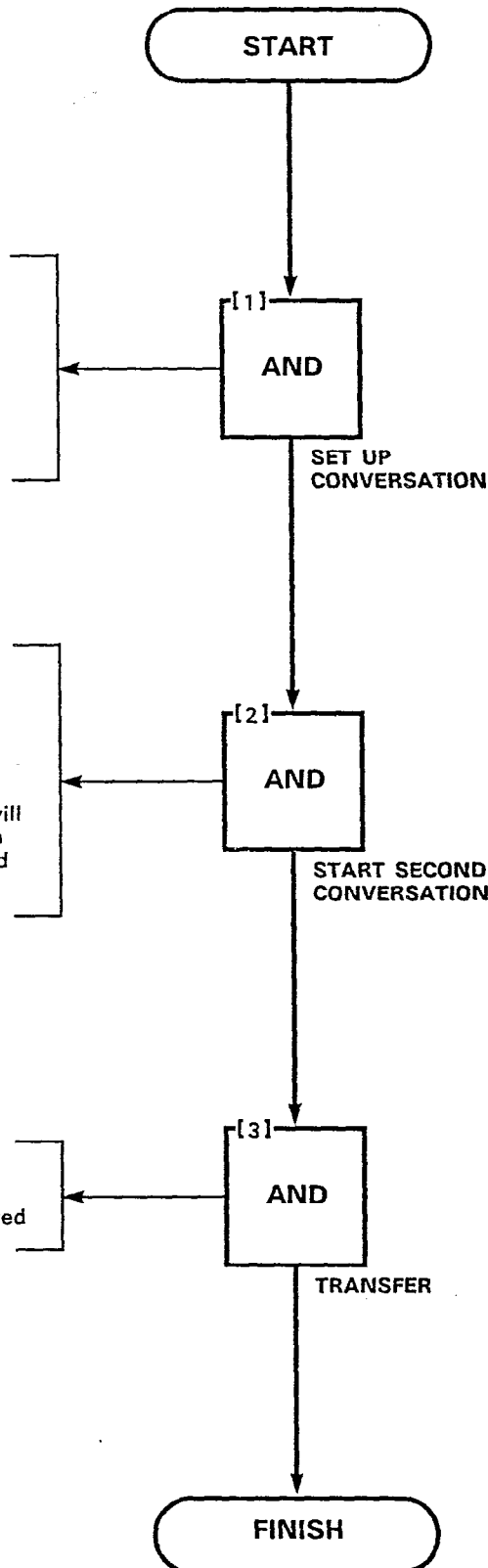
TRANSFER WITH PRIVACY
MAP215-222
Issue 3, May 1984
Sheet 1 of 1

AT THE CHECK EXTENSION 1

- (1A) Lift handset
- * Dial tone
- (1B) Dial check extension 2
- (1C) Answer call at check extension 2; ensure connection is made

- (2A) Flash the switchhook
- * Check extension 2 on hold
- * Dial tone
- (2B) Dial check extension 3
- (2C) Answer check extension 3; ensure connection is made
- (2D) Flashing the switchhook you will alternate (privately) connection between check extension 1 and check extension 2

- (3A) Go on-hook
- * Check extension 2 and check extension 3 should be connected



ACCOUNT CODE
MAP215- 223
Issue 3, May 1984
Sheet 1 of 2

NOTE
SMDR must be enabled for this test.

- (1A) Connect printer to RS-232 port via a RS-232 connection
- (1B) Ensure Scanner card and printer are set up for the same baud rate, character set and parity
- (1C) Clear printer port by dialing:
 - * 1400
 - * Press RELEASE
- (1D) Enable printer port by dialing:
 - * 14 + number sign
 - * Press RELEASE

TOOLS REQUIRED
1 Printer: RS-232 compatible, 88 characters/line, 300 or 1200 baud

- (2A) Account Codes may be:
 - * Account Code Length: four digits (System Option 231)
 - * Account Code Length: eight digits (System Option 232)
 - * Account Code Length: 12 digits (System Option 233)
 - * Variable Length Account Codes (System Option 234)
- (2B) Review programming to see which Account Code Length is applicable

- AT CHECK EXTENSION 1**
- (3A) Lift handset - Dial tone
 - (3B) Dial:
 - * Account Code access code
 - * Appropriate Account Code (see Step (2))
 - * Dial tone returned
 - * Dial Trunk access code
 - * Dial Directory Number including prefix, area code, etc.

START

[1]
AND

SET UP PRINTER

[2]
AND

SELECT ACCOUNT CODE LENGTH

[3]
AND

DIAL DIGITS

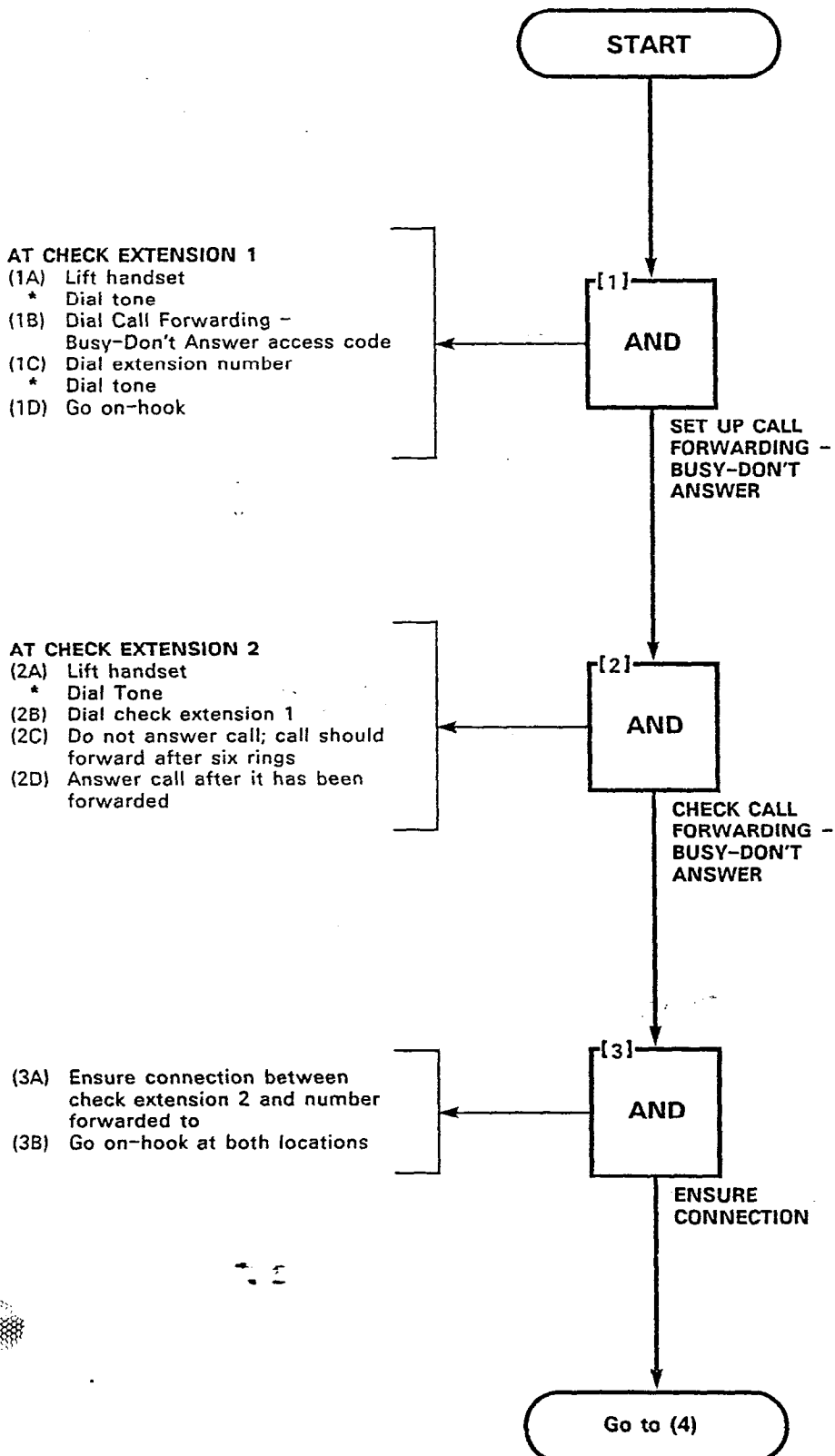
Go to (4)

CALL FORWARDING - BUSY/DON'T ANSWER
--

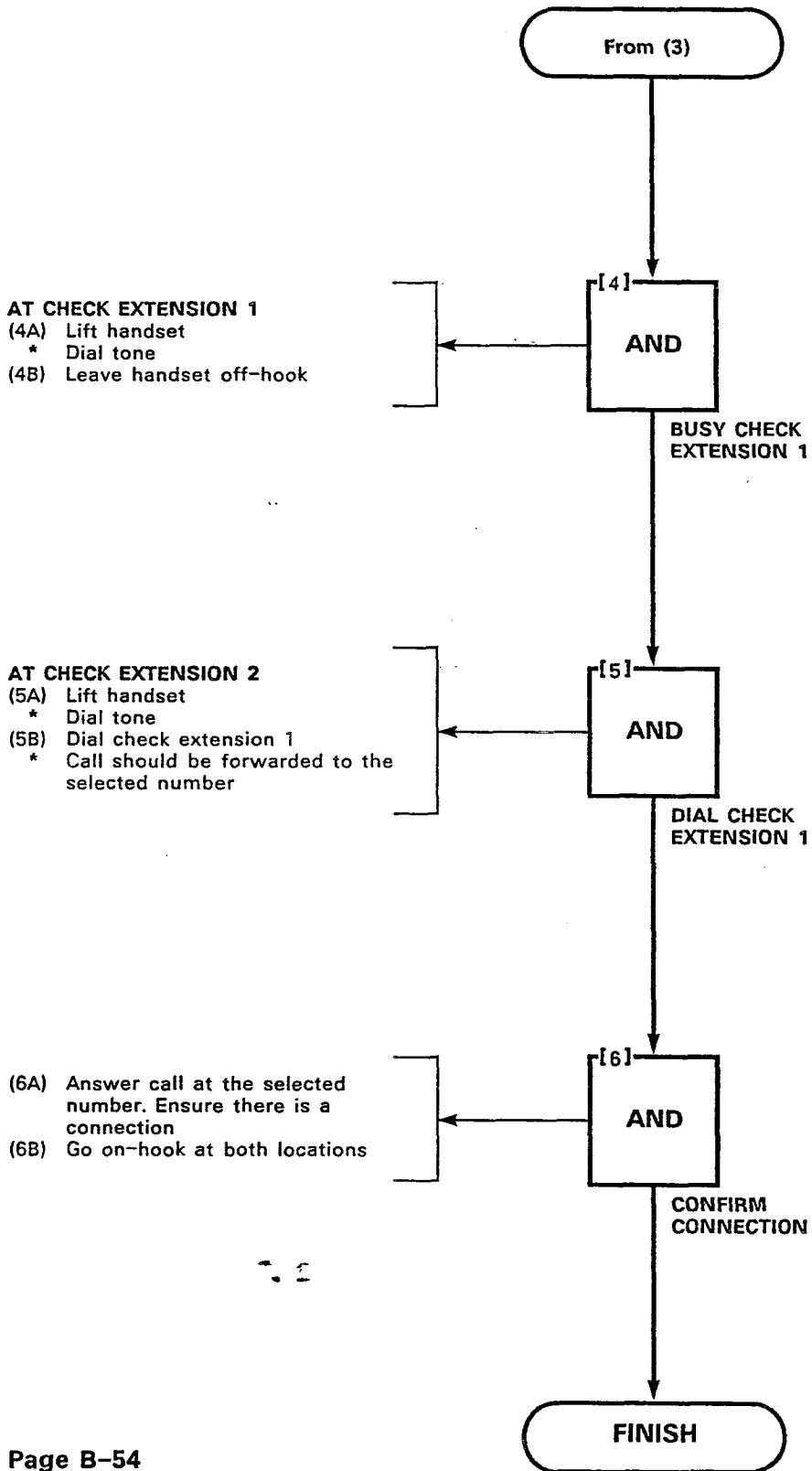
MAP215-225

Issue 3, May 1984

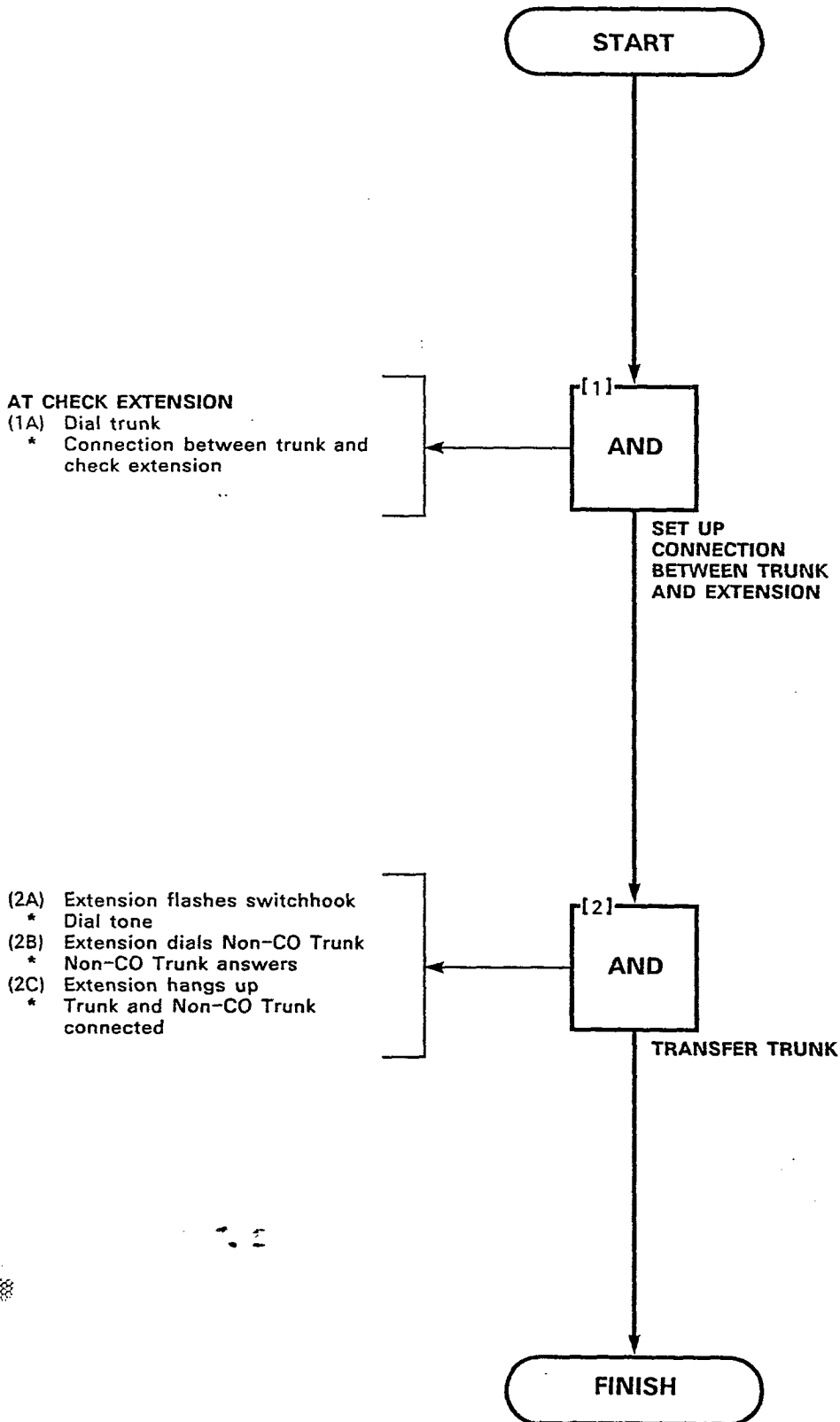
Sheet 1 of 2



CALL FORWARDING -- BUSY/DON'T ANSWER
MAP200- 225
Issue 3, May 1984
Sheet 2 of 2



ENABLE NON-CO TRUNK TO TRUNK CONNECT
MAP215-226
Issue 3, May 1984
Sheet 1 of 1



REPEATED CAMP-ON TONES
MAP215-227
Issue 3, May 1984
Sheet 1 of 1

NOTE
 If System Option 217 is enabled, Repeated Camp-on Tones will occur every 5 s. If System Option 218 is enabled, Repeated Camp-on Tones will occur every 15 s. If neither Option 217 or 218 is enabled, the tones will be repeated every 10 s.

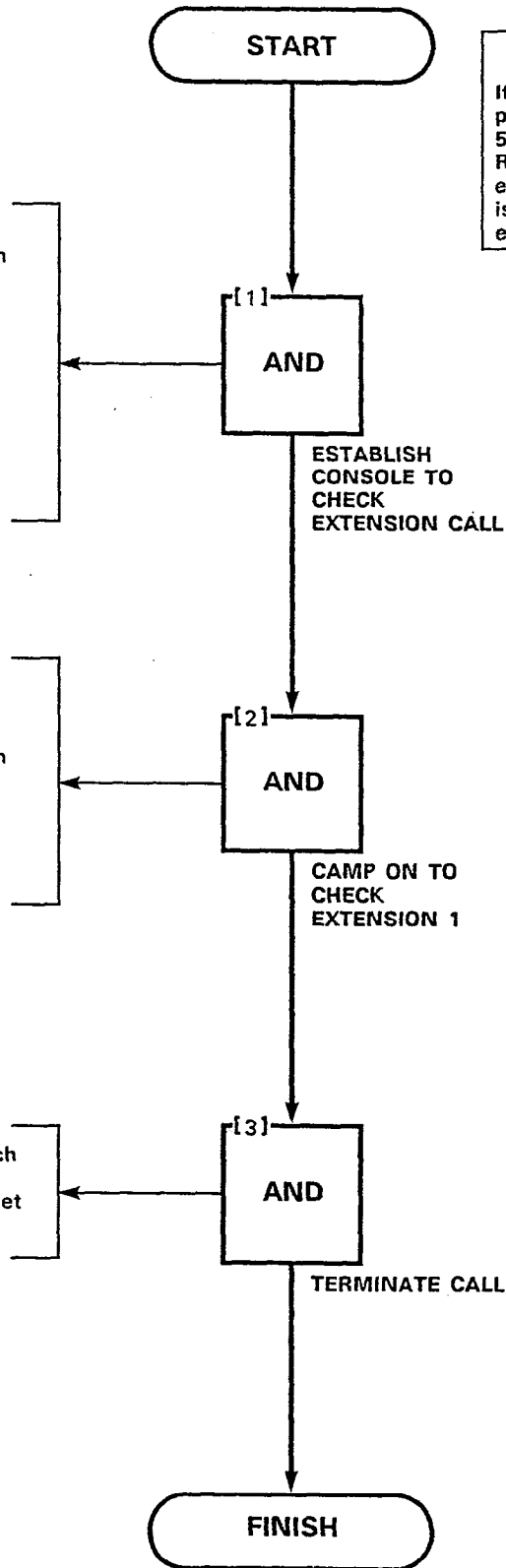
AT CONSOLE

- (1A) Dial number of check extension 1
 - * DESTINATION display shows number and class of check extension
 - * ATT and RING lamps lit
 - * Check extension rings
- (1B) Lift check extension handset
 - * Two-way conversation with console

AT MAINTENANCE HANDSET

- (2A) Set switch to OFF-HOOK
 - * Dial tone
- (2B) Dial number of check extension 1
 - * Busy tone returned
- (2C) Remain 'camped on' and listen at check extension 1
 - * Camp-on tones occur as per Note

- (3A) Set maintenance handset switch to ON-HOOK
- (3B) Replace check extension handset
- (3C) Press console RELEASE

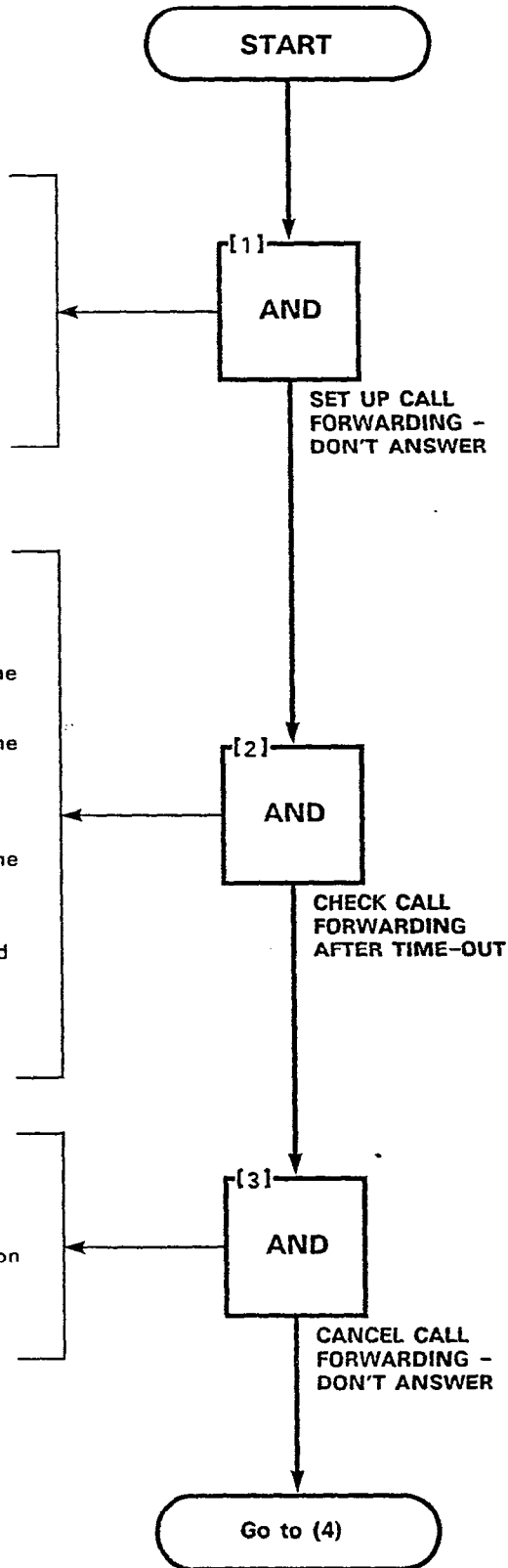


EXTENSION RESET
MAP215-228
Issue 3, May 1984
Sheet 1 of 2

- AT MAINTENANCE HANDSET**
- (1A) Set switch to OFF-HOOK
 - * Dial tone
 - (1B) Dial Call Forwarding - Don't Answer code + number of check extension
 - * Dial tone
 - (1C) Set switch to ON-HOOK

- AT CONSOLE**
- (2A) Dial test line number from console
 - * Ringing tone
 - * DESTINATION display shows the test line number and its class; ATT and RING lamps lit
 - * Busy Lamp Field shows test line number busy
 - (2B) After time-out (10 s, 20 s, 30 s or 40 s):
 - * Check extension rings
 - * Busy Lamp Field shows test line number idle and check extension busy
 - * DESTINATION display shows number of check extension and its class
 - * ATT and RING lamps lit
 - (2C) Press console RELEASE
 - * Console idle

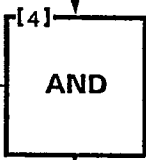
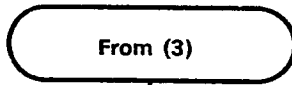
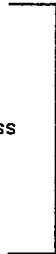
- AT THE CHECK EXTENSION**
- (3A) Go off-hook
 - * Dial tone
 - (3B) Dial the Call Forwarding Reset code and the test line extension number
 - * Dial tone
 - (3C) Go back on-hook



EXTENSION RESET
MAP215- 228
Issue 3, May 1984
Sheet 2 of 2

AT CONSOLE

- (4A) Dial test line number
 - * Ringing tone
 - * DESTINATION display shows number of test line and its class
 - * ATT and RING lamps lit
- (4B) Wait 45 s - no change
- (4C) Press console RELEASE
 - * Console idle



CHECK CALL FORWARDING - DON'T ANSWER INACTIVE



APPENDIX C

CONSOLE TESTS

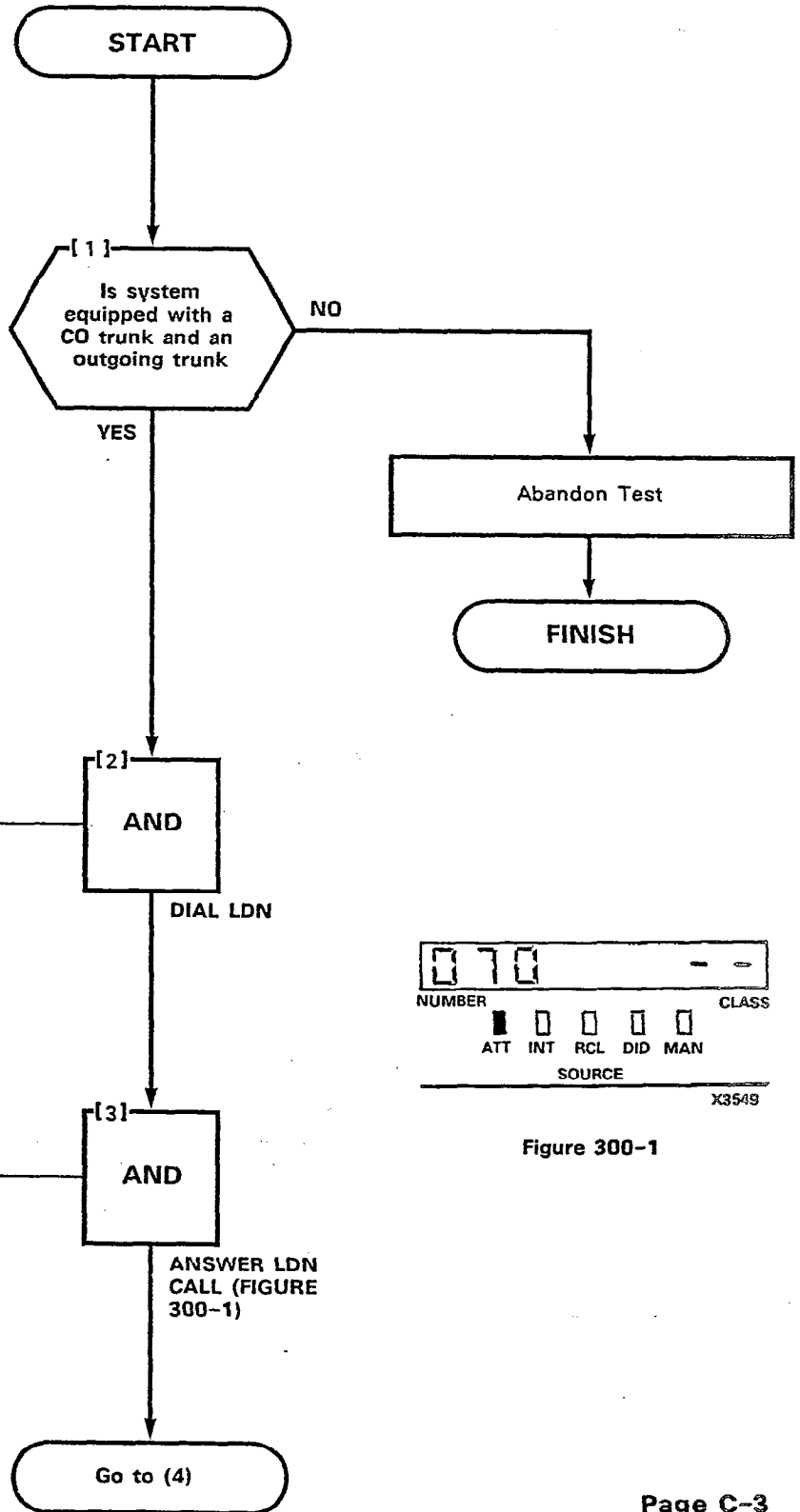
C1.01 The following tests are a series of console tests. Specific reference should be made to Table 2-2 and Table 2-4. These Tables will determine if the test is relevant to the system application.

TABLE C1-1
CONSOLE TESTS

Order	Test	Map No.
1	Answer Incoming Call	215-300
2	Automatic Callback	215-301
3	Extending Internal Calls	215-302
4	Answering Recall	215-303
5	Override	215-304
6	Flexible Night Service	215-305
7	Trunk Busy Operation	215-306
8	Trunk Group Attendant Access	215-307
9	Trunk Group Dial Access	215-308
10	Test Termination	215-309
11	Answer Incoming CO Trunk Call	215-310
12	Attendant Do Not Disturb	215-311
13	Message Waiting	215-312
14	Attendant Call Forwarding - Busy	215-313
15	Attendant Call Forwarding - Don't Answer	215-314
16	Attendant Call Forwarding - Follow Me	215-315
17	Attendant Call Forwarding - Busy/Don't Answer	215-316
18	Attendant-Controlled Conference	215-317
19	Attendant Station Busy-out	
20	Call Block	215-319
21	Attendant Do Not Disturb (H/M)	215-320
22	Message Registration (H/M)	215-321
23	Controlled Outgoing Call Restriction (H/M)	215-322
24	Room Status (H/M)	215-323
25	Automatic Wake-Up (Alarm Call)	215-324
26	Message Waiting (H/M)	215-325
27	Console Date Display and Date Utility	215-326
28	Customer Program Dump/Load	215-327
29	Controlling the Printer	215-328
30	Room Audit	215-329
31	System Identifier	215-330
32	Common Use Speed Call	215-331
33	Customer Programming	215-332
34	External Call Forwarding	215-333
35	Test Audible Tone Indicators	215-334
36	Single Digit Dialing	215-335
37	Common Alerting Devices	215-336
38	Answer DID Trunk Call	215-337
39	SUPERSET Disconnect Alarm	215-338

ANSWER INCOMING CALL
MAP215-300
Issue 3, May 1984
Sheet 1 of 5

NOTE
Equipment number displayed is same as individual Trunk Access Number.



AT MAINTENANCE HANDSET
 (2A) Set switch to OFF-HOOK
 * Dial tone
 (2B) Dial CO Trunk access code
 * CO dial tone
 (2C) Dial console listed directory number

AT CONSOLE
 (3A) ANSWER and LDN lamps flash; ringer sounds
 (3B) Press LDN
 * ANSWER; LDN and SOURCE lamps light
 * SOURCE display (Figure 300-1) shows number of calling trunk and ATT lamp lit
 * Two-way conversation between console and maintenance set

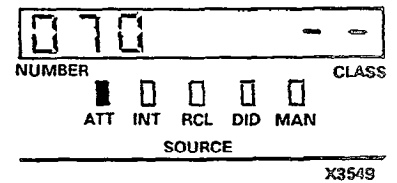


Figure 300-1

ANSWER INCOMING CALL
MAP215- 300
Issue 3, May 1984
Sheet 2 of 5

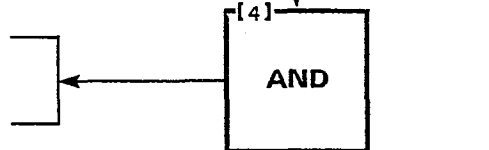
NOTE
Equipment number displayed is same as individual Trunk Access Number.

(4A) Press SERIAL CALL
* SERIAL CALL lamp lights

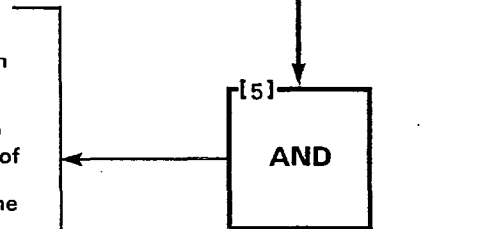
AT CONSOLE
(5A) Dial number of check extension
* ANSWER; LDN and DESTINATION lamps lit
* SOURCE display (Figure 300-2) shows the equipment number of the calling trunk
* DESTINATION display shows the number and COS of the check extension
* ATT and RING lamps lit

AT CHECK EXTENSION
(6A) Lift check extension handset
* Two-way conversation with console

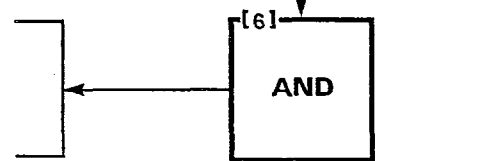
From (3)



SET UP SERIAL CALL



EXTEND CALL TO TEST STATION (FIGURE 300-2)



ANSWER CALL

Go to (7)

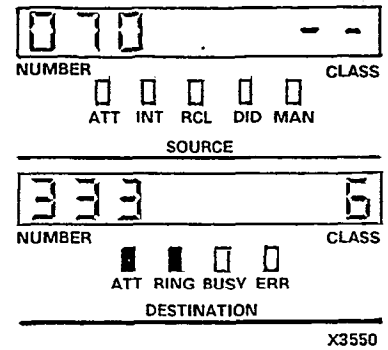


Figure 300-2

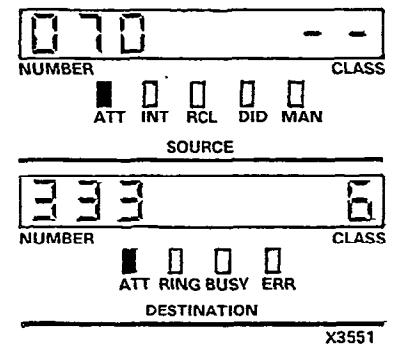


Figure 300-3

ANSWER INCOMING CALL
MAP215-300
Issue 3, May 1984
Sheet 3 of 5

NOTE
Equipment number displayed is same as individual Trunk Access Number.

- AT CONSOLE**
(7A) Press SOURCE
- * ANSWER, LDN and SOURCE lamps lit
 - * SOURCE display (Figure 300-3) shows the number of the calling trunk; ATT lamp lit
 - * DESTINATION display shows number and COS of check extension
 - * Two-way private call with maintenance set

- AT CONSOLE**
(8A) Press DEST
- * ANSWER, LDN and DEST lamps lit
 - * SOURCE display (Figure 300-4) shows the equipment number of the calling trunk
 - * DESTINATION display shows the number and COS of the check extension
 - * ATT lamp lit
 - * Two-way private call with check extension

- AT CONSOLE**
(9A) Press BOTH
- * ANSWER, LDN and BOTH lamps lit
 - * SOURCE display (Figure 300-5) shows equipment number of calling trunk
 - * ATT lamp lit
 - * DESTINATION display shows number and COS of check extension
 - * ATT lamp lit
 - * Three-way call among check extension, maintenance set and console

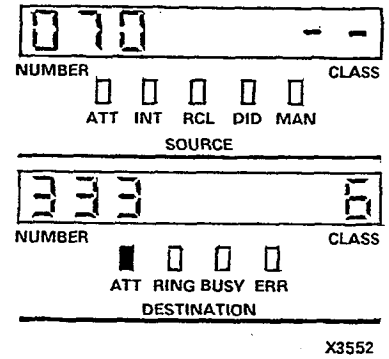
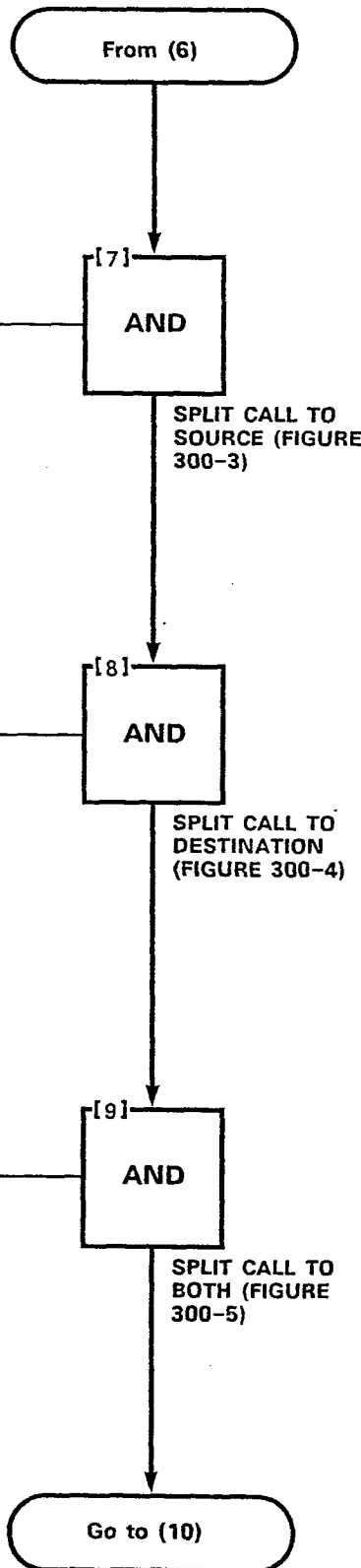


Figure 300-4

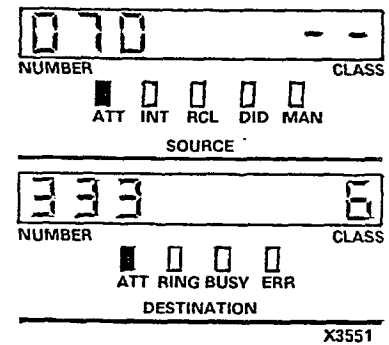


Figure 300-5

SECTION MITL9105/9110-096-215-NA

ANSWER INCOMING CALL
MAP215- 300
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Sheet 4 of 5

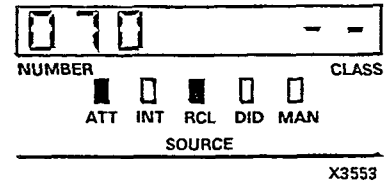
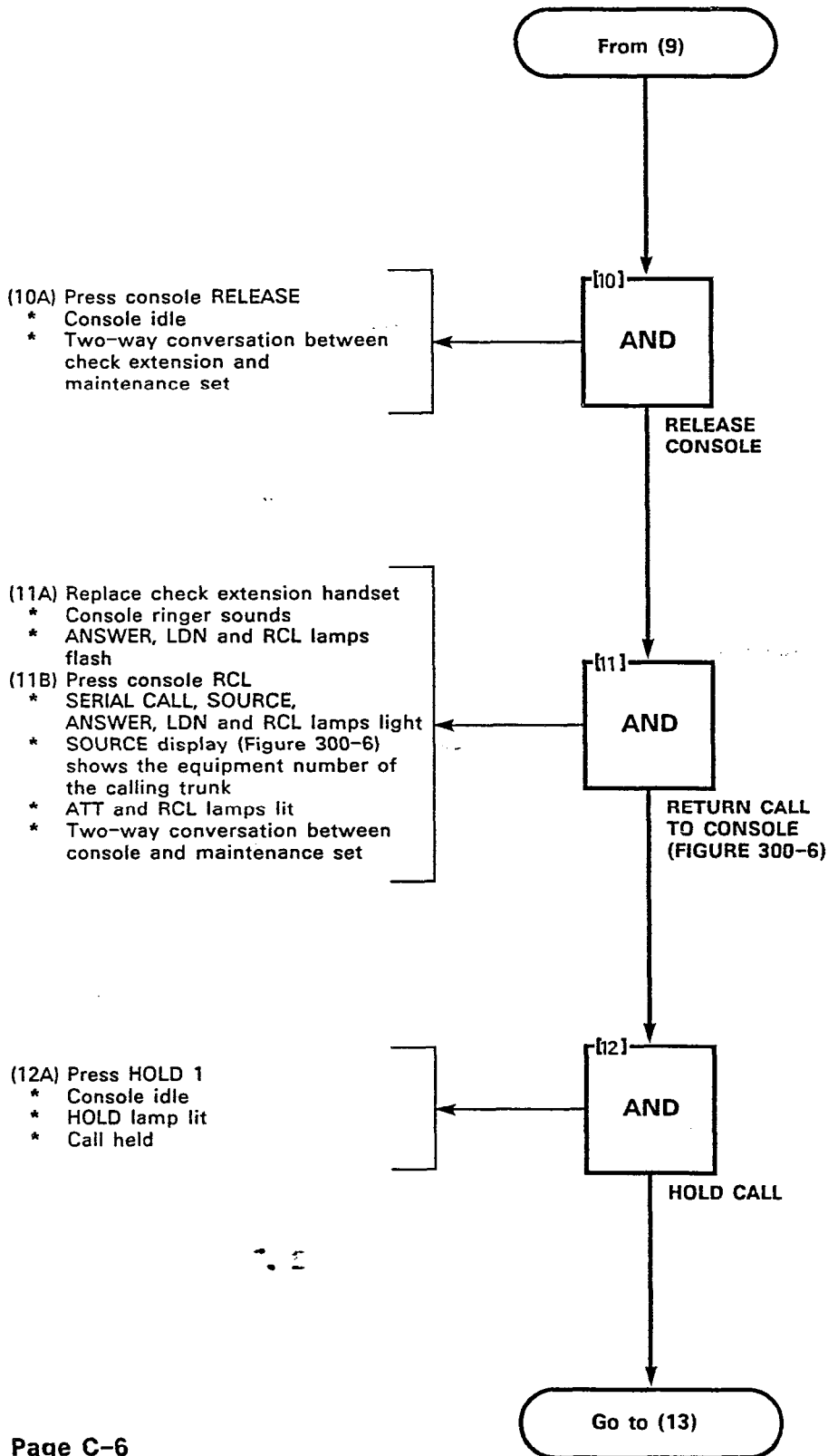


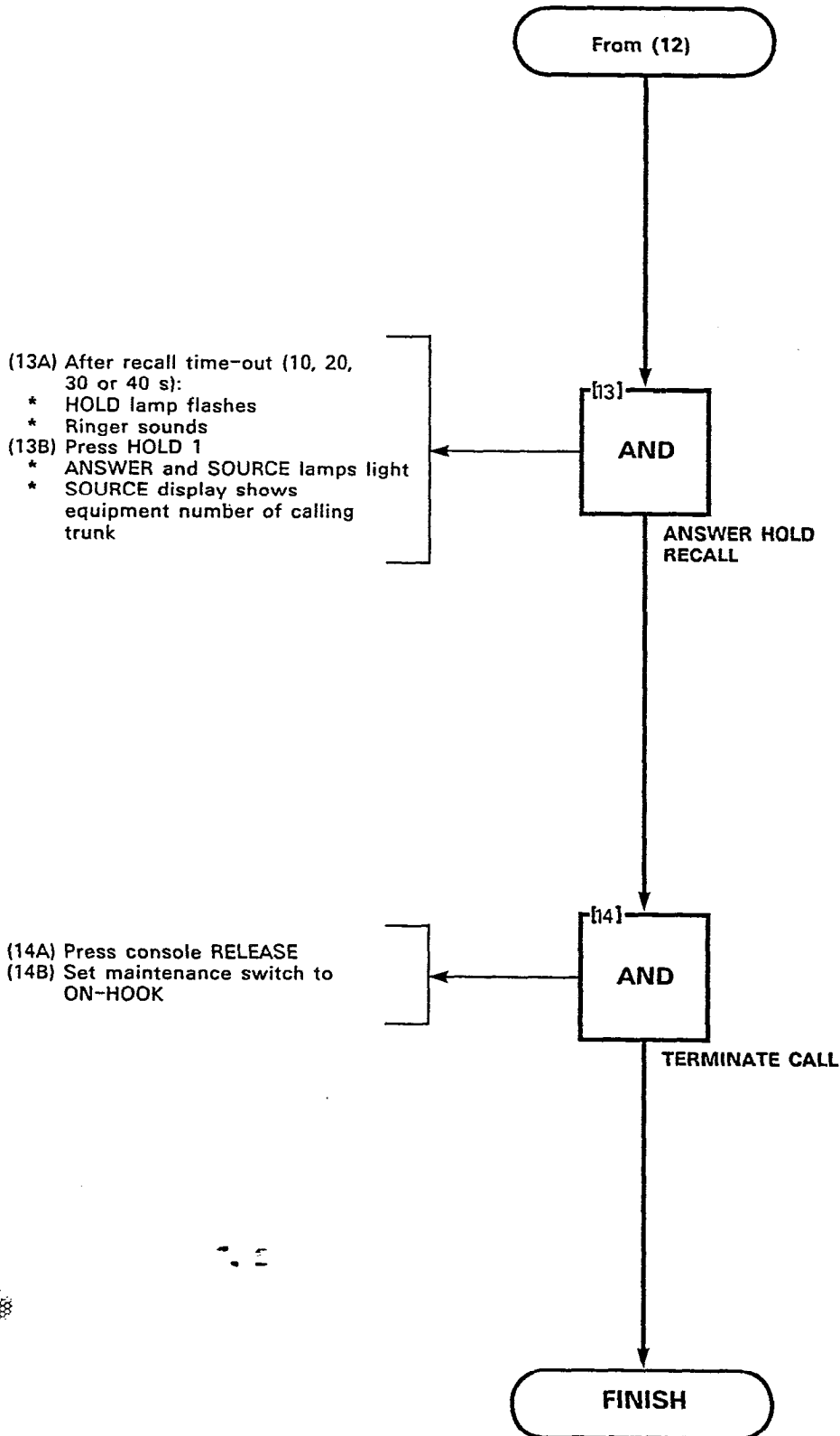
Figure 300-6

ANSWER INCOMING CALL

MAP215-300

Issue 3, May 1984

Sheet 5 of 5



AUTOMATIC CALLBACK
MAP215-301
Issue 3, May 1984
Sheet 1 of 2

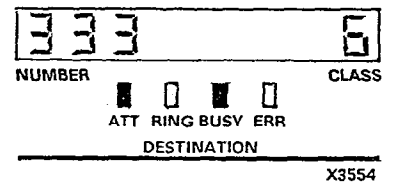
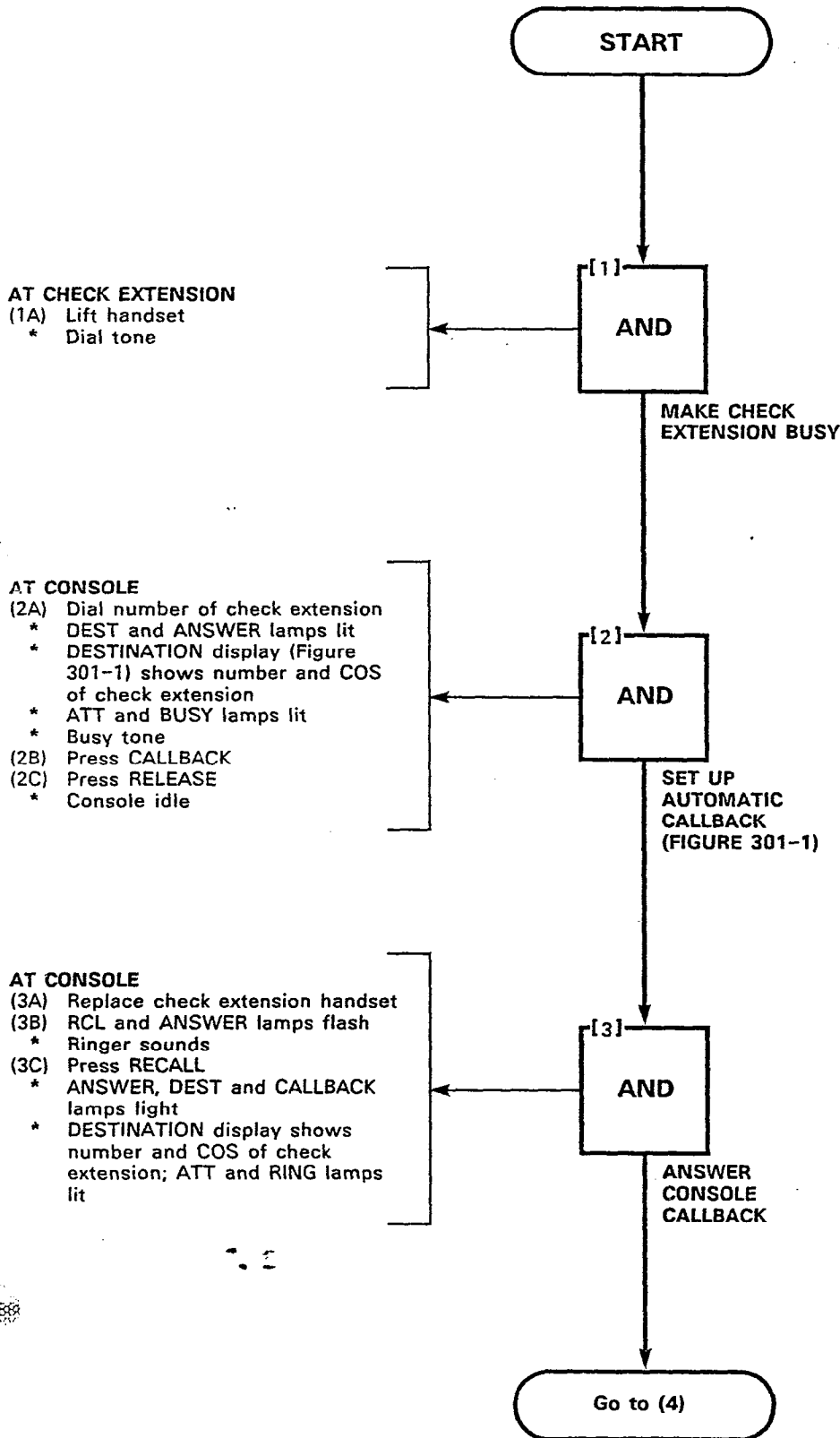
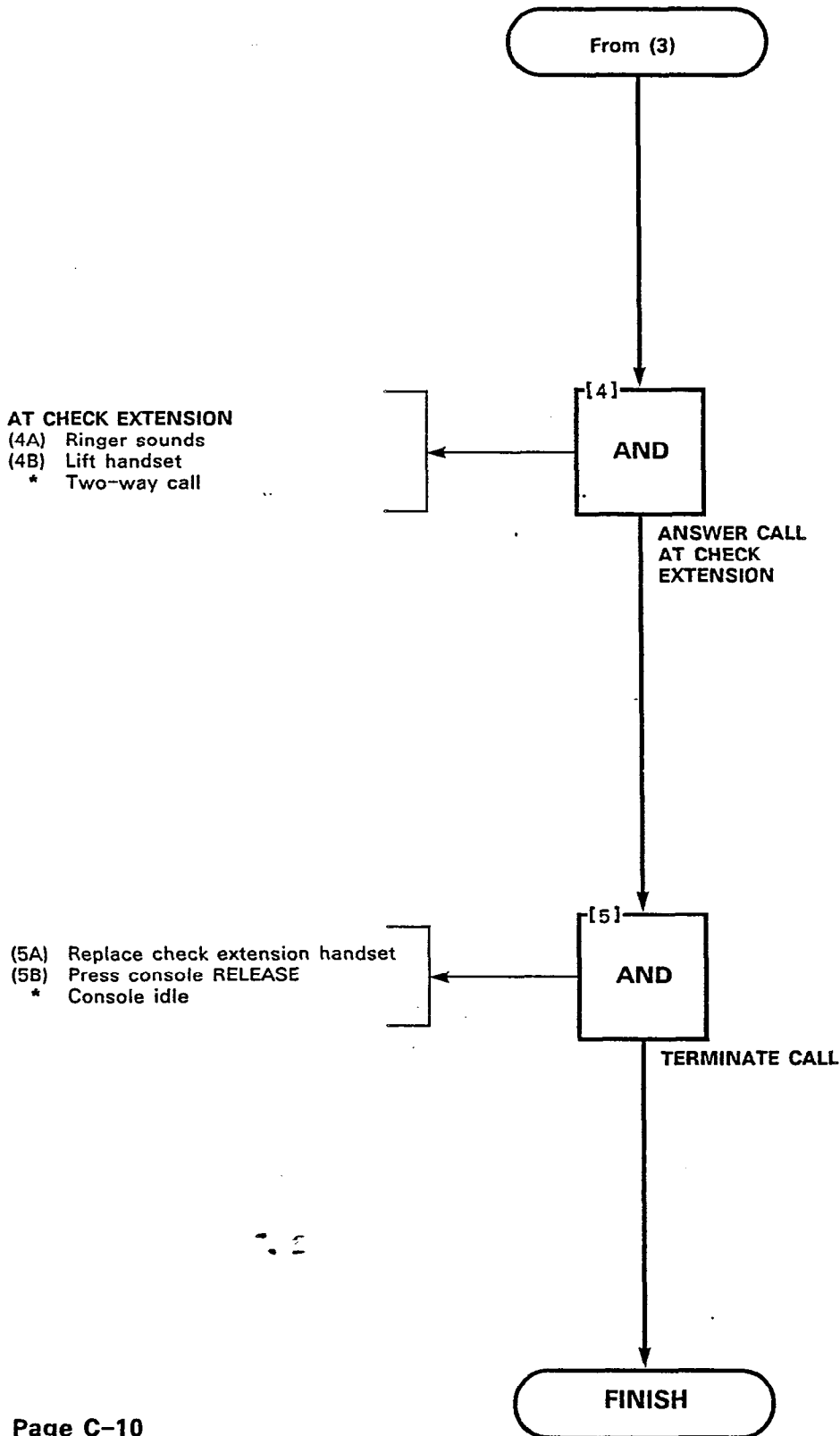


