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TECHNICAL MANUAL
OPERATION AND MAINTENANCE INSTRUCTIONS

PHOTO INTERPRETATION CONSOLE (PIC)
AR-143B, AR-143C, AR-143D, AR-143E

TEXAS INSTRUMENTS INCORPORATED
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4-21	0	4-63	0	6-2 Blank	0
4-22 Blank	0	4-64 Blank	0	6-3-6-227	0
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6-248 Blank	0	6-275	0	6-302 Blank	0
6-249	0	6-276 Blank	0	6-303	0
6-250 Blank	0	6-277	0	6-304 Blank	0
6-251	0	6-278 Blank	0	6-305	0
6-252 Blank	0	6-279	0	6-306 Blank	0
6-253	0	6-280 Blank	0	6-307	0
6-254 Blank	0	6-281	0	6-308 Blank	0
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TABLE OF CONTENTS

TABLE OF CONTENTS (CONTINUED)

LIST OF ILLUSTRATIONS

LIST OF ILLUSTRATIONS (CONTINUED)

LIST OF ILLUSTRATIONS (CONTINUED)

LIST OF TABLES

LIST OF TABLES (CONTINUED)

LIST OF TABLES (CONTINUED)

SECTION I
GENERAL DESCRIPTION

1-1. INTRODUCTION.

1-2. The sections within this manual contain information necessary to operate and maintain the Photo Interpretation Console AR-143B, AR-143C, AR-143D, and AR-143E. This section contains introductory information pertaining to the console, section II contains installation procedures, section III contains operating instructions, section IV contains theory of operation and functional diagrams, section V contains maintenance instructions, and section VI contains two-way wiring lists and printed circuit board schematic diagrams. Table 1-1 provides a list of related publications.

WARNING

Do not puncture mapboard front surface with any object, including thumbtacks or nails. High voltage (6.5 kV) exists behind surface.

1-3. The Photo Interpretation Console (figure 1-1), hereinafter referred to as the console, is utilized to support and assist the Photo Interpreter (PI) in the following operations.

a. Viewing imagery, transparencies, maps, and overlays.

Table 1-1. Related Publications

Publication Title	Publication Number
Operation and Maintenance Instructions, Interpretation-Data Processing Group OL-81(V)/TYQ-11(V)	T.O. 10M1-7-6-1
Operation and Maintenance Instructions, Augmented Interpretation-Data Processing Group OL-87(V)/TYQ	T.O. 10M1-7-5-1 TM 11-5895-1029-14 TM 08045-15/11
Operation and Maintenance Instructions, Indicator-Control Group OD-145/TYQ	T.O. 10H6-12-4-1 TM 11-5895-1024-14 TM 08045-15/8
Illustrated Parts Breakdown, Photo Interpretation Console AR-143B	T.O. 10H9-20-4 TM 11-5895-1022-24P TM 08046A
Test Procedures Manual	T.O. 10M1-7-9-8-2 TM 11-5895-1021-14-4 TM 08045-15/4
Workcards, Periodic Inspection Requirements for Imagery Interpretation Segment AN/TYQ-11(V) and AN/TYQ-12(V)	T.O. 10M1-7-9-6WC-4 TM 11-5895-1021-14/2 TM 08045-15/2
Operation and Maintenance Instructions, Code Matrix Reader BR-24B, 348-0000-000-01	T.O. 10F3-7-1 TM 11-5895-1023-14

b. Interface with Automatic Data Processing (ADP) system.

The console consists of a Film Transport, Direct-View Display, Stereo Zoom Microscope, and a Map Display. It also provides electrical and mechanical interface for the Code Matrix Reader BR-24B and the Indicator Control Group. The Film Transport consists of the Direct-View Display and the Code Matrix Reader. The Direct-View Display consists of a direct viewing surface, stereo viewing surface, film slack loop assembly, and film cursor. The viewing surfaces are back-lighted diffused glass and provide a background for viewing imagery. The slack loop assembly is used with the Stereo Zoom Microscope to provide stereo viewing capability. The film cursor consists of a movable optical assembly located under the direct viewing surface. The cursor is projected onto the viewing surface and provides a means to enter positional data into the CPU. The Mapboard is used to mount maps, and the map cursor provides a means to enter positional data from the map into the CPU.

1-4. DESCRIPTION OF EQUIPMENT.

1-5. This manual contains Operation and Maintenance Instructions for the console.

1-6. Equipment covered by this manual is illustrated in figure 1-1.

1-7. PHYSICAL DESCRIPTION. Table 1-2 lists the components of the console, table 1-3 lists the equipment required but not supplied, and table 1-4 lists the physical and electrical characteristics of the console. Figure 1-2 illustrates the location of the major assemblies of the console.

1-8. CONSOLE INTERFACE. Under normal conditions the console is installed in a transportable shelter and is interfaced with other equipment such as a Digital Computer and a 120 Vac, 3-phase, 400 Hz power source. Figure 1-3 shows the functional inputs and outputs of the console. Three-phase power is provided to the console from a power panel inside the shelter. The console then distributes 3-phase power to the Code Matrix Reader electronics and the Indicator Control Group. The Digital Computer provides film and cursor control functions to the console, and the console in turn supplies the Digital Computer with film and cursor feedback data. As film is processed through the console, code blocks on the film are processed by the Code Matrix Reader. In addition to electrical interface, the shelter also provides facilities for exhausting hot air from the console. The console may be operated separately from the shelter if adequate power is provided.

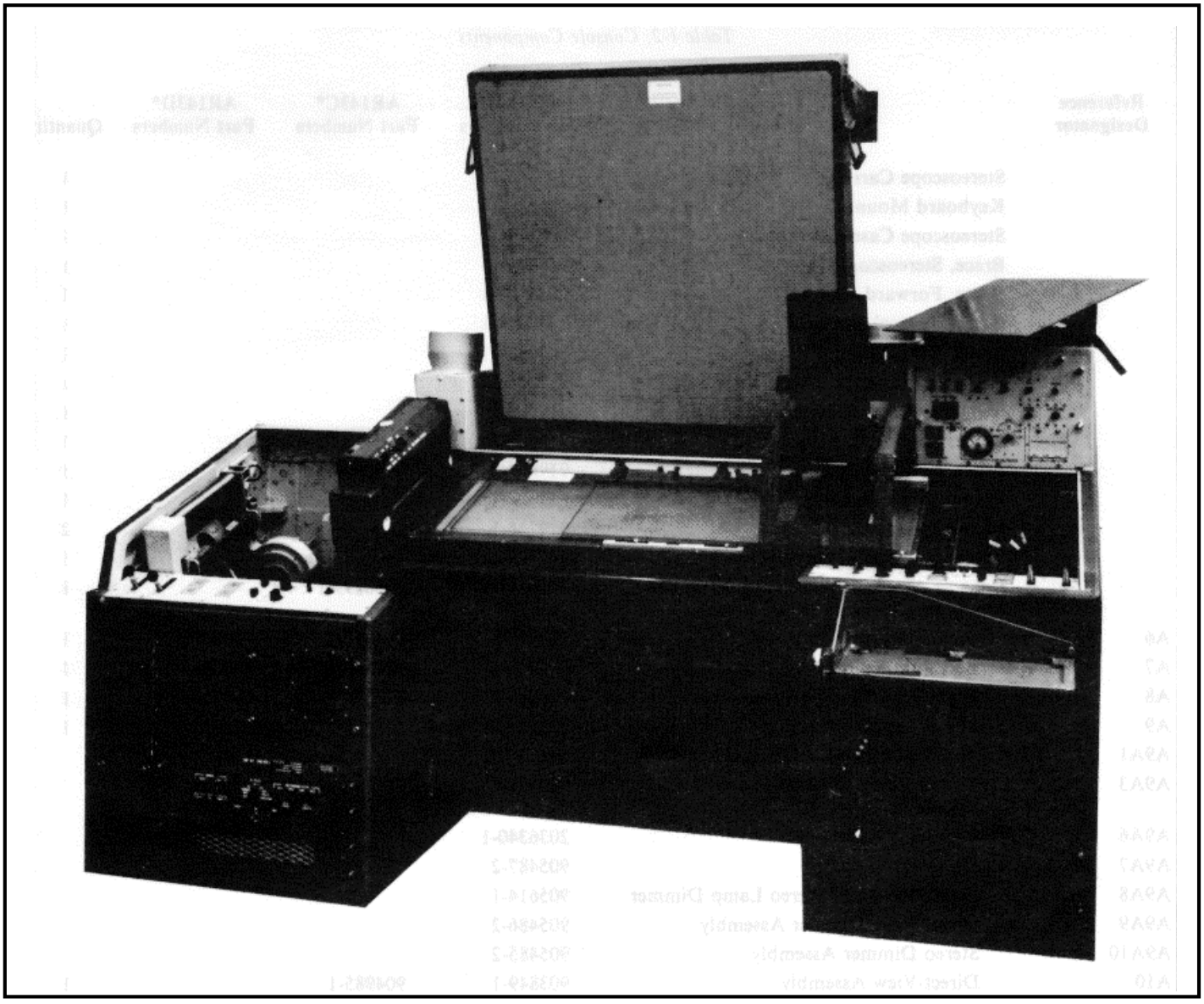


Figure 1-1. Photo Interpretation Console

Table 1-2. Console Components

Reference Designator	Nomenclature	AR143B and AR143E Part Numbers	AR143C* Part Numbers	AR143D* Part Numbers	Quantity
	Stereoscope Carriage	903850-1			1
	Keyboard Mount	905085-1			1
	Stereoscope Case Assembly	904157-1			1
	Brace, Stereoscope Carriage	917871-1			1
	Brace, Forward Kneewell	2036388-1			1
	Brace, Vertical Kneewell	2036389-1			1
	Brace, Rear Kneewell	2036387-1			1
	Actuator, Shipping, Direct View	917904-1			1
	Shipping Brace, Mount, Stereoscope	919718-1			1
	Brace, Keyboard	919656-1			1
	Brace, Rail Shipping	919687-2	919687-1		1
	Brace, Stereo Shipping	919684-1			1
	Film Arm Shipping Brace	919735-1			2
	Bracket, Shipping, Direct View	917903-1			1
	Console Assembly (consisting of the following major electrical assemblies)	2036213-1	2036299-1		
A6	Mapboard Assembly	903847-2	903847-1	2455520-1	1
A7	Left Film Transport Assembly	903845-2	903845-1	903845-1	1
A8	Right Film Transport Assembly	903846-2	903846-1	903846-1	1
A9	Power Supply Assembly	2036342-1	904985-1	2455513-1	1
A9A1	+15 Vdc and +5 Vdc Regulator	905587-1			
A9A3	Reticle Lamp Dimmer and +28 Vdc Regulator	905578-1			
A9A6	Regulator Assembly	2036340-1			
A9A7	Heatsink Assembly	905487-2			
A9A8	Direct-View and Stereo Lamp Dimmer	905614-1			
A9A9	Direct-View Dimmer Assembly	905486-2			
A9A10	Stereo Dimmer Assembly	905485-2			
A10	Direct-View Assembly	903849-1	904985-1		1
A11	Left Control Panel Assembly	2036366-1	903851-1		1
A12	Right Control Panel Assembly	903852-3	903852-1	2455515-1	1
A13	Power Distribution Assembly	2036346-1	903853-1	2455518-1	1
A13A1	Voltage Tolerance and 28 Vdc Regulator	905584-1			
A13A2, A3	Lamp Temperature Controller	905617-1			
A13A4	Lamp Temperature Control Assembly	905419-1			
A13A5	Control 28 Vdc Regulator	905209-2			
A14	Cursor Electronics	2036371-1	903856-1	2455521-1	1
A14A1, A2, A3, A14A5, A7, A13 and A15	Motor Driver Power Driver No. 1	905593-2 905123-2			

Table 1-2. Console Components (Continued)

Reference Designator	Nomenclature	AR143B and AR143E Part Numbers	AR143C* Part Numbers	AR143D* Part Numbers	Quantity
A14A6, A8, A14 and A16	Power Driver No. 2	905124-2			
A14A9, A11	Oscillator and Rate Limit	905611-1			
A14A10	Fast Command and Joystick Amplifier	905608-1			
A14A17, A18, A19 and A20	Cursor Motor Translator	905602-1			
A14A22, A23	Heatsink Assembly	905129-2			
A14A24, A25, A26 and A27	Cursor Control Logic	905605-1			
A14A28, A29	Encoder Interface	905596-1			
A14A30	6 Vdc Regulator	905590-1			
A14A31	28 Vdc Regulator	905581-1			
A15	Film Transport Electronics	903855-1	903856-1	2455516-1	1
A15A1, A6	Film Transport Rate Command	905575-1			
A15A2, A3, A7 and A8	Film Transport Preamplifier	905623-1			
A15A4, A9	Film Transport Control Logic	905599-1			
A15A5	28 Vdc Regulator	905581-1			
A15A11, A12	Power Amplifier	905448-2			
A17	High-Voltage Box Assembly	2041702-1	2041702-2	2041702-2	1
A17A1	Direct-View Power Supply	325331-1	2041702-2		1
A17A2	Stereo-View Power Supply	325332-1	2041702-2		1
A18	RFI Filter	905472-1	2041702-2		1
A19	Transformer/Rectifier Assembly	2036361-1	903857-1	2455517-1	1
A21	Stereo Housing Assembly	904042-1	903857-1		1
A22	Junction Box	905187-1	903857-1		1
A23	Slack Loop Assembly	903962-2	903962-1	903962-1	1
A25	Starter Assembly	905520-1	903962-1		1
A26	Choke Assembly	2041635-1	919725-1		1
A27	Left Fan Assembly	2036323-1	2036323-2	2036323-2	1
A28	Right Fan Assembly	2036353-1	2041646-1	2041646-1	1
A29	Resistor Assembly	2085462-1			1
A30	CPU Connector Housing	904395			
	Stereoscope Carriage Assembly	903850-1	20416461		1

Table 1-2. Console Components (Continued)

Reference Designator	Nomenclature	AR143B and AR143E Part Numbers	AR143C* Part Numbers	AR143D* Part Numbers	Quantity
W1	Cable Assembly	905698-2			1
W2	Cable Assembly	905699-1			1
W3	Cable Assembly	905700-1			1
W4	Cable Assembly	905701-1			1
W5	Cable Assembly	2041561-1			1
W6	Cable Assembly	2041562-1			1
W7	Cable Assembly	905824-1			1
W8	Cable Assembly	905705-1			1
W9	Cable Assembly	905706-1			1
W10	Cable Assembly	905707-1			1
W11	Cable Assembly	905708-1			1
W12	Cable Assembly	905709-1			1
W13	Cable Assembly	905710-1			1
W14	Cable Assembly	905711-1			1
W15	Cable Assembly	905712-1			1
W16	Cable Assembly	905713-1			1
W17	Cable Assembly	905714-1			1
W18	Cable Assembly	905715-1			1
W19	Cable Assembly	905716-1			1
W20	Cable Assembly	905717-1			1
W21	Cable Assembly	905718-1			1
W23	Cable Assembly	2036377-1			1
W24	Cable Assembly	905721-1			1
W30	Cable Assembly	2036375-1			1
W31	Cable Assembly	905824-2			1
W32	Cable Assembly	905824-3			1
W33	Cable Assembly	905824-4			1
W34	Cable Assembly	905731-1			1
W35	Cable Assembly	905732-1			1
W36	Cable Assembly	905733-1			1
W37	Cable Assembly	905734-1			1
W38	Cable Assembly	905735-1			1
W39	Cable Assembly	905736-1			1
W40	Cable Assembly	905737-1			1
W41	Cable Assembly	905738-1			1
W42	Cable Assembly	905739-1			1
W43	Cable Assembly	905740-1			1
W44	Cable Assembly	905741-1			1

Table 1-2. Console Components (Continued)

Reference Designator	Nomenclature	AR143B and AR143E Part Numbers	AR143C* Part Numbers	AR14E3* Part Numbers	Quantity
W45	Cable Assembly	905742-1			1
W46	Cable Assembly	905743-1			1
W48	Cable Assembly	905745-1			1
W49	Cable Assembly	905746-1			1
W50	Cable Assembly	905747-1			1
W51	Cable Assembly	2062114-1			1
W52	Cable Assembly	2062113-1			1
W54	Cable Assembly	902687-1			1
W58	Cable Assembly	905748-1			1
W61	Cable Assembly	905824-5			1
W62	Cable Assembly	905824-6			1
W63	Cable Assembly	905824-7			1
W64	Cable Assembly	905824-8			1
W68	Cable Assembly	905807-1			1
W69	Cable Assembly	2085489-1			1
W70	Cable Assembly	905824-9			1
W71	Cable Assembly	905669-1			1
	Stereoscope Transit Case	904156-1			1

*If no number appears in the column, it is the same as the AR143B and AR143E Part Number.

Table 1-3. Equipment Required But Not Supplied

Nomenclature	Part Number
Indicator Control Group OD-145 (QRU) consisting of:	903630-2
Indicator, Video IP-1354/TYQ	2037602-1
Electronic Component Assembly MX-10082/TYQ	2053943-1
Keyboard, Data Display MX-10081/TYQ	2053941-1
Computer, Digital CP-1406/TYQ (CPU)	2355349-1
Code Matrix Reader Film Gate Assembly BM-58A	348-1000-000-01 (Fairchild Hiller)
Code Matrix Reader Electronics BM-57A	348-2000-000-01 (Fairchild Hiller)
Cable W55 (W1 in T.O. 10F3-7-1)	348-3001-030-01 (Fairchild Hiller)
Cable W56 (W2 in T.O. 10F3-7-1)	348-3002-030-01 (Fairchild Hiller)

Table 1-4. Physical and Electrical Characteristics

Characteristic	Specification
CONSOLE	
Weight (excluding items in table 1-3 and associated cables)	1,500 pounds in transport mode
Height	52 inches maximum
Width	87.25 inches maximum
Depth (in transport mode)	43.8 inches maximum
(drawers, keyboard mount and hinge plate removed)	35.25 inches maximum
Power Consumption (excluding items in table 1-3)	4,150 volt-amperes maximum
Voltage Requirement	120 ±12 Vac, 3-phase, 400-Hz, 4-wire (line to neutral)
Film Transports	
Film Capability (Color or Black and White)	70 mm, two rolls side-by-side, 10½-inch-diameter spool. 5 inch, two rolls side-by-side, 10½-inch-diameter spool. 70 mm and 5 inch side-by-side, 10½-inch-diameter spools. 9.5 inch, 7.63-inch-diameter spool.
Film Thickness	0.0025 to 0.012 inch.
Film Speed	0 to 40 inches per second operator controlled. Slow speed computer controlled adjustable from 2 to 4 inches per second. Fast speed computer controlled adjustable from 4 to 40 inches per second.
Film Acceleration	Maximum of 100 inches per second squared.
Direct View Display	
Main Viewing Surface Area	12 by 32 inches
Illumination	≥2,000 footlamberts at maximum brightness with 10 to 1 dimming range.
Stereo Viewing Surface Area	4.5 by 12 inches
Illumination	≥2,000 footlamberts at maximum brightness with 10 to 1 dimming range.
Slack Loop	Collects up to 95 inches of film.
Film Cursor Type	Projected reticle
Film Cursor Travel Area	11 by 30 inches
Film Cursor Speed	0 to 2.5 inches per second operator controlled. Slow speed computer controlled 0.3 inch per second minimum (300 pps). Fast speed computer controlled 2.5 inches per second minimum (2,500 pps).
Film Cursor Accuracy	±0.004 inch or ±0.2 percent, whichever is greater.
Stereo Zoom Microscope	
Magnification	3.5X to 60X monocular 3X to 60X stereo

Table 1-4. Physical and Electrical Characteristics. (Continued)

Characteristic	Specification
Resolution	180 line pairs per millimeter on axis at 30X.
Image Rotation	±180 degrees continuously variable.
Mapboard	
Weight (excluding supports)	90 pounds
Height	3 feet
Width	3 feet
Depth	6 inches
Type	Electrostatic
Map Cursor	
Type	Crossed wire
Travel Area	30 by 30 inches
Speed	0 to 3 inches per second operator controlled. Slow speed computer controlled 0.6 inch per second minimum (300 pps), (150 pps to Computer). Fast speed computer controlled 3 inches per second minimum (1,500 pps), (750 pps to Computer).
Accuracy	±0.01 inch or 0.2 percent, whichever is greater.
Stereoscope Storage Case	
Weight	29 pounds with stereoscope
Height	13.5 inches maximum
Width	22.6 inches maximum
Depth	16.6 inches maximum
Temperature Control	Maintains temperature of case between 660 and 120°F. Input power of 120 Vac, single phase 400 Hz.
Keyboard Mount	
Weight	9 pounds
Height	5.25 inches
Width	17.66 inches
Depth	8.5 inches.

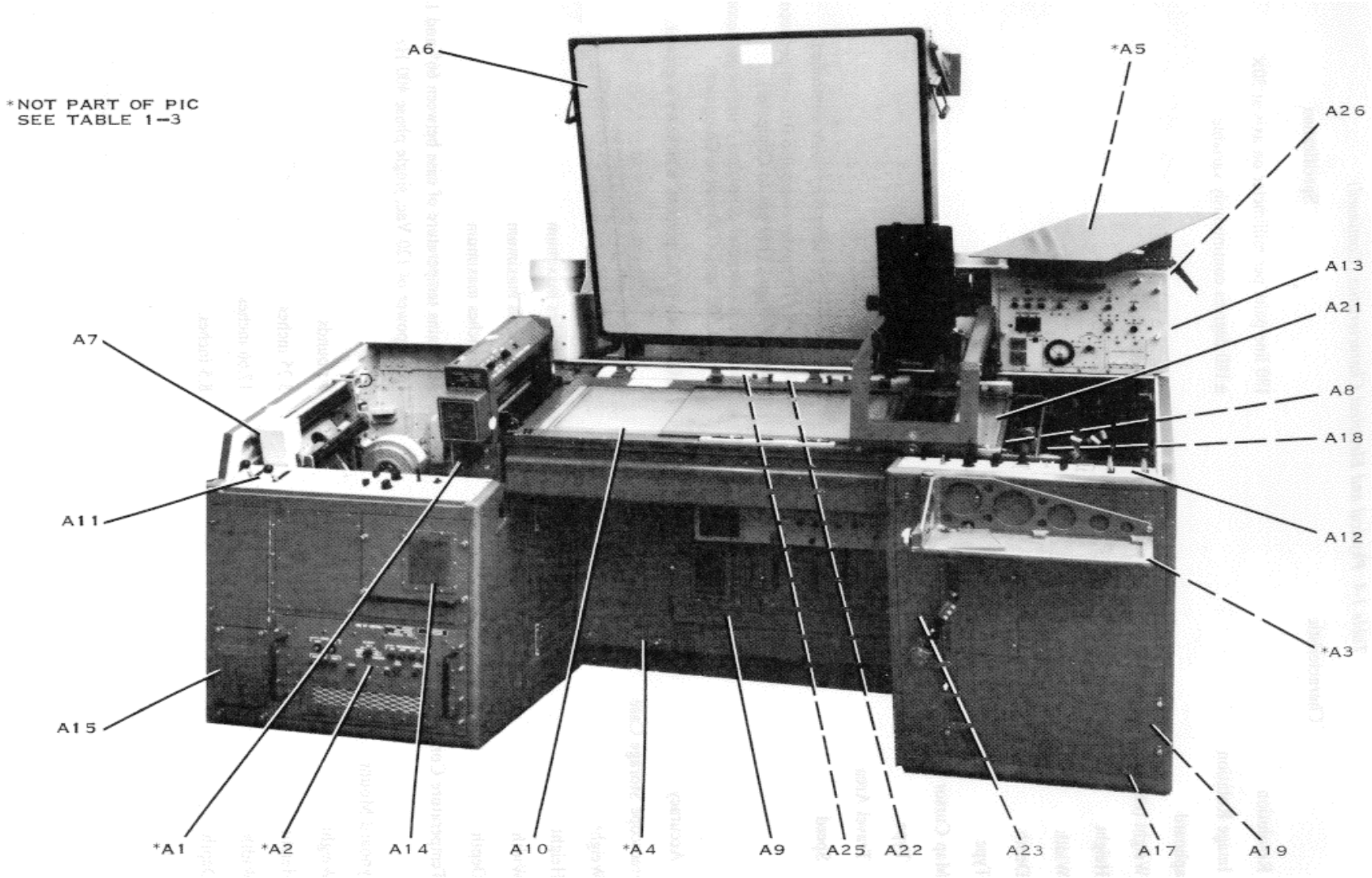


Figure 1-2. Console Major Assemblies

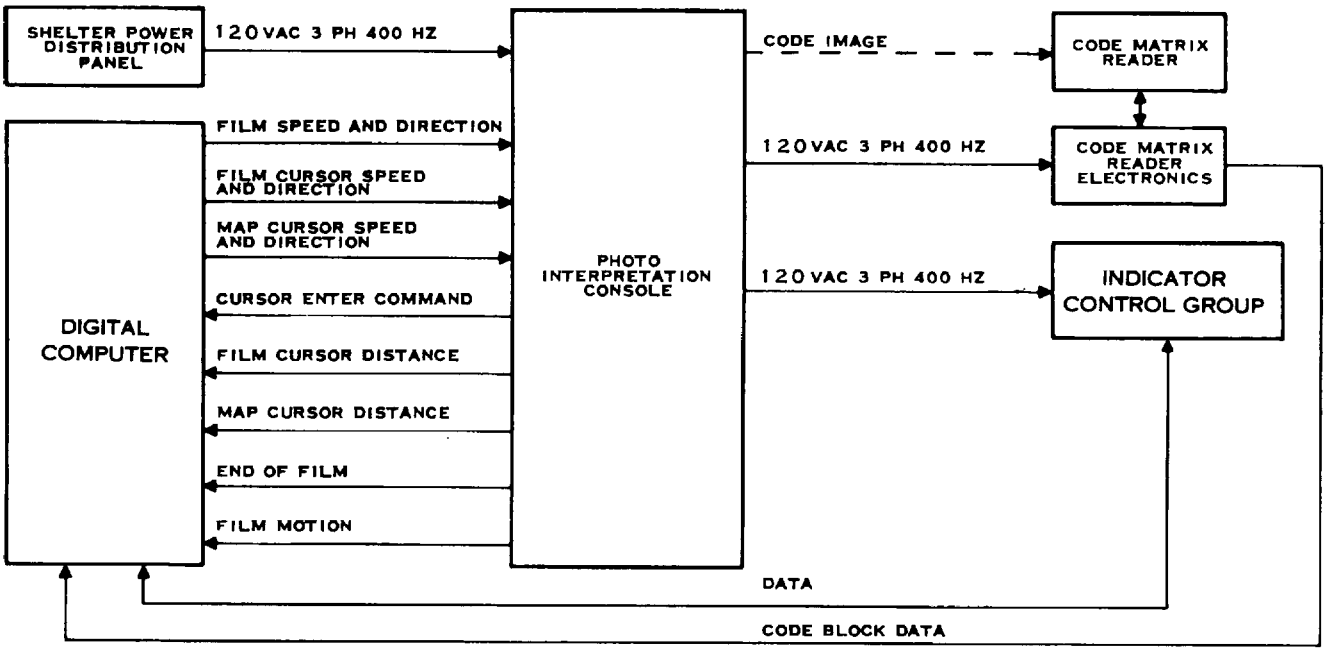


Figure 1-3. Console Interface Block Diagram

SECTION II
INSTALLATION

2-1. GENERAL.

2-2. This section contains instructions on preparation for use and preparation for shipment of the console when installed in the shelter. Included within this section are procedures for unpacking, cabling information, power checking the console, and packing instructions.

2-3. PREPARATION FOR USE.

CAUTION

The following shipping braces, when secured, restrain motor-driven or sensing elements of the console. Loosen or remove braces before changing position of these elements:

a. Actuator, shipping, direct view (12, figure 2-1)
b. Film arm shipping brace (10, figure 2-1)
c. Bracket, shipping, direct view (I , figure 2-1 and I, figure 2-2).

2-4. UNPACKING. The console is shipped with structural shipping braces. securing assemblies at various strategic points. The shipping braces are painted yellow for ease in identification. Mounting hardware is either captive to the braces or remounts to the console. Figure 2-1 shows the location of the 12 shipping braces and should be referred to throughout the following procedures. Table 2-1 shows the inventory checklist for all the shipping braces. Perform the following steps to remove the shipping braces and to0 prepare the console for operation.

a. Prior to removing shipping braces, inspect console exterior for obvious damage. Report all irregularities to proper authorities.

b. Kneewell tube assembly braces. Remove four tube assembly braces (1, figure 2-1) from kneewell as follows:
   1. Loosen tube assembly brace by rotating tube portion of brace.
   2. Remove nut and bolt securing both ends of brace to other kneewell brace assemblies.
   3. Remove brace from kneewell.

c. Release vertical kneewell brace (2, figure 2-1), part number 2036389-1, as follows:
   1. Loosen three captive %,-inch hex-head bolts securing brace member to left side of console frame.
   2. Loosen captive 5%,-inch hex-head bolt securing brace member to forward kneewell brace.
   3. Loosen three captive %-inch hex-head bolts securing brace member to floor and remove brace from kneewell.

d. Remove forward kneewell brace (3, figure 2-1), part number 2036388-1, as follows :
   1. Loosen three captive /,,-inch hex-head bolts securing brace to right side of console frame.
   2. Remove three %/-inch hex-head bolts securing brace to shelter floor and remove brace from kneewell.

e. Remove rear kneewell brace (4, figure 2-1), part number 2036387-1, as follows:

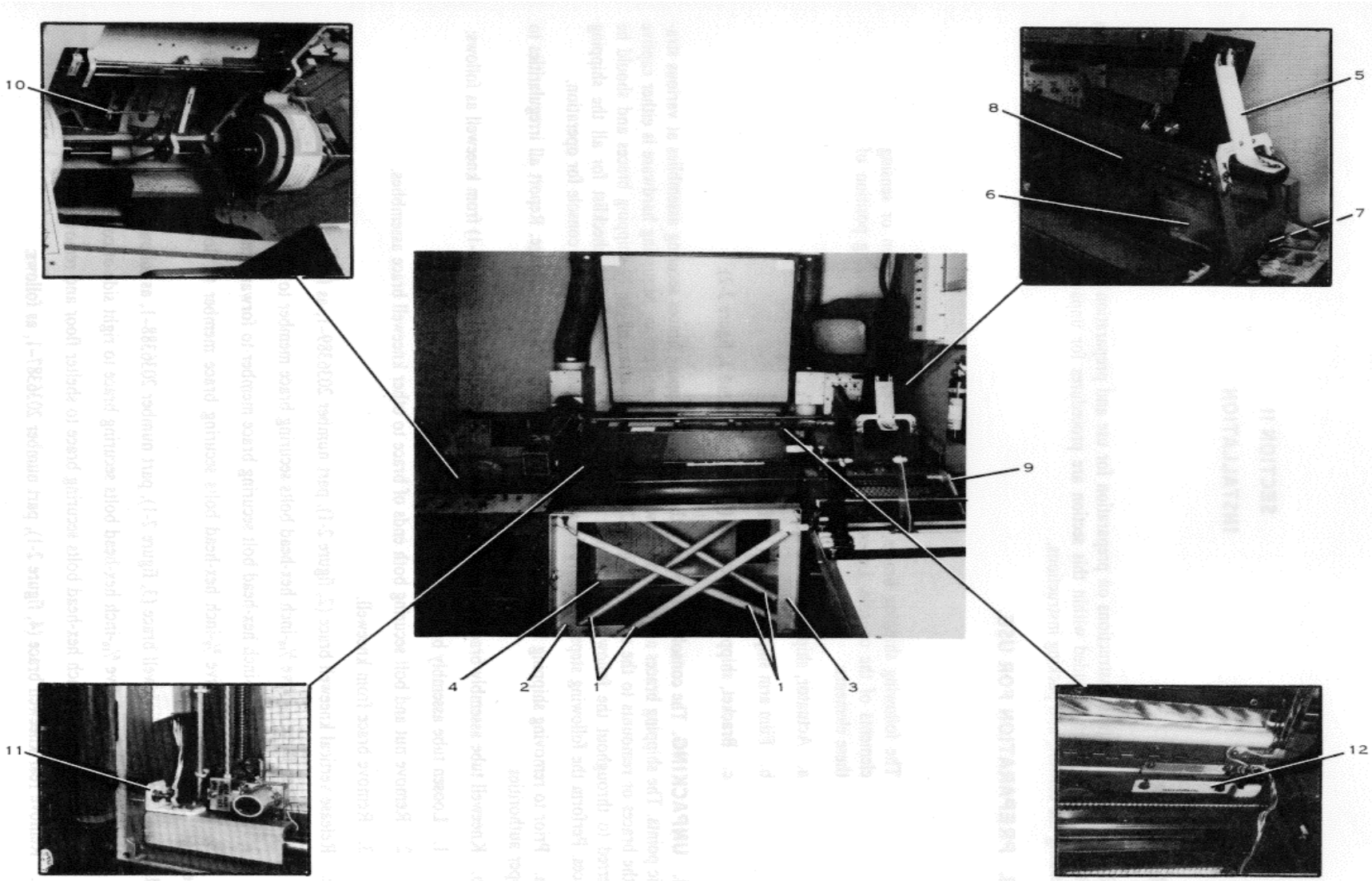


Figure 2-1. Console With Shopping Braces Installed

Table 2-1. Shipping Braces

	Brace Name	Part Number	Quantity
1.	Kneewell Tube Assembly Brace	2036385-1	4
2.	Vertical Kneewell Brace	2036389-1	1
3.	Forward Kneewell Brace	2036388-1	1
4.	Rear Kneewell Brace	2036387-1	1
5.	Stereo Mount Shipping Brace	919718-1	1
6.	Stereo Shipping Brace	919684-1	1
7.	Stereoscope Carriage Brace	917871-1	1
8.	Rail Shipping Brace	919687-1	1
9.	Keyboard Brace	919656-1	1
10.	Film Arm Shipping Brace	919735-1	2
11.	Direct-View Shipping Bracket	917903-1	1
12.	Direct-View Shipping Actuator	917904-1	1

1. Loosen five captive ’/l-inch hex-head bolts securing brace to console frame.
2. Remove rear kneewell brace.

f. Remove stereo mount shipping brace (5, figure 2-1), part number 919718-1, as follows:
1. Loosen two no. 10 hex-head bolts securing lower part of brace to upper part of brace.
2. Loosen four captive no. 10 hex-head bolts securing brace to carriage.
3. Loosen three captive no. 10 hex-head bolts securing brace to stereoscope mount and remove shipping brace.

g. Remove stereo shipping brace (6, figure 2-1), part number 919684-1, as follows:
1. Loosen two no. 10 pan-head screws securing adjustable angle to main brace.
2. Loosen captive no. 10 hex-head bolt securing adjustable angle to stereo stiffener plate.

h. Remove stereoscope carriage brace (7, figure 2-1), part number 917871-1, as follows:
1. Loosen captive ¼-inch hex-head bolt securing brace to carriage assembly.
2. Loosen two captive slot-head screws securing brace to front stereoscope carriage rail and remove brace.
3. Loosen two captive ¼-inch hex-head bolts securing brace to stereoscope carriage brace (7, figure 2-1).
4. Loosen captive ¼-inch hex-head bolt securing brace to front stereoscope rail.
5. Loosen three captive ¼-inch hex-head bolts securing brace to right side of console and remove brace.
6. Tighten two no. 10 pan-head screws loosened in step 2.

NOTE

Install carpet under console kneewell after kneewell braces are removed.

i. Remove rail shipping brace (8, figure 2-1), part number 919687-1, as follows:

1. Loosen two no. 10 pan-head screws securing lower portion of brace to upper portion of brace until washers are relaxed.
2. Loosen two captive no. 10 hex-head bolts securing brace to right side of console.
3. Loosen two no. 10 pan-head screws loosened in step 1 above until brace can be removed.
4. Tighten two no. 10 pan-head screws loosened in steps I and 3 above.

j. Remove keyboard brace (9, figure 2-1), part number 919656-2, as follows:

1. Loosen captive ½-inch hex-head bolt securing brace to console.
2. Loosen two captive no. 10 hex-head bolts securing brace to Keyboard and keyboard mount. If Key-board is not installed, hex nuts and flat washers will be securing these bolts to keyboard mount.
3. Loosen captive, slot-head screw securing keyboard mount to console frame and remove brace.

k. Remove two film arm shipping braces (10, figure 2-1), part number 919735-1, by slipping two leaf-springs off shafts of both Film Transports A7, A8, thus serving as a positive stop for film arms. Remove brace, allowing spring-loaded arms to gently rise.

l. Release direct-view shipping bracket (11, figure 2-1) and (1, figure 2-2), part number 917903-1, as follows:

1. Release stereo carriage X-axis brake (6, figure 3-5) and stop mechanism (5, figure 3-5); move carriage to extreme right position over right film well.
2. Check to see that direct-view platen hinge is in lower position, and that front platen latch is in closed position.
3. Loosen five captive no. 6 flat-head screws along front edge of direct-view lid and raise lid.
4. Remove no. 10 hex nut, lockwasher, and flat washer (2, figure 2-2) securing bracket to left side of direct-view casting and remount them in reverse order on threaded stud (3, figure 2-2) immediately above bracket.
5. Move direct-view cursor to right by rotating screw shaft (4, figure 2-2) at rear until bracket clears stud.
6. Remove no. 10 hex nut (5, figure 2-2) used to back up bracket and mount securely to stud immediately above bracket.

m. Remove direct-view shipping actuator (12, figure 2-1) and (6, figure 2-2), part number 917904-1, as follows:

1. Loosen two no. 6 hex nuts and remove brace.
2. Tighten two no. 6 hex nuts loosened in step I above.
3. Lower direct-view lid and tighten five captive no. 6 flat-head screws along front edge of lid.

n. Connect power cable to stereoscope transit case and to 400 Hz, single-phase facility outlet.

o. When lamp extinguishes on stereoscope transit case, disconnect plug from wall outlet and open stereoscope transit case.

p. Assemble components of stereoscope (figure 2-3) as follows:

CAUTION

Do not touch optical surfaces with bare fingers. Oil from fingers will reduce optical quality of stereoscope.

1. Remove zoom 240 pod (1, figure 2-3) from transit case.

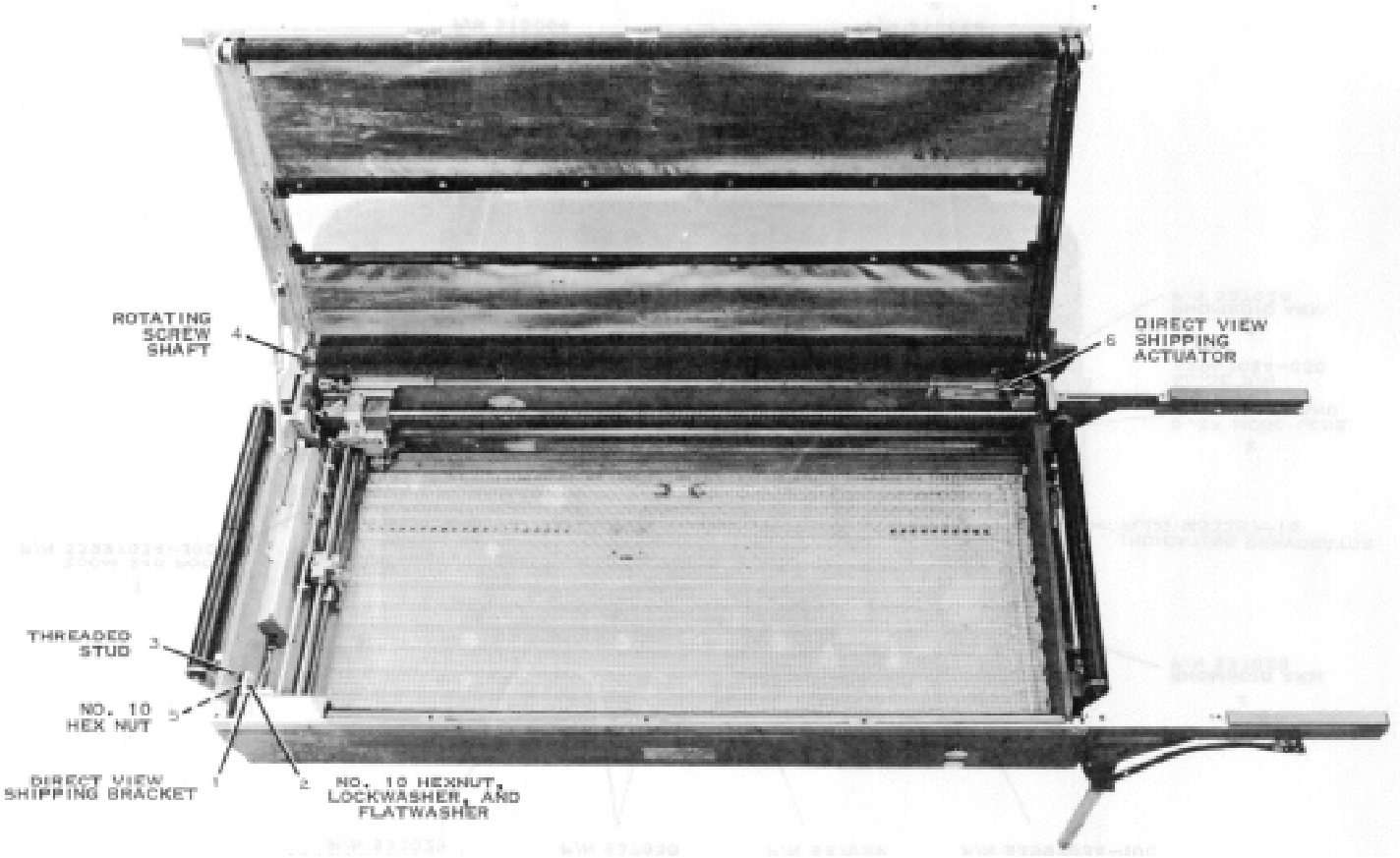


Figure 2-2. Direct View With shipping Braces Installed

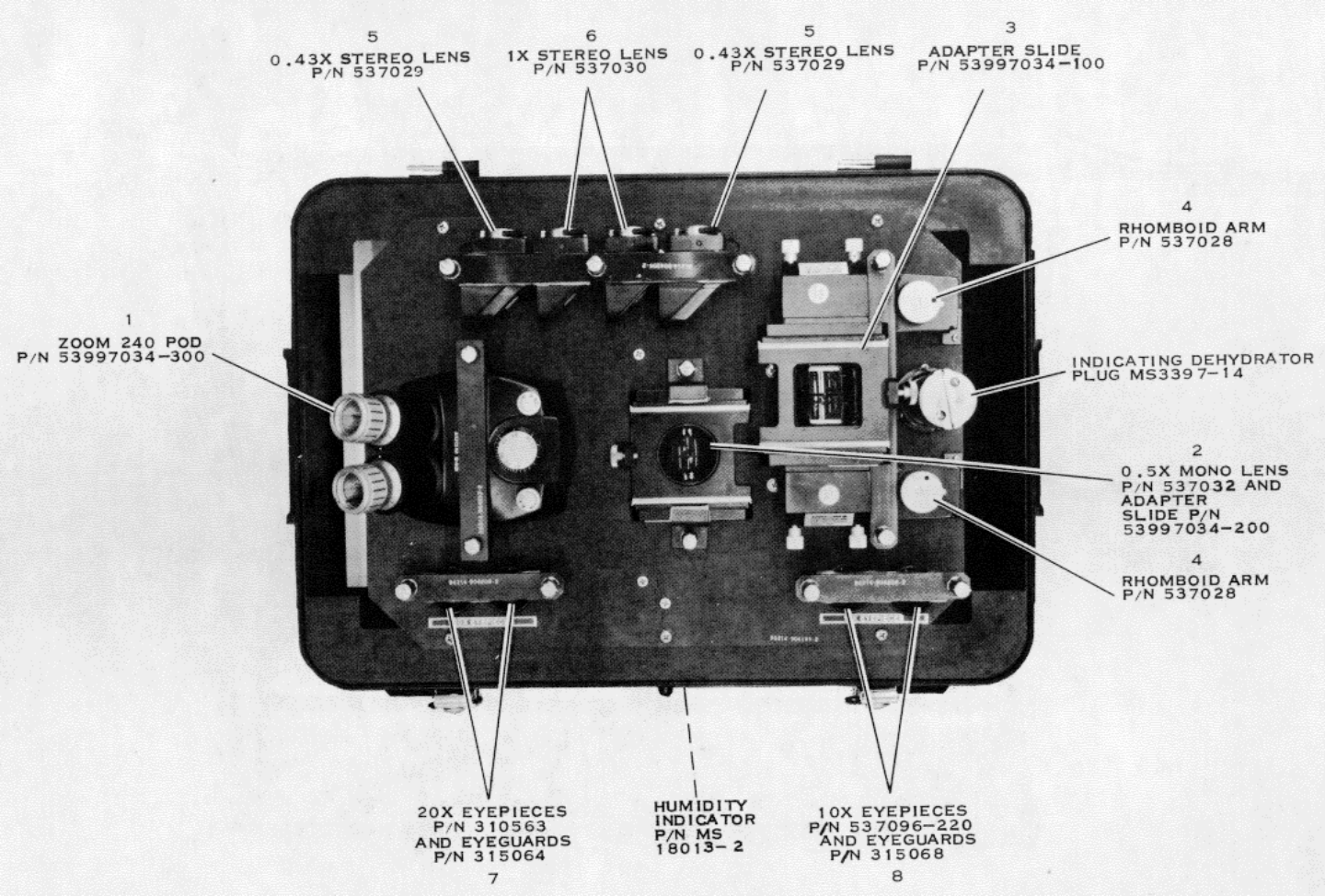


Figure 2-3. Stereoscope Transit Case and Contents

2. Install zoom 240 pod on stereotype carriage (figure 3-5) and tighten two knurled screws.

NOTE

For bionocular viewing, proceed with step 3. For stereo viewing, proceed with step 5.

3. Remove mono lens (2, figure 2-3) from transit case.
4. Slide lens onto bottom of zoom 240 pod and tighten knurled screw on front of lens.
5. Remove adapter slide with rhomboid arms attached (3, figure 2-3) from transit case.
6. Remove rhomboid arms (4, figure 2-3) from adapter slide by loosening two knurled screws on each arm and pulling arm away from slide.
7. Slide adapter onto bottom of zoom 240 pod and tighten knurled screw on front of slide.
8. Lower stereoscope carriage to its lowest point using coarse focus control (1, figure 3-5).
9. Reinstall rhomboid arms on adapter slide, making sure guide pins are engaged properly.
10. Remove desired stereo lens pair (5 or 6, figure 2-3) from transit case and install on rhomboid arms.
11. Remove desired eyepiece pair (7 or 8, figure 2-3) from transit case and slide into zoom 240 pod eyepiece barrel.

q. Inspect indicating dehydrator on stereotype transit case (figure 2-3). If desiccant inside transparent cylinder is blue, the material is still active. If the desiccant is pink, it is becoming saturated with moisture and needs to be replaced.

r. Close stereotype transit case and secure latches.
s. Slide platen latches to the left on direct view and stereo to unlock platens for film loading.

2-5. CABLE CONNECTIONS. Figure 6-1 shows the internal and external cabling connections for the console. Ensure that cabling connections are properly made prior to operating the console after the shelter has been shipped.

2-6. POWER CHECK. Perform the following steps to ensure console is ready for normal operation.

a. Set MAIN POWER SWITCH on Power Distribution Panel A13 to OFF.
b. Set appropriate CONSOLE switch on shelter Power Control Panel to ON.
c. Set switches and controls on console per paragraph 3-6.
d. Perform procedural steps of paragraph 3-7.
e. Perform procedural steps of paragraph 3-16.

2-7. PREPARATION FOR SHIPMENT.

2-8. PRELIMINARY PROCEDURES. Perform the following steps to prepare the console for shipping.

a. Set MAIN POWER SWITCH to ON and place console in OPERATE mode.
b. Remove film and spools from both Transport Assemblies A7, A8, per paragraph 3-15. Lock both spool index mechanisms in center position.
c. Press MAP CURSOR STOW switch to stow map cursor.
d. Drive direct-view cursor to front left corner.

e. Set SLACK LOOP switch to DOWN position to run slack loop to fully down position.
f. Set all switches and controls on console per paragraph 3-17. Set MAIN POWER SWITCH to OFF.
g. Secure panel fasteners to all components of console.
h. Place direct view and stereo view platen hinges in lower position.
i. Secure platens on direct view and stereo view.
j. Remove stereoscope and replace in transit case by performing the following steps.

CAUTION

1. Lower stereoscope carriage to its lowest point using coarse focus control.
2. Remove eyepiece pair from zoom 240 pod eyepiece barrel and place in proper position in transit case.
3. Remove stereo lens pair from rhomboid arms and replace in proper position in transit case.
4. Remove adapter slide with rhomboid arms attached from bottom of zoom 240 pod by loosening knurled screw on front of slide and replace slide in proper position in transit case.
5. Remove mono lens from bottom of zoom 240 pod by loosening knurled screw on front of lens and replace lens in proper position in transit case.
6. Remove zoom 240 pod from stereoscope carriage by loosening two knurled screws and replace pod in proper position in transit case.

k. Adjust coarse focus control (1, figure 3-5) to position mechanism in full down position.
l. Release stereoscope carriage Y-axis brake (4, figure 3-5) and position mechanism in full forward position.
m. Loosen locking knob on left side of keyboard mount and swing Keyboard toward console.

2-9. PACKING. Perform the following steps to install shipping braces to console.

a. Push OPERATE/STANDBY switch on Power Distribution Panel A13. STANDBY indicator shall light.
b. Set MAIN POWER SWITCH on Power Distribution Panel to OFF.
c. Pull CMR circuit breaker on Power Distribution Panel.
d. Set QR/RCU switch on Power Distribution to OFF 9down).
e. Set appropriate CONSOLE switch on shelter Power Control Panel to OFF.
f. Install direct-view shipping actuator (12, figure 2-1) and (6, figure 6-2), part number 917904-1, as follows:
1. Loosen five captive no. 6 flat-head screws along front edge of direct-view lid and raise lid.
2. Position shipping actuator (6, figure 2-2) on two threaded studs, making sure interlock switch is actuated. Secure shipping actuator using two no. 6 hex-head nuts.
3. Proceed to step g. of this paragraph.

g. Secure direct-view shipping bracket (11, figure 2-1) and (1, figure 2-2), part number 917903-1, as follows:
1. Remove no. 10 hex nut from threaded stud (3, figure 2-2) and install on lower threaded stud (5, figure 2-2).

2. Move direct-view cursor to left by rotating screw shaft (4, figure 2-2) until bracket is positioned on threaded stud.
3. Remove no. 10 hex nut, lockwasher, and flat washer from threaded stud (3, figure 2-2).
4. Using hardware removed in step 3, secure bracket to threaded stud.
5. Lower direct-view lid and tighten five captive no. 6 flat-head screws along front edge of lid.
6. Check to see that direct-view platen hinge is in lowered position and that front platen latch is in closed position.

h. Install two film arm shipping braces (10, figure 2-1), part number 919735-1, as follows:

1. Position film arm shipping brace on top of film arms with spring clips pointed down.
2. Press film arms and brace down until spring clips can hook under shaft located beneath film arms.
3. Engage clips with shaft.

i. Install keyboard brace (9, figure 2-1), part number 919656-2, as follows:

1. Install keyboard brace on console.
2. Remove Keyboard from keyboard mount.
3. Loosen position lock, located on left side of keyboard mount.
4. Swing keyboard mount against console and secure to console using knurled screw that is captive in mount.
5. Position Keyboard in keyboard mount and secure Keyboard to mount and brace using two screws attached to brace.
6. Secure Keyboard to mount using screws removed in step 2.

j. Install rail shipping brace (8, figure 2-1), part number 919687-1, as follows:

1. Loosen two no. 10 pan-head screws holding brace and clamp together and position clamp over right end of stereoscope carriage rail.
2. Adjust brace to align holes in brace with tapped holes in right console wall. Install and tighten two no. 10 hex-head bolts to attach brace to console wall.
3. Place clamp against rail and tighten two no. 10 pan-head screws.

k. Install stereo shipping brace (6, figure 2-1), part number 919684-1; and stereoscope carriage brace (7, figure 2-1), part number 917871-1, as follows:

1. Move stereoscope carriage to left, clear of right film transport wall.
2. Attach stereoscope carriage brace (6, figure 2-1) to front stereoscope carrage rail using two captive, slot-head screws. Do not tighten screws.
3. Position stereo shipping brace (6, figure 2-1) so its holes align with holes in stereoscope carriage brace (7, figure 2-1) and holes in right console wall.
4. Install six l/4-inch hex-head bolts to secure stereo shipping brace (6, figure 2-1) to console wall and front stereoscope carriage rail.
5. Loosen two no. 10 pan-head screws securing adjustable angle to stereo shipping brace (6, figure 2-1).
6. Install and tighten on /,-inch hex-head bolt securing adjustable angle to stereo frame.
7. Tighten two pan-head screws loosened in step 5.
8. Slide stereo carriage to right until threaded hole in carriage is aligned with hex-head bolt in stereoscope carriage brace (7, figure 2-1).

9. Tighten two captive slot-head screws in stereoscope carriage brace.
10. Secure carriage to brace with hex-head bolt.

l. Install stereoscope mount shipping brace (5, figure 2-1), part number 919718-1, as follows:

NOTE

Ensure that stereoscope mounting screws are all the way down in stereoscope mount.

1. Loosen two no. 10 hex-head bolts securing two parts of brace together.
2. Attach horizontal member of brace to stereoscope carriage, using four no. 10 hex-head bolts.
3. Lower stereoscope mount all the way.
4. Move stereoscope mount forward and attach vertical brace member to mount using three no. 10 hex-head bolts.
5. Tighten two bolts loosened in step 1.

m. Install rear kneewell brace (4, figure 2-1), part number 2036387-1, as follows:

1. Position brace at rear of console kneewell so that holes in brace line up with holes in console frame.
2. Secure brace to console with five captive %,-inch hex-head bolts.

n. Install forward kneewell brace (3, figure 2-1), part number 2036388-1, as follows:

1. Position brace at front of console kneewell so that holes in brace line up with holes in console frame and holes in shelter floor.
2. Secure brace to console frame with three captive 6/,-inch hex-head bolts.
3. Secure brace to shelter floor with three 3/8-inch hex-head bolts.

o. Install vertical kneewell brace (2, figure 2-1), part number 2036389-1, as follows:

1. Position brace so that holes in brace line up with holes in forward kneewell brace, holes in left side of console kneewell, and holes in shelter floor.
2. Secure brace to console and forward kneewell brace with four %/,-inch hex-head bolts. Secure brace to floor with three '3/-inch hex-head bolts.

p. Install four kneewell tube assembly braces (1, figure 2-1), part numbers 2036385-1 through 2036385-4, as follows:

1. Install all tube assembly braces in positions shown in figure 2-1. Install the -4 assembly in rear mounts, then the -3 assembly next, then the -2 assembly next, and finally the -1 assembly.
2. Secure tube assembly braces to kneewell braces with nuts and bolts.

CAUTION

Do not overtighten tube assembly braces in lengthwise direction. Doing so may crack glass in direct view assembly.

3. Rotate tube portion of braces to tighten brace in lengthwise direction. Tighten only enough to remove slack from brace.

CAUTION

Pull carpet out from underneath console kneewell so kneewell braces can be mounted directly to shelter floor.

SECTION III

OPERATING INSTRUCTIONS

3-1. GENERAL.

3-2. This section contains complete information necessary for energizing, operating, and de-energizing the console. Operating controls and indicators are listed and described in tabular form and illustrated in figures listed in the tables. Operator checks and adjustments are provided to enable the console operator to ensure that the equipment is operational. Operating instructions consist of step-by-step instructions for turning the console on, operating the console, and turning the console off.

3-3. DESCRIPTION OF CONTROLS AND INDICATORS.

3-4. Operating controls and indicators are listed and described in tables 3-1 through 3-7 and illustrated in figures 3-1 through 3-7. The illustration that shows the location of the controls and indicators on a particular assembly is listed in the figure and index number column of the table for that assembly.

3-5. STARTUP.

3-6. The following procedures provide instructions for placing the console in a ready-to-operate condition. The procedures should be performed in the order given to prevent damage to the equipment.

a. Set switches and controls on console as follows:

TRANSPORT MODE switch (Right Control Panel A12)	OFF
REAR FILM VELOCITY control (right control panel)	Center position
FRONT FILM VELOCITY control (right control panel)	Center position
CURSOR SELECT switch (right control panel)	OFF
CURSOR BRIGHTNESS control (right control panel)	OFF (fully ccw)
DIRECT TABLE BRIGHT-NESS control (right control panel)	OFF (full ccw)

b. Ensure that all circuit breakers on power distribution panel A 13 and power supply A9 are in ON position.

c. Set MAIN POWER SWITCH on power distribution panel to ON. POWER ON and STANDBY indicators shall light and both exhaust fans shall operate.

CAUTION

If VOLTAGE OUT OF TOLERANCE indicator lights, set MAIN POWER SWITCH to OFF. Refer to table 5-12, step 11, for corrective action.

Table 3-1. Power Supply A9, Controls and Indicators

Control/Indicator	Description	Function	Figure 3-1 Index No.
GENERAL-PURPOSE POWER +5 Vdc circuit breaker CBI	Three and one-half ampere, push-pull, magnetic circuit breaker	Provides protection for +5 Vdc circuits	1
SLACK LOOP RGLTD +28 Vdc circuit breaker	One ampere, push-pull, magnetic circuit breaker	Provides protection for slack loop motor and control circuit	2
GENERAL-PURPOSE POWER -15 Vdc circuit	Three ampere. push-pull, magnetic circuit breaker	Provides protection for -15 Vdc circuits	3
MAP CURSOR +6 Vdc circuit breaker CB9	Twenty ampere, push-pull, magnetic circuit breaker	Provides protection for map cursor drive motors and control electronics	4
GENERAL-PURPOSE POWER +15 Vdc circuit	Three ampere, push-pull, magnetic circuit breaker	Provides protection for + 15 Vdc circuits	5
MAP CURSOR +28 Vdc circuit breaker CBIO	Eight ampere, push-pull, magnetic circuit breaker	Provides protection for map cursor drive motors and control electronics	6
GENERAL-PURPOSE POWER +28 Vdc circuit	Six ampere, push-pull, magnetic circuit breaker	Provides protection for +28 Vdc circuits	7
FILM TRANSPORT FR +28 Vdc circuit breaker CB3	Nine ampere, push-pull, magnetic circuit breaker	Provides protection for front film transport drive and control electronics	8
DIRECT VIEW CURSOR +6 Vdc circuit	Twenty ampere, push-pull, magnetic circuit breaker	Provides protection for direct view table cursor drive motors and control electronics	9
FILM TRANSPORT REAR +28 Vdc circuit	Nine ampere, push-pull, magnetic circuit breaker	Provides protection for rear film transport drive and control electronics	10
DIRECT VIEW CURSOR +28 Vdc circuit	Nine ampere, push-pull, magnetic circuit breaker	Provides protection for direct view table cursor drive motors and control electronics	11
FILM TRANSPORT FAN 115 V, 400 Hz circuit breaker CB13	Five ampere, 3-pole, toggle circuit breaker	Provides protection for film transport electronics drawer fan and control circuit	12
CURSOR FAN 115 Vac, 400 Hz, circuit	Five ampere, 3-pole, toggle circuit breaker	Provides protection for cursor electronics drawer fan and control circuit	13
RETICLE LAMP +6 Vdc circuit breaker CB15	Eight ampere, push-pull, magnetic circuit breaker	Provides protection for cursor reticle lamp and control circuit	14
STE OV V/DV OV V/STE OV T/DV OV T indicator DSI	Four-section back-lighted indicator	STE OV V section lights when a stereo view table overvoltage problem exists STE OV T section lights when a stereo view table overtemperature problem exists DV OV V section lights when a direct view table overvoltage problem lights DV OV T section lights when a direct view table overtemperature problem exists	15
Elapsed time meter M1	Time totalizing meter	Provides an indication of total time power supply has been in operation	16

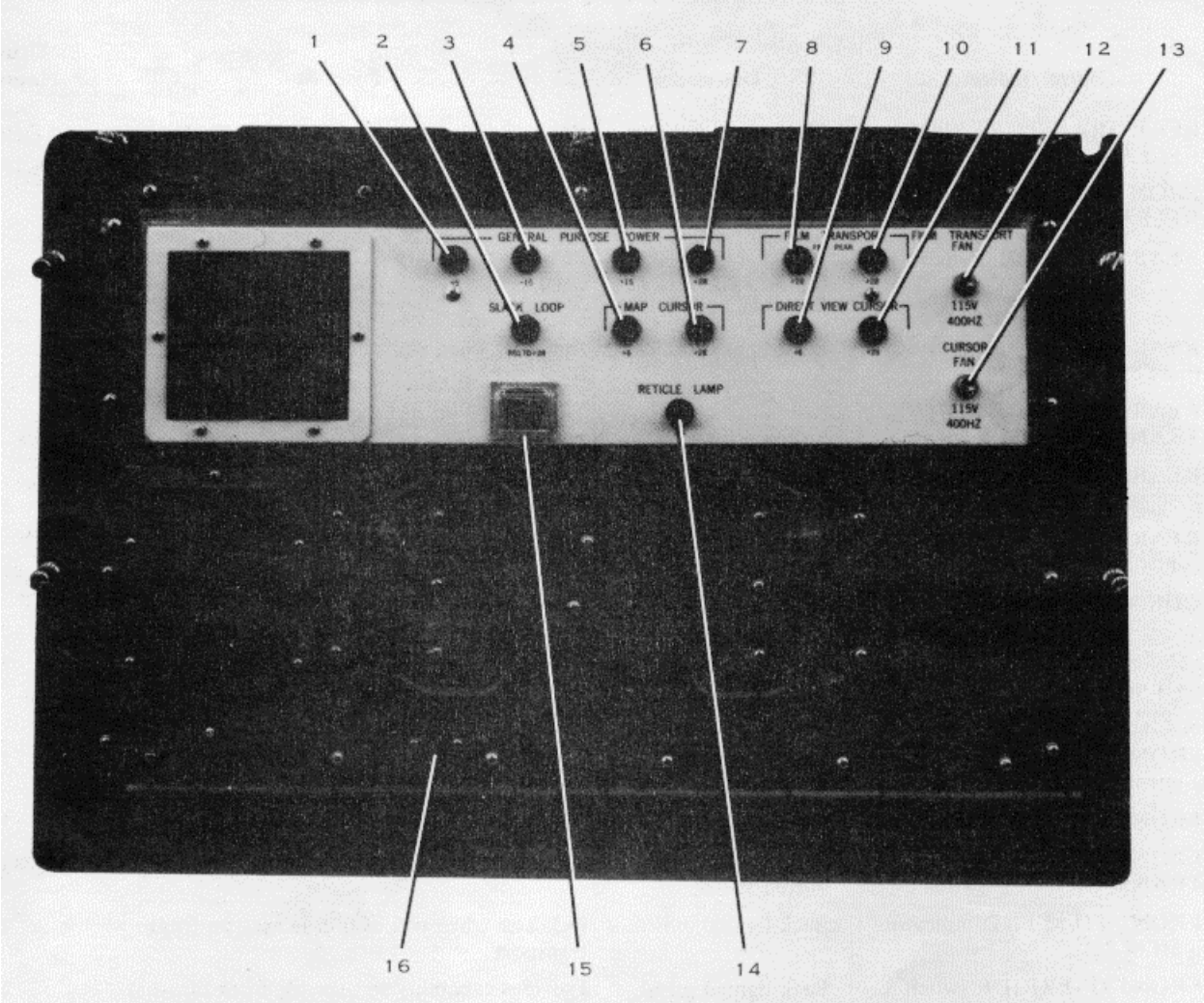


Figure 3-1. Power Supply A9, Location of Controls and Indicators

d. Push OPERATE/STANDBY switch on Power Distribution Panel. OPERATE indicator shall light.

3-7. OPERATOR CHECKS AND ADJUSTMENTS.

3-8. The following procedures provide instructions for checking the console to determine that it is ready for normal operation. These procedures should be performed as a matter of routine before operating the console or loading the film to be viewed.

a. Perform procedures in steps a. Through c. of paragraph 3-6.

b. Push VOLTAGE OUT OF TOLERANCE switch on Power Distribution Panel A13. VOLTAGE OUT OF TOLERANCE indicator shall light.

c. Set MAIN POWER SWITCH on Power Distribution Panel to OFF and then back to ON position. VOLTAGE OUT OF TOLERANCE indicator shall extinguish.

Table 3-2. Left Control Panel A11, Controls and Indicators

Control/Indicator	Description	Function	Figure 3-2 Index No.
REAR TRANSPORT SPOOL RELEASE	Mechanical linkage	Releases film spool for removal or installation on left rear transport	1
FRONT TRANSPORT SPOOL RELEASE	Mechanical linkage	Releases film spool for removal or installation on left front transport	2
REAR OVERRIDE switch S1	Back-lighted push-button switch	Provides capability to override rear film-end circuits to continue film movement after end of film	3
REAR FILM END indicator (part of S1)	Back-lighted indicator	Indicates when end of film is near on rear transport	4
REAR TRANSPORT ON/ TRANSPORT OFF switch S3	Alternate action push-button switch	Turns rear film transport on or off	5
REAR CORE DIA switch S5	Rotary switch	Selects core diameter of left rear film spool	6
REAR FILM VELOCITY control R1	Center-tapped potentiometer	Controls direction and speed of rear film	7
CURSOR control MTI	Joystick	Positions cursor on map or film as selected by CURSOR SELECT switch on Right Control Panel A12	8
CURSOR ENTER switch S9	Pushbutton switch	Enters position of film or map cursor into computer	9
FRONT FILM VELOCITY control R2	Center-tapped potentiometer	Controls direction and speed of front film	10
FRONT CORE DIA switch S6	Rotary switch	Selects core diameter of left front film spool	11
FRONT TRANSPORT ON/ TRANSPORT OFF switch S4	Alternate action push-button switch	Turns front film transport on or off	12
FRONT FILM END indicator (part of S2)	Back-lighted indicator	Indicates when end of film is near on front transport	13
FRONT OVERRIDE switch S2	Back-lighted push-button switch	Provides capability to override front film-end circuits to continue film movement after end of film	14

d. Rotate LINE VOLTMETER switch on Power Distribution Panel through INPUT PHASE A, PHASE B, PHASE C, and FANS positions. LINE VOLTMETER meter shall indicate 120 ±12 Vac for each position of switch.

e. Push OPERATE/STANDBY switch on Power Distribution Panel. OPERATE indicator shall light.

f. Rotate DIRECT TABLE BRIGHTNESS control on Right Control Panel A12 clockwise. Direct-view and stereo-view table lamps shall light and direct-view lamp shall increase in intensity as control is rotated clockwise.

g. Rotate STEREO TABLE BRIGHTNESS control clockwise. Stereo-view table lamp shall increase in intensity as control is rotated clockwise.

h. Return STEREO and DIRECT TABLE BRIGHTNESS control to OFF (fully ccw) position.

i. Set CURSOR SELECT switch on Right Control Panel to MAP. Mapboard cursor shall be movable using CURSOR control on either control panel.

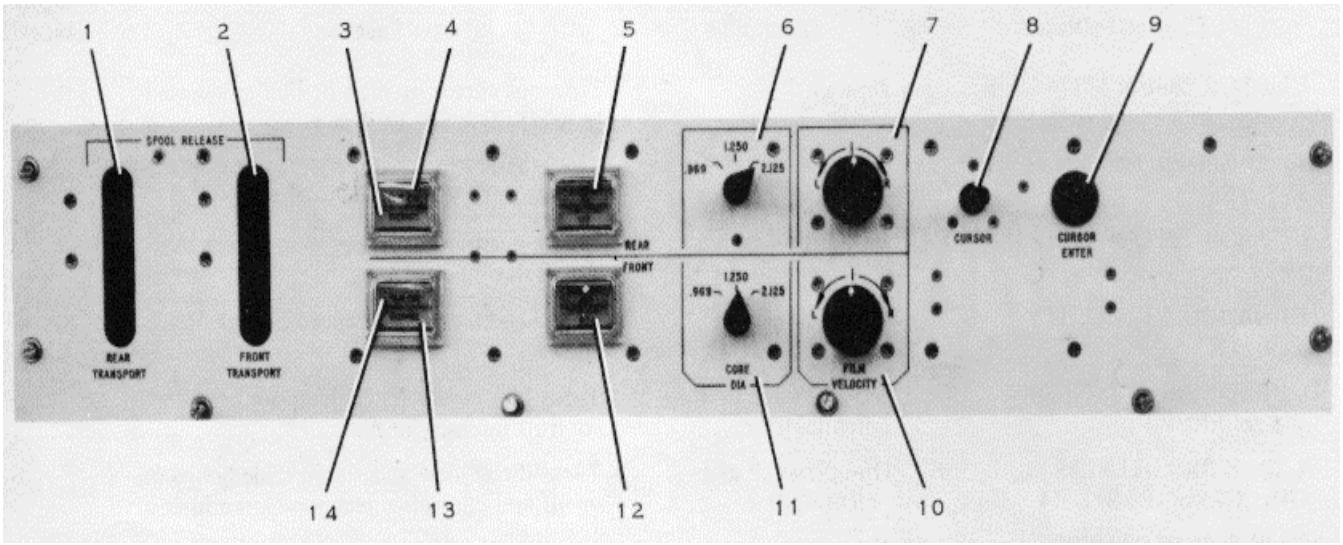


Figure 3-2. Left Control Panel A 11, Location of Controls and Indicators

j. Push MAP CURSOR STOW switch. MAP CURSOR STOW indicator shall light and map cursor shall light and map cursor shall move to lower left corner of Mapboard Assembly A6.

k. Set CURSOR SELECT switch to FILM and rotate CURSOR BRIGHTNESS control on Right Control Panel clockwise. Direct-view table cursor shall light and increase in intensity as control is rotated clockwise. Set cursor brightness to a comfortable viewing level.

l. Operate CURSOR control on both control panels. Direct-view table cursor shall be movable from either control panel.

m. Set CURSOR SELECT switch to OFF.

n. Move SLACK LOOP switch on Right Control Panel to UP position. Slack loop trolley shall move upward.

o. Move SLACK LOOP switch to DOWN position. Slack loop trolley shall move downward.

3-9. OPERATING PROCEDURE.

3-10. The following paragraphs provide step-by-step procedures for operating the console in the performance of its various functions. Prior to loading film and placing the console in operation, the console should be checked out by performing the operator checks described in paragraph 3-7.

NOTE

Film may be loaded in either the Left or Right Film Transport A7 or A8. The following procedures is for loading the full film spool in the Left Film Transport.

Table 3-3. Right Control Panel A 12. Controls and Indicators

Control/Indicator	Description	Function	Figure 3-3 Index No.
CURSOR control MTI	Joystick	Positions cursor on map or film as selected by CURSOR SELECT switch	
TRANSPORT MODE switch S8	Toggle switch	Selects either forward (NORM), stop (OFF), or reverse (RVS) motion of film	2
CURSOR ENTER switch S9	Pushbutton switch	Enters position of film or map cursor into Computer	3
REAR FILM VELOCITY Control R1	Center-tapped potentiometer	Controls direction and speed of rear film	4
CURSOR BRIGHTNESS control S10/R3	On-off switch and potentiometer	Turns film cursor reticle lamp on or off and controls intensity of lamp	5
TABLE BRIGHTNESS DIRECT control S11/R4	On-off switch and potentiometer	Turns direct view and stereo table lamps on or off and controls direct view lamp intensity	6
TABLE BRIGHTNESS STEREO control R5	Potentiometer	Controls intensity of stereo lamp	7
SLACK LOOP switch S3	Spring-loaded toggle switch	Controls up and down motion of slack loop trolley and speed of motion	8
REAR CORE DIA switch S5	Rotary switch	Selects core diameter of right rear film spool	9
REAR OVERRIDE switch S1	Back-lighted push-button switch	Provides capability to override rear film-end circuits to continue film movement after end of film	10
REAR FILM END indicator (part of S1)	Back-lighted indicator	Lights when end of film is reached on rear transport	11
FRONT TRANSPORT SPOOL RELEASE	Mechanical linkage	Releases film spool for removal or installat-tion on right front transport	12
REAR TRANSPORT SPOOL RELEASE	Mechanical linkage	Releases film spool for removal or installa-tion on right rear transport	13
FRONT OVERRIDE switch S2	Back-lighted push-button switch	Provides capability to override front film-end circuits to continue film movement after end	14
FRONT FILM END indicator (part of S2)	Back-lighted indicator	Lights when end of film is reached on front transport	15
FRONT CORE DIA switch S6	Rotary switch	Selects core diameter of right front film spool	16
MAP CURSOR STOW switch S4	Back-lighted push-button switch	Control for driving Mapboard cursor to stow position (lower left corner of Mapboard)	17
CURSOR SELECT switch S7	Rotary switch	Selects cursor to be controlled	18
FRONT FILM VELOCITY control R2	Center-tapped potentiometer	Controls direction and speed of front film	19

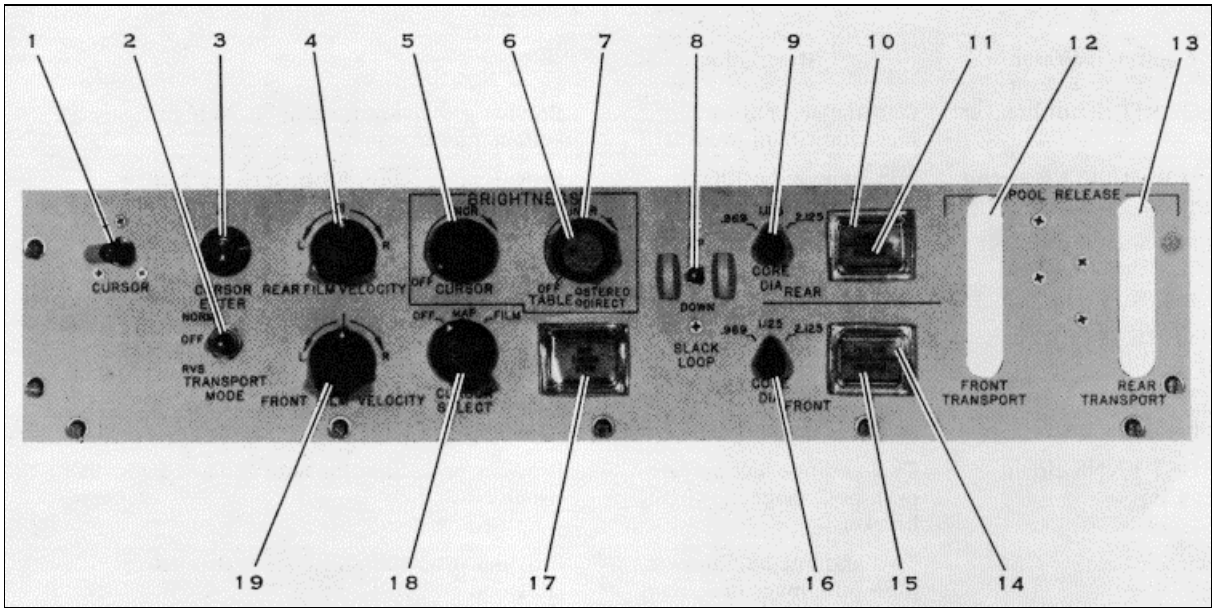


Figure 3-3. Right Control Panel A12, Location of Controls and Indicators

3-11. FILM LOADING PROCEDURE. The following step-by-step procedures provide instructions for loading film in the console.

CAUTION

Transport should always be off when no film is loaded.

a. Turn console on as described in paragraph 3-5.

b. Turn off the transport to be loaded by pushing appropriate TRANSPORT ON/TRANSPORT OFF switch on Left Control Panel Al 1. If one roll of 9.5-inch film or two rolls of 70-mm or 5-inch film will be loaded, turn both transports off.

c. Set CORE DIA switch on Left Control Panel to position corresponding to diameter of film spool core to be loaded.

CAUTION

Move film sensing arms (figure 3-8) to clear spool index mechanism as it is moved into place.

d. Set spool index mechanism (figure 3-8) to correct position for width of film spool to be loaded. To move spool index mechanism, press release handle at top of mechanism, slide mechanism to correct position, release handle, and move mechanism back and forth slightly until release handle pin drops into hole in shaft.

e. If 70-mm film is to be loaded, pull spindle release (figure 3-8) and pull spindle out until it locks in place.

Table 3-4. Power Distribution Panel A 13, Controls and Indicators

Control/Indicator	Description	Function	Figure 34 Index No.
MAPBOARD circuit breaker CBI	One ampere, push-pull, magnetic circuit breaker	Provide protection for mapboard high voltage power supply	1
DIR VIEW HEATER circuit breaker CB2	Ten ampere, push-pull, magnetic circuit breaker	Provides protection for direct view heater and fan circuits	2
POWER ON indicator DS1	Indicating lamp	Indicates 120 Vac, 3 phase, 400 Hz is applied through MAIN POWER SWITCH S5	3
STEREO HEATER circuit breaker CB3	One and one-half ampere, push-pull, magnetic circuit	Provides protection for stereo view heater circuits	4
DIRECT VIEW LAMP circuit breaker CB4	Five ampere, push-pull, magnetic circuit breaker	Provides protection for Direct-View and Stereo-View High Voltage Power Supply A17AI and A17A2	5
EXHAUST FANS circuit breaker CB5	Two and one-half ampere, push-pull, magnetic circuit breaker	Provides protection for both exhaust fan circuits	6
CMR circuit breaker CB6	Two and one-half ampere, push-pull, magnetic circuit breaker	Provides protection for code matrix reader electronics	7
CONTROL VOLTAGE circuit breaker CB10	Two and one-half ampere, push-pull, magnetic circuit breaker	Provides protection for control 28 Vdc regulator assembly A13A5	8
QR/RCU circuit breaker CB7	Three ampere, 3-pole, toggle circuit breaker	Provides protection for indicator control group	9
LOW VOLTAGE circuit breaker CB11	Seven and one-half ampere, push-pull, magnetic circuit breaker	Provides protection for Transformer/Rectifier Assembly A19 and the low voltage circuits	10
LINE VOLTMETER switch S1	Rotary switch	Selects voltage to be monitored by meter	11
LINE VOLTMETER meter M2	AC voltmeter, 150 Vac full scale	Indicates voltage selected by LINE VOLTMETER switch SI	12
ELAPSED TIME meter M1 in ON position	Time totalizing meter	Operates when MAIN POWER SWITCH is	13
VOLTAGE OUT OF TOLERANCE switch and indicator S6	Back-lighted pushbutton switch	Indicator lights if main power 120 Vac, 3 phase, 400 Hz is out of tolerance Switch S6 provides a means of testing out-of-tolerance circuit	14
OPERATE/STANDBY switch S4	Alternate action back-lighted switch	Control for placing console in operation (OPERATE) or in standby mode	15
MAIN POWER SWITCH S5	Three-pole, single-throw switch	Applies 120 Vac, 3 phase, 400 Hz to main control relay A 13K1	16

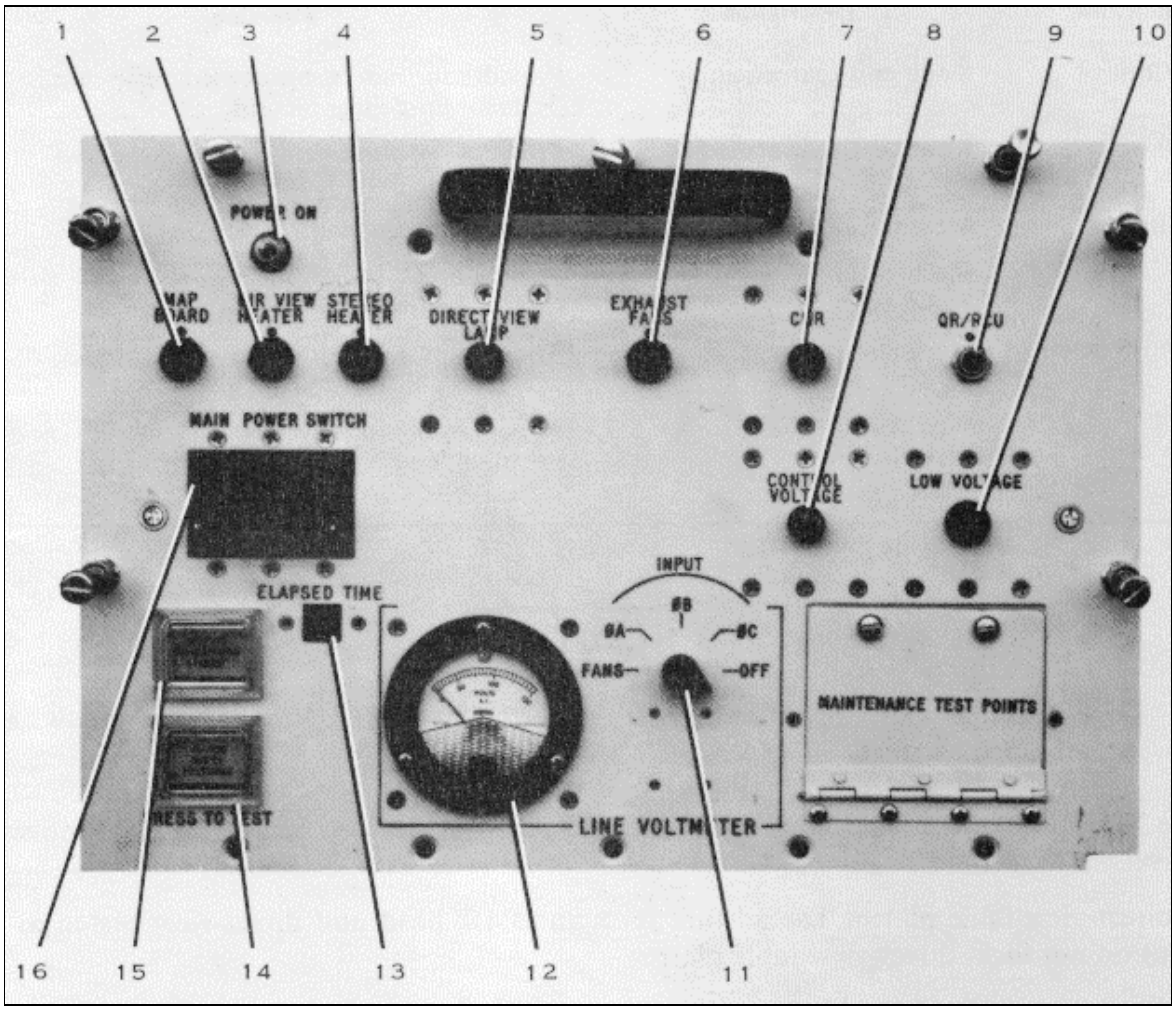


Figure 3-4. Power Distribution Panel A 13, Location of Controls and Indicators

f. Flip spool rest (figure 3-8) up for spool flange diameter less than 10.5 inches and down for diameter of 10.5

g. Push appropriate SPOOL RELEASE lever on left control panel forward to retract spindle.

h. Place full film spool in left film well on spool rests.

i. Move film spool onto support post of spool index mechanism.

j. Align free side of film spool with retracted spindle. Push down and slowly pull back on SPOOL RELEASE lever until spindle is engaged with film spool. It may be necessary to rotate film spool to align spindle drive flanges with holes in film spool.

k. Pull film off film spool and thread around two idler rollers and metering roller as shown in figure 3-9. Note that when film unwinds from right side of spool, it passes on left side of first idler and when it unwinds from left side of spool, it passes on right side of first idler. Flip emulsion reversal mechanism out of film path.

Table 3-5. Stereoscope Carriage, Controls and Indicators

Control/Indicator	Description	Function	Figure 3-5 Index No.
Coarse Focus Control	Knob and gear assembly	Provides for movement or stereoscope up or down for coarse focusing	1
Fine Focus Control	Knob and gear assembly	Provides for movement of stereoscope up or down for fine focusing	2
Rotating Axis Brake	Mechanical brake	Locks stereoscope in rotating axis	3
Y-Axis Brake	Mechanical linkage to brake assembly	Applies brake to prevent movement of stereoscope in Y-axis	4
Mechanical Stop Release	Mechanical linkage	Allows movement of stereoscope carriage past mechanical stop	5
X-Axis Brake	Mechanical linkage to brake assembly	Applies brake to prevent movement of stereoscope in X-axis	6

CAUTION

Use extreme care in following step not to hit QRU Video Indicator with stereoscope carriage.

l. Release X-axis brake and mechanical stop release handle on stereoscope carriage and move carriage to right limit of its travel.

m. Raise direct-view table platen. Thread film through CMR head and direct-view platen as shown in figure 3-9. Lower, but do not lock, direct-view table platen.

n. Raise direct-view table platen hinge mechanism to upper position.

o. Release brake on stereoscope carriage and move carriage to left.

NOTE

It is not necessary to perform step p. for a short slack loop.

p. Push two knobs at front and rear right corners of stereo-view housing and slide housing to right until it

q. Move SLACK LOOP switch on Right Control Panel A12 to UP position and allow slack loop trolley to

r. Raise direct-view table platen. Thread film in slack loop as shown in figure 3-10 for short loop operation or as shown in figure 3-11 for long loop operation. Lower, but do not lock, direct view platen.

s. Slide stereo-view housing back to left until it locks in place.

t. Raise stereo-view platen and pull film across stereo-view surface. Lower, but do not lock, stereo-view platen

u. Raise stereo-view platen hinge mechanism to upper position.

v. Set CORE DIA switch on right control panel to position corresponding to film spool core diameter.

w. Repeat steps d. through f. for Right Film Transport A8.

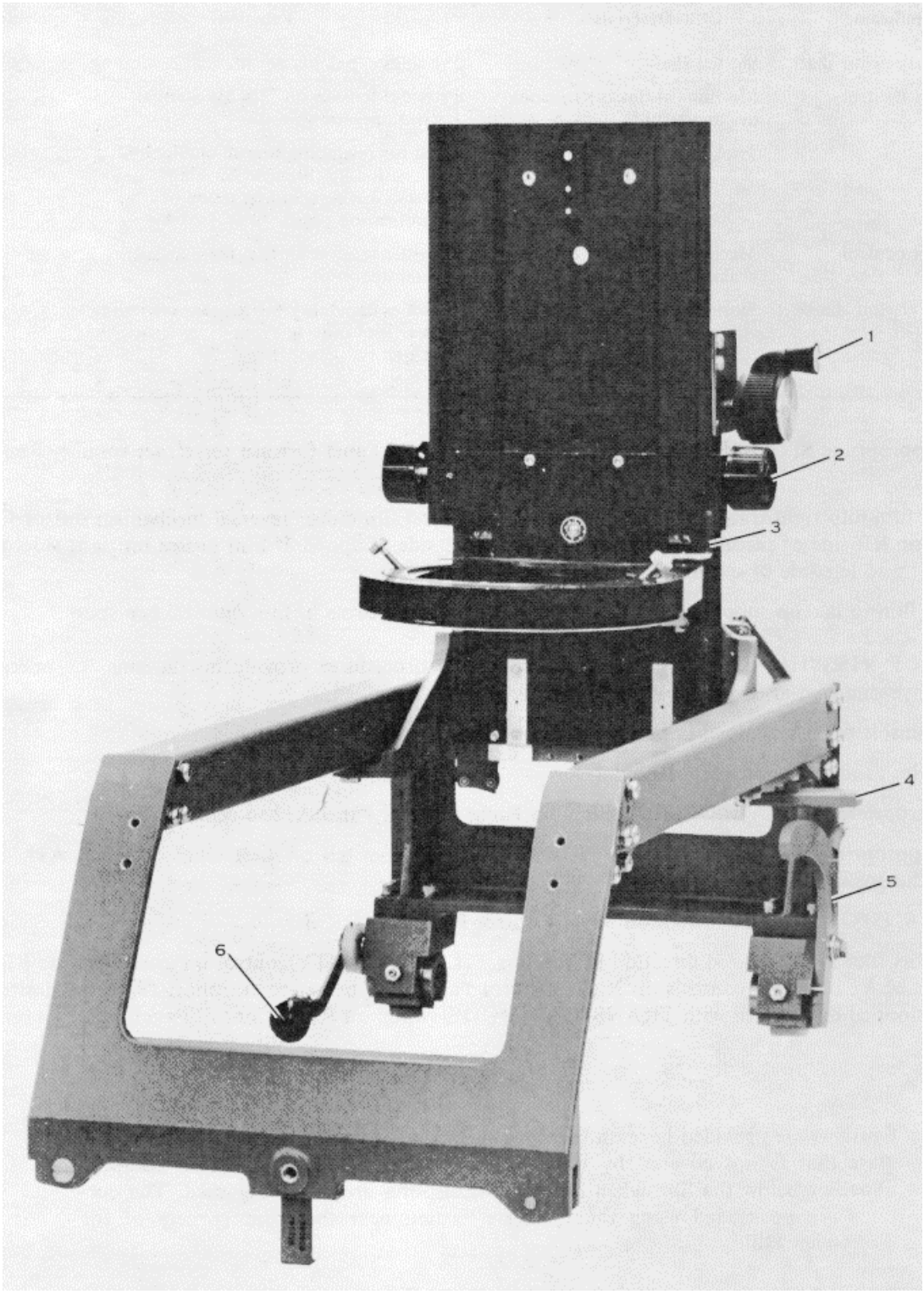


Figure 3-5. Stereoscope Carriage, Location of Controls and Indicators

Table 3-6. Left Film Transport Assembly, A 7, Controls and Indicators

Control/Indicator	Description	Function	Figure 3-6 Index No.
FRONT manual rewind shaft	Slotted shaft	Provides capability for manual rewinding	1
Brake OFF/ON control	Mechanical linkage to front brake assembly	Provides tension on film for manual rewind operation	2
Crank assembly	Tool	Used for rewinding film manually and for positioning threaded bushings associated with shipping mode of magnification optics	3
Brake OFF/ON control	Mechanical linkage to rear brake assembly	Provides tension on film for manual rewind operation	4
REAR manual rewind shaft	Slotted shaft	Provides capability for manual rewinding of rear film onto left rear film spool	5

x. Push appropriate SPOOL RELEASE lever on Right Control Panel forward to retract spindle. Repeat steps i. and j.

y. Thread film into right transport as shown in figure 3-9 and flip motor reversal mechanism out of film path. If film passes on left side of second idler, thread film to right side of spool. If film passes on right side of second idler, thread film to left side of spool.

z. Attach film to takeup spool and manually wind at least three turns of film onto takeup spool.

3-12. DIRECT VIEWING OPERATION. The following procedures provide instructions for operating the console while viewing film at the direct-view table.

a. Turn console on as described in paragraph 3-5.

b. Load film as described in paragraph 3-11.

c. Set appropriate FILM VELOCITY control on Right Control Panel A12 to center position.

d. Push appropriate TRANSPORT ON/TRANSPORT OFF switch on Left Control Panel All. TRANSPORT ON indicator shall light.

e. Set TRANSPORT MODE switch on Right Control Panel to NORM.

f. Transport film in the desired direction by rotating FILM VELOCITY control on either Left or Right Control Panel. FILM VELOCITY controls on Right Control Panel may be set to transport film at a desired speed. Film may be stopped or reversed with TRANSPORT MODE switch on Right Control Panel.

NOTE

Curtains are provided beneath the direct-view glass to close off the portion of the glass that is not covered by film. These curtains prevent light from escaping above or below the film when both film transports are not being used. The curtains are positioned using thumbwheels located near the front corners of the direct-view table.

g. To view film on direct-view table, rotate DIRECT TABLE BRIGHTNESS control on Right Control Panel clockwise until desired intensity level is reached.

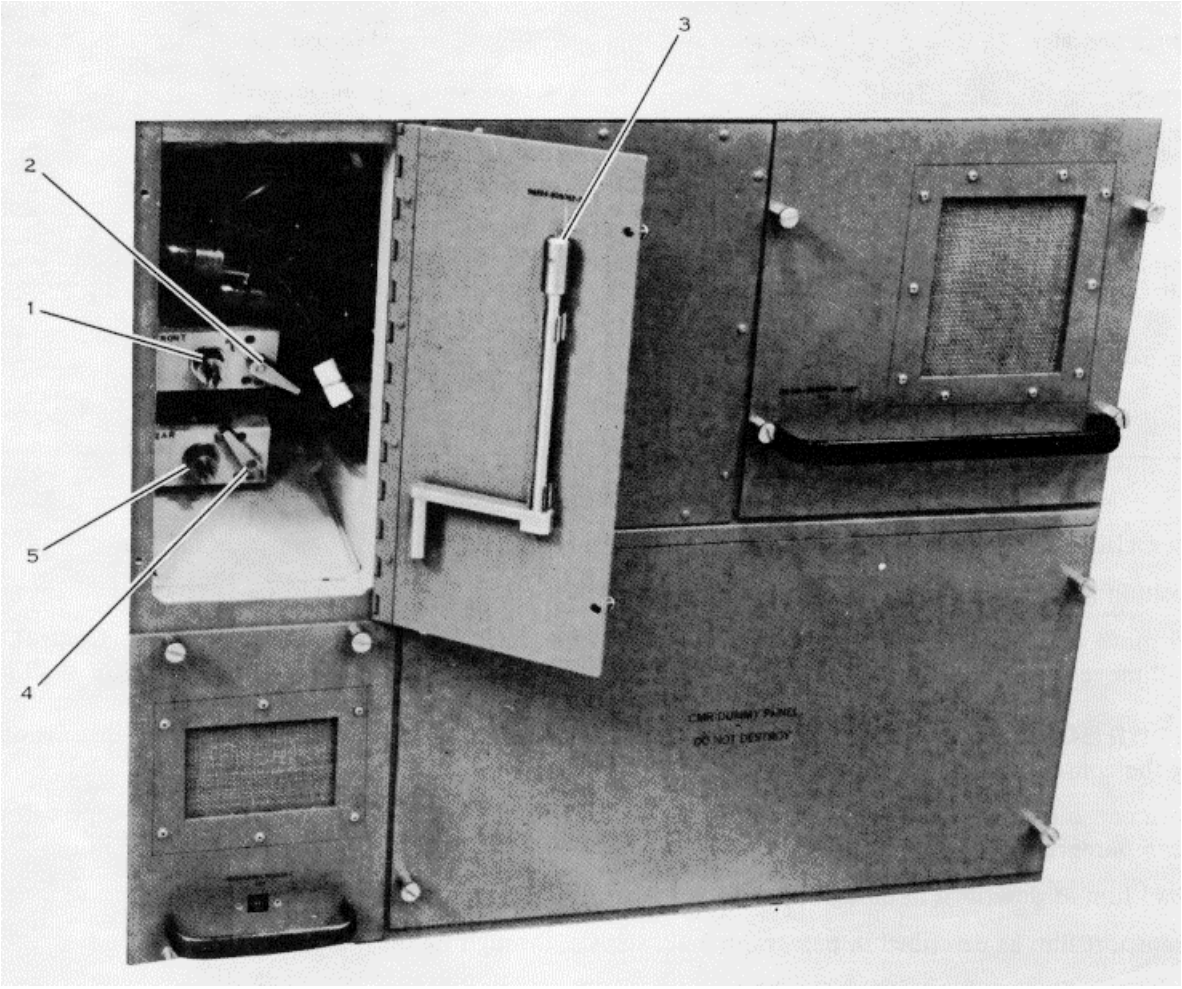


Figure 3-6. Left Film Transport Assembly' A 7, Location of Controls and Indicators

h. To utilize cursor, set CURSOR SELECT switch on Right Control Panel to FILM. Rotate CURSOR BRIGHTNESS control clockwise until desired cursor reticle intensity is reached. Move cursor using CURSOR control on either Left or Right Control Panel.

3-13. MAPBOARD OPERATION. The following procedures provide instructions for operating the Mapboard cursor and utilizing the Mapboard function in conjunction with film viewing.

WARNING

Do not puncture Mapboard front surface with any object, including thumbtacks and nails.

a. Turn console on as described in paragraph 3-5.

Table 3-7. Right Film Transport Assembles A8, Controls and Indicators **Figure 3-7**

Control/Indicator	Description	Function	Index No.
Crank assembly	Tool	Used for rewinding film manually	1
FRONT manual rewind shaft	Slotted shaft	Provides capability for manual rewinding of front film onto right front film spool	2
Brake OFF/ON control	Mechanical linkage to front brake assembly	Provides tension on film for manual rewind operation	3
Brake OFF/ON control	Mechanical linkage to rear brake assembly	Provides tension on film for manual rewind operation	4
REAR manual rewind shaft	Slotted shaft	Provides capability for manual rewinding of rear film onto right rear film spool	5

b. Set CURSOR SELECT switch on Right Control Panel A12 to MAP.

c. Position map cursor using CURSOR control on either Left All or Right A12 Control Panel.

d. To move cursor out of map viewing area, push MAP CURSOR STOW switch on Right Control Panel. Cursor will move to lower left corner of Mapboard Assembly A6 and MAP CURSOR stow indicator shall light.

3-14. STEREOSCOPE VIEWING OPERATION. The following procedures provide instructions for preparing the console and stereoscope for stereo film viewing.

a. Turn console on as described in paragraph 3-5. Assemble stereoscope and attach to stereoscope carriage as described in paragraph 2-4, step p.

b. Load film as described in paragraph 3-11.

c. Transport film as described in paragraph 3-12, steps c. through f.

d. Transport film until image to be viewed as seen on direct-view table.

e. Position right stereoscope rhomboid arm over stereo-view table and left arm over image on direct-view

f. Turn STEREO TABLE BRIGHTNESS control on Right Control Panel A12 clockwise until desired intensity is reached as viewed through stereoscope.

g. Move SLACK LOOP switch to UP or DOWN position as required to provide proper separation between images viewed to give best stereo presentation in stereoscope.

h. Position stereoscope along film in X-axis by releasing X-axis brake on left rear of stereoscope carriage and sliding carriage. Position stereoscope in Y-axis by releasing Y-axis brake on right side of stereoscope carriage and

i. Focus stereoscope using fine and coarse focus knobs located on left side of stereoscope carriage.

NOTE

Film may be unloaded from either the Left or Right Film Transport, A7 or A8. The following procedure is for unloading the full film spool from the Left Film Transport.

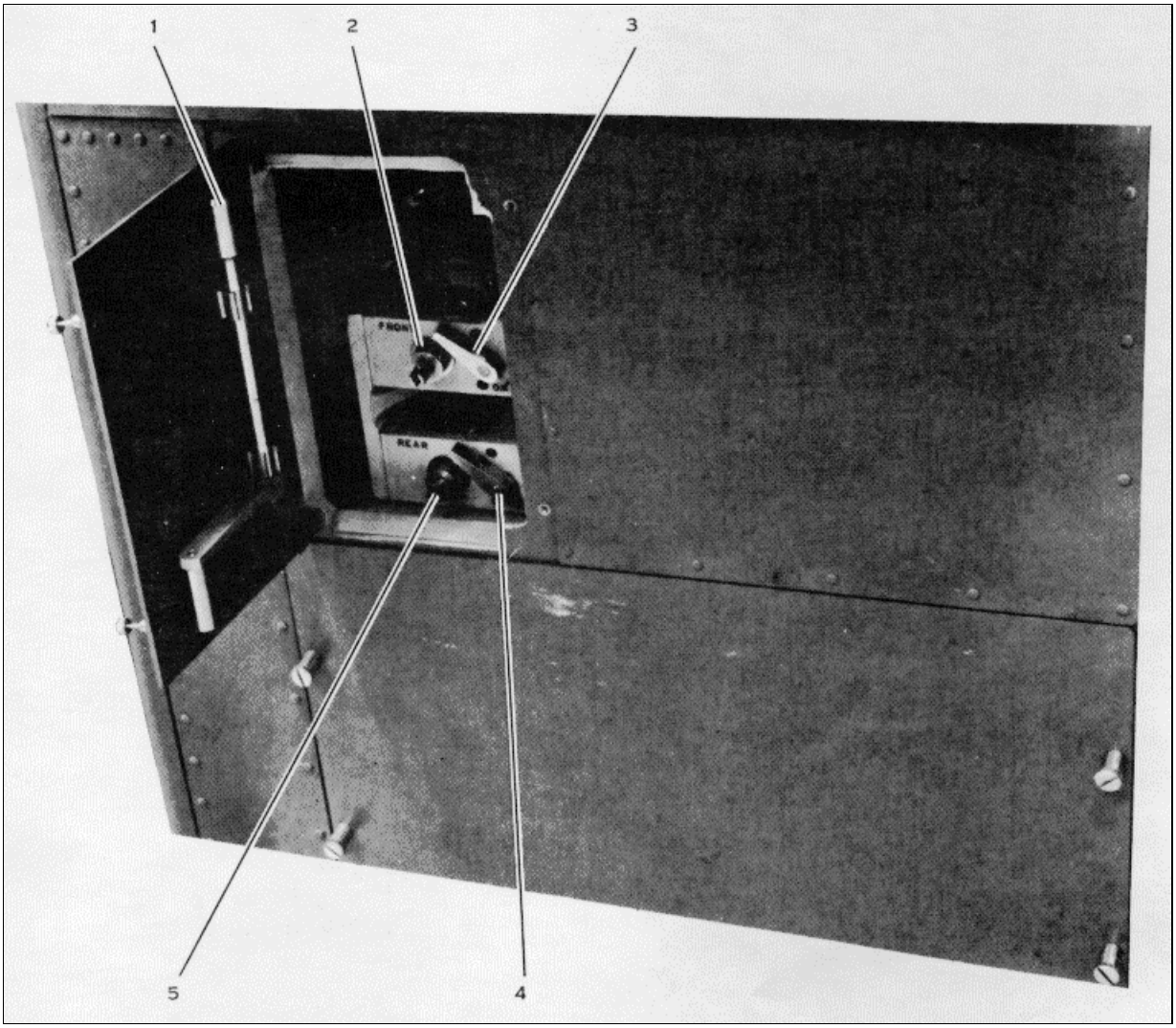


Figure 3-7. Right Film Transport Assembly A8, Location of Controls and Indicators

3-15. FILM UNLOADING PROCEDURES. The following procedures provide instructions for unloading film from the console.

a. Turn console on as described in paragraph 3-5.

b. Turn film transport on by pushing TRANSPORT ON/TRANSPORT OFF switch. TRANSPORT ON indicator shall light.

c. Set TRANSPORT MODE switch on Right Control Panel A12 to NORM.

d. Turn FILM VELOCITY control on either Left or Right Control Panel, Al I or A12, toward L-position to rewind film onto spool in left film well. When FILM END indicator on Left Control Panel lights, return FILM VELOCITY control to center (off) position.

e. Push FILM END/OVERRIDE switch on Left Control Panel. OVERRIDE indicator shall light.

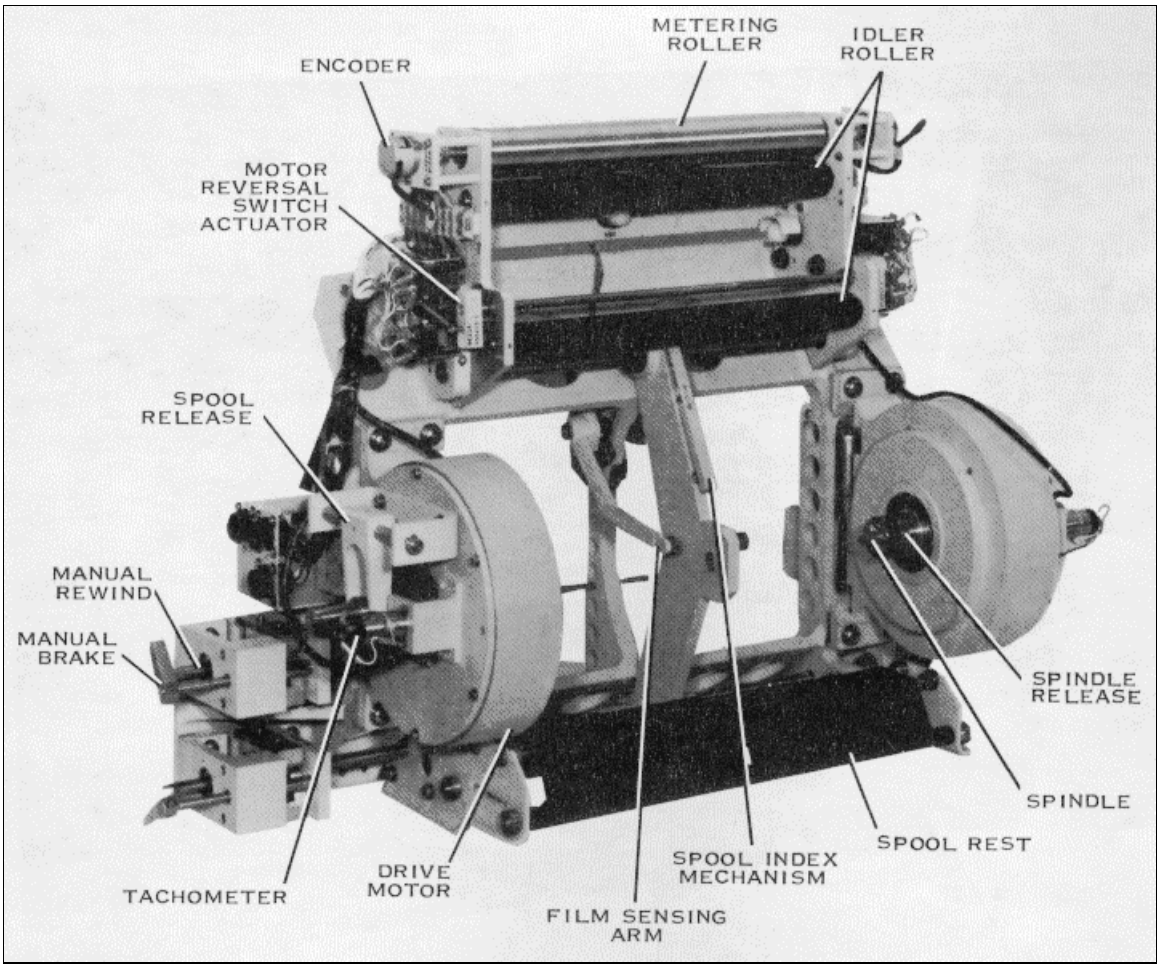


Figure 3-8. Left Film Transport Assembly A7, Parts Identification

f. Wind remainder of film onto spool in left film well by turning FILM VELOCITY control toward L-position. When all of film is rewound, return FILM VELOCITY control to center position.

g. Push TRANSPORT ON/TRANSPORT OFF switch to turn film transport off. TRANSPORT OFF indicator shall light.

h. Push up appropriate SPOOL RELEASE lever on Left Control Panel and lift film spool out of left film well.

i. Push up appropriate SPOOL RELEASE lever on Right Control Panel and lift takeup spool out of right film well.

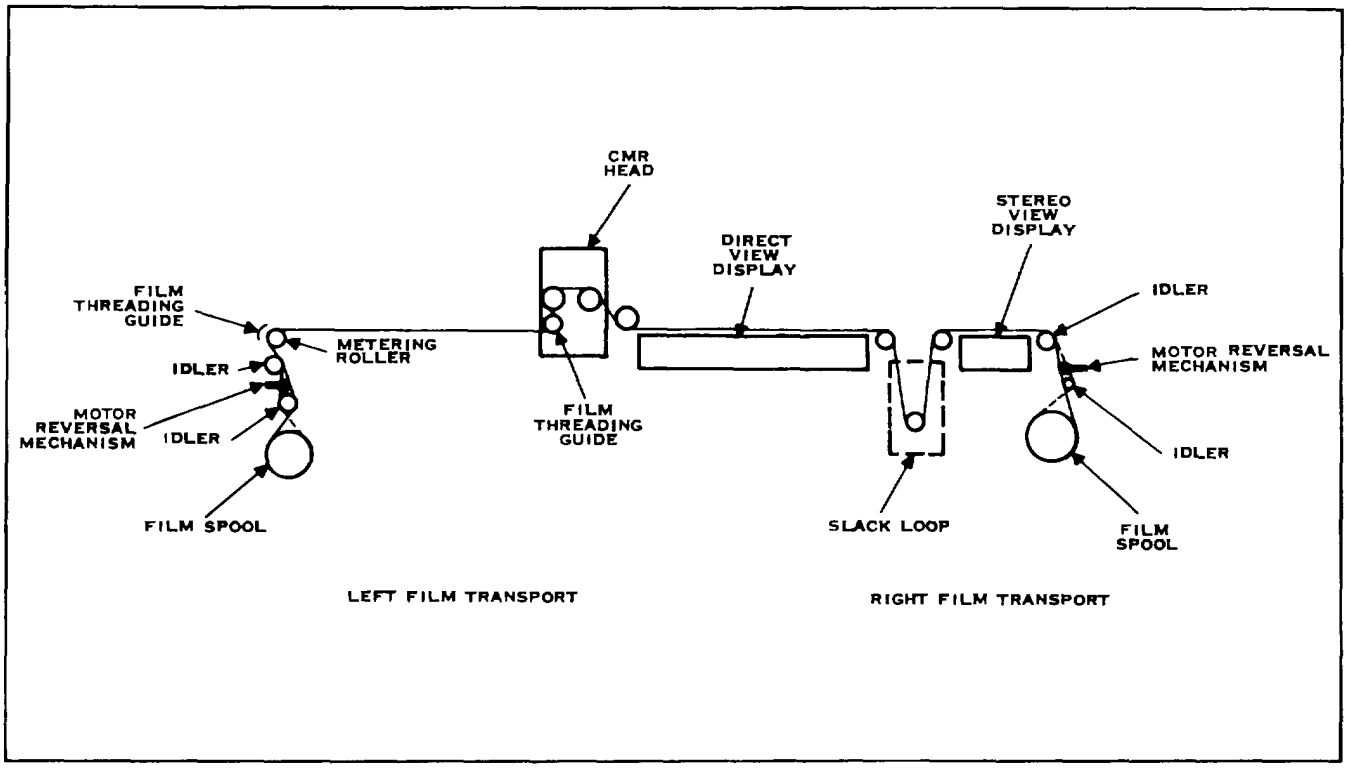


Figure 3-9. Film Threading Diagram

3-16. SHUTDOWN.

