

DEPARTMENT OF THE ARMY
TECHNICAL MANUAL
DEPARTMENT OF THE NAVY
PUBLICATION
DEPARTMENT OF THE AIR FORCE
TECHNICAL ORDER

TM 11-5895-581-15
NAVSHIPS 1967-324-0120
TO 31W1-4-194-1

OPERATOR, ORGANIZATIONAL DS, GS
AND DEPOT MAINTENANCE MANUAL
INCLUDING REPAIR PARTS AND
SPECIAL TOOLS LISTS

COORDINATION
SIMULATOR
AN/FYM-26

This copy is a reprint which includes current
pages from Changes 1 through 3.

DEPARTMENTS OF THE ARMY, THE NAVY, AND THE AIR FORCE
JUNE, 1969

TM 11-5895-581-15/NAVSHIPS 0967-324-0120/TO 31W1 194-1

WARNING!

DANGEROUS VOLTAGES EXIST IN THIS EQUIPMENT

Be careful when working within the enclosure of this equipment. Serious injury or death may result from contact with high voltage terminals.

DON'T TAKE CHANCES

Change }
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DEPARTMENTS OF THE ARMY
THE NAVY, AND THE AIR FORCE
Washington, DC, 15 March 1978

**Operator's, Organizational, Direct Support,
General Support, and Depot Maintenance Manual
Including Repair Parts and Special Tools List
COORDINATION SIMULATOR AN/FYM-26**

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Units org under fol TOE: (1)
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29-134
29-136

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USAR: None

For explanation of abbreviations used see, AR 310-50

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**Operator's, Organizational, DS, GS,
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 COORDINATION SIMULATOR AN/FYM-26**

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**Operator's, Organizational, DS, GS,
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Including Repair Parts and Special Tools List
COORDINATION SIMULATOR AN/FYM-26**

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TECHNICAL MANUAL
 No. 11-5895-581-15
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 No. 31W1-4-194-1

DEPARTMENTS OF THE ARMY,
 THE NAVY, AND THE AIR FORCE

WASHINGTON, DC, 30 June 1969

**OPERATOR, ORGANIZATIONAL, DS, GS, AND DEPOT
 MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOL LISTS
 COORDINATION SIMULATOR AN/FYM-26**

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CHAPTER 1

INTRODUCTION
Section I. GENERAL

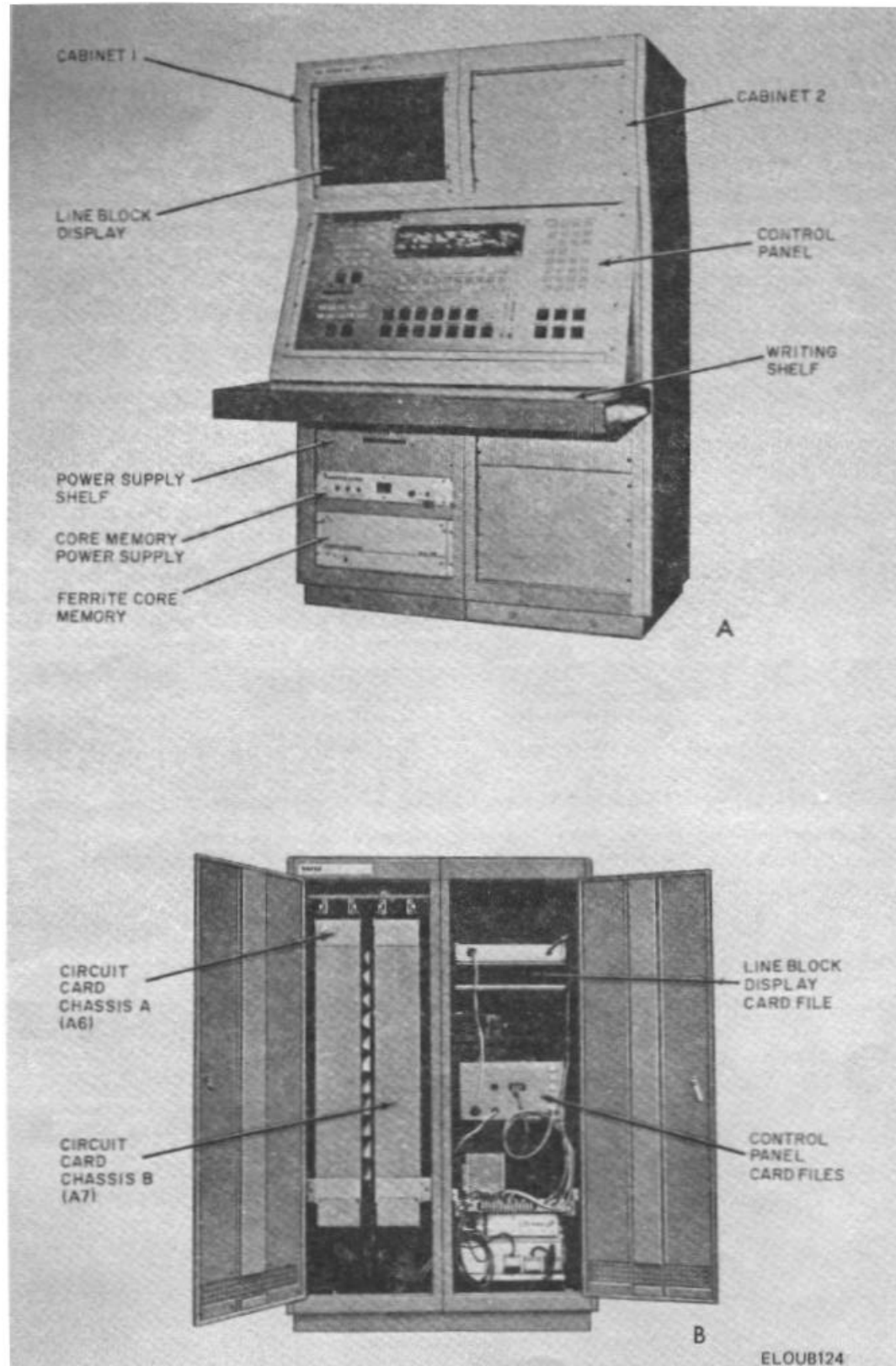


Figure 1-1. Coordinator simulator AN/FYM-26.

1-1. Scope

This manual describes Coordination Simulator AN/FYM-26 (fig. 1-1) and provides instruction for the installation, operation, and maintenance of the equipment.

1-2. Indexes of Publications

- a. *DA Pam 310-4.* Refer to the latest issue of DA Pam 310-4 to determine whether there are new editions, changes, or additional publications pertaining to the equipment.
- b. *DA Pam 310-7.* Refer to DA Pam 310-7 to determine whether there are modification work orders (MWO's) pertaining to the equipment.

1-3. Forms and Records

- a. Reports of Maintenance and Unsatisfactory Equipment. Maintenance forms, records, and reports which are to be used by maintenance personnel at all maintenance levels are listed in and prescribed by TM 38-750 (Army). Air Force personnel will use AFM 66-1 for maintenance reporting and TO-00-35D54 for unsatisfactory equipment reporting. Navy personnel will report maintenance performed utilizing the Maintenance Data Collection Subsystem (MDCS) IAW OPNAVINST 4790.2, Vol 3 and unsatisfactory material conditions (U R submissions) I A W OPNAVINST 4790.2, Vol 2, chapter 17.
- b. Report of Packaging and Handling Deficiencies. Fill out and forward DD Form 6 (Packaging Improvement Report) as prescribed in AR 70058 / NAVSUPINST 4030.29 / AFR 71-13 / MCO P4030.29A, and DSAR 4145.8.
- c. Discrepancy in Shipment Report (DISREP) (SF 361). Fill out and forward Discrepancy in Shipment Report (DISREP) (SF 361) as prescribed in AR 55-38/NAVSUPINST 4610.33A/ AFR. 75-18/MCO P4610.19B and DSAR 4500.15.

1-3.1. Reporting of Errors

The reporting of errors, omissions, and recommendations for improving this publication by the individual user is encouraged. Reports should be submitted on DA Form 2028 (Recommended Changes to Publications and Blank Forms), and forwarded direct to Commander, US Army Electronics Command, ATTN: DRSEL-MA-Q, Fort Monmouth, NJ 07703 (Army); USAFLC Form 252 (Request for TO Revision or Change) and forward direct to prime ALC/MST (Air Force); or forward to: Commander, Naval Electronics Systems Command, Code 4903, Washington, D.C. 20360 (Navy).

1-3.2. Administrative Storage

For procedures, forms, and records, and inspections required during administrative storage of this equipment, refer to TM 740-90-1.

1-3.3. Destruction of Electronic Materiel

Demolition and destruction of electronic equipment will be under the direction of the commander and in accordance with TM 750-244-2.

Section II. DESCRIPTION AND DATA

1-4. Purpose and Use

a. Coordination Simulator AN/FYM-26 provides a means for manual or automatic testing of synchronous and asynchronous digital transmission within the DCA Global Automatic Digital Network (AUTODIN) system. Coordination Simulator AN/FYM-26 is capable of testing the AUTODIN system in any of the following modes of operation: mode I III ASCII, mode VITA #2, or mode V ASCII. To facilitate testing, the equipment includes facilities for the display of messages, data blocks, control sequences, and received errors in all modes of operation. It also includes facilities for transmitting and receiving messages, data blocks, and control sequences. Provision is made for the operator to simulate various error conditions.

b. This paragraph describes the function of each of the following in relation to the simulator.

- (1) *Character reader.* When patched to the send or receive side of a line under test, the character reader monitors

are characters. The character reader lights lamps on the control panel to indicate the presence of specific control characters, framing characters, and correct parity in either control or data characters.

(2) *Block reader.* When patched to the send or receive side of a line under test, the block reader performs all the functions of the character reader and checks block and message format.

The block reader also controls the display of any selected block on the line block display panel.

(3) *Block generator.* The block generator provides a means of transmitting characters, in either block-by-block or continuous format, over the send side of the line under test. Transmission may be either manual or automatic. In the automatic mode, the block reader must be patched to the receive side of the line to detect control characters from the distant end and direct the block generator to respond correctly. Either the core memory or the patch panel provides the source of characters for transmission.

(4) *Core memory.* The core memory, when loaded from the Teletype Set AN FGC-133, provides a source of characters or blocks for transmission. The core memory also provides storage for messages received over the line under test. Messages received may then be printed out on Teletype Set AN FGC-133. It is also possible to retransmit a received message, so that the message received from the distant end is sent back to the distant end.

c. Common names have been assigned as follows: Simulator for the Coordination Simulator AN FYM-26 and ASR Set for the Teletype Set AN FGC-133.

1-5. Technical Characteristics

Modes of operation	Manual, automatic
Types of transmission	Synchronous, asynchronous
Types of codes	Mode I III ASCII (synch), mode V ASCII (asynch), mode V ITA #2.
Power requirements	105 to 125 vac at 47 to 420 Hz.
Modulation rates	45.45, 50.0, 74.2, 75, 150, 300, 600, 1200, 2400, and 4800 bauds.
Input logic levels	Logic 0 = + 6 volt; logic 1 = -- 6 vdc
Output logic levels	Logic 0 - 6 volt; logic 1 = + 6 vdc
Storage capacity	160C 8-bit characters

1-6. List of Components

a. Components.

Quantity	Item	Dimensions (inch)			Unit Weight (lb)	Figure No
		Height	Width	Depth		
1	Coordination Simulator	69 7/8	46	45	1425	1-1
1 set	Running spares-					

b. Running Spares.

Quantity	Item
1	Semiconductor device, diode, 1N1343
1	Semiconductor device, diode, 1N3000B
2	Transistor, 2N1548
1	Transistor, 2N3448
2	Transistor, 2N3238
1	Transistor, 241485
1	Transistor, 2N3442
2	Transistor, 2N3234
20	Diode plug, Coord part No. A63009-48
	Lamp, incandescent, Dialco part No. 39-6-1475
	Lamp, incandescent, type 345
	Lamp, incandescent, type 330

1-6.1. Items Comprising an Operable Coordination Simulator AN / FYM-26

FSN	QTY	Nomenclature part No. and mfr code	Fig. No.
NOTE			
The part number is followed by the applicable 5-digit Federal supply code for manufacturers (FSCM) identified in SB 708-42 and used to identify manufacturer, distributor, or Government agency, etc.			
7440-027-7216		Simulator, Coordination AN/ FYM-26, consisting of:	1-1
7440-027-7285		Simulator, Coordination SM 544/FYM-26, 12724, 65025	1-1
5815-891-4562		Teletypewriter Set AN/ FGC-133, M35, 59433	

1-7. Description of Simulator

a. The simulator consists of two 19-inch equipment cabinets. MP11 and MP12. The two cabinets are mounted side-by-side to form an integrated unit. This configuration allows control panel A2 and writing desk MP22 to be mounted across both cabinets midway from the floor. Control panel A2 provides the necessary controls and indicators for the operation of the simulator. These controls and indicators include alternate-action and momentary pushbutton switches and indicators, thumb heel switches, toggle switches, and diode pin matrix board A2PB1. All controls and indicators are grouped on a functional basis in order to facilitate use. In addition to the controls and indicators, a card file, associated with control panel A2, is mounted behind the panel in equipment cabinet MP12. The card file mounts three rows of 24 printed circuit cards each. Control panel A2 is hinged at the bottom to provide easy access for maintenance of the controls, indicators, and printed circuit cards.

b. Equipment cabinet MP12 also contains card files A6 and A7. The cards mounted in these files comprise the logic circuits of the character reader, block reader, block generator, master timing control, ASR interface, and memory control. Each card file provides 11 rows of up to 34 printed circuit cards each. The card files are mounted on overhead rollers, and slide out individually at the back of the cabinet to provide access to the printed circuit cards.

c. Equipment cabinet MP11 mounts line block display panel A1, directly above control panel A2. Line block display panel A1 consists of three rows of neon lamp cards, with 30 cards per row. The total of 90 cards provides a 90-character (one block) display. Each lamp card has eight neon lamp indicators vertically oriented to facilitate the binary interpretation of the characters displayed. Other line block display panel printed circuit cards are mounted in a card file behind the display panel. The card file mounts a maximum of 30 printed circuit cards, with access at the rear of the cabinet.

d. Mounted at the bottom of equipment cabinet MP11 is core memory unit AS. The unit is completely enclosed, and contains six vertically mounted printed circuit cards and a ferrite core array. Memory drive power supply A4 and memory logic power supply A8 are mounted directly above the core memory unit A5. Power supply shelf A3 is mounted between the core memory power supplies and the writing desk. The unit consists of a front panel, prodding circuit breakers for primary power control, and a separate slide-mounted shelf behind the panel. The shelf slides out to the rear of the cabinet to give access to the five separate power supplies mounted on the shelf. These supplies provide dc power to all circuits of the simulator except core memory unit A5.

1-8. Additional Equipment Required

The ASR set is required to load data into core memory from coded paper tape and to print out data received from core memory. Reference should be made to TM 11-5895-427-15 for additional information.

**CHAPTER 2
INSTALLATION**

Section I. SERVICE UPON RECEIPT OF EQUIPMENT

2-1. Placement of Equipment

The simulator has the following site and shelter requirements:

- a. The simulator is placed as close as possible to the area requiring its service.
- b. The shelter for the simulator must meet the following requirements:
 - (1) The simulator frame must be at least 30 inches from the nearest wall.
 - (2) Ceiling height for the equipment must be at least 7 feet.
- c. Adequate lighting for both day and night operation must be provided. Artificial lighting must be installed so that panel designations can be easily read.

2-2. Unpacking

a. **Packaging Data.** When packed for shipment, the units of the simulator are placed in cartons and packed in three wooden shipping boxes. The dimensions, volume, and contents of the shipping boxes are:

Box No.	Contents	Dimensions(in.)	Volume (cu. Ft)	Weight (lb)
1 of 3	Simulator frame.....	62 x 1/4 x 47 x 84 1/2	150.9	1240
2 of 3	Power supply shelf.....	30 1/2 x 25 x 16 1/2	7	162
3 of 3	Control panel.....	50 x 30 x 39 1/2	34	236

b. Removing Contents

- (1) Place the wooden packing case on its side, as close as possible to the installation area.
- (2) Cut the outer bands and remove mails with nailpuller.
- (3) As each case is opened, check the contents against the packing list.
- (4) As cases are emptied, remove all packing material from the building to avoid creating a fire hazard .
- (5) When unpacking the simulator frame:
 - (a) Disconnect the top cradle.

- (b) Remove chocking and polyfilm.
- (c) Open door, and remove two metal brackets and two 2- x 3-inch support boards.
- (6) When unpacking the power supply shelf:
 - (a) Remove 4 1/4-inch diameter mounting bolts.
 - (b) Lift unit off base and remove polyfilm.
- (7) When unpacking the control panel:
 - (a) Remove topcross securing 2- x 3-inch polyfoam boards.
 - (b) Lift control panel out of case and remove polyfilm.

2-3. Checking Unpacked Equipment

- a. Inspect the equipment for damage incurred during shipment. If the equipment has been damaged, report the damage on DD Form 6 (para 1-3).
- b. See that the equipment is complete as listed on the packing slip. If a packing slip is not available, check the equipment against paragraph 1-6.1. Report all discrepancies in accordance with TM 38-750. Shortage of a minor assembly or part that does not affect proper functioning of the equipment should not prevent use of the equipment.
- c. If the equipment has been used or reconditioned, see whether it has been changed by a modification work order (MWO). If the equipment has been modified, the MWO number will appear on the front panel near the nomenclature plate. If modified, see that any operational instruction changes resulting from the modification have been entered in the equipment manual.

NOTE

Current MWO's applicable to the equipment are listed in DA Pam 310-7.

2-4. Tools, Materials, and Test Equipment Required for Installation

- a. **Tools.** Tools required are listed below:
 - 1 each – Adjustable wrench, Crescent 10-inch.
 - 1 each – Screwdriver, Stanley 20
 - 1 each – Electric drill, 1/4-inch

- b. **Materials.** Materials required are listed below:
 - 8 each – Expansion anchors
 - 10 each --- 10-32 x 3/8 Phillips-head screws
 - 8 each – 10-32 x 1 1/2 roundhead screws
- c. **Test Equipment.** Test equipment required is listed below:
 - 1 each – Electronic counter, Hewlett-Packard 5223L; used to monitor output of oscillator card LO.
 - 1 each – AC/DC differential voltmeter, Fluke 803B; used to check outputs of all power supplies.

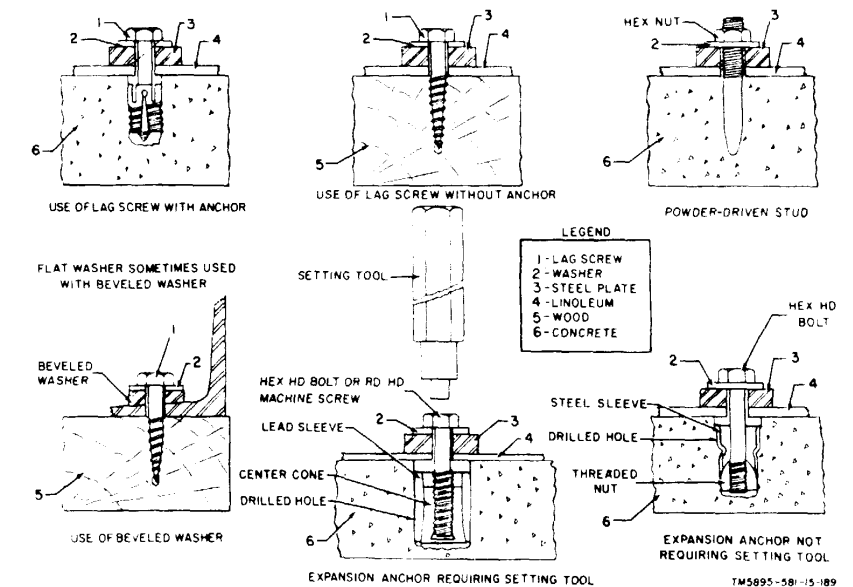


Figure 2-1. Types of floor fastening devices.

2-5. Installation of Simulator, General

Before installing the equipment, determine the floor material in order to choose the proper type of floor anchor (fig. 2-1). Only one flat washer is used under a bolt or screw head. A flat washer is used on top of the leveled washer to give greater bearing strength. The various fastening devices and where they are used are described in the following paragraphs.

a. Expansion Anchors. Expansion anchors are used to secure equipment to concrete or brick. Expansion anchors generally consist of a copper cone-shaped center encased in a thick lead sleeve. The copper center is drilled and tapped for machine screws. The size of the anchor depends on the size of the machine screw required for fastening the particular piece of equipment. However, the length of the machine screw should not exceed the length of the anchor plus the thickness of the mounting device of the equipment. Machine screws which are longer will destroy the expansion anchor setting when the screws are tightened. Expansion anchors require the use of setting tools to insure a firm setting in the brick or concrete. When drilling a hole for an expansion anchor in concrete, the depth of the hole should exceed the length of the anchor by not more than 1/4 inch. The expansion anchor is placed in the hole with the large end of the cone inserted first.

b. Expansion Shields. Expansion shields are used in the same manner and serve the same purpose as expansion anchors. They are used with machine bolts, screws, or lag screws. One feature of expansion shields is that they do not permit the fastening bolt or screw to pull the nut in the shield past the point of maximum expansion. To avoid ripping the shield or stripping the bolt, care should be taken not to put too much strain on this type of fastening device.

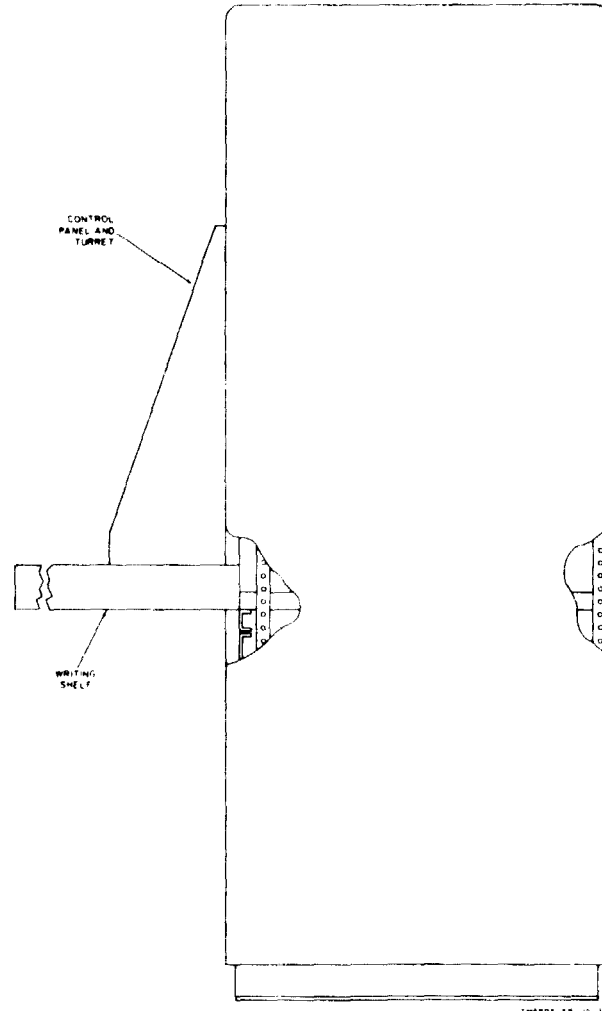


Figure 2-2. Writing desk and control panel installation.

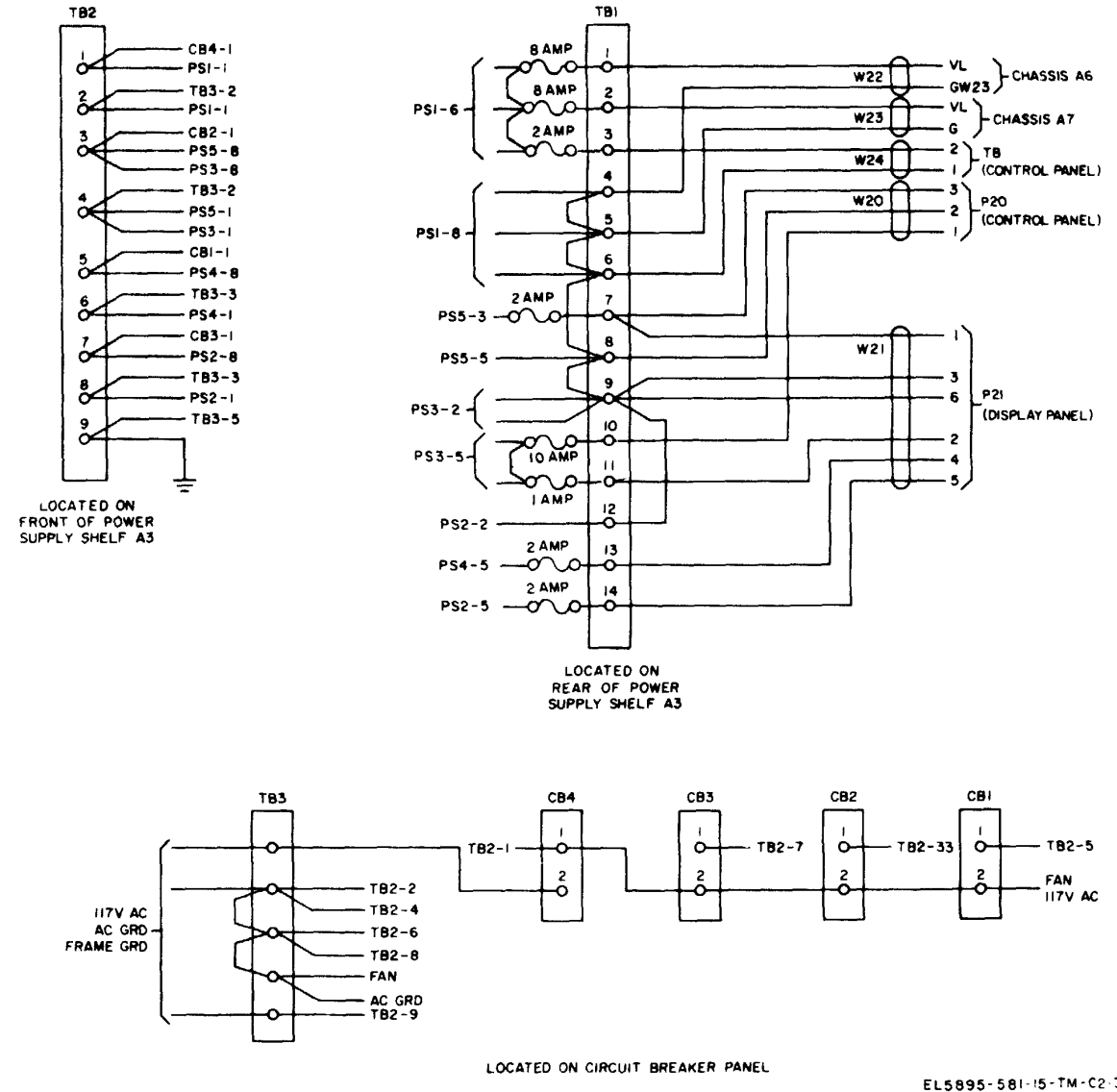


Figure 2-3. Power supply shelf A3 connections.

c. Lag and Wood Screws. Lag and wood screws are used to fasten equipment to wood. A pilot hole is drilled in the wood before inserting a lag or wood screw. The diameter of the pilot hole should be half the diameter of the threaded portion of the screw. The depth should be approximately equal to the length of the screw.

d. Powder-Driven Studs. If powder-driven studs are available, they may, under certain conditions, be used in place of the fastening devices described previously. These studs provide rigid connections. Since they do not require the pre-drilling of holes in concrete, they save much time in the installation procedure. These studs are usually used to secure metal fixtures to concrete floors.

2-6. Installation of Simulator, Specific

a. Installation of frame.

- (1) Place frame in predetermined area and mark floor through mounting holes on frame.
- (2) Drill hole for each mark on floor.

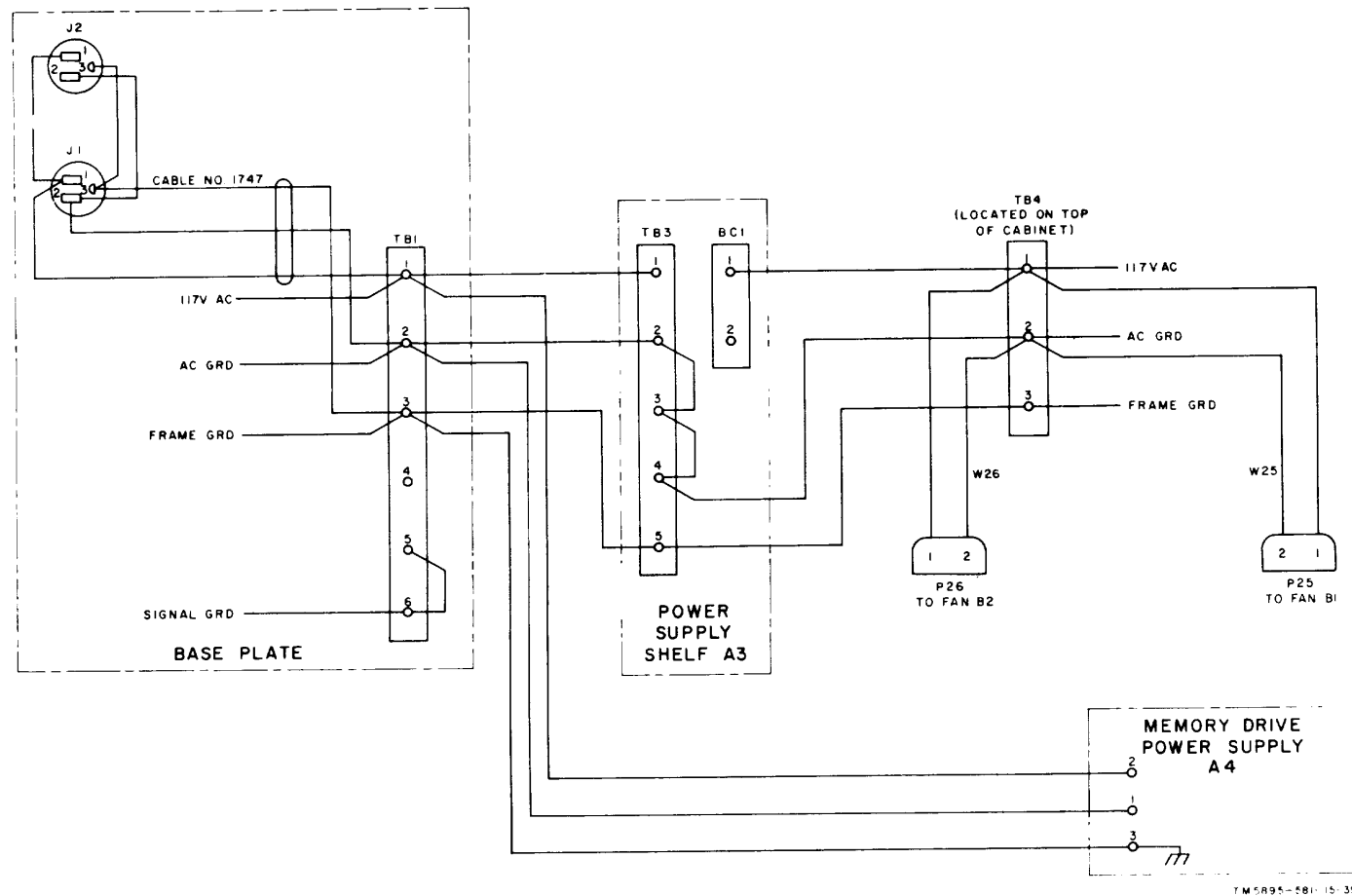


Figure 2-4. AC line connections.

Make sure that the depth of the hole exceeds the length of the expansion anchor by not more than 1/4 inch.

- (3) Place expansion anchor in each hole with large end of the core inserted first.
- (4) Position the frame on the anchors and secure it with the required hardware.

b. Installation of Wiring Desk.

- (1) Insert the writing desk from the front, directly above the circuit breaker panel (fig. 2-2).
- (2) Attach the writing desk channels to the uprights at the sides of the simulator frame using eight 10-32 X 1 1/2 roundhead screws.

c. Installation of Control Panel and Turret. The control panel is shipped mounted to the turret. To install the control panel and turret, proceed as follows:

- (1) Make sure that the quarter-turn fasteners at the top corners of the control panel are engaged.
- (2) Lift the control panel and turret into position at the front of the simulator, and rest it on the writing shelf (fig. 2-2).
- (3) Attach the turret to the front of the simulator using eight 10-32 X 3/8 Phillips-head screws.

d. Installation of Power Supply Shelf.

- (1) Open the rear door of equipment cabinet MP11, and move the power supply shelf into position on the floor behind the cabinet.
- (2) Slide out the two drawer slides located directly above the memory power supply.
- (3) Lift the power supply shelf and engage on the two pins located on the drawer slides.
- (4) Before sliding the power supply shelf forward into position, make connections between the power supply shelf and circuit breaker panel as shown in figure 2-3.
- (5) Slide the power supply shelf forward into position, and secure the drawer slides to the rear uprights of equipment cabinet MP11 using two 10-32 X 3/8 Phillips-head screws.

2-7. Connections

- a. Complete the power supply shelf connections in figure 2-3.
- b. Install the ac line connections as shown in figure 2-4. Do not make the connection to the ac line; this will be the final connection. Insure that all circuit breakers are set to OFF, and make the final connections to the ac line.

c. Install the cabinet interconnection as shown in figure 2-5. Refer to figures 2-6 and 2-7 for identification of circuit card chassis connectors.

d. Using two 30-foot twisted pairs of shielded wires supplied, make the connections listed below:

ASR set	to	Simulator base plate
TB1-1	to	TB2-16
TB1-2	to	TB2-18
		TB2-15 (shield)
TB1-3	to	TB3-16
TB1-4	to	TB3-18
		TB3-15 (shield)

e. When connecting the simulator to AUTODIN, make connections to simulator base plate as listed below. Every connection consists of a shielded twisted pair.

(1) *Character reader.*

Input	to	TB2-7
Signal grd	to	TB2-8
Shield	to	TB2-9

Input clk	to	TB2-10
Signal grd	to	TB2-11
Shield	to	TB2-12

(2) *Block reader.*

Input	to	TB2-1
Signal grd	to	TB2-2
Shield	to	TB2-3

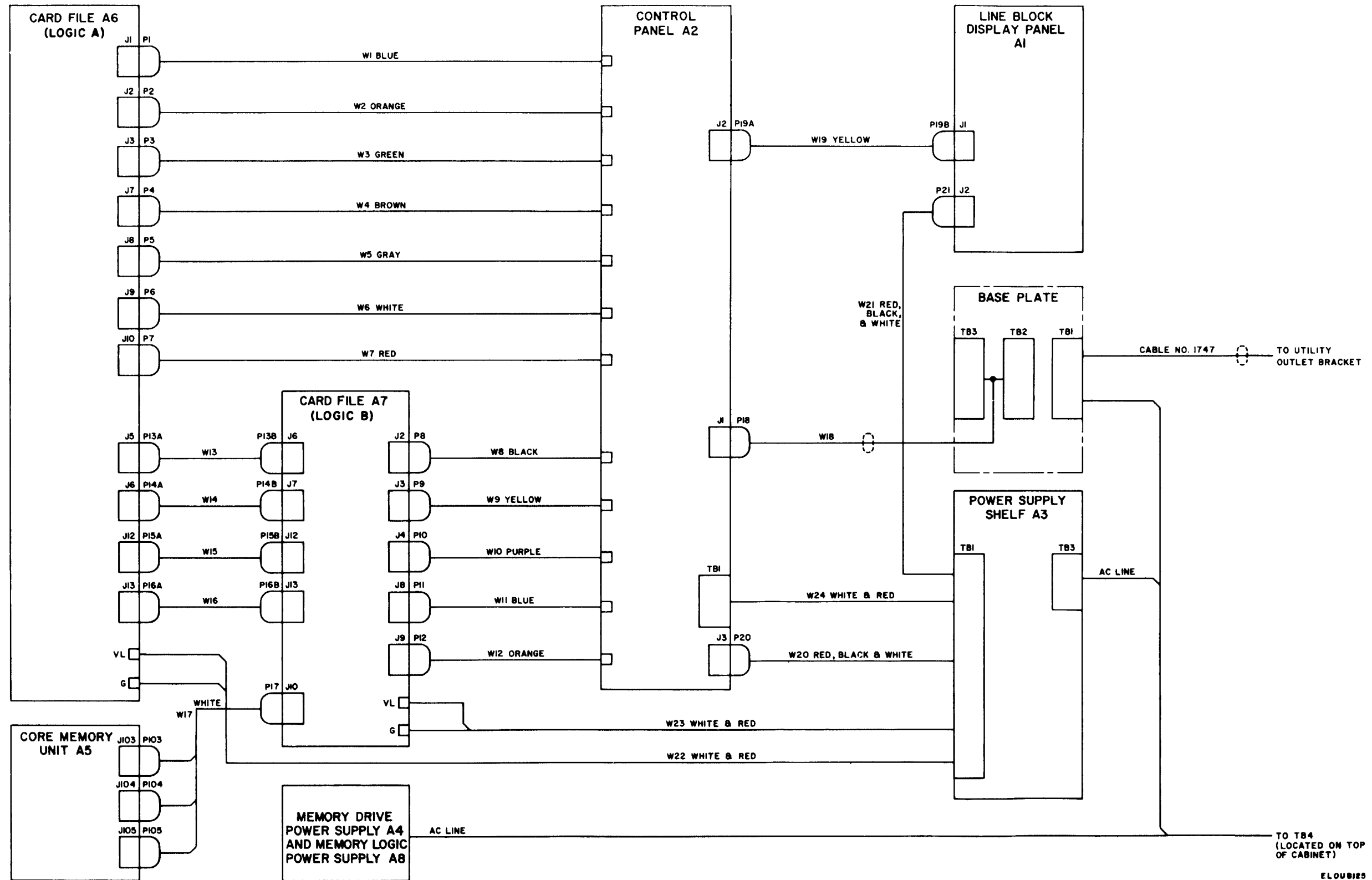
Input clk	to	TB2-4
Signal grd	to	TB2-5
Shield	to	TB2-6

(3) *Block generator.*

Input clk	to	TB3-1
Signal grd	to	TB3-2
Shield	to	TB3-3

Output line	to	TB3-4
Signal grd	to	TB3-5
Shield	to	TB3-6

Output clk	to	TB3-7
Signal grd	to	TB3-8
Shield	to	TB3-9



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Figure 2-5. Cabinet interconnections.

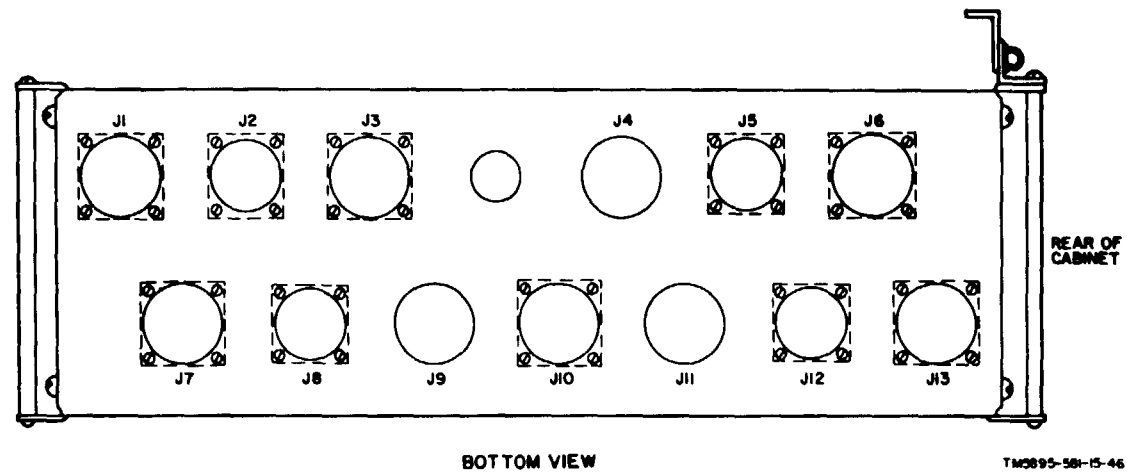


Figure 2-6. Circuit card chassis A6 connector layout.

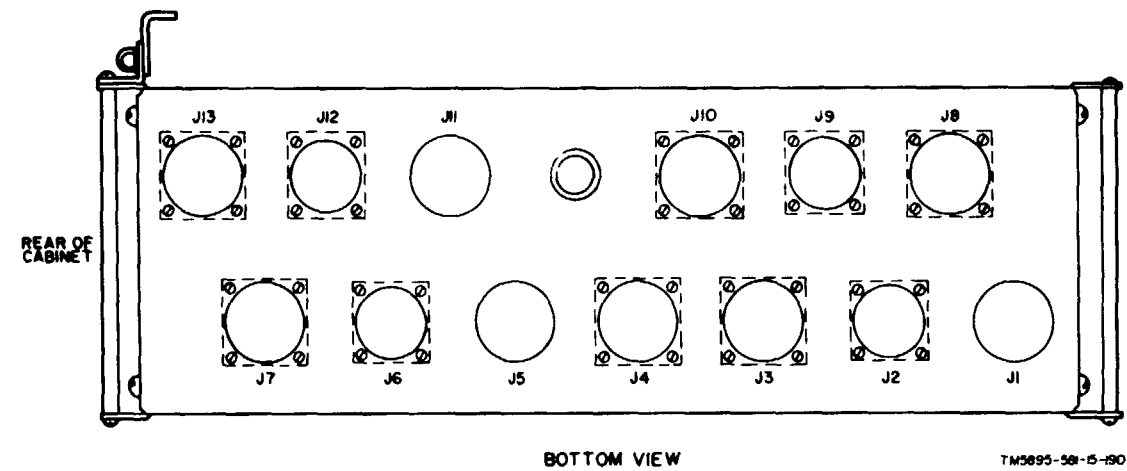


Figure 2-7. Circuit card chassis A7 connector layout.

Section II. INITIAL ADJUSTMENT OF EQUIPMENT

2-8. Extent of Initial Adjustments

All adjustments are performed at the factory, and need not be repeated by installation personnel equipment checkout.

2-9. Installation Checkout

When the installation is completed, an installation checkout must be performed before releasing the equipment for routine operation. Perform the procedures given in the field maintenance troubleshooting charts (paras 6-8 through 6-15). When all normal indications are obtained the simulator is operational.

CHAPTER 3
OPERATING INSTRUCTIONS

3-1. Operator's Controls and Indicators

This paragraph illustrates all operators controls and indicators, and describes the function of each. Four panels provide operators controls and indicators: power supply shelf, core memory power supply, control panel, and line block display panel (fig. 3-1). For convenience, the control panel is further divided into four functional groups: character reader, block reader, block generator, and core memory.

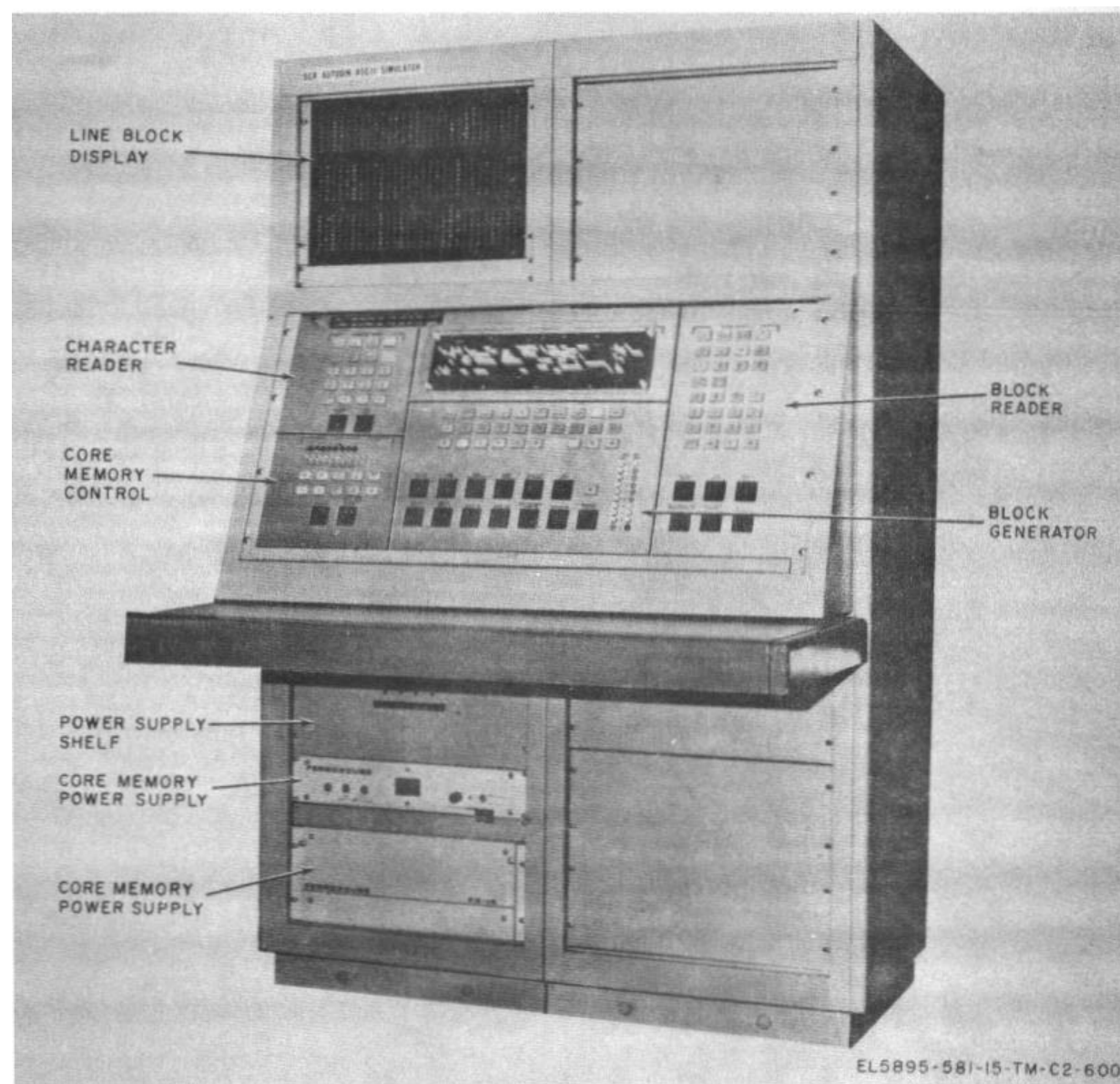


Figure 3-1. Simulator, front panel controls and indicator.

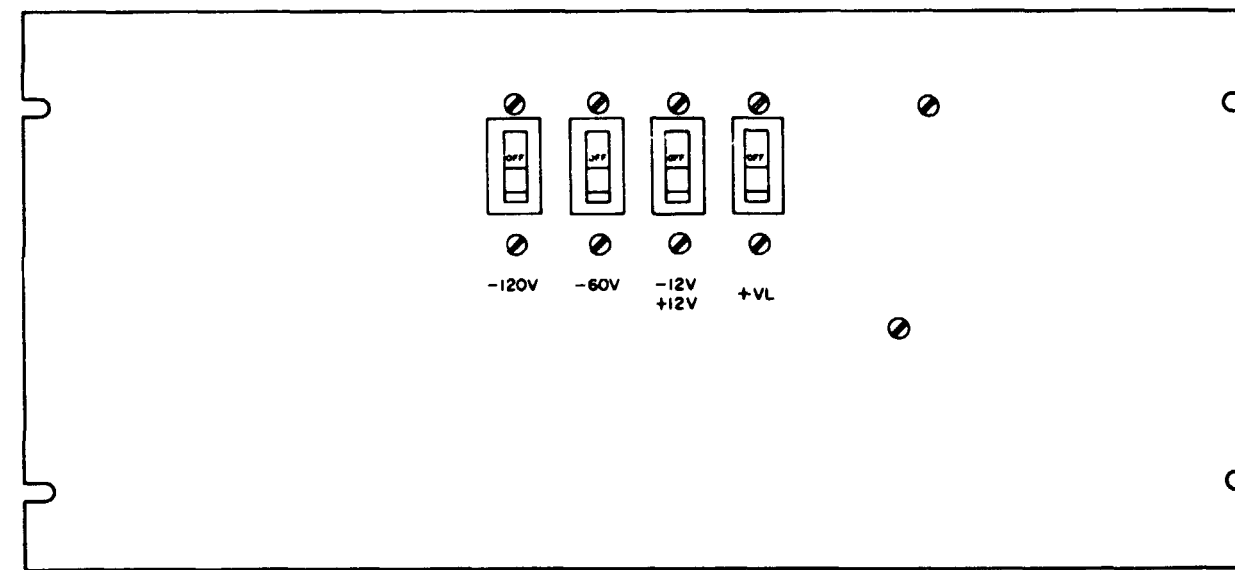


Figure 3-2. Power supply shelf, operating controls.

a. Power Supply Shelf, Operating Controls (fig. 3-2).

Control or indicator	Function
CB1	A 2-amp circuit breaker used to provide 120 vac to power supply BC60N1.2.
CB2	A 2-amp circuit breaker used to provide 120 vac to power supplies BC12N2.5 and BC12N10.
CB3	A 10-amp circuit breaker used to provide 120 vac to power supply BC120N2.0.
CB4	A 20-amp circuit breaker used to provide 120 vac to power supply BX6N20.

b. Core Memory Power Supply, Operating Controls and Indicators (fig. 3-3).

Control or indicator	Function
+6v adjustment	Potentiometer adjustment to regulate output of +-volt supply.
-20v FINE adjustment.	Potentiometer adjustment to regulate output of -20-volt supply.
-20v COARSE adjustment.	Potentiometer adjustment used to maintain -13-to -24-volt operating range, regardless of line or load fluctuations.
4-amp fuse	Protects power supply circuitry from 120-vac power surges.
Power lamp	Illuminates when power is turned on.
POWER ON/OFF switch.	Enables 120-vac to be applied to power supply.

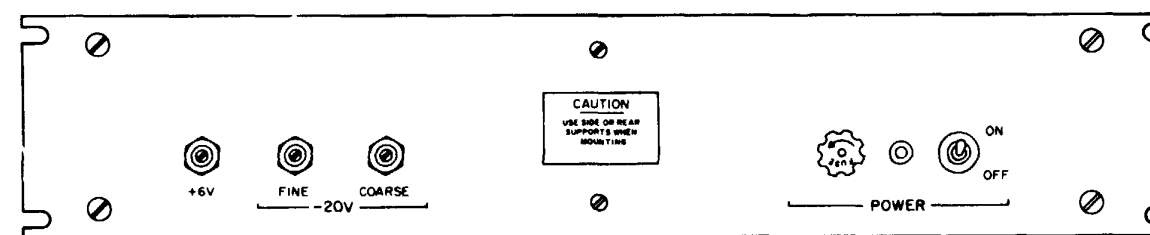


Figure 3-3. Core memory power supply, operating controls and indicators.

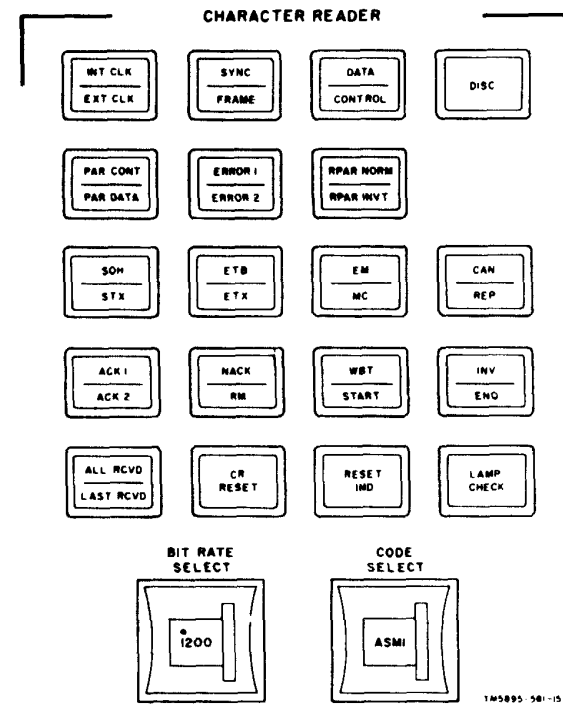


Figure 3-4. Character reader, operating controls and Indicators.

c. Character Reader, Operating Controls and Indicators (fig. 3-4).

Control or indicator	Function
INT CLK/ EXT CLK alternate action split screen illuminated pushbutton.	Selects clock to be used by character reader. INT CLK lamp illuminates white to indicate internal clock is being used. EXT CLK lamp illuminates white to indicate external clock is being used.
SYNC/FRAME split screen Indicator.	SYNC lamp illuminates white during mode I when SYNC characters are being received. Resets automatically when characters other than SYNC are received. FRAME lamp illuminates white when character reader has received three contiguous sync characters (mode I) and is in frame with incoming line. Resets automatically when not in receive block state and three data characters are received or when CR RESET is depressed
DATA/CONTROL split screen indicator.	DATA lamp illuminates white when character reader is in Data (receive block) state. CONTROL lamp illuminates white during mode V operation after detection of a pause (marking state) of at least 75 milliseconds on line to indicate character reader is in control state.
DISC indicator	Illuminates white when line is in marking state in mode I, circuit switching unit (CSU) operation and automatically resets when line is no longer marking.
PAR CONT/PAR DATA alternate action split screen illuminated pushbutton.	PAR CONT lamp illuminates green to indicate continuous parity checking on incoming line in mode I and mode V ASCII operation.

Control or indicator	Function
ERROR 1/ERROR 2 split screen indicator.	ERROR 1 lamp illuminates red to indicate one character parity error has been detected. ERROR 2 lamp illuminates red to indicate two character parity errors have been detected. When ERROR 1 and ERROR 2 lamps are both illuminated, three or more character parity errors have been detected (mode I, mode V ASCII). Both lamps reset when RESET IND is depressed.
RPAR NORM/RPAR INVT alternate split screen illuminated pushbutton.	Inverts parity bit in receive data for decode and parity checks action in character reader. RPAR NORM lamp illuminates white to permit odd parity data and even parity control and framing characters during mode I operation, and odd parity data and control characters during mode V ASCII operation (normal condition). RPAR INVT lamp illuminates white to permit even parity data and odd parity control and framing characters in mode I and even parity data and control characters in mode V ASCII.
SOH/STX split screen indicator	SOH lamp illuminates white when SOH character (mode I) or SOMS (mode V) is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when STX (mode I) or RCC sequence between message (mode V) is received. Resets manually when RESET IND pushbutton is depressed. STX lamp illuminates white during mode I operation when STX character is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when SOH character is received. Resets manually when RESET IND pushbutton is depressed.
ETB/ETX split screen indicator.	ETB lamp illuminates white when ETB character is received in mode I operation. Resets automatically, if ALL RCVD/ LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ETX character is received. Resets manually when RESET IND pushbutton is depressed. ETX lamp illuminates white during mode I operation when ETB character is received, or EOMS is received in mode V operations. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ETB character is received in mode I or RCC sequence between message is received in mode V operation. Resets manually when RESET IND is depressed.
EM/MC split screen indicator.	EM and MC indicators illuminate white when EM or MC characters are received during mode I operation. If ALL RCVD/LAST RCVD pushbutton is in LAST RCVD position, indicators reset automatically when SOH or STX characters are received. Indicators reset manually when RESET IND pushbutton is depressed.
CAN/REP split screen indicator.	CAN lamp illuminates white when CAN sequence is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode and reply sequence, STX (mode I), SOH (mode I), or SOMS (mode V) is received. Resets manually when RESET IND pushbutton is depressed. REP lamp illuminates white when REP sequence is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when CAN sequence, SOH (mode I), STX,

Control or indicator

Function

ACK1/ACK2 split screen indicator.

ACK1 lamp illuminates white when ACK1 sequence is received. Resets manually when RESET IND pushbutton is depressed. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ACK2, NACK (mode I), RM (mode I), RT (mode V), WBT (mode I), STOP (mode V), START (mode V) control character sequence is received. Resets manually when RESET IND pushbutton is depressed.

NACK/RM split screen indicator.

ACK2 lamp illuminates white when ACK2 sequence is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ACK1, NACK (mode I), RM (mode I), RT (mode V), WBT (mode I), STOP (mode V), START (mode V) control character sequence is received. RESETS manually when RESET IND pushbutton is depressed.

NACK lamp illuminates white When NACK sequence is received during mode I operation. Resets automatically, if All, RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when any other RCC sequence is received. Resets manually when RESET IND pushbutton is depressed.

RM lamp illuminates white when RM sequence is received during mode I operation or RT sequence is received during mode V operation. Resets automatically, if ALL RCVD/ LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ACK1 ACK2, NACK (mode I), WBT (mode I), STOP (mode V), START (mode V) control character sequence is received.

WTB/START split screen indicator.

WBT indicator group illuminates white when WBT (mode I) or STOP (mode VI) sequence is received. Resets automatically if ALL, RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ACK1, when ACK2, NACK (mode I), RM (mode I), RT (mode V). START, (MODE V) sequence is received. Resets manually when RESET IND pushbutton is depressed.

START lamp, illuminates white when START sequence is received during mode V operations. Reset automatically, if ALL, RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ACK1, ACK2, RT or STOP is relieved. Resets manually when RESET IND pushbutton is depressed.

INV/ENQ split screen indicator.

INV lamp illuminates white when INV sequences received during mode I operation. Resets manually when RESET IND) pushbutton is depressed.

ALL RCVD/LAST RCVD alternate action split screen illuminated pushbutton.

ENQ lamp illuminates white when an inquire sequence is received during mode I operation.

ALL RCVD position: all control and framing characters are displayed until manually reset, by RESET IND pushbutton.

LAST RCVD position: current transmit control character, return control character, start of block (message) framing character (sequence), and end of block (message) framing characters (sequence) are displayed.

Resets character reader logic circuitry when momentarily depressed.

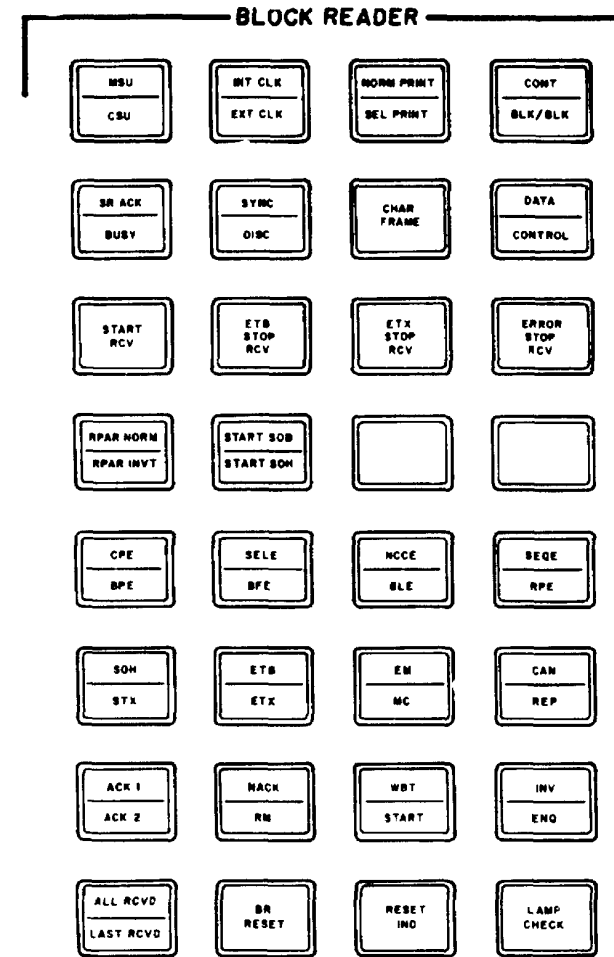
CR RESET momentary pushbutton.

- Resets following indicators:
- ERROR 1/ERROR 2
 - SOH/STX
 - ETB/ETX
 - ACK1/ACK2
 - NACK/RM
 - WBT/START
 - CAN/REP
 - IN/ENQ
 - EM/MC

RESET IND momentary pushbutton.

LAMP CHECK alternate action illuminated pushbutton.

When in LAMP CHECK state, lights all display lamps in character reader and core memory unit.



Control or indicator

Function

BIT RATE SELECT thumbwheel switch. in INT CLK state:

Selects one of following bit rates for line to be monitored when INT CLK/EXT CLK is

- Bit rate (baud)
- 4800
 - 2400
 - 1200
 - 600
 - 300
 - 150
 - 75
 - 74.2
 - 50
 - 45.5

CODE SELECT thumbwheel switch.

Selects one of following three codes on line to be monitored:
ASM1 (ASCII, mode I/III)
ASM5 (ASCII, mode V)
ITA #2 (ITA #2, mode V)

d. Block Reader, Operating Controls and indicators (fig. 3-5).

Control or indicator

Function

MSU/CSU alternate action split screen illuminated pushbutton.

Selects either message switching unit (MSU) or circuit switching unit (CSU) operation.

MSU lamp illuminates white to indicate MSU mode operation. CSU lamp illuminates white to indicate CSU mode operation.

INT CLK/EXT CLK alternate action Split screen illuminated pushbutton.

Selects clock to be used by block reader.

INT CLK lamp illuminates white to indicate internal clock is being used.

NORM PRINT/SEL PRINT alternate action split screen illuminated pushbutton.

EXT CLK lamp illuminates white to indicate external clock is being used. NORM PRINT position: STX characters going to printer are converted to double CAR-RIAGE RETURN, (CR) single LINE FEED (LF). SOH characters are converted to double CR, double LF. In memory printout mode simulator is

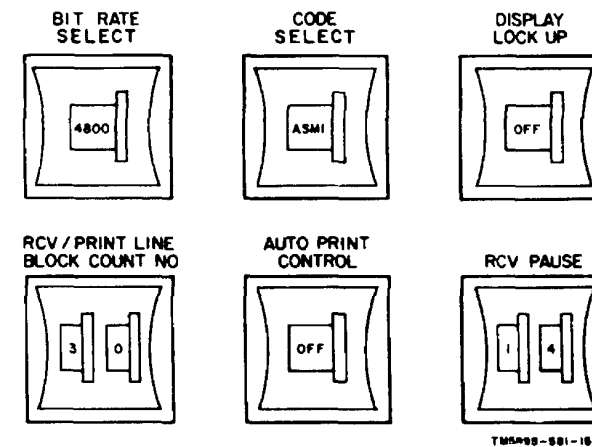
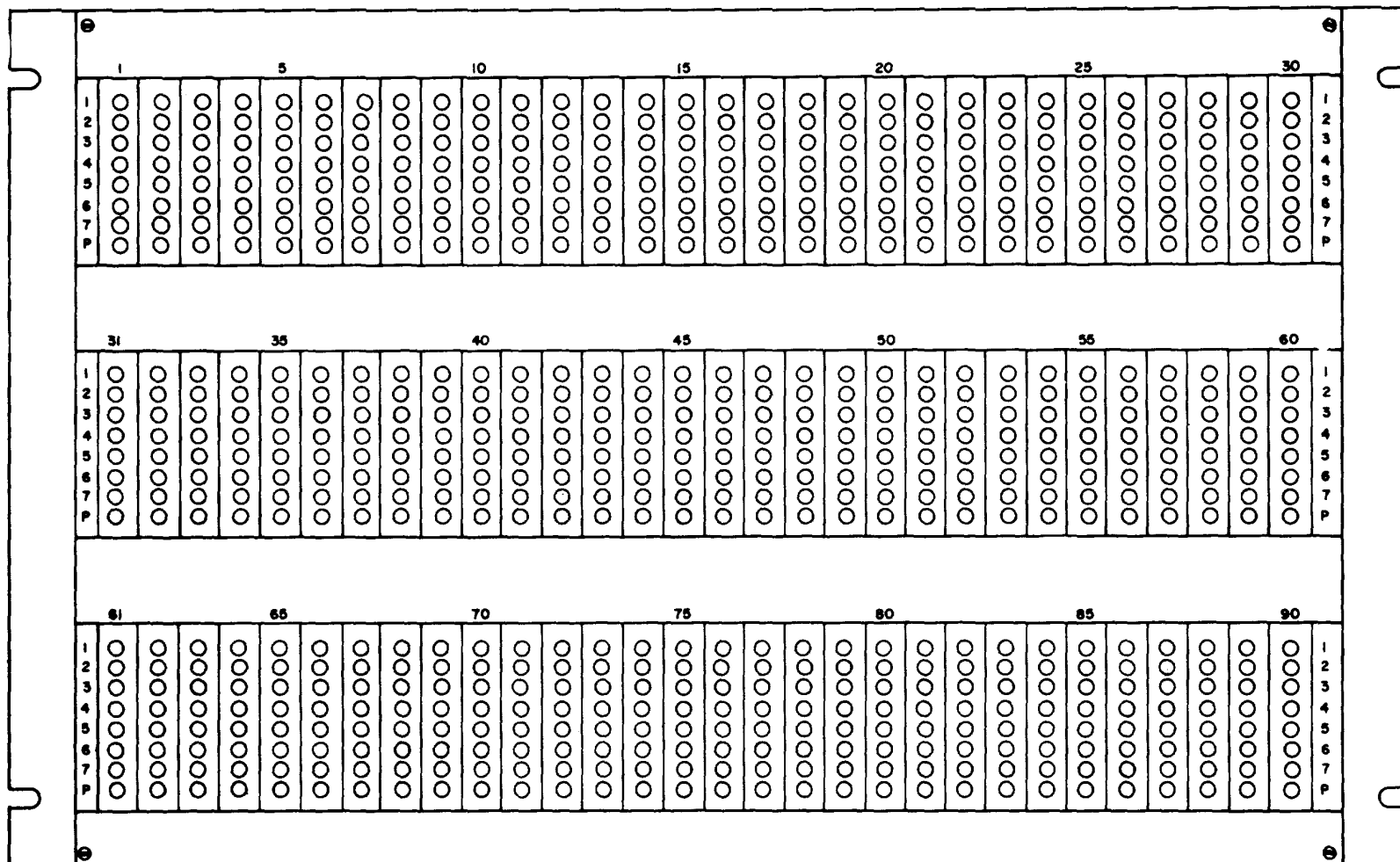


Figure 3-5. Block reader, operating controls and indicators.

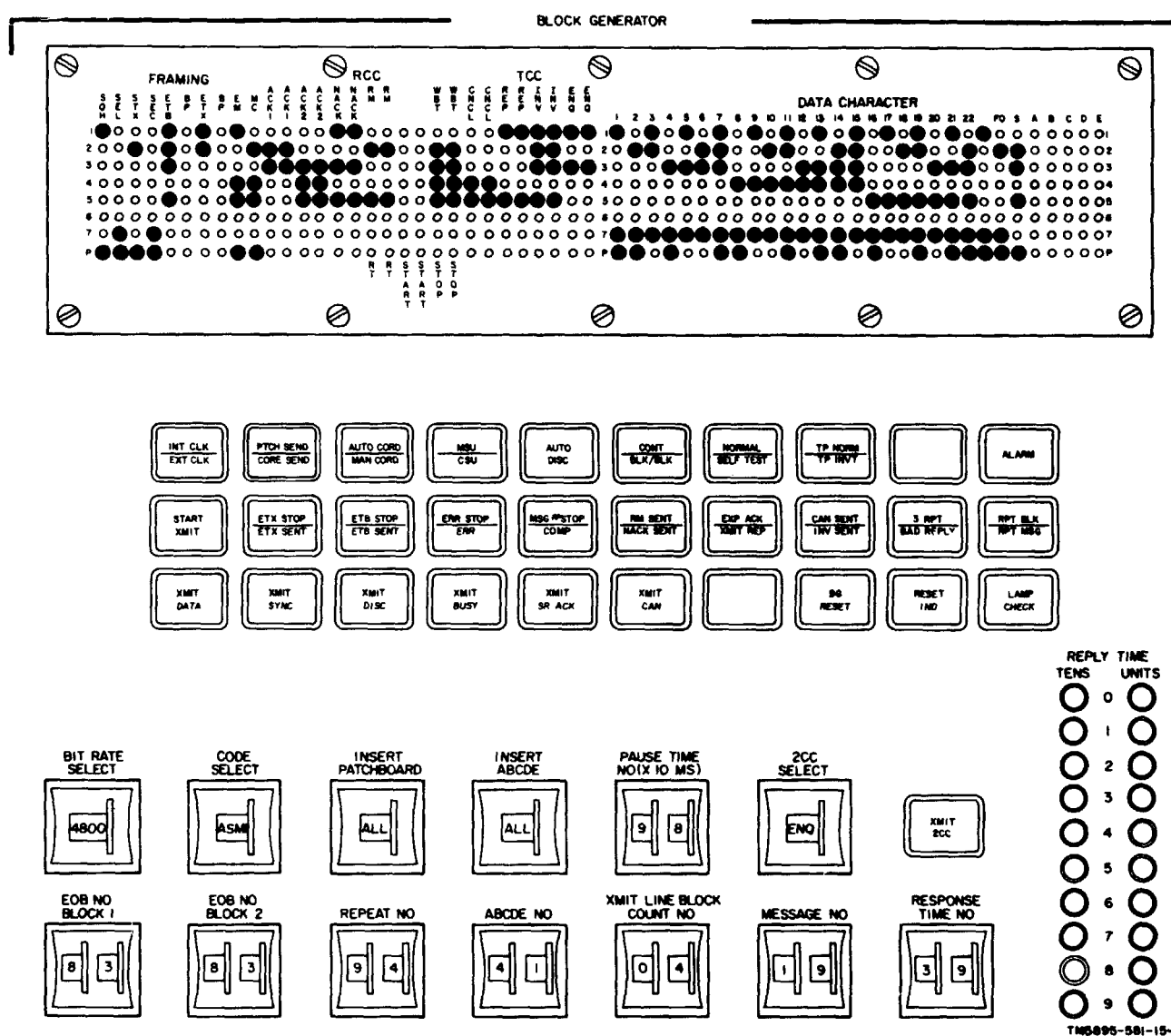
<i>Control or indicator</i>	<i>Function</i>	<i>Control or indicator</i>	<i>Function</i>	<i>Control or indicator</i>	<i>Function</i>	<i>Control or indicator</i>	<i>Function</i>
	automatically in NORM PRINT mode. SEL PRINT position (select printout): a. In auto printout messages containing A, H, and 8 select STX characters are not converted to double CR, single LF. b. All select characters other than A, H, or S-same as NORM PRINT above.	START RCV momentary illuminated pushbutton.	START RCV pushbutton: MAN CORD-Momentarily depressing START RCV pushbutton during manual coordination mode allows data to be written into memory until either ETB STOP RCV, ETX STOP RCV, or ERROR STOP RCV condition is reached. AUTO CORD - Momentarily depressing START RCV pushbutton during automatic coordination mode allows memory blocks and messages to be acknowledged with return control characters, other than WBT. START RCV indicator: MAN CORD--START RCV indicator illuminates amber to indicate data is inhibited from memory. When momentarily depressed, START RCV pushbutton extinguishes lamp. AUTO CORD-Indicates incoming blocks, REP or CAN sequence is being answered with WBT sequence.	Control or indicator pushbutton.	Function Place of next return control character, after first or current line block (message) containing an error is received. Reception resumes when START RCV pushbutton is depressed. In MAN CORD mode, data to memory is terminated after first line or current line error block contains an error. ALARM lamp illuminates and audible alarm sounds when error is received and ERROR STOP RCV is set. When START RCV is depressed, alarm condition is removed. Inverts parity bit in receive data for decode and parity checks in block reader. RPAR NORM lamp illuminates white to permit odd parity data and even parity control and framing characters during mode I operation, and odd parity data and control characters during mode V operation (normal condition). RPAR INVT lamp illuminates white to permit even parity data and odd parity control and framing characters.	SELE/BFE split screen indicator	Extinguishes automatically, when ALL RCVD/ LAST RCVD pushbutton is in LAST RCVD mode, when SOH or STX character is received, or when RESET IND pushbutton is depressed. SELE lamp illuminates red to indicate that select character error has been detected. Extinguishes automatically when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, SOH or STX character is received, or when RESET IND is depressed. BFE lamp illuminates red to indicate detection of SOH or STX character received in invalid position in model automatic operation. Extinguishes automatically when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD state, SOH or STX character is received, or RESET IND pushbutton is depressed.
CONT/BLK/BLK alternate action split screen illuminated. pushbutton	Selects either continuous or block-by-block operation.			RPAR, NORM/ RPAR INVT alternate action split screen illuminated pushbutton.			
SR ACK/BUSY split screen indicator.	SR ACK lamp illuminates white during CSU operation when a solid space is detected. Resets automatically when solid space condition ends. BUSY lamp illuminates white during CSU operation when busy characters are detected. Extinguishes automatically when busy condition is ended.	ETB STOP RCV alternate action illuminated pushbutton.	In AUTO CORD mode I operation, simulator transmits WBT in place of next return control character, after first or current line block is received. Reception resumes when START RCV pushbutton is depressed. In AUTO CORD mode V operation, simulator transmits STOP character immediately. In MAN CORD mode, data to memory will be terminated after first or current line block.				
SYNC/DISC split screen indicator.	SYNC lamp illuminates white during mode I operation to indicate that sync characters have been detected in input register. DISC lamp illuminates white during CSU operation to indicate disconnect signal has been detected for more than 500 milliseconds. Extinguishes automatically when incoming data is received.			START SOB/START SOH alternate action split screen illuminated. pushbutton.	START SOB mode enables block reader to accept data when any start of block (SOH or STX) is received in ASCII Mode I, or when any data character following PAUSE is received in mode V. START SOH mode enables block reader to accept data only after receiving SOH character in ASCII mode I or valid start of message sequence in mode V.	NCCE/BLE split screen indicator.	NCCE lamp illuminates red to indicate that noncontiguous control character error has been detected. Extinguishes automatically if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when SOH or STX character is received or when RESET IND pushbutton is depressed. BLE lamp illuminates red to indicate block (mode I only) length error. Extinguishes automatically. when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, or when SOH or STX character is received, or when RESET IND pushbutton is depressed.
CHAR FRAME momentary illuminated pushbutton.	Causes block reader to go out of frame. It is then necessary for block reader to receive three sync characters to reframe. Illuminates white to indicate block reader is in frame.	ETX STOP RCV alternate action illuminated pushbutton.	In AUTO CORD mode of operation, simulator transmits WBT (mode I) or STOP (mode V) in place of next return control character, after first or current message is received. Reception resumes when START RCV pushbutton is depressed. In MAN CORD mode, data to memory will be terminated after first or current message.				
DATA/CONTROL split screen indicator.	DATA lamp illuminates white when block reader is in data (receive block) state. CONTROL lamp illuminates white during mode V operation after detecting valid pause on line to indicate block reader is in control state.	ERROR STOP RCV alternate action illuminated	In AUTO CORD mode of operation simulator transmits WBT, (mode I), STOP (mode V) in	CPE/BPE split screen indicator.	CPE lamp illuminates red to indicate detection of character parity error. Extinguishes automatically, when ALL, RCVD/ LAST RCVD illuminated pushbutton is in LAST RCVD mode, when SOH or STX character is received or when RESET IND is depressed. BPE lamp illuminates red to indicate detection of block parity error.	SEQE/RPE split screen indicator.	SEQE lamp illuminates red during following conditions: a. <i>Mode I.</i> (1) Sync character occurs during data block in other than 83d character position. b. <i>Mode V.</i>

Control or indicator	Function	Control or indicator	Function	Control or indicator	Function	Control or indicator	Function
	<p>(1) PAUSE is followed by three data characters.</p> <p>(2) REP or CAN sequence followed by data character.</p> <p>(3) When in START or SOH and start of message sequence is not received.</p> <p>Resets automatically when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD state and SOH or STX character is received. RPE lamp illuminates red to indicate rest pulse error (spacing rest pulse) during mode V operation.</p> <p>Resets automatically when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD state when start of message sequence is received, or when RESET IND pushbutton is depressed.</p>		<p>message in Mode V, or when RESET IND pushbutton is depressed.</p> <p>ETB lamp illuminates white during mode I operation to indicate end of transmission block character has been received.</p> <p>Extinguishes automatically when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ETX character is received, or when RESET IND pushbutton is depressed.</p>		<p>ACK 2 lamp illuminates white when acknowledge 2 sequence is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when any other return control character sequence is received.</p> <p>NACK lamp illuminates white when NACK sequence is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when any other return character sequence is received.</p> <p>RM lamp illuminates white when reject message sequence is received. Resets automatically if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when any other return control character is received.</p> <p>WBT lamp illuminates white when wait before transmission (mode I) or stop (mode V) sequence is received. Resets automatically if ALL RCVD/ LAST RCVD illuminated pushbutton is in LAST RCVD mode when any other return control character sequence is received.</p> <p>START lamp illuminates white when START sequence is received during mode V operation. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when any other return control character sequence is received.</p> <p>INV lamp illuminates white when INV sequence is received during mode I operation. Extinguishes when RESET IND pushbutton is depressed.</p> <p>ENQ lamp illuminates white when ENQ sequence is received. Extinguishes when RESET IND pushbutton is depressed.</p> <p>Used to select ALL RCVD mode or LAST RCVD mode.</p> <p>In ALL, RCVD mode, all control</p>	pushbutton.	<p>and framing characters are displayed until manually reset by RESET IND pushbutton.</p> <p>In LAST RCVD mode, current transmit control character, return control character, start of block (message) framing character (sequence), and end of block (message) framing characters (sequence) are displayed.</p> <p>The following indicators are reset as shown below:</p>
	<p>Resets automatically when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD state when start of message sequence is received, or when RESET IND pushbutton is depressed.</p>	EM/MC split screen indicator.	EM lamp illuminates white when EM character is received during mode I operation. Resets automatically when ALL, RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD position, or when STX or SOH character is received. Manually reset by depressing RESET IND pushbutton.	NACK/RM split screen indicator.			
SOH/STX split screen indicator.	<p>SOH lamp illuminates white when start of message character (mode I) or start of message sequence (mode V) is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when STX (mode I) or RCC between messages is received (Mode V).</p> <p>STX lamp illuminates white during mode I operation to indicate start of text character is received.</p> <p>Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when SOH character is received.</p>	CAN/REP split screen indicator.	<p>MC lamp illuminates white when MC character is received during mode I operation. Resets automatically when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD state, or when STX or SOH character is received. Manually reset by depressing RESET IND pushbutton.</p> <p>CAN lamp illuminates white when cancel sequence is received. Resets automatically, when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode when REP, SOH, or STX is received.</p> <p>REP lamp illuminates white when repeat sequence is received. Resets automatically, when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode when CAN, SOH, or STX sequence is received.</p>	WBT/START split screen indicator.			
ETB/ETX split screen indicator	<p>ETX lamp illuminates white when end of text character during mode I operation or end of message sequence (mode V) is received.</p> <p>Extinguishes automatically, when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when ETB character is received in mode I or RCC sequence between</p>	ACK 1/ACK 2 split screen indicator.	ACK 1 lamp illuminates white when acknowledge 1 sequence is received. Resets automatically, if ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode, when any other return control character sequence is received.	ALL RCVD/LAST RCVD alternate action split screen illuminated			
						Indicator	Reset by receipt of-
						SOH	STX (mode I), RCC after EOMS (mode V).
						STX (mode I).	SOH
						ETB (mode ETX I).	
						ETX	ETB (mode I), RCC after EOMS (mode V).
						EM (mode SOH or STX I).	
						MC (mode SOH or STX I).	(mode I), SOMS (mode V).
						REP	CAN, SOH, or STX (mode I).
						CAN	REP, SOH (mode I), SOMS (mode V, or STX (mode I).
						ACK 1	ACK 2, NACK (mode I only), RM, RT (mode V), WBT, STOP (mode V), START (mode V).
						ACK 2	ACK 1, NACK (mode I), RM, WBT, STOP (mode V), START (mode V).
						NACK (mode I).	ACK1, ACK2, RM, WBT.



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Figure 3-6. Line block display panel.



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Figure 3-7. Block generator, operating controls and indicators.

f. Block Generator, Operating Controls and Indicators (fig. 3-7).

Control or indicator

Function

FRAMING program board.

Selection of FRAMING characters on patchboard is dependent upon mode and code of operation selected by operator.

During synchronous mode of operation (ASM1) when patchboard is used to transmit messages, two framing control characters will be inserted at beginning and end of each message block. Figures 3-9 through 3-11 are typical presentations of diode pin placement during each mode of operation.

SOH position (ASCII, mode 1 operation).

SOH is always first framing character of first block of message Indicates message will begin.

SEL position (ASCII mode 1 operation).

SEL is always second framing character of first block of message It is an even parity alphabetic character used to determine language media format (LMF). Valid select characters are: A, B, C, D, E, J, K, M, P, G, H, (terminal) A, B, C, D, E, F, M, P, S, H (ADMSC).

Control or indicator	Function	Control or indicator	Function	Control or indicator	Function	Control or indicator	Function
STX position (ASCII mode I operation).	STX is first framing character of all blocks, except for first block of message. Indicates data block will follow		characters or ABCDE positions in a block.	split screen illuminated pushbutton.		ETB STOP/ETB SENT alternate action split screen illuminated pushbutton.	When depressed in mode I, block-by-block operation, transmission ceases after current or first line block is transmitted. In continuous MAN CORD mode operation, first or current block will be nonterminated. In continuous AUTO CORD mode operation, depress t o cease transmission of current block and to nonterminate succeeding block. To resume transmission depress START XMIT. In mode V, depressing ETB STOP Immediately stops transmission of message. To resume transmission, put ETB STOP in unlit state and depress START XMIT pushbutton. START sequence will automatically be generated, prior to continuance of message. ETB STOP portion illuminates amber to indicate that pushbutton is in ETB STOP mode.
SEC position (ASCII mode I operation).	SEC can be even parity alphabetic character or DEL character located as second framing character of all blocks, except first.	INT CLK/EXT CLK alternate screen illuminated pushbutton.	Selects clock to be used by block generator. action split INT CLK lamp illuminates white to indicate internal clock is being used. EXT CLK lamp illuminates white to indicate external clock is being used.	NORMAL/SELF TEST alternate action split screen illuminated pushbutton.	Selects either normal (on line) or self-test operation. In SELF-TEST, both block reader and character reader inputs are connected to block generator outputs and a solid mark is placed on block generator output line.		
ETB position (ASCII mode I operation).	ETB is third framing character of all blocks, except last block. Indicates character sequence within block is complete	PTCH SEND/(CORE SEND) alternate action split screen illuminated pushbutton.	PTCH SEND lamp illuminates white to indicate patch board is source of data for transmission	TP NORMAL/TP INVT alternate action split screen illuminated pushbutton.	Selects either odd (TP NORM) even (TP INVT) parity when transmitting from core memory in mode I and mode V ASCII operation.		
BP position (after ETB).	BP is last framing character of every block after ETB in message. BP indicates serial summation of bits in a block, other than SOH or STX character (mode I). For correct block parity no diode pins will be placed in BP column. Placing diode pin in any position in 'B' column will invert corresponding bit of the block parity character upon transmission.	AUTO CORD/MAN CORD alternate action split screen illuminated pushbutton.	CORE SEND lamp illuminates white to indicate core memory is source of data for transmission.	ALARM momentary illuminated pushbutton.	Depressed to silence audible alarm. Pushbutton lamp illuminates red to indicate that one of following alarm conditions has occurred which requires operator action: a. RPT MSG b. 3 RPT c. More than 90 characters in tape block or more than 20 blocks on tape (terminate tape cycle). d. Errored block received when in ERROR STOP RCV condition. e. NACK or bad reply received when in ERR STOP condition.		
RCC program board.	RCC characters (ACK 1, ACK 2, NACK, RM, WBT) are always sent in pairs and may be located any place in message, except between two adjacent framing characters. Figures 3-9 through 3-11 are typical presentations of RCC diode pin placement during each mode of operation.		MAN CORD lamp illuminates white to indicate manual coordination mode of operation whereby control characters and messages are initiated manually by means of various controls on the block generator.		ALARM pushbutton lamp extinguishes when alarm condition is removed by depressing any of the following pushbuttons: START XMIT, TERM, and START RCV.		
TCC program board.	TCC characters (REP, PAN. IN. ENQ) are sent by transmitter to request some type of action. Transmit control characters are sent in identical pairs, and, In addition REP and CAN can only be transmitted between blocks in block-by-block operation or after 2(1d character position ill continuous operation. <i>Note.</i> CNCL is identical to CAN.	MSU/CSU alternate action split screen illuminated.	Selects either MSU (message switching unit) or CSU (circuit switching unit) operation.	START XMIT momentary illuminated pushbutton	When depressed initiates or resumes data transmission, or retransmits either REP or CAN sequence after 3-repeat condition. Illuminates amber when it is necessary to depress this pushbutton to transmit data or to restart after 3-repeat condition. Extinguishes when depressed.	ERR STOP/ERR alternate action split screen illuminated pushbutton.	In AUTO CORD mode, energizing this pushbutton causes transmission of block (mode I) or message (mode V) to cease when NACK (mode I) or BAD REPLY (mode I) are received; this also causes alarm condition. To resume transmission, depress START XMIT pushbutton. In continuous mode, current block is nonterminated. ERR STOP lamp illuminates amber to indicate that pushbutton switch is in error stop mode.
DATA CHARACTER program board	If PTCH SEND/CORE SEND pushbutton is in PTCH SEND position, the 22 program board positions will correspond to first 22 characters of block(s) selected by INSERT PATCH- BOARD) switch. Either Filler odd (Fo) or Filler even (Fe) will correspond to remainder of	AUTO DISC alternate action illuminated pushbutton.	AUTO DISC should be depressed to send solid disconnect during CSU operation when one of the following conditions occur: a. Reception of proper acknowledgment to message used in AUTO CORD mode. b. After transmission of message in MAN CORD mode. During CSU operation, pushbutton lamp illuminates white to indicate AUTO DISC mode of operation.	ETX STOP/ETX SENT alternate action split screen illuminated pushbutton.	When depressed ceases transmission after current or first message is transmitted. ETX STOP lamp illuminates to indicate pushbutton is in ETX STOP state.		
		CONT/BLK/BLK alternate action	Selects either continuous or block-by-block operation.		ETX SENT lamp illuminates to indicate ETX character has been transmitted. Resets when SOH character is transmitted.		ERR lamp illuminates red to indicate NACK or BAD REPLY has been received in response

<i>Control or indicator</i>	<i>Function</i>	<i>Control or indicator</i>	<i>Function</i>	<i>Control or indicator</i>	<i>Function</i>	<i>Control or indicator</i>	<i>Function</i>
	to transmitted block in mode I, or that RT has been received in mode V.	3 RPT/BAD REPLY split screen indicator.	3 RPT lamp illuminates red when cancel (CAN) sequence or reply (REP) sequence is transmitted three times without being acknowledged or when block has been transmitted three times in response to NACK or BAD REPLY.	RESET IND -- momentary pushbutton.	Resets the following indicators: RM SENT NACK SENT CAN SENT INV SENT XMIT REP	2CC SELECT thumbwheel switch.	Selects control character sequence to be transmitted when XMIT 2CC illuminated pushbutton is depressed (mode I).
MSG # STOP/COMP alternate action split screen illuminated pushbutton.	When depressed, CORE SEND transmission (eases after number of messages selected by MESSAGE NO thumbwheel switches have been transmitted. MSG # STOP lamp illuminates amber to indicate MSG # STOP state. COMP lamp illuminates white to indicate that number of transmitted messages equals number selected by MESSAGE NO thumbwheel switches (core send mode).	RPT BLK/RPT MSG momentary split screen illuminated pushbutton.	RPT BLK lamp illuminates red when block is to be retransmitted due to error condition in automatic mode. RPT MSG lamp illuminates red when message is to be retransmitted due to transmission of cancel sequence In middle of message during automatic mode operation. When pushbutton is depressed RPT MSG condition is reset.	LAMP CHECK alternate action illuminated pushbutton.	Illuminates all display lamps on block generator to test lamps. Illuminates amber in test state. Depress second time to terminate test.	XMIT 2CC momentary illuminated pushbutton.	Transmits control character sequence selected by 2CC SELECT thumbwheel switch (MAN CORD mode). Lamp illuminates white to indicate that control character sequence is being transmitted. Resets automatically when sequence has been sent.
RM SENT/NACK SENT split screen indicator.	RM SENT lamp illuminates white when reject message sequence is transmitted. Latches until manually reset by RESET IND pushbutton. NACK SENT lamp illuminates white when NACK sequence is transmitted. Latches until manually reset by RESET IND pushbutton.			BIT RATE SELECT thumbwheel switch.	Selects internal bit rate (bauds) to be used for transmit clock when in INT CLK position, and provides proper wave shaping for MS188B.	EOB NO BLOCK 1 thumbwheel switches	In patch send mode select first block character count position in which to send ETB or ETX character (1 to 99). ETB or ETX will always be followed by BP character. For normal length in mode I set to 83.
EXP ACK/XMIT REP split screen indicator.	In automatic mode, EXP ACK lamp illuminates white to indicate that acknowledgment has been solicited. Resets automatically when any return control character other than WBT is received. In automatic mode, XMIT REP lamp illuminates white whenever repeat sequence is being transmitted and resets when any RCC character other than WBT is received. In manual mode, XMIT REP lamp illuminates when REP is sent from XMIT 2CC pushbutton. Resets when RESET IND pushbutton is depressed.	XMIT DATA indicator.	Indicates data is being transmitted. When depressed, transmits sync characters in mode I or pause in mode V. Lamp illuminates to indicate transmission of SYNC (mode I) or PAUSE (mode V) is being transmitted.	CODE SELECT thumb wheel switch.	Selects operating code.	EOB NO BLOCK 2 thumbwheel switches	In patch send mode select character count position in all blocks, except first, at which to send ETB or ETX character. ETB or ETX will always be followed by BP character. For normal length in mode I set to 83.
		XMIT SYNC momentary illuminated pushbutton.		INSERT PATCH-BOARD thumb-wheel switch.	Selects blocks used to transmit the 22 patchboard characters.	REPEAT NO thumb-wheel switches.	Select at which character count to begin transmission of next block (PTCH SEND MAN CORD mode). In CORE SEND, MAN CORD determines number of sync characters between blocks.
		XMIT DISC momentary illuminated pushbutton.	When depressed, transmits continuous disconnect signal in CSU operation.		<i>Position</i> BLK1 - Patchboard sent in first block only. INH (inhibit - not sent in any block). ALL - Patchboard sent in all blocks.		
		XMIT BUSY momentary illuminated pushbutton.	When depressed, transmits continuous BUSY characters during CSU operation.	INSERT ABCDE thumbwheel switch.	Selects block which is to contain ABCDE characters.	ABCDE NO thumb-wheel switches.	When PTCH SEND/CORE SEND pushbutton is in PTCH SEND position, ABCDE NO switches select which character count position at which to begin transmitting five-character sequence set up on ABCDE patchboard locations. When in mode V CORE SEND, ABCDE characters will automatically be inserted at end of message immediately preceding ETX and BP position if INSERT ABCDE switch is not in INH position.
CAN SENT/INV SENT split screen indicator.	CAN SENT lamp illuminates white when cancel sent sequence is transmitted. INV SENT lamp illuminates white when INV sequence is transmitted. Each indicator resets when RESET IND pushbutton is depressed.	XMIT SR ACK momentary illuminated pushbutton.	When depressed, transmits continuous SR ACK when in CSU mode. Lamp illuminates white when SR ACK is being transmitted during CSU operation.		<i>Position</i> LAST - ABCDE sent in last block only. INH (inhibit - ABCDE not sent in any block). ALL - ABCDE sent in all blocks.		
		XMIT CAN momentary illuminated pushbutton.	In AUTO mode, causes transmission of CAN sequence. Lamp illuminates amber when cancel sequence is transmitted in automatic mode and resets when ACK 2 is received.	PAUSE TIME NO. (X10MS) thumb-wheel switch.	Select number of 10-millisecond intervals which comprise pause time preceding mod V control characters.	XMIT LINE BLOCK COUNT NO thumb-wheel switches	Select total number of line blocks in transmitted message from patchboard or from core by determining when to transmit ETX block.
		BG RESET momentary pushbutton.	When momentarily depressed, resets block generator logic circuitry.			MESSAGE NO thumb wheel switch.	Selects number of messages to be transmitted when In CORE SEND mode.

Control or Indicator	Function
RESPONSE TIME NO thumbwheel switches.	In automatic mode, select number of character time units between transmission of REP or CAN control characters if no response is received.
REPLY TIME lamps	Units column and tens column lamps indicate number (0 thru 99) of character times between transmission of REP, CAN, or BP coded in BP position after ETX (mode V) character of line block (mode I) character and receipt of valid return control character.

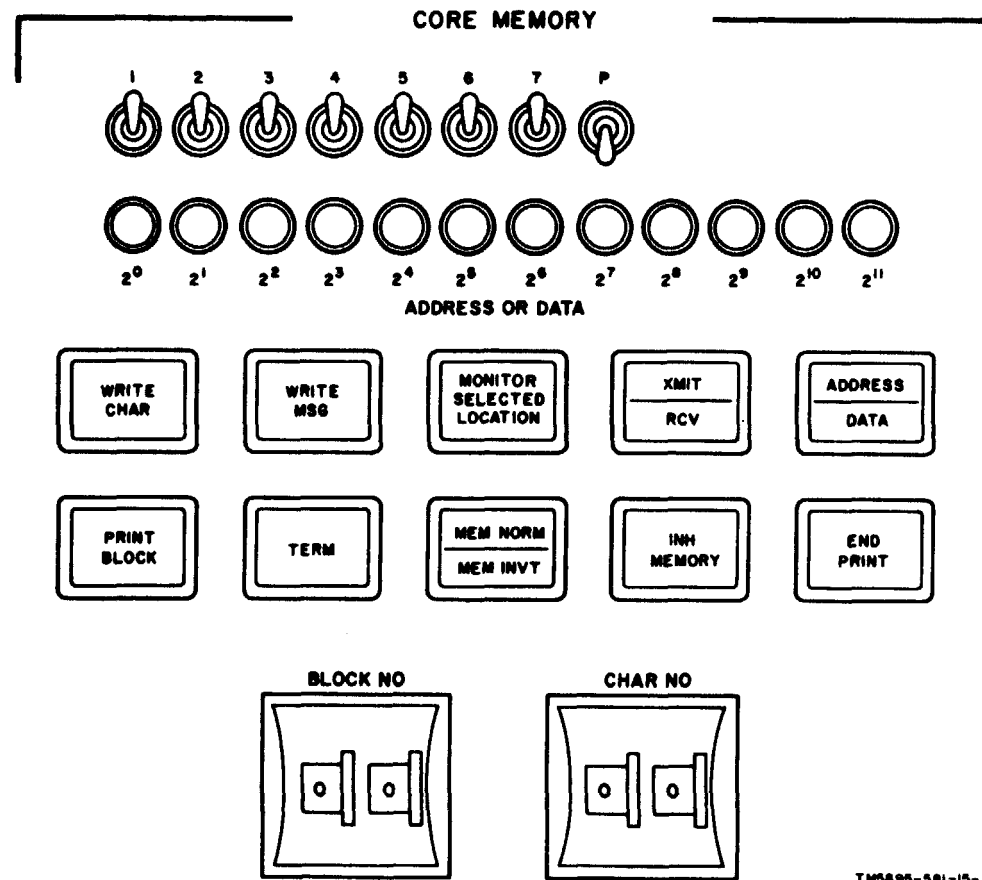


Figure 3-8. Core memory, operating controls and indicators.

g. Core Memory, Operating Controls and Indicators (fig. 3-8).

Control or Indicator	Function
CORE MEMORY toggle switch.	Permit operator to set up character to be stored in memory. Up is 1, down is 0.
ADDRESS OR DATA display lamps.	When MONITOR SELECTED LOCATION is lit, display stored character or address selected by XMIT/RCV pushbutton and BLOCK NO and CHAR NO thumbwheel switches. When MONITOR SELECTED LOCATION is unlit, displays address or data register bits.
WRITE CHAR momentary illuminated pushbutton.	Write 8-bit character, which is coded on eight toggle switches, at address selected by BLOCK NO thumbwheel switches, CHAR NO thumbwheel switches, and XMIT/RCV pushbutton.
WRITE MSG momentary illuminated pushbutton.	Enables transfer of message on paper tape to transmit side of code memory. Transfer can be initiated only when block generator START XMIT pushbutton is illuminated. WRITE MSG indicator illuminates prior to transfer; extinguishes when pushbutton is depressed; illuminates again when transfer is completed.

MONITOR SELECTED LOCATION alternate action illuminated pushbutton.	When depressed, refers ADDRESS OR DATA lamps to location selected on BLOCK NO and CHAR NO thumbwheel switches, and XMIT/RCV pushbutton.
XMIT/RCV alternate action split screen illuminated pushbutton.	Refers address selected by BLOCK NO and CHAR thumbwheel switches and ADDRESS OR DATA lamps to either transmit or receive half of core memory, or places printer on either transmit or receive side of core memory when in memory printout mode.
ADDRESS/DATA alternate action split screen illuminated pushbutton.	Causes ADDRESS OR DATA lamps to monitor either a 12-bit address or an 8-bit data character.
PRINT BLOCK momentary illuminated pushbutton.	Enabled (illuminated) only during memory PRINTOUT mode operation (AUTOPRINT control in OFF position). Causes printout of block selected by BLOCK NO thumbwheel switches and XMIT/RCV pushbutton. PRINT BLOCK indicator extinguishes when pushbutton is depressed and printout is completed.
TERM momentary illuminated pushbutton.	Illuminates red and sets alarm condition to indicate that block length from ASR set tape exceeds 94 characters, or message length exceeds 20 blocks. When depressed, terminates input cycle from ASR set tape reader, and resets alarm condition.
MEM NORM/MEM INVT alternate action illuminated pushbutton.	"Allow selection of half of memory for transmission, and half of memory for received data. This switch is disabled by a maintenance switch located on Panel A-2, which logically disables the switching of memory halves from receive to transmit function."
INH MEMORY alternate action illuminated pushbutton.	Inhibits all memory cycles. Used when cycling power on or off. Illuminated pushbutton.
END PRINT momentary illuminated pushbutton.	Terminates printout in autoprnt mode at end of current line block.
BLOCK NO thumbwheel switches.	Specifies block portion of character address for monitor or manual or store operation (WRITE CHAR; MONITOR SELECTED LOCATION). Specify block to be printed (PRINT BLOCK).
CHAR NO thumbwheel switch.	Specifies character portion of character address for monitor or manual store operation (WRITE CHAR; MONITOR SELECTED LOCATION).

3-2. Starting Procedure

- Set circuit breaker 4 (20 amp), located on front panel of power supply shelf, to ON.
- Set circuit breakers 2 and 3 (2 amp and 10 amp, respectively), located on front panel of power supply shelf, to ON.
- Set circuit breaker 1 (2 amp), located on front panel of power supply shelf, to ON.
- Set POWER ON/OFF switch, located on core memory power supply, to ON. Observe that power lamp illuminates.
- Momentarily depress CR RESET pushbutton to reset circuitry associated with character reader.
- Momentarily depress BG RESET pushbutton to reset circuitry associated with block generator. Check that START XMIT and XMIT SYNC lamps illuminate.
- Momentarily depress BR RESET pushbutton to reset circuitry associated with block reader.
- Momentarily depress RESET IND pushbutton and observe that the following indicators on the character reader are extinguished:

ERROR 1/ERROR 2 WBT/START
 SOH/STX CAN/REP
 ETB/ETX INV/ENQ
 ACK1/ACK2 EMI/MC
 NACK/RM

i. Momentarily depress RESET IND pushbutton on the block generator and observe that the following indicators are extinguished:

EXP ACK/XMIT REP
 RPT/BLK/RPT MSG
 3 RPT/BAD REPLY
 RM SENT/NACK SENT
 CAN SENT/INV SENT

j. Momentarily depress RESET IND pushbutton on the block reader and observe that the following indicators are extinguished:

SOH/STX INV/ENQ
 ETB/ETX EM/MC
 ACK1/ACK2 SELE/BFE
 NACK/RM NCCE/BLE
 WBT/START SEQE/RPE
 CAN/REP CPE/BPE

k. Observe that indicator lamps as listed below by functional section are illuminated:

NOTE

Depending upon previous state of equipment, controls and indicators containing more than one lamp and switch (split screen switch/indicator) may have either one of the two lamps illuminated.

(1) *Character reader.*

INT CLK/EXT CLK
 SYNC/FRAME only during ASM1
 DATA/CONTROL (CONTROL only during ASM5 or ITA #2)
 PAR CONT/PAR DATA
 RPAR NORM/RPAR INVT
 ALL RCVD/LAST RCVD

(2) *Block reader.*

MSU/CSU
 INT CLK/EXT CLK
 CONT/BLK/BLK
 CHAR FRAME only during ASM1
 DATA/CONTROL (CONTROL only during ASM5 or ITA #2)
 ETB STOP RCV
 ETX STOP RCV
 ERROR STOP RCV
 RPAR NORMAL/RPAR INVT
 START SOB/START SOH
 ALL RCVD/LAST RCVD
 NORM PRINT/SEL PRINT

(3) *Block generator.*

INT CLK/EXT CLOCK
 PTCH SEND/CORE SEND
 AUTO CORD/MAN CORD
 MSU/CSU
 CONT/BLK/BLK
 NORMAL/SELF TEST
 TP NORMAL/TP INVT
 ETX STOP/ETX SENT
 ETB STOP/ETB SENT
 MSG # STOP/COMP
 ERR STOP/ERR

(4) *Core memory.*

WRITE MSG
 XMIT/RCV
 ADDRESS/DATA
 MEM NORM/MEM INVT

l. The simulator is now in an energized state. Refer to individual functional operating procedures for the character reader, block generator, or block reader to perform desired operations.

m. Set simulator controls and switches to initial control positions as listed below.

(1) *Character reader.*

Control	Position
INT CLK/ EXT CLK push-button.	INT CLK
CODE SELECT switch	ASM1
BIT RATE SELECT switch	4800
PAR CONT/PAR DATA push-button.	PAR CONT illuminated
ALL RCVD/LAST RCVD push-button.	LAST RCVD illuminated
RPAR NORM/RPAR INVT push button.	RPAR NORM illuminated
CR. RESET pushbutton	Depress
RESET IND pushbutton	Depress

(2) *Block reader.*

Control	Position
INT CLK/EXT CLK pushbutton.	INT CLK illuminated
MSU/CSU pushbutton	MSU illuminated
BR RESET pushbutton	Depress
CONT/BLK/BLK pushbutton	BLK/BLK illuminated
CODE SELECT SWITCH	ASM1/
BIT RATE SELECT switch	4800
RPAR NORM/RPAR INVT pushbutton.	RPAR NORM illuminated
ALL RCVD/LAST RCVD pushbutton.	LAST RCVD illuminated
START SOB/START SOH pushbutton.	START SOH illuminated
DISPLAY LOCKUP switch	ETX
RCV/PRINT LINE BLOCK COUNT NO switch.	02
RCV PAUSE switches	10
AUTO PRINT CONTROL switch.	MSG
NORM PRINT/SEL PRINT pushbutton.	SEL PRINT illuminated

(3) *Block generator.*

Control	Position
INT CLK/EXT CLK pushbutton.	INT CLK illuminated
PTCH SEND/CORE SEND pushbutton.	CORE SEND illuminated
AUTO CORD/MAN CORD pushbutton.	AUTO CORD illuminated.
MSU/CSU pushbutton	MSU illuminated
CONT/BLK/BLK pushbutton	BLK/BLK illuminated
NORMAL. SELF TEST pushbutton.	SELF TEST illuminated
CODE SELECT switch	ASM1
BIT RATE SELECT switch	4800
BG RESET pushbutton	Depress
RESET IND pushbutton	Depress
EXT STOP/ETX SENT pushbutton.	ETX STOP unlit
ETB STOP/ETB SENT pushbutton.	ETB STOP unlit
ERR STOP/ERR pushbutton	ERR STOP unlit
TP NORM/TP INVT	TP NORM illuminated
MSG # STOP/COMP pushbutton.	MSG # STOP illuminated.
INSERT PATCHBOARD switch.	BLK 1
INSERT ABCDE switch	LAST
PAUSE TIME NO (X10MS) switches.	65
EOB NO BLOCK 1 switches	88
REPEAT NO switches	95
ABCDE NO switches	78
EOB NO BLOCK 2 switches	83
MESSAGE NO switches	02
RESPONSE TIME NO switches.	75
XMIT LINE BLOCK COUNT NO switches.	04

(4) Core memory.

<i>Control</i>	<i>Position</i>
XMIT/RCV pushbutton	RCV illuminated
ADDRESS/DATA pushbutton	DATA illuminated
MONITOR SELECT	Unlit
LOCATION pushbutton.	
INH MEMORY pushbutton	Unlit
BLOCK NO switch	01
CHAR NO switch	02
CB1 thru CB4 (Power supply shelf.)	OFF
POWER ON/OFF switch (core memory pwr sup)	OFF

3-3. Character Reader Operating Procedures

The character reader is used either in ASM1, ASM5, or ITA #2 communication modes depending upon mode of line monitored.

- a. Momentarily depress CR RESET pushbutton.
- b. Momentarily depress RESET IND pushbutton. Observe that the following indicators are extinguished:

ERROR 1/ERROR 2	WBT/START
SOH/STX	CAN/REP
ETB/ETX	INV/ENQ
ACK1/ACK2	EM/MC
NACK/RM	

- c. Depress LAMP CHECK pushbutton to cause LAMP CHECK lamp to illuminate. Observe that all character reader and core memory display lamps are illuminated. There are no lamps in CR RESET, RESET IND, WRITE CHAR, and END PRINT pushbuttons.
- d. Depress LAMP CHECK pushbutton to extinguish LAMP CHECK lamp. Observe that lamps illuminated above are extinguished.
- e. Rotate CODE SELECT (RS-2) switch to one of the following three positions: ASM1, ASM5, or ITA #2. Use ASM1 or ASM5 for American Standard Code for Information Interchange (ASCII) in a mode I or mode V operation, respectively. Use ITA #2 for International Telegraph Alphabet #2 in a mode V operation.
- f. Rotate BIT RATE SELECT switch to one of the 10 possible bit rate positions. Selection of the bit rate position is dependent upon bit rate of line to be monitored.
- g. Depress INT CLK illuminated pushbutton and observe that white lamp illuminates.
- h. Depress either PAR CONT or PAR DATA illuminated pushbutton. Observe that white or green lamp illuminates.
 - (1) Select PAR CONT for continuous parity checking on incoming line.
 - (2) Select PAR DATA for parity checking of character reader in receive block (data state). This position inhibits parity checks for sync or control character occurring between blocks.
- i. Depress either RPAR NORM or RPAR INVT illuminated pushbutton. Observe that white lamp illuminates.
 - (1) Select RPAR NORM to enable character reader to operate with odd parity data (mode I and mode V ASCII).
 - (2) Select RPAR INVT to enable character reader to operate with even parity data (mode I and mode V ASCII).
- j. Depress either ALL RCVD or LAST RCVD illuminated pushbutton. Observe that white or green lamp illuminates.
 - (1) During ALL RCVD mode of operation, control and framing character indicators remain illuminated until RESET

IND pushbutton is depressed.

(2) During LAST RCVD mode of operation, lamps automatically illuminate and extinguish as indicated below:

- (a) SOH lamp illuminates white when mode I start of message character or mode V (VZCZC) start of message sequence is received. Lamp extinguishes when STX character is detected in mode I or RCC sequence before or between messages is received in mode V.
- (b) STX lamp illuminates white when start of text character is received. Lamp extinguishes when SOH character is detected.
- (c) ETX lamp illuminates white when mode I end of transmission block character is received. Lamp extinguishes when ETX character is detected.
- (d) ETX lamp illuminates white when mode I end of text character or mode V end of message sequence (LFNNNN) is received. Lamp extinguishes when ETB character is detected in mode I and RCC sequence before or between messages is received.
- (e) EM lamp illuminates white when mode I end of medium character is received in a block containing 79 characters or less. Lamp extinguishes when SOH or STX characters are detected.
- (f) MC lamp illuminates white when mode change character (used in CONUS AUTODIN only) is received. Lamp extinguishes when SOH or STX character is detected.
- (g) CAN lamp illuminates white when cancel sequence is received. Lamp extinguishes when a REP sequence, SOH character, or STX character is detected.
- (h) REP lamp illuminates white when repeat sequence is received. Lamp extinguishes when a CAN sequence, SOH character, or STX character is detected.
- (i) ACK1 lamp illuminates white when acknowledge #1 sequence is received. Lamp extinguishes when any one of the following receive control characters are detected: ACK2, NACK, RM, WBT, or START (mode V).
- (j) ACK2 lamp illuminates white when acknowledged #2 sequence is received. Lamp extinguishes when any one of the following receive control characters are detected: ACK1, RM, WBT, NACK, or START (mode V).
- (k) NACK lamp illuminates white only during mode I operation when NACK sequence is detected. Lamp extinguishes when any one of the following receive control characters are detected: ACK1, ACK2, WBT, or RM.

NOTE

ERROR 1 and/or ERROR 2 lamps only extinguish when RESET IND pushbutton is depressed.

- (l) RM lamp illuminates white when a reject message sequence has been detected. Lamp extinguishes when one of the following receive control characters are detected: ACK1, WBT, ACK2, NACK, or START.
- (m) WBT lamp illuminates white when mode I WBT or mode V STOP sequence is received. Lamp extinguishes when any one of the following receive control characters are detected: RM, NACK, ACK1, ACK2, or START.
- (n) START lamp illuminates when a START sequence is detected during mode V operation. Lamp extinguishes when any one of the following receive control characters are detected: ACK1, ACK2, RM, or STOP.

3-4. Block Reader Operating Procedures, General

In the manual coordination mode, no signaling occurs from block reader to block generator. The operator must determine what control characters are to be transmitted from the block generator. The core memory stops receiving data when conditions as set up on the block reader are met. In automatic coordination the block reader determines which control characters have to be transmitted, and signals the block generator to transmit these characters. The block reader causes wait before transmitting (WBT) to be transmitted when conditions set up on the block reader by the operator are met. Paragraphs 3-5 through 3-8 describe the automatic coordination mode, paragraphs 3-9 through 3-11 describe the manual coordination mode, and paragraph 3-12 describes the printout procedures.

3-5. Establishing Conditions of Test for Automatic Coordination

- a. Momentarily depress RESET IND pushbutton to ensure that the following indicators extinguish:

ETB/ETX	ACK 1/ACK 2
CAN/REP	SOH/STX
EM/MC	CPE/BPE
INV/ENQ	SELE/BPE
WBT/START	NCCE/BLE
NACK/RM	SEQE/RPE

b. Depress LAMP CHECK illuminated pushbutton. All display lamps associated with the block reader, other than BR RESET and RESET IND, illuminate.

c. Momentarily depress BR RESET pushbutton to reset block reader logic.

d. Rotate RCV PAUSE thumbwheel switch to number of cycles of a to 10-millisecond time interval to be used in detecting a pause preceding a central character in mode V. When the duration of a pause is less than time interval set up on the RCV PAUSE thumbwheel switch, block reader will not go into control state. The RCV PAUSE millisecond durations follow.

(1) ITA #2, From 170 to 480.

(2) ASCII. From 75 to 370.

e. Rotate CODE SELECT thumbwheel switch to code position associated with the monitored line. Code conditions follow.

(1) ASM1. ASCII mode I and III synchronous operation.

(2) ASM5. ASCII mode V asynchronous operation.

(3) ITA #2. ITA #2 mode V asynchronous operation.

f. Rotate DISPLAY LOCKUP thumbwheel switch to the position associated with condition to be locked up on 90-character line block display panel. Conditions follow:

(1) OFF. No characters displayed on display panel.

(2) CONT. All characters continuously displayed and automatically reset at next start of block or 90-character count.

(3) SOH. Only first start of header block displayed until manually reset with RESET IND pushbutton.

(4) STX. Only first start of text block displayed until manually reset with RESET IND pushbutton.

(5) ETX. Only first end of text block displayed until manually reset with RESET IND pushbutton.

(6) ERROR. The block in which first error is received; displayed until manually reset with RESET IND pushbutton.

(7) TEST. Displays any data on the line until manually reset with RESET IND pushbutton.

g. Rotate BIT RATE SELECT thumbwheel switch to the appropriate bit rate (4800, 2400, 1200, 600, 300, 150, 75, 74.2, 50) for the line to be monitored. This switch provides 128X BAUD to the phase corrector or 16X BAUD to be provided to the input register during mode V ITA #2 operation. Depress MSU/CSU illuminated pushbutton For message switching unit mode of operation or circuit switching unit operation, as required.

i. Depress INT CLK/EXT CLK illuminated pushbutton to a position for the respective clocks to be used. The pushbutton which is depressed illuminates white to indicate the type of clock in use.

j. Depress CONT/BLK/BLK illuminated pushbutton for one of the following operations:

(1) CONT is used when continuous mode operation is required.

(2) BLK/BLK is used when block-by-block operation is required.

3-6. Display of Control Characters

Depress ALL RCVD/LAST RCVD illuminated pushbutton as required. In ALL RCVD mode, all control and framing characters are displayed until manually reset by RESET IND pushbutton. In LAST RCVD mode, the current transmit control characters, receive control characters, start of block framing character, and end of block framing characters are displayed. The following indicators are reset as described:

a. *SP ACK/BUSY*. SR ACK lamp illuminates white during CSU operation when a solid space condition is received. BUSY lamp illuminates white during CSU operation when busy characters are detected. Lamp extinguishes automatically when busy condition is ended.

b. *SYNC/DISC*. SYNC lamp illuminates white during mode I operation to indicate that sync characters have been detected in the input register. DISC lamp illuminates white during CSU operation to indicate that disconnect signal has been detected for more than 500 milliseconds. Lamp extinguishes automatically when incoming data is received.

c. *ETB/ETX*. ETX lamp illuminates white when end of text character during mode I operation or end of message sequence (mode V) is received. Lamp extinguishes automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode, when ETB character is received, or when RESET IND pushbutton is depressed. ETB lamp illuminates white during mode I operation to indicate that an end of transmission block character has been received. Lamp extinguishes automatically when ALL RCVD/ LAST RCVD pushbutton is in LAST RCVD mode, when ETX character is received, or when RESET IND pushbutton is depressed.

d. *CAN/REP*. CAN lamp illuminates white when a cancel sequence is received. Lamp extinguishes automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode when REP, SOH, or STX is received. REP lamp illuminates white when a repeat sequence is received. Lamp extinguishes automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode when CAN, SOH, or STX sequence is received.

e. *EM/MC* lamp illuminates white when EM character is received during mode I operation. Lamp automatically extinguishes when ALL RCVD/LAST RCVD pushbutton is in LAST) position, or when STX or SOH character is received. Lamp is manually reset by depressing RESET IND pushbutton. MC lamp illuminates white when MC character is received during mode I operation. Lamp automatically extinguishes when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD state, or when STX OR SOH character is received. Lamp is manually reset by depressing RESET IND pushbutton.

f. *INV/ENQ*. INV lamp illuminates white when an INV sequence is received during mode I operation. Lamp extinguishes when RESET IND pushbutton is depressed. ENQ lamp illuminates white when ENQ sequence is received. Lamp extinguishes when RESET IND pushbutton is depressed.

g. *WBT/START*. WBT lamp illuminates white when wait before transmitting (mode I) or STOP (mode V) sequence is received. Lamp extinguishes automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode or when ACK 1, ACK 2, RM-, NACK (mode I), START (mode V) is received. START lamp illuminates white when a START sequence is received during mode V operation. Lamp resets automatically when ALL RCVD/LAST RCVD illuminated pushbutton is in LAST RCVD mode when ACK 1, ACK 2, RM, STOP is received.

h. *NACK/RM*. NACK lamp illuminates white during mode I operation when a negative acknowledge sequence is received. Lamp resets automatically when ALL RCVD/ LAST RCVD pushbutton is in LAST RCVD mode when ACK 1, ACK 2, RM, WBT character sequence is received. RM lamp illuminates white when a reject message sequence is received. Lamp resets automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode when ACK 1, ACK 2, NACK (mode 1), WBT, START (mode V) is received.

i. *ACK 1/ACK 2*. ACK 1 lamp illuminates white when an acknowledge 1 sequence is received. Lamp resets automatically when ALL RCVD/ LAST RCVD pushbutton is in LAST RCVD mode when any other receive control character is received. ACK 2 lamp illuminates white when an acknowledge 2 sequence is received. Lamp resets automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode when any other receive control character sequence is received.

j. *SOH/STX*. SOH lamp illuminates white when a start of header character (mode I) or start of message sequence (mode V) is received. Lamp resets automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode, when STX character is received in mode I. Lamp resets on RCC sequence after EOMS between messages in mode V operation. STX lamp illuminates white during mode I operation to indicate start of text character is received. Lamp resets automatically when ALL, RCVD/LAST RCVD pushbutton is in

LAST RCVD mode, when an SOH character is received.

k. CPE/BPE. CPE lamp illuminates red to indicate detection of character parity error. Lamp extinguishes automatically when ALL RCVD/ LAST RCVD pushbutton is in LAST RCVD mode, when an SOH or STX character is received. BPE lamp illuminates red to indicate detection of block parity error. Lamp extinguishes automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode, when an SOH or STX character is received or when RESET IND pushbutton is depressed.

l. SELE/BFE. SELE (mode I) lamp illuminates to indicate that a select character error has been detected. Lamp extinguishes automatically when ALL RCVD/LAST RCVD lamp is in LAST RCVD mode, or when an SOH or STX character is received. BFE lamp illuminates red to indicate the detection in block framing error. Lamp extinguishes automatically when ALL RCVD/LAST RCVD lamp is in LAST RCVD state, when SOH or STX character is received, or when RESET IND pushbutton is depressed.

m. NCCE/BLE. NCCE lamp illuminates red to indicate that a noncontiguous control character error has been detected. Lamp extinguishes automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD mode, when SOH or STX is received or when RESET IND pushbutton is depressed. BLE lamp illuminates red to indicate a block length error (mode I only). Lamp extinguishes automatically when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD state, when SOH or STX character is received, or RESET IND pushbutton is depressed.

n. SEQE/RPE. SEQE lamp illuminates red during the following conditions:

- (1) Mode I.
 - (a) Sync characters occur during data block in other than 83d character position.
 - (b) REP or CAN sequence occurs in data block in 83d character position during block-by-block operation.
- (2) Mode V.
 - (a) PAUSE is followed by three data characters.
 - (b) REP or CAN sequence is followed by data characters.

(3) SEQE/RPE reset. SEQE lamp automatically extinguishes when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD position, and start of message sequence or SOB character (SOH or STX) is received. RPE lamp illuminates red to indicate a rest pulse error (spacing rest pulse) during mode V operation. Lamp automatically extinguishes when ALL RCVD/LAST RCVD pushbutton is in LAST RCVD state when SOH or STX character is received or when RESET IND pushbutton is depressed.

3-7. Starting Conditions

The START SOB/START SOH pushbutton determines when the block reader begins accepting data. The START SOB position permits the block reader to begin accepting data when a start, of block character (either SOH or STX) is received in ASCII mode I, or when a PAUSE is received in mode V. The START SOH position allows the block reader to begin accepting data only after the receipt of an SOH character in ASCII mode I or a valid start of message sequence in mode V.

3-8. Transmission of WBT Characters

a. To transmit WBT characters in place of the next return control character use ETB STOP RCV, ETX STOP RCV, and ERROR STOP RCV pushbuttons as follows.

- (1) ETB STOP RCV pushbutton causes simulator to transmit WBT in place of the next return control character in response to the first or current line block.
- (2) ETX STOP RCV pushbutton causes simulator to transmit WBT in place of the next return control characters after the first or current message is received.
- (3) ERROR STOP RCV pushbutton causes simulator to transmit WBT in place of the next return control characters after an error block is detected in the receive line.

b. Momentarily depress START RCV pushbutton. This causes blocks and messages received in core memory to be acknowledged with return control characters other than WBT. START RCV must be depressed after a block reader reset or whenever START RCV lamp is illuminated in order to accept data in core memory.

3-9. Establishing Conditions of Test for Manual Coordination

a. Momentarily depress RESET IND pushbutton (fig. 3-5) to insure that the following indicators are extinguished:

ETB/ETX	ACK 1/ACK 2
CAN/REP	SOH/STX
EM/MC	CPE/BPE
INV/ENQ	SELE/BPE
WBT/START	NCCE/BLE
NACK/RM	SEQE/RPE

b. Depress LAMP CHECK illuminated pushbutton. All display lamps associated with the block reader illuminate.

c. Momentarily depress BR RESET pushbutton to reset block reader logic.

d. Rotate RCV PAUSE thumbwheel switch to the number of cycles of a 10-millisecond time interval to be used in detecting a pause preceding a control character in mode V. When the duration of a pause is less than the time interval selected by RCV PAUSE thumbwheel switch, the block reader will not go into the control state.

e. Rotate CODE SELECT thumbwheel switch to the code position associated with the monitored line (ASM1, ASM5, ITA #2).

f. Rotate DISPLAY LOCKUP thumbwheel switch to the position associated with the condition desired to be locked up on the 90-character line block display panel. Conditions follow:

- (1) *OFF.* No characters displayed in display panel.
- (2) *CONT.* All characters continuously displayed and automatically reset at start of next block or 90-character count.
- (3) *SOH.* Only first start of header block displayed until manually reset with RESET IND pushbutton.
- (4) *STX.* Only first start of test block displayed until manually reset with RESET IND pushbutton.
- (5) *ETX.* Only first end of the text block displayed until manually reset with RESET IND pushbutton.
- (6) *ERR.* The blocks in which first error is received; displayed until manually reset with RESET IND pushbutton.
- (7) *TEST.* Displays and data on the line until manually reset with RESET IND.

g. Rotate BITE RATE SELECT thumbwheel switch to the appropriate bit rate (4800, 2400, 1200, 600, 300, 150, 75, 74.2, 50, 45.5) for the line to be monitored. When in INT CLK state this switch causes 128X BAUD to be provided to the phase corrector or 16X BAUD to be provided to the input register during mode V ITA #2 operation.

h. Depress MSU/CSU illuminated pushbutton for message switching unit mode of operation or circuit switching unit operation as required.

i. Depress INT CLK/EXT CLK illuminated pushbutton to a position for the respective clock to be used. The pushbutton which is depressed illuminates white to indicate the type of clock in use.

j. Deleted

k. When operating in the manual coordination mode, conditions must be established that will determine when the simulator will cause data to core memory to terminate. The illuminated pushbuttons that will cause termination of data received follow.

- (1) ETB STOP RCV pushbutton causes data to core memory to terminate after the first or current line block is received.
- (2) ETX STOP RCV pushbutton causes data to core memory to terminate after the first or current message is received.
- (3) ERROR STOP RCV pushbutton causes data to core memory to terminate after an error block is detected on the receive line.

1. After a stop receive condition has occurred and the errored data has been printed out, reception

on the eight-bit parity (ASCII only). Mode V ASCII character is 10 bits long: one start bit, eight information bits, and one stop bit. Mode V ITA #2 character is seven bits long: one start bit, five information bits, and one stop bit.

c. Display lamps and controls on the block generator section of the simulator front panel are shown in figure 3-6. Paragraphs 3-14 through 3-24 provide operating procedures for the block generator.

3-14. Patchboard Coding

In both the core send mode and the patch mode all control and framing characters are sent from tile patchboard. Data characters are sent from the patchboard in only the patch send mode. Both modes include synchronous and asynchronous transmission.

a. *Control and Framing Character Coding.* To code the control and framing characters for synchronous transmission (ASM1), insert diode pins in the patchboard as shown in figure 3-9. Asynchronous transmission uses two codes, ITA #2 or ASM5. For ITA #2 coding, insert diode pins in tile patchboard as shown in figure 3-10. For ASM5 coding, insert diode pins in the patchboard as shown in figure 3-11.

b. *Data Character Coding.* Any sequence of data characters may be coded on the patchboard, provided the code used corresponds to the mode of transmission. Synchronous transmission always uses American Standard Code for Information Interchange (ASCII) coding (ASCII modes I and III

correspond to ASM1). For coding of data characters for synchronous transmission refer to figure 3-12. A typical example is shown in figure 3-9. Asynchronous transmission uses either ITA #2 or ASCII coding (ASCII mode V corresponds to ASM5). For the coding of ITA #2 data characters, refer to figure 3-13. A typical example of ASM5 data character coding is shown in figure 3-11.

3-15. Pretest Procedures

- a. Momentarily depress BG RESET pushbutton.
- b. Momentarily depress RESET IND pushbutton and observe that XMIT REP, RM SENT/ NACK SENT, and CAN SENT/INV SENT indicators are extinguished.
- c. Depress LAMP CHECK pushbutton. Observe that all block generator display lamps are illuminated.

NOTE

There are no lamps in BG RESET and RESET IND pushbuttons.

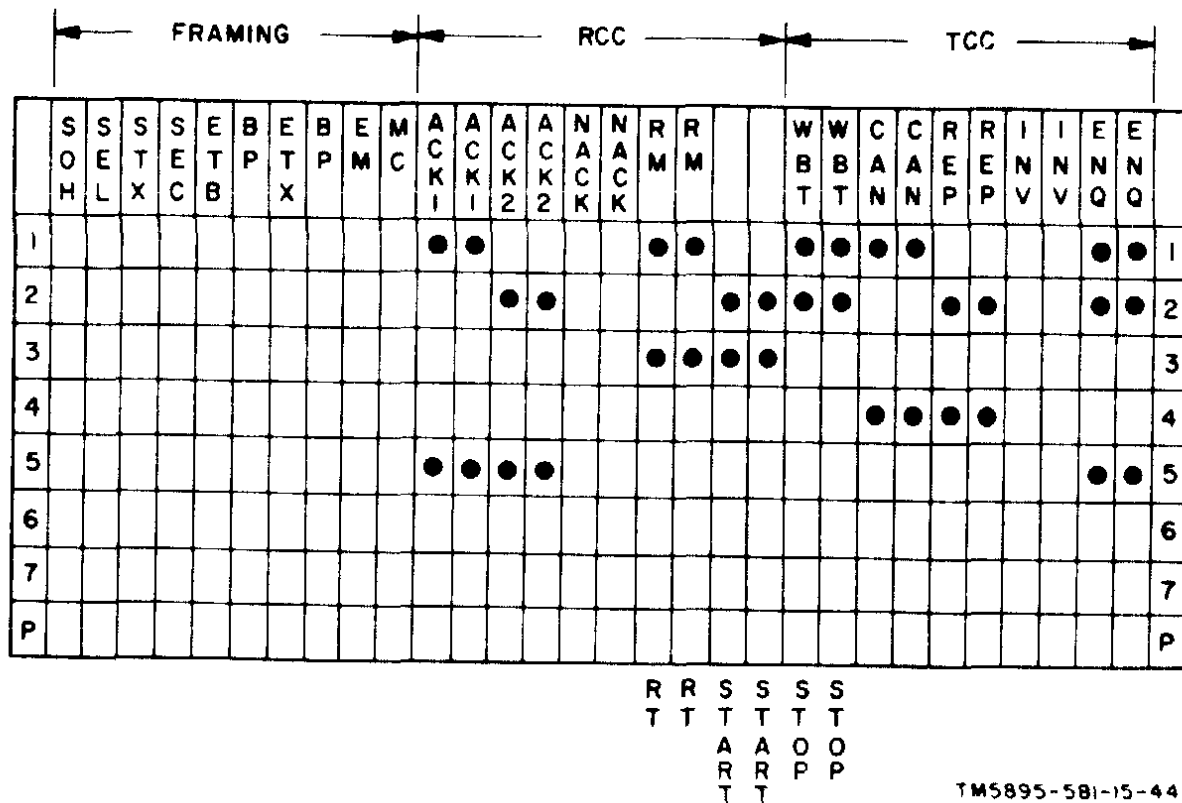


Figure 3-10. Diode pin insertion chart for ITA #2 code.

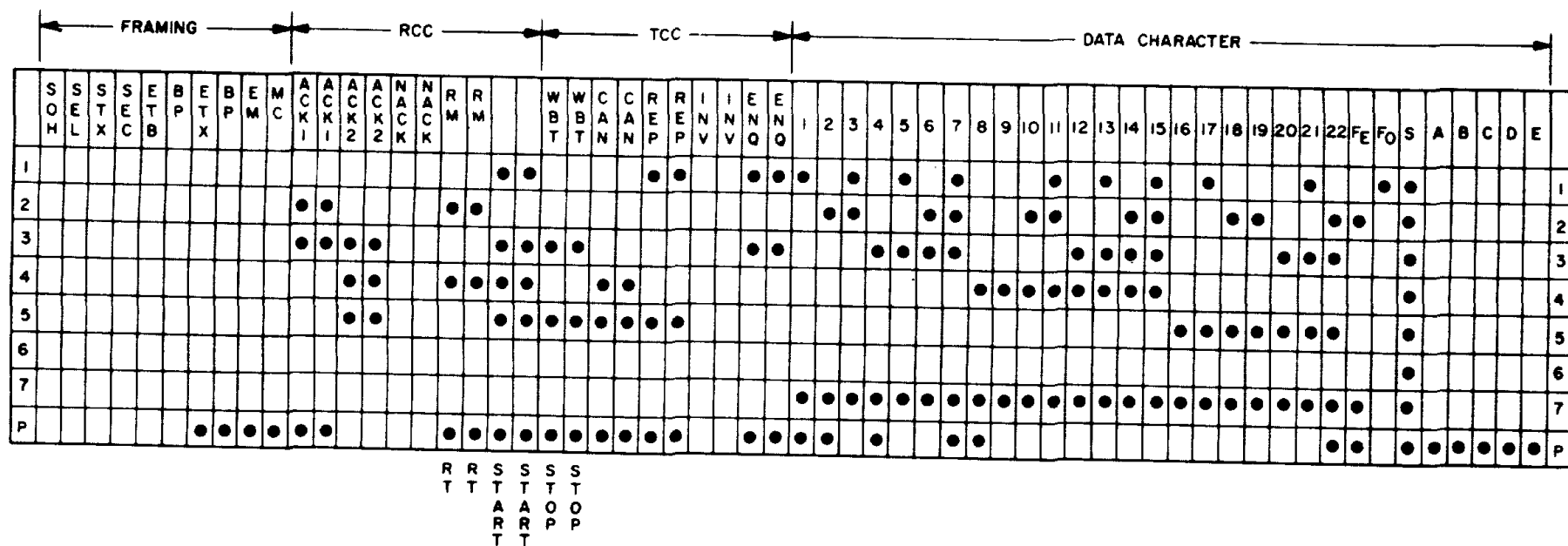


Figure 3-11. Diode pin insertion chart for ASM5 code.

BITS					0	0	0	0	1	1	1	1
b ₄	b ₃	b ₂	b ₁	ROW	0	1	2	3	4	5	6	7
0	0	0	0	0			6	8	@	P		
0	0	0	1	1	SOH	REP	!	1	A	Q		
0	0	1	0	2	STX	RM	"	2	B	R		
0	0	1	1	3	ETX	DC3	#	3	C	S		
0	1	0	0	4		STOP	\$	4	D	T	UNASSIGNED	UNASSIGNED
0	1	0	1	5	ENO	NAK	%	5	E	U		
0	1	1	0	6	ACK1	SYN	&	6	F	V		
0	1	1	1	7	INV	ETB	,	7	G	W		
1	0	0	0	8		CAN	(	8	H	X		
1	0	0	1	9		EM	)	9	I	Y		
1	0	1	0	10	LF	MC	*	:	J	Z		
1	0	1	1	11		ESC	+	;	K	[
1	1	0	0	12		ACK2	,	<	L	\		ACK
1	1	0	1	13	CR	START	-	=	M]		Ⓢ
1	1	1	0	14		WBT	.	>	N	↑		ESC
1	1	1	1	15			/	?	O	←		DEL

TM 5895-581-15-40

Figure 3-12. American standard code for information interchange.

LAST 3 DIGITS									
FIRST 2 DIGITS		000	001	010	011	100	101	110	111
00	UC	BLANK	5	CARRIAGE RETURN	9	SPACE	*	,	
	LC	BLANK	T	CARRIAGE RETURN	0	SPACE	H	N	M
01	UC	LINE FEED	)	4	8	8	ZERO	:	;
	LC	LINE FEED	L	R	G	I	P	C	V
10	UC	3	"	\$	?	BELL	6	!	/
	LC	E	Z	D	B	S	Y	F	X
11	UC	-	2	,	FIGURES	7	I	(	LETTERS
	LC	A	W	J	FIGURES	U	Q	K	LETTERS

TM 5895-581-15-43

Figure 3-13. International telegraph alphabet No. 2.

- d. Observe that all display lamps, except those listed below, are extinguished:
- | | |
|-----------|------------|
| CORE SEND | TP NORM |
| AUTO CORD | START XMIT |
| MSU | INT CLK |
| BLK/BLK | MSG # STOP |
| SELF TEST | XMIT SYNC |

e. If any lamp(s) other than the one(s) listed above fail to extinguish, momentarily depress RESET IND pushbutton or BG RESET pushbutton.

f. Rotate CODE SELECT switch to one of the following three positions:

(1) ASM1. Use this position to select American Standard Code for Information Interchange (ASCII) during mode I synchronous operation.

(2) ASM5. Use this position to select American Standard Code for Information Interchange (ASCII) during mode V asynchronous operation.

(3) ITA #2. Use this position to select International Telegraph Alphabet #2 during mode V asynchronous operation.

g. Rotate BIT RATE SELECT switch to one of 10 possible bit rate positions. First 7 positions (4800, 2400, 1200, 600, 300, 150, and 75) would only be used during a mode I synchronous operation (ASM1), whereas all 10 positions could be used during a mode V asynchronous operation (ASM5 or ITA #2).

h. Depress INT CLK illuminated pushbutton. Observe that white lamp illuminates.

i. Depress either TP NORM or TP INVT illuminated pushbutton. Observe that white lamp illuminates.

(1) TP NORM. TP NORM/TP INVT pushbutton will normally be in this position because the eight bit position (parity bit) for ASM1 and ASM5 data characters used in Automatic Digital Message Switching Centers (ADMSC) already contain odd parity.

(2) TP INVT. This position of pushbutton enables parity bit of all core memory data characters used in Automatic Electronic Switching Centers (AESC) to be inverted prior to transmission. This switch is not used for parity bits being generated from the patchboard, because the patchboard parity bit is manually inserted (diode pin).

j. Depress either MSU or CSU illuminated pushbutton. Observe that white lamp illuminates.

(1) MSU is used for message switching unit operation.

(2) CSU is used for circuit switching unit operation. The following pushbutton switches are used during CSU operation:

(a) AUTO DISC. If AUTO DISC illuminated pushbutton is depressed during a CSU operation, observe that white lamp illuminates. This automatically initiates a disconnect sequence after acknowledgment has been received for end of text (ETX) during AUTO CORD mode. During MAN CORD mode of operation, AUTO DISC is automatically sent after ETX block.

(b) XMIT DISC. If XMIT DISC illuminated pushbutton is depressed during a CSU operation, observe that white lamp illuminates. Pushbutton is used to manually initiate a continuous transmission of disconnect signals (steady 1s) which causes line or trunk involved to be disconnected (used in MAN CORD only).

(c) XMIT BUSY. If XMIT BUSY illuminated pushbutton is depressed during a CSU operation, observe that white lamp illuminates. After depressing pushbutton, a busy signal is transmitted (alternate 1's and 0's). Pushbutton is used in MAN CORD mode only.

(d) XMIT SR ACK. If XMIT SR ACK illuminated pushbutton is depressed during a CSU operation, observe that white lamp illuminates. Lamp indicates a service request acknowledgment (SR ACK) is being transmitted (steady 0's). It is used in MAN CORD mode only.

(e) XMIT SYNC. If XMIT SYNC illuminated pushbutton is depressed during a CSU operation, observe that white lamp illuminates. Lamp indicates sync is being transmitted.

k. Depress either NORMAL or SELF TEST illuminated pushbutton.

(1) NORMAL. When pushbutton is depressed, observe that white lamp illuminates. This indicates

simulator (character reader, block reader, and block generator) is in an on-line condition.

(2) *SELF TEST*. When pushbutton is depressed, observe that green lamp illuminates. During a self-test operation, output of the block generator is connected to inputs of the block reader and character reader to enable monitoring of blocks and control characters generated. Refer to paragraph 4-3 for a typical example of self-test operating procedures. While in self test, block generator will transmit a solid mark on output data line.

3-16. Core Send Mode, General

Selection of data from core memory is the normal method of transmission. The core send mode is selected when the simulator is simulating a terminal transmitting into a switching center, since the switching center checks message format (header information). The patch send mode may be selected when the simulator is simulating a switching center transmitting to a terminal, since only coordination is being checked under these conditions. The 22 data characters available at the patchboard are not sufficient to make up full header information. Paragraphs 3-17 through 3-19 provide operating procedures for the core send mode. These procedures cover both manual and automatic (block-by-block and continuous) operation. The patch send mode is described in paragraph 3-20.

3-17. Establishing Conditions of Test

a. Depress PTCH SEND/CORE SEND illuminated pushbutton to select CORE SEND position. Observe that white lamp illuminates.

(1) CORE SEND. Source of data characters is originally from punched tape which has been written into core memory. Source of control and framing characters will be control and framing character patchboard.

(2) PTCH SEND. This position of pushbutton would not normally be used unless core memory is malfunctioning.

b. Depress either AUTO CORD or MAN CORD position of AUTO CORD/MAN CORD illuminated pushbutton. Observe that white lamp illuminates.

(1) AUTO CORD. Selects automatic coordination mode of operation whereby line coordination procedures (as per DCAC-370-D175-1) are automatically performed by internal logic circuitry.

(2) MAN CORD. Selects manual coordination mode of operation whereby operator manually initiates transmission of blocks, messages, and control characters by depressing START XMIT or XMIT 2CC pushbutton.

c. Depress either CONT or BLK/BLK position of CONT/BLK/BLK illuminated pushbutton. Observe that white lamp illuminates.

(1) *CONT*. Selects continuous mode of operation. In AUTO CORD, when end of block framing sequence is sent during mode I operation, an answer timer is started while waiting for reply, and next block will be transmitted. After 82nd character (or EM character) of second block is sent, and no answer for previous block has been received, sync characters will be transmitted until timer expires. When timer expires before 82nd character (or EM character) is transmitted, transmitter will continuously send data until 82nd character is sent, before initiating REP sequence. In MAN CORD and ETP STOP, blocks will be terminated at 82d character or after EM character.

(2) *BLK/BLK*. Selection of block-by-block operation will provide positive control between transmitter and receiver. In AUTO CORD after block (mode I) or message (mode V) is transmitted, no further blocks or messages will be transmitted until an acknowledgment is received. In MAN CORD mode, all blocks will be terminated.

d. Rotate MESSAGE NO thumbwheel switches to select number of messages to be transmitted (1 to 99) from core memory.

e. Depress MSG # STOP/COMP illuminated pushbutton to stop transmitting messages when number of messages transmitted from core memory is equal to number of messages set up on MESSAGE NO thumbwheel switches. If MSG # STOP pushbutton is not depressed, then message in core memory will continually be repeated.

(1) MSG # STOP lamp illuminates amber when pushbutton is in MSG STOP state.

(2) COMP lamp illuminates white when the number of transmitted messages equals number on MESSAGE NO switch. COMP lamp extinguishes when either SOH or SOMS (mode V) sequence is transmitted or when BG RESET pushbutton is depressed.

f. Rotate XMIT LINE BLOCK COUNT NO thumbwheel switches to desired position for selecting total number of line blocks to be transmitted in message. In position 00, message will be sent as it appears on tape.

g. Rotate RESPONSE TIME NO thumbwheel switches to desired position for selecting number of character times between transmission of REP or CAN when no response has been received. Normally set up for one block length (automatic mode only.) It. Rotate REPEAT NO thumbwheel switches only during manual mode of operation to determine number of sync characters between blocks.

i. Rotate PAUSE TIME NO (X10MS) thumbwheel switches to select number of 10-millisecond intervals (pause time in transmission) which will precede transmission of control characters in mode V operation.

j. Depress ETX STOP/ETX SENT illuminated pushbutton to automatically stop transmitting at end of each message. To resume transmission, it will be necessary to depress START XMIT illuminated pushbutton. When ETX STOP/ETX SENT is not in EXT STOP state, messages contained in core memory will continually be transmitted.

(1) ETX STOP lamp illuminates amber to indicate pushbutton is in ETX STOP condition.

(2) ETX SENT lamp illuminates white when an ETX character is transmitted and extinguishes when either start of block or cancel sequence is transmitted.

k. Depress ETB STOP/ETB SENT illuminated pushbutton to automatically stop transmitting after each block is transmitted (mode I) or immediately (mode V). To resume transmission, it will be necessary to depress START XMIT illuminated pushbutton (mode I) or ETB STOP/ETB SENT illuminated pushbutton and then START XMIT (mode V). When ETB STOP/ETB SENT illuminated pushbutton is not in ETB STOP state, blocks contained in core memory will continually be transmitted. During continuous mode of operation, block will be in nonterminated state.

(1) STB STOP lamp illuminates amber to indicate pushbutton is in ETB STOP state.

(2) ETB SENT lamp illuminates white when ETB character is detected during transmission and extinguishes when start of block or cancel sequence is transmitted.

1. Depress ERR STOP/ERR illuminated pushbutton only during AUTO mode of operation to automatically stop transmitting when either NACK or invalid ACK is detected on receive line.

(1) ERR STOP lamp illuminates amber to indicate pushbutton is in ERR STOP state.

(2) ERR lamp illuminates red to indicate NACK or invalid ACK was received. Observe that RPT BLK lamp also illuminates red. If ERR lamp illuminates when ERR STOP/ERR illuminated pushbutton is in the ERR STOP state, operator should proceed as follows:

(a) Depress START XMIT illuminated pushbutton to repeat transmission of same block.

(b) Observe that RPT BLK lamp and START XMIT lamp extinguish.

(c) If invalid ACK or NACK is still received, repeat steps (a) and (b) above until same block has been transmitted three times.

(d) If NACK or invalid ACK is reply to third transmission of same block, observe that 3RPT lamp illuminates red and audible alarm sounds (located on rear of control panel) to inform operator that error condition exists and requires action.

(e) Depress XMIT CAN illuminated pushbutton. Observe that lamp illuminates amber.

(f) When correct acknowledgment (ACK2) is received, observe that ERR, EXP ACK, and XMIT CAN lamps extinguish.

(g) Determine cause of error in block and reload faulty core memory position(s), or take other necessary action to correct fault.

m. Momentarily depress XMIT SYNC illuminated pushbutton only during CSU mode of operation to transmit sync characters coded up on patchboard. Figures 39 through 3-11 show bit configuration coded up on patchboard during ASM1, ASM5, and ITA #2 modes of operation. During manual or automatic mode of operation, observe that XMIT SYNC lamp illuminates while sync characters are being transmitted.

3-18. Manual Transmission of Contiguous Control Characters

a. Rotate 2CC SELECT thumbwheel switch only during manual mode of operation to select which one of the following control character sequences will be transmitted, when XMIT 2CC illuminated pushbutton is momentarily depressed:

- (1) *ACK 1*. An acknowledge 1 character sequence is sent only upon request to notify transmitter that block has been received correctly.
- (2) *ACK 2*. An acknowledge 2 character sequence is alternately used with ACK 1 character sequence to acknowledge correctly received blocks. In addition, ACK 2 is always used to acknowledge a CAN character sequence.
- (3) *NACK*. A negative acknowledge character sequence is sent to indicate that an error has been detected while receiving correctly framed block. It notifies sender to retransmit complete block, applicable to NACK.
- (4) *RM*. Reject your message character sequence is sent to notify sending station of defect in properly framed message that cannot be corrected by retransmission of block. Message will be canceled at sending station when RM receive control character is detected.
- (5) *WBT*. before transmitting character sequence is sent as response to correctly framed block informing sender of message that no more blocks can be accepted.
- (6) *CAN*. Cancel character sequence is sent to inform receiving station to cancel or disregard message being received. In addition, CAN is used for ACK synchronization between send and receive side.
- (7) *REP*. Reply character sequence is sent to direct receiver to send its last answer or response (ACK1, ACK2, NACK, WBT, or RM).
- (8) *INV*. Suspected invalid message character sequence is sent when an answer (WBT, RM, NACK, ACK1, or ACK2) is received that was not requested.
- (9) *ENQ*. Enquiry character sequence is sent to request terminal station to ie: identify itself (only used with AUTOVON system).

b. Momentarily depress XMIT 2CC illuminated pushbutton only during manual mode of operation, to transmit control character sequence selected by 2CC SELECT thumbwheel switch.

- (1) *Mode I*. XMIT 2CC lamp illuminates white to indicate control character sequence is being transmitted.
- (2) *MODE V*. When XMIT 2CC illuminated pushbutton is momentarily depressed, pause time set up on PAUSE TIME NO (X10MS) thumbwheel switches will be transmitted prior to transmission of control character sequence. When control character sequence is being transmitted, XMIT 2CC lamp will illuminate white.

3-19. Alarm Conditions

a. Momentarily depress ALARM illuminated pushbutton to silence audible alarm. An alarm condition requires operator action. ALARM lamp will illuminate red when one of the following conditions occur:

- (1) RPT MSG
- (2) 3 RPT
- (3) Terminate tape cycle (more than 90 characters in tape block). ALARM lamp will extinguish when START XMIT illuminated pushbutton is momentarily depressed. ALARM lamp will also extinguish when RPT MSG pushbutton is depressed for RPT MSG conclusion.
- (4) NACK or BAD REPLY received when in ERROR STOP XMIT state.
- (5) Error received when in ERROR STOP RCV state.

b. Momentarily depress XMIT CAN illuminated pushbutton only during automatic mode of operation to transmit CAN sequence. Observe that XMIT CAN lamp illuminates amber when CAN sequence is being transmitted. XMIT CAN lamp extinguishes when ACK2 receive control character is detected.

c. Momentarily depress START XMIT illuminated pushbutton to perform any one of the following operations:

- (1) Initiate data transmission.
- (2) Resume data transmission after programmed halt.
- (3) Retransmit REP or CAN control character sequences, after 3RPT condition.

d. Observe that START XMIT lamp illuminates amber to indicate when START XMIT illuminated pushbutton should be depressed. After START XMIT illuminated pushbutton is momentarily depressed, the following lamps may illuminate during message transmission or reception:

- (1) XMIT DATA lamp illuminates white only when data is being transmitted or when block is in nonterminated state.
- (2) XMIT SYNC lamp illuminates white only when sync characters coded up on patchboard are being transmitted.
- (3) EXP ACK lamp illuminates white only during automatic mode of operation to indicate an acknowledgment control character has been requested. Lamp extinguishes when any receive control character except WBT has been detected.
- (4) XMIT REP lamp illuminates white only during transmission of REP sequence. Lamp extinguishes when any receive control character except WBT has been detected. During MAN CORD mode, lamp illuminates when REP has been sent from XMIT 2CC switch. Lamp extinguishes when RESET IND pushbutton is depressed.
- (5) XMIT CAN lamp illuminates amber only during automatic mode of operation to indicate CAN sequence is being transmitted. Lamp extinguishes when ACK2 receive control character has been detected.
- (6) RM SENT lamp illuminates white only after transmission of RM sequence.
- (7) NACK SENT lamp illuminates white only after transmission of NACK sequence. Momentarily depress RESET IND pushbutton to extinguish lamp.
- (8) CAN SENT lamp illuminates white only after transmission of CAN sequence. Momentarily depress RESET IND pushbutton to extinguish lamp.
- (9) INV SENT lamp illuminates white only after transmission of INV sequence. Momentarily depress RESET IND pushbutton to extinguish lamp.
- (10) 3RPT lamp illuminates red only when CAN or REP sequence is transmitted three times and no acknowledgment is received in AUTO CORD or after a block has been retransmitted three times and no acknowledgment is received. Lamp extinguishes when START XMIT illuminated pushbutton is momentarily depressed.
- (11) BAD REPLY lamp illuminates red whenever the wrong acknowledgment control character is received (ACK1 instead of ACK2, or vice versa).
- (12) RPT BLK lamp illuminates red only during automatic mode of operation to indicate block has to be retransmitted due to an error condition. Lamp extinguishes when block is retransmitted.
- (13) RPT MSG lamp illuminates amber only during automatic mode of operation to indicate message has to be retransmitted due to either reception of RM or transmission of CAN in middle of transmitted message. Lamp extinguishes when RPT MSG illuminated pushbutton is momentarily depressed, or when START XMIT pushbutton is depressed.

3-20. Patch Send Mode, General

The patchboard is provided as a part of the block generator to enable manual coding of control characters and tip to 22 data characters. All control characters transmitted are selected from the patchboard. Data characters are transmitted from the patchboard only in the patch send mode. The patch send mode may be selected when the simulator is

simulating a switching center transmitting to a terminal; that is, when it is required to check coordination but not message format. When message format is important, use the core send mode. Paragraphs 3-21 through 3-24 provide operating procedures for the patch send mode. These procedures cover both manual and automatic (block-by-block and continuous) operation. Coding of the patchboard is described in paragraph 3-14.

3-21. Establishing Conditions of Test

a. Depress INT CLK/EXT CLK illuminated pushbutton to select INT CLK or EXT CLK position, as desired. Observe that white lamp illuminates.

b. Depress PTCH SEND/CORE SEND illuminated pushbutton to select PTCH SEND position. Observe that white lamp illuminates to indicate data and control characters will be transmitted from the patchboard.

c. Depress either AUTO CORD or MAN CORD position of AUTO CORD/MAN CORD illuminated pushbutton. Observe that white lamp illuminates.

(1) AUTO CORD selects automatic coordination mode of operation whereby response to correct line coordination is automatically performed by internal logic circuitry.

(2) MAN CORD selects manual coordination mode of operation whereby operator has capability to make decisions. (For example, 2CC SELECT and XMIT 2CC switches enable operator to manually initiate control characters.)

d. Depress either CONT or BLK/BLK position of CONT/BLK/BLK illuminated pushbutton. Observe that white lamp illuminates.

(1) CONT selects continuous mode of operation. When end of block framing sequence is sent during mode I automatic coordination, an answer timer is started while awaiting for reply, and next block will be transmitted. After 82d character or EM character of second block is sent and no answer for previous block has been received, SYN characters will be transmitted until timer expires. When timer expires before 82d character or EM character is transmitted, transmitter will continuously send data, until 82d character is sent, before initiating REP sequence. During manual coordination, block will not terminate when ETB STOP pushbutton is depressed.

(2) BLK/BLK selects block-by-block operation and provides positive control between transmitter and receiver. After block (mode I) is transmitted, no further blocks will be transmitted until acknowledgment is received.

e. Depress MSU/CSU illuminated pushbutton to select MSU position. Observe that white lamp illuminates.

f. Depress NORMAL/SELF TEST illuminated pushbutton to select NORMAL (on-line) position. Observe that white lamp illuminates.

g. Rotate CODE SELECT thumbwheel switch to one of the following three positions:

(1) ASM1 selects American Standard Code for Information Interchange (ASCII) during mode I/III synchronous operation.

(2) ASM5 selects American Standard Code for Information Interchange (ASCII) during mode V asynchronous operation.

(3) ITA #2 selects International Telegraph Alphabet #2 during mode V asynchronous operation.

h. Rotate BIT RATE SELECT thumbwheel switch to one of the 10 possible bit rate positions. Use first 7 positions (75, 150, 300, 600, 1200, 2400, and 4800) during mode I synchronous operation (ASM1) and all 10 positions during mode V asynchronous operation (ASM5 or ITA #2).

i. Momentarily depress BG RESET pushbutton to reset internal circuits of block generator.

j. Depress LAMP CHECK illuminated pushbutton. Observe that all block generator display lamps are illuminated.

k. Momentarily depress RESET IND pushbutton. Observe that XMIT REP, RM SENT/NACK SENT, and CAN SENT/INV SENT indicators are extinguished.

l. Rotate PAUSE TIME NO (X10MS) thumbwheel switches only during asynchronous operations (mode V) to select number of 10-millisecond intervals (pause time in transmission) which will precede transmission of control characters.

m. Rotate REPEAT NO thumbwheel switches only during manual mode of operation for selecting character count to begin transmission of next block (mode 1) or transmission of next message (mode V).

n. Rotate XMIT LINE BLOCK COUNT NO thumbwheel switches to desired position for selection of total number of line blocks to be transmitted per message.

o. Rotate XMIT LINE BLOCK COUNT NO thumbwheel switches to position 00 during patchboard transmission to transmit an infinite message (last block never sent).

p. Rotate RESPONSE TIME NO thumbwheel switches to required position to select number of character times between transmission of REP or CAN sequence, which no reply has been received. Normally set for about one block length (automatic mode only).

q. Rotate INSERT PATCHBOARD thumbwheel switch to one of following three positions:

(1) ALL. Transmits 22 characters, coded on DATA CHARACTERS portion of patchboard, starting with first data character position of each block.

(2) INH. Inhibits transmission of 22 data characters.

(3) BLK 1. Transmits only 22 characters during the first block.

r. Rotate INSERT ABCDE thumbwheel switch to one of following three positions:

(1) ALL. Transmits ABCDE character configuration, coded on DATA CHARACTER portion of patchboard in all blocks, at character count positions selected by ABCDE NO thumbwheel switches.

(2) INH. Inhibits transmission of ABCDE characters coded on patchboard.

(3) LAST. Transmits only ABCDE character configuration, coded on patchboard, in last block.

s. Rotate ABCDE NO thumbwheel switches to desired position to select character count position on patchboard that the "A" character of ABCDE characters will be transmitted. (For example, ABCDE number of 40 will place ABCDE characters in positions 40, 41, 42, 43, and 44, respectively, of any blocks selected by INSERT ABCDE thumbwheel switch.

t. Rotate EOB NO BLOCK 1 thumbwheel switches to select character count position in the first block for inserting the end of block (ETB or ETX) character. Normally set for 83.

u. Rotate EOB NO BLOCK 2 thumbwheel switches to select character count position in all blocks except first block for inserting end of block (ETB or ETX) character. Normally set for 83.

3-22. Automatic Stop

a. Depress ETX STOP/ETX SENT illuminated pushbutton to automatically stop transmitting at the end of each message. To resume transmission, momentarily depress START XMIT illuminated pushbutton. When ETX STOP/ETX SENT illuminated pushbutton is not in ETX STOP state, messages coded up on patchboard will continually be sent.

(1) ETX STOP lamp illuminates amber only when pushbutton is in ETX STOP state.

(2) ETX SENT lamp illuminates white only when ETX character is detected during transmission. Lamp extinguishes when either SOH, STX, or cancel sequence is transmitted.

b. Depress ETB STOP/ETB SENT illuminated pushbutton during mode I to stop automatically transmitting after each block is sent, or during mode V to stop transmitting immediately. To resume transmission, momentarily depress START XMIT illuminated pushbutton. During mode V, to resume transmission, release ETB STOP illuminated pushbutton and then depress START XMIT illuminated pushbutton. When ETB STOP/ETB SENT illuminated pushbutton is not in ETB STOP state, blocks will continue to be transmitted. During continuous automatic mode of operation, blocks will be nonterminated.

- (1) ETB STOP lamp illuminates amber only when pushbutton is in ETB STOP state.
- (2) ETB SENT lamp illuminates white only when ETB character is detected during transmission. Lamp extinguishes when SOH, STX, or cancel sequence is sent.

3-23. Alarm

a. Depress ERR STOP/ERR illuminated pushbutton only during automatic mode of operation to automatically stop transmitting when either NACK or BAD REPLY is detected on the receive line. ALARM lamp illuminates and audible alarm sounds during above conditions.

- (1) ERR STOP lamp illuminates amber only when pushbutton is in ERR STOP state.
- (2) ERR lamp illuminates red when either NACK or invalid ACK is detected on receive line. Lamp extinguishes when proper acknowledgment is received.
- (3) To resume transmission, depress START XMIT illuminated pushbutton.

b. Momentarily depress XMIT CAN illuminated pushbutton only during automatic mode of operation to transmit CAN sequence. Observe that XMIT CAN lamp illuminates amber when CAN sequence is being transmitted. Lamp extinguishes when ACK2 receive control character is detected.

3-24. Manual Transmission of Contiguous Control Characters

a. Rotate 2CC SELECT thumbwheel switch only during manual mode of operation to select which of the following control character sequences will be transmitted, when XMIT 2CC illuminated pushbutton is momentarily depressed:

- (1) ACK1 is sent only upon request to notify transmitter that block has been correctly received.
- (2) ACK2 is used alternately with ACK1 to acknowledge correctly received blocks. In addition, ACK2 is always used to acknowledge CAN character sequence.
- (3) NACK is sent when an error has been detected during reception of correctly framed block to notify sender to retransmit complete block applicable to NACK.
- (4) RMA is sent to notify sending station of defect in properly framed block that cannot be corrected by retransmission of block. Message is canceled at sending station when RM receive control character is detected.
- (5) WBT is sent as response to correctly framed block, informing sender of message that no more blocks can be accepted.
- (6) CAN is sent to inform receiving station to cancel or disregard message being received.
- (7) REP is sent to direct receiver to send its last answer or response (ACK1, ACK2, NACK, RM, or WBT.)
- (8) INV is sent when answer is received (WBT, RM, NACK, ACK1, or ACK2) that was not requested.
- (9) ENQ is sent to request terminal station to identify itself (only used with AUTOVON system).

b. Momentarily depress XMIT 2CC illuminated pushbutton only during manual mode of operation, to transmit control character sequence set up on 2CC SELECT thumbwheel switch, and as coded on the TCC and RCC patchboard.

c. Momentarily depress START XMIT illuminated pushbutton to perform any of the following operations:

- (1) Initiate data transmission.
- (2) Resume data transmission after programmed halt (ETB STOP, ETX STOP, ERR STOP, or 3RPT) of block.
- (3) Retransmit REP or CAN control character sequences after 3RPT condition, or repeat block after a 3RPT condition.
- (4) Extinguish ALARM lamp when either 3RPT, RPT MSG, or ERR STOP condition has occurred while START XMIT lamp is illuminated.

d. After START XMIT illuminated pushbutton is momentarily depressed, START XMIT lamp extinguishes. Any of the following lamps may illuminate during message reception or transmission:

- (1) XMIT DATA lamp illuminates white when data is being transmitted or when block is in nonterminated state.
- (2) XMIT SYNC lamp illuminates white when sync characters coded up on patchboard are being transmitted.
- (3) EXP ACK lamp illuminates white during automatic mode of operation to indicate acknowledgment control character has been requested. Lamp extinguishes when any receive control character, except WBT, has been detected.
- (4) XMIT REP lamp illuminates white during transmission of REP sequence. Lamp extinguishes when any receive control character except WBT, has been detected.
- (5) XMIT CAN lamp illuminates amber during automatic mode of operation to indicate CAN sequence is being transmitted. Lamp extinguishes when ACK2 receive control character is detected.
- (6) RM SENT lamp illuminates white during transmission of RM sequence. Momentarily depress RESET IND pushbutton to extinguish lamp.
- (7) NACK SENT lamp illuminates white during transmission of NACK sequence. Momentarily depress RESET IND pushbutton to extinguish lamp.
- (8) CAN SENT lamp illuminates white during transmission of CAN sequence. Momentarily depress RESET IND pushbutton to extinguish lamp.
- (9) INV SENT lamp illuminates white during transmission of INV sequence. Momentarily depress RESET IND pushbutton to extinguish lamp.
- (10) 3RPT lamp illuminates red when CAN or REP sequence is transmitted three times and no acknowledgment is received, or after a block has been retransmitted three times due to receipt of NACK or BAD REPLY. Lamp extinguishes when START XMIT pushbutton is depressed.
- (11) BAD REPLY lamp illuminates red when the wrong acknowledge control character is received.
- (12) RPT BLK lamp illuminates red during automatic mode of operation to indicate block must be retransmitted due to error condition. Lamp extinguishes when block has been retransmitted.
- (13) RPT MSG lamp illuminates amber during automatic mode of operation to indicate message has to be retransmitted due to either reception of DISC in middle of transmitted message or transmission of CAN. Lamp extinguishes when either RPT MSG or START XMIT illuminated pushbuttons are momentarily depressed.
- (14) REPLY TIME lamps count number of character times (0 through 99) between either transmission of REP, CAN, or BP character and receipt of valid return control character.
- (15) ALARM lamp illuminates red when one of following conditions occur: RPT MSG, 3RPT, terminate tape cycle (more than 94 characters in tape block, ERROR STOP RCV and received error, or ERROR STOP XMIT and transmitted error.) Lamp extinguishes when START XMIT, TERM, or START RCV illuminated pushbuttons are momentarily depressed.

3-25. Core Memory Operating Procedures

Core memory controls and indicators provide the simulator with capabilities of writing in messages and characters. The message write-in cycle can be terminated when specified conditions warrant termination. Character locations in memory can be monitored or written into. When power to core memory has to be turned off, core memory can be inhibited to prevent errors from being introduced into core memory or inhibited to prevent erroneous data from being written in. Data received is inhibited from shifting to the transmit half of core memory by a Disable switch at the rear of logic shelf A2. The simulator logic is locked in the MEM NORM position by this switch.

a. *Message Input.* When a message is to be written into core memory for transmitting purposes, proceed as follows:

- (1) Ensure that the Disable switch is on and the MEM NORM light is illuminated.
- (2) Depress momentarily WRITE MSG illuminated pushbutton: WRITE MSG lamp extinguishes. This allows transfer of paper tape data in the ASR set into the transmit side of core memory.

Transfer of data continues until message is transferred. When message has been transferred to memory, WRITE MSG lamp illuminates.

b. Character Input. When CORE MEMORY toggle switch is to be used to write a character into core memory or modify a character already existing in core memory, proceed as follows:

- (1) Ensure that the Disable switch is on and the MEM NORM lamp is illuminated.
- (2) Rotate CHAR NO thumbwheel switch to the character position into which the character coded on the CORE MEMORY toggle switch is to be written.
- (3) Rotate BLOCK NO thumbwheel switch to the number of tile block into which the character coded on CORE MEMORY toggle switch is to be written.
- (4) Depress XMIT/RCV illuminated pushbutton to required position to select the half into which memory characters are to be written.
- (5) Set CORE MEMORY toggle switches to positions corresponding to the eight-bit character code to be written into core memory. Up position represents logic 1; down position represents logic 0.
- (6) Depress momentarily WRITE CHAR illuminated pushbutton. This causes eight-bit character coded on the eight toggle switches to be written into core memory selected location.

c. Terminating Message Input From ASR Set. When a message is being written into core memory from the ASR set, and the block length exceeds 94 characters or number of blocks exceeds 20, TERM pushbutton lamp illuminates red, ALARM pushbutton lamp illuminates red, and audible alarm energizes. When this condition occurs, momentarily depress TERM illuminated pushbutton to terminate the paper tape to memory input cycle.

d. Monitoring Core Memory Data. When information in core memory is to be monitored, proceed as follows:

- (1) Depress ADDRESS/DATA illuminated pushbutton to select one of the following functions:
 - (a) ADDRESS. Causes display lamps to monitor 12-bit address.
 - (b) DATA. Causes display lamps to monitor 8-bit data character.
- (2) Rotate BLOCK NO thumbwheel switch to the number of the block in which the address or data of one character location is to be displayed in the 12 display lamps.
- (3) Rotate CHAR NO thumbwheel switch to the number of the character to be monitored. This character will be located in the block selected by BLOCK NO thumbwheel switch.
- (4) Transfer the address selected by BLOCK NO and CHAR NO thumbwheel switches to the transmit or receive half of core memory, by depressing XMIT/RCV illuminated pushbutton for one of the following functions:
 - (a) Depress XMIT to monitor transmit half of core memory.
 - (b) Depress RCV to monitor receive half of core memory.
- (5) Depress MONITOR SELECT LOCATION illuminated pushbutton. This causes display lamps to monitor location in steps (2) through (4) above.

e. Inhibiting Core Memory. When it is required to disable all core memory cycles power off procedure), INH MEMORY illuminated pushbutton should be depressed. Pushbutton illuminates red when depressed. When MONITOR SELECT LOCATION pushbutton is in unlit position, the output of the data or address registers will be monitored.

f. Transferring Received Data for Retransmission. Under certain controlled conditions, it may become necessary to transmit data that has been written into the receive half of core memory. When this is required, the Disable switch located on the rear of logic assembly A2 must be unsealed, and turned to the OFF position. This will cause the Audible Alarm to sound and the MEM NORM/MEM INVT switch to go to MEM INVT. The Simulator is now prepared to transmit from the receive side of memory. The MEM NORM/MEM INVT switch is now activated and can be utilized to alternate between the receive and transmit halves of memory. The audible alarm will continue to sound, and can only be reset by placing the MEM NORM/MEM INVT switch to MEM INVT and the Disable switch to the ON position.

CAUTION

Whenever the simulator is used in this mode of operation, it must only be used on one circuit. Upon completion of such use, the transmit side of memory must be totally cleared of all data, and reloaded with the desired test message data prior to use of the simulator on another circuit.

g. Memory Printout. When manual printout of data received is required, proceed as follows:

- (1) Rotate AUTO PRINT CONTROL thumbwheel switch to OFF position. This causes all possible automatic printout modes to be disabled.
- (2) Ensure that XMIT/RCV illuminated pushbutton is depressed for one of the following functions:
 - (a) RCV. Printout is from receive side of core memory.
 - (b) XMIT. Printout is from transmit side of core memory.
- (3) Rotate BLOCK NO thumbwheel switch to the number at which the block printout will start.
- (4) Depress PRINT BLOCK illuminated pushbutton. This causes printout of the line block, selected by BLOCK NO thumbwheel switch. PRINT BLOCK lamp extinguishes when depressed and printout begins. Pushbutton illuminates white when printout is completed. Pushbutton can only be depressed when illuminated.
- (5) Momentarily depress END PRINT illuminated pushbutton when desired to terminate the printout of data when in automatic printout mode. Printout terminates at end of current line block.

3-26. ASR Set Operating Procedures

Procedures for coding data on paper tape using the ASR set are combined in a and b below. (a provides instructions for coding in mode I ASCII. Tape preparation in mode V ASCII and ITA #2 is identical to tape preparation in mode I ASCII.) When coding ITA #2, it is required that shift out (SO) and shift in (SI) characters be used (b.); these characters may be used in ASCII mode I or mode V when desired.

a. Mode I and Mode V ASCII. When coding paper tape in mode I and mode V ASCII using ASR set keyboard and reperforator, proceed as follows:

- (1) Set MODE switch to position T; this connects transmitter-distributor and typing unit to simulator. Typing unit copies what is being transmitted from the transmitter-distributor or received from a distant station. The keyboard and reperforator are on the auxiliary local circuit. Tape can be prepared on reperforator from keyboard without interfering with transmission on external signal line.
- (2) Depress CTRL (control) key and A key simultaneously. This causes SOH character to be coded on tape.
- (3) Depress the corresponding key for each data character to be coded. Up to 80 data characters can be encoded in mode I and up to 90 data characters in mode V.
- (4) Depress CTRL key and W key simultaneously. This causes ETB character to be coded on tape. When the last block in mode I contains 79 characters or less, depress CTRL key and Y key before coding ETB character. This causes EIM character to be coded on tape.
- (5) Depress CTRL key and B key simultaneously. This causes STX character to be coded. The STX character will be the first character for all blocks encoded after first block.
- (6) Repeat step (3) and (4) above.
- (7) Encode the last block as follows:
 - (a) Repeat steps (5) and (3) above.
 - (b) When the last block contains the required number of data characters, depress CTRL key and C key simultaneously. This causes ETX character to be coded. When the last block in mode I contains 79 characters or less, depress CTRL key and Y key before coding ETX character. This causes EM character to be coded.
- (8) Remove coded paper tape from reperforator and place in transmitter-distributor.
- (9) Data on the coded paper tape may now be written into the simulator core memory by performing procedures described in b below.

b. SO and SI Character Coding. When coding for mode V ITA #2 operation, the coding procedure is same as the procedure described for mode I ASCII (a above). However, when it is necessary to use upper case or lower case letters in mode V ITA #2, proceed as follows:

- (1) *Upper case.* Depress CTRL key and N key. This causes character SO to be coded and all following characters to be upper case.

(2) *Lower case.* Depress CTRL key and O key. This causes character O to be coded and all following characters to be lower case.

3-27. Stopping Procedures

a. Depress INH MEMORY illuminated pushbutton on core memory and observe that red lamp illuminates. This will prevent erroneous conditions from being developed in core memory during removal and application of power.

b. Set POWER ON/OFF switch on the core memory power supply to OFF. This will remove power from core memory drive and logic power supplies.

c. Set circuit breakers 1 through 4 on power supply shelf to OFF. All power is now removed from the simulator.

**CHAPTER 4
ORGANIZATIONAL MAINTENANCE**

4-1. Scope of Maintenance

The maintenance duties assigned to the operator of the simulator are listed below together with a reference to the paragraphs covering the specific maintenance function. These duties do not require special tools or test equipment.

- a. Daily preventive maintenance checks and services (para 4-3).
- b. Cleaning (para 44).
- c. Repairs (para 4-5).

4-2. Preventive Maintenance

a. Preventive maintenance is the systematic inspection, repair, and cleaning of the simulator to prevent the occurrence of trouble, to reduce down time, and to assure that the equipment is serviceable.

b. The daily preventive maintenance checks and services chart (para 4-3) outlines functions to be performed each day. These checks and services are to maintain Army electronic equipment in combat serviceable condition; that is, in good general (physical) condition and in good operational condition. To assist in maintaining combat serviceability, the chart indicates what to check, how to check, and what the normal conditions are; the References column lists the paragraphs that contain detailed repair or replacement procedures. If the defect cannot be remedied by performing the corrective actions indicated, higher level maintenance or repair is indicated. Records and reports of these checks and services must be made in accordance with the requirements set forth in TM 38-750.

4-3. Daily Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Completeness	See that equipment is complete.	
2	Indicator lenses.....	Check indicator lenses for cracks.....	Para 4-5
3	Controls and indicators	While making operating checks (items 4 through 21), observe that mechanical action of each switch is smooth and free of external or internal binding and no excessive looseness is apparent.	Higher level of maintenance is required.
4	Circuit breakers 1 through 4	Set on ON	Higher level of maintenance is required.
5	Core memory power supply, POWER ON/OFF switch.	Set to ON. Observe that power lamp illuminates.	Higher level of maintenance is required.
6	ASR set controls: a. ON LINE/OFF LINE/LOC switch. b. Mode switch	Set the controls as follows: a. ON LINE position b. T position	Higher level of maintenance is required.

Sequence No.	Item	Procedure	References
7	Core memory, INH MEMORY	Set to unlit position.....	Higher level of maintenance is required.
8	Character reader LAMP CHECK pushbutton.	a. Depress (first time). LAMP CHECK indicator illuminates. Observe that all character reader and core memory indicator lamps are illuminated. There are no lamps in CR RESET, and RE-SET IND, WRITE CHAR, and END PRINT pushbuttons. b. Depress (second time). LAMP CHECK indicator extinguishes. Observe that all character reader and core memory indicator lamps illuminated in step a are extinguished.	Para 4-5 Higher level of maintenance is required.
9	Character reader controls: a. INT CLK/EXT CLK pushbutton. b. BIT RATE SELECT switch	Set controls as follows: a. INT CLK. Observe that INT CLK indicator lamp illuminates. b. 4800	Higher level of maintenance is required. Higher level of maintenance is required.
	c. CODE SELECT switch	c. As desired	Higher level of maintenance is required.
	d. PAR CONT/PAR DATA pushbutton.	d. PAR CONT. Observe that PAR CONT indicator lamp illuminates	Higher level of maintenance is required.
	e. PAR NORM/PAR INVT pushbutton.	e. PAR NORM pushbutton. Observe PAR NORM indicator lamp illuminates	Higher level of maintenance is required.
	f. ALL RCVD/LAST RCVD pushbutton.	f. ALL RCVD. Observe that ALL RCVD indicator lamp illuminates.	Higher level of maintenance is required.
10	Character reader CR RESET and RESET IND pushbuttons.	Depress. Note that- a. The following indicator lamps extinguish: (1) ERROR 1/ERROR 2 (2) SOH/STX (3) ETB/ETX (4) ACK 1/ACK 2 (5) NACK/RM (6) WBT/START (7) CAN/REP (8) INV/ENQ (9) EM/MC	Higher level of maintenance is required.

Sequence No.	Item	Procedure	References
		<p><i>b.</i> One indicator in each of the following split screen Indicators illuminates (unless otherwise noted):</p> <p>(1) SYNC/FRAME (Both are lit.)</p> <p>(2) DATA/CONTROL (Not lit in ASMI) (CONTROL only during ASM5 or ITA #2)</p>	Higher level of maintenance is required.
11	Block reader LAMP CHECK pushbutton.	<p><i>a.</i> Depress (first time). LAMP CHECK indicator illuminates: Observe that all indicator lamps associated with block reader other than BR RESET and RESET IND, illuminate.</p> <p><i>b.</i> Depress (second time). LAMP CHECK indicator extinguishes. Observe that all block reader Indicator lamps illuminated in step <i>a</i> are extinguished.</p>	<p>Para 4-5</p> <p>Higher level of maintenance is required.</p>
12	Block reader controls:	Set controls as follows:	
	<i>a.</i> MSU/CSU pushbutton	<i>a.</i> MSU position. Observe that MSU indicator lamp illuminates.	Higher level of maintenance is required.
	<i>b.</i> INT CLK/EXT CLK pushbutton.	<i>b.</i> INT CLK position. Observe that indicator lamp illuminates.	Higher level of maintenance is required.
	<i>c.</i> CONT/BLK/BLK pushbutton -	<i>c.</i> As required. Observe that indicator lamp illuminates.	Higher level of maintenance is required.
	<i>d.</i> RPAR NORM/RPAR INVT pushbutton	<i>d.</i> RPAR NORM position. Observe that RPAR NORM indicator lamp illuminates.	Higher level of maintenance is required.
	<i>e.</i> START SOB/START SOH pushbutton.	<i>e.</i> START SOH position. Observe that START SOH indicator lamp illuminates.	Higher level of maintenance is required.
	<i>f.</i> ALL RCVD/LAST RCVD pushbutton.	<i>f.</i> ALL RCVD position. Observe that ALL RCVD indicator lamp illuminates.	Higher level of maintenance is required.
	<i>g.</i> CODE SELECT switch	<i>g.</i> As required.....	Higher level of maintenance is required.
	<i>h.</i> BIT RATE SELECT switch	<i>h.</i> 4800	Higher level of maintenance is required.
	<i>i.</i> DISPLAY LOCKUP switch	<i>i.</i> SOH position.....	Higher level of maintenance is required.
	<i>j.</i> RCV/PRINT LINE BLOCK COUNT NO Switches	<i>j.</i> 02	Higher level of maintenance is required.
	<i>k.</i> NORM PRINT/SEL PRINT pushbutton.	<i>k.</i> SEL PRINT position. Observe that SEL PRINT indicator lamp illuminates.	Higher level of maintenance is required

Sequence No.	Item	Procedure	References
	<i>l.</i> AUTO PRINT CONTROL SWITCH.	<i>l.</i> MSG position	Higher level of maintenance is required.
	<i>m.</i> RCV PAUSE switch	<i>m.</i> 15	Higher level of maintenance is required.
13	Block reader BR RESET, RESET IND pushbuttons.	Depress. Note that-	
	<i>a.</i> The following indicator lamps extinguish:		Higher level of maintenance is required.
	(1) ETB/ETX		
	(2) CAN/REP		
	(3) EM/MC		
	(4) INV/ENQ		
	(5) WBT/START		
	(6) NACK/RM		
	(7) ACK 1/ACK 2		
	(8) SOH/STX		
	(9) CPE/BPE		
	(10) SELE/BFE		
	(11) NCCE/BLE		
	(12) SEQE/RPE		
	<i>b.</i> One indicator of DATA/CONTROL (CONTROL only during ASM5 or ITA #2) split screen indicator illuminates.		Higher level of maintenance is required.
	<i>c.</i> The following indicator lamp illuminates		Higher level of maintenance is required.
	CHAR FRAME only during ASM 1		
14	Block generator LAMP CHECK pushbutton.	<p><i>a.</i> Depress (first time). LAMP CHECK indicator illuminates. Observe that all block generator display lamps are illuminated. There no lamps in BG RESET and RESET IND pushbuttons.</p> <p><i>b.</i> Depress (second time). LAMP CHECK indicator extinguishes. Observe that all Indicator lamps</p>	<p>Para 4-5</p> <p>Higher level of maintenance is required.</p>

VZCZC
 THE QUICK BROWN DOG JUMPS OVER THE LAZY DOG'S BACK
 123456789-?:\$&#
 (,;/" THE WESTERN UNION TELEGRAPH
 COMPANY
 (,;/" THE WESTERN UNION TELEGRAPH
 COMPANY
 INFORMATION
 SYSTEMS AND SERVICE -----END OF TEST TAPE-----

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Figure 4-1. Test type B normal printout.

4-4. Cleaning

Inspect the exterior surfaces of the simulator. The exterior surfaces should be clean, free of dust, dirt, and grease.

- a. Remove dust and loose dirt with a clean, soft cloth.
- b. Remove grease and ground-in dirt from the cabinet; use a cloth dampened (not wet) with cleaning compound.
- c. Clean the control panel and line block display panel; use a soft clean cloth. If dirt is difficult to remove, dampen the cloth with water; use mild soap if necessary.

CAUTION

Make sure cloth is well wrung out. Do not let water run down into thumbwheel switches

4-5. Replacement of Indicator Lamps and Lenses

The following procedures are required to replace indicator lamps and lenses in the control panel indicators and illuminated pushbuttons:

- a. Grasp indicator or pushbutton lens assembly with thumb and forefinger, and pull until lens assembly comes free.
- b. Remove defective lamp from rear of lens assembly, and replace with new lamp as follows:
 - (1) Replace lamps in all split-screen lens assemblies with type 330 or 382 lamp.
 - (2) Replace lamps in all single-function lens assemblies with type 345 lamp.
- c. Push lens assembly back into place over the pushbutton or indicator.
- d. Test the new lamp by depressing appropriate LAMP CHECK pushbutton.

CHAPTER 5
FUNCTIONING

Section I. SYSTEM FUNCTIONING

5-1. Simulator Block Diagram Description
(fig. 1)

The simulator provides a means of testing and monitoring two AUTODIN circuits. Patching is performed at in AUTODIN teletype patch bay. A receive plug is provided for the character reader, a second receive plug for the block reader, and a send plug for the block generator. The character reader and block reader portions of the simulator operate independently, and may be patched to the receive sides of two different teletype lines. The block generator performs programmed transmissions of test messages, and must be used with the same line as the block reader. In this way, the block generator responds properly to signals received from the distant end.

a. The character reader performs a monitoring function only. It is patched to either the send or receive side of a line under test, and monitors all transmitted characters. Character mode and baud rate are established by switches at the control panel. As characters are received from the distant end the character reader lights lamps at the control panel to indicate presence of specific control characters, framing characters, and correct parity in either control or data characters.

b. The block reader, like the character reader, performs a monitoring function and is patched to the send or receive side of a teletype line. The functions performed include those of the character reader, and functions that provide a more detailed check of incoming characters. Block format and message format is checked and displayed. Links with the core memory and the block generator enable the storage and printout of messages, and the automatic transmission of messages and control characters to the distant end. A line block display, controlled by the block reader, displays any selected block of characters.

c. In automatic operation the block generator must be used on the same line as the block reader. The block reader interprets received control characters and exerts send control over the block generator. Only in this way can the block generator respond correctly to control characters at the normal transmission rate. Messages to be transmitted are taken from the core memory or from the patch panel (part of the control panel). When the patch panel is used as the source, diode push-pins are inserted in the panel to specify the binary configurations of the control characters and 22 data characters. The block generator places these characters on the line, one by one and in the proper sequence. Response from the distant end is checked by the block reader.

d. When the core memory is used to supply test messages, the memory is loaded previously from the teletype set or by the block reader. Thus it is possible to transmit a message punched on tape or to retransmit a message received from the distant end. In both cases, data only are taken from memory; actual control characters are determined by the diode push-pin configuration in the control section of the patch panel. The memory, therefore, selects control characters by addressing positions in the patch panel. Data characters and control characters are presented to the block generator for transmission over the line.

e. The core memory stores up to 4096 8-bit words and operates by instruction from the memory control. The memory control responds to both the block reader and the block generator, and instructs the core memory to store and to read out words as needed. Memory readouts go to the block generator for transmission on a line or to the teletype set to be printed. Words for storage are supplied by the block reader and by the teletype set.

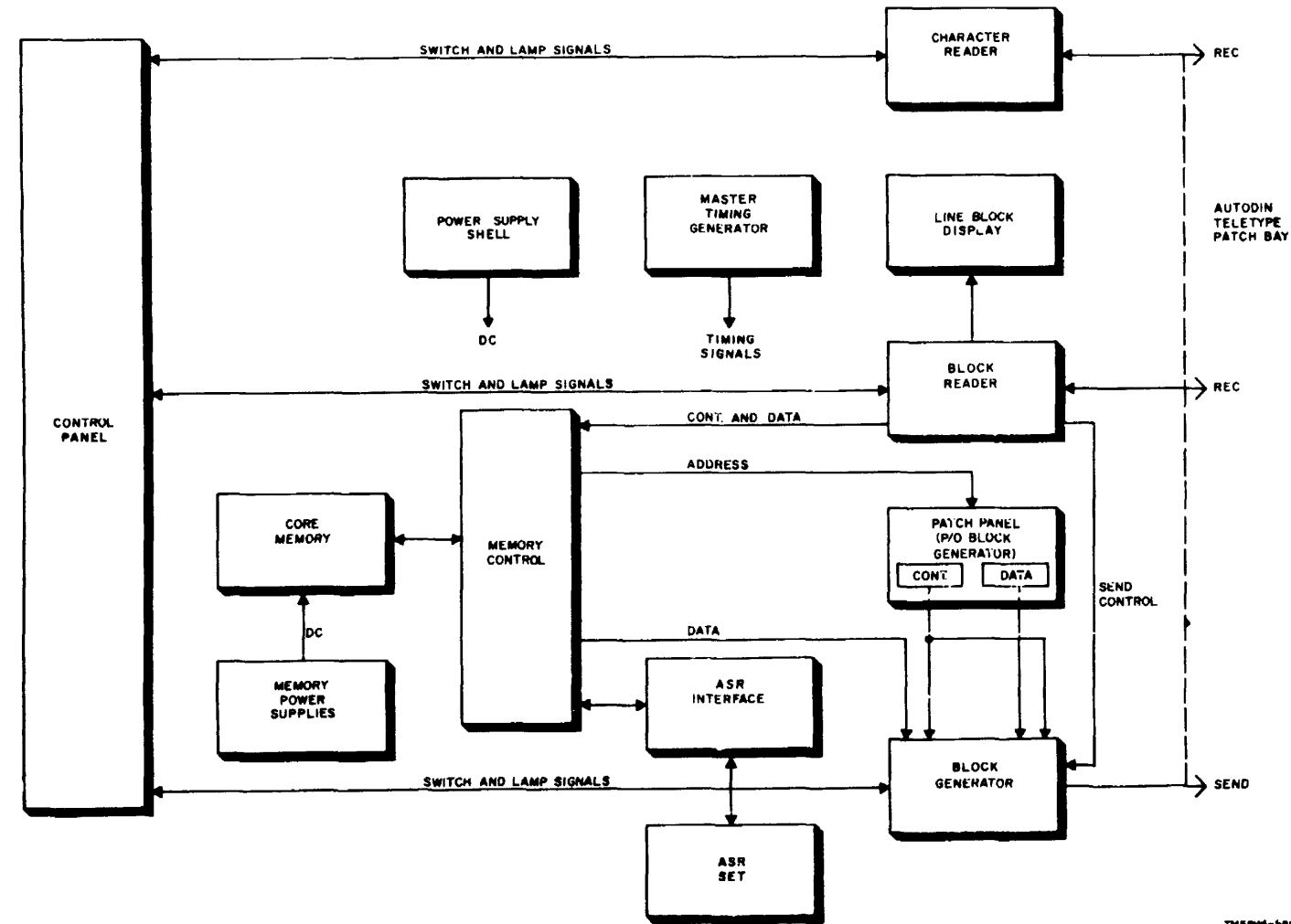


Figure 5-1. Simulator, block diagram.

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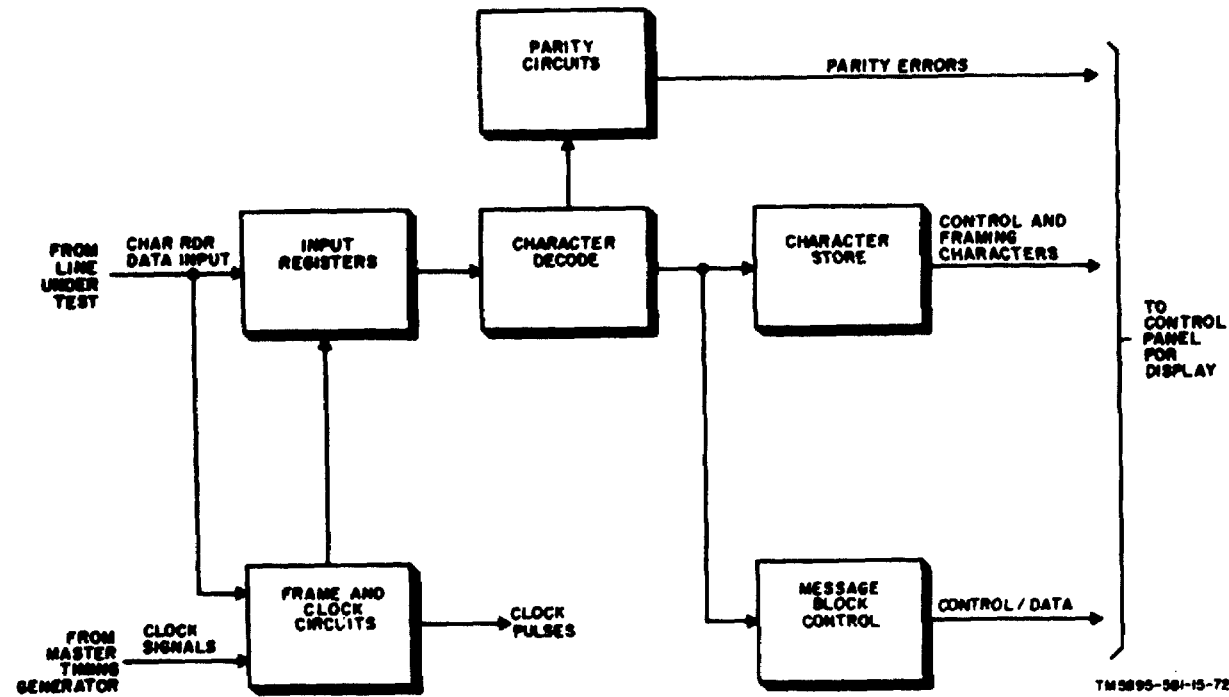


Figure 5-2. Character reader simplified block diagram.

f. Regulated de power for the coordination simulator is supplied by a power supply shelf and the memory power supply. Five individual supplies form the power supply shelf and supply the required de voltages for all circuits except the ferrite core memory. The memory power supply consists of two separate supplies that provide the required de voltage for the ferrite core memory.

5-1.1 Logic Diagrams

a. The logic diagrams referenced, for explanation of the principles of operation, are divided into functional categories (Block reader, Block generator etc.) based upon functional areas of operation.

b. There are both inter and intra connections between the functional groupings. The logic diagrams have been annotated to assist the reader in tracing signals within a function group and between function groups.

c. The logic diagrams have each been given two numbers to permit the tracing of signals. These numbers appear in the lower right hand corner of each drawing. The number not enclosed in the circle defines the interconnection key, while the number within the circle defines the interconnection key. The interconnection key number is constant for a given figure while the intraconnection key number is increased by increments of 1 for each sheet of the drawing. The following chart lists the figure number, functional group name and interconnection key number associated with that group.

Figure No.	Functional Group	Key No.
5-9	Character Reader	1
5-21	Block Reader	2
5-28	Block Generator	3
5-34	Memory Control	4
5-35	Control Panel	5
5-37	Master Timing Generator	6
5-39	ASR Interface	7

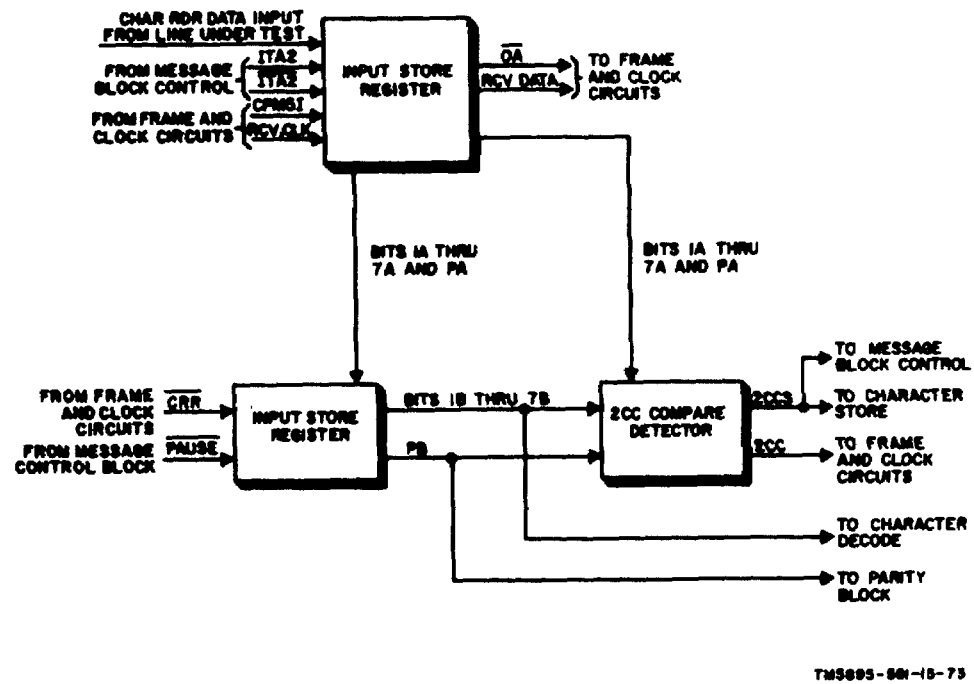


Figure 5-3. Input registers block diagram.

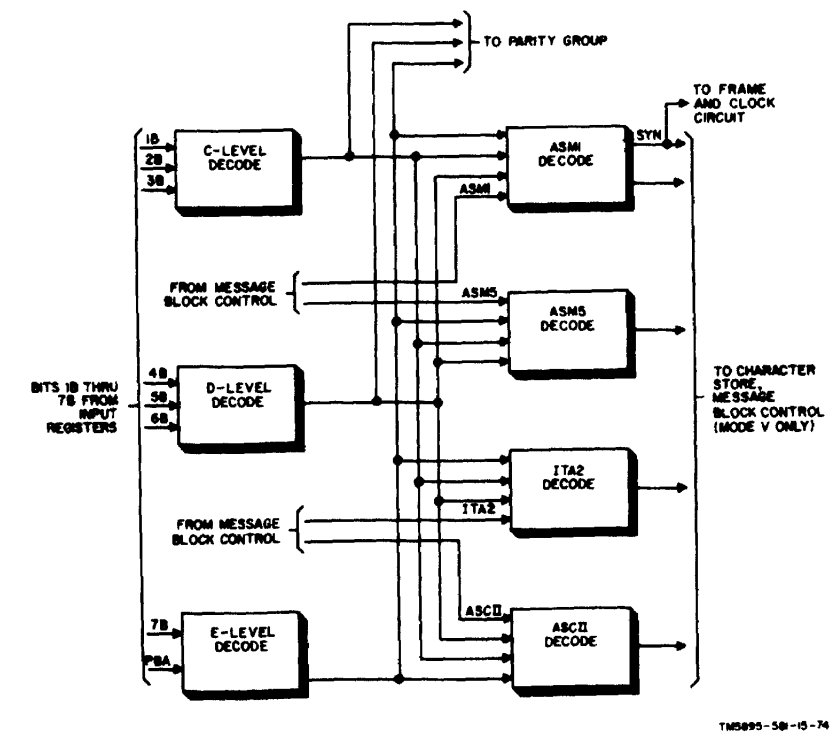


Figure 5-4. Character decode block diagram.

d. Logic signals are traced within a functional group based on the tagging line notation associated with the signal name. For example; assume that you wish to trace a signal from sheet 2 and the tagging line indicated 6D2A. This indicates that the signal will be found on sheet (6) of the same functional group, at the coordinate D2 and subcoordinate A.

e. Logic signals are traced between functional groups in the same manner as stated in d above, however; an addition designator has been added to the tagging line.

For example; assume that you are tracing a signal and the tagging line indicates (4-6D2A), this indicates that the signal goes to functional group 4 and will be found on sheet (6) of functional group 4 as an aid to identify interconnecting logic signals, all interconnections tagging lines are enclosed in ().

f. Signals that are interconnected with switches on the control panel are identified by the switch number to which they connect, (i.e., (5-S101)). Logic signals going to/ from the control panel are identified in the same manner as all other logic signals.

5-2. Character Reader Simplified Block Diagram Description

(fig. 5-2)

a. The character reader accepts characters (CHAR RDR DATA INPUT) from the monitored line, decodes the characters, and displays all control and framing characters. Serial characters are shifted into the input registers by clock pulses received from the frame and clock circuits. The contents of the input registers are made available to the character decode, which identifies each control and framing character received.

b. Partial decoded outputs from the character decode are sent to parity circuits for detection of parity errors. The parity errors are then displayed at the control panel. Fully decoded control and framing characters are fed into the following circuits:

(1) *Character store.* The fully decode characters received are retained until reset automatically, or reset from the control panel. The outputs from the character store are sent to the control panel for display.

(2) *Message block control.* The message block control distinguishes between control and data characters during all modes of operation and displays the type of character received at the control panel.

5-3. Input Registers Block Diagram Description

(figs. 5-3 and 5-9 (1))

a. The input data register receives serial characters from the character reader data input line, and shifts the bits one at a time into the register under control of the receive clock. A transition from mark to space signifies the start, of each character. The space is shifted in as a part of the character, and when the space is stored in the last stage of the register of an \overline{OA} indication is sent to the frame and clock circuit to start generation of clock pulses CP1 through CP8.

Change 3 5-2.1/(5-2.2 blank)

b. Under control of these clock pulses a parallel shift takes place, transferring the contents of the input data register to the input storage register. After the transfer the input data register is set to all is, removing the \overline{OA} indication. When this is done the input data register is fired to accept the next character.

c. The input storage register provides temporary storage for each received character. Outputs of the register go to the character decode circuit, where individual control characters are identified. A separate clear function is not provided for the input storage register; it is jam set from the input data register, and each character that enters the input storage register erases the previous character.

d. The contents of both the input data register and the input storage register are made available to the contiguous control character detector. This circuit performs a continual comparison of the contents of the two registers, and produces a 2CC indication whenever the contents of the two registers are identical. Immediately before the transfer from the input data register to the input storage register (when characters are stable in both registers) the 2CC indication is stored. If the registers contain identical characters at this time a 2CCS indication is produced.

5-4. Character Decode Block Diagram Description
(figs. 5-4 and 5-9(2))

The character decode circuit consists of a series of gates used to identify each control and framing character received.

a. *C-Level Decode.* The c-level decode gates are used to decode bits 1B through 3B received from the input storage register.

b. *D-Level Decode.* The d-level decode gates are used to decode bits 4B through 6B received from the input storage register.

c. *E-Level Decode.* The e-level decode gates are used to decode bits 7B and PB received from the input storage register.

d. *ASM1 Decode.* The ASM1 decode gates provide fully decoded characters upon receiving partially decoded character inputs from c-, d-, and e-level decode gates, and ASM1 and frame signals. All fully decoded characters are dependent upon ASM1 and frame signals with the exception of the SYN character which is only dependent upon the ASM1 signal.

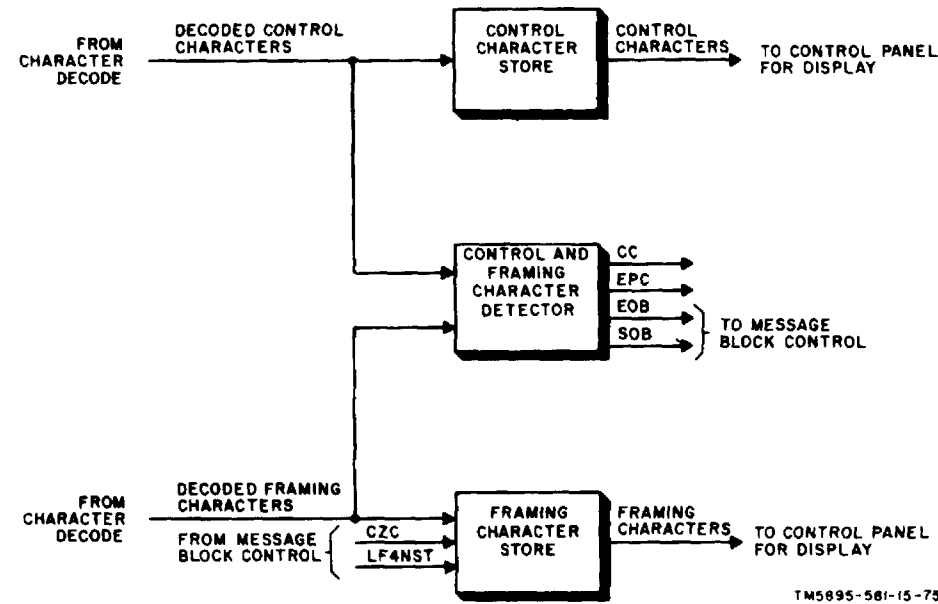


Figure 5-5. Character store block diagram.

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e. *ASCII Decode.* The ASCII decode gates provide fully decoded characters upon receiving partially decoded character inputs from c-, d-, and eleven decode gates, and ASCII and frame signals.

f. *ITA2 Decode.* The ITA2 decode gates provide fully decoded characters upon receiving partially decoded character inputs from c- and d-level decode gates, and ITA2 signals.

g. *ASM5 Decode.* The ASM5 decode gates provide fully decoded characters upon receiving partially decoded character inputs from c-, d-, and eleven decode gates, and ASM5 signals.

5-5. Character Store Block Diagram Description
(figs. 5-5 and 5-9(3), (4), (9))

a. *Control and Framing Character Stores.* The control character store circuits are used to store fully decoded control characters through the use of latch configurations (NAND) gate flip-flops). The fully decoded control characters are stored until reset automatically, or reset from the control panel. Each control character that is stored is sent to the control panel for display. The framing character store circuits process the fully decoded framing characters in the same manner as the control character store circuits.

b. *Control and Framing Character Detector.* The control and framing character detector circuit provides an even parity check (EPC) instruction for all incoming fully decoded control and framing characters; the detector also generates a control character signal (CC) to indicate that a control character is present in the input store register.

5-6. Message Block Control Block Diagram Description
(figs. 5-6 and 5-9(6), (8), (9))

a. When instructions are received from the control panel as to which mode of operation is to be used, the mode select circuit forwards it to the character decode and pause detector circuits. Listed below are the modes of operation used:

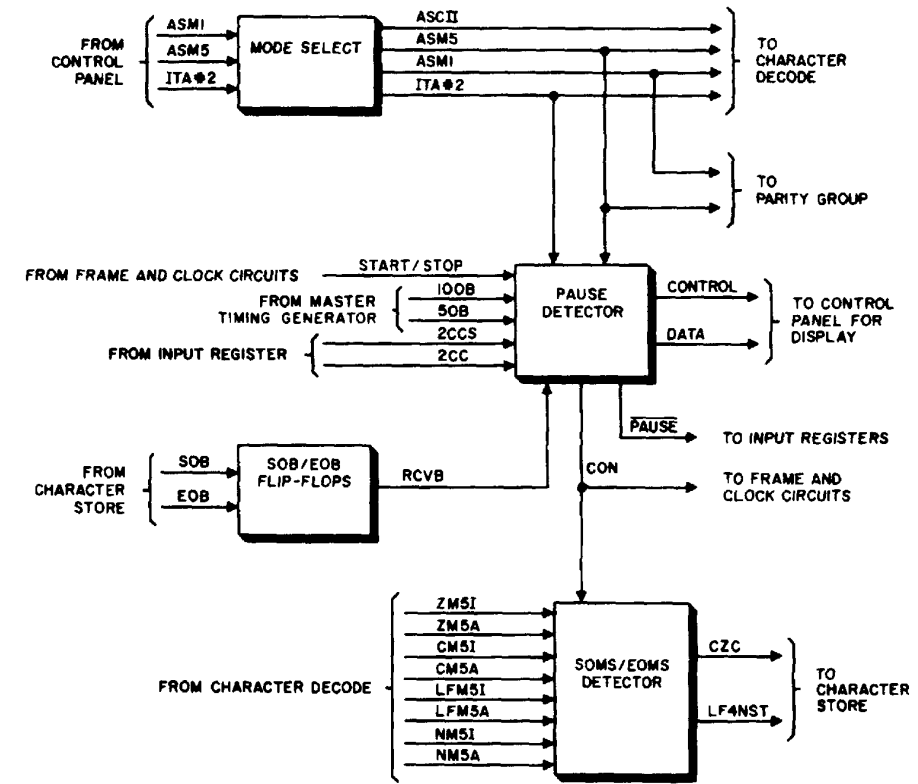
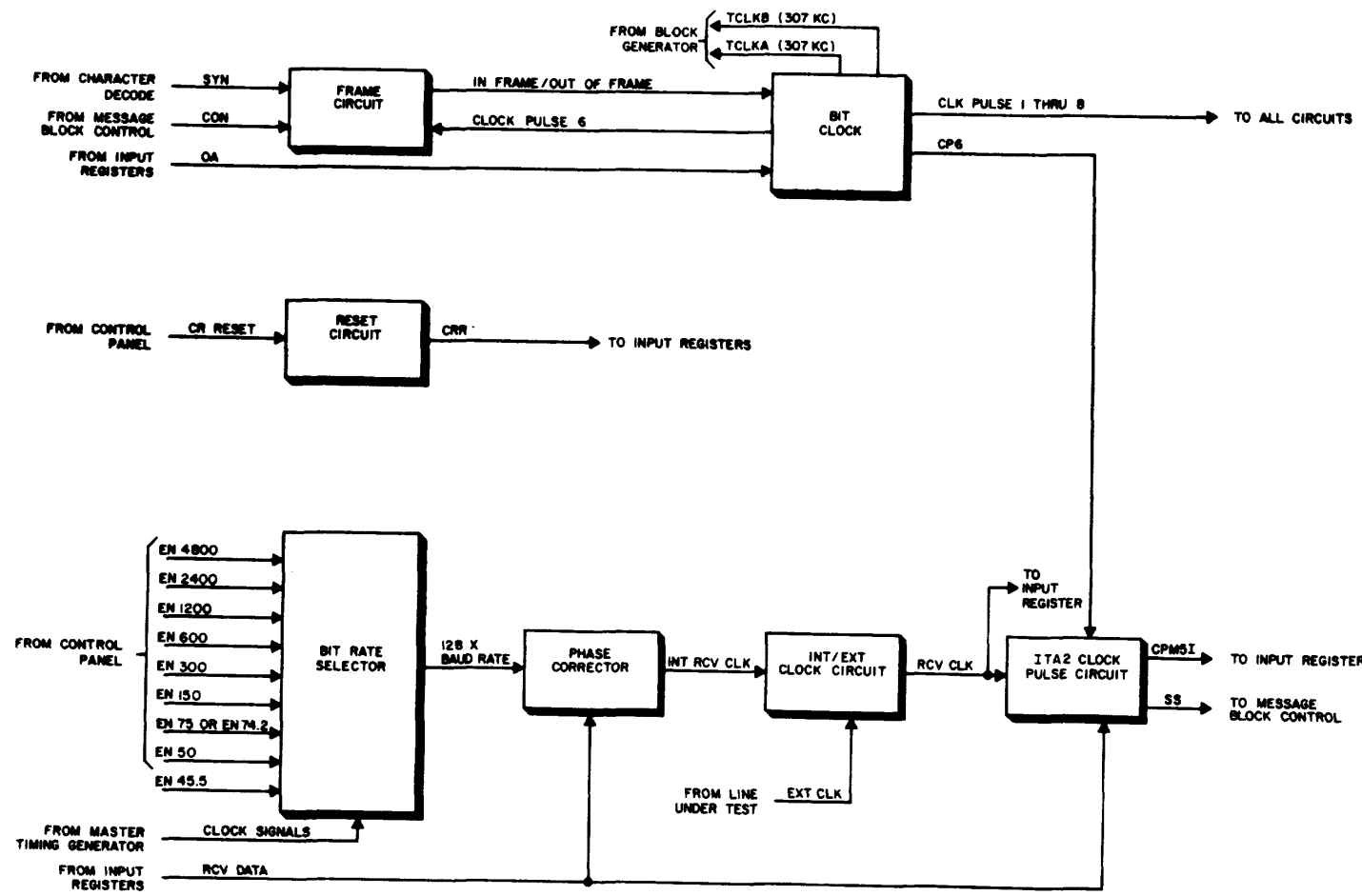


Figure 5-6. Message block control block diagram.

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Figure 5-7. Frame and clock circuits block diagram.

ASCII-American Standard Code for Information Interchange

ASM1-ASCII mode 1

ASM-ASCII mode 5

ITA#2-International Telegraph Alphabet No. 2 (American version)

b. The pause detector differentiates between control and data sequences in mode V operation (ASCII or ITA#2) to illuminate either the CONTROL or DATA lamp. A timer in the pause detector is enabled by the start-stop signal from the frame and clock circuit when a character is loaded into the input data register. The timer runs at either a 50-baud or 100-baud rate, depending on the code in use. If no new character is detected before the timer runs to the end, a pause indication is generated. If the arrival of a new character is detected (space on the line), the start-stop signal changes state and the timer is reset.

c. A pause consists of a mark on the line, and is tentatively identified by the pause detector as the beginning of a control sequence. However, the receipt of two contiguous control characters is used to change the state of the detector to indicate a data sequence. Thus the last pair of contiguous control characters before text, leave the pause detector in the data state, since there are no more pauses until the end of the message. The last character of the message, regardless of whether it is a control or data character, is followed by a marking condition, and is detected as a pause. At this time the pause detector reverts to the control state.

d. In mode I, operation detection of the data sequence is performed by the SOB and EOP flipflops. The data sequence is indicated by signal RCVB, which is used by the pause detector to light the DATA lamp during mode I. The CONTROL lamp is inhibited during this mode.

e. The SOMS detector is used in mode V operation (either ASCII or ITA2) to detect a start-of-message sequence. The presence of CON enables the detector during the time that data characters are being received. When input ZM5A or CM5A (ASCII), or input ZM5I or CM5I (ITA2) is received the detector registers the Z or C character.

A sequence of CZC produces a response from the detector, indicating that a VZCZC start-of-message sequence has been received.

f. The EOMS detector performs a similar function at the end of a message. This detector operates on line-feed and N characters from the character decode: LFM5A and NM5A (ASCII) and LFM5I and NM5I (ITA2). The occurrence of a line-feed, followed by four N's results in an LF4NST (linefeed, four N's stored) indication from the detector to signify that the last text characters of the message have been received.

5-7. Frame and Clock Circuits Block Diagram Description

(figs. 5-7 and 5-9(7), (9), (10))

The frame and clock circuits provide the basic timing and reset signals for use in the character reader. Clock pulses 1 through 8 are produced for each character received, and are used throughout the character reader to implement logic functions after the character received is stored in the input registers. The RCV CLK (or CPM5I for ITA2) is used to shift bits of a character into the input registers, and therefore must be synchronized with the incoming bits.

a. The-frame circuit is used to determine when the received characters are in frame and when they are out of frame. The frame condition is established either by contiguous synch characters, or by a control character indication from the message block control. After the frame condition is established, if three characters are received (as indicated by the occurrence of three CP6 pulses) without receiving a pause or control character or synch character, the frame condition is reset to indicate out-of-frame.

b. The bit clock generates a high-speed string of clock pulses for each character that is shifted into the input registers. When a character is received, the first indication of the character is a space which is shifted into the input registers as though it were the first bit of the character. When the character is erased, all 1s are forced in the input data register. Therefore, the presence of a 0 in the least significant stage of the input data register (OA) signifies that a new character has been fully shifted in. When this occurs, and the character reader is in frame, the bit clock is allowed to run at a 307-kHz rate and CP1 through CP8 are generated. Each clock pulse follows the preceding pulse by approximately 3 μsecs.

c. Manual reset of the character reader is accomplished by means of the CR RESET switch at the control panel. The switch is used to set a latch in the reset circuit to produce CRR, which is used to force all 1s in the input data register. This signal is also used by several other circuits of the character reader to reset flip-flops and establish initial conditions.

d. The bit rate selector, phase corrector, INT/ EXT clock circuit, and the ITA2 clock pulse circuit are used to generate shift pulses to shift both ASCII and ITA2 characters into the input registers. The INT/EXT clock circuit permits selection of either the external clock supplied on the line under test, or of an internally generated clock. When the external clock is selected, it is transmitted directly through the INT/EXT clock circuit as the RCV CL,K to the input registers. In mode V ITA'2 operation the RCV CLK is then counted down by a 16 to 1 counter in the ITA2 clock pulse circuit to form CPM5, which is then used by the input registers as the shift pulse. The ITA2 clock pulse circuit is started by the space at the beginning of each character (O level on RCV DATA), and stopped at the end of each character (CP6). The resulting stop-start signal (SS) is also used by the message block control.

e. The internal clock is selected and used in the same way as the external clock. Generation of the internal clock is based on the selection of the baud rate at the control panel. The appropriate enabling signal is used by the bit rate selector to pass a clock signal (128 times the selected baud rate) to the phase corrector. The phase corrector counts down the clock signal from the bit rate selector, while continually comparing the clock signal to the bits received (RCV DATA). In this way the internal receive clock (INT RCV CLK) generated by the phase corrector is synchronized with the bits of the received character.

5-8. Parity Group Block Diagram Description

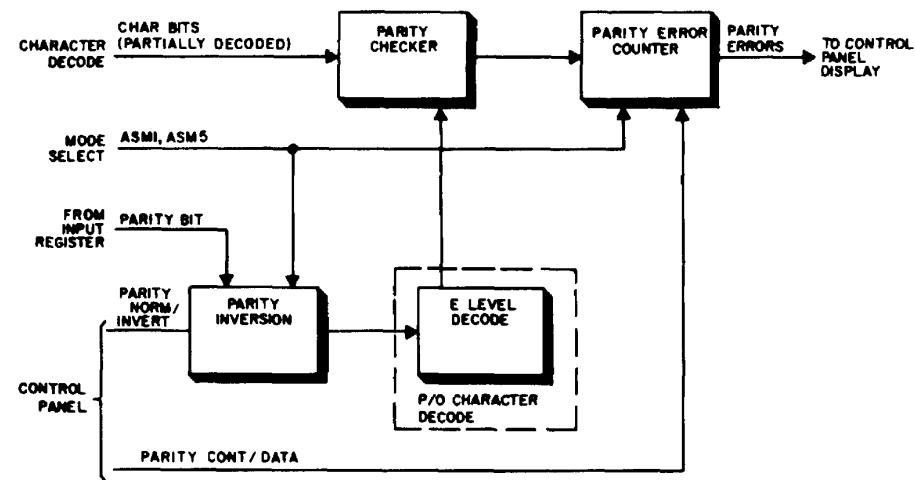
(figs. 5-8 and 5-9(5))

The parity group circuits are used only in ASCII modes of operation to detect and display parity errors for all characters received.

a. *Parity inversion.* The parity inversion circuit in its normal state (RPAR NORMA) enables parity bits received from the input store register and inputs from the mode select circuit (ASM1 or ASM5) to provide a parity bit signal (PB-A) which is sent to the character decode circuit (E-level decode). When in the RPAR INVT state parity bits received from the input store register are inverted. The inversion allows for future changes in the parity of ASCII characters.

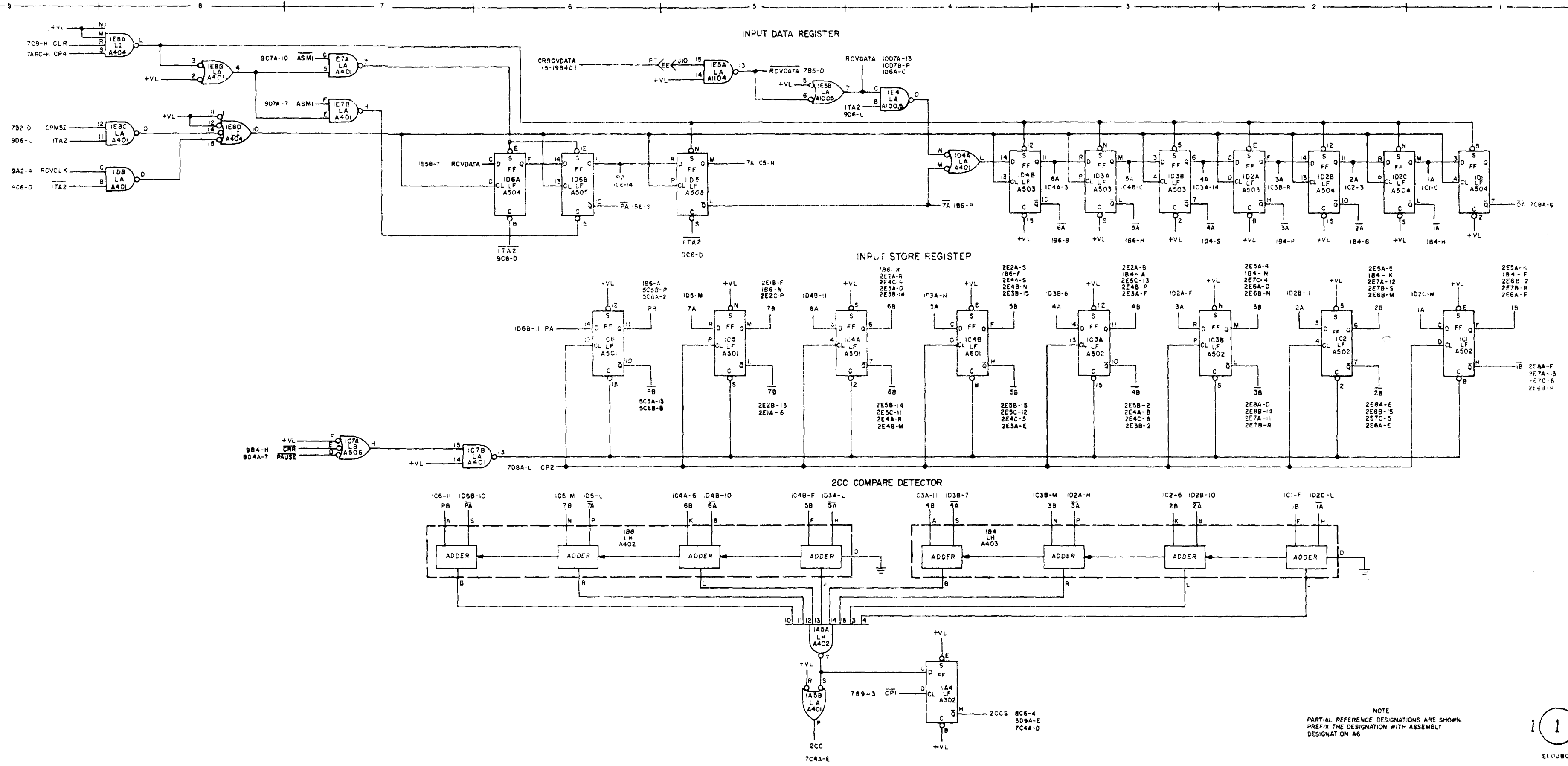
b. *Parity Checker.* The parity checker is used to detect whether the total number of 1's in each character is odd (OPAR) or even (EPAR). Outputs from the parity checker circuit are sent to the parity error counter.

c. *Parity Error Counter.* The parity error counter stores control character or data character parity errors detected by the parity checker. Each parity error detected advances the error counter, which stores up to three such errors (ER1 plus ER2). Selection of control character or data character error storage is made by the PAR CONT/PAR DATA switch at the control panel. The switch selects either EPAR or OPAR as the correct condition (no error); EPAR for control characters and OPAR for data characters. When the parity inversion circuit is used to invert the parity bit the definitions of OPAR and EPAR are reversed, and OPAR is equivalent to an even parity while EPAR is equivalent to an odd parity.



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Figure 5-8. Parity group block diagram.



NOTE
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DESIGNATION A6

Figure 5-9(1). Character reader logic diagram. (Sheet 1 of 10)

Change 3 5-7

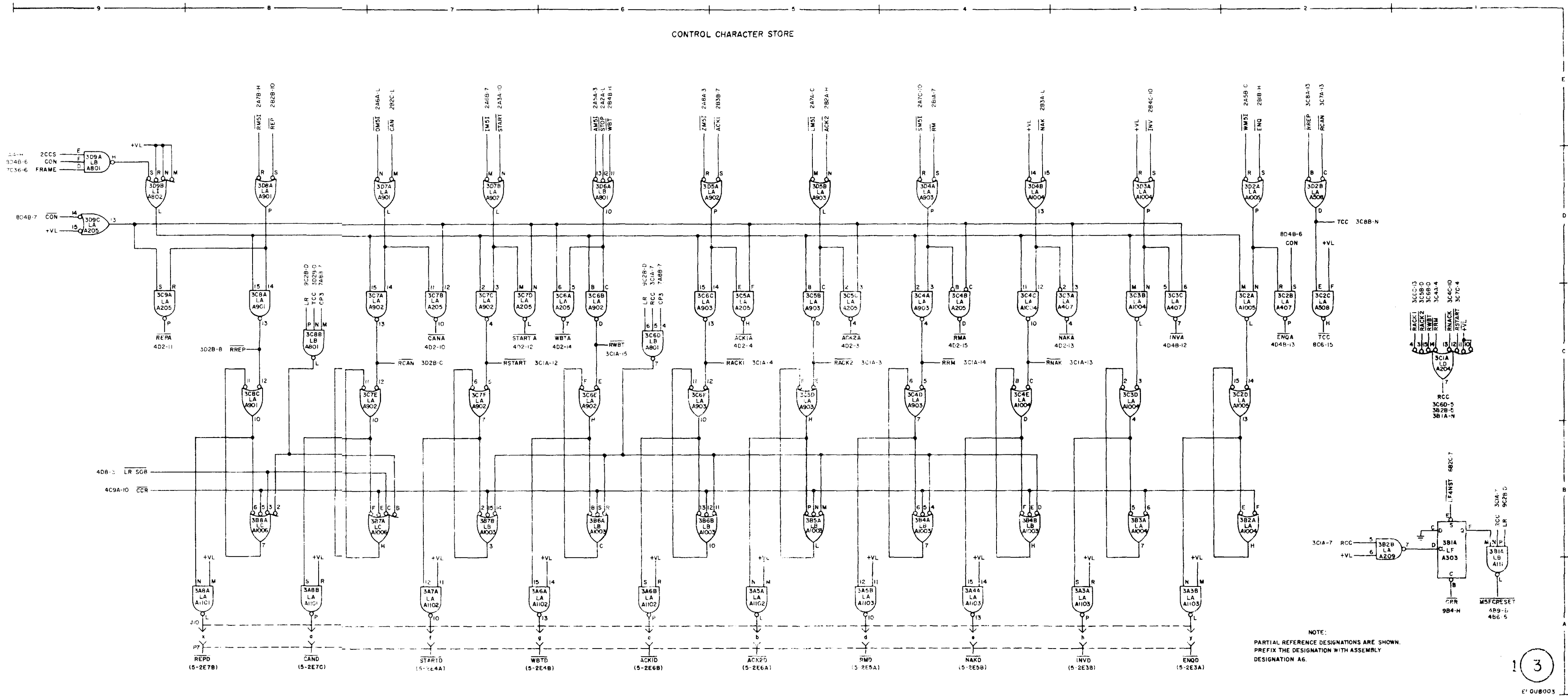


Figure 5-9(3). Character reader logic diagram. (Sheet 3 of 10)

Change 3 5-11

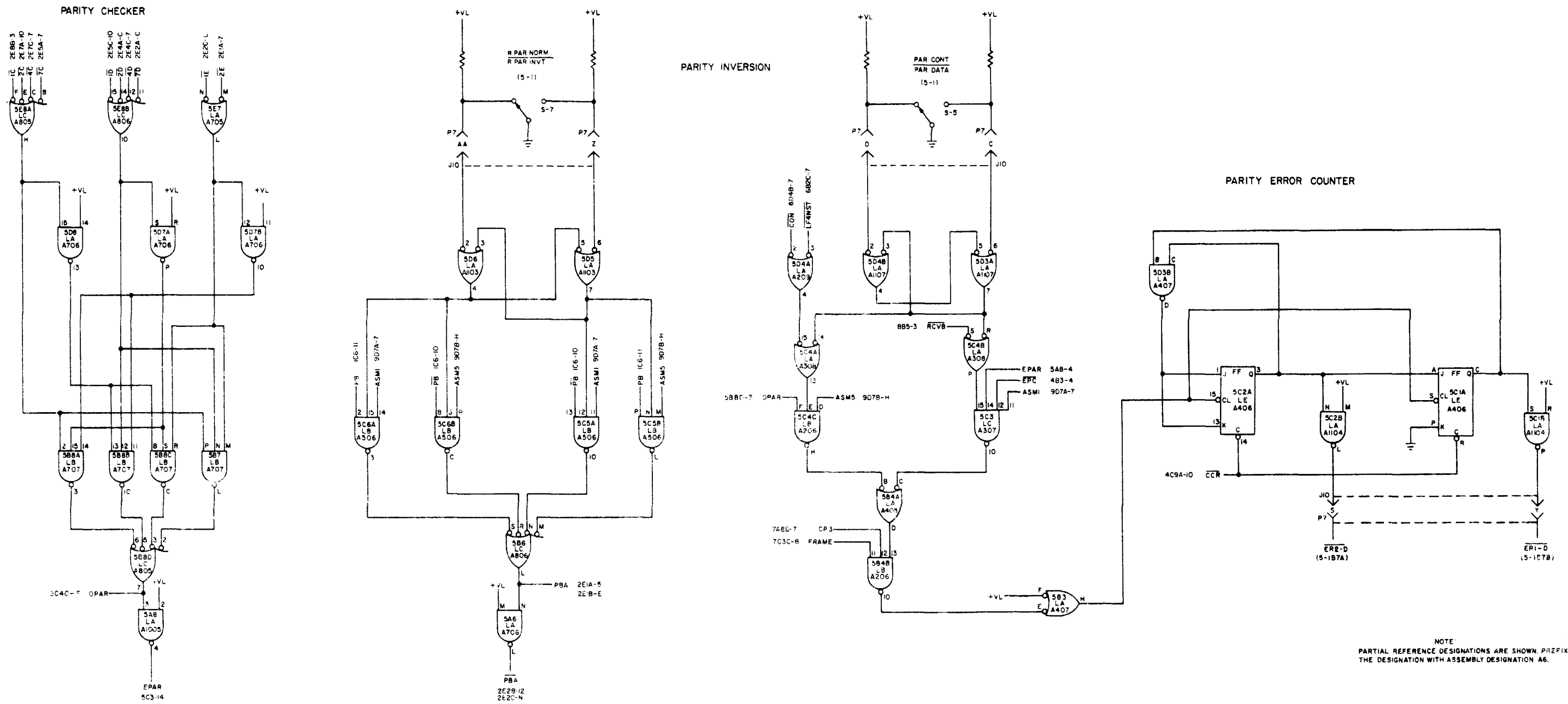


Figure 5-9(5). Character reader logic diagram. (Sheet 5 of 10)

Change 3 5-15

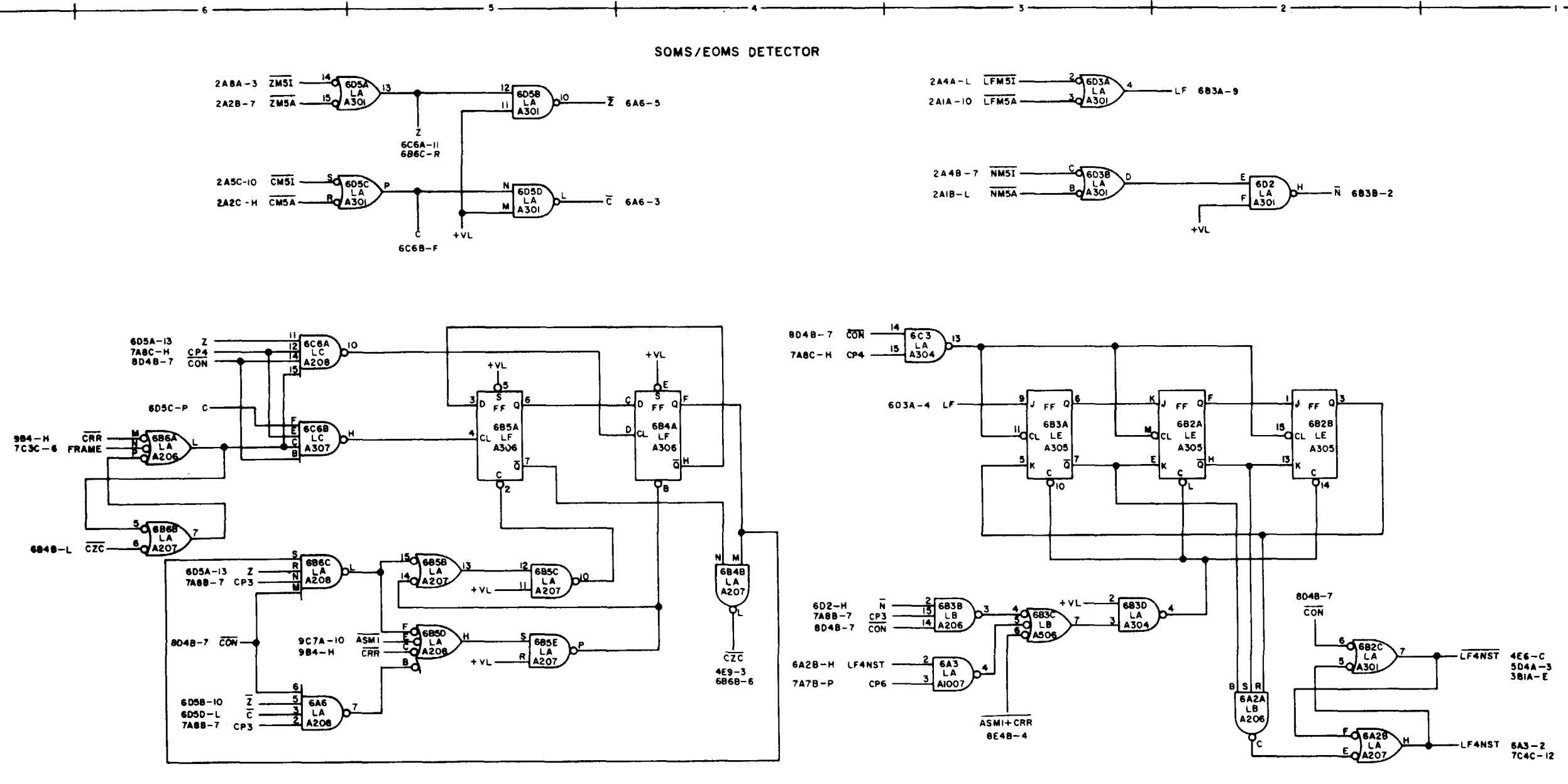


Figure 5-9(6). Character reader logic diagram. (Sheet 6 of 10)

Change 3 5-17

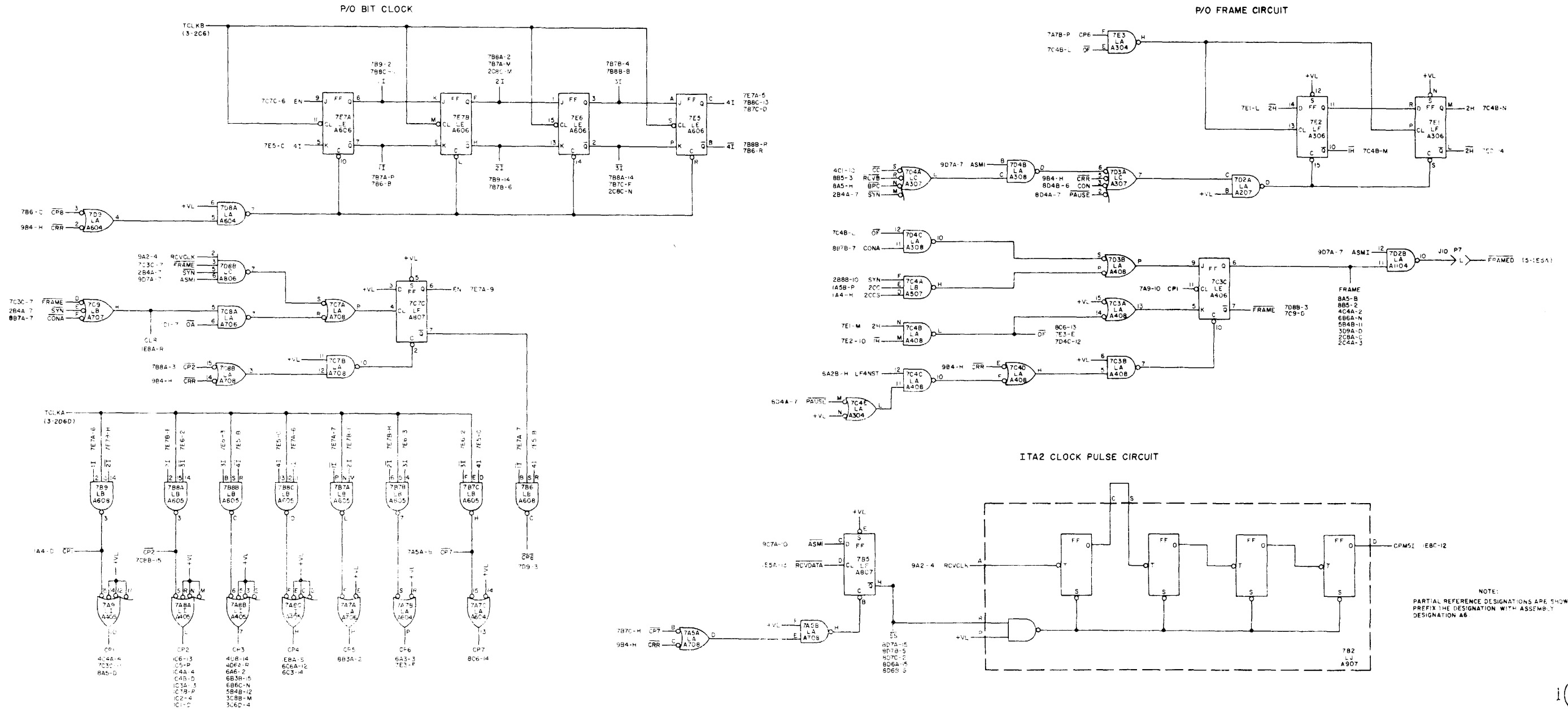


Figure 5-9(7). Character reader logic diagram. (Sheet 7 of 10)

Change 3 5-19

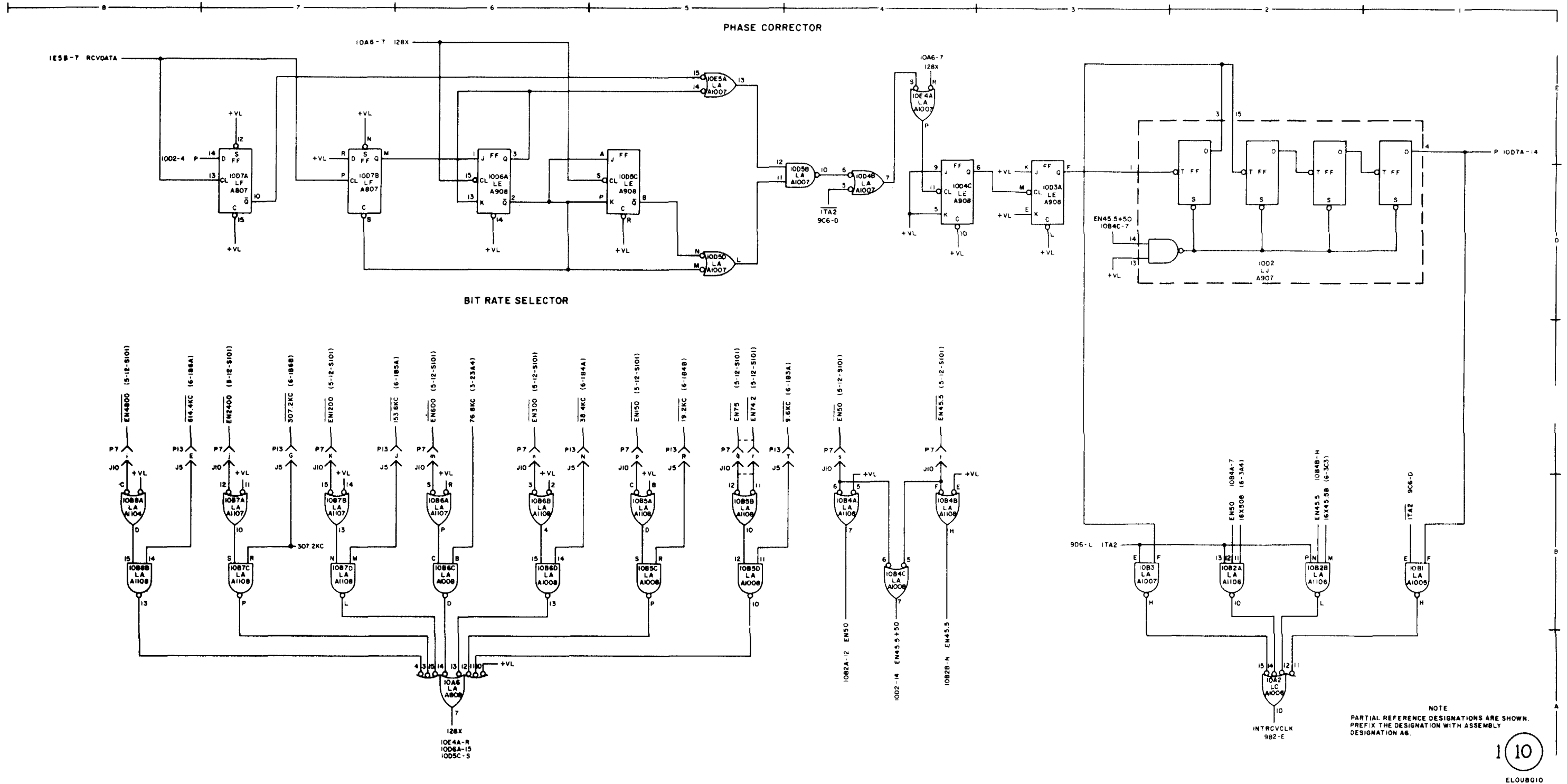


Figure 5-9(10). Character reader logic diagram. (Sheet 10 of 10)

5-24 Change 3

5-9. Block Reader Simplified Block Diagram Description
(fig. 5-10)

- a. The block reader accepts characters (BR RCV DATA) from the monitored line and performs the following functions:
- (1) Decodes all control and framing characters.
 - (2) Displays control and framing characters at the control panel.
 - (3) Displays framing and data characters (binary configurations) at the line block display.
 - (4) Provides instructions for the block generator.
 - (5) Provides data in ASCII form to the core memory.
- b. Serial characters are shifted into input registers by clock pulses received from the frame and clock circuits. The contents of the input registers are made available to the following circuits:
- (1) *Character decode.* The character decode identifies each control and framing character received.