Figure 301-1

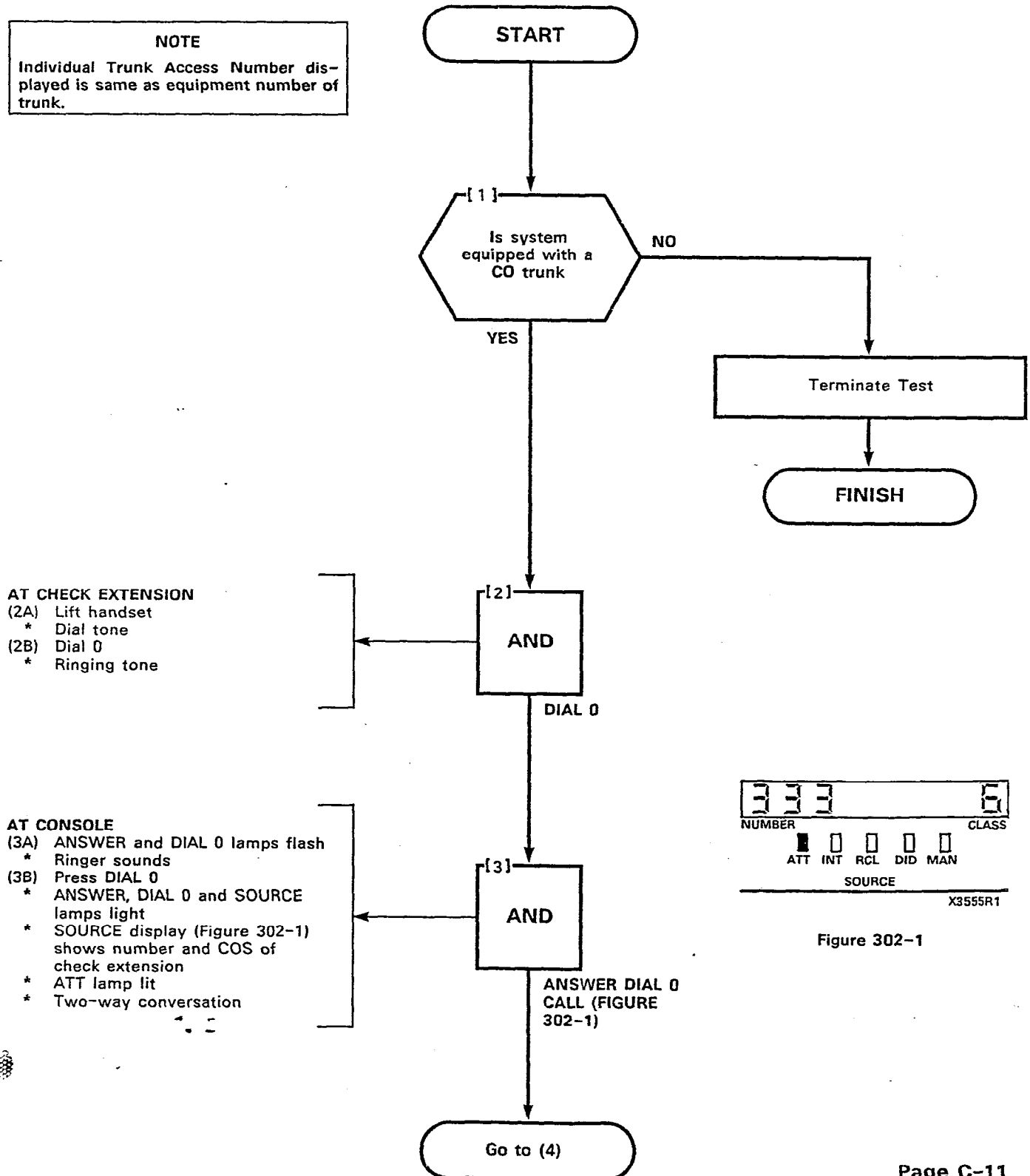
SECTION MITL9105/9110-096-215-NA

AUTOMATIC CALLBACK
MAP215- 301
Issue 3, May 1984
Sheet 2 of 2



EXTENDING INTERNAL CALLS
MAP215-302
Issue 3, May 1984
Sheet 1 of 2

NOTE
Individual Trunk Access Number displayed is same as equipment number of trunk.



EXTENDING INTERNAL CALLS
MAP215- 302
Issue 3, May 1984
Sheet 2 of 2

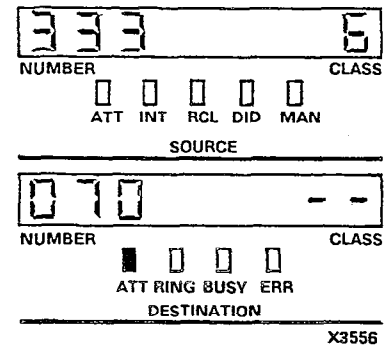
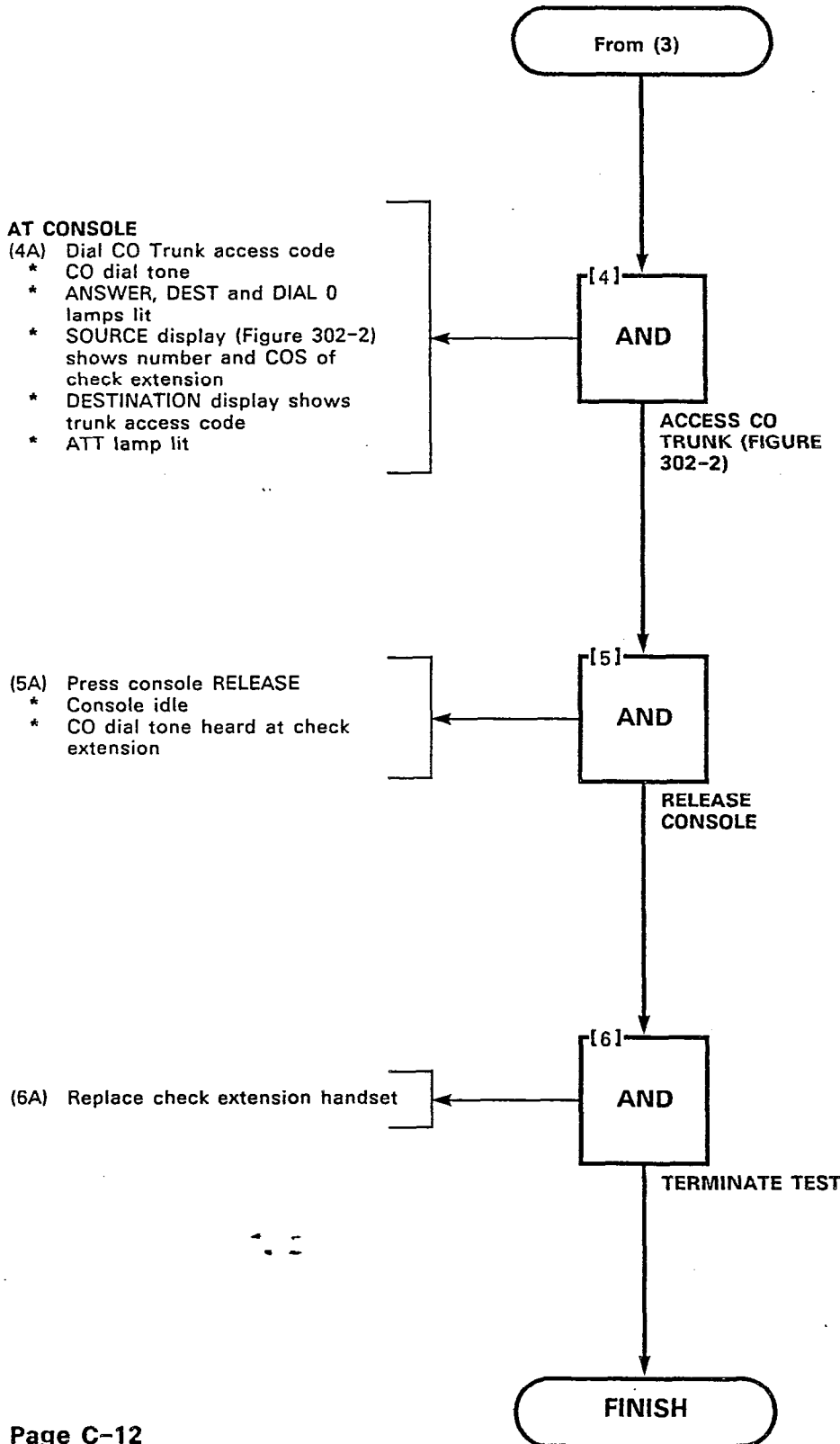


Figure 302-2

ANSWERING RECALL
MAP215-303
Issue 3, May 1984
Sheet 1 of 2

AT CHECK EXTENSION 1
 (1A) Lift check extension 1 handset
 * Dial tone
 (1B) Dial 0
 * Ringing tone

AT CONSOLE
 (2A) DIAL 0, ANSWER and SOURCE lamps flash
 * Ringer sounds
 (2B) Press DIAL 0
 * DIAL 0, ANSWER and SOURCE lamps light
 * SOURCE display (Figure 303-1) shows number and COS of check extension 1
 * ATT lamp lit
 * Two-way conversation

AT CONSOLE
 (3A) Dial number of check extension 2
 * DIAL 0, ANSWER and DEST lamps lit
 * SOURCE display (Figure 303-2) shows number and COS of check extension 1
 * DESTINATION display shows number and COS of check extension 2; ATT and RING lamps lit

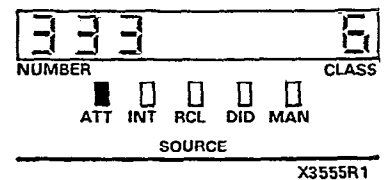
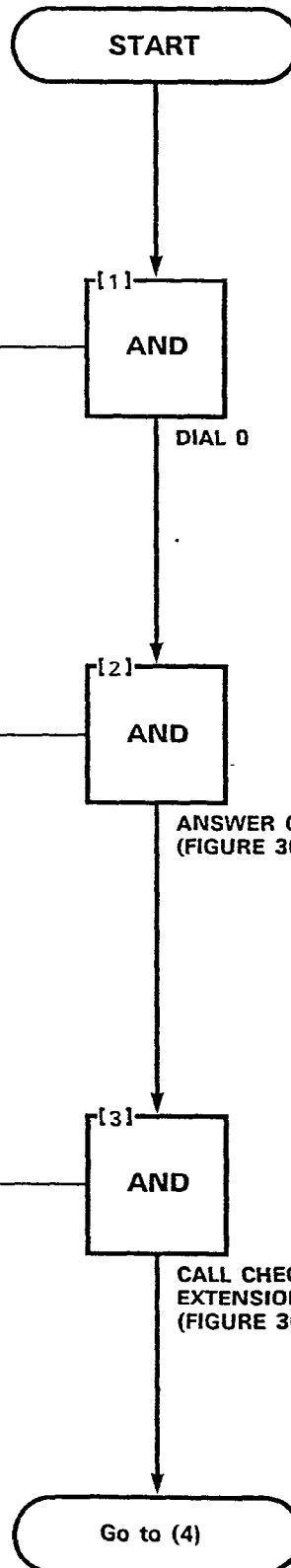


Figure 303-1

ANSWERING RECALL
MAP215- 303
Issue 3, May 1984
Sheet 2 of 2

- (4A) Check extension 2 rings
- (4B) Press console RELEASE
- * Console idle

AT CONSOLE

- (5A) After time-out period (10, 20, 30 or 40 s)
 - * RCL and ANSWER lamps flash
 - * Ringer sounds
- (5B) Press RECALL
 - * RCL, ANSWER and SOURCE lamps light
 - * SOURCE display (Figure 303-3) shows the number and COS of check extension 1
 - * ATT and RCL lamps lit
 - * DESTINATION display shows number and COS of check extension 2

- (6A) Press console CANCEL
 - * Console idle
- (6B) Replace check extension handset 1
- (6C) Press console RELEASE
 - * Console idle

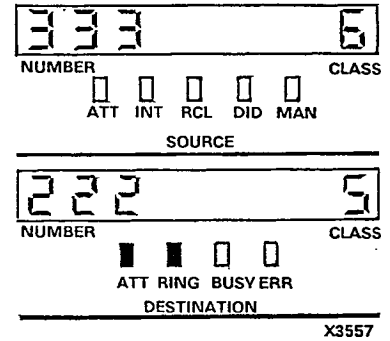
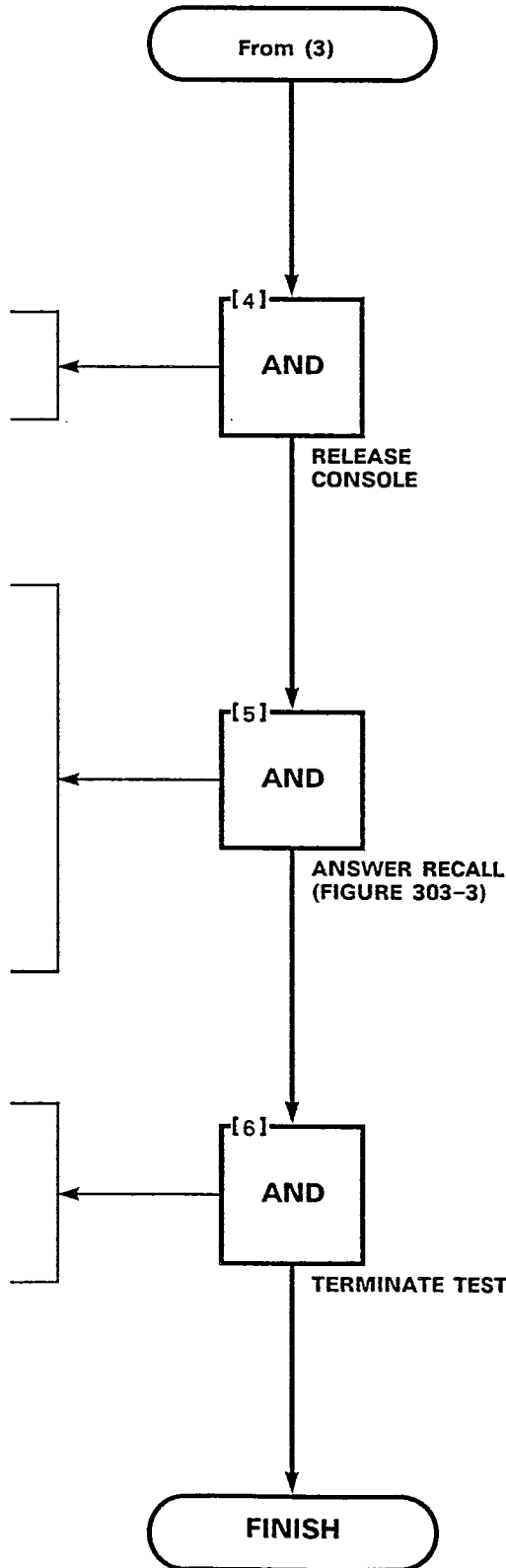


Figure 303-2

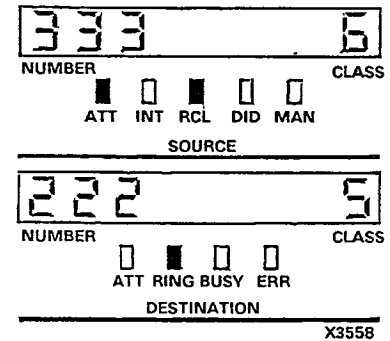


Figure 303-3

OVERRIDE
MAP215- 304
Issue 3, May 1984
Sheet 1 of 2

- AT CHECK EXTENSION 1**
- (1A) Lift check extension 1 handset
 - * Dial tone
 - (1B) Dial number of check extension 2
 - * Ringing tone
 - (1C) Lift check extension 2 handset
 - * Two-way conversation

- AT ATTENDANT CONSOLE**
- (2A) Dial number of check extension 1
 - * Busy tone
 - * DEST and ANSWER lamps lit
 - * DESTINATION display (Figure 304-1) shows number and class of check extension 1
 - * ATT and BUSY lamps lit

- (3A) Press and hold down **OVERRIDE**
- * All parties hear warning tone
- * Three-way conversation among console, check extension 1 and check extension 2

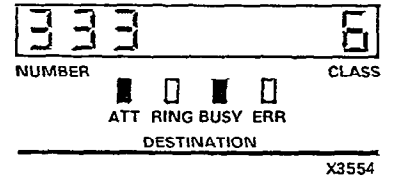
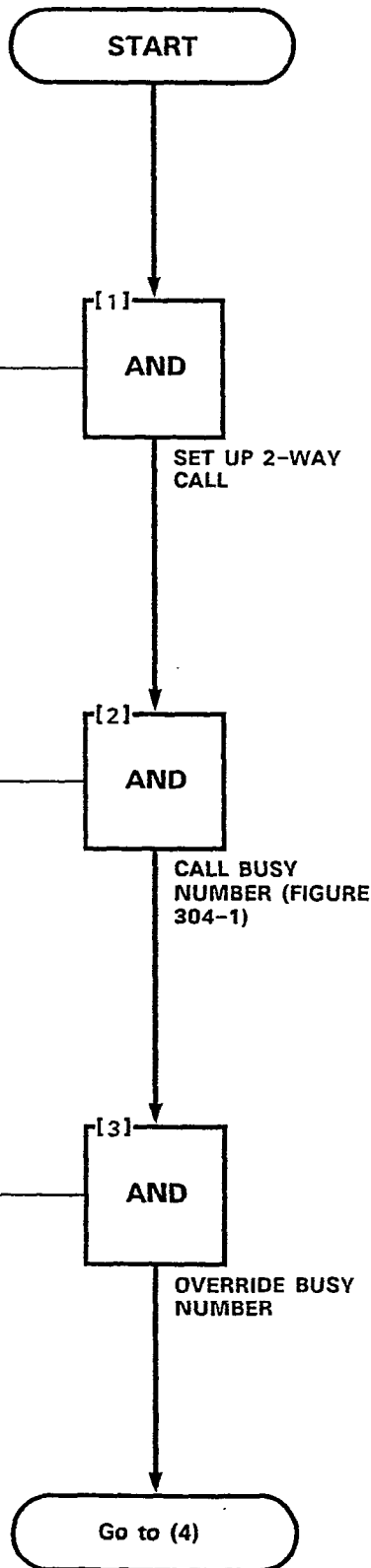
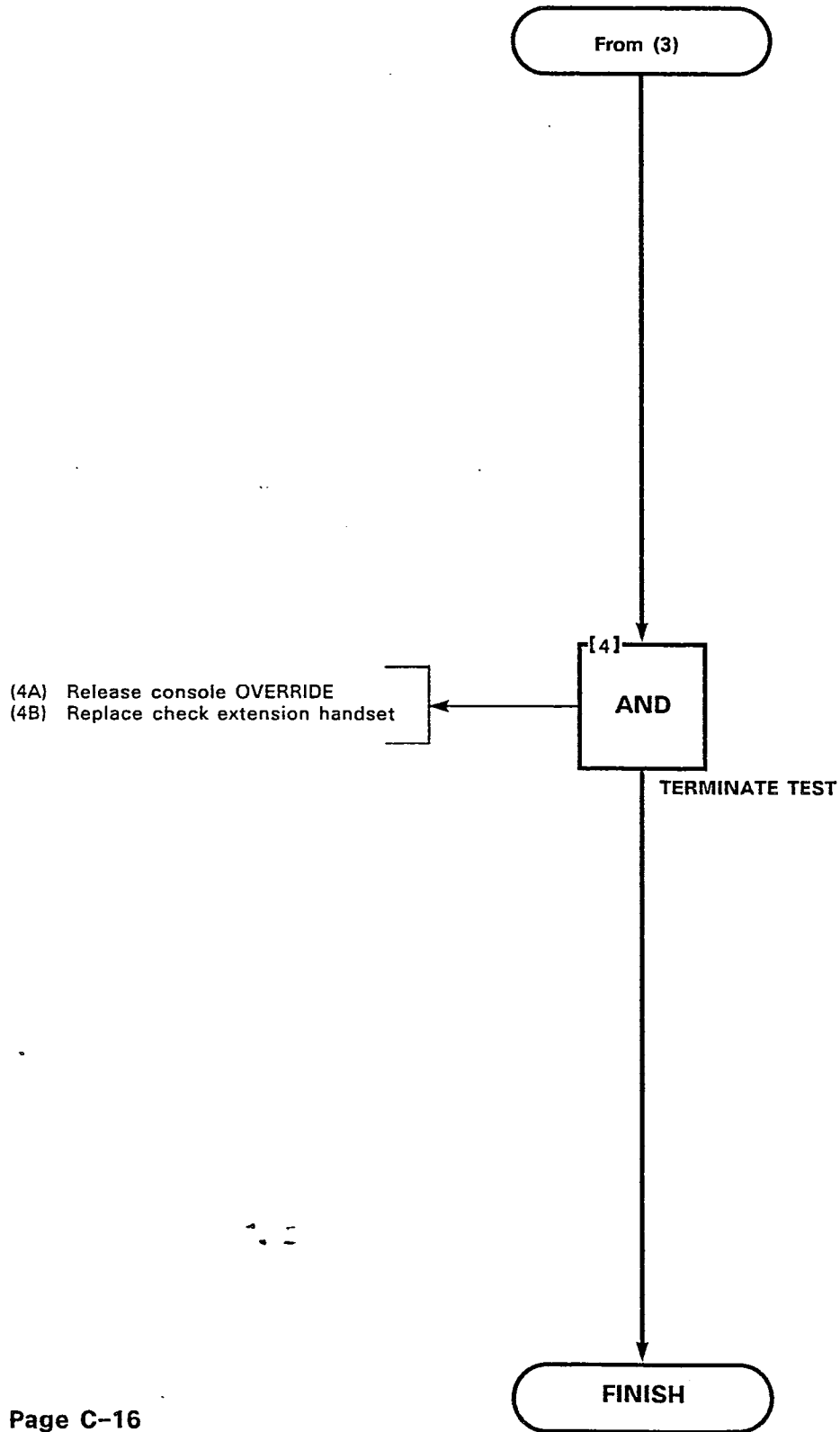


Figure 304-1

SECTION MITL9105/9110-096-215-NA

OVERRIDE
MAP215- 304
Issue 3, May 1984
Sheet 2 of 2



FLEXIBLE NIGHT SERVICE
MAP215-305
Issue 3, May 1984
Sheet 1 of 2

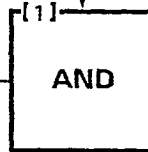
NOTE
Individual Trunk Access Number displayed is the equipment number of the trunk.

AT CONSOLE

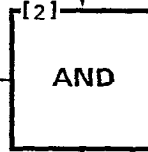
- (1A) Dial *3
 - * ANSWER and DEST lamps lit
- (1B) Dial Individual Trunk access code (equipment number)
 - * ANSWER and DEST lamps lit
 - * DESTINATION display shows individual trunk (equipment) number

- (2A) Press NIGHT 1
 - * ANSWER and DEST lamps lit
 - * SOURCE display shows individual Trunk Equipment Number and Night Service assignment
 - * DESTINATION display shows existing extension or Hunt Group assignment
- (2B) Dial number of check extension 1
 - * ANSWER and DEST lamps lit
 - * SOURCE display (Figure 305-1) shows individual trunk number and night assignment
 - * DESTINATION display shows number of check extension 1
- (2C) Press RELEASE

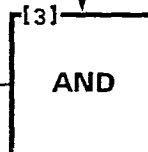
- (3A) Press NIGHT 1 button selected in Step (2A)
 - * NIGHT lamp lit
 - * Night trunk is connected to check extension



ACCESS NIGHT SERVICE



ASSIGN NIGHT SERVICE (FIGURE 305-1)



SELECT NIGHT SERVICE

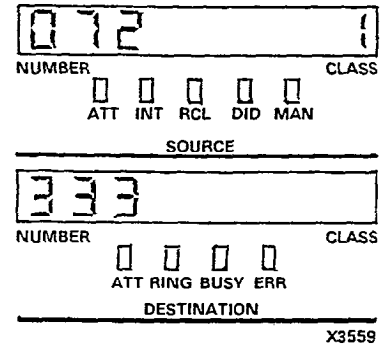
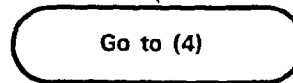
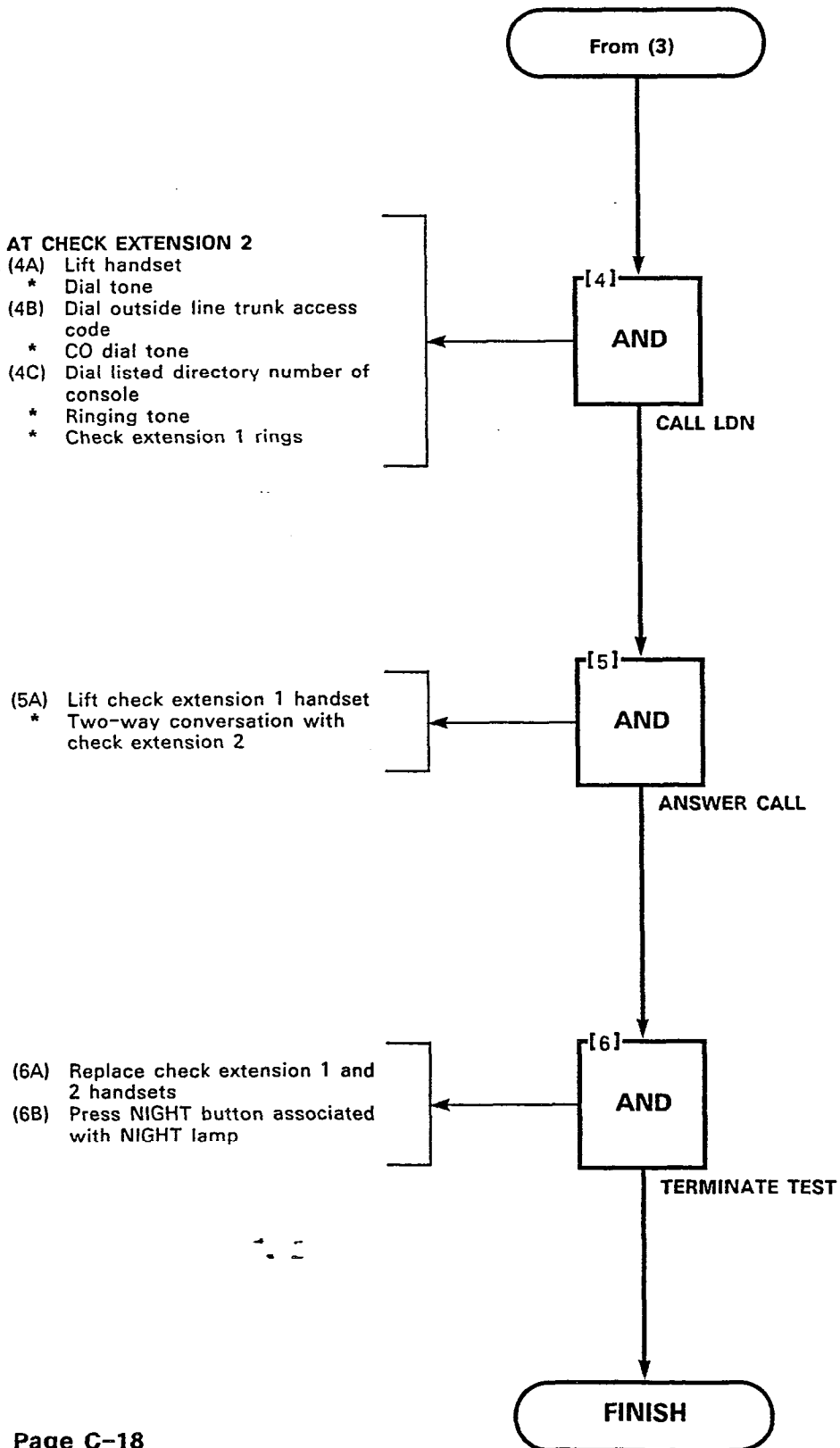


Figure 305-1

FLEXIBLE NIGHT SERVICE
MAP215- 305
Issue 3, May 1984
Sheet 2 of 2



TRUNK BUSY OPERATION
MAP215- 306
Issue 3, May 1984
Sheet 1 of 2

NOTE
Individual Trunk Access Number displayed is same as equipment number of trunk.

AT CONSOLE
(1A) Dial *9, individual trunk number, *
* ANSWER and DEST lamps light
* Dial tone returned if trunk is free
(1B) Press RELEASE

(2A) Dial *9, individual trunk number dialed in (1A) + *
* ANSWER and DEST lamps lit
* DESTINATION display shows number dialed; ATT lit (Figure 306-1)
* Busy tone
(2B) Press RELEASE

(3A) Dial *9, individual trunk number, number sign
* ANSWER and DEST lamps lit
* DESTINATION display (Figure 306-2) shows number dialed; ATT lit
(3B) Press RELEASE

START

[1]
AND

MAKE TRUNK BUSY (FIGURE 306-1)

[2]
AND

CHECK TRUNK BUSY

[3]
AND

MAKE TRUNK NONBUSY (FIGURE 306-2)

Go to (4)

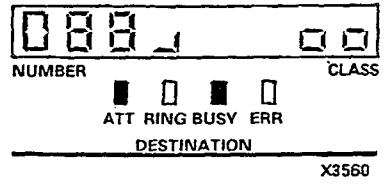


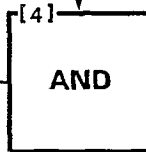
Figure 306-1

TRUNK BUSY OPERATION
MAP215- 306
Issue 3, May 1984
Sheet 2 of 2

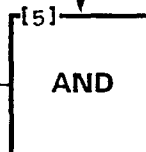
- (4A) Dial *20, individual trunk number, *
- * ANSWER and DEST lamps light
 - * DESTINATION display shows number dialed; ATT lit (Figure 306-2)
 - * CO dial tone

(5A) Press RELEASE

From (3)



CHECK TRUNK NONBUSY



TERMINATE TEST

FINISH

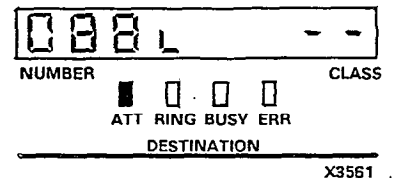


Figure 306-2

TRUNK GROUP ATTENDANT ACCESS
MAP215-307
Issue 3, May 1984
Sheet 1 of 2

- AT ATTENDANT CONSOLE**
- (1A) Dial *6, trunk group number, *
- * ANSWER and DEST lamps lit
 - * DESTINATION display (Figure 307-1) shows trunk group followed by L. TRUNK GROUP STATUS display (Figure 307-2) shows trunk group attendant access
- (1B) Press RELEASE

- AT CHECK EXTENSION**
- (2A) Lift handset
- (2B) Dial CO trunk access code
- * Ringing tone
 - * Console rings
 - * 'Dial 0' and ANSWER lamps flash
 - * Call is intercepted to the console

- AT ATTENDANT CONSOLE**
- (3A) Press console 'Dial 0' key
- * 'Dial 0' lamp lit
 - * Two-way conversation with check extension

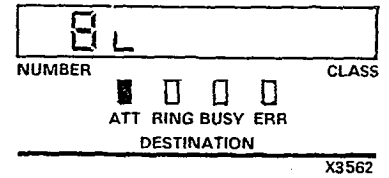
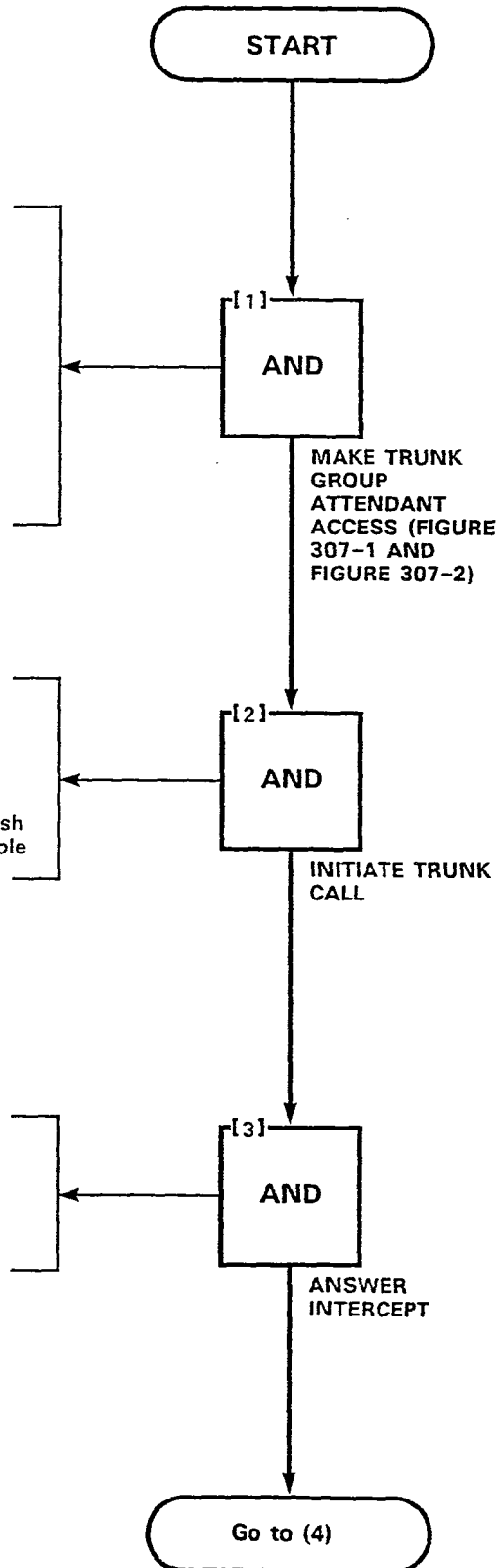


Figure 307-1

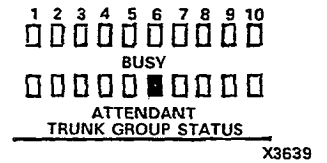
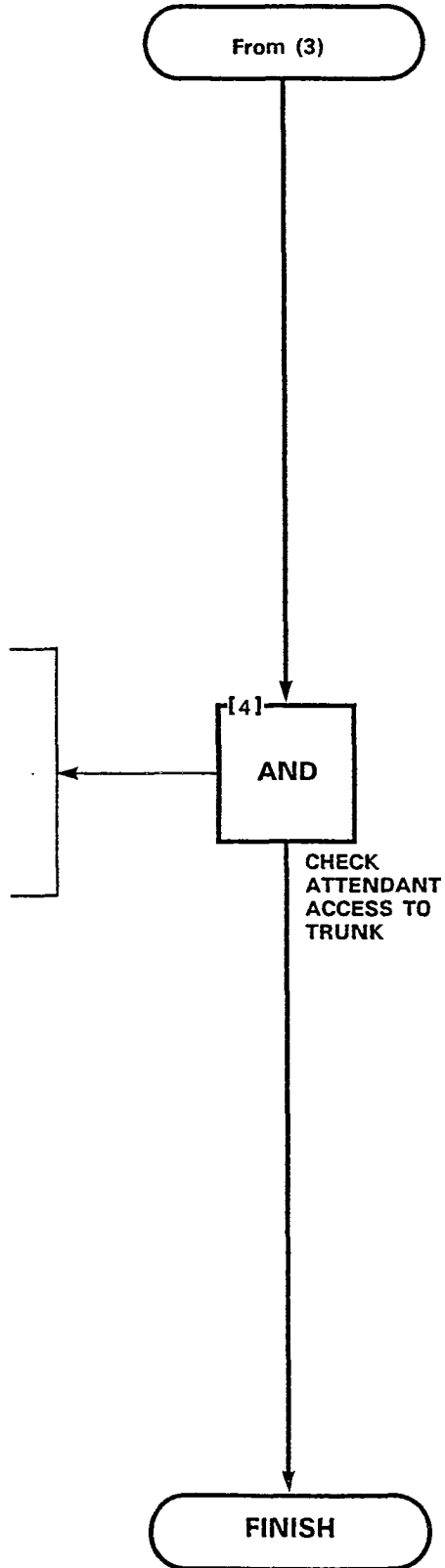


Figure 307-2

TRUNK GROUP ATTENDANT ACCESS
MAP215- 307
Issue 3, May 1984
Sheet 2 of 2

AT ATTENDANT CONSOLE

- (4A) Press RELEASE
 - * Console idle
- (4B) Dial CO trunk access code
 - * Dial tone
 - * ANSWER and DEST lamps lit
 - * ATT lamp lit
- (4C) Press RELEASE
 - * Console idle



TRUNK GROUP DIAL ACCESS
MAP215- 308
Issue 3, May 1984
Sheet 1 of 2

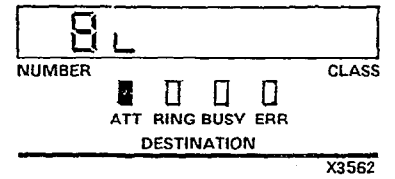
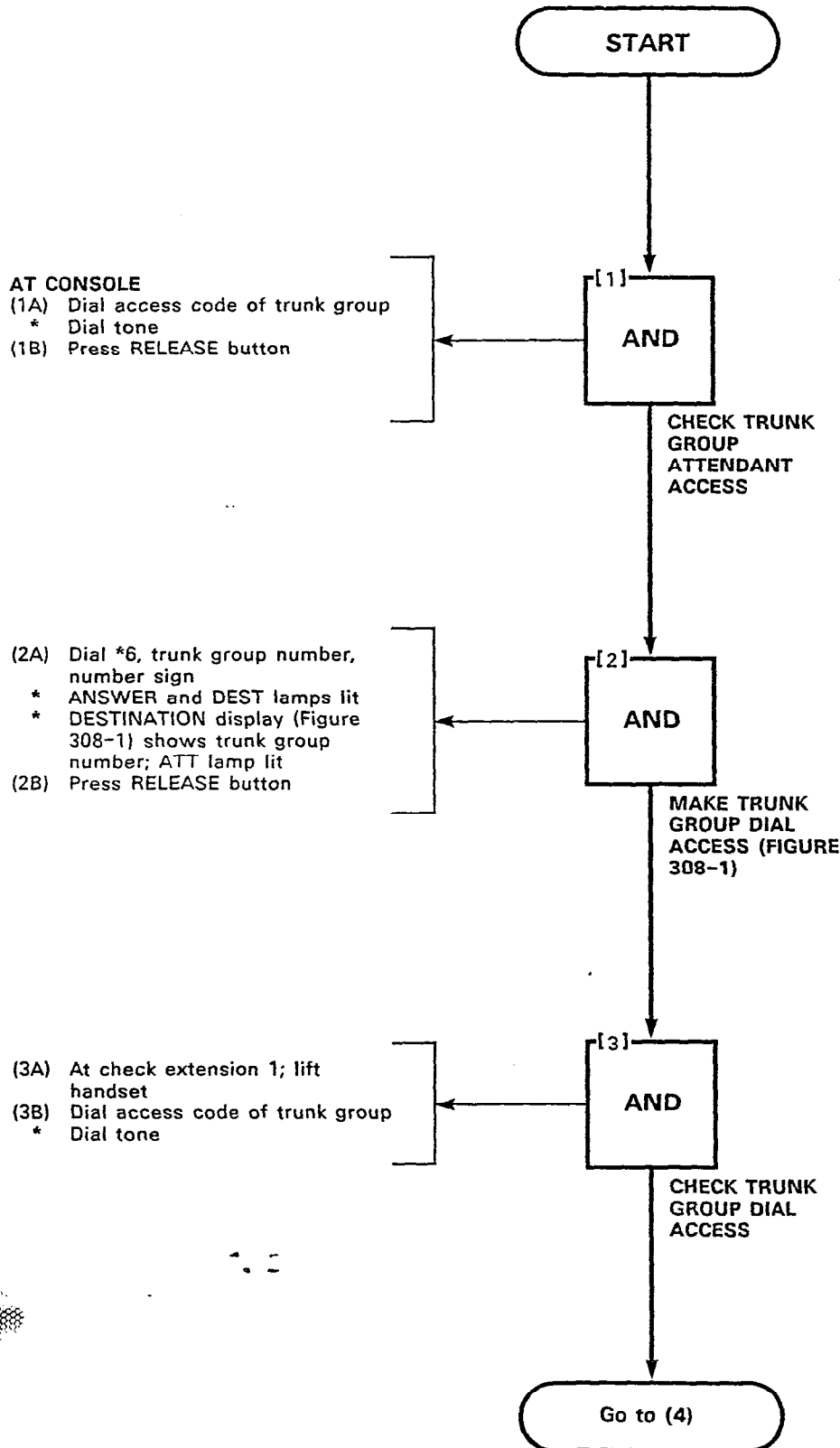
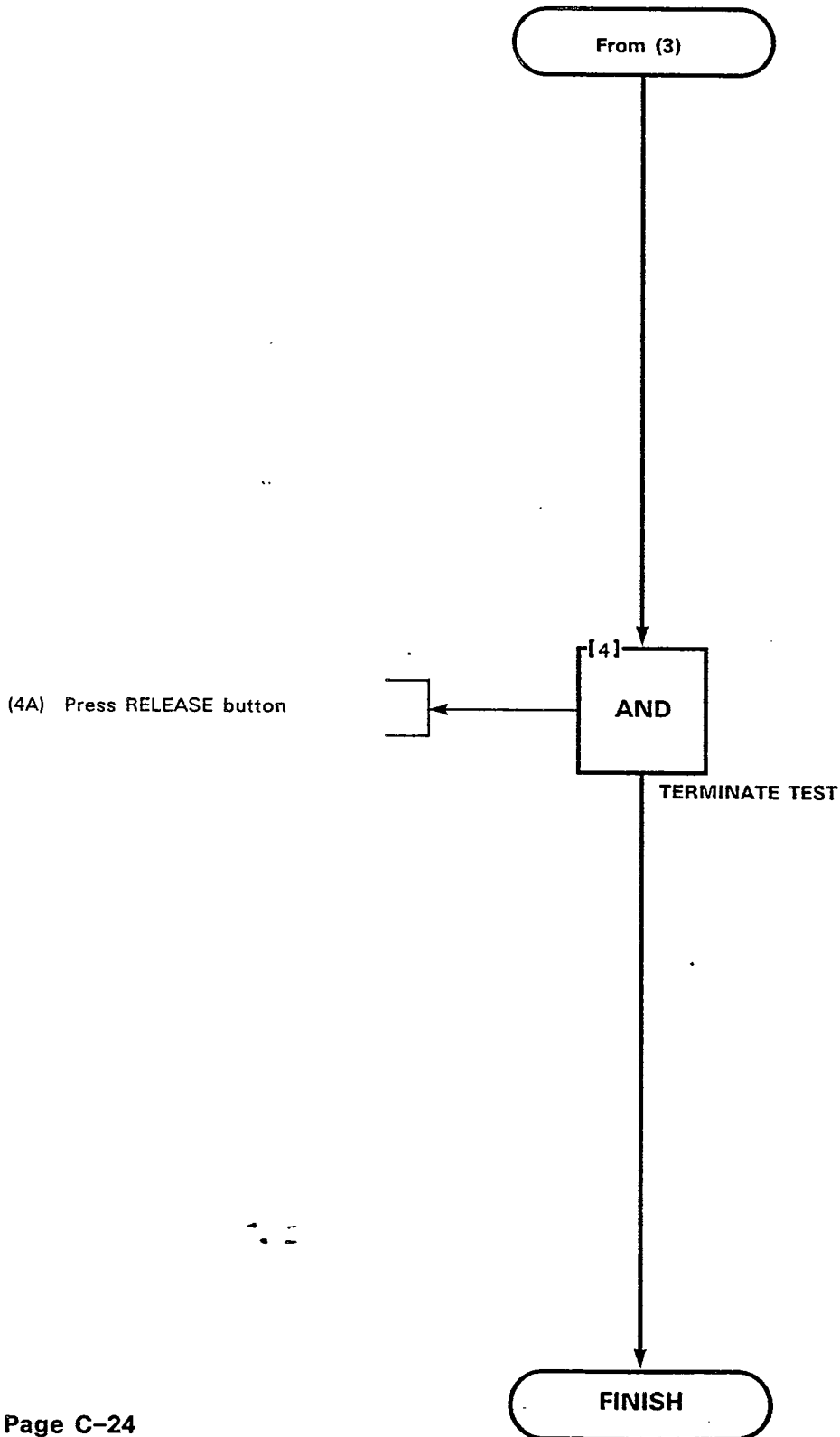