3-17. The following procedures provide instructions for placing the console in a standby condition. The console may be turned completely off by performing the following steps and then setting the MAIN POWER SWITCH on the Power Distribution Panel A13 to OFF. However, it is advised to leave the MAIN POWER SWITCH on and the console in standby unless it is necessary to turn it off for maintenance purposes.

a. Set switches and controls on console as follows:

DIRECT TABLE BRIGHTNESS control (Right Control Panel A12)	OFF (fully ccw)
CURSOR BRIGHTNESS control (Right Control Panel)	OFF (fully ccw)
CURSOR SELECT switch (Right Control Panel)	OFF
FRONT FILM VELOCITY control (Right Control Panel)	Center position
REAR FILM VELOCITY control (Right Control Panel)	Center position
TRANSPORT MODE switch (Right Control Panel)	OFF

b. Push OPERATE/STANDBY switch on Power Distribution Panel. STANDBY indicator shall light.

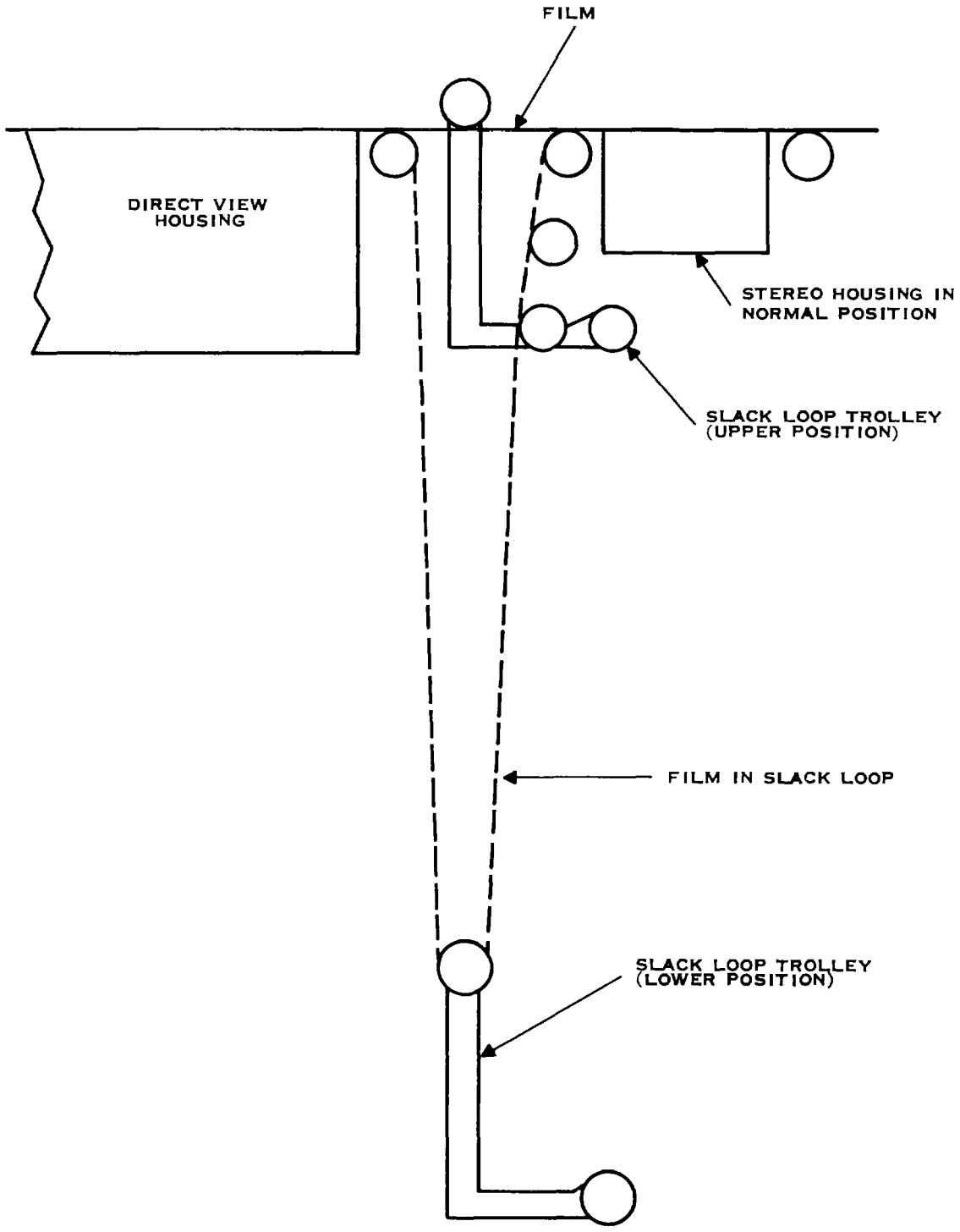


Figure 3-10. Short Loop Film Threading Diagram

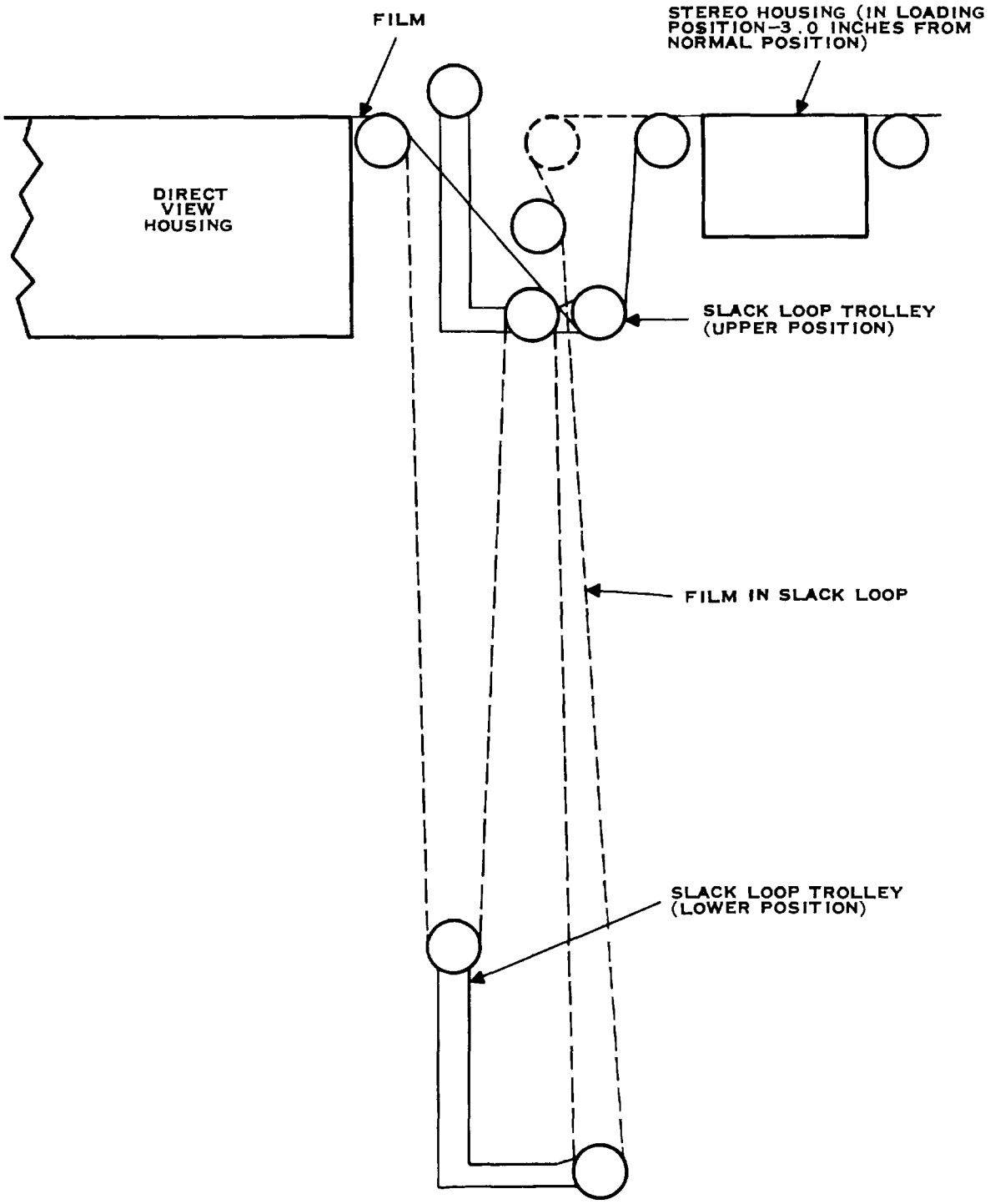


Figure 3-11. Long Loop Film Threading Diagram

SECTION IV

THEORY OF OPERATION

4-1. GENERAL.

4-2. This section contains theory of operation of the console. It is composed of a general functional description and a detailed functional description.

4-3. GENERAL FUNCTIONAL DESCRIPTION.

4-4. Refer to figure 4-1 for the overall block diagram of the console.

4-5. AC AND DC POWER. Three-phase power of 120 $\pm$ 12 Vac, 400 Hz is supplied to the Power Distribution Panel A13 and to the RFI Filter A18 where the ac power is filtered. The output of the RFI Filter is also applied to the Choke Assembly A26 and Power Distribution Panel where circuit breakers control the application of the filtered and unfiltered ac voltage to the circuits within the console and to the Transformer/Rectifier Assembly A19. The Transformer/Rectifier Assembly rectifies the ac voltage and produces dc unregulated voltages of +28, +6, +5, +15, and -15 Vdc. Outputs of three-phase and single-phase ac voltages, along with the unregulated dc voltages, are applied to Power Supply A9. The ac voltages are distributed to the various circuits within the console, while the dc voltages are regulated before being distributed. Unregulated voltages of +28 and +6 Vdc are also outputs of A9 and are regulated by other subassemblies within the console. Single-phase and three-phase power outputs from A9 are distributed to various components within the console for powering elapsed time meters and blower motors.

4-6. FILM DRIVE. Film can be transported from the Left Film Transport Assembly A7 to the Right Film Transport Assembly A8, and vice versa, by means of controls on the Left Control Panel All 1, Right Control Panel A12, and also from the Digital Computer. Both the film speed and direction of travel can be controlled from both the Left and Right Control Panels, as well as the Computer. The transport assemblies are composed of front and rear film transports and either or both can be driven from these three sources of control. Film can be transported at speeds up to 40 inches per second from the control panels, while the Computer has a slow speed of 2 to 4 inches per second and a fast speed of 4 to 40 inches per second.

4-7. Film speed and direction commands are applied to the Transport Electronics A15 from the control panels along with the Computer commands. These commands generate the TRANSPORT MOTOR DRIVE signals for the Left and Right Film Transport Assemblies, A7, A8. In addition, the front, rear, or both drive assemblies of the Left or Right Film Transport Assemblies can be driven by the commands.

4-8. Both film transport assemblies send signals of SPOOL VELOCITY and RADIUS SENSING to the Transport Electronics. The Film Transport Electronics A15 produces an END OF FILM signal from these two signals which is applied to the Left or Right Control Panel, A11, A12, depending on whichever transport assembly is at the end of the film spool. The END OF FILM signal is also applied to the Computer and, in this condition, the Computer will stop driving the Film Transport Assembly. In addition, the Left Film Transport Assembly sends ENCODER signals to the Cursor Electronics A14, which produces the FILM MOTION signal. The FILM MOTION signal from the Cursor Electronics is applied to the Computer to inform the Computer how far the film is traveling and in which direction.

4-9. CURSOR DRIVE. The console has a film cursor and a map cursor. The film cursor is a projected reticle type showing through the film on the Direct View A10. The map cursor is a crossed-wire type and is located on

the Mapboard Assembly A6. Both cursors can be driven by the joysticks (located on the Left and Right Control Panels, All 1, A12) as well as the Computer. Only one cursor can be driven at a time with the joystick control. The CURSOR SELECT switch on the Right Control Panel selects which cursor is to be driven. The film cursor drives at a rate up to 2.5 inches per second via the joystick, while the map cursor drives at a rate up to 3 inches per second. Computer FILM CURSOR commands drive the film cursor at a slow speed of 0.3 inches per second and a fast speed of 2.5 inches per second. The Computer MAP CURSOR commands drive the map cursor at a slow speed of 0.6 inches per second and a fast speed of 3 inches per second.

4-10. CURSOR SELECT signal from the Right Control Panel A12 is applied to the Cursor Electronics A14 where either the film or map cursor is selected. When pressure is applied to the joystick, the selected cursor will drive according to the joystick signal from either control panel. FILM CURSOR DRIVE signals are applied through the Junction Box A22 from the Cursor Electronics to the Direct-View Assembly A10. The FILM CURSOR LIMIT signal from the Direct View through the Junction Box to the Cursor Electronics indicates when a limit has been reached. MAP CURSOR DRIVE signals from the Cursor Electronics are applied directly to the Mapboard Assembly A6 and drive the cursor. MAP CURSOR LIMIT signals to the Cursor Electronics indicate when a limit has been reached. In addition, the MAP CURSOR STOW signal from the Right Control Panel to the Cursor Electronics drives the map cursor to the stow position at the lower left corner of the Mapboard Assembly A6. This action facilitates changing the map on the Mapboard Assembly.

4-11. Computer commands of FILM CURSOR SPEED AND DIRECTION or MAP CURSOR SPEED AND DIRECTION are applied to the Cursor Electronics. The Cursor Electronics determines the cursor to be driven and sends a DRIVE signal to the Mapboard Assembly A6 or Direct-View Assembly A10 depending on the condition of the CURSOR SELECT signal from the Right Control Panel A12.

4-12. The FILM CURSOR DISTANCE and MAP CURSOR DISTANCE signals from the Cursor Electronics A14 are applied to the Computer. These signals direct and inform the Computer of the distance the cursors have been moved. The CURSOR ENTER signal from either the Right or Left Control Panel, All, A12, is applied to the Cursor Electronics. The signal is then applied to the Computer from the Cursor Electronics to direct the Computer to note the position of the cursor prior to moving. After the cursor has been repositioned, the CURSOR ENTER signal again directs the Computer to note the new position of the cursor. The data entered enables the Computer to calculate distances on the map or film.

4-13. DIRECT-VIEW AND STEREO-VIEW LAMPS. Lamps on the Direct-View Assembly A10 and Stereo Housing Assembly A21 are serpentine type lamps winding back and forth across the display area. This type lamp requires minimum space and provides for even illumination of the viewing area. The lamps require high voltage for operation. The brightness of each lamp is controlled from the Right Control Panel A12.

4-14. LAMPS ON CMD signal from the Right Control Panel A12 is applied to the High Voltage Box A17. The High Voltage Box produces high voltage for lamp brightness and is applied to the Starter A25. LAMP BRIGHTNESS signals from the Right Control Panel are applied to Power Supply A9 where application of power through the Starter A25 to the lamps in Direct View A10 and Stereo View A21 are controlled.

4-15. SLACK LOOP. The Slack Loop A23 is operated by a control on the Right Control Panel A12 through the Junction Box A22. It is used in conjunction with the stereo microscope to view film with one arm of the stereoscope on the Direct View A1O and the other arm on the Stereo View A21. The slack loop can take up to 95 inches of film to permit the operator to select the optimum stereo separation.

4-16. DETAILED FUNCTIONAL DESCRIPTION.

4-17. AC POWER DISTRIBUTION. Refer to figure 4-2 for the functional diagram of the ac power distribution.

4-18. RFI Filter A18 and Choke Assembly A26. Three-phase power of 120 Vac, 400 Hz is applied to the RFI Filter from the shelter via cable IW5 or IW6. Cable IW5 is connected to Unit 4 and cable IW6 is connected to Unit 5. The purpose of the RFI Filter is to **filter** the three-phase power to eliminate noise from the power source entering the console as well as to prevent the noise generated within the console from being inserted on the power source lines. Three-phase voltage, neutral, and chassis ground are applied to the Power Distribution Panel A13 via cable WI from the RFI Filter and to the Choke Assembly A26. The purpose of the Choke Assembly is to improve the power factor.

4-19. Power Distribution Panel A13. The purpose of the Power Distribution Panel is to control the application of ac power to the console components. Both push and switch type circuit breakers are employed for protection of these components.

4-20. Three-phase voltage is applied to the MAIN POWER SWITCH S5. When S5 is set to ON, the ac voltage lights DSI, POWER ON lamp, and is applied to contacts of relay KI, circuit breakers CBIO, CB5, LINE VOLT- METER switch SI, and PCB Al (Voltage Tolerance and 28 Vdc Regulator). CONTROL VOLTAGE circuit breaker CBIO applies the ac voltage to transformer TI. Transformer TI steps down the three-phase voltage and applies it to PCB A5 (Control 28 Vdc Regulator). EXHAUST FANS circuit breaker CB5 applies phase A voltage to Left Fan Assembly A27 and Right Fan Assembly A28 via cables W5 and W6. In addition, three-phase voltage is applied to LINE VOLTMETER switch SI. Switch SI can be set to monitor the input three-phase voltage from S5 and the exhaust fan's phase A voltage from CB5. The unfiltered shelter power is applied to circuit breakers CB6 and CB7. The QRU circuit breaker CB7 applies three-phase voltage to the QRU Electronics A4. The CMR circuit breaker CB6 applies three-phase voltage to the CMR Electronics A2.

4-21. Relay KI energizes when the Voltage Tolerance and 28 Vdc Regulator PCB Al senses that three-phase voltage is within the operating limits of the console. When relay Ki energizes, three-phase voltage is applied to circuit breakers CB4 and CBI 11. Single-phase voltage is applied to circuit breakers CB2 and CB3.

4-22. Phase A is applied through circuit breaker CBI and cable W9 to Mapboard Assembly A6 high-voltage power supply. Circuit breaker CB2 applies phase B voltage to PCBs A2, A3 (via transformer T2) and A4 within the Power Distribution Panel A13 and to the Junction Box A22 via cable W2. The Junction Box further distributes the phase B voltage via cable W39 to the Direct-View Assembly A10 where it applies the voltage to the lamp tray fan and to the lamp heater. Circuit breaker CB3 applies phase B voltage to the Junction Box via cable W2 where the voltage is further distributed via cable W34 to the Stereo Housing Assembly A21 to provide power for the lamp heater.

4-23. Circuit breakers CB4 and CBII apply three-phase voltage, via cable W8, to the Transformer/Rectifier Assembly A19.

4-24. Transformer/Rectifier Assembly A19. The purpose of the Transformer/Rectifier Assembly A19 is to further distribute the three-phase voltage and produce a single-phase voltage to produce dc unregulated voltages of +5, +6, +15, +28 and -15.

4-25. Three-phase voltage, protected by A13CBII, is applied via cable W8 to transformers TI and T2, routed through the Transformer/Rectifier Assembly, and applied to the Power Supply A9 via cable W58. Transformers TI and T2 step down the three-phase voltage and apply it to dc rectifiers.

4-26. Power Supply A9. The purpose of the Power Supply A9 is to distribute three-phase voltage throughout the console and provide further protection for components of the console.

4-27. Three-phase voltage at pins A, B, and C of A9Jl1 is routed through the power supply and applied via cable WI I to the High Voltage Box A17. Three-phase voltage is applied to the Stereo-View Power Supply A17A2 and the Direct-View Power Supply A17AI. Single-phase voltage is used to operate the blower motor in the High Voltage Box A17.

4-28. Three-phase voltage at pins V, U, and T of A9JII is applied to circuit breakers CB13 and CB14. Single phase voltage at pin T of A9J II is applied to the Power Supply A9 elapsed time meter. Circuit breaker CB13 controls the application of voltage via cable W19 to the blower motor and elapsed time meter within the Transport Electronics A15. Circuit breaker CB14 controls the application of voltage via cable W23 to the blower motor and elapsed time meter within the Cursor Electronics A14.

4-29. Voltage Tolerance and Main Power Control Circuit. Figure 4-3 is a functional diagram of the voltage tolerance check circuit and the main power control circuit. Three-phase, 120 Vac is applied to the Voltage Tolerance and 28 Vdc Regulator PCB Al and to the main control relay KI. The voltage tolerance check portion of PCB Al samples the voltage. If the voltage is within tolerance, relay AIKI remains deenergized. If the voltage is not within tolerance, relay AIKI is energized. Three-phase, 120 Vac is rectified by Control 28 Vdc Rectifier PCB A5 and applied to the regulator portion of PCB Al. The regulated 28 Vdc is applied to relay AIKI. When relay AIKI is energized, 28 Vdc is applied to the VOLTAGE OUT OF TOLERANCE indicator to indicate that the three-phase, 120 Vac power is not within operating tolerance. The VOLTAGE OUT OF TOLERANCE switch S6 provides a means of testing the voltage tolerance check circuit. When switch S6 is depressed, the voltage tolerance check circuit energizes relay AIKI and the VOLTAGE OUT OF TOLERANCE indicator lights. With relay AIKI deenergized, 28 Vdc is routed through pin 8 of connector A13J4 to the left exhaust fan vane switch S3. If both the left and right exhaust fans are operating and their vane switches (A27S1 and A28SI) are closed, 28 Vdc is routed through the switches to the 125°F thermostat A13S2. As long as the temperature within the Power Distribution Panel A13 is between 0° and 125°F, both thermostats S2 and S3 are closed and 28 Vdc is applied to OPERATE/ STANDBY switch A13S4. When the OPERATE/STANDBY switch is in the OPERATE position, relay A13KI energizes and three-phase 120 Vac is applied to circuit breakers for further distribution throughout the console.

4-30. DC POWER DISTRIBUTION. Refer to figure 4-4 for the functional diagram of the dc power distribution.

4-31. Transformer/Rectifier Assembly A19. The purpose of the Transformer/Rectifier Assembly is to step down the three-phase voltage and rectify it for use as dc voltages within the console.

4-32. Three-phase voltage of 120 Vac, 400 Hz is applied via cable W8 to the primaries of stepdown transformers TI and T2. The voltage on the secondary of transformer TI is applied to +28 Vdc rectifiers no. 1 and no. 2 and +6 Vdc rectifiers no. I and no. 2. The voltage on the secondary of transformer T2 is applied to the + 15 Vdc rectifier, -15 Vdc rectifier, and +5 Vdc rectifier. The dc voltages are applied to Power Supply A9 via cable W48.

4-33. Power Supply A9. The purpose of Power Supply A9 is to regulate the dc voltages, provide circuit breaker protection, and distribute both regulated and unregulated voltages to components within the console. Test points are located on the panel to monitor the input voltages to each circuit breaker.

4-34. Circuit breakers CB5, CB6, CB9, CBIO, CBII and CB12 provide protection for the unregulated voltages of +6 and +28 Vdc. Unregulated voltages of +6 and +28 Vdc are applied to the Cursor Electronics A14 via cable W23, and +28 Vdc unregulated is applied to Transport Electronics A15 via cable W19.

4-35. Circuit breaker CB3 applies unregulated + 15 Vdc to the voltage regulators consisting of subassemblies Al, A6 and A7. PCB Al contains the regulator circuitry. Regulator Assembly A6 contains both the series regulator transistors and overvoltage protection circuitry. Heatsink A7 provides the filter capacitors along with +6 and +28 Vdc regulator circuitry. The +15 Vdc regulated voltage is applied to the Transport Electronics A15 via cable W19, Cursor Electronics A14 via cable W24, the Power Supply A9 PCBs A9A3 and A9A8 via cable W48, and to the Power Distribution Panel A13 via W8.

4-36. Circuit breaker CB2 is located in the return side of the -15 Vdc regulator composed of subassemblies Al, A6 and A7. The -15 Vdc regulator is identical to the +15 Vdc regulator described in paragraph 4-35. The -15 Vdc regulated voltage is applied to Cursor Electronics A14 via cable W24, Transport Electronics A15 via cable Wl9, to PCBs A9A3 and A9A8 via cable W48, and to the Power Distribution Panel A13 via cable W8.

4-37. Circuit breaker CBI applies unregulated +5 Vdc to the voltage regulator consisting of subassemblies Al, A6 and A7. PCB Al contains the regulator circuitry with Heatsink No. 2 PCB A6 providing both the series regulator transistors and overvoltage protection circuitry. Heatsink A7 contains the filter capacitor. Regulated +5 Vdc is applied to the Transport Electronics via cable W19 and to the Cursor Electronics via cable W23.

4-38. Circuit breaker CB4 applies unregulated +28 Vdc to the voltage regulator consisting of PCB A3 and Heat sink A7. PCB A3 contains the regulator circuitry and Heatsink No. 3 PCB A7 contains the series regulator transistors and filter capacitor. Regulated +28 Vdc is applied to the Transport Electronics A15 via cable W19, Starter A25 via cable W68, Left Control Panel All via cable W22, and to the Right Control Panel A12 via cable W21. In addition, the +28 Vdc regulated voltage is applied to Heatsink A9A6 via circuit breaker CB7. Circuit breaker CB7 provides protection for the voltage applied to the Right Control Panel via cable W21.

4-39. Circuit breaker CB15 applies unregulated +6 Vdc to the regulator consisting of PCB A3 and Heatsink PCB A7. PCB A3 contains the reticle lamp dimmer and regulator circuitry, and Heatsink PCB A7 contains the series regulator transistors. Regulator A3 is under the control of CURSOR brightness potentiometer A12R3 and switch A12SI0. When switch A12SI0 is set to ON, the wiper of potentiometer A12R3 controls the output of the +6 Vdc regulator from 0 to 6 Vdc. The output voltage from the regulator is applied through the Right Control Panel A12 via cable W21, to Junction Box A22 via cable W41, and to Direct View A10 via cable W38. In this manner, the brightness of the cursor reticle lamp can be controlled.

4-40. REAR FILM TRANSPORT DRIVE CIRCUIT. The rear film transport drive circuit moves film, mounted in the rear film transports, through the console. The rear film transport motors can be driven manually from either the Left Control Panel All, Right Control Panel A12, or automatically from an external Computer. Figure 4-5 is a functional diagram of the rear film transport drive circuit and should be referred to during the following discussion.

4-41. Before film can be transported, certain interlock requirements must be met. The circuit utilizes an open interlock concept. When the switches in the interlock circuit are not actuated (open), the interlock requirement is satisfied and film may be transported. The interlocks consist of switches A10S2 and A10S9, switch A21SI, and switch A12S3. Switch A1OS9 is actuated when the direct-view platen is down and locked, and switch A1OS2 is actuated when the stereo-view housing is moved away from the direct-view housing in order to load film in the Slack Loop A22. Switch A21SI is actuated when the stereo-view platen is down and locked. The SLACK LOOP switch A12S3 is closed when the slack loop trolley is being moved up or down. When any one of the interlock switches is actuated, the 5 volt return at pin 9 of Control Logic PCB A15A9 is routed through the closed interlock and applied to pin 13 of A15A9 and pin 5 of Rate Command PCB A15A6 as a logic 0 (O to 0.4 Vdc). With a logic 0 applied to pin 5 of A15A6, the positive and negative potentiometer supply voltages at pins 11 and 19 of A15A6 are removed. With these voltages removed, no voltage is applied across the REAR FILM VELOCITY controls on the Left and Right Control Panels All, A12. A logic 0 at pin 13 of A15A9 produces a logic 1 (2.4 to 5.0 Vdc) at A15A9 pin 10 and pin 5 of Rear Film Transport Preamplifier A15A7. With a logic I at pin 5 of A15A7, the tachometer feedback voltage at pin 8 of A15A7 and A15A8 is shunted to ground through a field-effect transistor to prevent any drive voltage being developed from the tachometer feedback.

4-42. When the TRANSPORT ON/TRANSPORT OFF switch S3 on the Left Control Panel is set to the TRANSPORT OFF position, the 5 volt return applied at Al J5 pin 15 is removed from AllJ5 pin 16. This appears as a logic 1 at pin 16 of Control Logic PCB A15A9. A logic I at A15A9 pin 16 produces a logic 0 at A15A9 pin 14 and at pin 13 of preamplifiers A15A7 and A15A8. A logic 0 at A15A7 and A15A8 pin 13 allows the preamplifiers to accept input signals and develop drive voltage for the transport motors.

4-43. When the interlock requirements have been satisfied and the TRANSPORT ON/TRANSPORT OFF switch is in the TRANSPORT ON mode, the transport drive circuit is ready for operation. A negative voltage is applied to the REAR FILM VELOCITY control Al IRI at pin 28 of connector A 11J5 and a positive voltage is applied to the control at pin 29 of A 1J5. When the REAR FILM VELOCITY control is moved toward the right, the voltage at pin 26 of Al IJ5 becomes positive. This positive voltage is applied at pin 2 of Rate Command PCB

A15A6. The Rate Command PCB produces a negative voltage at A15A6 pin 21. The negative rate voltage is applied to pin 21 of Control Logic PCB A15A9. The Control Logic PCB A15A9 produces a positive rate limited voltage at A15A9 pin 2 and a negative rate limited voltage at A15A9 pin 5. The positive voltage is applied to the Left Rear Transport Preamplifier A15A7 and the negative voltage is applied to the Right Rear Transport Preamplifier A15A8. The negative voltage applied to pin 15 of the right rear preamplifier is added with the tachometer feedback voltage and the current feedback voltage. A right drive voltage for the right rear transport power amplifier is produced at A15A8 pin 17 and applied to pin H of the Power Amplifier PCB A15A12. Rear Film Transport Power Amplifier A15A12 provides the current to drive the Right Rear Transport Motor A8BI at a speed governed by the right drive voltage applied. While the right transport motor is being driven, the positive voltage applied to pin 15 of the Left Rear Transport Preamplifier A15A7 is added with the tachometer feedback voltage and the current feedback voltage and no drive for the left rear transport power amplifier is developed at A15A7 pin 17. Without left drive voltage to the rear transport power amplifier, no current is provided to drive the Left Rear Transport Motor A7BI. With the right rear transport motor being driven and the left rear transport motor not being driven, film is transported from left to right through the console.

4-44. When the REAR FILM VELOCITY control AIIRI is moved toward the left, the left rear transport motor will be driven as described in paragraph 4-43 for the right rear motor, although all voltage polarities will be reversed.

4-45. The rear film transports can be operated from the Right Control Panel A12. The motors are driven in the same manner as described in paragraphs 4-43 and 4-44. The TRANSPORT MODE switch allows the film to be transported normally, reversed, or stopped without moving the setting of the REAR FILM VELOCITY control. The film velocity and direction can also be controlled by the REAR FILM VELOCITY control.

4-46. Film movement through the console can also be controlled by an external Computer if the TRANSPORT ON/TRANSPORT OFF switch is in the TRANSPORT ON position and all interlock requirements have been satisfied. The Computer command signals enter the console at connector J5 of the CPU connector housing and are routed to the Rear Film Transport Rate Command PCB A15A6 via cable W12. The command signals control the polarity and amplitude of the rate voltage at A15A6 pin 21 and thereby control the speed and direction of the film movement.

4-47. FRONT FILM TRANSPORT DRIVE CIRCUIT. The front film transport drive circuit moves film, mounted in the front film transports, through the console. The front film transport motors can be driven manually from either the Left Control Panel All 1, Right Control Panel A12, or automatically from an external Computer. Figure 4-6 is a functional diagram of the front film transport drive circuit and should be referred to during the following discussion.

4-48. Before film can be transported, certain interlock requirements must be met. The circuit utilizes an open interlock concept. When the switches in the interlock circuit are not actuated (open), the interlock requirements are satisfied and film may be transported. The interlocks consist of switches A1OS2, AIOS9, A21SI and A12S3. Switch A1OS9 is actuated when the direct-view platen is down and locked. Switch AIOS2 is actuated when the stereo-view housing is moved away from the direct-view housing in order to load film in the slack loop. Switch A21SI is actuated when the stereo-view platen is down and locked. The SLACK LOOP switch A12S3 is closed when the slack loop trolley is being moved up or down. When any one of the interlock switches is actuated, the 5 volt return at pin 9 of the Front Film Transport Control Logic PCB A15A4 is routed through the closed interlock and applied to pin 13 of A15A4 and pin 5 of the Front Film Transport Rate Command PCB A15A1 as a logic 0 (O to 0.4 Vdc). With a logic 0 applied to pin 5 of Al 5AI, the positive and negative potentiometer supply voltages at pins 11 and 19 of AI5AI are removed. With these voltages removed, no voltage is applied across the FRONT FILM VELOCITY controls on the Left and Right Control Panels, All, A12. A logic 0 at pin 13 of A15A4 produces a logic 1 (2.4 to 5.0 Vdc) at A15A4 pin 10 and pin 5 of preamplifier A15A2. With a logic I at pin 5 of A15A2, the tachometer feedback voltage at pin 8 of A15A2 and A15A3 is shunted to ground through a field-effect transistor to prevent any drive voltage being developed from the tachometer feedback.

4-49. When the TRANSPORT ON/TRANSPORT OFF switch S4 on the Left Control Panel All is set to the TRANSPORT ON position, the 5 volt return applied at AIIJ5 pin 36 is removed from AIIJ5 pin 35. This appears as a logic I at pin 16 of Front Film Transport Control Logic PCB A15A4. A logic I at A15A4 pin 16 produces a logic 0 at A15A4 pin 14 and at pin 13 of preamplifiers A15A2 and A15A3. A logic 0 at A15A2 and A15A3 pin 13 allows the preamplifiers to accept input signals and develop drive voltages for the transport motors.

4-50. When the interlock requirements have been satisfied and the TRANSPORT ON/TRANSPORT OFF switch is in the TRANSPORT ON mode, the transport drive circuit is ready for operation. A negative voltage is applied to the FRONT FILM VELOCITY control A11R2 at pin 19 of connector AII J5, and a positive voltage is applied to the control at pin 18 of A11J5. When the FRONT FILM VELOCITY control is moved toward the right, the voltage at pin 21 of Al IJ5 becomes positive. This positive voltage is applied at pin 2 of the Front Film Transport Rate Command PCB A15AI. The Front Film Transport Rate Command PCB produces a negative voltage at A15AI pin 21. The negative rate voltage is applied to pin 21 of PCB A15A4, which produces a positive rate-limited voltage at A15A4 pin 2 and a negative rate-limited voltage at A15A4 pin 5. The positive voltage is applied to the Left Front Transport Preamplifier A15A2 pin 15, and the negative voltage is applied to the Right Front Transport Preamplifier A15A3 pin 15. The negative voltage applied to pin 15 of the Right Front Preamplifier is added with the tachometer feedback voltage and the current feedback voltage. A right drive voltage for the Right Front Transport Power Amplifier is produced at A15A3 pin 17 and applied to pin H of the Front Film Transport Power Amplifier PCB A15AI1, which provides the current to drive the Right Front Transport Motor A8BI at a speed governed by the base drive voltage applied. While the Right Transport Motor is being driven, the positive voltage applied to pin 15 of the Left Front Transport Preamplifier A15A2 is added with the tachometer feedback voltage and the current feedback voltage and no left drive for the Left Front Transport Power Amplifier is developed at A15A2 pin 17. Without left drive voltage to the Left Front Transport Power Amplifier, no current is provided to drive the Left Front Transport Motor A7BI. With the Right Front Transport Motor being driven band the Left Front Transport Motor not being driven, film is transported from left to right through the console.

4-51. When the FRONT FILM VELOCITY control A 11R2 is moved toward the left, the Left Front Transport Motor A7BI will be driven as described in paragraph 4-50 for the Right Front Motor A8BI except that all voltage polarities will be reversed.

4-52. The front film transports can be operated from the Right Control Panel A12. The motors are driven in the same manner as described in paragraphs 4-50 and 4-51. The TRANSPORT MODE switch allows the film to be transported normally, reversed, or stopped without moving the setting of the FRONT FILM VELOCITY control. The film velocity and direction can also be controlled by the FRONT FILM VELOCITY control.

4-53. Film movement through the console can also be controlled by an external Computer if the TRANSPORT ON/TRANSPORT OFF switch is in the TRANSPORT ON position and all interlock requirements have been satisfied. The Computer command signals enter the console at connector J5 of the CPU Connector Housing and are routed to the Front Film Transport Rate Command PCB A15AI through cable W12. The command signals control the polarity and amplitude of the rate voltage at A15AI pin 21 and thereby control the speed and direction of film movement.

4-54. FILM TRANSPORT END-OF-FILM CIRCUIT. As film is being transported on the film transports, the end-of-film circuit monitors the amount of film remaining on the spool from which film is being taken. At a predetermined spool diameter, the end-of-film circuit will remove drive voltage from the transport motors stopping film movement and turn on the FILM END indicators on both control panels. An override function is provided to allow movement of film after end-of-film is reached. In addition to stopping film movement, a circuit is also provided that adjusts the transport motor speed as film is collected on the takeup spool to maintain a constant film speed. The rear end-of-film circuit consists of controls and indicators on the Left and Right Control Panels, All and A12, Left and Right Rear Film Transport Preamplifiers A15A7 and A15A8, Rear Film Transport Control Logic A15A9, Rear Film Transport Rate Command A15A6, and the Radius Potentiometers A7R2 and A8R2 on left rear and right rear film transports. The front end-of-film circuit consists of controls and indicators on the Left and Right Control Panels All and A12, Left and Right Front Film Transport Preamplifiers A15A2 and A15A3, Front Film Transport Control Logic A15A4, Front Film Transport Rate Command A15AI, and radius

potentiometers A7RI and A8RI on left rear and right rear film transports. Figure 4-7 is a functional diagram of the rear film transport end-of-film circuit and figure 4-8 is a functional diagram of the front film transport end-of- film circuit.

4-55. The CORE DIA switch selects a resistance corresponding to the diameter of the empty film spool core. The selected resistance becomes part of a resistance bridge circuit along with the radius potentiometer. When the film spool is full, the resistance bridge is unbalanced. The amount the bridge is unbalanced is determined by the size of resistance selected by the CORE DIA switch. The radius potentiometer wiper is attached to an arm that rides on the outside diameter of the film. As the film spool is emptied, the arm moves toward the spool core and the potentiometer resistance decreases. When the potentiometer resistance decreases enough to balance the resistance bridge, the output of comparator U4 goes positive. The output of comparator U4 on A15A2 and/or A15A7 is applied to pin 22 of the Front and/or Rear Film Transport Control Logic PCBs A15A4 and A15A9 as a LEFT END-OF-FILM signal. The positive voltage at pin 22 of the Control Logic PCB causes an END-OF-FILM signal to light the FILM END indicator on both Left and Right Control Panels and a forward stop output to pin 7 of the RATE COMMAND PCBs A15AI and/or A15A6. A forward stop input to the Rate Command PCB removes the positive voltage normally applied to the film velocity controls. This prevents development of drive voltage to the right transport motor and film movement in the forward direction stops. A forward stop input also inhibits the Computer forward drive circuits on the Rate Command PCBs A15AI and/or A15A6 to prevent Computer-operated film drive.

4-56. A right end-of-film voltage is generated at pin 22 of A15A3 and A15A8 and applied to pin 15 of the Control Logic PCBs A15A4 and/or A15A9. A right end-of-film voltage causes an output to light the FILM END indicator on both Left and Right Control Panels All, A12 and a reverse stop output to pin 10 of the Rate Command PCBs A15AI and/or A15A6. A reverse stop input to the Rate Command PCB removes the negative voltage normally applied to the film velocity controls. This prevents development of drive voltage to the left transport motor and film movement in the reverse direction stops. A reverse stop input also inhibits the Computer reverse drive circuits on the Rate Command PCBs to prevent Computer-operated film drive.

4-57. A film end condition can be overridden by depressing the FILM END/OVERRIDE switch on either the Left or Right Control Panel, All, A12. With the switch depressed, the 5 volt return is applied to pin 17 of the Control Logic PCBs A15A4 and/or A15A9. This removes the forward or reverse stop command, allows the transport motor to be driven, and lights the OVERRIDE indicator on both the Left and Right Control Panels. Once in override, the film must be moved in the opposite direction from film end or the TRANSPORT ON/ TRANSPORT OFF switch must be placed in TRANSPORT OFF to get out of the override condition.

4-58. When either a left or right end-of-film voltage is applied to the Control Logic PCB, an END-OF-FILM CPU signal is produced at pin 18 of the Control Logic PCBs A15A4 and/or A15A9 for application to an external computer.

4-59. DIRECT-VIEW AND STEREO-VIEW LAMPS BRIGHTNESS. Both lamps require high voltage for operation. A starting circuit provides the lamps with the necessary starting current. The brightness of each lamp can be individually controlled from the Right Control Panel A12. Circuits for the starting and control of the direct-view and stereo-view lamps are identical in operation; therefore, the discussion will be limited to the direct-view lamp. Refer to figure 4-9 for the functional diagram of the direct-view and stereo-view lamps brightness control.

4-60. Starting voltage to the direct-view lamp is approximately 2 kilovolts higher than the normal operating voltage of 5.8 kilovolts. When the HV interlock 28 Vdc is present at pin 3 of A9A8, the DV RELAY DRIVE signal at pin 12 of A9A8 energizes relay A25K1 via cable W68. When energized, relay A25KI charges capacitor A25CI to approximately -2 kilovolts. After approximately I second, the relay is deenergized and the -2 kilovolts are applied to one side of the lamp while 5.8 kilovolts are applied to the other side. Relay A25KI will be cycled by the DV RELAY DRIVE signal at approximately one cycle per second until the lamp starts.

4-61. The brightness of the direct-view lamp is controlled by the setting of potentiometer A12R4 DIRECT TABLE BRIGHTNESS control. The potentiometer has applied an adjustable dc voltage from Direct-View and Stereo-View Dimmer A9A8 via cable W21. The dc potential from the wiper arm of A12R4 is applied as a WIPER signal to pin 20 of A9A8, along with a DV TEMP CONTROL signal at pin 11 of A9A8, producing the DV BASE DRIVE signal to DV Dimmer Module A9A9. A DIMMER CONTROL signal at A9A9P21 pin 1 is applied to the Rssistor Assembly A29J2PI via cable W70. The DIMMER CONTROL is current limited by the Resistor Assembly and applied to the Start Assembly A25 via cable W32. The DIMMER CONTROL signal is then applied to the direct-view lamp via cable W62 for controlling the current of the lamp. When lamp AIODS4 is operating, signals of LAMP ON FDBK, CURRENT FDBK, and OVERVOLTAGE SENSOR from A9A9 pins 9, 3, and 5, respectively, are applied to the Direct View and Stereo Dimmer A9A8. The LAMP ON FDBK signal inhibits the operation of the DV RELAY DRIVE signal. The CURRENT FDBK signal is a degenerative signal regulating the DV BASE DRIVE signal and the OVERVOLTAGE SENSOR signal from DV Dimmer Module A9A9 pin 5 energizes a relay in A9A8 that interrupts the high-voltage interlock.

4-62. DIRECT-VIEW AND STEREO-VIEW LAMPS TEMPERATURE CONTROL. For proper operation of the direct-view and stereo-view lamps, the temperature of each lamp must be controlled. Without temperature control, low temperatures and low brightness settings would cause the lamps to have an objectionable flicker. At high temperatures and high brightness settings, the lamps would have low efficiency and low life expectancy. The temperature of each lamp is maintained between 1200 and 145°F. Refer to figure 4-10 for the direct view and stereo-view lamps temperature control functional diagram.

4-63. Temperature sensor A21RTI is a *Sensistor®* silicon resistor which increases its resistance with an increase in temperature. The output of A21RTI is applied to Junction Box A22 via cable W34 and then applied to Power Distribution Panel A13 via cable W2. The signal is then applied to Stereo Lamp Temperature Control A13A3. Inputs of 120 Vac, at pins 8 and 9, and temperature sensor resistance, at pins 2 and 3, of A13A3 produce the GATE I and GATE 2 signals to Lamp Temperature Control A13A4. The GATE I and GATE 2 signals turn on heatsink-mounted SCRs that produce the STEREO HEATER DRIVE signal through cable W2 via the JunctionBox to lamp heater A21HRI via cable W34. The lamp heater A21HRI has 120 Vac phase B voltage applied and the SCRs furnish controlled bursts of current to maintain the temperature between 1200 and 145°F.

4-64. Temperature sensor AIORTI is a *Sensistor* silicon resistor and the output is applied through the Junction Box, via cable W39, to DV Lamp Temperature Control A13A2 via cable W2. As in the stereo temperature control circuit, the inputs of 120 Vac phase B and temperature sensor resistance produce GATE signals from pins 7, 4, 18, and 19 of A13A2. GATE I and GATE 2 signals turn on heatsink-mounted SCRs that produce the DV HTR DR signal through Junction Box A22, via cable W2, to lamp heater AIOHRI via cable W39. GATE 3 and GATE 4 signals turn on heatsink-mounted SCRs that produce the DV FAN DR signal through the Junction Box via cable W2 and to lamp fan AIOB3 via cable W39. Both the lamp fan and lamp heater have 120 Vac phase B voltage applied and the heatsink-mounted SCRs furnished controlled bursts of current to maintain the temperature of the direct view lamp between 120° and 145°F.

4-65. HIGH VOLTAGE INTERLOCK. Assemblies within the console are interlocked to protect operating and maintenance personnel from coming in contact with high voltage. The direct-view and stereo-view lamps are protected by overvoltage and overtemperature circuits. Refer to figure 4-11 for functional diagram of the high voltage interlock. Table 4-1 lists the interlock switches and relays and should be referred to during the following discussion.

4-66. Junction Box A22 applies 28 Vdc from pin 26 of J2 to switch A12SII via cable W41. When TABLE BRIGHTNESS switch A12SII is actuated, it applies 28 Vdc through the Junction Box to Power Distribution Panel A13 via cable W2. The 28 Vdc is then applied to the contacts of relays A13A2KI and A13A3K1. Deenergized contacts, pins 11 and 13 of A13A2, of relay A13A2KI applies 28 Vdc through the Junction Box, via cable W2, to direct view high-voltage interlock switch AIOSIO via cable W39. When switch AIOSIO is actuated, the 28 Vdc is applied through the Junction Box, via cable W39, to the Right Control Panel A12, via cable W41, and further applied to Power Supply A9 via cable W21. The 28 Vdc is then applied to the contacts of direct-view

Table 4-1. High Voltage Interlock Switches and Relays

Switch or Relay	Name	Function	Actuation Mechanism or Control Signal	
A12S1	TABLE BRIGHTNESS		Applies 28 Vdc to HV Interlock circuits when closed	Operator controlled from Right Control Panel
A21S2	HV Interlock		Removes 28 Vdc from Stereo-View Power Supply relays when not actuated. connectors on Stereo-View Lamp A21.	Switch is closed when cover is installed on high voltage
AIOSIO	HV Interlock		Removes 28 Vdc from DV Power Supply relays when not actuated on Direct View AI0.	Switch is closed when cover is installed on high voltage connectors
A25S1	HV Interlock		Removes 28 Vdc ground from DV and Stereo-View Power Supply relays when not actuated	Switch is actuated when bracket is installed on high voltage connectors of Starter A25
A9S I	Interlock		Removes 28 Vdc ground from DV and Stereo-View Power Supply relays when not actuated	Switch is actuated when Power .Supply A9 is secured in drawer
A13A2KI	Direct-View Overtemp.		When energized applies 28 Vdc to DV OVT lamp and removes 28 Vdc from HV Interlock switches.	Energized when DV Sensor input to pin 2 of AI3A2 indicates lamp tem perature is over 155°F.
A13A3K1	Stereo-View Overtemp.		.When energized applies 28 Vdc to STE OVT lamp and removes 28 Vdc from HV Interlock switches.	Energized when Stereo-View Sensor input to pin 2 of Al 3A3 indicates lamp temperature is over 155°F.
A9A8KI	Direct-View Overvoltage		When energized removes 28 Vdc from Direct-View Power Supply relay A17AIKI.	Energized when Overvoltage Sensor input to pin 7 of A9A8 indicates Direct-View high voltage is out of tolerance.
A9A8K2	Stereo-View Overvoltage		When energized removes 28 Vdc from Stereo-View Power Supply relay A17A2KI.	Energized when Overvoltage Sensor input to pin 25 of A9A8 indicates Stereo-View high voltage is out of tolerance.
A17S4	Interlock		Removes 28 Vdc ground from DV and Stereo-View Power Supply relays when not actuated.	Switch is actuated when high voltage access cover to A17 is secured.

overvoltage relay A9A8KI. Deenergized contacts, A9A8 pins 3 and 4, of relay A9A8K1 apply the 28 Vdc potential, via cable W I11, to the solenoid of direct-view power supply relay A I7AIK1. The ground side of relay A17AIKI is applied to interlock switches A9SI and A17S4, via cable WI1, to HV interlock switch A25S1, via cable W68, and then to the Power Supply via cable W68. With the above conditions met, the direct-view power supply relay AI7AIKI will be energized and high voltage will be applied to the direct-view lamp.

4-67. Deenergized contacts of relay A13A3KI, A13A3 pins 11 and 13 apply 28 Vdc through the Junction Box, via cable W2, to stereo-view lamp high-voltage interlock switch A21S2 via cable W34. When switch AIOSIO is actuated, the 28 Vdc is applied through the Junction Box A22, via cable W34, to Right Control Panel A12, via cable W41, and further applied to the Power Supply via cable W21. The 28 Vdc is then applied to the contacts of stereo overvoltage relay A9A8K2. Deenergized contacts A9A8 pins 24 and 26 of relay A9A8K2 applied the 28 Vdc potential, via cable Wll, to the solenoid of stereo-view power supply relay A17A2KI. The ground side of relay A17A2KI is the same as described for direct-view power supply relay A17AIKI.

4-68. Energized contacts, A13A2 pins 14 and 15, of relay A13A2KI apply 28 Vdc through the Junction Box, via cable W2, to Right Control Panel A12, via cable W41, to the Power Supply, via cable W21, and lights DV OVT lamp on the power supply front panel. Energized contacts, A13A3 pins 14 and 15, of relay A13A3KI follow the same cable paths as described above and lights the STE OVT lamp on the power supply panel.

4-69. Energized contacts, A9A8 pins 2 and 4, of relay A9A8KI apply 28 Vdc to light DV OVV lamp. Pins 24 and 29 of A9A8, from energized contacts of relay A9A8K2, apply 28 Vdc to light STE OVV lamp.

4-70. SLACK LOOP DRIVE CIRCUIT. The slack loop trolley can be moved up or down at a slow or fast speed. The direction and speed of movement are controlled by the SLACK LOOP switch on the Right Control Panel A12 and by the Computer. Figure 4-12 is a functional diagram of the slack loop drive circuit and should be referred to during the following discussion.

4-71. When the SLACK LOOP switch is moved to the first detent toward the UP position, contacts 2 and 5 of the switch are actuated. With contact 2 of the switch closed, 17 Vdc is applied through the switch to Junction Box A22, via cable W41, to the negative terminal of the slack loop drive motor via cable W40. With contact 3 of the SLACK LOOP switch not actuated, a 28 V return is applied through the switch to the Junction Box A22 via cable W41 to terminal 5 of A23TBI via cable W40. If the slack loop trolley is not at a limit, the return is applied to the positive terminal of the motor and the motor will drive the trolley upward at a slow speed. If the slack loop trolley is at an up limit, the up limit switch SI is open and the motor will not run.

4-72. When the SLACK LOOP switch is moved to the second detent toward the UP position, contacts 1, 2, and 5 of the switch are actuated. With the switch in this condition, 28 Vdc is applied to the slack loop drive motor and the module is driven at a fast speed.

4-73. The slack loop trolley can be driven down at two speeds by moving the SLACK LOOP switch toward the DOWN position. Voltage is applied to the slack loop drive motor in the same manner described in paragraphs 4-71 and 4-72 except opposite in polarity.

4-74. When the SLACK LOOP switch is moved to either the UP or DOWN position, a film transport interlock is activated to prevent the film from being transported during slack loop trolley movement.

4-75. CURSOR VOLTAGE REGULATOR AND POWER FAILURE CIRCUIT. The voltage regulators in the Cursor Electronics A14 provide regulated 28 Vdc and regulated 6 Vdc to the Motor Driver and Power Driver PCBs. The 28 Vdc regulator consists of Regulator PCB A14A31 and Heatsink PCB A14A22. The 28 Vdc regulator A14A31 also contains a power fail circuit that monitors the unregulated 28 Vdc output at A14A31, pin 3. The 6 Vdc regulator consists of Regulator PCB A14A30 and Heatsink PCB A14A23. Figure 4-13 is a functional diagram of the regulator circuits and should be referred to during the following discussion.

4-76. Unregulated 28 Vdc is applied to series regulators on the Heatsink PCB A14A22. The regulated controls of the heatsink series regulators are monitored by Regulator PCB A14A31 which controls the series regulators by the base drive voltage applied to the series regulators. If the unregulated 28 Vdc output at A14A31, pin 3 falls below a predetermined level, a POWER FAIL signal is developed at A14A31 pin 9 and routed to an external Computer through the CPU Connector Housing.

4-77. Unregulated 6 Vdc is applied to series regulators on the Heatsink PCB A14A23. The regulated outputs of the heatsink series regulators are monitored by the 6 Vdc Regulator PCB A14A30 which controls the series regulators by the base drive voltage applied to the series regulators via cable WI0.

4-78. MAP CURSOR. Map cursor is selected from the Right Control Panel A12 and is controlled by CURSOR control (joystick) on either Right or Left Control Panels A12 or Al I or by the Computer. The circuitry is contained in Cursor Electronics A14 and the dc stepping motors are located in the Mapboard Assembly. Refer to figure 4-14 for the functional diagram.

4-79. The joysticks, located on the Left and Right Control Panels All and A12, are force type devices. The amplitude of the joystick output is a function of the force applied, while the polarity is dependent on the direction

the force is applied. Output amplitude can be varied from 0 to positive or negative 1.5 +0.2 Vdc. Cursor Electronics produces a pulse signal, from the joystick analog voltage, that drives the dc stepping motors and sends distance and direction signals to the Computer. The frequency of the pulses is a function of joystick pressure and output amplitude. Maximum frequency is approximately 1,500 pulses per second occurring at the 1.5 Vdc output amplitude.

4-80. The dc stepping motors are pulse-controlled motors changing an incremental amount with each pulse applied. Voltages of 6 and 28 Vdc are applied to the dc stepping motors. The 6 Vdc is used to provide holding current to the motor while 28 Vdc is applied for approximately 1.5 milliseconds during each step pulse to drive the motor.

4-81. Computer inputs of cursor distance and direction to Cursor Electronics, inhibit the joystick signals, drive the dc stepping motors the required distance and direction, and send distance and direction signals of cursor movement to the Computer. In this manner, the Computer commands are nulled when the cursor drives the required amount. The Computer commands the Cursor Electronics to produce pulses to the stepping motors at a frequency of 1,500 pulses per second for FAST MAP CURSOR commands and 300 pulses per second during SLOW MAP CURSOR commands. Pulses sent to the Computer are 750 and 150 pps resulting from a divide-by- two function on the Cursor Control Logic PCBs A14A25 and A14A27.

4-82. Joystick Control. CURSOR SELECT switch A12S7, when placed in the MAP position, applies 5 Vdc from A12S7B IC to pin 13 of A12J2. The CURSOR OFF signal is applied via cable W43 to pin 13 of A14J7 and then to pin 14 of Map X Translator PCB A14A18 and Map Y Translator PCB A14A20. CURSOR OFF enables the translators to produce pulses when commanded. Logic 0 levels from CURSOR SELECT switch S7A2 and S7A5 to pins 19 and 17 of A12J2, respectively, are applied via cable W43 to pins 19 and 17 of A14J7. The logic 0 levels of FILM X and FILM Y are then applied to pin 22 of X Oscillator and Rate Limit PCB A14A9 and Y Oscillator and Rate Limit PCB A14AI I. The FILM X and FILM Y logic 0 signals inhibit film circuits on PCBs A14A9 and A14AI 1. When inhibited in this method, joystick signals will not produce FILM CURSOR DRIVE signals. Logic I levels of MAP X and MAP Y, from CURSOR SELECT switch S7A 9 and S7A 12 to pins 18 and 16 of A12J2, respectively, are applied, via cable W43, to pins 18 and 16 of A14J7. The logic 1 level is then applied to pin 14 of PCBs A14A9 and A14A1 1. The logic 1 level enables signals from the joystick to produce MAP signals to drive the map cursor. Signals of MAP X OFF and MAP Y OFF, from pin 16 of Map X Cursor Control Logic PCB A14A25 and Map Y Cursor Control Logic PCB A14A27, respectively, are applied to pin 7 and pin 4 of A14J7. The MAP X signal is applied to A12J2 pin 7 and MAP Y signal is applied to pin 4 of A12J2. CURSOR SELECT switch S7B IOC and S7C 7C, in MAP position, apply JS X OFF and JS Y OFF signals to pins 9 and 6 of A12J2,respectively. The signals are then applied, via cable W43, to pins 9 and 6 of A14J7 and further applied to pins 18 and 2 of Fast Command and Joystick PCB A14A10. When Computer signals are applied to Map X and Map Y Cursor Control Logic PCBs A14A25 and A14A27, the MAP X OFF and MAP Y OFF signals are logic 1 level signals. Logic I level signals of MAP X OFF and MAP Y OFF, applied to pins 18 and 2 of A14AI0, inhibit joystick signals when Computer signals are applied.

4-83. The joysticks on the Left Control Panel All I and Right Control Panel A12 are identical in operation; there fore, the following discussion will be limited to the Right Control Panel joystick. Signals of JS X, JS Y, X DIR and Y DIR are outputs of the joystick and are applied to A12JI pins 13, 10, 11, and 9, respectively. When pressure is applied to the joystick, these signals are applied, via cable W44, to A14J6. Direction signals, X DIR and Y DIR, are applied to pin 9 of A14A25 and A14A27. When the direction levels are negative, outputs of MAP (+) X and MAP (+) Y from pin 5 of A14A25 and A14A27 are applied, via cable WIO, the the CPU Connector Housing A30. When the direction levels from the joystick are positive, signals of MAP (-) X and MAP (-) Y are applied to the CPU Connector Housing A30, via cable WIO, from pin 7 of A14A25 and A14A27, respectively.

4-84. Signals of JS X and JS Y are applied to pins 22 and 6 of Fast Command and Joystick A14A10, respectively. When JS X OFF and JS Y OFF signals are logic 0 level, signals of JS MAP X and JS MAP Y are generated at pins 17 and 3 of A14A10 and applied to pin 16 of A14A9 and A14AII1. PCBs A14A9 and A14AII, pin 2, produce signals of MAP X OSC and MAP Y OSC to pin I of Map X Translator A14A18 and Map Y

Translator A14A20, respectively. The frequency of the oscillator signals, from pin 2 of A14A9 and A14AII, is dependent on the amplitude of the JS MAP X and JS MAP Y signals. MAP X RAMP and MAP Y RAMP signals, pin 3 of A14A9 and A14AlII, respectively, are generated from the JS MAP X and JS MAP Y signals. MAP X and Y RAMP signals are applied to pin 21 of A14A25 and A14A27, respectively. The ramp signals produce the MAP X CW and MAP Y CW logic level signals to pin 5 of A14A9 and A14A 11, respectively, and to pin 11 of A14A18 and A14A20, respectively, when the joystick has a negative voltage level output. Signals of MAP X CCW and MAP Y CCW, from pin 13 of A14A25 and A14A27, to pin 4 of A14A9 and A14AI 11, respectively, are generated when the joystick output is positive. PCBs A14A9 and A14AII 1 utilize the logic levels at pins 4 and 5 along with the MAP FINAL LIMIT inputs at pins 6 and 8 to inhibit oscillator outputs when a limit is reached. PCBs A14A18 and A14A20 utilize logic levels of MAP X CW/MAP X CCW and MAP Y CW/MAP Y CCW to permit oscillator signals at pin I of A14A18 and A14A20 to produce the MAP X CLOCK and MAP Y CLOCK signals at pin 3 of A14A18 and A14A20, respectively, and to provide pulse outputs on pins 5, 19, 18, 13, and 10 of A14A18 and A14A20. Clock signals, at pin 10 of A14A25 and A14A27 along with direction level signals at pin 9of A14/A25 and A14A27, produce signal outputs to the Computer at pins 7 and 5 of A14A25 and A14A27.

4-85. Map Translators A14A18 and A14A20 produce pulse outputs to Motor Drivers A14A12, A14A2, and A14A4 when the following signal conditions are present:

MAP X CW or CCW	Logic 1
MAP X OSC	Pulses are present
CURSOR OFF	Logic I

Pulse outputs of each translator can be visually monitored by lamps mounted at the top of each PCB A14A18 and A14A20. Table 4-2 lists the logic level of the signals designated V, W, X, Y, Z and are each oscillator pulse input. Logic I indicates a lamp is lighted. When CURSOR OFF logic level is a logic 0 (CURSOR SELECT set to OFF), pulses from the translators are inhibited.

4-86. Pulses from Translators A14A18 and A14A20 are applied to Motor Drivers A14A2, A14A4, and A14A12. Regulated 28 Vdc and 6 Vdc are applied to the motor drivers by voltage regulators in the Cursor Electronics. The 28 Vdc is utilized as driving voltage for the dc stepping motors, while 6 Vdc is used to provide holding current. The pulses from Motor Drivers A14A2, A14A4, and A14A12 are applied to Power Drivers A14A6, A14A5, A14A15, and A14A16. The pulses are then applied, via cable W45, to the Mapboard Assembly A6 where the pulses are applied to Cursor Motors A6BI and A6B2.

Table 4-2. X and Y Translators Truth Table

Present State	CW Direction	CCW Direction
VWX Y Z	V W X Y Z	V W X Y Z
1 1 1 0 0	0 1 1 0 0	1 1 0 0 0
0 1 1 0 0	0 1 1 1 0	1 1 1 0 0
0 1 1 1 0	0 0 1 1 0	0 1 1 0 0
0 0 1 1 0	0 0 1 1 1	0 1 1 1 0
0 0 1 1 1	0 0 0 1 1	0 0 1 1 0
0 0 0 1 1	1 0 0 1 1	0 0 1 1 1
1 0 0 1 1	1 0 0 0 1	0 0 0 1 1
1 0 0 0 1	1 1 0 0 1	1 0 0 1 1
1 1 0 0 1	1 1 0 0 0	1 0 0 0 1
1 1 0 0 0	1 1 1 0 0	1 1 0 0 1

4-87. Computer Control. Computer command logic level signals of MAP (+X) and (+Y) FAST and SLOW are applied through CPU Connector Housing A30 to Cursor Electronics, via cable W10. Logic 0 signals from the computer are ground level while logic I signals are the absence of a ground. The logic levels are applied to Map X Cursor Control Logic PCB A14A25 and Map Y Cursor Control Logic PCB A14A27. A slow command from the Computer produces the MAP X SLOW and MAP Y SLOW logic I level signals from pin 14 of A14A25 and A14A27, respectively. The logic I signals cause MAP X OSC and MAP Y OSC signals, from pin 2 of A14A9 and A14AI 1, respectively, to be at a frequency of 300 pulses per second. Oscillator pulses applied to pin I of translators A14A18 and A14A20 cause the map cursor motors to position the cursor as discussed earlier. Fast command signals from the Computer produce the MAP X FAST and MAP Y FAST logic I level signals from pin 2 of A14A25 and A14A27, respectively, to pins 26 and 14 of A14A10. PCBs A14A10 produces a dc level signal of MAP X FAST and MAP Y FAST from pins 28 and 8 to pin 16 of A14A9 and A14AII, respectively. MAP X OSC and MAP Y OSC signals, from pin 2 of A14A25 and A14A27, to pin 1 of A14A18 and A14A20, respectively, are now at a frequency of 1,500 pulses per second.

4-88. To prevent joystick signals from being able to position the cursor when Computer commands are present, logic 0 signals, pin 16 of A14A25 and A14A27, of MAP X OFF and MAP Y OFF are applied through contacts of CURSOR SELECT switch A12S7. Contact A12S7C 7C and A12S7 O1C apply the logic 0 signals of JS Y OFF and JS X OFF, via cable W43, to pins 2 and 18 of A14A10, respectively. This action inhibits joystick signals from changing the cursor while command signals from the Computer are present.

4-89. Map Cursor Mechanisms. The map cursor is composed of two identical mechanisms that control the position of the crossed-wired cursor. The X-direction mechanism positions the horizontal wire. The Y-direction mechanism positions the vertical wire. The intersection of the two wires locates a point on the Mapboard Assembly. Figures 4-15 and 4-16 are simplified diagrams of the map X-direction and map Y-direction mechanisms, respectively. Table 4-3 lists the element, its description and distance traveled during one complete revolution of the dc stepping motor.

4-90. FILM CURSOR. Film cursor is selected from the Right Control Panel A12 and is controlled by CURSOR control (joystick) on either Right or Left Control Panel A12 or All or by the Computer. The circuitry is contained in Cursor Electronics A14 and the dc stepping motors are located in Direct View A10. Refer to figure 4-17 for the functional diagram.

4-91. The joysticks, located on the Left and Right Control Panels, are force type devices. The amplitude of the joystick output is a function of the force applied while the polarity is dependent on the direction the force is applied. Output amplitude can be varied from zero to positive or negative 1.5 +0.2 Vdc. Cursor Electronics produces a pulse signal from the joystick analog voltage that drives the dc stepping motors and sends distance and direction signals to the Computer. The frequency of the pulses is a function of joystick pressure and output amplitude. Maximum frequency is approximately 2,500 pulses per second occurring at the 1.5 Vdc output amplitude.

4-92. The dc stepping motors are pulse-controlled motors changing an incremental amount with each pulse applied. Voltages of 6 Vdc and 28 Vdc are applied to the dc stepping motors. The 6 Vdc is used to provide holding current to the motor while 28 Vdc is applied for approximately 1.5 milliseconds during each step, to drive the motor.

4-93. Computer inputs of cursor distance and direction to Cursor Electronics, inhibit the joystick signals, drive the dc stepping motors the required distance and direction, and send distance and direction signals of cursor movement to the Computer. In this manner, the Computer commands are pulled when the cursor drives the required amount. The Computer commands the Cursor Electronics to produce pulses to the stepping motors at a frequency of 2,500 pulses per second with fast film cursor commands and 300 pulses per second during slow film cursor commands. Pulses at the same frequency (2,500 and 300 pps) are returned to the Computer.

4-94. Joystick Control. CURSOR SELECT switch A12S7, placed in the FILM position, applies 5 Vdc from A12S7B IC to pin 13 of A12J2. The CURSOR OFF logic I signal is applied via cable W43 to pin 13 of A14J7

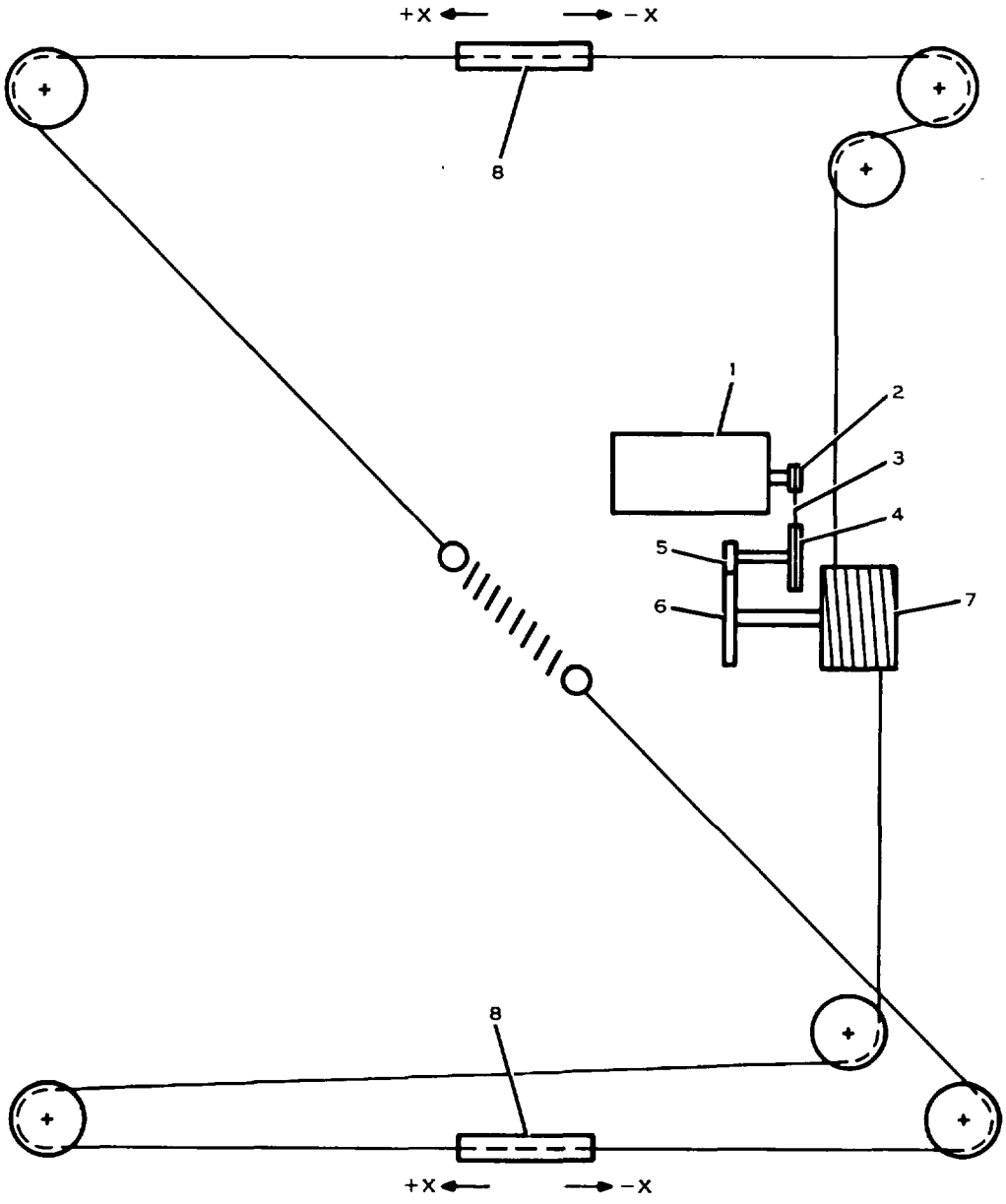


Figure 4-15. Map Cursor X Direction Mechanism Simplified Diagram

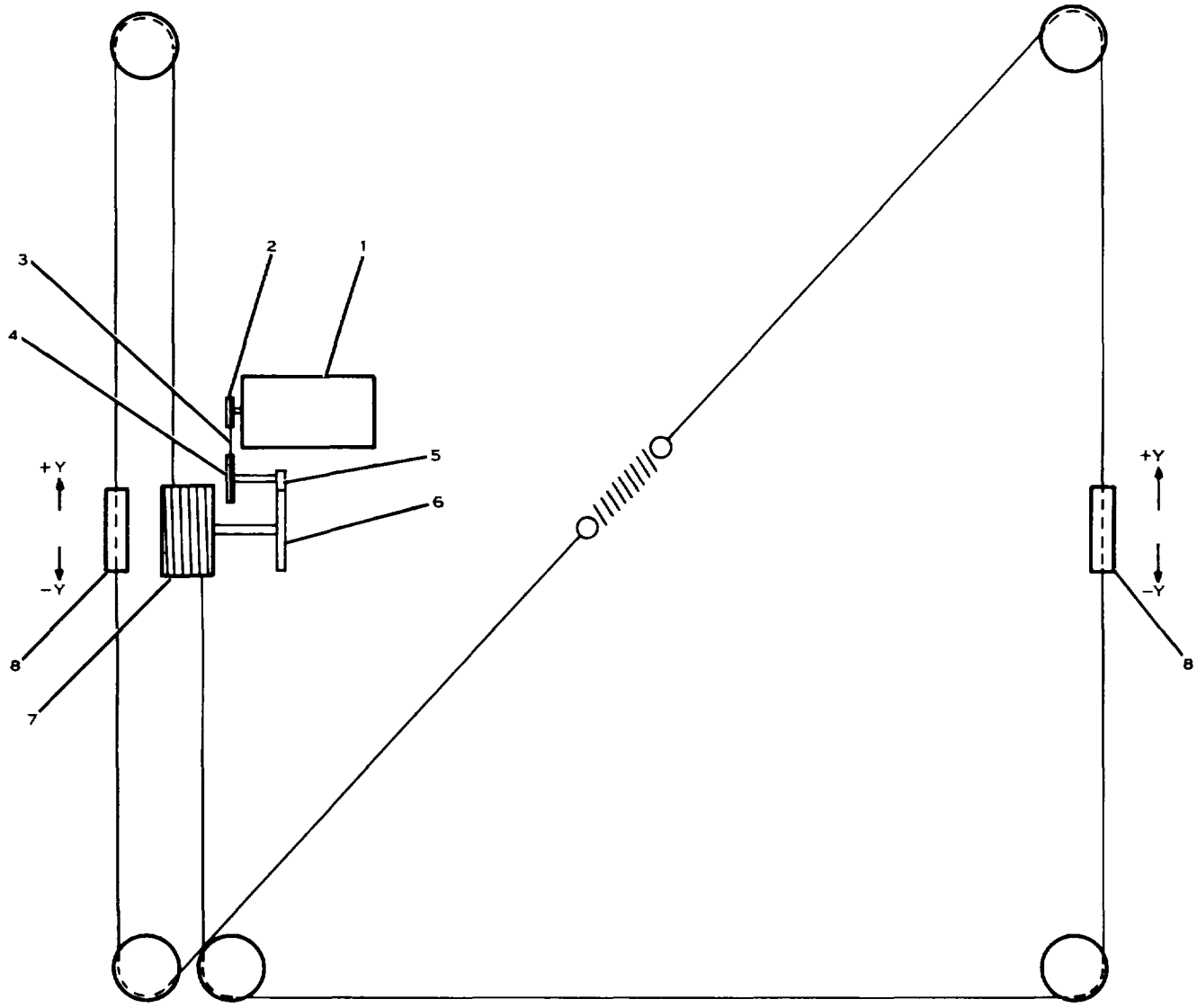


Figure 4-16. Map Cursor Y Direction Mechanism Simplified Diagram

Table 4-3. Map Cursor X and Y Direction Mechanism

Figures 4-15 and 4-16 Index No.	Element	Description	Distance Traveled
1	Stepping Motor	160 steps/revolution	I revolution
2	Geared Pulley	24 teeth	I revolution
3	Drive Belt	N/A	N/A
4	Geared Pulley	72 teeth	0.3333 revolution
5	Pinion	12 teeth	0.3333 revolution
6	Gear	115 teeth	0.0348 revolution
7	Reel	2.9050 groove diameter 9.21 18 mean circumference of cable on reel	0.0348 revolution
8	Arm	Fixed to cable	0.320 inch

and then to pin 14 of Film X Translator A14A17 and Film Y Translator A14A19. CURSOR OFF logic I level enables the translators to produce pulses when commanded. Logic 0 levels from CURSOR SELECT switch S7A 9 and S7A 12, to pins 18 and 16 of A12J2, respectively, are applied via cable W43 to pins 18 and 16 of A14J7. The logic 0 levels of MAP X and MAP Y are then applied to pin 14 of X Oscillator, Rate Limit A14A9, Y Oscillator, and Rate Limit A14AII. The MAP X and MAP Y logic 0 signals inhibit map circuits on PCBs A14A9 and A14AI 1. When inhibited in this method, joystick signals will not produce MAP CURSOR DRIVE signals. Logic levels of FILM X and FILM Y, from CURSOR SELECT switch S7A 3 and S7A 6, to pins 19 and 17 of A12J2, respectively, are applied via cable W43 to pins 19 and 17 of A14J7. The logic I level is then applied to pin 23 of PCBs A14A9 and A14AI 1. The logic I level enables signals from the joystick to produce film signals to drive the film cursor. Signals of FILM'X OFF and FILM Y OFF, from pin 16 of Film X Cursor Control Logic A14A24 and Film Y Cursor Control Logic A14A26, respectively, are applied to pin 8 and pin 5 of A14J7. The FILM X OFF signal is applied to A12J2 pin 8 and FILM Y OFF signal is applied to pin 5 of A12J2. CURSOR SELECT switch S7B IOC and S7C 7C, in FILM position, apply JS X OFF and JS Y OFF signals to pins 9 and 6 of A12J2,respectively. The signals are then applied via cable W43 to pins 9 and 7 of A14J7 and further applied to pins 18and 2 of Fast Command and Joystick PCB A14A10. When Computer signals are applied to Film X and Film Y Cursor Control Logic PCBs A14A24 and A14A26, the FILM X OFF and FILM Y OFF signals are logic I level signals. Logic I level signals of FILM X OFF and FILM Y OFF, applied to pins 18 and 2 of A14A10, inhibit joystick signals when computer signals are applied.

4-95. The joysticks on Left Control Panel All and Right Control Panel A12 are identical in operation; therefore, the following discussion will be limited to the Right Control Panel joystick. Signals of JS X, JS Y, X DIR, and Y DIR are outputs of the joystick and are applied to A12JI pins 13, 10, 11, and 9, respectively. When pressure is applied to the joystick, these signals are applied via cable W44 to A14J6. Direction signals, X DIR and Y DIR, are applied to pin 9 of A14A24 and A14A26. When the direction levels are negative, outputs of FILM (+) X and FILM (+) Y from pin 5 of A14A24 and A14A26, respectively, are applied to Power Distribution Panel A13, via cable W10, and to the Computer. When the direction levels from the joystick are positive, signals of FILM (-) X and FILM (-) Y are applied to the Computer from pin 7 of A14A24 and A14A26, respectively.

4-96. Signals of JS X and JS Y are applied to pins 22 and 6 of Fast Command and Joystick PCB A14AI0, respectively. When JS X OFF and JO V OFF signals are logic 0 level, signals of JS FILM X and JS FILM Y are generated at pins 16 and 7 of A14A*10* and applied to pin 21 of A14A9 and A14AII. PCBs A14A9, and A14AII, pin 18, produce signals of FILM X OSC and FILM Y OSC to pin I of Film X Translator A14A17 and Film Y

Translator A14AI9, respectively. The frequency of the oscillator signals, from pin 18 of A14A9 and A14AI I, is dependent on the amplitude of the JS FILM X and JS FILM Y signals. FILM X RAMP and FILM Y RAMP signals, pin 17 of A14A9 and A14AII, respectively, are generated from the JS FILM X and JS FILM Y signals. FILM X and Y RAMP signals are applied to pin 21 of A14A24 and A14A26, respectively. The RAMP signals produce the FILM X CW and FILM Y CW logic level signals to pin 27 of A14A9 and A14A II, respectively, and to pin 11 of A14A17 and A14A19, respectively, when the joystick has a negative voltage level output. Signals of FILM X CCW and FILM Y CCW, from pin 13 of A14A24 and A14A26, respectively, to pin 28 of A14A9 and A14AII, respectively, are generated when the joystick output is positive. PCBs A14A9 and A14AI I utilize the logic levels at pins 28 and 27 along with the FILM FINAL LIMIT inputs at pins 24 and 25 to inhibit oscillator outputs when a limit is reached. PCBs A14A17 and A14AI9 utilize logic levels of FILM X CW/FILM X CCW and FILM Y CW/FILM Y CCW to permit oscillator signals at pin I of A14A17 and A14A19 to produce the FILM X CLOCK and FILM Y CLOCK signals at pin 3 of A14A17 and A14A19, respectively, and to provide pulse outputs on pins 5, 19, 18, 13, and 10. Clock signals at pin 10 of A14A24 and A14A26 along with direction level signals at pin 9 of A14A24 and A14A26, produce signal outputs to the computer at pins 7 and 5 of A14A24 and A 14A26.

4-97. Film Translators A14A17 and A14AI9 produce pulse outputs to Motor Drivers A14A12, A14A3, and A14AI when the following signal conditions are present:

FILM X CW or CCW	Logic 1
FILM X OSC	Pulses are present
Cursor off	Logic 1

Pulse outputs of each translator can be visually monitored by lamps mounted at the top of each PCB A14A17 and A14A19. Table 4-2 lists the logic level of the signals designated V, W, X, Y, and Z for each oscillator pulse input. Logic I level indicates a lamp is lighted. When CURSOR OFF logic level is a logic 0 (CURSOR SELECT set to OFF) pulses from the translators are inhibited.

4-98. Pulses from translators A14A17 and A14AI9 are applied to motor drivers A14AI, A14A3, and A14A12. Regulated 28 Vdc and 6 Vdc are applied to the motor drivers by voltage regulators in the Cursor Electronics. The 28 Vdc is utilized as driving voltage for the dc stepping motors while 6 Vdc is used to provide holding current. The pulses from motor drivers A14AI, A14A3, and A14A12 are applied to Power Drivers A14A8, A14A7, A14A13, and A14A14. The pulses are then applied, via cable W42, through junction box A22 to direct-view X motor on cable W36 and to Y motor on cable W37.

4-99. Computer Control. Computer command logic level signals of FILM (:f) X and (+) Y FAST and SLOW are applied through CPU Connector Housing A30 to Cursor Electronics A14 via cable W10. Logic 0 signals from the Computer are ground level while logic I signals are the absence of a ground. The logic levels are applied to Film X Cursor Control Logic A14A24 and Film Y Cursor Control Logic A14A26. A slow command from the Computer produces the FILM X SLOW and FILM Y SLOW logic I level signals from pin 14 of A14A24 and A14A26, respectively. The logic 1 signals cause FILM X OSC and FILM Y OSC signals, from pin 18 of A14A9 and A14AII, respectively, to be at a frequency of 300 pulses per second. Oscillator pulses applied to pin I of Translators A14A17 and A14A19 cause the film cursor motors to position the cursor as discussed earlier. Fast command signals from the Computer produce the FILM X FAST and FILM Y FAST logic I level signals from pin 2 of A14A24 and A14A26, respectively, to pins 25 and 11 of A14AI 1. PCB A14A10 produces a dc level signal of FILM X FAST and FILM Y FAST from pins 27 and 5 to pins 26 of A14A9 and AI4AI 11, respectively. FILM X OSC and FILM Y OSC signals from pin 18 of A14A9 and A14AII, to pin I of A14A17 and A14A19, respectively, are now at a frequency of 2,500 pulses per second.

4-100. To prevent joystick signals from being able to position the cursor when Computer commands are present, logic 0 signals, pin 16 of A14A24 and A14A26 of FILM X OFF and FILM Y OFF, are applied through contacts of CURSOR SELECT switch A12S7. Contact A12S7C 7C and A12S7 IOC apply the logic 0 signals of JS Y OFF and JS X OFF, via cable W43, to pins 2 and 18 of A14AI0, respectively. This action inhibits joystick signals from changing the cursor while command signals from the Computer are present.

4-101. Film Cursor Mechanism. The film cursor mechanism is shown in figure 4-18. Driving either the X or Y dc stepping motor positions a lighted reticle that is projected onto the direct-view surface. Table 4-4 lists the element, its description, and distance traveled during one complete revolution of the X and Y dc stepping motors.

4-102. SHAFT ENCODER AND CURSOR ENTER CIRCUIT. The shaft encoders monitor film movement through the console and provide pulses to an external Computer. These pulses allow the Computer to determine the speed, direction, and amount of film transported through the console. The cursor enter circuit provides pulses to an external Computer which allow the Computer to monitor the location of the selected cursor. Figure 4-19 is a functional diagram of the shaft encoder and cursor enter circuits and should be referred to during the following discussion.

4-103. As film is transported through the console, the shaft encoder is rotated and pulses are generated at the rate of 250 per revolution of the encoder. For example, if the film is being transported at a rate of 40 inches per second, the encoder provides two pulse outputs (channel A and channel B). When film is moved forward (left to right) in the console, the encoder channel A output pulses lead the channel B pulses by approximately 90 degrees. When film is moved in the reverse direction (right to left), the encoder channel B pulses lead the channel A pulses by approximately 90 degrees. These pulses are applied through cable W20 to pins 22 and 20 of the front and rear encoder interface circuits on PCBs A14A29 and A14A28. The encoder interface circuits provide forward or reverse film motion output pulses at pins 2 and 3 of A14A28 and A14A29. These output pulses are a function of film direction and speed. An anti-jitter circuit on A14A28 and A14A29 prevents erroneous pulse outputs when no actual forward or reverse film movement has occurred. The film motion output pulses of A14A28 and A14A29 are routed through cable W10 and CPU Connector Housing A30 and then to the Computer.

4-104. When the CURSOR SELECT switch on Right Control Panel A12 is set to MAP, a logic 1 (2.4 to 5.0 Vdc) is applied through cable W43 to pin 8 of A14A28 as a cursor select and enables the map cursor enter circuit. At the same time a logic 0 (O to 0.4 Vdc) is applied to pin 8 of A14A29 and inhibits the film cursor enter circuit. When the CURSOR SELECT switch is set to FILM, the film cursor enter circuit is enabled and the map cursor enter circuit is inhibited.

4-105. When the CURSOR ENTER switch on the Left Control Panel All is depressed, a logic 0 is applied to pin 9 of A14A28 as a CURSOR ENTER ON command. If the map cursor enter circuit on A14A28 is enabled, a cursor enter for CPU pulse is developed at pin 6 of A14A28. If the map cursor enter circuit is inhibited and the film cursor enter circuit on A14A29 is enabled, a logic I at pin 10 of A14A28 is applied to A14A29 pin 7 which causes a map cursor enter for CPU pulse at pin A14A29.

4-106. When the CURSOR ENTER switch on the Right Control Panel A12 is depressed, a logic 0 is applied to pin 9 of A14A29 as a CURSOR ENTER ON command. If the film cursor enter circuit on A14A29 is enabled, a cursor enter for CPU pulse is developed at pin 6 of A14A29. If the film cursor enter circuit is inhibited and the map cursor enter circuit on A14A28 is enabled, a logic I at pin 10 of A14A29 is applied to A14A28 pin 7 which causes a map cursor enter for CPU pulse at pin 6 of A14A28.

4-107. FILM CURSOR LIMIT CIRCUIT. Two types of limits are provided for the film cursor, a first limit and a final limit. As the cursor approaches the end of its travel in any direction, the first limit is reached which slows down the cursor. Then, as the cursor reaches the end of its travel, the final limit is reached and the cursor is stopped. Figure 4-20 is a functional diagram of the film cursor limit circuit and should be referred to during the following discussion.

4-108. When either the left or right first limit switch on the Direct View A10 is actuated, a 15 volt return is applied through the Junction Box A22 and the Right Control Panel A12 to A14A10 pin 24 as a FILM X FIRST LIMIT. The 15 volt return at A14A10 pin 24 forward-biases a diode which reduces the voltage available for drive to a voltage-controlled oscillator on the X Oscillator and Rate Limit PCB A14A9. The 15 volt return is also applied through the CURSOR SELECT switch, when in FILM, to A14A10 pin 21 as an X FIRST LIMIT. This also reduces the voltage available for drive to a voltage-controlled oscillator on X Oscillator and Rate Limit PCB A14A9. The reduced of drive voltage to these oscillators results in a slower X-axis motor speed.

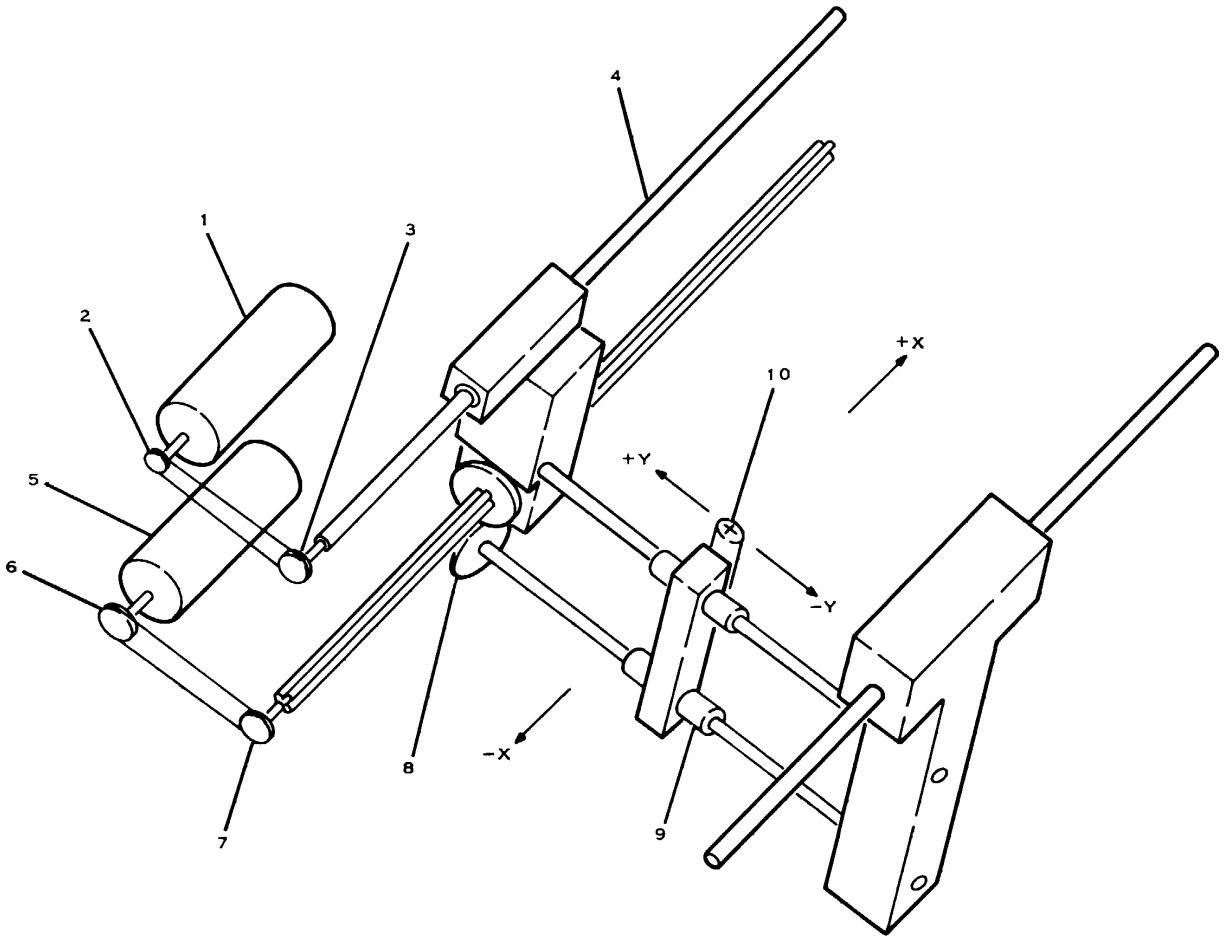


Figure 4-18. Film (Cursor X and Y Direction Mechanism Simplified Diagram

Table 4-4. Film Cursor X and Y Direction Mechanism

Figure 4-18 Index No.	Element	Description	Distance Traveled
1	X stepping motor	160 steps/revolution	1 revolution
2	X geared pulley	20 teeth	1 revolution
3	X geared pulley	25 teeth	0.80 revolution
4	X ball screw	0.200 inch lead	0.080 revolution
5	Y stepping motor	160 steps/revolution	1 revolution
6	Y geared pulley	32 teeth	1 revolution
7	Y geared pulley	25 teeth	1.28 revolutions
8	Y gear set	1:1 ratio	1.28 revolutions
9	Y ball screw	0.125 inch lead	1.28 revolutions
10	Reticle	Lighted, controled intensity	0.160 inch

4-109. When either the back or front first limit switch on the Direct View A10 is actuated, the drive voltage to voltage-controlled oscillator on Y Oscillator and Rate Limit PCB A14AI is reduced in the same manner described in paragraph 4-108. This action results in a slower Y-axis motor speed.

4-110. When a final limit switch on the direct view is actuated, the 15 volt return line to the associated input of the X or Y Oscillator and Rate Limit PCB is broken. The removal of the 15 volt return at pin 25 or 24 of A14A9 or A14AII 1 causes the input of a voltage-controlled oscillator to be shunted to ground through a transistor and prevents the cursor from being driven any further in the direction of the final limit.

4-111. MAP CURSOR LIMIT AND STOW CIRCUIT. Two types of limits are provided for the map cursor, a first limit and a final limit. As the cursor approaches the end of its travel in any direction, the first limit is reached which slows down the cursor. Then, as the cursor reaches the end of its travel, the final limit is reached and the cursor is stopped. The stow circuit drives the cursor to the lower left corner of the Mapboard Assembly A6. Figure 4-21 is a functional diagram of the map cursor limit and stow circuit and should be referred to during the following discussion.

4-112. When either the left or right first limit switch on the Mapboard Assembly is actuated, a 15 volt return is applied to A14A10 pin 23 as a MAP X FIRST LIMIT. The 15 volt return at A14A10 pin 23 forward-biases a diode which reduces the voltage available for drive to a voltage-controlled oscillator on X Oscillator and Rate Limit PCB A14A9. The 15 volt return is also applied through the CURSOR SELECT switch, when in MAP, to A14A10 pin 21 as an X FIRST LIMIT. This also reduces the voltage available for drive to a voltage-controlled oscillator on X Oscillator and Rate Limit PCB A14A9. The reduction of the drive voltage to these oscillators results in a slower X-axis motor speed.

4-113. When either the up or down first limit switch on the Mapboard Assembly A6 is actuated, the drive voltage to voltage-controlled oscillators on Y Oscillator and Rate Limit PCB A14AI 1 is reduced in the same manner described in paragraph 4-112. This action results in a slower Y-axis motor speed.

4-114. When a final limit switch on the Mapboard Assembly is actuated, the 15 volt return line to the associated input of the X or Y Oscillator and Rate Limit PCB is broken. The removal of the 15 volt return at pin 8 or 6 of A14A9 or A14AI I causes the input of a voltage-controlled oscillator to be shunted to ground through a transistor and prevents the cursor from being driven any further in the direction of the final limit. 4-115. The MAP CURSOR STOW switch on the Right Control Panel A12 is a momentary action switch which applies a momentary 28 volt return through the CURSOR SELECT switch to the coils of relays A14KI and A14K2 to energize the relays. A 5 volt return is applied through the left and lower first limit switches and the closed contacts of relays A14KI and A14K2 to keep the relays energized after the MAP CURSOR STOW switch is released. With relays A14KI and A14K2 energized, 5 Vdc is applied to pin 3 of Control Logic PCBs A14A25 and A14A27. This causes the map cursor to be driven to the lower left of the Mapboard Assembly. When the cursor reaches a point where both the left and lower first limit switches are actuated, relays A14KI and A14K2 deenergize and the cursor stops.

4-116. MAPBOARD HIGH-VOLTAGE CONTROL. The Mapboard Assembly A6 contains a high-voltage power supply that is used to hold the map in place by electrostatic means. Power is applied to the high-voltage power supply when the MAIN POWER SWITCH is set to ON. Figure 4-22 is a functional diagram of Mapboard high-voltage control.

4-117. Single-phase A voltage of 120 Vac and neutral is applied to pins 4 and 5 of connector A6J2. High-voltage interlock switch SIA is closed when the back cover is properly installed on the Mapboard Assembly. Power supply PSI produces 6,500 Vdc and return at pins 3 and 5, respectively. The high voltage is then applied to the electro-static holding board MTI. The electrostatic holding board produces an electrostatic charge that holds the map in place.

4-118. High-voltage interlock switch SIB is actuated when the interlock plunger actuator is pulled out. When actuated, switch SIB applies 28 Vdc to INTERLOCK BYPASSED lamp DSI. The lamp serves to indicate that high voltage is present.

4-119. HIGH-VOLTAGE POWER SUPPLY A17. The purpose of the High-Voltage Power Supply is to provide 5.8 kVdc and 1.4 kVdc for the operation of the direct-view and stereo-view lamps, respectively.

4-120. Direct-View Power Supply A17AI. Figure 4-23 is a functional diagram of the Direct-View Power Supply. Three-phase 120 Vac is applied through relay KI to the high-voltage transformer Tl, located in the oil section A2. The stepped-up voltage on the secondary of TI enters a full-wave bridge rectifier where the output voltage, 5.8 kVdc, is placed on connector W33P3 for distribution. The 5.8-kVdc output voltage is connected to a resistive divider network in the oil section A2 to provide 1000:1 test point for monitoring the output voltage, and to provide overcurrent and overvoltage signals to the regulator assembly Al.

4-121. Heatsinks A3, A4, and A6 provide a means of absorbing the power difference between the incoming power and the power required by the load. Heatsinks A3 and A4 also contain thermal switches to provide overtemperature shutdown of the power supply.

4-122. Relay Kl, located in the relay assembly AS, allows the three-phase voltage from W IJ4 to enter the highvoltage transformer TI primary when energized. Relay KI can be deenergized, removing the three-phase voltage from the high-voltage transformer T1 primary, by removing the +28 Vdc on command from pin 6 of W I J4. The Regulator Assembly Al contains overvoltage protection circuitry, overcurrent protection circuitry, thermal protection circuitry, and reset and soft-start circuitry which will also deenergize relay K I.

4-123. Stereo-View Power Supply A17A2. Figure 4-24 is a functional diagram of the stereo-view power supply. Three-phase, 120 Vac is applied through relay KI to the high-voltage transformer Ti, located in the oil section A2. The stepped-up voltage on the secondary of TI enters a full-wave bridge rectifier where the output voltage, 1.4 kVdc, is placed on connector W31PI for distribution. The 1.4 kVdc output voltage is connected to a resistive divider network in the oil section A2 to provide 1000:1 test point for monitoring the output voltage, and to provide overcurrent and overvoltage signals to the regulator assembly Al.

4-124. Heatsinks A3 and A6 provide a means of absorbing the power difference between the incoming power and the power required by the load. Heatsink A3 contains a thermal switch to provide overtemperature shutdown of the power supply.

4-125. Relay KI, located in the Relay Assembly A5, allows the three-phase voltage from WIIJ2 to enter the high-voltage transformer TI primary when energized. Relay K can be deenergized, removing the three-phase voltage from the high-voltage transformer TI primary, by removing the +28V ON CMD from pin 6 of W I J2. The Regulator Assembly Al contains overvoltage protection circuitry, overcurrent protection circuitry, thermal protection circuitry, and reset and soft-start circuitry which will also deenergize relay K 1.

4-126. STEREOSCOPE TRANSIT CASE TEMPERATURE CONTROL. The stereoscope transit case is equipped with a temperature control circuit that maintains the temperature inside the case at approximately room temperature (720F). An indicator is provided on the outside of the case that lights when the temperature is too low. The case should not be opened when the indicator is on. Figure 4-25 is a functional diagram of the temperature control circuit and should be referred to during the following discussion.

4-127. When the temperature inside the case is below 660F, both temperature switches SI and S2 are closed. With both switches closed, 120 Vac is applied to indicator DSI, heater HRI, and blower Bi. As the temperature rises and reaches between 660 and 750F, low-temperature switch SI opens and removes 120 Vac neutral from indicator DSI, heater HRI, and blower B1. The high-temperature switch S2 prevents overheating of the stereoscope or case by opening and removing 120 Vac neutral from heater HRI at a temperature between 1100 and 1200F.

SECTION V
MAINTENANCE

5-1. GENERAL.

5-2. This section contains necessary instructions to maintain the equipment. Included in this section are corrective maintenance procedures, a list of test equipment required for maintenance of the Console, and an operational checkout of the Console.

5-3. CORRECTIVE MAINTENANCE.

5-4. Corrective maintenance for the Console is presented in the form of minimum performance standards tests, troubleshooting, alignments and adjustments, and removal and reassembly instructions. Table 5-1 lists the test equipment required for maintenance. The items of test equipment listed are recommended and may be substituted with an equivalent item.

5-5. MAINTENANCE CONTROLS AND INDICATORS. Table 5-2 lists the maintenance controls and indicators 4contained in the Console. Figure 5-1 through 5-9 illustrate the location of the maintenance controls and indicators.

Table 5-1. Equipment Required, But Not Supplied, for Maintenance

Nomenclature	Use
Oscilloscope Tektronix 454A	Used to monitor and measure ac voltages and waveforms.
Oscilloscope probe, current, TEK P6021	Used in conjunction with oscilloscope to moni tor high dc voltages and waveforms.
Digital multimeter, Fluke OOOA	Used to measure voltages and resistances. Two required.
Multimeter, Triplett 630NS	Used for continuity, resistance, and voltage measurements.
Digital frequency counter, HP-5381A	Used to count distance pulses from film transports. Two required.