(2) *Position counter and line block display.* The position counter and line block display operate together to provide a visual display of up to 90 characters at a time. Selection of the type or group of characters displayed is made at the control panel. The position counter maintains a count of the characters received, and forwards signals to the line block display to ensure that characters are displayed in the sequence in which they are received.

c. Partial decoded outputs are sent from the character decode to the parity circuits for detection of errors. The parity errors are then displayed at the control panel. The fully decoded control and framing characters are fed into the following circuits:

- (1) *Character store.* The fully decode characters received are retained until reset automatically, or reset from the control panel. The outputs from the character store are sent to the control panel for display.
- (2) *Block and frame error checks.* The block and frame errors when detected are sent to the control panel for display.
- (3) *Command.* When decoded characters are received additional decoding occurs, and transmit control characters are forwarded to the block generator.
- (4) *Message block control.* The message block control distinguishes between control and data characters during all modes of operation and displays the type of character received at the control panel.
- (5) *ITA2 to ASCII converter.* Characters received in ASCII form are sent directly to memory control. Characters received in ITA2 form are converted to ASCII form and then sent to memory control.

5-10. Input Registers Block Diagram Description

(figs. 5-11 and 5-21 (1))
The input registers for the block reader function exactly the same as the character reader input registers described in paragraph 5-3.

5-11. Character Decode Block Diagram Description

(figs. 5-12 and 5-21 (2), (3))
a. The character decode circuits for the block reader function exactly the same as the character reader decode circuits described in paragraph 5-4 with the exception of the CSU decode circuits described in b below.

b. The CSU decode circuits consists of decode gates and a counter. The decode gates upon receiving partially decoded characters from the character_decode gates provide SRACKD and BUSYD signals to the control panel for display. The CSU counter upon receiving a RDISC is enabled. The counter now begins to count the number of 50B rate

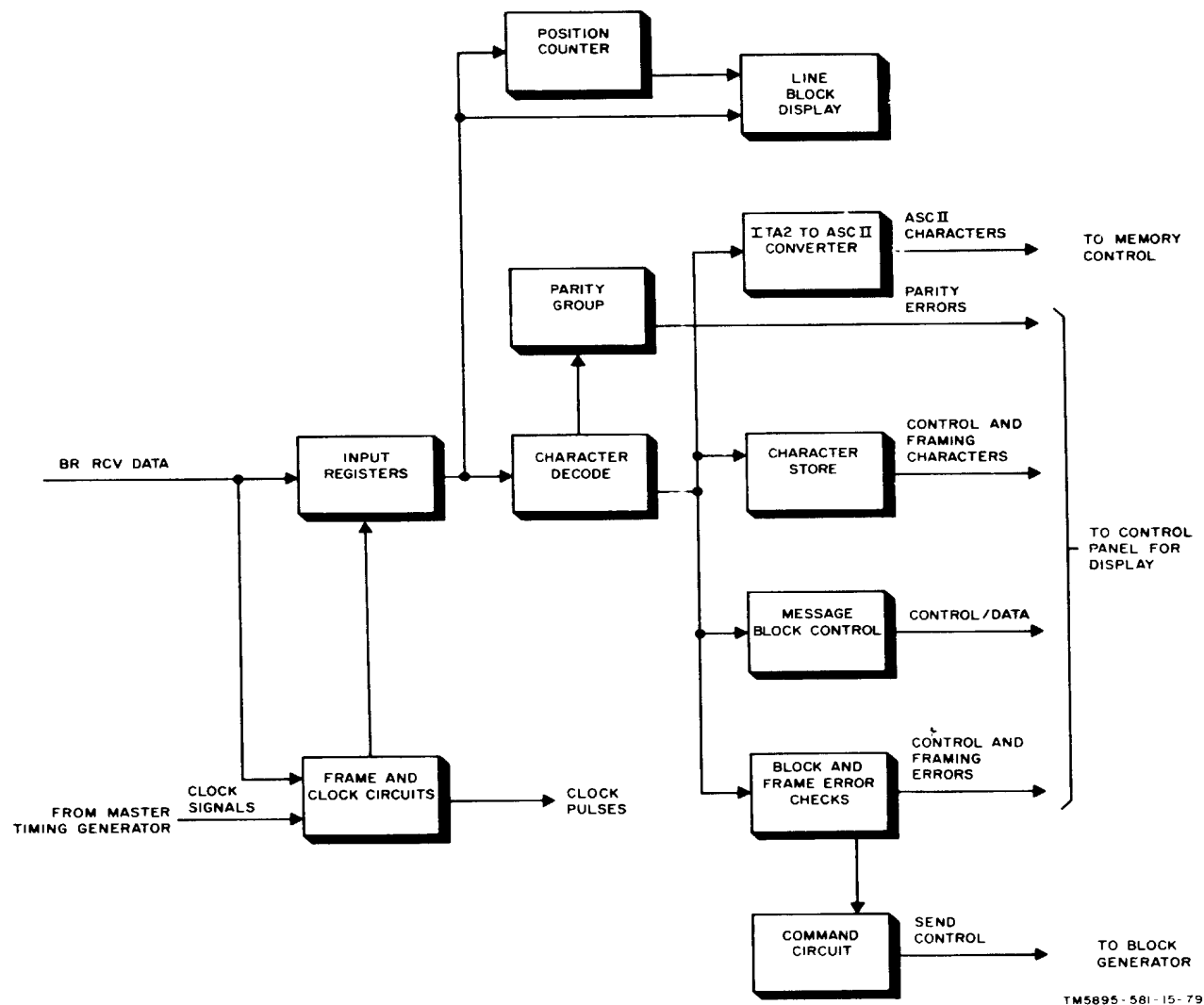


Figure 5-10. Block reader simplified block diagram.

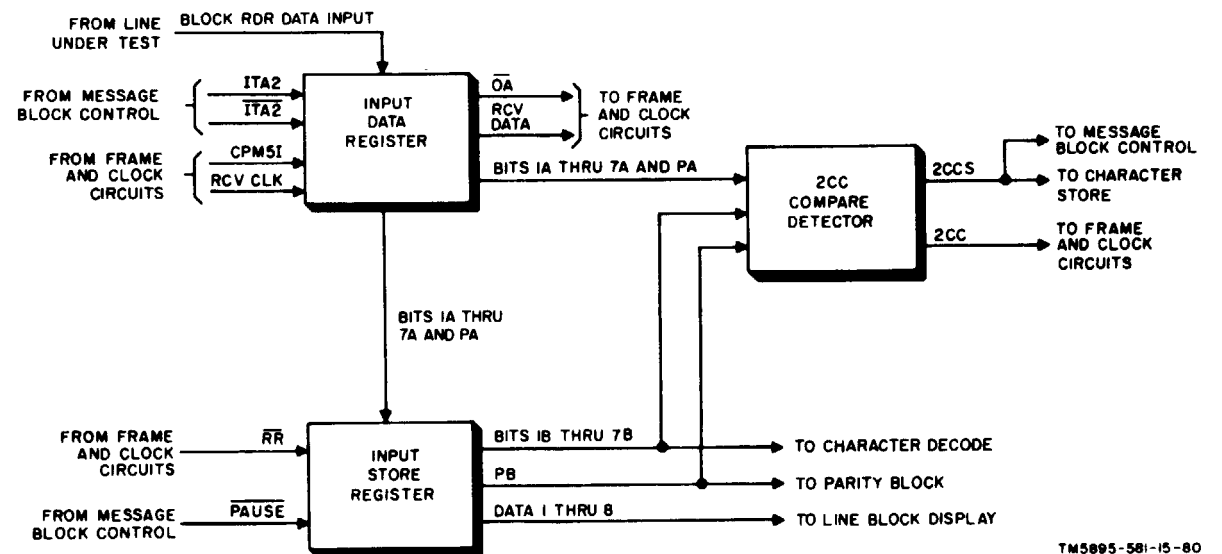


Figure 5-11. Input registers block diagram.

pulses received. Upon receiving the fifteenth 50B rate pulse the counter enables a DISCD signal to be generated (through the use of gates) and displayed at the control panel.

5-12. Character Store Block Diagram Description
(figs. 5-13 and 5-21 (7), (8))

The character store circuits for the block reader function exactly the same as the character reader store circuits described in paragraph 5-5.

5-13. Parity Group Block Diagram Description
(figs. 5-14 and 5-21 (1), (2), (6), (10), (11), (12), (17), (19))

a. *Parity Inversion.* The parity inversion circuit for the block reader functions exactly the same as the character reader parity inversion circuit described in paragraph 5-8a.

b. *Character Parity Checker.* The character parity checker for the block reader functions exactly the same as the character reader parity checker described in paragraph 5-8b.

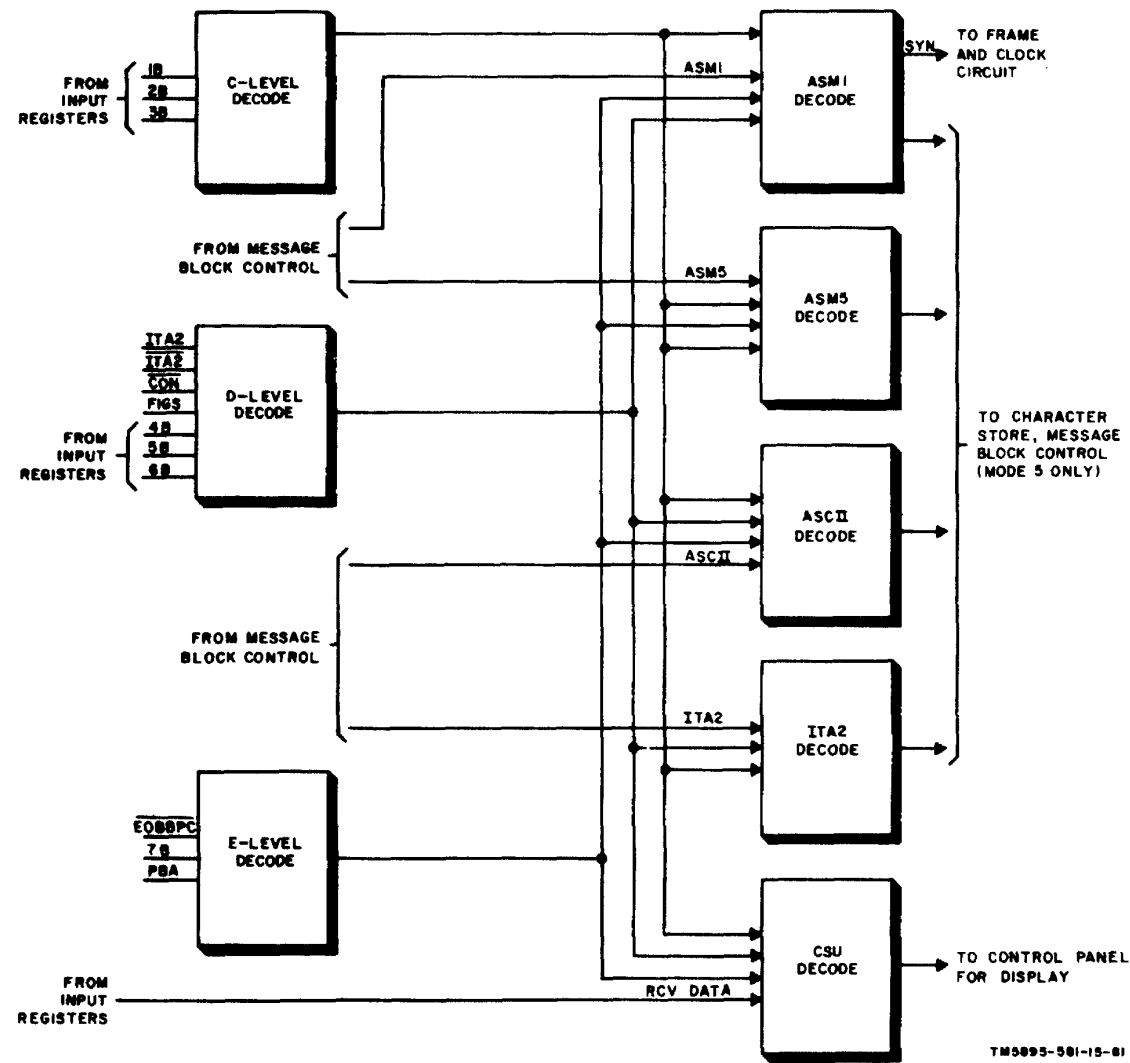


Figure 5-12. Character decode block diagram.

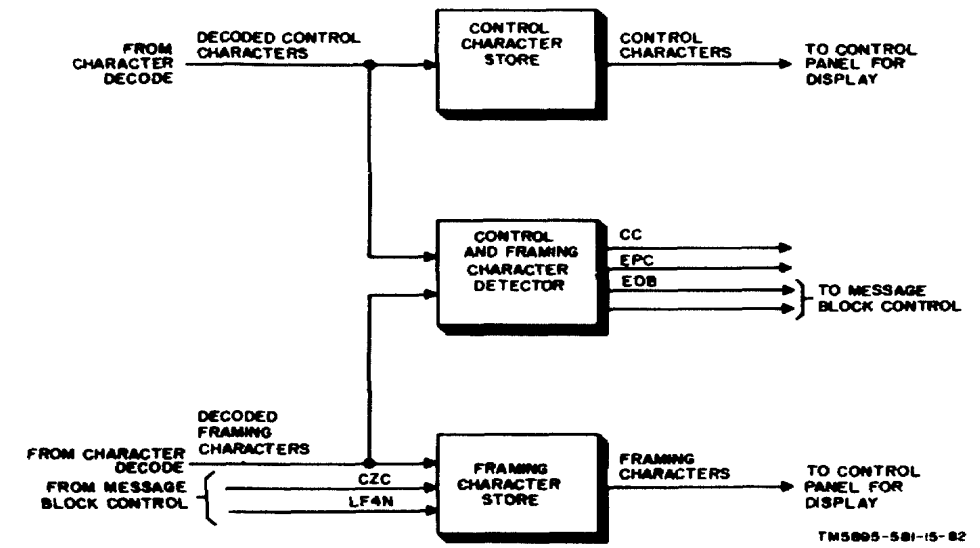


Figure 5-13. Character store block diagram.

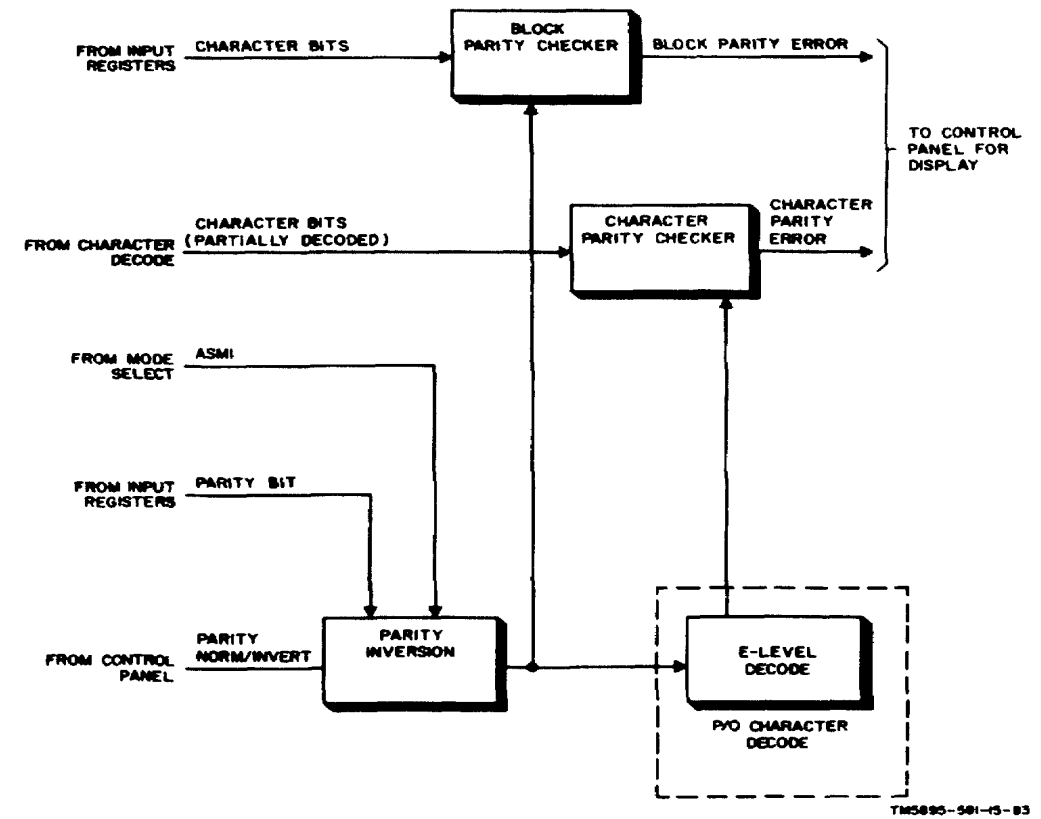


Figure 5-14. Parity group block diagram.

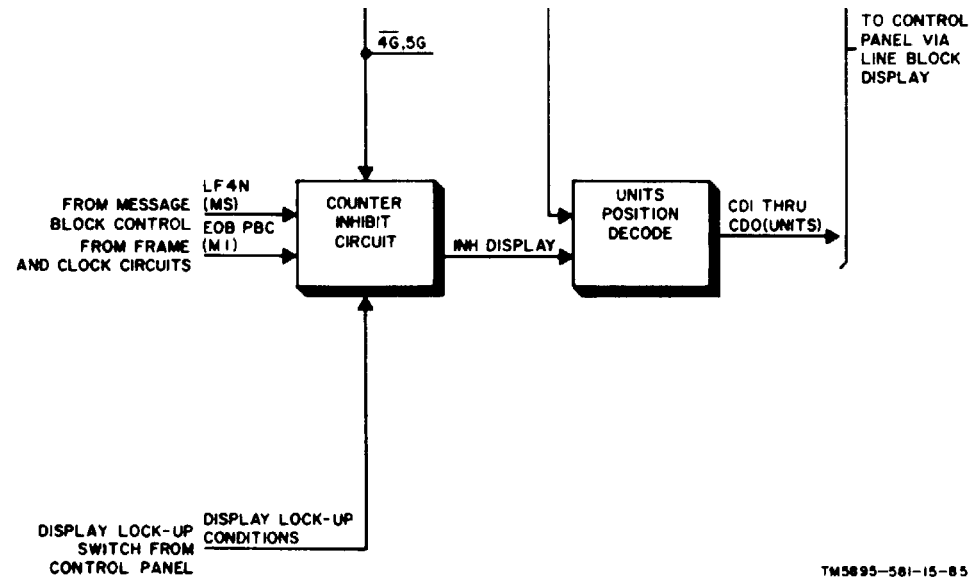


Figure 5-15. ITA2 to ASCII converter block diagram.

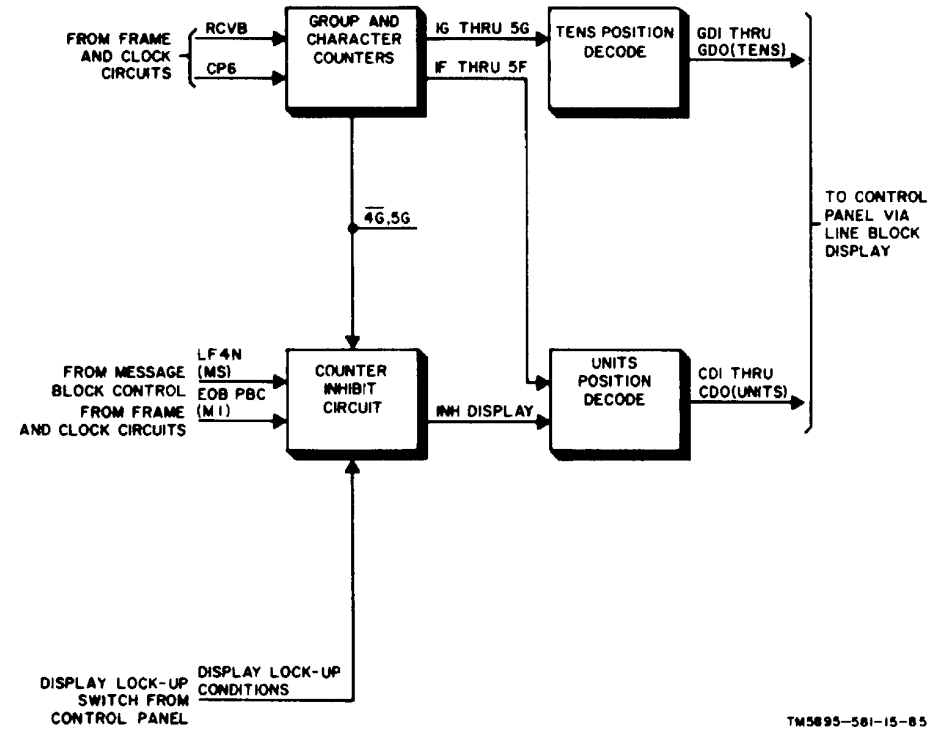


Figure 5-16. Position counter block diagram.

c. *Block Parity Checker.* The block parity checker consists of flip-flops which maintain an odd-even total for each bit position as characters are received. When the last character is received within a block (block parity character) all flip-flops must be reset to indicate that an even parity check has been obtained. If any flip-flop is not in the reset state a block parity error (BPE) is detected and displayed (BPED) at the control panel.

5-14. ITA2 to ASCII Converter Block Diagram Description

(figs. 5-15 and 5-21 (4))

a. *P-Level and T-Level Encode.* The p-level and t-level encode gates are used to encode fully decoded ITA2 characters received from the character decode and provide partially encoded ASCII characters (11' thru 71' and T1' thru 3T) to the ASCII encode gates.

b. *ASCII Encode.* The ASCII encode gates are used to provide fully encoded ASCII characters upon receiving partially encoded ASCII character inputs from p and t level encode gates. The fully encoded ASCII characters are sent to memory control for storage.

5-15. Position Counter Block Diagram Description

(figs. 5-16 and 5-21 (16), (17), (20))

a. The group and character counters are used to count the number of characters (CP6) within a block upon receiving a RCVB signal. The counters are capable of counting up to ninety characters. The outputs of the counters are fed into the unit position decode and tens position decode which decode the count into decimal form to enable the applicable AX card in the line block display.

b. The counter inhibit circuit depending upon which position the DISPLAY LOCK-UP switch is set, inhibits the units position decode thereby discontinuing the count of the number of characters received in decimal form.

5-16. Message Block Control Diagram Description

(fig. 5-17)

The block reader message block control circuits function the same as the character reader message block control circuits described in paragraph 56.

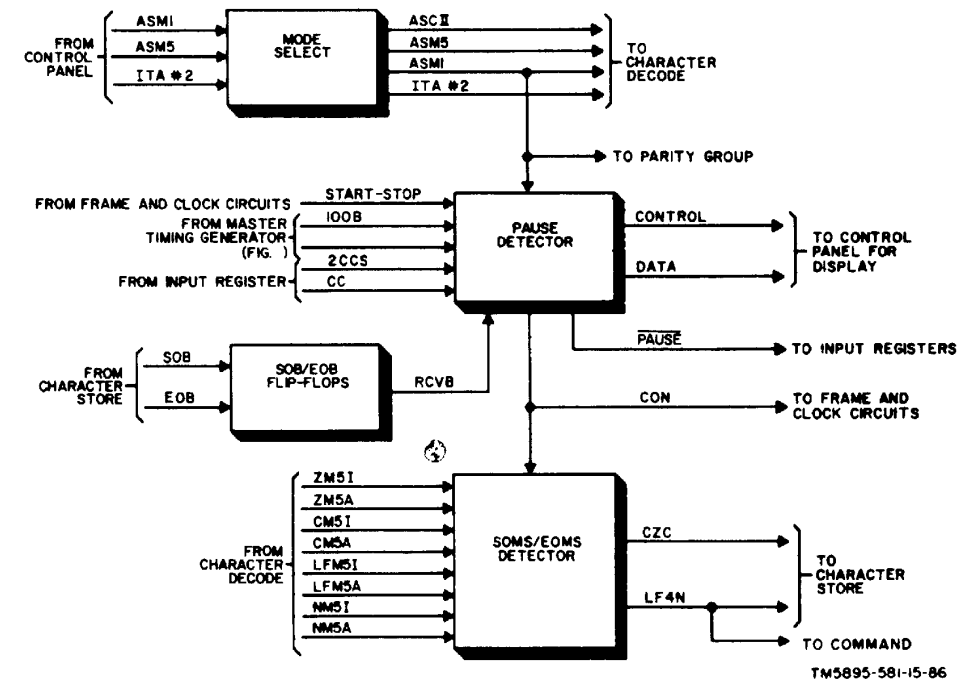
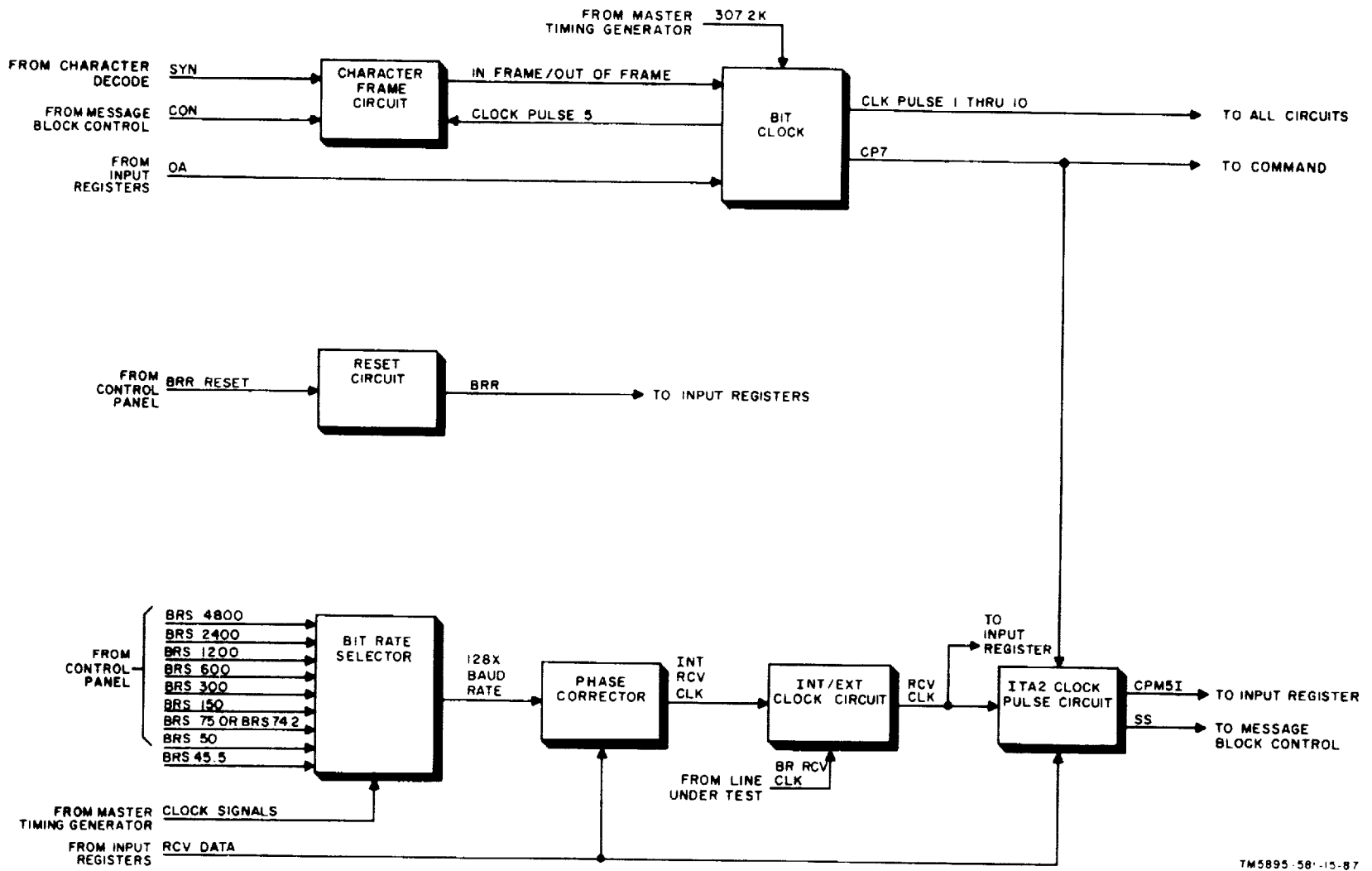


Figure 5-17. Message block control block diagram.



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Figure 5-18. Frame and clock circuits block diagram.

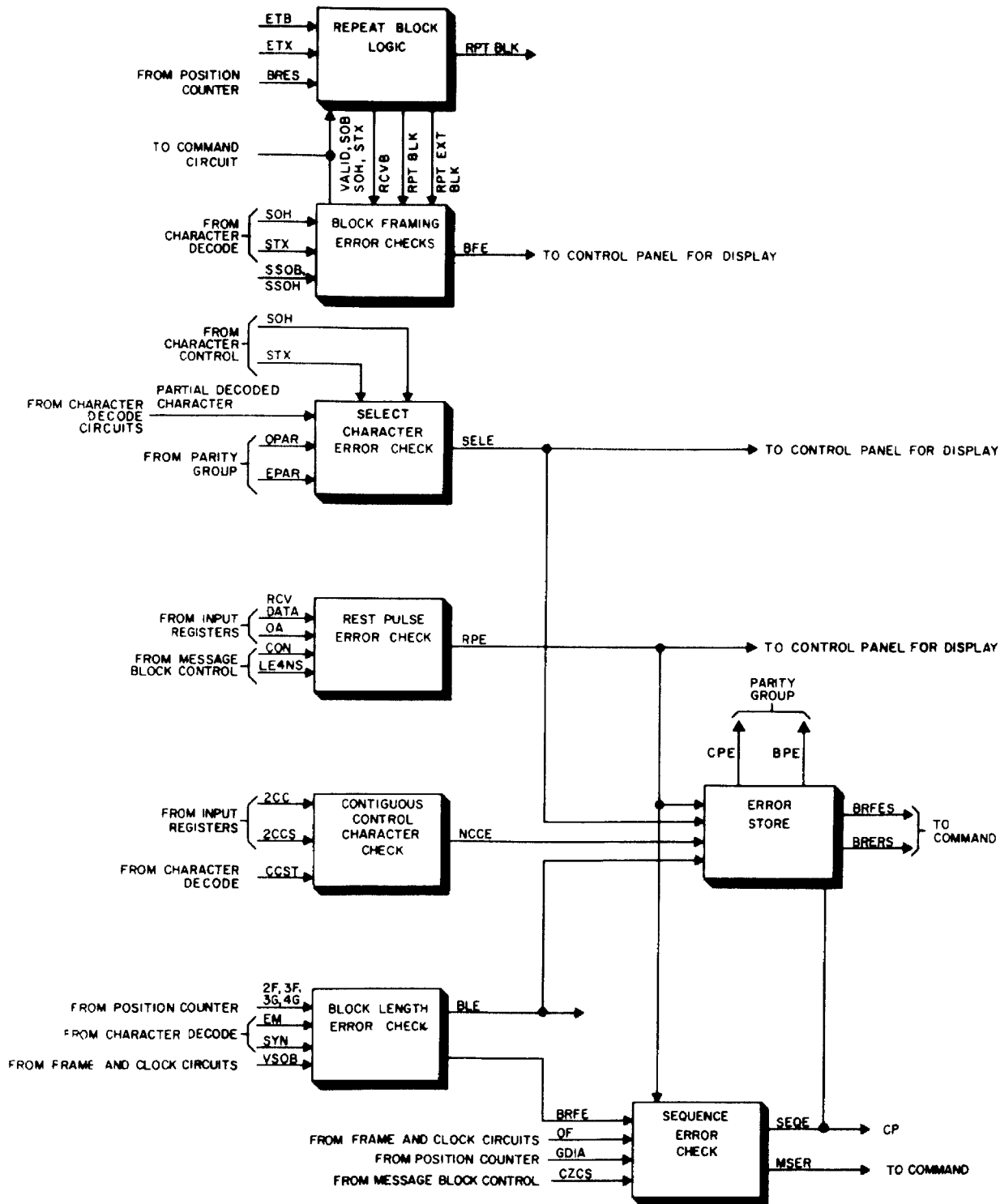


Figure 5-19. Block and frame error checks block diagram.

5-17. Frame and Clock Circuits Block Diagram Description

(figs. 5-18 and 5-21 (7), (9), (20), (21))

The block reader frame and clock circuits function the same as the character reader frame and clock circuits described in paragraph 5-7.

5-18. Block and Frame Error Checks Block Diagram Description

(figs. 5-19 and 5-21 (10), (12), (13), (15))

a. *Select Character Error Check.* Tile select character error check circuits (decode gates and latch circuit) are used to provide the following checks:

(1) To detect the presence of select characters. When a select character is not detected for the second character position of an SOH block, or parity is incorrect, a SELE(select error) is sent to the control panel for display.

(2) To check the second character position of the STX blocks (security character) for parity.

b. *Rest Pulse Error Check.* The rest pulse error check circuit (decode gate and latch circuit) is used in mode V only. The circuits are provided to detect a rest pulse (mark) between each data character received with the exception of the first five data characters of a message. The absence of a CON signal signifies that the first five data characters have been received; the absence of OA signal signifies that a character is fully stored and upon receiving a RCV DATA signal indicates that a mark is present. If a mark is not detected upon receiving the RCV DATA signal a RPE (rest pulse error) is generated and sent to the control panel for display. The circuit is disabled upon receiving a LF4NS signal which signifies the end of a message.

c. *Contiguous Control Character Check.* The contiguous control character circuit (gates and latch circuit) is used to check that all control characters received in ASM1 only are contiguous. Upon receiving a C(CST signal, 2CCS or 2CC signal the circuit detects that the control characters received are contiguous, and no error signal is generated. If both the 2CCS signal and 2CC signal are not present the circuit detects an error and generates a NCCE signal (non contiguous character error) which is sent to the control panel for display.

d. *Block Length Error Check.* The block length error check circuit (through the use of gates and latch circuits) is used by ASM1 only and provides the following checks:

(1) Upon receiving a VS0B signal (valid start of block) and inputs from the character position counter (2F, 3F, 3G, 4G) or EM signal (em decode) the circuit expects an EOB signal (end of block) for the 8: 3d character position. If an EOB signal is not detected the circuit generates a BLE signal (block length error) and sends it to the control panel for display.

(2) Upon receiving a SYN signal while expecting data the circuit detects an error and generates a BFE signal (block framing error) and sends it to the control panel for display.

e. *Sequence/Mode 5 Error Checks.* The sequence and mode 5 error check circuits (through the use of gates and latch circuits) are used to provide the following checks:

(1) *Sequence error check circuit.* The sequence error check circuit is used to detect and display errors received in mode 1 or mode 5. Upon receiving a BRFE signal (mode 1) or upon receiving a OF signal (mode 5) the circuit generates a SEQE signal (sequence error) and sends it to the control panel for display.

(2) *Mode 5 error check circuit.* Upon receiving any of the following error signals RPE, CPE, CZCS, GDIA, or no CZC by the 10th character, the circuit generates a M5ER signal (mode 5 error) which is fed to the command circuits.

f. *Error Store.* The error store circuit (through the use of gates latch circuits, and flip-flops) is used to store any frame errors, parity errors, and characters errors received. Upon receiving any framing errors the circuit generates a BRFES signal (block reader framing error stored); upon receiving all other error signals the circuit generates a BRERS signal (block reader error stored). Both BRFES and BRERS signals are sent to the command circuits.

g. *Repeat Block Logic.* The repeat block logic circuit configuration consists of gates, flip-flops, and latch circuits which are used to generate a RPT BLK (repeat block) signal to signify that the block received must be repeated.

(1) Upon receiving a VS0B signal (signifies that an SOH or STX character is received) the circuit generates a RCVB signal which is sent to the block framing error checks circuit. The RCVB signal is present until reset by an EOB character or ETX character. Upon receiving an EOB or ETX character the circuit is enabled to receive the next block of a message.

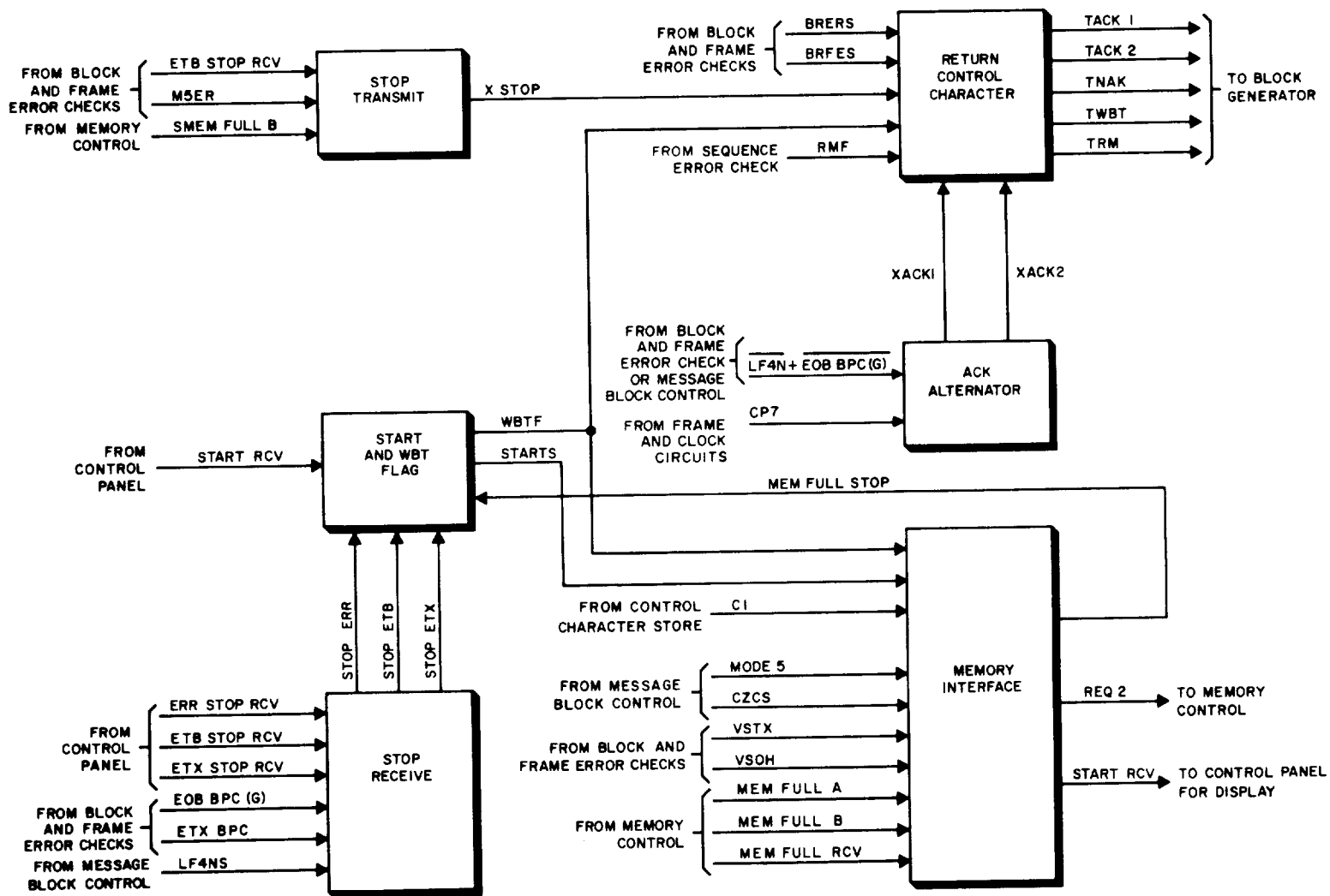


Figure 5-20. Command circuit block diagram.

(2) If an EOB or ETX character is received in coincidence with an BRES signal (from the block framing error checks circuit) a RPT BLK signal is generated. The RPT BLK signal signifies that the block received is in error and must be repeated before the next block of a message is received. The RPT BLK signal is sent to the block framing error checks circuit.

h. Block Framing Error Checks. The block framing error checks circuit consists of gates and latch circuits. When a SSOB signal is received the first two blocks received are valid without checking. The circuit then checks for the expected frame character (either SOB, SOH, or STX). Upon receiving the expected framing character the circuit generates either a VSOB, VSOH, or VSTX signal (depending upon the framing character received) which is sent to the repeat block logic circuits. If the expected framing character received is incorrect the circuit generates a BFE signal (block framing error) which is displayed at the control panel; upon receiving a RPT BLK signal the circuit checks that previous frame characters are repeated.

5-19. Command Circuit Block Diagram Description

(figs. 5-20 and 5-21(14), (15))

a. Stop Transmit. The stop transmit circuit consists of gates and flip-flops which are used to generate a X STOP signal (transmit stop). Upon receiving either an error (M5ER) signal, SMEM FULL B (memory full) signal, or an ETB STOP RCV (incomplete block) the circuit generates a X STOP signal which is sent to the return control character circuits.

b. Start and Wait Before Transmit Flag. The start and wait before transmit circuit consists of gates and latch circuit. Upon receiving any stop receive condition (STOP ERR, STOP ETB, or STOP ETX) or a MEM FULL STOP (memory full stop) signal the circuit generates a WBT flag signal and resets the STARTS latch circuit. Upon receiving a START RCV signal the STARTS latch circuit is set and a STARTS signal is sent to the memory interface.

c. Stop Receive. The stop receive circuit consists of gates and flip-flops which are used to generate STOP ERR, STOP ETB, and STOP ETX signals. The circuit compares the end of block and end of message signals with stop conditions set up on the control panel, and stores a valid stop.

d. ACK Alternator. The ACK alternator circuit consists of a decode gate and flip-flop. When a EOBBPC (G) signal or LF4N signal is received the circuit generates a XACK 1 or XACK 2 (depending upon the state of the flip-flop). The flip-flop toggles each time CP7 is received and forwards the XACK 1 or XACK 2 signal to the return control character circuit.

e. Return Control Character. The return control character circuit consists of a group of gates which upon receiving XACK 1, XACK 2, BRERS, BRFES, WBTF, RMF input signals generate TACK 1, TACK 2, TNACK, TWBTF, and TRM output signals respectively. Each output signal is sent to the block generator.

f. Memory Interface. The memory interface coordinates the operations of the block reader with the core memory, via the memory control. Service request REQ 2 is sent to the memory control when the block reader has data for storage. The request is developed when the count inhibit is not present (\overline{CI}), and a start condition is stored (STARTS) in the start and WBT flag circuit. Additional requirements are: a mode V start of message (M5 • SOM, generated from M5 and CZCS), a valid STX, or a valid SOH. Signals returned from the memory control inform the block reader of the status of the core memory. When MEMFULLRCV occurs simultaneously with ETX + LF4N, or MEMFULLA occurs, or MEMFULLB occurs, the signal MEMFULLSTOP is generated. This signal is used to reset the START RCV indication at the control panel, and to force generation of the WBT flag. The START RCV indication is set by BRENDPRINT in conjunction with WBTF.

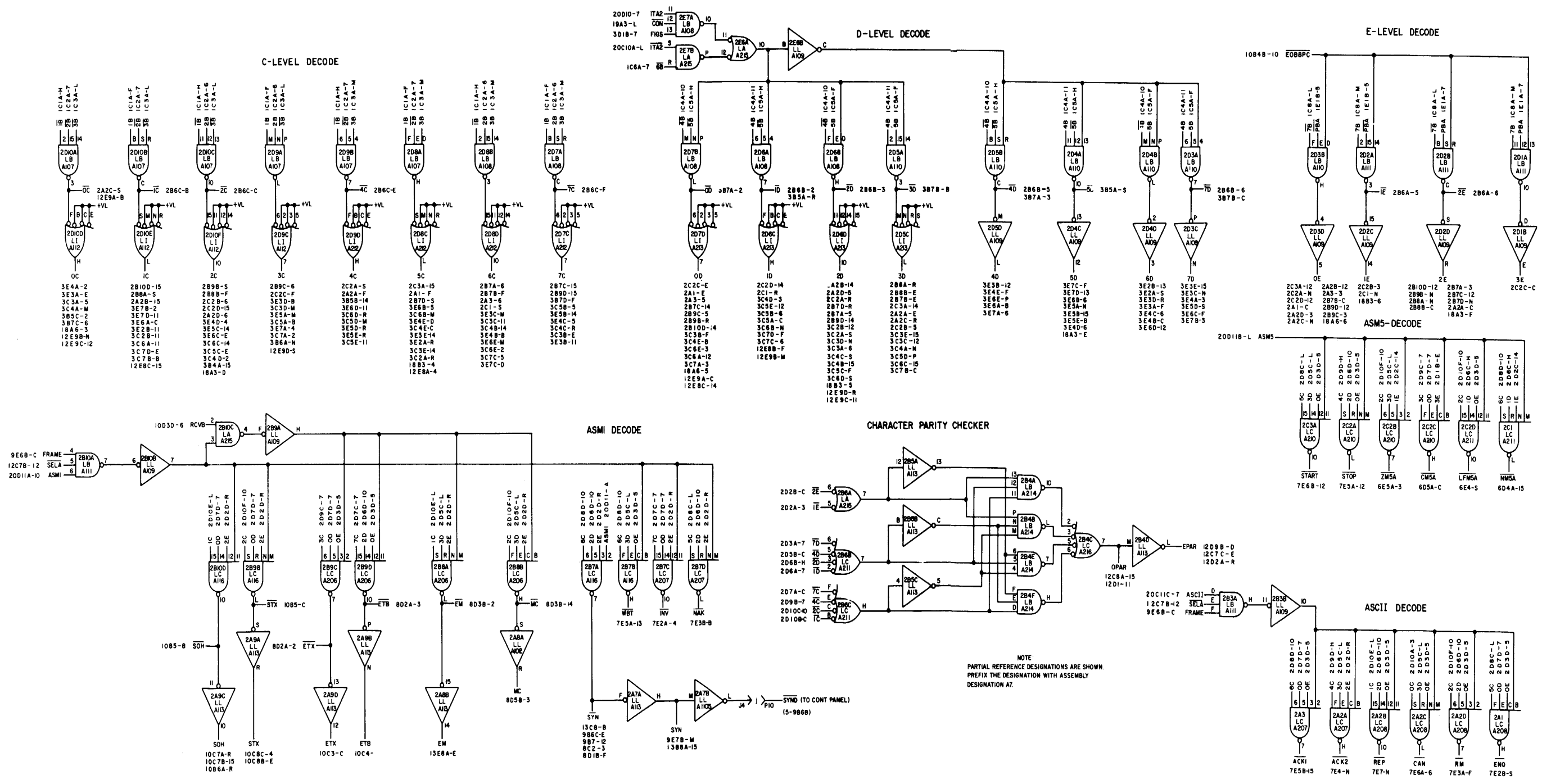


Figure 5-21(2). Block reader logic diagram. (Sheet 2 of 21)

ITA2 DECODE

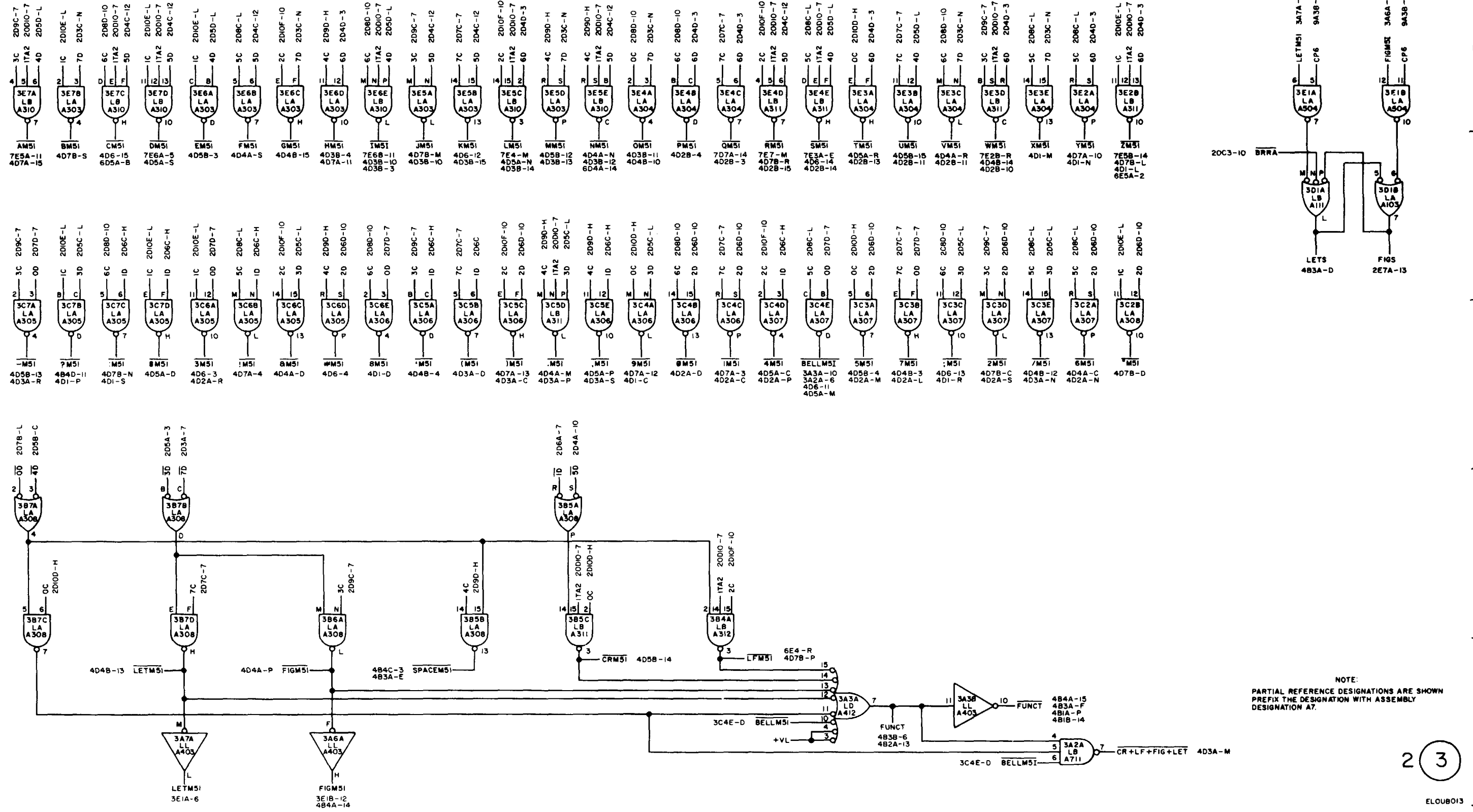


Figure 5-21(3). Block reader logic diagram. (Sheet 3 of 21)

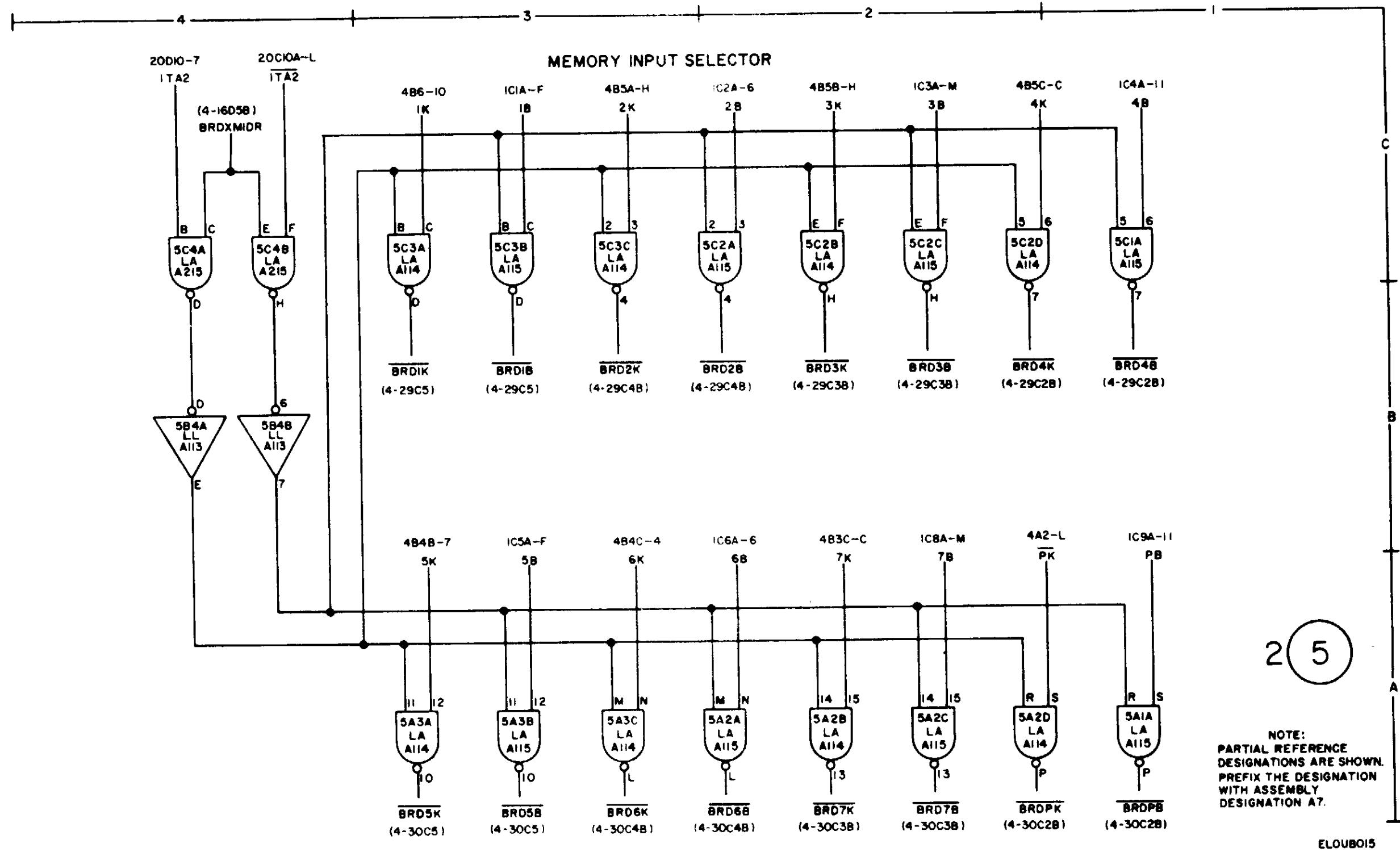


Figure 5-21(5). Block reader logic diagram. (Sheet 5 of 21)

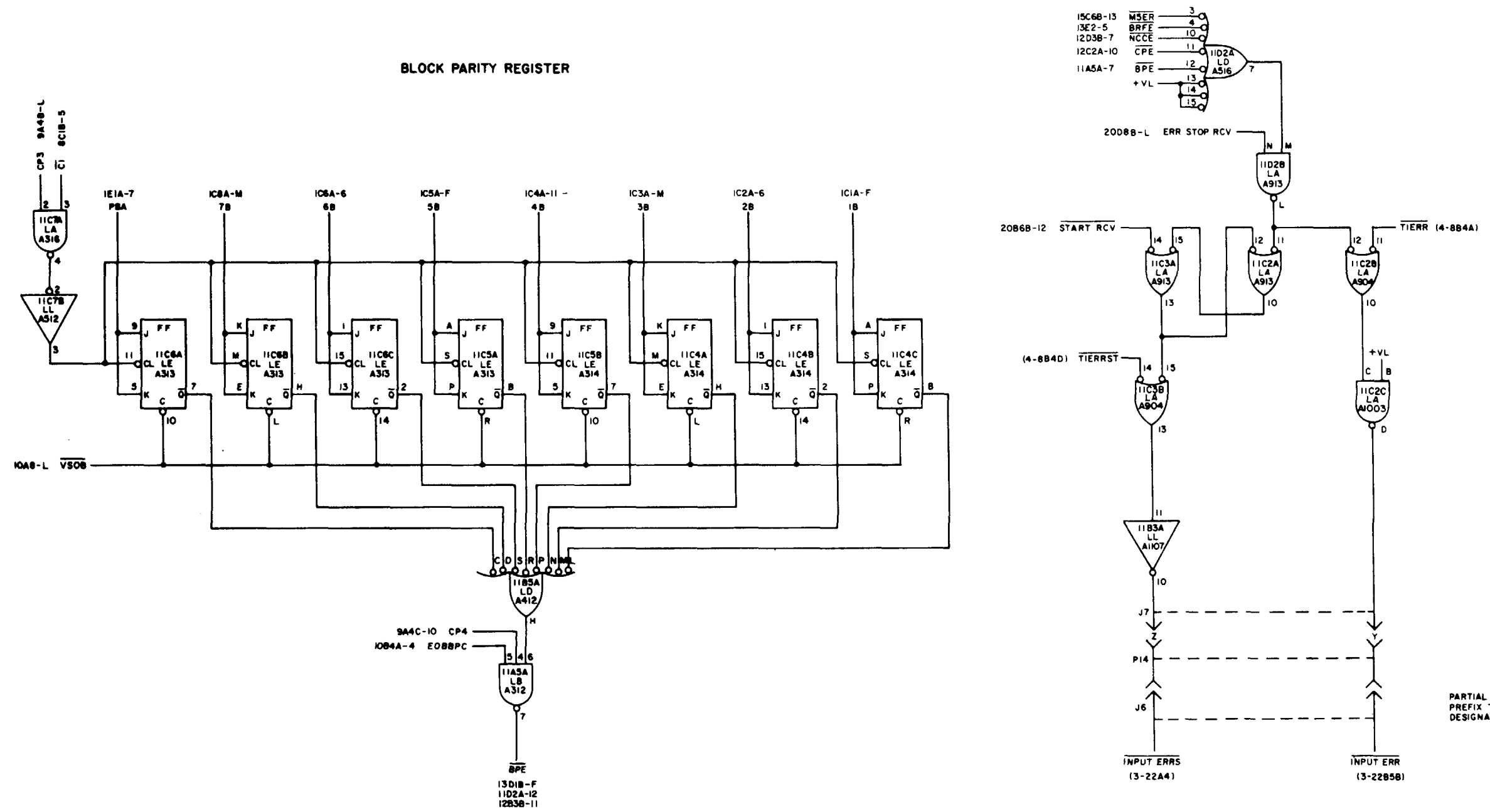


Figure 5-21(11). Block reader logic diagram. (Sheet 11 of 21)

Change 3 5-45

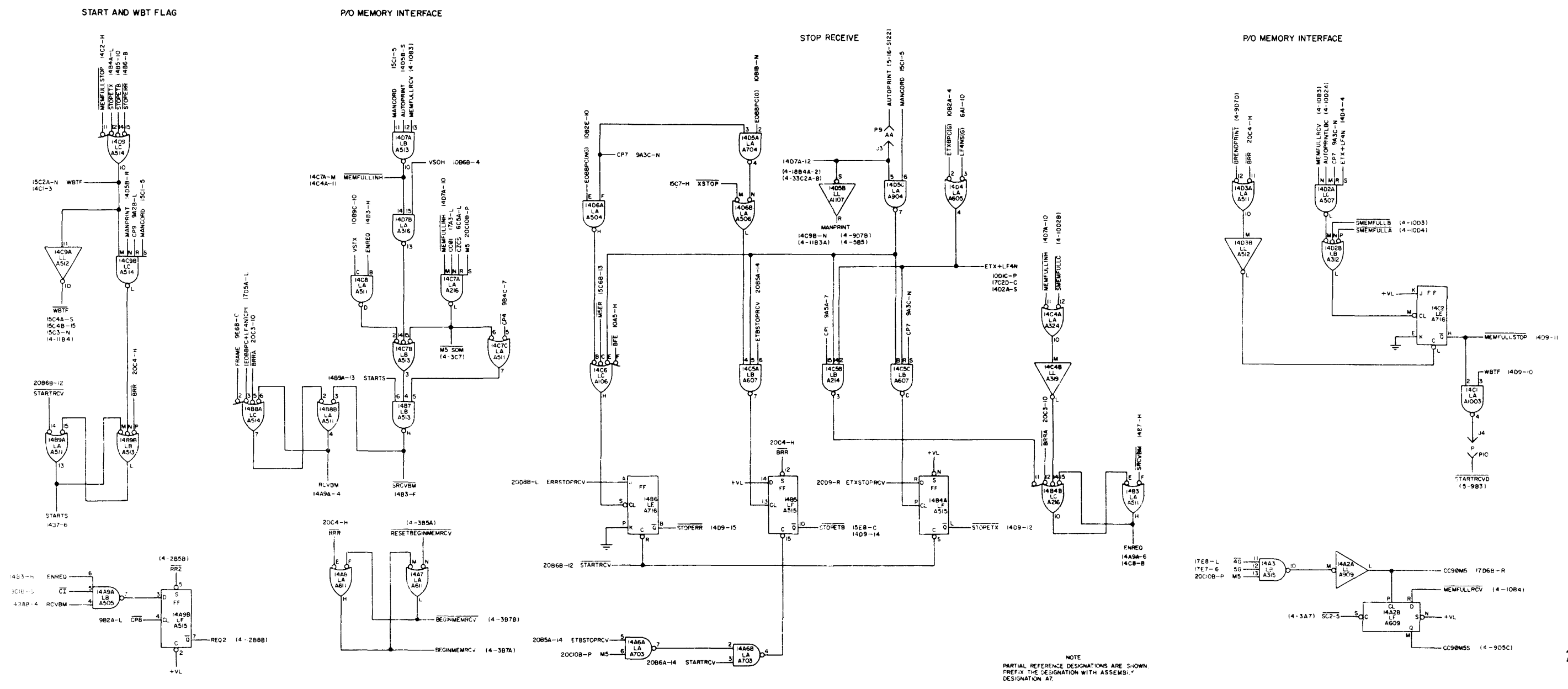
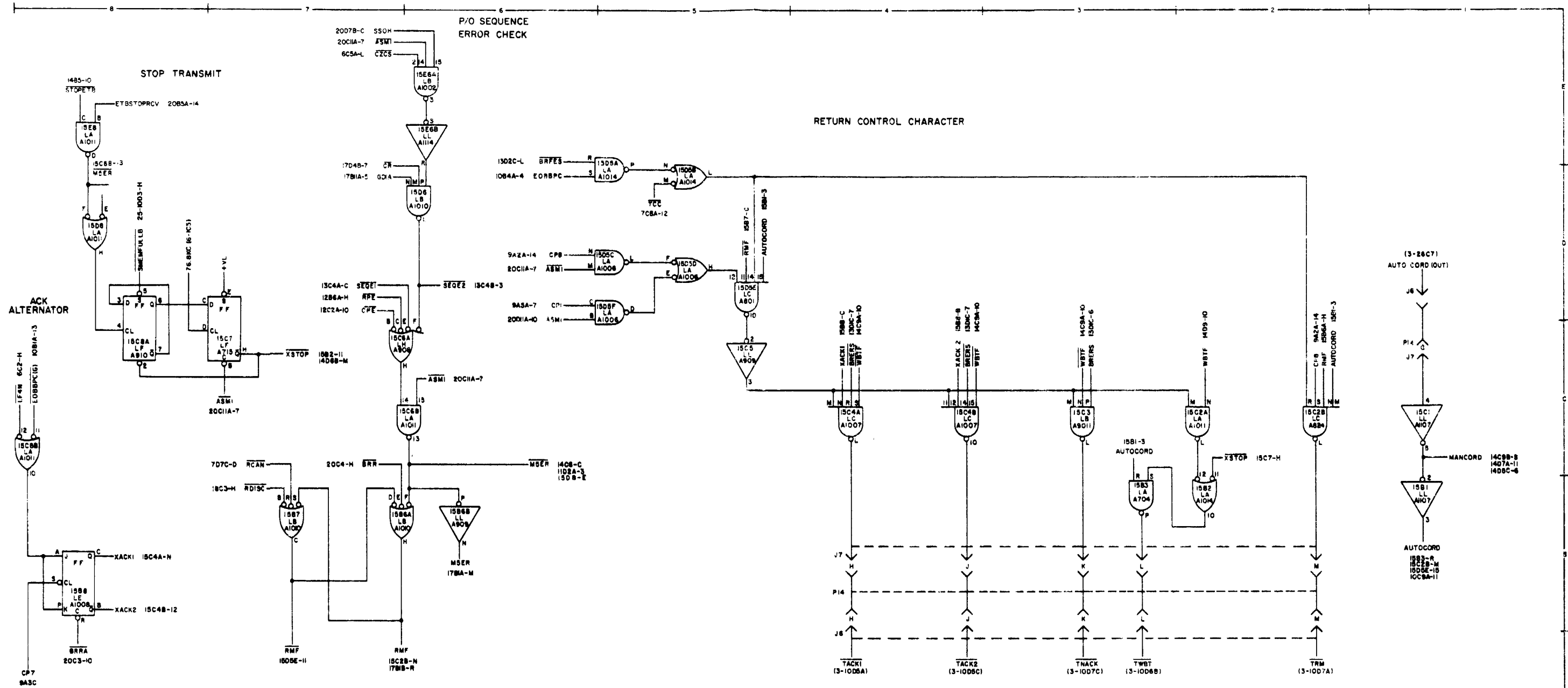


Figure 5-21(14). Block reader logic diagram. (Sheet 14 of 21)

Change 3 5-51



NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A7

Figure 5-21(15). Block reader logic diagram. (Sheet 15 of 21)

Change 3 5-53

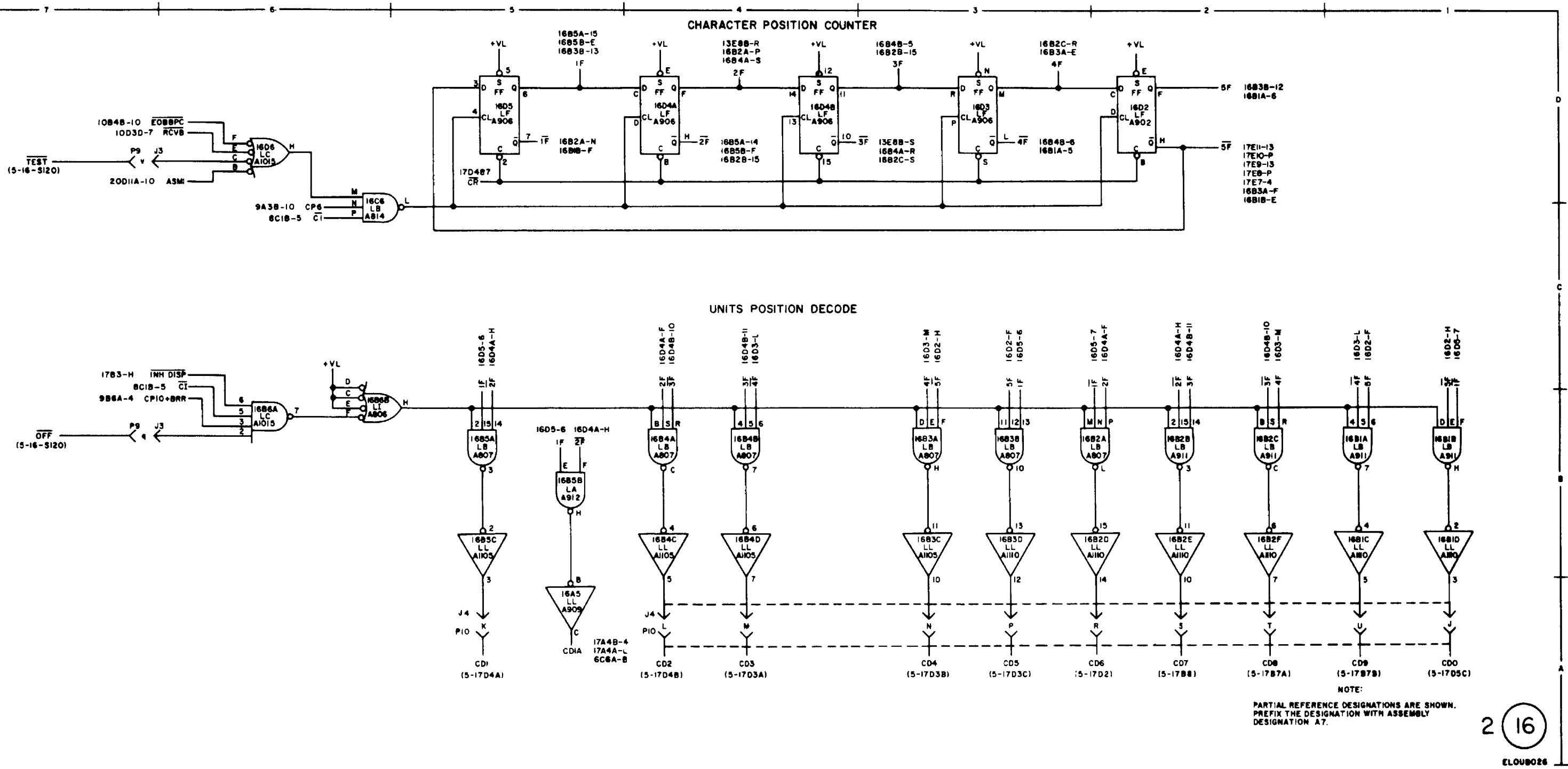


Figure 5-21(16). Block reader logic diagram. (Sheet 16 of 21)

Change 3 5-55

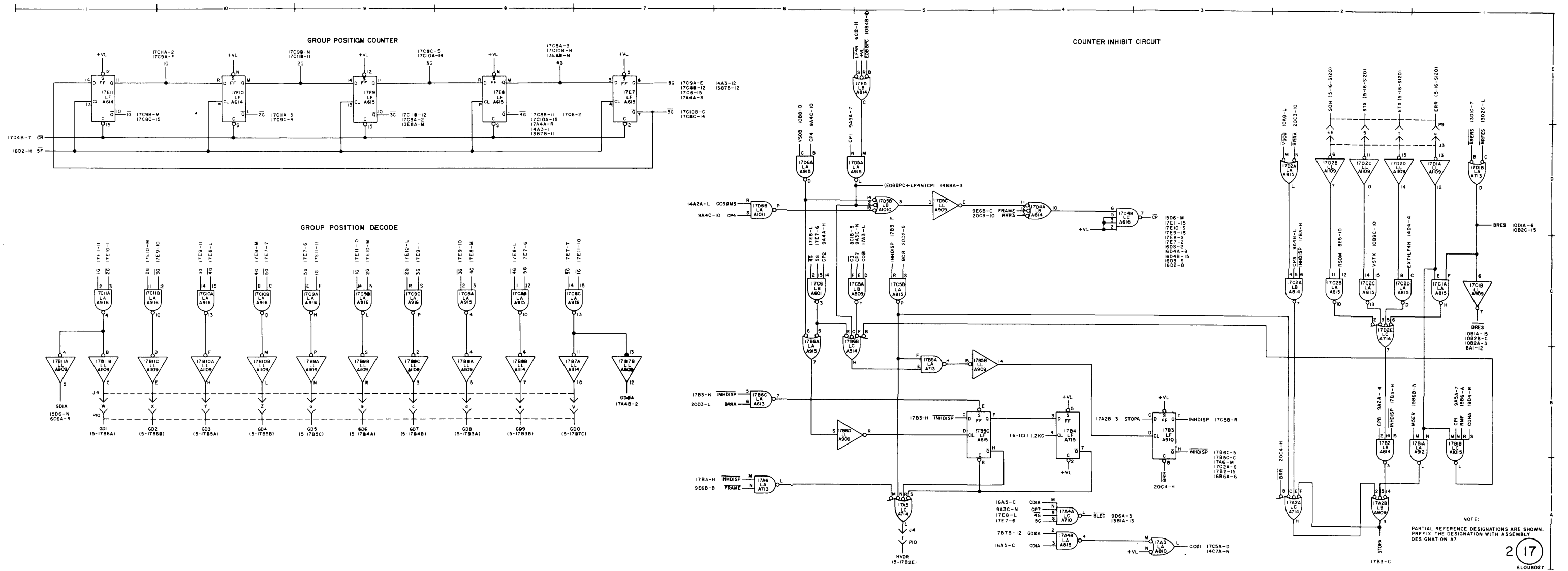


Figure 5-21(17). Block reader logic diagram. (Sheet 17 of 21)

Change 3 5-57

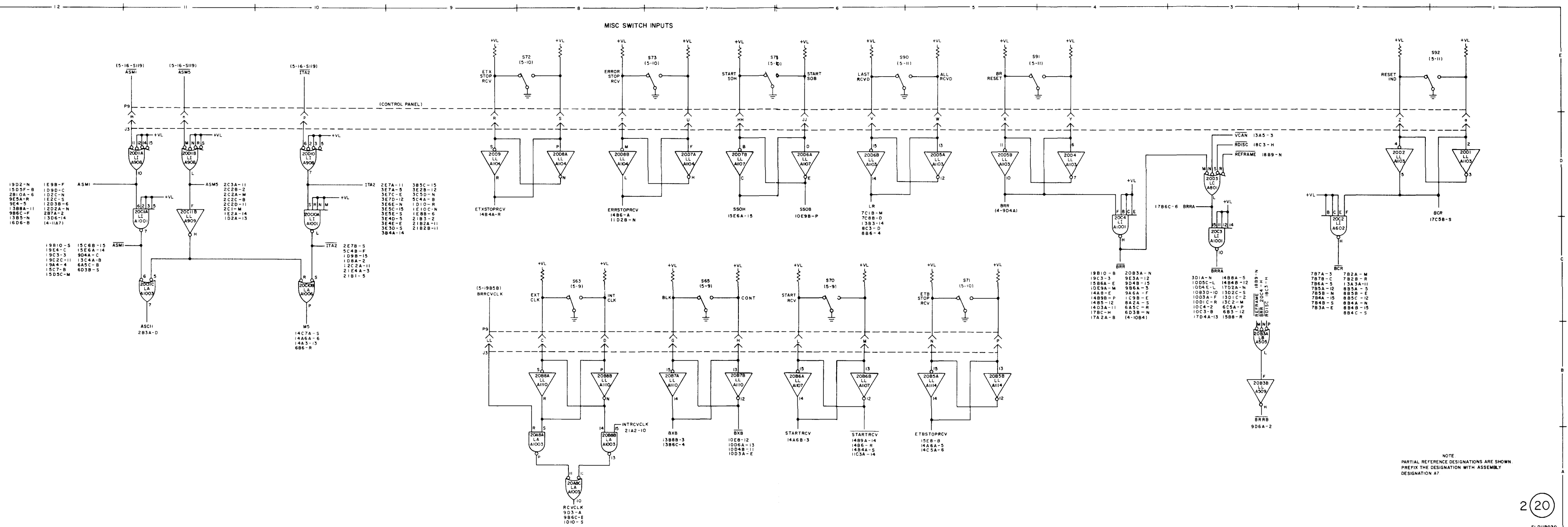


Figure 5-21(20). Block reader logic diagram. (Sheet 20 of 21)

Change 3 5-63

NOTE
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION 47.

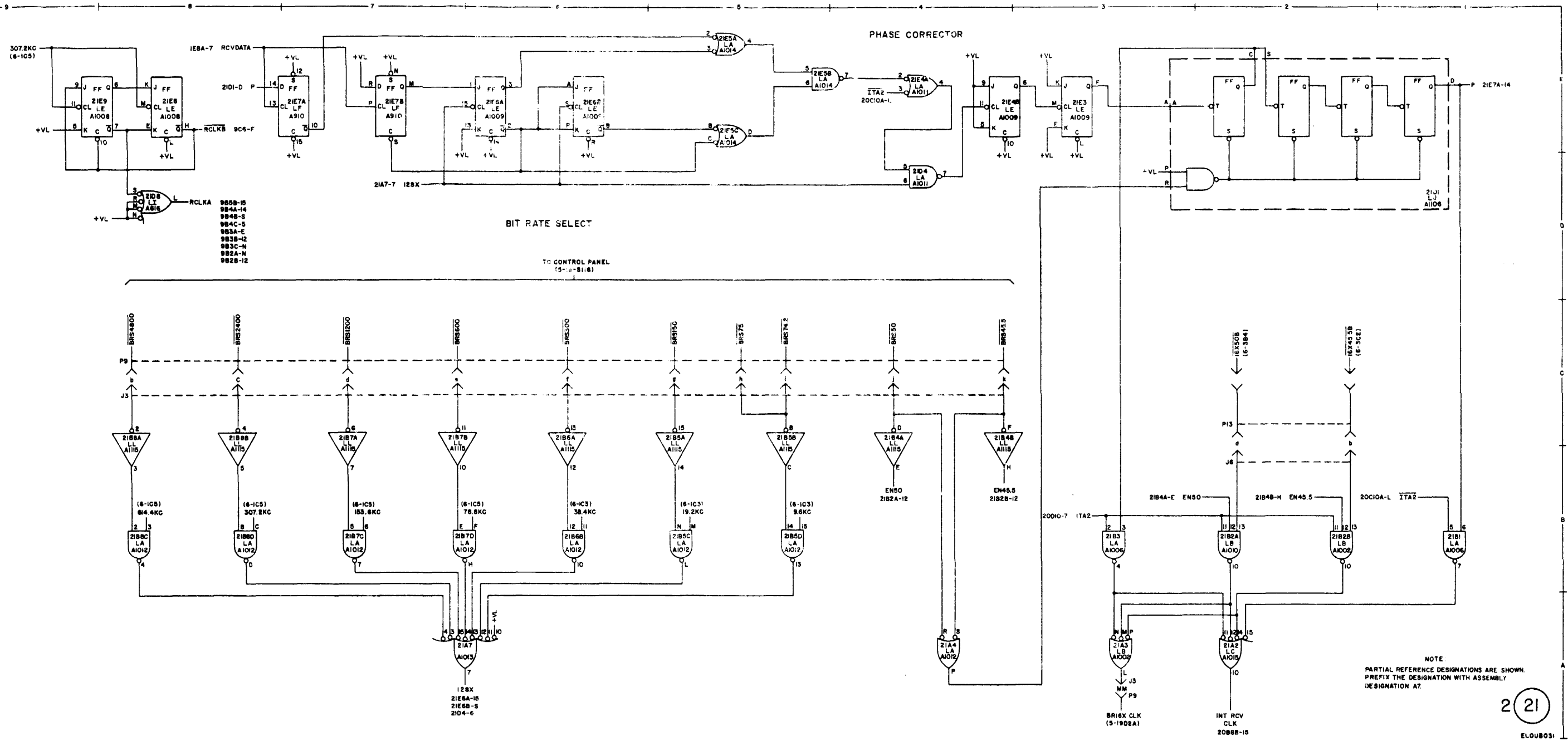


Figure 5-21(21). Block reader logic diagram. (Sheet 21 of 21)

Change 3 5-65

5-20. Block Generator, Simplified Block Diagram Description (fig. 5-22)

The block generator transmits simulated control, data, and framing characters into the line under test. Character transmission can be taken from the core memory or the control and framing and data character patch boards, using automatic or manual coordination.

a. The clock pulse generator divides the 307 khz signal at its input to form the transmit clock pulses used throughout the block generator.

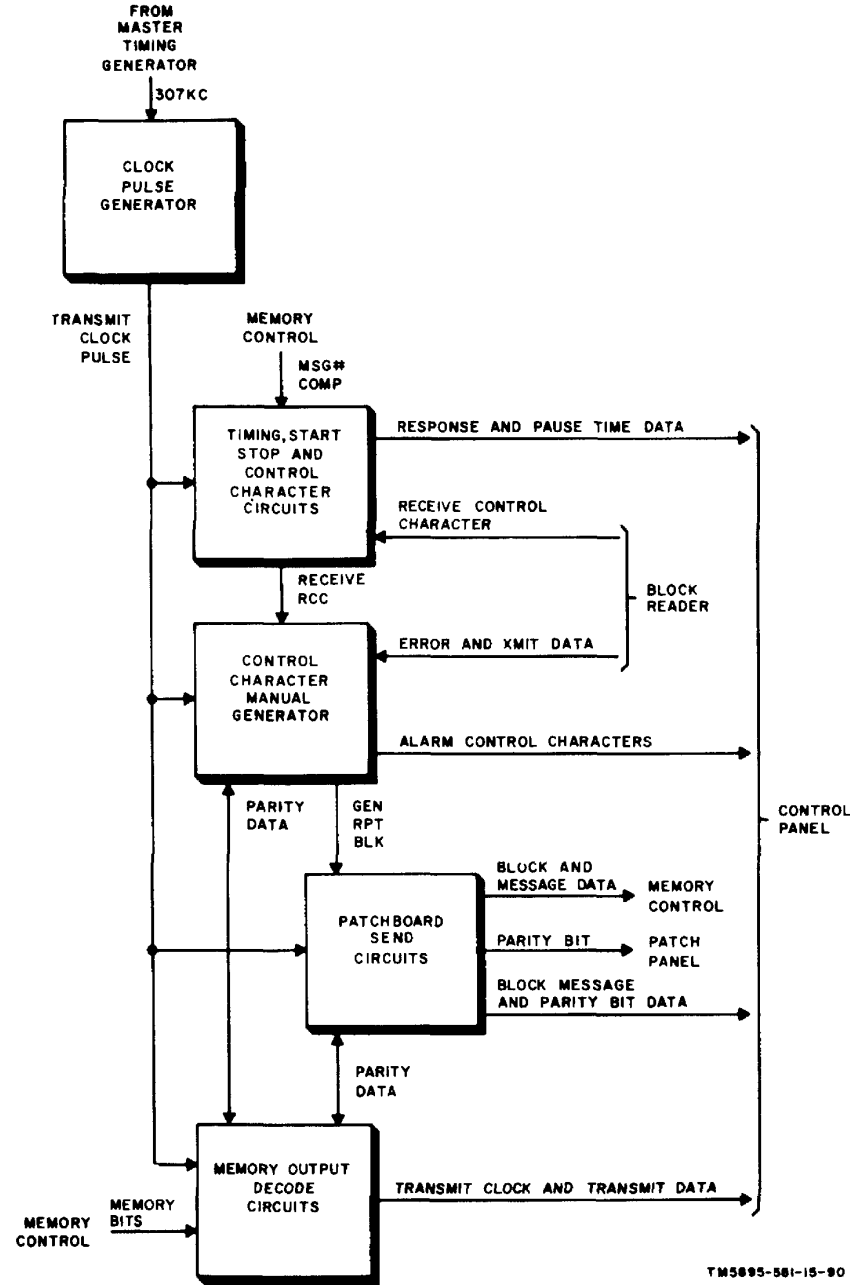
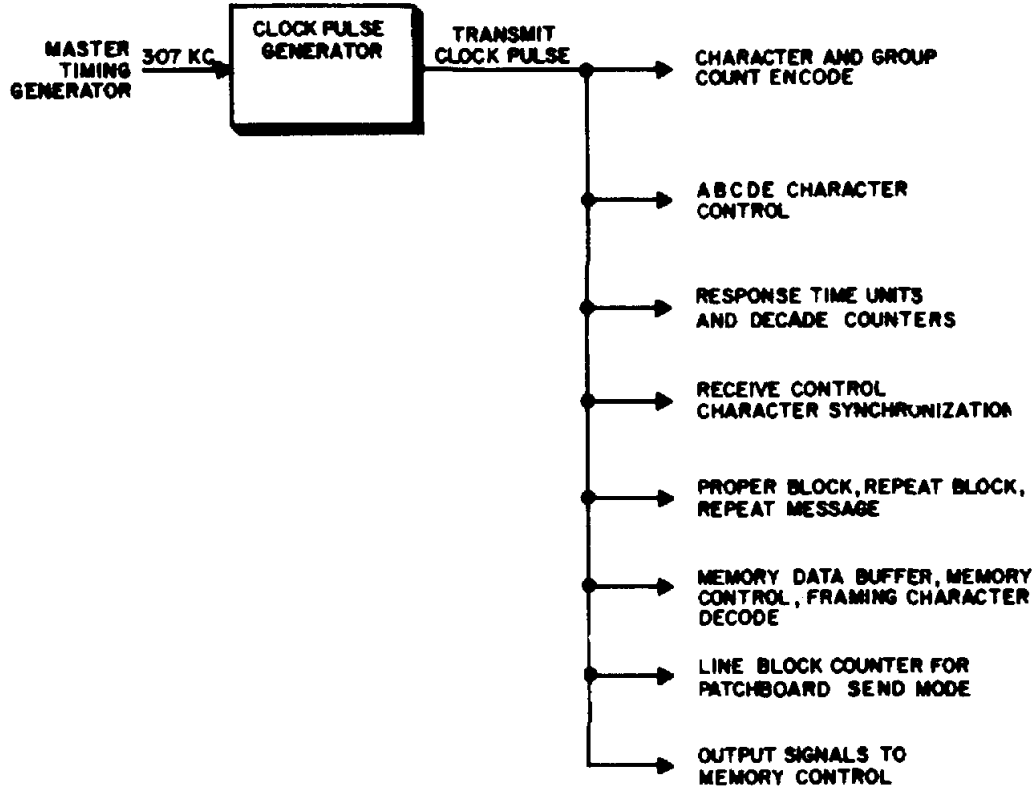


Figure 5-22. Block generator simplified block diagram.

b. The timing, stop/start, and control character circuits cause the pause between the transmitted blocks, maintain a count of the time it takes the receiving station to respond to a transmitted block, and compare that time against a control panel setting. The signals generated are routed to the control panel, and control character manual generator for display, and decoding, respectively.

c. When the coordination simulator is operating in the manual coordination mode, the control character manual generator generates the actuating signals that cause the transmit and receive control characters to be transmitted from the patchboard send circuits.

d. The patchboard send circuits coordinate the transmission of characters from the patchboard by maintaining a count of the blocks and messages sent; determines when the ABCDE and end of block characters are to be transmitted, and forwards signals to the proper position on the patchboard to access the character to be transmitted.



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Figure 5-23. Clock pulse generator block diagram.

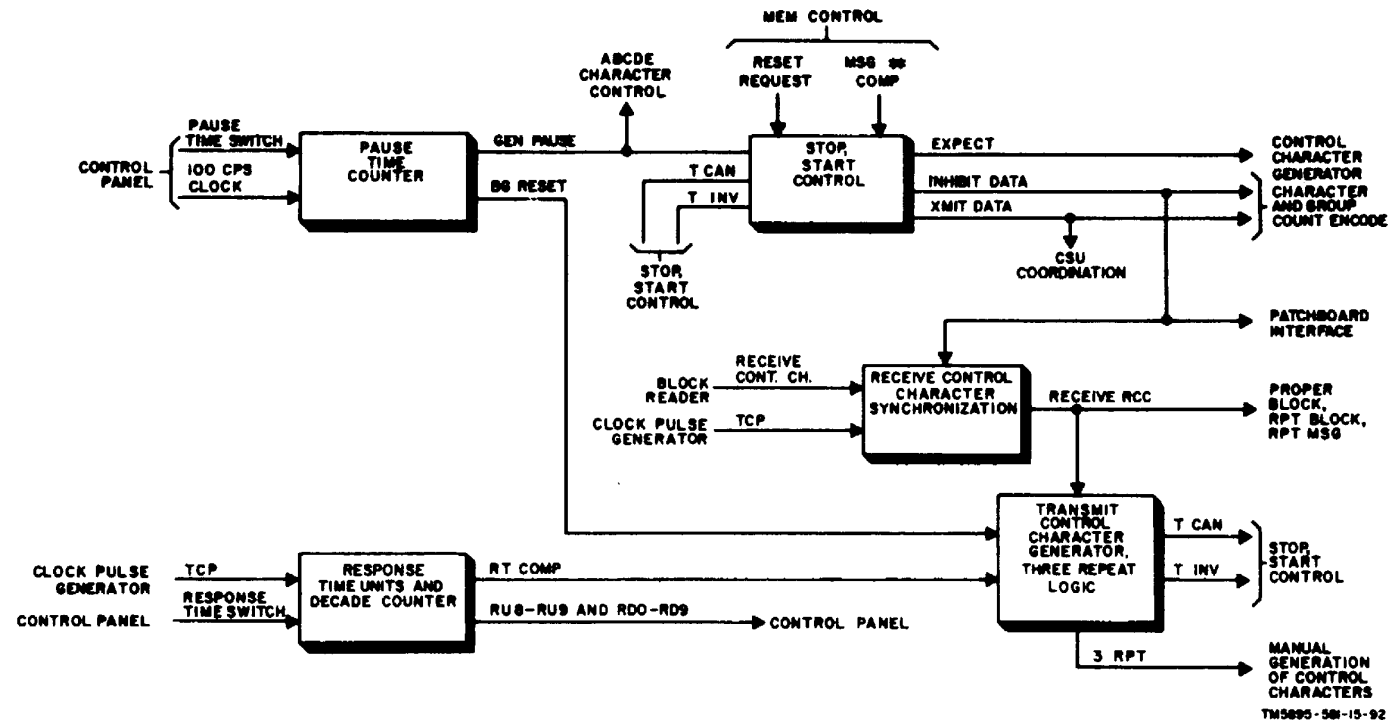


Figure 5-24. Timing, start/stop and control character circuits block diagram.

e. The memory output decode circuits provide the buffer for receiving data bits from memory control, decode the data bits, and when required convert the data bits from ASCII to M512A code. The decoded bits are then forwarded to the control panel for display and transmission.

5-21. Clock Pulse Generator, Block Diagram

(figs. 5-23 and 5-28 (2))

a. The clock pulse generator receives a 307 khz signal as a toggle for its gray code counter. The gray code counter consists of D-type flip-flops whose output is decoded to form transmit clock pulses 1 through 9. The transmit clock pulses are used to synchronize operations throughout the block generator.

5-22. Timing, Start/Stop, and Control Character Circuits Block Diagram Description

(figs. 5-24 and 5-28 (1), (11), (13), (15), (16))

a. *Pause Time Counter.* The pause time counter is programmed by the PAUSE TIME units and decade switch on the control panel. The counter consists of D-type flip flops and starts its count upon receipt of an indication that the second framing character has been sent, and the 100 hz clock is present. When the counter reaches the count programmed on the control panel it forms a generate pause signal, and a block generator reset signal. These signals are forwarded to the stop start control, and transmit control character generator.

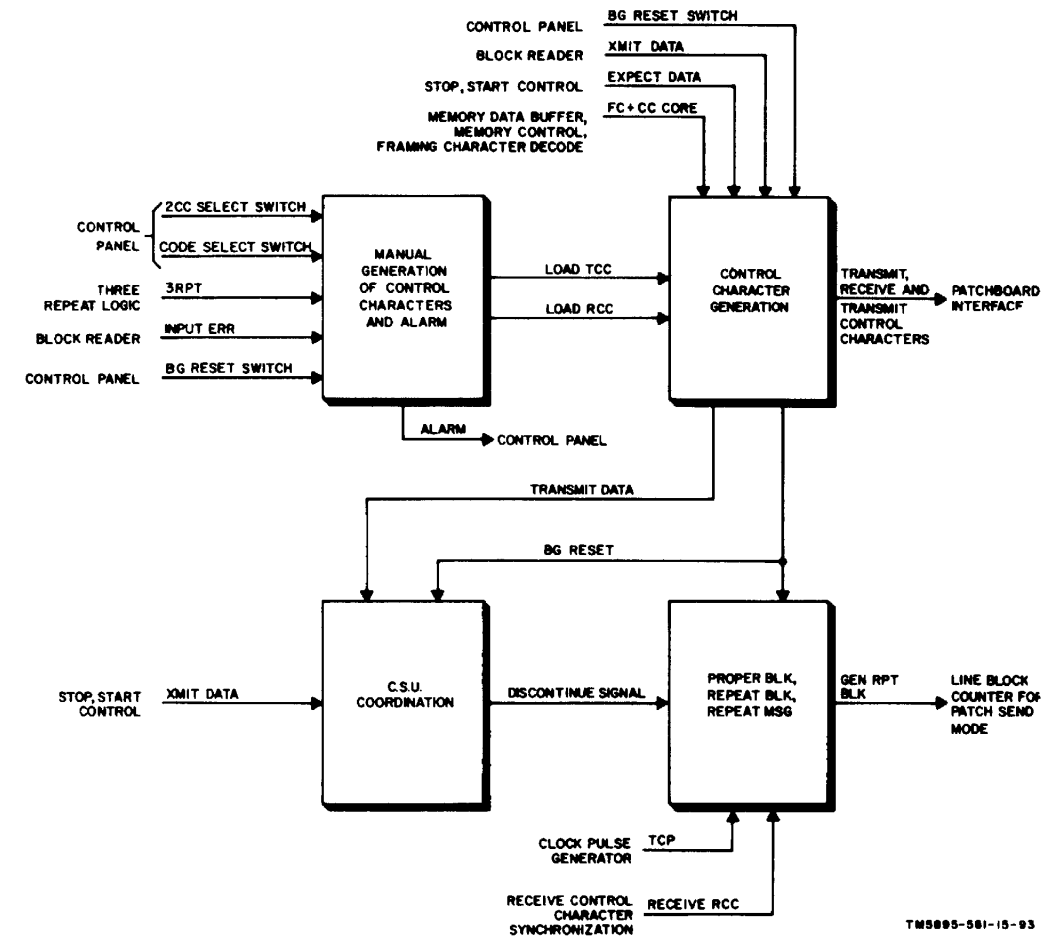


Figure 5-25. Control character manual generator block diagram.

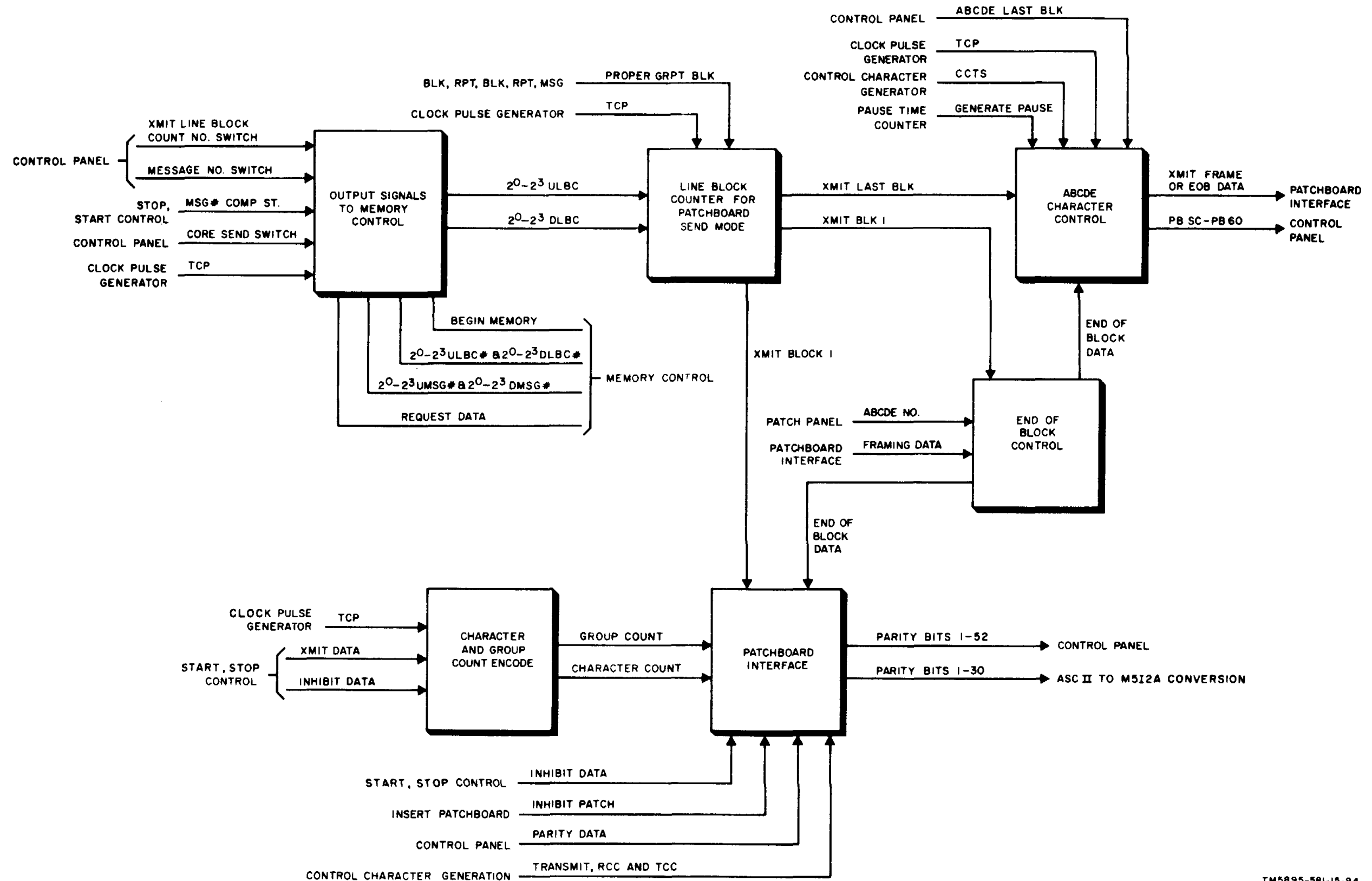


Figure 5-26. Patchboard send circuit block diagram.

b. *Response Time Units and Decade Counter.* The response time units and decade counter is programmed by the RESPONSE time units and decade switch on the control panel. The response time is the maximum allowable time in character counts (0) through 99) that it, takes the receiving station to acknowledge a reply (REP), cancel (CAN), or block parity (BP) character and the receipt of a valid return control character. Tile response time is displayed on the block generator section of the control panel. The response time counter also forwards response time compare signals to the transmit control character generator to determine if transmit cancel or invalid signals are to be generated.

c. *Stop, Start Control.* The stop, start control circuits receive transmit, message, and request. data signals. These signals are decoded and forwarded to tile circuits indicated on figure 5-24. The type of signals generated are inhibit, transmit command, and expect data.

d. *Receive Control Character Synchronization.* The receive control character synchronization circuits function as a register and buffer for receive control character signals routed from the block reader. These signals indicate receipt of the last transmission by the receiving station. The control characters are then forwarded to the transmit control character generator, and the proper block, repeat block, repeat message circuits.

e. *Transmit Control Character Generator, Three Repeat Logic.* The transmit control character generator, detects receipt of invalid acknowledge (INVACK), block generator reset (BGR), and reject message (RM) signals. When either of these conditions occur the appropriate transmit cancel, reply, or invalid signal if forwarded to the stop, start control circuits. When the counter in the three repeat logic has detected transmission of the cancel or reply character three times, the three repeat character is generated and forwarded to the manual generation of control character circuits.

5-70 5-23. Control Character Manual Generator, Block Diagram Description
(figs. 5-25 and 5-28 (10), (14), (17), (22))

a. When the coordination simulator is set for operation in the manual coordination mode, the control character to be transmitted is set on the 2CC SELECT switch. This causes a load command o lie generated for the specific control character selected to be forwarded to the control character generator from the manual generation of control character circuits. The manual generation of control character circuits also contains logic for detecting three. repeat conditions from the three repeat logic, and input error signals from the block reader. When either of these conditions occur an alarm indicator on the control panel is lit and an audible alarm sounded.

b. When the control character generator receives a load command, a flip flop is set for the associated character, and a transmit order is forwarded to the patchboard interface and CSU coordination circuit for that character. The flip-flops in the control character generator are reset by the block generator reset switch on the control panel. The block generator reset signal is also forwarded to the CSU coordination circuit, and proper block, repeat block, repeat message circuits.

c. The proper block, repeat block, repeat message circuits, monitor for the receipt of signals indicating invalid acknowledgment, transmit cancel, or no receipt of an acknowledge. When either of these conditions occur a generate repeat block or repeat message signal is routed to the line block counter for board send circuits.

5-24. Patchboard Send Circuits, Block Diagram Description
(fig. 5-26)

a. When the coordination simulator is transmitting characters from the patchboard, the number of line blocks and messages to be transmitted are on the XMIT LINE BLOCK COUNT NO. and MESSAGE NO. switches on the control panel. This information is routed to the output signals to memory control circuits.

b. The output signals to memory control circuits functions as a buffer for the data from tile line block and message number switches. The block data is forwarded to the line block counter for patchboard send mode circuits. Memory control receives block, message, request, and begin memory data.

c. The line block counter for patchboard send mode circuits, maintains a count of the line blocks sent, and compares the count against the block data received from the output signals to memory control circuits. When the line block in process of transmission equals LBC-1 the line block counter forwards transmit last block commands to the ABCDE character control. When the first block is to be transmitted, transmit first block commands are forwarded to the end of block control, and patchboard interface circuits.

d. The ABCDE character control generates the select character, and parity bits for the select characters when tile transmit last block command and end of block data is received.

e. The patchboard interface generates parity bits for the characters transmitted from the patchboard. The logic circuits generating the parity bits are controlled by the character count and group count signals from the character and group count encode circuits. The parity bits are forwarded to the control panel, and ASCII to M51TA2 conversion circuits.

5-25. Memory Output Decode Circuits, Block Diagram Description
(fig. 5-27 an 5-28 (5), (14), (18), (20), (21), (23))

a. The memory output decode circuits receives memory bits from memory control. The memory bits are decoded by the memory data buffer and framing character decodes circuits. The decoded bits are forwarded to the ASCII character decode to form ASCII characters. When the coordination simulator is transmitting in M51TA2 the ASCII characters are converted by the ASCII to M151TA2 conversion circuits and routed to the control panel via the output data register.

b. The output data register functions as a temporary storage for the decoded framing characters. These characters are routed to the control panel when the transmit clock and transmit clock pulse signals are received.

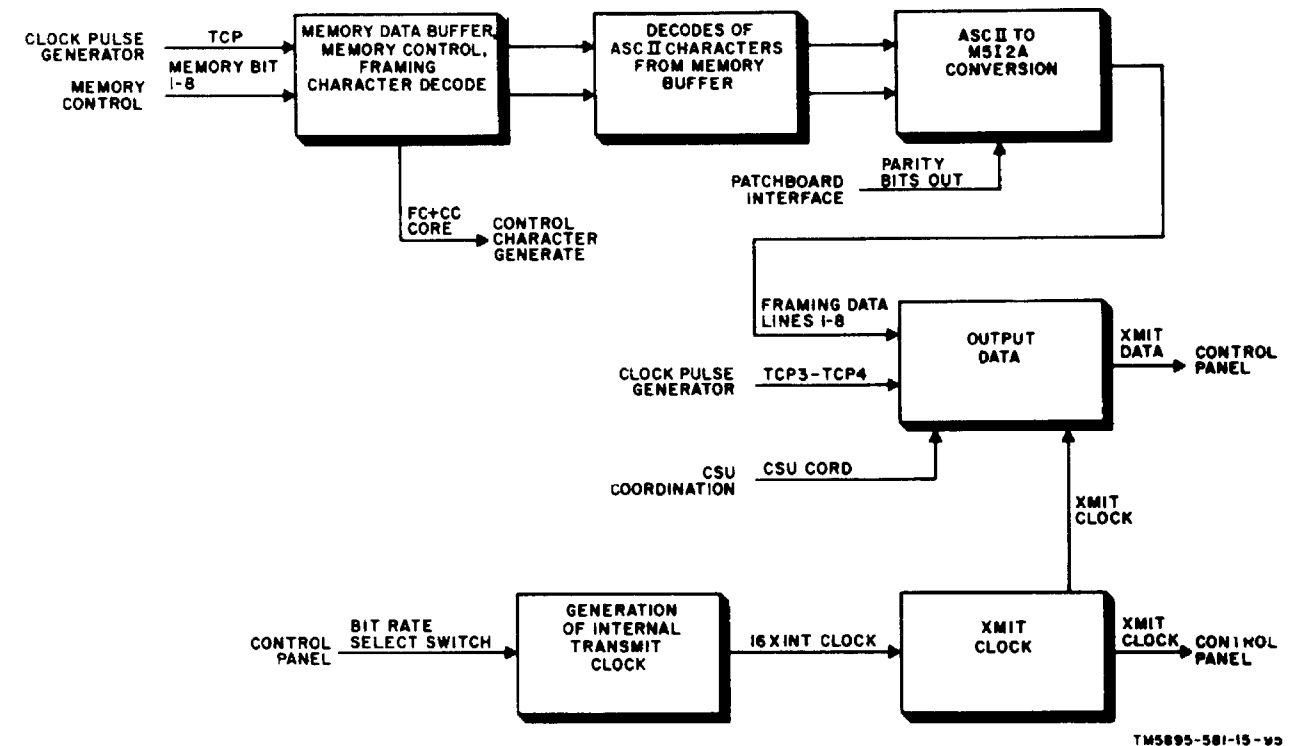


Figure 5-27. Memory output decode circuits block diagram.

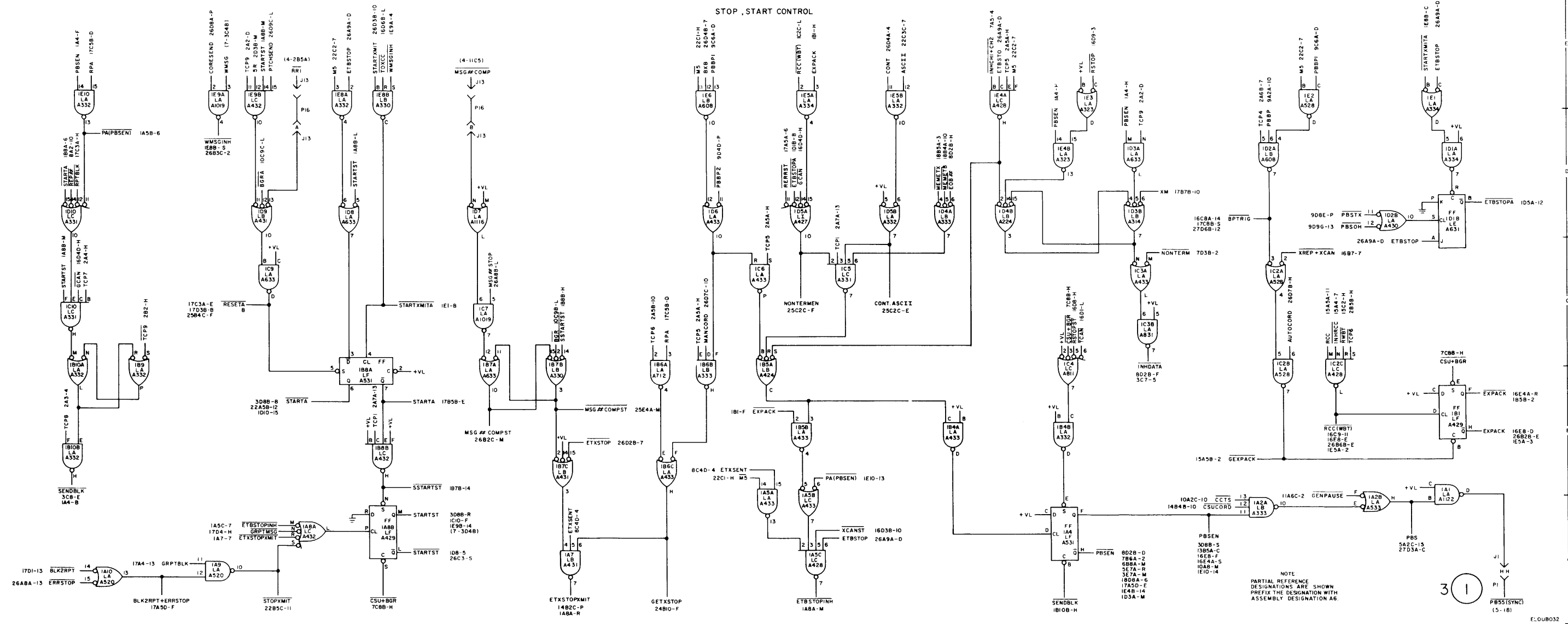


Figure 5-28(1). Block generator logic diagram. (Sheet 1 of 27)

Change 3 5-71

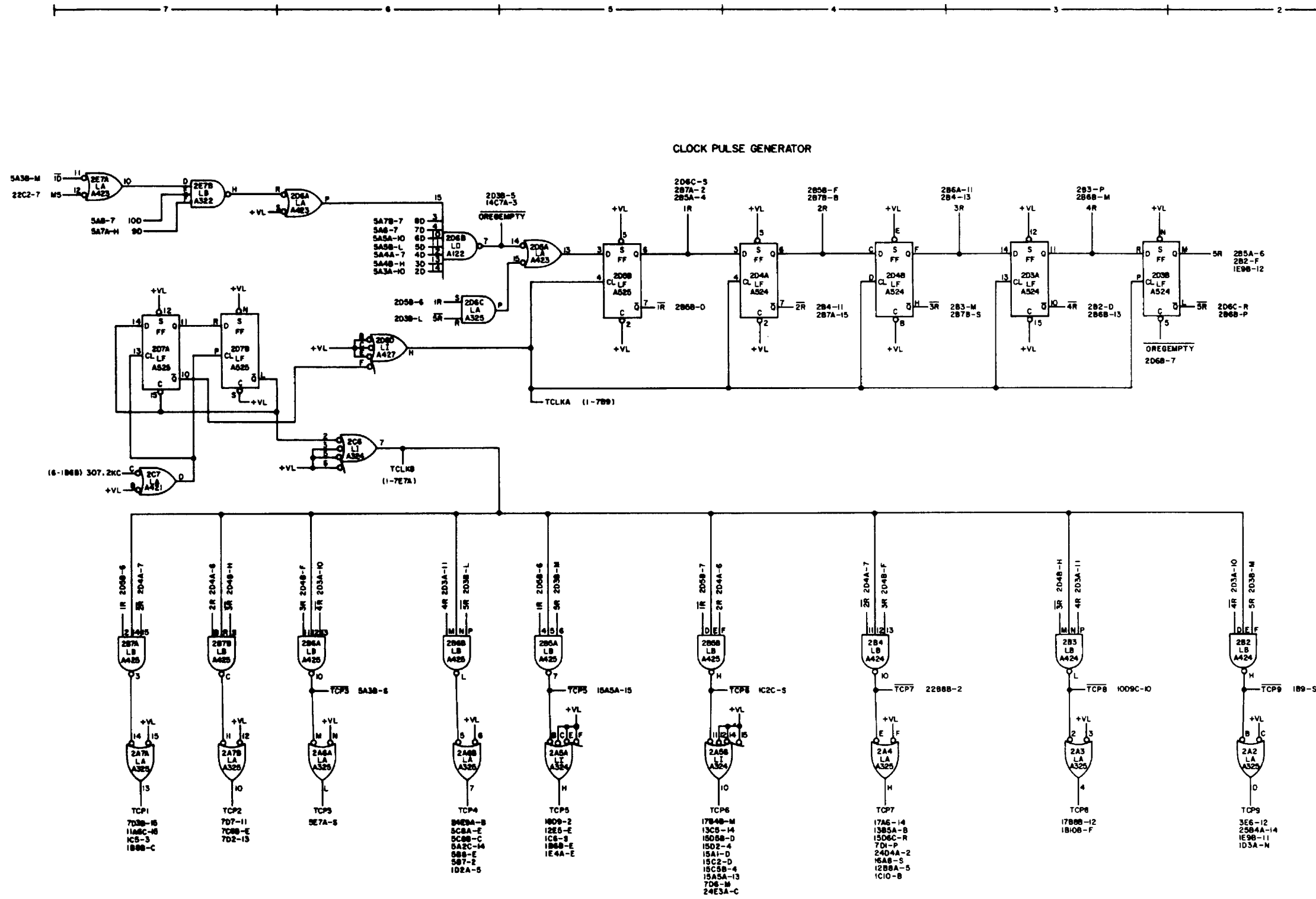


Figure 5-28(2). Block generator logic diagram. (Sheet 2 of 27)

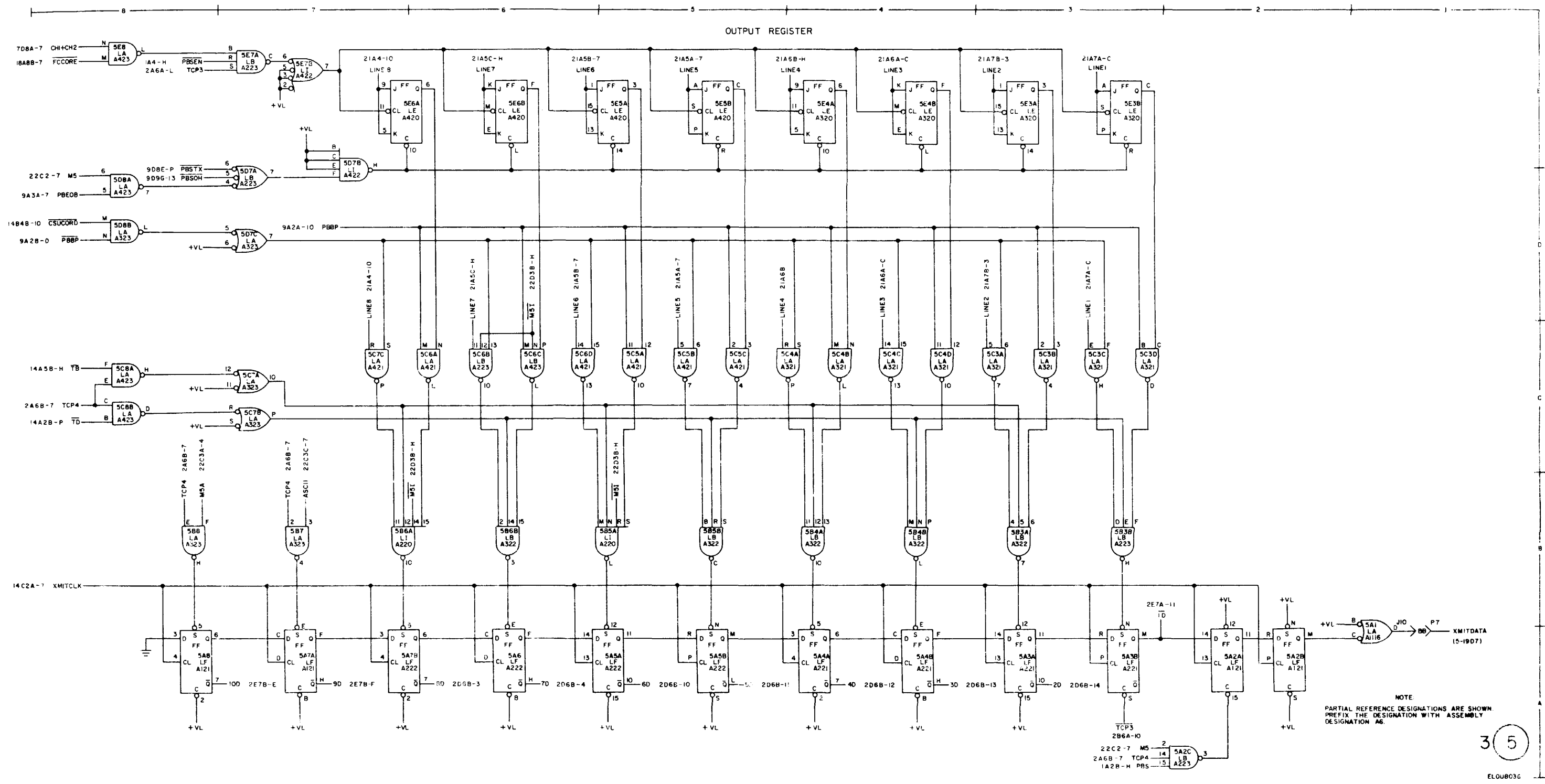


Figure 5-28(5). Block generator logic diagram. (Sheet 5 of 27)

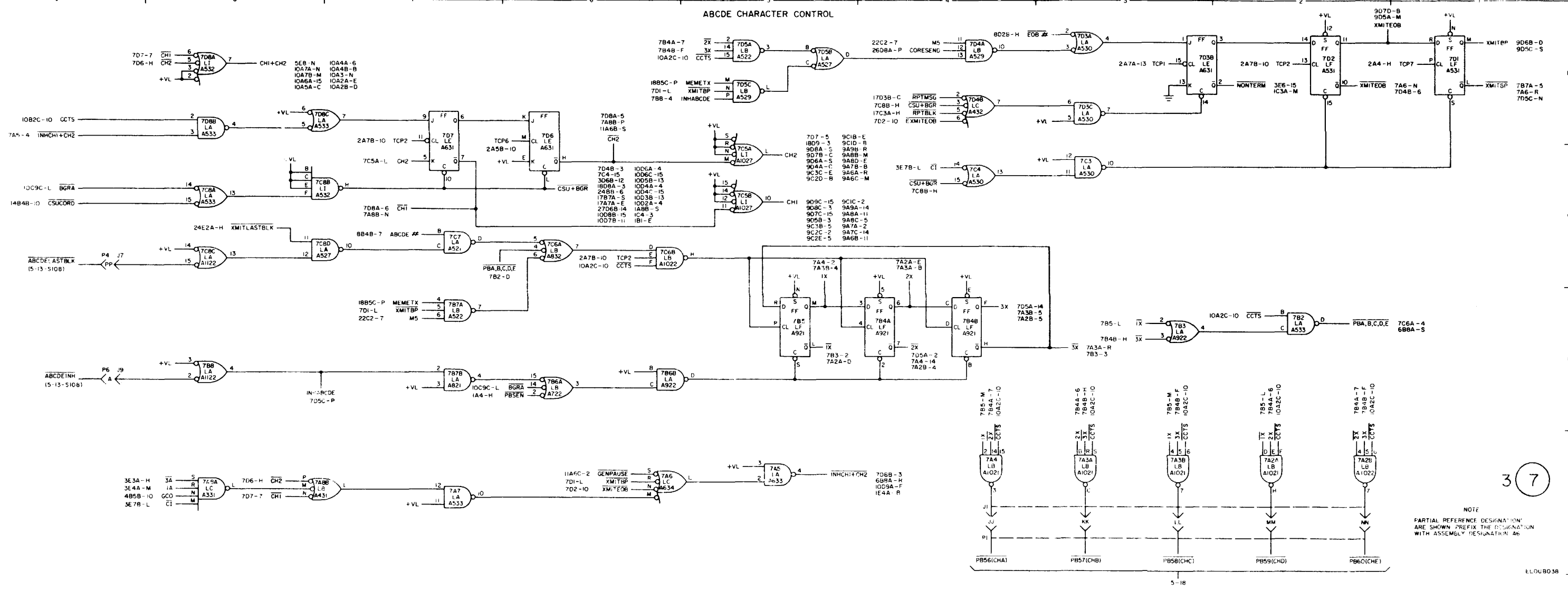


Figure 5-28(7). Block generator logic diagram. (Sheet 7 of 27)

Change 3 5-83

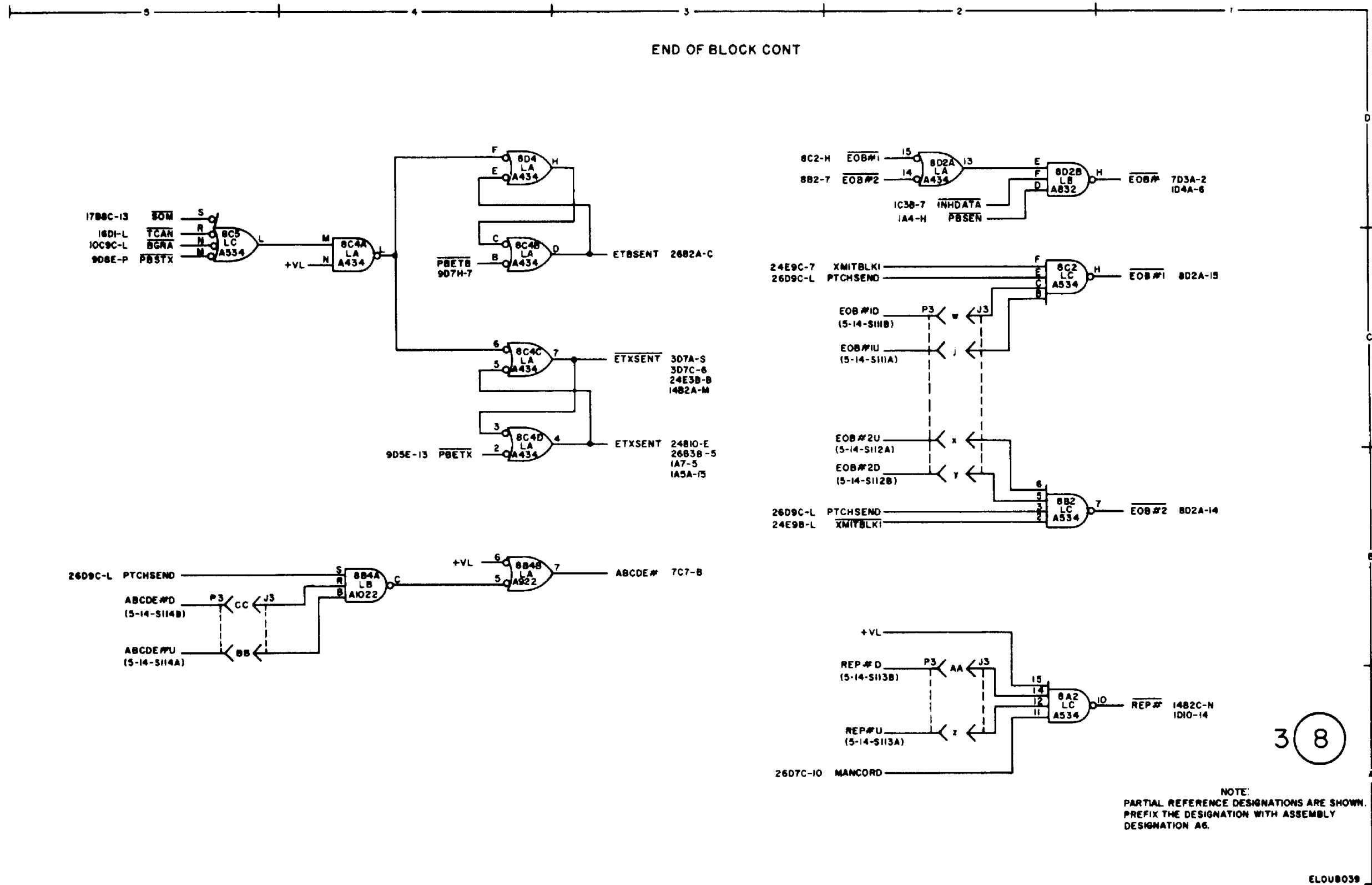
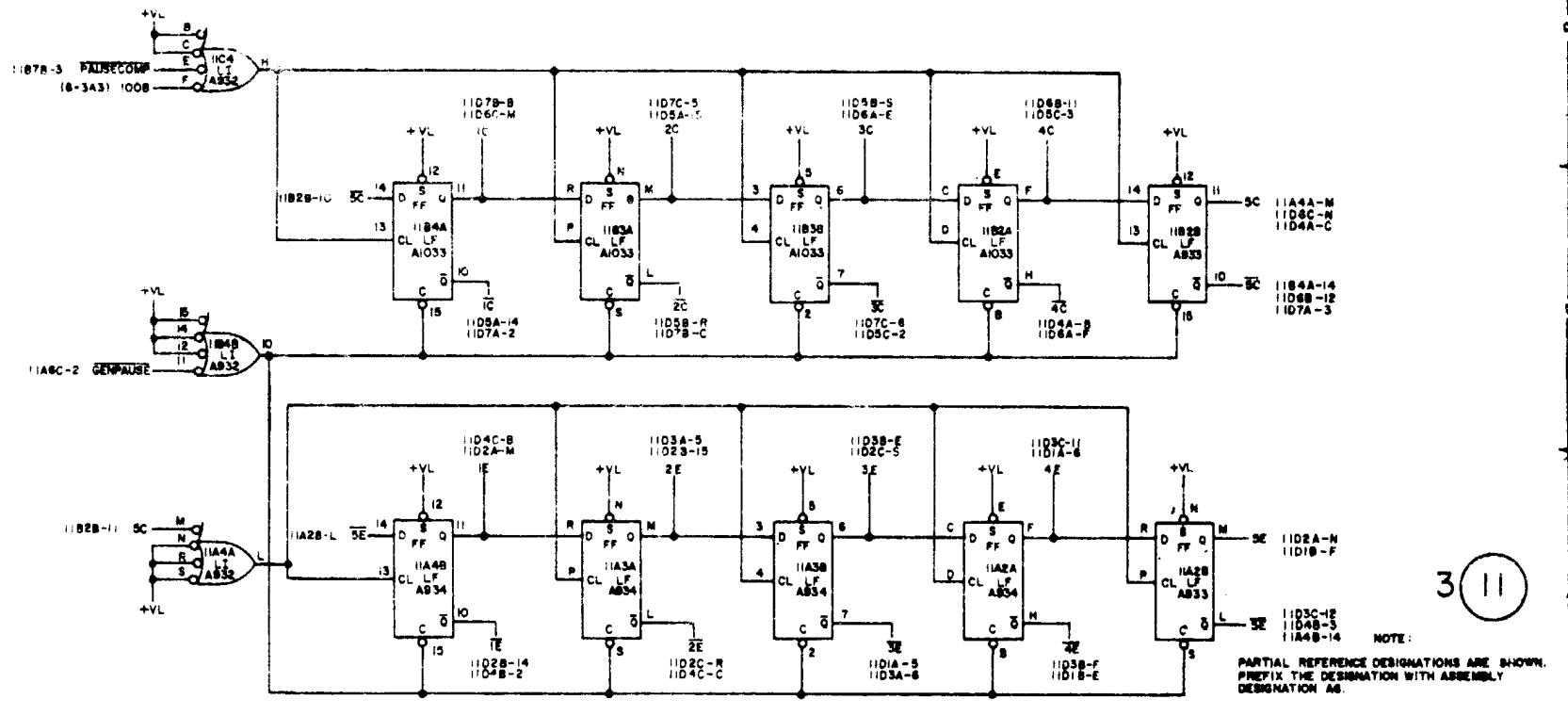
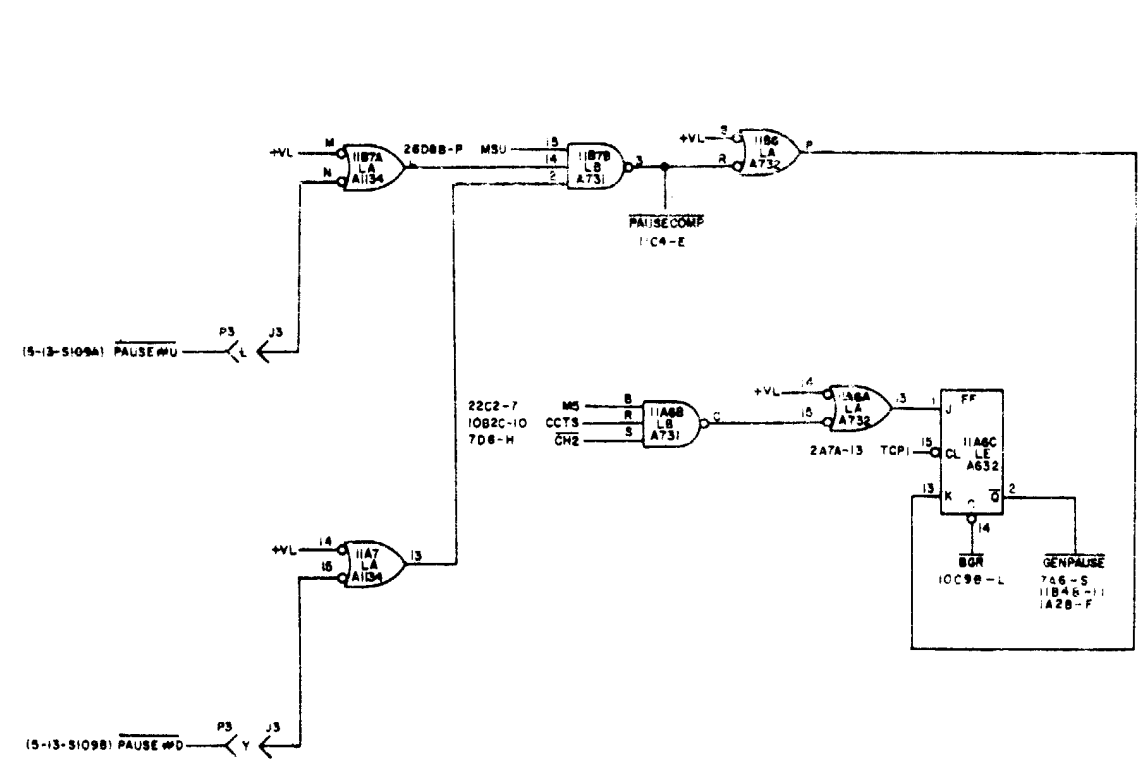
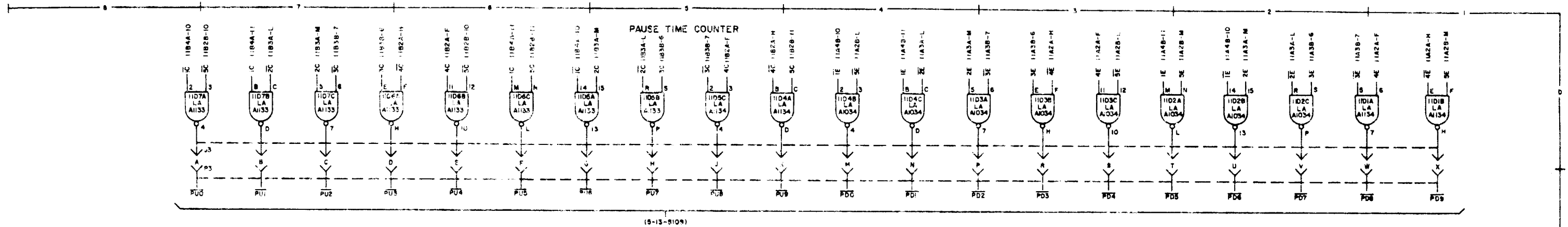


Figure 5-28(8). Block generator logic diagram. (Sheet 8 of 27)



3 11

NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION 46.

ELOUB042

Figure 5-28(11). Block generator logic diagram. (Sheet 11 of 27)

Change 3 5-91

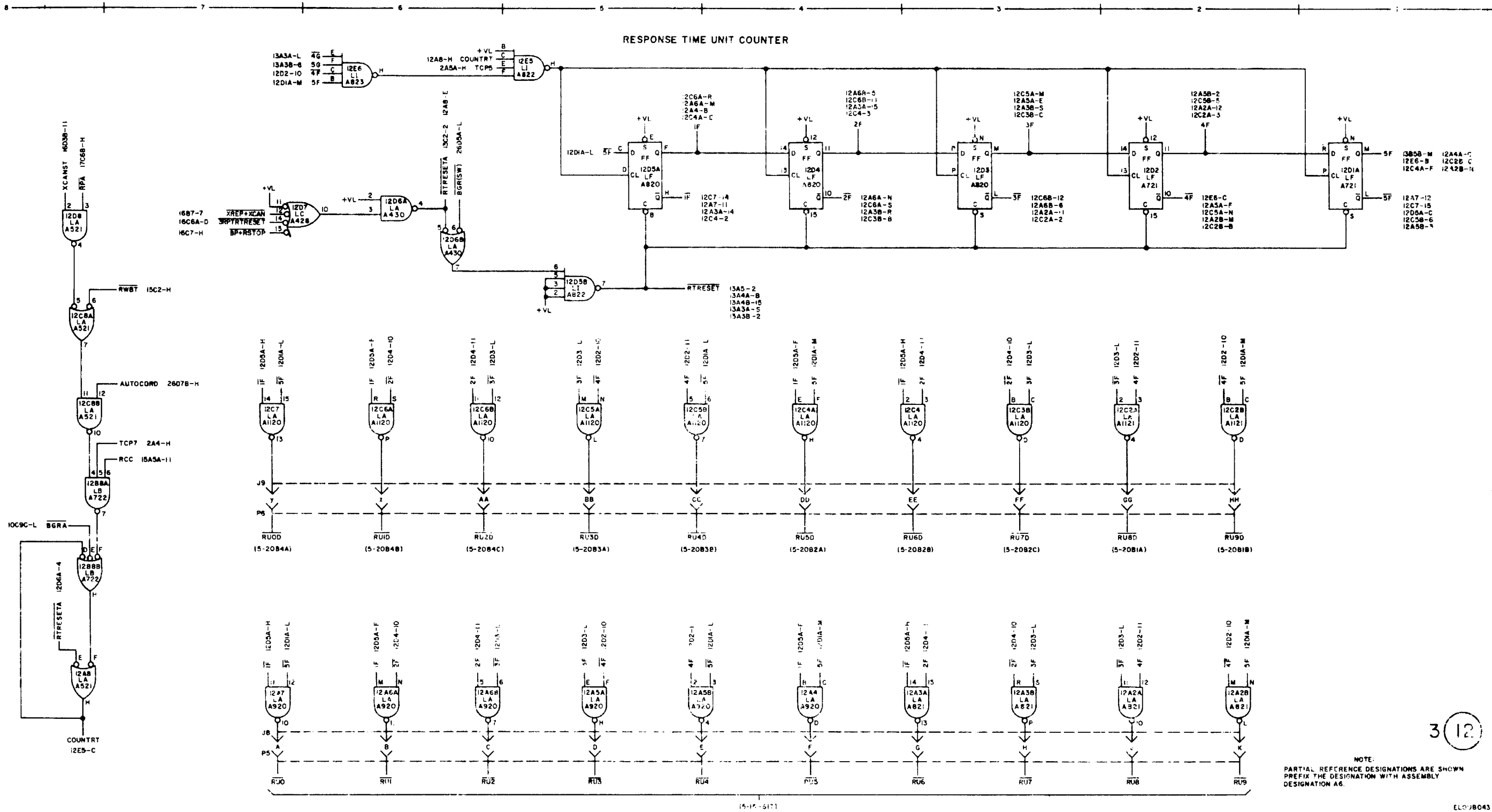


Figure 5-28(12). Block generator logic diagram. (Sheet 12 of 27)

Change 3 5-93

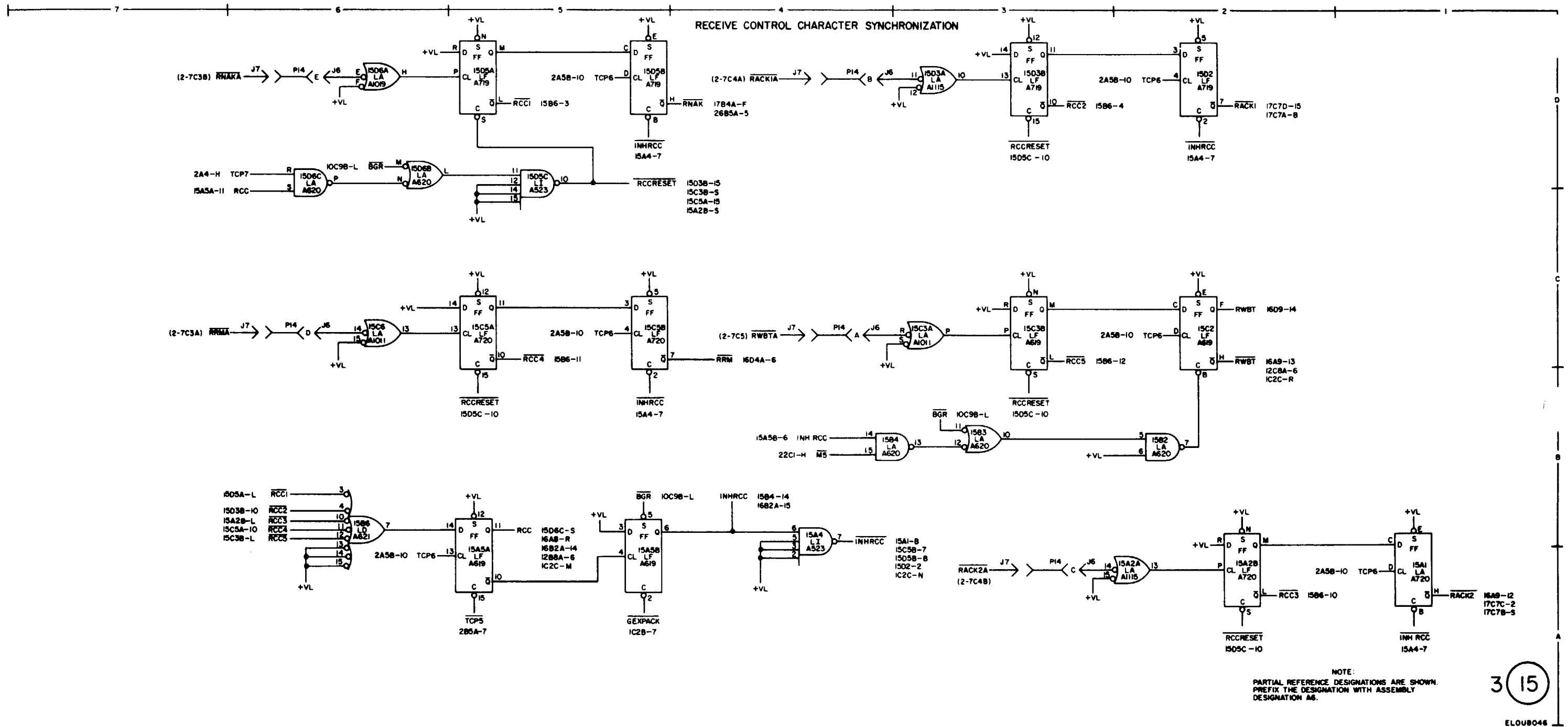
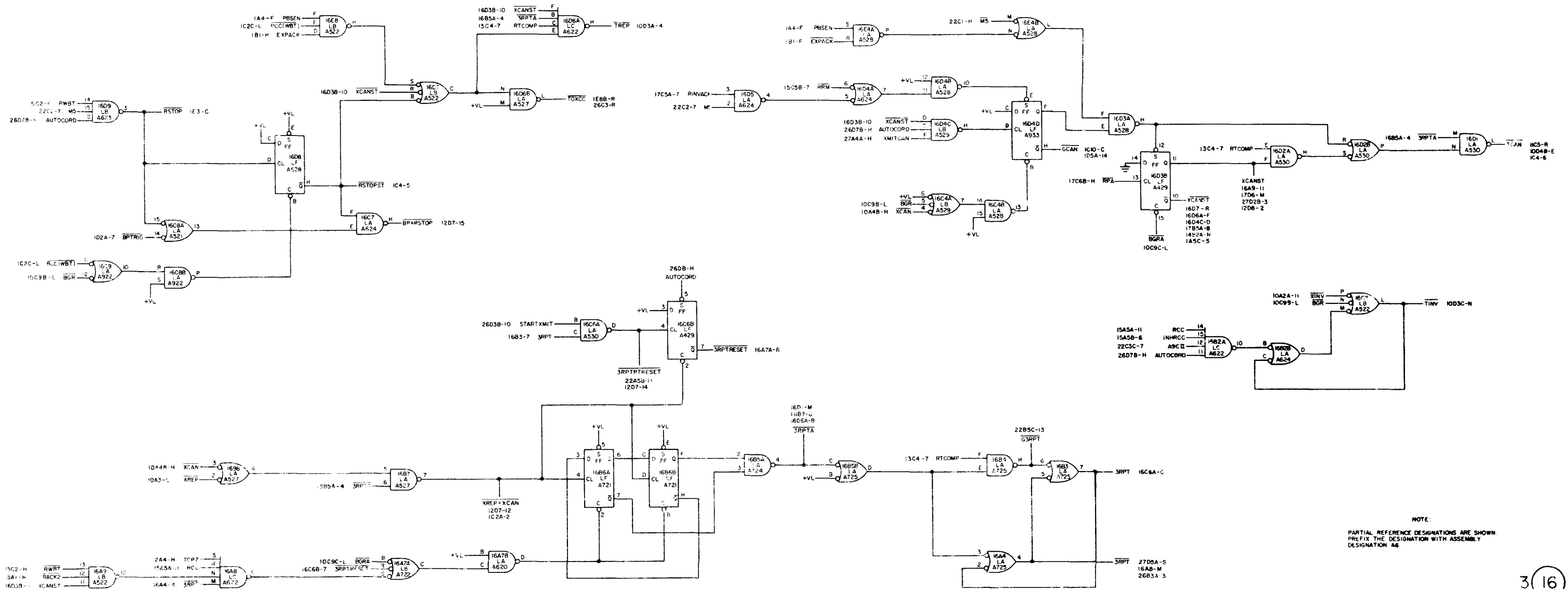


Figure 5-28(15). Block generator logic diagram. (Sheet 15 of 27)

Change 3 5-98

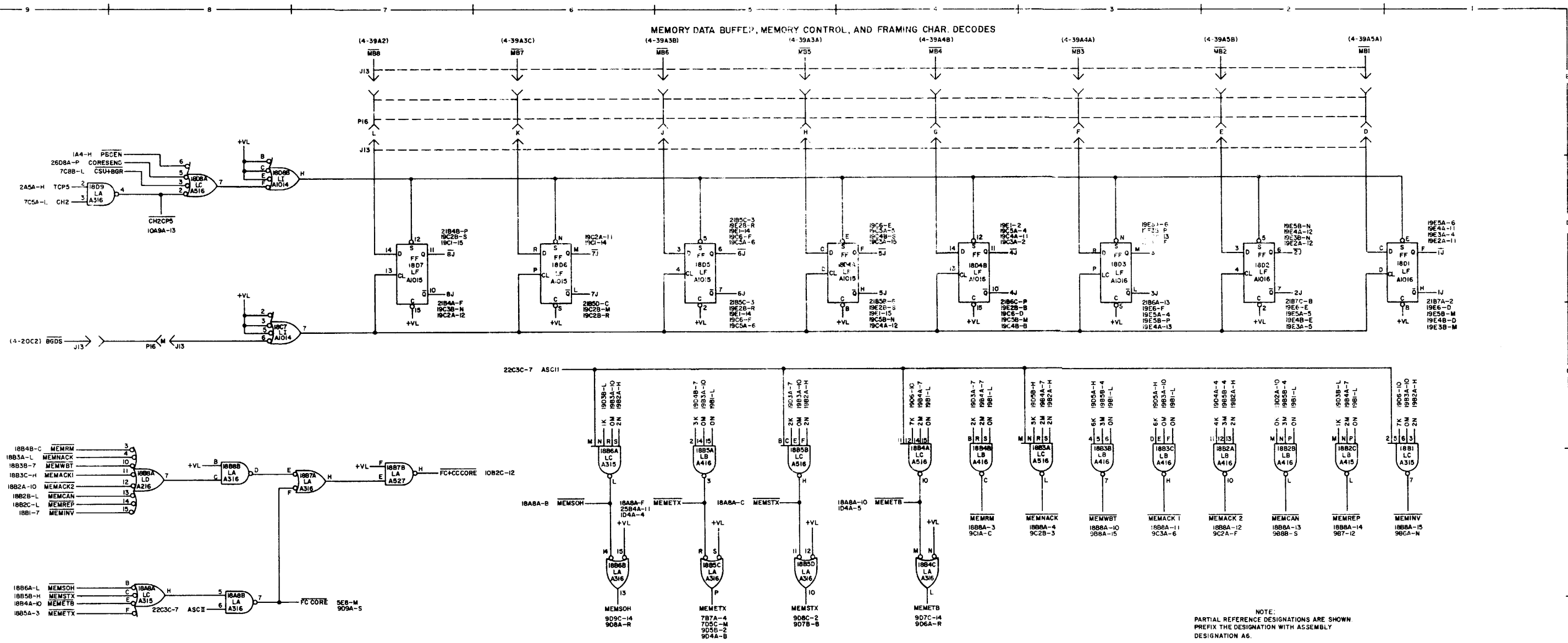
TRANSIT CONTROL CHARACTER GENERATION, THREE REPEAT LOGIC



NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION A6

Figure 5-28(16). Block generator logic diagram. (Sheet 16 of 27)

Change 3 5-99



NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION A6.

Figure 5-28(18). Block generator logic diagram. (Sheet 18 of 27)

Change 3 5-103

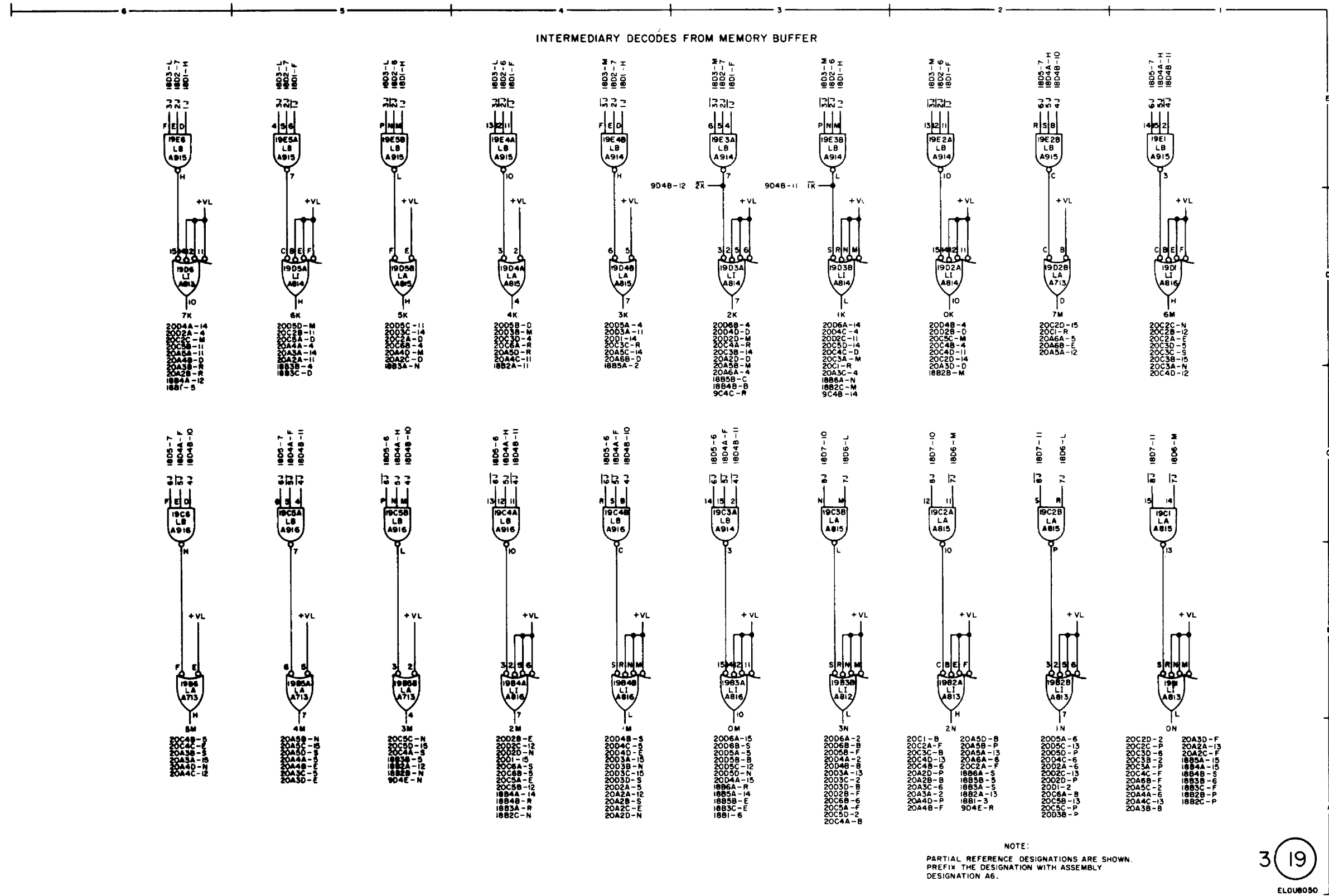
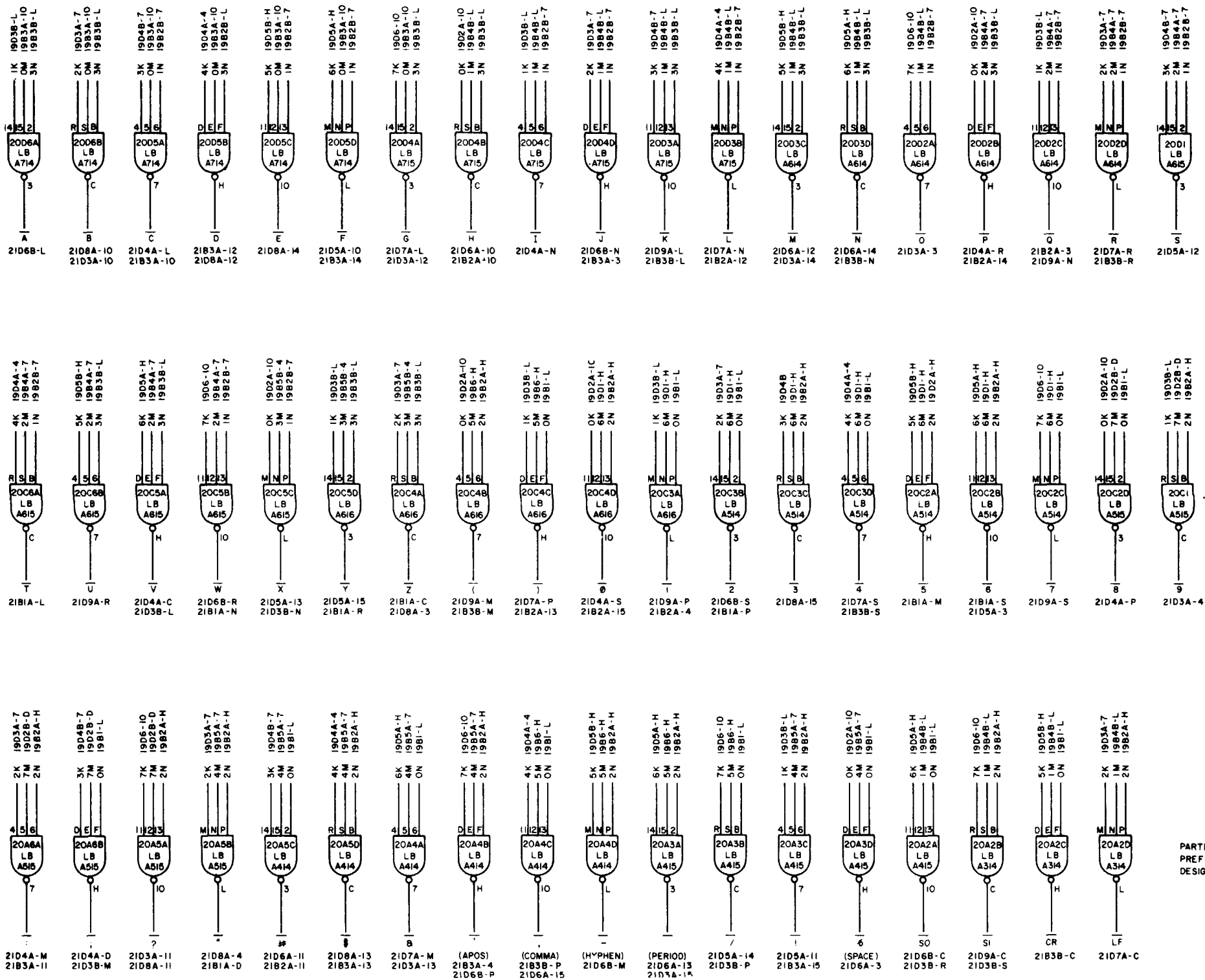


Figure 5-28(19). Block generator logic diagram. (Sheet 19 of 27)

DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER



NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION A6.

Figure 5-28(20). Block generator logic diagram. (Sheet 20 of 27)

MANUAL GENERATION OF CONTROL CHARACTERS, ALARM

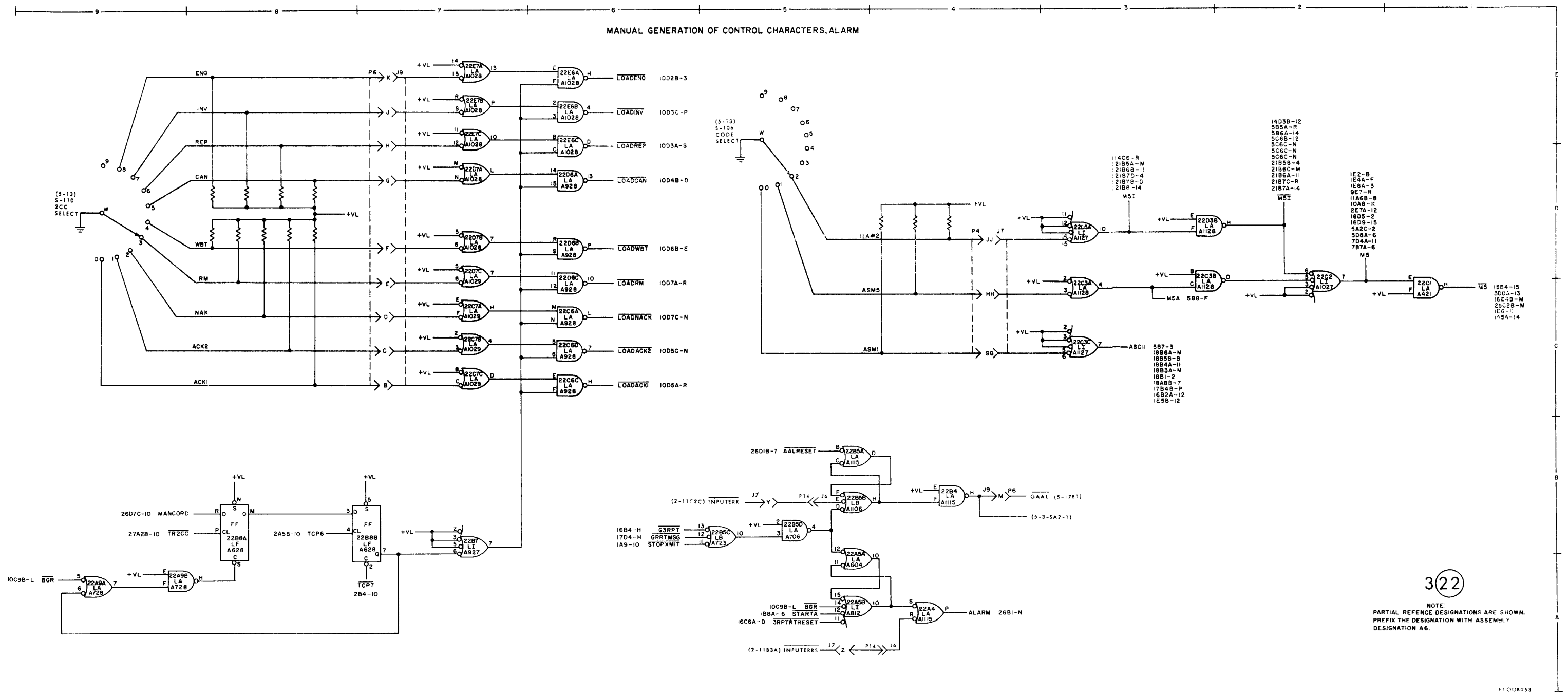
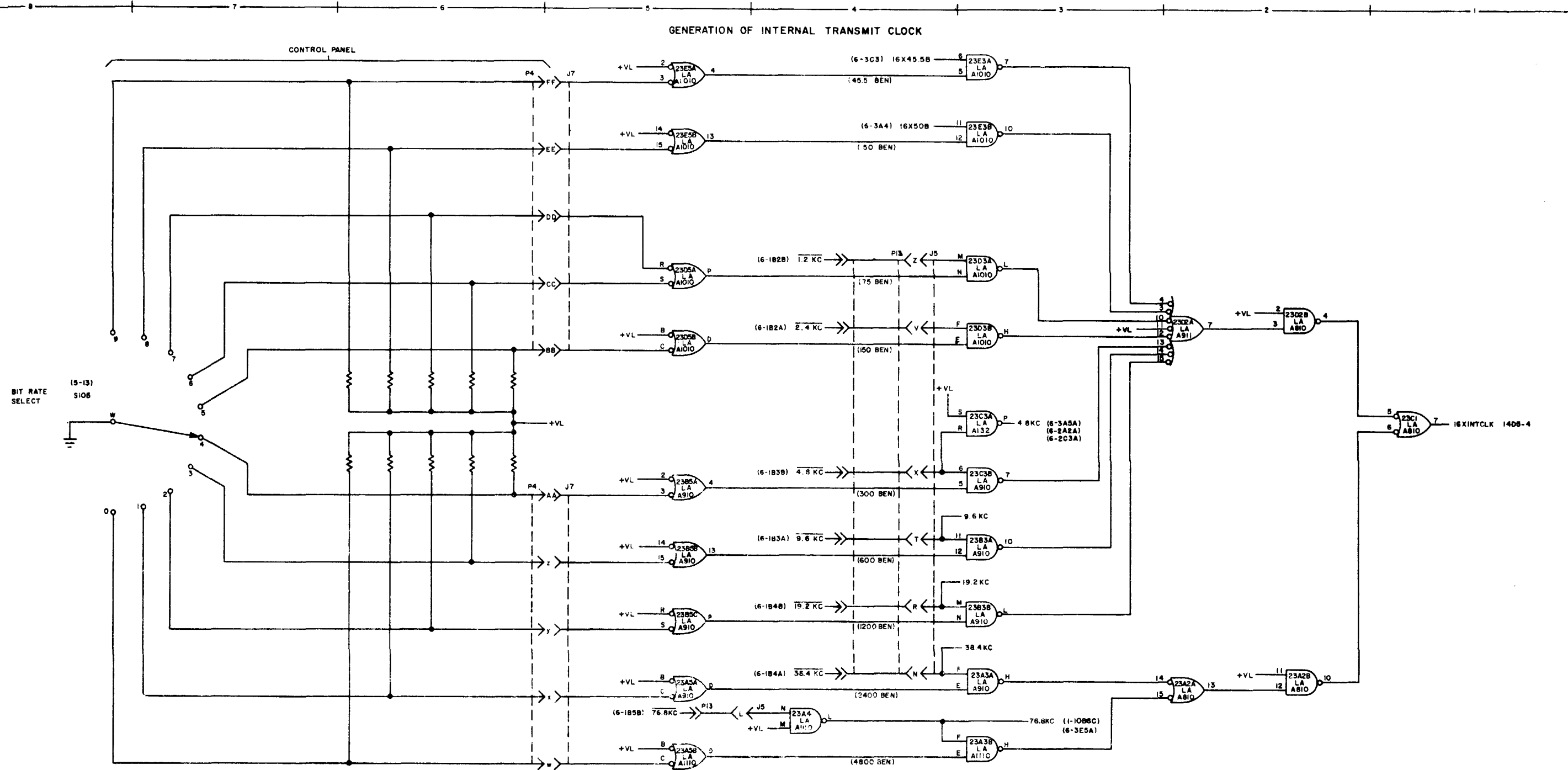


Figure 5-28(22). Block generator logic diagram. (Sheet 22 of 27)

Change 3 5-109



NOTE:
 PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
 PREFIX THE DESIGNATION WITH ASSEMBLY
 DESIGNATION A6.

Figure 5-28(23). Block generator logic diagram. (Sheet 23 of 27)

Change 3 5-111

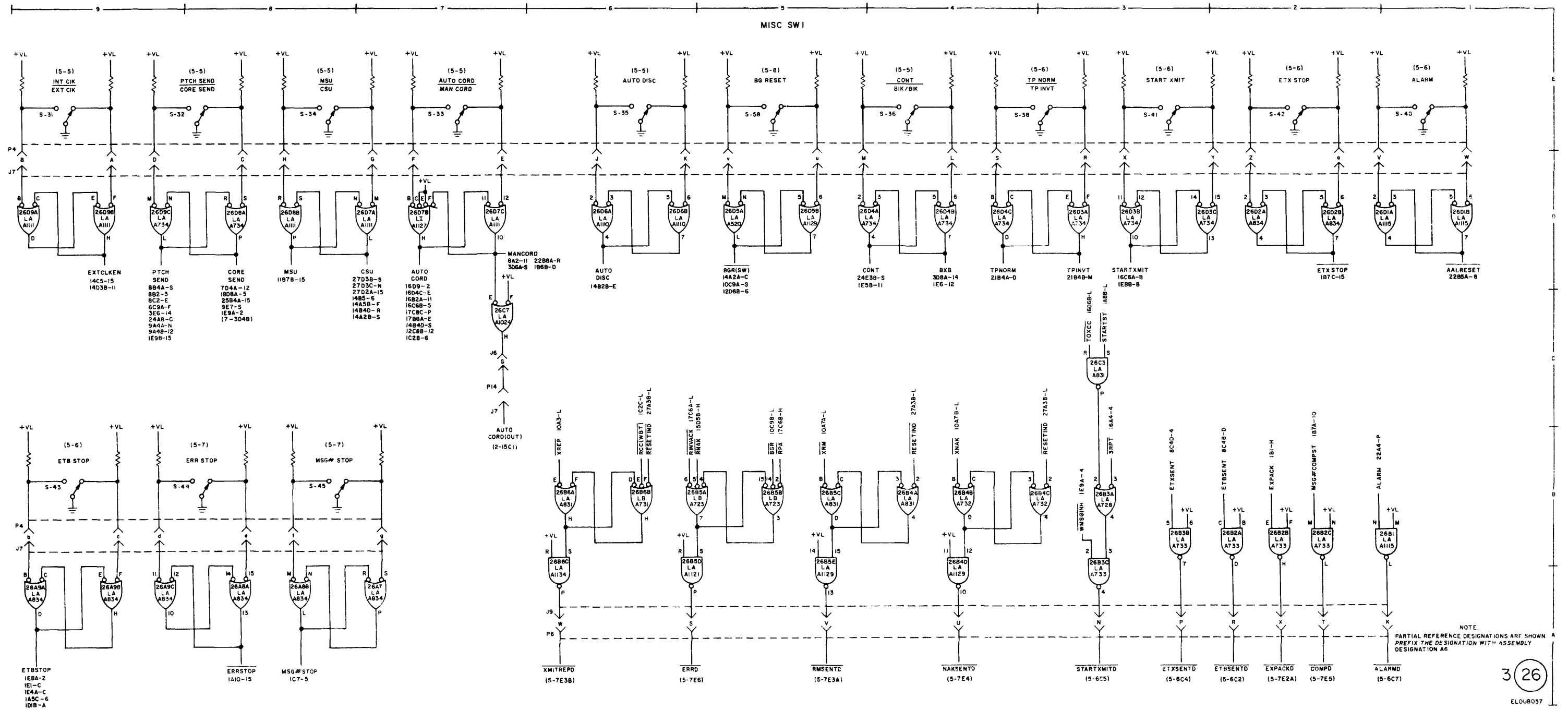


Figure 5-28(26). Block generator logic diagram. (Sheet 26 of 27)

Change 3 5-117

MISC. SW 2

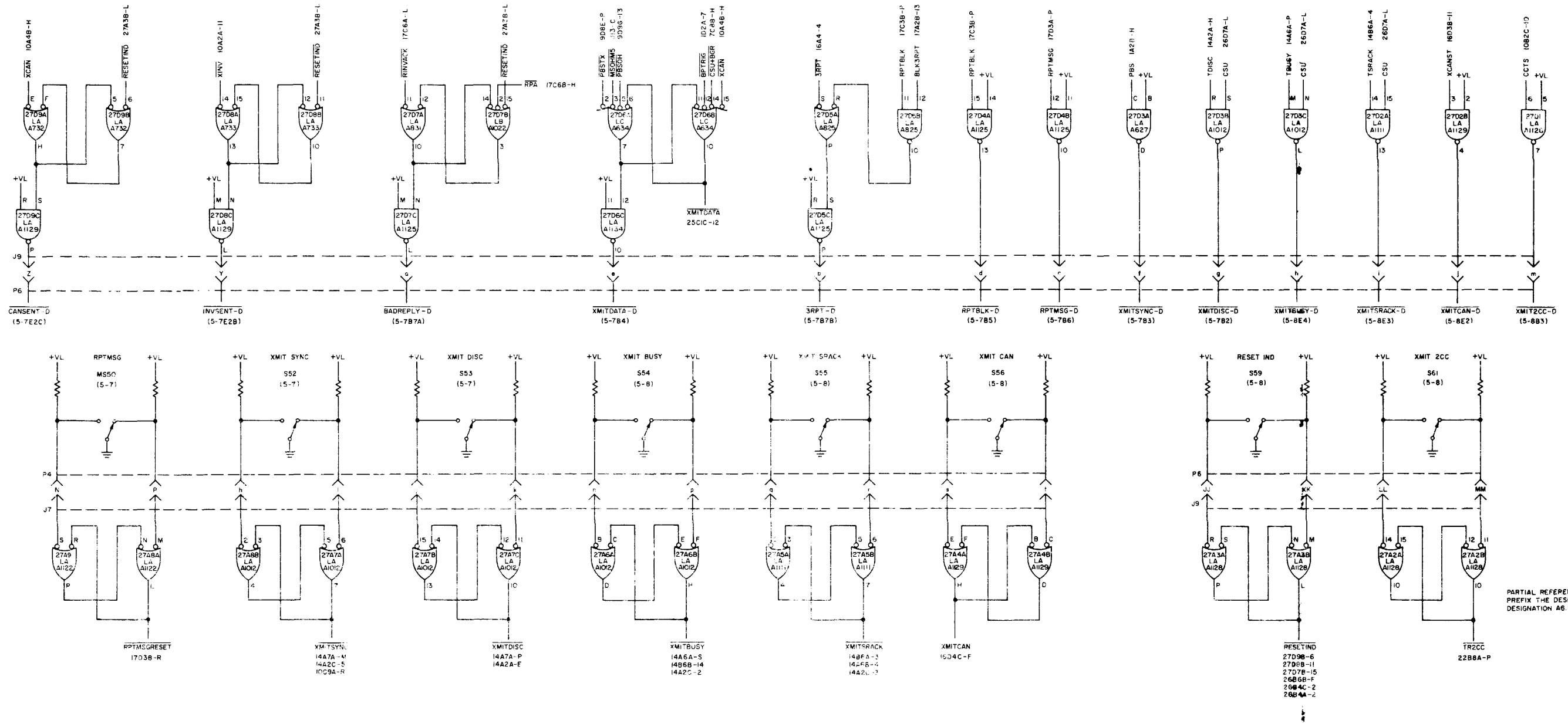


Figure 5-28(27). Block generator logic diagram. (Sheet 27 of 27)

Change 3 5-119

5-26. Memory Control Simplified Block Diagram Description
(fig. 5-29)

a. The core memory is organized into two sections. One half the available storage is reserved for the receive function in which data are accepted from the block reader. The other half of the available storage is reserved for the transmit function in which data read in from tape are transmitted over the line by the block generator. Distinction between the two halves of memory is made by the most significant (2^{11}) address bit. The receive half of memory is specified when this bit is a 1. For messages received via the block reader which are to be retransmitted over the line, this bit is inverted when the transmit function is implemented. This causes data for transmission to be taken from the receive half rather than the transmit half.

b. Memory control functions as an interface between core memory and the ASR set, block reader block generator, and control panel. The memory control is organized into four sections; clock, instruction, arithmetic, and switch circuits.

c. The clock circuits provide timing for all sections within memory control. The scan cycle and memory clock pulse from the clock circuits are generated by division of the 1.2288 MHz signal from the master timing generator.

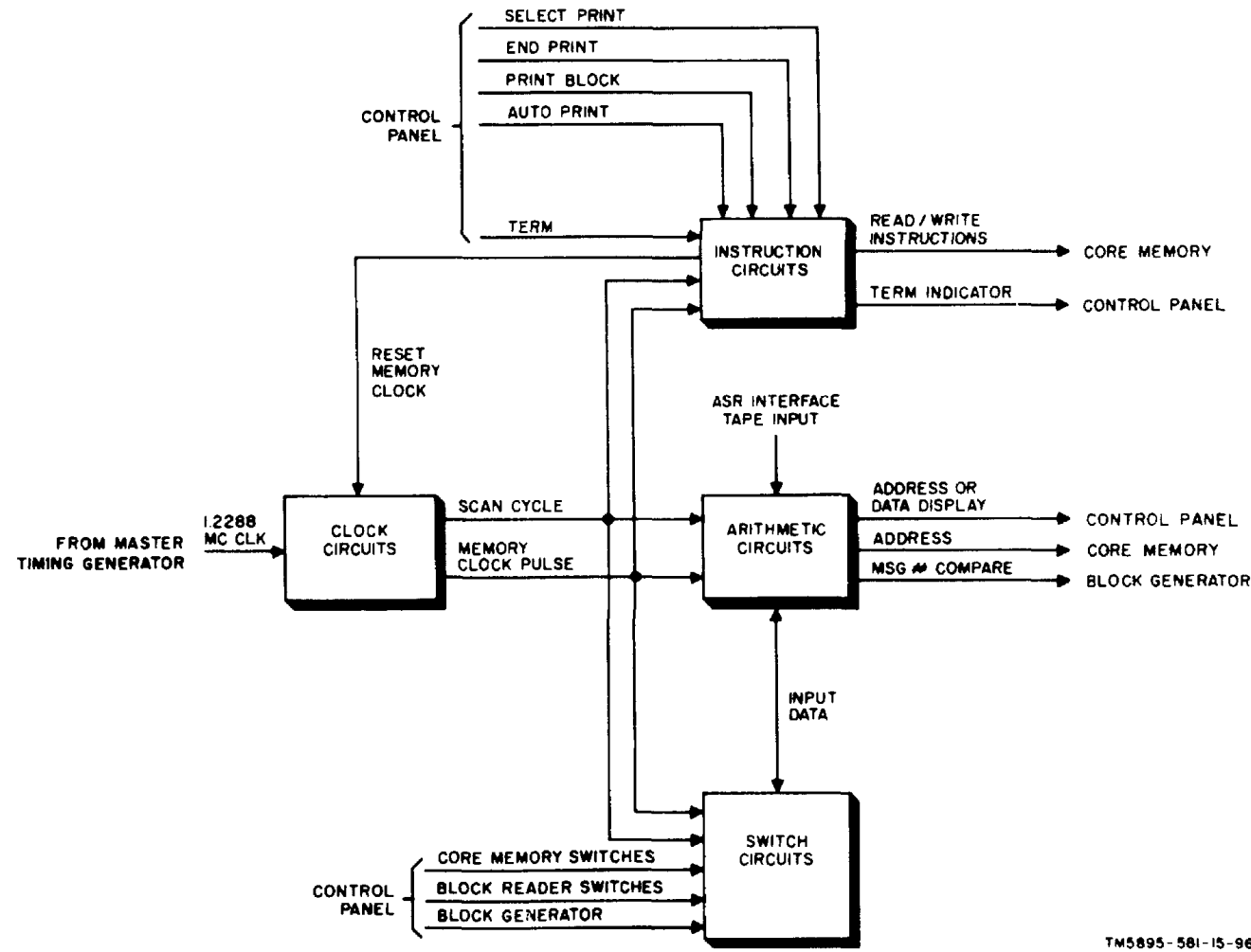


Figure 5-29. Memory control simplified block diagram.

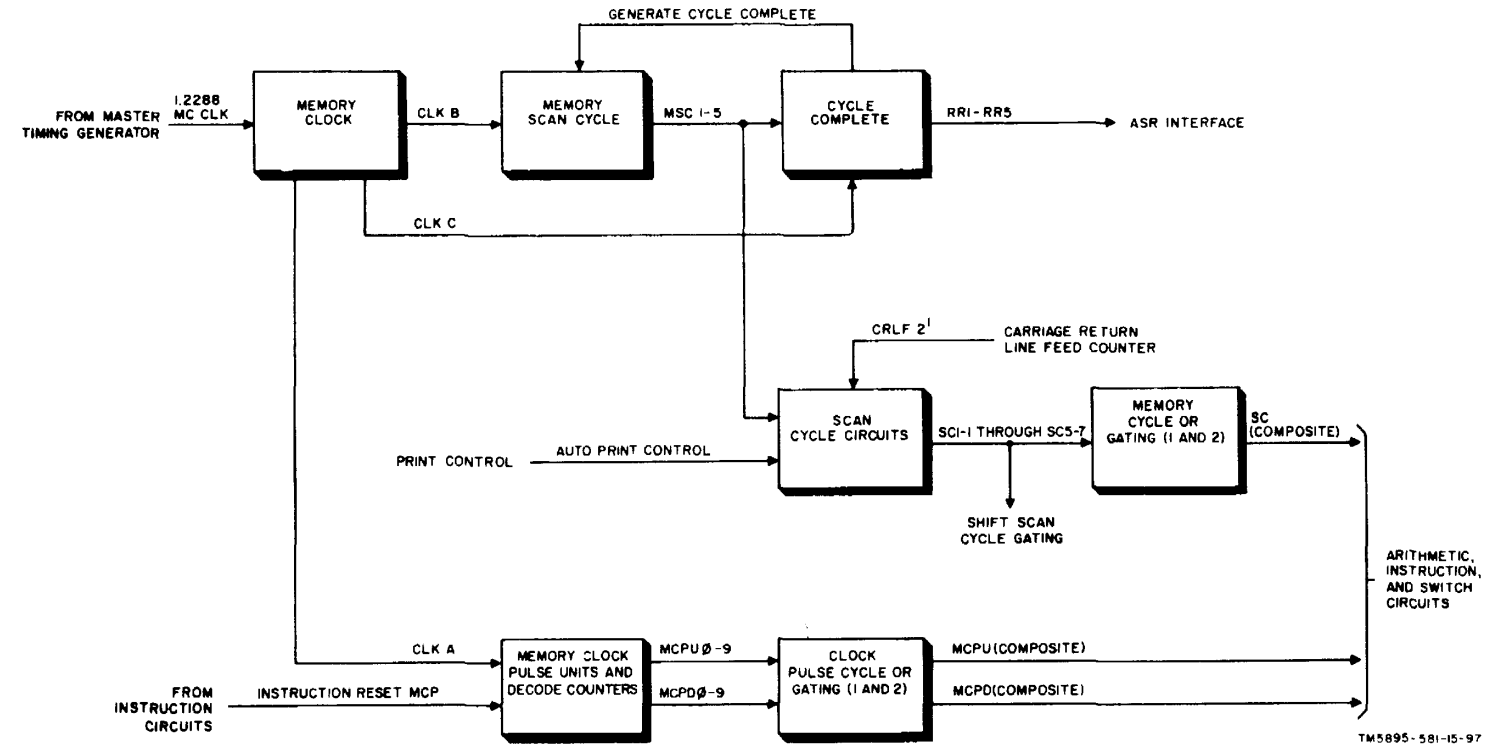


Figure 5-30. Clock circuits block diagram.

d. The instruction circuits provide read/write instructions to core memory and terminate instructions to the control panel; resets the memory clock circuit at the completion of a cycle, and coordinates the printout on the ASR set. The instruction circuit is controlled by print instructions from the control panel, and scan cycle and memory clock pulses from the clock circuit.

e. The arithmetic circuits generate the core memory addresses. The addresses specify the memory locations that data is to be written into or read out of by the ASR set, block reader, or block generator. After determining the address, the arithmetic circuit causes the data to be transferred into or out of its input or output data register, at a specified scan cycle time. The arithmetic circuit also provides signals for display of data and characters on the control panel, and message number compare signals to the block generator to determine transmission termination. The arithmetic circuit receives scan and timing signals from the clock circuit, data for transmission from the ASR interface, and data received by the block reader via the switch circuits.

f. The switch circuits decode the message and block data programmed on the block generator, block reader, and memory sections of the control panel. The decoded message and block data is transferred to the arithmetic circuits when the proper scan and clock pulse is received.

5-27. Clock Circuits Block Diagram Description

(fig. 5-30)

a. The clock circuits generate two basic signals for the timing of memory control: scan cycle, memory clock pulses (units and decades) signals. The main input to the clock circuits is a 1.2288 MHz clock from the master timing generator. The 1.2288 MHz clock is forwarded to a gray code counter in the memory clock. The gates in the memory decode the outputs from the gray code counter to generate clocks A, B, and C. Clocks A, B, and C are routed to the memory clock pulse units and decades counter circuits, memory scan circuits, and cycle complete circuits, respectively.

b. Clock A functions as a toggle for the D-type flip flops in the memory clock pulse units counter, 5-122 which develops signals MCPU 0 through MCPU 9. Signal MCPU 9 provides the toggle for the memory clock pulse decades counter. The decades counter generates signals MCPD 0 through MCPD 9. The memory clock pulse units and decades counters are reset by a RESET MCP signal generated by the instruction circuits.

c. The MCP units and decades signals are routed to the clock pulse cycle or gating (1 and 2) to generate the MCP units and decade composite signals; these signals are forwarded to the arithmetic, instruction, and switch circuits.

d. Clock B provides the toggle for the JK flip flops in the memory scan cycle circuits. The outputs from the flip flops are decoded by NAND gates to generate MSC1 through MISC5, which are sent to the cycle complete and scan cycle circuits.

e. The cycle complete circuit generates the reset request signals (RR1 through RR5) for the ASR interface, and cycle complete signals for the memory scan cycle circuits. Inputs to the cycle complete circuit is MSC1 through 5, and clock C.

f. The scan cycle circuits receive memory scan cycles 1 through 5, auto print control from the control panel, and character return line feed signals. These signals are decoded to form the scan cycle signals (SC1-1 through SC5-7). The scan cycle signals are routed to memory cycle or gating (1 and 2) to form the composite scan cycle signals.

5-28. Instruction Circuits Block Diagram Description

(fig. 5-31)

a. The instruction circuits provide signals used in the manipulation of data in the register, the read/restore and clear/write instructions to the core memory, and the sequence of clock pulses necessary to implement instructions. Five different sets of clock pulses and instructions are generated. Each set is designated as a cycle and related to the using circuit:

(1) Cycle 1 is a readout cycle, with the block generator as the using circuit. The transmit half of core memory is generally employed for the cycle.

(2) Cycle 2 is a receiving cycle, with the block reader as the using circuit. The receive half of core memory is always used with this cycle.

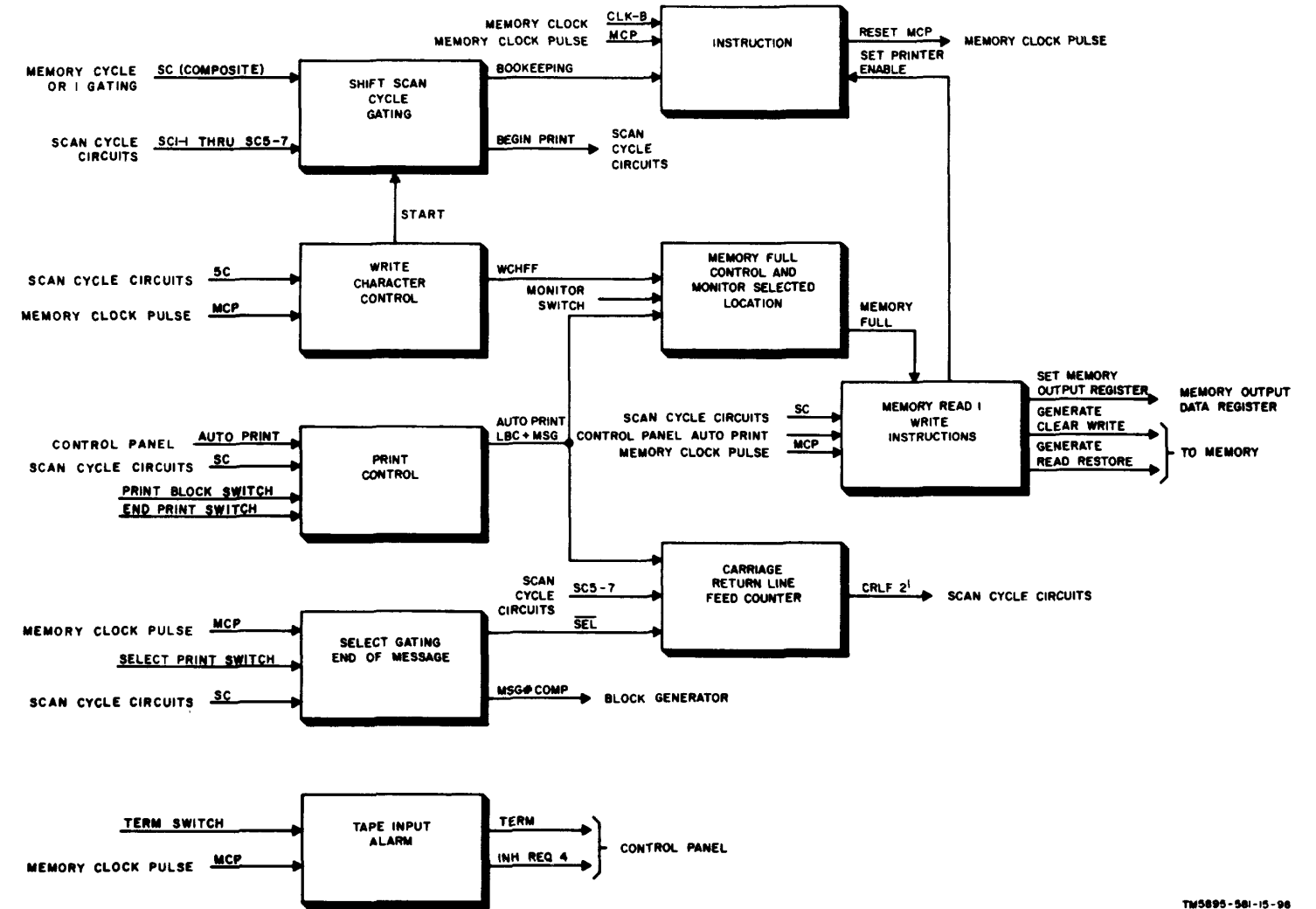


Figure 5-31. Instructions circuits block diagram.

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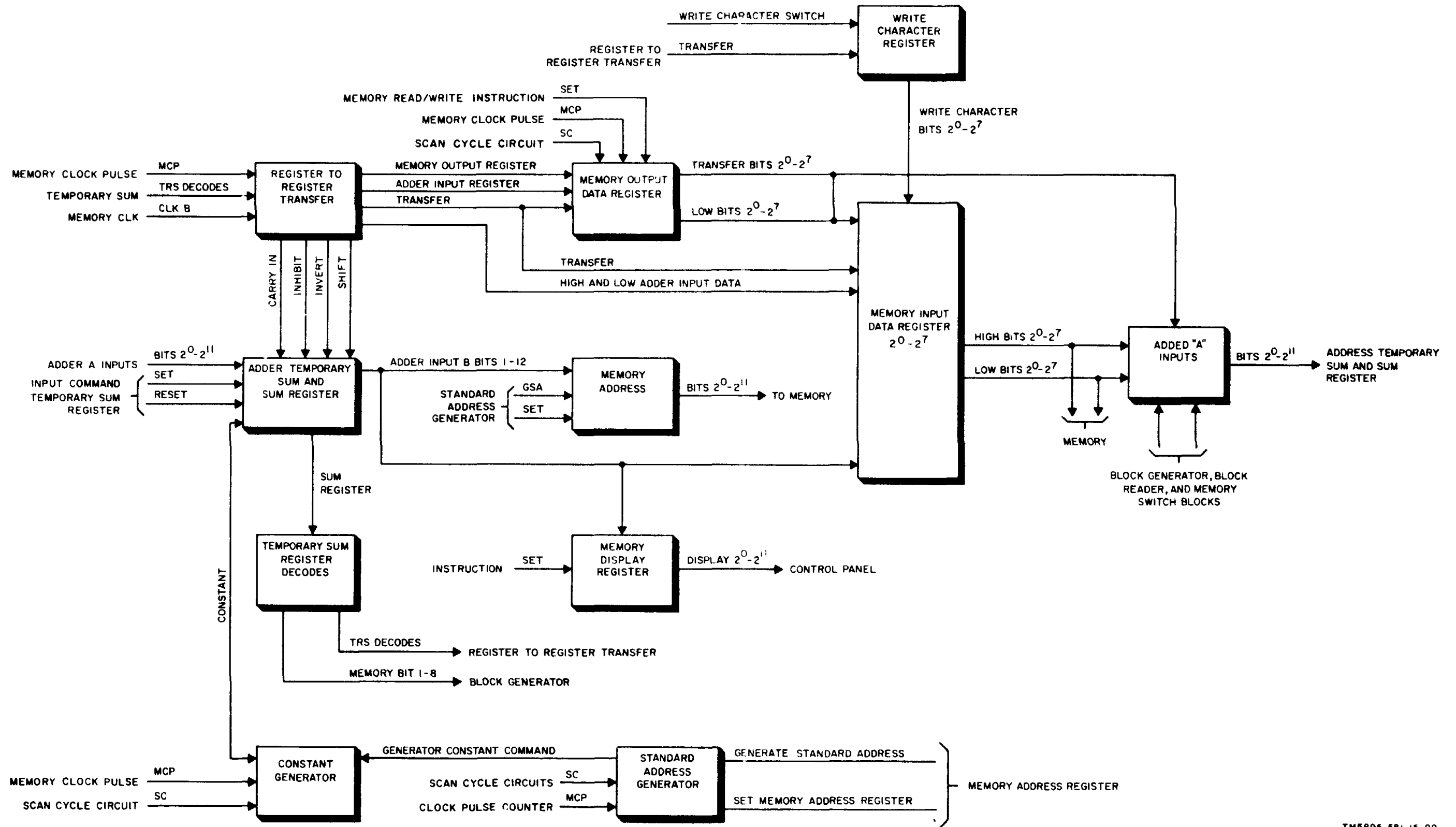


Figure 5-32. Arithmetic circuits block diagram.

(3) Cycle 3 is the cycle used for manually loading one character at a time as coded by the eight toggle switches on the control panel.

(4) Cycle 4 is a receive cycle, with the teletype set tape reader supplying the data under control of the carriage return line feed counter, and tape input alarm circuits. This cycle is used when loading core memory from tape, and always utilizes the transmit half of memory.

(5) Cycle 5 is the printout cycle, with the teletype set as the using circuit. Data for printout is always taken from the receive half of core memory, under control of the print control circuit.

b. To detect requests for service the instruction circuits utilize a scanner. The scanner sequentially examines the requests for service and presents a cycle number indication to the sequencing circuits when a request is detected. If a cycle is not currently being acted upon, the request for service is given immediate action and a series of instructions is issued. A clock pulse counter is used in the instruction circuit to monitor the number of clock pulses from clock B, and the cycle is halted when the proper number is reached.

c. A complete cycle processes one character into or out of core memory. The storing or transmission of a block or message requires a number of cycles. High speed processing by the memory control enables the processing of several characters during the telegraph transmission time of a single character. Therefore, cycles of several different types may be completed between the reception of one character and the next (or transmission of one character and the next). Thus two or more operations may be carried on simultaneously. The time sharing consists of alternating or interleaving complete cycles, so that any request for service is not acted upon until the current cycle is completed.

d. In order to process sequential data (series of characters and blocks) by means of noncontinuous cycles, it is necessary that each cycle store bookkeeping information in core memory. The bookkeeping information is generated in the shift scan cycle gating and forwarded to core memory via the instruction circuits. A maximum of 22 blocks of 96 characters each are provided by core memory; block 22 is reserved for the bookkeeping information. In particular, the block number and character number for each cycle are stored in order to begin the next cycle of the same type at the next sequential address. To access block 22 a preset block number (general constant) is set into the memory temporary sum register. When a cycle is complete the instruction circuit provides reset memory clock pulse signals to the memory clock pulse circuit.

5-29. Arithmetic Circuits Block Diagram Description

(fig. 5-32)

a. Address information in binary coded decimal form (BCD), is supplied from a number of sources: control panel, block reader, block generator, teletype set, and core memory. Complete 12 bit address is formed from two parts, an 8-bit block address and an 8-bit character address. The two parts are combined in the adder to make a full address:

Char.						0	X	X	X	X	X	X	X	
Block	+ 0	X	X	X	X	X	X	X	X					
			2^{11}	2^{10}	2^9	2^8	2^7	2^6	2^5	2^4	2^3	2^2	2^1	2^0

b. Interaction between the block and character portions necessitates modification of the block portion before addition. One modification is performed by subtracting 1 from the block address, so that block 1 corresponds to block 0 in memory. Addresses are normalized in this way because of the binary block addresses being at 0. Binary character 5-124 addresses within each block begin at 1, and no normalization need be performed. The second modification consists of multiplying the normalized block address by 3. Thus the decimal equivalent of block 10 is (10-1)3, or 27. The 8-bit binary expression of this is 00011011. The two most significant bits will always be 00 since the address of the last block in memory (block 22) is (22--1)3=63, or binary 00111111.

c. No modification of the character portion is required before addition. Thus the decimal equivalent of character 59 is (59-1), or 58; the binary form is 00111010. Character addresses do not exceed 95, so that the most significant bit of the character portion can never be a 1. Either of the next two bits may be a 1, but not both (01100000=96). The final formation of the address for character 59 in block 10 is therefore:

Char. (59)						0	0	1	1	1	0	1	0
Block (10)	+ 0	0	0	1	1	0	1	1					
Address		0	0	1	1	1	0	0	1	1	0	1	0

d. The most significant bit is dropped to form a 12-bit address, and the next most significant bit used to denote the transmit or receive half of memory. Therefore the final address for this example may be expressed as X01110011010.

e. The normal operational plan of the memory control is as follows: The using circuit presents a request for service, and an initial address consisting of a block number and a character number. In some cases the number of blocks is also specified. In the receive cycle, the initial address is the starting location of series of characters to be stores. Characters from the using circuit will then be stored in sequential addresses beginning with the starting location. In the transmit cycle, the initial address is the first location of a number of characters to be read out of memory in sequence. It is the task of the memory control to interpret the starting address and to form all the succeeding addresses, making sure that each new block of characters starts a new block in storage. The task is complicated by the interleaving of service requests, such that one series of addresses may be abandoned temporarily while a new series is processed, then the original series resumed. Up to five using circuits may share the services of core memory at the same time, on a time-shared basis.

f. The address information is received at the adder A inputs, and formed into a complete 12-bit address from two parts, 8-bit block address and 8-bit character address. To form a complete address from the modified block and character portions, the registers in the memory input data register are first cleared and the block portion is transferred to the memory sum register to form the B inputs to the adder. Now the character portion is applied to the low-order positions of the adder A inputs and the sum set into the memory temporary register. The memory sum register is cleared, and this sum transferred to the MISR and then to the memory address register. Once the complete address is in the memory address register, the contents of the MIDR may be stored by the core memory, or the character at the specified address readout into the memory output data register.

g. To form a 12-bit sum from the two 8-bit binary words a special arrangement is provided at the adder A inputs. The 12-bit input is divided into overlapping 8-bit sections, the high-order inputs (H) and the low-order inputs (L). The low order inputs correspond to adder bits 2^0 through 2^7 , while the high order inputs correspond to adder bit 2^5 through 2^{11} . External information at the A inputs (four bits only) corresponds to bits 2^0 through 2^3 and therefore forms part of the low order inputs.

h. Data transferred from the memory output data register to the adder A inputs always forms a low-order input. Data from the memory input data register, however, may be switched to either the high-order or low-order inputs. A transfer path from the MIO DR to the NIIDR makes possible the transfer of memory output data to either order of input at the adder. A similar transfer path from the MSR to the MIDR makes it possible to apply the least significant eight bits of the AISR output (normally adder B inputs) to either order of A inputs. Thus a low order sum processed through the adder may be brought to the -adder at the high-order inputs without passing through core memory itself.

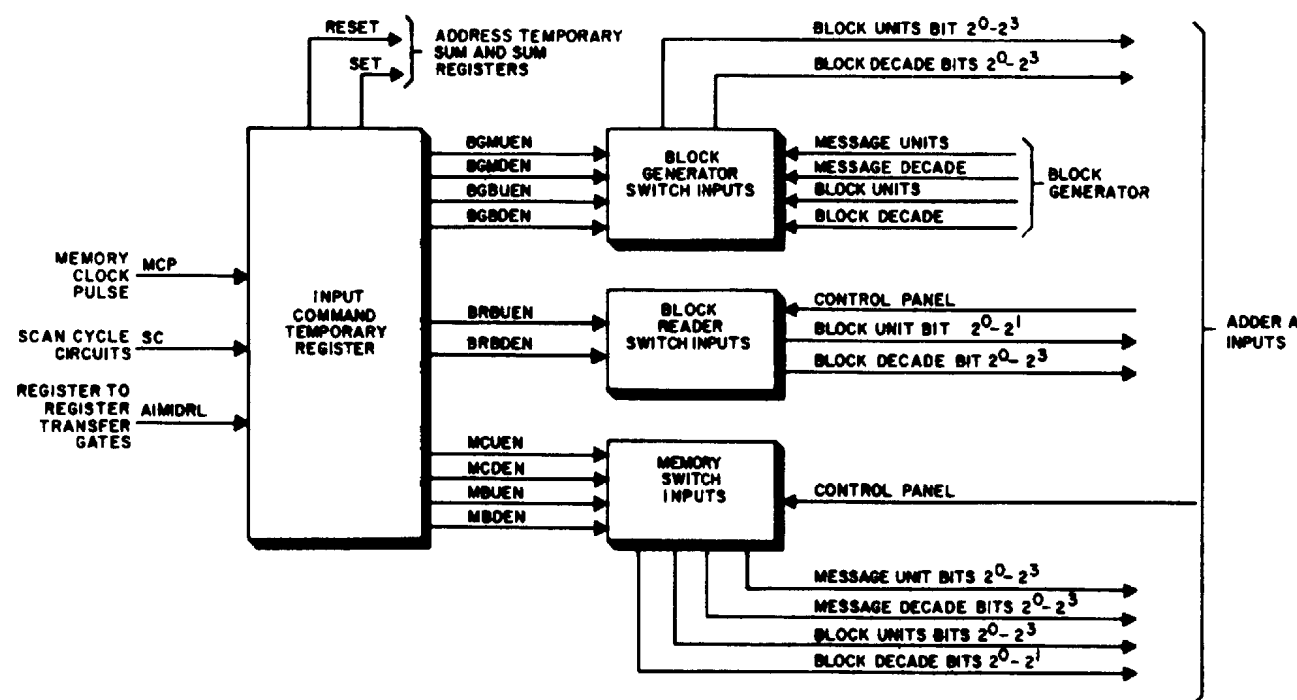
i. The following example is a brief summary of the sequence of operations performed during scan cycle 3.

- (1) Transfer the block decade digits (in BCD) to adder A inputs, and transfer through to the memory scan register.
- (2) When the memory register receives the shift signal from the register to register transfer circuit, the decade digits are shifted twice to the left to multiply the decade digit by four.
- (3) The decade digit is now transferred again from the control panel to the adder A inputs. As a result, the digit is added to the digit X 4 in the memory sum register. The sum register is equal to 5 X digit. The decade digit is shifted again to the left to form 10 X digit, and the decade digit is converted to pure binary form.
- (4) Transfer the memory block units digit to the adder to form the binary block number (decade plus units) and transfer the block number to the memory sum register.
- (5) Force the adder A inputs to 11111111, and add to the block number. The sum represents the block number minus 1 (bl. no.-1), and is transferred to the memory sum register.
- (6) Transfer bl. no.-1 from memory sum register to memory input data register. It is also maintained in the memory sum register.
- (7) Left shift memory sum register, and then add memory input data register as low order inputs (2^0 through 2^7) to the memory sum register to form 3(bl. no. -1).
- (8) Transfer 3 (bl. no-1) from the memory sum register to the memory input data register.
- (9) Transfer the memory character decade digit to the adder A inputs, and transfer through to the memory sum register.
- (10) Convert the character decade digit to pure binary as in steps 2 and 3.
- (11) Transfer the memory character units digit to adder A inputs to form the binary character number (decade plus units), and transfer to the memory sum register.
- (12) Add the block number in the memory input data register (as high-order bits) to the memory sum register. Transferring a number to the high order bit position is equivalent to left shifting five places, or multiplying by 32. Since the block number was multiplied by 3 previously, the high-order transfer of the block number forms (bl. no. -1) X 96.

- (13) Transfer (bl. no. -1) X 96 + (ch. no.) to the memory sum register. This is a complete address.
- (14) Transfer the character to be stored from the control panel to the memory input data register.
- (15) Transfer the address from the memory sum register to the address register.
- (16) A clear/write order is generated in the memory input data register to be stored at the specified address.

5-30. Switch Circuits Block Diagram Description
(Fig. 5-33)

- a. The switch circuits function as a buffer and decoder for the character and block units and decade data programmed on the control panel. The block generator, block reader, and memory switch inputs are under control of the input command temporary register.
- b. The input command temporary register generates enable signals for each of the switch inputs, and set and reset signals for the address temporary sum and sum register. The generation of the enable, and set and reset signals, is dependent upon the memory clock pulse, scan cycle and add input memory input decode register low signals received at the input of the input command temporary register.



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Figure 5-33. Switch circuits block diagram.

5-30.1 MEMORY SCAN

The following paragraphs summarize the events that occur during the memory scan cycles and character retrieval and character store cycles in the simulator memory control section.

a. Scan Cycle 1-1 (Begin Memory XMIT)

- (1) The number of messages transmitted (contents of 22-03) is set to zero.
- (2) The number of messages to be transmitted as set up on the Block Generator Message Number rotary switch is stored in location 22-05.
- (3) DO XMIT Start of Block Bookkeeping (Scan Cycle 1 2).

b. Scan Cycle 1 2 (XMIT SOB Bookkeeping)

- (1) The present character address (contents of 22-02) is set to zero in Mode 1 and set to one in Mode 5.
- (2) The number of blocks to be transmitted as set up on the Block Generator Block Number rotary switch is stored in location 22-06 if the Block Generator is not in a "transmit message (XM)" state.
- (3) The number of blocks in the message transmitted (contents of 22-04) is set to zero if the Block Generator is not in a "transmit message (XM)" state.
- (4) (a) Set the present block address (contents of 22-01) to zero if the Block Generator is not in a "transmit message (XM)" state.
(b) Set the present block address (contents of 22-01) equal to the repeat block address (contents of 22-13) if the Block 5-126 Change 3 Generator is a "Repeat Block (RPT BLK)" state. If the latter state exists, set the "THIS BLK RPT BLK" flip flop.
- (5) Update the number of messages transmitted (contents of 22-03) by one if the Block Generator is in a "Start New Message" state.
- (6) DO Retrieve Character (Scan Cycle RECH).

c. Scan Cycle 1 4 (XMIT EOB Bookkeeping)

- (1) Update the number of blocks transmitted (contents of 22-04) by one if the "THIS BLK RPT BLK" flip flop is reset.
- (2) Subtract the number of blocks in the message transmitted (contents of 22-04) from the number of blocks stored in the core (contents of 22-00). If the difference is one, set the "RPT ETX-1 BLK" flip flop.
- (3) Reset the "THIS RPT BLK" flip flop.
- (4) Subtract the number of blocks in the message transmitted (contents of 22-04) from the number of blocks to be transmitted (contents of 22-06). If either the difference is one or if the contents of 22-06 is zero, reset the "RPT ETX-1BLK" flip flop. If the difference is zero, set the "THIS BLK ETX" flip flop.
- (5) Transfer the present block address (contents of 22-01) to the repeat block address (contents of 22-13).
- (6) Update the present address (contents of 22-01) by three (equivalent to adding 96) if the "RPT ETX-1 BLK" flip flop is reset.
- (7) The following is executed only if the ETX is to be transmitted (either "ETX SENT (B.G.)" or "THIS BLK ETX" flip flops set):

(a) If number of messages to be transmitted (contents of 22-05) is zero, generate a Message Number Compare MSG # COMP).

(b) If the number of message to be transmitted (contents of 22-05) equals the number of messages already transmitted (contents of 22-03), generate a Message Number Compare.

d. Scan Cycle 2-2 (Begin Memory RCV)

- (1) Reset the following to zero:
 - (a) Present block address (contents of 22-01).
 - (b) Present character address (contents of 22-02).
 - (c) Start print block address (contents of 22-15).
 - (d) Start print character address (contents of 22-14).
- (2) Reset the "Memory Full Receive" (MEM FULL RCV) flip flop.
- (3) Do Receive Start of Block Bookkeeping (Scan Cycle 2-5).

e. Scan Cycle 2-5 (RCV SOB Bookkeeping)

- (1) Set the present character address (contents of 22-02) to zero.
- (2) Set the present block address to block 21 if the "Memory Full Receive" condition exists.
- (3) The following is executed only if an SOH is received and the Block Reader AUTOPRINT rotary switch is not in the ETX or ERR positions:
 - (a) The number of blocks to be received as set up on the Block Reader Block Number rotary switch is stored in location 22-10.
 - (b) The number of blocks written into the memory (contents of 22-00) is set to zero.
 - (c) The present block address (contents of 22-10) is set to zero if a "Memory Full Receive" does not exist.
- (4) Do Store Character (Scan Cycle STCH).

f. Scan Cycle 2 7 (RCV EOB Bookkeeping)

- (1) Update the number of blocks written into the memory (contents of 22-00) by one.
- (2) Compare updated number of blocks written into the memory with the total number of blocks to be received (contents of 22-10). If they are equal and the Block Reader is in the "AUTOPRINT LBC" mode, set the "Memory Full Receive" flip flop.
- (3) Update the present block address (contents of 22-01) by three (equivalent to adding 96). If the result is 0074 (address of block 21), and the Block Reader is either in "AUTOPRINT LBC" or "AUTOPRINT MSG", set the "Memory Full Receive" flip flop. In addition, if the updated block address is 0074, reset the present block address (contents of 22-01) to zero.
- (4) Transfer the present block address (contents of 22-01) to the end print block address (contents of 22-16) unless the Block Reader is in the "AUTOPRINT LBC", "AUTOPRINT MSG", or "AUTOPRINT OFF" state and the "MEMORY FULL RECEIVE" flip flop in reset.

g. Scan Cycle 3 (Write Character/Monitor Selected Location)

- (1) Obtain the complete address of the memory location selected by the Memory Block and character address rotary switches.
- (2) Write the character coded upon the eight toggle switches into the above memory locations if the "WRITE CHARACTER" pushbutton is depressed.
- (3) Display either the address or contents of the above memory location, depending upon the Memory ADDRESS/DATA pushbutton, if the "Monitor Selected Location" pushbutton is operated.

h. Scan Cycle 4 (Write Message). The following is performed only if an SOB is to be written:

- (1) Set the number of blocks written into the memory (contents of 22-00) to one if an SOH is detected; update the number of blocks written into the memory by one if an STX is detected. If the updated number of blocks is 21 (0025), an alarm condition will result.
- (2) The present block address (contents of 22-01) is set to zero if an SOH is detected. If an STX is to be recorded, the present block address is derived by multiplying the previous block number (contents of 22-00) (before update) by three.
- (3) The present character address (contents of 22-02) is reset to zero.
- (4) Do Store Character (Scan Cycle STCH).

i. Scan Cycle 5-1 (Transfer Non Term Startup)

- (1) If the present block address (contents of 22-01) is not block 21 (not 0074), generate the cycle complete signal and reset the PREN (Printer Enable) flip flop.
- (2) Transfer the present character address (contents of 22-02) to the start print character address (contents of 22-14).
- (3) Reset the present block address (contents of 22-01) to zero.
- (4) Do Transfer Non Term (Scan Cycle 5-6).

j. Scan Cycle 5-2 (Print EOB Bookkeeping)

- (1) Update the start print block address (contents of 22-15) by three (equivalent to adding 96).
- (2) Generate the cycle complete signal and reset the PREN (Printer Enable) flip flop.
- (3) If the updated start print block address (contents of 22-15) is block 21 (0074), reset it to zero.
- (4) Reset the start print character address (contents of 22-14) to zero.
- (5) Compare the previous start print block address (contents of 22-15) with the end print block address (contents of 22-16). If they are equal, do Transfer Non Term Startup (Scan Cycle 5-1).

k. Scan Cycle 5-4 (Print Character)

- (1) Combine the start print block address (contents of 22-15) with the start print character address (contents of 22-14) to produce the complete address of the character to be printed.
- (2) Update the start print character address (contents of 22-14) by one.
- (3) Retrieve the Character to be printed.

(a) If this character is an SOH (0201), print out a Line Feed (0012) character and set the CRLF (Carriage return line feed) flip flop.

(b) If this character is an STX (0202), no character gets printed out. However, if the SEL (Select) flip flop is set or the block reader is in the Manual Print Mode, set the CRLF flip flop.

(c) If this character is either an ETB (0027) or ETX (0003), no character is printed out and the EOB Bookkeeping (Scan Cycle 5-2) is then performed.

(d) Any other character is printed out.

l. Scan Cycle 5-5 (Begin Print)

- (1) Reset the start print character address (contents of 22-14) to zero.
- (2)

(a) Reset the start print block address (contents of 22-15) to zero if the block reader is not in the AUTOPRINT OFF (manual print) state.

(b) Subtract one from the number set up on the Memory Block Number rotary switch and transfer it to the start print block address (contents of 22-15) if the block reader is in the AUTOPRINT OFF state.

(3) Set the PREN (Printer Enable) flip flop.

m. Scan Cycle 5-6 (Transfer Non Term)

- (1) Combine the start print character address (contents of 22-14) with the block address of block 21 (3600) to form the complete "take character" address.
- (2) Retrieve the character from the above address and transfer it to the address formed by the start print character address (contents of 22-14). The block address will thus be 0000 (block 1).
- (3) Subtract one from the start print character address (contents of 22-14). If the new start print character address is zero, reset the Transfer Non Term (XFERNT) flip flop.

n. Scan Cycle 5 7 (Print Carriage Return and Line Feed)

- (1) If flip flop CRLF2⁰ is set, print out a carriage return character.
- (2) If flip flop CRLF2⁰ is reset and flip flop CRLF2¹ is set, print out a line feed character.

o. Scan Cycle RECH (Transmit Retrieve Character)

- (1) Combine the present block address (contents of 22-01) with the present character address (contents of 22-02) to form the complete "take character" address.
- (2) Update the character address (contents of 22-02) by one if the RPT EOB (repeat end of block) flip flop is reset.
- (3) Reset the RPT EOB flip flop.
- (4) Retrieve the character stored in the "take character" address and send it to the block generator.
- (5) If this character is either and ETB (0027) or ETX (0003) and the POS FRAG (Possible Fragment) signal from the block generator is present, set the RPT EOB flip flop.

(6) Do the Transmit EOB Bookkeeping (Scan Cycle 1-4) if either an ETB or ETX is detected and the POS FRAG signal is not present.

p. Scan Cycle STCH (Store Character)

(1) Combine the present block address (contents of 22-01) with the present character address (contents of 22-02) to form the complete "store character" address.

(2) Update the character address (contents of 22-02) by one. If the next character address is 94, generate the alarm condition.

(3) Transfer the following into the "store character" address:

- (a) Block Reader Character (BRD) if in a receiving cycle.
- (b) Tape Input Character (TIR) if in a write message cycle.
- (c) For mode 5 operation:
 - 1. SOH Character (0201) if STSOH (Store SOH) flip flop is set.
 - 2. STX Character (0202) if STSTX (Store STX) flip flop is set.
 - 3. ETB Character (0027) if STETB (Store ETB) flip flop is set.
 - 4. ETX Character (0003) if STETX (Store ETX) flip flop is set.

5-30.2 SCAN CYCLE TIMING SEQUENCE

The following subparagraphs provide the sequence of events in relationship to the memory clock pulses for memory scan cycles, and character retrieval and store cycles within the memory control logic.

a. Scan Cycle 1-1 (Begin Memory XMIT)

0				
1				
2				BGMDEN
3		SMTSR		BGMDEN
4	GSA03		SMSR	
5	GC/W		SHMSR	BGMDEN
6	GC/W		SHMSR	BGMDEN
7		SMTSR		
8			SMSR	
9				
10			SHMSR	BGMDEN
11		SMTSR		BGMDEN
12			SMSR	
13	MSRXMIDR			
14	GSA05			
15	GC/W			
16	GC/W			
17				
18				
19				
20				
21				
22			DOSOBBKP	(SC1-2)

b. Scan Cycle 1-2 (XMIT SOB Bookkeeping)

0				
1				
2				
3		SMSTR		BGBDEN (SMIDR=1 IF M5, RESET RPT EOB)
4	GSA02		SMSR	
5	GC/W		SHSMR	
6	GC/W		SHSMR	BGBDEN
7		SMTSR		
8			SMSR	
9				
10			SHMSR	BGBUEN
11		SMTSR		
12			SMSR	
13	MSRXMIDR			
14	GSA06			
15	GC/W			INH C/W IF XM
16	GC/W			INH C/W IF XM
17				

33
 34 GSA06
 35 GR/R
 36 GR/R
 37
 38
 39
 40 SMODR MSRI AIMODRL
 41 SMTSR MSRI AIMODRL
 42 SMSR
 43 RESET (RPT EXT-1 BLK) IF TSR7776 OR IF ODR 0000; SET (THIS BLK ETX)
 IF TSR 7777
 44 GSA01 SMTSR=3
 45 GR/R
 46 GR/R
 47 SMSR
 48
 49
 50 SMODR AIMODRL
 51 SMTSR AIMODRL
 52 SMSR
 53 MODRXMIDR
 54 GSA13
 55 GC/W
 56 GC/W
 57
 58
 59
 60
 61
 62
 63 MSRXMIDR
 64 GSA01
 65 GC/W INH GC/W IF RPT ETX-1 BLK
 66 GC/W INH GC/W IF RPT ETX-1 BLK
 67
 68
 69
 70
 71
 72 GEN CYC COMP IF M1 (ETX SENT X THIS BLK ET X); DO SOB BKP IF M5
 (ETX SENT X THIS BLK ETX)
 73
 74 GSA05 SMTSR=3
 75 GR/R
 76 GR/R
 77

78 RMSR
 79
 80 SMODR AIMODRL
 81 SMTSR AIMODRL GEN MSG# COMP IF ODROOOO
 82 SMSR
 83
 84 GSA03
 85 GR/R
 86 GR/R
 87
 88
 89
 90 SMODR MSRI AIMODRL
 91 SMTSR MSRI AIMODRL
 92 SMSR
 93 GEN MSG # COMP IF TSR 7777
 94 GEN CYC COMPLETE
 d. Scan Cycle 2-2 (Begin Memory RCV)
 0
 1
 2
 3
 4 GSA01
 5 GC/W
 6 GC/W
 7
 8
 9
 10 RESET MEM FULL RCV DEC. 1
 11
 12
 13
 14 GSA02
 15 GC/W
 16 GC/W
 17
 18
 19
 20
 21
 22
 23
 24 GSA15
 25 GC/W
 26 GC/W

27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44

GSA14
GC/W
GC/W

DO SOB BKP (SC 2-5)

e. Scan Cycle 2-5 (RCV SOB Bookkeeping)

0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23

GSA02
GC/W
GC/W

SMTSR

SMSR
SHMSR
SHMSR

BRBDEN
BRBDEN

SMTSR

SMSR

BRBDEN
BRBDEN

SMTSR

SHMSR
SMSR

BRBUEN
BRBUEN

SMIDR=0074
GSA01
GC/W
GC/W

INH GC/W IF MEM FULL RCV
INH GC/W IF MEM FULL RCV

MSRXMIDR DO STORE CHAR (SC STCH) IF (AUTOPRINT ETX+ERR)+M5. CZCS + VSTX

24 GSA10
25 GC/W
26 GC/W

27
28
29
30
31
32

33 RMIDR
34 GSA00
35 GC/W
36 GC/W

SET STSOH

37
38
39
40
41
42
43

44 GSA01
45 GC/W
46 GC/W

INH GC/W IF MEM FULL RCV
INH GC/W IF MEM FULL RCV

47
48
49
50
51
52
53

DO STORE CHAR (SC STCH)

f. Scan Cycle 2-7 (RCV EOB Bookkeeping)

0
1
2
3
4
5
6
7
8
9
10

GSA00
GR/R
GR/R

SMODR

11

SMTSR

AIMODRL GCI SET MEM FULL RCV IF
(AUTOPRINT MSG). (ETX+STETX)
AIMODRL GCI

12
 13 MSRXMIDR SMSR
 14
 15 GC/W
 16 GC/W
 17
 18
 19
 20
 21
 22
 23
 24 GSA10
 25 GR/R
 26 GR/R
 27
 28
 29
 30 SMODR MSRI AIMODR L
 31 SMTSR MSRI AIMODRL
 32 SMSR
 33 SET MEM FULL RCV IF (AUTOPRINT LBC) (TSR7777)
 34 GSA01 SMTSR=3
 35 GR/R
 36 GR/R
 37
 38 SMSR
 39 SMSR
 40 SMODR AIMODRL
 41 SMTSR AIMODRL
 42 SMSR
 43 MSRXMIDR RMIDR IF TSR 0074
 44
 45 GC/W SET MEM FULL RCV IF (AUTOPRINT LBC+MSG) (TSR0074)
 46 GC/W
 47
 48
 49
 50 SPREN IF MEM FULL RCV + (AUTOPRINT ETX + ERR) DEC. 5
 51
 52 MODRXMIDR
 53
 54 GSA16
 55 GC/W INH GC/W IF MEM FULL RCV + (AUTOPRINT ETX+ERR)
 56 GC/W INH GC/W IF MEM FULL RCV + (AUTOPRINT ETX+ERR) SET STSTX IF STETB

57
 58
 59
 60
 61 DO BEGIN PRINT (SC 5-5) IF MEM FULL RCV
 62 DO SOB BKP (SC 2-5) IF STSTX
 63 MSRXMIDR
 64 GEN CYCLE COMPLETE

g. Scan Cycle 3 (Write Character/Monitor Selected Location)

0
 1
 2
 3 SMTSR MBDEN
 4 SMSR MBDEN
 5 GR/R SHMSR
 6 GR/R SMTSR MBDEN
 7 SMTSR MBDEN
 8 SMSR
 9
 10 SMODR SHNSR MBUEN
 11 SMTSR MBUEN
 12 SMSR
 13
 14
 15 GR/R BI-1
 16 GR/R SMTSR BI-1
 17 SMSR
 18 MSRXMIDR SHMSR
 19
 20 SMODR AIMIDRL
 21 SMTSR AIMIDRL
 22 SMSR
 23 MSRXMIDR
 24 RMSR MCDEN
 25 GR/R SMTSR MCDEN
 26 GR/R SMSR
 27 SHMSR
 28 SHMSR MCDEN
 29 SMTSR MCDEN
 30 SMODR SMSR
 31 SHMSR MCUEN
 32 SMTSR MCUEN
 33 SMSR
 34
 35 GR/R

36 GR/R
 37
 38 AIMIDRH
 39 SMTSR AIMIDRH
 40 SMODR SMSR
 41
 42
 43 WCHRXMIDR SDISPR IF (MON SEL LOC). ADD
 44 MSRXMAR
 45 GC/W INH GC/W IF MON SEL LOC
 46 GC/W INH GC/W IF MON SEL LOC
 47
 48
 49
 50 SMTSR RMSR AIMODRL
 51 SMTSR RMSR AIMODRL
 52 SMSR
 53 SDISPR IF (MON SEL LOC). DATA
 54 GEN CYC COMPLETE

h. Scan Cycle 4 (Write Message)

0
 1
 2 DO STORE CHAR (SC STCH) IF TRSOB
 3
 4 GSA00
 5 GR/R
 6 GR/R
 7
 8
 9
 10 SMODR AIMODRL GCI RMODR IF TRSOH
 11 SMTSR AIMODRL GCI RMODR IF TRSOH
 12 SMSR
 13 MSRXMIDR RMSR
 14 RMSR
 15 GC/W AIMODRL
 16 GC/W SMTSR AIMODRL
 17 SMSR
 18
 19 SHMSR
 20 AIMODRL
 21 SMTSR AIMODRL
 22 SMSR
 23 MSRXMIDR ALARM IF ODR 0025

24 GSA01 RMSR
 25 GC/W
 26 GC/W
 27
 28
 29
 30
 31
 32
 33 RMIDR
 34 GSA02
 35 GC/W
 36 GC/W
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50 RMSR
 51 RMSR
 52
 53 DO STORE CHAR (SC STCH)

i. Scan Cycle 5-1 (Transfer Non Term Startup)

0
 1
 2
 3
 4 GSA01
 5 GR/R
 6 GR/R
 7
 8
 9
 10 SMODR AIMODRL
 11 SMTSR AIMODRL
 12 SMSR
 RPREN AND GEN CYC COMP IF
 TSR0074

13 RPREN AND GEN CYC COMP IF TSR0074
 14 GSA02 RPREN AND GEN CYC COMP IF TSR0074
 15 GR/R
 16 GR/R
 17
 18
 19
 20 SMODR
 21
 22
 23 MODRXMIDR
 24 GSA14
 25 GC/W
 26 GC/W
 27
 28
 29
 30
 31
 32
 33 RMIDR
 34 GSA01
 35 GC/W
 36 GC/W
 37
 38
 39
 40 SET NON TERM FF DO XFER NON TERM (SC5-6)

j. Scan Cycle 5-2 (Print EOB Bookkeeping)

0
 1
 2 SMSR
 3 SMSR
 4 GSA 15 SMTSR=3
 5 GR/R
 6 GR/R SMSR
 7 SMSR
 8
 9
 10 SMODR AIMODRL
 11 SMTSR AIMODRL
 12 SMSR RPREN IF MAN PRINT
 13 MSRXMIDR
 14 RMIDR IF TSR0074 RMSR GEN CYC COMPLETE IF MAN PRINT

15 GC/W
 16 GC/W
 17
 18
 19
 20
 21 SMTSR AIMODRL
 22 SMSR AIMODRL
 23
 24
 25 GC/W
 26 GC/W
 27
 28
 29
 30
 31
 32
 33 RMIDR
 34 GSA14
 35 GC/W
 36 GC/W
 37
 38
 39
 40
 41
 42
 43
 44 GSA16
 45 GR/R
 46 GR/R
 47
 48
 49
 50 SMODR MSRI AIMODRL
 51 SMTSR MSRI AIMODRL
 52 SMSR
 53 DO XFER NON TERM STARTUP (SC 5-1) IF TSR 7777 OR IF END PRINT
 54
 55
 56
 57
 58
 59
 60

61
62
63
64 GEN CYCLE COMPLETE

k. Scan Cycle 5-4 (Print Character)

0
1
2
3
4 GSA15
5 GR/R
6 GR/R
7
8
9
10 SMODR
11
12
13
14 GSA14 MODRXMIDR
15 GR/R
16 GR/R
17
18
19
20 SMODR AIMODRL GCI
21 SMTSR AIMODRL GCI
22 SMTSR SMSR AIMIDRH
23 SMTSR AIMIDRH
24 MSRXMIDR SMTSR INH AUTO SMSR
25 GC/W INH AUTO SMSR
26 GC/W INH AUTO SMSR
27
28
29 SMTSR
30 SMTSR SMSR
31
32
33
34 MSRXMAR
35 GR/R
36 GR/R
37
38

39
40 SMODR RMSR AIMODRL
41 SMTSR AIMODRL
42 SMSR
43 SMTR=0012 IF ODR 0201; SET CRLF F.F. IF (ODR 0201) + (ODR 0202) (SEL +
PRINT BLK); DO EOB BKP IF ODR 0027 + 0003

44
45 GR/R PRDS IF ODR 0202
46 GR/R PRDS IF ODR 0202
47
48
49

50 SMODR
51
52
53
54 GEN CYC COMPLETE

l. Scan Cycle 5-5 (Begin Print)

0
1
2
3 SMTSR MBDEN
4 GSA14 SMSR MBDEN
5 GC/W SHMSR
6 GC/W SHMSR MBDEN
7 SMTSR MBDEN
8 SMSR
9
10 SHMSR MBUEN
11 SMTSR MBUEN
12 SMSR
13
14 GSA15
15 GC/W BI-1
16 GC/W SMTSR BI-1
17 SMSR
18 MSRXMIDR
19 SHMSR
20 AIMIDRL
21 SMTSR AIMIDRL
22 SMSR
23 MSRXMIDR
24 GSA15
25 GC/W

RMIDR IF MAN PRINT

26 GC/W
 27 SPREN
 28 SPREN
 29
 30
 31
 32
 33
 34 GEN CYC COMPLETE

m. Scan Cycle 5-6 (Transfer Non Term)

0
 1
 2
 3
 4 GSA14
 5 GR/R
 6 GR/R
 7
 8
 9
 10 SMODR AIMODRL
 11 SMTSR AIMODRL
 12 SMSR
 13
 14 MSRXMAR SMAR 3600
 15 GR/R
 16 GR/R
 17
 18
 19
 20 SMODR
 21
 22
 23 MODRXMIDR
 24 MSRXMAR
 25 GC/W
 26 GC/W BI-1
 27 SMTSR BI-1
 28 SMSR
 29
 30
 31
 32
 33

34 GSA14 MSRXMIDR
 35 GC/W
 36 GC/W
 37
 38
 39
 40
 41
 42
 43
 44 GEN CYC COMPLETE
 RESET XFER NON TERM FF
 IF TSR0000

n. Scan Cycle 5-7 (Print Carriage Return and Line Feed)

0
 1 SMTSR=0215 _____
 2 SMTSR=0012 IF CRLF 2⁰
 3
 4
 5 GR/R PRDS
 6 GR/R PRDS
 7
 8
 9
 10 SMODR
 11
 12
 13
 14 GEN CYC COMPLETE

o. Scan Cycle RECH (Transmit-Retrieve Character)

0
 1
 2
 3
 4 GSA01
 5 GR/R
 6 GR/R
 7
 8
 9
 10 SMODR
 11

12
 13
 14 GSA02 MODRXMIDR
 15 GR/R
 16 GR/R
 17
 18
 19
 20 SMODR AIMODR L GCI
 21 SMTSR AIMODR L GCI
 22 SMSR AIMIDRH
 23 SMTSR INH AUTO SMSR
 24 MSRXMIDR INH AUTO SMSR
 25 GC/W INH AUTO SMSR
 26 GC/W SMSR
 27
 28
 29
 30 RESET RPT EOB
 31
 32
 33
 34 MSRXMAR
 35 GR/R
 36 GR/R
 37
 38
 39
 40 SMODR RMSR INH GR/R DEC. 4
 41 SMTSR AIMODRL
 42 SMSR AIMODRL
 43 SET RPT EOB IF (ODR 0003+0027). POSFRAG
 44
 45 BGDS
 46 BGDS
 47
 48
 49
 50
 51
 52
 53
 54 GEN CYC COMPLETE IF $\overline{(ODR\ 0003+0027)}$ + RPT EOB
 55 GR/R
 56 GR/R SET ETX SENT IF ODR 0003
 57 DO EOB BKP (SC 1-4)

p. Scan Cycle STCH (Store Character)
 0
 1
 2
 3
 4 GSA01
 5 GR/R
 6 GR/R
 7
 8
 9
 10 SMODR
 11
 12
 13
 14 GSA02 MODRXMIDR
 15 GR/R
 16 GR/R
 17
 18
 19
 20 SMODR AIMODRL GCI
 21 SMTSR AIMODRL GCI
 22 SMSR AIMIDRH ALARM IF TSR 0136
 23 SMTSR AIMIDRH INH AUTO SMSR
 24 MSRXMIDR INH AUTO SMSR
 25 GC/W INH AUTO SMSR
 26 GC/W SMSR
 27
 28
 29
 30
 31
 32
 33 BRDXMIDR IF MSC 2; TIRXMIDR IF MSC4
 34 MSRXMAR
 35 GC/W SMIDR 0201 IF STSOH; SMIDR 0027 IF STETB; SMIDR0202 IF STSTX;
 SMIDR 0003 IF STETX
 36 GC/W RMSR
 37
 38 AIMIDRL
 39 SMTSR AIMIDRL
 40 SMSR DO EOB BKP IF (STETX+STETB)
 41
 42 SET STETB IF CC90. M5

43
44
45
46
47
48
49
50
51
52
53

RESET STSTX: SET STETX AND RESET STETB IF LF4NS (G)
GEN CYC COMPLETE IF STSOH + STETX +STETB

RESET STSOH

DO STORE CHAR (SC STCH AGAIN)

Change 3 5-126.12

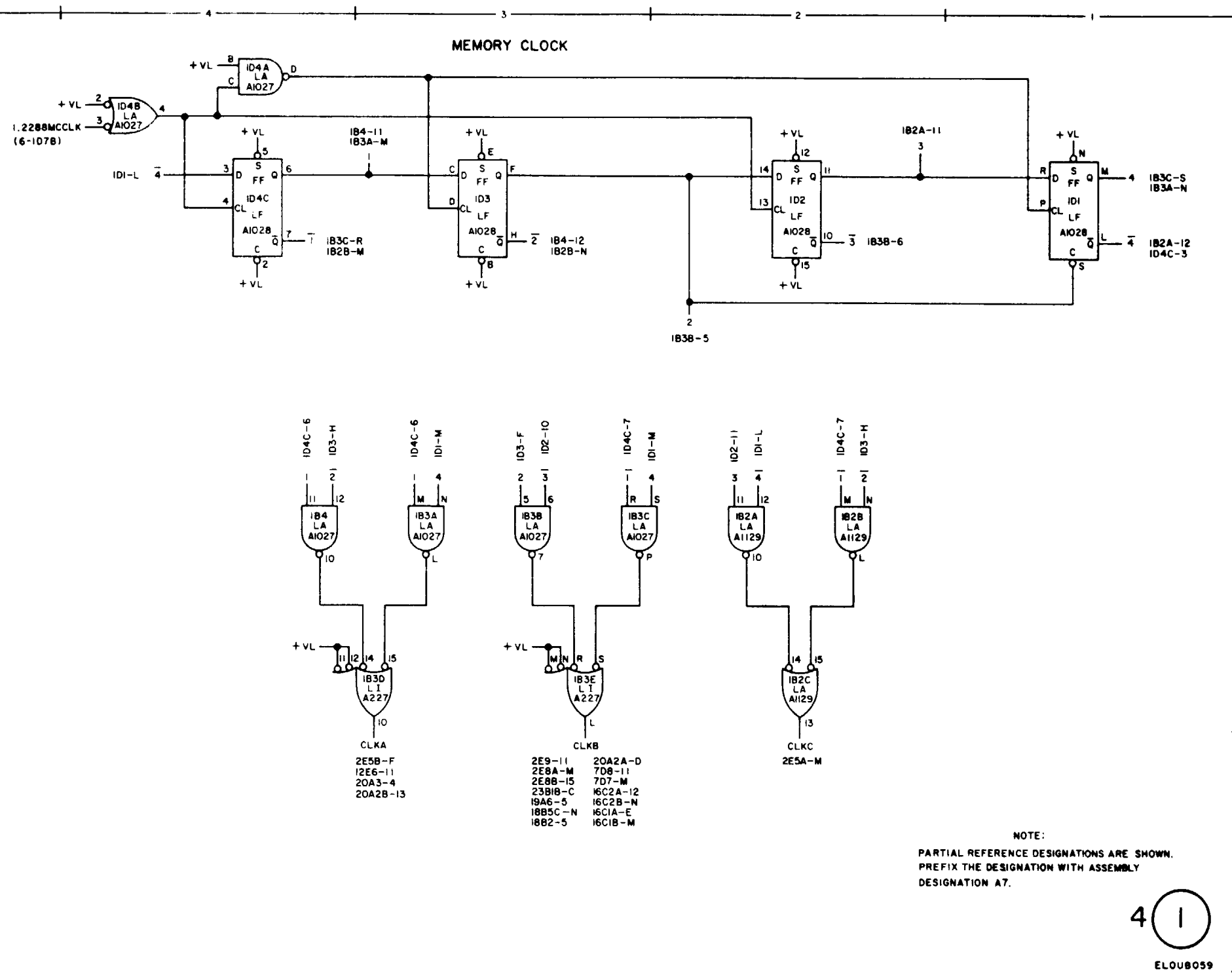
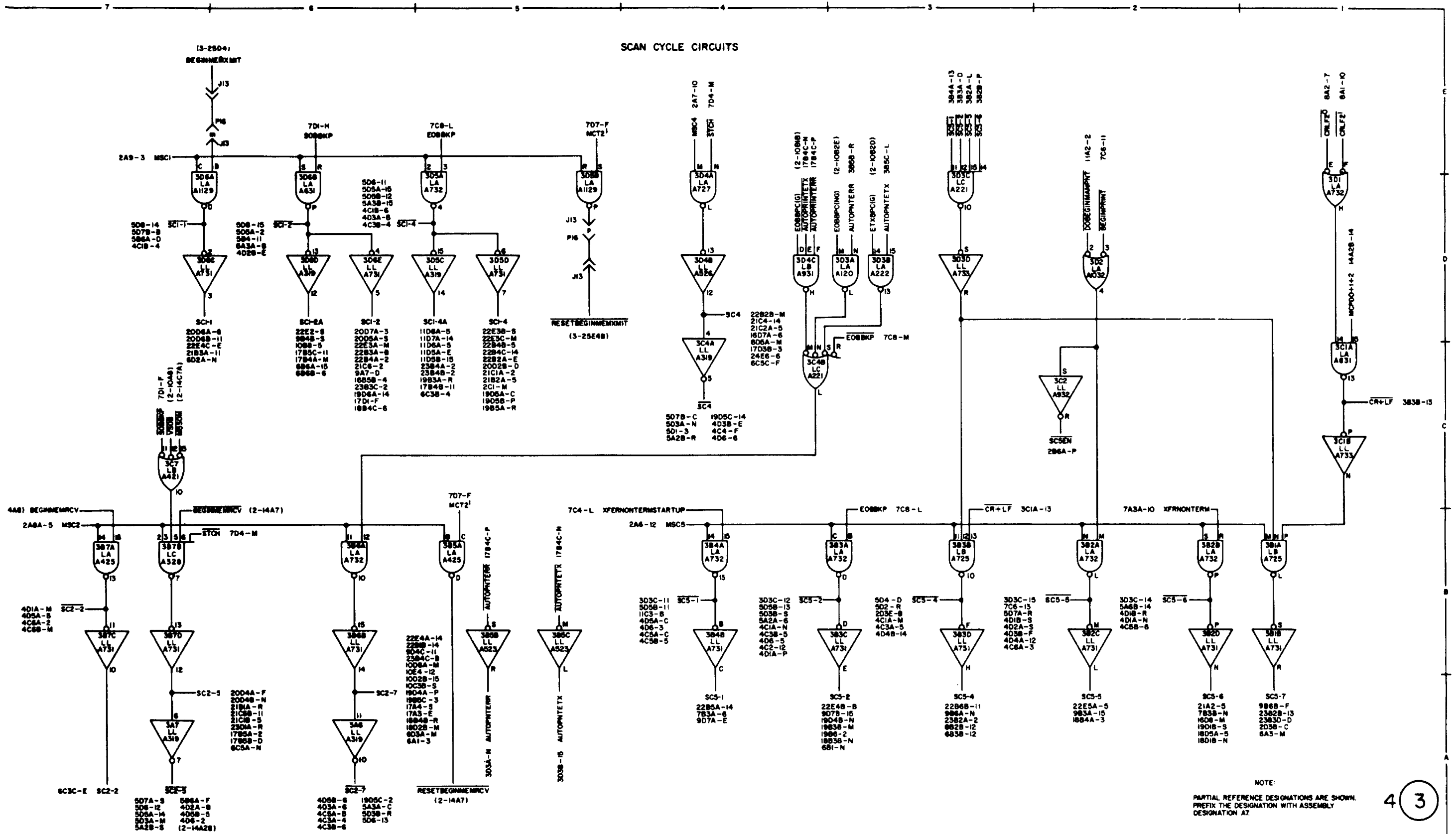


Figure 5-34(1). Memory control logic diagram.
(Sheet 1 of 39)

Change 3 5-126.13/(5-126.14 blank)



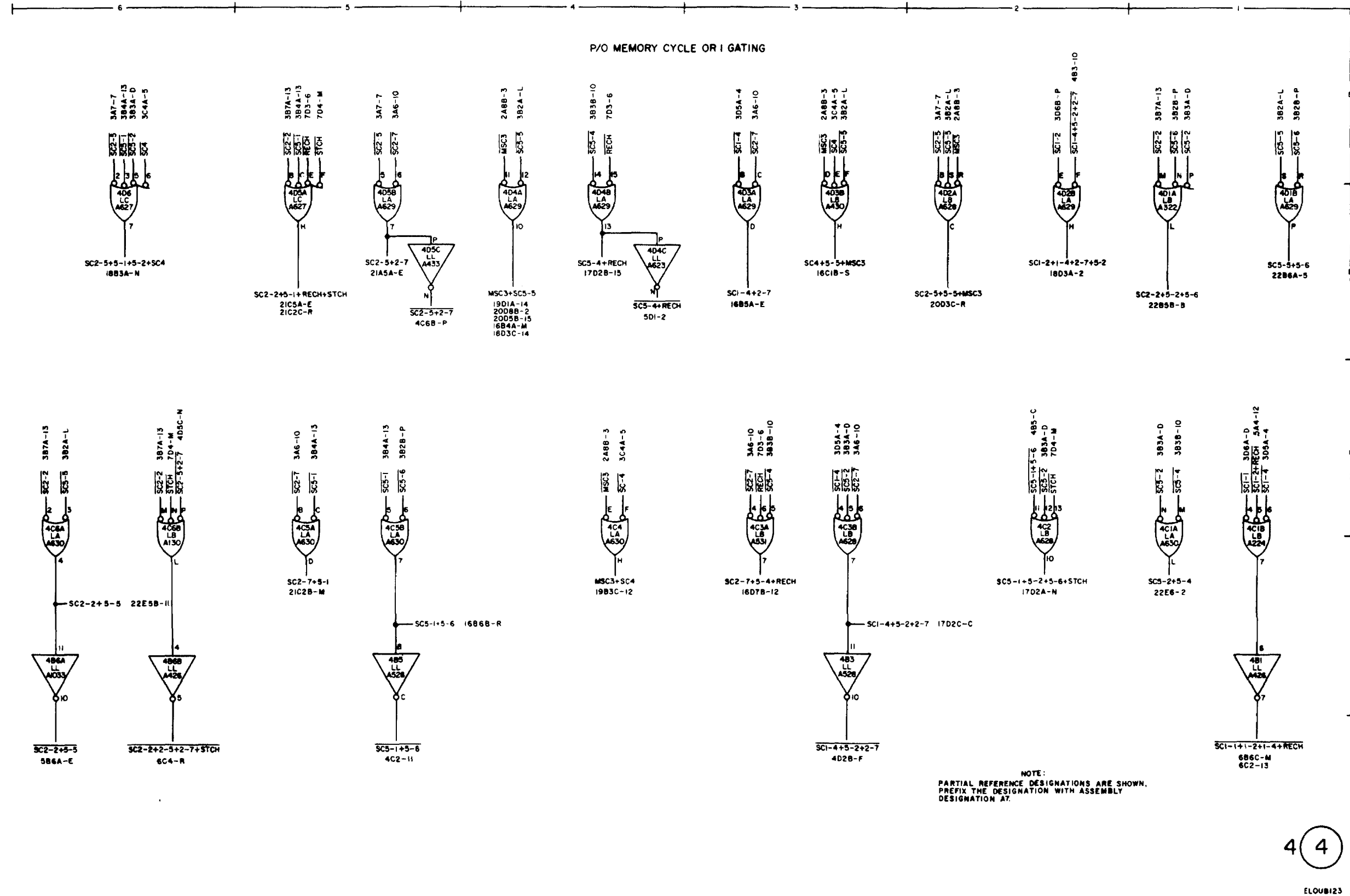
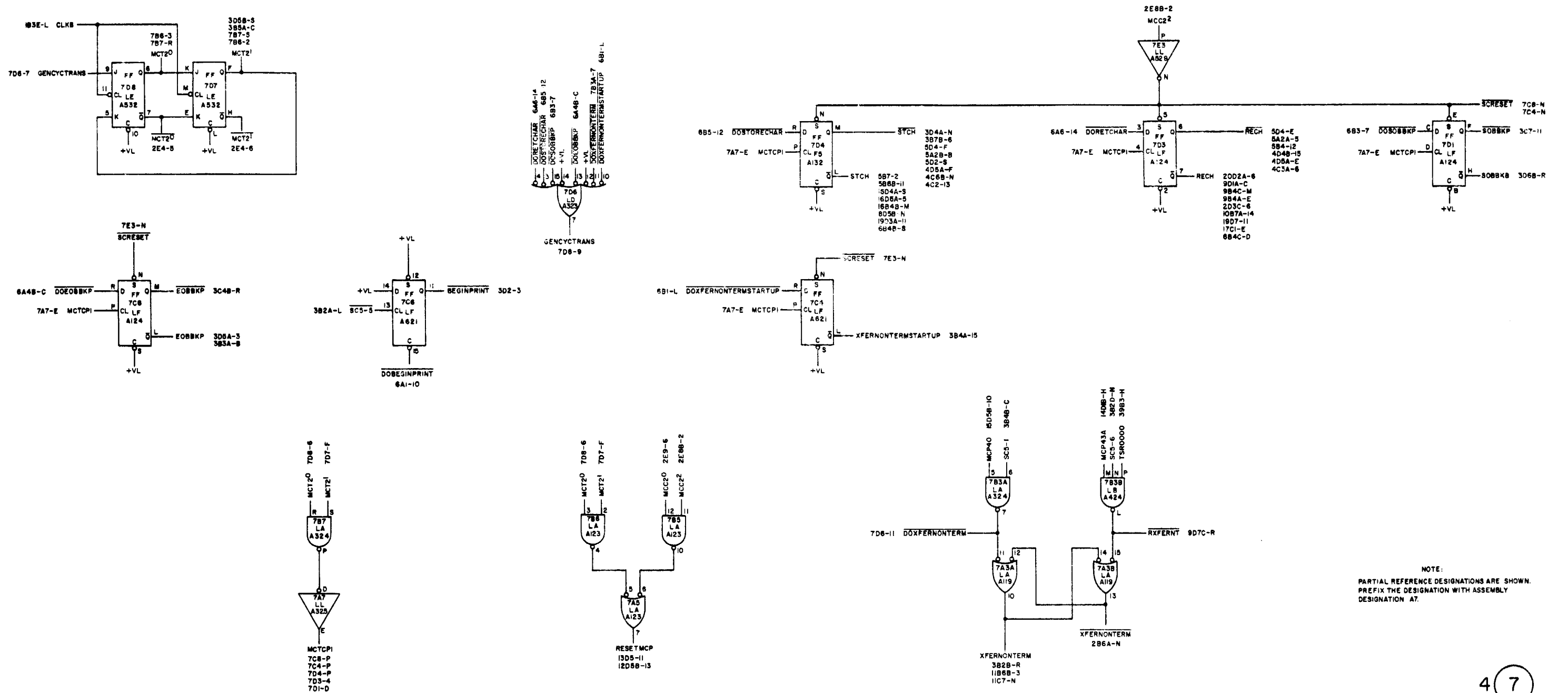


Figure 5-34(4). Memory control logic diagram.
(Sheet 4 of 39)

P/O INSTRUCTION



NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION AT.