Figure 308-1

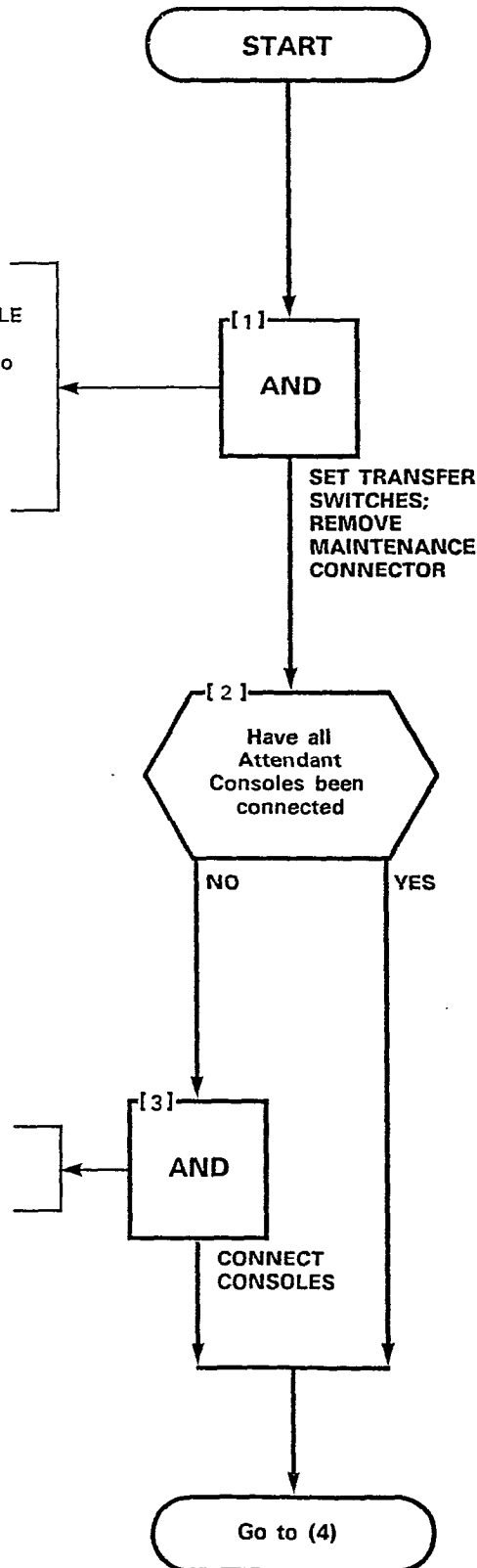
TRUNK GROUP DIAL ACCESS
MAP215- 308
Issue 3, May 1984
Sheet 2 of 2



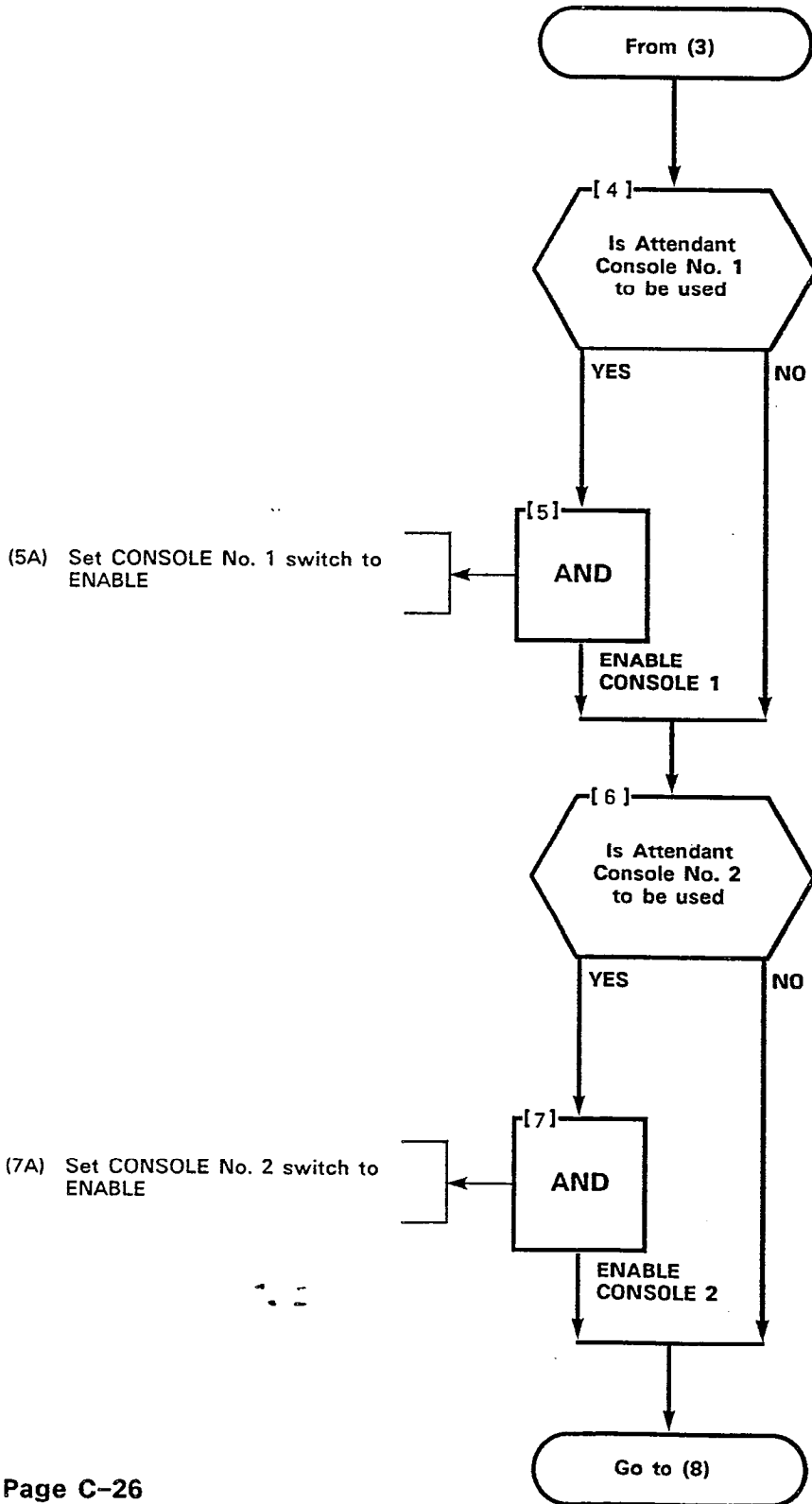
TEST TERMINATION
MAP215-309
Issue 3, May 1984
Sheet 1 of 8

- AT MAINTENANCE PANEL**
- (1A) Set console switches to DISABLE
 - (1B) Set POWER SUPPLY and COMMON CONTROL switches to ENABLE
 - (1C) Set MASTER SWITCH to NORMAL
 - (1D) Remove console from maintenance panel

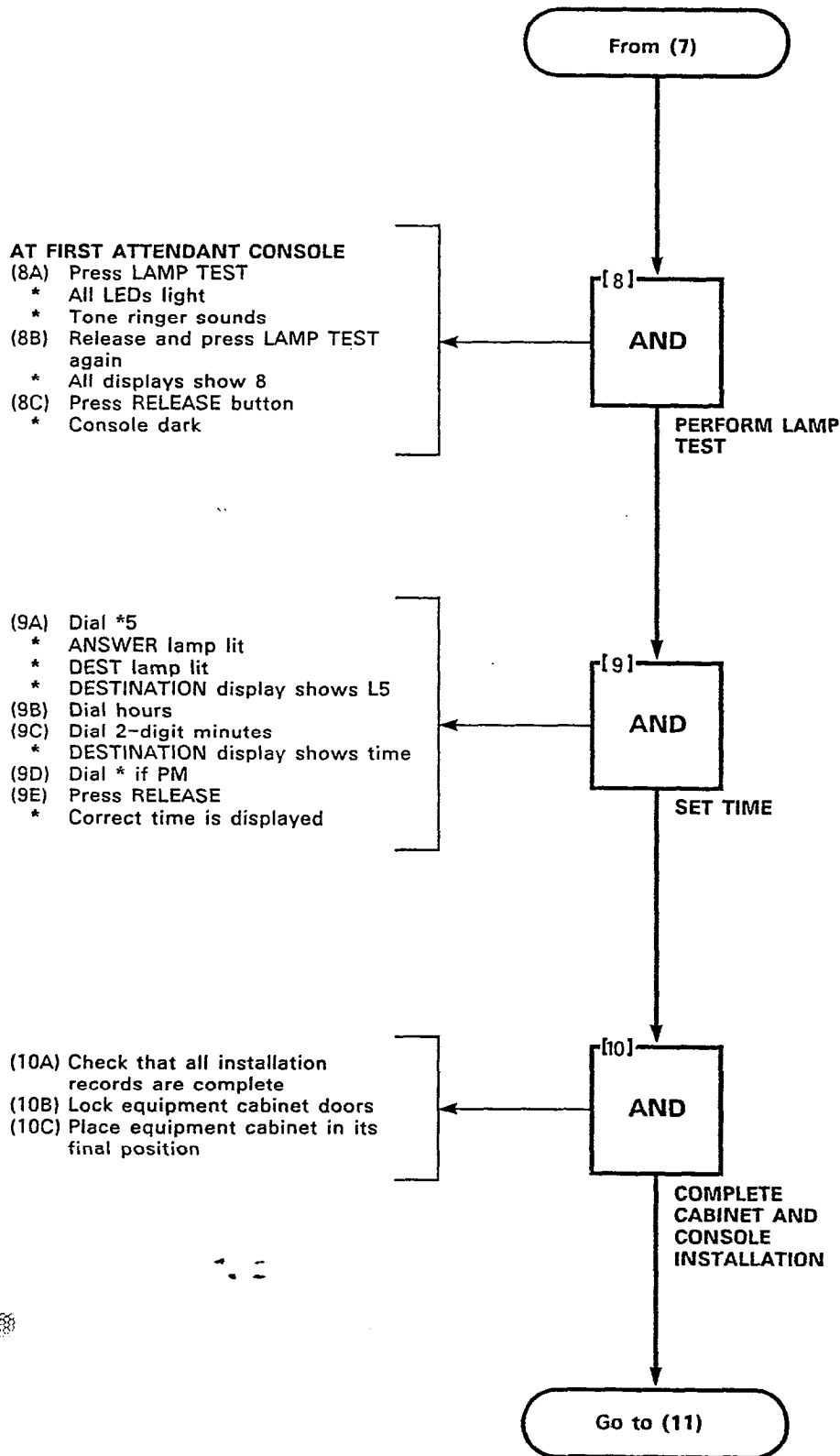
- (3A) Connect required Attendant Consoles



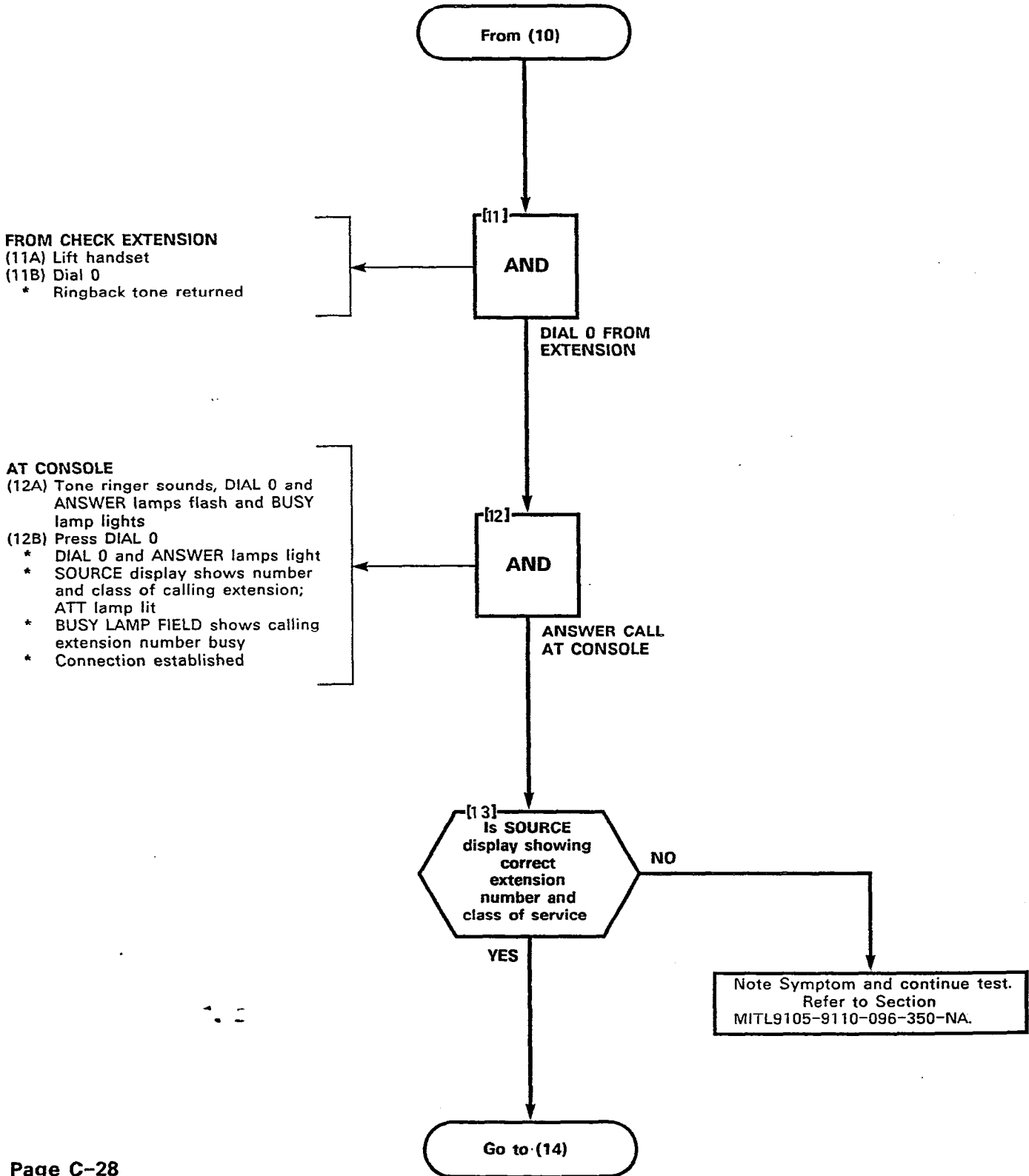
TEST TERMINATION
MAP215- 309
Issue 3, May 1984
Sheet 2 of 8



TEST TERMINATION
MAP215-309
Issue 3, May 1984
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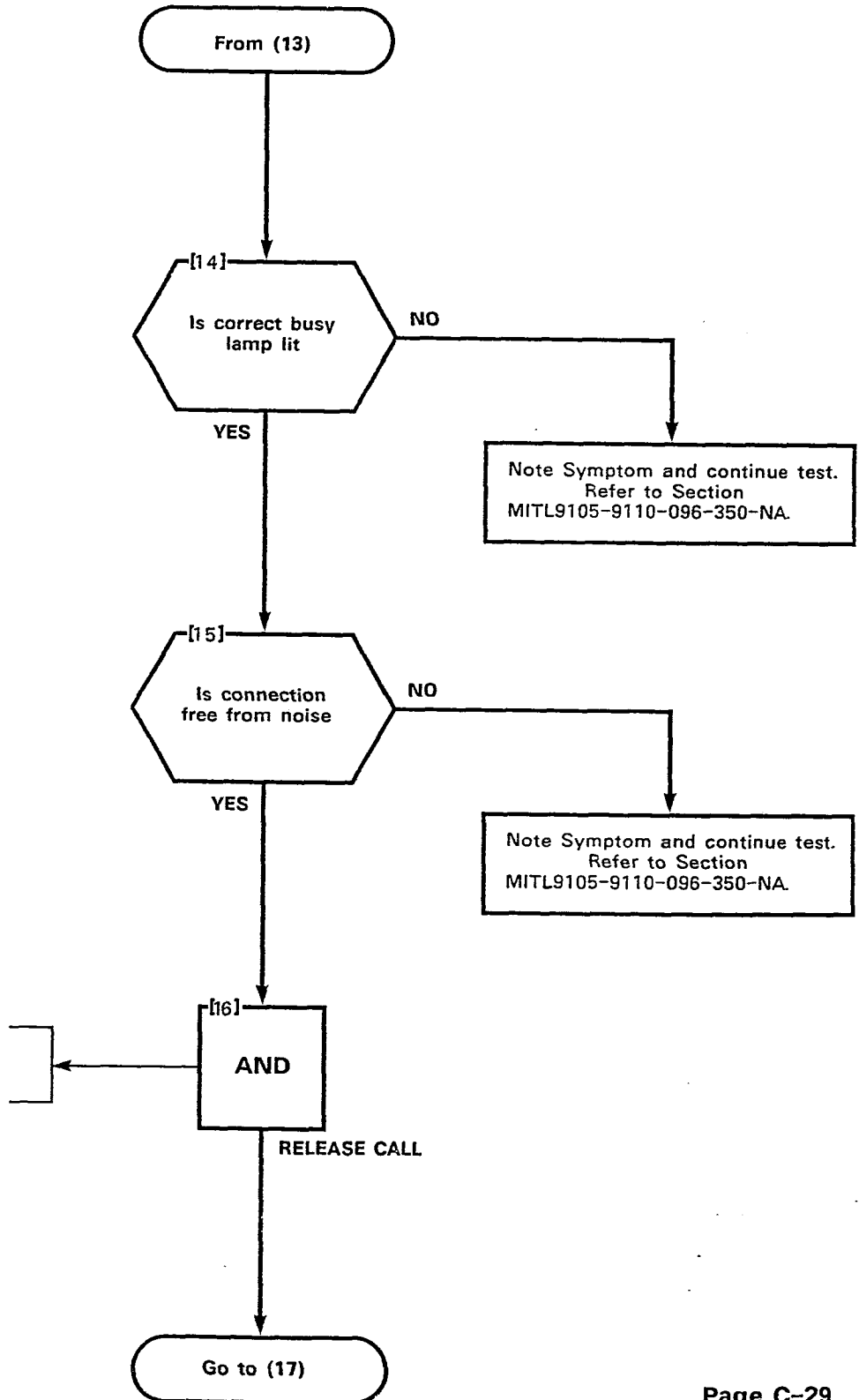


TEST TERMINATION
MAP215- 309
Issue 3, May 1984
Sheet 4 of 8



TEST TERMINATION
MAP215-309
Issue 3, May 1984
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(16A) Replace extension handset
 (16B) Press console RELEASE



TEST TERMINATION
MAP215- 309
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AT CONSOLE
 (17A) Dial extension number displayed in (8)
 * DESTINATION display shows number and class of called extension. ATT and RING lamps lit

(18A) At extension under test lift extension handset
 * Connection established

From (16)

[17]
AND

CALL EXTENSION FROM CONSOLE

[18]
AND

ANSWER CALL

[19]
 Is console display correct

NO

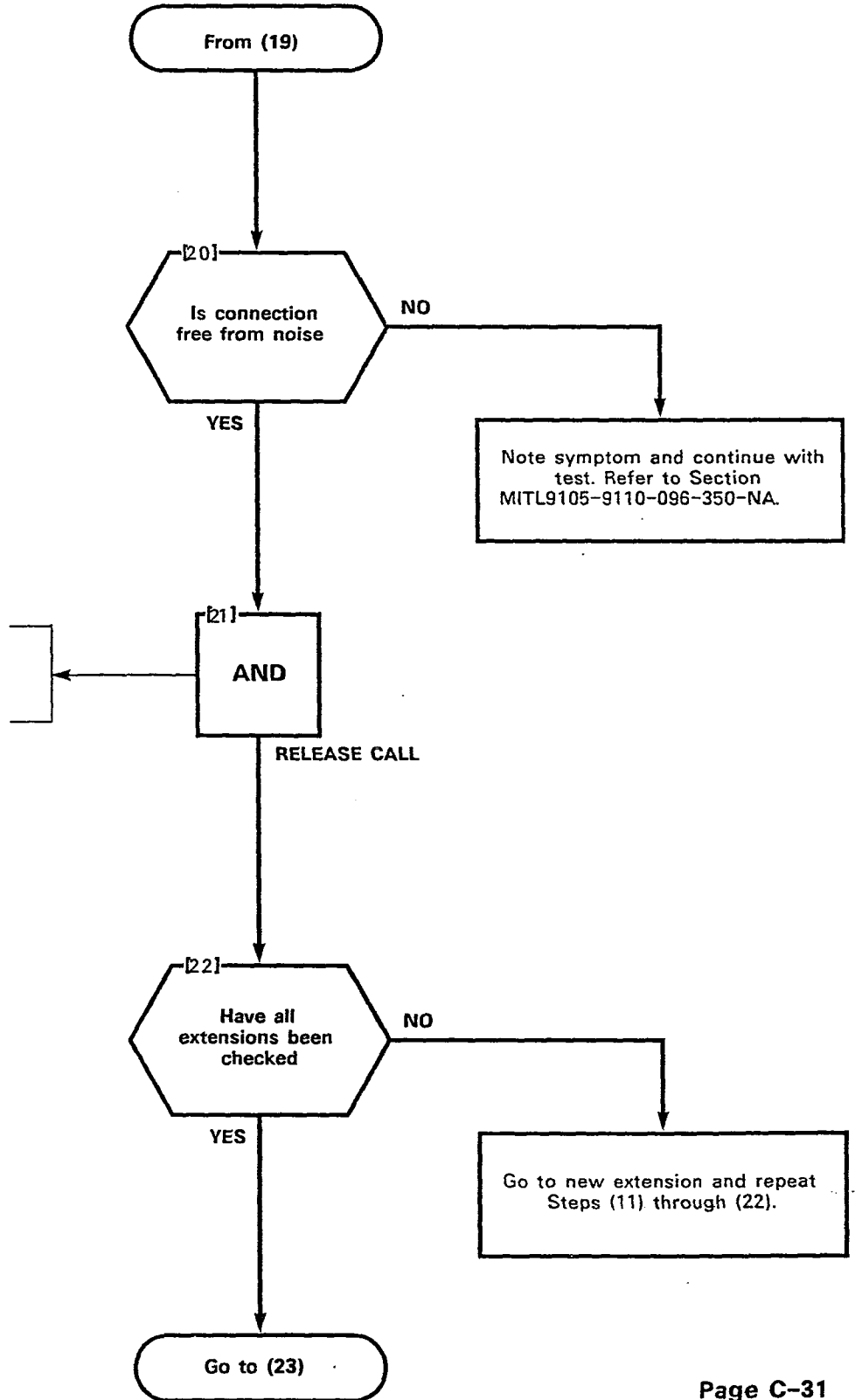
YES

Note symptom and continue with test. Refer to Section MITL9105-9110-096-350-NA.

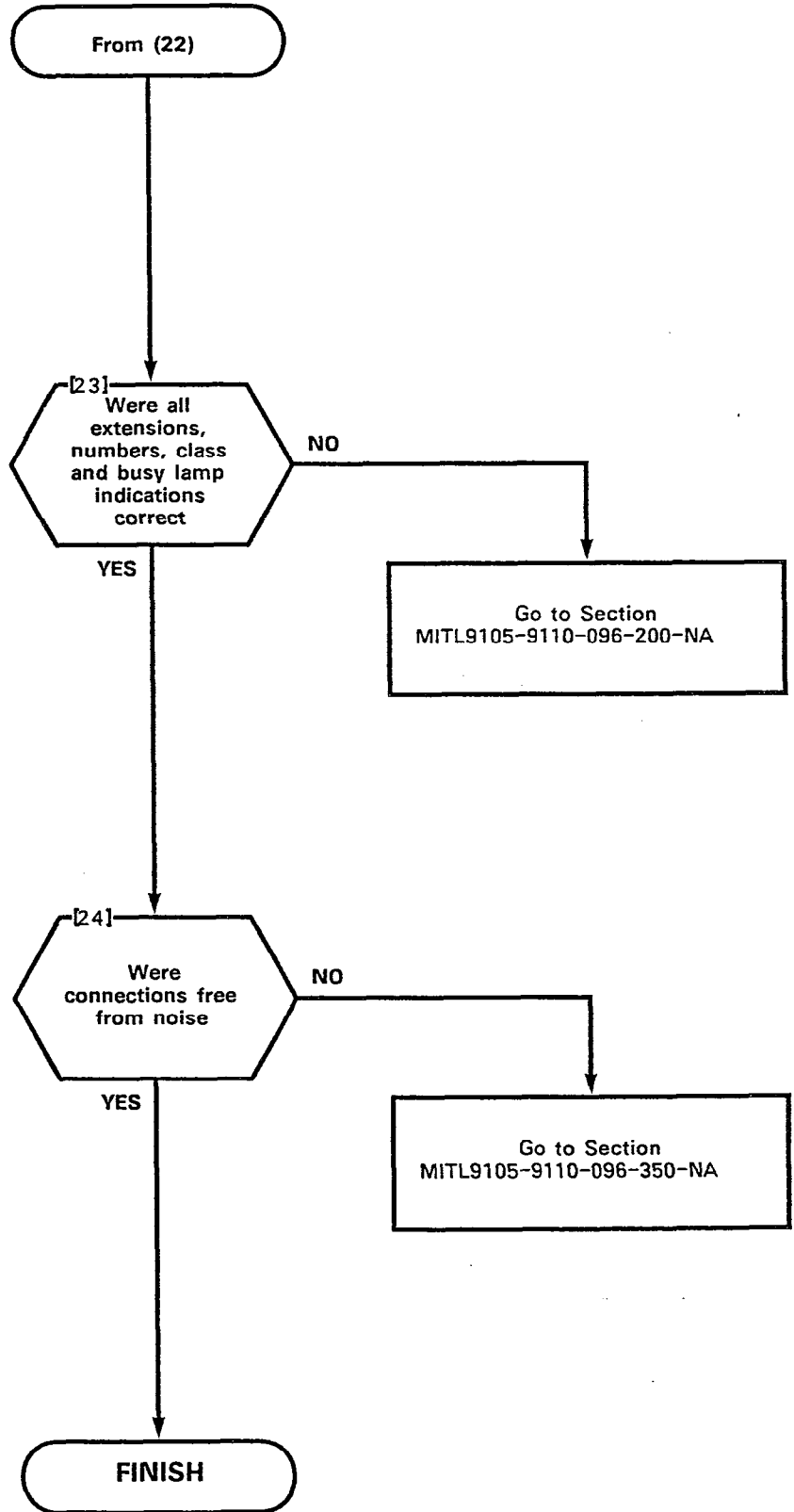
Go to (20)

TEST TERMINATION
MAP215- 309
Issue 3, May 1984
Sheet 7 of 8

(21A) Replace extension handset
 (21B) Press console RELEASE
 * Console idle

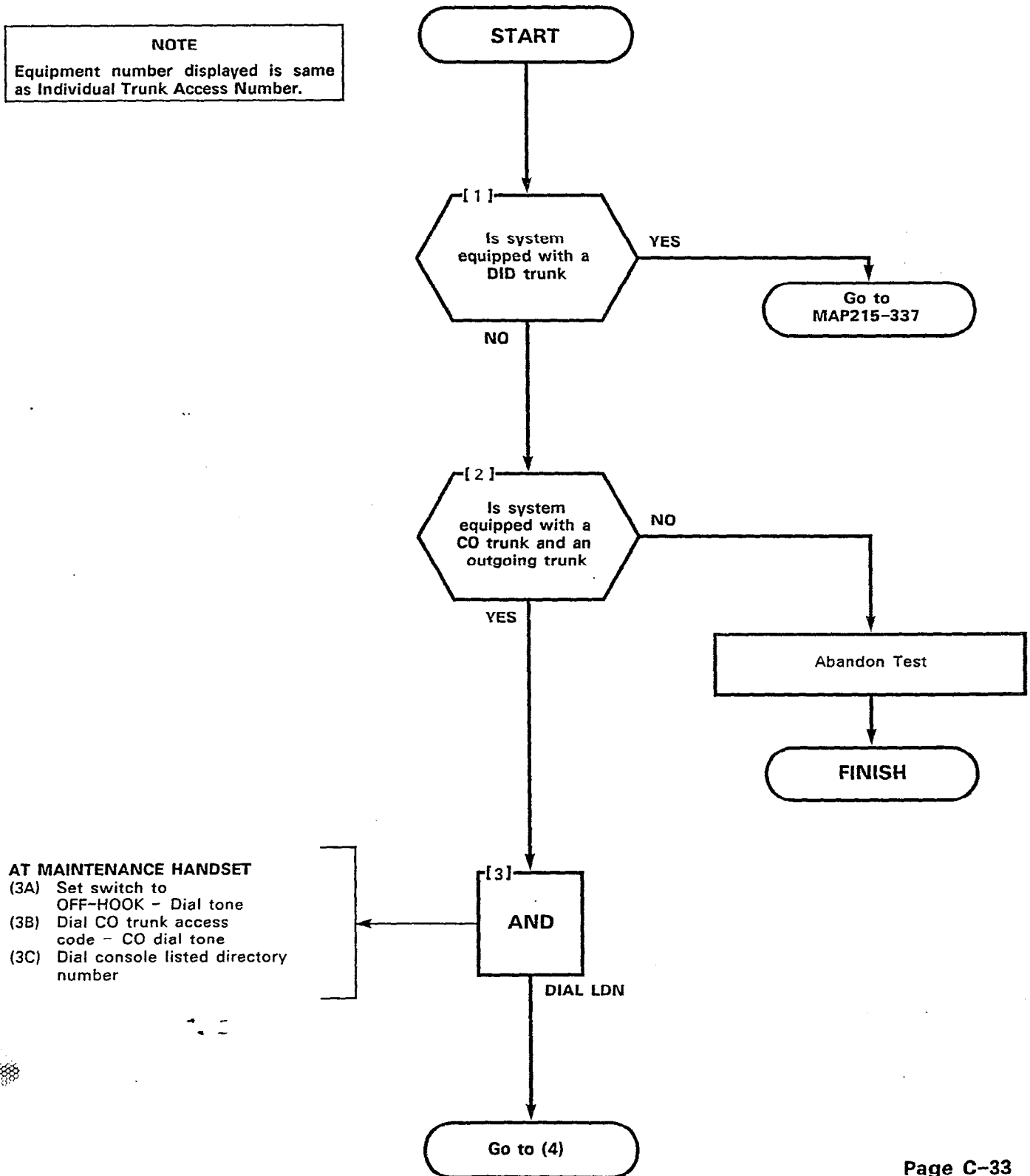


TEST TERMINATION
MAP215- 309
Issue 3, May 1984
Sheet 8 of 8



ANSWER INCOMING CO TRUNK CALL
MAP215-310
Issue 3, May 1984
Sheet 1 of 6

NOTE
Equipment number displayed is same as Individual Trunk Access Number.



AT MAINTENANCE HANDSET
 (3A) Set switch to OFF-HOOK - Dial tone
 (3B) Dial CO trunk access code - CO dial tone
 (3C) Dial console listed directory number

ANSWER INCOMING CO TRUNK CALL
MAP215- 310
Issue 3, May 1984
Sheet 2 of 6

NOTE
Equipment number displayed is same as Individual Trunk Access Number.

AT CONSOLE

- (4A) ANSWER and LDN lamps flash; ringer sounds
- (4B) Press LDN
 - * ANSWER, LDN and SOURCE lamps light
 - * SOURCE display (Figure 310-1) shows number of calling trunk and ATT lamp lit
 - * Two-way conversation between console and maintenance set

- (6A) Press SERIAL
 - * SERIAL lamp lights

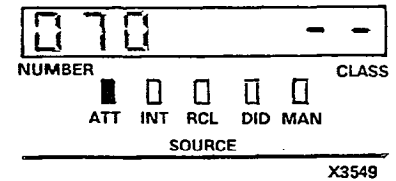
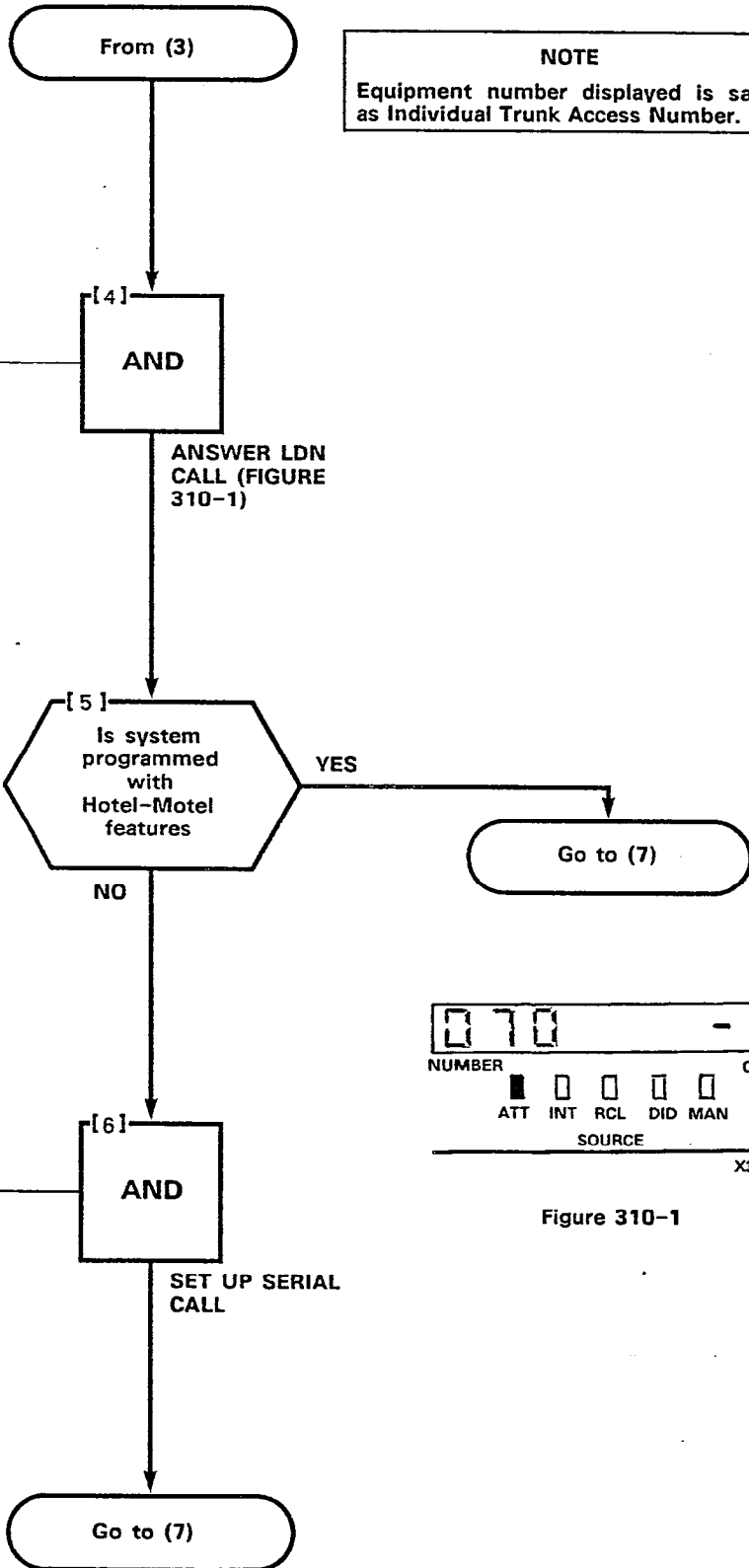


Figure 310-1

ANSWER INCOMING CO TRUNK CALL
MAP215-310
Issue 3, May 1984
Sheet 3 of 6

NOTE
Equipment number displayed is same as Individual Trunk Access Number.

AT CONSOLE

- (7A) Dial number of check extension
- * ANSWER, LDN, and DEST lamps lit
 - * SOURCE display (Figure 310-2) shows the equipment number of the calling trunk
 - * DESTINATION display shows the number and COS of the check extension
 - * ATT and RING lamps lit

AT CHECK EXTENSION

- (8A) Lift check extension handset
- * Two-way conversation with console

AT CONSOLE

- (9A) Press SOURCE
- * ANSWER, LDN and SOURCE lamps lit
 - * SOURCE display (Figure 310-3) shows the number of the calling trunk ATT lamp lit
 - * DESTINATION display shows number and COS of check extension
 - * Two-way private call with maintenance set

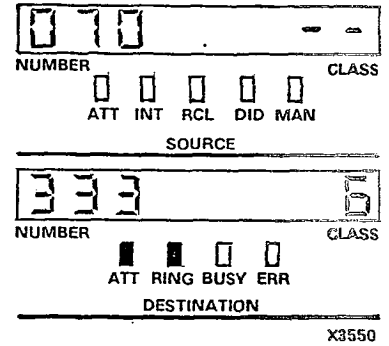
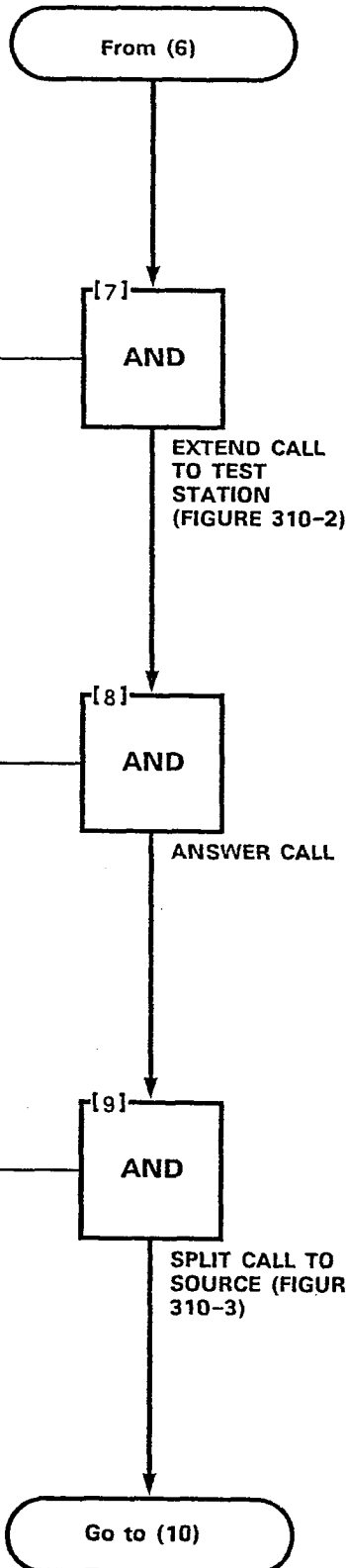


Figure 310-2

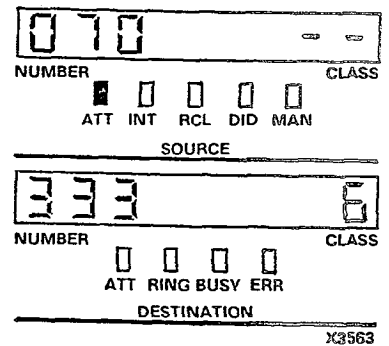


Figure 310-3

ANSWER INCOMING CO TRUNK CALL
MAP215- 310
Issue 3, May 1984
Sheet 4 of 6

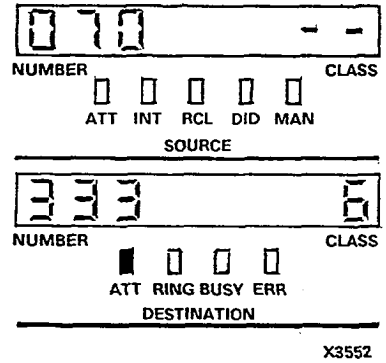
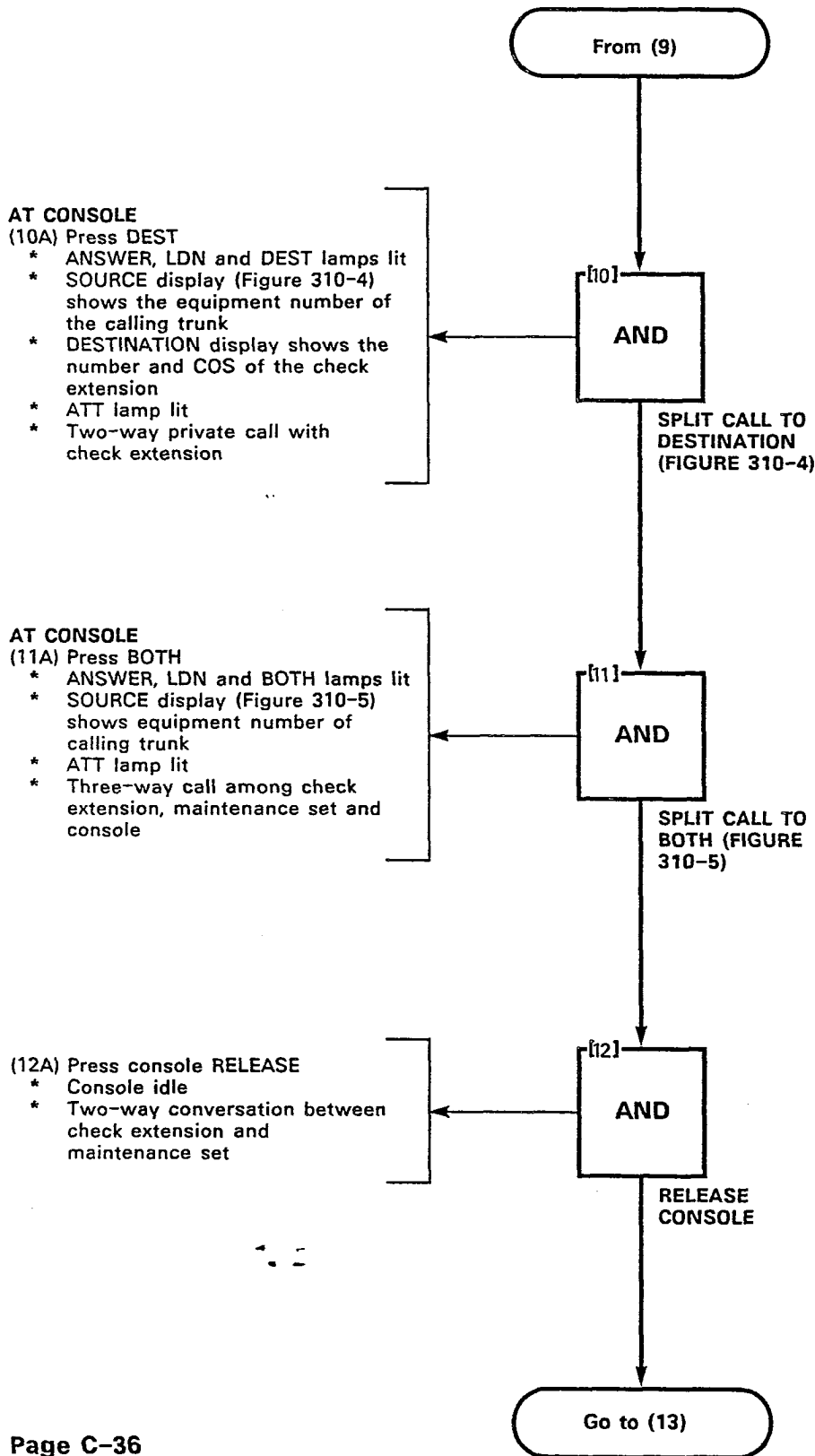


Figure 310-4

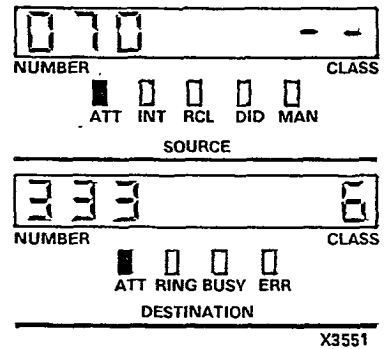


Figure 310-5

ANSWER INCOMING CO TRUNK CALL
MAP215-310
Issue 3, May 1984
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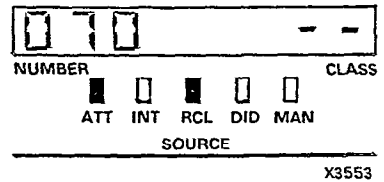
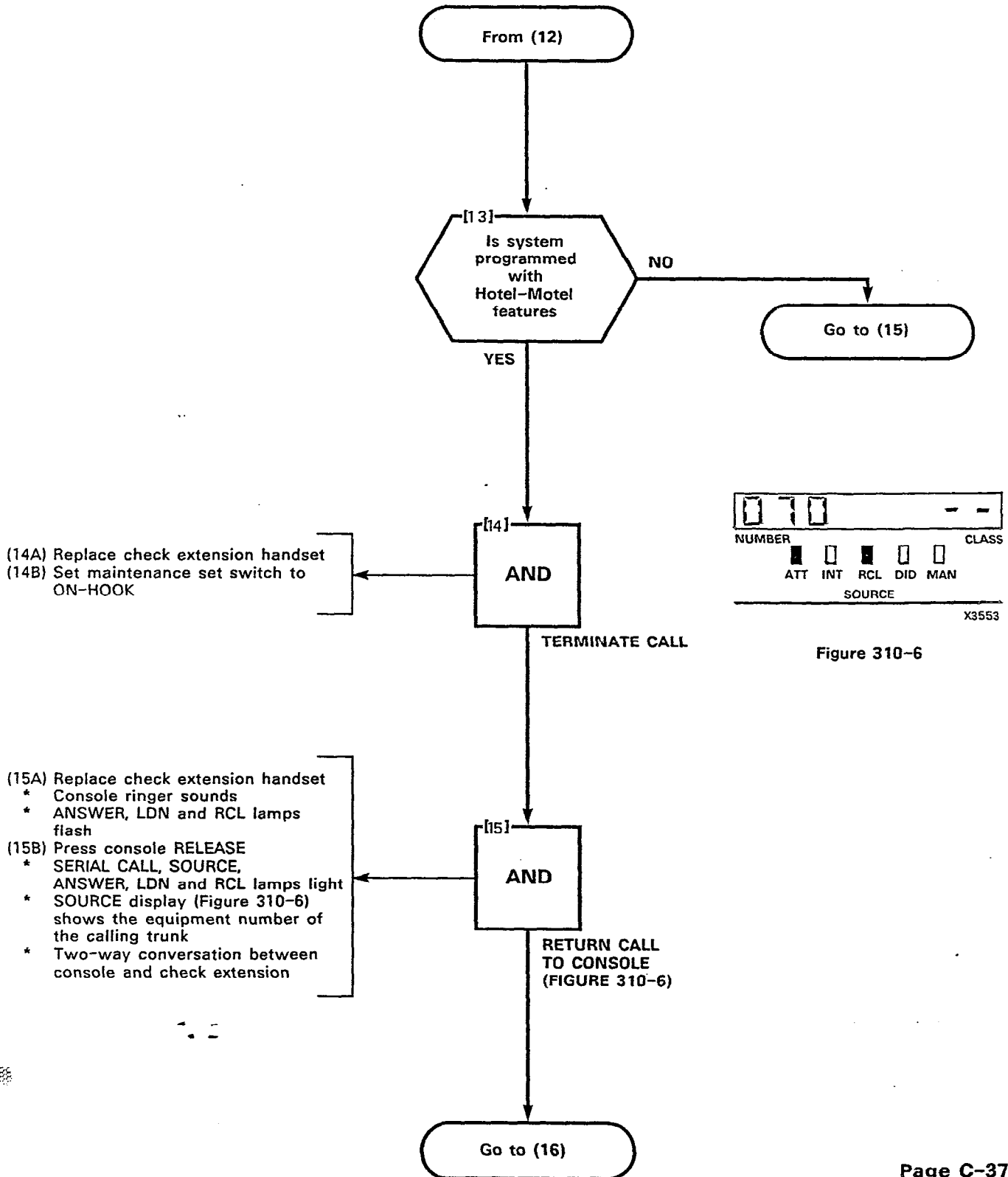
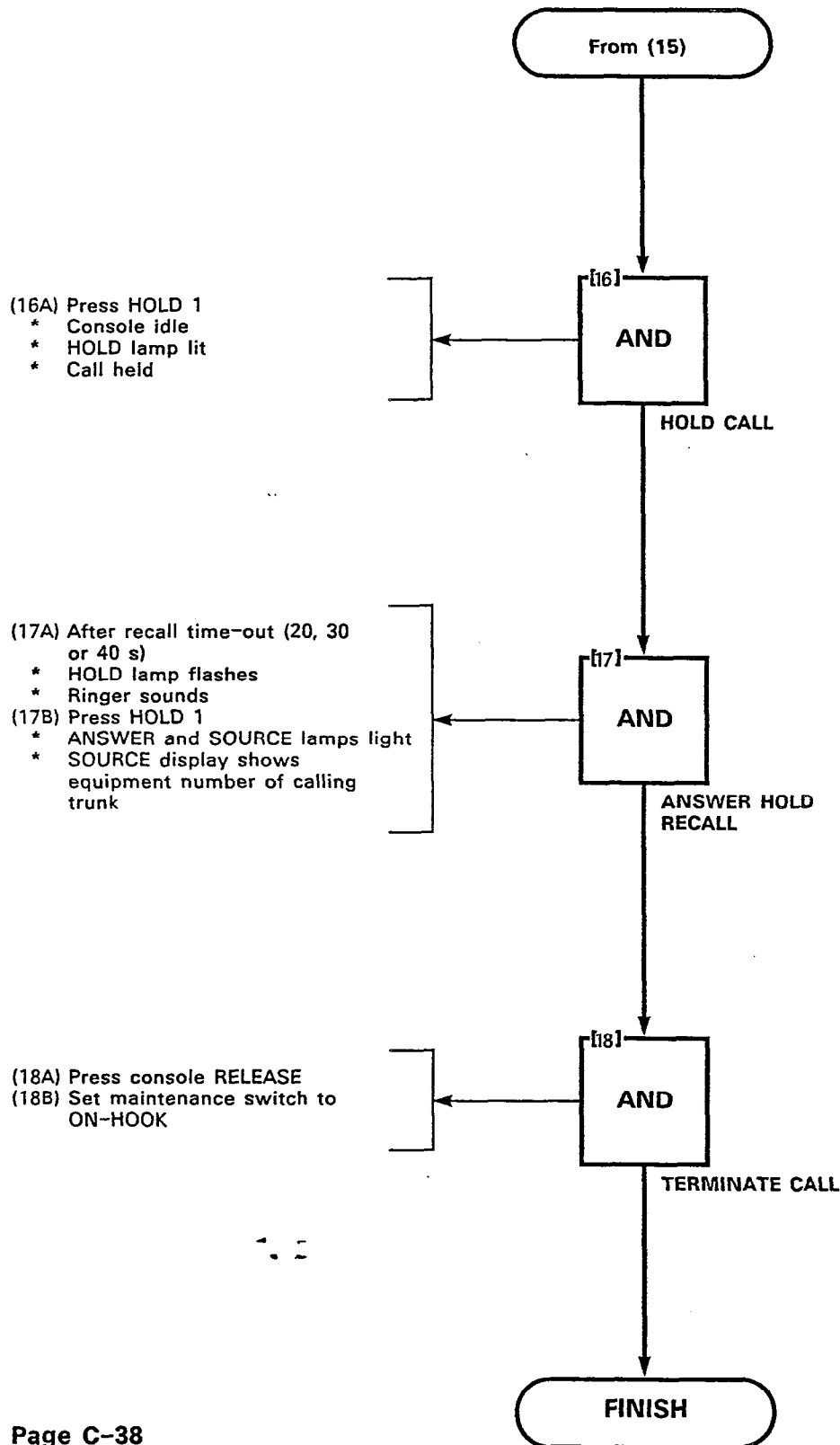


Figure 310-6

X3553

SECTION MITL9105/9110-096-215-NA

ANSWER INCOMING CO TRUNK CALL
MAP215- 310
Issue 3, May 1984
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ATTENDANT DO NOT DISTURB
MAP215-311
Issue 3, May 1984
Sheet 1 of 2

NOTE
 Ring is given in substep (2B) if System Option 138 is selected; otherwise re-order tone is given and remainder of (2) substeps are omitted.