Table 5-2. Maintenance Controls and Indicators

Reference Designator	Description	Function	Figure and Index No.
A6DS 1I	Lamp	Lights when high voltage interlock is cheated	5-1, 1
A6SI	Switch	Provides interlock for high voltage power supply. Actuates when back cover is removed.	5-1, 2
A7R I	Potentiometer	Senses film remaining on spool of left front film transport	5-2, 1
A7R2	Potentiometer	Senses film remaining on spool of left rear film transport	5-2, 2
ASRI	Potentiometer	Senses film remaining on spool of right front film transport	5-3, 1
A8R2	Potentiometer	Senses film remaining on spool of right rear film transport	5-3, 2
A9AIR13	Potentiometer	Adjusts +15 Vdc regulated voltage	5-4, 4
A9AIR16	Potentiometer	Adjusts -15 Vdc regulated voltage	5-4, 2
A9AIR27	Potentiometer	Adjusts +5 Vdc regulated voltage	5-4, 3
A9A3R15	Potentiometer	Adjusts +28 Vdc regulated voltage	5-4, 1
A9A8RI	Potentiometer	Adjusts voltage to direct view TABLE BRIGHTNESS control	5-4, 6
A9A8R4	Potentiometer	Adjusts dc offset voltage to operational amplifier A9A8U1	5-4, 5
A9A8R25	Potentiometer	Adjusts voltage to stereo TABLE BRIGHTNESS control	5-4, 7
A9A8R28	Potentiometer	Adjusts dc offset voltage to operational amplifier A9A8U5	5-4, 8
AIITBIRI	Potentiometer	2.125 core diameter trimming adjust for left rear film transport	5-5, 6
AIITB1R2	Potentiometer	1.125 core diameter trimming adjust for left rear film transport	5-5, 5
A IITBIR3	Potentiometer	0.969 core diameter trimming adjust for left rear film transport	5-5, 4
AI ITBIR5	Potentiometer	2.125 core diameter trimming adjust for left front film transport	5-5, 1
AIITBIR6	Potentiometer	1.125 core diameter trimming adjust for left front film transport	5-5, 2
A IITBIR7	Potentiometer	0.969 core diameter trimming adjust for left front film transport	5-5, 3
A I ITB2R3	Potentiometer	Balance adjust for X-axis of joystick	5-5, 7
A I ITB2R4	Potentiometer	Balance adjust for Y-axis of joystick	5-5, 8
A12TBIRI	Potentiometer	2.125 core diameter trimming adjust for right rear film transport	5-6, 1
AI2TBIR2	Potentiometer	1.125 core diameter trimming adjust for right rear film transport	5-6, 2
AI2TBIR3	Potentiometer	0.969 core diameter trimming adjust for right rear film transport	5-6, 3
A12TBIR5	Potentiometer	2.125 core diameter trimming adjust for right front film transport	5-6, 6
AI2TBIR6	Potentiometer	1.125 core diameter trimming adjust for right front film transport	5-6, 5

Table 5-2. Maintenance Controls and Indicators (Continued)

Reference Designator	Description	Function	Figure and Index No.
AI2TBIR7	Potentiometer	0.969 core diameter trimming adjust for right front film transport	5-6, 4
A12TB2R3	Potentiometer	Balance adjust for X-axis of joystick	5-6, 7
A12TB2R4	Potentiometer	Balance adjust for Y-axis of joystick	5-6, 8
A13AIR5	Potentiometer	Adjusts upper limit of voltage tolerance circuit	5-7, 7
A13AIR12	Potentiometer	Adjusts lower limit of voltage tolerance circuit	5-7, 8
A13AIR21	Potentiometer	Adjusts 28 Vdc regulated voltage	5-7, 9
A13A2R15 A13A2U2B	Potentiometer	Adjusts threshold voltage to operational amplifier and controls D.V. temperature	5-7, 6
A13A2R41 A13A2U5B	Potentiometer	Adjusts threshold voltage to operational amplifier and controls D.V. fan	5-7, 1
A13A2R43 A13A2U5A	Potentiometer	Adjusts threshold voltage to operational amplifier and controls D.V. overtemperature	5-7, 2
A13A3R15 A13A3U2B	Potentiometer	Adjusts threshold voltage to operational amplifier and controls stereo overtemperature	5-7, 5
A13A3R41	Potentiometer	Not used	5-7, 4
A13A3R43	Potentiometer	Adjusts threshold voltage to operational amplifier A 13A3U5A	5-7, 3
A14A9R16	Potentiometer	Adjusts frequency of film X oscillator for computer slow film commands	5-8, 6
A 14A9R 18	Potentiometer	Adjusts frequency of map X oscillator for computer slow map commands	5-8, 2
A14A9R20 A14A9U3	Potentiometer	Adjusts dc offset voltage to operational amplifier	5-8, 4
A 14A9R21 A 14A9U4	Potentiometer	Adjusts dc offset voltage to operational amplifier	5-8, 3
A14A9R37 A14A9U5	Potentiometer	Adjusts threshold voltage to operational amplifier	5-8, 5
A14A9R38 A 14A9U6	Potentiometer	Adjusts threshold voltage to operational amplifier	5-8, 1
A14AO1RI9	Potentiometer	Adjusts film X fast voltage	5-8, 14
A 14A 10R20	Potentiometer	Adjusts map X fast voltage	5-8, 13
A14AlOR21	Potentiometer	Adjusts film Y fast voltage	5-8, 9
A14AIOR22	Potentiometer	Adjusts map Y fast voltage	5-8, 10
A14A10R53	Potentiometer	Adjusts dc TEXT EDIT FUNCTION BLOCK # 6 level of film X joystick signal	5-8, 12
A14AIOR54	Potentiometer	Adjusts dc level of map X joystick signal	5-8, I
A14AIOR55	Potentiometer	Adjusts dc level of film X joystick signal	5-8, 8
A14AIOR56	Potentiometer	Adjusts dc level of map Y joystick signal	5-8, 7
A14AIIR16	Potentiometer	Adjusts frequency of film Y oscillator for computer slow film commands	5-8, 6
A 14AI IR18	Potentiometer	Adjusts frequency of map Y oscillator for computer slow map commands	5-8, 2

Table 5-2. Maintenance Controls and Indicators (Continued)

Reference Designator	Description	Function	Figure and Index No.
A 14AIIR20	Potentiometer	Adjusts dc offset voltage to operational amplifier A14AI IU3	5-8, 4
A 14A I R21	Potentiometer	Adjusts dc offset voltage to operational amplifier AI14AIIU4	5-8, 3
A 14A I I R37	Potentiometer	Adjusts threshold voltage to operational amplifier A14AI IU5	5-8, 5
A 14AII R38	Potentiometer	Adjusts threshold voltage to operational amplifier A14AI IU6	5-8, 1
A14A17DSI	Lamp	Lighted when V pulse is at logic I level	5-8, 19
A14AI7DS2	Lamp	Lighted when W pulse is at logic I level	5-8, 18
AI14A17DS3	Lamp	Lighted when X pulse is at logic I level	5-8, 17
A14A17DS4	Lamp	Lighted when Y pulse is at logic I level	5-8, 16
A14A17DS5	Lamp	Lighted when Z pulse is at logic I level	5-8, 15
A14A18DSI	Lamp	Lighted when V pulse is logic I level	5-8, 19
AI4A18DS2	Lamp	Lighted when W pulse is logic I level	5-8, 18
A14A18DS3	Lamp	Lighted when X pulse is logic I level	5-8, 17
A14AI8DS4	Lamp	Lighted when Y pulse is logic I level	5-8, 16
A14A18DS5	Lamp	Lighted when Z pulse is logic I level	5-8, 15
A 14A 1I9DSI	Lamp	Lighted when V pulse is logic I level	5-8, 19
AI14A19DS2	Lamp	Lighted when W pulse is logic I level	5-8, 18
A14A19DS3	Lamp	Lighted when X pulse is logic I level	5-8, 17
A14A19DS4	Lamp	Lighted when Y pulse is logic I level	5-8, 16
A14A19DS5	Lamp	Lighted when Z pulse is logic I level	5-8, 15
A14A20DSI	Lamp	Lighted when V pulse is logic I level	5-8, 19
A14A20DS2	Lamp	Lighted when W pulse is logic I level	5-8, 18
A14A20DS3	Lamp	Lighted when X pulse is logic I level	5-8, 17
A14A20DS4	Lamp	Lighted when Y pulse is logic I level	5-8, 16
A14A20DS5	Lamp	Lighted when Z pulse is logic I level	5-8, 15
A14A24R21	Potentiometer	Adjusts threshold voltage to operational amplifier A14A24U II	5-8, 21
A14A24R28	Potentiometer	Adjusts threshold voltage to operational amplifier A144A24U12	5-8, 20
A14A25R21	Potentiometer	Adjusts threshold voltage to operational amplifier A 14A25Ul I	5-8, 21
A14A25R28	Potentiometer	Adjusts threshold voltage to operational amplifier A14A25U12	5-8, 20
A14A26R21	Potentiometer	Adjusts threshold voltage to operational amplifier A14A26U I	5-8, 21
A14A26R28	Potentiometer	Adjusts threshold voltage to operational amplifier A14A26U12	5-8, 20
A14A27R21	Potentiometer	Adjusts threshold voltage to operational amplifier A14A27Ulll	5-8, 21

Table 5-2. Maintenance Controls and Indicators (Continued)

Reference Designator	Description	Function	Figure and Index No.
A 14A27R28 A14A27U12	Potentiometer	Adjusts threshold voltage to operational amplifier	5-8, 20
A 14A30A IR8	Potentiometer	Adjusts 6 Vdc output of regulator no. 1	5-8, 25
A 14A30A2R8	Potentiometer	Adjusts 6 Vdc output of regulator no. 2	5-8, 24
A 14A30A3R8	Potentiometer	Adjusts 6 Vdc output of regulator no. 3	5-8, 23
A 14A30A4R8	Potentiometer	Adjusts 6 Vdc output of regulator no. 4	5-8, 22
A14A31RII	Potentiometer	Adjusts 28 Vdc output of regulator no. 1	5-8, 30
A14A31R22	Potentiometer	Adjusts 28 Vdc output of regulator no. 2	5-8, 29
A14A31R34	Potentiometer	Adjusts 28 Vdc output of regulator no. 3	5-8, 28
A14A31R45	Potentiometer	Adjusts 28 Vdc output of regulator no. 4	5-8, 27
A14A31R51	Potentiometer	Adjusts low-voltage point at which power failure signal is sent to the computer	5-8, 26
A15AIRIOPotentiometer		Adjusts fast-forward voltage for film transport computer commands	5-9, 1
A15AIRII Potentiometer		Adjusts slow-forward voltage for film transport computer commands	5-9, 2
A15AIR12	Potentiometer	Adjusts fast-reverse voltage for film transport computer commands	5-9, 3
A15AIR13	Potentiometer	Adjusts slow-reverse voltage for film transport computer commands	5-9, 4
A15A5RII Potentiometer		Adjusts 28 Vdc output of regulator no. 1	5-9, 9
A 15A5R22	Potentiometer	Not used	5-9, 8
A15A5R34	Potentiometer	Not used	5-9, 7
A15A5R45	Potentiometer	Adjusts 28 Vdc output of regulator no. 1	5-9, 6
A15A5R51	Potentiometer	Not used	5-9, 5
A15A6R10	Potentiometer	Adjusts fast-forward voltage for film transport computer commands	5-9, 1
A15A6RII Potentiometer		Adjusts slow-forward voltage for film transport computer commands	5-9, 2
A15A6R12	Potentiometer	Adjusts fast-reverse voltage for film transport computer commands	5-9, 3
A15A6R13	Potentiometer	Adjusts slow-reverse voltage for film transport computer commands	5-9, 4

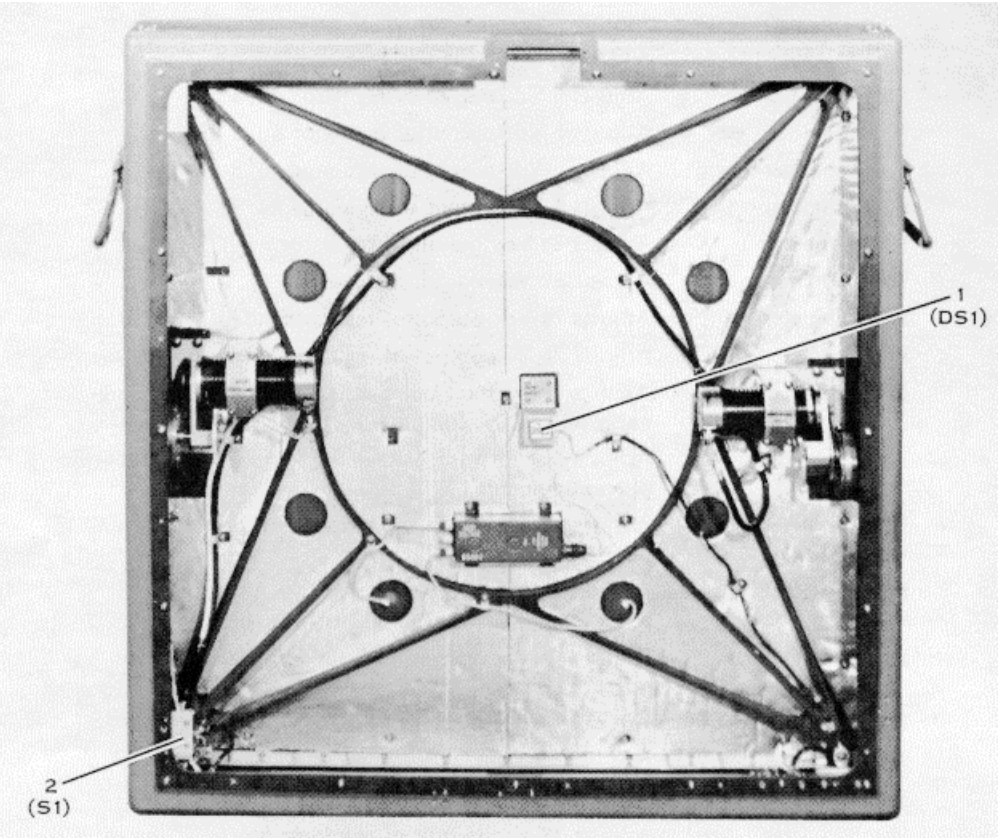


Figure 5-1. Mapboard A6, Location of Maintenance Controls and Indicators

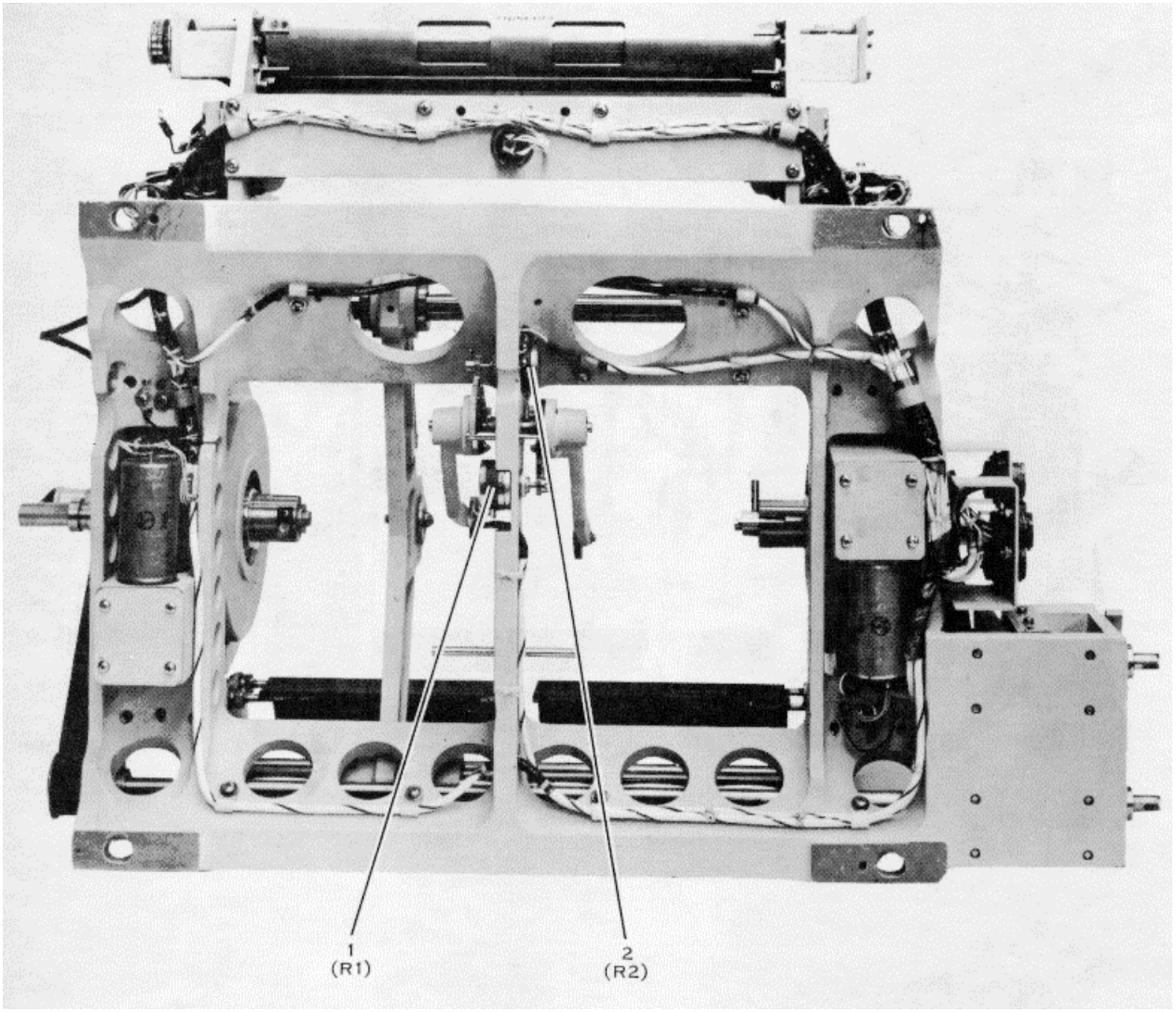


Figure 5-2. Left Film Transport A 7, Location of Maintenance Controls and Indicators

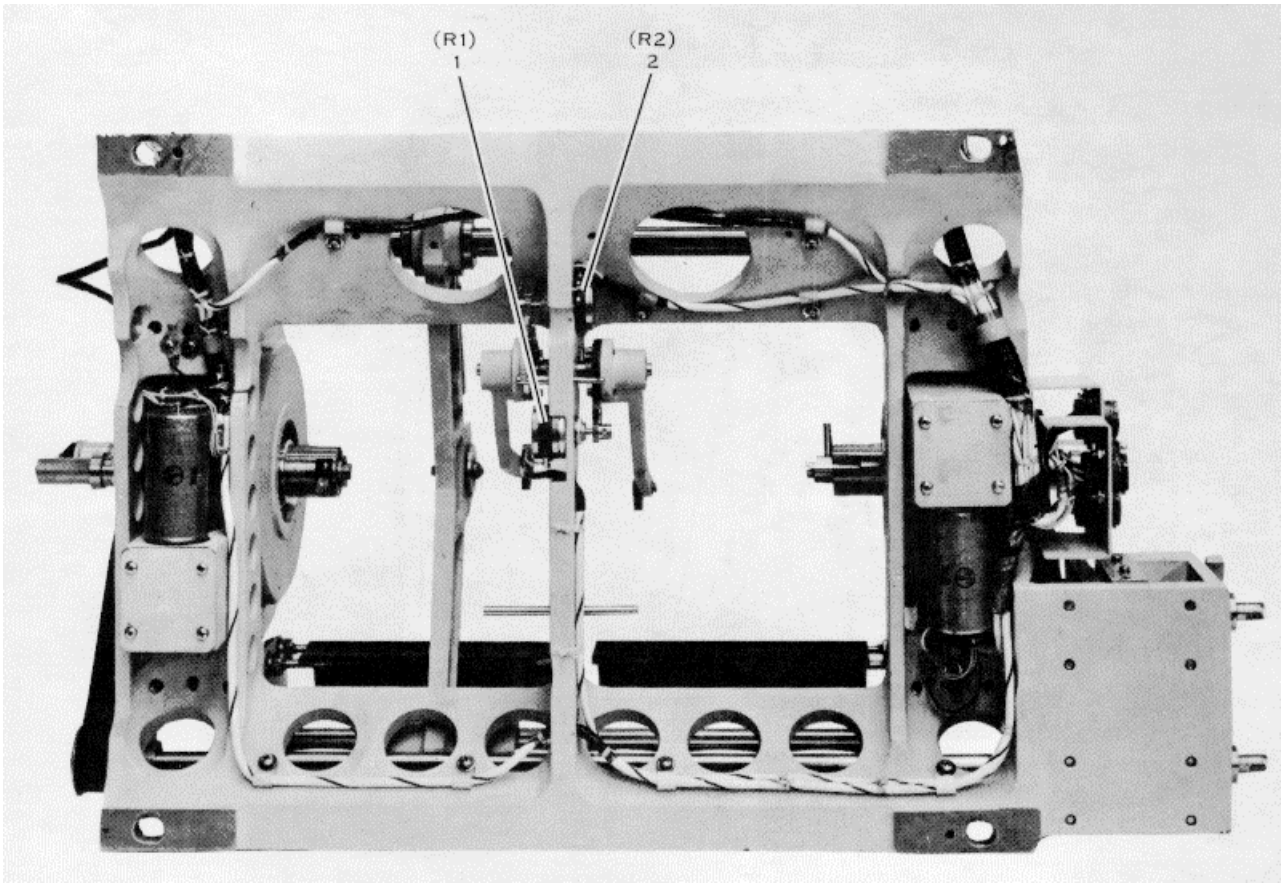


Figure 5-3. Right Film Transport A8, Location of Maintenance Controls and Indicators

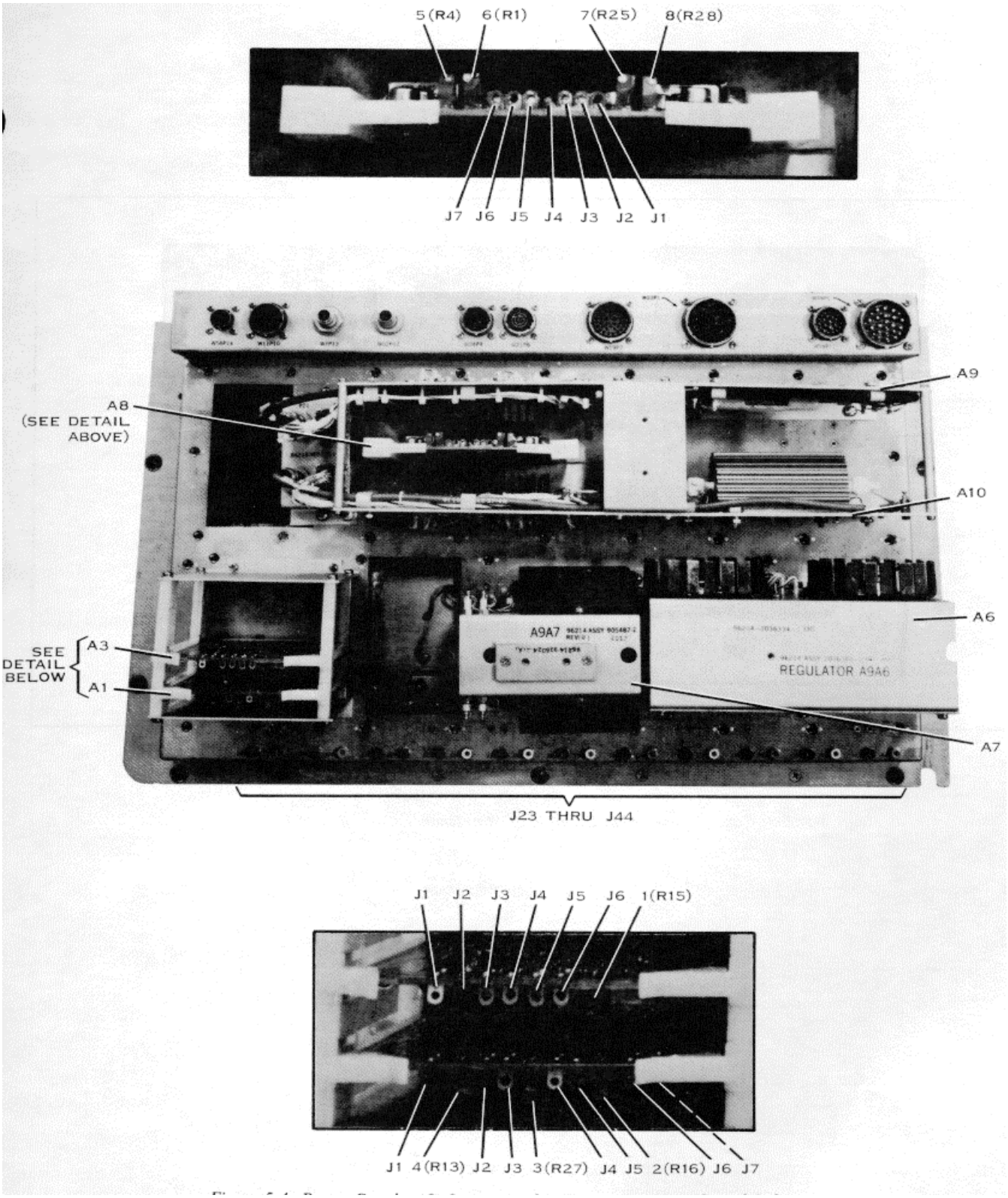


Figure 5-4. Power Supply) A 9, Location of Maintenance Controls and Indicators

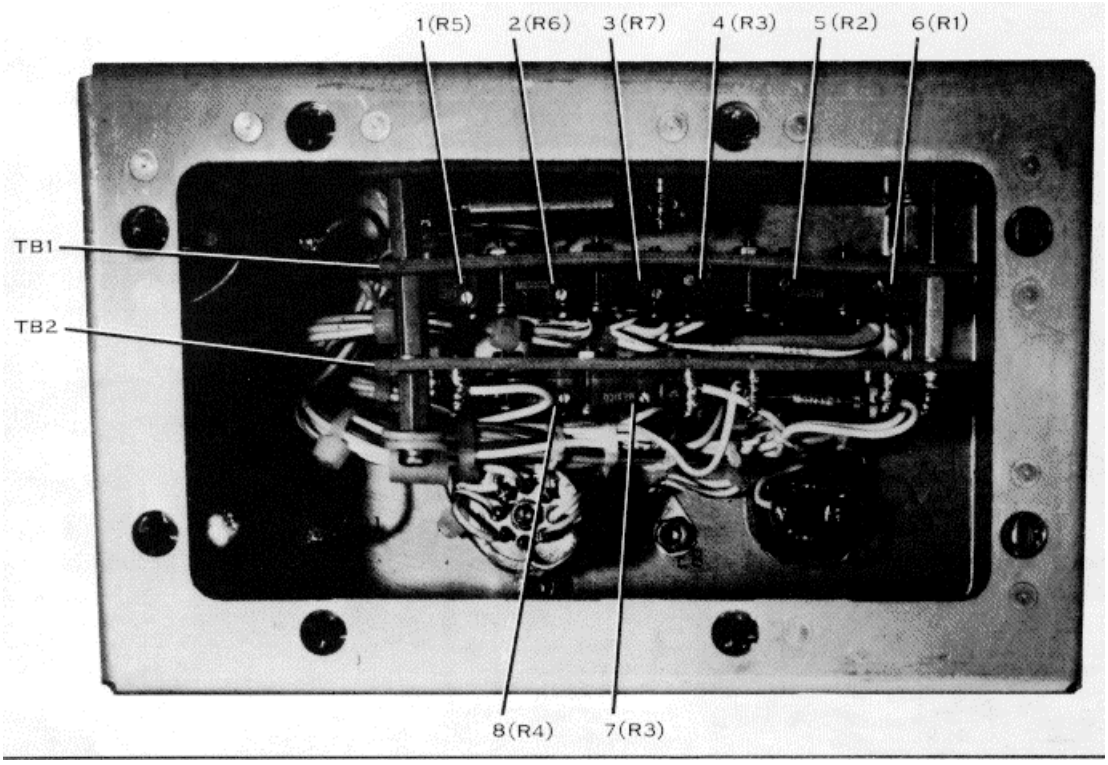


Figure 5-5. Left Control Panel A11, Location of Maintenance Controls and Indicators

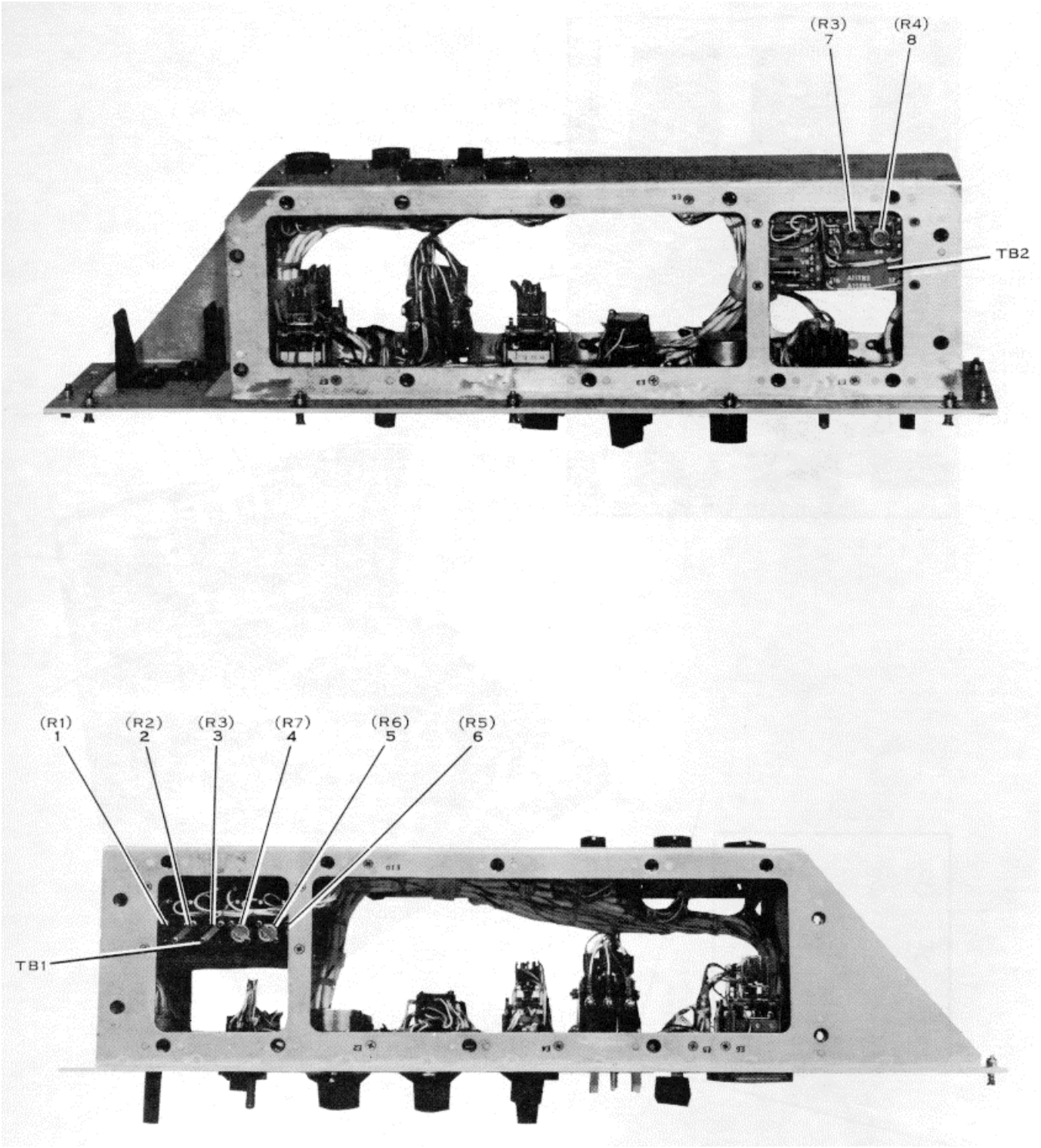


Figure 5-6. Right Control Panel A12, Location of Maintenance Controls and Indicators

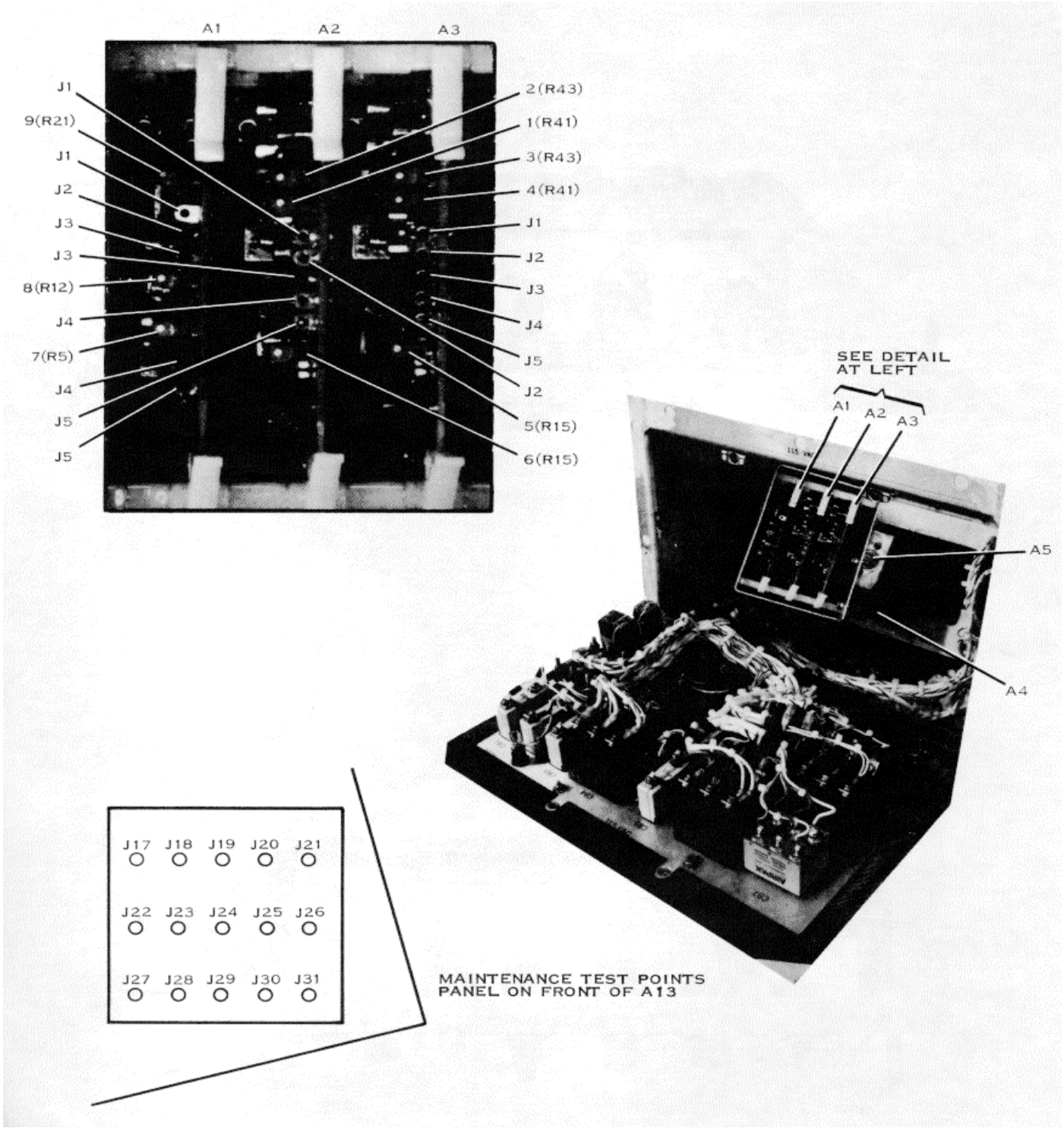


Figure 5-7. Power Distribution Panel A13. Location of Maintenance Controls and Indicators

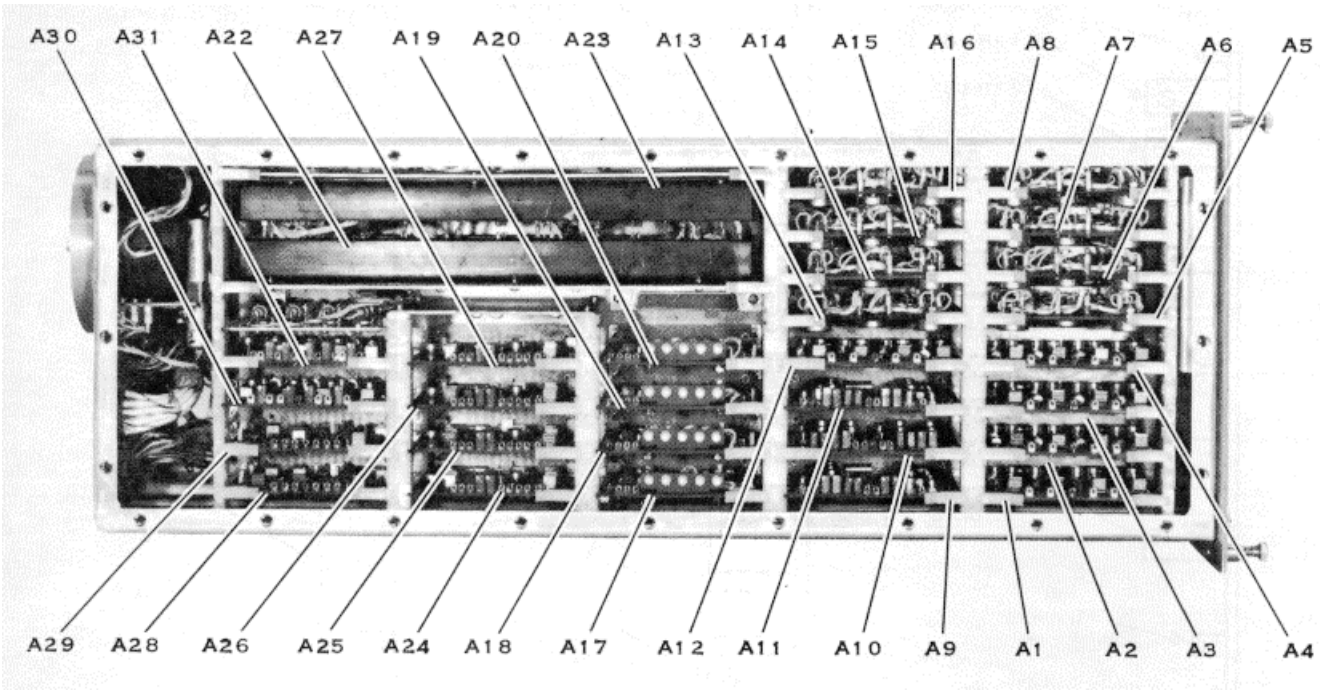


Figure 5-8. Cursor Electronics A14, Location of Maintenance Controls and Indicators (Sheet 1 of 2)

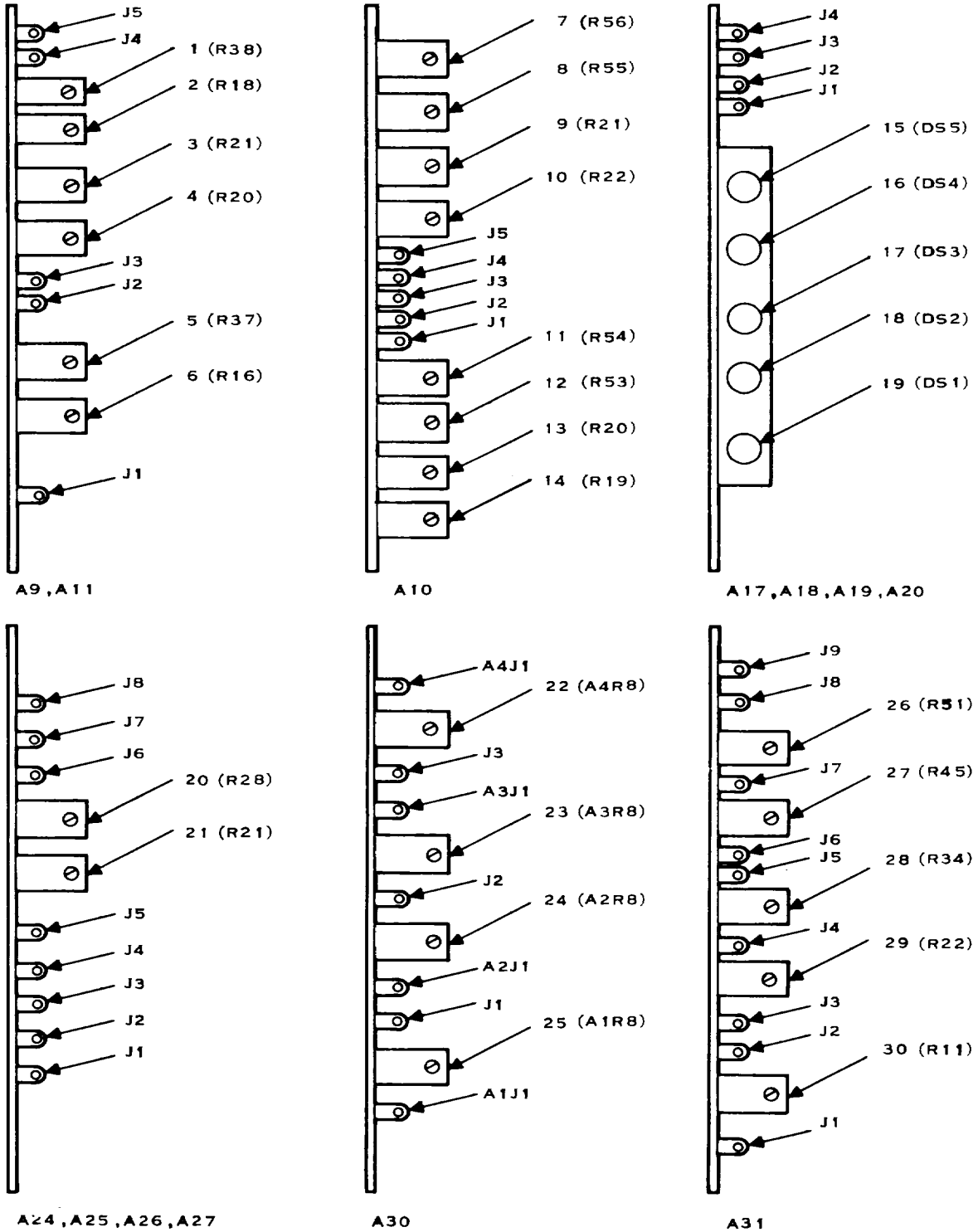


Figure 5-8. Cursor Electronics A14, Location of Maintenance Controls and Indicators (Sheet 2 of 2)

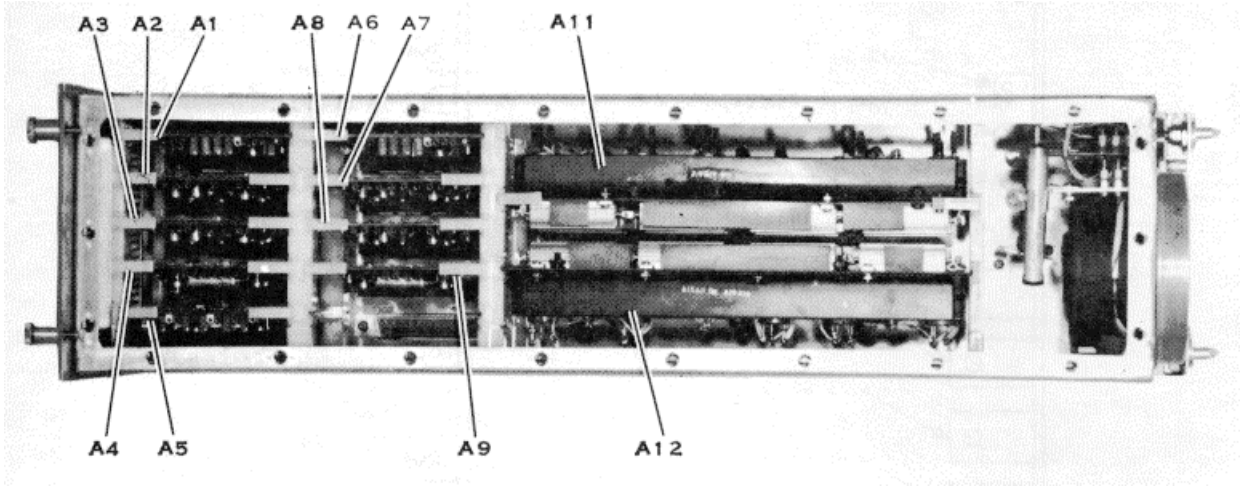


Figure 5-9. Transport Electronics A15, Location of Maintenance Controls and Indicators (Sheet 1 of 2)

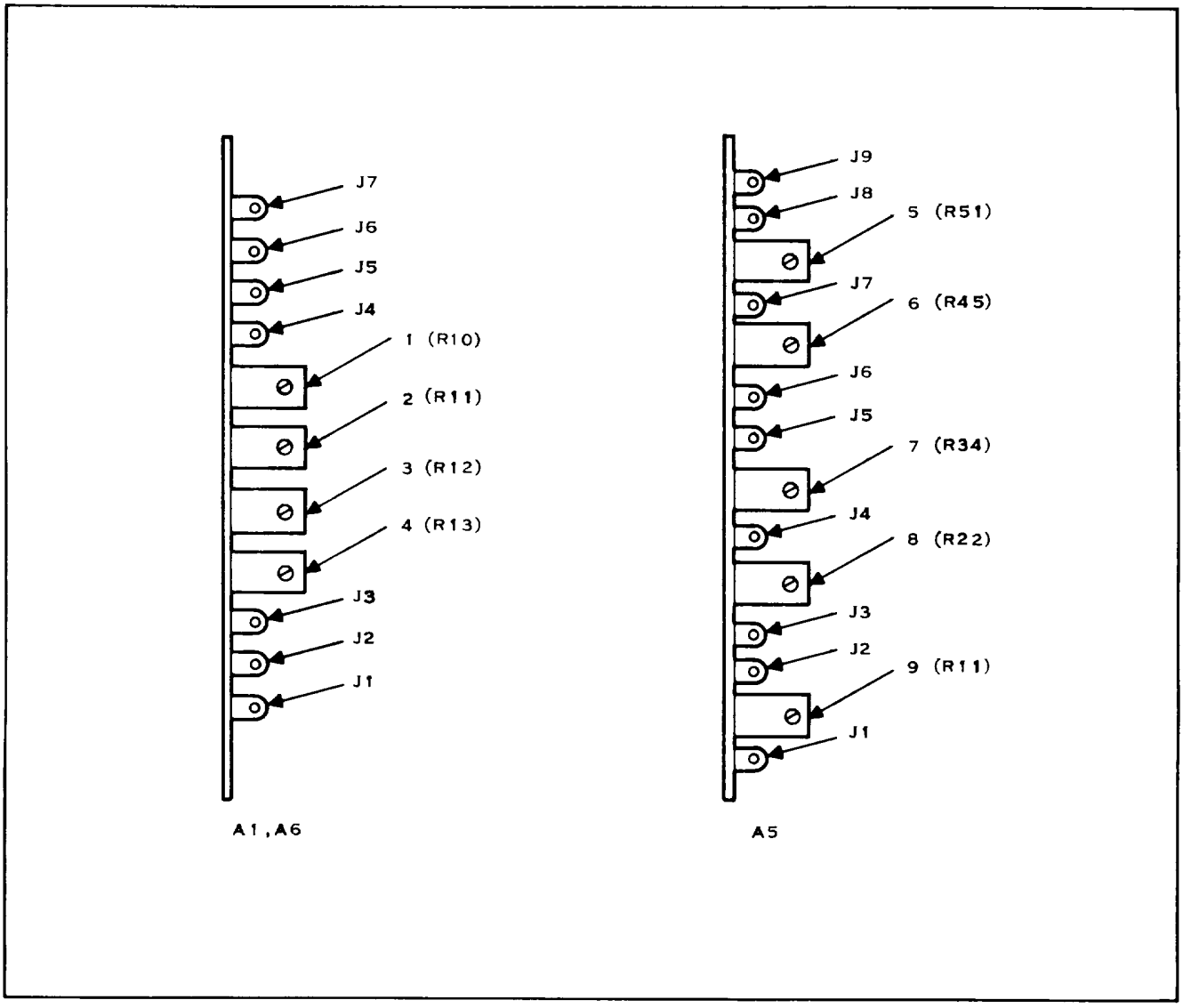


Figure 5-9. Transport Electronics A15, Location of Maintenance Controls and Indicators (Sheet 2 of 2)

5-6. MINIMUM PERFORMANCE STANDARDS. The minimum performance standards tests provide a means of determining if the Console is completely operational from a maintenance standpoint. When performed at regular intervals, or any time a problem is suspected, the tests can identify problem areas before a malfunction occurs and prevent unnecessary out-of-service time. When a malfunction occurs, the tests can be used in conjunction with the troubleshooting procedures to isolate the fault.

5-7. Minimum performance standards tests for the Console are provided for functional circuits rather than individual subassemblies or parts. Diagrams of each functional circuit tested are located in section IV of this manual and can be used as an aid during minimum performance standards testing. Instructions are given in the PIC FID (Photo Interpretation Console Fault Isolation Diagnostics) section of T.O. 10M1-7-9-8-2 for performing fault isolation diagnostics that test the Console Computer interface, film cursor, Mapboard cursor, and Film Transport functions.

5-8. It is recommended that the minimum performance standards test be performed at regular intervals of not more than 180 days or when they are deemed necessary as a maintenance measure. If a circuit does not meet the minimum performance standard, refer to the troubleshooting table for that particular circuit to isolate the fault. Steps in the troubleshooting tables are keyed to steps in the minimum performance standards tables.

5-9. Initial Switch and Control Settings. To prepare the Console for a minimum performance standards test, make switch and control settings as follows:

a.	Power distribution panel	
	MAIN POWER switch	ON
	OPERATE/STANDBY switch	STANDBY
	A11 circuit breakers	ON
b.	Right Control Panel	
	FILM VELOCITY controls	Centered
	TRANSPORT MODE switch	NORM
	CURSOR SELECT switch	OFF
	CURSOR BRIGHTNESS control	OFF (fully ccw)
	STEREO TABLE BRIGHTNESS control	OFF (fully ccw)
	DIRECT TABLE BRIGHTNESS control	OFF (fully ccw)
c.	Power Supply A9	
	All circuit breakers	In or ON

5-10. Main Power and Voltage Tolerance Circuit Minimum Performance Standards Test. The procedures for performing minimum performance standards tests on the main power and voltage tolerance circuit are given in table 5-3. Figures 4-1 through 4-3 are functional diagrams of the main power circuits. Refer to table 5-12 for troubleshooting information.

5-11. Rear Film Transport Drive Circuit Minimum Performance Standards Test. The procedures for performing minimum performance standards tests on the rear film transport drive circuit are given in table 5-4. Figure 4-5 is a functional diagram of the rear film transport drive circuit. Refer to table 5-13 for troubleshooting information.

5-12. Front Film Transport Drive Circuit Minimum Performance Standards Test. The procedures for performing minimum performance standards tests on the front film transport drive circuit are given in table 5-5. Figure 4-6 is a functional diagram of the front film transport drive circuit. Refer to table 5-14 for troubleshooting information.

5-13. Rear End-of-Film Circuit Minimum Performance Standards Test. The procedures for performing minimum performance standards tests on the rear end-of-film circuit are given in table 5-6. Figure 4-7 is a functional diagram of the rear end-of-film circuits. Refer to table 5-15 for troubleshooting information.

5-14. Front End-of-Film Circuit Minimum Performance Standards Test. The procedures for performing minimum performance standards test on the front end-of-film circuit are given in table 5-7. Figure 4-8 is a functional diagram of the front end-of-film circuit. Refer to table 5-16 for troubleshooting information.

5-15. Direct-View and Stereo-View Lamps Minimum Performance Standards Test. The procedures for performing minimum performance standards tests on the direct-view and stereo-view lamps are given in table 5-8. Figures 4-9 and 4-10 are functional diagrams of the direct-view and stereo-view lamp circuits. Refer to table 5-17 for troubleshooting information.

5-16. Slack Loop Minimum Performance Standards Test. The procedures for performing minimum performance standards tests on the Slack Loop Assembly are given in table 5-9. Figure 4-12 is a functional diagram of the slack loop drive circuits. Refer to table 5-18 for troubleshooting information.

5-17. Map Cursor Minimum Performance Standards Test. The procedures for performing the minimum performance standards tests on the map cursor circuits are given in table 5-10. Figures 6-16, 6-17, and 6-21 are functional diagrams of circuits associated with the map cursor. Refer to table 5-19 for troubleshooting information.

5-18. Film Cursor Minimum Performance Standards Tests. The procedures for performing minimum performance standards tests on the film cursor circuits are given in table 5-11. Figures 4-14, 4-15, and 4-16 are functional diagrams of circuits associated with the film cursor. Refer to table 5-20 for troubleshooting information.

5-19. TROUBLESHOOTING. Tables 5-12 through 5-20 provide procedures for troubleshooting the functional circuits of the Console. The steps of the troubleshooting tables are keyed to the steps of the minimum performance standards test tables to facilitate isolation of a fault discovered during minimum performance standards testing. When a malfunction occurs during normal operation of the Console, the troubleshooting tables may be utilized by scanning the trouble column of the table concerned with the inoperative function until the particular trouble is found. Diagrams of each functional circuit are provided in section IV of this manual and should be used in conjunction with the troubleshooting tables to isolate faults. For CPU to PIC interface troubleshooting, refer to Test Procedures Manual listed in table 1-1 and perform PIC FID. The PIC FID will test all the Computer interfaces to the PIC. The two primary areas involved are:

Mapboard cursor

Film cursor

Film transports

Both cursors will have both direction and speed of X and Y sections tested.

5-20. Main Power and Voltage Tolerance Troubleshooting. The procedures for troubleshooting the main power and voltage tolerance circuit are given in table 5-12. Figures 4-2 through 4-4 are functional diagrams of the main power circuits.

5-21. Rear Film Transport Drive Circuit Troubleshooting. The procedures for troubleshooting the rear film transport drive circuit are given in table 5-13. Figure 4-5 is a functional diagram of the rear film transport drive circuit.

5-22. Front Film Transport Drive Circuit Troubleshooting. The procedures for troubleshooting the front film transport drive circuit are given in table 5-14. Figure 4-6 is a functional diagram of the front film transport drive circuit.

5-23. Rear End-of-Film Circuit Troubleshooting. The procedures for troubleshooting the rear end-of-film circuit are given in table 5-15. Figure 4-7 is a functional diagram of the rear end-of-film circuit.

5-24. Front End-of-Film Circuit Troubleshooting. The procedures for troubleshooting the front end-of-film circuit are given in table 5-16. Figure 4-8 is a functional diagram of the front end-of-film circuit.

5-25. Direct-View and Stereo-View Lamps Troubleshooting. The procedures for troubleshooting the direct-view and stereo-view lamp circuits are given in table 5-17. Figures 4-9 and 4-10 are functional diagrams of the direct-view and stereo-view lamp circuits.

5-26. Slack Loop Troubleshooting. The procedures for troubleshooting the Slack Loop Assembly are given in table 5-18. Figure 4-12 is a functional diagram of the slack loop drive circuits.

5-27. Map Cursor Troubleshooting. The procedures for troubleshooting the map cursor circuits are given in table 5-19. Figures 4-14, 4-15, and 4-16 are functional diagrams of circuits associated with the map cursor.

5-28. Film Cursor Troubleshooting. The procedures for troubleshooting the film cursor circuits are given in table 5-20. Figures 4-17, 4-18, and 4-20 are functional diagrams of circuits associated with the film cursor.

Table 5-3. Main Power and Voltage Tolerance Circuit Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-12 Step
1	Perform initial switch and control settings in paragraph 5-9.		1
2	Set MAIN POWER SWITCH on Power Distribution Panel A13 to ON.	a. POWER ON indicator on Power Distribution Panel shall light. b Both left and right exhaust fan shall operate. c. STANDBY indicator on Power Distribution Panel shall light after exhaust fans have reached operating speed.	1
3	Depress VOLTAGE OUT OF TOLERANCE switch on Power Distribution Panel.	a. STANDBY indicator shall extinguish. b. VOLTAGE OUT OF TOLERANCE indicator shall light.	2
4	Cycle MAIN POWER SWITCH from ON to OFF and back to ON.	a. VOLTAGE OUT OF TOLERANCE indicator shall extinguish. b. Same as step 2.	11
5	Rotate LINE VOLTMETER switch on Power Distribution Panel through all four active positions.	LINE VOLTMETER shall indicate 120 ±10 percent Vac for each switch position.	3
6	Depress OPERATE/STANDBY switch on Power Distribution Panel.	a. OPERATE indicator shall light. b. Cursor electronics fan and transport electronics fan shall operate.	4
7	Push down on locking pins on right front and rear of stereo-view housing and slide housing to right until it stops.	Slack loop illuminating lamps shall light.	5
8	Connect multimeter between A9J36 (+) and A9J37 (-).	Multimeter shall indicate 11 ±2 Vdc.	6
9	Connect multimeter between A9J40 (+) and A9J35 (-).	Multimeter shall indicate 11 ±2 Vdc.	6
10	Connect multimeter between A9J42 (+) and A9J35 (-).	Multimeter shall indicate 36 ±3 Vdc	
11	Connect multimeter between A9J34 (+) and A9J39 (-).	Multimeter shall indicate 36 ±3 Vdc.	6
12	Connect multimeter between A9J25 (+) and A9J27 (-).	Multimeter shall indicate -15 ±0.75 Vdc. **CAUTION** Use portable fan to provide cooling air for Power Supply A9 when operating A9 outside console.	8
13	Connect multimeter between A9A1J1 (+) and A9J27 (-).	Multimeter shall indicate +15 ±0.75 Vdc.	7
14	Connect multimeter between A9A1J3 (+) and A9A1J7 (-).	Multimeter shall indicate 5 ±0.5 Vdc.	9
15	Rotate CURSOR BRIGHTNESS control on Right Control Panel A12 from OFF to fully clockwise.	Film cursor lamp shall light and increase in intensity as control is rotated in clockwise direction.	10
16	Return CURSOR BRIGHTNESS control to OFF and place OPERATE/STANDBY switch in STANDBY condition.		
17	Push down on locking pins on right front and rear of stereo-view housing and slide housing to left into locked position.	Slack loop illuminating lamps shall extinguish.	

Table 5-4. Rear Film Transport Drive Circuit Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-13 Step
1	Perform initial switch and control settings in paragraph 5-9 and place STANDBY/OPERATE switch in OPERATE. Load film in rear transports as described in paragraph 3-11. **NOTE** Locate Transport Electronics A15 drawer, loosen four screws, and fully extend. Remove cover from Transport Electronics to gain access to PCBs. Place covering on top of Transport Electronics in the area of heatsink assemblies to provide adequate airflow over heatsink assemblies.	REAR TRANSPORT OFF indicator shall light.	1
2	Place REAR TRANSPORT ON/ TRANSPORT OFF switch on Left Control Panel A11 in TRANSPORT ON mode.	REAR TRANSPORT ON indicator shall light.	2
3	a. Slowly rotate REAR FILM VELOCITY control on Left Control Panel clockwise. **NOTE** Continue transporting film until both film spools contain approximately same amount of film.	Right rear film transport drive motor shall run and increase in speed as control is moved clockwise.	3
	b. Slowly rotate REAR FILM VELOCITY control on Left Control Panel counterclockwise.	Left rear film transport drive motor shall run and increase in speed as control is moved counterclockwise.	
4	Rotate REAR FILM VELOCITY control on Right Control Panel clockwise and set TRANSPORT MODE switch to NORM.	Right rear film transport drive motor shall run and transport film to right.	4
5	Set TRANSPORT MODE switch to RVS.	Left rear film transport drive motor shall run and transport film to left.	4
6	Set TRANSPORT MODE switch to off.	Film transport shall stop.	4
7	Rotate REAR FILM VELOCITY control on Right Control Panel counterclockwise and set TRANSPORT MODE switch to NORM.	Left rear film transport drive motor shall run and transport film to left.	4
8	Set TRANSPORT MODE switch to RVS.	Right rear transport drive motor shall run and transport film to right.	4

Table 5-4. Rear Film Transport Drive Circuit Minimum Performance Standards Test (Continued)

Step	Procedure	Minimum Performance Standards	Troubleshooting Reference, Table 5-13 Step
9	Set TRANSPORT MODE switch to OFF and return REAR FILM VELOCITY control to center position.		
	NOTE Steps 10 through 12 present a manual method for checking and computing film speed. The PIC/FID, described in T.O. M1-7-9-8-2, also checks film speed.		
10	Set multimeter to DC volts, range 20. Connect multimeter to A15A6J2 (+) and A15A6J1 (-).		
	CAUTION Turn console and Computer off before disconnecting or connecting cables.		
11	Pull Computer out of ADP rack and disconnect cable P1 at J1.		
	NOTE In step 12, jumper wires are used to simulate Computer-generated film transport commands. The PIC FID film transport test will perform the same test. Refer to T.O. 10M1-7-9-8-2 for instructions.		
12	a. Connect jumper wire between pins 78 and 89 of P1 or 1W11P1 to simulate rear transport slow-forward command.	a. Right rear film transport drive motor shall run. b. Record multimeter indication.	5
	b. Remove jumper and connect between pins 55 and 66 of P1 to simulate rear transport fast-forward command.	a. Right rear film transport drive motor shall run. b. Record multimeter indication.	
	c. Remove jumper and connect between pins 120 and 128 of P1 to simulate rear transport slow-reverse command.	a. Left rear film transport drive motor shall run. b. Record multimeter indication.	
	d. Remove jumper and connect between pins 101 and 111 of P1 to simulate rear transport fast-reverse command.	a. Left rear film transport drive motor shall run. b. Record multimeter indication.	
	e. Remove jumper and compute film speed for steps 12.a through 12.d as follows:	Computed film speed shall be within 10 percent of desired film speed. Film speed (in./s) = $\frac{\text{voltage at A15A6J2}}{0.25}$	

Table 5-4. Rear Film Transport Drive Circuit Minimum Performance Standards Test (Continued)

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-13, Step
13	Reconnect cable PI to J1 to back of Computer. Place Computer in ADP rack. Replace cover and drawer on Transport Electronics A15.		
14	Place a scale with 0.01-inch graduations along etched line on direct-view glass. Slide scale about halfway under front edge of film. Move stereoscope over scale and adjust for clear view of scale and edge of film. Align scale marking with edge of exposed area of film and tape scale in place.		
15	Rotate REAR FILM VELOCITY control on right control panel to a point midway between center and fully clockwise. Set TRANSPORT MODE switch to NORM and observe movement of edge of exposed film with respect to scale marking.	Film edge shall not move (wander) more than 0.100 inch in either direction.	6
16	Set TRANSPORT MODE switch to RVS and observe movement of edge of exposed area of film with respect to scale marking.	Film edge shall not move (wander) more than 0.100 inch in either direction.	6
17	Set TRANSPORT MODE switch to OFF. Pull Cursor Electronics A14 out and remove top cover.		
18	Connect one electronic counter to A14A26J7 to count +Y pulses to Computer. Connect a second counter to A14A26J8 to count -Y pulses to Computer. Adjust both counters to count pulses and hold the display until reset.	**NOTE** In steps 17 through 22, the electronic counters are used to measure cursor movement in the Y axis.	
19	Set CURSOR SELECT switch on right control panel to FILM and adjust CURSOR BRIGHTNESS control to a desired level.		
20	Move cursor to a point on front edge of exposed area of film and slightly to right of etched line on left side of direct-view glass.		
21	Reset both counters and move cursor to a point on front edge of exposed area of film and slightly to left of etched line on right side of direct-view glass.	Difference in counter indications shall be 525 or less (0.525 inch or less).	7
22	Rotate REAR FILM VELOCITY control on Right Control Panel fully clockwise. Set TRANSPORT MODE switch to NORM for approximately 30 seconds, then return to OFF. Repeat steps 21 and 22.	Difference in counter indications shall be *525* or less (0.525 inch or less).	7
23	Disconnect electronic counters and reinstall Cursor Electronics		

Table 5-5. Front Film Transport Drive Circuit Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-14 Step
1	Perform initial switch and control settings in paragraph 5-9 and place STANDBY/OPERATE switch in OPERATE. Load film in front transports as described in paragraph 3-11. **NOTE** Locate Transport Electronics A15 drawer, loosen four screws, and fully extend. Remove cover from Transport Electronics to gain access to PCBs. Place covering on top of Transport Electronics in the area of heatsink assemblies to provide adequate airflow over heatsink assemblies.	FRONT TRANSPORT OFF indicator shall light.	1
2	Place FRONT TRANSPORT ON/ TRANSPORT OFF switch on Left Control Panel in TRANSPORT ON mode.	FRONT TRANSPORT ON indicator shall light.	2
3	a. Slowly rotate FRONT FILM VELOCITY control on Left Control Panel A11 clockwise. **NOTE** Continue transporting film until both film spools contain approximately same amount of film.	Right front film transport drive motor shall run and increase in speed as control is moved clockwise.	3
	b. Slowly rotate FRONT FILM VELOCITY control on Left Control Panel counterclockwise.	Left front film transport drive motor shall run and increase in speed as control is moved counterclockwise.	
4	Rotate FRONT FILM VELOCITY control on Right Control Panel clockwise and set TRANSPORT MODE switch to NORM.	Right front film transport drive motor shall run and transport film to right.	4
5	Set TRANSPORT MODE switch to RVS.	Left front film transport drive motor shall run and transport film to left.	4
6	Set TRANSPORT MODE switch to OFF.	Film transport shall stop.	4
7	Rotate FRONT FILM VELOCITY control on Right Control Panel counterclockwise and set TRANSPORT MODE switch to NORM.	Left front film transport drive motor shall run and transport film to right.	4
8	Set TRANSPORT MODE switch to RVS.	Right front transport drive motor shall run and transport film to right.	4

Table 5-5. Front Film Transport Drive Circuit Minimum Performance Standards Test (Continued)

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-14 Step
9	Set TRANSPORT MODE switch to OFF and return FRONT FILM VELOCITY control to center position.		
	NOTE Steps 10 through 12 present a manual method for checking and computing film speed. The PIC/FID described in T.O. 10 M1-7-9-8-2 also checks film speed.		
10	Set multimeter to DC volts, range 20. Connect multimeter to A15A1J2 (+) and A15A1J1 (-).		
	CAUTION Turn console and Computer off before disconnecting or connecting cables.		
11	Pull Computer out of ADP rack and disconnect cable P1 at J1.		
	NOTE In step 12, jumper wires are used to simulate Computer-generated film transport commands. The PIC/FID film transport test will perform the same test. Refer to T.O. M1-7-9-8-2 for instructions.		
12	a. Connect shorting jumper between pins 12 and 5 of P1 to simulate Computer slow-forward command.	a. Right front film transport drive motor shall run. b. Record multimeter indication.	5
	b. Remove jumper and connect between pins 31 and 20 of P1 to simulate Computer fast-forward command.	a. Right front film transport drive motor shall run. b. Record multimeter indication.	
	c. Remove jumper and connect between pins 32 and 43 of P1 to simulate Computer slow-reverse command.	a. Left front film transport drive motor shall run, b. Record multimeter indication.	
	d. Remove jumper and connect between pins 13 and 21 of P1 to simulate Computer slow-reverse command.	a. Left front film transport drive motor shall run. b. Record multimeter indication.	
12 (Cont)	e. Remove jumper and compute film speeds for steps 12.a through 12.d as follows:	Computed film speed shall be within 10 percent of desired film speed.	

$$\text{Film speed (in/s)} = \frac{\text{voltage at A15A1J2}}{0.25}$$

Table 5-5. Front Film Transport Drive Circuit Minimum Performance Standards Test (Continued)

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-14 Step
13	Reconnect cable P1 to J1. Replace Computer in ADP rack. Replace cover and drawer on Transport Electronics A15.		
14	Place a scale with 0.01-inch graduations along etched line on direct-view glass. Slide scale about halfway under front edge of film. Move stereoscope over scale and adjust for clear view of scale and edge of film. Align scale marking with edge of exposed area of film and tape scale in place.		
15	Rotate FRONT FILM VELOCITY control on Right Control Panel A12 to a point midway between center and fully clockwise. Set TRANSPORT MODE switch to NORM and observe movement of edge of exposed area of film with respect to scale marking.	Film edge shall not move (wander) more than 0.100 inch in either direction.	6
16	Set TRANSPORT MODE switch to RVS and observe movement of edge of exposed area of film with respect to scale marking.	Film edge shall not move (wander) more than 0.100 inch in either direction.	6
17	Set TRANSPORT MODE switch to OFF. Pull Cursor Electronics A14 out and remove the cover.		
18	Connect one electronic counter to A14A26J7 to count +Y pulses to Computer. Connect a second counter to A14A26J8 to count -Y pulses to Computer. Adjust both counters to count pulses and hold the display until reset.	**NOTE** In steps 17 through 22, the electronic counters are used to measure cursor movement in the Y axis.	
19	Set CURSOR SELECT switch on right control panel to FILM and adjust CURSOR BRIGHTNESS control to a desired level.		
20	Move cursor to a point on front edge of exposed area of film and slightly to right of etched line on left side of direct-view glass.		
21	Reset both counters and move cursor to a point on front edge of exposed area of film and slightly to left of etched line on right side of direct-view glass.	Difference in counter indication shall be 525 or less (0.525 inch or less).	7
22	Rotate FRONT FILM VELOCITY control on Right Control Panel fully clockwise. Set TRANSPORT MODE switch to NORM for approximately 30 seconds, then return to OFF. Repeat steps 21 and 22.	Difference in counter indications shall be 525 or less (0.525 inch or less).	7
23	Disconnect electronic counters and reinstall A14.		

Table 5-6. Rear End of Film Circuit Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-15 Step
1	Perform initial switch and control settings in paragraph 5-9.		
2	Load a roll of film in rear film transport per paragraph 3-11. Place console in operate MODE by pressing OPERATE/STANDBY switch on Power Distribution Panel A13.	All rear FILM END indicators shall light. **NOTE** If more than 1/8-inch film thickness is wound onto right film spool, REAR FILM END indicators will not be lighted.	
3	Place REAR TRANSPORT ON/ TRANSPORT OFF switch in TRANSPORT ON mode. Rotate REAR FILM VELOCITY control on Right Control Panel A12 fully clockwise and allow film to be transported until it stops.	a. Film shall be transported to right. b. REAR FILM END indicators shall extinguish. c. Film movement shall stop and REAR FILM END indicators shall light when between 1/16- and 1/8-inch film thickness remains on left film spool.	2
4	Center REAR FILM VELOCITY control. Press REAR FILM END/ OVERRIDE switch on Left Control Panel A11.	a. REAR OVERRIDE indicators shall light. b. Film shall be movable to right by rotating REAR FILM VELOCITY control clockwise.	3
5	Place REAR TRANSPORT ON/ TRANSPORT OFF switch in TRANSPORT OFF mode.	REAR OVERRIDE indicators shall extinguish.	4
6	Place REAR TRANSPORT ON/ TRANSPORT OFF switch in TRANSPORT ON mode. Rotate REAR FILM VELOCITY control on Right Control Panel fully counterclockwise and allow film to be transported until it stops.	a. Film shall be transported to left. b. REAR FILM END indicators shall extinguish. c. Film movement shall stop and REAR FILM END indicators shall light when between 1/16- and 1/8-inch film thickness remains on right film spool.	5
7	Center REAR FILM VELOCITY control. Press REAR FILM END/ OVERRIDE switch on Right Control Panel.	a. REAR OVERRIDE indicators shall light. b. Film shall be movable to left by rotating REAR FILM VELOCITY control counterclockwise.	6
8	Place REAR TRANSPORT ON/ TRANSPORT OFF switch in TRANSPORT OFF mode.	REAR OVERRIDE indicators shall extinguish.	7

Table 5-7. Front End of Film Circuit Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-16 Step
1	Perform initial switch and control settings in paragraph 5-9.		
2	Load a roll of film in front film transport per paragraph 3-11. Place console in operate mode by pressing OPERATE/STANDBY switch on Power Distribution Panel A13.	All front FILM END indicators shall light. **NOTE** If more than 1/8-inch film thickness is wound onto right film spool, FRONT FILM END indicators will not be lighted.	
3	Place FRONT TRANSPORT ON/ TRANSPORT OFF switch in TRANSPORT ON mode. Rotate FRONT FILM VELOCITY control on Right Control Panel A12 fully clockwise and allow film to be transported until it stops.	a. Film shall be transported to right. b. FRONT FILM END indicators shall extinguish. c. Film movement shall stop and FRONT FILM END indicators shall light when between 1/16- and 1/8-inch film thickness remains on left film spool.	2
4	Center FRONT FILM VELOCITY control. Press FRONT FILM END/OVERRIDE switch on Left Control Panel A11.	a. FRONT OVERRIDE indicators shall light. b. Film shall be movable to right by rotating FRONT FILM VELOCITY control clockwise.	3
5	Place FRONT TRANSPORT ON/ TRANSPORT OFF switch in TRANSPORT OFF mode.	FRONT OVERRIDE indicators shall extinguish.	4
6	Place FRONT TRANSPORT ON/ TRANSPORT OFF switch in TRANSPORT ON mode. Rotate FRONT FILM VELOCITY control on Right Control Panel fully counterclockwise and allow film to be transported until it stops.	a. Film shall be transported to left. b. FRONT FILM END indicators shall extinguish. c. Film movement shall stop and FRONT FILM END indicators shall light when between 1/16- and 1/8-inch film thickness remains on right film spool.	5
7	Center FRONT FILM VELOCITY control. Press FRONT FILM END/OVERRIDE switch on Right Control Panel.	a. FRONT OVERRIDE indicators shall light. b. Film shall be movable to left by rotating FRONT FILM VELOCITY control counterclockwise.	6
8	Place FRONT TRANSPORT ON/ TRANSPORT OFF switch in TRANSPORT OFF mode.	FRONT OVERRIDE indicators shall extinguish.	7

Table 5-8. Direct-View and Stereo-View Lamps Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-17 Step
1	Make initial switch and control settings in paragraph 5-9.		
2	Place OPERATE/STANDBY switch on Power Distribution Panel A13 in OPERATE Mode.	Fan in High Voltage Box A17 shall operate. **NOTE** It may be necessary to remove panels in front of A17 to hear fan. If panel is removed, pull out interlock.	
3	Check DV OVT, DV OVV, STE OVT and STE OVV indicators on front of Power Supply A9.	Indicators shall not be lighted and shall remain extinguished.	2
4	Rotate DIRECT TABLE BRIGHTNESS control on Right Control Panel clockwise and set control for minimum brightness.	Lamps in direct-view and stereo-view housings shall start and be at low intensity.	3
5	Rotate DIRECT TABLE BRIGHTNESS control fully clockwise.	Direct-view lamp shall increase in intensity as control is rotated clockwise.	4
6	Rotate DIRECT TABLE BRIGHTNESS control counterclockwise in small Increments and observe direct-view lamp after each movement of control.	Direct-view lamp shall decrease in intensity.	5
7	Rotate STEREO TABLE BRIGHTNESS control fully clockwise,	Stereo-view lamp shall increase in intensity as control is rotated clockwise.	6
8	Rotate STEREO TABLE BRIGHTNESS control counterclockwise in small increments and observe stereo-view lamp after each movement of control.	Stereo-view lamp shall decrease in intensity.	7
9	Rotate DIRECT TABLE BRIGHTNESS control fully counterclockwise.		

Table 5-9. Slack Loop Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-18 Step
1	Perform initial switch and control settings in paragraph 5-9. Place OPERATE/STANDBY switch on Power Distribution Panel A13 in OPERATE mode.		
2	Move SLACK LOOP switch on Right Control Panel A12 to first detent toward DOWN position (slow down).	Slack loop trolley shall move slowly downward.	1
3	Move SLACK LOOP switch to full DOWN position (fast down).	Slack loop trolley speed shall increase. Trolley shall continue downward and stop before reaching mechanical stops.	2
4	Move SLACK LOOP switch to first detent toward UP position (slow up).	Slack loop trolley shall move slowly upward.	3
5	Move SLACK LOOP switch to full UP position (fast up).	Slack loop trolley speed shall increase. Trolley shall continue upward and stop before reaching mechanical stops.	4

Table 5-10. Map Cursor Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-19 Step
1	Perform initial control settings in paragraph 5-9. Place OPERATE/ STANDBY switch in OPERATE.		
2	Set CURSOR SELECT switch on Right Control Panel to MAP and using either CURSOR control, check that map cursor can be moved in all directions. **NOTE** Locate and extend Cursor Electronics A14 (figure 1-2). Remove cover for access to PCBs.	Map cursor shall be movable in any direction.	
3	Connect electronic counter input to A14A25J7 (map +X output). Adjust counter to count pulses when map cursor is moved to right and retain display until reset.		
4	Using a CURSOR control, move cursor to right side of Mapboard Assembly A6 until it stops and reset electronic counter.	Cursor shall stop before reaching right mechanical stops. Observe counter to verify pulses.	2
5	Apply right pressure to either CURSOR control and observe electronic counter.	Electronic counter shall indicate no more than one pulse.	3
6	Connect electronic counter input to A14A25J8 (map -X output) and reset counter.		
7	Using a CURSOR control, move cursor to left side of Mapboard Assembly until it stops.	Map cursor shall move to left side of Mapboard Assembly and stop before reaching left mechanical stops. Observe counter to verify pulses.	4
8	Reset electronic counter. Apply left pressure CURSOR control and observe counter.	Electronic counter shall indicate no more than 1 pulse.	5
9	Connect electronic counter to A14A27J7 (map +Y output).		
10	Using CURSOR control, move map cursor to top of Mapboard Assembly until it stops and reset counter.	Cursor shall stop before reaching top mechanical stops. Observe counter to verify pulses.	6
11	Apply forward pressure to CURSOR control and observe electronic counter.	Electronic counter shall indicate no more than one pulse.	7
12	Connect electronic counter input to A14A27J8 (map -Y output) and reset counter.		

Table 5-10. Map Cursor Minimum Performance Standards Test (Continued)

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-19 Step
13	Using a CURSOR control, move cursor to bottom of Mapboard Assembly until it stops.	Map cursor shall move to bottom of Mapboard Assembly and stop before reaching bottom mechanical stops. Observe counter to verify pulses.	8
14	Reset electronic cursor. Apply backward pressure to CURSOR control and observe electronic counter.	Electronic counter shall indicate no more than one pulse.	9
	NOTE Pull MAP CURSOR +6 and +28 circuit breakers on Power Supply A9 to disable cursor movement during test.		
15	Disconnect electronic counter and connect oscilloscope to A14A25J7 (map +X output).		
	NOTE In steps 16 through 30, jumper wires are used to simulate Computer cursor drive commands. The FID Manual Test Language provides an alternate method for simulating the commands. Refer to T.O. 10M1-7-9-8-2 for instructions on using the cursor speed adjust (CSA) verb in the Manual Test Language.		
16	Connect jumper wire between A14A25PI-20 and A14A20J4 (5 VRTN) to simulate map cursor +X slow Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 6.7 ms, a base voltage of 0.2 +0.2 volt, and a peak voltage of 3.7 + 1.3 volts.	10
17	Disconnect jumper.		
18	Connect jumper wire between A14A25P1-17 and A14A20J4 (5 VRTN) to simulate map cursor +X fast Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 1.3 ms.	10
19	Disconnect jumper. Connect oscilloscope to A14A25J8 (map -X output).		
20	Connect jumper wire between A14A25PI-18 and A14A20J4 (5 VRTN) to simulate map cursor -X slow Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 6.7 ms.	10
21	Disconnect jumper.		

Table 5-10. Map Cursor Minimum Performance Standards Test (Continued)

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-19 Step
22	Connect jumper wire between A14A25P1-22 and A14A20J4 (5 VRTN) to simulate map cursor -X fast Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 1.3 ms.	10
23	Disconnect jumper and connect oscilloscope to A14A27J7 (map +Y output).		
24	Connect jumper wire between A14A27PI-20 and A14A20J4 (5 VRTN) to simulate map cursor +Y slow Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 6.7 ms, a base voltage of 0.2 +0.2 volt, and a peak voltage of 3.7 :1.3 volts.	11
25	Disconnect jumper.		
26	Connect jumper wire between A14A27PI-17 and A14A20J4 (5 VRTN) to simulate map cursor +Y fast Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 1.3 ms.	1
27	Disconnect jumper and connect oscilloscope to A14A27J8 (map -Y output).		
28	Connect jumper wire between A14A27P1-18 and A14A20J4 (5 VRTN) to simulate map cursor -Y slow Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 6.7 ms.	11
29	Disconnect jumper.		
30	Connect jumper wire between A14A27PI-22 and A14A20J4 (5 VRTN) to simulate map cursor -Y fast Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 1.3 ms.	11
31	Disconnect jumper and oscilloscope. Reset MAP CURSOR circuit breakers. Secure Cursor Electronics drawer.		
32	Depress MAP CURSOR STOW switch on Right Control Panel A12. Mapboard Assembly.	MAP CURSOR STOW indicator shall light and map cursor shall move to lower left corner of	

Table 5-11. Film Cursor Minimum Performance Standards Test

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-20 Step
1	Perform initial switch and control settings in paragraph 5-9. Place OPERATE/STANDBY switch in OPERATE.		1
2	Set CURSOR SELECT switch on Right Control Panel A12 to FILM and rotate CURSOR BRIGHTNESS control clockwise to midrange. Using either CURSOR control, check that film cursor can be moved in all directions. **NOTE** Locate and extend Cursor Electronics A14 (figure 1-2). Remove cover for access to PCBs.	Film cursor reticle shall appear in direct view and cursor shall be movable in any direction over entire area outlined by lines etched in direct-view glass.	1
3	Connect electronic counter input to A14A24J7 (film +X output). Adjust counter to counter pulses when film cursor is moved to right and retain display until reset.		
4	Using a CURSOR control, move cursor to right side of direct view until it stops and reset electronic counter.	Cursor shall stop before reaching right mechanical stops. Observe counter to verify pulses.	2
5	Apply right pressure to CURSOR control and observe electronic counter.	Electronic counter shall indicate no more than one pulse.	3
6	Connect electronic counter input to A14A24J8 (film -X output) and reset counter.		
7	Using a CURSOR control, move cursor to left side of direct view until it stops.	Film cursor shall move to left side of direct view and stop before reaching left mechanical stops. Observe counter to verify pulses.	4
8	Reset electronic counter and apply left pressure to CURSOR control, and observe counter.	Electronic counter shall indicate no more than one pulse.	5
9	Connect electronic counter to A14A26J7 (film +Y output).		
10	Using CURSOR control, move film cursor to back of direct view until it stops and reset counter.	Film cursor shall stop before reaching back mechanical stops. Observe counter to verify pulses.	6
11	Apply forward pressure to CURSOR control and observe electronic counter.	Electronic counter shall indicate no more than one pulse.	7
12	Connect electronic counter input to A14A26J8 (film -Y output) and reset counter.		

Table 5-11. Film Cursor Minimum Performance Standards Test (Continued)

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-20 Step
13	Using CURSOR control, move cursor to front of direct view until it stops. Observe counter to verify pulses.	Film cursor shall move to front of direct view and stop before reaching front mechanical stops.	8
14	Reset electronic counter and apply backward pressure to CURSOR control and observe electronic counter. **NOTE** Pull DIRECT VIEW CURSOR +6 and +28 circuit breakers on Power Supply A9 to disable cursor movement during test.	Electronic counter shall indicate no more than one pulse.	9
15	Disconnect electronic counter and connect oscilloscope to A14A24J7 (film +X output). **NOTE** In steps 16 through 30, jumper wires are used to simulate Computer cursor drive commands. The FID Manual Test Language provides an alternate method for simulating the commands. Refer to T.O. 10M1-7-9-8-2 for instructions on using the cursor speed adjust (CSA) verb in the Manual Test Language.		
16	Connect jumper wire between A14A24PI-20 and A14A20J4 (5 VRTN) to simulate film cursor +X slow Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 3.3 ms, a base voltage of 0.2 +0.2 volt and a peak voltage of 3.7 ±1.3 volts.	10
17	Disconnect jumper.		10
18	Connect jumper wire between A14A24P1-17 and A14A20J4 (5 VRTN) to simulate film cursor +X fast Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 0.4 ms.	10
19	Disconnect jumper and move film cursor to right side of direct view. Connect oscilloscope to A14A24J8 (film -X output).		10
20	Connect jumper wire between A14A24P1-18 and A14A20J4 (5 VRTN) to simulate film cursor -X slow Computer command.		10
21	Disconnect jumper and move film cursor to right side of direct view.		10

Table 5-11. Film Cursor Minimum Performance Standards Test (Continued)

Step	Procedure	Minimum Performance Standard	Troubleshooting Reference, Table 5-20 Step
22	Connect jumper wire between A14A24PI-22 and A14A20J4 (5 VRTN) to simulate film cursor **-X** fast Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 0.4 ms.	10
23	Disconnect jumper and connect oscilloscope to A14A26J7 (film +Y output). Move film cursor to front of direct view.		
24	Connect jumper wire between A14A26P1-20 and A14A20J4 (5 VRTN) to simulate film cursor +Y slow Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 3.3 ms, a base voltage of 0.2 :0.2 volt, and a peak voltage of 3.7 ±1.3 volts.	11
25	Disconnect jumper and move film cursor to front of direct view.		
26	Connect jumper wire between A14A26P1-17 and A14A20J4 (5 VRTN) to simulate film cursor +Y fast Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 0.4 ms.	11
27	Disconnect jumper and move film cursor to back of direct view. Connect oscilloscope to A14A26J8 (film -Y output).		11
28	Connect jumper wire between A14A26P1-18 and A14A20J4 (5 VRTN) to simulate film cursor -Y slow Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 3.3 ms.	11
29	Disconnect jumper and move cursor to back of direct view.		11
30	Connect jumper wire between A14A26P1-22 and A14A20J4 (5 VRTN) to simulate film cursor -Y fast Computer command.	Oscilloscope shall display pulses with a pulse period of no more than 0.4 ms.	11
31	Disconnect jumper wire and oscilloscope. Reset DIRECT VIEW CURSOR circuit breakers. Secure Cursor Electronics drawer.		

Table 5-12. Main Power and Voltage Tolerance Circuit Troubleshooting

Step	Minimum Performance Reference, Table 5-3 Step	Trouble	Probable Cause	Remedy
1	2	a. POWER ON indicator on Power Distribution Panel A13 does not light, exhaust fans operate properly, and STANDBY indicator lights.	POWER ON indicator lamp defective.	Check lamp and replace if defective.
		b. POWER ON indicator lights but exhaust fans do not operate.	a. EXHAUST FANS circuit breaker A13CB5 defective or tripped.	Check circuit breaker and reset or replace as necessary. Check 3-phase 115 Vac to fan motors; replace fans if defective.
			b. Defective fan motor.	
		c. POWER ON indicator lights and exhaust fans operate but STANDBY indicator does not light.	a. STANDBY indicator lamp defective.	Check lamp and replace if defective.
			b. Voltage tolerance and 28 Vdc regulator A13A1 or control 28 V rectifier A13A5 defective.	a. Check 28 Vdc at A13J19. b. Replace A13A1 and A13A5 if defective.
			c. Left exhaust fan vane switch S3 not closed.	Check 28 Vdc at A13J20; replace S3 if defective.
			d. Right exhaust fan vane switch S4 not closed.	Check 28 Vdc at A13J21; replace S4 if defective.
			e. 125°F thermostat A13S2 open.	a. Check 28 Vdc at A13J22. b. Check that temperature is below 125°F. c. Replace A13S2 if defective.
			f. 0°F thermostat A13S3 open.	a. Check 28 Vdc at A13J23. b. Check that temperature is above 0°F. c. Replace A 13S3 if defective.
			g. OPERATE/STANDBY switch A13S4 defective.	Check A13S4 and replace if defective.
2	3	a. STANDBY indicator extinguishes but VOLTAGE OUT OF TOLERANCE indicator does not light.	VOLTAGE OUT OF TOLERANCE indicator lamp defective.	Check lamp and replace if defective.
		b. STANDBY indicator does not extinguish.	Voltage tolerance and 28 Vdc regulator A13A1 defective.	Replace A 13A1 if defective.
3	5	LINE VOLTMETER indication out of tolerance.	Three-phase input voltage to console out of tolerance,	Check input voltage and correct as necessary.
4	6	a. OPERATE indicator does not light but fans operate.	OPERATE indicator lamp defective.	Check lamp and replace if defective.

Table 5-12. Main Power and Voltage Tolerance Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-3 Step	Trouble	Probable Cause	Remedy
4 (Cont)		b. OPERATE indicator does not light and fans do not operate.	a. OPERATE/STANDBY switch A13S4 defective.	Check 28 Vdc at A13J24; replace A13S4 if defective.
			b. Relay A13KI not energized.	Check 28 Vdc to relay A13J24; replace A13K1 if defective.
			c. Open circuit between A13K1 and fan that is inoperative.	Check 115 Vac to fan; refer to figure 4-2 and troubleshoot inoperative fan circuit.
			d. Fan motor defective.	Replace defective fan motor.
			CAUTION Use portable fan to provide cooling air for Power Supply A9 when operating A9 outside console.	
			e. A13S2 or A13S3 switches defective.	Check switches and replace if defective.
			f. A27SI or A28SI (vane switches) defective.	Check switches and replace if defective.
		c. Film transport well lights do not light.	a. Transformer/Rectifier Assembly A19 defective.	a. Check unregulated 32 Vdc at A9J30 (figure 5-4). b. Replace A19 if defective.
			b. Circuit breaker A9CB4 tripped or defective.	Check 28 Vdc at A9A3JI; reset or replace circuit breaker as necessary.
			c. 28 Vdc regulator A9A3 and A9A7 defective.	a. Check 28 Vdc at A9A3J6. b. Replace regulator A9A3 and A9A7 if defective.
			d. Open circuit between A9A3 pin 8 and lights.	Refer to figure 4-4 and troubleshoot circuit.
5	7	Slack loop illuminating lamps will not light.	a. Slack loop illuminating switch A10S1 defective.	Check AIOSI and replace if defective.
			b. Open circuit between A10S1and A9A3 pin 8.	Refer to figure 4-4 and troubleshoot circuit.
6	8, 9, 10, 11	Voltage not present or out of tolerance at A9J36, A9J40, A9J42, or A9J34.	Transformer/Rectifier Assembly A19 defective.	Replace A19 if defective.

Table 5-12. Main Power and Voltage Tolerance Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-3 Step	Trouble	Probable Cause	Remedy
7	13	15 ±0.75 Vdc not present or out of tolerance at A9A1J1.	a. Transformer/Rectifier Assembly A19 defective.	a. Check unregulated 20 Vdc at A9J28. b. Replace A19 if defective.
			b. Circuit breaker A9CB3 tripped or defective.	a. Check unregulated 20 Vdc at A9A1J2. b. Reset or replace A9CB3 as necessary.
			c. Capacitor A9A7C1 shorted,	Replace A9A7.
			d. SCR A9A6Q3 shorted.	Replace A9A6.
			e. 15 Vdc regulator A9A1 and A9A5 out of alignment or defective.	a. Adjust A9A1R13 per paragraph 5-32. b. Replace A9AI or A9A5 if defective.
8	12	15 ±0.75 Vdc not present or out of tolerance at A9J25.	a. Transformer/Rectifier Assembly A19 defective.	a. Check unregulated 20 Vdc at A9J26. b. Replace A19 if defective.
			b. Circuit breaker A9CB2 tripped or defective.	a. Check unregulated 20 Vdc at A9A1J6. b. Reset or replace A9CB2 as necessary.
			c. Capacitor A9A7C2 shorted.	Replace A9A7.
			d. SCR A9A6QI shorted.	Replace A9A6.
			e. -15 Vdc regulator A9A1 and A9A5 out of alignment or defective.	a. Adjust A9AIR16 per paragraph 5-32. b. Replace A9AI or A9A5 if defective.
9	14	5 ±0.5 Vdc not present or out of tolerance at A9A1J3.	a. Transformer/Rectifier Assembly Al9 defective.	a. Check unregulated 9 Vdc at A9J24. b. Replace A19 if defective.
			b. Circuit breaker A9CB1 tripped or defective.	a. Check unregulated 9 Vdc at A9A1J4. b. Reset or replace A9CB1 as necessary.
			c. Capacitor A9A7C3 shorted.	Replace A9A7.
			d. 5 Vdc Regulator A9A1 and A9A6 out of alignment or defective.	a. Adjust A9A1R27 per paragraph 5-32. b. Replace A9A1 or A9A6 if defective.

Table 5-12. Main Power and Voltage Tolerance Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-3 Step	Trouble	Probable Cause	Remedy
10	15	Film cursor lamp does not light.	a. Circuit breaker A9CB15 tripped or defective.	Reset or replace A9CB15 as necessary.
			b. 6 Vdc Regulator A9A3 and A9A7 defective.	Replace A9A3 or A9A7 if defective.
			c. CURSOR BRIGHTNESS control on Right Control Panel A12 defective.	a. With control fully clockwise, check for approximately 10 Vdc At A9A3J3. b. Replace CURSOR BRIGHT-NESS control if defective.
11	4 lights.	VOLTAGE OUT OF TOLERANCE indicator	a. Shelter main input three-phase ac bad.	Check all three phases at shelter meter panel. If bad, check shelter power source.
			b. Control 28 Vdc out of tolerance.	Check for 28 $\pm$0.1 Vdc at A13AIJ3. If bad, adjust per paragraph 5-31. If adjust-ment cannot be made, replace A13A5.
			c. Voltage Tolerance and 28 Vdc Regulator A13AI defective.	a. Check for approximately 32 Vdc at A13A1J1. b. If voltage is not present, replace A 13A1. c. Check three-phase ac voltage at MAIN POWER SWITCH A13S5 pins A1, B1, and C1. Voltage should be 120 + 12 Vac from each pin to neutral. d. If voltage is accurate, replace A13A1.

Table 5-13. Rear Film Transport Drive Circuit Troubleshooting

Step	Minimum Performance Reference, Table 5-4 Step	Trouble	Probable Cause	Remedy
1	1	REAR TRANSPORT OFF indicator does not light.	a. REAR TRANSPORT ON/ TRANSPORT OFF switch not in TRANSPORT OFF mode.	Place switch in TRANSPORT OFF mode.
			b. REAR TRANSPORT OFF indicator lamp defective.	Check lamp and replace if defective.
2	2	REAR TRANSPORT ON indicator does not light.	a. REAR TRANSPORT ON/ TRANSPORT OFF switch not in TRANSPORT ON position or defective.	Check switch and replace Left Control Panel All 1 if defective.
			b. REAR TRANSPORT ON indicator lamp defective.	Check lamp and replace if defective.
3	3	a. Right rear film transport drive motor does not operate, but left rear drive motor operates normally.	a. Positive potentiometer supply voltage not applied to REAR FILM VELOCITY control A11R1.	a. Check for 5.1 +0.1 Vdc at A15A6J4 (figure 5-9). b. Replace Rate Command PCB A15A6.
			b. REAR FILM VELOCITY control A11R1 defective.	a. Rotate control fully clockwise and check for 5.1 +0.1 Vdc at A15A6J5.
			c. Right Rear Film Transport Preamplifier A15A8 defective.	a. Check for 2 Vdc to 4 Vdc at A15A8J3. b. Replace A 15A8 if defective.
			d. Power Amplifier A15A12 defective.	a. Check voltage at Right Rear Drive Motor A8B1. b. Replace A 15A12 if defective.
			e. Right rear drive motor defective.	Replace motor per paragraph 5-104.
		b. Left rear film transport drive motor does not operate, but right rear drive motor operates normally.	a. Negative potentiometer supply voltage not applied to REAR FILM VELOCITY control A11R1.	Replace Rate Command PCB A15A6.
			b. REAR FILM VELOCITY control AII RI defective.	a. Rotate control fully counter-clockwise and check for -5.1 +0.5 Vdc at A15A6J5. b. Replace Left Control Panel A11 if control is defective.
			c. Left Rear Film Transport Pre-amplifier A 15A7 defective.	a. Check for 2 Vdc to 4 Vdc at A15A7J3. b. Replace A15A7 if defective.
			d. Power Amplifier A15A12 defective.	a. Check voltage to Left Rear Drive Motor A7B1. b. Replace A15A12 if defective.
			e. Left rear drive motor defective.	Replace motor per paragraph 5-104.

Table 5-13. Rear Film Transport Drive Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-4 Step	Trouble	Probable Cause	Remedy
3 (Cont.)		c. Both right rear and left rear film transport drive motors do not operate.	a. Interlock actuated or defective.	a. Check voltage at A15A6J7. If 0.4 Vdc or less, refer to figure 4-5 and check interlocks. b. Repair or replace defective interlock switch or relay as necessary.
			b. Rear Film Transport Rate Command PCB A15A6 defective.	a. Rotate REAR FILM VELOCITY control A11R1 fully counterclockwise and check for more than 10 Vdc at A15A6J2. b. Replace A 15A6 if defective.
			c. Rear Film Transport Control Logic PCB A15A9 defective.	a. Rotate REAR FILM VELOCITY control A11R1 fully counterclockwise and check for - 10 $\pm$ 2 Vdc at A15A9J6. b. Replace A 15A9 if defective.
			d. 28 Vdc Regulator A15A5 defective.	a. Check for 28 1 I Vdc at A 15A5J7. b. Replace A15A5 if defective.
4	4, 5, 6, 7, 8	Rear film transport drive motors do not operate when controlled by TRANSPORT MODE switch, but operate normally when controlled from Left Control Panel A11	a. TRANSPORT MODE switch A12S8 defective. b. REAR FILM VELOCITY control A12R1 .	Check A12S8 and replace Right Control Panel A12 if switch is defective. Check control A12R1 and replace Right Control Panel if control is defective.
5	12	a. Rear film transport drive motors do not operate when controlled by a Computer command but operate normally under manual control.	Rear Film Transport Rate Command A15A6 defective.	Replace A15A6.
		b. Rear film transport drive motors operate at incorrect speed.	Rear Film Transport Rate Command A15A6 out of alignment or defective.	Align A15A6 per paragraph 5-36 or replace as necessary.
6	15, 16	Film wanders excessively on rear film transports.	Defective film spool. Defective film drive motor spindle. Film tracking out of alignment.	Check film spool and repair or replace as necessary. Check motor and replace as necessary per paragraph 5-104. Film tracking alignment is a depot maintenance procedure.

Table 5-13. Rear Film Transport Drive Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 54 Step	Trouble	Probable Cause	Remedy
7	21, 22	Film travels at an excessive angle across direct view surface.	Defective film spool.	Check film spool and repair or replace as necessary.
			Dirty film rollers	Clean rollers
			Film transport assembly not mounted securely in its pinned position on console frame	Check transport mounting and secure as necessary.
			Film drive motor not mounted securely in its pinned position on film transport assembly.	Check motor mounting and secure as necessary.

Table 5-14. Front Film Transport Drive Circuit Troubleshooting

Step	Minimum Performance Reference, Table 5-5 Step	Trouble	Probable Cause	Remedy
1	1	FRONT TRANSPORT OFF indicator does not light.	a. FRONT TRANSPORT ON/ TRANSPORT OFF switch not in TRANSPORT OFF mode.	Place switch in TRANSPORT OFF mode.
			b. FRONT TRANSPORT OFF indicator lamp defective.	Check lamp and replace if defective.
2	2	FRONT TRANSPORT ON indicator does not light.	a. FRONT TRANSPORT ON/ TRANSPORT OFF switch not in TRANSPORT ON position or defective.	Check switch and replace Left Control Panel All if defective.
			b. FRONT TRANSPORT ON indicator lamp defective.	Check lamp and replace if defective.
3	3	a. Right front film transport drive motor does not operate, but left front drive motor operates normally.	a. Positive potentiometer supply voltage not applied to FRONT FILM VELOCITY control A11R2.	a. Check for 5.1 +0.1 Vdc at A15AIJ4. b. Replace Rate Command PCB A15A1.
			b. FRONT FILM VELOCITY control A11R2 defective.	a. Rotate control fully clockwise and check for 5.1 $\pm$0.1 Vdc at A15A1J5. b. Replace A11R2 if defective.
			c. Right Front Film Transport Preamplifier A15A3 defective.	a. Check for 2 Vdc to 4 Vdc at A15A3J3. b. Replace A15A3 if defective.
			d. Power Amplifier AI5AII defective.	a. Check right motor drive voltage at XA11P1 pin F. b. Replace A15A11 if defective.
			e. Right front drive motor defective.	Replace motor per paragraph 5-104.
		b. Left front film transport drive motor does not operate, but right front drive motor operates normally.	a. Negative potentiometer supply voltage not applied to FRONT FILM VELOCITY control A11R2.	Replace Rate Command PCB A15A1.
			b. FRONT FILM VELOCITY control A11R2 defective.	a. Rotate control fully counter-clockwise and check for -5.1 $\pm$0.5 Vdc at A15A1J5. b. Replace A 11R2 if defective.
			c. Left Front Film Transport Preamplifier A15A2 defective.	a. Check for 2 Vdc to 4 Vdc at A15A2J3. b. Replace A15A2 if defective.
			d. Power Amplifier A15AII defective.	a. Check left motor drive voltage at XA11P1 pin A. b. Replace A 15A11 if defective.
			e. Left front drive motor defective.	Replace motor per paragraph 5-104.

Table 5-14. Front Film Transport Drive Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-5 Step	Trouble	Probable Cause	Remedy
3 (Cont.)		c. Both right front and left front film transport drive motors do not operate.	a. Interlock actuated or defective.	a. Check voltage at A15A1J7. If 0.4 Vdc or less, refer to figure 4-6 and check interlocks. b. Repair or replace defective interlock switch or relay as necessary.
			b. Front Film Transport Rate Command PCB A15A1 defective.	a. Rotate FRONT FILM VELOCITY control A11R2 fully counterclockwise and check for more than 10 Vdc at A15A1J2. b. Replace A15A if defective.
			c. Front Film Transport Control Logic PCB A15A4 defective.	a. Rotate FRONT FILM VELOCITY control A11R2 fully counterclockwise and check for -10 $\pm$2 Vdc at A15A4J6. b. Replace A15A4 if defective.
			d. 28 Vdc Regulator A15A5 defective.	a. Check for 28 $\pm$ 1 Vdc at A15A5J3. b. Replace A15A5 if defective.
4	4, 5, 6, 7, 8	Front film transport drive motors do not operate when controlled by TRANSPORT MODE switch, but operate normally when controlled from Left Control Panel A11.	a. TRANSPORT MODE switch A 12S8 defective. b. FRONT FILM VELOCITY control A12R2 defective.	Check A12S8 and replace if defective. Check control A12R2 and replace if control is defective.
5	12	a. Front film transport drive motors do not operate when controlled by a Computer command, but operate normally under manual control.	Front Film Transport Rate Command PCB A15AI defective.	Replace A15A1.
		b. Front film transport drive motors operate at incorrect speed.	Front Film Transport Rate Command PCB A15A1 out of alignment or defective.	Align A15A1 per paragraph 5-35 or replace as necessary.
6	15, 16	Film wanders excessively on front film transports.	a. Defective film spool.	a. Check film spool and repair or replace as necessary.
			b. Defective film drive motor spindle. c. Film tracking out of alignment.	b. Check motor and replace as necessary per paragraph 5-104. c. Film tracking alignment is a depot maintenance procedure.

Table 5-14. Front Film Transport Drive Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-5 Step	Trouble	Probable Cause	Remedy
7	21, 22	Film travels at an excessive angle across direct view surface.	Defective film spool.	Check film spool and repair or replace as necessary.
			Dirty film rollers.	Clean rollers.
			Film transport assembly not mounted securely in its pinned position on console frame.	Check transport mounting and secure as necessary.
			Film drive motor not mounted securely in its pinned position on Film transport assembly.	Check motor mounting and secure as necessary.

Table 5-15. Rear End of Film Circuit Troubleshooting

Step	Minimum Performance Reference, Table 5-6 Step	Trouble	Probable Cause	Remedy
1	2	All FILM END indicators do not light when end of film condition exists.	FILM END indicator lamps defective.	Replace defective, lamps.
2	3	a. Film transports to right but REAR FILM END indicators remain lighted.	Control Logic PCB A15A9 defective.	Replace A15A9.
		b. REAR FILM END indicators light but film movement toward right does not stop.	a. Control Logic PCB A15A9 defective.	a. Check for 2.4 to 5.0 Vdc at A15A6J3. b. Replace A 15A9 if defective.
			b. Rate Command PCB A 15A6 defective.	a. Check for 0 Vdc at A 15A6J4. b. Replace A 15A6 if defective.
		c. Film movement toward right stops but REAR FILM END indicators do not light.	a. Control Logic PCB A15A9 defective.	a. Replace A15A9.
			b. REAR FILM END indicator lamps defective.	b. Check lamps and replace if defective.
		d. Film movement toward film does not stop and REAR FILM END indicators do not light when end of film condition exists in left rear transport.	a. Radius Potentiometer A7R2 or associated film sensing arm defective or out of adjustment.	Check potentiometer and repair or replace as necessary. Adjust per paragraph 5-39.
			b. REAR CORE DIA switch A11S5 defective.	Check switch and replace if defective.
			c. Open resistor on AIITBI.	Replace Left Control Panel All.
			d. Left Rear Film Transport Pre-amplifier PCB A15A7 defective.	a. Check for 3.6 -0.4 Vdc at A15A7J1. b. Replace A15A7 if defective.
			e. Control Logic PCB A15A9 defective.	a. Check for 2.4 to 5.0 Vdc at A 15A6J3. b. Replace A15A9 if defective.
3	4	REAR OVERRIDE indicators do not light and film end condition is not overridden when switch on Left Control Panel is pressed.	a. REAR FILM END/ OVERRIDE switch A11S1 defective.	a. Check for 0 to 0.4 Vdc at A 15A9J3. b. Replace A11S1 if defective.
			b. Control Logic PCB A15A9 defective.	a. Check for 0 to 0.4 Vdc at A 15A6J3. b. Replace A15A9 if defective. c.
4	5	REAR OVERRIDE indicators do not extinguish when film transport is turned off.	Control Logic PCB A15A9 defective.	a. Check for 0 to 0.4 Vdc at A15A9J4. b. If voltage correct at J4, replace A 15A9.

Table 5-15. Rear End of Film Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-6 Step	Trouble	Probable Cause	Remedy
5	6	a. Film transports to left but REAR FILM END indicators remain lighted.	Control Logic PCB A15A9 defective.	Replace A15A9.
		b. REAR FILM END indicators light but film movement toward left does not stop.	a. Control Logic PCB A15A9 defective.	a. Check for 2.4 to 5.0 Vdc at A15A6J6. b. Replace A15A9 if defective.
			b. Rate Command PCB A15A6 defective.	Replace A15A6.
		c. Film movement toward left stops but REAR FILM END indicators do not light.	Control Logic PCB A15A9 defective.	Replace A15A9.
		d. Film movement toward left does not stop and REAR FILM END indicators do not light when end of film condition exists in right rear transport.	a. Radius Potentiometer A8R2 or associated film sensing arm defective or out of adjustment.	Check potentiometer and repair or replace as necessary. Adjust per paragraph 5-39.
			b. REAR CORE DIA switch A12S5 defective. c. Open resistor on A12TB1. d. Right Rear Film Transport Preamplifier A15A8 defective.	Check switch and replace if defective. Replace A12TB1. a. Check for 3.6 -0.4 Vdc at A15A8J1. b. Replace A15A8 if defective.
			e. Control Logic PCB A15A9 defective.	a. Check for 2.4 to 5.0 Vdc at A15A6J6. b. Replace A15A9 if defective.
6	7	REAR OVERRIDE indicator does not light and film end condition is not overridden when switch on Right Control Panel is pressed.	a. REAR FILM END/ OVERRIDE switch A12S1 defective.	a. Check for 0 to 0.4 Vdc at A15A9J3. b. Replace A12S1 if switch is defective.
			b. Control Logic PCB A15A9 defective.	a. Check for 0 to 0.4 Vdc at A15A6J6. b. Replace A 15A9 if defective.
7	8	REAR OVERRIDE indicators do not extinguish when film transport is turned off.	Same as step 5.	

Table 5-16. Front End of Film Circuit Troubleshooting

Step	Minimum Performance Reference, Table 5-7 Step	Trouble	Probable Cause	Remedy
1	2	FILM END indicator does not light when end of film condition exists.	FILM END indicator lamp defective.	Replace defective lamp.
2	3	a. Film transports to right but FRONT FILM END indicators remain lighted.	Control Logic PCB A15A4 defective.	Replace A15A4.
		b. FRONT FILM END indicators light but film movement toward right does not stop.	a. Control Logic PCB A15A4 defective.	a. Check for 2.4 to 5.0 Vdc at A15A1J3. b. Replace A15A4 if defective.
			b. Rate Command PCB A15A1 defective.	a. Check for 0 Vdc at Ai5A1J4. b. Replace A 15A6 if defective.
		c. Film movement toward right stops but FRONT FILM END indicators do not light.	Control Logic PCB A15A4 defective.	Replace A15A4.
		d. Film movement toward right does not stop and FRONT FILM END indicators do not light when end of film condition exists in left front transport.	a. Radius Potentiometer A7RI or associated film sensing arm defective or out of adjustment.	Check potentiometer and repair or replace as necessary. Adjust per paragraph 5-38.
			b. FRONT CORE DIA switch A11S6 defective. c. Open resistor on A11TB1. d. Left Front Film Transport Preamplifier A15A2 defective.	Check switch and replace Al IS6 if defective. Replace A11TB1. a. Check for 3.6 $\pm$0.4 Vdc at A15A2J1. b. Replace A15A2 if defective.
			e. Control Logic PCB A15A4 defective.	a. Check for 2.4 to 5.0 Vdc at A15AIJ3. b. Replace A15A4 if defective.
3	4	FRONT OVERRIDE indicators do not light and film end condition is not overridden when switch on Left Control Panel is pressed.	a. FRONT FILM END/ OVERRIDE switch A11S2 defective.	a. Check for 0 to 0.4 Vdc at A15A4J3. b. Replace A11S2 if switch is defective.
			b. Control Logic PCB A15A4 defective.	a. Check for 0 to 0.4 Vdc at A15A1J3. b. Replace A15A4 if defective.
4	5	FRONT OVERRIDE indicators do not extinguish when film transport is turned off.	Control Logic PCB A15A4 defective.	a. Check for 0 to 0.4 Vdc at A15A4J4. b. If voltage is correct at J4, replace A15A4.

Table 5-16. Front End of Film Circuit Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-7 Step	Trouble	Probable Cause	Remedy
5	6	a. Film transports to left but FRONT FILM END indicators remain lighted.	Control Logic PCB A15A4 defective.	Replace A15A4.
		b. FRONT FILM END indicators light but film movement toward left does not stop.	a. Control Logic PCB A15A4 defective. b. Rate Command PCB A15A1 defective.	a. Check for 2.4 to 5.0 Vdc at A15A1J6. b. Replace A15A4 if defective. Replace A15A1.
		c. Film movement toward left stops but FRONT FILM END indicators do not light.	Control Logic PCB A15A4 defective.	Replace A15A4.
		d. Film movement toward left does not stop and FRONT FILM END indicators do not light when end of film condition exists in right front transport.	a. Radius Potentiometer A8R1 or associated film sensing arm defective or out of adjustment. b. FRONT CORE DIA switch A12S6 defective. c. Open resistor on A12TB1 d. Right Front Film Transport Preamplifier A15A3 defective. e. Control Logic PCB A15A4 defective.	Check potentiometer and repair or replace as necessary. Adjust per paragraph 5-38. Check switch and replace A12S6 if defective. Replace A12TB1. a. Check for 3.6 +0.4 Vdc at A15A3J1. b. Replace A15A3 if defective. a. Check for 2.4 to 5.0 Vdc at A 15A1J6. b. Replace A15A4 if defective.
6	7	FRONT OVERRIDE indicator does not light and film end condition is not overridden when switch on Right Control Panel A12 is pressed.	a. FRONT FILM END/ OVERRIDE switch A12S2 defective. b. Control Logic Board A15A4 defective.	a. Check for 0 to 0.4 Vdc at A15A4J3. b. Replace A12S2 if switch is defective. a. Check for 0 to 0.4 Vdc at A15A1J6. b. Replace A 15A4 if defective.
7	8	FRONT OVERRIDE indicators do not extinguish when film transport is turned off.	Same as step 5.	

Table 5-17. Direct-View and Stereo- View Lamps Troubleshooting

Step	Minimum Performance Reference, Table 5-8 Step	Trouble	Probable Cause	Remedy
1	2	High voltage box fan does not operate.	a. Fan motor circuit defective.	Refer to figure 4-2 and troubleshoot fan.
			b. Fan motor defective.	Replace fan.
2	3	a. DV OVT indicator lights but no overtemperature condition exists.	a. Temperature sensor A1ORT1 defective.	Replace A1ORT1 if defective.
			b. Direct-View Lamp Temperature Controller A13A2 defective.	Replace A13A2 if defective.
		b. STE OVT indicator lights but no overtemperature condition exists.	a. Temperature sensor A21RT1 defective.	Replace A21RT1 if defective.
			b. Stereo-View Lamp Temperature Controller A13A3 defective.	Replace A13A3 if defective.
			CAUTION Use portable fan to provide cooling air for Power Supply A9 when operating A9 outside console.	
		c. DV OVV indicator lights but no overvoltage condition exists.	Direct-View and Stereo Dimmer A9A8 defective.	Replace A9A8 if defective.
		d. STE OVV indicator lights but no overvoltage condition exists.	Direct-View and Stereo Dimmer A9A8 defective.	Replace A9A8 if defective.
		e. DV OVT indicator lights and an overtemperature condition exists in direct-view housing.	a. Direct-View Lamp Fan AIOB3 defective.	Remove cover beneath Direct-View A10 and check for 115 Vac at W39P2 pin 17. If voltage is present, replace fan.
			b. Lamp temperature control A13A4 defective.	a. Using oscilloscope, check for presence of 24 Vac, 400 Hz sine wave at A13J27 (+) and A13J17 b. Check for lack of sine wave at A13J28 (+) and A13J17 (-). c. If step a. or b. is bad, replace A13A4.
			c. Direct-View Lamp Temperature Controller A13A2 defective.	a. Using oscilloscope, check for 800 Hz negative pulses at A13A2J1 (+) and A13A2J3 (-). Check for absence of pulses at A13A2J4 (+) and A13A2J3 (-). b. If step a. is bad, replace A13A2.

Table 5-17. Direct- View and Stereo- View Lamps Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-8 Step	Trouble	Probable Cause	Remedy
2 (Cont.)		f. STE OVT indicator lights and an overtemperature condition exists in stereo-view housing.	a. Lamp Temperature Control A1 3A4 defective.	Using oscilloscope, check for presence of 24 Vac, 400 Hz sine wave at A13J29 (+) and A13J17 (-). If not present, replace A13A4.
			b. Stereo-View Lamp Temperature Controller A13A3 defective.	a. Using oscilloscope check for absence of 800 Hz negative pulses at A13A2J3 (-). b. Check for absence of 800 Hz pulses at A13A2J4 (+) and A13A2J3 (-). c. If step a. or b. is bad, replace A13A3.
		g. DV OVV indicator lights and an overvoltage condition exists in direct-view lamp circuit.	a. Direct-View Dimmer Assembly A9A9 defective.	Replace A9A9 if defective.
			b. Direct-View and Stereo Dimmer A9A8 defective.	a. Check for a maximum of 2.5 Vdc at A9A8J7. b. Replace A9A8 if defective.
			c. Direct-View High Voltage Power Supply A 17A I defective or maladjusted.	a. Adjust H.V. ADJUST on A 17A 1 per paragraph 5-44, steps am., ap. and aq. b. Replace A 17A I if defective.
		h. STE OVV indicator lights and an overvoltage condition exists in stereo-view lamp circuit.	a. Stereo-View and Stereo Dimmer A9A8 defective.	Replace A9A8 if defective.
			b. Direct-View and Stereo Dimmer A9A8 defective.	a. Check for a maximum of 2.5 Vdc at A9A8JI. b. Replace A9A8 if defective.
			c. Stereo-View High Voltage Power Supply A17A2 defective or maladjusted.	a. Adjust H.V. ADJUST on A17A2 per paragraph 5-42, steps af., ah., and ai. b. Replace A17A2 if defective,
3	4	a. Both direct-view and stereo-view lamps will not start.	a. Switch A12S11 on TABLE BRIGHTNESS control defective.	Check switch and replace if defective.
			b. Direct-View and Stereo Dimmer A9A8 defective.	Replace A9A8 if defective.
			c. Interlock switch actuated.	Replace A9A8 if defective. a. Refer to figure 4-11 and check interlock switches. b. Repair or replace interlock switches.

Table 5-17. Direct- View and Stereo- View Lamps Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-8 Step	Trouble	Probable Cause	Remedy
3 (Cont.)		b. Direct-view lamp will not start; stereo lamp functions normally or vice versa.	a. Direct-View and Stereo Dimmer A9A8 defective.	Replace A9A8 if defective.
			b. Starter A25 defective.	Replace A25 if defective.
			c. Lamp that does not light is defective.	Replace defective lamp.
			d. Interlock switches A2152 (stereo) or A1OS10 (DV) actuated.	Check switches and correct as necessary.
4	5	Direct-view lamp starts but will not increase intensity.	a. DIRECT TABLE BRIGHTNESS control A12R4 defective.	Check A12R4 and replace if defective. a. Turn DIRECT TABLE BRIGHTNESS control fully clockwise and check for 6.5 $\pm$0.2 Vdc at A9A8J5.
			b. Direct-View and Stereo Dimmer A9A8 defective.	b. Replace A9A8 if defective.
			c. Direct-View Dimmer Assembly A9A9 defective.	c. Replace A9A9.
5	6	Direct-view center brightness less than 2,000 footlamberts at full intensity.	a. Direct-View and Stereo Dimmer A9A8 out of adjustment or defective,	a. Turn DIRECT TABLE BRIGHTNESS control fully clockwise and check for 6.5 $\pm$0.2 Vdc at A9A8J5. b. Adjust A9A8 per paragraph 5-41. c. Replace A9A8 if defective.
			b. Direct-View Lamp A1ODS4 defective.	Replace A1ODS4 if defective.
			c. Direct-View High Voltage Power Supply A 17A 1 defective.	Replace A17AI if defective.
			d. Direct-View High Voltage Power Supply out of adjustment.	Adjust H.V. ADJUST on A17A1 per paragraph 5-41, steps an., ar. and as.
			e. Direct-View Dimmer Assembly A9A9 defective.	Replace A9A9.
6	7	Stereo-view brightness not uniform over entire table surface.	Stereo-View Lamp A21DS1 defective.	Replace A21DS1 if defective.
7	8	Stereo-view lamp flickers. defective.	a. Stereo-View Lamp A21DS1	Replace A21DS1 if defective.
			b. Stereo-View Lamp Heater A21HR1 defective.	Replace direct-view lamp and heater assembly.
			c. Lamp Temperature Control A 13A4 defective.	Replace A13A4 if defective.
			d. Stereo-View Lamp Temperature Control A13A3 defective.	a. Using oscilloscope, check for 800 Hz negative pulses at A13A3J4. b. Replace A13A3 if defective.
			e. Stereo-View High Voltage Power Supply A17A2 out of adjustment.	Adjust H.V. ADJUST on A17A2 per paragraph 5-42, steps af., ah., and ai.