BOLD IN WITH APRON
LINE CUT

Figure 5-34(7). Memory control logic diagram.
(Sheet 7 of 39)

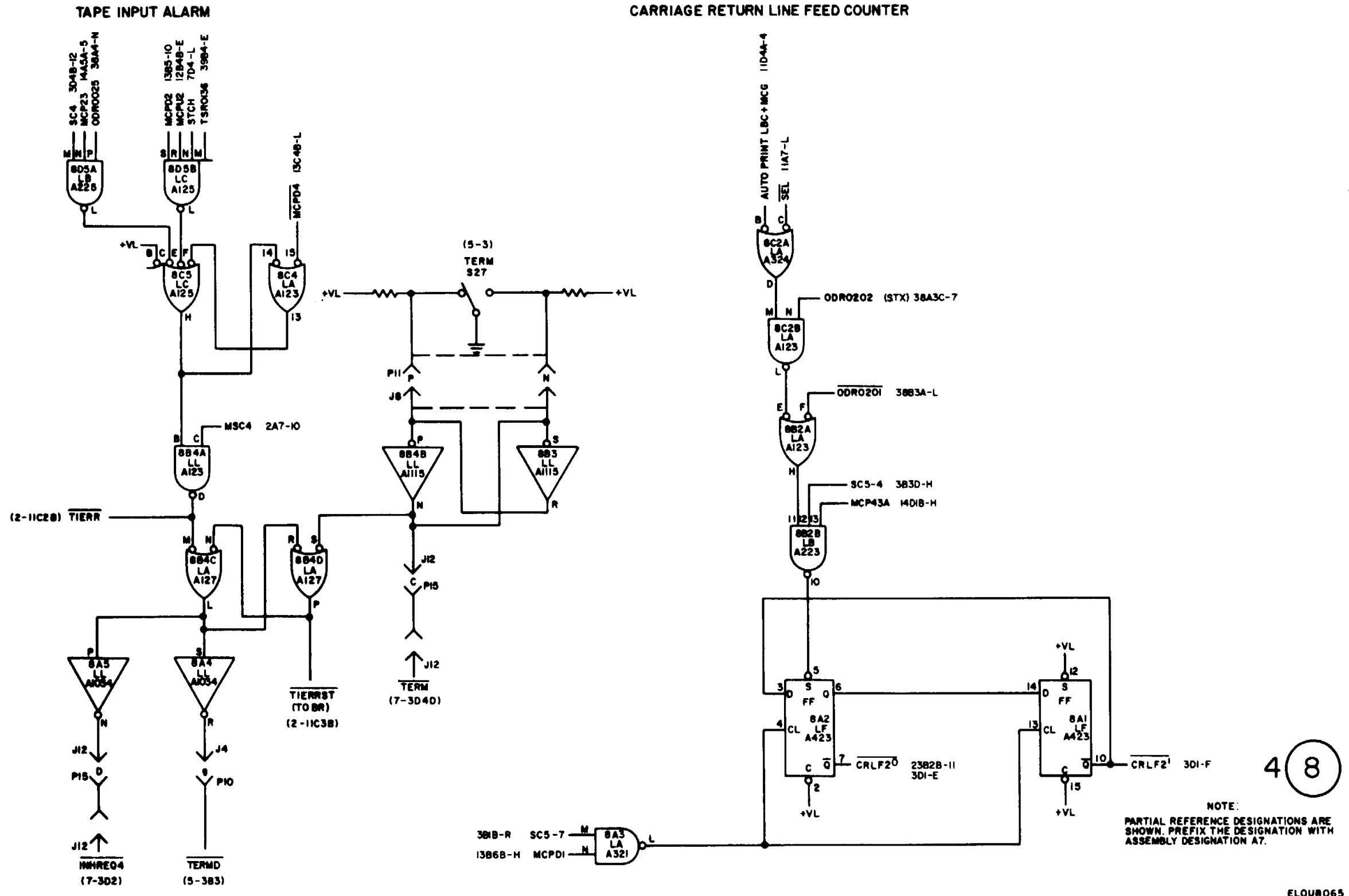
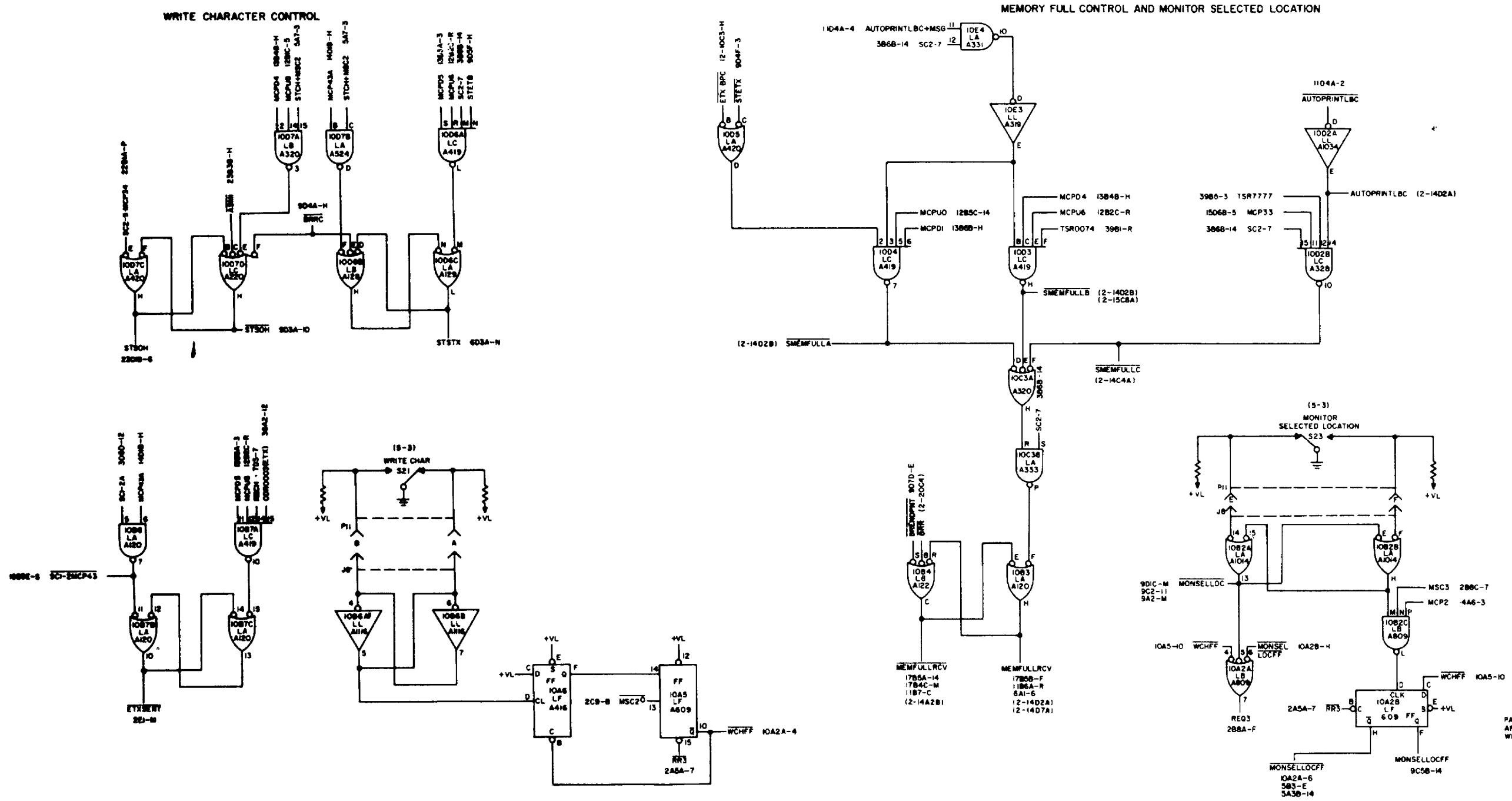


Figure 5-34(8). Memory control logic diagram.
(Sheet 8 of 39)



NOTE
PARTIAL REFERENCE DESIGNATIONS
ARE SHOWN. PREFIX THE DESIGNATION
WITH ASSEMBLY DESIGNATION A7.

Figure 5-34(10). Memory control logic diagram.
(Sheet 10 of 39)

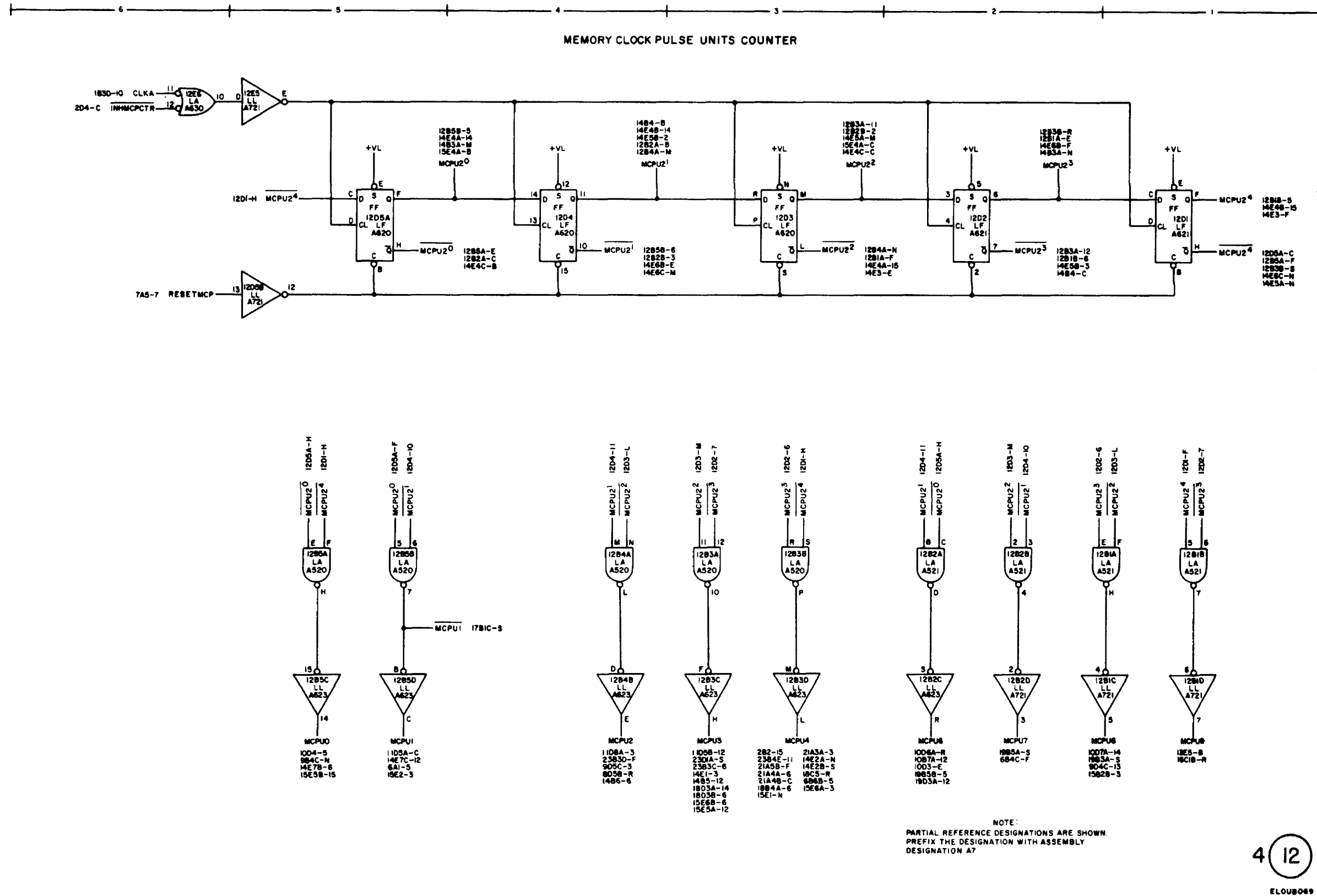


Figure 5-34(12). Memory control logic diagram.
(Sheet 12 of 39)

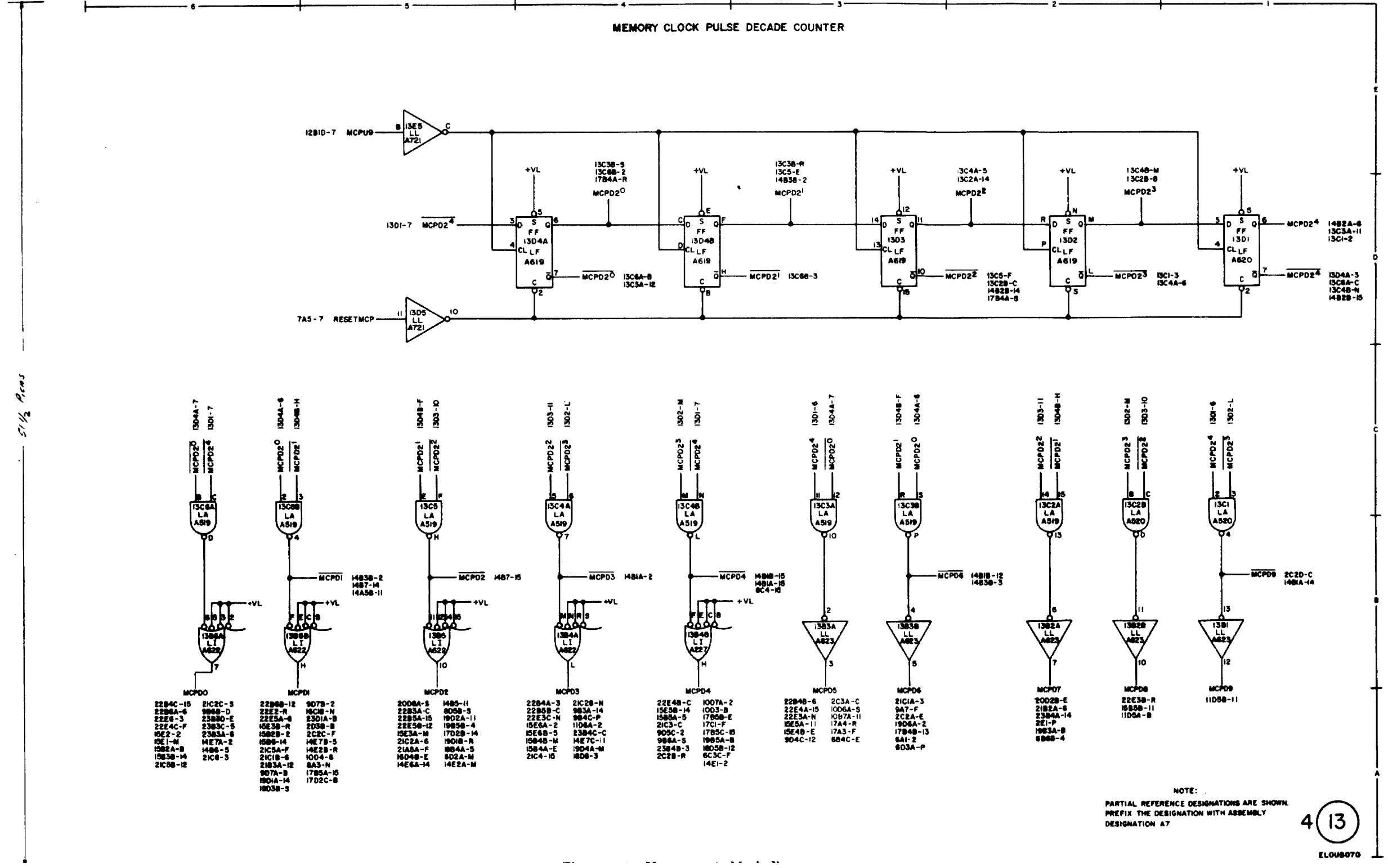


Figure 5-34(13). Memory control logic diagram.
(Sheet 13 of 39)

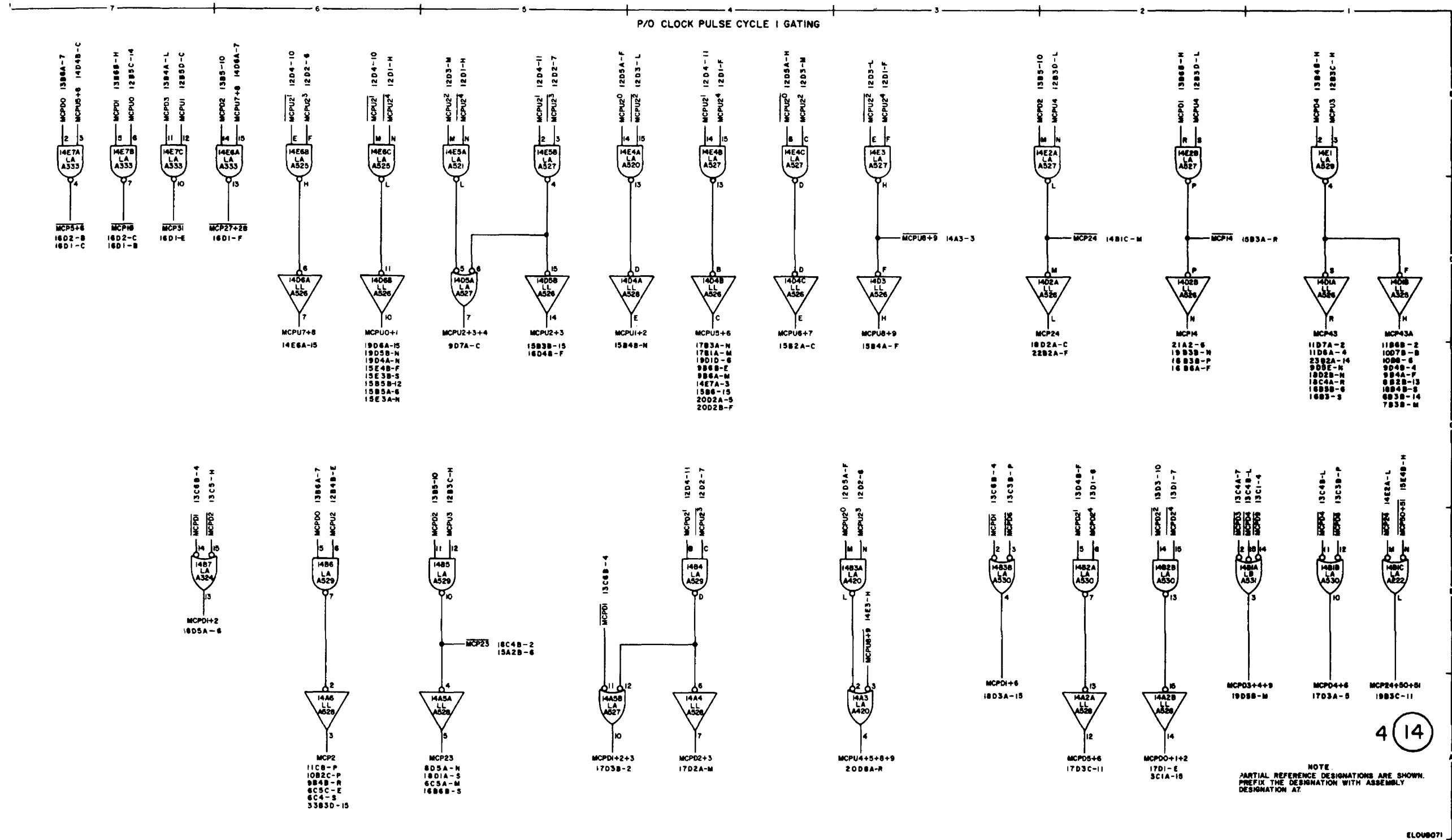


Figure 5-34(14). Memory control logic diagram (Sheet 14 of 39)

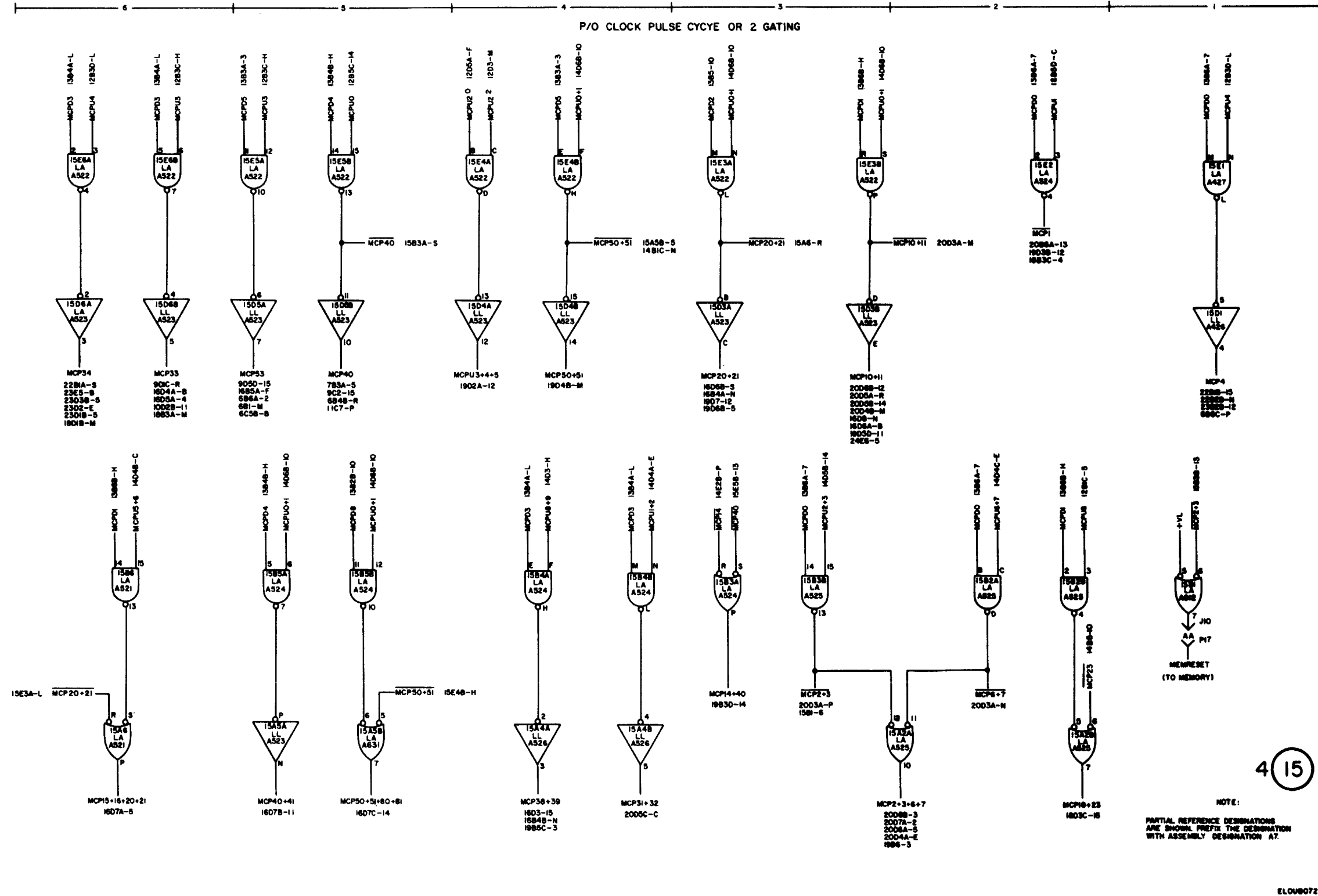


Figure 5-34(15). Memory control logic diagram.
(Sheet 15 of 39)

REGISTER TO REGISTER TRANSFER GATES

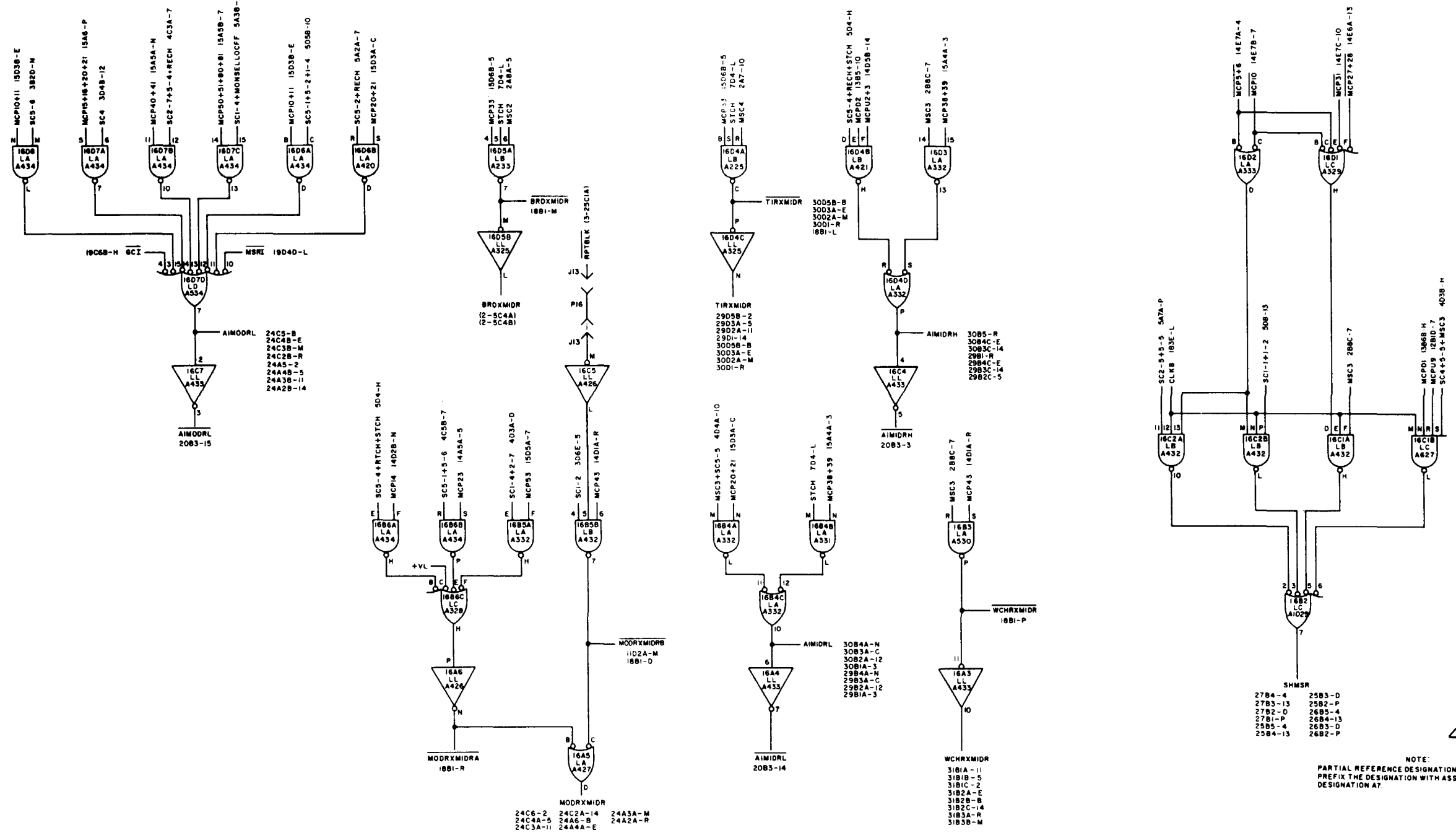


Figure 5-34(16). Memory control logic diagram. (Sheet 16 of 39)

Change 3 5-143

ELOUB073

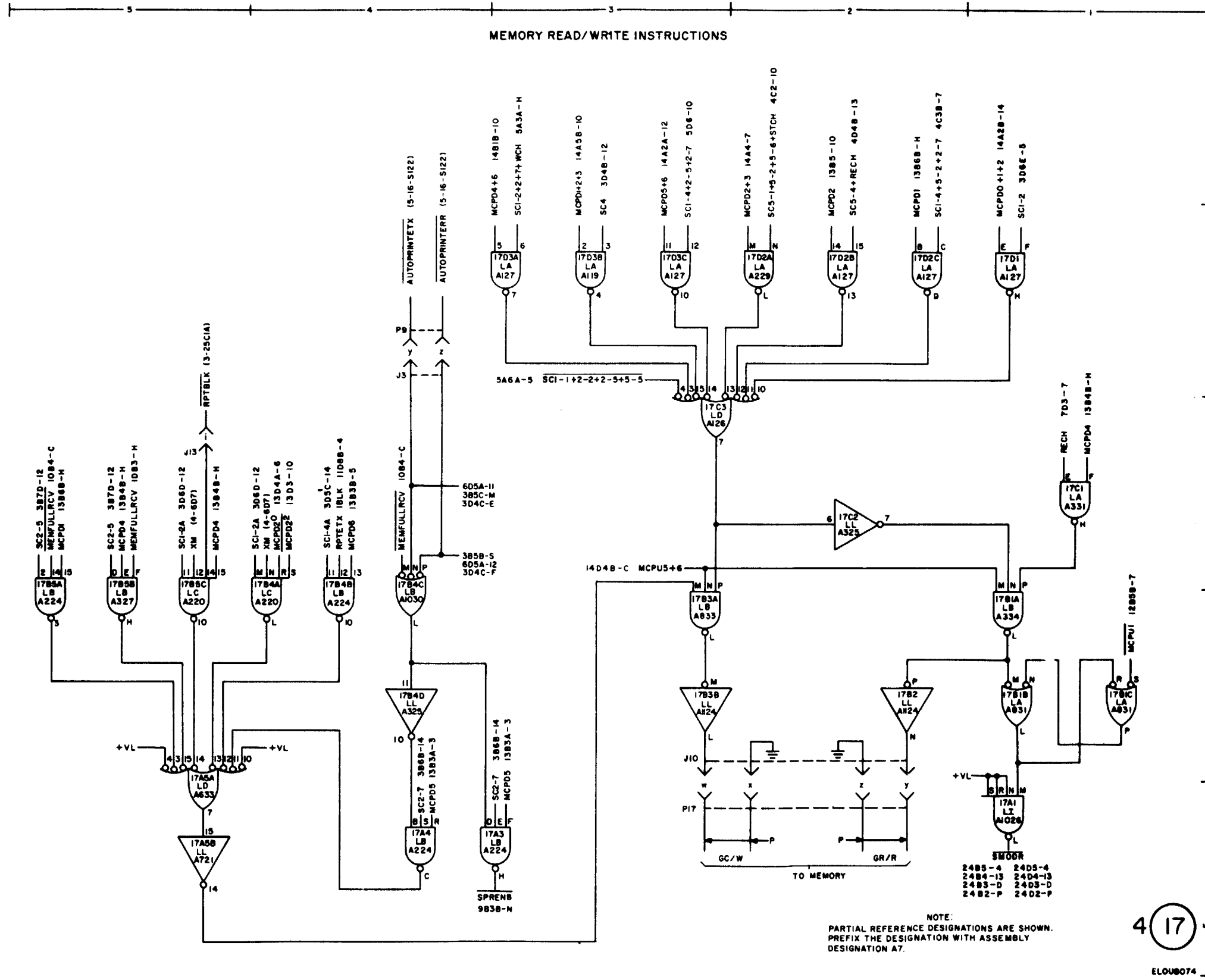


Figure 5-34(17). Memory control logic diagram. (Sheet 17 of 39)

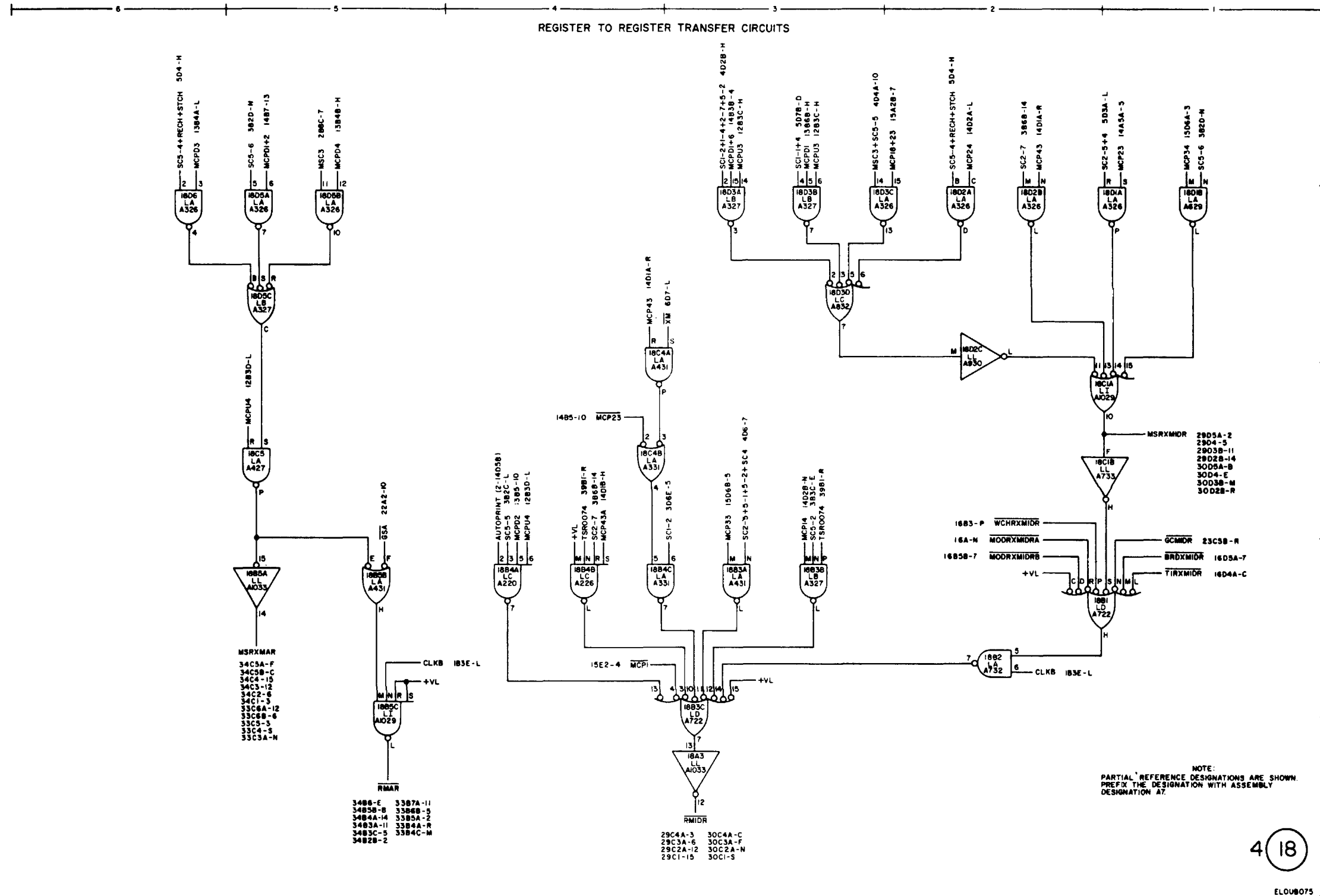


Figure 5-34(18). Memory control logic diagram.
(Sheet 18 of 39)

Change 3 5-145

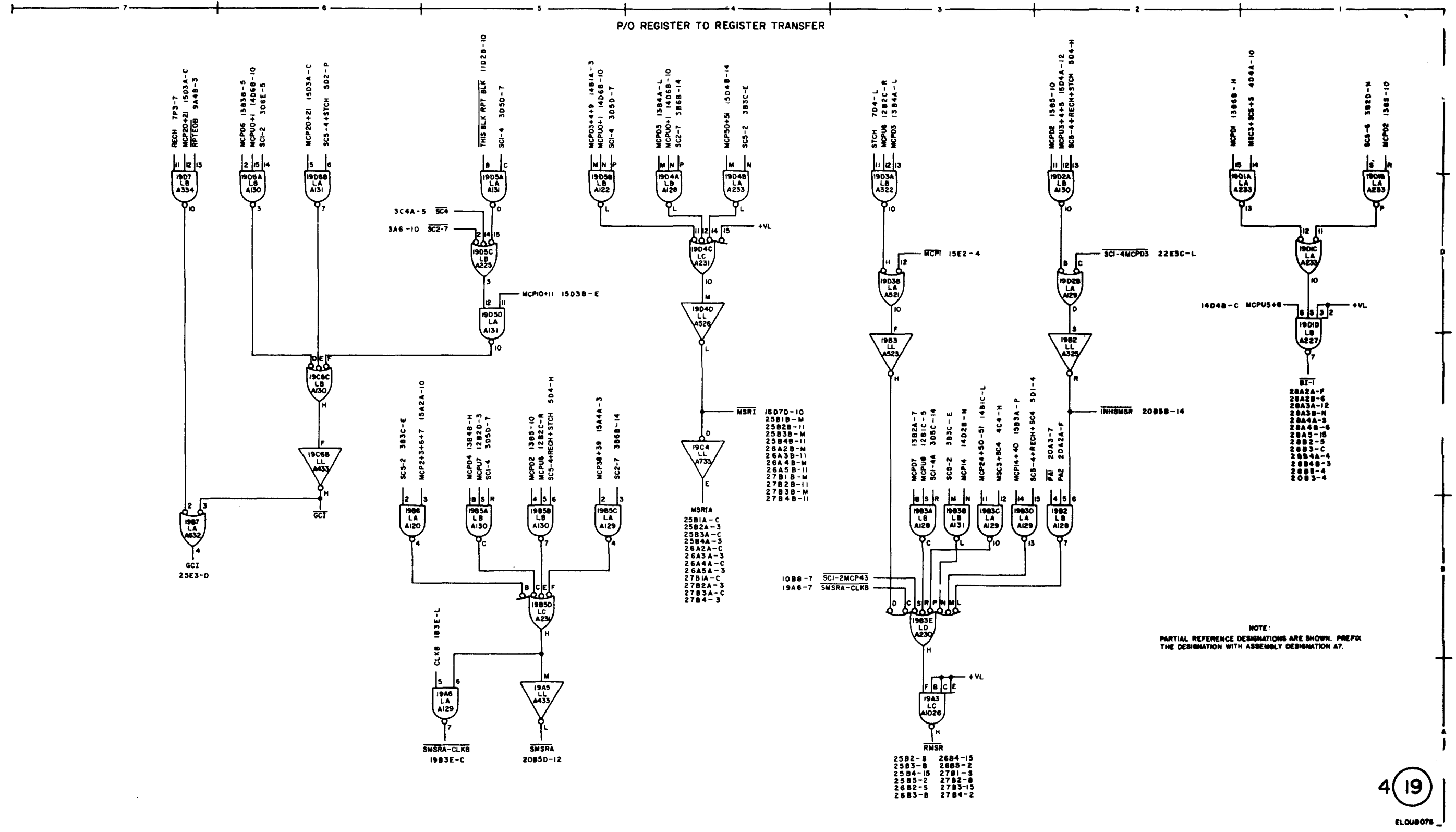


Figure 5-34(19). Memory control logic diagram.
(Sheet 19 of 39)

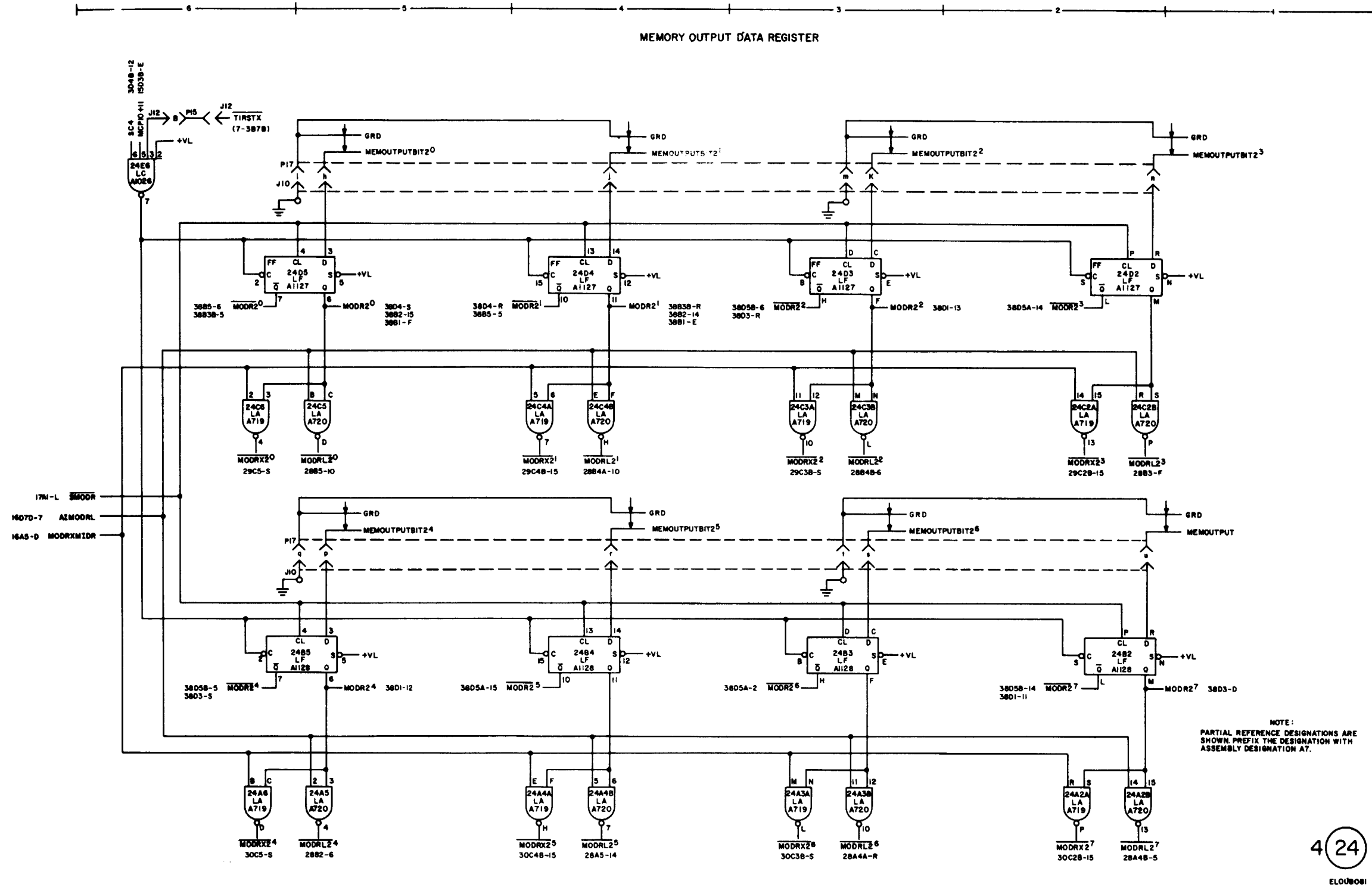


Figure 5-34(24). Memory control logic diagram
(Sheet 24 of 39)

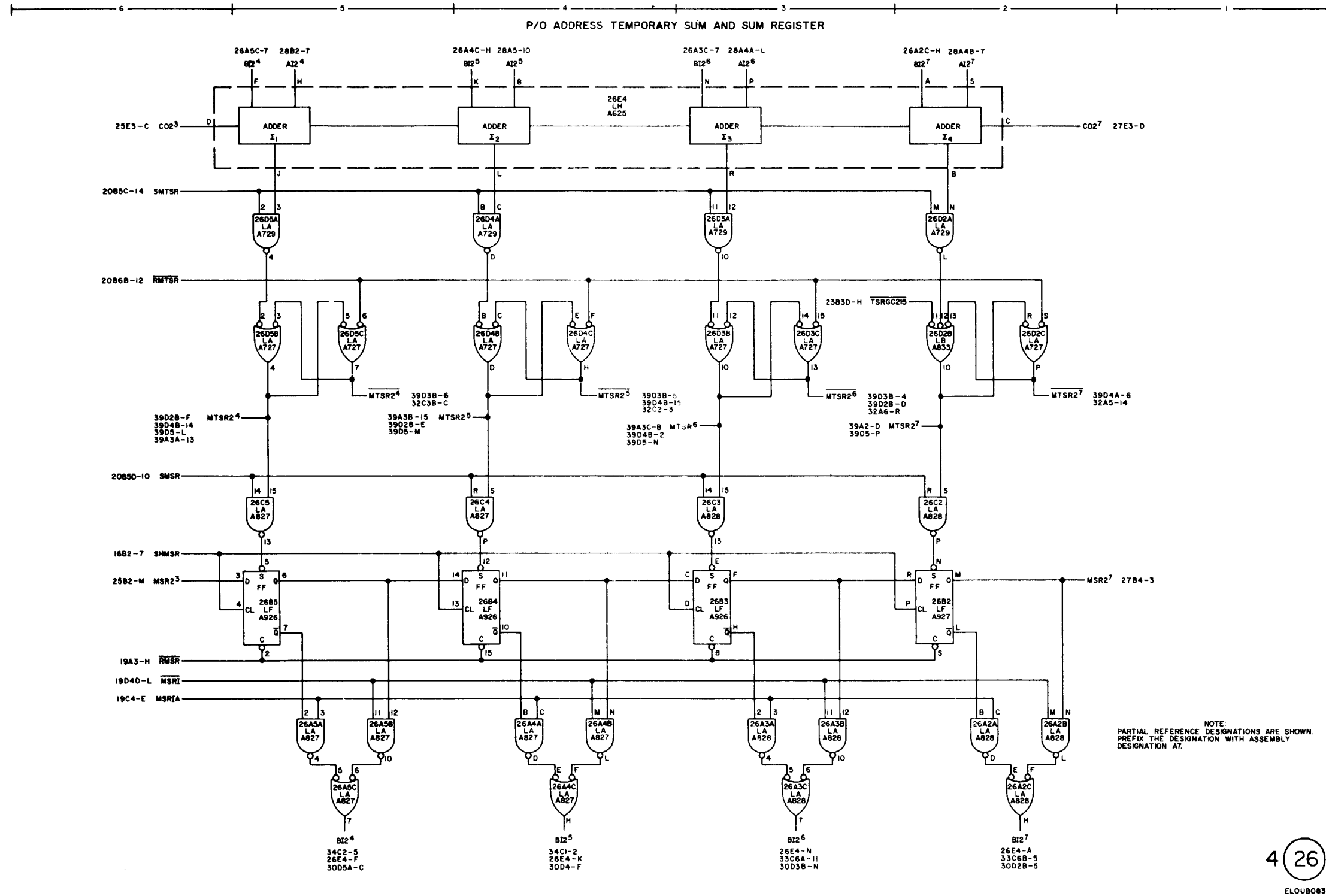


Figure 5-34(26). Memory control logic diagram.
(Sheet 26 of 39)

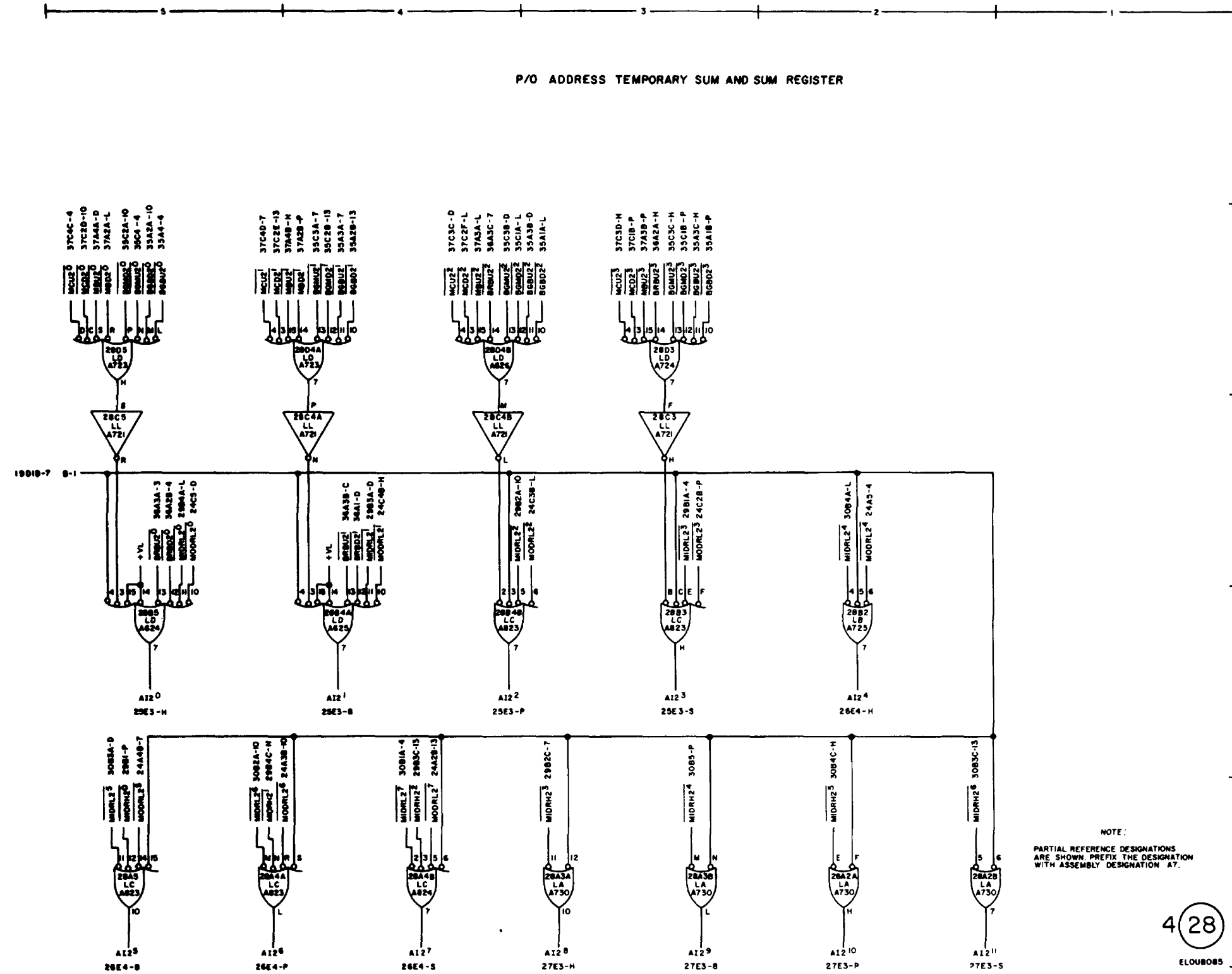


Figure 5-34(28). Memory control logic diagram.
(Sheet 28 of 39)

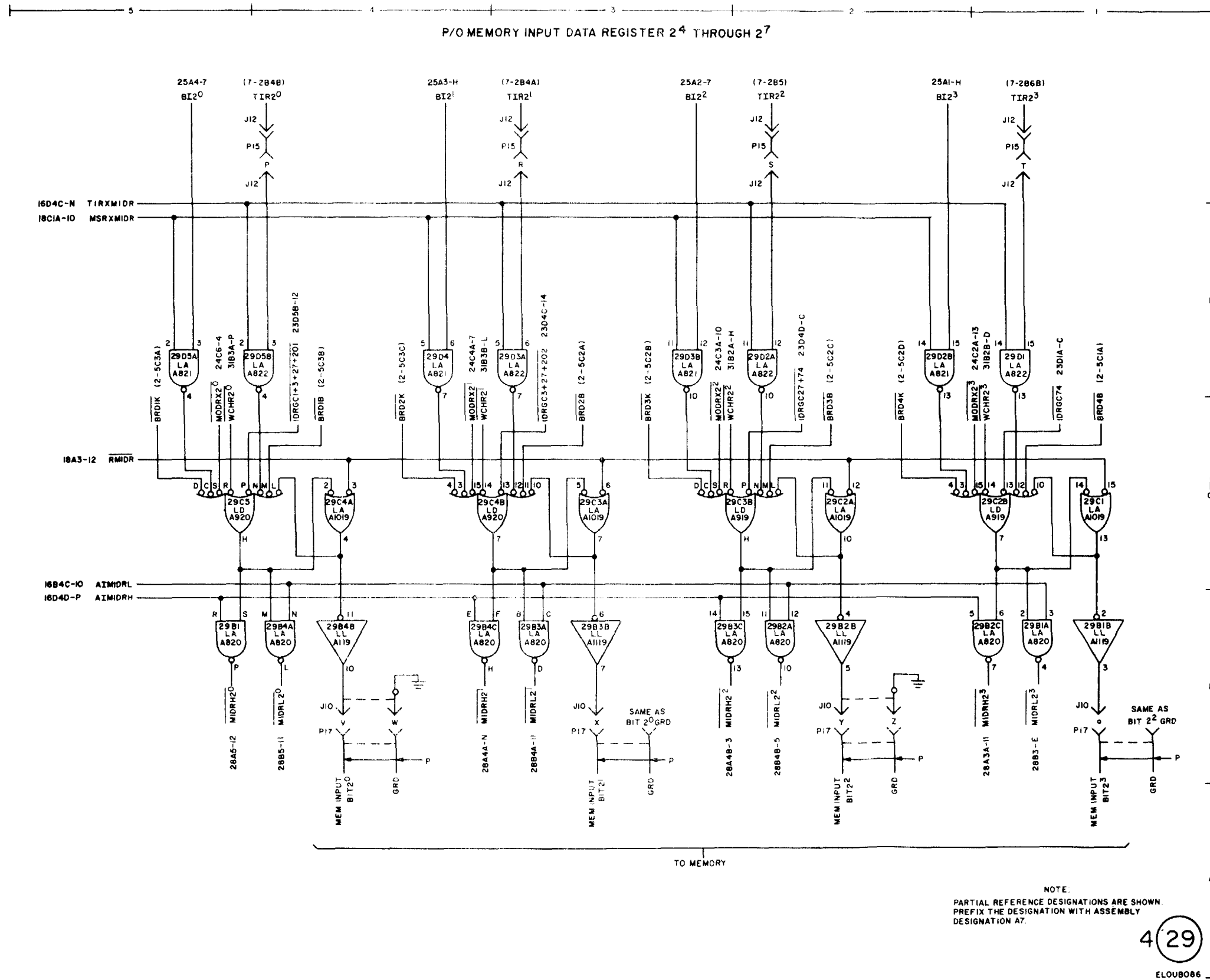
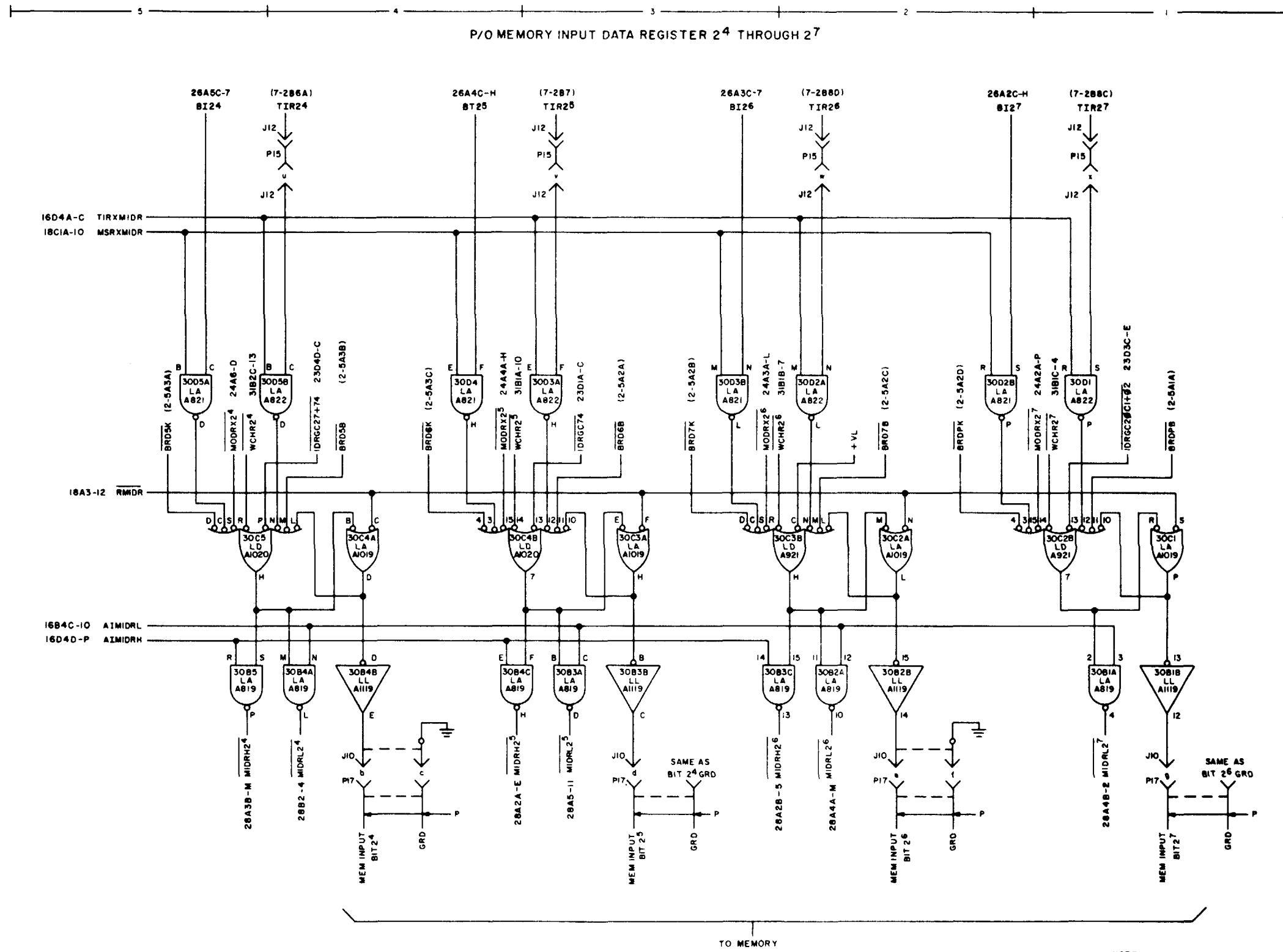


Figure 5-34(29). Memory control logic diagram.
(Sheet 29 of 39)



NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION A7.

Figure 5-34(30). Memory control logic diagram. (Sheet 30 of 39)

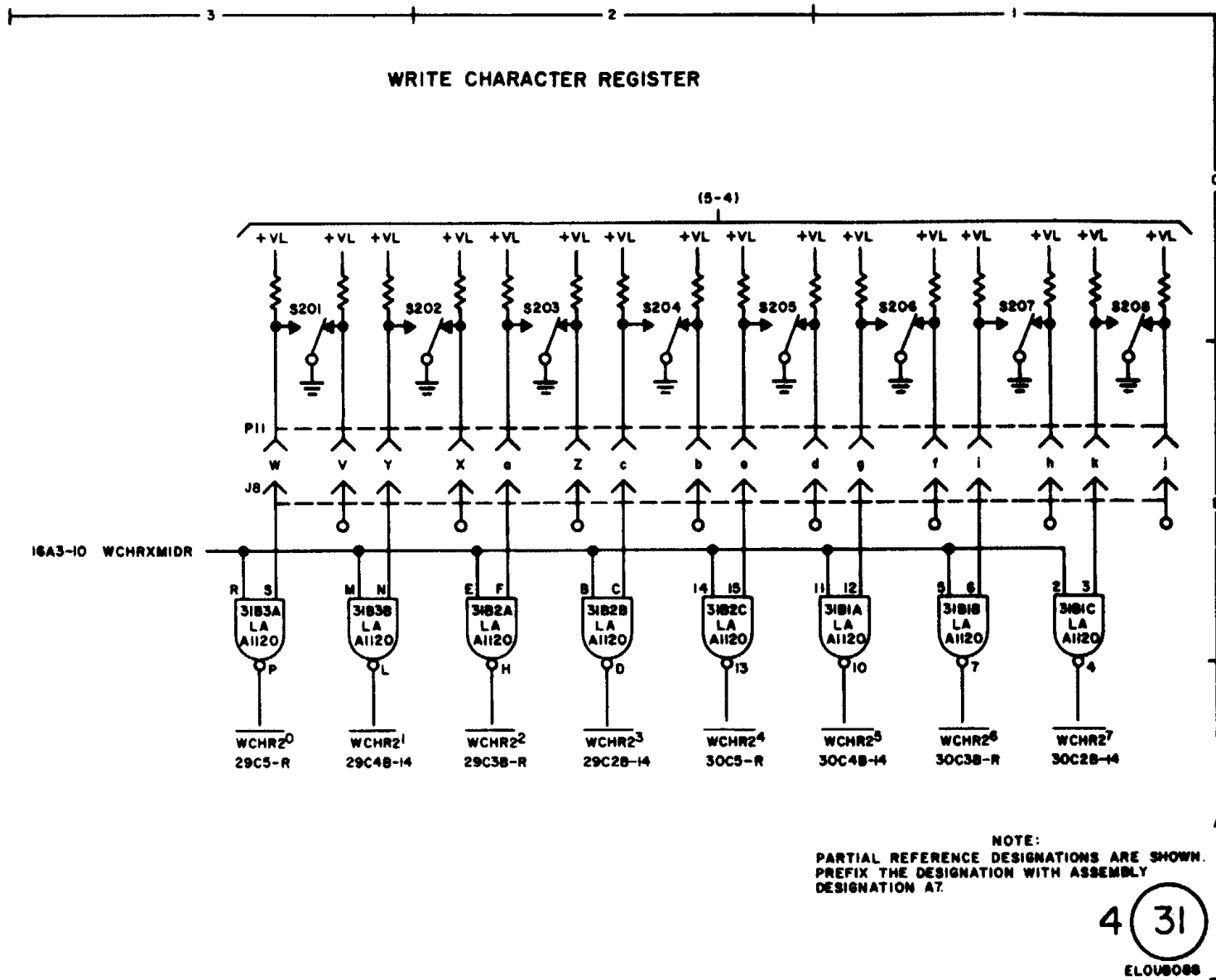


Figure 5-34(31). Memory control logic diagram. (Sheet 31 of 39)

Change 3 5-158

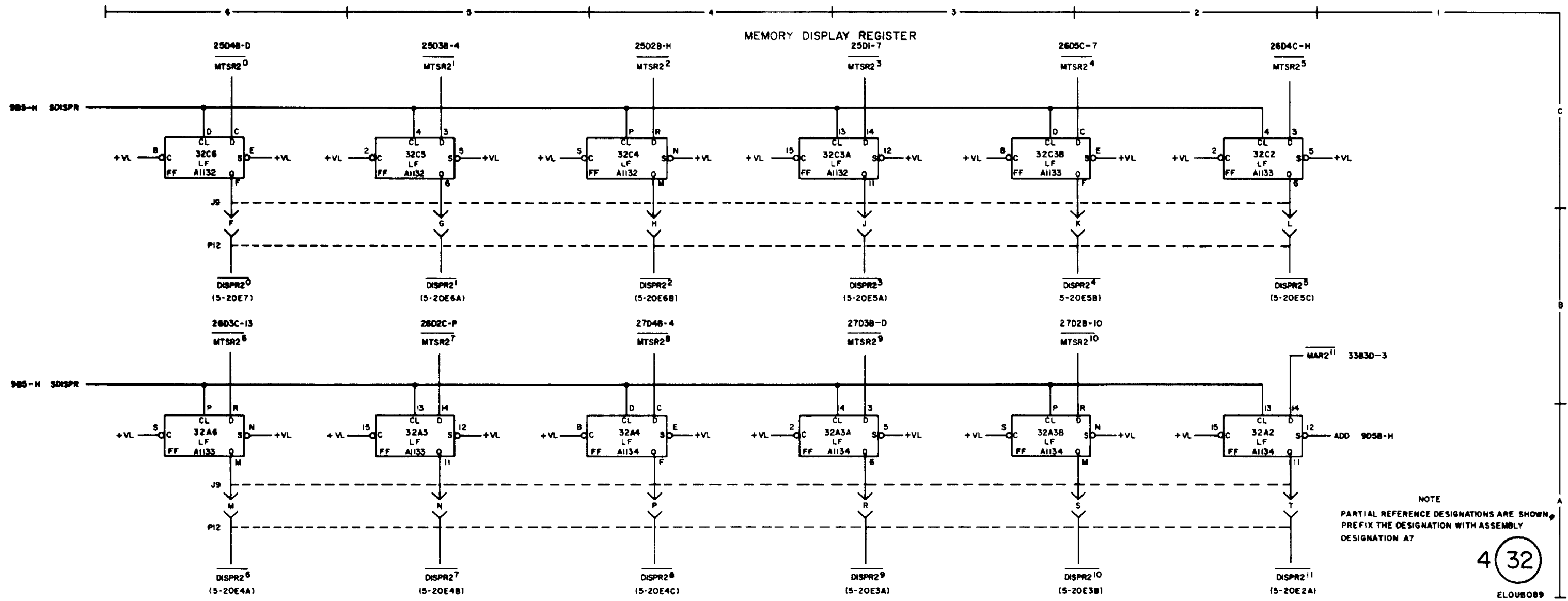


Figure 5-34(32). Memory control logic diagram. (Sheet 32 of 39)

Change 3 5-159

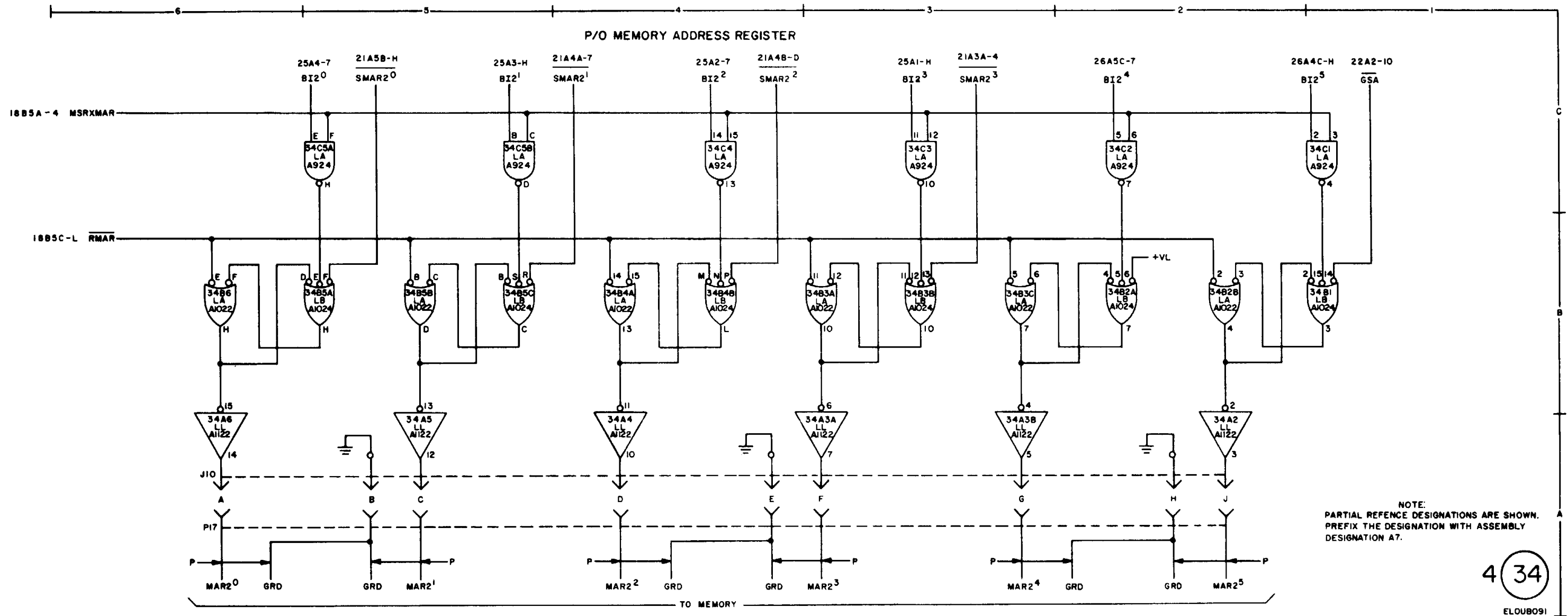


Figure 5-34(34). Memory control logic diagram. (Sheet 34 of 39)

Change 3 5-161

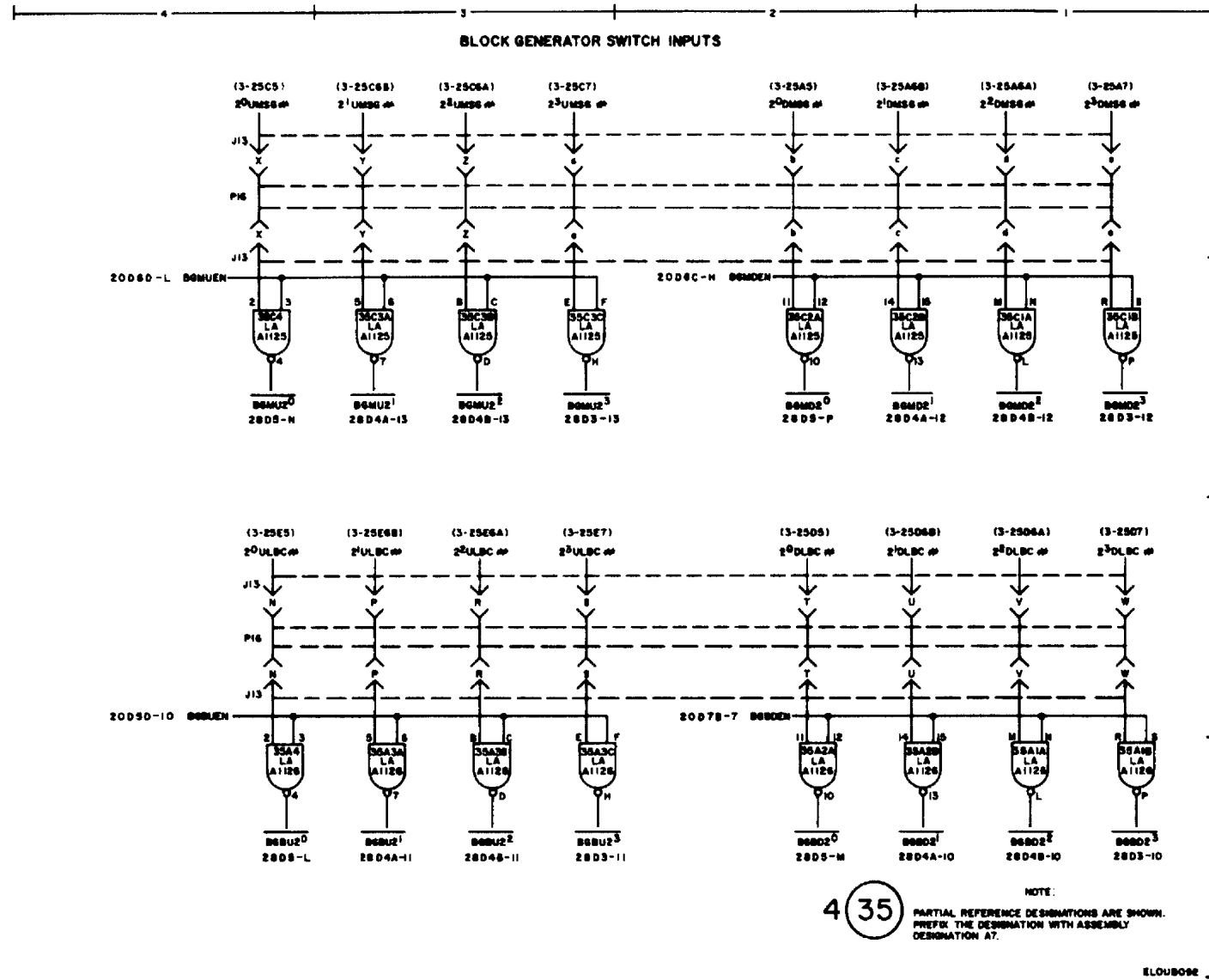


Figure 5-34(35). Memory control logic diagram. (Sheet 35 of 39)

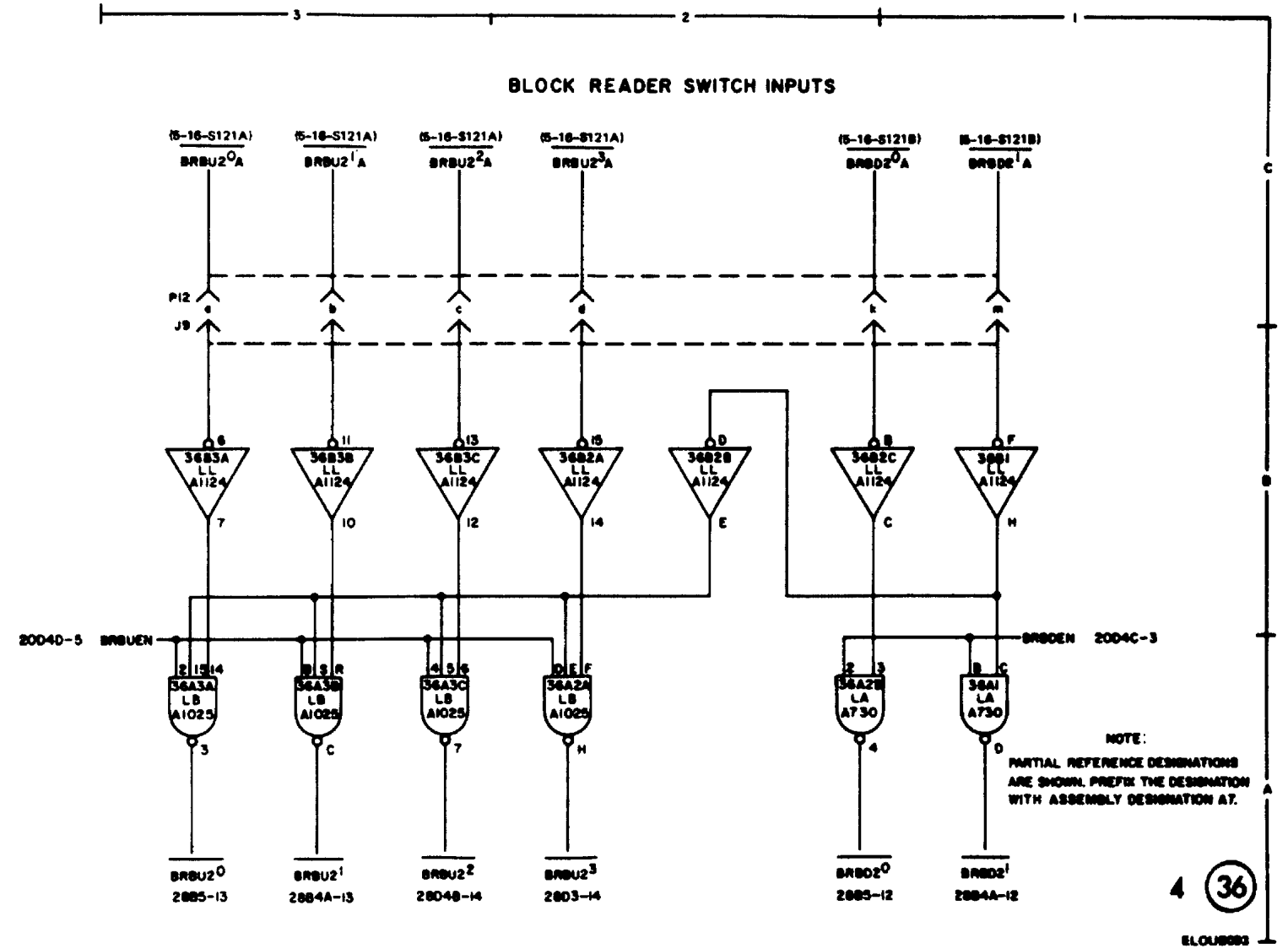


Figure 5-34(36). Memory control logic diagram. (Sheet 36 of 39)

Change 3 5-162

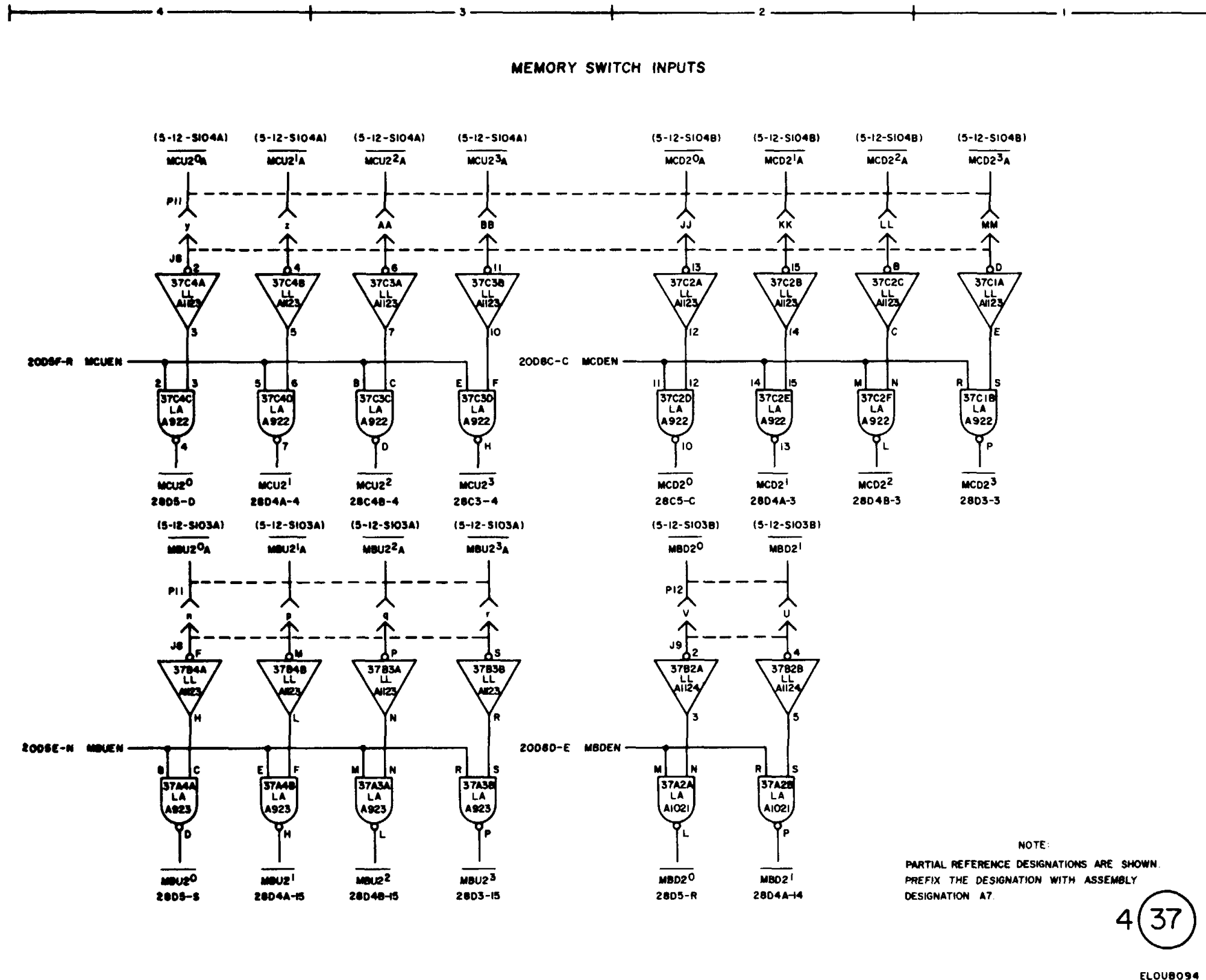


Figure 5-34(37). Memory control logic diagram. (Sheet 37 of 39)

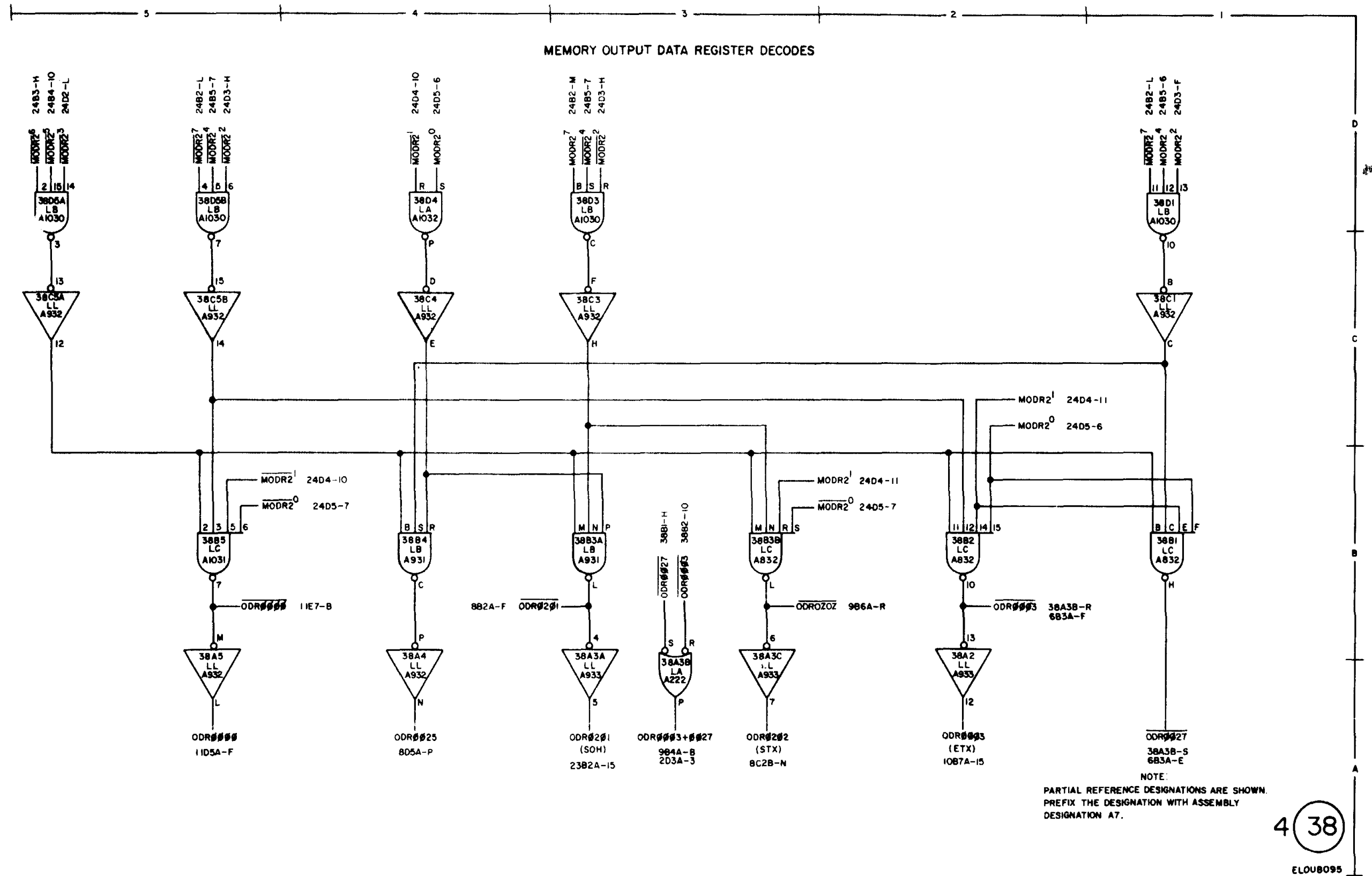


Figure 5-34(38). Memory control logic diagram. (Sheet 38 of 39)

5-31. Control Panel Schematic Diagram Description

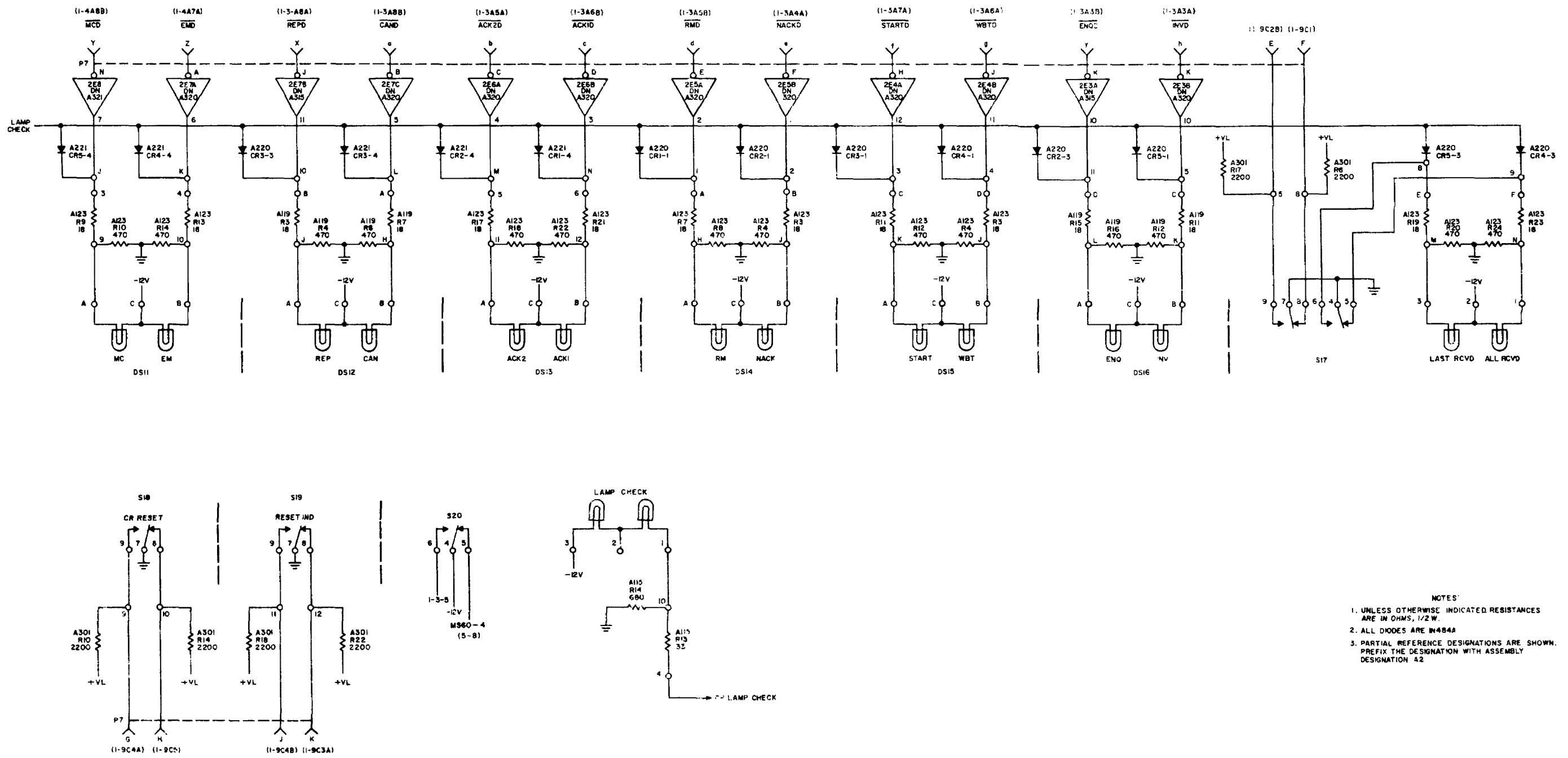
(fig. 5-35)

The control panel consists of a number of repetitive circuits of various categories. Paragraphs 5-31 through 5-37 describe typical circuits from each category, and list all circuits within each category.

5-32. Pushbuttons

a. Illuminated Pushbuttons. Illuminated pushbuttons provide a switch function either alternate action or

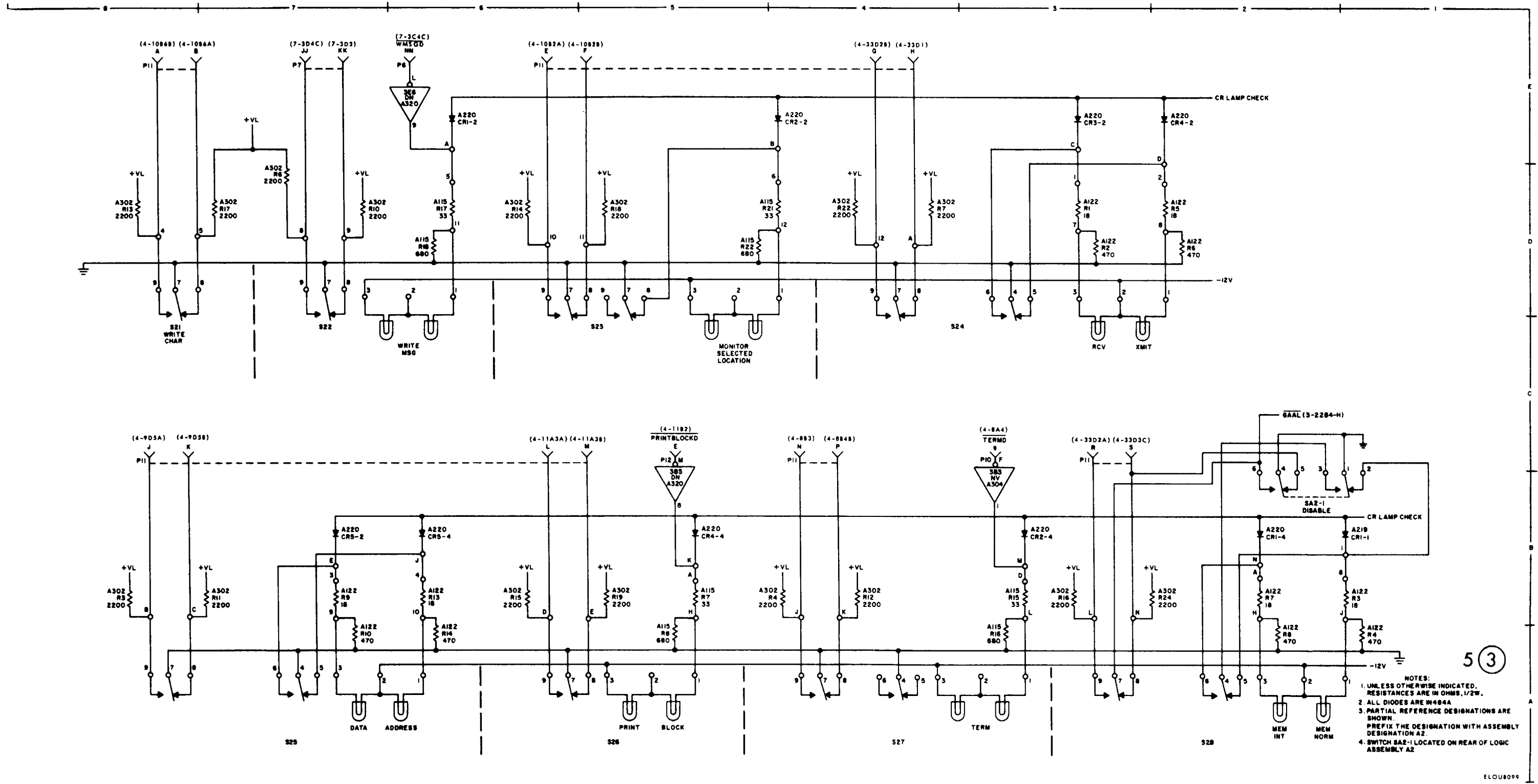
momentary, and two indicator lamps. In some cases the position of the switch is used directly to light one lamp or the other, while in some cases the lamps are lit by logic circuits controlled by the switch. The lamps of split-screen pushbuttons are lit on an individual basis, while the lamps of single-screen pushbuttons are connected in series and light as a single unit. A typical example of the illuminated pushbutton is described in subparagraph (1) below. All circuits in this category are listed in subparagraph (2).



- NOTES
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, 1/2 W.
 2. ALL DIODES ARE IN484A
 3. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION 42

Figure 5-35(2). Control panel schematic diagram. (Sheet 2 of 21)

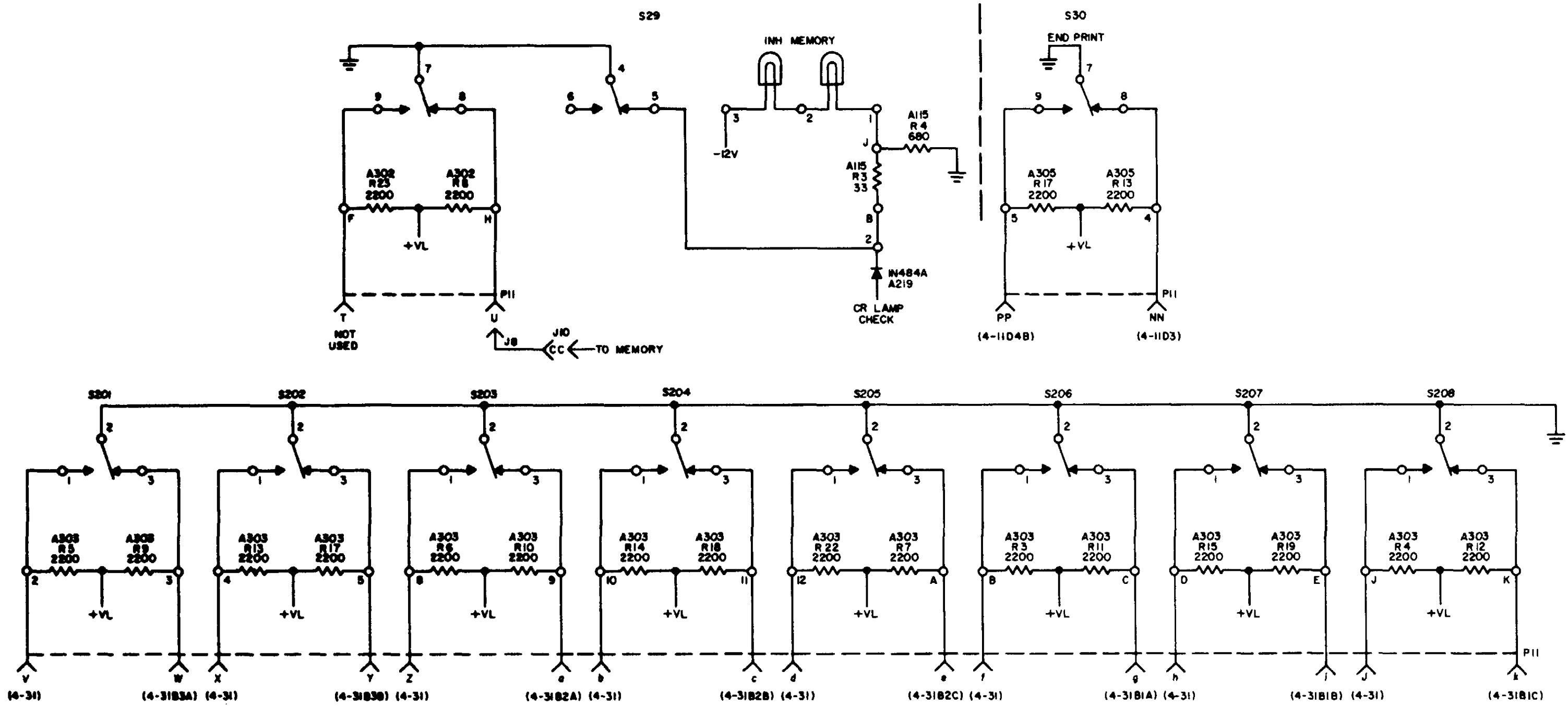
Change 3 5-169



- NOTES:
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, 1/2W.
 2. ALL DIODES ARE IN484A
 3. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A2.
 4. SWITCH SA2-1 LOCATED ON REAR OF LOGIC ASSEMBLY A2

Figure 5-35(3). Control panel schematic diagram. (Sheet 3 of 21)

Change 3 5-171



5 (4)

NOTES:
 1. UNLESS OTHERWISE INDICATED; RESISTANCES ARE IN OHMS, 1/2W.
 2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A2.

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Figure 5-35(4). Control panel schematic diagram. (Sheet 4 of 21)

Change 3 5-173

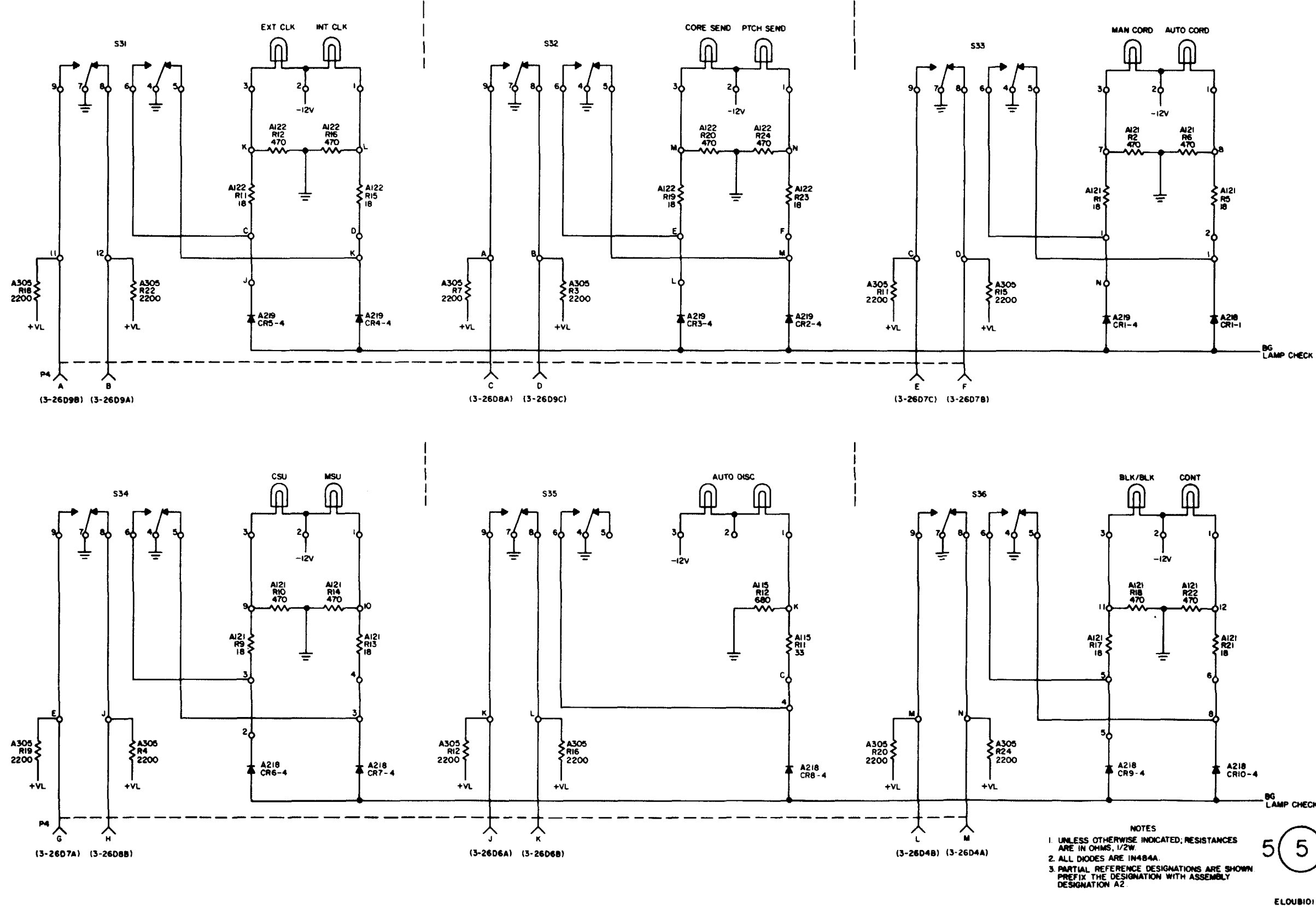
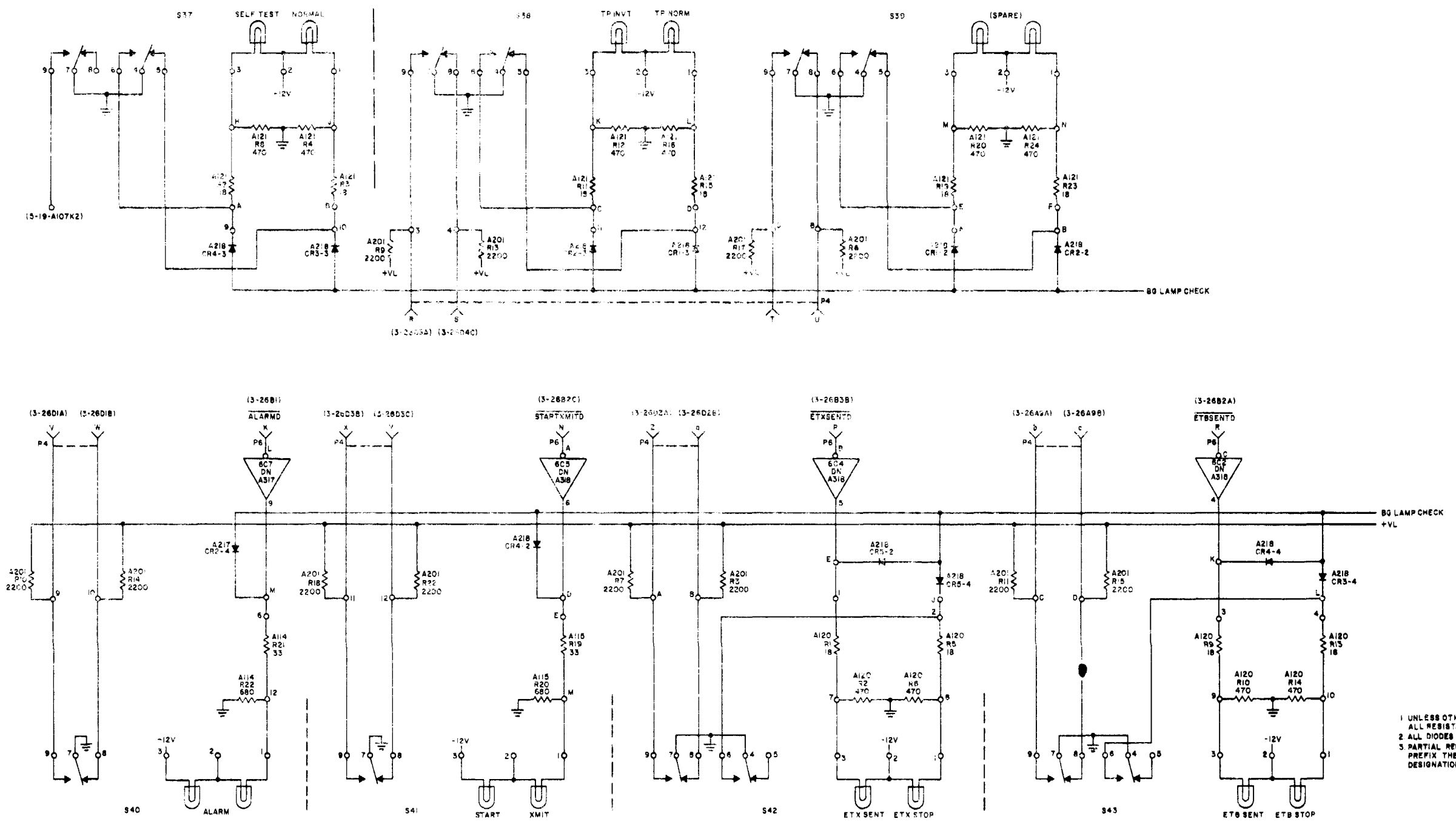


Figure 5-35(5). Control panel schematic diagram. (Sheet 5 of 21)



NOTES:
 1 UNLESS OTHERWISE INDICATED,
 ALL RESISTANCES ARE IN OHMS, 1/2 WATT.
 2 ALL DIODES ARE IN484.
 3 PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
 PREFIX THE DESIGNATION WITH ASSEMBLY
 DESIGNATION A2.

Figure 5-35(6). Control panel schematic diagram. (Sheet 6 of 21)

Change 3 5-175

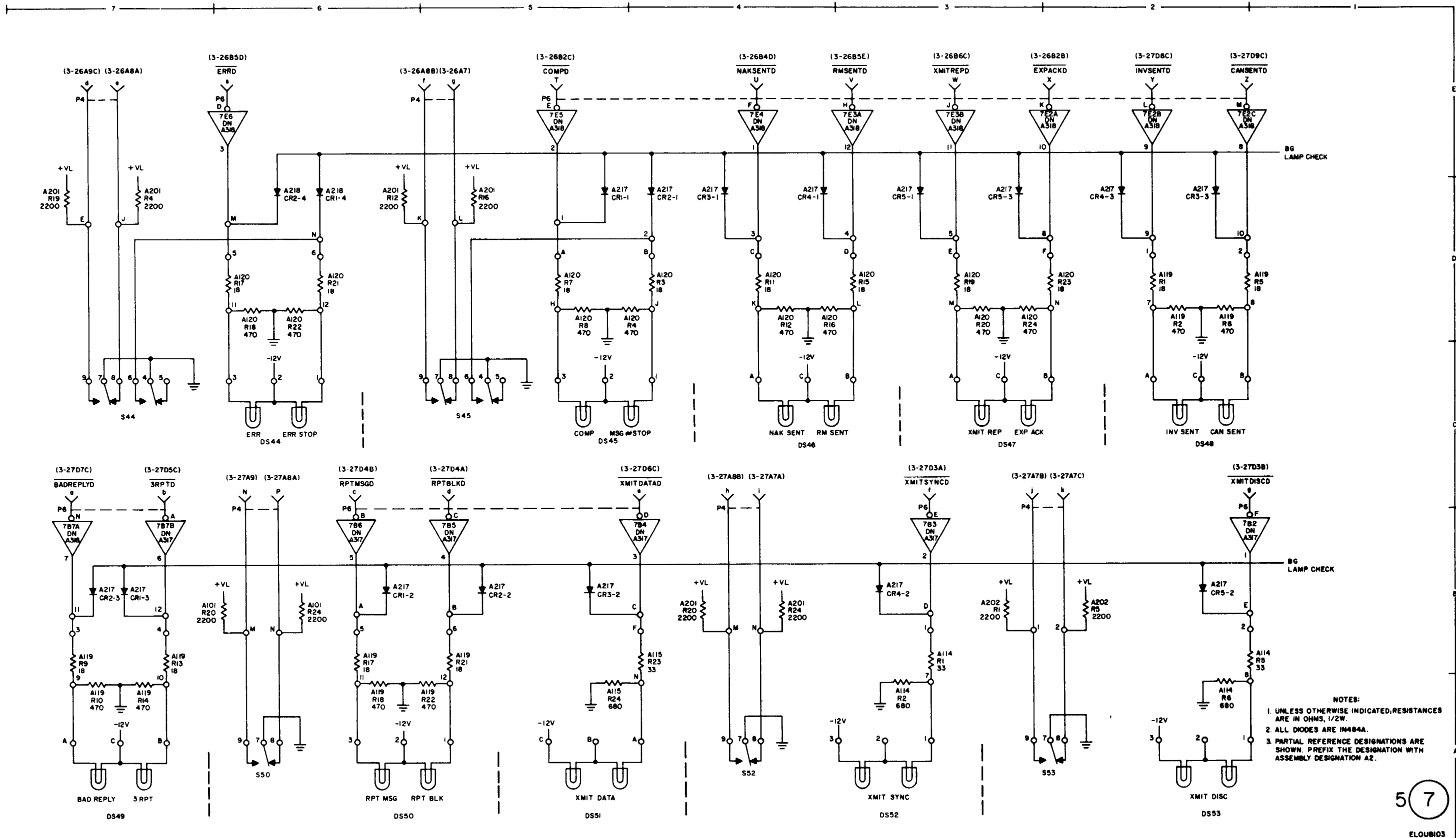
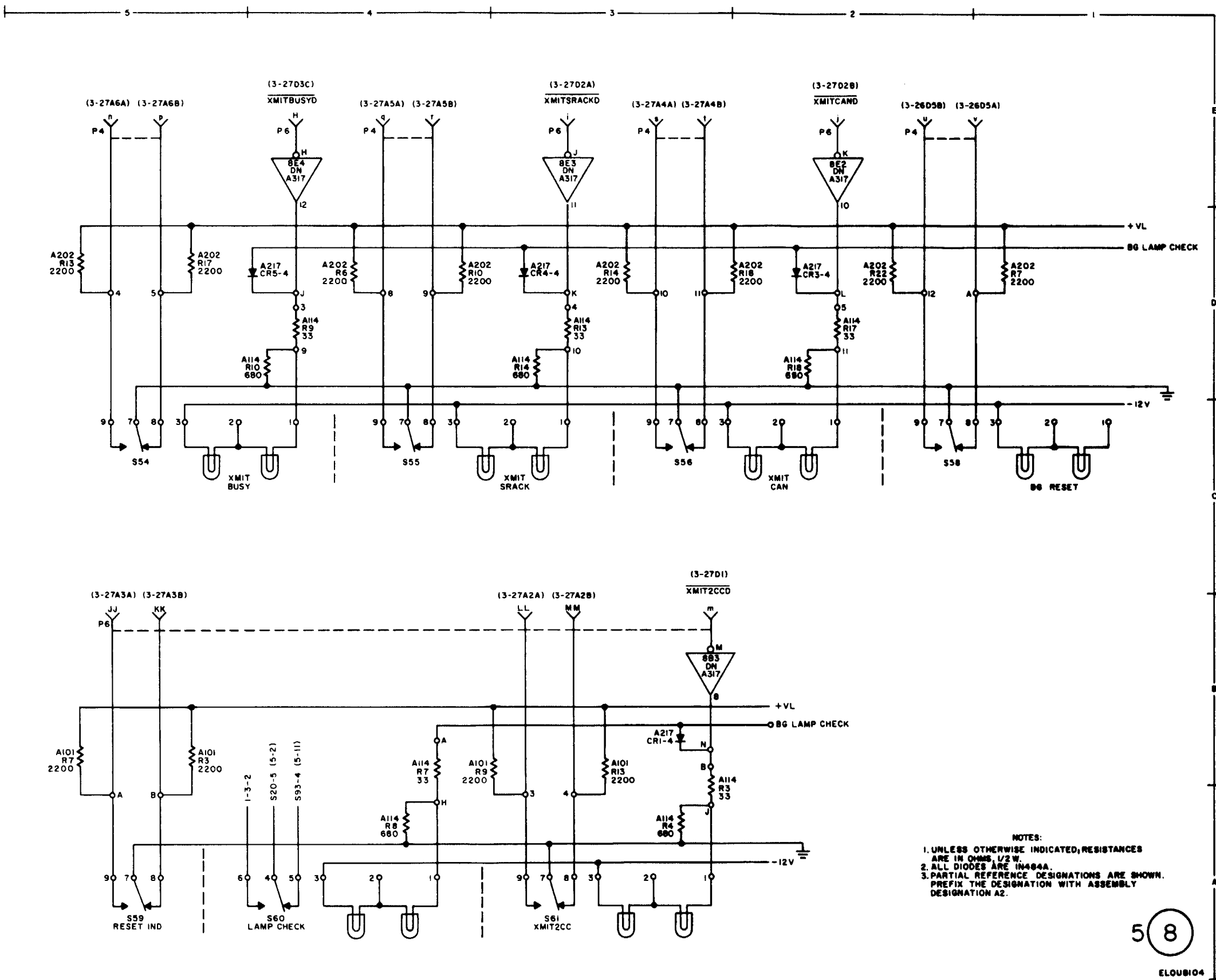


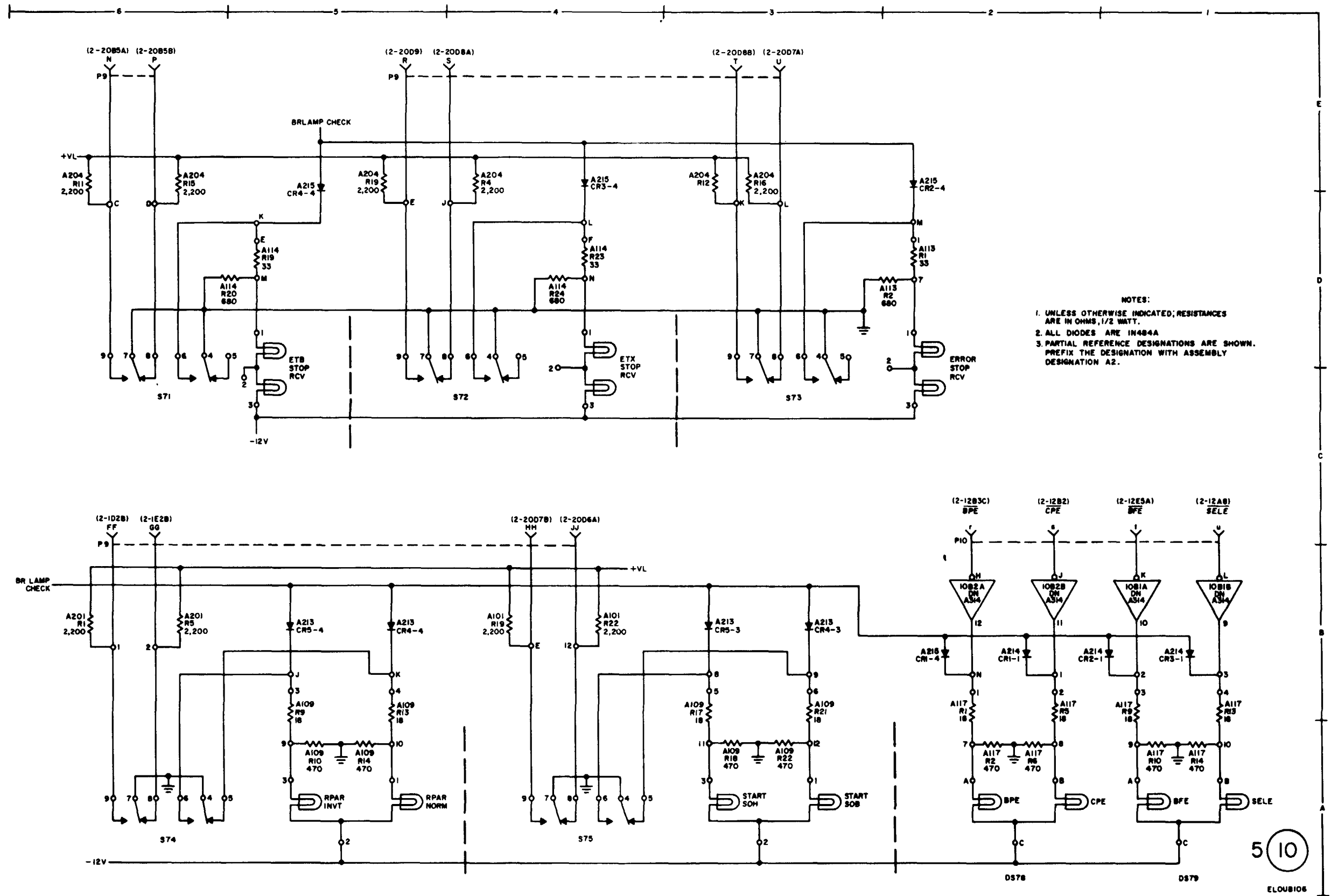
Figure 5-35(7). Control panel schematic diagram. (Sheet 7 of 21)

Change 3 5-177



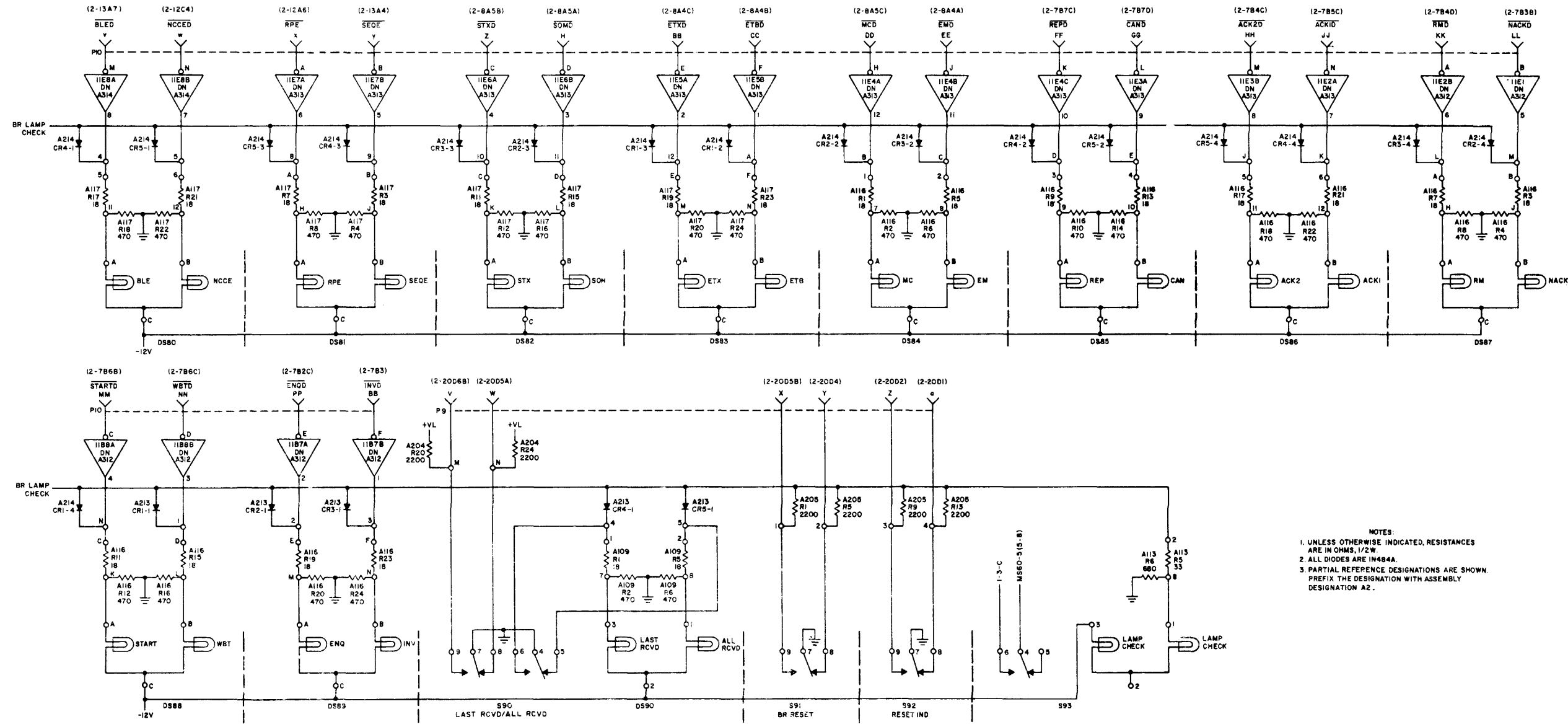
NOTES:
 1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, 1/2 W.
 2. ALL DIODES ARE IN404A.
 3. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A2.

Figure 5-35(8). Control panel schematic diagram. (Sheet 8 of 21)



NOTES:
 1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, 1/2 WATT.
 2. ALL DIODES ARE IN484A
 3. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A2.

Figure 5-35(10). Control panel schematic diagram. (Sheet 10 of 21)

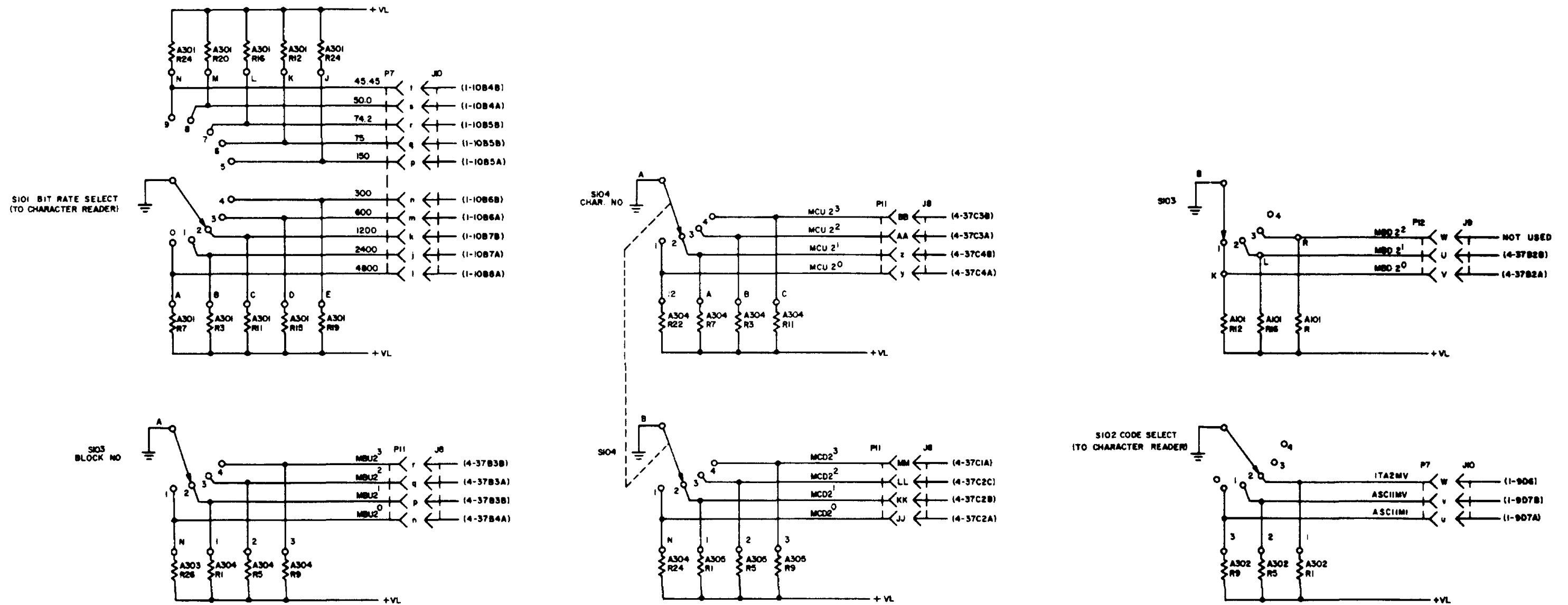


- NOTES:
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, 1/2 W.
 2. ALL DIODES ARE IN 484A.
 3. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A2.

Figure 5-35(11). Control panel schematic diagram. (Sheet 11 of 21)

Change 3 5-183

CONTROL PANEL



NOTES:
 1. UNLESS OTHERWISE INDICATED, ALL RESISTANCES ARE 2,200Ω, 1/2 W.
 2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A2.

Figure 5-35(12). Control panel schematic diagram. (Sheet 12 of 21)

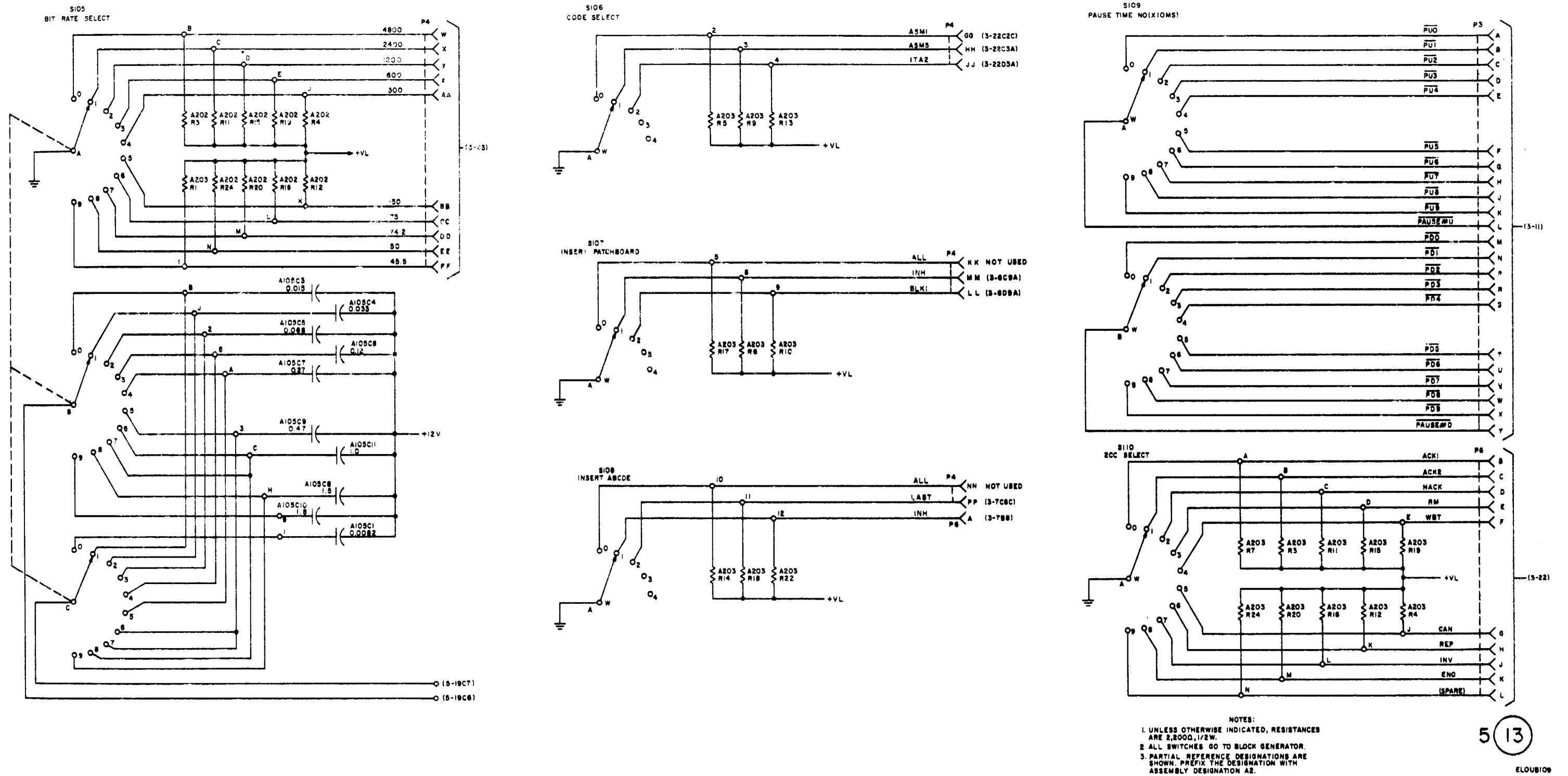
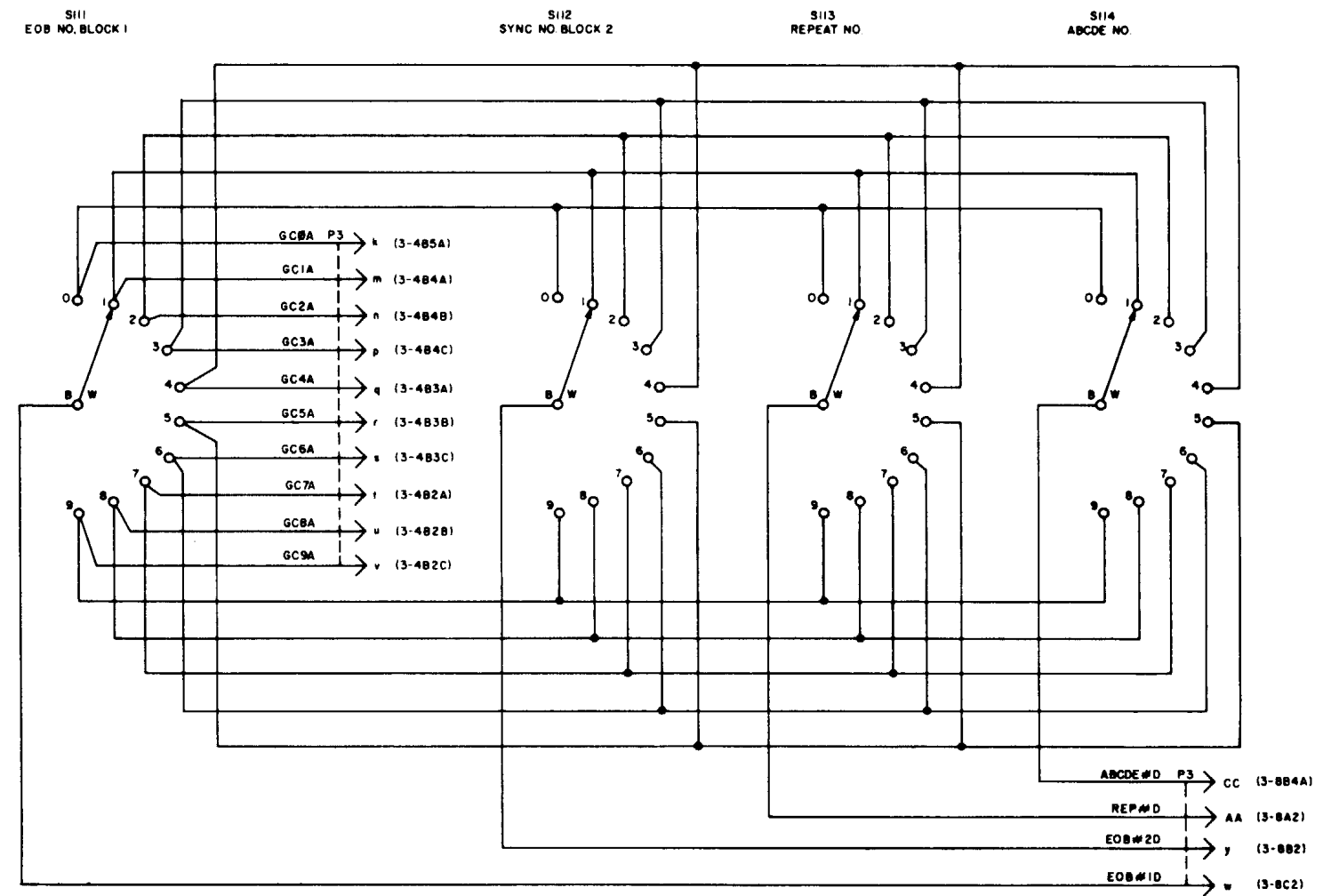
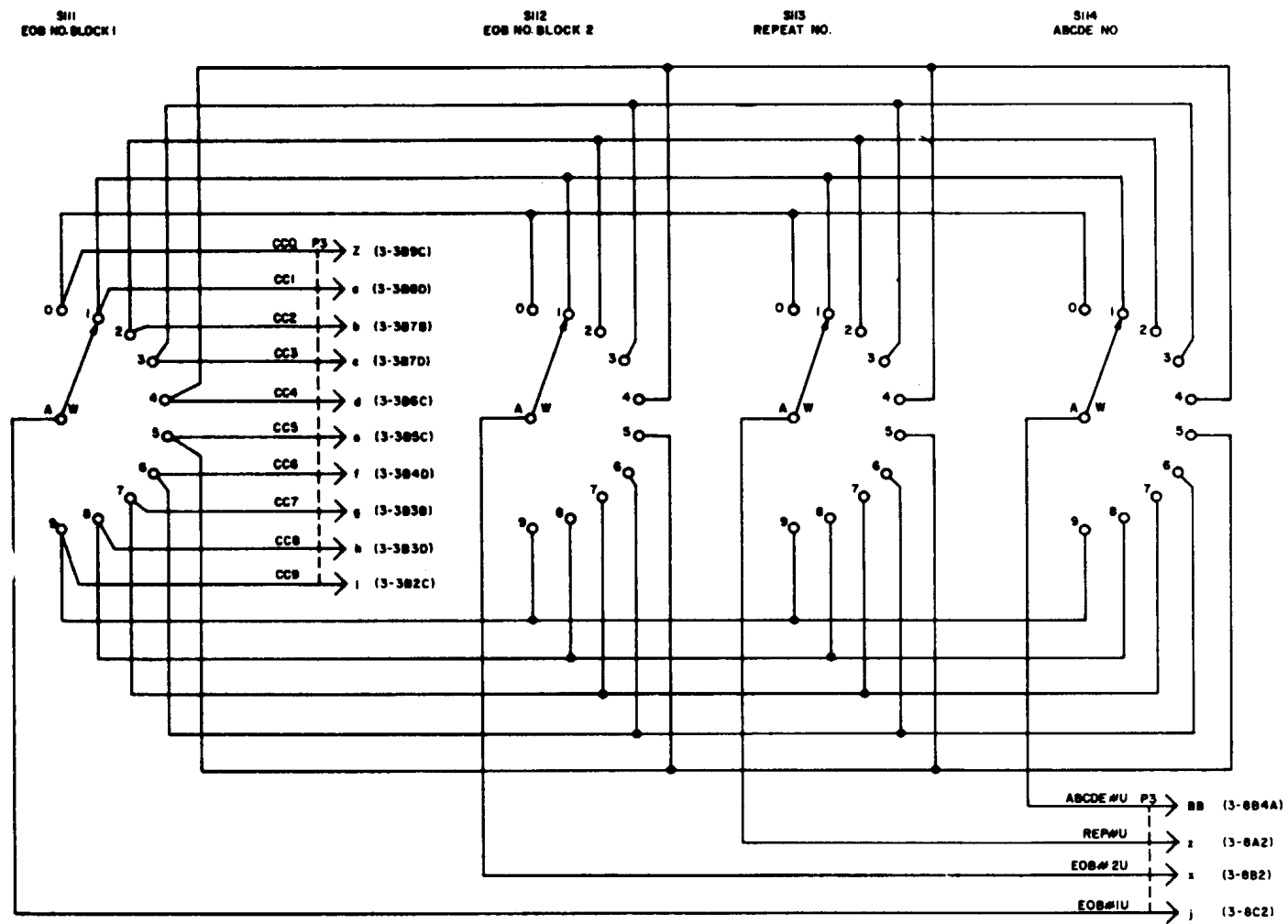


Figure 5-35(13). Control panel schematic diagram. (Sheet 13 of 21)

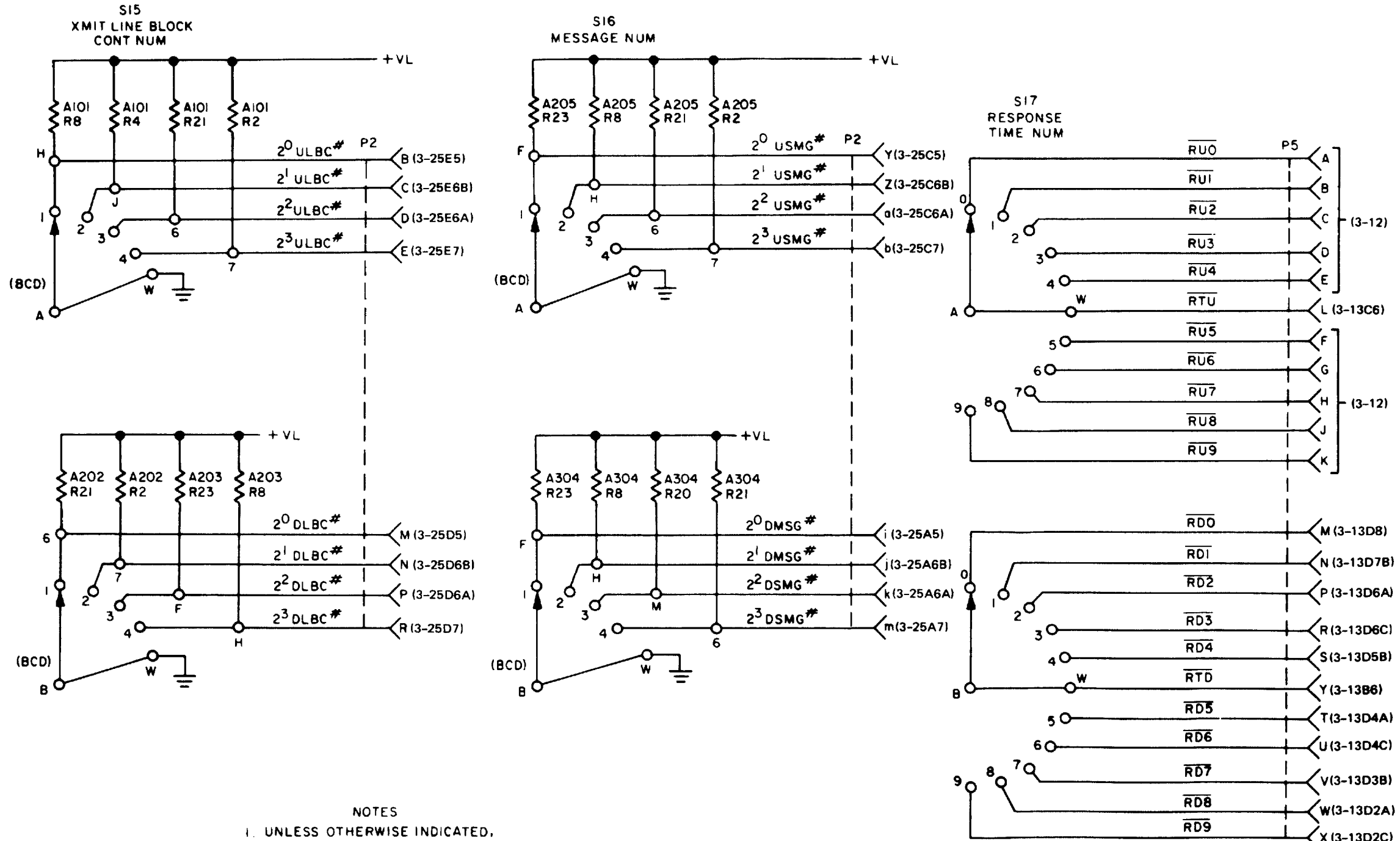
Change 3 5-187



NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN, PREFIX THE
DESIGNATION WITH ASSEMBLY DESIGNATION A2.

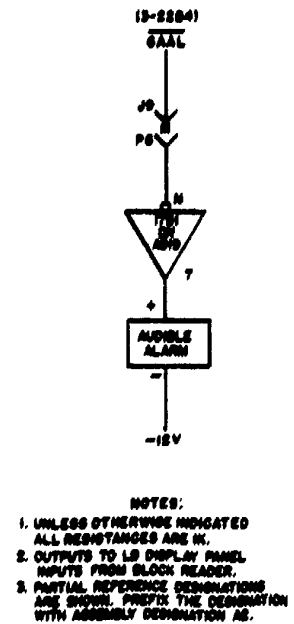
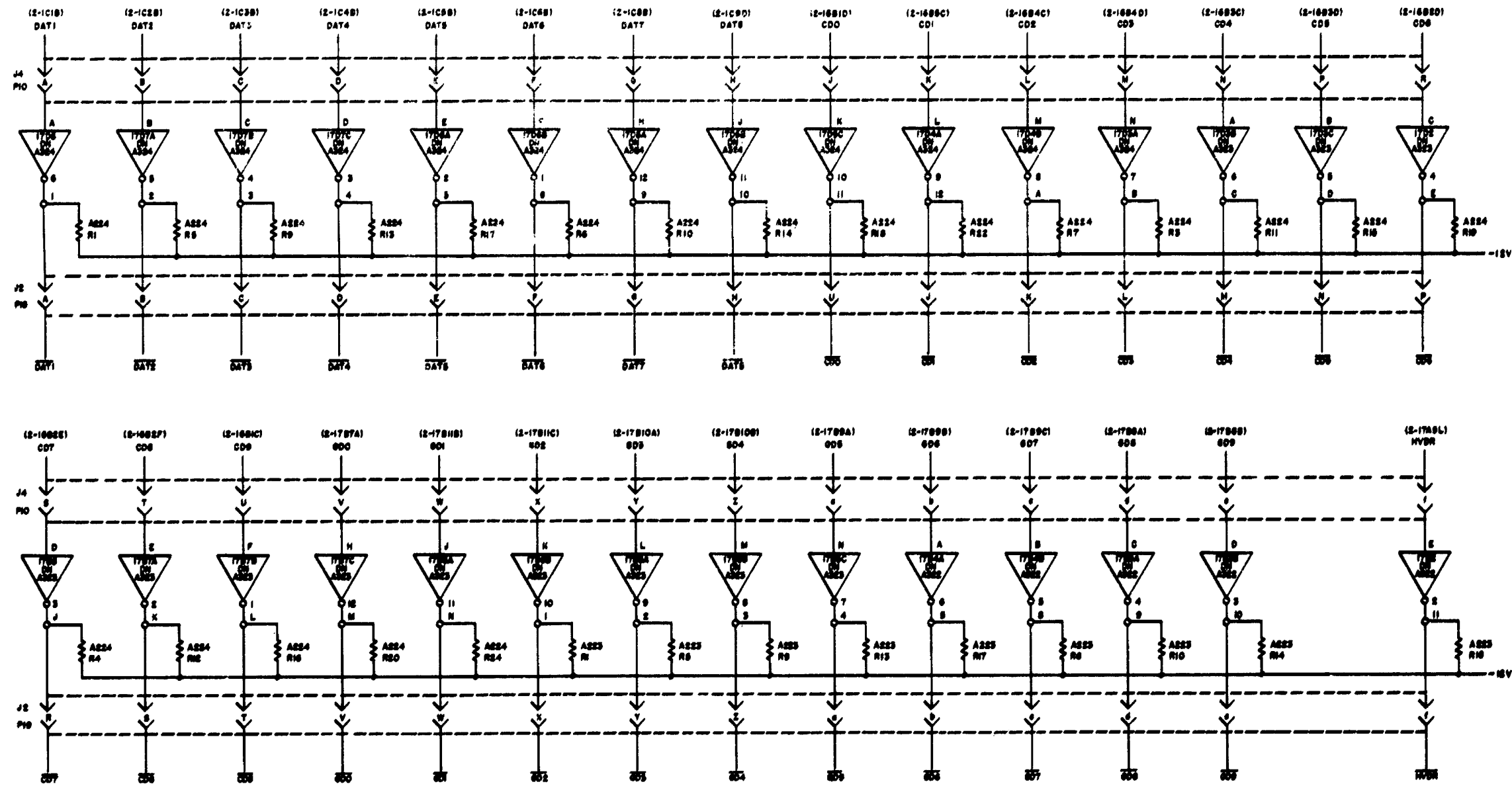
Figure 5-35(14). Control panel schematic diagram. (Sheet 14 of 21)

Change 3 5-189



- NOTES**
- UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS, 2,200Ω, 1/2 W.
 - ALL SWITCHES GO TO BLOCK GENERATOR.
 - PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A2.

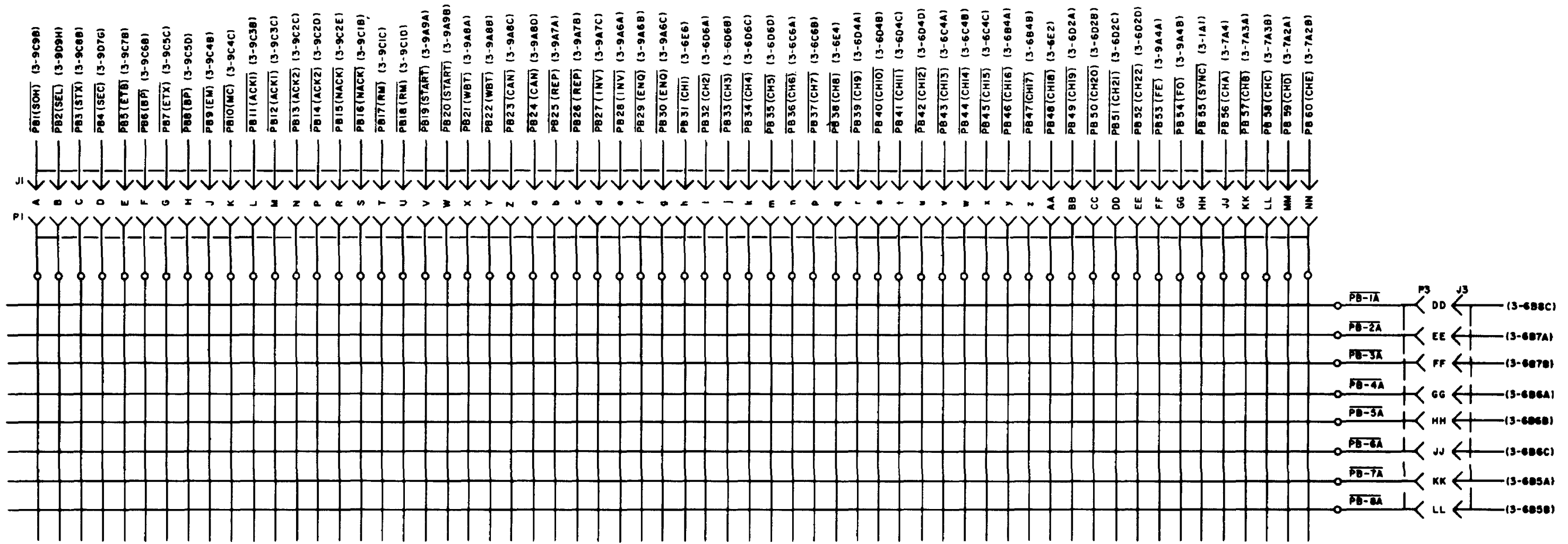
Figure 5-35(15). Control panel schematic diagram. (Sheet 15 of 21)



NOTES:
 1. UNLESS OTHERWISE INDICATED ALL RECTANGLES ARE IN.
 2. OUTPUTS TO LS DISPLAY PANEL INPUTS FROM BLOCK READER.
 3. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION AS.

Figure 5-35(17). Control panel schematic diagram. (Sheet 17 of 21)

Change 3 5-193



NOTES:
 1. OUTPUTS TO BLOCK GENERATOR.
 2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A2.

Figure 5-35(18). Control panel schematic diagram. (Sheet 18 of 21)

Change 3 5-195

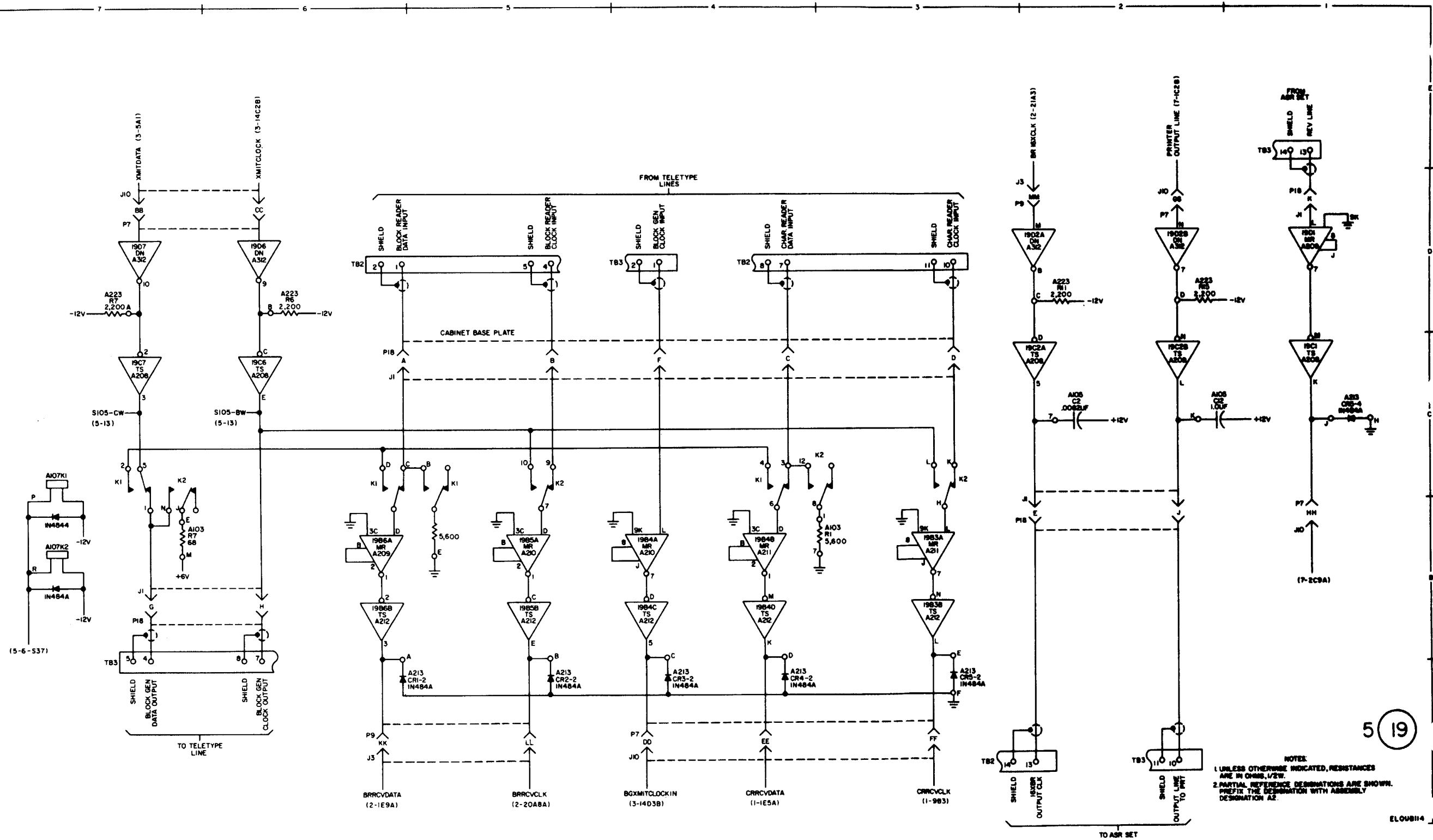


Figure 5-35(19). Control panel schematic diagram. (Sheet 19 of 21)

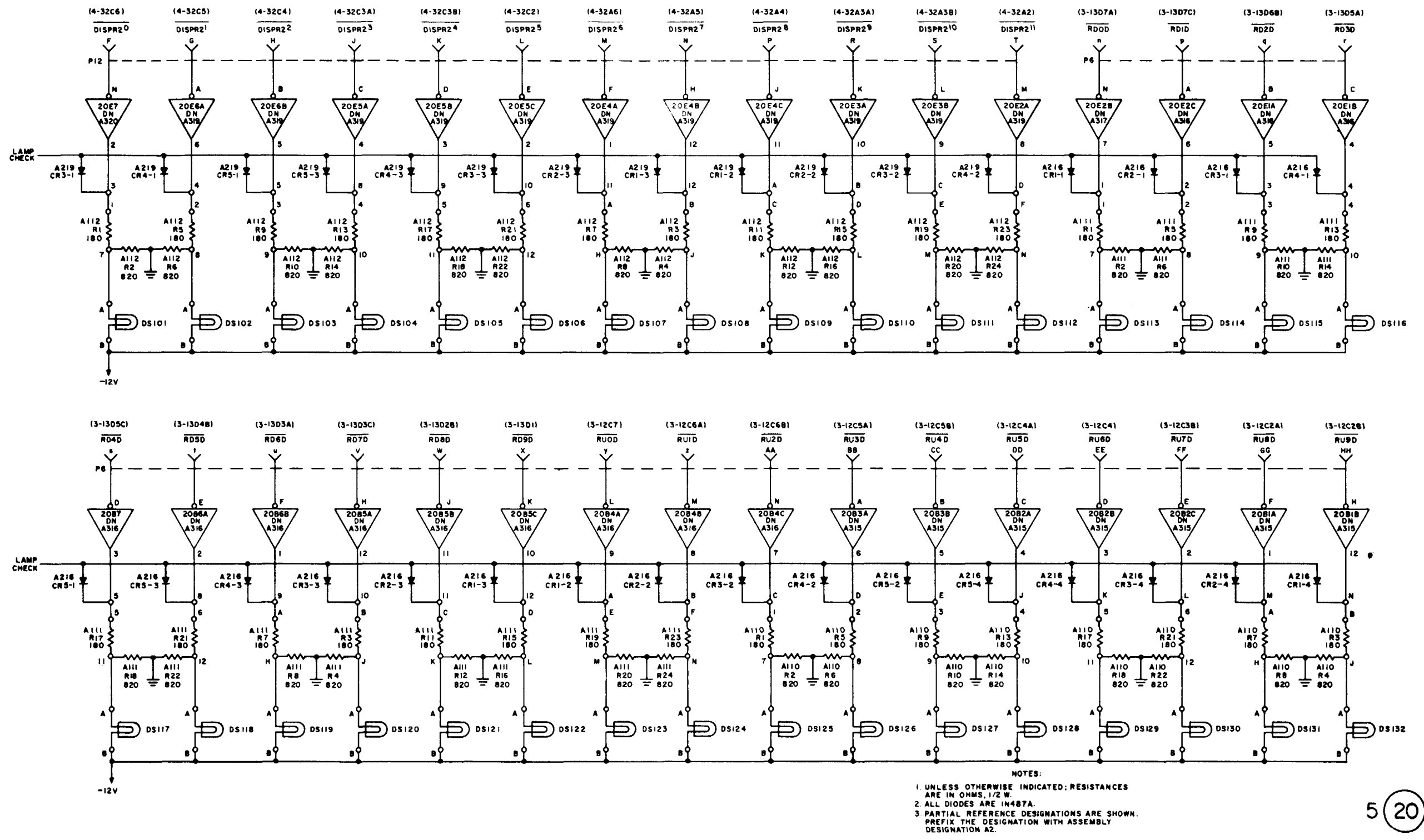


Figure 5-35(20). Control panel schematic diagram. (Sheet 20 of 21)

Change 3 5-197

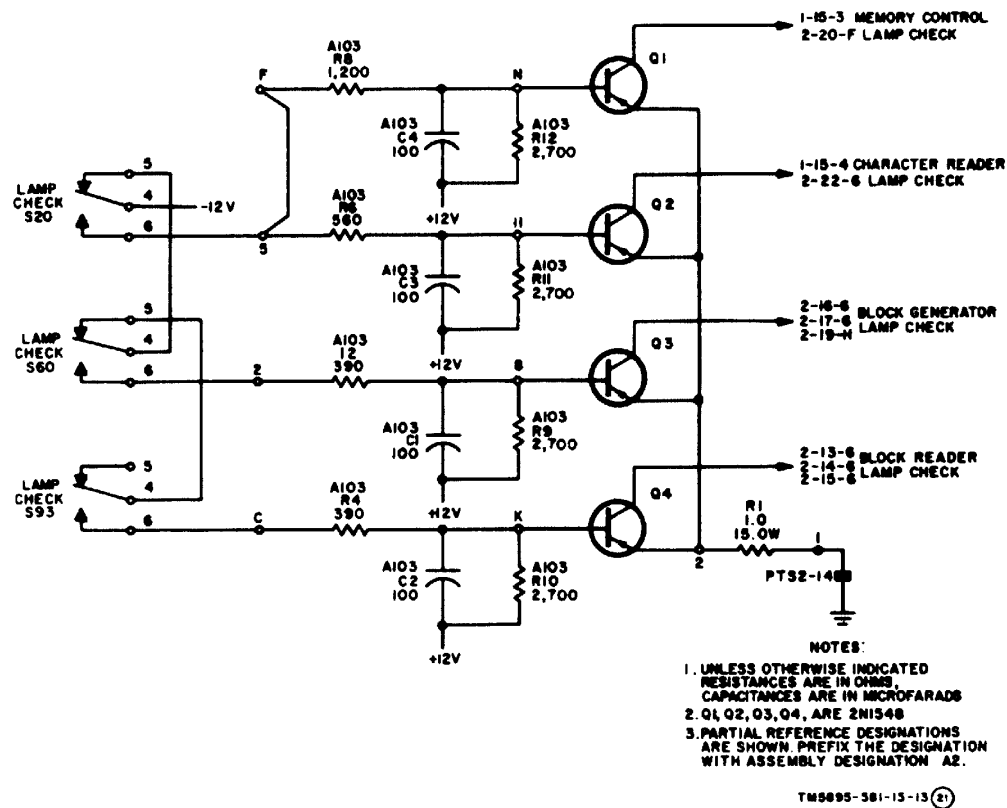


Figure 5-35(21). Control panel schematic diagram.

(1) *INT CLK/EXT CLK Illuminated Pushbutton.* The INT CLK/EXT CLK illuminated pushbutton (fig. 5-35(1)) is a double-pole, double-throw alternate-action pushbutton with two 12-volt indicator lamps. One pole of the switch is used to supply ground to one lamp or the other through associated resistor networks. The second pole is used to supply either ground or + VL to the character reader on two output leads. A diode is provided for each lamp, so that ground may also be supplied via the character reader lamp check line. In this way the lamp check function is capable of lighting both lamps, and at the same time maintains isolation between individual lamp circuits.

(2) *Illuminated Pushbuttons* (fig. 5-35).

Switch	Reference	Sheet No.
INT CLK/EXT CLK	S-1	1
PAR CONT/PAR DATA	S-5	1
RPAR NORM/RPAR INVT	S-7	1
ALL RCV/LAST RCVD	S-17	2
WRITE MSG	S-22	3
MONITOR SELECTED	S-23	3

LOCATION

Switch	Reference	Sheet No.
XMIT/RCV	S-24	3
ADDRESS/DATA	S-25	3
PRINT BLOCK	S-26	3
TERM	S-27	3
MEM NORM//MEM INVT	S-28	3
INH MEMORY	S-29	4
INT CLK/EXT CLK	S-31	5
PTCH SEND/CORE SEND	S-32	5
AUTO CORD/MAN CORD	S-33	5
MSU/CSU	S-34	5
AUTO DISC	S-35	5
CONT/BLK/BLK	S-36	5
NORMAL/SELF TEST	S-37	6
TPAR NORM/TPAR INVT	S-38	6
ALARM	S-58	6
START XMIT	S-41	6
ETX STOP/ETX SENT	S-42	6
ETB STOP/ETB SENT	S-43	6
ERR STOP/ERR	S-44	7
MSG #STOP/COMP	S-45	7
RPT BLK/RPT MSG	S-50	7
XMIT SYNC	S-52	7
XMIT DISC	S-53	7
XMIT BUSY	S-54	8
XMIT SRACK	S-55	8
XMIT CAN	S-56	8
XMIT 2CC	S-61	8
MSU/CSU	S-62	9
INT CLK/EXT CLK	S-63	9
NORM PRINT/SEL PRINT	S-64	9
CONT/BLK/BLK	S-65	9
CHAR FRAME	S-68	9
START RCV	S-70	9

ETB STOP RCV	S-71	10
ETX STOP RCV	S-72	10
ERROR STOP RCV	S-73	10
RPAR NORM/RPAR INVT	S-74	10
START SOB/START SOH	S-75	10
ALL RCVD/LAST RCVD	S-90	11

b. *Indicators.* Two categories of indicators are provided on the control panel, function indicators (rectangular indicators resembling the pushbuttons and housing two indicator lamps) and bit indicators (block generator REPLY TIME and core memory ADDRESS OR DATA indicators). Subparagraphs (1) and (2) describe a typical function indicator and list all circuits in this category. Subparagraph (3) describes the bit indicators.

(1) *SYNC/FRAME Indicator.* The SYNC/FRAME indicator (fig. 5-35(1)) is a split-screen indicator with two 12-volt lamps. The lamps are individually controlled by the character reader logic circuits via two inverter circuits, which convert the logic levels to ground and -12 volts. A diode is provided for each lamp, so that ground may also be supplied via the character reader lamp check line. In this way the lamp check function is capable of lighting both lamps, and at the same time maintains isolation between the individual lamp circuits.

(2) *Indicators* (fig. 5-35).

Switch	Reference	Sheet No.
SYNC/FRAME	DS-2	1
DATA/CONTROL	DS-3	1
DISC	DS-4	1
ERROR 1/ERROR 2	DS-6	1
SOH/STX	DS-9	1
ETB/ETX	DS-10	1
EM/MC	DS-11	2
CAN/REP	DS-12	2
ACK-1/ACK-2	DS-13	2
NACK/RM	DS-14	2
WBT/START	DS-15	2
INV/ENQ	DS-16	2
RM SENT/NACK SENT	DS-46	7
EXP ACK/XMIT REP	DS-47	7
CAN SENT/INV SENT	DS-48	7
3RPT/BAD REPLY	DS-49	7

Switch	Reference	Sheet No.
XMIT DATA	DS-51	7
SR ACK/BUSY	DS-66	9
SYNC/DISC	DS-67	9
DATA/CONTROL	DS-69	9
CPE/BPE	DS-78	10
SELE/BFE	DS-79	10
NCCE/BLE	DS-80	11
SEQE/RPE	DS-81	11
SOH/STX	DS-82	11
ETB/ETX	DS-83	11
EM/MC	DS-84	11
CAN/REP	DS-85	11
ACK-1/ACK-2	DS-86	11
NACK/RM	DS-87	11
WBT/START	DS-88	11
INV/ENQ	DS-89	11

(3) Bit indicators. The bit indicators (fig. 5-35 (20)) comprise a series of 32 single indicators, each driven by logic circuits via an inverter. Conversion from logic levels to ground and -12 volts is performed by the inverters. A diode is provided for each lamp so that ground may also be supplied via the lamp check line. In this way the lamps check function is capable of lighting each lamp, and at the same time maintains isolation between the individual lamp circuits.

5-33. Thumbwheel Switches

Subparagraph a describes a typical thumbwheel switch and its function. Subparagraph b lists all the thumbwheel switches provided at the control panel.

a. *CHAR NO Thumbwheel Switch.* The CHAR NO is a double-deck rotary thumbwheel switch used to provide ground and +VL to memory control circuits.

b. *Thumbwheel Switch List* (fig. 5-35).

Switch	Reference	Sheet No.
BIT RATE SELECT	S-101	12
CHAR NO	S-104	12
BLOCK NO	S-103	12
CODE SELECT	S-102	12
BIT RATE SELECT	S-105	13
(CODE SELECT	S-106	13
PAUSE TIME NO (X10MS)	S-109	13
INSERT PATCHBOARD	S-107	13
INSERT ABCDE	S-108	13
2CC SELECT	S-110	13
EOB NO BLOCK 1	S-111	14
EOB NO BLOCK 2	S-112	14
REPEAT NO	S-113	14
ABCDE NO	S-114	14
XMIT LINES BLOCK COUNT NO	S-115	15
MESSAGE NO	S-116	15
RESPONSE TIME NO	S-117	15
BIT RATE SELECT	S-118	16
RCV/PRINT LINE BLOCK COUNT NO	S-121	16
RCV PAUSE	S-123	16
CODE SELECT	S-119	16
DISPLAY LOCKUP	S-120	16
AI-TO PRINT CONTROL	S-122	16

5-34. Level Shifters

The level shifters shown in figure 5-35(17) are used to provide the line block display with outputs received from input registers and position counters.

5-35. Patch Panel

The patch panel shown in figure 5-35 (18) consists of vertical lines (voltage) and horizontal lines. Each corresponding vertical and horizontal line represent a bit of a particular character. When a character (framing character, receive control character, or transmit control character) is requested by the block generator, diode pins are inserted to connect the applicable vertical and horizontal lines to form the character requested as an output to the block generator.

5-36. Input/Output Circuits

a. The input/output circuits (fig. 5-35(19)) are used to convert polar line input signals received from teletype lines to logic level signals used within the simulator, and likewise to convert logic level signals from the simulator circuits to polar line signals used on the teletype lines. Polar line signals are converted to logic level signals by MR low-level differential amplifiers, TS polar line drivers, and diodes A213CR1 through A213CR5; logic level signals are converted to polar line signals by ON level shifters and TS polar line drivers.

b. When in the self test mode (relays K1 and K2 are energized) inputs received from the block generator (Xmit data and Xmit clock) are now fed to the block reader and character reader. The block generator data output is now represented by a mark, whereas the block generator clock output remains the same.

5-37. Lamp Check Switches
(fig. 5-35 (21)).

a. The lamp check switches S20, S93, and S60 when activated provide -12 volts to turn on transistors Q1, Q2, Q3, and Q4. The outputs of the transistors are used to light all lamps in the character reader, memory control, block reader, and block generator. Each lamp check switch is provided with a indicator lamp (b below) which lights to indicate that the switch is functioning properly.

b. *Lamp Check Indicator* (fig. 5-35).

Indicator	Reference	Sheet No.
LAMP CHECK (character reader and memory control)	S20	2
LAMP CHECK (block reader)	S93	11
LAMP CHECK (block generator)	S60	8

5-38. Master Timing Generator Block Diagram Description

(fig. 5-36 and fig. 5-37 (1), (2), (3))

The master timing generator provides a number of clock signals, at different frequencies, to the block generator, character reader, and block reader. A special 110-baud clock is provided for the use of the ASR interface. Basic timing is generated from a 1.2288 MHz oscillator, and then counted down by a series of binary counters used for frequency division. The outputs resulting from the frequency division form a binary series of frequencies, each of which is 128 times one of the operating baud rates of the simulator. The 4.8 kHz output is also used by the 110 baud clock to generate a timing signal for transferring data between the simulator and the ASR set. The conversion from 4.8 kHz is made by a gated binary frequency division that results in 6 output pulses for every 15 input pulses, producing a clock train at 16 times the 110 baud rate.

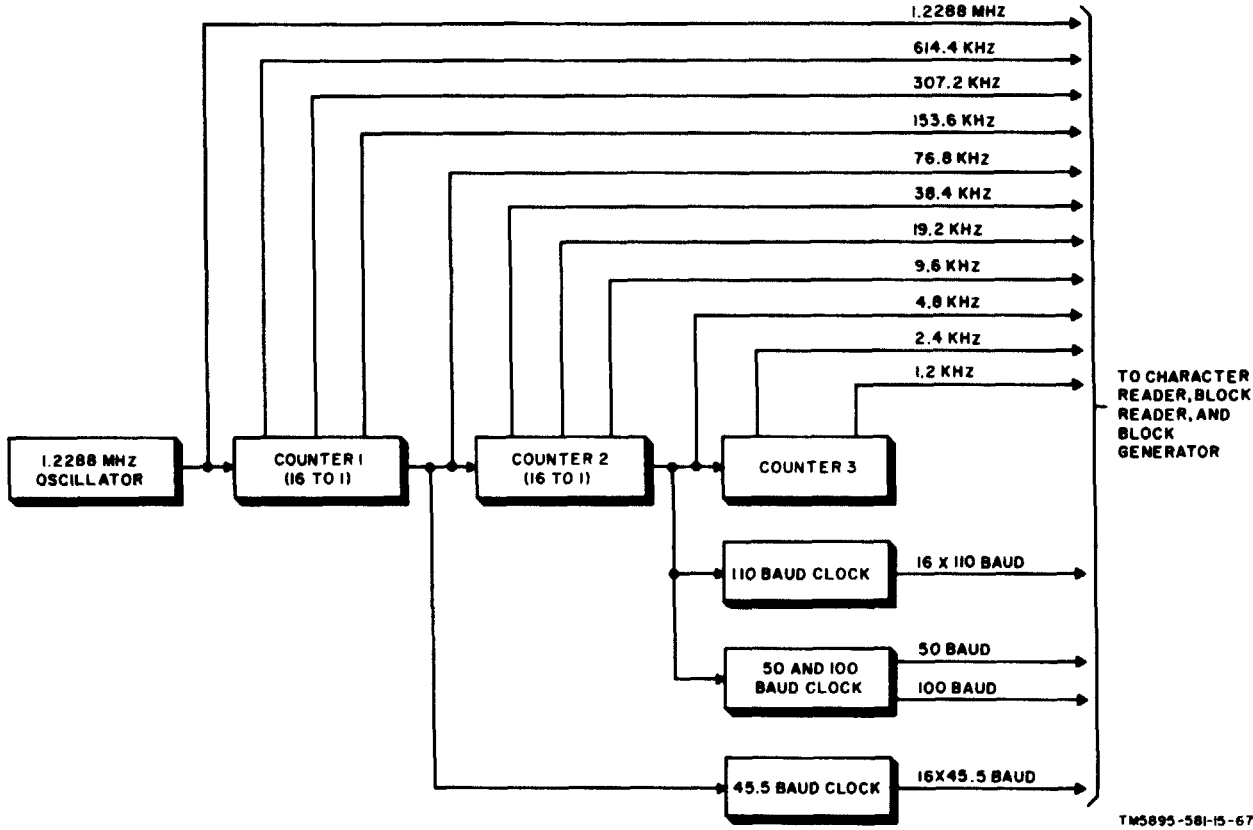


Figure 5-36. Mater timing generator block diagram.

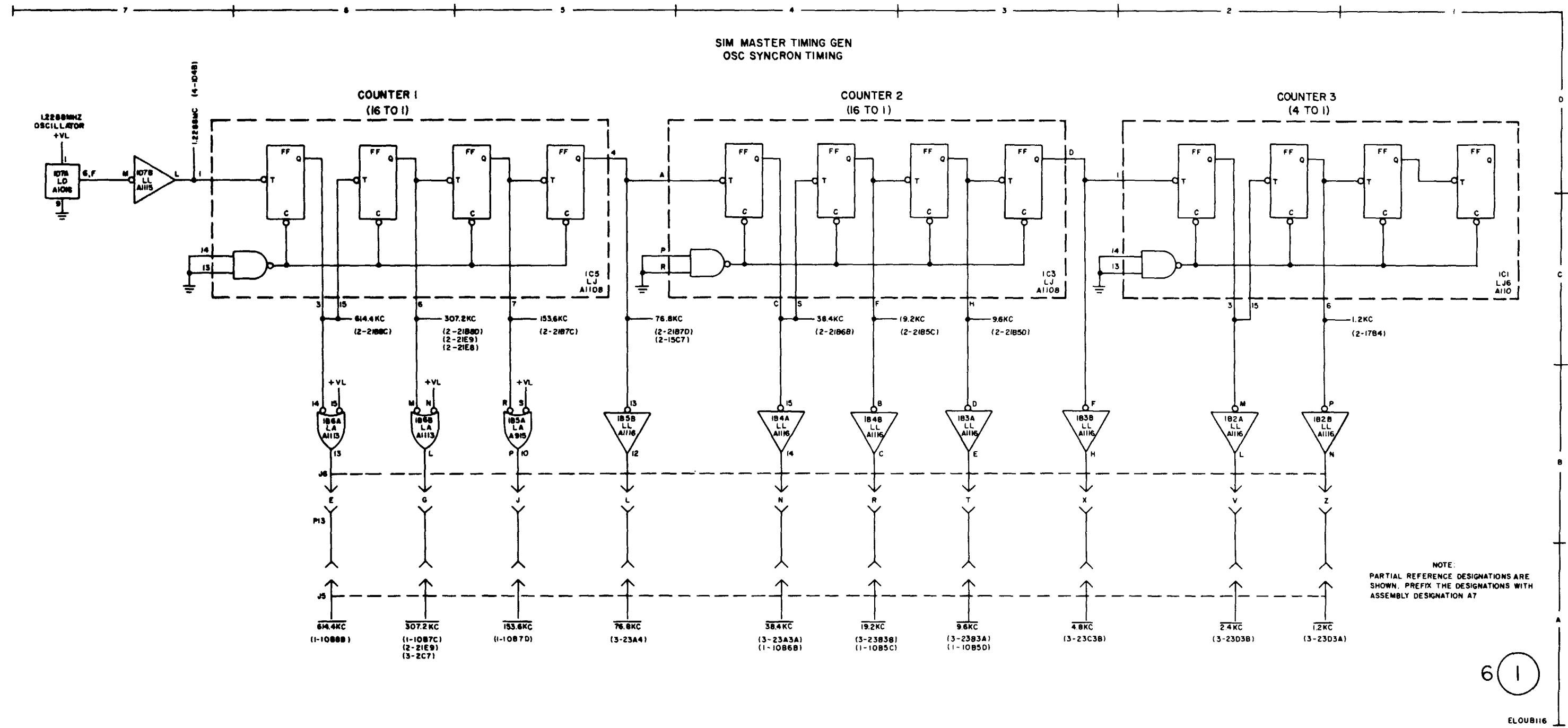


Figure 5-37(1). Master timing generator logic diagram.
(Sheet 1 of 3)

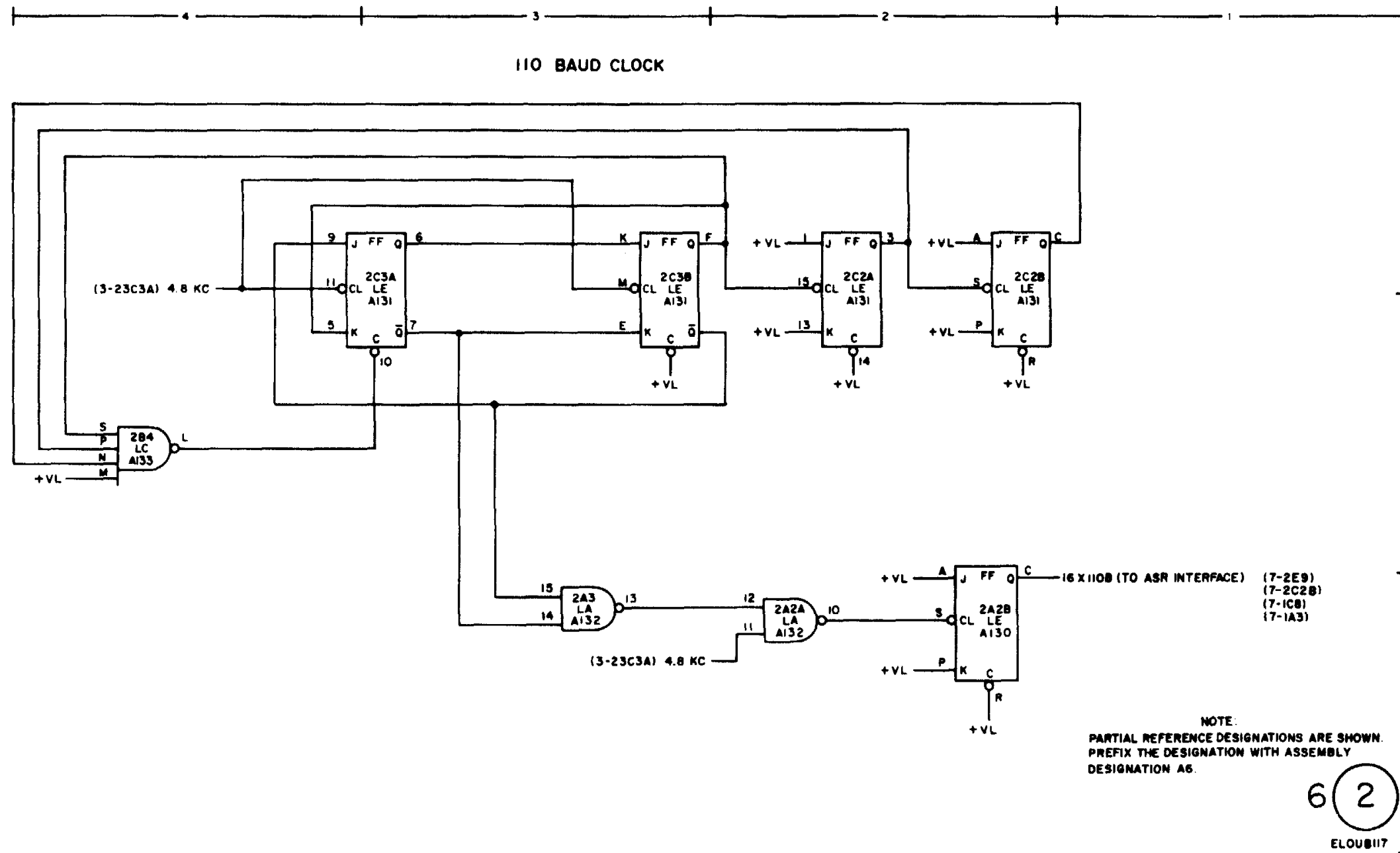


Figure 5-37(2). Master timing generator logic diagram.
(Sheet 2 of 3)

Change 3 5-202

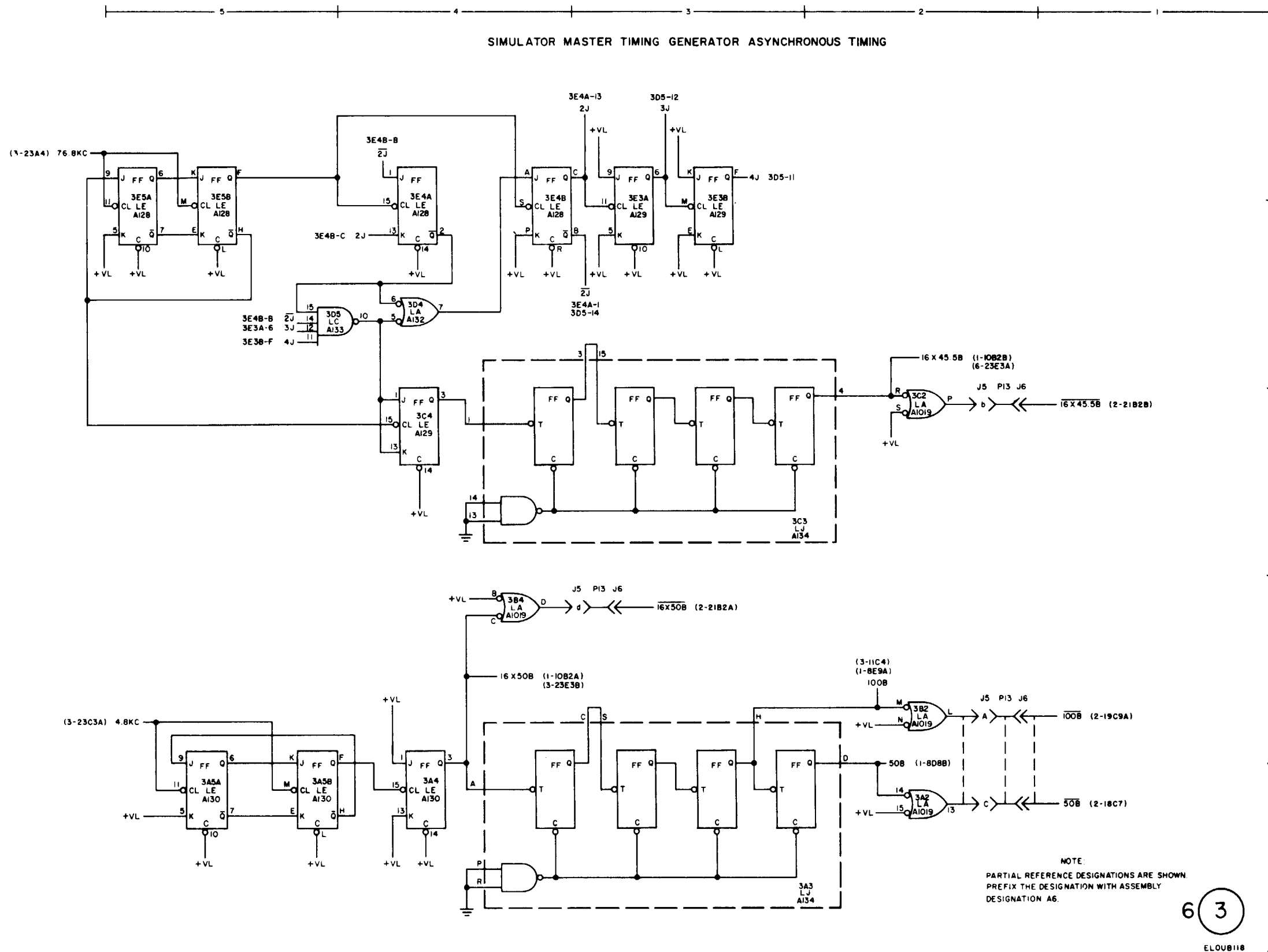


Figure 5-37(3). Master timing generator logic diagram.
(Sheet 3 of 3)

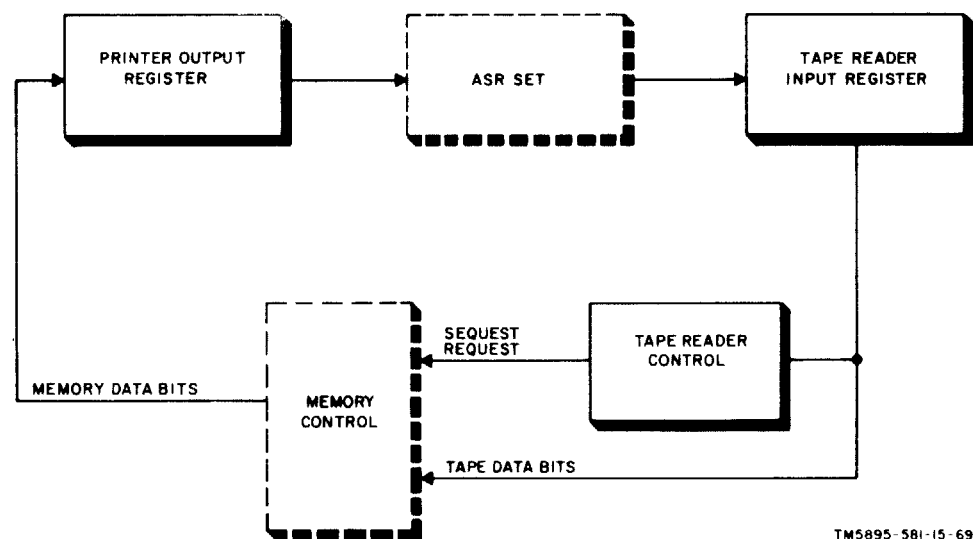


Figure 5-38. ASR Interface simplified block diagram.

5-39. ASR Interface Simplified Block Diagram Description

(fig. 5-38 and 5-39 (1), (2), (8))

a. The ASR interface controls the flow of input and output data between the ferrite core memory (via the memory control) and the teletype set. When the tape transmitter is set to the run position, data coded on the paper tape is sent to the tape reader control for decoding. The decoded characters and data characters are then shifted serially one character at a time into the tape input

register. Characters remain in the register until a signal from the 110-baud clock of the master timing generator causes a parallel mode shift to the transmit half of the core memory. In this way characters are stored in memory for transmission over the line under test.

b. When data in memory is to be printed out, characters are shifted in parallel, one after the other, to the printer output register. Characters are shifted out of the printer output register under control of the 110-baud clock. Each character is shifted out in parallel to the teletype set for printing.

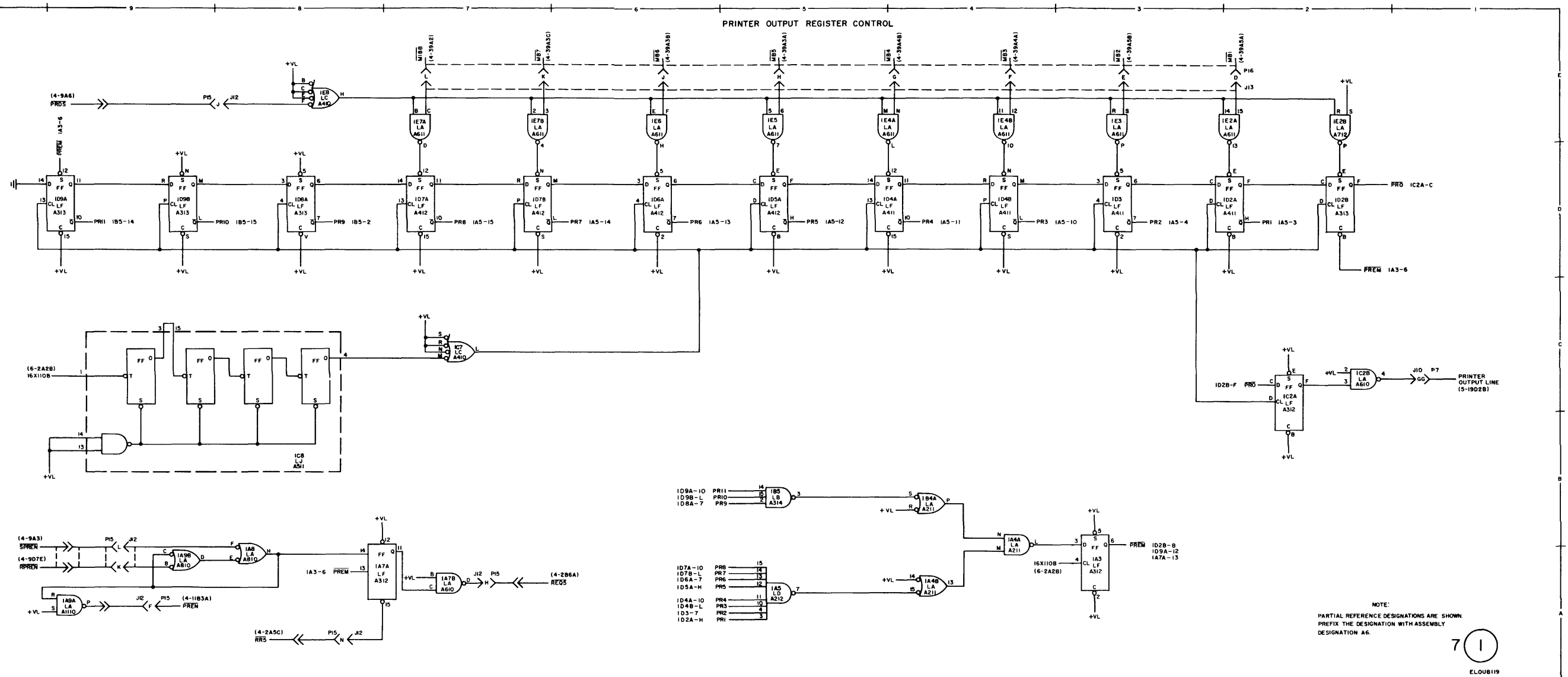


Figure 5-39(1). ASR interface logic diagram (Sheet 1 of 3)

Change 3 5-205

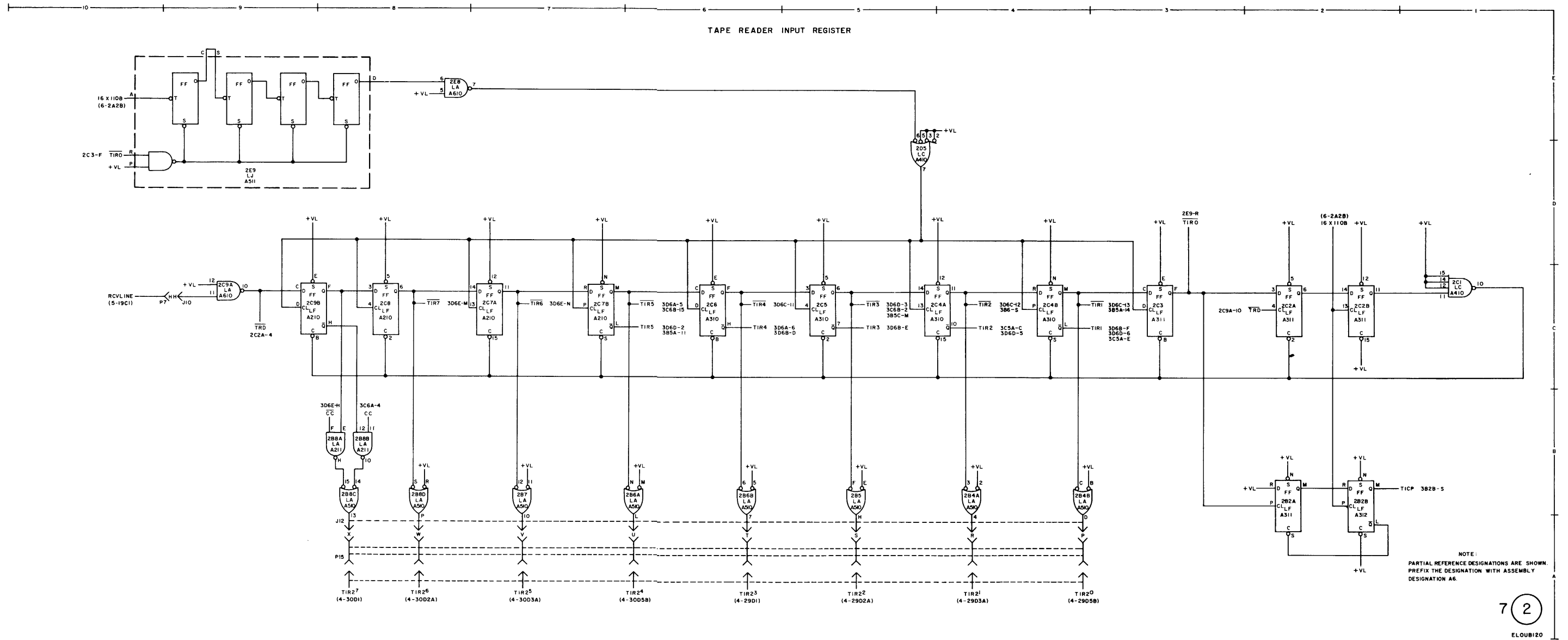


Figure 5-39(2). ASR interface logic diagram.
(Sheet 2 of 3)

Change 3 5-207

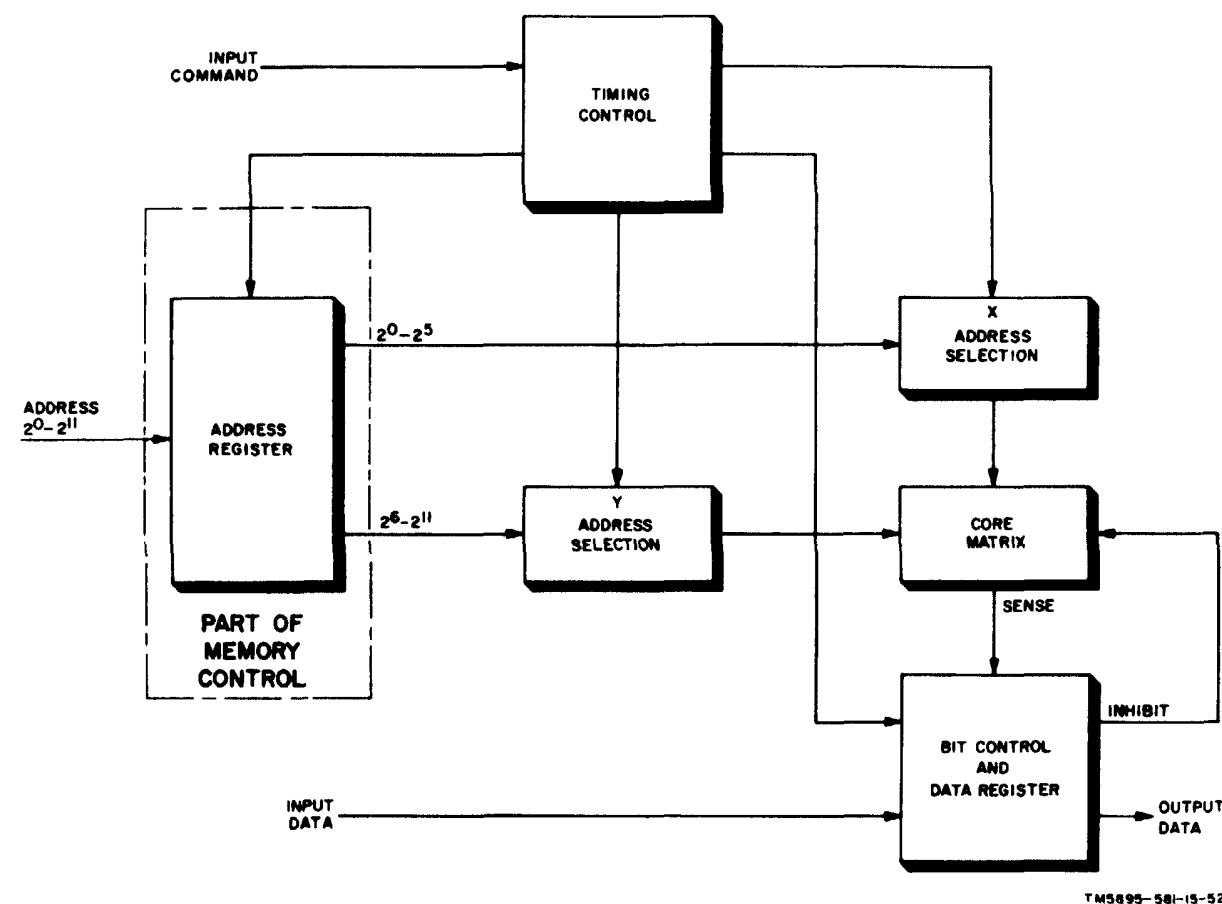


Figure 5-40. Core memory simplified block diagram.

5-40. Core Memory Simplified Block Diagram Description
(fig. 5-40)

The core memory is a random-access memory, with a 4096 8-bit word capacity. The memory is used to store data from the block reader and from the ASR set. Readouts provide visual displays of received data and characters for transmission via the block generator.

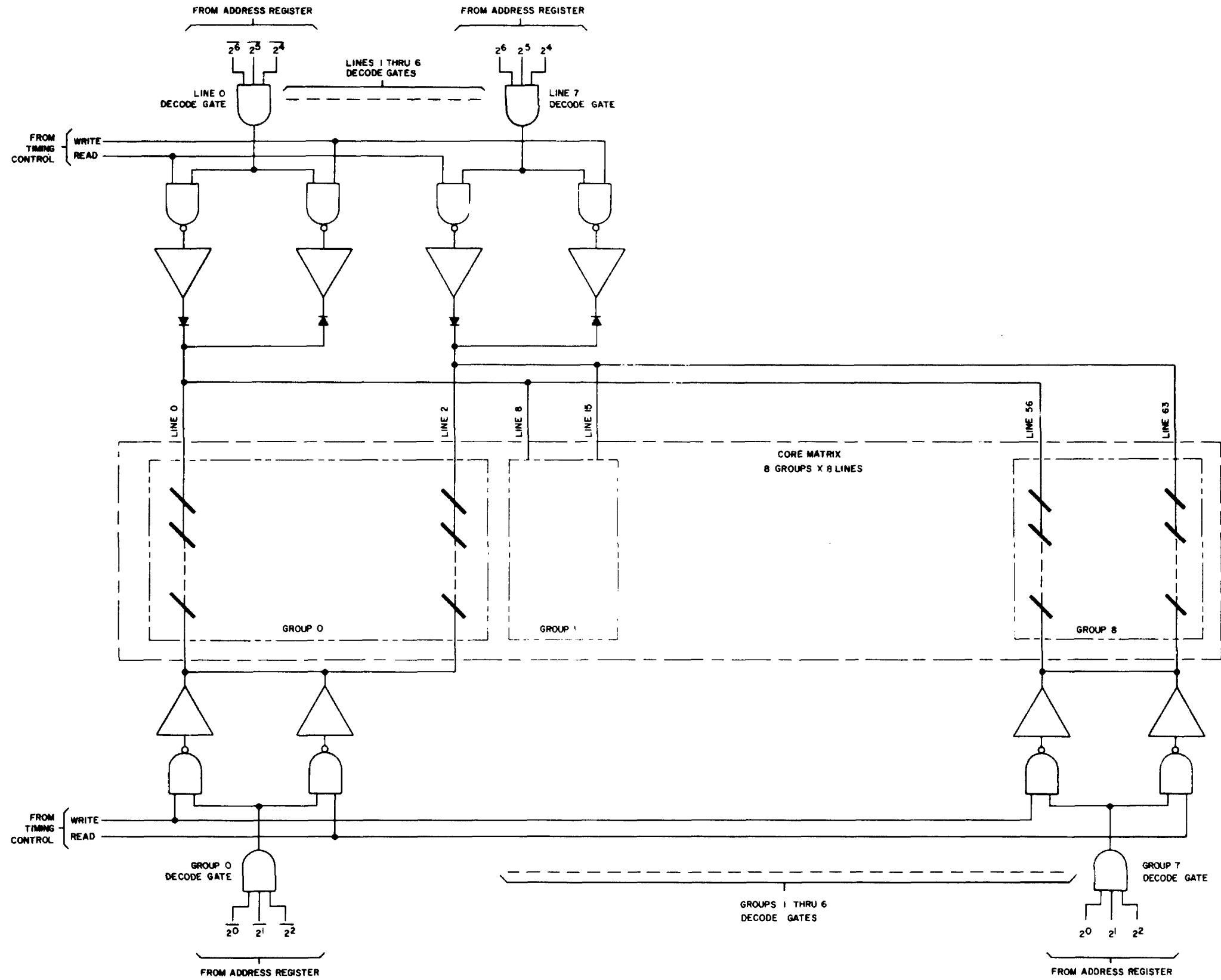
a. All input commands to the memory are directed to the timing control circuits. This circuit group is responsible for issuing transfer signals (data transfer and address transfer), timing signals (read and write current, sense strobe), and reset signals. Tints all portions of the read/write cycle are implemented through the timing control group). To access the memory, the address is made available from the address register (part of the memory control circuits) and data to be written is made available to the bit control and data register. An input command is then issued to the timing control to start the read/write cycle. Reset pulses are generated to reset the data and address registers. Once the registers are reset, transfer signals enable the transfer of the address into the address register and the transfer of data (for a write input command only) to the data register.

b. The least significant half of the address (bits 2^0 through 2^5) performs the X selection: the most significant half (bits 2^6 through 2^{11}) performs the Y selection. Selections are decoded by the X and Y address selection circuits to provide half switching current in both the X and Y directions through the core matrix. The combination of X and Y selection identifies one word (8 cores) for the read/write cycle, and passes full switching current through only that word.

c. Read current is passed through the selected cores when ordered by the timing control, setting all cores of the selected word to zero (0). Any cores previously in the one (1) state produce sense outputs to the bit control and data register and are stored by the data register if stored data is to be read out. If stored data is to be erased and new data to be stored, the one (1) bits are prevented from entering the data register and are therefore lost.

d. Following the read current, write current is passed through the selected cores. Inhibit lines reflect the word now in the data register and are used to prevent the writing of ones (1s) in specific cores. When no data is present in the data register, all cores of the selected word are inhibited and the cores remain cleared.

e. Since the data register may be set by either input data or by sense lines from the core matrix, the word stored during the write operation may be either new data, or the same data that appeared on the sense lines during the read operation. Thus a word read from memory may be rewritten into memory, destroyed, or destroyed and replaced by a new word.



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Figure 5-41. Address selection and core matrix.

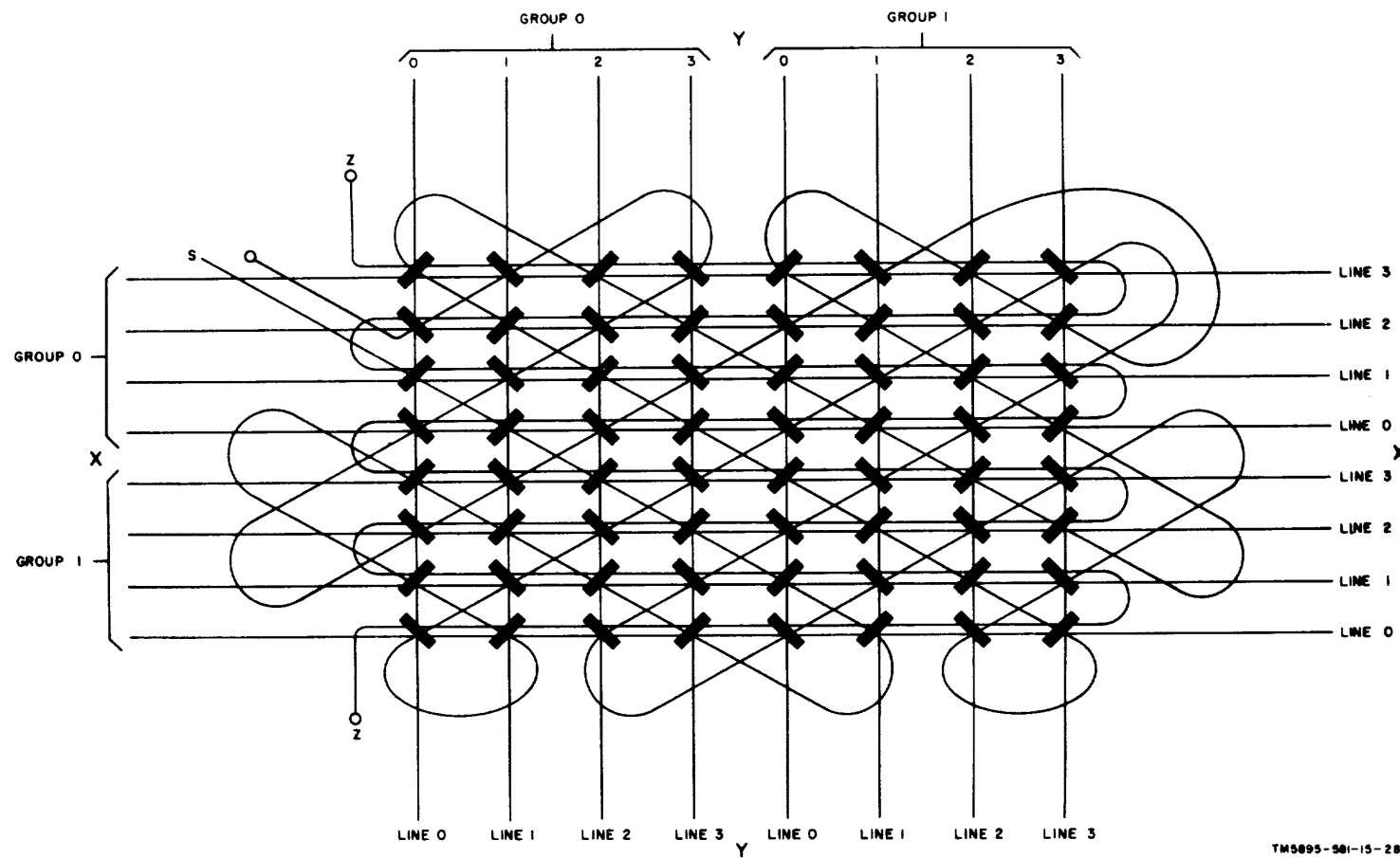


Figure 5-42. Core matrix plane.

5-41. Address Selection and Core Matrix
(fig. 5-41)

a. The address selection and core matrix provides storage for 4096 8-bit binary words, plus the gates and drivers necessary to access any one word. Both the X and Y address portions function identically, with the exception that the Y address portion is threaded vertically through the cores and X address portion is threaded horizontally (fig. 5-42).

The purpose of the X and Y address network is twofold: to interpret the binary address contained in the address register (through the use of 32 decode gates), and to supply current to the specified X and Y address of the core matrix. The X and Y address portions each consists of 64 lines divided into eight groups of eight lines.

b. The core matrix consists of cores arranged in matrix planes with each group for both the X and Y address portion containing eight matrix planes (fig. 5-43). As shown in figure 5-42, a total of four wires pass through each core (X and Y, sense, and inhibit) within a matrix plane. Both the X and Y wires carry the half currents necessary for switching cores. To read, half current pulses are produced on the X and Y read wires in a direction to switch a

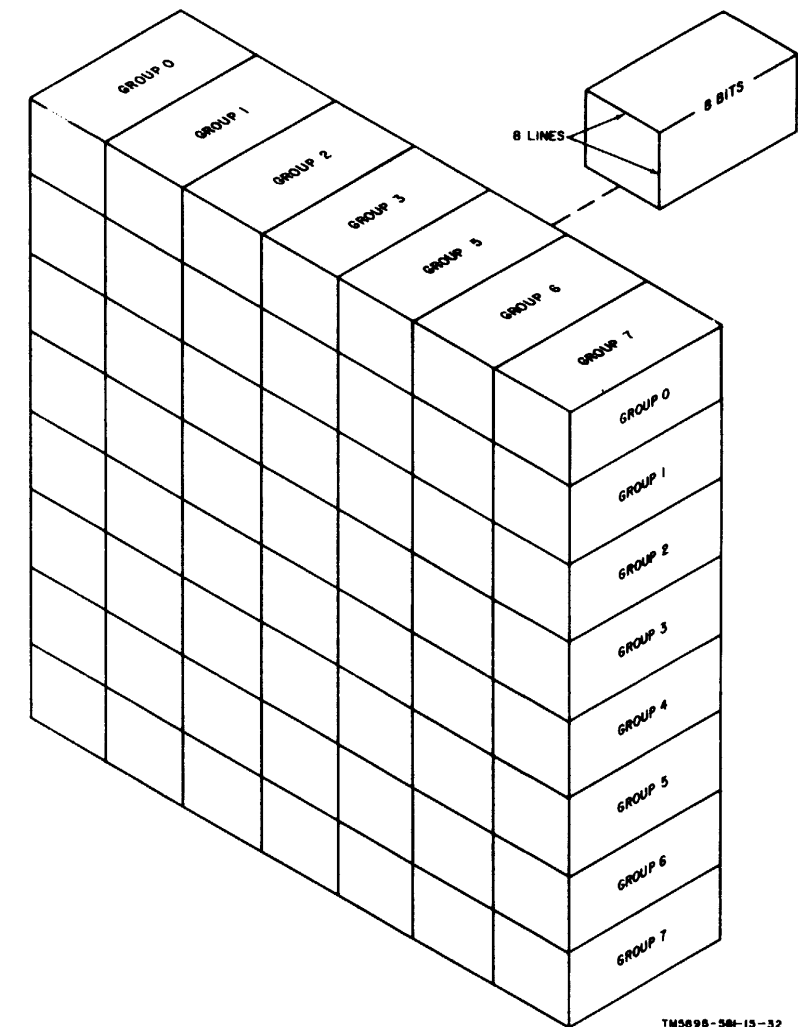


Figure 5-43. X and Y group layout.

core to the zero (0) state. To write, half current pulses are produced on the X and Y write wires in a direction opposite to that of the read current to switch a core to the one (1) state.

c. The sense winding is threaded diagonally through all the cores within a matrix plane. Diagonal threading helps cancel out the disturb voltage resulting from the cores which are disturbed but not switched. When any core in a matrix plane switches from (1) to (0), a pulse is induced in the sense winding.

d. The inhibit (Z) wire is threaded in and out parallel to the X wire through each core within a matrix plane. The inhibit wire is used for entering data into the core memory. If a core is to be left in the zero (0) state, an inhibit current is produced in the direction opposite to that of the X write current, and the selected core remains in the zero (0) state.

5-42. Bit Control and Data Register
(fig. 5-44).

a. The bit control and data register is used to write information into the core memory matrix and to provide a data output for each bit. The bit control and data register consists of eight identical stages to form an 8-bit word. Each stage contains a sense preamplifier, OR gate, DR flip-flop AND gate, and inhibit driver.

b. At the start of a read half cycle, a reset signal is used to set all the DR flip-flops in the zero (0) state. This removes any information stored in the

DR flip-flops. When a core is switched from the one (1) state to the zero (0) state, a pulse is induced in the associated sense winding. The sense preamplifier detects this pulse and feeds it to a sense amplifier. The sense amplifier is gated by the strobe pulse (from the timing, control) to set the DR flip-flop. Once the DR flip-flop is set, data output is available to the external circuits.

c. During a write half cycle, write current is sent through the core memory matrix to set the selected cores to the one (1) state. When certain cores are to be left in the zero (0) state, the inhibit current for these word bits is turned on, preventing, switching by the write current. The inhibit current is controlled by the information in the DR flip-flops during this cycle and by the Z(BIT) timing input.

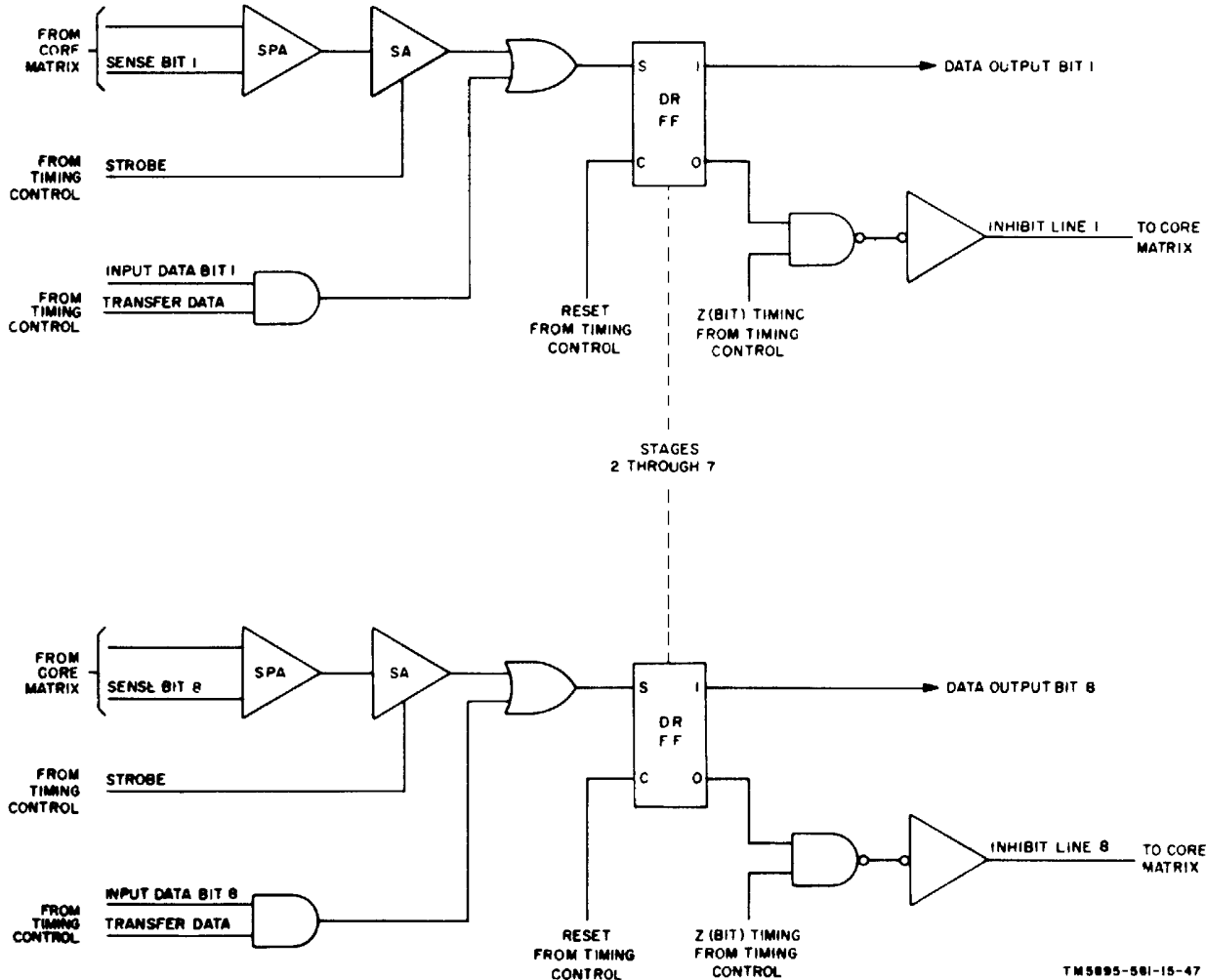


Figure 5-44. Bit control and data register.

Section II. CIRCUIT ANALYSIS

5-43. General

Paragraphs 5-43 through 5-70 describe the operation of the printed circuit cards, integrated circuit cards, and power supplies used in the simulator.

5-44. High Voltage Inverter Card AV

High voltage inverter card AV is a plug-in type printed circuit assembly which consists of four identical circuits (fig. 6-22). The high voltage inverter is all amplifier with input and output 180 degrees out of phase.

5-45. Lamp Card AX

The lamp card (Fig. 6-24) is a plug-in type printed circuit assembly which consists of eight identical 3-input AND gate circuits, each coupled to a neon lamp to provide an 8-bit character display. When the input to pin M is -120 volts (from transistor A1Q1 located on connector mounting bracket A1MP1) and all input pulses to the AND gate are high (ground) the neon lamp lights and is held on until the input pulses to the AND gate go low (-60 volts). When any input to the AND gate is low the output of the gate is low and the neon lamp is deionized.

5-46. Level Shifter Card DN

Level shifter card DN is a plug-in type printed circuit assembly which consists of 12 identical circuits. With ground or no input pulse applied to a level shifter circuit (figure 6-78), transistor Q1 is forward biased and the output taken off its collector is approximately at ground. However, when a positive pulse is applied whose amplitude is large enough to reverse bias the base-emitter junction of (Q1, the output taken off the collector

d. In a read/restore cycle sense plus strobe pulses are used to set the DR flip-flops. In a clear write cycle, input data is gated by a transfer data pulse (from the timing control) to set the DR flip-flops so that a modified or changed word controls the inhibit lines while writing

of (Q1, shifts from ground to some negative value. When the positive pulse is removed, the output taken off the collector of Q1 shifts back to ground.

5-47. Integrated Circuit Card LA

Integrated circuit card LA contains two identical integrated circuits, IC1 and IC2. Each integrated circuit (figure 6-26) consists of a quadruple 2-input positive NAND gates. The 2-input NAND gate functions as follows: When both inputs are high (1), the output of the NAND gate is low (0). When either or both inputs are low (0) the output is high (1).

5-48. Integrated Circuit Card LB

Integrated circuit card LB contains two identical integrated circuits, IC1 and IC2. Each circuit (figure 6-28) consists of a triple 3-input positive NAND gate. The 3-input NAND gate functions as follows: When all three inputs are high (1), the output is low (0). When any or all inputs are low (0), the output is high (1).

5-49. Integrated Circuit Card LC

Integrated circuit card LC contains two identical integrated circuits, IC1 and IC2. Each circuit (figure 6-30) consists of a dual 4-input NAND gate. The NAND gate functions as follows: When all four inputs are high (1), the output is low (0). When any or all inputs are low (0), the output is high (1).

5-50. Integrated Circuit Card LD

Integrated circuit card LD contains two identical integrated circuits, IC1 and IC2. Each circuit (figure 6-32) consists of an 8-input NAND gate. The 8-input NAND gate functions as follows: When all eight inputs are high(1), the output is low(0).

When any or all inputs are low(0), the output is high (1).

5-51. Integrated Circuit Card LE

Integrated circuit card LE contains two identical integrated circuits, IC1 and IC2. Each integrated circuit (figure 6-34) consists of a dual J-K master-slave flip-flop which has four inputs and two outputs. The J and K inputs are used to establish the set and reset conditions. The negative transition of the clock (CL) input is used to implement switching of the flip-flop from one stable state to another. The clear (C) input is used to clear the flip-flop of all previously stored information. The clear input dominates all other inputs.

5-52. Integrated Circuit Card LF

a. Integrated circuit card LF contains two identical circuits, IC1 and IC2. Each integrated circuit (fig. 6-36) consists of a dual D-type, edge triggered flip-flop which has four inputs and two outputs. The D and clock inputs in coincidence are used to set and reset the flip-flop. The preset and clear inputs are used to set and reset the flip-flop independently of the clock input; these inputs dominate over all other inputs.

b. Each output represents a stable state. Output Q represents the 1 state when a high voltage level appears at its output. Output Q represents the 0 state when a high voltage level appears at its output. A high voltage level will not be present at both outputs at the same time. When the 1 output is high, the 0 output is low.

5-53. Integrated Circuit Card LH

Integrated circuit card LH (fig. 6-38) contains two integrated circuits, IC1 and IC2. Integrated circuit IC1 consists of an 8-input NAND gate which functions exactly the same as the NAND gate described in paragraph 5-47. The IC2 integrated circuit consists of a parallel quad adder which is capable of adding two four-bit binary words. The four adders used in the parallel quad adder are identical in their operation. The chart below illustrates the functional

operation of all possible inputs and outputs of one of the adders.

INPUT 1	0	1	0	1	0	1	0	1
INPUT 2	0	0	1	1	0	0	1	1
CARRY (IN)	0	0	0	0	1	1	1	1
SUM	0	1	1	0	1	0	0	1
CARRY (OUT)	0	0	0	1	0	1	1	1

5-54. Integrated Circuit Card LI

Integrated circuit card LI contains two identical integrated circuits, IC1 and IC2. Each integrated circuit (fig. 6-40) consists of a dual 4-input positive NAND buffer. The NAND buffer functions as follows: When all inputs are high (1), the output is low (0); when any or all inputs are low (0), the output is high (1).

5-55. Integrated Circuit Card LI

Integrated circuit card LI contains two identical circuits, IC1 and IC2. Each circuit (fig. 6-42) consists of a four-bit binary counter. Inputs on pins 13 and 14 are used to clear the binary counter of information previously stored and to set up start conditions. Inputs on pin 14 are used to trigger the binary counter and to start its logical operations. The chart below illustrates the logical operation of the binary counter with respect to its inputs and outputs.

INPUT (T)	OUTPUT (PINS)			
	4	7	6	3
1	0	0	0	1
2	0	0	1	0
3	0	0	1	1
4	0	1	0	0
5	0	1	0	1
6	0	1	1	0
7	0	1	1	1
8	1	0	0	0
9	1	0	0	1
10	1	0	1	0
11	1	0	1	1
12	1	1	0	0
13	1	1	0	1
14	1	1	1	0
15	1	1	1	1
16	0	0	0	0

5-56. Integrated Circuit Cards LK, LL

Integrated circuit card LK or LL contains two chips, each consisting of 12 identical integrated circuits. Each integrated circuit (fig. 6-44 or 6-46) consists of a hex inverter. The hex inverter is used whenever a logic inversion is required. Operation of LK hex inverters requires the use of an external diode at the input to limit base current. The hex inverters of the LL card do not require input diodes.

5-57. Diode Gate Card MP

Diode gate card MP provides four identical diode circuits (fig. 6-48), each circuit appearing as a five-input AND gate. However the function performed by these circuits is isolation, not an AND function. The diode circuits are used to distribute lamp check voltage to the various indicator lamps of the control panel. Lamp check voltage is applied to the point designated output, and distributed by means of the diodes to individual lamps. The diodes prevent normal lamp operating signals from lighting more than one lamp at a time, while permitting the lamp check voltage to light five lamps in parallel.

5-58. Low-Level Differential Card MR

a. Low-level differential amplifier card MR provides two identical circuits. Each circuit configuration (fig. 6-50) consists of three basic sections: a differential amplifier (transistors Q1 and Q2), a constant current source (transistor Q3), and a voltage amplifier (transistor Q4).

b. For the purpose of explanation, assume that there are no input signals being applied to the base of transistors Q1 and Q2. The emitters of both Q1 and Q2 are connected to transistor Q3 which provides a constant current source of equal amplitude to both emitters. Both transistors Q1 and Q2 and their related components form a symmetrical configuration; therefore the output voltage taken off the collector of either transistor is approximately the same. The output taken from the collector of Q2 is directly coupled to the base of Q4. The output taken from the collector of Q4 is a quiescent voltage.

c. When input signals are applied to the base of Q1 and Q2 simultaneously and at the same polarity and amplitude, the output from Q4 remains constant (quiescent voltage). However, if either input differs in an), way the output from Q4 will be above or below the quiescent voltage. For instance, if the input signals

increase the condition of Q2 the output from Q4 will decrease below the quiescent voltage, thereby providing a visual indication of a difference in input signals.

5-59. Zener Diode Card NZ

Zener diode card NZ is a plug-in type printed circuit assembly which consists of two identical circuits (figure 6-70). The zener diode is a device capable of voltage regulation. The voltage at which breakdown occurs is called the zener voltage. When breakdown occurs, the reverse current increases to a relatively large value and is independent of any increase in reverse voltage. This means that over a wide range of current, the voltage across the diode will remain constant when operated at the zener point.

5-60. Emitter Follower Card TP

Emitter follower card TP is a plug-in type printed circuit assembly which consists of 10 identical circuits (fig. 6-72). The emitter follower is used as a coupling device. Its high input impedance produces negligible loading on the previous stage, and its low impedance output makes it insensitive to loading by the next stage.

5-61. Display Reset Card TR

Display reset card TR is a plug-in type printed circuit assembly used to reset the neon display lamps in the line block display panel. The display reset configuration (fig. 6-74) consists of two sections. Section one contains transistor Q1 and its related components. Section two contains transistor Q2 and its related components. The output of both transistors are connected to the base of two power transistors which enable or disable the neon display lamp voltages. When the outputs of transistors Q1 and Q2 forward bias the base of their respective power transistors, the neon lamps extinguish. When the outputs reverse bias the power transistors, the neon lamps are enabled.

5-62. Polar Line Driver Card TS

a. Polar line driver card TS is a plug-in type printed circuit assembly which consists of five identical circuits. Each circuit (fig. 6-76) contains two emitter-followers, Q1 and Q3, and an inverting amplifier, Q2. The following paragraph is a description of a polar line driver circuit.

b. The emitter of transistor Q1 is directly coupled to the base of transistor Q2. The output taken off the collector of transistor Q2 is directly coupled to the base of transistor Q3. Diodes CR1 and CR2 are used to clamp the output voltage taken off the emitter of Q3 to ground and + 12 volts (depending upon the input signals). For instance, when the input signal applied to the base of (Q1 is 0 volts, the output of Q3 is clamped to -6 volts via the emitter of Q1. When the input signal is more negative than emitter of Q2, the output voltage of Q3 is clamped to +6 volts via the collector of Q3.

5-63. Oscillator Card LO

The oscillator card (fig. 6-87) is an encapsulated plug-in type printed circuit assembly. It is used to provide square wave pulses at a frequency of 1.2288 MHz.

5-64. Eight-Bit Data Logic Card

The eight-bit data logic card is used in the core memory to control eight-bit words for storage and readout. The card is of modular construction, and provides eight sense preamplifier modules, eight data bit modules (data register), four Z select driver modules, and two level shifter/inverter modules.

a. *Function Description.* The eight-bit data logic card consists of eight identical stages for processing the eight bits of a word. The eight-bit data logic card logic diagram (fig. 5-45) shows one complete stage and the level shifter/inverters common to all stages. Functional operation of one stage is described in the following steps:

(1) Storage for one bit is provided by the DR flip-flop. In a read/restore cycle, the Dr flip-flop is used to hold the bit read out of memory until the bit is written back in (restored). In a clear/ write cycle, the DR flip-flop is used to hold one bit of the word to be stored. Clearing of the DR flip-flop is accomplished by the reset data register (RDR) pulse alt the beginning of either cycle. This operation insures that one word cannot be overwritten by another word.

(2) During a read/restore cycle, a 1 read out of storage is detected by the sense preamplifier and forwarded to the sense amplifier. Gating of the sense amplifier by the strobe pulse selects the significant portion of the sense input while rejecting disturb signals that result from all read operations. An OR gate in the data bit module enables a 1 from the sense amplifier to set the DR flip-flop. Thus immediately following the strobe pulse the DR flip-flop reflects the state of the bit read from core.

In the second half of the read/restore cycle, the Z timing pulse enables the NAND gate in the Z select driver module. If the DR flip-flop is storing a 0 (reset) at this time, inhibit current is passed through the Z inhibit line to prevent storing a 1. A 1 in the DR flip-flop) prevents inhibit current, and a 1 will be stored. In this way the bit read from core is restored.

(3) During a (clear/write cycle the transfer data register (TDDR) pulse enables the data in level to be transferred to the DR flip-flop. The lack of the strobe pulse, during the first part of the cycle prevents the sense input from reaching the DR flip-flop. During the second part of the cycle, the bit in the DR flip-flop is stored in the same manner as in the second half of the read/restore cycle.

b. *Circuit Description.* The following subparagraphs are circuit descriptions of each module mounted on the eight-bit data logic card.

(1) *Sense preamplifier module.* The sense preamplifier module (figure 5-46) consists of a two-stage differential amplifier with high differential signal voltage and high common mode rejection. When input signals received via the sense wire on pins 12 and 15 are balanced and 180 degrees out of phase, capacitor (C1 prevents the emitter bias of both transistors Q1 and Q2 from changing. The transistor that receives the positive position of the input pulse conducts more heavily. For the purpose of explanation, it shall be assumed that Q1 receives the positive portion of the input pulse and Q2 receives the negative portion. Transistor Q1 conducts more heavily and its collector voltage becomes less positive. Transistor Q3: receives a negative pulse (due to the drop in collector voltage of Q1 thereby reducing its conduction. The collector voltage of Q3: rises to a high positive value which is blocked from the output (pin 23) by diode CR1. (Conversely, the negative input pulse to the base of Q2 reduces the forward bias, causing the collector voltage to rise. Transistor Q4 responds to the rising voltage and conducts more heavily. The collector of Q4 drops to a less positive value, and diode CR2 permits this value (+ volts) to be available at the output. With no input, or an input signal in phase, capacitor (C1 cannot prevent the emitter bias of Q1 and Q2 from following the input signal and the output remains constant (+ 6 volts).

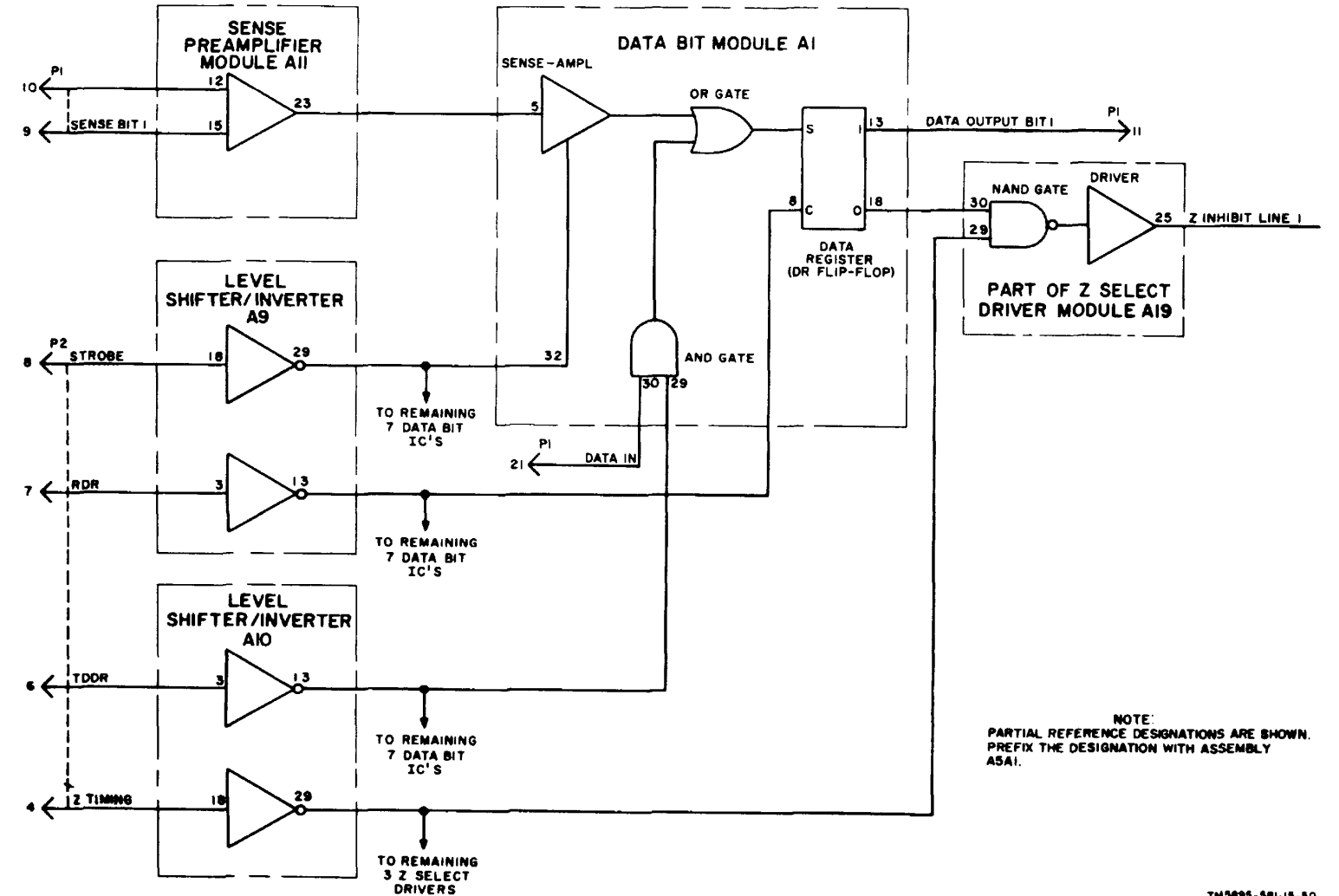


Figure 5-45. Eight-bit data logic card, logic diagram.

(2) *Data-bit module.* The data-bit module (fig. 5-47) consists of sense amplifier (Q1), data input gate (pins 29 and 30), and data register flip-flop (Q2 and Q3). Inputs received on pin 32 (strobe) and pin 5 (sense preamplifier) are used to provide an output which is fed through an OR gate (CR2 and CR5), biasing diodes CR7 and CR8, to set the DR flip-flop. The output from the collector of Q3 taken at pin 13 is used as data output 1. However, if the strobe input is not present at the same time the sense preamplifier input occurs, diode CR1 changes the collector voltage of Q1 and no output is available from Q1. Inputs received on pins 30 (data input) and 29 (TDDR) are used to enable AND gate (CR3 and CR4). The output of the AND gate is used and functions the same as the output of the sense amplifier described in (1) above. Without any input signals applied to the circuit configuration, transistor Q2 is on and the DR flip-flop is in

its set state. When an input signal is received at pin 8 (reset), diode CR9 is forward biased and current flowing through CR6 (which is used to forward bias transistor Q2) now flows through diode CR9. Transistor Q2 is now reverse biased and its collector voltage rises to a high positive value. The collector of Q2 is connected to the base of transistor Q3 and forward biases it. Transistor Q3 remains on until other inputs are received (strobe and sense preamplifier or data input and TDDR). The output taken at pin 18 (data output 0) illustrates that the DR flip-flop is reset.

(3) *Z select driver module.* The Z select driver module contains two identical circuits. Each circuit (fig. 5 48) consists of a NAND gate (diodes CR1, and CR2 and transistor Q1) and driver transistor Q2. With no input signals transistor Q1 is reverse biased. The collector of Q1 is highly positive (+ 12 v) and reverse biases transistor Q2. The output taken at pin 25 approximately 0 volt. When the input signals received at pins 29 (Z timing) and

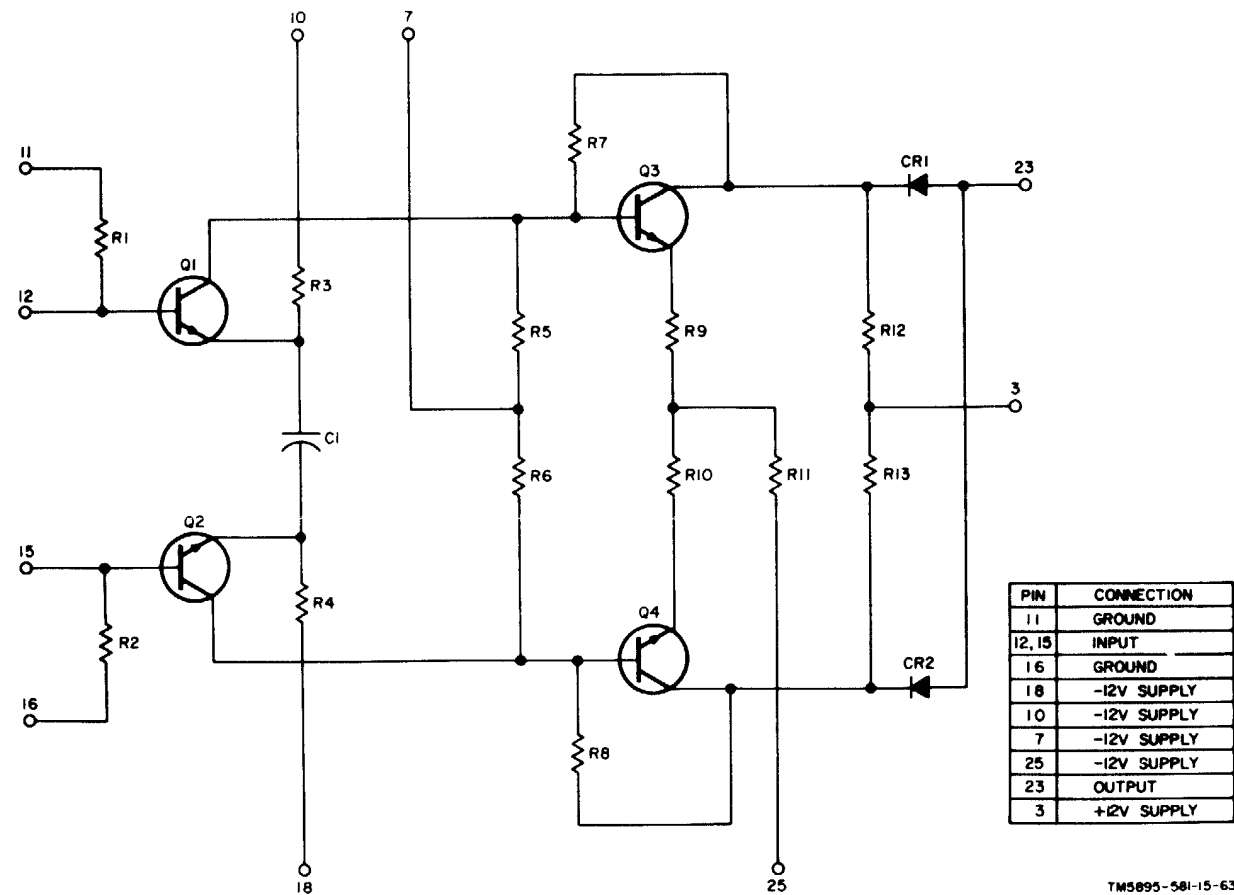


Figure 5-46. Sense preamplifier module, schematic diagram.