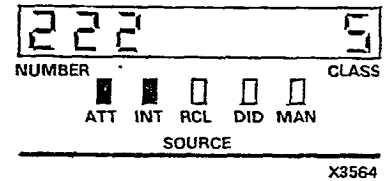
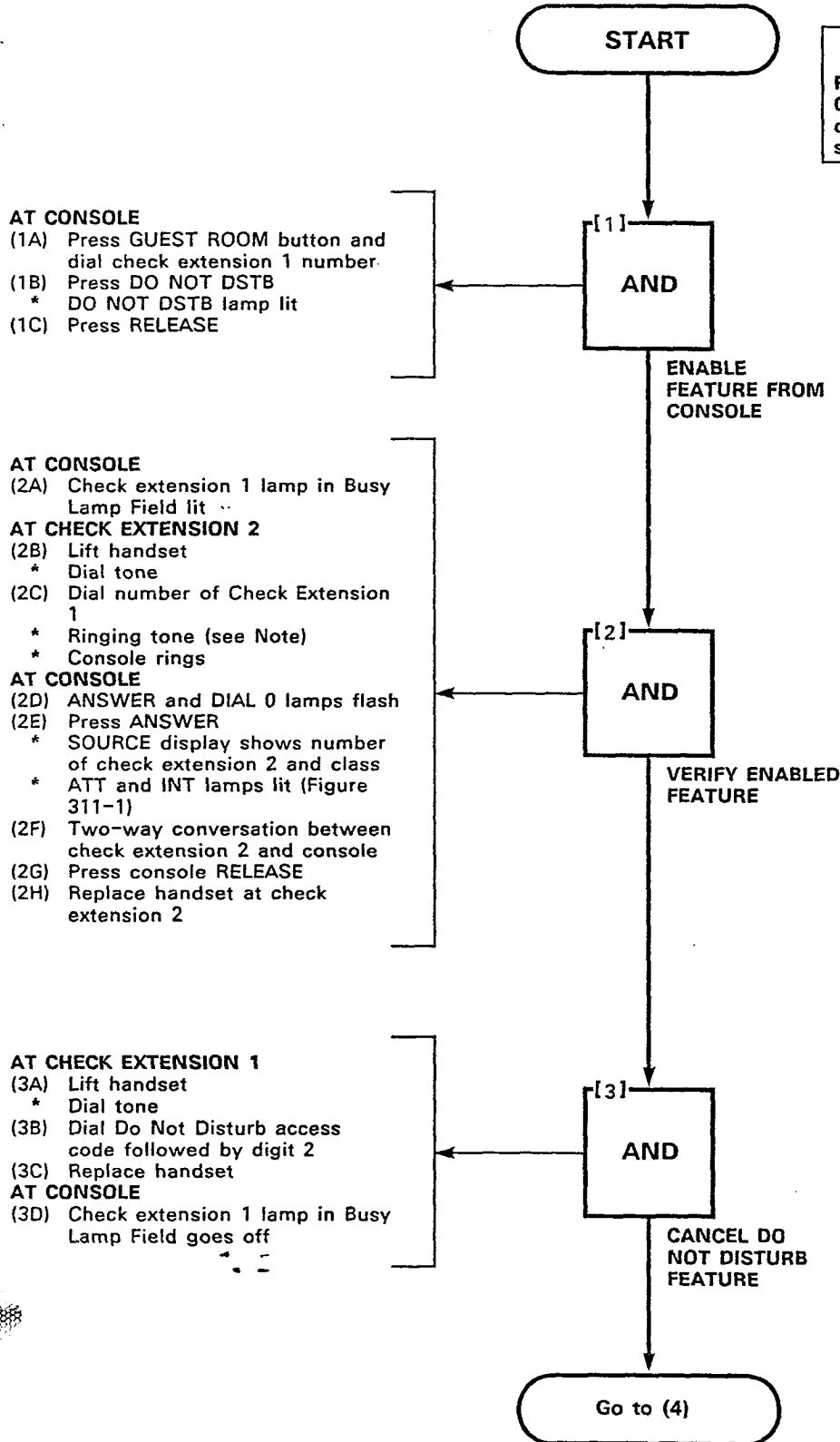
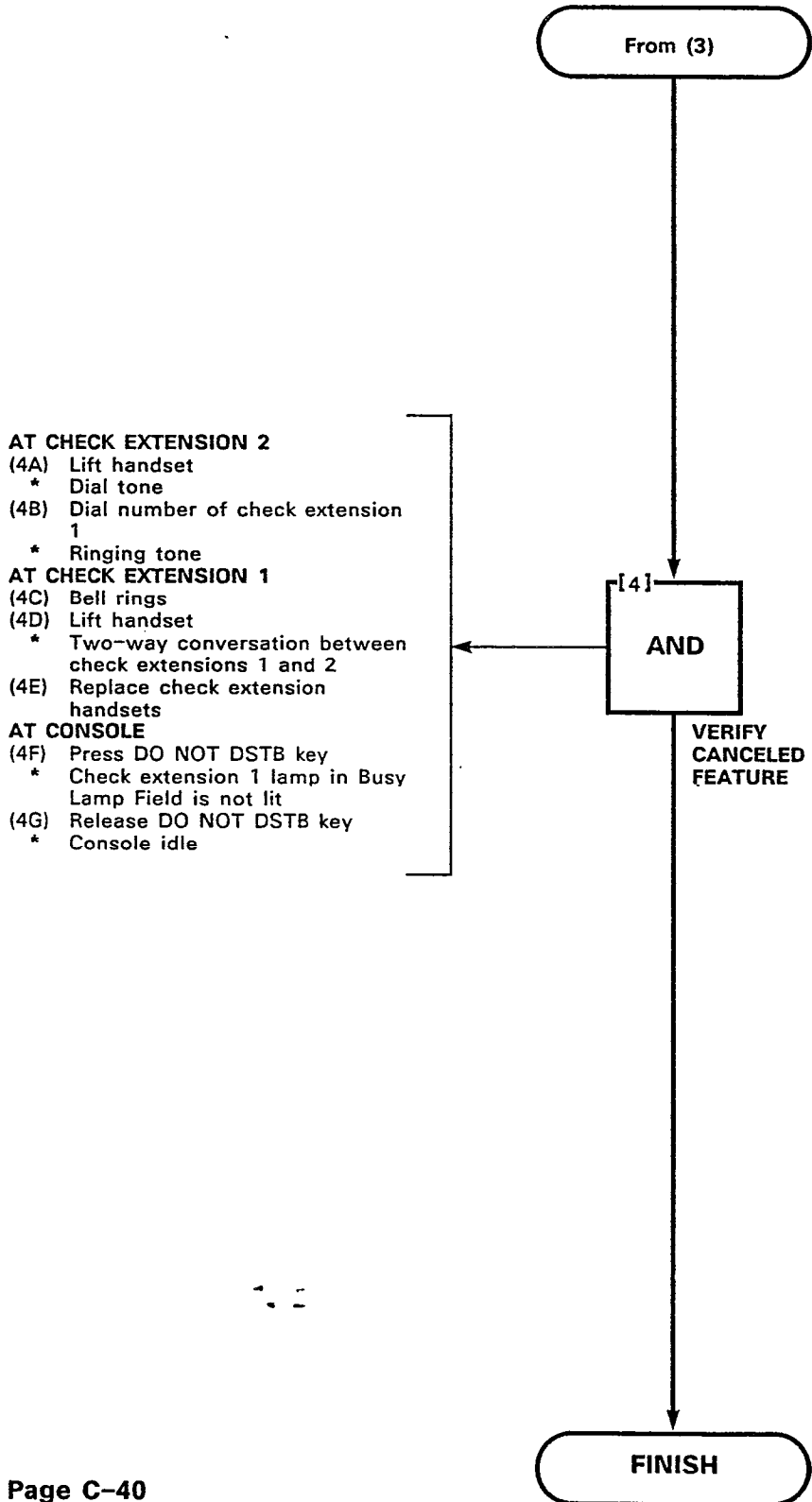


Figure 311-1

SECTION MITL9105/9110-096-215-NA

ATTENDANT DO NOT DISTURB
MAP215- 311
Issue 3, May 1984
Sheet 2 of 2



MESSAGE WAITING
MAP215-312
Issue 3, May 1984
Sheet 1 of 2

WARNING
 Pressing MSGE WAIT when console is active with an extension may activate or remove the feature at the extension.

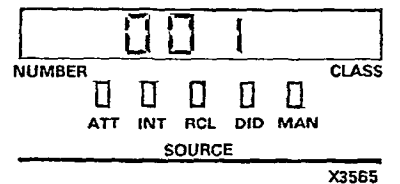
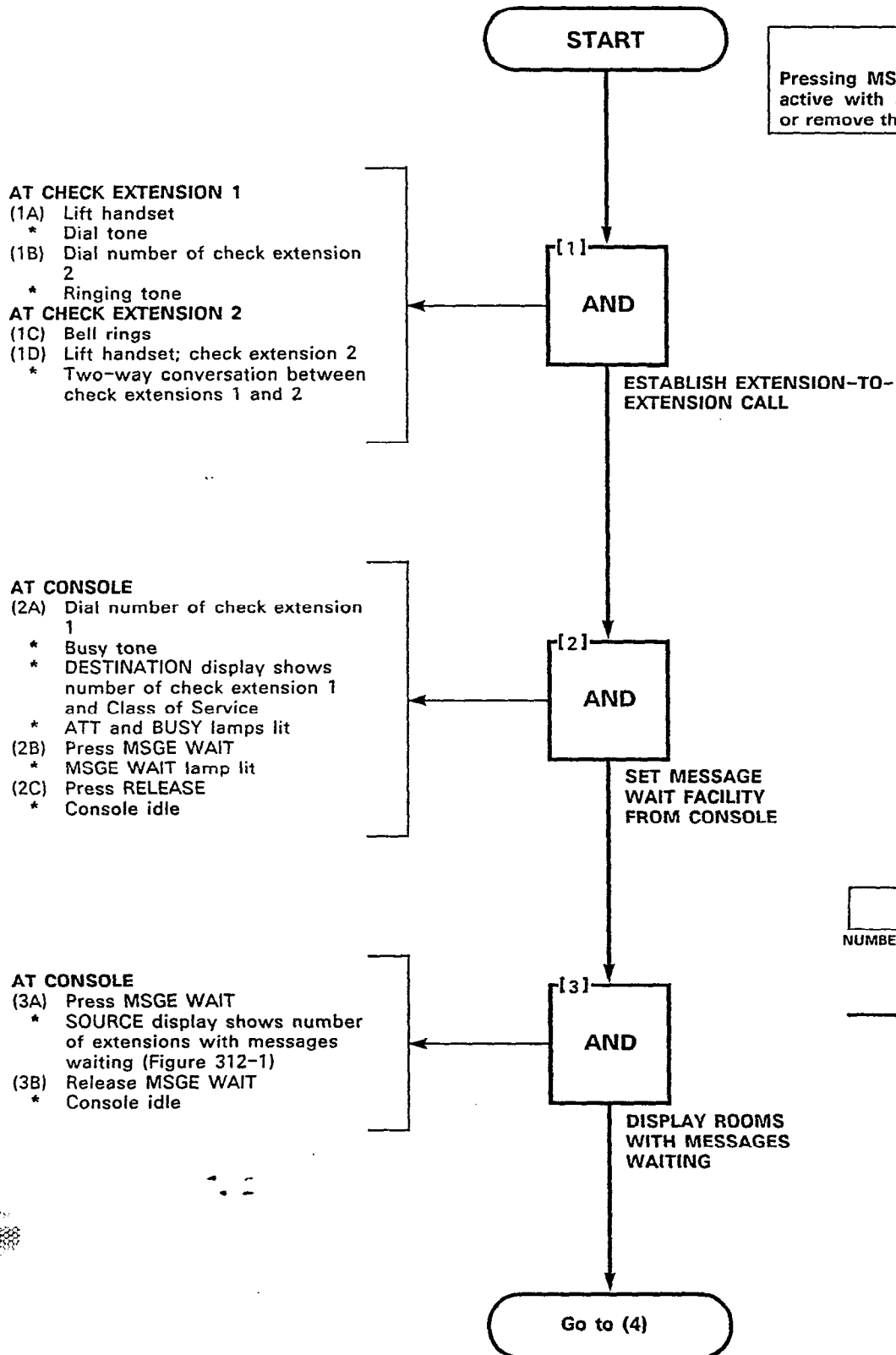
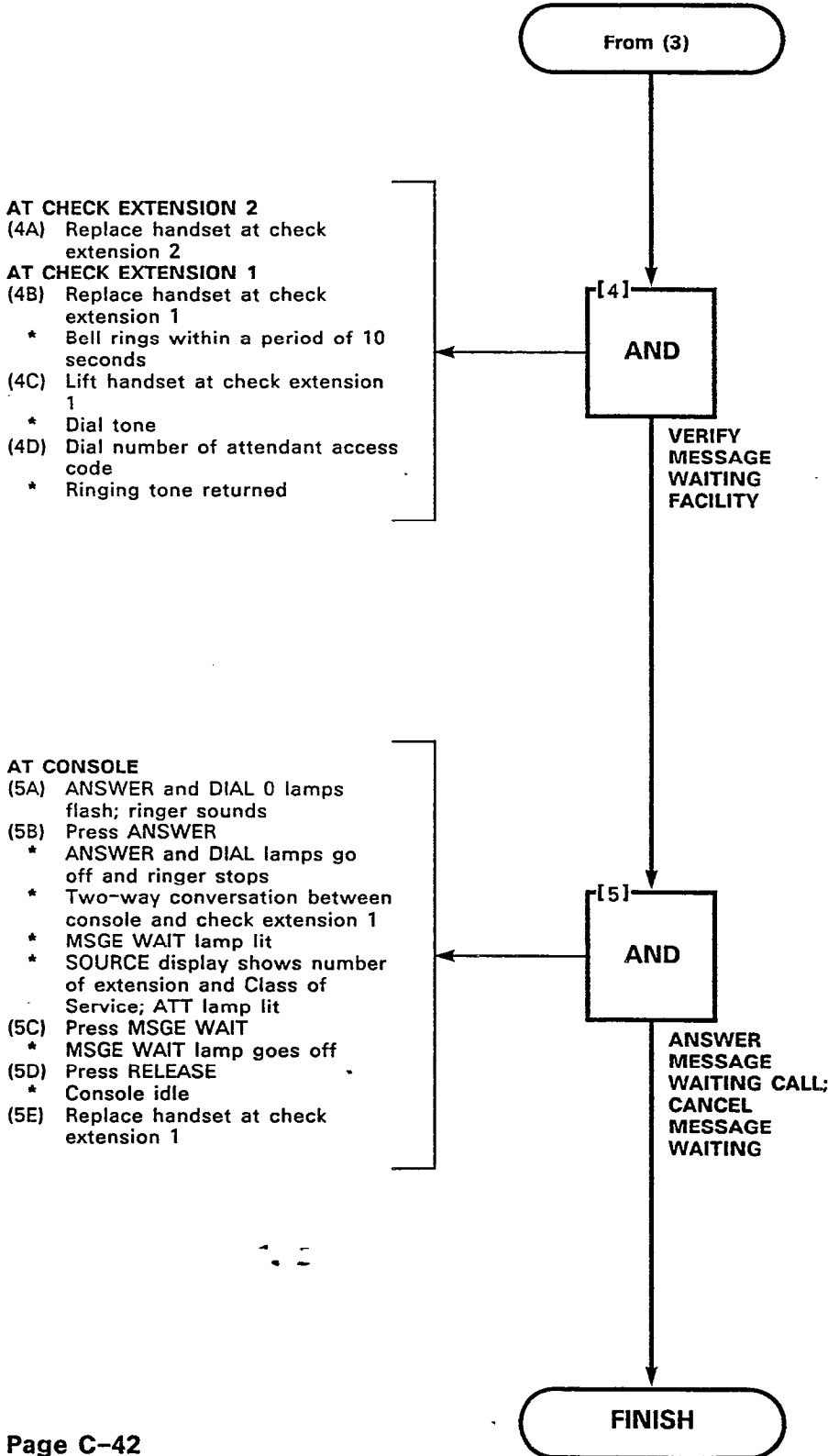


Figure 312-1

MESSAGE WAITING
MAP215- 312
Issue 3, May 1984
Sheet 2 of 2



ATTENDANT CALL FORWARDING - BUSY
MAP215- 313
Issue 3, May 1984
Sheet 1 of 2

- AT CONSOLE**
- (1A) Dial *11333
 - * SOURCE display shows check extension 1 number and '-' (no forward code); see Figure 313-1
 - (1B) Dial 1222
 - * SOURCE display shows check extension 1 number and '1' (busy code) (Figure 313-2)
 - * DESTINATION display shows check extension 2 number; ATT lamp lit
 - (1C) Press RELEASE
 - * Console idle

- AT CHECK EXTENSION 1**
- (2A) Lift handset
 - * Dial tone
- AT MAINTENANCE HANDSET**
- (2B) Set switch to OFF-HOOK
 - * Dial tone
 - (2C) Dial number of check extension 1
 - * Check extension 2 rings
 - (2D) Replace check extension 1 handset and place maintenance handset switch to ON-HOOK

- AT MAINTENANCE HANDSET**
- (3A) Set switch to OFF-HOOK
 - * Dial tone
 - (3B) Dial number of check extension 1
 - * Check extension 1 rings

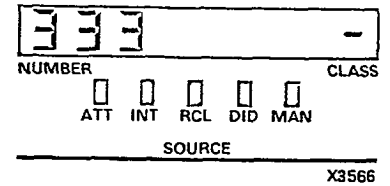
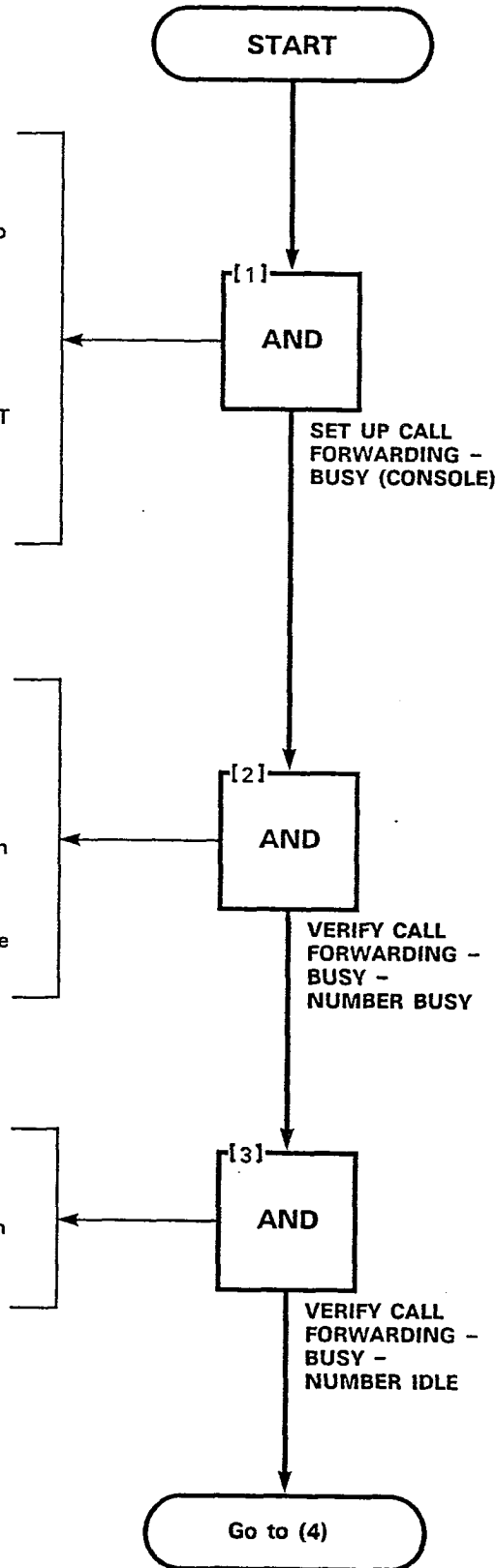
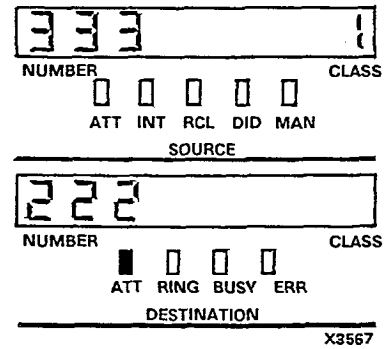
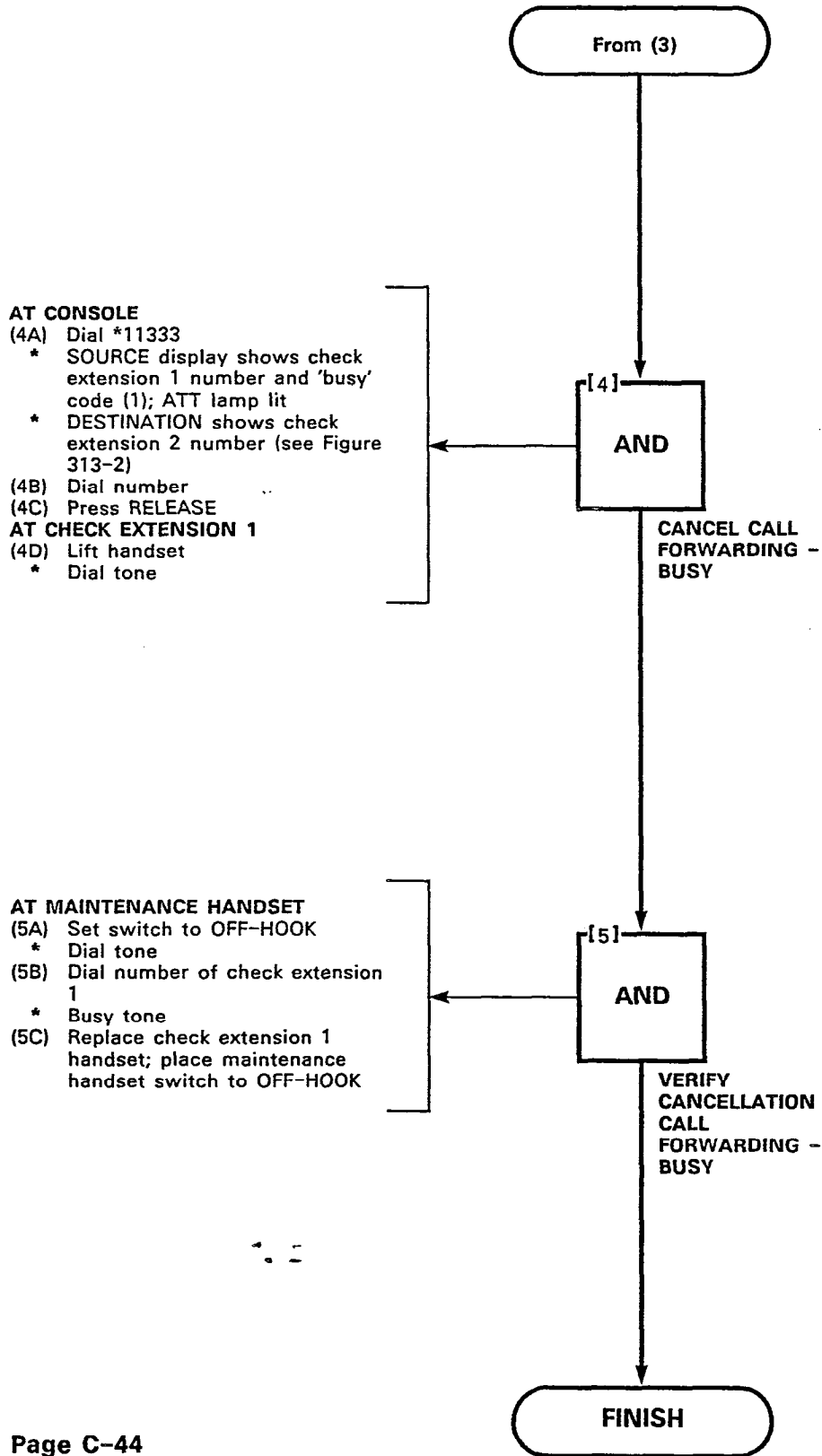


Figure 313-1



ATTENDANT CALL FORWARDING - BUSY
MAP200- 313
Issue 3, May 1984
Sheet 2 of 2



ATTENDANT CALL FORWARDING - DON'T ANSWER
MAP215- 314
Issue 3, May 1984
Sheet 1 of 2

NOTE
See also MAP215-333 for External Call Forwarding.

- AT CONSOLE**
- (1A) Dial *11333
 - * SOURCE display shows number of check extension 1 and '-' (no forward code) (see Figure 314-1)
 - (1B) Dial 2222
 - * SOURCE display shows number of check extension 1 and digit 2 (Don't Answer code) (Figure 314-2)
 - * DESTINATION display shows number of check extension 2; ATT lamp lit
 - (1C) Press RELEASE
 - * Console idle

- AT MAINTENANCE HANDSET**
- (2A) Set switch to OFF-HOOK
 - * Dial tone
 - (2B) Dial number of check extension 1
 - * Ringing tone
 - (2C) After time-out (20 s, 30 s or 40 s):
 - * Check extension 2 rings
 - * BUSY LAMP FIELD shows check extension 1 lamp idle and check extension 2 lamp busy
 - (2D) Set switch to ON-HOOK

- AT CONSOLE**
- (3A) Dial *11333
 - * SOURCE display shows number of check extension 1 and 'Don't Answer code '2' (Figure 314-2)
 - * DESTINATION display shows number of check extension 2 (Figure 314-2)
 - (3B) Press number sign
 - (3C) Press RELEASE

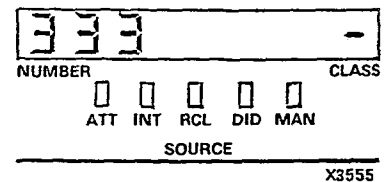
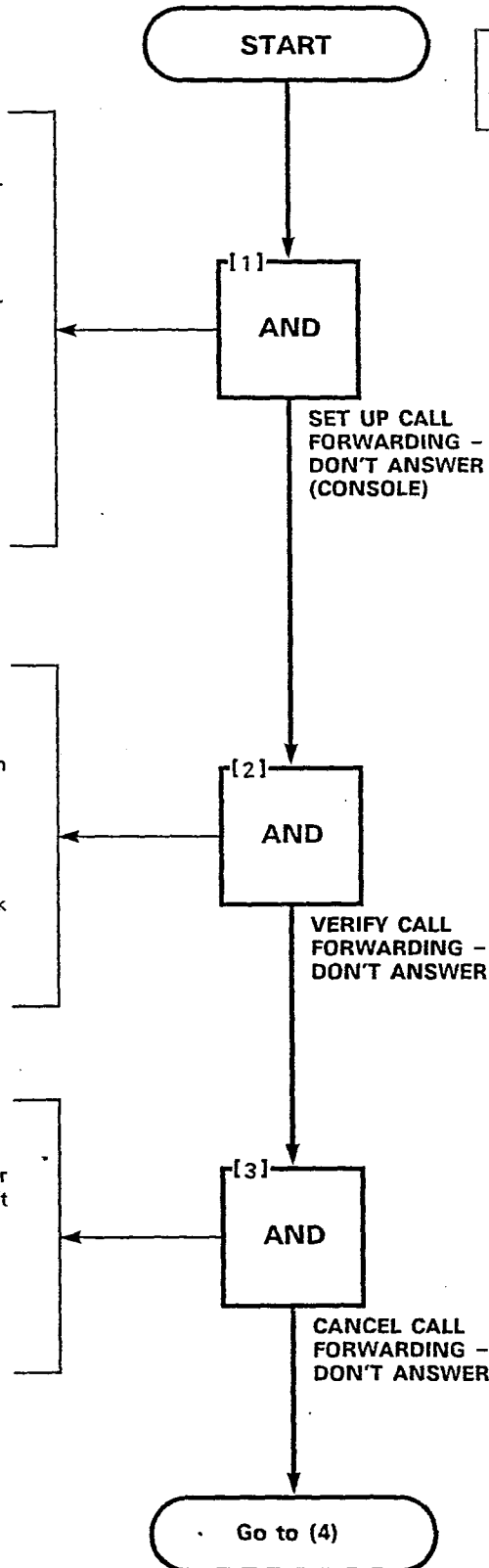
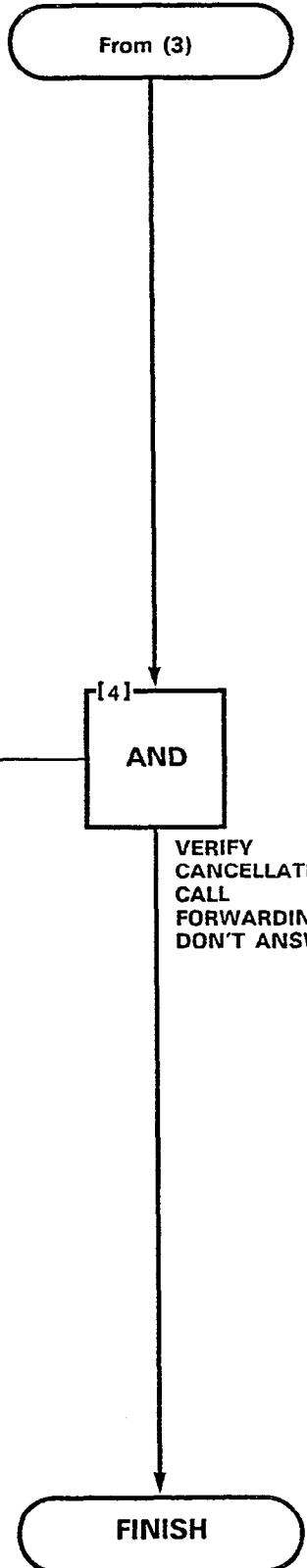


Figure 314-1

ATTENDANT CALL FORWARDING - DON'T ANSWER
MAP200- 314
Issue 3, May 1984
Sheet 2 of 2



- AT MAINTENANCE HANDSET**
- (4A) Set switch to OFF-HOOK
 - * Dial tone
 - (4B) Dial number of check extension 1
 - * Ringing tone
 - (4C) Check extension 1 rings for at least 1 minute without forwarding to check extension 2
 - (4D) Set switch to ON-HOOK
 - (4E) Check extension 1 stops ringing

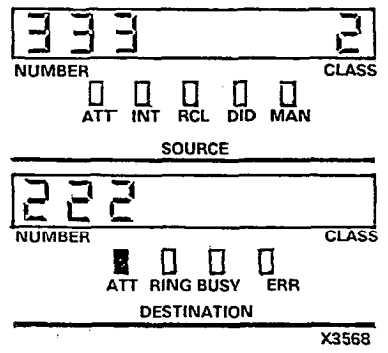


Figure 314-2

ATTENDANT CALL FORWARDING - FOLLOW ME
MAP215- 315
Issue 3, May 1984
Sheet 1 of 2

NOTE
See also MAP215-333 for External Call Forwarding.

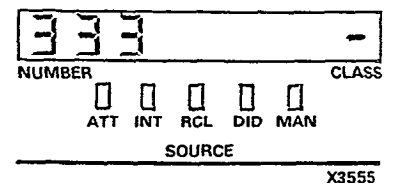
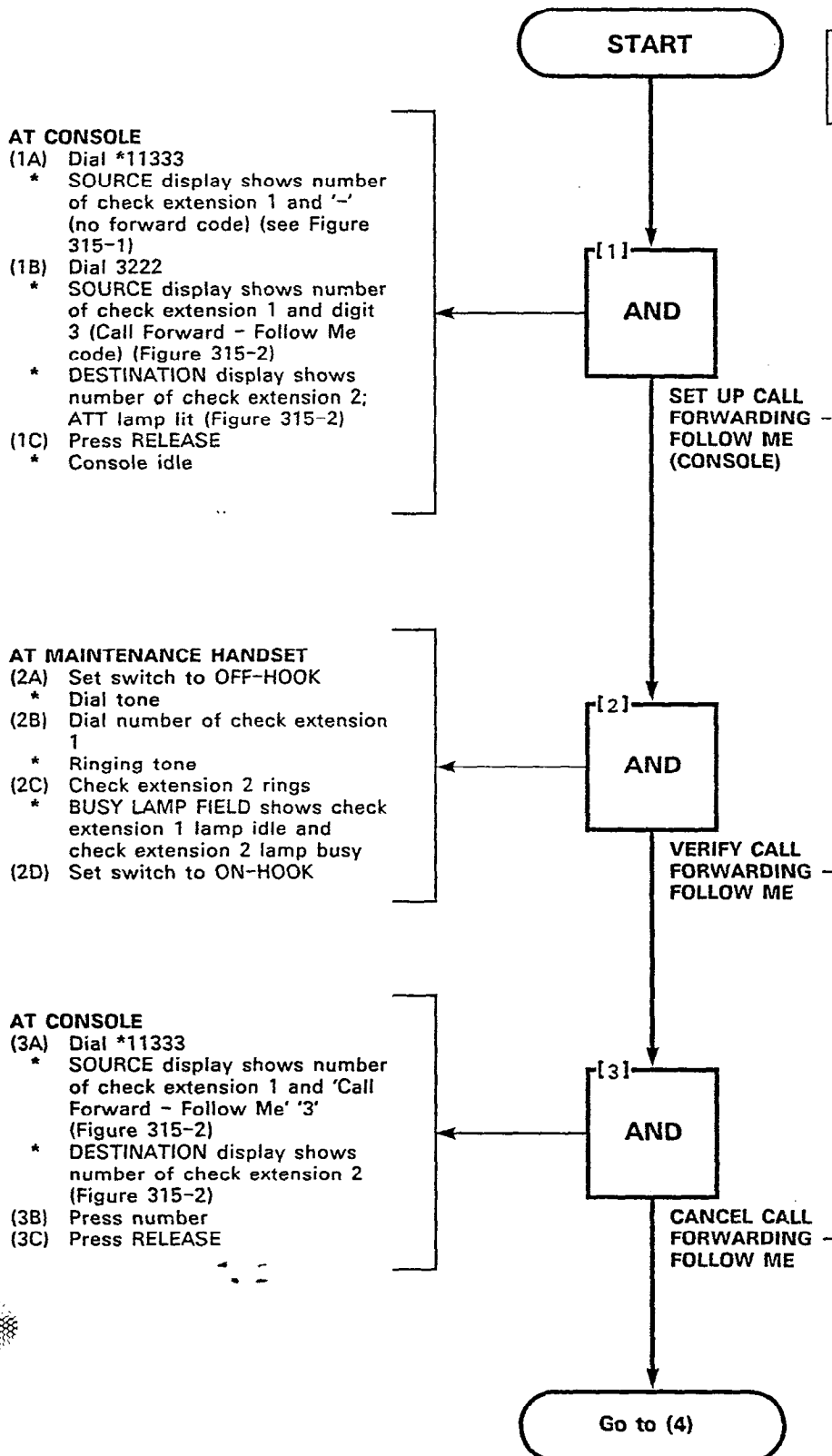


Figure 315-1

ATTENDANT CALL FORWARDING - FOLLOW ME
MAP200- 315
Issue 3, May 1984
Sheet 2 of 2

From (3)

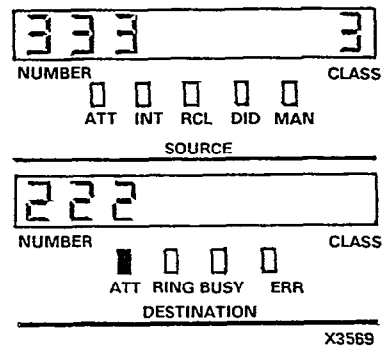


Figure 315-2

AT MAINTENANCE HANDSET

- (4A) Set switch to OFF-HOOK
 - * Dial tone
- (4B) Dial number of check extension 1
 - * Ringing tone
- (4C) Check extension 2 rings
- (4D) Set switch to ON-HOOK
- (4E) Check extension 1 stops ringing

[4]
AND

VERIFY
CANCELLATION
CALL
FORWARDING -
FOLLOW ME

FINISH

ATTENDANT CALL FORWARDING - BUSY/DON'T ANSWER
MAP215-316
Issue 3, May 1984
Sheet 1 of 2

NOTE
See also MAP215-335 for External Call Forwarding.

- AT CONSOLE**
- (1A) Dial *11333
 - * SOURCE display shows number of check extension 1 and '-' (no forward code) (See Figure 316-1)
 - * ATT lamp lit
 - (1B) Dial 4222
 - * SOURCE display shows number of check extension 1 and digit 4 (Don't Answer code) (Figure 316-2)
 - * DESTINATION display shows number of check extension 2; ATT lamp lit
 - (1C) Press RELEASE
 - * Console idle

- AT MAINTENANCE HANDSET**
- (2A) Set switch to OFF-HOOK
 - * Dial tone
 - (2B) Dial number of check extension 1
 - * Ringing tone
 - (2C) After time-out (20 s, 30 s or 40 s):
 - * Check extension 2 rings
 - * BUSY LAMP FIELD shows check extension 1 lamp idle and check extension 2 lamp busy
 - (2D) Set switch to ON-HOOK

- AT CHECK EXTENSION 1**
- (3A) Lift handset
 - * Dial tone
 - (3B) Leave handset off-hook
- AT MAINTENANCE HANDSET**
- (3C) Switch to OFF-HOOK
 - * Dial tone
 - (3D) Dial number of check extension 1
 - * Ringing tone
 - * Check extension 2 rings
 - (3E) Answer check extension 2 and verify connection
 - (3F) Go on-hook at all locations

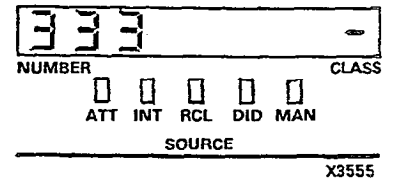
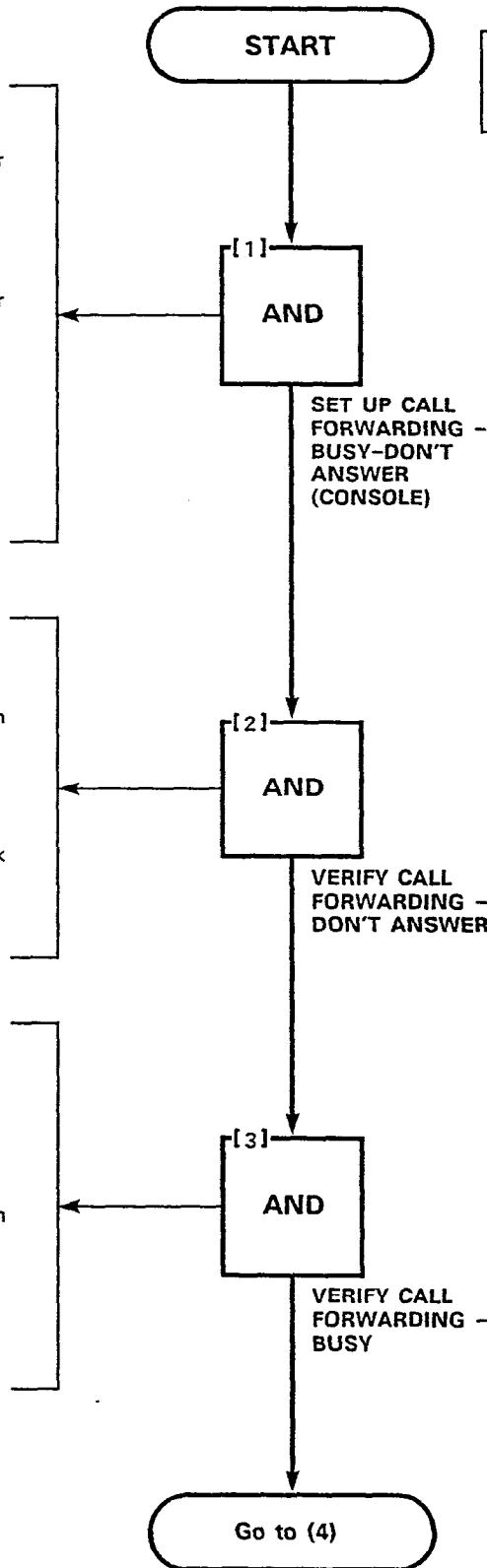


Figure 316-1

ATTENDANT CALL FORWARDING - BUSY/DON'T ANSWER
MAP200- 316
Issue 3, May 1984
Sheet 2 of 2

From (3)

[4]
AND

FINISH

AT CONSOLE

- (4A) Dial *11333
 - * SOURCE display shows number of check extension 1 and 'Busy-Don't Answer code '4' (Figure 316-2)
 - * DESTINATION display shows number of check extension 2 (Figure 316-2)
- (4B) Press number
- (4C) Press RELEASE

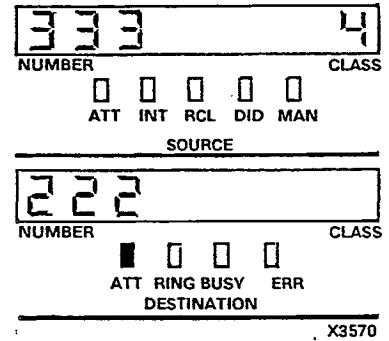


Figure 316-2

ATTENDANT-CONTROLLED CONFERENCE
MAP215-317
Issue 3, May 1984
Sheet 1 of 3

AT CHECK EXTENSION 1

- (1A) Lift handset
 - * Dial tone
- (1B) Dial digit '0'
 - * Ringing tone
 - * Console rings

AT CONSOLE

- (1C) Press ANSWER
 - * SOURCE display shows number and Class of Service of check extension 1
 - * ATT lamp lit (See Figure 317-1)
- (1D) Press CONF
 - * CONF lamp lit
 - * SOURCE display cleared
 - * DESTINATION display shows letter C (Figure 317-2)

AT CONSOLE

- (2A) Press RELEASE
 - * CONF lamp remains lit
 - * Console idle
 - * Check extension 1 receives Music on Hold if customer-provided

AT CONSOLE

- (3A) Dial number of check extension 2
 - * Ringing tone
 - * DESTINATION display shows number of check extension 2 and class
 - * ATT and RING lamps lit
- (3B) Check extension 2 lifts handset
- (3C) Press CONF
 - * One second beep tone heard by check extension 1
 - * Console and check extension 2 hear shorter burst of beep tone
- (3D) Verify console and two extensions can speak to each other
- (3E) Press RELEASE
 - * Console idle
 - * CONF lamp lit

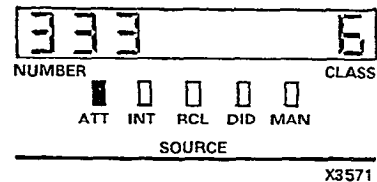
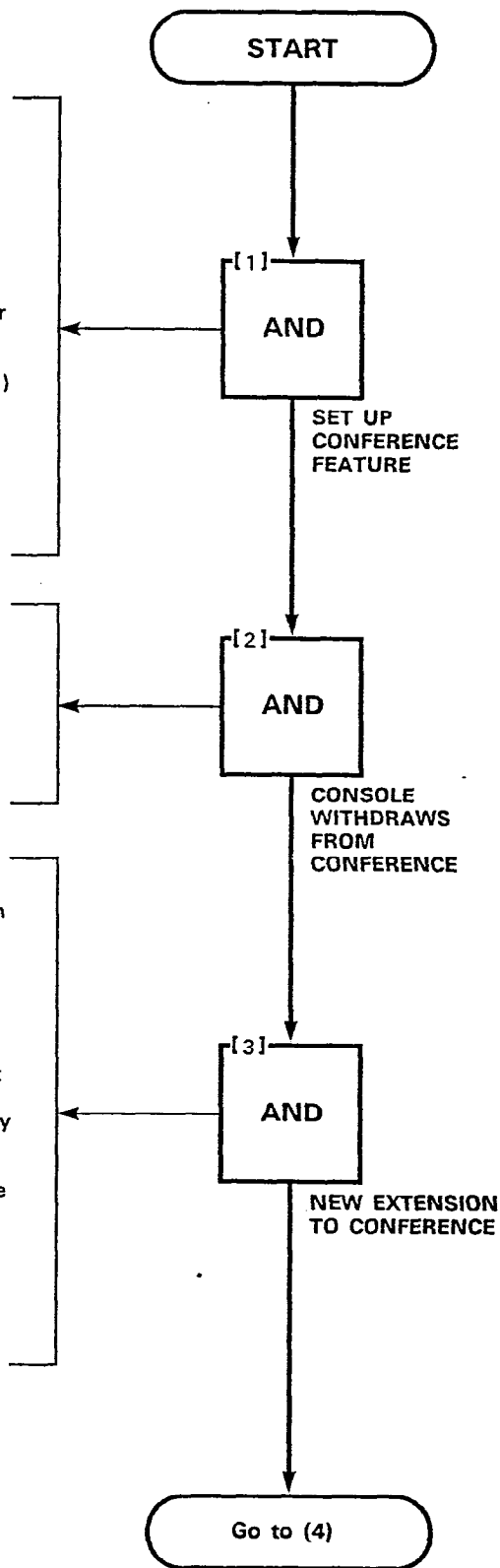