Table 5-18. Slack Loop Troubleshooting

Step	Minimum Performance Reference, Table 5-9 Step	Trouble	Probable Cause	Remedy
1	2	a. Slack loop trolley will not move down with SLACK LOOP switch in slow down position but functions normally with switch in other positions	SLACK LOOP switch A12S3 defective	Check A12S3 and replace if switch is defective.
		b. Slack loop trolley will not move down with SLACK LOOP switch in any position	a. Down limit switch A23S2 actuated or defective b. Slack loop trolley drive motor defective	Check A23S2 and repair or replace switch as necessary. a. Check voltage to motor. b. Replace motor and filter assembly A23A3 if defective as shown in paragraph 5-117.
2	3	a. Slack loop trolley speed does not increase with SLACK LOOP switch in fast down position	SLACK LOOP switch A12S3 defective	Check A12S3 and replace right control panel if switch is defective.
		b. Slack loop trolley does not stop before reaching down mechanical stops	Down limit switch A23S2 not actuated or defective	Check A23S2 and repair or replace switch as necessary.
3	4	a. Slack loop trolley will not move with SLACK LOOP switch in slow up position but functions normally with switch in other positions.	SLACK LOOP switch A12S3 defective	Check A12S3 and replace if switch is defective.
		b. Slack loop trolley will not move up with SLACK LOOP switch in any position	a. Up limit switch A23S1 actuated or defective b. Slack loop trolley drive motor defective	Check A23S1 and repair or replace switch as necessary. a. Check voltage to motor b. Replace motor and filter assembly A23A3 if defective.
			c. SLACK LOOP RGLTD +28 Vdc circuit breaker popped	Reset A9CB7.
4	5	a. Slack loop trolley speed does not increase with SLACK LOOP switch in fast up position	SLACK LOOP switch A12S3 defective	Check A12S3 and replace if switch is defective.
		b. Slack loop trolley does not stop before reaching up mechanical stops	Up limit switch A23S1 not actuated or defective	Check A23S1 and repair or replace as necessary.

Table 5-19. Map Cursor Troubleshooting

Step	Minimum Performance Reference, Table 5-10 Step	Trouble	Probable Cause	Remedy
1	2	a. Map cursor will not move in any direction	a. CURSOR SELECT switch A12S7 defective	Check switch and replace if defective.
			b. Overtemperature in Cursor Electronics A14 or thermal switch A14S1 Defective	a. Check for overtemperature. b. Check switch and replace if defective.
			c. Map cursor drive gears bound up	Check gears and drive train and repair or replace as necessary
		b. Map cursor will move left and right but will not move up or down	a. Map Y Cursor Control Logic PCB A14A27 defective	a. Move a CURSOR control forward and check for 2.4 to 5.0 Vdc at A14A20J2. b. Move CURSOR control backward and check for 2.4 to 5.0 Vdc at A14A20J3. c. Replace A14A27 if defective.
			b. Y Oscillator and Rate Limit PCB A14A11. defective	a. Move CURSOR control forward and check for approximately 4 Vdc at A14A11J5. b. Replace A14A11 if defective.
			c. Map Y Translator A14A20 defective	a. Move CURSOR control forward or backward and check that lamps DSI through DS5 on A14A20 are blinking, indicating changes in state as given in table 4-2. b. Replace A14A20 if defective.
			d. Motor Driver A14A4 or A 14A 12 defective	Replace defective Motor Driver PCB.
			e. Map Y Power Driver A14A15 or A14A16 defective	Replace defective Power Driver PCB.
			f. Regulated 28 Vdc for map Y circuits bad	a. Check for 28 40.1 Vdc at A14A31J7. Replace A14A31 if defective. Replace A14A22 if defective.
			g. Regulated 6 Vdc for map Y circuits bad	a. Check for 6 $\pm$ 0.1 Vdc at A14A30A1J1. b. Replace A14A30 if defective. c. Replace A14A23 if defective.
			h. Y motor A6B2 defective	Replace motor A6B2 if defective as shown in paragraph 5-101.
		c. Map cursor will move up and down but will not move left or right	a. Map X Cursor Control Logic PCB A14A25 defective	a. Move a CURSOR control to right and check for 2.4 to 5.0 Vdc at A14A18J2. b. Move CURSOR control to left and check for 2.4 to 5.0 Vdc at A14A18J3. c. Replace A14A25 if defective.

Table 5-19. Map Cursor Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-10 Step	Trouble	Probable Cause	Remedy
1 (cont.)			b. X Oscillator and Rate Limit PCB A14A9 defective	a. Move a CURSOR control to right and check for approximately 4 Vdc at A14A9J5. b. Replace A14A9 if defective.
			c. Map X Translator A14A18 defective.	a. Move a CURSOR control to left or right and check that lamps DS1 through DS5 on A14A18 are blinking, indicating changes in state as given in table 4-2. b. Replace A14A18 if defective.
			d. Motor driver A14A2 or A14A12 defective	Replace defective Motor Driver PCB.
			e. Map X power driver A14A5 or A14A6 defective	Replace defective Power Driver PCB.
			f. Regulated 28 Vdc for map X circuits bad	a. Check for 28 ±0.1 Vdc at A14A31J3. b. Replace A14A31 if defective. c. Replace A14A22 if defective.
			g. Regulated 6 Vdc for map X circuits bad	a. Check for 6 ±0.1 Vdc at A14A30A2J1. b. Replace A14A30 if defective. c. Replace A14A23 if defective.
			h. X motor A6BI defective	Replace motor A6B1 if defective.
2	4	Map cursor does not stop before reaching right mechanical stops	Final right limit switch A6S9 not actuated or defective	Repair or replace A6S9 as necessary.
3	5	Map cursor +X direction (right) pulses do not cease when cursor reaches right limit	X Oscillator and Rate Limit PCB A14A9 defective	Replace A14A9 if defective.
4	7	Map cursor does not stop before reaching left mechanical stops	Final left limit switch A6S3 not actuated or defective	Repair or replace A6S3 as necessary.
5	8	Map cursor -X direction (left) pulses do not cease when cursor reaches left limit	X Oscillator and Rate Limit PCB A14A9 defective	Replace A14A9 if defective.
6	10	Map cursor does not stop before reaching up mechanical stops	Final up limit switch A6S5 not actuated or defective	Repair or replace A6S5 as necessary.

Table 5-19. Map Cursor Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-10 Step	Trouble	Probable Cause	Remedy
7	11	Map cursor +Y direction (up) pulses do not cease when cursor reaches up limit	Y Oscillator and Rate Limit Board A14A11 defective	Replace A14A11 if defective.
8	13	Map cursor does not stop before reaching down limit	Final down limit switch A6S7 not actuated or defective	Repair or replace A6S7 as necessary.
9	14	Map cursor -Y direction (down) pulses do not cease when cursor reaches down limit	Y Oscillator and Rate Limit PCB A14A11 defective	Replace A14A11 if defective.
10	16, 17, 18, 19, 20, 21, 22	a. Map cursor slow speed incorrect in X direction (left and right), fast speed is normal	a. Map X cursor rate circuits out of adjustment	Make map X cursor rate adjustments per paragraph 5-46.
			b. Map X Cursor Control Logic PCB A14A25 defective	Replace A14A25 if defective.
			c. X Oscillator and Rate Limit PCB A14A9 defective	Replace A14A9 if defective.
		b. Map cursor fast speed incorrect in X direction (left and right), slow speed is normal	a. Map X cursor rate circuits out of adjustment b. Map X Cursor Control Logic PCB A14A25 defective	Make map X cursor rate adjustments per paragraph 5-46. a. Check for 2.4 to 5.0 Vdc at A14AIOJ2. b. Replace A14A25 if defective.
			c. Fast Command and Joystick PCB A14A10 defective	Replace A14A10 if defective.
			d. X Oscillator and Rate Limit PCB A14A9 defective	Replace A14A9 if defective.
		c. Both fast and slow map cursor speeds in X direction (left and right) incorrect	a. X Oscillator and Rate Limit PCB A14A9 defective	a. Operate map cursor at fast speed and check for 4 +0.5 Vdc at A14A9J5. b. If voltage correct at J5, replace A14A9.
			b. Map X translator A14A18 defective	Replace A14A18 if defective.
11	24, 25, 26, 27, 28, 29, 30	a. Map cursor slow speed incorrect in Y direction (up and down), fast speed is normal	a. Map Y cursor rate circuits out of adjustment	Make map Y cursor rate adjustments per paragraph 5-46.
			b. Map Y Cursor Control Logic PCB A14A27 defective	Replace A14A27 if defective.
			c. Y Oscillator and Rate Limit PCBA14A11 defective	Replace A14AI if defective.

Table 5-19. Map Cursor Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-10 Step	Trouble	Probable Cause	Remedy
11 (cont.)		b. Map cursor fast speed incorrect in Y direction (up and down), slow speed is normal	a. Map Y cursor rate circuits out of adjustment	Make map Y cursor rate adjustments per paragraph 5-46.
			b. Map Y Cursor Control Logic PCB A14A27 Defective	a. Check for 2.4 to 5.0 Vdc at A14A10J5. b. Replace A14A27 if defective.
			c. Fast Command and Joystick PCB A14A10 defective	Replace A14A10 if defective.
			d. Y Oscillator and Rate Limit PCB A14A11 defective	Replace A 14A11 if defective.
		c. Both fast and slow map cursor speeds in Y direction (up and down) incorrect	a. Y Oscillator and Rate Limit PCB A14A11 defective	a. Operate map cursor at fast speed and check for 4 $\pm$0.5 Vdc at A14A11J5. b. If voltage correct at J5, replace A14A11.
			b. Map Y translator A14A20 defective	Replace A14A20 if defective.

Table 5-20. Film Cursor Troubleshooting

Step	Minimum Performance Reference, Table 5-11 Step	Trouble	Probable Cause	Remedy
1	2	a. Film cursor will not move in any direction	a. CURSOR SELECT switch A12S7 defective	Check switch and replace if defective.
			b. Overtemperature in Cursor Electronics A14 or thermal switch A14S1 defective	a. Check for overtemperature. b. Check switch and replace if defective.
			c. Film cursor drive gears bound up	Check gears and drive train and repair or replace as necessary as shown in paragraph 5-109.
		b. Film cursor will move left and right but will not move forward or backward	a. Film Y Cursor Control Logic PCB A14A26 defective	a. Move a CURSOR control forward and check for 2.4 to 5.0 Vdc at A14A19J2. b. Move a CURSOR control backward and check for 2.4 to 5.0 Vdc at A14A19J3. c. Replace A14A26 if defective.
			b. Y Oscillator and Rate Limit PCB A14A11 defective	a. Move CURSOR control forward and check for approximately 4 Vdc at A14A11J2 b. Replace A14A11if defective.
			c. Film Y translator A14A19 defective	a. Move CURSOR control forward or backward and check that lamps DS1 through DS5 on A14A19 are blinking, indicating changes in state as given in table 4-2. b. Replace A14A19 if defective.
			d. Motor driver A14A3 or A14A12 defective	Replace defective motor driver.
			e. Film Y power driver A14A13 or A14A14 defective	Replace defective power driver.
			f. Regulated 28 Vdc for film Y circuits bad	a. Check for 28 $\pm$0.1 Vdc at A14A31J5. b. Replace A14A31 if defective. c. Replace A14A22 if defective.
			g. Regulated 6 Vdc for film Y circuits bad	a. Check for 6 $\pm$ 0.1 Vdc at A14A30A3JI. b. Replace A14A30 if defective. c. Replace A14A23 if defective.
			h. Y motor A1OB2 defective	Replace motor A1OB2 if defective as shown in paragraph 5-109.
		c. Film cursor will move forward and backward but will not move left or right	a. Film X Cursor Control Logic PCB A14A24 defective	a. Move a CURSOR control to right and check for 2.4 to 5.0 Vdc at A14A17J2. b. Move a CURSOR control to left and check for 2.4 to 5.0 Vdc at A14A17J3. c. Replace A14A24 if defective.

Table 5-20. Film Cursor Troubleshooting (Continued)

Step	Maximum Performance Reference, Table 5-11 Step	Trouble	Probable Cause	Remedy
1 (cont.)			b. X Oscillator and Rate Limit PCB A14A9 defective	a. Move a CURSOR control to right and check for approximately 4 Vdc at A14A9J2.
			c. Film X Translator A14A17 defective	a. Move a CURSOR control to left or right and check that lamps DS1 through DS5 on A14A17 are blinking, indicating changes in state as given in table 4-2. b. Replace A14A17 if defective.
			d. Motor Driver A14A1 or A14A12 defective	Replace defective Motor Driver PCB.
			e. Film X Power Driver A14A7 or A 14A8 defective	Replace defective Power Driver PCB.
			f. Regulated 28 Vdc for film X circuits bad	a. Check for 28 $\pm$ 0.1 Vdc at A14A31J1. b. Replace A14A31 if defective. c. Replace A14A22 if defective.
			g. Regulated 6 Vdc for film circuits bad	a. Check for 6 40.1 Vdc at A14A30A4J1. b. Replace A14A30 if defective. c. Replace A14A23 if defective.
			h. X motor A1OB1 defective	Replace motor A1OB1 if defective.
2	4	Film cursor does not stop before reaching right mechanical stops	Final right limit switch A1OS4 not actuated or defective	Repair or replace AIOS4 as necessary.
3	5	Film cursor +X direction (right) pulses do not cease when cursor reaches right limit	X Oscillator and Rate Limit PCB A14A9 defective	Replace A14A9 if defective.
4	7	Film cursor does not stop before reaching left mechanical stops	Final left limit switch A1OS11 not actuated or defective	Repair or replace A1OS11 as necessary.
5	8	Film cursor -X direction (left) pulses do not cease when cursor reaches left limit	X Oscillator and Rate Limit PCB A14A9 defective	Replace A14A9 if defective.

Table 5-20. Film Cursor Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-11 Step	Trouble	Probable Cause	Remedy
6	10	Film cursor does not stop before reaching back mechanical stops	Final back limit switch A1OS5 not actuated or defective	Repair or replace A10S5 as necessary.
7	11	Film cursor +Y direction (backward) pulses do not cease when cursor reaches back limit	Y Oscillator and Rate Limit PCB A14A11 defective	Replace A14A11 if defective.
8	13	Film cursor does not stop before reaching front limit	Final front limit switch AIOS8 not actuated or defective	Repair or replace A1OS8 as necessary.
9	14	Film cursor -Y direction (forward) pulses do not cease when cursor reaches front limit	Y Oscillator and Rate Limit PCB A14A11 defective	Replace A 14A11 if defective.
10	16, 17, 18, 19, 20, 21, 22	a. Film cursor slow speed incorrect in X direction (left and right), fast speed is normal	a. Film X cursor rate circuits out of adjustment	Make film X cursor rate adjustments per paragraph 5-45.
			b. Film X Cursor Control Logic PCB A14A24 defective	Replace A14A24 if defective.
			c. X Oscillator and Rate Limit PCB A14A9 defective	Replace A14A9 if defective.
		b. Film cursor fast speed incorrect in X direction (left and right), slow speed is normal	a. Film X cursor rate circuits out of adjustment	Make film X cursor rate adjustments per paragraph 5-45.
			b. Film X Cursor Control Logic PCB A14A24 defective	a. Check for 2.4 to 5.0 Vdc at A14A10J1. b. Replace A14A24 if defective.
			c. Fast Command and Joystick PCB A14A10 defective	Replace A14A10 if defective.
			d. X Oscillator and Rate Limit PCB A14A9 defective	Replace A14A9 if defective.
		c. Both fast and slow film cursor speeds in X direction (left and right) incorrect	a. X Oscillator and Rate Limit PCB A14A9 defective	a. Operate film cursor at fast speed and check for 4 ±0.5 Vdc at A14A9J2. b. If voltage correct at J2, replace A14A9
			b. Film X translator A14A17 defective	Replace A14A17 if defective.
11	24, 25, 26, 27, 28, 29, 30	a. Film cursor slow speed incorrect in Y direction (forward and backward), fast speed is normal	a. Film Y cursor rate circuits out of adjustment	Make film Y cursor rate adjustments per paragraph 5-45.
			b. Film Y Cursor Control Logic PCB A14A26 defective	Replace A14A26 if defective.
			c. Y oscillator and Rate Limit PCB A14A1 defective	Replace A14A11 if defective.

Table 5-20. Film Cursor Troubleshooting (Continued)

Step	Minimum Performance Reference, Table 5-11 Step	Trouble	Probable Cause	Remedy
11 (cont.)		b. Film cursor fast speed incorrect in Y direction (forward and backward), slow speed is normal	a. Film Y cursor rate circuits out of adjustment	Make film Y cursor rate adjustments per paragraph 5-45.
			b. Film Y Cursor Control Logic PCB A14A26 defective	a. Operate cursor at fast speed and check for 2.4 to 5.0 Vdc at A14A10J4. b. Replace A14A26 if defective.
			c. Fast Command and Joystick PCB A14A10 defective	Replace A14A10 if defective.
			d. Y Oscillator and Rate Limit PCB A14A11 defective	Replace A14A11 if defective.
		c. Both fast and slow film cursor speeds in Y direction (forward and backward) incorrect	a. Y Oscillator and Rate Limit PCB A14A11 defective	a. Operate cursor at fast speed and check for 4 $\pm$ 0.5 Vdc at A14A11J2. b. If voltage incorrect at J2, replace A14A11.
			b. Film Y translator A 14A 19 defective	

5-29. ALIGNMENT AND ADJUSTMENT. Alignment and adjustment of the Console consists of adjusting the chassis and PCB potentiometers to obtain optimum performance of the equipment. Unless otherwise specified, alignment and adjustment procedures will be accomplished with the Console set up for normal operation. Alignment and adjustment procedures are provided for functional circuits rather than individual assemblies. The following procedures should be performed after replacement of an assembly or subassembly affecting the alignment or adjustment or when the specified tolerance is not met. A list of adjustments is provided in table 5-21.

5-30. Main Power Adjustments. Main power circuits are adjusted as described in the following paragraphs.

5-31. Voltage Tolerance and 28 Vdc Regulator A13A1. Perform the following steps to adjust PCB A13A1.

CAUTION

Potentiometers A13A1R5 and R12 are factory adjusted. No attempt should be made to adjust these potentiometers as damage to the Console could result.

a. Set CONSOLE 1 or 2 switch on shelter Power Control Panel to OFF.

b. Set MAIN POWER SWITCH A13S5 to OFF.

c. Loosen seven captive panel fasteners on Power Distribution Panel A13.

d. Loosen nine quarter-turn fasteners and separate front panel from cover.

e. Loosen two quarter-turn fasteners on card cage and swing card cage out.

f. Connect digital voltmeter (DVM) (+) to A13A1J3 and (-) to A13A1J2.

g. Set CONSOLE 1 or 2 circuit breaker on shelter Power Control Panel to ON.

h. Set MAIN POWER SWITCH to ON.

i. Adjust potentiometer A13A1R21 for an indication of 28 +0.1 Vdc on DVM.

j. Set MAIN POWER SWITCH to OFF.

k. Set CONSOLE 1 or 2 circuit breaker to OFF.

l. Disconnect DVM, secure card cage to chassis, install front panel to chassis, and secure chassis to console.

5-32. +15 Vdc, -15 Vdc, and +5 Vdc Regulator A9A1. Perform the following steps to adjust PCB A9A1.

a. Set MAIN POWER SWITCH to OFF.

CAUTION

Use portable fan to provide cooling air for Power Supply A9 when operating A9 outside Console.

b. Loosen seven captive panel fasteners, pull Power Supply A9 straight out. Remove two screws (one at lower left and one at lower right on outside of front panel) and rotate panel down.

c. Loosen 13 quarter-turn fasteners and three screws on top of cover, and remove low-voltage cover.

d. Connect DVM (+) to A9A1J1 and (-) to A9A1J7.

e. Set MAIN POWER SWITCH to ON.

f. Place Console in OPERATE mode.

Table 5-21. Console Adjustments

Adjustment	Function	Test Point	Parameter
A6S1	Provides interlock for High Voltage Power Supply A17	A15XA7 (pin 10) A15XA7 (pin 18)	160-165 ohms
A7R1	Senses film remaining on spool of left front film transport	A15XA2 (pin 10) A 15XA2 (pin 18)	160--165 ohms
A7R2	Senses film remaining on spool of left rear film transport	A15XA7 (pin 10) A15XA7 (pin 18)	160--165 ohms
A8R1	Senses film remaining on spool of right front film transport	A15XA3 (pin 10) A15XA3 (pin 18)	160-165 ohms
A8R2	Senses film remaining on spool of right rear film transport	A15XA8 (pin 10) A15XA8 (pin 18)	160--165 ohms
A9A1R13	Adjusts +15 Vdc regulated voltage	(+) A9A1J1 (-) A9A1J7	15 +0.1 Vdc
A9A1R16	Adjusts -15 Vdc regulated voltage	(+) A9A1J7 (-) A9A1J5	15 +0.1 Vdc
A9A1R27	Adjusts +5 Vdc regulated voltage	(+) A9A1J3 (-) A9A1J7	5 +0.1 Vdc
A9A3R15	Adjusts +28 Vdc regulated voltage	(+) A9A3J6 (-) A9A3J2	28 +0.1 Vdc
A9A8R1	Adjusts voltage to direct view TABLE BRIGHT-NESS control	(+) A13A2J2 (-) A13A2J3	6.5 +0.1 Vdc
A9A8R4	Adjusts dc offset voltage to operational amplifier A9A8U	(+) A9A8J6 (-) A9A8J4	0.35 +0.2 Vdc
A9A8R25	Adjusts voltage to stereo TABLE BRIGHTNESS control	(+) A13A3J2 (-) A13A3J3	6.5 +0.1 Vdc
A9A8R28	Adjusts dc offset voltage to operational amplifier A9A8J4	(+) A9A8J3 (-) A9A8J4	0.35 +0.2 Vdc
A11TB1R1	2.125 core diameter trimming adjust for left rear film transport	A15XA7 (pin 21) A15XA7 (pin 20)	1609 ohms
A11TB1R2	1.125 core diameter trimming adjust for left rear film transport	A15XA7 (pin 21) A15XA7 (pin 20)	1765 ohms
A11TB1R3	0.969 core diameter trimming adjust for left rear film transport	A15XA7 (pin 21) A15XA7 (pin 20)	1817 ohms
A11TB1R5	2.125 core diameter trimming adjust for left front film transport	A15XA2 (pin 21) A15XA2 (pin 20)	1609 ohms
A11TB1R6	1.125 core diameter trimming adjust for left front film transport	A15XA2 (pin 21) A15XA2 (pin 20)	1765 ohms
A11TB1R7	0.969 core diameter trimming adjust for left front film transport	A15XA2 (pin 21) A15XA2 (pin 20)	1817 ohms
A11TB2R3	Balance adjust for X-axis of joystick	(+) A14XA1O (pin 20) (-) A14XA2 (pin 21)	0.0 $\pm$ 0.005 Vdc
A11TB2R4	Balance adjust for Y-axis of joystick	(+) A14XA1O (pin 4) (-) A14XA10 (pin 19)	0.0 $\pm$ 0.005 Vdc
A12TB1R1	2.125 core diameter trimming adjust for right rear film transport	A15XA8 (pin 21) A15XA8 (pin 20)	1609 ohms
A12TB1R2	1.125 core diameter trimming adjust for right rear film transport	A15XA8 (pin 21) A15XA8 (pin 20)	1765 ohms

Table 5-21. Console Adjustments (Continued)

Adjustment	Function	Test Point	Parameter
A12TB1R3	0.969 core diameter trimming adjust for right rear film transport	AI5XA8 (pin 21) A15XA8 (pin 20)	1817 ohms
A12TB1R5	2.125 core diameter trimming adjust for right front film transport	A15XA3 (pin 21) A15XA3 (pin 20)	1609 ohms
A12TB1R6	1.125 core diameter trimming adjust for right front film transport	A15XA3 (pin 21) A15XA3 (pin 20)	1765 ohms
A12TB1R7	0.969 core diameter trimming adjust for right front film transport	A15XA3 (pin 21) A15XA3 (pin 20)	1817 ohms
A12TB2R3	Balance adjust for X-axis of joystick	(+) A14XA10 (pin 22) (-) A14XA10 (pin 19)	0.0 +0.005 Vdc
A12TB2R4	Balance adjust for Y-axis of joystick	(+) A14XAIO (pin 6) (-) A14XAIO (pin 19)	0.0 +0.005 Vdc
A13AIR21	Adjusts 28 Vdc regulated voltage	(+) A13A1J3 (-) A13AIJ2	28 -0.1 Vdc
A13A2R15	Adjusts threshold voltage to operational amplifier A13A2U2B and controls D.V. temperature	(+) A13A2J2 (-) A13A2J3	0.10 40.05 Vdc
A13A2R41	Adjusts threshold voltage to operational amplifier AI3A2U5B and controls D.V. fan	(+) A13A2J1 (-) A13A2J3	0 +0.05 Vdc
A13A3R15	Adjusts threshold voltage to operational amplifier A13A3U2B and controls stereo overtemperature	(+) A13A3J2 (-) A13A3J3	See paragraph 5-42(h)
A13A3R43	Adjusts threshold voltage to operational amplifier A113A3U5A		See paragraph 5-42(p)
A14A9R16	Adjusts frequency of film X oscillator for computer slow film commands	(+) A14A17J1 (-) A14A17J4	300 (+10, -0) pps
A 14A9R 18	Adjusts frequency of map X oscillator for computer slow map commands	(+) A14A17J1 (-) A14A17J4	300 (+10, -0) pps
A14A9R20	Adjusts dc offset voltage to operational amplifier A14A9U3	(+) A14A9TP6 (-) A14A9J4	-11.5 (+1, -0) Vdc
A14A9R21	Adjusts dc offset voltage to operational amplifier A14A9U4	(+) A14A9TP7 (-)A14A9J4	-11.5 (+1, -0) Vdc
A14A9R37	Adjusts threshold voltage to operational amplifier A14A9U5	(+) A14A9TP6 (-) A14A9J4	-0.65 (+0, -0.1) Vdc
A14A9R38	Adjusts threshold voltage to operational amplifier A14A9U6	(+) A14A9TP7 (-) A14A9J4	-0.65 (+0, -0.1) Vdc
A14A1OR19	Adjusts film X fast voltage	(+) A14A17J1 (-) A14A17J4	2500 (+0, -50) pps
A14A1OR20	Adjusts map X fast voltage	(+) A14A18J1 (-) A14A18J4	1500 (+0, -50) pps
AI14A1OR21	Adjusts film Y fast voltage	(+) A14A19J1 (-) A14A19J4	2500 (+0, -50) pps
A14A1OR22	Adjusts map Y fast voltage	(+) A14A20J1 (-) A14A20J4	1500 (+0, -50) pps

Table 5-21. Console Adjustments (Continued)

Adjustment	Function	Test Point	Parameter
A14A10R53	Adjusts dc level of film X joystick signal	(+) A14A17J1 (-) A14A17J4	2500 (+0, -50) pps
A14A10R54	Adjusts dc level of map X joystick signal	(+) A14A18J1 (-) A14A18J4	1500 (+0, -50) pps
A 4A10R55	Adjusts dc level of film Y joystick signal	(+) A14A19J1 (-) A14A19J4	2500 (+0, -50) pps
A14A10R56	Adjusts dc level of map Y joystick signal	(+) A14A20J1 (-) A14A20J4	1500 (+0, -50) pps
A114A11R16	Adjust frequency of film Y oscillator for computer slow film commands	(+) A14A19J1 (-) A14A19J4	300 (+10, -0) pps
A14A11R18	Adjusts frequency of map Y oscillator for computer slow map commands	(+) A14A20J1 (-) A14A20J4	300 (+10, -0) pps
A14A11R20	Adjusts offset voltage to operational amplifier A114A11U3	(+) A14A11TP6 (-) A14A11J4	-11.5 (+1, -0) Vdc
A14A11R21	Adjusts dc offset voltage to operational amplifier A14A11U4	(+) A14A 1TP7 (-) A14A11J4	-11.5 (+1, -0) Vdc
A14A11R37	Adjusts threshold voltage to operational amplifier A14A11U5	(+) A14A11TP6 (-) A14A11J4	-0.65 (+0, -0.1) Vdc
A14A1R38	Adjusts threshold voltage to operational amplifier A114A11U6	(+) A14A11TP7 (-) A14A11J4	-0.65 (+0, -0.1) Vdc
A14A24R21	Adjusts threshold voltage to operational amplifier A 14A24U11		See paragraph 5-45 (az)
A14A24R28	Adjusts threshold voltage to operational amplifier A14A24U12.	(+) A14A24J6 (-) A14A1 1J4	+0.05 Vdc
A14A25R21	Adjusts threshold voltage to operational amplifier A14A25U11		See paragraph 5-46 (az)
A14A25R28	Adjusts threshold voltage to operational amplifier A14A25U12	(+) A14R25J6 (-) A14A11J4	+0.05 Vdc
A14A26R21	Adjusts threshold voltage to operational amplifier A14A26U11		See paragraph 5-45 (bf)
A14A26R28	Adjusts threshold voltage to operational amplifier A14A26U12	(+) A14A26J6 (-) A14A11J4	+0.50 Vdc
A14A27R2	Adjusts threshold voltage to operational amplifier A14A27U11		See paragraph 5-46 (bf)
A14A27R28	Adjusts threshold voltage to operational amplifier A14A27U12	(+) A14A27J6 (-) A14A11J4	$\pm$ 0.05 Vdc
A14A30A1R8	Adjusts 6 Vdc output of regulator no. 1	(+) A14A30A1J1 (-) A14A30J2	6 $\pm$ 0.1 Vdc
A14A30A2R8	Adjusts 6 Vdc output of regulator no. 2	(+) A14A30A2J1 (-) A14A30J2	6 $\pm$ 0.1 Vdc
A14A30A3R8	Adjusts 6 Vdc output of regulator no. 3.	(+) A14A30A3J1 (-) A14A30J2	6 $\pm$ 0.1 Vdc
A14A30A4R8	Adjusts 6 Vdc output of regulator no. 4	(+) A14A30A4J1 (-) A14A30J2	6 $\pm$ 0.1 Vdc
A14A31R11	Adjusts 28 Vdc output of regulator no. 1	(+) A14A31J1 (-) A14A31J4	28 $\pm$ 0.1 Vdc
A14A31R22	Adjusts 28 Vdc output of regulator no. 2	(+) A14A31J3 (-) A14A31J4	28 $\pm$ 0.1 Vdc

Table 5-21. Console Adjustments (Continued)

Adjustment	Function	Test Point	Parameter
A14A31R34	Adjusts 28 Vdc output of regulator no. 3	(+) A14A31J5 (-) A14A31J4	28 +0.1 Vdc
A14A31R45	Adjusts 28 Vdc output of regulator no. 4	(+) A14A31J7 (-) A14A31J4	28 +0.1 Vdc
A14A31R51	Adjusts low-voltage point at which power failure signal is sent to the computer	(+) A14A31J9 (-) A14A31J4	0 ± 0.2 Vdc
A15A1R10	Adjusts fast-forward voltage for film transport computer commands	(+) A15A1J2 (-) A15A1J1	10 Vdc
A15A1R11	Adjusts slow-forward voltage for film transport computer commands	(+) A15A1J2 (-) A15A1J1	0.50 Vdc
A15A1R12	Adjusts fast-reverse voltage for film transport computer commands	(+) A15A1J2 (-) A15A1J1	10 Vdc
A15A1R13	Adjusts slow-reverse voltage for film transport computer commands	(+) A15A1J2 (-) A15A1J1	0.50 Vdc
A15A5R11	Adjusts 28 Vdc output of regulator no. 1	(+) A15A5J3 (-) A15A5J1	28 +0.1 Vdc
A15A5R45	Adjusts 28 Vdc output of regulator no. 4	(+) A15A5J7 (-) A15A5J1	28 4-0.1 Vdc
A15A6R10	Adjusts fast-forward voltage for film transport computer commands	(+) A15A6J2 (-) A15A6J1	10 Vdc
A15A6R11	Adjusts slow-forward voltage for film transport computer commands	(+) A15A6J2 (-) A15A6J1	0.50 Vdc
A15A6R12	Adjusts fast-reverse voltage for film transport computer commands	(+) A15A6J2 (-) A15A6J1	10 Vdc
A15A6R13	Adjusts slow-reverse voltage for film transport computer commands	(+) A15A6J2 (-) A15A6J1	0.50 Vdc
HV ADJUST (A17A1R18)	Adjusts maximum high-voltage output of Direct-View Power Supply A17A1	(+) A9A8J7 (-) A9A8J4	5.8 40.1 Vdc
HV ADJUST (A17A2R19)	Adjusts maximum high voltage output of Stereo-View Power Supply A17A2	(+) A9A8J1 (-) A9A8J4	1.4 +0.1 Vdc

g. Adjust potentiometer A9A1R13 for an indication of 15 -0.1 Vdc on DVM.

h. Disconnect DVM leads and connect (+) to A9AIJ7 and (-) to A9AIJ5.
i. Adjust potentiometer A9AIR16 for an indication of 15 +0.1 Vdc on DVM.

j. Disconnect DVM leads and connect (+) to A9AIJ3 and (-) to A9AIJ7.

k. Adjust potentiometer A9A1R27 for an indication of 5 +0.1 Vdc on DVM.

1. Place Console in STANDBY mode.

m. Disconnect DVM leads, replace low-voltage cover and install Power Supply into Console.

5-*33. Reticle Lamp Dimmer and +28 Vdc Regulator A9A3*. Perform the following steps to adjust PCB A9A3.

a. Set MAIN POWER SWITCH to OFF.

CAUTION

Use portable fan to provide cooling air for Power Supply A9 when operating A9 outside Console.

b. Loosen seven captive panel fasteners, pull Power Supply straight out, and rotate down.

c. Remove three cross-point screws on top of low-voltage cover.

d. Loosen 13 quarter-turn fasteners and remove low-voltage cover.

e. Set MAIN POWER SWITCH to ON and place Console in OPERATE mode.

f. Connect DVM (+) to A9A3J6 and (-) to A9A3J2 on front panel.

g. Adjust potentiometer A9A3R15 for an indication of 28 +0.1 Vdc on DVM.

h. Place Console in STANDBY mode.

i. Disconnect DVM, replace low-voltage cover and install Power Supply into Console.

5-34. Film Transport Adjustments. Film transport circuits are adjusted as described in the following paragraphs.

5-35. Film Transport Rate Command A 15A1A. Perform the following steps to adjust PCB A115A1.

a. Set MAIN POWER SWITCH A13S5 to ON.

b. Place Console in OPERATE mode.

c. Depress both FRONT and REAR TRANSPORT ON/TRANSPORT OFF switch lights and ensure both transports are off.

d. Load film per paragraph 3-11.

e. Place Console in STANDBY mode.

f. Set MAIN POWER SWITCH to OFF.

g. Loosen four captive panel fasteners on Transport Electronics A15 and slide drawer out of Console.

h. Loosen 22 quarter-turn fasteners on cover and remove cover to gain access to PCBs.

NOTE

Place a covering on top of Transport Electronics Drawer, in the area of heatsinks, to prevent thermal protection from shutting down Transport Assemblies during adjustment.

NOTE

Jumper wires are used to simulate Computer-generated film transport commands.

i. Disconnect cable 1W8P1 (CPU 1) or cable 1W11P1 (CPU 2) from back of Computer.

j. Connect shorting jumper between pins 12 and 5 of 1W8P1 or 1W11P1 to simulate front transport slow forward command.

k. Connect DVM (+) to A15A1J2 and (-) to A15A1J1.

l. Set MAIN POWER SWITCH to ON.
m. Place Console in OPERATE mode.
n. Adjust potentiometer A15A1R11 for -0.5 ±0.1 Vdc.
o. Place console in STANDBY mode.
p. Disconnect jumper wire between pins 12 and 5 of 1W8P1 or 1W11P1.
q. Connect jumper wire between pins 31 and 20 of 1W8P1 or 1W11P1 to simulate front transport fast-forward command.
r. Place Console in OPERATE mode.
s. Adjust potentiometer A15A1R10 for -7.0 ± 0.2 Vdc.
t. Place Console in STANDBY mode.
u. Disconnect jumper wire between pins 31 and 20 of 1W8P1 or 1W11P1.
v. Connect jumper wire between pins 32 and 43 of 1W8P1 or 1W11P1 to simulate front transport slow-reverse command.
w. Place Console in OPERATE mode.
x. Adjust potentiometer A15A1R13 for +0.5 ± 0.1 Vdc.
y. Place Console in STANDBY mode.
z. Disconnect jumper wire between pins 32 and 43 of 1W8P1 or 1W11P1.
aa. Connect jumper wire between pins 13 and 21 of 1W8P1 or 1W11P1 to simulate front transport fast-reverse command.
ab. Place Console in OPERATE mode.
ac. Adjust potentiometer A15A1R12 for +7.0 ± 0.2 Vdc.
ad. Place Console in STANDBY mode.
ae. Set MAIN POWER SWITCH to OFF.
af. Disconnect jumper wire and DVM leads.
ag. Reconnect cable 1W8P1 or 1W11P1 to back of CPU.
ah. Install transport electronics top cover and secure unit in Console.

5-36. Film Transport Rate Command A15A6. Perform the following steps to adjust PCB A15A6.

a. Set MAIN POWER SWITCH to ON.
b. Place Console in OPERATE mode.
c. Depress both FRONT and REAR TRANSPORT ON/TRANSPORT OFF switch lights and ensure both transports are off.
d. Load film per paragraph 3-11.
e. Place Console in STANDBY mode.
f. Set MAIN POWER SWITCH to OFF.
g. Loosen four captive panel fasteners on Transport Electronics A15 and slide drawer out of Console.
h. Loosen 22 quarter-turn fasteners on cover and remove cover to gain access to PCBs.

NOTE

Place a covering on top of Transport Electronics, in the area of heatsinks, to pre- vent thermal protection from shutting down Transport Assemblies during adjustment.

NOTE

Jumper wires are used to simulate Computer-generated film transport commands.

i. Disconnect cable IW8PI (CPU I) or cable IWI IPI (CPU 2) from back of Computer.
j. Connect jumper wire between pins 78 and 89 of IW8PI or IWI IPI to simulate rear transport slow-forward command.
k. Connect DVM (+) to A15A6J2 and (-) to A15A6JI.
l. Set MAIN POWER SWITCH to ON.
m. Place Console in OPERATE mode.
n. Adjust potentiometer A15A6RI I for -0.5 +0.1 Vdc.
o. Place Console in STANDBY mode.
p. Disconnect jumper wire between pins 78 and 89 of IW8PI or IWI IPI.
q. Connect jumper wire between pins 55 and 66 of IW8PI or IWI IPI to simulate rear transport fast-forward command.
r. Place Console in OPERATE mode.
s Adjust potentiometer A15A6R10 for -7.0 -0.5 Vdc.
t. Place Console in STANDBY mode.
u. Disconnect jumper wire between pins 55 and 66 of IWSPI or IWI IPI.
v. Connect jumper wire between pins 120 and 128 of 1W8PI or IWIIPI to simulate rear transport slow-reverse command.
w. Place Console in OPERATE mode.
x. Adjust potentiometer A15A6R13 for +0.5 +0.1 Vdc.
y. Place Console in STANDBY mode.
z. Disconnect jumper wire between pins 120 and 128 of 1W8PI or IWI IPI.
aa. Connect jumper wire between pins 101 and 111 of 1W8PI or IWI IPI to simulate rear transport fast-reverse command.
ab. Place Console in OPERATE mode.
ac. Adjust potentiometer A15A6R12 for +7.0 40.5 Vdc.
ad. Place Console in STANDBY mode.
ae. Set MAIN POWER SWITCH to OFF.
af. Disconnect jumper wire and DVM leads.
ag. Reconnect cable IW8PI or IWI IPI to back of Computer.
ah. Install Transport Electronics top cover and secure unit in Console.

5-37. +28 Vdc Regulator AISAS. Perform the following steps to adjust PCB A15A5.

a. Set MAIN POWER SWITCH to OFF.
b. Loosen four captive panel fasteners on Transport Electronics A15 and slide drawer out of Console.
c. Loosen 22 quarter-turn fasteners on cover and remove cover to gain access to PCBs.

NOTE

Place a covering on top of Transport Electronics, in the area of heatsinks, to pre- vent thermal protection from shutting down Transport Assemblies during adjustment.

d. Connect DVM (+) to A15A5J3 and (-) to A15A5J4.
e. Set MAIN POWER SWITCH to ON.
f. Place Console in OPERATE mode.
g. Adjust potentiometer A15A5R22 for an indication of 28 4-0.1 Vdc.
h. Disconnect (+) DVM lead and connect to A15A5J7.
i. Adjust potentiometer A15A5R45 for an indication of 28 +0.1 Vdc.
j. Disconnect (+) DVM lead and connect to A15A5J5.
k. Adjust potentiometer A15A5R34 for an indication of 28 +0.1 Vdc.
I. Disconnect (+) DVM lead and connect to A15A5JI.
m. Adjust potentiometer Al5A5RI I for an indication of 28 +0.1 Vdc.
n. Place Console in STANDBY mode.
o. Set MAIN POWER SWITCH to OFF.
p. Disconnect DVM leads, install top cover, and secure Transport Electronics in Console.

5-38. Front Film Transport End-of-Film Adjustment. Perform the following steps to adjust end-of-film circuit for Front Transport Assemblies.

a. Set MAIN POWER SWITCH to OFF.
b. Pull Transport Electronics out of Console and remove cover. Remove PCBs A15A2 and A15A3. Use 23 pin extender board to extend PCB.
c. Connect DVM (set for resistance test) between pins 10 and 18 of A15XA2.
d. Rotate film sensing arm on left front film transport downward and move spool index mechanism to the side to allow roller of sensing arm to rest on disk of index mechanism.
e. Perform step d. for the Right (front) Film Transport Assembly A8.
f. Loosen pinion gear on potentiometer A7R1.
g. Adjust A7RI for an indication between 160 and 165 ohms on DVM.
h. Observe DVM while tightening pinion gear on A7R1 to ensure resistance remains in tolerance.
i. Connect DVM between pins 10 and 18 of A15XA3.
j. Loosen pinion gear on potentiometer A8RI.

k. Adjust A8RI for an indication between 160 and 165 ohms on DVM.
l. Observe DVM while tightening pinion gear on A8RI to ensure resistance remains in tolerance.
m. Remove Left Control Panel All from Console (leaving cables connected) and remove back cover from panel.
n. Connect DVM between pins 21 and 20 of AISXA2.
o. Set FRONT CORE DIA switch to 2.125 and adjust AIITBIRS for 1609 ohms indication on DVM.
p. Set FRONT CORE DIA switch to 1.125 and adjust AIITBIR6 for 1765 ohms indication on DVM.
q. Set FRONT CORE DIA switch to 0.969 and adjust A IITBIR7 for 1817 ohms indication on DVM.
r. Remove Right Control Panel A12 from Console (leaving cables connected) and remove top cover from panel.
s. Connect DVM between pins 21 and 20 of A15XA3.
t. Set FRONT CORE DIA switch to 2.125 and adjust A12TBIR5 for 1609 ohms indication on DVM.
u. Set FRONT CORE DIA switch to 1.125 and adjust A12TBIR6 for 1765 ohms indication on DVM.
v. Set FRONT CORE DIA switch to 0.969 and adjust A12TBIR7 for 1817 ohms indication on DVM.
w. Install PCBs A15A2 and A15A3, replace cover on Transport Electronics and reinstall in console.
x. Set MAIN POWER SWITCH to ON and place OPERATE/STANDBY switch in OPERATE.
y. Load a roll of 5-inch film, having a spool core diameter of 2.125 inches, in Front Film Transports as described in paragraph 3-11.
z. Transport film, to the right, a few feet past point where FRONT FILM END indicators extinguish.
aa. Transport film to the left until FRONT FILM END indicators light. Using calipers, check that diameter of right front film spool core and film is between *2-*/,. and 2-l/4 inches.
ab. If measurement in step aa. is out of tolerance, adjust A12TBIR5 (ccw to increase diameter or cw to decrease diameter).
ac. Repeat steps z. through ab. until diameter of film spool core and film is within tolerance.
ad. Transport film to the right until FRONT FILM END indicators light. Using calipers, check that diameter of left front film spool core and film is between *2-3/1.* and 2-*/,* inches.
ae. If measurement in step ad. is out of tolerance, adjust AIITBIRS (ccw to increase diameter or cw to decrease diameter).
af. Repeat steps ad. and ae. until diameter of film spool core and film is within tolerance.
ag. Place OPERATE/STANDBY switch in STANDBY and set MAIN POWER SWITCH to OFF.
ah. Install covers on control panels and install both control panels in Console.

5-39. Rear Film Transport End-of-Film Adjustment. Perform the following steps to adjust end-of-film circuit for Rear Transport Assemblies.
a. Set MAIN POWER SWITCH to OFF.
b. Pull Transport Electronics A15 out of Console and remove cover from assembly. Remove PCBs A15A7 and A 15A8.
c. Connect DVM (set for resistance test) between pins 10 and 18 of A15XA7.

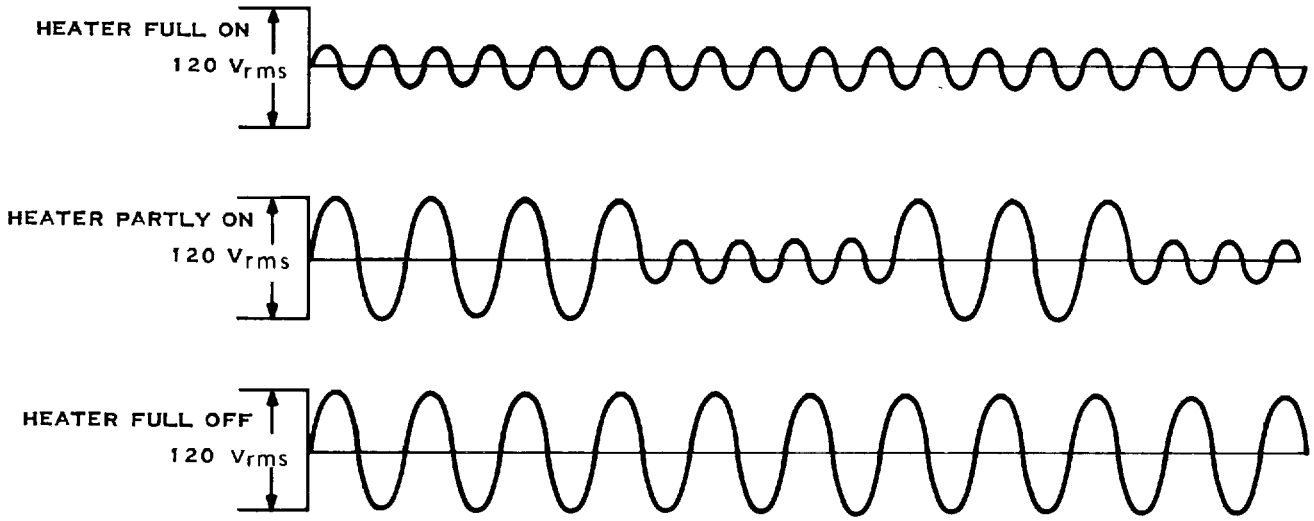
d. Rotate film sensing arm on left rear film transport downward and move spool index mechanism to the side to allow roller of sensing arm to rest on disk of index mechanism.
e. Perform step d. for the Right (Rear) Film Transport Assembly A8.
f. Loosen pinion gear on potentiometer A7R2.
g. Adjust A7R2 for an indication between 160 and 165 ohms on DVM.
h. Observe DVM while tightening pinion gear on A7R2 to ensure resistance remains in tolerance.
i. Connect DVM between pins 10 and 18 of A15XA8.
j. Loosen pinion gear on potentiometer A8R2.
k. Adjust A8R2 for an indication between 160 and 165 ohms on DVM.
l. Observe DVM while tightening pinion gear on A8R2 to ensure resistance remains in tolerance.
m. Remove Left Control Panel All from Console (leaving cables connected) and remove back cover from panel.
n. Connect DVM between pins 21 and 20 of A15XA7.
o. Set REAR CORE DIA switch to 2.125 and adjust AIITBIRI for 1609 ohms indication on DVM.
p. Set REAR CORE DIA switch to 1.125 and adjust AIITBIR2 for 1765 ohms indication on DVM.
q. Set REAR CORE DIA switch to 0.969 and adjust AIITBIR3 for 1817 ohms indication on DVM.
r. Remove Right Control Panel A12 from Console (leaving cables connected) and remove top cover from panel.
s. Connect DVM between pins 21 and 20 of A15XA8.
t. Set REAR CORE DIA switch to 2.125 and adjust A12TBIRI for 1609 ohms indication on DVM.
u. Set REAR CORE DIA switch to 1.125 and adjust A12TBIR2 for 1765 ohms indication on DVM.
v. Set REAR CORE DIA switch to 0.969 and adjust A12TBIR3 for 1817 ohms indication on DVM.
w. Install PCBs A15A7 and A15A8, replace cover on Transport Electronics, and reinstall in Console.
x. Set MAIN POWER SWITCH to ON and place OPERATE/STANDBY switch in OPERATE.
y. Load a roll of 5-inch film, having a spool core diameter of 2.125 inches, in rear film transports as described in paragraph 3-11.
z. Transport film to the right a few feet past point where REAR FILM END indicators extinguish.
aa. Transport film to the left until REAR FILM END indicators light. Using calipers, check that diameter of right rear film spool core and film is between 2-'/,, and 2-/4 inches.
ab. If measurement in step aa. is out of tolerance, adjust A12TBIRI (ccw to increase diameter or cw to decrease diameter).
ac. Repeat steps z. through ab. until diameter of film spool core and film is within tolerance.
ad. Transport film to the right until REAR FILM END indicators light. Using calipers, check that diameter of left rear film spool and film is between 2-/,, and 2-/, inches.
ae. If measurement in step ad. is out of tolerance, adjust AIITBIRI (ccw to increase diameter or cw to decrease diameter).
af. Repeat steps ad. and ae. until diameter of film spool core and film is within tolerance.
ag. Place OPERATE/STANDBY switch in STANDBY and set MAIN POWER SWITCH to OFF.

ah. Install covers on control panels and install both control panels in Console.

5-40. Direct-View and Stereo-View Lamps Adjustments. Direct-view and stereo-view lamp circuits are adjusted as described in the following paragraphs.

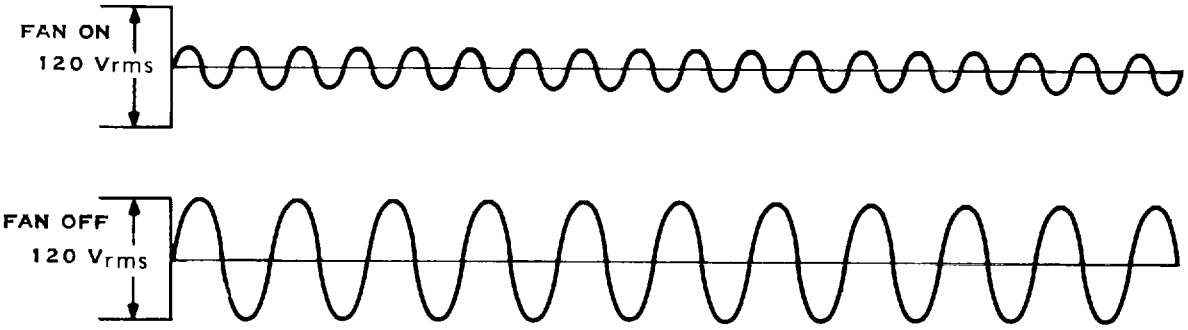
5-41. Direct-View Lamp Brightness and Temperature Control Adjustment. Perform the following steps to adjust brightness and temperature control circuits.

a. Set CONSOLE 1 or 2 circuit breaker on shelter Power Control Panel to OFF.
b. Set Console MAIN POWER SWITCH to OFF.
c. Loosen seven captive panel fasteners on Power Distribution Panel A13.
d. Loosen nine quarter-turn fasteners and separate front panel from cover.
e. Loosen two quarter-turn fasteners on card cage and swing card cage out.
f. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to ON.
g. Set Console MAIN POWER SWITCH to ON.
h Place Console in OPERATE mode.
i. Connect DVM (+) lead to A13A2J2 and (-) lead to A13A3J3. Set DVM to 2 Vdc scale.
j. Loosen two quarter-turn fasteners on maintenance test points panel and swing open. Connect oscilloscope probe to maintenance test point A13J27 and ground to A13J17.
k. Turn DIRECT BRIGHTNESS control for full lamp intensity. Adjust potentiometer A13A2R15 so that the direct-view heater cutoff point is between 0 Vdc and -0.1 Vdc as measured on DVM.
l To determine Direct-View heater state, refer to waveforms shown below. These waveforms are displayed on oscilloscope connected in step j.



m. Voltage measured on DVM will become more positive as Direct-View Assembly A10 heats.

n. When voltage on DVM reaches 0.1 :0.05 Vdc, adjust A13A2R41 to turn on Direct-View fan. Monitor state of fan by connecting oscilloscope to test point A13J28. In addition, visual inspection of fan under Direct- View Assembly will indicate its state. To determine state of Direct-View fan, refer to waveform shown below.



o. Set DIRECT TABLE BRIGHTNESS control to OFF.

p. Place console in STANDBY mode.

q. Set MAIN POWER SWITCH to OFF.

r. Set CONSOLE 1 or 2 circuit breaker on shelter Power Control Panel to OFF.

s. Remove cover behind Direct View A10 (figure 1-2) to gain access to Junction Box A22. Disconnect connector W39PI from Junction Box A22 connector J1 and connect 15 kilohm resistor between pins I I and 12 Junction Box Connector Jl.

t. Set CONSOLE 1 or 2 circuit breaker on shelter Power Control Panel to ON.

u. Set MAIN POWER SWITCH to ON.

v. Place Console in OPERATE mode.

w. Set DIRECT TABLE BRIGHTNESS control fully counterclockwise, but not OFF.

x. Observe DV OVT indicator on Power Supply A9. Adjust potentiometer A13A2R43 clockwise until indicator is off and then counterclockwise until lamp just comes on.

y. Place console in STANDBY mode.

z. Set MAIN POWER SWITCH to OFF. Replace cover behind Direct-View. Install covers on Power Distribution Panel and install panels in Console. Secure maintenance test point panel.

aa. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to OFF.

ab. Remove 15 kilohm resistor and connect W39P1.

ac. Loosen seven captive panel fasteners, pull Power Supply straight out. Remove two screws (one at lower left and one at lower right on outside of front panel) and rotate panel down.

ad. Pull out interlock on Power Supply A9.

ae. Remove back cover from A9A8 on Power Supply A9.

CAUTION

Use portable fan to provide cooling air for Power Supply A9 when operating A9 outside Console.

af. Connect DVM (+) to A9A8J6 and (-) to A9A8J4.
ag. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to ON.
ah. Set MAIN POWER SWITCH to ON.
ai. Place Console in OPERATE mode.
aj. Rotate DIRECT TABLE BRIGHTNESS control fully counterclockwise, but not OFF.
ak. Adjust potentiometer A9A8R4 for an indication of 0.35 -0.2 Vdc.
al. Rotate DIRECT TABLE BRIGHTNESS control fully clockwise.
am. Adjust potentiometer A9A8RI for an indication of 6.5 +0.1 Vdc on DVM.
an. Replace cover on Power Supply A9 and reinstall Power Supply A9 in Console.
ao. Rotate DIRECT TABLE BRIGHTNESS control to OFF.
ap. Place Console in STANDBY mode.
aq. Set MAIN POWER SWITCH to OFF.
ar. Remove high-voltage box access panel from lower right of Console.
as. Pull out high-voltage interlock.

WARNING

High voltages (8 kV and 2 kV) exist at output of high-voltage power supplies. Use care not to come in contact with these voltages.

at. Set MAIN POWER SWITCH to ON. Place Console in OPERATE mode.
au. Set direct TABLE BRIGHTNESS control to ON.
av. Allow Direct-View lamp to warm up for 5 minutes.
aw. Rotate DIRECT TABLE BRIGHTNESS control fully counterclockwise, but not off. This will dim Direct- View lamp.
ax. Adjust HV ADJUST control on 8 kV power supply A17AI counterclockwise until lamp begins to flicker and then clockwise one-half turn past point where lamp stops flickering.
ay. Set DIRECT TABLE BRIGHTNESS control to full intensity. Note that lamp remains at full intensity and does not cut off. Turn DIRECT TABLE BRIGHTNESS control slowly to minimum intensity. Lamp should remain lighted and not flicker. If lamp cuts off, turn HV ADJUST counterclockwise until lamp can be lighted again, then repeat this step.
az. Set DIRECT TABLE BRIGHTNESS control to OFF.
ba. Set OPERATE/STANDBY switch to STANDBY.
bb. Set MAIN POWER SWITCH to OFF.
bc. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to OFF.

bd. Replace high-voltage box cover on Power Supply A9 and install Power Supply in Console.
be. Install high-voltage box access panel.

5-42. Stereo Lamp Brightness and Temperature Control Adjustment. Perform the following steps to adjust the brightness and temperature control circuits. All adjustment locations and test points within the Power Distribution Panel A13 are shown in figure 5-7. All adjustment locations and test points within the Power Supply A9 are shown in figure 5-4.

a. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to OFF.
b. Set Console MAIN POWER SWITCH to OFF.
c. Loosen two fasteners on maintenance test point panel.
d. Loosen seven captive panel fasteners on Power Distribution Panel A13 (figure 1-2).
e. Loosen nine quarter-turn fasteners and separate front panel from cover.
f. Loosen two quarter-turn fasteners on card cage and swing card cage out.
g. Set DVM to 2 Vdc scale. Connect DVM (+) to A13A3J3 and (-) to A13A2J3.
h. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to ON.
i. Set MAIN POWER SWITCH to ON.
j. Place Console in OPERATE mode.
k. Set STEREO TABLE BRIGHTNESS control for maximum brightness of stereo lamp.
I. Connect oscilloscope to maintenance test point A13J29 and ground to A13J17 (figure 5-7).
m. When voltage indicated on DVM is between -0.05 and 0 Vdc, adjust A13A3R15 (figure 5-7) so stereo-view heater shuts off. Refer to waveforms shown in paragraph 5-41, step m. These waveforms will be displayed on the oscilloscope.
n. Set STEREO TABLE BRIGHTNESS control to OFF.
o. Place Console in STANDBY mode.
p. Set MAIN POWER SWITCH to OFF.
q. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to OFF.
r. Remove cover behind Direct-View A10 (figure 1-2) to gain access to Junction Box A22 (figure 1-2). Disconnect connector W34P5 from Junction Box Connector J5. Connect 15 kilohm resistor between pins 20 and 21 of Junction Box Connector J5.
s. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to ON.
t. Set MAIN POWER SWITCH to ON.
u. Place Console in STANDBY mode.
v. Set STEREO TABLE BRIGHTNESS control fully counterclockwise.
w. Observe STE OVT indicator and adjust potentiometer A13A3R43 (figure 5-7) counterclockwise until indicator is extinguished and then adjust clockwise until indicator lights.
x. Set STEREO TABLE BRIGHTNESS control to OFF.
y. Place Console in STANDBY mode.
z. Set MAIN POWER SWITCH to OFF.

aa. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to OFF.

ab. Remove 15 kilohm resistor and reconnect W34P5. Replace cover behind Direct-View. Install covers on Power Distribution Panel and install panel in Console. Secure maintenance test point panel.

ac. Loosen seven captive panel fasteners and pull Power Supply A9 (figure 1-2) straight out. Remove two screws (one at lower left and one at lower right on outside of front panel) and rotate panel down.

ad. Pull out interlock on power supply.

ae. Remove back cover from A9A8 (figure 5-4).

CAUTION

Use portable fan to provide cooling air for Power Supply when operating Power Supply outside Console.

af. Connect DVM (+) to A9A8J3 and (-) to A9A8J4 (figure 5-4).

ag. Set CONSOLE I or 2 circuit breaker on shelter Power Control Panel to ON.

ah. Set MAIN POWER SWITCH to ON.

ai. Place Console in OPERATE mode.

aj. Set STEREO TABLE BRIGHTNESS control for minimum brightness.

ak. Adjust potentiometer A9A8R28 counterclockwise for an indication of 1.2 -0.5 Vdc on DVM.

al. Rotate STEREO TABLE BRIGHTNESS control fully clockwise.

am. Adjust potentiometer A9A8R25 (figure 5-4) for an indication of 6.5 +0.1 Vdc on DVM.

an. Replace cover on Power Supply and reinstall Power Supply in Console.

ao. Rotate STEREO TABLE BRIGHTNESS control to OFF.

ap. Place Console in STANDBY mode.

aq. Set MAIN POWER SWITCH to OFF.

ar. Remove high-voltage box access cover from lower right of Console and pull out high-voltage interlock.

WARNING

High voltages (8 kV and 2 kV) exist at output of high-voltage power supplies. Use care not to come in contact with these voltages.

as. Set HIGH POWER SWITCH to ON.

at. Place Console in OPERATE mode.

au. Turn STEREO TABLE BRIGHTNESS control on and set for minimum brightness.

av. Allow stereo-view lamp to warm for 3 minutes.

aw. Adjust HV control on 2 kV supply A17A2 counterclockwise until lamp begins to flicker and then clockwise one-quarter turn past point where lamp stops flickering.

ax. Turn STEREO TABLE BRIGHTNESS control to full intensity and note that lamp remains at full brightness and does not cut off. Turn STEREO TABLE BRIGHTNESS control slowly to minimum intensity. Lamp should remain lighted and not flicker. If lamp cuts off, turn HV ADJUST counterclockwise until lamp can be lighted again. Then recheck for flicker at low brightness.

ay. Set STEREO TABLE BRIGHTNESS control to OFF.
az. Set OPERATE/STANDBY switch to STANDBY.
ba. Set MAIN POWER SWITCH to OFF.
bb. Install covers on Power Distribution Panel and install panel in console.
bc. Install high-voltage box access cover.

5-43. Film and Map Cursor Adjustments. Film and map cursor adjustments are adjusted as described in the following paragaphs.

5-44. Joystick Signal Balance Adjustment. Perform the following steps to adjust the signal balance of both joysticks. All adjustment locations and test points within Cursor Electronics A14 are shown in figure 5-8. All adjustment locations and test points within the Left Control Panel A**ll** I and Right Control Panel A12 are shown in figures 5-5 and 5-6, respectively.

NOTE

Move cursors to center of their travel area before starting adjustment and make sure cursors are not in a limit.

a. Set MAIN POWER SWITCH to OFF.
b. Loosen nine quarter-turn fasteners, remove spool release knobs, and remove Right Control Panel A12 (figure 1-2).
c. Loosen 13 quarter-turn fasteners and remove bottom cover from Right Control Panel.
d. Loosen eight quarter-turn fasteners and remove Left Control Panel All (figure 1-2).
e. Loosen eight quarter-turn fasteners and remove back cover on Left Control Panel.
f. Loosen four captive panel fasteners on Cursor Electronics A14 (figure 1-2).
g. Loosen 24 quarter-turn fasteners on top cover and remove cover to gain access to PCBs.

NOTE

Place a covering on top of the Cursor Electronics drawer in the area of heatsinks to maintain adequate airflow.

h. Remove PCB A14A10 from Cursor Electronics (figure 5-8).
i. Connect DVM (+) to A14XAIO pin 22 and (-) to A14XA10 pin 19.
j. Set MAIN POWER SWITCH to ON.
k. Place Console in OPERATE mode.
l. Adjust potentiometer A12TB2R3 (figure 5-6) for an indication of 0.0 +0.005 Vdc on DVM.
m. Disconnect DVM (+) and connect to A14XA10 pin 6.
n. Adjust potentiometer A12TB2R4 (figure 5-6) for an indication of 0.0 40.005 Vdc on DVM.
o. Disconnect DVM (+) and connect to A14XAIO0 pin 20.
p. Adjust potentiometer Al TB2R3 (figure 5-6) for an indication of 0.0 +0.005 Vdc on DVM.

q. Disconnect DVM (+) and connect to A14XAIO pin 4.
r. Adjust potentiometer Al ITB2R4 (figure 5-5) for an indication of 0.0 40.005 Vdc on DVM.
s. Place Console in STANDBY mode.
t. Set MAIN POWER SWITCH to OFF.
u. Disconnect DVM leads and install PCB A14AI0 in Cursor Electronics.
v. Replace covers on and install Right Control Panel, Left Control Panel, and Cursor Electronics.

5-45. Film Cursor Rate Adjustments. Perform the following steps to adjust rate of film cursor. All adjustment locations and test points within Cursor Electronics A14 are shown in figure 5-8.

a. Set MAIN POWER SWITCH to OFF.
b. Loosen four captive panel fasteners on Cursor Electronics A14 (figure 1-2) and slide drawer out of Console.
c. Loosen 24 quarter-turn fasteners on top cover and remove cover to gain access to PCBs.

NOTE

Place a covering on top of Cursor Electronics drawer in the area of heatsinks to maintain adequate airflow during adjustment.

NOTE

Where jumper wires are used to simulate Computer-generated cursor commands, the FID Manual Test Language provides an alternate method. Refer to T.O. IOMI-7-9-8-2 for instructions on using Cursor Speed Adjust (CSA) verb in the Manual Test Language.

d. Pull Computer out of ADP rack and disconnect cable PI from JI [cable IW8 (CPU 1) or IWI I (CPU 2)].
e. Set CURSOR SELECT switch to FILM position.
f. Pull DIRECT VIEW CURSOR +6 and +28 circuit breakers.
g. Remove PCB A14A9 from Cursor Electronics, mate with 29 pin extender card, and install in Cursor Electronics.
h. Set MAIN POWER SWITCH to ON.
i. Place Console in OPERATE mode.
j. Adjust potentiometer A14A9R37 (figure 5-8) fully counterclockwise.
k. Connect DVM (+) to internal test point A14A9TP6 (labeled 1 on PCB) and (-) to A14A9J4 (figure 5-8).
l. Adjust potentiometer A14A9R20 (figure 5-8) for an indication of -11.5 (+1, -0) Vdc on DVM.
m. Disconnect DVM (+) and connect to A14A9J2 (figure 5-8).
n. Connect frequency counter high to A14Al7JI and low to A14A17J4 (figure 5-8).
o. Adjust potentiometer A14A9R20 until frequency counter indicates approximately I pps. Back adjustment off slowly until frequency counter indicates 0 pps.
p. Record voltage indication on DVM (approximately 1.4 Vdc).
q. Adjust potentiometer A14A9R20 until DVM indicates 100 millivolts less than that recorded in step p.

r. Connect jumper wire between pins 63 and 75 of PI to simulate FILM CURSOR-X SLOW Computer command.
s. Adjust potentiometer A14A9R16 (figure 5-8) for an indication of 300 (+10, -0) pps on frequency counter.
t. Disconnect jumper wire between pins 63 and 75 of Pi and connect between pins 86 and 98 to simulate FILM CURSOR-X FAST Computer command.
u. Adjust potentiometer A14AIOR19 (figure 5-8) for an indication of 2500 (+50, -0) pps on frequency counter.
v. Connect DVM (+) to internal test point A14A9TP6 (labeled 1 on PCB) and (-) to A14A9J4 (figure 5-8).
w. Adjust potentiometer A14A9R37 for -0.65 (+0.0, -0.1) Vdc on DVM.
x. Repeat step u.
y. Disconnect jumper wire between pins 86 and 98 of P1.
z. Deflect joystick, on either Right or Left Control Panel, to either side to produce maximum frequency indication on frequency counter.
aa. Adjust potentiometer A14AIOR53 for an indication of 2500 (+50, -0) pps on frequency counter.
ab. Disconnect DVM and frequency counter.
ac. Place Console in STANDBY mode.
ad. Set MAIN POWER SWITCH to OFF.
ae. Remove PCB A14A9 (figure 5-8) and extender card, separate, and install PCB A14A9 in Cursor Electronics.
af. Remove PCB A14A1 I (figure 5-8), mate with 29 pin extender card, and install in Cursor Electronics.
ag. Adjust potentiometer A14AI 1R37 fully counterclockwise.
ah. C onnect DVM (+) to internal test point A14AI TP6 (labeled I on PCB) and (-) to A14A11J4 (figure 5-8).
ai. Set MAIN POWER SWITCH to ON.
aj. Place Console in OPERATE mode.
ak. Adjust potentiometer A14AIIR20 (figure 5-8) for an indication of -11.5 (+1, -0) Vdc on DVM.
al. Disconnect DVM (+) and connect to A14AI IJ2 (figure 5-8).
am. Connect frequency counter high to A14A19JI and low to A14A19J4 (figure 5-8).
an. Adjust potentiometer A14AI IR20 until frequency counter indicates approximately I pps. Back adjustment off slowly until frequency counter indicates 0 pps.
ao. Record voltage indication on DVM (approximately 1.4 Vdc).
ap. Adjust potentiometer A14AI IR20 until DVM indicates 100 millivolts less than that recorded in step ao.
aq. Connect jumper wire between pins 3 and 4 of PI to simulate FILM CURSOR-Y SLOW Computer command.
ar. Adjust potentiometer A14A 11R16 for an indication of 300 (+ 10, -0) pps on frequency counter.
as. Disconnect jumper wire between pins 3 and 4 of P1 and connect between pins 2 and 10 to simulate FILM CURSOR-Y FAST Computer command.
at. Adjust potentiometer A14AIOR21 for an indication of 2500 (+50, -0) pps on frequency counter.

au. Connect DVM (+) to internal test point A14AI ITP6 (labeled on PCB) and (-) to A14AI 1J4.
av. Adjust potentiometer A14AI IR37 for an indication of -0.65 (+0, -0.1) Vdc on DVM.
aw. Repeat step as.
ax. Disconnect jumper wire between pins 2 and 10 of P**1.**
ay. Deflect joystick, on either control panel, up or down to produce maximum frequency indication on frequency counter.
az. Adjust potentiometer A14A24R21 for an indication on 2500 (+50, -0) pps on frequency counter.
ba. Disconnect DVM (+) and connect to A14A24J3.
bb. Adjust potentiometer A14A24R21 for an indication on DVM of 100 millivolts above that recorded in step p.
bc. Disconnect DVM (+) and connect to A14A24J6.
bd. Deflect joystick, on either control panel, to right.
be. Adjust potentiometer A14A24R28 for an indication of +50 millivolts on DVM.
bf. Deflect joystick, on either control panel, to left. DVM shall indicate ~-50 millivolts.
bg. Disconnect DVM (+) and connect to A14A26J3.
bh. Adjust potentiometer A14A26R1 for an indication on DVM of 100 millivolts above that recorded in step ao.
bi. Disconnect DVM (+) and connect to A14A26J6.
bj. Deflect joystick, on either control panel, in up direction.
bk. Adjust potentiometer A14A26R28 for an indication +50 millivolts on DVM.
bl. Deflect joystick, on either control panel, in down direction. DVM shall indicate x-50 millivolts.
bm. Disconnect DVM and frequency counter.
bn. Place Console in STANDBY mode.
bo. Set MAIN POWER SWITCH to OFF.
bp. Remove PCB A14AII and extender card separately, and install PCB A14AI in Cursor Electronics.
bq. Set DIRECT VIEW CURSOR +6 and +28 circuit breakers.
br. Install cover on Cursor Electronics and install in Console.
bs. Set CURSOR SELECT switch to OFF.
bt. Reconnect cable to Computer and reinstall Computer in ADP rack.

5-46. Map Cursor Rate Adjustments. Perform the following steps to adjust rate of map cursor. All adjustment locations and test points within Cursor Electronics A14 are shown in figure 5-8.

a. Set MAIN POWER SWITCH to OFF.
b. Loosen four captive panel fasteners on Cursor Electronics (figure 1-2) and slide drawer out of Console.
c. Loosen 24 quarter-turn fasteners on top cover and remove cover to gain access to PCBs.

NOTE

Place a covering on top of Cursor Electronics drawer in area of heatsinks to maintain adequate airflow during adjustment.

NOTE

Where jumper wires are used to simulate Computer-generated cursor drive commands, the FID Manual Test Language provides an alternate method. Refer to T.O. 10MI-7-9-8-2 for instructions on using the Cursor Speed Adjust (CSA) verb in the Manual Test Language.

d. Pull Computer out of ADP rack and disconnect PI from JI [IW8 (CPU'I) or IWII (CPU 2)].
e. Set CURSOR SELECT switch to MAP position.
f. Pull MAP CURSOR +6 and +28 circuit breakers.

CAUTION

Turn power off (STANDBY) before removing or installing PCBs.

g. Remove PCB A14A9, mate with 29-pin extender card, and install in Cursor Electronics.
h. Set MAIN POWER SWITCH to ON.
i. Place Console in OPERATE mode.
j. Adjust potentiometer A14A9R38 fully counterclockwise.
k. Connect DVM (+) to internal test point A14A9TP7 (labeled 2 on PCB) and (-) to A14A9J4.
I. Adjust potentiometer A14A9R21 for an indication of -11.5 (+1, -0) Vdc on DVM.
m. Disconnect DVM (+) and connect to A14A9J5.
n. Connect frequency counter high to A14AI8JI and low to A14A18J4.
o. Adjust potentiometer A14A9R21 until frequency counter indicates approximately I pps. Back adjustment off slowly until frequency counter indicates 0 pps.
p. Record voltage indication on DVM (approximately 1.4 Vdc).
q. Adjust potentiometer A14A9R21 until DVM indicates 100 millivolts less than recorded in step p.
r. Connect jumper wire between pins 76 and 87 of PI to simulate MAP CURSOR-X SLOW Computer command.
s. Adjust potentiometer A14A9R18 for an indication of 300 (+10, -0) pps on frequency counter.
t. Disconnect jumper wire between pins 76 and 87 of PI and connect between pins 53 and 64 to simulate MAP CURSOR-X FAST Computer command.
u. Adjust potentiometer A14AIOR20 for an indication of 1500 (+50, -0) pps on frequency counter.
v. Connect DVM (+) to internal test point A14A9TP7 (2 on PCB) and (-) to A14A9J4.
w. Adjust potentiometer A14A9R38 for an indication of -0.65 (+0, -0.1) Vdc on DVM.
x. Repeat step u.
y. Disconnect jumper wire between pins 53 and 64 of P1.
z. Deflect joystick, on either Right Control Panel A12 or Left Control Panel Al I (figure 1-2), to either side to produce maximum frequency indication on frequency counter.
aa. Adjust potentiometer A14AIOR54 for an indication of 1500 (+50, -0) pps on frequency counter.
ab. Disconnect DVM and frequency counter.

ac Place Console in STANDBY mode.
ad. Remove PCB A14A9 and extender card, separate, and install PCB A14A9 in Cursor Electronics.
ae. Remove PCB A14Al 1, mate with 29 pin extender card, and install in Cursor Electronics.
af. Adjust potentiometer AI4AI IR38 fully counterclockwise.
ag. Connect DVM (+) to internal test point A14A ITP7 (labeled 2 on PCB) and (-) to A14A11J4.
ah. Set MAIN POWER SWITCH to ON.
ai. Place Console in OPERATE mode.
aj. Adjust potentiometer A14A 1I R21 for an indication of -11.5 (+ 1, -0) Vdc on DVM.
ak. Disconnect DVM (+) and connect to A14AI IJ5.
al. Connect frequency counter high to A14A20Jl and low to A14A20J4.
am. Adjust potentiometer A14A 1R21 until frequency counter indicates approximately I pps. Back adjustment off slowly until frequency counter indicates 0 pps.
an. Record voltage indication on DVM (approximately 1.4 Vdc).
ao. Adjust potentiometer A14AI R21 until DVM indicates 100 millivolts less than that recorded in step an.
ap. Connect jumper wire between pins 110 and 119 of PI to simulate MAP CURSOR-Y SLOW Computer command.
aq. Adjust potentiometer A14AI IR18 for an indication of 300 (+ 10, -0) pps on frequency counter.
ar. Disconnect jumper wire between pins 110 and 119 of P1 and connect between pins 126 and 127 to simulate MAP CURSOR-Y FAST Computer command.
as. Adjust potentiometer A14AIOR22 for an indication of 1500 (+50, -0) pps on frequency counter.
at. Connect DVM (+) to internal test point A14AI ITP7 (labeled 2 on PCB) and (-) to A14AI IJ4.
au. Adjust potentiometer A14A 1R38 for -0.65 (+0, -0.1) Vdc on DVM.
av. Repeat step as.
aw. Disconnect jumper wire between pins 126 and 127 of P1.
ax. Deflect joystick on either control panel up or down to produce maximum frequency indication on frequency counter.
ay. Adjust potentiometer A14AIOR56 for an indication of 1500 (+50, -0) pps on frequency counter.
az. Disconnect DVM (+) and connect to A14A25J3.
ba. Adjust potentiometer A14A25R21 for an indication on DVM of 25 millivolts less than that recorded in step p (approximately 1.4 Vdc).
bb. Disconnect DVM (+) and connect to A14R25J6.
bc. Deflect joystick on either control panel in right direction.
bd. Adjust potentiometer A14A25R28 for an indication of +50 millivolts on DVM.
be. Deflect joystick on either control panel in left direction. DVM shall indicate ~-50 mV.
bf. Disconnect DVM (+) and connect to A14A27J3.
bg. Adjust potentiometer A14A27R21 for an indication on DVM of 25 millivolts less than that recorded in step an (approximately 1.4 Vdc).
bh. Disconnect DVM (+) and connect to A14A27J6.

bi. Deflect joystick on either control panel in up direction.
bj. Adjust potentiometer A14A27R28 for an indication of +50 millivolts on DVM.
bk. Deflect joystick on either control panel in down direction. DVM shall indicate ~-50 mV.
bl. Disconnect DVM and frequency counter.
bm. Place Console in STANDBY mode.
bn. Set MAIN POWER SWITCH to OFF.
bo. Remove PCB A14AI I and extender card, separate, and install PCB A14AI I in Cursor Electronics.
bp. Set MAP CURSOR +6 and +28 Vdc circuit breakers.
bq. Install cover on Cursor Electronics and install in Console.
br. Set CURSOR SELECT switch to OFF.
bs. Reconnect cable to Computer and reinstall Computer in ADP rack.

5-47 Cursor Voltage Regulators and Power Fail Adjustments. Perform the following steps to adjust cursor voltage regulators and power fail circuits. All adjustment locations and test points within Cursor Electronics A14 are shown in figure 5-8.

a. Set MAIN POWER SWITCH to OFF.
b. Loosen four captive panel fasteners on Cursor Electronics and slide drawer out of Console.
c. Loosen 24 quarter-turn fasteners on top cover and remove cover to gain access to PCBs.
d. Set MAIN POWER SWITCH to ON.
e. Place Console in OPERATE mode.
f. Connect DVM (+) to A14A30AIJI and (-) to A14A30J2.
g. Adjust potentiometer A14A30AIR8 for an indication of 6 i0.1 Vdc on DVM.
h. Disconnect DVM (+) and connect to A14A30A2JI (located next to A14A30A2R8).
i. Adjust potentiometer A14A30A2R8 for an indication of 6 ±0.1 Vdc on DVM.
j. Disconnect DVM (+) and connect to A14A30A3JI (located next to A14A30A3R8).
k. Adjust potentiometer A14A30A3R8 for an indication of 6 ±0.1 Vdc on DVM.
l. Disconnect DVM (+) and connect to A14A30A4JI (located next to A14A30A4R8).
m. Adjust potentiometer A14A30A4R8 for an indication of 6 -0.1 Vdc on DVM.
n. Disconnect DVM leads and connect (+) to A14A31JI and (-) to A14A31J4.
o. A djust potentiometer A14A31RI I for an indication of 28 +0.1 Vdc on DVM.
p. Disconnect DVM (+) and connect to A14A31J3.
q. Adjust potentiometer A14A31R22 for an indication of 28 +0.1 Vdc on DVM.
r. Disconnect DVM (+) and connect to A14A31J5.
s. Adjust potentiometer A14A31R34 for an indication of 28 +0.1 Vdc on DVM.
t. Disconnect DVM (+) and connect to A14A31J7.
u. Adjust potentiometer A14A31R45 for an indication of 28 +0.1 Vdc on DVM.
v. Place Console in STANDBY mode.

w. Set MAIN POWER SWITCH to OFF.
x. Disconnect DVM, install top cover on Cursor Electronics, and install in Console.

5-48. REMOVAL AND REPLACEMENT. The following paragraphs provide procedures for removing and replacing major assemblies of the Console.

WARNING

Set MAIN POWER SWITCH on Power Distribution Panel A13 (figure 1-2) to OFF before removing or replacing any assembly in the console. The MAIN POWER SWITCH does not remove power from the QRU assemblies or the CMR assemblies. The CMR circuit breaker and QR/RCU circuit breaker on A13 are provided for this purpose.

5-49. Code Matrix Reader Film Gate Al Removal. Remove the Film Gate from the Console as follows:

CAUTION

To maintain film tracking alignment, the removed Film Gate must be reinstalled on the Console.

a. Pull CMR circuit breaker on Power Distribution Panel A13.
b. Disconnect two cables from back of Film Gate Assembly.

NOTE

Note the location of any shims and pins in the film gate mounting brackets so they can be reinstalled in the same location.

c. Support Film Gate Assembly and remove four screws from front mounting bracket and four screws from rear mounting bracket. If Film Gate Assembly is pinned in position, it may be necessary to loosen mounting brackets to lift assembly out of Console.

5-50. Code Matrix Reader Film Gate Al Replacement. Replace the Film Gate in the Console as follows:
a. Position Film Gate Assembly in mounting brackets with handcrank toward front of Console. Make sure any shims or pins are in same location noted during removal.
b. Secure Film Gate Assembly to mounting brackets with four screws in back and four screws in front.
c. Connect two connectors to back of Film Gate Assembly.
d. Set CMR circuit breaker on Power Distribution Panel A13.

5-51. Code Matrix Reader Electronic Module Unit A2 Removal. Remove the Electronic Module Unit from the Console as follows:
a. Pull CMR circuit breaker on Power Distribution Panel A13.
b. Loosen eight front panel fasteners on Electronic Module Unit and slide unit out until slides lock in place.
c. Disconnect four cables from back of Electronic Module Unit.
d. Release slide latches on each side of Electronic Module Unit and pull unit out of Console.

5-52. Code Matrix Reader Electronic Module Unit A2 Replacement. Replace the Electronic Module Unit in the Console as follows:

NOTE

Position CMR Electronic Module in front of slides prior to extending them.

a. Pull slides out of Console to partially extended position.
b. Position Electronic Module Unit in slides and push unit in until latches engage.
c. Connect four cables to back of Electronic Module Unit.
d. Release slide latches and slide unit into Console. Secure unit in console with eight front panel fasteners.

5-53. QRU Keyboard A3 Removal. Remove the Keyboard from the Console as follows:
a. Set QR/RCU circuit breaker on Power Distribution Panel A13 to down (OFF) position.
b. Remove six screws from bottom of Keyboard mounting bracket.
c. Disconnect connector from bottom of Keyboard and lift Keyboard from mounting bracket.

5-54. QRU Keyboard A3 Replacement. Replace the Keyboard in the Console as follows:
a. Thread cable through hole in bottom of Keyboard mounting bracket.
b. Connect cable to Keyboard connector.
c. Position Keyboard on mounting bracket and secure to bracket using six screws.

5-55. QRU Electronic Unit A4 Removal. Remove Electronic Unit from Console as follows:
a. Set QR/RCU circuit breaker on Power Distribution Panel A13 to down (OFF) position.
b. Loosen four front panel fasteners and pull Electronic Unit out until slides lock in position.
c. Disconnect four cables from back of Electronic Unit.
d. Release cable clamp fasteners from back of Electronic Unit.
e. Release slide latches and pull Electronic Unit out of Console.

5-56. QRU Electronic Unit A4 Replacement. Replace the Electronic Unit in the Console as follows;
a. Pull slides out of Console to fully extended position.
b. Position Electronic Unit in slides and push unit in until latches engage.
c. Connect four cables to back of Electronic Unit and secure cable clamp to back of unit.
d. Release slide latches and slide unit into Console.
e. Secure unit in Console with four front panel fasteners.

5-57. QRU Video Indicator AS Removal. Remove Video Indicator from Console as folows:

CAUTION

Prevent Video Indicator from sliding off mounting plate when mounting screws are removed.

a. Set QR/RCU circuit breaker on Power Distribution Panel A13 to down (OFF) position.

b. Disconnect W52P14 from left rear corner of Video Indicator mounting bracket.
c. Remove six screws securing mounting brackets to Console mounting plate and remove Video Indicator from Console.

5-58. QRU Video Indicator A5 Replacement. Replace Video Indicator in Console as follows:
a. Position Video Indicator on Console mounting plate.
b. Secure Indicator to Console mounting plate using six screws and washers.
c. Connect W52P14 to rear left corner of Video Indicator mounting bracket.

5-5). Mapboard Assembly A6 Removal. Remove the Mapboard Assembly (figure 1-2) in the Console as follows:
a. Release brake on Stereoscope Carriage Assembly and move assembly to far right side of Console.
b. Disconnect three cables connected to Mapboard Assembly.

CAUTION

Lifting of Mapboard Assembly requires two persons.

c. Remove five bolts securing Mapboard Assembly to shelter wall and lift Mapboard Assembly from shelter wall.

5-60. Mapboard Assembly A6 Replacement. Replace the Mapboard Assembly (figure 1-2) in the Console as follows:
a. Replace and tighten five bolts securing Mapboard Assembly to shelter wall.
b. Connect three cables disconnected in removal instructions to Mapboard Assembly.

5-61. Power Supply A9 Removal. Remove the Power Supply (figure 1-2) from the Console as follows:
a Loosen seven front panel fasteners on Power Supply and remove two screws (one lower left and one lower right) on outside of A9 panel.
b. Slide Power Supply out and lower hinged front panel.
c. Remove cables at rear of Power Supply.
d. Depress slide latches and remove Power Supply from Console.

5-62. Power Supply A9 Replacement. Replace the Power Supply (figure 1-2) in the Console as follows:
a. Place Power Supply in console in extended position.
b. Connect all cables removed from Power Supply in Power Supply removal instructions.
c. Raise hinged front panel and slide Power Supply into Power Supply frame.
d. Tighten seven front panel fasteners on Power Supply and replace two screws removed in paragraph 5-61, step a.

5-63. Left Film Transport Assembly A7 Removal. Remove the Left Film Transport Assembly (figure 1-2) from the Console as follows:
a. Remove (unscrew) knobs from SPOOL RELEASE plunger handles and remove Left Control Panel All (figure 1-2) as in paragraph 5-69.
b Disconnect plugs from connectors JI, J2, and J3 on front of Left Film Transport Assembly.

CAUTION

Film Transport Assembly is pinned and shimmed for proper alignment. Locate and identify shims prior to removing Transport Assembly in order that shims can be placed in same positions when Transport Assembly is reinstalled. To maintain film tracking alignment, the removed Transport Assembly must be reinstalled on the console.

c. Support Film Transport Assembly and remove four hex-head screws securing transport assembly frame to Console.

CAUTION

Do not use motor shafts or film rollers for hand holds when lifting transport assembly. Grasp frame to lift assembly.

d. Carefully remove Film Transport Assembly from its pinned position and lift Transport Assembly out of Console film well.

5-64. Left Film Transport Assembly A7 Replacement. Replace the Left Film Tranport Assembly (figure 1-2) in the Console as follows:

a. Carefully replace Film Transport Assembly into its pinned position in Console film well.

b. Tighten four hex-head screws securing transport assembly frame to Console. Make sure shims are replaced in same positions as when transport was removed.

c. Connect plugs to connectors JI, J2, and J3 on front of Left Film Transport.

d. Replace Left Control Panel Al I (figure 1-2) and replace knobs to SPOOL RELEASE plunger handles.

5-65. Right Film Transport Assembly A8 Removal. Remove Right Film Transport Assembly (figure 1-2) from the Console as follows:

a. Remove (unscrew) knobs from SPOOL RELEASE plunger handles and remove Right Control Panel A12 (figure 1-2) as in paragraph 5-71.

NOTE

Stereoscope Carriage must be removed as in paragraph 5-89.

b. Remove front stereoscope carriage guide rail by removing nut at right end of rail and seven screws along front surface of rail.

c. Remove bar from end of stereo-view table mounting brackets.

d. Depress release buttons at top and bottom of stereo-view table and slide table out of mounting brackets. Lay table aside to provide access to Film Transport Assembly.

e. Remove spool release mechanisms from both film drive motors by removing four screws that secure mechanism mounting bracket to film drive motor and two shoulder screws that secure mechanism to motor spindle shaft.

f. Disconnect plugs from connectors Jl, J2, and J3 on front of Film Transport Assembly.

CAUTION

Film Transport Assembly is pinned and shimmed for proper alignment. Locate and identify shims prior to removing Transport Assembly in order that shims can be placed in same positions when Transport Assembly is reinstalled. To maintain film tracking alignment, the removed transport must be reinstalled on the Console.

g. Support Film Transport Assembly and remove four hex-head screws securing transport assembly frame to Console.

CAUTION

Do not use motor shafts or film rollers for handholds when lifting Transport Assembly. Grasp frame to lift assembly.

h. Carefully remove Film Transport Assembly from its pinned position and lift Transport Assembly out of console film well.

5-66. Right Film Transport Assembly A8 Replacement. Replace the Right Film Transport Assembly in the console as follows:

a. Carefully replace Film Transport Assembly into its pinned position in Console film well.
b. Tighten four hex-head screws securing Transport Assembly frame to Console. Make sure shims are replaced in same positions as when transport was removed.
c. Connect plugs to connectors J1, J2, and J3 on front of Film Transport Assembly.
d. Reinstall spool release mechanisms to both film drive motors by replacing two shoulder screws that secure mechanism to motor spindle shaft and replacing four screws that secure mechanism mounting bracket to film drive motor.
e. Reinstall stereo-view table.
f. Replace bar from end of stereo-view table mounting brackets.
g. Replace front stereoscope carriage guide rail by replacing nut at right end of rail and seven screws along front surface of rail.
h. Replace Right Control Panel A12 (figure 1-2) and replace knobs to SPOOL RELEASE plunger handles.

5-67. Direct-View Assembly A10 Removal. Remove the Direct-View Assembly (figure 1-2) from the console as follows:

NOTE

Note the location of any shims and pins in the direct-view mounting brackets so they can be reinstalled in the same location.

a. Remove Stereoscope and Stereoscope Carriage Assembly according to instructions in paragraph 5-89.
b. Remove Slack Loop Assembly A24 (figure 1-2) according to instructions in paragraph 5-91.
c. Remove stereoscope carriage rail (904035-1) by removing screws holding rail to Console.
d. Remove cable cover located beneath Mapboard Assembly A6.
e. Disconnect two cables connected to motors at rear of Direct-View frame.

f. Remove cover beneath Direct-View Assembly AI0.
g. Disconnect cable underneath Direct-View Assembly.
h. Remove two bolts on lower left side of Direct-View frame.

CAUTION

Make sure no film is on Direct-View cover before lifting lid assembly.

i. Place platen assembly on lid in the closed position.
j. loosen five screws on front of lid assembly.
k. Lift lid assembly in upright position.
l. Remove bolt in upper right corner of Direct-View tray.
m. Lower lid assembly and tighten five screws loosened in step j.
n. Remove bolt in front right side of Direct-View frame.
o. Lift Direct-View Assembly to gain access to connector on right side of direct-view frame and remove connector.
p. Lift Direct-View Assembly from Console.

5-68. Direct-View Assembly A10 Replacement. Replace the Direct-View Assembly in the Console as follows:
a. Connect connector on right side of Direct-View frame.
b. Place Direct-View Assembly in proper position in Console. Make sure any shims or pins are in same location noted during removal.
c. Replace and tighten bolt in front right side of Direct-View frame.
d. Place platen assembly on lid in the closed position.
e. Loosen five screws in front of lid assembly.
f. Lift lid assembly in upright position.
g. Replace and tighten bolt in upper right corner of Direct-View tray.
h. Lower lid assembly.
i. Replace and tighten five screws securing lid assembly to Direct-View frame.
j. Replace and tighten two bolts on lower left side of Direct-View frame.
k. Connect cable underneath Direct-View Assembly.
l. Replace cover beneath Direct-View Assembly.
m. Connect two cables connected to motors at rear of Direct-View Assembly.
n. Replace cable cover located beneath Mapboard Assembly A6.
o. Replace stereoscope carriage rail by replacing and tightening screws holding rail to Sirect-View frame.
p. Replace Slack Loop Assembly A23 according to instructions in paragraph 5-92.
q. Replace Stereoscope and Stereoscope Carriage Assembly according to instructions in paragraph 5-90.

5-69. Left Control Panel Al I Removal. Remove the Left Control Panel from the Console as follows:
a. Loosen eight quarter-turn fasteners on front of Left Control Panel.

b. Remove knobs from both FRONT and REAR TRANSPORT SPOOL RELEASE levers by turning knobs to left.
c. Lift Left Control Panel from its position in Console far enough to disconnect connectors on the rear of panel.
d. Remove Left Control Panel from console.

5-70. Left Control Panel Al I Replacement. Replace the Left Control Panel in the Console as follows:
a. Connect connectors disconnected during removal operation on rear of Left Control Panel.
b. Lower Left Control Panel into proper position in Console.
c. Replace knobs on both FRONT and REAR TRANSPORT SPOOL RELEASE levers by turning knobs to right.
d. Tighten eight quarter-turn fasteners on front of Left Control Panel.

5-71. Right Control Panel A12 Removal. Remove the Right Control Panel from the Console as follows:
a. Loosen nine quarter-turn fasteners on front of Right Control Panel.
b. Remove knobs from both FRONT and REAR TRANSPORT SPOOL RELEASE levers by turning knobs to left.
c. Lift Right Control Panel from its position in Console far enough to disconnect connectors on the rear of panel.
d. Remove Right Control Panel from Console.

5-72. Right Control Panel A12 Replacement. Replace the Right Control Panel in the Console as follows:
a. Connect connectors disconnected during removal operation on rear of Right Control Panel.
b. Lower Right Control Panel into proper position in Console.
c. Replace knobs on both FRONT and REAR TRANSPORT SPOOL RELEASE levers by turning knobs to right.
d. Tighten nine quarter-turn fasteners on front of Right Control Panel.

5-73. Power Distribution Panel A13 Removal. Remove the Power Distribution Panel from the Console as follows:
a. Disconnect nine cables from bottom of Power Distribution Panel.
b. Loosen seven front panel captive screws holding Power Distribution Panel in Xonsole.
c. Lift Power Distribution Panel out of Xonsole.

5-74. Power Distribution Panel A13 Replacement. Replace the Power Distribution Panel in the Xonsole as follows:
a. Place Power Distribution Panel into proper position in Xonsole.
b. Tighten seven front panel captive screws holding Power Distribution Panel in Console.
c. Connect nine cables to bottom of Power Distribution Panel.

5-75. Cursor Electronics A14 Removal. Remove the Cursor Electronics from the Console as follows:
a. Loosen four front panel captive screws holding Cursor Electronics in Console.

b. Slide Cursor Electronics out of Console and disconnect 11 connectors at rear of Cursor Electronics and remove from mounting slides.

5-76. Cursor Electronics A14 Replacement. Replace the Cursor Electronics in the Console as follows:
a. Connect 11 cables to rear of Cursor Electronics and place back in mounting slides.
b. Slide Cursor Electronics into proper position in Console.
c. Tighten four front panel captive screws holding Cursor Electronics in Console.

5-77. Film Transport Electronics A15 Removal. Remove the Film Transport Electronics from the Console as follows:
a. Loosen four front panel captive screws holding Film Transport Electronics in Console.
b. Slide Film Transport Electronics out of Console and disconnect eight connectors at rear of Film Transport Electronics and remove from mounting slides.

5-78. Film Transport Electronics A15 Replacement. Replace the Film Transport Electronics in the Console as follows:
a. Connect eight cables to rear of Film Transport Electronics and replace back into mounting slides.
b. Slide Film Transport Electronics into proper position in Console.
c. Tighten four front panel captive screws holding Film Transport Electronics in Console.

5-79. High-Voltage Box Assembly A17 Removal. Remove the High-Voltage Box Assembly from the Console as follows:
a. Loosen four front panel captive screws and remove lower right front panel from Console.
b. Remove access panel located in bottom of right Film Transport well and disconnect two red high-voltage cables from high-voltage box assembly. Round access panel in kneewell also provides access to high-voltage power supply.
c. Remove two bolts on bottom front of High-Voltage Box Assembly A17, securing it to Console.

CAUTION

Use caution to prevent damage to high-voltage cables when performing step d.

d. Slide High-Voltage Box Assembly out of Console far enough to gain access to cables and disconnect cables.
e. Remove High-Voltage Box Assembly.

5-80. High-Voltage Box Assembly A17 Replacement. Replace the High-Voltage Box Assembly in the Console as follows:
a. Connect cables to High-Voltage Box Assembly.

CAUTION

Observe cables and high-voltage cables through round access panel on right side of Console kneewell to prevent damage to cables during reassembly of High- Voltage Box Assembly.

b. Slide High-Voltage Box Assembly into proper position in Console.

c. Connect two red high-voltage cables to Power Supply through round access hole in kneewell and access hole in Right Film Transport A8.
d. Replace both access panels.
e. Replace and tighten two bolts securing High-Voltage Box Assembly to Console.
f. Replace front panel and tighten four front panel captive screws holding panel to Console.

5-81. Line Filter A18 Removal. Remove the Line Filter from the Console as follows:
a. Disconnect two cables connected to Line Filter.
b. Loosen six captive screws securing Line Filter to Console.
c. Lift Line Filter out of Console.

5-82. Line Filter A18 Replacement. Replace the Line Filter in the Console as follows:
a. Place Line Filter in proper position in Console and tighten six captive screws securing Line Filter to Console.
b. Connect two cables removed in removal instructions to Line Filter.

5-83. Transformer/Rectifier Assembly Al9 Removal. Remove the Transformer/Rectifier Assembly from the Console as follows:
a. Remove High-Voltage Box Assembly according to instructions in paragraph 5-79.
b. Remove two screws securing power supply mounting plate clamp to Console and remove clamp.
c. Loosen two captive screws on bottom front of Transformer/Rectifier Assembly.
d. Disconnect three cables from top of Transformer/Rectifier Assembly.
e. Pull Transformer/Rectifier Assembly out of Console using two front panel handles.

5-84. Transformer/Rectifier Assembly A19 Replacement. Replace the Transformer/Rectifier Assembly in the Console as follows:
a. Place Transformer/Rectifier Assembly in proper position in Console, making sure two pins in rear of Transformer/Rectifier Assembly are placed in slots provided in rear of Console.
b. Connect three cables to top of Transformer/Rectifier Assembly.
c. Tighten two captive screws on bottom front of Transformer/Rectifier Assembly.
d. Replace power supply mounting plate clamp, replacing and tightening two screws securing clamp to Console.
e. Replace High-Voltage Box Assembly A17 according to instructions in paragraph 5-80.

5-85. Stereo Housing Assembly A21 Removal. Remove Stereo Housing Assembly from the Console as follows:
a. Remove screws holding stereo stiffener support in place and remove support.
b. Loosen two stereo housing lock assemblies.
c. Disconnect three cables connected to Stereo Housing Assembly.
d. Remove air cooling hose from Stereo Housing Assembly.
e. Slide Stereo Housing Assembly to right until it slides off Console.

5-86. Stereo Housing Assembly A21 Replacement. Replace the Stereo Housing Assembly in the Console as follows:
a. Slide Stereo Housing Assembly into proper position in Console.
b. Connect air cooling hose to Stereo Housing Assembly.
c. Connect three cables that were disconnected in removal instructions.
d. Tighten two stereo housing lock assemblies.
e. Replace and tighten screws holding stereo stiffener support in place.

5-87. Junction Box Assembly A22 Removal. Remove the Junction Box Assembly from the Console as follows:
a. Remove cable cover located beneath Maboard Assembly A6.
b Disconnect 10 connectors from front panel of Junction Box Assembly.
c. Remove 16 screws from front panel of Junction Box Assembly and remove front panel.
d. Remove four screws on back cover of Junction Box Assembly and remove assembly.

5-88. Junction Box Assembly A22 Replacement. Replace the Junction Box Assembly in the Console as follows:
a. With Junction Box Assembly in proper position in Console, replace and tighten four screws on back cover of assembly.
b. Replace front panel on Junction Box Assembly and tighten 16 screws holding panel in place.
c. Connect 10 connectors on front panel of Junction Box Assembly.
d. Replace cable cover beneath Mapboard Assembly A6.

5-89. Stereoscope Carriage Assembly (903850-1) Removal. Remove the Stereoscope Carriage Assembly from the Console as follows:
a. Release brake using brake handle on Stereoscope Carriage Assembly.
b. Move Stereoscope Carriage Assembly to left side of Right Control Panel A12.
c. Remove screws securing carriage retainer (904046-1) to front of Stereoscope Carriage Assembly.
d. Loosen stereoscope carriage shaft (904035-1) by removing screws holding shaft to Console.
e. Slide Stereoscope Carriage Assembly to right until it slides off carriage shaft and remove from Console.

5-90. Stereoscope Carriage Assembly (903850-1) Replacement. Replace the Stereoscope Carriage Assembly in the Console as follows:
a. Slide Stereoscope Carriage Assembly onto stereoscope carriage shaft (904035-1).
b. Replace stereoscope carriage shaft on console by replacing and tightening screws holding shaft to Console frame.
c. Position Stereoscope Carriage Assembly to left side of Right Control Panel A12.
d. Replace carriage retainer (904046-1) on Stereoscope Carriage Assembly by replacing and tightening screws on retainer while in proper position on Stereoscope Carriage Assembly.
e. Apply brake using brake handle on Stereoscope Carriage Assembly.

5-91. Slack Loop Assembly A23 Removal. Remove Slack Loop Assembly from the Console as follows:
a. Remove two screws on both front and rear plates.

b. Move Stereo-View Assembly out of the way in accordance with paragraph 5-64, steps c. and d.
c. Lift Slack Loop Assembly out of Console.
d. Disconnect connector A23J1.

5-92. Slack Loop Assembly A23 Replacement. Replace the Slack Loop Assembly in the Console as follows:
a. Connect connector A23J**1.**
b. Place Slack Loop Assembly in console.
c. Replace and tighten two screws on both front and rear plates and replace Stereo-View Assembly.

5-93. Starter Assembly A25 Removal. Remove the Starter Assembly from the Console as follows:
a. Remove cable cover located beneath Mapboard Assembly A6.
b. Disconnect nine cables from front panel of Starter Assembly.
c. Remove 12 screws securing front panel of Starter Assembly and remove front panel.
d. Remove four screws securing Starter Assembly to Console and remove Starter Assembly.

5-94. Starter Assembly A25 Replacement. Replace Starter Assembly in console as follows:
a. Place Starter Assembly in proper position in Console while replacing and tightening four screws securing Starter Assembly to Console.
b. Replace front panel of Starter Assembly by replacing and tightening 12 screws securing front panel to Starter Assembly.
c. Connect nine cables to front panel of Starter Assembly.
d. Replace cable cover beneath Mapboard Assembly A6.

5-95. Choke Assembly A26 Removal. Remove the Choke Assembly from the Console as follows:
a. Remove cable cover located beneath Mapboard Assembly.
b. Disconnect cable WIJI from Choke Assembly.
c. Remove five screws securing Choke Assembly to Console and remove Choke Assembly.

5-96. Choke Assembly A26 Replacement. Replace the Choke Assembly in the Console as follows:
a. Place Choke Assembly in proper position in Console while replacing and tightening five screws securing Choke Assembly to Console.
b. Connect cable WIJI to Choke Assembly.
c. Replace cable cover beneath Mapboard Assembly A6.

5-97. Left and Right Fan Assembly A27 and A28 Removal. Remove the fan assemblies from the Console as follows:
a. Loosen six front panel quarter-turn fasteners and remove front panel.
b. Disconnect and tag wires from terminal board inside Fan Assembly cover.
c. Slide fan assembly module out of Fan Assembly.

5-98. Left and Right Fan Assemblies A27 and A28 Replacement. Replace the Fan Assemblies in the console as follows:
a. Slide fan assembly module into Fan assembly.

b. Connect tagged wires to terminal board.
c. Tighten six front panel quarter-turn fasteners to replace front cover.

5-99. REPAIR. Repair includes disassembly, repair procedures, and reassembly instructions. 5-100. Mapboard Assembly A6 Repair. The following paragraphs provide instructions for disassembly, repair, and reassembly of the Mapboard Assembly.

5-101. Disassembly. Disassemble the Mapboard Assembly as follows:

a. Cable reel (919764-1) removal.
   1. Remove cable from cable reel according to instructions in paragraph 5-10.d.
   2. Remove two pins securing cable reel to shaft using punch with same diameter as pins.
   3. Remove cable reel by sliding reel off shaft.
b. Motor (2059870-1) removal.
   1. Remove cable from cable reel according to instructions in paragraph 5-IOl.d.
   2. Disconnect connector from motor.
   3. Remove motor upper retainer (919754-1) by removing four screws securing motor upper retainer to motor lower retainer (919753-1).
   4. Lift Motor Assembly from Mapboard Assembly.
   5. Remove three screws securing motor to motor housing (919755-1).
   6. Remove motor gear (919776-1) by loosening two setscrews on gear.
   7. Remove motor from Motor Assembly.
c. Pinion gear (919761-1) removal.
   1. Remove cable reel according to instructions in paragraph 5-101.a.
   2. Loosen setscrew in pinion gear.
   3. Remove pin in pinion gear using punch with same diameter as pin.
   4. Remove belt from pinion gear and remove pinion gear from Mapboard Assembly.
d. Mapboard cable removal.

WARNING

High voltage is present inside Mapboard Assembly A6 when power is applied. Make sure MAIN POWER SWITCH is OFF.

1. Make sure map cursor is in center position before removing cable.
2. Remove Mapboard Assembly from shelter per paragraph 5-59.
3. Remove panel from back of Mapboard Assembly.
4. Refer to figure 5-10 for cable threading diagram and parts location.
5. While holding cable tension, remove spring from cable to be replaced.
6. Slowly relieve tension from cable.
7. Remove cable from around pulleys and hub.

8. Loosen screw on cursor drive arms and unwrap cable from around screw.
9. Remove cable from Mapboard Assembly.

e. Mapboard front surface (2037632-1 or -2) removal.

WARNING

High voltage exists inside Mapboard Assembly when power is applied. Make sure MAIN POWER SWITCH is OFF.

1. Remove Mapboard Assembly from shelter per paragraph 5-59.
2. Remove cursor wires from front of Mapboard Assembly.
3. Remove panel from back of Mapboard Assembly.
4. Disconnect high-voltage leads from four terminals. Part No. 2037632-1 has solder-type terminals and 2037632-2 has lug-type terminals.
5. Remove nuts and washers from 20 studs (16 around inside perimeter of Mapboard Assembly and 4 near the center).
6. Remove front surface from Mapboard Assembly.

5-102 Repair. Repair of the Mapboard Assembly consists of replacing known defective parts. If a part is not known to be defective, it will be necessary to disassemble the Mapboard Assembly and inspect all parts for evidence of defects.

5-103. Reassembly. Reassemble the Mapboard Assembly as follows:

a. Cable reel (919764-1) reassembly.
   1. Replace cable reel by sliding reel onto shaft.
   2. Replace two pins securing cable reel to shaft.
   3. Replace cable on cable reel according to instructions in paragraph 5-103.d.

b. Motor (2059870-1) reassembly.
   1. Place motor on motor assembly.
   2. Replace motor gear (919776-1) by tightening two setscrews on gear.
   3. Replace and tighten three screws securing motor to motor housing (919755-1).
   4. Place Motor Assembly in Mapboard Assembly.
   5. Replace motor upper retainer (919754-1) by replacing and tightening four screws securing motor upper retainer to motor lower retainer (919755-1).
   6. Replace connector on motor.
   7. Replace cable on cable reel according to instructions in paragraph 5-103.d.

c. Pinion gear.
   1. Place pinion gear in Mapboard Assembly and replace belt removed in paragraph 5-101.c(4).
   2. Replace pin in pinion gear.
   3. Tighten setscrew in pinion gear.

4. Replace cable reel according to instructions in paragraph 5-103.a.

d. Mapboard cable replacement.

1. Make sure map cursor is in ceNter position before installing cable.
2. Refer to figure 5-10 for cable threading diagram and parts location.
3. Thread cable around pulleys and hub. Make sure ends of cable will meet so that spring will be located in correct position (figure 5-10).
4. Pull cable ends to within approximately 3 inches of each other and connect spring.
5. Wrap cable around screw on cursor drive arms and tighten screws.
6. Install back cover on Mapboard Assembly.
7. Install Mapboard Assembly in shelter.

e. Mapboard front surface (2037632-1 or -2) replacement.

NOTE

When replacing a 2037632-1 with a -2, install terminal lugs MS25036 on high- voltage leads. When replacing a 2037632-2 with a -1, remove terminal lugs from high-voltage leads.

1. Position front surface on Mapboard Assembly.
2. Secure front surface with 20 nuts and washers.
3. Connect high-voltage leads to front surface terminals.
4. Install cursor wires on front of Mapboard Assembly.
5. Install panel on back of Mapboard Assembly.

5-104. Film Transport Assembly Repair. The following paragraphs provide instructions for disassembly, repair, and reassembly of the Film Transport Assembly A7, A8.

5-105. Disassembly. Disassemble the Film Transport Assembly A7, A8 as follows:

a. Rear end of film arm and roller (903908-1) removal.

1. Move rear arm and roller back against stop bar so setscrew in gear will not interfere with removal.
2. Remove retaining ring from bias arm shaft.
3. Remove rear arm and roller, being careful not to move gear position.

b. Front end-of-film arm and roller (903910-1) removal.

1. Remove retaining ring from bias arm shaft.
2. Remove front arm and roller, being careful not to move gear position.

c. End-of-film gear (903994-1 and 903995-1) removal.

1. Remove arm and roller assembly connected to gear to be replaced by following steps in paragraph 5- 105.a or b.
2. Remove gear by moving off bias arm shaft.

d. Drive motor (903862-2) removal.