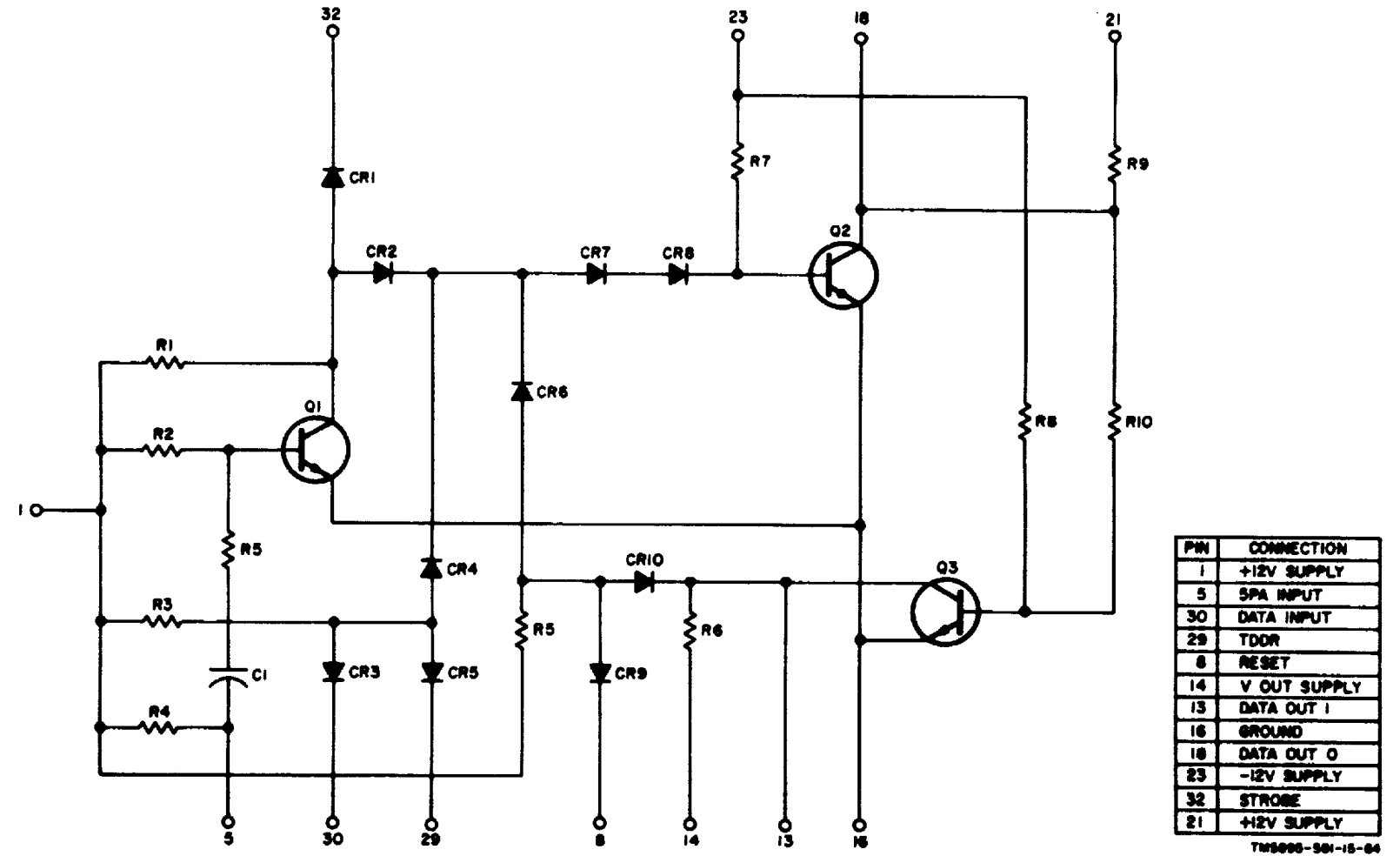


Figure 5-47. Data-bit module, schematic diagram.

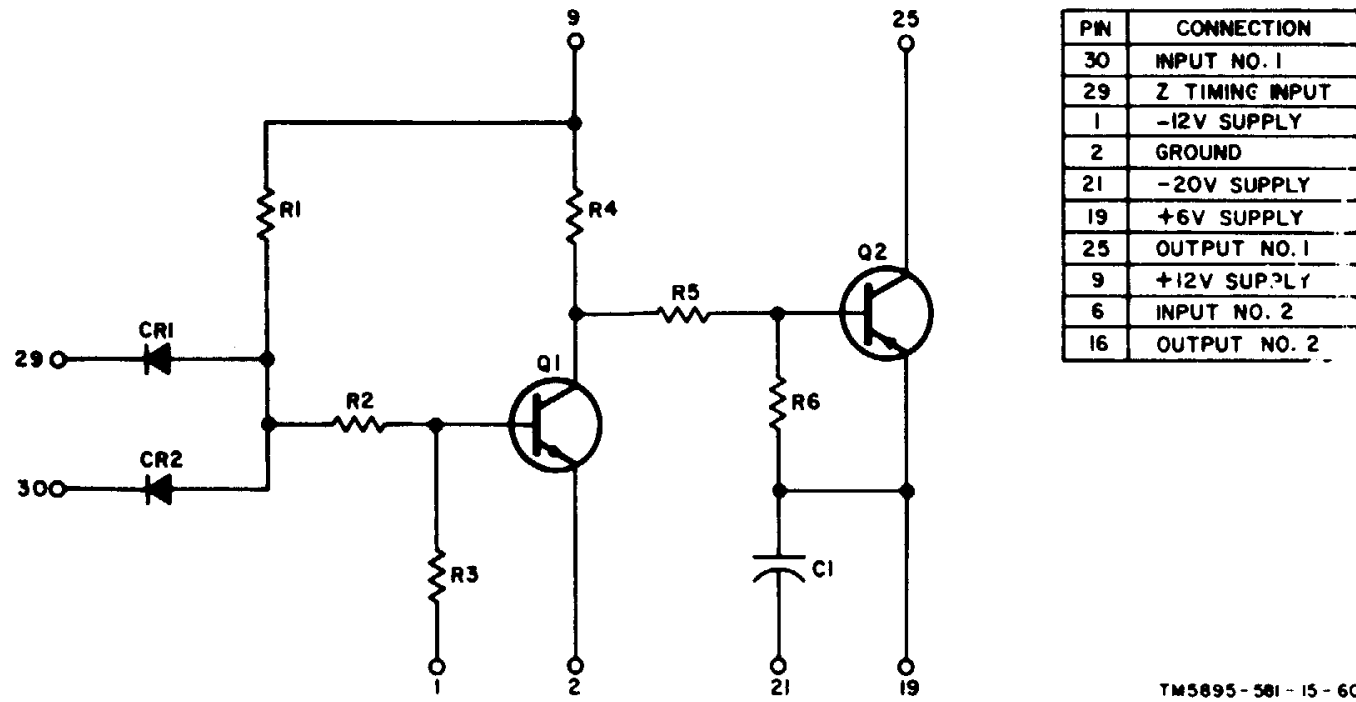


Figure 5-48. Z-select driver module, schematic diagram.

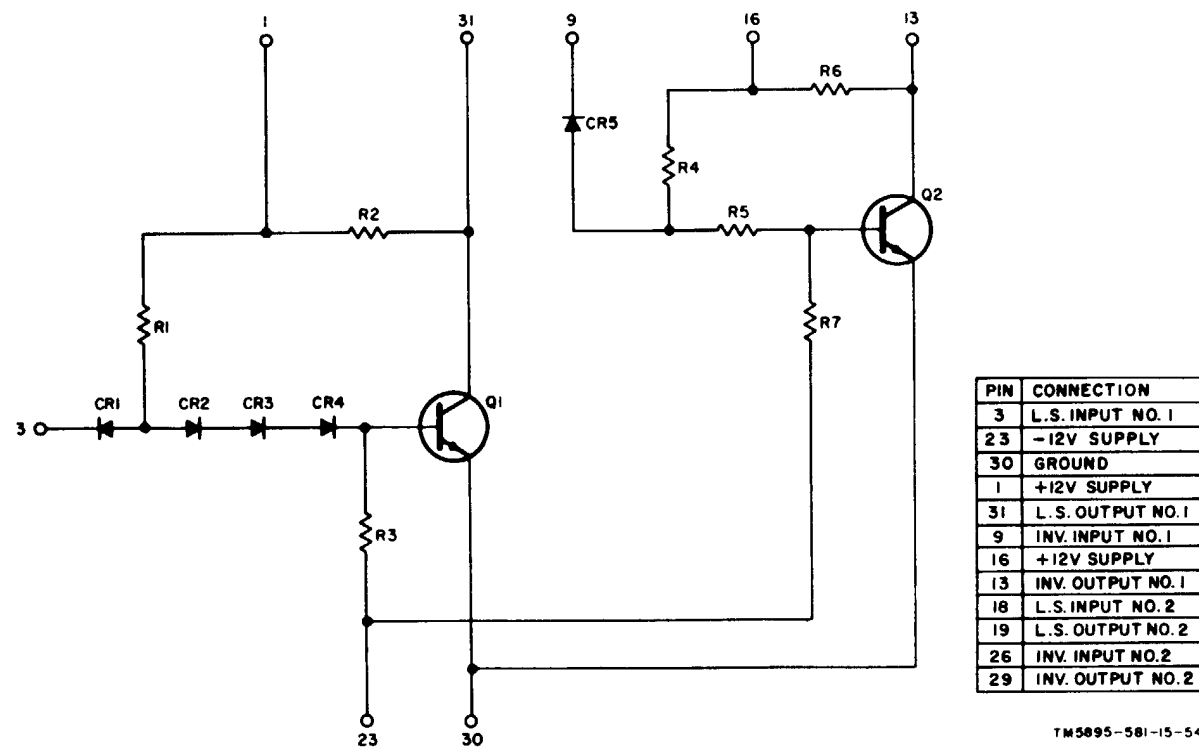


Figure 5-49. Level-shifter/inverter module, schematic diagram.

30 (input #1) are positive and in coincidence transistor Q1 turns on, its collector voltage goes negative and forward biases transistor Q3. The output at pin 25 is now + 6 volts. Therefore, an output is available at pin 25 only when both inputs are positive and in coincidence.

(4) *Level shifter and inverter module.* The level shifter and inverter module contains two identical circuits. Each circuit (fig. 5-49) consists of a level shifter (Q1) and inverter (Q2). Transistor Q1 and its related components are used to shift input levels (0 and +4 volts) that are received at pin 3 to 0 and +12 volts at the output. When 0 volt is provided as an input, transistor Q1 turns off, and the output taken at pin 31 is +12 volts. When +4 volts is provided as an input, transistor Q1 turns on, and the output taken at pin 31 is 0 volts. Transistor Q2 is used to invert the signals applied to its base. When 0 volts is used as an input, the output voltage taken at pin 13 is + 12 volts. When + 12 volts is used as an input, the output voltage at pin 13 is 0 volt.

5-65. Address Selection and Drive Card

The address selection and drive card is used in the core memory to provide address decoding and read/ write current in either the X plane or the Y plane. Two identical cards are employed, one for the Y plane. The card is of modular construction, and provides three level shifter/inverter modules, two level shifter modules, one power driver module, four input decode modules, eight NAND gate and emitter follower modules, and eight sink/source driver modules.

a. *Functional Description.* The address selection and drive card decodes eight group addresses and eight line addresses. Read/write gating sink/source drivers are provided for each decode. Figure 5-50 is a logic diagram showing one address decode and associated circuits. The configuration shown illustrates the decode of address bits $2^2, 2^1, 2^0 = 011$. Level shifter/inverters are used to provide double-rail address bits, so that all eight configurations of address bits are available to the decode gates. The decode address is used to enable the NAND gate and gated emitter follower for read/ write gating. During the read half of a memory cycle, the read pulse (RP) passes through the NAND gate to operate the sink/source driver and produce write sink 3 (WSK03). During the write half of a memory cycle, the write pulse (WP) passes through the gated emitter follower to produce read source 03 (RS03). The two outputs differ in respect to direction of current flow. The read source provides current to the other side of the core stack, while the write sink accepts current.

b. *Circuit Description.* The following paragraphs are circuit descriptions of each module mounted on the address selection and drive card, with the exception of the level shifter/inverter module described in paragraph 5-62(4).

(1) *Input decode gate module.* The input decode gate module (figure 5-51) consists of four identical circuits. When input received at pins 7, 8, 22 and/or 16 (depending on whether the circuits contain three or four inputs) are positive and in coincidence, transistor Q1 is forward biased and the output taken at pin 18 is a positive voltage. When any input is not in coincidence or negative, transistor Q1 is reversed biased and the output at pin 18 is -12 volts.

(2) *NAND gate and emitter-follower module.* The NAND gate and emitter-follower module (fig. 5-52) consists of two identical NAND gate circuits and two identical emitter-follower circuits. The NAND gate circuits are used to control source drivers, and the emitter-follower circuits are used to control sink drivers. When input signals received at pins 28 (timing input, 27 (input), and 23 (input) are positive and in coincidence the NAND gate (diodes CR1 through CR3 and transistor Q1) is enabled, and output is available at pin 30 to enable source drivers. When input signals received at pins 23 (input) and 21 (timing input) are positive and in coincidence the emitter-follower gate (diodes CR4, CR5 and transistor Q2) is enabled, and output is available at pin 18 to enable the sink drivers.

(3) *Sink/source driver module.* The sink/ source module (fig. 5-53) contains two identical sink circuits and two identical source circuits. When the input at pin 11 (sink input) is positive, transistor Q1 is forward biased and write current is provided (pin 9) in both X and Y lines. When the input at pin 3 (source input) is negative, transistor Q2 is forward biased and read current is provided (pin 6) in both the X and Y lines.

(4) *Power driver module.* The power driver module (fig. 5-54) consists of four identical circuits and is used to provide high output drive for the various gates within the address selection and

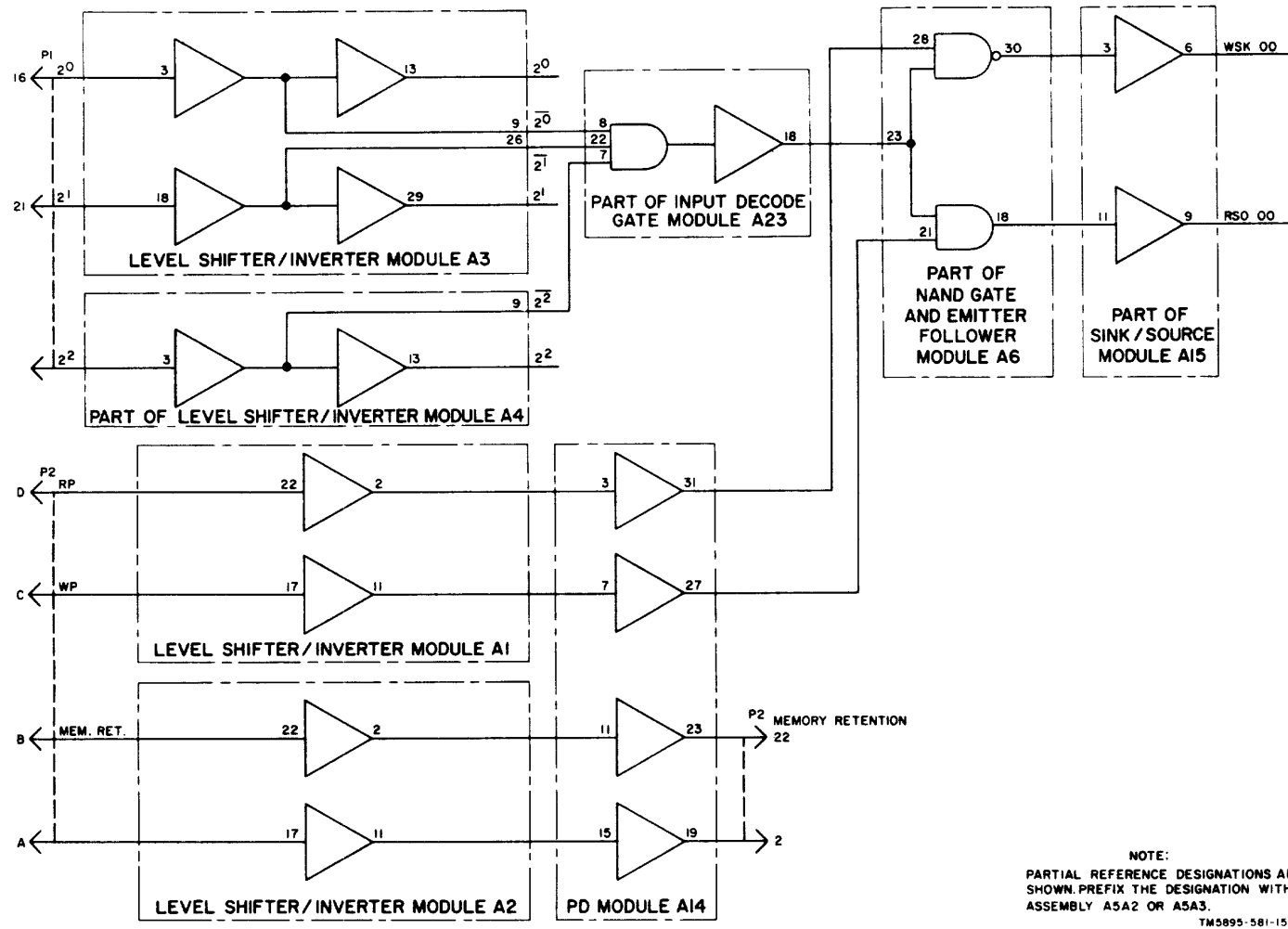


Figure 5-50. Address selection and drive card, logic diagram.

driver card. When a positive input signal is received at pin 3 (input), transistor Q1 is forward biased and the output (pin 31) is at ground. When the input is negative, transistor Q1 is reversed biased and the output is + 12 volts.

(5) Level shifter module. The level shifter module (fig. 5-55) consists of two identical circuits. When input signals at pin 22 (input) is positive (+4 volts), diode CR1 is enabled and transistor Q1 is forwarded biased (diodes CR2 through CR4

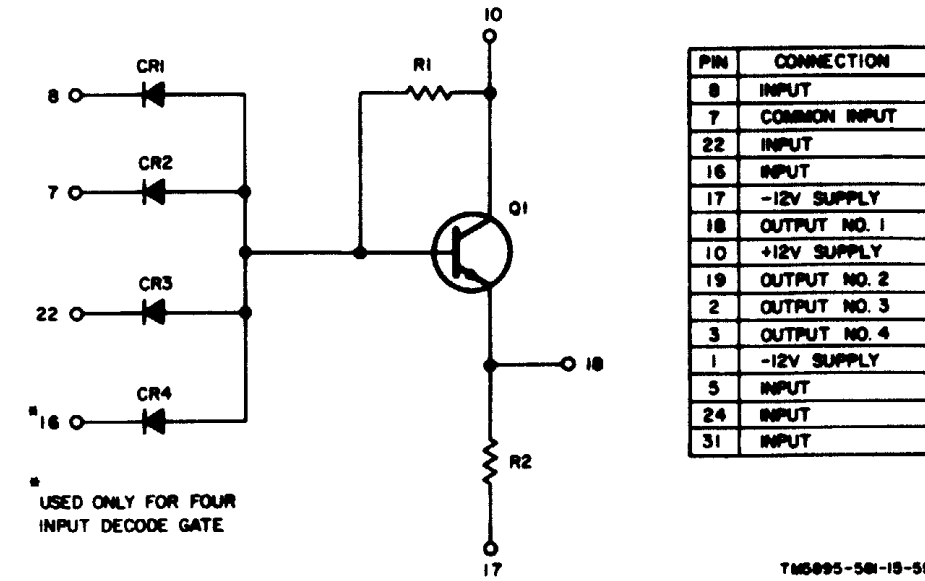


Figure 5-51. Input decode gate module, schematic diagram.

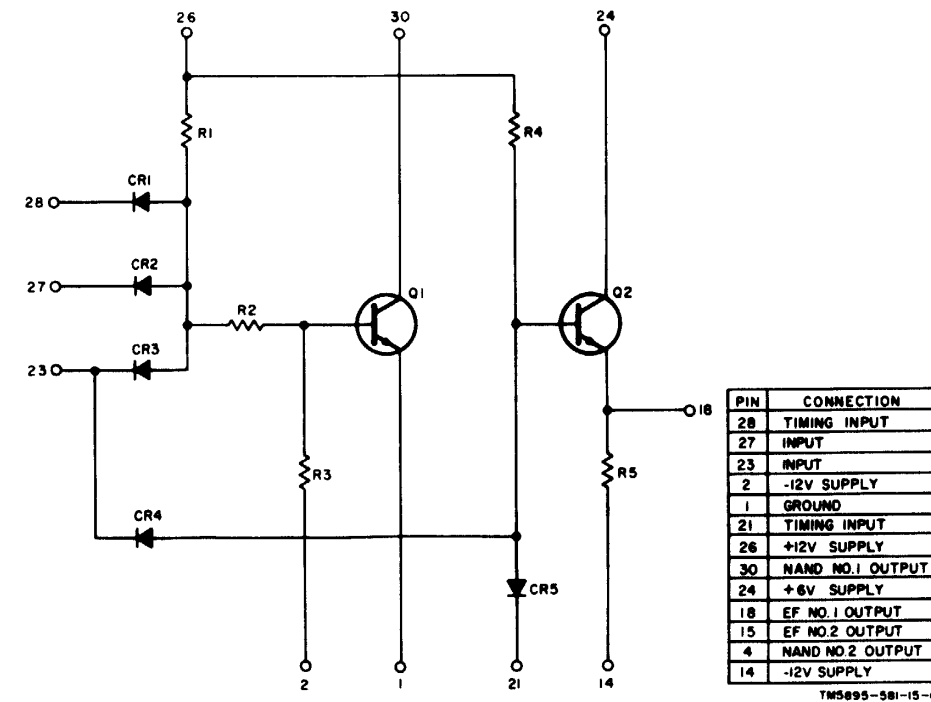


Figure 5-52. NAND gate and emitter-follower module, schematic diagram.

are used biasing diodes). The output taken at pin 2 is at ground. When the input at pin 22 is ground, transistor Q1 is reversed biased and the output at pin 2 is + 12 volts. Therefore, the input voltage levels are shifted from 0 and +4 volts to 0 and + 12 volts.

5-66. Timing Control Card

The timing control card is used in the core memory to provide the sequence of timing and control pulses required for the clear/write (C/W) and read/ restore (R/R) memory cycles. The card is of modular construction, and provides

four NAND modules, five one-shot modules, one RST flip-flop module, and two level shifter modules.

a. Functional Description. The timing control card (fig. 5-56) implements C/W and R/R instructions from external circuits. Many of the outputs are the same for C/W and R/R instructions, since both involve a memory read/write cycle. Read mode and write mode outputs are determined by the read/write flip-flop, which may be set by an R/R instruction or reset by a C/W instruction. When set, the 1 output of the read/write flip/flop is available as

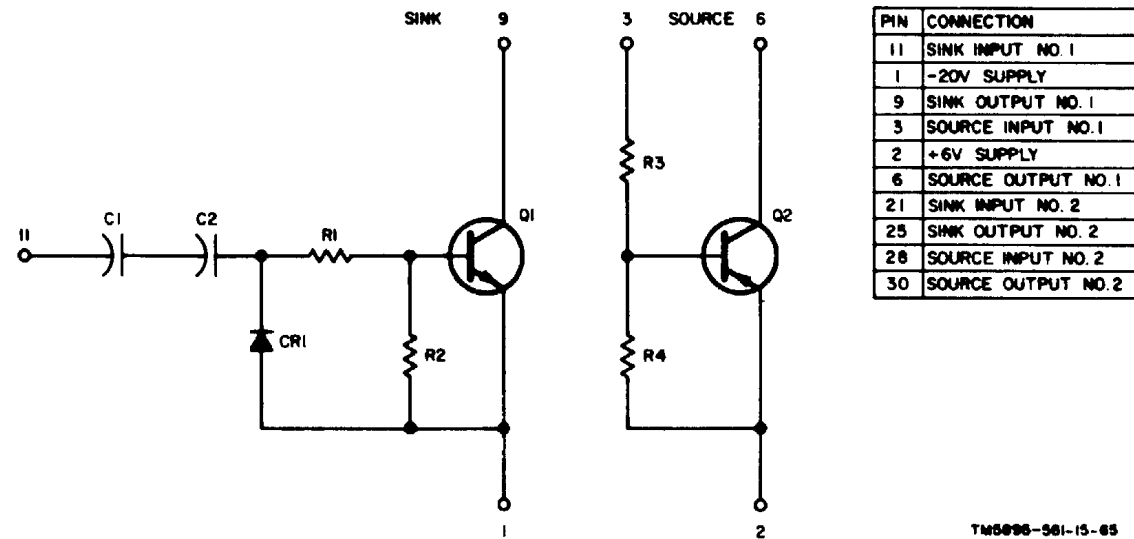


Figure 5-53. Sink/source driver module, schematic diagram.

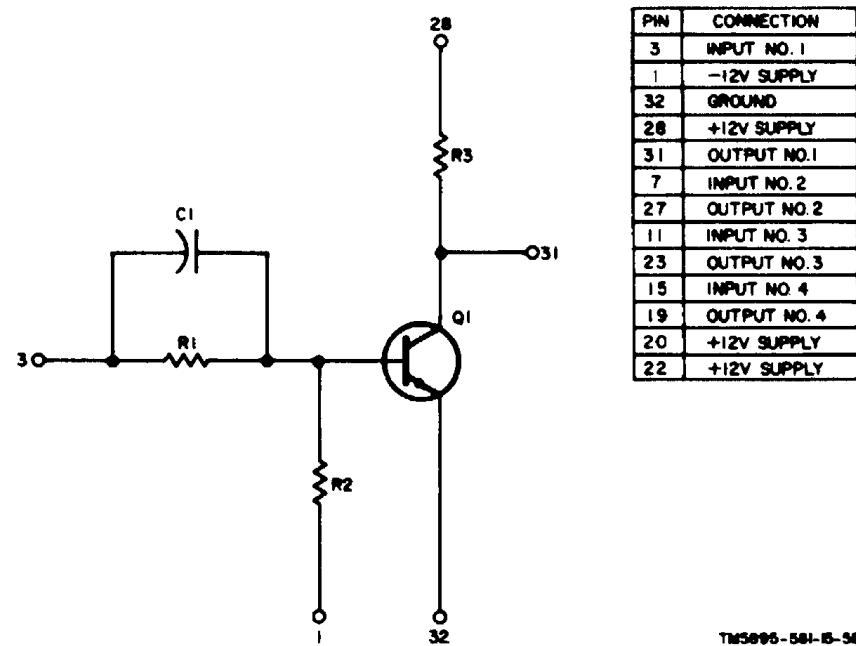


Figure 5-54. Power driver module, schematic diagram.

the mode signal and a read/restore cycle is in process. When reset, the 0 output of the read/write flip-flop is available as the write mode signal and a clear/write cycle is in process.

(1) The read mode pulse, together with a strobe width one-shot pulse, is used to enable NAND gate 11, whose output is inverted to provide a strobe pulse. The write mode pulse, together with a transfer one-shot pulse, is used to enable NAND gate 7, whose output is inverted to provide a TDDR pulse.

(2) During either the R/R or C/W cycle the Z timing pulse, write timing pulse, TAAR pulse, ungated strobe pulse, and read timing pulse are available and controlled by five one-shots. The one shots are used to supply timed gating signals, increase or decrease the width of a pulse, and enable a time delay between pulses. The one shots, as shown in the memory timing diagram (fig. 5-57), insure that corresponding signals occur at a designated time and in a designated sequence.

(3) The RST flip-flop is used to insure that all R/R or C/W cycle cannot be initiated until the correct R/R or C/W cycle is completed. Upon receiving a signal from the output of NAND gate 2, the RST flip-flop is set. The output of the RST flip-flop is fed through inverter NAND 5 (which provides a memory busy pulse) and through inverter NAND 6 to clamp the output of NAND 1 to ground.

This prevents triggering of the RESET one shot. At the end of a cycle, a Z timing pulse is used to reset the RST flip-flop and remove the ground at the output of NAND gate 1. This permits input command signals to trigger the RE SET one shot.

b. Circuit Descriptions. The following paragraphs contain circuit descriptions of each module mounted in the timing control card with the exception of the level-shifter module described in paragraph 5-63(5).

(1) NAND gate module. The NAND gate module (fig. 5-58) consists of four identical circuits. When inputs received on pins 3 and 4 are positive and in coincidence, transistor Q1 is forward biased and the output taken at pin 26 is 0 volt. When inputs received are not in coincidence or ground, the output taken at pin 26 is a positive voltage. Therefore, the output signal is always 180 degrees out of phase with its input signals.

(2) One-shot module. The one-shot module (figure 5-59) consists of two identical circuits. With no input signals applied, transistor (21 is forward biased and transistor Q2 is reversed biased. The output from the collector of Q1 (pin 16) is 0 volt, and the output from the collector of Q2 (pin 4) is + 12 volts. The one-shot is in its stable state. When a negative input signal is applied at pin 8 transistor Q1 is reversed biased and transistor Q2, which is directly coupled from Q1 through a resistor, is forwarded biased. The output of Q1 is now

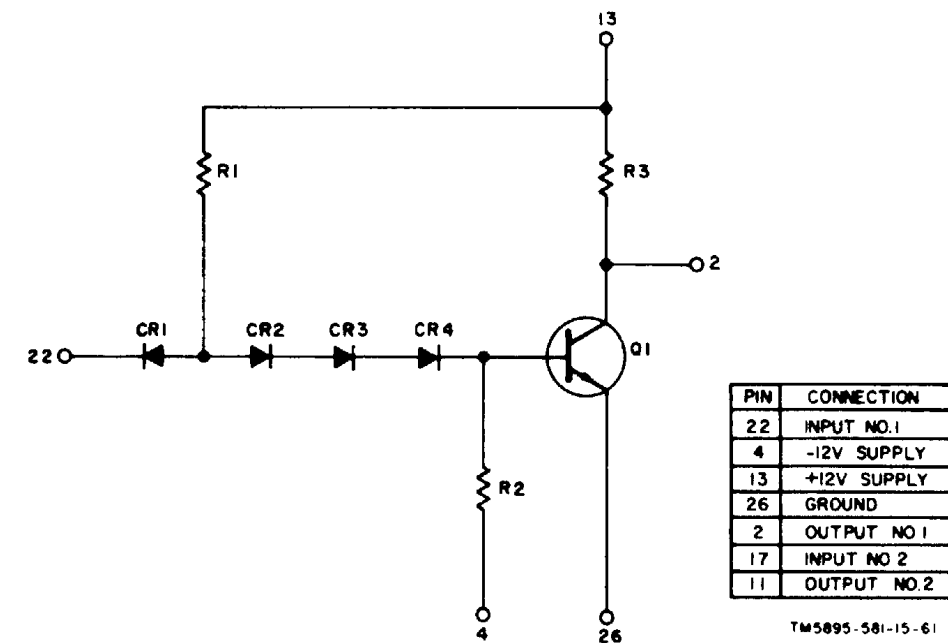
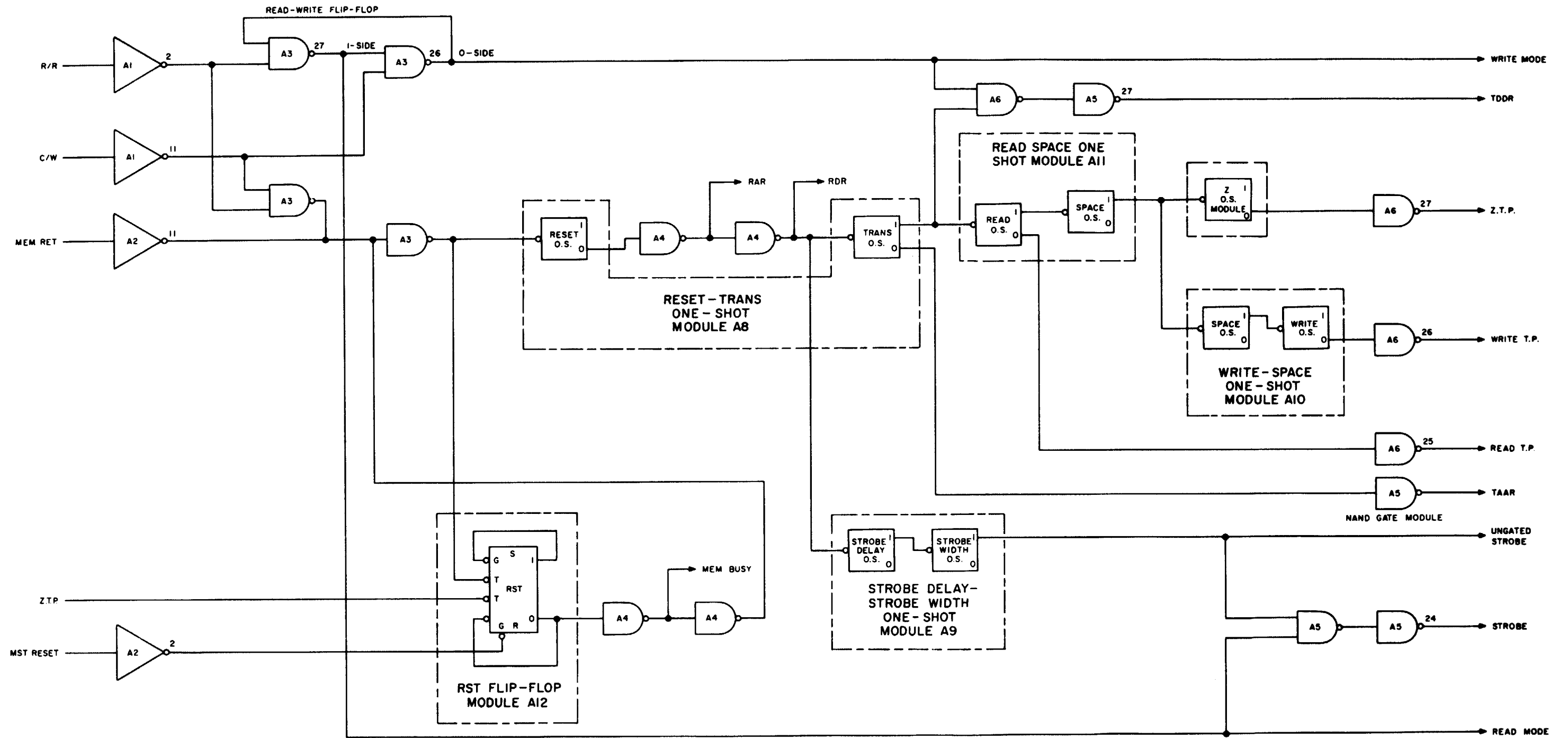


Figure 5-55. Level shifter module, schematic diagram.



NOTE:
 PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A5A4. TM5895-581-15-106

Figure 5-56. Timing control card, logic diagram.

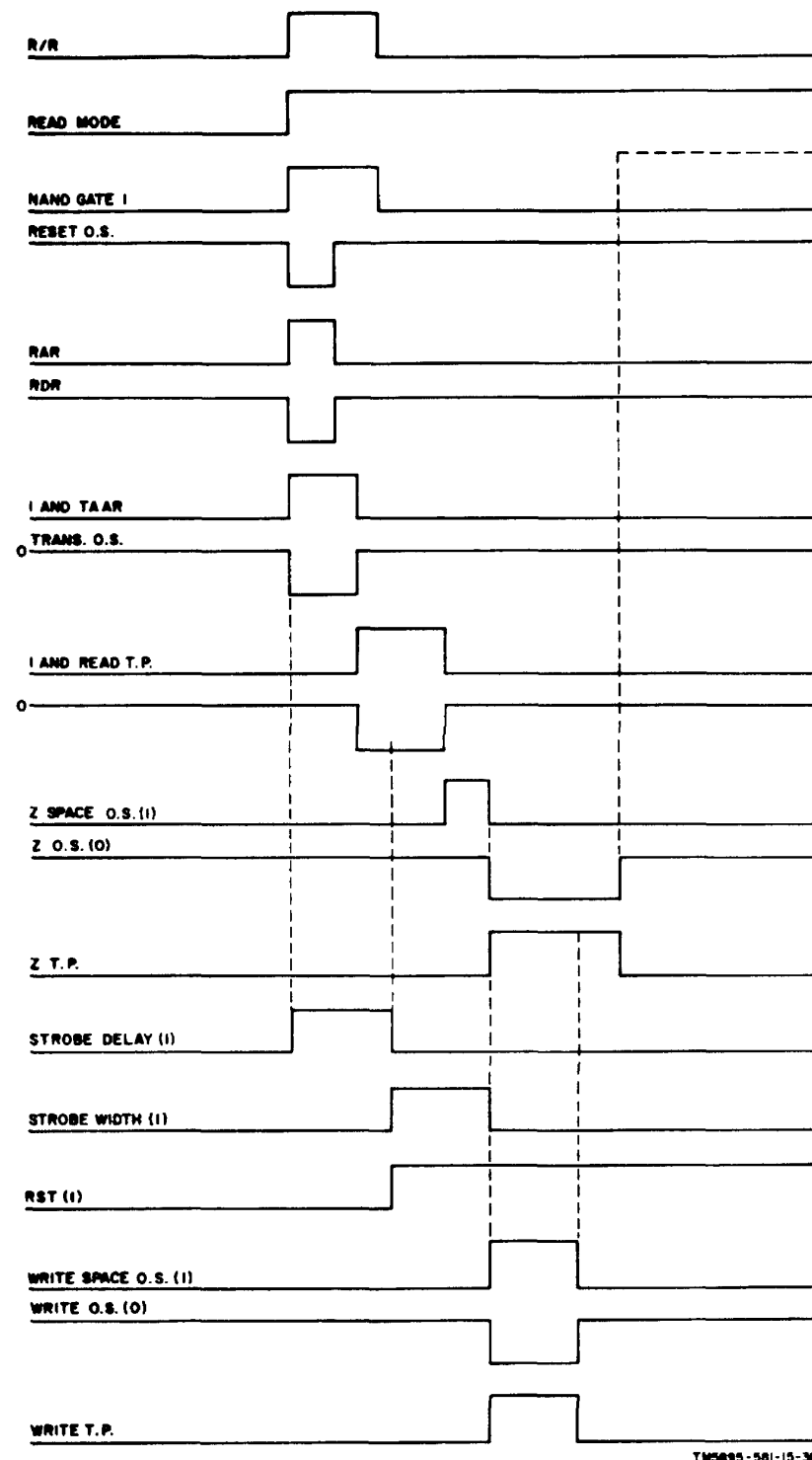


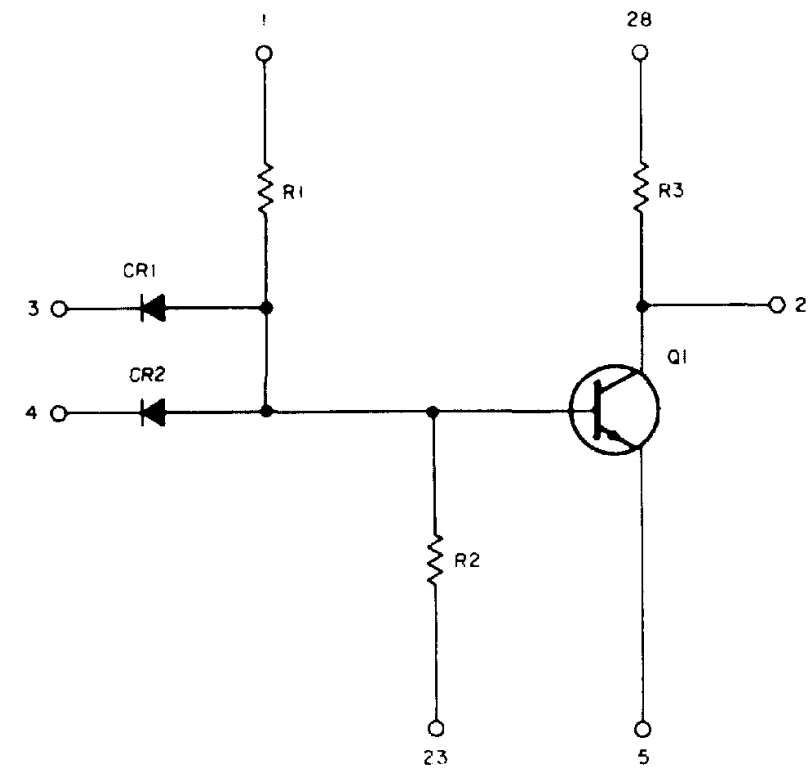
Figure 5-57. Memory timing diagram

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+12 volts and the output of (Q2 is 0 volt. The one-shot remains in the quasi-stable state until capacitor (C1 (pin 9) and 14) charges up to the negative input signal. After (C1 is charged, its discharge path forward biases transistor Q1 and reverse biases transistor Q2. The one-shot is back in its stable state and will remain that way until another negative input signal is received ,at pin 8.

(3) *RST flip-flop module.* The RST flip-flop module (fig. 5-60) is used to enable or disable the reset one-shot after an R/R or C/W cycle has begun. For the purpose of explanation it shall be assumed that without any input signals transistor Q1 is off and Q2 is on. The output

available at (pin 25) is a positive voltage. The RST flip-flop is set and remains set until a negative input signal in conjunction with a ground at pin 3 is applied at pin 4. The negative input signal at pin 8 turns transistor Q2 off, and the output available at pin 15 (0 side) is a positive voltage. The RST flip-flop is reset and remains reset until a negative input signal in conjunction with a ground at pin 3 is applied at pin 4. The negative input signal at pill 4 turns transistor Q1 off, and the flip-flop is set. Therefore, the transistor (Q1 or Q2) which receives the negative input signal in conjunction with a ground at its input provides a positive voltage at its output and determines the state of the flip-flop.



PIN	CONNECTION
3	GATE 1 INPUT
4	GATE 1 INPUT
23	-12V SUPPLY
5	GROUND
1	+12V SUPPLY
28	+6V SUPPLY
26	GATE 1 OUTPUT
11	GATE 2 INPUT
12	GATE 2 INPUT
13	GATE 2 INPUT
14	+12V SUPPLY
16	GROUND
25	GATE 2 OUTPUT
19	GATE 3 INPUT
20	GATE 3 INPUT
18	GATE 3 INPUT
24	GATE 3 OUTPUT
31	GATE 4 INPUT
32	GATE 4 INPUT
27	GATE 4 OUTPUT

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Figure 5-58. NAND gate module, schematic diagram.

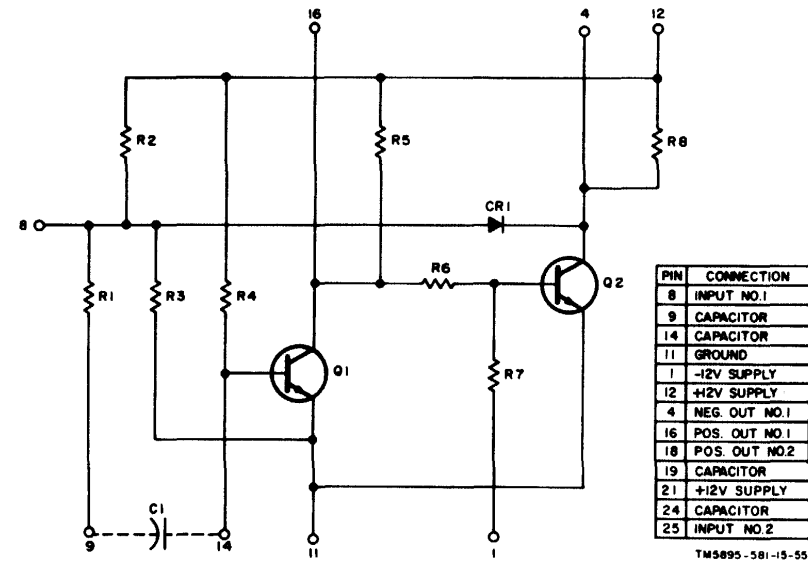


Figure 5-59. One-shot module, schematic diagram.

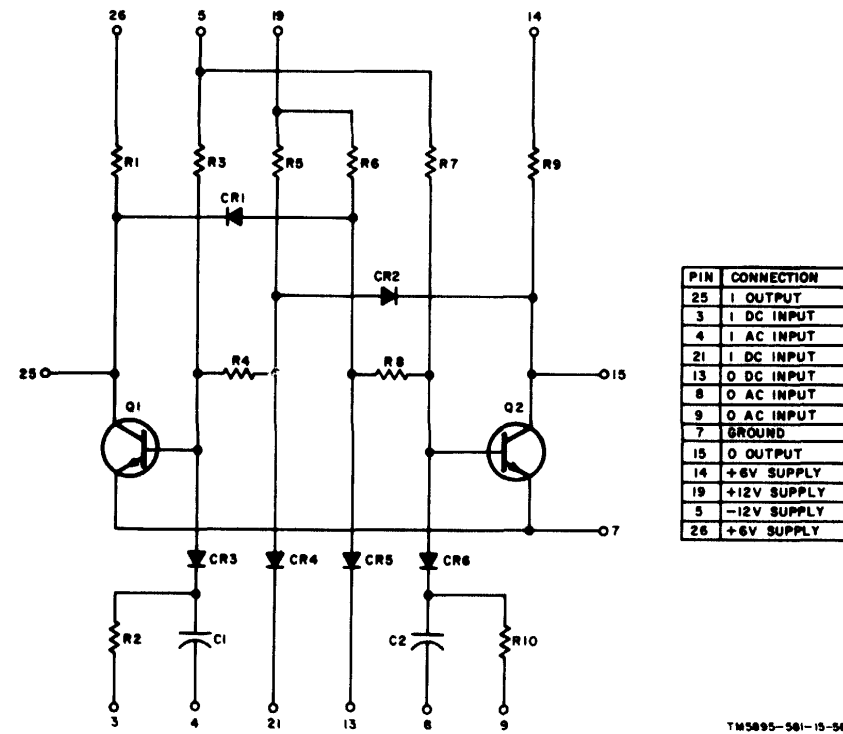


Figure 5-60. RST Flip-flop module, schematic diagram.

5-67. Memory Logic Power Supply A8

The memory logic power supply (fig. 6-99) provides regulated dc power for the logic circuits of the core memory and consists of two individually regulated supplies (+ 12 and -12 volts dc) operated from a common power transformer. The two supplies are similar, and only the +12 volt dc supply is described.

a. Primary power is applied to transformer T1 from the drive power supply via connector P1 to activate full wave rectifier C(R1, CR2 (main supply) and full wave rectifier CR7, CR8 (auxiliary supply). Series regulator transistor Q1 is connected in series with the return of rectifier CR1, CR2 to provide a regulated output across terminals P-11 and P1-7. The common and + 12 volt dc output terminals are connected to the 0 sense and + 12 sense terminals to provide a means of detecting output voltage error.

b. The sense input is connected across voltage divider R13 through R15 in order to maintain a fixed percentage of the output voltage at the base of transistor Q8. Transistors Q7 and Q8 form a differential amplifier, with the + 12 sense input as both the collector supply and bias supply for Q7. Diode CR10 maintains a fixed drop between the + 12 sense input and the base of Q7. When the sense input changes, the full change is applied to the base of Q7, whereas only a percentage of the change is applied to the base of Q8. The differential amplifier operates on the difference between the full change and the percentage change to drive voltage amplifier transistor Q6 and form a high-gain error signal.

c. The output from voltage amplifier Q6 is used to drive Darlington pair Q4, Q5. Emitter-follower Q3 provides the final current gain necessary to drive series regulator transistor Q1. This configuration provides base current drive to the series regulator that is inversely proportional to the output voltage. Thus any rise in output voltage reduces the drive to the series regulator to bring the output back to the specified value. Capacitor C6 in the base circuit of amplifier Q6 reduces the gain at high frequencies to prevent oscillation.

5-68. Memory Drive Power Supply A4

The drive power supply (fig. 6-97) provides core switching current for the core memory and consists of two individually regulated supplies (+6 and -20 volts dc) operated from a common power transformer. The two supplies are similar, with the exception of a preregulator circuit incorporated into

the -20 volt dc supply. On the -20 volt dc supply is described.

a. Closing switch S1 applies primary power to transformer T1 to activate full-wave rectifier CR1, CR2 and full-wave bridge rectifier CR18 through CR21. The bridge rectifier supplies the output power, while full-wave rectifier CR1, CR2 provides operating potential for preregulator unijunction transistor Q1 and silicon controlled rectifier SCR1. Resistor R1 and zener diode CR3 shape the operating potential into a regulated trapezoidal wave for base 2 of unijunction transistor Q1.

b. The voltage drop across series regulator Q15 and driver Q14, is a measure of the current demanded by the load. This voltage drop is detected by the emitter circuit of unijunction transistor Q1 via zener diode CR6. As the voltage drop across the series regulators increases, drive to the unijunction transistor Q1 is reduced in proportion. As a result the trapezoidal wave is altered in such a manner as to delay its leading edge. Since the trapezoidal output of the unijunction transistor Q1 is used to turn on SCR1, the delayed leading edge turns on SCR1 later in the cycle and the current output of the bridge rectifier is reduced. The net effect is to maintain approximately 10 to 30 volts dc across the series regulators, independently of line and load variations.

c. The output of SCR1 of the preregulator passes through the series regulators to the common output terminal for the -20 volt dc supply. The other side of the bridge rectifier provides the -20 volt dc output. The common and -20 volt dc terminals are connected to the 0 sense and -20 sense terminals to provide a means of detecting output voltage error. In this way the output voltage is applied to voltage divider R21, R22, and a fixed percentage of the output voltage is connected to the -20 V ADJ potentiometers via the remote thermistor. A return is provided to a constant-voltage source developed by zener diode CR11. A connection to the base of transistor Q6 forms one input to a differential amplifier (Q6, Q7) that detects and amplifies any error present in the power supply output. Potentiometers R37 and R38 provide coarse and fine adjustment of the percentage of the output voltage that appears at the base of Q6.

d. The output of the differential amplifier is amplified by voltage amplifier transistor Q4 and fed to Darlington pair

Q2, Q3. Emitter-follower Q14 provides the final current gain necessary to drive series regulator transistor Q15. This arrangement provides base current drive to the series regulator that is inversely proportional to the output voltage. Thus any rise in output voltage reduces the drive to the series regulator to bring the output back to the specified value. Capacitor C3 in the base circuit of amplifier Q4 reduces the gain at high frequencies to prevent oscillation.

5-69. Power Supply A3A1

Power Supply A3A1 (fig. 6-89) provides regulated + 5.25-volt dc power for the integrated circuits within the coordination simulator. The application of primary to transformer T1 activates three full-wave rectifiers (diodes CR1 through CR4, diodes CR5 and CR6, and diodes CR7 and CR8). The output voltage of full-wave rectifier CR5 and CR6 is filtered by capacitor C4 and applied to the collectors of drive amplifier transistors Q11 and Q6. The output voltage of full-wave rectifier CR7 and CR8 is filtered by capacitor C5 and applied to series regulator transistor Q10. Series regulator transistor Q10 provides a regulated supply for the error detection circuits. Voltage divider network R1, R5, R6, and R7 provides an adjustable reference voltage at the base of transistor Q1. Transistors Q8 and Q9 form a differential amplifier to provide a sensing network which is used to maintain the regulated output voltage of series regulated Q10.

a. The positive sense input is connected to the base of transistor Q2. When the sense input rises or falls below the required value, differential amplifiers Q1 and Q2 senses the difference (error voltage), amplifies the difference, and forwards it to differential amplifiers Q3 and Q4 for further amplification. The output of transistor Q4 is forwarded to drive amplifiers Q6 and Q11 to form a high-gain error signal. The output from drive amplifier Q11 provides base current drive to series regulators Q12 through Q20 that is inversely proportional to the output voltage. The output voltage of full-wave rectifier CR1 through CR4 is filtered by capacitors C1A, C13, C2A, C2B, and C3 and applied to series regulator Q12 through Q20 to provide an output voltage regulated at the required value. Thus any rise in output voltage reduces the drive to series regulators Q12 through Q20 to bring the output voltage back to the specified value.

b. Transistor Q7 provides protection against an overload condition. Potentiometer R30 is set to enable transistor Q7 to turn on when the voltage at diode CR9 rises to a specified value due to excessive current drawn through series regulator transistors Q12 through Q20. The output voltage of Q7 reduces the drive to the base of transistor Q6 which in turn reduces the drive of transistor Q11. The output voltage of Q11 reduces the drive to series regulators Q12 through Q20 to force the voltage at CR7 to a value which reverse biases transistor Q7, thereby eliminating the overload condition.

c. Uni-junction transistor Q50 provides protection against an overvoltage condition. Voltage divider network R50 and R52 is used as the emitter bias for Q50. Zener diode CR51 provides a constant base voltage to prevent interaction due to a change in the power supply output. When the output voltage rises for any reason by more than 2 volts or 10 percent (whichever is greater), uni-junction transistor Q50 triggers SCR diode CR52 which shorts the output and protects the load. If the overvoltage is due to an incorrect voltage adjustment (potentiometer R50), or open sense leads, the supply can be reactivated by removing the reason for overvoltage and by removing and reapplying line power.

5-70. Power Supplies A3A2, A3A4

Power supply A3A2 (fig. 6-91) provides regulated -120 volt dc power for the neon lamps of the line block display; power supply A3A4 provides -60 volt dc power for the neon lamps. Power supply A3A4 is similar to power supply A3A2 with the exception of some component values; these are changed to be consistent with the output voltage. The following description applies to both power supplies.

a. The application of primary power to transformer T1 activates two full-wave rectifiers (diodes CR1 through CR4 and diodes CR5 and CR6). The output voltage of full-wave rectifier CR5 and CR6 is filtered by capacitor C4 and applied to the collector of drive amplifier transistor Q6. The output voltage of full-wave rectifier CR1 through CR4 is filtered by capacitors C1, C2, and C3 and is applied to series regulator transistors Q8, Q8A, Q9, and Q9A to provide an output voltage regulated at a required value. Full-wave rectifier

CR1 through CR4 also provides collector voltage for drive amplifier transistor Q10. Zener diode CR10 provides a fixed voltage at the collectors of transistors Q6, Q7, and Q2.

b. The positive output is connected across voltage divider network R4, R1, R28, R2, R3, and R5 in order to maintain a fixed percentage of the output voltage at the base of transistor Q1. Transistors Q1 and Q2 form a differential amplifier, with the +12 volt output as the collector supply for Q1. The sense input is connected across zener diode CR8 to maintain a fixed voltage drop between the + 12 sense input and the base of transistor Q4. The voltage at the base of transistor Q4 is compared against the voltage at the base of transistor Q3, and the difference (error voltage) is amplified and forwarded to the drive amplifier transistors Q10 and Q6 for further amplification. The outputs from Q10 and Q6 provide base current drive to the series regulators that is inversely proportional to the output voltage. Thus any rise in output voltage reduces the drive to the series regulators to bring the output back to the specified value.

c. Transistor Q7 provides protection against an overload condition. Potentiometer R28 is set to enable transistor Q7 to turn on when the voltage at CR7 rises to a specified value due to excessive current drawn through the series regulators. The output voltage of Q7 reduces the drive to series regulators Q8 and Q8A to bring the voltage at CR7 to an amount which reverse biases transistor Q7, thereby eliminating the overload condition.

5-71. Power Supply A3A5

Power supply A3A5 (fig. 6-95) provides regulated +12-volt dc power for circuits within the coordination simulator. The application of primary power to transformer T1 activates two full-wave rectifiers (diodes CR1 through CR4 and diodes CR5 through CR6). The output voltage of full-wave rectifier CR5 and CR6 is filtered by capacitor C4 and applied to the collectors of drive amplifier transistors Q5 and Q6. The output voltage of full-wave rectifier CR1 through CR4 is filtered by capacitors C1, C2, and C3 and is applied to series regulator transistors Q8 through Q11 to provide an output voltage regulated at the required value.

a. The sense input is connected across voltage divider R1 through R3 in order to maintain a fixed percentage of the output voltage at the base of transistor Q3. Transistors Q3 and Q4 form a differential amplifier, with the + 12-volt output as the collector supply for transistor Q3 and the + 12 sense input as the bias supply for transistor Q3. Zener diode CR8 maintains a fixed voltage drop between the + 12 sense input and the base of transistor Q4. When the sense input changes, the full change is applied to the base of Q4, whereas only a percentage of the change is applied to the base of Q3. The differential amplifier operates on the difference between the full change and the percentage of change to drive amplifier transistors Q5 and Q6 to form a high-gain error signal.

b. The output from drive amplifier Q6 provides base current drive to the series regulators that is inversely proportional to the output voltage. Thus any rise in output voltage reduces the drive to the series regulators to bring the output back to the specified value.

c. Transistor Q7 provides protection against an overload condition. Potentiometer R23 is set to enable transistor Q7 to turn on when the voltage at CR7 rises to a specified value due to excessive current drawn through the series regulators. The output voltage of Q7 reduces the drive to the base of transistor Q5 which in turn reduces the drive of transistor Q6. The output voltage of Q6 reduces the drive to series regulator Q8 to force the voltage at CR7 to a value which reverse biases transistor Q7, thereby eliminating the overload condition.

5-72. Power Supply A3A3

Power supply A3A3 (fig. 6-93) is similar in circuit configuration and operation to power supply A3A5 described in paragraph 5-71.

**CHAPTER 6
DS, GS, AND DEPOT MAINTENANCE**

Section I. GENERAL

6-1. Scope

This chapter contains instructions for direct support (DS), general support (GS), and depot maintenance of the simulator and includes monthly preventive maintenance, adjustments and repair, testing, and rebuilding procedures.

6-2. Tools and Test Equipment Required

Appendix III lists the tools and test equipment for DS, GS, and depot maintenance.

Section II. PREVENTIVE MAINTENANCE

6-3. Scope

Preventive maintenance consists of monthly checks and services to insure that the simulator remains in good general condition and reflects all applicable MWO's.

6-4. Monthly Preventive Maintenance Checks and Services Chart

Sequence No.	Item	Procedure	References
1	Transformer terminals	Inspect the terminals on the power transformer. All nuts must be tight. No dirt or corrosion should be evident.	
2	Terminal blocks	Inspect terminal blocks for loose connections and cracked or broken insulation.	
3	Publications	See that all publications are complete, serviceable, and current.	DA Pam 310-4
4	Modifications	Check DA Pam 310-7 to determine if new applicable MWO's have been published. All URGENT MWO's must be applied immediately. All NORMAL MWO's must be scheduled.	TM 38-750 and DA Pam 310-7
5	Spare Parts	Check all spare parts (operator and organizational) for general condition and method of storage. No overstock should be evident and all shortages must be on valid requisitions.	App III

6-5. Touchup Painting Instruction

Remove the rust and corrosion from metal surfaces by lightly sanding them with fine sandpaper. Brush two thin

coats of paint on the bare metal to protect it from further corrosion. Refer to applicable cleaning and refinishing practices specified in TM9-213.

Section III. TROUBLESHOOTING

6-6. General Troubleshooting Information

WARNING

When servicing the simulator be extremely careful because of voltages present that are unusually high for transistor circuits, particularly in the line block display unit (120 volts).

a. General Instructions. Troubleshooting at DS, GS and depot maintenance levels includes localizing the trouble to a printed circuit card, integrated circuit card, or power supply, and then, isolating the trouble to a particular stage or component. Localizing and isolating troubles depend on the recognition and interpretation of trouble symptoms. Both operational and bench test procedures are used to demonstrate improper circuit operation and provide a definite trouble symptoms. Troubleshooting charts provide a normal interpretation, (probable cause) of these trouble symptoms.

b. Organization of Troubleshooting Procedures.

(1) *Localization.* Almost all trouble symptoms of the simulator consist of an indicator lamp illuminating when it should not, or extinguishing when it should not. In many cases this type of symptom depends on the particular sequence of events or operations that preceded the failure particular trouble symptom resulting from one sequence of operations may have a completely different interpretation from the same symptom resulting from a second sequence of operations. Troubleshooting charts are provided which specify a sequence of operations that exercises all circuits in the simulator. The first step in troubleshooting the simulator is to perform all the operations in troubleshooting charts and check for the presence of each normal indication. When a trouble symptom is encountered the replacement of one or more cards is specified.

(2) *Isolation.* Isolation procedures are performed after the trouble has been localized as described in (1)

above. Paragraphs 6-16 through 6-49 provide bench test procedures for each subassembly. The bench test procedures provide test signal inputs and specify the minimum acceptable outputs. Use the bench tests in conjunction with the accompanying voltage or resistance charts to identify the faulty component.

6-7. Troubleshooting Charts, General

a. The following paragraphs provide a complete checkout of the simulator when performed as a set in the order given. At the option of the troubleshooter, individual charts may be selected for use when the trouble area is known. However, the procedures of the preliminary troubleshooting chart (para 6-8) and the applicable procedures of the initial control settings troubleshooting chart (para 6-9) must be performed first.

b. For each item in a chart a procedure is given. Perform the procedure, exactly as given, and then check for the presence of the specified normal condition. For some procedures there is no normal indication; in this case proceed to the next item. If the specified normal indication is not observed, refer to the *Checks and corrective measures* column and perform the procedures given therein.

c. After the prescribed corrective measures have been taken, repeat as much of the test as is required to demonstrate that the trouble is eliminated. If the trouble persists, refer to the logic diagrams in Chapter 5 and the wiring data (app. IV) for signal tracking information. Use the oscilloscope and card extender to check the outputs of switches, gates, and flip-flops until the defective card is located.

d. When the corrective measure is to replace two or more cards, it is advisable to replace the cards one at a time. Test the repair as in *c* above after each card is replaced. In this way the defective card can be identified.

e. Refer to location diagrams (figs. 6-1 through 6-9) for the location of subassemblies, as follows:

- (1) Subassembly prefixed A1, figures 6-4 and 6-5.
- (2) Subassembly prefixed A2, figures 6-6 and 6-7.
- (3) Subassembly prefixed A3, figure 6-9.
- (4) Subassembly prefixed A5, figure 6-8.
- (5) Subassembly prefixed A6, figures 6-1 and 6-2.
- (6) Subassembly prefixed A7, figures 6-1 and 6-3.

6-8. Preliminary Troubleshooting Chart

Item	Procedure	Indication	Checks and Corrective Measures
1	Set the INH MEMORY illuminated pushbutton to the lit position.		
2	Set the POWER ON/OFF switch of the FERROX CUBE MEMORY UNIT to the OFF position.		
3	Set CIRCUIT BREAKERS 1 thru 4 on the POWER SUPPLY SHELF to the OFF position, in the following order (1) -120V; (2) -60V; (3) -12V/.A12V (4) -LVL.		
4	Remove plug P-103 from jack J-103, located at the rear of the FERROX CUBE MEMORY UNIT.		
5	Set CIRCUIT BREAKERS 1 THRU 4 to the ON position, in the following order (1) 4 VL, (2) -12/+12V; (3) -60V; (4) -120V.		
6	Set the memory unit POWER ON/OFF switch to the ON position, and the INH MEMORY illuminated pushbutton to the unlit position.	POWER lamp illuminates, INH MEMORY indicator lamp extinguishes.	Perform items 12 through 15. If any of the required voltages are not present refer to paragraph 6-51 for replacement procedures.
7	Measure output voltage of power supply A3A1 (5-25 vdc by connecting Fluke meter to pins 3 and 4 of A3TB1 (fig. 6-9) located at the rear of power supply shelf A3.	5.25 vdc ± 5 mv.	If indication on Fluke meter is not the required value refer to paragraph 6-53 for adjustments.
8	Measure output voltage of power supply A3A2 (-120 vdc) by connecting Fluke voltmeter to pins 12 and 14 of A3TB1.	-120 vdc ± 0.1v	If indication on Fluke meter is not the required value refer to paragraph 6-54 for adjustments.
9	Measure output voltage of power supply A3A3 (-12 vdc) by connecting Fluke meter to pins 9 and 10 of A3TB1.	-12 vdc ± 12 mv.	If indication on Fluke meter is not the required value refer to paragraph 6-55 for adjustments.
10	Measure the output voltage of power supply A3A4 (-60 vdc) by connecting Fluke meter to pins 12 and 13 of A3TB1.	-60 vdc ± 60 mv.	If indication on Fluke meter is not the required value refer to paragraph 6-56 for adjustments.
11	Measure the output voltage of power supply A3A5 (+12 vdc) by connecting Fluke meter to pins 6 and 7 of A3TB1.	- 12 vdc ± 12 mv.	If indication on Fluke meter is not the required value refer to paragraph 6-56 for adjustments.
12	Measure the -6 vdc output of memory drive power supply A4. Connect Fluke meter to pins E and H of P-103, located at the rear of the FERROX CUBE MEMORY UNIT.	+ 6 vdc ± 300 mv.	If indication on Fluke meter is not the required value, refer to paragraph 6-57 for adjustments.
13	Measure the -120 vdc output of memory drive power supply A4. Connect Fluke meter to pins F and H of P-103, located at the rear of the FERROX CUBE MEMORY UNIT.	20 vdc ± 1 volt	If indication on Fluke meter is not the required value, refer to paragraph 6-57 for adjustments.
14	Measure the -12 vdc output of memory logic power supply A8. Connect Fluke meter to pins C and H of P-103, located at the rear of the FERROX CUBE MEMORY UNIT.	+ 12 vdc ± 600 mv.	If indication on Fluke meter is not the required value, refer to memory logic power supply schematic diagram (figure 6-99) for troubleshooting.

NOTE: THIS VOLTAGE IS NOT ADJUSTABLE.

Item	Procedure	Indication	Checks and Corrective Measures
15	Measure the -12 vdc output of memory logic power supply A8. Connect Fluke meter to pins D and H of P-103, located at the rear of the FER- ROX CUBE MEMORY UNIT.	-12 vdc ± 600 mv.	If indication on Fluke meter is not the required value, refer to memory logic power supply schematic dia gram (figure 6-99) for trouble shooting. NOTE: THIS VOLTAGE IS NOT ADJUSTABLE
16	Power the COORDINATION SIMULATOR OFF following items #1 through #3, and reconnect P-103 to J-103, located at the rear of the FER-ROX CUBE MEMORY UNIT.	None	
17	Power the COORDINATION SIMULATOR ON following items #5 and 6. Measure the output frequency of oscillator card LO. Connect electronic counter test lead to OUT test point on oscillator card and adjust controls to obtain display of 1.2288 megacycles.	1/2288 ± .0000 megacycles	If indication on electronic counter is not the required value, refer to paragraph 6-58 for adjustments.

6-9. Initial Control Settings Troubleshooting Chart

Item	Procedure	Indication	Checks and Corrective Measures
1	ASR teletype set: a. Set ON LINE/OFF LINE/LOC switch to ON LINE position. b. Set MODE switch to T position.	a. None. b. None.	
2	Core memory: a. Set MONITOR SELECTED LOCATION pushbutton to illuminated position. b. Set XMIT/RCV pushbutton to XMIT position. c. Set ADDRESS/DATA pushbutton to DATA position. d. Depress INH MEMORY pushbutton. e. Set toggle switches 1, 2, 3, 4, 5, 6, 7, P to up position. f. Set BLOCK NO switch to 01. g. Set CHAR NO switch to 02.	a. Lamp illuminates. b. XMIT lamp illuminates. c. DATA lamp illuminates. d. INH MEMORY lamp extinguishes. e. None. f. None. g. None.	a. A2S23 (fig. 5-35 (3)). b. A2S24 (fig. 5-35 (3)). c. A2S25 (fig. 5-35 (3)). d. A2S29 (fig. 5-35 (4)).
3	Character reader: a. Set LAMP CHECK pushbutton to unlit position.	a. Some character reader and core memory lamps are extinguished.	a. A2S20 (fig. 5-35 2), A2Q2 (fig. 5-35 21)

Item	Procedure	Indication	Checks and Corrective Measures	Item	Procedure	Indication	Checks and Corrective Measures
	b. Set PAR CONT/PAR DATA pushbutton to PAR CONT position.	b. PAR CONT lamp illuminates.	b. A2S5 (fig. 5-35 (1))		b. Set INT CLK/EXT CLK pushbutton to INT CLK position.	b. INT CLK lamp illuminates.	b. A2S31 (fig. 5-35 (5))
	c. Set INT CLK/EXT CLK pushbutton to INT CLK position.	c. INT CLK lamp illuminates.	c. A2S1 (fig. 5-35 (1))		c. Set PTCH SEND/CORE SEND pushbutton to CORE SEND position.	c. CORE SEND lamp illuminates.	c. A2S32 (fig. 5-35(5))
	d. Set RPAR NORM/RPAR INVT pushbutton to RPAR NORM position.	d. RPAR NORM lamp illuminates.	d. A2S7 (fig. 5-35 (1))		d. Set AUTO CORD/MAN CORD pushbutton to MAN CORD position.	d. MAN CORD lamp illuminates.	d. A2S33 (fig. 5-35 (5))
	e. Set ALL RCVD/LAST RCVD pushbutton to LAST RCVD position.	e. LAST RCVD lamp illuminates.	e. A2S17 (fig. 53 (1))		e. Set MSU/CSU pushbutton to MSU position.	e. MSU lamp illuminates	c. A2S34 (fig. 5-35 (5))
	f. Set BIT RATE SELECT switch to 4800.	f. None.			f. Set CONT/BLK/BLK pushbutton to BLK/BLK position.	f. BLK/BLK lamp illuminates.	f. A2S36 (fig. 5-35 (5))
	g. Set CODE SELECT switch to ASM1 position.	g. None.			g. Set NORMAL/SELF TEST pushbutton to SELF TEST position.	g. SELF TEST lamp illuminates.	g. A2S37 (fig. 5-35 (6))
4	Block Reader:				h. Set TP NORM/TP INVT pushbutton to TP NORM position.	h. TP NORM lamp illuminates.	h. A2S38 (fig. 5-35 (6))
	a. Set LAMP CHECK pushbutton to unit position.	a. Some block reader lamps are extinguished.	a. A2S93 (fig. 5-35 (11)), A2Q4 (fig. 5-35 (21))		i. Set ETX STOP/ETX SENT pushbutton to ETX STOP position.	i. ETX STOP lamp illuminates.	i. A2S42 (fig. 5-35 (6)), A2A318
	b. Set NSU/CSU pushbutton to MSU position.	b. MSU lamp illuminates.	b. A2S62 (fig. 5-35 (9))		j. Set ETB STOP/ETB SENT pushbutton to ETB STOP position.	j. ETB STOP lamp illuminates.	j. A2S43 (fig. 5-35 (6)), A2A318
	c. Set NORM PRINT/SEL PRINT pushbutton to SEL PRINT position.	c. SEL PRINT lamp illuminates.	c. A2S64 (fig. 5-35 (9))		k. Set ERR STOP/ERR pushbutton to ERR STOP position.	k. ERR STOP lamp illuminates.	k. A2S44 (fig. 5-35 (6)), A2A318
	d. Set INT CLK/EXT CLK pushbutton to INT CLK position	d. INT CLK lamp illuminates.	d. A2S63 (fig. 5-35 (9))		l. Set MSG # STOP/COMP pushbutton to MSG # STOP position.	l. MSG # STOP lamp illuminates.	l. A2S45 (fig. 5-35 (6)), A2A318
	c. Set C'ONT/BLK/BLK pushbutton to BLK/BLIK position.	c. BLK/BLK lamp illuminates.	c. A2S65 (fig. 5-35 (9))		m. Set BIT RATE SELECT switch to 4800.	m. None.	
	f. Set ETB STOP RCV pushbutton to unlit position.	f. ETB STOP RCV lamp extinguishes.	f. A2S71 (fig. 5-35 (11))		n. Set CODE SELECT switch to ASM1 position.	n. None.	
	g. Set ETX STOP RCV pushbutton to unlit position.	g. ETX STOP RCV lamp extinguishes.	g. A2S72(fig.5 35 (11))		o. Set INSERT PATCH BOARD switch to BLK1 position.	o. None.	
	h. Set ERROR STOP RCV pushbutton to unlit position.	h. ERROR STOP RCV lamp extinguishes.	h. A2S73 (fig. 5-35 (11))		p. Set INSERT ABCDE switch to LAST position.	p. None.	
	i. Set RPAR NORM/RPAR INVT pushbutton to RPAR NORM position.	i. RPAR NORM lamp illuminates.	i. A2S74 (fig. 5-35 (11))		q. Set PAUSE TIME NO (X10 MS) switches to 65.	q. None.	
	j. Set START SOB/START SOII pushbutton to START SOH position.	j. START SOH lamp illuminates.	j. A2S75 (fig. 5-35 (11))		r. Set 2CC SELECT switch to RM position.	r. None.	
	k. Set ALL RCVD/LAST RCVD pushbutton to LAST RCVD position.	k. LAST RCVD lamp illuminates.	k. A2S90 (fig. 5-35 (11))		s. Set EOB NO BLOCK 1 switches to 83.	s. None.	
	l. Set BIT RATE SELECT switch to 4800.	l. None.			t. Set EOB NO BLOCK 2 switches to 83.	t. None.	
	m. Set CODE SELECT switch to ASM1 position.	m. None.			u. Set REPEAT NO switches to 88.	u. None.	
	n. Set DISPLAY LOCKUP switch to OFF position.	n. None.			v. Set ABCDE NO switches to 78.	v. None.	
	o. Set RCV/PRINT LINE BLOCK COUNT NO switch to 02	o. None.			w. Set XMIT LINE BLOCK COUNT NO switches to 04.	w. None.	
	p. Set RCV PAUSE switch to 15.	p. None.			x. Set MESSAGE NO switches to 02.	x. None.	
	q. Set AUTO PRINT CONTROL switch to OFF position.	q. None.			y. Set RESPONSE TIME NO switches to 75.	y. None.	
5	Block generator:			6	Code framing and control character patch board as shown in figure 39.	None.	
	a. Set LAMP CHECK pushbutton to unlit position.	a. Some block generator lamps are extinguished.	a. A2S60(fig. 35 (8)) A2Q2(fig. (21))	7	Code DATA character patch board as shown in figure 3-9.	None.	

Item	Procedure	Indication	Checks and Corrective Measures
1	Check MEM NORM/MEM INVT, PRINT BLOCK and WRITE MSG pushbuttons.	a. MEM NORM lamp is illuminated. b. PRINT BLOCK lamp is illuminated c. WRITE MSG lamp is illuminated.	a. A2S28 (fig. 5-35 (3)) b. A7A1101, A7A512, A7A809, A7A915 c. A6A610, A6A309, A6A209, A6A409
2	Place test tape A (improperly framed message) into ASR set tape reader; then depress WRITE MSG pushbutton on simulator.	WRITE MSG lamp extinguishes	A6A610, A6A309, A6A706
3	Set ASR set tape reader lever to RUN.	After approximately 10 seconds the following occur: a. Audible alarm sounds b. ALARM lamp illuminates. c. TERM lamp illuminates	a. A6A1115, A6A1106 b. A6A604, A6A812, A6A1115 c. A6A1115, A6A1106
4	Depress ALARM pushbutton.	Audible alarm ceases.	A6A610, A6A309, A6A209, A6A409
5	Set ASR set tape reader lever to STOP; then depress TERM pushbutton on simulator.	TERM lamp and ALARM lamp extinguish, and WRITE MSG lamp illuminates.	A6A610, A6A309, A6A209, A6A409
6	Place test tape B (properly framed message) in ASR set tape reader; then depress WRITE MSG pushbutton.	WRITE MSG lamp extinguishes.	A6A610, A6A309, A6A209, A6A409
7	Set ASR set tape reader lever to RUN.	After approximately 30 seconds, WRITE MSG lamp illuminates.	A6A610, A6A309, A6A209, A6A409
8	Set ASR set tape reader lever to STOP.	None.	
9	Check core memory ADDRESS OR DATA lamps.	ADDRESS OR DATA lamps 2 ⁰ , 2 ¹ , 2 ² , 2 ³ and 2 ⁷ are illuminated	A7A1132, A7A1133, A7A1134
10	Depress ADDRESS/DATA pushbutton to ADDRESS position.	ADDRESS OR DATA lamps 2 ⁰ , 2 ¹ , 2 ² , 2 ³ , 2 ⁴ , 2 ⁵ , 2 ⁶ and 2 ⁷ illuminate.	A7A1132, A7A1133, A7A1134
11	Depress WRITE CHAR pushbutton. Depress ADDRESS/DATA pushbutton to DATA position.	ADDRESS OR DATA lamps 2 ⁰ , 2 ¹ , 2 ² , 2 ³ , 2 ⁴ , 2 ⁵ , 2 ⁶ and 2 ⁷ illuminate.	A7A1132, A7A1133, A7A1134
12	Set CORE MEMORY toggle switches 5, 6,	ADDRESS OR DATA	A7A1132, A7A1133, A7A1134

Item	Procedure	Indication	Checks and Corrective Measures
	and 7 to down position: then depress WRITE CHAR pushbutton.	lamps 2 ⁰ , 2 ¹ , 2 ² , 2 ³ , and 2 ⁷ illuminate.	
13	Depress PRINT BLOCK pushbutton.	PRINT BLOCK lamp extinguishes and printout begins.	A7A915, A7A809, A7A512, A7A1101, A7A116
14	When printout terminates, check PRINT BLOCK pushbutton.	PRINT BLOCK lamp illuminates.	A7A915, A7A809, A7A512, A7A1101
15	Check ASR set printout.	Message printout is as illustrated in figure 6-15.	A7A1008, A7A432, A7A1032, A7A331, A7A324, A7A1034

6-11. Manual Coordination Troubleshooting

a. *Block Generator Troubleshooting Chart.*

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress BG RESFT and RESET IND pushbuttons.	The following amps are illuminated: a. INT CLK b. CORE SEND c. MAN CORD d. MSU e. BLK/BLK f. SELF TEST g. TP NORIM h. START XMIT i. ETX STOP j. EBT STOP k. MSG # STOP l. XMIT SYNC m. ERR STOP	a. A2S31 (fig. 5-35 (5)) b. A2S32 (fig. 5-35 (5)) c. A2S33 (fig. 5-35 (5)) d. A2S34 (fig. 5-35 (5)) e. A2S36 (fig. 5-35 (5)) f. A2S37 (fig. 5-35 (6)) g. A2S38 (fig. 5-35 (6)) h. A6A733, A6A728 i. A2S42 (fig. 5-35 (6)), A2A318 j. A3S43 (fig. 5-35 (6)), A2A318 k. A2S45 (fig. 5-35 (7)), A2A318 l. A6A627 m. A2S44 (fig. 5-35 (7)), A2A318
2	Depress XMIT 2CC pushbutton.	RM SENT lamp illuminates	A6A831, A6A1129
3	Rotate 2CC SELECT thumbwheel switch to NACK position and depress XMIT 2CC pushbutton.	a. XMIT REP lamp illuminates b. REPLAY TIME counter counts to 99	a. A6A731, A6A831, A6A1134 b. A6A820, A6A721, A6A1120, A6A1121, A6A920, A6A821, A6A919, A6A1020
4	Rotate 2CC SELECT TUMBWHEEL switch to REP position and depress XMIT 2CC pushbutton.	a. XMIT REP LAMP illuminates. b. REPLY TIME counter counts to 99.	a. A6A731, A6A831, A6A1134 b. A6A820, A6A721, A6A1120, A6A1121, A6A920, A6A821, A6A919, A6A1020

Item	Procedure	Indication	Checks and Corrective Measures	Item	Procedure	Indication	Checks and Corrective Measures
5	Rotate 2CC SELECT thumbwheel switch to CAN position and depress XMIT 2CC pushbutton	a. CAN/SET lamp illuminates.	a. A6A1120, A6A732	16	Depress CONT/BLK/BLK pushbutton.	CONT LAMP illuminates	A2S36 (fig 5-35 (5))
		b. REPLY TIME counter counts to 99.	b. A6A820, A6A721, A6A1120, A6A1121, A6A920, A6A821	17	Depress START XMIT pushbutton.	a. START XMIT lamp extinguishes and illuminates.	a. AGA728, A6A733
6	Rotate 2CC SELECT thumbwheel switch to INV position and depress XMIT 2CC pushbutton	INV SENT lamp illuminates	A6A1129, A6A733			b. XMIT DATA lamp illuminates.	b. A6A1134, A6A634
7	Depress RESET IN pushbutton	The following lamps extinguish: a. RM SENT b. NACK SENT c. CAN SENT d. XMIT REP e. INV SENT	a. A6A1128, A6A831, A6A1129 b. A6A1128, A6A732, A6A729 c. A6A1128, A6A1129, A6A732 d. A6A1128, A6A731, A6A831, A6A1134 e. A6A1128, A6A733, A6A1129	18	Depress START XMIT pushbutton.	c. XMIT SYNC lamp illuminates.	c. A6A734, A6A531, A6A633, A6A330, A6A429, A6A432
				19	Depress START XMIT pushbutton.	Same as item 17, except that REPLY TIME counter counts to 99.	A6A820, A6A721, A6A1120, AGA1121, A6A920, A6A8121, A6A919, A6A1020
				20	Depress START XMIT pushbutton.	Same as item 18.	Same as item 18.
				21	Depress START XMIT pushbutton.	Same as item 18.	Same as item 18.
						a. EXT SENT lamp illuminates.	a. A6A733, A6A534, A6A434
						b. START XMIT lamp illuminates.	b. A6A728, A6A733
						c. XMIT SYNCH lamp illuminates.	c. A6A734, A6A531, A6A633, A6A330, A6A429, A6A432
						d. REPLY TIME counter counts to 99.	d. A6A820, A6A721, A6A1120, A6A1121, A6A920, A6A821, A6A919, AGA1020
				22	Depress START XMIT pushbutton.	Same as item 17.	Same as item 17.
				23	Depress START XMIT pushbutton.	Same as item 18.	Same as item 18.
				24	Depress START XMIT pushbutton.	Same as item 18.	Same as item 18.
				25	Depress START XMIT pushbutton.	Same as item 18.	Same as item 18.
				26	Depress START XMIT pushbutton.	a. START XMIT lamp illuminates.	a. A6A728, A6A733
						b. EXT SENT lamp illuminates.	b. A6A733, A6A734, A6A434
						c. REPLY TIME counter counts to 99.	c. A6A820, A6A721, A6A1120, A6A121, A6A920, A6A821, A6A919, A6A1020
						d. COMP lamp illuminates.	d. A6A912, A6A913, A6A1011, A6A1013, A6A810, A6A811, A6A911, A6A713
8	Depress START XMIT pushbutton.	a. XMIT SYNC lamp extinguishes and illuminates b. XMIT DATA lamp illuminates and extinguishes. c. ETB SENT d. REPLY TIME counter counts to 99. e. START XMIT lamp illuminates	a. A6A734, A6A531, A6A633, A6A336, A6A429, A6A432 b. A6A1134, A6A634 c. A6A534, A6A434, A6A733 d. A6A820, A6A920, A6A821, A6A1121, A6A920, A6A821, A6A919, A6A1020 e. A6A728, A6A733	27	Depress ETX STOP/ETX SENT push-	ETX STOP lamp extinguishes.	A2S42 (fig. 5-35 (6)), A2A318
9	Depress START XMIT pushbutton.	Same as item 8.	Same as item 8.	28	Depress START XMIT pushbutton.	a. START XMIT lamp extinguishes and illuminates after a few seconds interval.	a. A6A728, A6A733
10	Depress START XMIT pushbutton.	Same as item 8.	Same as item 8.				
11	Depress START XMIT pushbutton.	Same as item 8, with the exception that EXT SENT lamp illuminates instead of ETB SENT.	A6A733, A6A534, A6A434				
12	Depress START XMIT pushbutton.	Same as item 8.	Same as item 8.				
13	Depress START XMIT pushbutton.	Same as item 8.	Same as item 8.				
14	Depress START XMIT pushbutton.	Same as item 8.	Same as item 8.				
15	Depress START XMIT pushbutton.	Same as item 11, with the exception that COMP lamp illuminates	A6A912, A6A913, A6A1011, A6A1013, A6A810, A6A811, A6A911, A6A713				

Item	Procedure	Indication	Checks and Corrective Measures
		b. XMIT DATA lamp flashes.	b. A6A1134, A6A634
		c. REPLY TIME counter counts to 99.	c. A6A820, A6A721, A6A1120, A6A1121, A6A920, A6A821, A6A919, A6A1020
		d. ETX SENT lamp illuminates.	d. A6A733, A6A534, A6A434
		e. COMP lamp illuminates.	e. A6A912, A6A913, A6A1011, A6A1013, A6A810, A6A811, A6A911, A6A713

b. Character Reader troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
		Note. Unless otherwise indicated, all indications are observed on character reader.	
1	Depress CR RESET and RESET IND pushbutton.	The following lamps are illuminated: a. INT CLK b. SYNC c. FRAME d. PAR CONT e. RPAR NORM f. LAST RCVD	a. A2S1 (fig. 5-35 (1)) b. A6A503, A6A504, A6A55., A6A501, A6A502, A6A402, A6A403, A6A302, A6A601, A6A703, A6A602, A6A7704, A6A603, A6A705, A6A905, A6A1005, A6A1104 c. A6A507, A6A408, A6A406, A6A1104 d. A2S5 (fig. 5-35 (1)) e. A2S7 (fig. 5-35 (1)) f. A2S17 (fig. 5-35 (2))
2	Rotate 2CC SELECT thumbwheel switch to ACK 1 position and depress XMIT 2CC pushbutton.	ACK 1 lamp illuminates.	A6A906, A6A902, A6A903, A6A1003, A6A1102
3	Rotate 2CC SELECT thumbwheel switch to ACK 2 position and depress XMIT 2CC pushbutton.	ACK lamp illuminate and ACK 1 lamp extinguishes.	A6A906, A6A903, A6A1003, A6A1102
4	Rotate 2CC SELECT thumbwheel switch to ACK position and depress XMIT 2CC pushbutton.	NACK lamp illuminates and ACK 2 lamp extinguishes.	A6A906, A6A1003, A6A1004, A6A1103
5	Rotate 2CC SELECT thumbwheel switch to RM position and depress XMIT 2CC pushbutton.	RM lamp illuminates and NACK lamp extinguishes	A6A803, A6A903, A6A1003, A6A1103
6	Rotate 2CC SELECT thumbwheel switch to WBT position and depress XMIT 2CC pushbutton.	a. VBT lamp illuminates. b. RM lamp illuminates	a. AA905, A6A801, AA902, A6A1003, A6A1102 b. A6A803, A6A9)03, A6A1003, A6A1103

Item	Procedure	Indication	Checks and Corrective Measures
7	Rotate 2CC SELECT thumbwheel switch to CAN position and depress XMIT 2CC pushbutton,	CAN lamp illuminates.	A6A803, A6A901, A6A902, A6A1006, A6A1101
8	Rotate 2CC SELECT thumbwheel switch to REP position and depress XMIT 2CC pushbutton.	REP lamp illuminates and CAN lamp extinguishes.	A6A803, A6A901, A6A1006, A6A1101
9	Rotate 2CC SELECT thumbwheel switch to INV position and depress XMIT 2CC pushbutton.	INV lamp illuminates.	A6A906, A6A1004, A6A1103
10	Rotate 2CC SELECT thumbwheel switch to ENQ position and XMIT 2CC pushbutton.	ENQ lamp illuminates.	A6A803, A6A1005, A6A1004, A6A1103
11	Depress RESET IND pushbutton.	The following lamps extinguish: a. WBT b. REP c. INV and ENQ	A6A1102, A6A801
12	Depress ALL RCVD/LAST RCVD pushbutton to ALL RCVD position.	All RCVD lamp illuminates.	A2S17 (fig. 5-35 (2))
13	Depress ETX STOP/ETX SENT pushbutton to ETX position.	ETX STOP lamp block generator illuminates.	A2S42 (fig. 5-35 (6)), A2A318
14	Depress CONT/BLK/BLK pushbutton to BLK/BLK position	BLK/BLK lamp block generator illuminates.	A2S36 (fig. 5-35 (5))
15	Depress START XMIT pushbutton.	Observe the following lamps: a. DATA lamp flashes and extinguishes. b. SYXC lamp flashes and extinguishes. c. SOH and STX lamps illuminate. d. EM and MC lamps illuminate. e. ETB and ETX lamps illuminate.	a. A6A505, A6A507, A6A407, A6A408, A6A508, A6A1103 b. A6A505, A6A507, A6A407, A6A408, A6A508, A6A1103 c. A6A904, A6A901, A6A1001, A6A404, A6A1101, A6A1002 d. A6A705, A6A905, A6A1001, A6A1002, A6A1101 e. A6A904, A6A1001, A6A1002, A6A901, A6A404, A6A1101
16	Depress START XMIT pushbutton.	Observe the following lamps: a. DATA lamp flashes and extinguishes. b. SYNC lamp flashes and remains illuminated. c. STX lamp illuminates.	a. Same as item 15. b. Same as item 15. c. Same as item 15.

Item	Procedure	Indication	Checks and Corrective Measures
		d. ETX lamp illuminates.	d. Same as item 15.
		e. SOH, ETB, EM, MC lamps flash and extinguish.	c. Same as item 15.
17	Rotate 2CC SELECT thumbwheel switch to NACK position.	None	
18	Remove diode pin from position P of second NACK column in control character patchboard and insert diode pin into position 7 of second NACK column.	None	
19	Depress XMIT 2CC pushbutton.	ERROR 1 lamp illuminates.	A6A1104, A6A406, A6A308, A6A307, A6A408, A6A206, A6A407, A6A803, A6A806, A6A705, A6A706, A6A707, A6A805, A6A1005
20	Depress XMIT 2CC pushbutton.	ERROR 2 lamp illuminates and ERROR 1 lamp extinguishes.	A6A1104, A6A406, A6A308, A6A307, A6A408, A6A206, A6A407, A6A803, A6A806, A6A705, A6A706, A6A707, A6A805, A6A1005
21	Depress XMIT 2CC pushbutton.	ERROR 1 and ERROR 2 lamps illuminate.	A6A1104, A6A406, A6A308, A6A307, A6A408, A6A206, A6A407, A6A803, A6A806, A6A705, A6A706, A6A707, A6A805, A6A1005
22	Depress XMIT 2CC pushbutton.	All character reader lamps remain in previous state.	
23	Depress PAR CONT/PAR DATA pushbutton to PAR DATA position.	PAR DATA lamp illuminates.	A285 (fig. 5-35 (1))
24	Depress RESET IND pushbutton. STX and ETX lamps extinguish.	ERROR 1, ERROR 2,	A6A406
25	Depress XMIT 2CC pushbutton.	All character reader indicators remain in previous state.	

c. Block Reader Troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
		Note. Units otherwise indicated, all indication are observed on block reader.	
1	Depress BR RESET and RESET IND pushbuttons.	The following lamps are illuminated. a. MSU	a. A2S62 (fig. 5-35 (9))

Item	Procedure	Indication	Checks and Corrective Measures
		b. INT CLK c. SEL PRINT d. BLK/BLK e. SYNC	b. A2S63 (fig. 5-35 (9)) c. A2S64 (fig. 5-35 (9)) d. A2S65 (fig. 5-35 (9)) c. A7A201, A7A202, A7A203, A7A204, A7A205, A7A10, A7A105, A7A203, A7A108, A7A212, A7A213, A7A111, A7A109, A7A113, A7A115
		f. CHAR FRAME	f. A7A805, A7A810, A7A712, A7A1113, A7A509, A7A511
		g. RPAR NORM h. START SOH i. LAST RCVD j. START RCV	g. A274 (fig. 5-35 (10)) h. A2S75 (fig. 5-35 (10)) i. A2S90 (fig. 5-35 (10)) j. A7A511, A7A512, A7A716, A7A1003
2	Rotate 2CC SELECT thumbwheel switch to ACK 1 position and depress XMIT 2CC pushbutton.	ACK 1 lamp illuminates.	A7A111, A7A109, A7A207, A7A603, A7A803, A7A702, A7A802, A7A1102
3	Rotate 2CC SELECT thumbwheel switch to ACK 2 position and depress XMIT 2CC pushbutton.	a. ACK 2 lamp illuminates. b. ACK 1 lamp extinguishes.	a. A7A207, A7A504, A7A803, A7A702, A7A802, A7A1102 b. A7A613
4	Rotate 2CC SELECT thumbwheel switch to NACK position and depress XMIT 2CC pushbutton.	a. NACK lamp illuminates. b. ACK 2 lamp extinguishes.	a. A7A207, A7A604, A7A803, A7A702, A7A802, A7A1102 b. A7A613, A7A802
5	Rotate 2CC SELECT thumbwheel switch to RM position and depress XMIT 2CC pushbutton.	a. RM lamp illuminates. b. NACK lamp extinguishes	a. A7A208, A7A603, A7A803, A7A702, A7A802, A7A1102 b. A7A802
6	Rotate 2CC SELECT thumbwheel switch to WBT position and depress XMIT 2CC pushbutton.	a. WBT lamp illuminates. b. RM lamp extinguishes.	a. A7A116, A7A01, A7A803, A7A702, A7A802, A7A1102 b. A7A802
7	Rotate 2CC SELECT thumbwheel switch to CAN position and depress XMIT 2CC pushbutton.	CAN lamp illuminates.	A7A208, A7A701, A7A801, A7A1101, A7A414, A7A603, A7A604
8	Rotate 2CC SELECT thumbwheel switch to REP position and depress XMIT 2CC pushbutton.	a. REP lamp illuminates. b. CAN lamp extinguishes.	a. A7A208, A7A701, A7A801, A7A1101, A7A414, A7A316, A7A603, A7A064 b. A7A801
9	Rotate 2CC SELECT thumbwheel switch to INV position and depress XMIT 2CC pushbutton.	INV lamp illuminates	A7A207, A7A604, A7A803, A7A702, A7A1102

Item	Procedure	Indication	Checks and Corrective Measures	Item	Procedure	Indication	Checks and Corrective Measures
10	Rotate 2CC SELECT thumbwheel switch to ENQ position and XMIT 2CC pushbutton.	ENQ lamp illuminates.	A7A208, A7A603, A7A701, A7A803, A7A1102	22	Remove diode pin from row 7 of SEL column on framing character patchboard and depress START XMIT pushbutton.	SELE lamp illuminates.	A7A103, A7A302, A7A516, A7A814, A7A912, A7A912, A7A1114
11	Depress RESET IND pushbutton.	a. WBT lamp extinguishes. b. REP lamp extinguishes. c. INV and ENQ lamps extinguish	a. A7A802 b. A7A801 c. A7A803	23	Replace diode pin removed from row 7 of SEL column on framing character patch board.	None.	
12	Depress ALL RCVD/LAST RCVD to LAST RCVD position.	LAST RCVD lamp illuminates.	A2S90 (fig. 5-35 (11))	24	Set CORE MEMORY toggle switches 1, 4, 5, 6, 7, P to down position; set 2 and 3 to up position.	None.	
13	Depress START XMIT pushbutton.	a. DATA lamp flashes and extinguishes. b. SYNC lamp flashes and then remains illuminated. c. STX lamp illuminates. d. ETX lamp illuminates. e. SOH, ETB, EM, MC lamps flash and extinguish.	a. A7A904, A7A1105, A7A60S, A7A610, A7A707, A7A708, A7A705, A7A806, A7A706 b. A7A608, A7A610, A7A707, A7A708, A7A705, A7A806, A7A706 c. A7A116, A7A113, A7A704, A7A804, A7A1102 d. A7A206, A7A113, A7A606, A7A804, A7A1103 e. A7A116, A7A113, A7A206, A7A102, A7A704, A7A804, A7A1102	25	Depress WRITE CHAR pushbutton.	None.	
14	Depress ALL, RCVD/LAST RCVD pushbutton to ALI, RCVD position.	ALL RCVD lamp illuminates.	A2S90 (fig. 5-35 (11))	26	Remove diode pin from third row of second ACK 1 column and depress START XMIT pushbutton.	NCCE lamp illuminates.	A7A714, A7A713, A7A815, A7A913, A7A1114
15	Set CORE MENIORY toggle switches 1, 2, 3, 4, 5, and 6 to down position; set switch 7 and I' to up position.	None.		27	Insert diode pin into third row of second ACK 1 column.	None.	
16	Depress WRITE CHAR pushbutton.	None.		28	Set CORE MEMORY toggle switches 1, 4, 6, 7, to down position; set 2, 3, 5, P to up position.	None.	
17	Depress START XMIT pushbutton.	CPE lamp illuminates.	A7A808, A7A013, A7A911, A7A914, A7A114, A7A211, A7A215, A7A113, A7A204, A7A214, A7A216, A7A113	29	Depress WRITE CHAR pushbutton.	None.	
18	Set CORE MIEMORY toggle switches 1, 2, 3, 4, and P to up position; set switches 6, and 7 to down position.	None.		30	Depress START XMIT pushbutton.	a. SEQE lamp illuminates b. BLE lamp illuminates.	a. A7A414, A7A413, A7A411, A7A613, A7A1114 b. A7A605, A7A613, A7A1114, A7A505, A7A509, A7A315, A7A415
19	Depress WRITE CHAR pushbutton.	None.		31	Set CORE MEMORY toggle switches 5, 6, 7 to down position; set 1, 2, 3, 4, P to up position.	None.	
20	Insert diode pin in row 1 of the first BP column (after ETB) in framing character patchboard and depress START XMIT pushbutton.	BPE lamp illuminates.	A7A914, A7A1114, A7A316, A7A512, A7A313, A7A314, A7A412, A7A312	32	Depress WRITE CHAR pushbutton.	None.	
21	Remove diode pin from row 1 of first BP column on framing character patchboard.	None.		33	Place diode pins in all rows of S column of data character patchboard, and in rows 2, 3, 6, 7, and P of both START columns of the control character patchboard.	None.	
				34	Rotate CODE SELECT thumbwheel switch on block reader to ITA2 position on block generator ASM5 position.	None.	
				35	Depress BR RESET and pushbutton; depress BG RESET and RESET IND pushbuttons.	None.	
				36	Depress START XMIT pushbutton.	RPE lamp illuminates.	A7A1007, A7A914, A7A1114
				37	Recode S and START columns as shown in figure 3-9.	None.	

Item	Procedure	Indication	Checks and Corrective Measures	Item	Procedure	Indication	Checks and Corrective Measures
38	Rotate CODE SELECT switch on block generator to ASM1 position and depress block reader RESET IND.	The following lamps extinguish: a. CPE b. BPE c. RPE d. SELE e. NCCE f. BLE g. SEQE h. SOH i. STX j. ETB k. ETX l. EM m. MC	a. A7A613, A7A411, A7A914 b. A7A914 c. A7A914 d. A7A914 e. A7A913 f. A7A613, A7A605 g. A7A613 h. A7A804 i. A7A804 j. A7A804 k. A7A804 l. A7A804 m. A7A804	48	Depress START XMIT push button.	a. SELE lamp illuminates. b. 84 characters are locked up on line block display. c. Bits 1 and P of first character and bit 7 of the second character on line block display are illuminated.	a. A7A103, A7A302, A7A516, A7A814, A7A912, A7A914, A7A1114 b. A7A1109, A7A815, A7A912, A7A809, A7A714 c. A1A101, A1A102
39	Insert diode pins in all rows of both columns of ENQ position.	None.		49	Depress RESET IND push button.	All neon lamps on line block display extinguish.	A7A910, A7A815, A7A714
40	Depress BG RESET and RESET IND pushbuttons.	None.		50	Insert diode pin row 1 of SEL position on framing character patch board.	None.	
41	Depress BR RESET and RESET IND pushbuttons.	None.		51	Rotate DISPLAY LOCKUP thumb wheel switch to ETX position.		
42	Rotate DISPLAY LOCKUP thumb wheel switch to TEST position.	None.		52	Depress START XMIT push button.	a. 84 characters are locked up in display. b. Bits 2 and P of character 1 are illuminated. c. Bits 1 and 2 of character 83 are illuminated.	a. A7A1119, A7A815, A7A714 b. A1A101 c. A1A323
43	Depress XMIT 2CC push button 44 times.	Neon lamps on line block display illuminates sequentially by groups of two characters, through character 88. All neon lamps illuminate for each character position.	A7A1104, A7A906, A7A902 A7A807, A7A911, A7A1105, A7A1110, A7A1015, A7A814, A7A806, A7A614, A7A615 A7A916, A7A915, A7A1109, A7A1114, A7A713, A7A714, A7A615, A7A715, A7A909, A7A910, A7A613, A7A713	53	Depress RESET IND push button.	All neon lamps on line block display extinguish.	A7A910, A7A815, A7A714
44	Depress XMIT 2CC push button	Characters 89 and 90 Flash, and all neon lamps reset.	A7A714, A7A713, A7A615 A7A715	54	Rotate DISPLAY LOCKUP thumb wheel switch to STX position.	None.	
45	Recode both ENQ (columns as shown in figure 3-9).	None.		55	Depress START XMIT push button.	a. 52 characters are locked up on line block display. b. Bits 2 and P of character 1 are illuminated. c. Bits 1, 2, 3, and 5 of character 51 are illuminated.	a. A7A1109, A7A815, A7A14 b. A1A101 c. A1A221
46	Rotate DISPLAY LOCK-UP thumb wheel switch to ERR position.	None.		56	Depress T RESET IND push button.	All neon lamps on line block display extinguish.	A7A910, A7A815, A7A714
47	Remove diode pin from row 1 of SET, position on framing character patch-board.			57	Rotate DISPLAY LOCKUP thumb wheel switch to CONT position.	None.	
				58	Depress START XMIT push button.	Same as item 52.	Same as item 52.

Item	Procedure	Indication	Checks and Corrective Measures	Item	Procedure	Indication	Checks and Corrective Measures
59	Rotate DISPLAY LOCKUP thumbwheel switch to OFF position and depress START XMIT pushbutton.	All neon lamps on line block display extinguish.	A2S120 (fig. 5-35 (16))	76	Remove diode pin from row 1 of BP column after ETB column, and insert diode pin in row 1 of BP column after ETX.	None.	
60	Rotate DISPLAY LOCKUP thumbwheel switch to CONT position.	None.		77	Depress START XMIT pushbutton.	Same as item 70.	Same as item 70.
61	Rotate AUTO PRINT CONTROL thumbwheel switch to LBC position.	None.		78	Remove diode pin from row 1 of second BP column (after ETX column) on framing character patchboard.	None.	
62	Depress BR RESET and RESET pushbuttons.	None.		79	Depress START XMIT pushbutton.	No message printout occurs.	A7A224, A7A1030
63	Depress START RCV pushbutton.	START RCV lamp extinguishes	A7A1107, A7A312, A7A507	80	Rotate AUTO PRINT CONTROL thumbwheel switch to OFF.	Check that PRINT BLOCK lamp on core memory illuminates.	A7A915, A7A809, A7A512, A7A1101
64	Depress START XMIT pushbutton.	Message printout is as illustrated in figure 6-10.	A7A1124, A7A1025, A7A780	81	Depress BR RESET, RESET IND, and START RCV pushbuttons.	None.	
65	Rotate AUTO PRINT CONTROL thumbwheel switch to MSG position.	None.		82	Depress START XMIT pushbutton.	No message printout occurs.	A7A224, A7A1030
66	Depress START XMIT pushbutton.	Message printout is as illustrated in figure 6-11.	A7A821, A7A822, A7A1129	83	Depress MONITOR SELECTED LOCATION pushbutton,.	Unlit position.	A2S23(fig. 5-35 (3))
67	Depress NORM PRINT/SEL PRINT pushbutton to NORM PRINT position.	NORM PRINT lamp illuminates.	A2864 (fig. 5-35 (9))	84	Depress XMIT/RCV pushbutton to RCV position.	RCV lamp illuminates.	A2S24 (fig. 5-35 (3))
68	Depress START XMIT pushbutton.	Message printout is as illustrated in figure 6-12.	A7A1130, A7A425, A7A734, A7A428, A7A320	85	Depress BR RESET, and PRINT BLOCK pushbutton.	a. PRINT BLOCK lamp extinguishes. b. Message printout is as illustrated in figure 6-15. c. PRINT BLOCK lamp illuminates after printout.	a. A7A1116, A7A1008, A7A1101 b. A7A1008 c. A7A915, A7A809, A7A512
69	Rotate AUTO PRINT CONTROL thumbwheel switch to ETX position.	None.		86	Depress BG RESET, RESET IND, BR RESET, and RESET IND pushbuttons.	None.	
70	Depress START XMIT pushbutton.	Message printout is as illustrated in figure 6-13.	A7A822, A7A821, A7A1080, A7A224, A7A931, A7A120, A7A222, A7A221, A7A732, A7A732, A7A731, A7A819, A7A528	87	Depress ETX STOP RCV pushbutton.	ETX STOP RCV lamp illuminates.	A2S71 (fig. 5-35 (10))
71	Rotate AUTO PRINT CONTROL thumbwheel switch to ERR position.	None.		88	Depress START RCV pushbutton.	START RCV lamp extinguishes.	A2S70 (fig. 5-35 (9)), A2A814
72	Insert diode pin in row 1 of BP column after ETB column framing character patchboard.	None.		89	Depress START XMIT pushbutton.	START RCV lamp illuminates.	A7A515, A7A513, A7A1104
73	Depress START XMIT pushbutton.	Message printout is as illustrated in figure 6-14.	A7A1030, A7A224, A7A931, A7A221, A7A523	90	Rotate AUTO PRINT CONTROL thumbwheel switch to MSG position.	None.	
74	Depress START XMIT pushbutton, immediately after printout has begun, depress END PRINT pushbutton.	Message printout is as illustrated in figure 6-15.	A7A1107, A7A515	91	Depress MEM NORM/MEM INVT pushbutton to MEM INVT position.	MEM INVT lamp illuminates.	A2828 (fig. 5-35 (3))
75	Depress BR RESET, RESET IND, and START RCV pushbuttons.	None.		92	Depress BR RESET pushbutton.	None.	

Item	Procedure	Indication	Checks and Corrective Measures
93	Depress START RCV pushbutton. extinguishes.	START RCV lamp ex-	A2S70 (fig. 5-35 (9)), A2A314
94	Depress START XMIT pushbutton.	Message printout is as illustrated in figure 6-12.	A7A1119, A7A1021
95	Depress MEM NORM/MEM INVT pushbutton to MEM NORM position.	MEM NORM lamp illuminates.	A2S28(fig. 5-35 (3))
96	Depress ETX STOP RCV pushbutton.	ETX STOP RCV lamp extinguishes.	A2S71(fig. 5-35 (1))
97	Rotate AUTO PRINT CONTROL to OFF position.	None.	

6-12. Automatic Coordination Troubleshooting
a. ACK Synchronization Troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress MAN CORD/AUTO CORD pushbutton to AUTO CORD position.	AUTO CORD lamp illuminates.	A2S33 (fig. 5-35(5))
2	Depress BG RESET and RESET IND pushbuttons.	None.	
3	Depress BR RESET and RESET IND pushbuttons.	None.	
4	Depress ALL, RCVD/LAST RCVD pushbutton to LAST RCVD position.	LAST RCVD lamp illuminates.	A2S90 (fig. 5-35 (11))
5	Depress START XMIT pushbutton.	The following lamps illuminate: <i>a.</i> SOH and ETB <i>b.</i> CAN and WBT <i>c.</i> CAN SENT <i>d.</i> RM SENT <i>e.</i> EXP ACK <i>f.</i> XMIT CAN	<i>a.</i> A2DS82 (fig. 5-35 (11)), A2A313, A2DS83 (fig. 5-35 (11)) <i>b.</i> A2DS85 (fig. 5-35 (11)), A2A313, A2DS88 (fig. 5-35 (11)), A2A312 <i>c.</i> A2DS48 (fig. 5-35 (7)), A2A318 <i>d.</i> A2DS46 (fig. 5-35 (7)) A2A318 <i>e.</i> A6A733, A6A608, A6A528, A64933, A6A429 <i>f.</i> A6A1129, A6A528, A6A529, A6A933, A6A429, A6A530
6	Depress START RCV pushbutton.	<i>a.</i> WBT lamp extinguishes.	<i>a.</i> A2DS8R (fig. 5-35 (11)) A2A312

Item	Procedure	Indication	Checks and Corrective Measures
		<i>b.</i> ACK 2 lamp illuminates. <i>e.</i> ALARM lamp Illuminates. <i>d.</i> Audible alarm sounds. <i>e.</i> RPT MSG lamp illuminates. <i>f.</i> START XMIT lamp illuminates. <i>g.</i> XMIT CAN and EXP ACK lamps extinguish.	<i>b.</i> A2DS86 (fig. 5-35 (11)), A2A313 <i>c.</i> A6A723, A6A706, A6A604, A6A812, A6A1115 <i>d.</i> A6A115., A6A1106 <i>e.</i> A6A1125, A6A723, A6A725, A6A624, A6A922 <i>f.</i> A6A531, A6A429, A6A520 <i>g.</i> A6A429, A6A528, A6A529, A6A428
7	Depress ALARM pushbutton.	Audible alarm is silent.	A6A1115, A6A1106
8	Depress START XMIT pushbutton.	Observe the following lamps: <i>a.</i> STX and ETX illuminate. <i>b.</i> ACK 2 illuminates. <i>c.</i> RPT MSG extinguishes. <i>d.</i> ALARM extinguishes.	<i>a.</i> A2DSR2 (fig. 5-35 (11)) A2A313, A2DS83 (fig. 5-35 (11)) <i>b.</i> A2DS86 (fig. 5-35 (11)),A2A313 <i>c.</i> A6A432, A6A431, .A6A633 <i>d.</i> A6A812, A6A614
9	Depress NORMAL/SELF TEST pushbutton to NORMAL position.	NORMAL lamp illuminates.	A2S37 (fig. 5-35 (6))
10	Depress XMIT CAN pushbutton.	<i>a.</i> EXP ACK lamp illuminates. <i>b.</i> CAN SENT lamp illuminates. <i>c.</i> 3RPT lamp illuminates	<i>a.</i> A6A733, A6A608, A6A528, A6A429 <i>b.</i> A2MS48, A2A318 <i>c.</i> A6A527, A6A522, A6A622, A6A722, A6A620, A6A527, A6A721, A6A724, A6A725, A6A825, A6A1125
		<i>d.</i> ALARM lamp illuminates. <i>e.</i> Audible alarm sounds. <i>f.</i> XMIT CAN lamp illuminates.	<i>d.</i> A6A723, A6A706, A6A604, A6A812. A6A1115 <i>e.</i> A6A1115, A6A1106 <i>f.</i> A6A1129, A6A528, A6A529, A6A933, A6A429, A6A530
11	Depress ALARM pushbutton.	Audible alarm is silent.	A6A1115, A6A1106

Item	Procedure	Indication	Checks and Corrective Measures
12	Depress NORMAL/SELF TEST pushbutton to SELF TEST position.	SELF TEST lamp illuminates.	A2S37 (fig. 5-35 (6))
13	Depress START XMIT pushbutton.	<ul style="list-style-type: none"> a. ALARM extinguishes. b. 3RPT extinguishes. c. XMIT CAN extinguishes. d. CAN illuminates. e. ACK 2 illuminates. 	<ul style="list-style-type: none"> a. A6A812, A6A614 b. A6A725 c. A6A429, A6A528 d. A6A803, A1A901, A6A902, A6A1006, A6A1101 e. A2DS86 (fig.5-35 (11)), A2A313

b. Message Coordination Troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress NORMAL/SELF TEST pushbutton to NORMAL. position.	NORMAL lamp illuminates.	A2S37 (fig. 5-35 (6))
2	Depress START XMIT pushbutton.	<ul style="list-style-type: none"> a. XMIT REP lamp illuminates. b. EXP ACK lamp illuminates. f. 3RPT lamp illuminates. d. START XMIT lamp illuminates. e. ALARM lamp illuminates. f. Audible alarm sounds. 	<ul style="list-style-type: none"> a. A6A830, A6A627, A6A630, A6A827 b. A6A733, A6A608, A6A528, A6A428, A6A429 c. A6A527, A6A522, A6A622, A6A722, A6A620, A6A527, A6A527, A6A721 d. A6A531, A6A429, A6A520, A6A432 e. A6A723, A6A706, A6A604, A6A812, A6A1115 f. A6A1106, A6A1115
3	Depress ALARM pushbutton.	Audible alarm is silent.	A6A1115, A6A1106
4	Depress NORMAL/SELF TEST pushbutton to SELF TEST position. Depress START XMIT pushbutton.	SELF TEST lamp illuminates. <ul style="list-style-type: none"> a. ALARM lamp illuminates. b. RPT BLK lamp illuminates. c. BAD REPLY illuminates. d. ERR lamp illuminates 	<p>A2S37 (fig. 5-35 (6))</p> <ul style="list-style-type: none"> a. A6A723, A6A706, A6A604, A6A812, A6A115. b. A6A1125, A6A723, A6A724 c. A6A1125, A6A831, A6A1022, A6A525, A6A625 d. A6A723, A6A1121

Item	Procedure	Indication	Checks and Corrective Measures
		<ul style="list-style-type: none"> e. Audible alarm sounds. f. REP lamp illuminates. g. ACK 2 lamp illuminates. 	<ul style="list-style-type: none"> e. A6A1106, A6A115 f. A2MS85, A2A313 g. A2DS9 (fig. 5-35 (11)) A2A313
6	Depress ALARM pushbutton.	Audible alarm is silent.	A6A1115, A6A1106
7	Depress ETB STOP RCV pushbutton.	ETB STOP RCV lamp illuminates.	A2S71 (Fig. 5-35 (10))
8	Depress START XMIT pushbutton	<ul style="list-style-type: none"> a. EXP ACK illuminates. b. XMIT REP illuminates. c. START XMIT extinguishes. 	<ul style="list-style-type: none"> a. A6A733, A6A608, A6A528, A6A428, A6A429 b. A6A830, A6A627, A6Af30, A6A827 c. A2S41 (fig. 5-35 (6)), A2A318
9	Depress START RCV pushbutton.	The following lamps illuminate: <ul style="list-style-type: none"> a. SOH b. ETB c. REP d. WBT e. EM f. MC g. On block generator BAD REPLY indicator extinguishes. 	<ul style="list-style-type: none"> a. A6A315, A6A316 b. A6A516, A6A316 c. A6A830, A6A627, A6A630, A6A827 d. A6A828, A6A728, A6A629, A6A727 e. A2DS84 (fig. 5-35 (11)), A2A313 f. A2DS84 (fig. 5-35 (11)), A2A313 g. A6A1125, A6A831, A6A1022, A0A525, A6A625
10	Depress .ETB STOP RCV pushbutton.	None	
11	Depress START RCV pushbutton.	<ul style="list-style-type: none"> a. EXP ACK / XMIT REP extinguishes. b. STX illuminates. c. ACK 2 illuminates. d. EXT illuminates. 	<ul style="list-style-type: none"> a. A6A428, A6A429, A6A528 b. A6A316, A6A516 c. A2DS85 (fig. 5-35 (11)), A2A313 d. A6A316, A6A416
12	Depress ETX STOP RCV pushbutton.	ETX STOP RCV lamp illuminates.	A2S72 (fig. 5-35 (10))
13	Depress START XMIT pushbutton.	a. EXP ACK / XMIT REP illuminate.	a. A6A733, A6A608, AA6528, A6A428, A6A429, A6A830, A6A627, A6A630, A6A827

Item	Procedure	Indication	Checks and Corrective Measures
		b. START XMIT extinguishes.	b. A6A520, A6A432
		c. STX illuminates.	c. A2DS82 (fig. 5-35 (11)), A2A313
		d. ETX illuminates.	d. A2DS83 (fig. 5-35 (11)), A2A313
		e. REP illuminates.	e. A6A830, A6A627, A6A630, A6A827
		i. WBT illuminates.	f. A6A828, A6A728, A6A629, A6A727
		g. START XMIT extinguishes and then illuminates.	g. A6A.531, A6A429, A6A520. A6A432
14	Depress ETX STOP RCV pushbutton.	None.	
15	Depress START RCV pushbutton.	a. EXP ACK / XMIT REP extinguish.	a. A6A429, A6A529, A6A428. A6A528
		b. START RCV extinguishes.	b. A6A511, A6A513, A6A.514, A6A703, A6A515
		c. ACK 2 illuminates.	c. A6A829, A6A629, A6A729,. A6A731
		d. WBT extinguishes.	d. A2DS88 (fig. 5-35 ,(11)), A2A312
16	Depress ERROR STOP RCV pushbutton.	ERROR STOP RCV lamp illuminates.	A2S73 (fig. 5-35 (10))
17	Remove diode pin from row 2 of STX column and insert pin into row 1 of same column on framing character patchboard.	None.	
18	Depress START XMIT pushbutton	a. EXP ACK and XMIT REP lamps illuminate.	a. A6A733, A6A608, A6A528, A6A428, A6A429, A6A627, A6A630, A6A827
		b. ALARM lamp illuminates.	b. A6A723, A6A706, A6A812 A6A1115
		c. Audible alarm sounds.	c. A6A1106, A6A1115
		d. ETB SENT lamp illuminates.	d. A2A318
		e. REP and WBT lamps illuminate.	e. A6A830, A6A627, A6A630, A6A827, A6A727, A6A629 A6A728
		f. BFE lamp illuminates.	f. A6A605, A6A1107, A6A613 A6A711
		g. SOH and ETB lamps illuminate.	g. A6A315, A6A316, A6A516

Item	Procedure	Indication	Checks and Corrective Measures
19	Depress ALARM pushbutton.	Audible) alarm is silent.	A6A1115 A6A1106
20	Depress START RCV pushbutton.	a. EXP ACK and XMIT REP lamps extinguish.	a. A6A429, A6A529, A6A428, A6A528
		b. RPT BLK and BAD REPLY ERR lamps illuminate.	b. A6A1125, A6A723, A6A724, A6A831, A6A1032, A6A525, A6A625
		c. ALARM lamp illuminates.	c. A6A723, A6A706, A6A604, A6A812, A6A1115
		d. Audible alarm sounds.	d. A6A1106, A6A1115
		e. WBT lamp extinguishes.	c. A2DS88 (fig. 5-35 (11)), A2A312
		f. ACK 1 lamp illuminates.	f. A6A829, A6A729, A6A629, A6A727, A6A729
		Audible alarm is silent	A6A1115, A6A1106
		Same as item 18.	Same as item 18.
		Audible alarm is silent.	A6A1115, A6A1106
		Same as item 20.	Same as item 20.
		Audible alarm is silent.	A6A1115, A6A1106
		Same as item 20.	Same as item 20.
		Audible alarm is silent.	A6A1115, A6A1106
		a. 3RPT lamp illuminates.	a. A6A527, A6A522, A6A622, A6A722, A6A620, A6A527, A6A721, A6A724, A6A725, A6A825, A6A824
		b. BAD REPLY lamp illuminates.	b. A6A1125, A6A831, A6A1022, A6A525, A6A625
		c. RPT BLK lamp illuminates.	c. A6A1125, A6A723, A6A724
		d. EXP ACK and XMIT REP lamps extinguish.	d. A6A428, A6A429, A6A528
		e. ALARM lamp illuminates.	e. A6A723, A6A706, A6A604, A6A812, A6A1115
		f. Audible alarm sounds.	f. A6A1106, A6A1115
		g. WBT lamp extinguishes.	g. A2DS88 (fig. 5-35 (11)),
		h. ACK 1 lamp illuminates.	h. A6A829, A6A729, A6A629, A6A727, A6A729
21	Depress ALARM pushbutton.		
22	Depress START XMIT pushbutton.		
23	Depress ALARM pushbutton.		
24	Depress START XMIT pushbutton.		
25	Depress ALARM pushbutton.		
26	Depress START XMIT pushbutton.		
27	Depress ALARM pushbutton.		
28	Depress START RCV pushbutton		

Item	Procedure	Indication	Checks and Corrective Measures
29	Depress ALARM pushbutton.	Audible alarm is silent.	A6A1115, A6A1106
30	Remove diode pin from row 1 of STX column and insert it in row 2 of same column on framing character patchboard.		
31	Depress START XMIT pushbutton.	a. STX illuminates. b. ACK 2 illuminates. c. ETX illuminates.	a. A6A730, A6A930, A6A1130 b. A6A929, A6A1031 c. A6A833, A6A931, A6A1030 A2S73 (fig. 5-35 (10))
32	Depress ERROR STOP RCV pushbutton.	None.	
33	Depress ETX STOP and ERR STOP pushbuttons.	None.	
34	Depress BG RESET pushbutton.	None.	
35	Rotate AUTO PRINT CONT thumbwheel switch to MSG position.	None.	
36	Depress START XMIT pushbutton.	a. Message printout is as illustrated in figure 6-16. b. STX lamp illuminates. c. ACK 2 illuminates. d. ETX lamp illuminates.	a. A7A331, A7A334, A7A1034 b. A6A730, A6A930, A6A1130 c. A6A929, A6A1031 d. A6A833, A6A931, A6A1030
37	Depress BLK/BLK/CONT pushbutton to CONT position.	CONT lamp illuminates.	A236 (fig. 5-35 (5))
38	Depress START XMIT pushbutton.	Observe the following: a. Message printout is as illustrated in figure 6-16. b. STX lamp illuminates. c. ACK 2 lamp illuminates. d. ETX lamp illuminates. e. REP lamp illuminates.	a. A7A331, A7A1034. A7A221, A7A415, A7A421 b. A6A730, A6A930, A6A1130 c. A6AC929, A6A1031 d. A6A833, A6A931, A6A1030 e. A6A830, A6A627, A6A630. A6A827
39	Depress ETX STOP/ETX SENT to ETX STOP position.	ETX STOP lamp illuminates.	A2S41 (fig. 5-35 (6)), 2A318

6-13. Patchboard Send Troubleshooting

a. *Manual Patch board Send Troubleshooting Chart.*

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress BLK/BLK/CONT pushbutton to BLK/BLK position.	BLK/BLK lamps illuminate.	A2S65, (fig. 5-35 (9)), A2S36 (fig. 5-35 (5))
2	Depress ALL RCVD/LAST RCVD pushbuttons to ALL RCVD position.	ALL RCVD lamps illuminate.	A2S17, (fig. 5-35 (2)), A2S90 (fig. 5-35 (11))
3	Depress MAN CORD/AUTO CORD pushbuttons to MAN CORD position.	MAN CORD lamp illuminates.	A2S33 (fig. 5-35 (5))
4	Depress PTCH SEND/CORD SEND pushbutton to PTCH SEND position.	PTCH SEND lamp illuminates.	A2S32 (fig. 5-35 (5))
5	Depress CR RESET and RESET IND pushbuttons.	None.	
6	Depress BG RESET and RESET IND pushbuttons.	None.	
7	Depress BR RESET and RESET IND pushbuttons.	None.	
8	Depress START RCV pushbutton.	START RCV lamp extinguishes.	A7A511, A7A513, A7A514, A7A515, A7A716
9	Depress START XMIT pushbutton.	a. SOH/STX and ETB/ETX (character and block reader) lamps illuminate. b. Message printout is as illustrated in figure 6-17.	a. A6A832, A6A431, A6A533 b. A7A331, A7A324, A7A1034, A7A221, A7A415, A7A421
10	Rotate EOB NO BLOCK 1 thumbwheel switches to position 82.	None.	
11	Rotate INSERT ABCDE thumbwheel switch to INH position.	None.	
12	Rotate INSERT PATCHBOARD thumbwheel switch to INH position.	None.	
13	Depress START XMIT pushbutton.	a. Message printout is as illustrated in figure 6-18. b. BLE lamp illuminates.	a. A7A1022, A7A922 b. A2DS80 (fig. 5-35 (11)), A2A314
14	Rotate EOB NO BLOCK 1 thumbwheel switches to position 83.	None.	
15	Rotate INSERT ABCDE thumbwheel switch to ALL position.	None.	
16	Rotate INSERT PATCHBOARD thumbwheel switch to ALL position.	None.	

Item	Procedure	Indication	Checks and Corrective Measures
17	Depress START XMIT pushbutton.	Message printout is as illustrated in figure 6-19.	A7A1130, A7A1131, A7A1132, A7A825, A7A1022, A7A1027, A7A1023
18	Rotate INSERT PATCHBOARD thumbwheel switch to select BLK 1.	None.	
19	Rotate INSERT ABCDE thumbwheel switch to select LAST.	None.	

b. Automatic Patch board Send Troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress MAN CORD/AUTO CORD to AUTO CORD position.	AUTO CORD lamp illuminates.	A2MS33
2	Depress CR RESET and RESET IND pushbuttons.	None.	
3	Depress BG RESET and RESET IND pushbuttons.	None.	
4	Depress BR RESET and RESET IND pushbuttons.	None.	
5	Depress XMIT CAN pushbutton.	a. CAN and ACK 2 (character and block reader) illuminate. b. CAN SENT illuminates.	a. A2DS12 (fig. 5-45 A2A320, A2DS13 (fig. 5-35(2)), A2A320, A2DS85 (fig. 5-35(11)), A2A313, A2DS86 (fig. 5-35 (11)), A2A313 b. A2DS48 (fig. 5-35 (7)), A2A318
6	Depress START XMIT pushbutton.	a. Message printout is as illustrated in figure 6-17. b. The following lamps illuminate on both the block reader and character reader: (1) ACK1/ACK2 (2) SOH/STX (3) ETB/ETX (4) REP (5) WBT	a. A7A331, A7A324, A7A1034 b. A6A929, A6A031 A6A832, A6A730, A6A930, A6A1130 A6A431, A6A833, A6A930, A6A1030 A6A929, A6A1032 A6A929, A6A1032

6-14. Circuit Switch Unit Coordination Troubleshooting

a. CSU Control Characters Troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress MAN CORD/AUTO CORD pushbutton to MAN CORD position.	MAN CORD lamp illuminates.	A2S33 (fig. 5-35(5))
2	Depress MSU/CSU pushbutton to CSU position.	CSU lamp illuminates.	A2S2 (FIG. 5-35 (9))
3	Depress CR RESET and RESET IND pushbuttons.	None.	
4	Depress BG RESET and RESET IND pushbuttons.	None.	
5	Depress BR RESET and RESET IND pushbuttons.	a. XMIT DISC illuminates. b. XMIT SYNC extinguishes. c. DISC illuminates. d. SYNC / FRAME extinguish. e. SYNC/DISC (SYNC extinguishes and DISC illuminates).	a. A6A1012, A6A513, A6A512, A6A710 b. A6A1012, A6A513, A6A512, A6A710 c. A7A203, A7A1002, A7A1004, A7A905, A7A1105 d. A7A203, A7A1002, A7A1004, A7A905 e. A7A110B
6	Depress XMIT BUSY pushbutton.	a. DISC extinguishes, XMIT BUSY illuminates, and XMIT DISC extinguishes b. B U S Y illuminates and DISC extinguishes.	a. A6A1012 b. A7A1002, A7A1006, A7A1110
7	Depress XMIT SR ACK pushbutton.	a. XMIT SR ACK illuminates and XMIT BUSY extinguishes. b. BUSY extinguishes and SR ACK illuminates.	a. A6A1111 b. A7A1007
8	Depress XMIT SYNC pushbutton.	a. SYNC FRAME lamp illuminates. b. XMIT SR ACK lamp extinguishes and XMIT SYNC lamp illuminates. c. SYNC (block reader) lamp illuminates. d. CHAR FRAME lamp illuminates. e. SR ACK lamp extinguishes.	a. A7A1001, A7A710 b. A7A1001, A7A710 c. A7A1001, A7A710 d. A7A1001, A7A710 c. A7A1001, A7A710

b. Automatic Disconnect Troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress AUTO DISC pushbutton.	AUTO DISC lamp illuminates.	A2S35 (fig. 5-35 (5))
2	Depress ETX STOP/ETX SENT pushbutton.	Unlit.	
3	Depress START RCV pushbutton.	START RCV lamp extinguishes.	A7A511, A7A513, A7A514, A7A515, A7A716
4	Depress START XMIT pushbutton.	a. SYNC/FRAME lamps extinguish. b. DISC lamp illuminates. c. XMIT DISC lamp illuminates. d. XMIT SYNC lamp extinguishes. e. SYNC/DISC (SYNC lamp extinguishes and DISC lamp illuminates). f. CHAR FRAME lamp extinguishes. g. Message printout is as illustrated in figure 6-17.	a. A7A1001, A7A710 b. A7A1001, A7A710 c. A7A1001, A7A710 d. A7A1001, A7A710 e. A7A1001, A7A710 f. A7A1001, A7A710 g. A7A331, A7A324, A7A1034
5	Depress AUTO DISC pushbutton.	None.	
6	Depress CORE SEND/PTCH SEND to CORE SEND position.	CORE SEND lamp illuminates.	A2532 (fig. 5-35(5))

6-15. Mode V ASCII and ITA2 Coordination Troubleshooting

a. Mode 17 ASCII Manual Coordination Troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
1	Code control and framing character patchboard as shown in figure 3-9; code data character patchboard as shown in figure 3-11.	None	
2	Rotate CODE SELECT thumbwheel switches on character reader, block reader, and block generator to the ASM5 and BIT RATE SELECTS to 300. Depress MSU/CSU pushbutton to MSU position on block reader and block generator.	MSU lamps illuminate.	A2DS62 (fig. 5-35 (9)), A2DS34 (fig. 5-35 (4))

Item	Procedure	Indication	Checks and Corrective Measures
3	Depress CR RESET and RESET IND pushbuttons.	None	
4	Depress BR RESET and RESET IND pushbuttons.	None	
5	Depress BG RESET and RESET IND pushbuttons.	None	
6	Depress ALL RCVD/LAST RCVD push-buttons on character reader and block reader to LAST RCVD position.	a. LAST RCVD lamps illuminate. b. CONT lamps illuminate.	a. A2517 (fig. 5-35 (2)), A2890 (fig. 5-35 (11)) b. A7A1113, A7A602, A7A902, A7A901, A7A903, A7A1111, A7A1113, A7A706, A7A811, A7A905, A6A303, A6A302, A6A1103, A6A1106, A6A304
7	Depress MAN CORD/AUTO CORD push-button to MAN CORD position.	MAN CORD lamp illuminates.	A2MS33
8	Depress START RCV pushbutton.	START RCV lamp illuminates.	
9	Depress START XMIT pushbutton.	a. START lamp illuminates (block reader and character reader). b. SOH lamp illuminates (block reader and character reader). c. ETX lamp illuminates (block reader and character reader). d. Message printout is as illustrated in figure 6-11.	a. A6A804, A7A710 b. A7A504, A7A509, A7A501, A7A610, A7A508, A7A507, A7A506, A7A403, A6A301, A6A208, A6A307, A6A306, A6A207 c. A6A301, A6A305, A6A206, A6A1007, A6A301, A6A207, A7A506, A7A509, A7A510, A7A106, A7A604, A7A505, A7A508 d. A7A331, A7A324, A7A1034

b. Mode ASCII Automatic Coordination Troubleshooting Chart.

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress MAN CORD/AUTO CORD push-button to AUTO CORD position.	AUTO CORD lamp illuminates.	A2533 (fig. 5-35 (5))
2	Depress CR RESET and RESET IND pushbuttons.	None.	
3	Depress BR RESET and RESET IND pushbuttons.	None.	
4	Depress BG RESET and RESET IND pushbuttons.	None.	

Item	Procedure	Indication	Checks and Corrective Measures
5	Depress START RCV pushbutton.	START RCV lamp extinguishes.	
6	Depress XMIT CAN pushbutton.	a. CAN lamp illuminates on character reader and block reader. b. ACK 2 lamp illuminates on character reader and block reader.	a. A6A803 b. A7A208

c. ITA2 Manual Coordination Troubleshooting Chart

Item	Procedure	Indication	Checks and Corrective Measures
1	Insert diode pins into framing and control character patchboard as shown in figure 3-10.	None.	
2	Rotate CODE SELECT thumbwheel switches on character reader, block reader, and block generator to ITA2 position.	None.	
3	Depress CR RESET and RESET IND pushbuttons.	None.	
4	Depress BG RESET and RESET IND pushbuttons.	None.	
5	Depress BR RESET and RESET IND pushbuttons.	None.	
6	Depress MAN CORD/AUTO CORD pushbutton to MAN CORD position.	MAIN CORD lamp illuminates.	A2S33 (fig. 5-35, (5))
7	Depress START RCV pushbutton. extinguishes.	START RCV lamp	
8	Depress START XMIT pushbutton.	a. START lamp illuminates (block reader and character reader). b. SOH lamp illuminates (block reader and character reader). c. ETX lamp illuminates (block reader and character reader). d. Message printout is as illustrated in figure 6-12.	a. A6A804, A7A710 b. A7A504, A7A509, A7A501, A7A610, A7A508, A7A507, A7A506, A7A403, A6A301, A6A208, A6A307, A6A306, A6A207 c. A6A.301, A6A305, A6A206, A6A1007, A6A301, A6A207, A7A506, A7A509, A7A510, A7A106, A7A604, A7A505, A7A508. d. A7A331, A7A324, A7A1034

d. ITA2 Automatic Coordination Troubleshooting Chart

Item	Procedure	Indication	Checks and Corrective Measures
1	Depress MAN CORD/AUTO CORD pushbutton to AUTO CORD position.	AUTO CORD lamp illuminates.	A2833 (fig. 5-35 (5))
2	Depress CR RESET and RESET IND pushbuttons.	None.	
3	Depress BG RESET and RESET IND pushbuttons.	None.	
4	Depress BR RESET and RESET IND pushbuttons.	None.	
5	Depress XMIT CAN pushbutton.	a. CAN and ACK 2 lamps for both the character reader and block reader illuminate. b. CAN SENT lamp illuminates.	a. A6A701, A6A907, A6A807, A6A708, A7A310, A7A614, A7AS11, A7A713 b. A2DS48 (fig. 5-35 (7)), A2A318
6	Depress START XMIT pushbutton.	a. START lamp illuminates (block reader and character reader). b. ACK1 and ACK2 lamps illuminate (block reader and character reader). c. SOH lamp illuminates (block reader and character reader). d. ETX lamp illuminates (block reader and character reader). e. REP lamp illuminates (block reader and character reader). f. WBT lamp illuminates (block reader and character reader). g. Message printout is as illustrated in figure 6-16.	a. A6A701, A7A310 b. A6A701, A7A310, A7A311 c. A6A301, A7A504, A7A50(), A7A403 d. A6A301, A7A504, A7A403 e. A7A701, A6A311 f. A6A929, A6A1032 g. A7A331, A7A324, A7A1034

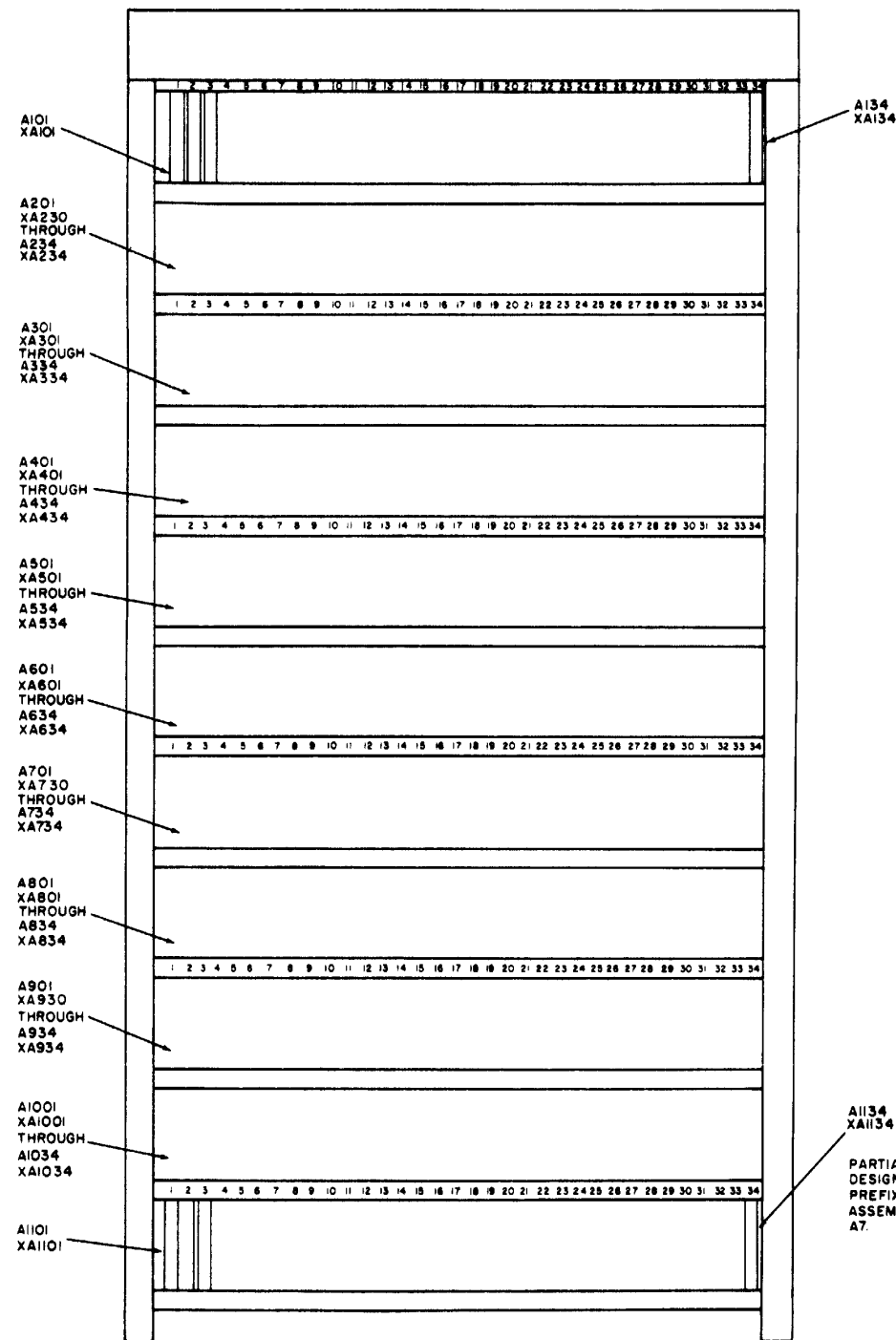


Figure 6-1. Circuit card chassis A6 and A7, card locations.

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SLOT ROW	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	26	27	28	29	30	31	32	33	34
1										LC	LB		LD	LD	LD	LA			LA		LF	LD						LE	LE	LE	LE	LA	LC	LJ
2				LD	LA	LB	LA	LC	LA	LF	LA	LD	LD	LD	LD	LD			LC	LI	LF	LF	LB	LB										
3	LA	LF	LF	LA	LE	LF	LC	LA	LE	LF	LF	LF	LF	LB	LC	LA			LB	LE	LA	LB	LA	LI	LA				LB	LC	LA	LB	LA	
4	LA	LH	LH	LI	LI	LE	LA	LA	LA	LI	LF	LF	LC	LB	LB	LB			LB	LE	LA	LI	LA	LB	LB		LI	LC	LF	LA	LB	LC	LA	LA
5	LF	LF	LF	LF	LF	LB	LB	LA		LA	LJ	LA	LA	LB	LB	LC			LB	LA	LA	LB	LI	LF	LF		LA	LA	LB	LA	LF	LI	LA	LC
6	LB	LB	LB	LA	LB	LE	LD	LB		LA	LA	LF	LF	LB	LB	LB			LF	LA	LD	LC	LB	LA	LA		LA	LF	LF	LF	LE	LE	LA	LC
7	LB	LB	LA	LA	LA	LA	LB	LA		LB	LB	LA	LA	LB	LB	LA			LF	LF	LF	LB	LB	LA	LA		LC	LA	LA	LA	LB	LA	LA	LA
8	LB	LI	LC	LC	LC	LC	LF	LD		LA	LC	LI	LI	LI	LA	LI			LF	LF	LA	LI	LI	LF	LA		LC	LB	LB	LB	LA	LB	LA	LA
9	LA	LA	LA	LC	LC	LC	LJ	LE		LA	LD	LF	LF	LB	LB	LB			LA	LA	LF	LA	LF	LF	LA		LI	LA	LA	LA	LA	LI	LF	LF
10	LA	LB	LB	LA	LA	LC	LA	LA		LA	LA	LA	LA	LI	LF	LF			LA	LA	LB	LB	LA	LA	LA		LI	LA	LA	LA	LA	LA	LF	LA
11	LA	LA	LA	LA	LI	LB	LA	LA		LA	LA	LA	LA	LC	LA	LA			LK	LA	LA	LA	LA	LA	LA		LI	LA	LA	LA	LA	LA	LA	LA

Figure 6-2. Circuit card chassis A6, card locations v. card types.

SLOT ROW	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	26	27	28	29	30	31	32	33	34																	
1	LI	LL	LA	LH	LH	LC	LB	LB	LL	LB	LB	LI	LL	LA	LA	LC	POWER BUS BARS	19	LA	LA	LC	LB	LA	LF	LC	LD	LA	LB	LA	LB	LA	LF	LB	LA	20	LC	LC	LA	LB	LB	LB	LC	LI	LA	LD	LC	LA	LB			
2	LF	LF	LF	LF	LF	LC	LC	LC	LC	LC	LI	LI	LB	LA	LC	21		LL	LB	LA	LB	LD	LA	LL	LA	LB	LC	LC	LD	LA	LA	LA	LB	22	LC	LA	LB	LC	LF	LB	LA	LL	LA	LA	LA	LB	LA	LB	LL	LA	
3	LA	LB	LA	LA	LA	LA	LA	LA	LA	LB	LB	LB	LE	LE	LB	LA		23	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	24	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD
4	LB	LL	LL	LD	LD	LD	LD	LD	LD	LD	LL	LD	LC	LB	LC	LF		25	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	26	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD
5	LB	LC	LC	LA	LB	LA	LC	LF	LL	LE	LA	LL	LB	LC	LF	LD		27	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	28	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD
6	LB	LI	LA	LL	LA	LD	LB	LE	LF	LA	LA	LE	LA	LF	LF	LI		29	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	29	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD
7	LA	LA	LA	LA	LF	LA	LB	LA	LC	LB	LE	LA	LC	LF	LE	30		LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	30	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	
8	LC	LB	LA	LB	LB	LI	LB	LC	LB	LA	LL	LI	LB	LB	LA	31		LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	31	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	
9	LF	LF	LF	LA	LD	LF	LI	LL	LF	LB	LA	LA	LA	LA	LA	32		LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	32	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	
10	LI	LB	LA	LJ	LA	LC	LE	LE	LB	LA	LA	LD	LA	LC	LO	33		LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	33	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	
11	LL	LL	LL	LL	LL	LJ	LL	LJ	LL	LL	LA	LA	LA	LL	LL	34		LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	34	LA	LA	LA	LA	LL	LA	LA	LL	LA	LL	LA	LA	LB	LE	LE	LD	

NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION A7.

TM5895-581-15-103

Figure 6-3. Circuit card chassis A7, card locations v. card types.

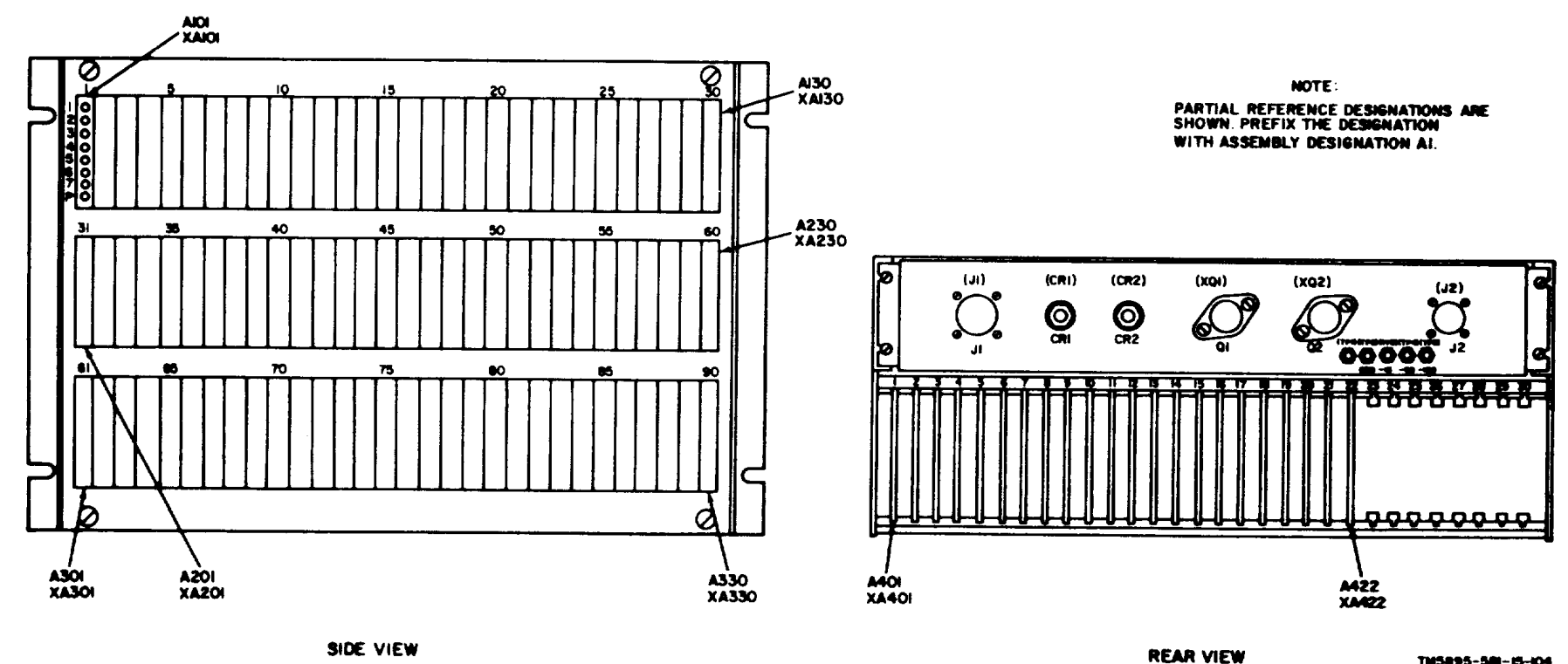


Figure 6-4. Line block display A1, card locations.

SLOT ROW	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	26	27	28	29	30
1	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX
2	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX
3	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX	AX
4	AV	AV	AV	AV	AV	AV	TP	TP	TP	TP	TP	TP	NR	NR	NR	NR	NR	NR	NR	NR	AV	TR								

NOTE:
 PARTIAL REFERENCE DESIGNATIONS ARE SHOWN
 PREFIX THE DESIGNATION WITH ASSEMBLY
 DESIGNATION A1.

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Figure 6-5. Line display A1, card locations v. card types.

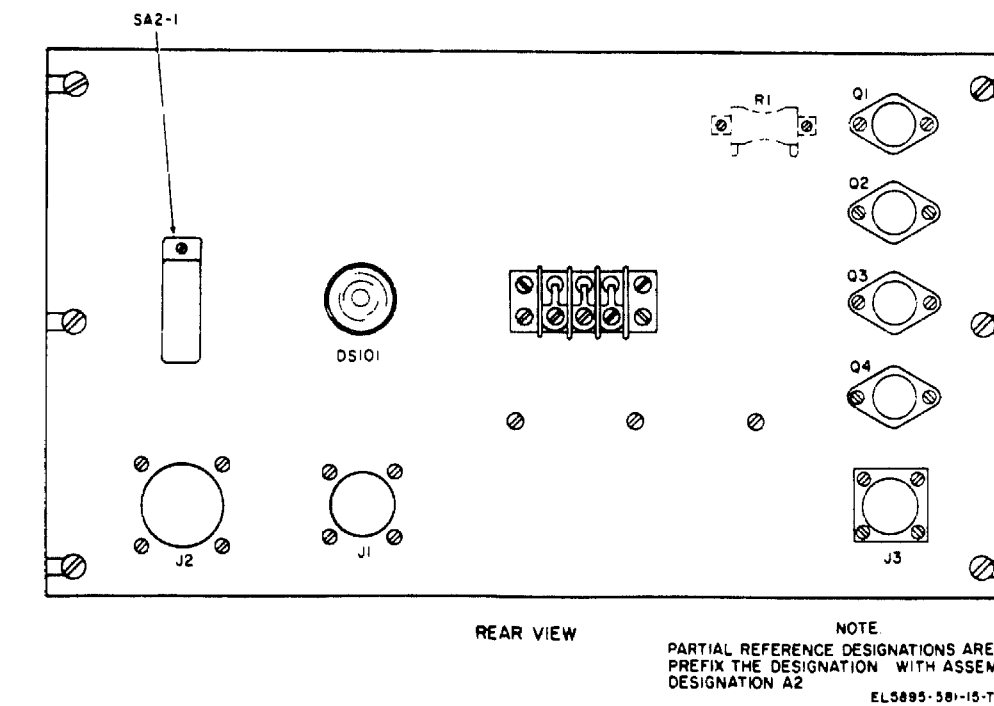
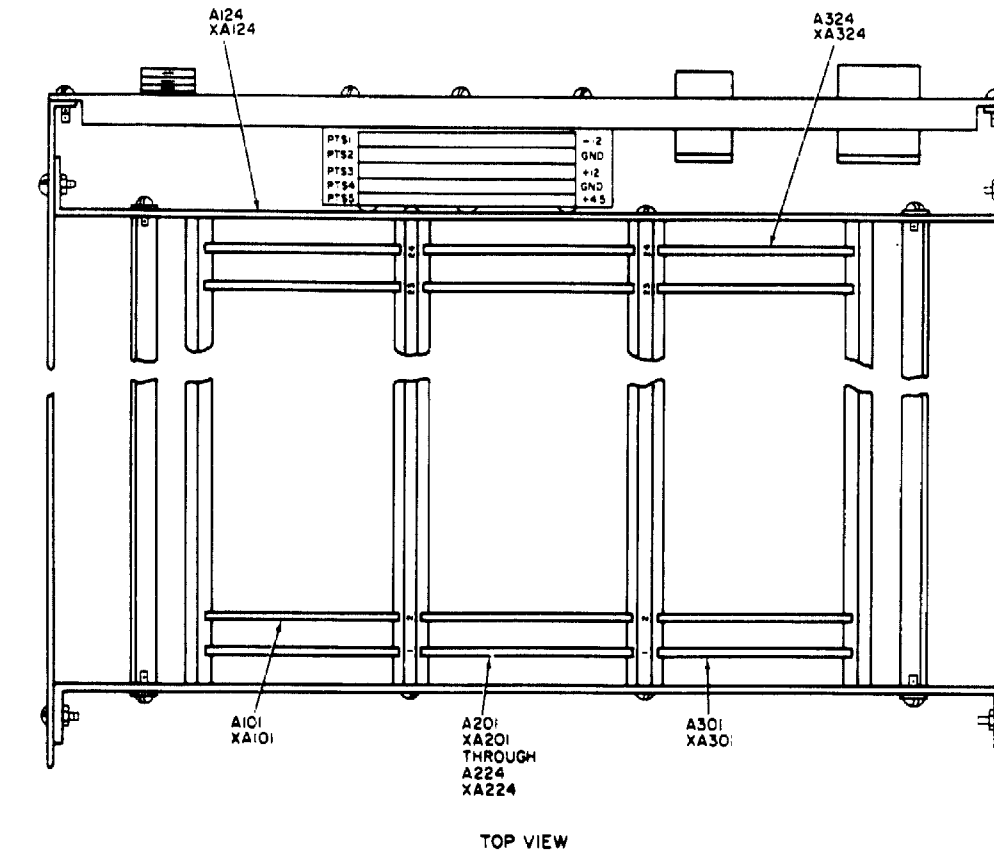


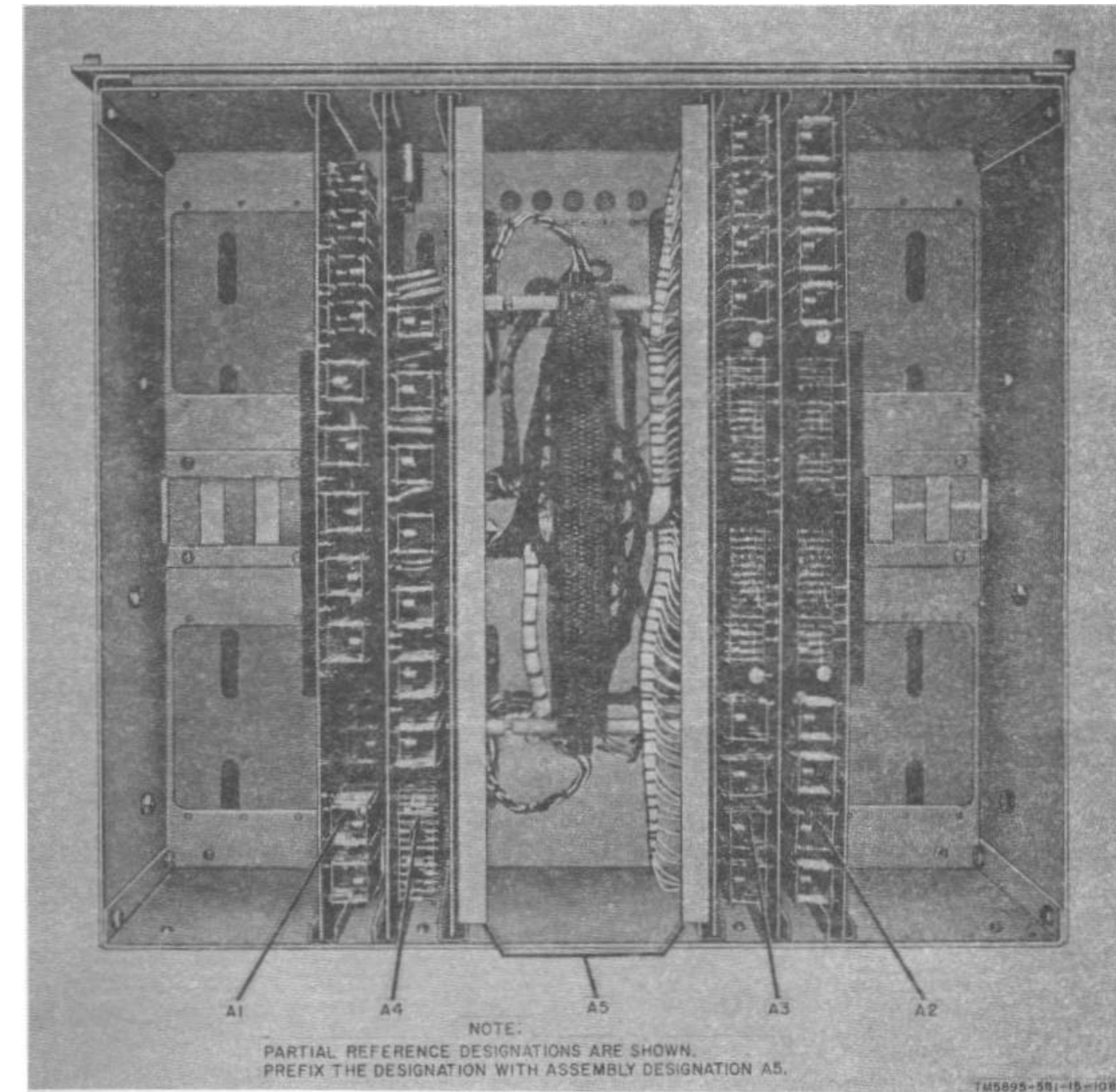
Figure 6-6. Control panel A2, card locations.

SLOT ROW	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
1	NV		NY	NW		NK		NS	NU	NU	NU	NT	NT	NT	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS
2	NV	NV	NV	NV	NV			TS	MR	MR	MR	TS	MP	MP	MP	MP	MP	MP	MP	MP	MP	MP	NX	NX
3	NV	NV	NV	NV	NV					NZ		DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN	DN

NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY
DESIGNATION A2.

TM5895-581-15-107

Figure 6-7. Control panel A2, card locations v. card types.



NOTE:
PARTIAL REFERENCE DESIGNATIONS ARE SHOWN.
PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A5.

TM5895-581-15-108

Figure 6-8. Core memory unit A5, subassembly locations.

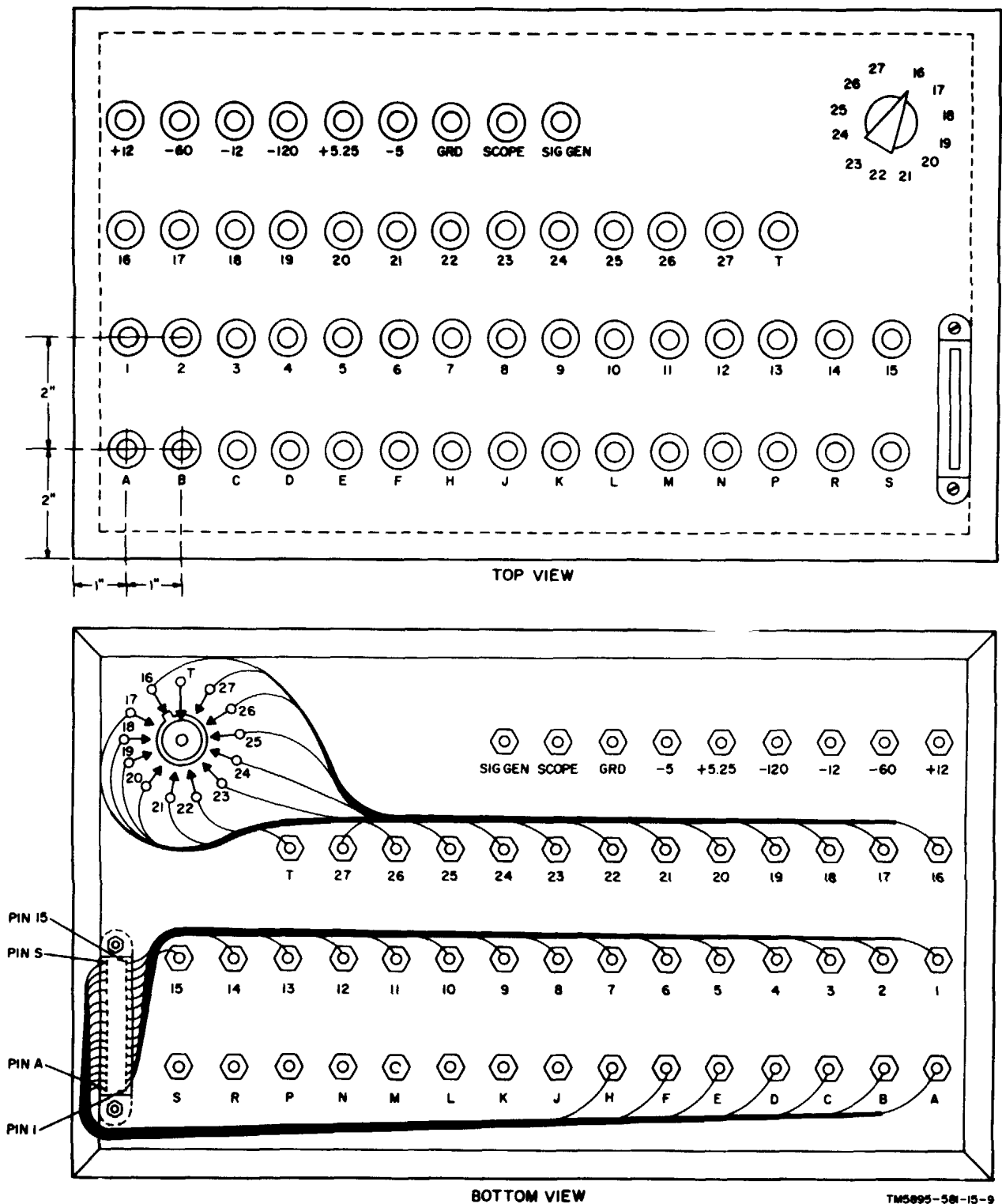


Figure 6-20. Test jig.

(11) At the third row of binding posts, solder a 24-gauge solid wire from each switch terminal to the correspondingly numbered binding post.

b. *Use of Bench Test Charts.* Bench test charts specify the actual operations to be performed during the testing of a subassembly. A Most circuit card bench test charts are accompanied by bench test connection charts that specify all the initial connections made on the test jig. Some connections are made between terminals on the test jig, and some between terminals of the test jig and test equipment. Each item in a bench test connection chart lists a series of terminals that are to be interconnected. Some of the terminals are binding posts on the test jig and some pertain to test equipment. When a piece of test equipment is listed, the applicable terminal, connector, or test lead is placed in parenthesis immediately following the test equipment name. Thus the listing "GRD, vtm (COMMON)" indicates that the COMMON lead of the vtm is to be connected to binding post GRD on the test jig. The listing "A, C, 1, 4, 16" indicates that binding posts A, C, 1, 4, and 16" are to be interconnected, using the banana patch cords provided. One cord is used to interconnect binding posts A and C, a second cord to interconnect binding posts C and 1, etc. In some cases the banana patch cords may also be used to connect test equipment. The following steps are general procedures for bench tests.

(1) Assemble the required test equipment close to the test jig, and apply power to all test equipment. At least 10 minutes warm-up time should be allowed. Items of test equipment required for the test are specified in the first few items of the bench test connections chart.

(2) Make all test connections as given in the bench test connection chart. When a power supply is connected, the designation of the binding post to which it is connected specifies the voltage to which the power supply is set. Use the vtm to insure that the power supply output is correct before proceeding with the test. For example, the listing "+12, PD500 (+)" indicates that the positive output terminal of a Power Design 500R power supply is to be connected to the + 12 binding post on the test jig, and that the power supply must be set to provide a + 12 volt dc output.

(3) When the connections are completed, the test equipment warmed up, and the power supply outputs set to the correct value, insert the circuit card in the electrical connector receptacle. This automatically makes power and signal connections to the circuit card.

(4) Perform the procedures given in the bench test chart in the *Procedure* column. One or more procedures are given for each item, resulting in an indication. This indication must conform with the specification listed in the *Performance standards* column. When it does not, the card is defective. In this case use vtm and oscilloscope to isolate the defective component.

(5) When the test is completed, remove the circuit card, remove all test connections, and turn off the test equipment.

6-17. Card AV, Bench Test

a. *Card .AV, Bench Test Connection Chart.*

Item	Terminal connection
	Note: PS1; PD500R PS2; HP6207B PS3; PD500R
1	GRD, PS1 (-), PS2 (+), PS3 (+), vtm (COMMON)
2	C, +12, PS1 (+)
3	M, -60, PS2 (-)
4	-5, PS3 (-)
5	T, vtm (DC)
6	B, D, P, R
7	A, 16
8	J, 17
9	L, 18
10	S, 19

b. *Card AV, Bench Test Chart.* (fig. 6-21 and 6-22)

Item	Procedure	Performance standards
1	a. Connect terminal R to terminal GRD. b. Rotate test jig switch to positions 16 through 19.	a. None. b. For each position of test jig switch, vtm indicates - 60 volts.
2	Disconnect terminal R from terminal GRD and reconnect terminal	None.

Item Procedure Performance standards

R to terminal - 5.

- 3 Rotate test jig switch to positions 16 through 19. For each position of test jig switch, vtm indicates -1 volt.

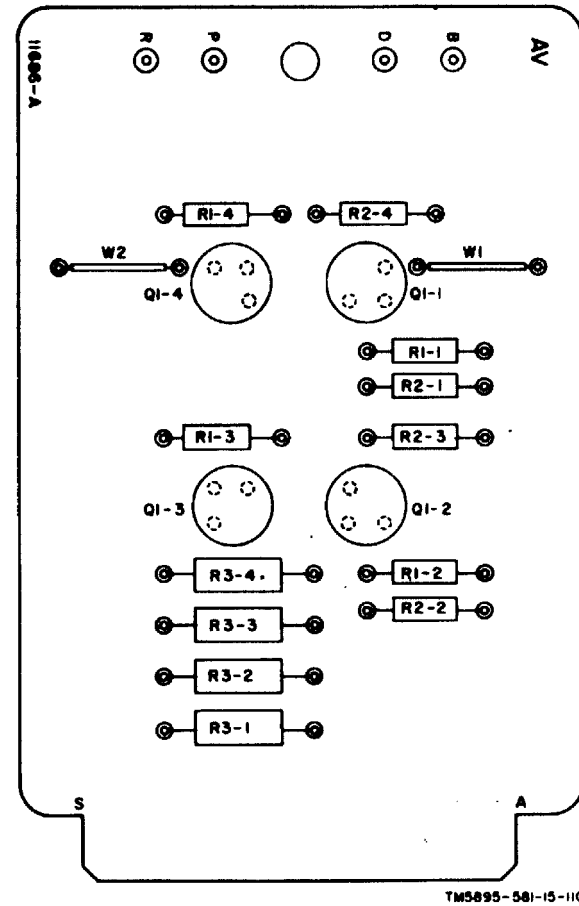


Figure 6-21. Card A V, component locations.

c. Card AV, Voltage Chart.

NOTE

All measurements are made with a vtm with respect to ground.

Transistor	Input	Base	Emitter	Collector
Q1	-12v	-.2v	ground	-.1v
	0	+ 1.78v	ground	-60v

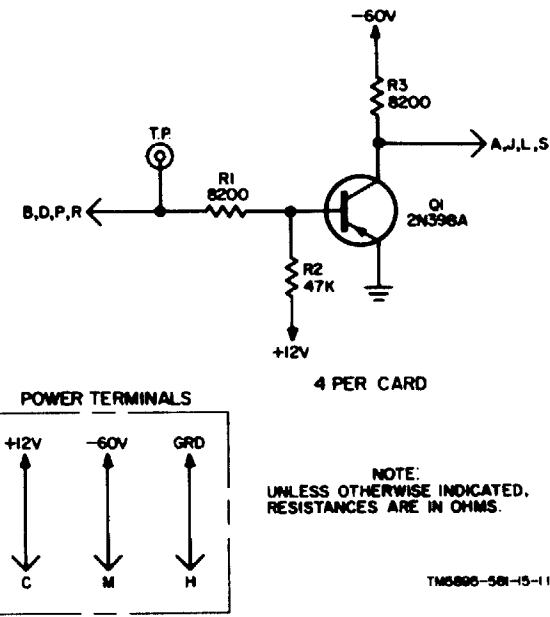


Figure 6-22. Card AV, schematic diagrams.

6-18. Card AX, Bench Test

a. Card AX, Bench Test Connection Chart.

Item	Terminal connections
	Note PS1; HP 6207B PS2; HP 6207B
1	K, P, R, S, GRD. PS1 (+), P'S2 (+), scope (grd)
2	M, -120, PS1 (-)
3	-60, PS2 (-), pulse generator (grd)
4	T, SIG GEN, pulse generator (output), scope (INPUT)
5	16, B
6	17, D
7	18, F
8	19, A
9	20, E
10	21, C
11	22, H
12	23, J

b. Card AX, Bench Test Chart. (figs. 6-23 and 6-24)

Item 1 Apply power to pulse generator. Performance standards Observe a 60v. p-p positive pulse, 800-μsec pulse width on oaclo-scope.

Note

If any lamps are presently lit, disconnect wires attached to terminal GRD. After lamps are extinguished, re-connect wires to terminal GRD and perform item 2.

- 2 Rotate test jig switch to position 16 Observe that lamp DS1 illuminates on card AX.
- 3 Rotate test Jig switch from position 17 through 23. Observe performance standard for each switch position. For each switch position, corresponding lamp (D92 thru DS8) on card illuminates.

6-19. Card LA, Bench Test

a. Card LA, Bench Test Connection Chart.

Item	Terminal connection
1	K, 9, GRD, PD 500R (-), vtm (COMMON)
2	A, 1, +5.25, PD 500R, (+)
3	A, B, C, E, F, M, N, R, S, 2, 3, 6, 5, 11, 12, 14, 15
4	270-ohm resistor between 1 and T
5	4, 16
6	D, 17
7	7, 18
8	H, 19
9	10, 20
10	L, 21
11	13, 2
12	P, 23
13	T, vtm (DC)

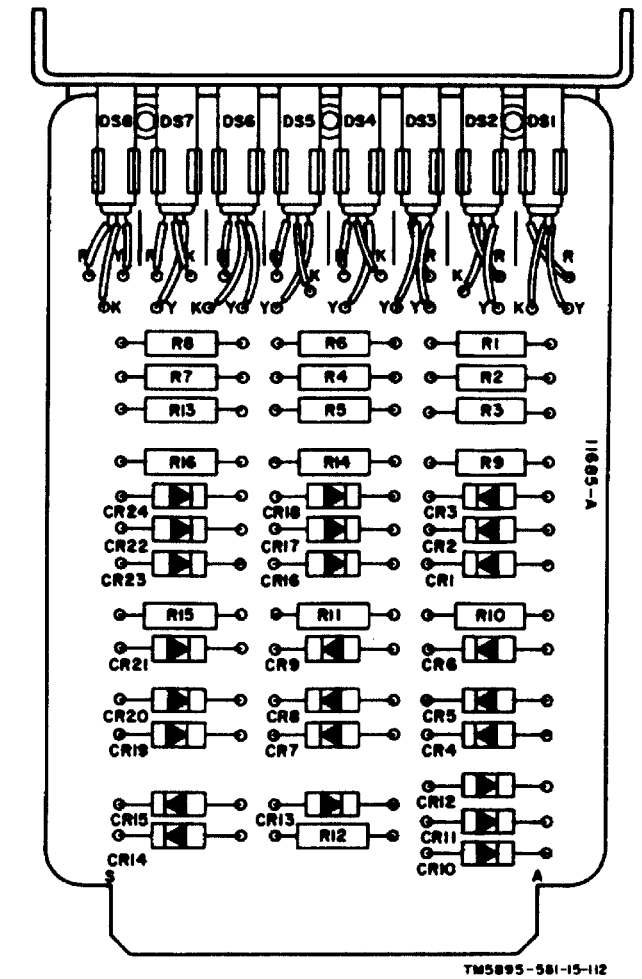


Figure 6-23. Card AX, component locations.

b. Card LA, Bench Test Chart. (figs. 6-25 and 6-26)

Item	Procedure	Performance standards
1	Rotate test jig switch to positions 16 through 23.	For each switch position vtm indicates less than or equal to +0.4 vdc.
2	a. Disconnect and remove 270-ohm resistor. b. Remove all patch cord connections in item 3 of paragraph a. above. c. Interconnect terminals 2, 5, 11, 14, B, E, M, R, and GRD.	a. None b. None c. None

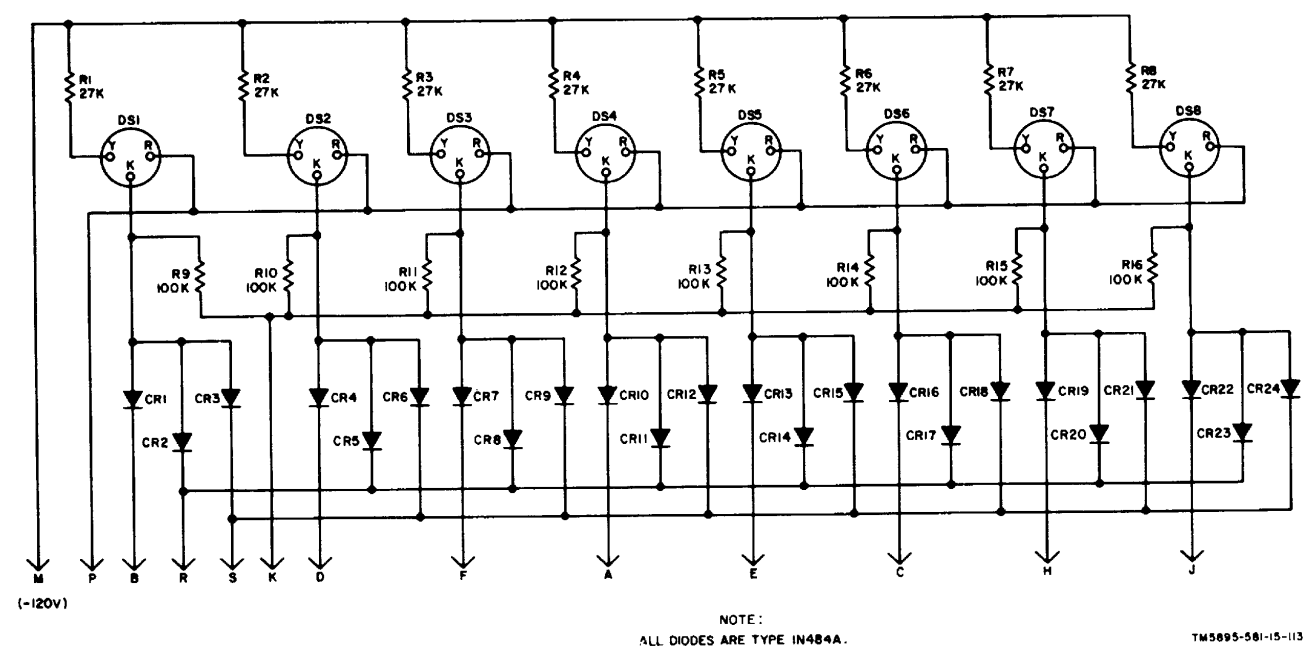


Figure 6-24. Card AX, schematic diagram.

Item	Procedure	Performance standards
d.	Connect a 6-kilohm resistor between terminals 9 and T.	d. None.
e.	Rotate test jig switch to positions 16 through 23.	c. For each switch position vtm indicates greater than or equal to +2.5 vdc.
3	a. Remove all patch cord connections in item 2, procedure c. above. b. Interconnect terminals 3, 6, 12, 15, C, F, N, S, and GRD. c. Same as item 2e above.	a. None. b. None. c. Same as item 2e above.

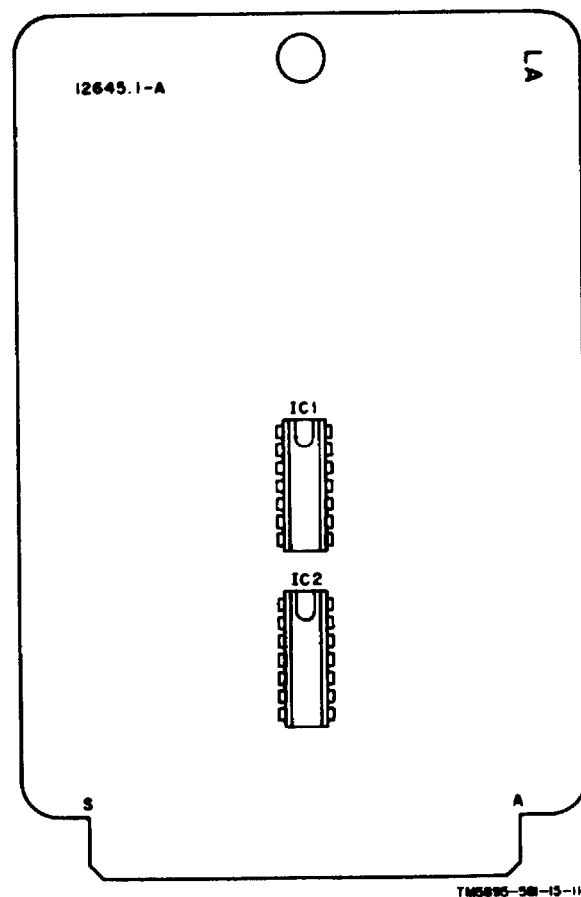


Figure 6-25. Card LA, component locations.

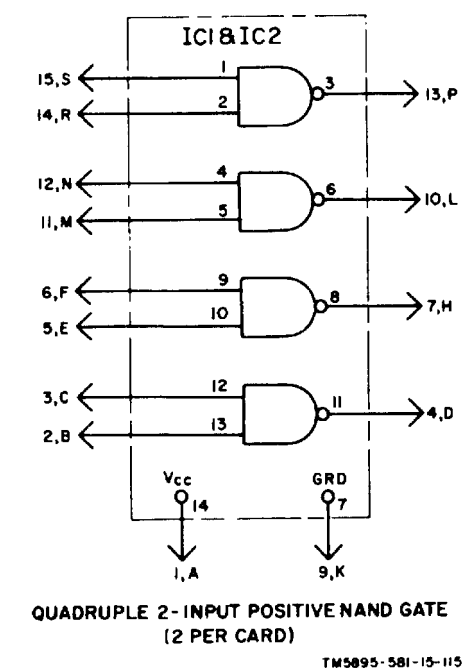


Figure 6-26. Card LA, schematic diagrams.

6-20. Card LB, Bench Test

Item	Terminal connection
1	K, 9, GRD, PD5, OOR (-), vtm (COMMON)
2	A, 1, +5.25, PD50R (+)
3	A, B, D, E, F, M, N, P, R, S, 2, 4, 5, 6, 11, 12, 13, 14, 15
4	270-ohm resistor between 1 and T
5	3, 16
6	C, 17
7	7, 18
8	H, 19
9	10, 20
10	L, 21
11	T, vtm (DC)

Item	Procedure	Performance standards
1	Rotate test jig switch to position 16 through 21.	For each switch position vtm indicates less than or equal to +0.4 vdc.

Item	Procedure	Performance standards
2	a. Disconnect and remove 270-ohm resistor.	a. None.
	b. Remove all patch cord connections in Item 3,a above.	b. None.
	c. Interconnect 4, 11, 14, D, M, RH, and GRD.	c. None.
	d. Connect a 6kilohm resistor between terminals 9 and T.	d. None.
	e. Rotate test jig switch to positions 16 through 21.	e. For each switch position vtm indicates greater than or equal to +2.4 vdc.
3	a. Remove all latch cord connections ill Item 2c above.	a. None.

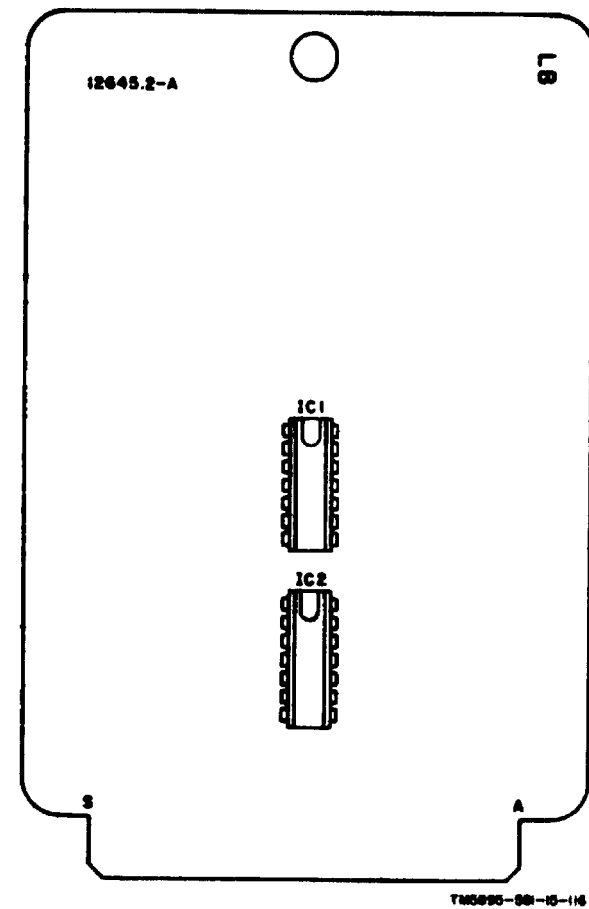


Figure 6-27. Card LB, component locations.

Item	Procedure	Performance standards
b.	Interconnect 5, 12, 15, E, N, S, and ORD.	b. None.
	Same as Item 2e above.	c. Same as item 2e above.
	Remove all patch cord connections in item 3b above.	a. None.
4	Interconnect 6, 13, 2, F, P, B and GRD	b. None.
	Same as item 2c above.	c. Same as item 2c above.

6-21. Card LC, Bench Test

a. Card LC, Bench Test Connection Chart.

Item	Terminal connection
1	K, 9, GRD, PD500R (-), vtm (COMMON)
2	A, 1, +526, PD500R, 0-50 volt max (+)
3	A, B, C, E, F, M, N, R, S, 2, 3, 5, 6, 11, 12, 14, 1.-;
4	270-ohm resistor between 1 and T
5	7, 16
6	H, 17
7	10, 18
8	L, 19
9	T, vtm (DC)

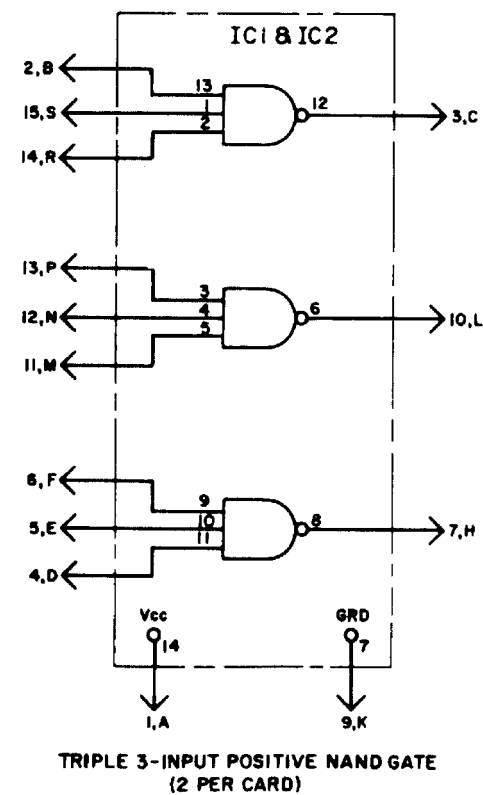


Figure 6-28. Card LB, schematic diagrams.

Item	Terminal connection
1	Rotate test Jig switch to positions 10 through 19.
2	a. Disconnect and remove 27-ohm resistor. above.
	b. Remove all patch cord connections in item 3a above.
	c. Interconnect 2, 11, B, M, and GRD.
	d. Connect a 6-kilohm resistor between terminals 9 and T.
	e. Rotate test jig switch to positions 16 through 19.
3	a. Remove all patch cord connections in item 2c above.
	b. Interconnect 3, 12, C, N, and GRD.
	c. Same as item 2e above.
4	a. Remove all patch cord connections in item 3b above.
	b. Interconnect 5, 14, E, R, and GRD.
	c. Same as item 2e above.
5	a. Remove all patch cord connections in item 4b above.
	b. Interconnect 6, 15, F, S, and GRD.
	c. Same as item 2e above.

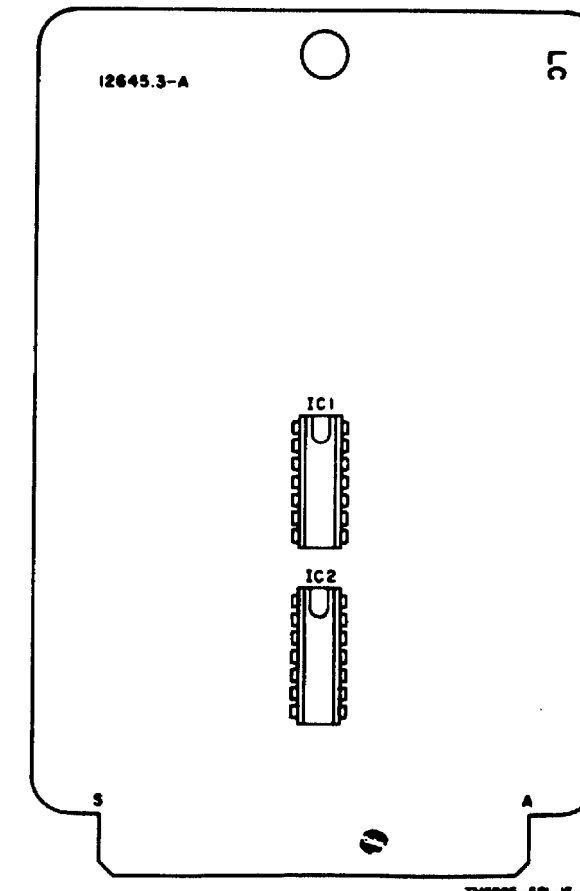


Figure 6-29. Card LC, component locations.

Item	Performance standards
For each switch position vtm indicates less than or equal to +0.4 vdc.	
a.	None.
b.	None.
c.	None.
d.	None.
e.	For each switch position vtm indicates greater than or equal to +2.4 vdc.
a.	None.
b.	None.
c.	Same as Item 2e above.
a.	None.
b.	None.
c.	Same as item 2e above.
a.	None.
b.	None.
c.	Same as item 2e above.

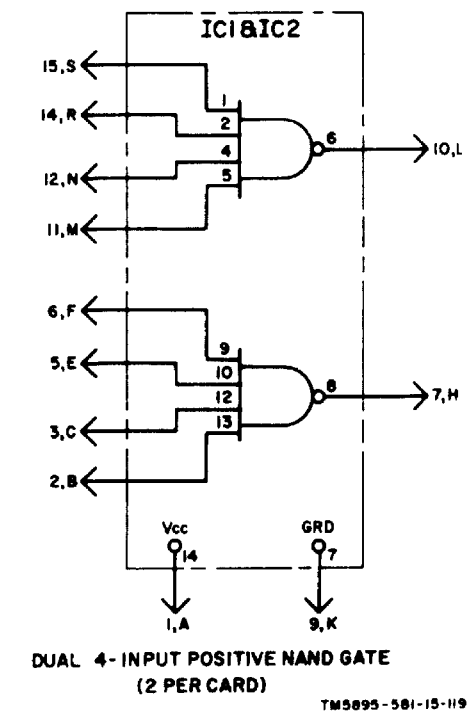


Figure 6-30. Card LC, schematic diagrams.

6-22. Card LD, Bench Test

a. Card LD, Bench Test Connection Chart.

Item	Terminal connection
1	K, 9, GRD, PD500R (-), vtm (COMMON)
2	A, 1, +5.25, PD500R (+)
3	A, C, D, L, M, N, P, R, S, 15, 14, 13, 12, 11, 10, 4, 3
4	270-ohm resistor between 1 and T
5	7, 16
6	H, 17
7	T, vtm (DC)

b. Card LD, Bench Test Chart. (figs. 6-31 and 6-32)

Item	Procedure	Performance standards
1	Rotate test jig switch to positions 16 and 17.	For each switch position vtm indicates less than or equal to +0.4 vdc.
2	a. Disconnect and remove 270-ohm resistor. b. Remove all patch cord connections in item 3.a above. c. Interconnect 10, L, and GRD. d. Connect a 6-kilohm resistor between terminals 1 and T. c. Rotate test jig switch to positions 16 and 17.	a. None. b. None. c. None. d. None. c. For each switch position vtm indicates greater than or equal to +2.4 vdc.
3	a. Remove patch cord connections in item 2c above. b. Interconnect 11, M, and GRD. c. Rotate test jig switch to positions 16 and 17.	a. None. b. None. c. For each switch position vtm indicates greater than or equal to +2.4 vdc.
4	a. Remove patch cord connections in item 3b above. b. Interconnect 12, N, and GRD. c. Same as item 3c above.	a. None. b. None. c. Same as item 3c above.
5	a. Remove patch cord connections b. Interconnect 13, P, and GRD. c. Same as item 3c above.	a. None. b. None. c. Same as item 3c above.
6	a. Remove patch cord connections in item 5b above. b. Interconnect 14, R, and GRD. c. Same as item 3c above.	a. None. b. None. c. Same as item 3e above.
7	a. Remove patch cord connections in item 6b above. b. Interconnect 15, S, and GRD. c. Same as item 3c above.	a. None. b. None. c. Same as item 3c above.
8	a. Remove patch cord connections in item 7b above. b. Interconnect 3, C, and GRD. c. Same as item 3c above.	a. None. b. None. c. Same as item 3c above.
9	a. Remove patch cord connections in item 8b above. b. Interconnect 4, D, and GRD. c. Same as item 3c above.	a. None. b. None. c. Same as item 3c above.

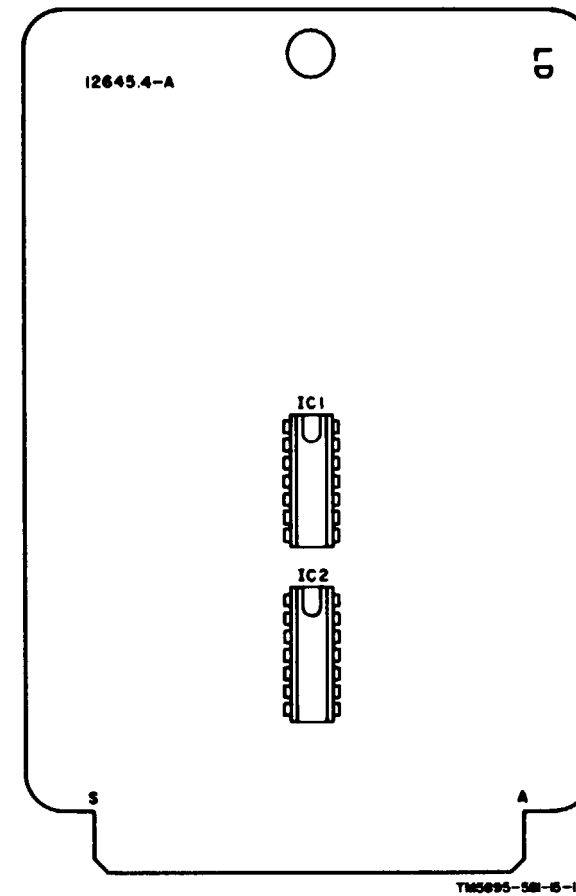


Figure 6-31. Card LD, component locations.

b. Card LE, Bench Test Chart. (figs. 6-33 and 6-34)

Item	Procedure
1	Adjust pulse generator for an output of 2.5 volts peak-to-peak at a pulse width of 1 usec.
2	a. Rotate test jig switch to position 26 and reconnect oscilloscope vertical input probe to terminal 6. b. Interconnect terminal 10 to GRD terminal. c. Remove connection between 10 terminal and GRD terminal.
3	a. Rotate test jig switch to position 25 and reconnect oscilloscope vertical input probe to F terminal.

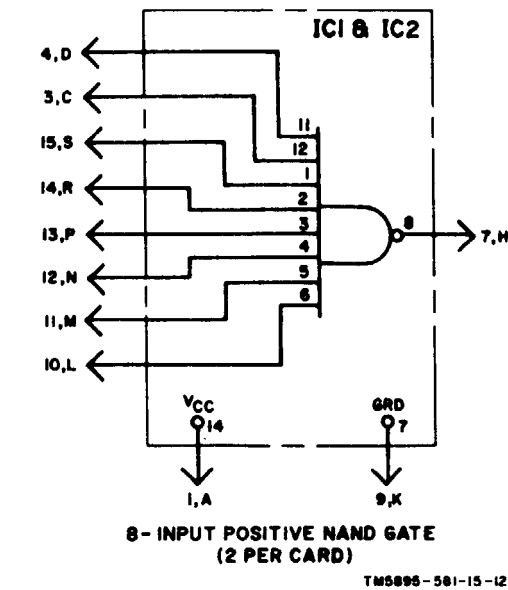


Figure 6-32. Card LD, schematic diagram.

6-23. Card LE, Bench Test

a. Card LE, Bench Test Connection Chart.

Item	Terminal connection
Note	
	PS1; PD500R
	PS2; PD500R
1	4, D, GRD, PS1(-), PS2 (-), pulse generator (GRD), oscilloscope (GRD)
2	12, N, +5.25, PS1 (+)
3	N, 1, 5, 9, 13, A, E, K, P
4	T, SIG GEN, pulse generator (OUTPUT), oscilloscope (INPUT)
5	11, 26
6	M, 25
7	15, 24
8	S, 23
9	Pulse generator, PS2 (+)

Performance standards

- Observe output of pulse generator on oscilloscope for correct indication.
- Observe +5.25-volt peak-to-peak 250 Hz square wave.
 - Observe 0 volt output.
 - Same as a. above.
- Same as in item 2 a. Above.

Item	Procedure	Performance standards
	b. Interconnect L terminal to GRD terminal.	b. Same as in item 2 b. above.
	c. Remove connection between L terminal and GRD terminal.	c. Same as in item 2 a. above.
	4 a. Rotate test jig switch to position 24 and reconnect oscilloscope vertical input probe to 3 terminal.	a. Same as in item 2 a. above.
	b. Interconnect 14 terminal to GRD terminal.	b. Same as in item 2 b. above.
	c. Remove connection between 14 terminal and GRD terminal.	c. Same as in item 2 a. above.
	5 a. Rotate test jig switch to position 23 and reconnect oscilloscope vertical input probe to C terminal.	a. Same as in item 2 a. above.
	b. Interconnect R terminal to GRD terminal.	b. Same as in item 2 b. above.
	c. Remove connection between R terminal and GRD terminal.	c. Same as in item 2 a. above.

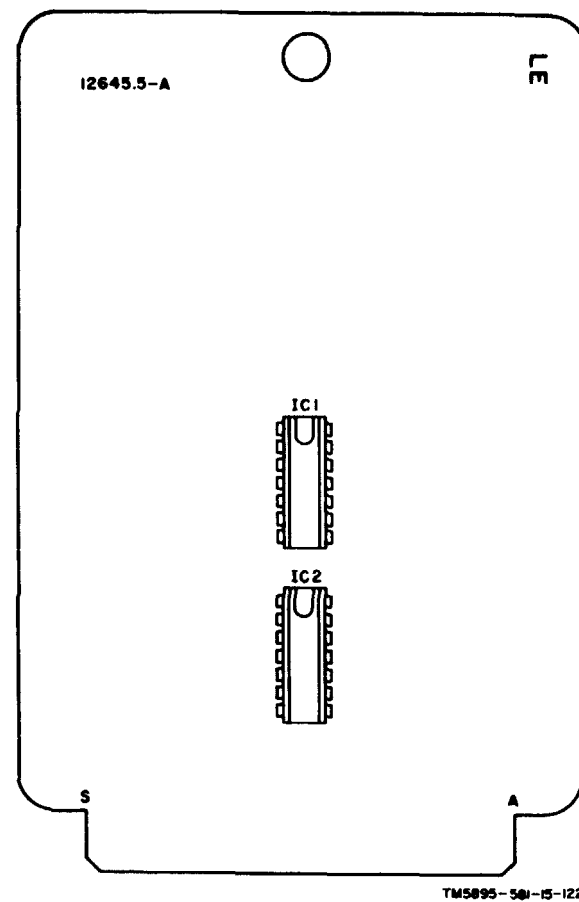


Figure 6-33. Card LE, component locations.

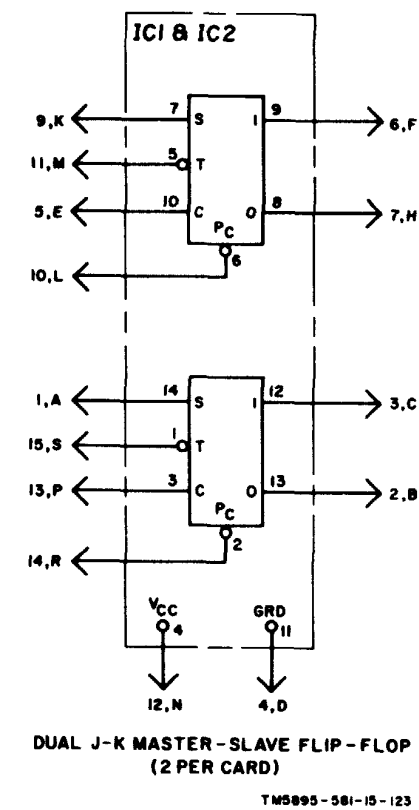


Figure 6-34. Card LE, schematic diagrams.

6-24. Card LF, Bench Test

Item	Terminal connections
a.	Card LF, Bench Test Connection Chart.
1	K, 9, GRD, PD500R (-), vtm (COMMON)
2	A, 1, +525, PR50R (+)
3	A, 12, N, 14, R, 13, P, 5, E, 3, C, 4, D, 2, B, 15, S

Item	Terminal connections
4	11, 16
5	M, 17
6	6, 18
7	F, 19
8	6-kilohm resistor between terminals 9 and T.
9	T, vtm (DC)

b. Card LF, Bench Test Chart. (figs. 6-35 and 6-36).

Item	Procedure	Performance standards
1	Rotate test jig switch to positions 16 through 23.	For each switch position vtm indicates +2.4 vdc.
2	a. Disconnect and remove 6-kilohm resistor.	a. None.
	b. Remove connections between +5.25 and 2, B, 15, and S terminals.	b. None.
	c. Interconnect 2, B, 15, and S terminals to GRD terminal.	c. None.
	d. Connect 27-ohm resistor between terminals 1 and T.	d. None.
	c. Rotate test jig switch to positions 16 through 23.	e. For each switch position vtm indicates +0.4 vdc.
3	a. Disconnect and remove 270-ohm resistor.	a. None.
	b. Remove connections between +5.25 and 14, R, 3, and C terminals.	b. None.
	c. Remove connections in item 2c above.	c. None.
	d. Interconnect 14, R, 3, and C terminals to GRD terminal.	d. None.
	e. Remove connections between 12, N, 5, and E and +5.25 terminals.	e. None.
	f. Interconnect 12, N, 5, and E terminals to GRD terminal.	f. None.
	g. Reconnect 6-kilohm resistor between terminals 9 and T.	g. None.
	h. Same as item 1.	h. Same as item 1.
4	a. Disconnect and remove 6-kilohm resistor.	a. None.
	b. Remove connections in item 31 above.	b. None.
	c. Interconnect terminals 12, N, 5, and E to +5.25 terminal.	c. None.
	d. Reconnect 270-ohm resistor between terminals 1 and T.	d. None.
	e. Same as item 2e above.	c. Same as item 2e above.

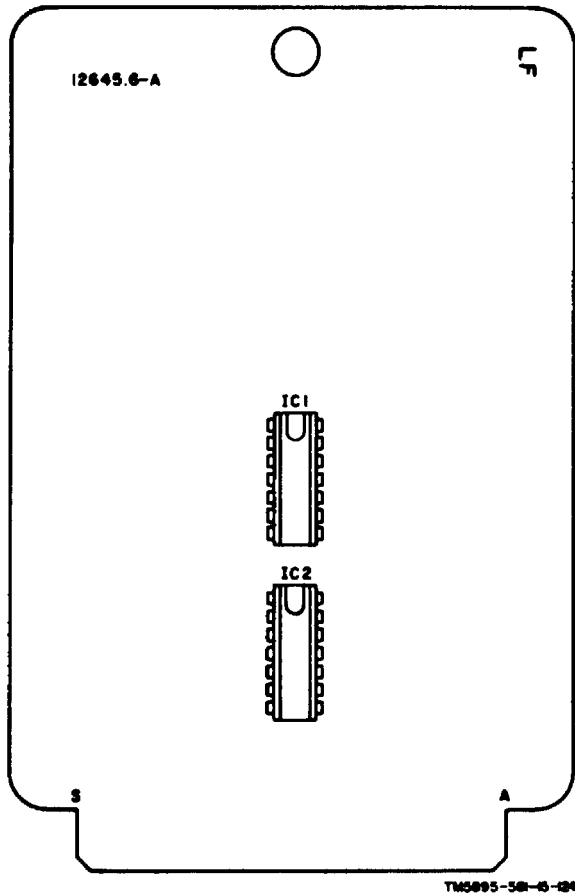


Figure 6-35. Card LF, component locations.

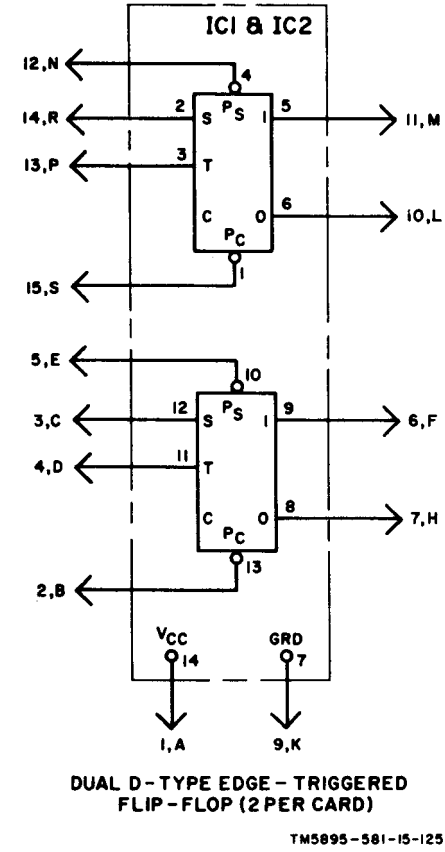


Figure 6-36. Card LF, schematic diagram.

6-25. Card LH, Bench Test

a. Card LH, Bench Test Connection Chart.

Item	Terminal connections
1	9. GRD, PD500R, (-), vtm (COMMON)
2	1, +5.25, PD500R, (+)
3	1, 3, 4, 10, 11, 12, 13, 14, 15.
4	7, 16
5	270-ohm resistor between 1 and T
6	T, vtm (DC)

b. Card LH, Bench Test Chart (figs. 6-37 and 6-38).

Item	Procedure	Performance standards
1	Rotate test jig switch to position 16.	Observe vtm for an indication of less than or equal to +0.4 vdc.
2	a. Disconnect and remove 270-ohm resistor. b. Remove all patch cord connections in item 3 para. a. above. c. Connect a 6-kilohm resistor between terminals 9 and T. d. Interconnect terminals 3, 4, 10, 11, 12, 13, 14, and 15 one at a time to GRD.	a. None. b. None. c. None. d. As each terminal is grounded vtm indicates +2.4 vdc.

Item	Procedure	Performance standards
3	Remove connection between terminals 1 and +5.25.	None.
4	Remove connection between terminals 9 and GRD.	None.
5	Remove connection between terminal 7 and 16.	None.
6	Interconnect terminals E, A, S, N, P, K, 8, F, H, and D to GRD terminal.	None.
7	Interconnect terminal M to +5.25 terminal.	None.
8	a. Interconnect terminals J, L, R, B, and C to test jig switch positions 16, 17, 18, 19, and 20, respectively. b. Connect 270-ohm resistor between terminals 5 and T. c. Rotate test jig switch to positions 16 through 20.	a. None. b. None. c. For each switch position vtm indicates +0.4 vdc.
9	a. Remove all connections in item 6 above. b. Interconnect terminals A, N, K, and F to +5.25 terminal. c. Interconnect terminals S, P, 8, H, and D to GRD terminal. d. Rotate test jig switch to positions 16 through 20.	a. None. b. None. c. None. d. For switch positions 16 through 19, vtm indicates +2.4 vdc. For position 20, vtm indicates +0.4 vdc.
10	a. Remove connections in item 9b above. b. Remove connections in item 9c above. c. Interconnect terminals A, N, K, F and D to GRD terminal. d. Interconnect terminals S, P, 8, and H to +5.25 terminal. e. Same as item 9d above.	a. None. b. None. c. None. d. None. e. Same as item 9d above.
11	a. Remove connections between terminal D and GRD terminal. b. Connect terminal D to +5.25 terminal. c. Disconnect and remove 270-ohm resistor. d. Connect 6-kilohm resistor between terminals E and T. e. Rotate test jig switch to positions 16 through 20.	a. None. b. None. c. None. d. None. e. For switch positions 16 through 19 vtm indicates +0.4 vdc. For switch position 20 vtm indicates +2.4 vdc.
12	a. Remove connections in item 10c above. b. Interconnect terminals A, N, K, and F to +5.25 terminal. c. Rotate test jig switch to position 16 through 20.	a. None. b. None. c. For each switch position vtm indicates +2.4 vdc.

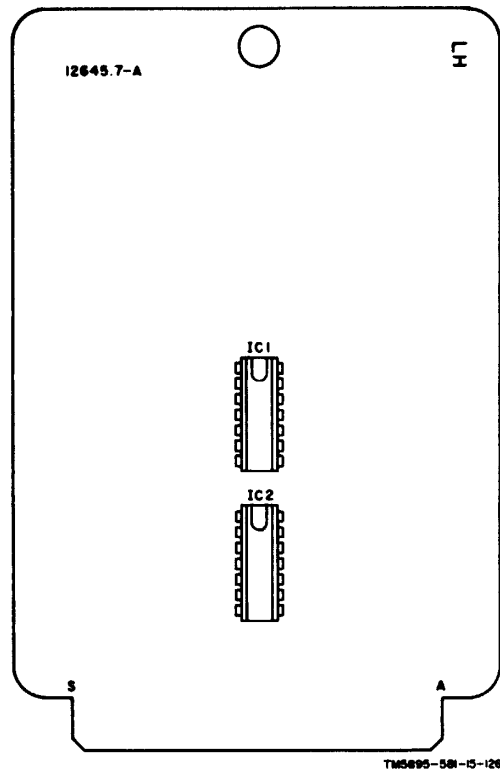


Figure 6-37. Card LH, component locations.

b. Card LI, Bench Test Chart. (figs. 6-39 and 6-40).

6-26. Card LI, Bench Test

a. Card LI, Bench Test Connection Chart.

Item	Terminal connections
1	9, K, GRD, PD500R, (-), vtm (COMMON)
2	A, 1, +5.25, PD500R, (+)
3	A, 2, 3, 5, 6, 11, 12, 14, 15, B, C, E, F, M, N, R, S
4	10, 16
5	L, 17
6	7, 18
7	H, 19
8	90-ohm resistor between terminals 1 and T
9	T, vtm (DC)

Item	Procedure	Performance standards
1	Rotate test jig switch to positions 16 through 19.	For each switch position vtm indicates +0.4 vdc.
2	Disconnect and remove 90-ohm resistor.	None.
3	a. Remove all patch cord connections in item 3, a above. b. Interconnect terminals 2, 11, B, and M to GRD. c. Connect a 6-kilohm resistor between 9 and T. d. Rotate test jig switch to positions 16 through 19.	a. None. b. None. c. None. d. For each switch position vtm indicates +2.4 vdc.
4	a. Remove patch cord connections in item 3a above. b. Interconnect terminals 3, 12, C, N to GRD. c. Same as item 3d above.	a. None. b. None. c. Same as item 3d above.
5	a. Remove patch cord connections in item 4b above. b. Interconnect terminals 5, 14, E, R to GRD. c. Same as item 3d above.	a. None. b. None. c. Same as item 3d above.

Item	Procedure	Performance standards
6	a. Remove patch cord connections in item 5b above. b. Interconnect terminals 6, 15, F, S to GRD. c. Same as item 3d above.	a. None. b. None. c. Same as item 3d above.

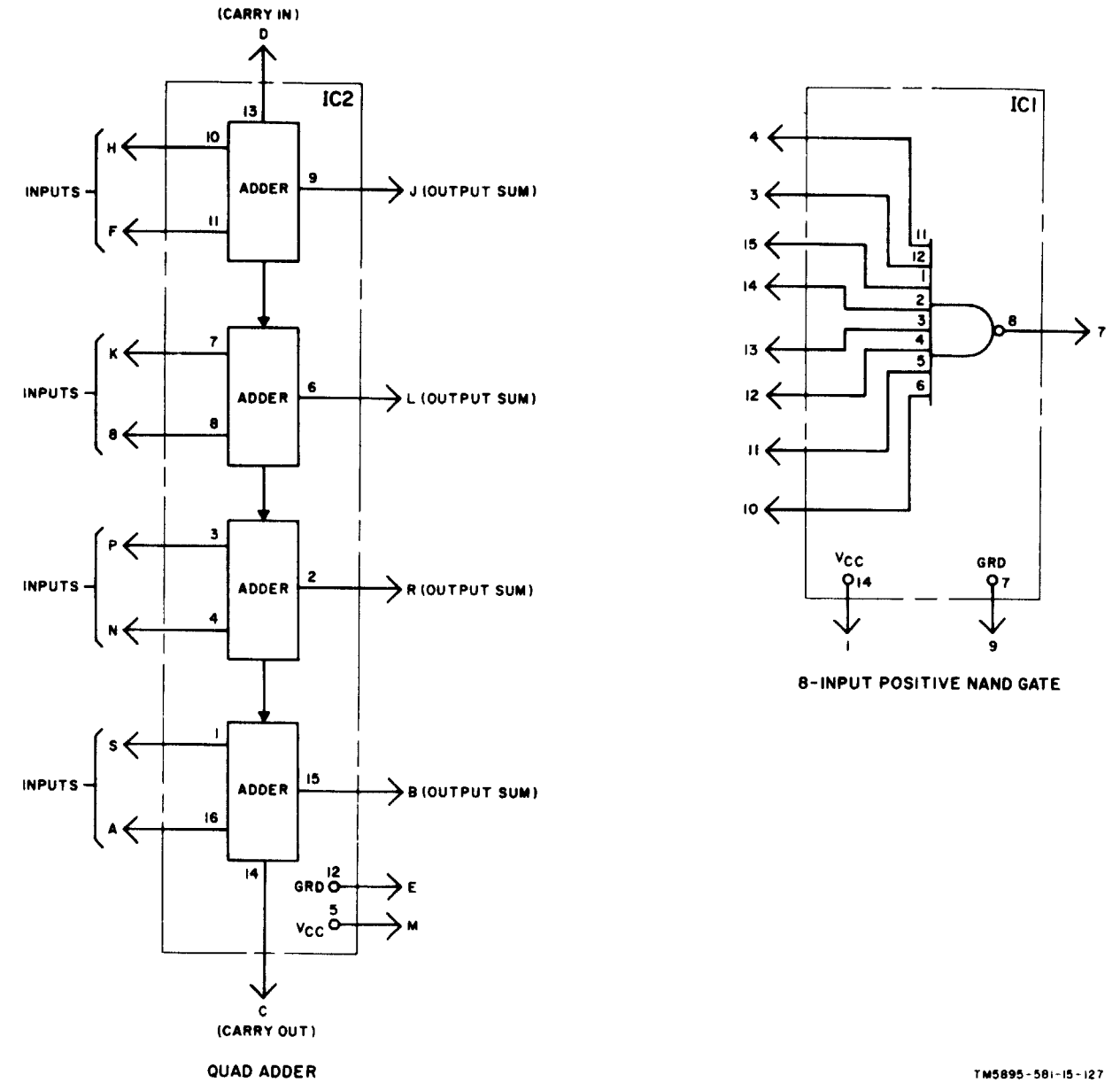


Figure 6-38. Card LH, schematic diagram.

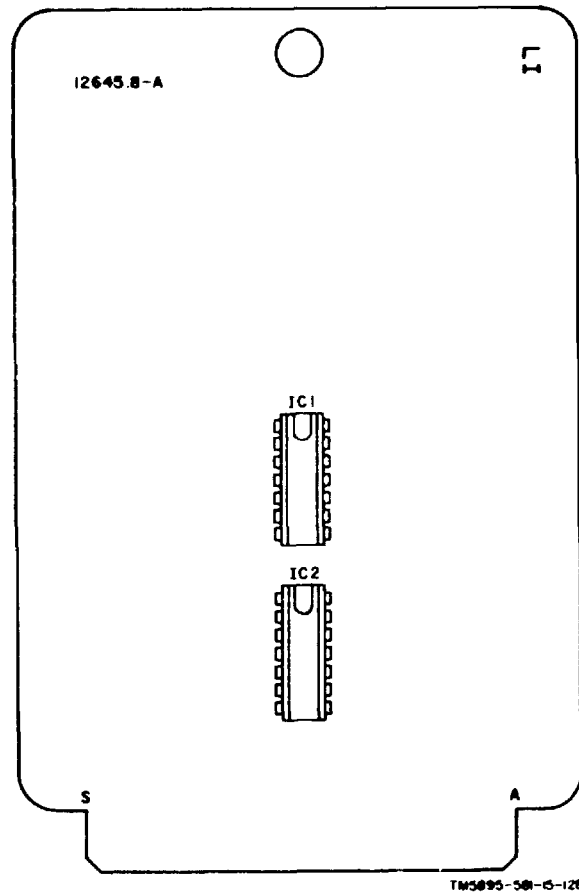


Figure 6-39. Card LI, component location.

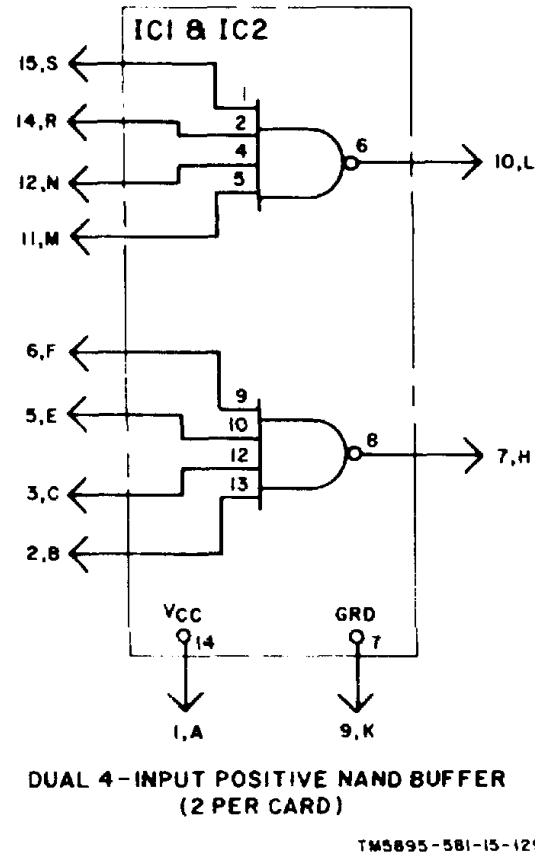


Figure 6-40. Card LI, schematic diagram.

6-27. Card U, Bench Test

a. Card LJ, Bench Test Connection Chart.

Item	Terminal connections
1	E, 5, GRD, PD500R (-), pulse generator (GRD). Oscilloscope (GRD), 14, R, vtm (COMMON)
2	11, M, +5.25, PD500R (+)
3	3, 15, C, S
4	Pulse generator (OUTPUT), SIG GEN, A, 1
5	T, vtm (DC)
6	Oscilloscope (INPUT), SIG GLN

b. Card LJ, Bench Test Chart (figs. 6-41 and 6-42).

Item	Procedure	Performance standards
1	Adjust pulse generator for an output of +5.25-volt Peak-to-peak 4800 Hz square wave.	Observe oscilloscope for correct indication.
2	Reconnect oscilloscope (INPUT) to terminals 4 and D.	Observe +5.25 volt peak-to-peak at 300 Hz square Wave at each terminal.
3	a. Remove connections between terminals 14, R, and GRD. b. Interconnect terminals 13, 14, P, and R to +5.25 terminal.	a. None. b. None.

Item	Procedure	Performance standards
c.	Interconnect terminals 3, C, 15, S, 6, F, 7, and H to test jig switch positions 16, 17, 18, 19, 20, 21, and 22, respectively.	c. None.
d.	Connect a 270-ohm resistor between terminals 5 and T.	d. None.
e.	Rotate test jig switch to position 16 through 22.	e. For each switch position vtm indicates +0.4 vdc.

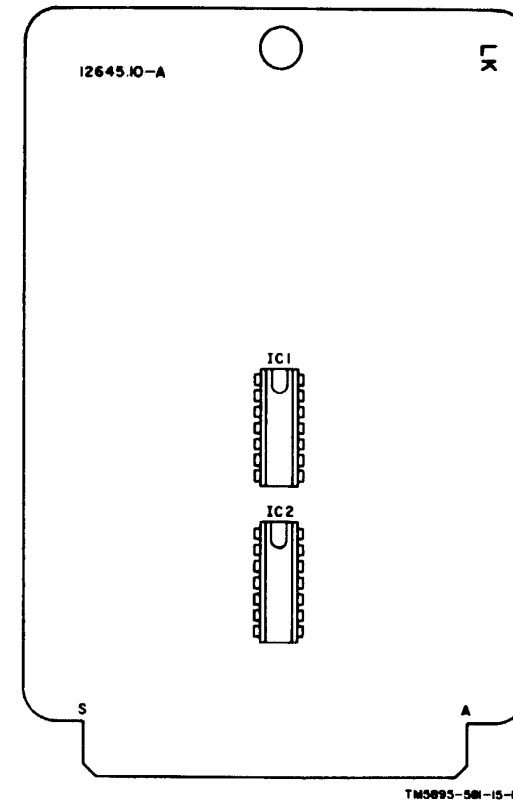


Figure 6-41. Card LJ, component locations.

6-28. Card LK, or LL Bench Test

a. Card LK, Bench Test Connection Chart.

Item	Terminal connections
Note PS1, PD500R PS2, P500R (1.7 volts)	
1	5, E, GRD, PSI (-), PS2 (-), vtm (COMMON)
2	12, N, +5.25, PS1 (+)
3	SIG GEN, PS2 (+)
4	SIG GEN, 15, S, 2, B, 13, P, 4, D, 10, L, 7, H
5	1, 16

Item	Terminal connections
6	A, 17
7	14, 18
8	R, 19
9	3, 20
10	C, 21
11	11, 22
12	6, 23
13	F, 24
14	9, 25
15	K, 26
16	T, vtm (DC)

b. Card LL, Bench Test Connection Chart.

Item	Terminal connections
Note PS1, PD500R PS2, PD500R (1.7 volts)	
1	9, K, GRD, PS1 (-), PS2 (-), VTVM (COMMON)
2	1, A, +5.25, PS1 (+)
3	SIG GEN, PS2 (+)
4	SIG GEN, 15, S, 13, P, 11, M, 6, F, 4, D, 2, B
5	14, 16
6	R, 17
7	12, 18
8	N, 19
9	10, 20
10	L, 21
11	7, 22
12	H, 23
13	5, 24
14	E, 25
15	3, 26
16	C, 27

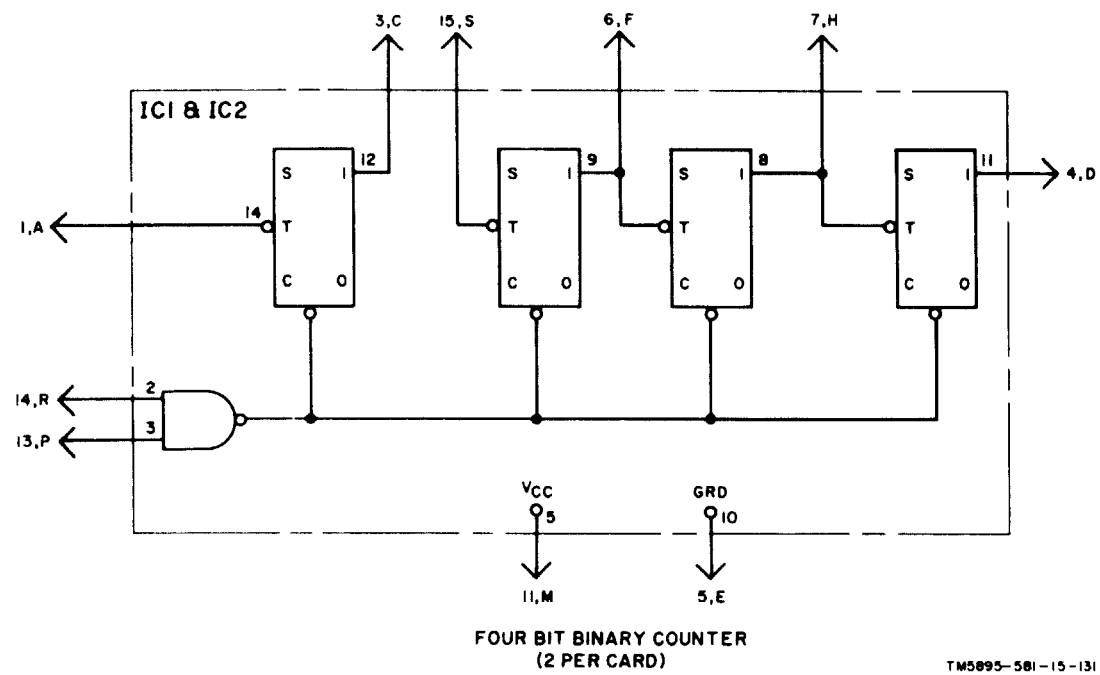


Figure 6-42. Card LJ, schematic diagram.

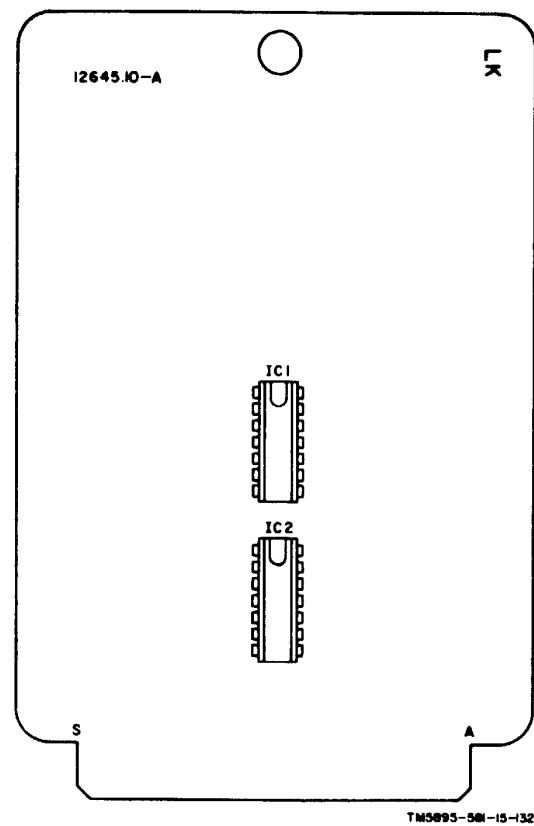


Figure 6-43. Card LK, component locations.

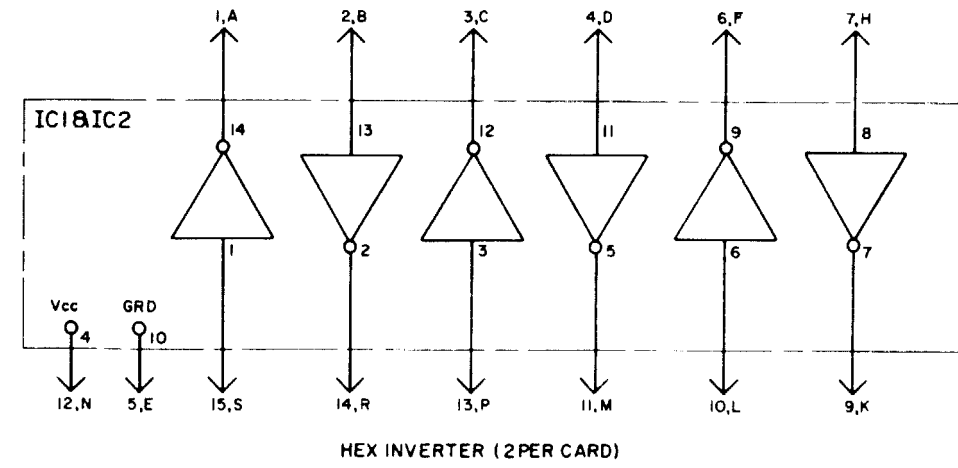


Figure 6-44. Card LK, schematic diagram.

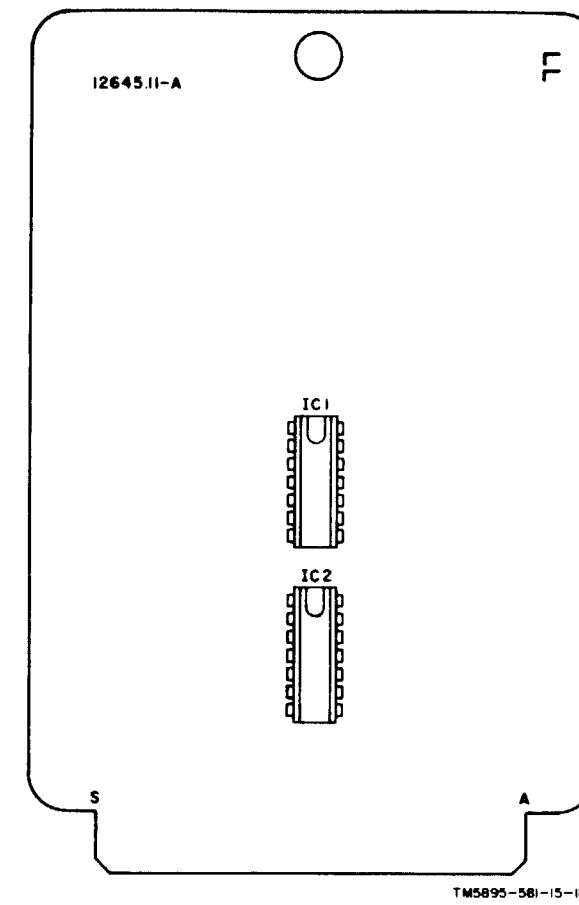


Figure 6-45. Card LL, component locations.

c. Card LK, or LL Bench Test Chart (figs. 6-43 and 6-44 or 6-45 and 6-46).

Item	Procedure	Performance standards
1	Rotate test jig switch to positions 16 through 26.	For each switch position vtmv indicates 4.2 vdc ± 0.2 volt.
2	Disconnect terminals connected to SIG GEN and connect to +5.25.	None.
3	Rotate test jig switch positions 16 through 26.	For each switch position vtmv indicates ground.

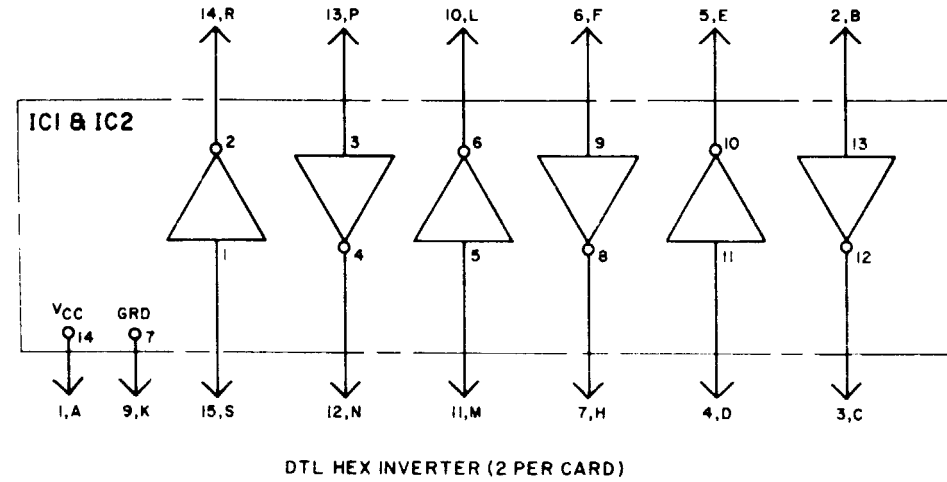


Figure 6-46. Card LL, schematic diagrams.

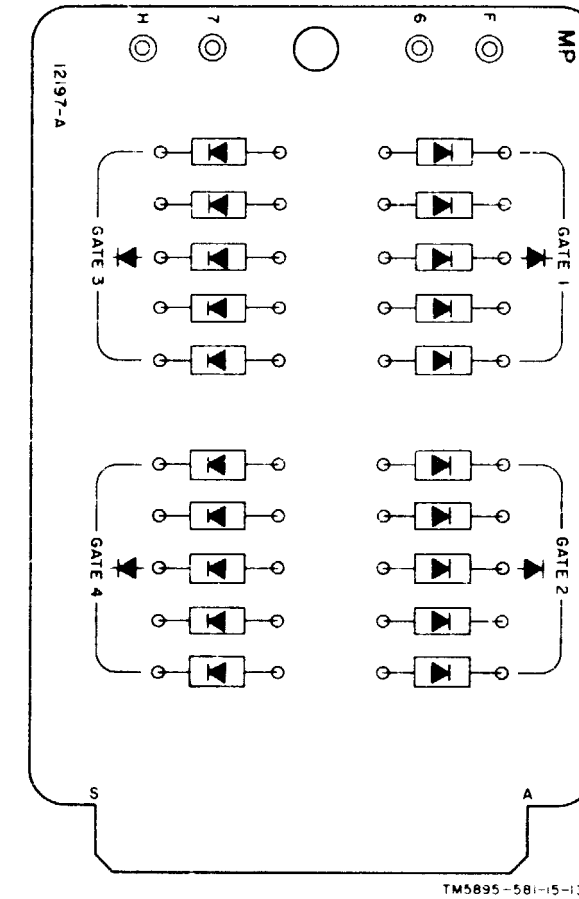


Figure 6-47. Card MP, component locations.

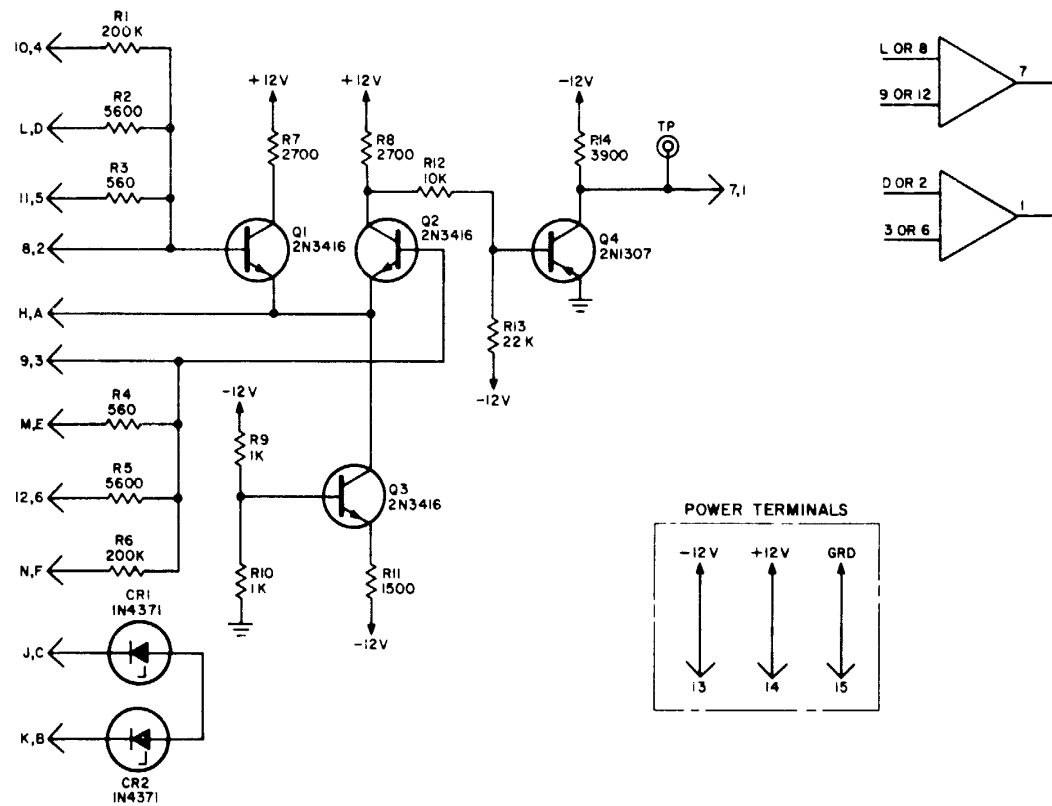
6-29. Card MP, Bench Test

- a. Card MP, Bench Test Connection Chart. Not applicable.
- b. Card MP, Bench Test Chart (figs. 6-47 and 6-48).

Item	Procedure	Performance standards
1	Set vtmv for measuring low resistance.	None.
2	a. Connect OHMS lead of vtmv to terminal 6. b. Connect COMMON lead of vtmv to terminals 1 through 5 in succession.	a. None. b. At each terminal ohm-meter indicates 80 ± 24 ohms.
3	a. Remove OHMS lead from terminal 6 and connect to terminal F. b. Remove COMMON lead from terminals 1 through 5 and connect to terminals A through E in succession.	a. None. b. Same as item 2b above.
4	a. Remove OHMS lead from terminal F and connect to terminal 7. b. Remove COMMON lead from terminals A through E and connect to terminals 8 through 12 in succession.	a. None. b. Same as item 2b above.

Item	Procedure	Performance standards
5	a. Remove OHMS lead from terminal 7 and connect to terminal H. b. Remove COMMON lead from terminals 8 through 12 and connect to terminals J through N in succession.	a. None. b. Same as item 2b above.
6	Remove OHMS and COMMON leads of vtmv from all terminals.	None.
7	Set vtmv for measuring high resistance.	None.
8	a. Connect COMMON lead of vtmv to terminal 1. b. Connect OHMS lead of vtmv to terminals 1 through 5 in succession.	a. None. b. At each terminal ohm-meter indicates infinity.
9	a. Remove COMMON lead from terminal 6 and connect to terminal F. b. Remove OHMS lead from terminals 1 through 5 and connect to terminals A through E in succession.	a. None. b. Same as item 8b above.

Item	Procedure	Performance standards
8	Remove OHMS lead of vtm from terminal L and D and connect to terminals 11 and 5 in succession.	At each terminal vtm indicates 560 ohms ± 28 ohms.
9	a. Remove OHMS lead of vtm from terminals 11 and 5. b. Remove connections from terminals 8 and 12 from GRD terminal.	a. None. b. None.
10	a. Interconnect terminals 9 and 3 to GRD. b. Connect OHMS lead of vtm to terminals M and E in succession.	a. None. b. Same as item 6 above.
11	Remove OHMS lead of vtm from terminals M and E and connect to terminals 12 and 6 in succession.	Same as item 5 above.
12	Remove OHMS lead of vtm from terminals 12 and 6 and connect to terminals N and F in succession.	Same as item 4 above.



2-CIRCUITS PER CARD
(FIRST NUMBERS AND LETTERS REPRESENT TERMINATIONS FOR CIRCUIT 1)
(SECOND NUMBERS AND LETTERS REPRESENT TERMINATIONS FOR CIRCUIT 2)

NOTE:
UNLESS OTHERWISE SPECIFIED, RESISTANCES
ARE IN OHMS.

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Figure 6-50. Card MR, schematic diagrams.

c. Card MR, Voltage Chart. The voltage are under typical operating, conditions (ground is connected to pins 11, 5, and 9, 3, with signal inputs on pins L and 1)).

NOTE
All measurements are made with a vtm with respect to ground.

Transistor	Input	Base	Emitter	Collector
Q1	+6 vdc (pins L and D)	+6 vdc	+7 vdc	+1.2 vdc
Q2	-6 vdc (pins L and D)	-6 vdc	+1 vdc	+12 vdc
Q3		-6 vdc	+7 vdc	+11.1 vdc
Q4		-6 vdc	+1 vdc	ground
		-6 vdc	-6.1 vdc	+7 vdc
		-6 vdc	-6.1 vdc	+1 vdc
		+3.2 vdc	ground	-12 vdc
		-2 vdc	ground	ground

6-31. Card NK, Bench Test

a. Card NK, Bench Test Connection Chart.