Figure 317-1



ATTENDANT-CONTROLLED CONFERENCE
MAP200- 317
Issue 3, May 1984
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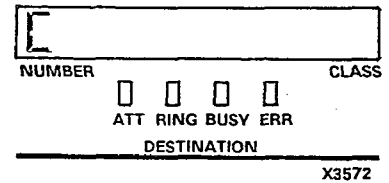
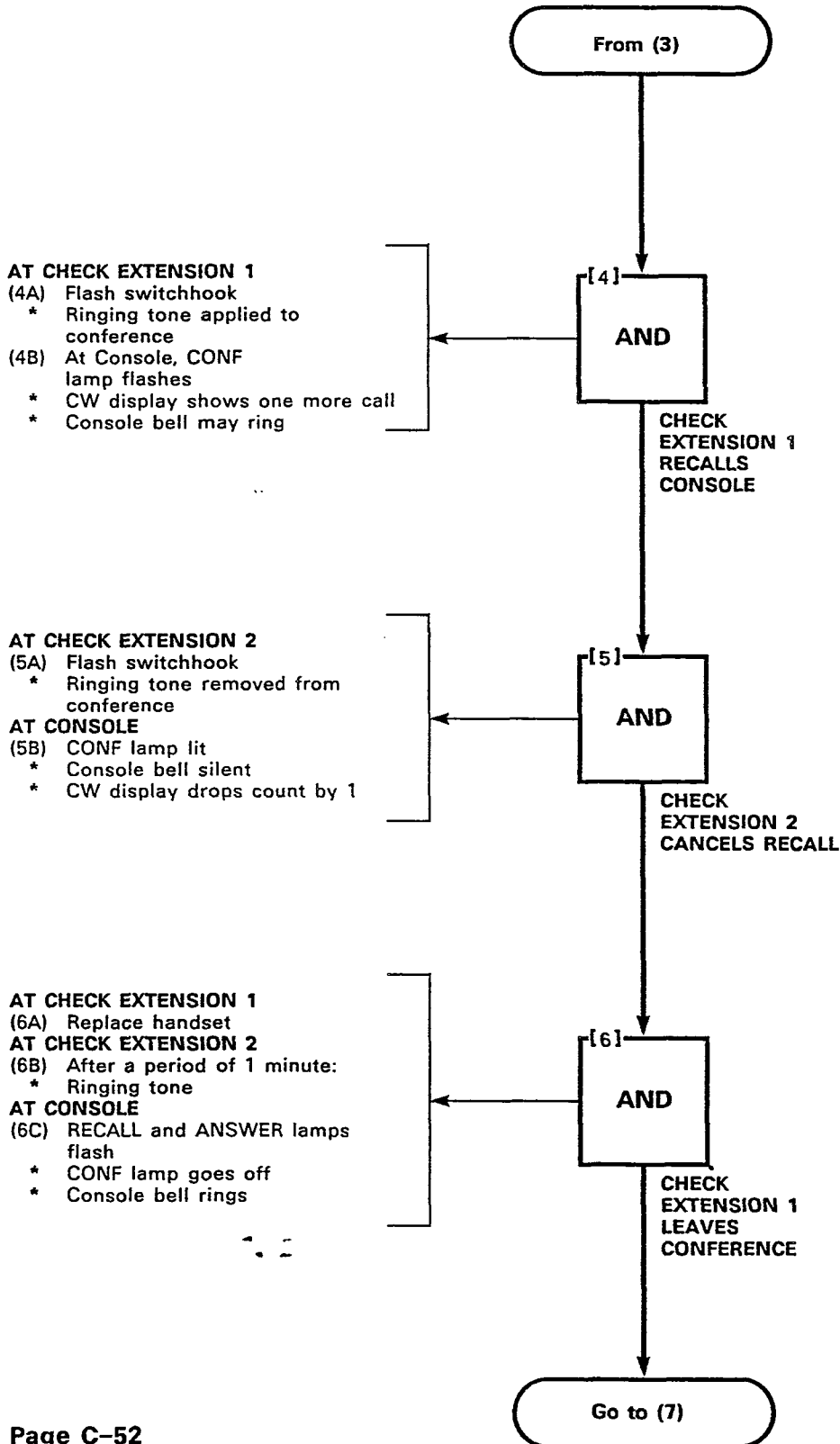
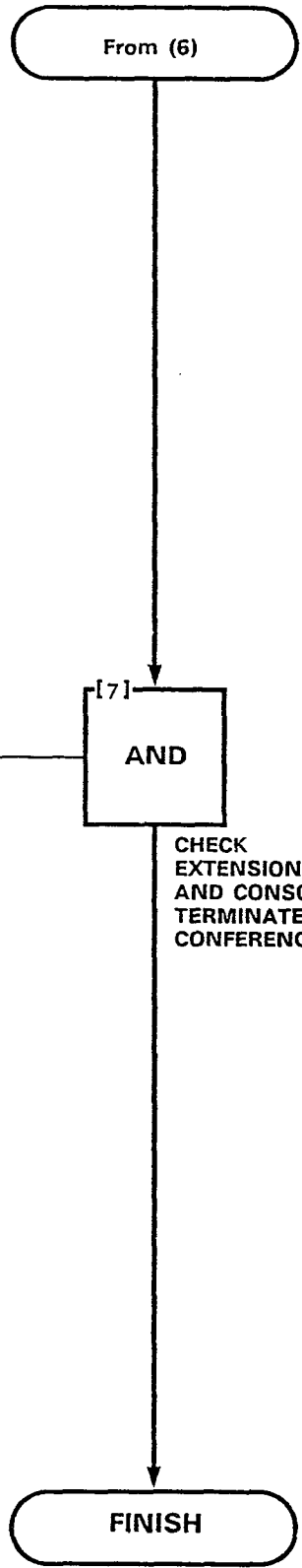


Figure 317-2

ATTENDANT-CONTROLLED CONFERENCE
MAP215-317
Issue 3, May 1984
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- (7A) Press ANSWER
 - * ANSWER, SOURCE and RECALL lamps lit
 - * SOURCE display shows check extension 2 number and class number. ATT lamp lit and RECALL lamp lit
- (7B) Speak to check extension 2
- (7C) Press RELEASE
- (7D) Check extension 2 replaces handset



ATTENDANT STATION BUSY-OUT
MAP215-318
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AT CONSOLE
 (1A) Dial *12333*
 (1B) Press RELEASE
 * Check extension 1 lamp lit in BUSY LAMP FIELD

AT CONSOLE
 (2A) Dial number of check extension 1
 * DESTINATION display shows '00' in CLASS; ATT and ERR lamp lit (Figure 318-1)
 (2B) Check extension 1 does not ring
 (2C) Press ALARM RESET
 * Check extension 1 lamp remains lit
 (2D) Press RELEASE

AT CHECK EXTENSION 2
 (3A) Lift handset
 * Dial tone
 (3B) Dial number of check extension 1
 * Reorder tone
 (3C) Replace handset

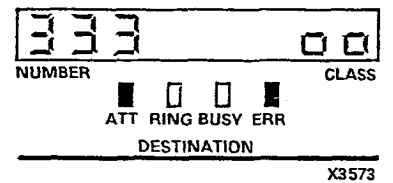
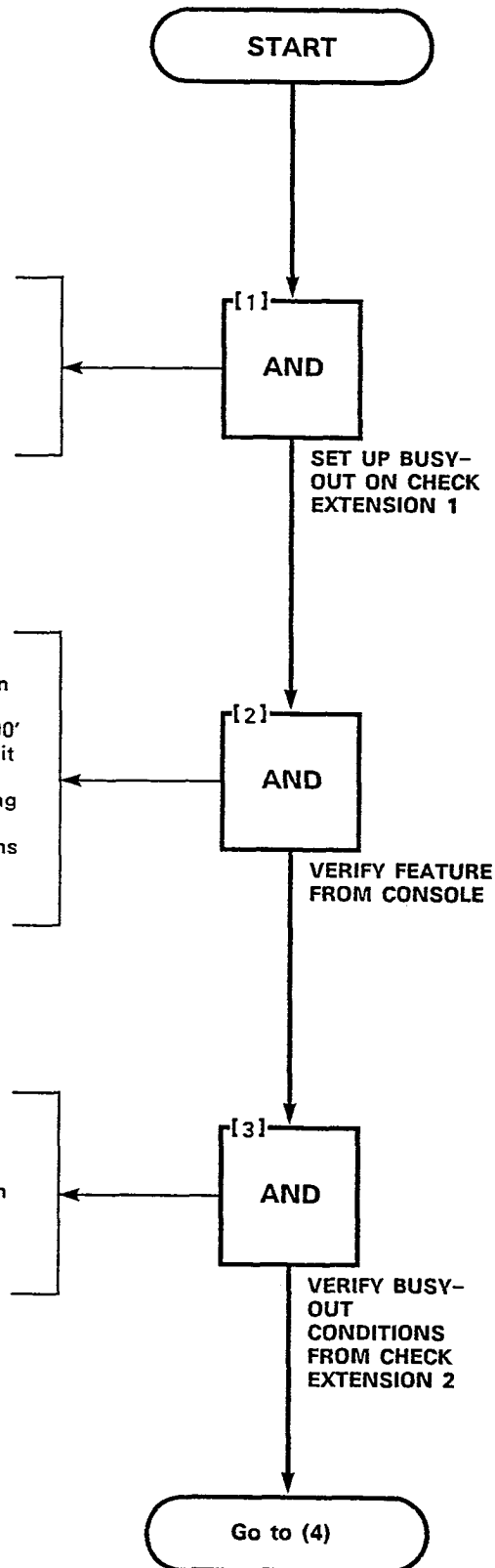
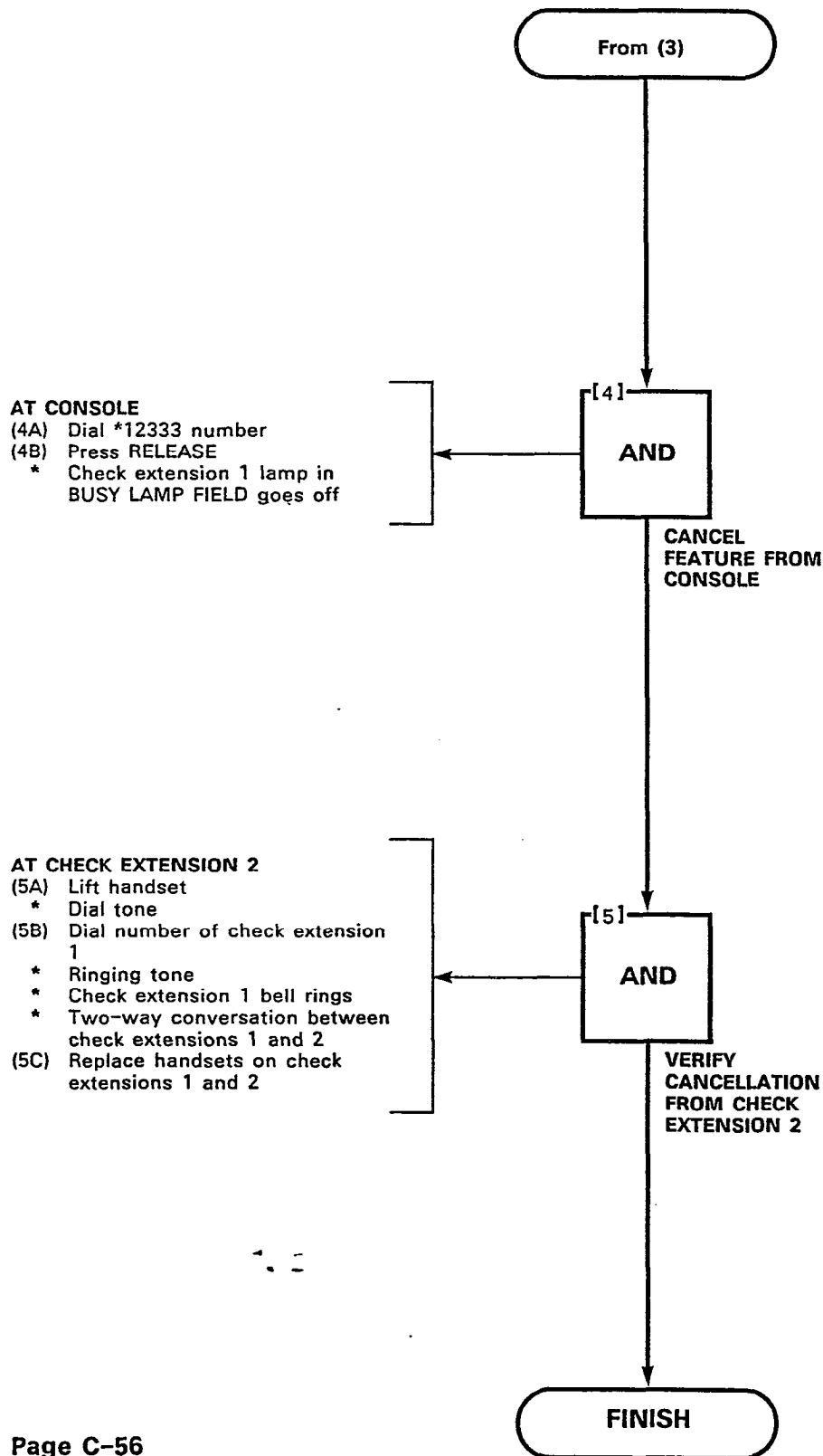
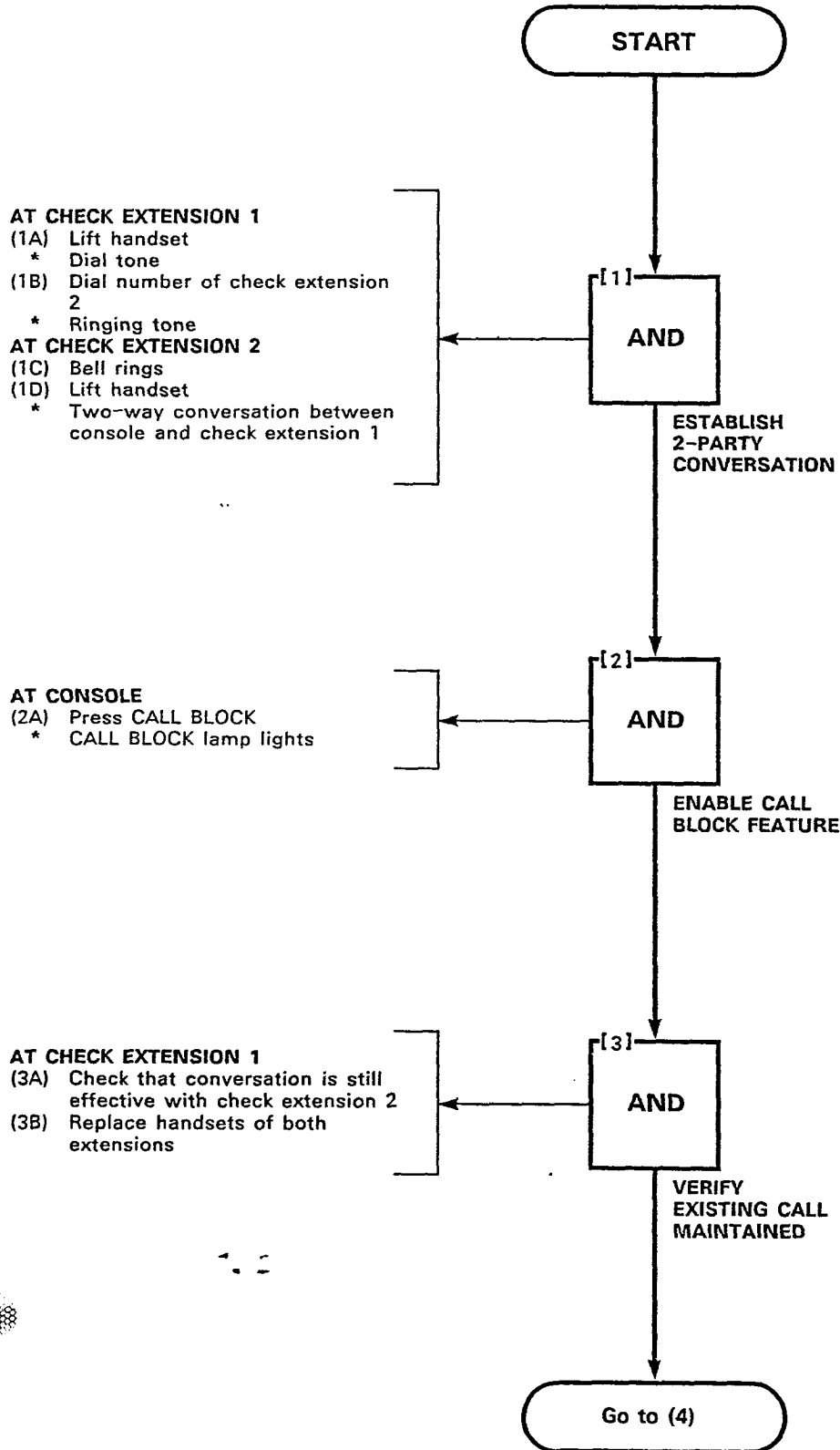


Figure 318-1

ATTENDANT STATION BUSY-OUT
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Sheet 2 of 2

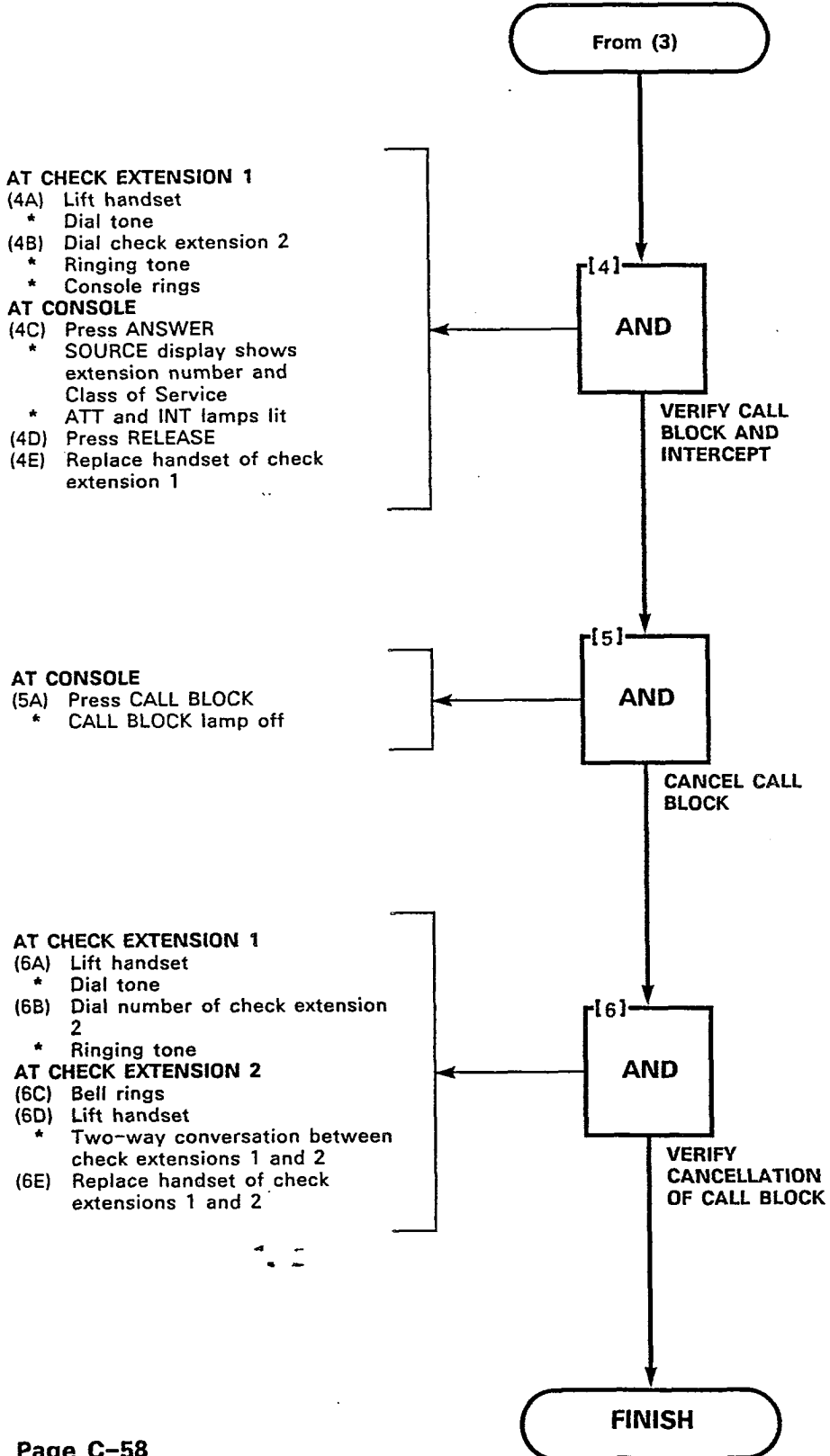


CALL BLOCK
MAP215-319
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Sheet 1 of 2



SECTION MITL9105/9110-096-215-NA

CALL BLOCK
MAP215- 319
Issue 3, May 1984
Sheet 2 of 2



ATTENDANT DO NOT DISTURB (H/M)
MAP215-320
Issue 3, May 1984
Sheet 1 of 2

WARNING
 Pressing **DO NOT DSTB** key when console is active with an extension may activate or remove the feature at the extension.

NOTE
 Ringing is given in substep (2B) if System Option 174 is selected; otherwise reorder tone is given and remainder of step (2) is omitted.

- AT CONSOLE**
- (1A) Press GUEST ROOM
 - * GUEST ROOM lamp lit
 - (1B) Dial number of check extension 1
 - * SOURCE display shows check extension number and message register; ATT lamp lit
 - * DESTINATION display shows room status code (Figure 320-1)
 - (1C) Press DO NOT DSTB
 - * DO NOT DSTB lamp lit
 - * Check extension 1 lamp lit in Busy Lamp Field
 - (1D) Press RELEASE
 - * Console idle

- AT CHECK EXTENSION 2**
- (2A) Lift handset
 - * Dial tone
 - (2B) Dial number of check extension 1
 - * Ringing tone (see Note)
 - * Console rings
 - * DIAL 0 and ANSWER lamps flash
- AT CONSOLE**
- (2C) Press ANSWER
 - * SOURCE display shows number of check extension 2 and Class of Service
 - * ATT and INT lamps lit
 - (2D) Two-way conversation between console and check extension 2
 - (2E) Press RELEASE
 - (2F) Replace check extension 2 handset

- AT CONSOLE**
- (3A) Press DO NOT DSTB
 - * SOURCE display (Figure 320-2) shows total number of rooms with 'Do Not Disturb' facility
 - (3B) Release DO NOT DSTB
 - * Console idle

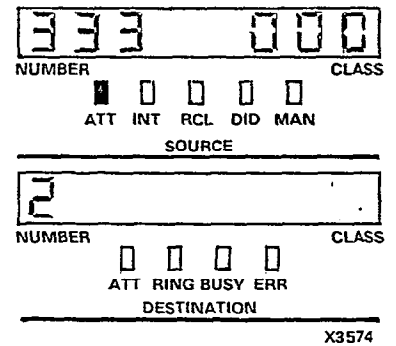
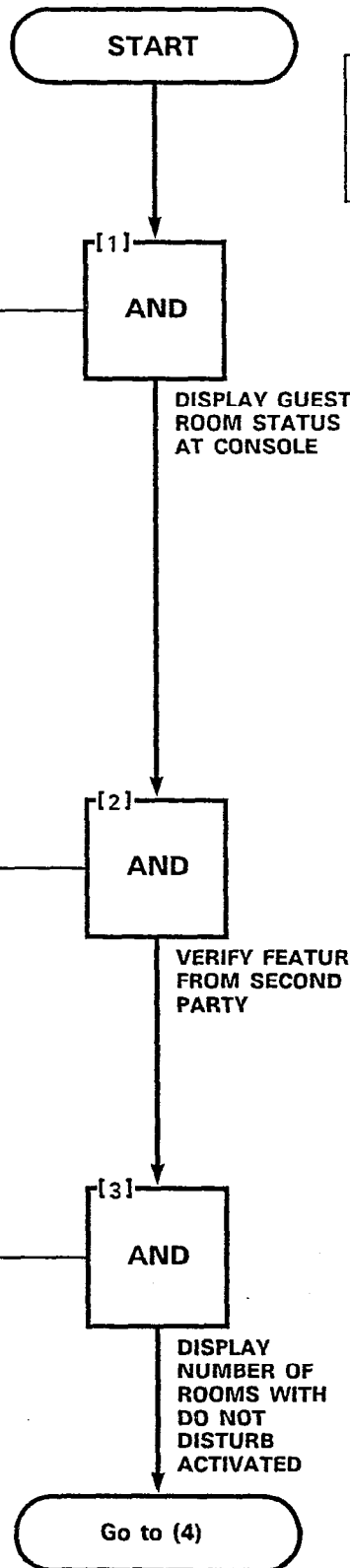


Figure 320-1

ATTENDANT DO NOT DISTURB (H/M)
MAP215- 320
Issue 3, May 1984
Sheet 2 of 2

AT CONSOLE

- (4A) Dial check extension 1
 - * ERR lamp lit in DESTINATION display
 - * DO NOT DSTB lamp flashes
- (4B) Press DO NOT DSTB
 - * ERR lamp goes out
 - * Ringing tone

AT CHECK EXTENSION 1

- (4C) Check extension 1 rings
- (4D) Lift handset
 - * Two-way conversation between check extension 1 and console
- (4E) Press RELEASE
 - * Console idle
- (4F) Replace check extension 1 handset

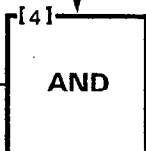
AT CONSOLE

- (5A) Press GUEST ROOM
 - * GUEST ROOM lamp lit
- (5B) Dial check extension 1 number
 - * SOURCE display shows check extension number and message register
 - * DESTINATION display shows room status code (see Figure 320-1)
- (5C) Press DO NOT DSTB
 - * DO NOT DSTB lamp goes off
 - * Extension lamp in BUSY LAMP FIELD goes off
- (5D) Press RELEASE
 - * Console idle

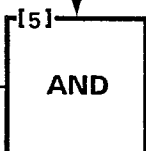
AT CHECK EXTENSION 2

- (6A) Lift handset
 - * Dial tone
- (6B) Dial number of check extension 1
 - * Ringing tone
- AT CHECK EXTENSION 1**
- (6C) Check extension 1 rings
- (6D) Lift handset
 - * Two-way conversation between extensions
- (6E) Replace handsets on check extensions 1 and 2

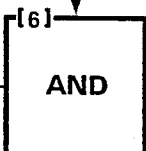
From (3)



VERIFY
OVERRIDE
FEATURE



CANCEL DO
NOT DISTURB
FEATURE



VERIFY
CANCELED
FEATURE

FINISH

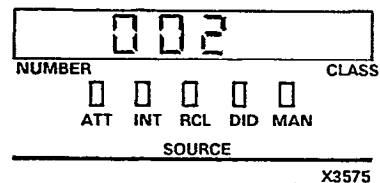


Figure 320-2

MESSAGE REGISTRATION (H/M)
MAP215-321
Issue 3, May 1984
Sheet 1 of 2

AT CONSOLE

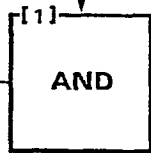
- (1A) Press GUEST ROOM
 - * GUEST ROOM lamp lights
- (1B) Dial number of check extension 1
 - * SOURCE display shows room number and message registration (Figure 321-1)
 - * DESTINATION display shows room status code (and period if maid in room)
- (1C) Dial 'number'
 - * Message Register reverts to zero registration
 - * Press RELEASE

AT CHECK EXTENSION 1

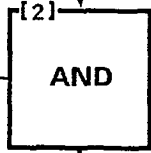
- (2A) Lift handset
 - * Dial tone
- (2B) Dial CO trunk access code
 - * CO dial tone
- (2C) Dial console listed directory number

AT CONSOLE

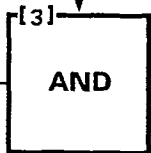
- (3A) ANSWER and LDN lamps flash; ringer sounds
- (3B) Press LDN
 - * ANSWER, LDN and SOURCE lamps light
 - * SOURCE display shows number of calling trunk; ATT lamp lit
 - * Two-way conversation between console and check extension 1
- (3C) Wait 1 minute
- (3D) Press RELEASE
- (3E) Replace handset on check extension 1



DISPLAY AND ZERO MESSAGE REGISTER (FIGURE 321-1)



DIAL LDN



COMPLETE LDN CALL

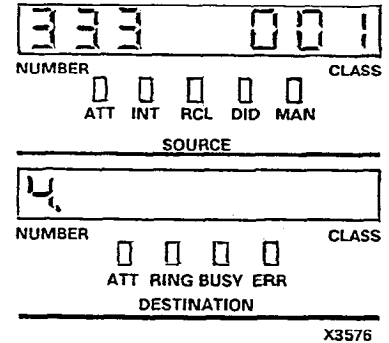
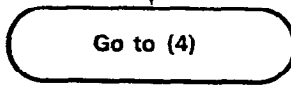


Figure 321-1

MESSAGE REGISTRATION (H/M)
MAP215- 321
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AT CONSOLE

- (4A) Press GUEST ROOM
 - * GUEST ROOM lamp lights
- (4B) Dial number of check extension 1
 - * SOURCE display shows room number and new message registration (Figure 321-2)
 - * DESTINATION display shows room status code
- (4C) Press RELEASE
 - * SOURCE and DESTINATION displays are extinguished

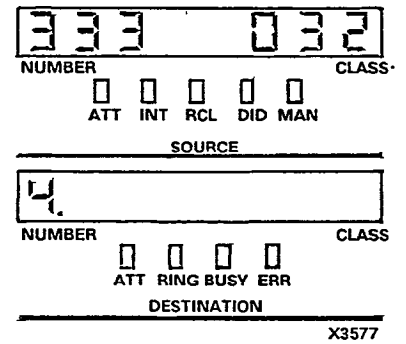
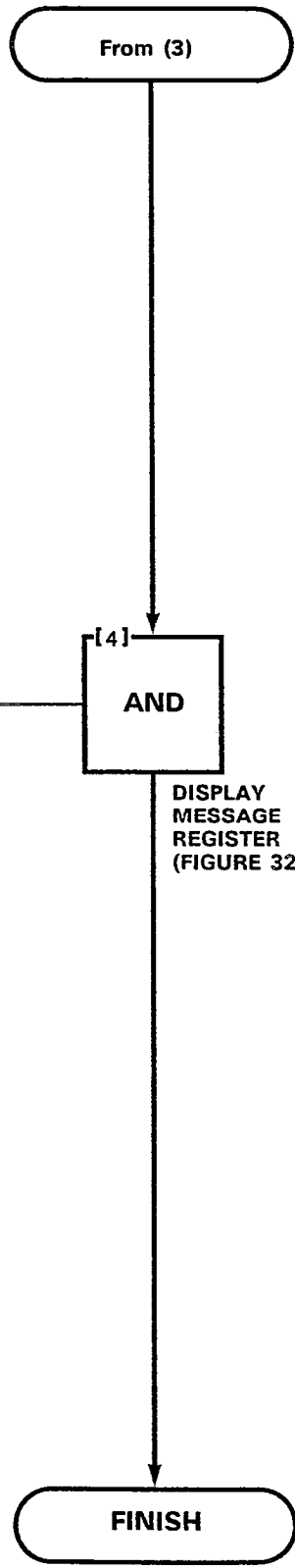


Figure 321-2

CONTROLLED OUTGOING CALL RESTRICTION (H/M)
MAP215-322
Issue 3, May 1984
Sheet 1 of 2

**TABLE 322-1
ROOM STATUS CODES**

Code	Status
1	Room is vacant and ready
2	Room is occupied and clean
3	Room is vacant but requires cleaning
4	Room is occupied but requires cleaning

AT CONSOLE
 (1A) Press GUEST ROOM
 * GUEST ROOM lamp lit
 (1B) Dial check extension 1
 * SOURCE display shows number and Message Register count
 * DESTINATION display shows room status code (and period if maid in room) (see Figure 322-1 and Table 322-1)

NOTE
 This MAP applies when console has ROOM RESTR. If ROOM STATUS; see MAP215-323.

AT CONSOLE
 (3A) Dial digit 1
 * SOURCE display shows room number and Message Registration
 * DESTINATION display changes to read digit '1' for room status (Figure 322-1)
 (3B) Press ROOM RESTR
 * ROOM RESTR lamp lit
 (3C) Press RELEASE
 * SOURCE and DESTINATION displays are cleared
 * ROOM RESTR lamp cleared

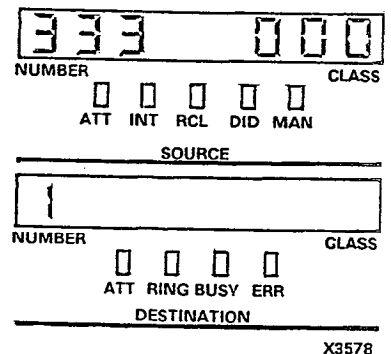
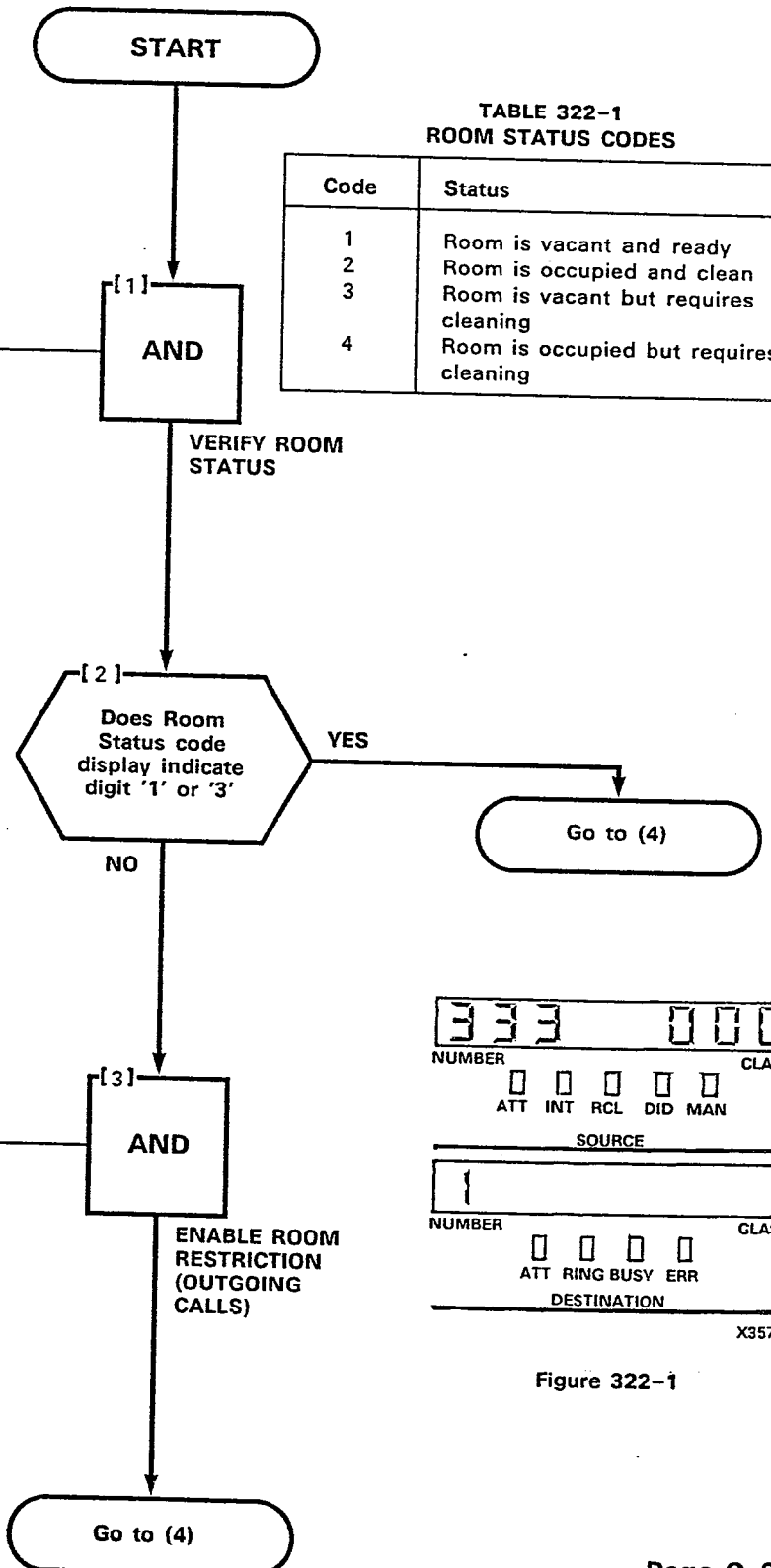


Figure 322-1

CONTROLLED OUTGOING CALL RESTRICTION (H/M)
MAP200- 322
Issue 3, May 1984
Sheet 2 of 2

NOTE
Extension will receive intercept to attendant in Step (4B) when console is in 'Day' service if System Option 116 is enabled.

AT CHECK EXTENSION 1

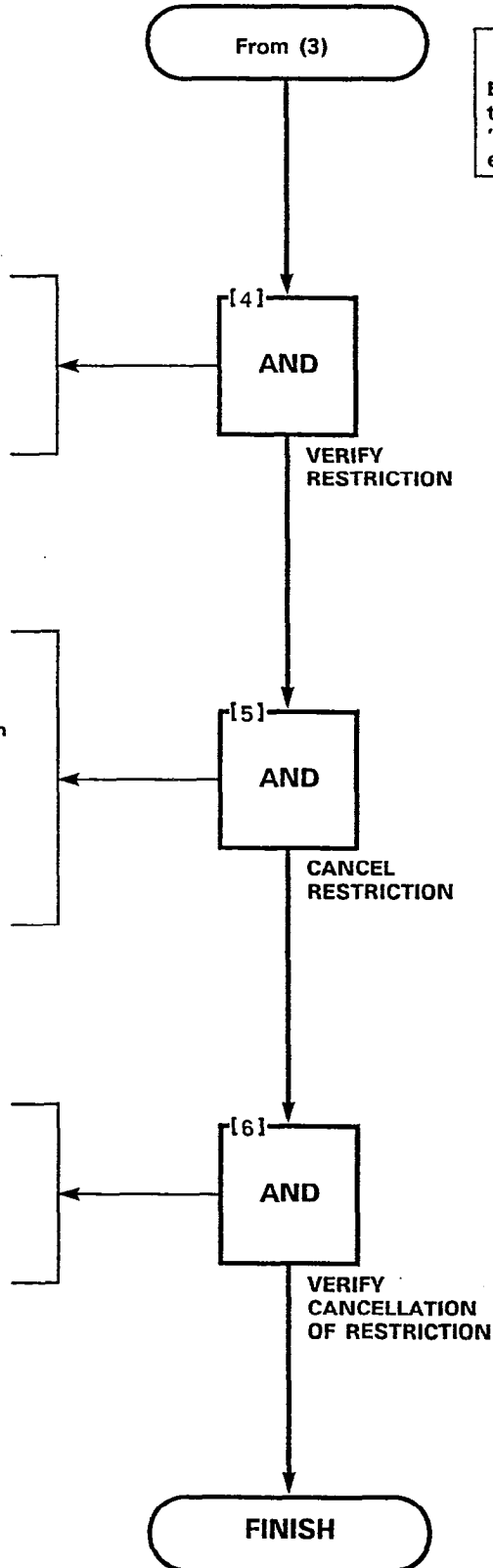
- (4A) Lift handset
 - * Dial tone
- (4B) Dial trunk access code
 - * Reorder tone (see Note)
- (4C) Replace handset

AT CONSOLE

- (5A) Press GUEST ROOM
 - * GUEST ROOM lamp lit
- (5B) Dial number of check extension 1
 - * SOURCE and DESTINATION displays repeat information shown in Figure 322-1
 - * ROOM RESTR lamp lit
- (5C) Press ROOM RESTR lamp off
- (5D) Press RELEASE

AT CHECK EXTENSION 1

- (6A) Lift handset
 - * Dial tone
- (6B) Dial trunk access code
 - * Trunk dial tone
- (6C) Replace handset



ROOM STATUS (H/M)
MAP215-323
Issue 3, May 1984
Sheet 1 of 4

NOTES

1. The single-digit codes in the following procedures have meanings shown in Tables 323-1 and 323-2.
2. Maid codes are dialed from room only, after the 'Maid Access' code has been dialed (Table 323-2).

AT CONSOLE

(1A) Press GUEST ROOM
 (1B) Dial the number of check extension 1
 * SOURCE display shows number of check extension 1 and Message Register count
 * DESTINATION display shows room status code (Table 323-1)
 (1C) Dial digit 3
 * DESTINATION display shows room status code 3 (Figure 323-1)

AT CHECK EXTENSION 1

(2A) Lift handset
 * Dial tone
 (2B) Dial 'Maid Access' code, then digit 1 (Table 323-2)
 (2C) Replace handset
AT CONSOLE
 (2D) Repeat steps (1A) to (1C)
 * Period sign appears after status code in DESTINATION display
 (2E) Press RELEASE
 * SOURCE and DESTINATION displays extinguished

AT CONSOLE

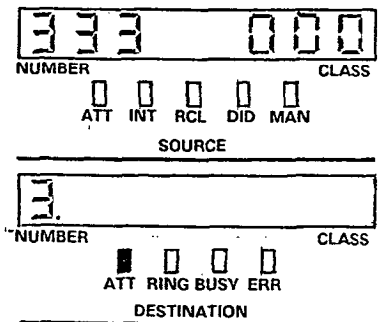
(3A) Press ROOM STATUS
 (3B) Press and hold digit 0
 * Check extension 1 lamp lit in BUSY LAMP FIELD
 * SOURCE display shows total number of rooms with maids present (Figure 323-2)
 (3C) Release key pad digit 0
 (3D) Press ROOM STATUS
 (3E) Press and hold digit 3
 * Check extension 1 lamp lit in BUSY LAMP FIELD
 * SOURCE display (Figure 323-2) changes to reflect total number of vacant rooms which require cleaning
 (3F) Release key pad digit 3
 * BUSY LAMP FIELD resumes normal indications
 (3G) Press RELEASE

**TABLE 323-1
ROOM STATUS CODES**

Status Code	Status
1	Room vacant and ready
2	Room occupied and clean
3	Room vacant and requires cleaning
4	Room occupied and requires cleaning

**TABLE 323-2
MAID-DIALED CODES**

Maid Code	Indication (Note 2)
1	Maid in room, requires cleaning
2	Maid left room; status unchanged
3	Maid left room; room ready



X3579

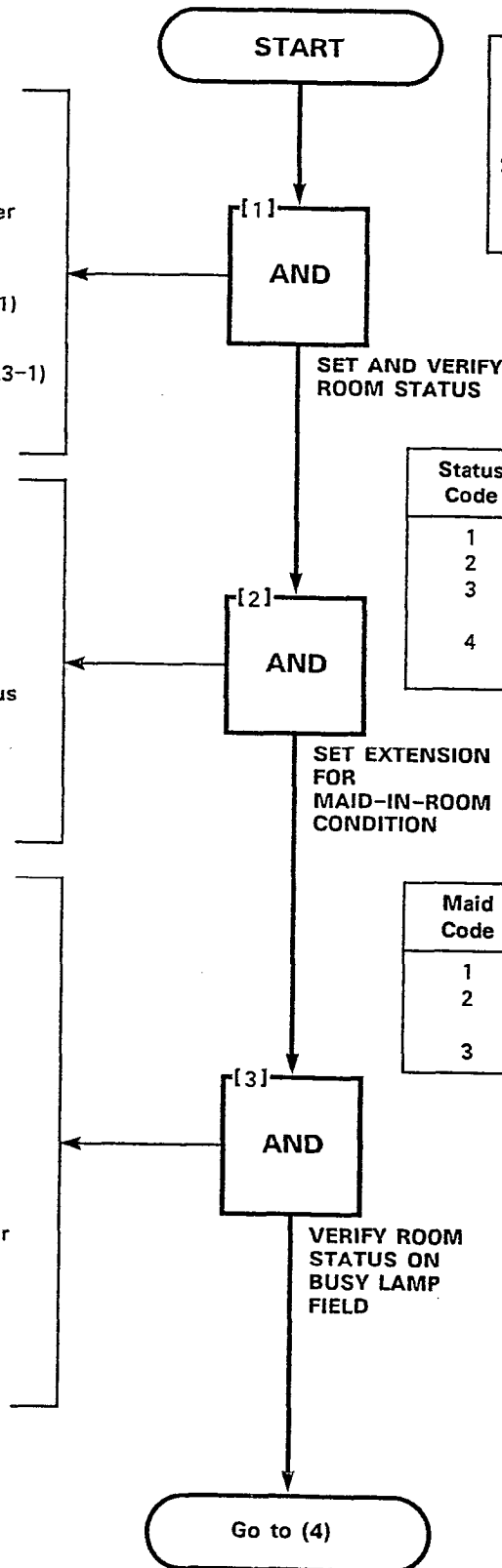


Figure 323-1

ROOM STATUS (H/M)
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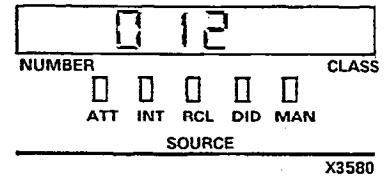
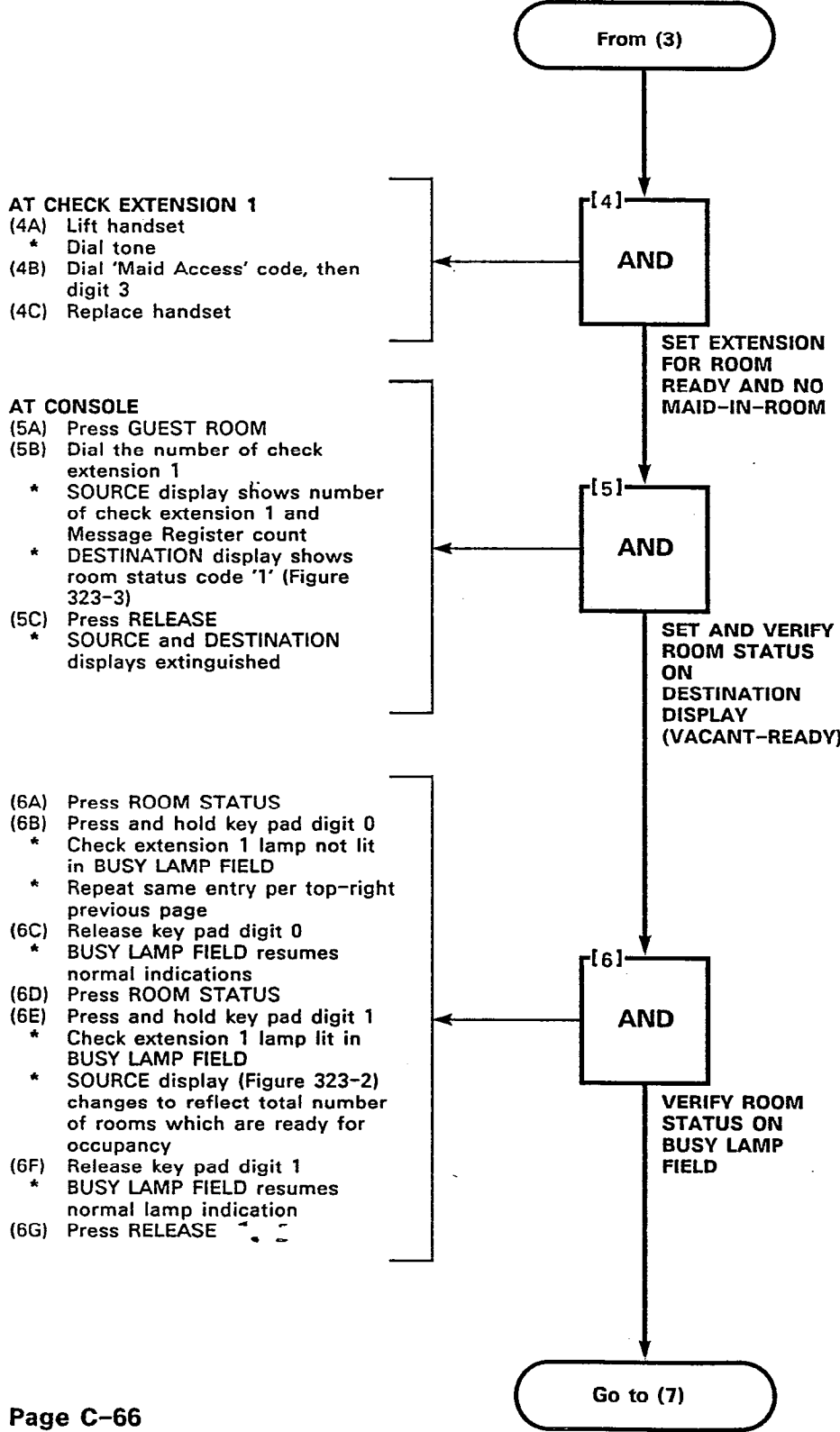


Figure 323-2

ROOM STATUS (H/M)
MAP215-323
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AT CONSOLE