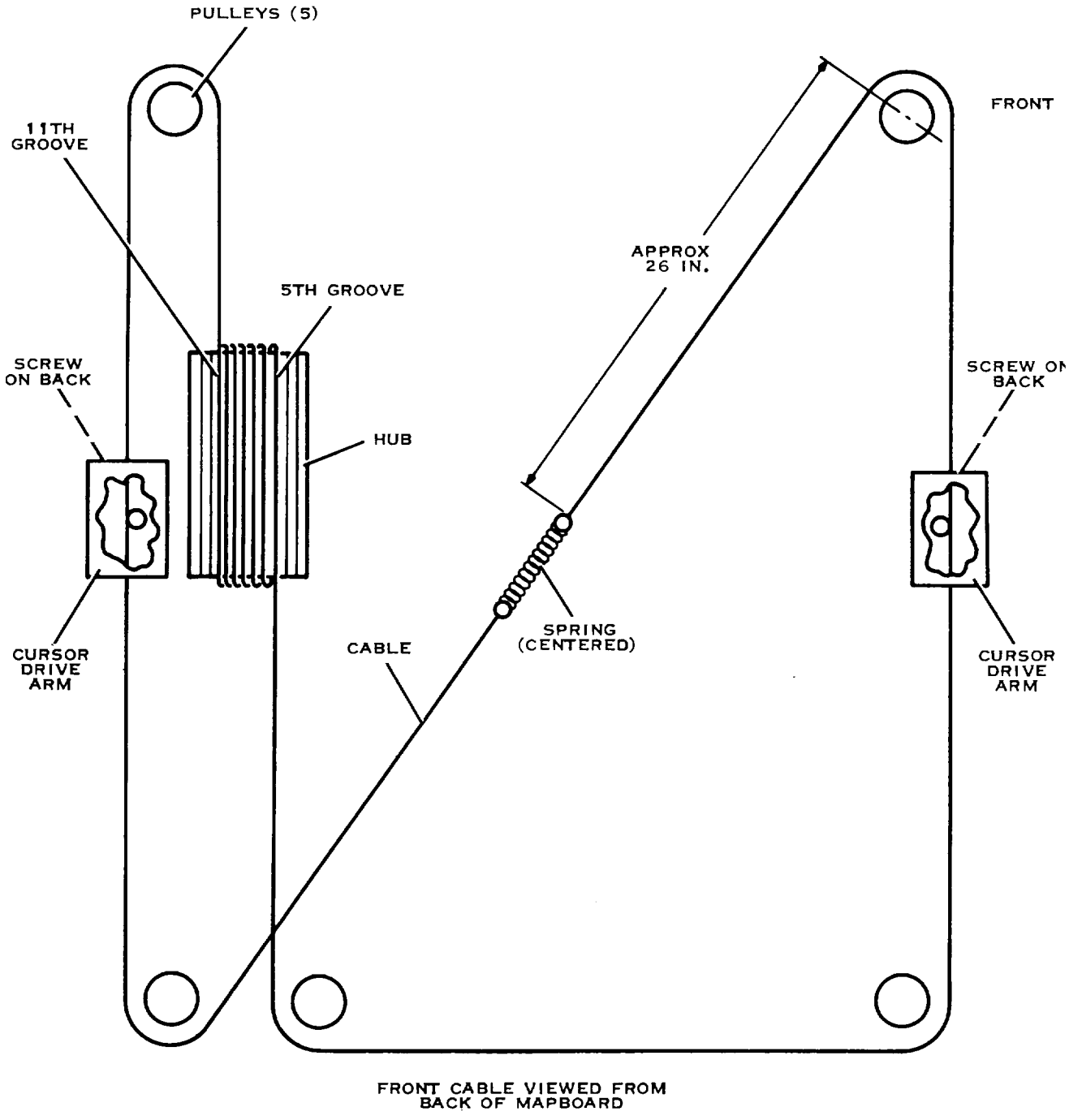


Figure 5-10. Mapboard Cable Threading Diagram (Sheet 1 of 2)

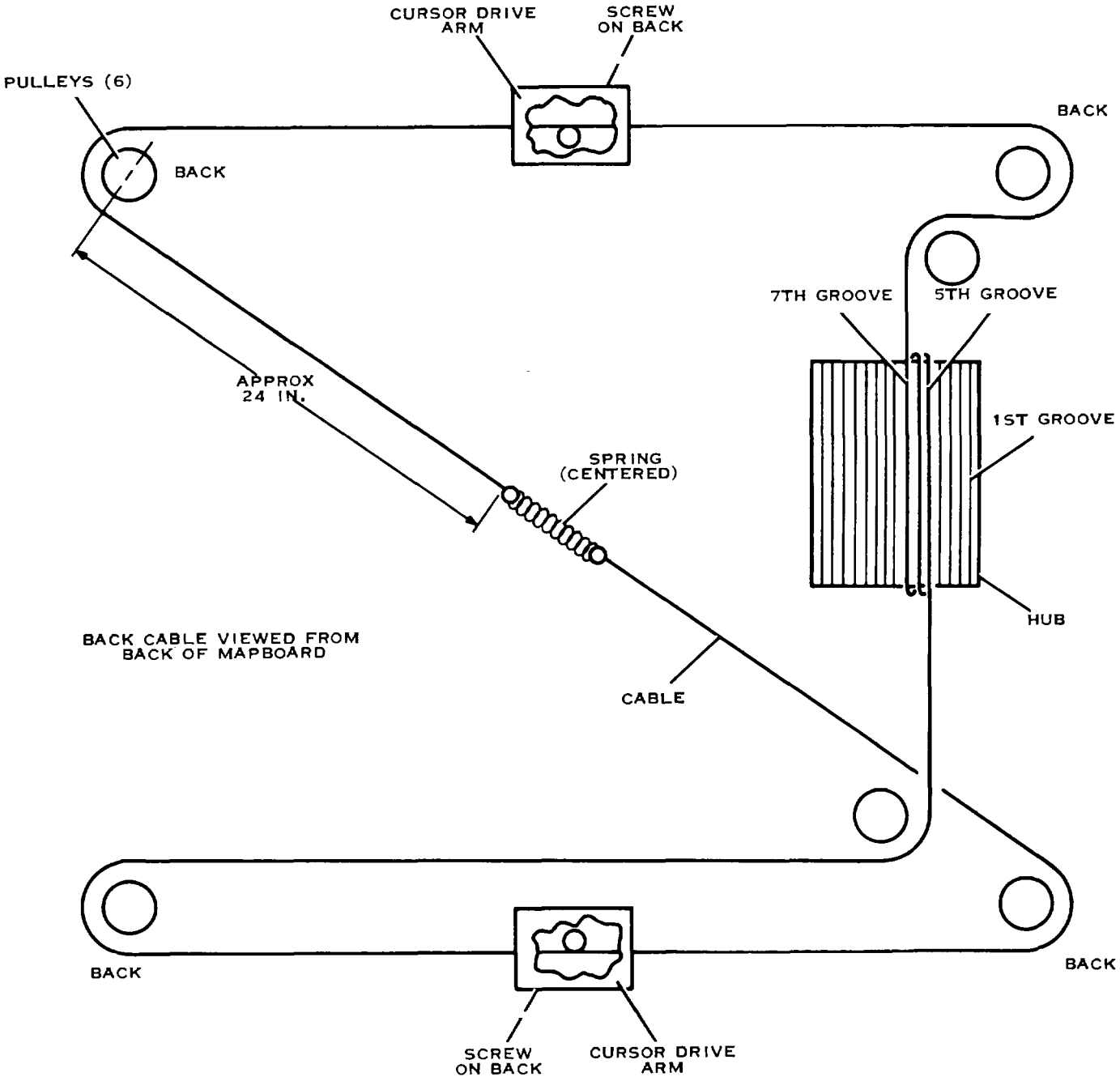


Figure 5-10. Mapboard Cable Threading Diagram (Sheet 2 of 2)

NOTE

For front motor, remove left or right control panel (para. 5-69 or 5-71).

1. Remove tachometer mounting bracket and tachometer from motor housing. It is not necessary to disconnect wires but use caution to avoid breaking wires.
2. Remove spool release mechanism from motor housing and motor shaft. Spool mechanism yoke is held to motor shaft by two pins that must be removed.
3. Remove tachometer drive gear from motor shaft by removing three screws securing gear to belt drive pulley.
4. Slide belt off pulley.
5. Tag and unsolder wires from FLI and FL2 on filter assembly (537072-1).

CAUTION

Motor housing is pinned and shimmed for proper alignment. Locate and identify shims prior to removing motor in order that shims can be placed in same positions when motor is reinstalled on Film Transport Assembly frame.

6. Support motor housing and remove four screws securing housing to Film Transport Assembly frame.
7. Lift motor housing from its pinned position and remove from Film Transport Assembly.

e. Film transport tachometer GI and G2 (536783-1) removal.

1. Remove two wires connected to tachometer and tag these wires for reassembly.
2. Remove gear attached to tachometer shaft by loosening setscrew.
3. Loosen three screws securing tachometer to bracket and remove tachometer.

5-106. Repair. Repair of the Film Transport Assembly consists of replacing known defective parts. If a part is not known to be defective, it will be necessary to disassemble the Film Transport Assembly A7, A8 and inspect all parts for evidence of defects.

5-107. Reassembly. Reassemble the Film Transport Assembly A7, A8 as follows:

a. Rear arm and roller (903908-1) reassembly.

1. Replace rear arm and roller, being careful not to move gear position. If gear position has moved, perform end-of-film adjustment in paragraph 5-39.
2. Replace retaining ring on bias arm shaft.

b. Front arm and roller (903910-1) reassembly.

1. Replace front arm and roller, being careful not to move gear position. If gear position is moved, perform end-of-film adjustment in paragraph 5-38.
2. Replace retaining ring on bias arm shaft.

c. Gear (903994-1 and 903995-1) reassembly.

1. Replace gear on bias arm shaft.
2. Replace arm and roller assembly connected to gear being reassembled by following steps in paragraph 5-107.a or 5-107.b.

d. Drive motor (903862-2) reassembly.

1. Replace motor housing into its pinned position in Film Transport Assembly A7, A8.
2. Replace four screws securing motor housing to Film Transport Assembly frame.
3. Solder tagged wires to FLI and FL2 on Filter Assembly (537072-1).
4. Slide belt onto motor belt drive pulley.
5. Replace tachometer drive gear on motor shaft by replacing and tightening three screws securing gear to belt drive pulley.
6. Replace spool release mechanism on motor housing and motor shaft.
7. Replace tachometer mounting bracket and tachometer on motor housing.
8. Replace Left or Right Control Panel All or A12 (paragraph 5-70 or 5-72).

e. Film transport tachometer GI and G2 (536783-1) reassembly.
1. Tighten three screws securing tachometer to transport chassis.
2. Replace gear on tachometer shaft and align with drive gear.
3. Tighten setscrew in gear hub.
4. Connect tagged wires to tachometer.

5-108. Direct-View Assembly A10 Repair. The following paragraphs provide instructions for disassembly, repair, and reassembly of the Direct-View Assembly.

5-109. Disassembly. Disassemble the Direct-View Assembly as follows:

a. Lid assembly
1. Place film platen in CLOSED position.
2. Loosen five screws in front of lid assembly.
3. Lift lid assembly in upright locked position.
4. Tag, unsolder, and remove wires running up right side of lid assembly.
5. Support lid assembly and remove screw securing lid support arm (904839-1) to lid.
6. Remove three screws securing metal strip over wires on right side of lid and remove wires.
7. Support lid assembly and remove two rows of 10 screws holding lid assembly hinge to direct-view frame.
8. Lift lid assembly from Console.

b. Cursor drive motors
1. Remove cable cover located beneath Mapboard Assembly.
2. Disconnect cable from motor.
3. Remove cover from left end (gear end) of motors by removing four screws.
4. Remove two screws on clamp holding motor in position.
5. With motor loose, slide belt off motor gear.
6. Remove motor from Console.

c. Lamp tray assembly

1. Remove cover from bottom of Direct-View Assembly by removing 12 screws.
2. Disconnect plug W39P2 from connector J2 located on bottom of lamp tray.

WARNING

High voltage is present at plugs W61PI and W62P6 when DIRECT TABLE BRIGHTNESS control is not in OFF position and power is applied. Make sure MAIN POWER SWITCH is OFF.

3. Remove four screws securing connector guard (905376-1) to bottom of lamp tray and lift guard from plugs W61PI and W62P6.
4. Disconnect plugs W61PI and W62P6 from connectors Jl and J6, respectively.
5. Disconnect flexible hoses from two air outlets on back side of lamp tray manifold assemblies.
6. Remove screws securing lamp tray to bottom of Direct-View housing and carefully remove lamp tray through Console kneewell.

d. Cursor reticle lamp.

1. Turn CURSOR BRIGHTNESS control counterclockwise to OFF position.
2. Raise lid assembly on Direct-View Assembly to gain access to cursor.
3. Loosen four screws (two each side) securing band around reticle assembly and pull assembly away from lamp. Be careful not to drop screws down in lamp tray.

CAUTION

Do not touch replacement lamp with bare fingers. Use gloves, lintless cloth, or tissue to handle lamp.

4. Pull lamp out of lamp socket.

5-110. Repair. Repair of the Direct-View Assembly consists of replacing known defective parts. If a part is not known to be defective, it will be necessary to disassemble the Direct-View Assembly and inspect all parts for evidence of defects.

5-111. Reassembly. Reassemble the Direct-View Assembly as follows:

a. Lid assembly

1. Place lid assembly in proper position on Direct-View Assembly.
2. Replace and tighten two rows of 10 screws holding lid assembly bracket to Direct-View frame, making sure two sets of limit switches are in place during installation.
3. Connect lid support arm to lid assembly with screw.
4. Solder tagged wires and run wires up right side of lid assembly. Secure wires to side of lid with metal restrainer.
5. Lower lid and tighten five screws in front of lid assembly.

b. Cursor drive motors
   1. Position motor so that belt can be placed around gear.
   2. Position motor in clamp mount so belt will drive straight.
   3. Tighten two screws in clamp holding motor in place.
   4. Replace motor cable.
   5. Replace cover over gear end of motors.

c. Lamp tray assembly
   1. Position replacement lamp tray in place on bottom of direct-view housing and secure with screws.
   2. Connect flexible hoses to two air outlets on manifold assemblies of lamp tray.
   3. Connect plugs W61PI and W62P6 to connectors J1 and J6, respectively, on lamp tray.
   4. Install connector guard on plugs W61PI and W62P6 and secure with four screws.
   5. Connect plug W39P2 to connector J2 on lamp tray.
   6. Install cover on bottom of Direct-View Assembly.

d. Cursor reticle lamp

CAUTION

Do not touch replacement lamp with bare fingers.

   1. Push lamp into lamp socket.
   2. Replace reticle assembly and tighten four screws securing band around reticle assembly.
   3. Close lid assembly on Direct-View Assembly and secure in place with five screws along front edge.

5-112. Stereo Housing Assembly A21 Repair. The following paragraphs provide instructions for disassembly, repair, and reassembly of the Stereo Housing Assembly.

5-113. Disassembly. Disassemble the Stereo Housing Assembly as follows:

   1. Disconnect plug W34P2 from connector J2 on end of lamp tray.
   2. Disconnect flexible hose from air outlet on end of lamp tray.

WARNING

High voltage is present at plugs W63PI and W64P3 when DIRECT TABLE BRIGHTNESS control is not in OFF position and power is applied. Make sure MAIN POWER SWITCH is OFF.

   3. Remove screws securing connector guard (905380-1) and slide guard back enough to gain access to plugs W63PI and W64P3.
   4. Disconnect plugs W63P1 and W64P3 from connectors JI and J3 on lamp tray.
   5. Remove brace (914730-1) from end of stereo-view track.

6. Press down on buttons at right corners of Stereo Housing Assembly and slide assembly out end of track.

7. Remove screws securing lamp tray to bottom of stereo view and remove lamp tray. To completely remove tray, tag and disconnect wires from OPEN/CLOSE switch.

5-114. Repair. Repair of the Stereo Housing Assembly consists of replacing known defective parts. If a part is not known to be defective, it will be necessary to disassemble the Stereo Housing Assembly and inspect all parts for evidence of defects.

5-115. Reassembly. Reassemble the Stereo Housing Assembly as follows:

1. Position replacement lamp tray on stereo view, connect wires to OPEN/CLOSE switch, and secure tray with screws.
2. Slide stereo view assembly into track.
3. Connect flexible hose to air outlet on lamp tray.
4. Connect plug W34P2 to connector J2 on lamp tray.
5. Connect plugs W63PI and W64P3 to connectors JI and J3, respectively.
6. Position connector guard over plugs W63PI and W64P3 and secure to lamp tray with screws.
7. Install brace (914730-1) on end of track.

5-116. Slack Loop Assembly A23 Repair. The following paragraphs provide instructions for disassembly, repair, and reassembly of the Slack Loop Assembly. Remove the Slack Loop Assembly (paragraph 5-91) for disassembly.

5-117. Disassembly. Disassemble the Slack Loop Assembly as follows:

CAUTION

Do not turn Acme screw shaft while performing disassembly steps or misalignment of carriage assembly may result.

a. Gears
   1. Loosen setscrews on gear to be replaced.
   2. Loosen setscrews on opposite gear on same shaft.
   3. Slide shaft out of gear to be replaced and remove gear.

b. Gear set
   1. Remove gears that drive gear set to be replaced, according to gear disassembly instructions.
   2. Loosen setscrews on gear set.
   3. Remove gear set.

c. Motor and filter assembly
   1. Remove two inside gears, meshed with motor gear, according to gear disassembly instructions.
   2. Loosen setscrew on motor gear and remove gear.
   3. Unsolder two wires connected to filter, and tag wires.

4. Loosen four screws holding motor to slack loop frame.
5. Loosen two screws holding filter to slack loop frame.
6. Remove motor and filter assembly.

5-118. Repair. Repair of the Slack Loop Assembly consists of replacing known defective parts. If a part is not known to be defective, it will be necessary to disassemble the Slack Loop Assembly and inspect all parts for evidence of defects.

5-119. Reassembly. Reassemble the Slack Loop Assembly as follows:

a. Gears
   1. Replace gear on shaft.
   2. Tighten setscrews on gears with gears in proper meshed position.
b. Gear set
   1. Replace gear set.
   2. Tighten setscrews on gear set.
   3. Replace gears according to gear reassembly instructions.
c. Motor and filter assembly
   1. Replace filter on frame by replacing and tightening two filter holding screws.
   2. Solder two tagged wires to filter connections.
   3. Replace and tighten four screws holding motor to frame.
   4. Replace motor gear and tighten setscrew.
   5. Replace two inside gears, meshed with motor gear, according to gear reassembly instructions.

SECTION VI
DIAGRAMS

6-1. GENERAL.

6-2. This section contains the diagrams necessary to analyze, maintain, and fault isolate the subassemblies of the Console. The section is arranged with the interconnecting cabling diagram appearing first, followed by wiring lists of the cables, and wiring lists of the individual subassemblies with schematic diagrams of their respective PCBs.

6-3. INTERCONNECTING CABLING DIAGRAM.

6-4. The interconnecting cabling diagram shows the complete Console cabling giving subassembly reference designations, cable numbers, and corresponding jack numbers.

6-5. TWO-WAY INTERCONNECTING WIRING LISTS.

6-6. Wiring lists of cables as well as subassembly interconnections are provided. These lists show each wire within a cable or subassembly giving information on the point of origin and termination with applicable signal names. The first column is the point of origin and the second column is the termination point. Each wire is listed twice for ease in locating the desired information. Each wire is listed both in the first and second columns. There- fore a wire can be located by knowing only the reference designation of the component to which it is connected. The wire list column headings are defined as follows.

CIRCUIT POINT: Points wires are connected between
SIGNAL FUNCTION OR NAME: Signature or signal carried by wire
AWG: Wire size
COLOR: Color of wire (some as resistor color code)
REMARKS: Explanation type information example: T27 means wire is twisted with wire no. 27.

6-7. Symbols used in wire lists are as follows:

/: Used in place of a negation bar to indicate a "not" function.
*: Used to denote lower case letters in circuit point column. Also used to denote "greater than" in signal function or name column.
$: Used to denote "less than" in signal function or name column.

6-8. SCHEMATIC DIAGRAMS.

6-9. Schematic diagrams of each PCB are provided. They are located after the two-way interconnecting wiring lists to which they apply.

6-10. SYMBOLS.

6-11. In general, the symbols used on the diagrams are in accordance with MIL-STD-15-1, MIL-STD-806, and USAS Y14.15-1966. Reference designators are in accordance with USAS Y32.16-1965.

TABLE 6-1. CABLE W1 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1						
P1-	P2-	JACKET FOR WIRE NO 8		9	8	S 8
P1- A	P2- A		20	9	8 A	
SHIELD 8	SHIELD 9		22	9	8 F	
P1- B	P2- A		20	6	8 B	
P1-	P2-	JACKET FOR WIRE NO 9		9	9	S 9
P1- D	P2- B		20	9	9 A	
SHIELD 9	SHIELD 10		22	9	9 F	
P1- E	P2- B		20	6	9 B	
P1-	P2-	JACKET FOR WIRE NO 10		9	10	S 10
P1- G	P2- C		20	9	10 A	
P1- H	P2- C		20	6	10 B	
P1- M	SHIELD 10		22	9	10 F	
P1- P	P2- D		16	9	11	
P2	(J2)	RFI FILTER				
P2-	P1-	JACKET FOR WIRE NO 8		9	8	S 8
P2- A	P1- A		20	9	8 A	
SHIELD 8	SHIELD 9		22	9	8 S	
P2- A	P1- B		20	6	8 B	
P2- A	P13- A	115 VAC PHASE A	12	9	1	T 2
P2-	P1-	JACKET FOR WIRE NO 9		9	9	S 9
P2- B	P1- D		20	9	9 A	
SHIELD 9	SHIELD 10		22	9	9 S	
P2- B	P13- B	115 VAC PHASE B	12	9	2	T 3
P2- B	P1- E		20	6	9 B	
P2-	P1-	JACKET FOR WIRE NO 10		9	10	S 10
P2- C	P1- G		20	9	10 A	
P2- C	P13- C	115 VAC PHASE C	12	9	3	T 4
P2- C	P1- H		20	6	10 B	
P2- D	P1- P		16	9	11	
P2- D	P13- D	NEUTRAL	12	9	4	T 5
P2- E	P13- E	CHASSIS GROUND	12	9	7	T 1
P2- E	SHIELD 10		22	9	10 S	
P2- F	P13- F	SPARE	12	9	5	T 6
P2- G	P13- G	SPARE	12	9	6	T 7
P13	(J13)	POWER DISTR				
P13- A	P2- A	115 VAC PHASE A	12	9	1	T 2
P13- B	P2- B	115 VAC PHASE B	12	9	2	T 3
P13- C	P2- C	115 VAC PHASE C	12	9	3	T 4
P13- D	P2- D	NEUTRAL	12	9	4	T 5
P13- E	P2- E	CHASSIS GROUND	12	9	7	T 1I
P13- F	P2- F	SPARE	12	9	5	T 6
P13- G	P2- G	SPARE	12	9	6	T 7

TABLE 6-2. CABLE W2 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3	(J3)	JUNCTION BOX				
P3-	P7-	JACKET FOR WIRE NO 1		9	1	S 1
P3- A	P7- A	DIR VIEW FAN PHASE B	20	9	1 A	
SHIELD 1	SHIELD 2	SHIELD	22	90	1 F	
P3- B	P7- B	DIR VIEW FAN DRIVE	20	6	1 B	
P3- C	P7- C	DIR VIEW HEATER PHASE B	20	3	1 C	
P3- D	P7- D	DIR VIEW HEATER DRIVE	20	5	1 D	
P3-	P7-	JACKET FOR WIRE NO 2		9	2	S 2
P3- E	P7- E	SPARE	20	9	2 A	
P3- F	P7- F	SPARE	20	6	2 B	
P3- G	P7- G	STEREO HEATER PHASE C	20	3	2 C	
P3- H	P7- H	STEREO HEATER DRIVE	20	5	2 D	
P3- J	SHIELD 2	SHIELD	22	90	2 F	
P3- M	SHIELD 3	SHIELD	22	90	3 F	
P3-	P7-	JACKET FOR WIRE NO 3		9	3	S 3
P3- N	P7- N	TEMP SENSOR DIR VIEW HIGH	20	9	3 A	
P3- P	P7- P	TEMP SENSOR DIR VIEW LOW	20	6	3 B	
P3- R	P7- R	TEMP SENSOR STEREO HIGH	20	3	3 C	
P3- S	P7- S	TEMP SENSOR STEREO LOW	20	5	3 D	
P3-	P7-	JACKET FOR WIRE NO 4		9	4	S 4
P3- T	P7- T	HV INTLK (ON CMD)	20	9	4 A	
SHIELD 4	SHIELD 5	SHIELD	22	90	4 F	
P3- U	P7- U	+28VDC	20	6	4 B	
P3-	P7-	JACKET FOR WIRE NO 5		9	5	S 5
P3- V	P7- V	STEREO HIGH TEMP LAMP	20	9	5 A	
P3- W	P7- W	STEREO INTLK (HIGH TEMP)	20	6	5 B	
P3- X	P7- X	DIR VIEW HIGH TEMP LAMP	20	3	5 C	
P3- Y	P7- Y	DIR VIEW INTLK (HI TEMP)	20	5	5 D	
P3- Z	SHIELD 5	SHIELD	22	90	5 F	
P3-	P7-	JACKET FOR WIRE NO 6		9	6	S 6
P3- >C	P7- >C	SPARE	20	9	6 A	
P3- >D	P7- >D	SPARE	20	6	6 B	
P3- >E	P7- >E	SPARE	20	3	6 C	
P3- >F	SHIELD 6	SHIELD	22	90	6 F	
P3-	P7-	JACKET FOR WIRE NO 7		9	7 S 7	
P3- >G	P7- >G	SPARE	20	9	7 A	
SHIELD 7	SHIELD 8	SHIELD	22	90	7 F	
P3- >H	P7- >H	SPARE	20	6	7 B	
P3- >1	SHIELD 8	SHIELD	22	90	8 F	
P3-	P7-	JACKET FOR WIRE NO 8		9	8	S 8
P3- >J	P7- >J	SPARE	20	9	8 A	
P3- >K	P7- >K	SPARE	20	6	8 B	
P3- >M	P7- >M	SPARE	16	9	10	
P3-	P7-	JACKET FOR WIRE NO 9		9	9	S 9
P3- >N	P7- >N	BFR TEMP CONT STEREO	20	9	9 A	
P3- >P	P7- >P	BFR TEMP CONT DIR VIEW	20	6	9 B	
P3- >Q	SHIELD 9	SHIELD	22	90	9 F	
P3- >R	P7- >R	SPARE	16	9	11	
P7	(J7)	POWER DISTRIBUTION				
P7-	P3-	JACKET FOR WIRE NO 1		9	1	S 1
P7- A	P3- A	DIR VIEW FAN PHASE B	20	9	1 A	
SHIELD 1	SHIELD 2	SHIELD	22	90	1 S	
P7- B	P3- B	DIR VIEW FAN DRIVE	20	6	1 B	
P7- C	P3- C	DIR VIEW HEATER PHASE B	20	3	1 C	
P7- D	P3- D	DIR VIEW HEATER DRIVE	20	5	1 D	
P7-	P3-	JACKET FOR WIRE NO 2		9	2	S 2
P7- E	P3- E	SPARE	20	9	2 A	
P7- F	P3- F	SPARE	20	6	2 B	

TABLE 6-2. CABLE W2 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P7- G	P3- G	STEREO HEATER PHASE C	20	3	2 C	
P7- H	P3- H	STEREO HEATER DRIVE	20	5	2 D	
P7- J	SHIELD 2	SHIELD	22	90	2 S	
P7- M	SHIELD 3	SHIELD	22	90	3 S	
P7-	P3-	JACKET FOR WIRE NO 3		9	3	S 3
P7- N	P3- N	TEMP SENSOR DIR VIEW HIGH	20	9	3 A	
P7- P	P3- P	TEMP SENSOR DIR VIEW LOW	20	6	3 B	
P7- R	P3- R	TEMP SENSOR STEREO HIGH	20	3	3 C	
P7- S	P3- S	TEMP SENSOR STEREO LOW	20	5	3 D	
P7-	P3-	JACKET FOR WIRE NO 4		9	4	S 4
P7- T	P3- T	HV INTLK (ON CMD)	20	9	4 A	
SHIELD 4	SHIELD 5	SHIELD	22	90	4 S	
P7- U	P3- U	+28VDC	20	6	4 B	
P7-	P3-	JACKET FOR WIRE NO 5		9	5	S 5
P7- V	P3- V	STEREO HIGH TEMP LAMP	20	9	5 A	
P7- W	P3- W	STEREO INTLK (HIGH TEMP)	20	6	5 B	
P7- X	P3- X	DIR VIEW HIGH TEMP LAMP	20	3	5 C	
P7- Y	P3- Y	DIR VIEW INTLK (HI TEMP)	20	5	5 D	
P7- Z	SHIELD 5	SHIELD	22	90	5 S	
P7-	P3-	JACKET FOR WIRE NO 6		9	6 S 6	
P7- >C	P3- >C	SPARE	20	9	6 A	
P7- >D	P3- >D	SPARE	20	6	6 B	
P7- >E	P3- >E	SPARE	20	3	6 C	
P7- >F	SHIELD 6	SHIELD	22	90	6 S	
P7-	P3-	JACKET FOR WIRE NO 7		9	7	S 7
P7- >G	P3- >G	SPARE	20	9	7 A	
SHIELD 7	SHIELD 8	SHIELD	22	90	7 S	
P7- >H	P3- >H	SPARE	20	6	7 B	
P7- >1	SHIELD 8	SHIELD	22	90	8 S	
P7-	P3-	JACKET FOR WIRE NO 8		9	8	S 8
P7- >J	P3- >J	SPARE	20	9	8 A	
P7- >K	P3- >K	SPARE	20	6	8 B	
P7- >M	P3- >M	SPARE	16	9	10	
P7-	P3-	JACKET FOR WIRE NO 9		9	9	S 9
P7- >N	P3- >N	BFR TEMP CONT STEREO	20	9	9 A	
P7- >P	P3- >P	BFR TEMP CONT DIR VIEW	20	6	9 B	
P7- >Q	SHIELD 9	SHIELD	22	90	9 S	
P7- >R	P3- >R	SPARE	16	9	11	

TABLE 6-3. CABLE W3 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1	(J1)	CODE MATRIX READER				
P1- A	P11- A	PHASE C	16	9	1	T 2
P1- B	P11- B	SPARE	16	9	2	T 3
P1- C	P11- C	PHASE B	16	9	3	T 4
P1- D	P11- D	SPARE	16	9	4	T 5
P1- E	P11- E	PHASE A	16	9	5	T 6
P1- F	P11- F	SPARE	16	9	6	T 7
P1- G	P11- G	NEUTRAL	16	9	7	T 8
P1- H	P11- H	CHASSIS GROUND	16	9	8	T 1
P11	(J11)	POWER DISTRIBUTION				
P11- A	P1- A	PHASE C	16	9	1	T 2
P11- B	P1- B	SPARE	16	9	2	T 3
P11- C	P1- C	PHASE B	16	9	3	T 4
P11- D	P1- D	SPARE	16	9	4	T 5
P11- E	P1- E	PHASE A	16	9	5	T 6
P11- F	P1- F	SPARE	16	9	6	T 7
P11- G	P1- G	NEUTRAL	16	9	7	T 8
P11- H	P1- H	CHASSIS GROUND	16	9	8	T 1

TABLE 6-4. CABLE W4 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P4	(J4)	QUERY RESPONSE REPORT COMPOSER	NIT			
P4- A	P10- A	PHASE A	16	9	1	T 2
P4- B	P10- B	PHASE B	16	9	2	T 3
P4- C	P10- C	PHASE C	16	9	3	T 4
P4- D	P10- D	NEUTRAL	16	9	4	T 5
P4- E	P10- E	CHASSIS GND	16	9	5	T 6
P4- F	P10- F	SPARE	16	9	6	T 7
P4- G	P10- G	SPARE	16	9	7	T I1
P10	(J10)	POWER DISTRIBUTION				
P10- A	P4- A	PHASE A	16	9	1	T 2
P10- B	P4- B	PHASE B	16	9	2	T 3
P10- C	P4- C	PHASE C	16	9	3	T 4
P10- D	P4- D	NEUTRAL	16	9	4	T 5
P10- E	P4- E	CHASSIS GND	16	9	5	T 6
P10- F	P4- F	SPARE	16	9	6	T 7
P10- G	P4- G	SPARE	16	9	7	T 1

TABLE 6-5. CABLE ASSEMBLY WS WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P4-1	TB1-1	FAN LH FLUSH PH A	22	9	1A	
P4-2	TB1-2	NEUTRAL	22	6	B	
P4-4	SHIELD	SHIELD				
P4-8	TB1-3	AIR VANE SWITCH	22	3	C	
P4-9	TB1-4	AIR VANE SWITCH	22	5	D	
P4-10	SHIELD	SHIELD				

TABLE 6-6. CABLE ASSEMBLY W6 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
PS-1	TB1-1	FAN RH FLUSH PH A	22	9	1A	
PS-2	TB1-2	NEUTRAL	22	6	B	
P5-4	SHIELD	SHIELD				
PS-8	TB1-3	AIR VANE SWITCH	22	3	C	
PS-9	TB1-4	AIR VANE SWITCH	22	5	D	
P5-10	SHIELD	SHIELD				

TABLE 6-7. CABLE W8 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1	(J1)	TRANSFORMER				
P1-	P12-	JACKET FOR WIRE NO 1		9	1	S 1
P1- A	P12- A	HV PWR SPLY PHASE A	20	9	1 A	
SHIELD 1	SHIELD 2	SHIELD	22	0	1 F	
P1- B	P12- B	HV PWR SPLY PHASE B	20	6	1 B	
P1- C	P12- C	HV PWR SPLY PHASE C	20	3	1 C	
P1- D	P12- D	HV PWR SPLY NEUTRAL	20	5	1 D	
P1-	P12-	JACKET FOR WIRE NO 2		9	2 S 2	
P1- E	P12- E	+15VDC	20	9	2 A	
P1- F	P12- F	-15VDC	20	6	2 B	
P1- G	P12- G	15VDC RETURN	20	3	2 C	
P1- H	P12- H	SPARE	20	5	2 D	
P1- J	SHIELD 2	SHIELD	22	0	2 F	
P1-	P12-	JACKET FOR WIRE NO 3		9	3	S 3
P1- K	P12- K	SPARE	20	9	3 A	
P1- L	P12- L	SPARE	20	6	3 B	
P1- M	P12- M	SPARE	20	3	3 C	
P1- N	SHIELD 3	SHIELD	22	0	3 F	
P1-	P12-	JACKET FOR WIRE NO 4		9	4	S 4
P1- P	P12- P	SPARE	20	9	4 A	
P1- R	P12- R	SPARE	20	6	4 B	
P1- S	P12- S	SPARE	20	3	4 C	
P1- T	P12- T	SPARE	20	5	4 D	
P1- U	SHIELD 4	SHIELD	22	0	4 F	
P1- >B	SHIELD 6	SHIELD	22	0	6 F	
P1-	P12-	JACKET FOR WIRE NO 6		9	6	S 6
P1- >C	P12- >C	SPARE	20	9	6 A	
P1- >D	P12- >D	SPARE	20	6	6 B	
P1- >E	P12- >E	SPARE	20	3	6 C	
P1- >F	P12- >F	SPARE	20	5	6 D	
P1-	P12-	JACKET FOR WIRE NO 7		9	7	S 7
P1- >G	P12- >G	LV XFMR PHASE A	20	9	7 A	
SHIELD 7	SHIELD 6	SHIELD	22	0	7 F	
P1- >H	P12- >H	LV XFMR PHASE B	20	6	7 B	
P1- >1	P12- >1	LV XFMR PHASE C	20	3	7 C	
P1- >J	P12- >J	LV XFMR NEUTRAL	20	5	7 D	
P1-	P12-	JACKET FOR WIRE NO 8		9	8	S 8
P1- >K	P12- >K	DRAWER FANS PHASE A	20	9	8 A	
SHIELD 8	SHIELD 7	SHIELD	22	0	8 F	
P1- >M	P12- >M	SPARE	16	9	9	
P1- >N	P12- >N	DRAWER FANS PHASE B	20	6	8 B	
P1- >P	P12- >P	DRAWER FANS PHASE C	20	3	8 C	
P1- >Q	P12- >Q	DRAWER FANS NEUTRAL	20	5	8 D	
P1- >R	P12- >R	SPARE	16	9	10	
P12	(J12)	POWER DISTRIBUTION				
P12-	P1-	JACKET FOR WIRE NO 1		9	1	S 1
P12- A	P1- A	HV PWR SPLY PHASE A	20	9	1 A	
SHIELD 1	SHIELD 2	SHIELD	22	0	1 S	
P12- B	P1- B	HV PWR SPLY PHASE B	20	6	1 B	
P12- C	P1- C	HV PWR SPLY PHASE C	20	3	1 C	
P12- D	P1- D	HV PWR SPLY NEUTRAL	20	5	1 D	
P12-	P1-	JACKET FOR WIRE NO 2		9	2	S 2
P12- E	P1- E	+15VDC	20	9	2 A	
P12- F	P1- F	-15VDC	20	6	2 B	
P12- G	P1- G	15VDC RETURN	20	3	2 C	
P12- H	P1- H	SPARE	20	5	2 D	
P12- J	SHIELD 2	SHIELD	22	0	2 S	
P12-	P1-	JACKET FOR WIRE NO 3		9	3	S 3
P12- K	P1- K	SPARE	20	9	3 A	

TABLE 6-7. CABLE W8 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P12- L	P1- L	SPARE	20	6	3 B	
P12- M	P1- M	SPARE	20	3	3 C	
P12- N	SHIELD 3	SHIELD	22	0	3 S	
P12-	P1-	JACKET FOR WIRE NO 4		9	4	S 4
P12- P	P1- P	SPARE	20	9	4 A	
P12- R	P1- R	SPARE	20	6	4 B	
P12- S	P1- S	SPARE	20	3	4 C	
P12- T	P1- T	SPARE	20	5	4 D	
P12- U	SHIELD 4	SHIELD	22	0	4 S	
P12- >B	SHIELD 6	SHIELD	22	0	6 S	
P12-	P1-	JACKET FOR WIRE NO 6		9	6	S 6
P12- >C	P1- >C	SPARE	20	9	6 A	
P12- >D	P1- >D	SPARE	20	6	6 B	
P12- >E	P1- >E	SPARE	20	3	6 C	
P12- >F	P1- >F	SPARE	20	5	6 D	
P12-	P1-	JACKET FOR WIRE NO 7		9	7	S 7
P12- >G	P1- >G	LV XFMR PHASE A	20	9	7 A	
SHIELD 7	SHIELD 6	SHIELD	22	0	7 S	
P12- >H	P1- >H	LV XFMR PHASE B	20	6	7 B	
P12- >11	P1- >1	LV XFMR PHASE C	20	3	7 C	
P12- >J	P1- >J	LV XFMR NEUTRAL	20	5	7 D	
P12-	P1-	JACKET FOR WIRE NO 8		9	8	S 8
P12- >K	P1- >K	DRAWER FANS PHASE A	20	9	8 A	
SHIELD 8	SHIELD 7	SHIELD	22	0	8 S	
P12- >M	P1- >M	SPARE	16	9	9	
P12- >N	P1- >N	DRAWER FANS PHASE B	20	6	8 B	
P12- >P	P1 >P	DRAWER FANS PHASE C	20	3	8 C	
P12- >Q	P1- >Q	DRAWER FANS NEUTRAL	20	5	8 D	
P12- >R	P1- >R	SPARE	16	9	10	

TABLE 6-8. CABLE W9 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(J2)	MAP BOARD				
P2-	P6-	JACKET FOR WIRE NO 1		9	1	S 1
P2- 1	P6- 1	+28 VDC CONTROL	22	9	1 A	
P2- 2	P6- 2	+28 VDC CONTROL RETURN	22	6	1 B	
P2- 3	SHIELD 1	SHIELD	22	90	1 F	
P2-	P6-	JACKET FOR WIRE NO 2		9	2	S 2
P2- 4	P6- 4	115 VAC,400HZ PHASE A	22	9	2 A	
P2- 5	P6- 5	NEUTRAL	22	6	2 B	
P2- 6	SHIELD 2	SHIELD	22	90	2 F	
P2- 7	P6- 7	SPARE	22	9	3	T 4
P2- 8	P6- 8	SPARE	22	9	4	T 3
P6	(J6)	POWER DISTRIBUTION				
P6-	P2-	JACKET FOR WIRE NO 1		9	1	S 1
P6- 1	P2- 1	+28 VDC CONTROL	22	9	1 A	
P6- 2	P2- 2	+28 VDC CONTROL RETURN	22	6	1 B	
P6- 3	SHIELD 1	SHIELD	22	90	1 S	
P6-	P2-	JACKET FOR WIRE NO 2		9	2	S 2
P6- 4	P2- 4	115 VAC,400HZ PHASE A	22	9	2 A	
P6- 5	P2- 5	NEUTRAL	22	6	2 B	
P6- 6	SHIELD 2	SHIELD	22	90	2 S	
P6- 7	P2- 7	SPARE	22	9	3	T 4
P6- 8	P2- 8	SPARE	22	9	4	T 3

TABLE 6-9. CABLE W10 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P6						
P6-	P10-	JACKET WIRE NO 1		FOR	1	S 1
P6- 1	P10- 1	FILM CURSOR (+) X	316	COAX	1 A	
P6- 2	SHIELD 1	SHIELD	22	0	1 S	
P6-	P10-	JACKET FOR WIRE NO 2			2	S 2
P6- 3	P10- 3	D14Z (2)	316	COAX	2 A	
P6- 4	SHIELD 3	SHIELD	22	0	3 S	
P6-	P10-	JACKET FOR WIRE NO 3			3	S 3
P6- 5	P10- 5	FILM CURSOR (-) X	316	COAX	3 A	
P6- 6	SHIELD 4	SHIELD	22	0	4 S	
P6-	P10-	JACKET FOR WIRE NO 4			4	S 4
P6- 7	P10- 7	FILM CURSOR (+) Y	316	COAX	4 A	
P6- 8	SHIELD 5	SHIELD	22	0	5 S	
P6-	P10-	JACKET FOR WIRE NO 5			5	S 5
P6- 9	P10- 9	FILM CURSOR (-) Y	316	COAX	5 A	
P6- 10	SHIELD 6	SHIELD	22	0	6 S	
P6-	P10-	JACKET FOR WIRE NO 6			6	S 6
P6- 11	P10- 11	MAP CURSOR (+) X	316	COAX	6 A	
P6- 12	SHIELD 7	SHIELD	22	0	7 S	
P6-	P10-	JACKET FOR WIRE NO 7			7	S 7
P6- 13	P10- 13	MAP CURSOR (-)X	316	COAX	7 A	
P6- 14	SHIELD 8	SHIELD	22	0	8 S	
P6-	P10-	JACKET FOR WIRE NO 8			8	S 8
P6- 15	P10 15	MAP CURSOR (+) Y	316	COAX	8 A	
P6- 16	SHIELD 2	D14Z (2) RTN	22	0	2 S	
P6-	P10-	JACKET FOR WIRE NO 9			9	S 9
P6- 17	P10- 17	MAP CURSOR (-) Y	316	COAX	9 A	
P6- 18	SHIELD 9	SHIELD	22	0	9 S	
P6-	P10-	JACKET FOR WIRE NO 10			10	S 10
P6- 19	P10- 19	FILM TRANSPORT 1 (+) MTN	316	COAX	10 A	
P6- 20	SHIELD 10	SHIELD	22	0	10 S	
P6-	P10-	JACKET FOR WIRE NO 11			11	S11
P6- 21	P10- 21	FILM TRANSPORT 1 (-) MTN	316	COAX	11 A	
P6- 22	SHIELD 11	SHIELD	22	0	11 S	
P6-	P10-	JACKET FOR WIRE NO 12			12	S12
P6- 23	P10- 23	FILM TRANSPORT 2 (+) MTN	316	COAX	12 A	
P6- 24	SHIELD 12	SHIELD	22	0	12S	
P6-	P10-	JACKET FOR WIRE NO 13			13	S13
P6- 25	P10- 25	FILM TRANSPORT 2 (-) MTN	316	COAX	13 A	
P6- 26	SHIELD 13	SHIELD	22	0	13 S	
P6-	P10	JACKET FOR WIRE NO 14			14	S 14
P6- 27	P10- 27	FILM CURSOR ENTER	316	COAX	14 A	
P6- 28	SHIELD 14	SHIELD	22	0	14 S	
P6-	P10-	JACKET FOR WIRE NO 15			15	S 15
P6- 29	P10- 29	MAP CURSOR ENTER	316	COAX	15 A	
P6- 30	SHIELD 15	SHIELD	22	0	15 S	
P6-	P10-	JACKET FOR WIRE NO 16			16	S16
P6- 31	P10- 31	FILM CURSOR (+) X FAST	316	COAX	16 A	
P6- 32	SHIELD 16	SHIELD	22	0	16 S	
P6-	P10-	JACKET FOR WIRE NO 17			17	S17
P6- 33	P10- 33	SPARE	316	COAX	17 A	
P6- 34	SHIELD 18	SHIELD	22	0	18 S	
P6-	P10-	JACKET FOR WIRE NO 18			18	S 18
P6- 35	P10- 35	FILM CURSOR (+) X SLOW	316	COAX	18 A	
P6- 36	SHIELD 19	SHIELD	22	0	19 S	
P6-	P10-	JACKET FOR WIRE NO 19			19	S19
P6- 37	P10- 37	FILM CURSOR (-) X FAST	316	COAX	19 A	
P6- 38	SHIELD 20	SHIELD	22	0	20 S	
P6-	P10-	JACKET FOR WIRE NO 20			20	S 20
P6- 39	P10- 39	FILM CURSOR (-) X SLOW	316	COAX	20 A	

TABLE 6-9. CABLE W10 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P6- 40	SHIELD 21	SHIELD	22	0	21 S	
P6-	P10-	JACKET FOR WIRE NO 21			21	S 21
P6- 41	P10- 41	FILM CURSOR (+) Y FAST	316	COAX	21 A	
P6- 42	SHIELD 17	SHIELD	22	0	17 S	
P6-	P10-	JACKET FOR WIRE NO 22			22	S 22
P6- 43	P10- 43	FILM CURSOR (+) Y SLOW	316	COAX	22 A	
P6- 44	SHIELD 22	SHIELD	22	0	22 S	
P6-	P10-	JACKET FOR WIRE NO 23			23	S 23
P6- 45	P10- 45	FILM CURSOR (-) Y FAST	316	COAX	23 A	
P6- 46	SHIELD 23	SHIELD	22	0	23 S	
P6-	P10-	JACKET FOR WIRE NO 24			24	S 24
P6- 47	P10- 47	FILM CURSOR (-) Y SLOW	316	COAX	24 A	
P6- 48	SHIELD 24	SHIELD	22	0	24 S	
P6-	P10-	JACKET FOR WIRE NO 25			25	S 25
P6- 49	P10- 49	MAP CURSOR (+) X FAST	316	COAX	25 A	
P6- 50	SHIELD 25	SHIELD	22	0	25 S	
P6-	P10-	JACKET FOR WIRE NO 26			26	S 26
P6- 51	P10- 51	MAP CURSOR (+) X SLOW	316	COAX	26 A	
P6- 52	SHIELD 26	SHIELD	22	0	26 S	
P6-	P10-	JACKET FOR WIRE NO 27			27	S 27
P6- 53	P10- 53	MAP CURSOR (-) X FAST	316	COAX	27 A	
P6- 54	SHIELD 27	SHIELD	22	0	27 S	
P6-	P10-	JACKET FOR WIRE NO 28			28	S 28
P6- 55	P10- 55	MAP CURSOR (-) X SLOW	316	COAX	28 A	
P6- 56	SHIELD 28	SHIELD	22	0	28 S	
P6-	P10-	JACKET FOR WIRE NO 29			29	S 29
P6- 57	P10- 57	SPARE	316	COAX	29 A	
P6- 58	SHIELD 30	SHIELD	22	0	30 S	
P6-	P10-	JACKET FOR WIRE NO 30			30	S 30
P6- 59	P10- 59	MAP CURSOR (+) Y FAST	316	COAX	30 A	
P6- 60	SHIELD 31	SHIELD	22	0	31 S	
P6-	P10-	JACKET FOR WIRE NO 31			31	S 31
P6- 61	P10- 61	MAP CURSOR(+)Y SLOW	316	COAX	31 A	
P6- 62	SHIELD 32	SHIELD	22	0	32 S	
P6-	P10-	JACKET FOR WIRE NO 32			32	S 32
P6- 63	P10- 63	MAP CURSOR (-) Y FAST	316	COAX	32 A	
P6- 64	SHIELD 33	SHIELD	22	0	33 S	
P6-	P10-	JACKET FOR WIRE NO 33			33	S 33
P6- 65	P10- 65	MAP CURSOR (-) Y SLOW	316	COAX	33 A	
P6- 66	SHIELD 29	SHIELD	22	0	29 S	
P10	(J10)	CURSOR ELEC				
P10-	P6-	JACKET FOR WIRE NO 1			1	S 1
P10- 1	P6- 1	FILM CURSOR (+) X	316	COAX	1 A	
P10- 2	SHIELD 1	SHIELD	22	0	1 F	
P10-	P6-	JACKET FOR WIRE NO 2			2	S 2
P10- 3	P6-	3 D14Z (2)	316	COAX	2 A	
P10- 4	SHIELD 3	SHIELD	22	0	3 F	
P10-	P6-	JACKET FOR WIRE NO 3			3	S 3
P10- 5	P6- 5	FILM CURSOR (-) X	316	COAX	3 A	
P10- 6	SHIELD 4	SHIELD	22	0	4 F	
P10-	P6-	JACKET FOR WIRE NO 4			4	S 4
P10- 7	P6- 7	FILM CURSOR (+) Y	316	COAX	4 A	
P10- 8	SHIELD 5	SHIELD	22	0	5 F	
P10-	P6-	JACKET FOR WIRE NO 5			5	S 5
P10- 9	P6- 9	FILM CURSOR (-) Y	316	COAX	5 A	
P10- 10	SHIELD 6	SHIELD	22	0	6 F	
P10-	P6-	JACKET FOR WIRE NO 6			6	S 6
P10- 11	P6- 11	MAP CURSOR (+) X	316	COAX	6 A	
P10- 12	SHIELD 7	SHIELD	22	0	7 F	

TABLE 6-9. CABLE W10 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P10-	P6-	JACKET FOR WIRE NO 7			7	S 7
P10- 13	P6- 13	MAP CURSOR (-)X	316	COAX	7 A	
P10- 14	SHIELD 8	SHIELD	22	0	8 F	
P10-	P6	JACKET FOR WIRE NO 8	8	S 8		
P10- 15	P6- 15	MAP CURSOR (+) Y	316	COAX	8 A	
P10- 16	SHIELD 2	D14Z (2) RTN	22	0	2 F	
P10-	P6-	JACKET FOR WIRE NO 9			9	S 9
P10- 17	P6- 17	MAP CURSOR (-) Y	316	COAX	9 A	
P10- 18	SHIELD 9	SHIELD	22	0	9 F	
P10-	P6-	JACKET FOR WIRE NO 10			10	S 10
P10- 19	P6- 19	FILM TRANSPORT I (+) MTN	316	COAX	10 A	
P10- 20	SHIELD 10	SHIELD	22	0	10 F	
P10-	P6-	JACKET FOR WIRE NO 11			11	S 11
P10- 21	P6- 21	FILM TRANSPORT 1 (-) MTN	316	COAX	11 A	
P10- 22	SHIELD 11	SHIELD	22	0	11 F	
P10-	P6-	JACKET FOR WIRE NO 12			12	S 12
P10- 23	P6- 23	FILM TRANSPORT 2 (+) MTN	316	COAX	12 A	
P10- 24	SHIELD 12	SHIELD	22	0	12 F	
P10-	P6-	JACKET FOR WIRE NO 13			13	S 13
P10- 25	P6- 25	FILM TRANSPORT 2 (-) MTN	316	COAX	13 A	
P10- 26	SHIELD 13	SHIELD	22	0	13 F	
P10-	P6-	JACKET FOR WIRE NO 14			14	S 14
P10- 27	P6- 27	FILM CURSOR ENTER	316	COAX	14 A	
P10- 28	SHIELD 14	SHIELD	22	0	14 F	
P10-	P6-	JACKET FOR WIRE NO 15			15	S 15
P10- 29	P6-	29 MAP CURSOR ENTER	316	COAX	15 A	
P10- 30	SHIELD 15	SHIELD	22	0	15 F	
P10-	P6-	JACKET FOR WIRE NO 16			16	S 16
P10- 31	P6- 31	FILM CURSOR (+) X FAST	316	COAX	16 A	
P10- 32	SHIELD 16	SHIELD	22	0	16 F	
P10-	P6-	JACKET FOR WIRE NO 17			17	S 17
P10- 33	P6- 33	SPARE	316	COAX	17 A	
P10- 34	SHIELD 18	SHIELD	22	0	18 F	
P10-	P6-	JACKET FOR WIRE NO 18			18	S 18
P10- 35	P6- 35	FILM CURSOR (+) X SLOW	316	COAX	18 A	
P10- 36	SHIELD 19	SHIELD	22	0	19 F	
P10-	P6-	JACKET FOR WIRE NO 19			19	S 19
P10- 37	P6- 37	FILM CURSOR (-) X FAST	316	COAX	19 A	
P10- 38	SHIELD 20	SHIELD	22	0	20 F	
P10-	P6-	JACKET FOR WIRE NO 20			20	S 20
P10- 39	P6- 39	FILM CURSOR (-) X SLOW	316	COAX	20 A	
P10- 40	SHIELD 21	SHIELD	22	0	21 F	
P10-	P6-	JACKET FOR WIRE NO 21			21	S 21
P10- 41	P6- 41	FILM CURSOR (+) Y FAST	316	COAX	21 A	
P10- 42	SHIELD 17	SHIELD	22	0	17 F	
P10-	P6-	JACKET FOR WIRE NO 22			22	S 22
P10- 43	P6- 43	FILM CURSOR (+) Y SLOW	316	COAX	22 A	
P10- 44	SHIELD 22	SHIELD	22	0	22 F	
P10-	P6-	JACKET FOR WIRE NO 23			23	S 23
P10- 45	P6- 45	FILM CURSOR T(-) Y FAST	316	COAX	23 A	
P10- 46	SHIELD 23	SHIELD	22	0	23 F	
P10-	P6-	JACKET FOR WIRE NO 24			24	S 24
P10- 47	P6- 47	FILM CURSOR (-) Y SLOW	316	COAX	24 A	
P10- 48	SHIELD 24	SHIELD	22	0	24 F	
P10-	P6-	JACKET FOR WIRE NO 25			25	S 25
P10- 49	P6- 49	MAP CURSOR (+) X FAST	316	COAX	25 A	
P10- 50	SHIELD 25	SHIELD	22	0	25 F	
P10-	P6-	JACKET FOR WIRE NO 26			26	S 26
P10- 51	P6- 51	MAP CURSOR (+) X SLOW	316	COAX	26 A	
P10- 52	SHIELD 26	SHIELD	22	0	26 F	

TABLE 6-9. CABLE W10 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P10-	P6-	JACKET FOR WIRE NO 27			27	S 27
P10- 53	P6-	53 MAP CURSOR (-) X FAST	316	COAX	27 A	
P10- 54	SHIELD 27	SHIELD	22	0	27 F	
P10-	P6-	JACKET FOR WIRE NO 28			28	S 28
P10- 55	P6- 55	MAP CURSOR (-) X SLOW	316	COAX	28 A	
P10- 56	SHIELD 28	SHIELD	22	0	28 F	
P10-	P6-	JACKET FOR WIRE NO 29			29	S 29
P10- 57	P6- 57	SPARE	316	COAX	29 A	
P10- 58	SHIELD 30	SHIELD	22	0	30 F	
P10-	P6-	JACKET FOR WIRE NO 30			30	S 30
P10- 59	P6- 59	MAP CURSOR (+) Y FAST	316	COAX	30 A	
P10- 60	SHIELD 31	SHIELD	22	0	31 F	
P10-	P6-	JACKET FOR WIRE NO 31			31	S 31
P10- 61	P6- 61	MAP CURSOR (+) Y SLOW	316	COAX	31 A	
P10- 62	SHIELD 32	SHIELD	22	0	32 F	
P10-	P6-	JACKET FOR WIRE NO 32			32	S 32
P10- 63	P6- 63	MAP CURSOR (-) Y FAST	316	COAX	32 A	
P10- 64	SHIELD 33	SHIELD	22	0	33 F	
P10-	P6-	JACKET FOR WIRE NO 33			33	S 33
P10- 65	P6- 65	MAP CURSOR (-) Y SLOW	316	COAX	33 A	
P10- 66	SHIELD 29	SHIELD	22	0	29 F	

TABLE 6-10. CABLE W11 WIRING LIST

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
A9P10		(A9J10)		POWER SUPPLY				
A9P10-		A17P2-		JACKET FOR WIRE NO 1		9	1	S 1
A9P10-	A	A17P2-	1	STEREO LAMP SUPPLY PHASE A	22	9	1 A	
A9P10-	B	A17P2-	2	STEREO LAMP SUPPLY PHASE B	22	6	1 B	
A9P10-	C	A17P2-	3	STEREO LAMP SUPPLY PHASE C	22	3	1 C	
A9P10-	D	A17P2-	4	STEREO LAMP SUPPLY NEUT	22	5	1 D	
A9P10-	E	SHIELD	1	SHIELD	22	0	1 S	
A9P10-		A17P2-		JACKET FOR WIRE NO 2		9	2	S 2
A9P10-	F	A17P2-	6	STEREO +28V ON CMD	22	9	2 A	
A9P10-	G	SHIELD	2	SHIELD	22	0	2 S	
A9P10-		A17P2-		JACKET FOR WIRE NO 3		9	3	S 3
A9P10-	H	A17P2-	9	1.4KV RETURN	22	9	3 A	
SHIELD	3	SHIELD	7	SHIELD	22	0	3 S	
A9P10-	J	A17P2-	11	STEREO 0-15V DIM	22	9	13	T 14
A9P10-	K	A17P2-	12	SPARE	22	9	14	T 13
A9P10-		TB4-		JACKET FOR WIRE NO 4		90	4	S 4
A9P10-	L	TB4-	2	28V RTN HV INTERLOCK	22	9	4 A	
SHIELD	4	SHIELD	2	SHIELD	22	0	4 S	
A9P10-		A17P4-		JACKET FOR WIRE NO 5		9	5	S 5
A9P10-	M	A17P4-	1	DIR VIEW LAMP SUPPLY PHASE A	22	9	5 A	
SHIELD	5	SHIELD	1	SHIELD	22	0	5 S	
A9P10-	N	A17P4-	2	DIR VIEW LAMP SUPPLY PHASE B	22	6	5 B	
A9P10-	P	A17P4-	3	DIR VIEW SUPPLY PHASE C	22	3	5 C	
A9P10-	R	A17P4-	4	DIR VIEW SUPPLY NEUT	22	5	5 D	
A9P10-		A17P4-		JACKET FOR WIRE NO 6		9	6	S 6
A9P10-	S	A17P4-	6	+28V ON CMD	22	9	6 A	
SHIELD	6	SHIELD	4	SHIELD	22	0	6 S	
A9P10-		A17P4-		JACKET FOR WIRE NO 7		9	7	S 7
A9P10-	T	A17P4-	9	6.OKV RTN	22	9	7 A	
A9P10-	U	SHIELD	7	SHIELD	22	0	7 S	
A9P10-	V	A17P4-	11	DIR VIEW 0-15V DIM	22	9	11	T12
A9P10-		A17P5-		JACKET FOR WIRE NO 8		93	8	S 8
A9P10-	W	A17P5-	5	DIR VIEW SUPPLY FAN PHASE A	20	9	8 A	
A9P10-	X	SHIELD	8	SHIELD	22	0	8 S	
A9P10-	Y	A17P4-	12	SPARE	22	9	12	T 11
A9P10-	Z	A17P5-	4	DIR VIEW SUPPLY FAN NEUT	20	6	8 B	
A17P2		(A17J2)		STEREO POWER SUPPLY				
A17P2-		A9P10-		JACKET FOR WIRE NO 1		9	1	S 1
A17P2-	1	A9P10-	A	STEREO LAMP SUPPLY PHASE A	22	9	1 A	
A17P2-	2	A9P10-	B	STEREO LAMP SUPPLY PHASE B	22	6	1 B	
A17P2-	3	A9P10-	C	STEREO LAMP SUPPLY PHASE C	22	3	1 C	
A17P2-	4	A9P10-	D	STEREO LAMP SUPPLY NEUT	22	5	1 D	
A17P2-	5	SHIELD	1	SHIELD	22	0	1 F	
A17P2-		A9P10-		JACKET FOR WIRE NO 2		9	2	S 2
A17P2-	6	A9P10-	F	STEREO +28V ON CMD	22	9	2 A	
SHIELD	2	SHIELD	9	SHIELD	22	0	2 F	
A17P2-		TB4-		JACKET FOR WIRE NO 9		92	9	S 9
A17P2-	7	TB4-		3 28V RTN TO STEREO	22	9	9 A	
A17P2-	8	SHIELD	9	SHIELD	22	0	9 S	
A17P2-		A9P10-		JACKET FOR WIRE NO 3		9	3	S 3
A17P2-	9	A9P10-	H	1.4KV RETURN	22	9	3 A	
A17P2-	10	SHIELD	3	SHIELD	22	0	3 F	
A17P2-	11	A9P10-	J	STEREO 0-15V DIM	22	9	13	T 14
A17P2-	12	A9P10-	K	SPARE	22	9	14	T 13

TABLE 6-10. CABLE W11 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
A17P4		(A17J4)		DIR VIEW POWER SUPPLY				
A17P4-		A9P10-		JACKET FOR WIRE NO 5		9	5	S 5
A17P4-	1	A9P10-	M	DIR VIEW LAMP SUPPLY PHASE A	22	9	5 A	
A17P4-	2	A9P10-	N	DIR VIEW LAMP SUPPLY PHASE B	22	6	5 B	
A17P4-	3	A9P10-	P	DIR VIEW SUPPLY PHASE C	22	3	5 C	
A17P4-	4	A9P10-	R	DIR VIEW SUPPLY NEUT	22	5	5 D	
A17P4-	5	SHIELD	5	SHIELD	22	0	5 F	
A17P4-		A9P10-		JACKET FOR WIRE NO 6		9	6	S 6
A17P4-	6	A9P10-	S	+28V ON CMD	22	9	6 A	
SHIELD	6	SHIELD	10	SHIELD	22	0	6 F	
A17P4-		TB4-		JACKET FOR WIRE NO 10		91	10	S 10
A17P4-	7	TB4-	3	28V RTN TO DIRECT VIEW	22	9	10 A	
A17P4-	8	SHIELD	10	SHIELD	22	0	10 S	
A17P4-		A9P10-		JACKET FOR WIRE NO 7		9	7	S 7
A17P4-	9	A9P10-		T 6.0KV RTN	22	9	7 A	
A17P4-	10	SHIELD	7	SHIELD	22	0	7 F	
A17P4-	11	A9P10-	V	DIR VIEW 0-15V DIM	22	9	11	T12
A17P4-	12	A9P10-	Y	SPARE	22	9	12	T 11
A17P5								
A17P5-	3	SHIELD	8	SHIELD	22	0	8 F	
A17P5-	4	A9P10-	Z	DIR VIEW SUPPLY FAN NEUT	20	6	8 B	
A17P5-		A9P10-		JACKET FOR WIRE NO 8		93	8	S 8
A17P5-	5	A9P10-	W	DIR VIEW SUPPLY FAN PHASE A	20	9	8 A	
E10				TERMINAL LUG				
E10		SHIELD	9	SHIELD	22	0	9 F	
TB4								
TB4-		A9P10-		JACKET FOR WIRE NO 4	90	4	S 4	
TB4-	2	A9P10-	L	28V RTN HV INTERLOCK	22	9	4 A	
SHIELD	4	SHIELD	9	SHIELD	22	0	4 F	
TB4-		A17P4-		JACKET FOR WIRE NO 10		91	10	S 10
TB4-	3	A17P4-	7	28V RTN TO DIRECT VIEW	22	9	10 A	
SHIELD	10	SHIELD	4	SHIELD	22	0	10F	
TB4-		A17P2-		JACKET FOR WIRE NO 9		92	9	S 9
TB4-	3	A17P2-	7	28V RTN TO STEREO	22	9	9 A	
SHIELD	9	E10		SHIELD	22	0	9F	

TABLE 6-11. CABLE W12 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P7	(J8)	POWER DISTRIBUTION				
P7-	P8-	JACKET FOR WIRE NO 1		9	1	S 1
P7- 1	P8- 1	+15 VDC	22	9	1 A	
P7- 2	P8- 2	-15 VDC	22	6	1 B	
P7- 3	P8- 3	15 V RETURN	22	3	1 C	
P7- 4	SHIELD 1	SHIELD	22	0	1 S	
P7- 6	SHIELD 2	SHIELD	22	0	2 S	
P7-	P8-	JACKET FOR WIRE NO 2		9	2	S 2
P7- 7	P8- 7	SPARE		COAX	2 A	
P7- 13	SHIELD 4	SHIELD	22	0	4 S	
P7-	P8-	JACKET FOR WIRE NO 4		9	4	S 4
P7- 14	P8- 14	SPARE	22	9	4 A	
P7- 15	P8- 15	SPARE	22	6	4 B	
P7-	P8-	JACKET FOR WIRE NO 5		9	5	S 5
P7- 16	P8- 16	SPARE		COAX	5 A	
P7- 17	SHIELD 5	SHIELD	22	0	5 S	
P7-	P8-	JACKET FOR WIRE NO 6		9	6	S 6
P7- 18	P8- 18	FR FILM FAST FWD		COAX	6 A	
P7- 19	SHIELD 6	SHIELD	22	0	6 S	
P7-	P8-	JACKET FOR WIRE NO 7		9	7	S 7
P7- 20	P8- 20	FR FILM SLOW FWD		COAX	7 A	
P7- 21	SHIELD 7	SHIELD	22	0	7 S	
P7-	P8-	JACKET FOR WIRE NO 8		9	8	S 8
P7- 22	P8- 22	FR FILM FAST RVS		COAX	8 A	
P7- 23	SHIELD 8	SHIELD	22	0	8 S	
P7-	P8-	JACKET FOR WIRE NO 9		9	9	S 9
P7- 24	P8- 24	FR FILM SLOW RVS		COAX	9 A	
P7- 25	SHIELD 9	SHIELD	22	0	9 S	
P7-	P8-	JACKET FOR WIRE NO 10		9	10	S 10
P7- 26	P8- 26	REAR FILM FAST FWD		COAX	1O A	
P7- 27	SHIELD 10	SHIELD	22	0	10 S	
P7-	P8-	JACKET FOR WIRE NO 11		9	11	S11
P7- 28	P8- 28	REAR FILM SLOW FWD		COAX	11 A	
P7- 29	SHIELD 11	SHIELD	22	0	11 S	
P7-	P8-	JACKET FOR WIRE NO 12		9	12	S 12
P7- 30	P8- 30	REAR FILM FAST RVS		COAX	12 A	
P7- 31	SHIELD 12	SHIELD	22	0	12 S	
P7-	P8-	JACKET FOR WIRE NO 13		9	13	S 13
P7- 32	P8- 32	REAR FILM SLOW RVS		COAX	13 A	
P7- 33	SHIELD 13	SHIELD	22	0	13 S	
P7-	P8-	JACKET FOR WIRE NO 14		9	14	S 14
P7- 34	P8- 34	FR END OF FILM		COAX	14 A	
P7- 35	SHIELD 14	SHIELD	22	0	14 S	
P7-	P8-	JACKET FOR WIRE NO 15		9	15	S 15
P7- 36	P8- 36	REAR END OF FILM		COAX	15 A	
P7- 37	SHIELD 15	SHIELD	22	0	15 S	
P8	(W12J8)	FILM TRANSPORT ELEC				
P8-	P7-	JACKET FOR WIRE NO 1		9	1	S 1
P8- 1	P7- 1	+15 VDC	22	9	1 A	
P8- 2	P7- 2	-15 VDC	22	6	1 B	
P8- 3	P7- 3	15 V RETURN	22	3	1 C	
P8- 4	SHIELD 1	SHIELD	22	0	1 F	
P8- 6	SHIELD 2	SHIELD	22	0	2 F	
P8-	P7-	JACKET FOR WIRE NO 2		9	2	S 2
P8- 7	P7- 7	SPARE		COAX	2 A	
P8- 13	SHIELD 4	SHIELD	22	0	4 F	
P8-	P7-	JACKET FOR WIRE NO 4		9	4	S 4
P8- 14	P7- 14	SPARE	22	9	4 A	

TABLE 6-11. CABLE W12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P8- 15	P7- 15	SPARE	22	6	4 B	
P8-	P7-	JACKET FOR WIRE NO 5		9	5	S 5
P8- 16	P7- 16	SPARE		COAX	5 A	
P8- 17	SHIELD 5	SHIELD	22	0	5 F	
P8-	P7-	JACKET FOR WIRE NO 6		9	6	S 6
P8- 18	P7- 18	FR FILM FAST FWD		COAX	6 A	
P8- 19	SHIELD 6	SHIELD	22	0	6 F	
P8-	P7-	JACKET FOR WIRE NO 7		9	7	S 7
P8- 20	P7- 20	FR FILM SLOW FWD		COAX	7 A	
P8- 21	SHIELD 7	SHIELD	22	0	7 F	
P8-	P7-	JACKET FOR WIRE NO 8		9	8	S 8
P8- 22	P7- 22	FR FILM FAST RVS		COAX	8 A	
P8- 23	SHIELD 8	SHIELD	22	0	8 F	
P8-	P7-	JACKET FOR WIRE NO 9		9	9	S 9
P8- 24	P7- 24	FR FILM SLOW RVS		COAX	9 A	
P8- 25	SHIELD 9	SHIELD	22	0	9 F	
P8-	P7-	JACKET FOR WIRE NO 10		9	10	S 10
P8- 26	P7- 26	REAR FILM FAST FWD		COAX	10 A	
P8- 27	SHIELD 10	SHIELD	22	0	10 F	
P8-	P7-	JACKET FOR WIRE NO 11		9	11	S11
P8- 28	P7- 28	REAR FILM SLOW FWD		COAX	11 A	
P8- 29	SHIELD 11	SHIELD	22	0	11 F	
P8-	P7-	JACKET FOR WIRE NO 12		9	12	S 12
P8- 30	P7- 30	REAR FILM FAST RVS		COAX	12 A	
P8- 31	SHIELD 12	SHIELD	22	0	12 F	
P8-	P7-	JACKET FOR WIRE NO 13		9	13	5 13
P8- 32	P7- 32	REAR FILM SLOW RVS		COAX	13 A	
P8- 33	SHIELD 13	SHIELD	22	0	13 F	
P8-	P7-	JACKET FOR WIRE NO 14		9	14	5 14
P8- 34	P7- 34	FR END OF FILM		COAX	14 A	
P8- 35	SHIELD 14	SHIELD	22	0	14 F	
P8-	P7-	JACKET FOR WIRE NO 15		9	15	S 15
P8- 36	P7- 36	REAR END OF FILM		COAX	15 A	
P8- 37	SHIELD 15	SHIELD	22	0	15 F	

TABLE 6-12. CABLE W13 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1	(J1)	RIGHT TRANSPORT ASSEMBLY				
P1-	P4-	JACKET FOR WIRE NO 1		9	1	S 1
P1- 1	P4- 1	FRONT TACH(+)	22	9	1 A	
P1- 2	P4- 2	FRONT TACH(-)	22	6	1 B	
P1- 3	SHIELD 1	SHIELD	22	0	1 S	
P1-	P4-	JACKET FOR WIRE NO 2		9	2	S 2
P1- 4	P4- 4	REAR TACH (+)	22	9	2 A	
P1- 5	P4- 5	REAR TACH(-)	22	6	2 B	
P1- 6	SHIELD 2	SHIELD	22	0	2 S	
P1-	P4-	JACKET FOR WIRE NO 3		9	3	S 3
P1- 7	P4- 7	SPARE	22	9	3 A	
P1- 8	P4- 8	SPARE	22	6	3 B	
P1- 9	SHIELD 3	SHIELD	22	0	3 S	
P1- 15	SHIELD 4	SHIELD	22	0	4 S	
P1-	P4-	JACKET FOR WIRE NO 4		9	4	S 4
P1- 16	P4- 16	FRONT POT LOW	22	9	4 A	
P1- 17	P4- 17	FRONT POT HIGH	22	6	4 B	
P1- 18	P4- 18	FRONT POT WIPER	22	3	4 C	
P1- 19	SHIELD 5	SHIELD	22	0	5 S	
P1-	P4-	JACKET FOR WIRE NO 5		9	5	S 5
P1- 20	P4- 20	REAR POT LOW	22	9	5 A	
P1- 21	P4- 21	REAR POT HIGH	22	6	5 B	
P1- 22	P4- 22	REAR POT WIPER	22	3	5 C	
P4	(J4)	TRANSPORT ELECTRONICS				
P4-	P1-	JACKET FOR WIRE NO 1		9	1	S 1
P4- 1	P1- 1	FRONTTACH (+)	22	9	1 A	
P4- 2	P1- 2	FRONT TACH (-)	22	6	1 B	
P4- 3	SHIELD 1	SHIELD	22	0	1 F	
P4-	P1-	JACKET FOR WIRE NO 2		9	2	S 2
P4- 4	P1- 4	REAR TACH (+)	22	9	2 A	
P4- 5	P1- 5	REAR TACH(-)	22	6	2 B	
P4- 6	SHIELD 2	SHIELD	22	0	2 F	
P4-	P1-	JACKET FOR WIRE NO 3		9	3	S 3
P4- 7	P1- 7	SPARE	22	9	3 A	
P4- 8	P1- 8	SPARE	22	6	3 B	
P4- 9	SHIELD 3	SHIELD	22	0	3 F	
P4- 15	SHIELD 4	SHIELD	22	0	4 F	
P4-	P1-	JACKET FOR WIRE NO 4		9	4	S 4
P4- 16	P1- 16	FRONT POT LOW	22	9	4 A	
P4- 17	P1- 17	FRONT POT HIGH	22	6	4 B	
P4- 18	P1- 18	FRONT POT WIPER	22	3	4 C	
P4- 19	SHIELD 5	SHIELD	22	0	5 F	
P4-	P1-	JACKET FOR WIRE NO 5		9	5	S 5
P4- 20	P1- 20	REARPOT LOW	22	9	5 A	
P4- 21	P1- 21	REARPOT HIGH	22	6	5 B	
P4- 22	P1- 22	REAR POT WIPER	22	3	5 C	

TABLE 6-13. CABLE W14 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(J2)	RIGHT TRANSPORT				
P2- 1	P5- 1	SPARE	22	9	1	T 2
P2- 2	P5- 2	SPARE	22	9	2	T 1
P2- 7	P5- 7	+28V LAMPS	22	9	3	T 4
P2- 8	P5- 8	+28V RETURN LAMPS	22	9	4	T 3
P2-	P5-	JACKET FOR WIRE NO 5		9	5	S 5
P2- 9	P5- 9	FRONT MOTOR DRIVE	22	9	5 A	
P2- 10	P5- 10	FRONT MOTOR DRIVE	22	6	5 B	
P2- 11	P5- 11	+28V FRONT MOTOR	22	3	5 C	
P2- 12	P5- 12	+28V FRONT MOTOR	22	5	5 D	
P2- 13	SHIELD 5	SHIELD	22	0	5 S	
P2- 16	SHIELD 6	SHIELD	22	0	6 S	
P2-	P5-	JACKET FOR WIRE NO 6		9	6	S 6
P2- 17	P5- 17	+28V REAR MOTOR	22	9	6 A	
P2- 18	P5- 18	+28V REAR MOTOR	22	6	6 B	
P2- 19	P5- 19	REAR MOTOR DRIVE	22	3	6 C	
P2- 20	P5- 20	REAR MOTOR DRIVE	22	5	6 D	
P5	(J5)	TRANSPORT ELEC				
P5- 1	P2- 1	SPARE	22	9	1	T 2
P5- 2	P2- 2	SPARE	22	9	2	T 1
P5- 7	P2- 7	+28V LAMPS	22	9	3	T 4
P5- 8	P2- 8	+28V RETURN LAMPS	22	9	4	T 3
P5-	P2-	JACKET FOR WIRE NO 5		9	5	S 5
P5- 9	P2- 9	FRONT MOTOR DRIVE	22	9	5 A	
P5- 10	P2- 10	FRONT MOTOR DRIVE	22	6	5 B	
P5- 11	P2- 11	+28V FRONT MOTOR	22	3	5 C	
P5- 12	P2- 12	+28V FRONT MOTOR	22	5	5 D	
P5- 13	SHIELD 5	SHIELD	22	0	5 F	
P5- 16	SHIELD 6	SHIELD	22	0	6 F	
P5-	P2-	JACKET FOR WIRE NO 6		9	6	S 6
P5- 17	P2- 17	+28V REAR MOTOR	22	9	6 A	
P5- 18	P2- 18	+28V REAR MOTOR	22	6	6 B	
P5- 19	P2- 19	REAR MOTOR DRIVE	22	3	6 C	
P5- 20	P2- 20	REAR MOTOR DRIVE	22	5	6 D	

TABLE 6-14. CABLE W15 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(J2)	LEFT TRANSPORT ASSY				
P2- 1	P6- 1	SPARE	22	9	1	T 2
P2- 2	P6- 2	SPARE	22	9	2	T 1
P2- 7	P6- 7	+28V,LAMPS	22	9	3	T 4
P2- 8	P6- 8	+28V RTN,LAMPS	22	9	4	T 3
P2-	P6-	JACKET FOR WIRE NO 5		9	5	S 5
P2- 9	P6- 9	FR MOTOR DRIVE	22	9	5 A	
P2- 10	P6- 10	FR MOTOR DRIVE	22	6	5 B	
P2- 11	P6- 11	+28V FR MOTOR	22	3	5 C	
P2- 12	P6- 12	+28V FR MOTOR	22	5	5 D	
P2- 13	SHIELD 5	SHIELD	22	0	5 F	
P2- 16	SHIELD 6	SHIELD	22	0	6 F	
P2-	P6-	JACKET FOR WIRE NO 6		9	6	S 6
P2- 17	P6- 17		22	9	6 A	
P2- 18	P6- 18	+28V REAR MOTOR	22	6	6 B	
P2- 19	P6- 19	REAR MOTOR DRIVE	22	3	6 C	
P2- 20	P6- 20	REAR MOTOR DRIVE	22	5	6 D	
P6	(J6)	TRANSPORT ELEC				
P6- 1	P2- 1	SPARE	22	9	1	T 2
P6- 2	P2- 2	SPARE	22	9	2	T 1
P6- 7	P2- 7	+28V,LAMPS	22	9	3	T 4
P6- 8	P2- 8	+28V RTN,LAMPS	22	9	4	T 3
P6-	P2-	JACKET FOR WIRE NO 5		9	5	S 5
P6- 9	P2- 9	FR MOTOR DRIVE	22	9	5 A	
P6- 10	P2- 10	FR MOTOR DRIVE	22	6	5 B	
P6- 11	P2- 11	+28V FR MOTOR	22	3	5 C	
P6- 12	P2- 12	+28V FR MOTOR	22	5	5 D	
P6- 13	SHIELD 5	SHIELD	22	0	5 S	
P6- 16	SHIELD 6	SHIELD	22	0	6 S	
P6-	P2-	JACKET FOR WIRE NO 6		9	6	S 6
P6- 17	P2- 17		22	9	6 A	
P6- 18	P2- 18	+28V REAR MOTOR	22	6	6 B	
P6- 19	P2- 19	REAR MOTOR DRIVE	22	3	6 C	
P6- 20	P2- 20	REAR MOTOR DRIVE	22	5	6 D	

TABLE 6-15. CABLE W16 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1	(J1)	LEFT TRANSPORT ASSEMBLY				
P1-	P7-	JACKET FOR WIRE NO 1		9	1	S 1
P1- 1	P7- 1	FRONT TACH (+)	22	9	1 A	
P1- 2	P7- 2	FRONT TACH(-)	22	6	1 B	
P1- 3	SHIELD 1	SHIELD	22	0	1 S	
P1-	P7-	JACKET FOR WIRE NO 2		9	2	S 2
P1- 4	P7- 4	REAR TACH(+)	22	9	2 A	
P1- 5	P7- 5	REAR TACH(-)	22	6	2 B	
P1- 6	SHIELD 2	SHIELD	22	0	2 S	
P1-	P7-	JACKET FOR WIRE NO 3		9	3	S 3
P1- 7	P7- 7	SPARE	22	9	3 A	
P1- 8	P7- 8	SPARE	22	6	3 B	
P1- 9	SHIELD 3	SHIELD	22	0	3 S	
P1- 15	SHIELD 5	SHIELD	22	0	5 S	
P1-	P7-	JACKET FOR WIRE NO 5		9	5	S 5
P1- 16	P7- 16	FRONT POT LOW	22	9	5 A	
P1- 17	P7- 17	FRONT POT HIGH	22	6	5 B	
P1- 18	P7- 18	FRONT POT WIPER	22	3	5 C	
P1- 19	SHIELD 6	SHIELD	22	0	6 S	
P1-	P7-	JACKET FOR WIRE NO 6		9	6	S 6
P1- 20	P7-	20 REAR POT LOW	22	9	6 A	
P1- 21	P7- 21	REAR POT HIGH	22	6	6 B	
P1- 22	P7- 22	REAR POT WIPER	22	3	6 C	
P7	(J7)	TRANSPORT ELECTRONICS				
P7-	P1-	JACKET FOR WIRE NO 1		9	1	S 1
P7- 1	P1- 1	FRONT TACH (+)	22	9	1 A	
P7- 2	P1- 2	FRONTTACH(-)	22	6	1 B	
P7- 3	SHIELD 1	SHIELD	22	0	1 F	
P7-	P1	JACKET FOR WIRE NO 2		9	2	S 2
P7- 4	P1- 4	REAR TACH(+)	22	9	2 A	
P7- 5	P1- 5	REAR TACH (-)	22	6	2 B	
P7- 6	SHIELD 2	SHIELD	22	0	2 F	
P7-	P1-	JACKET FOR WIRE NO 3		9	3	S 3
P7- 7	P1- 7	SPARE	22	9	3 A	
P7- 8	P1- 8	SPARE	22	6	3 B	
P7- 9	SHIELD 3	SHIELD	22	0	3 F	
P7- 15	SHIELD 5	SHIELD	22	0	5 F	
P7-	P1-	JACKET FOR WIRE NO 5		9	5	S 5
P7- 16	P1- 16	FRONT POT LOW	22	9	5 A	
P7- 17	P1- 17	FRONT POT HIGH	22	6	5 B	
P7- 18	P1- 18	FRONT POT WIPER	22	3	5 C	
P7- 19	SHIELD 6	SHIELD	22	0	6 F	
P7-	P1-	JACKET FOR WIRE NO 6		9	6	S 6
P7- 20	P1-	20 REAR POT LOW	22	9	6 A	
P7- 21	P1- 21	REAR POT HIGH	22	6	6 B	
P7- 22	P1- 22	REAR POT WIPER	22	3	6 C	

TABLE 6-16. CABLE W17 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1-	(J1)	TRANSPORT ELEC				
P1-	P3-	JACKET FOR WIRE NO 1		9	1	S 1
P1- 1	P3- 1	SPARE	22	9	1A	
P1- 2	P3- 2	SPARE	22	6	IB	
P1- 3	P3- 3	SPARE	22	3	1C	
P1- 4	SHIELD 1	SHIELD	22	0	1S	
P1-	P3-	JACKET FOR WIRE NO 3		9	3	S 3
P1- 10	P3- 10	SPARE	22	9	3A	
P1- 11	P3- 11	SPARE	22	6	3B	
P1- 12	P3- 12	SPARE	22	3	3C	
P1- 13	SHIELD 3	SHIELD	22	0	3S	
P1- 14	SHIELD 4	SHIELD	22	0	4S	
P1-	P3-	JACKET FOR WIRE NO 4		9	4	S 4
P1- 15	P3- 15	SPARE	22	9	4A	
P1- 16	P3- 16	SPARE	22	6	4B	
P1- 17	SHIELD 5	SHIELD	22	0	5S	
P1-	P3-	JACKET FOR WIRE NO 5		9	5	S 5
P1- 18	P3- 18	FR VEL POT POS SPLY	22	9	5A	
P1- 19	P3- 19	FR VEL POT NEG SPLY	22	6	5B	
P1- 20	P3- 20	FR VEL POT RETURN	22	3	5C	
P1- 21	P3- 21	FR VEL POT WIPER	22	5	5D	
P1-	P3-	JACKET FOR WIRE NO 6		9	6	S 6
P1- 22	P3- 22	FR LAMP RETURN	22	9	6A	
P1- 23	P3- 23	FR END OF FILM LAMP	22	6	68	
P1- 24	P3- 24	FR OVERRIDE LAMP	22	3	6C	
P1- 25	SHIELD 7	SHIELD	22	0	7S	
P1-	P3-	JACKET FOR WIRE NO 7		9	7	S 7
P1- 26	P3- 26	REAR VEL POT WIPER	22	9	7A	
P1- 27	P3- 27	REAR VEL POT RETURN	22	6	7B	
P1- 28	P3- 28	REAR VEL POT NEG SPLY	22	3	7C	
P1- 29	P3- 29	REAR VEL POT POS SPLY	22	5	7D	
P1- 30	SHIELD 6	SHIELD	22	0	6S	
P1- 31	SHIELD 10	SHIELD	22	0	10S	
P1-	P3	JACKET FOR WIRE NO 8		9	8	S 8
P1- 32	P3- 32	REAR CORE DIA	22	9	8A	
P1- 33	P3- 33	REAR CORE DIA RTN	22	6	88	
P1- 34	SHIELD 8	SHIELD	22	0	8S	
P1-	P3-	JACKET FOR WIRE NO 9		9	9	S 9
P1- 35	P3- 35	SPARE	22	9	9A	
P1- 36	P3- 36	SPARE	22	6	9B	
P1- 37	SHIELD 9	SHIELD	22	0	9S	
P1-	P3-	JACKET FOR WIRE NO 10		9	10	S 10
P1- 38	P3- 38	FR OVERRIDE SWITCH	22	9	10A	
P1- 39	P3- 39	FR OVERRIDE SW RTN	22	6	10B	
P1-	P3	JACKET FOR WIRE NO 11		9	11	S 11
P1- 40	P3- 40	REAR OVERRIDE LAMP	22	9	11A	
P1- 41	P3- 41	REAR END OF FILM LAMP	22	6	1B	
P1- 42	P3- 42	REAR LAMP RETURN	22	3	11C	
P1- 43	SHIELD 11	SHIELD	22	0	11S	
P1-	P3	JACKET FOR WIRE NO 12		9	12	S 12
P1- 44	P3- 44	REAR OVERRIDE SWITCH	22	9	12A	
P1- 45	P3- 45	REAR OVERRIDE SW RTN	22	6	12B	
P1- 46	SHIELD 12	SHIELD	22	0	12S	
P1-	P3-	JACKET FOR WIRE NO 13		9	13	S 13
P1- 47	P3- 47	FILM INTERLOCK	22	9	13A	
P1- 48	P3- 48	FILM INTERLOCK RTN	22	6	13B	
P1- 49	SHIELD 13	SHIELD	22	0	13S	
P1-	P3-	JACKET FOR WIRE NO 14		9	14	S 14
P1- 52	P3- 52	FR CORE DIA	22	9	14A	

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TABLE 6-16. CABLE W17 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1- 54	SHIELD 14	SHIELD	22	0	14S	
P1- 55	P3- 55	FRONT CORE DIA RTN	22	6	14B	
P3	(J3)	RIGHT CONTROL PANEL				
P3-	P1-	JACKET FOR WIRE NO 1		9	1	S 1
P3- 1	P1- 1	SPARE	22	9	1A	
P3- 2	P1- 2	SPARE	22	6	1B	
P3- 3	P1- 3	SPARE	22	3	1C	
P3- 4	SHIELD 1	SHIELD	22	0	1F	
P3-	P1-	JACKET FOR WIRE NO 3		9	3	S 3
P3- 10	P1- 10	SPARE	22	9	3A	
P3- 11	P1- 11	SPARE	22	6	3B	
P3- 12	P1- 12	SPARE	22	3	3C	
P3- 13	SHIELD 3	SHIELD	22	0	3F	
P3- 14	SHIELD 4	SHIELD	22	0	4F	
P3-	P1-	JACKET FOR WIRE NO 4		9	4	S 4
P3- 15	P1- 15	SPARE	22	9	4A	
P3- 16	P1- 16	SPARE	22	6	48	
P3- 17	SHIELD 5	SHIELD	22	0	5F	
P3-	P1-	JACKET FOR WIRE NO 5		9	5	S 5
P3- 18	P1- 18	FR VEL POT POS SPLY	22	9	5A	
P3- 19	P1- 19	FR VEL POT NEG SPLY	22	6	56	
P3- 20	P1- 20	FR VEL POT RETURN	22	3	5C	
P3- 21	P1- 21	FR VEL POT WIPER	22	5	5D	
P3-	P1	JACKET FOR WIRE NO 6		9	6	S 6
P3- 22	P1- 22	FRLAMPRETURN	22	9	6A	
P3- 23	P1- 23	FR END OF FILM LAMP	22	6	6B	
P3- 24	P1- 24	FR OVERRIDE LAMP	22	3	6C	
P3- 25	SHIELD 7	SHIELD	22	0	7F	
P3-	P1-	JACKET FOR WIRE NO 7		9	7	S 7
P3- 26	P1- 26	REAR VEL POT WIPER	22	9	7A	
P3- 27	P1- 27	REAR VEL POT RETURN	22	6	7B	
P3- 28	P1- 28	REAR VEL POT NEG SPLY	22	3	7C	
P3- 29	P1- 29	REAR VEL POT POS SPLY	22	5	7D	
P3- 30	SHIELD 6	SHIELD	22	0	6F	
P3- 31	SHIELD 10	SHIELD	22	0	10F	
P3-	P1-	JACKET FOR WIRE NO 8		9	8	S 8
P3- 32	P1- 32	REAR CORE DIA	22	9	8A	
P3- 33	P1- 33	REAR CORE DIA RTN	22	6	8B	
P3- 34	SHIELD 8	SHIELD	22	0	8F	
P3-	P1-	JACKET FOR WIRE NO 9		9	9	S 9
P3- 35	P1- 35	SPARE	22	9	9A	
P3- 36	P1- 36	SPARE	22	6	9B	
P3- 37	SHIELD 9	SHIELD	22	0	9F	
P3-	P1-	JACKET FOR WIRE NO 10		9	10	S 10
P3- 38	P1- 38	FR OVERRIDE SWITCH	22	9	10A	
P3- 39	P1- 39	FR OVERRIDE SW RTN	22	6	10B	
P3-	P1-	JACKET FOR WIRE NO 11		9	11	S11
P3- 40	P1- 40	REAR OVERRIDE LAMP	22	9	LLA	
P3- 41	P1- 41	REAR END OF FILM LAMP	22	6	LLB	
P3- 42	P1- 42	REAR LAMP RETURN	22	3	11C	
P3- 43	SHIELD11 SHIELD		22	0	LIF	
P3-	P1-	JACKET FOR WIRE NO 12		9	12	S 12
P3- 44	P1- 44	REAR OVERRIDE SWITCH	22	9	12A	
P3- 45	P1- 45	REAR OVERRIDE SW RTN	22	6	12	
P3- 46	SHIELD 12	SHIELD	22	0	12F	
P3-	P1-	JACKET FOR WIRE NO 13		9	13	S13
P3- 47	P1- 47	FILM INTERLOCK	22	9	13A	
P3- 48	P1- 48	FILM INTERLOCK RTN	22	6	13B	
P3- 49	SHIELD 13	SHIELD	22	0	13F	

TABLE 6-16. CABLE W17 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3-	P1-	JACKET FOR WIRE NO 14		9	14	S 14
P3- 52	P1- 52	FR CORE DIA	22	9	14A	
P3- 54	SHIELD 14	SHIELD	22	0	14F	
P3- 55	P1- 55	FRONT CORE DIA RTN	22	6	148	

TABLE 6-17. CABLE W18 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3	(J3)	TRANSPORT ELECTRONICS				
P3-	P5-	JACKET FOR WIRE NO 1		9	1	S 1
P3- 1	P5- 1	SPARE	22	9	1A	
P3- 2	P5- 2	SPARE	22	6	1B	
P3- 3	P5- 3	SPARE	22	3	1C	
P3- 4	SHIELD 1	SHIELD	22	0	1S	
P3-	P5-	JACKET FOR WIRE NO 3		9	3	S 3
P3- 10	P5- 10	SPARE	22	9	3A	
P3- 11	P5- 11	SPARE	22	6	38	
P3- 12	P5- 12	SPARE	22	3	3C	
P3- 13	SHIELD 3	SHIELD	22	0	3S	
P3- 14	SHIELD 4	SHIELD	22	0	4S	
P3-	P5-	JACKET FOR WIRE NO 4		9	4	S 4
P3- 15	P5- 15	REAR ENABLE RETURN	22	9	4A	
P3- 16	P5- 16	REAR ENABLE	22	6	4B	
P3- 17	SHIELD 5	SHIELD	22	0	5S	
P3-	P5-	JACKET FOR WIRE NO 5		9	5	S 5
P3- 18	P5- 18	FR VEL POT POS SPLY	22	9	5A	
P3- 19	P5- 19	FR VEL POT NEG SPLY	22	6	5B	
P3- 20	P5- 20	FR VEL POT RTN	22	3		5C
P3- 21	P5- 21	FRVEL POTWIPER	22	5	5D	
P3-	P5-	JACKET FOR WIRE NO 6		9	6	S 6
P3- 22	P5- 22	FRONT LAMP RETURN	22	9	6A	
P3- 23	P5- 23	FR END OF FILM LAMP	22	6	68	
P3- 24	P5- 24	FR OVERRIDE LAMP	22	3	6C	
P3- 25	SHIELD 7	SHIELD	22	0	7S	
P3-	P5-	JACKET FOR WIRE NO 7		9	7	S 7
P3- 26	P5- 26	REAR VEL POT WIPER	22	9	7A	
P3- 27	P5- 27	REAR VEL POT RETURN	22	6	7B	
P3- 28	P5- 28	REAR VEL POT NEG SPLY	22	3	7C	
P3- 29	P5- 29	REAR VEL POT POS SPLY	22	5	7D	
P3- 30	SHIELD 6	SHIELD	22	0	6S	
P3- 31	SHIELD 10	SHIELD	22	0	10S	
P3-	P5-	JACKET FOR WIRE NO 8		9	8	S 8
P3- 32	P5- 32	REAR CORE DIA	22	9	8A	
P3- 33	P5- 33	REAR CORE DIA RTN	22	6	8B	
P3- 34	SHIELD 8	SHIELD	22	0	8S	
P3-	P5-	JACKET FOR WIRE NO 9		9	9	S 9
P3- 35	P5- 35	FRONT ENABLE	22	9	9A	
P3- 36	P5- 36	FRONT ENABLE RTN	22	6	9B	
P3- 37	SHIELD 9	SHIELD	22	0	9S	
P3-	P5-	JACKET FOR WIRE NO 10		9	10	S 10
P3- 38	P5- 38	FR OVERRIDE SWITCH	22	9	10A	
P3- 39	P5- 39	FR OVERRIDE SW RTN	22	6	10B	
P3-	P5-	JACKET FOR WIRE NO 11		9	11	S11
P3- 40	P5- 40	REAR OVERRIDE LAMP	22	9	11A	
P3- 41	P5- 41	REAR END OF FILM LAMP	22	6	11B	
P3- 42	P5- 42	REAR LAMP RETURN	22	3	11C	
P3- 43	SHIELD 11	SHIELD	22	0	11S	
P3-	P5-	JACKET FOR WIRE NO 12		9	12	S12
P3- 44	P5- 44	REAR OVERRIDE SWITCH	22	9	12A	
P3- 45	P5- 45	REAR OVERRIDE SW RTN	22	6	12B	
P3- 46	SHIELD 12	SHIELD	22	0	12S	
P3-	P5-	JACKET FOR WIRE NO 13		9	13	S 13
P3- 47	P5- 47	FILM INTERLOCK	22	9	13A	
P3- 48	P5- 48	FILM INTERLOCK RTN	22	6	13B	
P3- 49	SHIELD 13	SHIELD	22	0	13S	
P3-	P5-	JACKET FOR WIRE NO 14		9	14	S14
P3- 52	P5- 52	FRONT CORE DIA	22	9	14A	

TABLE 6-17. CABLE W18 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3- 54	SHIELD 14	SHIELD	22	0	14S	
P3- 55	P5- 55	FRONT CORE DIA RETURN	22	6	148	
P5	(J5)	LEFT CONTROL PANEL				
P5-	P3-	JACKET FOR WIRE NO 1		9	1	S 1
P5- 1	P3- 1	SPARE	22	9	1A	
P5- 2	P3- 2	SPARE	22	6	1B	
P5- 3	P3- 3	SPARE	22	3	1C	
P5- 4	SHIELD 1	SHIELD	22	0	1F	
P5-	P3-	JACKET FOR WIRE NO 3		9	3	S 3
P5- 10	P3- 10	SPARE	22	9	3A	
P5- 11	P3- 11	SPARE	22	6	38	
P5- 12	P3- 12	SPARE	22	3	3C	
P5- 13	SHIELD 3	SHIELD	22	0	3F	
P5- 14	SHIELD 4	SHIELD	22	0	4F	
P5-	P3-	JACKET FOR WIRE NO 4		9	4	S 4
P5- 15	P3- 15	REAR ENABLE RETURN	22	9	4A	
P5- 16	P3- 16	REAR ENABLE	22	6	4B	
P5- 17	SHIELD 5	SHIELD	22	0	5F	
P5-	P3-	JACKET FOR WIRE NO 5		9	5	S 5
P5- 18	P3- 18	FR VEL POT POS SPLY	22	9	5A	
P5- 19	P3- 19	FR VEL POT NEG SPLY	22	6	58	
P5- 20	P3- 20	FR VEL POT RTN	22	3	5C	
P5- 21	P3- 21	FR VEL POT WIPER	22	5	5D	
P5-	P3-	JACKET FOR WIRE NO 6		9	6	S 6
P5- 22	P3- 22	FRONT LAMP RETURN	22	9	6A	
P5- 23	P3- 23	FR END OF FILM LAMP	22	6	68	
P5- 24	P3- 24	FR OVERRIDE LAMP	22	3	6C	
P5- 25	SHIELD 7	SHIELD	22	0	7F	
P5-	P3-	JACKET FOR WIRE NO 7		9	7	S 7
P5- 26	P3- 26	REAR VEL POT WIPER	22	9	7A	
P5- 27	P3- 27	REAR VEL POT RETURN	22	6	78	
P5- 28	P3- 28	REAR VEL POT NEG SPLY	22	3	7C	
P5- 29	P3- 29	REAR VEL POT POS SPLY	22	5	7D	
P5- 30	SHIELD 6	SHIELD	22	0	6F	
P5- 31	SHIELD 10	SHIELD	22	0	10F	
P5-	P3-	JACKET FOR WIRE NO 8		9	8	S 8
P5- 32	P3- 32	REAR CORE DIA	22	9	8A	
P5- 33	P3- 33	REAR CORE DIA RTN	22	6	8B	
P5- 34	SHIELD 8	SHIELD	22	0	8F	
P5-	P3-	JACKET FOR WIRE NO 9		9	9	S 9
P5- 35	P3- 35	FRONT ENABLE RTN	22	6	9B	
P5- 37	SHIELD 9	SHIELD	22	0	9F	
P5-	P3-	JACKET FOR WIRE NO 10		9	10	S 10
P5- 38	P3- 38	FR OVERRIDE SWITCH	22	9	10A	
P5- 39	P3- 39	FR OVERRIDE SW RTN	22	6	10B	
P5-	P3-	JACKET FOR WIRE NO 11		9	11	S11
P5- 40	P3- 40	REAR OVERRIDE LAMP	22	9	11A	
P5- 41	P3- 41	REAR END OF FILM LAMP	22	6	11B	
P5- 42	P3- 42	REAR LAMP RETURN	22	3	11C	
P5- 43	SHIELD 11	SHIELD	22	0	11F	
P5-	P3-	JACKET FOR WIRE NO 12		9	12	S 12
P5- 44	P3- 44	REAR OVERRIDE SWITCH	22	9	12A	
P5- 45	P3- 45	REAR OVERRIDE SW RTN	22	6	128	
P5- 46	SHIELD 12	SHIELD	22	0	12F	
P5-	P3-	JACKET FOR WIRE NO 13		9	13	S 13
P5- 47	P3- 47	FILM INTERLOCK	22	9	13A	
P5- 48	P3- 48	FILM INTERLOCK RTN	22	6	138	
P5- 49	SHIELD 13	SHIELD	22	0	13F	

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TABLE 6-17. CABLE W18 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P5-	P3-	JACKET FOR WIRE NO 14		9	14	S14
P5- 52	P3- 52	FRONT CORE DIA	22	9	14A	
P5- 54	SHIELD 14	SHIELD	22	0	14F	
P5- 55	P3- 55	FRONT CORE DIA RETURN	22	6	148	

TABLE 6-18. CABLE W19 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(J2)	TRANSPORT ELECTRONICS				
P2-	P7-	JACKET FOR WIRE NO 1		9	1	S 1
P2- A	P7- A	+15V	20	9	1A	
P2- B	P7- B	15V RETURN	20	6	1B	
P2- C	P7- C	-15V	20	3	1C	
P2- D	SHIELD 1	SHIELD	22	0	1S	
P2-	P7-	JACKET FOR WIRE NO 2		9	2	S 2
P2- E	P7- E	+ 5V	20	9	2A	
P2- F	P7- F	+5V	20	6	2B	
P2- G	SHIELD 2	SHIELD	22	0	2S	
P2- H	P7- H	5VRETURN	20	3	2C	
P2- J	P7- J	5V RETURN	20	5	2D	
P2-	P7-	JACKET FOR WIRE NO 3		9	3	S 3
P2- K	P7- K	SPARE	20	9	3A	
P2- L	P7- L	SPARE	20	6	38	
P2- M	SHIELD 3	SHIELD	22	0	3S	
P2-	P7-	JACKET FOR WIRE NO 4		9	4	S 4
P2- N	P7- N	SPARE	20	9	4A	
SHIELD 4	SHIELD 3	SHIELD	22	0	4S	
P2- P	P7- P	SPARE	20	6	4B	
P2-	P7-	JACKET FOR WIRE NO 5		9	5	S 5
P2- R	P7- R	FAN PHASE A	20	9	5A	
P2- S	P7- S	FAN PHASE B	20	6	5B	
P2- T	P7- T	FAN PHASE C	20	3	5C	
P2- U	SHIELD 5	SHIELD	22	0	5S	
P2-	P7-	JACKET FOR WIRE NO 6		9	6	S 6
P2- V	P7- V	SPARE	20	9	6A	
P2- W	P7- W	SPARE	20	6	68	
P2- X	SHIELD 6	SHIELD	22	0	6S	
P2-	P7-	JACKET FOR WIRE NO 7		9	7	S 7
P2- Y	P7- Y	+28VLAMPS	20	9	7A	
P2- Z	P7- Z	+28VLAMPS	20	6	7B	
P2- >A	P7- >A	28V LAMP RETURN	20	3	7C	
P2- >B	P7- >B	28V LAMPRETURN	20	5	7D	
P2- >C	SHIELD 7	SHIELD	22	0	7S	
P2- >D	SHIELD 8	SHIELD	22	0	8S	
P2-	P7-	JACKET FOR WIRE NO 8		9	8	S 8
P2- >E	P7- >E	28V UNRGLTD FRONT TRANSPORT	20	9	8A	
P2- >F	P7- >F	28V UNRGLTD FRONT TRANSPORT	20	6	8B	
P2-	P7-	JACKET FOR WIRE NO 9		9	9	S 9
P2- >G	P7- >G	28V RETURN REAR TRANSPORT	20	9	9A	
P2- >H	P7- >H	SPARE 28VRTN	20	6	9B	
P2- >I	SHIELD 9	SHIELD	22	0	9S	
P2- >J	P7- >J	28V UNRGLTD REAR TRANSPORT	20	3	9C	
P2- >K	P7- >K	28V UNRGLTD REAR TRANSPORT	20	5	9D	
P2- >M	P7- >M	28V RTN FRONTTRANSPORT	16	9	10	
P2- >P	P7- >P	28V RTN FRONTTRANSPORT	20	3	8C	
P2- >Q	P7- >Q	SPARE 28VRTN	20	5	8D	
P2- >R	P7- >R	28VRTN FRONTTRANSPORT	16	9	11	
P7	(J7)	POWER SUPPLY				
P7-	P2-	JACKET FOR WIRE NO 1		9	1	S 1
P7- A	P2- A	+15V	20	9	1A	
P7- B	P2- B	15VRETURN	20	6	1B	
P7- C	P2- C	-15V	20	3	1C	
P7- D	SHIELD 1	SHIELD	22	0	1F	
P7-	P2-	JACKET FOR WIRE NO 2		9	2	S 2
P7- E	P2- E	+ 5V	20	9	2A	
P7- F	P2- F	+5V	20	6	2B	

TABLE 6-18. CABLE W19 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P7- G	SHIELD 2	SHIELD	22	0	2F	
P7- H	P2- H	5V RETURN	20	3	2C	
P7- J	P2- J	5V RETURN	20	5	2D	
P7-	P2-	JACKET FOR WIRE NO 3		9	3	S 3
P7- K	P2- K	SPARE	20	9	3A	
P7- L	P2- L	SPARE	20	6	3B	
P7- M	SHIELD 3	SHIELD	22	0	3F	
P7-	P2-	JACKET FOR WIRE NO 4		9	4	S 4
P7- N	P2- N	SPARE	20	9	4A	
SHIELD	SHIELD 3	SHIELD	22	0	4F	
P7- P	P2- P	SPARE	20	6	4B	
P7-	P2-	JACKET FOR WIRE NO 5		9	5	S 5
P7- R	P2- R	FAN PHASE A	20	9	5A	
P7- S	P2- S	FAN PHASE B	20	6	5B	
P7- T	P2- T	FAN PHASE C	20	3	5C	
P7- U	SHIELD 5	SHIELD	22	0	5F	
P7-	P2-	JACKET FOR WIRE NO 6		9	6	S 6
P7- V	P2- V	SPARE	20	9	6A	
P7- W	P2- W	SPARE	20	6	6B	
P7- X	SHIELD 6	SHIELD	22	0	6F	
P7-	P2-	JACKET FOR WIRE NO 7		9	7	S 7
P7- Y	P2- Y	+28VLAMPS	20	9	7A	
P7- Z	P2- Z	+28VLAMPS	20	6	7B	
P7- >A	P2- >A	28V LAMP RETURN	20	3	7C	
P7- >B	P2- >B	28V LAMP RETURN	20	5	7D	
P7- >C	SHIELD 7	SHIELD	22	0	7F	
P7- >D	SHIELD 8	SHIELD	22	0	8F	
P7-	P2-	JACKET FOR WIRE NO 8		9	8	S 8
P7- >E	P2- >E	28V UNRGLTD FRONT TRANSPORT	20	9	8A	
P7- >F	P2- >F	28V UNRGLTD FRONTTRANSPORT	20	6	8B	
P7-	P2-	JACKET FOR WIRE NO 9		9	9	S 9
P7- >G	P2- >G	28V RETURN REAR TRANSPORT	20	9	9A	
P7- >H	P2- >H	SPARE 28VRTN	20	6	9B	
P7- >I	SHIELD 9	SHIELD	22	0	9F	
P7- >J	P2- >J	28V UNRGLTD REAR TRANSPORT	20	3	9C	
P7- >K	P2- >K	28V UNRGLTD REAR TRANSPORT	20	5	9D	
P7- >M	P2- >M	28VRTNFRONTTRANSPORT	16	9	10	
P7- >P	P2- >P	28VRTN FRONTTRANSPORT	20	3	8C	
P7- >Q	P2- >Q	SPARE28VRTN	20	5	8D	
P7- >R	P2- >R	28V RTN FRONTTRANSPORT	16	9	11	

TABLE 6-19. CABLE W20 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3	(J3)	LEFT TRANSPORT				
P3-	P9-	JACKET FOR WIRE NO 2		9	2	S 2
P3- 5	P9- 5	SPARE	316	COAX	2A	
P3- 6	SHIELD 2	SHIELD	22	90	2S	
P3-	P9-	JACKET FOR WIRE NO 3		9	3	S 3
P3- 7	P9- 7	SPARE	316	COAX	3A	
P3- 8	SHIELD 3	SHIELD	22	90	3S	
P3-	P9-	JACKET FOR WIRE NO 4		9	4	S 4
P3- 9	P9- 9	REAR ENCODER B	316	COAX	4A	
P3- 10	SHIELD4 SHIELD		22	90	4S	
P3-	P9-	JACKET FOR WIRE NO 5		9	5	S 5
P3- 11	P9- 11	REAR ENCODERA	316	COAX	5A	
P3- 12	SHIELD 5	SHIELD	22	90	5S	
P3-	P9-	JACKET FOR WIRE NO 6		9	6	S 6
P3- 13	P9- 13	FRONT ENCODER B	316	COAX	6A	
P3- 14	SHIELD 6	SHIELD	22	90	6S	
P3-	P9-	JACKET FOR WIRE NO 7		9	7	S 7
P3- 15	P9- 15	FRONT ENCODER A	316	COAX	7A	
P3- 16	SHIELD 7	SHIELD	22	90	7S	
P3- 17	SHIELD 8	SHIELD	22	90	8S	
P3-	P9-	JACKET FOR WIRE NO 8		9	8	S 8
P3- 18	P9- 18	+5VDC ENCODER	22	9	8A	
P3- 19	P9- 19	+5V RETURN ENCODER	22	6	88	
P3- 20	SHIELD 9	SHIELD	22	90	9S	
P3-	P9-	JACKET FOR WIRE NO 9		9	9	S 9
P3- 21	P9- 21	SPARE	22	9	9A	
P3- 22	P9- 22	SPARE	22	6	9B	
P9	(J9)	CURSOR ELEC				
P9-	P3-	JACKET FOR WIRE NO 2		9	2	S 2
P9- 5	P3- 5	SPARE	316	COAX	2A	
P9- 6	SHIELD 2	SHIELD	22	90	2F	
P9-	P3-	JACKET FOR WIRE NO 3		9	3	S 3
P9- 7	P3- 7	SPARE	316	COAX	3A	
P9- 8	SHIELD 3	SHIELD	22	90	3F	
P9-	P3-	JACKET FOR WIRE NO 4		9	4	S 4
P9- 9	P3- 9	REAR ENCODER B	316	COAX	4A	
P9- 10	SHIELD 4	SHIELD	22	90	4F	
P9-	P3-	JACKET FOR WIRE NO 5		9	5	S 5
P9- 11	P3- 11	REAR ENCODERA	316	COAX	5A	
P9- 12	SHIELD 5	SHIELD	22	90	5F	
P9-	P3-	JACKET FOR WIRE NO 6		9	6	S 6
P9- 13	P3- 13	FRONT ENCODER B	316	COAX	6A	
P9- 14	SHIELD 6	SHIELD	22	90	6F	
P9-	P3-	JACKET FOR WIRE NO 7		9	7	S 7
P9- 15	P3- 15	FRONT ENCODER A	316	COAX	7A	
P9- 16	SHIELD 7	SHIELD	22	90	7F	
P9- 17	SHIELD 8	SHIELD	22	90	8F	
P9-	P3-	JACKET FOR WIRE NO 8		9	8	S 8
P9- 18	P3- 18	+5VDC ENCODER	22	9	8A	
P9- 19	P3- 19	+5V RETURN ENCODER	22	6	8B	
P9- 20	SHIELD 9	SHIELD	22	90	9F	
P9-	P3-	JACKET FOR WIRE NO 9		9	9	S 9
P9- 21	P3- 21	SPARE	22	9	9A	
P9- 22	P3- 22	SPARE	22	6	9B	