Item	Terminal connections
1	R, P, GRD, PD500R (+), vtm (COMMON) F, E, 5, 6, J, H, 7, 8
2	13, -12, PD500R (-)
3	D, 16
4	10, 17

Item	Terminal connections
5	2, 18
6	4, 19
7	N, 20
8	L, 21
9	B22
10	12, 23
11	T, vtm (OHMS)

b. Card NK, Bench Test Chart (figs. 6-51 and 6-52).

Item	Procedure	Performance standards
1	Rotate test jig switch to positions 16 through 21.	For each switch's position vtm indicates continuity.
2	Rotate test jig switch to position 22.	VTVM indicates 5600 ohms ±280 ohms.
3	Rotate test jig switch to position 23.	Vtm indicates 1000 ±50 ohms.
4	Disconnect P500R positive and negative leads from GRD and -12 terminals.	None.
5	Remove all patch cord connections in items 3 through 10 in para a above.	None.

- | Item | Procedure |
|------|---|
| 6 | Interconnect terminals C, 1, 3, M, K, 9, 11, A, to switch positions 16, 17, 18, 19, 20, 21, 22, and 23, respectively. |
| 7 | Rotate test jig switch to positions 16 through 22. |
| 8 | Rotate test jig switch to position 23. |

Performance standards

- None.
 Same as item 1 above.
 Same as item 3 above.

a. Card NR, Bench Test Connection Chart.

Item	Terminal connections
1	15, 14, H, J, K, L, M, N, GRD, vtm (COMMON)
2	A, 16
3	B, 17
4	C, 18
5	D, 19
6	E, 20
7	F, 21
8	7, 22
9	8, 23
10	9, 24
11	10, 25
12	11, 26
13	12, 27
14	T, vtm (OHMS)

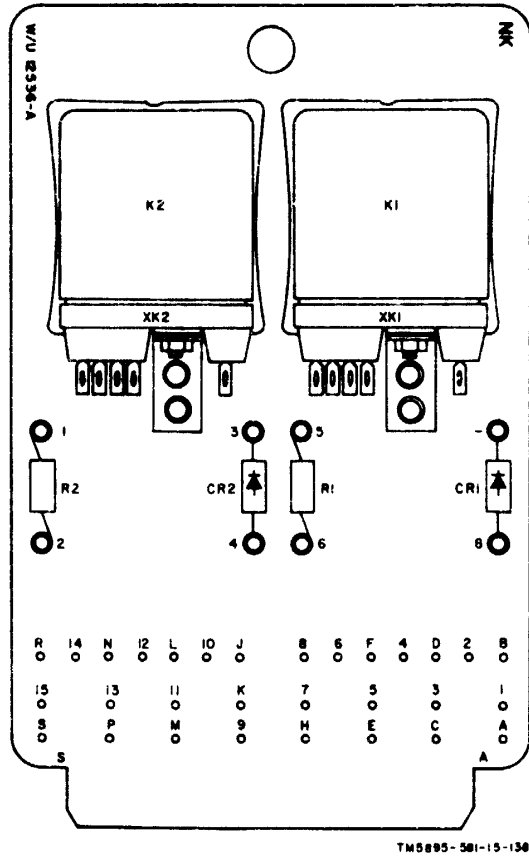


Figure 6-51. Card NK, component locations.

b. Card NR, Bench Test Chart (figs. 6-53 and 6-54).

- | Item | Procedure |
|------|--|
| 1 | Set vtm to measure resistance. |
| 2 | Rotate test jig switch to positions 16 through 27. |

Performance standards

- None.
 For each position vtm indicates 560 ohms \pm 28 ohms.

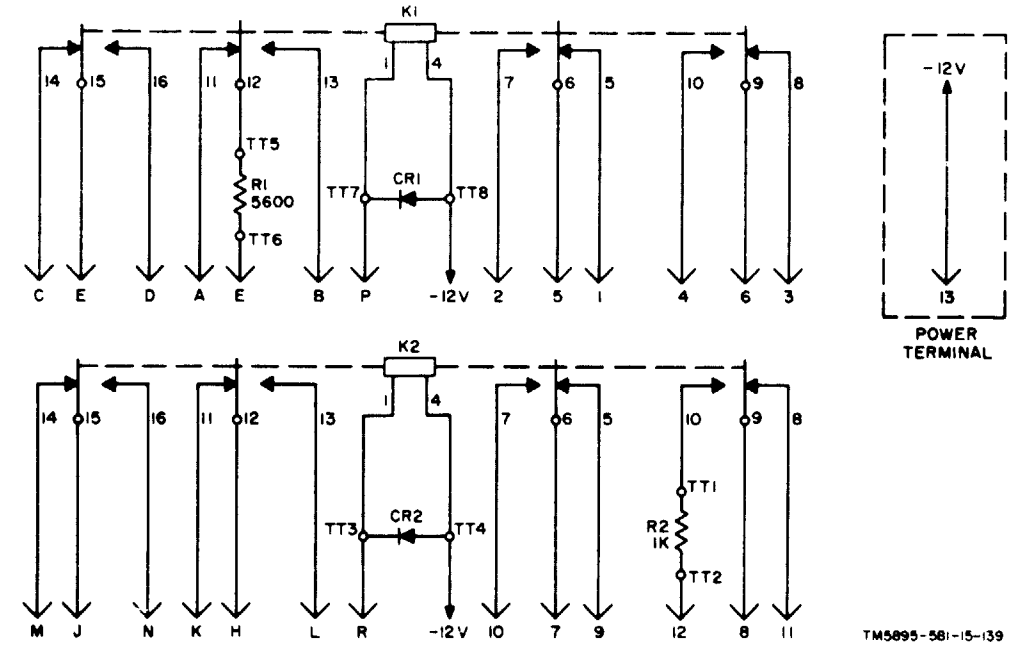


Figure 6-52. Card NK, schematic diagram.

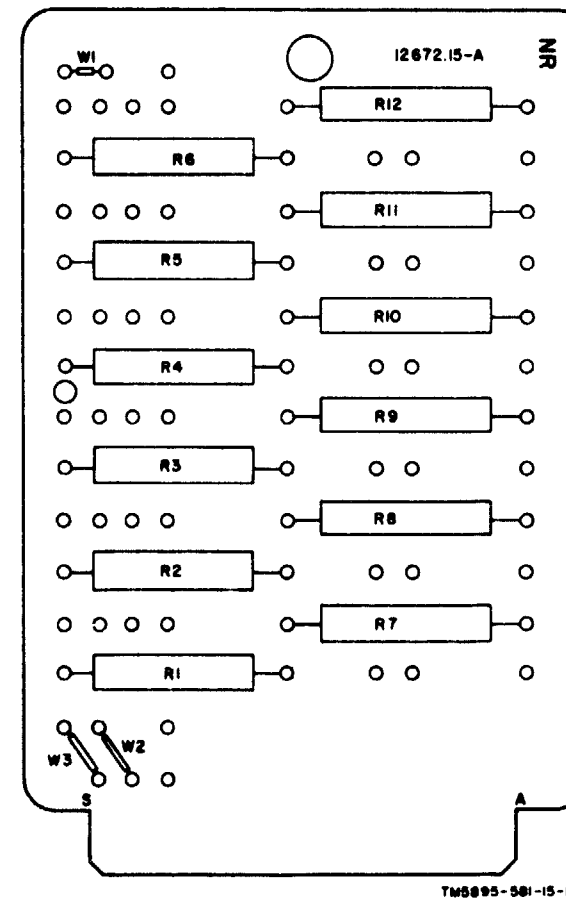


Figure 6-53. Card NR, component locations.

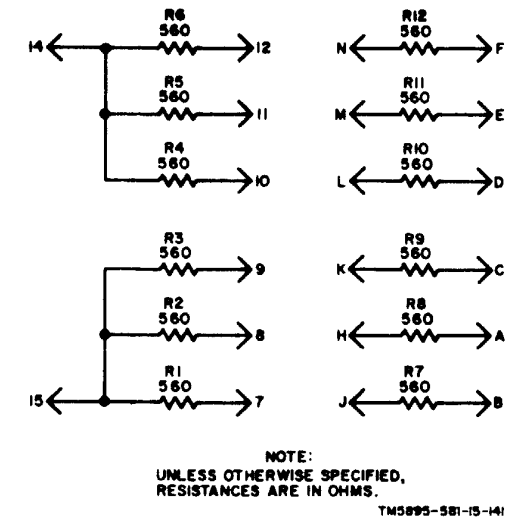


Figure 6-54. Card NR, schematic diagram.

6-33. Card NS, Bench Test

- a. Card NS, Bench Test Connection Chart. Not applicable.
- b. Card NS, Bench Test Chart (figs. 6-55 and 6-56).

Item	Procedure	Performance standards
1	Set vtm to measure resistance.	None.
2	Measure resistors R2, R4, R6, R8, R10, R12, R14, R16, R18, R20, R22, and R24 in succession.	VTVM indicates 470 ± 23 ohms for each resistor.
3	Measure resistors R1, R3, R5, R7, R9, R11, R13, R15, R17, R19, R21, and R23 in succession.	VTVM indicates 18 ohms ± 1 ohm for each resistor.

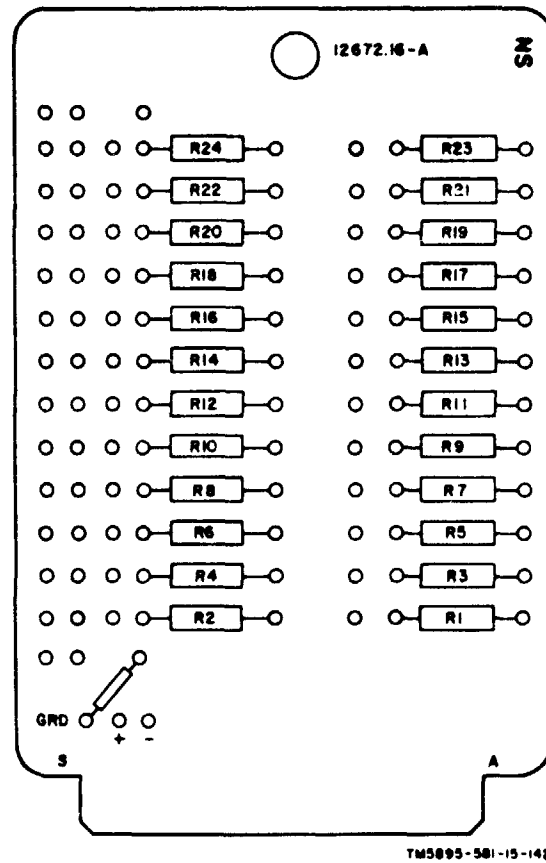


Figure 6-55. Card NS, component locations.

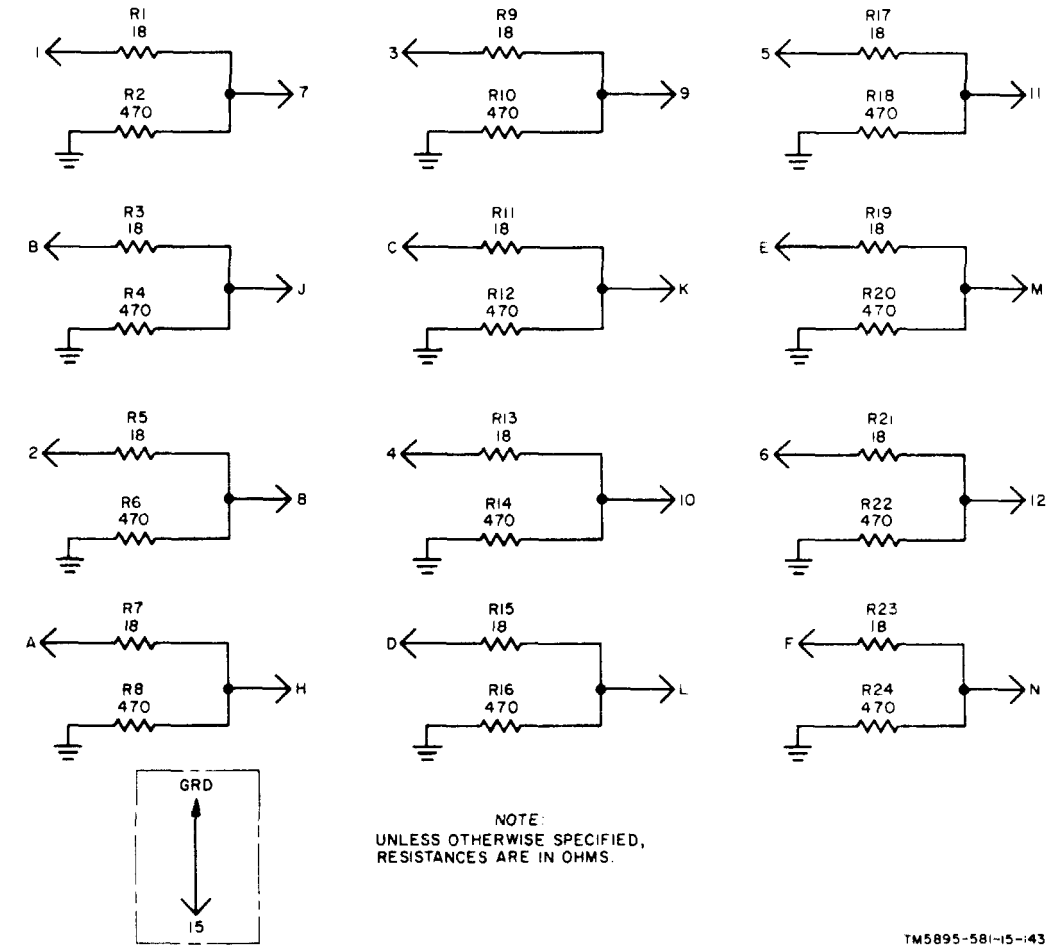


Figure 6-56. Card NS, schematic diagram.

6-34. Card NT, Bench Test

- a. Card NT, Bench Test Connection Chart. Not applicable.
- b. Card NT, Bench Test Chart (figs. 6-57 and 6-58).

Item	Procedure	Performance standards
1	Set vtm to measure resistance.	None.
2	Measure resistors R1, R3, R5, R7, R9, R11, R13, R15, R17, R19, R21, and R23 in succession.	VTVM indicates 33 ± 2 ohms for each resistor.
3	Measure resistors R2, R4, R6, R8, R10, R12, R14, R16, R18, R20, R22, and R24 in succession.	VTVM indicates 680 ± 34 ohms.

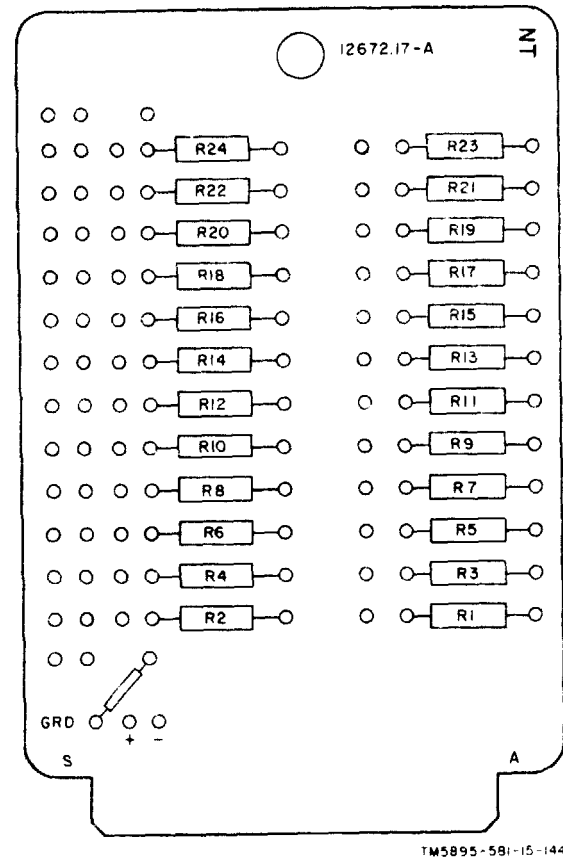


Figure 6-57. Card NT, component locations.

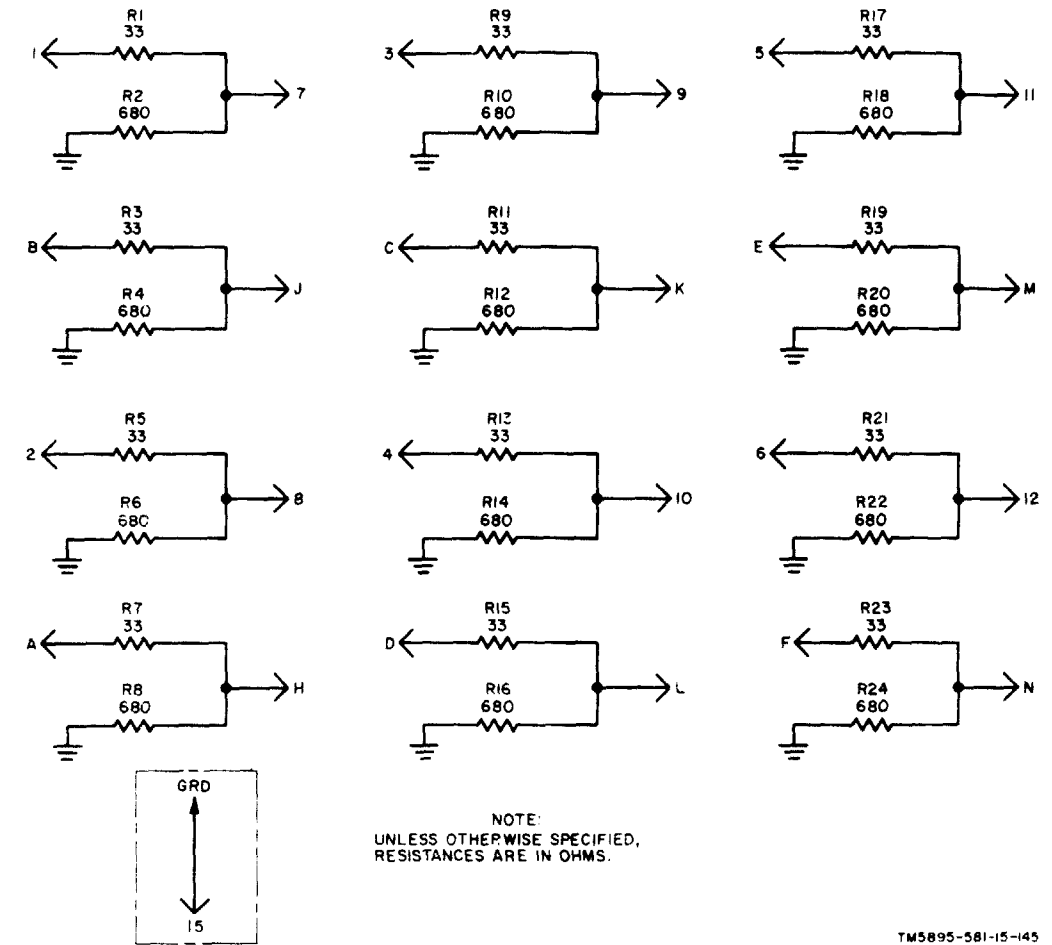


Figure 6-58. Card NT, schematic diagram.

6-35. Card NU, Bench Test

- a. Card NU, Bench Test Connection Chart. Not applicable.
- b. Card NU, Bench Test Chart (figs. 6-59 and 6-60).

Item	Procedure	Performance standards
1	Set vtm to measure resistance.	None.
2	Measure resistors R1, R3, R5, R7, R9, R11, R13, R15, R17, R19, R21, and R23 in succession.	VTVM indicates 820 ±41 ohms for each resistor.
3	Measure resistors R2, R4, R6, R8, R10, R12, R14, R16, R18, R20, R22, and R24 in succession.	VTVM indicates 180 ±19 ohms for each resistor.

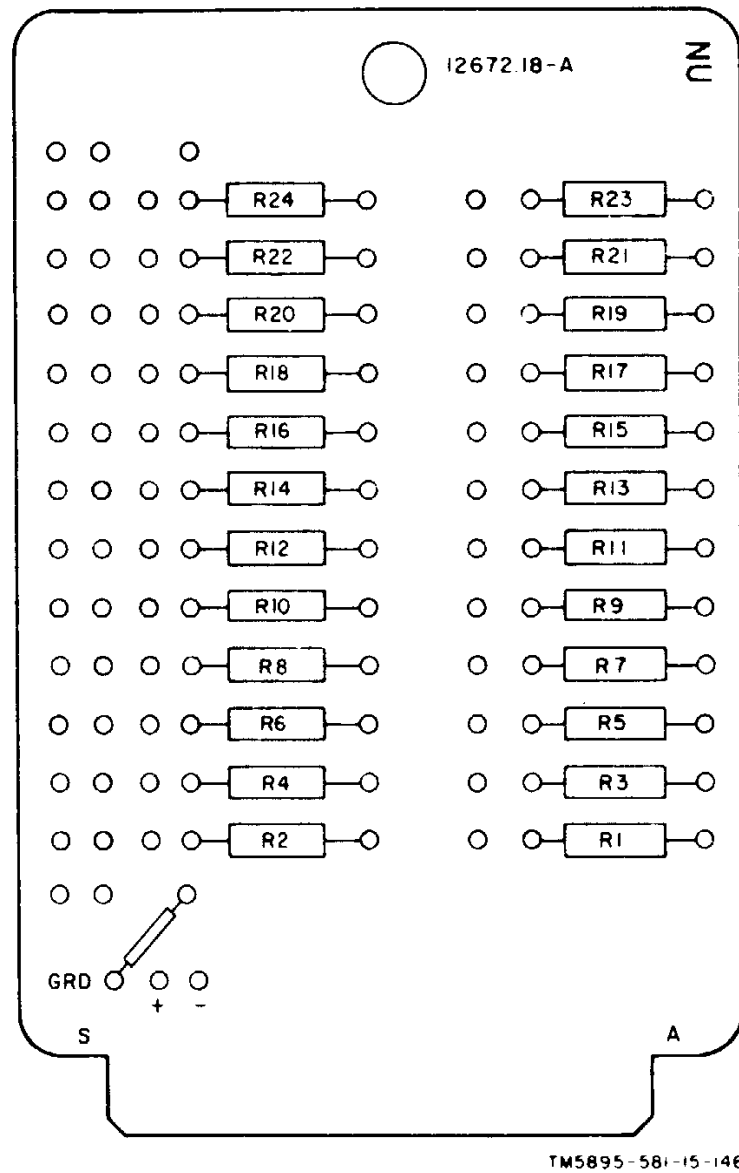


Figure 6-59. Card NU, component locations.

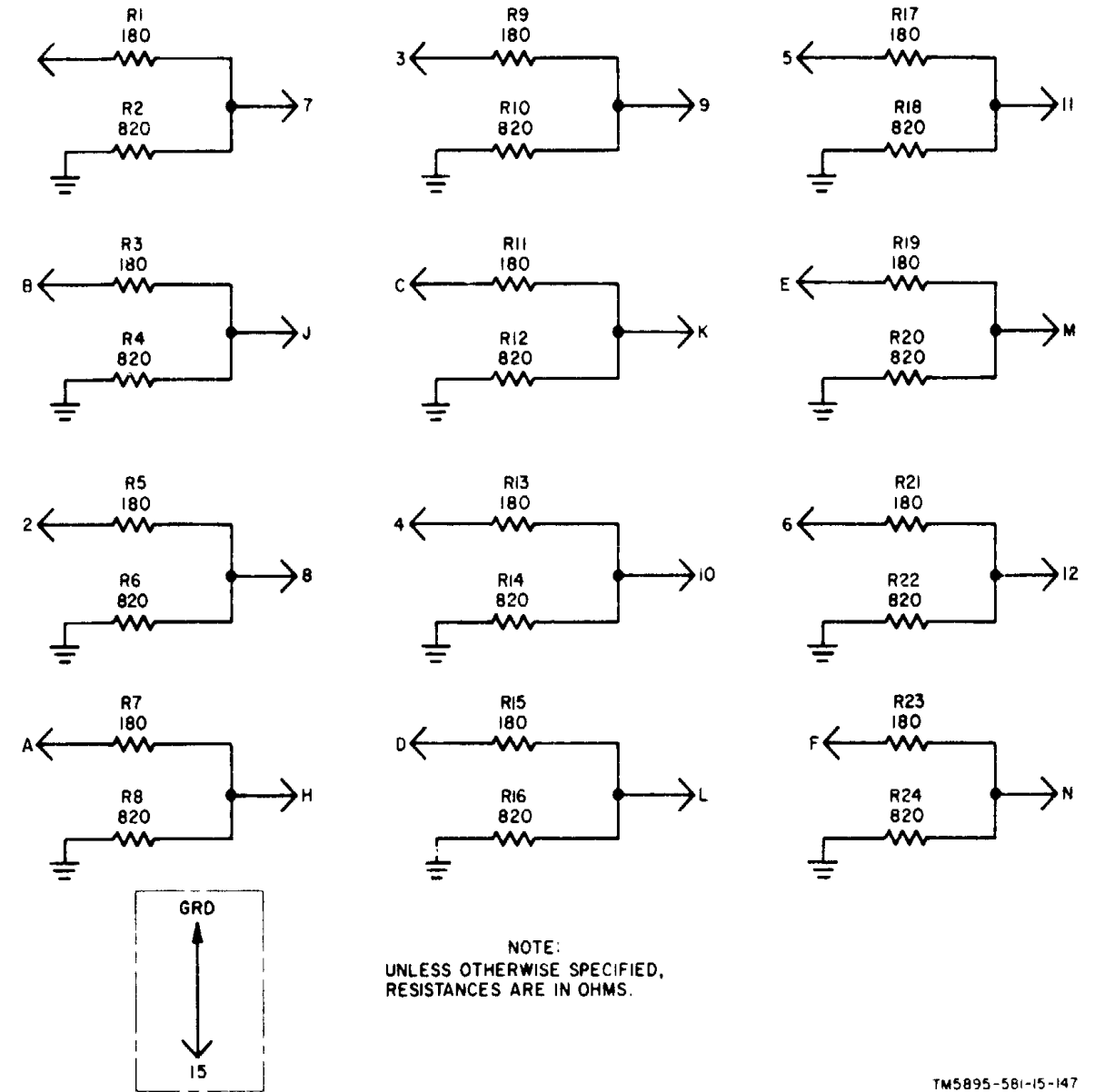


Figure 6-60. Card NU, schematic diagram.

6-36. Card NV, Bench Test

- a. Card NV, Bench Test Connector Chart. Not applicable.
- b. Card NV, Bench Test Chart (figs. 6-61 and 6-62).

Item	Procedure	Performance standards
1	Set vtm to measure resistance.	None.
2	Measure resistors R1 through R24 in succession.	VTVM indicates 2.2 kilohms.

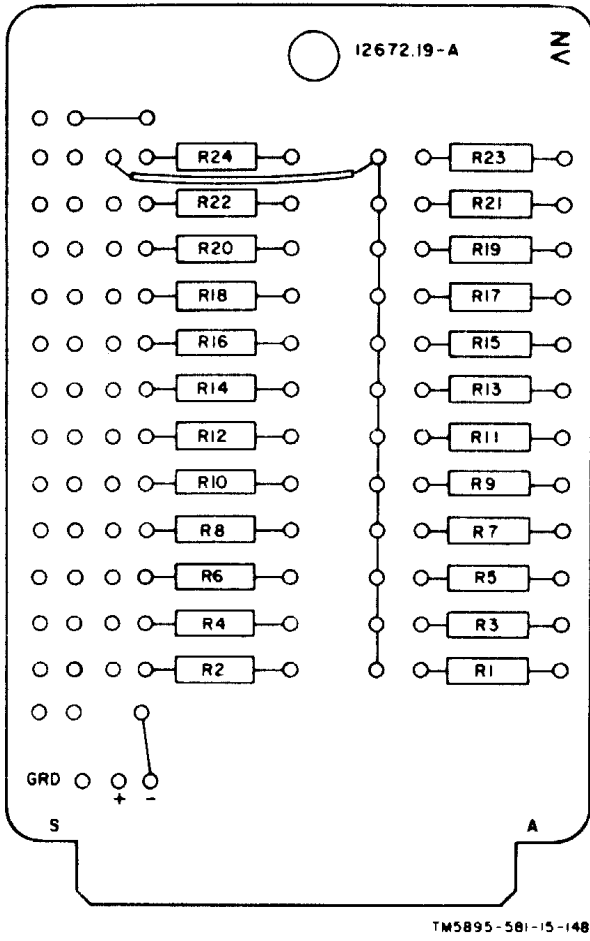
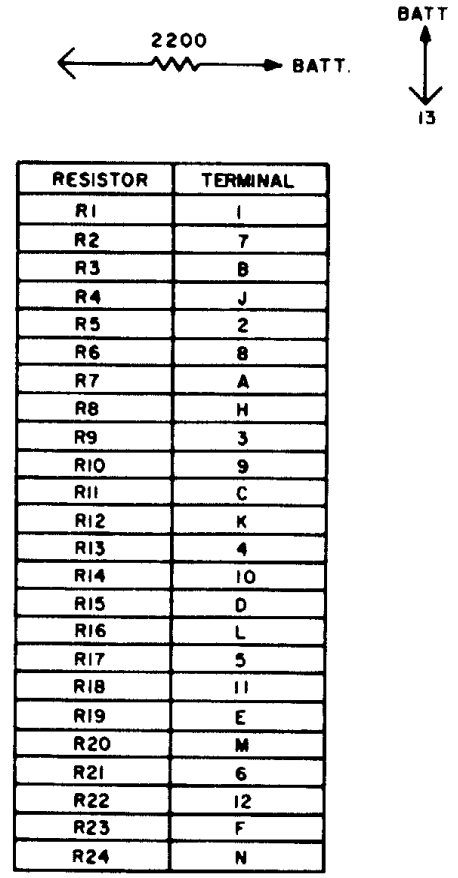


Figure 6-61. Card NV, component locations.



NOTE:
UNLESS OTHERWISE INDICATED,
RESISTANCES ARE IN OHMS.

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Figure 6-62. Card NV, schematic diagram.

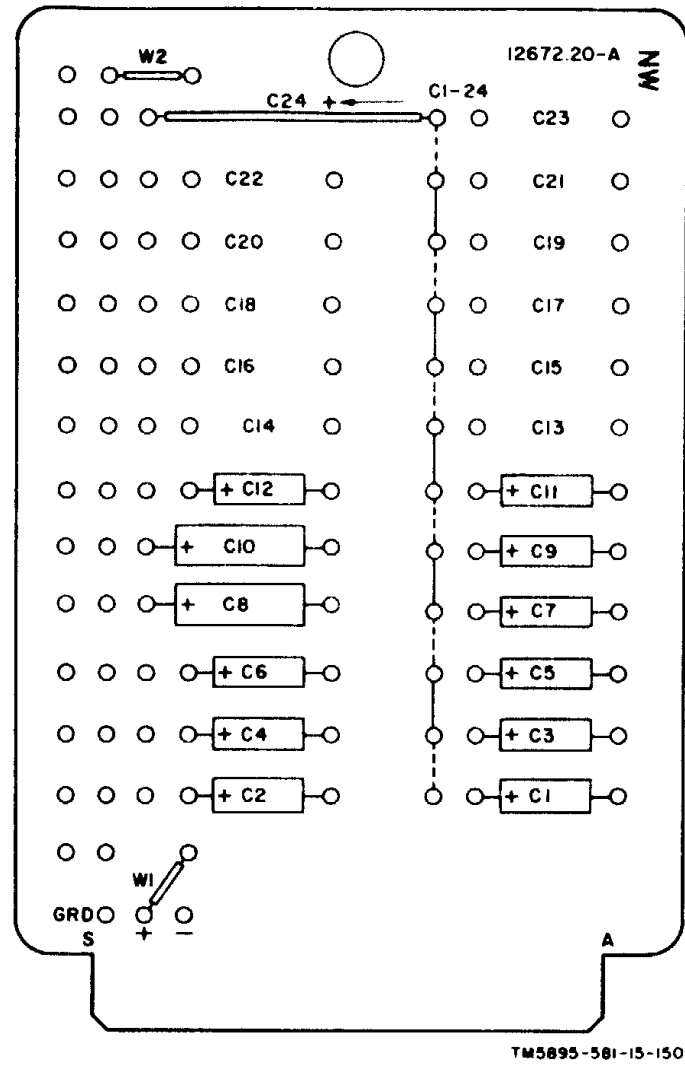
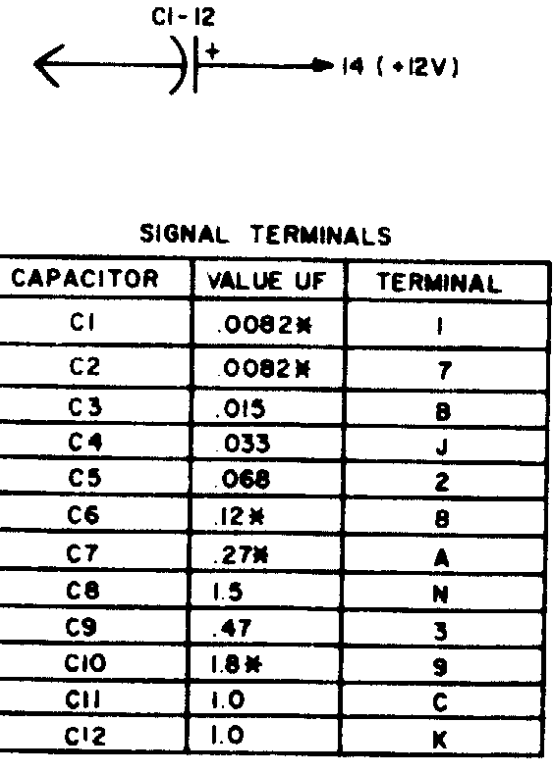


Figure 6-63. Card NW, component locations.



* ±10% TOLERANCE

NOTE:
UNLESS OTHERWISE INDICATED,
CAPACITANCES ARE IN UF.

TM5895-581-15-151

Figure 6-64. Card NW, schematic diagram

6-37. Card NW, Bench Test

- a. Card NW, Bench Test Connection, Chart. Not applicable.
- b. Card NW, Bench Test Chart (figs 6-63 and (6-64).

Item	Procedure	Performance standards
1	Set vtvm to measure resistance.	None.
2	Measure resistance of capacitors C1 through C12 in succession.	VTVM indicates infinite resistance for each capacitor.

6-38. Card NX, Bench Test

- a. Card NX, Bench Test Connection Chart. Not applicable.
- b. Card NX, Bench Test Chart (figs. 6-65 and 6-66).

Item	Procedure	Performance standards
1	Set vtvm to measure resistance.	None.
2	Measure resistors R1 through R24 in succession.	VTVM indicates 1000 ohms.

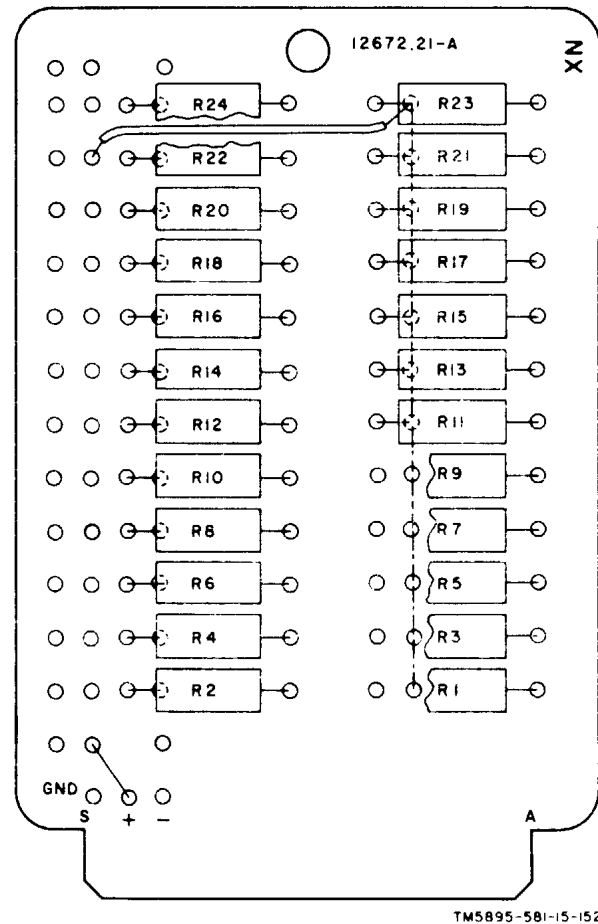
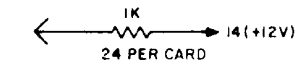


Figure 6-65. Card NX, component locations.



SIGNAL TERMINALS	
RESISTOR	TERMINAL
R1	I
R2	7
R3	B
R4	J
R5	2
R6	8
R7	A
R8	H
R9	3
R10	9
R11	C
R12	K
R13	4
R14	10
R15	D
R16	L
R17	5
R18	11
R19	E
R20	M
R21	6
R22	12
R23	F
R24	N

NOTE
UNLESS OTHERWISE INDICATED,
RESISTANCES ARE IN OHMS.

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Figure 6-66. Card NX, schematic diagram.

6-39. Card NW, Bench Test

- a. Card NY, Bench Test Connection, Chart. Not applicable.
- b. Card NY, Bench Test Chart (figs. 6-67 and 6-68).

Item	Procedure	Performance standards
1	Set vtvm to measure resistance.	None.
2	Connect COMMON lead of vtvm to terminal 14.	None.
3	Connect OHMS lead of vtvm to terminals 8, K, 11, and N in succession.	At each terminal vtvm indicates 2.7-K ohms + ±200, ohms.
4	Connect COMMON lead to terminal N. and connect OHMS lead to terminal F.	VTVM indicates 1.2K ohms ±60 ohms.
5	Connect COMMON lead to terminal 11, and connect OHMS lead to terminal 5.	VTVM indicates 560 ±28 ohms.
6	Connect COMMON lead to terminal 8, and connect OHMS lead to terminal 2.	VTVM indicates 390 ± 19 ohms.
7	Connect COMMON lead to terminal K. and OHMS lead to terminal C.	Same as item 6.

Item	Procedure	Performance standards
8	Connect COMMON lead to terminal 1, and connect OHMS lead to terminal 7.	VTVM indicates 5.6K ohms \pm 200 ohms.
9	Connect COMMON lead to terminal A, and connect OHMS lead to terminal H.	Same as item 8.
10	Connect COMMON lead to terminal 4, and connect OHMS lead to terminal 10.	VTVM indicates 68 \pm 3.4 ohms.
11	Connect COMMON lead to terminal E and connect OHMS lead to terminal M.	Same as item 10.

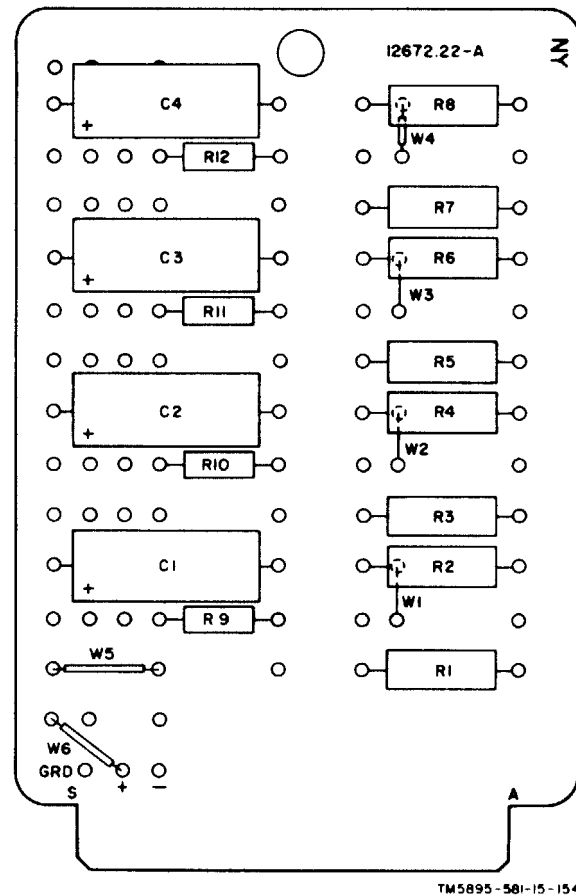


Figure 6-67. Card NY, component locations.

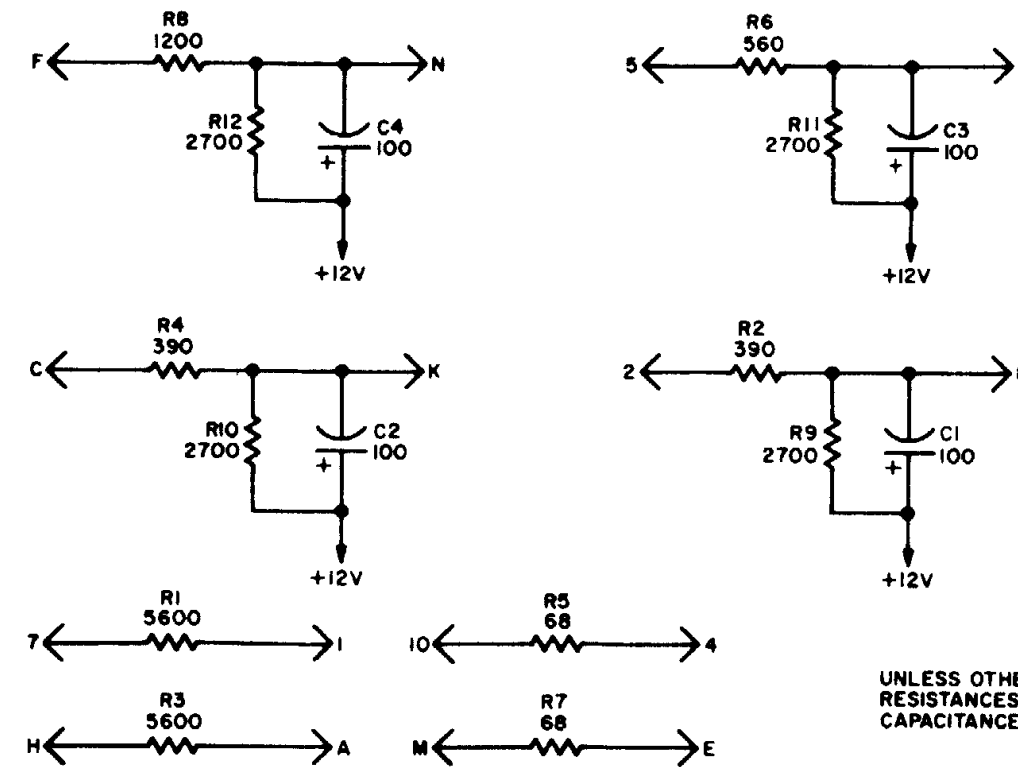


Figure 6-68. Card NY, schematic diagram.

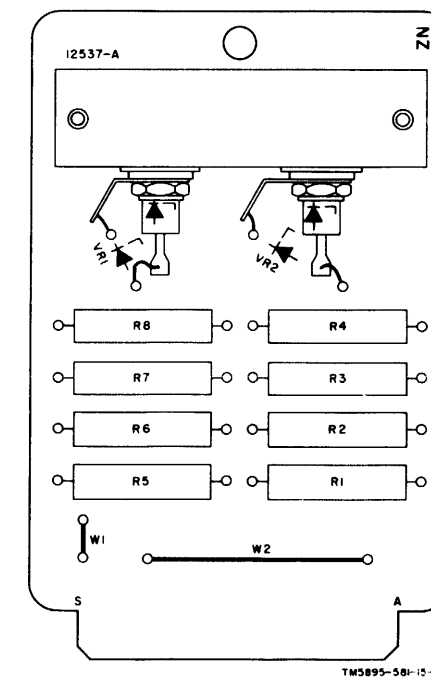


Figure 6-69. Card NZ, component locations.

6-40. Card NZ, Bench Test

a. Card NZ. Bench Test Connection Chart.

Item	Terminal connection	Item	Terminal connections
	Note	1	S, GRD, PS1 (+), PS2 (-)
	PS1; P500R	2	P, -12, PS1 (-)
	PS2; P500R	3	R, +12, PS (+)
		4	C, D, E, F
		5	J, K, L, M

b. Card NZ, Bench Test Chart (figs. -69 and 6-70).

Item	Procedure	Performance standards
1	Connect DC ammeter negative lead to -12 terminal and positive lead to terminal P.	Ammeter indicates 464 ± 57 ma.
2	Connect vtm common lead to GRD terminal and DC lead to terminal C.	VTVM indicates -6.2 ± 0.31 volts.
3	Connect DC ammeter positive lead to +12 terminal and negative lead to terminal R.	Same as item 1.
4	Connect vtm COMMON lead to GRD terminal and DC lead to terminal M.	VTVM indicates $+6.2 \pm 0.31$ volts.

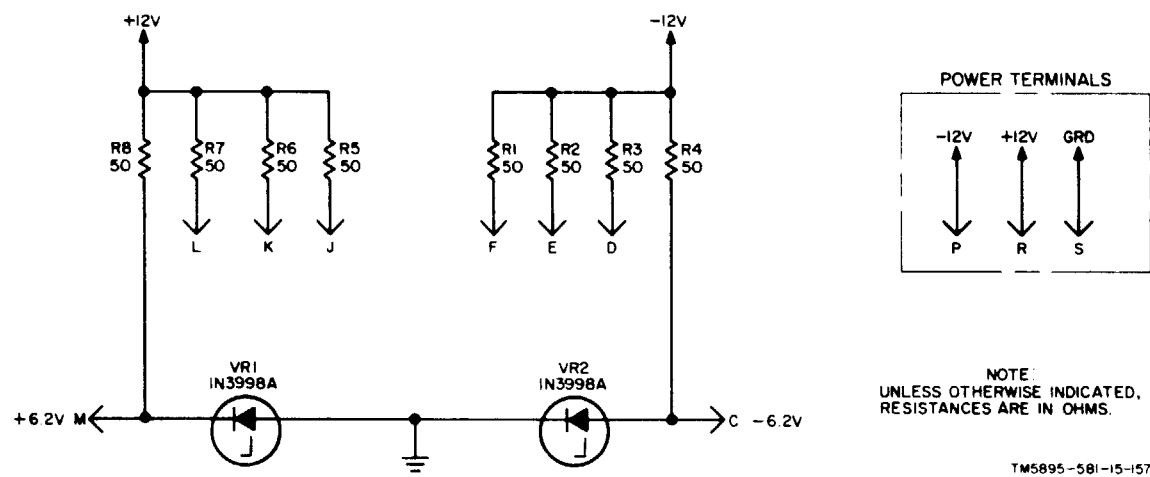


Figure 6-70. Card NZ, schematic diagram.

6-41. Card TP, Bench Test

a. Card TP, Bench Test Connection Chart

Item	Terminal connections	Item	Terminal connection
	Note	6	B, 16
	PS1:PD500R	7	C, 17
	PS2:P500R	8	D, 18
	PS3:HP6207B	9	E, 19
	PS4:HP6207B	10	F, 20
1	GRD,PS1(-), PS2 (-), PS3(+),vtvm (COMMON) PS4(+)	11	H, 21
2	+12, PS1 (+),14	12	K, 22
3	+5, PS2 (+), 2	13	L, 23
4	-5,PS4 (-)	14	M, 24
5	2,3,4,5,6,7,8,9,10,11,12	15	N, 25
		16:	T, vtm (DC)

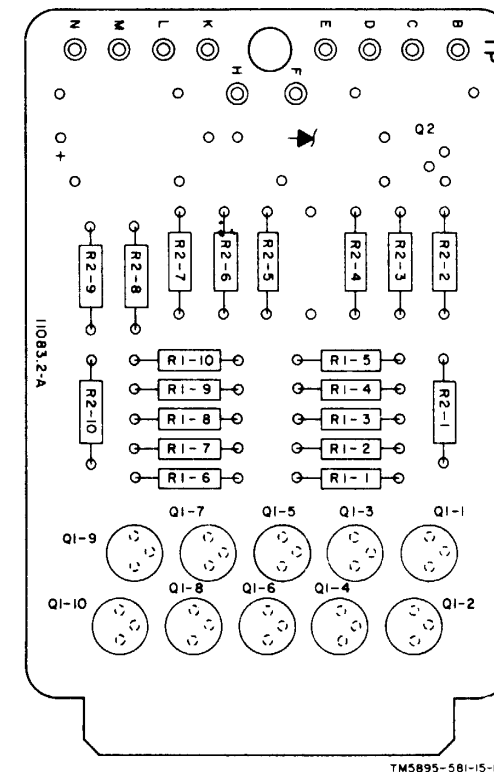


Figure 6-71. Card TP, component locations.

b. Card TP, Bench Test Chart (figs. 6-71 and 6-72).

Item	Procedure	Performance standards
1	Rotate test jig switch to position 16 through 25.	VTVM. indicates $+5 \pm 1$ vdc
2	Disconnect and remove patch cord connections in item 3, a above.	None.
3	Interconnect terminal 2 to -5 terminal.	None.
4	Rotate test jig switch to positions 16fi through 25.	VTVM indicates -5 ± 1 vdc

c.. Card TP, Voltage Chart. The voltage conditions contained in this chart are under typical operating conditions (input signals O and -60 vdc).

Transistor	NOTE All measurements are made with a vtm with respect to ground.			
	Input	Base	Emitter	Collector
Q1	-60 vdc	-60 vdc	--59.9 vdc	-60 vdc
	0	0	0	-60 vdc

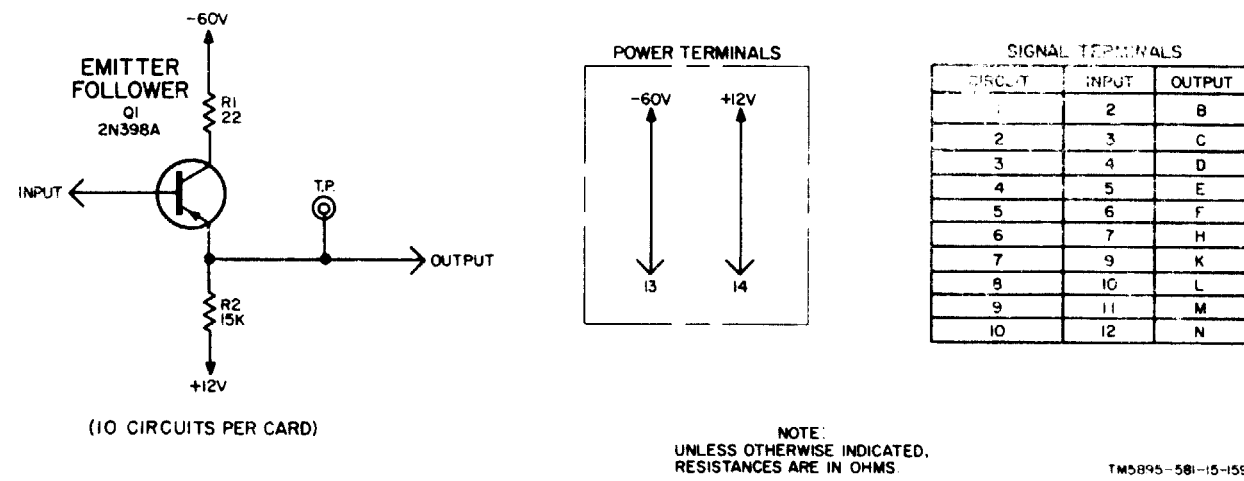


Figure 6-72. Card TP, schematic diagram.

6-42. Card TR, Bench Test

- Item** **Terminal connections**
- Note
 PS1: PD500R
 PS2: HP6027B
 PS3: HP6207B
 PS4: PD500R
- Item** **Terminal connections**
- 1 S, GRD, vtm (COMMON). PS2 (+), PS3 (-) PS1 (-).
 - 2 E, -60, PS2, (-)
 - 3 Connect 8.2K ohm resistor between terminals E and L.
 - 4 J, 120, PS3 (-)
 - 5 F, -5, PS1 (-)

b. Card TB, Bench Test Chart (figs. 6-73 and 6-74).

Item	Procedure	Performance standards
1	Connect DC lead of vtm to terminal C.	VTVM indicates -105.4 vdc
2	Disconnect and remove all connections in item 3, a above.	None.
3	Connect 8.2K ohm resistor between terminals 1, and GRD.	VTV1 indicates -120 vdc
4	Disconnect and remove all connections in item 2, 4. and a above.	None.
5	Interconnect PS1 (+) to terminals R and +12.	None.
6	Interconnect PS2 (-) to terminals 1 and -12.	None.
7	Connect 1K ohm resistor between terminals -12 and N.	None.
8	Connect DC lead of vtm to above.	VTVM indicates 0.7 vdc.
9	Disconnect and remove all (connections in item- 7	None.

Item	Procedure	Performance standards
10	Connect 1K ohm resistor between terminals N and GRD.	VTVM indicates -6.6 vdc.
11	Set vtm for measuring resistance.	None.
12	Interconnect terminal E to GRD terminal.	None.
13	Connect COMMON lead of vtm to terminal E.	None.
14	Connect OHMS lead of vtm to terminals A and B in succession.	At each terminal vtm indicates 4.7K ohms.

c. Card TR, Voltage Chart.

NOTE

All measurements are made with a vtm with respect to ground.

Transistors	Input	Base	Emitter	Collector	Output
Q1	-60 vdc	-60.2 vdc	-60 vdc	-60.1 vdc	-115 vdc (pin C)
Q2	0	-46.2 vdc	-60 vdc	-120 vdc	-120 vdc (pin C)
	-12 vdc	-22 vdc	ground	-1 vdc	+7 vdc
	0	+8 vdc	ground	-7.9 vdc	--G.6 vdc

6-43. Card TS, Bench Test

a. Card TS, Bench Test Connection Chart.

Item **Terminal connection**

Note
 PS1: PD500R
 PS2: PD500R
 PS3: HP6207B
 PS4: HP6207B

- 1 15, GRD. PS1 (-), PS2 (+), PS3 (-), PS4 (+), vtm (COMMON)
- 2 R, +5.25, PS1 (+)
- 3 P, -5, PS2 (-)
- 4 14, +12, PS3 (+)
- 5 13, -12, PS4 (-)
- 6 13, 2, C, D, M, N
- 7 Connect a 1K ohm resistor between terminals N and 13.
- 8 3, 16
- 9 E, 17
- 10 5, 18
- 11 K, 19
- 12 L, 20
- 13 T, vtm (DC)

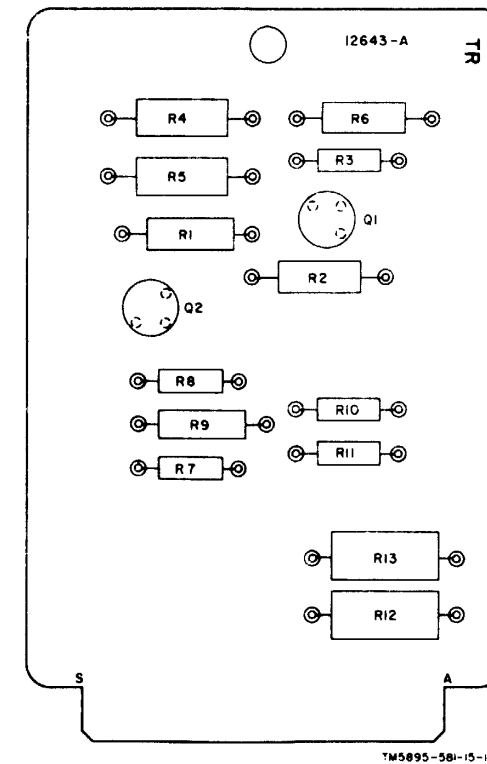
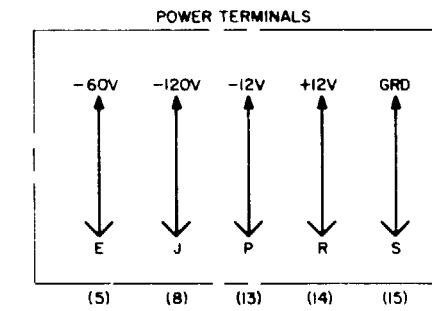
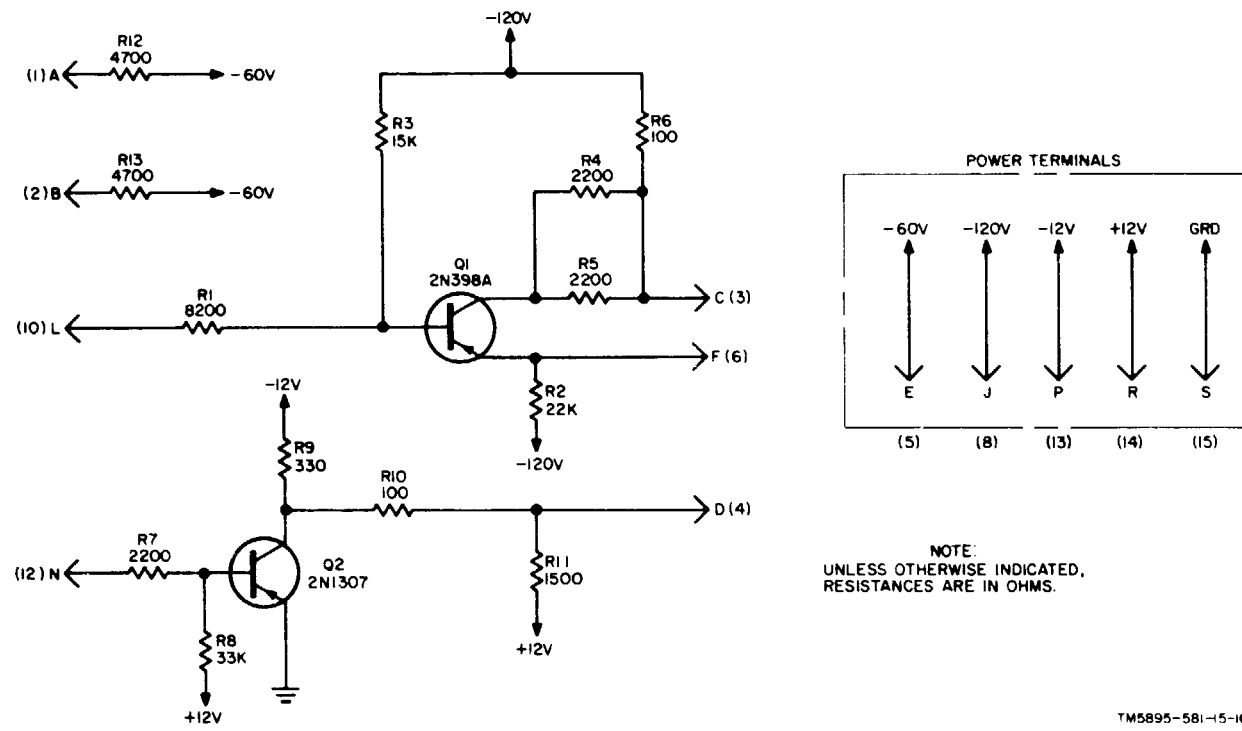


Figure 6-73. Card TR, component locations.



NOTE:
UNLESS OTHERWISE INDICATED,
RESISTANCES ARE IN OHMS.

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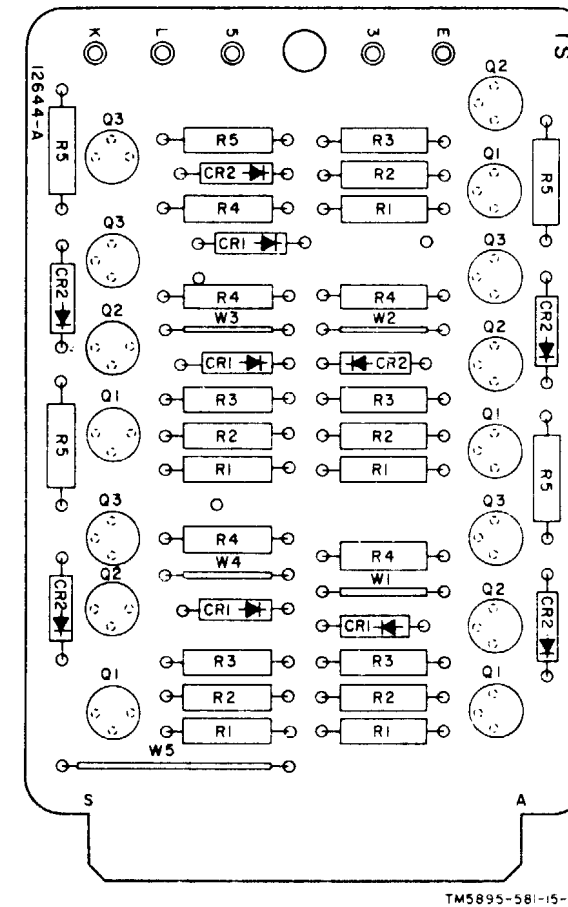


Figure 6-75. Card TS, component locations.

- b. Card TS, Belch Test Chart (figs. 6-75 and 6-76).
- | Item | Procedure | Performance standards |
|------|---|--|
| 1 | Set PS1 for an output voltage of +6.2 vdc. | None. |
| 2 | Set PS2 for an output voltage of -6.2 vdc. | None. |
| 3 | Rotate test jig switch to positions 16 through 20. | For each switch position vtm indicates +6.2 ± 1 vdc. |
| 4 | Disconnect and remove ohm resistor between terminals N and -12. | None. |
| 5 | Interconnect terminal N and GRD terminal. | None. |
| 6 | Rotate test jig switch to positions 16 through 20. | For each switch h position vtm indicates -6.2 ± 1 vdc. |

c. Card TS. Voltage Chart

NOTE

All measurements are made with a vtm with respect to ground.

Transistor	Input	Base	Emitter	Collector
Q1	--12 vdc	- 12 vdc	- 11.8 vdc	11.9 vdc
Q2	0	0	- .2 vdc	0
		- 11.8 vdc	- 6 vdc	+ 5.9 vdc
		+ .2 vdc	+ 6 vdc	- 5.9 vdc
Q3		+ 5.9 vdc	+ 5.8 vdc	+ 6 vdc
		+ 5.9. vdc	- 5.8 vdc	+6 vdc

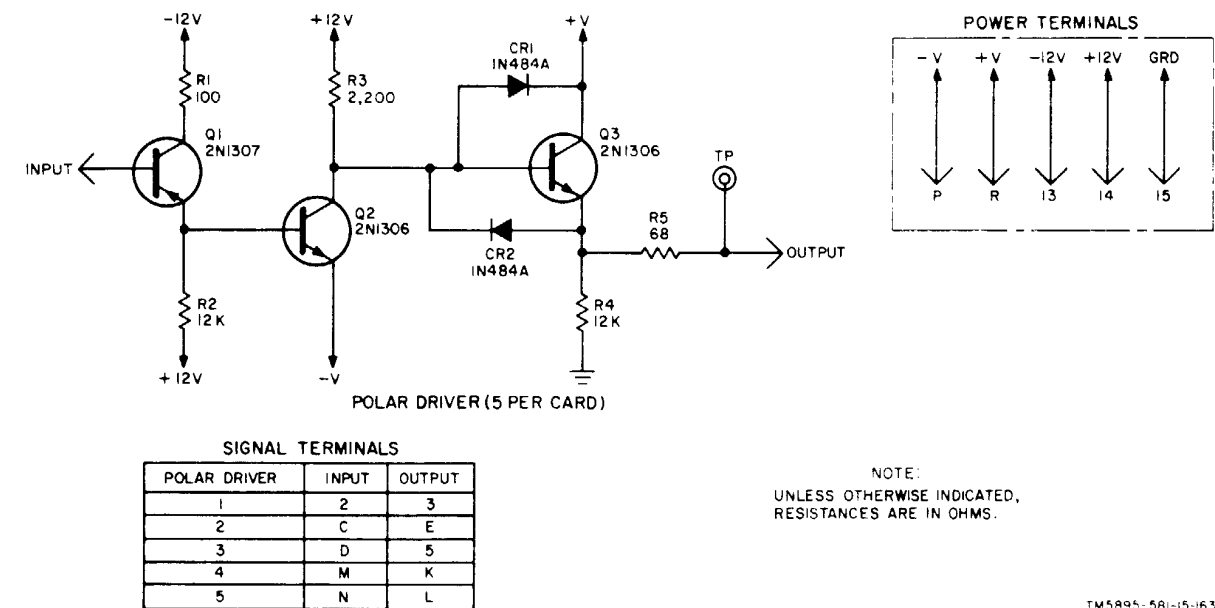


Figure 6-76. Card TS, schematic diagram

NOTE:
UNLESS OTHERWISE INDICATED,
RESISTANCES ARE IN OHMS.

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6-44. Card DN, Bench Test

a. Card DN, Bench Test Connection Chart.

Item	Terminal connections
	Note
	PS1; PD500R (+4.25.vdc) PS2; PD500R
1	GRD, PS1(-), PS2(+), vtm (COMMON), 15,
2	R. +5.25. PS1(+)
3	1.3, -12, PS2(-)
4	GRD, A, B, C, D. E, F, H, J, K, L, M, N
5	6, 16
6	5, 17
7	4, 18
8	3, 19
9	2, 20
10	1, 21
11	12, 22
12	11, 23
13	10, 24
14	9, 25
15	8, 26
16	7, 27
17	Connect a 2.2 kilohm resistor between T AND -12v
18	T. vtm(DC)

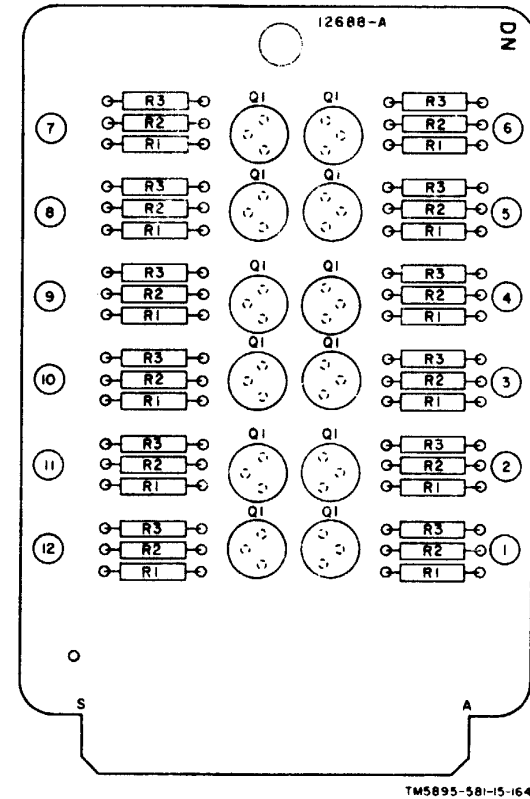


Figure 6-77. Card DN, component locations.

b. Card DN, Bench Test Chart..

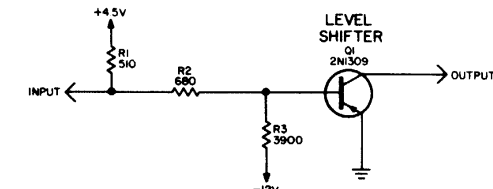
Item	Procedure	Performance standards
1	Rotate test jig switch to positions 16 through 27.	For each switch position vtm indicates -.1 vdc.
2	Disconnect GRD from terminal A.	None
3	Rotate test jig switch to positions 16; through 27.	For each switch position vtm indicates -12 vdc.

c. Card BN, Voltage Chart

NOTE

All measurements are made with a vtm with respect to ground.

Transistor	Input	Base	Emitter	Collector
Q1	0 open	-.3 vdc +.5 vdc	ground ground	-.1vdc -12 vdc



CKT	IN	OUT
1	A	6
2	B	5
3	C	4
4	D	3
5	E	2
6	F	1
7	H	12
8	J	11
9	K	10
10	L	9
11	M	8
12	N	7

POWER TERMINALS	
+4.5v	R
-12v	13
GRD	15

NOTE:
UNLESS OTHERWISE INDICATED,
RESISTANCES ARE IN OHMS.

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Figure 6-78. Card DN, schematic diagram.

6-45. Eight-Bit Data Logic Card A5A1, Bench Test

a. Eight-Bit Data Logic Card A5A1, Bench Test Connection Chart.

Item	Terminal connections
	Note
	PS1; PD500R (+6v supply) PS2; PD500R (+12v supply) PS3; HP6207B (-12v supply) PS4; HP6207B (+4 volt supply)
1.	Facing terminal edge component side up, the group of terminals on the left are designated P1, and terminals on the right are designated P2. The terminals of P1 and P2 are designated A through Z. from left to right, with letters G, I, O and Q omitted. On reverse side of circuit

Item	Terminal connections
	board starting with terminal directly opposite terminal A, the 22. terminals of P1 and P2 are designated 1 through 22.
2	Insert P1 and P2 into connectors (ferroxcube connectors may be used).
3	Ground, PS (-), PS2 (-), PS3 (+), PS4 (-), P1-C and D, P2-Y, Z, 18, 14, 11, 9, W, T, M, F
4	P1-J and F to PS1 (+)
5	P1-A and B, P2-H and J to PS3 (-)
6	Connect 85-ohm resistor from P1-8, W, 7, P, 1, 2, 3, and 4 to -20.
7	P1 E and F, P2-C and D to PS2 (+)
8	P2-8, 7, 6, and 4 to PS4 (+)

b. Eight-Bit Data Logic Card A5A1, Bench Test Chart (figs. 6-79 and 6-80).

Item	Procedure	Performance standards
1	Connect DC lead of vtm to TP1, TP11, TP12, and TP13 in succession.	At each test point vtm indicates +12 vdc.
2	Disconnect and remove connections of PS4 in items 1 and 5, a above.	None.
3	Adjust PS4 for an output voltage of -20 vdc.	None.

Item	Procedure	Performance standards
4	Connect PS4 (-) to P1-S and P1-T.	None.
5	Connect PS4 (+) to ground.	None.
6	Connect TP1 and TP12 to PS2 (+).	None.
7	Connect P1-21 and P1-22, and P1-2 and P2-16 to PS2 (+).	None.
8	Connect DC lead of vtm to TP3, TP5, TP7, TP9, TP10, TP8, TP6, and TP4 in succession.	Same as item 1.
9	Connect DC lead of vtm to P1-8,W,7,P,1,2,3, and 4.	At each pin vtm indicates -20 vdc.
10	Connect grd to terminals P2-8, 7, 6, and 4.	None.
11	Connect DC lead of vtm to TP1, TP11, TP12, and TP13 in succession.	At each test point vtm indicates 0 volt.
12	Disconnect grd from P1-8,and P1-4.	None.
13	Connect TP1 and TP11 to PS2 (+).	None.
14	Connect DC lead of vtm to TP3, TP5, TP7, TP9 TP10, TP8, TP6, and TP4 in succession.	At each test vtm indicates 0 volt.
15	Connect DC lead of vtm to P1-8, W,. 7, 1', 1, 2, 3. and 4.	At each pin vtm indicates +-6 vdc.
16	Disconnect PS2 (+) from TP1 and TP11.	None.
17	Remove grd from P1-7.	None.
18	Connect a BNC tee connector to outlet connector of pulse-e generator. connect an R(G-,S/T1 coaxial cable to each end of the BNC tee connector: connect Tektronix adapter 013-0076-00 to one of the RG-58/U coaxial cables BLK lead to pin Z and red lead to 1'2-19. 17, 12. 10. 20, V, R. Connect the other coaxial cable to oscilloscope (INPUT).	None.
19	Adjust pulse amplitude for an outlet voltage of 70millivolts peak-to-peak; set INT. REP. Rate at 1K and PULSE WIDTH at 3 usec.	Observe oscilloscope for correct display.
20	Connect TP13 to PS2(+).	None
21.	Connect DC lead of vtm to TP3, TP5, TP7, TP9, TP10,TP8, AND TP4 in succession	At each test point indicates + 12 vdc
22.	Connect DC lead of vtm to P1-8, W, 7, P, 1,2,3,	At each pin vtm indicates-20vdc. and 4, in succession.

6 volt logic signals, 5-25-volt and 0.1 volt logic signals. The following chart lists module output pin numbers for each category. See figure 6-81 for memory module terminal locations

NOTE
All measurements are made with an oscilloscope with respect to ground

1 = +12 vdc 0 = +0.1 vdc	1 = +5.25 vdc 0 = +0.1 vdc	1 = +6 vdc 0 = +3 vdc	1 = +6 vdc 0 = -20 vdc	1 = ground 0 = +12 vdc
A9-13(TP11)	A1-13(TP3)	A11-23	A19-16	A1-18
A9-29(TP13)	A2-13(TP5)	A12-23	A19-25	A2-18
A10-13(TP12)	A3-13(TP7)	A13-23	A20-16	A3-18
A10-29(TP1)	A4-13(TP9)	A14-23	A20-25	A4-18
	A5-13(TP10)	A15-23	A21-16	A5-18
	A6-13(TP8)	A16-23	A21-25	A6-18
	A7-13(TP6)	A17-23	A22-16	A7-18
	A8-13(TP4)	A18-23	A22-25	A8-18

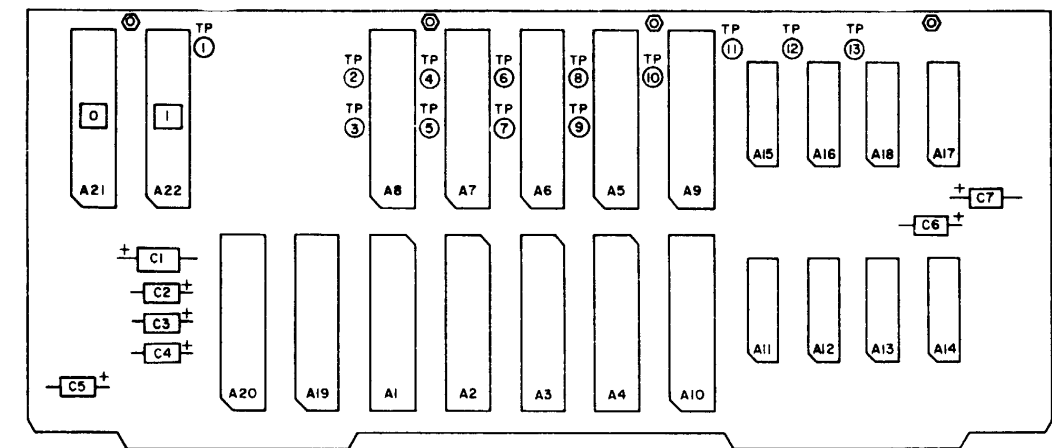
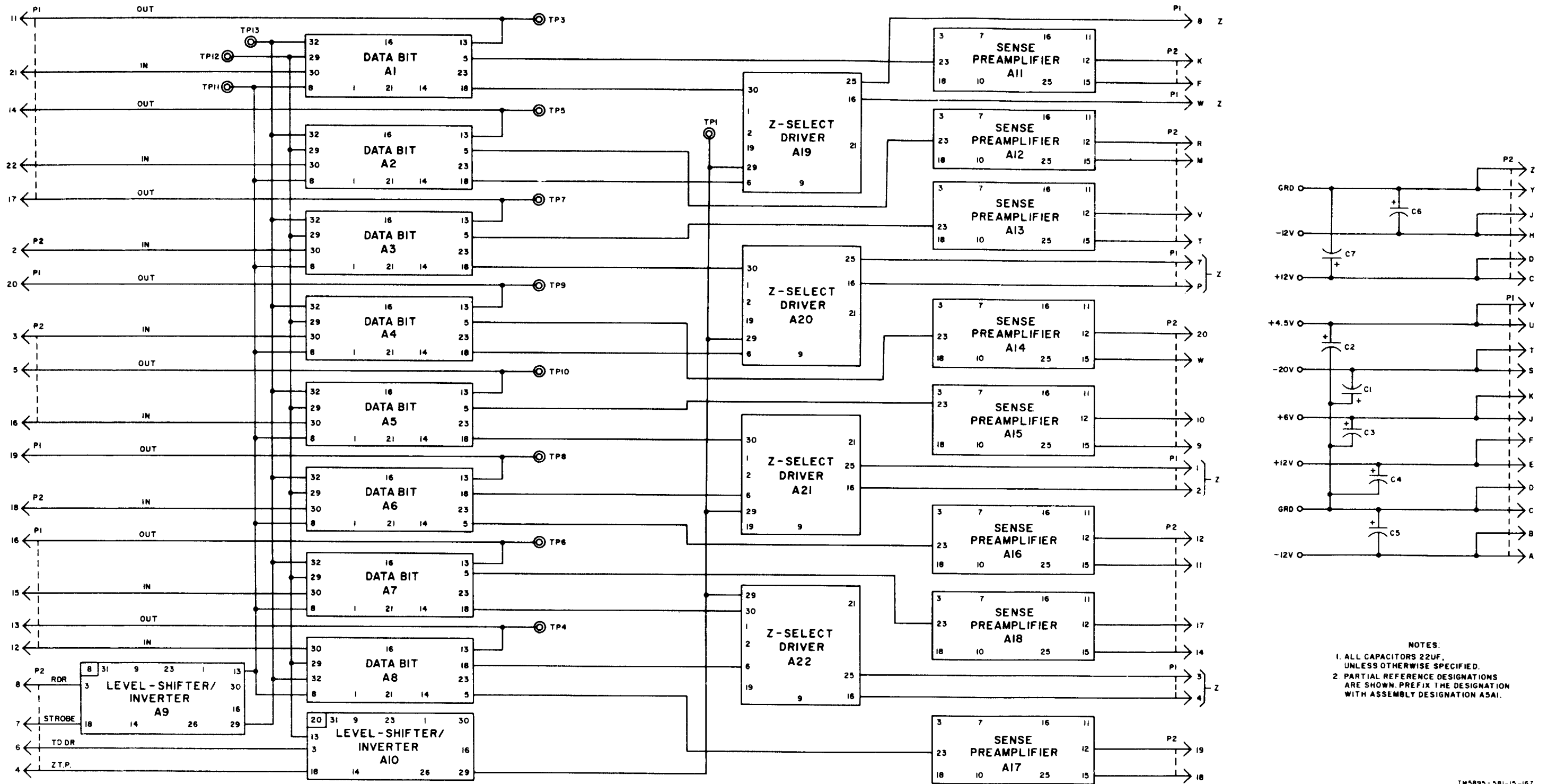


Figure 6-79. Eight-bit data logic card A5A1, component location

c. *Eight-Bit Data Logic Card A5A1, Voltage Chart.* Module output voltage for the eight bit data logic card fall into four categories:12 volt and 0.1 volt logic signals 6-volt and 3-volt logic signals, 6 volt logic and 3-volt logic signals, -20 volt and +



- NOTES:
1. ALL CAPACITORS 22UF, UNLESS OTHERWISE SPECIFIED.
 2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A5A1.

TM5895-581-15-167

Figure 6-80. Eight-bit data logic card A5A1, schematic diagram.

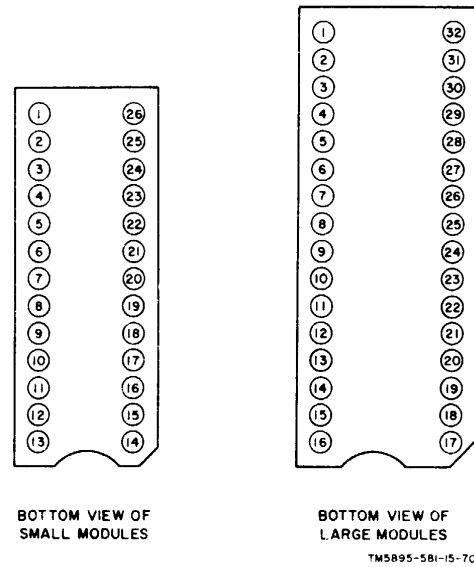


Figure 6-81. Memory module terminal connections.

6-46. Address Selection and Drive Card A5A2 or A5A3, Bench Test

a. Address Selection and Drive Card A5A2 or A5A3, Bench Test Connection Chart.

Item	Terminal connections
	Note PS1; PD500R (+6v supply) PS2; PD500R (+12v supply) PS3; HP6207B (-12v supply) PS4; HP6207B (-12v supply)

- 1 Facing terminal edge component side up, the group of terminals on the left are designated P1, and terminals on the right are designated P2. The terminals of P1 and P2 are designated A through Z, from left to right, with letters G, I, O and Q omitted. On the reverse side of circuit board starting with terminal directly opposite terminal A, the 22 terminals of P2 and P2 are designated 1 through 22.
- 2 Insert P1 and P2 into connectors (ferroxcube connectors may be used)
- 3 Ground PS1 (-), PS2 (-), PS3 (+), PS4 (+), P1-8, P1-9, P2-12, P2-13, vtm (COMMON).
- 4 P1-4, 5, P, R, and P2-8, 9, 20, and 21 to PS1 (+).
- 5 P1-U, and V, and P2-10 and 11 to PS2 (+).
- 6 P1-10 and 11, and P2-14 and 15 to PS3 (-).
- 7 P1-A and B, and P2-Y and Z to PS4 (-).
- 8 Connect an 82-ohm resistor from P1-D, 1, 8, 13, K, 7, 6, 3, M, and P2-M, K, X, V, 18, 17, R, P to +6 terminal.
- 9 Connect an 82-ohm resistor from P1-C, 2, 15, 14, J, H, F, E, and P2-L, J, W, U, T, S, 16, N to -20.

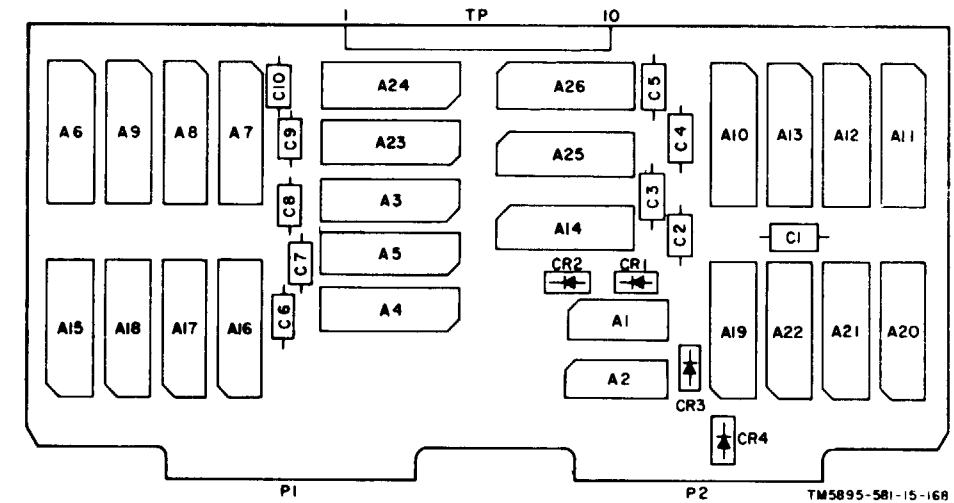


Figure 6-82. Address selection and drive card A5A2 or A5A3 component location.

b. Address Selection and Drive Card A5A2 or A5A3, Input and Output Voltage Chart.

Step	Input pins								Output pins																
	P2		P1						P1							P2									
	D	C	16	21	X	Z	17	20	D	1	5	13	K	7	6	3	L	J	W	U	T	S	16	N	
1	grd	Pulse	grd	grd	grd	grd	grd	grd	-20	+6	+6	+6	+6	+6	+6	+6	+6	-20	-20	-20	-20	-20	-20	-20	
2			+12	grd	grd	+12	grd	grd	+6	-20	+6	+6	+6	+6	+6	+6	-20	+6	-20	-20	-20	-20	-20	-20	
3			grd	+12	grd	grd	+12	grd	+6	+6	-20	+6	+6	+6	+6	+6	-20	-20	+6	-20	-20	-20	-20	-20	
4			+12	+12	grd	+12	+12	grd	+6	+6	+6	-20	+6	+6	+6	+6	-20	-20	-20	+6	-20	-20	-20	-20	
5			grd	grd	+12	grd	grd	+12	+6	+6	+6	+6	-20	+6	+6	+6	-20	-20	-20	-20	+6	-20	-20	-20	
6			+12	grd	+12	+12	grd	+12	+6	+6	+6	+6	+6	-20	+6	+6	-20	-20	-20	-20	-20	+6	-20	-20	
7			grd	+12	+12	grd	+12	+12	+6	+6	+6	+6	+6	+6	-20	+6	-20	-20	-20	-20	-20	-20	+6	-20	
8			+12	+12	+12	+12	+12	+12	+6	+6	+6	+6	+6	+6	+6	-20	-20	-20	-20	-20	-20	-20	-20	+6	
	D	C	16	21	X	Z	17	20	C	2	15	14	K	H	F	E	M	K	X	V	18	17	R	P	
9	Pulse	grd	grd	grd	grd	grd	grd	grd	+6	-20	-20	-20	-20	-20	-20	-20	-20	+6	+6	+6	+6	+6	+6	+6	
10			+12	grd	grd	+12	grd	grd	-20	+6	-20	-20	-20	-20	-20	-20	+6	-20	+6	+6	+6	+6	+6	+6	
11			grd	+12	grd	grd	+12	grd	-20	-20	+6	-20	-20	-20	-20	-20	+6	+6	-20	+6	+6	+6	+6	+6	
12			+12	+12	grd	+12	+12	grd	-20	-20	-20	+6	-20	-20	-20	-20	+6	+6	+6	-20	+6	+6	+6	+6	
13			grd	grd	+12	grd	grd	+12	-20	-20	-20	-20	+6	-20	-20	-20	+6	+6	+6	+6	-20	+6	+6	+6	
14			+12	grd	+12	+12	grd	+12	-20	-20	-20	-20	-20	+6	-20	-20	+6	+6	+6	+6	+6	-20	+6	+6	
15			grd	+12	+12	grd	+12	+12	-20	-20	-20	-20	-20	-20	+6	-20	+6	+6	+6	+6	+6	+6	+6	-20	+6
16			+12	+12	+12	+12	+12	+12	-20	-20	-20	-20	-20	-20	-20	+6	+6	+6	+6	+6	+6	+6	+6	+6	-20

c. Address Selection and Drive Card, Bench Test (Chart.

Item	Procedure	Performance standards
1	Set pulse generator for an outlet of 1 MC at +12 volts and connect to pin on connector as indicated in <i>b</i> above, steps 1 through 16.	None.
2	Connect +12 volts or grd to input pins on connector as indicated in <i>b</i> above.	None.
3	Check voltage on Output pins as indicated in <i>b</i> above, steps 1 through 16.	Observe vtmv indication in <i>b</i> above.

d. Address Selection and Drive Card A5A2 or A5A3, Voltage Chart. Module outlet voltages for the address selection and drive card fall into three categories: 2-volt and 0.1-volt logic signals, -20-volt and + 1; volt logic signals, and +6-volt and 0.1-volt logic signals. The following chart list module output pin numbers for each category. See figure 6-18 for memory module terminal locations.

NOTE

All measurements are made with respect to ground using an oscilloscope.

1 = +12 vdc 0 = 0.1 vdc	1 = +6 vdc 0 = 0.1 vdc	1 = -20 vdc 0 = +6 vdc	1 = +6 vdc 0 = -20 vdc
A1-2	A6-18	A15-9	A15-6
A1-11	A6-30	A15-25	A15-28
A2-2	A6-15	A16-9	A16-6
A2-11	A6-4	A16-25	A16-28
A3-13	A7-18	A17-9	A17-6
A3-29	A7-30	A17-25	A17-28
A4-13	A7-15	A18-9	A18-6
A4-29	A7-4	A18-25	A18-28
A5-13	A8-18	A19-9	A19-6
A5-29	A8-30	A19-25	A19-28
	A9-18	A20-9	A20-6
	A9-30	A20-25	A20-28
	A9-15	A21-9	A21-6
	A9-4	A21-25	A21-25
	A10-18	A22-9	A22-9
	A10-30	A22-25	A22-25
	A10-15		
	A10-4		
	A11-18		
	A11-30		
	A11-15		
	A11-4		
	A12-18		
	A12-30		
	A12-15		
	A12-4		
	A13-18		
	A13-30		
	A13-15		
	A13-4		

6-47. Timing Control Card A5A4, Bench Test

a. Timing Control Card A5A4, Bench Test Connection Chart.

Item	Terminal connections
	Note PS1; PD500R (+12v supply) PS2; PD500R (+6v supply-) PS3; HP6207B (-2v supply)
1	Facing terminal edge component side up, the group of terminals on the left are designated P1, and terminals on the right are designated P2. The terminals of P1 and P2 are designated A through Z, from left to right, with letters G.

b. Timing Control Card A5A4, Bench Test Chart (figs.6-84 and 6-85).

Item	Procedure	Performance standards
1	Connect a BNC tee connector to output connector of pulse generator. Connect an RG-58/U coaxial to each end of the BNC tee connector. Connect Tektronix Adapter 013-0076-00 to one of the RG-58/U coaxial cables. Connect the other coaxial cable to oscilloscope (INPUT).	None.
2	Adjust pulse amplitude for an output voltage of 3 volts peak-to-peak. Set INT REP RATE at 1K and PULSE WIDTH at 1 used.	Observe oscilloscope for correct display.
3	a. Disconnect coaxial cable from INPUT on oscilloscope and connect to TRIGGER INPUT. b. Set TRIGGERING source to EXT DC. c. Set TRIGGER SCOPE to +.	a. None. b. None. c. None.
4	Connect ground to P1-4. P1-E and P1-2.	None.
5	Connect red lead of Tektronix adapter to P1-5.	None.
6	Disconnect red lead from P1-5 and connect ground to P1-5.	None.
7	Disconnect ground from P1-4 and connect red lead to P-14.	
8	Connect probe of oscilloscope to the following points: a. TP1 b. TP3 c. P1-N d. TP6	Oscilloscope displays the following: a. 0 volts b. Negative 6-volt, 0.5-µsec pulse at a PRF of 1 KHz delayed 0.4 µsec from leading edge of pulse generator output. c. +6 volts d. Positive 6-volt, 1.5 µsec pulse at a PRF of 1 KHz delayed 1 µsec from leading edge of pulse generator output.

Item	Terminal connection
	I, O and Q omitted. On reverse side of circuit board starting with terminal directly opposite terminal A, the 22 terminals of P1 and P2 are designated 1 through 22.
2	Insert P1 and P2 into connectors (Ferroxcube connectors may be used).
3	Ground, PS1 (-), PS2 (-), PS3 (+). P1-A1 and B. P2-19 and 20.
4	P1-Y and Z, P2-21 and 22, PS1 (+).
5	P1-13 and 14, P2-Y and Z, PS2 (+).
6	P1-C and D, P2-M and N, PS3 (-).
7	P2-2, P1-M.

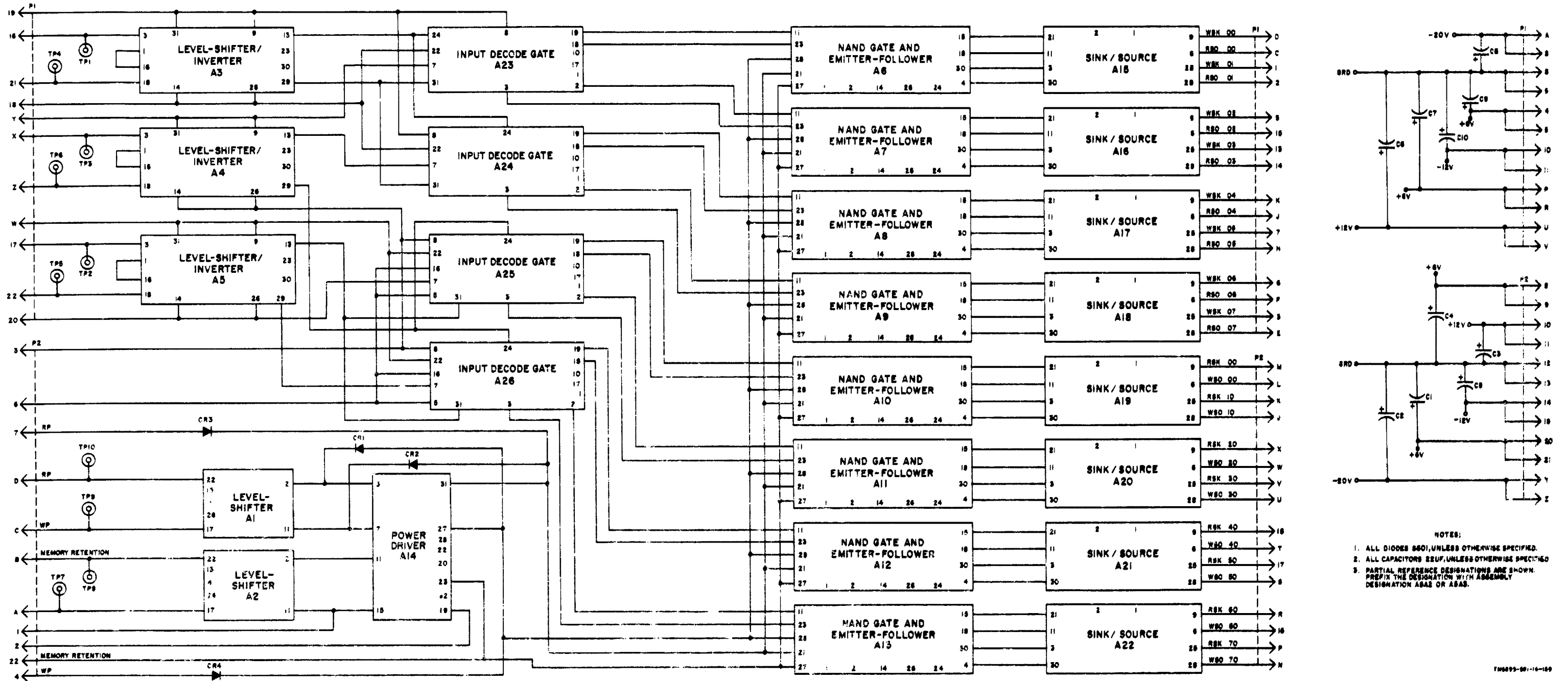


Figure 6-83. Address selection and drive card A5A2 or A5A3, schematic diagram.

Item	Procedure	Performance standards
e. TP2		e. Positive 6-volt, 0.4 μsec pulse at a PRF of 1 KHz delayed 1.6 μsec from leading edge of pulse generator output.
f. TP4		f. Same as e. above.
g. TP5		g. Positive 6-volt, 0.6-μsec pulse at a PRF of 1KHz delayed 0.3 μsec from pulse generator outlet.
h. TP7		h. 0 volt.
i. TP8		i. Positive 6-volt, 2.8-μsec pulse at a PRF of 1KHz delayed 4 μsec from pulse generator output.
j. Same as 8j.		j. 0 volt.
k. Same as 8k.		k. 0 volt.
9	Disconnect red lead from P1-4 and connect ground to P1-4.	None.
10	Disconnect ground from P1-E and connect red lead to P1-E.	None.
11	Collect probe of oscilloscope to the following:	Oscilloscope displays the following:
a. Same as item 8a.		a. Same as item 8a.
b. Same as item 8b.		b. Same as item 8b.
c. Same as item 8c.		c. 0 volt.
d. Same as item 8d.		d. Same as item 8d.
e. Same as item 8e.		e. 0 volt:
f. Same as item 8f.		f. Same as item 8f.
g. Same as item 8g.		g. Same as item 8g.
h. Same as item 8h.		h. Same as item 8h.
i. Same as item 8i.		i. Same as item 8i.
j. Same as item 8j.		j. Positive 6-volt, 0.6-μsec pulse at a PRF of 1 KHz delayed 0.4 μsec from pulse generator output.
k. Same as item 8k.		k. +6 volt.
12	Set INT, REP RATE on pulse generator at a PRF of 250 KHz.	None.
13	Disconnect probe of oscilloscope to TP8.	Oscilloscope displays a +6 volt pulse every 8 μsec.
14	Disconnect red lead from P1-E and connect ground to P1-E.	None.
15	Disconnect ground lead from P1-2 and connect red lead to P1-2.	Oscilloscope indicates 0 volt at TP8.
c. <i>Timing Control Card A5A4, Voltage Chart.</i> Module output voltages for the timing control card fall into two categories: 12-volt and 0.1-volt logic signals, and 6-volt and 0.1-volt logic signals. The following chart lists module output pin numbers for each category. See figure 6-81 for memory module terminal locations.		

NOTE

All measurements are made with an oscilloscope with respect to ground.

1 = +12 vdc 0 = +0.1 vdc	1 = +6 vdc 0 = +0.1 vdc	1 = +12 vdc 0 = +0.1 vdc	1 = +6 vdc 0 = +0.1 vdc
A1-2	A3-24 through A3-27	A10-4	
A1-11	A4-24 through A4-27	A10-16	
A2-2	A5-24 through A5-27	A10-18	
A2-11	A6-24 through A5-24	A10-30	
A7-11	A12-15	A11-4	
A7-5	A12-25	A11-16	
A8-4		A11-18	
A8-16		A11-30	
A8-18			
A8-30			
A9-4			
A9-16			
A9-18			
A9-30			

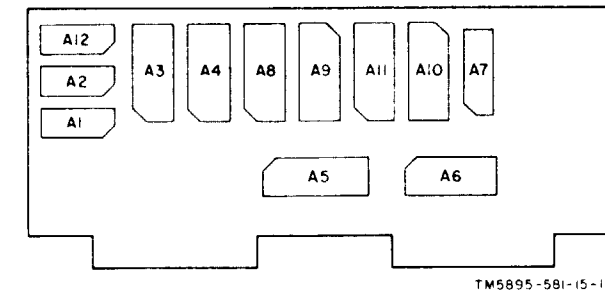
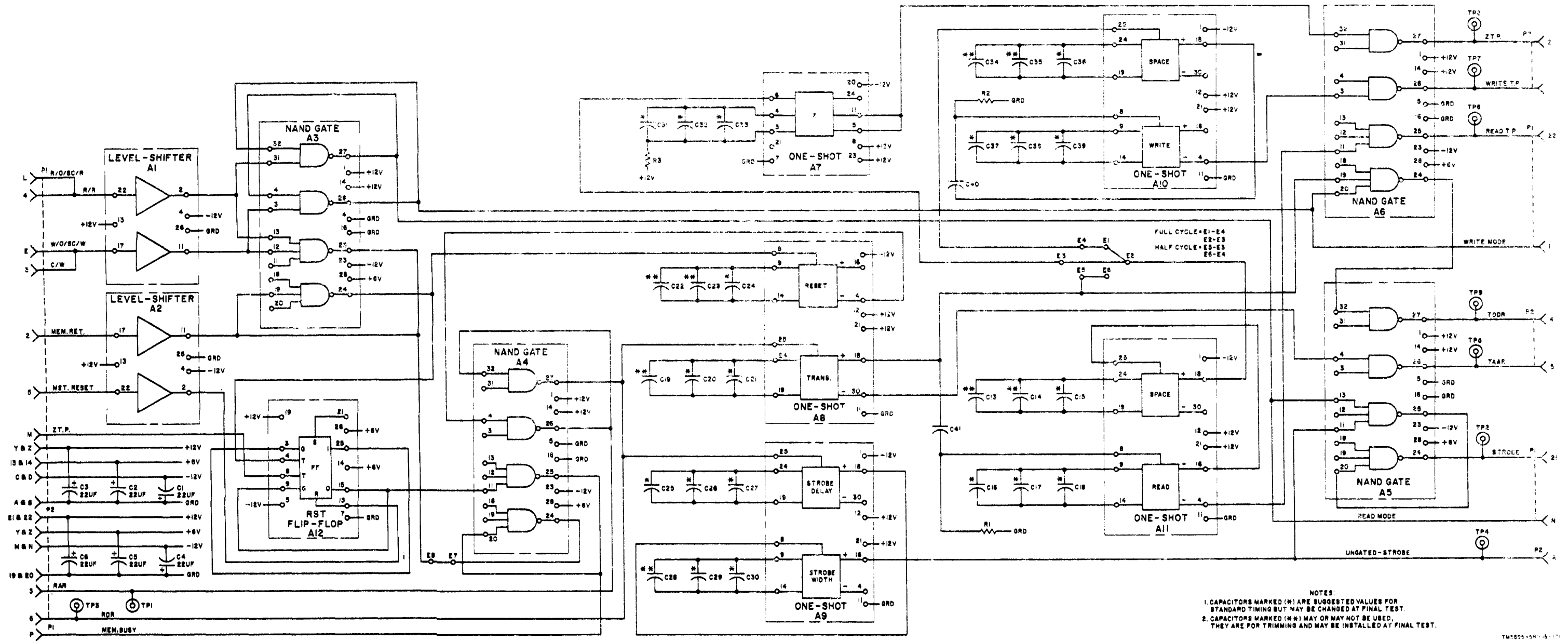


Figure 6-84. Timing control card A5A4, component locations.

6-48. Card LO, Bench Test

- Card LO, Bench Test Connection Chart. Not applicable.
- Card LO, Bench Test Chart (figs. 6-86) and 6-87).

Item	Procedure	Performance standards
1	Connect PD500R (-) electronic (counter (grd), terminals K, 9, P, and 13 to GRD terminal.	None.
2	Connect PD500 (+) to terminal +5.25).	None.
3	Connect electronic counter probe to terminals F and 6.	At each terminal electric counter indicates 1.2288 MHZ.



NOTES:
 1. CAPACITORS MARKED (**) ARE SUGGESTED VALUES FOR STANDARD TIMING BUT MAY BE CHANGED AT FINAL TEST.
 2. CAPACITORS MARKED (N) MAY OR MAY NOT BE USED. THEY ARE FOR TRIMMING AND MAY BE INSTALLED AT FINAL TEST.

Figure 6-85. Timing control card A5A4, schematic diagram.

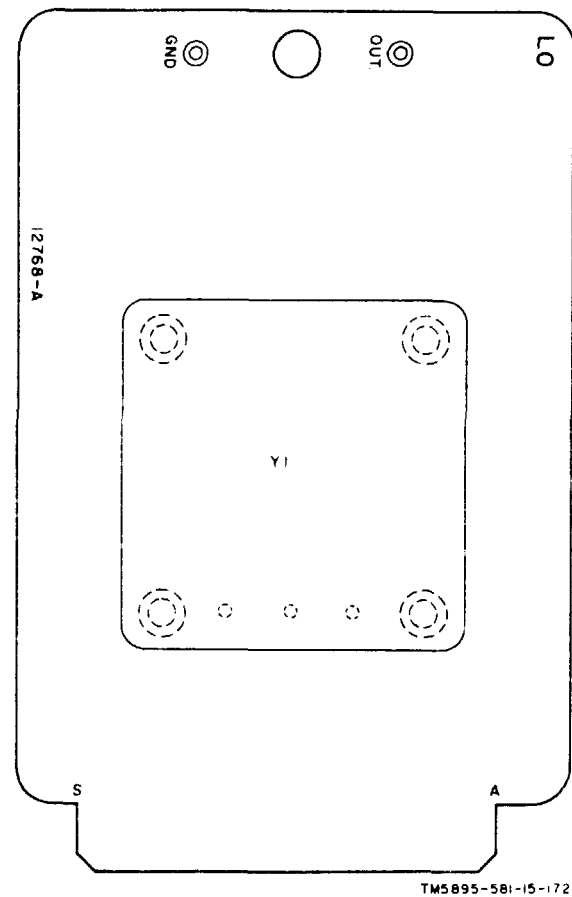


Figure 6-86. Card LO, component locations.

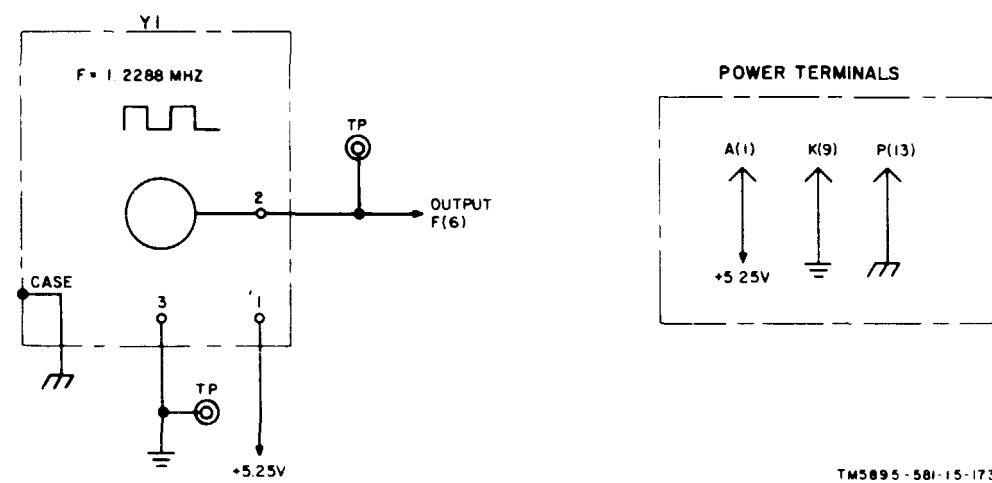


Figure 6-87. Card LO, schematic diagram.

6-49. Power Supply Shelf A3, Bench Test

- a. Power Supply Shelf A3, Bench Test Connection Chart . Not applicable.
- b. Power Supply Shelf A3, Bench Test Chart (figs 6-88 through 6-95).

Item	Procedure	Performance standards
1	Connect ground to TB1 pins 4, 5, 6, 8, 9, and 12.	None.
2	Connect one side of ac line voltage to TB2 pins 1, 3, 5, and 7 and the other side of TB2 pin 9.	None.
3	Connect Fluke meter negative lead to TB1 pins 4, and Fluke meter positive lead to TB1 pin 3.	Fluke meter indicates +5.2500 vdc ±5 mv.
4	Adjust power supply A3-1 for an output voltage of + 5.2500.	None.
5	Disconnect ac line voltage from TB2 pin 1.	None.
6	Connect two 0.6-ohm, 75-watt resistors in parallel between TB1 pin 3 and TB1 pin 4.	Fluke meter indicates +5.2500 vdc ±5 mv.
7	Connect ace line voltage to TB2 pin 1.	None.
8	Disconnect ace line voltage from TB2 pin 1.	None.
9	Disconnect the two 0.6-ohm resistors between TB1 pin 3 and TB1 pin 4.	None.
10	Same as item 7.	None.
12	Connect Fluke meter positive lead TB1 pin 14.	Fluke meter indicates -120 vdc ±0.1 volt.
13	Same as item 5.	None.
14	Connect two 30-ohm, 130-watt resistors in series between TB1 pin 14 and TB1 pin 12.	None.
15	Same as item 7.	Fluke meter indicates -120 vdc ±0.1 volt.
16	Same as item 5.	None.
17	Disconnect the two 30-ohm resistors between TB1 pin 14 and TB1 pin 12.	None.
18	Same as item 7.	None.
19	Adjust power supply A3A3 for an output voltage of -12 vdc.	None.
20	Connect Fluke meter positive lead to TB1 pin 10.	Fluke meter indicates -12 vdc ±12 mv.
21	Same as item 5.	None.
22	Connect two 0.6-ohm, 75-watt resistors in series between TB1 pin 10 and Till pin 9.	None.
23	Same as item 7.	Fluke meter indicates -12 vdc ±12 mv.
24	Same as item 5.	None.

Item	Procedure	Performance standards
25	Disconnect the two 0.6 ohm resistors between TB1 pin 10 and TB1 pin 9.	None.
26	Same as item 7.	None.
27	Adjust power supply A3-4 for an output voltage of -60 vdc.	None.
28	Connect Fluke meter positive lead to TB1 pin 13.	Fluke meter indicates -60 vdc \pm 60 mv.
29	Same as item 5.	None.
30	Connect two 30ohm watt resistors in series between TB1 pin 13 and TB1 pin 12.	None.
31	Same as item 7.	Fluke meter indicates -60 vdc \pm 60 mv.
32	Same as item 5.	None.
33	Disconnect the two 30-ohm resistors between TB1 pin 13 and TB1 pin 12.	None.
34	Same as item 7.	None.
35	Adjust power supply A3A5 for an output voltage of +-12 vdc.	None.
36	Connect Fluke meter positive lead to TB1 pin 7.	Fluke meter indicates -12 vdc \pm 12 mv.
37	Same as item 5.	None.
38	Connect three 2-ohm, 25-watt resistors in series between TB1 pin 7 and TB1 pin 6.	None.
39	Same as item 7.	Fluke meter indicates +12 vdc \pm 12 mv.
40	Same as item 5.	None.
41	Disconnect the three 2-ohm, 25-watt resistors between TB1 pin 7 and TB1 pin 6.	None.

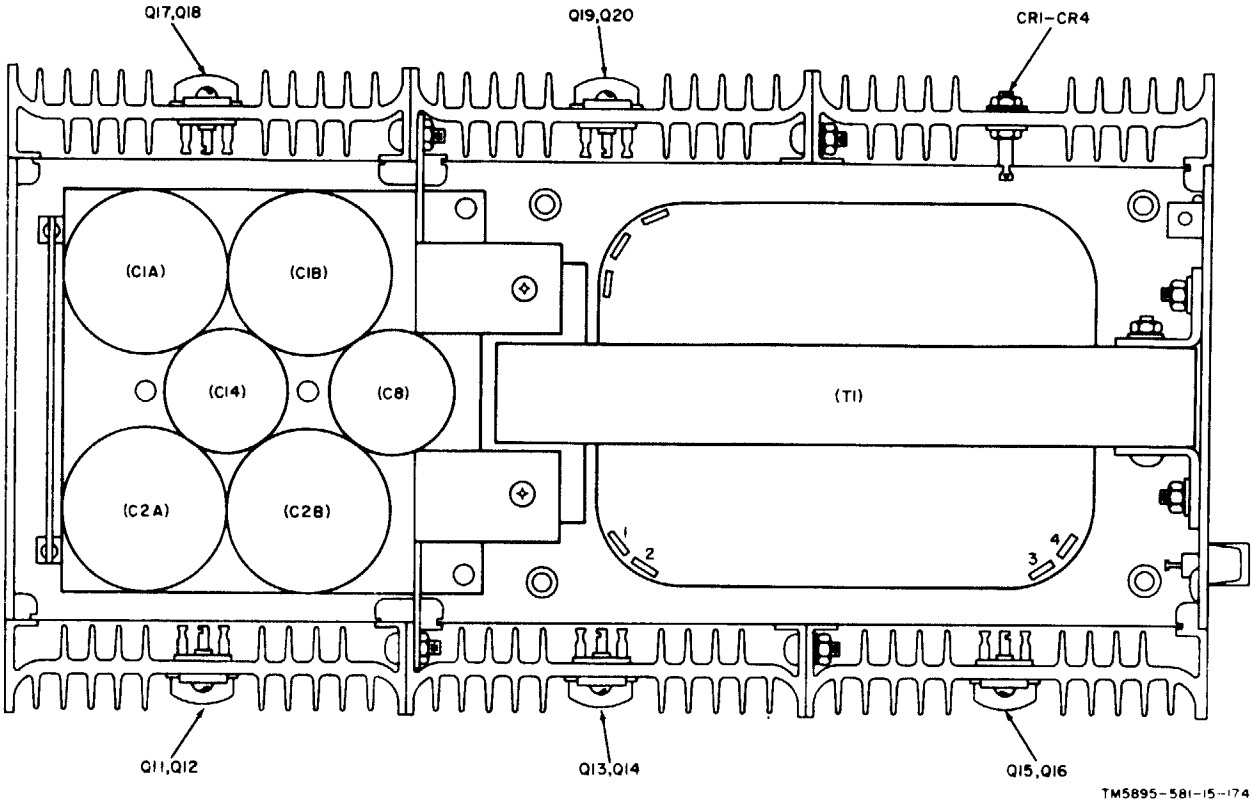


Figure 6-88. Power supply A3A1, component locations.

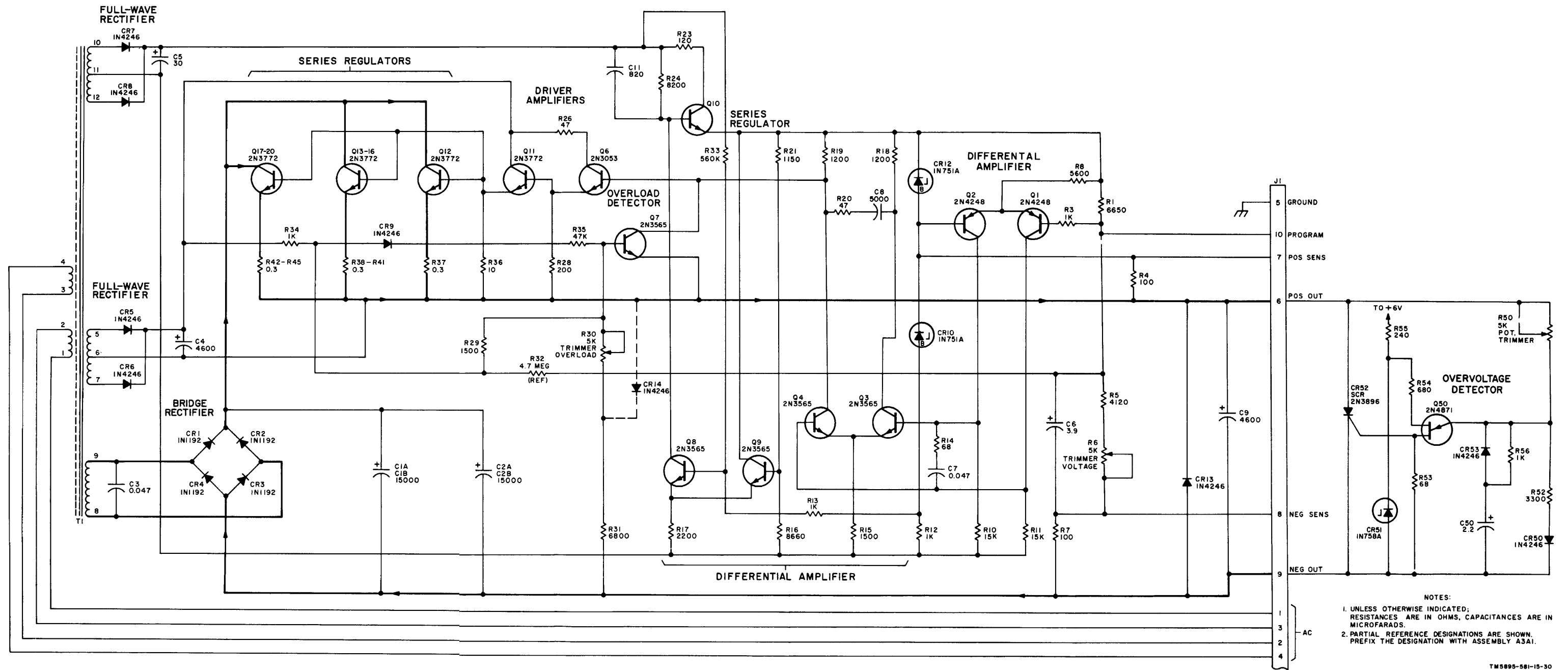


Figure 6-89. Power supply A3A1, schematic diagram.

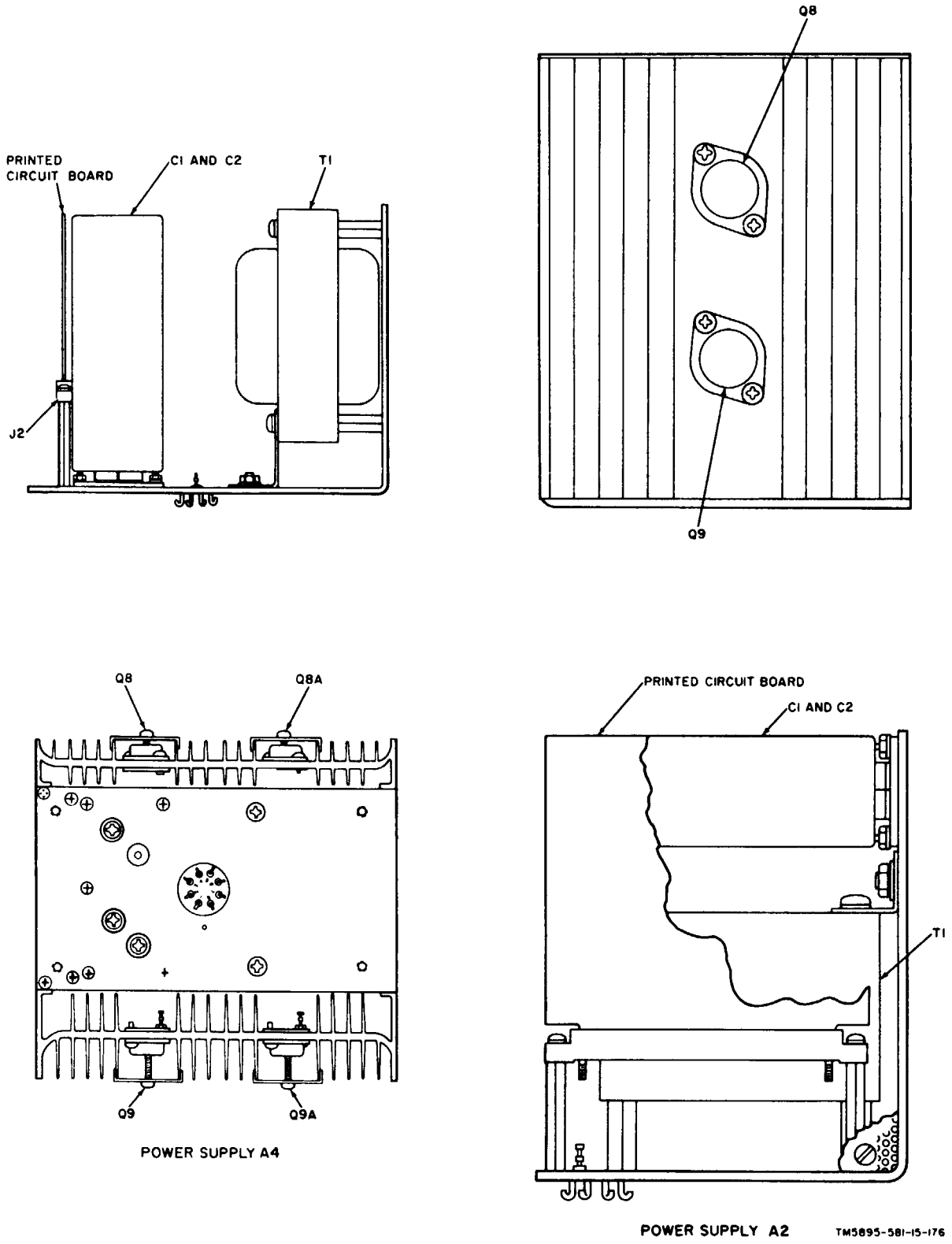
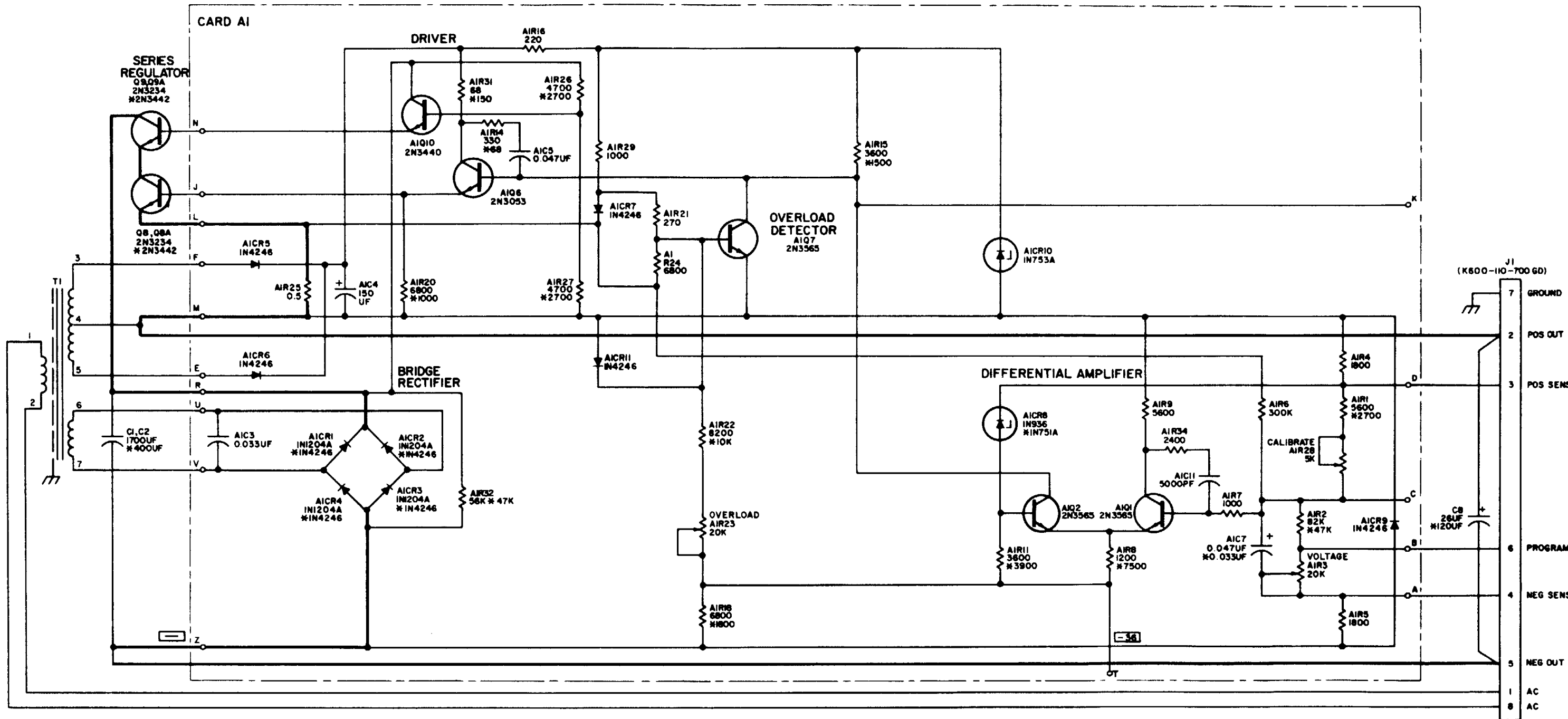


Figure 6-90. Power supplies A3A2, A3A4, component location.



NOTES:
 1 UNLESS OTHERWISE INDICATED RESISTANCES ARE IN OHMS, ±5%.
 2 C7 OR R18 MAY BE MOUNTED OFF P.C. BOARD.
 3 * INDICATES COMPONENT VALUES PECULIAR TO POWER SUPPLY A4 ONLY.
 4 PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A3A2 OR A3A4.

Figure 6-91. Power supplies A3A2, A3A4, schematic diagram.

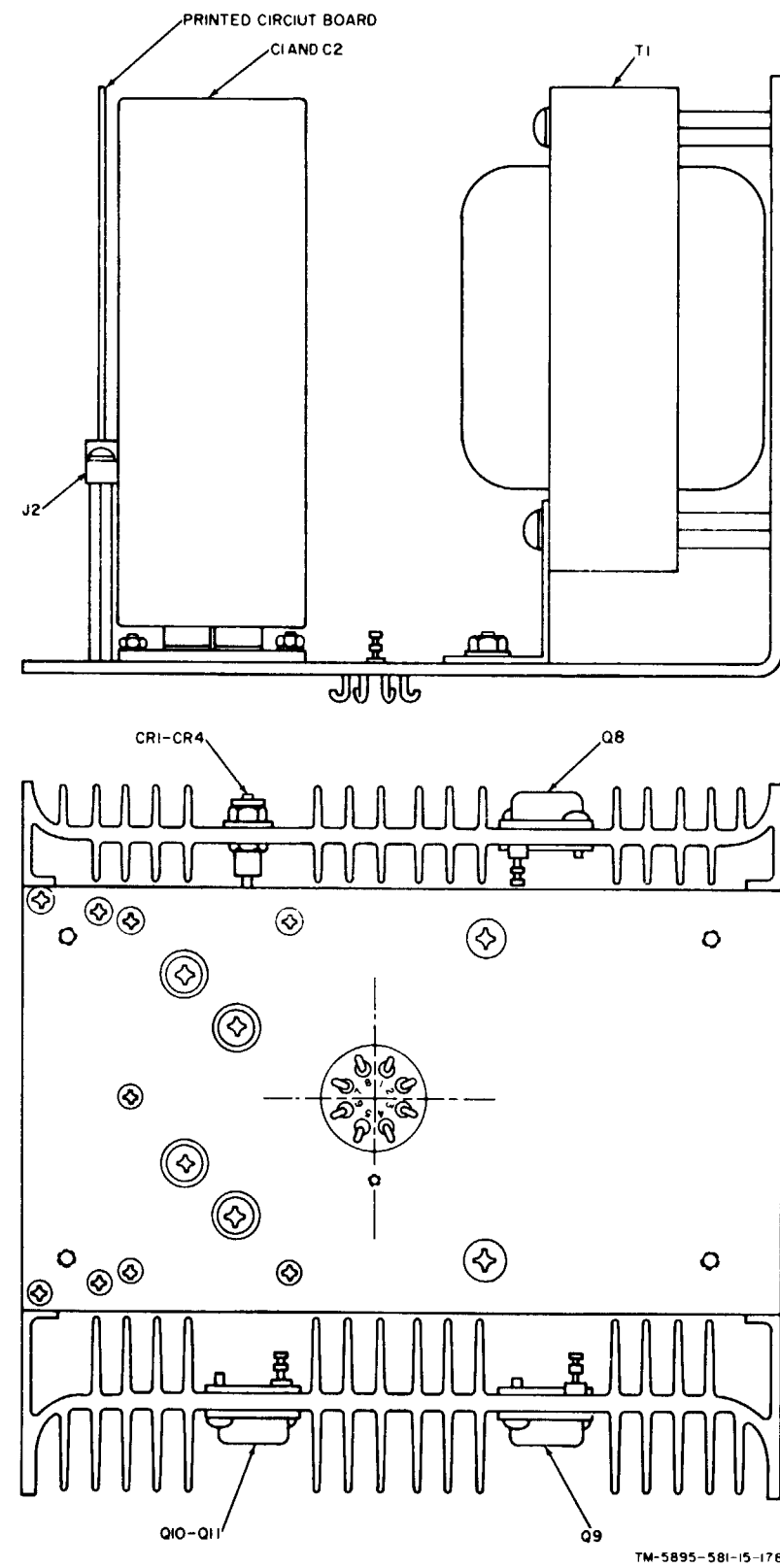
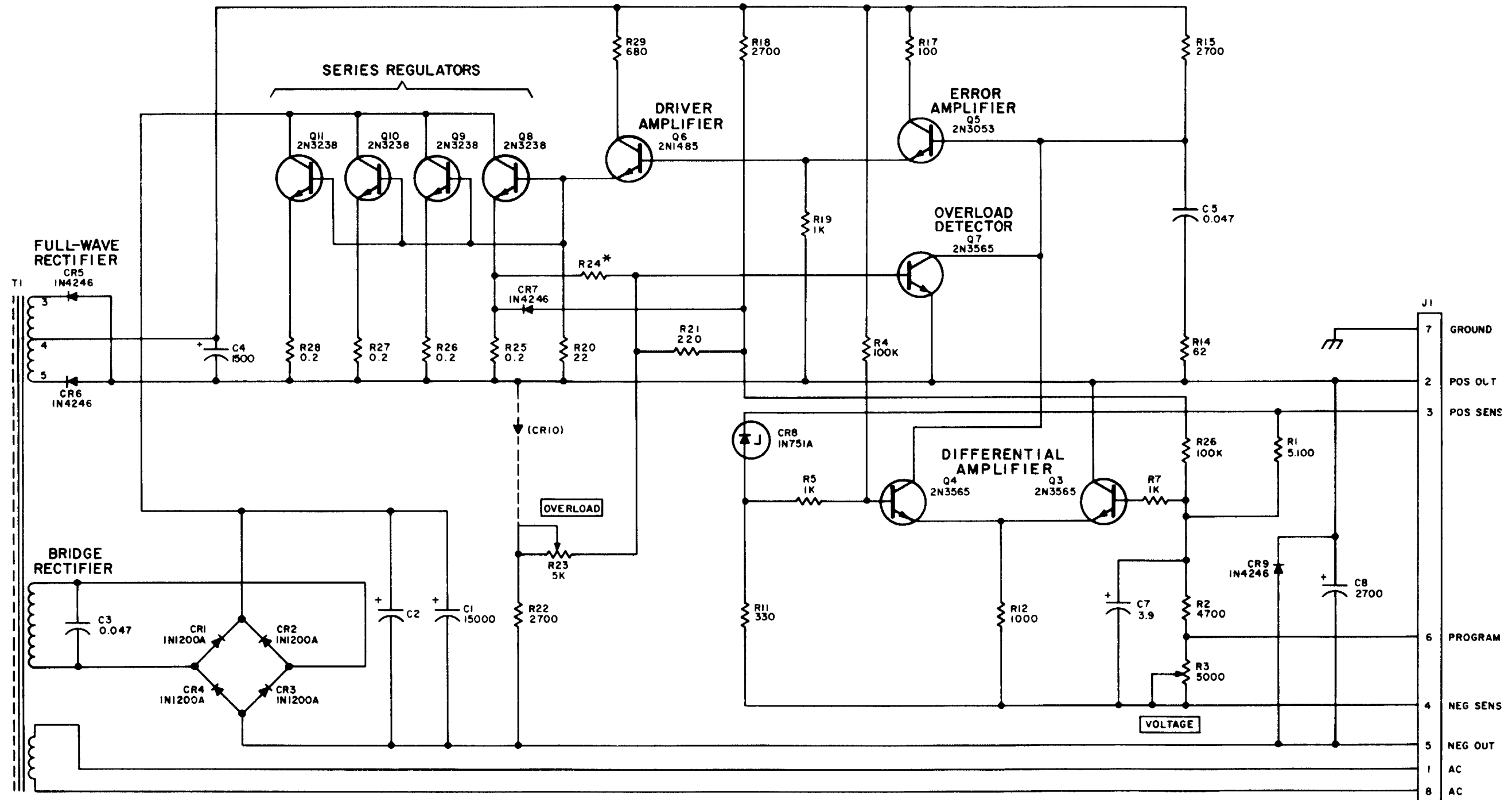


Figure 6-92. Power supply A3A3, component locations.



- NOTES:
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS CAPACITANCES ARE IN UF.
 2. INDICATES EQUIPMENT MARKING.
 3. * INDICATES FACTORY SELECTED VALUE.
 4. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATIONS WITH ASSEMBLY DESIGNATION A3A3.

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Figure 6-93. Power supply A3A3, schematic diagram.

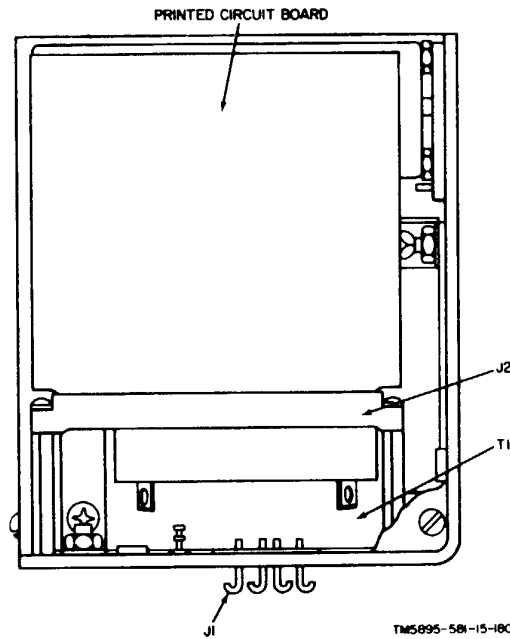
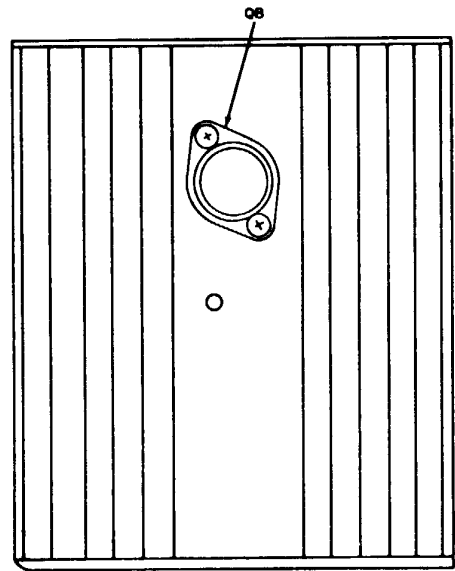


Figure 6-94. Power supply A3A5, component locations.

c. Power Supply A3A1, Voltage Chart.

NOTE

All measurements are made with a vtvm with respect to ground.

(1) Transistors.

Transistor	Base	Emitter	Collector
Q17 through Q20	+6.8 vdc	+6.1 vdc	+16 vdc
Q13 through Q16	+6.8 vdc	+6.1 vdc	+16 vdc
Q12	+6.8 vdc	+6.1 vdc	+16 vdc
Q11	+7.7 vdc	+6.8 vdc	+12 vdc
Q6	+7.9 vdc	+7.7 vdc	+11.5 vdc
Q7	+5.4 vdc	+5.25 vdc	+7.9 vdc
Q10	+12.5 vdc	+12 vdc	+12.5 vdc
Q8	+6 vdc	-.2 vdc	+12.5 vdc
Q9	+6 vdc	-.2 vdc	+12 vdc
Q4	-.2 vdc	-.1 vdc	+7.9 vdc
Q3	-.2 vdc	-.1 vdc	+ 8.5 vdc
Q2	-.2 vdc	+6 vdc	-.2 vdc
Q1	-.05 vdc	+6 vdc	-.2 vdc
Q50	-.05 vdc	+3 vdc	+5 vdc

(2) Diodes.

Diodes	Anode	Cathode
CR7 and CR8		+26 vdc
CR5 and CR6		+12 vdc
CR1 and CR2		+16 vdc

d. Power supply A3A2, Voltage Chart.

NOTE

All measurements are made with a vtvm with respect to ground.

(1) Transistors.

Transistor	Base	Emitter	Collector
Q9, Q9A	+ 18 vdc	+ 17 vdc	+ 39 vdc
Q8, Q8A	+1 vdc	ground	+ 17 vdc
Q10	+ 19 vdc	+ 18 vdc	+ 39 vdc
Q6	+ 1.8 vdc	+1 vdc	+ 11.5 vdc
Q7	+5 vdc	ground	+ 1.8 vdc
Q2	-10 vdc	-10.5 vdc	+1.8 vdc
Q1	-10 vdc	-10.5 vdc	-6.2 vdc

(2) Diodes

Diodes	Anode	Cathode
CR5 and CR6		+11.5 vdc
CR1 and CR2		+39 vdc

e. Power Supply A3A3, Voltage Chart.

NOTE

All measurements are made with vtvm with respect to round.

(1) Transistors.

Transistor	Base	Emitter	Collector
Q11	+1.5 vdc	+6 vdc	+11 vdc
Q10	+1.5 vdc	+6 vdc	+11 vdc
Q9	+1.5 vdc	+6 vdc	+11 vdc
Q8	+1.4 vdc	+6 vdc	+11 vdc
Q6	+2.1 vdc	+1.4 vdc	+4.25 vdc
Q5	+2.8 vdc	+2.1 vdc	+6.9 vdc
Q7	+6 vdc	ground	+2.8 vdc
Q4	-5 vdc	-5.8 vdc	+2.8 vdc
Q3	-5 vdc	-5.8 vdc	ground

(2) Diodes

Diodes	Anode	Cathode
CR5 and CR6		8 vdc
CR1 and CR2		11 vdc

f. Power Supply A3A4, Voltage Chart.

NOTE

All measurements are made with vtvm with respect to round

(1) Transistors.

Transistor	Base	Emitter	Collector
Q9, Q9A	+13 vdc	+12 vdc	+26 vdc
Q8, Q8A	+8 vdc	ground	+12 vdc
Q10	+14 vdc	+13 vdc	+26 vdc
Q6	+1.8 vdc	+8 vdc	+13 vdc
Q7	+4 vdc	ground	+1.8 vdc
Q2	-4.8 vdc	-5.4 vdc	+1.8 vdc
Q1	-4.8 vdc	-5.4 vdc	+0.6 vdc

(2) Diodes

Diodes	Anode	Cathode
CR5 and CR6		+13 vdc
CR1 and CR2		+26 vdc

g. Power Supply A3A5, Voltage Chart.

NOTE

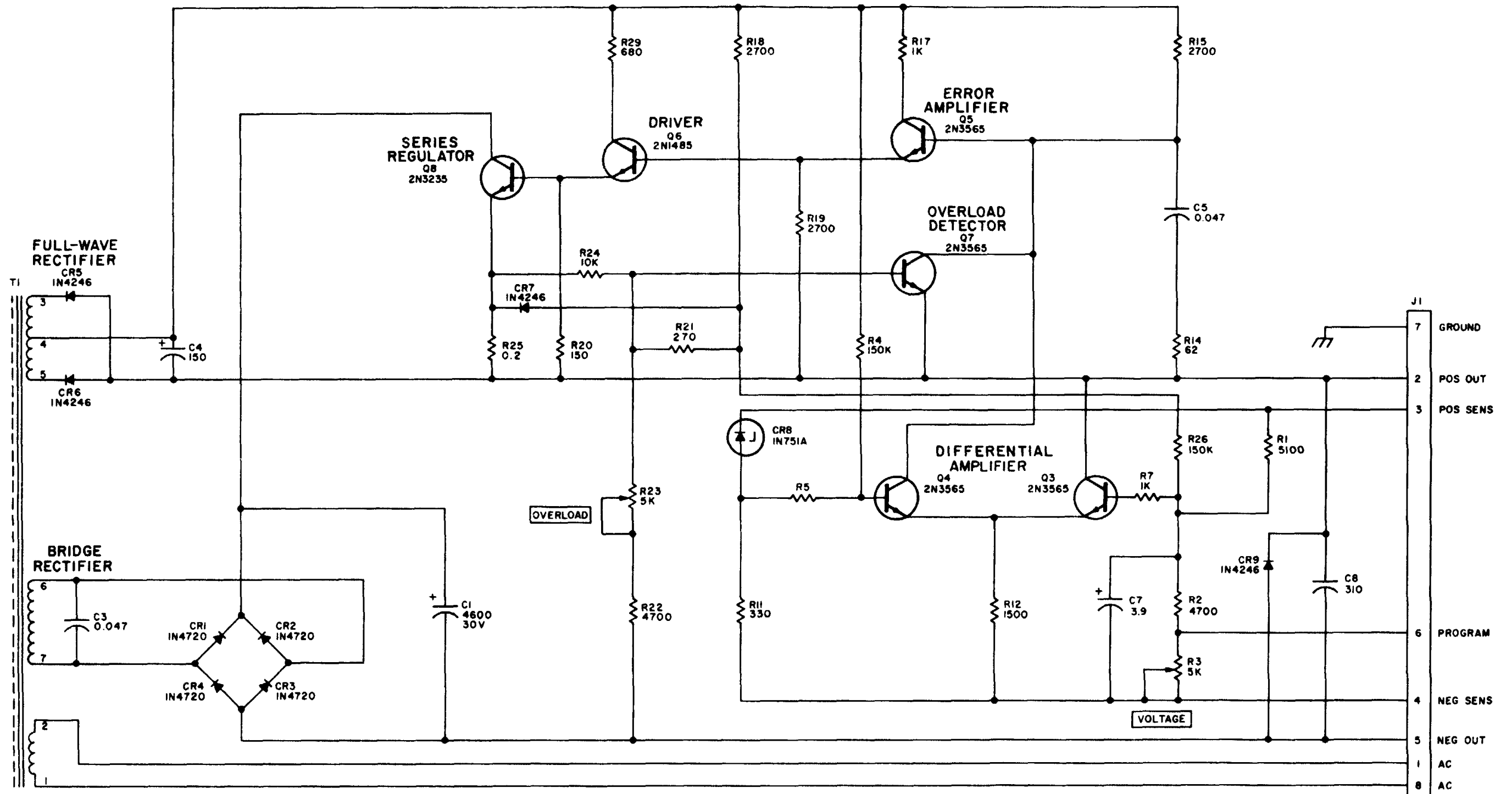
All measurements are made with vtvm with respect to round

(1) Transistors.

Transistor	Base	Emitter	Collector
Q8	+13.5 vdc	+13 vdc	+22.2 vdc
Q6	+14.5 vdc	+13.5 vdc	+14 vdc
Q5	+12 vdc	+15 vdc	+24 vdc
Q7	+13 vdc	+12 vdc	+15 vdc
Q4	+7.3 vdc	+6.5 vdc	+15 vdc
Q3	+7.3 vdc	+6.5 vdc	+12 vdc

(2) Diodes

Diodes	Anode	Cathode
CR5 and CR6	+25 vdc	
CR1 and CR2	+22.2 vdc	



- NOTES:
1. UNLESS OTHERWISE INDICATED, RESISTANCES ARE IN OHMS.
 2. [] INDICATES EQUIPMENT MARKING.
 3. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY A3A5.

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Figure 6-95. Power supply A3A5, schematic diagram

Item	Procedure	Performance standards
14	Set POWER ON/OFF switch to ON.	Fluke meter indicates -12 vdc ±600 mv.
15	Set POWER ON/OFF switch to OFF.	None.
16	Disconnect 10-ohm resistor between J2 pin 5 and ground.	None.
17	Set POWER ON/OFF switch to ON.	None.
18	Connect Fluke meter positive lead to J2 pin 7.	Fluke meter indicates +6 vdc ±300 mv.
19	Set POWER ON/OFF switch to OFF.	None.
20	Connect a 2-ohm, 25-watt resistor between J2 pin 7 and ground.	None.
21	Set POWER ON/OFF switch to ON.	Fluke meter indicates +6 vdc ±300 mv.
22	Set POWER ON/OFF switch to OFF.	None.
23	Disconnect 2-ohm resistor between J2 pin 7 and ground.	None.
24	Set POWER ON/OFF switch to ON.	None.
25	Connect Fluke meter positive lead to J2 pin 12.	Fluke meter indicates -20 vdc ±1 volt.
26	Set POWER ON/OFF switch to OFF.	None.
27	Connect a 10-ohm, 96-watt resistor between J2 pin 12 and ground.	None.
28	Set POWER ON/OFF switch to ON.	Fluke meter indicates -20 vdc ±1 volt.
29	Set POWER ON/OFF switch to OFF.	None.
30	Disconnect the 10-ohm resistor between J2 pin 12 and grd.	None.

c. Memory Drive Power Supply A5A4, Voltage Chart.

NOTE
All measurements are made with a vtm with respect to ground.

(1) Transistors.	Base	Emitter	Collector
Transistor			
Q7	+2.37 vdc	+8.6 vdc	+11 vdc
Q12	+8.6 vdc	+8.1 vdc	+11 vdc
Q13	+8.1 vdc	+7.2 vdc	+11.3 vdc
Q8	+6.3 vdc	+8.1 vdc	+9.5 vdc
Q9	+6.7 vdc	+6 vdc	+9.5 vdc
Q10	+1.15 vdc	+.52 vdc	+6 vdc
Q11	+1.1 vdc	+.52 vdc	+6.7 vdc
Q1	+6.8 vdc	+11 vdc	+16.9 vdc
Q2	+2.7 vdc	+2.13 vdc	+11 vdc
Q3	+.58 vdc	+.017 vdc	+2.7 vdc
Q4	+.67 vdc	ground	+2.7 vdc
Q14	+2.13 vdc	+1.58 vdc	+6 vdc
Q15	+1.58 vdc	+.08 vdc	+6 vdc
Q5	+.05 vdc	-.52 vdc	+12 vdc
Q6	+.04 vdc	-.52 vdc	+1.93 vdc

(2) Diodes	Anode	Cathode
Diodes		
CR16 and CR17		+11.3 vdc
CR1 and CR2		+33 vdc
CR19 and CR21		+11 vdc

d. Memory Logic Power Supply A5A8, Voltage Chart.

NOTE
All measurements are made with a vtm with respect to ground.

(1) Transistors.	Emitter	Collector
Transistor		
Q1	+14 vdc	+12.83 vdc
Q4	+15 vdc	+14.5 vdc
Q3	+14.5 vdc	+14 vdc
Q5	+12.1 vdc	+12 vdc
Q6	+12.5 vdc	+12 vdc
Q7	+5.7 vdc	+5.1 vdc
Q8	+5.65 vdc	+5.1 vdc
Q2	+1.63 vdc	+.5 vdc
Q10	+2.8 vdc	+2.2 vdc
Q9	+2.2 vdc	+1.63 vdc
Q11	+.27 vdc	+.07 vdc
Q12	+.22 vdc	-.38 vdc
Q13	-6.1 vdc	-6.8 vdc
Q14	-6.2 vdc	-6.8 vdc

(2) Diodes	Anode	Cathode
Diodes		
CR7 and CR8		+40 vdc
CR3 and CR4		

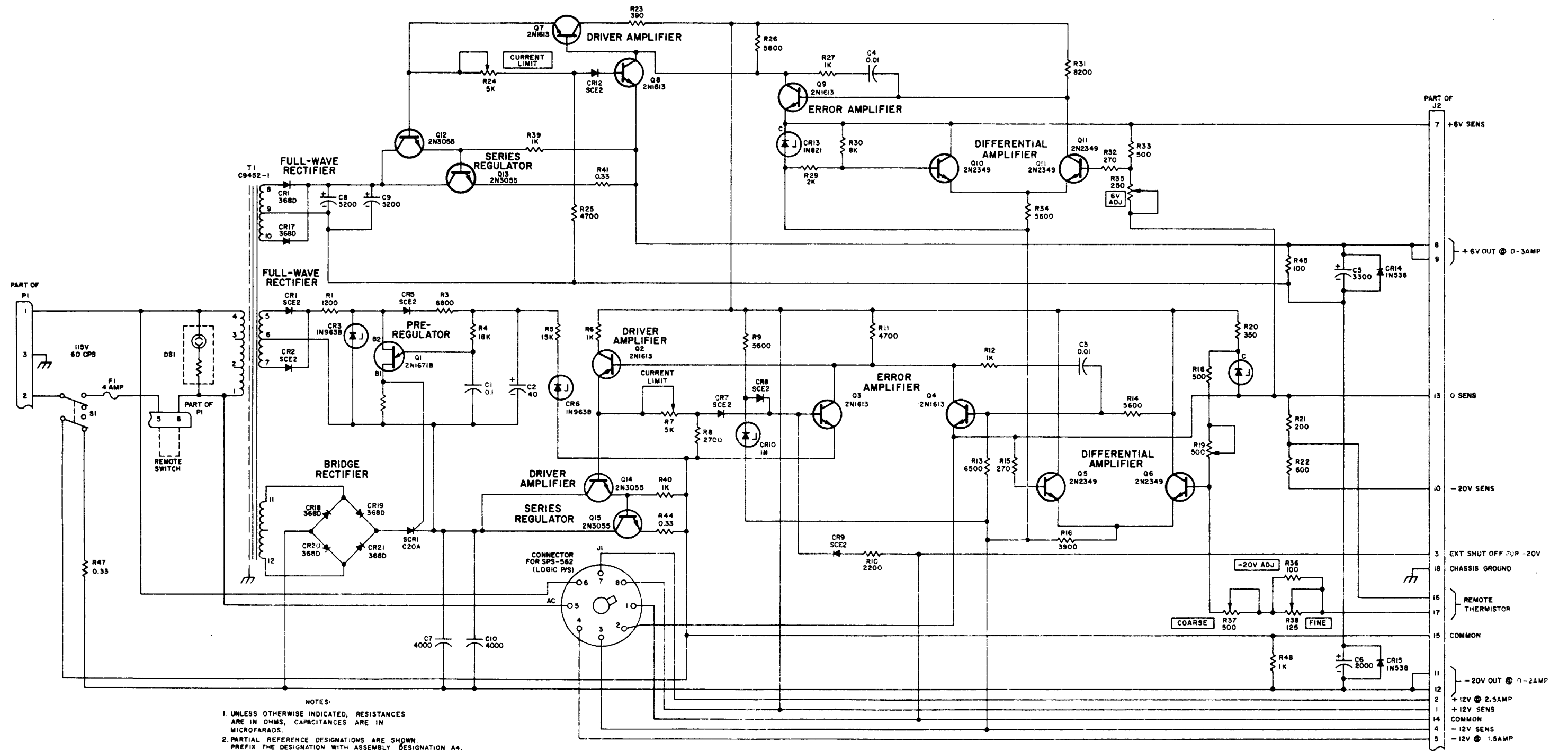


Figure 6-97. Memory drive power supply, schematic diagram.
6-69

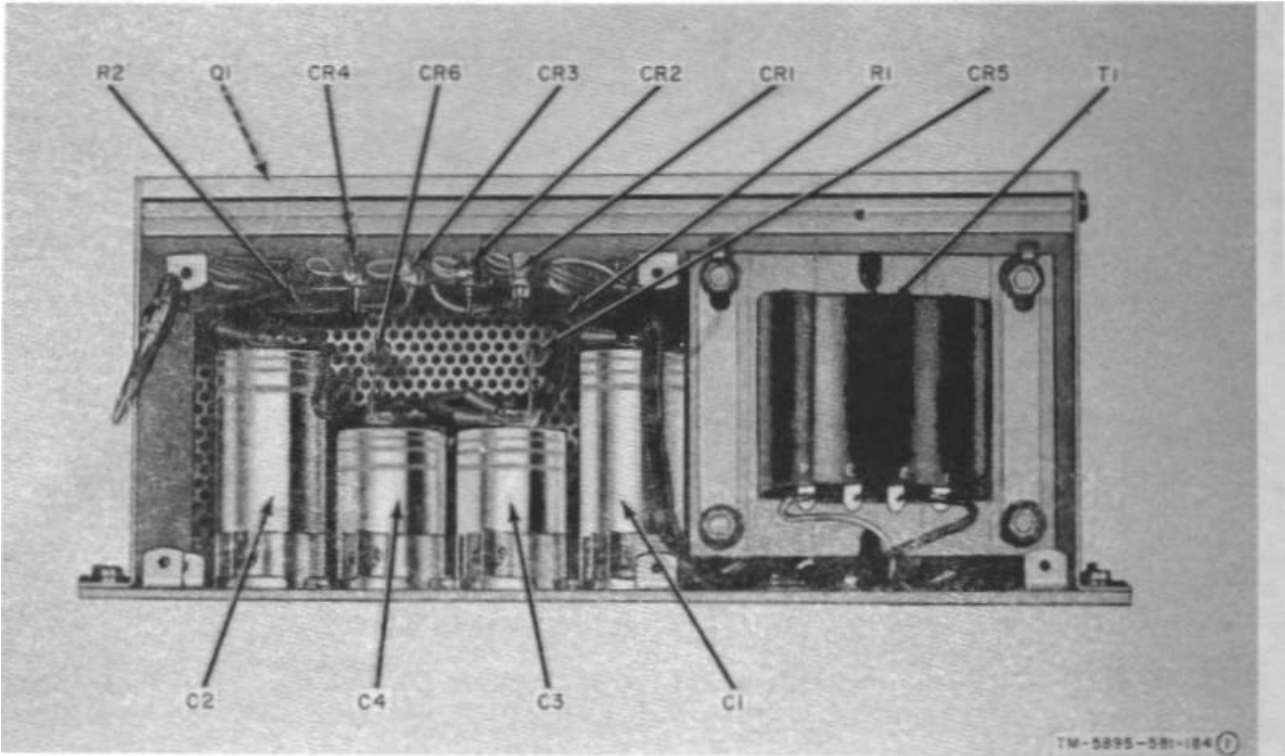


Figure 6-98(1). Memory logic power supply, component locations.

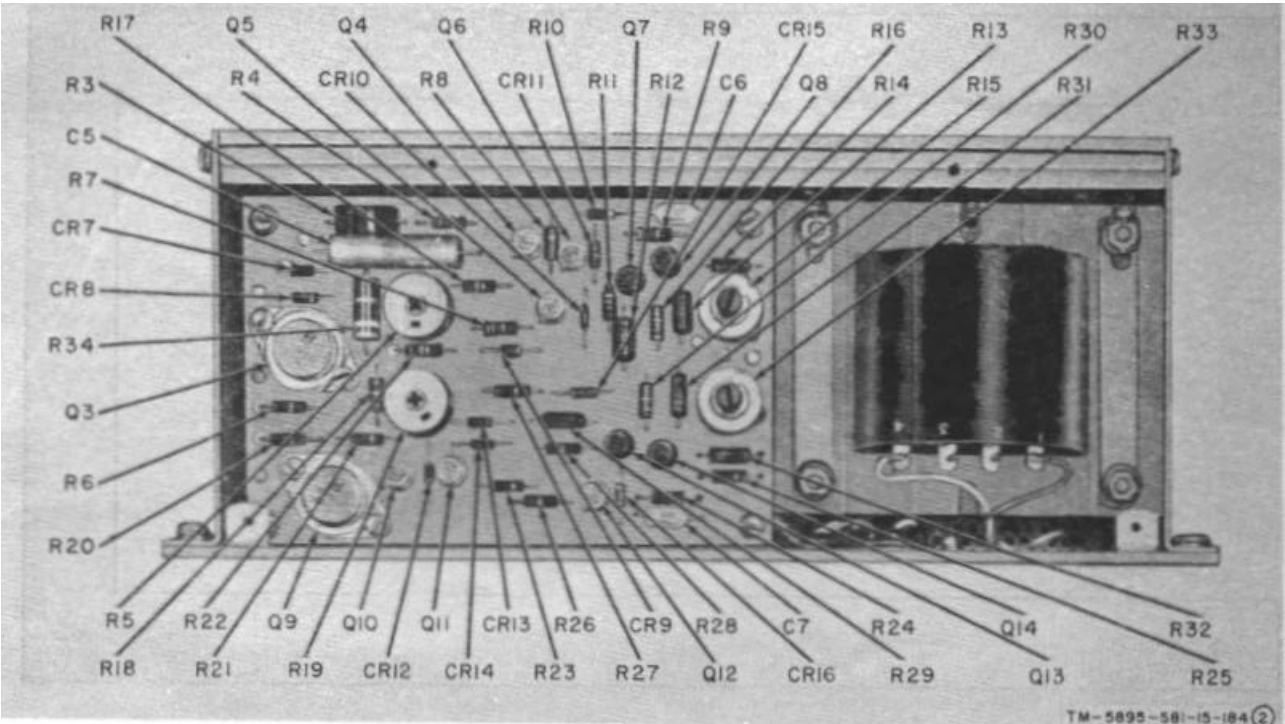
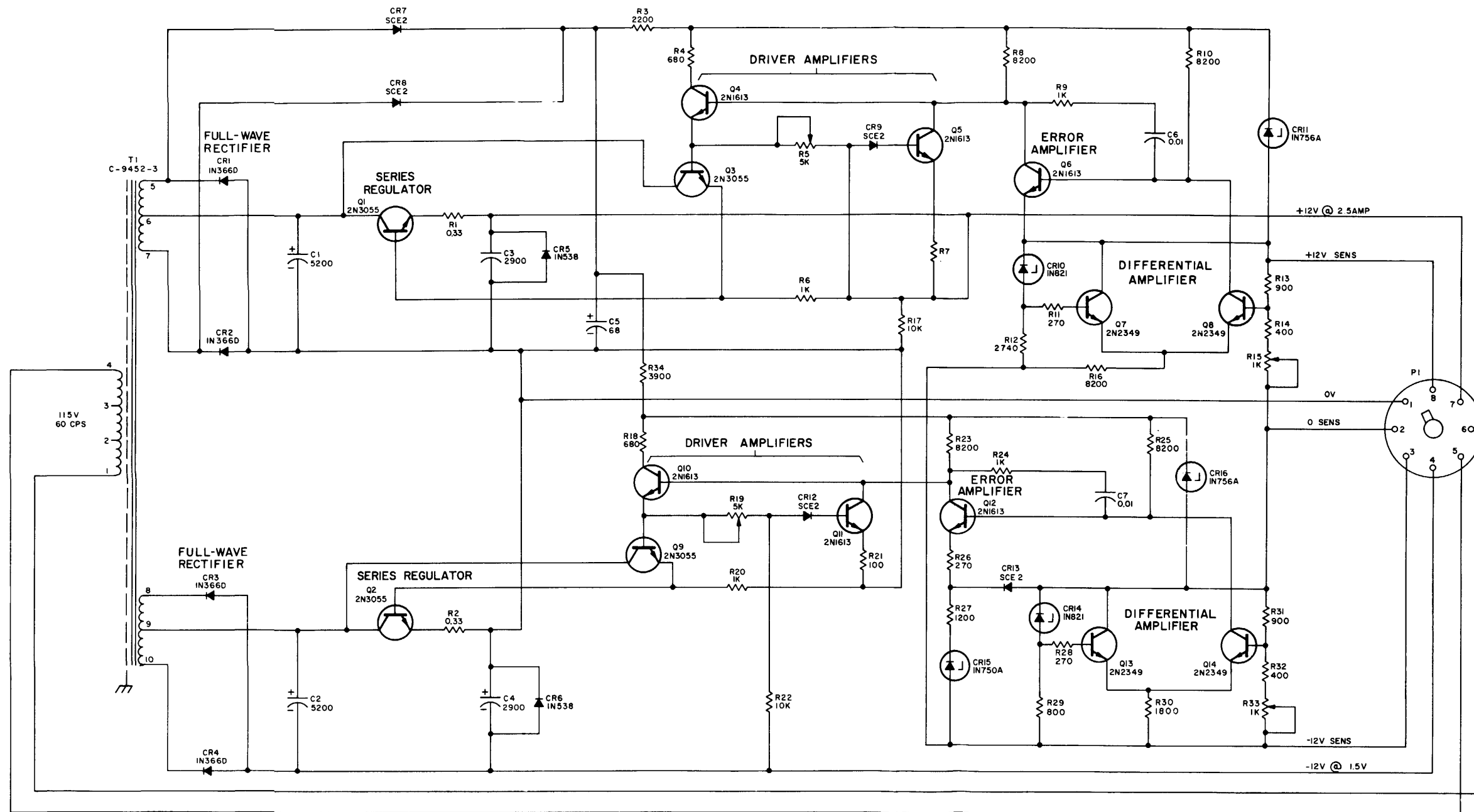


Figure 6-98(2). Memory logic power supply, component locations.



- NOTES:
1. UNLESS OTHERWISE INDICATED; RESISTANCES ARE IN OHMS, CAPACITANCES ARE IN MICROFARADS.
 2. PARTIAL REFERENCE DESIGNATIONS ARE SHOWN. PREFIX THE DESIGNATION WITH ASSEMBLY DESIGNATION A8

Figure 6-99. Memory logic power supply, schematic diagram.

Section IV. REPAIRS AND ADJUSTMENTS

6-51. General Parts Replacement Techniques

Most parts of the simulator can be reached and replaced easily without special procedures. The following precautions apply specifically to the simulator:

- a. Use a pencil-type iron with a 25-watt maximum capacity. If the iron must be used with ac, use an isolation transformer between the iron and the line. Do *not* use a soldering gun; damaging voltages can be induced in components.
- b. When soldering transistor leads, solder quickly. Wherever wiring permits, use a heat sink (such as long-nosed pliers) between the soldered joint, and the transistor. Use approximately the same length and dress of transistor leads as used originally.

6-52. Removal and Replacement of POWER Indicator Lamp A4DS1

To remove and replace POWER indicator lamp A4DS1 proceed as follows:

- a. At the rear of the cabinet, disconnect the two plugs interconnecting the memory power supplies and core memory unit A5.
- b. At the front of the cabinet, remove the four mounting screws securing memory drive power supply A4 to the cabinet frame, and slide the power supply out of the cabinet.
- c. Remove the eight screws securing the power supply cover, and remove the cover.
- d. Remove the six screws securing the component board, and move the component board to one side.
- e. Remove the screws from each end of the front component board mounting bracket, and remove the bracket.
- f. Cut the leads to indicator lamp A4DS1 as close to the lamp as possible.
- g. Remove the retaining clip from indicator lamp A4DS1, and push the lamp through the panel from the inside.
- h. Cut and strip the leads of a replacement indicator lamp approximately 2 inches from the lamp.
- i. Insert the replacement indicator lamp from the front, and secure in position with the retaining clip.
- j. Strip the ends of the leads cut from the defective indicator lamp, and splice to the leads of the replacement indicator lamp. Wrap the splices carefully with electrical tape to prevent short circuits.
- k. The remaining parts are reassembled in the reverse sequence to the order of disassembly.

6-53. Equipment Adjustments, General

The following paragraphs provide the adjustment procedures required to adjust the output voltages of the power supplies and the output frequency of the LO oscillator card. Prior to performing any adjustment procedures listed below, proceed as follows:

- a. Power Supply Shelf A3, Preliminary.
 - (1) Open cabinet doors, located at rear of simulator.
 - (2) Set circuit breakers 1, 2, 3, and 4 to OFF.
 - (3) Remove two Phillips-head screws (located on rear panel of power supply shelf A3) used to secure shelf to cabinet frame.
 - (4) Slide shelf away from cabinet as far as guide rails permit, to gain access to adjustments located on tops of power supplies, A3A1 through A3A5.
 - (5) Set circuit breakers 1, 2, 3, and 4 to ON.
- b. Memory Drive Power Supply A4 Preliminary.
 - (1) Set POWER ON/OFF switch to OFF.
 - (2) Disconnect connector from A4, J2, located at rear of core memory power supply.
 - (3) Set POWER ON/OFF switch to ON.
- c. Oscillator Card LO, Preliminary

- (1) Open cabinet doors, located at rear of simulator, to gain access to circuit card chassis A7.
- (2) Release dzus fastener on lower right-hand corner of circuit card chassis A7, and slide unit away from cabinet as far as guide rails permit.
- (3) Oscillator card is located in circuit card chassis A7, position 16 of the tenth row (counting from top row).

6-54. Power Supply A3A1 Adjustment

- a. Connect ground lead of Fluke meter to pin 4 of A3 TB1.
- b. Connect positive lead of Fluke meter to pin 3 of A3 TB1.
- c. Rotate adjustment screw on top panel of A3A1 power supply for an indication of +5.25 vdc \pm 5MV on Fluke meter.

6-55. Power Supply A3A2 Adjustment

- a. Connect negative lead of Fluke meter to pin 12 of A3 TB1.
- b. Connect positive lead of Fluke meter to pin 14 of A3 TB1.
- c. Rotate adjustment screw of top; panel of A3A2 power supply for an indication of -120 volts dc \pm 0.1 volt on Fluke meter.

6-56. Power Supply A3A3 Adjustment

- a. Connect negative lead of Fluke meter to pin 9 of A3 TB1.
- b. Connect positive lead of Fluke meter to pin 10 of A3 TB1.
- c. Rotate adjustment screw on top panel of A3A3 power supply for an indication of -12 volts dc \pm 12 mv on Fluke meter.

6-57. Power Supply A3A4 and A3A5 Adjustment

- a. Connect negative lead of Fluke meter to pin 12 of A3TB1.
- b. Connect positive lead of Fluke meter to pin 1 of A3TB1.
- c. Rotate adjustment screw of top panel of A3A4 power supply for an indication of -60 volts d \pm 60 mv on Fluke meter.
- d. Power supply A3A5 does not have any external adjustments.
- e. Slide power supply shelf A3 into equipment cabinet and replace two Phillips-head screws removed previously (para 6-52a (3)).

6-58. Memory Drive Power Supply A4 Adjustment

- a. Connect negative lead of Fluke meter to pin 18 of A4JT2-1X.
- b. Connect positive lead of Fluke meter to pin A4J-2-8.
- c. Loosen lock nut on +6V screwdriver adjustment.
- d. Rotate +6V adjustment screw for an indication of + 6 volts dc \pm 300 mv on Fluke meter.
- e. Carefully tighten lock nut on +6V screwdriver adjustment and observe that indication on Fluke meter remains the same.
- f. Remove positive lead of Fluke meter from pin A4J2-8 and connect positive lead to pin A4J2-11.
- g. Loosen lock nuts -20V FINE and COARSE screwdriver adjustments.
- h. Rotate --20V COARSE adjustments screw for an indication of -25 volts dc \pm 1 volt on Fluke meter.
- i. Rotate --20V FINE adjustment screw for an indication of -20 volts dc \pm 1 volt on Fluke meter.
- j. Carefully tighten both lock nuts and observe that indication on Fluke meter remains the same.
- k. Set POWER ON/OFF switch to OFF.
- l. Reconnect A8P2 to AUJ2, located at, rear panel of core memory unit.
- m. Set POWER OFF switch to ON.

6-59. Oscillator Card LO Adjustment

- a. Connect OUT test point on oscillator card to input jack on frequency meter.
- b. Remove plastic cover from top of OSC ADJ screw, and rotate Y7 OSC ADJ screw for a 1.2288-MHZ square wave display on frequency meter.
- c. Remove test lead from oscillator card, and replace plastic cover on top of OSC ADS screw.
- d. Slide circuit card chassis A7 into equipment cabinet and secure chassis to cabinet frame with dzus fastener.

6-60. Depot Maintenance

Complete overhaul of the simulator may be accomplished by depot-level maintenance facilities when authorized. Overhaul will include all repairs, rebuild, and replacement operations necessary to make the equipment suitable for return to DA supply system stocks for reissue to using organizations as equipment equivalent to new material. Depot procedures for repair are the same as given for DS and GS maintenance, plus the complete equipment overhaul which includes complete repainting, rewiring and testing.

CHAPTER 7

DEMOLITION TO PREVENT ENEMY USE

7-1. Authority for Demolition

The demolition procedures given in paragraph 7-2 will be used to prevent the enemy from using or salvaging this equipment. Demolition of the equipment will be accomplished only upon the order of the commander.

7-2. Methods of Destruction

The tactical situation and time available will determine the method to be used when destruction of equipment is ordered. In most cases, it is preferable to demolish completely some portions of the equipment rather than partially destroy all the equipment.

a. *Smash.* Use sledges, axes, hammers, crowbars, and any other heavy tools available to smash the interior units of the simulator.

- (1) Use the heaviest tool on hand to smash the connectors, switches, indicators, and line block display.

NOTE

Heavy tools will effectively destroy the external parts mentioned in (1) above, but the remainder of the exposed surfaces are nonoperational. Attempts to destroy the simulator from the outside are useless.

(2) Open the rear doors, and slide out the logic chassis. With a heavy hammer or bar, smash as many of the connectors and circuit cards as possible. Smash the control panel card file and the line block display panel card file. Smash the core memory and the power supplies.

b. *Cut.* Use axes, handaxes, machetes, and similar tools to cut cabling, cording, and wiring. Use a heavy axe or machete to cut tile power cables. Cut all cords and cables in a number of places.

APPENDIX I

REFERENCES

DA Pam 310-4	Index of Technical Manuals, Technical Bulletins, Supply Manuals (Types 7, 8, and 9), Supply Bulletins, and Lubrication Orders
DA Pam 310-7	U.S. Army Equipment Index of Modification Work Orders
TM 38-750	Army Equipment Record Procedures
TM11-5895-427-15	Operator, Organizational, Direct Support, General Support, and Depot Maintenance Manual, Signal Level Converters (Philco-Ford Part Nos. 100000178 and 100000559) for Teletypewriter TT-47D/UG, Teletypewriter Set Model 35ASR (Teletypewriter Set AN/FGC-11-) and Teletypewriter Sets AN/FGC-58 and AN/FGC-79
TO 31W4-116-1-1	Operation and Maintenance Instructions, Automatic Send-Receive Teletypewriter Set, Model 35, Bulletin 280B, Description, Lubrication, Disassembly and Reassembly, (Teletypewriter Corporation) (Commercial Manual) (Volume 1 and 2)-Guidance Program 437
TO 31W4116-1-4	IPB-Automatic Send-Receive Set Document No. PX 3868-0-1, Model 35, Bulletin 1187B (Teletype Corporation) (Commercial Manual) AN-GSQ-T14, LGM-30
VOLUME: 2-82 2-185 through 2-198 2-230 through 2-241	Special Repair Parts List prepared by Philco for the ADMS Equipment.

APPENDIX II
BASIC ISSUE ITEMS

Section I. INTRODUCTION

A2-1. General

This appendix lists items comprising an operable equipment and those required for installation operation, or operator's maintenance for Simulator, Coordination AN/FYM-26.

A2-2. Explanation of Columns

An explanation of the column's in Section II is given below.

a. Source Maintenance, and Recoverability Codes Column.

(1) Source code (a). The selection and source for the listed item is noted here. The source code used is-

Code Explanation
P-Applies to repair parts that are stocked in or supplied from (GSA/DSA, or Army supply system, and authorized for use at indicated maintenance categories.

(2) Maintenance Code (B). The lowest category of maintenance authorized to install the listed item is noted here. The maintenance code used is as follows:

Code Explanation
H-General support maintenance.

(3) Recoverability code (C). Tile information in this column indicates whether unserviceable items should be returned for recovery of salvage. Recoverability code and its explanation is as follows:

NOTE

When no code is indicated in tile recoverability column, the part will be considered expendable.

Code Explanation
P-Applies to repair parts and assemblies that are economically repairable at DSU and GSU activities and normally are furnished by supply on an exchange basis.

b. Federal stock Number Column. The Federal stock number for the item is indicated in this column.

c. Description Column. The Federal item name, a five-digit manufacturer's code, and part number are included in this column.

d. Unit of Issue Column. Tile unit used as a basis of issue (e.g, ea, pr, ft, yd, etc.) is noted in this column.

e. Quantity Incorporated in Unit Pack Column. Not used.

f. Quantity Incorporated in Unit column. The total quantity of the item used in the equipment is given in this column.

g. Quantity Authorized (Column. This column lists the quantity of the item supplied for initial operation of tile equipment and/or the quantities authorized to be kept on hand by the operator for maintenance of the equipment.

h. Illustrations Column.

(1) Figure number (A). The number of the illustration of which the item is shown is indicated in this column.

(2) Item or symbol number column (B). Not used.

(1)			BASIC ISSUE ITEMS LIST						(4)	(5)	(6)	(7)	(8)		
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION						UNIT OF ISSUE	QTY INC IN UNIT PACK	QTY INC IN UNIT	QTY. AUTH	ILLUSTRATIONS	
				MODEL										(A) FIGURE NUMBER	(B) ITEM OR SYMBOL NUMBER.
				1	2	3	4	5	6						
	H	R	7440-027-7246										1-1		
	H	R	7440-027-7285										1-1		
	H	R	5815-891-4562												
P	H		5920-557-2647												
P	H		6240												
P	H		6240												
P	H		6240-990-2164										5-35		
P	H		6240-910-7144										5-35		

(1)			BASIC ISSUE ITEMS LIST						(4)	(5)	(6)	(7)	(8)		
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION						UNIT OF ISSUE	QTY INC IN UNIT PACK	QTY INC IN UNIT	QTY. AUTH	ILLUSTRATIONS	
				MODEL										(A) FIGURE NUMBER	(B) ITEM OR SYMBOL NUMBER.
				1	2	3	4	5	6						
P	H		6240-787-8329										5-35		

APPENDIX III

MAINTENANCE ALLOCATION

Section I. INTRODUCTION

A3-1. General

This appendix provides a summary of the maintenance operations covered in the equipment literature for Teletypewriter Operations Central AN/MGC-32. It authorizes categories of maintenance for specific maintenance functions on repairable items and components and the tools and equipment required to perform each function. This appendix may be used an aid in planning maintenance operations.

A3-2. Explanation of Format for Maintenance Allocation Chart

a. Group Number. Group numbers correspond to the reference designation prefix assigned in accordance with ASA Y32.16, Electrical and Electronics Reference Designations. They indicate the relation of listed items to the next higher assembly.

b. Component Assembly Nomenclature. This column lists the item names of component units, assemblies, subassemblies, and modules on which maintenance is authorized.

c. Maintenance Function. This column indicates the maintenance category at which performance of the specific maintenance function is authorized. Authorization to perform a function in any category also includes authorization to perform that function at higher categories. The codes used represent the various maintenance categories as follows:

- C Operator/crew
- O Organizational maintenance
- F Direct support maintenance
- H General support maintenance
- D Depot maintenance

d. Tools and Equipment. The numbers appearing in this column refer to specific tools and equipment which are identified by these numbers in section III.

e. Remarks. Self-explanatory.

A3-3. Explanation of Format for Tool and Test Equipment Requirements

The columns in the tool and test equipment requirements chart are as follows:

a. Tools and Equipment. The numbers in this column coincide with the numbers used in the tools and equipment column of the MAC. The numbers indicate the applicable tool for the maintenance function.

b. Maintenance Category. The codes in this column indicate the maintenance category normally allocated the facility.

c. Nomenclature. This column lists tools, test and maintenance equipment required to perform the maintenance functions.

d. Federal Stock Number. This column lists the Federal stock number.

e. Tool Number. Not used.

GROUP NUMBER	COMPONENT ASSEMBLY NOMENCLATURE	MAINTENANCE FUNCTIONS											TOOLS AND EQUIPMENT	REMARKS
		INSPECT	TEST	SERVICE	ADJUST	ALIGN	CALIBRATE	INSTALL	REPLACE	REPAIR	OVERHAUL	REBUILD		
1.0	COORDINATION SIMULATOR AN/F 26 NOTE: OPERATING ORGANIZATIONS PERFORM ON-SITE EQUIVALENT TO H LEVEL MAINTENANCE.	C H	C H	H	H				H	H			None 21 None 1 thru 16, 20,21 See Remarks 1 thru 16 20,21 1 thru 16 20,21 1 thru 21 1 thru 21 1 thru 21	External Internal Operational Performance All tests Model 35 ASR (Teletypewriter Set AN/FPC133) - refer to separate publications. Power supplies; oscillator card frequency Defective printed circuit cards Replace defective piece parts; repair printed circuit cards except Core Memory Unit A5 printed circuit cards Core Memory Unit A5 cards Restore to serviceable condition

SECTION III. TOOL AND TEST EQUIPMENT REQUIREMENTS

TOOLS AND EQUIPMENT	MAINTENANCE CATEGORY	NOMENCLATURE	FEDERAL STOCK NUMBER	TOOL NUMBER
		AN/FYM-26 (continued)		
1	H,D	COUNTER, ELECTRONIC (HEWLETT-PACKARD MODEL 5223L)	6625-776-0428	
2	H,D	OSCILLOSCOPE (TEKTRONIX MODEL 585A)		
3	H,D	PLUG-IN UNIT (TEKTRONIX MODEL 82)		
4	H,D	PASSIVE PROBE (TEKTRONIX MODEL 010-1046-00)		
5	H,D	CART, OSCILLOSCOPE (MTL. DYNAMICS MODEL 61058-DM-11)		
6	H,D	MULTIMETER AN/USM-210 (SIMPSON MODEL 260)	6625-019 0815	
7	H,D	MULTIMETER (VTVM) MF-26A/U (HEWLETT-PACKARD MODEL 410B)	6625-542-6407	
8	H,D	VOLTMETER, ELECTRONIC MF-30A/U (HEWLETT-PACKARD MODEL 400D)	6625-669-0742	
9	H,D	DIFFERENTIAL VOLTMETER M1202A/U (JOHN FLUKE MODEL 803B)	6625-709-0288	
10	H,D	TEST SET, TRANSISTOR TS-1836A/U (SIERRA MODEL 219C)	6625-926-6996	
11	H,D	DC POWER SUPPLY (POWER DESIGNS MODEL 5005R) - 2ea. REQUIRED		
12	H,D	DC POWER SUPPLY (HEWLETT-PACKARD MODEL 6207B) - 2ea. REQUIRED		
13	H,D	PULSE GENERATOR (HEWLETT-PACKARD MODEL 214A)	6625-682-7542	
14	H,D	EXTENDER, CARD (FERROXCUBE PART NO. 56-001-31)		
15	H,D	EXTENDER, CARD (WESTERN UNION PART NO. 10627-A, SPECS. 13591)		
16	H,D	FABRICATED TEST JIG		
17	H,D	CRIMPING TOOL (BUCHANAN PART NO. MS3191-1)	5120-064-5631	
18	H,D	INSERTION TOOL (BUCHANAN PART NO. MS24256A20)	5120-079-4598	
19	H,D	EXTRACTION TOOL (BUCHANAN PART NO. MS24256R20)	5120-079-4601	
20	H,D	ALIGNMENT TOOL (WALSCO PART NO. 2575)		
21	H,D	TOOLS (AS REQUIRED FROM ADMSC AN/PYQ-42(V) COMPLEMENT - REFER TO APPENDIX B TM 11-5895-391-15/NAVSHIPS 0967-301-5010/TO 31S5-2FYQ42-1)		

APPENDIX IV

WIRING DATA

A4-1. Wiring data, presented in this appendix, is grouped by physical arrangements. The groupings are logic chassis A, logic chassis B, line block display and control panel.

A4-2. The following typed of data are supplied:

- a. Power wiring data
- b. Signal wiring data

<i>Equipment</i>	<i>Power wiring</i>	<i>Signal wiring</i>
Logic Chassis A	A4-1	A4-2
Logic Chassis B	A4-6	A4-7
Line Block		
Display Panel.....		A4-11
Control Panel	A4-14	
	A4-15	A4-17
	A4-16	A4-18
		A4-19

*Figure reference

A4-4. The power wiring data provides information on the terminals supplied with power or ground. The row and slot numbers define the location of the card. A bus bar designation with an "A" suffix denotes ground loops, with a "B" suffix, power loops. The connections list all pins with the power (or ground) potential.

A4-5. The signal wiring data provides information on signal connections between cards. Loop numbers are those numbers referenced in the circuit card to signal wiring data, cross reference table. For example, loop 246 is indicated for card 5-1, pin 3. Reference to loop 246 in the signal wiring data indicates that 5-1-3 is also electrically connected to 5-3-11 and 5-3-R. The following table correlates the functional circuit with the signal wiring data.

- c. Circuit card to signal wiring data, cross reference.
- d. Connector wiring data
- e. Miscellaneous wiring data

A4-3. The following table lists the c cross-reference between equipment and the applicable data.

Table reference

<i>Circuit card to signal wiring data cross-reference</i>	<i>Connector wiring</i>	<i>Miscellaneous wiring</i>
A4-3	A4 4	A4-3
A4-8	A4-9 9	A4-10
A4-12	A-3	*A4-1
A4-20	A4-21	A4-22
		*A4-2
		*A4-3
		*A4 4

<i>Circuit</i>	<i>Loop No.</i>	<i>Logic Chassis A</i>	<i>Logic Chassis B</i>
ASR Interface	1600-1799	.....	.....
Block Generator.....	500-1599.	.....	.....
Block Reader			125-1499
Character Reader	1-499	.....	.....
Master Timing Generator ..	1600 1799		1-61
Memory Control			500-2699

A4-6. Tables are provided to show layout of con-terminals and list the points (card location and pin) to which each terminal is connected.

A4-7. Data is also included to provide point-to-point wiring information for components not mounted on cards.

TABLE A4-1. LOGIC CHABSI A, POWER WIRING DATA

Row	Bus Bar	Slot No.	Terminals
ROW 1	W1A	1	
		2	
		3	
		4	
		5	
		6	
		7	
		8	
		9	
	1-A	10	
	1-A	11	
		12	
	1-A-C-D	13	
	1-A-D	14	
	1-A	15	
	1-A-B-2-6-F-N-12-15-S	16	
		17	
		18	
	1-A-B-F-N-8-15	19	
		20	
	1-A-B-2-12-N-S	21	
	1-A	22	
		23	
		24	
		25	
		26	
		27	
	14-12-10-5-L-N-P-R	28	
	14-12-10-5-E-K-L-N	29	
	14-13-12-10-5-1-A-L-N-P-R	30	
	14-13-12-1-A-L-N-P-R	31	
	1-A-S	32	
	1-A-M	33	
	11-M	34	
ROW 2	W2A	1	
		2	
		3	
	1-A-10-11	4	
	1-A-15	5	
	1-A	6	
	1-A-B-2-11-R	7	
	1-A	8	
	1-A-14-S-6	9	
	1-A-E-5-12-N	10	
	1-A-C-3-14-R	11	
	1-A	12	
	A-1-4	13	
	1-A-D-4	14	
	1-A-D	15	
	1-A-D	16	
		17	
		18	
	1-A	19	
	A-1-2-3	20	
	1-A-B-2-15	21	
	1-A-B-2-15-S	22	
	1-A	23	
	1-A	24	
		25	
		26	
		27	
		28	
		29	

TABLE A4-1. LOGIC CHASSIS A, POWER WIRING DATA (cont)

Row	Bus Bar	Slot No.	Terminals
ROW 4	W3A	26	
(CONT)		27	1-A-B-C-E
		28	1-A-11
		29	1-A-C-3
		30	A-1-2
		31	1-A-14
		32	1-A-F-B
		33	1-A-B
		34	1-A-M-R
ROW 5	W3A	1	A-1-5-E-N-12
		2	A-1-5-E-N-12
		3	1-A-B-2-15-S
		4	A-1-2-15-S
		5	A-1-5-E
		6	1-A-F
		7	1-A-N-11
		8	1-A-F-6-11-M-R
		9	
		10	1-A-B-2-5-E-M-11-R
		11	11-M-P
		12	A-1-6-12
		13	A-1-12
		14	1-A
		15	1-A
		16	1-A
		17	
		18	
		19	1-A
		20	1-A
		21	1-A-S
		22	1-A
		23	1-A-B-2-3-C-5-12-14-15
		24	1-A-B-2-5-E-N-12-15
		25	1-A-2-5-12-N-S-E
		26	
		27	1-A-F-M-14
		28	1-A-12-15
		29	1-A-6
		30	A-1-5-11
		31	1-A-C-2-12-N
		32	1-A-B-2-3-C-E-M-11-12-N-R
		33	A-1-6-11
		34	A-1-15
ROW 6	W4A	1	1-A
		2	1-A
		3	1-A
		4	1-A-F-6-14-R-M
		5	1-A
		6	N-12
		7	A-1-N
		8	1-A
		9	
		10	1-A-B-2-5-12-14
		11	1-A
		12	1-A-E-5-12-N
		13	1-A-3-5-E-N
		14	1-A
		15	1-A
		16	1-A
		17	
		18	
		19	1-A-E-12-N-R-3
		20	1-A-B-6
		21	1-A-C-D-13-14-15
		22	1-A
		23	1-A
		24	A-1-14

TABLE A4-1. LOGIC CHASSIS A, POWER WIRING DATA (cont)

Row	Bus Bar	Slot No.	Terminals	Row	Bus Bar	Slot No.	Terminals	Row	Bus Bar	Slot No.	Terminals
ROW 8 (CONT)	W6A	23	A-1-2-3-6-N-R-S	ROW 11 (CONT)	W6A	7	A-1-11-14-R	ROW 2 (CONT)	W2B	21	9-K
		24	1-A-E-6-12-N			8	1-A-B-2-5-E			22	9-K
		25	1-A-B-F			9				23	9-K
		26				10	1-A-B-11-M-S			24	9-K
		27	1-A			11	1-A			25	
		28	1-A			12	1-A-B-2-5-E-M-11-14-R			26	
		29	1-A			13	A-1-2-B-E-5-11-M-R-14			27	
		30	1-A			14	1-A			28	
		31	A-1-N-5			15	1-A-F-M-12-15			29	
		32	1-A			16	1-A-B-2-F-M-R			30	
		33	1-A			17				31	
		34	1-A			18				32	
ROW 9	W5A	1	1-A-F-6			19	12-N			33	
		2	1-A			20	1-A	ROW 3	W2B	1	9-K
		3	1-A			21	A-1-11-14-R-14			2	9-K
		4	1-A			22	A-1-3-C-E-14			3	9-K-C
		5	1-A			23	1-A-C-3-6-F-N-12-15-S			4	9-K
		6	1-A			24	1-A-C-3-6-F-N-11-16-S			5	4-D
		7	11-M-P-13			25	A-1-2-C-F-6-11-M-R-14			6	9-K
		8	N-12-14-R-10-L-K-E-9-5-13			26				7	9-K
		9				27	A-1-2-3-C-E-5-11-12-N-R-14-S			8	9-K
		10	1-A-B-2-14-R			28	A-1-2-B-E			9	4-D-P-13
		11	A-1-11			29	A-1-2-14-R-M-11			10	9-K
		12	1-A			30	1-A-R-14			11	9-K
		13	1-A			31	1-A			12	9-K
		14	1-A			32	1-A			13	9-K-14
		15	1-A			33	1-A			14	9-K
		16	1-A			34	1-A-M-11-14-R			15	9-K
		17		ROW 1	W1B	1				16	9-K
		18				2				17	9-K
		19	1-A			3				18	9-K
		20	1-A			4				19	9-K-9-K
		21	1-A-E-6-12-N			5				20	4-D
		22	1-A-B-6-S			6				21	9-K
		23	1-A-E-6-12-N			7				22	9-K
		24	1-A-E-6-12-N			8				23	9-K
		25	A-1-6-11-M			9				24	9-K
		26				10	9-K			25	9-K
		27	A-1-2-3-6-F-N-12-14-R-5-15			11	9-K			26	9-K
		28	1-A-B-2			12				27	9-K
		29	1-A			13	9-K			28	9-K
		30	1-A-B-2-11-M			14	9-K			29	9-K
		31	1-A-C-3-E-M-11			15	9-K			30	9-K
		32	1-A-B-2-3-C-5-12-N-R-14-15-S			16	9-K			31	9-K
		33	1-A-N-12-C-3			17				32	9-K
		34	1-A-E-5-12-N			18				33	9-K
ROW 10	W6A	1	1-A			19	9-K			34	9-K
		2	1-A			20		ROW 4	W3B	1	9-K
		3	1-A			21	K-9-3			2	D-E-9
		4	1-A-R-14			22	9-K			3	D-E-9
		5	A-1-2-5-11			23				4	9-K
		6	1-A			24				5	9-K
		7	1-A-B			25				6	4-D-P
		8	A-1			26				7	9-K
		9				27				8	9-K
		10	1-A-B-2-14			28	4-D			9	9-K
		11	1-A-N-5-15			29	4-D			10	9-K
		12	1-A			30	4-D			11	9-K
		13	1-A-C-5			31	4-D			12	9-K
		14	1-A-B-2-3-C-E-5-12-N-R-14-15-S			32	9-K			13	9-K
		15	1-A-B-2-15-S			33	9-K			14	9-K
		16	1-A-B-2-15-S			34	5-13-14-R-P-E			15	9-K
		17		ROW 2	W2B	1				16	9-K
		18				2				17	
		19	1-A-B-F-N-5-15			3				18	
		20	1-A			4	9-K			19	9-K
		21	1-A			5	9-K			20	4-D
		22	1-A			6	9-K			21	9-K
		23	A-1-5-11			7	9-K			22	9-K
		24	1-A-F-11			8	9-K			23	9-K
		25	1-A-F-6-11-M			9	9-K			24	9-K
		26				10	9-K			25	9-K
		27	1-A-B-2-3-C-E-N-12-14-R-5-15			11	9-K			26	
		28	1-A-5-11-M-R-14			12	9-K			27	9-K
		29	1-A-B-2-5-E			13	9-K			28	9-K
		30	1-A-M-11-14-R			14	9-K			29	9-K-R-14
		31	1-A			15	9-K			30	9-K
		32	1-A			16	9-K			31	9-K
		33	1-A-E-5-12-N			17				32	9-K
		34	1-A			18				33	9-K
ROW 11	W6A	1	1-A-B-2-5-E-M-11-14-R			19	9-K			34	9-K
		2	1-A-M-11-14-R			20	9-K				
		3	1-A-E-M-11-14-R								
		4	1-2-B-F-M-R-14								
		5	1-A-B-2-3-C-F-5-11-M-N-12-14-R								
		6	A-1-2-5								

TABLE A4-1. LOGIC CHASSIS A, POWER WIRING DATA (cont)

Row	Bus Bar	Slot No.	Terminals	Row	Bus Bar	Slot No.	Terminals	Row	Bus Bar	Slot No.	Terminals
ROW 5	W3B	1	9-K	ROW 7 (CONT)	W4B	13	9-K	ROW 9 (CONT)	W5B	24	9-K
		2	9-K			14	9-K			25	9-K
		3	9-K			15	9-K			26	
		4	9-K			16	9-K			27	9-K
		5	9-K			17				28	9-K
		6	9-K			18				29	9-K
		7	9-K			19	9-K			30	9-K
		8	9-K			20	9-K			31	9-K
		9				21	9-K			32	9-K
		10	9-K			22	9-K			33	9-K
		11	E-5-13-14			23	9-K			34	9-K
		12	9-K			24	9-K	ROW 10	W6B	1	9-K
		13	9-K			25	9-K			2	9-K
		14	9-K			26				3	9-K
		15	9-K			27	9-K			4	9-K
		16	9-K			28	9-K			5	9-K
		17				29	9-K			6	9-K
		18				30	9-K			7	9-K
		19	9-K			31	9-K			8	9-K
		20	9-K			32	9-K			9	
		21	9-K			33	9-K			10	9-K
		22	9-K			34	9-K			11	9-K
		23	9-K					ROW 8	W5B	1	9-K
		24	9-K							2	9-K
		25	9-K							3	9-K
		26								4	9-K
		27	9-K							5	9-K
		28	9-K							6	9-K
		29	9-K							7	9-K
		30	9-K							8	9-K
		31	9-K							9	
		32	9-K							10	9-K
		33	9-K							11	9-K
		34	9-K							12	9-K
ROW 6	W4B	1	9-K			13	9-K			13	9-K
		2	9-K			14	9-K			14	9-K
		3	9-K			15	9-K			15	9-K
		4	9-K			16	9-K			16	9-K
		5	9-K			17				17	
		6	4-D			18				18	
		7	9-K			19	9-K			19	9-K
		8	9-K			20	9-K			20	9-K
		9	9-K			21	9-K			21	9-K
		10	9-K			22	9-K			22	9-K
		11	9-K			23	9-K			23	9-K
		12	9-K			24	9-K			24	9-K
		13	9-K			25	9-K			25	9-K
		14	9-K			26				26	
		15	9-K			27	9-K			27	9-K
		16	9-K			28	9-K			28	9-K
		17									

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA

Loop No.	Termination	Loop No.	Termination
1	4-1-4	103	5-8-P
2	4-1-10	104	5-8-T
3	4-1-D	105	5-7-M
4	4-1-H	106	7-7-P
5	4-1-7	107	7-7-M
6	5-4-F	108	7-5-L
7	4-1-L	109	7-6-13
8	3-3-F	110	7-6-P
9	3-3-D	111	7-6-10
10	4-1-13	112	7-7-3
11	4-1-N	113	7-7-10
12	4-1-3	114	7-7-C
13	5-4-12	115	7-7-L
14	5-4-10	116	11-7-7
15	5-4-D	117	11-7-4
16	4-1-13	118	5-2-E
17	5-2-B	119	3-7-15
18	4-2-10	120	3-7-10
19	4-2-11	121	3-6-H
20	4-2-12	122	3-6-13
21	4-2-13	123	4-7-D
22	4-2-14	124	3-6-10
23	4-2-15	125	4-7-H
24	4-2-3	126	3-6-M
25	4-2-4	127	3-6-8
26	7-2-M	128	3-6-3
27	6-1-C	129	3-6-C
28	6-1-N	130	3-6-10
29	6-1-L	131	3-6-L
30	6-2-3	132	3-4-13
31	6-2-10	133	3-4-8
32	6-2-M	134	3-4-F
33	6-4-D	135	3-4-E
34	7-5-D	136	3-4-3
35	7-5-4	137	3-5-6
36	6-4-N	138	3-5-1
37	7-8-M	139	3-5-11
38	7-5-7	140	3-5-10
39	9-1-14	141	3-5-3
40	9-1-13	142	3-5-2
41	9-2-3	143	3-5-13
42	8-1-10	144	3-5-14
43	9-2-P	145	3-5-K
44	9-2-C	146	3-5-P
45	9-2-3	147	3-5-T
46	10-4-13	148	3-5-7
47	10-4-M	149	3-5-8
48	10-5-N	150	3-5-9
49	10-5-14	151	3-5-10
50	10-4-H	152	3-5-11
51	10-4-3	153	3-5-12
52	10-4-2	154	3-5-13
53	10-4-4	155	3-5-14
54	10-4-5	156	3-5-15
55	10-4-10	157	3-5-16
56	10-3-R	158	3-5-17
57	10-4-D	159	3-5-18
58	9-2-7	160	3-5-19
59	9-2-4	161	3-5-20
60	9-2-6	162	3-5-21
61	9-2-D	163	3-5-22
62	9-2-P	164	3-5-23
63	9-2-M	165	3-5-24
64	9-2-10	166	3-5-25
65	9-2-11	167	3-5-26
66	9-2-12	168	3-5-27
67	9-2-13	169	3-5-28
68	9-2-14	170	3-5-29
69	9-2-15	171	3-5-30
70	9-2-16	172	3-5-31
71	9-2-17	173	3-5-32
72	9-2-18	174	3-5-33
73	9-2-19	175	3-5-34
74	9-2-20	176	3-5-35
75	9-2-21	177	3-5-36
76	9-2-22	178	3-5-37
77	9-2-23	179	3-5-38
78	9-2-24	180	3-5-39
79	9-2-25	181	3-5-40
80	9-2-26	182	3-5-41
81	9-2-27	183	3-5-42
82	9-2-28	184	3-5-43
83	9-2-29	185	3-5-44
84	9-2-30	186	3-5-45
85	9-2-31	187	3-5-46
86	9-2-32	188	3-5-47
87	9-2-33	189	3-5-48
88	9-2-34	190	3-5-49
89	9-2-35	191	3-5-50
90	9-2-36	192	3-5-51
91	9-2-37	193	3-5-52
92	9-2-38	194	3-5-53
93	9-2-39	195	3-5-54
94	9-2-40	196	3-5-55
95	9-2-41	197	3-5-56
96	9-2-42	198	3-5-57
97	9-2-43	199	3-5-58
98	9-2-44	200	3-5-59
99	9-2-45	201	3-5-60
100	9-2-46	202	3-5-61
101	9-2-47	203	3-5-62
102	9-2-48	204	3-5-63

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination	Loop No.	Termination
205	9-8-3	290	10-7-14
206	9-8-4	291	10-7-15
207	10-7-M	292	10-7-16
208	10-7-11	293	10-7-17
209	10-7-12	294	10-7-18
210	10-7-6	295	10-7-19
211	10-7-7	296	10-7-20
212	10-7-8	297	10-7-21
213	10-7-9	298	10-7-22
214	10-7-10	299	10-7-23
215	10-7-11	300	10-7-24
216	10-7-12	301	10-7-25
217	10-7-13	302	10-7-26
218	10-7-14	303	10-7-27
219	10-7-15	304	10-7-28
220	10-7-16	305	10-7-29
221	10-7-17	306	10-7-30
222	10-7-18	307	10-7-31
223	10-7-19	308	10-7-32
224	10-7-20	309	10-7-33
225	10-7-21	310	10-7-34
226	10-7-22	311	10-7-35
227	10-7-23	312	10-7-36
228	10-7-24	313	10-7-37
229	10-7-25	314	10-7-38
230	10-7-26	315	10-7-39
231	10-7-27	316	10-7-40
232	10-7-28	317	10-7-41
233	10-7-29	318	10-7-42
234	10-7-30	319	10-7-43
235	10-7-31	320	10-7-44
236	10-7-32	321	10-7-45
237	10-7-33	322	10-7-46
238	10-7-34	323	10-7-47
239	10-7-35	324	10-7-48
240	10-7-36	325	10-7-49
241	10-7-37	326	10-7-50
242	10-7-38	327	10-7-51
243	10-7-39	328	10-7-52
244	10-7-40	329	10-7-53
245	10-7-41	330	10-7-54
246	10-7-42	331	10-7-55
247	10-7-43	332	10-7-56
248	10-7-44	333	10-7-57
249	10-7-45	334	10-7-58
250	10-7-46	335	10-7-59
251	10-7-47	336	10-7-60
252	10-7-48	337	10-7-61
253	10-7-49	338	10-7-62
254	10-7-50	339	10-7-63
255	10-7-51	340	10-7-64
256	10-7-52	341	10-7-65
257	10-7-53	342	10-7-66
258	10-7-54	343	10-7-67
259	10-7-55	344	10-7-68
260	10-7-56	345	10-7-69
261	10-7-57	346	10-7-70
262	10-7-58	347	10-7-71
263	10-7-59	348	10-7-72
264	10-7-60	349	10-7-73
265	10-7-61	350	10-7-74
266	10-7-62	351	10-7-75
267	10-7-63	352	10-7-76
268	10-7-64	353	10-7-77
269	10-7-65	354	10-7-78
270	10-7-66	355	10-7-79
271	10-7-67	356	10-7-80
272	10-7-68	357	10-7-81
273	10-7-69	358	10-7-82
274	10-7-70	359	10-7-83
275	10-7-71	360	10-7-84
276	10-7-72	361	10-7-85
277	10-7-73	362	10-7-86
278	10-7-74	363	10-7-87
279	10-7-75	364	10-7-88
280	10-7-76	365	10-7-89
281	10-7-77	366	10-7-90
282	10-7-78	367	10-7-91
283	10-7-79	368	10-7-92
284	10-7-80	369	10-7-93
285	10-7-81	370	10-7-94
286	10-7-82	371	10-7-95
287	10-7-83	372	10-7-96
288	10-7-84	373	10-7-97
289	10-7-85	374	10-7-98
290	10-7-86	375	10-7-99
291	10-7-87	376	10-7-100
292	10-7-88	377	10-7-101
293	10-7-89	378	10-7-102
294	10-7-90	379	10-7-103
295	10-7-91	380	10-7-104
296	10-7-92	381	10-7-105
297	10-7-93	382	10-7-106
298	10-7-94	383	10-7-107
299	10-7-95	384	10-7-108
300	10-7-96	385	10-7-109
301	10-7-97	386	10-7-110
302	10-7-98	387	10-7-111
303	10-7-99	388	10-7-112

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination	Loop No.	Termination
400	5-1-P	535	10-19-4
400	5-1-D	536	3-22-D
400	5-1-B	537	3-22-E
400	5-1-M	538	1-22-15
401	3-6-12	539	3-22-P
402	4-6-2	540	4-22-15
403	3-6-P	541	3-22-M
404	8-4-13	542	3-22-S
405	8-4-15	543	3-22-B
406	8-4-2	544	3-22-A
407	3-6-7	545	3-22-C
408	3-7-4	546	3-22-R
409	3-7-3	547	3-22-L
410	3-7-2	548	3-22-N
411	3-6-F	549	3-22-T
411	3-6-M	550	3-22-D
411	4-6-E	551	3-22-L
411	7-6-14	552	3-22-E
413	3-7-N	553	3-22-A
413	6-2-M	554	3-22-N
413	3-6-B	555	3-22-C
414	3-6-5	556	3-22-S
415	3-7-11	557	3-22-R
415	5-6-14	558	3-22-L
416	11-8-T	559	3-22-N
416	3-6-E	560	3-22-M
417	8-7-C	561	3-22-D
417	3-6-D	562	3-22-L
417	8-8-11	563	3-22-E
418	11-8-F	564	3-22-A
418	7-6-3	565	3-22-N
419	4-1-11	566	3-22-C
419	7-1-14	567	3-22-S
419	7-2-14	568	3-22-B
419	7-2-11	569	3-22-A
419	7-2-11	570	3-22-C
420	11-8-L	571	3-22-L
420	4-1-B	572	3-22-E
420	10-5-E	573	3-22-A
421	7-5-2	574	3-22-N
422	1-11-P	575	3-22-C
422	11-2-D	576	3-22-S
423	8-2-15	577	3-22-R
424	8-8-B	578	3-22-L
425	10-8-6	579	3-22-N
426	1-1-F	580	3-22-C
427	3-4-7	581	3-22-S
428	2-6-3	582	3-22-R
429	2-4-L	583	3-22-L
430	10-7-3	584	3-22-N
431	2-5-3	585	3-22-C
431	2-5-F	586	3-22-S
432	1-11-M	587	3-22-R
433	3-5-P	588	3-22-L
434	2-5-10	589	3-22-N
435	8-5-1	590	3-22-C
436	3-5-E	591	3-22-S
437	3-5-4	592	3-22-R
438	2-5-D	593	3-22-L
439	4-7-4	594	3-22-N
440	2-5-7	595	3-22-C
441	4-7-7	596	3-22-S
442	4-7-P	597	3-22-R
443	3-6-4	598	3-22-L
444	7-5-C	599	3-22-N
445	10-1-H	600	3-22-C
446	5-13-L	601	3-22-S
500	4-31-11	602	3-22-R
501	4-31-10	603	3-22-L
502	4-32-E	604	3-22-N
503	3-30-14	605	3-22-C
504	4-29-M	606	3-22-S
505	7-23-L	607	3-22-R
506	4-32-B	608	3-22-L
507	5-20-12	609	3-22-N
508	4-33-12	610	3-22-C
509	4-33-10	611	3-22-S
510	3-31-2	612	3-22-R
511	7-10-B	613	3-22-L
512	3-32-4	614	3-22-N
513	3-31-5	615	3-22-C
514	3-31-6	616	3-22-S
515	3-31-7	617	3-22-R
516	4-34-B	618	3-22-L
517	4-34-C	619	3-22-N
518	3-33-H	620	3-22-C
519	3-32-C	621	3-22-S
520	3-32-D	622	3-22-R
521	5-31-D	623	3-22-L
522	4-33-4	624	3-22-N
523	4-31-6	625	3-22-C
524	4-33-7	626	3-22-S
525	4-31-3	627	3-22-R
526	6-33-12	628	3-22-L
527	3-34-11		
528	3-33-10		
529	3-31-10		
530	3-31-H		
531	3-32-N		
532	3-32-E		
533	5-21-14		
534	5-28-4		

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination	Loop No.	Termination
595	10-19-4	734	4-27-4
596	3-22-D	735	6-27-2
597	3-22-E	736	6-27-13
598	1-22-15	737	7-29-15
599	3-22-P	738	6-28-12
600	4-22-15	739	6-29-12
601	3-22-M	740	6-29-N
602	3-22-S	741	7-29-P
603	3-22-B	742	6-30-13
604	3-22-A	743	6-27-13
605	3-22-C	744	6-27-P
606	3-22-R	745	6-27-10
607	3-22-L	746	6-28-11
608	3-22-N	747	6-28-10
609	3-22-C	748	6-29-11
610	3-22-S	749	6-29-10
611	3-22-R	750	6-29-M
612	3-22-L	751	6-29-L
613	3-22-N	752	6-29-6
614	3-22-C	753	6-29-7
615	3-22-S	754	6-29-F
616	3-22-R	755	6-29-H
617	3-22-L	756	6-30-11
618	3-22-N	757	6-30-10
619	3-22-C	758	6-30-M
620	3-22-S	759	6-30-L
621	3-22-R	760	6-30-4
622	3-22-L	761	6-30-7
623	3-22-N	762	6-30-F
624	3-22-C	763	6-30-E
625	3-22-S	764	6-27-L
626	3-22-R	765	6-27-F
627	3-22-L	766	6-27-M
628	3-22-N	767	6-27-6
629	3-22-C	768	7-29-4
630	3-22-S	769	7-29-E
631	3-22-R	770	7-27-7
632	3-22-L	771	7-29-B
633	3-22-N	772	7-31-4
634	3-22-C	773	7-31-10
635	3-22-S	774	6-23-L
636	3-22-R	775	6-23-7
637	3-22-L	776	6-23-6
638	3-22-N	777	6-23-10
639	3-22-C	778	6-23-13
640	3-22-S	779	6-23-12
641	3-22-R	780	6-23-11
642	3-22-L	781	6-23-14
643	3-22-N	782	6-23-15
644	3-22-C	783	6-23-16
645	3-22-S	784	6-23-17
646	3-22-R	785	6-23-18
647	3-22-L	786	6-23-19
648	3-22-N	787	6-23-20
649	3-22-C	788	6-23-21
650	3-22-S	789	6-23-22
651	3-22-R	790	6-23-23
652	3-22-L	791	6-23-24
653	3-22-N	792	6-23-25
654	3-22-C	793	6-23-26
655	3-22-S	794	6-23-27
656	3-22-R	795	6-23-28
657	3-22-L	796	6-23-29
658	3-22-N	797	6-23-30
659	3-22-C	798	6-23-31
660	3-22-S	799	6-23-32
661	3-22-R	800	6-23-33
662	3-22-L	801	6-23-34
663	3-22-N	802	6-23-35
664	3-22-C	803	6-23-36
665	3-22-S	804	6-23-37
666	3-22-R	805	6-23-38
667	3-22-L	806	6-23-39
668	3-22-N	807	6-23-40
669	3-22-C	808	6-23-41
670	3-22-S	809	6-23-42
671	3-22-R	810	6-23-43
672	3-22-L	811	6-23-44
673	3-22-N	812	6-23-45
674	3-22-C	813	6-23-46
675	3-22-S	814	6-23-47
676	3-22-R	815	6-23-48
677	3-22-L	816	6-23-49
678	3-22-N	817	6-23-50
679	3-22-C	818	6-23-51
680	3-22-S	819	6-23-52
681	3-22-R	820	6-23-53
682	3-22-L	821	6-23-54
683	3-22-N	822	6-23-55
684	3-22-C	823	6-23-56
685	3-22-S	824	6-23-57
686	3-22-R	825	6-23-58
687	3-22-L	826	6-23-59
688	3-22-N	827	6-23-60
689	3-22-C	828	6-23-61
690	3-22-S	829	6-23-62
691	3-22-R	830	6-23-63
692	3-22-L	831	6-23-64
693	3-22-N	832	6-23-65
694	3-22-C	833	6-23-66
695	3-22-S	834	6-23-67
696	3-22-R	835	6-23-68
697	3-22-L	836	6-23-69
698	3-22-N	837	6-23-70
699	3-22-C	838	6-23-71
700	3-22-S	839	6-23-72
701	3-22-R	840	6-23-73
702	3-22-L	841	6-23-74
703	3-22-N	842	6-23-75
704	3-22-C	843	6-23-76
705	3-22-S	844	6-23-77
706	3-22-R	845	6-23-78
707	3-22-L	846	6-23-79
708	3-22-N	847	6-23-80
709	3-22-C	848	6-23-81
710	3-22-S	849	6-23-82
711	3-22-R	850	6-23-83
712	3-22-L	851	6-23-84
713	3-22-N	852	6-23-85
714	3-22-C	853	6-23-86
715	3-22-S	854	6-23-87
716	3-22-R	855	6-23-88
717	3-22-L		
718	3-22-N		
719	3-22-C		
720	3-22-S		
721	3-22-R		
722	3-22-L		
723	3-22-N		
724	3-22-C		
725	3-22-S		
726	3-22-R		
727	3-22-L		
728	3-22-N		
729	3-22-C		
730	3-22-S		
731	3-22-R		
732	3-22-L		
733	3-22-N		

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination
836	8-20-11
837	4-20-10
838	6-20-10
839	5-20-10
840	5-20-10
841	5-20-10
842	6-20-10
843	6-20-10
844	6-20-10
845	7-21-3
846	7-21-3
847	7-21-7
848	7-21-7
849	7-20-3
850	7-20-3
851	5-20-3
852	5-20-13
853	5-20-13
854	5-20-13
855	5-20-13
856	5-20-13
857	4-20-13
858	6-24-4
859	6-24-7
860	5-20-11
861	5-20-11
862	5-20-11
863	5-20-11
864	5-20-11
865	5-20-11
866	5-20-11
867	5-20-11
868	5-20-11
869	5-20-11
870	5-20-11
871	5-20-11
872	5-20-11
873	5-20-11
874	5-20-11
875	5-20-11
876	5-20-11
877	5-20-11
878	5-20-11
879	5-20-11
880	5-20-11
881	5-20-11
882	5-20-11
883	5-20-11
884	5-20-11
885	5-20-11
886	5-20-11
887	5-20-11
888	5-20-11
889	5-20-11
890	5-20-11
891	5-20-11
892	5-20-11
893	5-20-11
894	5-20-11
895	5-20-11
896	5-20-11
897	5-20-11
898	5-20-11
899	5-20-11
900	5-20-11
901	5-20-11
902	5-20-11
903	5-20-11
904	5-20-11
905	5-20-11
906	5-20-11
907	5-20-11
908	5-20-11
909	5-20-11
910	5-20-11
911	5-20-11
912	5-20-11
913	5-20-11
914	5-20-11
915	5-20-11
916	5-20-11
917	5-20-11
918	5-20-11
919	5-20-11
920	5-20-11
921	5-20-11
922	5-20-11
923	5-20-11
924	5-20-11
925	5-20-11
926	5-20-11
927	5-20-11
928	5-20-11
929	5-20-11
930	5-20-11
931	5-20-11
932	5-20-11
933	5-20-11
934	5-20-11
935	5-20-11
936	5-20-11

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination
937	3-10-L
938	4-10-12
939	4-10-11
940	5-20-D
941	5-20-4
942	10-20-E
943	10-20-3
944	10-20-3
945	10-20-3
946	9-20-14
947	9-20-11
948	10-20-H
949	9-20-5
950	10-20-D
951	9-20-7
952	10-20-3
953	6-20-3
954	6-20-7
955	10-20-3
956	6-20-8
957	10-10-4
958	10-10-12
959	10-10-N
960	10-10-D
961	9-10-4
962	9-10-13
963	9-10-N
964	9-10-D
965	11-10-D
966	9-11-4
967	9-11-3
968	9-11-13
969	9-10-7
970	9-10-10
971	9-10-L
972	9-10-14
973	9-10-13
974	9-10-13
975	9-10-6
976	9-10-4
977	9-10-3
978	7-12-13
979	7-12-13
980	7-12-13
981	7-12-13
982	7-12-13
983	7-12-13
984	7-12-13
985	7-12-13
986	7-12-13
987	7-12-13
988	7-12-13
989	7-12-13
990	7-12-13
991	7-12-13
992	7-12-13
993	7-12-13
994	7-12-13
995	7-12-13
996	7-12-13
997	7-12-13
998	7-12-13
999	7-12-13
1000	7-12-13
1001	7-12-13
1002	7-12-13
1003	7-12-13
1004	7-12-13
1005	7-12-13
1006	7-12-13
1007	7-12-13
1008	7-12-13
1009	7-12-13
1010	7-12-13
1011	7-12-13
1012	7-12-13
1013	7-12-13
1014	7-12-13
1015	7-12-13
1016	7-12-13
1017	7-12-13
1018	7-12-13
1019	7-12-13
1020	7-12-13
1021	7-12-13
1022	7-12-13
1023	7-12-13
1024	7-12-13
1025	7-12-13
1026	7-12-13
1027	7-12-13
1028	7-12-13
1029	7-12-13
1030	7-12-13
1031	7-12-13
1032	7-12-13
1033	7-12-13
1034	7-12-13
1035	7-12-13
1036	7-12-13
1037	7-12-13
1038	7-12-13
1039	7-12-13

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination
1040	0-31-10 10-22-14 11-23-N
1041	0-31-12 10-22-3
1042	11-23-N 11-23-P
1043	0-34-6 0-34-10
1044	0-34-7 0-34-11 10-11-12 11-24-12
1045	10-12-4 10-12-5
1046	10-12-12 10-12-13
1047	10-12-D 10-12-E
1048	11-11-4 11-11-5
1049	11-20-D 11-20-F
1050	11-20-N 11-20-P
1051	11-20-12 11-20-13
1052	0-31-R 0-34-3 0-34-M 0-25-3 10-25-3
1053	0-34-L 0-25-R 10-25-14
1054	0-34-0 0-34-C 0-25-0 10-25-R
1055	0-34-7 0-25-B 10-25-3
1056	0-34-14 0-34-F 0-25-C 10-25-B
1057	0-31-0 0-34-H 0-25-E 10-25-0
1058	0-34-11 0-34-R 0-25-14 0-25-F
1059	0-34-10 0-25-14 10-25-C
1060	0-25-0 0-24-M 0-25-15 0-25-3
1061	0-24-L 0-24-R 0-25-19 10-25-10 10-23-N
1062	0-23-R 0-23-11 0-23-11 10-23-3 10-24-M
1063	0-23-10 10-23-14 10-24-R
1064	0-23-M 0-23-3 10-23-M 10-23-R 10-24-0
1065	0-23-L 10-23-12 10-23-3 10-24-2
1066	0-23-0 0-23-C 10-23-B 10-24-3
1067	0-23-7 10-23-N 10-23-0 10-24-0
1068	0-23-F 0-34-14 10-24-0 10-23-F
1069	0-23-H 10-23-C 10-24-14
1070	0-24-11 10-24-15 10-24-M
1071	0-24-10 0-23-14 10-23-10 10-23-E
1072	10-23-11 10-23-R 11-23-B 11-23-M
1073	10-23-10 11-23-2 11-23-14
1074	10-23-M 10-23-3 11-23-5 11-23-10
1075	10-23-L 11-23-C 11-23-R
1076	10-23-0 10-23-C 11-23-E 11-23-0
1077	10-23-7 11-23-0 11-24-5
1078	0-23-F 0-23-0 11-23-11 11-23-3
1079	10-23-H 11-23-F 11-24-0
1080	0-23-M 0-23-11 11-23-N 11-24-C
1081	0-23-10 10-23-14 11-23-3 11-23-12
1082	4-23-11 2-21-M 1-21-14
1083	2-21-10 1-22-14
1084	2-21-0 1-22-12
1085	2-21-7 1-22-12
1086	2-22-L 1-22-11
1087	2-22-10 1-22-10
1088	2-22-0 1-22-4
1089	2-22-7 1-22-3
1090	1-21-0 2-22-F
1091	1-21-7 2-22-E
1092	0-34-11 0-34-R 10-24-B 10-24-M
1093	0-34-10 10-24-2 10-24-14
1094	0-34-3 0-34-M 10-24-5 10-24-10
1095	0-34-L 10-24-C 10-24-R
1096	0-34-0 0-34-C 10-24-E 10-24-0
1097	0-34-7 10-24-0 11-24-5
1098	0-23-R 0-34-F 10-24-11 11-24-0
1099	0-34-H 10-24-0 11-24-E
1100	0-23-M 10-24-M 11-24-F
1101	0-23-L 0-34-14 10-24-0 10-24-12
1102	0-20-7 0-20-14 0-20-B 0-20-M 11-20-E 11-20-R
1103	0-21-14 0-20-H 0-20-11 11-20-3 11-20-14
1104	0-21-10 0-20-R 0-20-11 11-20-3 11-20-11
1105	0-21-R 0-20-10 0-20-N 11-20-B 11-20-0
1106	7-21-14 0-21-0 0-20-M 0-20-E 11-20-C 11-20-M
1107	0-21-11 0-20-L 0-20-0 11-20-12 11-21-2
1108	7-21-R 7-21-11 0-21-12 0-20-3 11-20-5 11-21-3
1109	7-21-10 0-21-M 0-22-C 0-20-F 11-20-N 11-21-B
1110	7-21-0 0-21-H 0-22-M 0-22-0 11-20-F 11-20-10
1111	7-21-L 0-20-C 0-20-3 11-20-0 11-20-10 11-20-10
1112	0-19-0 0-19-C 0-19-E 0-19-R 10-20-E 10-20-R
1113	0-19-7 0-19-3 0-19-14 10-20-2 10-20-14
1114	0-19-F 0-19-14 0-19-3 0-19-11 10-20-3 10-20-11
1115	0-19-H 0-19-B 0-19-0 10-20-B 10-20-0
1116	0-19-11 0-19-R 0-19-C 0-19-M 10-20-C 10-20-M
1117	0-19-10 0-19-12 0-20-14 10-20-12 11-21-0
1118	0-20-3 0-19-M 0-19-5 0-20-15 10-20-5 11-21-0
1119	0-22-E 0-19-L 0-19-N 0-20-R 10-20-N 11-21-E
1120	0-22-F 0-20-0 0-19-F 0-20-0 10-20-F 11-21-F
1121	0-20-7 0-19-3 0-19-0 0-19-15 10-20-0 10-20-10
1122	0-19-0 0-19-D 0-15-M 0-14-D 0-14-M 10-16-H
1123	0-14-11 0-14-4 0-15-4 0-15-11 10-16-F
1124	0-19-0 0-14-5 0-14-E 0-15-E 10-16-7
1125	0-14-12 0-14-M 0-15-12 0-15-N 10-16-0
1126	0-19-13 0-15-0 0-15-F 0-15-13 10-16-L
1127	0-14-F 0-14-0 0-14-13 0-14-P 10-16-M
1128	0-19-P 0-15-B 0-16-D 0-16-D 10-16-10
1129	0-14-2 0-15-3 0-16-4 0-16-11 10-16-11
1130	0-19-0 0-16-M 0-16-12 0-15-0 10-15-H
1131	0-14-10 0-16-0 0-16-E 0-16-5 10-15-F
1132	0-20-3 0-15-14 0-15-R 0-16-0 10-15-7
1133	0-14-14 0-16-R 0-16-F 0-16-10 10-15-0
1134	0-20-C 0-15-M 0-15-R 10-15-L
1135	10-15-M 0-15-14 0-15-11
1136	10-15-10 0-15-12 0-15-N 5-19-F
1137	10-15-11 0-15-15 0-15-0 4-19-F
1138	4-16-M 0-16-D 0-15-14 0-14-D 0-15-M 0-16-4 0-16-11
1139	7-16-R 0-14-10 0-14-10
1140	3-16-N 4-16-4 4-15-M 5-15-R 0-14-11 0-16-D 0-16-M
1141	0-16-14 7-16-4 7-14-14 0-14-L 10-20-14
1142	0-14-L 0-14-0 7-13-11
1143	3-14-M 4-16-B 0-16-C 5-15-M 5-15-4 0-14-14 0-14-M
1144	0-16-R 7-16-D 7-14-R 0-14-7 10-20-R

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination
1142	0-14-7 0-14-3 7-13-12
1143	4-16-2 4-14-14 5-14-R 0-15-D 0-15-14 7-15-11 7-14-4
1144	0-15-7 4-16-11 4-14-11 4-14-R 5-14-4 0-15-R 7-13-M 7-14-D
1145	0-15-4 3-14-D 4-14-M 5-14-D 5-10-N 0-15-4 0-14-14 7-14-11
1146	0-15-H 4-16-D 4-16-4 4-15-14 4-15-11 4-14-4 0-14-11 0-14-R
1147	0-15-D 0-15-0 7-14-M 0-14-H 4-15-R 5-10-12 5-15-11 5-14-M
1148	0-14-4 0-15-11 7-15-14 0-15-10 0-15-11 0-14-10 0-14-11 0-14-M
1149	3-15-4 3-15-R 4-16-14 4-16-E 5-16-E 7-14-E 7-14-5
1150	7-14-12 7-14-N 7-14-0 7-14-5 7-14-15 7-15-15 0-16-10
1151	3-14-E 3-14-N 3-14-0 4-15-12 0-14-5 0-14-15 0-14-0
1152	7-15-5 7-15-E 7-15-N 7-15-12 7-15-0 0-16-L 0-16-0
1153	4-15-M 4-16-R 5-16-R 5-16-14 0-14-E 0-14-N 0-14-12
1154	0-15-E 0-15-5 0-15-12 0-15-15 0-15-0 0-16-7 0-16-7
1155	4-16-5 4-16-12 4-16-N 0-16-0 0-16-15 0-15-N 7-13-4
1156	7-27-N 4-14-5 4-14-15 4-14-0 4-15-E 4-15-5 5-15-N
1157	4-14-E 7-13-7 7-13-7
1158	0-14-12 4-14-N 4-15-15 4-15-0 0-16-0 0-16-E 7-13-H
1159	5-14-E 5-14-5 5-14-12 5-14-N 5-14-0 5-14-15 0-16-12
1160	0-16-N 0-16-H
1161	5-15-E 5-15-5 5-15-12 5-15-15 5-15-0 7-13-D
1162	3-14-F 4-14-2 4-14-0 4-14-13 4-15-B 4-15-F 4-15-P
1163	4-15-12 4-16-0 4-16-F 4-16-P 4-16-0 5-16-15 5-16-15
1164	5-15-3 5-15-F 5-14-2 5-14-0 0-16-F 0-16-P
1165	0-13-L 0-13-7 7-14-P 7-14-13 7-14-0 7-15-0 7-15-P 7-15-P
1166	0-13-P 0-15-13 0-15-B 0-14-0 0-14-13 0-14-P
1167	3-14-F 3-14-B 3-15-3 3-15-0 4-16-0 4-16-4 4-15-0
1168	4-16-B 4-14-F 4-14-P 5-14-B 5-14-P 5-14-13 5-15-B
1169	5-15-0 5-15-3 5-15-P 5-16-0 5-16-F 0-16-0 0-16-12
1170	0-13-H 7-27-R
1171	0-13-0 0-16-B 6-15-F 6-15-0 6-14-F 6-14-P
1172	0-15-2 0-14-B 6-14-2 6-14-F 7-15-B 7-15-13 0-13-L
1173	7-14-2 7-15-B 7-14-F 7-15-2
1174	1-19-L 2-19-3
1175	1-19-H 2-19-B
1176	1-19-D 2-19-11
1177	1-19-12 2-19-3
1178	1-19-P 2-19-F 2-19-0 2-19-15
1179	1-16-13 2-19-5 2-19-12
1180	1-16-P 2-19-E 2-19-14
1181	1-16-10 2-19-N 3-15-12
1182	1-16-L 2-19-R 3-15-14
1183	2-19-7 3-19-2
1184	2-19-H 3-19-F
1185	2-19-10 3-19-0
1186	2-19-L 3-19-13
1187	1-15-10 3-19-P
1188	0-24-3 5-25-0 4-25-4 4-25-2 3-25-0
1189	5-25-7 4-25-D
1190	5-24-0 5-24-C 4-25-F 4-25-B
1191	4-25-15 4-24-11 5-24-F
1192	4-25-11 4-24-13 5-24-14 5-24-F
1193	4-25-0 4-24-M 5-24-H 5-24-11
1194	4-25-M 4-24-P 5-24-R
1195	4-25-13 4-24-D 5-24-10
1196	4-22-12 4-25-0 4-24-F 5-24-M
1197	5-24-L 4-25-P 3-25-R
1198	0-24-7 4-25-5 4-25-E 4-25-N 4-25-12 4-25-14
1199	4-25-R 4-24-E 4-24-N 4-24-12
1200	0-6-15 0-6-0 0-6-M 0-6-11
1201	0-10-7 0-12-4
1202	7-25-7 7-25-2 5-30-C
1203	0-22-M 7-25-4 7-25-5 7-20-3 0-25-0
1204	5-27-0 5-30-M 6-22-B 7-24-4 7-25-C
1205	4-20-7 7-22-R
1206	4-20-14 4-20-4
1207	10-13-15 11-13-7
1208	10-13-0 11-13-D
1209	10-13-13 11-13-4
1210	10-13-N 11-13-10
1211	11-13-H 10-11-0
1212	10-11-F 11-13-L
1213	10-11-2 11-13-13
1214	10-11-C 11-13-P
1215	4-30-0 4-13-C 5-20-L 5-20-0 11-20-5
1216	5-20-P 5-22-0 11-27-M
1217	5-31-3 6-33-7
1218	3-32-4 0-33-0 0-33-6
1219	3-24-3 4-24-0 4-24-8
1220	3-24-15 3-14-7 4-28-H 4-33-N
1221	3-14-4 2-24-3
1222	3-14-5 0-33-L
1223	4-33-L 0-31-0
1224	4-33-M 0-31-2 0-23-15
1225	4-24-P 4-27-R
1226	3-23-C 4-34-S
1227	0-0-4 5-20-D
1228	5-21-13 0-24-E
1229	4-20-0 4-23-13
1230	6-25-10 5-25-B
1231	7-22-L 5-25-D
1232	7-12-D 7-12-N 7-11-14
1233	0-22-5 0-25-H
1234	0-22-H 0-23-14
1235	0-16-7 2-16-M 1-14-M
1236	0-16-H 2-15-P 1-15-13
1237	0-16-10 2-13-0 1-15-15
1238	0-16-L 2-16-P 1-15-4
1239	5-14-3 2-14-0 1-15-P

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination					
1398	1-22-7	4-23-14	5-12-3	5-24-8		
1399	3-31-11	3-32-13	4-33-6			
1400	7-31-3	7-32-R	9-32-E			
1401	6-32-D	6-31-8	6-32-4			
1402	3-23-M	3-21-11	3-21-M	3-21-B	3-21-2	4-21-11
	4-21-M	4-21-2	4-27-5	5-32-10	9-31-B	7-12-C
	6-8-6					
1403	3-23-N	9-31-D				
1404	10-30-8	9-30-D	5-28-C	6-8-13		
1405	5-32-15	9-30-H	9-30-C			
1406	4-33-11	5-32-14	9-31-P	9-31-N		
1407	4-24-14	7-27-L	9-31-F			
1408	6-13-2	9-31-4	9-22-M			
1409	4-34-B	9-31-6	5-30-7	9-30-3		
1410	10-30-12	9-31-10				
1411	4-34-2	6-23-P	9-31-13	9-31-12	9-31-5	
1412	2-23-15	5-33-H	6-27-C	11-22-B		
1413	4-30-C	3-33-R	3-33-11	3-32-14	5-22-F	5-28-8
	5-31-F	6-32-M				
1414	3-34-E	3-23-14	2-23-R	5-31-H	6-33-M	
	5-16-6	6-21-M	7-22-2	8-25-M	8-32-D	
1415	3-23-5	4-30-12	6-34-3	9-30-12	9-31-15	10-10-13
1416	11-30-8	9-30-L				
1417	3-23-6	4-30-11	5-34-M	6-34-2	9-30-P	9-30-N
1418	7-23-L	8-23-3	10-22-P	10-22-13		
1419	6-13-C	4-32-15	5-34-3	5-34-E	6-34-F	7-34-L 7-34-R
	6-23-14	10-22-8	10-21-N	10-21-12		
1420	7-16-8	11-19-1				
1421	7-16-15	11-19-A				
1422	7-16-12	11-19-3				
1423	7-16-N	11-19-C				
1424	7-16-6	11-19-6				
1425	7-16-F	11-19-F				
1426	7-16-3	11-19-9				
1427	7-19-C	11-19-K				
1428	3-19-R	7-16-P				
1429	4-19-14	7-16-13				
1430	4-19-R	7-16-10				
1431	4-19-D	7-16-L				
1432	4-19-4	7-16-7				
1433	5-20-6	7-15-H				
1434	5-20-F	7-16-4				
1435	4-19-13	7-16-D				
1436	6-23-15	6-23-B	7-19-7			
1437	5-22-12	6-23-2	6-23-8	7-20-H		
1438	6-21-3	7-19-L				
1439	6-21-4	7-19-10				
1440	6-21-10	7-20-L				
1441	6-21-11	7-20-10				
1442	6-19-L	6-21-12				
1443	4-20-M	6-22-R	6-22-14	6-20-8	6-19-11	7-22-6
1444	5-23-10	6-19-8	7-19-8	7-20-8	7-20-15	
1445	3-34-2	4-28-L	4-29-D	5-22-E	7-31-E	9-22-11
1446	3-31-14	5-34-10	6-8-N			
1447	5-13-F	7-23-B	7-23-E	5-31-5	6-33-D	
1448	7-33-11	7-33-6	7-33-2	7-31-F	8-31-2	
	11-28-8	11-28-L	10-22-15			
1449	6-23-7	6-24-3	7-24-C			
1450	6-23-L	6-25-5	7-23-6	8-31-11		
1451	7-19-H	7-23-5	7-24-F			
1452	3-32-15	6-24-M	8-21-D	7-12-3		
1453	6-8-M	5-21-3	5-23-H	4-29-13	4-30-F	
	6-23-12	6-22-6	7-23-2	8-21-C	10-22-2	
1454	7-11-N	7-23-F	7-24-P	8-25-11	11-25-15	11-10-12
1455	3-31-12	4-32-5	7-24-R	7-23-H		
1456	7-23-8	7-25-P	11-25-12			
1457	4-32-2	6-22-3	7-23-C	7-23-D	7-25-R	11-16-3 11-22-6
1458	7-23-R	11-22-R	11-22-L			
1459	6-24-8	7-20-7				
1460	6-33-13	6-32-9				
1461	3-23-C	5-21-15	6-23-3	6-28-D		
1462	5-23-B	6-24-F	6-28-H	8-11-5		
1463	5-30-E	6-22-C	7-25-F	8-21-7	6-23-6	
1464	7-31-15	7-21-5	8-22-7	8-20-B	8-20-2	
	8-20-15	8-20-8	8-19-B	8-19-2	8-19-15	6-19-8
1465	6-19-F	6-23-14				
1466	4-24-R	5-22-13	5-21-6	6-19-H		
1467	3-32-H	5-31-B	8-25-E			
1468	6-32-P	10-32-15	10-32-8			
1469	6-32-H	8-27-14				
1470	5-34-8	6-24-13	6-24-12	6-23-D		
1471	2-9-E	3-33-8	4-32-14	4-29-M	3-31-F	
1472	4-29-L	6-33-5	8-31-8			
1473	3-30-B	5-30-B	7-34-14	7-34-10		
1474	7-34-12	7-34-13				
1475	3-33-B	3-31-15	5-31-6	8-12-12		
1476	8-15-B	8-12-2	10-11-5	10-11-3	10-11-B	10-11-E
	10-13-11	10-13-14	10-13-R	10-13-M	10-14-L	
1477	6-13-F	7-13-M	8-11-11	10-14-M		
1478	9-22-P	6-28-B				

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination					
1479	4-23-F	5-13-15	5-12-W			
1480	5-12-P	7-10-5	10-12-M			
1481	5-24-R	5-30-L	8-29-E	8-11-6		
1482	3-25-13	3-21-3	4-32-C	6-32-15	6-31-15	
1483	3-25-14	4-25-3				
1484	3-25-10	5-31-13	6-31-11	10-32-E		
1485	3-25-11	4-25-C				
1486	3-25-L	2-23-8				
1487	3-23-14	3-23-7	3-23-E	3-23-2	4-23-C	4-23-E
	6-8-5	7-12-B				
1488		3-24-H	3-23-E	4-33-8	4-29-E	5-23-E
1489	3-18-2	3-24-10	4-27-M	6-28-4	6-19-D	6-19-13
	7-19-4	7-19-D	7-20-4	7-20-D	7-23-M	8-15-C
	7-12-2	6-31-M	6-32-11	4-27-1	11-14-14	
1490	3-34-14	4-30-B	3-31-B	7-25-H	6-32-8	7-22-5
	6-30-R	5-31-P	8-13-3			
1491	3-25-E	4-24-10	6-28-2			
1492	3-22-F	3-25-4	2-24-12			
1493	3-25-2	4-24-L	8-32-10			
1494	3-25-D	4-22-14	4-32-11	6-33-N	6-23-12	
1495	3-22-8	3-25-B	4-24-H			
1496	7-22-11	4-27-7	7-12-E			
1497	6-12-D	7-12-H	8-11-N			
1498	7-12-F	7-22-13	8-25-7			
1499	8-22-10	8-24-15	8-24-8	9-24-B	9-24-2	9-24-8 9-24-15
	9-23-8	9-23-15	9-23-2	9-23-8		
1500	4-23-B	5-13-P	5-12-B			
1501	4-13-6	4-13-H	5-13-R	10-12-R		
1502	6-23-L	6-23-F	2-24-11	2-24-11		
1503	4-23-4	10-21-13	10-21-P			
1504	5-27-N	5-22-C	6-22-E			
1505	9-31-R	5-27-L	3-30-R			
1506	4-19-M	7-34-H	7-34-C			
1507	5-19-D	7-34-D	7-34-E			
1508	3-28-P	11-28-10	11-28-15			
1509	6-22-H	9-30-R				
1510	5-13-4	5-13-5	7-10-15	11-11-14		
1511	6-30-N	6-24-C	8-22-L			
1512	3-24-11	4-25-H	4-28-8			
1513	9-21-M	9-21-3	10-21-2	10-21-4		
1514	9-21-L	10-21-D	9-22-2			
1515	9-21-6	9-21-C	10-21-B	10-21-E		
1516	10-22-4	10-21-14	9-21-7	5-22-2		
1517	10-22-5	10-21-5	9-21-F	5-22-14		
1518	10-21-R	9-21-H	9-21-R	9-22-3		
1519	6-29-4	7-29-D	8-29-14	9-29-5		
1520	6-29-D	7-31-7	8-29-12	9-29-E		
1521	4-28-10	6-30-3				
1522	5-29-4	5-27-3	8-29-2	6-29-N	6-30-13	6-34-15 7-32-E
	8-29-5	8-27-H	9-29-R			
1523	4-29-11	5-21-2	5-22-11	6-24-M	5-30-F	11-29-3
1524	4-28-5	4-29-10	5-29-D	5-22-R	5-12-N	6-22-F 7-24-B
1525	6-20-4	6-25-12				
1526	6-30-D	8-30-5	8-30-H	8-31-M		
1527	5-22-P	6-27-H	6-30-4	7-33-14	8-30-12	9-29-M
1528	6-24-F	7-11-7	7-12-M	8-32-15	8-32-8	
1529	5-34-2	6-13-4	7-12-L	7-11-6	7-28-C	8-32-13 8-32-P
1530	6-13-6	7-12-14				
1531	4-31-D	5-21-M	5-33-8			
1532	5-22-5	5-29-N	5-31-L	6-34-R		
1533	4-13-2	5-12-8	7-10-14	10-12-C	10-12-H	
1534	5-29-F	11-29-H	11-29-B			
1535	1-21-4	1-21-D	1-21-P	1-21-13	2-20-7	2-21-4 2-21-D
	2-21-P	2-21-13	2-22-4	2-22-D	2-22-P	2-22-13 11-16-8
1536	4-13-E	7-10-P	10-12-10	10-12-14		
1537	4-32-6	5-31-10	6-34-N			
1538	4-31-B	5-31-R	5-31-11	5-33-M		
1539	11-22-5	10-11-11	9-22-F	6-24-10	6-23-B	3-14-8
1540	6-24-11	6-23-C				
1541	7-13-13	7-11-F				
1542	4-30-M	4-31-F	4-31-8	5-27-11	7-13-15	7-11-H
1543	4-13-5	5-30-R	7-10-M	10-12-3	10-12-7	
1544	6-29-13	7-31-L	7-32-B	8-28-12	9-29-2	
1545	7-31-11	7-29-L	8-27-2	8-27-F	8-27-M	9-27-C
1546	5-27-2	8-30-P	8-31-E	8-30-14	8-27-L	9-29-11
1547	4-28-12	4-29-2	5-28-2	5-27-7	7-21-4	7-21-D
1548	6-28-13	7-28-L	8-28-14	8-31-B	9-29-B	
1549	6-29-P	7-27-10	8-28-5	9-29-14		
1550	4-13-3	5-13-3	7-10-4	11-11-3	11-11-7	
1551	5-24-4	5-24-D	5-24-P	5-24-13	5-25-4	4-27-H 6-8-15
	6-5-8	6-5-15	6-5-12	6-5-N	6-5-E	6-5-5-
1552	4-30-4	4-30-5	5-21-E	9-33-2		
1553	9-10-F	10-8-14				
1554	9-10-M	10-8-R				
1555	9-10-11	10-8-11				
1556	11-8-R	4-21-C				
1557	4-21-D	5-23-P	5-25-13			
1558	5-25-R	5-23-11				
1559	5-25-14	5-25-15	5-25-L	3-24-2		
1560	4-27-F	5-25-10				
1561	10-19-6	11-16-L				