- (7A) Press GUEST ROOM
- (7B) Dial the number of check extension 1 and Message Register count
 - * SOURCE display shows number of check extension 1
 - * DESTINATION display shows room status '1' (Figure 323-3)
- (7C) Dial digit 2
 - * DESTINATION display shows room status code '2'
- (7D) Press RELEASE
 - * SOURCE and DESTINATION displays extinguished

- (8A) Press ROOM STATUS
- (8B) Press and hold key pad digit 2
 - * Check extension 1 lamp lit in BUSY LAMP FIELD
 - * SOURCE display (Figure 323-2) changes to reflect total number of rooms which are occupied and cleaned
- (8C) Release key pad digit 2
 - * BUSY LAMP FIELD resumes normal lamp indications
- (8D) Press RELEASE

From (6)

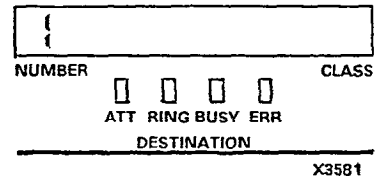
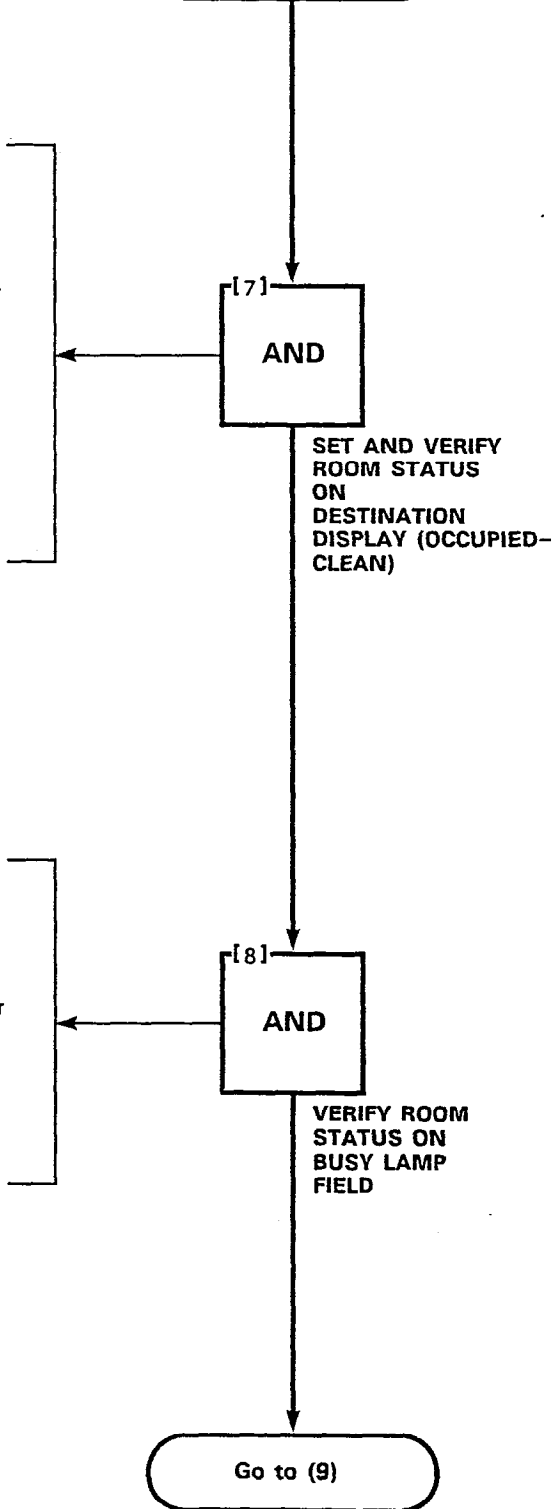
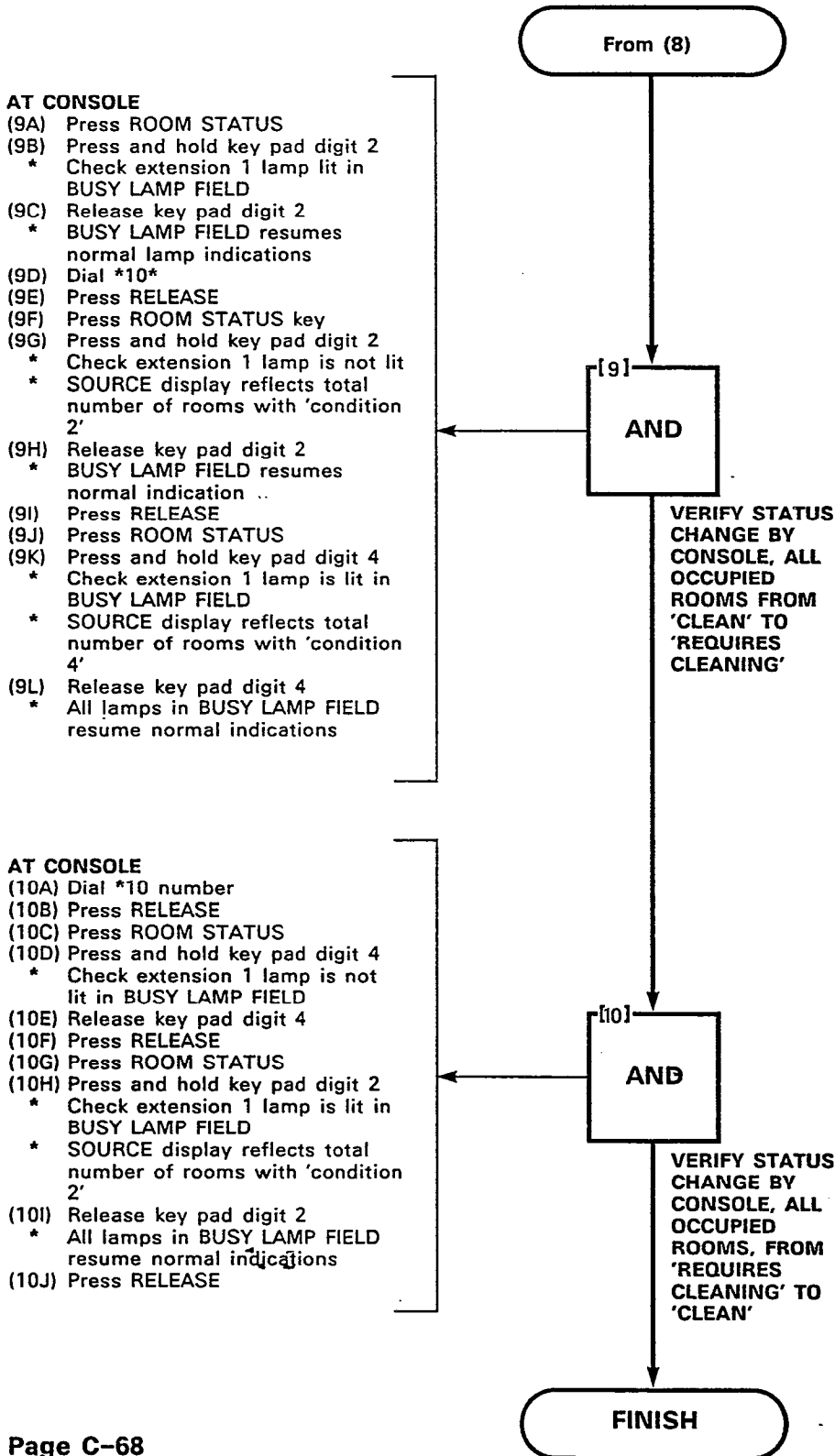


Figure 323-3

ROOM STATUS (H/M)
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Issue 3, May 1984
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AUTOMATIC WAKE-UP (ALARM CALL)
MAP215- 324
Issue 3, May 1984
Sheet 1 of 2

AT CONSOLE
 (1A) Press GUEST ROOM button
 * GUEST ROOM lamp lights
 (1B) Dial check extension number
 * DESTINATION display shows wake-up time if one has been requested. Display blank if no wake-up requested (Figure 324-1)

(2A) Dial *, wake-up time, then 'number' (or * if PM, 12-hour format)
 * DESTINATION display shows wake-up time (Figure 324-2)
 (2B) Press RELEASE

AT CHECK EXTENSION
 (3A) Check extension rings at desired wake-up time

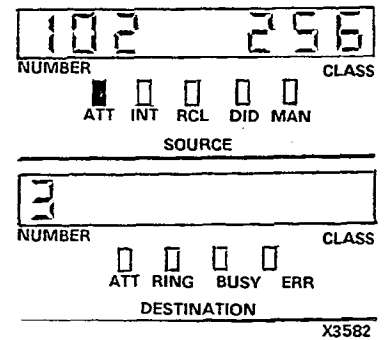
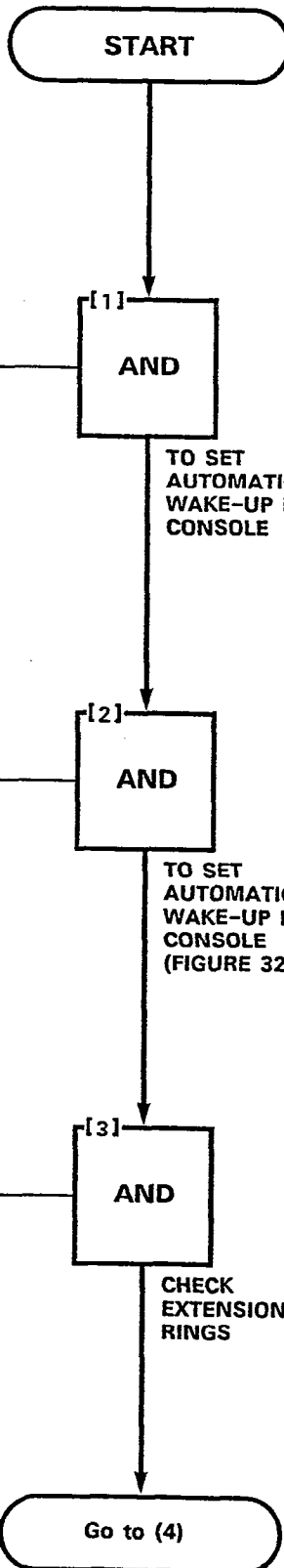


Figure 324-1

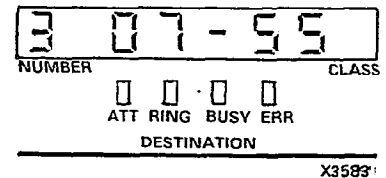


Figure 324-2

AUTOMATIC WAKE-UP (ALARM CALL)
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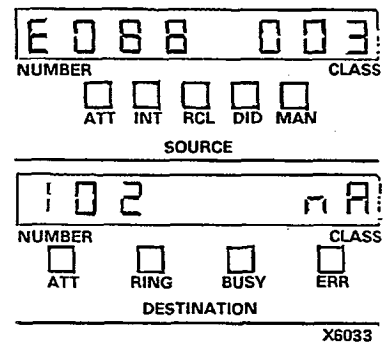
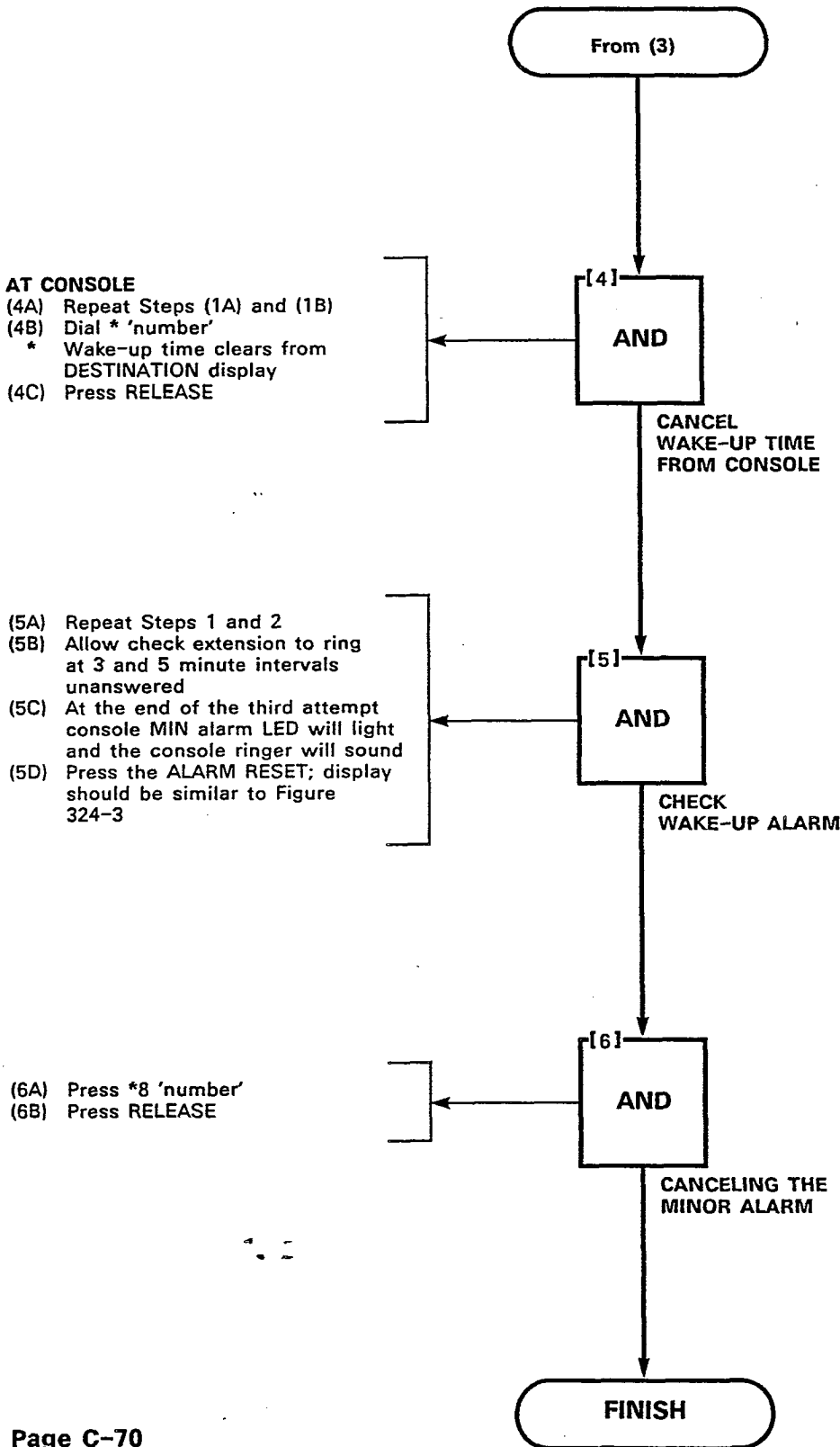


Figure 324-3

MESSAGE WAITING (H/M)
MAP215-325
Issue 3, May 1984
Sheet 1 of 2

WARNING
 Pressing the MSGE WAIT key when console is active with an extension may activate or remove the feature at the extension.

NOTE
 The lamp flash facility to flash tele-phones fitted with lamps is available on PABX line cards bearing Part Number 9110-010-000-NA. Either option 276 for lamp flash or option 275 for bell ring may be programmed, but not both.

- AT CHECK EXTENSION 1**
 (1A) Lift handset
 * Dial tone
AT CONSOLE
 (1B) Press GUEST ROOM
 * GUEST ROOM lamp lit
 (1C) Dial check extension 1
 * Busy tone
 * Extension busy lamp lit
 (1D) Press MSGE WAIT
 * MSGE WAIT lamp lit
 * Extension busy lamp lit
 (1E) Press RELEASE

- AT CONSOLE**
 (2A) Press MSGE WAIT
 * SOURCE display (Figure 325-1) shows total number of rooms with messages waiting
 (2B) Release MSGE WAIT
 * SOURCE display becomes idle

- AT CHECK EXTENSION 1**
 (3A) Replace handset
 * Bell rings after 10 s (see Note)
AT CHECK EXTENSION 1
 (3B) Lift handset
 * Dial tone
 (3C) Dial '0'
 * Ringing tone
 * Console rings
AT CONSOLE
 (3D) Press ANSWER
 * SOURCE display shows number and Class of Service of check extension 1; ATT lamp lit
 (3E) Two-way conversation between console and check extension 1
 (3F) MSGE WAIT lamp lit

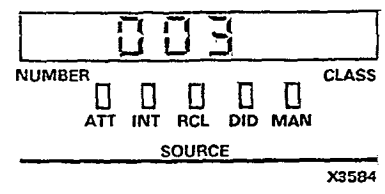
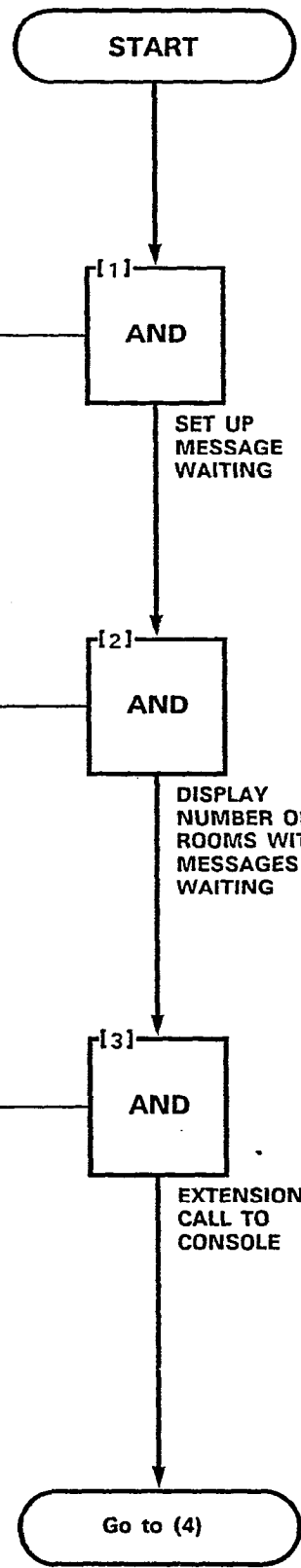
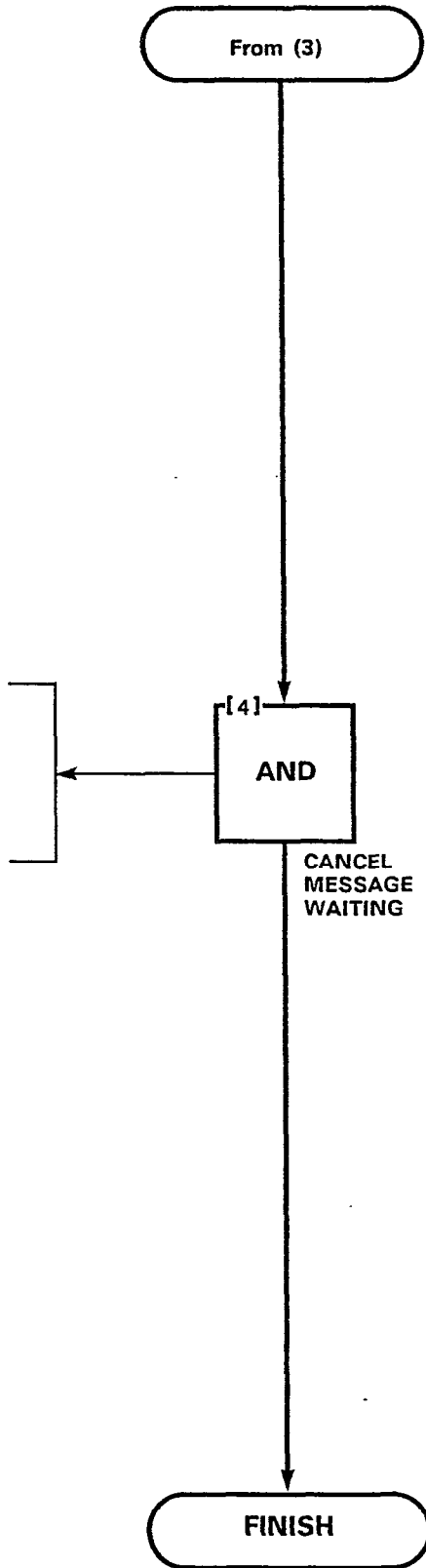


Figure 325-1

MESSAGE WAITING (H/M)
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- AT CONSOLE**
- (4A) Press MSGE WAIT
 - * MSGE WAIT lamp goes off
 - (4B) Press RELEASE
 - (4C) Replace handset at check extension 1

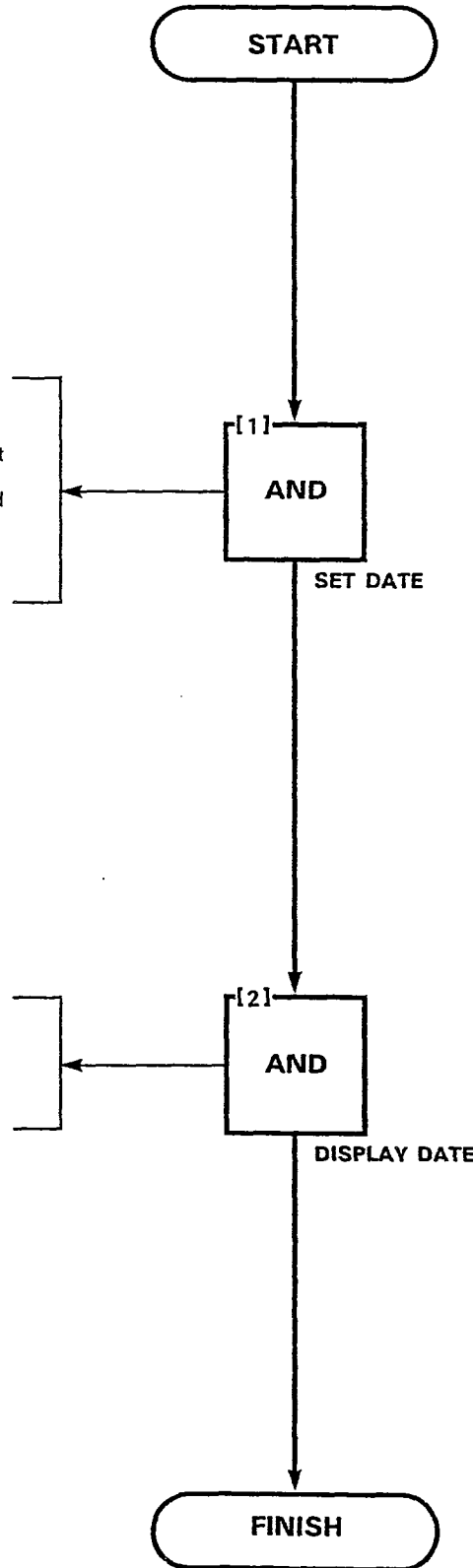


CONSOLE DATE DISPLAY AND DATE UTILITY
MAP215-326
Issue 3, May 1984
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AT CONSOLE

- (1A) Dial *15
- * ANSWER and DEST lamps light
- (1B) Enter date as three or four digits (1- or 2-digit month and 2-digit day)
- (1C) Press RELEASE.

- (2A) Press IDENT
- * Date appears in time display
- (2B) Release IDENT
- * Time returns to time display

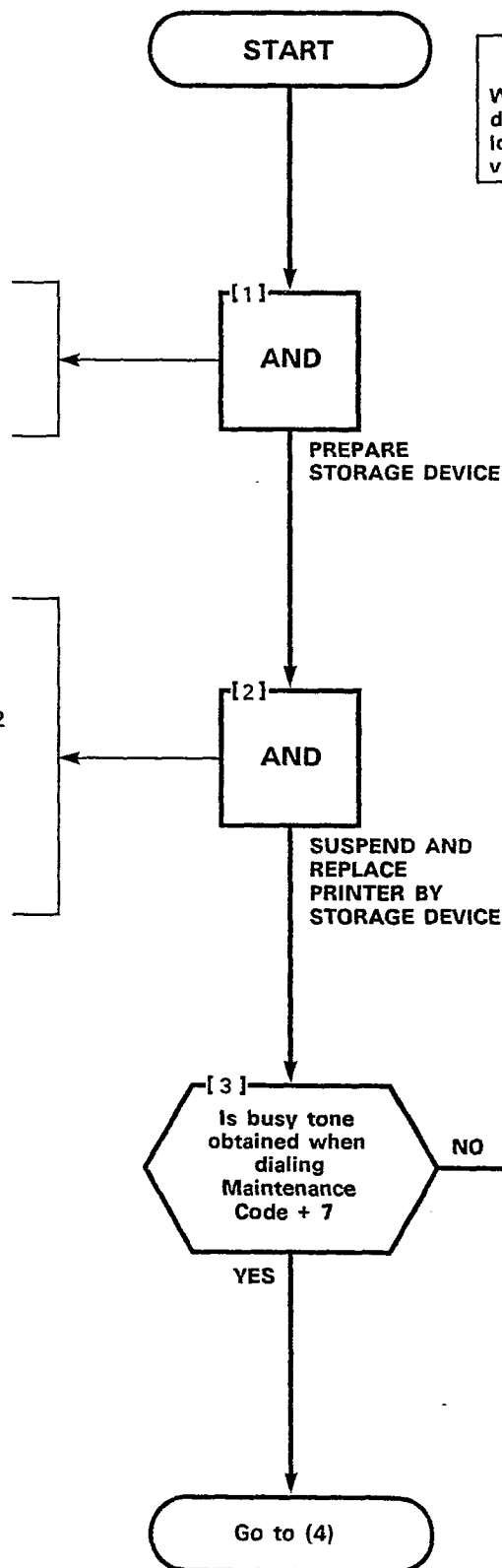


CUSTOMER PROGRAM DUMP/LOAD
MAP215- 327
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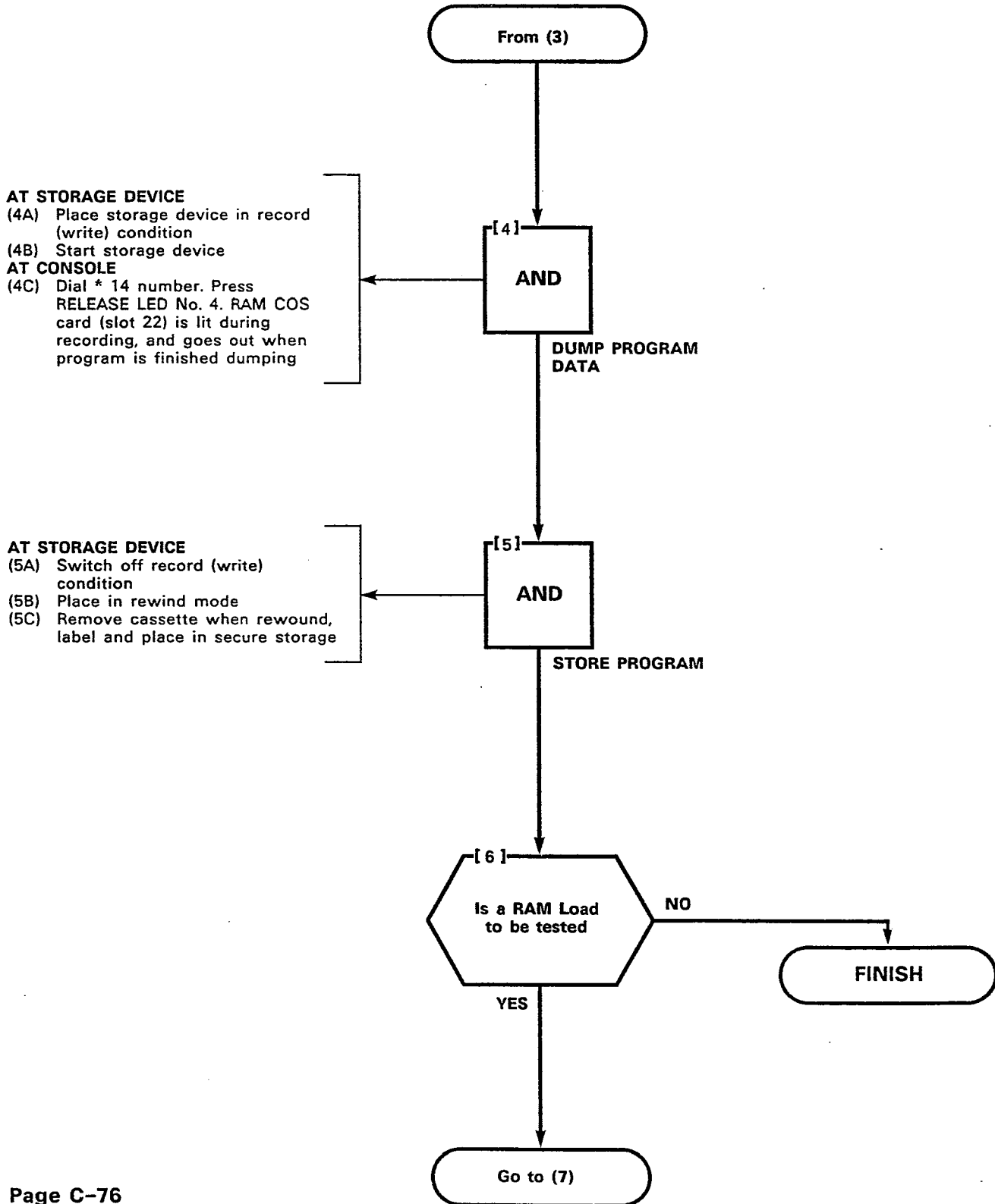
Note
 When dumping insure that the storage device is not in the local mode. If the load is not successful, the storage device will not have a correct program.

AT STORAGE DEVICE
 (1A) Load full blank tape into storage device
 (1B) Place storage device in ready-to-start condition

AT CONSOLE
 (2A) Dial *14*. Press RELEASE
 * Printer function suspended
AT CABINET
 (2B) Remove printer plug from P302 on Interconnect Card
 (2C) Insert storage device plug into P302
AT CONSOLE
 (2D) Dial maintenance code +7



CUSTOMER PROGRAM DUMP/LOAD
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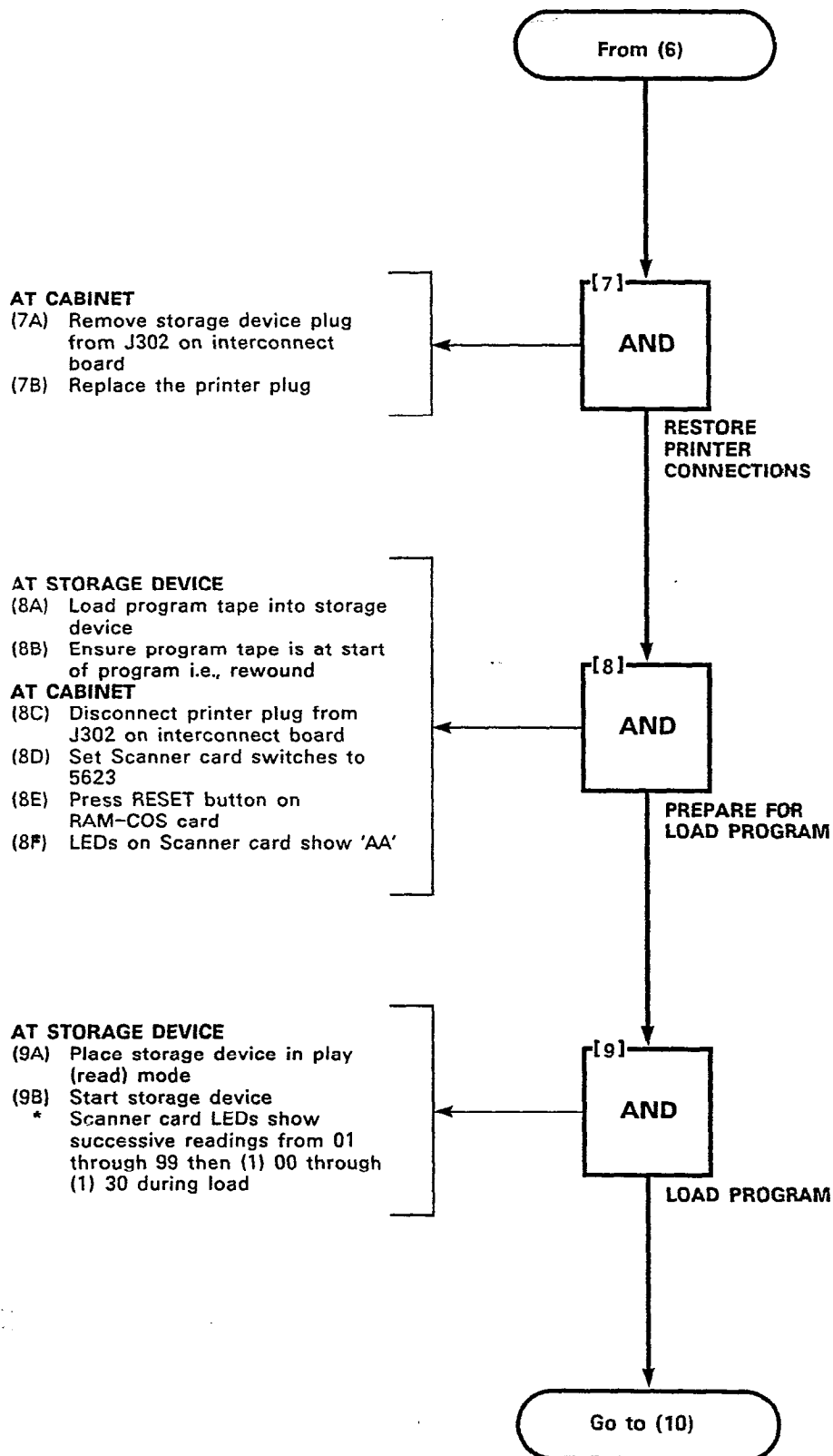


CUSTOMER PROGRAM DUMP/LOAD

MAP215-327

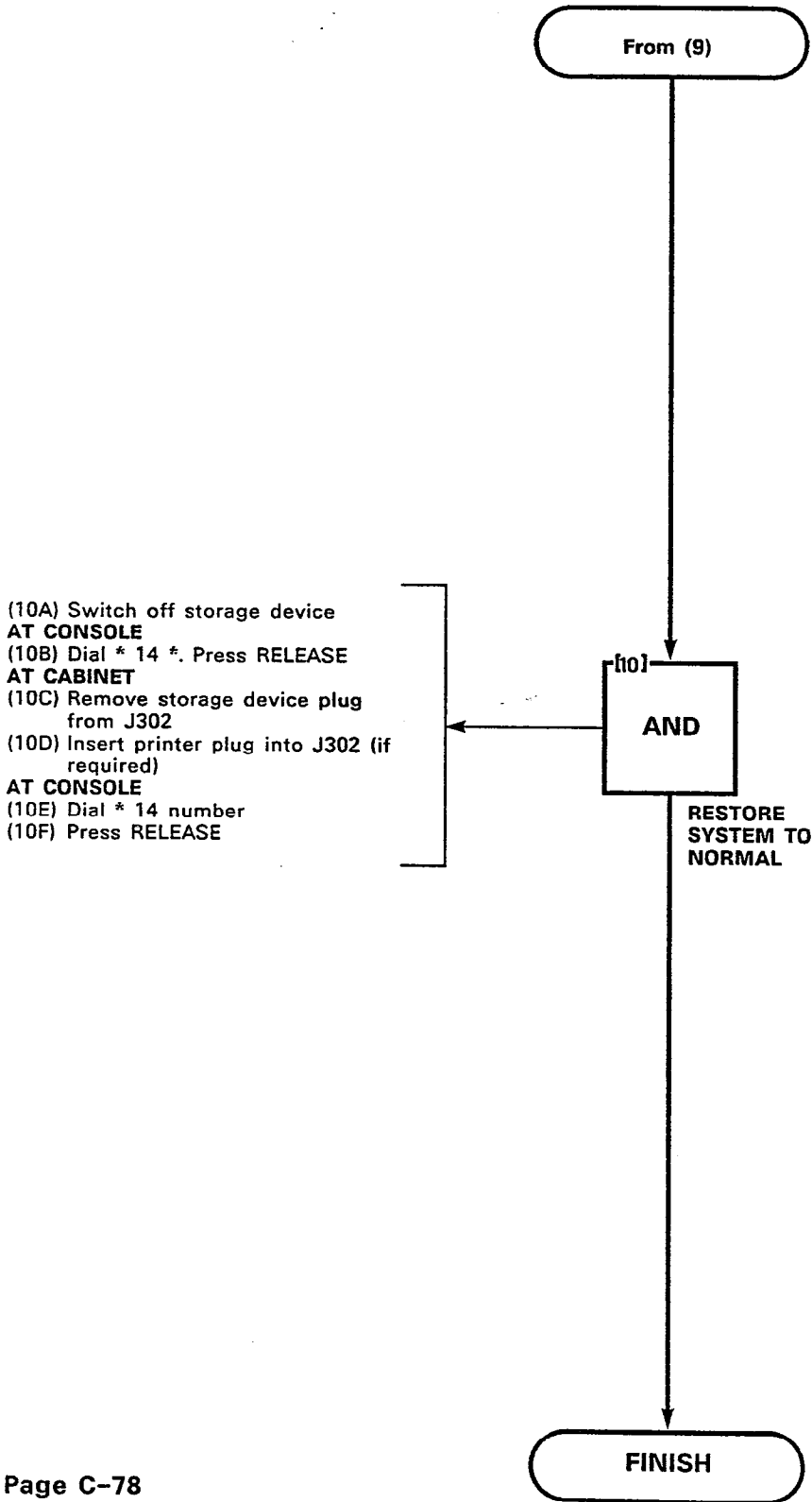
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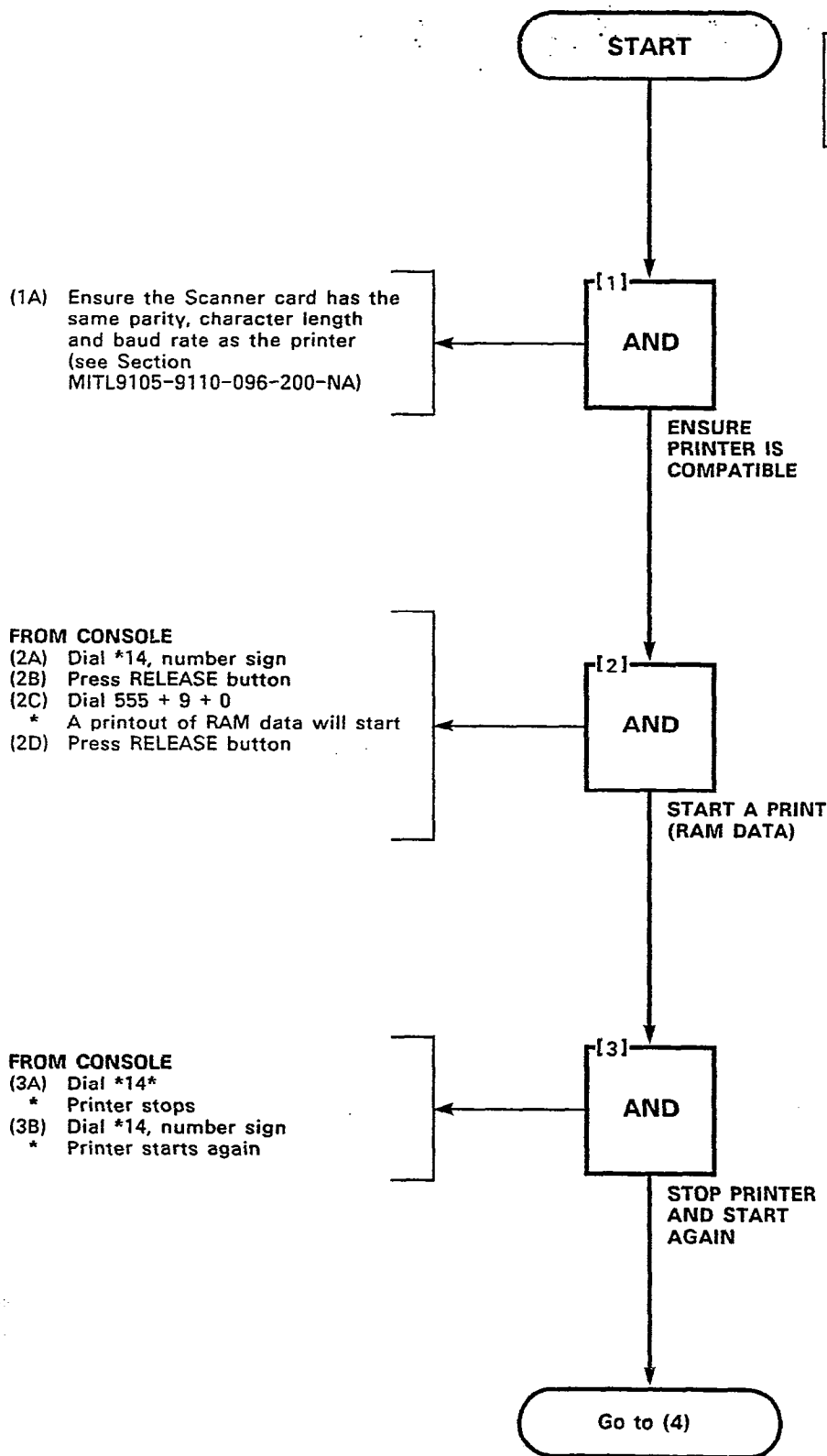
SECTION MITL9105/9110-096-215-NA

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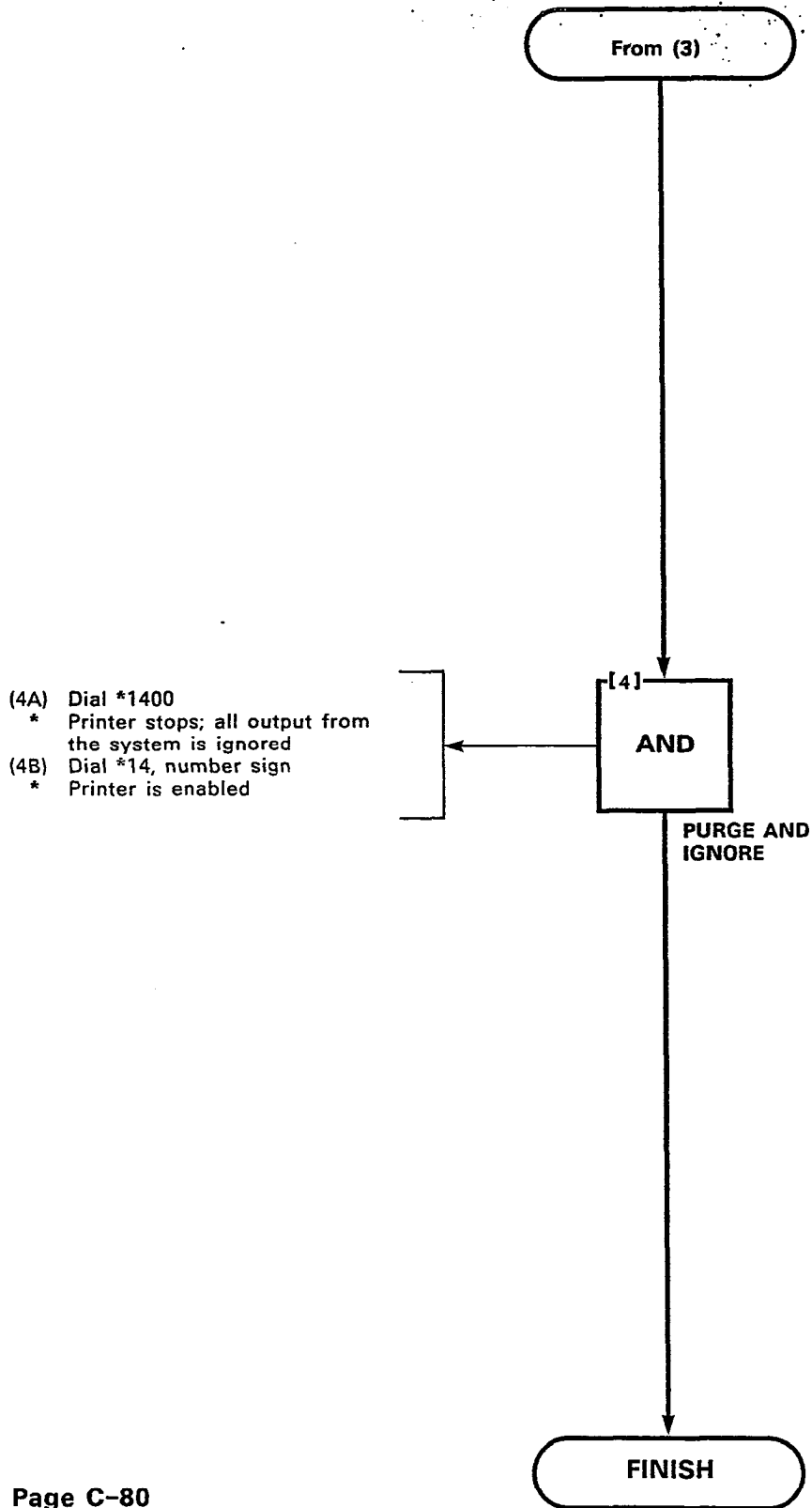


CONTROLLING THE PRINTER
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TOOLS REQUIRED
Printer, RS-232 compatible, 88 characters per line and 300 or 1200 baud print rate.



CONTROLLING THE PRINTER
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Sheet 2 of 2



ROOM AUDIT
MAP215-329
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NOTE
Ensure Printer is not in local mode.