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TABLE 6-20. CABLE W21 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P5	(J5)	RIGHT CONTROL PANEL				
P5-	P6-	JACKET FOR WIRE NO 2		9	2	S 2
P5- 2	P6- 2	RETICLE ON/OFF SW	22	9	2A	
P5- 3	P6- 3	RETICLE LAMP POT WIPER	22	6	2B	
P5- 4	P6- 4	RETICLE LAMP POT LOW	22	3	2C	
P5- 5	SHIELD 2	SHIELD	22	0	2F	
P5-	P6-	JACKET FOR WIRE NO 3		9	3	S 3
P5- 6	P6- 6	DIRECT VIEW INTLK (LAMP)	22	9	3A	
P5- 7	P6- 7	STEREO INTLK (LAMP)	22	6	38	
P5- 8	SHIELD 3	SHIELD	22	0	3F	
P5- 9	P6- 9	STEREO HIGH TEMP LAMP	22	3	3C	
P5- 10	P6- 10	DIR VIEW HIGH TEMP LAMP	22	5	3D	
P5- 11	P6- 11	SPARE	22	9	5	T 6
P5- 12	P6- 12	SPARE	22	9	6	T 7
P5- 13	P6- 13	SPARE	22	9	7	T 5
P5- 14	P6- 14	SPARE	22	9	8	T 9
P5- 15	P6- 15	SPARE	22	9	9	T 8
P5- 16	SHIELD 10	SHIELD	22	0	10F	
P5-	P6- 10	JACKET FOR WIRE NO 10		9	10	S 10
P5- 17	P6- 17	+6V ZENERED SLACK LOOP	22	9	10A	
P5- 18	P6- 18	+28VDC RGLTD SLACK LOOP	22	6	108	
P5- 19	P6- 19	28V & 6V RETURN	22	3	10C	
P5-	P6-	JACKET FOR WIRE NO 15		9	15	S15
P5- 20	P6- 20	+28VDC RGLTD	22	9	15A	
SHIELD 15	SHIELD 10	SHIELD	22	0	15F	
P5- 21	P6- 21	+28VRETURN	22	6	15B	
P5- 22	SHIELD 11	SHIELD	22	0	11F	
P5-	P6-	JACKET FOR WIRE NO 11		9	11	S11
P5- 23	P6- 23	0 TO 6VDC CURSOR LAMP	22	9	11A	
P5- 24	P6- 24	0 TO 6VDC CURSOR LAMP	22	6	11B	
P5- 25	P6- 25	0 TO 6VDC CURSOR LAMP	22	3	11C	
P5-	P6-	JACKET FOR WIRE NO 16		9	16	S 16
P5- 26	P6- 26	DC RETURN CURSOR LAMP	22	9	16A	
SHIELD 16	SHIELD 11	SHIELD	22	0	16F	
P5- 27	P6- 27	DC RETURN CURSOR LAMP	22	6	16B	
P5- 28	P6- 28	DC RETURN CURSOR LAMP	22	3	16C	
P5-	P6-	JACKET FOR WIRE NO 12		9	12	S 12
P5- 29	P6- 29	DIR VIEW DMR CONT HIGH	22	9	12A	
P5- 30	P6- 30	DIR VIEW DMR CONT WIPER	22	6	12B	
P5- 31	P6- 31	DIR VIEW DMR CONT LOW	22	3	12C	
P5- 32	SHIELD 12	SHIELD	22	0	12F	
P5-	P6-	JACKET FOR WIRE NO 13		9	13	S 13
P5- 33	P6- 33	STEREO DMR CONT HIGH	22	9	13A	
SHIELD 13	SHIELD 12	SHIELD	22	0	13F	
P5- 34	P6- 34	STEREO DMR CONT WIPER	22	6	13B	
P5- 35	P6- 35	STEREO DMR CONT LOW	22	3	13C	
P5-	P6-	JACKET FOR WIRE NO 14		9	14	S 14
P5- 36	P6- 36	STEREO TEMP CONT BFR	22	9	14A	
SHIELD 14	SHIELD 13	SHIELD	22	0	14F	
P5- 37	P6- 37	DIR VIEW TEMP CONT BFR	22	6	148	
P6	(J6)	POWER SUPPLY				
P6-	P5-	JACKET FOR WIRE NO 2		9	2	S 2
P6- 2	P5- 2	RETICLE ON/OFF SW	22	9	2A	
P6- 3	P5- 3	RETICLE LAMP POT WIPER	22	6	2B	
P6- 4	P5- 4	RETICLE LAMP POT LOW	22	3	2C	
P6- 5	SHIELD 2	SHIELD	22	0	2S	
P6-	P5-	JACKET FOR WIRE NO 3		9	3	S 3
P6- 6	P5- 6	DIRECT VIEW INTLK (LAMP)	22	9	3A	

TABLE 6-20. CABLE W21 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P6- 7	P5- 7	STEREO INTLK (LAMP)	22	6	3B	
P6- 8	SHIELD 3	SHIELD	22	0	3S	
P6- 9	P5- 9	STEREO HIGH TEMP LAMP	22	3	3C	
P6- 10	P5- 10	DIR VIEW HIGH TEMP LAMP	22	5	3D	
P6- 11	P5- 11	SPARE	22	9	5	T 6
P6- 12	P5- 12	SPARE	22	9	6	T 7
P6- 13	P5- 13	SPARE	22	9	7	T 5
P6- 14	P5- 14	SPARE	22	9	8	T 9
P6- 15	P5- 15	SPARE	22	9	9	T 8
P6- 16	SHIELD 10	SHIELD	22	0	10S	
P6-	P5-	JACKET FOR WIRE NO 10		9	10	S 10
P6- 17	P5- 17	+6V ZENERED SLACK LOOP	22	9	10A	
P6- 18	P5- 18	+28VDC RGLTD SLACK LOOP	22	6	10B	
P6- 19	P5- 19	28V & 6V RETURN	22	3	10C	
P6-	P5-	JACKET FOR WIRE NO 15		9	15	S 15
P6- 20	P5- 20	+28VDC RGLTD	22	9	15A	
SHIELD 15	SHIELD 10	SHIELD	22	0	15S	
P6- 21	P5- 21	+28VRETURN	22	6	158	
P6- 22	SHIELD 11	SHIELD	22	0	11S	
P6-	P5-	JACKET FOR WIRE NO 11		9	11	S 11
P6- 23	P5- 23	0 TO 6VDC CURSOR LAMP	22	9	11A	
P6- 24	P5- 24	0 TO 6VDC CURSOR LAMP	22	6	11B	
P6- 25	P5- 25	0 TO 6VDC CURSOR LAMP	22	3	11C	
P6-	P5-	JACKET FOR WIRE NO 16		9	16	S 16
P6- 26	P5- 26	DC RETURN CURSOR LAMP	22	9	16A	
SHIELD 16	SHIELD 11	SHIELD	22	0	16S	
P6- 27	P5- 27	DC RETURN CURSOR LAMP	22	6	16B	
P6- 28	P5- 28	DC RETURN CURSOR LAMP	22	3	16C	
P6-	P5-	JACKET FOR WIRE NO 12		9	12	S 12
P6- 29	P5- 29	DIR VIEW DMR CONT HIGH	22	9	12A	
P6- 30	P5- 30	DIR VIEW DMR CONT WIPER	22	6	128	
P6- 31	P5- 31	DIR VIEW DMR CONT LOW	22	3	12C	
P6- 32	SHIELD 12	SHIELD	22	0	12S	
P6-	P5-	JACKET FOR WIRE NO 13		9	13	S 13
P6- 33	P5- 33	STEREO DMR CONT HIGH	22	9	13A	
SHIELD 13	SHIELD 12	SHIELD	22	0	13S	
P6- 34	P5- 34	STEREO DMR CONT WIPER	22	6	138	
P6- 35	P5- 35	STEREO DMR CONT LOW	22	3	13C	
P6-	P5-	JACKET FOR WIRE NO 14		9	14	S 14
P6- 36	P5- 36	STEREO TEMP CONT BFR	22	9	14A	
SHIELD 14	SHIELD 13	SHIELD	22	0	14S	
P6- 37	P5- 37	DIR VIEW TEMP CONT BFR	22	6	148	

TABLE 6-21. CABLE W23 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
9W23P1- A	14W23P5- A	+28 VDC UNRGLTD	12	91	1	T 2
9W23P1- B	14W23P5- B	+28 VDC UNRGLTD	12	92	2	T 3
9W23P1-	14W23P5-	JACKET FOR WIRE NO 13		905	13	S 13
9W23P1- C	14W23P5- C	FAN PHASE A	18	9	13A	
9W23P1- D	14W23P5- D	28 V RETURN	12	93	3	T 4
9W23P1- E	14W23P5- E	28 V RETURN	12	94	4	T 1
9W23P1- F	14W23P5- F	FAN PHASE B	18	6	13B	
9W23P1- G	14W23P5- G	FANPHASEC	18	3	13C	
9W23P1- H	SHIELD 13	SHIELD	20	90	13S	
9W23P1-	14W23P5-	JACKET FOR WIRE NO 14		906	14	S 14
9W23P1- J	14W23P5- J	115 VACRETURN	22	9	14A	
9W23P1- K	14W23P5- K	I15 VACPH A ETM	22	6	148	
9W23P1- L	14W23P5- L	+6 VDC UNRGLTD	12	95	5	T 6
9W23P1- M	14W23P5- M	+6VDC UNRGLTD	12	96	6	T 7
9W23P1- N	SHIELD 14	SHIELD	20	90	14S	
9W23P1- P	14W23P5- P	6 V RETURN	12	97	7	T 8
9W23P1- R	14W23P5- R	6 V RETURN	12	98	8	T 5
9W23P1- S	14W23P5- S	STAR	12	901	9	T 10
9W23P1- T	14W23P5- T	STAR	12	902	10	T 9
9W23P1-	14W23P5-	JACKET FOR WIRE NO 15		907	15	S 15
9W23P1- U	14W23P5- U	+5VDC	18	9	15A	
9W23P1- V	14W23P5- V	+5VDC	18	6	158	
9W23P1- W	14W23P5- W	5 V RETURN	18	3	15C	
9W23P1- X	14W23P5- X	28VDC GP	12	904	12	T11
9W23P1- Y	14W23P5- Y	28VDC RETURN	12	903	11	T12
9W23P1- Z	14W23P5- Z	SVRETURN	18	5	15D	
9W23P1- >A	SHIELD 15	SHIELD	20	90	15S	
14W23P5						
14W23P5- A	9W23P1- A	+28 VDC UNRGLTD	12	91	1	T 2
14W23P5- B	9W23P1- B	+28 VDC UNRGLTD	12	92	2	T 3
14W23P5-	9W23P1-	JACKET FOR WIRE NO 13		905	13	S 13
14W23P5- C	9W23P1- C	FAN PHASE A	18	9	13A	
14W23P5- D	9W23P1- D	28 V RETURN	12	93	3	T 4
14W23P5- E	9W23P1- E	28 V RETURN	12	94	4	T 1
14W23P5- F	9W23P1- F	FAN PHASE B	18	6	138	
14W23P5- G	9W23P1- G	FANPHASEC	18	3	13C	
14W23P5- H	SHIELD 13	SHIELD	20	90	13F	
14W23P5-	9W23P1-	JACKET FOR WIRE NO 14		906	14	S 14
14W23P5- J	9W23P1- J	115 VACRETURN	22	9	14A	
14W23P5- K	9W23P1- K	115 VACPH A ETM	22	6	148	
14W23P5- L	9W23P1- L	+6 VDC UNRGLTD	12	95	5	T 6
14W23P5- M	9W23P1- M	+6 VDC UNRGLTD	12	96	6	T 7
14W23P5- N	SHIELD 14	SHIELD	20	90	14F	
14W23P5- P	9W23P1- P	6 V RETURN	12	97	7	T 8
14W23P5- R	9W23P1- R	6 V RETURN	12	98	8	T 5
14W23P5- S	9W23P1- S	STAR	12	901	9	T 10
14W23P5- T	9W23P1- T	STAR	12	902	10	T 9
14W23P5-	9W23P1-	JACKET FOR WIRE NO 15		907	15	S15
14W23P5- U	9W23P1- U	+5 VDC	18	9	15A	
14W23P5- V	9W23P1- V	+5 VDC	18	6	15B	
14W23P5- W	9W23P1- W	5 V RETURN	18	3	15C	
14W23P5- X	9W23P1- X	28VDC GP	12	904	12	T11
14W23P5- Y	9W23P1- Y	28VDC RETURN	12	903	11	T12
14W23P5- Z	9W23P1- Z	5 V RETURN	18	5	15D	
14W23P5- >A	SHIELD 15	SHIELD	20	90	15F	

TABLE 6-22. CABLE W24 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3	(J3)	CURSOR ELECTRONICS				
P3-	P9-	JACKET FOR WIRE NO 2		9	2	S 2
P3- G	P9- G	+15 VDC	20	9	2A	
P3- H	P9- H	+15 VDC	20	6	28	
P3- J	P9- J	+1SVRETURN	20	3	2C	
P3- K	P9- K	+15 V RETURN	20	5	2D	
P3- L	SHIELD 3	SHIELD	22	0	3F	
P3-	P9-	JACKET FOR WIRE NO 3		9	3	S 3
P3- M	P9- M	-15 VDC	20	9	3A	
P3- N	P9- N	-15 VDC	20	6	3B	
P3- P	P9- P	-15 V RETURN	20	3	3C	
P3- R	P9- R	-15 V VRETURN	20	5	3D	
P3- S	SHIELD 4	SHIELD	22	0	4F	
P3-	P9-	JACKET FOR WIRE NO 4		9	4	S 4
P3- T	P9- T	SPARE	20	9	4A	
P3- U	P9- U	SPARE	20	6	48	
P9	(J9)	POWER SUPPLY				
P9- F	SHIELD 2	SHIELD	22	0	2S	
P9-	P3-	JACKET FOR WIRE NO 2		9	2	S 2
P9- G	P3- G	+15 VDC	20	9	2A	
P9- H	P3- H	+15 VDC	20	6	2B	
P9- J	P3- J	+ 15 V RETURN	20	3	2C	
P9- K	P3- K	+15 V RETURN	20	5	2D	
P9- L	SHIELD 3	SHIELD	22	0	3S	
P9-	P3-	JACKET FOR WIRE NO 3		9	3	S 3
P9- M	P3- M	-15 VDC	20	9	3A	
P9- N	P3- N	-15 VDC	20	6	3B	
P9- P	P3- P	-15 V RETURN	20	3	3C	
P9- R	P3- R	-15 V RETURN	20	5	3D	
P9- S	SHIELD 4	SHIELD	22	0	4S	
P9-	P3-	JACKET FOR WIRE NO 4		9	4	S 4
P9- T	P3- T	SPARE	20	9	4A	
P9- U	P3- U	SPARE	20	6	4B	

TABLE 6-23. CABLE W30 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
11W30P1							
11W30P1-	14W30P4-		JACKET FOR WIRE NO 1		91	1	S 1
11W30P1-	1 14W30P4-	1	JOY STICK X DIRECTION	22	9	1A	
11W30P1-	2 14W30P4-	2	JOY STICK X	22	6	1	T
11W30P1-	3 14W30P4-	3	JOY STICK X RETURN	22	3	1C	
11W30P1-	4 SHIELD	1	SHIELD	22	90	1S	
11W30P1-	14W30P4-		JACKET FOR WIRE NO 2		92	2	S 2
11W30P1-	5 14W30P4-	5	JOY STICK Y DIRECTION	22	9	2A	
11W30P1-	6 14W30P4-	6	JOY STICK Y	22	6	2B	
11W30P1-	7 14W30P4-	7	JOYSTICK Y RETURN	22	3	2C	
11W30P1-	8 SHIELD	2	SHIELD	22	90	2S	
11W30P1-	9 SHIELD	3	SHIELD	22	90	3S	
11W30P1-	14W30P4-		JACKET FOR WIRE NO 3		93	3	S 3
11W30P1-	1014W30P4-	10	CURSOR ENTER NO	22	9	3A	
11W30P1-	1114W30P4-	11	CURSOR ENTER NC	22	6	38	
11W30P1-	1214W30P4-	12	5 V RETURN	22	3	3C	
11W30P1-	13 SHIELD	4	SHIELD	22	90	4S	
11W30P1-	14W30P4-		JACKET FOR WIRE NO 4		94	4	S 4
11W30P1-14	14W30P4-	14	15 V RETURN	22	9	4A	
11W30P1-15	14W30P4-	15	-15 VDC	22	6	48	
11W30P1-16	14W30P4-	16	+15 VDC	22	3	4C	
11W30P1-17	SHIELD	5	SHIELD	22	90	5S	
11W30P1-	14W30P4-		JACKET FOR WIRE NO 5		95	5	S 5
11W30P1-18	14W30P4-	18	28 VDC GP	22	9	5A	
11W30P1-19	14W30P4-	19	28 VDC RTN	22	6	5B	
11W30P1-20	SHIELD	6	SHIELD	22	90	6S	
11W30P1-	14W30P4-		JACKET FOR WIRE NO 6		96	6	S 6
11W30P1-21	14W30P4-	21	SPARE	22	9	6A	
11W30P1-22	14W30P4-	22	SPARE	22	6	6B	
14W30P4							
14W30P4-	11W30P1-		JACKET FOR WIRE NO 1		91	1	S 1
14W30P4- 1	11W30P1-	1	JOY STICK X DIRECTION	22	9	1A	
14W30P4- 2	11W30P1-	2	JOY STICK X	22	6	1B	
14W30P4- 3	11W30P1-	3	JOY STICK X RETURN	22	3	1C	
14W30P4- 4	SHIELD	1	SHIELD	22	90	1F	
14W30P4-	11W30P1-		JACKET FOR WIRE NO 2		92	2	S 2
14W30P4- 5	11W30P1-	5	JOY STICK Y DIRECTION	22	9	2A	
14W30P4- 6	11W30P1-	6	JOY STICK Y	22	6	2B	
14W30P4- 7	11W30P1-	7	JOY STICKY RETURN	22	3	2C	
14W30P4- 8	SHIELD	2	SHIELD	22	90	2F	
14W30P4- 9	SHIELD	3	SHIELD	22	90	3F	
14W30P4-	11W30P1-		JACKET FOR WIRE NO 3		93	3	S 3
14W30P4-10	11W30P1-	10	CURSOR ENTER NO	22	9	3A	
14W30P4-11	11W30P1-	11	CURSOR ENTER NC	22	6	38	
14W30P4-12	11W30P1-	12	5 V RETURN	22	3	3C	
14W30P4-13	SHIELD	4	SHIELD	22	90	4F	
14W30P4-	11W30P1-		JACKET FOR WIRE NO 4		94	4	S 4
14W30P4-14	11W30P1-	14	15 V RETURN	22	9	4A	
14W30P4-15	11W30P1-	15	-15VDC	22	6	48	
14W30P4-16	11W30P1-	16	+15VDC	22	3	4C	
14W30P4-17	SHIELD	5	SHIELD	22	90	5F	
14W30P4-	11W30P1-		JACKET FOR WIRE NO 5		95	5	S 5
14W30P4-18	111W30P1-	18	28 VDC GP	22	9	5A	
14W30P4-19	11W30P1-	19	28VDC RTN	22	6	58	
14W30P4-20	SHIELD	6	SHIELD	22	90	6F	
14W30P4-	11W30P1-		JACKET FOR WIRE NO 6		96	6	S 6
14W30P4-21	11W30P1-	21	SPARE	22	9	6A	
14W30P4-22	11W30P1-	22	SPARE	22	6	6B	

TABLE 6-24. CABLE W34 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(J2)	STEREO LAMP				
P2-	P5-	JACKET FOR WIRE NO 1	9	1 S 1		
P2- 1	P5- 1	SPARE	22	9		1A
P2- 2	P5- 2	SPARE	22	6	1B	
P2- 3	P5- 3	SPARE	22	3	1C	
P2- 4	SHIELD 1	SHIELD	22	0	1S	
P2- 5	SHIELD 2	SHIELD	22	0	2S	
P2-	P5-	JACKET FOR WIRE NO 2	9	2S 2		
P2- 6	P5- 6	SPARE	22	9	2A	
P2- 7	P5- 7	SPARE	22	6	28	
P2- 11	SHIELD 4	SHIELD	22	0	4S	
P2-	P5-	JACKET FOR WIRE NO 4	9	4S 4		
P2- 12	P5- 12	HV INTLK (LAMP)	22	9	4A	
P2- 13	P5- 13	HVINTLK	22	6	48	
P2-	P5-	JACKET FOR WIRE NO 5	9	5S 5		
P2- 14	P5- 14	FILM XPORT INTLK	22	9	5A	
P2- 15	P5- 15	FILM XPORT INTLK	22	6	58	
P2- 16	SHIELD 5	SHIELD	22	0	5S	
P2-	P5-	JACKET FOR WIRE NO 6	9	6 S 6		
P2- 17	P5- 17	STEREO HEATER PHASE C	22	9	6A	
P2- 18	P5- 18	STEREO HEATER PH B DRIVE	22	6	68	
P2- 19	SHIELD 6	SHIELD	22	0	6S	
P2-	P5-	JACKET FOR WIRE NO 7	9	7S 7		
P2- 20	P5- 20	STEREO TEMP SENSOR HIGH	22	9	7A	
P2- 21	P5- 21	STEREO TEMP SENSOR LOW	22	6	78	
P2- 22	SHIELD 7	SHIELD	22	0	7S	
P5	(J5)	JUNCTION BOX				
P5-	P2-	JACKET FOR WIRE NO 1	9	1 S 1		
P5- 1	P2- 1	SPARE	22	9	1A	
P5- 2	P2- 2	SPARE	22	6	IB	
P5- 3	P2- 3	SPARE	22	3	1C	
P5- 4	SHIELD 1	SHIELD	22	0	1F	
P5- 5	SHIELD 2	SHIELD	22	0	2F	
P5-	P2-	JACKET FOR WIRE NO 2	9	2 S 2		
P5- 6	P2- 6	SPARE	22	9	2A	
P5- 7	P2- 7	SPARE	22	6	2B	
P5- 11	SHIELD 4	SHIELD	22	0	4F	
P5-	P2-	JACKET FOR WIRE NO 4	9	4 S 4		
P5- 12	P2- 12	HVINTLK(LAMP)	22	9	4A	
P5- 13	P2- 13	HVINTLK	22	6	4B	
P5-	P2-	JACKET FOR WIRE NO 5	9	5 S 5		
P5- 14	P2- 14	FILM XPORT INTLK	22	9	5A	
P5- 15	P2- 15	FILM XPORT INTLK	22	6	58	
P5- 16	SHIELD 5	SHIELD	22	0	5F	
P5-	P2-	JACKET FOR WIRE NO 6	9	6 S 6		
P5- 17	P2- 17	STEREO HEATER PHASE C	22	9	6A	
P5- 18	P2- 18	STEREO HEATER PH B DRIVE	22	6	6B	
P5- 19	SHIELD 6	SHIELD	22	0	6F	
P5-	P2-	JACKET FOR WIRE NO 7	9	7S 7		
P5- 20	P2- 20	STEREO TEMP SENSOR HIGH	22	9	7A	
P5- 21	P2- 21	STEREO TEMP SENSOR LOW	22	6	7B	
P5- 22	SHIELD 7	SHIELD	22	0	7F	

905671-B

TABLE 6-25. CABLE W35 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P7	(J7)	JUNCTION BOX				
P7-	A10XDS2-	JACKET FOR WIRE NO 1	90	1 S 1		
P7- 1	A10XDS2- 1	+28 V SLACK LOOP LAMPS	22	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	90	1S	
P7-	A10SI-	JACKET FOR WIRE NO 2	91	2S 2		
P7- 2	A10SI- C	+28 V RTN SLACK LOOP LAMP SW	22	9	2A	
P7- 3	SHIELD 2	SHIELD	22	90	2S	
P7-	A10S2-	JACKET FOR WIRE NO 3	92	3S 3		
P7- 4	A10S2- C	+5 V TRANSPORTINTLK	22	9	3A	
P7-	A10S2-	JACKET FOR WIRE NO 4	93	4S 4		
P7- 5	A10S2- NC	+5 V TRANSPORTINTLK	22	9	4A	
P7- 6	SHIELD 4	SHIELD	22	90	4S	
P7- 7	SPARE 22	90	5	T 6		
P7- 8	SPARE 22	91	6	T 5		
A10E		TERMINAL POST				
A10E- 17	SHIELD W35	CHASSIS GROUND	22	0	7	
A10E- 17	SHIELD 1	SHIELD	22	90	1F	
A10E- 18	SHIELD 3	SHIELD	22	90	3F	
A10E- 18	SHIELD 4	SHIELD	22	90	4F	
A10E- 18	SHIELD 2	SHIELD	22	90	2F	
A10SI-	P7-	JACKET FOR WIRE NO 2	91	2 S 2		
A10SI- C	P7- 2	+28 V RTN SLACK LOOP LAMP SW	22	9	2A	
SHIELD 2	A10E- 18	SHIELD	22	90	2F	
A10SL		SLACK LOOP LAMP SW				
A10S2-	P7-	JACKET FOR WIRE NO 3	92	3S 3		
A10S2- C	P7- 4	+5 VTRANSPORTINTLK	22	9	3A	
SHIELD 3	A10E- 18	SHIELD	22	90	3F	
A10S2-	P7-	JACKET FOR WIRE NO 4	93	4 S 4		
A10S2- NC	P7- 5	+5 VTRANSPORTINTLK	22	9	4A	
A10S2		SWITCH				
SHIELD 4	A10E- 18	SHIELD	22	90	4F	
A10XDS2		SLACK LOOP LAMP SOCKET				
A10XDS2- P7-	JACKET FOR WIRE NO 1		90	1 S 1		
A10XDS2- 1	P7- 1	+28 V SLACK LOOP LAMPS	22	9	1A	
SHIELD 1	A10E- 17	SHIELD	22	90	1F	

905672-B

TABLE 6-26. CABLE W36 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P5	(J5)	FILM 'X' MOTOR				
P5- 1	P9- 8	FILM X MOTOR RETURN	22	9	8	
P5- 2	P9- 10	FILM X MOTOR RETURN	22	9	10	
P5- 3	P9- 7	FILM X MOTOR RETURN	22	9	7	
P5- 6	P9- 2	FILM X MOTORW	22	9	2	
P5- 7	P9- 5	FILM X MOTORZ	22	9	5	
P5- 8	P9- 3	FILM X MOTORX	22	9	3	
P5- 9	P9- 9	FILM X MOTOR RETURN	22	9	9	
P5- 10	P9- 6	FILM X MOTOR RETURN	22	9	6	
P5- 14	P9- 1	FILM X MOTOR V	22	9	1	
P5- 15	P9- 4	FILM X MOTOR Y	22	9	4	
P9- 1	P5- 14	FILM X MOTOR V	22	9	1	
P9- 2	P5- 6	FILM X MOTORW	22	9	2	
P9- 3	P5- 8	FILM X MOTOR X	22	9	3	
P9- 4	P5- 15	FILM X MOTOR Y	22	9	4	
P9- 5	P5- 7	FILM X MOTORZ	22	9	5	
P9	(J9)	JUNCTION BOX				
P9- 6	P5- 10	FILM X MOTOR RETURN	22	9	6	
P9- 7	P5- 3	FILM X MOTOR RETURN	22	9	7	
P9- 8	P5- 1	FILM X MOTOR RETURN	22	9	8	
P9- 9	P5- 9	FILM X MOTOR RETURN	22	9	9	
P9- 10	P5- 2	FILM X MOTOR RETURN	22	9	10	
E1	TERMINAL					
E1	SHIELD W36	SHIELD	22	90	11	

TABLE 6-27. CABLE W37 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P4	(J4)	FILM 'Y' MOTOR				
P4- 1	P8- 8	FILM Y MOTOR RETURN	22	9	8	
P4- 2	P8- 10	FILM Y MOTOR RETURN	22	9	10	
P4- 3	P8- 7	FILM Y MOTOR RETURN	22	9	7	
P4- 6	P8- 2	FILM Y MOTOR W	22	9	2	
P4- 7	P8- 5	FILM Y MOTOR Z	22	9	5	
P4- 8	P8- 3	FILM Y MOTOR X	22	9	3	
P4- 9	P8- 9	FILM Y MOTOR RETURN	22	9	9	
P4- 10	P8- 6	FILM Y MOTOR RETURN	22	9	6	
P4- 14	P8- 1	FILM Y MOTORV	22	9	1	
P4- 15	P8- 4	FILM Y MOTOR Y	22	9	4	
P8-	(J8)	JUNCTION BOX				
P8- 1	P4- 14	FILM Y MOTOR V	22	9	1	
P8- 2	P4- 6	FILM Y MOTOR W	22	9	2	
P8- 3	P4- 8	FILM Y MOTOR X	22	9	3	
P8- 4	P4- 15	FILM Y MOTORY	22	9	4	
P8- 5	P4- 7	FILM Y MOTORZ	22	9	5	
P8- 6	P4- 10	FILM Y MOTOR RETURN	22	9	6	
P8- 7	P4- 3	FILM Y MOTOR RETURN	22	9	7	
P8- 8	P4- 1	FILM Y MOTOR RETURN	22	9	8	
P8- 9	P4- 9	FILM Y MOTOR RETURN	22	9	9	
P8- 10	P4- 2	FILM Y MOTOR RETURN	22	9	10	
E1		TERMINAL				
E1	SHIELD W37	SHIELD	22	0	11	

905674-A

TABLE 6-28. CABLE W38 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3	(J3)	DIRECT VIEW				
P3-	P4-	JACKET FOR WIRE NO 1		9	1	S 1
P3- 1	P4 1	FILM FINAL LIM CCW X	22	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	90	1S	
P3- 2	P4- 2	FILM FINAL LIM CW X	22	6	1B	
P3- 3	P4- 3	FILM FINAL LIM CCW Y	22	3	1C	
P3- 4	P4- 4	FILM FINAL LIM CW Y	22	5	1D	
P3-	P4-	JACKET FOR WIRE NO 2		9	2	S 2
P3- 5	P4- 5	FIRST LIM FILM X	22	9	2A	
P3- 6	P4 6	FIRST LIM FILM Y	22	6	28	
P3- 7	P4- 7 15	V RETURN LIM SWITCH	22	3	2C	
P3- 8	SHIELD 2	SHIELD	22	90	2S	
P3- 9	P4- 9	SPARE	22	9	3	T 4
P3- 10	P4- 10	SPARE	22	9	4	T 5
P3- 11	P4 11	SPARE	22	9	5	T 3
P3- 12	P4- 12	SPARE	22	9	6	T 7
P3- 13	P4 13	SPARE	22	9	7	T 6
P3- 14	P4 14	FILM TRANSPORT INTLK	22	9	8	T 9
P3- 15	P4- 15	FILM TRANSPORT INTLK	22	9	9	T 8
P3- 16	SHIELD 11	SHIELD	22	90	11S	
P3-	P4-	JACKET FOR WIRE NO 10		9	10	S 10
P3- 17	P4- 17	CURSOR LAMP CONT 0 TO 6V	22	9	10A	
SHIELD 10	SHIELD 11	SHIELD	22	90	10S	
P3- 18	P4- 18	CURSOR LAMP CONT 0 TO 6V	22	6	10B	
P3- 19	P4- 19	CURSOR LAMP CONT 0 TO 6V	22	3	10C	
P3-	P4-	JACKET FOR WIRE NO 11		9	11	S11
P3- 20	P4- 20	CURSOR LAMP CONT DC RTN	22	9	11A	
P3- 21	P4- 21	CURSOR LAMP CONT DC RTN	22	6	11B	
P3- 22	P4- 22	CURSOR LAMP CONT DC RTN	22	3	11C	
P4	(J4)	JUNCT10N BOX				
P4-	P3-	JACKET FOR WIRE NO 1		9	1	S 1
P4- 1	P3- 1	FILM FINAL LIM CCW X	22	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	90	1F	
P4- 2	P3- 2	FILM FINAL LIM CW X	22	6	1B	
P4- 3	P3- 3	FILM FINAL LIM CCW Y	22	3	1C	
P4- 4	P3- 4	FILM FINAL LIM CW Y	22	5	1D	
P4-	P3-	JACKET FOR WIRE NO 2		9	2	S 2
P4- 5	P3- 5	FIRST LIM FILM X	22	9	2A	
P4- 6	P3- 6	FIRST LIM FILM Y	22	6	28	
P4- 7	P3- 7	15 V RETURN LIM SWITCH	22	3	2C	
P4- 8	SHIELD 2	SHIELD	22	90	2F	
P4- 9	P3- 9	SPARE	22	9	3	T 4
P4- 10	P3- 10	SPARE	22	9	4	T 5
P4- 11	P3- 11	SPARE	22	9	5	T 3
P4- 12	P3- 12	SPARE	22	9	6	T 7
P4- 13	P3- 13	SPARE	22	9	7	T 6
P4- 14	P3- 14	FILM TRANSPORT INTLK	22	9	8	T 9
P4- 15	P3- 15	FILM TRANSPORT INTLK	22	9	9	T 8
P4- 16	SHIELD 11	SHIELD	22	90	11F	
P4-	P3-	JACKET FOR WIRE NO 10		9	10	S 10
P4- 17	P3- 17	CURSORLAMPCONTOTOT6V	22	9	10A	
SHIELD 10	SHIELD 11	SHIELD	22	90	10F	
P4- 18	P3- 18	CURSOR LAMP CONT 0 TO 6V	22	6	10B	
P4- 19	P3- 19	CURSOR LAMP CONT 0 TO 6V	22	3	10C	
P4-	P3-	JACKET FOR WIRE NO 11		9	11	S11
P4- 20	P3- 20	CURSOR LAMP CONT DC RTN	22	9	11A	
P4- 21	P3- 21	CURSOR LAMP CONT DC RTN	22	6	11B	
P4- 22	P3- 22	CURSOR LAMP CONT DC RTN	22	3	11C	

TABLE 6-29. CABLE W39 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1	(J1)	JUNCTION BOX				
P1-	P2-	JACKET FOR WIRE NO 1		9	1	S 1
P1- 1	P2- 1	SPARE	22	9	1A	
P1- 2	P2- 2	SPARE	22	6	IB	
P1- 3	P2- 3	SPARE	22	3	1C	
P1- 4	SHIELD 1	SHIELD	22	0	1F	
P1- 5	SHIELD 2	SHIELD	22	0	2F	
P1-	P2-	JACKET FOR WIRE NO 2		9	2	S 2
P1- 6	P2- 6	SPARE	22	9	2A	
P1- 7	P2- 7	SPARE	22	6	2B	
P1-	P2-	JACKET FOR WIRE NO 4		9	4	S 4
P1- 11	P2- 11	DIR VIEW TEMP SNSR HIGH	22	9	4A	
P1- 12	P2- 12	DIR VIEW TEMP SNSR LOW	22	6	48	
P1- 13	SHIELD 4	SHIELD	22	0	4F	
P1-	P2-	JACKET FOR WIRE NO 5		9	5	S 5
P1- 14	P2- 14	115 V PH B DIR VIEW HEATER	22	9		5A
P1- 15	P2- 15	115 V PH B DRIVE DV HEATER	22	6	5B	
P1- 16	SHIELD 5	SHIELD	22	0	5F	
P1-	P2-	JACKET FOR WIRE NO 6		9	6	S 6
P1- 17	P2- 17	115 V PH B DIRVIEWFAN	22	9	6A	
P1- 18	P2- 18	115 V PH B DRIVE DIR VIEW FAN	22	6	68	
P1- 19	SHIELD 6	SHIELD	22	0	6F	
P1-	P2-	JACKET FOR WIRE NO 7		9	7	S 7
P1- 20	P2- 20	HVINTLK	22	9	7A	
P1- 21	P2- 21	HV INTLK (LAMP)	22	6	78	
P1- 22	SHIELD 7	SHIELD	22	0	7F	
P2	(J2)	DIRECT VIEW				
P2-	P1-	JACKET FOR WIRE NO 1		9	1	S 1
P2- 1	P1- 1	SPARE	22	9	1A	
P2- 2	P1- 2	SPARE	22	6	1B	
P2- 3	P1- 3	SPARE	22	3	1C	
P2- 4	SHIELD 1	SHIELD	22	0	1S	
P2- 5	SHIELD 2	SHIELD	22	0	2S	
P2-	P1-	JACKET FOR WIRE NO 2		9	2	S 2
P2- 6	P1- 6	SPARE	22	9	2A	
P2- 7	P1- 7	SPARE	22	6	2B	
P2-	P1-	JACKET FOR WIRE NO 4		9	4	S 4
P2- 11	P1- 11	DIR VIEWTEMP SNSR HIGH	22	9	4A	
P2- 12	P1- 12	DIR VIEW TEMP SNSR LOW	22	6	48	
P2- 13	SHIELD 4	SHIELD	22	0	4S	
P2-	P1-	JACKET FOR WIRE NO 5		9	5	S 5
P2- 14	P1- 14	115 V PH B DIR VIEW HEATER	22	9	5A	
P2- 15	P1- 15	115 V PH B DRIVE DV HEATER	22	6	5B	
P2- 16	SHIELD 5	SHIELD	22	0	5S	
P2-	P1-	JACKET FOR WIRE NO 6		9	6	S 6
P2- 17	P1- 17	115 V PH B DIRVIEWFAN	22	9	6A	
P2- 18	P1- 18	115 V PH B DRIVE DIR VIEW FAN	22	6	68	
P2- 19	SHIELD 6	SHIELD	22	0	6S	
P2-	P1-	JACKET FOR WIRE NO 7		9	7	S 7
P2- 20	PI- 20	HVINTLK	22	9	7A	
P2- 21	P1- 21	HV INTLK (LAMP)	22	6	78	
P2- 22	SHIELD 7	SHIELD	22	0	7S	

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TABLE 6-30. CABLE W40 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1	(J3)	SLACK LOOP				
P1-	P6-	JACKET FOR WIRE NO 1		9	1	S 1
P1- 1	P6- 1	SLACK LOOP MOTOR(+)	22	9	1A	
P1- 2	P6- 2	SLACK LOOP MOTOR (-)	22	6	1B	
P1- 3	SHIELD 1	SHIELD	22	0	1S	
P1-	P6-	JACKET FOR WIRE NO 2		9	2	S 2
P1- 4	P6- 4	SPARE	22	9	2A	
P1- 5	P6- 5	SPARE	22	6	28	
P1- 6	SHIELD 2	SHIELD	22	0	2S	
P6	(J6)	JUNCTION BOX				
P6-	P1-	JACKET FOR WIRE NO 1		9	1	S 1
P6- 1	P1- 1	SLACK LOOP MOTOR (+)	22	9	1A	
P6- 2	P1- 2	SLACK LOOP MOTOR (-)	22	6	1B	
P6- 3	SHIELD 1	SHIELD	22	0	IF	
P6-	P1-	JACKET FOR WIRE NO 2		9	2	S 2
P6-4	P1- 4	SPARE	22	9	2A	
P6- 5	P1- 5	SPARE	22	6	2B	
P6- 6	SHIELD 2	SHIELD	22	0	2F	

TABLE 6-31. CABLE W41 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(J2)	JUNCTION BOX				
P2- 1	P4- 1	SPARE	22	9	1	T 2
P2- 2	P4- 2	SPARE	22	9	2	T 3
P2- 3	P4- 3	SPARE	22	9	3	T 1
P2- 4	P4- 4	SPARE	22	9	4	T 5
P2- 5	P4- 5	SPARE	22	9	5	T 4
P2-	P4-	JACKET FOR WIRE NO 6		9	6	S 6
P2- 6	P4- 6	DIRECT VIEW INTLK (LAMP)	22	9	6A	
P2- 7	P4- 7	STEREO INTLK (LAMP)	22	6	6B	
P2- 8	P4- 8	STEREO HIGH TEMP LAMP	22	3	6C	
P2- 9	P4- 9	DIR VIEW HIGH TEMP LAMP	22	5	6D	
P2- 10	SHIELD 6	SHIELD	22	0	6S	
P2- 11	SHIELD 8	SHIELD	22	0	8S	
P2-	P4-	JACKET FOR WIRE NO 8		9	8	S 8
P2- 12	P4- 12	FILM FINAL LIM CCW X	22	9	8A	
P2- 13	P4- 13	FILM FINAL LIM CW X	22	6	8B	
P2- 14	P4- 14	FILM FINAL LIM CCW Y	22	3	8C	
P2- 15	P4- 15	FILM FINAL LIM CW Y	22	5	8D	
P2-	P4-	JACKET FOR WIRE NO 9		9	9	S 9
P2- 16	P4- 16	FILM X FIRST LIMIT	22	9	9A	
SHIELD 9	SHIELD 8	SHIELD	22	0	9S	
P2- 17	P4- 17	FILM Y FIRST LIMIT	22	6	9B	
P2- 18	P4- 18	+15 V RETURN LIM SW	22	3	9C	
P2-	P4-	JACKET FOR WIRE NO 10		9	10	S 10
P2- 19	P4- 19	0 TO 6 VDC CURSOR LAMP	22	9	10A	
SHIELD 10	SHIELD 15	SHIELD	22	0	10S	
P2- 20	P4- 20	0 TO 6 VDC CURSOR LAMP	22	6	10B	
P2- 21	P4- 21	0 TO 6 VDC CURSOR LAMP	22	3	10C	
P2- 22	P4- 22	DC RETURN CURSOR LAMP	22	3	15C	
P2-	P4-	JACKET FOR WIRE NO 15		9	15	S 15
P2- 23	P4- 23	DC RETURN CURSOR LAMP	22	9	15A	
P2- 24	P4- 24	DC RETURN CURSOR LAMP	22	6	15B	
P2- 25	SHIELD 10	SHIELD	22	0	15S	
P2-	P4-	JACKET FOR WIRE NO 11		9	11	S 11
P2- 26	P4- 26	+28VDC	22	9	11A	
SHIELD 11	SHIELD 12	SHIELD	22	0	11S	
P2- 27	P4- 27	HV INTLK (ON COMMAND)	22	6	11B	
P2- 28	P4- 28	28 V RETURN	22	3	11C	
P2-	P4-	JACKET FOR WIRE NO 12		9	12	S 12
P2- 29	P4- 29	FILM TRANSPORT INTLK	22	9	12A	
P2- 30	P4- 30	FILM TRANSPORT INTLK	22	6	12B	
P2- 31	SHIELD 12	SHIELD	22	0	12S	
P2-	P4-	JACKET FOR WIRE NO 13		9	13	S 13
P2- 32	P4- 32	SLACK LOOP MOTOR(+)	22	9	13A	
P2- 33	P4- 33	SLACK LOOP MOTOR (-)	22	6	13B	
P2- 34	SHIELD 13	SHIELD	22	0	13S	
P2-	P4-	JACKET FOR WIRE NO 14		9	14	S 14
P2- 35	P4- 35	STEREO TEMP CONT BFR	22	9	14A	
P2- 36	P4- 36	DIR VIEW TEMP CONT BFR	22	6	14B	
P2- 37	SHIELD 14	SHIELD	22	0	14S	
P4	(J4)	RIGHT CONTROL PANEL				
P4- 1	P2- 1	SPARE	22	9	1	T 2
P4- 2	P2- 2	SPARE	22	9	2	T 3
P4- 3	P2- 3	SPARE	22	9	3	T 1
P4- 4	P2- 4	SPARE	22	9	4	T 5
P4- 5	P2- 5	SPARE	22	9	5	T 4
P4-	P2-	JACKET FOR WIRE NO 6		9	6	S 6
P4- 6	P2- 6	DIRECT VIEW INTLK (LAMP)	22	9	6A	

TABLE 6-31. CABLE W41 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P4- 7	P2- 7	STEREO INTLK (LAMP)	22	6	68	
P4- 8	P2- 8	STEREO HIGH TEMP LAMP	22	3	6C	
P4- 9	P2- 9	DIR VIEW HIGH TEMP LAMP	22	5	6D	
P4- 10	SHIELD 6	SHIELD	22	0	6F	
P4- 11	SHIELD 8	SHIELD	22	0	8F	
P4-	P2-	JACKET FOR WIRE NO 8		9	8	S 8
P4- 12	P2- 12	FILM FINAL LIM CCW X	22	9	8A	
P4- 13	P2- 13	FILM FINAL LIM CW X	22	6	8B	
P4- 14	P2- 14	FILM FINAL LIM CCW Y	22	3	8C	
P4- 15	P2- 15	FILM FINAL LIM CW Y	22	5	8D	
P4-	P2-	JACKET FOR WIRE NO 9		9	9	S 9
P4- 16	P2- 16	FILM X FIRST LIMIT	22	9	9A	
SHIELD 9	SHIELD 8	SHIELD	22	0	9F	
P4- 17	P2- 17	FILM Y FIRST LIMIT	22	6	98	
P4- 18	P2- 18	+15 V RETURN LIM SW	22	3	9C	
P4-	P2-	JACKET FOR WIRE NO 10		9	10	S 10
P4- 19	P2- 19	0 TO 6 VDC CURSOR LAMP	22	9	10A	
SHIELD 10	SHIELD 15	SHIELD	22	0	10F	
P4- 20	P2- 20	0 TO 6 VDC CURSOR LAMP	22	6	10B	
P4- 21	P2- 21	0 TO 6 VDC CURSOR LAMP	22	3	10C	
P4- 22	P2- 22	DC RETURN CURSOR LAMP	22	3	15C	
P4-	P2-	JACKET FOR WIRE NO 15		9	15	S15
P4- 23	P2- 23	DC RETURN CURSOR LAMP	22	9	15A	
P4- 24	P2- 24	DC RETURN CURSOR LAMP	22	6	15B	
P4- 25	SHIELD 15	SHIELD	22	0	15F	
P4-	P2-	JACKET FOR WIRE NO 11		9	11	S 11
P4 26	P2- 26	+28VDC	22	9	11A	
SHIELD 11	SHIELD 12	SHIELD	22	0	11F	
P4 27	P2- 27	HV INTLK (ON COMMAND)	22	6	11B	
P4- 28	P2- 28	28 V RETURN	22	3	11C	
P4-	P2-	JACKET FOR WIRE NO 12		9	12	S 12
P4- 29	P2- 29	FILM TRANSPORT INTLK	22	9	12A	
P4- 30	P2- 30	FILM TRANSPORT INTLK	22	6	128	
P4- 31	SHIELD 12	SHIELD	22	0	12F	
P4-	P2-	JACKET FOR WIRE NO 13		9	13	S 13
P4- 32	P2- 32	SLACK LOOP MOTOR (+)	22	9	13A	
P4- 33	P2- 33	SLACK LOOP MOTOR (-)	22	6	138	
P4- 34	SHIELD 13	SHIELD	22	0	13F	
P4-	P2-	JACKET FOR WIRE NO 14		9	14	S 14
P4- 35	P2- 35	STEREO TEMP CONT BFR	22	9	14A	
P4- 36	P2- 36	DIR VIEW TEMP CONT BFR	22	6	148	
P4- 37	SHIELD 14	SHIELD	22	0	14F	

TABLE 6-32. CABLE W42 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P8	(J8)	CURSOR ELEC				
P8- 1	P10- 1	FILM 'Y' MOTOR VNOTE 5	22	9	1	
P8- 2	P10 2	FILM 'Y' MOTOR W	22	9	2	
P8- 3	P10 3	FILM 'Y' MOTOR X	22	9	3	
P8- 4	P10- 4	FILM 'Y MOTOR Y	22	9	4	
P8- 5	P10 5	FILM 'Y' MOTOR Z	22	9	5	
P8- 6	P10- 6	FILM 'Y- MOTOR RTN	22	9	6	
P8- 7	P10- 7	FILM 'Y' MOTOR RTN	22	9	7	
P8- 8	P10- 8	FILM 'Y' MOTOR RTN	22	9	8	
P8- 9	P10- 9	FILM Y MOTOR RTN	22	9	9	
P8- 10	P10- 10	FILM Y MOTOR RTN	22	9	10	
P8- 11	SHIELD 1	SHIELD	NOTE 7	22	0	1F
P8- 12	SHIELD 11	SHIELD	NOTE 8	22	0	11F
P8- 13	P10- 13	FILM X MOTORV	NOTE 6	22	9	11
P8- 14	P10- 14	FILM X MOTOR W	22	9	12	
P8- 15	P10- 15	FILM X MOTOR X	22	9	13	
P8- 16	P10- 16	FILM X MOTOR Y	22	9	14	
P8- 17	P10- 17	FILM X MOTORZ	22	9	15	
P8- 18	P10- 18	FILM X MOTOR RTN	22	9	16	
P8- 19	P10- 19	FILM X MOTOR RTN	22	9	17	
P8- 20	P10- 20	FILM X MOTOR RTN	22	9	18	
P8- 21	P10 21	FILM X MOTOR RTN	22	9	19	
P8- 22	P10- 22	FILM X MOTOR RTN	22	9	20	
P10-	(J10)	JUNCT10N BOX				
P10- 1	P8- 1	FILM 'Y' MOTOR VNOTE 5	22	9	1	
P10- 2	P8- 2	FILM 'Y' MOTOR W	22	9	2	
P10- 3	P8- 3	FILM 'Y' MOTOR X	22	9	3	
P10- 4	P8- 4	FILM 'Y' MOTOR Y	22	9	4	
P10- 5	P8- 5	FILM 'Y' MOTOR Z	22	9	5	
P10- 6	P8- 6	FILM'Y' MOTOR RTN	22	9	6	
P10- 7	P8- 7	FILM 'Y' MOTOR RTN	22	9	7 6	
P10- 8	P8- 8	FILM 'Y' MOTOR RTN	22	9	8	
P10- 9	P8- 9	FILM Y MOTOR RTN	22	9	9	
P10- 10	P8- 10	FILM Y MOTOR RTN	22	9	10	
P10- 11	SHIELD 1	SHIELD	NOTE 7	22	0	1S
P10- 12	SHIELD 11	SHIELD	NOTE 8	22	0	11S
P10- 13	P8- 13	FILMXMOTORV	NOTE6	22	9	11
P10- 14	P8- 14	FILM X MOTOR W	22	9	12	
P10- 15	P8- 15	FILM X MOTORX	22	9	13	
P10- 16	P8- 16	FILM X MOTORY	22	9	14	
P10- 17	P8- 17	FILM X MOTORZ	22	9	15	
P10- 18	P8- 18	FILM X MOTOR RTN	22	9	16	
P10- 19	P8- 19	FILM X MOTOR RTN	22	9	17	
P10- 20	P8- 20	FILM X MOTOR RTN	22	9	18	
P10- 21	P8- 21	FILM X MOTOR RTN	22	9	19	
P10- 22	P8- 22	FILM X MOTOR RTN	22	9	20	

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TABLE 6-33. CABLE W43 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(J2)	RIGHT CONTROL PANEL				
P2- 1	P7- 1	SPARE	22	9	1	T 2
P2- 2	P7- 2	SPARE	22	9	2	T 3
P2- 3	P7- 3	ACKET FOR WIRE NO 4		9	4	S 4
P2- 4	P7- 4	MAP Y JOY STICK OFF LGC	22	9	4A	
SHIELD 4	SHIELD 5	SHIELD	22	0	4S	
P2- 5	P7- 5	FILM Y JOY STICK OFF LGC	22	6	48	
P2- 6	P7- 6	Y JOY STICK OFF LGC	22	3	4C	
P2-	P7-	JACKET FOR WIRE NO 5		9	5	S 5
P2- 7	P7- 7	MAP X JOY STICK OFF LGC	22	9	5A	
P2- 8	P7- 8	FILM X JOY STICK OFF LGC	22	6	5B	
P2- 9	P7- 9	X JOY STICK OFF LOGIC	22	3	5C	
P2- 10	SHIELD 5	SHIELD	22	0	5S	
P2-	P7-	JACKET FOR WIRE NO 6		9	6	S 6
P2- 11	P7- 11	FILM CURSOR SELECT	22	9	6A	
SHIELD 6	SHIELD 7	SHIELD	22	0	6S	
P2- 12	P7- 12	MAP CURSOR SELECT	22	6	68	
P2- 13	P7- 13	CURSOR OFF LOGIC	22	3	6C	
P2- 14	P7- 14	+5 V DC OFF POSITION	22	5	6D	
P2-	P7-	JACKET FOR WIRE NO 7		9	7	S 7
P2- 15	P7- 15	15V RETURN	22	9	7A	
P2-	P7-	JACKET FOR WIRE NO 12		9	12	S 12
SHIELD 7	SHIELD 12	SHIELD	22	0	7S	
P2- 16	P7- 16	CURSOR SEL MAP Y	22	9	12A	
P2- 17	P7- 17	CURSOR SEL FILM Y	22	6	128	
P2- 18	P7- 18	CURSOR SEL MAP X	22	3	12C	
P2- 19	P7- 19	CURSOR SEL FILM X	22	5	12D	
P2- 20	SHIELD 12	SHIELD	22	0	12S	
P2-	P7-	JACKET FOR WIRE NO 8	9	8S 8		
P2- 21	P7- 21	CURSOR ENTER NO	22	9	8A	
SHIELD 8	SHIELD 12	SHIELD	22	0	8S	
P2- 22	P7- 22	CURSOR ENTER NO	22	6	8B	
P2- 23	P7- 23	+5 V RETURN	22	3	8C	
P2-	P7-	JACKET FOR WIRE NO 9	9	9S 9		
P2- 24	P7- 24	FILM X FIRST LIMIT	22	9	9A	
SHIELD 9	SHIELD 8	SHIELD	22	0	9S	
P2- 25	P7- 25	FILM Y FIRST LIMIT	22	6	9B	
P2- 26	P7- 26	STOWY	22	9	10	T11
P2- 27	P7- 27	STOWX	22	9	11	T10
P2- 28	P7- 28	+28 V RETURN	22	9	14	T 15
P2- 29	P7- 29	+15 V RETURN	22	9	15	T16
P2- 30	P7- 30	FILM FINAL LIM CCW Y	22	9	16	T 17
P2- 31	P7- 31	FILM FINAL LIM CW Y	22	9	17	T 18
P2- 32	P7- 32	FILM FINAL LIM CCW X	22	9	18	T 19
P2- 33	P7- 33	FILM FINAL LIM CW X	22	9	19	T 14
P2-	P7-	JACKET FOR WIRE NO 13	9	13	S 13	
P2- 34	P7- 34	MAP X FIRST LIMIT	22	9	13A	
SHIELD 13	SHIELD 9	SHIELD	22	0	13S	
P2- 35	P7- 35	MAP Y FIRST LIMIT	22	6	13B	
P2- 36	P7- 36	X FIRST LIMIT	22	3	13C	
P2- 37	P7- 37	Y FIRST LIMIT	22	5	13D	
P7	(J7)	CURSOR ELEC				
P7- 1	P2- 1	SPARE	22	9	1	T 2
P7- 2	P2- 2	SPARE	22	9	2	T 3
P7- 3	P2- 3	CURSOR +28V	22	9	3	T 1
P7-	P2-JACKET FOR WIRE NO 4			9	4	S 4
P7- 4	P2- 4	MAP Y JOY STICK OFF LGC	22	9	4A	
SHIELD 4	SHIELD5 SHIELD	22	0	4F		

TABLE 6-33. CABLE W43 WIRING LIST cont

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P7- 5	P2- 5	FILM Y JOY STICK OFF LGC	22	6	4B	
P7- 6	P2- 6	Y JOY STICK OFF LGC	22	3	4C	
P7-	P2-	JACKET FOR WIRE NO 5		9	5	S 5
P7- 7	P2- 7	MAP X JOY STICK OFF LGC	22	9	5A	
P7- 8	P2- 8	FILM X JOY STICK OFF LGC	22	6	5B	
P7- 9	P2- 9	X JOY STICK OFF LOGIC	22	3	5C	
P7- 10	SHIELD 5	SHIELD	22	0	5F	
P7-	P2-	JACKET FOR WIRE NO 6		9	6	S 6
P7- 11	P2- 11	FILM CURSOR SELECT	22	9	6A	
SHIELD 6	SHIELD 7	SHIELD	22	0	6F	
P7- 12	P2- 12	MAP CURSOR SELECT	22	6	6B	
P7- 13	P2- 13	CURSOR OFF LOGIC	22	3	6C	
P7- 14	P2- 14	+5 V DC OFF POSITION	22	5	6D	
P7-	P2-	JACKET FOR WIRE NO 7		9	7	S 7
P7- 15	P2- 15 15V	RETURN	22	9	7A	
SHIELD 7	SHIELD 12	SHIELD	22	0	7F	
P7-	P2-	JACKET FOR WIRE NO 12		9	12	S 12
P7- 16	P2- 16	CURSOR SEL MAP Y	22	9	12A	
P7- 17	P2- 17	CURSOR SEL FILM Y	22	6	128	
P7- 18	P2- 18	CURSOR SEL MAP X	22	3	12C	
P7- 19	P2- 19	CURSOR SEL FILM X	22	5	120	
P7- 20	SHIELD 12	SHIELD	22	0	12F	
P7-	P2-	JACKET FOR WIRE NO 8		9	8	S 8
P7- 21	P2- 21	CURSOR ENTER NO	22	9	8A	
SHIELD 8	SHIELD 12	SHIELD	22	0	8F	
P7- 22	P2- 22	CURSOR ENTER NO	22	6	8B	
P7- 23	P2- 23	+5 V RETURN	22	3	8C	
P7-	P2-	JACKET FOR WIRE NO 9		9	9	S 9
P7- 24	P2- 24	FILM X FIRST LIMIT	22	9	9A	
SHIELD 9	SHIELD 8	SHIELD	22	0	9F	
P7- 25	P2- 25	FILM Y FIRST LIMIT	22	6	9B	
P7- 26	P2- 26	STOWY	22	9	10	T11
P7- 27	P2- 27	STOWX	22	9	11	T 10
P7- 28	P2- 28	+28 V RETURN	22	9	14	T 15
P7- 29	P2- 29	+15 V RETURN	22	9	15	T16
P7- 30	P2- 30	FILM FINAL LIM CCW Y	22	9	16	T 17
P7- 31	P2- 31	FILM FINAL LIM CW Y	22	9	17	T 18
P7- 32	P2- 32	FILM FINAL LIM CCW X	22	9	18	T 19
P7- 33	P2- 33	FILM FINAL LIM CW X	22	9	19	T 14
P7-	P2-	JACKET FOR WIRE NO 13		9	13	S 13
P7- 34	P2- 34	MAP X FIRST LIMIT	22	9	13A	
SHIELD 13	SHIELD 9	SHIELD	22	0	13F	
P7- 35	P2- 35	MAP Y FIRST LIMIT	22	6	13B	
P7- 36	P2- 36	X FIRST LIMIT	22	3	13C	
P7- 37	P2- 37	YFIRSTLIMIT	22	5	13D	

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TABLE 6-34. CABLE W44 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
		RIGHT CONTROL PANEL				
P1- 1	SHIELD 1	SHIELD	22	0	1S	
P1-	P6-	JACKET FOR WIRE NO 1		9	1	S 1
P1- 2	P6- 2	SPARE	22	9	1A	
P1- 3	P6- 3	SPARE	22	6	1B	
P1		RIGHT CONTROL PANEL				
P1- 4	SHIELD 2	SHIELD	22	0	2S	
P1-	P6-	JACKET FOR WIRE NO 2		9	2	S 2
P1- 5	P6- 5	15 V RETURN	22	9	2A	
P1- 6	P6- 6	-15 V	22	6	2B	
P1- 7	P6- 7	+15V	22	3	2C	
P1- 8	SHIELD 3-7	SHIELD (SEE NOTE 6)	22	0	3S	
P1- 9	P6- 9	JOY STICK Y DIR (SEE NOTE 5)	22	9	3	
P1- 10	P6- 10	JOY STICK Y	22	9	4	
P1- 11	P6- 11	JOY STICK X DIR	22	9	5	
P1- 12	P6- 12	JOY STICK Y AND X RTN	22	9	6	
P1- 13	P6- 13	JOY STICK X	22	9	7	
P6		CURSOR ELEC				
P6- 1	SHIELD 1	SHIELD	22	0	1F	
P6-	P1-	JACKET FOR WIRE NO 1		9	1	S 1
P6- 2	P1- 2	SPARE	22	9	1A	
P6- 3	P1- 3	SPARE	22	6	1B	
P6- 4	SHIELD 2	SHIELD	22	0	2F	
P6-	P1-	JACKET FOR WIRE NO 2		9	2	S 2
P6- 5	P1- 5	15 VRETURN	22	9	2A	
P6- 6	P1-	6 -15V	22	6	2B	
P6- 7	P1- 7	+15V	22	3	2C	
P6- 8	SHIELD 3-7	SHIELD (SEE NOTE 6)	22	0	3F	
P6- 9	P1-	9 JOY STICK Y DIR (SEE NOTE 5)	22	9	3	
P6- 10	P1-	10 JOY STICK Y	22	9	4	
P6- 11	P1-	11 JOY STICK X DIR	22	9	5	
P6- 12	P1-	12 JOY STICK Y AND X RTN	22	9	6	
P6- 13	P1-	13 JOY STICK X	22	9	7	

TABLE 6-35. CABLE W45 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
A6P1	(J1)	CURSOR ELEC				
A6P1- 1	A14P1- 1	MAP Y MOTORV	NOTE 6	22	9	1
A6P1- 2	A14P1- 2	MAP Y MOTOR W	22	9		2
A6P1- 3	A14P1- 3	MAP Y MOTORX	22	9		3
A6P1- 4	A14P1- 4	MAPYMOTORY	22	9		4
A6P1- 5	A14P1- 5	MAPYMOTORZ	22	9		5
A6P1- 6	A14P1- 6	MAP Y MOTOR RETURN	22	9		6
A6P1- 7	A14P1- 7	MAP Y MOTOR RETURN	22	9		7
A6PI- 8	A14PI- 8	MAP Y MOTOR RETURN	22	9		8
A6PI- 9	A14P1- 9	MAP Y MOTOR RETURN	22	9		9
A6P1- 10	A14P1- 10	MAP Y MOTOR RETURN	22	9	10	
A6P1- 11	SHIELD1- 10	SHIELD	NOTE 8	22	0	1S
A6P1- 12	SHIELD11- 20	SHIELD	NOTE 9	22	0	11S
A6P1- 13	A14P1- 13	MAP X MOTORV	NOTE 7	22	9	11
A6P1- 14	A14P1- 14	MAP X MOTOR W	22	9	12	
A6PI- 15	A14P1- 15	MAPXMOTORX	22	9	13	
A6P1- 16	A14P1- 16	MAP X MOTORY	22	9	14	
A6P1- 17	A14P1- 17	MAP X MOTORZ	22	9	15	
A6P1- 18	A14P1- 18	MAP X MOTOR RETURN	22	9	16	
A6P1- 19	A14P1- 19	MAP X MOTOR RETURN	22	9	17	
A6P1- 20	A14P1- 20	MAP X MOTOR RETURN	22	9	18	
A6P1- 21	A14P1- 21	MAP X MOTOR RETURN	22	9	19	
A6P1- 22	A14P1- 22	MAP X MOTOR RETURN	22	9	20	
A14PI	(W45J1)	MAP BOARD				
A14P1- 1	A6P1- 1	MAP Y MOTORV	NOTE 6	22	9	1
A14P1- 2	A6P1- 2	MAP Y MOTORW	22	9	2	
A14P1- 3	A6P1- 3	MAP Y MOTORX	22	9	3	
A14P1- 4	A6P1- 4	MAP Y MOTOR Y	22	9	4	
A14PI- 5	A6P1- 5	MAP Y MOTORZ	22	9	5	
A14P1- 6	A6P1- 6	MAP Y MOTOR RETURN	22	9	6	
A14P1- 7	A6P1- 7	MAP Y MOTOR RETURN	22	9	7	
A14P1- 8	A6P1- 8	MAP Y MOTOR RETURN	22	9	8	
A14P1- 9	A6P1- 9	MAP Y MOTOR RETURN	22	9	9	
A14P1- 10	A6P1- 10	MAP Y MOTOR RETURN	22	9	10	
A14P1- 11	SHIELD1- 10	SHIELD	NOTE 8	22	0	1F
A14P1- 12	SHIELD11- 20	SHIELD	NOTE 9	22	0	11F
A14P1- 13	A6P1- 13	MAP X MOTORV	NOTE 7	22	9	11
A14P1- 14	A6P1- 14	MAP X MOTOR W	22	9	12	
A14P1- 15	A6PI- 15	MAP X MOTOR X	22	9	13	
A14P1- 16	A6P1- 16	MAP X MOTORY	22	9	14	
A14P1- 17	A6P1- 17	MAPXMOTORZ	22	9	15	
A14P1- 18	A6P1- 18	MAP X MOTOR RETURN	22	9	16	
A14P1- 19	A6P1- 19	MAP X MOTOR RETURN	22	9	17	
A14P1- 20	A6P1- 20	MAP X MOTOR RETURN	22	9	18	
A14P1- 21	A6P1- 21	MAP X MOTOR RETURN	22	9	19	
A14P1- 22	A6P1- 22	MAP X MOTOR RETURN	22	9	20	
SHIELD1		SHIELD				
SHIELD11- 20	A6P1- 12	SHIELD	NOTE 9	22	0	11
SHIELD11- 20	A14P1- 12	SHIELD	NOTE 9	22	0	11F

TABLE 6-36. CABLE W46 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(JZ)	CURSOR ELEC				
P2- 5	P3- 5	SPARE	22	9	2	T 3
P2- 6	P3- 6	SPARE	22	9	3	T 2
P2-	P3-	JACKET FOR WIRE NO 4		9	4	S 4
P2- 9	P3- 9	MAP X FIRST LIMIT	22	9	4A	
P2- 10	P3- 10	MAP Y FIRST LIMIT	22	6	48	
P2- 11	P3- 11	YSTOWLIMIT	22	3	4C	
P2- 12	P3- 12	X STOW LIMIT	22	5	4D	
P2- 13	SHIELD 4	SHIELD	22	0	4F	
P2- 14	P3- 14	+15 V RETURN	22			
P2-	P3-	JACKET FOR WIRE NO 6		9	6	S 6
P2- 15	P3- 15	MAP CCW Y FINAL LIM	22	9	6A	
P2- 16	P3- 16	MAP CW Y FINAL LIM	22	6	68	
P2- 17	P3- 17	MAP CCW X FINAL LIM	22	3	6C	
P2- 18	P3- 18	MAP CW X FINAL LIM	22	5	6D	
P2- 19	SHIELD 6	SHIELD	22	0	6F	
P3	(J3)	MAPBOARD				
P3- 5	P2- 5	SPARE	22	9	2	T 3
P3- 6	P2- 6	SPARE	22	9	3	T 2
P3-	P2-	JACKET FOR WIRE NO 4		9	4	S 4
P3- 9	P2- 9	MAP X FIRST LIMIT	22	9	4A	
P3- 10	P2- 10	MAP Y FIRST LIMIT	22	6	48	
P3- 11	P2- 11	YSTOWLIMIT	22	3	4C	
P3- 12	P2- 12	X STOW LIMIT	22	5	40	
P3- 13	SHIELD 4	SHIELD	22	0	4S	
P3- 14	P2- 14	+15 V RETURN	22			
P3-	P2	JACKET FOR WIRE NO 6		9	6	S 6
P3- 15	P2- 15	MAP CCW Y FINAL LIM	22	9	6A	
P3- 16	P2- 16	MAP CW Y FINAL LIM	22	6	6B	
P3- 17	P2- 17	MAP CCW X FINAL LIM	22	3	6C	
P3- 18	P2- 18	MAP CW X FINAL LIM	22	5	6D	
P3- 19	SHIELD 6	SHIELD	22	0	6S	

TABLE 6-37. CABLE W48 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2-	(J2)	TRANSFORMER				
P2- A	P5- A 28	V UNRGLTD RECT NO 1	12	9	5	T 6
P2- B	P5- B 28	V UNRGLTD RECT NO 2	12	9	2	T 3
P2-	P5-	JACKET FOR WIRE NO 13	9	13	S13	
P2- C	P5- C	+5 V UNRGLTD	18	9	13A	
SHIELD 13	SHIELD 14	SHIELD	20	0	13S	
P2- D	P5- D	28 V UNRGLTD RETURN RECT NO 1	12	9	6	T 5
P2- E	P5- E	28 V UNRGLTD RETURN RECT NO 2	12	9	4	T 1
P2- F	P5- F	+5V UNRGLTD RETURN	18	6	13B	
P2-	P5-	JACKET FOR WIRE NO 14		9	14	S 14
P2- G	P5- G	+15 V UNRGLTD	18	9	14A	
SHIELD 14	SHIELD 15	SHIELD	20	0	14S	
P2- H	P5- H	+15 VUNRGLTD RTN	18	6	14B	
P2-	P5-	JACKET FOR WIRE NO 15		9	15	S 15
P2- J	P5- J	-15 V UNRGLTD	18	9	15A	
P2- K	P5- K	-15V UNRGLTD RETURN	18	6	15B	
P2- L	P5- L	28 V UNRGLTD RECT NO 2	12	9	1	T 2
P2- M	P5- M	28 V UNRGLTD RETURN RECT NO 2	12	9	3	T 4
P2- N	SHIELD 15	SHIELD	20	0	15S	
P2- P	P5- P	6 V UNRGLTD RECT NO 1	12	9	7	T 8
P2- R	P5- R	6 V UNRGLTD RETURN RECT NO 1	12	9	8	T 7
P2- S	P5- S	6 V UNRGLTD RECT NO2	12	9	9	T10
P2- T	P5- T	6 V UNRGLTD RETURN RECT NO 2	12	9	10	T11
P2- U	P5- U	+15V	16	9	16	
P2- V	P5- V	-15V	16	9	17	
P2- W	P5- W	+15VRTN	16	9	18	
P2- X	P5- X	6 V UNRGLTD RETURN RECT NO 2	12	9	12	T 9
P2- Y	P5- Y	6 V UNRGLTD RECT NO 2	12	9	11	T12
P2- Z	P5- Z	SPARE	16	9	19	
P2- >A	P5- >A	SPARE	16	9	20	
P5	(J5)	POWER SUPPLY				
P5- A	P2- A	28 V UNRGLTD RECT NO 1	12	9	5	T 6
P5- B	P2- B	28 V UNRGLTD RECT NO 2	12	9	2	T 3
P5-	P2-	JACKET FOR WIRE NO 13	9	13	S 13	
P5- C	P2- C	+5 V UNRGLTD	18	9	13A	
SHIELD 13	SHIELD 14	SHIELD	20	0	13F	
P5- D	P2- D	28 V UNRGLTD RETURN RECT NO 1	12	9	6	T 5
P5- E	P2- E	28 V UNRGLTD RETURN RECT NO 2	12	9	4	T 1
P5- F	P2- F	+5 V UNRGLTD RETURN	18	6	13B	
P5-	P2-	JACKET FOR WIRE NO 14	9	14	S 14	
P5- G	P2- G	+15VUNRGLTD	18	9	14A	
SHIELD 14	SHIELD 15	SHIELD	20	0	14F	
P5- H	P2- H	+15V UNRGLTDRTN	18	6	14B	
P5-	P2-	JACKET FOR WIRE NO 15		9	15	S 15
P5- J	P2- J	-15VUNRGLTD	18	9	15A	
P5- K	P2- K	-15V UNRGLTD RETURN	18	6	15B	
P5- L	P2- L	28 V UNRGLTD RECT NO 2	12	9	1	T 2
P5- M	P2- M	28 V UNRGLTD RETURN RECT NO 2	12	9	3	T 4
P5- N	SHIELD 15	SHIELD	20	0	1SF	
P5- P	P2- P	6 V UNRGLTD RECT NO 1	12	9	7	T 8
P5- R	P2- R	6 V UNRGLTD RETURN RECT NO 1	12	9	8	T 7
P5- S	P2- S	6 V UNRGLTD RECT NO 2	12	9	9	T 10I
P5- T	P2- T	6 V UNRGLTD RETURN RECT NO 2	12	9	10	T11
P5- U	P2-	U +15V	16	9	16	
P5- V	P2-	V -15V	16	9	17	
P5- W	P2- W	+15VRTN	16	9	18	
P5- X	P2- X	6 V UNRGLTD RETURN RECT NO 2	12	9	12	T 9
P5- Y	P2- Y	6 V UNRGLTD RECT NO 2	12	9	11	T12

TABLE 6-37. CABLE W48 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P5- Z	P2- Z	SPARE	16	9	19	
P5- >A	P2- >A	SPARE	16	9	20	

TABLE 6-38. CABLE W49 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2	(J1)	POWER DISTRIBUTION				
P2-	SHIELD 20	TIEBACK	22	90	20F	
P2-	P5-	SPARE	22	6	21B	
P2-	SHIELD 21	TIEBACK	22	90	21F	
P2-	P5-	JACKET FOR WIRE NO 22		9	22	S 22
P2-	P5-	SPARE	22	9	22A	
P2-	SHIELD 22	TIEBACK	22	90	22F	
P2-	P5-	SPARE	22	6	208	
P2-	P5-	SPARE	22	6	19B	
P2-	P5-	JACKET FOR WIRE NO 19		9	19	S 19
P2-	P5-	SPARE	22	9	19A	
P2-	P5-	JACKET FOR WIRE NO 21		9	21	S 21
P2-	P5-	SPARE	22	9	21A	
P2-	P5-	SPARE	22	6	22B	
P2-	P5-	JACKET FOR WIRE NO 20		9	20	S 20
P2-	P5-	SPARE	22	9	20A	
P2-	SHIELD 19	TIEBACK	22	90	19F	
P2-	P5-	JACKET FOR WIRE NO 1		9	1	S 1
P2- 1	P5- 29	CHIOZ(02)	22	9	1A	
SHIELD 1	SHIELD 2		22	90	1F	
P2- 2	P5- 8	CHIOZ(02)RTN	22	6	1B	
P2-	P5-	JACKET FOR WIRE NO 2		9	2	S 2
P2- 3	P5- 31	CHIOZ(03)	22	9	2A	
P2-	P5-	JACKET FOR WIRE NO 4		9	4	S 4
P2-	P5-	JACKET FOR WIRE NO 3		9	3	S 3
SHIELD 2	SHIELD 3		22	90	2F	
P2- 4	P5- 4	CHIOZ(04)	22	9	3A	
SHIELD 3	SHIELD 4		22	90	3F	
P2- 5	P5- 26	CHIOZ(04)RTN	22	6	3B	
P2- 9	P5- 11	CHIOZ(03)RTN	22	6	2B	
P2- 10	P5- 40	CHIOZ(05)	22	9	4A	
SHIELD 4	SHIELD 5	22	90	4F		
P2- 11	P5- 50	CHIOZ(05)RTN	22	6	4B	
P2-	P5-	JACKET FOR WIRE NO 5		9	5	S 5
P2- 15	P5- 25	CHIOZ(06)	22	9	5A	
SHIELD 5	SHIELD 6	22	90	5F		
P2- 16	P5- 2	CHIOZ(06)RTN	22	6	58	
P2-	P5-	JACKET FOR WIRE NO 6		9	6	S 6
P2- 17	P5- 10	CHIOZ(07)	22	9	6A	
SHIELD 6	SHIELD 7	22	90	6F		
P2- 18	P5- 30	CHIOZ(07)RTN	22	6	6B	
P2-	P5-	JACKET FOR WIRE NO 7		9	7	S 7
P2- 23	P5- 21	SIZ(10)	22	9	7A	
SHIELD 7	SHIELD 8	22	90	7F		
P2- 24	P5- 20	SIZ(10)RTN	22	6	7B	
P2-	P5-	JACKET FOR WIRE NO 8		9	8	S 8
P2- 25	P5- 24	SIZ(11)	22	9	8A	
SHIELD 8	SHIELD 9		22	90	8F	
P2- 26	P5- 23	SIZ(11)RTN	22	6	8B	
P2-	P5-	JACKET FOR WIRE NO 9		9	9	S 9
P2- 30	P5-	15 SIZ(12)	22	9	9A	
SHIELD 9	SHIELD 10		22	90	9F	
P2- 31	P5-	34 SIZ(12)RTN	22	6	9B	
P2-	P5-	JACKET FOR WIRE NO 10		9	10	S 10
P2- 32	P5-	37 SIZ(13)	22	9	10A	
SHIELD 10	SHIELD 11		22	90	10F	
P2- 33	P5- 18	SIZ(13)RTN	22	6	10B	
P2-	P5-	JACKET FOR WIRE NO 11		9	11	S 11
P2- 38	P5- 33	SIZ(14)	22	9	11A	
SHIELD 11	SHIELD 12		22	90	11F	

TABLE 6-38. CABLE W49 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2- 39	P5- 14	SIZ(14)RTN	22	6	11B	
P2-	P5-	JACKET FOR WIRE NO 12		9	12	S 12
P2- 40	P5- 35	SIZ(1S)	22	9	12A	
SHIELD 12	SHIELD 13		22	90	12F	
P2- 41	P5- 16	SIZ(15)RTN	22	6	12B	
P2-	P5-	JACKET FOR WIRE NO 13		9	13	S 13
P2- 42	P5- 13	/ISZ(11)	22	9	13A	
SHIELD 13	SHIELD 14		22	90	13F	
P2- 43	P5- 32	/ISZ(I1)RTN	22	6	13B	
P2-	P5-	JACKET FOR WIRE NO 14		9	14	S 14
P2- 44	P5- 27	/INDMOZ	22	9	14A	
SHIELD 14	SHIELD 15		22	90	14F	
P2- 45	P5- 5	/INDMOZ RTN	22	6	148	
P2-	P5-	JACKET FOR WIRE NO 15		9	15	S 15
P2- 47	P5- 53	CHOPGZ	22	9	15A	
SHIELD 15	SHIELD 16		22	90	15F	
P2- 48	P5- 47	CHOPGZ RTN	22	6	15B	
P2-	P5-	JACKET FOR WIRE NO 16		9	16	S 16
P2- 50	P5- 7	/INAKOZ	22	9	16A	
SHIELD 16	SHIELD 17	22	90	16F		
P2- 51	P5- 28	/INAKOZ RTN	22	6	168	
P2-	P5-	JACKET FOR WIRE NO 17		9	17	S 17
P2- 52	P5-	/CPUCNZ RTN NOTE 8	22	9	17A	
SHIELD 17	SHIELD 18		22	90	17F	
P2- 53	P5- 22	/DO4Z(0)	22	9	18A	
SHIELD 18	TAG RING	NOTE 7	22	90	18F	
P2- 54	P5- 39	/DO4Z(O)RTN	22	6	18B	
P2- 55	P5- 45	/CPUCNZ	22	6	178	
P5	(J5)	CODE MATRIX READER ELEC				
P5-	P2-	SPARE	22	6	208	
P5-	P2-	JACKET FOR WIRE NO 21		9	21	S 21
P5-	P2-	SPARE	22	9	21A	
P5-	P2-	SPARE	22	6	19B	
P5-	P2-	SPARE	22	6	218	
P5-	P2-	JACKET FOR WIRE NO 19		9	19	S 19
P5-	P2-	SPARE22	9	19A		
P5-	P2-	JACKET FOR WIRE NO 22		9	22	S 22
P5-	P2-	SPARE22	9	22A		
P5-	P2-	JACKET FOR WIRE NO 20		9	20	S 20
P5-	P2-	SPARE22	9	20A		
P5-	P2-	JACKET FOR WIRE NO 17		9	17	S 17
P5-	P2- 52	/CPUCNZ RTN NOTE 8	22	9	17A	
P5-	P2-	SPARE	22	6	22B	
P5- 2	P2- 16	CHIOZ(06)RTN	22	6	5B	
P5-	P2-	JACKET FOR WIRE NO 3		9	3	S 3
P5- 4	P2- 4	CHIOZ(04)	22	9	3A	
P5- 5	P2- 45	/INDMOZ RTN	22	6	148	
P5-	P2-	JACKET FOR WIRE NO 16		9	16	S 16
P5- 7	P2- 50	/INAKOZ	22	9	16A	
P5- 8	P2- 2	CHIOZ(02)RTN	22	6	1B	
P5-	P2-	JACKET FOR WIRE NO 6		9	6	S 6
P5- 10	P2- 17	CHIOZ(07)	22	9	6A	
P5- 11	P2- 9	CHIOZ(03)RTN	22	6	28	
P5-	P2-	JACKET FOR WIRE NO 13		9	13	S 13
P5- 13	P2- 42	/ISZ(11)	22	9	13A	
P5- 14	P2- 39	SIZ(14)RTN	22	6	11B	
P5-	P2-	JACKET FOR WIRE NO 9		9	9	S 9
P5- 15	P2- 30	SIZ(12)	22	9	9A	

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TABLE 6-38. CABLE W49 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P5- 16	P2- 41	SIZ(15)RTN	22	6	128	
P5- 20	P2- 24	SIZ(LO)RTN	22	6	7B	
P5-	P2-	JACKET FOR WIRE NO 7		9	7	S 7
P5- 21	P2- 23	SIZ(10)	22	9	7A	
P5-	P2-	JACKET FOR WIRE NO 18		9	18	S 18
P5- 22	P2- 53	/DO4Z(0)	22	9	18A	
P5- 23	P2- 26	SIZ(1)RTN	22	6	8B	
P5-	P2-	JACKET FOR WIRE NO 8		9	8	S 8
P5- 24	P2- 25	SIZ(11)	22	9	8A	
P5-	P2-	JACKET FOR WIRE NO 5		9	5	S 5
P5- 25	P2- 15	CHIOZ(06)	22	9	5A	
P5- 26	P2- 5	CHIOZ(04)RTN	22	6	3B	
P5-	P2-	JACKET FOR WIRE NO 14		9	14	S 14
P5- 27	P2- 44	/INDMOZ	22	9	14A	
P5- 28	P2- 51	/INAKOZ RTN	22	6	16B	
P5-	P2-	JACKET FOR WIRE NO 1		9	1	S 1
P5- 29	P2- 1	CHIOZ(02)	22	9	1A	
P5- 30	P2- 18	CHIOZ(07)RTN	22	6	6B	
P5-	P2-	JACKET FOR WIRE NO 2		9	2	S 2
P5- 31	P2- 3	CHIOZ(03)	22	9	2A	
P5- 32	P2- 43	/ISZ(I 1)RTN	22	6	138	
P5-	P2-	JACKET FOR WIRE NO 11		9	11	S 11
P5- 33	P2- 38	SIZ(14)	22	9	11A	
P5- 34	P2- 31	SIZ(12)RTN	22	6	9B	
P5-	P2-	JACKET FOR WIRE NO 12		9	12	S 12
P5- 35	P2- 40	SIZ(15)	22	9	12A	
P5-	P2-	JACKET FOR WIRE NO 10		9	10	S 10
P5- 37	P2- 32	SIZ(13)	22	9	10A	
P5- 39	P2- 54	/DO4Z(O)RTN	22	6	18B	
P5-	P2-	JACKET FOR WIRE NO 4		9	4	S 4
P5- 40	P2- 10	CHIOZ(0S)	22	9	4A	
P5- 45	P2- 55	/CPUCNZ	22	6	17B	
P5- 47	P2- 48	CHOPGZ RTN	22	6	15B	
P5- 50	P2- 11	CHIOZ(05)RTN	22	6	48	
P5-	P2-	JACKET FOR WIRE NO 15		9	15	S 15
P5- 53	P2- 47	CHOPGZ	22	9	15A	
TAG RING						
TAG RING SHIELD	18 NOTE 7	22	90	18F		

TABLE 6-39. CABLE W50 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2-	(J2)	QR/RCU				
P2-	P3-	JACKET FOR WIRE NO 1		9	1	S 1
P2- 1	P3- 1	/ISZ (15)	316	COAX	1A	
P2- 2	SHIELD 1	SHIELD	22	0	1F	
P2-	P3-	JACKET FOR WIRE NO 2		9	2	S 2
P2- 3	P3- 3	/INDM3Z	316	COAX	2A	
P2-	P3-	JACKET FOR WIRE NO 3		9	3	S 3
P2- 4	P3- 4	CH13Z(00)	316	COAX	3A	
P2- 5	SHIELD 3	SHIELD	22	0	3F	
P2-	P3-	JACKET FOR WIRE NO 4		9	4	S 4
P2- 6	P3- 6	CH13Z(01)	316	COAX	4A	
P2- 7	SHIELD 4	SHIELD	22	0	4F	
P2- 8	SHIELD 2	SHIELD	22	0	2F	
P2-	P3-	JACKET FOR WIRE NO 5		9	5	S 5
P2- 9	P3- 9	CH13Z(02)	316	COAX	5A	
P2-	P3-	JACKET FOR WIRE NO 6	9	6	S 6	
P2- 10	P3- 10	CH13Z(03)	316	COAX	6A	
P2- 11	SHIELD 6	SHIELD	22	0	6F	
P2-	P3-	JACKET FOR WIRE NO 7		9	7	S 7
P2- 12	P3- 12	CH13Z(04)	316	COAX	7A	
P2- 13	SHIELD 7	SHIELD	22	0	7F	
P2-	P3-	JACKET FOR WIRE NO 8		9	8	S 8
P2- 14	P3- 14	CH13Z(05)	316	COAX	8A	
P2- 15	SHIELD 8	SHIELD	22	0	8F	
P2- 16	SHIELD S	SHIELD	22	0	SF	
P2-	P3-	JACKET FOR WIRE NO 9		9	9	S 9
P2- 17	P3- 17	CH13Z (06)	316	COAX	9A	
P2- 18	SHIELD 9	SHIELD	22	0	9F	
P2-	P3-	JACKET FOR WIRE NO 10		9	10	S 10
P2- 19	P3- 19	CH13Z (07)	316	COAX	10A	
P2- 20	SHIELD 10	SHIELD	22	0	10F	
P2-	P3-	JACKET FOR WIRE NO 11		9	11	S 11
P2- 21	P3- 21	/INAK3Z	316	COAX	11A	
P2- 22	SHIELD 11	SHIELD	22	0	11F	
P2-	P3-	JACKET FOR WIRE NO 12		9	12	S 12
P2- 23	P3- 23	CH3PGZ	316	COAX	12A	
P2- 24	SHIELD 12	SHIELD	22	0	12F	
P2-	P3-	JACKET FOR WIRE NO 13		9	13	S 13
P2- 25	P3- 25	/OTDM3Z	316	COAX	13A	
P2-	P3-	JACKET FOR WIRE NO 14		9	14	S 14
P2- 26	P3- 26	CHO3Z(00)	316	COAX	14A	
P2- 27	SHIELD 14	SHIELD	22	0	14F	
P2-	P3-	JACKET FOR WIRE NO 15		9	15	S 15
P2- 28	P3- 28	CHO3Z(01)	316	COAX	15A	
P2- 29	SHIELD 15	SHIELD	22	0	1SF	
P2-	P3-	JACKET FOR WIRE NO 16		9	16	S 16
P2- 30	P3- 30	CHO3Z (02)	316	COAX	16A	
P2- 31	SHIELD 16	SHIELD	22	0	16F	
P2- 32	SHIELD 13	SHIELD	22	0	13F	
P2-	P3-	JACKET FOR WIRE NO 17		9	17	S 17
P2- 33	P3- 33	CHO3Z (03)	316	COAX	17A	
P2- 34	SHIELD 17	SHIELD	22	0	17F	
P2-	P3-	JACKET FOR WIRE NO 18		9	18	S 18
P2- 35	P3- 35	CHO3Z(04)	316	COAX	18A	
P2- 36	SHIELD 18	SHIELD	22	0	18F	
P2-	P3-	JACKET FOR WIRE NO 19		9	19	S 19
P2- 37	P3- 37	CHO3Z (05)	316	COAX	19A	
P2- 38	SHIELD 19	SHIELD	22	0	19F	
P2-	P3-	JACKET FOR WIRE NO 20		9	20	S 20
P2- 39	P3-39	CH03Z (06)	316	COAX	20A	

TABLE 6-39. CABLE W50 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2-	P3-	JACKET FOR WIRE NO 21		9	21	S 21
P2- 40	P3- 40	CHO3Z(07)	316	COAX	21A	
P2- 41	SHIELD 21	SHIELD	22	0	21F	
P2-	P3-	JACKET FOR WIRE NO 22		9	22	S 22
P2- 42	P3- 42	/OTAK3Z	316	COAX	22A	
P2- 43	SHIELD 22	SHIELD	22	0	22F	
P2-	P3-	JACKET FOR WIRE NO 23		9	23	S 23
P2- 44	P3- 44	/CID3Z	316	COAX	23A	
P2- 45	SHIELD 23	SHIELD	22	0	23F	
P2- 46	SHIELD 20	SHIELD	22	0	20F	
P2-	P3-	JACKET FOR WIRE NO 24		9	24	S 24
P2- 48	P3- 48	SPARE	316	COAX	24A	
P2- 49	SHIELD 24	SHIELD	22	0	24F	
P2-	P3-	JACKET FOR WIRE NO 25		9	25	S 25
P2- 50	P3- 50	SPARE	316	COAX	25A	
P2- 51	SHIELD 25	SHIELD	22	0	25F	
P2-	P3-	JACKET FOR WIRE NO 26		9	26	S 26
P2- 52	P3- 52	SPARE	316	COAX	26A	
P2- 53	SHIELD 26	SHIELD	22	0	26F	
P2-	P3-	JACKET FOR WIRE NO 27		9	27	S 27
P2- 54	P3- 54	SPARE	316	COAX	27A	
P2- 55	SHIELD 27	SHIELD	22	0	27F	
P3	(J3)	COMPUTER				
P3-	P2-	JACKET FOR WIRE NO 1		9	1	S 1
P3- 1	P2- 1	/ISZ(15)	316	COAX	1A	
P3- 2	SHIELD 1	SHIELD	22	0	1S	
P3-	P2-	JACKET FOR WIRE NO 2		9	2	S 2
P3- 3	P2-	3 /INDM3Z	316	COAX	2A	
P3-	P2-	JACKET FOR WIRE NO 3		9	3	S 3
P3- 4	P2- 4	CH13Z(00)	316	COAX	3A	
P3-	P2- JACKET FOR WIRE NO 4			9	4	S 4
P3- 6	P2- 6	CH13Z(01)	316	COAX	4A	
P3- 7	SHIELD 4	SHIELD	22	0	4S	
P3- 8	SHIELD 2	SHIELD	22	0	2S	
P3-	P2-	JACKET FOR WIRE NO 5		9	5	S 5
P3- 9	P2- 9	CH13Z(02)	316	COAX	5A	
P3-	P2-	JACKET FOR WIRE NO 6		9	6	S 6
P3- 10	P2- 10	CH13Z(03)	316	COAX	6A	
P3- 11	SHIELD 6	SHIELD	22	0	6S	
P3-	P2-	JACKET FOR WIRE NO 7		9	7	S 7
P3- 12	P2- 12	CH13Z (04)	316	COAX	7A	
P3- 13	SHIELD 7	SHIELD	22	0	7S	
P3-	P2-	JACKET FOR WIRE NO 8		9	8	S 8
P3- 14	P2- 14	CH13Z(05)	316	COAX	8A	
P3- 15	SHIELD 8	SHIELD	22	0	8S	
P3- 16	SHIELD 5	SHIELD	22	0	5S	
P3-	P2-	JACKET FOR WIRE NO 9		9	9	S 9
P3- 17	P2- 17	CH13Z(06)	316	COAX	9A	
P3- 18	SHIELD 9	SHIELD	22	0	9S	
P3-	P2-	JACKET FOR WIRE NO 10		9	10	S 10
P3- 19	P2- 19	CH13Z(07)	316	COAX	10A	
P3- 20	SHIELD 10 SHIELD	22	0	10S		
P3-	P2-	JACKET FOR WIRE NO 11		9	11	S11
P3- 21	P2- 21	/INAK3Z	316	COAX	11A	
P3- 22	SHIELD 11	SHIELD	22	0	11S	
P3-	P2-	JACKET FOR WIRE NO 12		9	12	S 12
P3- 23	P2- 23	CH3PGZ	316	COAX	12A	
P3- 24	SHIELD 12	SHIELD	22	0	12S	

905687-

TABLE 6-39. CABLE W49 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3-	P2-	JACKET FOR WIRE NO 13		9	13	S 13
P3- 25	P2- 25	/OTDM3Z	316	COAX	13A	
P3-	P2-	JACKET FOR WIRE NO 14		9	14	S 14
P3- 26	P2- 26	CHO3Z (00)	316	COAX	14A	
P3- 27	SHIELD 14	SHIELD	22	0	14S	
P3-	P2-	JACKET FOR WIRE NO 15		9	15	S 15
P3- 28	P2- 28	CHO3Z(01)	316	COAX	15A	
P3- 2	SHIELD 15	SHIELD	22	0	15S	
P3-	P2-	JACKET FOR WIRE NO 16		9	16	S 16
P3- 30	P2- 30	CHO3Z (02)	316	COAX	16A	
P3- 31	SHIELD 16	SHIELD	22	0	16S	
P3- 32	SHIELD 13	SHIELD	22	0	13S	
P3-	P2-	JACKET FOR WIRE NO 17		9	17	S 17
P3- 33	P2- 33	CHO3Z (03)	316	COAX	17A	
P3- 34	SHIELD 17 SHIELD	22	0	17S		
P3-	P2-	JACKET FOR WIRE NO 18		9	18	S 18
P3- 35	P2- 35	CHO3Z(04)	316	COAX	18SA	
P3- 36	SHIELD 18	SHIELD	22	0	18S	
P3-	P2-	JACKET FOR WIRE NO 19		9	19	S 19
P3- 37	P2- 37	CHO3Z (05)	316	COAX	19A	
P3- 38	SHIELD 19	SHIELD	22	0	19S	
P3-	P2-	JACKET FOR WIRE NO 20		9	20	S 20
P3- 39	P2- 39	CHO3Z (06)	316	COAX	20A	
P3-	P2-	JACKET FOR WIRE NO 21		9	21	S 21
P3- 40	P2- 40	CHO3Z(07)	316	COAX	21A	
P3- 41	SHIELD 21	SHIELD	22	0	21S	
P3-	P2-	JACKET FOR WIRE NO 22		9	22	S 22
P3- 42	P2- 42	/OTAK3Z	316	COAX	22A	
P3- 43	SHIELD 22	SHIELD	22	0	22S	
P3-	P2-	JACKET FOR WIRE NO 23		9	23	S 23
P3- 44	P2- 44	/CID3Z	316	COAX	23A	
P3- 45	SHIELD 23	SHIELD	22	0	23S	
P3- 46	SHIELD 20	SHIELD	22	0	20S	
P3-	P2-	JACKET FOR WIRE NO 24		9	24	S 24
P3- 48	P2- 48	SPARE	316	COAX	24A	
P3- 49	SHIELD 24	SHIELD	22	0	24S	
P3-	P2-	JACKET FOR WIRE NO 25		9	25	S 25
P3- 50	P2- 50	SPARE	316 COAX	25A		
P3- 51	SHIELD 25	SHIELD	22	0	25S	
P3-	P2-	JACKET FOR WIRE NO 26		9	26	S 26
P3- 52	P2- 52	SPARE	316 COAX	26A		
P3- 53	SHIELD 26	SHIELD	22	0	26S	
P3-	P2-	JACKET FOR WIRE NO 27		9	27	S 27
P3- 54	P2- 54	SPARE	316	COAX	27A	
P3- 55	SHIELD 27	SHIELD	22	0	27S	

905687-

TABLE 6-40. CABLE W49 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
A4P13						
A4P13- 1	SPLICE 1A	VIDEO HIGH	24	9	1X	
A4P13- 2	A13J14- 2	CHASSIS GND	22	5	6	
A4P13- 4	A13J14- 4	NEUTRAL	22	9	5	
A4P13- 5	A13J14- 5	120V400HZPHC	22	6	4	
A4P13- 6	A13J14- 6	120V400HZPHA	22	0	3	
A4P13- 7	A13J14- 7	120V400HZPHB	22	2	2	
A4P13- 10	SHIELD I 1	VIDEO LOW	24	9	1S	
A4P13- 11	SHIELD O 1	CHASSIS GND	24	9	1S	
A13J14						
A13J14- 1	SPLICE 1A	VIDEO HIGH	24	9	1Y	
A13J14- 2	A4P13- 2	CHASSIS GND	22	5	6	
A13J14- 4	A4P13- 4	NEUTRAL	22	9	5	
A13J14- 5	A4P13- 5	120V 40OHZPHC	22	6	4	
A13J14- 6	A4P13- 6	120V 40HZPHA	22	0	3	
A13J14- 7	A4P13- 7	120V400HZPHB	22	2	2	
A13J14- 10	SHIELD I 1	VIDEOLOW	24	9	1F	
A13J14- 11	SHIELD O 1	CHASSIS GND	24	9	IF	
SHIELD I						
SHIELD I 1	A4P13- 10	VIDEO LOW	24	9	1S	
SHIELD I 1	A13J14- 10	VIDEO LOW	24	9	1F	
SHIELD O						
SHIELD O 1	A4P13- 11	CHASSIS GND	24	9	1S	
SHIELD O 1	A13J14- 11	CHASSIS GND	24	9	1F	
SPLICE						
SPLICE 1A	A13J14- 1	VIDEO HIGH	24	9	1Y	
SPLICE 1A	A4P13- 1	VIDEO HIGH	24	9	1X	
SPLICE	SPLICE	JACKET FOR WIRE NO 1 (TRIAX)			1	S 1
SPLICE 1X	SPLICE 1Y	VIDEO HIGH			1A	
A4P13- 10	SHIELD I 1	VIDEOLOW	24	9	1S	
A4P13- 11	SHIELD O 1	CHASSISGND	24	9	1S	
SPLICE	SPLICE	JACKET FOR WIRE NO 1 (TRIAX)			1	S 1
SPLICE 1Y	SPLICE 1X	VIDEO HIGH			1A	
A4P13- 10	SHIELD I 1	VIDEO LOW	24	9	1S	
A4P13- 11	SHIELD O 1	CHASSIS GND	24	9	1S	

TABLE 6-41. CABLE W52 WIRING LIST

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
A5P1								
A5P1-	CTR	SPLICE	1A	VIDEO HIGH	24	9	1Y	
A5P1-	GND	SHIELD O	1	CHASSIS GND	24	9	1F	
A5P1-	GND	SHIELD I	1	VIDEO LOW	24	9	1F	
A5P2								
A5P2-	A	A13P4-	7	120V400HZPHB	22	2	2	
A5P2-	B	A13P14-	6	120V400HZPHA	22	0	3	
A5P2-	D	A13P14-	5	120V400HZPHC	22	6	4	
A5P2-	E	A13P14-	4	NEUTRAL	22	9	5	
A5P2-	F	A13P14-	2	CHASSIS GND	22	5	6	
A13P14								
A13P14-	1	SPLICE	1A	VIDEO HIGH	24	9	1X	
A13P14-	2	A5P2-	F	CHASSIS GND	22	5	6	
A13P14-	4	A5P2-	E	NEUTRAL	22	9	5	
A13P14-	5	A5P2-	D	120V400HZPHC	22	6	4	
A13P14-	6	A5P2-	B	120V400HZPHA	22	0	3	
A13P14-	7	A5P2-	A	120V400HZPHB	22	2	2	
A13P14-	10	SHIELD I	1	VIDEO LOW	24	9	1S	
A13P14-	11	SHIELD O	1	CHASSIS GND	24	9	1S	
SHIELD I								
SHIELD I	1	A13P14-	10	VIDEO LOW	24	9	1S	
SHIELD I	1	A5P1-	GND	VIDEO LOW	24	9	1F	
SHIELD O								
SHIELD O	1	A13P14-	11	CHASSIS GND	24	9	1S	
SHIELD O	1	A5P1-	GND	CHASSIS GND	24	9	1F	
SPLICE								
SPLICE	1A	A5P1- CTR		VIDEO HIGH 24	9	1Y		
SPLICE	1A	A13P14-1		VIDEO HIGH	24	9	1X	
SPLICE		SPLICE		JACKET FOR WIRE NO 1 (TRIAX)			1	S 1
SPLICE	1X	SPLICE	1Y	VIDEO HIGH (TRIAX 750HM)			1A	
A13P14-	10	SHIELD I	1	VIDEO LOW	24	9	1S	
A13P14-	11	SHIELD O	1	CHASSIS GND	24	9	1S	
SPLICE		SPLICE		JACKET FOR WIRE NO 1 (TRIAX)			1	S 1
SPLICE	1Y	SPLICE	1X	VIDEO HIGH (TRIAX 750HM)			1A	
A13P14-	10	SHIELD I	1	VIDEO LOW	24	9	1S	
A13PI4-	11	SHIELD O	1	CHASSIS GND	24	9	1S	

TABLE 6-42. CABLE W53 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J2						
J2-	SHIELD 47	TIEBACK	24	0	47F	
J2-	A4P1-	JACKET FOR WIRE NO 45		9	45	S 45
J2-	A4P1-	TIEBACK	178	COAX	45A	
J2-	A4P1-	JACKET FOR WIRE NO 47		9	47	S 47
J2-	A4P1-	TIEBACK	178	COAX	47A	
J2-	SHIELD 45	TIEBACK	24	0	45F	
J2-	A4P1-	JACKET FOR WIRE NO 1		9	1	S 1
J2- 1	A4P1- 1	PSACK/LO	178	COAX	1A	
J2- 2	SHIELD 1	SHIELD	24	0	IF	
J2-	A4P1-	JACKET FOR WIRE NO 3		9	3	S 3
J2- 3	A4P1- 3	AN ACK/LO	178	COAX	3A	
J2-	A4P1-	JACKET FOR WIRE NO 5		9	5	S 5
J2- 4	A4P1- 4	MODE PRE (BAR)	178	COAX	5A	
J2- 5	SHIELD 5	SHIELD	24	0	5F	
J2-	A4P1-	JACKET FOR WIRE NO 7		9	7	S 7
J2- 6	A4P1- 6	PS RDY (BAR)	178	COAX	7A	
J2- 7	SHIELD 7	SHIELD	24	0	7F	
J2- 8	SHIELD 3	SHIELD	24	0	3F	
J2-	A4P1-	JACKET FOR WIRE NO 9		9	9	S 9
J2- 9	A4P1- 9	PSI	178	COAX	9A	
J2-	A4P1-	JACKET FOR WIRE NO 11		9	11	S11
J2- 10	A4P1- 10	PS2	178	COAX	11A	
J2- 11	SHIELD 11	SHIELD	24	0	11F	
J2-	A4P1-	JACKET FOR WIRE NO 13		9	13	S13
J2- 12	A4P1- 12	PS3	178	COAX	13A	
J2- 13	SHIELD 13	SHIELD	24	0	13F	
J2-	A4P1-	JACKET FOR WIRE NO 15		9	15	S15
J2- 14	A4P1- 14	PS4	178	COAX	15A	
J2- 15	SHIELD 15	SHIELD	24	0	15F	
J2- 16	SHIELD 9	SHIELD	24	0	9F	
J2-	A4P1-	JACKET FOR WIRE NO 17		9	17	S 17
J2- 17	A4P1- 17	PS5	178	COAX	17A	
J2- 18	SHIELD 17	SHIELD	24	0	17F	
J2-	A4P1-	JACKET FOR WIRE NO 19		9	19	S 19
J2- 19	A4P1- 19	PS6	178	COAX	19A	
J2- 20	SHIELD 19	SHIELD	24	0	19F	
J2-	A4P1-	JACKET FOR WIRE NO 21		9	21	S 21
J2- 21	A4P1- 21	AN RDY (BAR)	178	COAX	21A	J2-
22	SHIELD 21 SHIELD	24	0	21F		
J2-	A4P1-	JACKET FOR WIRE NO 23		9	23	S 23
J2- 23	A4P1- 23	AN1	178	COAX	23A	
J2- 24	SHIELD 23	SHIELD	24	0	23F	
J2-	A4P1-	JACKET FOR WIRE NO 25		9	25	S 25
J2- 25	A4P1- 25	AN2	178	COAX	25A	
J2-	A4P1-	JACKET FOR WIRE NO 27		9	27	S 27
J2- 26	A4P1- 26	AN3	178	COAX	27A	
J2- 27	SHIELD 27	SHIELD	24	0	27F	
J2-	A4P1-	JACKET FOR WIRE NO 29		9	29	S 29
J2- 28	A4P1- 28	AN4	178	COAX	29A	
J2- 29	SHIELD 29	SHIELD	24	0	29F	
J2-	A4P1-	JACKET FOR WIRE NO 31		9	31	S 31
J2- 30	A4P1- 30	AN5	178	COAX	31A	
J2- 31	SHIELD 31	SHIELD	24	0	31F	
J2- 32	SHIELD 25	SHIELD	24	0	25F	
J2-	A4P1-	JACKET FOR WIRE NO 33		9	33	S 33
J2- 33	A4P1- 33	AN6(BAR)	178	COAX	33A	
J2- 34	SHIELD 33	SHIELD	24	0	33F	
J2-	A4P1-	JACKET FOR WIRE NO 35		9	35	S 35
J2- 35	A4P1- 35	EDIT RDY (BAR)	178	COAX	35A	

TABLE 6-42. CABLE W53 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J2- 36	SHIELD 35	SHIELD	24	0	35F	
J2-	A4P1-	JACKET FOR WIRE NO 37		9	37	S 37
J2- 37	A4P1- 37	CURS RDY (BAR)	178	COAX	37A	
J2- 38	SHIELD 37	SHIELD	24	0	37F	
J2-	A4P1-	JACKET FOR WIRE NO 39		9	39	S 39
J2- 39	A4P1- 39	MODE	178	COAX	39A	
J2-	A4P1-	JACKET FOR WIRE NO 41		9	41	S 41
J2- 40	A4P1- 40	XMITT (BAR)	178	COAX	41A	
J2- 41	SHIELD 41	SHIELD	24	0	41F	
J2-	A4P1-	JACKET FOR WIRE NO 43		9	43	S 43
J2- 42	A4P1- 42	PS7(BAR)	178	COAX	43A	
J2- 43	SHIELD 43	SHIELD	24	0	43F	
J2- 46	SHIELD 39	SHIELD	24	0	39F	
J2- 49	A4P1- 49	REPEAT	22	9	49	
J2-	A4P1-	JACKET FOR WIRE NO 50		9	50	S 50
J2- 50	A4P1- 50	SIG GRD	22	9	50A	
J2- 51	A4P1- 51	+5VDC	22	96	50B	
J2- 52	SHIELD 50	CHASSIS GND	24	9	50F	
J2-	A4P1-	JACKET FOR WIRE NO 53		9	53	S 53
J2- 53	A4P1- 53	+14VDC	22	9	53A	
J2- 54	A4P1- 54	+28VDC	22	96	538	
J2- 55	SHIELD 53	SIG GND	24	9	53F	
A4P1						
A4P1-	SHIELD 47	TIEBACK	24	0	47S	
A4P1-	J2-	JACKET FOR WIRE NO 45		9	45	S 45
A4P1-	J2-	TIEBACK	178	COAX	45A	
A4P1-	J2-	JACKET FOR WIRE NO 47		9	47	S 47
A4P1-	J2-	TIEBACK	178	COAX	47A	
A4P1-	SHIELD 45	TIEBACK	24	0	45S	
A4P1-	J2-	JACKET FOR WIRE NO 1		9	1	S 1
A4P1- 1	J2- 1	PSACK/LO	178	COAX	1A	
A4P1- 2	SHIELD 1	SHIELD	24	0	1S	
A4P1-	J2-	JACKET FOR WIRE NO 3		9	3	S 3
A4P1- 3	J2- 3	AN ACK/LO	178	COAX	3A	
A4P1-	J2-	JACKET FOR WIRE NO 5		9	5	S 5
A4P1- 4	J2- 4	MODE PRE (BAR)	178	COAX	5A	
A4P1- 5	SHIELD 5	SHIELD	24	0	5S	
A4P1-	J2-	JACKET FOR WIRE NO 7		9	7	S 7
A4P1- 6	J2- 6	PSRDY(BAR)	178	COAX	7A	
A4P1- 7	SHIELD 7	SHIELD	24	0	7S	
A4P1- 8	SHIELD 3	SHIELD	24	0	3S	
A4P1-	J2-	JACKET FOR WIRE NO 9		9	9	S 9
A4P1- 9	J2- 9	PSI	178	COAX	9A	
A4P1-	J2-	JACKET FOR WIRE NO 11		9	11	S11
A4P1- 10	J2- 10	PS2	178	COAX	11A	
A4P1- 11	SHIELD 11	SHIELD	24	0	11S	
A4P1-	J2-	JACKET FOR WIRE NO 13		9	13	S 13
A4P1- 12	J2- 12	PS3	178	COAX	13A	
A4P1- 13	SHIELD 13	SHIELD	24	0	13S	
A4P1-	J2-	JACKET FOR WIRE NO 15		9	15	S15
A4P1- 14	J2- 14	PS4	178	COAX	15A	
A4P1- 15	SHIELD 15	SHIELD	24	0	15S	
A4P1- 16	SHIELD 9	SHIELD	24	0	9S	
A4P1-	J2-	JACKET FOR WIRE NO 17		9	17	S 17
A4P1- 17	J2- 17	PS5	178	COAX	17A	
A4P1- 18	SHIELD 17	SHIELD	24	0	17S	
A4P1-	J2-	JACKET FOR WIRE NO 19		9	19	S 19
A4P1- 19	J2- 19	PS6	178	COAX	19A	
A4P1- 20	SHIELD 19	SHIELD	24	0	19S	