TABLE A4-2. LOGIC CHASSIS A, SIGNAL WIRING DATA (Cont)

Loop No.	Termination	Loop No.	Termination
1562	11-14-B	1563	10-15-C
1563	9-11-C	1564	10-15-D
1564	8-12-B	1565	10-15-E
1565	8-20-B	1566	10-15-F
1566	8-21-B	1567	10-15-G
1567	4-31-M	1568	10-15-H
1568	6-15-D	1569	10-15-I
1569	9-25-B	1570	10-15-J
1570	3-23-D	1571	10-15-K
1571	3-23-E	1572	10-15-L
1572	11-15-B	1573	10-15-M
1573	11-15-C	1574	10-15-N
1574	11-15-D	1575	10-15-O
1575	11-15-E	1576	10-15-P
1576	6-4-D	1577	10-15-Q
1577	7-20-I	1578	10-15-R
1578	6-4-I	1579	10-15-S
1579	8-12-B	1580	10-15-T
1580	11-15-P	1581	10-15-U
1581	4-30-M	1582	10-15-V
1582	6-31-B	1583	10-15-W
1583	6-31-C	1584	10-15-X
1584	4-30-L	1585	10-15-Y
1585	4-30-N	1586	10-15-Z
1586	7-10-P	1587	10-15-AA
1587	7-30-L	1588	10-15-AB
1588	7-30-P	1589	10-15-AC
1589	7-10-L	1590	10-15-AD
1590	6-10-P	1591	10-15-AE
1591	3-13-D	1592	10-15-AF
1592	4-12-D	1593	10-15-AG
1593	4-11-P	1594	10-15-AH
1594	3-13-B	1595	10-15-AI
1595	3-13-M	1596	10-15-AJ
1596	3-13-A	1597	10-15-AL
1597	4-12-B	1598	10-15-AM
1598	4-12-C	1599	10-15-AN
1599	4-11-L	1600	10-15-AO
1600	4-11-M	1601	10-15-AP
1601	4-11-N	1602	10-15-AQ
1602	4-11-O	1603	10-15-AR
1603	4-11-P	1604	10-15-AS
1604	4-11-Q	1605	10-15-AT
1605	4-11-R	1606	10-15-AU
1606	4-11-S	1607	10-15-AV
1607	4-11-T	1608	10-15-AW
1608	4-11-U	1609	10-15-AX
1609	4-11-V	1610	10-15-AY
1610	4-11-W	1611	10-15-AZ
1611	4-11-X	1612	10-15-BA
1612	4-11-Y	1613	10-15-BB
1613	4-11-Z	1614	10-15-BC
1614	4-11-AA	1615	10-15-BD
1615	4-11-AB	1616	10-15-BE
1616	4-11-AC	1617	10-15-BF
1617	4-11-AD	1618	10-15-BG
1618	4-11-AE	1619	10-15-BH
1619	4-11-AF	1620	10-15-BI
1620	4-11-AG	1621	10-15-BJ
1621	4-11-AH	1622	10-15-BK
1622	4-11-AI	1623	10-15-BL
1623	4-11-AJ	1624	10-15-BM
1624	4-11-AL	1625	10-15-BN
1625	4-11-AM	1626	10-15-BO
1626	4-11-AN	1627	10-15-BP
1627	4-11-AO	1628	10-15-BQ
1628	4-11-AP	1629	10-15-BR
1629	4-11-AQ	1630	10-15-BS
1630	4-11-AR	1631	10-15-BT
1631	4-11-AS	1632	10-15-BU
1632	4-11-AT	1633	10-15-BV
1633	4-11-AU	1634	10-15-BW
1634	4-11-AV	1635	10-15-BX
1635	4-11-AW	1636	10-15-BY
1636	4-11-AX	1637	10-15-BZ
1637	4-11-AY	1638	10-15-CA
1638	4-11-AZ	1639	10-15-CB
1639	4-11-BA	1640	10-15-CC
1640	4-11-BC	1641	10-15-CD
1641	4-11-BD	1642	10-15-CE
1642	4-11-BE	1643	10-15-CF
1643	4-11-BF	1644	10-15-CG
1644	4-11-BG	1645	10-15-CH
1645	4-11-BH	1646	10-15-CI
1646	4-11-BI	1647	10-15-CJ
1647	4-11-BJ	1648	10-15-CK
1648	4-11-BK	1649	10-15-CL
1649	4-11-BL	1650	10-15-CM
1650	4-11-BM	1651	10-15-CN
1651	4-11-BN	1652	10-15-CP
1652	4-11-BO	1653	10-15-CQ
1653	4-11-BP	1654	10-15-CR
1654	4-11-BQ	1655	10-15-CS
1655	4-11-BR	1656	10-15-CT
1656	4-11-BS	1657	10-15-CU
1657	4-11-BT	1658	10-15-CV
1658	4-11-BU	1659	10-15-CW
1659	4-11-BV	1660	10-15-CX
1660	4-11-BW	1661	10-15-CY
1661	4-11-BX		

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA CROSS REFERENCE

	1-1	1-2	1-3	1-4	1-5	1-6		1-7	1-8	1-9	1-10	1-11	1-12		
A							1							1	
B							2				1706	1696	1703	1691	2
C							3				1693	1691	1711	1647	3
D							4					1695	1656		4
E							5				1692	1693	1694	1713	5
F							6				1699	1692	1692	1711	6
G							7				1648	1646	1644	1706	7
H							8								8
I							9								9
J							10				1713	173	1645		10
K							11				1702	0	1692		11
L							12				1700	432	1690		12
M							13					422	1689		13
N							14				1689	1690	1699		14
O							15				1650	1690	1693		15

	1-13	1-14	1-15	1-16		1-19	1-20	1-21	1-22	1-23	1-24		
A						1						1	
B						2						2	
C	1243	1247	1250	1274	1265	922	925			1089		3	
D	1230		1238	1234	1222	923	924			1535	1535	1088	4
E						921	918			603	602		5
F										613	612		6
G	917	916	921	918	925	922	920	919		1090	1091	1390	7
H													8
I													9
J													10
K													11
L	1270	1250	1259	1251	1268	1256	1168	1167			1007		12
M	1232	1233	1219	1231	1226	1235	917	916			1006		13
N	1272	1255	1262	1252	1271	1260					1005		14
O	1242	1237	1239	1236	1223	1220	1164	1165			1164	1163	15
P	1245	1261	1266	1254	1273	1264	915	914			1003		16
Q	1246	1241	1225	1243	1227	1221				621	538		17

	1-25	1-26	1-27	1-28	1-29	1-30		1-31	1-32	1-33	1-34		
A				1727	1724	1736	1				1749	1731	1
B				1724	1726		2						2
C				1725			3	1743	1742		1737	1732	3
D							4				1751	1747	4
E				1722			5	1741	1739	1730			5
F				1723	1721	1729	1728	1736	1734				6
G				1720	1722			1733	1735				7
H													8
I				1721	1720			1734	1733				9
J													10
K													11
L													12
M				1746	1746	1728	1725	1748	1748				13
N													14
O				1723	1723		1721	1745	1736				15

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	2-1	2-2	2-3	2-4	2-5	2-6	
A							1
B					45	44	134 371
C				61	431	431	367 140
D				66	430	437	417 185
E				43	431	118	191
F					431	42	359 192
G				432	436	440	121 407
H							
J							
K							
L				435	434	153	124
M				41	40	411	376
N				72	431	431	376 400
P				95	433	431	154 122
R				59	39	410	133 410
S				67	431	135	400

	2-7	2-8	2-9	2-10	2-11	2-12	
A							1
B		152	400	1707	410	1642	1642 1647 1700
C	164	193	411	375	1702	428	1681 1635 1644 1666
D	165	408		1656	443	1634	1634 1650 1699 1643 1667
E	367	153	416	374	1471	432	1635 1693
F	428	365	150	410	1316		1635 1695 1700 1685
G	366	154	151	152	1651	9	1636 1637 1643 1700 1627
H							
J							
K							
L	365	147	150	143	1717	1715	1686 1631 1638 1701 1668
M	144		410	372	1691	1686	1693 1694 1629 1699 1695 1669
N	146	149	400	401	1649	1649	1630 1636 1694 1670
P	148	149			1652	1649	1634 1634 1630 1629 980 1671
R	148	372	410	1710			1694 1695 1646 1672
S	151	150	144	153			1648 1642 1642 1628 1627 1645 1673

	2-13	2-14	2-15	2-16	2-17	2-18	
A							1
B							2
C	1270	1227	1246	1244	1248	1274	1245 1301
D	1232				1234		1379
E							
F							
G	915	914	913	912	911	910	909 887
H							
J							
K							
L	1251	1254	1249	1256	1255	1250	1259 1386
M	1231	1243	1240	1235	1237	1233	1219 1371
N	1257	1267	1258	1261	1260	1252	1265 1372
P	1229	1272	1238	1241	1220	1236	1222 1373
R	1264	1242	1271	1262	1266	1253	1269 1380
S	1221	1273	1223	1239	1225	1224	1228 1378

	2-19	2-20	2-21	2-22	2-23	2-24	
A							1
B	1161	1160			1719	1393	1203
C	1163	1163		618	617	614	613 625 623 1205
D				1535	1535	1535	1535 600 568
E	1164	1165	804	609	608	605	604 587 1415
F	1164	1164	808	619	618	615	614 601 1417
G	1170	1169	1535	1084	1085	1088	1089 611 549
H							
J							
K							
L	1172	1171	606	604	1083	1086	1087 589 588 874
M	919	1162	590	584	1082	620	617 616 1402 1359 1502
N	1167	1165	586	586	611	610	607 606 1396 1396 1492
P					1535	1535	1535 573 581 1581
R	1168	1166	1396	1396	620	619	616 615 1414 1487 1571
S	920	1164	591	585	541		1486 1412 1204

	2-25	2-26	2-27	2-28	2-29	2-30	
A							1
B							2
C							3
D							4
E							5
F							6
G							7
H							8
J							9
K							10
L							11
M							12
N							13
P							14
R							15

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	3-1	3-2	3-3	3-4	3-5	3-6	
A					138		1
B	339	333	194	411	387		148 147
C	334	340	243		188	139	123 142 141
D	370	368	397	407	9	185	136 143 145
E	378	366		408	428	378	134 133
F		410	409	8	189	430	425 138 137 144 142
G	371	428	240	416		403	427 135 134 141 146
H							
J							
K						137	368
L	375	374	186	192		428	185 136 136 381 379
M			191	190	188	187	407 183 132 132 380 166
N	373	372				184	
P	373	372	185	185	185	185	193 132 135 403 403
R	338	324	190	189	187	186	411 410 136 166 381
S	332	337	387	387	387	387	416 401 132 165 165

	3-13	3-14	3-15	3-16	3-17	3-18	
A							1
B	1478	1158	1674	1383	1276		1488
C	1411	1602	1245	1628	1385	1158	887 1309
D	1600	1600	1145	1205		888	1311
E	1620		1149	1206	1375	1147	888 889
F	1677	1603	1156	1539	1377	1148	1339 1276
G		1674	1247	1204	889	1378	890 1339
H							
J							
K							
L	1675	1676	1248		1383	1173	1376 1384
M	1602	1601	1141		1276	923	1375 1385
N		1678	1149		1139	1167	
P	1600	1600	1158				1376 1382
R	1601		1147	1676	1148	1168	1377 1383
S		1149	1675	1158	924		

	3-19	3-20	3-21	3-22	3-23	3-24	
A		1353	1354				1
B	928	1169		1402	1402	592	588 1487 543 1559
C	1353	929	579	578	579	578	607 605 1461 1276
D	1395	1395			601	599	536 598 1570 603
E	927	927	1355	1356	1353	1354	1091 586 1487 580
F	1170	1171	577	576	581	581	1090 599 1192
G	930	933			600	598	537 610 602 581 1488 1184
H							
J							
K		1355	1356				
L	937	934	570	570	595	597	609 608 580 586 927 1489
M	1395	1395	571	571	1402	1402	596 594 1319 926 1512
N	927	927			576	577	587 586 1403 583
P	1173	1172	1353	1354	594	596	597 595 587 1571
R	1428	1395	570	570	1356	1355	587 587 582 1414
S	929	927	571	571	581	581	593 589 1570

	3-25	3-26	3-27	3-28	3-29	3-30	
A							1
B	1495	1493				1473	1281
C						1010	1388
D	1494	1492				1285	718
E	1491	542				707	1282
F						713	707
G	1490	1487				1347	527
H							
J							
K							
L	1486	1484					
M	541	1485					
N							
P	539	1482					
R	1183	1483				1501	503
S	1174					535	1387

	3-31	3-32	3-33	3-34			
A							1
B	1490	510	1327	1475	1328	1010	1445
C	1341	1482	519	1393	1210	510	1327 1337
D			520	1202	1370	1377	1688 828
E	529	513	532		1488	1375	1414 1688
F	1471	514	1492	512	509	1321	507
G	530	515	1467	513	518	514	713 1687
H							
J							
K							
L	1567	529	532	512		528	707
M	1312	1399	530	1315		1413	527
N	1142	1455	531	1276		1319	505
P			531	1399		1280	718
R	1052	1446	532	1413	1413		1490
S	1057	1475	1495	1452	1471		1346

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

		4-1		4-2		4-3		4-4		4-5		4-6			
A				260		264							361	123	1
B	420		15		19			173	95						2
C	386	12		21			342	85	348				362	361	3
D	3	1		22			240								4
E	1	1						348	96					158	5
F	415	416	263			267		358	173	178	179			376	6
G	4	5	255	243	259	194	84	94	401	400				377	7
H															8
J			18	254	22	258									9
K				262		266								157	10
L	7	2	17	15	21			12	13	399	398			161	11
M	253	419		16										398	12
N	11	382	261	17	265										13
P	242	14	253	18	257	378								123	14
R			16	19	20	404	385	2				348	348		15
B	243	18	252	20	256	350	401	3	180	397	125	125			

		4-7		4-8		4-9		4-10		4-11		4-12			
A															1
B	362	46	121	402			1704								2
C	361	431	120	353	1717	1718			1610	1609	1606	1605			3
D	123	439	122	196	1718	1709			1600	1600	1600	1600			4
E	124	47	411	160		1709			1619	1618	1615	1614			5
F	431	159			1715				1752	1611	1610	1607	1606		6
G	125	441	160	161	1716	1710	1679	1634	1666	1667	1670	1671			7
H															8
J															9
K															10
L	1705	343	378	158	1714			1600	1642	1668	1669	1672	1673		11
M			379	429				1622	1641	1609	1608	1605	1604		12
N	1704	342	380	366	1713	1714			1617	1616	1613	1612			13
P	442	414	157	158	1712				1600	1600	1600	1600			14
R	48	415	156	378		1713			1608	1607	1604	1603			15
B	409	195	155		1711	1711									

		4-13		4-14		4-15		4-16							
A															1
B	816	1533	1158	1156	1156	1158	1141	1143							2
C	1199	1550	1236	1235	1242	1241	1381	1377							3
D			1147	1146	1138	1139	1146	1146							4
E	1536	1543	1152	1152	1152	1152	1148	1151							5
F	817	1501	1158	1156	1156	1158	1156	1156							6
G	1501	816	1238	1237	1244	1243	1371	1386							7
H															8
J															9
K															10
L			1240	1239	1380	1246	1373	1372							11
M			1145	1144	1139	1146	1138	1144							12
N			1153	1153	1150	1149	1151	1151							13
P			1158	1156	1156	1156	1156	1158							14
R			1144	1143	1147	1146	1150	1148							15
B			1152	1152	1153	1153	1156	1156							

		4-17		4-18		4-19		4-20		4-21		4-22		4-23		4-24	
A																	1
B	932	931				1357	1358										2
C	1355	1354	575	574	1556	575			1487	636	517	916					3
D	1431	1432			1557	593			582	1503	1181						4
E	934	937	1359	1360	1393	1357			1487	712	1184						5
F	935	936	573	572		581	569	625	1479	1393	1182						6
G	1356	1357			1394	592	570	571	583	568	1495						7
H																	8
J																	9
K					1359	1360											10
L	938	1360	570	570	585	591			1019	1719	536	1493	1491				11
M	1506	939	571	571	1402	1402			1377	1339	1082	1179	1177				12
N	927	938			572	574			1312	1307	1393	1184	1184				13
P	1137	1435	1357	1358	584	590			538	540	1180	1178					14
R	1430	1429	570	570	1360	1358			1494	537	1398	515	1407				15
B	933	930	571	571	581	581			1316		539	1203	1377				

		4-25		4-26		4-27		4-28		4-29		4-30				
A															1	
B	1176	1174				1489	1350	1213	1345	1547	1490				2	
C	1485	1483				691	1327	524			1413	1521			3	
D	1175	1174							1445	1190	795	1552			4	
E	1184	1184				1402	1488	1524	1320	1277	1277	1552			5	
F	1176	1182				1560	1331	1393	1327	1338		1453	1199		6	
G	1512	543				1551	1496	1203	1329	1337	1189	1581	791		7	
H															8	
J															9	
K															10	
L	542	541				547	510	1445	1521	1472	1524	1584	1582		11	
M	1180	1178				1489	527	1443		1471	1523	1542	1417		12	
N	1184	1184				548	1583	1352	1547	503	857	1585	1415		13	
P	1183	1181							504	1453	1585	879			14	
R	1184	1184				1209	1341	1466	1188			1393	693		15	
B	1179	1177				1370	828	1512	837	1320	1282	1316	882			

		4-31		4-32		4-33		4-34								
A															1	
B	1538	1388			1457		1338	1409	1411						2	
C	680	525	1482	1320	517	517	664	1331							3	
D	1531	525			521	522	1326	1330							4	
E	1585	1330	502	1455	1011	522	1326	1330							5	
F	1542	523			1537	518	1399	663	663						6	
G	683	1334	503	661	523	524	664	1331							7	
H															8	
J															9	
K															10	
L	1566	501	504	500	1207	509	663								11	
M	1567	500	1329	1444	1208	1406									12	
N	1306	1282	1348	1182	1204	508	662								13	
P	1310				516	1213	1209	665							14	
R	1585		1334	1471	509	1394	1323								15	
B	1542	1333	506	1419	1488	1330	1210	1322								

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

		5-1		5-2		5-3		5-4		5-5		5-6			
A															1
B	14	14	14	14				420		376	376	268	268		2
C	247	246	251	250	248	247	238	251	354	353	129	128			3
D	399	399	399	399	13	13	13	13	398	398	407	140			4
E					12	12	5	12				411	276		5
F	263	262	267	266	249	248	6					408			6
G	271	270	275	274	257	256			277	412	347	10	139		7
H															8
J															9
K															10
L	269	268	273	272	255	254	259	258	253	252	131	130			11
M	261	260	265	264	247	246	251	250	245	244	417	415			12
N															13
P	399	399	399	399	13	13	13	13	13	13	268	268			14
R	245	244	249	248	246										

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

		6-1		6-2		6-3		6-4		6-5		6-6			
A														393	391
B		267	267	272	272	264	272	415	411	393	391	396	394		
C		24	286	299	27	301	30	376	406	179	180	395	393		
D		265	265	262	262	412	412	33	181	395	393				
E		274	274	271	271	263	263	33	181	1551	1551	390	395		
F		267	275	264	272	261	269			394	392	391	389		
G		25	288	29	300	32	307	36	182	405	176	392	390		
H															
J															
K												389	383		
L		26	287	28	298	306	31	105	1579	177	178	182	182		
M		266	272	270	270	412	412		1578	391	389	1184	1184		
N		265	266	263	271	264	264	356	1576	1551	1551				
P		275	275	264	264	261	269	430	404	390	395	394	392		
R		273	273	270	270	262	262		396	394	182	182			
S		266	274	263	271	263	263	176	405	1551	1551	1184	1184		

		6-13		6-14		6-15		6-16		6-17		6-18			
A															
B		1283	1408	1159	1159	1157	1159	1159	1159						
C		1419		1262	1261	1268	1267	1274	1273						
D		1497	1529	1138	1147	1146	1145	1139	1138						
E				1150	1149	1150	1150	1153	1153						
F		1477	1530	1159	1157	1159	1159	1156	1158						
G				1264	1263	1270	1269	1220	1219						
H															
J															
K															
L		799		1266	1265	1272	1271	1222	1221						
M				1141	1139	1138	1147	1139	1138						
N				1150	1150	1151	1150	1154	1154						
P		1335		1157	1157	1157	1157	1156	1158						
R		1395		1146	1145	1144	1143	1141	1139						
S		798		1149	1149	1150	1150	1151	1151						

		6-25		6-26		6-27		6-28		6-29		6-30			
A															
B		1436	1437			735	1478	1491	1282	1282	1282	1282			
C		868	868			1412	1364		952						
D		871	878			734	1461	1489	1520	1519	1526	1527			
E		502	1450			1307			741	740	745	744			
F		1284				765	767		754	752	762	760			
G		1217	1449			1527	765	1462	953	755	753	763	761		
H															
J															
K															
L		1450	1214			764	745		747	751	749	759	757		
M		871				766	734	952	746	750	748	758	756		
N		872	1525			736			737	739	738	743	742		
P		872	869			744	743	1508	1548	1549	1544	1546	1522		
R		867	867			732	730	1370							
S		1437	1436			736	736	956	1282	1282	1282	1282	1282		

		6-7		6-8		6-9		6-10		6-11		6-12			
A															
B				390	389					1679	1679	800	800		
C		110	117	106	397				1626	1623	1665	1664	802	801	
D		347	436	1013	1211					1612	1613	805	1185		
E				1568	1487				1653		1679	1679			
F				1283	1402				1651	1633	1663	1662	806	805	
G															
H		351	356	1014	533				1752	1614	1615	802	801		
J															
K															
L		314	434	819	509				1655	1681	1616	1617	804	803	
M		105	433	1453	1384					1679	1679		807		
N				435	1446	1286			1654		1661	1660			
P		104	439	1334	1404				1654		1618	1619	807	806	
R		103	440	396	392					1679	1679	806	803		
S		102	438	424	1551				1655	1657	1659	1658	808	808	

		6-19		6-20		6-21		6-22		6-23		6-24			
A															
B		835	1345		1522			1188	1281	1539	1277	838	1393		
C		926		943	1279			1438	1463	1451	1540	1461	1511	1469	
D		1489	832	844	1525			1439			1470	1282	839	858	
E				1281	1330	834			1504	1217	1320	795	1212	858	
F		1465	1351	523					1524	1453	1502	1463	1462	1459	
G															
H		1466		1565	835	636	831	1509	880	873	820	837	859		
J															
K															
L		1442	832	836	836	635	1440	842	838	1502	864	824	1539		
M		826	1443	1281	1281	1414	1441	1187	1277	873	863	1523	1540		
N				830	833	633	1442	841	1276	1522	1453	1452	1470		
P		1590	1489	830	833	632			1411	1281	863	1470			
R		831	1490	1351	1358				1443	1443	874	1465	1347		
S		1444	543	1443	1394	1401			1490	1351	1320	1393	864	875	

		6-31		6-32		6-33		6-34		6-35		6-36			
A															
B		1327	656		782										
C		1583	1208		1344	501	650		1417						
D			657					630	1390						
E						1447	1350								
F						1309		1288	1472	1312	1415				
G						639	1468		1350	1202	1419	1043			
H						1310	1106	1469	775	1218	1201	631	1044		
J															
K						639	638	1393	1460						
L						1320	1320	774	1493	1206	1387	650	1043		
M						1489	1484	1413	1489	1414	1388	1308	1044		
N									1494	526	1537	533			
P									781	624	1460				
R						1487	659		1281	1218	1532	1320			
S						1582	1482		1482	533		1344	1522		

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

		7-1		7-2		7-3		7-4		7-5		7-6			
A															
B		200	219	281	281					195	421				
C		125	131	311	110	289	26	301	18	444	376	419	1577		
D		419	419	271	419	285	284	297	296	34	35	420	1576		
E		295	294	274	295					34	35		385		
F		280	201	275	282	25	288	29	300			177	277		
G		326	329	23	334	283	282	295	294	37	38	102	168		
H															
J															
K															
L		328	327	333	332	281	280	293	292	108	305	364	111		
M		419	419	419	419					307					
N		295	294	294	295	24	287	28	299	306	32	363	108		
P		279	291	288	284	279	278	291	290	304	303	110	109		
R		419	419	419	419										
S		296	296	296	294	286	73	298	27	307	306	187	186		

		7-13		7-	
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TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	10-1	10-2	10-3	10-4	10-5	10-6		10-7	10-8	10-9	10-10	10-11	10-12	
A							1							1
B	312	313	86		69	70	96	52	419		81	81		2
C	90	88	87		60	71	55	51	238	359	350	350		3
D	91	89	348	348	82	82	57	53	11	360				4
E	446		358	358	348	348	54	53	420		348	348		5
F	36		91	89	57	58	348	348	241	239	75	76		6
G	445	511	90	88	56	60	50	52	222	238	74	77		7
H														8
J														9
K														10
L	93	85		92	62	65	51	55	49	361		384		11
M	311	83		96	82	82	80	80	80			222		12
N	92	84		348	348	348	47	46	48	314		221		13
P	86	95		93	63	64	47	46	48	54				14
R	309	98	358		82	82			331	49		220		15
S	87	94	348		348	348	316	317	323	50		219		16

	10-13	10-14	10-15	10-16	10-17	10-18		10-19	10-20	10-21	10-22	10-23	10-24									
A							1							1								
B	1018	1017					2	1116	1115	1113	1515	1513	1453	1066	1062	1065						
C				1662	1663	1658	1659	1749	1701	1116	1114		666	1041	1069	1065	1066					
D		1018		886	886	886	886		545		1514	1513	645	1516	561	559	565					
E	513			885	885	885	885		1389	1112	1118	1515	1517	1484	1517	1071	1370	1067				
F	510	724	884		1131	1133	1123	1125		1561	1120	1121	1208	1288	1288	1288	1068	634	1068			
G			885	886	1130	1132	1122	1124		1586	526			646		562	628		566			
H																						
J																						
K																						
L	997	993	1476	983	1134	1134	1126	1128			875		634	633	635	1342	563	1343				
M	1476	1476	1477	982	1135	1137	1127	1129		1750	1390	1116	1114	711	710	1064	1062	628	1062			
N	1194	1193			885	885	885	885			1415	1119	1117	1419	1419	1067	1065	1061	558	1070	567	
P	952	984			886	886	886	886						1503	1503	1418	1418	568	564	567		
R	1476	1476			1664	1665	1660	1661			1747	1751	1112	1113	1518	1516	1040	1064	1063	1063	1069	
S	1192	1191											1115	1121	1288	1288	1419	1448	1067	1071	1064	1070

	10-25	10-26	10-27	10-28	10-29	10-30		10-31	10-32	10-33	10-34				
A							1								
B	1056	1052				944	943					1309	1305		2
C	1059	1055				951	951					698	698		3
D	1296	1292				1367	1365	950	949						4
E	1296	1292				954	942					1309	1305		5
F						633	1396	951				697	697		6
G	1295	1291				627	1393	1364	946	948	947				7
H															8
J															9
K															10
L	1293	1289				1309	1305	945	944						11
M						1310	1306				827	827			12
N	1294	1290									672	678	671	1410	13
P	1294	1290						943	942						14
R	1054	1053									1141	1139			15
S	1057	1061									700	700	1404	544	16

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

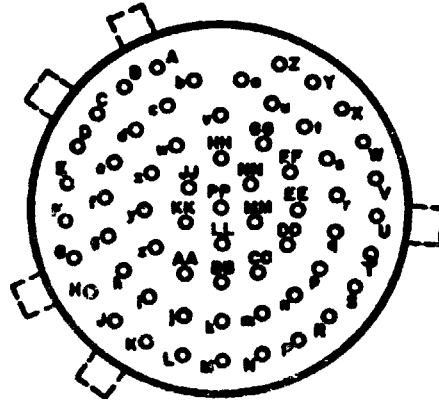
	11-1	11-2	11-3	11-4	11-5	11-6		11-7	11-8	11-9	11-10	11-11	11-12			
A							1							1		
B				416			2				285			2		
C	93	91	200	199	409	126	205					1023	1336	1550	3	
D			422	423		127	223	206			1576	419			4	
E			422	423		127	206					965	1278	1022	1048	5
F	95	89			198		341				1574	1751			6	
G			200	199		126	205	417	415	1575	184				7	
H															8	
J															9	
K															10	
L						419	416	221	220						11	
M								376		1747	1749				12	
N	76	86	63	70	54	58	361	415		345	346				13	
P								239		419	419				14	
R										305	417				15	
S	75	85	64	69	53	57	362		415	297	1750				16	

	11-13	11-14	11-15	11-16	11-17	11-18		11-19	11-20	11-21	11-22	11-23	11-24							
A							1	1421	1420					1						
B				1572			2			1105	1103	1109	1107	1412	558	562	566	1294	2	
C				1575	1572	622	1457			1123	1422	1106	1104	1110	1108					3
D	1192	1193		1574	1573															4
E				1575	1573	1021														5
F		1564																		6
G	1195	1191			1572															7
H												629	724						8	
J																			9	
K																			10	
L	1196	1194		793		1589	1561													11
M				794																12
N																				13
P	1198	1197				1580														14
R						1489														15
S				1562	1578		1535													16

	11-25	11-26	11-27	11-28	11-29	11-30		11-31	11-32	11-33	11-34				
A							1								
B	553					1534	1299	1299							2
C		554				1392		1523	627	626					3
D						954	1392	1049							4
E	555	556				1339		1199	627	626					5
F						1370	1395	1287	1049	1297	1297				6
G						1277	1276	1396	1534	1280					7
H															8
J															9
K															10
L						1281	1395	1448	1508						11
M						1200				628	626				12
N	1040	1456						1050	1051	1037	1029	1297	1295		13
P								1050	1051						14
R															15
S	1037	1454				1448	1508	1035	1027	1416	692				16

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

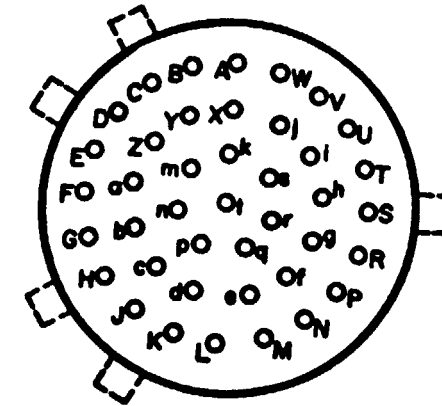
ELECTRICAL CONNECTOR J1
500200-RC61PW



TERMINATIONS					
A	11-30-13 PB1 (SOH)	X	10-32-10 PB21 (WBT)	t	11-32-4 PB41 (CH11)
B	10-29-L PB2 (SEL)	Y	10-32-L PB22 (W3T)	u	11-30-H PB42 (CH12)
C	11-30-P PB3 (STX)	Z	10-32-7 PB23 (CAN)	v	11-30-D PB43 (CH15)
D	10-29-10 PB4 (SEC)	a	10-32-H PB24 (CAN)	w	11-31-P PB44 (CH15)
E	10-30-13 PB5 (ETB)	b	10-32-4 PB25 (REP)	x	11-31-L PB45 (CH15)
F	10-30-P PB6 (BF)	o	10-32-D PB26 (REP)	y	11-31-H PB46 (CH16)
G	10-30-10 PB7 (ETX)	d	10-31-13 PB27 (INV)	z	11-31-D PB47 (CH17)
H	10-30-L PB8 (BF)	e	10-31-P PB28 (INV)	AA	11-32-P PB48 (CH18)
J	10-29-13 PB9 (EM)	f	10-31-10 PB29 (ENQ)	BB	11-32-L PB49 (CH19)
K	10-29-P PB10 (MC)	g	10-31-L PB30 (ENQ)	CC	11-32-H PB50 (CH20)
L	10-31-7 PB11 (ACK1)	h	11-30-10 PB31 (CH1)	DD	11-32-D PB51 (CH21)
M	10-31-H PB12 (ACK1)	i	11-30-7 PB32 (CH2)	EE	11-30-L PB52 (CH22)
N	10-31-4 PB13 (ACK2)	j	11-30-4 PB33 (CH-3)	FF	10-21-L PB53 (FE)
P	10-31-D PB14 (ACK3)	k	11-31-13 PB34 (CH-4)	GG	10-21-10 PB54 (FO)
R	10-30-7 PB15 (NAK)	m	11-31-10 PB35 (CH5)	HH	11-22-D PB55 (SYNC)
S	10-30-H PB16 (NAK)	n	11-31-7 PB36 (CH6)	JJ	10-21-3 PB56 (CHA)
T	10-30-4 PB17 (RM)	p	11-31-4 PB37 (CH7)	KK	10-21-C PB57 (CHB)
U	10-30-D PB18 (RM)	q	11-32-13 PB38 (CH8)	LL	10-21-7 PB58 (CHC)
V	10-32-13 PB19 (START)	r	11-32-10 PB39 (CH9)	MM	10-21-H PB59 (CHD)
W	10-32-P PB20 (START)	s	11-32-7 PB40 (CH10)	NN	10-22-7 PB60 (CHE)

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

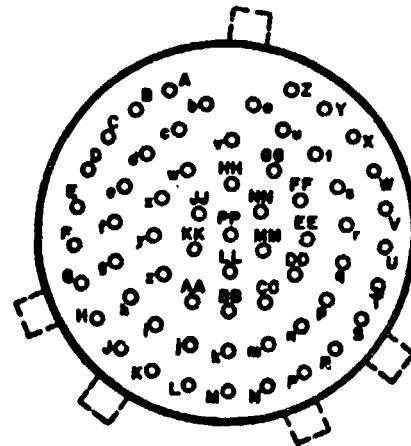
ELECTRICAL CONNECTOR J2
500200-RC41PW



TERMINATIONS	
B	11-12-6 2 ⁰ ULBG#
C	11-12-C 2 ¹ ULBG#
D	11-12-3 2 ⁴ ULBG#
E	11-12-12 2 ³ ULBG#
M	11-12-F 2 ⁰ DLBC#
N	11-12-N 2 ¹ DLBC#
P	11-12-15 2 ⁴ DLBC#
R	11-12-8 2 ¹ DLBC#
Y	11-12-9 2 ⁰ UMSG#
Z	11-12-C 2 ¹ UMSG#
a	11-12-3 2 ⁴ UMSG#
b	11-12-12 2 ³ UMSG#
i	11-12-F 2 ⁰ DMSG#
j	11-12-N 2 ¹ DMSG#
k	11-12-15 2 ⁰ DMSG#
m	11-12-8 2 ⁴ DMSG#

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

ELECTRICAL CONNECTOR J3
500200-RC61 PN

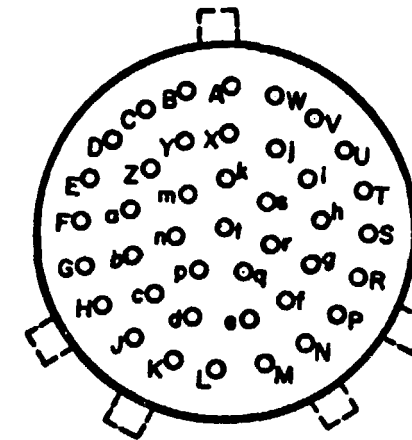


TERMINATIONS

A	11-33-4 PU0	S	10-34-10 PD4	h	11-25-H RS11-A8	x	5-34-6 EOB#2U
B	11-33-D PU1	T	10-34-L PD5	i	11-25-7 RS11-A9	y	5-34-5 EOB#2D
C	11-33-7 PU2	U	10-34-13 PD6	j	5-34-B EOB#TU	z	5-34-12 REP#U
D	11-33-H PU3	V	10-34-P PD7	k	11-23-D RS11-B0	AA	5-34-14 REP#D
E	11-33-10 PU4	W	11-34-7 PD8	m	11-23-H RS11-B1	BB	10-22-B ABCDE#U
F	11-33-L PU5	X	11-34-H PD9	n	11-23-L RS11-B2	CC	10-22-R ABCDE#D
G	11-33-13 PU6	Y	11-34-15 PAUSE #D	p	11-23-P RS11-B3	DD	11-19-15 PB-1A
H	11-33-P PU7	Z	11-24-L RS11-A0	q	11-23-4 RS11-B4	EE	11-19-8 PB-2A
J	11-34-4 PU8	a	11-24-P RS11-A1	r	11-23-7 RS11-B5	FF	11-19-13 PB-3A
K	11-34-D PU9	b	11-24-4 RS11-A2	s	11-23-10 RS11-B6	GG	11-19-P PB-4A
L	11-34-N PAUSE #U	c	11-24-7 RS11-A3	t	11-23-13 RS11-B7	HH	11-19-10 PB-5A
M	10-34-4 PD0	d	11-24-10 RS11-A4	u	11-24-D RS11-B8	JJ	11-19-L PB-6A
N	10-34-D PD1	e	11-24-13 RS11-A5	v	11-24-H RS11-B9	KK	11-19-7 PB-7A
P	10-34-7 PD2	f	11-25-D RS11-A6	w	5-34-C EOB#ID	LL	11-19-H PB-8A
R	10-34-H PD3	g	11-25-4 RS11-A7				

TABLE A4-3. LOGIC CHASSIS A, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

ELECTRICAL CONNECTOR J5
500200-RC41 PN

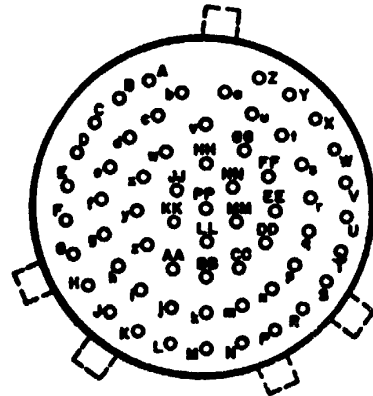


TERMINATIONS

A	10-19-L 100B	R	9-10-M 19.2 KC
B	SHIELD W6-19B	S	SHIELD W5-10B
C	10-19-13 50B	T	9-10-11 9.6 KC
D	SHIELD W6-20B	U	SHIELD W5-10B
E	11-8-14 614.4 KC	V	10-10-F 2.4 KC
F	SHIELD W6-8B	W	SHIELD W6-10B
G	11-8-R 307.2 KC	X	9-10-6 4.8 KC
H	SHIELD W6-8B	Y	SHIELD W5-10B
J	11-8-M 153.6 KC	Z	10-10-M 1.2 KC
K	SHIELD W6-8B	a	SHIELD W6-10B
L	11-10-N 76.8 KC	b	10-19-P 16x45.5
M	SHIELD W6-11B	c	SHIELD W6-19B
N	9-10-F 38.4 KC	d	10-19-D 16x50B
P	SHIELD W5-10B	e	SHIELD W6-19B

TABLE A4-4. LOGIC CHASSIS A, CONNECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR J6
500200-RC61PN

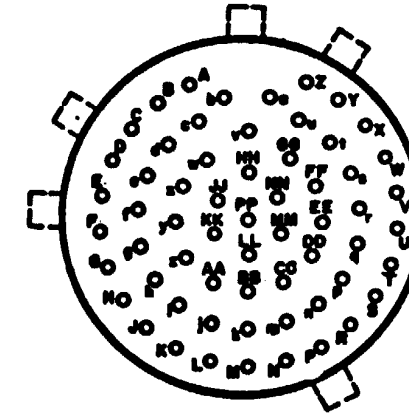


TERMINATIONS

- A 10-11-R
RWBTA
- B 11-15-11
RACK 1A
- C 11-15-14
RACK 2A
- D 10-11-14
RRMA
- E 10-19-E
RNAKA
- G 10-24-H
AUTO CORD (OUT)
- H 8-29-S
TACK 1
- J 8-29-P
TACK 2
- K 8-28-P
TNAK
- L 8-28-D
TWBT
- M 8-28-S
TRM
- P 10-1-6
DET DISC
- Y 11-6-E
INPUT ERR
- Z 11-15-R
INPUT ERRS

TABLE A4-4. LOGIC CHASSIS A, CONNECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR J7
500200-RC61PX

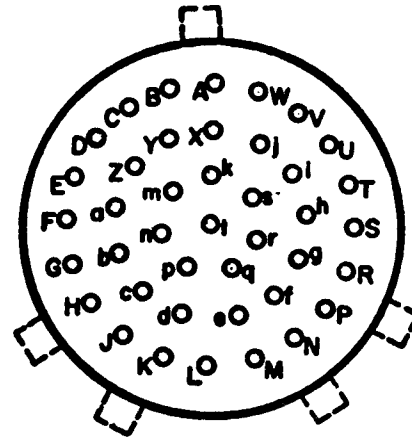


TERMINATIONS

- A 11-11-F
- B 11-11-B
- C 7-34-S
- D 7-34-M
- E 11-11-12
- F 11-27-B
- G 11-11-M
- H 11-11-R
- J 11-10-2
- K 11-10-6
- L 7-34-6
- M 7-34-2
- N 11-22-S
- P 11-22-M
- R 7-34-F
- S 7-34-B
- V 11-15-2
- W 11-15-6
- X 7-34-11
- Y 7-34-15
- Z 8-34-2
- a 8-34-6
- b 8-34-B
- c 8-34-F
- d 8-34-11
- e 8-34-15
- f 8-34-M
- g 8-34-S
- h 10-12-2
- i 10-12-6
- j 10-12-15
- k 10-12-11
- m 10-12-B
- p 10-12-F
- q 11-11-2
- r 11-11-6
- s 11-29-E
- t 11-29-C
- u 11-29-G
- v 6-20-M
- w 11-10C
76, 8KC (16x4800)
- x 9-10-C
38, 4KC (16x2400)
- y 9-10-S
19, 2KC (16x1200)
- z 9-10-15
9, 6KC (16x600)
- AA 9-10-3
4, 8KC (16x300)
- BB 10-10-C
2, 4KC (16x150)
- CC 10-10-S
1, 2KC (16x75)
- DD 10-10-R
1, 2KC (16x74, 2)
- EE 10-10-15
16x50
- FF 10-10-3
16x45, 5
- GG 11-27-6
CODE SEL (ASM1)
- HH 11-28-3
CODE SEL (ASM5)
- JJ 11-27-15
CODE SEL (TA2)
- LL 6-34-B
INS PTCH BLK 1
- MM 11-22-F
INH PTCH
- PP 11-22-15
ABCDE LAST BLK

TABLE A4-4. LOGIC CHASSIS A, CONNECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR J8
500200-RC41PN

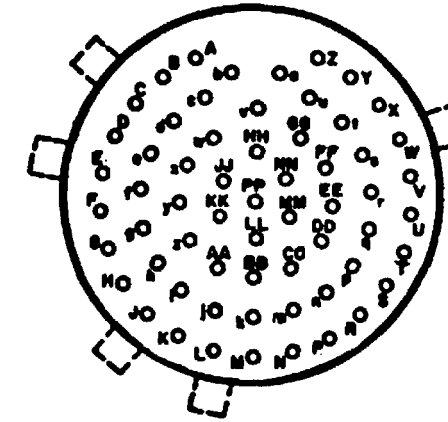


TERMINATIONS

A	<u>9-20-10</u> RU0	M	<u>9-19-13</u> RD0
B	<u>9-20-1</u> RU1	N	<u>9-19-P</u> RD1
C	<u>9-20-7</u> RU2	P	<u>9-19-10</u> RD2
D	<u>9-20-H</u> RU3	R	<u>9-19-L</u> RD3
E	<u>9-20-4</u> RU4	S	<u>9-19-7</u> RD4
F	<u>9-20-D</u> RU5	T	<u>9-19-H</u> RD5
G	<u>8-21-13</u> RU6	U	<u>9-19-4</u> RD6
H	<u>8-21-P</u> RU7	V	<u>9-19-D</u> RD7
J	<u>8-21-10</u> RU8	W	<u>9-20-13</u> RD8
K	<u>8-21-L</u> RU9	X	<u>9-20-P</u> RD9
L	<u>11-21-12</u> RU0	Y	<u>11-21-15</u> RD0

TABLE A4-4. LOGIC CHASSIS A, CONNECTOR WIRING DATA (cont)

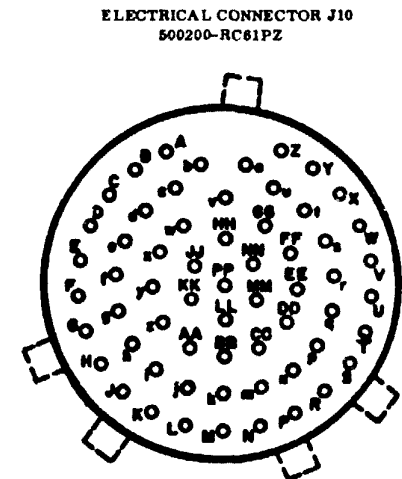
ELECTRICAL CONNECTOR J9
500200-RC61PY



TERMINATIONS

A	<u>11-22-2</u> ABCDE INH	T	<u>7-33-L</u> COMP-D	l	<u>11-11-13</u> XMIT SRACK-D	x	<u>11-20-P</u> RU1D
B	<u>10-29-C</u> 2CC SEL (ACK1)	U	<u>11-29-10</u> NAK SENT-D	j	<u>11-29-4</u> XMIT CAN-D	AA	<u>11-20-10</u> RU2D
C	<u>10-29-3</u> 2CC SEL (ACK2)	V	<u>11-29-13</u> RM SENT-D	k	<u>11-15-L</u> ALARM D	BB	<u>11-20-L</u> RU3D
D	<u>10-29-F</u> 2CC SEL (NAK)	W	<u>11-34-P</u> XMIT REP-D	m	<u>11-28-7</u> XMIT 2CC-D	CC	<u>11-20-7</u> RU4D
E	<u>10-29-6</u> 2CC SEL (RM)	X	<u>7-33-H</u> EXP ACK-D	n	<u>10-20-13</u> RD0D	DD	<u>11-20-H</u> RU5D
F	<u>10-28-6</u> 2CC SEL (WBT)	Y	<u>11-29-L</u> INV SENT-D	p	<u>10-20-P</u> RD1D	EE	<u>11-20-4</u> RU6D
G	<u>10-28-N</u> 2CC SEL (CAN)	Z	<u>11-29-P</u> CAN SENT-D	q	<u>10-20-10</u> RD2D	FF	<u>11-20-D</u> RU7D
H	<u>10-28-12</u> 2CC SEL (REP)	a	<u>11-25-L</u> BAD REPLY-D	r	<u>10-20-L</u> RD3D	GG	<u>11-21-4</u> RU8D
J	<u>10-28-8</u> 2CC SEL (INV)	b	<u>11-25-P</u> 3RPT-D	s	<u>10-20-7</u> RD4D	HH	<u>11-21-D</u> RU9D
K	<u>10-28-15</u> 2CC SEL (ENQ)	c	<u>11-25-10</u> RPT MSG-D	t	<u>10-20-H</u> RD5D	JJ	<u>11-28-R</u>
M	<u>11-15-H</u> GAAL	d	<u>11-25-13</u> RPT BLK-D	u	<u>10-20-4</u> RD6D	KK	<u>11-28-M</u>
N	<u>7-33-4</u> START XMIT-D	e	<u>11-34-10</u> XMIT DATA-D	v	<u>10-20-D</u> RD7D	LL	<u>11-28-14</u>
P	<u>7-33-7</u> ETX SENT-D	f	<u>6-27-D</u> XMIT SYNC-D	w	<u>11-21-7</u> RD8D	NN	<u>6-10-H</u> WMSGD
R	<u>7-33-D</u> ETB SENT-D	g	<u>10-12-P</u> XMIT DISC-D	x	<u>11-21-H</u> RD9D		
S	<u>11-21-P</u> ERR-D	h	<u>10-12-L</u> XMIT BUSY-D	y	<u>11-20-13</u> RU0D		

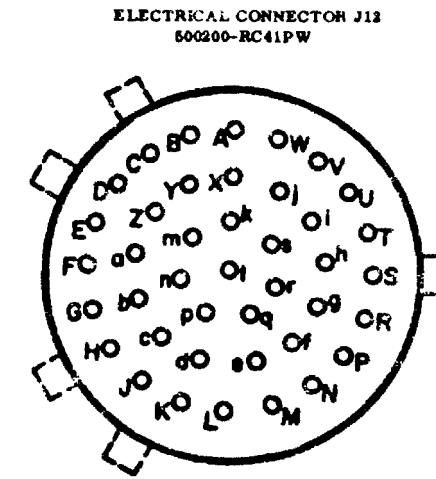
TABLE A4-4. LOGIC CHASSIS A, CONNECTOR WIRING DATA (cont)



TERMINATIONS

A	11-7-B	Y	11-1-7 MC D	e	11-8-6 EN60
B	11-7-F	Z	11-1-4 EMD	t	11-8-F EN45, 5
C	11-7-6	a	11-1-P CAN D	u	11-5-6 MODE I ASCII
D	11-7-2	b	11-2-L ACK3-D	v	11-5-F MODE V ASCII
E	11-2-B	c	11-2-P ACK1-D	w	11-5-S MODE V ITA2
F	11-2-F	d	11-3-10 RMS	x	11-1-L REP - D
G	11-4-6	e	11-3-13 NAK D	y	11-3-L ENQ D
H	11-4-2	f	11-3-10 START D	z	11-3-6
J	11-2-2	g	11-2-13 WBT D	AA	11-3-2
K	11-2-6	h	11-3-P INV D	BB	11-16-D XMIT DATA
L	11-4-10 FRAME D	i	11-4-C EN4600	CC	11-16-P XMIT CLK OUT
M	11-4-H SYN D	j	11-7-12 EN2400	DD	7-10-13 BG XMIT CLK IN
N	11-3-D CONT. RCU D	k	11-7-15 EN1200	EE	11-4-15 CHARRDRDATAINPUT
P	11-3-H DATA D	m	11-7-8 EN600	FF	11-7-N EXT CLK
R	11-6-C DISC D	n	11-8-3 EN300	GG	6-10-4 PRINTER OUTPUT LINE
S	11-4-P ERR D	p	11-8-C EN160	HH	6-10-11 RCULINE READER
T	11-4-L ER1 - D	q	11-8-12 EN75	JJ	6-10-M WMSGW
U	11-1-10 STX D	r	11-8-11 EN74.2	KK	6-10-R WMSGW
V	11-1-13 SOH D				
W	11-1-H ETX D				
X	11-1-D ETB D				

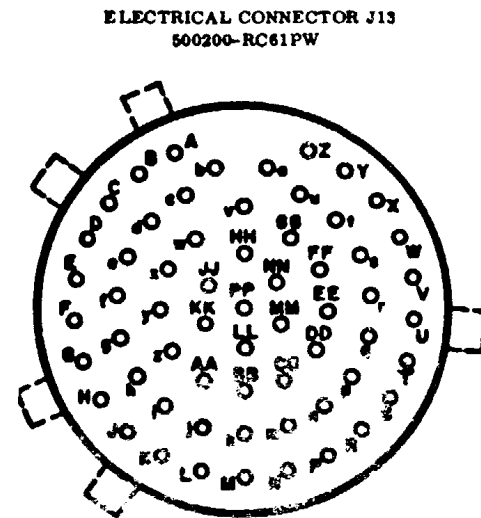
TABLE A4-4. LOGIC CHASSIS A, CONNECTOR WIRING DATA (cont)



TERMINATIONS

A	4-9-13 TIRSOB 69	M	3-8-N RR4 69
B	4-9-10 TIRSTX 69	N	3-12-16 RR5 67
C	4-9-6 TERM 69	P	5-10-D TIR2 ⁰ 62
D	6-8-M INH REQ4 69	R	5-10-4 TIR2 ¹ 68
E	6-10-3 REQ4 69	S	5-10-H TIR2 ² 68
F	11-10-P PREN 67	T	5-10-7 TIR2 ³ 68
H	6-10-D REQ5 67	U	5-10-L TIR2 ⁴ 68
J	4-10-F PRDS 67	V	5-10-10 TIR2 ⁵ 68
K	8-10-B RPREN 67	W	5-10-P TIR2 ⁶ 68
L	8-10-F SPREN 67	X	5-10-13 TIR2 ⁷ 68

TABLE A4-4. LOGIC CHASSIS A, CONNECTOR WIRING DATA (cont)



TERMINATIONS

A	11-13-1 RR1	D	11-13-D 2 ¹ ULBC#	c	11-12-L 2 ¹ DMSG#
B	11-16-N MSG# COMP	S	11-13-4 2 ² ULBC#	d	11-12-12 2 ² DMSG#
C	10-19-11 MSCH	S	11-13-10 2 ³ ULBC#	e	11-12-P 2 ³ DMSG#
D	10-16-C MB1	T	11-13-H 2 ⁰ DLBC#	f	10-11-L M5 (MEM)
E	10-16-3 MB2	U	11-13-L 2 ¹ DLBC#	g	10-13-7 XM (MEM)
F	10-15-R MB3	V	11-13-13 2 ² DLBC#	h	10-13-H POS FRAG (MEM)
G	10-16-14 MB4	W	11-13-P 2 ³ DLBC#	i	11-10-10 RPT BLK (MEM)
H	10-15-C MB5	X	11-12-7 2 ⁰ UMSG#	j	11-16-4 RPT MSG (MEM)
J	10-15-3 MB6	Y	11-12-D 2 ¹ UMSG#	k	11-16-H REQ DATA (MEM)
K	10-15-R MB7	Z	11-12-4 2 ² UMSG#	m	10-13-D BEGIN (MEM)
L	10-15-14 MB8	a	11-12-10 2 ³ UMSG#	n	10-11-10 *
M	10-14-6 BGDS	b	11-12-H 2 ⁰ DMSG#	p	10-13-3 **
N	11-13-7 2 ⁰ ULBC#				

TABLE A4-5. LOGIC CHASSIS A, CAPACITOR WIRING DATA

<u>From</u>	<u>To</u>
6-13-K	6-13-P
10-8-P	10-8-K
10-8-13	10-8-9
8-8-11	8-7-K
2-6-C	2-6-K

TABLE A4-6. LOGIC CHASSIS B, POWER WIRING DATA

Row	Bus Bar	Slot No.	Terminals	Row	Bus Bar	Slot No.	Terminals
ROW 1	W1A	1	1-A-B-2-3-C	ROW 3	W2A	1	1-A
		2	1-A	(CONT)		2	1-A
		3	1-A			3	1-A
		4	1-M			4	1-A
		5	M-1-13-14			5	1-A
		6	1-A			6	1-A-14-12
		7	1-A			7	1-A
		8	1-A			8	12-N
		9	1-A			9	A-1-5-E-12-N
		10	1-A			10	1-A
		11	1-A			11	1-A
		12	1-A-B-2-3-C-E-5-11-M-N-12-14-R			12	12-N
		13	1-A			13	1-A
		14	1-A			14	A-1-3-5-E-N-12
		15	1-A			15	A-1-5-12-N
		16	1-A			16	1-A-B-2-3-C-E-5-11-M-N-R
		17	1-A			17	1-A
		18	1-A	ROW 4	W3A	1	1-A
		19	1-A			2	1-A
		20	1-A			3	1-A
		21	1-A			4	1-A
		22	1-A			5	1-A-L-10
		23	1-A			6	1-A-L-10-11
		24	1-A-B-2-9-15			7	1-A-L
		25	1-A-B-15			8	1-A
		26	1-A			9	1-A
		27	1-A			10	1-A
		28	1-A-15			11	1-A
		29	1-A			12	A-1-3-4
		30	1-A			13	1-A
		31	1-A			14	1-A
		32	A-1-2			15	1-A
		33	A-1-3-B-E-6-12-15-8			16	1-A
		34	1-A			17	1-A-C-E-5-12-N
ROW 2	W2A	1	1-A-B	ROW 7	V4A	1	1-A
		2	1-A-B-2-15-8			2	1-A
		3	1-A-B-E-9-15			3	1-A
		4	1-A-E-9-12-N			4	1-A
		5	1-A-E-9-12-N			5	1-A-E-14-N
		6	1-A			6	1-A
		7	1-A			7	1-A
		8	1-A			8	1-A
		9	1-A			9	1-A
		10	1-A			10	1-A
		11	1-A			11	1-A
		12	1-A-B-2-3-C-E-5-11-M-N-12-14-R			12	12-N
		13	1-A-B-2-3-C-E-5-12-N-R-14-15-8			13	1-A-3
		14	1-A			14	1-A
		15	1-A			15	1-A-E-5-2-12-N-8-15
		16	1-A			16	12-N-E-14
		17	1-A			17	1-A
		18	1-A	ROW 5	W3A	1	1-A-5
		19	1-A			2	1-A
		20	1-A			3	1-A
		21	1-A			4	1-A
		22	1-A			5	1-A
		23	1-A			6	1-A
		24	1-A			7	1-A
		25	1-A			8	1-A-E-5-14
		26	1-A-E-M-15			9	1-A
		27	1-A-B-2-3-C-E-M-11-12-N			10	12-N
		28	1-A			11	1-A
		29	1-A			12	1-A
		30	1-A			13	1-A
		31	1-A-B-15			14	1-A
		32	1-A			15	1-A-C-E-2-14-N
		33	1-A			16	1-A-R-8-15-14-13
		34	1-A			17	1-A
ROW 3	W3A	1	1-A	ROW 6	W4A	1	1-A
		2	1-A			2	1-A
		3	1-A			3	1-A
		4	1-A			4	1-A
		5	1-A			5	1-A
		6	1-A			6	1-A-B-2-3-C-E-5-12-N-14-R-15-8
		7	1-A			7	1-A
		8	1-A			8	1-A
		9	1-A			9	1-A
		10	1-A			10	1-A-M
		11	1-A			11	1-A
		12	1-A			12	1-A-B-2-3-C-E-5-11-M-N-12-14-R
		13	12-N			13	1-A
		14	12-N			14	1-A
		15	A-1-5			15	1-A
		16	1-A			16	1-A
		17	1-A			17	1-A

TABLE A4-6. LOGIC CHASSIS B, POWER WIRING DATA (cont)

Row	Bus Bar	Slot No.	Terminals	Row	Bus Bar	Slot No.	Terminals
ROW 8	W3A	18	1-A	ROW 11	W4A	1	1-A
(CONT)		19	1-A	(CONT)		2	1-A
		20	1-A			3	1-A
		21	1-A			4	1-A
		22	1-A			5	1-A
		23	1-A			6	11-M-R
		24	1-A			7	1-A
		25	1-A			8	11-M
		26	1-A			9	1-A
		27	1-A			10	1-A
		28	1-A			11	1-A
		29	1-A			12	1-A
		30	1-A			13	1-A-N-15
		31	1-A			14	1-A
		32	1-A			15	1-A
		33	1-A			16	1-A
		34	1-A			17	1-A
ROW 9	W5A	1	1-A-E-5-12-N	ROW 3	W2B	1	1-A
		2	1-A-E-N-12-3			2	1-A
		3	1-A-E-5-12-N			3	1-A
		4	1-A-R			4	1-A-D-L-10-11-M-12
		5	A-1-3-C-D			5	1-A
		6	1-A-E-5-12-N			6	1-A
		7	1-A			7	1-A
		8	A-1-2-3-5-12-N-R-14-15-8			8	1-A
		9	1-A			9	1-A
		10	A-1-12-15-R-N-E			10	1-A-E-5-12-N
		11	1-A			11	1-A-E-5-12-N
		12	1-A-5			12	1-A-F
		13	1-A			13	1-A
		14	1-A			14	1-A
		15	1-A-8			15	1-A-B-2-5-E-N-12-15-8
		16	1-A-5			16	1-A-B-2-5-E-N-12-15-8
		17	1-A			17	1-A-B-2-5-E-N-15
		18	1-A	ROW 1	W/B	1	1-A
		19	1-A			2	1-A
		20	1-A			3	1-A
		21	1-A-C			4	D-E-8
		22	1-A			5	D-E-8
		23	1-A			6	1-A
		24	1-A			7	1-A
		25	1-A			8	1-A
		26	1-A			9	1-A
		27	1-A			10	1-A
		28	1-A			11	1-A
		29	1-A			12	1-A
		30	1-A			13	1-A
		31	1-A			14	1-A
		32	1-A			15	1-A
		33	1-A			16	1-A
		34	1-A			17	1-A
ROW 10	W6A	1	1-A-B-2-3-C-E-5-11-M-N-12-14-R	ROW 4	W3-B	1	1-A
		2	1-A-5			2	1-A
		3	1-A-B			3	1-A
		4	11-M-p			4	1-A
		5	1-A			5	1-A
		6	1-A			6	1-A
		7	1-A			7	1-A
		8	12-N-L-5			8	1-A
		9	12-N-R-14-19-10-L-E-9-5-E			9	1-A
		10	1-A			10	1-A
		11	1-A			11	1-A
		12	1-A			12	1-A
		13	1-A			13	1-A
		14	1-A			14	1-A
		15	1-A			15	1-A
		16	1-A			16	1-A
		17	1-A			17	1-A
		18	1-A	ROW 2	W2B	1	1-A
		19	1-A			2	1-A
		20	1-A			3	1-A
		21	1-A			4	1-A
		22	1-A			5	1-A
		23	1-A			6	1-A
		24	1-A-6			7	1-A
		25	1-A			8	1-A
		26	A-1-2-B-C-E-R-14-15-8			9	1-A
		27	A-1-3-B			10	1-A
		28	1-A-B-2-5-e-N-12-15			11	1-A
		29	1-A-R-8			12	1-A
		30	1-A			13	1-A
		31	1-A			14	1-A
		32	1-A-F-G			15	1-A
		33	1-A			16	1-A
		34	1-A			17	1-A

TABLE A4-6. LOGIC CHASSIS B, POWER WIRING DATA (cont)

Row	Bus Bar	Slot No.	Terminals
ROW 6	W3B	1	9-K
		2	9-K
		3	9-K
		4	9-K
		5	9-K
		6	9-K
		7	9-K
		8	9-K-R
		9	9-K
		10	4-D
		11	9-K
		12	9-K
		13	9-K
		14	9-K
		15	9-K
		16	9-K
		17	
		18	
		19	9-K
		20	9-K
		21	9-K
		22	9-K
		23	9-K
		24	9-K
		25	9-K
		26	9-K
		27	9-K
		28	9-K
		29	9-K
		30	9-K
		31	9-K
		32	9-K
		33	9-K
		34	9-K
		1	9-K
		2	9-K
		3	9-K
		4	9-K
		5	9-K
		6	9-K
		7	9-K
		8	9-K
		9	9-K
		10	4-D
		11	4-D
		12	9-K
		13	9-K
		14	9-K
		15	9-K
		16	9-K
		17	
		18	
		19	9-K
		20	9-K
		21	9-K
		22	9-K
		23	9-K
		24	9-K
		25	9-K
		26	9-K
		27	9-K
		28	9-K
		29	9-K
		30	9-K
		31	9-K
		32	9-K
		33	9-K
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		23	9-K

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA

Row	Bus Bar	Slot No.	Terminals	Loop No.	Termination
ROW 8	W4B	12	E-D-4	1	11-15-3 10-12-2
		13	9-K	2	11-15-5 10-12-B
		14	9-K	3	11-15-7 10-12-5
		15	9-K	4	11-15-10 10-12-E
		16	4-D-E-P	5	11-15-12 10-12-12
		17		6	11-15-14 10-12-N
		18		7	11-15-C 10-12-14
		19	9-K	8	11-15-D 10-12-R
		20	9-K	9	11-15-F 10-12-S
		21	9-K	10	10-12-4 10-13-4
		22	9-K	11	10-12-D 10-13-3
		23	9-K	12	10-12-7 10-13-15
		24	9-K	13	10-12-H 10-13-14
		25	9-K	14	10-12-10 10-13-13
		26	9-K	15	10-12-L 10-13-12
		27	9-K	16	10-12-13 10-13-11
		28	9-K	17	10-16-6 10-16-F 11-15-M
		29	9-K	18	11-15-L 11-8-1 10-27-3
		30	9-K	19	10-12-3 11-8-3 11-8-15 11-13-14
		31	9-K	20	10-8-11 10-8-M 10-12-C 11-8-6 11-13-M
		32	9-K	21	9-15-R 10-12-6 11-8-7
		33	9-K	22	11-16-13 10-12-F 11-8-4 11-8-A 7-15-D
		34	9-K	23	10-12-11 11-8-C 11-8-S 11-16-15
		1	9-K	24	10-12-M 11-8-F 11-16-B
		2	9-K	25	10-12-15 11-8-H 11-16-D
		3	9-K	26	11-6-1 11-8-D 11-16-F
		4	9-K	27	11-6-3 11-6-15 11-16-M
		5	9-K	28	11-6-6 11-16-P 7-15-4
		6	9-K	29	10-13-7 10-11-6 10-9-S 10-9-15
		7	9-K	30	10-12-P 11-6-P
		8	9-K	31	11-15-E 10-10-12
		9	9-K	32	11-15-H 10-2-12
		10	9-K	33	9-10-10 10-14-2
		11	9-K	34	9-10-M 10-9-1
		1	9-K	35	10-9-3 10-14-3
		2	9-K	36	10-9-B 10-14-B
		3	9-K	37	9-10-S 10-9-A 10-9-2 10-9-P 10-14-C
		4	9-K	38	10-14-4 10-14-5
		5	9-K	39	10-14-6 10-14-D
		6	5-E-13-14	40	10-14-7 10-11-2
		7	9-K	41	10-11-4 10-11-5
		8	5-E-P-13-14-R	42	10-11-7 10-9-11
		9	9-K	43	10-9-6 10-9-M
		10	9-K	44	11-6-A 10-9-F
		11	9-K	45	10-8-3 11-6-C 11-6-S
		12	9-K	46	11-6-D 10-6-6 9-10-14
		13	9-K	47	10-15-11 10-6-4 10-2-M
		14	9-K	48	10-15-12 10-10-10 10-2-N
		15	9-K	49	2-3-2 2-1-14 3-1-5 4-3-7 9-10-13 9-10-P
		16	9-K	50	10-15-14 10-2-10 10-2-P
		17	9-K	51	10-6-7 10-15-15
		18	9-K	52	
		19	9-K	53	10-8-7 10-8-E 6-16-S
		20	9-K	54	10-8-10 10-8-9 10-8-H 6-16-F
		21	9-K	55	10-8-6 10-8-K
		22	9-K	56	1-8-11 2-15-B 3-1-N 3-1-6 3-10-E 3-10-5
		23	9-K		3-10-12 3-10-N 3-10-S 3-10-15 3-11-E 3-11-5
		24	9-K		3-11-12 3-11-N 3-11-S 3-11-15 3-12-14 9-8-7
		25	9-K		10-10-11 10-6-2 10-2-11 10-1-S
		26	9-K	57	9-11-11 10-11-3 10-6-5 10-6-S 10-1-L 3-1-R 2-1-15
		27	9-K		2-1-2 2-15-F 2-15-S
		28	9-K	58	10-3-15 10-15-10
		29	9-K	59	11-3-12 11-3-15
		30	9-K	60	11-7-13 11-7-14 7-3-3
		31	9-K	61	

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination					
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123						
124						
125	1-1-H	1-2-2	2-1-5	2-1-E	2-2-12	2-2-N
	2-2-E	2-2-5	2-3-12	2-3-N		
126	3-1-7	3-1-11				

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination					
127	3-2-M	3-2-11	11-1-B	11-1-E		
128	3-2-B	3-2-2	11-1-C	11-1-D		
129	1-6-2	3-2-3				
130	1-6-3	3-2-C				
131	1-6-5	3-2-10				
132	1-6-6	3-2-L				
133	1-2-3	3-1-B	3-1-E			
134	1-1-5	3-1-L				
135	1-1-6	3-1-P				
136	1-1-7	2-1-4	2-1-13	2-1-P	2-1-D	2-2-4
	2-2-P	2-2-D	2-3-13	2-3-P		2-2-13
137	1-3-H	1-2-B				
138	1-2-C	2-4-2	2-4-S	2-4-15	2-4-B	2-5-2
	2-5-B	6-9-2				2-5-15
139	1-4-4	1-4-B				
140	1-4-3	1-4-R				
141	1-4-15	1-4-L				
142	1-4-14	1-4-J				
143	1-4-13	1-5-B				
144	1-4-12	1-5-R				
145	1-4-11	1-5-L				
146	1-4-10	1-5-J				
147	1-3-B	1-7-3	1-12-F			
148	1-7-L	1-12-6				
149	1-7-H	2-12-S				
150	1-8-3	2-12-15				
151	1-10-L	1-9-2				
152	1-8-10	2-15-11				
153	2-15-P	2-15-12				
154	1-8-4	1-8-D	1-8-P	1-9-B	1-10-14	2-15-10
155	1-9-C	1-10-4	1-10-13	1-10-R	1-10-P	
156	1-10-H	1-9-4				
157	1-11-10	1-9-D				
158	1-11-7	1-9-6				
159	2-15-3	2-7-11	2-7-M	1-16-11	1-16-M	1-16-B
160	2-15-4	1-9-F				1-9-7
161	2-6-D	2-6-7	2-6-11	2-6-M	1-9-H	
162	1-11-H	1-9-I				
163	2-8-M	2-8-11	2-8-2	2-8-B	2-7-2	2-7-B
164	5-16-H	8-14-F				1-9-10
165	1-13-3	2-14-F				
166	1-13-2	2-14-P	2-14-6			
167	2-14-N	2-14-E	2-14-13	2-15-7		
168	2-11-7	2-14-5	1-13-C			
169	1-13-5	2-14-4	2-14-12	1-13-B		
170	2-11-H	2-14-11	2-14-M			
171	2-14-10	2-16-2	2-14-D	1-13-D		
172	2-14-L	2-16-3				
173	2-14-7	2-16-5				
174	2-14-H	2-16-6				
175	3-8-15	3-8-5	3-8-4	3-12-2		
176	3-8-D	3-8-E	3-8-M			
177	3-8-P	3-11-14				
178	4-4-7	4-2-2				
179	4-4-H	4-2-B				
180	4-5-7	4-2-4				
181	4-5-H	4-2-D				
182	4-6-7	4-2-6				
183	4-6-H	4-2-F				
184	4-7-7	4-2-11				
185	4-7-H	4-2-M				
186	4-8-7	4-2-13				
187	4-8-H	4-2-P				
188	4-10-7	4-2-15				
189	4-10-H	4-3-2				
190	3-1-13	3-1-2				

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
191	4-1-H	4-3-B					
192	4-1-7	5-2-M					
193	4-1-10	5-2-N					
194	4-1-L	5-2-R					
195	4-1-3	5-2-S					
196	2-15-D	1-13-D					
197	2-15-H	1-13-6					
198	3-16-4	5-12-2					
199	1-3-6	5-4-10					
200	11-3-S	11-3-N	8-1-R	5-5-M			
201	6-2-M	9-2-6					
202	6-2-11	9-2-7					
203	11-3-R	11-3-P					
204	1-7-R	8-9-R	5-14-N	3-21-C	4-32-14		
205	10-3-2	7-16-H	5-14-11				
206	8-8-2	5-9-H					
207	5-5-I	5-9-F					
208							
209							
210	6-5-12	6-5-L					
211	3-5-10	6-5-N	11-7-P				
212	9-10-D	9-9-14					
213	9-9-S	9-15-7					
214	9-9-R	6-15-D					
215	7-13-E	5-14-H					
216	10-10-15	10-11-P					
217	7-6-12	7-3-13					
218	10-11-R	9-9-L	5-9-P				
219	1-13-7	1-15-2	1-15-B	1-15-E	1-15-5	1-15-11	1-15-M
	1-15-R	1-15-14					
220	1-13-E	1-14-2	1-14-B	1-14-E	1-14-5	1-14-11	1-14-M
	1-14-R	1-14-14					
221	5-15-7	7-34-14					
222	2-15-C	2-15-E	3-25-L				
223	2-15-L	3-15-M	3-16-S	4-14-5			
224	3-15-L	2-15-N					
225	5-16-7	9-13-M					
226	9-13-L	7-13-11	9-4-12				
227	9-13-12	9-13-13	9-4-15				
228	9-13-15	9-13-10					
229	3-4-10	10-3-C					
230	5-5-10	5-9-11					
231	9-4-13	11-7-11					
232	2-16-11	2-14-3					
233							
234	5-6-13	5-9-M					
235	5-5-3	1-6-M					
236	1-6-L	6-4-2					
237	5-6-7	1-6-R					
238	5-6-4	5-6-5					
239	5-1-C	5-1-D					
240	5-9-L	5-10-11	5-10-15	5-10-S			
241	5-10-10	5-10-14	5-10-R	6-4-3			
242	5-5-F	5-10-6	5-10-13				
243	5-5-E	5-10-5	5-10-B				
244	5-5-D	5-10-2	5-10-P				
245	5-10-3	5-10-A					
246	5-10-9	5-10-C					
247	5-3-L	5-8-4					
248	5-3-10	5-8-D					
249	5-8-6	5-8-C					
250	5-8-3	5-8-H					
251	5-6-R	5-8-7					
252	5-6-S	5-7-2	5-6-F				
253	4-3-5	5-6-C	5-8-B				
254	4-3-E	5-8-2					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
255	5-6-D	4-3-D					
256	5-5-C	4-3-4					
257	5-6-B	5-7-7					
258	5-5-S	5-7-H					
259	1-22-6	5-6-F	5-6-11	5-8-10	8-10-5		
260	10-3-E	6-4-P					
261	6-4-N	2-3-4					
262	2-3-7	10-2-R					
263	6-16-L	6-16-14	8-130S	8-13-15	8-13-12	8-13-N	8-13-E
	8-13-5	7-11-N	6-7-12				
264							
265							
266							
267							
268							
269							
270							
271							
272							
273							
274	5-11-P	5-12-F					
275	5-12-H	7-13-11	8-10-R	9-12-B	9-4-B	10-3-M	
276	8-1-7	6-2-6					
277	5-11-S	6-2-7	7-1-B	7-1-2	7-1-15	7-1-S	
	8-3-2	8-3-B	8-3-E	8-3-5	8-3-12	8-3-15	
278	7-1-3	6-3-L	5-1-2				
279	7-1-C	6-3-7	5-1-11				
280	7-1-14	7-3-12	6-3-10				
281	6-1-10	7-3-15	8-3-3	10-3-N			
282	6-3-13	7-3-C	8-3-6	9-12-C			
283	5-4-L	7-3-F	8-3-11	9-4-C			
284	6-3-H	7-3-N	8-3-14	8-10-S			
285	6-4-C	7-3-S	8-3-C	7-13-12			
286	6-4-5	7-2-C	8-3-F				
287	7-1-R	7-2-3	6-3-P				
288	7-1-12	7-1-13	1-5-15				
289	8-3-4	7-2-6	1-5-11				
290	8-3-7	7-2-11	1-5-3				
291	8-3-10	7-2-14	1-5-4				
292	8-3-13	7-2-F	1-5-10				
293	8-3-D	7-2-M	1-5-12				
294	7-2-R	8-3-H					
295	7-1-N	7-1-P					
296	6-1-H	8-1-F	8-1-6				
297	7-1-6	8-1-7					
298	7-1-F	8-1-H					
299	7-1-11	8-2-7					
300	7-2-5	8-2-10					
301	7-2-12	8-2-L					
302	7-2-15	8-2-3					
303	7-2-E	8-2-C					
304	7-2-N	8-2-H					
305	7-2-S	8-3-L					
306	7-1-M	8-3-P					
307	6-1-L	8-2-6	8-2-F	8-2-P	8-2-R	8-2-14	8-2-13
308	7-1-L	8-3-S	11-2-D				
309	7-2-P	8-3-N	11-2-2				
310	7-2-L	8-2-D	11-2-4				
311	7-2-H	8-2-B	11-2-6				
312	7-2-13	8-2-2	11-2-11				
313	7-2-10	8-2-M	11-2-13				
314	7-2-7	8-2-11	11-2-15				
315	7-1-10	8-2-4	11-2-B				
316	7-1-H	8-1-B	11-1-P				
317	7-1-7	8-1-2	11-1-S				

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.			Termination				
318	7-4-6	8-4-7					
319	7-4-7	8-4-4	11-2-F				
320	7-4-15	8-4-H					
321	7-4-13	8-4-D	11-2-M				
322	7-4-B	8-4-10					
323	7-4-D	8-4-11	11-2-P				
324	7-4-E	8-4-L					
325	7-4-H	8-4-M	11-2-S				
326	7-4-M	8-4-3					
327	7-4-L	8-4-2	11-3-B				
328	8-4-C	8-5-2					
329	8-4-B	8-5-3	11-3-D				
330	8-4-14	8-4-R	8-5-H				
331	6-4-D	6-7-3					
332	3-16-L	3-15-P					
333	6-6-15	6-4-E					
334	4-11-12	3-16-M					
335	6-4-7	6-1-S					
336	8-10-12	8-10-13					
337	8-5-L	8-10-11	4-11-13				
338	8-10-10	7-12-A					
339	8-11-3	7-12-R					
340	8-8-7	8-11-2					
341	8-8-5	8-10-7					
342	8-8-H	8-10-F					
343	8-10-D	8-10-E					
344	8-10-H	6-14-4					
345	8-11-C	6-14-2					
346	7-8-H	8-11-B					
347	7-11-10	7-13-6					
348	7-10-11	7-13-7					
349	7-10-10	8-11-4					
350	7-12-10	7-12-L	8-11-5				
351	10-4-C	10-4-S					
352	8-11-E	6-14-B					
353	7-13-13	8-11-D					
354	8-10-4	8-11-6	10-15-3				
355	6-12-L	6-12-10	6-12-14	6-12-R	7-12-14	8-11-7	
356	8-12-8	8-13-C					
357	8-12-15	8-13-7	5-11-5				
358	8-11-F	8-13-H					
359	8-11-11	8-13-10					
360	6-7-10	8-11-M					
361	7-6-N	7-7-L					
362	7-5-15	7-5-S	7-6-15	7-6-L	7-7-M		
363	7-6-P	7-10-3					
364	7-7-H	7-8-M	7-10-5				
365	7-7-7	7-8-R	7-10-6				
366	7-7-C	7-8-S	7-10-B				
367	7-7-3	7-8-N	7-10-C				
368	7-6-H	7-10-E					
369	7-10-H	7-11-B					
370	7-10-7	7-11-14					
371	7-8-11	7-11-3					
372	7-8-2	7-11-C					
373	6-10-D	6-10-E					
374	6-10-12	6-11-P					
375	5-10-E	6-10-H					
376	5-10-K	6-10-10					
377	5-7-10	5-9-2	6-10-M				
378	6-8-K	6-10-L					
379	6-8-5	6-10-13					
380	5-13-H	5-9-B					
381	5-9-C	6-8-14					
382	5-9-3	6-10-2					
383	6-10-4	6-10-5					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.			Termination				
384	6-8-A	6-10-7					
385	7-7-10	5-9-4					
386	7-4-N	7-5-7	7-6-2				
387	6-11-12	6-11-13	6-10-N				
388	1-20-M	6-11-10	5-4-E				
389	5-12-3	3-13-15	3-13-11	3-13-M	3-13-S	3-14-15	3-14-S
	3-14-M	3-14-11					
390							
391	4-12-C	3-13-7					
392	4-12-D	3-13-H					
393	4-12-S	3-13-2					
394	4-12-R	3-13-B					
395	4-12-P	3-14-7					
396	4-12-N	3-14-H					
397	4-12-M	3-14-2					
398	4-12-L	3-14-B					
399	4-12-H	3-12-6					
400	1-3-P	2-14-S	5-16-M				
401	1-3-13	2-14-R					
402	4-11-F	2-14-C					
403	9-12-2	8-14-H					
404	9-12-4	9-12-11					
405	9-12-12	9-12-13					
406	9-12-10	9-12-R					
407	9-14-4	9-14-5					
408	9-14-3	9-14-7	11-14-B				
409	9-14-D	9-14-E					
410	9-14-C	9-14-H	11-14-D				
411	9-14-10	9-14-14	11-14-F				
412	9-14-12	9-14-13					
413	9-13-D	9-13-E					
414	9-13-C	9-13-H	11-14-M				
415	8-8-L	9-13-2					
416	8-9-10	9-13-3					
417	9-13-4	9-11-12					
418	9-14-N	9-14-P					
419	9-14-L	9-14-R	11-14-P				
420	7-4-F	4-15-12	3-16-H				
421	4-15-14	4-15-L					
422	4-11-3	4-16-15					
423	3-15-3	4-11-2					
424	3-15-2	3-16-7					
425							
426	4-15-2	3-15-C					
427	5-1-14	5-1-13	4-14-14	4-14-N	3-16-P		
428	4-14-2	4-14-7	4-14-P				
429	6-13-P	6-5-R					
430	6-5-P	6-13-R	11-14-4				
431	4-13-7	4-11-B					
432	11-14-2	6-13-N	6-13-H				
433	6-13-F	6-13-L					
434	4-11-4	4-13-L					
435	4-11-H	4-13-B					
436							
437							
438	3-15-H	2-16-C					
439	2-16-H	3-15-F	4-16-3				
440	3-15-7	3-15-D	3-16-11				
441	3-15-6	3-16-10	4-16-R				
442	3-16-12	4-11-5	5-16-4				
443	2-15-13	4-16-4	4-16-P				
444	6-13-12	6-13-13	8-1-5	8-1-E			
445	6-13-10	4-11-6					
446	2-16-15	5-11-H	5-11-B	5-5-6			
447	2-16-10	5-11-E					
448	5-13-L	5-11-15					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination				
449	5-14-L	5-13-N			
450					
451	5-11-6	5-13-15	4-21-13	2-16-L	
452	5-13-2	5-11-D			
453	5-13-3	5-13-4			
454	5-13-7	5-11-3	5-11-F		
455	5-11-2	5-14-7			
456					
457	5-4-H	1-6-B			
458	1-6-H	7-16-S			
459	5-6-L	6-7-4			
460	5-15-13	6-7-7			
461	9-4-7	6-7-5	6-7-B	1-6-E	2-14-14
462	6-7-C	5-15-P			
463					
464					
465					
466					
467					
468					
469	9-15-H	8-9-B			
470	6-11-F	6-11-L	3-28-5		
471	8-9-C	5-12-15			
472	5-12-14	10-8-1	11-1-M		
473	11-16-R	11-16-2			
474	11-16-S	11-16-3	10-8-15		
475	5-5-7	5-15-3			
476	10-8-2	10-32-2			
477	5-13-14	3-16-13			
478					
479					
480					
481	9-10-4	10-11-H			
482	9-10-3	9-10-7			
483					
484					
485					
486					
487					
488					
489					
490					
491					
492					
493					
494					
495					
496					
497	8-1-12	10-6-H			
498	10-6-E	10-6-D			
499	10-6-F	10-6-L			
500	9-9-12	8-15-2			
501	9-10-6	7-15-C			
502	10-11-10	10-8-A	10-8-P		
503	5-14-F	8-9-H			
504	9-8-H	10-11-14			
505	10-14-N	10-14-P			
506	8-1-14	8-24-R	10-14-L		
507	8-1-10	9-9-2			
508	10-7-11	10-7-M	10-11-M	9-11-M	9-9-3
509	1-3-4	7-4-C			
510	1-2-R	1-3-3			
511					
512	10-11-L	10-14-12			
513	10-14-10	7-4-S			
514	8-14-M	10-15-H			

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination					
515	9-2-D	9-6-4	9-6-D	9-6-P	9-6-13	8-14-L
516	8-6-F	10-15-7				
517	8-6-H	8-7-2	8-7-B	8-7-D	8-7-4	8-7-11 8-7-M
	9-11-2	9-11-B	9-11-D	9-11-4		
518	8-7-3	11-5-2				
519	9-12-H	9-9-B				
520	8-7-C	11-5-4				
521	8-7-7	11-5-6				
522	8-7-H	11-5-11				
523	8-7-10	11-5-13				
524	8-7-L	11-5-15				
525						
526	9-11-3	11-10-11				
527	9-11-C	11-10-6				
528	9-11-7	11-10-4				
529	9-11-H	11-10-2				
530	9-9-4	9-16-4	11-9-B			
531	9-16-10	11-9-D				
532	9-16-13	11-9-F				
533	9-16-D	11-9-M				
534	9-16-H	11-9-P				
535	9-16-L	11-9-S				
536	9-16-P	11-9-2				
537	9-15-4	11-9-4				
538	9-15-10	11-14-6				
539	9-9-13	9-15-13				
540	8-14-C	9-15-M				
541	5-14-3	5-14-C	10-10-2	9-15-L		
542	9-15-D	9-15-6	10-10-14			
543	9-9-D	10-10-3				
544	8-14-10	6-16-6				
545	8-15-11	11-9-7				
546	8-15-14	11-9-10				
547	8-15-B	11-9-14				
548	8-15-E	9-12-N	10-15-M	11-9-12		
549	6-11-6	6-11-15	7-13-D	8-15-F	9-9-6	
550	7-14-2	8-15-10				
551	7-14-3	8-15-13				
552	7-14-5	8-15-D				
553	7-14-6	8-15-H				
554	7-14-7	8-14-14				
555	8-9-14	8-14-3				
556	8-14-4	8-15-L				
557	8-14-7	7-15-E				
558	7-13-F	7-14-C	7-14-N	8-15-P		
559	7-13-H	9-9-15				
560	7-13-L	7-14-M				
561	6-13-7	6-15-E				
562	7-14-R	6-15-H				
563						
564	6-15-F	7-15-3				
565	7-14-S	7-15-7	6-15-B			
566	5-8-M	6-5-F				
567	10-3-H	10-4-1				
568	10-4-3	10-4-15	9-5-N			
569	9-5-S	10-4-4				
570	10-4-7	9-5-R				
571	10-4-6	9-5-P				
572	5-12-7	5-8-P				
573	11-5-P	11-5-R	10-2-B	2-3-3		
574	11-3-L	11-3-F				
575	6-1-C	6-9-3	9-5-14			
576	8-10-L	8-9-D	2-16-N			
577	10-2-H	10-6-15				
578	10-2-7	10-6-14				
579	10-6-12	10-6-13				

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (Cont)

Loop No.	Termination						
580	8-15-4	8-10-M					
581	9-1-D	9-1-4	9-1-13	9-1-P	9-2-13	9-4-P	
582	8-5-C	8-6-6					
583	9-1-B	9-1-2	9-1-15	9-1-S	9-2-15	9-3-2	9-3-B
	9-2-S	9-3-15	9-3-S	8-5-11	8-6-7		
584	4-13-S	5-9-10	6-5-S				
585	1-3-5	1-11-L	4-1-D				
586	11-4-M	11-4-H					
587	11-4-S	11-4-N					
588	11-14-15	11-14-12					
589	3-19-F	10-1-F	11-3-6	11-3-10			
590	9-9-H	10-6-R	10-3-5				
591	9-2-L	9-3-14	11-12-S	11-13-F			
592	9-2-M	11-12-6	11-12-15				
593	9-2-R	9-3-F	11-12-F	11-12-R			
594	8-5-12	11-5-C					
595	8-5-13	11-5-E					
596	9-4-4	9-9-11					
597	9-2-5	9-9-10					
598	9-2-2	9-5-7					
599	9-4-F	9-4-L					
600	9-4-H	11-5-F					
601	7-10-14	6-1-5	6-2-10	7-2-B	7-2-2	7-6-B	9-4-E
	11-13-12						
602	11-10-R	11-10-P	10-3-S				
603	10-3-14	11-10-N	11-10-S				
604	10-3-11	10-3-P					
605	10-3-12	10-3-13					
606	11-3-7	11-3-11					
607	10-1-15	8-1-L	6-13-6				
608	11-3-4	11-3-3					
609	2-1-C	3-1-10					
610	2-1-S	3-1-D					
611	2-1-12	2-1-N	3-1-H				
612	4-3-6	6-14-D	10-7-B	10-4-13	11-1-H		
613	2-1-3	2-1-M	2-4-14				
614	2-1-6	2-4-R					
615	2-1-F	2-2-14	2-4-3				
616	2-2-11	2-2-R	2-4-C				
617	2-2-3	2-2-M	2-5-14				
618	2-2-6	2-2-C	2-5-R				
619	2-2-F	2-3-14	2-5-3				
620	2-3-11	2-3-R	2-5-C				
621	9-3-H	11-12-5	11-13-3				
622	2-1-11	2-1-R					
623	2-1-L	1-4-S					
624	3-1-12	2-1-7	1-4-P				
625	2-1-H	1-4-8					
626	2-2-10	1-4-H					
627	2-2-L	1-5-S					
628	2-2-7	1-5-P					
629	2-2-H	1-5-8					
630	2-3-10	1-5-H					
631	2-3-L	10-7-E	8-10-C				
632	3-2-15	3-2-P	2-4-11	1-4-A	1-15-S		
633	2-4-M	1-4-N	1-11-11	1-11-2	1-15-15	3-13-E	3-13-K
	4-13-C	8-14-E					
634	1-15-N	1-4-K	2-4-8	3-13-1	3-13-13		
635	3-2-5	2-4-F	1-4-F	1-8-E	1-10-5	1-10-15	1-10-N
	1-15-12	3-13-A	3-13-P				
636	2-5-11	1-5-A	1-8-6	1-10-2	1-10-6	1-10-11	1-15-6
	3-14-9	3-14-5					
637	2-5-M	1-5-N	1-7-4	1-7-D	1-8-14	1-8-R	1-15-F
	3-14-E	3-14-K					
638	3-2-D	2-5-6	1-5-K	1-7-12	1-7-N	1-8-15	1-8-S
	3-14-1	3-14-13	1-15-3				

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
639	2-5-F	1-5-F	1-7-B	1-7-F	1-7-M	1-8-B	3-14-A
	3-14-P	1-15-C					
640	3-2-12	3-2-R	2-4-10	11-4-2			
641	11-4-4	2-4-L	1-11-B	1-10-F			
642	11-4-6	3-2-6	2-4-7	2-15-R			
643	11-4-11	2-4-H	1-8-5	1-8-N	1-10-12	1-10-S	
644	11-4-13	2-5-10	1-8-M	1-8-F	1-10-B	1-10-M	
645	11-4-15	3-2-E	2-5-L	1-7-14	1-7-13	1-7-R	1-7-P
646	11-4-B	2-5-7	1-7-15	1-7-S	1-7-E	1-7-5	
647	11-4-D	2-5-H	1-7-11	1-7-6	1-7-2	1-8-2	
648	1-2-4	1-6-7	1-11-12	1-11-S	3-13-5	3-13-9	
649	1-2-5	1-10-E	1-11-15				
650	1-4-7	1-2-D	2-3-C	7-14-14			
651	1-2-E	8-5-N					
652	2-3-H	6-1-4	8-5-P	9-5-15			
653	2-3-F	7-14-15					
654	3-1-C	3-2-S	3-2-N	1-11-6	1-16-2	3-15-N	4-16-14
	4-14-13	4-13-11	7-13-5	8-8-F	8-8-N	10-15-B	11-13-R
	11-6-10	10-6-B	10-1-6	9-4-N	9-8-10	8-15-6	7-34-P
655	3-1-F	1-6-S	4-14-B	2-20-C	6-14-C	7-15-B	
	10-11-15	11-13-11	10-3-6	10-1-7	9-4-2	9-5-4	8-5-S
	5-5-B	7-6-C	10-2-14	10-6-M			
656	9-3-7	11-12-E	11-13-C				
657	1-1-F	3-16-2	5-7-E	5-7-5	5-5-15	8-5-F	8-5-6
	6-1-F	6-1-P	9-12-S	8-14-5	8-12-L	7-11-15	7-11-S
658	3-1-M	10-4-D					
659	2-4-D	2-4-4	2-4-13	2-4-P	2-5-13	2-5-P	2-5-D
	2-5-4	7-5-4	7-5-D	8-12-H	6-1-14	7-15-13	7-15-P
660	3-2-14	3-2-13	2-10-B	2-10-2	2-10-11	2-10-M	2-11-11
	2-11-M	9-9-F	9-8-L				
661	1-22-B	1-3-E	1-6-N	5-11-11	5-13-P	5-15-12	6-11-E
	7-14-B	7-13-15	8-10-3	7-10-12	7-8-F	7-6-M	5-8-S
	5-5-N	5-5-R	8-5-B	8-1-M	9-4-3	10-1-H	10-10-F
	9-10-B						
662	2-3-D	8-12-6	8-13-3				
663	9-2-4	8-5-10	7-10-15	5-8-13	5-6-2	5-12-B	1-3-F
664	10-3-10	10-4-A	8-8-B	3-1-S			
665	9-3-6	9-3-C	11-12-12	11-13-2			
666	9-3-L	11-12-11	11-13-6				
667	1-12-H	2-8-S	1-3-12	1-3-N	3-4-2	3-4-E	3-6-M
	3-7-5	3-8-6	3-11-2	10-7-3			
668	1-3-15	3-3-2	3-3-C	3-5-11	3-5-E	3-5-B	2-6-S
	2-8-15	3-8-11	3-10-11	3-11-11	1-12-L	1-16-15	
669	1-16-S	1-12-10	2-11-15	2-10-6	2-8-6	2-6-F	3-3-E
	3-5-14	3-6-E	3-7-2	3-10-14	3-11-4	3-12-15	10-2-D
670	1-12-7	2-10-F	2-6-6	1-3-S	3-3-M	3-5-2	3-6-B
	3-7-M	3-10-4	3-11-B	3-8-N			
671	2-12-H	2-10-S	2-7-F	3-3-11	3-3-R	3-5-R	3-6-11
	3-8-14	3-10-R	3-11-M				
672	10-2-4	3-2-4	3-3-5	3-4-14	3-4-R	3-5-M	3-7-14
	3-7-R	3-7-C	2-7-S	2-8-F	2-10-15	2-12-L	3-11-D
673	3-4-B	3-4-M	3-5-5	3-6-2	3-6-14	3-7-11	2-7-6
	3-10-D	3-10-M	2-11-S	2-12-10	1-16-6	1-16-F	
674	3-3-14	3-4-5	3-4-11	3-6-5	3-6-R	3-7-E	3-8-F
	2-6-15	2-7-15	2-12-7				
675	1-7-C	1-12-S	2-11-B				
676	1-7-10	1-12-15	2-11-C				
677	1-7-7	2-11-E	2-12-F				
678	1-8-C	2-11-F	2-12-6				
679	1-3-14	1-3-C	1-16-14	1-16-R	2-13-7	2-10-E	2-8-E
	2-7-5	2-7-14	2-6-5	3-5-3	3-5-12	3-6-3	3-7-B
	3-7-F	10-7-5					
680	1-3-M	3-2-F	3-5-6	3-5-F	3-5-N	3-6-12	3-6-6
	3-6-C	3-7-3	2-11-14	2-11-R	2-13-H		

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
681	10-2-5	3-5-S	3-6-15	3-6-S	3-6-F	3-7-6	3-7-N
	3-7-S	3-8-12	2-6-14	2-7-R	2-8-5	2-8-14	2-10-R
	2-13-10	1-16-5	1-3-R	1-3-11			
682	1-16-E	2-13-L	2-10-14	2-10-5	2-8-R	2-7-E	2-6-E
	2-6-R	3-5-15	3-5-C	3-6-N	3-7-12	3-7-15	3-11-P
683	3-3-B	3-4-12	3-10-6	3-10-P	3-11-F	1-9-L	
684	10-2-E	3-3-6	3-3-15	3-3-N	3-10-13	3-10-B	3-10-F
	3-11-6	1-9-12					
685	3-3-12	3-4-6	3-4-F	3-4-C	3-4-S	3-10-2	3-11-R
	3-11-13	1-9-3					
686	3-3-3	3-3-F	3-3-S	3-4-3	3-4-15	3-4-N	1-9-N
687	1-8-L	3-8-2	2-13-6				
688	3-8-R	1-8-7	2-11-2	2-13-F			
689	1-8-H	2-11-3	2-13-11				
690	3-8-B	1-10-3	2-13-M				
691	1-9-M	1-10-C	2-11-5	3-8-3			
692	3-8-S	1-10-10	1-9-13				
693	3-8-C	2-11-6	1-10-7	1-9-P			
694	10-7-6	2-10-12	2-10-N	2-11-12	2-6-3	2-6-12	2-7-3
	2-8-C	2-8-3	2-8-12	2-8-N	1-9-5	1-16-C	
695	10-2-6	2-10-3	2-11-N	1-9-14			
696	1-16-3	1-16-12	1-16-N	1-9-R	2-6-C	2-6-N	2-7-12
	2-7-N	2-7-C	10-2-F				
697	2-10-C	1-9-E					
698	1-9-15	1-11-3	2-15-5				
699	1-9-S	1-11-C	2-15-6				
700	6-7-E	7-6-D	8-8-14	8-11-S			
701	10-7-C	8-9-12	6-2-L	5-3-12	5-3-N	5-5-14	5-6-15
	5-7-6	5-7-F	6-4-F	1-8-12			
702	1-11-D	10-3-7					
703	1-3-L	2-14-B	5-16-D				
704	11-13-S	8-14-12	7-12-C	6-10-14	5-14-2	6-1-6	1-11-4
	1-11-F						
705	1-11-P	1-3-7	1-8-13	3-1-14			
706	8-8-R	8-14-D	4-13-E	1-13-L			
707	1-3-D	5-16-C					
708	9-12-15	8-9-11	2-16-7	1-13-M			
709	1-13-H	4-13-15	8-5-M	11-5-M			
710	1-13-F	1-16-7	8-8-12	8-8-E	6-6-3	6-7-F	3-15-B
711	6-5-B	6-5-5	6-5-H				
712	1-11-E	1-11-5	6-6-4	8-11-12			
713	9-12-3	7-15-11	4-13-F				
714	9-4-M	8-8-M	6-8-6	2-15-2			
715	8-11-R	8-10-15	10-15-S				
716	2-7-7	6-3-15					
717	2-7-H	5-4-N					
718	1-3-10	5-16-L					
719	6-3-6	2-8-L					
720	3-2-7	5-16-N					
721	5-4-C	2-10-H					
722	3-2-H	5-16-P					
723	1-13-13	2-6-7	6-3-2				
724	1-13-P	2-6-10	6-3-3				
725	1-13-15	2-6-L	6-7-2				
726	6-3-S	2-8-H					
727	6-11-M	6-11-H	4-25-15				
728	8-9-15	9-12-L					
729	9-9-N	9-12-M					
730	6-4-4	2-7-10					
731	6-13-D	7-11-E					
732	7-11-H	6-5-11	4-13-R	1-6-F			
733	2-11-10	5-4-S					
734	9-9-P	10-10-F	10-11-13	10-11-E	5-16-3	1-6-C	
735	6-7-14	2-6-H	1-2-S				
736	2-11-L	5-4-15					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination				
737	11-7-2	11-7-5	9-4-6	5-14-S	5-13-11
738	2-7-L	6-4-B			
739	6-3-N	2-8-10			
740	2-8-7	6-3-F			
741	6-13-B	1-13-11	1-16-10		
742	9-3-3	9-3-M	11-12-N	11-13-B	
743	1-16-L	1-13-S	6-13-C		
744	9-3-10	11-12-M	11-13-E		
745	6-3-12	2-10-10			
746	6-1-12	2-10-L			
747	6-1-13	1-16-H			
748	5-4-3	2-10-7			
749	6-1-11	4-4-15	3-10-7		
750	3-3-4	4-4-S			
751	3-8-7	4-12-11	7-11-5		
752	3-7-D	4-5-11	4-5-M	4-12-10	7-11-6
753	5-4-B	4-5-15	3-10-H		
754	3-11-3	4-12-14	4-6-14		
755	6-3-5	4-5-S	3-10-10		
756	3-3-D	4-6-3			
757	3-3-7	4-6-S			
758	3-8-L	4-3-F	4-6-P	4-12-13	
759	4-3-H	5-4-12			
760	4-3-11	4-1-6	4-1-13	4-12-7	7-11-4
761	4-3-10	3-1-15	4-1-F	4-1-P	4-1-14
762	3-3-H	4-7-15			
763	3-3-10	4-8-4			
764	6-3-11	4-4-11	4-8-3	3-10-L	
765	3-3-L	4-4-M	4-8-10		
766	3-3-13	4-5-12	4-8-15		
767	4-5-N	4-8-14	3-10-3	5-4-M	
768	5-4-R	4-4-P	4-12-15	3-12-3	
769	4-7-13	4-12-12	3-8-H	4-3-M	
770	5-4-6	4-3-L			
771	3-3-P	4-6-12	4-8-13		
772	5-4-14	4-6-N	4-8-12	3-10-C	
773	3-4-4	4-8-11	4-7-10		
774	3-4-D	4-10-4			
775	3-4-7	4-4-14	4-10-3		
776	3-11-7	4-10-15	4-4-R	6-3-M	
777	6-3-E	4-5-14	4-10-14	3-11-H	
778	3-1-3	4-1-E	3-8-13		
779	3-4-H	4-5-R	4-10-13		
780	3-4-10	4-6-15	4-10-12		
781	3-4-L	4-6-R	4-10-11		
782	6-3-R	4-7-14	4-10-10	3-11-C	
783	3-4-13	4-10-M			
784	3-4-P	4-4-10	4-10-N		
785	6-3-14	5-4-2	4-4-L	4-10-L	3-11-10
786	3-5-4	4-6-13	4-7-R		
787	3-5-D	4-7-11	4-10-P		
788	3-5-7	4-4-N	4-10-S		
789	3-5-H	4-5-D			
790	3-5-10	4-5-3	4-8-R		
791	3-5-L	4-4-4			
792	3-5-13	4-6-D			
793	3-5-P	4-5-4			
794	3-6-4	4-10-D			
795	3-6-D	4-7-4			
796	3-6-7	4-7-D			
797	4-4-13	4-7-C	3-6-H		
798	4-6-M	4-7-P	3-11-L		
799	4-5-P	4-7-S	3-6-10		
800	4-4-12	3-6-L	4-10-C		
801	3-6-13	4-8-D			

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
802	4-4-3	3-6-P	4-8-C				
803	4-5-C	4-8-P	3-7-4				
804	3-7-7	4-6-4	4-8-M				
805	3-7-H	4-7-3	4-8-L				
806	4-5-13	3-7-10	4-10-R				
807	4-4-C	4-8-S	3-7-L				
808	3-7-13	4-7-12	4-7-N				
809	3-7-P	4-6-C	4-8-N				
810	3-8-10	4-4-D					
811	4-2-3	5-2-2	5-2-11				
812	4-2-C	5-2-3	5-2-B				
813	4-2-5	5-2-12	5-2-C				
814	4-2-E	5-2-5	5-3-B				
815	4-2-7	5-2-14	5-3-C				
816	4-2-H	5-2-E	5-3-E				
817	4-2-10	5-2-6	5-2-15	5-2-F	5-3-F		
818	4-2-L	5-3-2	4-1-B				
819	4-2-12	5-3-3	4-1-S				
820	4-2-N	5-3-5	5-1-4				
821	4-2-14	5-3-6	5-1-5				
822	4-3-3	4-1-R	5-1-6				
823	5-2-10	1-14-C					
824	5-2-H	1-14-3					
825	5-3-H	1-14-F					
826	4-1-C	1-14-6					
827	5-1-7	1-14-12					
828	3-1-4	1-14-N					
829	4-3-C	1-14-15					
830	4-11-L	1-14-S					
831	5-2-7	4-3-13	4-1-4	4-1-2			
832	4-3-12	4-1-11	4-1-M				
833	5-3-7	4-3-P	4-1-12	4-1-15			
834	4-3-N	4-1-5	4-1-N				
835	3-12-7	2-16-F	5-16-12	9-14-11			
836	9-3-11	9-3-R	11-12-14	11-13-5			
837	6-9-4	7-8-E	8-12-F	7-8-6	7-8-15	6-16-10	
838	1-3-2	5-4-11	3-16-F	4-14-R	8-14-N	8-11-10	
839	2-16-E	5-16-11	9-14-M	9-11-10	9-8-B		
840	9-1-14	9-2-10	9-2-P	9-3-4	9-3-D	9-3-P	9-3-13
	11-11-N	11-12-C					
841	4-16-7	7-13-B	10-7-R	10-7-14			
842	6-13-15	6-13-4					
843	5-8-11	8-8-15	8-9-13	10-7-F			
844	8-5-5	6-5-D					
845	8-5-E	6-5-7					
846	11-15-S	11-15-N	1-27-S				
847	11-15-P	11-15-R					
848	6-10-P	6-27-15					
849	4-11-E	3-20-M					
850	5-15-H	6-31-E					
851	11-7-F	11-7-7	5-15-D				
852	11-7-6	11-7-H					
853	5-2-L	4-11-M					
854	11-16-7	11-16-4					
855	4-16-D	11-16-6	11-16-5				
856	7-34-F	8-9-7					
857	10-11-F	10-11-D					
858	10-10-L	9-8-F	4-13-3				
859	7-14-10	7-13-2					
860	9-14-F	9-8-C	10-7-H				
861	9-2-11	11-11-3	11-11-12				
862	9-12-P	9-14-6	4-13-M				
863	9-1-H	11-11-15	11-11-2				
864	1-11-N	2-16-12	4-16-2	4-16-S	5-14-5	5-13-F	5-11-M
	5-10-L	5-8-12	5-1-P	6-8-10	6-8-L	6-8-R	7-5-2
	7-5-B	8-14-13	8-15-N	10-8-R	10-1-10		

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
865	2-15-15	3-12-4	4-13-14	4-14-F	4-15-5	4-15-F	5-6-14
	5-3-14	5-3-R	7-11-F	9-11-13	9-15-B	8-12-10	10-11-S
866	4-3-15	5-3-S	5-4-D				
867	5-7-B	4-3-14					
868	5-1-M	5-1-H	6-10-S				
869	2-16-R	5-1-F	5-1-L	5-3-M	5-3-11	5-6-6	10-2-2
870	5-1-E	5-6-P	7-4-11	6-13-3			
871	5-1-B	9-9-C	7-10-M	8-15-3			
872	5-1-R	9-9-5	10-10-N				
873	9-1-F	9-2-14	11-11-C	11-11-M			
874	5-5-5	5-12-5	3-16-3	3-16-5	4-15-C	7-11-11	8-14-P
	10-15-5	8-9-F					
875	9-9-E	8-14-11					
876	9-1-7	11-11-B	11-11-S				
877	2-14-15	3-16-N	7-14-11	7-12-S	8-12-7	8-10-6	9-15-N
	10-15-N	10-6-C					
878	5-11-7	5-13-5					
879	5-1-N	5-5-H	5-8-N	5-8-15	8-5-15	8-14-S	10-11-12
880	9-1-C	9-1-6	11-11-6	11-11-14			
881	5-4-P	5-10-1					
882	10-2-3	11-14-S					
883	5-6-H	8-8-6					
884	5-11-L	4-11-11					
885	5-12-C	5-6-E					
886	3-15-14	4-15-15	4-11-10				
887	5-4-7	1-11-M					
888	9-1-L	11-11-5	11-12-3				
889	4-3-S	5-4-13					
890	5-5-2	4-3-R					
891	5-3-15	5-4-4	5-7-3	5-9-S			
892	5-7-C	5-9-R					
893	9-1-3	9-1-M	11-11-F	11-11-R			
894	6-6-D	7-3-D					
895	6-6-C	7-3-H					
896	5-1-10	6-6-M	9-5-10				
897	6-4-H	7-3-B	7-3-E	7-3-11	7-3-M	7-3-R	7-3-14
	5-1-15	5-1-12					
898	6-13-11	6-2-H	8-1-3	8-1-C	8-2-5	8-2-E	8-2-N
	8-2-12	8-2-15	8-2-S	8-3-R	8-3-M	8-4-5	8-4-E
	8-4-N	8-4-12	8-4-15	8-4-S			
899	6-1-B	7-2-4					
900	11-3-14	11-3-13	6-1-M	6-1-D	6-13-14	8-5-D	8-5-4
901	8-4-6	8-4-F	8-4-P	8-4-13	8-5-7		
902	6-6-P	7-3-P					
903	3-15-S	7-1-4	6-4-11				
904	9-5-11	6-6-N	5-1-3				
905	3-15-R	6-4-M	7-1-D	10-10-R			
906	6-6-S	7-3-L					
907	6-6-H	6-4-6					
908	6-6-L	7-3-10					
909	6-1-E	6-3-D	6-4-13				
910	4-14-L	6-3-B	7-1-5				
911	4-14-3	6-3-C	7-1-E	8-1-N			
912	7-2-D	6-1-R					
913	6-6-R	7-3-13					
914	11-3-2	11-3-5	8-15-S	6-2-F			
915	9-1-10	11-11-E	11-12-B				
916	7-14-12	6-9-6					
917	6-6-10	6-7-D	6-9-7				
918	6-7-H	5-12-4					
919	6-4-14	8-8-S					
920	6-6-7	6-4-15					
921	6-3-4	6-4-S	4-14-D				
922	6-4-R	4-15-E	6-6-12	6-5-6			
923	5-12-D	7-4-10	8-15-12				
924	7-4-5	5-12-E					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination			
925	9-1-11	9-1-R	11-11-11	11-12-2
926	10-14-M	6-4-12		
927	4-21-12	2-15-M	3-16-B	3-13-14
	3-14-10	3-14-L	3-14-R	3-14-14
	6-13-2	7-11-D	6-6-13	6-5-C
	8-15-M			7-5-13
928	7-4-14	7-8-12	7-8-13	7-8-C
929	7-8-7	7-8-3	7-8-B	7-4-12
930	4-14-H	5-5-12		
931	7-13-4	8-15-5		
932	8-11-H	3-16-6	6-8-11	6-8-15
933	1-1-E	8-8-10	8-10-B	
934	7-4-3	8-9-E	10-8-S	8-11-N
	5-7-R			7-10-N
935	8-11-P	7-13-14	8-13-L	
936	5-11-R	8-24-S	8-14-2	8-11-14
937	8-11-15	7-11-L	5-15-4	
938	9-5-13	8-11-L	5-10-M	6-8-M
939	6-7-L	8-10-2		6-8-S
940	9-5-H	11-5-S	10-10-B	10-3-F
941	6-12-9	6-14-6		8-1-S
942	6-7-N	6-14-7		5-5-P
943	7-12-B	7-13-N	8-8-C	8-8-11
944	6-12-M	6-12-11	6-12-15	6-12-S
945	11-3-M	11-3-H	10-6-11	10-7-2
946	7-13-P	5-9-15	8-10-14	9-5-12
947	7-14-H	8-9-2		
948	5-9-14	4-14-S	7-12-P	
949	7-13-S	7-12-5	7-12-F	
950	7-12-6	7-12-K		
951	7-12-9	7-12-H		
952	7-12-7	7-13-R		
953	10-10-P	11-14-R		
954	6-14-H	8-5-R	10-4-R	
955	6-12-6	6-12-K	8-13-2	8-13-D
956	6-12-1	6-12-F	6-16-15	8-13-13
957	6-12-A	6-12-3	8-13-B	8-13-P
958	6-12-C	7-11-P	7-12-1	8-13-6
959	6-12-5	6-7-13	7-12-3	8-13-F
960	6-7-P	6-12-7	6-12-E	8-13-11
961	6-12-H	6-12-13	8-13-14	8-13-M
962	6-12-2	6-12-P	6-16-12	7-11-M
963	6-7-11	6-12-B	7-12-13	8-13-R
964	6-7-M	7-12-2	8-13-4	
965	5-7-11	5-13-E	7-7-13	7-5-12
966	9-9-7	6-11-3	6-11-C	6-5-15
967	6-11-11	4-14-10		11-10-12
968	1-10-D	1-11-13	1-11-14	1-11-R
	5-13-D	6-7-15	6-10-15	7-7-N
	8-6-10	8-14-B	10-15-F	7-11-13
969	7-6-S	7-7-D	5-10-F	
970	5-10-H	6-10-3	7-7-14	7-6-E
971	6-5-2	6-10-F	6-11-4	4-11-S
972	6-10-11	6-11-D		
973	5-9-N	6-8-E	7-4-2	9-31-D
974	5-9-P	6-5-13	10-11-11	
975	6-11-2	6-11-5	7-5-F	
976	6-10-6	6-11-7		
977	1-13-N	7-5-3		
978	1-13-12	7-5-C		
979	6-11-B	7-5-6		
980	8-5-14	7-5-H	7-6-3	4-20-B
981	2-15-14	3-12-5	6-11-14	6-5-14
982	8-15-R	9-10-F		7-6-4
983	5-14-E	6-1-3	9-15-5	8-6-11
				10-14-S

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination			
984	10-15-L	5-14-B		
985	6-8-3	7-7-F	7-7-2	
986	6-13-5	6-15-C	7-13-M	8-14-6
987	5-9-5	7-7-6	7-7-B	8-14-15
988	6-8-F	7-7-11		10-15-6
989	9-5-L	6-8-7	7-6-F	7-6-R
990	6-14-15	6-14-S	6-15-15	6-15-S
	9-6-B	9-6-15	9-6-S	9-2-B
991	7-14-F	8-9-3	9-10-C	10-10-M
992	6-8-B	7-7-5		6-15-2
993	6-8-C	7-7-S		7-11-12
994	6-8-13	7-8-L		10-15-E
995	7-7-P	11-7-B	11-7-E	9-6-2
996	5-9-12	7-10-2	7-10-F	
997	5-9-13	5-7-14	6-10-C	6-11-S
998	1-13-R	7-7-4	7-7-E	7-11-2
999	1-13-10	7-11-R	7-7-15	7-7-R
1000	6-8-1	7-8-P		
1001				
1002				
1003	5-7-15	6-8-9	7-8-D	8-6-M
1004	5-11-C	6-11-R	7-15-R	7-8-14
1005	3-16-15	6-10-B	7-15-14	7-8-10
1006	5-7-12	7-5-R	7-5-11	7-8-5
1007	7-5-L	7-6-14		7-8-4
1008	4-11-7	6-5-M	6-13-S	6-13-M
	9-14-S	9-14-15		9-13-B
1009	2-16-S	3-15-13	6-10-R	7-3-6
1010	2-16-B	5-16-10	8-15-7	9-13-F
1011	7-3-4	5-15-15		10-6-P
1012	7-15-10	9-13-R		
1013	7-15-M	9-12-14		
1014	7-15-L	9-13-S		
1015	9-13-P	8-11-13	2-25-D	
1016	11-10-14	11-10-13	4-15-3	4-14-4
1017	4-13-5	4-13-10		
1018	4-13-6	4-15-7		
1019	5-12-10	9-15-E	9-11-N	10-7-S
1020	10-7-12	10-8-B		10-7-15
1021	5-5-11	4-15-H		
1022	5-5-13	8-8-3	7-10-L	
1023	10-7-N	10-8-C		
1024	4-16-6	9-11-P		
1025	7-3-7	7-3-2		
1026	4-13-2	4-14-C	9-8-E	
1027	6-13-E	4-11-C	4-13-N	
1028	1-5-7	6-1-N	6-5-E	5-12-6
1029	4-14-6	4-15-6	4-15-B	4-16-11
1030	3-16-R	3-16-D	4-15-11	4-14-E
1031	1-13-14	3-16-E		4-13-12
1032	3-16-C	4-16-13	4-15-10	
1033	6-4-10	4-14-M		
1034	6-4-L	4-14-15		
1035	8-7-15	8-7-13	9-6-6	9-6-C
1036	8-7-N	9-6-7	9-11-F	9-12-E
1037	4-15-R	8-7-S	8-7-P	9-6-F
1038	8-7-14	9-6-H	9-11-15	9-6-14
1039	8-7-5	9-6-11	9-6-R	9-11-14
1040	4-15-S	8-7-R	9-6-10	9-11-S
1041	9-11-R	8-7-E	9-6-M	9-2-C
1042	9-11-5	8-7-6	9-6-L	
1043	9-2-F	8-7-12	9-11-6	
1044	6-14-13	6-14-P	6-15-13	6-15-P
	8-7-F	9-6-3	9-2-H	6-15-4
1045	6-14-11	6-14-R	9-16-2	9-16-F
				9-11-E

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination			
1046	6-14-10	9-15-15	9-16-M	
1047	6-14-M	6-15-14	9-16-N	9-16-11
1048	6-14-L	9-16-3	9-16-R	
1049	6-15-11	6-15-R	9-16-14	9-16-S
1050	4-15-M	6-15-10	9-15-2	9-16-12
1051	4-15-N	6-15-M	6-15-3	9-15-3
1052	6-1-2	3-15-11	4-14-11	6-15-L
1053	6-1-15	3-15-12	4-14-12	6-15-6
1054	6-14-14	6-15-7	9-15-14	9-16-C
1055	11-7-15	11-7-12	9-13-14	7-16-R
1056	5-13-M	5-13-6	5-11-13	
1057	11-7-C	11-7-D	10-2-15	3-12-E
1058	5-14-12	5-15-L		
1059	5-14-14	5-15-10	10-11-C	
1060	5-14-15	7-16-B		
1061	5-6-M	7-15-H	9-10-2	10-14-11
1062	4-13-H	4-11-D		
1063	8-1-11	10-10-D	10-10-C	
1064	5-5-4	5-11-4	5-14-6	
1065	5-15-5	7-34-C		
1066	10-10-H	10-10-S	10-15-R	8-24-N
1067	10-23-B	11-7-S	9-4-5	5-13-12
1068	11-7-3	7-6-11	7-4-R	8-1-15
1069	4-16-L	7-13-C	10-14-R	
1070	2-14-2	5-7-S	6-8-P	6-5-4
1071	5-15-R	11-4-R	11-4-P	
1072	6-7-6	7-3-5	10-11-B	11-14-13
1073	7-16-A	9-13-N	11-4-L	11-4-F
1074	6-11-N	4-25-D		
1075	10-3-3	10-11-N	5-12-11	5-14-10
1076	5-6-10	6-5-3		
1077	3-15-10	9-9-M		
1078	7-4-4	5-6-N		
1079	7-11-7	4-7-M		
1080				
1081				
1082				
1083				
1084				
1085				
1086				
1087				
1088				
1089				
1090				
1091				
1092				
1093				
1094				
1095				
1096				
1097				
1098				
1099				
1100				
1101				
1102				
1103				
1104				
1105				
1106				
1107				
1108				
1109				
1110				

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRE DATA (cont)

Loop No.	Termination						
1111							
1112							
1113							
1114							
1115							
1116							
1117							
1118							
1119							
1120							
1121							
1122							
1123							
1124							
1501	11-28-S	11-28-15	11-28-2	11-28-B	11-27-B	11-27-2	11-27-15
	11-27-S	10-26-7					
1502	6-24-J	7-26-12					
1503	6-24-L	7-26-N					
1504	6-24-R	7-26-15					
1505	6-24-B	7-26-S					
1506	8-25-13	9-25-5					
1507	8-25-P	9-25-12					
1508	8-26-13	9-25-E					
1509	8-26-P	9-25-N					
1510	8-25-5	8-25-4					
1511	8-25-10	8-25-6					
1512	8-25-D	8-25-E					
1513	8-25-L	8-25-F					
1514	8-26-4	8-26-5					
1515	8-26-10	8-26-6					
1516	8-26-D	8-26-E					
1517	8-26-F	8-26-L					
1518	7-26-10	7-25-S					
1519	7-26-L	8-24-E					
1520	7-26-13	7-25-14					
1521	7-26-P	8-24-14					
1522	6-25-J	7-29-3					
1523	6-25-L	7-29-C					
1524	6-25-R	7-29-12					
1525	6-25-B	7-29-N					
1526	7-29-4	7-27-2					
1527	7-29-D	7-27-B					
1528	7-29-10	7-27-11					
1529	7-29-L	8-33-12					
1530	8-27-13	9-26-5					
1531	8-27-P	9-26-12					
1532	8-28-13	9-26-E					
1533	8-28-P	9-26-N					
1534	8-27-4	8-27-5					
1535	8-27-10	8-27-6					
1536	8-27-D	8-27-E					
1537	8-27-L	8-27-F					
1538	8-28-4	8-28-5					
1539	8-28-D	8-28-E					
1540	8-28-10	8-28-6					
1541	8-28-L	8-28-F					
1542	6-26-J	7-29-6					
1543	6-26-L	7-29-F					
1544	6-26-R	7-29-15					
1545	6-26-B	7-29-S					
1546	7-29-7	7-28-6					
1547	7-29-H	7-28-F					
1548	7-29-13	7-28-14					
1549	7-29-P	7-28-R					
1550	8-29-13	9-27-5					

TABLE A4-7. LOGIC CHASSIS- B, SIGNAL WIRING DATA (cont)

Loop No.			Termination	
1551	8-29-P	9-27-12		
1552	8-30-13	9-27-E		
1553	8-30-P	9-27-N		
1554	8-29-4	8-29-5		
1555	8-29-10	8-29-6		
1556	8-29-D	8-29-E		
1557	8-29-L	8-29-F		
1558	8-30-4	8-30-5		
1559	8-30-10	8-30-6		
1560	8-30-D	8-30-E		
1561	8-30-L	8-30-F		
1562	7-23-H	7-21-S		
1563	7-21-R	6-24-3		
1564	7-23-7	7-21-P		
1565	7-21-N	6-25-3		
1566	6-26-7	7-21-M		
1567	7-21-L	8-23-2		
1568	7-24-7	7-21-F		
1569	7-21-H	8-23-B		
1570	8-21-4	9-20-C		
1571	8-22-4	9-20-N		
1572	8-21-7	9-20-3		
1573	8-22-7	9-20-12		
1574	8-21-10	9-19-C		
1575	8-22-10	9-19-N		
1576	8-21-13	9-19-3		
1577	8-22-13	9-19-12		
1578	8-20-M	8-20-S	9-20-H	10-19-2
1579	11-19-11	10-19-4	9-20-L	
1580	8-20-B	8-20-F	9-20-7	10-19-5
1581	11-19-6	10-19-7	9-20-10	
1582	8-20-11	8-20-15	9-19-H	10-19-11
1583	11-19-4	10-19-10	9-19-L	
1584	8-20-2	8-20-6	9-19-7	10-19-14
1585	11-19-2	10-19-13	9-19-10	
1586	8-21-D	10-20-C		
1587	8-22-D	10-20-N		
1588	8-21-H	10-20-3		
1589	8-22-H	10-20-12		
1590	8-21-L	9-21-S		
1591	8-22-L	9-21-N		
1592	8-21-P	9-21-3		
1593	8-22-P	9-21-12		
1594	8-19-M	8-19-S	10-19-B	10-20-H
1595	11-19-D	10-19-D	10-20-L	
1596	8-19-B	8-19-F	10-19-E	10-20-7
1597	11-19-B	10-20-10	10-19-H	
1598	8-19-11	8-19-15	9-21-H	10-19-M
1599	11-19-15	10-19-L	9-21-L	
1600	8-19-2	9-21-7	10-19-R	
1601	11-19-13	10-19-P	9-21-10	
1602	9-24-H	10-24-E		
1603	10-24-H	10-22-F		
1604	9-24-D	10-24-S		
1605	10-24-C	10-22-C		
1606	9-24-13	10-24-N		
1607	10-24-L	10-22-15		
1608	9-24-10	10-24-12		
1609	10-24-10	10-22-12		
1610	9-24-7	10-24-5		
1611	10-24-7	10-22-6		
1612	9-24-4	10-24-15		
1613	10-24-3	10-22-3		
1614	11-22-15	10-22-H	10-24-D	
1615	11-22-13	10-22-D	10-24-B	

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.			Termination				
1616	11-22-11	10-22-13	10-24-M				
1617	11-22-6	10-22-10	10-24-11				
1618	11-22-4	10-22-7	10-24-4				
1619	11-22-2	10-22-4	10-24-2				
1620	9-23-10	10-23-12					
1621	10-23-10	10-21-12					
1622	9-23-7	10-23-5					
1623	10-23-7	10-21-6					
1624	9-23-4	10-23-15					
1625	10-23-3	10-21-3					
1626	9-24-P	10-23-E					
1627	10-23-H	10-22-S					
1628	9-24-L	10-23-N					
1629	10-23-L	10-22-N					
1630	10-21-D	10-21-E					
1631	10-21-H	11-21-4					
1632	10-23-C	11-21-3					
1633	10-21-13	11-21-15					
1634	10-25-10	11-21-14					
1635	10-25-L	11-21-13					
1636	11-22-P	10-21-10	10-23-11				
1637	11-22-M	10-21-7	10-23-4				
1638	11-22-F	10-21-4	10-23-2				
1639	11-22-D	10-22-P	10-23-D				
1640	11-22-B	10-22-L	10-23-M				
1641	11-24-7	10-25-14					
1642	11-24-10	10-25-R					
1643	11-24-12	10-25-6					
1644	11-24-14	10-25-F					
1645	7-30-3	11-24-C					
1646	11-24-D	11-24-H	7-30-C				
1647	11-24-E	10-25-S	10-25-15	10-25-5	10-25-E		
1648	11-23-3	9-22-3					
1649	11-23-5	9-22-6					
1650	11-23-7	9-22-C					
1651	11-23-10	9-22-F					
1652	11-23-12	9-22-12					
1653	11-23-14	9-22-15					
1654	11-23-C	9-22-N					
1655	11-23-E	9-22-S					
1656	11-23-H	9-23-C					
1657	11-23-L	9-23-F					
1658	11-23-N	9-23-N					
1659	11-23-R	9-23-S					
1660	11-24-3	10-21-N					
1661	11-24-5	10-21-S					
1662	10-30-3	9-32-13					
1663	10-30-7	9-32-15					
1664	10-30-10	9-32-B					
1665	10-32-P	9-32-D					
1666	10-30-C	9-32-F					
1667	10-31-2	9-32-12	9-31-M	9-31-B	8-32-11	8-32-M	8-32-B
1668	10-31-3	9-32-14	8-32-12				
1669	9-32-E	9-31-P	9-31-R				
1670	9-31-S	9-32-C	8-32-C				
1671	9-31-N	9-32-H	8-32-N				
1672	10-31-7	9-32-M	2-22-B				
1673	9-31-C	9-32-P					
1674	10-31-E	4-26-M	2-20-14				
1675	4-26-L	4-32-5					
1676	9-31-L	9-33-4	1-23-F				
1677	8-32-L	9-33-6	1-21-R				
1678	8-32-H	9-33-11	2-22-S	1-29-E			
1679	8-32-10	9-33-13	2-22-R	1-29-F			
1680	9-28-7	9-30-2					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination		
1681	9-29-3	9-30-4	
1682	9-29-C	9-30-6	
1683	9-29-7	9-30-11	
1684	9-28-H	9-30-13	
1685	9-29-H	9-30-15	
1686	9-28-10	9-30-B	
1687	9-30-10	9-29-13	
1688	9-29-12	9-30-12	
1689	9-30-14	9-31-15	
1690	9-30-C	9-31-14	
1691	9-28-L	9-30-D	
1692	9-29-10	9-30-F	2-22-C
1693	8-32-7	9-30-M	
1694	3-12-M	5-7-L	
1695	9-31-3	9-30-S	1-21-F
1696	7-24-H	9-32-6	
1697	9-32-7	9-31-4	
1698	9-31-7	9-32-2	6-31-F
1699	2-31-R	6-31-H	
1700	5-25-H	5-26-6	
1701	5-25-L	5-26-11	
1702	10-29-11	9-30-L	
1703	5-27-4	5-27-6	5-26-15
1704	5-27-13	5-26-B	
1705	5-27-D	5-26-D	
1706	5-27-L	5-26-M	2-22-M
1707	5-27-P	5-26-P	5-24-R
1708	5-29-4	5-26-S	3-25-F
1709	5-29-7	5-28-2	
1710	5-29-D	5-28-6	5-27-12
1711	5-30-13	5-28-15	
1712	3-28-H	4-26-P	
1713	4-26-N	4-27-B	7-22-R
1714	5-22-4	5-23-2	
1715	5-22-7	5-23-4	
1716	5-22-10	5-23-6	
1717	5-22-13	5-23-11	5-24-S
1718	5-22-D	5-23-13	
1719	5-21-10	5-23-F	
1720	5-24-7	5-23-P	
1721	5-24-10	6-31-5	
1722	3-19-E	4-19-B	4-19-3
1723	5-24-H	5-26-2	
1724	5-25-4	5-25-5	
1725	3-26-4	3-27-B	
1726	3-26-7	3-27-S	
1727	3-26-10	3-27-R	
1728	4-27-S	3-27-C	
1729	4-31-H	10-29-M	
1730	2-26-L	7-22-3	
1731	3-31-7	7-22-10	
1732	4-31-L	7-22-11	
1733			
1734	7-22-12	3-27-L	
1735	7-22-7	10-33-13	
1736	3-27-3	8-32-2	
1737	3-27-7	8-32-3	
1738	3-26-13	8-32-5	
1739	3-26-D	8-32-6	
1740	7-22-14	7-32-7	
1741	3-26-L	10-29-12	
1742	7-32-5	7-22-H	
1743	3-26-P	10-29-14	
1744	3-21-7	4-20-R	
1745	4-34-7	5-34-15	

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination					
1746	4-34-10	5-34-14				
1747	4-34-13	5-34-13				
1748	4-34-D	5-34-12				
1749	4-21-H	3-32-R				
1750	3-32-13	3-32-S				
1751	4-34-H	3-28-B				
1752	4-34-L	5-34-3				
1753	4-34-P	3-28-E				
1754	3-32-H	3-28-F				
1755	7-22-D	5-30-M	4-32-7	4-27-C		
1756	6-30-H	1-29-12				
1757	7-22-P	5-30-P	4-33-11			
1758	3-33-B	3-33-4	3-29-C			
1759	3-33-C	3-33-7	3-29-B			
1760	3-33-10	3-29-E				
1761	3-33-13	3-29-F				
1762	3-29-H	4-32-D				
1763	3-33-D	4-32-M	4-32-13			
1764	4-32-10	10-29-2				
1765	4-32-L	10-29-3				
1766	4-32-H	10-29-5				
1767	6-27-L	10-29-6				
1768	3-25-5	1-26-4				
1769	1-27-7	1-26-3				
1770	1-19-4	1-26-15				
1771	1-27-10	1-26-14				
1772	2-29-L	1-26-13				
1773	1-27-13	1-26-12				
1774	1-27-D	1-26-11				
1775	4-26-R	7-22-N				
1776	7-33-H	7-22-8				
1777	1-27-H	1-26-10				
1778	7-33-6	7-34-H				
1779	7-27-L	5-26-13				
1780	7-31-13	3-28-7				
1781	7-31-15	7-32-10				
1782	1-20-5	2-20-M	2-20-11	3-19-12	4-24-6	4-24-15
	4-25-S	4-28-2	4-29-S			
1783	3-19-14	4-20-5	4-22-15	4-22-5	4-22-E	3-22-14
	2-24-11	1-22-P	2-25-4	2-29-2	1-26-R	1-28-2
	1-24-10	1-27-2				
1784	10-8-14	11-31-10				
1785	8-33-P	3-25-6	1-26-7			
1786	3-34-N	3-25-7				
1787	8-31-L	8-31-R	10-26-M			
1788	8-31-N	8-31-P				
1789	1-31-D	2-25-15				
1790	2-25-3	1-31-12				
1791	1-30-3	1-30-D				
1792	1-27-4	7-30-R				
1793	1-31-7	1-30-E				
1794	1-31-10	1-30-F				
1795	1-30-C	2-31-C				
1796	1-30-7	2-31-E				
1797	1-29-4	2-31-F				
1798	1-29-6	2-31-H	4-33-M			
1799	1-22-L	2-31-11				
1800	1-28-L	2-31-12				
1801	2-33-L	2-31-14				
1802	5-23-H	2-30-D				
1803	3-22-10	5-21-11				
1804						

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination					
1805	9-23-15	10-32-10				
1806	4-16-F	6-9-14				
1807	3-32-L	3-32-11				
1808	1-30-10	1-29-B				
1809	3-23-M	11-29-13				
1810	10-32-12	10-32-13				
1811	1-28-C	2-30-R				
1812	1-29-10	2-30-P				
1813	10-32-L	10-32-11				
1814	1-29-13	2-30-M				
1815	1-28-7	2-30-L				
1816	2-30-H	10-26-F				
1817	1-34-4	10-33-D				
1818	1-34-7	10-33-F				
1819	1-34-10	10-33-M				
1820	1-34-13	10-33-P				
1821	2-33-4	10-34-6				
1822	1-34-P	10-34-11				
1823	1-34-H	10-34-2				
1824	1-34-L	10-34-4				
1825	2-34-L	2-29-S	2-29-15			
1826	2-29-13	2-30-13				
1827	2-29-P	2-30-12				
1828	1-33-7	11-29-5				
1829	1-33-H	11-29-6				
1830	1-32-3	1-31-4				
1831	4-30-10	10-34-13				
1832	1-23-P	4-30-12				
1833	2-33-7	10-34-15				
1834	1-33-3	10-26-11				
1835	5-20-H	6-23-15				
1836	5-20-7	6-23-B	8-31-S			
1837	5-20-L	6-23-D				
1838	5-20-10	6-23-F				
1839	5-20-P	6-23-M				
1840	5-13-10	3-16-14	2-16-M	3-24-11		
1841	5-21-D	6-23-S				
1842	5-21-4	7-21-2				
1843	5-21-H	7-21-4				
1844	5-21-7	7-21-6				
1845	6-30-10	7-21-D				
1846	7-21-E	6-20-D	6-20-13	6-20-P	6-21-4	6-21-D
1847	7-21-12	6-20-B	6-20-15	6-20-S	6-21-2	6-21-B
1848	5-11-10	5-12-M				
1849	7-21-C	6-19-13	6-19-P	6-20-4	6-19-D	6-19-4
1850	7-21-10	6-19-15	6-19-S	6-20-2	6-19-B	6-19-2
1851	4-28-4	3-29-2				
1852	4-28-H	3-29-3				
1853	4-28-10	3-29-5				
1854	4-28-13	3-29-6				
1855	3-29-7	9-33-15				
1856	1-31-15	2-30-7				
1857	1-22-3	4-28-B				
1858	4-28-D	5-34-S				
1859	4-28-7	5-34-R				
1860	4-28-L	5-34-P				
1861	4-28-P	5-34-N				
1862	4-27-4	5-34-M				
1863	4-27-7	5-34-L				
1864	5-34-H	9-33-B				
1865	4-27-10	4-21-4				
1866	4-21-7	9-33-D				
1867	11-21-H	8-31-2				
1868	8-33-7	8-31-B				
1869	8-31-5	8-33-C				

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination			
1870	8-33-3	8-31-E		
1871	4-29-4	4-30-4		
1872	4-29-7	4-30-5		
1873	4-29-10	4-30-6		
1874	4-30-7	10-32-2		
1875	4-29-13	4-29-E		
1876	4-29-D	4-29-F		
1877	4-29-H	10-33-4		
1878	6-32-H	6-34-11		
1879	6-32-L	6-34-12		
1880	6-34-14	6-32-P		
1881	6-34-10	10-33-6		
1882	1-29-C	4-29-L	5-31-B	4-24-13
1883	1-31-S	1-31-13		
1884	4-29-P	5-31-R		
1885	5-31-C	9-33-S		
1886	6-32-7	6-34-B		
1887	6-32-10	6-34-C		
1888	6-32-13	6-34-E		
1889	6-32-D	6-34-F		
1890	6-34-H	9-33-P		
1891	4-31-4	4-31-11		
1892	4-31-7	4-31-12		
1893	4-31-10	9-33-M		
1894	4-31-13	4-30-B		
1895	4-31-D	4-30-S		
1896	4-30-C	9-33-F		
1897	3-34-C	3-34-2	3-29-15	
1898	3-29-10	4-33-13		
1899	3-34-S	4-33-15		
1900	4-30-L	4-26-2		
1901	1-28-3	3-29-S		
1902	2-29-4	3-29-R		
1903	2-29-D	3-29-N		
1904	2-29-7	3-29-M		
1905	3-29-L	2-29-12		
1906	3-33-L	4-33-B		
1907	3-33-H	4-33-D		
1908	11-34-14	7-16-3		
1909	6-28-L	6-34-M		
1910	5-30-D	6-34-N		
1911	7-16-L	5-12-L		
1912	6-34-L	3-25-13		
1913	2-25-7	4-22-M		
1914	4-25-H	4-22-N		
1915	4-22-L	4-25-5		
1916	3-19-C	4-22-R		
1917	2-24-L	2-25-13		
1918	9-23-13	10-29-F		
1919	9-23-14	6-9-F		
1920	2-22-L	1-29-11		
1921	4-24-3	2-25-11		
1922	4-24-7	2-25-12	1-33-12	
1923	2-25-10	3-25-15		
1924	3-19-M	3-24-10		
1925	3-19-L	2-16-14		
1926	3-26-6	3-24-13		
1927	3-24-H	4-24-B		
1928	4-24-C	3-22-D		
1929	3-22-E	4-24-H		
1930	3-22-H	3-25-B		
1931	3-31-10	3-19-D		
1932	4-19-10	1-20-15		
1933	3-20-3	2-20-E		
1934	4-19-L	1-29-M		
1935	4-20-D	4-19-2		
1936	3-31-11	3-24-B	11-29-4	
1937	4-19-7	3-20-D	3-12-P	
1938	4-19-H	3-20-E	3-12-N	9-10-5

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.			Termination		
1939	3-28-10	3-24-12	3-20-F		
1940	3-20-H	3-33-R			
1941	3-33-P	1-20-F			
1942	11-20-P	9-20-R			
1943	11-20-L	9-20-14			
1944	11-20-H	9-19-R			
1945	11-20-D	9-19-14			
1946	11-20-13	10-20-R			
1947	11-20-10	10-20-14			
1948	11-20-7	9-21-P			
1949	11-20-4	9-21-14			
1950	7-19-4	9-20-S			
1951	7-19-7	9-20-15			
1952	7-19-10	9-19-S			
1953	7-19-13	9-19-15			
1954	7-19-D	10-20-S			
1955	3-19-H	3-23-15	2-20-F	1-21-15	1-28-E
1956	7-19-H	10-20-15			
1957	7-19-L	9-21-R			
1958	7-19-P	9-21-15			
1959	7-20-D	6-24-10			
1960	7-20-H	6-25-10			
1961	7-20-L	8-23-6			
1962	7-20-P	8-23-F			
1963	7-20-4	7-25-6			
1964	7-20-7	8-23-14			
1965	7-20-10	8-23-R			
1966	7-20-13	8-24-5			
1967	8-20-L	6-24-11			
1968	8-20-D	6-25-11			
1969	8-2--10	8-23-5			
1970	8-20-4	8-23-E			
1971	8-19-L	7-25-4			
1972	8-19-D	8-23-11			
1973	8-19-10	8-23-M			
1974	8-19-4	8-24-2			
1975	8-20-P	8-23-12			
1976	8-20-H	8-23-N			
1977	8-20-13	8-24-3			
1978	8-20-7	7-30-11			
1979	8-19-P	7-30-M			
1980	8-19-H	7-30-E			
1981	8-19-13	7-30-5			
1982	11-25-4	7-23-N			
1983	11-25-7	7-23-13			
1984	11-25-D	6-26-13			
1985	11-25-H	7-24-13			
1986	11-25-10	7-23-P			
1987	11-25-13	7-23-12			
1988	11-25-L	6-26-12			
1989	7-24-12	11-25-P			
1990	11-26-4	7-23-L			
1991	7-23-11	11-26-7			
1992	11-26-D	6-26-11			
1993	7-24-11	11-26-H			
1994	11-26-10	7-23-M			
1995	7-23-10	11-26-13			
1996	11-26-L	6-26-10			
1997	7-24-10	11-26-P			
1998	10-25-3	6-24-13			
1999	6-25-13	10-25-C			
2000	10-25-7	6-26-14			
2001	7-24-14	10-25-H			
2002	7-30-D	6-25-12			
2003	6-24-12	7-30-4			

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.			Termination		
2004	9-22-4	7-23-D			
2005	7-23-4	9-22-7			
2006	9-22-D	6-26-4			
2007	7-24-4	9-22-H			
2008	9-22-10	7-23-C			
2009	7-23-3	9-22-13			
2010	9-22-L	6-26-3			
2011	7-24-3	9-22-P			
2012	9-23-D	7-23-S			
2013	7-23-15	9-23-H			
2014	9-23-L	6-26-15			
2015	7-24-15	9-23-P			
2016	10-21-L	7-23-R			
2017	7-23-14	10-21-P			
2018	6-24-7	6-24-H			
2019	6-25-7	6-24-8			
2020	8-23-7	6-24-P			
2021	8-23-H	6-24-S			
2022	7-25-7	6-25-H			
2023	8-23-10	6-25-8			
2024	8-23-L	6-25-P			
2025	8-24-7	6-25-S			
2026	7-30-10	6-26-H			
2027	7-30-L	6-26-8			
2028	7-30-H	6-26-P			
2029	7-30-7	6-26-S			
2030	6-24-C	6-25-D			
2031	6-25-C	6-26-D			
2032	10-33-R	9-22-E	9-22-5	9-22-2	9-22-B
2033	10-33-C	9-22-14	9-22-R	9-22-M	9-22-11
2034	10-33-N	9-23-R	9-23-M	9-23-E	9-23-B
2035	10-33-E	10-21-M	10-21-R		
2036	10-33-L	11-25-C	11-25-3	11-25-6	11-25-F
2037	10-33-H	11-25-N	11-25-12	11-25-15	11-25-S
2038	10-34-10	11-26-C	11-26-3	11-26-6	11-26-F
2039	10-34-7	11-26-N	11-26-12	11-26-15	11-26-S
2040	10-34-5	10-25-B	10-25-2	10-25-4	10-25-D
2041	10-34-2	7-30-B	7-30-2		
2042	4-33-C	9-19-P	10-20-P		
2043	2-34-2	4-33-12	9-20-P		
2044	2-34-15	4-33-14	9-20-13		
2045	2-34-C	2-34-14	3-33-M	9-19-13	10-20-13
2046	4-33-E	9-21-13			
2047	3-34-H	3-34-15	3-33-N	3-29-14	
2048	2-34-7	3-33-F	3-29-12		
2049	3-34-7	3-33-E	3-34-14		
2050	2-31-7	3-29-11			
2051	9-20-D	1-14-D			
2052	9-20-4	1-14-4			
2053	9-19-D	1-14-H			
2054	9-19-4	1-14-7			
2055	10-20-D	1-14-10			
2056	10-20-4	1-14-L			
2057	9-21-D	1-14-13			
2058	9-21-4	1-14-P			
2059	9-20-M	1-15-D			
2060	9-20-11	1-15-4			
2061	9-19-M	1-15-H			
2062	9-9-11	1-15-7			
2063	10-20-M	1-15-10			
2064	10-20-11	1-15-L			
2065	9-21-M	1-15-13			
2066	9-21-11	1-15-P			
2067	6-24-F	8-25-7	8-21-3	9-24-E	
2068	6-24-K	8-25-H	8-21-6	9-24-B	
2069	6-24-N	8-26-7	8-21-12	9-24-14	

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
2070	6-24-A	8-26-H	8-21-15	9-24-11			
2071	6-25-F	8-27-7	8-21-C	9-24-5			
2072	6-25-K	8-27-H	8-21-F	9-24-2			
2073	6-25-N	8-28-7	8-21-N	9-23-11			
2074	6-25-A	8-28-H	8-21-S	9-23-5			
2075	6-26-F	8-29-7	9-23-2				
2076	6-26-K	8-29-H	9-24-R				
2077	6-26-N	8-30-7	9-24-M				
2078	6-26-A	8-30-H					
2079	10-34-14	7-29-R	7-29-14	7-29-11	7-29-M	7-29-E	7-29-5
	7-29-2	7-29-B	7-26-M	7-26-11	7-26-14	7-26-R	
2080	10-34-12	7-28-M	7-28-11	7-28-3	7-28-C	7-27-F	7-27-6
	7-27-15	7-27-S	7-26-F	7-26-6	7-26-3	7-26-C	
2081	10-26-10	8-25-14	8-25-R	8-26-14	8-26-R	8-27-14	8-27-R
	8-28-14	8-28-R	8-29-14	8-29-R	8-30-14	8-30-R	
2082	10-29-7	9-27-P	9-27-13	9-26-P	9-26-13	9-25-P	9-25-13
	9-25-4	9-25-D	9-26-4	9-26-D	9-27-4	9-27-D	
2083	4-33-10	11-20-B	11-20-2	11-20-5	11-20-E	11-20-M	11-20-11
	11-20-14	11-20-R					
2084	2-27-7	2-30-4	6-25-4	6-24-4	7-25-5	8-23-C	8-23-3
	8-23-15	8-23-S	8-24-6	7-30-12	7-30-N	7-30-F	7-30-6
2085	9-25-7	8-25-2					
2086	9-25-14	9-25-6	8-25-12				
2087	9-25-10	8-25-B					
2088	9-25-11	9-25-C	8-25-N				
2089	9-25-H	8-26-2					
2090	9-25-R	9-25-F	8-26-12				
2091	9-25-L	8-26-B					
2092	9-25-M	9-26-3	8-26-N				
2093	9-26-7	8-27-2					
2094	9-26-14	9-26-6	8-27-12				
2095	9-26-10	8-27-B					
2096	9-26-11	9-26-C	8-27-N				
2097	9-26-H	8-28-2					
2098	9-26-R	9-26-F	8-28-12				
2099	9-26-L	8-28-B					
2100	9-26-M	9-27-3	8-28-N				
2101	9-27-7	8-29-2					
2102	9-27-14	9-27-6	8-29-12				
2103	9-27-10	8-29-B					
2104	9-27-11	9-27-C	8-29-N				
2105	9-27-H	8-30-2					
2106	9-27-R	9-27-F	8-30-12				
2107	9-27-L	8-30-B					
2108	9-27-M	8-30-N					
2109	1-30-H	4-33-F					
2110	10-26-H	9-27-S	9-27-15	9-26-S	9-26-15	9-25-S	9-25-15
	9-25-2	9-25-B	9-26-2	9-26-B	9-27-2	9-27-B	
2111	7-33-E	8-30-C	8-30-3	8-29-C	8-29-3	8-28-C	8-28-3
	8-27-C	8-27-3	8-26-C	8-26-3	8-25-C	8-25-3	
2112	4-33-H	5-34-4	6-32-3				
2113	5-28-L	5-34-10	7-33-D	8-30-M	8-30-11	8-29-M	8-29-11
	8-28-M	8-28-11	8-27-M	8-27-11	8-26-M	8-26-11	8-25-M
	8-25-11						
2114	9-32-R	11-31-P					
2115	7-33-F	8-21-B	8-21-2	8-21-5	8-21-E	8-21-M	
	8-21-11	8-21-11	8-21-R	10-29-10			
2116	1-29-7	2-30-C					
2117	8-22-B	8-22-2	8-22-5	8-22-E	8-22-M	8-22-11	8-22-14
	8-22-R	3-25-N					
2118	10-33-12	10-19-S	10-19-15	10-19-12	10-19-N	10-19-F	10-19-6
	10-19-3	10-19-C					
2119	3-32-10	4-33-6	8-20-3	8-20-C	8-20-N	8-20-12	8-19-N
	8-19-12	8-19-3	8-19-C				
2120	3-32-P	4-33-4	8-20-5	8-20-E	8-20-R	8-20-14	8-19-R
	8-19-14	8-19-E					
2121	10-26-L	11-27-D	11-27-4	11-27-13	11-27-P	11-28-13	11-28-P
	11-28-D	11-28-4					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
2122	4-35-2	-34-7	7-20-B	7-20-2	7-20-5	7-20-E	7-20-M
	7-20-11	7-20-14	7-20-R				
2123	4-27-D	7-19-B	7-19-2	7-19-5	7-19-E	7-19-M	7-19-11
	7-19-14	7-19-R					
2124	11-27-7	10-31-6	8-32-S				
2125	11-27-6	10-32-S	8-32-15	8-32-F	7-20-C	7-19-3	
2126	11-27-10	10-32-R	10-31-5				
2127	11-27-11	8-32-14	8-32-R	8-32-E	7-20-F	7-19-6	
2128	11-27-H	10-30-R	10-30-6				
2129	11-27-F	10-30-13	7-20-N	7-19-12			
2130	11-27-L	10-30-14					
2131	11-27-M	7-20-S	7-19-15				
2132	11-28-7	10-30-S	10-30-5				
2133	11-28-6	10-30-12	7-20-3	7-19-C			
2134	11-28-10	10-30-15					
2135	11-28-11	7-20-6	7-19-F				
2136	11-28-H	10-30-2					
2137	11-28-F	7-20-12	7-19-N				
2138	11-28-L	10-30-11	10-30-4				
2139	11-28-M	10-30-B	7-20-15	7-19-S			
2140	11-32-C	9-28-S	9-28-15	9-28-F	7-26-D	7-25-R	
2141	11-30-2	9-31-6	8-25-15	7-26-B	7-25-C		
2142	11-32-3	9-28-14	9-28-E	8-24-F	7-26-4		
2143	11-30-4	9-29-R	8-25-S	8-24-H	7-26-2		
2144	11-32-R	9-28-C	7-25-15	7-26-H			
2145	11-30-6	9-29-S	9-28-12	8-26-15	7-26-E	7-25-3	
2146	11-32-14	9-28-B	8-24-15	7-26-7			
2147	11-30-11	9-28-11	9-29-B	8-26-S	8-24-10	7-26-5	
2148	11-33-C	9-29-6	7-27-7	7-27-3			
2149	11-30-13	9-29-14	9-29-F	8-27-15	7-27-5	7-27-4	7-24-L
2150	11-33-3	9-29-15	9-29-5	7-27-H	7-27-C		
2151	11-30-15	9-29-E	8-27-S	7-27-E	7-27-D	7-24-M	
2152	11-33-R	9-29-D	9-29-4	7-27-13	7-27-12		
2153	11-30-B	9-29-2	8-28-15	7-27-10	7-27-14	7-24-N	
2154	11-33-14	9-28-6	8-33-13	7-27-P			
2155	11-30-D	8-33-10	8-28-S	7-27-R	7-24-P		
2156	11-34-C	9-28-5	7-28-5	7-28-4			
2157	8-29-15	7-28-7	7-28-2	7-24-R			
2158	11-34-3	9-28-3	7-28-E	7-28-D			
2159	8-29-S	7-28-H	7-28-B	7-24-S			
2160	11-34-R	9-28-2	7-28-15	7-28-10			
2161	8-30-15	7-28-13	7-28-12	7-24-D			
2162	7-28-L	7-28-S					
2163	8-30-S	7-28-P	7-28-N				
2164	7-25-B	7-33-L					
2165	7-33-M	2-29-H					
2166	2-29-E	2-29-10	5-31-N	8-24-C			
2167	4-26-10	5-31-P	8-24-B	8-24-12			
2168	2-34-H	2-29-F	5-31-M	7-25-2	8-24-11	8-33-11	
2169	5-24-13	4-34-15					
2170	2-34-3	4-26-S					
2171	5-31-L	2-33-B					
2172	9-31-5	9-30-7	9-28-N				
2173	9-31-2	9-30-3	9-29-11	9-28-M			
2174	9-30-5	9-28-R					
2175	6-33-D	8-31-H	10-24-F				
2176	6-33-C	8-31-7	10-24-R				
2177	6-33-S	8-31-D	10-24-P				
2178	6-33-R	8-31-4	10-24-13				
2179	4-31-E	4-27-P	10-33-15				
2180	10-33-14	9-24-S	9-24-15	9-24-12	9-24-N	9-24-F	9-24-6
	9-24-3	9-24-C	9-23-3	9-23-6	9-23-12		
2181	10-29-L	10-22-2	10-22-B	10-22-E	10-22-5	10-22-11	10-22-M
	10-22-R	10-22-14	10-21-11	10-21-5	10-21-2		
2182	4-31-F	8-31-11	9-32-10	10-24-14	10-23-13		

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination					
2183	6-33-H	9-32-11				
2184	9-33-C	8-33-2				
2185	9-33-14	8-33-B				
2186	10-33-7	8-33-14	8-33-S			
2187	9-33-H	8-33-4				
2188	9-33-E	8-33-15	8-33-5			
2189	9-33-R	8-33-R	8-33-6			
2190	8-9-L	6-9-D				
2191	4-27-H	11-21-C				
2192	11-21-S	9-33-L	6-34-15			
2193	11-21-R	9-33-N	4-30-R			
2194	10-33-3	11-21-P	4-21-6			
2195	11-21-N	10-33-5	5-31-S			
2196	4-33-3	2-30-15				
2197	4-33-5	2-30-3				
2198	4-33-7	2-30-14				
2199	11-29-7	11-22-S	10-31-S			
2200	1-34-D	2-30-10	10-33-S			
2201	1-33-C	2-30-11	10-33-B			
2202	2-33-D	4-30-11				
2203	4-33-L	10-26-12				
2204	2-31-10	5-28-M				
2205	10-27-13	10-27-F	10-32-14	10-31-N	10-31-12	
2206	1-29-D	3-25-S				
2207	1-33-14	1-28-6	3-25-R			
2208	8-33-L	11-24-M				
2209	3-34-L	8-31-M	11-24-P			
2210	6-20-14	6-20-F	5-20-14	5-20-5	5-22-B	4-20-M
2211	6-20-H	5-20-E	5-21-C	5-27-B		
2212	6-20-R	6-20-11	5-20-M	5-21-B	5-27-2	5-27-14
2213	6-20-10	5-20-6	5-21-3	5-25-E	5-25-M	
2214	6-20-M	6-21-3	5-20-11	5-21-2	5-21-M	5-23-C
2215	6-20-L	5-20-N	5-20-15	5-21-F	5-27-E	5-27-C
2216	6-21-6	6-21-C	5-20-R	5-21-E	5-25-F	4-20-N
2217	6-21-7	5-20-12	5-21-6	5-27-3		
2218	6-21-F	5-21-5	5-27-F	5-27-15		
2219	6-21-H	6-20-C	5-20-S	5-20-F	5-25-N	5-21-N
2220	6-19-6	6-19-C	5-19-12	5-19-S	2-30-R	
2221	6-19-7	5-19-S	5-19-B			
2222	6-19-14	6-19-F	5-19-R	5-19-E	5-29-B	5-30-5
2223	6-19-H	5-19-15	5-19-3			
2224	6-19-R	6-19-11	5-19-14	5-19-5		
2225	6-19-10	5-20-C	5-19-F	5-30-14	2-20-S	
2226	6-19-M	6-20-3	5-19-M	5-20-B		
2227	6-19-L	5-19-6	5-20-3	5-29-C		
2228	6-20-6	5-19-11	5-20-2	5-30-6		
2229	6-29-7	6-19-3	5-19-C	5-19-N	5-30-15	
2230	6-22-6	5-19-D				
2231	3-24-14	5-30-2	5-27-11	5-19-4	6-22-F	
2232	6-22-11	5-19-H	3-24-15			
2233	6-22-M	5-19-7	5-31-2			
2234	1-23-15	2-27-F	5-19-L	5-30-11	5-31-15	
2235	6-23-2	5-19-10				
2236	6-23-4	5-19-P	5-30-12	5-30-3		
2237	6-23-6	5-19-13				
2238	6-23-11	5-20-D				
2239	6-23-13	5-20-4	5-31-14	3-30-C		
2240	5-22-15	6-23-14	4-21-N	4-19-5	3-33-6	
2241	6-23-C	5-24-3	4-22-C	3-33-12	2-26-5	
2242	6-23-E	5-29-6	4-22-3	2-21-3		
2243	6-23-H	5-22-6	5-22-12	5-29-12	5-29-3	1-25-R
	3-27-14	3-27-6	2-34-S	2-31-6		2-34-F
2244	8-31-3	8-31-C	8-31-6	8-31-F	7-30-15	6-23-L
	5-27-N	5-27-S	4-27-R	4-27-N	4-24-5	2-29-11
	2-20-6	2-24-P				

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination					
2245						
2246	6-23-R	4-19-E	4-19-R	4-19-12	3-22-13	1-30-5
2247	7-21-3	4-24-F	1-30-8			
2248	7-21-5	5-25-3	3-20-14	1-28-S	1-28-13	
2249	10-26-N	7-21-7	7-21-B	6-27-R		
2250	1-22-D	2-29-6	2-31-5	2-34-E	3-33-2	4-31-15
	4-29-3	4-28-S	4-28-12	4-28-3	4-27-M	5-25-B
	5-25-14	5-24-2	6-22-7	6-32-6	6-32-F	5-29-5
2251	1-27-B	1-21-B	2-24-15	2-25-F	3-21-N	3-27-5
	3-32-B	2-33-15	2-34-B	3-33-5	4-32-2	4-29-R
	4-29-6	4-28-F	4-27-6	4-27-12	4-19-6	5-21-14
	5-22-R	6-22-H	5-25-2	5-27-R	6-27-N	
	6-32-12					
2252	2-20-5	1-25-S	1-27-14	1-30-11	1-30-4	1-33-S
	2-33-R	3-33-14	4-31-C	4-29-12	4-28-6	4-27-F
	4-25-M	4-21-E	5-22-M	6-22-10	5-27-M	5-29-11
	6-32-15					
2253	6-32-C	3-33-11	3-31-14	4-31-3	4-29-N	4-28-N
	4-28-15	5-24-E	5-24-M	6-22-L	5-22-5	5-22-2
	4-21-P	4-22-2	3-22-13	3-26-3	2-29-C	1-28-M
2254	1-33-4	1-30-B	2-29-3	2-27-H	1-21-S	3-20-15
	3-20-2	4-19-C	5-22-14	5-24-5	4-25-F	3-26-12
	3-27-E	4-28-C	5-29-2	4-29-C	3-31-R	3-31-F
2255	1-28-12	2-24-F	2-24-R	4-24-E	4-19-11	4-19-S
	5-22-11	6-23-3	5-22-E	4-29-15	4-31-6	3-31-C
2256	1-33-P	1-30-2	2-24-13	2-26-2	3-26-E	4-27-3
	10-30-F					6-23-5
2257	1-33-E	1-28-B	1-28-14	4-30-P	4-24-4	4-20-6
2258	6-32-R	6-23-10	5-24-11	4-22-B		6-23-7
2259	6-23-12	4-22-11				
2260	1-27-E	5-28-14	8-31-15			
2261	1-27-5	6-30-10				
2262	5-31-H	3-25-4				
2263	2-29-M	5-28-7				
2264	3-26-H	3-30-P				
2265	5-25-P	3-26-F				
2266	3-24-N	2-24-H				
2267	10-34-M	3-24-L				
2268	3-24-4	3-25-2				
2269	8-33-N	5-26-C	5-21-15	3-34-M	3-33-3	
	1-33-5	1-33-F	1-21-M	1-22-E	2-27-6	
2270	5-27-7	1-21-C				
2271	4-34-5	5-21-P				
2272	3-28-N	10-27-H	10-27-14	10-32-M	11-34-12	
2273	4-34-11	5-23-N				
2274	4-34-14	6-31-7				
2275	5-21-L	5-27-5				
2276	1-29-2	3-32-15	3-31-N	5-26-3		
2277	5-24-F	5-26-H				
2278	10-32-N	5-26-R	5-30-S	4-32-6	4-31-R	4-30-14
	3-22-2	3-22-4	3-26-N			
2279	5-23-C	4-20-S	3-32-N	3-34-12	1-31-5	
2280	10-32-15	5-30-B	5-23-7	4-24-2	3-32-F	2-31-M
2281	6-28-M	5-28-5	4-34-S	3-26-S	2-25-N	
2282	5-23-5	4-31-M	3-28-R	3-28-11	2-23-4	2-25-B
2283	8-19-6	5-28-N	4-34-F	3-27-M	1-31-N	
2284	5-30-4	3-27-15				
2285	5-25-7	3-26-15				
2286	5-29-F	5-26-L	3-26-C			
2287	4-20-7	4-21-5				
2288	5-26-10	5-24-6	5-24-12	5-22-S	5-22-N	5-22-F
	1-28-N	1-30-15				1-22-N
2289	5-23-14	2-33-M				
2290	1-31-11	1-34-M	1-34-12	1-34-14	1-34-R	4-34-B
	5-23-E	10-26-5				4-34-N

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
2291	5-31-3	1-22-M					
2292	5-22-P	5-23-D	2-34-M				
2293	2-30-N	1-31-L					
2294	5-23-12	1-30-12					
2295	10-31-15	5-23-10	4-24-R	3-24-5	2-23-P		
2296	7-22-4	5-21-12	5-24-4	4-30-13			
2297	6-29-M	5-29-8	5-23-3	3-34-E	3-34-5	3-34-B	2-34-5
2298	8-9-P	7-16-15	5-28-3	4-25-R	3-20-P	2-23-E	2-23-8
2299	6-28-14	11-31-L					
2300	5-28-12	1-27-11					
2301	1-20-7	1-20-11	2-30-S				
2302	5-25-10	2-33-2	1-34-3	1-34-E	1-34-5	1-20-3	
2303	5-26-5	1-34-C					
2304	9-12-6	5-25-12	5-25-13	2-34-P			
2305	5-25-D	5-25-11	2-34-N				
2306	5-26-14	5-25-15	4-21-F				
2307	5-25-C	5-26-E					
2308	2-22-N	5-22-H	5-23-15	6-31-6			
2309	5-21-R	5-22-L	5-23-B				
2310	5-21-13	5-21-S					
2311	5-25-6	5-28-4	5-29-10	3-31-2			
2312	5-26-7	3-33-15					
2313	2-25-6	4-26-3	9-29-N				
2314	5-27-H	5-26-F	4-20-3				
2315	5-24-L	5-26-4					
2316	5-30-7	5-28-13					
2317	8-19-7	8-31-12					
2318	4-20-L	4-20-2					
2319	4-20-4	1-33-R					
2320	2-33-10	2-27-5					
2321	3-22-R	3-32-7					
2322	3-22-C	3-31-B					
2323	3-31-D	3-30-D					
2324	5-24-C	3-34-S	3-34-D	3-34-4	3-25-3	3-20-15	3-20-N
	2-21-5	2-25-E	2-34-4	1-22-5	1-20-R		
2325	3-32-D	3-27-11					
2326	3-27-13	4-32-3	4-21-S				
2327	3-27-10	5-28-F					
2328	5-28-H	3-30-S					
2329	3-31-13	3-30-R	3-24-M				
2330	3-31-P	3-30-N					
2331	4-30-3	4-27-14					
2332	9-29-L	3-30-L					
2333	4-27-15	2-34-10					
2334	4-27-13	4-26-11					
2335	2-23-2	2-22-10	3-34-R				
2336	3-30-H	7-30-14					
2337	7-30-S	7-30-13					
2338	3-23-7	5-32-9					
2339	5-32-6	5-32-K	3-24-R	1-23-3			
2340	5-32-7	5-32-E	6-34-5				
2341	11-29-S	5-32-5	5-32-F	4-25-C	1-23-2		
2342	6-34-6	5-32-H	3-24-S				
2343	3-23-H	1-24-13					
2344	2-23-D	11-29-H					
2345	3-24-P	3-25-D					
2346	1-23-4	1-23-5					
2347	1-23-6	1-23-10					
2348	6-21-P	3-25-E	1-24-P	1-24-D	1-24-4	1-32-P	
2349	1-19-12	1-19-13	11-31-N				
2350	4-24-L	4-21-R	1-19-15				
2351	1-24-H	6-31-R					
2352	1-24-L	7-32-B	7-32-3				
2353	6-21-11	10-32-3					
2354	7-32-R	2-22-3	2-23-N	1-19-10	1-19-14		

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination		
2355	6-21-L	7-32-15	
2356	1-32-R	3-23-3	3-25-12
2357	3-25-14	3-23-4	1-24-3
2358	4-25-7	3-23-15	1-24-C
2359	3-25-C	3-23-13	1-24-R
2360	2-26-7	6-21-15	
2361	3-24-7	3-23-11	1-19-11
2362	3-23-10	2-31-L	6-21-R
2363	1-23-R	1-32-C	1-32-6
2364	1-33-2	1-32-7	1-31-14
2365	1-32-F	1-32-14	1-28-5
2366	1-32-H	1-23-8	
2367	1-32-11	1-33-15	
2368	1-32-10	2-33-6	
2369	1-25-L	1-25-E	
2370	2-23-7	3-25-M	7-22-M
2371	7-22-L	3-25-P	2-25-C
2372	2-23-10	4-23-5	
2373	1-23-H	2-23-11	
2374	1-23-E	1-23-L	
2375	3-24-D	1-23-M	
2376	4-23-13	4-23-4	3-21-L
2377	5-27-10	1-19-2	
2378	4-23-6	4-23-14	
2379	4-23-10	4-23-3	7-32-F
2380	2-26-H	1-27-6	
2381	4-30-H	6-27-8	
2382	3-22-L	6-32-B	
2383	4-26-D	4-21-C'	10-32-5
2384	4-20-13	11-24-S	
2385	7-33-10	7-27-M	2-25-R
2386	1-21-H	3-27-12	4-21-B
2387	7-33-11	11-31-7	10-21-C
2388	2-21-7	2-22-E	
2389	1-22-7	2-22-11	
2390	9-32-S	10-32-4	7-32-M
2391	1-21-L	4-20-14	
2392	1-22-H	4-20-15	
2393	2-21-L	7-32-12	
2394	2-21-R	1-24-M	
2395	4-25-10	4-26-13	
2396	2-22-P	2-21-B	3-32-3
2397	2-21-H	4-20-11	
2398	4-25-P	4-21-15	
2399	4-21-L	4-21-14	
2400	4-22-7	3-21-2	
2401	3-22-3	1-33-13	
2402	2-22-D	3-22-15	
2403	3-22-7	3-21-11	
2404	4-22-H	10-32-B	
2405	4-22-10	10-32-C	
2406	2-23-L	4-23-E	
2407	4-23-M	2-23-M	
2408	1-28-10	2-23-14	1-21-14
2409	10-30-L	3-25-11	2-24-D
2410	3-25-10	2-24-B	
2411	4-23-S	2-22-4	
2412	10-27-C	10-27-4	10-28-4
2413	10-27-D	10-28-D	10-28-P
2414	10-28-6	10-28-C	10-27-M
2415	10-27-R	10-28-7	11-29-M
2416	10-28-F	10-28-S	10-28-14
2417	10-27-12	10-28-H	11-29-N
2418	10-28-11	10-28-R	11-29-11
2419	10-28-10	10-27-6	
2420	10-28-M	10-27-8	10-27-N

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
2421	10-28-3	10-28-L	11-29-12				
2422	10-27-10	2-27-14					
2423	10-27-L	2-27-15					
2424	10-27-7	2-27-R					
2425	10-27-P	2-27-8					
2426	11-29-10	11-29-14					
2427	11-29-L	11-29-15					
2428	1-32-4	1-32-13	2-27-10	6-30-11	8-33-F		
2429	1-29-5	1-32-D	2-33-C	2-27-L	4-32-E	4-32-N	4-32-12
	5-32-11	5-32-M	5-33-11	5-33-M	5-33-15	6-27-M	7-32-6
	10-29-N						
2430	4-33-N	1-30-P					
2431	3-21-13	3-21-12	4-30-N				
2432	1-20-10	1-20-14	4-30-M				
2433	1-25-11	1-21-10	2-22-F	3-24-F			
2434	1-25-12	1-21-12	2-23-3	2-22-12	3-24-E	4-20-C	
2435	4-26-12	2-24-5					
2436	1-21-11	2-22-H	3-34-F	4-19-N			
2437	1-33-N	1-29-L	1-28-D	3-34-6			
2438	4-20-H	2-20-B	2-34-6				
2439	1-20-B	11-19-M	11-19-H	10-25-N	10-31-R		
2440							
2441	10-31-H	3-20-12					
2442	2-24-3	6-33-3					
2443	4-22-8	3-20-10					
2444	2-20-10	6-33-14					
2445	2-20-L	6-33-13					
2446	2-24-10	6-33-12					
2447	2-24-C	6-33-11					
2448	6-33-7	7-21-15					
2449	7-21-14	8-33-M					
2450	1-24-12	5-32-15	5-32-8	5-33-8	8-33-H		
2451	5-32-1	5-33-C	7-34-6	7-34-E	11-31-B	11-31-2	
2452	6-9-13	5-33-B	5-32-13	6-28-2	11-31-D	11-31-4	11-31-11
2453	5-32-R	5-32-A	5-32-3	7-34-2	7-34-B	11-31-E	11-31-5
2454	5-32-2	5-32-P	11-31-15	11-31-8			
2455	5-32-C	5-33-P	7-34-D	7-34-4			
2456	5-32-B	5-33-A	6-28-15	7-34-15	7-34-S	11-31-12	
2457	7-33-14	7-34-R	7-34-6	11-31-F	11-31-13	11-31-14	
2458	7-33-15	7-34-10					
2459	7-30-P	5-33-9					
2460	1-23-12	5-33-6	5-33-K	7-34-11			
2461	5-33-7	5-33-E	6-34-2	8-33-D			
2462	5-33-1	5-33-F	8-33-E				
2463	3-23-R	5-33-H	5-33-13				
2464	1-23-11	3-23-P	5-28-P	5-33-3	5-33-5	7-34-13	
2465	1-27-3	3-21-15	5-33-2	6-34-3			
2466	6-34-7	7-33-B					
2467	1-24-11	7-34-12					
2468	7-25-E	7-33-C	6-30-12				
2469	1-23-7	7-21-11	7-21-13				
2470	3-23-D	7-33-2	11-31-C	10-21-B			
2471	3-23-C	7-33-4	7-34-3				
2472	3-19-3	3-21-F	3-22-B	3-23-S	4-30-D	6-28-R	6-29-11
	6-30-E						
2473	2-25-14	3-19-5	3-23-N	4-30-E	4-32-S	6-31-C	6-31-N
	6-30-F	6-29-3	6-27-6				
2474	3-23-L	6-28-3	7-33-13				
2475	2-24-N	3-20-11	6-31-S	7-32-2	7-33-3	11-29-R	11-29-C
2476	2-23-B	2-23-6	3-24-3	3-28-2	4-25-B	4-25-14	
	4-34-3	7-33-5	7-32-11	10-21-15			
2477	1-33-B	1-34-B	2-33-F	3-19-2	3-26-11	3-32-14	4-32-F
	5-30-R	7-33-7	8-9-N				
2478	1-19-3	2-23-F	2-25-M	3-19-4	4-28-5	4-28-14	
	4-34-6	5-29-M	5-26-12	10-26-6			

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination						
2479	3-21-B	7-25-11	7-25-M	7-32-C	7-32-N	7-32-S	7-32-14
	7-33-12	10-23-S					
2480	2-24-4	5-31-D	6-30-14	6-31-B	7-31-2	11-29-D	
2481	1-22-2	2-26-B	3-19-13	4-25-11	6-29-E	6-30-15	6-31-P
	7-31-4						
2482	1-22-11	1-22-15	2-24-6	3-19-15	5-24-15	6-28-4	6-29-B
	7-31-8	7-32-4	5-31-12				
2483	1-30-M	3-22-M	4-25-13	6-27-B	6-30-2	7-31-11	
2484	6-9-S	6-31-M	6-30-S	6-29-5	6-28-B	6-27-2	5-31-F
	4-32-R	3-19-7	1-22-14	1-22-12			
2485	1-22-13	2-26-C	2-25-2	3-19-10	5-25-R	6-28-6	6-29-6
	6-29-C	6-30-B	5-31-4				
2486	2-21-11	5-15-B	6-27-C	6-27-3	6-30-5	6-30-C	5-31-11
	7-31-B	7-32-13					
2487	2-21-12	3-21-6	3-22-P	5-25-S	6-27-5	6-28-5	6-28-12
	6-30-N	5-31-13	7-31-D	7-32-D			
2488	3-21-R	3-22-S	5-31-5	6-28-D	6-29-14	6-30-M	
	7-25-10	7-31-F					
2489	2-21-15	4-30-F	6-28-S	6-29-S	6-29-12	6-30-3	6-30-R
	7-31-M	7-32-L	6-21-13				
2490	2-21-14	3-22-N	6-29-R	6-30-6	6-31-14	7-31-P	
	7-32-P						
2491	7-25-L	7-31-S					
2492	4-29-11	6-30-4	10-33-11				
2493	5-31-E	10-33-10					
2494	1-34-6	1-34-11	4-25-N	4-27-11	6-32-E	7-31-3	
2495	1-27-F	1-30-14	1-34-S	2-33-3	2-31-2	3-31-6	4-31-2
	4-31-B	4-32-4	6-32-M	7-31-5	10-30-D		
2496	1-33-D	1-31-C	1-30-R	4-31-14	4-31-5	4-29-M	4-27-2
	6-29-E	6-32-S	7-31-7	9-29-M			
2497	7-31-10	4-25-E					
2498	1-34-F	1-34-N	2-34-R	2-24-2	3-19-6	3-27-D	4-27-5
	4-28-11	5-29-R	6-28-N	7-31-12			
2499	1-33-M	1-28-11	1-28-P	1-29-3	2-29-B	2-26-R	2-24-E
	2-24-S	2-26-3	3-26-M	3-28-15	3-31-12	3-33-S	4-29-14
	3-19-11	4-19-M	5-29-14	7-31-14			
2500	1-21-E	3-24-6	6-32-14	7-31-C			
2501	1-20-2	1-31-M	2-31-N	2-29-5	2-33-N	3-27-N	4-29-B
	4-32-15	7-31-E					
2502	1-21-N	2-23-12	2-26-12	4-30-2	6-32-11	7-31-H	
2503	2-20-3	3-31-15	4-29-5	7-31-L			
2504	2-33-S	3-26-5	4-24-N	4-34-M	6-29-N	7-31-N	8-19-5
2505	1-22-F	2-34-D	2-34-13	3-32-C	3-21-M	7-31-R	
2506	3-31-M	1-32-L	1-25-N	2-25-S	2-23-5	3-24-2	3-22-11
	4-24-S	6-31-11					
2507	1-33-6	1-24-7	1-20-C	2-21-E	3-31-E	3-34-11	
	4-19-14	4-21-M	4-24-D	3-32-6			
2508	8-31-10	10-34-F					
2509	5-28-10	6-29-F					
2510	10-34-H	10-23-6	10-23-F	10-23-P	10-23-14		
2511	2-29-N	6-28-10					
2512	1-27-15	6-29-13	6-23-P				
2513	1-32-M	1-30-N	3-21-S	3-28-6	4-32-B	6-27-F	
	6-28-F	6-28-13	7-27-N				
2514	1-24-6	3-21-5	4-25-12	5-31-6	6-27-E	6-28-E	
	6-29-15						
2515	1-34-2	1-34-15	2-33-14	3-32-M	3-26-14	6-29-10	
2516	2-29-14	4-32-P	6-30-13				
2517	2-29-R	6-28-C					
2518	4-34-12	5-31-7					
2519	1-27-12	1-22-10					
2520	4-28-M	6-30-D					
2521	1-30-6	1-30-13	3-26-B	3-26-2	4-21-D	4-34-E	6-28-H
2522	4-32-11	6-30-P					
2523	3-32-E	6-29-D					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.			Termination				
2524	2-33-P	2-33-11					
2525	4-31-N	6-27-7					
2526	3-27-2	6-29-H					
2527	3-27-4	6-31-D					
2528	6-28-7	5-28-11	1-27-C				
2529	3-26-R	6-31-L					
2530	4-28-E	4-28-R	6-27-H				
2531	4-33-P	4-27-E	6-29-7				
2532	4-29-2	6-30-L					
2533	2-33-13	2-33-12					
2534	6-30-7	5-28-B	4-34-R				
2535	6-29-P	6-32-5					
2536	3-22-F	2-26-10					
2537	3-31-S	6-31-13					
2538	2-21-10	7-33-S					
2539	7-25-12	7-25-N	7-33-R				
2540	8-31-14	7-32-H					
2541	7-25-13	7-33-P	8-31-13				
2542	2-34-11	4-23-7	7-32-E				
2543	10-25-P	10-21-F	11-19-S	11-19-N			
2544	10-25-11	10-23-R	10-21-14	11-19-P	11-19-R		
2545	1-20-S	9-15-F	10-25-12	11-19-F	11-19-L		
2546	3-21-H	10-25-M	10-25-13				
2547	2-31-3	2-25-5	4-26-H	10-30-E			
2548	10-29-H	11-32-D	11-32-4	11-32-13	11-32-P	11-33-13	11-33-P
	11-33-D	11-33-4	11-34-4	11-34-D	11-34-P	11-34-13	
2549	7-33-N	7-25-P					
2550	8-9-M	10-14-H	10-14-15				
2551	4-20-P	5-34-11					
2552	1-31-B	5-30-N	4-24-10				
2553	5-30-L	4-24-11					
2554	3-34-10	6-32-2					
2555	6-32-4	6-24-D					
2556	3-32-2	3-34-13	4-21-3	4-20-12			
2557	1-31-6	3-21-P					
2558	1-20-E	1-22-C	2-24-14	4-23-C	6-9-R	10-30-M	
2559	1-25-14	2-20-H	4-20-F				
2560	1-22-R	1-20-H	2-26-6	3-27-F	4-23-R	5-13-13	5-7-N
2561	4-24-14	6-31-4					
2562	4-31-5	6-31-2	11-30-L				
2563	6-31-3	10-31-C	11-30-H				
2564	3-21-D	3-21-E					
2565	1-20-12	1-20-13					
2566	1-29-N	1-28-H					
2567	4-23-B	10-32-7					
2568	4-25-2	11-30-P	11-30-R				
2569	11-30-N	11-30-S					
2570	4-25-4	7-34-M					
2571	3-24-C	7-34-L					
2572	3-21-10	3-21-14					
2573	3-21-3	1-33-10					
2574	2-21-C	10-34-C					
2575	4-21-2	4-20-10					
2576	7-34-7	6-9-B	6-9-15				
2577	2-26-11	1-29-H					
2578	1-33-11	2-24-12	3-21-4				
2579	2-20-12	2-20-N	4-24-12	10-31-B	11-30-M		
2580	1-24-5	1-24-E	1-24-N	1-32-N	5-28-N	6-21-N	
2581	11-29-2	10-34-D					
2582	10-30-N	9-31-E	6-27-11	5-23-M			
2583	3-32-12	3-31-L					
2584	5-7-M	3-28-14	10-34-E				
2585	6-28-P	6-27-10					
2586	3-31-H	3-34-P					
2587	1-30-L	4-26-4					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.			Termination				
2588	4-26-5	2-23-R					
2589	2-24-7	4-26-6					
2590	4-26-7	2-24-M	3-20-13				
2591	2-23-H	6-34-R					
2592	2-23-C	6-34-S					
2593	3-28-3	4-21-10					
2594	4-21-11	1-24-F					
2595	5-24-P	1-29-14					
2596	1-29-15	6-29-4					
2597	5-31-10	4-34-C					
2598	9-32-L	4-22-F					
2599	9-32-N	2-25-P					
2600	5-29-H	6-33-P					
2601	5-29-L	6-33-N					
2602	9-33-5	4-30-15					
2603	9-33-7	1-23-N					
2604	4-23-H	4-25-3					
2605	9-33-12	4-19-15					
2606	9-30-E	1-25-M					
2607	9-30-H	4-24-P	4-22-6				
2608	4-26-14	5-29-N	4-29-15	2-34-12			
2609	7-16-M	3-12-L					
2610	9-30-R	3-27-P	4-19-F	2-26-N			
2611	9-32-3	4-22-14	3-22-6	3-28-12			
2612	2-21-N	1-20-L					
2613	4-16-B	6-9-10	6-9-C	8-9-4			
2614	10-31-M	10-31-11	10-14-13	10-14-E	8-9-5	3-28-M	
2615	1-20-4	2-31-B					
2616	2-25-H	3-30-M					
2617	10-30-P	9-31-F	6-27-12	5-23-S			
2618	7-22-13	2-20-7					
2619	3-20-L	4-23-D	4-23-P				
2620	4-27-L	4-26-15					
2621	3-31-4	3-31-5					
2622	3-31-3	4-31-P					
2623	2-33-E	5-24-14	6-9-H	8-9-6			
2624	6-33-15	3-27-H					
2625	6-28-11	5-28-C					
2626	2-25-L	1-25-C					
2627	1-23-13	1-25-F					
2628	1-23-14	1-23-B	1-25-H				
2629	9-4-11	1-23-D	1-27-M				
2630	1-27-N	1-27-P	9-4-14				
2631	1-27-R	1-27-L	10-34-P	10-34-S			
2632	4-26-F	9-29-P					
2633	2-33-H	2-26-F					
2634	4-20-E	5-29-P	6-33-M				
2635	5-29-13	6-33-L					
2636	5-20-13	5-28-D					
2637	5-28-E	5-24-N					
2638	1-22-S	4-26-E	5-11-12				
2639	6-29-L	10-29-15					
2640	6-23-N	6-29-2					
2641	2-21-M	9-31-H					
2642	10-29-B	3-28-L					
2643	5-23-R	1-20-N					
2644	4-11-R	2-22-14					
2645	2-22-13	2-21-S					
2646	5-23-L	2-22-15					
2647	3-32-5	3-32-4					
2648	6-31-15	6-31-10					
2649	5-30-C	4-32-C					
2650	1-22-4	1-20-6	2-21-F	2-22-2	2-23-13	2-26-14	
	2-26-S	3-25-H	4-24-M	5-24-B			
2651	4-34-2	1-25-10					

TABLE A4-7. LOGIC CHASSIS B, SIGNAL WIRING DATA (cont)

Loop No.	Termination	
2652	6-31-12	4-34-4
2653	3-19-B	1-31-P
2654	1-33-L	1-31-R
2655	4-25-L	1-31-S
2656	2-21-6	6-9-M
2657	1-28-F	5-24-D
2658	10-32-D	10-32-E
2659	11-21-7	9-16-6
2660	9-16-7	7-16-1
2661	10-29-C	10-31-10
2662	10-29-E	10-31-L
2663	3-19-R	10-31-14
2664	1-20-P	1-19-5
2665	1-20-D	1-19-6
2666	1-19-7	3-28-S

7-16-13

3-19-8

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE.

	1-1	1-2	1-3	1-4	1-5	1-6		1-7	1-8	1-9	1-10	1-11	1-12
A					622		626						
B		137	136	147	628	135	143				667	139	
C		130	133	679	620		140		290	724	130		
D		650	648	707	809		139		291				
E	923	134	651	649	661	665					661	132	
F	687	138		662	189	629		629		722	132		
G	123	136		127	705	626	650	620	1928	658	648		
H					142	629	146	629					
J					624	620							
K													
L				703	718	141	144	149	292	236			
M				680	682		145		289	235			
N				667	667	623	144	627	293	661			
P				690	681	624	143	628					
R		910		681	679	140	142	144			237		
S		735		670	668	623	141	627	288	655			

	1-13	1-14	1-15	1-16				1-19	1-20	1-21	1-22	1-23	1-24
A	168	166	220	220	219	219	222	654					
B	167	165	823	824	629	628	694	696					
C	196	170	2051	2052	2050	2060							
D	220	169	220	220	219	219	682	681					
E	710	197	825	826	627	626	672	672					
F	707	219	2022	2024	2021	2027	747	728					
G													
H													
J													
K	706	899	2096	2055	2064	2062	743	743					
L	708	741	220	220	219	219	159	159					
M	977	976	828	827	624	625	696	696					
N	724	722	2031	2027	2066	2065							
P	998	1031	220	220	219	219	679	679					
R	742	725	820	829	622	621	669	668					

	1-25	1-26	1-27	1-28	1-29	1-30		1-31	1-32	1-33	1-34		
A													
B				2251	1784	2257	1783	1808	2276	2254	2254		
C	2626		1769	2520	2465	1811	1901	1882	2499	1796	1792		
D			1768	1774	1793	2437	2364	2206	1798	1792	2252		
E	2369			2260	2261	1955	2365	1678	2429	1794	2246		
F	2627			2495	2380	2657	2207	1679	1799	1795	2521		
G	2620		1786	1777	1769	2566	1815	2577	2116	2109	1797		
H													
J													
K													
L	2369	2651		1777	2631	1771	1801	2608	2437	1812	2587	1808	
M	2686	2433		1774	2629	2300	2253	2499	1934	1920	2483	2252	
N	2506	2634		1773	2630	2519	2288	2255	2566	1756	2513	2294	
P				1772	2630	1773	2499	2248		1814	2430	2521	
R	2242	2559		1771	2631	2252	1783	2257		2595	2496	2495	
S	2252			1770	846	2512	2248			2596	2247	2288	

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	2-1	2-2	2-3	2-4	2-5	2-6		2-7	2-8	2-9	2-10	2-11	2-12	
A							1							1
B	57						2	143	143	143	143			2
C	609	613	610	617	600	673	3				660	660	671	3
D	136	136	136	136	662	662	4	696	694	694	694			4
E	120	120	120	120			5				692	679	679	5
F	615	614	619	610	653		6				670	662	677	6
G	620	624	620	620	652	662	7	717	716	726	740			7
H							8				721	740	170	8
I							9							9
J							10	738	738	729	739			10
K	623		627	626	621	630	11				746	745	736	11
L	611	622	617	616		620	12	159	159	163	163			12
M	611	611	120	120	120	120	13	694	696	694	694			13
N	126	126	126	126	126	126	14				694	694	695	14
O	622	49	616	615	620	619	15	661	679	662	661			15
P	610	57					16	672	674	667	668			16

	2-13	2-14	2-15	2-16				2-19	2-20	2-21	2-22	2-23	2-24	
A							1							1
B		703	1070	94	714	1010	2	2438	1067	2396	2394	1673	2690	2
C		682	232	232	189	430	3	655	2983	2974	2242	1692	2354	3
D		170	169	196	160		4				2402	2421	2344	4
E		167	160	222	690	639	5	1955	2292	2997	2324	2308		5
F	600	607	165	165	67	699	6	1955	2244	2650	2656	2432		6
G	600	679	174	173	297	166	7	2889	2410	2397	2308	2426		7
H							8							8
I							9							9
J							10	2443	2444	2393	2338	1920	2335	10
K	602	601	172	171	223	154	11	1782	1782	2641	2406	1706	2309	11
L	690	609	169	170	217	153	12	2579	2579	2612	2407	2300	2424	12
M		167	168	224	153	178	13				2396	2645	2295	13
N		166	166	193	443		14	2220	1674	2394	2490	1679	2644	14
O		401	461	642	901	669	15	2220	2294	2645	2409	1679	2644	15
P		400	677	57	865	1009	16							16

	2-25	2-26	2-27	2-28	2-29	2-30		2-31	2-32	2-33	2-34				
A	2202	2405	2401	2296			1	2615	2495		2171	2302	2251	2043	1
B	2371	1791	2405	2409			2	1796	2567		2429	2493	2045	2170	2
C	1018	1782					3				2202	2021	2505	2324	3
D	2324	2647		2241		2220	4	1797	2290		2623	2363	2390	2297	4
E	2261	2321	2633	2660	2224	2269	5	1790	2262		2477	2360	2242	2420	5
F	2616	1912	2200	2260	2294	2004	6	1790	2090		2622	2032	2160	2040	6
G							7								7
H							8								8
I							9								9
J							10	2262	2204		1002	2220	1025	2322	10
K	2470	1921		2677			11	2200	1000		2289	2324	2292	2542	11
L	2201	1922	2610	2602			12	2601	1001		2601	2632	2305	2602	12
M	2699	1917					13				2524	2522	2304	2305	13
N	2200	2472	2499	2650	2424	2422	14	1699	1002		2592	2515	2490	2045	14
O	2606	1790	2650		2423	2422	15				2504	2251	2242	2044	15

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	3-1	3-2	3-3	3-4	3-5	3-6		3-7	3-8	3-9	3-10	3-11	3-12	
A							1							1
B	133	190	128	128	603	660	2	679	669	690	687			2
C	684	778	130	129	660	684	3	672	680	692	691			3
D	610	628	628	672	754	750	4	752	803	176	175			4
E	123	40	645	628	660	672	5	674	667	176	175			5
F	689	86	680	642	686	684	6	679	681	674	667			6
G	621	126	722	720	762	757	7	805	804	749	741			7
H							8							8
I							9							9
J							10							10
K							11							11
L	134	609	122	121	768	763	12	807	806	798	810			12
M	680	126	127	127	670	671	13	670	673	176	668			13
N	86	624	694	640	684	685	14	681	682	670	681			14
O	125	190	622	660	771	766	15	809	808	177	778			15
P	67	705	640	660	671	674	16	672	672	680	671			16
Q	664	761	604	622	686	684	17	681	682	692	175			17

	3-13	3-14	3-15	3-16				3-19	3-20	3-21	3-22	3-23	3-24	
A	625	624	629	620			1	2652	2477		2294	2479	2400	1
B	394	392	390	397	710	424	2	1916	2472		1923	204	2573	2
C					426	423	3				2322	2401	2471	3
D					440	927	4	1921	2478	1927		2564	2578	4
E	622	640	627	626	927		5	1722	2473	1928		2564	2578	5
F					429	441	6	889	2400	1920		2472	2567	6
G	392	391	396	393	420	440	7	1925	2404	1940		2564	1744	7
H							8					2342	2328	8
I							9							9
J							10	1925	2405	2619		2443	2376	10
K	927	927	927	927	224	1077	11	1924	2409	849		2479	2505	11
L	389	389	389	389	222	1082	12					2402	2304	12
M					654	1052	13					2472	2536	13
N	625	624	629	620	322	1009	14					2472	2536	14
O	927	927	927	927	905	886	15	2663	1783			2400	2572	15
P	389	389	389	389	901	927	16	2664	2402			2324	2612	16

	3-25	3-26	3-27	3-28	3-29	3-30		3-31	3-32	3-33	3-34			
A	1930	2268	2521	2521	1725	2526	1	2322	2311	2251	2586			1
B	2259	2324	2286	2252	1728	1726	2	2256	2622	2505	2296			2
C	2345	2262	1729	1725	2490	2527	3	2323	2621	2625	2647			3
D	2340	1760	2256	2504	2254	2251	4	2323	2621	2625	2647			4
E	1700	1706	2245	1926	2560	2243	5	2324	2621	2625	2647			5
F	2650	1787	2264	1726	2624	1727	6	2324	2621	2625	2647			6
G							7							7
H							8							8
I							9							9
J							10	2322	2311	2251	2586			10
K	2322	2311	2251	2586	1758	2250	11	2506	1926	2515	1607			11
L	2322	2311	2251	2586	1758	2250	12	2276	2499	2279	2502			12
M	2322	2311	2251	2586	1758	2250	13	2320	2329	2120	1750			13
N	2322	2311	2251	2586	1758	2250	14	2284	2252	1749	2477			14
O	2322	2311	2251	2586	1758	2250	15	2527	2502	1750	2276			15

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	4-1	4-2	4-3	4-4	4-5	4-6		4-7	4-8	4-9	4-10	4-11	4-12	
A	010	031	179	170	191	109						431	423	1
B	010	031	179	170	191	109	007	002	003	700	009	756		2
C	026	195	013	011	020	022	007	002	003	700	009	756		3
D	005	031	101	100	255	254	010	701	700	703	702	004		4
E	770	034	014	013	254	253								5
F	701	700	103	102	750	012								6
G	101	102	010	010	750	00	170	170	101	100	103	102		7
H														8
I														9
J														10
K														11
L	104	103	010	017	770	761	700	704						12
M	032	033	100	104	760	760	760	764	752	752	790			13
N	034	033	020	019	034	032	700	000	707	766	772	771		14
O	701	700	107	106	033	031	760	707	700	006	750	706		15
P	002	701		021	000	067	776	775	770	777	701	754		
Q	010	033		100	000	066	750	740	755	753	757	700		

	4-13	4-14	4-15	4-16		4-17	4-18	4-19	4-20	4-21	4-22	4-23	4-24	
A	431	1020	055	430	1020	430	2613	064						1
B	077	070	1020	071	077	1020		430						2
C		071	1020			055	445							3
D	700	1027	1030	023	027	005								4
E	713	1010	065	1020	065	1020	1006	1024						5
F	1002	431	030	430	1021	1010		041						6
G														7
H														8
I														9
J														10
K	034	1013	010	067	023	1033	1060							11
L	002	054	1033	1003	1050	1030		1039						12
M	1007	1030	027	1033	1031	420								13
N		020	064		443	1032								14
O	732	065	030	427	1037	421	441	054						15
P	004	700	040	1034	1040	006	064	020						

	4-25	4-26	4-27	4-28	4-29	4-30		4-31	4-32	4-33	4-34			
A	2476	2500		1000	1713	2496	1057	1702	2501	2532	1004	2502		1
B	2341	2606		2313	1765	2356	2254	2350	2354	2250	1006	2331		2
C	1074	2070	2303	2007	2123	1002	1050	1061	1076	1071	2472	1071		3
D	2407	1010	2630	2500	2531	2490	2530	2470	1075	2503	2473	1072		4
E	2454	2242	2632	2000	2253	2251	2251	2253	1076	2251	2400	1073		5
F	1014	2350	2547	2000	2301	1063	1050	1050	1077	1072	2301	1074		6
G														7
H														8
I														9
J														10
K														11
L	2655	2305	1675	2167	0620	1065	1060	1053	1002	1073	1000	1031		12
M	2552	2401	1676	2334	2390	2404	2020	2400	2406	2402	2432	2301		13
N	2404	2514	1713	2633	2244	2251	2253	2250	2253	2252	2431	1032		14
O	2390	2403	1712	0200	2170	2334	1061	1054	1004	1075	2257	2294		15
P	2000	2476	1775	2000	2246	2331	2530	2470	2251	2400	2103	2270		
Q	1702	727	2170	2620	1720	2333	2250	2253	1702	2050	1095	2602		

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	5-1	5-2	5-3	5-4	5-5	5-6		5-7	5-8	5-9	5-10	5-11	5-12	
A											245	001		1
B	071	070	012	011	014	010	753	705	655	000	257	663		2
C	230	004	013	012	015	019	721	740	256	230	253	356		3
D	230	020					064	001	244	1064	200	230		4
E	070	021	016	014	016	020	300	320	243	074	005	230		5
F	000	022	017	017	017	021	034	770	242	446	250	069		6
G	060	027	024	021	025	033	457	007	070	475	003	237		7
H														8
I														9
J														10
K														11
L	060	004	013	025	247	240	203	300	207	230	450	1076		12
M	060	070	103	011	060	000	767	030	200	1021	1061	250		13
N	070	097	103	013	701	701	717	750	661	030	1070	066		14
O	064	427					001	000	040	1022	070	234		15
P	072	427	104	010	065	065	700	772	661	701	251	065		
Q		007	105	017	066	001	733	734	250	657	253	701		

	5-13	5-14	5-15	5-16		5-17	5-18	5-19	5-20	5-21	5-22	5-23	5-24	
A														1
B	453	004	704	2004										2
C	453	041	041		475	707	734							3
D	060	053			051	037	703	442						4
E	060	070	003	064		1060								5
F	064	1056	003	1064										6
G	200	054	215	455	050	221	164	225						7
H														8
I														9
J														10
K	440	1040	440	1075	1060	1050	710	1010						11
L	1056	737	1075	205		400	030							12
M	440	1047	204	1050		661	720	035						13
N	661	2560			463	460	722							14
O	477	030	1050	1075										15
P	451	737	1060	1055	1011									

	5-25	5-26	5-27	5-28	5-29	5-30		5-31	5-32	5-33	5-34			
A														1
B	2250	2251	1704	1703	2211	2212	2534	1700	2220	2254	2200	2231		2
C	2307	2240	2260	2276	2214	2217	2625	2200	2227	2243	2640	2236		3
D	2305	1724	1705	2315	1705	1703	2636	2311	1710	1700	1910	2204		4
E	2213	1724	2307	2303	2215	2275	2637	2201	2606	2250		2223		5
F	2216	2311	2314	1700	2220	1703	2327	1710	2206	2242		2220		6
G	1700	2205	2277	2312	2314	2270	2320	2263	2600	1700		2314		7
H														8
I														9
J														10
K														11
L	1701	2302	2204	2200	1706	2377	2113	2500	2603	2311	2553	2261		12
M	2213	2305	1704	1701	2252	2231	2204	2520	2470	2552	1755	2234		13
N	2210	2304	2200	2470	2244	1710	2500	2300	2600	2243	2552	2234		14
O	2265	2304	1707	1770	1707	1704	2464	2316	2634	2635	1757	1711		15
P	2205	2250	2270	2304	2251	2212		2260	2400	2400	2477	2225		
Q	2407	2306	1700	1703	2244	2210		1711	2297	2600	2270	2220		

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	6-1	6-2	6-3	6-4	6-5	6-6		6-7	6-8	6-9	6-10	6-11	6-12	
1 A							1 A		304	1000			957	956
2 B	899	1052		910	723	730	236	711	971					
3 C	575	903		911	724	285	241	927	1076	895	710			
4 D	900	632		909	921	331	730	844	1070	894	712			
5 E	907	601		777	755	333	306	1020	711					
6 F	657	704	914	276	740	719	701	807	966	922				
7 G	296	276	890	277	284	279	897	335	711	845	907	920		
8 H														
9 J														
10 L	307	381	741	601	270	200	1034	1023	210	211	900	917		
11 M	900	745	381	202	774	764	905	903	1008	732	896			
12 N	1020	746		739	745	261	926	211	210	904	922			
13 P	657	747		207	282	260	909	430	974	902	927			
14 R	912	659		782	789	922	919	429	981	913				
15 S	335	1053		726	716	921	920	504	966	906	333			

	6-13	6-14	6-15	6-16				6-19	6-20	6-21	6-22	6-23	6-24	
1 A													2070	
2 B	741	927	352	345	565	990						1036	2228	1500
3 C	743	876	655		986	1051						2241	2255	2020
4 D	731	842	612	344	214	1040						1037	2236	2559
5 E	1027	906			961									2004
6 F	432	607		841	564	1052	94	944						
7 G	432	561	954	942	562	1054	944	990						
8 H														
9 J														
10 L	432	445	1040	1040	1052	1050	263	837						
11 M	1000	890	1047	1048	1051	1040								
12 N	432	444												
13 P	420	444	1044	1044	1044	1044								
14 R	430	990	1040	1040	1049	1047		263						
15 S	1000	842	990	990	990	990	53	956						

	6-25	6-26	6-27	6-28	6-29	6-30		6-31	6-32	6-33	6-34			
1 A	2074		2070											
2 B	1525		1545		2403	2404	2404	2452	2402	2440	2405	2403		
3 C	2031	1565		2010	2406	2406	2517	2474	2405	2473	2406	2409		
4 D	2030	2004	2031	2006			2408	2402	2523	2596	2520	2492		
5 E					2514	2407	2514	2407	2401	2404	2472	2406		
6 F	2071		2075		2513	2473	2513	2405	2509	2405	2473	2490		
7 G	2022	2019	2026	1566	2520	2525	2521	2520	2526	2533	1756	2534		
8 H	1522	2023	1542	2027										
9 J	2072		2074											
10 L	1523	1960	1543	1996	1767	2505	1909	2511	2639	2515	2532	1845		
11 M		1960		1992	2429	2502	2201	2625	2297	2472	2400	2420		
12 N	2073	2002	2077	1980	2251	2617	2490	2407	2504	2409	2407	2460		
13 P	2004	1999	2020	1904			2505	2513	2535	2512	2522	2916		
14 R	1524		1544	2000	2249	920	2472	2299	2490	2400	2409	2400		
15 S	2025		2029	2014	2301	940	2409	2456	2409	2514	2404	2401		

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	7-1	7-2	7-3	7-4	7-5	7-6		7-7	7-8	7-9	7-10	7-11	7-12	
1 A													330	950
2 B	277	277	601	601	697	1025	323	973	864	864	601	306		
3 C	279	270	200	207	202	00	509	934	978	977	653	900		
4 D	905	903	912	899	894	1011	323	2070	659	659	700	901		
5 E	911	910	202	200	897	1072	324	924			970			
6 F	290	297	292	289	282	1009	420	310	975	979	909			
7 G	316	317	311	314	895	1028	323	310	900	306	300			
8 H														
9 J														
10 L	300	315	310	313	906	900	327	923	1007		362	997		
11 M	306	299	293	290	897	897	326	870		1006	661	1040		
12 N	295	290	304	301	204	200	306	929		965	361	217		
13 P	295	200	209	311	902	913		321	927	927	363	217		
14 R	297	200	294	291	897	897	1040	920	1006		909	1007		
15 S	277	277	205	202	205	201	513	320	362	362	909	362		

	7-13	7-14	7-15	7-16				7-19	7-20	7-21	7-22	7-23	7-24	
1 A														
2 B	841	890	601	590	635			1073	8660					
3 C	1069		550	551	501	564			1000					
4 D	940	931			22	28								
5 E	215	684	557	552										
6 F	550	247	991	552										
7 G	550	340	947	554	1061	565	205							
8 H														
9 J														
10 L	560		850	1014	1013	1011								
11 M	906	275	560	877	1013	713	2600							
12 N	943	205	550	916										
13 P	946	252			659	680		2659						
14 R	952	935	562	650	1004	1005	1055							
15 S	949	661	565	653			4550	2290						

	7-25	7-26	7-27	7-28	7-29	7-30		7-31	7-32	7-33	7-34			
1 A														
2 B	2164	2160	2141	2142	1527	1526	2159	2197	2079	2079	2041	2041		
3 C	2141	2145	2000	2000	2150	2140	2000	2000	1623	1522	1644	1645		
4 D	2460	2004	2145	2147	2151	2140	2150	2156	1527	1526	2002	2003		
5 E		1963	2000	2000	2000	2000	1547	1546	1542	1542	2004	2004		
6 F		2022	2144	2146	2150	2140	2159	2157	1547	1546	2020	2020		
7 G														
8 H														
9 J														
10 L	2529	2640	1079	1007	2635		1913	1001						
11 M	2404	2906	2495	2502	2634	2467	1909	1070						
12 N	2473	2652	2255	2251	2601	2466	1910	1079						
13 P	2401	2537	1000	1000	2600	2465								
14 R	2351	2490	2250	2500	2170	2444	2591	1000						
15 S	2475	2640	2496	2252	2177	2624	2292	2192						

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	0-1	0-2	0-3	0-4	0-5	0-6		0-7	0-8	0-9	0-10	0-11	0-12	
A							1							1
B	216	217	211	212	277	277	2	217	217	264	264	240	240	2
C	200	200	203	203	203	261	3	220	219	243	222	243	249	3
D			210	210	203	209	4	217	217		276	2622	243	4
E	444	444	204	204	277	277	5	1041	1039	710	241	234	2624	5
F	206	206	207	207	206	202	6	1044	1042	634	262	274	2623	6
G	200	207	204	209	204	200	7	222	221	242	240	202	206	7
H							8							8
I							9							9
J							10							10
K	607	607	201	200	203	201	11	224	223	410	223	2100	410	11
L	601	1003	213	214	200	203	12	217	217	714	242	2550	700	12
M	211	207	200	200	209	277	13	1036	1043	604	710	2477	701	13
N			207	207	206	202	14	1037	1035		200	242		14
O	200	206	207	207	200	204	15	1040	1036	706	700	204	255	15
P	240	1000	200	200	200	277	16	1037	1035	219	242		720	16

	0-13	0-14	0-15	0-16			0-19	0-20	0-21	0-22	0-23	0-24	
A	207	200	200	204	247	200	1						1
B	206	247	240	200	1070	272	2	1000	1000	1000	2110	2117	2
C	200	204	206	206	202	200	3	2119	2119	2071	2007		3
D	203	202	232	207	240	232	4	1072	1074	1000	1070	1000	4
E	202	202	232	207	240	232	5	2120	2004	2120	2120	2110	5
F	200	200	104	200	240	204	6	1096	2002	1000	1004	2072	6
G	200	207	202	207	202	1020	7	1000	2117	1076	1070	1000	7
H							8						8
I							9						9
J							10						10
K	200	200	210	240	200	200	11	1071	1072	1007	1000	1074	11
L	201	200	214	275	207	240	12	1094	1000	1070	1002	2110	12
M	202	202	230	204	204	202	13	2119	2119	2119	2119	2072	13
N	207	206	274	204	200	201	14	1070	1001	1070	1070	1000	14
O	202	202		204	202	240	15	2120	2120	2120	2120	2110	15
P	202	202	270	204	214	1004	16	1094	1090	1070	1002	2074	16

	0-25	0-26	0-27	0-28	0-29	0-30		0-31	0-32	0-33	0-34	
A	2007	2006	2001	2009	2006	2002	1					1
B	2111	2111	2111	2111	2111	2111	2	1000	1007	1007	1730	2
C	1012	1010	1010	1014	1020	1024	3	2244	2244	1070	1737	3
D	1012	1010	1010	1014	1020	1024	4	2177	2170		2001	4
E	1012	1011	1017	1015	1027	1020	5	1070	1000	2127	1730	5
F	2000	2007	2070	2009	2072	2074	6	2244	2244	2120	1739	6
G							7	2175	2170	1070	1002	7
H							8					8
I							9					9
J							10					10
K	1012	1011	1017	1010	1027	1020	11	1700	2000	1077	1070	11
L	2112	2112	2117	2112	2112	2112	12	2200	2102	1007	1007	12
M	2006	2006	2007	2000	2006	2004	13	1700	2117	1071	1000	13
N	1007	1006	1000	1000	1001	1000	14	1700	2041		1706	14
O	2001	2001	2001	2001	2001	2001	15	1036	2740	2124	2125	15

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	0-1	0-2	0-3	0-4	0-5	0-6		0-7	0-8	0-9	0-10	0-11	0-12	
A							1							1
B	202	202	200	202	202	275	2							2
C	200	202	1041		263	263	3							3
D	201	201	210	202	200	200	4							4
E			207		201	207	5							5
F	272	200	1042	201	202	263	6							6
G	262	276	1044	202	221	200	7							7
H							8							8
I							9							9
J							10							10
K	200	210	201	240	200	244	11							11
L	202	225	202	201	242	230	12							12
M					214	220	13							13
N	201	201	240	201	240	201	14							14
O	225	240	201	272	234	201	15							15
P	202	202	202	202	202	202	16							16

	0-13	0-14	0-15	0-16			0-19	0-20	0-21	0-22	0-23	0-24	
A							1						1
B	1000	410	1000	1000	205	1070	2						2
C	414	416	410	400	1003	1001	3						3
D	412	417	409	407	242	227	4						4
E	413		400	407	1010	202	5						5
F	1010		200	202	2040	242	6						6
G	414		410	400	212	234	7						7
H							8						8
I							9						9
J							10						10
K	200	200	410	411	241	230	11						11
L	220	220	230	230	240	1002	12						12
M	1072	227	410	412	277	1012	13						13
N	1010	227	410	412	230	230	14						14
O	1012	1000	410	411	21	1004	15						15
P	1014	220	1000	1000		1004	16						16

	0-25	0-26	0-27	0-28	0-29	0-30		0-31	0-32	0-33	0-34	
A							1					1
B	2110	2110	2110	2110	2110	2140	2					2
C	2000		2004	2002	2104	2100	3					3
D	2002	2002	2002	2002	2002	2002	4					4
E	1000	1006	1002	1000	1002	2140	5					5
F	2000	2004	2000	2004	2100	2102	6					6
G	2000	2002	2007	2002	2100	2101	7					7
H							8					8
I							9					9
J							10					10
K	2001	2007	2000	2001	2107	2102	11					11
L	2002	2000	2100	2004	2100	2104	12					12
M	1000	1007	1002	1001	1002	2102	13					13
N	2002	2002	2002	2002	2002	2002	14					14
O	2110	2110	2110	2110	2110	2140	15					15

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	10-1	10-2	10-3	10-4	10-5	10-6	
A				664 567			
B		573 869	203			654 58	
C		882 229 1075	351 588			877 45	
D		669 672		650 569		498 47	
E		684 681 260 580				498 57	
F	589 654 694 695 940 655				571	499 46	
G	641 655 577 578 567 702				570	497 51	
H							
J							
K							
L	57 864	50	664			499	
M		47 56 275 604				655 945	
N		48 32 281 605				936 579	
P		50	604 602		612	1009 578	
R		262 622	603 954			590 578	
S	56 607	1057 602 58	752 568			57 577	

	10-13	10-14	10-15	10-16			
A							
B		36 33 654					
C	11 37 35		354				
D	10 39 38						
E		2614 38 989 874					
F		39 940 984 17 17					
G	29 2550 40 514 516						
H							
J							
K							
L		506 513 984 58					
M	16 926 1061 548 47						
N	15 505 512 877 48						
P	14 505 2614						
R	13 1069		1066 50				
S	12 901 2550 715 51						

	10-25	10-26	10-27	10-28	10-29	10-30	
A							
B	2040 2040				2642 1764 2139 2136		
C	1999 1998		2412 18	2414 2421 2661 1765 1866 1662			
D	2040 2040		2413 2412 2413 2412		2495 2138		
E	1647 1647		2390	2416	2662 1766 2547 2132		
F	1644 1643 1816 2478 2205 2419 2416 2414 1918 1767 2256 2128						
G	2001 2000 2110 1501 2272 2424 2417 2415 2548 2082				1663		
H							
J							
K							
L	1635 1634 2121 2081 2423 2422 2421 2419 2181 2115 2409 1664						
M	2546 2544 1788 1834 2414 2414 2420 2418 1729 1702 2558 2138						
N	2439 2545 2249 2203 2420 2417			2429 1741 2582 2133			
P	2543 2546		2425 2205 2413 2412		2617 2129		
R	1642 1641		2415 2272 2418 2416		1743 2128 2130		
S	1647 1647		2420	2416	2639 2132 2134		

	10-31	10-32	10-33	10-34		
A						
B	2579 1667 2404 476 2201 1874			1823		
C	2563 1668 2405 2353 2033 2194 2574 2041					
D		2658 2390 1817 1877 2581 1824				
E	1674 2126 2658 2383 2035 2195 2584 2040					
F		2124		1818 1881 2508 1821		
G	2441 1672		2567 2037 2186 2510 2039			
H						
J						
K						
L	2662 2661 1813 1805 2036 2493			2038		
M	2614 2614 2272 1813 1819 2492 2267			1822		
N	2205 2205 2278 1810 2034 2118			2080		
P		1665 1810 1820 1735 2631 1831				
R	2439 2663 2126 2205 2032 2180			2079		
S	2199 2295 2125 2280 2200 2179 2631 1833					

TABLE A4-8. LOGIC CHASSIS B, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE (cont)

	11-1	11-2	11-3	11-4	11-5	11-6	
A							84 28
B	127	315 309 327 914 646 648			518		
C	128			608	594		65 27
D	128	308 310 329 908 647 641			528 46		
E	127			914	595		
F		319 311 574 589 1073 642 600 521					28
G	612		945 606 596				
H							
J							
K							
L							
M	503 508 20 20 43 42 990 56 508 974 24 23						
N	1023 1020			872 31 1075 879 6 5			
P		502 37 953		216 734 30 16			
R	841 841 844 1785			905 542 218 504 8 7			
S	1019 1019 934 474 29 29 1066 214 665 655 8 25						

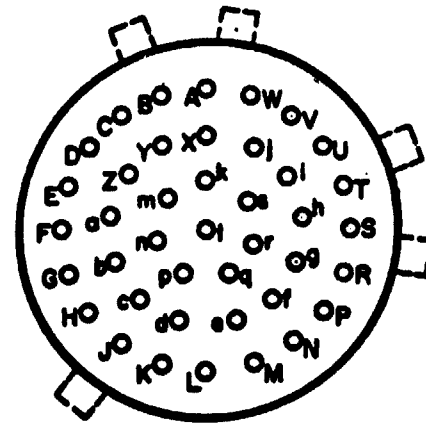
	11-13	11-14	11-15	11-16		
A						
B	742 665 408 432			24 473		
C	656 621		7 1	474		
D		410 430 8		25 854		
E	744 836		31 2	855		
F	591 666 411 538 9			26 855		
G			32 3	854		
H						
J						
K						
L			18 4			
M	20 655 414 539 17			27		
N		601	588 846 5			
P		419 1072 847		28 22		
R	654 19 953 1072 847 6 473					
S	704	882 588 846		474 23		

	11-25	11-26	11-27	11-28	11-29	11-30	
A							
B			1501 1501 1501 1501		2581 2153 2141		
C	2036 2036 2038 2038				2475		
D	1984 1982 1992 1990 2121 2121 2121 2121 2480 1936 2155 2143					1928	
E							
F	2036 2036 2038 2038 2129 2125 2137 2133				1829	2145	
G	1985 1983 1993 1991 2128 2124 2136 2132 2344 2199 2563						
H							
J							
K							
L	1988 1986 1996 1994 2130 2126 2138 2134 2427 2426 2562						
M			2131 2127 2139 2135 2415 2418 2579 2147				
N	2037 2037 2039 2039				2417 2421 2569		
P	1989 1987 1997 1995 2121 2121 2121 2121				1809 2568 2149		
R					2475 2426 2568		
S	2037 2037 2039 2039 1501 1501 1501 1501 2341 2427 2569 2151						

	11-31	11-32	11-33	11-34		
A	2451 2451					
B	2470	2140 2142 2148 2150 2156 2158				
C	2452 2452 2548 2548 2548 2548 2548 2548					
D	2453 2453					
E	2457					
F						
G	2387					
H						
J						
K	2299 1785					
L	2452					
M	2349 2456			2272		
N	2114 2457 2548 2548 2548 2548 2548 2548					
P	2457 2144 2146 2152 2154 2160 1908					
R	2454 2454					
S						

TABLE A4-9. LOGIC CHASSIS B, CONNECTOR WIRING DATA

ELECTRICAL CONNECTOR J2
800200-RC41PX

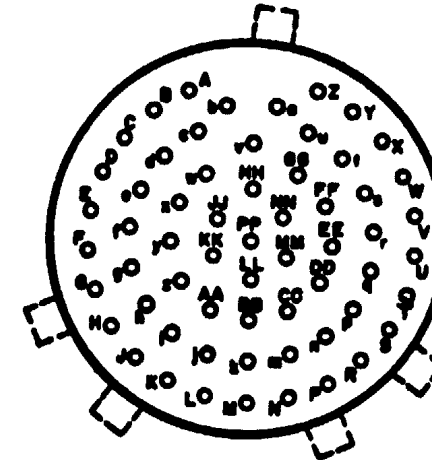


TERMINATIONS

V	11-12-D
W	11-12-4
X	11-11-P
Y	11-11-13
Z	11-11-L
a	11-11-10
b	11-11-H
c	11-11-7
d	11-11-D
e	11-11-4
f	11-6-B
g	11-13-H
h	11-13-7
i	11-13-D
j	11-13-4
k	11-12-P
m	11-12-13
n	11-12-L
p	11-12-10
q	11-12-H
r	11-12-1
s	11-5-D

TABLE A4-9. LOGIC CHASSIS B, CONNECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR J3
800200-RC61PN

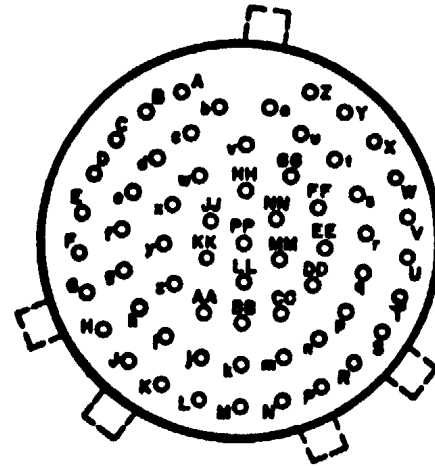


TERMINATIONS

A	11-3-F CSU	S	11-4-P ETX STOP RCV	g	11-15-15 BRS 186	x	11-29-3 AUTO PRINT MSG
B	11-3-M MSU	T	11-4-M ERROR STOP RCV	h	11-15-B BRS 78	y	10-30-N AUTO PRINT ETX
C	11-10-S EXT CLK	U	11-4-F ERROR STOP RCV	i	11-15-B BRS 74.3	z	10-30-P AUTO PRINT ERR
D	11-10-R INT CLK	V	11-3-15 LAST RCV	j	11-15-D BRS 70	AA	11-7-S AUTO PRINT
E	11-30-S	W	11-3-14 ALL RCU	k	11-15-F BRS 48.3	BB	11-2-3 INVD
F	11-30-R	X	11-3-11 BRR	m	9-8-17 ASM1	EE	11-9-6 DISP SOH
G	11-10-15 EXB	Y	11-3-10 BRR	n	9-8-M EEM3	FF	11-1-E PAR NORM
H	11-10-14 CONT	Z	11-3-4 RESET IND	p	9-8-6 ITA2	GG	11-1-D PAR INVT
J	11-3-S RFRAME	a	11-3-5 BCR	q	10-15-2 DISP INH	HH	11-7-E START EOB
K	11-3-R RFRAME	b	11-15-2 BRS 4800	r	10-15-C DISP TEST	JJ	11-7-C START SOH
L	11-7-15 START REV	o	11-15-4 BRS 2400	s	11-9-11 DISP STX	KK	11-1-F BRRCV DATA
M	11-7-13 START RCU	d	11-15-6 BRS 1200	t	11-9-15 DISP ETX	LL	10-3-R BRRCV CLK
N	11-14-15 ETB STOP RCV	e	11-15-11 BRS 600	u	11-9-13 DISP ERR	MM	10-2-L BR16XCLK
P	11-14-13 ETB STOP RCV	f	11-15-13 BRS 300	w	11-29-2 AUTO PRINT LEC		
R	11-4-S ETX STOP RCV						

TABLE A4-9. LOGIC CHASSIS B, CONNECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR J7
500200-RC61PN

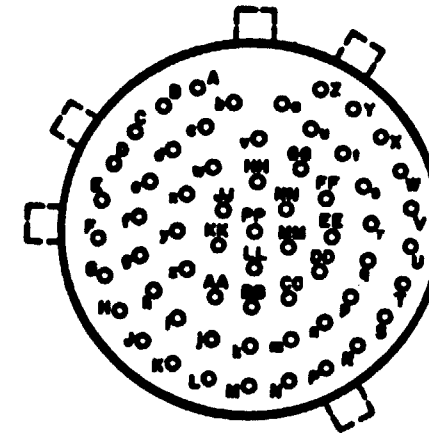


TERMINATIONS

A	10-3-L RWBT
B	9-12-D RACK 1
C	9-4-D RACK 2
D	8-10-P RRM
E	7-13-10 RNAK
G	11-7-4 AUTO CORD (OUT)
H	10-7-L TACK 1
J	10-7-10 TACK 2
K	9-11-L TNAK
L	7-4-P TWBT
M	8-24-L TRM
P	10-2-C DET DISC
Y	10-3-D INPUT ERR
Z	11-1-10 INPUT ERRS

TABLE A4-9. LOGIC CHASSIS B, CONNECTOR WIRING DATA (cont)

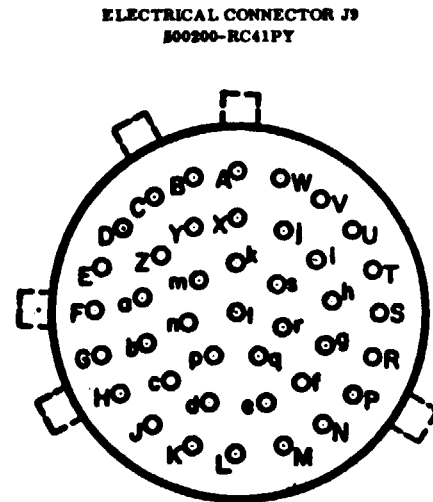
ELECTRICAL CONNECTOR J8
500200-RC61PX



TERMINATIONS

A	11-16-8
B	11-16-7
E	10-14-14
F	10-14-7
G	11-19-M XMIT
H	11-19-L RCV
J	10-27-15
K	10-27-E
L	11-16-R
M	11-16-S
N	11-15-S TERM
P	11-16-R TERM
R	11-19-S MEM NORM
S	11-19-R MEM INV
U	J10-CC
W	11-20-8
Y	11-20-N
a	11-20-F
o	11-20-C
o	11-20-15
g	11-20-12

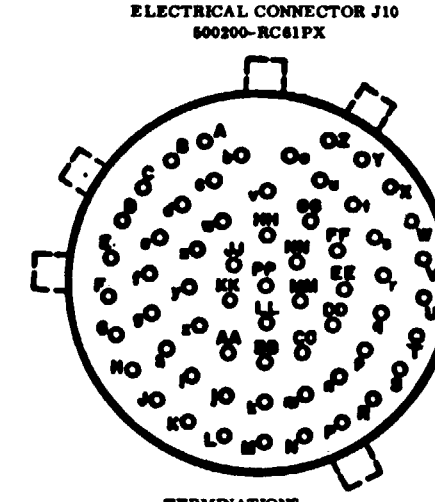
TABLE A4-9. LOGIC B, CONNECTOR WIRING DATA (cont)



TERMINATIONS

E	11-1-L PRINT BLKD	R	11-34-6 DISPR 2 ⁹
F	11-32-F DISPR 2 ⁰	S	11-34-M DISPR 2 ¹⁰
G	11-32-6 DISPR 2 ¹	T	11-34-11 DISPR 2 ¹¹
H	11-32-M DISPR 2 ²	U	11-34-4
J	11-32-11 DISPR 2 ³	V	11-34-2
K	11-32-F DISPR 2 ⁴	a	11-34-6
L	11-32-6 DISPR 2 ⁵	b	11-34-11
M	11-32-M DISPR 2 ⁶	c	11-34-13
N	11-32-11 DISPR 2 ⁷	d	11-34-15
P	11-34-F DISPR 2 ⁸	k	11-34-B
		m	11-34-F

TABLE A4-9. LOGIC B, CONNECTOR WIRING DATA (cont)



TERMINATIONS

A	11-22-14 MAR 2 ⁰	R	11-22-E MAR 2 ⁹	f	J10-C W6-20B	v	
B	W6-22B J10-E	S	11-22-C MAR 2 ¹⁰	g	11-19-12 BIT 2 ⁹	w	11-24-L G/CW
C	11-22-12 MAR 2 ¹	T	J10-P W6-21B	h	11-27-3 BIT 2 ⁰	x	W6-24B
D	11-22-10 MAR 2 ²	U	7-16-Z MAR 2 ¹¹	i	W6-27B J10-M	y	11-24-11 GR/R
E	J10-B J10-H	V	11-19-10 BIT 2 ⁰	j	11-27-14 BIT 2 ¹	z	W6-23B
F	11-22-1 MAR 2 ³	W	W619B J10-Z	k	11-27-C BIT 2 ²	AA	9-12-7 MEM RESET
G	11-22-5 MAR 2 ⁴	X	11-19-7 BIT 2 ¹	l	J10-L J10-q	BB	J10-DD W6-16B
H	J10-E J10-L	Y	11-19-6 BIT 2 ²	m	11-27-R BIT 2 ³	CC	J8-U
J	11-22-3 MAR 2 ⁵	Z	J10-W J10-a	n	11-28-3 BIT 2 ⁴	DD	J10-BB
K	11-22-N MAR 2 ⁶	a	11-19-3 BIT 2 ³	p	J10-m J10-t	EE	
L	J10-H J10-P	b	11-19-E BIT 2 ⁴	q	11-28-14 BIT 2 ⁵	FF	
M	11-22-L MAR 2 ⁷	c	J10-Z J10-f	r	11-28-C BIT 2 ⁶	GG	W6-19A W6-20A
N	11-22-H MAR 2 ⁸	d	11-19-C BIT 2 ⁵	s	J10-q W6-26B	HH	
P	J10-L J10-T	e	11-19-14 BIT 2 ⁶	t	11-28-R BIT 2 ⁷	JJ	
				u		KK	
						LL	
						MM	
						NN	
						PP	

TABLE A4-10. LOGIC CHASSIS B, CAPACITOR WIRING DATA

From	To
9-4-K	9-4-S
10-2-9	10-2-13
10-3-E	10-3-K
10-10-9	10-10-13
5-5-H	5-5-K

TABLE A4-11. LINE BLOCK DISPLAY PANEL, WIRING DATA

Loop No.	Termination	Loop No.	Termination
1	4-1-A	93	4-14-M
2	4-1-J	94	4-15-7
3	4-1-L	95	4-15-8
4	4-1-S	96	4-15-9
5	4-3-A	97	4-15-10
6	4-3-J	98	4-15-11
7	4-3-L	99	4-15-12
8	4-3-S	100	4-15-N
9	4-3-A	101	4-15-J
10	4-3-J	102	4-15-K
11	4-3-L	103	4-15-L
12	4-3-S	104	4-15-M
13	4-4-A	105	4-14-N
14	4-4-J	106	4-16-7
15	4-4-L	107	4-16-8
16	4-4-S	108	4-16-9
17	4-5-A	109	4-16-10
18	4-5-J	110	4-16-11
19	4-5-L	111	4-16-12
20	4-5-S	112	4-16-N
21	4-6-A	113	4-16-J
22	4-6-J	114	4-16-K
23	4-6-L	115	4-16-L
24	4-6-S	116	4-16-M
25	4-7-A	117	4-16-N
26	4-7-J	118	4-17-7
27	4-7-L	119	4-17-8
28	4-8-B	120	4-17-9
29	4-8-D	121	4-17-10
30	4-8-F	122	4-17-11
31	4-8-K	123	4-17-12
32	4-8-M	124	4-17-N
33	4-8-B	125	4-17-J
34	4-8-D	126	4-17-K
35	4-8-F	127	4-17-L
36	4-8-K	128	4-17-M
37	4-8-M	129	4-17-N
38	4-10-B	130	4-16-7
39	4-10-D	131	4-16-8
40	4-10-F	132	4-16-9
41	4-10-K	133	4-16-10
42	4-10-M	134	4-16-11
43	4-11-B	135	4-16-12
44	4-11-D	136	4-16-N
45	4-11-F	137	4-16-J
46	4-11-K	138	4-16-K
47	4-11-M	139	4-16-L
48	4-12-B	140	4-16-M
49	4-12-D	141	4-16-N
50	4-12-F	142	4-17-7
51	4-12-K	143	4-17-8
52	4-12-M	144	4-17-9
53	4-12-B	145	4-17-10
54	4-12-D	146	4-17-11
55	4-12-F	147	4-17-12
56	4-8-E	148	4-17-N
57	4-8-H	149	4-17-J
58	4-8-L	150	4-17-K
59	4-8-N	151	4-17-L
60	4-8-C	152	4-17-M
61	4-8-E	153	4-17-N
62	4-8-H	154	4-20-7
63	4-8-L	155	4-20-8
64	4-8-N	156	4-20-9
65	4-10-C	157	4-20-10
66	4-10-E	158	4-20-11
67	4-10-H	159	4-20-12
68	4-10-L	160	4-20-N
69	4-10-N	161	4-20-J
70	4-11-C	162	4-20-K
71	4-11-E	163	4-7-B
72	4-11-H	164	4-13-F
73	4-11-L	165	4-13-H
74	4-11-M	166	4-20-L
75	4-19-C	167	4-21-B
76	4-19-E	168	4-21-A
77	4-13-F		
78	4-13-H		
79	4-13-L		
80	4-13-C		
81	4-13-E		
82	4-14-7		
83	4-14-8		
84	4-14-9		
85	4-14-10		
86	4-14-11		
87	4-14-12		
88	4-14-N		
89	4-14-J		
90	4-14-K		
91	4-14-L		
92	4-14-M		
		200	1-1-K
		201	1-1-M
		202	1-1-P
		203	2-1-K
		204	2-1-M
		205	2-1-P
		206	3-1-K
		207	3-1-M
		208	3-1-P
		209	4-1-M
		210	4-1-C
		211	4-1-H
			1-10-S
			1-20-S
			2-10-S
			3-10-S
			4-8-13
			4-8-14
			4-22-S

TABLE A4-12. LINE BLOCK DISPLAY PANEL, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE

	1-1	1-2	1-3	1-4	1-5	1-6
A	91	91	91	91	91	91
B	92	92	92	92	92	92
C	97	97	97	97	97	97
D	95	95	95	95	95	95
E	94	94	94	94	94	94
F	88	88	88	88	88	88
H	100	100	100	100	100	100
J	103	103	103	103	103	103
K	200	200	200	200	200	200
L						
M	201	201	201	201	201	201
N						
P	202	202	202	202	202	202
R	106	109	112	115	118	121
S	136	136	136	137	137	137

	1-7	1-8	1-9	1-10	1-11	1-12
A	91	91	91	91	91	91
B	92	92	92	92	92	92
C	97	97	97	97	97	97
D	95	95	95	95	95	95
E	94	94	94	94	94	94
F	88	88	88	88	88	88
H	100	100	100	100	100	100
J	103	103	103	103	103	103
K	200	200	200	200	200	200
L						
M	201	201	201	201	201	201
N						
P	202	202	202	202	202	202
R	124	127	130	133	137	140
S	138	138	138	139	139	139

	1-13	1-14	1-15	1-16	1-17	1-18
A	91	91	91	91	91	91
B	92	92	92	92	92	92
C	97	97	97	97	97	97
D	95	95	95	95	95	95
E	94	94	94	94	94	94
F	88	88	88	88	88	88
H	100	100	100	100	100	100
J	103	103	103	103	103	103
K	200	200	200	200	200	200
L						
M	201	201	201	201	201	201
N						
P	202	202	202	202	202	202
R	112	117	120	123	125	128
S	139	140	140	140	141	141

	1-19	1-20	1-21	1-22	1-23	1-24
A	91	91	91	91	91	91
B	92	92	92	92	92	92
C	97	97	97	97	97	97
D	95	95	95	95	95	95
E	94	94	94	94	94	94
F	88	88	88	88	88	88
H	100	100	100	100	100	100
J	103	103	103	103	103	103
K	200	200	200	200	200	200
L						
M	201	201	201	201	201	201
N						
P	202	202	202	202	202	202
R	131	134	138	141	144	147
S	141	142	142	142	142	143

	1-25	1-26	1-27	1-28	1-29	1-30
A	91	91	91	91	91	91
B	92	92	92	92	92	92
C	97	97	97	97	97	97
D	95	95	95	95	95	95
E	94	94	94	94	94	94
F	88	88	88	88	88	88
H	100	100	100	100	100	100
J	103	103	103	103	103	103
K	200	200	200	200	200	200
L						
M	201	201	201	201	201	201
N						
P	202	202	202	202	202	202
R	120	123	126	129	132	135
S	143	143	144	144	144	145

	2-1	2-2	2-3	2-4	2-5	2-6
A	92	92	92	92	92	92
B	93	93	93	93	93	93
C	98	98	98	98	98	98
D	96	96	96	96	96	96
E	95	95	95	95	95	95
F	89	89	89	89	89	89
H	101	101	101	101	101	101
J	104	104	104	104	104	104
K	203	203	203	203	203	203
L						
M	204	204	204	204	204	204
N						
P	205	205	205	205	205	205
R	106	109	112	115	118	121
S	145	145	145	146	146	146

TABLE A4-12. LINE BLOCK DISPLAY PANEL, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE

	2-7	2-8	2-9	2-10	2-11	2-12
A	92	92	92	92	92	92
B	93	93	93	93	93	93
C	98	98	98	98	98	98
D	96	96	96	96	96	96
E	95	95	95	95	95	95
F	89	89	89	89	89	89
H	101	101	101	101	101	101
J	104	104	104	104	104	104
K	203	203	203	203	203	203
L						
M	204	204	204	204	204	204
N						
P	205	205	205	205	205	205
R	124	127	130	133	137	140
S	147	147	147	148	148	148

	2-13	2-14	2-15	2-16	2-17	2-18
A	92	92	92	92	92	92
B	93	93	93	93	93	93
C	98	98	98	98	98	98
D	96	96	96	96	96	96
E	95	95	95	95	95	95
F	89	89	89	89	89	89
H	101	101	101	101	101	101
J	104	104	104	104	104	104
K	203	203	203	203	203	203
L						
M	204	204	204	204	204	204
N						
P	205	205	205	205	205	205
R	112	117	120	123	125	128
S	148	149	149	149	150	150

	2-19	2-20	2-21	2-22	2-23	2-24
A	92	92	92	92	92	92
B	93	93	93	93	93	93
C	98	98	98	98	98	98
D	96	96	96	96	96	96
E	95	95	95	95	95	95
F	89	89	89	89	89	89
H	101	101	101	101	101	101
J	104	104	104	104	104	104
K	203	203	203	203	203	203
L						
M	204	204	204	204	204	204
N						
P	205	205	205	205	205	205
R	131	134	138	141	144	147
S	150	151	151	151	151	152

	2-25	2-26	2-27	2-28	2-29	2-30
A	92	92	92	92	92	92
B	93	93	93	93	93	93
C	98	98	98	98	98	98
D	96	96	96	96	96	96
E	95	95	95	95	95	95
F	89	89	89	89	89	89
H	101	101	101	101	101	101
J	104	104	104	104	104	104
K	203	203	203	203	203	203
L						
M	204	204	204	204	204	204
N						
P	205	205	205	205	205	205
R	120	123	126	129	132	135
S	152	152	153	153	153	154

	3-1	3-2	3-3	3-4	3-5	3-6
A	93	93	93	93	93	93
B	94	94	94	94	94	94
C	99	99	99	99	99	99
D	97	97	97	97	97	97
E	96	96	96	96	96	96
F	90	90	90	90	90	90
H	102	102	102	102	102	102
J	105	105	105	105	105	105
K	206	206	206	206	206	206
L						
M	207	207	207	207	207	207
N						
P	208	208	208	208	208	208
R	106	109	112	115	118	121
S	154	154	154	155	155	155

	3-7	3-8	3-9	3-10	3-11	3-12
A	93	93	93	93	93	93
B	94	94	94	94	94	94
C	99	99	99	99	99	99
D	97	97	97	97	97	97
E	96	96	96	96	96	96
F	90	90	90	90	90	90
H	102	102	102	102	102	102
J	105	105	105	105	105	105
K	206	206	206	206	206	206
L						
M	207	207	207	207	207	207
N						
P	208	208	208	208	208	208
R	124	127	130	133	137	140
S	156	156	156	157	157	157

TABLE A4-12. LINE BLOCK DISPLAY PANEL, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE

3-13		3-14		3-15		3-16		3-17		3-18			
A	93	93	93	93	93	93	93	93	93	93	93	1	A
B	84	84	84	84	84	84	84	84	84	84	84	2	B
C	99	99	99	99	99	99	99	99	99	99	99	3	C
D	87	87	87	87	87	87	87	87	87	87	87	4	D
E	96	96	96	96	96	96	96	96	96	96	96	5	E
F	90	90	90	90	90	90	90	90	90	90	90	6	F
G	102	102	102	102	102	102	102	102	102	102	102	7	G
H	105	105	105	105	105	105	105	105	105	105	105	8	H
I	206	206	206	206	206	206	206	206	206	206	206	9	I
J												10	J
K	207	207	207	207	207	207	207	207	207	207	207	11	K
L												12	L
M												13	M
N	208	208	208	208	208	208	208	208	208	208	208	14	N
O	113	117	120	123	125	128	128	128	128	128	128	15	O
P	157	158	158	158	159	159	159	159	159	159	159		

3-25		3-26		3-27		3-28		3-29		3-30			
A	93	93	93	93	93	93	93	93	93	93	93	1	A
B	84	84	84	84	84	84	84	84	84	84	84	2	B
C	99	99	99	99	99	99	99	99	99	99	99	3	C
D	87	87	87	87	87	87	87	87	87	87	87	4	D
E	96	96	96	96	96	96	96	96	96	96	96	5	E
F	90	90	90	90	90	90	90	90	90	90	90	6	F
G	102	102	102	102	102	102	102	102	102	102	102	7	G
H	105	105	105	105	105	105	105	105	105	105	105	8	H
I	206	206	206	206	206	206	206	206	206	206	206	9	I
J												10	J
K	207	207	207	207	207	207	207	207	207	207	207	11	K
L												12	L
M												13	M
N	208	208	208	208	208	208	208	208	208	208	208	14	N
O	120	123	126	129	132	135	135	135	135	135	135	15	O
P	161	161	162	162	162	166	166	166	166	166	166		

4-7		4-8		4-9		4-10		4-11		4-12			
A	25											1	A
B		28	1	33	6	38	11	43	16	48	21	2	B
C	210	55	28	60	33	65	38	70	43	75	48	3	C
D		29	2	34	7	39	12	44	17	49	22	4	D
E		56	29	61	34	66	39	71	44	76	49	5	E
F		30	3	35	8	40	13	45	18	50	23	6	F
G	211	57	30	62	35	67	40	72	45	77	50	7	G
H	26											8	H
I		31	4	36	9	41	14	46	19	51	24	9	I
J	27	58	31	63	36	68	41	73	46	78	51	10	J
K	209	32	5	37	10	42	15	47	20	52	25	11	K
L		59	32	64	37	69	42	74	47	79	52	12	L
M			209		209		209		209		209	13	M
N			210									14	N
O	163											15	O

TABLE A4-12. LINE BLOCK DISPLAY PANEL, CIRCUIT CARD TO SIGNAL WIRING DATA, CROSS REFERENCE

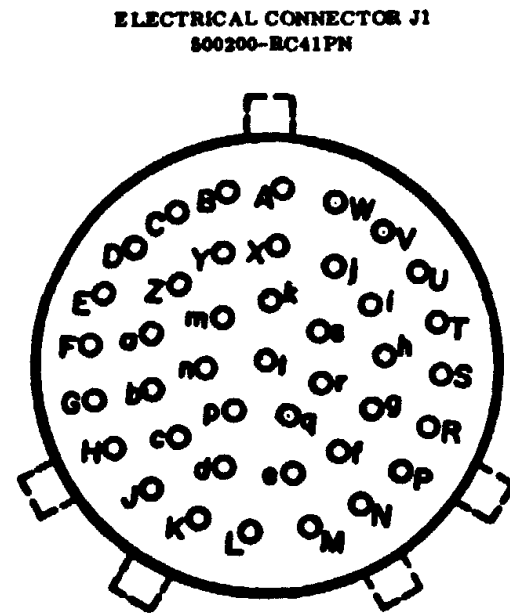
4-19		4-20		4-21		4-22		4-23		4-24			
A	77		81		160							1	A
B	77		81		167							2	B
C	77		81		210							3	C
D	78		165									4	D
E	78		165			209						5	E
F	78		165									6	F
G	148	142	160	154	211							7	G
H	149	143	161	155								8	H
I	150	144	162	156								9	I
J	151	145	166	157			168					10	J
K	152	146		158	209							11	K
L	153	147		159			167					12	L
M												13	M
N		76		80			210					14	N
O		75		79			211					15	O

3-19		3-20		3-21		3-22		3-23		3-24			
A	93	93	93	93	93	93	93	93	93	93	93	1	A
B	84	84	84	84	84	84	84	84	84	84	84	2	B
C	99	99	99	99	99	99	99	99	99	99	99	3	C
D	87	87	87	87	87	87	87	87	87	87	87	4	D
E	96	96	96	96	96	96	96	96	96	96	96	5	E
F	90	90	90	90	90	90	90	90	90	90	90	6	F
G	102	102	102	102	102	102	102	102	102	102	102	7	G
H	105	105	105	105	105	105	105	105	105	105	105	8	H
I	206	206	206	206	206	206	206	206	206	206	206	9	I
J												10	J
K	207	207	207	207	207	207	207	207	207	207	207	11	K
L												12	L
M												13	M
N	208	208	208	208	208	208	208	208	208	208	208	14	N
O	131	134	138	141	144	147	147	147	147	147	147	15	O
P	159	160	160	160	160	160	160	160	160	160	160		

4-1		4-2		4-3		4-4		4-5		4-6			
A	1		5		9		13		17		21	1	A
B												2	B
C	210		210		210		210		210		210	3	C
D												4	D
E												5	E
F												6	F
G	211		211		211		211		211		211	7	G
H	2		6		10		14		18		22	8	H
I												9	I
J	3		7		11		15		19		23	10	J
K	209		209		209		209		209		209	11	K
L												12	L
M												13	M
N												14	N
O	4		8		12		16		20		24	15	O

4-13		4-14		4-15		4-16		4-17		4-18				
A			57		61		65		69		73	1	A	
B	53	26	57		61		65		69		73	2	B	
C	30	53	57		61		65		69		73	3	C	
D	54	27	58		62		66		70		74	4	D	
E	81	54	58		62		66		70		74	5	E	
F	164	163	58		62		66		70		74	6	F	
G	165	164	88	82	100	94	112	106	124	118	136	130	7	G
H			89	83	101	95	113	107	125	119	137	131	8	H
I			90	84	102	96	114	108	126	120	138	132	9	I
J			91	85	103	97	115	109	127	121	139	133	10	J
K			92	86	104	98	116	110	128	122	140	134	11	K
L			93	87	105	99	117	111	129	123	141	135	12	L
M													13	M
N	209												14	N
O			210		56		60		64		68	72	15	O
P					55		59		63		67	71		

TABLE A4-13. LINE BLOCK DISPLAY PANEL, CONNECTOR WIRING DATA

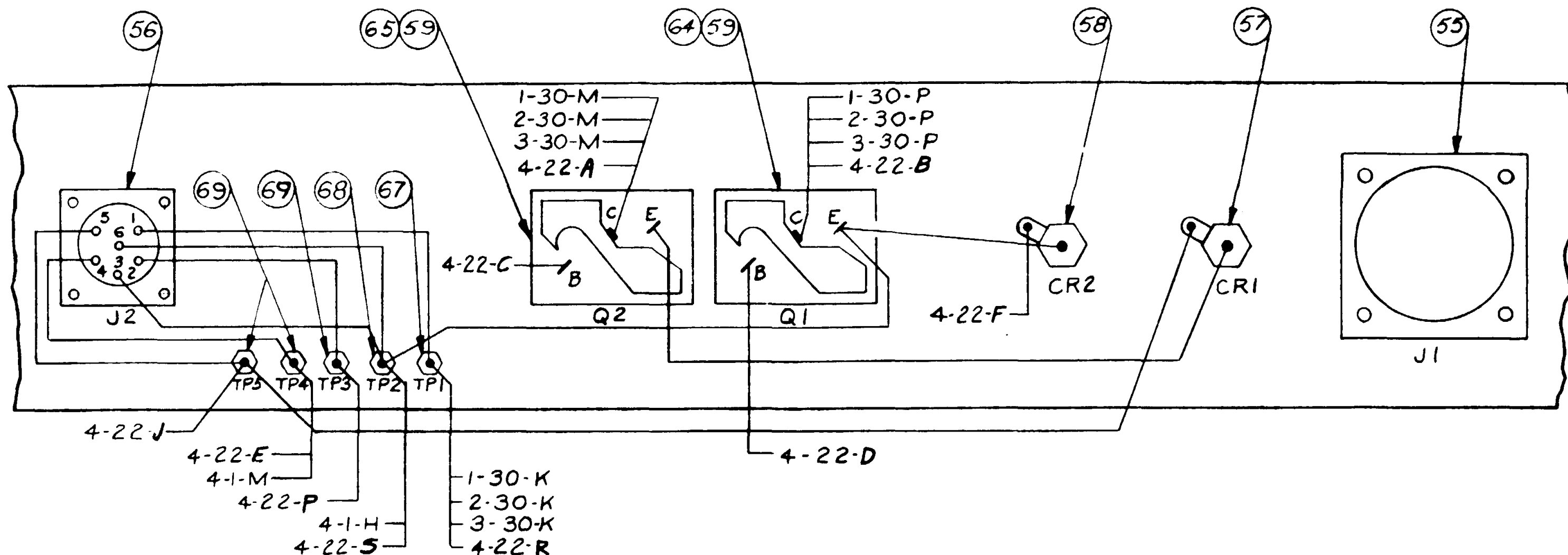


TERMINATIONS

A	4-1-B	S	4-4-R
B	4-1-D	T	4-5-B
C	4-1-P	U	4-5-D
D	4-1-R	V	4-5-P
E	4-2-B	W	4-5-R
F	4-2-D	X	4-6-B
G	4-2-P	Y	4-6-D
H	4-2-R	Z	4-6-P
J	4-3-B	a	4-6-R
K	4-3-D	b	4-7-B
L	4-3-P	c	4-7-D
M	4-3-R	d	4-7-P
N	4-4-B	e	4-7-R
P	4-4-D	f	4-21-B
R	4-4-P		

TABLE A4-14. CONTROL PANEL LOGIC GROUND WIRING DATA

<u>Loop No.</u>	<u>Termination</u>			
1	PTS4-20 MS1-7	MS19-7 MS5-7	MS18-7 MS7-7	MS17-7
2	PTS4-19 TS2-2 TS6-2	RS2-AW TS3-2 TS7-2	RS1-AW TS4-2 TS8-2	TS1-2 TS5-2
3	PTS4-18 MS22-7 MS28-7 RS3-BW	MS25-7 MS21-7 MS29-7 RS3-AW	MS24-7 MS26-7 MS30-7	MS23-7 MS27-7 RS4-BW
4	PTS4-17 MS34-7 MS41-7	MS31-7 MS44-7 MS52-7	MS32-7 MS43-7 MS53-7	MS33-7 MS42-7 MS54-7
5	PTS4-16 MS56-7 MS39-7	MS35-7 MS58-7 MS38-7	MS45-4 MS59-7 MS36-7	MS45-7 MS40-7 MS50-7
6	PTS4-15 RS8-AW RS16-AW	RS5-AW RS10-AW RS15-AW	RS6-AW MS61-7 RS15-BW	RS7-AW RS16-BW
7	PTS4-14 MS62-7 MS72-7	MS65-7 M68-7 MS73-7	MS64-7 MS70-7	MS63-7 MS71-7
8	PTS4-13 MS75-7	MS92-7 MS74-7	MS91-7	MS90-7
9	PTS4-12 RS22-AW	RS18-AW RS21-AW	RS19-AW RS21-BW	RS20-AW
				RS4-AW
				MS55-7
				MS71-4



NOTES:

1. WIRES ON J2 ARE #20 AWG SOLID, ITEM 124 ON BILL OF MATERIAL DWG. 528088.
2. ALL OTHER WIRING IS #22 AWG SOLID, ITEM #120 ON BILL OF MATERIAL DWG. 528088.
3. J1 IS SHOWN FOR REF ONLY. WIRING OF J1 IS ON DWG.
4. VIEW IS WIRING SIDE OF BRACKET.
5. ALL CIRCLED NUMBERS REFER TO BILL OF MATERIAL DWG. 528088.