- (2A) Printer must:
- * Meet EIA RS-232 requirements
 - * Be capable of 88 characters per line
 - * Be capable of 300 or 1200 baud
- (2B) Connect Printer to system RS-232 port

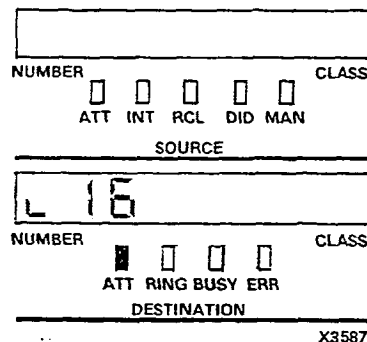
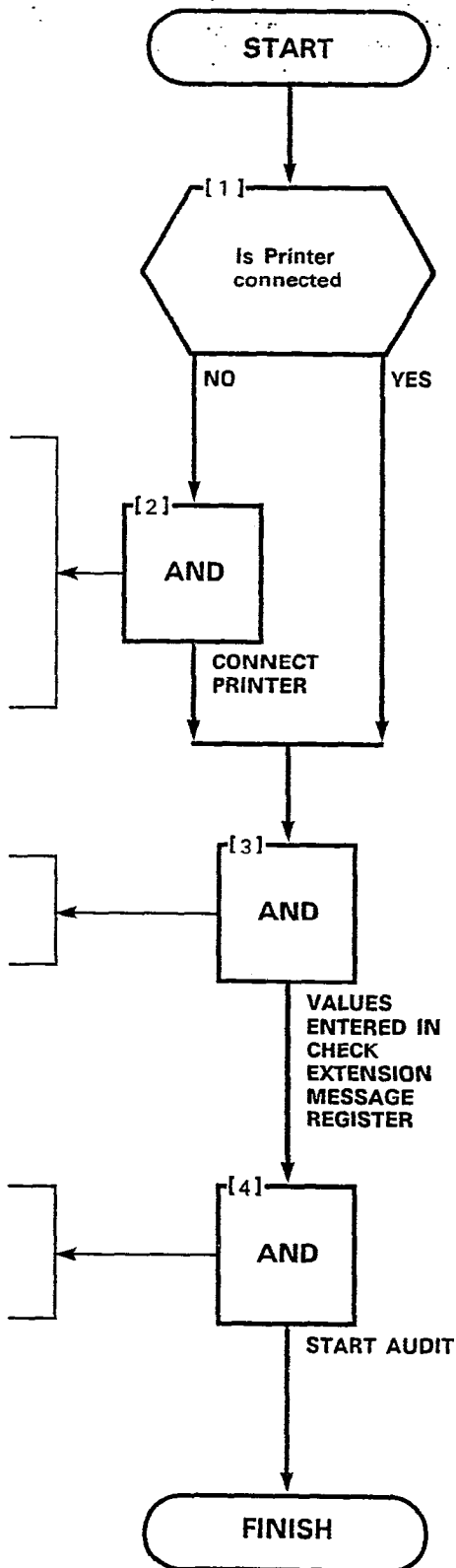


Figure 329-1

- AT CHECK EXTENSION**
- (3A) Complete a number of calls to local directory numbers

- AT CONSOLE**
- (4A) Dial *16 (Figure 329-1)
- (4B) Press RELEASE
- * Printout of entries produced



SYSTEM IDENTIFIER
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AT CONSOLE
 (1A) Dial *17
 * Source display shows the current system ID (Figure 330-1)

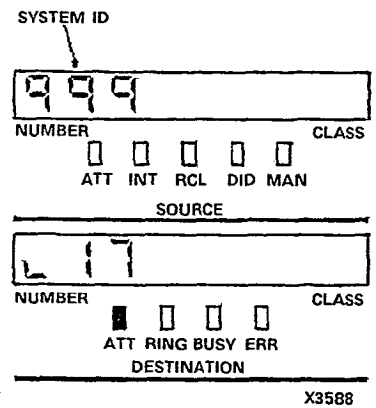
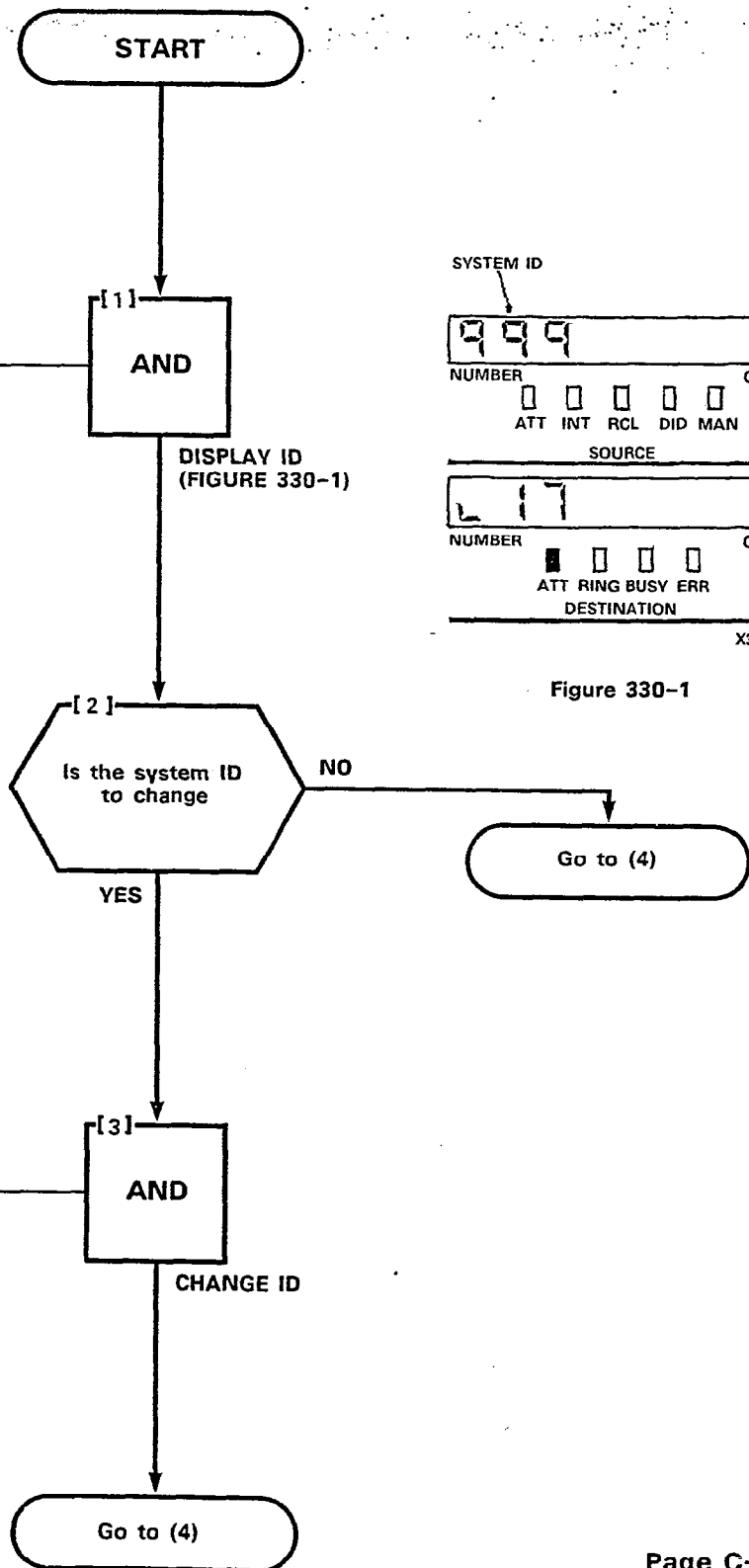


Figure 330-1

AT CONSOLE
 (3A) Dial new system identifier (one to three digits)
 * New ID appears in DESTINATION display



SECTION MITL9105/9110-096-215-NA

SYSTEM IDENTIFIER
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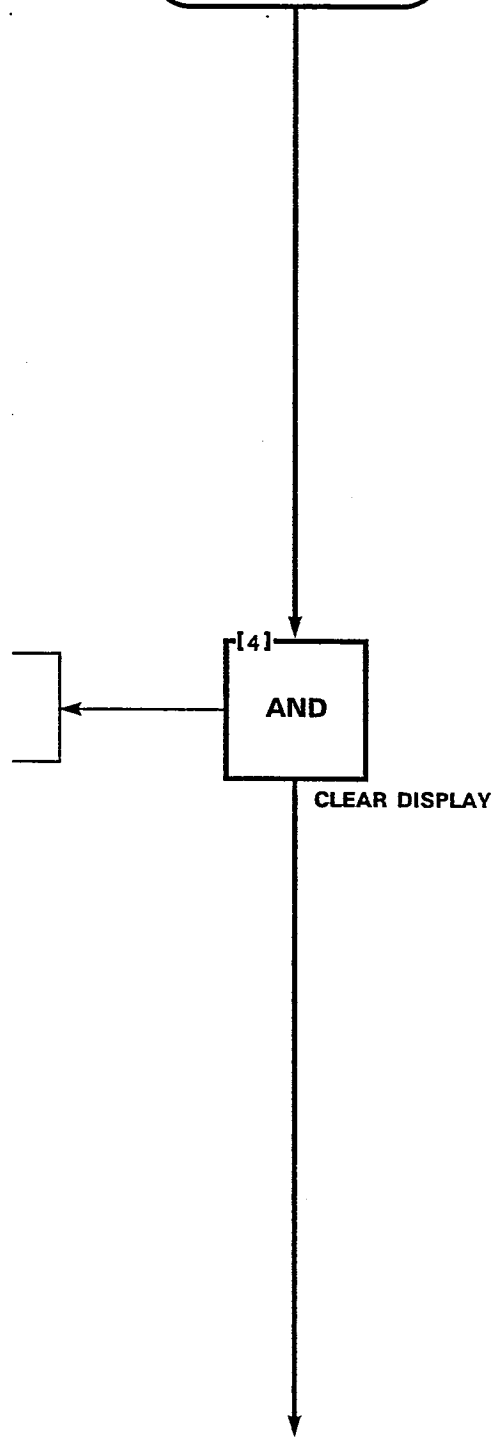
From (3)

[4]
AND

CLEAR DISPLAY

FINISH

AT CONSOLE
(4A) Press RELEASE
* Display clears



COMMON USE SPEED CALL
MAP215- 331
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- (1A) Dial Speed Call access code
- (1B) Dial 0
- (1C) Dial Speed Call entry code
- (1D) Dial all digits, pauses and manual insertion points (Table 331-1)
- * DESTINATION display shows digits entered (most recent at the right, Figure 331-1); ATT lamp lit
- * Source display shows Speed Call entry code
- (1E) Press RELEASE

- (2A) Dial Speed Call access code
- (2B) Dial number
- (2C) Dial Speed Call entry code
- (2D) Dial number
- * DESTINATION display shows all digits, pauses and manual insertion digits (Figure 331-2)
- (2E) Continue to dial number until the number has been reviewed
- (2F) Press RELEASE

- (3A) Dial Speed Call access code
- (3B) Dial 0
- (3C) Dial Speed Call entry code
- (3D) Press RELEASE

TABLE 331-1

Digits	Meaning
*1	5 second pause
*2	Wait for dial tone
*3 (NN)	Allows the required number of manual digits to be dialed (NN denotes the required number of defined digits)

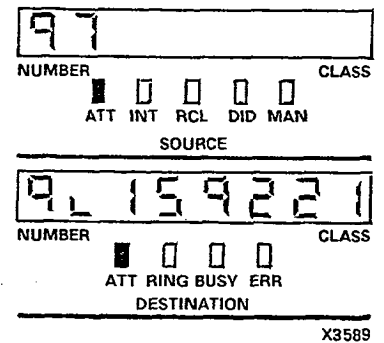
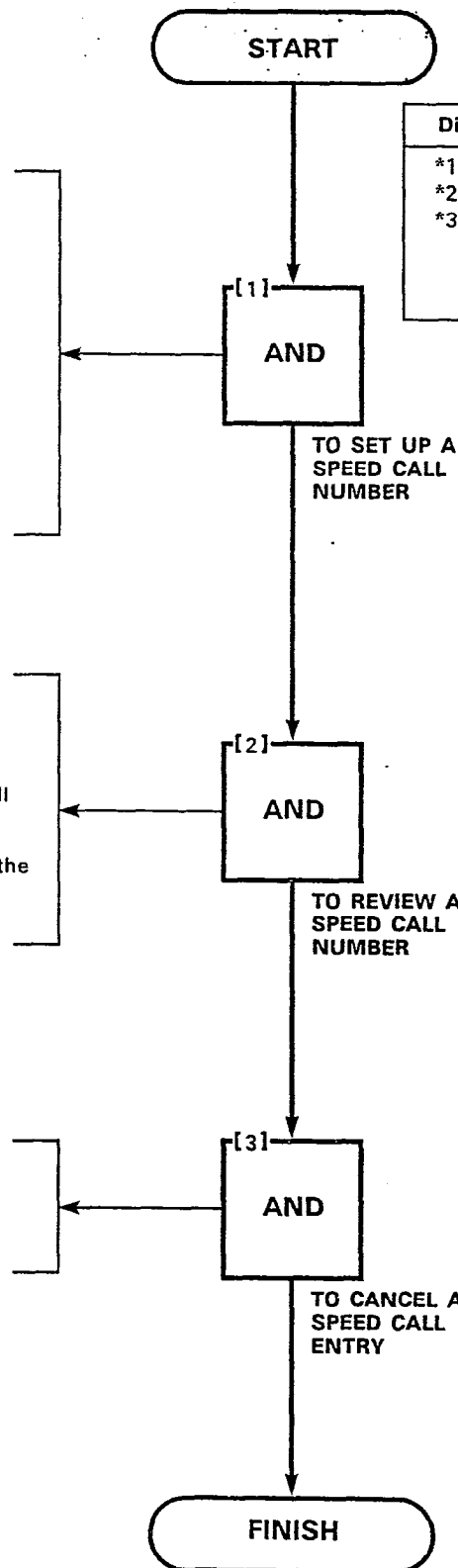


Figure 331-1

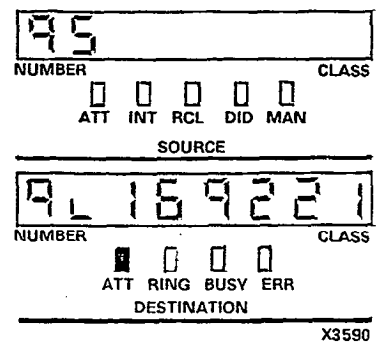
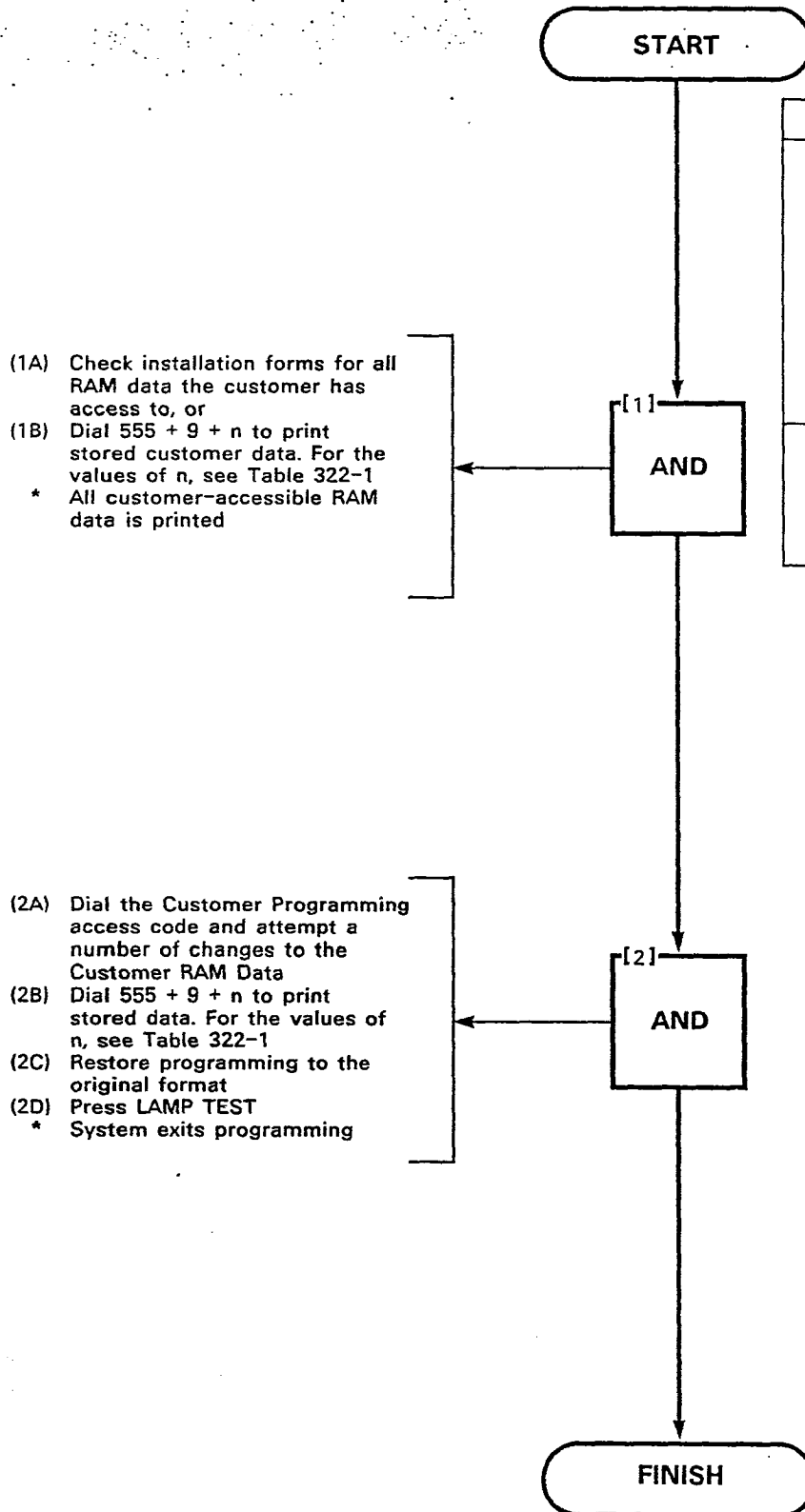


Figure 331-2

CUSTOMER PROGRAMMING
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TABLE 332-1

n	Meaning
0	A complete print (Note 1)
1	System Options, Feature Access Codes, Classes of Service, Hunt Groups and Extensions
2	Trunk and Trunk Group Data
3	Special Set Data
4	Toll Control Data
5	Speed Call Data
6	Automatic Route Selection Data
*	Systemwide Data (Note 2)
Notes:	1. This prints all sections. 2. This will print all data and the systemwide speed call tables and the system special set messages.



EXTERNAL CALL FORWARDING
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TABLE 333-1
CALL FORWARDING CODES

Code	Meaning
1	Busy
2	Don't Answer
3	Follow Me
4	Busy/Don't Answer

AT CONSOLE

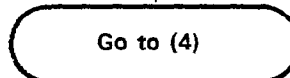
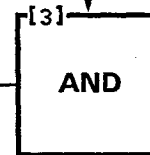
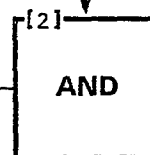
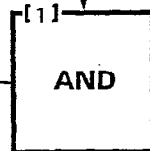
- (1A) Dial *11 + check extension 1 number
 - * SOURCE display shows number of check extension 1 and type of Call Forwarding in effect (a (-) if no Call Forwarding)
 - * ATT lamp lit
- (1B) Dial type of Call Forwarding (Table 333-1)

AT CONSOLE

- (2A) Dial System Speed, Call Access Code, Dial Speed Call, Table Number (personal or common use)
 - Note: Table Number must contain a valid external number
- (2B) Press RELEASE button

AT CHECK EXTENSION 2

- (3A) Lift handset
 - * Dial tone
- (3B) Dial check extension 1 number
 - * Call will be forwarded to an external location immediately if: Call Forwarding - Busy, Call Forwarding - Busy-Don't Answer or Call Forward - Follow Me is used
 - (Note: Create a busy situation at check extension 1 before dialing if Call Forward - Busy or Busy-Don't Answer is used) or
 - * Call will be externally forwarded after six rings at check extension 1 if Call Forward - Don't Answer is used

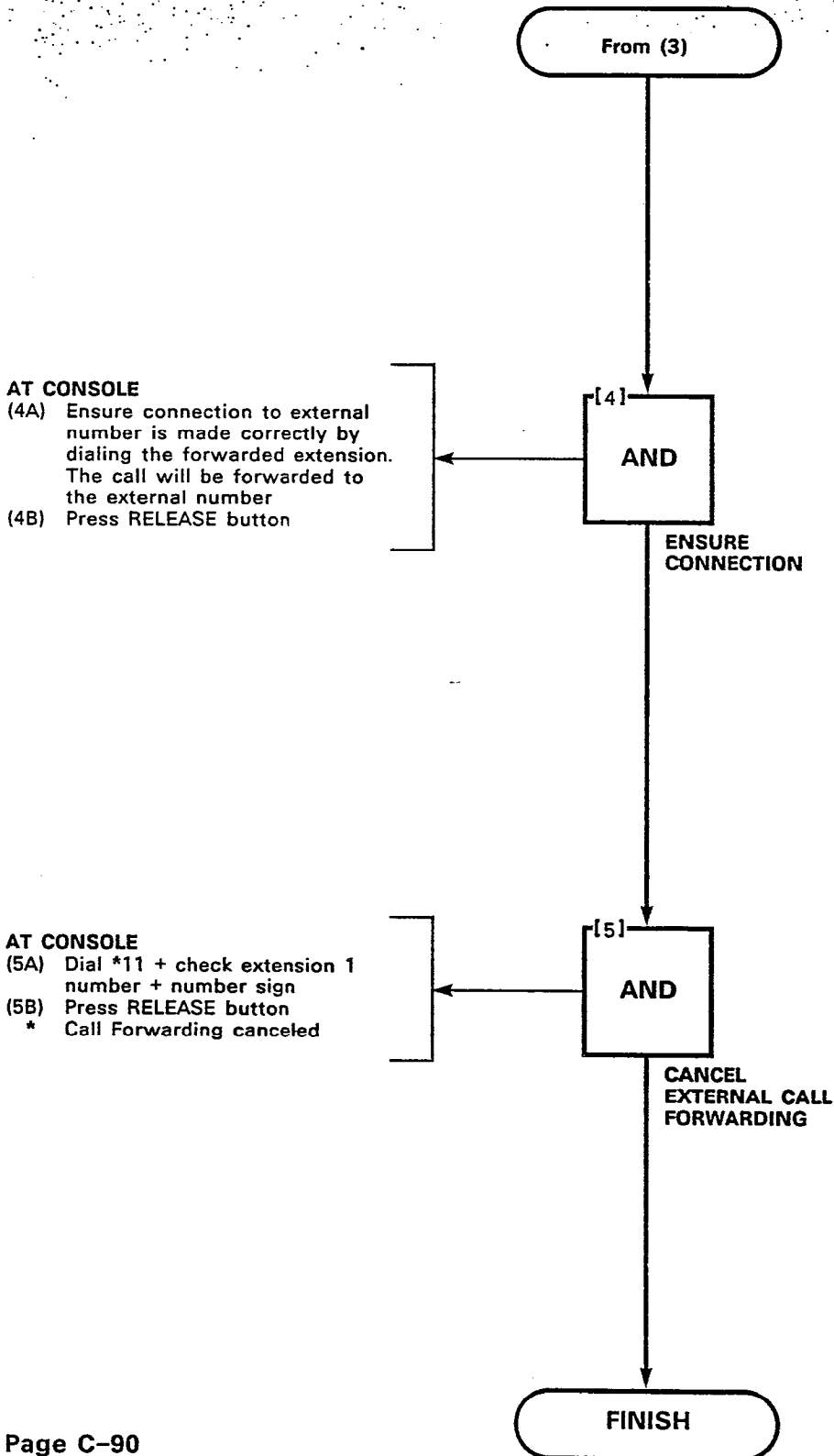


SELECT TYPE OF CALL FORWARDING

SELECT SPEED CALL ENTRY CODE

TEST EXTERNAL CALL FORWARDING

EXTERNAL CALL FORWARDING
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TEST AUDIBLE TONE INDICATORS
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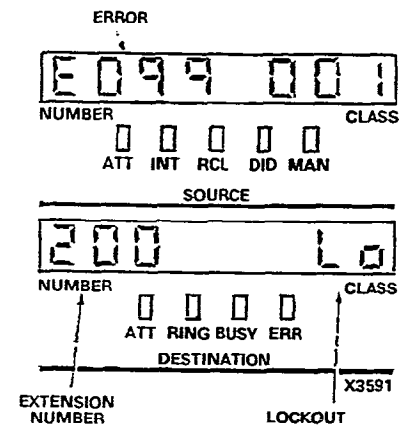
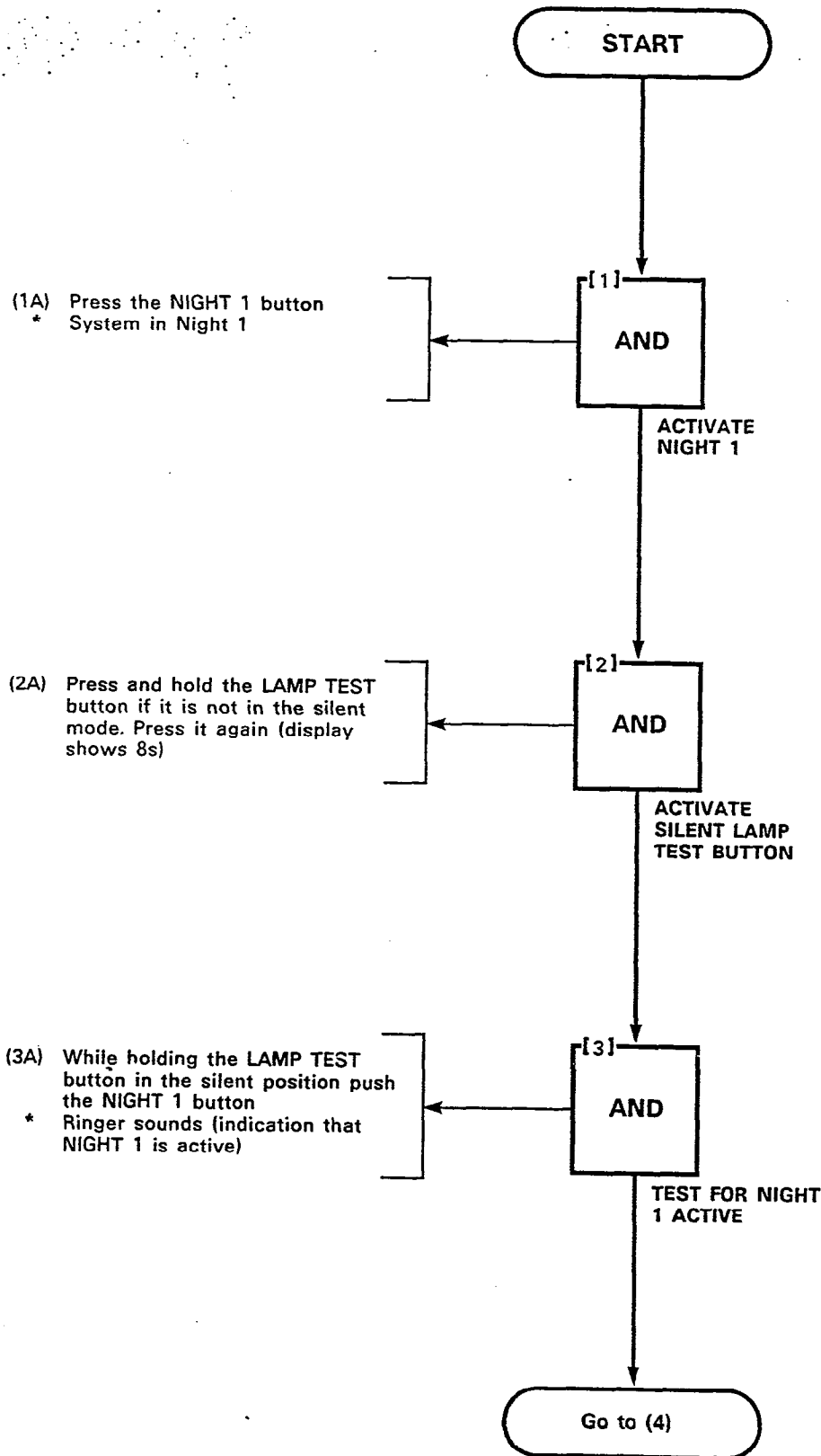
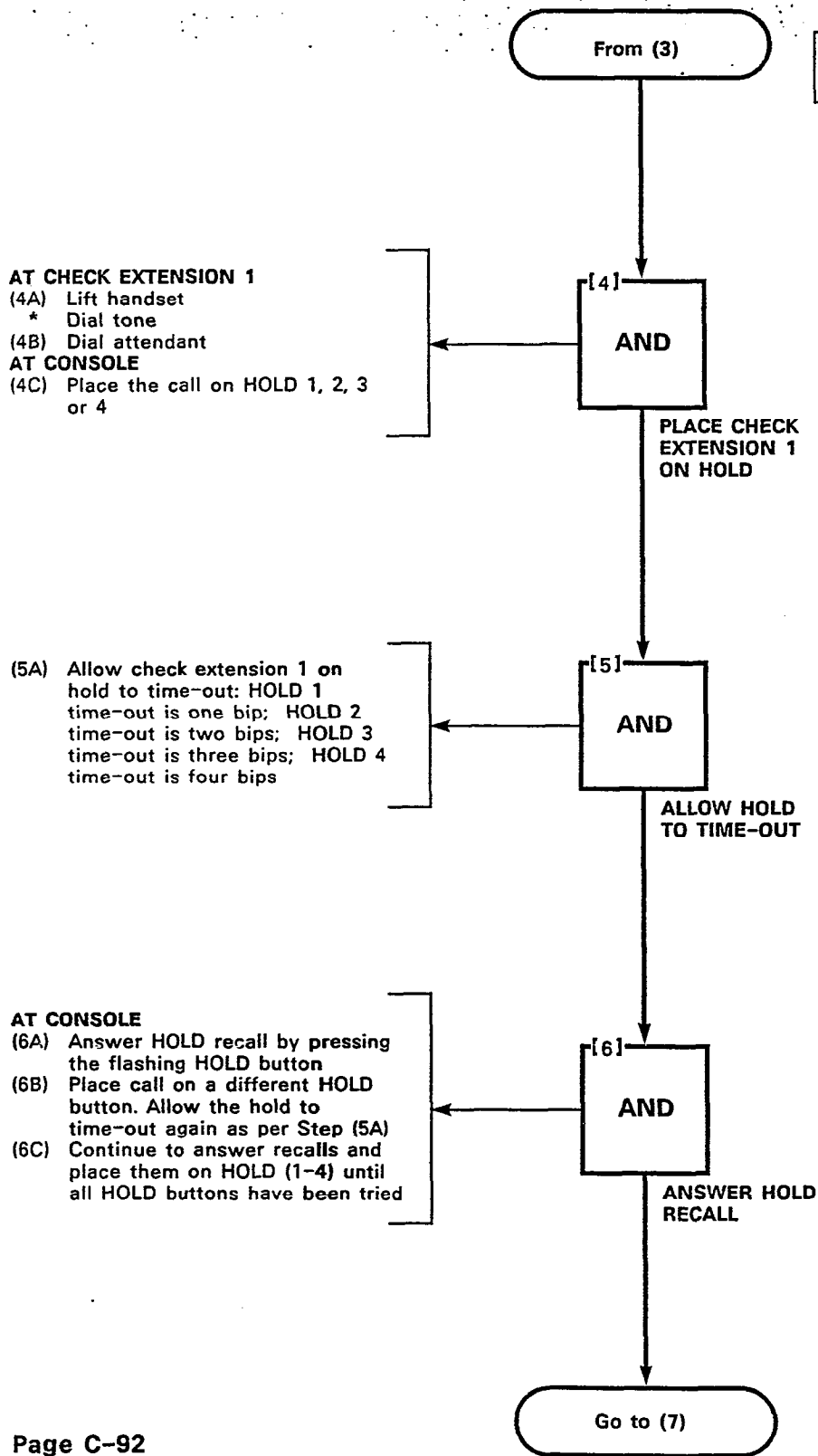


Figure 334-1
Lockout Display

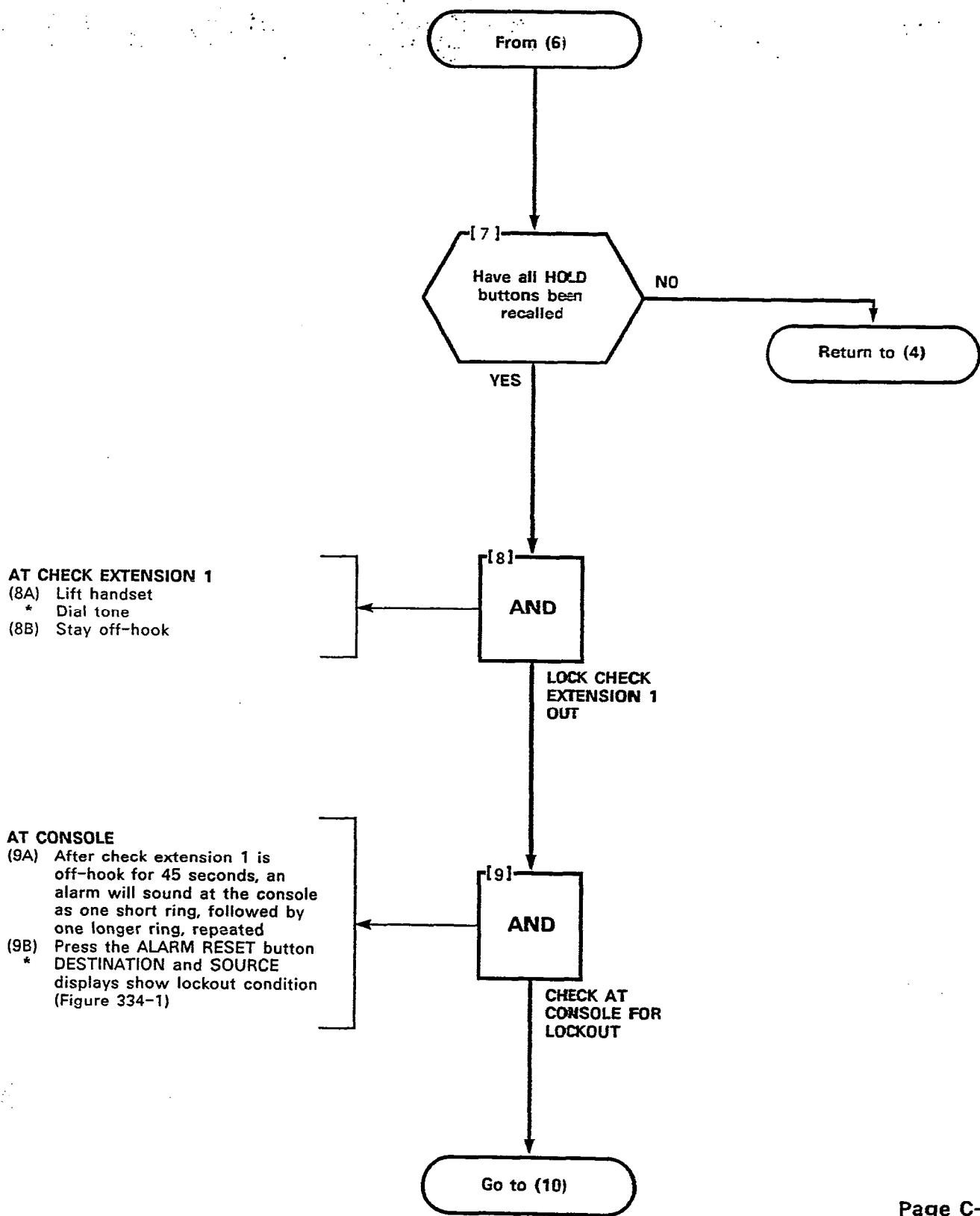
SECTION MITL9105/9110-096-215-NA

TEST AUDIBLE TONE INDICATORS
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Note: System Option 115 must be enabled.



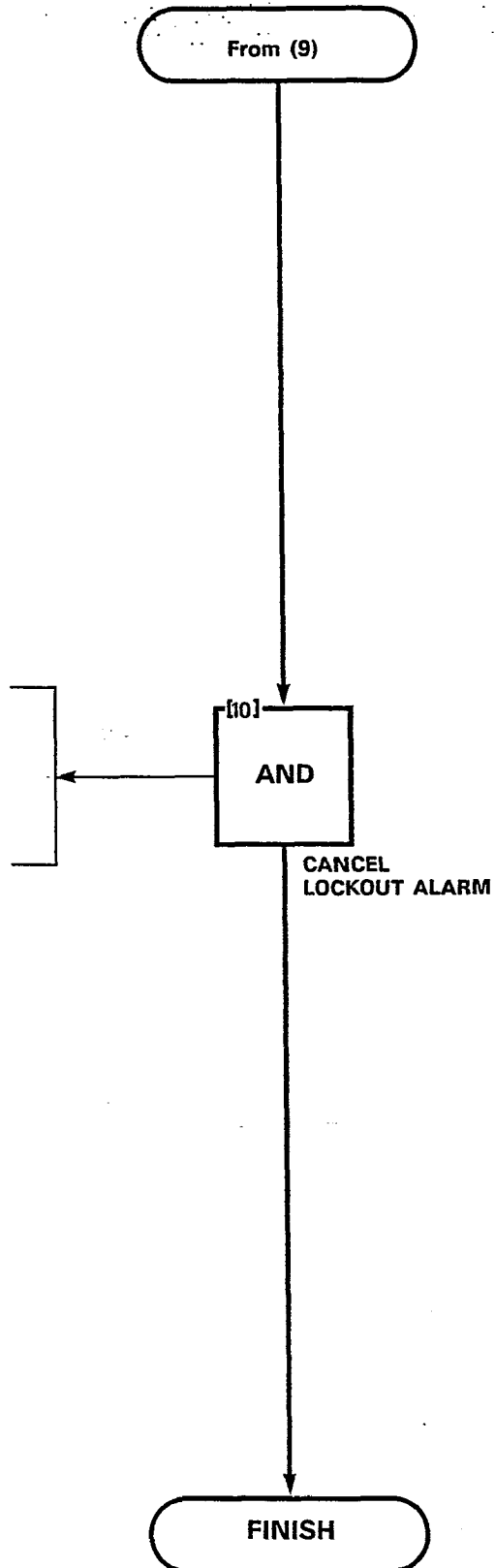
TEST AUDIBLE TONE INDICATORS
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SECTION MITL9105/9110-096-215-NA

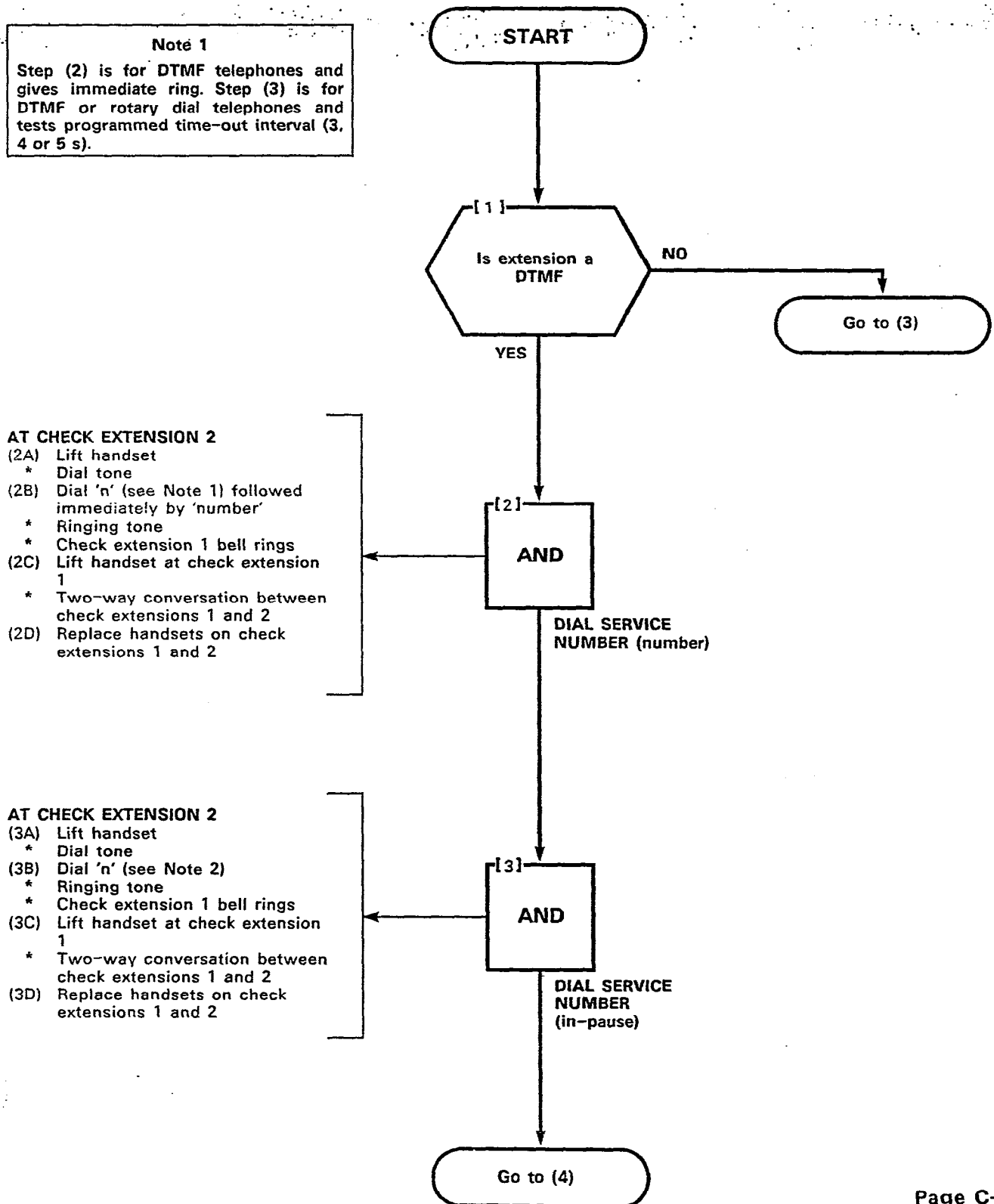
TEST AUDIBLE TONE INDICATORS
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AT CONSOLE
(10A) Dial *8 number sign
(10B) Press RELEASE
* Alarm canceled
AT CHECK EXTENSION 1
(10C) Go on-hook



SINGLE DIGIT DIALING
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Noté 1
 Step (2) is for DTMF telephones and gives immediate ring. Step (3) is for DTMF or rotary dial telephones and tests programmed time-out interval (3, 4 or 5 s).



SINGLE DIGIT DIALING
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Note 2'
 To conduct the following system tests, check extension 1 must be programmed as a "SERVICE" extension with code "n" (a single digit code). Alternatively check extension 1 may be temporarily connected in parallel on the cross-connect field to an extension which has a "SERVICE" code, for the test duration.

- AT CONSOLE**
- (4A) Dial keypad digit 'n'
 - * DESTINATION display shows digit 'n' (in Figure 335-1, 'n' is '5')
 - * No ringing tone heard
 - * ATT lamp lit
 - (4B) Wait at least 10 seconds
 - * No ringing tone heard
 - (4C) Press RELEASE

- AT CONSOLE**
- (5A) Dial keypad digits 'n number sign'
 - * DESTINATION display shows check extension number 1 (Note 2) and class (Figure 335-2)
 - * ATT and RING lamps lit
 - * Ringing tone
 - AT CHECK EXTENSION 1**
 - (5B) Bell rings
 - (5C) Lift handset
 - * Two-way conversation with console
 - (5D) Replace handset at check extension 1
 - AT CONSOLE**
 - (5E) Press RELEASE
 - * Both parties idle

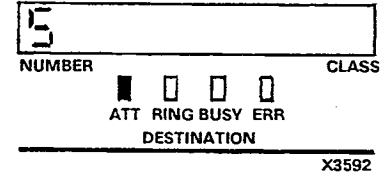
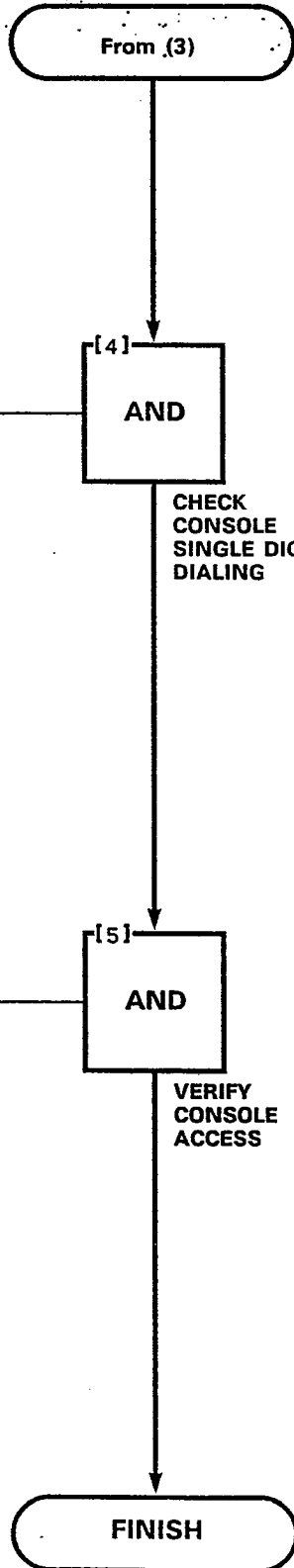


Figure 335-1

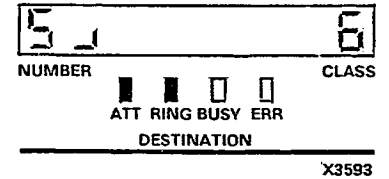
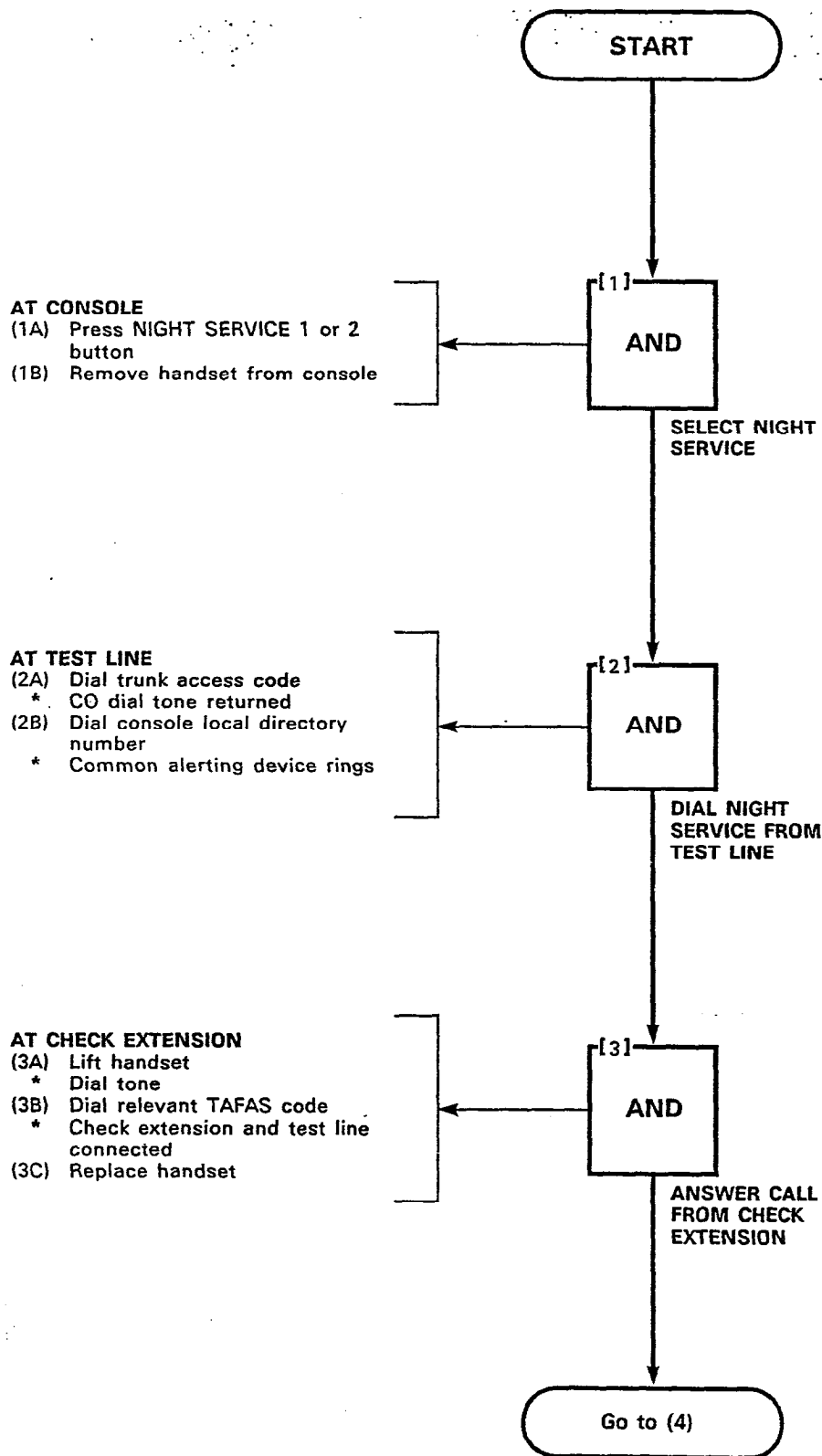
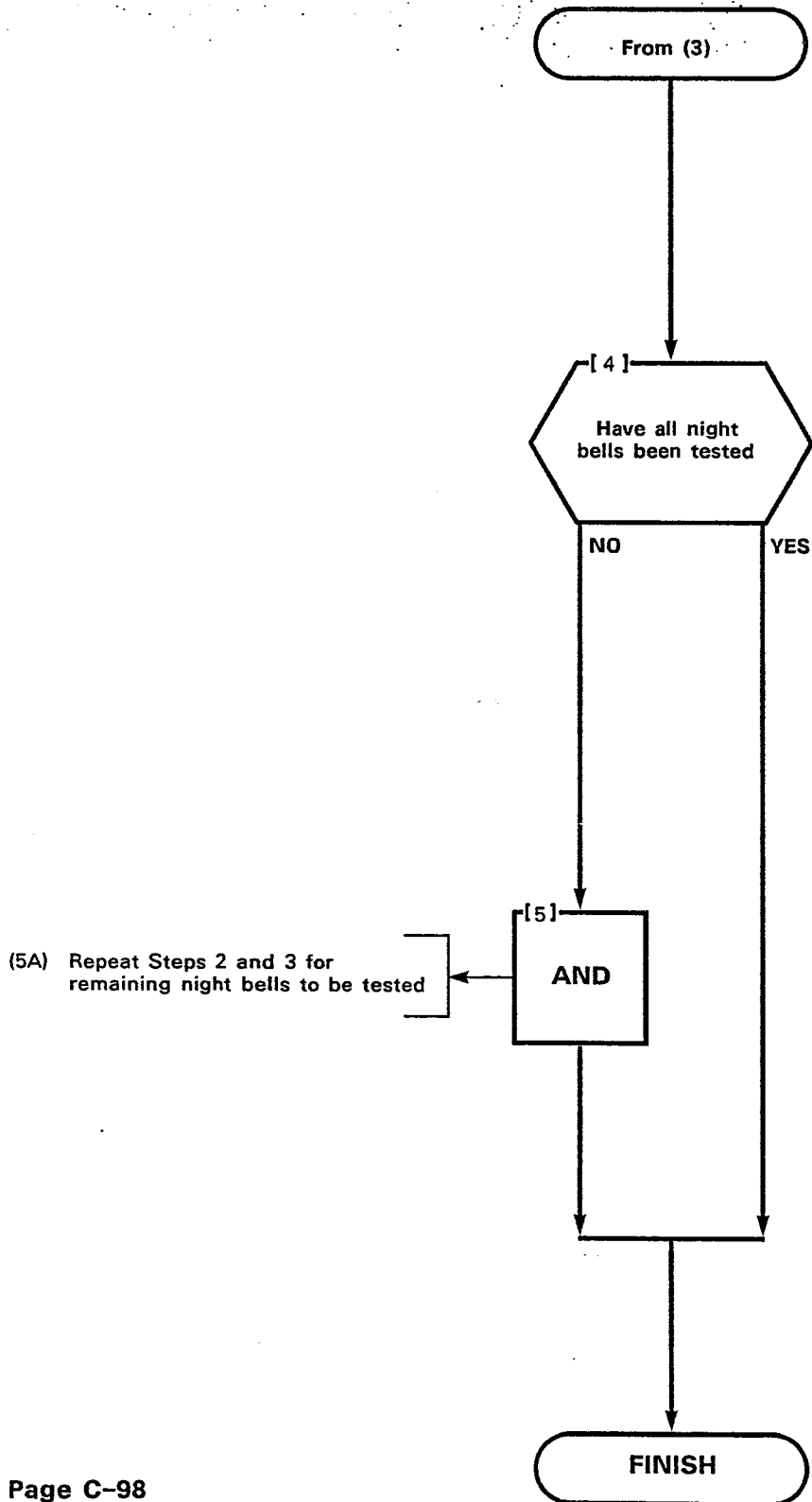