TABLE 6-42. CABLE W53 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
A4P1-	J2-	JACKET FOR WIRE NO 21		9	21	S 21
A4P1- 21	J2- 21	AN RDY(BAR)	178	COAX	21A	
A4P1- 22	SHIELD 21	SHIELD	24	0	21S	
A4P1-	J2-	JACKET FOR WIRE NO 23		9	23	S 23
A4P1- 23	J2- 23	ANI	178	COAX	23A	
A4P1- 24	SHIELD 23	SHIELD	24	0	23S	
A4P1-	J2-	JACKET FOR WIRE NO 25		9	25	S 25
A4P1- 25	J2-	25 AN2	178	COAX	25A	
A4P1-	J2-	JACKET FOR WIRE NO 27	9	27	S 27	
A4P1- 26	J2- 26	AN3	178	COAX	27A	
A4P1- 27	SHIELD 27	SHIELD	24	0	27S	
A4P1-	J2-	JACKET FOR WIRE NO 29		9	29	S 29
A4P1- 28	J2- 28	AN4	178	COAX	29A	
A4P1- 29	SHIELD 29	SHIELD	24	0	29S	
A4P1-	J2-	JACKET FOR WIRE NO 31		9	31	S 31
A4P1- 30	J2- 30	AN5	178	COAX	31A	
A4P1- 31	SHIELD 31	SHIELD	24	0	31S	
A4P1- 32	SHIELD 25	SHIELD	24	0	25S	
A4P1-	J2-	JACKET FOR WIRE NO 33		9	33	S 33
A4P1- 33	J2- 33	AN6 (BAR)	178	COAX	33A	
A4P1- 34	SHIELD 33	SHIELD	24	0	33S	
A4P1-	J2-	JACKET FOR WIRE NO 35		9	35	S 35
A4P1- 35	J2- 35	EDIT RDY (BAR)	178	COAX	35A	
A4P1- 36	SHIELD 35	SHIELD	24	0	35S	
A4P1-	J2-	JACKET FOR WIRE NO 37		9	37	S 37
A4P1- 37	J2- 37	CURS RDY (BAR)	178	COAX	37A	
A4P1- 38	SHIELD 37	SHIELD	24	0	37S	
A4P1-	J2-	JACKET FOR WIRE NO 39		9	39	S 39
A4P1- 39	J2- 39	MODE	178	COAX	39A	
A4P1-	J2-	JACKET FOR WIRE NO 41		9	41	S 41
A4P1- 40	J2- 40	XMITT(BAR)	178	COAX	41A	
A4P1- 41	SHIELD 41	SHIELD	24	0	41S	
A4P1-	J2-	JACKET FOR WIRE NO 43		9	43	S 43
A4P1- 42	J2- 42	PS7(BAR)	178	COAX	43A	
A4P1- 43	SHIELD 43	SHIELD	24	0	43S	
A4P1- 46	SHIELD 39	SHIELD	24	0	39S	
A4P1- 49	J2- 49	REPEAT	22	9	49	
A4P1-	J2-	JACKET FOR WIRE NO 50		9	50	S 50
A4P1- 50	J2- 50	SIG GRD	22	9	50A	
A4P1- 51	J2- 51	+5VDC	22	96	50B	
A4P1- 52	SHIELD 50	CHASSIS GND	24	9	50S	
A4P1-	J2-	JACKET FOR WIRE NO 53		9	53	S 53
A4P1- 53	J2- 53	+14VDC	22	9	53A	
A4P1- 54	J2- 54	+28VDC	22	96	538	
A4P1- 55	SHIELD 53	SIG GND	24	9	53S	

TABLE 6-43. CABLE W54 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
A3P1						
A3P1-	SHIELD 47	TIEBACK	24	0	47S	
A3P1-	P2-	JACKET FOR WIRE NO 45		9	45	S 45
A3P1-	P2-	TIEBACK	178	COAX	45A	
A3P1-	P2-	JACKET FOR WIRE NO 47		9	47	S 47
A3P1-	P2-	TIEBACK	178	COAX	47A	
A3P1-	SHIELD 45	TIEBACK	24	0	45S	
A3P1-	P2-	JACKET FOR WIRE NO 1		9	1	S 11
A3P1- 1	P2- 1	PSACK/LO	178	COAX	1A	
A3P1- 2	SHIELD 1	SHIELD	24	0	1S	
A3P1-	P2-	JACKET FOR WIRE NO 3		9	3	S 3
A3P1- 3	P2- 3	AN ACK/LO	178	COAX	3A	
A3P1-	P2-	JACKET FOR WIRE NO 5		9	5	S 5
A3P1- 4	P2- 4	MODE PRE (BAR)	178	COAX	5A	
A3P1- 5	SHIELD 5	SHIELD	24	0	5S	
A3P1-	P2-	JACKET FOR WIRE NO 7		9	7 S 7	
A3P1- 6	P2- 6	PSRDY(BAR)	178	COAX	7A	
A3P1- 7	SHIELD 7	SHIELD	24	0	7S	
A3P1- 8	SHIELD 3	SHIELD	24	0	3S	
A3P1-	P2-	JACKET FOR WIRE NO 9		9	9	S 9
A3P1- 9	P2- 9	PS1	178	COAX	9A	
A3P1-	P2-	JACKET FOR WIRE NO 11		9	11	S11
A3P1- 10	P2- 10	PS2	178	COAX	11A	
A3P1- 11	SHIELD 11	SHIELD	24	0	11S	
A3P1-	P2-	JACKET FOR WIRE NO 13		9	13	S 13
A3P1- 12	P2- 12	PS3	178	COAX	13A	
A3P1- 13	SHIELD 13	SHIELD	24	0	13S	
A3P1-	P2-	JACKET FOR WIRE NO 15		9	15	S15
A3P1- 14	P2- 14	PS4	178	COAX	15A	
A3P1- 15	SHIELD 15	SHIELD	24	0	15S	
A3P1- 16	SHIELD 9	SHIELD	24	0	9S	
A3P1-	P2-	JACKET FOR WIRE NO 17		9	17	S 17
A3P1- 17	P2- 17	PS5	178	COAX	17A	
A3P1- 18	SHIELD 17	SHIELD	24	0	17S	
A3P1-	P2-	JACKET FOR WIRE NO 19		9	19	S 19
A3P1- 19	P2- 19	PS6	178	COAX	19A	
A3P1- 20	SHIELD 19	SHIELD	24	0	19S	
A3P1-	P2-	JACKET FOR WIRE NO 21		9	21	S 21
A3P1- 21	P2- 21	AN RDY(BAR)	178	COAX	21A	
A3P1- 22	SHIELD 21	SHIELD	24	0	21S	
A3P1-	P2-	JACKET FOR WIRE NO 23		9	23	S 23
A3P1- 23	P2- 23	ANI	178	COAX	23A	
A3P1- 24	SHIELD 23	SHIELD	24	0	23S	
A3P1-	P2-	JACKET FOR WIRE NO 25		9	25	S 25
A3P1- 25	P2- 25	AN2	178		COAX	25A
A3P1-	P2-	JACKET FOR WIRE NO 27		9	27	S 27
A3P1- 26	P2- 26	AN3	178	COAX	27A	
A3P1- 27	SHIELD 27	SHIELD	24	0	27S	
A3P1-	P2-	JACKET FOR WIRE NO 29		9	29	S 29
A3P1- 28	P2- 28	AN4	178	COAX	29A	
A3P1- 29	SHIELD 29	SHIELD	24	0	29S	
A3P1-	P2-	JACKET FOR WIRE NO 31		9	31	S 31
A3P1- 30	P2- 30	AN5	178	COAX	31A	
A3P1- 31	SHIELD 31	SHIELD	24	0	31S	
A3P1- 32	SHIELD 25	SHIELD	24	0	25S	
A3P1-	P2-	JACKET FOR WIRE NO 33		9	33	S 33
A3P1- 33	P2- 33	AN6(BAR)	178	COAX	33A	
A3P1- 34	SHIELD 33 SHIELD	24	0	33S		
A3P1-	P2-	JACKET FOR WIRE NO 35		9	35	S 35
A3P1- 35	P2- 35	EDIT RDY (BAR)	178	COAX	35A	

TABLE 6-43. CABLE W54 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
A3P1- 36	SHIELD 35	SHIELD	24	0	35S	
A3P1- 37	P2- 37	CURS RDY (BAR)	178	COAX	37A	
A3P1- 38	SHIELD 37	SHIELD	24	0	37S	
A3P1-	P2-	JACKET FOR WIRE NO 39		9	39	S 39
A3P1- 39	P2- 39	MODE	178	COAX	39A	
A3P1-	P2-	JACKET FOR WIRE NO 41		9	41	S 41
A3P1- 40	P2- 40	XMITT(BAR)	178	COAX	41A	
A3P1- 41	SHIELD 41	SHIELD	24	0	41S	
A3P1-	P2-	JACKET FOR WIRE NO 43		9	43	S 43
A3P1- 42	P2- 42	PS7(BAR)	178	COAX	43A	
A3P1- 43	SHIELD 43	SHIELD	24	0	43S	
A3P1- 46	SHIELD 39	SHIELD	24	0	39S	
A3P1- 49	P2- 49	REPEAT	22	9	49	
A3P1-	P2-	JACKET FOR WIRE NO 50		9	50	S 50
A3P1- 50	P2- 50	SIG GND	22	9	50A	
A3P1- 51	P2- 51	+5VDC	22	96	50B	
A3P1- 52	SHIELD 50	CHASSIS GND	24	0	50S	
A3P1-	P2-	JACKET FOR WIRE NO 53		9	53	S 53
A3P1- 53	P2- 53	+14VDC	22	9	53A	
A3P1- 54	P2- 54	+2SVDC	22	96	53B	
A3P1- 55	SHIELD 53	SIG GND	24	0	53S	
P2						
P2-	SHIELD 45	TIEBACK	24	0	45F	
P2-	A3P1-	JACKET FOR WIRE NO 47		9	47	S 47
P2-	A3P1-	TIEBACK 178	COAX	47A		
P2-	A3P1-	JACKET FOR WIRE NO 45		9	45	S 45
P2-	A3P1-	TIEBACK 178	COAX	45A		
P2-	A3P1-	JACKET FOR WIRE NO 1		9	1	S 1
P2- 1	A3P1- 1	PSACK/LO	178	COAX	1A	
P2- 2	SHIELD 1	SHIELD	24	0	IF	
P2-	A3P1-	JACKET FOR WIRE NO3		9	3	S 3
P2- 3	A3P1- 3	AN ACK/LO	178	COAX	3A	
P2-	A3P1-	JACKET FOR WIRE NO 5		9	5	S 5
P2- 4	A3P1- 4	MODE PRE (BAR)	178	COAX	5A	
P2- 5	SHIELD 5	SHIELD	24	0	5F	
P2-	A3P1-	JACKET FOR WIRE NO 7		9	7	S 7
P2- 6	A3P1- 6	PSRDY(BAR)	178	COAX	7A	
P2- 7	SHIELD 7	SHIELD	24	0	7F	
P2- 8	SHIELD 3	SHIELD	24	0	3F	
P2-	A3P1-	JACKET FOR WIRE NO 9		9	9	S 9
P2- 9	A3P1- 9	PS1	178	COAX	9A	
P2-	A3P1-	JACKET FOR WIRE NO 11		9	11	S11
P2- 10	A3P1- 10	PS2	178	COAX	11A	
P2- 11	SHIELD 11	SHIELD	24	0	11F	
P2-	A3P1-	JACKET FOR WIRE NO 13		9	13	S 13
P2- 12	A3P1- 12	PS3	178	COAX	13A	
P2- 13	SHIELD 13	SHIELD	24	0	13F	
P2-	A3P1-	JACKET FOR WIRE NO 15		9	15	S 15
P2- 14	A3P1- 14	PS4	178	COAX	15A	
P2- 15	SHIELD 15	SHIELD	24	0	15F	
P2- 16	SHIELD 9	SHIELD	24	0	9F	
P2-	A3P1-	JACKET FOR WIRE NO 17		9	17	S 17
P2- 17	A3P1- 17	PS5	178	COAX	17A	
P2- 18	SHIELD 17	SHIELD	24	0	17F	
P2-	A3P1-	JACKET FOR WIRE NO 19		9	19	S 19
P2- 19	A3P1- 19	PS6	178	COAX	19A	
P2- 20	SHIELD 19	SHIELD	24	0	19F	
P2-	A3P1-	JACKET FOR WIRE NO 21		9	21	S 21
P2- 21	A3P1- 21	ANRDY(BAR)	178	COAX	21A	

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TABLE 6-43. CABLE W54 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P2- 22	SHIELD 21	SHIELD	24	0	21F	
P2- A3P1-		JACKET FOR WIRE NO 23		9	23	S 23
P2- 23	A3P1- 23	AN1	178	COAX	23A	
P2- 24	SHIELD 23	SHIELD	24	0	23F	
P2-	A3P1-	JACKET FOR WIRE NO 25		9	25	S 25
P2- 25	A3P1- 25	AN2	178	COAX	25A	
P2-	A3P1-	JACKET FOR WIRE NO 27		9	27	S 27
P2- 26	A3P1- 26	AN3	178	COAX	27A	
P2- 27	SHIELD 27	SHIELD	24	0	27F	
P2-	A3P1-	JACKET FOR WIRE NO 29		9	29	S 29
P2- 28	A3P1- 28	AN4	178	COAX	29A	
P2- 29	SHIELD 29	SHIELD	24	0	29F	
P2-	A3P1-	JACKET FOR WIRE NO 31		9	31	S 31
P2- 30	A3P1- 30	AN5	178	COAX	31A	
P2- 31	SHIELD 31	SHIELD	24	0	31F	
P2- 32	SHIELD 25	SHIELD	24	0	25F	
P2-	A3P1-	JACKET FOR WIRE NO 33		9	33	S 33
P2- 33	A3P1- 33	AN6(BAR)	178	COAX	33A	
P2- 34	SHIELD 33	SHIELD	24	0	33F	
P2-	A3P1-	JACKET FOR WIRE NO 35		9	35	S 35
P2- 35	A3P1- 35	EDIT RDY(BAR)	178	COAX	35A	
P2- 36	SHIELD 35	SHIELD	24	0	35F	
P2-	A3P1-	JACKET FOR WIRE NO 37		9	37	S 37
P2- 37	A3P1- 37	CURS RDY (BAR)	178	COAX	37A	
P2- 38	SHIELD 37	SHIELD	24	0	37F	
P2-	A3P1-	JACKET FOR WIRE NO 39		9	39	S 39
P2- 39	A3P1- 39	MODE	178	COAX	39A	
P2-	A3P1-	JACKET FOR WIRE NO 41		9	41	S 41
P2- 40	A3P1- 40	XMITT(BAR)	178	COAX	41A	
P2- 41	SHIELD 41	SHIELD	24	0	41F	
P2-	A3P1-	JACKET FOR WIRE NO 43		9	43	S 43
P2- 42	A3P1- 42	PS7(BAR)	178	COAX	43A	
P2- 43	SHIELD 43	SHIELD	24	0	43F	
P2- 46	SHIELD 39	SHIELD	24	0	39F	
P2- 49	A3P1- 49	REPEAT	22	9	49	
P2-	A3P1-	JACKET FOR WIRE NO 50		9	50	S 50
P2- 50	A3P1- 50	SIG GND	22	9	50A	
P2- 51	A3P1- 51	+5VDC	22	96	50B	
P2- 52	SHIELD 50	CHASSIS GND	24	0	50F	
P2-	A3P1-	JACKET FOR WIRE NO 53		9	53	S 53
P2- 53	A3P1- 53	+14VDC	22	9	53A	
P2- 54	A3P1- 54	+28VDC	22	96	53B	
P2- 55	SHIELD 53	SIG GND	24	0	53F	

TABLE 6-44. CABLE W58 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P3	(J3)	TRANSFORMER				
P3-	P11-	JACKET FOR WIRE NO 1		9	1	S 1
P3- A	P11- A	HV PWR SPLY PHASE A	20	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	0	1S	
P3- B	P11- B	HV PWR SPLY PHASE B	20	6	1B	
P3- C	P11- C	HV PWR SPLY PHASE C	20	3	1C	
P3- D	P11- D	HV PWR SPLY NEUTRAL	20	5	1D	
P3-	P11-	JACKET FOR WIRE NO 2		9	2	S 2
P3- E	P11- E	SPARE	20	9	2A	
P3- F	P11- F	SPARE	20	6	2B	
P3- G	P11- G	SPARE	20	3	2C	
P3- H	P11- H	SPARE	20	5	2D	
P3- J	SHIELD 2	SHIELD	22	0	2S	
P3-	P11-	JACKET FOR WIRE NO 3		9	3	S 3
P3- K	P11- K	SPARE	20	9	3A	
P3- L	P11- L	SPARE	20	6	38	
P3- M	P11- M	SPARE	20	3	3C	
P3- N	SHIELD 3	SHIELD	22	0	3S	
P3-	P11-	JACKET FOR WIRE NO 4		9	4	S 4
P3- P	P11- P	SPARE	20	9	4A	
P3- R	P11- R	SPARE	20	6	48	
P3- S	SHIELD 4	SHIELD	22	0	4S	
P3-	P11-	JACKET FOR WIRE NO 5		9	5	S 5
P3- T	P11- T	DRAWER FANS PH A	20	9	5A	
P3- U	P11- U	DRAWER FANS PH B	20	6	5B	
P3- V	P11- V	DRAWER FANS PH C	20	3	5C	
P3- W	P11- W	SPARE (SEE NOTE 5)	16	9	6	
P3- X	SHIELD 5	SHIELD	22	0	5S	
P3- Y	SHIELD 6	SHIELD (SEE NOTE 6)	22	0	6S	
P3- Z	P11- Z	SPARE	16	9	7	
P11	(J11)	POWER SUPPLY				
P11-	P3-	JACKET FOR WIRE NO 1		9	1	S 1
P11- A	P3- A	HV PWR SPLY PHASE A	20	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	0	1F	
P11- B	P3- B	HV PWR SPLY PHASE B	20	6	1B	
P11- C	P3- C	HV PWR SPLY PHASE C	20	3	1C	
P11- D	P3- D	HV PWR SPLY NEUTRAL	20	5	1D	
P11-	P3-	JACKET FOR WIRE NO 2		9	2	S 2
P11- E	P3- E	SPARE	20	9	2A	
P11- F	P3- F	SPARE	20	6	2B	
P11- G	P3- G	SPARE	20	3	2C	
P11- H	P3- H	SPARE	20	5	2D	
P11- J	SHIELD 2	SHIELD	22	0	2F	
P11-	P3-	JACKET FOR WIRE NO 3		9	3	S 3
P11- K	P3- K	SPARE	20	9	3A	
P11- L	P3- L	SPARE	20	6	38	
P11- M	P3- M	SPARE	20	3	3C	
P11- N	SHIELD 3	SHIELD	22	0	3F	
P11-	P3-	JACKET FOR WIRE NO 4		9	4	S 4
P11- P	P3- P	SPARE	20	9	4A	
P11- R	P3- R	SPARE	20	6	4B	
P11- S	SHIELD 4	SHIELD	22	0	4F	
P11-	P3-	JACKET FOR WIRE NO 5		9	5	S 5
P11- T	P3- T	DRAWER FANS PH A	20	9	5A	
P11- U	P3- U	DRAWER FANS PH B	20	6	58	
P11- V	P3- V	DRAWER FANS PH C	20	3	5C	
P11- W	P3- W	SPARE (SEE NOTE 5)	16	9	6	
P11- X	SHIELD 5	SHIELD	22	0	5F	

TABLE 6-44. CABLE W58 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P11- Y	SHIELD 6	SHIELD(SEE NOTE 6)	22	0	6F	
P11- Z	P3- Z	SPARE	16	9	7	

TABLE 6-45. CABLE W68 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P9	(J9)	STARTER				
P9-	P14-	JACKET FOR WIRE NO 1		9	1	S 1
P9- 1	P14- 1	6.0 KV SUPPLY RTN	22	9	1A	
SHIELD 1	SHIELD2 SHIELD	22	0	1F		
P9-	P14-	JACKET FOR WIRE NO 2		9	2	S 2
P9- 2	P14- 2	1.4 KV SUPPLY RTN	22	9	2A	
P9- 3	SHIELD 2	SHIELD	22	0	2F	
P9-	P14-	JACKET FOR WIRE NO 3		9	3	S 3
P9- 4	P14- 4	HV INTLK IN (STARTER)	22	9	3A	
P9- 5	P14- 5	HV INTLK OUT (STARTER)	22	6	3B	
P9- 6	SHIELD 3	SHIELD	22	0	3F	
P9-	P14-	JACKET FOR WIRE NO 4		9	4	S 4
P9- 7	P14- 7	DIR VIEW START RELAY DRIVE	22	9	4A	
SHIELD 4	SHIELD 5	SHIELD	22	0	4F	
P9- 8	P14- 8	+28 V	22	6	4	
P9-	P14-	JACKET FOR WIRE NO 5		9	5	S 5
P9- 9	P14- 9	STEREO START RELAY DRIVE	22	9	5A	
P9- 10	SHIELD 5	SHIELD	22	0	5F	
P9-	P14-	JACKET FOR WIRE NO 6		9	6	S 6
P9- 11	P14- 11	SPARE	22	9	6A	
P9- 12	P14- 12	SPARE	22	6	6B	
P9- 13	SHIELD 6	SHIELD	22	0	6F	
P14	(J14)	POWER SUPPLY				
P14-	P9-	JACKET FOR WIRE NO 1		9	1	S 1
P14- 1	P9- 1	6 0 KV SUPPLY RTN	22	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	0	1S	
P14-	P9-	JACKET FOR WIRE NO 2		9	2	S 2
P14- 2	P9- 2	1.4 KV SUPPLY RTN	22	9	2A	
P14- 3	SHIELD 2	SHIELD	22	0	2S	
P14-	P9-	JACKET FOR WIRE NO 3		9	3	S 3
P14- 4	P9- 4	HV INTLK IN (STARTER)	22	9	3A	
P14- 5	P9- 5	HV INTLK OUT (STARTER)	22	6	3B	
P14- 6	SHIELD 3	SHIELD	22	0	3S	
P14-	P9-	JACKET FOR WIRE NO 4		9	4	S 4
P14- 7	P9- 7	DIR VIEW START RELAY DRIVE	22	9	4A	
SHIELD 4	SHIELD 5	SHIELD	22	0	4S	
P14- 8	P9- 8	+28V	22	6	4B	
P14-	P9-	JACKET FOR WIRE NO 5		9	5	S 5
P14- 9	P9- 9	STEREO START RELAY DRIVE	22	9	5A	
P14- 10	SHIELD 5	SHIELD	22	0	5S	
P14-	P9-	JACKET FOR WIRE NO 6		9	6	S 6
P14- 11	P9- 11	SPARE	22	9	6A	
P14- 12	P9- 12	SPARE	22	6	6B	
P14- 13	SHIELD 6	SHIELD	22	0	6S	

905806-

TABLE 6-46 CABLE W69 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1						
P1-	P11-	JACKET FOR WIRE NO 1		91	1	S 1
P1- 1	P11- 1	28 VDCMAPX	22	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	90	1S	
P1-	P11-	JACKET FOR WIRE NO 2		92	2	S 2
P1- 2	P11- 2	MAP X-V RES 28	22	9	2A	
SHIELD 2	SHIELD 3	SHIELD	22	90	2S	
P1-	P11-	JACKET FOR WIRE NO 3		93	3	S 3
P1- 3	P11- 3	MAP X-W RES 28	22	9	3A	
SHIELD 3	SHIELD 4	SHIELD	22	90	3S	
P1-	P11-	JACKET FOR WIRE NO 4		94	4	S 4
P1- 4	P11- 4	MAP X-X RES 28	22	9	4A	
SHIELD 4	SHIELD 5	SHIELD	22	90	4S	
P1-	P11-	JACKET FOR WIRE NO 5		95	5	S 5
P1- 5	P11- 5	MAP X-Y RES 28	22	9	5A	
SHIELD 5	SHIELD 6	SHIELD	22	90	5S	
P1-	P11-	JACKET FOR WIRE NO 6		96	6	S 6
P1- 6	P11- 6	+28VMAPX	22	9	6A	
SHIELD 6	SHIELD 7	SHIELD	22	90	6S	
P1-	P11-	JACKET FOR WIRE NO 7		97	7	S 7
P1- 7	P11- 7	MAPX-ZRES 28	22	9	7A	
P1- 8	SHIELD 7	SHIELD	22	90	7S	
P1-	P11-	JACKET FOR WIRE NO 8		98	8	S 8
P1- 9	P11- 9	+28VFILMX	22	9	8A	
SHIELD 8	SHIELD 9	SHIELD	22	90	8S	
P1-	P11-	JACKET FOR WIRE NO 9		901	9	S 9
P1-10	P11- 10	FILM X-V RES 28	22	9	9A	
P1-	P11-	JACKET FOR WIRE NO 10		902	10	S 10
SHIELD 9	SHIELD 10	SHIELD	22	90	9S	
P1- 11	P11- 11	FILM X-W RES 28	22	9	10A	
SHIELD 10	SHIELD 11	SHIELD	22	90	10S	
P1- 12	P11- 12	FILM X-X RES 28	22	9	11A	
P1-	P11-	JACKET FOR WIRE NO 12		904	12	S 12
P1- 13	P11- 13	FILM X-Y RES 28	22	9	12A	
P1-	P11-	JACKET FOR WIRE NO 13		905	13	S 13
SHIELD 12	SHIELD 13	SHIELD	22	90	12S	
P1- 14	P11- 14	+28VFILMX	22	9	13A	
P1-	P11-	JACKET FOR WIRE NO 14		906	14	S 14
SHIELD 13	SHIELD 14	SHIELD	22	90	13S	
P1- 15	P11- 15	FILM X-Z RES 28	22	9	14A	
P1- 16	SHIELD 14	SHIELD	22	90	14S	
P1-	P11-	JACKET FOR WIRE NO 15		907	15	S15
P1-17	P11- 17	28VDCFILMY	22	9	15A	
P1-	P11-	JACKET FOR WIRE NO 16		908	16	S 16
SHIELD 15	SHIELD 16	SHIELD	22	90	15S	
P1- 18	P11- 18	FILM Y-V RES 28	22	9	16A	
P1-	P11-	JACKET FOR WIRE NO 17		912	17	S 17
SHIELD 16	SHIELD 17	SHIELD	22	90	16S	
P1- 19	P11- 19	FILM Y-W RES 28	22	9	17A	
SHIELD 17	SHIELD 18	SHIELD	22	90	17S	
P1- 20	P11- 20	FILM Y-X RES 28	22	9	18A	
SHIELD 18	SHIELD 19	SHIELD	22	90	18S	
P1- 21	P11- 21	FILM Y-Y RES 28	22	9	19A	
SHIELD 19	SHIELD 20	SHIELD	22	90	19S	
P1-	P11-	JACKET FOR WIRE NO 20		915	20	S 20
P1- 22	P11- 22	+28 VDCFILMY	22	9	20A	
SHIELD 20	SHIELD 21	SHIELD	22	90	20S	

2085478-

TABLE 6-46. CABLE W69 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P1-	P11-	JACKET FOR WIRE NO 21		916	21	S 21
P1- 23	P11- 23	FILM Y-Z RES 28	22	9	21A	
P1- 24	SHIELD 21	SHIELD	22	90	21S	
P1-	P11-	JACKET FOR WIRE NO 22		917	22	S 22
P1- 25	P11- 25	+28VDCMAPY	22	9	22A	
SHIELD 22	SHIELD 23	SHIELD	22	90	22S	
P1-	P11-	JACKET FOR WIRE NO 23		918	23	S 23
P1- 26	P11- 26	MAPY-VRES28	22	9	23A	
SHIELD 23	SHIELD 24	SHIELD	22	90	23S	
P1-	P11-	JACKET FOR WIRE NO 24		923	24	S 24
P1- 27	P11- 27	MAPY-WRES28	22	9	24A	
SHIELD 24	SHIELD 25	SHIELD	22	90	24S	
P1-	P11-	JACKET FOR WIRE NO 25		924	25	S 25
P1- 28	P11- 28	MAPY-XRES28	22	9	25A	
SHIELD 25	SHIELD 26	SHIELD	22	90	25S	
P1-	P11-	JACKET FOR WIRE NO 26		925	26	S 26
P1- 29	P11- 29	MAP Y-Y RES28	22	9	26A	
SHIELD 26	SHIELD 27	SHIELD	22	90	26S	
P1-	P11-	JACKET FOR WIRE NO 27		926	27	S 27
P1- 30	P11- 30	28 VDC MAP Y	22	9	27A	
SHIELD 27	SHIELD 28	SHIELD	22	90	27S	
P1-	P11-	JACKET FOR WIRE NO 28		927	28	S 28
P1- 31	P11- 31	+28V REGULATED	22	9	28A	
SHIELD 28	SHIELD 29	SHIELD	22	90	28S	
P1-	P11-	JACKET FOR WIRE NO 29		928	29	S 29
P1- 32	P11- 32	MAPY-ZRES 28	22	9	29A	
P1- 33	SHIELD 29	SHIELD	22	90	29S	
P1-	P11-	JACKET FOR WIRE NO 30		934	30	S 30
P1- 34	P11- 34	SPARE	22	9	30A	
SHIELD 30	SHIELD 31	SHIELD	22	90	30S	
P1-	P11	JACKET FOR WIRE NO 31		935	31	S31
P1- 35	P11- 35	SPARE	22	9	31A	
P1- 36	SHIELD 31	SHIELD	22	90	31S	
P11						
P11-	P1-	JACKET FOR WIRE NO 1		91	1	S 1
P11- 1	P1- 1	28 VDCMAPX	22	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	90	1F	
P11-	P1-	JACKET FOR WIRE NO 2		92	2	S 2
P11- 2	P1- 2	MAP X-V RES 28	22	9	2A	
SHIELD 2	SHIELD 3	SHIELD	22	90	2F	
P11-	P1-	JACKET FOR WIRE NO 3		93	3	S 3
P11- 3	P1- 3	MAP X-W RES 28	22	9	3A	
SHIELD 3	SHIELD 4	SHIELD22	90	3F		
P11-	P1-	JACKET FOR WIRE NO 4		94	4	S 4
P11- 4	P1- 4	MAP X-X RES 28	22	9	4A	
SHIELD 4	SHIELD 5	SHIELD	22	90	4F	
P11-	P1-	JACKET FOR WIRE NO 5		95	5	S 5
P11- 5	P1- 5	MAPX-YRES 28	22	9	5A	
SHIELD 5	SHIELD 6	SHIELD	22	90	5F	
P11-	P1-	JACKET FOR WIRE NO 6		96	6	S 6
P11- 6	P1- 6	+28VMAPX	22	9	6A	
SHIELD 6	SHIELD 7	SHIELD	22	90	6F	
P11-	P1-	JACKET FOR WIRE NO 7		97	7	S 7
P11- 7	P1- 7	MAPX-ZRES 28	22	9	7A	
P11- 8	SHIELD 7	SHIELD	22	90	7F	
P11-	P1-	JACKET FOR WIRE NO 8		98	8	S 8
P11- 9	P1- 9	+28VFILMX	22	9	8A	
SHIELD 8	SHIELD 9	SHIELD	22	90	8F	
P11-	P1-	JACKET FOR WIRE NO 9		901	9	S 9
P11- 10	PL- 10	FILM X-V RES 28	22	9	9A	
SHIELD 9	SHIELD 10	SHIELD	22	90	9F	

2085478-

TABLE 6-46. CABLE W69 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P11-	P1-	JACKET FOR WIRE NO 10		902	10	S 10
P11- 11	P1- 11	FILM X-W RES 28	22	9	10A	
SHIELD 10	SHIELD 11	SHIELD	22	90	LOF	
P11-	P1-	JACKET FOR WIRE NO 11		903	11	S 11
P11- 12	P1- 12	FILM X-X RES 28	22	9	11A	
SHIELD 11	SHIELD 12	SHIELD	22	90	11F	
P11-	P1-	JACKET FOR WIRE NO 12		904	12	S 12
P11- 13	P1- 13	FILM X-Y RES 28	22	9	12A	
SHIELD 12	SHIELD 13	SHIELD	22	90	12F	
P11-	P1-	JACKET FOR WIRE NO 13		905	13	S 13
P11- 14	P1- 14	+28VFILMX	22	9	13A	
SHIELD 13	SHIELD 14	SHIELD	22	90	13F	
P11-	P1-	JACKET FOR WIRE NO 14		906	14	S 14
P11- 15	P1- 15	FILM X-Z RES 28	22	9	14A	
P11- 16	SHIELD 14	SHIELD	22	90	14F	
P11-	P1-	JACKET FOR WIRE NO 15		907	15	S 15
P11- 17	P1- 17	28 VDCFILMY	22	9	15A	
SHIELD 15	SHIELD 16	SHIELD	22	90	15F	
P11-	P1-	JACKET FOR WIRE NO 16		908	16	S 16
P11- 18	P1- 18	FILM Y-V RES 28	22	9	16A	
SHIELD 16	SHIELD 17	SHIELD	22	90	16F	
P11-	P1-	JACKET FOR WIRE NO 17		912	17	S 17
P11- 19	P1- 19	FILM Y-W RES 28	22	9	17A	
SHIELD 17	SHIELD 18	SHIELD	22	90	17F	
P11-	P1-	JACKET FOR WIRE NO 18		913	18	S 18
P11- 20	P1- 20	FILM Y-X RES 28	22	9	18A	
SHIELD 18	SHIELD 19	SHIELD	22	90	18F	
P11-	P1-	JACKET FOR WIRE NO 19		914	19	S 19
P11- 21	P1- 21	FILM Y-Y RES 28	22	9	19A	
SHIELD 19	SHIELD 20	SHIELD	22	90	19F	
P11-	P1-	JACKETFORWIRENO20		915	20	S20
P11- 22	P1- 22	+28 VDCFILMY	22	9	20A	
SHIELD 20	SHIELD 21	SHIELD	22	90	20F	
P11-	P1-	JACKET FOR WIRE NO 21		916	21	S 21
P11- 23	P1- 23	FILM Y-Z RES 28	22	9	21A	
P11- 24	SHIELD 21	SHIELD	22	90	21F	
P11-	P1-	JACKET FOR WIRE NO 22		917	22	S 22
P11- 25	P1- 25	+28VDCMAPY	22	9	22A	
SHIELD 22	SHIELD 23	SHIELD	22	90	22F	
P11-	P1-	JACKET FOR WIRE NO 23		918	23	S 23
P11- 26	P1- 26	MAP Y-V RES 28	22	9	23A	
SHIELD 23	SHIELD 24	SHIELD	22	90	23F	
P11-	P1-	JACKET FOR WIRE NO 24		923	24	S 24
P11- 27	P1- 27	MAP Y-W RES 28	22	9	24A	
SHIELD 24	SHIELD 25	SHIELD	22	90	24F	
P11-	P1-	JACKET FOR WIRE NO 25		924	25	S 25
P11- 28	P1- 28	MAP Y-X RES 28	22	9	25A	
SHIELD 25	SHIELD 26	SHIELD	22	90	25F	
P11-	P1-	JACKET FOR WIRE NO 26		925	26	S 26
P11- 29	P1- 29	MAPY-YRES 28	22	9	26A	
SHIELD 26	SHIELD 27	SHIELD	22	90	26F	
P11-	P1-	JACKET FOR WIRE NO 27		926	27	S 27
P11- 30	P1- 30	28 VDC MAP Y	22	9	27A	
SHIELD 27	SHIELD 28	SHIELD	22	90	27F	
P11-	P1-	JACKET FOR WIRE NO 28		927	28	S 28
P11- 31	P1- 31	+28V REGULATED	22	9	28A	
SHIELD 28	SHIELD 29	SHIELD	22	90	28F	
P11-	P1-	JACKET FOR WIRE NO 29		928	29	S 29
P11- 32	P1- 32	MAP Y-Z RES 28	22	9	29A	
P11- 33	SHIELD 29	SHIELD	22	90	29F	

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TABLE 6-46. CABLE W69 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P11-	P1-	JACKET FOR WIRE NO 30		934	30	S 30
P11- 34	P1- 34	SPARE	22	9	30A,	
SHIELD 30	SHIELD 31	SHIELD	22	90	30F	
P11-	P1-	JACKET FOR WIRE NO 31		935	31	S 31
P11- 35	P1- 35	SPARE	22	9	31A	
P11- 36	SHIELD 31	SHIELD	22	90	31F	

TABLE 6-47. FRAME ASSEMBLY WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
P5						
P5- 3	SHIELD 4	SHIELD	22	90	4S	
P5-	B1-	JACKET FOR WIRE NO 4		90	4	S 4
P5- 4	B1- T4		22	9	4A	
P5- 5	B1- T1		22	6	4B	
A9S1						
A9S1-	TB4-	JACKET FOR WIRE NO 1		93	1	S 1
A9S1- C	TB4- 1	HV INTERLOCK NOTE 4	22	9	1A	
A9S1- NO	TB4- 3	HV INTERLOCK NOTE 4	22	6	1B	
B1		POWER FAN				
B1- T1	P5- 5		22	6	4B	
B1-	P5-	JACKET FOR WIRE NO 4		90	4	S 4
B1- T4	P5- 4		22	9	4A	
SHIELD 4	E1	SHIELD	22	90	4F	
B1- T4	E2		22	90	7	
B1- T8	E3		22	91	6	
E1						
E1	SHIELD 4	SHIELD	22	90	4F	
E2						
E2	B1- T4		22	90	7	
E2	E3	CAPACITOR C1			5	CMPT
E3						
E3	B1- T8		22	91	6	
E3	E2	CAPACITOR C1			5	CMPT
E10						
E10	SHIELD 1	SHIELD GND NOTE 4	22	90	1F	
S4						
S4- C	TB4- 1	HV INTERLOCK	22	94	2	
S4- NO	TB4- 2	HV INTERLOCK	22	95	3	
TB4						
TB4-	A9S1-	JACKET FOR WIRE NO 1		93	1	S 1
TB4- 1	A9S1- C	HV INTERLOCK NOTE 4	22	9	1A	
SHIELD 1	E10	SHIELD GND NOTE 4	22	90	1F	
TB4- 1	S4- C	HV INTERLOCK	22	94	2	
TB4- 2	S4- NO	HV INTERLOCK	22	95	3	
TB4- 3	A9S1- NO	HV INTERLOCK NOTE 4	22	6	1B	

TABLE 6-48. MAPBOARD A6 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1	(P1)					
J1-	P4-	JACKET FOR WIRE NO 29 NOTE 5		94	29	S 29
J1- 1	P4 14	MAP Y MOTOR V NOTE 5	22	0	29A	
SHIELD 29	E1	SHIELD	22	90	29S	
J1- 2	P4- 6	MAP Y MOTOR W NOTE 5	22	1	29B	
J1- 3	P4 8	MAP Y MOTOR X NOTE 5	22	2	29C	
J1- 4	P4- 15	MAP Y MOTORY NOTE 5	22	3	29D	
J1- 5	P4- 7	MAP Y MOTOR Z NOTE 5	22	4	29E	
J1- 6	P4- 1	MAP Y MOTOR RETURN NOTE 5	22	5	29G	
J1- 7	P4- 3	MAP Y MOTOR RETURN NOTE 5	22	6	29H	
J1- 8	P4- 10	MAP Y MOTOR RETURN NOTE 5	22	7	29I	
J1- 9	P4- 2	MAP Y MOTOR RETURN NOTE 5	22	8	29J	
J1- 10	P4- 9	MAP Y MOTORRETURN NOTE	22	9	29K	
J1- 11	SHIELD 29	SHIELD	22	90	29S	
J1- 12	SHIELD 30	SHIELD	22	90	30S	
J1-	P5-	JACKET FOR WIRE NO 30 NOTE 5		93	30	S 30
J1- 13	P5- 14	MAP X MOTOR V NOTE 5	22	0	30A	
SHIELD 30	E1	SHIELD	22	90	30S	
J1- 14	P5- 6	MAP X MOTORW NOTE 5	22	1	30B	
J1- 15	P5- 8	MAP X MOTOR X NOTE 5	22	2	30C	
J1- 16	P5- 15	MAP X MOTORY NOTE 5	22	3	30D	
J1- 17	P5- 7	MAP X MOTORZ NOTE5	22	4	30E	
J1- 18	P5- 1	MAP X MOTORRETURN NOTES	22	5	30G	
J1- 19	P5- 3	MAP X MOTORRETURN NOTES 5	22	6	30H	
J1- 20	P5- 10	MAPXMOTORRETURN NOTE 5	22	7	301	
J1- 21	P5- 2	MAP X MOTOR RETURN NOTES	22	8	30J	
J1- 22	P5- 9	MAP X MOTOR RETURN NOTE 5	22	9	30K	
J2	(P2)					
J2- 1	S1- A C	28V CONTROL	22	90	10	
J2- 2	XDS1- 1	28V CONTROLRTN	22	91	11	
J2- 4	S1- B C	120VACPHA	22	92	12	
J2- 5	P6- 1	NEUTRAL	22	93	13	T 17
J3	P(3)					
J3- 9	S8- NO	MAP X FIRST LIMIT	22	90	1	T 9
J3- 10	S4- NO	MAP Y FIRST LIMIT	22	91	2	T 7
J3- 11	S6- NC	Y STOW LIMIT	22	92	3	T 6
J3- 12	S2- NC	X STOW LIMIT	22	93	4	T 8
J3- 14	S3- C	15V RETURN	22	94	5	
J3- 15	S7- NC	CCW Y FINAL LIMIT	22	95	6	T 3
J3- 16	S5- NC	CW Y FINAL LIMIT	22	96	7	T 2
J3- 17	S3- NC	CCW X FINAL LIMIT	22	97	8	T 4
J3- 18	S9- NC	CW X FINAL LIMIT	22	98	9	T 1
P4		Y MOTOR				
P4- 1	J1- 6	MAP Y MOTORRFTURN NOTES 5	22	5	29G	
P4- 2	J1- 9	MAP Y MOTOR RETURN NOTE 5	22	8	29J	
P4- 3	J1- 7	MAP Y MOTOR RETURN NOTE 5	22	6	29H	
P4- 6	J1- 2	MAP Y MOTORW NOTE 5	22	1	298	
P4- 7	J1- 5	MAP Y MOTORZ NOTE 5	22	4	29E	
P4- 8	J1- 3	MAP Y MOTORX NOTE 5	22	2	29C	
P4- 9	J1- 10	MAPYMOTORRETURN NOTES	22	9	29K	
P4- 10	J1- 8	MAP Y MOTORRETURN NOTE 5	22	7	291	
P4-	J1-	JACKET FOR WIRE NO 29 NOTE 5		94	29	S 29
P4- 14	J1- 1	MAP Y MOTORV NOTE 5	22	0	29A	
SHIELD 29	E2	SHIELD	22	90	29F	
P4- 15	J1- 4	MAP Y MOTOR Y NOTE 5	22	3	29D	

905636-I

TABLE 6-48. MAPBOARD A6 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME		WIRE AWG	COLOR	NO	REMARKS
P5		X MOTOR					
P5- 1	J1- 18	MAP X MOTOR RETURN	NOTE 5	22	5	30G	
P5- 2	J1- 21	MAP X MOTOR RETURN	NOTE 5	22	8	30J	
P5- 3	J1- 19	MAP X MOTOR RETURN	NOTE 5	22	6	30H	
P5- 6	J1- 14	MAP X MOTOR W	NOTE 5	22	1	30B	
P5- 7	J1- 17	MAP X MOTORZ	NOTE 5	22	4	30E	
P5- 8	J1- 15	MAP X MOTOR X	NOTE 5	22	2	30C	
P5- 9	J1- 22	MAP X MOTOR RETURN	NOTE 5	22	9	30K	
P5- 10	J1- 20	MAP X MOTOR RETURN	NOTE 5	22	7	301	
P5-	J1-	JACKET FOR WIRE NO 30 NOTE 5			93	30	S 30
P5- 14	J1- 13	MAP X MOTOR V	NOTE 5		22	0	30A
SHIELD 30	E3	SHIELD		22	90	30F	
P5- 15	J1- 16	MAP X MOTOR Y	NOTE 5	22	3	30D	
P6							
P6- 1	J2- 5	NEUTRAL		22	93	13	T 17
P6- 2	S1- B NO	H V INTERLOCK		22	94	17	T13
E1							
E1	SHIELD 30	SHIELD		22	90	30S	
E1	SHIELD 29	SHIELD		22	90	29S	
E2							
E2	SHIELD29	SHIELD		22	90	29F	
E3	SHIELD30	SHIELD		22	90	30F	
MT1		ELECTRO-STATIC HOLDING BOARD					
MT1- EL	MT1- E3	HIGH VOLTAGE RTN				31	
MT1- E2	MT1- E4	HIGH VOLTAGE				32	
MT1- E2	PS1- 3	HIGH VOLTAGE				18	
MT1- E3	MT1- E1	HIGH VOLTAGE RTN				31	
MT1- E3	PS1- 5	HIGH VOLTAGE				19	
MT1- E4	MT1- E2	HIGH VOLTAGE				32	
PS1							
PS1- 3	MT1- E2	HIGH VOLTAGE				18	
PSI- 5	MT1- E3	HIGH VOLTAGE				19	
S1		H V INTERLOCK SWITCH					
S1- A C	J2- 1	28V CONTROL		22	90	10	
S1- A NO	XDS1- 2	H V INTERLOCK CHEATED	22	93	16		
S1- B C	J2- 4	120VACPHA		22	92	12	
S1- B NO	P6- 2	H V INTERLOCK		22	94	17	T13
S2		LEFT LIMIT 1ST					
S2- C	S3- C	15V RETURN		22	91	20	
S2- C	S9- C	15VRETURN		22	92	21	T 22
S2- NC	J3- 12	X STOW LIMIT		22	93	4	T 8
S2- NO	S8- NO	MAP X FIRST LIMIT		22	95	22	T 21
S3		LEFT LIMIT FINAL					
S3- C	J3- 14	15V RETURN		22	94	5	
S3- C	S2- C	I5VRETURN		22	91	20	
S3- NC	J3- 17	CCW X FINAL LIMIT		22	97	8	T 4

905636-L

TABLE 6-48. MAPBOARD A6 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S4		UP LIMIT 1ST				
S4- C	S8- C	15VRETURN	22	91	24	
S4- C	S5- C	15VRETURN	22	90	28	
S4- NO	S6- NO	MAP Y FIRST LIMIT	22	94	27	T 26
S4- NO	J3- 10	MAP Y FIRST LIMIT	22	91	2	T 7
S5		UP LIMIT FINAL				
S5- C	S6- C	15VRETURN	22	93	26	T 27
S5- C	S4- C	15VRETURN	22	90	28	
S5- NC	J3- 16	CW Y FINAL LIMIT	22	96	7	T 2
S6		DOWN LIMIT 1ST				
S6- C	S7- C	15V RETURN	22	90	25	
S6- C	S5- C	15V RETURN	22	93	26	T 27
S6- NC	J3- 11	YSTOWLIMIT	22	92	3	T 6
S6- NO	S4- NO	MAP Y FIRST LIMIT	22	94	27	T 26
S7		DOWN LIMIT FINAL				
S7- C	S6- C	15VRETURN	22	90	25	
S7- NC	J3- 15	CCW Y FINAL LIMIT	22	95	6	T 3
S8		RIGHT LIMIT IST				
S8- C	S4- C	15VRETURN	22	91	24	
S8- C	S9- C	15V RETURN	22	90	23	
S8- NO	S2- NO	MAP X FIRST LIMIT	22	95	22	T 21
S8- NO	J3- 9	MAP X FIRST LIMIT	22	90	1	T 9
S9		RIGHT LIMIT FINAL				
S9- C	S2- C	15VRETURN	22	92	21	T 22
S9- C	S8- C	15V RETURN	22	90	23	
S9- NC	J3- 18	CW X FINAL LIMIT	22	98	9	T 1
XDS1		INTERLOCK CHEATED LAMP				
XDS1- 1	J2- 2	28V CONTROL RTN	22	91	11	
XDSI- 2	S1- A NO	H V INTERLOCK CHEATED 22	93	16		

TABLE 6-49. LEFT FILM TRANSPORT A7 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1	(P1)	INTERNAL CONNECTOR				
J1 1	S1- C	FRONT TACH	22	6	1B	
J1-	S3-	JACKET FOR WIRE NO 1		90	1	S 1
J1- 2	S3- C	FRONTTACH	22	9	1A	
J1- 3	SHIELD 1	SHIELD	22	90	11S	
J1- 4	S7- C	REARTACH	22	6	5B	
J1- 5	S5-	JACKET FOR WIRE NO 5		91	5	S 5
J1- 5	S5- C	REARTACH	22	9	5A	
J1- 6	SHIELD 5	SHIELD	22	90	5S	
J1- 15	SHIELD 11	SHIELD	22	90	11S	
J1-	R1-	JACKET FOR WIRE NO 11	90	11	S 11	
J1- 16	R1- 3CW	FRONT POT LOW	22	9	11A	
J1- 17	R1- 1CCW	FRONT POT HIGH	22	6	11B	
J1- 18	R1- 2W	FRONT POT WIPER	22	3	11C	
J1- 19	SHIELD 12	SHIELD	22	90	12S	
J1-	R2-	JACKET FOR WIRE NO 12 91	12	S 12		
J1- 20	R2- 1CCW	REAR POT LOW	22	9	12A	
J1- 21	R2- 3CW	REAR POT HIGH	22	6	12B	
J1- 22	R2- 2W	REAR POT WIPER	22	3	12C	
J2	(P2)	INTERNAL CONNECTOR				
J2- 7	XDS1- 1	+28 V PWRSPLY NOTE 7	22	90	16	T17
J2- 8	XDS1- 2	+28 V RETURN PWR SPLY NOTE 7	22	91	17	T16
J2-	S2-	JACKET FOR WIRE NO 20 90	20	S 20		
J2- 9	S2- NO	FR MOTOR DRIVE	22	9	20A	
J2- 10	S4- NO	FR MOTOR DRIVE	22	6	20B	
J2- 11	S4- NC	+28 V FRMOTOR	22	3	20C	
J2- 12	S2- NC	+28 V FRMOTOR	22	5	20D	
J2- 13	SHIELD 20	SHIELD	22	90	20S	
J2- 16	SHIELD 24	SHIELD	22	90	245	
J2-	S8-	JACKET FOR WIRE NO 24 91	24	S 24		
J2- 17	S8- NO	+28 V REAR MOTOR	22	9	24A	
J2- 18	S6- NO	+28 V REAR MOTOR	22	6	248	
J2- 19	S8- NC	REAR MOTOR DRIVE	22	3	24C	
J2- 20	S6- NC	REAR MOTOR DRIVE	22	5	24D	
J3	(P3)	INTERNAL CONNECTOR				
J3- 9	SPLICE 31A	REAR ENCODER B	24	9	31X	
J3- 10	SHIELD 31	SHIELD	24	0	31S	
J3- 11	SPLICE 32A	REAR ENCODER A	24	9	32X	
J3- 12	SHIELD 32	SHIELD	24	0	32S	
J3- 13	SPLICE 33A	FRONT ENCODER B	24	9	33X	
J3- 14	SHIELD 33	SHIELD	24	0	33S	
J3- 15	SPLICE 34A	FRONT ENCODER A	24	9	34X	
J3- 16	SHIELD 34	SHIELD	24	0	34S	
J3- 17	SHIELD 35	SHIELD	22	90	35S	
J3-	TB2-	JACKET FOR WIRE NO 35	90	35	S 35	
J3- 18	TB2- 5	+5 VDC REAR ENCODER	22	9	35A	
J3- 19	TB2- 6	5 V RETURN REAR ENCODER 22	6	358		
A1		FRONT MOTOR				
A1- FL1	S4- C		22	6	23B	
A1-	S4-	JACKET FOR WIRE NO 23	93	23	S 23	
A1- F11	S4- C		22	9	23A	
SHIELD 23	E2	SHIELD	22	90	23F	
A1- FL2	S2- C		22	5	23D	
A1- FL2	S2- C		22	3	23C	

905632-G

TABLE 6-49. LEFT FILM TRANSPORT A7 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
A2		REAR MOTOR				
A2- FL1	S8- C		22	6	278	
A2-	S8-	JACKET FOR WIRE NO 27	93	27	S 27	
A2- FL1	S8- C		22	9	27A	
SHIELD 27	E6 SHIELD		22	90	27F	
A2- FL2	S6- C		22	5	27D	
A2- FL2	S6- C		22	3	27C	
E2		TERMINAL POSTS				
E2	SHIELD 23	SHIELD	22	90	23F	
E3		TERMINAL POSTS				
E3	SHIELD 4	SHIELD	22	90	4F	
E4		TERMINAL POSTS				
E4	SHIELD 4	SHIELD	22	90	4S	
E4	SHIELD 20	SHIELD	22	90	20F	
E4	SHIELD 23	SHIELD	22	90	23S	
E4	TB1- 2	CHASSIS GND	22	90	45	
E4	TB1- 4	CHASSIS GND	22	90	46	
E4	SHIELD 1	SHIELD	22	90	1F	
E6		TERMINAL POSTS				
E6	SHIELD 27	SHIELD	22	90	27F	
E7		TERMINAL POSTS				
E7	SHIELD 8	SHIELD	22	90	8F	
E8		TERMINAL POSTS				
E8	SHIELD 8	SHIELD	22	90	8S	
E8	SHIELD 24	SHIELD	22	90	24F	
E8	SHIELD 27	SHIELD	22	90	27S	
E8	TB2- 2	CHASSIS GND	22	90	47	
E8	TB2- 4	CHASSIS GND	22	90	48	
E8	SHIELD 5	SHIELD	22	90	5F	
E9						
E9	SHIELD 39	GROUND MT2	22	90	39S	
E10						
E10	SHIELD 42	GROUND MT1	22	90	42S	
G1		FRONT TACH				
G1-	S1-	JACKET FOR WIRE NO 4		92	4	S 4
G1- 1(+)	S1- NO	FRONT TACH	22	9	4A	
SHIELD 4	E3	SHIELD	22	90	4F	
G1- 2(-)	S1- NC	FRONTTACH	22	6	4B	
G2		REAR TACH				
G2-	S5-	JACKET FOR WIRE NO 8	92	8	S 8	
G2- 1(+)	S5- NO	REARTACH	22	9	8A	
SHIELD 8	E7	SHIELD	22	90	8F	
G2- 2(-)	S5-	NC REAR TACH	22	6	88	
MT1		FRONT ENCODER				
MT1- TB1-		JACKET FOR WIRE NO 41		41	S 41	
MT1- BLU	TB1- 3		22	6	41A	
MT1- GRN	TB1- 6		22	5	428	
MT1- TB1-		JACKET FOR WIRE NO 42		42	S 42	
MT1- RED	TB1- 5		22	2	42A	
SHIELD 42	E10	GROUND MT1	22	90	425	

905632-G

TABLE 6-49. LEFT FILM TRANSPORT A7 WIRING LIST (CONT.)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
MT1-	TB1-			JACKET FOR WIRE NO 40		40	S 40	
MT1-	WHT	TB1-	1		22	9	40A	
MT2				REAR ENCODER				
MT2-		TB2-		JACKET FOR WIRE NO 38		38	S 38	
MT2-	BLU	TB2-	3		22	6	38A	
MT2-	GRN	TB2-	6		22	5	398	
MT2-		TB2-		JACKET FOR WIRE NO 39		39	S 39	
MT2-	RED	TB2-	5		22	2	39A	
SHIELD	39	E9		GROUND MT2	22	90	39S	
MT2-	TB2-			JACKET FOR WIRE NO 37		37	S 37	
MT2-	WHT	TB2-	1		22	9	37A	
R1				FRONT POT				
R1-	2W	J1-	18	FRONT POT WIPER	22	3	11C	
R1-		J1-		JACKET FOR WIRE NO 11	90	11	S 11	
R1-	3CW	J1-	16	FRONTPOTLOW	22	9	11A	
R1-	1CCW	J1-	17	FRONT POT HIGH	22	6	11B	
R2				REAR POT				
R2-	2W	J1-	22	REAR POTWIPER	22	3	12C	
R2-	3CW	J1-	21	REARPOTHIGH	22	6	128	
R2-		J1-		JACKET FOR WIRE NO 12	91	12	S 12	
R2-	1CCW	J1-	20	REARPOTLOW	22	9	12A	
S1				SWITCH				
S1-	C	J1-	1	FRONT TACH	22	6	1B	
S1-	NC	S3-	NC		22	91	3	
S1-	NC		G1- 2(-)	FRONTTACH	22	6	48	
S1-		G1-		JACKET FOR WIRE NO 4		92	4	S 4
S1-	NO		G1- 1(+)	FRONT TACH	22	9	4A	
SHIELD	4	E4		SHIELD	22	90	4S	
S1-	NO	S3-	NO	22	90	2		
S2				SWITCH				
S2-	C	A1-	FL2		22	5	23D	
S2-	C	A1-	FL2		22	3	23C	
S2-	NC	J2-	12	+28 V FRMOTOR	22	5	20D	
S2-	NC	S4-	NC		22	93	22	
S2-	NO	S4-	NO		22	92	21	
S2-		J2-		JACKET FOR WIRE NO 20	90	20	S 20	
S2-	NO	J2-	9	FR MOTOR DRIVE	22	9	20A	
SHIELD	20	E4		SHIELD	22	90	20F	
S3				SWITCH				
S3-	J1-			JACKET FOR WIRE NO 1		90	1	S 1
S3-	C	J1-	2	FRONT TACH	22	9	1A	
SHIELD	1	E4		SHIELD	22	90	1F	
S3-	NC	S1-	NC		22	91	3	
S3-	NO	SI-	NO		22	90	2	
S4				SWITCH				
S4-	C	A1-	FL1		22	6	238	
S4-		A1-		JACKET FOR WIRE NO 23	93	23	S 23	
S4-	C	A1-	FL1		22	9	23A	
SHIELD	23	E4		SHIELD	22	90	23S	
S4-	NC	S2-	NC		22	93	22	
S4-	NC	J2-	11	+28 V FRMOTOR	22	3	20C	
S4-	NO	S2-	NO		22	92	21	
S4-	NO	J2-	10	FR MOTOR DRIVE	22	6	208	

905632 -G

TABLE 6-49. LEFT FILM TRANSPORT A7 WIRING LIST (CONT.)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S5		SWITCH				
S5-	J1-	JACKET FOR WIRE NO 5		91	5	S 5
S5- C	J1- 5	REARTACH	22	9	5A	
SHIELD 5	E8	SHIELD	22	90	5F	
S5- NC	S7- NC		22	91	25	
S5- NC	G2- 2(-)	REAR TACH	22	6	8B	
S5- NO	S7- NO		22	90	26	
S5-	G2-	JACKET FOR WIRE NO 8	92	85	8	
S5- NO	G2- 1(+)	REAR TACH	22	9	SA	
SHIELD 8	E8	SHIELD	22	90	8S	
S6		SWITCH				
S6- C	A2- FL2		22	3	27C	
S6- C	A2- FL2		22	5	27D	
S6- NC	J2- 20	REAR MOTOR DRIVE	22	5	24D	
S6- NC	S8- NC		22	93	6	
S6- NO	J2- 18	+28 V REAR MOTOR	22	6	248	
S6- NO	S8- NO		22	92	7	
S7		SWITCH				
S7- C	J1- 4	REAR TACH	22	6	5B	
S7- NC	S5- NC		22	91	25	
S7- NO	S5- NO		22	90	26	
S8		SWITCH				
S8- A2-		JACKET FOR WIRE NO 27	93	27	S 27	
S8- C	A2- FLI		22	9	27A	
SHIELD 27	E8 SHIELD		22	90	27S	
S8- C	A2- FLI		22	6	278	
S8- NC	J2- 19	REAR MOTOR DRIVE	22	32	4C	
S8- NC	S6- NC		22	93	6	
S8-	J2-	JACKET FOR WIRE NO 24	91	24	S 24	
S8- NO	J2- 17,	+28 V REAR MOTOR	22	9	24A	
SHIELD 24	E8 SHIELD		22	90	24F	
S8- NO	S6- NO		22	92	7	
TB1		FR ENCODER TERMINAL BOARD				
TB1-	MT1-	JACKET FOR WIRE NO 40		40S	40	
TB1- 1	MT1- WHT		22	9	40A	
TB1- 1	SPLICE 34A	FRONT ENCODER A	24	9	34Y	
TB1- 2	SHIELD 40	SHIELD	22	90	40F	
TB1- 2	E4	CHASSIS GND	22	90	45	
TB1-	MT1-	JACKET FOR WIRE NO 41		41	S 41	
TB1- 3	MT1- BLU		22	6	41A	
TB1- 3	SPLICE 33A	FRONT ENCODER B	24	9	33Y	
TB1- 4	SHIELD 41	SHIELD	22	90	41F	
TB1- 4	E4 CHASSIS GND	22	90	46		
TB1-	TB2-	JACKET FOR WIRE NO 36	91	36	S 36	
TB1- 5	TB2- 5	+5 VDC FR ENCODER	22	9	36A	
TB1-	MT1-	JACKET FOR WIRE NO 42		42	S 42	
TB1- 5	MT1-	RED	22	2	42A	
TB1- 6	TB2- 6	5 V RETURN FR ENCODER	22	6	36B	
TB1- 6	MT1- GRN		22	5	428	
TB1- 7	SHIELD 42	SHIELD	22	90	42F	
TB1- 7	SHIELD 36	SHIELD	22	90	36F	

905632-G

TABLE 6-49. LEFT FILM TRANSPORT A7 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
SPLICE	SPLICE	JACKET FOR WIRE NO 33	94	33	S 33	
SPLICE 33X	SPLICE 33Y	FRONT ENCODER B 188	COAX	33A		
SPLICE	SPLICE	JACKET FOR WIRE NO 33	94	33	S 33	
SPLICE 33Y	SPLICE 33X	FRONT ENCODER B 188	COAX	33A		
SPLICE 34A	J3- 15	FRONT ENCODER A 24	9	34X		
SPLICE 34A	TB1- 1	FRONT ENCODER A 24	9	34Y		
SPLICE	SPLICE	JACKET FOR WIRE NO 34	95	34	S 34	
SPLICE 34X	SPLICE 34Y	FRONT ENCODER A 188	COAX	34A		
SPLICE	SPLICE	JACKET FOR WIRE NO 34	95	34	S 34	
SPLICE 34Y	SPLICE 34X	FRONT ENCODER A 188	COAX	34A		

905632-G

TABLE 6-50. RIGHT FILM TRANSPORT A8 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1	(P1)	INTERNAL CONNECTOR				
J1-	S1-	JACKET FOR WIRE NO 1	90	1	S 1	
J1- 1	S1- C	FRONT TACH 22	9	1A		
J1- 2	S3- C	FRONT TACH 22	6	1B		
J1- 3	SHIELD 1	SHIELD 22	0	1S		
J1- 4	S7- C	REAR TACH 22	6	2B		
J1-	S5-	JACKET FOR WIRE NO 2	91	2	S 2	
J1- 5	S5- C	REAR TACH 22	9	2A		
J1- 6	SHIELD 2	SHIELD 22	0	2S		
J1- 15	SHIELD 11	SHIELD 22	0	11S		
J1-	R1-	JACKET FOR WIRE NO I11	90	11	S 11	
J1- 16	R1- 3CW	FRONT POT LOW 22	9	11A		
J1- 17	R1- 1CCW	FRONT POT HIGH 22	6	11B		
J1- 18	R1- 2W	FRONT POT WIPER 22	3	11C		
J1- 19	SHIELD 12	SHIELD 22	0	12S		
J1-	R2-	JACKET FOR WIRE NO 12	91	12	S 12	
J1- 20	R2- 1CCW	REAR POT LOW 22	9	12A		
J1- 21	R2- 3CW	REAR POT HIGH 22	6	12B		
J1- 22	R2- 2W	REAR POT WIPER 22	3	12C		
J2	(P2)	INTERNAL CONNECTOR				
J2- 7	XDS1- 1	+28 V POWER SUPPLY NOTE 7	22	90	16	T17
J2- 8	XDS1- 2	+28 V RTN PWR SPLY NOTE 7	22	91	17	T16
J2-	S2-	JACKET FOR WIRE NO 20	90	20		S 20
J2- 9	S2- NO	FRONT MOTOR DRIVE 22	9	20A		
J2- 10	S4- NO	FRONT MOTOR DRIVE 22	6	20B		
J2- 11	S4- NC	+28 V FRONT MOTOR 22	3	20C		
J2- 12	S2- NC	+28 V FRONT MOTOR 22	5	20D		
J2- 13	SHIELD 20	SHIELD 22	0	20S		
J2- 16	SHIELD 24	SHIELD 22	0	24S		
J2-	S8-	JACKET FOR WIRE NO 24	91	24	S 24	
J2- 17	S8- NO	+28 V REAR MOTOR 22	9	24A		
J2- 18	S6- NO	+28 V REAR MOTOR 22	6	24B		
J2- 19	S8- NC	REAR MOTOR DRIVE 22	3	24C		
J2- 20	S6- NC	REAR MOTOR DRIVE 22	5	24D		
A1		FRONT MOTOR				
A1- FL1	S4- C	22	6	23B		
A1-	S4-	JACKET FOR WIRE NO 23 90		23	S 23	
A1- FL1	S4- C	22	9	23A		
SHIELD 23	E2	SHIELD 22	0	23F		
A1- FL2	S2- C	22	5	23D		
A1- FL2	S2- C	22	3	23C		
A2		REAR MOTOR				
A2- FLI	S8- C	22	6	27B		
A2-	S8-	JACKET FOR WIRE NO 27	93	27	S 27	
A2- FL1	S8- C	22	9	27A		
SHIELD 27	E6	SHIELD 22	0	27F		
A2- FL2	S6- C	22	5	27D		
A2- FL2	S6- C	22	3	27C		
E2		TERMINAL POSTS				
E2	SHIELD 23	SHIELD 22	0	23F		
E3		TERMINAL POSTS				
E3	SHIELD 7	SHIELD 22	0	7F		

905633-H

TABLE 6-50. RIGHT FILM TRANSPORT A8 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E4		TERMINAL POSTS				
E4	SHIELD 7	SHIELD 22	0	7S		
E4	SHIELD 20	SHIELD 22	0	20F		
E4	SHIELD 23	SHIELD 22	0	23S		
E4	SHIELD 1	SHIELD 22	0	1F		
E6		TERMINAL POSTS				
E6	SHIELD 27	SHIELD 22	0	27F		
E7		TERMINAL POSTS				
E7	SHIELD 10	SHIELD 22	0	10F		
E8		TERMINAL POSTS				
E8	SHIELD 10	SHIELD 22	0	10S		
E8	SHIELD 24	SHIELD 22	0	24F		
E8	SHIELD 27	SHIELD 22	0	27S		
E8	SHIELD 2	SHIELD 22	0	2F		
G1		FRONT TACH				
G1-	S1-	JACKET FOR WIRE NO 7	92	7	S 7	
G1- 1(+)	S1- NO	FRONTTACH 22	9	7A		
SHIELD 7	E3	SHIELD 22	0	7F		
GI- 2(-)	S1- NC	FRONT TACH 22	6	7B		
G2		REAR TACH				
G2-	S5-	JACKET FOR WIRE NO 10	92	10	S 10	
G2- 1(+)	S5- NO	REAR TACH 22	9	10A		
SHIELD 10	E7	SHIELD 22	0	10F		
G2- 2(-)	S5- NC	REAR TACH 22	6	10B		
R1		FRONT POT				
R1- 2W	J1- 18	FRONT POT WIPER 22	3	11C		
R1-	J1-	JACKET FOR WIRE NO 11	90	11	S 11	
R1- 3CW	J1- 16	FRONT POT LOW 22	9	11A		
R1- 1CCW J1-	17	FRONT POT HIGH 22	6	11B		
R2		REAR POT				
R2- 2W	J1- 22	REAR POT WIPER 22	3	12C		
R2- 3CW	J1- 21	REAR POT HIGH 22	6	12B		
R2-	J1-	JACKET FOR WIRE NO 12	91	12	S 12	
R2-1CCW J1-	20	REAR POT LOW 22	9	12A		
S1		SWITCH				
S1-	J1-	JACKET FOR WIRE NO 1	90	1	S 1	
S1- C	J1- 1	FRONT TACH 22	9	1A		
SHIELD 1	E4	SHIELD 22	0	1F		
S1- NC	G1- 2(-)	FRONT TACH 22	6	7B		
S1- NC	S3- NC	22	91	6		
S1-	G1-	JACKET FOR WIRE NO 7	92	7	S 7	
S1- NO	G1- 1(+)	FRONT TACH 22	9	7A		
SHIELD 7	E4	SHIELD 22	0	7S		
S1- NO	S3- NO	22	90	5		
S2		SWITCH				
S2- C	A1- FL2	22	3	23C		
S2- C	A1- FL2	22	5	23D		
S2- NC	J2- 12	+28 V FRONT MOTOR 22	5	20D		
S2- NC	S4- NC	22	93	21		
S2- NO	S4- NO	22	92	22		

905633-H

TABLE 6-50. RIGHT FILM TRANSPORT A8 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S2-	J2-	JACKET FOR WIRE NO 20	90	20		S 20
S2- NO	J2- 9	FRONT MOTOR DRIVE 22	9	20A		
SHIELD 20	E4	SHIELD 22	0	20F		
S3		SWITCH				
S3- C	J1- 2	FRONT TACH 22	6	1B		
S3- NC	S1- NC	22	91	6		
S3- NO	S1- NO	22	90	5		
S4		SWITCH				
S4-	A1-	JACKET FOR WIRE NO 23	90	23	S 23	
S4- C	A1- FL1	22	9	23A		
SHIELD 23	E4	SHIELD 22	0	23S		
S4- C	A1- FL1	22	6	23B		
S4- NC	S2- NC	22	93	21		
S4- NC	J2- 11	+28 V FRONT MOTOR 22	3	20C		
S4- NO	S2- NO	22	92	22		
S4- NO	J2- 10	FRONT MOTOR DRIVE 22	6	20B		
S5		SWITCH				
S5-	J1-	JACKET FOR WIRE NO 2	91	2	S 2	
S5- C	J1- 5	REAR TACH 22	9	2A		
SHIELD 2	E8	SHIELD 22	0	2F		
S5- NC	S7- NC	22	91	26		
S5- NC	G2- 2(-)	REAR TACH 22	6	10B		
S5- NO	S7- NO	22	90	25		
S5-	G2-	JACKET FOR WIRE NO 10	92	10	S 10	
S5- NO	G2- 1(+)	REAR TACH 22	9	10A		
SHIELD 10	E8	SHIELD 22	0	10S		
S6		SWITCH				
S6- C	A2- FL2	22	3	27C		
S6- C	A2- FL2	22	5	27D		
S6- NC	J2- 20	REAR MOTOR DRIVE 22	5	24D		
S6- NC	S8- NC	22	93	9		
S6- NO	J2- 18	+28 V REAR MOTOR 22	6	24B		
S6- NO	S8- NO	22	92	8		
S7		SWITCH				
S7- C	J1- 4	REAR TACH 22	6	2B		
S7- NC	S5- NC	22	91	26		
S7- NO	S5- NO	22	90	25		
S8		SWITCH				
S8-	A2-	JACKET FOR WIRE NO 27	93	27	S 27	
S8- C	A2- FL1	22	9	27A		
SHIELD 27	E8	SHIELD 22	0	27S		
S8- C	A2- FL1	22	6	27B		
58- NC	J2- 19	REAR MOTOR DRIVE 22	3	24C		
S8- NC	S6- NC	22	93	9		
S8-	J2-	JACKET FOR WIRE NO 24	91	24	S 24	
S8- NO	J2- 17	+28 V REAR MOTOR 22	9	24A		
SHIELD 24	E8	SHIELD 22	0	24F		
S8- NO	S6- NO	22	92	8		
XDS1		FRONT LAMP SOCKET				
XDS1- 1	J2- 7	+28 V POWER SUPPLY NOTE 7	22	90	16	T 17
XDS1- 1	XDS2- 1	NOTE 7	22	90	18	T 19
XDS1- 2	XDS2- 2	NOTE 7	22	91	19	T 18
XDS1- 2	J2- 8	+28 V RTN PWR SPLY NOTE 7	22	91	17	T 16

905633-H

TABLE 6-50. LEFT FILM TRANSPORT A7 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
XDS2		REAR LAMP SOCKET				
XDS2- 1	XDS1- 1	NOTE 7	22	90	18	T 19
XDS2- 1	XDS3- 1	NOTE 7	22	90	28	T 29
XDS2- 2	XDS3- 2	NOTE 7	22	91	29	T 28
XDS2- 2	XDS1- 2	NOTE 7	22	91	19	T 18
XDS3		MDL LAMP SOCKET				
XDS3- 1	XDS2- 1	NOTE 7	22	90	28	T 29
XDS3- 2	XDS2- 2	NOTE 7	22	91	29	T 28

905633 - H

TABLE 6-51. POWER SUPPLY A9 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1						
J1- A	CB10- LOAD	UNRGLTD MAP CURSOR 28V NOTE 8	12	902	151	
J1- B	CB12- LOAD	UNRGLTD FILM CURSOR 28V NOTE8	12	903	158	
J1- C	CB14- LO 1	115V PH A CURSOR FAN 18	3	164C		
J1- D	E4	28V RETURN 12	92	192	T193	
J1- E	E4	28V RETURN 12	93	193	T192	
J1- F	CB14- LO 3	115V PH B CURSOR FAN 18	6	164B		
J1-	CB14-	JACKET FOR WIRE NO 164	904	164	S164	
J1- G	CB14- LO 5	115V PH C CURSOR FAN 18	9	164A		
J1- H	SHIELD 164	SHIELD 20	90	164F		
J1- J	E44	NEUTRAL 20	90	249		
J1- K	CB14- LO 1	115 V PHASE A ETM 20	908	248		
J1- L	CB9- LOAD	UNRGLTD MAP CURSOR 6V NOTE 8	12	94	150	
J1- M	CB11- LOAD	UNRGLTD FILM CURSOR 6V NOTE 8	12	95	156	
J1- P	E15	6V RETURN 12	96	194	T195	
J1- R	E15	6V RETURN 12	97	195	T194	
J1- S	E15	STAR 12	98	196	T197	
J1- T	E15	STAR 12	901	197	T196	
J1- U	E12	+5 VDC 18	6	198B		
J1-	E12	JACKET FOR WIRE NO 198	907	198	S198	
J1- V	E12	+5 VDC 18	9	198A		
SHIELD 198	SHIELD 199	SHIELD 22	90	198S		
J1- W	E3	5V RETURN 18	6	199B		
J1-	E13	JACKET FOR WIRE 231 NOTE 5		9	231	S231
J1- X	E13	GP 28V 14	9	231A		
J1- Y	E14	GP 28V RTN 14	6	2318B		
J1-	E3	JACKET FOR WIRE NO 199	91	199	S199	
J1- Z	E3	5V RETURN 18	9	199A		
J1- >A	SHIELD 199	SHIELD 20	90	199S		
J5						
J5- A	CB10- LINE	UNRGLTD 28VDC RECT 1 NOTE 8	12	906	152	
J5- B	CB5- LINE	UNRGLTD 28VDC RECT 2 NOTE 8	12	903	139	
J5-	CB1-	JACKET FOR WIRE NO 132	91	132	S132	
J5- C	CB1- LINE	UNRGLTD 5VDC NOTE 7 18	9	132A		
SHIELD 132	SHIELD 211	SHIELD 22	90	132F		
J5- D	E15	28V RETURN RECT 1 12	907	207		
J5- E	E14	28V RETURN RECT 2 12	905	206	T205	
J5-	E3	JACKET FOR WIRE NO 211	98	211	S211	
J5- F	E3	5V RETURN 18	9	211A		
SHIELD 211	SHIELD 136	SHIELD 22	90	211S		
J5-	CB3-	JACKET FOR WIRE NO 136	93	136	S136	
J5- G	CB3- LINE	UNRGLTD +15VDC NOTE 7 18	9	136A		
SHIELD 136	SHIELD 212	SHIELD 22	90	136F		
J5-	E4	JACKET FOR WIRE NO 212	92	212	S212	
J5- H	E4	15V RETURN 18	9	212A		
SHIELD 212	SHIELD 213	SHIELD 22	90	212S		
J5-	E10	JACKET FOR WIRE NO 213	94	213	S213	
J5- J	E10	-15V 18	9	213A		
SHIELD 213	SHIELD 134	SHIELD 22	90	213S		
J5-	CB2-	JACKET FOR WIRE NO 134	95	134	S134	
J5- K	CB2- LINE	UNRGLTD- 15V RTN NOTE 718	9	134A		
J5- L	CB4- LINE	UNRGLTD GP 28VDC RECT2 NOTE 8	12	902	138	
J5- M	E14	28V RETURN RECT 2 12	96	205	T206	
J5- N	SHIELD 134	SHIELD 20	90	134F		
J5- P	CB9- LINE	UNRGLTD 6VDC RECT 1 NOTE 8	12	908	148	
J5- R	E15	6V RETURN RECT 1 12	912	208		
J5- S	CB11- LINE	UNRGLTD6VDC RECT2 NOTE8	12	913	155	
J5- T	E15	6VRETURN RECT 2 12	914	209	T210	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J5-	E11	JACKET FOR WIRE NO 245	97	245		S245
J5- U	E11	+ 15V 20	9	245A		
J5- V	E10	- 15V 20	6	245B		
J5- W	E4	15V RTN 20	3	245C		
J5- X	E15	6V RETURN RECT 2 12	916	210	T209	
J5- Y	CB15- LINE	UNRGLTD 6VDC REC 2 NOTE 8	12	915	166	
J6						
J6- 2	XA3- 20	RTCL ON/OFF SWITCH 22	3	70C		
J6- 3	XA3- 18	RTCL DMR CONT WIPER 22	6	70B		
J6-	XA3-	JACKET FOR WIRE NO 70	90	70	S 70	
J6- 4	XA3- 3	RTCL DMR CONT LOW 22	9	70A		
J6- 5	SHIELD 70	SHIELD 22	90	70F		
J6- 6	P22- 15	DIR VIEW INTERLOCK 22	6	9B		
J6-	P22-	JACKET FOR WIRE NO 9	91	9	S 9	
J6- 7	P22- 16	STEREO INTERLOCK 22	9	9A		
J6- 8	SHIELD 9	SHIELD 22	90	9F		
J6- 9	XDS1- D	STE OVT 22	6	127B		
J6-	XDS1-	JACKET FOR WIRE NO 127	98	127	S127	
J6- 10	XDS1- C	DV OVT 22	9	127A		
SHIELD 127	SHIELD 9	SHIELD 22	90	127F		
J6- 16	SHIELD 109	SHIELD 22	90	109F		
J6-	XA6-	JACKET FOR WIRE NO 109	904	109	S109	
J6- 17	XA6- D	ZENERED 6V 22	9	109A		
J6-	CB7-	JACKET FOR WIRE NO 146	94	146	S146	
J6- 18	CB7- LOAD	SLACK LOOP 28VDC NOTE 6	22	9	146A	
SHIELD 146	SHIELD 109	SHIELD 22	90	146F		
J6-	E14	JACKET FOR WIRE NO 214	901	214	S214	
J6- 19	E14	G P 28V RETURN SLACK LOOP	22	9	214A	
SHIELD 214	SHIELD 146	SHIELD 22	90	214S		
J6-	E13	JACKET FOR WIRE NO 215	902	215	S215	
J6- 20	E13	G P +28 VDC 22	9	215A		
SHIELD 215	SHIELD 214	SHIELD 22	90	215S		
J6-	E14	JACKET FOR WIRE NO 216	97	216	S216	
J6- 21	E14	G P +28V RETURN 22	9	216A		
SHIELD 216	SHIELD 215	SHIELD 22	90	216S		
J6- 22	SHIELD 217	SHIELD 22	90	217S		
J6- 23	E16	0-6 VDC RTCL LAMP 22	3	217C		
J6- 24	E16	0-6 VDC RTCL LAMP 22	6	2178		
J6-	E16	JACKET FOR WIRE NO 217	93	217	S217	
J6- 25	E16	0-6 VDC RTCL LAMP 22	9	217A		
J6- 26	E15	D C RETURN RTCL LAMP 22	3	218C		
J6- 27	E15	D C RETURN RTCL LAMP 22	6	218B		
J6-	E15	JACKET FOR WIRE NO 218	908	218	S218	
J6- 28	E15	D C RETURN RTCL LAMP 22	9	218A		
SHIELD 218	SHIELD 217	SHIELD 22	90	218S		
J6- 29	P22- 1	DIR VIEW DMR CONT HIGH 22	3	1C		
J6- 30	P22- 2	DIR VIEW DMR CONT WIPER 22	6	1B		
J6-	P22-	JACKET FOR WIRE NO 1	95	1		S 1
J6- 31	P22- 3	DIR VIEW DMR CONT LOW 22	9	1A		
J6- 32	SHIELD 1	SHIELD 22		90	1F	
J6- 33	P22- 4	STEREO DMR CONT HIGH 22	3	2C		
J6- 34	P22- 5	STEREO DMR CONT WIPER 22	6	2B		
J6-	P22-	JACKET FOR WIRE NO 2	96	2	S 2	
J6- 35	P22- 6	STEREO DMR CONT LOW 22	9	2A		
SHIELD 2	SHIELD 1	SHIELD 22	90	2F		
J6- 36	P22- 18	BFR TEMP CONT STEREO 22	6	10B		
J6-	P22-	JACKET FOR WIRE NO 10	92	10	S 10	
J6- 37	P22- 19	BFR TEMP CONT DIR VIEW 22	9	10A		
SHIELD 10	SHIELD 2	SHIELD 22	90	10F		

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J7								
J7-		E11		JACKET FOR WIRE NO 219		90	219	S219
J7-	A	E11		+15 V	20	9	219A	
SHIELD	219	SHIELD	220	SHIELD	22	90	219S	
J7-		E4		JACKET FOR WIRE NO 220		94	220	S220
J7-	B	E4		15V RETURN	20	9	220A	
SHIELD	220	SHIELD	221	SHIELD	22	90	220S	
J7-		E10		JACKET FOR WIRE NO 221		901	221	S221
J7-	C	E10		-15 V	20	9	221A	
J7-	D	SHIELD	221	SHIELD	22	90	221S	
J7-	E	E12		+5V	20	3	222C	
J7-	F	E12		+5V	20	5	222D	
J7-	G	SHIELD	222	SHIELD	22	90	222S	
J7-	H	E3		5V RETURN	20	6	222B	
J7-		E3		JACKET FOR WIRE NO 222		95	222	S222
J7-	J	E3		5V RETURN	20	9	222A	
J7-	N	CB13-	LO 1	115 V PHASE A ETM	22	93	250	
J7-	P	E44		NEUTRAL	22	96	251	
J7-	R	CB13-	LO 1	115V PH A FILM TRANSPORT FAN	20	3	162C	
J7-	S	CB13-	LO 3	115V PH B FILM TRANSPORT FAN	20	6	1628	
J7-		CB13-		JACKET FOR WIRE NO 162		97	162	S162
J7-	T	CB13-	LO 5	115V PH C FILM TRANSPORT FAN	20	9	162A	
J7-	U	SHIELD	162	SHIELD	22	90	162F	
J7-	Y	E13		+28 V LAMP	20	6	223B	
J7-		E13		JACKET FOR WIRE NO 223		903	223	S223
J7-	Z	E13		+28 V LAMP	20	9	223A	
SHIELD	223	SHIELD	224	SHIELD	22	90	223S	
J7-	>A	E14		28 V LAMP RETURN	20	6	2248	
J7-		E14		JACKET FOR WIRE NO 224		907	224	S224
J7-	>B	E14		28 V LAMP RETURN	20	9	224A	
J7-	>C	SHIELD	224	SHIELD	22	90	224S	
J7-	>D	SHIELD	140	SHIELD	22	90	140F	
J7-	>E	CB5-	LOAD	UNRGLTD FR FILM 28 V NOTE 7	20	6	140B	
J7-		CB5-		JACKET FOR WIRE NO 140		98	140	S140
J7-	>F	CB5-	LOAD	UNRGLTD FR FILM 28 V NOTE 7	20	9	140A	
J7-	>G	E14		28 V RETURN REAR TRANSPORT	20	6	225B	
J7-		E14		JACKET FOR WIRE NO 225		908	225	S225
J7-	>H	E14		28 V RETURN REAR TRANSPORT	20	9	225A	
SHIELD	225	SHIELD	143	SHIELD	22	90	225S	
J7-	>1	SHIELD	143	SHIELD	22	90	143F	
J7-	>J	CB6-	LOAD	UNRGLTD REAR FILM 28V NOTE 7	20	6	143B	
J7-		CB6-		JACKET FOR WIRE NO 143		92	143	S143
J7-	>K	CB6-	LOAD	UNRGLTD REAR FILM 28V NOTE 7	20	9	143A	
J7-	>M	E14		STAR	16	912	227	T228
J7-	>P	E14		28V RETURN FR TRANSPORT	20	6	226B	
J7-		E14		JACKET FOR WIRE NO 226		91	226	S226
J7-	>Q	E14		28V RETURN FR TRANSPORT	20	9	226A	
SHIELD	226	SHIELD	140	SHIELD	22	90	226S	
J7-	>R	E14		STAR	16	913	228	T227
J9								
J9-	F	SHIELD	234	SHIELD	22	90	234S	
J9-	G	E11		+15 VDC	20	6	234B	
J9-		E11		JACKET FOR WIRE NO 234		92	234	S234
J9-	H	E11		+ 15 VDC	20	9	234A	
J9-	J	E4		+15 V RETURN	20	6	235B	
J9-		E4		JACKET FOR WIRE NO 235		91	235	S235
J9-	K	E4		+ 15 V RETURN	20	9	235A	
SHIELD	235	SHIELD	234	SHIELD	22	90	235S	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J9- L	SHIELD236	SHIELD	22	90	236S	
J9- M	E10	-15 VDC	20	6	236B	
J9-	E10	JACKET FOR WIRE NO 236		90	236	S236
J9- N	E10	-15VDC	20	9	236A	
J9- P	E4	-15 V RETURN	20	6	237B	
J9-	E4	JACKET FOR WIRE NO 237		95	237	S237
J9- R	E4	-15 V RETURN	20	9	237A	
SHIELD 237	SHIELD236	SHIELD	22	90	237S	
J10						
J10- A	E27	STEREO LAMP SUPPLY PHASE A	22	3	41C	
J10- B	E28	STEREO LAMP SUPPLY PHASE B	22	5	41D	
J10- C	E29	STEREO LAMP SUPPLY PHASE C	22	6	41B	
J10-	E30	JACKET FOR WIRE NO 41		92	41	S 41
J10- D	E30	STEREO LAMP SUPPLY N	22	9	41A	
J10- E	SHIELD41	SHIELD	22	90	41S	
J10-	XA8-	JACKET FOR WIRE NO 38		917	38	S 38
J10- F	XA8-26	STEREO +28V ON CMD	22	9	38A	
J10- G	SHIELD38	SHIELD	22	90	38F	
J10- H	E17	1 4KV RETURN	22	6	42B	
J10-	XA8-	JACKET FOR WIRE NO 255		908	255	S255
J10- J	XA8-23	STEREO 0-15V DIM	22	9	255A	
SHIELD 255	SHIELD254	SHIELD	22	90	255F	
J10-	J14-	JACKET FOR WIRE NO 40		905	40	S 40
J10- L	J14- 4	H V INTLK IN(STARTER)	22	9	40A	
SHIELD 40	SHIELD38	SHIELD	22	90	40F	
J10- M	E27	D V LAMP SUPPLY PHASE A	22	3	43C	
J10- N	E28	D V LAMP SUPPLY PHASE B	22	5	43D	
J10- P	E29	D V LAMP SUPPLY PHASE C	22	6	43B	
J10-	E30	JACKET FOR WIRE NO 43		91	43	S 43
J10- R	E30	D V LAMP SUPPLY N	22	9	43A	
SHIELD 43	SHIELD41	SHIELD	22	90	43S	
J10-	XA8-	JACKET FOR WIRE NO 27		916	27	S 27
J10- S	XA8- 3	DIR VIEW +28V ON CMD	22	9	27A	
SHIELD 27	SHIELD40	SHIELD	22	90	27F	
J10-	E17	JACKET FOR WIRE NO 42		93	42	S 42
J10- T	E17	6.OKV RETURN	22	9	42A	
J10- U	SHIELD42	SHIELD	22	90	42S	
J10-	XA8-	JACKET FOR WIRE NO 254		98	254	S254
J10- V	XA8-8 DIR	VIEW 0-15V DIM	22	9	254A	
SHIELD 254	SHIELD27	SHIELD	22	90	254F	
J10- W	E27	D V SUPPLY FAN PHASE A	22	6	44B	
J10- X	SHIELD44	SHIELD	22	90	44S	
J10-	E30	JACKET FOR WIRE NO 44		94	44	S 44
J10- Z	E30	D V SUPPLY FAN N	22	9	44A	
J11						
J11- A	P22-33	H V POWER SUPPLY PHASE A	22	3	13C	
J11- B	P22-34	H V POWER SUPPLY PHASE B	22	5	13D	
J11- C	P22-35	H V POWER SUPPLY PHASE C	22	6	13B	
J11-	P22-	JACKET FOR WIRE NO 13		94	13	S 13
J11- D	P22-36	H V POWER SUPPLY N	22	9	13A	
SHIELD 13	SHIELD163	SHIELD	20	90	13F	
J11- T	CB14-LI2	115VPHASEA	20	3	163C	
J11- U	CB14-LI4	115VPHASEB	20	6	163B	
J11-	CB14-	JACKET FOR WIRE NO 163		92	163	S163
J11- V	CB14-	LI6 115VPHASEC	20	9	163A	
J11- X	SHIELD	163 SHIELD	22	90	163F	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J14						
J14- 1	E17	6 OKV SUPPLY RETURN	22	6	39B	
J14-	E17	JACKET FOR WIRE NO 39		901	39	S 39
J14- 2	E17	1.4KV SUPPLY RETURN	22	9	39A	
J14- 3	SHIELD39	SHIELD	22	90	39S	
J14-	J10-	JACKET FOR WIRE NO 40		905	40	S 40
J14- 4	J10- L	H V INTLK IN(STARTER)	22	9	40A	
SHIELD 40	SHIELD19	SHIELD	22	90	40S	
J14-	J22-	JACKET FOR WIRE NO 19		93	19	S 19
J14- 5	J22-14	H V INTERLOCK RETURN	22	9	19A	
J14- 6	SHIELD19	SHIELD	22	90	19F	
J14-	XA8-	JACKET FOR WIRE NO 31		906	31	S 31
J14- 7	XA8-12	DIR VIEW START RELAY DRIVE	22	9	31A	
SHIELD 31	SHIELD17	SHIELD	22	90	31F	
J14-	J22-	JACKET FOR WIRE NO 17		98	17	S 17
J14- 8	J22-12	GP +28 V	22	9	17A	
SHIELD 17	SHIELD34	SHIELD	22	90	17F	
J14-	XA8-	JACKET FOR WIRE NO 34		907	34	S 34
J14- 9	XA8-18	STEREO START RELAY DRIVE	22	9	34A	
J14- 10	SHIELD34	SHIELD	22	90	34F	
J17						
J17-	XA8-	JACKET FOR WIRE NO 36		908	36	S 36
J17- 1	XA8-23	STEREO BASE DRIVE	22	9	36A	
J17- 2	SHIELD36	SHIELD	22	90	36F	
J17-	XA8-	JACKET FOR WIRE NO 35		912	35	S 35
J17- 3	XA8-22	STEREO CURRENT FDBK	22	9	35A	
J17- 4	SHIELD35	SHIELD	22	90	35F	
J17-	XA8-	JACKET FOR WIRE NO 37		913	37	S 37
J17- 5	XA8-	25 STEREO OVV SENSOR IN	22	9	37A	
J17- 6	SHIELD37	SHIELD	22	90	37F	
J17-	E17	JACKET FOR WIRE NO 45		914	45	S 45
J17- 7	E17	H V RETURN	22	9	45A	
J17- 8	SHIELD45	SHIELD	22	90	45S	
J17-	XA8-	JACKET FOR WIRE NO 33		915	33	S 33
J17- 9	XA8-17	STEREO LAMP ON FDBK	22	9	33A	
J17- 10	SHIELD33	SHIELD	22	90	33F	
J20						
J20-	XA8-	JACKET FOR WIRE NO 30		98	30	S 30
J20- 1	XA8- 8	DIR VIEW BASE DRIVE	22	9	30A	
J20- 2	SHIELD30	SHIELD	22	90	30F	
J20-	XA8-	JACKET FOR WIRE NO 28		901	28	S 28
J20- 3	XA8- 6	DIR VIEW CURRENT FDBK	22	9	28A	
J20- 4	SHIELD28	SHIELD	22	90	28F	
J20-	XA8-	JACKET FOR WIRE NO 29		902	29	S 29
J20- 5	XA8- 7	DIR VIEW OVV SENSOR IN	22	9	29A	
J20- 6	SHIELD29	SHIELD	22	90	29F	
J20-	E17	JACKET FOR WIRE NO 46		903	46	S 46
J20- 7	E17	H V RETURN	22	9	46A	
J20- 8	SHIELD	46	SHIELD	22	90	46S
J20-	XA8-	JACKET FOR WIRE NO 32		904	32	S 32
J20- 9	XA8-13	DIR VIEW LAMP ON FDBK	22	9	32A	
J20- 10	SHIELD32	SHIELD	22	90	32F	
J22	(P22)					
J22- 1	XA8- 1	DIR VIEW DMR CONT HIGH	22	9034	258	
J22- 2	XA8-10	DIR VIEW DMR CONT WIPER	22	9028	257	
J22- 3	XA8-14	DIR VIEW DMR CONT LOW	22	9027	256	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J22- 4	XA8-27	STEREO VIEW DMR CONT HIGH	22	903	261	
J22- 5	XA8-20	STEREO VIEW DMR CONT WIPER	22	9038	260	
J22- 6	XA8-16	STEREO VIEW DMR CONT LOW	22	9037	259	
J22- 7	E26	SHIELD	22	90	262	
J22- 8	XA8-28	+15 VOLT	22	9048	263	
J22- 9	XA8-15	15 VOLT RTN	22	904	264	
J22- 10	XA8-5 -	15 VOLT	22	9056	265	
J22- 11	SHIELD19	SHIELD	22	90	19S	
J22-	J14-	JACKET FOR WIRE NO 17		98	17	S 17
J22- 12	J14- 8	GP +28 V	22	9	17A	
SHIELD 17	SHIELD19	SHIELD	22	90	17S	
J22- 13	XA8- 9	GP 28 VOLT RTN	22	9057	266	
J22-	J14-	JACKET FOR WIRE NO 19		93	19	S 19
J22- 14	J14- 5	H V INTERLOCK RETURN	22	9	19A	
J22- 15	XA8- 4	DIRECT VIEW INTERLOCK	22	9058	267	
J22- 16	XA8-24	STEREO VIEW INTERLOCK	22	906	268	
J22- 17	E26	SHIELD	22	90	269	
J22- 18	XA8-19	BFR TEMP CONT STEREO	22	905	270	
J22- 19	XA8-11	BFR TEMP COMP DIR VIEW	22	907	271	
J22- 20	E26	SHIELD	22	90	272	
J22- 21	XA8-29	STEREO OW IND	22	908	273	
J22- 22	XA8- 2	DIR VIEW OW IND	22	9013	274	
J22- 23	E26	SHIELD	22	90	275	
J22- 24	E17	H V STAR	22	902	25	
J22- 26	E30	NEUTRAL	22	901	246	
J22- 33	E27	H V POWER SUPPLY PHASE A	22	3	26C	
J22- 34	E28	H V POWER SUPPLY PHASE B	22	5	26D	
J22- 35	E29	H V POWER SUPPLY PHASE C	22	6	26B	
J22-	E30	JACKET FOR WIRE NO 26		914	26	S 26
J22- 36	E30	H V POWER SUPPLY N	22	9	26A	
J22- 37	SHIELD26	SHIELD	22	90	26S	
J23						
J23	E3		22	90	168	
J24						
J24	E32	R1			167	CMPT
J25						
J25	E33	R2			170	CMPT
J26						
J26	E34	R3			169	CMPT
J27						
J27	E4		22	90	172	
J28						
J28	E35	R4			171	CMPT
J29						
J29	J31		22	90	180	
J29	E14		22	904	174	
J30						
J30	E36	R5			173	CMPT

2036344-T

TABLE 651. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J31						
J31	J29		22	90	180	
J31	J33		22	904	176	
J32						
J32	E37	R6			175	CMPT
J33						
J33	J31		22	904	176	
J34						
J34	E38	R7			177	CMPT
J35						
J35	J37		22	90	183	
J35	E15		22	905	179	
J36						
J36	E39	R8			178	CMPT
J37						
J37	J39		22	91	185	
J37	J35		22	90	183	
J38						
J38	E40	R9			188	CMPT
J39						
J39	J41		22	905	186	
J39	J37		22	91	185	
J40						
J40	E41	R10			189	CMPT
J41						
J41	J43		22	90	187	
J41	J39		22	905	186	
J42						
J42	E42	R11			190	CMPT
J43						
J43	J41		22	90	187	
J44						
J44	E43	R12			191	CMPT
P22	(J22)					
P22- 1	J6- 29	DIR VIEW DMR CONT HIGH	22	3	1C	
P22- 2	J6- 30	DIR VIEW DMR CONT WIPER	22	6	1B	
P22-	J6-	JACKET FOR WIRE NO 1		95	1	S 1
P22- 3	J6- 31	DIR VIEW DMR CONT LOW	22	9	1A	
SHIELD 1	SHIELD2	SHIELD	22	90	1S	
P22- 4	J6- 33	STEREO DMR CONT HIGH	22	3	2C	
P22- 5	J6- 34	STEREO DMR CONT WIPER	22	6	2B	
P22-	J6-	JACKET FOR WIRE NO 2		96	2	S 2
P22- 6	J6- 35	STEREO DMR CONT LOW	22	9	2A	
P22- 7	SHIELD2	SHIELD	22	90	2S	
P22-	E11	JACKET FOR WIRE NO 3		915	3	S 3
P22- 8	E11	+15 V	22	9	3A	
SHIELD 3	SHIELD4	SHIELD	22	90	3S	

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
P22-	E4	JACKET FOR WIRE NO 4		916	4	S 4
P22- 9	E4	15V RTN	22	9	4A	
SHIELD 4	SHIELD5	SHIELD	22	90	4S	
P22-	E10	JACKET FOR WIRE NO 5		917	5	S 5
P22- 10	E10	-15V	22	9	5A	
SHIELD 5	SHIELD6	SHIELD	22	90	5S	
P22- 11	SHIELD6	SHIELD	22	90	6S	
P22-	E13	JACKET FOR WIRE NO 6		918	6	S 6
P22- 12	E13	GP +28 V	22	9	6A	
P22-	E14	JACKET FOR WIRE NO 7		923	7	S 7
P22- 13	E14	GP 28 V RTN	22	9	7A	
SHIELD 7	SHIELD6	SHIELD	22	90	7S	
P22-	E14	JACKET FOR WIRE NO 8		90	8	S 8
P22- 14	E14	H V INTERLOCK RETURN	22	9	8A	
SHIELD 8	SHIELD7	SHIELD	22	90	8S	
P22- 15	J6- 6	DIR VIEW INTERLOCK	22	6	9B	
P22-	J6-	JACKET FOR WIRE NO 9		91	9	S 9
P22- 16	J6- 7	STEREO INTERLOCK	22	9	9A	
P22- 17	SHIELD9	SHIELD	22	90	9S	
P22- 18	J6- 36	BFR TEMP CONT STEREO	22	6	10B	
P22-	J6-	JACKET FOR WIRE NO 10		92	10	S 10
P22- 19	J6- 37	BFR TEMP CONT DIR VIEW	22	9	10A	
P22- 20	SHIELD10	SHIELD	22	90	10S	
P22- 21	XDS1-A	STEREO OW IND	22	6	11B	
P22-	XDS1-	JACKET FOR WIRE NO 11		9	11	S 11
P22- 22	XDSI-B	DIR VIEW OW IND	22	9	11A	
P22- 23	SHIELD11	SHIELD	22	90	11S	
P22- 24	E3	H V STAR GROUND	22	93	12	
P22- 26	E44	ETM NEUTRAL	22	97	130	
P22- 33	J11- A	H V POWER SUPPLY PHASE A	22	3	13C	
P22- 34	J11- B	H V POWER SUPPLY PHASE B	22	5	13D	
P22- 35	J11- C	H V POWER SUPPLY PHASE C	22	6	138	
P22-	J11-	JACKET FOR WIRE NO 13		94	13	S 13
P22- 36	J11- D	H V POWER SUPPLY N	22	9	13A	
P22- 37	SHIELD13	SHIELD	22	90	13S	
XA1						
XA1- 1	XA6- A	-15V PROTECT OW	22	914	47	
XA1- 2	XA6- B	-15V RETURN UNRGLTD	22	91	48	T 53
XA1- 3	XA6- E	-15V RGLTR DRIVE	22	905	50	T 52
XA1- 3	XA6- E	-15V RGLTR DRIVER	22	923	81	
XA1- 4	XA6- H	15V RETURN	22	906	52	T 50
XA1- 4	XA1-18	15V RETURN	22	912	51	
XA1- 4	XA6- H	-15V RTN	22	917	87	
XA1- 5	XA6- C	-15V	22	93	53	T 48
XA1- 6	E3	5V RETURN	20	9	55	
XA1-	XA6-	JACKET FOR WIRE NO 57		90	57	S 57
XA1- 8	XA6- J	5V RGLTR DRIVE	22	9	57A	
SHIELD 57	E9	SHIELD	22	90	57S	
XA1-	XA6-	JACKET FOR WIRE NO 59		92	59	S 59
XA1- 10	XA6- L	5V UNRGLTD	22	9	59A	
SHIELD 59	E9	SHIELD	22	90	59S	
XA1- 12	XA6- N	+5V OW PROTECT	22	94	60	
XA1-	XA6-	JACKET FOR WIRE NO 61		98	61	S 61
XA1- 14	XA6- R	+5V RGLTD	22	9	61A	
SHIELD 61	E9	SHIELD	22	90	61S	
XA1- 18	XA1- 4	15V RETURN	22	912	51	
XA1- 20	XA6-M	+15V RGLTR DRIVER	22	924	83	
XA1- 20	XA6-M	+15V RGLTR DRIVE	22	907	64	T65
XA1- 21	XA6- K	+ 15V RGLTR	22	918	85	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
XA1- 21	XA6- K	+ 15V RGLTD	22	908	65	T 64
XA1- 22	XA6- Y	+15V UNRGLTD	20	96	67	
XA1- 23	XA6-AA	+ 15V OVV PROTECT	22	95	68	
XA3						
XA3- 1	E10	-15V	20	96	62	T 76
XA3- 2	XA7- A	GP 28V RGLTR DRIVE	22	91	69	
XA3-	J6-	JACKET FOR WIRE NO 70		90	70	S 70
XA3- 3	J6- 4	RTCL DMR CONT LOW	22	9	70A	
SHIELD 70	E20	SHIELD	22	90	70S	
XA3- 4	XA7- C	UNRGLTD 28V DC	22	907	71	T 72
XA3- 6	XA7- R	GP 28V RETURN	22	93	72	T 71
XA3- 6	E14	GP 28V RETURN	20	902	73	T 74
XA3- 8	E13	RGLTD GP 28V	20	901	74	T 73
XA3- 10	XA7-M	UNRGLTD 6V DC	22	94	75	
XA3- 12	E4	15V RETURN20		97	76	T243
XA3- 14	E16	RTCL VOLT FDBK	20	904	77	T 78
XA3- 16	E15	6V RETURN	20	903	78	T 77
XA3- 18	J6- 3	RTCL DMR CONT WIPER	22	6	70B	
XA3- 20	J6- 2	RTCL ON/OFF SWITCH	22	3	70C	
XA3- 22	XA7-W	RTCL DRIVE	20	95	242	
XA3- 23	E11	+15V	20	98	243	T 62
XA6						
XA6- A	XA1- 1	-15V PROTECT OW	22	914	47	
XA6-	CB2-	JACKET FOR WIRE NO 93		92	93	S 93
XA6- B	CB2-LOAD	UNRGLTD-15V RETURN NOTE 6	20	9	93A	
SHIELD 93	E8	SHIELD	NOTE 9	22	90	93S
XA6- B	XA1- 2	-15V RETURN UNRGLTD	22	91	48	T 53
XA6- C	E10	-15V	20	97	108	
XA6- C	XA1- 5	-15V	22	93	53	T 48
XA6-	J6-	JACKET FOR WIRE NO 109		904	109	S109
XA6- D	J6- 17	ZENERED 6V	22	9	109A	
SHIELD 109	E8	SHIELD	NOTE 9	22	90	109S
XA6- E	XA1- 3	-15V RGLTR DRIVER	22	923	81	
XA6- E	XA1- 3	-15V RGLTR DRIVE	22	905	50	T 52
XA6- H	E4	-15V RETURN	20	93	96	
XA6- H	XA1- 4	-15V RTN	22	917	87	
XA6- H	XA1- 4	15V RETURN	22	906	52	T 50
XA6-	XA1-	JACKET FOR WIRE NO 57		90	57	S 57
XA6- J	XA1- 8	5V RGLTR DRIVE	22	9	57A	
SHIELD 57	E8	SHIELD	NOTE 9	22	90	57F
XA6- K	XA1-21	+ 15V RGLTD	22	908	65	T 64
XA6- K	E11	+ 15V RGLTD	20	94	106	
XA6- K	XA1-21	+15V RGLTR	22	918	85	
XA6-	CB1-	JACKET FOR WIRE NO 111		905	111	S111
XA6- L	CB1-LOAD	UNRGLTD 5VNOTE 6	20	9	111A	
SHIELD 111	E8	SHIELD	NOTE 9	22	90	111S
XA6-	XA1-	JACKET FOR WIRE NO 59		92	59	S 59
XA6- L	XA1-10	5V UNRGLTD	22	9	59A	
SHIELD 59	E8	SHIELD	NOTE 9	22	90	59F
XA6- M	XA1-20	+ 15V RGLTR DRIVE	22	907	64	T 65
XA6- M	XA1-20	+15V RGLTR DRIVER	22	924	83	
XA6- N	XA1-12	+5V OW PROTECT	22	94	60	
XA6- P	E3	5V RETURN	20	6	112B	
XA6-	XA1-	JACKET FOR WIRE NO 61		98	61	S 61
XA6- R	XA1-14	+5V RGLTD	22	9	61A	
SHIELD 61	E8	SHIELD	NOTE 9	22	90	61F
XA6-	E12	JACKET FOR WIRE NO 112		906	112	S112
XA6- R	E12	+5V	20	9	112A	
SHIELD 112	E8	SHIELD	NOTE 9	22	90	112S