Figure A4-1. Line block display panel, connector mounting bracket, wiring diagram.

TABLE A4-15. CONTROL PANEL, POWER WIRING DATA

Loop No.				Termination			
1	PTS1-14	1-7-13	2-8-13	2-9-13	2-10-13	2-11-13	2-12-13
2	PTS1-15	2-23-14	2-24-14				
3	PTS1-16	3-10-13	3-12-13	3-13-13	3-14-13 SERIALLY THROUGH 3-17-13		
4	PTS1-17	3-18-13	3-19-13 SERIALLY THROUGH 3-24-13				
5	PTS2-7	1-7-15	1-9-15	1-10-15	1-11-15	1-12-15	1-3-7
6	PTS2-8	1-13-15	1-14-15	1-15-15	1-16-15	1-17-15	1-18-15
7	PTS2-9	1-19-15	1-20-15	1-21-15	1-22-15	1-23-15	1-24-15
8	PTS2-10	2-8-15	3-10-15	3-12-15	3-13-15		
9	PTS2-11	3-14-15	3-15-15	3-16-15	3-17-15		
10	PTS2-12	3-18-15	3-19-15	3-20-15	3-21-15		
11	PTS2-13	3-22-15	3-23-15	3-24-15			
12	PTS3-1	1-5-14	2-8-14				
13	PTS3-2	2-9-14	2-10-14	2-11-14			
14	PTS3-3	3-10-14	2-12-14				
15	PTS4-1	2-9-3	2-9-C	2-9-K	2-9-9	2-9-15	
16	PTS4-2	2-10-3	2-10-C	2-10-K	2-10-9	2-10-15	
17	PTS4-3	2-11-3	2-11-C	2-11-K	2-11-9	2-11-15	
18	PTS4-4	2-13-F	2-13-H				
19	PTS4-5	1-7-E					
20	PTS5-1	1-1-13	2-1-13	2-2-13			
21	PTS5-2	2-3-13	2-4-13	2-5-13			
22	PTS5-3	3-1-13	3-2-13	3-3-13	3-4-13	3-5-13	
23	PTS5-4	3-12-R	3-13-R	3-14-R	3-15-R		
24	PTS5-5	3-16-R	3-17-R	3-18-R			
25	PTS5-6	3-19-R	3-20-R	3-21-R			
26	PTS5-7	3-22-R	3-23-R	3-24-R			
27	PTS2-14	R1-1					
28	3-10-10	3-10-11	2-8-R	2-12-R	1-3-M		
29	3-10-6	3-10-5	3-10-4	3-10-3	2-8-P	2-12-P	

TABLE A4-16. CONTROL PANEL, LAMP POWER WIRING DATA

Loop No.	Termination						
1	PTS1-1	MS62-2	MS63-2	MS64-2	MS65-2	MS69-C	MS68-3
	MS67-C	MS66-C					
2	PTS1-5	MS70-3	MS71-3	MS72-3	MS73-3	MS75-2	MS74-2
3	PTS1-12	MS86-C	MS87-C	MS88-C	MS89-C	MS90-2	MS93-3
4	PTS1-9	MS78-C	MS79-C	MS80-C	MS81-C	MS85-C	MS84-C
	MS83-C	MS82-C					
5	PTS1-2	MS33-2	MS43-2	MS53-3	MS52-3	MS42-2	MS32-2
	MS31-2	MS41-3	MS51-B	MS50-2			
6	PTS1-6	MS36-2	MS46-C	MS56-3	MS55-3	MS45-2	MS35-3
	MS34-2	MS44-2	MS54-3				
7	PTS1-13	MS40-3	MS60-3	MS49-C	MS39-2	MS38-2	MS48-C
	MS58-3	MS47-C	MS37-2				
8	PTS1-10	DS13-B	DS14-B	DS15-B	DS16-B		
	MS61-3	DS17-B SERIALLY THROUGH DS32-B					
9	PTS1-3	MS1-3	MS2-C	MS3-C	MS4-B		
	MS7-2	MS6-C	MS5-2				
10	PTS1-7	MS9-C	MS10-C	MS11-C	MS12-C	MS16-C	
11	PTS1-11	MS13-C	MS14-C	MS15-C	MS17-2	MS20-3	MS20-4
12	PTS1-4	DS1-B	DS2-B SERIALLY THROUGH DS12-B				
13	PTS1-8	MS22-3	MS23-3	MS24-2	MS25-2	MS30-3	
	MS29-3	MS28-2	MS27-3	MS26-3			
14	PTS1-20	SOUND ALARM Ø					
15	PTS2-1	MS17-4	MS7-4	M25-4			
	MS1-4						
16	PTS2-2	MS23-4	MS24-4	MS25-4			
	MS29-4	MS28-4					
17	PTS2-3	MS31-4	MS32-4	MS33-4	MS34-4		
	MS44-4	MS43-4	MS42-4				
18	PTS2-4	MS35-4	MS36-4	MS37-4	MS37-7	MS38-4	
	MS39-4						
19	PTS2-5	MS62-4	MS63-4	MS64-4	MS65-4		
	MS72-4	MS73-4					
20	PTS2-6	MS74-4	MS75-4	MS90-4			
21							
22	MS20-5	MS60-4					
23	MS60-5	MS93-4					

TABLE A4-17. CONTROL PANEL, SIGNAL WIRING DATA

Loop No.	Termination			Loop No.	Termination			Loop No.	Termination		
1	1-24-1	2-21-1		82	1-20-C	2-17-3	3-18-1	184	1-14-E	2-15-K	
2	1-24-2	2-21-2		83	1-20-D	2-17-4	3-18-12	185	1-14-F	2-15-L	
3	1-24-3	2-21-3	2-21-6	84	1-20-E	2-17-5	3-18-11	186	1-13-1	2-15-M	
4	1-24-4	2-21-4	2-21-5	85	1-20-F	2-17-6	3-18-10	187	1-9-3	2-15-10	
5	1-24-5	2-21-5	2-21-4	86	1-19-1	2-17-7	2-18-9	188	1-9-4	2-15-11	
6	1-24-6	2-21-6	2-21-3	87	1-19-2	2-17-10	2-18-8	189	1-9-5	2-15-8	
7	1-24-A	2-21-10		88	1-19-3	2-17-11	3-18-7	190	1-9-6	2-15-9	
8	1-24-B	2-21-11		89	1-19-4	2-17-12	3-17-6	191	1-9-1	2-13-4	
9	1-24-C	2-21-12	2-21-1	90	1-19-5	2-17-A	3-17-5	192	1-9-2	2-13-5	
10	1-24-D	2-21-A	2-21-12	91	1-19-6	2-17-B	3-17-4	193	1-13-2	2-13-7	2-13-6
11	1-24-E	2-21-B	2-21-11	92	1-15-C	2-18-4		194	2-24-1	2-24-6	
12	1-24-F	2-21-C	2-21-10	93	1-15-D	2-20-M	2-14-1	195	2-24-2	2-24-5	
13	1-23-1	2-21-D	2-21-9	94	1-15-E	2-18-D	2-18-4	196	2-24-3	2-24-4	
14	1-23-2	2-21-E	2-21-8	95	1-15-F	2-17-C	2-17-3	197	2-24-4	2-24-3	
15	1-23-3	2-21-J	2-21-7	96	1-14-1	2-17-D	2-17-2	198	2-24-5	2-24-2	
16	1-23-4	2-21-K	2-20-6	97	1-14-2	2-17-E	2-17-1	199	2-24-6	2-24-1	
17	1-23-5	2-21-M	2-20-4	98	1-14-3	2-17-J	3-17-12	200	2-24-7	2-24-B	
18	1-23-6	2-21-N	2-20-3	99	1-14-4	2-17-K	2-17-11	201	2-24-8	2-24-A	
19	1-23-A	2-20-1	2-20-2	100	1-14-5	2-17-L	2-17-10	202	2-24-9	2-24-12	
20	1-23-B	2-20-2	2-20-1	101	1-14-6	2-17-M	2-17-9	203	2-24-10	2-24-11	
21	1-23-C	2-20-3	2-20-12	102	1-14-B	2-17-N	2-17-8	204	2-24-11	2-24-10	
22	1-23-D	2-20-4	2-20-11	103	1-14-A	2-16-F	2-16-H	205	2-24-12	2-24-9	
23	1-23-E	2-20-6			2-16-G			206	2-23-1	2-24-L	
24	1-23-F	2-20-8		104	1-11-1	2-16-1	2-17-7	207	2-23-2	2-24-K	
25	1-15-1	2-21-9	2-21-3	105	1-11-2	2-16-2	2-16-6	208	2-23-3	2-24-J	
26	1-19-B	2-20-10	2-15-11	106	1-11-3	2-16-3	2-16-5	209	2-23-4	2-24-E	
27	1-19-A	2-21-L	2-20-5	107	1-11-4	2-16-4	2-16-4	210	2-23-5	2-24-D	
28	1-19-C	2-20-5	2-20-10	108	1-11-5	2-16-5	2-16-3	211	2-23-6	2-24-C	
29	1-19-D	2-20-11	2-15-10	109	1-11-6	2-16-6	2-16-2	212	2-23-7	2-23-4	
30	1-15-4	2-20-6	2-20-7	110	1-11-A	2-16-9	2-16-1	213	2-23-8	2-23-3	
31	2-21-F	2-21-6	2-21-7	111	1-11-B	2-16-10	2-16-12	214	2-23-9	2-23-2	
32	1-9-A	2-22-1		112	1-11-C	2-16-11	2-16-11	215	2-23-10	2-23-1	
33	1-9-B	2-22-2		113	1-11-D	2-16-12	2-16-10	216	2-23-11	2-24-N	
34	1-22-1	2-20-C		114	1-11-E	2-16-A	2-16-9	217	2-23-12	2-24-M	
35	1-22-2	2-20-D		115	1-11-F	2-16-B	2-16-8	218	2-23-1	2-23-11	
36	1-22-3	2-20-E		116	1-10-1	2-16-C	2-16-7	219	2-23-2	2-23-10	
37	1-22-4	2-20-J		117	1-10-2	2-16-D	2-16-6	220	2-23-4	2-23-9	
38				118	1-10-3	2-16-E	2-15-5	201	2-23-5	2-23-8	
39	1-23-A	2-20-N		119	1-10-4	2-16-J	2-15-4	202	2-23-6	2-23-5	
40	1-23-B	2-19-1		120	1-10-5	2-16-K	2-15-3	203	2-23-10	2-23-2	2-23-A
41	1-15-5	2-20-A	2-20-9	121	1-10-6	2-16-L	2-15-2	204	2-23-9	2-23-B	
42	1-15-6	2-20-B		122	1-10-A	2-16-M	2-15-1	205	1-7-2	1-7-D	1-7-4
43	1-15-A	2-20-K	2-20-8	123	1-10-B	2-16-N	2-15-12	206	1-7-P	1-7-R	
44	1-15-B	2-19-2		124	1-10-E	2-15-1		207	1-7-M	1-7-1	
45	1-12-1	2-19-3	2-20-7	125	1-19-F	2-15-2		208	1-7-F	2-9-D	
46	1-12-2	2-19-4	2-19-6	126	1-18-1	2-15-3		209	1-7-C	1-7-3	
47	1-12-3	2-19-5	2-19-5	127	1-18-2	2-15-4		210	1-7-5	2-9-3	
48	1-12-4	2-19-6	2-19-4	128	1-18-3	2-15-5		211	1-7-10	2-9-E	1-7-L
49	1-12-5	2-19-9	2-19-3	129	1-18-4	2-15-6		212	2-13-E	2-12-L	
50	1-12-6	2-19-10	2-19-2	130	1-18-5	2-15-9		213	1-7-7	2-10-D	
51	1-12-A	2-19-11	2-19-1	131	1-18-6	2-15-10		214	2-9-1	2-12-3	
52	1-12-B	2-19-12	2-19-12	132	1-18-A	2-15-11	2-15-9	215	2-10-1	2-12-C	
53	1-12-C	2-19-A	2-19-11	133	1-18-B	2-15-12	2-15-8	216	2-10-7	2-12-D	
54	1-12-D	2-19-B	2-19-10	134	1-18-C	2-15-A	2-15-7	217	2-11-1	2-12-M	
55	1-12-E	2-19-C	2-19-9	135	1-18-D	2-15-B	2-14-6	218	2-11-7	2-12-N	
56	1-12-F	2-19-D	2-19-8	136	1-18-E	2-15-D	2-14-4	219	2-9-B	2-9-2	
57	1-15-3	2-19-F	2-19-6	137	1-18-F	2-15-E	2-14-3	220	2-10-B	2-10-2	
58	2-20-H	2-20-F	2-19-6	138	1-17-1	2-15-N	2-14-12	221	2-10-8	2-10-1	
59	1-22-C	2-19-J		139	1-17-2	2-14-1	2-14-11	222	2-11-B	2-11-2	
60	1-22-D	2-19-K		140	1-17-3	2-14-2	2-14-10	223	2-11-8	2-11-J	
61	1-22-E	2-19-L		141	1-17-4	2-14-3	2-14-9	224	2-13-A	2-13-3	
62	1-21-1	2-19-M		142	1-17-5	2-14-4	2-14-8	225	2-13-B	2-12-E	
63	1-21-2	2-19-N		143	1-17-6	2-14-5	2-14-7	226	2-13-C	2-12-5	
64	1-21-3	2-19-1		144	1-17-A	2-14-6	2-13-6	227	2-13-D	2-12-K	
65	1-21-4	2-19-3		145	1-17-B	2-14-9	2-13-5	228	2-23-C	2-9-D	2-12-8
66	1-21-5	2-19-5		146	1-17-C	2-14-10	2-13-4	229	2-9-5	1-5-7	
67	1-21-6	2-19-6		147	1-17-D	2-14-11	2-13-3	230	2-9-8	2-9-J	
68	1-21-7	2-19-8		148	1-17-E	2-14-12	2-13-2	231	2-9-7	2-9-M	
69	1-21-A	2-19-9		149	1-17-F	2-14-A	2-13-1	232	2-9-K	2-15-J	
70	1-21-B	2-19-10		150	1-16-1	2-14-B	2-13-12	233	2-12-7	2-9-N	2-23-D
71	1-21-C	2-19-11		151	1-16-2	2-14-C	2-13-11	234	2-8-L	1-5-K	
72	1-21-D	2-19-12		152	1-16-3	2-14-D	2-13-10	235	1-7-3	1-7-12	
73	1-21-E	2-19-A		153	1-16-4	2-14-E	2-13-9	236	1-7-6	2-11-D	
74	1-21-F	2-19-B		154	1-16-5	2-14-J	2-13-8	237	1-7-H	2-11-L	
75	1-20-1	2-19-E									

TABLE A4-17. CONTROL PANEL, SIGNAL WIRING DATA

Loop No.	Termination	Loop No.	Termination	Loop No.	Termination
1	MS1-8 3-1-2	76	MS62-9 2-4-1	151	RS5-A2 2-2-D
2	MS1-9 3-1-1	77	MS63-8 2-4-4	152	RS5-A3 2-2-E
3	MS5-8 3-1-4	78	MS63-9 2-4-3	153	RS5-A4 2-2-J
4	MS5-9 3-1-3	79	MS64-8 2-4-8	154	RS5-A5 2-2-K
5	MS7-8 3-3-1	80	MS64-9 2-4-5	155	RS5-A6 2-2-L
6	MS7-9 3-2-N	81	MS65-8 2-4-10	156	RS5-A7 2-2-M
7	MS17-8 3-1-8	82	MS65-9 2-4-9	157	RS5-A8 2-2-N
8	MS17-9 3-1-5	83	MS66-8 2-4-12	158	RS5-A9 2-3-1
9	MS18-8 3-1-10	84	MS66-9 2-4-11	159	RS6-A0 2-3-2
10	MS18-9 3-1-9	85	MS70-8 2-4-B	160	RS6-A1 2-3-3
11	MS19-8 3-1-12	86	MS70-9 2-4-A	161	RS6-A2 2-3-4
12	MS19-9 3-1-11	87	MS71-8 2-4-D	162	RS7-A0 2-3-5
13	MS21-8 3-2-5	88	MS71-9 2-4-C	163	RS7-A1 2-3-8
14	MS21-9 3-2-4	89	MS72-8 2-4-J	164	RS7-A2 2-3-9
15	MS22-8 3-2-9	90	MS72-9 2-4-E	165	RS8-A0 2-3-10
16	MS22-9 3-2-8	91	MS73-8 2-4-L	166	RS8-A1 2-3-12
17	MS23-8 3-2-11	92	MS73-9 2-4-K	167	RS8-A2 2-3-11
18	MS23-9 3-2-10	93	MS74-8 2-1-2	168	RS10-A0 2-3-A
19	MS24-8 3-2-A	94	MS74-9 2-1-1	169	RS10-A1 2-3-B
20	MS24-9 3-2-12	95	MS75-8 1-1-12	170	RS10-A2 2-3-C
21	MS25-8 3-2-C	96	MS75-9 1-1-E	171	RS10-A3 2-3-D
22	MS25-9 3-2-B	97	MS90-8 2-4-N	172	RS10-A4 2-3-E
23	MS26-8 3-2-E	98	MS90-9 2-4-M	173	RS10-A5 2-3-J
24	MS26-9 3-2-D	99	MS91-8 2-5-2	174	RS10-A6 2-3-K
25	MS27-8 3-2-K	100	MS91-9 2-5-1	175	RS10-A7 2-3-L
26	MS27-9 3-2-J	101	MS92-8 2-5-4	176	RS10-A8 2-3-M
27	MS28-8 3-2-M	102	MS92-9 2-5-3	177	RS10-A9 2-3-N
28	MS28-9 3-2-L	103	RS1-A0 3-1-A	178	RS10-A0 2-5-5
29	MS29-8 3-2-H	104	RS1-A1 3-1-B	179	RS10-A1 2-5-8
30	MS29-9 3-2-F	105	RS1-A2 3-1-C	180	RS18-A2 2-5-9
31	MS31-8 3-5-12	106	RS1-A3 3-1-D	181	RS18-A3 2-5-10
32	MS31-9 3-5-11	107	RS1-A4 3-1-E	182	RS18-A4 2-5-11
33	MS32-8 3-5-B	108	RS1-A5 3-1-J	183	RS18-A5 2-5-12
34	MS32-9 3-5-A	109	RS1-A6 3-1-K	184	RS18-A6 2-5-A
35	MS33-8 3-5-D	110	RS1-A7 3-1-L	185	RS18-A7 2-5-B
36	MS33-9 3-5-C	111	RS1-A8 3-1-M	186	RS18-A8 2-5-C
37	MS34-8 3-5-J	112	RS1-A9 3-1-N	187	RS18-A9 2-5-D
38	MS34-9 3-5-F	113	RS2-A0 3-2-1	188	RS19-A0 2-5-E
39	MS35-8 3-5-L	114	RS2-A1 3-2-2	189	RS19-A1 2-5-J
40	MS35-9 3-5-K	115	RS2-A2 3-2-3	190	RS19-A2 2-5-K
41	MS36-8 3-5-N	116	MS71-8 2-15-K	191	RS20-A0 2-5-L
42	MS36-9 3-5-M	117	RS3-A1 3-3-N	192	RS20-A6 2-5-M
43	MS38-8 2-1-4	118	RS3-A2 3-4-1	193	RS20-A2 2-5-N
44	MS38-9 2-1-3	119	RS3-A3 3-4-2	194	RS20-A3 1-1-1
45	MS39-8 2-1-6	120	RS3-A4 3-4-3	195	RS20-A4 1-1-2
46	MS39-9 2-1-5	121	RS3-A5 2-5-6	196	RS20-A5 1-1-3
47	MS40-8 2-1-10	122	RS16-A3 2-5-7	197	RS22-A0 1-1-4
48	MS40-9 2-1-9	123	RS16-A4 2-5-7	198	RS22-A1 1-1-6
49	MS41-8 2-1-12	124	RS16-B1 3-4-F	199	RS22-A2 1-1-8
50	MS41-9 2-1-11	125	RS16-B2 3-4-H	200	RS22-A3 1-1-9
51	MS42-8 2-1-B	126	RS16-B3 3-4-M	201	RS22-A4 1-1-10
52	MS42-9 2-1-A	127	RS3-B1 1-1-K	202	RS22-A5 1-1-11
53	MS43-8 2-1-D	128	RS3-B2 1-1-L	203	TS1-1 3-3-2
54	MS43-9 2-1-C	129	RS3-B3 1-1-M	204	TS1-3 3-3-3
55	MS44-8 2-1-J	130	RS4-A1 3-4-12	205	TS2-1 3-3-4
56	MS44-9 2-1-E	131	RS4-A2 3-4-A	206	TS2-3 3-3-5
57	MS45-8 2-1-L	132	RS4-A3 3-4-B	207	TS3-1 3-3-8
58	MS45-9 2-1-K	133	RS4-A4 3-4-C	208	TS3-3 3-3-9
59	MS52-8 2-1-N	134	RS15-A2 1-1-J	209	TS4-1 3-3-10
60	MS52-9 2-1-M	135	RS15-A3 1-1-6	210	TS4-3 3-3-11
61	MS53-8 2-2-2	136	RS15-A4 1-1-7	211	TS5-1 3-3-12
62	MS53-9 2-2-1	137	RS15-B1 2-2-6	212	TS5-3 3-3-A
63	MS54-8 2-2-5	138	RS15-Ba 2-2-7	213	TS6-1 3-3-B
64	MS54-9 2-2-4	139	RS15-B3 2-2-F	214	TS6-3 3-3-C
65	MS55-8 2-2-9	140	RS4-B1 3-4-N	215	TS7-1 3-3-D
66	MS55-9 2-2-8	141	RS4-B2 3-5-1	216	TS7-3 3-3-E
67	MS56-8 2-2-11	142	RS4-B3 3-5-2	217	TS8-1 3-3-J
68	MS56-9 2-2-10	143	RS4-B4 3-5-3	218	TS8-3 3-3-K
69	MS58-8 2-2-A	144	MS30-8 3-5-4	219	MS50-8 1-1-N
70	MS58-9 2-2-12	145	MS30-9 3-5-5	220	MS50-9 1-1-M
71	MS59-8 1-1-B	146	RS15-B4 2-3-H	221	SOUND ALARM @ 3-19-7
72	MS59-9 1-1-A	147	RS16-A1 2-5-F	222	RS21-A1 3-1-H
73	MS61-8 1-1-D	148	RS16-A2 2-5-H	223	RS21-A2 3-1-4
74	MS61-9 1-1-C	149	RS5-A0 2-2-B	224	RS21-A3 3-1-F
75	MS62-8 2-4-2	150	RS5-A1 2-2-C	225	RS21-A4 3-2-7
				226	RS16-B4 3-4-4
				227	RS21-B1 3-3-F
				228	RS21-B2 3-4-7
				229	RS21-B3 3-3-5

TABLE A4-17. CONTROL PANEL, SIGNAL WIRING DATA

Loop No.	Termination	Loop No.	Termination	Loop No.	Termination
1	MS1-1 1-24-8	83	MS35-8 1-15-C	165	MS74-3 1-9-9
2	MS1-3 1-24-7	84	MS36-1 1-21-12	166	MS74-5 1-9-4
3	MS1-5 1-24-2	85	MS36-3 1-21-11	167	MS74-6 1-9-3
4	MS1-6 1-24-1	86	MS36-5 1-21-8	168	MS75-1 1-9-12
5	MS2-A 1-24-9	87	MS36-8 1-21-5	169	MS75-3 1-9-11
6	MS2-B 1-24-10	88	MS37-1 1-21-J	170	MS75-5 1-9-6
7	MS3-A 1-24-11	89	MS37-3 1-21-H	171	MS75-6 1-9-5
8	MS3-B 1-24-12	90	MS37-5 1-21-B	172	MS76-A 1-17-7
9	MS4-A 1-15-7	91	MS37-8 1-21-A	173	MS76-B 1-17-8
10	MS5-1 1-24-J	92	MS37-9 1-7-P	174	MS79-A 1-17-9
11	MS5-3 1-24-H	93	MS38-1 1-21-L	175	MS79-B 1-17-10
12	MS5-5 1-24-B	94	MS38-3 1-21-K	176	MS80-A 1-17-11
13	MS5-6 1-24-A	95	MS38-5 1-21-D	177	MS80-B 1-17-12
14	MS6-A 1-24-K	96	MS38-8 1-21-C	178	MS81-A 1-17-H
15	MS6-B 1-24-L	97	MS39-1 1-21-N	179	MS81-B 1-17-J
16	MS7-1 1-9-J	98	MS39-3 1-21-M	180	MS82-A 1-17-K
17	MS7-3 1-9-H	99	MS39-5 1-21-F	181	MS82-B 1-17-L
18	MS7-5 1-9-B	100	MS39-8 1-21-E	182	MS83-A 1-17-M
19	MS7-6 1-9-A	101	MS40-1 1-14-12	183	MS83-B 1-17-N
20	MS9-A 1-24-M	102	MS41-1 1-15-M	184	MS84-A 1-16-7
21	MS9-B 1-24-N	103	MS42-1 1-20-8	185	MS84-B 1-16-8
22	MS10-A 1-23-7	104	MS42-3 1-20-7	186	MS85-A 1-16-9
23	MS10-B 1-23-8	105	MS42-6 1-20-2	187	MS85-B 1-16-10
24	MS11-A 1-23-9	106	MS43-1 1-20-10	188	MS85-C 1-16-11
25	MS11-B 1-23-10	107	MS43-3 1-20-9	189	MS86-A 1-16-12
26	MS12-A 1-19-J	108	MS43-6 1-20-4	190	MS87-A 1-16-H
27	MS12-B 1-19-H	109	MS44-1 1-20-12	191	MS87-B 1-16-J
28	MS13-A 1-23-11	110	MS44-3 1-20-11	192	MS88-A 1-16-K
29	MS13-B 1-23-12	111	MS44-6 1-20-6	193	MS88-B 1-16-L
30	MS14-A 1-23-H	112	MS45-1 1-20-J	194	MS89-A 1-16-M
31	MS14-B 1-23-J	113	MS45-3 1-20-H	195	MS89-B 1-16-N
32	MS15-A 1-23-K	114	MS45-6 1-20-B	196	MS90-1 1-9-8
33	MS15-B 1-23-L	115	MS46-A 1-20-K	197	MS90-3 1-9-7
34	MS16-A 1-19-L	116	MS46-B 1-20-L	198	MS90-5 1-9-2
35	MS16-B 1-19-K	117	MS47-A 1-20-M	199	MS90-6 1-9-1
36	MS17-1 1-23-N	118	MS47-B 1-20-N	200	MS93-1 1-13-8
37	MS17-3 1-23-M	119	MS48-A 1-19-7	201	MS93-6 1-3-C
38	MS17-5 1-23-F	120	MS48-B 1-19-8	202	DB1-A 1-12-7
39	MS17-6 1-23-E	121	MS49-A 1-19-9	203	DB2-A 1-12-8
40	MS20-1 1-15-10	122	MS49-B 1-19-10	204	DB3-A 1-12-9
41	MS20-6 1-3-F	123	MS50-1 1-19-12	205	DB4-A 1-12-10
42	MS22-1 1-15-11	124	MS50-3 1-19-11	206	DB5-A 1-12-11
43	MS23-1 1-15-12	125	MS51-A 1-15-N	207	DB6-A 1-12-12
44	MS23-5 1-15-6	126	MS52-1 1-14-7	208	DB7-A 1-12-H
45	MS24-1 1-22-8	127	MS53-1 1-14-8	209	DB8-A 1-12-J
46	MS24-3 1-22-7	128	MS54-1 1-14-9	210	DB9-A 1-12-K
47	MS24-5 1-22-2	129	MS55-1 1-14-10	211	DB10-A 1-12-L
48	MS24-6 1-22-1	130	MS56-1 1-14-11	212	DB11-A 1-12-M
49	MS25-1 1-22-10	131		213	DB12-A 1-12-N
50	MS25-3 1-22-9	132	MS60-1 1-14-H	214	DB13-A 1-11-7
51	MS25-5 1-22-4	133	MS60-6 1-3-2	215	DB14-A 1-11-8
52	MS25-6 1-22-3	134	MS61-1 1-14-J	216	DB15-A 1-11-9
53	MS26-1 1-15-H	135	MS62-1 1-19-N	217	DB16-A 1-11-10
54	MS27-1 1-15-L	136	MS62-3 1-19-M	218	DB17-A 1-11-11
55		137	MS62-5 1-19-F	219	DB18-A 1-11-12
56		138	MS62-6 1-19-E	220	DB19-A 1-11-H
57		139	MS63-1 1-18-6	221	DB20-A 1-11-J
58	MS28-1 1-22-J	140	MS63-3 1-18-7	222	DB21-A 1-11-K
59	MS28-3 1-22-H	141	MS63-5 1-18-2	223	DB22-A 1-11-L
60	MS28-5 1-22-B	142	MS63-6 1-18-1	224	DB23-A 1-11-M
61	MS28-6 1-22-A	143	MS64-1 1-18-10	225	DB24-A 1-11-N
62	MS29-1 1-15-J	144	MS64-3 1-18-9	226	DB25-A 1-10-7
63	MS29-5 1-15-B	145	MS64-5 1-18-4	227	DB26-A 1-10-8
64	MS30-1 1-15-9	146	MS64-6 1-18-3	228	DB27-A 1-10-9
65		147	MS65-1 1-18-12	229	DB28-A 1-10-10
66	MS31-1 1-22-L	148	MS65-3 1-18-11	230	DB29-A 1-10-11
67	MS31-3 1-22-K	149	MS65-5 1-18-6	231	DB30-A 1-10-12
68	MS31-5 1-22-D	150	MS65-6 1-18-5	232	DB31-A 1-10-H
69	MS31-6 1-22-C	151	MS66-A 1-18-H	233	DB32-A 1-10-J
70	MS32-1 1-22-N	152	MS66-B 1-18-J	234	RSS-B0 1-5-B
71	MS32-3 1-22-M	153	MS67-A 1-18-K	235	RSS-B1 1-5-J
72	MS32-5 1-22-F	154	MS67-B 1-18-L	236	RSS-B2 1-5-2
73	MS32-6 1-22-E	155	MS68-1 1-14-K	237	RSS-B3 1-5-8
74	MS33-1 1-21-8	156	MS69-A 1-18-M	238	RSS-B4 1-5-A
75	MS33-3 1-21-7	157	MS69-B 1-18-N	239	RSS-B5 1-5-3
76	MS33-5 1-21-2	158	MS70-1 1-14-L	240	RSS-B6 1-5-C
77	MS33-6 1-21-1	159	MS71-1 1-14-M	241	RSS-B8 1-5-H
78	MS34-1 1-21-10	160	MS72-1 1-14-N	242	RSS-B9 1-5-9
79	MS34-3 1-21-9	161	MS72-6 1-14-F	243	RSS-BW 1-7-10
80	MS34-5 1-21-4	162	MS73-1 1-13-7	244	RSS-C0 1-5-1
81	MS34-6 1-21-3	163	MS73-8 1-13-1	245	RSS-CW 1-7-5
82	MS35-1 1-15-K	164	MS74-1 1-9-10		

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE

XA1-1		XA1-2	
A	MS59-9 P6-JJ	1	RS20-A3 P9-m
B	MS59-8 P6-KK	2	RS20-A4 P9-t
C	MS61-9 P6-LL	3	RS20-A5 P9-u
D	MS61-8 P6-MM	4	RS22-A0 P9-v
E	MS75-9 P9-HH	5	RS22-A1 P9-w
F		6	RS15-A3 P2-D
H	RS15-A1 P2-B	7	PS15-A4 P2-E
J	RS15-A2 P2-C	8	RS22-A2 P9-x
K	RS3-B1 P12-V	9	RS22-A3 P9-y
L	RS3-B2 P12-U	10	RS22-A4 P9-z
M	MS50-9 P4-N	11	RS22-A5 P9-AA
N	MS50-8 P4-P	12	MS75-8 P9-JJ
P		13	PTS5-1 2-1-13
R	RS3-B3 P12-W	14	
S		15	

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-3		XA1-4	
A		1	1-7-8 242
B		2	MS60-6
C	MS93-6	3	
D		4	
E	1-7-J 244	5	1-3-F
F	MS20-6 1-3-5	6	
H		7	1-11-15 P
J		8	XQ3-B
K	XQ4-B	9	
L		10	
M	2-12-R P	11	XQ2-B
N	XQ1-B	12	
P		13	
R		14	
S		15	

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-7	
A	
B	1-7-C 209
C	1-7-B 209 J1-A
D	1-7-2 205 1-7-4 205
E	PTS4-5 P
F	2-9-D 208
H	2-11-L 237
J	1-3-E 244
K	J1-D 211
L	2-8-E J1-H
M	
N	1-7-1 207
P	1-7-R 206 MS37-9
R	1-7-P 206
S	

1	1-7-N 207 J1-G
2	1-7-D 205
3	J1-C 1-7-12 235
4	1-7-D 205
5	RS5-CW 2-8-3 210
6	2-11-D 236
7	2-10-D 213
8	1-3-1 242
9	J1-B
10	2-8-E RS5-BW 211
11	
12	1-7-3 235
13	PTS1-14 (P) 2-8-13 (P)
14	
15	PTS2-7 P 1-9-15 P

XA1-8	
A	
B	
C	
D	
E	
F	
H	
J	
K	
L	
M	
N	
P	
R	
S	

1	
2	
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4	
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12	
13	
14	
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TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-5	
A	RS5-B4
B	RS5-B0
C	RS5-B6
D	
E	
F	
H	RS5-B8
J	RS5-B1
K	2-8-L 234
L	
M	
N	
P	
R	
S	

XA1-5	
1	RS5-C0
2	RS5-B2
3	RS5-B5
4	
5	
6	
7	2-8-5 229 J1-E
8	RS5-B3
9	RS5-B9
10	
11	
12	
13	
14	PTS3-1 P 2-8-14 P
15	

A	
B	
C	
D	
E	
F	
H	
J	
K	
L	
M	
N	
P	
R	
S	

XA1-6	
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

TABLE A4-20. CONTROL PANEL CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-9			
A	MS7-6	1	MS90-6
	2-22-1	31	2-13-4
B	MS7-5	2	MS90-5
	2-22-2	32	2-13-5
C		3	MS74-6
			2-13-10
D		4	MS74-5
			2-13-11
E		5	MS75-6
			2-13-8
F		6	MS75-5
			2-13-9
H	MS7-3	7	MS90-3
J	MS7-1	8	MS90-1
K		9	MS74-3
L		10	MS74-1
M		11	MS75-3
N		12	MS75-1
P		13	
R		14	
S		15	1-7-15
			1-10-15

XA1-10			
A	2-16-M	122	1
B	2-16-N	123	2
C			3
D			4
E			5
F			6
H	DS31-A		7
J	DSJ2-A		8
K			9
L			10
M			11
N			12
P			13
R			14
S			15
			1-9-15
			1-11-15

TABLE A4-20. CONTROL PANEL CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-11			
A	2-16-9	110	1
B	2-16-10	111	2
C	2-16-11	112	3
D	2-16-12	113	4
E	2-16-A	114	5
F	2-16-B	115	6
H	DS19-A		7
J	DS20-A		8
K	DS21-A		9
L	DS22-A		10
M	DS23-A		11
N	DS24-A		12
P			13
R			14
S			15
			1-10-15
			1-12-15

XA1-12			
A	2-19-11	51	1
B	2-19-12	52	2
C	2-19-A	53	3
D	2-19-B	54	4
E	2-19-C	55	5
F	2-19-D	56	6
H	DS7-A		7
J	DS8-A		8
K	DS9-A		9
L	DS10-A		10
M	DS11-A		11
N	DS12-A		12
P			13
R			14
S			15
			1-11-15
			1-3-7

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-15		
A	2-20-K	43
B	MS29-5	
	2-19-2	44
C	MS35-6	
	2-18-4	92
D	2-20-M	93
E	2-18-D	94
F	2-17-C	95
H	MS26-1	
J	MS29-1	
K	MS35-1	
L	MS27-1	
M	MS41-1	
N	MS51-A	
P		
R		
S		
1	2-21-9	25
2		
3	Q1-C	
	2-19-F	57
4	Q2-C	
	2-20-6	30
5	2-20-A	41
6	MS23-5	
	2-20-B	42
7	MS4-A	
8		
9	MS30-1	
10	MS20-1	
11	MS22-1	
12	MS23-1	
13		
14		
15	1-14-15	P
	1-16-15	P

XA1-16		
A	2-14-L	156
B	2-14-M	157
C	2-14-N	158
D	2-13-1	159
E	2-13-2	160
F	2-13-3	161
H	MS87-A	
J	MS87-B	
K	MS88-A	
L	MS88-B	
M	MS89-A	
N	MS89-B	
P		
R		
S		
1	2-14-B	150
2	2-14-C	151
3	2-14-D	152
4	2-14-E	153
5	2-14-J	154
6	2-14-K	155
7	MS84-A	
8	MS84-B	
9	MS85-A	
10	MS85-B	
11	MS86-A	
12	MS86-B	
13		
14		
15	1-15-15	P
	1-17-15	P

XA1-13		
A		
B		
C		
D		
E		
F		
H		
J		
K		
L		
M		
N		
P		
R		
S		
1	MS73-6	
	2-15-M	166
2		
	2-13-7	173
3		
4		
5		
6		
7	MS73-1	
8	MS93-1	
9		
10		
11		
12		
13		
14		
15	PT82-8	P
	1-14-15	P

XA1-14		
A		
	2-16-F	103
B	2-17-N	102
C	2-15-C	162
D	2-15-J	163
E	2-15-K	164
F	MS72-6	
	2-15-L	165
H	MS60-1	
J	MS61-1	
K	MS68-1	
L	MS70-1	
M	MS71-1	
N	MS72-1	
P		
R		
S		
1	2-17-D	96
2	2-17-E	97
3	2-17-J	98
4	2-17-K	99
5	2-17-L	100
6	2-17-M	101
7	MS52-1	
8	MS53-1	
9	MS54-1	
10	MS55-1	
11	MS56-1	
12	MS40-1	
13		
14		
15	1-13-15	P
	1-15-15	P

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-17			
A	2-14-B	144	
B	2-14-9	145	
C	2-14-10	146	
D	2-14-11	147	
E	2-14-12	148	
F	2-14-A	149	
H	MS81-A		
J	MS81-B		
K	MS82-A		
L	MS82-B		
M	MS83-A		
N	MS83-B		
P			
R			
S			

1	2-15-N	138	
2	2-14-1	139	
3	2-14-2	140	
4	2-14-3	141	
5	2-14-4	142	
6	2-14-5	143	
7	MS78-A		
8	MS78-B		
9	MS79-A		
10	MS79-B		
11	MS80-A		
12	MS80-B		
13			
14			
15	1-16-15		P
	1-18-15		P

XA1-18			
A	2-15-11	132	
B	2-15-12	133	
C	2-15-A	134	
D	2-15-B	135	
E	2-15-D	136	
F	2-15-E	137	
H	MS66-A		
J	MS66-B		
K	MS67-A		
L	MS67-B		
M	MS69-A		
N	MS69-B		
P			
R			
S			

1	MS63-6	126	
	2-15-3		
2	MS63-5	127	
	2-15-4		
3	MS64-6	128	
	2-15-5		
4	MS64-5	129	
	2-15-8		
5	MS65-6	130	
	2-15-9		
6	MS65-5	131	
	2-15-10		
7	MS63-3		
8	MS63-1		
9	MS64-3		
10	MS64-1		
11	MS65-3		
12	MS65-1		
13			
14			
15	1-17-15		P

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-19			
A	2-21-L	27	
B	2-20-10	26	
C	2-20-5	28	
D	2-20-11	29	
E	MS62-6		
	2-15-1	124	
F	MS62-5		
	2-15-2	125	
H	MS12-B		
J	MS12-A		
K	MS16-B		
L	MS16-A		
M	MS62-3		
N	MS62-1		
P			
R			
S			

1	2-17-9	86	
2	2-17-10	87	
3	2-17-11	88	
4	2-17-12	89	
5	2-17-A	90	
6	2-17-B	91	
7	MS48-A		
8	MS48-B		
9	MS49-A		
10	MS49-B		
11	MS50-3		
12	MS50-1		
13			
14			
15	PTS-2-9		P
	1-20-15		P

XA1-20			
A	2-17-1	80	
B	MS45-6		
	2-17-2	81	
C	2-17-3	82	
D	2-17-4	83	
E	2-17-5	84	
F	2-17-8	85	
H	MS45-3		
J	MS45-1		
K	MS46-A		
L	MS46-B		
M	MS47-A		
N	MS47-B		
P			
R			
S			

1	2-18-E	74	
2	MS42-6		
	2-18-J	75	
3	2-18-K	76	
4	MS43-6		
	2-18-L	77	
5	2-18-M	78	
6	MS44-6		
	2-18-N	79	
7	MS42-3		
8	MS42-1		
9	MS43-3		
10	MS43-1		
11	MS44-3		
12	MS44-1		
13			
14			
15	1-19-15		P
	1-21-15		P

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-23			
A	2-20-1	19	1
B	2-20-2	20	2
C	2-20-3	21	3
D	2-20-4	22	4
E	MS17-6	23	5
	2-20-R		
F	MS17-5	24	6
	2-20-9		
H	MS14-A	7	MS10-A
J	MS14-B	8	MS10-B
K	MS15-A	9	MS11-A
L	MS15-B	10	MS11-B
M	MS17-3	11	MS13-A
N	MS17-1	12	MS13-B
P		13	
R		14	
S		15	1-22-15 P
			1-24-15 P

XA1-24			
A	MS5-6	7	1
	2-21-10		
B	MS5-5	8	2
	2-21-11		
C	2-21-12	9	3
D	2-21-A	10	4
E	2-21-B	11	5
F	2-21-C	12	6
H	MS5-3	7	MS1-3
J	MS5-1	8	MS1-1
K	MS6-A	9	MS2-A
L	MS6-B	10	MS2-B
M	MS9-A	11	MS3-A
N	MS9-B	12	MS3-B
P		13	
R		14	
S		15	1-23-15 P

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA1-21			
A	MS37-6	68	1
	2-18-9		
B	MS37-5	69	2
	2-18-10		
C	MS38-6	70	3
	2-18-11		
D	MS38-5	71	4
	2-18-12		
E	MS39-6	72	5
	2-18-A		
F	MS39-5	73	6
	2-18-B		
H	MS37-3	7	MS33-3
J	MS37-1	8	MS33-1
K	MS38-3	9	MS34-3
L	MS38-1	10	MS34-1
M	MS39-3	11	MS36-3
N	MS39-1	12	MS36-1
P		13	
R		14	
S		15	1-20-15 P
			1-22-15 P

XA1-22			
A	MS28-6	39	1
	2-20-W		
B	MS28-5	40	2
	2-19-1		
C	MS31-6	50	3
	2-19-J		
D	MS31-5	59	4
	2-19-K		
E	MS32-6	60	5
	2-19-L		
F	MS32-5	61	6
	2-19-M		
H	MS28-3	7	MS24-3
J	MS28-1	8	MS24-1
K	MS31-3	9	MS25-3
L	MS31-1	10	MS25-1
M	MS32-3	11	
N	MS32-1	12	
P		13	
R		14	
S		15	1-21-15 P
			1-23-15 P

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-1

A	MS42-9 P4-z	1	MS74-9 P9-FF	
B	MS42-8 P4-a	2	MS74-8 P9-GG	
C	MS43-9 P4-b	3	MS38-9 P4-R	
D	MS43-8 P4-c	4	MS38-8 P4-S	
E	MS44-9 P4-d	5	MS39-9 P4-T	
F		6		
H		7		
J	MS44-8 P4-e	8	MS39-8 P4-U	
K	MS45-9 P4-f	9	MS40-9 P4-V	
L	MS45-8 P4-g	10	MS40-8 P4-W	
M	MS52-9 P4-h	11	MS41-9 P4-X	
N	MS52-8 P4-i	12	MS41-8 P4-Y	
P		13	1-1-13 2-2-13	P P
R		14		
S		15		

XA2-2

A	MS58-8 P4-v	1	MS53-9 P4-j	
B	RS5-A0 P4-w	2	MS53-8 P4-k	
C	RS5-A1 P4-x	3		
D	RS5-A2 P4-y	4	MS54-9 P4-n	
E	RS5-A3 P4-z	5	MS54-8 P4-p	
F		6	RS15-B1 P2-H	
H		7	RS15-B2 P2-N	
J	RS5-A4 P4-AA	8	MS55-9 P4-q	
K	RS5-A5 P4-BB	9	MS55-8 P4-r	
L	RS5-A6 P4-CC	10	MS56-9 P4-s	
M	RS5-A7 P4-DD	11	MS56-8 P4-t	
N	RS5-A8 P4-EE	12	MS58-9 P4-u	
P		13	2-1-13	
R		14		
S		15		

XA2-3

A	RS10-A0 P6-B	1	RS5-A9 P4-FF	
B	RS10-A1 P6-C	2	RS6-A0 P4-GG	
C	RS10-A2 P6-D	3	RS6-A1 P4-HH	
D	RS10-A3 P6-E	4	RS6-A2 P4-JJ	
E	RS10-A4 P6-F	5	RS7-A0 P4-KK	
F	RS15-B3 P2-P	6		
H	RS15-B4 P2-R	7		
J	RS10-A5 P6-G	8	RS7-A1 P4-LL	
K	RS10-A6 P6-H	9	RS7-A2 P4-MM	
L	RS10-A7 P6-J	10	RS8-A0 P4-NN	
M	RS10-A8 P6-K	11	RS8-A2 P4-PP	
N	RS10-A9 P6-L	12	RS8-A1 P6-A	
P		13	PTS5-2 2-4-13	P P
R		14		
S		15		

XA2-4

A	MS70-9 P9-L	1	MS62-9 P9-A	
B	MS70-8 P9-M	2	MS62-8 P9-B	
C	MS71-9 P9-N	3	MS63-9 P9-C	
D	MS71-8 P9-P	4	MS63-8 P9-D	
E	MS72-9 P9-R	5	MS64-9 P9-E	
F		6		
H		7		
J	MS72-8 P9-S	8	MS64-8 P9-F	
K	MS73-9 P9-T	9	MS65-9 P9-G	
L	MS73-8 P9-U	10	MS65-8 P9-H	
M	MS90-9 P9-V	11	MS68-9 P9-J	
N	MS90-8 P9-W	12	MS68-8 P9-K	
P		13	2-3-13 2-5-13	P P
R		14		
S		15		

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-7	
A	
B	
C	
D	
E	
F	
H	
J	
K	
L	
M	
N	
P	
R	
S	

1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

XA2-8	
A	
B	
C	3-12-9 204 2-23-B
D	3-12-8 228 2-23-C
E	1-7-10 211 1-7-L 211
F	
H	
J	
K	2-13-J 232
L	J1-J 1-5-K 234
M	2-9-7 231
N	3-12-7 233 2-23-D
P	3-10-3 P 2-12-P P
R	3-10-11 P 2-12-R P
S	
	1 203
	2 210
	3 229
	4
	5
	6
	7
	8
	9
	10
	11
	12
	13 P
	14 P
	15 P
	PT62-10 P
	3-10-15 P

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-5	
A	RS18-A6 P9-h
B	RS18-A7 P9-i
C	RS18-A8 P9-j
D	RS18-A9 P9-k
E	RS19-A0 P9-m
F	RS16-A1 P2-Y
H	RS16-A2 P2-Z
J	RS19-A1 P9-n
K	RS19-A2 P9-p
L	RS20-A0 P9-q
M	RS20-A6 P9-r
N	RS20-A2 P9-EE
P	
R	
S	
	1 MS91-9 P9-X
	2 MS91-8 P9-Y
	3 MS92-9 P9-Z
	4 MS92-8 P9-a
	5 RS18-A0 P9-b
	6 RS16-A3 P2-a
	7 RS16-A4 P2-b
	8 RS18-A1 P9-c
	9 RS18-A2 P9-d
	10 RS18-A3 P9-e
	11 RS18-A4 P9-f
	12 RS18-A5 P9-g
	13 2-4-13 P
	14
	15

XA2-6	
A	
B	
C	
D	
E	
F	
H	
J	
K	
L	
M	
N	
P	
R	
S	
	1
	2
	3
	4
	5
	6
	7
	8
	9
	10
	11
	12
	13
	14
	15

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-9			
A		1	2-12-2 214
B	2-9-2 219	2	2-9-B 219
C	2-9-3 P 2-9-k P	3	PTS4-1 P 2-9-C P
D	1-7-F 208	4	
E		5	
F		6	
H		7	2-8-M 231
J	2-9-B 230	8	2-9-J 230
K	2-9-C P 2-9-9 P	9	2-9-K P 2-9-15 P
L	J1-K	10	
M		11	
N		12	
P		13	2-8-13 P 2-10-13 P
R		14	PTS3-2 P 2-10-14 P
S		15	2-9-9 P

XA2-10			
A		1	2-12-C 215
B	2-10-2 220	2	2-10-B 220
C	2-10-3 P 2-10-K P	3	PTS4-2 P 2-10-C P
D	1-7-7 213	4	
E		5	
F		6	
H		7	2-12-D 216
J	2-10-8 221	8	2-10-J 221
K	2-10-C P 2-10-9 P	9	2-10-K P 10-10-15 P
L	J1-F	10	
M		11	
N		12	
P		13	2-9-13 (P) 2-11-13 (P)
R		14	2-9-14 P 2-11-14 P
S		15	2-10-9 P

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-11			
A		1	2-12-M 217
B	2-11-2 222	2	2-11-B 222
C	2-11-3 P 2-11-K P	3	PTS4-3 P 2-11-C P
D	1-7-6 236	4	
E		5	
F		6	
H		7	2-12-N 218
J	2-11-8 223	8	2-11-J 223
K	2-11-C P 2-11-9 P	9	2-11-K P 2-11-15 P
L	1-7-H 237	10	
M		11	
N		12	
P		13	2-10-13 P 2-12-13 P
R		14	2-10-14 P
S		15	2-11-9 P

XA2-12			
A		1	
B		2	2-9-1 214
C	2-10-1 215	3	P9-KK 224 2-13-A 224
D	2-10-7 216	4	
E	P9-LL 225 2-13-B 225	5	P7-DD 226 2-13-C 226
F		6	
H		7	
J		8	
K	P7-EE 227 2-13-D 227	9	
L	P7-FF 212 2-13-E 212	10	
M	2-11-1 217	11	
N	2-11-7 218	12	
P	2-8-P P	13	2-11-3 P
R	2-8-R P 1-3-M	14	3-10-14 P
S		15	

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-15			
A	1-18-C 3-15-7	134	1
B	1-18-D 3-14-6	135	2
C	1-14-C 3-14-5	162	3
D	1-18-E 3-14-4	136	4
E	1-18-F 3-14-3	137	5
F	2-15-H	241	6
H	2-15-F 2-15-7	241	7
J	1-14-D 3-14-2	163	8
K	1-14-E MS71-6	164	9
L	1-14-F	165	10
M	1-13-1	166	11
N	1-17-1 3-14-12	138	12
P			13
R			14
S			15

XA2-16			
A	1-11-E 3-16-9	114	1
B	1-11-F 3-16-8	115	2
C	1-10-1 3-16-7	116	3
D	1-10-2 3-15-6	117	4
E	1-10-3 3-15-5	118	5
F	1-14-A 2-16-H	103	6
H	2-16-F 2-16-7	103	7
J	1-10-4 3-15-4	119	8
K	1-10-5 3-15-3	120	9
L	1-10-6 3-15-2	121	10
M	1-10-A 3-15-1	122	11
N	1-10-B 3-15-12	123	12
P			13
R			14
S			15

TABLE A4-20. CONTROL PANEL. CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-13			
A	2-12-3	224	1
B	2-12-E	225	2
C	2-12-5	226	3
D	2-12-K	227	4
E	2-12-L	212	5
F	PTS4-4 2-13-H	P	6
H	2-13-F	P	7
J	2-8-K P7-HH	232	8
K			9
L			10
M			11
N			12
P			13
R			14
S			15

XA2-14			
A	1-17-P 3-13-1	149	1
B	1-16-1 3-13-12	150	2
C	1-16-2 3-13-11	151	3
D	1-16-3 3-13-10	152	4
E	1-16-4 3-13-9	153	5
F	2-14-H XQ4-C	240	6
H	2-14-F 2-14-7	240	7
J	1-16-5 3-13-8	154	8
K	1-16-6 3-13-7	155	9
L	1-16-A 3-12-6	156	10
M	1-16-B 3-12-5	157	11
N	1-16-C 3-12-4	158	12
P			13
R			14
S			15

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-17			XA2-18								
A	1-19-5 3-17-8	90	1	1-20-A 3-18-2	80	A	1-21-E	72	1	1-21-2	63
B	1-19-6 3-17-4	91	2	1-20-B	81	B	1-21-F	73	2	1-21-3	64
C	1-15-F 3-17-3	95	3	1-20-C 3-18-1	82	C	1-15-D 3-19-7	93	3	1-21-4	65
D	1-14-1 3-17-2	96	4	1-20-D 3-18-12	83	D	1-15-E 3-18-6	94	4	1-15-C	92
E	1-14-2 3-17-1	97	5	1-20-E 3-18-11	84	E	1-20-1 3-18-5	74	5	1-21-5	66
F	2-17-H	238	6	2-17-7 XQ3-C	238	F	2-18-H	239	6	2-18-7 2-19-H	239
H	2-17-F 2-17-7	238	7	2-17-H 2-17-6	238	H	2-18-F 2-18-7	239	7	2-18-H 2-18-6	239
J	1-14-3 3-17-12	98	8	1-20-F 3-18-10	85	J	1-20-2	75	8	1-21-6	67
K	1-14-4 3-17-11	99	9	1-19-1 3-18-9	86	K	1-20-3 3-18-4	76	9	1-21-A	68
L	1-14-5 3-17-10	100	10	1-19-2 3-18-8	87	L	1-20-4	77	10	1-21-B	69
M	1-14-6 3-17-9	101	11	1-19-3 3-18-7	88	M	1-20-5 3-18-3	78	11	1-21-C	70
N	1-14-B 3-17-8	102	12	1-19-4 3-17-6	89	N	1-20-6	79	12	1-21-D	71
P			13			P			13		
R			14			R			14		
S			15			S			15		

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-19			XA2-20								
A	1-12-C 3-19-11	53	1	1-22-B	40	A	1-15-5 3-20-9	41	1	1-23-A 3-20-2	19
B	1-12-D 3-19-10	54	2	1-15-B	44	B	1-15-6	42	2	1-23-B 3-20-1	20
C	1-12-E 3-19-9	55	3	1-12-1 3-20-7	45	C	1-22-1	33	3	1-23-C 3-20-12	21
D	1-12-F 3-19-8	56	4	1-12-2 3-19-6	46	D	1-22-2	34	4	1-23-D 3-20-11	22
E			5	1-12-3 3-19-5	47	E	1-22-3	35	5	1-19-C 3-20-10	28
F	1-15-3 2-19-6	57	6	2-19-F 2-19-7	57	F	2-20-H XQ1-C	57	6	1-15-4 2-20-7	30
H	2-18-6 XQ3-C	239	7	2-19-6 2-20-H	57	H	2-19-7 2-20-F	57	7	2-20-6 2-21-H	30
J	1-22-C	58	8	1-12-4 3-19-4	48	J	1-22-4	36	8	1-23-E	23
K	1-22-D	59	9	1-12-5 3-19-3	49	K	1-15-A 3-20-8	43	9	1-23-F	24
L	1-22-E	60	10	1-12-6 3-19-2	50	L			10	1-19-B 3-15-11	26
M	1-22-F	61	11	1-12-A 3-19-1	51	M	1-15-D 3-14-1	93	11	1-19-D 3-15-10	29
N	1-21-1	62	12	1-12-B 3-19-12	52	N	1-22-A	39	12		
P			13			P			13		
R			14			R			14		
S			15			S			15		

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-21			XA2-22							
A	1-24-D	10	1	1-24-1	1	A		1	1-9-A	31
	3-21-12									
B	1-24-E	11	2	1-24-2	2	B		2	1-9-B	32
	3-21-11									
C	1-24-F	12	3	1-24-3	3	C		3		
	3-21-10			3-21-6						
D	1-23-1	13	4	1-24-4	4	D		4		
	3-21-9			3-21-5						
E	1-23-2	14	5	1-24-5	5	E		5		
	3-21-8			3-21-4						
F	2-21-H	30	6	2-21-F	30	F		6	2-21-7	30
	2-21-6			2-21-7					XQ2-C	
H	2-20-7	30	7	2-21-6	30	H		7		
	2-21-F			2-22-6						
J	1-23-3	15	8	1-24-6	6	J		8		
	3-21-7			3-21-3						
K	1-23-4	16	9	1-15-1	25	K		9		
	3-20-6			3-21-2						
L	1-19-A	27	10	1-24-A	7	L		10		
	3-20-5									
M	1-23-5	17	11	1-24-B	8	M		11		
	3-20-4									
N	1-23-6	18	12	1-24-C	9	N		12		
	3-20-3			3-21-1						
P			13			P		13		
R			14			R		14		
S			15			S		15		

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA2-23			XA2-24								
A	2-8-2		1	3-23-10	195	A	3-24-8	181	1	3-24-6	179
				J2-K			J2-K			J2-A	
B	2-8-C		2	3-23-9	194	B	3-24-7	180	2	3-24-5	178
				J2-Y			J2-L			J2-B	
C	2-8-D		3	3-23-8	193	C	3-23-6	191	3	3-24-4	177
				J2-Z			J2-M			J2-C	
D	2-8-N		4	3-23-7	192	D	3-23-5	190	4	3-24-3	176
				J2-a			J2-N			J2-D	
E			5	3-22-6	202	E	3-23-4	189	5	3-24-2	175
				J2-b			J2-P			J2-E	
F			6			F			6		
H			7			H			7		
J			8	3-22-5	201	J	3-23-3	188	8	3-24-1	174
				J2-c			J2-R			J2-F	
K			9	3-22-4	200	K	3-23-2	187	9	3-24-12	185
				J2-d			J2-S			J2-G	
L			10	3-22-3	199	L	3-23-1	186	10	3-24-11	184
				J2-e			J2-T			J2-H	
M			11	3-22-2	198	M	3-23-12	197	11	3-24-10	183
				J2-f			J2-V			J2-U	
N			12			N	3-23-11	196	12	3-24-9	182
							J2-W			J2-J	
P			13			P			13		
R			14	PTS1-15	P	R			14	2-23-14	P
				2-24-14	P						
S			15			S			15		

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-1		XA3-2	
A	RS1-A0 P7-i	1	MS1-9 P7-A
B	RS1-A1 P7-j	2	MS1-8 P7-B
C	RS1-A2 P7-k	3	MS5-9 P7-C
D	RS1-A3 P7-m	4	MS5-8 P7-D
E	RS1-A4 P7-n	5	MS17-9 P7-E
F	RS2-A3 P12-c	6	RS21-A2 P12-b
H	RS21-A1 P12-a	7	
J	RS1-A5 P7-p	8	MS17-8 P7-F
K	RS1-A6 P7-q	9	MS18-9 P7-G
L	RS1-A7 P7-r	10	MS18-8 P7-H
M	RS1-A8 P7-s	11	MS19-9 P7-J
N	RS1-A9 P7-t	12	MS19-8 P7-K
P		13	PTS5-3 3-2-13
R		14	
S		15	

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-3		XA3-4	
A	TS5-3 P11-e	1	MS7-8 P7-AA
B	TS6-1 P11-f	2	TS1-1 P11-v
C	TS6-3 P11-g	3	TS1-3 P11-w
D	TS7-1 P11-h	4	TS2-1 P11-x
E	TS7-3 P11-i	5	TS2-3 P11-y
F	RS21-B1 P12-y	6	
H		7	
J	TS8-1 P11-j	8	TS3-1 P11-z
K	TS8-3 P11-k	9	TS3-3 P11-a
L		10	TS4-1 P11-b
M		11	TS4-3 P11-c
N	RS3-A1 P11-n	12	TS5-1 P11-d
P		13	3-2-13 3-4-13
R		14	
S	RS21-B3 P12-j	15	

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-5		XA3-6	
A	MS32-9 P4-C	1	RS4-B2 P11-KK
B	MS32-8 P4-D	2	RS4-B3 P11-LL
C	MS33-9 P4-E	3	RS4-B4 P11-MM
D	MS33-8 P4-F	4	MS30-8 P11-NN
E	MS34-9 P4-G	5	MS30-9 P11-PP
F		6	
H		7	
J	MS34-8 P4-H	8	
K	MS35-9 P4-J	9	
L	MS35-8 P4-K	10	
M	MS36-9 P4-L	11	MS31-9 P4-A
N	MS36-8 P4-M	12	MS31-8 P4-B
P		13	3-4-13
R		14	
S		15	

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-7		XA3-8	
A		1	
B		2	
C		3	
D		4	
E		5	
F		6	
H		7	
J		8	
K		9	
L		10	
M		11	
N		12	
P		13	
R		14	
S		15	

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-9		XA3-10	
A		1	
B		2	
C		3	2-8-P P
D		4	3-10-4 P
E		5	3-10-3 P
F		6	3-10-5 P
H		7	3-10-4 P
J		8	3-10-6 P
K		9	3-10-5 P
L		10	3-10-11
M		11	2-8-R P
N		12	3-10-10
P		13	PTS1-16 P
R		14	3-12-13 P
S		15	PTS3-3 P
			2-12-14 P
			2-8-15 P
			3-12-15 P

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-11		XA3-12	
A		1	2-13-3 161
B		2	2-13-2 160
C		3	2-13-1 159
D		4	2-14-N 158
E		5	2-14-M 157
F		6	2-14-L 156
H		7	2-8-N 233
J		8	2-8-D 228
K		9	2-8-C 204
L		10	2-8-2 203
M		11	
N		12	
P		13	3-10-13 P
R		14	3-13-13 P
S		15	3-10-15 P
			3-13-15 P

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-13			
A	P10-x	1	2-14-A 149
B	P10-y	2	2-14-12 148
C	P10-z	3	2-14-11 147
D	P10-AA	4	2-14-10 146
E	P10-BB	5	2-14-9 145
F	P10-CC	6	2-14-8 144
H	P10-DD	7	2-14-K 155
J	P10-EE	8	2-14-J 154
K	P10-FF	9	2-14-E 153
L	P10-GG	10	2-14-D 152
M	P10-HH	11	2-14-C 151
N	P10-JJ	12	2-14-B 150
P		13	3-12-13 P 3-14-13 P
R	3-12-R P 3-14-R P	14	
S		15	3-12-15 P

XA3-14			
A	P10-j	1	2-20-M 93
B	P10-k	2	2-15-J 163
C	P10-m	3	2-15-E 137
D	P10-n	4	2-15-D 136
E	P10-p	5	2-15-C 162
F	P10-q P12-D	6	2-15-B 153
H	P10-r	7	2-14-5 143
J	P10-s	8	2-14-4 142
K	P10-t	9	2-14-3 141
L	P10-u	10	2-14-2 140
M	P10-v	11	2-14-1 139
N	P10-w	12	2-15-N 138
P		13	3-13-13 P 3-15-13 P
R	3-13-R P 3-15-R P	14	
S		15	PTS2-11 P 3-15-15 P

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-15			
A	P6-BB	1	2-16-M 122
B	P6-CC	2	2-16-L 121
C	P6-DD	3	2-16-K 120
D	P6-EE	4	2-16-J 119
E	P6-FF	5	2-16-E 118
F	P6-GG	6	2-16-D 117
H	P6-HH	7	2-15-A 134
J	P7-x	8	2-15-12 133
K	P7-y	9	2-15-11 132
L	P10-g	10	2-20-11 29
M	P10-h	11	2-20-10 26
N	P10-i	12	2-16-N 123
P		13	3-14-13 P 3-16-13 P
R	3-14-R P	14	
S		15	3-14-15 P 3-16-15 P

XA3-16			
A	P6-p	1	2-16-9 110
B	P6-q	2	2-16-8 109
C	P6-r	3	2-16-5 108
D	P6-s	4	2-16-4 107
E	P6-t	5	2-16-3 106
F	P6-u	6	2-16-2 105
H	P6-v	7	2-16-C 116
J	P6-w	8	2-16-B 115
K	P6-x	9	2-16-A 114
L	P6-y	10	2-16-12 113
M	P6-z	11	2-16-11 112
N	P6-AA	12	2-16-10 111
P		13	3-15-13 P 3-17-13 P
R	PTS5-5 P 3-17-R P	14	
S		15	3-15-15 P 3-17-15 P

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-17		XA3-18	
A	P6-b	1	2-17-E 97
B	P6-c	2	2-17-D 96
C	P6-d	3	2-17-C 95
D	P6-e	4	2-17-B 91
E	P6-f	5	2-17-A 90
F	P6-g	6	2-17-12 89
H	P6-h	7	2-16-1 104
J	P6-i	8	2-17-N 102
K	P6-j	9	2-17-M 101
L	P6-k	10	2-17-L 100
M	P6-m	11	2-17-K 99
N	P6-n	12	2-17-J 98
P		13	3-16-13 P
R	3-16-R P 3-18-R P	14	
S		15	3-16-15 P
A	P6-N	1	2-17-3 82
B	P6-P	2	2-17-1 80
C	P6-R	3	2-18-M 78
D	P6-S	4	2-18-K 76
E	P6-T	5	2-18-E 74
F	P6-U	6	2-18-D 94
H	P6-V	7	2-17-11 88
J	P6-W	8	2-17-10 87
K	P6-X	9	2-17-9 86
L	P6-Y	10	2-17-8 85
M	P6-Z	11	2-17-5 84
N	P6-a	12	2-17-4 83
P		13	PTS1-17 P 3-19-13 P
R	3-17-R P	14	
S		15	PTS2-12 P 3-19-15 P

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

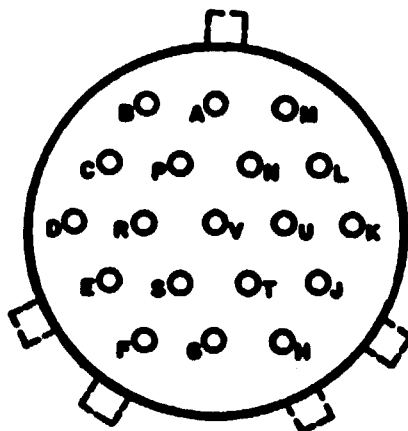
XA3-19		XA3-20	
A	P12-G	1	2-19-11 51
B	P12-H	2	2-19-10 50
C	P12-J	3	2-19-9 49
D	P12-K	4	2-19-8 48
E	P12-L	5	2-19-5 47
F	P12-M	6	2-19-4 46
H	P12-N	7	SOUND ALARM ⊕
J	P12-P	8	2-19-D 56
K	P12-R	9	2-19-C 55
L	P12-S	10	2-19-B 54
M	P12-T	11	2-19-A 53
N	P6-M	12	2-19-12 52
P		13	3-18-13 P 3-20-13 P
R	PTS5-6 P 3-20-R P	14	
S		15	3-18-15 P 3-10-15 P
A	P7-Z	1	2-20-2 20
B	P7-a	2	2-20-1 19
C	P7-b	3	2-21-N 18
D	P7-c	4	2-21-M 17
E	P7-d	5	2-21-L 27
F	P7-e	6	2-21-K 16
H	P7-f	7	2-19-3 45
J	P7-g	8	2-20-K 43
K	P7-h	9	2-20-A 41
L	P6NN	10	2-20-5 28
M	P12-E	11	2-20-4 22
N	P12-F	12	2-20-3 21
P		13	3-19-13 P 3-21-13 P
R	3-19-R P 3-21-R P	14	
S		15	3-19-15 P 3-21-15 P

TABLE A4-20. CONTROL PANEL, CIRCUIT CARD TO WIRING DATA, CROSS REFERENCE (cont)

XA3-21			XA3-22								
A	P7-L		1	2-21-12	9	A	P10-b		1		
B	P7-M		2	2-21-9	25	B	P10-c		2	2-23-11	198
C	P7-N		3	2-21-8	6	C	P10-d		3	2-23-10	199
D	P7-P		4	2-21-5	5	D	P10-e		4	2-23-9	200
E	P7-R		5	2-21-4	4	E	P10-f		5	2-23-8	201
F	P7-S		6	2-21-3	3	F			6	2-23-5	202
H	P7-T		7	2-21-J	15	H			7		
J	P7-U		8	2-21-E	14	J			8		
K	P7-V		9	2-21-D	13	K			9		
L	P7-W		10	2-21-C	12	L			10		
M	P7-X		11	2-21-B	11	M			11		
N	P7-Y		12	2-21-A	10	N			12		
P			13	3-20-13	P	P			13	3-21-13	P
R	3-20-R	P		3-22-13	P	R	PT85-7	P		3-23-13	P
S			14				3-23-R	P	14		
			15	3-20-15	P	S			15	PT82-13	P
										3-23-15	P

TABLE A4-21. CONTROL PANEL, CONNECTOR WIRING DATA

ELECTRICAL CONNECTOR J1
800200-RC10PM

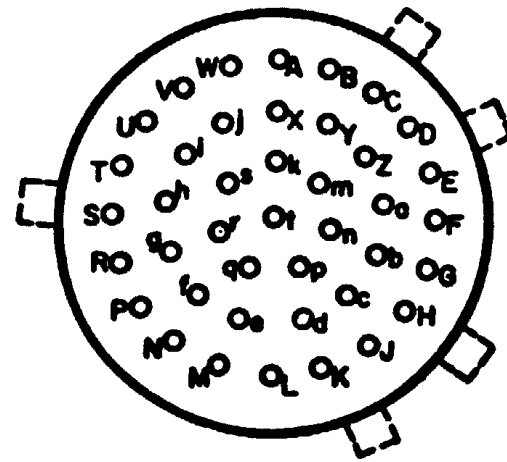


TERMINATIONS

- A 1-7-0
- B 1-7-0
- C 1-7-0
- D 1-7-K
- E 1-6-7
- F 3-10-L
- G 1-7-1
- H 1-7-L
- J 3-6-L
- K 3-9-L
- L PT82-10
- M PT82-20

TABLE A4-21. CONTROL PANEL, CONNECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR P2
800200-PC415W

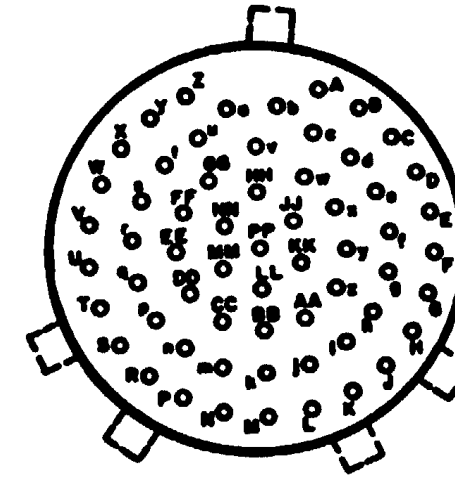


TERMINATIONS

B	1-1-H
C	1-1-J
D	1-1-6
E	1-1-7
M	2-2-6
N	2-2-7
P	2-3-F
R	2-3-H
Y	2-5-F
Z	2-5-H
a	2-5-6
b	2-5-7
i	3-4-F
j	3-4-H
k	3-4-M
m	3-4-6

TABLE A4-21. CONTROL PANEL, CONNECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR P3
800200-PC615N

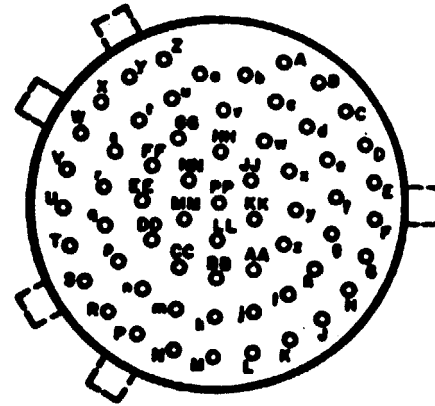


TERMINATIONS

A	RS0-A0	X	RS0-B0	s	RS14-B6
B	RS0-A1	Y	RS0-BW	t	RS14-B7
C	RS0-A2	Z	RS14-A0	u	RS14-B8
D	RS0-A3	a	RS14-A1	v	RS14-B9
E	RS0-A4	b	RS14-A2	w	RS11-BW
F	RS0-A5	c	RS14-A3	x	RS12-AW
G	RS0-A6	d	RS14-A4	y	RS12-BW
H	RS0-A7	e	RS14-A5	z	RS13-AW
J	RS0-A8	f	RS14-A6	AA	RS13-BW
K	RS0-A9	g	RS14-A7	BB	RS14-AW
L	RS0-AW	h	RS14-A8	CC	RS14-BW
M	RS0-B0	i	RS14-A9	DD	PB-1A
N	RS0-B1	j	RS11-AW	EE	PB-2A
P	RS0-B2	k	RS14-B0	FF	PB-3A
R	RS0-B3	m	RS14-B1	GG	PB-4A
S	RS0-B4	n	RS14-B2	HH	PB-5A
T	RS0-B5	p	RS14-B3	JJ	PB-6A
U	RS0-B6	q	RS14-B4	KK	PB-7A
V	RS0-B7	r	RS14-B5	LL	PB-8A
W	RS0-B8				

TABLE M-21. CONTIOL PANEL, C NECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR P6
600200-PC615Y

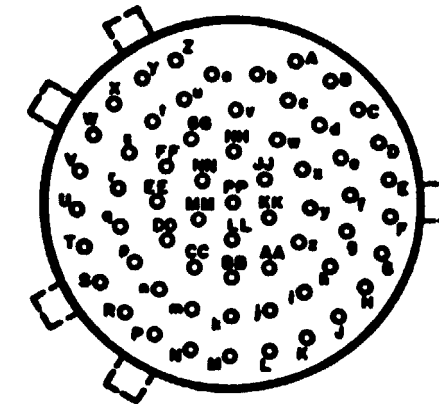


TERMINATIONS

A 2-3-12	X 3-16-K	t 3-16-E
B 2-3-A	Y 3-16-L	u 3-16-F
C 2-3-B	Z 3-16-M	v 3-16-H
D 2-3-C	a 3-16-N	w 3-16-J
E 2-3-D	b 3-17-A	x 3-16-K
F 2-3-E	c 3-17-B	y 3-16-L
G 2-3-J	d 3-17-C	z 3-16-M
H 2-3-K	e 3-17-D	AA 3-16-N
J 2-3-L	f 3-17-E	BB 3-15-A
K 2-3-M	g 3-17-F	CC 3-15-B
L 2-3-N	h 3-17-H	DD 3-15-C
M 3-16-N	i 3-17-J	EE 3-15-D
N 3-16-A	j 3-17-K	FF 3-15-E
P 3-16-B	k 3-17-L	GG 3-15-F
R 3-16-C	m 3-17-M	HH 3-15-H
S 3-16-D	n 3-17-N	JJ 1-1-A
T 3-16-E	p 3-16-A	KK 1-1-B
U 3-16-F	q 3-16-B	LL 1-1-C
V 3-16-H	r 3-16-C	MM 1-1-D
W 3-16-J	s 3-16-D	NN 3-20-L

TABLE A4-31. CONTROL PANEL, CONNECTOR WIRING DATA (cont)

ELECTRICAL CONNECTOR P7
600200-PC618Z

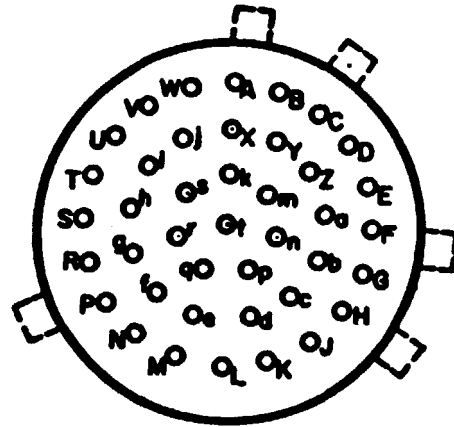


TERMINATIONS

A 3-1-1	W 3-21-L	r 3-1-L
B 3-1-2	X 3-21-M	s 3-1-M
C 3-1-3	Y 3-21-N	t 3-1-N
D 3-1-4	Z 3-20-A	u 3-2-1
E 3-1-5	a 3-20-B	v 3-2-2
F 3-1-8	b 3-20-C	w 3-2-3
G 3-1-9	c 3-20-D	x 3-15-J
H 3-1-10	d 3-20-E	y 3-15-K
J 3-1-11	e 3-20-F	z 3-2-N
K 3-1-12	f 3-20-H	AA 3-3-1
L 3-21-A	g 3-20-J	BB 3-12-K
M 3-21-B	h 3-20-K	CC 3-12-L
N 3-21-C	i 3-1-A	DD 2-12-5
P 3-21-D	j 3-1-B	EE 2-12-K
R 3-21-E	k 3-1-C	FF 2-12-L
S 3-21-F	m 3-1-D	GG 3-12-N
T 3-21-H	n 3-1-E	HH 3-13-J
U 3-21-J	p 3-1-J	JJ 3-2-8
V 3-21-K	q 3-1-K	KK 3-2-9

TABLE M-AI. CONTROL PANEL, CONNECTOR WIRING DATA (coat)

ELECTRICAL CONNECTOR P8
600200-PC415X

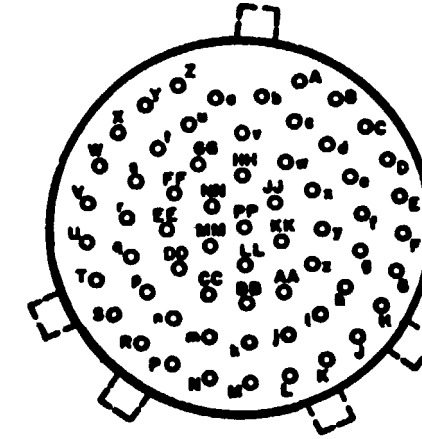


TERMINATIONS

V	RS23-A0
W	RS23-A1
X	RS23-A2
Y	RS23-A3
Z	RS23-A4
a	RS23-A5
b	RS23-A6
c	RS23-A7
d	RS23-A8
e	RS23-A9
f	RS23-AW
g	RS23-B0
h	RS23-B1
i	RS23-B2
j	RS23-B3
k	RS23-B4
m	RS23-B5
n	RS23-B6
p	RS23-B7
q	RS23-B8
r	RS23-B9
s	RS23-BW

TABLE A4-31. CONTROL PANEL, CONNECTOR WIRING DATA (cant)

ELECTRICAL CONNECTOR P9
600200-PC615N

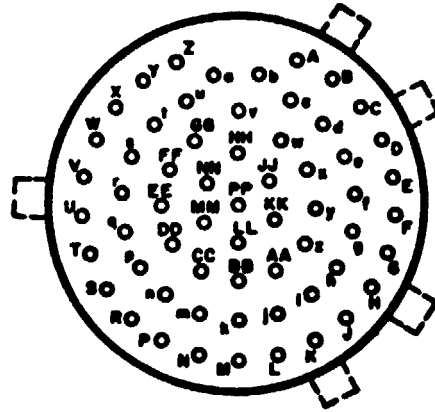


TERMINATIONS

A	2-4-1	X	2-5-1	t	1-1-3
B	2-4-2	Y	2-5-2	u	1-1-3
C	2-4-3	Z	2-5-3	v	1-1-4
D	2-4-4	a	2-5-4	w	1-1-5
E	2-4-5	b	2-5-5	x	1-1-6
F	2-4-6	c	2-5-6	y	1-1-9
G	2-4-9	d	2-5-9	z	1-1-10
H	2-4-10	e	2-5-10	AA	1-1-11
J	2-4-11	f	2-5-11	BB	3-12-F
K	2-4-12	g	2-5-12	CC	3-12-H
L	2-4-A	h	2-5-A	DD	3-12-J
M	2-4-B	i	2-5-B	EE	2-5-N
N	2-4-C	j	2-5-C	FF	2-1-1
P	2-4-D	k	2-5-D	GG	2-1-2
R	2-4-E	m	2-5-E	HH	1-1-E
S	2-4-J	n	2-5-J	JJ	1-1-12
T	2-4-K	p	2-5-K	KK	2-12-3
U	2-4-L	q	2-5-L	LL	2-12-E
V	2-4-M	r	2-5-M	MM	3-12-M
W	2-4-N	s	1-1-1		

TABLE A4-21. CONTROL PANE, CONNECTOR WIRING DATA (coat)

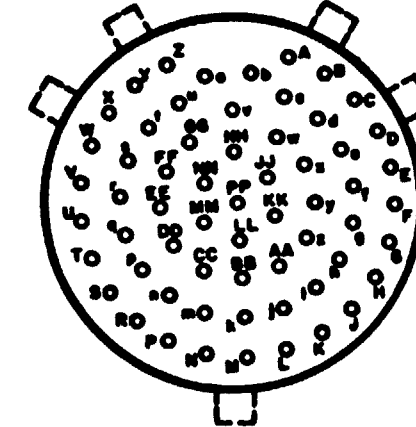
ELECTRICAL CONNECTOR P10
600200-PC61SW



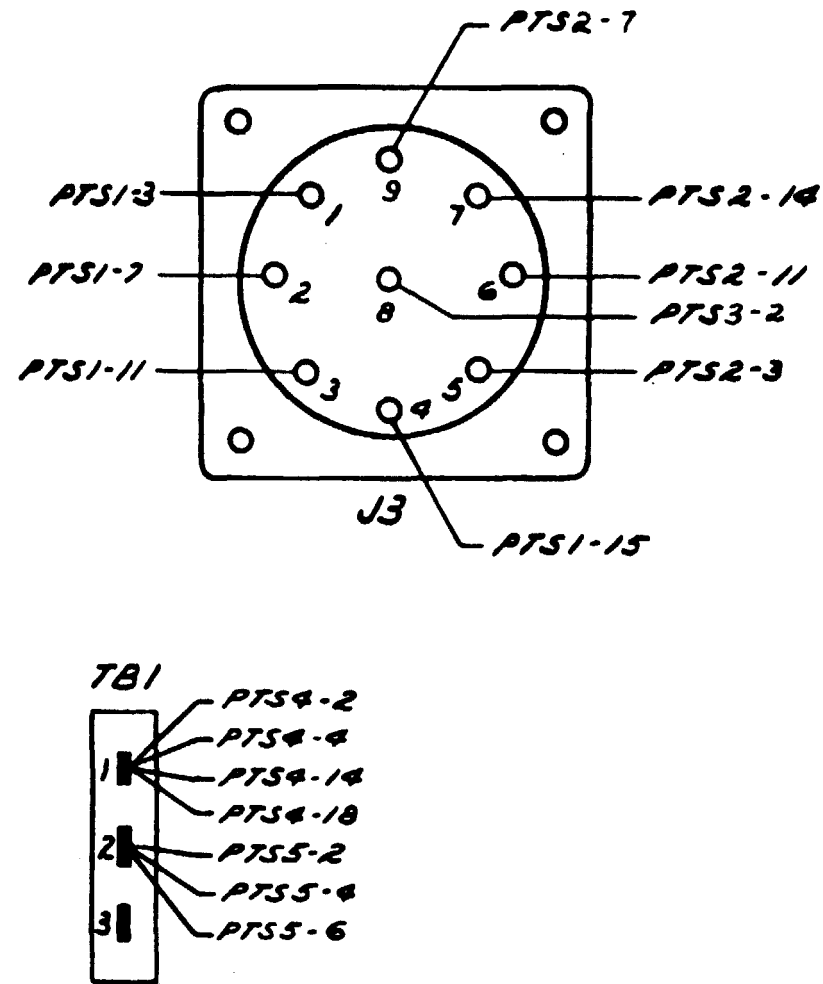
TERMINATIONS			
A	3-24-A	X	3-23-K
B	3-24-B	Y	3-23-L
C	3-24-C	Z	3-23-M
D	3-24-D	a	3-23-N
E	3-24-E	b	3-22-A
F	3-24-F	c	3-22-B
G	3-24-H	d	3-22-C
H	3-24-J	e	3-22-D
J	3-24-K	f	3-22-E
K	3-24-L	g	3-15-L
L	3-24-M	h	3-15-M
M	3-24-N	i	3-15-N
N	3-23-A	j	3-14-A
P	3-23-B	k	3-14-B
R	3-23-C	m	3-14-C
S	3-23-D	n	3-14-D
T	3-23-E	p	3-14-E
U	3-23-F	r	3-14-H
V	3-23-H	s	3-14-J
W	3-23-J	t	3-14-K
		u	3-14-L
		v	3-14-M
		w	3-14-N
		x	3-13-A
		y	3-13-B
		z	3-13-C
		AA	3-13-D
		BB	3-13-E
		CC	3-13-F
		DD	3-13-H
		EE	3-13-J
		FF	3-13-K
		GG	3-13-L
		HH	3-13-M
		JJ	3-13-N
		KK	3-12-A
		LL	3-12-B
		MM	3-12-C
		NN	3-12-D
		PP	3-12-E

TABLE A4-21. CONTROL PANEL, CONNECTOR WIRING DATA (coat)

ELECTRICAL CONNECTOR P11
600200-PC61SX



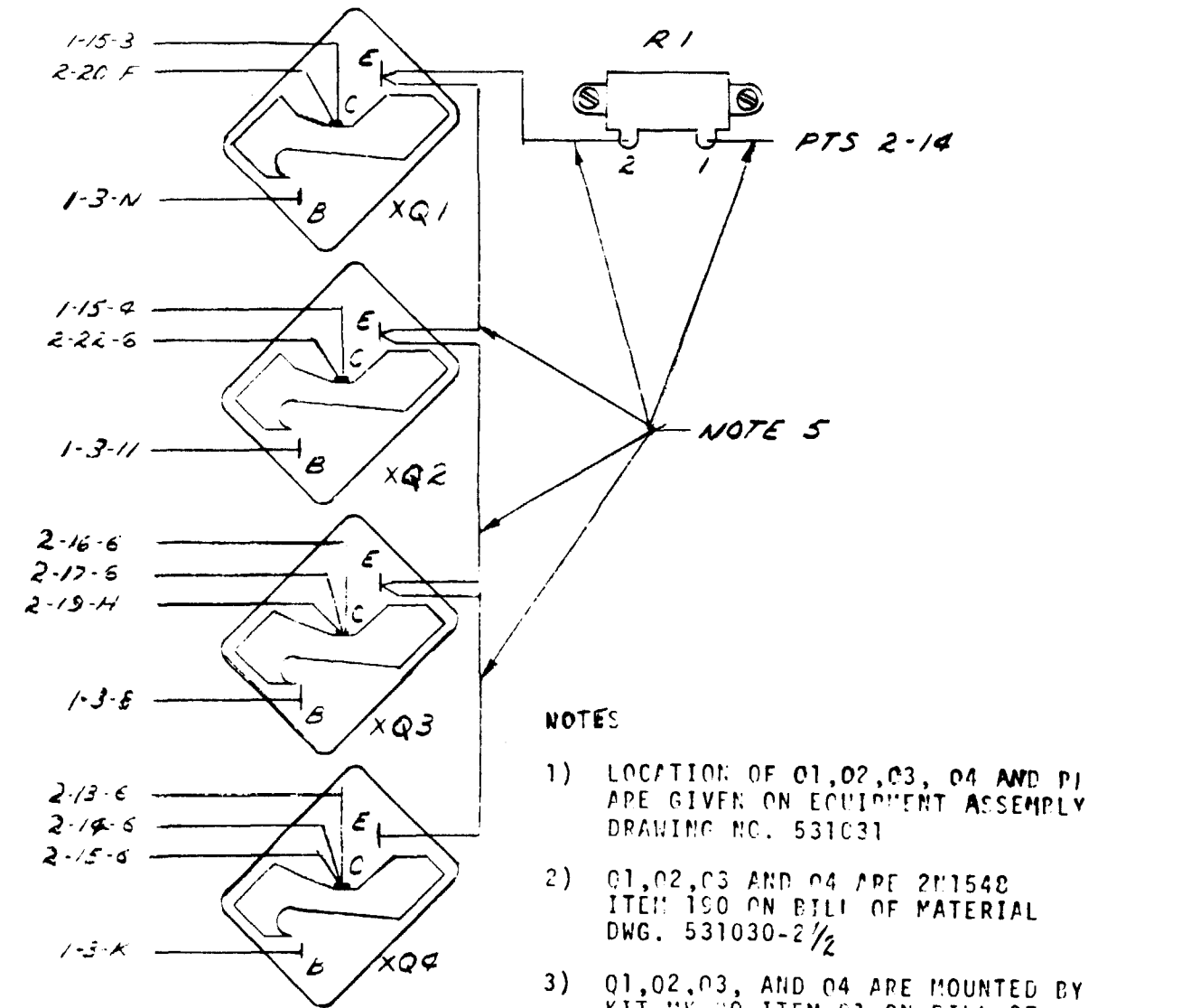
TERMINATIONS			
A	3-2-4	V	3-3-2
B	3-2-5	W	3-3-3
E	3-2-10	X	3-3-4
F	3-2-11	Y	3-3-5
G	3-2-12	Z	3-3-8
H	3-2-A	a	3-3-9
J	3-2-B	b	3-3-10
K	3-2-C	c	3-3-11
L	3-2-D	d	3-3-12
M	3-2-E	e	3-3-A
N	3-2-J	f	3-3-B
P	3-2-K	g	3-3-C
R	3-2-L	h	3-3-D
S	3-2-M	i	3-3-E
T	3-2-F	j	3-3-J
U	3-2-H	k	3-3-K
		n	3-3-N
		p	3-4-1
		q	3-4-2
		r	3-4-3
		y	3-4-12
		s	3-4-A
		AA	3-4-B
		BB	3-4-C
		JJ	3-4-N
		KK	3-5-1
		LL	3-5-2
		MM	3-5-3
		NN	3-5-4
		PP	3-5-5



NOTES:

1. CONNECTOR J3 IS ITEM # 61 ON BILL OF MATERIAL DWG. 531030.
2. TERMINAL STRIP TB1 IS ITEM 94 ON BOM DWG. 531030.
3. LOCATION OF J3 IS SHOWN ON ASSEMBLY DWG. 531031.
4. WIRING OF J3 SHALL BE DONE WITH #18 AWG STRANDED WIRE ITEM #227 ON BILL OF MATERIAL DWG. 531030.

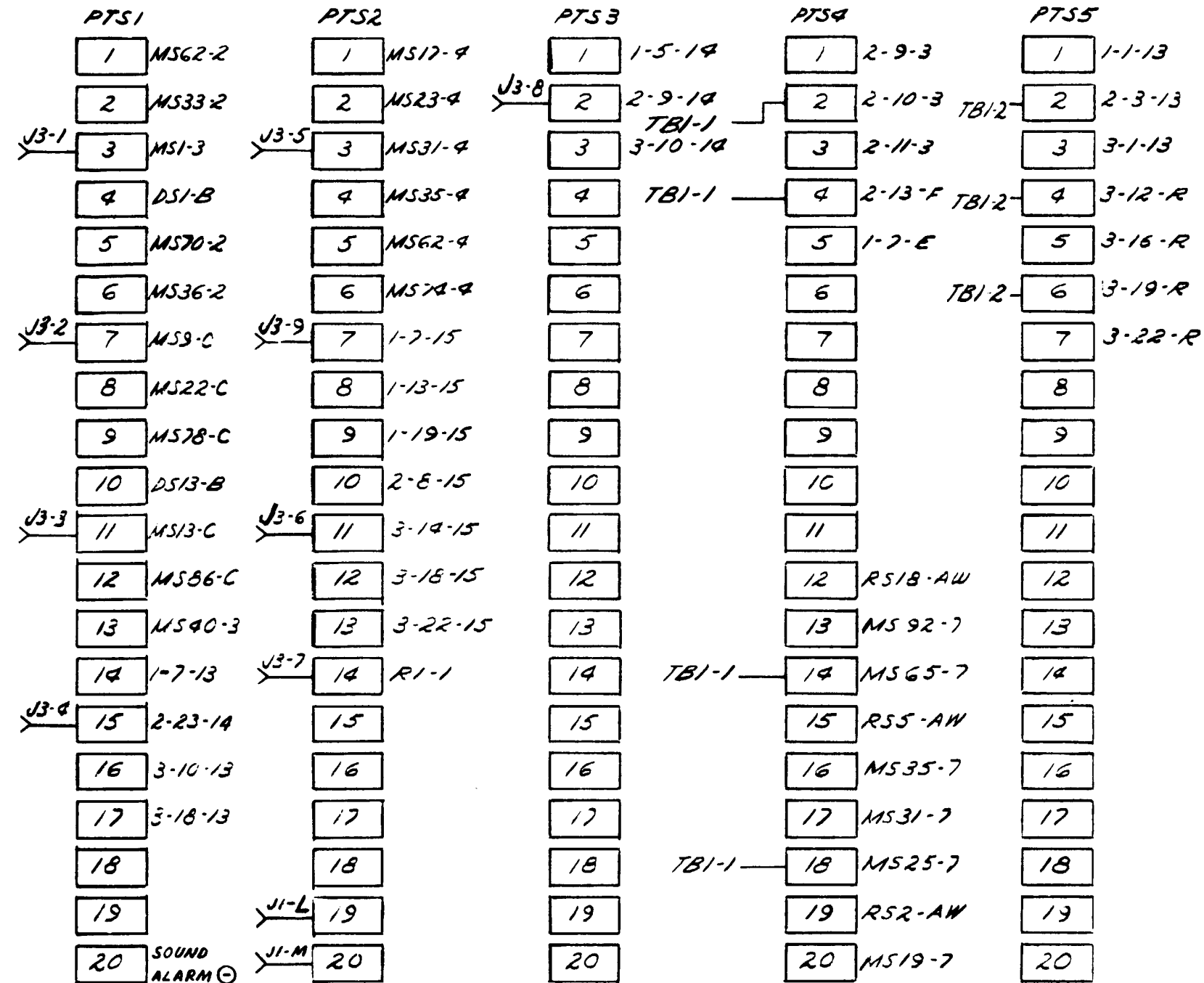
Figure A4-2. Control panel, connector J3 and terminal board TB1, wiring diagram



NOTES

- 1) LOCATION OF Q1, Q2, Q3, Q4 AND R1 ARE GIVEN ON EQUIPMENT ASSEMBLY DRAWING NO. 531031
- 2) Q1, Q2, Q3 AND Q4 ARE 2N1548 ITEM 190 ON BILL OF MATERIAL DWG. 531030-2 1/2
- 3) Q1, Q2, Q3, AND Q4 ARE MOUNTED BY KIT MK 20 ITEM 81 ON BILL OF MATERIAL DWG. 531030-21/2
- 4) R1 IS 10HM 15 WATTS ITEM #92 ON BILL OF MATERIAL DWG 531030-21/2
- 5) THESE WIRES SHALL BE 18 AWG STRANDED WHITE WIRE ITEM 227 ON BILL OF MATERIAL DWG 531030-21/2 ALL OTHER WIRING SHALL BE 20 AWG STRANDED WHITE WIRE ITEM 230 ON BILL OF MATERIAL DWG 531030-21/2

Figure A4-3. Control panel, transistors Q1 through Q4 and resistor R1, wiring diagram



NOTES:
 1- WIRING TO J3, TBI & R1 SHALL BE DONE WITH 18 AWG STRANDED ITEM 227 ON BOM DWG 531030
 2- ALL OTHER WIRING SHALL BE DONE AS SPECIFIED ON DWGS 532211, 532212, 532215.

Figure A4-4. Control panel, PTS 1 through PTS 5, wiring diagram

APPENDIX V
SIGNAL GLOSSARY

A5-1. The signal glossary provides a listing of all signal mnemonics for use signal tracing or trouble shooting. Tile signal mnemonics are divided into groups by logic drawing. The following information is also provided.

- a. Definition of the signal mnemonic.
- b. Identifying number for tile generating gate.
- c. Gate location.
- d. The pin number at which the grate is generated.

A5-2. The gate identifying number is interpreted as follows:

- a. Tile first numerical characters represent the sheet number on which the signal is originated. The next alphabetical character represents one grid coordinate; tie next numerical character, the other grid coordinate. Tile final alphabetical character

(if present) distinguishes between gates located at the same coordinates.

- b. *For example:* Gate identifying number 16B7B refers to a logic symbol located on sheet 16 at coordinates B and 7. Since there is more than one gate at tile location, the particular gate is designated "B."

A5-3. The gate location indicates the physical location of tile logic card and is interpreted as follows:

- a. Refer to the proper sheet of tile logic diagram for tile particular logic function.
- b. Note tile prefix reference designation. This will indicate tile cabinet in which tile card is located.
- c. The last two digits of the card location entry refer to the actual column where the card is located.
- d. The remainder of the designation indicate the row in which tile card is located.

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-9)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
ACK 1	ACKNOWLEDGE-MENT 1	2B3B	A906	7	CON	CONTROL	8D4B	A308	6
ACK 1A	SINGLE ACK 1	3C5A	A206	H	CON	CONTROL	8D4B	A308	7
ACK 1D	ACK 1 DISPLAY		A1102	P	CONA	CONTROL A	8B7B	A304	7
ACK 2	ACKNOWLEDGE-MENT 2	2B2A	A906	H	CONA	CONTROL A	8B7A	A708	7
ACK 2A	SINGLE ACK 2	3C5C	A205	4	CONTROL D	CONTROL DISPLAY	D3A	A1103	D
ACK 2D	ACK 2 DISPLAY	A2	A1102	L	CP1	CLOCK PULSE 1	7A9	A405	10
AM 5I	ITA2 STOP CHAR.	2A5A	A702	6	CP1	CLOCK PULSE 1	7B9	A808	3
ASC II	ASCII	9B7	A708	4	CP2	CLOCK PULSE 2	7AA	A405	L
ASM1	ASCII MODE 1	9D7A	A1105	7	CP2	CLOCK PULSE 2	7BA	A805	3
ASM1	ASCII MODE 1	9C7A	A1105	10	CP3	CLOCK PULSE 3	7AB	A405	7
ASM1-CRR	ASM1 OR CHARACTER READER RESET	8E4B	A207	4	CP4	CLOCK PULSE 4	7AC	A405	H
ASM5	ASCII MODE 5	9D7B	A1105	H	CP5	CLOCK PULSE 5	7A7A	A706	H
BPC	BLOCK PARITY CHARACTER	8A5	A505	4	CP6	CLOCK PULSE 6	7A7B	A804	P
C	SOMS CHARACTER MODE 5	8D5C	A301	P	CP7	CLOCK PULSE 7	7A7C	A804	13
C	SOMS CHARACTER MODE 5	8D5D	A301	L	CP7	CLOCK PULSE 7	7B7C	A805	H
CAN	CANCEL	2B2C	A803	L	CP8	CLOCK PULSE 8	7B6	A806	C
CANA	SINGLE CANCEL	3C7B	A205	10	CPM5I	CLOCK PULSE, MODE 5, ITA2	7B2	A907	D
CAND	CANCEL DISPLAY		A1101	P	CRR	CONTROL CHARACTER RESET	9B4	A802	H
CC	CONTROL CHARACTER	4C2B	A507	L	CZC	SOMS MODE 5	6B4B	A207	L
CC	CONTROL CHARACTER	4C1	A407	10	DATAD	DATA DISPLAY	D2B	A1103	H
CCR	CONTROL CHARACTER RESET	9C4B	A1102	4	DISCD	DISC DISPLAY		A1106	C
CCR	CONTROL CHARACTER RESET	4C9A	A802	10	DMSI	CANCEL ITA2	2A6A	A701	L
CLR	CLEAR	7C9	A707	H	EM	END OF MEDIUM	2B5B	A905	10
CMSA	2ND CHARACTER OF SOMS ASCII MODE 5	2A2C	A804	H	EMD	EM DISPLAY		A1101	4
CMSI	2ND CHARACTER OF SOMS ITA2	2A5C	A702	10	EN	ENABLE	7C7C	A807	6
					ENQ	ENQUIRY	2B1B	A803	H
					ENQA	SINGLE ENQUIRY	3C2B	A407	P
					ENQD	ENQUIRY DISPLAY		A1103	L
					EN45.5	ENABLE 45.5 BUAD	10B4B	A1108	H
					EN45.5+50	ENABLE 45.5 OR 50 BAUD	10B4C	A1008	7
					EN50	ENABLE 50 BAUD	10B4A	A1108	7

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-9)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
EOB	END OF BLOCK	4D3B	A508	4	MCD	MODE CHANGE DISPLAY	A1101	7	
EPAR	EVEN PARITY	5A8	A1005	4	MFCRE- ELT	MODE V FRAMING CHARACTER RESET	B1A	A111	
EPC	EVEN PARITY CHARACTER	4B3	A508	4	N	EOMS CHARACTER MODE 5	6D2	A301	
ERI-D	ERROR 1 DISPLAY		A1104	L	NAK	NEGATIVE ACKNOWLEDGEMENT	2B3A	A906	
ER2-D	ERROR 2 DISPLAY		A1104	P	NAKA	SINGLE NACK	3C3A	A407	
ETB	END OF BLOCK	2B6B	A904	7	NAKD	NAK DISPLAY	A1103	13	
ETBD	ETB DISPLAY		A1101	H	NMSA	ONE CHARACTER OF EOMS ITA2	2A1B	A905	
ETX	END OF TEXT	2B4B	A904	7	NMSI	ONE CHARACTER OF EOMS ITA2	2A4B	A702	
ETXD	ETX DISPLAY		A1101	H	OP	OUT OF FRAME	7C4B	A408	
FRAME	FRAME	7C3C	A406	6	OPAR	ODD PARITY	5B8B	A805	
FRAME	FRAME	7C3C	A406	7	P	PROBE	10D2	A907	
FRAMED	FRAME DISPLAY		A1104	7	PA	PARITY BIT, A REGISTER	1D4B	A505	
IMB	START ITA2	2A8B	A701	7	PA	PARITY BIT, A REGISTER	1D6B	A506	
INV	INVALID	2B4C	A906	10	PAUSE	PAUSE	6D4A	A206	
INT REC CLK	INTERNAL RECEIVE CLOCK	10A2	A1006	10	PB	PARITY BIT, B REGISTER	1C6	A501	
INVA	SINGLE INVALID	3C3C	A407	7	PB	PARITY BIT, B REGISTER	1C8	A501	
INVD	INVALID DISPLAY		A1103	P	PB-A	PARITY BIT A	5B6	A806	
ITA2	ITA2	9D6	A1105	L	PB-A	PARITY BIT A	5A6	A706	
ITA2	ITA2	9C6	A706	D	RACK 1	RECEIVE ACK 1 PAIR	306C	A903	
LF	LINE FEED	6D3A	A901	4	RACK 2	RECEIVE ACK 2 PAIR	3C5B	A903	
LFMSA	LINE FEED, MOOR V ASCII	2A1A	A905	10	RCAN	RECEIVE CAN PAIR	3C7A	A902	
LFMSI	LINE FEED DECODE, MOD V ITA2	2A4A	A702	L	RCC	RECEIVE CONTROL CHARACTER	3C1A	A204	
LFMSI	LINE FEED 4 N's STORE	6A2B	A307	H	RCVB	RECEIVE BLOCK	8B3B	A507	
LFMSI	LINE FEED 4 N's STORE	6B2C	A301	7	RCVB	RECEIVE BLOCK	8B5	A507	
LMSI	ACKNOWLEDGEMENT 2, ITA2	2A7A	A701	C	RCV CLK	RECEIVE CLOCK	9A2	A1006	
LR	LAST RECEIVED	9C2B	A1102	D	RCV DATA	RECEIVE DATA	1E5B	A1005	
LR-SOB	LAST RECEIVE - START OF BLOCK	4D6	A801	3					
MC	MODE CHANGE	2B5C	A905	L					

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-9)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
RCV DATA	RECEIVE DATA	1E5A	A1104	13	WBTD	WBT DISPLAY	A1102	13	
REP	REPEAT	2B2B	A903	10	WMSI	ENQUIRY ITA2	2A5B	A702	
REPA	SINGLE REP	3C9A	A305	P	Z	SOMS CHARACTER MODE V	6D5A	A301	
REPD	REP DISPLAY		A1101	L	Z	SOMS CHARACTER MODE V	6D5B	A301	
RM	REJECT MESSAGE	2B1A	A903	7	ZMSA	1ST CHARACTER OF SOMS ASCII MODE V	2A2B	A804	
RMA	SINGLE RM	3C4B	A205	D	ZMSI	ACKNOWLEDGEMENT 1, ITA2	2A8A	A701	
RMD	RM DISPLAY		A1103	10	OC	ZERO, 1ST PARTIAL DECODE	2D8A	A703	
RMS	REPEAT ITA2	2A7B	A701	H	OD	ZERO 2ND PARTIAL DECODE	2D5B	A704	
RMAK	RECEIVE NACK PAIR	3C4C	A1004	10	OE	ZERO, 3RD PARTIAL DECODE	2D8B	A802	
RREP	RECEIVE REP PAIR	3C8A	A901	13	1A	1ST PARTY BIT, A REGISTER	1D8C	A504	
RRM	RECEIVE RM PAIR	3C4A	A903	4	1A	1ST PARTY BIT, A REGISTER	1D8C	A504	
RSTART	RECEIVE START PAIR	3C7C	A902	4	0A	A REGISTER FIRST STAGE	1D1-7	A504	
RWBT	RECEIVE WBT PAIR	3C6B	A902	D	1B	1ST PARTY BIT, B REGISTER	1C1	A502	
RMSI	REJECT MESSAGE ITA2	2A7C	A701	10	1B	1ST PARTY BIT, B REGISTER	1C1	A502	
SOB	START OF BLOCK	4D3A	A508	13	1C	1, 1ST PARTIAL DECODE	2D8B	A703	
SOH	START OF HEADER	2B7A	A904	10	1C	1, 1ST PARTIAL DECODE	2E2B	A801	
SOHD	SOH DISPLAY		A1101	13	1D	1, 2ND PARTIAL DECODE	2D56	A704	
SS	START START	7B5	A807	H	1D	1, 2ND PARTIAL DECODE	2E3C	A802	
START	START	2A3A	A804	10	1E	1, 3RD PARTIAL DECODE	2D8C	A705	
START A	SINGLE START	3C7D	A205	L	1E	1, 3RD PARTIAL DECODE	2E2C	A803	
-STARTED	START DISPLAY		A1102	10	1H	H COUNTER, BIT 1	7E2	A306	
STOP	STOP	2A2A	A804	L	1I	I COUNTER, BIT 1	7E7A	A806	
STX	START OF TEXT	2B4A	A904	L	1I	I COUNTER, BIT 1	7E7A	A806	
STXD	STX DISPLAY		A1101	10					
SYN	SYNCHRONIZING CHARACTER	2B4B	A1005	10					
SYN	SYNCHRONIZINT CHARACTER	2B4A	A905	7					
SYND	SYNC DISPLAY		A1104	H					
TCC	TRANSMIT CONTROL CHARACTER	3D2B	A508	D					
TCC	TRANSMIT CONTROL CHARACTER	3C2C	A508	H					
WBT	WAIT BEFORE TRANSMIT	2D4B	A905	H					

**SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-9)**

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
128X	128 TIMES	1DA6	A808	7	3E	3, 3RD PARTIAL DECODE	2D1B	A705	10
2A	2ND PARITY BIT. A REGISTER	1D2B	A504	11	3I	1 COUNTER, BIT 3	7E6	A606	3
2A	2ND PARITY BIT. A REGISTER	1D2B	A504	10	3I	1 COUNTER, BIT 3	7E6	A606	2
2B	2ND PARITY BIT. B REGISTER	1C2	A502	6	4A	4TH PARITY BIT. A REGISTER	1D3B	A503	6
2B	2ND PARITY BIT. B REGISTER	1C2	A502	7	4A	4TH PARITY BIT. A REGISTER	1D3B	A503	7
2C	2, 1ST PARTIAL DECODE	2D7A	A703	10	4B	4TH PARITY BIT. B REGISTER	1C3A	A502	11
2C	2, 1ST PARTIAL DECODE	2E7A	A601	10	4B	4TH PARITY BIT. B REGISTER	1C3A	A502	10
2CC	2ND CONTROL CHARACTER	1A5B	A104	10	4C	4, 1ST PARTIAL DECODE	2D7C	A703	7
2CCS	2ND CONTROL CHARACTER STORED	1A4	A302	H	4C	4, 1ST PARTIAL DECODE	2E7C	A601	7
2D	2, 2ND PARTIAL DECODE	2D4A	A704	10	4D	4, 2ND PARTIAL DECODE	2D4C	A704	7
2D	2, 2ND PARTIAL DECODE	2E4A	A602	C	4D	4, 2ND PARTIAL DECODE	2E4C	A602	7
2E	2, 3RD PARTIAL DECODE	2D1A	A705	P	4I	1 COUNTER, BIT 4	7E5	A606	C
2E	2, 3RD PARTIAL DECODE				4I	1 COUNTER, BIT 4	7E5	A606	B
2H	H COUNTER, BIT 2	7E1M	A306	M	5A	5TH PARITY BIT. A REGISTER	1D3A	A503	L
2H	H COUNTER, BIT 2	7E1	A306	L	5A	5TH PARITY BIT. A REGISTER	1D3A	A503	M
2I	I COUNTER, BIT 2	7E7B	A606	F	5B	5TH PARITY BIT. B REGISTER	1C4B	A501	F
2I	I COUNTER, BIT 2	7E7B	A606	H	5B	5TH PARITY BIT. B REGISTER	1C4B	A501	H
3A	3RD PARITY BIT. A REGISTER	1D2A	A503	F	5C	5, 1ST PARTIAL DECODE	2D6A	A703	H
3A	3RD PARITY BIT. A REGISTER	1D2A	A503	H	5D	5, 2ND PARTIAL DECODE	2D3A	A704	H
3B	3RD PARITY BIT. B REGISTER	1C3B	A502	M	6A	6TH PARITY BIT. A REGISTER	1D4B	A503	10
3B	3RD PARITY BIT. B REGISTER	1C3B	A502	L	6A	6TH PARITY BIT. A REGISTER	1D4B	A503	11
3C	3, 1ST PARTIAL DECODE	2D7B	A703	L	6B	6TH PARITY BIT. B REGISTER	1C4A	A501	6
3D	3, 2ND PARTIAL DECODE	2D4B	A704	L	6B	6TH PARITY BIT. B REGISTER	1C4A	A501	7

**SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-9)**

Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.
6C	6, 1ST PARTIAL DECODE	2D6B	A703	4
6D	6, 2ND PARTIAL DECODE	2D3B	A704	4
7A	7TH PARITY BIT. A REGISTER	1D5	A505	M
7A	7TH PARITY BIT. A REGISTER	1D5	A505	L
7B	7TH PARITY BIT. B REGISTER	1C5	A501	M
7B	7TH PARITY BIT. B REGISTER	1C5	A501	L
7C	7, 1ST PARTIAL DECODE	2D5A	A703	D
7C	7, 1ST PARTIAL DECODE	2E5A	A707	7
7D	7, 2ND PARTIAL DECODE	2D8A	A704	D
7D	7, 2ND PARTIAL DECODE	2E2A	A603	C

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
ACK 1	ASCII ACK-1 DECODE	2A3	A207	7	BRCSU	CIRCUIT SWITCH OPERATION	18D9	A1103	H
ACK 1A	ASCII & ITA-2 ACK-1 DECODE	7D4A	A703	D	BRDPB	BLOCK READER DATA PARITY B OUTPUT	5A1A	A115	P
ACK 1D	ACK 1 DISPLAY	B5C-12	A1102	12	BRDPK	BLOCK READER DATA PARITY K OUTPUT	5A2D	A114	P
ACK 2	ASCII ACK-2 DECODE	2A2A	A207	H	BRD1B	BLOCK READER DATA BIT ONE B OUTPUT	5C3B	A115	D
ACK 2A	ASCII & ITA-2 ACK-2 DECODE	7D4C	A703	11	BRD1K	BLOCK READER DATA BIT ONE K OUTPUT	5C3A	A114	D
ACK 2D	ACK 2 DISPLAY	B4C	A1102	10	BRD2B	BLOCK READER DATA BIT TWO B OUTPUT	5C2A	A115	4
AM51	ITA-2 "A" DECODE	3E7A	A310	7	BRD2K	BLOCK READER DATA BIT TWO K OUTPUT	5C3A	A114	4
ASCH	ASCII MODE 1 or MODE V	20C11C	A1003	7	BRD3B	BLOCK READER DATA BIT THREE B OUTPUT	5C2C	A115	H
AM1	MODE 1 ASCII CODE	20D11A	A908	10	BRD3K	BLOCK READER DATA BIT THREE K OUTPUT	5C2B	A114	H
AM1	MODE 1 ASCII CODE	20C11A	A1001	7	BRD4B	BLOCK READER DATA BIT FOUR B OUTPUT	5C1A	A115	7
AM5	MODE 5 ASCII CODE	20D11B	A908	L	BRD4K	BLOCK READER DATA BIT FOUR K OUTPUT	5C2D	A114	7
AUTO CORD	AUTOMATIC COORDINATION	15B1	A1107	3	BRD5B	BLOCK READER DATA BIT FIVE B OUTPUT	5A3B	A115	10
BCR	INDICATOR RESET	20D2	A1103	5	BRD5K	BLOCK READER DATA BIT FIVE K OUTPUT	5A3A	A114	10
BCR	INDICATOR RESET	20C2	A802	H	BRD6B	BLOCK READER DATA BIT SIX B OUTPUT	5A2A	A115	L
BEGN MEM RCV	BEGN MEMORY RECEIVE	14A8	A811	H	BRD6K	BLOCK READER DATA BIT SIX K OUTPUT	5A3C	A114	L
BEGN MEM RCV	BEGN MEMORY RECEIVE	14A7	A811	L	BRD7B	BLOCK READER DATA BIT SEVEN B OUTPUT	5A2C	A115	13
BELL M51	ITA-2 DECODE	3C4E	A307	D	BRD7K	BLOCK READER DATA BIT SEVEN K OUTPUT	5A2B	A114	13
BFE	BLOCK FRAMING ERROR 10A5	A711	H		BRERS	BLOCK READER ERROR STORED	13D1C	A416	6
BVED	BLOCK FRAMING ERROR 15A DISPLAY	A1107	N		BRERS	BLOCK READER ERROR STORED	13D1C	A416	7
BLE	BLOCK LENGTH ERROR	13B1B	A509	10	BRES	BLOCK READER ERROR OR FRAMING ERROR STORED	17D1B	A713	D
BLEA	BLOCK LENGTH ERROR "A"	13B8C	A415	H	BRES	BLOCK READER ERROR OR FRAMING ERROR STORED	17C1B	A909	7
BLEB	BLOCK LENGTH ERROR "B"	13B7A	A414	H					
BLEC	BLOCK LENGTH ERROR "C"	17A4A	A710	L					
BLED	BLOCK LENGTH ERROR DISPLAY	A7-5	A1114	5					
BPED	BLOCK PARITY ERROR DISPLAY	B3C-H	A1114	H					
BM51	"B" ITA-2 DECODE	3E7B	A303	4					
BPE	BLOCK PARITY ERROR	11A5A	A312	7					

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
BRFE	BLOCK READER FRAMING ERROR	13E2	A411	5	CC90M55	CHARACTER COUNT MODE 5 STORE	14A2B	A809	M
BRFES	BLOCK READER FRAMING ERROR STORED	13D2C	A416	L	CD0	CHARACTER DECODE 0	B1A	A1110	3
BRFE 1	BLOCK READER FRAMING ERROR 1	13B8A	A413	10	CD1	CHARACTER DECODE 1	B3C	A1105	3
BRFE 2	BLOCK READER FRAMING ERROR 2	13B8B	A415	7	CD1A	CHARACTER POSITION DECODE	16A3	A909	C
BRR	BLOCK READER RESET	20D58	A1103	10	CD8	CHARACTER DECODE 2	B4C	A1105	5
BRR	BLOCK READER RESET	20C4	A1001	H	CD3	CHARACTER DECODE 3	54D	A1105	7
BRRA	BLOCK READER RESET A	20D3	A801	L	CD4	CHARACTER DECODE 4	B3C	A1105	10
BRRA	BLOCK READER RESET OR RSCAM OR RDC	20C3	A1001	10	CD5	CHARACTER DECODE 5	B3D	A1110	12
BRRB	BLOCK READER RESET B	20B3B	A509	H	CD6	CHARACTER DECODE 6	B2D	A1110	14
BRR-PAUSE		1C8C	A102	C	CD7	CHARACTER DECODE 7	B2E	A1110	10
BR16 X CLK	BLOCK READER 16 TIMES CLOCK	A3	A1002	L	CD8	CHARACTER DECODE 8	B2F	A1110	7
BUSD	BUSY DISPLAY	B2B	A1110	10	CD9	CHARACTER DECODE 9	B1C	A1110	5
BXB	BLOCK BY BLOCK COORDINATION	20B7A	A1110	14	CHAR FRAMED	CHARACTER FRAME DISPLAY	E5A	A1113	P
BXB	BLOCK BY BLOCK COORDINATION	20B7B	A1110	12	CI	COUNT INHIBIT	8C1B	A512	5
C	C MODE V DECODE	6D5A	A504	D	CLR	CLEAR FOR INPUT DATA REGISTER	9B7	A809	10
C	C MODE V DECODE	6D5B	A403	14	CM5A	C MODE V ASCII DECODE	2C2C	A210	H
CAN	CAN MI ASCII DECODE	2A2C	A208	L	CM51	C-ITA-2 DECODE	3E7C	A310	H
CAN A	CAN SEQUENCE DECODE	7D6A	A501	10	CON	CONTROL STATE - MODE V	19B2	A802	10
CAN D	CANCEL DISPLAY	B7D-N	A1101	N	CON	CONTROL STATE FOR MODE 5	19A3	A802	L
CC	CONTROL CHARACTER STORE	8B1	A801	C	CONA	CONTROL A	19D4	A811	R
CCST	CONTROL CHARACTER STORE	8E4	A809	6	CONA	CONTROL A	19E4	A706	D
CCST	CONTROL CHARACTER STORE	8E4	A809	7	CONTROL D	CONTROL DISPLAY	A1113	10	
CC01	CHARACTER COUNT 01	17A3	A810	L	CPE	CHARACTER PARITY ERROR	12C2A	A811	10
CC90M1	CHARACTER COUNT 90 MODE 1	13B7B	A414	10	CPED	CHARACTER PARITY ERROR DISPLAY	B2	A1114	N
CC90M5	CHARACTER COUNT 90 MODE 5	14A2A	A809	L	CPM51	CLOCK MODE 5 ITA2	9D3	A1004	D
					CP 1	CLOCK PULSE 1	9A5A	A812	7
					CP 1	CLOCK PULSE 1	9B5B	A813	3
					CP 2	CLOCK PULSE 2	9A4A	A812	H
					CP 2	CLOCK PULSE 2	9B4A	A816	10

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
CP 3	CLOCK PULSE 3	9A4B	A812	L	DAT 8	DATA BIT 8	C9D	A1104	3
CP 3	CLOCK PULSE 3	9B4B	A813	C	EM	EM DECODE	28AB	A113	14
CP 4	CLOCK PULSE 4	9A4C	A812	10	EM	ASCII DECODE	28BA	A206	L
CP 4	CLOCK PULSE 4	9B3C	A813	L	EMD	END OF MEDIA DISPLAY	A4AR	A1102	R
CP 5	CLOCK PULSE 5	9A3A	A811	H	EM-CP6		13E8A	A316	H
CP 6	CLOCK PULSE 6	9A3B	A811	10	EM51	"F" ITA-2 DECODE	3E68	A814	6
CP 7	CLOCK PULSE	9A3C	A811	N	EN	CLOCK COUNTER ENABLE	9B5A	A814	6
CP 7	CLOCK PULSE	9B3C	A813	L	EN	CLOCK COUNTER ENABLE	9B5A	A814	7
CP 8	CLOCK PULSE	9A2A	A811	14	ENQ	ASCII DECODE	2A1	A208	H
CP 8	CLOCK PULSE	9B2A	A711	L	ENQA	ENQ DECODE ASCII & ITA-2	7D1	A702	4
CP 9	CLOCK PULSE	9A2B	A811	L	ENQD	ENQUIRY DISPLAY	B2C	A1102	E
CP 10	CLOCK PULSE	9B1	A807	L	ENREQ	ENABLE REQUEST	14B3	A511	H
CP 10 + BRR	CLOCK PULSE 10 + BLOCK READER RESET	9B6A	A810	A	EN45, 5	CLOCK RATE ENABLE	21B4B	A1115	H
CR	COUNTER RESET	17D4B	A816	7	EN50	CLOCK RATE ENABLE	21B4A	A1115	E
CRM51	CARRIAGE RETURN ITA-2 DECODE	3B5C	A311	3	EOB	END OF BLOCK CHARACTER	8D2A	A803	4
CR + LF + FIG + LET	CARRIAGE RETURN + LINE FEED + FIGURES + LETTERS	3A2A	A711	7	EOB	END OF BLOCK CHARACTER	8D2B	A804	R
CSEL	CARD SELECT	12B7	A411	E	EOBBPC	"F" ITA-2 DECODE	10B4A	A706	4
CZC	CZC SEQUENCE DETECTED	6A4	A506	P	EOBBPC	END OF BLOCK, BLOCK PARITY CHARACTER	10B4B	A806	10
CZCS	CZC SEQUENCE STORED	6C3A	A501	L	EOBBPC (G)	EOB BLOCK PARITY CHARACTER GOOD	10B1B	A509	N
DATAD	DATA DISPLAY	C2B	A1105	H	EOBBPC (G)	EOB BLOCK PARITY CHARACTER GOOD	10B1A	A805	13
DET DBC	DETECT DISCONNECT	D6	A1002	C	EOBBPC (NG)	EOB BLOCK PARITY CHARACTER NO GOOD	10B2	A811	10
DISCD	DISCONNECT	C2B	A1105	N	EOBBPC (NG)	EOB BLOCK PARITY CHARACTER NO GOOD	10B2C	A811	13
DM51	"D" ITA-2 DECODE	3E7D	A3010	10	EOB BPC + BRR	END OF BLOCK, BLOCK PARITY CHARACTER + BLOCK READER RESET A	13B2	A411	10
DAT 1	DATA BIT 1	C1B	1104	E	(EOBBPC + LF4N) CP1	END OF BLOCK, BLOCK PARITY CHARACTER + LINE FEED 4 N ¹⁵ , CLOCK PULSE 1	17D5A	A815	L
DAT 2	DATA BIT 2	C2B	A1104	C	EOMRM5	END OF MESSAGE RCVD-6B1 MODE V	A506	D	
DAT 3	DATA BIT 3	C3B	A1104	14					
DAT 4	DATA BIT 4	C4B	A1104	12					
DAT 5	DATA BIT 5	C5B	A1104	7					
DAT 6	DATA BIT 6	C6B	A1104	7					
DAT 7	DATA BIT 7	C8B	A1104	5					

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
EPAR	EVEN PARITY	2A9B	A113	N	FRAME	CHARACTER FRAME	9E6B	A712	C
EPC	VALID EVEN PARITY CHARACTER	8B2	A804	14	FRAME	CHARACTER FRAME	9E6B	A712	B
ERROR STOP RCV	ERROR STOP RECEIVE	20D8B	A1104	L	FUNCT	FUNCTION ITA-2 CHARACTER	3A3A	A412	7
ERR RES	ERROR RESET	13A3B	A411	7	FUNCT	FUNCTION ITA-2 CHARACTER	3A3B	A403	10
ETB	ETB DECODE	2A9B	A113	N	GD0	GROUP DECODE 0	B7A	A1114	10
ETB	ASCII DECODE	2B9D	A206	10	GD0A	GROUP DECODE 0A	17B7B	A909	12
ETBBPC	ETB BLOCK PARITY CHARACTER	10C4	A705	6	GD1	GROUP DECODE 1	B11B	A1109	C
ETBBPC	ETB BLOCK PARITY CHARACTER	10C4	A705	7	GD1A	GROUP DECODE 1A	17B11A	A809	5
ETBD	ETB DISPLAY	A4B	A1103	C	GD2	GROUP DECODE 2	B11C	A1109	E
ETB STOP RCV	ETB STOP RECEIVE	20B5A	A1114	14	GD3	GROUP DECODE 3	B10A	A1109	H
ETX	ETX DECODE	2A9D	A113	12	GD4	GROUP DECODE 4	B10B	A1109	L
ETX	ETX DECODE	2B9C	A206	7	GD5	GROUP DECODE 5	B9A	A1109	N
ETBBPC (G)		10B2B	A811	D	GM51	"G" ITA-2 DECODE	3E8C	A303	H
ETXBPC	ETX BLOCK PARITY CHARACTER	10C3	A705	F	GD6	GROUP DECODE 6	B9B	A1109	R
ETXBPC	ETX BLOCK PARITY CHARACTER	10C3	A705	H	GD7	GROUP DECODE 7	B8A	A1109	3
ETXBPC (G)	ETX BLOCK PARITY CHARACTER GOOD	10B2D	A411	R	GD8	GROUP DECODE 8			
ETXBPC (G)		10B2A	A811	4	GD9	GROUP DECODE 9	B8B-7	A1114	7
ETXD	ETX DISPLAY	A4C	A1103	E	HM51	"H" ITA-2 CHARACTER	3E6D	A303	10
ETX STOP RCV	ETX STOP RECEIVE	20D8	A1104	R	HVDR	HIGH VOLTAGE DISPLAY RESET	A5	A714	L
ETX + LF4N	ETX OR LF4N SEQUENCE	14D4	A805	4	IM51		3E6E	A310	L
EXDATA	EXPECT DATA	13D8A	A316	D	INH DISP	INHIBIT DISPLAY	17B3	A910	F
EXEOBPC	EXPECT EOB FRAMING CHARACTER	13D6	A416	11	INH DISP	INHIBIT DISPLAY	17B3	A910	H
EXPSON	EXPECT SOH	10D5C	A510	H	INPUT ERR	INPUT ERROR	C2C-D	A103	D
EXPSTX	EXPECT STX	10D5C	A510	F	INPUT ERRS	INPUT ERROR STORE	B3A	A1107	10
FIGM51	FIGS ITA-2 DECODE	3A8A	A403	H	INT RCV CLK	INTERNAL RCV CLOCK	21A2	A1015	10
FIGM51	FIGS ITA-2 DECODE	3B6A	A308	L	INV	INVERT DECODE	2B7C	A207	10
FIGB	UPPER CASE ITA-2	3D1B	A103	7	INVA	INVERT DECODE	7D2B	A702	D
FM51	"F" ITA-2 DECODE	3E6B	A303	7	INV D	INVALID DISPLAY	B3C-3	A1102	3
					ITA2	ITA-2 CODE	20D1	A908	7
					ITA2	ITA-2 CODE	20C10A	A1001	L
					JM51	"J" ITA-2 DECODE	3E5A	A303	L
					KM51	"K" ITA-2 DECODE	3E5B	A303	13

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CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

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CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
LETMS1	LETTERS ITA-2 DECODE	3A7A	A403	L	MFC RESET	8A2B	A405	H	
LETMS1	LETTERS ITA-2 DECODE	3B7D	A308	H	N	6D4A	A504	13	
LETS	LETTERS	3D1A	A111	L	N	6D4B	A403	R	
LF	LINE FEED ITA-2 OR ASCII	6E4	A504	P	NACKD	8B5	A1103	S	
LFMSA	LINE FEED 4N SEQUENCE STORED	2C2D	A211	10	NAK	2B7D	A207	L	
LFMS1	LINE FEED ITA-2 DECODE	3B4A	A312	3	NAKA	7D3C	A703	P	
LF4N	LINE FEED 4N SEQUENCE	6C2	A505	H	NCCE	12D8B	A815	7	
LF4NS	LINE FEED 4N SEQUENCE STORED	6B3	A500	10	NCCED	C4	A1114	L	
LF4NS		6B3	A500	11	NMSA	3C1	A211	L	
LF4NS (G)	LINE FEED 4N SEQUENCE	6A1	A506	10	NMS1	3E5E	A310	C	
LM51	"L" ITA-2 DECODE	3E5C	A310	3	OF	9E9C	A509	14	
LR	LAST RECEIVED	20D6B	A1103	14	OF	9E7C	A713	P	
LR50B	LAST RECEIVED START OF BLOCK	13B3	A813	13	OMS1	3E4A	A304	4	
MANCORD	MANUAL COORDINATION	15C1	A1107	5	OPAR	2B4C	A216	7	
MAN PRINT	MANUAL PRINTOUT	14D5B	A1107	R	P	21D1	A1106	D	
MC	MODE CHANGE CHARACTER DECODE	2A8A	A102	R	PA	1D9C	A201	M	
MC	MODE CHANGE CHARACTER DECODE	2B8B	A204	H	PA	1D9C	A201	L	
MCD	MODE CHANGE DISPLAY	A5C-N	A1102	N	PAUSE	19B5C	A805	10	
MEM FULL INH	MEMORY FULL INHIBIT	14D7A	A513	10	PB	1C8A	A204	11	
MEM FULL STOP	MEMORY FULL STOP	14C2	A716	H	PB	1C8A	A204	10	
MM51	"M" ITA-2 DECODE	3E5D	A303	P	PBA	1E1A	A106	7	
M5	CZC SEQUENCE STORED MODE V	20C10B	A1008	P	PBA	1E1B	A102	5	
M5 CZCS		6B6	A810	P	PMS1	3E4B	A304	D	
M5ER	MODE 5 ERROR	15B6B	A809	N	PK	4A2	A411	L	
M5ER	MODE V ERROR	15C6B	A1011	13	POS FRAG	10D2	A608	3	

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
OMS1	"O" ITA DECODE	3E4C	A304	7	R NAK	7D3B	A803	D	
RACK 1	RECEIVE ACK 1	7D5C	A803	7	RNAKA	C9B-10	A713	10	
RACK 1A	RECEIVE ACK 1A	C4A-D	A912	D	RPE	13D6A	A1007	H	
RACK 2	RECEIVE ACK 2	7D4B	A803	10	RPED	AG	1114	E	
RACK 2A	RECEIVE ACK 2A	C4B	A904	D	RPTBA	10D4B	A500	5	
RCAN	RECEIVE CAN SEQUENCE	7C7B	A604	L	RPT BLK	10D4E	A600	F	
RCAN	RECEIVE CAN SEQUENCE	7D7C	A701	D	RPT ETX BLK	10D1C	A600	C	
RCC	RECEIVE CONTROL CHARACTER	7C1A	A105	7	RPTETXBLK	10D1C	A606	B	
R CLK A	RECEIVE CLOCK A	31D8	A616	L	RREP	7C7A	A604	10	
R CLK B	RECEIVE CLOCK B	31E8	A1008	4	RREP	7D7A	A701	4	
RCVB	RECEIVE BLOCK	10D8D	A606	6	RRM	7D4D	A805	13	
RCVB	RECEIVE BLOCK	10D8D	A608	7	RRMA	C3A	A810	P	
RCVBM	RECEIVE BLOCK TO MEM.	14B8B	A511	4	RSCM	8E5	A704	10	
RCV CLK	RECEIVE CLOCK	20A8C	A1003	10	RSTART	7D6B	A701	13	
RCV DATA	RECEIVE DATA	1E8A	A403	7	RWB	7D6A	A803	4	
RCV DATA	RECEIVE DATA	1E8A	A1101	H	RWBTA	C5	A1003	L	
RDISC	RECEIVE DISCONNECT	18C2A	A1105	R	SEC	12D6	A715	M	
R DISC	RECEIVED DISCONNECT	18C3	A805	H	SEC	12D6	A715	L	
REFRAME	REFRAME	18D8	A1103	N	SEL	12D7A	A715	11	
REP	REP ASCII DECODE	2A2B	A206	10	SEL	12D7A	A715	10	
REPA	REP DECODE	7D7B	A501	3	SELA	12D7B	A813	P	
REP D	REPEAT DISPLAY	B7C-R	A1101	R	SELA	12C7B	A811	3	
REQ 2	MEM. REQUEST ACKNOWLEDGE	14A9B	A515	7	SELE	12D6A	A912	P	
RFRAG	RESET FRAGMENT	10C8E	A706	L	SELED	A8	A1114	C	
RM	RM ASCII DECODE	2A2D	A208	7	SBQE	13D6A	A411	C	
RMA	RM DECODE	7D8A	A703	L	SBQED	A4	A1114	3	
RM D	REJECT MESSAGE DISPLAY	B4D	A1102	7	SBQE1	13C9A	A414	C	
RMF	RM FLAG	15B6A	A1010	H	SBQE 2	15D6	A1010	L	
RMF	RM FLAG	15B7	A1010	C					
RMS1	"R" ITA-2 DECODE	3E4D	A311	7					

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(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
SFRAG	SET FRAGMENT	10CTC	A708	P	STXD	STX DISPLAY	A5B	A1102	L
SM51	"S" ITA-2 DECODE	3E4E	A311	H	SYN	SYNC DECODE	2A7A	A113	H
SPACE M51	SPACE ITA-2 DECODE	3B5B	A308	13	SYN	SYNC DECODE	2B7A	A116	7
SOH	SOH ASCII DECODE	2A9C	A113	10	SYND	SYNC DISPLAY	A7B	A1105	L
SOH	SOH ASCII DECODE	2B10D	A116	10	TACK 1	TRANSMIT ACK 1	C4A	A1007	L
SOHD	SOH DISPLAY		A1102	H	TACK 2	TRANSMIT ACK 2	C4B	A1007	10
SRACKD	SERVICE REQUEST ACKNOWLEDGEMENT DISPLAY	A6-7	A1007	7	TCC	TRANSMIT CONTROL CHARACTER	7C8A	A604	12
SRVCBM	SET RECEIVE BLOCK MEMORY	14B7	A513	7	TM51	"T" ITA-2 DECODE	3E3A	A304	H
SS	ASYNCHRONOUS START-STOP	9D4A	A614	H	TNAK	TRANSMIT NAK	C3	A911	L
SOB	START ON ANY START OF BLOCK	20D6A	A1107	E	TRM	TRANSMIT RM	C2B	A824	L
SOBEN	ALLOW ANY START OF BLOCK	10C9A	A706	10	TWBT	TRANSMIT WBT	B3	A704	P
SOBEN	ALLOW ANY START OF BLOCK	18C9B	A509	12	UM51	"U" ITA-2 DECODE	3E3B	A304	10
SOH	START ON SOH ONLY	20D7B	A1107	C	VCAN	VALID CAN	13A5	A414	3
START	START MODE V ASCII DECODE	2C3A	A210	10	VM51	"V" ITA-2 DECODE	3E3C	A304	L
START A	START MODE V DECODE	7D6C	A703	10	VREP	VALID REP	13A6	A414	L
START D	START DISPLAY	B6B	A1102	C	VSOB	VALID SOB	10B6	A708	D
START RCV	START RECEIVE	20B6A	A1107	14	VSOB	VALID SOB	10A8	A806	L
START RCV	START RECEIVE	20B6B	A1107	12	VSOB1	VALID SOB 1	10E3	A705	11
START RCVD	START RECEIVE DISPLAY	C1	A1003	4	VSOB2	VALID SOB 2	10E7	A705	L
STARTS	START STORE	14B9A	A511	13	VSOH	VALID SOH	10B6B	A708	4
STOP	STOP MODE V ASCII DECODE	2C2A	A210	L	VSOH	VALID SOH	10B6C	A708	7
STOP A	STOP DECODE	17A2B	A809	3	VSTX	VALID STX	10B6C	A708	10
STOP ERR	STOP ON ETB	14B6	A716	B	VSTX	VALID STX	10B6B	A708	13
STOP ETB	STOP ON ETB	14B5	A515	10	VTCCEN	VALID TRANSMIT CONTROL CHARACTER ENABLE	13B6B	A316	P
STOP ETX	STOP ON ETX	14B4A	A515	L	WBT	WBT ASCII DECODE	2B7B	A116	H
STX	STX ASCII DECODE	2A9A	A113	R	WBTA	WBT DECODE	7D6B	A703	13
STX	STX ASCII DECODE	2B9B	A116	L	WBT D	WBT DISPLAY	B6C	A1102	14
					WBTF	WBT FLAG	14D0	A514	10
					WBTF	WBT FLAG	14C9A	A512	10
					WM51	"W" ITA-2 DECODE	3E3D	A311	C
					XACK 1	TRANSMIT ACK 1	15B8	A1008	C

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CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
XACK 2	TRANSMIT ACK 2	15B8	A1008	B	1F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D5	A906	6
XMS1	"X" ITA-2 DECODE	3E3E	A304	12	1F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D5	A906	7
XSTOP	TRANSMIT STOP	15C7	A715	H	1G	GROUP POSITION DECODE REGISTER OUTPUT	17E11	A614	11
YM51	"Y" ITA-2 DECODE	3E2A	A304	P	1G	GROUP POSITION DECODE REGISTER OUTPUT	17E11	A614	10
Z	Z DECODE	6E5A	A504	4	1H	OUT OF FRAME-SEQUENCE ERROR REGISTER	9E2	A712	7
Z	Z DECODE	6E5B	A508	R	1I	CLOCK GENERATOR REGISTER OUTPUT	9C4A	A612	6
ZM5A	Z MODE 5 ASCII	2C2B	A210	7	1I	CLOCK GENERATOR REGISTER OUTPUT	9C4A	A612	7
ZM51	"Z" ITA-2 DECODE	3E2B	A311	10	1K	ITA #2 to ASCII ENCODE	4B6	A502	10
.9A	DATA BITS	1D4B	A203	L	1M51	ITA #2 CHARACTER DECODE	3C4C	A306	P
9C	DATA BITS 1, 2, 3 DECODE	2D10D	A112	H	1P	ITA #2 to ASCII ENCODE	4C7A	A402	3
9C	DATA BITS 1, 2, 3 DECODE DATA BITS 7, P DECODE	2D10A	A107	3	1R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A9	A903	11
9D	DATA BITS 4, 5, 6 DECODE	2D7D	A213	7	1R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A9	A903	10
9D	DATA BITS 4, 5, 6 DECODE	2D7B	A108	L	1T	ITA #2 to ASCII ENCODE	4C3A	A402	L
9E	DATA BITS 7, P DECODE	2D9D	A109	5	1TA	ITA #2 to ASCII ENCODE	4C3B	A402	12
9M51	ITA #2 CHARACTER DECODE	3C4B	A306	13	1U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C9B	A901	11
1A	INPUT DATA REGISTER OUTPUT	1D4A	A203	11	1U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C9B	A901	10
1A	DATA STAT. REGISTER OUTPUT	1D4A	A203	10	125d	ITA #2 to ASCII ENCODE	4B7A	A502	7
1B	DATA STAT. REGISTER OUTPUT	1C1A	A205	F	125e	ITA #2 to ASCII ENCODE	4B7C	A403	12
1B	DATA STAT. REGISTER OUTPUT	1C1A	A205	H	128X	128 TMES CLOCK	21A7	A1013	7
1C	DATA BITS 1, 2, 3 DECODE	2D10E	A112	L	2A	INPUT DATA REGISTER OUTPUT	1D5	A202	F
1C	DATA BITS 1, 2, 3 DECODE	2D10B	A107	C	2A	INPUT DATA REGISTER OUTPUT	1D5	A202	H
1D	DATA BITS 4, 5, 6 DECODE	2D6C	A213	H					
1D	DATA BITS 4, 5, 6 DECODE	2D6A	A108	7					
1E	DATA BITS 7, P DECODE	2D2C	A109	14					
1E	DATA BITS 7, P DECODE	2D2A	A111	3					

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CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
2B	DATA STAT. REGISTER OUTPUT	1C3A	A205	6	2K	ITA #2 to ASCII ENCODE	4B5A	A502	H
2B	DATA STAT. REGISTER OUTPUT	1C3A	A205	7	2M51	ITA #2 CHARACTER DECODE	3C3D	A307	L
2C	DATA BITS 1, 2, 3 DECODE	2D10F	A112	10	2P	ITA #2 to ASCII ENCODE	4C7B	A402	C
2C	DATA BITS 1, 2, 3 DECODE	2D10C	A107	10	2R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A8	A903	M
2CC	2 CONTIGUOUS CHARACTERS	1A6B	A102	E	2R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A8	A903	L
2CC	2 CONTIGUOUS CHARACTERS	1A6A	A104	7	2T	ITA #2 to ASCII ENCODE	4C2A	A402	N
2CC8	2 CONTIGUOUS CHARACTERS STORED	1A6C	A203	H	2TA	ITA #2 to ASCII ENCODE	4C2B	A402	14
2CC8	2 CONTIGUOUS CHARACTERS STORED	1A6C	A203	F	2U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C8	A901	M
2D	DATA BITS 4, 5, 6 DECODE	2D6D	A213	10	2U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C8	A901	L
2D	DATA BITS 4, 5, 6 DECODE	2D6B	A108	H	3A	INPUT DATA REGISTER OUTPUT	1D6B	A202	6
2E	DATA BITS 7, P DECODE	2D2D	A109	R	3A	INPUT DATA REGISTER OUTPUT	1D6B	A202	7
2E	DATA BITS 7, P DECODE	2D2B	A111	C	3B	DATA STAT. REGISTER OUTPUT	1C3A	A205	M
2F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D4A	A906	F	3B	DATA STAT. REGISTER OUTPUT	1C3A	A205	L
2F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D4A	A906	H	3C	DATA BITS 1, 2, 3 DECODE	2D8C	A112	7
2G	GROUP POSITION DECODE REGISTER OUTPUT	17E10	A614	M	3D	DATA BITS 4, 5, 6 DECODE	2D9C	A213	L
2G	GROUP POSITION DECODE REGISTER OUTPUT	17E10	A614	L	3D	DATA BITS 4, 5, 6 DECODE	2D5A	A110	3
2H	OUT OF FRAME-SEQUENCE ERROR REGISTER	9E1	A712	F	3E	DATA BITS 7, P DECODE	2D1B	A109	E
2H	OUT OF FRAME-SEQUENCE ERROR REGISTER	9E1	A712	H	3F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D4B	A906	11
2I	CLOCK GENERATOR REGISTER OUTPUT	9C4B	A612	F	3F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D4B	A906	10
2I	CLOCK GENERATOR REGISTER OUTPUT	9C4B	A612	H	3G	GROUP POSITION DECODE REGISTER OUTPUT	17E9	A615	11
					3G	GROUP POSITION DECODE REGISTER OUTPUT	17E9	A615	10

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CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
3J	CLOCK GENERATOR REGISTER OUTPUT	9C3	A612	3	4G	GROUP POSITION DECODE REGISTER OUTPUT	17E8	A615	M
3I	CLOCK GENERATOR REGISTER OUTPUT	9C3	A612	2	4G	GROUP POSITION DECODE REGISTER OUTPUT	17E8	A615	L
3K	ITA #2 to ASCII ENCODE	4B58	A503	H	4I	CLOCK GENERATOR REGISTER OUTPUT	9C2	A612	C
3M51	ITA #2 CHARACTER DECODE	3C84	A305	10	4I	CLOCK GENERATOR REGISTER OUTPUT	9C2	A612	B
3P	ITA #2 to ASCII ENCODE	4C6	A402	5	4K	ITA #2 to ASCII ENCODE	4B5C	A401	C
3R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A7A	A903	6	4M51	ITA #2 CHARACTER DECODE	3C4D	A307	4
3R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A7A	A903	7	4P	ITA #2 to ASCII ENCODE	4C5A	A402	E
3T	ITA #2 to ASCII ENCODE	4C1	A402	3	4R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A7B	A903	F
		9E7B	A805	L	4R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A7B	A903	H
3U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C7A	A901	7	4U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C7B	A901	F
3U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C7A	A901	7	4U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C7B	A901	H
4A	INPUT DATA REGISTER OUTPUT	1D6A	A202	M	45d	ITA #2 to ASCII ENCODE	4B7B	A503	7
4A	INPUT DATA REGISTER OUTPUT	1D6A	A202	L	45d	ITA #2 to ASCII ENCODE	4B7B	A403	N
4B	DATA STAT. REGISTER OUTPUT	1C4A	A205	11	5A	INPUT DATA REGISTER OUTPUT	1D7B	A202	11
4B	DATA STAT. REGISTER OUTPUT	1C4A	A205	10	5A	INPUT DATA REGISTER OUTPUT	1D7B	A202	10
4C	DATA BITS 1, 2, 3 DECODE	2D9B	A212	H	5B	DATA STAT. REGISTER OUTPUT	1C5A	A204	F
4C	DATA BITS 1, 2, 3 DECODE	2D8B	A107	7	5B	DATA STAT. REGISTER OUTPUT	1C5A	A204	H
4D	DATA BITS 4, 5, 6 DECODE	2D5D	A109	L	5C	DATA BITS 1, 2, 3 DECODE	2D8C	A212	L
4D	DATA BITS 4, 5, 6 DECODE	2D58	A110	C	5D	DATA BITS 4, 5, 6 DECODE	2D4C	A109	12
4F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D3	A906	M	5D	DATA BITS 4, 5, 6 DECODE	2D4A	A110	10
4F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D3	A906	L	5F	CHARACTER POSITION DECODE REGISTER OUTPUT	16D2	A902	F

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CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)**

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
5F	CHARACTER POSITION DECODE REGISTER OUTPUT	18D2	A902	H	6P	ITA #2 to ASCII ENCODE	4C4A	A402	H
5G	GROUP POSITION DECODE REGISTER OUTPUT	17E7	A615	6	7A	INPUT DATA REGISTER OUTPUT	1D8A	A201	6
5G	GROUP POSITION DECODE REGISTER OUTPUT	17E7	A615	7	7A	INPUT DATA REGISTER OUTPUT	1D8A	A201	7
5I	CLOCK GENERATOR REGISTER OUTPUT	9C1	A712	3	7B	DATA STAT. REGISTER OUTPUT	1C8A	A204	M
5I	CLOCK GENERATOR REGISTER OUTPUT	9C1	A712	2	7B	DATA STAT. REGISTER OUTPUT	1C8A	A204	L
5K	ITA #2 to ASCII ENCODE	4B4B	A501	7	7C	DATA BITS 1, 2, 3 DECODE	2D7A	A108	C
5M51	ITA #2 CHARACTER DECODE	3C3A	A307	7	7C	DATA BITS 1, 2, 3 DECODE	2D7A	A108	C
5P	ITA #2 to ASCII ENCODE	4C5B	A402	7	7D	DATA BITS 4, 5, 6 DECODE	2D3C	A109	N
5R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A6	A902	M	7D	DATA BITS 4, 5, 6 DECODE	2D3A	A110	7
5R	DECADE PAUSE DETECTOR REGISTER OUTPUT	19A6	A902	L	7K	ITA #2 TO ASCII ENCODE	4B3C	A403	C
5U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C6	A902	11	7M51	ITA #2 CHARACTER DECODE	3C3B	A307	H
5U	UNITS PAUSE DETECTOR REGISTER OUTPUT	19C6	A902	10	7P	ITA #2 TO ASCII ENCODE	4C4B	A402	10
6A	INPUT DATA REGISTER OUTPUT	1D7A	A201	F	8M51	ITA #2 CHARACTER DECODE	3C6E	A306	4
6A	INPUT DATA REGISTER OUTPUT	1D7A	A201	H	9M51	ITA #2 CHARACTER DECODE	3C4A	A306	L
6B	DATA STAT. REGISTER OUTPUT	1C6A	A204	6	. M51	ITA #2 CHARACTER DECODE	3C5D	A311	L
6B	DATA STAT. REGISTER OUTPUT	1C6A	A204	7	, M51	ITA #2 CHARACTER DECODE	3C5E	A306	10
6C	DATA BITS 1, 2, 3 DECODE	2D8D	A212	10	: M51	ITA #2 CHARACTER DECODE	3C3C	A307	10
6D	DATA BITS 4, 5, 6 DECODE	2D4D	A109	3	: M51	ITA #2 CHARACTER DECODE	3C7C	A305	7
6K	ITA #2 to ASCII ENCODE	4B4C	A301	4	? M51	ITA #2 CHARACTER DECODE	3C7B	A305	D
6M51	ITA #2 CHARACTER DECODE	3C2A	A307	P	'M51	ITA #2 CHARACTER DECODE	3C5A	A306	D
					"M51	ITA #2 CHARACTER DECODE	3C2B	A308	10

**SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-21)**

Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.
(M51)	ITA #2 CHARACTER DECODE	3C5B	A306	7
)M51	ITA #2 CHARACTER DECODE	3C5C	A306	H
/M51	ITA #2 CHARACTER DECODE	3C3E	A307	13
: M51	ITA #2 CHARACTER DECODE	3C6B	A305	L
-M51	ITA #2 CHARACTER DECODE	3C7A	A305	4
&M51	ITA #2 CHARACTER DECODE	3C6D	A305	13
≠M51	ITA #2 CHARACTER DECODE	3C6D	A305	P
\$M51	ITA #2 CHARACTER DECODE	3C7D	A305	H

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
\bar{A}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D6A	A714	3	\bar{R}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D2D	A814	L
\bar{B}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D6B	A714	C	\bar{S}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D1	A815	3
\bar{C}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D6A	A714	7	\bar{T}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20C6A	A815	C
\bar{D}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D5B	A714	H	\bar{U}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20C8B	A815	7
\bar{E}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D5C	A714	10	\bar{V}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20C5A	A815	H
F	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D5D	A715	L	\bar{W}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20C5B	A815	10
\bar{G}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D4A	A715	U	\bar{X}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20C5C	A815	L
\bar{H}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D4B	A715	C	\bar{Y}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20C5D	A816	3
\bar{I}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D4C	A715	7	\bar{Z}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20C4A	A816	C
\bar{J}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D4D	A715	H	\bar{a}	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A4A	A414	7
\bar{K}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D3A	A715	10	(APOS)	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A4B	A414	H
\bar{L}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D3B	A814	L	ABCDE#	ABCDE PATCHBOARD CHARACTERS NUMBER	8B4B	A922	7
\bar{M}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D3C	A814	3	ALL RESET	AUDIBLE ALARM RESET	26D1B	A1115	7
\bar{N}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D3D	A814	C	ALARM	ALARM	22A4	A1115	P
\bar{O}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D2A	A814	7	ALARM-D	ALARM DISPLAY	26B1	A1115	L
\bar{P}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D2B	A814	H	ASCII	ASCII MODE 1 CODE	22C3C	A1127	7
\bar{Q}	ASCII CHARACTER DECODES FROM MEMORY BUFFER	20D2C	A814	10	AUTO CORD	AUTOMATIC COORDINATION MODE	26D7B	A1127	H
					AUTO DISC	AUTOMATIC DISCONNECT	26D6A	A1110	4
					AUTO R DISC	RECEIVE DISCONNECT IN AUTOMATIC AND CSU MODES	14B4D	A710	C

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
BAD REPLAY-D	DISPLAY BAD REPLAY	27D7C	A1125	L	COUNT RT	INITIATE RESPONSE TIME COUNT	12A8	A821	H
\bar{BGR}	BLOCK GENERATOR RESET	10C9B	A1127	L	\bar{CR}	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	2DA3C	A314	H
\bar{BGRA}	BLOCK GENERATOR RESET	10C9C	A332	L	CSU	CIRCUIT SWITCH UNIT MODE ENABLE	26D7A	A1111	L
$\bar{BGR}(\#W)$	BLOCK GENERATOR SWITCH RESET	26D5A	A320	L	CSU CORD	TRANSMITTING ONE OF CSU CHARACTERS	14B4B	A513	10
\bar{BPTRIG}	BLOCK PARITY TRIGGER	1D8A	A606	7	CSU + BGR	CIRCUIT SWITCH MODE OR BLOCK GENERATOR RESET	7C8B	A822	H
$\bar{BP} + \bar{R}$ STOP	BLOCK PARITY OR RECEIVE STOP	16C7	A824	H	CC0	CHARACTER COUNT ENCODE OUTPUTS	3B9B	A325	10
BXB	BLOCK BY BLOCK MODE	26D4B	A734	7	CC1	CHARACTER COUNT ENCODE OUTPUTS	3B9C	A1085	7
$\bar{BLK} 2$ RPT	BLOCK 2 REPEAT	17D1	A430	13	CC2	CHARACTER COUNT ENCODE OUTPUTS	3B9E	A1085	L
$\bar{BLK} 2$ RPT + ERR STOP	BLOCK 2 REPEAT OR ERROR STOP	1A10	A320	13	CC3	CHARACTER COUNT ENCODE OUTPUTS	3B7C	A1085	H
$\bar{BLK} 3$ RPT		17A2B	A725	13	CC4	CHARACTER COUNT ENCODE OUTPUTS	3B9B	A825	10
$\bar{BLK} 3$ RPT		17A2A	A724	7	CC5	CHARACTER COUNT ENCODE OUTPUTS	3B5B	A825	7
$\bar{BP}TCP4$	BLOCK PARITY CLOCK PULSE 4	24E9A	A712	D	CC6	CHARACTER COUNT ENCODE OUTPUTS	3B4C	A825	L
CAN SENT-D	DISPLAY CANCEL SENT	27D9C	A1129	P	CC7	CHARACTER COUNT ENCODE OUTPUTS	3B4E	A826	D
CCTS	CONTROL CHARACTER TO SEND	10B3C	A827	10	CC8	CHARACTER COUNT ENCODE OUTPUTS	3B3C	A926	4
\bar{CCTS}	CONTROL CHARACTER TO SEND	10A2C	A927	10	CC9	CHARACTER COUNT ENCODE OUTPUTS	3B2B	A521	P
\bar{CEND}	COUNT END	3A2	A521	L	$\bar{CH1}$	FIRST CHARACTER OF CONTROL CHARACTER SEQUENCE	7D7	A631	7
\bar{CI}	COUNT INHIBIT	3E7A	A825	L	CH1	FIRST CHARACTER OF CONTROL CHARACTER SEQUENCE	7C5B	A1087	10
CI	COUNT INHIBIT 34-35L	3E7A	A825	L	CH2	SECOND CHARACTER OF CONTROL CHARACTER SEQUENCE	7C5A	A1087	L
COMP	LINE BLOCK COUNT COMPARE	24A2B	A810	P	$\bar{CH2}$	SECOND CHARACTER OF CONTROL CHARACTER SEQUENCE	7D8	A631	H
\bar{COMP}	LINE BLOCK COUNT COMPARE	24A2A	A911	H	CH1 + CH2	FIRST OR SECONCD CHARACTER OF CONTROL CHARACTER SEQUENCE	7D8A	A532	7
COMP-D	DISPLAY MESSAGE NUMBER COMPARE	26B2C	A733	L					
CONT	CONTINUOUS MODE	26D4A	A734	4					
CONT-ASCII	CONTINUOUS ASCII	1D5B	A332	7					
CORE SEND	TRANSMISSION FROM MEMORY MODE	26D4A	A734	4					

**SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-28)**

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
CH2 CH5	2ND CHARACTER AND CLOCK PULSE 5	18D9	A316	4	G CAN	GENERATE CAN	16D4D	A933	H
POB #	POSITION OF END OF BLOCK CHARACTER	8D2B	A832	H	GEN PAUSE	GENERATE PAUSE	11A63	A632	2
ERR - D	DISPLAY ERROR	26B5D	A268SD	P	GETX STOP	GENERATE ETX STOP	1B4C	A433	H
ERR STOP	STOP TRANSMISSION ON RECEIPT OF BAD ACK OR NAK	26A8A	A83A	13	GEX PACK	GENERATE EXPECT ACK	1C2B	A528	7
ETB SENT	ETB CHARACTER HAS BEEN SENT	8C4B	A434	D	GRPT BLK	GENERATE REPEAT BLOCK NOT	17A5C	A330	H
ETB SENT - D	END OF BLOCK CHARACTER SENT DISPLAY LAMP	26B2A-D	A733	D	GRPT BLK	GENERATE REPEAT BLOCK	17A4	A724	13
ETB STOP	STOP TRANSMISSION AT END OF CURRENT LINE BLOCK	26A9A	A834	D	GRPT MSG	GENERATE REPEAT MESSAGE	17D4	A822	H
ETB STOP A	END OF BLOCK STOP TRANSMIT	1D1B	A631	B	GC0	GROUP COUNT DECADES	4B5B	A1023	10
ETB STOP INH	INHIBIT ETB STOP	1A5C	A428	7	GC0A	GROUP COUNT, DECADE 0	4B5A	A1123	D
ETX SENT	ETX CHARACTER HAS BEEN SENT	8C4C	A434	7	GC1A	GROUP COUNT, DECADE 1	4B4A	A1123	H
ETX SENT	ETX CHARACTER HAS BEEN SENT	8C4D	A434	4	GC2A	GROUP COUNT, DECADE 2	4B4B	A1123	L
ETX STOP	STOP TRANSMISSION AT END OF CURRENT MESSAGE	26D2B	A834	7	GC3A	GROUP COUNT, DECADE 3	4B4C	A1123	P
ETX SENT - D	ETX CHARACTER SENT-DISPLAY LAMP		A733	7	GC4A	GROUP COUNT, DECADE 4	4B3A	A1123	4
ETX STOP XMIT	ETX STOP TRANSMIT	1A7	A431	7	GC5A	GROUP COUNT, DECADE 5	4B3B	A1123	7
EXPACK	EXPECT ACK	1B1	A429	H	GC6A	GROUP COUNT, DECADE 6	4B3C	A1123	10
EXPACK	EXPECT ACK	1B1	A429	F	GC7A	GROUP COUNT, DECADE 7	4B2A	A1123	13
EXPACK - D	EXPECT ACKNOWLEDGMENT-DISPLAY LAMP	26B2B	A733	H	GC8A	GROUP COUNT, DECADE 8	4B2B	A1124	D
EXT CLKEN	EXTERNAL CLOCK ENABLE	26D98	A1111	H	GC9A	GROUP COUNT, DECADE 9	4B2C	A1124	H
FC CORE	FRAMING CHARACTERS FROM CORE MEM.	18A8B	A316	7	GC9	GROUP COUNT 9	4B1	A1024	10
FC - CC CORE	FRAMING OR CONTROL CHARACTERS	18B7B	A527	H	G 3RPT	GENERATE 3 REPEAT	16B4	A725	H
GAAL	SIGNAL GENERATOR AUDIBLE ALARM	22B4	A1115	H	INH ABCDE	INHIBIT A, B, C, D & E CHARACTERS NOT	7B8	A1122	4
					INH DATA	INHIBIT DATA	1C3B	A831	7
					INH RCC	INHIBIT RECEIVE CONTROL CHARACTER	15A5B	A619	6

**SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-28)**

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
INLT RCC	INHIBIT RECEIVE CONTROL CHARACTER	15A4	A523	7	LINE 8	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER	21A4	A419	10
INV SENT-D	INVALID SENT DISPLAY	27D8C	A1129	L	LOAD ACK1	LOAD ACK 1 FROM RCC SELECT SWITCH	22C6C	A828	H
INH	INHIBIT CONTROL CHARACTER SEQUENCE	7A5	A633	4	LOAD ACK2	LOAD ACK 2 FROM RCC SELECT SWITCH	22C6B	A828	7
CHI - CH2	DECODES OF ASC II CHARACTERS FROM MEMORY BUFFER	20A2D	A314	L	MAN CORD	MANUAL COORDINATION MODE	26D7C	A1111	10
LF	LOAD CAN FROM RCC SELECT SWITCH	22D6A	A828	13	MEM CAN	DECODE OF CAN FROM MEMORY DATA BUFFER	18B2B	A416	L
LOAD CAN	LOAD ENQ FROM RCC SELECT SWITCH	22E6A	A1028	H	MEM ETB	DECODE OF ETB FROM MEMORY DATA BUFFER	18B4C	A316	L
LOAD ENQ	LOAD INV FROM RCC SELECT SWITCH	22E6B	A1028	4	MEM ETB	DECODE OF ETB FROM MEMORY DATA BUFFER	18B4A	A316	10
LOAD INV	LOAD NACK FROM RCC SELECT SWITCH	22C6A	A828	L	MEM ETX	DECODE OF ETX FROM MEMORY DATA BUFFER	18B5C	A316	P
LOAD NACK	LOAD REP FROM RCC SELECT SWITCH	22E6C	A1028	D	MEM ETX	DECODE OF ETX FROM MEMORY DATA BUFFER	18B5A	A416	3
LOAD REP	LOAD RM FROM RCC SELECT SWITCH	22D6C	A828	10	MEM INV	DECODE OF INV FROM MEMORY DATA BUFFER	18B1	A315	7
LOAD RM	LOAD WBT FROM RCC SELECT SWITCH	22D6B	A828	P	MEM NACK	DECODE OF NACK FROM MEMORY DATA BUFFER	18B3A	A816	L
LOAD WBT	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER	21A7A	A319	C	MEM REP	DECODE OF REP FROM MEMORY DATA BUFFER	18B3C	A415	L
LINE 1	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER	21A7B	A419	3	MEM RM	DECODE OF RM FROM MEMORY DATA BUFFER	18B4B	A316	13
LINE 2	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER	21A6A	A419	C	MEM 80H	DECODE OF 80H FROM MEMORY DATA BUFFER	18B6A	A315	L
LINE 3	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER	21A6B	A419	H	MEM 80H	DECODE OF 80H FROM MEMORY DATA BUFFER	18B5D	A316	10
LINE 4	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER	21A5A	A419	7	MEM 81H	DECODE OF 81H FROM MEMORY DATA BUFFER			
LINE 5	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER	21A5B	A520	7	MEM 81H	DECODE OF 81H FROM MEMORY DATA BUFFER			
LINE 6	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER	21A5C	A520	H					
LINE 7	ASCII DATA FROM PATCH BOARD OR ITA2 CONVERSION TO BE TRANSFERRED TO OUTPUT REGISTER								

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
MEM STX	DECODE OF STX FROM MEMORY DATA BUFFER	18B5B	A516	H	PBEM - MC	PATCHBOARD END OF MEDIUM OR MODE CHANGE	9D4E	A727	2
MEM WBT	DECODE OF WBT FROM MEMORY DATA BUFFER	18B3B	A416	7	PBEOB	PATCHBOARD END OF BLOCK	9A3A	A931	7
MSG # COMP ST	MESSAGE NUMBER COMPARE STORED	1B7A	A633	10	PBEOB	PATCHBOARD END OF BLOCK	9A3B	A931	4
MSG # COMP ST	MESSAGE NUMBER COMPARE STORED	1B7B	A330	3	PBETB	PATCHBOARD ETB ENABLE	9D7H	A830	7
MSG # STOP	STOP TRANSMISSION AT MESSAGE NUMBER	26A8B	A1111	P	PBETX	PATCHBOARD ETX ENABLE	905E	A931	13
MSU	MESSAGE SWITCHING UNIT MODE	26D8B	A1111	P	PBPOUT	PATCHBOARD BIT # OUT NOT	6A5B	A716	D
MEM ACK1	DECODE OF ACK 1 FROM MEMORY DATA BUFFER	18B3C	A416	H	PBS	PATCHBOARD SYNC	1A2B	A533	H
MEM ACK2	DECODE OF ACK 2 FROM MEMORY DATA BUFFER	18B2A	A416	10	PBSEN	PATCHBOARD SYNC ENABLE	1A4	A531	F
MSA	MODE 5 ASCII CODE	22C3A	A1128	4	PBSEN	PATCHBOARD SYNC ENABLE	1A4	A531	H
MSI	MODE 5 ITA 1 CODE	22D3A	A1127	10	PBSOH	PATCHBOARD SOH	9D9G	A830	13
MSI	MODE 5 ITA 2 CODE	22D3B	A1128	H	PBSTX		9D4E	A830	P
MS (MEM)	MODE FIVE MEMORY	25C2B	A1011	L	PDNH	PATCHBOARD INHIBIT	0C9B	A732	L
MS	MODE 5 ASCII OR ITA 2 CODE	22C2	A1027	7	PTCH SEND	INITIATE TRANSMISSION OF DATA FROM PATCH BOARD	26D0C	A734	L
MS	MODE 5 ASCII OR ITA 2 CODE	22C1	A421	H	POS FRAG (MEMORY)	POSSIBLE FRAGMENT (MEMORY) NOT	25C2C-H	A1013	H
NAK SENT - D	NAK CHAR SENT DISPLAY NOT	26B4D-10	A1129	10	PBIO (MC)	PATCHBOARD POSITION 10 (MODE CHANGE) NOT	9C4C	A1029	P
NON TERMEN	NON TERMINATE ENABLE	1D5A	A427	10	PD0	PAUSE TIME DECADE ENABLES	11D4B	A1034	4
NON TERM	NON TERMINATED BLOCK	7D5B	A631	2	PD1	PAUSE TIME DECADE ENABLES	11D4C	A1034	D
ORIG EM-PTY	NO DATA IN OUTPUT REGISTER	2D4B	A122	7	PD2	PAUSE TIME DECADE ENABLES	11D5A	A1034	7
PA (PBSEN)	PROPER ACK PATCHBOARD SYNC ENABLE	1E10	A332	13	PD3	PAUSE TIME DECADE ENABLES	11D3B	A1034	H
PAUSE COMP	PAUSE COMPARE	11B7B	A731	3	PD4	PAUSE TIME DECADE ENABLES	11D3C	A1034	10
PBA, B.C.D. E	PATCHBOARD ABCDE ENABLE	7B2	A533	D	PD5	PAUSE TIME COUNT, 5 DECADE	11D2A	A1034	L
PBBP	PATCHBOARD BLOCK PARITY ENABLE	9A2A	A532	D	PD6	PAUSE TIME DECADE ENABLES	11D2B	A1034	13
PBBP	PATCHBOARD BLOCK PARITY ENABLE	9A2B	A931	D	PD7	PAUSE TIME DECADE ENABLES	11D2C	A1034	P

SIGNAL GLOSSARY
CHARACTER READER LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
PD8	PAUSE TIME DECADE ENABLES	11D1A	A1134	7	PB1 (SOH)	PATCHBOARD POSITION 1 (START OF HEADER) NOT	9C9B	A1130	13
PD9	PAUSE TIME DECADE ENABLES	11D1B	A1134	H	PB2 (SFL)	PATCHBOARD POSITION 2 (SELECT) NOT	9D9H	A1029	L
PU0	PAUSE TIME UNITS ENABLES	11D7A-4	A1133	4	PB3 (STX)	PATCHBOARD POSITION 3 (START OF TEXT) NOT	9C8B	A1130	P
PU1	PAUSE TIME UNITS ENABLES	11D7B	A1133	D	PB4 (SEC)	PATCHBOARD POSITION 4 (SECURITY) NOT	9D7G	A1029	10
PU2	PAUSE TIME UNITS ENABLES	11D7C	A1133	7	PB5 (EBT)	PATCHBOARD POSITION 5 (END OF TRANSMIT BLOCK) NOT	9C7B	A1030	13
PU3	PAUSE TIME UNITS ENABLES	11D4A	A1133	H	PB6 (BP)	PATCHBOARD 6 (BLOCK PARITY) NOT	9C5C	A1030	P
PU4	PAUSE TIME UNITS ENABLES	11D4B	A1133	10	PB7 (ETX)	PATCHBOARD POSITION 7 (END OF TEXT) NOT	9C5D	A1030	L
PU5	PAUSE TIME UNITS ENABLES	11D4C	A1133	L	PB8 (BP)	PATCHBOARD POSITION 8 (BLOCK PARITY) NOT	9C5D	A1030	L
PU6	PAUSE TIME UNITS ENABLES	11D5A	A1133	13	PB9 (EM)	PATCHBOARD POSITION 9 (END OF MEDIA) NOT	9C4B	A1029	13
PU7	PAUSE TIME UNITS ENABLES	11D5B	A1133	P	PB11 (ACK1)	PATCHBOARD POSITION 11 (ACK 1) NOT	9C3B	A1031	7
PU8	PAUSE TIME UNITS ENABLES	11D5C	A1134	4	PB12 (ACK1)	PATCHBOARD POSITION 12 (ACK 1) NOT	9C3C	A1031	H
PU9	PAUSE TIME UNITS ENABLES	11D4A	A1134	D	PB13 (ACK2)	PATCHBOARD POSITION 13 (ACK 2) NOT	9C2C	A1031	4
RCC	RECEIVE CONTROL CHARACTER	15A5A	A619	11	PB14 (ACK2)	PATCHBOARD POSITION 14 (ACK 2) NOT	9C2D	A1031	D
RCCRESET		15D5C			PB15 (NACK)	PATCHBOARD POSITION 15 (NACK) NOT	9C2E	A1030	7
RCC (WBT)	RECEIVE CONTROL CHARACTER OTHER THAN WBT	1C2C	A428	L	PB16 (NACK)	PATCHBOARD POSITION 16 (NACK) NOT	9C1B	A1030	H
RCNT	RESET COUNT NOT	24E3A	A815	D	PB17 (RM)	PATCHBOARD POSITION 17 (REJECT MESSAGE) NOT	9C1C	A1030	4
REP #	REPEAT NUMBER	8A2	A534	10	PB18 (RM)	PATCHBOARD POSITION 18 (REJECT MESSAGE) NOT	9C1D	A1030	D
RERR		17B4B			PB19 START	PATCHBOARD POSITION 19 (START) NOT	9A9A-13	A1032	13
RERRST	RECEIVE ERROR STORE NOT	17A5A	A330	6	PB20 START	PATCHBOARD POSITION 20 (START) NOT	9A9B	A1032	P
RESETA	START TRANSMIT RESET	1C9	A633	D					
RESET IND	RESET INDICATORS	27A3B	A1128	L					
REQ DATA (MEM)	REQUEST 1	25B4D	A1116	H					
RDNVACK	RECEIVED INVALID ACK	17C5A	A625	7					
RDNVACK	RECEIVED INVALID ACK	17C6A	A625	L					
RM SENT - D	RM CHAR SENT DISPLAY NOT		A1129						

**SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)**

**SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)**

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
PB21 (WBT)	PATCHBOARD POSITION 21 (WAIT BEFORE TRANSMIT) NOT	9A8A	A1032	10	PB38 (CH8)	PATCHBOARD POSITION 38 (CHARACTER 8) NOT	6E4	A1132	13
PB22 (WBT)	PATCHBOARD POSITION 22 (WAIT BEFORE TRANSMIT) NOT	9A8B	A1032	L	PB39 (CH9)	PATCHBOARD POSITION 39 (CHARACTER 9) NOT	6D4A	A1132	10
PB23 (CAN)	PATCHBOARD POSITION 23 (CANCEL) NOT	9A8C	A1032	7	PB40 (CH10)	PATCHBOARD POSITION 40 (CHARACTER 10) NOT	6D4B	A1132	7
PB24 (CAN)	PATCHBOARD POSITION 24 (CANCEL) NOT	9A8D	A1032	H	PB41 (CH11)	PATCHBOARD POSITION 41 (CHARACTER 11) NOT	6D4D	A1132	4
PB25 (REP)	PATCHBOARD POSITION 25 (REP) NOT	9A7A	A1032	4	PB42 (CH12)	PATCHBOARD POSITION 42 (CHARACTER 12) NOT	6D4D	A1130	H
PB26 (REP)	PATCHBOARD POSITION 26 (REP) NOT	9A7B	A1032	D	PB43 (CH13)	PATCHBOARD POSITION 43 (CHARACTER 13) NOT	6C4D	A1130	D
PB27 (INV)	PATCHBOARD POSITION 27 (INVALID) NOT	9A7C	A1031	13	PB44 (CH14)	PATCHBOARD POSITION 44 (CHARACTER 14) NOT	6C4B	A1131	P
PB28 (INV)	PATCHBOARD POSITION 28 (INVALID) NOT	9A6A	A1031	P	PB45 (CH15)	PATCHBOARD POSITION 45 (CHARACTER 15) NOT	6C4C	A1131	L
PB29 (ENQ)	PATCHBOARD POSITION 29 (ENQUIRY) NOT	9A6B	A1031	10	PB46 (CH16)	PATCHBOARD POSITION 46 (CHARACTER 16) NOT	6B4A	A1131	H
PB30 (ENQ)	PATCHBOARD POSITION 30 (ENQUIRY) NOT	9A6C	A1031	L	PB47 (CH17)	PATCHBOARD POSITION 47 (CHARACTER 17) NOT	6B4B	A1131	D
PB31 (CH1)	PATCHBOARD POSITION 31 (CHARACTER 1) NOT	6E6	A1030	10	PB48 (CH18)	PATCHBOARD POSITION (CHARACTER 18) NOT	6E2	A1132	P
PB32 (CH2)	PATCHBOARD POSITION 32 (CHARACTER 2) NOT	6D6A	A1130	7	PB49 (CH19)	PATCHBOARD POSITION 49 (CHARACTER 19) NOT	6D2A	A1132	L
PB33 (CH3)	PATCHBOARD POSITION 33 (CHARACTER 3) NOT	6D6B	A1130	4	PB50 (CH20)	PATCHBOARD POSITION 50 (CHARACTER 20) NOT	6D2B	A1132	H
PB34 (CH4)	PATCHBOARD POSITION 34 (CHARACTER 4) NOT	6D6C	A1131	13	PB51 (CH21)	PATCHBOARD POSITION 51 (CHARACTER 21) NOT	6D2C	A1132	D
PB - 35 (CH5)	PATCHBOARD POSITION 35 (CHARACTER 5) NOT	6D6D	A1130	10	PB52 (CH22)	PATCHBOARD POSITION 52 (CHARACTER 22) NOT	6D2D	A1130	L
PB36 (CH6)	PATCHBOARD POSITION 36 (CHARACTERS) NOT	6C6A	A1130	7	PB53 (FE)	PATCHBOARD POSITION 53 (FILLER EVEN) NOT	9A4A	A1021	L
PB37 (CH7)	PATCHBOARD POSITION 37 (CHARACTER 7) NOT	6C6B	A1130	4	PB54 (FO)	PATCHBOARD POSITION 54 (FILLER ODD) NOT	9A4B	A1021	10

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
PB 55 (SYNC)	PATCHBOARD POSITION 55 (SYNC) NOT	1A1	A1122	D	RD8D	REPLY COUNTER DECADE 8 DISPLAY NOT	13D2B	A1121	7
PB56 (CHA)	PATCHBOARD POSITION 56 (CHARACTER A) NOT	7A4	A1021	3	RD9D	REPLY COUNTER DECADE 9 DISPLAY NOT	13D1	A1121	H
PB57 (CHB)	PATCHBOARD POSITION 57 (CHARACTER B) NOT	7A3A	A1021	C	RU0	REPLY COUNTER UNIT 0 NOT	12A7	A920	10
PB58 (CHC)	PATCHBOARD POSITION 58 (CHARACTER C) NOT	7A3B	A1021	7	RU1	REPLY COUNTER UNIT 1 NOT	12A6A	A920	L
PB59 (CHD)	PATCHBOARD POSITION 59 (CHARACTER D) NOT	7A2A	A1021	H	RU2	REPLY COUNTER UNIT 2 NOT	12A6B	A920	7
PB60 (CHE)	PATCHBOARD POSITION 60 (CHARACTER E) NOT	7A2B	A1022	7	RU3	REPLY COUNTER UNIT 3 NOT	12A5A	A920	H
PBBP1	PATCHBOARD BLOCK PARITY FOR ETB BLOCK	9C6A	A930	D	RU4	REPLY COUNTER UNIT 4 NOT	12A5B	A920	4
PBBP1	PATCHBOARD BLOCK PARITY FOR ETB BLOCK	9D6D	A930	H	RU5	REPLY COUNTER UNIT 5 NOT	A12A4	A920	D
PBBP2	PATCHBOARD BLOCK PARITY FOR ETX BLOCK	9D4D	A931	P	RU6	REPLY COUNTER UNIT 6 NOT	12A3A	A821	13
PB1 OUT	OUTPUT DATA LINES FROM PATCHBOARD	6A8	A716	P	RU7	REPLY COUNTER UNIT 7 NOT	12A3B	A821	P
PB2 OUT	OUTPUT DATA LINES FROM PATCHBOARD	6A7A	A716	13	RU8	REPLY COUNTER UNIT 8 NOT	12A2A	A821	10
PB3 OUT	OUTPUT DATA LINES FROM PATCHBOARD	6A7B	A716	10	RU9	REPLY COUNTER UNIT 9 NOT	12A2B	A821	11
PB4 OUT	OUTPUT DATA LINES FROM PATCHBOARD	6A6A	A716	L	RU0D	REPLY COUNTER UNIT 0 DISPLAY NOT	12C7	A1120	13
PB5 OUT	OUTPUT DATA LINES FROM PATCHBOARD	6A6B	A716	7	RU1D	REPLY COUNTER UNIT 1 DISPLAY NOT	12C6A	A1120	P
PB6 OUT	OUTPUT DATA LINES FROM PATCHBOARD	6A6C	A716	H	RU2D	REPLY COUNTER UNIT 2 DISPLAY NOT	12C6B	A1120	10
PB7 OUT	OUTPUT DATA LINES FROM PATCHBOARD	6A5A	A716	4	RU3D	REPLY COUNTER UNIT 3 DISPLAY NOT	12C5A	A1120	L
RD5D	REPLY COUNTER DECADE 5 DISPLAY NOT	13D4B	A1020	H	RU4D	REPLY COUNTER UNIT 4 DISPLAY NOT	12C5B	A1120	7
RD6D	REPLY COUNTER DECADE 6 DISPLAY NOT	13D3A	A1020	4	RU5D	REPLY COUNTER UNIT 5 DISPLAY NOT	12C4A	A1120	H
RD7D	REPLY COUNTER DECADE 7 DISPLAY NOT	13D3C	A1020	D	RU6D	REPLY COUNTER UNIT 6 DISPLAY NOT	12C4	A1120	4
					RU7D	REPLY COUNTER UNIT 7 DISPLAY NOT	12C3B	A1120	D

SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
RUBD	REPLY COUNTER UNIT 8 DISPLAY NOT	12C2A	A1121	4	RNACK	RECEIVED NACK	15D6B	A719	H
RUBD	REPLY COUNTER UNIT 9 DISPLAY NOT			D	RPA	RECEIVED PROPER ACK	17C9B	A821	D
RCC2	RECEIVED ACK 1 STORED	15D9B	A719	10	RPA	RECEIVED PROPER ACK	17C6B	A523	H
RCC3	RECEIVED ACK 2 STORED	15A2B	A720	L	RPT BLK	REPEAT BLOCK	17C3B	A724	P
RCC4	RECEIVED RM STORED	15C5A	A720	10	RPT BLK	REPEAT BLOCK	17C3A	A723	H
RCC5	RECEIVED WBT STORED	15C3B	A619	L	RPT BLK - D	REPEAT BLOCK DISPLAY NOT	27D4A	A885	13
RDO	RESPONSE TIME DECADE ENABLES	13D6	A919	13	RPT BLK INH	REPEAT BLOCK INHIBIT NOT	24C18A	A711	3
RD1	RESPONSE TIME DECADE ENABLES	13D7B	A919	P	RPT BLK (MEM)	REPEAT BLOCK (TO MEMORY) NOT	28C1A	A1110	10
RD2	RESPONSE TIME DECADE ENABLES	13D6A	A919	10	RPT MSG	REPEAT MESSAGE	17D9A	A725	P
RD3	RESPONSE TIME DECADE ENABLES	13D6C	A919	L	RPT MSG	REPEAT MESSAGE	17D2B	A723	C
RD4	RESPONSE TIME DECADE ENABLES	13D5B	A919	7	RPT MSG - D	REPEAT MESSAGE DISPLAY NOT	27D4B	A1125	10
RD5	RESPONSE TIME DECADE ENABLES	13D4A	A919	H	RPT MSG (MEM)	REPEAT MESSAGE (TO MEMORY)	25C1B	A1116	4
RD6	REPLY COUNTER DECADE 6 NOT	13D4C	A919	4	RPT MSG RESET	REPEAT MESSAGE RESET	27A8A	A1122	L
RD7	REPLY COUNTER DECADE 7 NOT	13D3B	A919	D	RRM	RECEIVED RM	15C5B	A623	3
RD8	REPLY COUNTER DECADE 8 NOT	13D2A	A920	13	R STOP	RECEIVED STOP IN MODE 5 AUTOMATIC OPERATION	16D9	A623	3
RD9	RESPONSE TIME DECADE ENABLES	13D9C	A820	P	R STOP ST	RECEIVE STOP STORED	16D8	A628	H
RD9D	REPLY COUNTER DECADE 9 DISPLAY NOT	13D7A	A1020	13	RT COMP	RESPONSE TIME COMPARE	13C4	A821	7
RD4D	REPLY COUNTER DECADE 1 DISPLAY NOT	13D7C	A1020	P	RT COMP	REPLY TIME COUNTER COMPARE NOT	13C5	A1114	10
RD2D	REPLY COUNTER DECADE 2 DISPLAY NOT	13D6B	A1020	10	RTCOMPEN		13C2	A933	7
RD3D	REPLY COUNTER DECADE 3 DISPLAY NOT	13D5A	A1020	L	RTRESET		12D68	A622	7
RD4D	REPLY COUNTER DECADE 4 DISPLAY NOT	13D5C	A1020	7	RT RESET A	REPLY TIME COUNTER RESET A NOT	12D6A	A430	4
					RWB1	RECEIVED WBT	15C2	A619	F
					RWB1	RECEIVED WBT	15C2	A619	H
					RACK1	ACK 1 RECEIVED FROM BLOCK READER	15D2	A719	7
					RACK2	ACK 2 RECEIVED FROM BLOCK READER	15A1	A720	H
					RCCT	RECEIVED NAK STORED	15D5A	A719	L

SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
SEND BLK	SEND BLOCK	1B10B	A332	14	TCRAB	TRANSMIT COUNTER RESET A OR B	24A9A	A712	H
SEND START	SEND MODE 5 START SEQUENCE	16A8	A632	F	TCRA	TRANSMIT COUNTER RESET A	207C	A427	7
SEND START	SEND MODE 5 START SEQUENCE	1048	A632	H	TCRB	TRANSMIT COUNTER RESET B	2C7	A825	7
SI	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A2B	A314	C	TCR	TRANSMIT COUNTER RESET	2D6	A828	10
SO	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A2A	A415	10	T DBC	TRANSMIT DISCONNECT	14A2A	A413	H
SOM	START MESSAGE FROM PATCHBOARD OR CORE	17B8C	A624	13	TD	TRANSMIT DISCONNECT	14A2B	A513	P
START A	START A	1B8A	A531	7	TEOM	CAN OR ROM TRANSMIT STORE	17A7B	A623	L
START A	OUTPUT OF START TRANSMIT FLIP FLOP	1B8A	A531	6	TFI	TRANSMIT FILLER INHIBIT	6B8B	A623	4
START NEW BLK	START NRW BLOCK NOT	28C1C	A1011	10	TDV	TRANSMIT DIV SEQUENCE	16C2	A822	L
START ST	START STORE	1A8B	A429	M	TOXCC	TIME OUT FOR REP OR CAN	16D8B	A827	L
START ST	START STORE NOT	1A8B	A429	L	TP INV1	TRANSMIT PARITY FROM MEMORY INVERTED	26D8A	A724	H
START ST	SET START STORE NOT	1B8B	A432	H	TP NORM	TRANSMIT PARITY FROM MEMORY NORMAL	26D4C	A724	D
START XMIT	START TRANSMIT	26D3B	A724	10	TREP	TRANSMIT REP SEQUENCE	16D6A	A622	H
START XMIT A	START TRANSMIT A NOT	1E8B	A330	C	TS RACK	TRANSMIT SR ACK	14B4A	A513	4
START XMIT B	START TRANSMIT DISPLAY NOT	26B3C	A723	4	TCP1	TRANSMIT CLOCK PULSE OUTPUTS	2A7A	A325	13
STCNT	START COUNT	24D9	A1014	L	TCP2	TRANSMIT CLOCK PULSE OUTPUTS	2A7B	A325	10
STCNT	START COUNT	24A8	A613	F	TCP3	TRANSMIT CLOCK PULSE OUTPUTS	2A8A	A325	L
STCNT RESET	STORE COUNT RESET NOT	24A9B	A712	10	TCP3	TRANSMIT CLOCK PULSE OUTPUTS	2B6A	A425	10
STOP XMIT	STOP TRANSMIT	1A9	A520	10	TCP4	TRANSMIT CLOCK PULSE OUTPUTS	2A8B	A326	7
T BUSY		14A6A	A512	P	TCP5	TRANSMIT CLOCK PULSE OUTPUTS	2A8A	A326	H
TS	LOAD BITS 2, 4, 6, P INTO OUTPUT REGISTER	14A5B	A512	H	TCP5	TRANSMIT CLOCK PULSE 5 NOT	2B5A	A425	7
T CAN		16D1	A530	L	TCP6	TRANSMIT CLOCK PULSE OUTPUTS	2B5B	A324	10
T CLK A	TRANSMIT CLOCK A	2D8D	A427	H	TCP6	TRANSMIT CLOCK PULSE 6 NOT	2B5B	A425	H
T CLK B	TRANSMIT CLOCK B	2C6	A324	7					

SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.
TCP7	TRANSMIT CLOCK PULSE OUTPUTS	2A4	A325	H
TCP7	TRANSMIT CLOCK PULSE OUTPUTS	2B4	A424	10
TCP8	TRANSMIT CLOCK PULSE OUTPUTS	2A3	A325	4
TCP8	TRANSMIT CLOCK PULSE OUTPUTS	2B3	A424	L
TCP9	TRANSMIT CLOCK PULSE OUTPUTS	2A2	A325	D
TCP9	TRANSMIT CLOCK PULSE OUTPUTS	2B2	A424	H
TRCC	TRANSMIT TWO CONTIGUOUS CONTROL CHARACTERS	27A2B	A1128	10
WMSGINH	WRITE MESSAGE INHIBIT NOT	1E9A	A1019	4
XCAN	TRANSMIT CAN SEQUENCE	10A4B	A927	H
XCANST	TRANSMIT CAN STORED	16D3B	A429	11
XCANST	TRANSMIT CAN STORED	16D3B	A429	10
XENQ	TRANSMIT ENQ SEQUENCE	10A2B	A830	H
XINV	TRANSMIT INV SEQUENCE	10A2A	A627	H
XM	TRANSMIT MESSAGE	17B7B	A624	10
XMIT BP	TRANSMIT BLOCK PARITY	7D1	A531	M
XMIT BP	TRANSMIT BLOCK PARITY	7D1	A531	L
XMIT BUSY	TRANSMIT BUSY	27A6B	A1012	H
XMIT BUSY-D	TRANSMIT BUSY DISPLAY NOT	27D3C	A1012	L
XMIT CAN	TRANSMIT CAN SEQUENCE	27A4A	A1129	H
XMIT CAN-D	TRANSMIT CANCEL DISPLAY NOT	27D2B	A1129	4
XMIT CLK	BLOCK GENERATOR MASTER CLOCK	14C2A	A220	7
XMIT CLOCK OUT	TRANSMIT CLOCK OUTPUT NOT	14C2B	A1116	
XMIT DATA	TRANSMIT DATA NOT	27D6B	A634	10

Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.
XMIT DATA-D	TRANSMIT DATA DISPLAY NOT	27D6C	A1134	10
XMIT DISC	TRANSMIT DISCONNECT	27A7C	A1012	10
XMIT DISC-D	TRANSMIT DISCONNECT DISPLAY NOT	27D3B	A1012	P
XMIT EOB	TRANSMIT END OF BLOCK	7D2	A531	11
XMIT EOB	TRANSMIT END OF BLOCK	7D2	A531	10
XMIT LAST BLK	TRANSMIT LAST BLOCK	24E2A	A711	H
XM (MEM)	TRANSMIT MESSAGE (TO MEMORY)	25C2A	A1031	7
XMIT REP-D	TRANSMIT REP DISPLAY	26B6C	A1131	P
XMIT SRACK		27A5B	A1111	7
XMIT SRACK-D	TRANSMIT SRACK DISPLAY	27D2A	A1111	13
XMIT SYNC	TRANSMIT SYNC	27A7A	A1012	7
XMIT SYNC-D	TRANSMIT SYNC DISPLAY NOT	27D3A	A627	D
XNAK	TRANSMIT NACK SEQUENCE	10A7B	A731	L
XRCC	TRANSMIT RECEIVE CONTROL CHARACTER	10A5B	A729	L
XREP	TRANSMIT REP SEQUENCE	10A3	A627	L
XREP + XCAN	TRANSMIT REP OR CAN SEQUENCE	16B7	A527	7
XRM	TRANSMIT RM SEQUENCE	10A7A	A728	10
XWBT	TRANSMIT WBT SEQUENCE	10A6A	A727	10
XACK1	TRANSMIT ACK1 SEQUENCE	10A5A	A729	D
XACK2	TRANSMIT ACK2 SEQUENCE	10A4A	A731	7
XMIT BLK1	TRANSMIT BLOCK 1	24E9C	A711	7
XMIT BLK1	TRANSMIT BLOCK 1	24E9B	A712	L
XMIT BLK1ST	TRANSMIT BLOCK 1 STORED	24E7	A613	6
XMIT 2CC-D	TRANSMIT 2 CONTROL CHAR DISPLAY	27D1	A1128	7

SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.
(COMMA)	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A4C	A414	10
,	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A6A	A515	7
,	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A5D	A414	C
,	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A3C	A415	7
(HYPHEN)	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A4D	A414	L
-	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A5C	A414	3
(	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C4B	A616	7
)	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	204C	A616	H
(PERIOD)	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A3A	A415	3
.	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A6B	A515	H
/	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A3B	A415	C
SPACE	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A3D	A415	H
"	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A5B	A515	L
?	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20A5A	A515	10
1A	CHARACTER COUNT REGISTER OUTPUTS	3E4A	A924	M
1A	CHARACTER COUNT REGISTER OUTPUTS	3E4A	A92A	L
2A	CHARACTER COUNT REGISTER OUTPUTS	3E4B	A924	6
2A	CHARACTER COUNT REGISTER OUTPUTS	3E4B	A924	7

Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.
3A	CHARACTER COUNT REGISTER OUTPUTS	3E3A	A924	F
3A	CHARACTER COUNT REGISTER OUTPUTS	3E3A	A924	H
4A	CHARACTER COUNT REGISTER OUTPUTS	3E3B	A824	11
4A	CHARACTER COUNT REGISTER OUTPUTS	3E3B	A824	10
5A	CHARACTER COUNT REGISTER OUTPUTS	3E2	A824	M
5A	CHARACTER COUNT REGISTER OUTPUTS	3E2	A824	L
4A, 5A, P	ASCII TO ITA 2 CONVERSION	21D3C	A116	10
1B	GROUP COUNT REGISTER OUTPUTS	4D4A	A923	11
1B	GROUP COUNT REGISTER OUTPUTS	4D4A	A923	10
2B	GROUP COUNT REGISTER OUTPUTS	4D4B	A923	M
2B	GROUP COUNT REGISTER OUTPUTS	4D4B	A923	L
3B	GROUP COUNT REGISTER OUTPUTS	4D3	A923	6
3B	GROUP COUNT REGISTER OUTPUTS	4D3	A923	7
4B	GROUP COUNT REGISTER OUTPUTS	4D2A	A923	F
4B	GROUP COUNT REGISTER OUTPUTS	4D2A	A923	H
5B	GROUP COUNT REGISTER OUTPUTS	4D2B	A924	11
5B	GROUP COUNT REGISTER OUTPUTS	4D2B	A924	10
4B, 5B, P	ASCII TO ITA 2 CONVERSION	21D3D	A116	L
1C	PAUSE TIME UNITS COUNTER OUTPUTS	11B4A	A1033	11
1C	PAUSE TIME UNITS COUNTER OUTPUTS	11B4A	A1033	10
2C	PAUSE TIME UNITS COUNTER OUTPUTS	11B3A	A1033	M
2C	PAUSE TIME UNITS COUNTER OUTPUTS	11B3A	A1033	L
3C	PAUSE TIME UNITS COUNTER OUTPUTS	11B3B	A1033	6

SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
3C	PAUSE TIME UNITS COUNTER OUTPUTS	11B3B	A1033	7	2 ¹ DMSC#	MESSAGE NUMBER DECADE BIT TWO	25A6B	A1112	L
4C	PAUSE TIME UNITS COUNTER OUTPUTS	11B2A	A1033	F	2 ² DMSC#	MESSAGE NUMBER DECADE BIT THREE	25A6A	A1112	13
4C	PAUSE TIME UNITS COUNTER OUTPUTS	11B2A	A1033	H	2 ³ DMSC#	MESSAGE NUMBER DECADE BIT FOUR	25A7	A1112	P
5C	PAUSE TIME UNITS COUNTER OUTPUTS	11B2B	A933	11	1E	PAUSE TIME DECADE COUNTER OUTPUTS	11A4B	A934	11
5C	PAUSE TIME UNITS COUNTER OUTPUTS	11B2B	A933	10	1E	PAUSE TIME DECADE COUNTER OUTPUTS	11A4B	A934	10
1D	OUTPUT REGISTER OUTPUTS	5A3B	A221	L	2E	PAUSE TIME DECADE COUNTER OUTPUTS	11A3A	A934	M
1D	OUTPUT REGISTER OUTPUTS	5A3B	A221	M	2E	PAUSE TIME DECADE COUNTER OUTPUTS	11A3A	A934	L
2D	OUTPUT REGISTER OUTPUTS	5A3A	A221	10	3E	PAUSE TIME DECADE COUNTER OUTPUTS	11A3B	A934	6
3D	OUTPUT REGISTER OUTPUTS	5A4B	A221	H	3E	PAUSE TIME DECADE COUNTER OUTPUTS	11A3B	A934	7
4D	OUTPUT REGISTER OUTPUTS	5A4A	A221	7	4E	PAUSE TIME DECADE COUNTER OUTPUTS	11A2A	A934	F
5D	OUTPUT REGISTER OUTPUTS	5A5B	A222	L	4E	PAUSE TIME DECADE COUNTER OUTPUTS	11A2A	A934	H
6D	OUTPUT REGISTER OUTPUTS	5A5A	A222	10	5E	PAUSE TIME DECADE COUNTER OUTPUTS	11A2B	A933	M
7D	OUTPUT REGISTER OUTPUTS	5A6	A222	H	5E	PAUSE TIME DECADE COUNTER OUTPUTS	11A2B	A933	L
8D	OUTPUT REGISTER OUTPUTS	5A7B	A222	7	1F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D5A	A820	F
9D	OUTPUT REGISTER OUTPUTS	5A7A	A121	H	1F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D5A	A820	H
10D	OUTPUT REGISTER OUTPUTS	5A8	A121	7	2F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D4	A820	11
2 ⁰ DLBC#	DECADE LINE BLOCK COUNT NUMBER OUTPUTS TO MEMORY	25D5	A1113	H	2F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D4	A820	10
2 ¹ DLBC#	DECADE LINE BLOCK COUNT NUMBER OUTPUTS TO MEMORY	25D6B	A1113	L	3F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D3	A820	M
2 ² DLBC#	DECADE LINE BLOCK COUNT NUMBER OUTPUTS TO MEMORY	25D6A	A1113	13	3F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D3	A820	L
2 ³ DLBC#	DECADE LINE BLOCK COUNT NUMBER OUTPUTS TO MEMORY	25D7	A1113	P	4F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D2	A721	11
2 ⁰ DMSC#	MESSAGE NUMBER DECADE BIT ONE	25A5	A1112	H	4F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D2	A721	10
					5F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D1A	A721	M
					5F	RESPONSE TIME UNITS COUNTER OUTPUTS	12D1A	A721	L

SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
1G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A5	A819	6	5J	MEMORY DATA BUFFER 18D4A OUTPUTS	18D4A	A1015	F
1G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A5	A819	7	6J	MEMORY DATA BUFFER 18D5 OUTPUTS	18D5	A1015	7
2G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A4A	A819	F	6J	MEMORY DATA BUFFER 18D5 OUTPUTS	18D5	A1015	6
2G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A4A	A819	H	7J	MEMORY DATA BUFFER 18D6 OUTPUTS	18D6	A1015	L
3G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A4A	A819	H	7J	MEMORY DATA BUFFER 18D6 OUTPUTS	18D6	A1015	M
3G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A4B	A819	11	8J	MEMORY DATA BUFFER 18D7 OUTPUTS	18D7	A1015	10
3G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A4B	A819	10	8J	MEMORY DATA BUFFER 18D7 OUTPUTS	18D7	A1015	11
4G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A13A	A819	M	9K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D2A	A814	10
4G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A13A	A819	L	1K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D3B	A814	L
5G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A3B	A820	6	1K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19E3D	A914	L
5G	RESPONSE TIME DECADE COUNTER OUTPUTS	13A3B	A820	7	2K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D3A	A814	7
16 X INT CLK	16 X INTERNAL CLOCK	23C1	A810	7	2K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19E3A	A914	7
1J	MEMORY DATA BUFFER 18D1 OUTPUTS		A1016	H	3K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D4B	A815	7
1J	MEMORY DATA BUFFER 18D1 OUTPUTS		A1016	F	4K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D4A	A815	4
2J	MEMORY DATA BUFFER 18D2 OUTPUTS		A1016	7	5K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D5B	A815	H
2J	MEMORY DATA BUFFER 18D2 OUTPUTS		A1016	6	6K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	1905A	A815	H
3J	MEMORY DATA BUFFER 18D3 OUTPUTS		A1016	L	7K	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D6	A813	10
3J	MEMORY DATA BUFFER 18D3 OUTPUTS		A1016	M	4.8KC	4.8 KC CLOCK	23C3A	A132	P
4J	MEMORY DATA BUFFER 18D4B OUTPUTS		A1016	10	76.8KC	76.8KC CLOCK FREQ.	23A4	A1110	L
4J	MEMORY DATA BUFFER 18D4B OUTPUTS		A1016	11	9M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3A	A816	10
5J	MEMORY DATA BUFFER 18D4A OUTPUTS		A1015	H					

SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
1M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B4B	A816	L	2Q	ASCII TO ITA 2 CONVERSION	21D1A	A219	H
2M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B4A	A816	7	3Q	ASCII TO ITA 2 CONVERSION	21D1B	A219	10
3M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B5B	A713	4	4Q	ASCII TO ITA 2 CONVERSION	21A3	A219	L
4M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B5A	A713	7	5Q	ASCII TO ITA 2 CONVERSION	21A2	A315	10
5M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B6	A713	H	3RPT	3 RPT	16B3	A725	7
6M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D1	A816	H	3RPT	3 RPT	16A4	A725	4
7M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19D2B	A713	D	3RPTA	3 RPT	16B5A	A724	4
8M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B1	A813	L	3RPT-D	3 REPEAT DISPLAY	27D5C	A1125	P
9M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B2B	A813	7	1R	CLOCK PULSE COUNTER OUTPUTS	2D5B	A525	6
10M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B2A	A813	H	1R	CLOCK PULSE COUNTER OUTPUTS	2D5B	A525	7
11M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3B	A812	L	2R	CLOCK PULSE COUNTER OUTPUTS	2D4A	A524	6
12M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3A	A812	H	2R	CLOCK PULSE COUNTER OUTPUTS	2D4A	A524	7
13M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3B	A812	L	3R	CLOCK PULSE COUNTER OUTPUTS	2D4B	A524	F
14M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3A	A812	H	3R	CLOCK PULSE COUNTER OUTPUTS	2D4B	A524	H
15M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3B	A812	L	4R	CLOCK PULSE COUNTER OUTPUTS	2D3A	A524	11
16M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3A	A812	H	4R	CLOCK PULSE COUNTER OUTPUTS	2D3A	A524	10
17M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3B	A812	L	5R	CLOCK PULSE COUNTER OUTPUTS	2D3B	A524	M
18M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3A	A812	H	5R	CLOCK PULSE COUNTER OUTPUTS	2D3B	A524	L
19M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3B	A812	L	3RPT RESET		16C6B	A429	7
20M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3A	A812	H	3RPT RT RESET		16C6A	A530	D
21M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3B	A812	L	2 ⁰ UMSG#	MESSAGE NUMBER UNIT BIT ONE	25C5	A1112	7
22M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3A	A812	H	2 ⁰ ULBC#	UNITS LINE BLOCK COUNT NUMBER OUTPUTS TO MEMORY	25E5	A1113	7
23M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3B	A812	L	2 ¹ ULBC#	UNITS LINE BLOCK COUNT NUMBER OUTPUTS TO MEMORY	25E6B	A1113	D
24M	INTERMEDIARY DE-CODES FROM MEMORY BUFFER	19B3A	A812	H	2 ² ULBC#	UNITS LINE BLOCK COUNT NUMBER OUTPUTS TO MEMORY	25E6A	A1113	4

SIGNAL GLOSSARY
BLOCK GENERATOR LOGIC DIAGRAM
(FIG. 5-28)

Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.
2 ³ ULBC#	UNITS LINE BLOCK COUNT NUMBER OUTPUTS TO MEMORY	25E7	A1113	10
2 ¹ UMSG#	MESSAGE NUMBER UNIT BIT TWO	25C6B	A1112	D
2 ² UMSG#	MESSAGE NUMBER UNIT BIT THREE	25C6A	A1112	4
2 ³ UMSG#	MESSAGE NUMBER UNIT BIT FOUR	25C7	A1112	10
1X	CHARACTER COUNTER A,B,C,D,E, - OUTPUTS	7B5	A921	M
1X	CHARACTER COUNTER A,B,C,D,E, - OUTPUTS	7B5	A921	L
2X	CHARACTER COUNTER A,B,C,D,E, - OUTPUTS	7B4A	A921	6
2X	CHARACTER COUNTER A,B,C,D,E, - OUTPUTS	7B4A	A921	7
3X	CHARACTER COUNTER A,B,C,D,E, - OUTPUTS	7B4B	A921	F
3X	CHARACTER COUNTER A,B,C,D,E, - OUTPUTS	7B4B	A921	H
0	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C4D	A616	10
1	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C3A	A616	L
2	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C3B	A514	3
3	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C3D	A514	C
4	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C3D	A514	7
5	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C2A	A514	H
6	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C2B	A514	10
7	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C2C	A514	L
8	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C2D	A515	3
9	DECODES OF ASCII CHARACTERS FROM MEMORY BUFFER	20C1	A515	C

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
ADD	ADDRESS	9D6B	A1027	H	BEGN PRNT	BEGN PRNT	7C8	A621	11
ADMDRN	ADDER INPUT MEMORY INPUT DATA REGISTER HIGH	18D4D	A332	P	BGBDEN	BLOCK GENERATOR BLOCK DECADE ENABLE	20D7B	A1034	7
ADMDRN	ADDER INPUT MEMORY INPUT DATA REGISTER HIGH	18C4	A433	5	BGBD ⁰	BLOCK GENERATOR BLOCK DECADE BIT 1	35A2A	A1126	10
ADMDRL	ADDER INPUT MEMORY INPUT DATA REGISTER LOW	18B4C	A332	10	BGBD ¹	BLOCK GENERATOR BLOCK DECADE BIT 2	35A2B	A1126	13
ADMDRL	ADDER INPUT MEMORY INPUT DATA REGISTER LOW	18A4	A433	7	BGBD ²	BLOCK GENERATOR BLOCK DECADE BIT 3	35A1A	A1126	L
ADMDRL	ADDER INPUT MEMORY INPUT DATA REGISTER LOW	18A4	A433	7	BGBD ³	BLOCK GENERATOR BLOCK DECADE BIT 4	35A1B	A1126	P
ADMDRL	ADDER INPUT MEMORY OUTPUT DATA REGISTER LOW	18D7D	A334	7	BGBUEN	BLOCK GENERATOR BLOCK UNIT ENABLE	20D6D	A1034	10
ADMDRL	ADDER INPUT MEMORY OUTPUT DATA REGISTER LOW	18C7	A433	3	BGBU ⁰	BLOCK GENERATOR BLOCK UNIT BIT 1	35A4	A1126	4
A12 ⁰	ADDER INPUT A BIT 1	28D6	A624	7	BGBU ¹	BLOCK GENERATOR BLOCK UNIT BIT 2	35A3A	A1126	7
A12 ¹	ADDER INPUT A BIT 2	28B4B	A625	7	BGBU ²	BLOCK GENERATOR BLOCK UNIT BIT 3	35A3B	A1126	D
A12 ²	ADDER INPUT A BIT 3	28B4B	A623	7	BGBU ³	BLOCK GENERATOR BLOCK UNIT BIT 4	35A3C	A1126	H
A12 ³	ADDER INPUT A BIT 4	28B3	A823	H	BGDS	BLOCK GENERATOR DATA STROBE	20D3C	A1129	7
A12 ⁴	ADDER INPUT A BIT 5	28B2	A725	7	BGDS	BLOCK GENERATOR DATA STROBE	JB-M	A1122	R
A12 ⁵	ADDER INPUT A BIT 6	28A5	A823	10	BGMDEN	BLOCK GENERATOR MESSAGE DECADE ENABLE	20D6C	A1133	H
A12 ⁶	ADDER INPUT A BIT 7	28A4A	A823	L	BGMD ⁰	BLOCK GENERATOR MESSAGE DECADE BIT 1	35C2A	A1125	10
A12 ⁷	ADDER INPUT A BIT 8	28A4B	A824	7	BGMD ¹	BLOCK GENERATOR MESSAGE DECADE BIT 2	35C2B	A1125	13
A12 ⁸	ADDER INPUT A BIT 9	28A3A	A730	10	BGMD ²	BLOCK GENERATOR MESSAGE DECADE BIT 3	35C1A	A1125	L
A12 ⁹	ADDER INPUT A BIT 10	28A3B	A730	L	BGMD ³	BLOCK GENERATOR MESSAGE DECADE BIT 4	35C1B	A1125	P
A12 ¹⁰	ADDER INPUT A BIT 11	28A2A	A730	H	BGMUEN	BLOCK GENERATOR MESSAGE UNIT ENABLE	20D6D	A1033	L
A12 ¹¹	ADDER INPUT A BIT 12	28A2B	A730	7	BGMU ⁰	BLOCK GENERATOR MESSAGE UNIT BIT 1	35C4	A1125	4
ASMI	ASCII MODE OWE	23B3B	A426	H					
AUTO PNT ERR	AUTO PRINT ERROR	3B5B	A523	R					
AUTO PNT ETX	AUTO PRINT ETX	3B5C	A523	L					
AUTO PNT LBC	AUTO PRINT LINE BLOCK COUNT	10D2A	A10D2A	E					
AUTO PNT LBC + MSG	AUTO PRINT LINE BLOCK COUNT + MESSAGE	11D4A	A1129	4					

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
BGMU ²	BLOCK GENERATOR MESSAGE UNIT BIT 2	35C3A	A1125	7	BRDXMIDR	BLOCK READER DATA TRANSFER TO MEMORY INPUT DATA REGISTER	18D6A	A223	7
BGMU ³	BLOCK GENERATOR MESSAGE UNIT BIT 3	35C3B	A1125	D	BR END PNT	BLOCK READER END PRINT	9D7D	A426	E
BGMU ⁴	BLOCK GENERATOR MESSAGE UNIT BIT 4	35C3C	A1125	H	BRRC	BLOCK READER RESET C	9D4A	A314	H
B1-1	B INPUT - 1	19D1D	A227	7	CLKA	MEMORY CLOCK A	18D3D	A227	10
B12 ⁰	ADDER INPUT B BIT 1	25A4	A825	7	CLKB	MEMORY CLOCK B	18D3E	A227	L
B12 ¹	ADDER INPUT B BIT 2	25A3	A825	H	CLKC	MEMORY CLOCK C	18D3C	A1129	13
B12 ²	ADDER INPUT B BIT 3	25A2	A826	7	COS ³	CARRY OUT BIT 4	28E3	A634	C
B12 ³	ADDER INPUT B BIT 4	25A1	A826	H	COS ⁷	CARRY OUT BIT 8	28E4	A636	C
B12 ⁴	ADDER INPUT B BIT 5	26A5C	A827	7	CR + LF	CARRIAGE RETURN + LINE FEED NOT	3C1A	A891	13
B12 ⁵	ADDER INPUT B BIT 6	26A4C	A827	H	CR LF ⁰	CARRIAGE RETURN LINE FEED COUNTER BIT 1	8A2	A423	7
B12 ⁶	ADDER INPUT B BIT 7	26A3C	A828	7	CR LF ¹	CARRIAGE RETURN LINE FEED COUNTER BIT 2	8A1	A423	10
B12 ⁷	ADDER INPUT B BIT 8	26A2C	A828	H	CSLA	CARD SELECT A	11C8	A320	L
B12 ⁸	ADDER INPUT B BIT 9	27A4	A829	7	DATA	DATA	9D6A	A1027	13
B12 ⁹	ADDER INPUT B BIT 10	27A3	A829	H	DISPR ⁰	DISPLAY REGISTER BIT 1	32C6	A1133	F
B12 ¹⁰	ADDER INPUT B BIT 11	27A2	A830	7	DISPR ¹	DISPLAY REGISTER BIT 2	32C5	A1133	6
B12 ¹¹	ADDER INPUT B BIT 12	27A1	A830	H	DISPR ²	DISPLAY REGISTER BIT 3	32C4	A1133	M
BRDEN	BLOCK READER BLOCK DECADE ENABLE	20D4C	A1034	3	DISPR ³	DISPLAY REGISTER BIT 4	32C3A	A1133	11
BRBD ⁰	BLOCK READER BLOCK DECADE BIT 1	36A2B	A730	4	DISPR ⁴	DISPLAY REGISTER BIT 5	32C3B	A1133	F
BRBD ¹	BLOCK READER BLOCK DECADE BIT 2	36A1	A730	D	DISPR ⁵	DISPLAY REGISTER BIT 6	32C3	A1133	6
BRBUEN	BLOCK READER BLOCK UNIT ENABLE	20D4D	A1034	5	DISPR ⁶	DISPLAY REGISTER BIT 7	32A6	A1133	M
BRBU ⁰	BLOCK READER BLOCK UNIT BIT 1	36A3A	A1025	3	DISPR ⁷	DISPLAY REGISTER BIT 8	32A5	A1133	11
BRBU ¹	BLOCK READER BLOCK UNIT BIT 2	36A3B	A1025	C	DISPR ⁸	DISPLAY REGISTER BIT 9	32A4	A1134	F
BRBU ²	BLOCK READER BLOCK UNIT BIT 3	36A3C	A1025	7	DISPR ⁹	DISPLAY REGISTER BIT 10	32A3A	A1134	6
BRBU ³	BLOCK READER BLOCK UNIT BIT 4	36A2A	A1025	H					
BRDXMIDR	BLOCK READER DATA TRANSFER TO MEMORY INPUT DATA REGISTER	18D6B	A325	L					

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
DISPR2 ¹⁰	DISPLAY REGISTER BIT 11	32A3B	A1134	M	GCGC27	GENERATE CONSTANT Q27	23D8	A334	H
DISPR2 ¹¹	DISPLAY REGISTER BIT 12	32A2	A1134	11	GCGC01	GENERATE CONSTANT Q201	23D38	A234	7
DO BEGN MAN PNT	DO BEGIN MANUAL PRINT	11A2	A1008	2	GCGC02	GENERATE CONSTANT Q202	23D38	A334	7
DO BEGN PRINT	DO BEGIN PRINT	6A1	A226	10	GEN CYC COMPL	GENERATE CYCLE COMPLETE	2A2	A730	P
DO EOB BLK	DO END OF BLOCK BOOKKEEPING	6A4B	A325	C	GEN CYC TRANS	GENERATE CYCLE TRANSFER	7D6	A323	7
DO RET CHAR	DO RETRIEVE CHARACTER	6A6	A325	14	GR/R	GENERATE READ RESTORE	17B2	A1124	N
DO SOB BKP	DO START OF BLOCK BOOKKEEPING	6B3	A425	7	GSA	GENERATE STANDARD ADDRESS	22A2	A932	10
DO STORE CHAR	DO STORE CHARACTER	6B5	A324	7	GSA01	GENERATE STANDARD ADDRESS 01	21B2B	A933	C
DO XFER NON TERM	DO TRANSFER NON TERM	7B3A	A324	7	GSA02	GENERATE STANDARD ADDRESS 02	21B58	A933	14
DO XFER NON TERM START UP	DO TRANSFER NON TERM START UP	6B1	A231	L	GSA03	GENERATE STANDARD ADDRESS 03	22D3B	A1033	7
END PRINT	END PRINT	11C3	A1515	H	GSA04	GENERATE STANDARD ADDRESS 04	22A3	A933	H
EOB BKP	END OF BLOCK BOOKKEEPING	7C8	A124	L	GSA05	GENERATE STANDARD ADDRESS 05	21A3B	A933	E
EOB BKP	END OF BLOCK BOOKKEEPING	7C8	A124	M	GSA06	GENERATE STANDARD ADDRESS 06	22D2B	A933	R
ETX SENT	ETX SENT	10B7B	A120	10	GSA10	GENERATE STANDARD ADDRESS 10	21A54	A427	H
GCI	GENERATE CARRY IN	19B7	A632	4	GSA13	GENERATE STANDARD ADDRESS 13	22A4	A933	L
GCI	GENERATE CARRY IN	19C6B	A433	H	GSA14	GENERATE STANDARD ADDRESS 14	22A5	A933	N
GCMAR	GENERATE CONSTANT TO MEMORY ADDRESS REGISTER	21A2	A819	7	GSA15	GENERATE STANDARD ADDRESS 15	22D6B	A1033	3
GCMIDR	GENERATE CONSTANT MEMORY INPUT DATA REGISTER	23C5B	A426	R	GSA16	GENERATE STANDARD ADDRESS 16	224B	A1033	5
GCMTSR CLK-B	GENERATE CONSTANT MEMORY TEMPORARY SUM REGISTER CLOCK B	23B1B	A233	O	IDRC1-3-27-28	INPUT DATA REGISTER GENERATE CONSTANT 1 + 3 + 27 + 28	23D58	A433	12
GC/W	GENERATE CLEAR WRITE	17B38	A1124	L	IDRC27-24	INPUT DATA REGISTER GENERATE CONSTANT 27 + 24	23D3C	A433	C
GCG001	GENERATE CONSTANT 0001	23B3C	A231	7	IDRC29-1-30	INPUT DATA REGISTER GENERATE CONSTANT 29 + 28	23D3C	A433	E
					IDRC3-27-28	INPUT DATA REGISTER GENERATE CONSTANT 3 + 27 + 28	23D4C	A433	14

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
IDRC74	INPUT DATA REGISTER GENERATE CONSTANT 74	23D1A	A234	C	MBU2 ³	MEMORY BLOCK UNIT BIT 3	37A3A	A923	L
INH MCP CTR	INHIBIT MEMORY CLOCK PULSE COUNTER	2D4	A733	C	MBU2 ³	MEMORY BLOCK DECADE BIT 4	37A3B	A923	P
INH REQ4	INHIBIT REQUEST 4	8A5	A1004	N	MB1	MEMORY BIT 1	30A5A	A1130	3
INH SMSR	INHIBIT SET MEMORY SOME REGISTER	19B2	A325	P	MB2	MEMORY BIT 2	30A5B	A1130	5
MAR2 ⁰	MEMORY ADDRESS REGISTER BIT 1	34A6	A1122	14	MB3	MEMORY BIT 3	30A4A	A1130	7
MAR2 ¹	MEMORY ADDRESS REGISTER BIT 2	34A5	A1122	12	MB4	MEMORY BIT 4	30A4B	A1130	10
MAR2 ²	MEMORY ADDRESS REGISTER BIT 3	34A4	A1122	10	MB5	MEMORY BIT 5	30A3A	A1130	12
MAR2 ³	MEMORY ADDRESS REGISTER BIT 4	34A3	A1122	7	MB6	MEMORY BIT 6	30A3B	A1130	14
MAR2 ⁴	MEMORY ADDRESS REGISTER BIT 5	34A3B5	A1122	5	MB7	MEMORY BIT 7	30A3C	A1130	C
MAR2 ⁵	MEMORY ADDRESS REGISTER BIT 6	34A2	A1122	3	MB8	MEMORY BIT 8	30A3	A1130	E
MAR2 ⁶	MEMORY ADDRESS REGISTER BIT 7	33B7B	A1122	N	MCP50-51	MEMORY CLOCK PULSE 50-51	1504B	A523	14
MAR2 ⁷	MEMORY ADDRESS REGISTER BIT 8	33B6D	A1122	L	MCP50-51	MEMORY CLOCK PULSE 50-51	1524B	A523	H
MAR2 ⁸	MEMORY ADDRESS REGISTER BIT 9	33B5C	A1122	H	MCP50-51-00-01	MEMORY CLOCK PULSE 50-51-00-01	15A5B	A524	7
MAR2 ⁹	MEMORY ADDRESS REGISTER BIT 10	33B4D	A1122	E	MCP53	MEMORY CLOCK PULSE 53	1506A	A523	7
MAR2 ¹⁰	MEMORY ADDRESS REGISTER BIT 11	33B4E	A1122	C	MCTCP1	MEMORY CYCLE TRANSFER CLOCK PULSE 1	7A7	A324	E
MAR2 ¹¹	MEMORY ADDRESS REGISTER BIT 12	33B3D	A716	2	MCT3 ⁰	MEMORY CYCLE TRANSFER COUNTER BIT 1	7D8	A523	6
MAR2 ¹¹	MEMORY ADDRESS REGISTER BIT 12	33B3D	A716	3	MCT3 ⁰	MEMORY CYCLE TRANSFER COUNTER BIT 1	7D8	A523	7
MBDEN	MEMORY BLOCK DECADE ENABLE	20D8D	A1033	E	MCT3 ¹	MEMORY CYCLE TRANSFER COUNTER BIT 2	7D7	A523	7
MBUEN	MEMORY BLOCK UNIT ENABLE	20D8E	A1033	N	MCT3 ¹	MEMORY CYCLE TRANSFER COUNTER BIT 2	7D7	A523	H
MBD8 ⁰	MEMORY BLOCK DECADE BIT 1	37A2A	A1021	L	MCUEN	MEMORY CHARACTER UNIT ENABLE	20D6F	A1033	R
MBD8 ¹	MEMORY BLOCK DECADE BIT 2	37A2B	A1021	P	MCUEN	MEMORY CHARACTER UNIT ENABLE	20D8C	A134	D
MBU2 ⁰	MEMORY BLOCK UNIT BIT 1	37A4B	A923	D	MCU2 ⁰	MEMORY CHARACTER UNIT BIT 1	37C4C	A923	4
MBU2 ¹	MEMORY BLOCK UNIT BIT 2	37A4B	A923	H	MCU2 ¹	MEMORY CHARACTER UNIT BIT 2	37C4D	A923	7

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
MCU2 ³	MEMORY CHARACTER UNIT BIT 3	37C3C	A922	D	MIDRL2 ⁰	MEMORY INPUT DATA REGISTER LOW BIT 1	29B4A	A820	L
MCU2 ³	MEMORY CHARACTER UNIT BIT 4	37C3D	A922	H	MIDRL2 ¹	MEMORY INPUT DATA REGISTER LOW BIT 2	29B3A	A820	D
MEM FULL RCV	MEMORY FULL RECEIVE	10B3	A120	H	MIDRL2 ²	MEMORY INPUT DATA REGISTER LOW BIT 3	29B2A	A820	10
MEM FULL RCV	MEMORY FULL RECEIVE	10B4	A122	C	MIDRL2 ³	MEMORY INPUT DATA REGISTER LOW BIT 4	29B1A	A820	4
MEM INPUT BIT 2 ⁰	MEMORY INPUT BIT 1	29B4B	A1109	10	MIDRL2 ⁴	MEMORY INPUT DATA REGISTER LOW BIT 5	30B4A	A819	L
MEM INPUT BIT 2 ¹	MEMORY INPUT BIT 2	29B3B	A1119	7	MIDRL2 ⁵	MEMORY INPUT DATA REGISTER LOW BIT 6	30B3A	A819	D
MEM INPUT BIT 2 ²	MEMORY INPUT BIT 3	29B2B	A1119	5	MIDRL2 ⁶	MEMORY INPUT DATA REGISTER LOW BIT 7	30B2A	A819	10
MEM INPUT BIT 2 ³	MEMORY INPUT BIT 4	29B1B	A1119	3	MIDRL2 ⁷	MEMORY INPUT DATA REGISTER LOW BIT 7	30B1A	A819	4
MEM INPUT BIT 2 ⁴	MEMORY INPUT BIT 5	30B4B	A1119	E	MCC2 ⁰	MEMORY CYCLE COMPLETE COUNTER BIT 1	2E9	A533	6
MEM INPUT BIT 2 ⁵	MEMORY INPUT BIT 6	30B3B	A1119	C	MCC2 ⁰	MEMORY CYCLE COMPLETE COUNTER BIT 1	2E9	A533	7
MEM INPUT BIT 2 ⁶	MEMORY INPUT BIT 7	30B2B	A1119	14	MCC2 ¹	MEMORY CYCLE COMPLETE COUNTER BIT 2	2E8A	A533	F
MEM INPUT BIT 2 ⁷	MEMORY INPUT BIT 8	30B1B	A1119	13	MCC2 ¹	MEMORY CYCLE COMPLETE COUNTER BIT 2	2E8A	A533	H
MEM NORM	MEMORY NORMAL	33D9C	A1119	N	MCC2 ²	MEMORY CYCLE COMPLETE COUNTER BIT 3	2E8B	A533	3
MEM RESET	MEMORY RESET	15B1	A912	7	MCC2 ²	MEMORY CYCLE COMPLETE COUNTER BIT 3	2E8B	A533	2
MEMOHS	MEMORY SOH MODE 5	9A7	A1030	H	MCDEN	MEMORY CHARACTER DECADE ENABLE	20D8C	A1033	C
MIDRH2 ⁰	MEMORY INPUT DATA REGISTER HIGH BIT 1	29B1	A820	P	MCDEN	MEMORY CHARACTER DECADE ENABLE	20D8A	A133	C
MIDRH2 ¹	MEMORY INPUT DATA REGISTER HIGH BIT 2	29B4C	A820	H	MCD2 ⁰	MEMORY CHARACTER DECADE BIT 1	37C2D	A922	10
MIDRH2 ²	MEMORY INPUT DATA REGISTER HIGH BIT 3	29B3C	A820	13	MCD2 ¹	MEMORY CHARACTER DECADE BIT 2	37C2E	A922	13
MIDRH2 ³	MEMORY INPUT DATA REGISTER HIGH BIT 4	29B2C	A820	7	MCD2 ²	MEMORY CHARACTER DECADE BIT 3	37C2F	A922	L
MIDRH2 ⁴	MEMORY INPUT DATA REGISTER HIGH BIT 5	29B1C	A820	7	MCD2 ³	MEMORY CHARACTER DECADE BIT 4	37C1B	A922	P
MIDRH2 ⁵	MEMORY INPUT DATA REGISTER HIGH BIT 6	30B5	A819	P					
MIDRH2 ⁶	MEMORY INPUT DATA REGISTER HIGH BIT 6	30B4C	A819	H					
MIDRH2 ⁷	MEMORY INPUT DATA REGISTER HIGH BIT 7	30B3C	A819	13					

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
MCPD6	MEMORY CLOCK PULSE DECADE 0	13B6A	A622	7	MCPD2 ⁴	MEMORY CLOCK PULSE DECADE COUNTER BIT 5	13D1	A620	7
MCPD0+1+2	MEMORY CLOCK PULSE DECADE AERO +1+2	14A2B	A528	14	MCPD3	MEMORY CLOCK PULSE DECADE 3	13B4A	A822	L
MCPD1	MEMORY CLOCK PULSE DECADE 1	13B6B	A622	H	MCPD3	MEMORY CLOCK PULSE DECADE 3	13C4A	A519	7
MCPD1	MEMORY CLOCK PULSE DECADE 1	13C6B	A519	4	MCPD3+4+9	MEMORY CLOCK PULSE DECADE 3+4+9	14B1A	A531	3
MCPD1+2	MEMORY CLOCK PULSE DECADE 1+2	14B7	A324	13	MCPU2 ⁰	MEMORY CLOCK PULSE UNIT 2 ⁰	13B4B	A227	H
MCPD1+2+3	MEMORY CLOCK PULSE DECADE 1+2+3	14A5B	A527	10	MCPU2 ⁰	MEMORY CLOCK PULSE UNIT 2 ⁰	13C4B	A519	L
MCPD1+6	MEMORY CLOCK PULSE DECADE 1+6	14B3B	A530	4	MCPU2 ¹	MEMORY CLOCK PULSE UNIT 2 ¹	14B1B	A530	10
MCPD2	MEMORY CLOCK PULSE DECADE 2	13B5	A622	10	MCPU2 ¹	MEMORY CLOCK PULSE UNIT 2 ¹	13B3A	A623	3
MCPD2	MEMORY CLOCK PULSE DECADE 2	13C5	A519	H	MCPU2 ²	MEMORY CLOCK PULSE UNIT 2 ²	14A2A	A528	13
MCPD2+3	MEMORY CLOCK PULSE DECADE 2+3	14A4	A528	7	MCPU2 ³	MEMORY CLOCK PULSE UNIT 2 ³	13B3B	A623	5
MCPD2 ⁰	MEMORY CLOCK PULSE DECADE COUNTER BIT 1	13D4A	A619	6	MCPU2 ³	MEMORY CLOCK PULSE UNIT 2 ³	13C3B	A519	P
MCPD2 ⁰	MEMORY CLOCK PULSE DECADE COUNTER BIT 1	13D4A	A619	7	MCPU2 ⁴	MEMORY CLOCK PULSE UNIT 2 ⁴	13B2A	A623	7
MCPD2 ¹	MEMORY CLOCK PULSE DECADE COUNTER BIT 2	13D4B	A619	F	MCPU2+3	MEMORY CLOCK PULSE UNIT 2+3	13B2B	A623	10
MCPD2 ¹	MEMORY CLOCK PULSE DECADE COUNTER BIT 2	13D4B	A619	H	MCPU3	MEMORY CLOCK PULSE UNIT 3	13B1	A623	12
MCPD2 ²	MEMORY CLOCK PULSE DECADE COUNTER BIT 3	13D3	A619	11	MCPU3+4+5	MEMORY CLOCK PULSE UNIT 3+4+5	13C1	A520	4
MCPD2 ²	MEMORY CLOCK PULSE DECADE COUNTER BIT 3	13D3	A619	10	MCPU4	MEMORY CLOCK PULSE UNIT 4	12B5C	A623	14
MCPD2 ³	MEMORY CLOCK PULSE DECADE COUNTER BIT 4	13D2	A619	M	MCPU4	MEMORY CLOCK PULSE UNIT 4	14D6B	A526	10
MCPD2 ³	MEMORY CLOCK PULSE DECADE COUNTER BIT 4	13D2	A619	L	MCPU4+5+8+9	MEMORY CLOCK PULSE UNIT 4+5+8+9	14A3	A420	4
MCPD2 ⁴	MEMORY CLOCK PULSE DECADE COUNTER BIT 5	13D1	A620	6	MCPU5+6	MEMORY CLOCK PULSE UNITS 5+6	14D4B	A526	C
					MCPU6	MEMORY CLOCK PULSE UNIT 6	12B2C	A623	R
					MCPU6+7	MEMORY CLOCK PULSE UNIT 6+7	14D4C	A526	E