Figure 335-2

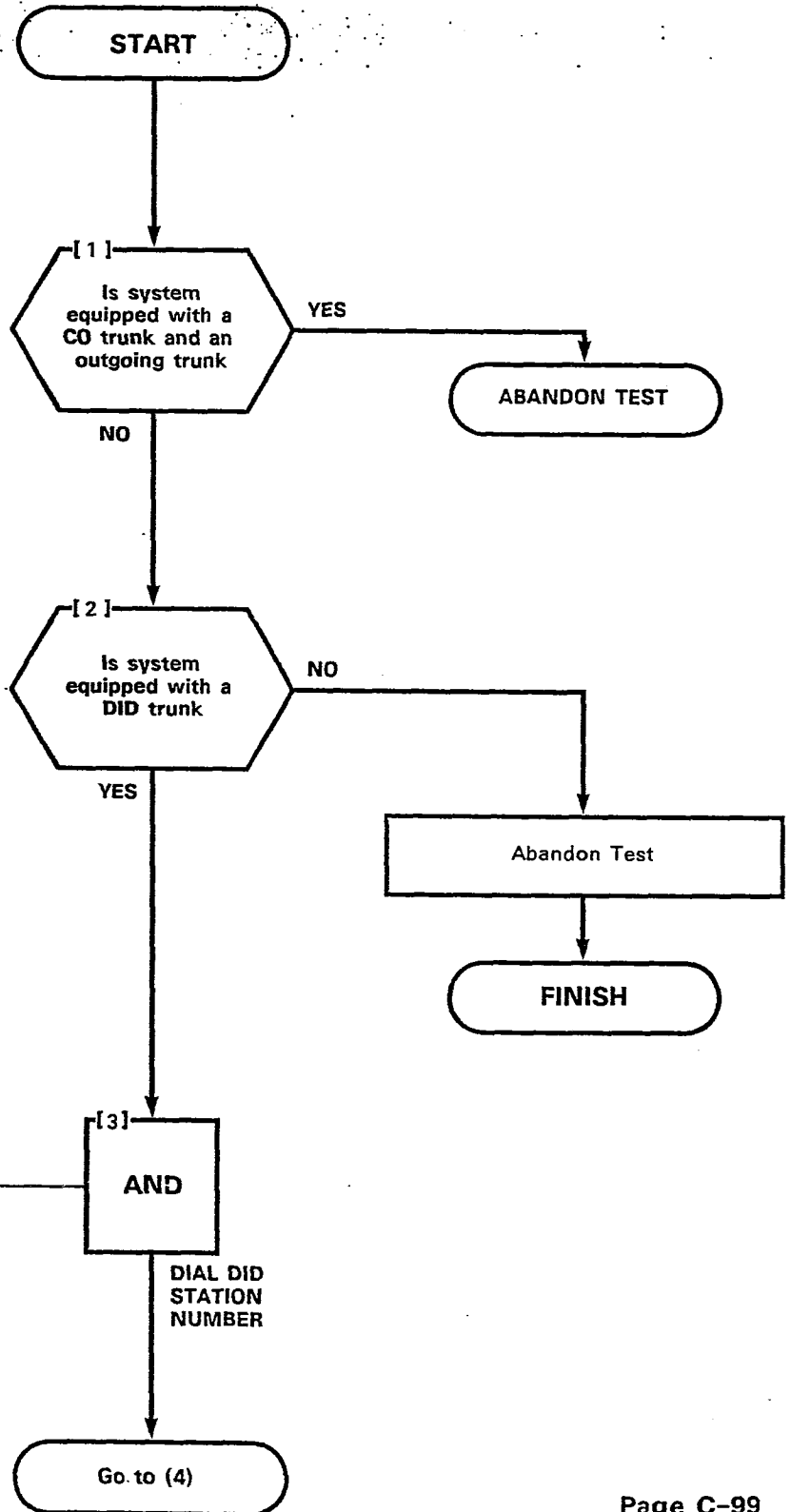
COMMON ALERTING DEVICES
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COMMON ALERTING DEVICES
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ANSWER DID TRUNK CALL
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- AT MAINTENANCE HANDSET**
- (3A) Set switch to OFF-HOOK
 - * Dial tone
 - (3B) Dial CO Trunk access code
 - * CO dial tone
 - (3C) Dial DID number for check extension 1
 - * Ringing tone

ANSWER DID TRUNK CALL
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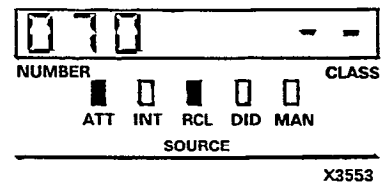
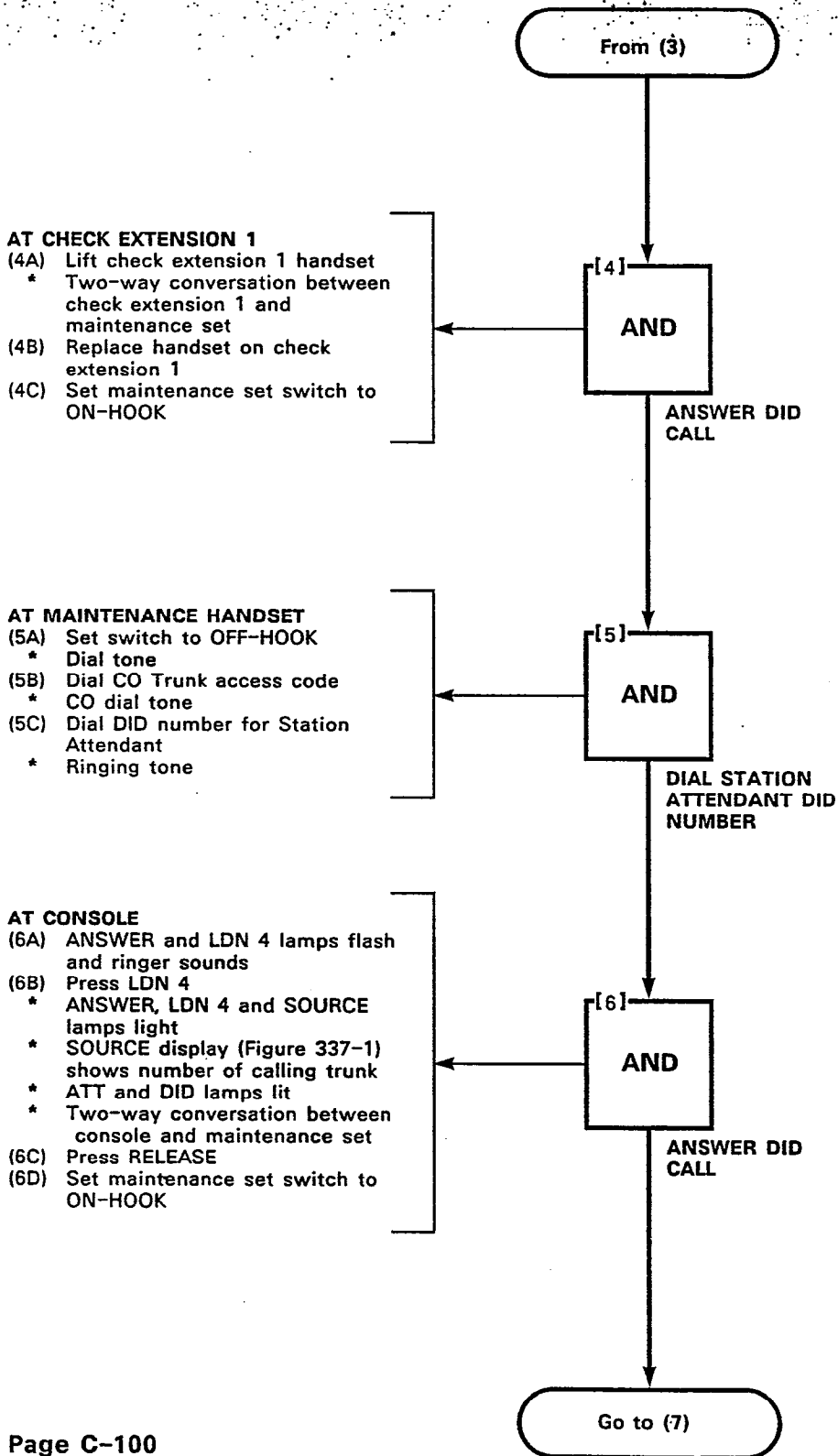


Figure 337-1

ANSWER DID TRUNK CALL
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- AT MAINTENANCE HANDSET**
- (7A) Set switch to OFF-HOOK
 - * Dial tone
 - (7B) Dial CO Trunk access code
 - * CO dial tone
 - (7C) Dial DID number for check extension 1 but omit dialing the last digit
 - * Ringing tone

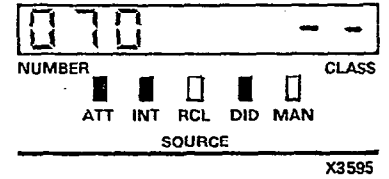
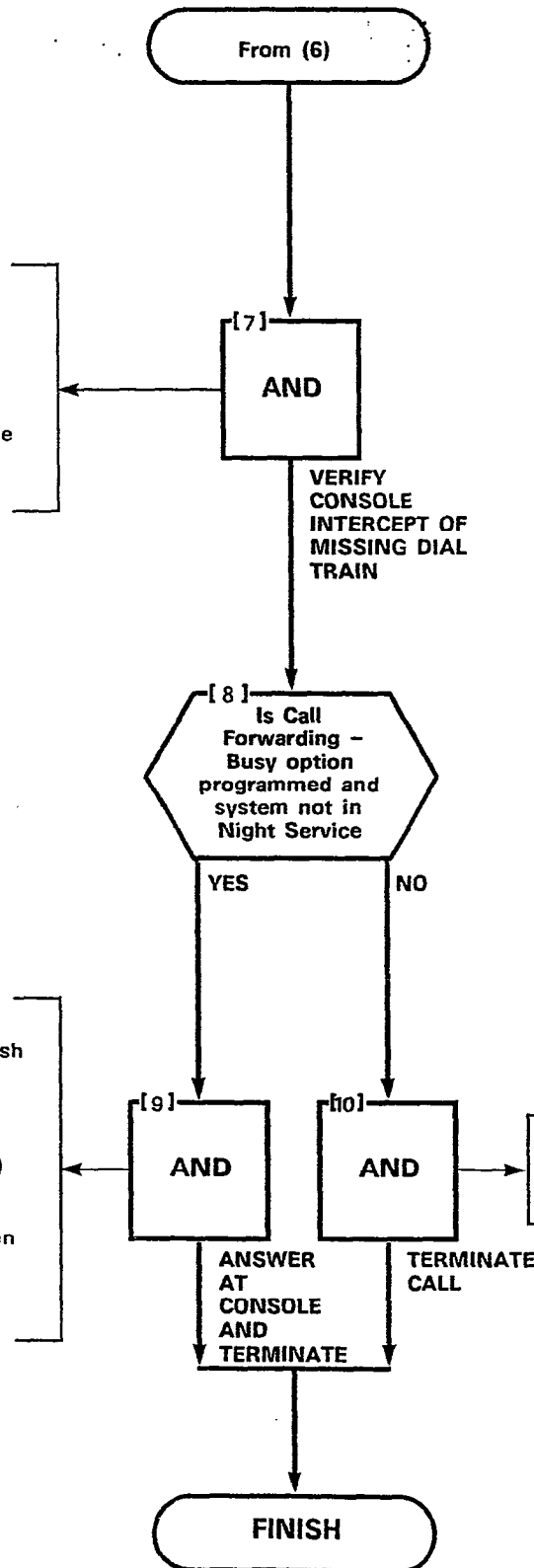


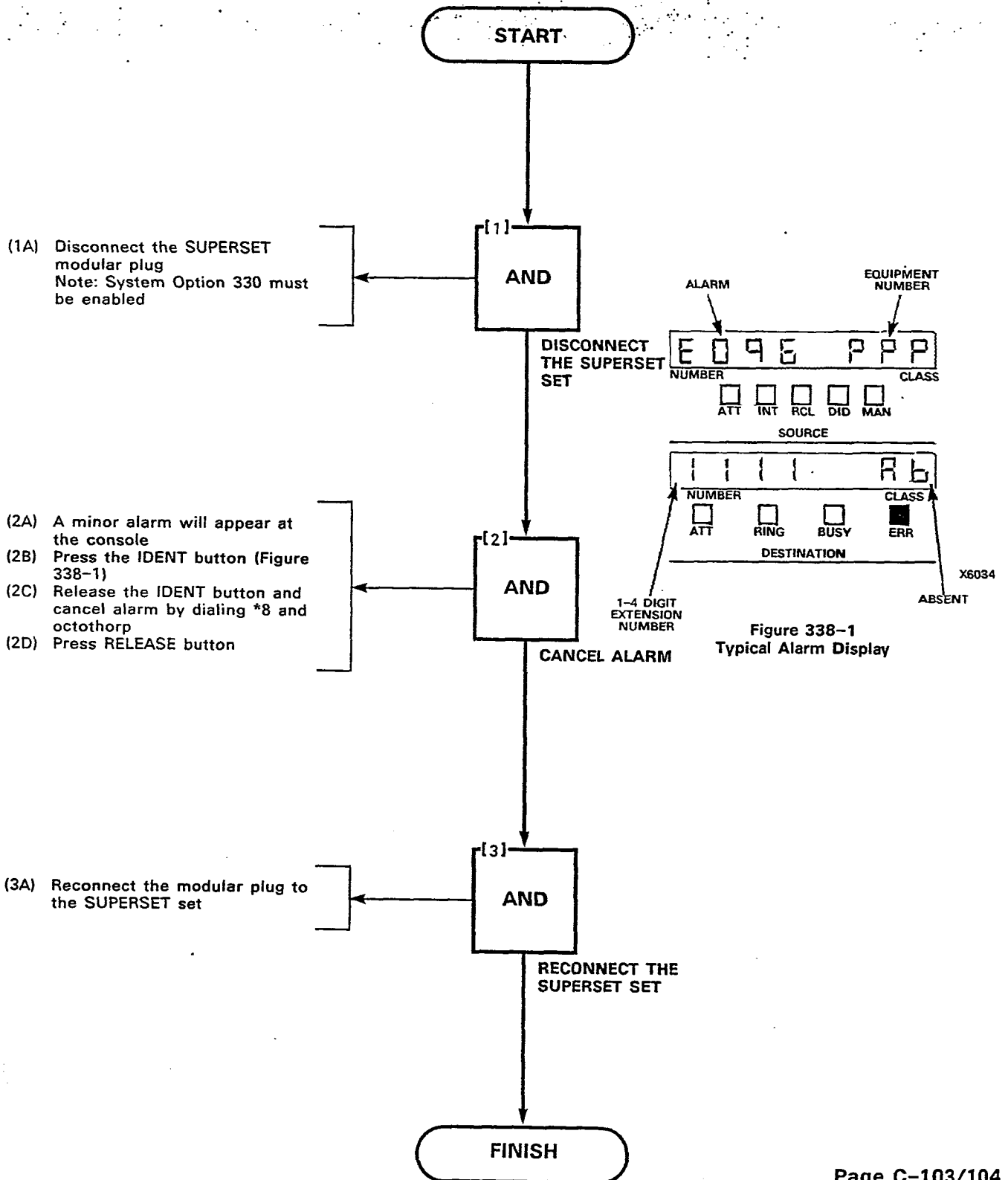
Figure 337-2

- AT CONSOLE**
- (9A) DIAL 0 and ANSWER lamps flash and ringer sounds
 - (9B) Press DIAL 0 key
 - * ANSWER, DIAL 0 and SOURCE lamps lit
 - * SOURCE display (Figure 337-2) shows number of calling trunk
 - * ATT, INT and DID lamps lit
 - * Two-way conversation between console and maintenance set
 - (9C) Press RELEASE
 - * Console idle

- (10A) Reorder tone obtained
- (10B) Set maintenance set switch to ON-HOOK



SUPERSET DISCONNECT ALARM
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SX-100®/SX-200®

SUPERSWITCH®

ELECTRONIC PRIVATE AUTOMATIC BRANCH EXCHANGE

EXTENSION TEST PROCEDURES

GENERIC 217

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APPENDIX 1
SUPERSET 4 TEST PROCEDURES A1-1

APPENDIX 2
SUPERSET 3 TEST PROCEDURES A2-1

1. GENERAL

1.01 This Section describes the extension test procedures for SX-100/SX-200 PABXs. These procedures should be performed as operational tests, upon installation of extensions after the initial system installation. See Section MITL9105/9110-096-200-NA for system installation instructions.

Reason for Reissue

1.02 This Practice has been reissued to include SUPERSET 3 and SUPERSET 4 test procedures.

SUPERSET 4

1.03 For SUPERSET 4 extension test procedures, see APPENDIX 1.

SUPERSET 3

1.04 For SUPERSET 3 test procedures see APPENDIX 2.

2. TEST AND OPERATIONAL PROCEDURES

General

2.01 Satisfactory completion of the extension test procedures confirms that the apparatus has been installed and programmed correctly.

2.02 If any operating procedure cannot be completed as described, verify that:

- The procedure is applicable to the extension (i.e., the feature being tested is assigned to the extension).
- The apparatus which provides the feature (e.g., Music on Hold) is correctly installed.

Operating Procedures

2.03 Chart 2-1 should be performed on each extension. Charts 2-2 through 2-28 should be performed once per system.

**CHART 2-1
STATION-TO-STATION CALL**

Step	Action	Verification
Called station idle:		
1.	Lift handset.	Dial tone returned.
2.	Dial any extension number.	Dial tone removed after first digit; ringback tone heard after completion of dialing.
3.	Called extension answers.	Ringback tone removed; 2-way conversation.
4.	Called and calling extensions replace handsets.	
Called station busy (enable Callback Busy):		
5.	Lift handset.	Dial tone returned.
6.	Dial originating extensions number.	Busy tone returned.
7.	Dial Callback code.	Dial tone returned.
8.	Replace handset.	
9.	Busy extension goes on-hook.	Original extension rings.
10.	Original extension answers.	Ringback tone returned; called extension rings.
11.	Called extension answers.	Two-way conversation.
Called station busy (member of a Hunt Group):		
12.	Lift handset.	Dial tone returned.
13.	Dial Hunt Group access code.	Dial tone removed after first digit; ringback tone heard; next free extension of group is rung.
14.	Free extension answers.	Ringback tone removed; 2-way conversation.
15.	Extensions replace handset.	

**CHART 2-2
HUNT GROUP**

Step	Action	Verification
First station idle (Terminal):		
1.	Lift handset.	Dial tone returned.
2.	Dial Hunt Group access code.	Dial tone removed after first digit; ringback tone heard upon completion of dialing. First extension in group hears ringing.
3.	First extension answers.	Ringback tone removed; 2-way conversation.
First station busy (Terminal):		
4.	Repeat Steps 1 and 2.	Next idle extension in group hears ringing.
5.	Next idle extension answers.	Ringback tone removed, 2-way conversation.
Hunt Groups (Circular):		
6.	Repeat Steps 1 and 2.	Hunting starts at the extension after the last extension rung in the group. System will ring first idle extension in the hunt group; if no idle extension is found, busy tone is returned.

CHART 2-3
BROKER'S CALL

Step	Action	Verification
Extension in conversation wishes a private alternative conversation after flashing switchhook:		
1.	Flash switchhook.	Transfer dial tone returned.
2.	Extension dials number of third party.	Third party phone rings.
3.	Third party answers.	Extension and third party may now converse in private.
4.	Extension flashes switchhook.	Extension returns to original (1st) party.
5.	Third party is on hold. Extension may alternate between conversations by flashing switchhook.	The three parties CANNOT be joined together in one conversation.

**CHART 2-4
CALL HOLD**

Step	Action	Verification
To set up a Call Hold:		
1.	Extension in conversation wishes to put call on hold, flashes switchhook.	No tones or sound heard by extension on hold unless Music on Hold is provided. Flashing extension receives transfer dial tone.
2.	Extension dials Call Hold code.	Dial tone returned.
3.	Extension replaces handset.	Extension is now free to make or receive calls.
To retrieve the call at the original extension:		
4.	Extension lifts handset.	Dial tone returned.
5.	Extension dials Call Hold Local Retrieve code.	Extension connected to call on hold.
To retrieve a call at another extension:		
6.	Extension lifts handset.	Dial tone returned.
7.	Extension dials Call Hold Remote Retrieve code.	No tones or sound heard.
8.	Extension dials Call Holding extension's number.	Extension connected to call on hold.
To use Call Hold as a Broker feature:		
9.	Perform Steps 1, 2 and 3 under "To set up a Call Hold".	
10.	Extension lifts handset.	Dial tone returned.
11.	Extension dials third party.	Ringback tone heard; third extension's phone is ringing.
12.	Third party answers.	Conversation takes place.
13.	Extension flashes switchhook.	Transfer dial tone is returned.
14.	Extension dials Call Hold code.	Third party is placed on hold, second party is retrieved.

CHART 2-4 (CONT'D)
CALL HOLD

Step	Action	Verification
15.	Controlling extension may repeat Steps 13 and 14 as often as required.	Each repetition exchanges the party on hold with the one in the conversation.
To join all three parties into one conversation:		
16.	Extension flashes switchhook on second extension.	Transfer dial tone returned.
17.	Extension dials Call Hold Retrieve code.	Extension connected to third party.
18.	Extension flashes switchhook.	Three parties in conversation.

Note: A conference CANNOT be put on Call Hold.

**CHART 2-5
CALL FORWARDING - BUSY**

Step	Action	Verification
To set up Call Forwarding - Busy:		
1.	Forwarding extension lifts handset.	Dial tone returned.
2.	Extension dials Call Forwarding - Busy code, and number of extension to which calls are to be forwarded (calls may also be forwarded to the Supervisor).	Dial tone returned; forwarding successful.
3.	Extension replaces handset.	
To test Call Forwarding - Busy:		
4.	At extension in Steps 1-3 lift handset.	Dial tone returned.
5.	At an alternate extension lift the handset.	Dial tone returned.
6.	Dial extension with Call Forwarding - Busy in effect.	Ringback tone returned; extension that was forwarded to, rings.
7.	Replace handset.	
To cancel a Call Forwarding - Busy:		
8.	Extension lifts handset.	Dial tone returned.
9.	Extension dials Call Forwarding - Busy code.	No tones or sound heard.
10.	Extension replaces handset.	Cancellation complete.
To test cancellation:		
11.	Repeat Step 4.	Busy tone returned.
12.	Replace handset.	

**CHART 2-6
CALL FORWARDING - DON'T ANSWER**

Step	Action	Verification
To set up Call Forwarding - Don't Answer:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Call Forwarding - Don't Answer code and number of extension to which calls are to be forwarded (calls may also be forwarded to the Supervisor).	Dial tone returned; forwarding successful.
3.	Extension replaces handset.	
To test Call Forwarding - Don't Answer:		
4.	At an alternate extension lift the handset.	Dial tone returned.
5.	Dial extension with Call Forwarding - Don't Answer in effect.	Ringback tone returned. Do not answer the call after a time-out. The call will be transferred to the extension selected in 2.
6.	Replace handset.	
To cancel Call Forwarding - Don't Answer:		
7.	Extension lifts handset.	Dial tone returned.
8.	Extension dials Call Forwarding - Don't Answer code.	No tones or sound heard.
9.	Extension replaces handset.	Cancellation complete.
To test cancellation:		
10.	Repeat Steps 4 and 5.	Extension dialed rings normally.
11.	Replace handset.	

**CHART 2-7
CALL FORWARDING - FOLLOW ME**

Step	Action	Verification
To set up Call Forwarding - Follow Me:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Call Forwarding - Follow Me code and number of extension to which calls are to be forwarded (calls may also be forwarded to the Supervisor).	Dial tone returned; forwarding successful.
3.	Extension replaces handset.	
To test Call Forwarding - Follow Me:		
4.	At an alternate extension lift the handset.	Dial tone returned.
5.	Dial the extension with Call Forwarding - Follow Me in effect.	Ringback tone returned; extension that was forwarded to, rings.
6.	Replace handset.	
To cancel Call Forwarding - Follow Me:		
7.	Originating extension lifts handset.	Dial tone returned.
8.	Originating extension dials Call Forwarding - Follow Me code.	No tones or sound heard.
9.	Extension replaces handset.	Cancellation complete.

**CHART 2-8
OVERRIDE**

Step	Action	Verification
1.	Establish a 2-party call.	Talking connection.
2.	Extension lifts handset.	Busy tone returned.
3.	Dial busy extension.	Busy tone returned.
4.	Calling extension dials Override code.	Parties in conversation hear a 1 second warning tone unless the COS of one or more of them prevents being overridden. After beep, calling extension is in conversation. All extensions will hear a short warning tone every 6 seconds.

**CHART 2-9
DIAL CALL PICKUP**

Step	Action	Verification
Any extension in the Pickup Group is ringing:		
1.	Idle extension lifts handset.	Dial tone returned.
2.	Extension dials Dial Call Pickup code.	Extension is connected to calling party.

**CHART 2-10
CAMP-ON**

Step	Action	Verification
1.	Establish a 2-party call.	
2.	Extension lifts handset.	Dial tone returned.
3.	Dial busy extension.	Busy tone returned.
4.	Calling extension remains off-hook for more than 10 seconds.	a) Calling extension (after 10 seconds) receives a change in busy tone. b) The dialed extension receives a short warning tone.
5.	Busy extensions hang up.	Dialed extension is rung.

**CHART 2-11
AUTOMATIC CALLBACK - BUSY**

Step	Action	Verification
1.	Extension lifts handset.	Dial tone returned.
2.	Dial busy extension.	Busy tone returned.
3.	Calling extension dials Automatic Callback - Busy code.	Dial tone returned.
4.	Calling extension replaces handset.	
5.	Called extension replaces handset.	a) Calling extension rings. b) Called extension rings when calling extension answers. c) Calling extension hears ringback tone. d) Two-way conversation.

**CHART 2-12
DO NOT DISTURB**

Step	Action	Verification
Extension sets up Do Not Disturb:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Do Not Disturb code followed by 1.	Dial tone returned.
3.	Extension replaces handset.	
4.	Extension is not called while in the Do Not Disturb mode.	A calling extension receives reorder tone or Supervisor intercept.
Extension cancels Do Not Disturb:		
5.	Extension lifts handset.	Dial tone returned.
6.	Extension dials Do Not Disturb code followed by 2.	No tone or sound; Do Not Disturb is canceled.
7.	Extension replaces handset.	Calling extensions can ring the original extension.

**CHART 2-13
CALL PARK/PICKUP**

Step	Action	Verification
To park an established call:		
1.	Flash switchhook.	Transfer dial tone returned.
2.	Extension dials Call Park code.	Dial tone returned to parking extension. No tones or sound heard unless music provided to parked extension.
3.	Extension replaces handset.	
To pick up a parked call from the parking extension:		
4.	Extension lifts handset.	Extension connected to parked call.
To pick up a parked call using an alternate extension:		
5.	Lift handset of alternate extension.	Dial tone returned.
6.	Alternate extension dials Call Park/Directed Call Pickup code and number of parking extension.	Alternate extension connected to parked call.

**CHART 2-14
PAGING**

Step	Action	Verification
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Paging zone code.	Extension receives a short warning tone. Extension may now page.
3.	Extension replaces handset.	

Repeat for each of the three codes if assigned.

**CHART 2-15
TRUNK ANSWER FROM ANY STATION**

Step	Action	Verification
To answer a TAFAS call:		
1.	Extension user hears Night Bell.	
2.	Extension lifts handset.	Dial tone returned.
3.	Extension dials TAFAS night code.	Extension is connected to trunk call.

**CHART 2-16
CONSULTATION HOLD/TRANSFER/ADD-ON**

Step	Action	Verification
CONSULTATION HOLD		
Established call:		
1.	Extension flashes switchhook.	a) Flashing extension receives transfer dial tone. b) Second extension in conversation is put on hold, and hears music if provided.
2.	Extension which flashed, dials third extension.	Third extension rings.
3.	Third extension answers.	Effecting extension and third extension are connected. Second extension remains on hold.
TRANSFER		
To idle extension:		
4.	Perform Steps 1 and 2 in Consultation Hold.	Third extension rings.
5.	Extension effecting transfer replaces handset.	Extension on hold receives ringing tone, and is connected to third extension when it is answered.
To busy extension:		
6.	Perform Steps 1 and 2 in Consultation Hold.	Third extension busy, effecting extension receives busy tone.
7.	Extension effecting transfer replaces handset.	Extension on hold receives busy tone and is camped-on to busy line after 10 seconds.
During consultation:		
8.	Perform Steps 1 to 3 in Consultation Hold.	Effecting extension and third extension converse.
9.	Effecting extension hangs up.	Extension on hold and third extension are connected.

**CHART 2-16 (CONT'D)
CONSULTATION HOLD/TRANSFER/ADD-ON**

Step	Action	Verification
ADD-ON		
10.	Perform Steps 1 to 3 in Consultation Hold.	Effecting extension and third extension connected. Second extension remains on hold.
11.	Effecting extension flashes switchhook.	All three extensions connected.
After 3-way consultation:		
12.	Perform Steps 1 to 3 in Consultation Hold.	Effecting extension and third extension converse.
13.	Effecting extension flashes switchhook.	All extensions connected.
14.	Effecting extension replaces handset.	Remaining extensions remain connected.

**CHART 2-17
AUTOMATIC WAKE-UP (ALARM CALL)**

Step	Action	Verification
Extension sets Automatic Wake-Up (Alarm Call):		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Automatic Wake-Up access code and Wake-Up time as a 4-digit number (24-hour clock).	Dial tone returned.
3.	Extension replaces handset.	
4.	At selected time:	Extension receives 6 rings every 5 minutes for a total of three attempts. a) Extension receives no tone or receives Music on Hold if provided.
Extension cancels Automatic Wake-Up (Alarm Call):		
5.	Extension lifts handset.	Dial tone returned.
6.	Extension dials Automatic Wake-Up access code and 9999.	Dial tone returned.
7.	Extension replaces handset.	

**CHART 2-18
MEET-ME CONFERENCE**

Step	Action	Verification
To set up a Meet-Me Conference:		
1.	At at prearranged time, dial Meet-Me Conference access code from up to seven extensions.	First extension on hold. First extension hears warning tone as second extension is connected. Extensions in conference hear warning tone as succeeding extensions are connected.

**CHART 2-19
AUTOMATIC CALLBACK - DON'T ANSWER**

Step	Action	Verification
To set up Automatic Callback - Don't Answer:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials destination.	Destination extension rings.
3.	Extension receives no answer, flashes switchhook.	Dial tone returned.
4.	Extension dials Automatic Callback - Don't Answer code and number of extension called.	Dial tone returned.
5.	Extension replaces handset.	
6.	Called extension uses extension.	Extension goes busy for duration of call.
7.	Called extension replaces handset.	Calling extension rings.
8.	Calling extension lifts handset.	Called extension rings; calling extension hears ringback tone.
9.	Called extension answers.	Conversation takes place.

**CHART 2-20
DIRECTED CALL PICKUP**

Step	Action	Verification
Any extension is ringing:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Directed Call Pickup code, and the number of the extension being rung.	Extension is connected to call.

**CHART 2-21
STATION CONFERENCE**

Step	Action	Verification
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials first conferee extension for Station Conference.	Called party extension rings.
3.	Called extension answers. Calling extension informs of conference, flashes switchhook and dials second conferee extension.	a) Calling extension and called extension connected. b) Called extension goes on hold. Calling extension receives transfer dial tone. c) Second conferee extension rings.
4.	Second conferee answers.	
5.	Calling extension flashes switchhook.	All extensions connected.
6.	Any extension may add up to a total of seven extensions to the Station Conference by repeating Steps 3(b) & 3(c).	

**CHART 2-22
SPEED CALL**

Step	Action	Verification
Extension programs a Speed Call:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Speed Call access code.	
3.	Extension dials 0.	
4.	Extension dials Speed Call Entry access code.	
5.	Extension dials Trunk Group access code or ARS code.	See Note.
6.	Extension dials digits to be used as Speed Call Number.	See Note.
7.	Extension replaces handset.	
To verify programmed number:		
8.	Extension dials Speed Call access code.	
9.	Extension dials Entry Access Number and manual digits if required.	If the call is successful, ringback tone will be returned from the CO and the correct number will be rung.

Note: *1 for 5 second pause, *2 for Wait for Dial Tone, or *3nn for user-dialed digits may be entered at any time.

**CHART 2-23
 SAVED NUMBER REDIAL**

Step	Action	Verification
Extension programs a last number redial:		
1.	After completion of dialing an outside number, the extension has 10 seconds to dial an *. This will store the dialed number in the last number redial.	
To use Saved Number Redial:		
2.	Extension goes off-hook.	Dial tone returned.
3.	Extension dials Speed Call Feature access code.	
4.	Extension dials Entry Access Number for saved number redial.	Saved number dialed rings.

CHART 2-24
EXTERNAL CALL FORWARDING

Step	Action	Verification
Extension wishes to transfer all calls to an external number:		
1.	Repeat Steps 1-7 of Chart 2-22. (Note: It is possible to use manual digit insertion.)	
2.	Extension lifts handset.	Dial tone returned.
3.	Extension dials the External Call Forwarding access code.	No tone returned.
4.	Extension dials Speed Call access code and Speed Call Entry access code from Step 1.	Dial tone returned.
To verify External Call Forwarding:		
5.	From an alternate extension dial the External Call Forwarded extension.	If the External Call Forwarding is successful, the external number will be rung.

**CHART 2-25
CALL FORWARDING BUSY/DON'T ANSWER**

Step	Action	Verification
Extension wishes to have Call Forwarding Busy/Don't Answer active at the same time:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Call Forwarding Busy/Don't Answer code.	No tones returned.
3.	Extension dials extension number, calls are to be forwarded to.	Dial tone returned; all calls will be forwarded.
To test Call Forwarding Busy/Don't Answer:		
4.	Repeat Steps 4, 5 and 6 of Chart 2-5, and Steps 4 and 5 of Chart 2-6.	

**CHART 2-26
HANDS-FREE**

Step	Action	Verification
Extension wishes to place itself in a Hands-Free state:		
1.	Extension lifts handset.	Dial tone returned.
2.	Extension dials Hands-Free access code or remains off-hook for 15 seconds.	No tone returned; extension now in Hands-Free state.
3.	To remove extension from Hands-Free state, return handset to on-hook position.	Extension will be rung normally.

**CHART 2-27
TRANSFER WITH PRIVACY**

Step	Action	Verification
An extension wishes to consult with two parties privately, with the option of connecting them both together by going on-hook:		
1.	Extension is conversing with first party.	Normal conversation.
2.	Extension flashes the switchhook.	Dial tone returned.
3.	Extension dials new extension number.	Ringback tone returned, and extension converses privately when call is answered.
4.	Extension flashes switchhook and returns to original party. Extension may alternate between parties privately by flashing the switchhook.	Private conversation between original party and extension.
5.	Extension returns the handset to the on-hook position.	Both parties may now converse.

**CHART 2-28
REPEATED CAMP-ON**

Step	Action	Verification
<p>By enabling the appropriate COS and System Option, an extension or trunk will remain camped-on to an extension and have the camp-on warning tones repeated (programmable - every 5, 10 or 15 seconds).</p>		
1.	Establish a 2-party call.	
2.	Alternate extension lifts handset.	Dial tone returned.
3.	Dial extension in 2-party call.	Busy tone returned.
4.	Calling extension remains off-hook for more than 10 seconds.	a) Calling extension (after 10 seconds) receives a change in busy tone. b) The dialed extension receives a short warning tone.
5.	Calling extension remains off-hook.	The dialed extension continues to receive warning tones (every 5, 10 or 15 seconds as programmed).
6.	Dialed extension hangs up.	The dialed extension is rung; dialing extension receives ringback tone. Answer call; ensure 2-party call.

APPENDIX 1

SUPERSET 4 TEST PROCEDURES

A1. GENERAL

A1.01 This Appendix describes the test procedures for the SUPERSET 4. These procedures should be performed as operational tests upon installation of a SUPERSET 4, after the initial system installation. Refer to the appropriate MITEL practices Table A1.1-1 for system installation instructions and Feature descriptions.

A1.02 This Appendix has been issued to incorporate all information required to check out a SUPERSET 4 after installation.

A2. TEST AND OPERATIONAL PROCEDURES

GENERAL

A2.01 Satisfactory completion of the test procedures confirms correct key operation, liquid-crystal display activation, hookswitch functioning, and speaker output, and checks that the set has been installed correctly.

A2.02 When a SUPERSET 4 has power applied to it (i.e., is just connected to an operating system) or the system has just been powered-up, SUPERSET 4 is displayed for approximately 1 minute. Then the display clears to time and date.

A2.03 If any test fails, verify that the system is installed correctly and is powered-up.

A2.04 Perform the tests listed in Table A1.2-1 at each SUPERSET 4.

**TABLE A1.1-1
RELATED MITEL PRACTICES**

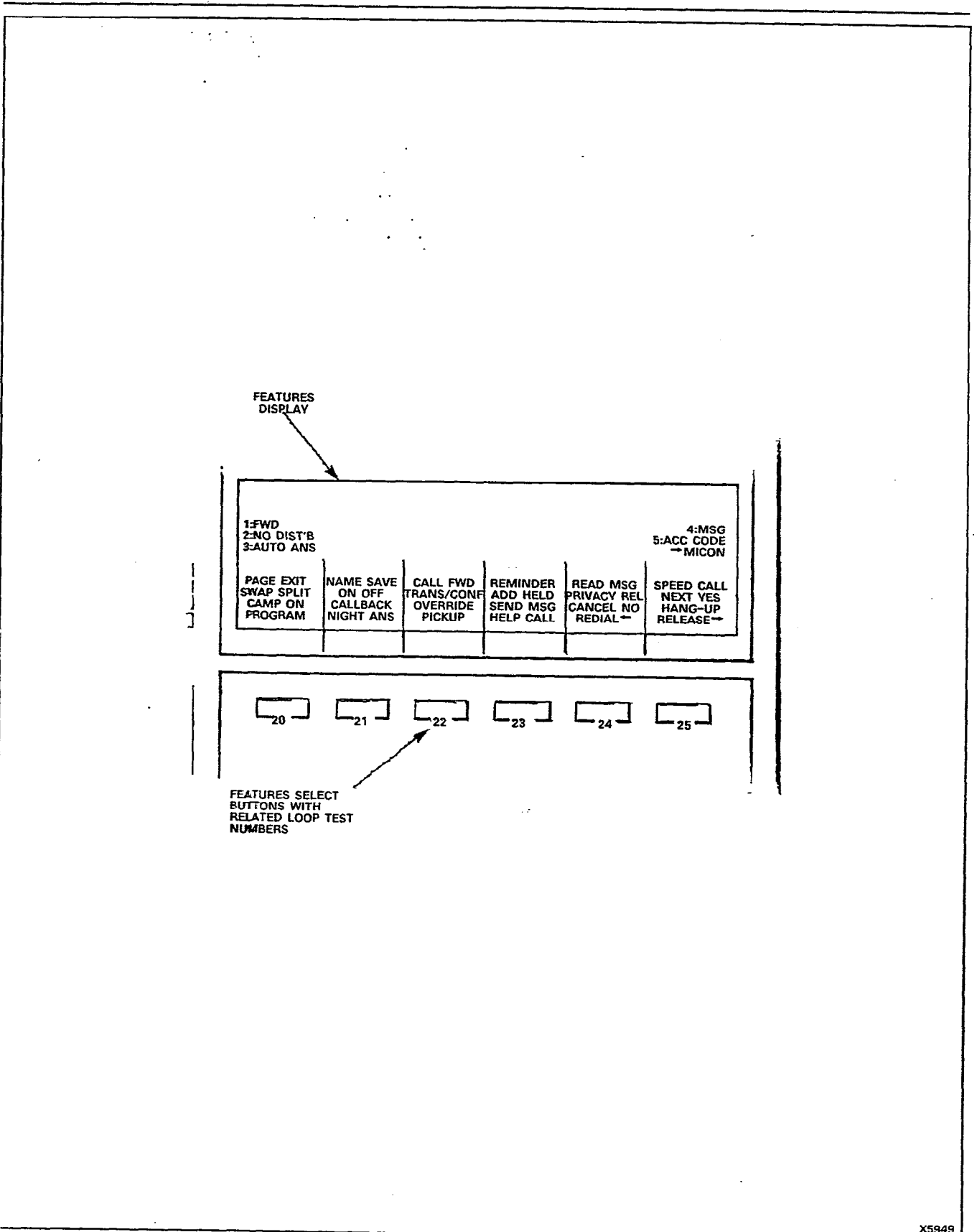
SECTION NO.	TITLE
MITL9105/9110-096-100-NA	General Description
MITL9105/9110-096-107-NA	SUPERSET 4 Features and Services Description
MITL9105/9110-096-200-NA	Shipping, Receiving, and Installation Instructions

**TABLE A1.2-1
INSTALLER LOOP TEST ROUTINES**

Step	Action	Verification	Notes																										
Accessing Test Routines																													
1.	Go off-hook (handset or hands-free)	<ul style="list-style-type: none"> - Dial tone returned. - Line status display indicates line busy at this set. 	1																										
2.	Dial Loop Test Access Code	<ul style="list-style-type: none"> - "TEST! PRESS KEYS" displayed. 	2, 3																										
Keypad Test																													
3.	Press keys 1-9, *, 0, and # in turn	<ul style="list-style-type: none"> - DTMF tones are heard through handset or speaker. - a 2-digit number is displayed, as follows: <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Key Pressed</th> <th style="text-align: center;">Number Displayed</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">1</td><td style="text-align: center;">01</td></tr> <tr><td style="text-align: center;">2</td><td style="text-align: center;">02</td></tr> <tr><td style="text-align: center;">3</td><td style="text-align: center;">03</td></tr> <tr><td style="text-align: center;">4</td><td style="text-align: center;">04</td></tr> <tr><td style="text-align: center;">5</td><td style="text-align: center;">05</td></tr> <tr><td style="text-align: center;">6</td><td style="text-align: center;">06</td></tr> <tr><td style="text-align: center;">7</td><td style="text-align: center;">07</td></tr> <tr><td style="text-align: center;">8</td><td style="text-align: center;">08</td></tr> <tr><td style="text-align: center;">9</td><td style="text-align: center;">09</td></tr> <tr><td style="text-align: center;">*</td><td style="text-align: center;">10</td></tr> <tr><td style="text-align: center;">0</td><td style="text-align: center;">00</td></tr> <tr><td style="text-align: center;">#</td><td style="text-align: center;">11</td></tr> </tbody> </table>	Key Pressed	Number Displayed	1	01	2	02	3	03	4	04	5	05	6	06	7	07	8	08	9	09	*	10	0	00	#	11	
Key Pressed	Number Displayed																												
1	01																												
2	02																												
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8	08																												
9	09																												
*	10																												
0	00																												
#	11																												
Supplementary Feature Buttons Test																													
4.	Press the "display", "display features", "speaker on/off", and "mic. on/off" buttons in turn.	<p>A 2-digit number is displayed as follows:</p> <table border="0" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th style="text-align: center;">Button Pressed</th> <th style="text-align: center;">Number Displayed</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">display</td><td style="text-align: center;">12</td></tr> <tr><td style="text-align: center;">features</td><td style="text-align: center;">13</td></tr> <tr><td style="text-align: center;">speaker on/off</td><td style="text-align: center;">14</td></tr> <tr><td style="text-align: center;">mic. on/off</td><td style="text-align: center;">15</td></tr> </tbody> </table>	Button Pressed	Number Displayed	display	12	features	13	speaker on/off	14	mic. on/off	15	<p>4 5 6</p>																
Button Pressed	Number Displayed																												
display	12																												
features	13																												
speaker on/off	14																												
mic. on/off	15																												

**TABLE A1.2-1 (CONT'D)
INSTALLER LOOP TEST ROUTINES**

Step	Action	Verification	Notes
Feature Select Buttons and Features Display Test			
5.	Press each of the feature select (unmarked) buttons in turn.	The prompts above each button are activated, and a 2-digit number is displayed. See Figure A1-1.	7
6.	Press the display features button.	Supplementary feature names are activated (see Figure A1-1).	8
Line Select Buttons, Hold Button, Line Status Display, and Tone Ringer Test			
7.	Press the red hold button and each line select button in turn	<ul style="list-style-type: none"> - The line status display next to each button (except hold) is activated to indicate an incoming call (alternating square/circle format). - A 2-digit number is displayed, as follows: <ul style="list-style-type: none"> hold button = 30 to upper line select button = 45 - The tone-ringer sounds when the upper line select button is pressed. 	
Hookswitch Test			
8(a)	If the tests are run with the handset on-hook, lift the handset.	"HANDSET UP" displayed	
(b)	Press the "speaker on/off" button, and replace the handset.	Number 14 displayed, then "HANDSET DOWN" displayed.	
9(a)	If the tests are run with the handset off hook, replace handset.	"HANDSET DOWN" displayed.	
(b)	Lift handset.	"HANDSET UP" displayed.	



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Figure A1-1 Feature Select Buttons and Features Display Test

**TABLE A1.2-1 (CONT'D)
INSTALLER LOOP TEST ROUTINES**

Step	Action	Verification	Notes
Terminating Test Routines			
10.	If the tests are run with the handset on-hook, press the "speaker on/off" button, or if the tests are run with the handset off-hook, replace the handset.	Set becomes idle; time and date are displayed.	

Notes:

1. If test is run in hands-free mode, "MIC ON" is displayed.
2. Access code is found in the relevant switch practice.
3. All prompts and line status displays are cleared. "MIC ON" remains if test is run in hands-free mode.
4. Supplementary feature names are also displayed.
5. Do not press this button if test is run in hands-free mode, as it will cause the test to be terminated.
6. If test is run in hands-free mode, "MIC ON" prompt is turned on or off each time this button is pressed.
7. Prompts remain displayed after button is released to allow error patterns to be detected.
8. Supplementary feature names remain displayed until another button is pressed.

APPENDIX 2

SUPERSET 3 TEST PROCEDURES

A2.1 GENERAL

- A2.1.01 This Appendix describes the test procedures for the SUPERSET 3. These procedures should be performed as operational tests upon installation of a SUPERSET 3, after the initial system installation. Refer to the appropriate MITEL practices Table A2.1-1 for system installation instructions and Feature descriptions.

Reason for Issue

- A2.1.02 This Appendix has been issued to incorporate all information required to check out a SUPERSET 3 after installation.

A2.2 TEST AND OPERATIONAL PROCEDURES

General

- A2.2.01 Satisfactory completion of the test procedures confirms that the set has been installed correctly.
- A2.2.02 When a SUPERSET 3 has power applied to it (i.e., is just connected to an operation system) or the system has just been powered-up, the test outlined in Table A2.2-1 is automatically performed.
- A2.2.03 If any test fails, verify that the system is installed correctly and is powered-up.

**TABLE A2.1-1
RELATED MITEL PRACTICES**

Section No.	Title
MITL9105/9110-096-100-NA	General Description
MITL9105/9110-096-107-NA	SUPERSET 3 Features and Services Description
MITL9105/9110-096-200-NA	Shipping, Receiving, and Installation Instructions

TABLE A2.2-1

Test	LED			Timing
	1	2	3	
1	ON	ON	ON	1 second all on
2	FLASHING	OFF	OFF	10-15 seconds
3	OFF	OFF	OFF	if set is on hook
OR	ON	OFF	OFF	if set is off hook 10 to 15 seconds

Note: If all LEDs turn on steady for more than a few seconds there is an error. Check wiring then try a known good spare.