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
MCPD4	MEMORY CLOCK PULSE DECADE 4	125A	A620	F	MCPU7	MEMORY CLOCK PULSE UNIT 7	12B2D	A721	3
MCPD4	MEMORY CLOCK PULSE DECADE 4	125A	A620	H	MCPU7-8	MEMORY CLOCK PULSE UNIT 7-8	14D6A	A526	7
MCPD4-6	MEMORY CLOCK PULSE DECADE 4-6	12D4	A620	11	MCPU8	MEMORY CLOCK PULSE UNIT 8	12B1C	A721	5
MCPD5	MEMORY CLOCK PULSE DECADE 5	12D4	A620	10	MCPU8-9	MEMORY CLOCK PULSE UNIT 8-9	14D3	A526	H
MCPD5	MEMORY CLOCK PULSE DECADE 5	12D3	A620	M	MCPU8-9	MEMORY CLOCK PULSE UNIT 8-9	14E3	A527	H
MCPD5-8	MEMORY CLOCK PULSE DECADE 5-8	12D3	A620	L	MCPU9	MEMORY CLOCK PULSE UNIT 9	12B1D	A721	7
MCPD6	MEMORY CLOCK PULSE DECADE 6	12D2	A621	6	MCP1	MEMORY CLOCK PULSE 1	15E2	A524	4
MCPD6	MEMORY CLOCK PULSE DECADE 6	12D2	A621	7	MCP2	MEMORY CLOCK PULSE 2	14A6	A526	3
MCPD7	MEMORY CLOCK PULSE DECADE 7	12D1	A621	F	MCP2-3	MEMORY CLOCK PULSE 2-3	15B3B	A525	13
MCPD7	MEMORY CLOCK PULSE DECADE 7	12D1	A621	H	MCP2-3-6-7	MEMORY CLOCK PULSE 2-3-6-7	15A2A	A525	10
MCPD8	MEMORY CLOCK PULSE DECADE 8	14D5B	A526	14	MCP4	MEMORY CLOCK PULSE 4	15D1	A426	4
MCPD8	MEMORY CLOCK PULSE DECADE 8	14D5A	A527	7	MCP5-6	MEMORY CLOCK PULSE 5-6	14E7A	A333	4
MCPD9	MEMORY CLOCK PULSE DECADE 9	12B3C	A623	H	MCP6-7	MEMORY CLOCK PULSE 6-7	15B2A	A525	D
MCPD9	MEMORY CLOCK PULSE DECADE 9	15D4A	A523	12	MCP10	MEMORY CLOCK PULSE 10	14E7B	A333	7
MCPU0	MEMORY CLOCK PULSE UNIT ZERO	12B3D	A623	L	MCP10-11	MEMORY CLOCK PULSE 10-11	15D3B	A523	E
MCPU1	MEMORY CLOCK PULSE UNIT 1	14A3	A420	4	MCP10-11	MEMORY CLOCK PULSE 10-11	15E3B	A522	P
MCPU1	MEMORY CLOCK PULSE UNIT 1	14D4B	A526	C	MCP14	MEMORY CLOCK PULSE 14	14D2B	A526	N
MCPU1-2	MEMORY CLOCK PULSE UNIT 1-2	12B3C	A623	R	MCP14	MEMORY CLOCK PULSE 14	14E2B	A527	P
MCPU2	MEMORY CLOCK PULSE UNIT 2	14D4C	A526	E	MCP14-40	MEMORY CLOCK PULSE 14-40	15B3A	A524	P
					MCP15-16-20-21	MEMORY CLOCK PULSE 15-16-20-21	15A6	A521	P
					MCP18-23	MEMORY CLOCK PULSE 18-23	15A2B	A525	7
					MCP20-21	MEMORY CLOCK PULSE 20-21	15D3A	A523	C

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
MCP20-21	MEMORY CLOCK PULSE 20-21	15E3A	A523	L	MODRX MIDRB	MEMORY OUTPUT DATA REG TRANSFER TO MEMORY INPUT DATA REGISTER B	16B5B	A432	7
MCP23	MEMORY CLOCK PULSE 23	14A5A	A526	5	MODRL2 ⁰	MEMORY OUTPUT DATA REGISTER LOW BIT 1	24C5	A720	D
MCP23	MEMORY CLOCK PULSE 23	14B5	A529	10	MODRL2 ¹	MEMORY OUTPUT DATA REGISTER LOW BIT 2	24C4B	A720	H
MCP24	MEMORY CLOCK PULSE 24	14D2A	A526	L	MODRL2 ²	MEMORY OUTPUT DATA REGISTER LOW BIT 3	24C3B	A720	L
MCP24	MEMORY CLOCK PULSE 24	14E2A	A527	L	MODRL2 ³	MEMORY OUTPUT DATA REGISTER LOW BIT 4	24C2B	A720	P
MCP24-50-51	MEMORY CLOCK PULSE 24-50-51	14B1C	A222	L	MODRL2 ⁴	MEMORY OUTPUT DATA REGISTER LOW BIT 5	24A5	A720	4
MCP27-28	MEMORY CLOCK PULSE 27-28	14E6A	A333	13	MODRL2 ⁵	MEMORY OUTPUT DATA REGISTER LOW BIT 6	24A4B	A720	7
MCP31	MEMORY CLOCK PULSE 31	14E7C	A333	10	MODRL2 ⁶	MEMORY OUTPUT DATA REGISTER LOW BIT 7	24A3B	A720	10
MCP31-32	MEMORY CLOCK PULSE 31-32	15A4B	A526	5	MODRL2 ⁷	MEMORY OUTPUT DATA REGISTER LOW BIT 8	24A2B	A720	13
MCP33	MEMORY CLOCK PULSE 33	15D6B	A523	5	MODRX ⁰	MEMORY OUTPUT DATA REGISTER TRANSFER BIT 1	24C6	A719	4
MCP34	MEMORY CLOCK PULSE 34	15D6A	A523	3	MODRX ¹	MEMORY OUTPUT DATA REGISTER TRANSFER BIT 2	24C4A	A719	7
MCP38-39	MEMORY CLOCK PULSE 38-39	15A4A	A526	3	MODRX ²	MEMORY OUTPUT DATA REGISTER TRANSFER BIT 3	24C3A	A719	10
MCP40	MEMORY CLOCK PULSE 40	15D5B	A523	10	MODRX ³	MEMORY OUTPUT REGISTER TRANSFER BIT 4	24C2A	A719	13
MCP40	MEMORY CLOCK PULSE 40	15E5B	A522	B	MODRX ⁴	MEMORY OUTPUT DATA REGISTER TRANSFER BIT 5	24A6	A719	D
MCP40-41	MEMORY CLOCK PULSE 40-41	15A5A	A523	N	MODRX ⁵	MEMORY OUTPUT DATA REGISTER TRANSFER BIT 6	24A4A	A719	H
MCP43	MEMORY CLOCK PULSE 43	14D1A	A526	R	MODRX ⁶	MEMORY OUTPUT DATA REGISTER TRANSFER BIT 7	24A3A	A719	L
MCP43A	MEMORY CLOCK PULSE 43A	14D1B	A325	H	MODRX ⁷	MEMORY OUTPUT DATA REGISTER TRANSFER BIT 8	24A2A	A719	P
MODRX MIDR	MEMORY OUTPUT DATA REGISTER TRANSFER TO MEMORY INPUT DATA REGISTER	16A5	A427	D					
MODRX MIDRA	MEMORY OUTPUT DATA REGISTER TRANSFER TO MEMORY INPUT DATA REGISTER A	16A6	A426	N					

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
MODR2 ⁰	MEMORY OUTPUT DATA REGISTER BIT 1	24D6	A1127	8	MBC1	MEMORY SCAN CYCLE 1	2B9	A1131	C
MODR2 ⁰	MEMORY OUTPUT DATA REGISTER BIT 1	24D5	A1127	7	MBC2	MEMORY SCAN CYCLE 2	2A9A	A733	5
MODR2 ¹	MEMORY OUTPUT DATA REGISTER BIT 2	24D4	A1127	11	MBC3	MEMORY SCAN CYCLE 3	2B8B	A734	3
MODR2 ¹	MEMORY OUTPUT DATA REGISTER BIT 2	24D4	A1127	10	MBC3 ⁰	MEMORY SCAN CYCLE COUNTER BIT 1	2C9	A533	C
MODR2 ²	MEMORY OUTPUT DATA REGISTER BIT 3	24D3	A1127	F	MBC3 ⁰	MEMORY SCAN CYCLE COUNTER BIT 1	2C9	A533	B
MODR2 ²	MEMORY OUTPUT DATA REGISTER BIT 3	24D3	A1127	H	MBC3 ¹	MEMORY SCAN CYCLE COUNTER BIT 2	2C8A	A532	3
MODR2 ³	MEMORY OUTPUT DATA REGISTER BIT 4	24D2	A1127	L	MBC3 ¹	MEMORY SCAN CYCLE COUNTER BIT 2	2C8A	A532	2
MODR2 ⁴	MEMORY OUTPUT DATA REGISTER BIT 5	24B5	A1128	6	MBC3 ²	MEMORY SCAN CYCLE COUNTER BIT 3	2C8B	A532	C
MODR2 ⁴	MEMORY OUTPUT DATA REGISTER BIT 5	24B5	A1128	7	MBC3 ²	MEMORY SCAN CYCLE COUNTER BIT 3	2C8B	A532	B
MODR2 ⁵	MEMORY OUTPUT DATA REGISTER BIT 6	24B4	A1128	10	MBC3	MEMORY SCAN CYCLE 3	2B8C	A733	7
MODR2 ⁶	MEMORY OUTPUT DATA REGISTER BIT 7	24B3	A1128	H	MBC3	MEMORY SCAN CYCLE 3	2A8B	A318	3
MODR2 ⁷	MEMORY OUTPUT DATA REGISTER BIT 8	24B2	A1128	M	MBC3 +BC4	MEMORY SCAN CYCLE 3 + SCAN CYCLE 4	4C4	A830	H
MODR2 ⁷	MEMORY OUTPUT DATA REGISTER BIT 8	24B2	A1128	L	MBC3 +BC5-5	MEMORY SCAN CYCLE 3 + SCAN CYCLE 5-5	4D4A	A828	10
MON SEL LOC	MONITOR SELECT LOCATION	10B2A	A1014	13	MBC3-5	MEMORY SCAN CYCLE 3 - 5.	5A5	A321	H
MON SEL LOC FF	MONITOR SELECT LOCATION FLIP FLOP	10A2B	A808	F	MAN PRINT	MANUAL PRINT			
MON SEL LOC FF	MONITOR SELECT LOCATION FLIP FLOP	10A2B	A808	H	MBC4	MEMORY SCAN CYCLE 4	2A7	A733	10
MBC1	MEMORY SCAN CYCLE 1	2A9	A733	3	MBC4	MEMORY SCAN CYCLE 4	2B7	A1131	7
					MBC4	MEMORY SCAN CYCLE 4	2A8	A733	12
					MBC5	MEMORY SCAN CYCLE 5	2B6B	A838	3
					MBC5	MEMORY SCAN CYCLE 5			
					MBC	MESSAGE NUMBER COMPARE	11C5	A1033	H

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
MSTR	MEMORY SOME REGISTER INHIBIT	1904D	A538	L	MSTR2 ⁷	MEMORY TEMPORARY SUM REGISTER BIT 8	26D8C	A727	P
MSTR2A	MEMORY SOME REGISTER INVERT A	19C4	A133	E	MSTR2 ⁸	MEMORY TEMPORARY SUM REGISTER BIT 8	27D4A	A738	7
MSTRX MAR	MEMORY SOME REGISTER TRANSMIT MEMORY ADDRESS REGISTER	18B5A	A1033	14	MSTR2 ⁹	MEMORY TEMPORARY SUM REGISTER BIT 9	27D4B	A738	4
MSTRX MEDR	MEMORY SOME REGISTER TRANSMIT MEMORY INPUT DATA REGISTER	18C1A	A1038	10	MSTR2 ⁹	MEMORY TEMPORARY SUM REGISTER BIT 10	27D9A	A738	H
MSTR2 ³	MEMORY SUM REGISTER BIT 4	25B2	A925	M	MSTR2 ⁹	MEMORY TEMPORARY SUM REGISTER BIT 10	27D9B	A738	D
MSTR2 ⁷	MEMORY SUM REGISTER BIT 8	26B2	A927	M	MSTR2 ¹⁰	MEMORY TEMPORARY SUM REGISTER BIT 11	27D8A	A738	13
MSTR2 ⁹	MEMORY TEMPORARY SUM REGISTER BIT 1	25D5B	A725	C	MSTR2 ¹⁰	MEMORY TEMPORARY SUM REGISTER BIT 11	27D8B	A738	10
MSTR2 ⁹	MEMORY TEMPORARY SUM REGISTER BIT 1	25D4B	A726	D	ODR0000	OUTPUT DATA REGISTER - 0000	38B5	A1001	7
MSTR2 ¹	MEMORY TEMPORARY SUM REGISTER BIT 2	25D4C	A824	H	ODR0000	OUTPUT DATA REGISTER - 0000	38A5	A993	L
MSTR2 ¹	MEMORY TEMPORARY SUM REGISTER BIT 2	25D38	A726	4	ODR0003	OUTPUT DATA REGISTER - 0003	38A3	A993	13
MSTR2 ²	MEMORY TEMPORARY SUM REGISTER BIT 3	25D3C	A725	3	ODR0003	OUTPUT DATA REGISTER - 0003	38B3	A993	10
MSTR2 ³	MEMORY TEMPORARY SUM REGISTER BIT 3	25D2B	A726	H	ODR0003 + 0027	OUTPUT DATA REGISTER - 0003 + 0027	38A3B	A993	P
MSTR2 ³	MEMORY TEMPORARY SUM REGISTER BIT 4	25D8C	A824	10	ODR0025	OUTPUT DATA REGISTER - 0025	38A4	A993	H
MSTR2 ³	MEMORY TEMPORARY SUM REGISTER BIT 4	25D1	A726	7	ODR0027	OUTPUT DATA REGISTER - 0027	38B1	A993	H
MSTR2 ⁴	MEMORY TEMPORARY SUM REGISTER BIT 5	26D5B	A727	4	ODR0001(80H)	OUTPUT DATA REGISTER - 0001	38A3A	A993	5
MSTR2 ⁴	MEMORY TEMPORARY SUM REGISTER BIT 5	26D6C	A727	7	ODR0028		38B3A	A993	L
MSTR2 ⁵	MEMORY TEMPORARY SUM REGISTER BIT 6	26D6C	A727	7	ODR0003(87X)	OUTPUT DATA REGISTER - 0003	38A3C	A993	7
MSTR2 ⁵	MEMORY TEMPORARY SUM REGISTER BIT 6	26D4B	A727	D	ODR0031		38B3B	A993	L
MSTR2 ⁵	MEMORY TEMPORARY SUM REGISTER BIT 6	26D4C	A727	H	PA1	PA COUNTER BIT 1	2DA3	A133	6
MSTR2 ⁶	MEMORY TEMPORARY SUM REGISTER BIT 7	26D3B	A727	10	PA1	PA COUNTER BIT 1	2DA3	A133	7
MSTR2 ⁶	MEMORY TEMPORARY SUM REGISTER BIT 7	26D9C	A727	13	PA2	PA COUNTER BIT 2	2DA2A	A133	7
MSTR2 ⁶	MEMORY TEMPORARY SUM REGISTER BIT 7	26D9C	A727	13	PA2	PA COUNTER BIT 2	2DA2A	A133	H
MSTR2 ⁷	MEMORY TEMPORARY SUM REGISTER BIT 8	26D2B	A833	10	PA3	PA COUNTER BIT 3	2DA2B	A133	11
					PA3	PA COUNTER BIT 3	2DA2B	A133	10

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
PRDS	PRINTER DATA STROBE	2A6	A1124	K	RR5	RESET REQUEST 5	2A5C	A1131	10
PRNT BLK 5	PRNT BLOCK DISPLAY	11B2	A111	L	RKFRNT	RESET TRANSFER NON TERM	7B3B	A424	L
RCV	RECEIVE	3303B	A1119	L	SC RESET	SCAN CYCLE RESET	7E3	A526	N
RECH	RETRIEVE CHARACTER	7D9	A124	7	SC1-1	SCAN CYCLE 1-1	3D8C	A731	3
RECH	RETRIEVE CHARACTER	7D9	A124	6	SC1-1	SCAN CYCLE 1-1 NOT	3D8A	A1129	D
REPT EXT-1 BLK	REPEAT EXT-1 BLOCK	11D9B	A321	4	SC1-1 + 1-2	SCAN CYCLE 1-1 + 1-2	5DB	A630	13
REQ3	REQUEST 3	10A2A	A809	7	SC1-1 + 1-2 + 1-4 + RECH	SCAN CYCLE 1-1 + 1-2 + 1-4 + RETRIEVE CHARACTER	4B1	A426	
RESET BEGN MEM RCV	RESET BEGN MEMORY RECEIVE NOT	3B5A	A425	D	SC1-1 + 2-2 + 2-5 + 3-3	SCAN CYCLE 1-1 + 2-2 + 2-5 + 3-3	5A8A	A325	3
RESET BEGN MEM XMIT	RESET BEGN MEMORY TRANSMIT	3D6B	A1129	P	SC1-1 + 4	SCAN CYCLE 1-1 + 4	5D7B	A630	D
RESET MCP	RESET MEMORY CLOCK PULSE COUNTER	7A5	A123	7	SC1-2 CP14	SCAN CYCLE 1-2 CLOCK PULSE 14	6B6B	A424	7
RMAR	RESET MEMORY ADDRESS REGISTER	18B5C	A1029	L	SC1-2 MCP43	SCAN CYCLE 1-2 MEMORY CLOCK PULSE 43	10B8	A120	7
RMEDR	RESET MEMORY INPUT DATA REGISTER	18A3	A1033	12	SC1-2 + RECH	SCAN CYCLE 1-2 PLUS RETRIEVE CHARACTER	5A4	A426	12
RMR	RESET MEMORY SOME REGISTER	19A3	A1026	H	SC1-2	SCAN CYCLE 1-2	3D6E	A731	3
RMTR	RESET MEMORY TEMPORARY SUM REGISTER	30B6B	A1034	12	SC1-2	SCAN CYCLE 1-2 NOT	3D6B	A631	P
RPREN	RESET PRINTER ENABLE	9D7E	A1032	7	SC1-2A	SCAN CYCLE 1-2A	3D6D	A319	12
RPRENA	RESET PRINTER ENABLE A	9D7A	A121	H	SC1-2 + 1-4 + 2-5	SCAN CYCLE 1-2 + 1-4 + 2-5	5D5A	A122	3
RPRENB	RESET PRINTER ENABLE B	9D7B	A432	3	SC1-2 + 1-4 + 2-7 + 5-2	SCAN CYCLE 1-2 + 1-4 + 2-7 + 5-2	4D8B	A629	H
RPT EOB	REPEAT END OF BLOCK	9A4B	A421	3	SC1-2 + 2-7 + WCH	SCAN CYCLE 1-2 + 2-7 + WRITE CHARACTER	5A3A	A626	H
RPT MSG	REPEAT MESSAGE	6D6	A1130	H	SC1-4 MCPD3	SCAN CYCLE 1-4 MEMORY CLOCK PULSE DECADE 3	22E3C	A429	L
RR1	RESET REQUEST 1	2B5A	A1131	3	SC1-4 + MON SEL LOC FF	SCAN CYCLE 1-4 + MONETER SELECTED LOCATION	5A3B	A524	13
RR2	RESET REQUEST 2	2B5B	A734	C	SC1-4	SCAN CYCLE 1-4	3D6D	A731	7
RR3	RESET REQUEST 3	25A5A	A734	7	SC1-4	SCAN CYCLE 1-4 NOT	3D6A	A732	4
RR4	RESET REQUEST 4	2A5B	A1131	H	SC1-4 + 2-5 + 2-7	SCAN CYCLE 1-4 + 2-5 + 2-7	5D6	A122	10
					SC1-4 + 5-2 + 2-7	SCAN CYCLE 1-4 + 5-2 + 2-7	4C3B	A626	7

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
SC1-4 + 5-2 + 2-7	SCAN CYCLE 1-4 + 5-2 + 2-7	4B3	A526	10	SC4	SCAN CYCLE 4	3D4B	A526	12
SC1-4A	SCAN CYCLE 1-4A	3D5C	A319	14	SC4	SCAN CYCLE 4 NOT	3C4A	A319	5
SC1-4 + 2-7	SCAN CYCLE 1-4 + 2-7	4D3A	A629	D	SC4+5-5 + MBC3	SCAN CYCLE 4 + 5-5 + MEMORY SCAN CYCLE 3	4D3B	A430	H
SC2-2	SCAN CYCLE 2-2	3B7C	A731	10	SC5EN	SCAN CYCLE 5 ENABLE NOT	3C2	A632	R
SC2-2	SCAN CYCLE 2-2 NOT	3B7A	A425	13	SC5-1	SCAN CYCLE 5-1	3B4B	A731	C
SC2-2 + 5-1 + RECH + STCH	SCAN CYCLE 2-2 + 5-1 + RETRIEVE CHARACTER + STORE CHARACTER	4D5A	A627	H	SC5-1	SCAN CYCLE 5-1 NOT	3B4A	A732	13
SC2-2 + 2-5 + 2-7 + STCH	SCAN CYCLE 2-2 + 2-5 + 2-7 + STORE CHARACTER	4B6B	A426	5	SC5-1 + 5-2 + 1-4	SCAN CYCLE 5-1 + 5-2 + 1-4	5D6B	A531	10
SC2-2 + 5-2 + 5-6	SCAN CYCLE 2-2 + 5-2 + 5-6	4D1A	A322	L	SC5-1 + 5-2 + 5-6 + STCH	SCAN CYCLE 5-1 + 5-2 + 5-6 + STORE CHARACTER	4C2	A628	10
SC2-2 + 5-5	SCAN CYCLE 2-2 + 5-5	4C5A	A630	4	SC5-1 + 5-6	SCAN CYCLE 5-1 + 5-6	4C5B	A630	7
SC2-2 + 5-5	SCAN CYCLE 2-2 + 5-5	4B6A	A1033	10	SC5-1 + 5-6	SCAN CYCLE 5-1 + 5-6	1B5	A526	C
SC2-5	SCAN CYCLE 2-5	3B7D	A731	12	SC5-2 + RECH	SCAN CYCLE 5-2 + RETRIEVE CHARACTER	5A2A	A321	7
SC2-5	SCAN CYCLE 2-5 NOT	3A7	A319	7	SC5-2	SCAN CYCLE 5-2	3A3C	A731	E
SC2-5 + 2-7	SCAN CYCLE 2-5 + 2-7	4D6B	A629	7	SC5-2	SCAN CYCLE 5-2 NOT	3B3A	A732	D
SC2-5 + 2-7	SCAN CYCLE 2-5 + 2-7	4D5C	A433	N	SC5-2 + 5-4	SCAN CYCLE 5-2 + 5-4	4C1A	A630	L
SC2-5 + 4	SCAN CYCLE 2-5 + 4	5D5A	A631	L	SC5-4 + RECH	SCAN CYCLE 5-4 + RETRIEVE CHARACTER	4D4B	A629	13
SC2-5 + 4 + STCH	SCAN CYCLE 2-5 + 4 + STORE CHARACTER	5A2B	A432	C	SC5-4 + RECH	SCAN CYCLE 5-4 + RETRIEVE CHARACTER	4D4C	A623	N
SC2-5 + 5-1 + 5-2 + BC4	SCAN CYCLE 2-5 + 5-1 + 5-2 SCAN CYCLE 4	4D6	A627	7	SC5-4 + RECH + SC4	SCAN CYCLE 5-4 + RETRIEVE CHARACTER + SCAN CYCLE 4	5D1	A629	4
SC2-5 + 5-5	SCAN CYCLE 2-5 + 5-5	5D7A	A630	P	SC5-4 + RECH + STCH	SCAN CYCLE 5-4 + RETRIEVE CHARACTER + STORE CHARACTER	5D4	A628	H
SC2-5 + 5-5 + MBC3	SCAN CYCLE 2-5 + 5-5 + MEMORY SCAN CYCLE 3	4D2A	A626	C	SC 5-4 + STCH	SCAN 5-4 + STORE CHARACTER	5D2	A321	P
SC2-5-MCPD4	SCAN CYCLE 2-5-MCPD4	22B1A	A526	P	SC5-4	SCAN CYCLE 5-4	3B3D	A731	H
SC2-7	SCAN CYCLE 2-7	3B6B	A731	14	SC5-4	SCAN CYCLE 5-4 NOT	3B3B	A725	10
SC2-7	SCAN CYCLE 2-7 NOT	3A6	A319	10	SC5-5	SCAN CYCLE 5-5	3B3C	A731	L
SC2-7 + 5-1	SCAN CYCLE 2-7 + 5-1	4C5A	A630	D	SC5-5	SCAN CYCLE 5-5 NOT	3B2A	A732	L
SC2-7 + 5-2	SCAN CYCLE 2-7 + 5-2	5D9B	A525	P	SC5-5	SCAN CYCLE 5-5 + 5-6	4D1B	A629	P
SC2-7 + 5-4 + RECH	SCAN CYCLE 2-7 + 5-4 + RETRIEVE CHARACTER	4C3A	A531	7	SC5-6 + STCH STFC	SCAN CYCLE 5-6 + STORE CHARACTER STORE FRAMING CHARACTER	5A6B	A631	13

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

SIGNAL GLOSSARY
MEMORY CONTROL LOGIC DIAGRAM
(FIG. 5-34)

Signal	Definition	Origin			Signal	Definition	Origin			Signal	Definition	Origin							
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.					
SCS-4	SCAN CYCLE 5-4	3B3D	A731	N	TIRXMDR	TAPE INPUT REGISTER TRANSFER TO MEMORY INPUT DATA REGISTER	16D4A	A225	C	SPRENA	SET PRINTER ENABLE A	9B36	A331	13	WCHR3 ⁴	WRITE CHARACTER REGISTER BIT 3	31B3C	A1120	13
SCS-4	SCAN CYCLE 5-4 NOT	3B3B	A732	P						SPRENB	SET PRINTER ENABLE B	17A3	A224	H	WCHR3 ⁵	WRITE CHARACTER REGISTER BIT 6	31B1A	A1120	10
SCS-7	SCAN CYCLE 5-7	3B1B	A731	R	TSROCT3	TEMPORARY SUM REGISTER GENERATE CONSTANT 13	23P1E	A426	10	STCH	STORE CHARACTER	7D4	A132	L	WCHR3 ⁶	WRITE CHARACTER REGISTER BIT 7	31B1B	A1120	7
SDBPR	SET DISPLAY REGISTER	9B5	A1029	H	TSROCT15	TEMPORARY SUM REGISTER GENERATE CONSTANT 215	23B3D	A224	H	STCH + MBC2	STORE CHARACTER - MEMORY SCAN CYCLE 2	5A7	A325	3	WCHR3 ⁷	WRITE CHARACTER REGISTER BIT 8	31B1C	A1120	4
SDBPRA	SET DISPLAY REGISTER A	9D1C	A326	L	TSROCT3	TEMPORARY SUM REGISTER GENERATE CONSTANT 3	23B4E	A229	10	STETB	STORE ETB	9D5F	A222	H	XFER NON TERM	TRANSFER NON TERM	7A3A	A119	10
SDBPRB	SET DISPLAY REGISTER B	9C3	A1031	10	TSROCT3+215	TEMPORARY SUM REGISTER GENERATE CONSTANT 3 + 215	23B2F	A733	L	STETB	STORE ETB	9D4D	A131	10	XFER NON TERM	TRANSFER NON TERM	7A3B	A119	13
SDBPRC	SET DISPLAY REGISTER C	9A2	A1031	L	TSRO000	TEMPORARY SUM REGISTER - 0000	39B3	A930	H	STETX	STORE ETX	9D4E	A222	10	XFER NON TERM START UP	TRANSFER NON TERM START UP	7C4	A621	L
SEL	SELECT	11A7	A734	L	TSRO000	TEMPORARY SUM REGISTER - 0000	39C3C	A930	10	STETX	STORE ETX	9D4F	A223	3	XM	TRANSMIT MESSAGE	6D7	A1130	L
SEDBS	SET END OF BLOCK SENT	2D1	A436	3	TSRO000	TEMPORARY SUM REGISTER - 0000	39C3C	A930	10	STORE NO REQ.	STORE NO REQUEST	205	A124	10	XMIT	TRANSMIT	33D1	A1119	H
SHIFT SCAN	SHIFT SCAN	2E5B	A633	H	TSRO074	TEMPORARY SUM REGISTER - 0074	39B1	A930	R	STORE NO REQ.	STORE NO REQUEST	2D5	A124	11	1	MEMORY CLOCK COUNTER BIT 1	1D4C	A1028	6
SHMR	SHIFT MEMORY SUM REGISTER	10B3	A1029	7	TSRO074	TEMPORARY SUM REGISTER - 0074	39C1B	A931	3	STBTX	STORE STX	10D6C	A129	L	1	MEMORY CLOCK COUNTER BIT 1	1D4C	A1028	7
SMAR2 ⁸	SET MEMORY ADDRESS REGISTER BIT 1	21A5B	A631	H	TSRO136	TEMPORARY SUM REGISTER - 0136	39B4	A930	E	ST SOH	STORE SOH	10D7C	A420	H	2	MEMORY CLOCK COUNTER BIT 2	1D3	A1028	7
SMAR2 ¹	SET MEMORY ADDRESS REGISTER BIT 2	21A4A	A631	7	TSR7777	TEMPORARY SUM REGISTER - 7777	39B5	A932	3	ST SOH	STORE SOH	10D7D	A220	H	2	MEMORY CLOCK COUNTER BIT 2	1D3	A1028	H
SMAR2 ³	SET MEMORY ADDRESS REGISTER BIT 3	21A4B	A631	D	TSR7777	TEMPORARY SUM REGISTER - 7777	39C5B	A931	7	TERM	TERM	9B4B	A1115	N	2 ¹ , 2 ² , 2 ³	TEMPORARY SUM REGISTER 2 ¹ , 2 ² , 2 ³	39C3A	A930	7
SMAR2 ⁴	SET MEMORY ADDRESS REGISTER BIT 4	21A3A	A631	4	TSR7777	TEMPORARY SUM REGISTER - 7777	39C5B	A931	7	TERM-D	TERM DISPLAY	6A4	A1034	R	2 ⁷ , 2 ⁸ , 2 ⁹ , 2 ¹⁰	TEMPORARY SUM REGISTER 2 ⁷ , 2 ⁸ , 2 ⁹ , 2 ¹⁰	39C4A	A930	3
S MEM FULL A	SET MEMORY FULL A	10D4	A419	7	WCH FF	WRITE CHARACTER FLIP FLOP	10A5	A609	10	THIS BLK RPT BLK	THIS BLOCK REPEAT BLOCK	11D2B	A424	10	3	MEMORY CLOCK COUNTER BIT 3	1D2	A1028	11
S MEM FULL B	SET MEMORY FULL B	10D3	A419	H	SMBRA	SET MEMORY SOME REGISTER A	19A5	A433	L	WCHRX MDR	WRITE CHARACTER REGISTER TRANSFER TO MEMORY INPUT DATA REGISTER	16A3	A433	10	3	MEMORY CLOCK COUNTER BIT 3	1D2	A1028	10
S MEM FULL C	SET MEMORY FULL C	10D8	A326	10	SMBRA	SET MEMORY SOME REGISTER A - CLOCK A	19A6	A129	7	WCHRX MDR	WRITE CHARACTER REGISTER TRANSFER TO MEMORY INPUT DATA REGISTER	16B3	A530	P	3	MEMORY CLOCK COUNTER BIT 3	1D2	A1028	10
SMDR	SET MEMORY OUTPUT DATA REGISTER	17A1	A1026	L	SMBRA	SET MEMORY SOME REGISTER A - CLOCK A	19A6	A129	7	WCHR2 ⁰	WRITE CHARACTER REGISTER BIT 1	31B3A	A1120	P	4	MEMORY CLOCK COUNTER BIT 4	1D1	A1028	M
SMBR	SET MEMORY SUM REGISTER	39B3D	A1026	10	SMBR	SET MEMORY SOME REGISTER A	19A5	A433	L	WCHR2 ¹	WRITE CHARACTER REGISTER BIT 2	31B3B	A1120	L	4	MEMORY CLOCK COUNTER BIT 4	1D1	A1028	L
SOB BKP	START OF BLOCK BOOKKEEPING	7D1	A124	H	SMBR	SET MEMORY SOME REGISTER A	19A5	A433	L	WCHR2 ²	WRITE CHARACTER REGISTER BIT 3	31B3A	A1120	H					
SOB BKP	START OF BLOCK BOOKKEEPING	7D1	A124	F	SMBR	SET MEMORY SOME REGISTER A	19A5	A433	L	WCHR2 ³	WRITE CHARACTER REGISTER BIT 4	31B3B	A1120	D					
SPREN	SET PRINTER ENABLE	9A3	A1034	L	SMBR	SET MEMORY SOME REGISTER A	19A5	A433	L										

**SIGNAL GLOSSARY
CONTROL PANEL SCHEMATIC DIAGRAM
(FIG. 5-35)**

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
AUDIBLE ALARM	AUDIBLE ALARM	17B1	A319	7	GD#	GROUP DECODE ZERO	17B7C	A323	12
BC XMIT CLOCK IN	BLOCK GENERATOR TRANSMIT CLOCK INPUT	19B4C	A212	5	GD1	GROUP DECODE 1	17B6A	A323	11
BLOCK GEN CLOCK OUTPUT	BLOCK GENERATOR CLOCK OUTPUT	19C8	A208	E	GD2	GROUP DECODE 2	17B6B	A323	10
BLOCK GEN DATA OUTPUT	BLOCK GENERATOR DATA OUTPUT	19C7	A208	3	GD3	GROUP DECODE 3	17B5A	A323	9
BR RCV CLK	BLOCK READER RECEIVE CLOCK	19B5B	A212	E	GD4	GROUP DECODE 4	17B5B	A323	8
BR RCV DATA	BLOCK READER RECEIVE DATA	19B4B	A212	3	GD5	GROUP DECODE 5	17B5C	A323	7
CD#	CHARACTER DECODE ZERO	17D5C	A324	10	GD6	GROUP DECODE 6	17B4A	A322	6
CD1	CHARACTER DECODE 1	17D4A	A324	9	GD7	GROUP DECODE 7	17B4B	A322	5
CD2	CHARACTER DECODE 2	17D4B	A324	8	GD8	GROUP DECODE 8	17B3A	A322	4
CD3	CHARACTER DECODE 3	17D3A	A324	7	GD9	GROUP DECODE 9	17B3B	A322	3
CD4	CHARACTER DECODE 4	17D3B	A324	6	HVDR	HIGH VOLTAGE DISPLAY RESET	17B2	A322	2
CD5	CHARACTER DECODE 5	17D3C	A324	5	OUTPUT LINE TO PRT	OUTPUT LINE TO PRINTER	19C2B	A208	L
CD6	CHARACTER DECODE 6	17D2	A323	4	RBP	RECEIVE BIT PARITY	17D5B	A324	11
CD7	CHARACTER DECODE 7	17B8	A323	3	RB1	RECEIVE BIT 1	17D8	A324	6
CD8	CHARACTER DECODE 8	17B7A	A323	2	RB2	RECEIVE BIT 2	17D7A	A324	5
CD9	CHARACTER DECODE 9	17B7B	A323	1	RB3	RECEIVE BIT 3	17D7B	A324	4
CR RCV CLK	CHARACTER READER RECEIVE CLOCK	19B3B	A212	L	RB4	RECEIVE BIT 4	17D7C	A324	3
CR RCV DATA	CHARACTER READER RECEIVE DATA	19B4D	A212	K	RB5	RECEIVE BIT 5	17D6A	A324	2
					RB6	RECEIVE BIT 6	17D6B	A324	1
					RB7	RECEIVE BIT 7	17D5A	A324	12
					RCV LINE READER	RECEIVER LINE READER	19C1	A206	K
					14XBR	14 TIMES BLOCK	19C2A	A208	5

**SIGNAL GLOSSARY
CONTROL PANEL SCHEMATIC DIAGRAM
(FIG. 5-35)**

Signal	Definition	Origin		Signal	Definition	Origin	
		Ref. Des.	Sheet No.			Ref. Des.	Sheet No.
ABCDE NUM	ABCDE NUMBER UNIT	S114	14	EOB NUM BLOCK 2	END OF BLOCK NUMBER BLOCK 2 UNIT	S112	14
ABCDE NUM	ABCDE NUMBER DECADE	S114	14	EOB NUM BLOCK 2	END OF BLOCK NUMBER BLOCK 2 DECADE	S112	14
AUTO PRINT CONTROL	AUTO PRINT CONTROL	S122	16	INSERT ABCDE	INSERT ABCDE	S108	13
BIT RATE SELECT	TRANSMIT BIT RATE SELECT	S105	13	INSERT PATCH BOARD	INSERT PATCH BOARD	S107	13
BIT RATE SELECT	RECEIVE BIT RATE SELECT	S118	16	MESSAGE NUM	MESSAGE NUMBER	S116	15
BIT RATE SELECT (CHAR RDR)	CHARACTER READER BIT RATE SELECT	S101	12	PAUSE TIME NUM	TRANSMIT PAUSE TIME NUMBER	S109	13
BLOCK NUM (MEM CONT)	MEMORY BLOCK NUMBER	S103	12	RCVR PAUSE	RECEIVE PAUSE NUMBER	S123	16
CHAR NUM (MEM CONT)	MEMORY CHARACTER NUMBER	S104	12	RCVR/PRINT LBC	RECEIVE PRINT LINE BLOCK COUNT	S121	16
CODE SELECT	TRANSMIT CODE SELECT	S106	13	REPEAT NUM	REPEAT NUMBER UNIT	S113	14
CODE SELECT	RECEIVE CODE SELECT	S119	16	REPEAT NUM	REPEAT NUMBER DECADE	S113	14
CODE SELECT (CHAR RDR)	CHARACTER READER CODE SELECT	S102	12	RESPONSE TIME NUM	RESPONSE TIME NUMBER	S117	15
DISPLAY LOCKUP	RECEIVE DISPLAY LOCKUP	S120	16	XMIT LINE BLOCK COUNT NUM	TRANSMIT LINE BLOCK COUNT NUMBER	S115	15
EOB NUM BLOCK 1	END OF BLOCK NUMBER BLOCK 1 UNIT	S111	14	OUTPUT CLK 2CC SELECT	READER OUTPUT CLOCK 2 CONTROL CHARACTER SELECT	S110	13
EOB NUM BLOCK 1	END OF BLOCK NUMBER BLOCK 1 DECADE	S111	14				

SIGNAL GLOSSARY
TIMING MASTER GENERATOR
(FIG. 5-37)

Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.
1.2KC	1.2KC CLOCK	1C1	A116	6
1.2384MC	1.2384MC CLOCK	1D7B	A1115	L
16 x 45.5 B	16 Times 45.5 CPS CLOCK	3C3	A134	4
16 x 50 B	16 Times 50 CPS CLOCK	3A4	A130	3
16 x 110 B	16 Times 110 CPS	2A2B	A130	C
2J	16 Times 110 CPS CLOCK COUNTER 2ND STAGE	3E4B	A129	C
2J	16 Times 110 CPS CLOCK COUNTER 2ND STAGE	3E4B	A129	B
2J	16 Times 110 CPS CLOCK COUNTER 3RD STAGE	3E2A	A129	6
4J	16 Times 100 CPS CLOCK COUNTER 4TH STAGE	3E3B	A129	F
9.8KC	9.8KC CLOCK	1C3	A118	H
19.2KC	19.2KC CLOCK	1C3	A118	F
38.4KC	38.4KC CLOCK	1C3	A118	C
50 B	50 CPS CLOCK	3A3	A134	D
76.8KC	76.8KC CLOCK	1C5	A118	4
100 B	100 CPS CLOCK	3A3	A134	H
153.6KC	153.6KC CLOCK	1C5	A118	7
307.2KC	307.2KC CLOCK	1C5	A118	6
614.4KC	614.4KC CLOCK	1C5	A118	3

SIGNAL GLOSSARY
ASR INTERFACE LOGIC DIAGRAM
(FIG. 5-39)

Signal	Definition	Origin			Signal	Definition	Origin		
		Gate Ident. No.	Gate Location	Pin No.			Gate Ident. No.	Gate Location	Pin No.
BLKFRAG	BLOCK FRAGMENT	3C1	A309	6	TRD	TAPE READER DATA	3C9A	A610	10
CC	TAPE CONTROL CHARACTER	3C6A	A211	4	TR2B	TAPE READER ETB	3A3B	A400	H
CC	TAPE CONTROL CHARACTER	3D6E	A212	H	TR2X	TAPE READER ETX	3A3C	A400	D
DNBLK	DN BLOCK	3B2A	A111	7	TR2OH	TAPE READER 2OH	3A6	A400	P
MSGFRAG	MESSAGE FRAGMENT	3C2A	A309	F	TR2OH	TAPE READER 2OH	3B6	A111	C
MSGFRAG	MESSAGE FRAGMENT	3C2A	A309	H	TR2TX	TAPE READER 2TX	3A5A	A400	L
PREM	PRINTER REGISTER EMPTY	1A3	A312	6	TR2TX	TAPE READER 2TX	3B6A	A110	10
PRO	PRINTER REGISTER OUTPUTS	1D2B	A313	F	TR2O	TAPE READER INPUT REGISTER OUTPUTS	3C3	A311	F
PR1	PRINTER REGISTER OUTPUTS	1D2A	A411	H	TIR1	TAPE READER INPUT REGISTER OUTPUTS	3C4B	A310	L
PR2	PRINTER REGISTER OUTPUTS	1D3	A411	7	TIR1	TAPE READER INPUT REGISTER OUTPUTS	3C4B	A310	M
PR3	PRINTER REGISTER OUTPUTS	1D4B	A411	L	TR2	TAPE READER INPUT REGISTER OUTPUTS	3C4A	A310	10
PR4	PRINTER REGISTER OUTPUTS	1D4A	A411	10	TR2	TAPE READER INPUT REGISTER OUTPUTS	3C4A	A310	11
PR5	PRINTER REGISTER OUTPUTS	1D5A	A412	H	TR2	TAPE READER INPUT REGISTER OUTPUTS	3C5	A310	7
PR6	PRINTER REGISTER OUTPUTS	1D6A	A412	7	TIR3	TAPE READER INPUT REGISTER OUTPUTS	3C5	A310	6
PR7	PRINTER REGISTER OUTPUTS	1D7B	A412	L	TIR4	TAPE READER INPUT REGISTER OUTPUTS	3C6	A310	H
PR8	PRINTER REGISTER OUTPUTS	1D7A	A412	10	TIR4	TAPE READER INPUT REGISTER OUTPUTS	3C6	A310	F
PR9	PRINTER REGISTER OUTPUTS	1D8A	A313	7	TIR5	TAPE READER INPUT REGISTER OUTPUTS	3C7B	A310	L
PR10	PRINTER REGISTER OUTPUTS	1D9B	A313	L	TIR5	TAPE READER INPUT REGISTER OUTPUTS	3C7B	A310	M
PR11	PRINTER REGISTER OUTPUTS	1D9A	A313	10	TIR6	TAPE READER INPUT REGISTER OUTPUTS	3C7A	A310	11
RR4	MEMORY REQUEST RESET FOR TAPE	3D2	A306	L	TIR7	TAPE READER INPUT REGISTER OUTPUTS	3C8	A310	6
TICP	TAPE INPUT CHARACTER PROBE	3B2B	A312	M	WM8C	WRITE MESSAGE	3C4B	A300	3

DS, GS AND DEPOT REPAIR PARTS

Section I. INTRODUCTION

A6-1. Scope

This appendix contains a list of repair parts required for the performance of general support and depot maintenance for Simulator, Coordination AN/FYM-26.

NOTE

No special tools, test and support equipment are required.

A-2. General

The repair parts list is divided into the following sections:

a. Repair Parts for Direct Support, General Support, and Depot Maintenance ¼ Section II. Repair parts authorized, general support and depot maintenance are included in this section. No parts authorized for stockage at direct support category.

b. Federal Stock Number Cross-Reference Index ¼ Section III. This is a cross-reference index of Federal stock numbers to figure numbers and reference designations.

A6-3. Explanation of Columns

a. Source, Maintenance, and Recoverability Codes Column.

(1) *Source code (A).* The selection status and source for the listed item is noted here. Source codes and their explanations are as follows:

<i>Code</i>	<i>Explanation</i>
P—Applies to repair parts that are stocked in or supplied from the GSA/DSA, or Army supply system, and authorized for use at indicated maintenance categories.	
M—Applies to repair parts that are not procured or stocked but are to be manufactured at indicated maintenance categories.	

<i>Code</i>	<i>Explanation</i>
A—Applies to assemblies which are not procured or stocked as such but are made up of two or more units, each of which carries on individual stock number and description and is procured and stocked and can be assembled by units at indicated maintenance categories.	

X—Applies to parts and assemblies that are not procured or stocked; the mortality of which normally is below that of the applicable end item; and the failure of which should result in retirement of the end item from the supply system.

X1—Applies to repair parts that are not procured or stocked, the requirement for which will be supplied by the use of next higher assembly or component.

X2—Applies to repair parts that are not stocked. The indicated maintenance category requiring such repair parts will attempt to obtain them through cannibalization; If not obtainable through cannibalization, such repair parts will be requisitioned with supporting justification through normal supply channels.

C—Applies to repair parts authorized for local procurement. If such repair parts not obtainable from local procurement, will be requisitioned through normal supply channels with a supporting statement of nonavailability from local procurement.

G—Applies to major assemblies that are procured with PEMA funds for initial issue only to be used as exchange assemblies at DSU and GSIJ category. These assemblies will not be stocked above DSU and GSU category or returned to depot supply category.

(2) *Maintenance code (B).* The lowest category of maintenance authorized to install the listed item is indicated in this column.

<i>Code</i>	<i>Explanation</i>
H.....	General support maintenance
D.....	Depot Maintenance

(3) *Recoverability code (C).* The information in this column indicates whether unserviceable items should be returned for recovery or salvage. Recoverability codes and their explanations are as follows:

NOTE

When no code is indicated in the recoverability column, the part will be considered expendable.

<i>Code</i>	<i>Explanation</i>
R—Applies to repair parts and assemblies which are economically repairable at DSU and GSU activities and normally are furnished by supply on an exchange basis.	
T—Applies to high dollar value recoverable repair parts which are subject to special handling and are on an exchange basis. Such repair parts normally are repaired or overhauled at depot maintenance activities.	

b. Federal Stock Number Column. The Federal stock number for the item is listed in this column.

c. Description Column. The model designator, sequence number, Federal item name, a five-digit manufacturer's code, an indenture code, and a part number are included in this column. The designator (X) indicates the end equipment. For subsequent appearances of the same item, the manufacturer's code and part number are omitted. The words "same as" followed by the sequence number assigned to the item when it first appeared in the list will follow the item name, e.g. "RESISTOR, FIXED), COMPOSITION: SAAME AS A298." The indenture codes indicate the end item, the assemblies, and the component parts. Identical codes are parts of the preceding higher code. An asterisk indicates attaching hardware.

d. Unit of Issue Column. The unit used as a basis of issue (e.g., ea, pr, ft, yd, etc.) is indicated in this column.

e. Quantity Incorporated in Unit Pack Column. Not used.

f. Quantity Incorporated in Unit Column. The quantity of repair parts in an assembly is indicated in this column. Subsequent appearances of the same item in the same assembly are indicated by the letters "REF".

g. Maintenance Allowances Column. The maintenance allowance columns are divided into subcolumns. The total quantity of items authorized for the number of equipments supported is indicated in each subcolumn opposite the first appearance of each item. Subsequent appearances of the same item will have no entry in the allowance columns but will have a reference, in the description column, to the first appearance of the item. Items authorized for use as required, but not for initial stockage, are identified with an asterisk in the allowance columns.

h. One-Year Allowance Per 100 Equipments/Contingency Planning Purpose Column. Opposite the first appearance of each item, the total quantity required for distribution and contingency planning purposes is indicated. The range of items indicates total quantities of all authorized items required to provide for adequate support of 100 equipments for 1 year.

i. Depot Maintenance Allowance Per 100 Equipments Column. This column indicates the total quantity of each item authorized depot maintenance for 100 equipments. Subsequent appearances of the same item will have no entry in this column, but will have a reference in description column to the first appearance of the item.

j. Illustration Column.

(1) *Figure number (A).* The figure number of the illustration in which the item is shown is included in this column.

(2) *Item or symbol number column (B).* The callout number used to reference the item in the illustration is indicated in this column.

A6-4. Location of Repair Parts

a. When the Federal stock number is unknown, follow the procedures given in (1) through (4) below.

(1) Locate the repair parts list.

(2) If the item or symbol number is available, locate the item by scrutiny of column 10b of the repair parts list.

(3) If the item, symbol, and figure number are not known, check the description column (col. 3) in the repair parts list to locate the part.

(4) Locate the applicable illustration in this manual and note the figure number and item number. Use the repair parts listing and locate the figure number and item number as noted on the illustration.

b. When the Federal stock number is known, use the repair part listing to find the repair part and the figure and item numbers as noted in the Federal stock number index.

A6-5. Special Note

The equipment covered in this manual is categorized as a "Fixed Station Installation", which is termed as "SITE" and encompasses all those maintenance functions normally defixed to organization through general support unit.

A6-6. Federal Supply Codes

This paragraph lists the Federal supply code and the associated manufacturer's name.

<i>Code</i>	<i>Manufacturer</i>
AAAAA.....	Co-oard Switch Div of LVC Industries, Inc.
00779.....	Amp, Inc.
01002.....	General Electric Co. Capacitor Dept.
01295.....	Texas Instruments, Inc. Semiconductor-Components Division
01881.....	Anconda American Brass Co.
02114.....	Ferroxcube Corp of America

<i>Code</i>	<i>Manufacturer</i>
02144.....	Rich Phil Fan Mfg. Co., Inc.
02660.....	Amphenol Corp.
03508.....	General Electric Co. Semiconductor Products Dept.
04009.....	Arrow-Hart and Hegeman Electric Co.
04673.....	Dakota Engineering, Inc.
04713.....	Motorola Semiconductor Products, Inc.
05277.....	Westinghouse Electric Corp. Semiconductor Dept.
05397.....	Union Carbide Corp. Electronics Division
06001.....	General Electric Co. Capacitor Dept.
07047.....	Ross Milton Co., The
07256.....	Silicon Transistor Corp.
07688.....	Joint Electron Device Engineer- ing Council
07707.....	United Shoe Machinery Corp. Fastener Division
07886.....	National Radio Co., Inc.
08742.....	ACDC Electronics, Inc.
09004.....	Transistor Devices, Inc.
09023.....	Cornell-Dubilier Electric Corp. Electrolytics and Paper Tubular Division
09922.....	Burndy Corp.
10984.....	Chicago Dynamic Industries, Inc. Precision Products Division
11502.....	IRC, Inc.
12697.....	Clarostat Mfg. Co., Inc.

<i>Code</i>	<i>Manufacturer</i>
13103.....	Thermalloy Co.
13209.....	Bendix Corp. The Semiconductor Division
13715.....	Fairchild Camera and Instrument Corp. Semiconductor Division Diode Plant
14099.....	Semitech Corp.
14655.....	Cornell-Dubilier Electric Corp.
14841.....	Ward Leonard Electric Co.
15605.....	Cutler-Hammer, Inc.
16484.....	Accutronics, Inc.
18677.....	Scanbe Mfg. Corp.
18787.....	Honeywell, Inc. Computer Control Division
19648.....	Eldre Components, Inc.
27014.....	National Semi-conductor Corp.
37942.....	Mallory PR and Co., Inc.
42689.....	National Lock Co.
44655.....	Ohmite Mfg. Co.
49671.....	Radio Corp. of America
53021.....	Sangamo Electric Co.
56289.....	Sprague Electric Co.
59433.....	Teleweld, Inc.
59730.....	Thomas and Betts Co.
65025.....	Western Union Telegraph Co.
70309.....	Allied Control Col, Inc.
71218.....	Bud Radio, Inc.
71286.....	Camloc Fastener Corp.
71450.....	CTS CCRP
71468.....	ITT Cannon Electric, Inc.
71590.....	Centralab Division of Globe- Union, Inc.
71744.....	Chicago Miniature Lamp Works

<i>Code</i>	<i>Manufacturer</i>
71785.....	Cinch Mfg. Co. and Howard B. Jones Div.
72136.....	Electro Motive Mfg. Co. Inc.
72149.....	Electronic Transformer Corp.
72619.....	Dialight Corp.
74193.....	Heineman Electric Co.
74276.....	Signalite, Inc.
74545.....	Hubbell Harvey, Inc.
75915.....	Littlefuse, Inc.
79963.....	Zierick Mfg. Corp.
80131.....	Electronic Industries Assoc.
80294.....	Bourns, Inc.
80813.....	Dimco Gray Co.
81312.....	Winchester Electronics Div. Litton Industries Inc.
81349.....	Military Specifications
81483.....	International Rectifier Corp.
82877.....	Rotron Mfg. Co., Inc.
83508.....	Grant Pulley and Hardware Co.
89110.....	Amp., Inc.
90'201.....	Mallory Capacitor Co.
91637.....	Dale Electronics, Inc.
91662.....	Elco Corp.
91802.....	Industrial Devices, Inc.
91833.....	Keystone Electronic Corp.
92194.....	Alpha Wire Corp.
92614.....	Wobber Bros.
95238.....	Continental Connector Corp.
96182.....	Master Specialties Co.
96906.....	Military Standards
97954.....	U. S. Components, Inc.
99378.....	Atlee Corp.
99392.....	STM

Section II. REPAIR PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100		
G	H	R	7440-027-7246	X						G	A000 COORDINATION SIMULATOR AN/FYM-26 65025 1274A	EA		1												
G	H	R	7440-027-7265	X						B	A001 COORDINATION SIMULATOR SM-544/FYM-26 65025 12724A	EA		1										1-1		
X2	H		6895	X						C	A002 BASE PLATE, LEFT HAND 6505 532847	EA		1												MP1
X2	H		5895	X						C	A003 BASE PLATE, RIGHT HAND 65025 532848	EA		1												MP2
X2	H		5975-152-1144	X						C	A004 BOX CONNECTOR, ELECTRICAL 59730 3302	EA		1												MP3
X2	H			X						C	A005 OX CONNECTOR, ELECTRICAL 59730 5273	EA		2												MP4
X2	H		4975-835-2213	X						C	A006 BOX CONNECTOR, ELECTRICAL 59730 5323	EA		2												MP5
X2	H		5975-801-7411	X						C	A007 BOX CONNECTOR, ELECTRICAL 59730 5333	EA		4												MP6

AVI-10

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100		
X2	H			X						C	A008 BOX CONNECTOR, ELECTRICAL 59730 5353	EA		2												MP7
X2	H		5340	X						C	A009 BRACKET, ANGLE 65025 532838	EA		4												MP8
C	H			X						*	A010 SCREW, MACHINE COML 10-32X3-8RHSTLORPL	EA		40												H1
C	H			X						*	A011 WASHER, LOCK COML 10INTERNALTOOTH	EA		64												H2
C	H			X						*	A012 NUT, PLAIN HEXAGON COML 10-32STLORPL	EA		24												H3
X2	H		5340	X						C	A013 BRACKET, METAL RACEWAY CONDUIT 65025 532841	EA		2												MP9
C	H			X						*	A014 SCREW, MACHINE COML 12-24X1-2RHSTLORPL	EA		22												H4
C	H			X						*	A015 WASHER, LOCK COML 12INTERNALTOOTH	EA		30												H5
C	H			X						*	A016 NUT, PLAIN, HEXAGON COML 12-74STLOPPL	EA		22												H6
X2	H		5340	X						C	A017 BRACKET, UTILITY OUTLET 65025 532845	EA		1												MP10

AVI-11

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D C	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					*	A018 SCREW, MACHINE SAME AS A014	EA	REF											H7	
				X					*	A019 WASHER, LOCK SAME AS A015	EA	REF												H8
				X					*	A020 NUT, PLAIN, HEXAGON SAME AS A016	EA	REF												H9
X	H		5895	X					C	A021 CABINET, ELEC EQUIPMENT 71218 60-2311MODIFIED	EA	1												MP11
X	H		5895	X					C	A022 CABINET, ELEC EQUIPMENT 71218 60-2511MODIFIED	EA	1												MP12
M	H		5895	X					C	A023 CABLE ASSY, SP, ELECTRICAL 82877 16398-1	EA	2												H25
				X					C	A024 CABLE ASSY, SP, ELECTRICAL SAME AS A023	EA	REF												W26
M	H		5895	X					C	A025 CABLE ASSEMBLY, SP, ELECTRICAL 02114 53-105-15	EA	1												W27
M	H			X					C	A026 CABLE, SPECIAL PURPOSE, ELEC 92194 1747	EA	AR												H28

AVI-12

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D C	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
X2	H		5895	X					C	A027 CAP, ELECTRICAL 89110 325010	EA	10												MP13	
X2	H		5895	X					C	A028 CHANNEL, FRONT 65025 532849	EA	2													MP14
M	H			X					*	A029 SCREW, MACHINE COML 10-32XLFHSTLORPL	EA	4													H10
A	H	R	5895	X					C	A030 CIRCUIT CARD CHASSIS 6S025 12679A	EA	1													A6
				X					*	A031 SCREW, MACHINE SAMF AS A010	EA	REF													H11
				X					*	A032 WASHER, LOCK SAME AS A011	EA	REF													H12
X2	H		5340	X					D	A033 BRACKET, ANGLE 65025 532417	EA	2													A6MP1
C	H			X					*	A034 SCREW, MACHINE COML 8-32X3-8BHSTLCADPL	EA	36													A6H1
C	H			X					*	A035 WASHER, LOCK COML 8INTERNALTOOTH	EA	82													A6H2
X2	H		5340	X					D	A036 BRACKET, ANGLE 65025 532418	EA	2													A6MP2

AVI-13

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
C	H			X					*	A037 SCREW, MACHINE COML 12-24X3-8RHSTLCADPL	EA	4												A6H3	
C	H			X					*	A038 WASHER, LOCK COML 12INTERNALTOOTH	EA	4													A6H4
C	H			X					*	A039 NUT, PLAIN, HEXAGON COML 12-24STLCADPL	EA	12													A6H5
X2	H		5340	X					D	A040 BRACKET, ANGLE, LH 65025 532411LH	EA	2													A6MP3
C	H			X					*	A041 SCREW, MACHINE COML 10-32X3-8RHSTLCADPL	EA	32													A6H6
C	H			X					*	A042 WASHER, LOCK COML 10INTERNALTOOTH	EA	32													A6HT
C	H			X					*	A043 NUT, PLAIN, HEXAGON COML 10-32STLCADPL	EA	32													A6H8
X2	H		5340	Y					D	A044 BRACKET, ANGLE, RH 65025 532411RH	EA	2													A6MP4
				X					*	A045 SCREW, MACHINE SAME AS A041	EA	REF													A6H9
				X					*	A046 WASHER, LOCK SAME AS A042	EA	REF													A6H10

AVI-14

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
				X					*	A047 NUT, PLAIN, HEXAGON SAME AS A043	EA	REF													A6H11
X2	H		5340	X					D	A048 BRACKET, CONNECTOR MTG 65025 532419	EA	2													A6MPS
				X					*	A049 SCREW, MACHINE SAME AS A034	EA	REF													A6H12
				X					*	A050 WASHER, LOCK SAME AS A035	EA	REF													A6H13
X2	H		6150	X					D	A051 BUS BAR 19648 FC15417	EA	12													A6MP6
C	H			X					*	A052 SCREW, MACHINE COML 4-40X1-4RHSTLCADPL	EA	24													A6H14
C	H			X					*	A053 WASHER, LOCK COML 4INTERNALTOOTH	EA	1962													A6H15
C	H			X					*	A054 NUT, PLAIN, HEXAGON COML 4-40STLCADPL	EA	434													A6H16
X2	H		6150	X					D	A055 BUS BAR 65025 532414	EA	4													A6MP7
C	H			X					*	A056 SCREW, MACHINE CCML 4-40X3-8RHSTLCADPL	EA	1772													A6H17

AVI-15

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D C D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					*	A057 WASHER, LOCK SAME AS A053	EA	REF											A6H18
P	H		5910-947-6984	X					D	A058 CAPACITOR, FIXED, PLASTIC 56289 192P56292	EA	10				2	2	3	46	30			A6C1
X2	H		5995	X					D	A059 CARD FILE, CIRCUIT CARDS 18677 21126	EA	2											A6MP8
X2	H		5895	X					D	A060 CHANNEL, SLIDE MOUNTING 65025 532412	EA	2											A6MP9
				X					*	A061 SCREW, MACHINE SAME AS A041	EA	REF											A6H19
				X					*	A062 WASHER, LOCK SAME AS A042	EA	REF											A6H20
				X					*	A063 NUT, PLAIN, HEXAGON SAME AS A043	EA	REF											A6H21
P	H		7440-113-0833	X					D	A064 CIRCUIT CARD ASSEMBLY 65025 12645-1A	EA	234				5	12	22	270	234	6-1		A116
X1	H			X					F	A065 INTEGRATE CKT, LOGIC GATE 01295 SN7400N	EA	466									6-1		IC1

AVI-16

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)								
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N							
				M O D E L									I N D C D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N						
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100					
				X					E	A066 INTEGRATED CKT, LOGIC GATE SAME AS A065	EA	REF											6-1	IC2				
X1	H		5895	X					F	A067 PRINTED WIRING BOARD 65025 529311	EA	637											6-1	MP1				
				X					D	A069 CIRCUIT CARD ASSEMBLY SAME AS A064 (Item No.) A119, A132, A205, A207, A209, A211, A301, A304, A308, A316, A321, A323, A325, A332, A401, A407, A408, A409, A421, A423, A430, A433, A434, A508, A510 A512, A513, A520, A521, A527, A528, A530, A533, A564, A610, A611, A620, A624, A625, A627 A633, A703, through A706, A708 A712, A713, A716, A725, A728, A730, A732, A733, A734, A810, A815, A821, A825, A831, A833, A834, A901, A902, A903, A910, A919, A920, A922, A925, A928 through A931, A1001, A1004, A1005, A1007, A1008, A1010, through A1014, A1020, A1023, A1024, A1025, A1028, A1029, A1030, A1031, A1032, A1034, A1101 through A1104, A1107, A1108, A1110 through A1113, A1115, A1116, A1120, A1121, A1122, through A1125, A1128 through A1134	EA	REF															6-1	See desc. column

AVI-17

A6-7

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N				
				M O D E L									I N D I C E D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100		
P	H		7440-113-0834	X						D	A189 CIRCUIT CARD ASSEMBLY 65025 12645-2A	EA	110					2	6	11	141	110	6-1	A111	
X1	H			X						E	A190 INTEGRATED CKT, LOGIC GATE 01295 SN7410N	EA	220											6-1	IC1
				X						E	A191 INTEGRATED CKT LOGIC GATE SAME AS A190	EA	REF											6-1	IC2

AVI-18

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N						
				M O D E L									I N D I C E D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N					
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100				
				X						E	A192 PRINTED WIRING BOARD SAME AS A067	EA	REF											6-1	MP1		
				X						D	A193 CIRCUIT CARD ASSEMBLY SAME AS A189 (Item No.) A206, A223, A224, A314, A319, A322, A330, A333, A414, A415, A416, A419, A424, A431, A506, A507, A514, A515, A519, A522, A529, A601, A602, A603, A605, A608, A614, A615, A616, A623, A701, A702, A707, A710, A711, A714, A715, A722, A723, A731, A801, A828, A829, A830, A832, A914, A915, A916, A1002, A1003, A1016, A1021, A1022	EA	REF													6-1	see desc column

AVI-19

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
P	H		7440-113-0835	X						D	A246 CIRCUIT CARD ASSEMBLY 65025 12645-3A	EA					2	4	7	89	63	6-1	A110		
X1	H		5895	X						F	A247 INTEGRATED CKT, LOGIC GATE 01295 SN7420N	EA											6-1	IC1	
				X						E	A248 INTEGRATED CKT, LOGIC GATE SAME AS A247	EA											6-1	IC2	
				x						E	A249 PRINTED WIRING BOARD SAME AS A067	EA											6-1	MP1	
				X						D	A250 CIRCUIT CARD ASSEMBLY SAME AS A246 (Item No.) A208, A219, A307, A315, A331, A413, A428, A432, A516, A534, A622, A634, A727, A803 through A806, A811, A827, A704, A905, A906, A1006, A1114	EA												6-1	A133 See desc column

AVI-20

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
P	H		7440-113-0836	X						D	A275 CIRCUIT CARD ASSEMBLY 65025 12645-4A	EA					2	3	5	59	39	6-1	A113	
X1	H		5962	X						E	A276 INTEGRATED CKT, LOGIC GATE 01295 SN7430N	EA											6-1	IC1
				X						F	A277 INTEGRATED CKT, LOGIC GATE SAME AS A276	EA											6-1	IC2
				X						E	A278 PRINTED WIRING BOARD SAME AS A067	EA											6-1	MP1
				X						D	A279 CIRCUIT CARD ASSEMBLY SAME AS A275 (Item No.) A114, A115, A122, A204, A212 through A216, A607, A621, A808, A911	EA											6-1	See desc column
																							6-1	A115
																							6-1	A122

AVI-21

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E C D C	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6				I N D C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100			
P	H		7440-113-0837	X						D	A292 CIRCUIT CARD ASSEMBLY Y 65025 12645-5A	EA		24				2	2	3	40	24				
X1	H			X						E	A2293 INTEGRATED CKT, FLIP FLOP 01295 SN7473N	EA		48										6-1	IC1	
				X						E	A294 INTEGRATED CKT, FLIP FLOP SAME AS A293	EA		REF										6-1	IC2	
				X						E	A295 PRINTED WIRING BOARD SAME AS A067	EA		REF										6-1	MP1	
				X						D	A296 CIRCUIT CARD ASSEMBLY SAME AS A292 (Item No.) A129, A130, A131, A305, A-309, A320, A406, A420, A606, A631, A632, A908	EA		REF											6-1	See desc column

AVI-22

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D C	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				I N D C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
P	H		7440-113-0838	X						D	A308 CIRCUIT CARD ASSEMBLY 65025 12645-6A	EA		78				2	4	8	107	78	6-1	A121

AVI-23

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				I N D C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
X1	H			X					E	A363 INTEGRATED CKT, LOGIC GATE 01295 SN7440N	EA	72										6-1	IC1	
				X					F	A364 INTEGRATED CKT, LOGIC GATE SAME AS A363	EA	REF										6-1	IC2	
				X					E	A365 PRINTED WIRING BOARD SAME AS A067	EA	REF										6-1	MP2	
				X					D	A366 CIRCUIT CARD ASSEMBLY SAME AS A362 (Item No.) A324, A404, A405, A410, A422, A427, A523, A532, A802, A812, A813, A814, A816, A822, A823, A927, A932, A1014, A1027, A1105. A1127	EA	REF											6-1	See desc column

AVI-26

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				I N D C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
P	H		7440-113-0840	X					D	A387 CIRCUIT CARD ASSEMBLY 65025 12645-9A	EA	6				*	2	2	13	6	6-1	A134	
X1	H			X					E	A388 INTEGRATED CKT, COUNTER 01295 SN7493N	EA	6										6-1	IC1
				X					E	A389 INTEGRATED CKT, COUNTER SAME AS A388	EA	REF										6-1	IC2

AVI-27

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
				X					E	A390 PRINTED WIRING BOARD SAME AS A067	EA	REF									6-1	MP1
				X					D	A391 CIRCUIT CARD ASSEMBLY SAME AS A387	EA	REF									6-1	A511
				X					D	A392 CIRCUIT CARD ASSEMBLY SAME AS A387	EA	REF									6-1	A907
P	H		7440-142-5469	X					D	A393 CIRCUIT CARD ASSEMBLY 65025 12645-10A	EA	1			*	*	*		4	1	6-1	A1119
X1	H		5895	X					E	A394 INTEGRATED CKT, BUFFER 01295 SN1284N	EA	2									6-1	IC1
				X					E	A395 INTEGRATED CKT, BUFFER SAME AS A394	EA	REF									6-1	IC2
				X					E	A396 PRINTED WIRING BOARD SAME AS A067	EA	REF									6-1	MP1
X2	H		5340	X					D	A397 CLAMP ASSEMBLY 04673 2C1-38	EA	2										A6MP10
C	H			X					*	A398 SCREW, MACHINE COML 6-32X3-8FHSTLCADPL	EA	80										A6H22

AVI-28

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
				X					*	A400 SCREW, MACHINE SAME AS A398	EA	REF										A6H23
P	H		5935-880-7893	X					D	A401 CONNECTOR, RECEPTACLE, ELEC 96906 MS3120E20-41P	EA	5			*	2	2		27	15	6-1	A6J5
				X					D	A402 CONNECTOR, RECEPTACLE, ELEC SAME AS A401	EA	REF									2-6	A6J8
				X					*	A403 SCREW, MACHINE SAME AS A056	EA	REF										A6H24
				X					*	A404 WASHER, LOCK SAME AS A053	EA	REF										A6H25
				X					*	A405 NUT, PLAIN, HEXAGON SAME AS A054	EA	REF										A6H26
P	H		5935-765-8592	X					D	A406 CONNECTOR, RECEPTACLE, ELEC 96906 MS3120E20-41PW	EA	3			*	2	2		18	9	2-6	A6J2
				X					D	A407 CONNECTOR, RECEPTACLE, ELEC SAME AS A406	EA	REF									2-6	A6J12
				X					*	A408 SCREW, MACHINE SAME AS A056	EA	REF										A6H27

AVI-29

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION						
				MODEL									I N D I C E	DS			GS				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N					
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100				
P H C H C H P H	5935-901-0917		X						*	A409 WASHER, LOCK SAME AS A053	EA	REF												A6H28			
			X							D	A410 NUT, PLAIN, HEXAGON SAME AS A054	EA	REF												A6H29		
			X								D	A411 CONNECTOR, RECEPTACLE, ELEC 96906 MS3120E24-61P	EA	4			*	2	2	19	12	2-6		A6J3			
			X								D	A412 CONNECTOR, RECEPTACLE, ELEC SAME AS A411	EA	REF									2-6		A6J6		
			X								*	A413 SCREW, MACHINE COML 6-32X3-8RHSTLCADPL	EA	56												A6H30	
			X								*	A414 WASHER, LOCK COML 6 INTERNAL TOOTH	EA	56													A6H31
			X								*	A415 NUT, PLAIN, HEXAGON COML 6-32 STLCADPL	EA	84													A6H32
P H	5935-900-4843		X						D	A416 CONNECTOR, RECEPTACLE, ELEC 96906 MS3120E24-61PW	EA	4			*	2	2	19	12	2-6				A6J1			
			X							D	A417 CONNECTOR, RECEPTACLE, ELEC SAME AS A416	EA	REF									2-6		A6J13			

AVI-30

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION						
				MODEL									I N D I C E	DS			GS				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N					
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100				
P H P H	5935-901-0905		X						*	A418 SCREW, MACHINE SAME AS A413	EA	REF													A6H33		
			X							*	A419 WASHER, LOCK SAME AS A414	EA	REF													A6H34	
			X							*	A 420 NUT, PLAIN, HEXAGON SAME AS A415	EA	REF													A6H35	
			X							D	A421 CONNECTOR, RECEPTACLE, ELEC 96906 MS3120E24-61PX	EA	3			*	2	2	18	9	2-6				A6J7		
			X							*	A422 SCREW, MACHINE SAME AS A413	EA	REF														A6H36
			X							*	A423 WASHER, LOCK SAME AS A414	EA	REF														A6H37
			X							*	A424 NUT, PLAIN, HEXAGON SAME AS A415	EA	REF														A6H38
P H	5935-901-0918		X						D	A4425 CONNECTOR, RECEPTACLE, ELEC 96906 MS3120E24-61PY	EA	1			*	*	2	8	3	2-6					A6J9		
			X						*	A426 SCREW, MACHINE SAME AS A413	EA	REF													A6H39		
			X						*	A427 WASHER, LOCK SAME AS A414	EA	REF														A6H40	

AVI-31

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				I N D C O D E	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
C	H			X					*	A767 SCREW, MACHINE COML 4-40X7-16RHSTLCADPL	EA	56											A6H45	
				X					*	A768 SCREW, MACHINE SAME AS A056	EA	REF												H46
				X					*	A769 WASHER, LOCK SAME AS A053	EA	REF												A6H47

AVI-34

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6				I N D C O D E	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100		
X2	H		5325	X					D	A770 EYELET 65025 83368	EA	3												A6MP12	
X2	H		5895	X					D	A771 GUIDE 80813 3GAN3195-22	EA	2													A6MP13
X2	H		5895	X					D	A772 HANDLE, ROD 65025 532413	EA	2													A6MP14
				X					*	A773 SCREW, MACHINE SAME AS A034	EA	REF													A6H48
				X					*	A774 WASHER, LOCK SAME AS A035	EA	REF													A6H49
X?	H		5340	X					D	A775 LATCH 80813 3LAN3195-12	EA	2													A6MP15
X2	H		5895	X					D	A778 MOUNTING, PLATE, PWR DISTR BUS 65025 532415	EA	24													A6MP17
X2	H		5895	X					D	A779 PLATE, DESIGNATION 65025 532420	EA	12													A6MP18
X2	H		5320	X					D	A790 RIVET 80813 3R105	DA	2													A6MP19
X2	H	C 3	5895	X					D	A781 SLIDE, DRAWER, EXTENSION 83508 36018	PR	2													A6MP20

AVI-35

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(1) REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	I N D C D									
			X					D	A821 CARD, FILE. CIRCUIT CARDS SAME AS A059	EA	REF								A7MP8			
			X					D	A822 CHANNEL, SLIDE MOUNTING SAME AS A060	EA	REF								A7MP9			
			X					*	A824 SCREW, MACHINE SAME AS A041	EA	REF								A7H19			
			X					*	A824 WASHER, LOCK SAME AS A042	EA	REF								A7H20			
			X					*	A825 NUT, PLAIN, HEXAGON SAME AS A043	EA	REF								A7H21			
			X					D	A826 CIRCUIT CARD ASSEMBLY SAME AS A064 (Item No.) A114, A115, A119, A120, A123, A127, A129, A131, A134, A215, A222, A229, A233, A301, A303 through A308, A316, A321, A324, A326, A331, A332, A333, A420, A425, A427, A428, A429, A431, A434, A504, A506, A511, A519 through A522, A524, A525, A527, A529, A5 A603, A605, A610, A611, A613, A629 through A632, A701 through A704, A706, A708, A713, A719, A720, A726 through A730, A732, A803, A810, A815, A819 through A822, A825 through A831, A904, A912 through A916, A922, A923, A924, A1003, A1006, A1011, A1012, A1014, A1019, A1021, A1022, A1027, A1032, A1111, A1112, A1113, A1120, A1125, A1126, A1129	EA	REF									6-1	A103 See desc column	

AVI-40

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(1) REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	I N D C D									
			X					D	A937 CIRCUIT CARD ASSEMBLY SAME AS A189 (Item No.) A107, A108, A110, A111, A122, A128, A130, A133, A214, A223, A224, A225, A234, A302, A310, A311, A312, A315, A320, A322, A327, A334, A401, A414, A421, A424, A430, A432, A501, A505, A513, A531, A601, A607, A628, A707, A711, A725, A734, A802, A804, A805, A807, A813, A814, A833, A911, A929, A931, A1002, A1010, A1023, A1024, A1025, A1030, A1131	EA	REF									6-1	A107 See desc column	

AVI-41

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE					(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
				X					D		EA	REF							6-1	A106 See desc column		

AVI-42

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE					(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
				X					D		EA	REF							6-1	A126 See desc column		

AVI-43

(1) (A) SOURCE (B) MAINT (C) REC CODE			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE						(4) UNIT OF ISSUE	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION			
			(2) FEDERAL STOCK NUMBER	(3) MODEL						DESCRIPTION			DS			GS					(A)	(B)	
				1	2	3	4	5	6				IND CD	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50			(C) 51-100	FIG. NO.	(B) ITEM OR SYMBOL DESIGN
				X						D	B056 CIRCUIT CARD ASSEMBLY SAME AS A292 (Item No.) A313, A314, A510, A532, A533, A608, A612, A712, A716, A1008, A1009	EA	REF									6-1	A313 See desc column

AVI-44

(1) (A) SOURCE (B) MAINT (C) REC CODE			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE						(4) UNIT OF ISSUE	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
			(2) FEDERAL STOCK NUMBER	(3) MODEL						DESCRIPTION			DS			GS					(A)	(B)		
				1	2	3	4	5	6				IND CD	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50			(C) 51-100	FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				X						D	B067 CIRCUIT CARD ASSEMBLY SAME AS A308 (Item No.) A124, A132, A201 through A205, A416, A423, A508, A515, A614, A615, A619, A620, A621, A705, A715, A901, A902, A903, A906, A910, A925, A926, A927, A1028, A1128, A1129, A1132, A1133, A1134	EA	REF										6-1	A124 See desc. column

AVI-45

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N				
				M O D E L									I N D C O D E	D E S C R I P T I O N	D S			G S			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
P	H	T	7440-113-0846	X						D	B167 CIRCUIT CARD ASSEMBLY 65025 12768A	EA	1					*	*	*	8	3	6-1	A1016	
P	D		5895	X						E	B168 OSCILLATOR 16484 PL21-28P	EA	1									8	3	6-1	Y1
C	D			X						*	B169 NUT, PLAIN HEXAGON COML 6-32STLNPL	EA	4											6-1	MP1
				X						*	B170 WASHER, LOCK SAME AS E394	EA	REF											6-1	MP2
C	D		5310	X						*	B171 WASHER, FLAT 91833 346	EA	4											6-1	MP3
X1	D		5895	X						F	B172 PRINTED WIRING BOARD 65025 532074	EA	1											6-1	MP4

AVI-50

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N					
				M O D E L									I N D C O D E	D E S C R I P T I O N	D S			G S			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100		
				X						D	B173 CLAMP ASSEMBLY SAME AS A397	EA	REF													A7MP10
				X						*	B174 SCREW, MACHINE SAME AS A398	EA	REF													A7H22
				X						*	B176 SCREW, MACHINE SAME AS A398	EA	REF													A7H23
				X						D	B177 CONNECTOR, RECEPTACLE, ELEC SAME AS A401	EA	REF											2-7	A7J6	
				X						*	B178 SCREW, MACHINE SAME AS A056	EA	REF													A7H24
				X						*	B179 WASHER, LOCK SAME AS D207	EA	REF													A7H25
				X						*	B180 NUT, PLAIN, HEXAGON SAME AS A054	EA	REF													A7H26
				X						D	B181 CONNECTOR, RECEPTACLE, ELEC SAME AS A406	EA	REF											2-7	A7J12	
				X						*	B182 SCREW, MACHINE SAME AS A056	EA	REF													A7H27
				X						*	B183 WASHER, LOCK SAME AS D207	EA	REF													A7H28

AVI-51

(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A)	(B)	(C)	(A)	(B)	(C)					
				1	2	3	4	5				6	I N D C D	1-20	21-50	51-100	1-20					21-50	51-100
				X				*	B562 WASHER, LOCK SAME AS D207	EA	REF								ATH47			
				X				D	B563 EYELET SAME AS A770	EA	REF								A7MP12			
				X				D	B564 GUIDE SAME AS A771	EA	REF								A7MP13			
				X				D	B565 HANDLE, ROD SAME AS A772	EA	REF								A7MP14			
				X				*	B566 SCREW, MACHINE SAME AS A034	EA	REF								A7H48			
				X				*	B567 WASHER, LOCK SAME AS R585	EA	REF								A7H49			
				X				D	B568 LATCH SAME AS A775	EA	REF								A7MP15			
				X				D	B571 MOUNTING PLATE, PWR DISTR BUS SAME AS A778	EA	REF								A7MP17			
				X				D	B572 PLATE, DESIGNATION SAME AS A779	EA	REF								A7MP18			
				X				D	B573 RIVET SAME AS A780	EA	REF								A7MP19			

AVI-56

(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A)	(B)	(C)	(A)	(B)	(C)					
				1	2	3	4	5				6	I N D C D	1-20	21-50	51-100	1-20					21-50	51-100
				X				D	B574 SLIDE, DRAWER, EXTENSION SAME AS A7R1	PR	REF								A7MP20			
				X				*	B575 SCREW, MACHINE SAME AS A398	EA	REF								A7H51			
				X				*	B576 WASHER, LOCK SAME AS E394	EA	REF								A7H52			
				X				*	B577 NUT, PLAIN, HEXAGON SAME AS A415	EA	REF								A7H53			
				X				D	B578 STUD SAME AS A785	EA	REF								A7MP21			
				X				D	B579 STUD SAME AS A786	EA	REF								A7MP22			
				X				D	B580 TIE, SELF-LOCKING SAME AS A797	EA	REF								A7MP23			
				X				D	B581 WASHER SAME AS A783	EA	REF								A7MP24			
X2	H		5340-919-9400	X				C	B582 CLAMP, AXIAL FAN MOUNTING 82877 16410	EA	6								MP15			
X2	H		540-200-2691	X				C	B583 CLAMP, LOOP 09922 HP6N	EA	2								MP16			

AVI-57

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100						
C	H			X					*	B584 SCREW, MACHINE COML 8-32X3-8RHSTLCRP	EA	38											H15	
C	H			X					*	B585 WASHER, LOCK COML 8INTERNALTOOTH	EA	54												H16
X2	H		5340-763-1261	X					C	B586 CLIP, FINGER GUARD MOUNTING 82R77 14611	EA	6												MP17
X2	H			X					C	B587 CONDUIT, METAL, FLEXIBLE 018P1 EF3-4	IN	36												MP18
X2	H		5895	X					C	B588 CONDUIT, RACEWAY, METAL 65025 532839	EA	1												MP19
				X					*	B589 SCREW, MACHINE SAME AS R584	EA	REF												H17
				X					C	B590 WASHER, LOCK SAME AS B585	EA	REF												H18
X2	H		5895	X					C	B591 CONDUIT, RACEWAY, METAL 65025 532840	EA	3												MP20
				X					*	R592 SCREW, MACHINE SAME AS R584	EA	REF												H19
				X					*	B593 WASHER, LOCK SAME AS B585	EA	REF												H20

AVI-58

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
P	H		5935-880-7894	X					C	B594 CONNECTOR, PLUG, ELECTRICAL 96906 MS3120E14-19S	EA	1					*	2	8	3	2-5	P18
P	H		5935-724-7593	X					C	B595 CONNECTOR, PLUG, ELECTRICAL 96906 MS3126F20-41S	EA	5				*	2	2	27	15	2-5	P13A
				X					C	B596 CONNECTOR, PLUG, ELECTRICAL SAME AS B595	EA	REF									2-5	P13B
				X					C	B597 CONNECTOR, PLUG, ELECTRICAL SAME AS B595	EA	REF									2-5	P19A
				X					C	B598 CONNECTOR, PLUG, ELECTRICAL SAME AS B595	EA	REF									2-5	P19B
P	H		5935-726-6484	X					C	B599 CONNECTOR, PLUG, ELECTRICAL 96906 MS3126F20-41SW	EA	3				*	2	2	18	9	2-5	P15A
				X					C	B600 CONNECTOR, PLUG, ELECTRICAL SAME AS B599	EA	REF									2-5	P15B
P	H		5135-724-7588	X					C	B601 CONNECTOR, PLUG, ELECTRICAL 96906 MS3126F24-61S	EA	4				*	2	2	19	12	2-5	P14A
				X					C	B602 CONNECTOR, PLUG, ELECTRICAL SAME AS B601	EA	REF									2-5	P14B

AVI-59

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
P	H		5935-724-7589	X						C	B603 CONNECTOR, PLUG, ELECTRICAL 96906 MS3126F24-61SW	EA		4				*	2	2	19	12	2-5	P16A	
				X						C	B604 CONNECTOR, PLUG, ELECTRICAL SAME AS B603	EA		REF										2-5	P16B
P	H		5935-724-7590	X						C	B605 CONNECTOR, PLUG, ELECTRICAL 96906 MS3126F24-61SX	EA		3				*	2	2	18	9	2-5	P17	
P	H		5935-755-3447	X						C	B606 CONNECTOR, RECEPTACLE, ELEC 74545 5258	EA		2				*	2	2	13	6	2-5	J1	
				X						C	B607 CONNECTOR, RECEPTACLE, ELEC SAME AS B606	EA		REF										2-5	J2
				X						*	B608 SCREW, MACHINE SAME AS B584	EA		REF											H21
				X						*	B609 WASHER, LOCK SAME AS B5A5	EA		REF											H22
A	H	R	5895	X						C	B610 CONTROL PANEL 65005 12689A	EA		1										6-6	A2
C	H			X						*	B611 SCREW, MACHINE COML 10-32X3-8PHLHSTLRPL	EA		50											H23

AVI-60

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100		
P	H		6350-912-6310	X						D	B612 ALARM, AUDIBLE 18787 SC628	EA		1				*	*	*	4	1		A2DS20		
X2	H		5891	X						D	B613 ANGLE, CABLE TIE 65025 531043	EA		1											A2MP1	
C	H			X						*	B614 SCREW, MACHINE COML 8-32X1-4RHSTLCADL	EA		25											A2H1	
				X						*	B615 WASHER, LOCK SAME AS A035	EA		REF											A2H2	
X2	H		5975-966-4323	X						D	B616 BASE, TIE MOUNTING 5973C TC102	EA		13												A2MP2
X2	H		5340	X						D	B617 BRACKET, CABLE CLAMP MOUNTING 65025 531041	EA		1												A2MP3
				X						*	B618 SCREW, MACHINE SAME AS B614	EA		REF												A2H3
				X						*	B619 WASHER, LOCK SAME AS A035	EA		REF												A2H4
X2	H		5340	X						D	B620 BRACKET, CABLE TIE 65025 531044	EA		2												A2MP4
				X						*	B621 SCREW, MACHINE SAME AS B614	EA		REF												A2H5

AVI-61

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100						
X2	H		5340	X					*	B622 WASHER, LOCK SAME AS A035	EA	REF												A2H6
				X					D	B623 BRACKET, TAPER PIN BLOCK MTG 65025 531040	EA	1												A2MP5
				X					*	B624 SCREW, MACHINE SAME AS B614	EA	REF												A2H7
				X					*	B625 WASHER, LOCK SAME AS A035	EA	REF												A2H8
A	H		5895	X					D	B626 CARD FILE, CIRCUIT CARDS 18677 21127	EA	1												A2MP6
				X					*	B627 SCREW, MACHINE SAME AS A034	EA	REF												A2H9
				X					*	B628 WASHER, LOCK SAME AS A015	EA	REF												A2H10
C	H			X					*	B629 NUT, PLAIN, HEXAGON COML 8-32STLCADPL	EA	16												A2H11
P	H		7440-113-0842	X					D	B630 CIRCUIT CARD ASSEMBLY 6525 12197A	EA	10				2	6	11	130	100	6-47			A213
X1	H		5895	X					F	B631 PRINTED WIRING 65025 513495	EA	10									6-47			MP1

AVI-62

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100						
X1	H			X					E	B632 SEMICONDUCTOR DEVICE, DIODE 07688 1N484A CR1-1, CR1-2, CR1-3, CR1-4, CR2-1 through CR2-4, CR3-1 through CR3-4, CR4-1 through CR4-4, CR5-1 through CR5-4	EA	2382										6-47		See desc. col.

AVI-63

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A)	(B)	(C)	(A)	(B)	(C)					
				1	2	3	4	5				6	IND C D	1-20	21-50	51-100	1-20					21-50	51-100
H		5930-636-3020	X					D		1							6-6	SA2-1				
H		5930-803-9960	X					E		1							6-6	MP1				
			X					D		REF							6-47	A214				
			X					D		REF							6-47	A215				
			X					D		REF							6-47	A216				
			X					D		REF							6-47	A217				
			X					D		REF							6-47	A218				
			X					D		REF							6-47	A219				
			X					D		REF							6-47	A220				

AVI-64

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A)	(B)	(C)	(A)	(B)	(C)					
				1	2	3	4	5				6	IND C D	1-20	21-50	51-100	1-20					21-50	51-100
			X					D		REF							6-47	A221				
			X					D		REF							6-47	A222				
P	H	7440-113-2994	X					D		3		2	4	8	95	72	6-47	A209				
X1	H	5961	X					F		18								MP1				
X1	H		X					E		254								MP2				
X1	H	5895	X					E		3							6-49	MP3				
X1	H		X					E		39							6-49	R9-1				
X1	H		X					E		REF							6-49	R9-2				
			X					F		REF							6-49	R10-1				

AVI-65

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	DS			GS				(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN		
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
				X						E	B668 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA		REF									6-49	R10-2
X1	H			X						F	B669 RESISTOR, FIXED, COMPOSITION 81349 RC20GF103J	EA		10									6-49	R12-1
				X						F	B670 RESISTOR, FIXED, COMPOSITION SAME AS B669	EA		REF									6-49	R12-2
X1				X						E	B671 RESISTOR, FIXED, COMPOSITION 81349 RC20GF152J	EA		11									6-49	R11-1
				X						F	B672 RESISTOR, FIXED, COMPOSITION SAME AS B671	EA		REF									6-49	R11-2
X1	H			X						E	B673 RESISTOR, FIXED, COMPOSITION 81349 RC20GF223J	EA		6									6-49	R13-1
				X						E	B674 RESISTOR, FIXED, COMPOSITION SAME AS B673	EA		REF									6-49	R13-2
X1	H			X						F	B675 RESISTOR, FIXED, COMPOSITION 81349 RC20GF224J	EA		12									6-49	R1-1
				X						F	B676 RESISTOR, FIXED COMPOSITION SAME AS B675	EA		REF									6-49	R1-2

AVI-66

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	DS			GS				(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN		
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
				X						F	B677 RESISTOR, FIXED, COMPOSITION SAME AS B675	EA		REF									6-49	R6-1
				X						E	B678 RESISTOR, FIXED, COMPOSITION SAME AS B675	EA		REF									6-49	R6-2
X1	H			X						E	B679 RESISTOR, FIXED, COMPOSITION R1349 RC20GF272J	EA		21									6-49	R7-1
				X						E	B680 RESISTOR, FIXED, COMPOSITION SAME AS B679	EA		REF									6-49	R7-2
				X						E	B681 RESISTOR, FIXED, COMPOSITION SAME AS B679	EA		REF									6-49	R8-1
				X						E	B682 RESISTOR, FIXED, COMPOSITION SAME AS B679	EA		REF									6-49	R8-2
X1	H			X						E	B683 RESISTOR, FIXED, COMPOSITION 91349 RC20GF392J	EA		8									6-49	R14-1
				X						F	B684 RESISTOR, FIXED, COMPOSITION SAME AS B683	EA		REF									6-49	R14-2
X1	H			X						F	B685 RESISTOR, FIXED, COMPOSITION 81340 PC20GF561J	EA		12									6-49	R3-1

AVI-67

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									I N D C D	DS			GS				(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN				
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100			
X1	H			X						E	B686 RESISTOR, FIXED, COMPOSITION SAME AS B685	EA	REF								6-49	R3-2				
				X						E	B687 RESISTOR, FIXED, COMPOSITION SAME AS B685	EA	REF										6-49	R4-1		
				X						F	B688 RESISTOR, FIXED, COMPOSITION SAME AS B685	EA	REF											6-49	R4-2	
				X						F	B689 RESISTOR, .FIXED, COMPOSITION 81349 RC20GF562J	EA	20											6-49	R2-1	
				X						E	B690 RESISTOR, FIXED, COMPOSITION SAME AS B689	EA	REF												6-49	R2-2
				X						E	B691 RESISTOR, FIXED, COMPOSITION SAME AS B689	EA	REF												6-49	R5-1
X1	H	5961	X						E	B867 RESISTOR, FIXED COMPOSITION SAME AS B689	EA	REF										6-49	R5-2			
			X						E	B693 SEMICONDUCTOR DEVICE, DIODE 07688 1N4371	EA	12											6-49	CR1-1		
				X					E	B694 SEMICONDUCTOR DEVICE, DIODE SAME AS B693	EA	REF										6-49	CR1-2			

AVI-68

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION						
				MODEL									I N D C D	DS			GS				(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN					
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100				
X1	H			X						E	B695 SEMICONDUCTOR DEVICE, DIODE SAME AS B693	EA	REF									6-49	CR2-1				
				X						E	B696 SEMICONDUCTOR DEVICE, DIODE SAME AS B693	EA	REF											6-49	CR2-2		
X1	H			X						E	B697 TRANSISTOR 07688 2N1307	EA	17										6-49	Q4-1			
				X						E	B698 TRANSISTOR SAME AS B697	EA	REF											6-49	Q4-2		
				X						E	B699 TRANSISTOR 07688 2N3416	EA	18												6-49	Q4-1	
				X						F	B700 TRANSISTOR SAME AS B699	EA	REF												6-49	Q1-2	
				X						F	B701 TRANSISTOR SAME AS B699	EA	REF													6-49	Q2-1
				X						F	B702 TRANSISTOR SAME AS B699	EA	REF													6-49	Q2-2
X1	H			X						F	B703 TRANSISTOR SAME AS B699	EA	REF										6-49	Q3-1			
				X						F	B704 TRANSISTOR SAME AS B699	EA	REF											6-49	Q3-2		

AVI-69

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									I N D C O D E	DS			GS				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
X1	H		5999	X					F	B723 HEAT SINK 65025 526448	EA	1								6-69	MP1		
X1	H			X					*	B724 SCREW, MACHINE COML 6-32X1BINDHSTLCAPL	EA	2								6-69	H1		
X1	H			X					*	B725 WASHER, LOCK COML 6SPLITRINGSTL	EA	2								6-69	H2		
X1	H			X					*	B726 WASHER, FLAT COML 10STLCADPL	EA	2								6-69	H3		
X1	H		5895	X					E	B727 PRINTED WIRING BOARD 65025 526451	EA	1								6-69	MP2		
X1	H			X					F	B728 RESISTOR, FIXED, WIREWOUND 56289 453E5005	EA	8								6-69	R1		
				X					F	B726 RESISTOR, FIXED WIREWOUND SAME AS B728	EA	REF								6-69	R2		
				X					F	B730 RESISTOR, FIXED, WIRE WOUND SAME AS B728	EA	REF								6-69	R3		
				X					F	B731 RESISTOR, FIXED, WIREWOUND SAME AS B728	EA	REF								6-69	R4		

AVI-72

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									I N D C O D E	DS			GS				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	B732 RESISTOR, FIXED, WIREWOUND SAME AS B728	EA	REF								6-69	R5		
				X					F	B733 RESISTOR, FIXED, WIREWOUND SAME AS B728	EA	REF								6-69	R6		
				X					F	B734 RESISTOR, FIXED, WIREWOUND SAME AS B728	EA	REF								6-69	R7		
				X					F	B735 RESISTOR, FIXED, WIREWOUND SAME AS B728	EA	REF								6-69	R8		
X1	H		5961	X					F	B736 SEMICONDUCTOR DEVICE, DIODE 07688 IN3998A	EA	2								6-69	VR1		
				X					E	B737 SEMICONDUCTOR DEVICE, DIODE SAME AS B736	EA	REF								6-69	VR2		
P	H		7440-113-0844	X					D	B738 CIRCUIT CARD ASSEMBLY 65025 12644A	EA	2			2	3	5	53	36	6-75	A208		
				X					E	B739 PAD, TRANSISTOR SAME AS B663	EA	REF								6-75	MP1		
X1	H		5895	X					E	B740 PRINTED WIRING BOARD 65025 529486	EA	2								6-75	MP2		

AVI-73

(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A)	(B)	(C)	(A)	(B)	(C)					
				1	2	3	4	5				6	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
X1	H		X					E	B741 RESISTOR, FIXED COMPOSITION 81349 RC20GF101J	EA	17							6-75	R1-1			
			X					E	B742 RESISTOR, FIXED, COMPOSITION SAME AS B741	EA	REF							6-75	R1-2			
			X					E	B743 RESISTOR, FIXED COMPOSITION SAME AS B741	EA	REF							6-75	R1-3			
			X					E	B744 RESISTOR, FIXED, COMPOSITION SAME AS B741	EA	REF							6-75	R1-4			
			X					E	B745 RESISTOR, FIXED, COMPOSITION SAME AS B741	EA	REF							6-75	R1-5			
X1	H		X					E	B746 RESISTOR, FIXED, COMPOSITION 81349 RC20GF123J	EA	21							6-75	R2-1			
			X					E	B747 RESISTOR, FIXED, COMPOSITION SAME AS B746	EA	REF							6-75	R2-2			
			X					E	B748 RESISTOR, FIXED COMPOSITION SAME AS B746	EA	REF							6-75	R2-3			
			X					E	B749 RESISTOR, FIXED, COMPOSITION SAME AS B746	EA	REF							6-75	R2-4			

AVI-74

(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A)	(B)	(C)	(A)	(B)	(C)					
				1	2	3	4	5				6	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
			X					E	B750 RESISTOR, FIXED, COMPOSITION SAME AS B746	EA	REF							6-75	R2-5			
			X					E	B751 RESISTOR, FIXED, COMPOSITION SAME AS B746	EA	REF							6-75	R4-1			
			X					E	B752 RESISTOR, FIXED, COMPOSITION SAME AS B746	EA	REF							6-75	R4-2			
			X					E	B753 RESISTOR, FIXED, COMPOSITION SAME AS B746	EA	REF							6-75	R4-3			
			X					E	B754 RESISTOR, FIXED. COMPOSITION SAME AS B746	EA	REF							6-75	R4-4			
			X					E	B755 RESISTOR, FIXED, COMPOSITION SAME AS B746	EA	REF							6-75	R4-5			
X1	H		X					E	B756 RESISTOR, FIXED, COMPOSITION 81349 RC20GF222J	EA	277							6-75	R3-1			
			X					E	R757 RESISTOR, FIXED. COMPOSITION SAME AS B756	EA	REF							6-75	R3-2			
			X					E	B758 RESISTOR, FIXED, COMPOSITION SAME AS B756	EA	REF							6-75	R3-3			

AVI-75

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
			(2) FEDERAL STOCK NUMBER	(3) MODEL								I N D C D	DESCRIPTION	DS			GS			(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN			
				1	2	3	4	5						6	(A) 1-20	(B) 21-50	(C) 51-100					(A) 1-20	(B) 21-50	(C) 51-100
X1	H		X					E	B759 RESISTOR, FIXED, COMPOSITION SAME AS B756	EA	REF							6-75	R3-4					
			X					E	B760 RESISTOR, FIXED, COMPOSITION SAME AS B756	EA	REF							6-75	R3-5					
			X					E	B761 RESISTOR, FIXED, COMPOSITION 81349 RC20GF680J	EA	14							6-75	R5-4					
			X					E	B762 RESISTOR, FIXED, COMPOSITION SAME AS B761	EA	REF							6-75	R5-2					
			X					E	B763 RESISTOR, FIXED, COMPOSITION SAME AS B761	EA	REF							6-75	R5-3					
			X					E	B764 RESISTOR, FIXED COMPOSITION SAME AS B761	EA	REF							6-75	R5-4					
			X					E	B765 RESISTOR, FIXED, COMPOSITION SAME AS B761	EA	REF							6-75	R5-5					
			X					E	B766 SEMICONDUCTOR DEVICE, DIODE SAME AS 8632	EA	REF							6-75	CR1-1					
			X					E	R767 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR1-2					

AVI-76

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
			(2) FEDERAL STOCK NUMBER	(3) MODEL								I N D C D	DESCRIPTION	DS			GS			(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN			
				1	2	3	4	5						6	(A) 1-20	(B) 21-50	(C) 51-100					(A) 1-20	(B) 21-50	(C) 51-100
			X					E	B768 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR1-3					
			X					E	B769 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR1-4					
			X					E	B770 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR1-5					
			X					E	B771 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR2-1					
			X					E	B772 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR2-2					
			X					E	B773 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR2-3					
			X					E	B774 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR2-4					
			X					E	B775 SEMICONDUCTOR DEVICE, DIODE SAME AS B632	EA	REF							6-75	CR2-5					
X1	H		X					E	B776 TRANSISTOR 07688 2N1306	EA	20							6-75	Q2-1					

AVI-77

A6-37

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					E	B777 TRANSISTOR SAME AS B776	EA									6-75	Q2-2			
				X					E	B778 TRANSISTOR SAME AS B776	EA									6-75	Q2-3			
				X					F	B779 TRANSISTOR SAME AS B776	EA									6-75	Q2-4			
				X					E	B780 TRANSISTOR SAME AS B776	EA									6-75	Q2-5			
				X					E	B781 TRANSISTOR SAME AS B776	EA									6-75	Q3-1			
				X					E	B782 TRANSISTOR SAME AS B776	EA									6-75	Q3-2			
				X					E	B783 TRANSISTOR SAME AS B776	EA									6-75	Q3-3			
				X					E	B784 TRANSISTOR SAME AS B776	EA									6-75	Q3-4			
				X					E	B785 TRANSISTOR SAME AS B776	EA									6-75	Q3-5			
				X					E	B786 TRANSISTOR SAME AS B697	EA									6-75	Q1-1			
				X					E	B787 TRANSISTOR SAME AS B697	EA									6-75	Q1-2			

AVI-78

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					E	B788 TRANSISTOR SAME AS B697	EA									6-75	Q1-3			
				X					E	B789 TRANSISTOR SAME AS B697	EA									6-75	Q1-4			
				X					E	B790 TRANSISTOR SAME AS B697	EA									6-75	Q1-5			
				X					D	B791 CIRCUIT CARD ASSEMBLY SAME AS B738	EA									6-75	A212			
	P	H	7440-113-2995	X					D	B792 CIRCUIT CARD ASSEMBLY 65025 12672-16A	EA				3	7	13	153	120	6-55	A109			
	X1	H	5895	X					E	B793 PRINTED WIRING BOARD 65025 514449	EA									6-55	MP1			
	X1	H		X					E	B794 RESISTOR, FIXED, COMPOSITION 81349 RC20GF180J	EA									6-55	R1			
				X					E	B795 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA									6-55	R3			
				X					F	B796 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA									6-55	R5			

AVI-79

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					E	B797 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA	REF									6-55	R7		
				X					E	B798 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA	REF									6-55	R9		
				X					E	B799 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA	REF									6-55	R11		
				X					E	B800 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA	REF									6-55	R13		
				X					E	B801 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA	REF									6-55	R15		
				X					E	B802 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA	REF									6-55	R17		
				X					E	B803 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA	REF									6-55	R19		
				X					E	B804 RESISTOR, FIXED, COMPOSITION SAME AS B794	EA	REF									6-55	R21		
				X					F	B805 RESISTOR, FIXED, COMPOSITION SAME AS R794	EA	REF									6-55	R23		

AVI-80

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I T P K	QTY I N C I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
X1	H			X					E	B806 RESISTOR, FIXED, COMPOSITION 81349 RC20GF471J	EA	120										6-55	R2	
				X					E	B807 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R4		
				X					E	B808 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R6		
				X					E	B809 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R8		
				X					E	B810 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R10		
				X					E	B811 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R12		
				X					E	B812 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R14		
				X					E	B813 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R16		
				X					E	B814 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R18		

AVI-81

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									D E S C R I P T I O N	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	B815 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF									6-55	R20	
				X					E	B816 RESISTOR, FIXED, COMPOSITION SAME AS B806	EA	REF										6-55	R22
				X					E	B817 RESISTOR, FIXED COMPOSITION SAME AS B806	EA	REF										6-55	R24
				X					D	B818 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF										6-55	A116
				X					D	B819 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF										6-55	A117
				X					D	B820 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF										6-55	A118
				X					D	B821 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF										6-55	A119
				X					D	B822 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF										6-55	A120
				X					D	B823 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF										6-55	A121

AVI-82

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N			
				M O D E L									D E S C R I P T I O N	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
				X					D	B824 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF										6-55	A122	
				X					D	B825 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF											6-55	A123
				X					D	B826 CIRCUIT CARD ASSEMBLY SAME AS B792	EA	REF											6-55	A124
	P	H	7440-113-2996	X					D	B827 CIRCUIT CARD ASSEMBLY 65025 12672-17A	EA	3			2	3	5	53	36				6-57	A113
				X					E	B828 PRINTED WIRING BOARD SAME AS B793	EA	REF											6-57	MP1
X1		H		X					E	B829 RESISTOR, FIXED, COMPOSITION 81349 RC20GF330J	EA	36											6-57	R1
				X					E	B830 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF											6-57	R3
				X					E	B831 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF											6-57	R5
				X					E	B832 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF											6-57	R7

AVI-83

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									D E S C R I P T I O N	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	B833 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF									6-57	R9	
				X					E	B834 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF									6-57	R11	
				X					E	B835 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF									6-57	R13	
				X					E	B836 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF									6-57	R15	
				X					E	R837 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF									6-57	R17	
				X					E	B838 RESISTOR, FIXED COMPOSITION SAME AS B829	EA	REF									6-57	R19	
				X					E	B839 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF									6-57	R21	
				X					E	B840 RESISTOR, FIXED, COMPOSITION SAME AS B829	EA	REF									6-57	R23	
X1	H			X					F	B841 RESISTOR, FIXED, COMPOSITION 81349 RC20GF681J	EA	40									6-57	R2	

AVI-84

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									D E S C R I P T I O N	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	B842 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF									6-57	R4	
				X					E	B843 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF									6-57	R6	
				X					E	B844 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF									6-57	R8	
				X					E	B845 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF									6-57	R10	
				X					E	B846 RESISTOR, FIXED COMPOSITION SAME AS B841	EA	REF									6-57	R12	
				X					E	B847 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF									6-57	R14	
				X					E	B848 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF									6-57	R16	
				X					E	B849 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF									6-57	R18	
				X					E	B850 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF									6-57	R20	

AVI-85

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D I C E	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	B851 RESISTOR, FIXED COMPOSITION SAME AS B841	EA									6-57	R22		
				X					E	B852 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA									6-57	R24		
				X					D	B853 CIRCUIT CARD ASSEMBLY SAME AS B827	EA									6-57	A114		
				X					D	B854 CIRCUIT CARD ASSEMBLY SAME AS B827	EA									6-57	A115		
P	H		7440-113-2997	X					E	B855 CIRCUIT CARD ASSEMBLY 65025 12672-18A	EA	3			2	3	5	53	36	6-59	A010		
				X					E	B856 PRINTED WIRING BOARD SAME AS B793	EA									6-59	MP1		
X1	H			X					E	B857 RESISTOR, FIXED, COMPOSITION 81349 RC20GF181J	EA	36								6-59	R1		
				X					E	B858 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R3		
				X					E	B859 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R5		

AVI-86

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D I C E	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	B860 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R7		
				X					E	B861 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R9		
				X					E	B862 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R11		
				X					E	B863 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R13		
				X					E	B864 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R15		
				X					E	B865 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R17		
				X					E	B866 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R19		
				X					E	B867 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R21		
				X					E	B868 RESISTOR, FIXED, COMPOSITION SAME AS B857	EA									6-59	R23		

AVI-87

(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
X1	H		X					E	B869 RESISTOR, FIXED, COMPOSITION 81349 RC020GF821J	EA	36							6-59	R2			
			X					E	B870 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R4			
			X					E	B871 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R6			
			X					E	B872 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R8			
			X					E	B873 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R10			
			X					E	B874 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R12			
			X					E	B875 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R14			
			X					E	B876 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R16			
			X					E	B877 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R18			

AVI-88

(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
			X					E	B878 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R20			
			X					E	B879 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R22			
			X					E	B880 RESISTOR, FIXED, COMPOSITION SAME AS B869	EA	REF							6-59	R24			
			X					D	B881 CIRCUIT CARD ASSEMBLY SAME AS B855	EA	REF							6-59	A111			
			X					D	B882 CIRCUIT CARD ASSEMBLY SAME AS B855	EA	REF							6-59	A112			
P	H		7440-113-2998	X				D	B883 CIRCUIT CARD ASSEMBLY 65025 12672-19A	EA	11			3	7	13	164	132	6-61	A101		
X1	H		5895	X				E	B884 PRINTED WIRING BOARD 65025 515517	EA	14							6-61	MP1			
				X				E	B885 RESISTOR, FIXED, COMPOSITION SAME AS B756 R1 through R24	EA	REF							6-61	See desc. col.			

AVI-89

(A) S O U R C E C D	(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION			
	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN		
				MODEL									I N D C D	DESCRIPTION	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				1	2	3	4	5	6															
				X					D	B909 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A201				
				X					D	B910 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A202				
				X					D	B911 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A203				
				X					D	B912 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A204				
				X					D	B913 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A205				

AVI-90

(A) S O U R C E C D	(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION			
	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN		
				MODEL									I N D C D	DESCRIPTION	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				1	2	3	4	5	6															
				X					D	B914 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A301				
				X					D	B915 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A302				
				X					D	B916 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A303				
				X					D	B917 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A304				
				X					D	B918 CIRCUIT CARD ASSEMBLY SAME AS B883	EA	REF							6-61	A305				
P	H		7440-113-2999	X					D	B919 CIRCUIT CARD ASSEMBLY 65025 12672-20A	EA	1		*	2	2	13	6	6-63	A105				
				X					E	B920 PRINTED WIRING BOARD SAME AS B884	EA	REF							6-63	MP1				
X1	H			X					E	B921 CAPACITOR, FXD, ELECTROLYTIC 81349 CS13BF105M	EA	2							6-63	C11				
				X					E	B922 CAPACITOR, FXD, ELECTROLYTIC SAME AS B921	EA	REF							6-63	C12				

AVI-91

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				I N D C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
X1	H			X					E	B923 CAPACITOR, FXD, ELECTROLYTIC 81349 CS138H124K	EA	1									6-63	C6
X1	H		5910	X					E	B924 CAPACITOR, FXD, ELECTROLYTIC 81349 C513BJ153M	EA	1									6-63	C3
X1	H			X					E	B925 CAPACITOR, FXD, ELECTROLYTIC 81349 CS13BF155M	EA	1									6-63	C8
X1	H			X					E	B926 CAPACITOR, FXD, ELECTROLYTIC 81349 CS13BF185K	EA	1									6-63	C10
X1	H			X					E	B927 CAPACITOR, FXD, ELECTROLYTIC 81349 C5138H274K	EA	1									6-63	C7
X1	H			X					E	B928 CAPACITOR, FXD, ELECTROLYTIC 81349 CS13BJ333K	EA	1									6-63	C4
X1	H		5910	X					E	B929 CAPACITOR, FXD, ELECTROLYTIC 81349 CS13HH474M	EA	1									6-63	C9
X1	H		5910	X					E	B930 CAPACITOR, FXD, ELECTROLYTIC 81349 CS138J683M	EA	1									6-63	C5
X1	H		5910	X					E	B931 CAPACITOR, FXD, ELECTROLYTIC 81349 CS138J822K	EA	2									6-63	C1

AVI-92

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				I N D C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	B932 CAPACITOR, FXD, ELECTROLYTIC SAME AS B931	EA	REF									6-63	C2
P	H		7440-113-3001	X					D	B933 CIRCUIT CARD ASSEMBLY 65025 12672-21A	EA	2				2	2	3	40	24	6-65	A223
				X					E	B934 PRINTED WIRING BOARD SAME AS B884	EA	REF									6-65	MP1
X1	H			X					E	B935 RESISTOR, FIXED, COMPOSITION 81349 RC32GF102J R1 through R24	EA	48									6-65	See desc col

AVI-93

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE							(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3) MODEL						I N D C D	DESCRIPTION	U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				1	2	3	4	5	6						DS			GS					(A)	(B)
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100			FIG. NO.	(B) ITEM OR SYMBOL DESIGN
				X						E		REF								6-67	R7			
P	H		7440-113-3003	X						D		13		6	16	29		352	312	6-77	A312			
				X						E		REF								6-77	MP1			
X1	H		5995	X						E		13								6-77	MP2			
X1	H			X						F		156								6-77	R3-1			
				X						E		REF								6-77	R3-2			
				X						F		REF								6-77	R3-3			
				X						F		REF								6-77	R3-4			
				X						E		REF								6-77	R3-5			

AVI-96

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE							(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3) MODEL						I N D C D	DESCRIPTION	U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				1	2	3	4	5	6						DS			GS					(A)	(B)
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100			FIG. NO.	(B) ITEM OR SYMBOL DESIGN
				X						E		REF								6-77	R3-6			
				X						E		REF								6-77	R3-7			
				X						E		REF								6-77	R3-8			
				X						E		REF								6-77	R3-9			
				X						E		REF								6-77	R3-10			
				X						E		REF								6-77	R3-11			
				X						E		REF								6-77	R3-12			
X1	H			X						F		156								6-71	R1-1			
				X						F		REF								6-77	R1-2			

AVI-97

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				I N D C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	B995 RESISTOR, FIXED; COMPOSITION SAME AS B993	EA	REF										6-77	R1-3
				X					E	B996 RESISTOR, FIXED; COMPOSITION SAME AS B993	EA	REF										6-77	R1-4
				X					E	B997 RESISTOR, FIXED, COMPOSITION SAME AS B993	EA	REF										6-77	R1-5
				X					E	B998 RESISTOR, FIXED, COMPOSITION SAME AS B993	EA	REF										6-77	R1-6
				X					E	B999 RESISTOR, FIXED, COMPOSITION SAME AS B993	EA	REF										6-77	R1-7
				X					E	C001 RESISTOR, FIXED, COMPOSITION SAME AS B993	EA	REF										6-77	R1-8
				X					E	C002 RESISTOR, FIXED, COMPOSITION SAME AS B993	EA	REF										6-77	R1-9
				X					F	C003 RESISTOR, FIXED, COMPOSITION SAME AS B993	EA	REF										6-77	R1-10
				X					F	C004 RESISTOR, FIXED, COMPOSITION SAME AS B993	EA	REF										6-77	R1-11

AVI-98

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				I N D C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	C005 RESISTOR, FIXED, COMPOSITION SAME AS B993	EA	REF										6-77	R1-12
X1	H			X					E	C006 RESISTOR, FIXED, COMPOSITION 81349 RCO7GF681J	EA	156										6-77	R2-1
				X					E	C007 RESISTOR, FIXED,, COMPOSITION SAME AS C006	EA	REF										6-77	R2-2
				X					E	C008 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-77	R2-3
				X					F	C009 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-77	R2-4
				X					E	C010 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-77	R2-5
				X					E	C011 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-77	R2-6
				X					F	C012 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-77	R2-7
				X					E	C013 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-77	R2-8

AVI-99

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
X1	H			X						E	C014 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF									6-77	R2-9		
				X						E	C0185 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-77	R2-10	
				X						E	C016 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-177	R2-11	
				X						E	C017 RESISTOR, FIXED, COMPOSITION SAME AS C006	EA	REF										6-77	R2-12	
				X						E	C018 TRANSISTOR 07688 2N1309	EA	156											6-77	Q1-1
				X						E	C019 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-2
				X						E	C020 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-3
				X						E	C021 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-4
				X						F	C022 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-5
		X						E	C023 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-6		

AVI-100

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
				X						E	C024 TRANSISTOR SAME AS C018	EA	REF									6-77	Q1-7		
				X						E	C025 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-8
				X						E	C026 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-9
				X						E	C027 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-10
				X						E	C028 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-11
				X						E	C029 TRANSISTOR SAME AS C018	EA	REF											6-77	Q1-12
				X						D	C030 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF											6-77	A313
				X						D	C031 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF											6-77	A314
				X						D	C032 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF										6-77	A315	
X						D	C033 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF										6-77	A316					

AVI-101

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				I N D C O D E	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					D	C034 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF									6-77	A317
				X					D	C035 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF									6-77	A318
				X					D	C036 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF									6-77	A319
				X					D	C036 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF									6-77	A320
				X					D	C038 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF									6-77	A321
				X					D	C039 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF									6-77	A322
				X					D	C040 CIRCUIT CARD ASSEMBLY SANE AS B978	EA	REF									6-77	A323
				X					D	C041 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF									6-77	A323
				X					D	C041 CIRCUIT CARD ASSEMBLY SAME AS B978	EA	REF									6-77	A324
X2	H		5935-822-5807	X					D	C042 CLAMP ASSEMBLY 04673 2C1-50	EA	12									2-5	A2MP7

AVII-102

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				I N D C O D E	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
				X					*	C043 SCREW, MACHINE SAME AS A398	EA	REF											A2H12	
X2	H			X					D	C044 CLAMP ASSEMBLY SAME AS A399	EA	4												A2MP8
				X					*	C045 SCREW, MACHINE SAME AS A398	EA	REF												A2H13
				X					D	C046 CONNECTOR, PLUG, ELECTRICAL SAME AS B595	EA	REF									2-5		A2P5	
				X					D	C047 CONNECTOR, PLUG ELECTRICAL SAME AS B599	EA	REF									2-5		A2P2	
P	H		5935-765-6355	X					D	C048 CONNECTOR, PLUG, ELECTRICAL 96906 MS3126F20-41SX	EA	1				*	*	2	8	3	2-5		A2P8	
P	H		5935-726-6487	X					D	C049 CONNECTOR, PLUG ELECTRICAL 96906 MS3126F20-41SY	EA	1				*	*	2	8	3	1-5		A2P12	
				X					D	C050 CONNECTOR, PLUG, ELECTRICAL SAME AS B601	EA	REF									2-5		A2P3	
				X					D	C051 CONNECTOR, PLUG, ELECTRICAL SAME AS B8601	EA	REF									2-5		A2P9	

AVI-103

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
P	H		6240-990-2164	X						D	EA		118				93	336	550	5210	999	5-35	See descrip column
C149 Lamp, INCANDESCENT 71744 330 DS1A, DS1B, DS2A, DS2B, DS3A, DS3B, DS5A, DS5B, DS6A, DS6B, DS7A, DS7B, DS9A, DS9B, DS10A, DS10B, DS11A, DS11B, DS12A, DS12B, DS13A, DS13B, DS14A, DS14B, DS15A, DS15B, DS16A, DS16B, DS17A, DS17B, DS24A, DS24B, DS27A, DS27B, DS28A, DS28B, DS31A, DS31B, DS32A, DS32B, DS33A, DS33B, DS34A, DS34B, DS36A, DS36B, DS37A, DS37B, DS38A, DS38B, DS39A, DS39B, DS42A, DS42B, DS43A, DS43B, DS44A, DS44B, DS47A, DS47B, DS48A, DS48B, DS49A, DS49B, DS50A, DS50B, DS62A, DS62B, DS63A, DS63B, DS64A, DS64B, DS65A, DS65B, DS66A, DS66B, DS67A, DS67B, DS68A, DS68B, DS69A, DS69B, DS74A, DS74B, DS75A, DS75B, DS78A, DS78B, DS79A, DS79B, DS80A, DS80B, DS81A, DS81B, DS82A, DS82B, DS83A, DS83B, DS84A, DS84B, DS85A, DS85B, DS86A, DS86B, DS87A, DS87B, DS88A, DS88B, DS89A, DS89B, DS90A, DS90B																							

AVI-108

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
P	H		6240-910-7144	X						D	EA		60				48	114	222	3162	999	5-35	See descrip. column
C267 LAMP, INCANDESCENT 71744 345 DS4A, DS4B, DS18A, DS18B, DS19A, D619B, DS20A, DS20B, DS21A, DS21B, DS22A, DS22B, DS23A, DS23B, DS26A, DS26B, DS29A, DS29B, DS30A, DS30B, DS35A, DS35B, DS40A, DS40B, DS41A, DS41B, DS51A, DS51B, DS52A, DS52B, DS53A, DS53B, DS54A, DS54B, DS55A, DS55B, DS56A, DS56B, DS58A, DS58B, DS59A, DS59B, DS60A, DS60B, DS61A, DS61B, DS70A, DS70B, DS71A, DS71B, DS72A, DS72B, DS73A, 0573B, DS91A, DS91B, DS93A, DS93B																							

AVI-109

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
P	H		6240-787-8329	X																5-35	See descrip. column	

AVI-110D

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
X2	H		6250-690-1569	X																	See descrip. column	

AVI-111

(A) S O U R C E	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	(A) I N D C D									
A	H	6210	X					D	C391 LIGHT, INDICATOR 96182 80EA1F1WL2N12DIS	EA	1								XDS4			

AVI-112

(A) S O U R C E	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	(A) I N D C D									
X2	H		X					E	C392 FILTER 96182 80EF1W	EA	2								MP1			
P	H	6210-019-5599	X					E	C393 LAMPHOLDER 96182 80EA1	EA	32				2	6	11	124	96	MP2		
X2	H	6210	X					E	C394 LENS, INDICATOR LIGHT 96182 80EL2N12DISC	EA	1									MP3		
A	H	6210	X					D	C395 LIGHT, INDICATOR 96182 80EA1F1WL2N13XMIDATA	EA	1									XDS5		
			X					E	C396 FILTER SAME AS C392	EA	REF									MP1		
			X					E	C397 LAMPHOLDER SAME AS C393	EA	REF									MP2		
X2	H	6210	X					E	C398 LENS, INDICATOR LIGHT 96182 80EL2N13XMITDATA	EA	1									MP3		
A	H	6210	X					D	C399 LIGHT, INDICATOR 96182 80EA1F2RRL17N16CEBPE	EA	1									XDS78		
X2	H	5895	X					E	C400 FILTER 96182 80EF2RR	EA	6									MP1		
			X					E	C401 LAMPHOLDER SAME AS C393	EA,	REF									MP2		

AVI-113

(A) SOURCE C D	(B) M A I N T D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY I N C I N U N I T P K	(6) QTY I N C I N U N I T	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW P E R 100 EQUIP C N T G C Y P L A N	(9) D E P O T M A I N T A L W P E R 100 EQUIP	(10) I L L U S T R A T I O N		
			(2) FEDERAL S T O C K N U M B E R	(3) D E S C R I P T I O N								D S			G S					(A) F I G . N O .	(B) I T E M O R S Y M B O L D E S I G N	
				M O D E L								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	I N D C D									
X2	H	6210	X					E	C422 LENS,INDICATOR LIGHT 96182 8OEL17N163RPTBADEPLY	EA	1							MP3				
A	H	6210	X					D	C423 LIGHT,INDICATOR 96182 8OEA1F2WWL17N16AK1AC	EA	2							XDS13				
X2	H	5895	X					E	C424 FILTER 96182 8OEF2WW	EA	24							MP1				
X2								E	C425 LAMPHOLDER SAME AS C393	EA	REF							MP2				
X2	H	6210	X					E	C426 LENS,INDICATOR LIGHT 96182 8OEL17N16ACK1ACK	EA	2							MP3				
A	H		X					D	C427 LIGHT,INDICATOR SAME AS C423	EA	REF							XD86				
A	H	6210	X					D	C428 LIGHT,INDICATOR 96182 8OEA1F2WWL17N16CNREP	EA	2							XDS12				
			X					E	C429 FILTER SAME AS C424	EA	REF							MP1				
			X					E	C430 LAMPHOLDER SAME AS C393	EA	REF							MP2				
X2	H	6210	X					E	C481 LENS,INDICATOR LIGHT 96182 8OEL17NL6CANREP	EA	2							MP3				

AVI-116

(A) SOURCE C D	(B) M A I N T D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY I N C I N U N I T P K	(6) QTY I N C I N U N I T	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW P E R 100 EQUIP C N T G C Y P L A N	(9) D E P O T M A I N T A L W P E R 100 EQUIP	(10) I L L U S T R A T I O N		
			(2) FEDERAL S T O C K N U M B E R	(3) D E S C R I P T I O N								D S			G S					(A) F I G . N O .	(B) I T E M O R S Y M B O L D E S I G N	
				M O D E L								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	I N D C D									
			X					D	C432 LIGHT,INDICATOR SAME AS C428	EA	REF							XDS85				
A	H	6210	X					D	C433 LIGHT,INDICATOR 96182 8OEA1F2WWL17N16CNSEN	EA	1							XDS48				
			X					E	C434 FILTER S A M F A S C 4 2 4	EA	REF							MP1				
			X					E	C435 LAMPHOLDER SAME AS C393	EA	REF							MP2				
X2	H	6210	X					E	C436 LENS,INDICATOR LIGHT 96182 8OEL17N16CANSENTNVSE	EA	1							MP3				
A	H	6210	X					D	C437 LIGHT,INDICATOR 96182 8OEA1F2WWL17N16DTACO	EA	2							XDS3				
			X					E	C438 FILTER SAME AS C424	EA	REF							MP1				
			X					E	C439 LAMPHOLDER SAME AS C393	EA	REF							MP2				
X2	H	6210	X					E	C440 LENS,INDICATOR LIGHT 96182 8OEL17N160ATACONTROL	EA	2							MP3				
			X					D	C441 LIGHT,INDICATOR SAME AS C437	EA	REF							XDS69				

AVI-117

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(1) REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3)						DS						GS			(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN						
				MODEL						(A) 1-20	(B) 21-50	(C) 51-100				(A) 1-20	(B) 21-50	(C) 51-100								
				1	2	3	4	5	6																	
A	H		6210	X							D	C447 LIGHT, INICATOP 96182 80EA1F2WWL17N16EMMC	EA	3											XDS11	
				X							E	C443 FILTER SAME AS C424	EA	REF												MP1
				X							E	C444 LAMPHOLDER SAME AS C393	EA	REF												MP2
X2	H		6210	X							E	C445 LENS INDICATOR LIGHT 96182 80EL17N16EMMC	EA	2												MP3
				X							D	C446 LIGHT,INDICATOR SAME AS C442	EA	REF												XDS84
A	H			X							D	C447 LIGHT,INDICATOR 96182 80EA1F2WWL17N16ETBE -TX	EA	2												XDS10
				X							E	C448 FILTER SAME AS C424	EA	REF												MP1
				X							E	C449 LAMPHOLDER SAME AS C393	EA	REF												MP2
X2	H		6210	X							E	C450 LENS,INDICATOR 96182 80EL17N16ETBETX	EA	2												MP3
				X							D	C451 LIGHT, INDICATOR SAME AS C447	EA	REF												XDS83

AV-118

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(1) REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION			
			(2) FEDERAL STOCK NUMBER	(3)						DS						GS			(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN							
				MODEL						(A) 1-20	(B) 21-50	(C) 51-100				(A) 1-20	(B) 21-50	(C) 51-100									
				1	2	3	4	5	6																		
A	H		6210	X							D	C452 LIGHT,INDICATOR 96182 80EA2F2WWL17N16EXPA -CKXMITREP	EA	1												XDS47	
				X							E	C453 FILTER SAME AS C424	EA	REF													MP1
				X							E	C454 LAMPHOLDER SAME AS C393	EA	REF												MP2	
X2	H		6210	X							E	C455 LENS, INDICATOR LIGHT 96182 80EL17N16EXPACKITRE	EA	1												MP3	
A	H		6210	X							D	C456 LIGHT,INDICATOR 96132 80E1F2WWL17N161VENQ	EA	2												XDS16	
				X							E	C457 FILTER SAME AS C424	EA	REF												MP1	
				X							E	C458 LAMPHOLDER SAME AS C393	EA	REF												MP2	
X2	H		6210	X							E	C459 LENS,INDICATOR LIGHT 96182 80EL17N16INVENQ	EA	2												MP3	
				X							D	C460 LIGHT,INDICATOR SAME AS C456	EA	REF												XDS89	
A	H		6210	X							D	C461 LIGHT,INDICATCR 96182 80FA1F2WWL17N16NCKRM	EA	2												XDS14	

AVI-119

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
X2	H			X				E		REF								MP1				
				X				E		REF								MP2				
		6210		X				E		2								MP3				
				X				D		REF								XDS87				
A	H	6210		X				E		1								XDS46				
X2	H	6210		X				E		REF								MP1				
				X				E		REF								MP2				
X2	H	6210		X				E		1								MP3				
A	H	6210		X				D		1								XD566				
				X				E		REF								MP1				

AVI -120

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X				B		REF								MP2				
X2	H	6210		X				B										MP3				
A	H	6210		X				B		1								XDS67				
				X				B										MP1				
				X						REF								MP2				
X2	H	6210		X				B		1								MP3				
A	H	6210		X				B		1								XDS2				
				X				B		REF								MP1				
				X				B		REF								MP2				
X2	H									1								MP3				

AVI-121

(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3)								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5														6	I N D C D	DESCRIPTION
A	H	6210	X					D	C482 LIGHT,INDICATOR 96182 80EA1FWWL17N16SHSTX	EA	2								XDS9			
			X					E	C483 FILTER SAME AS C424	EA	REF								MP1			
			X					E	C484 LAMPHOLDER SAME AS C393	EA	REF								MP2			
X2	H	6210	X					E	C485 LENS,INDICATOR LIGHT 96182 80EL17N16SOHSTX	EA	2								MP3			
			X					D	C486 LIGHT, INDICATOR SAME AS C482	EA	REF								XDS82			
A	H	6210	X					D	C487 LIGHT,INDICATOR 96182 80EA1F2WWL17N16WTSTA	EA	2								XDS15			
			X					B	C488 FILTER SAME AS C424	EA	REF								MP1			
			X					B	C489 LAMPHOLDER SAME AS C393	EA	REF								MP2			
X2	H	6120	X					B	C490 LENS,INDICATOR LIGHT 96182 80FL17N16BTSTAR	EA	2								MP3			
			X					D	C491 LIGHT, INDICATOR SAME AS C4R7	EA	REF								XDS88			

AVI-122

(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3)								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5														6	I N D C D	DESCRIPTION
A	H	5999	X					D	C492 LIGHT-SWITCH ASSEMBLY 96182 90EA102J1AN2P13SARTR	EA	1							5-35	570			
X2	H		X					B	C493 FILTER 96182 90EJ1A	EA									S70MP1			
X2	H	6210	X					B	C494 LENS.INDICATOR LIGHT 96182 90EN2R13STARTRCV	EA	8								S70MP2			
P	H	5930-919-0132	X					B	C495 SWITCH,PUSH 96182 90FA1C2	EA	20			2	3	5	59	40	S70MP3			
A	H	5999	X					D	C496 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1AN2R12SARTX	EA	1							5-35	S41			
			X					B	C497 FILTER SAME AS C493	EA	REF								S41MP1			
X2	H	6210	X					B	C498 LENS, INDICATOR LIGHT 96182 90EN2R12START	EA	1								S41MP2			
			X					D	C499 SWITCH,PUSH SAME AS C495	EA	REF								S41MP3			
A	H	5999	X					D	C4500 LIGHT-SWITCH ASSEMBLY 96182 90EA102J1AN2R12BRESE	EA	1							533	S40			

AVI-123

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D C D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	C501 FILTER SAME AS C493	EA	REF											S40MP1
X2	H		6210	X					F	C502 LENS, ENGRAVED 96182 90EN2R12BGRESET	EA	1											S40MP2
				X					F	C503 SWITCH, PUSH SAME AS C495	EA	REF											S40MP3
A	H		5999	X					D	C504 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1AN2R13XITCA	EA	1								5-35		S56	
				X					E	C505 FILTER SAME AS C493	EA	REF											S56MP1
X2	H		6210	X					E	C506 LENS, INDICATOR LIGHT 96182 90EN2R13XMITCAN	EA	1											S56MP2
				X					E	C507 SWITCH, PUSH SAME AS C495	EA	REF											S56MP3
A	H		5999	X					D	C508 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1RN2R12AARM	EA	1								5-35		S58	
X2	H			X					E	C509 FILTER 96182 90FJ1R	EA	2											S58MP1
X2	H		6210	X					F	C510 LENS, INDICATOR LIGHT 96182 903N2R12ALARM	EA	1											S58MP2

AVI-124

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D C D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					D	C511 SWITCH, PUSH SAME AS C495	EA	REF											S58MP3
A	H		5999	X					D	C512 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1WN2R138RESE	EA	1								5-35		S91	
X2	H		6210-027-3688	X					E	C513 FILTER 96182 90FJ1W	EA	16											S91MP1
X2	H		6210	X					E	C514 LENS, INDICATOR LIGHT 96182 90EN2R13BRRESET	EA	1											S91MP2
				X					E	C515 SWITCH, PUSH SAME AS C495	EA	REF											S91MP3
A			H5999	X					D	C516 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1WN2R13CARER	EA	1								5-35		S68	
				X					E	C517 FILTER SAME AS C513	EA	REF											S68MP1
X2	H		6210	X					E	C518 LENS, INDICATOR LIGHT 96182 90EN2R13CHARFRAM	EA	1											S68MP2
				X					E	C519 SWITCH, PUSH SAME AS C495	EA	REF											S68MP3
A	H		5999	X					D	C520 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1WN2R13CRESE	EA	1								5-35		S18	

AVI-125

(1) (A) SOURCE (B) MAINT (C) REC CODE			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) UNIT OF ISSUE	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION								
(2) FEDERAL STOCK NUMBER			(3) MODEL						DESCRIPTION			DS			GS					(A)	(B)							
			1	2	3	4	5	6				IND C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50			(C) 51-100	FIG. NO.	ITEM OR SYMBOL DESIGN						
X2	H		6210	X						E	C521 FILTER SAME AS C513	EA		REF														S18MP1
				X						E	C522 LENS, INDICATOR LIGHT 96182 90EN2P130RRESET	EA		1														S18MP2
				X						E	C523 SWITCH, PUSH SAME AS C495	EA		REF														S18MP3
A	H		5999	X						D	C524 LIGHT-SWITCH ASSEMBLY 96182 90FA102J1WNR13PINTR	EA		1										5-35			S26	
				X						E	C525 FILTER SAME AS C513	EA		REF														S26MP1
X2	H		5210	X						E	C526 LENS, INDICATOR LIGHT 96182 90EN2R13PRINTBLOK	EA		1														S26MP2
				X						E	C527 SWITCH, PUSH SAME AS C495	EA		REF														S26MP3
A	H		5999	X						D	C528 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1WN2R13RSETI	EA		3										5-35			S19	
				X						F	C529 FILTER SAME AS C513	EA		REF														S19MP1
X2	H		5210	X						E	C530 LENS, INDICATOR LIGHT 96182 90EN2R13RESETIND	EA		3														S19MP2

AVI-126

(1) (A) SOURCE (B) MAINT (C) REC CODE			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) UNIT OF ISSUE	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION								
(2) FEDERAL STOCK NUMBER			(3) MODEL						DESCRIPTION			DS			GS					(A)	(B)							
			1	2	3	4	5	6				IND C D	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50			(C) 51-100	FIG. NO.	ITEM OR SYMBOL DESIGN						
				X						E	C531 SWITCH, PUSH SAME AS C495	EA		REF														S19MP3
				X						D	C532 LIGHT-SWITCH ASSEMBLY SAME AS C528	EA		REF										5-35			S59	
				X						D	533 LIGHT-SWITCH ASSEMBLY SAME AS C528	EA		REF										5-35			S92	
A	H		5999	X						D	C534 LIGHT SWITCH ASSEMBLY 96182 90EA102J1WN2R13WITEC	EA		1										5-35			S21	
				X						E	C535 FILTER SAME AS C513	EA		REF														S21MP1
X2	H		6210	X						E	C536 LENS, INDICATOR LIGHT 96182 90EN2R13WRITECHA	EA		1														S21MP2
				X						E	C537 SWITCH, PUSH SAME AS C495	EA		REF														S21MP3
A	H		5999	X						D	C538 LIGHT-SWITCH ASSEMBLY 96182 90EA102J1WN2R13WITEM	EA		1										5-35			S22	
				X						F	C539 FILTER SAME AS C513	EA		REF														S22MP1

AVI-127

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
X2	H		6210	X					E	C540 LENS, INDICATOR LIGHT 96182 90EN2R13WRITEMSG	EA	1											S22MP2	
				X					F	C541 SWITCH, PUSH SAME AS C495	EA	REF											S22MP3	
A	H		5999	X					D	C542 LIGHT-SWITCH ASSEMBLY 96182 90EA102J1WN2R13XITBU	EA	1									5-35	S54		
				X					E	C543 FILTER SAME AS C513	EA	REF											S54MP1	
X2	H		6210	X					E	C544 LENS, INDICATOR LIGHT 96182 90EN2R13XMITBUSY	EA	1											S54MP2	
				X					E	C545 SWITCH, PUSH SAME AS C495	EA	REF											S54MP3	
A	H		5999	X					D	C546 LIGHT-SWITCH ASSEMBLY 96182 90EA102J1WN2R13XITDI	EA	1									5-35	S53		
				X					E	C547 FILTER SAME AS C513	EA	REF											S53MP1	
X2	H		6210	X					E	C548 LENS, INDICATOR LIGHT 96182 90EN2R13XMITDISC	EA	1											S53MP2	

AVI-128

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					F	C549 SWITCH, PUSH SAME AS C495	EA	REF											S53MP3	
A	H		5999	X					D	C550 LIGHT-SWITCH ASSEMBLY 96182 90EA102J1WN2R13XITSR	EA	1									5-35	S55		
				X					E	C551 FILTER SAME AS C513	EA	REF											S55MP1	
X2	H		6210	X					E	C552 LENS, INDICATOR LIGHT 96182 90EN2R13XMITSRAC	EA	1											S55MP2	
				X					E	C553 SWITCH, PUSH SAME AS C495	EA	REF											S55MP3	
A	H		5999	X					D	C554 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1WN2R13XITSY	EA	1									5-35	S52		
				X					E	C555 FILTER SAME AS C513	EA	REF											S52MP1	
X2	H		6210	X					E	C556 LENS, INDICATOR LIGHT 96182 90EN2R13XMITSYNC	EA	1											S52MP2	
				X					E	C557 SWITCH, PUSH SAME AS C495	EA	REF											S52MP3	
A	H		5999	X					D	C558 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1WN2R13XIT2C	EA	1									5-35	S61		

AVI-129

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
X2	H		6210	X					F	C559 FILTER SAME AS C513	EA	REF											S61MP1	
				X					F	C560 LENS, INDICATOR LIGHT 96182 90EN2R13XMIT2CC	EA	1											S61MP2	
				X					E	C561 SWITCH, PUSH SAME AS C495	EA	REF											S61MP3	
A	H		5999	X					D	C562 LIGHT-SWITCH ASSEMBLY 96182 90EA102J2RAN17R1RPTB	EA	1									5-35		S50	
X2	H		5895	X					E	C563 FILTER 96182 90EJ2RA	EA	1											S50MP1	
X2	H		6210	X					E	C564 LENS, INDICATOR LIGHT 96182 90EN17R16RPTBLKRTMSG	EA	1											S50MP2	
				X					E	C565 SWITCH, PUSH SAME AS C495	EA	REF											S50MP3	
A	H		5999	X					D	C566 LIGHT-SWITCH ASSEMBLY 96182 90EA104J1AN2R13EDPRI	EA	4									5-35		S20	
				X					E	C567 FILTER SAME AS C493	EA	REF											S20MP1	
X2	H		6210	X					E	C568 LENS, INDICATOR LIGHT 96182 90EN2R13ENDPRINT	EA	4											S20MP2	

AVI-130

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
P	H		5930-919-0134	X					E	C569 SWITCH, PUSH 96182 90EA1C4	EA	37				2	6	11	141	111			S20MP3	
A	H		5999	X					D	C573 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J1GN2R14EBSTO	EA	1									5-35		S71	
X2	H		5895-966-0392	X					E	C574 FILTER 96182 90EJ1G	EA	3											S71MP1	
X2	H		6210	X					E	C575 LENS, INDICATOR LIGHT 96182 90EN2R14ETBSTOPRV	EA	1											S71MP2	
				X					E	C576 SWITCH-PUSH SAME AS C5669	EA	REF											S71MP3	
A	H		5999	X					D	C577 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J1GN2R14EXSTO	EA	1									5-35		S72	
				X					E	C578 FILTER SAME AS C574	EA	REF											S72MP1	
X2	H		6210	X					E	C579 LENS, INDICATOR LIGHT 96182 90EN2R14ETXSTOPRV	EA	1											S72MP2	
				X					E	C580 SWITCH, PUSH SAME AS C569	EA	REF											S72MP3	
A	H		5999	X					D	C581 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J1GN2R14ERORS	EA	1									5-35		S73	

AVI-131

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E C D	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
X2	H		5895	X					E	C602 FILTER 96182 90FJ2AW	EA	3											S43MP1
X2	H		6210	X					E	C603 LENS, INDICATOR LIGHT 96182 90EN17R16ETBSTORTBSE	EA	1											S43MP2
				X					F	C604 SWITCH, PUSH SAME AS C569	EA	REF											S43MP3
A	H		5999	X					D	C605 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2AWN17R1EXTS	EA	1									5-35		S42
				X					F	C606 FILTER SAME AS C602	EA	REF											S42MP1
X2	H		6210	X					E	C607 LENS, INDICATOR LIGHT 96182 90EN17R16ETXSTOPXTSE	EA	1											S42MP2
				X					E	C608 SWITCH, PUSH SAME AS C569	EA	REF											S42MP3
A	H		5999	X					D	C609 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2AWN17R1MSG	EA	1									5-35		S45
				X					E	C610 F FILTER SAME AS C602	EA	REF											S45MP1
X2	H		6210	X					3	C611 LENS, INDICATOR LIGHT 96182 90EN17R16MSGSTOPOMP	EA	1											S45MP2

AVI-134

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E C D	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				X					E	C612 SWITCH, PUSH SAME AS C569	EA	REF											S45MP3
A	H		5999	X					D	C613 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2GWN17R1ALLR	EA	2									5-35		S17
X2	H		5895	X					F	C614 FILTER 96182 90EJ2G2	EA	3											S17MP1
X2	H		6210	X					F	C615 LENS, INDICATOR LIGHT 96182 90EN17R16ALLRCVDASTR	EA	2											S17MP2
				X					E	C616 SWITCH, PUSH SAME AS C569	EA	REF											S17MP3
				X					D	C617 LIGHT-SWITCH ASSEMBLY SAME AS G613	EA	REF									5-35		S90
A	H		5999	X					D	C618 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WGN17R1NORM	EA	1									5-35		S37
X2	H		5895	X					E	C619 FILTER 96182 90EJ2WG	EA	2											S37MP1
X2	H		6210	X					F	C620 LENS, INDICATOR LIGHT 96182 90EN17R16NORMALSLFTE	EA	1											S37MP2

AVI-135
A6-66

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
A	H		5099	X					E	C621 SWITCH, PUSH SAME AS C569	EA	REF												S37MP3	
				X					D	C622 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2GWN17R1PARC	EA	1											5-35	S5	
				X					E	C623 FILTER SAME AS C614	EA	REF													S5MP1
X2	H		6210	X					E	C624 LENS, INDICATOR LIGHT 96182 90EN17R16PARCONTARDA	EA	1													S5MP2
A	H		5999	X					D	C626 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WGN17R1	EA	1											5-35	S39	
				X					E	C627 FILTER SAME AS C619	EA	REF													S39MP1
X2	H		6210	X					E	C628 LENS, INDICATOR LIGHT 96182 90EN17R16	EA	1													S39MP2
				X					E	C629 SWITCH, PUSH SAME AS C569	EA	REF													S39MP3
A S25	H		5999	X					D	C630 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1ADDR	EA	1													5-35

AVI-36

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
X2	H		5805-066-8707	X					E	C631 FILTER 96182 90FJ2WW	EA	18													S25MP1
X2	H		6210	X					E	C632 LENS, INDICATOR LIGHT 96182 90FN1R16ADDRESSDATA	EA	1													S25MP2
				X					E	C633 SWITCH, PUSH SAME AS C569	EA	REF													S25MP3
A	H		5999	X					F	C634 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1AUTO	EA	1											5-35	S33	
				X					E	C635 FILTER SAME AS C631	EA	REF													S33MP1
X2	H		6210	X					E	C636 LENS, INDICATOR LIGHT 96182 90EN17R16AUTOCORMANC	EA	1													S33MP2
				X					F	C637 SWITCH, PUSH SAME AS C569	EA	REF													S33MP3
A	H		5899	X					D	C638 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1NORM	EA	1											5-35	S64	
				X					E	C639 FILTER SAME AS C631	EA	REF													S64MP1
X2	H		6210	X					E	C640 LENS, INDICATOR LIGHT 96182 90EN17R16MORMPRNSEL	EA	1													S64MP2

AVI-137

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						UN I T O F I S S U E	QTY I N C I N U N I T P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G . N O .	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
A	H		5999	X						E	C641 SWITCH, PUSH SAME AS C569	EA	REF										S64MP3	
				X						D	C642 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1CONT	EA	2									5-35	S36	
				X						E	C643 FILTER SAME AS C631	EA	REF											S36MP1
X2	H		6210	X						E	C644 LENS, INDICATOR LIGHT 96182 90EN17816CONTBLK	EA	2											S36MP2
				X						E	C645 SWITCH, PUSH SAME AS C569	EA	REF											S36MP3
				X						D	C646 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R11NTC	EA	REF									5-35	S65	
A	H		5999	X						D	C647 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R11NTC	EA	3									5-35	S1	
				X						E	C648 FILTER SAME AS C631	EA	REF											S1MP1
X2	H		6210	X						E	C6449 LENS, INDICATOR LIGHT 96182 90EN17R16INTCLKETCLK	EA	3											S1MP2

AVI-138

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						UN I T O F I S S U E	QTY I N C I N U N I T P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G . N O .	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X						E	C650 SWITCH, PUSH SAME AS C569	EA	REF											S1MP3
				X						D	C651 LIGHT-SWITCH ASSEMBLY SAME AS C647	EA	REF									5-35	S31	
				X						D	C652 LIGHT-SWITCH ASSEMBLY SAME AS C647	EA	REF									5-35	S63	
A	H		5999	X						D	C653 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1MEMN	EA	1									5-35	S28	
				X						E	C654 FILTER SAME AS C569	EA	REF											S28MP1
X2	H		6210	X						E	C655 LENS, INDICATOR LIGHT 96182 90EN17R16MEMNORMEMIN	EA	1											S28MP2
				X						E	C656 SWITCH, PUSH SAME AS C569	EA	REF											S28MP3
A	H		5099	X						D	C657 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1MSUC	EA	2									5-35	S34	
				X						E	C658 FILTER SAME AS C631	EA	REF											S34MP1

AVI-139

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
X2	H		6310	X					E	C659 LENS, INDICATOR LIGHT 96182 90EN17R16MSUCSU	EA	2											S34MP2	
				X					E	C660 SWITCH, PUSH SAME AS C569	EA	REF											S34MP3	
				X					D	C661 LIGHT-SWITCH ASSEMBLY SAME AS C657	EA	REF									5-35		S62	
A	H		5999	X					D	C662 LIGHT-SWITCH ASSEMBLY 96182 90EA1C2J1AN2B12TRM	EA	1										5-35		S27
				X					E	C663 FILTER SAME AS C631	EA	REF												S27MP1
X2	H		6210	X					E	C664 LENS, INDICATOR LIGHT 96182 90EN2812TFRM	EA	1												S27MP2
				X					E	C665 SWITCH, PUSH SAME AS C569	EA	REF												S27MP3
A	H			X					D	C666 LIGHT-SWITCH ASSEMBLY 96182 90FA1C4J2WWN17R1PTCH	EA	1										5-35		S32
				X					E	C667 FILTER SAME AS C631	EA	REF												S32MP1

AVI-140

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
X2	H		6210	X					E	C668 LENS, INDICATOR LIGHT 96182 90EN17R16PTCHSENCORE	EA	1												S32MP2
				X					E	C669 SWITCH, PUSH SAME AS C569	EA	REF												S32MP3
X2	H			X					D	C670 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1BPAR	EA	2										5-35		S7
				X					E	C671 FILTER SAME AS C631	EA	REF												S7MP1
X2	H		6210	X					E	C672 LENS, INDICATOR LIGHT 96182 90EN17R16RPARNORRRPAR	EA	2												S7MP2
				X					E	C673 SWITCH, PUSH SAME AS C569	EA	REF												S7MP3
				X					D	C674 LIGHT-SWITCH ASSEMBLY SAME C670	EA	REF										5-35		S74
A	H			X					D	C675 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1STAR	EA	REF										5-35		S75
				X					E	C676 FILTER SAME AS C631	EA	REF												S75MP1

AVI-141

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						UNIT OF ISSUE	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									IND C D	DESCRIPTION	DS			GS			(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN				
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100		
X2	H		6210	X						E	C677 LENS, INDICATOR LIGHT 96182 90EN17R16STARTSOSTAR	EA		1												S75MP2
				X						E	C678 SWITCH, PUSH SAME AS C569	EA		REF												S75MP3
A	H		5999	X						D	C679 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1TPNO	EA		1									5-35		S38	
				X						E	C680 FILTER SAME AS C631	EA		REF												S38MP1
X2	H		6210	X						E	C681 LENS, INDICATOR LIGHT 96182 90EN17B16TPNORMTINVT	EA		1												S38MP2
				X						E	C682 SWITCH, PUSH SAME AS C569	EA		REF												S38MP3
A	H		5999	X						D	C683 LIGHT-SWITCH ASSEMBLY 96182 90EA1C4J2WWN17R1XMIT	EA		1									5-35		S24	
				X						E	C684 FILTER SAME AS C631	EA		REF												S24MP1
X2	H		6210	X						E	C685 LENS, INDICATOR LIGHT 96182 90EN17R16XMITRCV	EA		1												S24MP2

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						UNIT OF ISSUE	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION						
				MODEL									IND C D	DESCRIPTION	DS			GS			(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN					
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100			
				X						D	C686 SWITCH, PUSH SAME AS C569	EA		REF													S24MP3
X2	H			X						D	C687 MATRIX BOARD AAAAA C63144-3	EA		1													A2PB1
C	H			X						*	C688 SCREW, MACHINE COMI 8-32X1RHSTLCADPL	EA		12													A2H27
				X						*	C689 NUT, PLAIN SAME AS A035	EA		REF													A2H28
				X						*	C690 NUT, PLAIN HEXAGON SAME AS 8629	EA		REF													A2H29
X2	H		5895	X						D	C691 PANEL, HINGED 65025 531036	EA		1													A2MP12
X2	H		5895	X						D	C692 PANEL, OVERLAY 65025 531037	EA		1													A2MP13
X2	H			X						D	C693 PIN ASSEMBLY, COAXIAL AAAAA A63009-48	EA		275													A2CR-
X2	H			X						D	C694 PIN, TAPES, SOLID PRE-INSULATED 89110 42575-5	EA		275													A2MP14
X2	H		5315	X						D	C695 PIN, TAPES, SOLID , PRE-INSULATED 89110 42575-5	EA		275													A2MP15

AVI-143

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				M O D E L									I N D C D	D E S C R I P T I O N	D S			G S							
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
P	H		5930-112-4243	X						D	C735 SWITCH, ROTARY 10984 MTTD200-393	EA	1			*	*	2	8		3	5-35	A2S105		
				X						*	C736 NUT, PLAIN, HEXAGON SAME AS A054	EA	REF											A2H47	
				X						*	C737 WASHER, LOCK SAME AS A053	CA	REF												A2H48
P	H		5930-112-4247	X						D	C738 SWITCH, ROTARY 1094 MTTD200-394	EA	1			*	*	2	8		3	5-35	A2S107		
				X						*	C739 NUT, PLAIN, HEXAGON SAME AS A054	EA	REF												A2H49
				X						*	C740 WASHER, LOCK SAME AS A053	EA	REF												A2H50
P	H		5930-112-4253	X						D	C741 SWITCH, ROTARY 10984 MTTD200-395	EA	1			*	*	2	8		3	5-35	A2S108		
				X						*	C742 NUT, PLAIN, HEXAGON SAME AS A054	EA	REF												A2H51
				X						*	C743 WASHER, LOCK SAME AS A053	EA	REF												A2H52
P	H		5930-112-4267	X						D	C744 SWITCH, ROTARY 10984 MTTD200-396	EA	7			2	2	3	33		21	5-35	A2S109		

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I T P K	QTY I N C I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N					
				M O D E L									I N D C D	D E S C R I P T I O N	D S			G S									
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100			
				X						D	C745 SWITCH, ROTARY SAME AS C744	EA	REF												5-35	A2S111	
				X						D	C746 SWITCH, ROTARY SAME AS C744	EA	REF													5-35	A2S112
				X						D	C747 SWITCH, ROTARY SAME S C744	EA	REF													5-35	A2S113
				X						D	C748 SWITCH, ROTARY SAME AS C744	EA	REF													5-35	A2S114
				X						D	C749 SWITCH, ROTARY SAME AS C744	EA	REF														A2S115
				X						D	C750 SWITCH, ROTARY SAME AS C744	EA	REF													5-35	A2S123
				X						*	C751 NUT, PLAIN, HEXAGON SAME AS 4054	EA	REF														A2H53
				X						*	C752 WASHER, LOCK SAME AS A053	EA	REF														A2H54
P	H		5930-112-4287	X						D	C753 SWITCH, ROTARY 10984 MTTD200-397	EA	1			*	*	2	8		3	5-35	A2S110				
				X						*	C754 NUT, PLAIN, HEXAGON SAME AS A054	EA	REF														A2H55

AVI-149

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE							(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3) MODEL						I N D C D	DESCRIPTION	U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				1	2	3	4	5	6						DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
C	H			X					*	C797 SCREW, MACHINE COML 8-32X3-16RHSTLCAPL	EA	10												A1H1	
				X					*	C798 WASHER, LOCK SAME AS A035	EA	REF													A1H2
X2	H		5340	X					D	C799 BRACKET, COVER MOUNTING 65025 529093	EA	2													A1MP2
C	H			X					*	C800 SCREW, MACHINE COML 6-32X3-16RHSTLCAPL	EA	8													A1H3
				X					*	C801 WASHER, LOCK SAME AS A414	EA	REF													A1H4
X2	H		5340	X					D	C802 BRACKET, COVER MOUNTING 65025 529094	EA	2													A1MP3
				X					*	C803 SCREW MACHINE SAME AS C800	EA	REF													A1H5
				X					*	C804 WASHER, LOCK SAME AS A414	EA	REF													A1H6
X2	H		5895	X					D	C805 CARD FILE, CIRCUIT CARDS 18677 21124	EA	1													A1MP4
X2	H		5895	X					D	C806 CARD FILE CIRCUIT CARDS 18677 21125	EA	1													A1MP5

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE							(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3) MODEL						I N D C D	DESCRIPTION	U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				1	2	3	4	5	6						DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
P	H		7440-113-3004	X					D	C807 CIRCUIT CARD ASSEMBLY 65025 11083-2A	EA	6			4	10	18	220		180	6-4			A1A408	
				X					E	C808 PAD, TRANSISTOR SAME AS B663	EA	REF													MP1
X1	H		5895	X					E	C809 PRINTED WIRING BOARD 65025 249408	EA	6													MP2
X1	H			X					E	C810 RESISTOR, FIXED, COMPOSITION 81349 RC20GF153J	EA	64										6-71			R2-1
				X					E	C811 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF										6-71			R2-2
				X					E	C812 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF										6-71			R2-3
				X					E	C813 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF										6-71			R2-4
				X					E	C814 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF										6-71			R2-5
				X					E	C815 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF										6-71			R2-6

AVI-155

(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
			(2) FEDERAL STOCK NUMBER	(3) MODEL								I N D C D	DESCRIPTION	DS			GS			(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN			
				1	2	3	4	5						6	(A) 1-20	(B) 21-50	(C) 51-100					(A) 1-20	(B) 21-50	(C) 51-100
X1	H		X						E	C816 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF							6-71	R2-7				
			X						E	C817 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF							6-71	R2-R				
			X						E	C818 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF							6-71	R2-9				
			X						E	C819 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF							6-71	R2-10				
			X						E	C820 RESISTOR, FIXED, COMPOSITION 81349 RC20GF220J	EA	61							6-71	R1-1				
			X						E	C821 RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-2				
			X						E	C822 RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-3				
			X						F	CR23 RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-4				
			X						E	CB24 RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-5				

AVI-156

(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
			(2) FEDERAL STOCK NUMBER	(3) MODEL								I N D C D	DESCRIPTION	DS			GS			(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN			
				1	2	3	4	5						6	(A) 1-20	(B) 21-50	(C) 51-100					(A) 1-20	(B) 21-50	(C) 51-100
X1	H		X						F	C825 RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-6				
			X						E	C826 RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-7				
			X						E	C827 RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-8				
			X						E	C82R RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-9				
			X						E	C829 RESISTOR, FIXED, COMPOSITION SAME AS C820	EA	REF							6-71	R1-10				
			X						E	C830 TRANSISTOR 07688 2N398A	EA	93							6-71	Q1-1				
			X						E	C831 TRANSISTOR SAME AS C830	EA	REF							6-71	Q1-2				
			X						E	C832 TRANSISTOR SAME AS C830	EA	REF							6-71	Q1-3				
			X						E	C833 TRANSISTOR SAME AS C830	EA	REF							6-71	Q1-4				

AVI-157

A6-77

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					E	C834 TRANSISTOR SAME AS C830	EA	REF									6-71	01-5		
				X					E	C835 TRANSISTOR SAME AS C830	EA	REF									6-71	01-6		
				X					E	C836 TRANSISTOR SAME AS C830	EA	REF									6-71	01-7		
				X					E	C837 TRANSISTOR SAME AS C830	EA	REF									6-71	Q1-8		
				X					E	C883 TRANSISTOR SAME AS C830	EA	REF									6-71	Q1-9		
				X					E	C839 TRANSISTOR SAME AS C830	EA	REF									6-71	Q1-10		
				X					FA	CR40 CIRCUIT CARD ASSEMBLY SAME AS C807	FA	REF									6-4	A1A409		
				X					D	C841 CIRCUIT CARD ASSEMBLY SAME AS C807	EA	REF									6-4	A1A410		
				X					D	C842 CIRCUIT CARD ASSEMBLY SAME AS C807	EA	REF									6-4	A1A411		
				X					D	C843 CIRCUIT CARD ASSEMBLY SAME AS C807	EA	REF									6-4	A1A412		

AVI-158

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					D	C844 CIRCUIT CARD ASSEMBLY SAME AS C807	EA	REF									6-4	A1A413		
P A1A101	H		7440-113-3005	X					D	C845 CIRCUIT CARD ASSEMBLY 65025 11685A	EA	90			39	92	179		2132	999	6-4			
X1	H		5340	X					E	C846 BRACKET 65025 250654	EA	90										MP1		
X1	H			X					*	C847 SCREW, MACHINE CDML 4-40X1-4FHSTLCADL	EA	270										H1		
X1	H								*	C848 NUT, PLAIN, HEX. SAME AS A054	EA	REF										H2		
X1	H.			X					F	C849 HOLDER, COMPONENT 99378 100-200-4A1	EA	720										MP2		
X	H			X					*	C850 EYELET, METALLIC 07707 SE35	EA	720										MP3		
P	H		6240	X					E	C851 LAMP, INCANDESCENT 74276 180TG27-1	EA	720			179	435	860	21340	999	6-23	6-23	DS1		
				X					E	C852 LAMP, INCANDESCENT SAME AS C851	EA	REF								6-23		DS2		

AVI-159

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					E	C853 LAMP, INCANDESCENT SAME AS C851	EA	REF									6-23	D53		
				X					E	C854 LAMP, INCANDESCENT SAME AS C851	EA	REF									6-23	D54		
				X					E	C855 LAMP, INCANDESCENT SAME AS C851	EA	REF									6-23	D55		
				X					F	C856 LAMP, INCANDESCENT SAME AS C851	FA	REF									6-23	D56		
				X					E	C857 LAMP, INCANDESCENT SAME AS C851	EA	REF									6-23	DS7		
				X					E	C858 LAMP, INCANDESCENT SAME AS C851	EA	REF									6-23	D58		
X1	H		5895	X					E	C859 PRINTED WIRING BOARD 65025 250649	EA	90									6-23	MP6		
X1	H			X					E	C860 RESISTOR, FIXED, COMPOSITION 81349 RC20GF155J	EA	72									6-23	R9		
				X					E	C861 RESISTOR, FIXED, COMPOSITION SAME AS C860	EA,	REF									6-23	R10		

AVI-160

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
R11				X					E	C862 RESISTOR, FIXED, COMPOSITION SAME AS C860	EA	REF											6-23	
				X					E	C863 RESISTOR, FIXED, COMPOSITION SAME AS C860	EA	REF										6-23	R12	
				X					E	C864 RESISTOR, FIXED, COMPOSITION SAME AS C860	EA	REF										6-23	R13	
				X					E	C865 RESISTOR, FIXED, COMPOSITION SAME AS C860	EA	REF										6-23	R14	
				X					E	C866 RESISTOR, FIXED, COMPOSITION SAME AS C860	EA	REF										6-23	R15	
				X					E	C867 RESISTOR, FIXED, COMPOSITION SAME AS C860	EA	REF										6-23	R16	
X1	H			X					E	C868 RESISTOR, FIXED, COMPOSITION 81349 RC20GF273J	EA	72									6-23	R1		
				X					E	C869 RESISTOR, FIXED, COMPOSITION SAME AS C868	EA	REF										6-23	R2	
				X					E	C870 RESISTOR, FIXED, COMPOSITION SAME AS C868	EA	REF										6-23	R3	

AVI-161

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D C D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					E	C871 RESISTOR FIXED, COMPOSITION SAME AS C868	EA	REF									6-23	R4	
				X					E	C872 RESISTOR, FIXED, COMPOSITION SAME AS C868	EA	REF									6-23	R5	
				X					E	C8773 RESISTOR FIXED, COMPOSITION SAME AS C868	EA	REF									6-23	R6	
				X					E	C874 RESISTOR FIXED, COMPOSITION SAME AS C868	EA	REF									6-23	R7	
				X					E	C875 RESISTOR, FIXED, COMPOSITION SAME AS C868	EA	REF									6-23	R8	
				X					E	C876 SEMICONDUCTOR DEVICE, DIODE SAME AS B632 CR1 through CR24	EA	REF									6-23	CR1 thru CR24	

AVI-162

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D C D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X					D	C900 CIRCUIT CARD ASSEMBLY SAME AS C845 (Item NO.) A1A102 thru A1A130, A1A201 thru A1A230, A301 thru A330	EA	REF									6-4	See desc. column	

AVI-163

A6-80

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100								
P A 1 A 4 0 1	H		7440-113-3006	X						D	C989	CIRCUIT CARD ASSEMBLY 65025 11686A	EA		8					2	4	7		89	64	6-4
XL	H			X						F	C990	PAD, TRANSISTOR 07047 10032	EA		32											MP1
X1	H		5895	X						E	C991	PRINTED WIRING BOARD 65025 250483	EA		8											MP2
X1	H			X						E	C992	RESISTOR, FIXED, COMPOSITION 81349 RC20GF473J	EA		35										6-21	R2-1
				X						F	C993	RESISTOR, FIXED, COMPOSITION SAME AS C992	EA		REF										6-21	R2-2
				X						F	C994	RESISTOR, FIXED, COMPOSITION SAME AS C992	EA		REF										6-21	R2-3
				X						E	C995	RESISTOR FIXED, COMPOSITION SAME AS C992	EA		REF										6-21	R2-4
X1	H			X						F	C996	RESISTOR, FIXED, COMPOSITION 81349 RC20OGF822J	EA		41										6-21	R1-1

AVI-164

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100								
				X						E	C997	RESISTOR, FIXED, COMPOSITION SAME AS C996	EA		REF										6-21	RL-2
				X						E	C998	RESISTOR, FIXED, COMPOSITION SAME AS C996	EA		REF										6-21	R1-3
				X						F	C999	RESISTOR, FIXED, COMPOSITION SAME AS C996	EA		REF										6-21	R1-4
X	H			X						E	D001	RESISTOR, FIXED, COMPOSITION 81349 RC32GF822J	EA		33										6-21	R3-1
				X						E	D002	RESISTOR, FIXED, COMPOSITION SAME AS D001	EA		REF										6-21	R3-2
				X						F	D003	RESISTOR, FIXED, COMPOSITION SAME AS D001	EA		REF										6-21	R3-3
				X						E	D0004	RESISTOR, FIXED, COMPOSITION SAME AS D001	EA		REF										6-21	R3-4
				X						E	D0005	TRANSISTOR SAME AS C830	EA		REF										6-21	Q1-1
				X						E	D006	TRANSISTOR SAME AS C830	EA		REF										6-21	Q1-2

AVI-165

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					E	D007 TRANSISTOR SAME AS C830	EA	REF									6-21	Q1-3		
				X					E	D008 TRANSISTOR SAME AS C830	EA	REF									6-21	Q1-4		
				X					D	D009 CIRCUIT CARD ASSEMBLY SAME AS C989	EA	REF									6-A	A1A402		
				X					D	0010 CIRCUIT CARD ASSEMBLY SAME AS C989	EA	REF									6-4	A1A403		
				X					D	0011 CIRCUIT CARD ASSEMBLY SAME AS C989	EA	REF									6-4	A1A404		
				X					D	0012 CIRCUIT CARD ASSEMBLY SAME AS C9R9	EA	REF									6-4	A1A405		
				X					D	0013 CIRCUIT CARD ASSEMBLY SAME AS C989	EA	REF									6-4	A1A406		
X		D							D	0014 CIRCUIT CARD ASSEMBLY SAME AS C989	EA	REF									6-4	A1A407		
				X					D	0015 CIRCUIT CARD ASSEMBLY SAME AS C989	EA	REF									6-4	A1A421		

AVI-166

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
P	H		7440-113-2993	X					D	0016 CIRCUIT CARD ASSEMBLY 65025 12643A	EA	1				*	2	2	16	8	6-4	A1A422		
				X					E	0017 PAD, TRANSISTOR SAME AS 8663	EA	REF											MP1	
X1	H		5895	X					E	0018 PRINTED WIRING BOARD 65025 529466	EA	1											MP2	
				X					E	0019 RESISTOR, FIXED, COMPOSITION SAME AS 8741	EA	REF									6-73	R10		
				X					E	0020 RESISTOR, FIXED, SAME AS B671	EA	REF									6-73	R11		
				X					E	0021 RESISTOR, FIXED, SAME AS C810	EA	REF									6-73	R3		
				X					E	0022 RESISTOR, FIXED, COMPOSITION SAME AS 8756	EA	REF									6-73	R7		
X1	H			X					E	E0023 RESISTOR ,FIXED, COMPOSITION 81349 RC20GF333J	EA	1									6-73	R8		
X1	H			X					F	0024 RESISTOR, FIXED, 81349 RC32GF101J	EA	1									6-73	R6		

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
X1	H			X					E	D025 RESISTOR, FIXED, 8134q RC32GF223J	EA	1										6-73	R2
X1	H			X					E	D026 RESISTOR, FIXED, 8134q RC32GF331J	EA	1										6-73	R9
				X					E	D027 RESISTOR, FIXED, SAME AS D001	EA	REF										6-73	RI
X1	H			X					F	D028 RESISTOR, FIXED, R134q RC42GF472J	EA	2										6-73	R12
				X					F	D029 RESISTOR, FIXED, SAME AS D028	EA	REF										6-73	R13
X1	H			X					E	D030 RESISTOR, FIXED, WIPE WOUND 14E41 3X2200	EA	2										6-73	R4
				X					F	D031 RESISTOR, FIXED, WIRE WOUND SAME AS D030	EA	REF										6-73	R5
				X					E	D032 TRANSISTOR SAME AS 8697	EA	REF										6-73	Q2
				X					E	D033 TRANSISTOR SAME AS C830	EA	REF										6-73	Q1

AVI-168

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
P	H		7440-113-3007	X					D	D034 CIRCUIT CARD ASSEMBLY 65025 12672-15A	EA	7				2	3	5	59	42	6-4	A1A414	
				X					F	D035 PRINTED WIRING SAME AS B793	EA	REF											MP1
X1	H		35	X					E	D036 RESISTOR FIXED, WIRE WOUND 14841 5XM560	EA	84										6-53	R1
				X					E	D037 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA	REF										6-53	R2
				X					E	D038 RESISTOR FIXED, WIRE WOUND SAME AS D036	EA	REF										6-53	R3
				X					E	D039 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA	REF										6-53	R4
				X					E	D040 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA	REF										6-53	R5
				X					E	D041 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA	REF										6-53	R6
				X					E	D042 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA	REF										6-53	R7

AVI-169

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N			
				M O D E L									I N D C D	D E S C R I P T I O N	D S			G S			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					E	D043 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA		REF									6-53	R8	
				X					E	D044 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA		REF									6-53	R9	
				X					E	D045 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA		REF									6-53	R10	
				X					E	D046 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA		REF									6-53	R11	
				X					E	D047 RESISTOR, FIXED, WIRE WOUND SAME AS D036	EA		REF									6-53	R12	
				X					D	D048 CIRCUIT CARD ASSEMBLY SAME AS D034	EA		REF									6-4	A1A415	
				X					D	D049 CIRCUIT CARD ASSEMBLY SAME AS D034	EA		REF									6-4	A1A416	
				X					D	D050 CIRCUIT CARD ASSEMBLY SAME AS 0034	EA		REF									6-4	A1A417	
				X					D	D051 CIRCUIT CARD ASSEMBLY SAME AS D034	EA		REF									6-4	A1A418	

AVI-170

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N			
				M O D E L									I N D C D	D E S C R I P T I O N	D S			G S			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					D	D052 CIRCUIT CARD ASSEMBLY SAME AS D034	EA		REF									6-4	A1A419	
				X					O	D053 CIRCUIT CARD ASSEMBLY SAME AS D034	EA		REF									6-4	A1A420	
				X					D	D054 CONNECTOR, RECEPTACLE, ELEC SAME AS A401	EA		REF									6-4	A1J1	
				X					*	D055 SCREW, MACHINE SAME AS A056	EA		REF											A1H7
				X					*	D056 WASHER, LOCK SAME AS A053	EA		REF											A1H8
				X					*	D057 NUT, PLAIN, HEXAGON SAME AS A054	EA		REF											A1H9
P	H		5935-501-5125	X						D058 CONNECTOR, RECEPTACLE, ELEC 71468 WK6-32S	EA	1		*	*	2	8	3				6-4	A1J2	
				X					*	D059 SCREW, MACHINE SAME AS A056	EA		REF											A1H10
				X						D060 WASHER, LOCK SAME AS A053	EA		REF											A1H11

AVI-171

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
P	H		5935-577-2336	X						D	0188 JACK, TIP 96906 MS16108-3A	EA					*	2	2	13	6		A1J3		
				X						0	0189 JACK, TIP SAME AS D188	EA												A1J6	
				X						D	D190 JACK, TIP SAME AS D188	EA												A1J7	
M	H		5895	X						D	D0191 PLATE, DESIGNATION 65025 529007	EA												A1MP12	
X2	H		5325-579-7825	X						D	D0192 RECEPTACLE, TURNLOCK, FAST. 71286 5R2-1	EA													A1HP13
C	H			X						*	D193 SCREW, MACHINE COML 3-48X3-16FHSTLCAPL	EA												A1H19	
				X						*	D194 WASHER, LOCK SAME AS C706	EA													A1H20
				X						*	D195 NUT, PLAIN, HEXAGON SAME AS B721	EA													A1H21
P	H		5961-827-4566	X						D	D196 SEMICONDUCTOR DEVICE, DIODE 07688 1N1343	EA					*	*	2	8	3	6-4		A1CR1	
P	H		5961	X						D	0197 SEMICONDUCTOR DEVICE, DIODE 07688 1N3000B	EA					*	*	2	8	3	6-4		A1CR2	

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100	
				X						D	D198 SOC, SEMICONDUCT DEVICE SAME AS C711	EA												6-A	A1XQ1
				X						D	D199 SOC, SEMICONDUCT DEVICE SAME AS C711	EA												6-4	A1XQ2
C	H		5040-053-P267	X						D	D200 TERMINAL, LUG 79963 573	EA													A1MP14
				X						D	D0201 TIE SAME AS A787	EA													A1MP15
				X						D	D202 TRANSISTOR SAME AS C782	EA													A1Q1
P	H		5961	X						D	0203 TRANSISTOR 07688 2N3448	EA					*	2	2	12	5			A1Q2	
P	H		4140	X						C	D204 FAN, AXIAL 82877 103	EA					*	*	*	5	2			B1	
				X						C	0205 FAN SAME AS D0204	EA													B2
C	H			X						*	D0206 SCREW, MACHINE COML 4-40X3-4RHSTLCRP	EA													H30
C	H			X						*	D207 WASHER, LOCK COML INTERNAL TOOTH	EA													H31

AVI-177

(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3)								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	I N D C D	DESCRIPTION								
C	H		X					*	EA	6								H32				
C	H	5940-686-7371	X					C	EA	10								MP23				
X2	H	4140-757-7052	X					C	EA	2								MP24				
X2	H	5895	X					C	EA	1								MP25				
C	H	5895	X					*	EA	6								H33				
			X					*	EA	REF								H34				
A	H	R 5895	X					C	EA	1							6-8	A5				
			X					*	EA	REF								H35				
P	H	T 7440-142-5465	X					D	EA	1			*	*	*	8	3	A5A1				

AVI-178

(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTGCV PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3)								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	I N D C D	DESCRIPTION								
P	D	5910	X					F	EA	23						95	69	A5A1C1				
			X					E	EA	REF								A5A1C2				
			X					E	EA	REF								A5A1C3				
			X					E	EA	REF								A5A1C4				
			X					E	EA	REF								A5A1C5				
			X					E	EA	REF								A5A1C6				
			X					E	EA	REF								A5A1C8				
P	D	7440-111-2770	X					E	EA	8						40	24	A5A1A1				
			X					E	EA	REF								A5A1A2				

AVI-179

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N U N I T P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION						
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N					
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100									
P	D		7440-113-5661	X						E	D262 MODULE ASSY, INPUT LS AND INV SAME AS D232	EA		REF													A2A5
				X						E	D263 MODULE ASSY, N-GATE AND EMIT 02114 53-950-00	EA	8					40	24								A2A6
				X						E	D264 MODULE ASSY, N-GATE AND EMIT SAME AS 0263	EA		REF													A2A7
				X						E	D265 MODULE ASSY, N-GATE AND EMIT SAME AS D263	EA		REF													A2A8
				X						F	D266 MODULE ASSY, N-GATE AND EMIT SAME AS D263	EA		REF													A2A9
				X						F	D267 MODULE ASSY, N-GATE AND EMIT SAME AS D263	EA		REF													A2A10
				X						E	D268 MODULE ASSY, N-GATE AND EMIT SAME AS D263	EA		REF													A2A11
				X						E	D269 MODULE ASSY, N-GATE AND EMIT SAME AS D263	EA		REF													A2A12
				X						E	D270 MODULE ASSY, N-GATE AND EMIT SAME AS D263	EA		REF													A2A13

AVI-184

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) S O U R C E C O D E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N U N I T P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION						
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N					
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100									
P	D		7440-111-2775	X						E	D271 MODULE ASSEMBLY, POWER DRIVER 02114 53-954-04	EA		1						8	3						A2A14
P	D		7440-111-2776	X						E	D272 MODULE ASSY, SK SOURCE DR, TYPE 1 02114 53-949-00	EA	8						40	24							A2A15
				X						E	D273 MODULE ASSY, SK SOURCE DR, TYPE 1 SAME AS D272	EA		REF													A2A16
				X						E	D274 MODULE ASSY, SK SOURCE DR, TYPE 1 SAME AS D272	EA		REF													A2A17
				X						E	D275 MODULE ASSY, SK SOURCE DR, TYPE 1 SAME AS D272	EA		REF													A2A18
				X						E	D276 MODULE ASSY, SK SOURCE DR, TYPE 1 SAME AS D272	EA		REF													A2A19
				X						E	D277 MODULE ASSY, SK SOURCE DR, TYPE 1 SAME AS D272	EA		REF													A2A20
				X						E	D278 MODULE ASSY, SK SOURCE DR, TYPE 1 SAME AS D272	EA		REF													A2A21
				X						E	D279 MODULE ASSY, SK SOURCE DR, TYPE 1 SAME AS D272	EA		REF													A2A22

AVI-85

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
P	D		7440-111-2777	X						E	EA	2						13	6	A2A23		
				X						E	EA	REF								A2A24		
P	D		7440-111-2783	X						E	EA	2						13	6	A2A25		
				X						E	EA	REF								A2A26		
X1	D		5895	X						E	EA	1								A2MP1		
P	D		5895	X						E	EA	4						19	12	A2CR1		
				X						E	EA	REF								A2CR2		
				x						E	EA	REF								A2CR3		
				x						E	EA	REF								A2CR4		

AVI-186

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
				X						D	EA	REF								A5A3		
P	H	T	7140-142-5466	X						D	EA	1						8	3	A5A4		
P	D		5910	X						E	EA	2						13	6	A4C40		
				X						E	EA	REF								A4C41		
P	D		5910	X						E	EA	2						13	6	A4C27		
				X						E	EA	REF								A4C29		
P	D		5910	X						E	EA	6						33	18	A4C20		
				X						E	EA	REF								A4C21		
				X						E	EA	REF								A4C24		

AVI-187

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					E	D298 CAPACITOR, FIXED, CERAMIC SAME AS D295	EA	REF											A4C30	
				X					E	D299 CAPACITOR FIXED, CERAMIC SAME AS D295	EA	REF											A4C36	
				X					E	D300 CAPACITOR, FIXED, CERAMIC SAME AS D295	EA	REF											A4C37	
P	D		5910	X					E	D301 CAPACITOR, FIXED, CERAMIC 56289 10TCCT12	EA	1					8	3					A4C16	
P	D		5910-991-1765	X					E	D302 CAPACITOR, FIXED, CERAMIC 56289 10TCCT22	EA	3					18	9					A4C25	
				X					E	D303 CAPACITOR, FIXED, CERAMIC SAME AS D302	EA	REF											A4C26	
				X					E	D304 CAPACITOR, FIXED, CERAMIC SAME AS D302	EA	REF											A4C31	
P	D		5910	X					E	D305 CAPACITOR, FIXED, CERAMIC 56289 10TCCT27	EA	7					33	21					A4C15	
				X					E	D306 CAPACITOR, FIXED, CERAMIC SAME AS D305	EA	REF											A4C17	

AVI-188

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				x					E	D307 CAPACITOR, FIXED, CERAMIC SAME AS D305	EA	REF											A4C18	
				X					F	D308 CAPACITOR, FIXED CERAMIC SAME AS D305	EA	REF											A4C32	
				X					F	D309 CAPACITOR, FIXED, CERAMIC SAME AS D305	EA	REF											A4C33	
				X					F	D310 CAPACITOR, FIXED, CERAMIC SAME AS D305	EA	REF											A4C38	
				x					F	D311 CAPACITOR, FIXED, CERAMIC SAME AS D305	EA	REF											A4C39	
				x					F	D312 CAPACITOR, FIXED, ELECT. SAME AS D217	EA	REF											A4C1	
				X					E	D313 CAPACITOR, FIXED, ELECT. SAME AS D217	EA	REF											A4C2	
				X					F	D314 CAPACITOR, FIXED, ELECT. SAME AS D217	EA	REF											A4C3	
				X					F	D315 CAPACITOR, FIXED, ELECT. SAME AS D217	EA	REF											A4C4	

AVI-189

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100							
P	H	T	7440-111-2782	X						D	D334 STACK ASSEMBLY 02114 55-000-40	EA		1				*	*	*	8	3		A5A5	
X2	D		7440	X						E	D033 CIRCUIT CARD ASSEMBLY 02114 55-005-10	EA		1											A5A1
X1	D		5895	X						F	D336 PRINTED WIRING BOARD 02114 55-100-10	EA		1											A1MP1
X2	D		5905	X						F	D337 RESISTOR, FIXED, WIRE WOUND 91637 RLS600HMSPORM1PC5W	EA		128											A1R1

AVI-192

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100							
X2	D		5961	X						F	0401 SEMI CONDUCTOR DEVICE, DI ODE 27014 S259 A1CR1 through A1CR99, CR100 through CR256	EA		256											A1CR1

AVI-193

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
			(2) FEDERAL STOCK NUMBER	(3) MODEL								I N D C D	D E S C R I P T I O N	DS			GS			(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5						6	(A) 1-20	(B) 21-50	(C) 51-100					(A) 1-20	(B) 21-50	(C) 51-100
A	H	R	5895	X						C	D779 POWER SUPPLY 09004 SPS560	EA	1								6-96	A4		
				X						*	D780 SCREW, MACHINE SAME AS B611	EA	REF										H51	
P	H		9910-060-1181	X						D	D781 CAPACITOR, FIXED, ELECT. 90201 20-90244	EA	1				*	*	2	8	3	6-96	A4C2	
P	H		5910	X						D	D782 CAPACITOR, FIXED, ELECT. 90201 20-90523	EA	1				*	*	2	8	3	6-96	A4C5	
P	H		5910	X						D	D783 CAPACITOR, FIXED ELECT. 06001 86F147MA	EA	4				*	2	2	19	12	6-96	A4C8	
				X						D	D784 CAPACITOR FIXED, ELECT. SAME AS D783	EA	REF									6-96	A4C9	
P	H		5910	X						D	D785 CAPACITOR, FIXED, ELECT. 06001 86F155M1	EA	2				*	*	2	8	3	6-96	A4C6	
P	H		5910	X						D	D786 CAPACITOR, FIXED, ELECT. 06001 86F156M1	EA	2				*	2	2	13	6	6-96	A4C7	
				X						D	D787 CAPACITOR, FIXED, ELECT. SAME AS D786	EA	REF									6-96	A4C10	

AVI-204

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
			(2) FEDERAL STOCK NUMBER	(3) MODEL								I N D C D	D E S C R I P T I O N	DS			GS			(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5						6	(A) 1-20	(B) 21-50	(C) 51-100					(A) 1-20	(B) 21-50	(C) 51-100
P	H		5910	X						D	D788 CAPACITOR, FIXED, PLASTIC 01002 75F2R4A103	EA	4				*	2	2	19	12	6-96	A4C3	
				X						D	D789 CAPACITOR FIXED, PLASTIC SAME AS D788	EA	REF									6-96	A4C4	
P	H		5910	X						D	D790 CAPACITOR, FIXED, PLASTIC 01002 75F6R4A104	EA	1				*	*	2	8	3	6-96	A4C1	
X2	H			X						D	D791 CLIP 71785 63A	EA	4									6-96	A4MP1	
P	H		5935-755-3767	X						D	D792 CONNECTOR, PLUG, ELECTRICAL 71785 P306DB	EA	1				*	*	2	8	3	6-96	A4P1	
P	H		5 935-376-9314	X						D	D793 CONNECTOR, PLUG, ELECTRICAL 71785 P318CCE	EA	1				*	*	2	8	3	6-96	A4P2	
P	H		5935-187-0723	X						D	D794 CONNECTOR, RECEPTACLE, ELEC 71785 5306CCT	EA	1				*	*	2	8	3	6-96	A4J1	
P	H		5935-257-8544	X						D	D795 CONNECTOR, RECEPTACLE, ELEC 71785 5318SB	EA	1				*	*	2	8	3	6-96	A4J2	
P	H		5935-161-4716	X						D	D796 CONNECTOR, RECEPTACLE, ELEC 02660 49RSS8	EA	1				*	*	2	8	3	6-96	A4J1	

AVI-205

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				I N D C O D E	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
P	H		5920-557-2647	X						D	D797 FUSE, CARTRIDGE 81349 MILF15160TYPEF02GR0	EA	1				2	6	11	130	100	6-96	A4F1
X2	H		5920-556-0144	X						D	D798 FUSEHOLDER 75915 342004	EA	1									6-96	A4XF1
P	H		6240	X						D	D799 LAMP, INCANDESCENT 91802 2120A4C	EA	1				2	3	6	71	50	6-96	A4DS1
				X						D	D800 RESISTOR, FIXED, COMPOSITION SAME AS B741	EA	REF									6-96	A4R36
				X						D	D801 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF									6-96	A4R6
				X						D	D802 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF									6-96	A4R12
				X						D	D803 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF									6-96	A4R27
				X						D	D804 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF									6-96	A4R39
				X						D	D805 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF									6-96	A4R40

AVI-206

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				I N D C O D E	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
				X						D	D806 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF									6-96	A4R5
P	H		5905-279-3500	X						D	D807 RESISTOR, FIXED. COMPOSITION 81349 RC20GF183J	EA	1				*	*	2	8	3	6-96	A4R4
				X						D	D808 RESISTOR, FIXED, COMPOSITION SAME AS B756	EA	REF									6-96	A4R10
P	H		5905-171-2006	X						D	D809 RESISTOR, FIXED, COMPOSITION 81349 RC20OGF271J	EA	10				2	2	3	46	30	6-96	A4R2
				X						D	D810 RESISTOR, FIXED, COMPOSITION SAME AS 0809	EA	REF									6-96	A4R15
				X						D	D811 RESISTOR, FIXED, COMPOSITION SAME AS D809	EA	REF									6-96	A4R32
				X						D	D812 RESISTOR, FIXED, COMPOSITION SAME AS B679	EA	REF									6-96	A4R8
PH			5905-279-1990	X						D	D813 RESISTOR, FIXED COMPOSITION 81349 RC20GF391J	EA	1				*	*	2	8	3	6-96	A4R23
				X						D	D814 RESISTOR, FIXED, COMPOSITION SAME AS B683	EA	REF									6-96	A4R16

AVI-207

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
P	H		5905-279-3504	X						D	D815 RESISTOR, FIXED, COMPOSITION 81349 RC20GF472J	EA	5				*	2	2	27	15	6-96	A4R11	
				X						D	D816 RESISTOR, FIXED, COMPOSITION SAME AS D815	EA	REF										6-96	A4R25
				X						D	D817 RESISTOR, FIXED, COMPOSITION SAME AS B689	EA	REF										6-96	A4R9
				X						D	D818 RESISTOR, FIXED, COMPOSITION SAME AS B689	EA	REF										6-96	A4R14
				X						D	D819 RESISTOR, FIXED, COMPOSITION SAME AS 8689	EA	REF										6-96	A4R26
				X						D	D820 RESISTOR, FIXED, COMPOSITION SAME AS B689	EA	REF										6-96	A4R34
P	H		5905-279-3503	X						D	D821 RESISTOR, FIXED, COMPOSITION 81349 RC20GF682J	EA	5				*	2	2	27	15	6-96	A4R3	
P	H		5905-249-3661	X						D	D822 RESISTOR, FIXED, COMPOSITION 81349 RC20GF683J	EA	1				*	*	2	8	3	6-96	A4R13	
				X						D	D823 RESISTOR, FIXED, COMPOSITION SAME AS C996	EA	REF										6-96	A4R17

AVI-208

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X						D	D824 RESISTOR, FIXED, COMPOSITION SAME AS C996	EA	REF										6-96	A4R31
P	H		5905-279-1979	X						D	D825 RESISTOR, FIXED COMPOSITION 81349 RC42GF101J	EA	1				*	*	2	8	3	6-95	A4R48	
P	H		5905-256-3361	X						D	D826 RESISTOR, FIXED, COMPOSITION 81349 RC42GF102J	EA	1				*	*	2	8	3	6-96	A4R49	
P	H		5905-256-8352	X						D	D827 RESISTOR, FIXED, COMPOSITION 81349 RC42GF122J	EA	1				*	*	2	8	3	6-96	A4R1	
P	H		5905	X						D	D828 RESISTOR, FIXED, WIRE WOUND 11502 PW5-0-33OHMSPORMPCT5	EA	3				*	2	2	18	9	6-96	A4R41	
				X						D	D829 RESISTOR, FIXED, WIRE WOUND SAME AS D828	EA	REF										6-96	A4R44
				X						D	D830 RESISTOR, FIXED, WIRE WOUND SAME AS D828	EA	REF										6-96	A4R47
P	H		5905	X						D	D831 RESISTOR, FIXED WIRE WOUND 91637 RWP20F2001F	EA	1				*	*	2	8	3	6-96	A4R28	
P	H		5905	X						D	D832 RESISTOR, FIXED, WIRE WOUND 91637 RWP20F2001F	EA	1				*	*	2	8	3	6-96	A4R29	

AVI-209

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	DS			GS				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
P	H		5905	X						D	D833 RESISTOR, FIXED WIRE WOUND 81349 RW69G201	EA	1				*	*	2	8	3	6-96	A4R21	
P	H		5905	X						D	D834 RESISTOR, FIXED, WIRE WOUND R1349 RW69G351	EA	1				*	*	2	8	3	6-96	A4R20	
P	H		5905	X						D	D835 RESISTOR, FIXED, WIRE WOUND 81349 RW69G501	EA	2				*	2	2	13	6	6-96	A4R18	
				X						D	D836 RESISTOR, FIXED, WIRE WOUND SAME AS D835	EA	REF										6-96	A4R33
P	H		5405	X						D	D837 RESISTOR, FIXED, WIRE WOUND 81349 RW69G601	EA	1				*	*	2	8	3	6-96	A4R22	
P	H		5905	X						D	D838 RESISTOR, FIXED, WIRE WOUND 44655 4450	EA	1				*	*	2	8	3	6-96	A4R30	
P	H		5905	X						D	D839 RESISTOR, VARIABLE 71450 BD63050	EA	4				*	2	2	19	12	6-96	A4R7	
				X						D	D840 RESISTOR, VARIABLE SAME AS D839	EA	REF										6-96	A4R24
P	H		5905	X						D	D841 RESISTOR, VARIABLE 71450 RB64201	EA	3				*	2	2	18	9	6-96	A4R19	

AVI-210

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	DS			GS				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
P	H		5905	X						D	D842 RESISTOR, VARIABLE 12697 B6659-1	EA	1				*	*	2	8	3	6-96	A4R38	
P	H		5905	X						D	D843 RESISTOR, VARIABLE 12697 B6659-2	EA	1				*	*	2	8	3	6-96	A4R35	
P	H		5905	X						D	D844 RESISTOR, VARIABLE 12697 B6659-3	EA	1				*	*	2	8	3	6-96	A4R37	
P	H		5961-967-8107	X						D	D845 SEMICONDUCTOR DEVICE, DIODE 03508 C20A	EA	13				*	*	2	8	3	6-96	A4SCR1	
P	H		5961-837-5724	X						D	D846 SEMICONDUCTOR DEVICE, DIODE 14099 SCE2	EA	13				2	3	5	59	39	6-96	A4CR1	
				X						D	D847 SEMICONDUCTOR, DEVICE, DIODE SAME AS D846	EA	REF										6-96	A4CR2
				X						D	D848 SEMICONDUCTOR, DEVICE, DIODE SAME AS D846	EA	REF										6-96	A4CR42
				X						D	D849 SEMICONDUCTOR, DEVICE, DIODE SAME AS D846	EA	REF										6-96	A4CR5
				X						D	D850 SEMICONDUCTOR, DEVICE, DIODE SAME AS D846	EA	REF										6-96	A4CR7

AVI-211

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION						
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N					
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100									
P	H	5961		X						D	D851 SEMICONDUCTOR, DEVICE, DIODE SAME AS D846	EA	REF										6-96	A4CR8			
				X							D	D852 SEMICONDUCTOR, DEVICE, DIODE SAME AS D846	EA	REF										6-96	A4CR9		
				X								D	D853 SEMICONDUCTOR, DEVICE, DIODE SAME AS D846	EA	REF										6-96	A4CR12	
				X								D	D854 SEMICONDUCTOR DEVICE, DIODE 05277 1N368D	EA	10				2	2	3		46	30	6-96	A4CR16	
				X								D	D855 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA	REF											6-96	A4CR17
				X								D	D856 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA	REF											6-96	A4CR18
				X								D	D857 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA	REF											6-96	A4CR19
				X								D	D858 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA	REF											6-96	A4CR20
				X								D	D859 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA	REF											6-96	A4CR21

AVI-212

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)					
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION				
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100							
P	H	5961-519-6977		X						D	D860 SEMICONDUCTOR DEVICE, DIODE 07688 1N538	EA	4				*	2	2		19	12	6-96	A4CR14	
				X							D	D861 SEMICONDUCTOR, DEVICE, DIODE SAME AS D860	EA	REF											6-96	A4CR15
P	H	5961-804-7548		X						D	D862 SEMICONDUCTOR DEVICE, DIODE 07688 1N321	EA	4						2	2		19	12	6-96	A4CR11
				X							D	D863 SEMICONDUCTOR, DEVICE, DIODE SAME AS D862	EA	REF											6-96	A4CR13
P	H	5961		X						D	D864 SEMICONDUCTOR DEVICE, DIODE 07688 1N962	EA	1				*	*	2		8	3	6-96	A4CR10	
P	H	5961		X						D	D865 SEMICONDUCTOR DEVICE, DIODE 07688 1N963B	EA	2				*		2	2		13	6	6-96	A4CR3
				X							D	D866 SEMICONDUCTOR, DEVICE, DIODE SAME AS D865	EA	REF											6-96	A4CR6
P	H	5930-112-4972		X						D	D867 SWITCH, TOGGLE 15605 8373K7	EA	1				*	*	*		5	2	6-96	A4S1	
P	H	5930		X						D	D868 TRANSFORMER, POWER 72149 C9452-1	EA	1				*	*	*		5	2	6-96	A4T1	

AVI-213

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				I N D C O D E	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
P	H		5961-844-0686	X						D	D869 TRANSISTOR 07688 2N1613	EA	12				2	4	7	83	60	6-96	A4Q2	
				X						D	D870 TRANSISTOR SAME AS D869	EA	REF										6-96	A4Q3
				X						D	D871 TRANSISTOR SAME AS D869	EA	REF										6-96	A4Q4
				X						D	D872 TRANSISTOR SAME AS D869	EA	REF										6-96	A4Q5
				X						D	D873 TRANSISTOR SAME AS D869	EA	REF										6-96	A4Q8
				X						D	D874 TRANSISTOR SAME AS D869	EA	REF										6-96	A4Q9
P	H		5961-990-4605	X						D	D875 TRANSISTOR 03508 2N16B	EA	1				*	2	2	12	5	6-96	A4Q1	
P	H		5961	X						D	D876 TRANSISTOR 03508 2N2349	EA		8			2	3	5	59	40	6-96	A4Q5	
				X						D	D877 TRANSISTOR SAME AS D876	EA	REF										6-96	A4Q6
				X						D	D878 TRANSISTOR SAME AS D876	EA	REF										6-96	A4Q10
				X						D	D879 TRANSISTOR SAME AS D876	EA	REF										6-96	A4Q11

AVI-214

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6				I N D C O D E	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100	
P	H		5961-998-5224	X						D	D880 TRANSISTOR 13209 2N3055	EA	8				2	3	5	59	40	6-96	A4Q12	
				X						D	D881 TRANSISTOR SAME AS D880	EA	REF										6-96	A4Q13
				X						D	D882 TRANSISTOR SAME AS D880	EA	REF										6-96	A4Q14
				X						D	D883 TRANSISTOR SAME AS D880	EA	REF										6-96	A4Q15
A	H		5895	X						C	D884 POWER SUPPLY 09004 SPS562	EA	1										6-96	A8
P	H		5910-004-6431	X						D	D885 CAPACITOR, FIXED, ELECT. 06001 76F02LJN680	EA	1				*	*	2	8	3			A8C5
P	H		5910	X						D	D886 CAPACITOR, FIXED, ELECT. 06001 86F137MB	EA	2				*	2	2	13	6			A8C3
				X						D	D887 CAPACITOR FIXED, ELECT. SAME AS D886	EA	REF											A8C4
				X						D	D888 CAPACITOR FIXED, ELECT. SAME AS D886	EA	REF											A8C1
				X						D	D889 CAPACITOR FIXED, ELECT. SAME AS D886	EA	REF											A8C2

AVI-215

(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
P	H	5935	X					D	D890 CAPACITOR, FIXED, PLASTIC SAME AS D788	EA	REF									A8C6		
			X					D	D891 CAPACITOR, FIXED, PLASTIC SAME AS D788	EA	REF										A8C7	
			X					D	D892 CONNECTOR, PLUG, ELECTRICAL 02660 CP868CP8	EA	1		*	*	2	8	3				A8P1	
			X					D	D893 RESISTOR, FIXED, COMPOSITION SAME AS B741	EA	REF										A8R7	
			X					D	D894 RESISTOR, FIXED, COMPOSITION SAME AS B741	EA	REF										A8R21	
			X					D	D895 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF										A8R6	
			X					D	D896 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF										A8R9	
			X					D	D897 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF										A8R20	
			X					D	D898 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF										A8R24	

AVI-216

(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				1	2	3	4	5				6	(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
P	H	5905-190-8880	X					D	D899 RESISTOR, FIXED, COMPOSITION SAME AS B669	EA	REF										A8R17	
			X					D	D900 RESISTOR, FIXED, COMPOSITION SAME AS B669	EA	REF											A8R22
P	H	5905-190-8880	X					D	D901 RESISTOR, FIXED, COMPOSITION 81349 RC20GF122J	EA	3		*	2	2	18	9				A8R27	
P	H	5905-190-8881	X					D	D902 RESISTOR, FIXED, COMPOSITION 81349 RC20GF182J	EA	2		*	2	2	27	15				A8R30	
			X					D	D903 RESISTOR, FIXED, COMPOSITION SAME AS D809	EA	REF											A8R11
			X					D	D904 RESISTOR, FIXED, COMPOSITION SAME AS D809	EA	REF											A8R26
			X					D	D905 RESISTOR, FIXED, COMPOSITION SAME AS D809	EA	REF											A8R28
			X					D	D906 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF											A8R4
			X					D	D907 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF											A8R18

AVI-217

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN				
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100								
				X					D	D926 RESISTOR, VARIABLE SAME AS D841	EA		REF													A8R33
				X					D	D927 SEMICONDUCTOR DEVICE, DIODE SAME AS D846	EA		REF													A8CR7
				X					D	D928 SEMICONDUCTOR DEVICE, DIODE SAME AS D846	EA		REF													A8CR8
				X					D	D929 SEMICONDUCTOR DEVICE, DIODE SAME AS D846	EA		REF													A8CR9
				X					D	D930 SEMICONDUCTOR DEVICE, DIODE SAME AS D846	EA		REF													A8CR12
				X					D	D931 SEMICONDUCTOR DEVICE, DIODE SAME AS D846	EA		REF													A8CR13
				X					D	D932 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA		REF													A8CR1
				X					D	D933 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA		REF													A8CR2
				X					D	D934 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA		REF													A8CR3

AVI-220

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) SOURCE C D	(B) MAINT C D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN				
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100								
				X					D	D935 SEMICONDUCTOR DEVICE, DIODE SAME AS D854	EA		REF													A8CR4
				X					D	D936 SEMICONDUCTOR DEVICE, DIODE SAME AS D860	EA		REF													A8CR5
				X					D	D937 SEMICONDUCTOR DEVICE, DIODE SAME AS D860	EA		REF													A8CR6
P	H		5951-755-4351	X					D	D938 SEMICONDUCTOR DEVICE, DIODE 07688 1N756A	EA	3		*	2	2	18	9								A8CR11
				X					D	D939 SEMICONDUCTOR DEVICE, DIODE SAME AS D938	EA		REF													A8CR15
				X					D	D940 SEMICONDUCTOR DEVICE, DIODE SAME AS D938	EA		REF													A8CR16
				X					D	D941 SEMICONDUCTOR DEVICE, DIODE SAME AS D862	EA		REF													A8CR10
				X					D	D942 SEMICONDUCTOR DEVICE, DIODE SAME AS D862	EA		REF													A8CR14
P	H		5950	X					D	D943 TRANSFORMER POWER 72149 09452-3	EA	1		*	*	*	5	2								A8T1

AVI-221

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2)		(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
			FEDERAL STOCK NUMBER	I N D C D	M O D E L									D S			G S					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N
					1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
D E S C R I P T I O N																							
P	H	5920-892-9311	X									EA	8									6-9	A3XF1 thru A3XF8
P	H	5920-280-8342	X									EA	1									6-9	A3P4
P	H	5920-280-4960	X									EA	4									6-9	A3P1 A3F6 A3F7 A3F8
P	H											EA	2									6-9	A3F2 A3F3
P	H		X									EA	1									6-9	A3F5

Change 3 A6-110.1 (A6-110.2 blank)

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				X					*	D965 SCREW, MACHINE SAME AS D961	EA	REF											A3H4
				X					*	D966 WASHER, LOCK SAME AS A015	EA	REF											A3H5
				X					*	D967 NUT, PLAIN HEXAGON SAME AS A039	EA	REF											A3H6
P	H		5925	X					D	D968 CIRCUIT BREAKER 74193 AM12-10A120VA660YCUR	EA	1		*	*	2	8	3					A3CB3
				X					*	D969 SCREW, MACHINE COML 6-32X1-4RHSTLCADL	EA	8											A3H7
				X					*	D970 WASHER, LOCK SAME AS E394	EA	REF											A3H8
P	H		5925	X					D	D971 CIRCUIT BREAKER 74193 AM12-2A120VAC60CCURV	EA	1		*	*	2	8	3					A3CB1
				X					*	D972 SCREW, MACHINE SAME AS D969	EA	REF											A3H9
				X					*	D973 WASHER, LOCK SAME AS B394	EA	REF											A3H10
P	H		5925	X					D	D974 CIRCUIT BREAKER 74193 AM-12-20A120VAC60YCUR	EA	1		*	*	2	8	3					A3CB4

AVI-224

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				X					*	D975 SCREW, MACHINE SAME AS D969	EA	REF											A3H11
				X					*	D976 WASHER, LOCK SAME AS E394	EA	REF											A3H12
P	H		5925	X					D	D977 CIRCUIT BREAKER 74193 AM12-5A120VAC60CCURV	EA	1		*	*	2	8	3					A3CB2
				X					*	D978 SCREW, MACHINE SAME AS D969	EA	REF											A3H13
				X					*	D979 WASHER, LOCK SAME AS E394	EA	REF											A3H14
X2	H		5340-598-0496	X					D	D980 CLAMP, LOOP 09922 HP8N	EA	3											A3MP3
				X					*	D981 SCREW, MACHINE SAME AS A034	EA	REF											A3H15
				X					*	D982 WASHER, LOCK SAME AS B585	EA	REF											A3H16
X2	H		5340-336-8164	X					D	D983 CLAMP, LOOP 09922 HP10N	EA	1											A3MP4
				X					*	D984 SCREW, MACHINE SAME AS A034	EA	REF											A3H17
				X					*	D985 WASHER, LOCK SAME AS B585	EA	REF											A3H18

AVI-225

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)						(8)	(9)	(10)	
(A) S O U R C E C D C	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3) MODEL						I N D C D	(3) DESCRIPTION	U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				1	2	3	4	5	6						DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
P	H		5935	X						D		1				*	*	2	8	3		A3P20			
P	H		5935-500-9854	X						D		1				*	*	2	8	3		A3P21			
				X						D		REF										A3MP5			
				X						D		REF										A3MP6			
				X						*		REF										A3H19			
X2	H		5895	X						D		1										A3MP7			
A	H	P	5895	X						D		1								6-92		A3A3			
C	H			X						*		4										A3H20			
C	H			X						*		18										A3H21			
				X						*		REF										A3H22			

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)						(8)	(9)	(10)	
(A) S O U R C E C D C	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3) MODEL						I N D C D	(3) DESCRIPTION	U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				1	2	3	4	5	6						DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
P	H		5910-889-4462	X						E		9				2	2	3	40	27		A3A3C3			
P	H		5910	X						E		6				2	2	3	33	18		A3C1A			
				X						E		REF										A3C1B			
				X						E		REF										A3C2A			
				X						E		REF										A3C2B			
P	H		5910-876-6489	X						E		1				*	*	2	8	3		A3A3C4			
P	H		5910-060-1796	X						E		1				*	*	2	8	3		A3A3C8			
P	H		7440-111-2768	X						E		1				*	*	*	8	3		A3A3A1			
P	D		5910-999-4728	X						E		4							19	12		A1C7			

AVI-227

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3) MODEL						I N D C O D E	(3) DESCRIPTION	U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				1	2	3	4	5	6						DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN		
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100						
				X						F	E006	CAPACITOR, FIXED, PAPER SAME AS D996	EA		REF											A1C5
X1	D		5895	X						F	E007	PRINTED WIRING BOARD 08742 54-626-000-04	EA	2												A1MP1
				X						F	E009	RESISTOR, FIXED, COMPOSITION SAME AS B741	EA		REF											A1R17
				X						F	E010	RESISTOR, FIXED, COMPOSITION SAME AS B665	EA		REF											A1R5
				X						F	E011	RESISTOR, FIXED, COMPOSITION SAME AS B665	EA		REF											A1R7
				X						F	E012	RESISTOR, FIXED, COMPOSITION SAME AS B665	EA		REF											A1R12
				X						F	E013	RESISTOR, FIXED, COMPOSITION SAME AS B665	EA		REF											A1R19
P	D		5905-195-6761	X						F	E014	RESISTOR, FIXED, COMPOSITION 81349 RC20GF104J	EA	2						13	6					A1R4
				X						F	E015	RESISTOR, FIXED, COMPOSITION SAME AS E014	EA		REF											A1R6

AVI-228

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3) MODEL						I N D C O D E	(3) DESCRIPTION	U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				1	2	3	4	5	6						DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN		
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100						
				X						F	E016	RESISTOR, FIXED, COMPOSITION SAME AS C820	EA		REF											A1R20
P	D		5905-279-3513	X						F	E017	RESISTOR, FIXED, COMPOSITION 81349 RC20GF221J	EA	3						18	9					A1R21
				X						F	E018	RESISTOR, FIXED, COMPOSITION SAME AS B679	EA		REF											A1R15
				X						F	E019	RESISTOR, FIXED, COMPOSITION SAME AS B679	EA		REF											A1R22
P	D		5905-192-3971	X						F	E020	RESISTOR, FIXED, COMPOSITION 81349 RC20GF331J	EA	3						18	9					A1R11
				X						F	E021	RESISTOR, FIXED, COMPOSITION SAME AS D815	EA		REF											A1R2
P	D		5905-279-2019	X						F	E022	RESISTOR, FIXED, COMPOSITION 81349 RC20GF512J	EA	2						13	6					A1R1
P	D		5905-279-1760	X						F	E023	RESISTOR, FIXED, COMPOSITION 81349 RC20GF620J	EA	2						13	6					A1R14
				X						F	E024	RESISTOR, FIXED, COMPOSITION SAME AS B841	EA		REF											A1R29

AVI-229

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D C D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
P	D		5905	X					F	E025 RESISTOR, FIXED, WIRE WOUND 11502 BWH2-70HMS PORM5PT2W	EA	1						8	3		A1R18		
P	D		5905-978-8542	X					F	E026 RESISTOR, VARIABLE 80294 3067P1-502	EA	9						40	27		A1R3		
				X					F	E027 RESISTOR, VARIABLE SAME AS E026	EA	REF									A1R13		
P	D		5961	X					F	E028 SEMICONDUCTOR DEVICE, DIODE 14099 1N4246	EA	31						124	93		A1CR5		
				X					F	E029 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF									A1CR6		
				X					F	E030 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF									A1CR7		
				X					F	E031 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF									A1CR9		
P	D		5961-754-7074	X					F	E032 SEMICONDUCTOR DEVICE, DIODE 07688 1N751A	EA	4						19	12		A1CR8		
P	D		5961-836-0377	X					F	E033 TRANSISTOR 07688 2N1485	EA	1						12	5		A1Q6		

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP C N T G C Y P L A N	D E P O T M A I N T A L W P E R 1 0 0 E Q U I P	I L L U S T R A T I O N		
				M O D E L									I N D C D	D S			G S				(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100
P	D		5961-985-9073	X					F	E034 TRANSISTOR 49671 2N3053	EA	6						46	30		A1Q5		
P	D		5961-835-0863	X					F	E035 TRANSISTOR 13715 2N3565	EA	18						118	90		A1Q3		
				X					F	E036 TRANSISTOR SAME AS E035	EA	REF									A1Q4		
				X					F	E037 TRANSISTOR SAME AS E035	EA	REF									A1Q7		
P	H		5935-835-0435	X					E	E038 CONNECTOR, RECEPTACLE, ELEC 95238 K600-110-700GD	EA	5				*	2	2	27	15		A3J1	
P	H		5905	X					E	E039 RESISTOR, FIXED, WIRE WOUND 81349 RW57GR20	EA	4				*	2	2	19	12		A3R25	
				X					E	E040 RESISTOR, FIXED, WIRE WOUND SAME AS E039	EA	REF										A3R26	
				X					E	E041 RESISTOR, FIXED, WIRE WOUND SAME AS E039	EA	REF										A3R27	
				X					E	E042 RESISTOR, FIXED, WIRE WOUND SAME AS E039	EA	REF										A3R28	

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
P	H		5961	X					E	E043 SEMICONDUCTOR DEVICE, DIODE 81483 IN1200A	EA	4			*	2	2	19		12	6-92	A3CR1
				X					E	E044 SEMICONDUCTOR DEVICE, DIODE SAME AS E043	EA	REF										A3CR2
				X					E	E045 SEMICONDUCTOR DEVICE, DIODE SAME AS E043	EA	REF										A3CR3
				X					E	E046 SEMICONDUCTOR DEVICE, DIODE SAME AS E043	EA	REF									6-92	A3CR4
P	H		5950	X					E	E047 TRANSFORMER, POWER 08747 24144	EA	1			*	*	*	5		2	6-92	A3T1
P	H		5961	X					E	E048 TRANSISTOR 07256 2N3218	EA	4			2	2	3	33		20	6-92	A3Q8
				X					E	E049 TRANSISTOR SAME AS E048	EA	REF									6-92	A3Q9
				X					E	E050 TRANSISTOR SAME AS E048	EA	REF									6-92	A3Q10
				X					E	E051 TRANSISTOR SAME AS E048	EA	REF									6-92	A3Q11

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)		
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N C I N G I N U N I T P K	QTY I N C I N C I N G I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION	
				MODEL									DS			GS					(A) FIG. NO.	(B) I T E M O R S Y M B O L D E S I G N
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100				
A	H	R	5895	X					D	E052 POWER SUPPLY 08742 BC12N2-5	EA	1									6-94	
A3A5				X					*	E053 SCREW, MACHINE SAME AS D994	EA	REF										A3H23
				X					*	E054 WASHER, LOCK SAME AS A011	EA	REF										A3H24
P	H		5910-930-4852	X					E	E055 CAPACITOR, FIXED, ELECT. 56289 32D462G030AC68	EA	3			*	2	2	18		9		A5C1
P	H		5910	X					E	E056 CAPACITOR, FIXED, ELECT. 56289 600D337G030DL0	EA	1			*	*	2	8		3		A5C8A
P	H	T	7440-113-0832	X					E	E057 CIRCUIT CARD ASSEMBLY 08742 56-474-000	EA	1			*	*	*	8		3		A5A1
				X					E	E058 CAPACITOR, FIXED, ELECT. SAME AS E005	EA	REF										A1C7
				X					E	E059 CAPACITOR, FIXED, PAPER SAME AS D996	EA	REF										A1C3
				X					E	E060 CAPACITOR, FIXED, PAPER SAME AS D996	EA	REF										A1C5

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						UNIT OF ISSUE	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									I N D C D	DS			GS				(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN				
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100			
P	D		5910-930-4856	X						F	E061 CAPACITOR, FIXED, ELECT. 53021 556-1047-01	EA		3									18	9	A1C4	
				X						F	E062 PRINTED WIRING BOARD SAME AS E007	EA		REF												A1MP1
				X						F	E063 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA		REF												A1R7
				X						F	E064 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA		REF												A1R17
				X						F	E065 RESISTOR, FIXED, COMPOSITION SAME AS B669	EA		REF												A1R29
				X						F	E066 RESISTOR, FIXED, COMPOSITION SAME AS B669	EA		REF												A1R24
P	D		5905-299-1541	X						F	E067 RESISTOR, FIXED, COMPOSITION 81349 RC20GF151J	EA		2										6		A1R20
				X						F	E068 RESISTOR, FIXED, COMPOSITION SAME AS B671	EA		REF												A1R12
P	D		5915-279-2522	X						F	E069 RESISTOR, FIXED, COMPOSITION 81349 RC20GF154J	EA		2										6		A1R4

AVI-234

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)							
(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						UNIT OF ISSUE	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION						
				MODEL									I N D C D	DS			GS				(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN					
				1	2	3	4	5	6					(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50					(C) 51-100				
				X						F	E070 RESISTOR, FIXED, COMPOSITION SAME AS E069	EA		REF													A1R6
				X						F	E071 RESISTOR, FIXED, COMPOSITION SAME AS D809	EA		REF													A1R21
				X						F	E072 RESISTOR, FIXED, COMPOSITION SAME AS B679	EA		REF													A1R19
				X						F	E073 RESISTOR, FIXED, COMPOSITION SAME AS E020	EA		REF													A1R11
				X						F	E074 RESISTOR, FIXED, COMPOSITION SAME AS D815	EA		REF													A1R2
				X						F	E075 RESISTOR, FIXED, COMPOSITION SAME AS D815	EA		REF													A1R22
				X						F	E076 RESISTOR, FIXED, COMPOSITION SAME AS E022	EA		REF													A1R1
				X						F	E077 RESISTOR, FIXED, COMPOSITION SAME AS E023	EA		REF													A1R14
				X						F	E078 RESISTOR, FIXED, COMPOSITION SAME AS D821	EA		REF													A1R15

AVI-235

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)						(8)	(9)	(10)	
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	MODEL						I N D C D	(3) DESCRIPTION	U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				1	2	3	4	5	6						DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
P	H		5950	X						E	E098 TRANSFORMER, POWER 08742 24100	EA	1			*	*	*	5		2	6-94	A5T1		
P	H		5961	X						E	E099 TRANSISTOR 07256 2N3235	EA	1			*	2	2	12		5	6-94	A5Q8		
A	H	P	5895	X						D	E100 POWER SUPPLY 08742 BC120N2-0-3	EA	1									6-90	A3A2		
				X						*	E101 SCREW, MACHINE SAME AS D993	EA	REF										A3H25		
				X						*	E102 SCREW, MACHINE SAME AS D994	EA	REF										A3H26		
				X						E	E103 WASHER, LOCK SAME AS A011	EA	REF										A35H27		
P	H	T	7440-111-6758	X						E	E104 CIRCUIT CARD ASSEMBLY 08742 56-477-000	EA	1			*	*	*	8		3	6-90	A3A2A1		
P	H		5910	X						E	E105 CAPACITOR, FIXED, PAPER 14655 MPY6S33	EA	3			*	2	2	18		9		A3A2C3		
P	H		5910	X						E	E106 CAPACITOR, FIXED, ELECT. 56289 600D266G200DL4	EA	1			*	*	2	8		3		A3A2C8		
P	H		5910	X						E	E107 CAPACITOR, FIXED, ELECT. 99392 71FAT250JF172	EA	2			*	2	2	13		6	6-90	A3A2C1		

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE										(4)	(5)	(6)	(7)						(8)	(9)	(10)	
(A) S O U R C E C D	(B) M A I N T C D	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	MODEL						I N D C D	(3) DESCRIPTION	U N I T O F I S S U E	QTY I N C I N C I N G U N I T P K	QTY I N C I N G U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				1	2	3	4	5	6						DS			GS					(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N	
															(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				X						E	E108 CAPACITOR, FIXED, ELEC. SAME AS E107	EA	REF										6-90	A3A2C2	
P	D		5910	X						F	E109 CAPACITOR, FIXED, CERAMIC 37942 SM250	EA	3						18		9		A1C11		
				X						F	E110 CAPACITOR, FIXED, PAPER SAME AS D996	EA	REF											A1C5	
				X						F	E111 CAPACITOR, FIXED, PAPER SAME AS D996	EA	REF											A1C7	
				X						F	E112 CAPACITOR, FIXED, ELECT. SAME AS E061	EA	REF											A1C4	
X1	D		5895	X						F	E113 PRINTED WIRING BOARD 08742 54-696-000-02	EA	2											A1MP1	
				X						F	E114 RESISTOR, FIXED COMPOSITION SAME AS B665	EA	REF											A1R7	
				X						F	E115 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF											A1R29	
				X						F	E116 RESISTOR, FIXED, COMPOSITION SAME AS B746	EA	REF											A1R8	

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(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A)	(B)	(C)	(A)	(B)	(C)					
				1	2	3	4	5				6	I N D C D	1-20	21-50	51-100	1-20					21-50	51-100
				X				F	E172 CAPACITOR, FIXED, PAPER SAME AS E105	EA	REF								A1C7			
				X				F	E173 CAPACITOR, FIXED, CERAMIC SAME AS E109	EA	REF								A1C11			
				X				F	E174 CAPACITOR, FIXED, PAPER SAME AS D996	EA	REF								A1C5			
				X				F	E175 CAPACITOR, FIXED, ELECT. SAME AS E061	EA	REF								A1C4			
				X				F	E176 PRINTED WIRING BOARD SAME AS E113	EA	REF								A1MP1			
				X				F	E177 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF								A1R7			
				X				F	E178 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF								A1R20			
				X				F	E179 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF								A1R29			
				X				F	E180 RESISTOR, FIXED, COMPOSITION SAME AS B669	EA	REF								A1R22			

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(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION		
			(2) FEDERAL STOCK NUMBER	(3) DESCRIPTION								DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				MODEL								(A)	(B)	(C)	(A)	(B)	(C)					
				1	2	3	4	5				6	I N D C D	1-20	21-50	51-100	1-20					21-50	51-100
				X				F	E181 RESISTOR, FIXED, COMPOSITION SAME AS E067	EA	REF								A1R31			
				X				F	E182 RESISTOR, FIXED, COMPOSITION SAME AS B671	EA	REF								A1R15			
				X				F	E183 RESISTOR, FIXED, COMPOSITION SAME AS D902	EA	REF								A1R4			
				X				F	E184 RESISTOR, FIXED, COMPOSITION SAME AS D902	EA	REF								A1RS			
				X				F	E185 RESISTOR, FIXED, COMPOSITION SAME AS E017	EA	REF								A1R16			
				X				F	E186 RESISTOR, FIXED, COMPOSITION SAME AS E120	EA	REF								A1R34			
				X				F	E187 RESISTOR, FIXED, COMPOSITION SAME AS D809	EA	REF								A1R21			
				X				F	E188 RESISTOR, FIXED, COMPOSITION SAME AS B679	EA	REF								A1R1			
				X				F	E189 RESISTOR, FIXED, COMPOSITION SAME AS E123	EA	REF								A1R6			

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				X					F	E190 RESISTOR, FIXED, COMPOSITION SAME AS B683	EA	REF											A1R11
				X					F	E191 RESISTOR, FIXED, COMPOSITION SAME AS C992	EA	REF											A1R2
				X					F	E192 RESISTOR, FIXED, COMPOSITION SAME AS C992	EA	REF											A1R32
				X					F	E193 RESISTOR, FIXED, COMPOSITION SAME AS R761	EA	REF											A1R14
				X					F	E194 RESISTOR, FIXED, COMPOSITION SAME AS D821	EA	REF											A1R24
P	D		5905-249-4199	X					E	E195 RESISTOR, FIXED, COMPOSITION 81349 RC20GF752J	EA	1					8		3				A1R8
P	D		5905-279-2661	X					F	E196 RESISTOR, FIXED, COMPOSITION 81349 RC32GF182J	EA	1					8		3				A1R1S
P	D		5995-279-3837	X					F	E197 RESISTOR, FIXED, COMPOSITION 81349 RC32GF272J	EA	2					13		6				A1R26
				X					F	E198 RESISTOR-FIXED, COMPOSITION SAME AS E197	EA	REF											A1R27

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)			
(A) SOURCE C D	(B) MAINT D C	(C) REC C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION		
				MODEL									DS			GS					(A) FIG. NO.	(B) ITEM OR SYMBOL DESIGN	
				1	2	3	4	5	6				(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20	(B) 21-50	(C) 51-100					
				X					F	E199 RESISTOR, VARIABLE SAME AS E135	EA	REF											A1R3
				X					F	E200 RESISTOR, VARIABLE SAME AS E135	EA	REF											A1R23
				X					F	E201 RESISTOR, VARIABLE SAME AS E026	EA	REF											A1R28
P	D		5905	X					F	E202 RESISTOR, FIXED, WIRE WOUND 11502 BWHO-510HMSPO5CT2W	EA	1					8		3				A1R25
				X					F	F203 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR1
				X					F	E204 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR2
				X					F	E205 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR3
				X					F	E206 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR4
				X					F	E207 SEMICONDUCTOR DEVICE, DIODE SAME AS E029	EA	REF											A1CR5

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N I T P K	QTY I N C I N I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100		
				X					E	E227 CAPACITOR, FIXED,PAPER SAME AS D996	EA	REF														A1C3
				X					E	E228 CAPACITOR, FIXED,ELECT. SAME AS D997	EA	REF														A1C1
				X					E	E229 CAPACITOR, FIXED, ELECT. SAME AS D997	EA	REF														A1C2
				X					E	E230 CAPACITOR, FIXED,ELECT. SAME AS E055	EA	REF														A1C4
				X					E	E231 CAPACITOR, FIXED,ELECT. SAME AS E055	EA	REF														A1C9
P	H	T	7440-111-6759	X					E	E232 CIRCUIT CARD ASSEMBLY 08742 56-478-000	EA	1				*	*	*		8	3					A1A1
P	D		5910	X					F	F233 CAPACITOR, FIXED,MICA 72136 DM15F821J0500WV4R	EA	1									3					A1C11
P	D		5910-128-5628	X					F	E234 CAPACITCR, FIXED,ELECT. 05397 K2R2C20	EA	1										3				A1C50
				X					F	F235 CAPACITOR, FIXED,ELECT. SAME AS E005	EA	REF														A1C6

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)						
(A) S O U R C E	(B) M A I N T	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I T P K	QTY I N C I N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION					
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N				
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100		
				X					F	E236 CAPACITOR FIXED, CERAMIC SAME AS E109	EA	REF														A1C8
				X					F	E237 CAPACITOR FIXED PAPER SAME AS D996	EA	REF														A1C7
P	D		6910-030-4857	X					F	E238 CAPACITOR FIXED, ELEC. 53021 556-1066-01	EA	1										3				A1C5
X1		D	5995	X					F	E239 PRINTED WIRING BOARD 08742 54-344-000-04	EA	1														A1MP1
				X					F	E240 RESISTOR ,FIXED, COMPOSITION SAME AS E008	EA	REF														A1R32
				X					F	E241 RESISTOR FIXED, COMPOSITION SAME AS B741	EA	REF														A1R4
				X					F	E242 RESISTOR,FIXED, COMPOSITION SAME AS B741	EA	REF														A1R7
				X					F	E243 RESISTOR, FIXED COMPOSITION SAME AS B665	EA	RFF														A1R3
				X					F	E244 RESISTOR, FIXED COMPOSITION SAME AS B665	EA	REF														A1R12

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N I N U N I T P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
P	D	5905-252-5434	X						F	E245 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF										A1R13		
			X						F	E246 RESISTOR, FIXED, COMPOSITION SAME AS B665	EA	REF											A1R34	
			X						F	E247 RESISTOR, FIXED, COMPOSITION SAME AS R665	EA	REF											A1R56	
			X						F	E248 RESISTOR, FIXED, COMPOSITION 81349 RC20GF121J	EA	1					8	3					A1R23	
			X						F	E249 RESISTOR, FIXED, COMPOSITION SAME AS D901	EA	REF												A1R18
			X						F	E250 RESISTOR, FIXED, COMPOSITION SAME AS D901	EA	REF												A1R19
			X						F	E251 RESISTOR, FIXED, COMPOSITION SAME AS B671	EA	REF												A1R15
			X						F	E252 RESISTOR, FIXED, COMPOSITION SAME AS B671	EA	REF												A1R9
			X					F	E253 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF											A1R10		

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E	(B) M A I N T C O D E	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY I N C I N U N I T P K	QTY I N C I N U N I T	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C O D E	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
P	D	5905-279-2674	X						F	E254 RESISTOR, FIXED, COMPOSITION SAME AS C810	EA	REF										A1R11		
			X						F	E255 RESISTOR, FIXED, COMPOSITION 81349 RC20GF201J	EA	1				8	3					A1R28		
			X						F	E256 RESISTOR, FIXED, COMPOSITION SAME AS B756	EA	REF										A1R17		
P	D	5905-279-2593	X						F	E257 RESISTOR, FIXED, COMPOSITION 81349 RC20GF241J	EA	1				8	3					A1R55		
P	D	5905-279-3506	X						F	E258 RESISTOR, FIXED, COMPOSITION 81349 RC20GF332J	EA	1				8	3					A1R52		
P	D	5905-252-4018	X						F	E259 RESISTOR, FIXED, COMPOSITION 81349 RC20GF470J	EA	2				13	6					A1R20		
			X						F	E260 RESISTOR, FIXED, COMPOSITION SAME AS F259	EA	REF										A1R26		
			X						F	E261 RESISTOR, FIXED, COMPOSITION SAME AS B689	EA	REF											A1R8	
P	D	5905-279-2514	X					F	E262 RESISTOR, FIXED, COMPOSITION 81349 RC20GF564J	EA	1				8	3					A1R23			

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A6-126

(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					F	E263 RESISTOR, FIXED, COMPOSITION SAME AS B761	EA	REF											A1R14	
				X					F	E264 RESISTOR, FIXED, COMPOSITION SAME AS B761	EA	REF											A1R53	
				X					F	E265 RESISTOR, FIXED, COMPOSITION SAME AS B841	EA	REF											A1R54	
				X					F	E266 RESISTOR, FIXED, COMPOSITION SAME AS D821	EA	REF											A1R31	
				X					F	E267 RESISTOR, FIXED, COMPOSITION SAME AS C996	EA	REF											A1R24	
P	D		5905-814-0730	X					F	E268 RESISTOR, FIXED, FILM 81349 RN60C1152F	EA	1					8			3			A1R21	
P	D		5905-843-9009	X					F	E269 RESISTOR, FIXED, FILM 81349 RN60C4121F	EA	1					8			3			A1R5	
P		D	5905-833-5813	X					F	E270 RESISTOR, FIXED, FILM 81349 RN60C6651F	EA	1					8			3			A1R1	
P	D		5905-847-5055	X					F	E271 RESISTOR, FIXED, FILM 81349 RN60CR661F	EA	1	1				8			3			A1R16	

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(1)			REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4)	(5)	(6)	(7)						(8)	(9)	(10)				
(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(2) FEDERAL STOCK NUMBER	(3)						U N I T O F I S S U E	QTY INC IN UNIT PK	QTY INC IN UNIT	30 DAYS MAINT. ALW.						1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	DEPOT MAINT ALW PER 100 EQUIP	ILLUSTRATION			
				MODEL									I N D C D	D E S C R I P T I O N	DS			GS			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N		
				1	2	3	4	5	6						(A) 1-20	(B) 21-50	(C) 51-100	(A) 1-20					(B) 21-50	(C) 51-100
				X					F	E272 RESISTOR, VARIABLE SAME AS E026	EA	REF											A1R6	
				X					F	E273 RESISTOR, VARIABLE SAME AS, E026	EA	REF											A1R30	
				X					F	E274 RESISTOR, VARIABLE SAME AS E026	EA	REF											A1R50	
				X					F	E275 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR5	
				X					F	E276 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR6	
				X					F	E277 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR7	
				X					F	E278 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR8	
				X					F	E279 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR9	
				X					F	E280 SEMICONDUCTOR DEVICE, DIODE SAME AS E028	EA	REF											A1CR13	

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A6-127

(A) S O U R C E C D	(B) M A I N T C D C	(C) R E C O D E	(1) REPAIRS PARTS FOR DIRECT SUPPORT, GENERAL SUPPORT, AND DEPOT MAINTENANCE						(4) U N I T O F I S S U E	(5) QTY INC IN UNIT PK	(6) QTY INC IN UNIT	(7) 30 DAYS MAINT. ALW.						(8) 1 YEAR ALW PER 100 EQUIP CNTG CY PLAN	(9) DEPOT MAINT ALW PER 100 EQUIP	(10) ILLUSTRATION				
			(2) FEDERAL STOCK NUMBER	(3) M O D E L								I N D C D	(3) D E S C R I P T I O N	D S			G S			(A) F I G. N O.	(B) I T E M O R S Y M B O L D E S I G N			
				1	2	3	4	5						6	(A) 1-20	(B) 21-50	(C) 51-100					(A) 1-20	(B) 21-50	(C) 51-100
				X				B	E392 TERMINAL BOARD SAME AS E391	EA	REF								TB3					
X2	H			X				B	E395 TERMINAL BOARD 71785 3-142 3-4W	EA	1								TB4					
C	H			X				*	E396 SCREW, MACHINE COML 8-32X5-8RHSTLCRP	EA	2								H55					
				X				*	E397 WASHER, LOCK SAME AS B585	EA	REF								H56					
X2	H	5940		X				B	E398 TERMINAL BOARD 71785 357-23-06-001	EA	1								TB1					
C	H			X				*	E399 SCREW, MACHINE COML 8-32X1-2RHSTLCRP	EA	2								H57					
				X				*	E400 WASHER, LOCK SAME AS B585	EA	REF								H58					

Section III. Federal Stock Number Cross Reference Index

FEDERAL STOCK NO.	FIGURE NO.	INDEX NO.	FEDERAL STOCK NO.	FIGURE NO.	INDEX NO.	FEDERAL STOCK NO.	FIGURE NO.	INDEX NO.
5815-891-4562		A9	5905-279-1933	6-67	R5	5910-772-9722	6-63	C10
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5905-171-1999	6-59	R2	5905-279-2022	6-73	R2	5910-913-0234	6-63	C6
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5935-726-6483	2-5	A2P12	5961-837-5724	6-96	A4CR1	7440-113-0839	6-1	A220
5935-726-6484	2-5	P15A	5961-844-0686	6-96	A4Q2	7440-113-0840	6-1	A134
5935-731-0138	2-5	A2P7				7440-113-0841	6-1	A102
5935-755-3447	2-5	J1	5961-930-5587	6-90	A3A4Q8	7440-113-0842	6-47	A213
5935-755-3767	6-96	A4P1	5961-931-Y244	6-49	Q1-1	7440-113-0843	6-69	A310
5935-765-6355	2-5	A2P8	5961-967-8107	6-96	A4SCR1	7440-113-0844	6-75	A208
5935-765-8592	2-6	A6J2	5961-990-4605	6-56	A4Q1	7440-113-0845	6-1	A402
5935-822-5807	2-5	A2MP7	5961-990-5370	6-6	A2Q1	7440-113-0846	6-1	A1016
5935-830-6348	6-51	XK1	5961-998-5224	6-96	A4Q12	7440-113-2993	6-4	A1A422
5935-880-7893	6-1	A6J5	5962-684-8336	6-1	1C1	7440-113-2994	6-47	A209
5935-880-7894	2-5	P18	5962-814-0438	6-1	1C1	7440-113-2995	6-55	A109
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By Order of the Secretaries of the Army and Navy:

Official:

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The Metric System and Equivalents

Linear Measure

1 centimeter = 10 millimeters = .39 inch
 1 decimeter = 10 centimeters = 3.94 inches
 1 meter = 10 decimeters = 39.37 inches
 1 dekameter = 10 meters = 32.8 feet
 1 hectometer = 10 dekameters = 328.08 feet
 1 kilometer = 10 hectometers = 3,280.8 feet

Weights

1 centigram = 10 milligrams = .15 grain
 1 decigram = 10 centigrams = 1.54 grains
 1 gram = 10 decigrams = .035 ounce
 1 decagram = 10 grams = .35 ounce
 1 hectogram = 10 decagrams = 3.52 ounces
 1 kilogram = 10 hectograms = 2.2 pounds
 1 quintal = 100 kilograms = 220.46 pounds
 1 metric ton = 10 quintals = 1.1 short tons

Liquid Measure

1 centiliter = 10 milliliters = .34 fl. ounce
 1 deciliter = 10 centiliters = 3.38 fl. ounces
 1 liter = 10 deciliters = 33.81 fl. ounces
 1 dekaliter = 10 liters = 2.64 gallons
 1 hectoliter = 10 dekaliters = 26.42 gallons
 1 kiloliter = 10 hectoliters = 264.18 gallons

Square Measure

1 sq. centimeter = 100 sq. millimeters = .155 sq. inch
 1 sq. decimeter = 100 sq. centimeters = 15.5 sq. inches
 1 sq. meter (centare) = 100 sq. decimeters = 10.76 sq. feet
 1 sq. dekameter (are) = 100 sq. meters = 1,076 sq. feet
 1 sq. hectometer (hectare) = 100 sq. dekameters = 2.47 acres
 1 sq. kilometer = 100 sq. hectometers = .386 sq. mile

Cubic Measure

1 cu. centimeter = 1000 cu. millimeters = .06 cu. inch
 1 cu. decimeter = 1000 cu. centimeters = 61.02 cu. inches
 1 cu. meter = 1000 cu. decimeters = 35.31 cu. feet

Approximate Conversion Factors

To change	To	Multiply by	To change	To	Multiply by
inches	centimeters	2.540	ounce-inches	Newton-meters	.007062
feet	meters	.305	centimeters	inches	.394
yards	meters	.914	meters	feet	3.280
miles	kilometers	1.609	meters	yards	1.094
square inches	square centimeters	6.451	kilometers	miles	.621
square feet	square meters	.093	square centimeters	square inches	.155
square yards	square meters	.836	square meters	square feet	10.764
square miles	square kilometers	2.590	square meters	square yards	1.196
acres	square hectometers	.405	square kilometers	square miles	.386
cubic feet	cubic meters	.028	square hectometers	acres	2.471
cubic yards	cubic meters	.765	cubic meters	cubic feet	35.315
fluid ounces	milliliters	29.573	cubic meters	cubic yards	1.308
pints	liters	.473	milliliters	fluid ounces	.034
quarts	liters	.946	liters	pints	2.113
gallons	liters	3.785	liters	quarts	1.057
ounces	grams	28.349	liters	gallons	.264
pounds	kilograms	.454	grams	ounces	.035
short tons	metric tons	.907	kilograms	pounds	2.205
pound-feet	Newton-meters	1.356	metric tons	short tons	1.102
pound-inches	Newton-meters	.11296			

Temperature (Exact)

°F	Fahrenheit temperature	5/9 (after subtracting 32)	Celsius temperature	°C
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