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
XA6- T	E8	CHASSIS GND NOTE 9	20	907	113	
XA6- V	CB7-LOAD	SLACK LOOP 28V NOTE 6	22	908	114	
XA6- Y	XA1-22	+ 15V UNRGLTD	20	96	67	
XA6-	CB3-	JACKET FOR WIRE NO 104		90	104	S104
XA6- Y	CB3-LOAD	UNRGLTD + 15V NOTE 6	20	9	104A	
SHIELD 104	E8	SHIELD NOTE 9	22	90	104S	
XA6- Z	E4	15V RETURN	20	901	116	
XA6- AA	XA1-23	+ 15V OW PROTECT	22	95	68	
XA7						
XA7- A	XA3- 2	GP 28V RGLTR DRIVE	22	91	69	
XA7- B	E35	+15V UNRGLTD	22	904	66	
XA7-	CB4-	JACKET FOR WIRE NO 117		90	117	S117
XA7- C	CB4-LOAD	UNRGLTD 28V NOTE 7	20	9	117A	
SHIELD 117	E21	SHIELD NOTE 9	22	90	117S	
XA7- C	XA3- 4	UNRGLTD 28V DC	22	907	71	T 72
XA7- D	E4	15V RETURN	22	903	63	
XA7-	CB4-	JACKET FOR WIRE NO 118		908	118	S118
XA7- E	CB4-LOAD	UNRGLTD 28V NOTE 7	20	9	118A	
SHIELD 118	E21	SHIELD NOTE 9	22	90	118S	
XA7- F	E34	-15V RETURN UNRGLTD	22	97	49	
XA7- H	E13	GP 28V	20	96	119	T120
XA7- J	E10	-15V	22	98	54	
XA7- K	E13	GP 28V	20	912	120	T119
XA7- L	E32	5V UNRGLTD	22	902	58	
XA7- M	XA3-10	UNRGLTD 6V DC	22	94	75	
XA7- N	E3	5V RETURN	22	901	56	
XA7- R	XA3- 6	GP 28V RETURN	22	93	72	T 71
XA7- S	E16	RGLTD 0-6V	20	905	123	T124
XA7- T	E15	0-6V RETURN	20	906	124	T125
XA7- U	E16	RGLTD 0-6V	20	914	125	T123
XA7- W	XA3-22	RTCL DRIVE	20	95	242	
XA8						
XA8- 1	J22- 1	DIR VIEW DMR CONT HIGH	22	9034	258	
XA8- 2	J22-22	DIR VIEW OW IND	22	9013	274	
XA8-	J10-	JACKET FOR WIRE NO 27		916	27	S 27
XA8- 3	J10- S	DIR VIEW +28V ON CMD	22	9	27A	
SHIELD 27	E26	SHIELD	22	90	27S	
XA8- 4	J22-15	DIRECT VIEW INTERLOCK	22	9058	267	
XA8- 5	J22-10	-15 VOLT	22	9056	265	
XA8-	J20-	JACKET FOR WIRE NO 28		901	28	S 28
XA8- 6	J20- 3	DIR VIEW CURRENT FDBK	22	9	28A	
SHIELD 28	SHIELD29	SHIELD	22	90	28S	
XA8-	J20-	JACKET FOR WIRE NO 29		902	29	S 29
XA8- 7	J20- 5	DIR VIEW OW SENSOR IN	22	9	29A	
SHIELD 29	SHIELD30	SHIELD	22	90	29S	
XA8-	J10-	JACKET FOR WIRE NO 254		98	254	S254
XA8- 8	J10- V	DIR VIEW 0-15V DIM	22	9	254A	
SHIELD 254	SHIELD255	SHIELD	22	90	254S	
XA8-	J20-	JACKET FOR WIRE NO 30		98	30	S 30
XA8- 8	J20- 1	DIR VIEW BASE DRIVE	22	9	30A	
SHIELD 30	E26	SHIELD	22	90	30S	
XA8- 9	J22-13	GP 28 VOLT RTN	22	9057	266	
XA8- 10	J22- 2	DIR VIEW DMR CONT WIPER	22	9028	257	
XA8- 11	J22-19	BFR TEMP COMP DIR VIEW	22	907	271	
XA8-	J14-	JACKET FOR WIRE NO 31		906	31	S 31
XA8- 12	J14- 7	DIR VIEW START RELAY DRIVE	22	9	31A	
SHIELD 31	SHIELD32	SHIELD	22	90	31S	
XA8-	J20-	JACKET FOR WIRE NO 32		904	32	S 32
XA8- 13	J20- 9	DIR VIEW LAMP ON FDBK	22	9	32A	
SHIELD 32	E26	SHIELD	22	90	32S	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
XA8- 14	J22- 3	DIR VIEW DMR CONT LOW	22	9027	256	
XA8- 15	J22- 9	15 VOLT RTN	22	904	264	
XA8- 16	J22- 6	STEREO VIEW DMR CONT LOW	22	9037	259	
XA8-	J17-	JACKET FOR WIRE NO 33		915	33	S 33
XA8- 17	J17- 9	STEREO LAMP ON FDBK	22	9	33A	
SHIELD 33	SHIELD34	SHIELD	22	90	33S	
XA8-	J14-	JACKET FOR WIRE NO 34		907	34	S 34
XA8- 18	J14- 9	STEREO START RELAY DRIVE	22	9	34A	
SHIELD 34	E26	SHIELD	22	90	34S	
XA8- 19	J22-18	BFR TEMP CONT STEREO	22	905	270	
XA8- 20	J22- 5	STEREO VIEW DMR CONT WIPER	22	9038	260	
XA8-	J17-	JACKET FOR WIRE NO 35		912	35	S 35
XA8- 22	J17- 3	STEREO CURRENT FDBK	22	9	35A	
SHIELD 35	SHIELD36	SHIELD	22	90	35S	
XA8-	J10-	JACKET FOR WIRE NO 255		908	255	S255
XA8- 23	J10- J	STEREO 0-15V DIM	22	9	255A	
SHIELD 255	E26	SHIELD	22	90	255S	
XA8-	J17-	JACKET FOR WIRE NO 36		908	36	S 36
XA8- 23	J17- 1	STEREO BASE DRIVE	22	9	36A	
SHIELD 36	E26	SHIELD	22	90	36S	
XA8- 24	J22-16	STEREO VIEW INTERLOCK	22	906	268	
XA8-	J17-	JACKET FOR WIRE NO 37		913	37	S 37
XA8- 25	J17- 5	STEREO OW SENSOR IN	22	9	37A	
SHIELD 37	SHIELD38	SHIELD	22	90	37S	
XA8-	J10-	JACKET FOR WIRE NO 38		917	38	S 38
XA8- 26	J10- F	STEREO +28V ON CMD	22	9	38A	
SHIELD 38	E26	SHIELD	22	90	38S	
XA8- 27	J22- 4	STEREO VIEW DMR CONT HIGH	22	903	261	
XA8- 28	J22- 8	+ 15 VOLT	22	9048	263	
XA8- 29	J22-21	STEREO OVV IND	22	908	273	
CB1						
CB1- LINE	E32		NOTE 7	22	90	131
CB1-	J5-	JACKET FOR WIRE NO 132	91	132		S132
CBI- LINE	J5- C	UNRGLTD 5VDC	NOTE 7	18	9	132A
SHIELD 132	E7	SHIELD	22	90	132S	
CB1-	XA6-	JACKET FOR WIRE NO 111		905	111	S111
CB1- LOAD	XA6- L	UNRGLTD 5V	NOTE 6	20	9	111A
SHIELD 111	E7	SHIELD	22	90	111F	
CB2						
CB2- LINE	E34		NOTE 7	22	91	133
CB2-	J5-	JACKET FOR WIRE NO 134		95	134	S134
CB2- LINE	J5- K	UNRGLTD-15V RTN	NOTE 7	18	9	134A
SHIELD 134	E7	SHIELD	22	90	134S	
CB2-	XA6-	JACKET FOR WIRE NO 93		92	93	S 93
CB2- LOAD	XA6- B	UNRGLTD-15VRETURN NOTE6	20	9	93A	
SHIELD 93	E7	SHIELD	22	90	93F	
CB3						
CB3- LINE	E35		NOTE 7	22	92	135
CB3-	J5-	JACKET FOR WIRE NO 136		93	136	S136
CB3- LINE	J5- G	UNRGLTD +15VDC	NOTE 7	18	9	136A
SHIELD 136	E7	SHIELD	NOTE 8	22	90	136S
CB3-	XA6-	JACKET FOR WIRE NO 104		90	104	S104
CB3- LOAD	XA6- Y	UNRGLTD +15V	NOTE 6	20	9	104A
SHIELD 104	E7	SHIELD	22	90	104F	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
CB4							
CB4-	LINE	J5- L	UNRGLTD GP 28VDC RECT2 NOTE 8	12	902	138	
CB4-	LINE	E36		NOTE 8	22	93	137
CB4-		XA7-	JACKET FOR WIRE NO 118		908	118	S118
CB4-	LOAD	XA7- E	UNRGLTD 28V	NOTE 7	20	9	118A
SHIELD	118	E7	SHIELD	22	90	118F	
CB4-		XA7-	JACKET FOR WIRE NO 117		90	117	S117
CB4-	LOAD	XA7- C	UNRGLTD 28V	NOTE 7	20	9	117A
SHIELD	117	E7	SHIELD	22	90	117F	
CB5							
CB5-	LINE	CB6-LINE	UNRGLTD 28VDC	NOTE 7,8	16	90	141
CB5-	LINE	J5- B	UNRGLTD 28VDC RECT 2 NOTE 8	12	903	139	
CB5-		J7-	JACKET FOR WIRE NO 140		98	140	S140
CB5-	LOAD	J7- >F	UNRGLTD FR FILM 28 V NOTE 7	20	9	140A	
SHIELD	140	E7	SHIELD	22	90	140S	
CB5-	LOAD	J7- >E	UNRGLTD FR FILM 28 V NOTE 7	20	6	140B	
CB6							
CB6-	LINE	CB5-LINE	UNRGLTD 28VDC	NOTE 7,8	16	90	141
CB6-	LINE	E37		NOTE 7	22	94	142
CB6-	LOAD	J7- >J	UNRGLTD REAR FILM 28V NOTE 7	20	6	143B	
CB6-		J7-	JACKET FOR WIRE NO 143		92	143	S143
CB6-	LOAD	J7- >K	UNRGLTD REAR FILM 28V NOTE 7	20	9	143A	
SHIELD	143	E7	SHIELD	22	90	143S	
CB7							
CB7-	LINE	E13	GP 28VDC	NOTE 7	16	91	145
CB7-		J6-	JACKET FOR WIRE NO 146		94	146	S146
CB7-	LOAD	J6- 18	SLACK LOOP 28VDC NOTE 6	22	9	146A	
SHIELD	146	E7	SHIELD	22	90	146S	
CB7-	LOAD	XA6- V	SLACK LOOP 28V	NOTE 6	22	908	114
CB9							
CB9-	LINE	J5- P	UNRGLTD 6VDC RECT I NOTE 8	12	908	148	
CB9-	LINE	E39		NOTE 8	22	95	147
CB9-	LOAD	J1- L	UNRGLTD MAP CURSOR 6V NOTE 8	12	94	150	
CB10							
CB10-	LINE	J5- A	UNRGLTD 28VDC RECT 1 NOTE 8	12	906	152	
CB10-	LINE	CB12-LINE	UNRGLTD 28VDC	NOTE 8	12	9	153
CB10-	LOAD	J1- A	UNRGLTD MAP CURSOR 28V NOTE 8	12	902	151	
CB11							
CB11-	LINE	J5- S	UNRGLTD 6VDC RECT 2 NOTE 8	12	913	155	
CB11-	LINE	E41		NOTE 8	22	96	154
CBII-	LOAD	J1- M	UNRGLTD FILM CURSOR 6V NOTE 8	12	95	156	
CB12							
CB12-	LINE	E40		NOTE 8	20	97	157
CB12-	LINE	CB10-LINE	UNRGLTD 28VDC	NOTE 8	12	9	153
CB12-	LOAD	J1- B	UNRGLTD FILM CURSOR 28V NOTE8	12	903	158	
CB13							
CB13-	LI 2	CB14-LI2	115V PHASE A	20	90	159	T160
CB13-	LI 2	M1- 1	ETM PHASE A	22	92	129	
CB13-	LI 4	CB14-LI 4	115V PHASE B	20	91	160	T161
CB13-	LI 6	CB14-LI 6	115V PHASE C	20	94	161	T159
CB13-	LO 1	J7- N	115 V PHASE A ETM	22	93	250	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
CB13- LO 1	J7- R	115V PH A FILM TRANSPORT FAN	20	3	162C	
CB13- LO 3	J7- S	115V PH B FILM TRANSPORT FAN	20	6	162B	
CB13-	J7-	JACKET FOR WIRE NO 162		97	162	S162
CB13- LO 5	J7- T	115V PH C FILM TRANSPORT FAN	20	9	162A	
SHIELD 162	E7	SHIELD	22	90	162S	
CB14						
CB14- LI 2	CB13-LI 2	115V PHASE	A	20	90	159 T160
CB14- LI 2	J11- T	115VPHASE	A	20	3	163C
CB14- LI 4	J11- U	115V PHASE	B	20	6	163B
CB14- LI 4	CB13-LI 4	115V PHASE	B	20	91	160 T161
CB14- LI 6	CB13-LI 6	115V PHASE	C	20	94	161 T159
CB14-	J11-	JACKET FOR WIRE NO 163		92	163	S163
CB14- LI 6	J11- V	115V PHASE	C	20	9	163A
SHIELD 163	E7	SHIELD	22	90	163S	
CB14- LO 1	J1- K	115 V PHASE A ETM	20	908	248	
CB14- LO 1	J1- C	115V PH A CURSOR FAN	18	3	164C	
CB14- LO 3	J1- F	115V PH B CURSOR FAN	18	6	164B	
CB14-	J1-	JACKET FOR WIRE NO 164		904	164	S164
CB14- LO 5	J1- G	115V PH C CURSOR FAN	18	9	164A	
SHIELD 164	E7	SHIELD	22	90	164S	
CB15						
CB15- LINE	J5- Y	UNRGLTD 6VDC REC 2 NOTE 8	12	915	166	
CB15- LINE	E43		NOTE 8	16	98	165
CB15-	SHIELD	JACKET FOR WIRE NO 122		913	122	S122
CB15- LOAD	SHIELDP	UNRGLTD 6V RTCL LAMP NOTE 7	20	9	122A	
SHIELD 122	E7	SHIELD	22	90	122F	
CB15-	SHIELD	JACKET FOR WIRE NO 121		92	121	S121
CB15- LOAD	SHIELDM	UNTGLTD 6V RTCL LAMP NOTE 7	20	9	121A	
SHIELD 121	E7	SHIELD	22	90	121F	
E3						
E3	XA1- 6	5V RETURN	20	9	55	
E3	XA7- N	5V RETURN	22	901	56	
E3	XA6- P	5V RETURN	20	6	112B	
E3	J23		22	90	168	
E3	J1-	JACKET FOR WIRE NO 199		91	199	S199
E3	J1- Z	5V RETURN	18	9	199A	
SHIELD 199	E18	SHIELD	22	90	199F	
E3	J1- W	5V RETURN	18	6	199B	
E3	J5-	JACKET FOR WIRE NO 211		98	211	S211
E3	J5- F	5V RETURN	18	9	211A	
SHIELD 211	E18	SHIELD	22	90	211F	
E3	J7-	JACKET FOR WIRE NO 222		95	222	S222
E3	J7- J	5V RETURN	20	9	222A	
SHIELD 222	E18	SHIELD	22	90	222F	
E3	J7- H	5V RETURN	20	6	222B	
E3	E15	28V AND 6V RETURN	12	94	240	
E3	E4	15V RETURN	12	96	241	
E3	E14	GP 28V RETURN	12	92	244	
E3	P22-24	H V STAR GROUND	22	93	12	
E4						
E4	P22-	JACKET FOR WIRE NO 4		916	4	S 4
E4	P22- 9	15V RTN	22	9	4A	
SHIELD 4	E6	SHIELD	22	90	4F	
E4	XA7- D	15V RETURN	22	903	63	
E4	XA3-12	15V RETURN	20	97	76	T243
E4	XA6- H	-15V RETURN	20	93	96	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E4	XA6- Z	15V RETURN	20	901	116	
E4	J27		22	90	172	
E4	J1- D	28V RETURN	12	92	192	T193
E4	J1- E	28V RETURN	12	93	193	T192
E4	J5-	JACKET FOR WIRE NO 212		92	212	S212
E4	J5- H	15V RETURN	18	9	212A	
SHIELD 212	E6	SHIELD	22	90	212F	
E4	J7-	JACKET FOR WIRE NO 220		94	220	S220
E4	J7- B	15V RETURN	20	9	220A	
SHIELD 220	E6	SHIELD	22	90	220F	
E4	J9-	JACKET FOR WIRE NO 235		91	235	S235
E4	J9- K	+15 V RETURN	20	9	235A	
SHIELD 235	E6	SHIELD	22	90	235F	
E4	J9- J	+15 V RETURN	20	6	235B	
E4	J9-	JACKET FOR WIRE NO 237		95	237	S237
E4	J9- R	-15 V RETURN	20	9	237A	
SHIELD 237	E6	SHIELD	22	90	237F	
E4	J9- P	-15 V RETURN	20	6	237B	
E4	E3	15V RETURN	12	96	241	
E4	J5- W	15V RTN	20	3	245C	
E6						
E6	SHIELD	4 SHIELD	22	90	4F	
E6	SHIELD	5 SHIELD	22	90	5F	
E6	SHIELD212	SHIELD	22	90	212F	
E6	SHIELD213	SHIELD	22	90	213F	
E6	SHIELD219	SHIELD	22	90	219F	
E6	SHIELD220	SHIELD	22	90	220F	
E6	SHIELD221	SHIELD	22	90	221F	
E6	SHIELD234	SHIELD	22	90	234F	
E6	SHIELD235	SHIELD	22	90	235F	
E6	SHIELD236	SHIELD	22	90	236F	
E6	SHIELD237	SHIELD	22	90	237F	
E6	SHIELD245	SHIELD GROUND	22	90	245F	
E6	SHIELD3	SHIELD	22	90	3F	
E7						
E7	SHIELD93	SHIELD	22	90	93F	
E7	SHIELD104	SHIELD	22	90	104F	
E7	SHIELD111	SHIELD	22	90	111F	
E7	SHIELD117	SHIELD	22	90	117F	
E7	SHIELD118	SHIELD	22	90	118F	
E7	SHIELD121	SHIELD	22	90	121F	
E7	SHIELD122	SHIELD	22	90	122F	
E7	SHIELD127	SHIELD	22	90	127S	
E7	SHIELD132	SHIELD	22	90	132S	
E7	SHIELD134	SHIELD	22	90	134S	
E7	SHIELD136	SHIELD	NOTE 8	22	90	136S
E7	SHIELD140	SHIELD	22	90	140S	
E7	SHIELD143	SHIELD	22	90	143S	
E7	SHIELD146	SHIELD	22	90	146S	
E7	SHIELD162	SHIELD	22	90	162S	
E7	SHIELD163	SHIELD	22	90	163S	
E7	SHIELD164	SHIELD	22	90	164S	
E7	SHIELD11	SHIELD		22	90	11F
E8						
E8	SHIELD59	SHIELD	NOTE 9	22	90	59F
E8	SHIELD61	SHIELD	NOTE 9	22	90	61F
E8	SHIELD93	SHIELD	NOTE 9	22	90	93S

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E8	SHIELD104	SHIELD	NOTE 9	22	90	104S
E8	SHIELD109	SHIELD	NOTE 9	22	90	109S
E8	SHIELD111	SHIELD	NOTE 9	22	90	111S
E8	SHIELD112	SHIELD	NOTE 9	22	90	112S
E8	XA6- T	CHASSIS GND	NOTE 9	20	907	113
E8	SHIELD57	SHIELD	NOTE 9	22	90	57F
E9						
E9	SHIELD59	SHIELD	22	90	59S	
E9	SHIELD61	SHIELD	22	90	61S	
E9	SHIELD57	SHIELD	22	90	57S	
E10						
E10	P22-	JACKET FOR WIRE NO 5		917	5	S 5
E10	P22-10	-15 V	22	9	5A	
SHIELD 5	E6	SHIELD	22	90	5F	
EIO	XA7- J	-15V	22	98	54	
E10	XA3- 1	-15V	20	96	62	T 76
E10	XA6- C	-15V	20	97	108	
E10	E33		22	902	182	
E10	J5-	JACKET FOR WIRE NO 213		94	213	S213
E10	J5-	J -15V	18	9	213A	
SHIELD 213	E6	SHIELD	22	90	213F	
E10	J7-	JACKET FOR WIRE NO 221		901	221	S221
E10	J7- C	-15 V	20	9	221A	
SHIELD 221	E6	SHIELD	22	90	221F	
E10	J9-	JACKET FOR WIRE NO 236		90	236	S236
E10	J9- N	-15 VDC	20	9	236A	
SHIELD 236	E6	SHIELD	22	90	236F	
E10	J9- M	-15 VDC	20	6	236B	
E10	J5- V	- 15V	20	6	245B	
E11						
E11	P22-	JACKET FOR WIRE NO 3		915	3	S 3
E11	P22- 8	+15V	22	9	3A	
SHIELD 3	E6	SHIELD	22	90	3F	
E11	XA6- K	+15V RGLTD	20	94	106	
E11	J7-	JACKET FOR WIRE NO 219		90	219	S219
E11	J7- A	+15 V	20	9	219A	
SHIELD 219	E6	SHIELD	22	90	219F	
E11	J9-	JACKET FOR WIRE NO 234		92	234	S234
E11	J9- H	+ 15 VDC	20	9	234A	
SHIELD 234	E6	SHIELD	22	90	234F	
E11	J9- G	+15VDC	20	6	2348	
E11	XA3-23	+ 15V	20	98	243	T 62
E11	J5-	JACKET FOR WIRE NO 245		97	245	S245
E11	J5- U	+ 15V	20	9	245A	
SHIELD 245	E6	SHIELD GROUND	22	90	245F	
E12						
E12	XA6-	JACKET FOR WIRE NO 112		906	112	S112
E12	XA6- R	+5V	20	9	112A	
SHIELD 112	E18	SHIELD	22	90	112F	
E12	J1-	JACKET FOR WIRE NO 198		907	198	S198
E12	J1- V	+5VDC	18	9	198A	
SHIELD 198	E18	SHIELD	22	90	198F	
E12	J1- U	+5VDC	18	6	198B	
E12	J7- E	+5V	20	3	222C	
E12	J7- F	+5V	20	5	222D	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E13							
E13		P22-	JACKET FOR WIRE NO 6		918	6	S 6
E13		P22-12	GP +28 V	22	9	6A	
SHIELD	6	E19	SHIELD	22	90	6F	
E13		XA3- 8	RGLTD GP 28V	20	901	74	T 73
E13		XA7- H	GP 28V	20	96	119	T120
E13		XA7- K	GP 28V	20	912	120	T119
E13		CB7-LINE	GP 28VDC	NOTE 7	16	91	145
E13		J6-	JACKET FOR WIRE NO 215		902	215	S215
E13		J6- 20	G P +28 VDC	22	9	215A	
SHIELD	215	E19	SHIELD	22	90	215F	
E13		J7-	JACKET FOR WIRE NO 223		903	223	S223
E13		J7- Z	+28 V LAMP	20	9	223A	
SHIELD	223	E19	SHIELD	22	90	223F	
E13		J7- Y	+28 V LAMP	20	6	223B	
E13		J7-	JACKET FOR WIRE 231 NOTE 5		9	231	S231
E13		J1- X	GP 28V	14	9	231A	
SHIELD	231	E19	SHIELD	22	90	231F	
E14							
E14		P22-	JACKET FOR WIRE NO 7		923	7	S 7
E14		P22-13	GP 28 V RTN	22	9	7A	
SHIELD	7	E19	SHIELD	22	90	7F	
E14		P22-	JACKET FOR WIRE NO 8		90	8	S 8
E14		P22-14	H V INTERLOCK RETURN	22	9	8A	
SHIELD	8	E19	SHIELD	22	90	8F	
E14		XA3- 6	GP 28V RETURN	20	902	73	T 74
E14		XDS1-G	GP 28V RETURN	22	94	128	
E14		J29		22	904	174	
E14		J5- M	28V RETURN RECT 2	12	96	205	T206
E14		J5- E	28V RETURN RECT 2	12	905	206	T205
E14		J6-	JACKET FOR WIRE NO 214		901	214	S214
E14		J6- 19	G P 28V RETURN SLACK LOOP	22	9	214A	
SHIELD	214	E19	SHIELD	22	90	214F	
E14		J6-	JACKET FOR WIRE NO 216		97	216	S216
E14		J6- 21	G P +28V RETURN	22	9	216A	
SHIELD	216	E19	SHIELD	22	90	216F	
E14		J7-	JACKET FOR WIRE NO 224		907	224	S224
E14		J7->B	28 V LAMP RETURN	20	9	224A	
SHIELD	224	E19	SHIELD	22	90	224F	
E14		J7->A	28 V LAMP RETURN	20	6	224B	
E14		J7-	JACKET FOR WIRE NO 225		908	225	S225
E14		J7->H	28 V RETURN REAR TRANSPORT	20	9	225A	
SHIELD	225	E19	SHIELD	22	90	225F	
E14		J7->G	28 V RETURN REAR TRANSPORT	20	6	225B	
E14		J7-	JACKET FOR WIRE NO 226		91	226	S226
E14		J7->Q	28V RETURN FR TRANSPORT	20	9	226A	
SHIELD	226	E19	SHIELD	22	90	226F	
E14		J7->P	28V RETURN FR TRANSPORT	20	6	226B	
E14		J7->M	STAR	16	912	227	T228
E14		J7->R	STAR	16	913	228	T227
E14		J1- Y	GP 28V RTN	14	6	231B	
E14		E3	GP 28V RETURN	12	92	244	
E15							
E15		XA7- T	0-6V RETURN	20	906	124	T125
E15		J35		22	905	179	
E15		J1- P	6V RETURN	12	96	194	T195
E15		J1- R	6V RETURN	12	97	195	T194

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E15	J1- S	STAR	12	98	196	T197
E15	J1- T	STAR	12	901	197	T196
E15	J5- D	28V RETURN RECT 1	12	907	207	
E15	J5- R	6V RETURN RECT 1	12	912	208	
E15	J5- T	6V RETURN RECT 2	12	914	209	T210
E15	J5- X	6V RETURN RECT 2	12	916	210	T209
E15	J6-	JACKET FOR WIRE NO 218		908	218	S218
E15	J6- 28	D C RETURN RTCL LAMP	22	9	218A	
SHIELD 218	E23	SHIELD	22	90	218F	
E15	J6- 27	D C RETURN RTCL LAMP	22	6	218B	
E15	J6- 26	D C RETURN RTCL LAMP	22	3	218C	
E15	E3	28V AND 6V RETURN	12	94	240	
E15	XA3-16	6V RETURN	20	903	78	T 77
E16						
E16	XA7- S	RGLTD 0-6V	20	905	123	T124
E16	XA7- U	RGLTD 0-6V	20	914	125	T123
E16	J6-	JACKET FOR WIRE NO 217		93	217	S217
E16	J6- 25	0-6 VDC RTCL LAMP	22	9	217A	
SHIELD 217	E23	SHIELD	22	90	217F	
E16	J6- 24	0-6 VDC RTCL LAMP	22	6	2178	
E16	J6- 23	0-6 VDC RTCL LAMP	22	3	217C	
E16	XA3-14	RTCL VOLT FDBK	20	904	77	T 78
E17						
E17	J14-	JACKET FOR WIRE NO 39		901	39	S 39
E17	J14- 2	1 4KV SUPPLY RETURN	22	9	39A	
SHIELD 39	E25	SHIELD	22	90	39F	
E17	J14- 1	6.OKV SUPPLY RETURN	22	6	39B	
E17	J10-	JACKET FOR WIRE NO 42		93	42	S 42
E17	J10- T	6 OKV RETURN	22	9	42A	
SHIELD 42	E25	SHIELD	22	90	42F	
E17	J10- H	1 4KV RETURN	22	6	42B	
E17	J17-	JACKET FOR WIRE NO 45		914	45	S 45
E17	J17- 7	HVRETURN	22	9	45A	
SHIELD 45	E25	SHIELD	22	90	45F	
E17	J20-	JACKET FOR WIRE NO 46		903	46	S 46
E17	J20- 7	H V RETURN	22	9	46A	
SHIELD 46	E25	SHIELD	22	90	46F	
E17	J22-24	H V STAR	22	902	25	
E18						
E18	SHIELD198	SHIELD	22	90	198F	
E18	SHIELD199	SHIELD	22	90	199F	
E18	SHIELD211	SHIELD	22	90	211F	
E18	SHIELD222	SHIELD	22	90	222F	
E18	SHIELD112	SHIELD	22	90	112F	
E19						
E19	SHIELD7	SHIELD	22	90	7F	
E19	SHIELD8	SHIELD	22	90	8F	
E19	SHIELD214	SHIELD	22	90	214F	
E19	SHIELD215	SHIELD	22	90	215F	
E19	SHIELD216	SHIELD	22	90	216F	
E19	SHIELD223	SHIELD	22	90	223F	
E19	SHIELD224	SHIELD	22	90	224F	
E19	SHIELD225	SHIELD	22	90	225F	
E19	SHIELD226	SHIELD	22	90	226F	
E19	SHIELD231	SHIELD	22	90	231F	
E19	SHIELD6	SHIELD	22	90	6F	

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E20						
E20	SHIELD70	SHIELD	22	90	70S	
E21						
E21	SHIELD118	SHIELD	NOTE 9	22	90	118S
E21	SHIELD121	SHIELD	NOTE 9	22	90	121S
E21	SHIELD122	SHIELD	NOTE 9	22	90	122S
E21	SHIELDV	CHASSIS GND	NOTE 9	20	915	126
E21	SHIELD117	SHIELD	NOTE 9	22	90	117S
E23						
E23	SHIELD218	SHIELD	22	90	218F	
E23	SHIELD217	SHIELD	22	90	217F	
E25						
E25	SHIELD42	SHIELD	22	90	42F	
E25	SHIELD45	SHIELD	22	90	45F	
E25	SHIELD46	SHIELD	22	90	46F	
E25	SHIELD39	SHIELD	22	90	39F	
E26						
E26	SHIELD30	SHIELD	22	90	30S	
E26	SHIELD32	SHIELD	22	90	32S	
E26	SHIELD34	SHIELD	22	90	34S	
E26	SHIELD36	SHIELD	22	90	36S	
E26	SHIELD38	SHIELD	22	90	38S	
E26	SHIELD255	SHIELD	22	90	255S	
E26	J22- 7	SHIELD	22	90	262	
E26	J22-17	SHIELD	22	90	269	
E26	J22-20	SHIELD	22	90	272	
E26	J22-23	SHIELD	22	90	275	
E26	SHIELD27	SHIELD	22	90	27S	
E27						
E27	J10- A	STEREO LAMP SUPPLY PHASE A	22	3	41C	
E27	J10- M	D V LAMP SUPPLY PHASE A	22	3	43C	
E27	J10-W	D V SUPPLY FAN PHASE A	22	6	44B	
E27	J22-33	H V POWER SUPPLY PHASE A	22	3	26C	
E28						
E28	J10- B	STEREO LAMP SUPPLY PHASE B	22	5	41D	
E28	J10- N	D V LAMP SUPPLY PHASE B	22	5	43D	
E28	J22-34	H V POWER SUPPLY PHASE B	22	5	26D	
E29						
E29	J10- C	STEREO LAMP SUPPLY PHASE C	22	6	41B	
E29	J10- P	D V LAMP SUPPLY PHASE C	22	6	43B	
E29	J22-35	H V POWER SUPPLY PHASE C	22	6	26B	
E30						
E30	J22-	JACKET FOR WIRE NO 26		914	26	S 26
E30	J22-36	H V POWER SUPPLY N	22	9	26A	
SHIELD 26	E31	SHIELD	22	90	26F	
E30	J10-	JACKET FOR WIRE NO 41		92	41	S 41
E30	J10- D	STEREO LAMP SUPPLY N	22	9	41A	
SHIELD 41	E31	SHIELD	22	90	41F	
E30	J10-	JACKET FOR WIRE NO 43		91	43	S 43
E30	J10- R	D V LAMP SUPPLY N	22	9	43A	
SHIELD 43	E31	SHIELD	22	90	43F	

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E30	J10-	JACKET FOR WIRE NO 44		94	44	S 44
E30	J10- Z	D V SUPPLY FAN N	22	9	44A	
SHIELD 44	E31	SHIELD	22	90	44F	
E30	J22- 26	NEUTRAL	22	901	246	
E31						
E31	SHIELD 41	SHIELD	22	90	41F	
E31	SHIELD 43	SHIELD	22	90	43F	
E31	SHIELD 44	SHIELD	22	90	44F	
E31	SHIELD 26	SHIELD	22	90	26F	
E32						
E32	CB1- LINE	NOTE 7	22	90	131	
E32	J24	R1			167	CMPT
E32	XA7- L	5V UNRGLTD	22	902	58	
E33						
E33	E10		22	902	182	
E33	J25	R2			170	CMPT
E34						
E34	CB2- LINE	NOTE 7	22	91	133	
E34	J26	R3			169	CMPT
E34	XA7- F	-15V RETURN UNRGLTD	22	97	49	
E35						
E35	CB3- LINE	NOTE 7	22	92	135	
E35	J28	R4			171	CMPT
E35	XA7- B	+15V UNRGLTD	22	904	66	
E36						
E36	J30	R5			173	CMPT
E36	CB4- LINE	NOTE 8	22	93	137	
E37						
E37	J32	R6			175	CMPT
E37	E38		22	90	181	
E37	CB6- LINE	NOTE 7	22	94	142	
E38						
E38	E37		22	90	181	
E38	J34	R7			177	CMPT
E39						
E39	J36	R8			178	CMPT
E39	CB9- LINE	NOTE 8	22	95	147	
E40						
E40	E42		22	90	184	
E40	J38	R9			188	CMPT
E40	CB12- LINE	NOTE 8	20	97	157	
E41						
E41	J40	R10			189	CMPT
E41	CB11- LINE	NOTE 8	22	96	154	
E42						
E42	J42	R11			190	CMPT
E42	E40		22	90	184	

2036344-T

TABLE 6-51. POWER SUPPLY A9 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E43						
E43	J44	R12			191	CMPT
E43	CB15-LINE		NOTE8	16	98	165
E44						
E44	M1- 2	NEUTRAL	22	91	247	
E44	J1- J	NEUTRAL	20	90	249	
E44	J7- P	NEUTRAL	22	96	251	
E44	P22-26	ETM NEUTRAL	22	97	130	
M1						
M1- 1	CB13-LI 2	ETM PHASE A	22	92	129	
M1- 2	E44	NEUTRAL	22	91	247	
XDS1						
XDS1- A	P22-21	STEREOOWIND	22	6	11B	
XDSI-	P22-	JACKET FOR WIRE NO 11		9	11	S 11
XDSI- B	P22-22	DIR VIEW OW IND	22	9	11A	
SHIELD 11	E7	SHIELD	22	90	11F	
XDSI-	J6-	JACKET FOR WIRE NO 127		98	127	S127
XDSI- C	J6-10	DV OVT	22	9	127A	
SHIELD 127	E7	SHIELD	22	90	127S	
XDS1- D	J6- 9	STE OVT	22	6	127B	
XDS1- G	E14	GP 28V RETURN	22	94	128	

2036344-T

TABLE 6-52. DIRECT VIEW A10 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J3	(W38P3)	INTERNAL CONNECTOR				
J3- 1	S11-NC	FILM FINAL LIMIT CCW 'X'	22	97	8	
J3- 2	S4-NC	FILM FINAL LIMIT CW 'X'	22	95	6	
J3- 3	J7- 10	FILM FINAL LIMIT CCW 'Y'	24	92	3	
J3- 4	J7- 5	FILM FINAL LIMIT CW'Y'	24	94	5	
J3- 5	S12-NO	FIRST LIMIT FILM 'X'	22	96	7	
J3- 6	TB1-E1	FIRST LIMIT FILM 'Y' NOTE 5	22	93	4	
J3- 7	TB1-F1	15V RETURN NOTE 7	22	98	9	
J3- 8	E3	GROUND	22	90	1	
J3- 14	S9- C	FILM TRANSPORT INTLK NOTE 8	22	901	10	
J3- 15	S9-NO	FILM TRANSPORT INTLK NOTE 8	22	902	11	
J3- 16	E3	GROUND		22	91	2
J3- 17	TB1-A1	0-6VDC NOTE 5	22	903	12	
J3- 18	TB1-B1	0-6VDC NOTE 5	22	904	13	
J3- 19	TB1-B1	0-6VDC NOTE 5	22	905	14	
J3- 20	TB1-C1	DCRETURN NOTE 5	22	906	15	
J3- 21	TBI-D1	DC RETURN NOTE 5	22	907	16	
J3- 22	TB1-D1	DCRETURN NOTE 5	22	908	17	
J7	(P7)	INTERNAL CONNECTOR				
J7- 1	TB1-B2	0-6VDC NOTE 4,6	24	90	18	
J7- 2	TB1-A2	0-6VDC NOTE 6	24	92	22	
J7- 3	TB1-C2	DC RETURN NOTE 6	24	93	23	
J7- 4	TB1-D2	DC RETURN NOTE 6	24	91	19	
J7- 5	J3- 4	FILM FINAL LIMIT CW 'Y'	24	94	5	
J7- 6	TB1-F2	15V RETURN NOTE 6	24	91	25	
J7- 7	TB1-E2	FILM Y FIRST LIMIT NOTE 6	24	92	20	
J7- 8	TB1-F2	15V RETURN NOTE 6	24	92	27	
J7- 9	TB1-E2	FILM Y FIRST LIMIT NOTE 6	24	94	21	
J7- 10	J3- 3	FILM FINAL LIMIT CCW 'Y'	24	92	3	
J9		SOCKET				
J9- 1	S5-NC	NOTE 4	24	90	36	
J9- 2	S5- C		24	95	37	
J9- 3	S6-NO		24	92	39	
J9- 4	S7- C		24	9	40	
J9- 5	S7-NO		24	94	42	
J9- 6	S8-NC		24	90	43	
E2						
E2	SHIELD34	SHIELD	22	90	34F	
E3						
E3	J3- 16	GROUND	22	91	2	
E3	J3- 8	GROUND	22	90	1	
E17						
E17	SHIELD35	SHIELD	22	90	35S	
E17	SHIELD34	SHIELD	22	90	34S	
E18						
E18	SHIELD35	SHIELD	22	90	35F	
S1		SLACK LOOP ILLUMINATING SW				
S1-	XDS2-	JACKET FOR WIRE NO 35		95	35	S 35
S1- NC	XDS2-2		22	9	35A	
SHIELD 35	E18	SHIELD	22	90	35F	

905750-J

TABLE 6-52. DIRECT VIEW A10 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S3		-----	'+X' FIRST LIMIT SWITCH				
S3-	C	TB1- --F1	15VRETURN	NOTE 5	22	91	26
S3-	C	S4- ---C	15V RETURN	22	90	29	
S3-	NO	S12- --NO	FILM X FIRST LIMIT	22	93	28	
S4		-----	'X' CW LIMIT SWITCH				
S4-	C	S3- ---C	15V RETURN	22	90	29	
S4-	NC	J3- ---2	FILM FINAL LIMIT CW 'X'	22	95	6	
S5		-----	Y CW LIMIT				
S5-	C	J9- ---2		24	95	37	
S5-	C	S6- ---C		22	BUS	38	
S5-	NC	J9- ---1	NOTE 4	24	90	36	
S6		-----	+Y FIRST LIMIT				
S6-	C	S5- ---C		22	BUS	38	
S6-	NO	J9- ---3		24	92	39	
S7		-----	-Y FIRST LIMIT				
S7-	C	S8- ---C		22	BUS	41	
S7-	C	J9- ---4		24	9	40	
S7-	NO	J9- ---5		24	94	42	
S8		-----	Y CCW LIMIT				
S8-	C	S7- ---C		22	BUS	41	
S8-	NC	J9- ---6		24	90	43	
S9		-----	FILM TRANSPORT INTLK SW				
S9-	C	J3- ---14	FILM TRANSPORT INTLK NOTE 8	22	901	10	
S9-	NO	J3- ---15	FILM TRANSPORT INTLK NOTE 8	22	902	11	
S11		-----	'X' CCW LIMIT SWITCH				
S11-	C	S12- --C	15VRETURN	22	90	24	
511-	C	TB1- --F1	15VRETURN NOTE 7	22	98	44	
511-	NC	J3- ---1	FILM FINAL LIMIT CCW 'X'	22	97	8	
S12		-----	'-X' FIRST LIMIT SWITCH				
S12-	C	S11- --C	15VRETURN	22	90	24	
S12-	NO	S3- ---NO	FILM X FIRST LIMIT	22	93	28	
S12-	NO	J3- ---5	FIRST LIMIT FILM 'X'	22	96	7	
TB1		-----	HOUSING TERMINAL BOARD				
TB1-	A1	J3- ---17	0-6VDC NOTE 5	22	903	12	
TB1-	A2	J7- ---2	O0-6VDC NOTE 6	24	92	22	
TB1-	B1	J3- ---19	0-6VDC NOTE 5	22	905	14	
TB1-	B1	J3- ---18	O-6VDC NOTE 5	22	904	13	
TB1-	B2	J7- ---1	0-6VDC NOTE 4,6	24	90	18	
TB1-	C1	J3- ---20	DC RETURN NOTE 5	22	906	15	
TB1-	C2	J7- ---3	DC RETURN NOTE 6	24	93	23	
TB1-	D1	J3- ---21	DC RETURN NOTE 5	22	907	16	
TB1-	D1	J3- ---22	DC RETURN NOTE 5	22	908	17	
TB1-	D2	J7- ---4	DC RETURN NOTE 6	24	91	19	
TB1-	E1	J3- ---6	FIRST LIMIT FILM 'Y' NOTE 5	22	93	4	
TB1-	E2	J7- ---9	FILM Y FIRST LIMIT NOTE 6	24	94	21	
TB1-	E2	J7- ---7	FILM Y FIRST LIMIT NOTE 6	24	92	20	
TB1-	F1	S11- --C	15V RETURN NOTE 7	22	98	44	
TB1-	F1	S3- ---C	15V RETURN NOTE 5	22	91	26	
TB1-	F1	J3- ---7	15V RETURN NOTE 7	22	98	9	
TB1-	F2	J7- ---6	15V RETURN NOTE 6	24	91	25	

TABLE 6-52. DIRECT VIEW A10 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
TBI-	F2	J7- 8	15V RETURN NOTE 6	24	92	27	
XDS2							
XDS2-		XDS3-	JACKET FOR WIRE NO 34		94	34	S 34
XDS2-	1	XDS3-1	NOTE 9	22	9	34A	
SHIELD	34	E17	SHIELD 22	90	34S		
XDS2-	2	XDS3-2	22	0	34B		
XDS2-		S1-	JACKET FOR WIRE NO 35		95	35	S 35
XDS2-	2	S1-NC		22	9	35A	
SHIELD	35	E17	SHIELD	22	90	35S	
XDS3							
XDS3-		XDS2-	JACKET FOR WIRE NO 34		94	34	S 34
XDS3-	1	XDS2-1	NOTE 9	22	9	34A	
SHIELD	34	E2	SHIELD	22	90	34F	
XDS3-	2	XDS2-2		22	0	34B	

905750-J

TABLE 6-53. DIRECT VIEW LAMP TRAY A1OA1 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1		(P1)	HV CABLE				
J1-		DS4-	JACKET FOR CABLE NO 7		0	7	S 7
J1-	1	DS4- A	DIRECT VIEW SUPPLY	24		7A	
J2		(P2)	INTERNAL CONNECTOR				
J2-		E3	JACKET FOR WIRE NO 1		90	1	S 1
J2-	11	E3	SENSOR NO 1 HIGH	22	9	1A	
J2-	12	E4	SENSOR NO 1 LOW	22	6	1B	
J2-	13	SHIELD1	SHIELD	22	90	1S	
J2-		E15	JACKET FOR WIRE NO 3		91	3	S 3
J2-	14	E15	HEATER PHASE B	22	9	3A	
J2-	15	E16	HEATER DRIVE	22	6	3B	
J2-	16	SHIELD3	SHIELD	22	90	3S	
J2-		B3-	JACKET FOR WIRE NO 5		92	5	S 5
J2-	17	B3- 1	FAN PHASE B	22	9	5A	
J2-	18	B3- 2	FAN DRIVE	22	6	5B	
J2-	19	SHIELD5	SHIELD	22	90	5S	
J2-		S10-	JACKET FOR WIRE NO 6		93	6	S 6
J2-	20	S10- C	HVINTERLOCK	22	9	6A	
J2-	21	S10-NO	HV INTERLOCK LAMP	22	6	6B	
J2-	22	SHIELD6	SHIELD	22	90	6S	
J6		(P6)	HV CABLE				
J6-		DS4-	JACKET FOR CABLE NO 8		0	8	S 8
J6-	1	DS4- B	DIRECT VIEW DIMMER CKT	24		8A	
B3			FAN (SEE FIG 1)				
B3-		J2-	JACKET FOR WIRE NO 5		92	5	S 5
B3-	1	J2- 17	FAN PHASE B	22	9	5A	
SHIELD	5	E9	SHIELD	22	90	5F	
B3-	2	J2- 18	FAN DRIVE	22	6	5B	
83-	2	E13		22	90	9	
63-	3	E14		22	91	2	
E3			TERMINAL POSTS				
E3		J2-	JACKET FOR WIRE NO 1		90	1	S 1
E3		J2- 11	SENSOR NO 1 HIGH	22	9	1A	
SHIELD	1	E9	SHIELD	22	90	1F	
E4			TERMINAL POSTS				
E4		J2- 12	SENSOR NO 1 LOW	22	6	1B	
E9			TERMINAL POSTS				
E9		SHIELD3	SHIELD	22	90	3F	
E9		SHIELD5	SHIELD	22	90	5F	
E9		SHIELD1	SHIELD	22	90	1F	
E11			TERMINAL POSTS				
E11		SHIELD6	SHIELD	22	90	6F	
E13			TERMINAL POSTS				
E13		B3- 2		22	90	9	
E13		E14	C1			4	CMPT
E14			TERMINAL POSTS				
E14		E13	C1			4	CMPT
E14		B3- 3		22	91	2	

905780-F

TABLE 6-53. DIRECT VIEW LAMP TRAY A1OA1 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E15			TERMINAL POSTS				
E15		J2-	JACKET FOR WIRE NO 3		91	3	S 3
E15		J2-14	HEATER PHASE B	22	9	3A	
SHIELD	3	E9	SHIELD	22	90	3F	
E16			TERMINAL POSTS				
E16		J2-15	HEATER DRIVE	22	6	3B	
DS4			LAMP				
DS4-		J1-	JACKET FOR CABLE NO 7		0	7	S 7
DS4-	A	J1- 1	DIRECT VIEW SUPPLY	24		7A	
DS4-		J6-	JACKET FOR CABLE NO 8		0	8	S 8
DS4-	B	J6- 1	DIRECT VIEW DIMMER CKT	24		8A	
S10			SWITCH				
S10-		J2-	JACKET FOR WIRE NO 6		93	6	S 6
S10-	C	J2-20	HVINTERLOCK	22	9	6A	
SHIELD	6	E11	SHIELD	22	90	6F	
S10-	NO	J2-21	HV INTERLOCK LAMP	22	6	6B	

905780-F

TABLE 6-54. LEFT CONTROL PANEL A11 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1						
J1-	TB2-	JACKET FOR WIRE NO 1		90	1	S 1
J1- 1	TB2-16	DIRECTION JS X	22	9	1A	
J1- 2	TB2-15	JS X	22	6	1B	
J1- 3	TB2- 1	RTN JS X	22	3	1C	
J1- 4	SHIELD1	SHIELD	22	90	1S	
J1-	TB2-	JACKET FOR WIRE NO 2		97	2	S 2
J1- 5	TB2-17	DIRECTION JS Y	22	9	2A	
J1- 6	TB2-18	JS Y	22	6	28	
J1- 7	TB2- 4	RTN JS Y	22	3	2C	
J1- 8	SHIELD2	SHIELD	22	90	2S	
J1- 9	SHIELD3	SHIELD	22	90	3S	
J1-	S9-	JACKET FOR WIRE NO 3		92	3	S 3
J1- 10	S9- 4	CURSOR ENTER N 0	22	9	3A	
J1- 11	S9- 2	CURSOR ENTER N C	22	6	3B	
J1- 12	S9- 3	5V RTN	22	3	3C	
J1- 13	SHIELD4	SHIELD	22	90	4S	
J1-	TB2-	JACKET FOR WIRE NO 4		98	4	S 4
J1- 14	TB2- 6	15V RTN	22	9	4A	
J1- 15	TB2- 5	-15 VDC	22	6	4B	
J1- 16	TB2- 2	+15 VDC	22	3	4C	
J1-	E1	JACKET FOR WIRE NO 208		94	208	S208
J1- 18	E1	28V GP	22	9	208A	
J1- 19	E2	28V GP RTN	22	6	2088	
J1- 20	SHIELD208		22	90	208S	
J5						
J5- 14	SHIELD21	SHIELD	22	90	21S	
J5-	S3-	JACKET FOR WIRE NO 21		903	21	S 21
J5- 15	S3-3 C	REAR ENABLE RTN	22	9	21A	
J5- 16	S3-3 NO	REAR ENABLE	22	6	21B	
J5- 17	SHIELD22	SHIELD	22	90	22S	
J5-	R2-	JACKET FOR WIRE NO 22		91	22	S 22
J5- 18	R2- R	FRONT VEL POT POS SUPPLY	22	9	22A	
J5- 19	R2- L	FRONT VEL POT NEG SUPPLY	22	6	22B	
J5- 20	R2-CT	FRONT VEL POT RTN	22	3	22C	
J5- 21	R2- W	FRONT VEL POT WIPER	22	5	22D	
J5- 22	E2	FRONT LAMP RTN	22	98	23	
J5-	S2-	JACKET FOR WIRE NO 24		904	24	S 24
J5- 23	S2- G	FRONT EOF LAMP	22	9	24A	
J5- 24	S2- H	FRONT OVERRIDE LAMP	22	6	24B	
J5- 25	SHIELD25	SHIELD	22	90	25S	
J5-	R1-	JACKET FOR WIRE NO 25		92	25	S 25
J5- 26	R1- W	REAR VEL POT WIPER	22	9	25A	
J5- 27	R1-CT	REAR VEL POT RTN	22	6	258	
J5- 28	R1- L	REAR VEL POT NEG SUPPLY	22	3	25C	
J5- 29	R1- R	REAR VEL POT POS SUPPLY	22	5	25D	
J5- 30	SHIELD24	SHIELD	22	90	24S	
J5- 31	SHIELD29	SHIELD	22	90	29S	
J5-	TB1-	JACKET FOR WIRE NO 26		93	26	S 26
J5- 32	TB1- 1	REAR CORE DIA	22	9	26A	
SHIELD 26	SHIELD27	SHIELD	22	90	26S	
J5-	S5-	JACKET FOR WIRE NO 27		94	27	S 27
J5- 33	S5- C	REAR CORE DIA RTN	22	9	27A	
J5- 34	SHIELD27	SHIELD	22	90	27S	
J5-	S4-	JACKET FOR WIRE NO 28		905	28	S 28
J5- 35	S4-3NO	FRONT	22	9	28A	
J5- 36	S4- 3C	FRONT ENABLE RTN	22	6	288	
J5- 37	SHIELD28	SHIELD	22	90	28S	

TABLE 6-54. LEFT CONTROL PANEL A11 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J5-	S2-	JACKET FOR WIRE NO 29		906	29	S 29
J5- 38	S2-1 NO	FRONT OVERRIDE SWITCH	22	9	29A	
J5- 39	S2- 1 C	FRONT OVERRIDE RTN	22	6	29B	
J5-	S1-	JACKET FOR WIRE NO 30		907	30	S 30
J5- 40	S1- H	REAR OVERRIDE LAMP	22	9	30A	
J5- 41	S1- G	REAR EOF LAMP	22	6	30B	
J5- 42	E2	REAR LAMP RTN	22	97	31	
J5- 43	SHIELD30	SHIELD	22	90	30S	
J5-	S1-	JACKET FOR WIRE NO 32		908	32	S 32
J5- 44	S1-1 NO	REAR OVERRIDE SWITCH	22	9	32A	
J5- 45	S1- 1 C	REAR OVERRIDE RTN	22	6	32B	
J5- 46	SHIELD32	SHIELD	22	90	32S	
J5-	TB1-	JACKET FOR WIRE NO 33		95	33	S 33
J5- 52	TB1-6	FRONT CORE DIA	22	9	33A	
SHIELD 33	SHIELD34	SHIELD	22	90	33S	
J5- 54	SHIELD34	SHIELD	22	90	34S	
J5-	S6-	JACKET FOR WIRE NO 34		96	34	S 34
J5- 55	S6- C	FRONT CORE DIA RTN	22	9	34A	
E1						
E1	S4- A	22		92	156	
E1	J1-	JACKET FOR WIRE NO 208		94	208	S208
E1	J1- 18	28V GP	22	9	208A	
SHIELD 208	E6		22	90	208F	
E1	S3- A		22	93	149	
E2						
E2	J5- 42	REAR LAMP RTN	22	97	31	
E2	S3- 1 C		22	91	143	
E2	S4- 1 C		22	93	150	
E2	J1- 19	28V GP RTN	22	6	208B	
E2	J5- 22	FRONT LAMP RTN	22	98	23	
E3						
E3	SHIELD32	SHIELD	22	90	32F	
E3	SHIELD21	SHIELD	22	90	21F	
E4						
E4	SHIELD29	SHIELD	22	90	29F	
E4	SHIELD28	SHIELD	22	90	28F	
E5						
E5	SHIELD34	SHIELD	22	90	34F	
E5	SHIELD27	SHIELD	22	90	27F	
E7						
E7	SHIELD25	SHIELD	22	90	25F	
E7	SHIELD22	SHIELD	22	90	22F	
E8						
E8	SHIELD4	SHIELD	22	90	4F	
E8	SHIELD33	SHIELD	22	90	33F	
E8	SHIELD3	SHIELD	22	90	3F	
MT1						
MT1- 1	MT1- 3		22	BUS	72	
MTI- 2	TB2- 20		22	901	74	
MTI- 3	TB2- 7		22	93	77	
MT1- 3	MT1- 1		22	BUS	72	
MTI- 4	TB2- 13		22	91	75	

TABLE 6-54. LEFT CONTROL PANEL A11 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
MT1-	5	TB2-19		22	92	76	
MT1-	6	MT1- 8		22	BUS	73	
MT1-	7	TB2-14		22	902	78	
MT1-	8	TB2-12		22	95	79	
MT1-	8	MT1- 6		22	BUS	73	
R1							
R1-	L	J5- 28	REAR VEL POT NEG SUPPLY	22	3	25C	
R1-	R	J5- 29	REAR VEL POT POS SUPPLY	22	5	25D	
R1-		J5-	JACKET FOR WIRE NO 25		92	25	S 25
R1-	W	J5- 26	REAR VEL POT WIPER	22	9	25A	
SHIELD	25	E7	SHIELD	22	90	25F	
R1-	CT	J5- 27	REAR VEL POT RTN	22	6	25B	
R2							
R2-	L	J5- 19	FRONT VEL POT NEG SUPPLY	22	6	22B	
R2-		J5-	JACKET FOR WIRE NO 22		91	22	S 22
R2-	R	J5- 18	FRONT VEL POT POS SUPPLY	22	9	22A	
SHIELD	22	E7	SHIELD	22	90	22F	
R2-	W	J5- 21	FRONT VEL POTWIPER	22	5	22D	
R2-	CT	J5- 20	FRONT VEL POT RTN	22	3	22C	
TB1R1							
TB1R1-	GRN	TB1- 2	TB1R1	(FURN)		5	81
TB1R1-	RED	TB1- 2	TB1Rl	(FURN)		2	80
TBlR1-	YEL	TB1- 3	TB1R1	(FURN)		4	82
TB1R2							
TB1R2-	GRN	TB1- 3	TB1R2	(FURN)		5	84
TB1R2-	RED	TB1- 3	TB1R2	(FURN)		2	85
TB1R2-	YEL	TB1- 4	TB1R2	(FURN)		4	83
TB1R3							
TB1R3-	GRN	TB1- 4	TB1R3	(FURN)		5	87
TB1R3-	RED	TB1- 4	TB1R3	(FURN)		2	86
TB1R3-	YEL	TB1- 5	TB1R3	(FURN)		4	88
TB1R5							
TB1R5-	GRN	TB1- 7	TB1R5	(FURN)		5	91
TB1R5-	RED	TB1- 7	TB1R5	(FURN)		2	90
TB1R5-	YEL	TB1- 8	TB1R5	(FURN)		4	92
TB1R6							
TB1R6-	GRN	TB1- 8	TB1R6	(FURN)		5	94
TB1R6-	RED	TB1- 8	TB1R6	(FURN)		2	93
TB1R6-	YEL	TB1- 9	TB1R6	(FURN)		4	95
TB1R7							
TB1R7- CMPT	GRN	TB1- 9	TB1R7			5	194
TB1R7- CMPT	RED	TB1- 9	TB1R7			2	193
TB1R7- CMPT	YEL	TB1-10	TB1R7			4	195
TB2R3							
TB2R3-	GRN	TB2-13	TB2R3	(FURN)		5	103
TB2R3-	RED	TB2-15	TB2R3	(FURN)		2	105
TB2R3-	YEL	TB2-14	TB2R3	(FURN)		4	104

2036324-C

TABLE 6-54. LEFT CONTROL PANEL A11 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME		WIRE AWG	COLOR	NO	REMARKS
TB2R4								
TB2R4-	GRN	TB2-20	TB2R4	(FURN)		5	108	
TB2R4-	RED	TB2-18	TB2R4	(FURN)		2	106	
TB2R4-	YEL	TB2-19	TB2R4	(FURN)		4	107	
S1								
S1-	A	S1- B			22	BUS	135	
S1-	A	S3- D			22	90	136	
S1-	B	S1- C			22	BUS	137	
S1-	B	51- A			22	BUS	135	
51-	C	S1- B			22	BUS	137	
51-	C	51- D			22	BUS	138	
S1-	D	51- C			22	BUS	138	
S1-	G	J5- 41	REAR EOF LAMP		22	6	30B	
S1-		J5-	JACKET FOR WIRE NO 30			907	30	S 30
S1-	H	J5- 40	REAR OVERRIDE LAMP		22	9	30A	
SHIELD	30	SHIELD32	SHIELD		22	90	30F	
S1-	1 C	J5- 45	REAR OVERRIDE RTN		22	6	32B	
S1-		J5-	JACKET FOR WIRE NO 32			908	32	S 32
S1-	1 NO	J5- 44	REAR OVERRIDE SWITCH		22	9	32A	
SHIELD	32	E3	SHIELD		22	90	32F	
S2								
S2-	A	S4- D			22	90	142	
S2-	A	S2- B			22	BUS	139	
S2-	B	S2- C			22	BUS	140	
S2-	B	S2- A			22	BUS	139	
S2-	C	S2- B			22	BUS	140	
S2-	C	S2- D			22	BUS	141	
S2-	D	S2- C			22	BUS	141	
S2-		J5-	JACKET FOR WIRE NO 24			904	24	S 24
S2-	G	J5- 23	FRONT EOF LAMP		22	9	24A	
SHIELD	24	SHIELD29	SHIELD		22	90	24F	
S2-	H	J5- 24	FRONT OVERRIDE LAMP		22	6	24B	
S2-	1 C	J5- 39	FRONT OVERRIDE RTN		22	6	29B	
S2-		J5- J	ACKET FOR WIRE NO 29			906	29	S 29
S2-	1 NO	J5- 38	FRONT OVERRIDE SWITCH		22	9	29A	
SHIELD	29	E4	SHIELD		22	90	29F	
S3								
S3-	A	S3- B			22	BUS	146	
S3-	A	E1			22	93	149	
S3-	B	S3- A			22	BUS	146	
S3-	B	S3- C			22	BUS	147	
S3-	C	S3- D			22	BUS	148	
S3-	C	S3- B			22	BUS	147	
S3-	D	S3- C			22	BUS	148	
S3-	D	S1- A			22	90	136	
S3-	G	S3-1 NC			22	BUS	144	
S3-	H	S3-1 NO			22	BUS	145	
S3-	1 C	E2			22	91	143	
S3-	1 NC	S3- G			22	BUS	144	
S3- 1	NO	S3- H			22	BUS	145	
S3-		J5-	JACKET FOR WIRE NO 21			903	21	S 21
S3-	3 C	J5- 15	REAR ENABLE RTN		22	9	21A	
SHIELD	21	E3	SHIELD		22	90	21F	
S3- 3	NO	J5- 16	REAR ENABLE		22	6	21B	

2036324-C

TABLE 6-54. LEFT CONTROL PANEL A11 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S4						
S4- A	S4- B		22	BUS	153	
S4- A	E1		22	92	156	
S4- B	S4- A		22	BUS	153	
S4- B	S4- C		22	BUS	154	
S4- C	S4- D		22	BUS	155	
S4- C	S4- B		22	BUS	154	
S4- D	S4- C		22	BUS	155	
S4- D	S2- A		22	90	142	
S4- G	S4-1 NC		22	BUS	151	
S4- H	S4-1 NO		22	BUS	152	
S4- 1 C	E2		22	93	150	
S4- 1 NC	S4- G		22	BUS	151	
S4- 1 NO	S4- H		22	BUS	152	
S4- 3 C	J5- 36	FRONT ENABLE RTN	22	6	28B	
S4-	J5-	JACKET FOR WIRE NO 28		905	28	S 28
S4- 3 NO	J5- 35	FRONT	22	9	28A	
SHIELD 28	E4	SHIELD	22	90	28F	
S5						
S5-	J5-	JACKET FOR WIRE NO 27		94	27	S 27
S5- C	J5- 33	REAR CORE DIA RTN	22	9	27A	
SHIELD 27	E5	SHIELD	22	90	27F	
S5- 1	TB1- 5		22	92	35	
S5- 2	TB1- 4		22	90	36	
S5- 3	TB1- 3		22	91	37	
S6						
S6-	J5-	JACKET FOR WIRE NO 34		96	34	S 34
S6- C	J5- 55	FRONT CORE DIA RTN	22	9	34A	
SHIELD 34	E5	SHIELD	22	90	34F	
S6- 1	TB1-10		22	94	38	
S6- 2	TB1- 9		22	98	39	
S6- 3	TB1- 8		22	97	40	
S9						
S9- 1	S9- 3		22	BUS	190	
S9- 2	J1- 11	CURSOR ENTER N C	22	6	3B	
S9- 3	S9- 1		22	BUS	190	
S9- 3	J1- 12	5V RTN	22	3	3C	
S9-	J1-	JACKET FOR WIRE NO 3		92	3	S 3
S9- 4	J1- 10	CURSOR ENTER N 0O	22	9	3A	
SHIELD 3	E8	SHIELD	22	90	3F	
TB1						
TB1-	J5-	JACKET FOR WIRE NO 26		93	26	S 26
TB1- 1	J5- 32	REAR CORE DIA	22	9	26A	
SHIELD 26	SHIELD33	SHIELD	22	90	26F	
TB1- 1	TB1- 2	TB1R4			89	CMPT
TB1- 2	TB1R1-GRN	TB1R1	(FURN)		5	81
TB1- 2	TB1- 1	TB1R4				89
CMPT						
TB1- 2	TB1R1-RED	TB1R1	(FURN)		2	80
TB1- 3	TB1R2-GRN	TB1R2	(FURN)		5	84
TB1- 3	S5- 3			22	91	37
TBI- 3	TB1R1-YEL	TB1R1	(FURN)		4	82
TB1- 3	TB1R2-RED	TB1R2	(FURN)		2	85
TB1- 4	TB1R2-YEL	TB1R2	(FURN)		4	83
TB1- 4	S5- 2			22	90	36
TB1- 4	TB1R3-GRN	TB1R3	(FURN)		5	87

2036324-C

TABLE 6-54. LEFT CONTROL PANEL A11 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
TB1- 4	TB1R3-RED	TB1R3	(FURN)		2	86
TB1- 5	S5- 1			22	92	35
TB1- 5	TB1R3-YEL	TB1R3	(FURN)		4	88
TB1- 6 CMPT	TB1- 7	TB1R8				196
TB1-	J5-	JACKET FOR WIRE NO 33		95	33	S 33
TB1- 6	J5- 52	FRONT CORE DIA		22	9	33A
SHIELD 33	E8	SHIELD		22	90	33F
TB1- 7	TB1R5-GRN	TB1R5	(FURN)		5	91
TB1- 7	TB1R5-RED	TB1R5	(FURN)		2	90
TB1- 7 CMPT	TB1- 6	TB1R8				196
TB1- 8	TB1R6-GRN	TB1R6	(FURN)		5	94
TB1- 8	TB1R6-RED	TB1R6	(FURN)		2	93
TB1- 8	TB1R5-YEL	TB1R5	(FURN)		4	92
TB1- 8	S6- 3			22	97	40
TB1- 9 CMPT	TB1R7-GRN	TB1R7			5	194
TB1- 9 CMPT	TB1R7-RED	TB1R7			2	193
TB1- 9	TB1R6-YEL	TBIR6	(FURN)		4	95
TB1- 9	S6- 2		22	98	39	
TB1- 10	TB1R7-YEL	TB1R7		4	195	CMPT
TB1- 10 TB2	S6- 1		22	94	38	
TB2- 1	TB2-12	TB2C1 TB2-12(+)			110	CMPT
TB2- 1	TB2- 3	SEE NOTE 3	22	BUS	100	
TB2- 1	J1- 3	RTN JS X	22	3	1C	
TB2- 2	TB2-11	TB2R1			111	CMPT
TB2- 2	J1- 16	+15 VDC	22	3	4C	
TB2- 3	TB2- 4		22	BUS	99	
TB2- 3	TB2- 1		SEE NOTE 3	22	BUS	100
TB2- 3	TB2-10	TB2VRITB2-3(A) TB2-10(C)			112	CMPT
TB2- 4	TB2- 3		22	BUS	99	
TB2- 4	TB2- 6		SEE NOTE 3	22	BUS	98
TB2- 4	TB2- 9	TB2VR2 TB2-4(C) TB2-9(A)			113	CMPT
TB2- 4	J1- 7	RTN JS Y	22	3	2C	
TB2- 5	J1- 15	-15 VDC	22	6	4B	
TB2- 5	TB2- 8	TB2R2			114	CMPT
TB2- 6	TB3-E11		22	94	203	
TB2- 6	TB2- 7	TB2C2 TB2-6(+)			115	CMPT
TB2-	J1-	JACKET FOR WIRE NO 4		98	4	S 4
TB2- 6	J1- 14	15V RTN	22	9	4A	
SHIELD 4	E8	SHIELD	22	90	4F	
TB2- 6	TB2- 4		SEE NOTE 3	22	BUS	98
TB2- 7	TB2- 6	TB2C2 TB2-6(+)			115	CMPT
TB2- 7	TB2- 8		22	BUS	96	
TB2- 7	MT1- 3		22	93	77	
TB2- 8	TB2- 5	TB2R2			114	CMPT
TB2- 8	TB2- 9		22	BUS	97	
TB2- 8	TB2- 7		22	BUS	96	
TB2- 9	TB2- 4	TB2VR2 TB2-4(C) TB2-9(A)			113	CMPT
TB2- 9	TB2- 8		22	BUS	97	
TB2- 10	TB2-11		22	BUS	101	
TB2- 10	TB2- 3	TB2VR1 TB2-3(A) TB2-10(C)			112	CMPT
TB2- 11	TB2-12		22	BUS	102	
TB2- 11	TB2-10		22	BUS	101	
TB2- 11	TB2- 2	TB2R1			111	CMPT
TB2- 12	TB2- 1	TB2C1 TB2-12(+)			110	CMPT
TB2- 12	MT1- 8		22	95	79	
TB2- 12	TB2-11		22	BUS	102	
TB2- 13	MT1- 4		22	91	75	
TB2- 13	TB2R3-GRN	TB2R3	(FURN)		5	103

2036324-C

TABLE 6-54. LEFT CONTROL PANEL A11 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
TB2- 14	MT1-7		22	902	78	
TB2- 14	TB2R3-YEL	TB2R3	(FURN)		4	104
TB2- 15	TB3-E13		22	96	207	
TB2- 15	J1- 2	JS X	22	6	1B	
TB2- 15	TB2-16	TB2R5			109	CMPT
TB2- 15	TB2R3-RED	TB2R3	(FURN)		2	105
TB2- 16	TB2-15	TB2R5			109	CMPT
TB2-	J1-	JACKET FOR WIRE NO 1		90	1	S 1
TB2- 16	J1- 1	DIRECTION JS X	22	9	1A	
SHIELD 1	SHIELD	2	SHIELD	22	90	1F
TB2-	J1-	JACKET FOR WIRE NO 2		97	2	S 2
TB2- 17	J1- 5	DIRECTION JS Y	22	9	2A	
SHIELD 2	SHIELD	4	SHIELD	22	90	2F
TB2- 17	TB2-18	TB2R6			189	CMPT
TB2- 18	J1- 6	JS Y	22	6	28	
TB2- 18	TB3-E12		22	903	206	
TB2- 18	TB2-17	TB2R6			189	CMPT
TB2- 18	TB2R4-RED	TB2R4	(FURN)		2	106
TB2- 19	MTI- 5		22	92	76	
TB2- 19	TB2R4-YEL	TB2R4	(FURN)		4	107
TB2- 20	MTI- 2		22	901	74	
TB2- 20	TB2R4-GRN	TB2R4	(FURN)		5	108
TB3						
TB3- E9	TB3-E13	C8			205	CMPT
TB3- E9	TB3-E11		22	BUS	209	
TB3- E11	TB3-E9		22	BUS	209	
TB3- E11	TB3-E12	C7			204	CMPT
TB3- E11	TB2- 6		22	94	203	
TB3- E12	TB3-E11	C7			204	CMPT
TB3- E12	TB2-18		22	903	206	
TB3- E13	TB2-15		22	96	207	
TB3- E13	TB3-E9	C8			205	CMPT

2036324-C

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1		INTERNAL CONNECTOR				
J1- 4	SHIELD1	SHIELD	22	90	1S	
J1-	TB2-	JACKET FOR WIRE NO 1		90	1	S 1
J1- 5	TB2- 1	15V RETURN	22	9	1A	
J1- 6	TB2- 5	-15V	22	6	1B	
J1- 7	TB2- 2	+15V	22	3	1C	
J1- 8	SHIELD2	SHIELD	22	90	2S	
J1-	TB2-	JACKET FOR WIRE NO 2		91	2	S 2
J1- 9	TB2-17	DIRECTION JOY STICK Y	22	9	2A	
J1- 10	TB2-18	JOY STICK Y	22	6	2B	
J1- 11	TB2-16	DIRECTION JOY STICK X	22	3	2C	
J1- 12	TB2- 6	JOY STICK X AND Y RTN	22	6	1156	
J1-	TB2-	JACKET FOR WIRE NO 115		90	115	S115
J1- 13	TB2-15	JOY STICK X	22	9	115A	
SHIELD 115	SHIELD2	SHIELD	22	90	115S	
J2		INTERNAL CONNECTOR				
J2- 3	S4- A		22	98	65	
J2-	S7-	JACKET FOR WIRE NO 3		90	3	S 3
J2- 4	S7-C 8	MAP Y JOY STICK OFF LOGIC	22	9	3A	
SHIELD 3	SHIELD4	SHIELD	22	90	3S	
J2- 5	S7-C 9	FILM Y JOY STICK OFF LOGIC	22	6	3B	
J2- 6	S7-C 7C	JOY STICK OFF LOGIC	22	3	3C	
J2-	S7-	JACKET FOR WIRE NO 4		91	4	S 4
J2- 7	S7-B11	MAP X JOY STICK OFF LOGIC	22	9	4A	
J2- 8	S7-B12	FILM X JOY STICK OFF LOGIC	22	6	4B	
J2- 9	S7-B10C	XJOY STICK OFF LOGIC	22	3	4C	
J2- 10	SHIELD4	SHIELD	22	90	4S	
J2-	S7-	JACKET FOR WIRE NO 5		90	5	S 5
J2- 11	S7-B 4C	FILM CURSOR SELECT	22	9	5A	
SHIELD 5	SHIELD6	SHIELD	22	90	5S	
J2- 12	S7-B 7C	MAP CURSOR SELECT	22	6	5B	
J2- 13	S7-B 1C	CURSOR OFF LOGIC	22	3	5C	
J2- 14	S7-B 6	+5 VDC OFF POSITION	22	5	5D	
J2-	S7-	JACKET FOR WIRE NO 6		90	6	S 6
J2- 15	S7-A 1C	15V RETURN	22	9	6A	
SHIELD 6	SHIELD7	SHIELD	22	90	6S	
J2- 16	S7-A 12	CURSOR SELECTMAPY	22	6	116B	
J2-	S7-	JACKET FOR WIRE NO 116		92	116	S116
J2- 17	S7-A 5	CURSOR SELECT FILM Y	22	9	116A	
J2- 18	S7-A 9	CURSOR SELECT FILM X	22	6	6B	
J2- 19	S7-A 2	CURSOR SELECT MAP X	22	3	116C	
J2- 20	SHIELD116	SHIELD	22	90	116S	
J2-	S9-	JACKET FOR WIRE NO 7		93	7	S 7
J2- 21	S9- 4	CURSOR ENTRY NO	22	9	7A	
SHIELD 7	SHIELD8	SHIELD	22	90	7S	
J2- 22	S9- 2	CURSOR ENTRY NC	22	6	7B	
J2- 23	S9- 3	+5 V RETURN	22	3	7C	
J2-	S7-	JACKET FOR WIRE NO 8		91	8	S 8
J2- 24	S7-C 3	FILM X FIRST L1MIT	22	9	8A	
SHIELD 8	SHIELD9	SHIELD	22	90	8S	
J2- 25	S7-C 6	FILM Y FIRST LIMIT	22	6	8B	
J2- 26	S4-2 NO	STOWY	22	90	10	
J2- 27	S4-1 NO	STOWX	22	91	11	
J2- 28	S7- C10C	+28 V RETURN CURSOR	22	92	117	
J2- 29	J4- 18	+15 V RETURN LIM SWITCH	22	93	13	T14
J2- 30	J4- 14	FINAL LIM CCW Y LIMIT	22	94	12	T13
J2- 31	J4- 15	FINAL LIM CW Y LIMIT	22	95	14	T15
J2- 32	J4- 12	FINAL LIM CCW X LIMIT	22	96	15	T16

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J2- 33	J4- 13	FINAL LIM CW X LIMIT	22	97	16	T12
J2-	S7-	JACKET FOR WIRE NO 9		91	9	S 9
J2- 34	S7-C 2	MAP X FIRST LIMIT	22	9	9A	
SHIELD 9	SHIELD116	SHIELD	22	90	9S	
J2- 35	S7-C 5	MAP Y FIRST LIMIT	22	6	9B	
J2- 36	S7-C 1C	X FIRST LIMIT	22	3	9C	
J2- 37	S7-C 4C	Y FIRST LIMIT	22	5	9D	
J3		INTERNAL CONNECTOR				
J3- 17	SHIELD33	SHIELD	22	90	33S	
J3-	S8-	JACKET FOR WIRE NO 33		90	33	S 33
J3- 18	S8-7 C	FR VELOCITY POT POS SPLY	22	9	33A	
J3- 19	S8- 8 C	FR VELOCITY POT NEG SPLY	22	6	33B	
J3-	R2-	JACKET FOR WIRE NO 34		91	34	S 34
J3- 20	R2- 4	FR VELOCITY POT RTN NOTE 10	22	9	34A	
SHIELD 34	SHIELD33	SHIELD	22	90	34S	
J3- 21	R2- 2	FR VELOCITY POT WIPER NOTE 10	22	6	34B	
J3- 22	E9	FRONT LAMP RETURN	22	90	32	
J3-	S2-	JACKET FOR WIRE NO 35		92	35	S 35
J3- 23	S2- G	FR END OF FILM LAMP	22	9	35A	
J3- 24	S2- H	FR OVERRIDE LAMP	22	6	35B	
J3- 25	SHIELD36	SHIELD	22	90	36S	
J3-	R1-	JACKET FOR WIRE NO 36		93	36	S 36
J3- 26	R1- 2	REAR VEL POT WIPER NOTE 10	22	9	36A	
J3- 27	R1- 4	REAR VELOCITY POT RTN NOTE 10	22	6	36B	
J3-	S8-	JACKET FOR WIRE NO 37		94	37	S 37
J3- 28	S8-6 C	REAR VELOCITY POT NEG SPLY	22	9	37A	
SHIELD 37	SHIELD36	SHIELD	22	90	37S	
J3- 29	S8-5 C	REAR VELOCITY POT POS SPLY	22	6	37B	
J3- 30	SHIELD35	SHIELD	22	90	35S	
J3- 31	SHIELD40	SHIELD	22	90	40S	
J3-	TB1-	JACKET FOR WIRE NO 38		90	38	S 38
J3- 32	TB1- 1	REAR CORE DIA	22	9	38A	
SHIELD 38	SHIELD39	SHIELD	22	90	38S	
J3-	S5-	JACKET FOR WIRE NO 39		91	39	S 39
J3- 33	S5- C	REAR CORE DIA RTN	22	9	39A	
J3- 34	SHIELD39	SHIELD	22	90	39S	
J3-	S2-	JACKET FOR WIRE NO 40		95	40	S 40
J3- 38	S2- 1 NO	FR OVERRIDE SWITCH	22	9	40A	
J3- 39	S2-1 C	FR OVERRIDE RTN	22	6	40B	
J3-	S1-	JACKET FOR WIRE NO 41		96	41	S 41
J3- 40	S1- H	REAR OVERRIDE LAMP	22	9	41A	
J3- 41	S1- G	REAR END OF FILM LAMP	22	6	41B	
J3- 42	E9	REAR OVERRIDE LAMP RETURN	22	91	120	
J3- 43	SHIELD41	SHIELD	22	90	41S	
J3-	S1-	JACKET FOR WIRE NO 42		97	42	S 42
J3- 44	S1- 1NO	REAR OVERRIDE SWITCH	22	9	42A	
J3- 45	S1-1 C	REAR OVERRIDE RTN	22	6	42B	
J3- 46	SHIELD42	SHIELD	22	90	42S	
J3-	S3-	JKTFOR WIRE NO 43 NOTE 8		98	43	S 43
J3- 47	S3-6 NO	INTERLOCK	NOTE 8	22	9	43A
J3- 48	S3-5 C	INTERLOCK RTN	NOTE 8	22	6	43B
J3- 49	SHIELD43	SHIELD	22	90	43S	
J3-	TB1-	JACKET FOR WIRE NO 44		92	44	S 44
J3- 52	TB1- 6	FRONT CORE DIA	22	9	44A	
SHIELD 44	SHIELD45	SHIELD	22	90	44S	
J3- 54	SHIELD45	SHIELD	22	90	45S	
J3-	S6-	JACKET FOR WIRE NO 45		93	45	S 45
J3- 55	S6- C	RTN	22	9	45A	

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J4		INTERNAL CONNECTOR				
J4-	J5-	JACKET FOR WIRE NO 17		90	17	S 17
J4- 6	J5- 6	DIR VIEW INTLK	22	9	17A	
SHIELD 17	SHIELD18	SHIELD	22	90	17S	
J4- 7	J5- 7	STEREO INTLK	22	6	17B	
J4-	J5-	JACKET FOR WIRE NO 18		91	18	S 18
J4- 8	J5- 9	STEREO HIGH TEMP IND	22	9	18A	
J4- 9	J5- 10	DIR VIEW HIGH TEMP IND	22	6	188	
J4- 10	SHIELD18	SHIELD	22	90	18S	
J4- 12	J2- 32	FINAL LIM CCW X LIMIT	22	96	15	T 16
J4- 13	J2- 33	FINAL LIM CW X LIMIT	22	97	16	T 12
J4- 14	J2- 30	FINAL LIM CCW Y LIMIT	22	94	12	T 13
J4- 15	J2- 31	FINALLIMCWYLIMIT	22	95	14	T 15
J4- 16	S7-A 1	FIRST LIMIT FILM X	22	90	19	
J4- 17	S7-A 4	FIRST LIMIT FILM Y	22	91	20	
J4- 18	J2- 29	+ 15 V RETURN LIM SWITCH	22	93	13	T 14
J4-	J5-	JACKET FOR WIRE NO 21		90	21	S 21
J4- 19	J5- 23	0 TO 6VDC CURSOR LAMP CONT	22	9	21A	
J4- 20	J5- 24	0 TO 6VDC CURSOR LAMP CONT	22	6	21B	
J4- 21	J5- 25	0 TO 6VDC CURSOR LAMP CONT	22	3	21C	
J4-	J5-	JACKET FOR WIRE NO 118		91	118	S118
J4- 22	J5- 26	DC RTN CURSOR LAMP CONT	22	9	118A	
SHIELD 118	SHIELD21	SHIELD	22	90	118S	
J4- 23	J5- 27	DC RTN CURSOR LAMP CONT	22	6	118B	
J4- 24	J5- 28	DC RTN CURSOR LAMP CONT	22	3	118C	
J4- 25	SHIELD21	SHIELD	22	90	21S	
J4-	S11-	JACKET FOR WIRE NO 22		90	22	S 22
J4- 26	S11- B	+28VDC	22	9	22A	
SHIELD 22	SHIELD119	SHIELD	22	90	22S	
J4- 27	S11- A	ON COMMAND HV INTLK	22	6	22B	
J4-	E9	JACKET FOR WIRE NO 119		90	119	S119
J4- 28	E9	28V RETURN	22	9	119A	
SHIELD 119	SHIELD23	SHIELD	22	90	119S	
J4-	S3-	JKT FOR WIRE NO 23 NOTE 8		93	23	S 23
J4- 29	S3-5 NO	FILM TRANSP INTLK NOTE 8	22	9	23A	
J4- 30	S3-6 C	FILM TRANSP INTLK RTN NOTE 8	22	6	238	
J4- 31	SHIELD23	SHIELD	22	90	23S	
J4-	S3-	JKT FOR WIRE NO 24 NOTE 8		94	24	S 24
J4- 32	S3-1 C	SLACK LOOP MTR (+) NOTE 8	22	9	24A	
J4- 33	S3-4 C	SLACK LOOP MTR (-) NOTE 8	22	6	24B	
J4- 34	SHIELD24	SHIELD	22	90	24S	
J4-	J5-	JACKET FOR WIRE NO 25		95	25	S 25
J4- 35	J5- 36	BFR TEMP CONT STEREO	22	9	25A	
J4- 36	J5- 37	BFR TEMP CONT DIR VIEW	22	6	258	
J4- 37	SHIELD25	SHIELD	22	90	25S	
J5		INTERNAL CONNECTOR				
J5-	S10-	JACKET FOR WIRE NO 26		92	26	S 26
J5- 2	S10- A	RETICLE ON/OFF SWITCH	22	9	26A	
J5- 3	R3- W	RETICLE LAMP POT WIPER	22	6	26B	
J5- 4	R3-CCW	RETICLE LAMP POT LOW	22	3	26C	
J5- 5	SHIELD26	SHIELD	22	90	26S	
J5-	J4-	JACKET FOR WIRE NO 17		90	17	S 17
J5- 6	J4- 6	DIR VIEW INTLK	22	9	17A	
J5- 7	J4- 7	STEREO INTLK	22	6	17B	
J5- 8	SHIELD17	SHIELD	22	90	17F	
J5-	J4-	JACKET FOR WIRE NO 18		91	18	S 18
J5- 9	J4- 8	STEREO HIGH TEMP IND	22	9	18A	
SHIELD 18	SHIELD17	SHIELD	22	90	18F	

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J5- 10	J4- 9	DIR VIEW HIGH TEMP IND	22	6	18B	
J5- 16	SHIELD27	SHIELD	22	90	27S	
J5-	S3-	JKT FOR WIRE NO 27 NOTE 8		93	27	S 27
J5- 17	S3- 2 NO	+6 V ZENERED NOTE 8	22	9	27A	
J5- 18	S3- 1 NO	+28 VDC SLACK LOOP NOTE 8	22	6	278	
J5- 19	S3- 3 NC	28V RETURN N NOTE 8	22	3	27C	
J5- 20	S1- A	+28 VDC GENERAL PURPOSE	22	90	30	
J5- 21	E9	+28 V RETURN GENERAL PURPOSE	22	91	31	
J5- 22	SHIELD21	SHIELD	22	90	21F	
J5-	J4-	JACKET FOR WIRE NO 21		90	21	S 21
J5- 23	J4- 19	0 TO 6VDC CURSOR LAMP CONT	22	9	21A	
J5- 24	J4- 20	0 TO 6VDC CURSOR LAMP CONT	22	6	21B	
J5- 25	J4- 21	0 TO 6VDC CURSOR LAMP CONT	22	3	21C	
J5-	J4-	JACKET FOR WIRE NO 118		91	118	S118
J5- 26	J4- 22	DC RTN CURSOR LAMP CONT	22	9	118A	
SHIELD 118	SHIELD21	SHIELD	22	90	118F	
J5- 27	J4- 23	DC RTN CURSOR LAMP CONT	22	6	118B	
J5- 28	J4- 24	DC RTN CURSOR LAMP CONT	22	3	118C	
J5-	R4-	JACKET FOR WIRE NO 28		94	28	S 28
J5- 29	R4- 2	DIR VIEW DIM CONTROL HIGH	22	9	28A	
J5- 30	R4- 3	DIR VIEW DIM CONTROL WIPER	22	6	28B	
J5- 31	R4- 1	DIR VIEW DIM CONTROL LOW	22	3	28C	
J5- 32	SHIELD28	SHIELD	22	90	28S	
J5-	R5-	JACKET FOR WIRE NO 29		95	29	S 29
J5- 33	R5- 2	STEREO DIM CONTROL HIGH	22	9	29A	
SHIELD 29	SHIELD28	SHIELD	22	90	29S	
J5- 34	R5- 3	STEREO DIM CONTROL WIPER	22	6	29B	
J5- 35	R5- 1	STEREO DIM CONTROL LOW	22	3	29C	
J5-	J4-	JACKET FOR WIRE NO 25		95	25	S 25
J5- 36	J4- 35	BFR TEMP CONT STEREO	22	9	25A	
SHIELD 25	SHIELD29	SHIELD	22	90	25F	
J5- 37	J4- 36	BFR TEMP CONT DIR VIEW	22	6	25B	
E1		TERMINAL POST				
E1	SHIELD37	SHIELD	22	90	37F	
E1	SHIELD33	SHIELD	22	90	33F	
E2		TERMINAL POST				
E2	SHIELD34	SHIELD	22	90	34F	
E2	SHIELD36	SHIELD	22	90	36F	
E2	SHIELD7	SHIELD	22	90	7F	
E3		TERMINAL POST				
E3	SHIELD4	SHIELD	22	90	4F	
E3	SHIELD5	SHIELD	22	90	5F	
E3	SHIELD6	SHIELD	22	90	6F	
E3	SHIELD8	SHIELD	22	90	8F	
E3	SHIELD9	SHIELD	22	90	9F	
E3	SHIELD26	SHIELD	22	90	26F	
E3	SHIELD116	SHIELD	22	90	116F	
E3	SHIELD3	SHIELD	22	90	3F	
E4		TERMINAL POST				
E4	SHIELD28	SHIELD	22	90	28F	
E4	SHIELD29	SHIELD	22	90	29F	
E4	SHIELD22	SHIELD	22	90	22F	

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E5			TERMINAL POST				
E5		SHIELD24	SHIELD	NOTE 8	22	90	24F
E5		SHIELD27	SHIELD	NOTE 8	22	90	27F
E5		SHIELD43	SHIELD	NOTE 8	22	90	43F
E5		SHIELD23	SHIELD	NOTE 8	22	90	23F
E6			TERMINAL POST				
E6		SHIELD41	SHIELD	22	90	41F	
E6		SHIELD42	SHIELD	22	90	42F	
E6		SHIELD39	SHIELD	22	90	39F	
E7			TERMINAL POST				
E7		SHIELD40	SHIELD	22	90	40F	
E7		SHIELD45	SHIELD	22	90	45F	
E7		SHIELD35	SHIELD	22	90	35F	
E8			TERMINAL POST				
E8		SHIELD38	SHIELD	22	90	38F	
E8		SHIELD115	SHIELD	22	90	115F	
E8		SHIELD119	SHIELD	22	90	119F	
E8		SHIELD1	SHIELD	22	90	1F	
E9			TERMINAL POST				
E9		J3- 22	FRONT LAMP RETURN	22	90	32	
E9		J4-	JACKET FOR WIRE NO 119		90	119	S119
E9		J4- 28	28V RETURN	22	9	119A	
SHIELD	119	E8	SHIELD	22	90	119F	
E9		J3- 42	REAR OVERRIDE LAMP RETURN	22	91	120	
E9		J5- 21	+28 V RETURN GENERAL PURPOSE	22	91	31	
E10			TERMINAL POST				
E10		SHIELD44	SHIELD	22	90	44F	
E11			TERMINAL POST				
E11		E12	C1			166	CMPT
E11		E13	C2			167	CMPT
E11		TB2- 6		22	94	165	T168
E12			TERMINAL POST				
E12		TB2-18		22	95	168	T169
E12		E11	C1			166	CMPT
E13			TERMINAL POST				
E13		TB2-15		22	96	169	T165
E13		E11	C2			167	CMPT
MT1			CURSOR JOYSTICK				
MT1-	1	TB2- 7		22	96	80	
MT1-	2	TB2-20		22	94	78	
MT1-	3	TB2- 7		22	90	74	
MT1-	4	TB2-13		22	91	75	
MT1-	5	TB2-19		22	92	76	
MT1-	6	TB2-12		22	97	81	
MT1-	7	TB2-14		22	93	77	
MTI-	8	TB2-12		22	95	79	

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
R1		RESISTOR				
R1- 1	S8-2 NO	NOTE 10	22	91	83	
R1-	J3-	JACKET FOR WIRE NO 36		93	36	S 36
R1- 2	J3- 26	REAR VEL POT WIPER NOTE 10	22	9	36A	
SHIELD 36	E2	SHIELD	22	90	36F	
R1- 3	S8-1 NO	NOTE 10	22	90	82	
R1- 4	J3- 27	REAR VELOCITY POT RTN NOTE 10	22	6	368	
R2		RESISTOR				
R2- 1	S8- 4 NO	NOTE 10	22	93	85	
R2- 2	J3- 21	FR VELOCITY POT WIPER NOTE 10	22	6	348	
R2- 3	S8-3 NO	NOTE 10	22	92	84	
R2-	J3-	JACKET FOR WIRE NO 34		91	34	S 34
R2- 4	J3- 20	FR VELOCITY POT RTN NOTE 10	22	9	34A	
SHIELD 34	E2	SHIELD	22	90	34F	
R3		RESISTOR				
R3- W	J5- 3	RETICLE LAMP POT WIPER	22	6	26B	
R3- CW	S10- B	RETICLE ON/OFF	22	90	46	
R3- CCW	J5- 4	RETICLE LAMP POT LOW	22	3	26C	
R4		RESISTOR				
R4- 1	J5- 31	DIR VIEW DIM CONTROL LOW	22	3	28C	
R4-	J5-	JACKET FOR WIRE NO 28		94	28	S 28
R4- 2	J5- 29	DIR VIEW DIM CONTROL HIGH	22	9	28A	
SHIELD 28	E4	SHIELD	22	90	28F	
R4- 3	J5- 30	DIR VIEW DIM CONTROL WIPER	22	6	28B	
R5		RESISTOR				
R5- 1	J5- 35	STEREO DIM CONTROL LOW	22	3	29C	
R5-	J5-	JACKET FOR WIRE NO 29		95	29	S 29
R5- 2	J5- 33	STEREO DIM CONTROL HIGH	22	9	29A	
SHIELD 29	E4	SHIELD	22	90	29F	
R5- 3	J5- 34	STEREO DIM CONTROL WIPER	22	6	29B	
S1		FRONT FILM END/OVERRIDE SWITCH				
S1- A	S1- B	SEE NOTE 7	22	BUS	64	
S1- A	J5- 20	+28 VDC GENERAL PURPOSE	22	90	30	
S1- B	S1- A	SEE NOTE 7	22	BUS	64	
S1- B	S1- C	SEE NOTE7	22	BUS	63	
S1- C	S1- B	SEE NOTE7	22	BUS	63	
S1- C	S1- D	SEE NOTE 7	22	BUS	49	
S1- D	S2- A		22	92	50	
S1- D	S1- C	SEE NOTE 7	22	BUS	49	
S1- G	J3- 41	REAR END OF FILM LAMP	22	6	41B	
S1-	J3-	JACKET FOR WIRE NO 41		96	41	S 41
S1- H	J3- 40	REAR OVERRIDE LAMP	22	9	41A	
SHIELD 41	E6	SHIELD	22	90	41F	
S1- 1 C	J3- 45	REAR OVERRIDE RTN	22	6	42B	
S1-	J3-	JACKET FOR WIRE NO 42		97	42	S 42
S1- 1 NO	J3- 44	REAR OVERRIDE SWITCH	22	9	42A	
SHIELD 42	E6	SHIELD	22	90	42F	
S2		REAR FILM END/OVERRIDE SWITCH				
S2- A	S2- B	SEE NOTE 7	22	BUS	52	
S2- A	S1- D		22	92	50	
S2- B	S2- A	SEE NOTE 7	22	BUS	52	
S2- B	S2- C	SEE NOTE 7	22	BUS	51	
S2- C	S2- D	SEE NOTE 7	22	BUS	53	

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S2- C	S2- B	SEE NOTE 7	22	BUS	51	
S2- D	S11- B		22	97	94	
S2- D	S2- C	SEE NOTE 7	22	BUS	53	
S2-	J3-	JACKET FOR WIRE. NO 35		92	35	S 35
S2- G	J3- 23	FR END OF FILM LAMP	22	9	35A	
SHIELD 35	E7	SHIELD	22	90	35F	
S2- H	J3- 24	FR OVERRIDE LAMP	22	6	35B	
S2- 1 C	J3- 39	FR OVERRIDE RTN	22	6	40B	
S2-	J3-	JACKET FOR WIRE NO 40		95	40	S 40
S2- 1 NO	J3- 38	FR OVERRIDE SWITCH	22	9	40A	
SHIELD 40	E7	SHIELD	22	90	40F	
S3		SLACKLOOP SWITCH				
S3-	J4-	JKT FOR WIRE NO 24 NOTE 8		94	24	S 24
S3- 1 C	J4- 32	SLACK LOOP MTR (+) NOTE 8	22	9	24A	
SHIELD 24	E5	SHIELD NOTE 8	22	90	24F	
S3- 1 NC	S3-2 C	NOTE 8	22	90	55	
S3- 1 NO	S3-4 NO	NOTE 8	22	93	58	
S3- 1 NO	J5- 18	+28 VDC SLACK LOOP NOTE 8	22	6	27B	
S3- 2 C	S3-1 NC	NOTE 8	22	90	55	
S3- 2 NC	S3-3 NC	NOTE 8	22	91	56	
S3- 2 NO	S3-3 NO	NOTE 8	22	96	95	
S3-	J5-	JKT FOR WIRE NO 27 NOTE 8		93	27	S 27
S3- 2 NO	J5- 17	+6 V ZENERED NOTE 8	22	9	27A	
SHIELD 27	E5	SHIELD NOTE 8	22	90	27F	
S3- 3 C	S3-4 NC	NOTE 8	22	92	57	
S3- 3 NC	J5- 19	28V RETURN N NOTE 8	22	3	27C	
S3- 3 NC	S3-2 NC	NOTE 8	22	91	56	
S3- 3 NO	S3-2 NO	NOTE 8	22	96	95	
S3- 4 C	J4- 33	SLACK LOOP MTR (-) NOTE 8	22	6	24B	
S3- 4 NC	S3-3 C	NOTE 8	22	92	57	
S3- 4 NO	S3-1 NO	NOTE 8	22	93	58	
S3- 5 C	J3- 48	INTERLOCK RTN NOTE 8	22	6	43B	
S3- 5 C	S3-6 C	NOTE 8	22	94	59	
S3- 5 NO	S3-6 NO	NOTE 8	22	95	60	
S3-	J4-	JKT FOR WIRE NO 23 NOTE 8		93	23	S 23
S3- 5 NO	J4- 29	FILM TRANSP INTLK NOTE 8	22	9	23A	
SHIELD 23	E5	SHIELD NOTE 8	22	90	23F	
S3- 6 C	J4- 30	FILM TRANSP INTLK RTN NOTE 8	22	6	23B	
S3- 6 C	S3-5 C	NOTE 8	22	94	59	
S3- 6 NO	S3-5 NO	NOTE 8	22	95	60	
S3-	J3-	JKT FOR WIRE NO 43 NOTE 8		98	43	S 43
S3- 6 NO	J3- 47	INTERLOCKNOTE 8	22	9	43A	
SHIELD 43	E5	SHIELD NOTE 8	22	90	43F	
S4		MAP CURSOR STOW SWITCH				
S4- A	S4- B	SEE NOTE 7	22	BUS	47	
S4- A	J2- 3		22	98	65	
S4- B	S4- A	SEE NOTE 7	22	BUS	47	
S4- B	S4- C	SEE NOTE 7	22	BUS	48	
S4- C	S4- B	SEE NOTE 7	22	BUS	48	
S4- C	S4- D	SEE NOTE 7	22	BUS	66	
S4- D	S4- C	SEE NOTE 7	22	BUS	66	
S4- G	S4-1 NO		22	93	61	
S4- 1 C	S4-2 C	SEE NOTE 7	22	BUS	54	
S4- 1 NO	S4- G		22	93	61	
S4- 1 NO	J2- 27	STOW X	22	91	11	
S4- 2 C	S7-C11	+28VRTNCURSOR	20	92	164	
S4- 2 C	S4-1 C	SEE NOTE 7	22	BUS	54	
S4- 2 NO	J2- 26	STOW Y	22	90	10	

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S5		REAR CORE DIA SWITCH				
S5-	J3-	JACKET FOR WIRE NO 39		91	39	S 39
S5- C	J3- 33	REAR CORE DIA RTN	22	9	39A	
SHIELD 39	E6	SHIELD	22	90	39F	
S5- 1	TB1- 5		22	90	68	
S5- 2	TB1- 4		22	91	69	
S5- 3	TB1- 3		22	92	70	
S6		FRONT CORE DIA SWITCH				
S6-	J3-	JACKET FOR WIRE NO 45		93	45	S 45
S6- C	J3- 55	RTN	22	9	45A	
SHIELD 45	E7	SHIELD	22	90	45F	
S6- 1	TB1-10		22	93	71	
S6- 2	TB1- 9		22	94	72	
S6- 3	TB1- 8		22	95	73	
S7		CURSOR SEL SWITCH				
S7- A	S7-C 3	SEE NOTE 7	22	BUS	101	
S7- A1	J4- 16	FIRST LIMIT FILM X	22	90	19	
S7-	J2-	JACKET FOR WIRE NO 6		90	6	S 6
S7- A 1C	J2- 15	15VRETURN	22	9	6A	
SHIELD 6	E3	SHIELD	22	90	6F	
S7- A 1C	S7-A 4C	SEE NOTE 7	22	BUS	105	
S7- A 2	J2- 19	CURSOR SELECT MAP X	22	3	116C	
S7- A 4	S7- C	6 SEE NOTE 7	22	BUS	102	
S7- A 4	J4- 17	FIRST LIMIT FILM Y	22	91	20	
S7- A 4C	S7-A 7C	SEE NOTE 7	22	BUS	106	
S7- A 4C	S7-A 1C	SEE NOTE 7	22	BUS	105	
S7-	J2-	JACKET FOR WIRE NO 116		92	116	S116
S7- A 5	J2- 17	CURSOR SELECT FILM Y	22	9	116A	
SHIELD 116	E3	SHIELD	22	90	116F	
S7- A 7	S7-C 2	SEE NOTE 7	22	BUS	103	
S7- A 7C	S7-A1OC	SEE NOTE 7	22	BUS	107	
S7- A 7C	S7-A 4C	SEE NOTE 7	22	BUS	106	
S7- A 9	J2- 18	CURSOR SELECT FILM X	22	6	6B	
S7- A10	S7-C 5	SEE NOTE 7	22	BUS	104	
S7- A1OC	S7-A 7C	SEE NOTE 7	22	BUS	107	
S7- A12	J2- 16	CURSOR SELECT MAP Y	22	6	116B	
S7- B 1	S9- 1		22	92	67	
S7- B 1	S7-B4	SEE NOTE 7	22	BUS	110	
S7- B 1C	J2- 13	CURSOR OFF LOGIC	22	3	5C	
S7- B 4	S7-B1	SEE NOTE7	22	BUS	110	
S7- B 4	S7-B 5	SEE NOTE 7	22	BUS	112	
S7-	J2-	JACKET FOR WIRE NO 5		90	5	S 5
S7- B 4C	J2- 11	FILM CURSOR SELECT	22	9	5A	
SHIELD 5	E3	SHIELD	22	90	5F	
S7- B5	S7-B4	SEE NOTE7	22	BUS	112	
S7- B5	S7-B7	SEE NOTE7	22	BUS	113	
S7- B 6	J2- 14	+5 VDC OFF POSITION	22	5	5D	
S7- B6	67- -B 8	SEE NOTE 7	22	BUS	111	
S7- 87	S7-B9	SEE NOTE 7	22	BUS	114	
S7- 87	S7-B 5	SEE NOTE 7	22	BUS	113	
S7- B 7C	J2- 12	MAP CURSOR SELECT	22	6	5B	
S7- B8	S7-B6	SEE NOTE7	22	BUS	111	
S7- B9	S7-B7	SEE NOTE7	22	BUS	114	
S7- B10C	J2- 9	X JOY STICK OFF LOGIC	22	3	4C	
S7-	J2-	JACKET FOR WIRE NO 4		91	4	S 4
S7- B11	J2- 7	MAP X JOY STICK OFF LOGIC	22	9	4A	
SHIELD 4	E3	SHIELD	22	90	4F	

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S7- B12	J2- 8	FILM X JOY STICK OFF LOGIC	22	6	4B	
S7- C 1C	J2- 36	X FIRST LIMIT	22	3	9C	
S7-	J2-	JACKET FOR WIRE NO 9		91	9	S 9
S7- C 2	J2- 34	MAP X FIRST LIMIT	22	9	9A	
SHIELD 9	E3	SHIELD	22	90	9F	
S7- C 2	S7-A 7	SEE NOTE 7	22	BUS	103	
S7- C 3	S7-A 1	SEE NOTE 7	22	BUS	101	
S7-	J2-	JACKET FOR WIRE NO 8		91	8	S 8
S7- C 3	J2- 24	FILM X FIRST LIMIT	22	9	8A	
SHIELD 8	E3	SHIELD	22	90	8F	
S7- C 4C	J2- 37	Y FIRST LIMIT	22	5	9D	
S7- C 5	J2- 35	MAP Y FIRST LIMIT	22	6	9B	
S7- C 5	S7-A10	SEE NOTE 7	22	BUS	104	
S7- C 6	S7-A 4	SEE NOTE 7	22	BUS	102	
S7- C 6	J2- 25	FILM Y FIRST LIMIT	22	6	8B	
S7- C 7C	J2- 6	JOY STICK OFF LOGIC	22	3	3C	
S7-	J2-	JACKET FOR WIRE NO 3		90	3	S 3
S7- C 8	J2- 4	MAP Y JOY STICK OFF LOGIC	22	9	3A	
SHIELD 3	E3	SHIELD	22	90	3F	
S7- C9	J2- 5	FILM Y JOY STICK OFF LOGIC	22	6	3B	
S7- C1OC	J2- 28	+28 V RETURN CURSOR	22	92	117	
S7- C11	S4-2 C	+28 VRTNCURSOR	20	92	164	
S7- C11	S7-C12	NOTE 7	20	BUS	163	
S7- C12	S7-C11	NOTE 7	20	BUS	163	
S8		TRANSPORT MODE SWITCH				
S8- 1 C	S8-5 C	SEE NOTE 7	22	BUS	86	
S8- 1 NO	R1- 3	NOTE 10	22	90	82	
S8- 1 NO	S8-6 NO	SEE NOTE 7	22	BUS	87	
S8- 2 C	S8-6 C	SEE NOTE 7	22	BUS	89	
S8- 2 NO	S8-5 NO	SEE NOTE 7	22	BUS	88	
S8- 2 NO	R1- 1	NOTE 10	22	91	83	
S8- 3 C	S8-7 C	SEE NOTE 7	22	BUS	90	
S8- 3 NO	S8-8 NO	SEE NOTE 7	22	BUS	91	
S8- 3 NO	R2- 3	NOTE 10	22	92	84	
S8- 4 C	S8-8 C	SEENOTE7	22	BUS	92	
S8- 4 NO	S8-7 NO	SEE NOTE 7	22	BUS	93	
S8- 4 NO	R2- 1	NOTE10	22	93	85	
S8- 5 C	S8-1 C	SEE NOTE7	22	BUS	86	
S8- 5 C	J3- 29	REAR VELOCITY POT POS SPLY	22	6	37B	
S8- 5 NO	S8-2 NO	SEE NOTE 7	22	BUS	88	
S8-	J3-	JACKET FOR WIRE NO 37		94	37	S 37
S8- 6 C	J3- 28	REAR VELOCITY POT NEG SPLY	22	9	37A	
SHIELD 37	E1	SHIELD	22	90	37F	
S8- 6 C	S8-2 C	SEE NOTE 7	22	BUS	89	
S8- 6 NO	S8-1 NO	SEE NOTE 7	22	BUS	87	
S8- 7 C	S8-3 C	SEE NOTE 7	22	BUS	90	
S8-	J3-	JACKET FOR WIRE NO 33		90	33	S 33
S8- 7 C	J3- 18	FR VELOCITY POT POS SPLY	22	9	33A	
SHIELD 33	E1	SHIELD	22	90	33F	
S8- 7 NO	S8-4 NO	SEE NOTE 7	22	BUS	93	
S8- 8 C	S8-4 C	SEE NOTE 7	22	BUS	92	
S8- 8 C	J3- 19	FR VELOCITY POT NEG SPLY	22	6	33B	
S8- 8 NO	S8-3 NO	SEE NOTE 7	22	BUS	91	
S9		CURSOR ENTER SWITCH				
S9- 1	S9- 3		22	92	158	
S9- 1	S7-B 1		22	92	67	
S9- 2	J2- 22	CURSOR ENTRY NC	22	6	7B	
S9- 3	S9- 1		22	92	158	

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S9- 3	J2- 23	+5 V RETURN	22	3	7C	
S9-	J2-	JACKET FOR WIRE NO 7		93	7	S 7
S9- 4	J2- 21	CURSOR ENTRY NO	22	9	7A	
SHIELD 7	E2	SHIELD	22	90	7F	
S10		CURSOR BRIGHT SWITCH				
S10-	J5-	JACKET FOR WIRE NO 26		92	26	S 26
S10- A	J5- 2	RETICLE ON/OFF SWITCH	22	9	26A	
SHIELD 26	E3	SHIELD	22	90	26F	
S10- B	R3-CW	RETICLE ON/OFF	22	90	46	
S11		TABLE ILLUM SWITCH				
S11- A	J4- 27	ON COMMAND HV INTLK	22	6	22B	
S11- B	S2- D		22	97	94	
S11-	J4-	JACKET FOR WIRE NO 22		90	22	S 22
S11- B	J4- 26	+28VDC	22	9	22A	
SHIELD 22	E4	SHIELD	22	90	22F	
TB1		CORE DIA COMP BOARD				
TB1-	J3-	JACKET FOR WIRE NO 38		90	38	S 38
TB1- 1	J3- 32	REAR CORE DIA	22	9	38A	
SHIELD 38	E8	SHIELD	22	90	38F	
TB1- 1	TB1- 2	TB1R4			161	CMPT
TB1- 2	TB1R1-RED	TB1R1 (FURN)		2	121	
TB1- 2	TB1- 1	TB1R4			161	CMPT
TB1- 2	TB1R1-GRN	TB1R1 (FURN)		5	122	
TB1- 3	S5- 3		22	92	70	
TB1- 3	TB1R2-RED	TB1R2 (FURN)		2	124	
TB1- 3	TBlR1-YEL	TB1R1 (FURN)		4	123	
TB1- 3	TB1R2-GRN	TB1R2 (FURN)		5	125	
TB1- 4	S5- 2		22	91	69	
TB1- 4	TB1R3-GRN	TB1R3 (FURN)		5	128	
TB1- 4	TB1R3-RED	TB1R3 (FURN)		2	127	
TB1- 4	TB1R2-YEL	TB1R2 (FURN)		4	126	
TB1- 5	S5- 1		22	90	68	
TB1- 5	TB1R3-YEL	TB1R3 (FURN)		4	129	
TB1- 6	TB1- 7	TB1R8			162	CMPT
TB1-	J3-	JACKET FOR WIRE NO 44		92	44	S 44
TB1- 6	J3- 52	FRONT CORE DIA	22	9	44A	
SHIELD 44	E10	SHIELD	22	90	44F	
TB1- 7	TB1R5-GRN	TB1R5 (FURN)		5	131	
TB1- 7	TBlR5-RED	TB1R5 (FURN)		2	130	
TB1- 7	TB1- 6	TB1R8			162	CMPT
TB1- 8	TB1R6-GRN	TB1R6 (FURN)		5	134	
TB1- 8	TB1R6-RED	TB1R6 (FURN)		2	133	
TB1- 8	TB1R5-YEL	TB1R5 (FURN)		4	132	
TB1- 8	S6- 3		22	95	73	
TB!- 9	TB1R7-GRN	TB1R7 (FURN)		5	159	
TB1- 9	TB1R7-RED	TB1R7 (FURN)		2	136	
TB1- 9	TB1R6-YEL	TB1R6 (FURN)		4	135	
TB1- 9	S6- 2		22	94	72	
TB1- 10	TB1R7-YEL	TB1R7 (FURN)		4	160	
TB1- 10	S6- 1		22	93	71	
TB2		JOYSTICK COMP BOARD				
TB2- 1	TB2- 3		22	BUS	141	
TB2-	J1-	JACKET FOR WIRE NO 1		90	1	S 1
TB2- 1	J1- 5	15V RETURN	22	9	1A	
SHIELD 1	EB	SHIELD	22	90	1F	
TB2- 1	TB2-12	TB2C1 TB2-12(+)			152	CMPT

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
TB2- 2	J1- 7	+15V	22	3	1C	
TB2- 2	TB2-11	TB2R1			153	CMPT
TB2- 3	TB2- 1		22	BUS	141	
TB2- 3	TB2-10	TB2VR1 TB2-3(A) TB2-10(C)			154	CMPT
TB2- 3	TB2- 4		22	BUS	140	
TB2- 4	TB2- 9	TB2VR2 TB2-4(C) TB2-9(A)			155	CMPT
TB2- 4	TB2- 6		22	BUS	139	
TB2- 4	TB2- 3		22	BUS	140	
TB2- 5	J1- 6	-15V	22	6	1B	
TB2- 5	TB2- 8	TB2R2			156	CMPT
TB2- 6	TB2- 4		22	BUS	139	
TB2- 6	TB2- 7	TB2C2 TB2-6(+)			157	CMPT
TB2- 6	J1- 12	JOY STICK X AND Y RTN	22	6	115B	
TB2- 6	E11		22	94	165	T168
TB2- 7	MT1- 1		22	96	80	
TB2- 7	TB2- 6	TB2C2 TB2-6(+)			157	CMPT
TB2- 7	TB2- 8		22	BUS	137	
TB2- 7	MT1- 3		22	90	74	
TB2- 8	TB2- 5	TB2R2			156	CMPT
TB2- 8	TB2- 9		22	BUS	138	
TB2- 8	TB2- 7		22	BUS	137	
TB2- 9	TB2- 4	TB2VR2 TB2-4(C) TB2-9(A)			155	CMPT
TB2- 9	TB2- 8		22	BUS	138	
TB2- 10	TB2-11		22	BUS	142	
TB2- 10	TB2- 3	TB2VR1 TB2-3(A) TB2-10(C)			154	CMPT
TB2- 11	TB2-10		22	BUS	142	
TB2- 11	TB2- 2	TB2R1			153	CMPT
TB2- 11	TB2-12		22	BUS	143	
TB2- 12	MT1- 8		22	95	79	
TB2- 12	TB2- 1	TB2CI TB2-12(+)			152	CMPT
TB2- 12	TB2-11		22	BUS	143	
TB2- 12	MT1- 6		22	97	81	
TB2- 13	MT1- 4		22	91	75	
TB2- 13	TB2R3-GRN	TB2R3 (FURN)		5	144	
TB2- 14	MT1- 7		22	93	77	
TB2- 14	TB2R3-YEL	TB2R3 (FURN)		4	145	
TB2- 15	E13		22	96	169	T165
TB2- 15	TB2-16	TB2R5			150	CMPT
TB2-	J1-	JACKET FOR WIRE NO 115		90	115	S115
TB2- 15	J1- 13	JOY STICK X	22	9	115A	
SHIELD 115	E8	SHIELD	22	90	115F	
TB2- 15	TB2R3-RED	TB2R3 (FURN)		2	146	
TB2- 16	TB2-15	TB2R5			150	CMPT
TB2- 16 .	J1- 11	DIRECTION JOY STICK X	22	3	2C	
TB2-	J1-	JACKET FOR WIRE NO 2		91	2	S 2
TB2- 17	J1- 9	DIRECTION JOY STICK Y	22	9	2A	
SHIELD 2	SHIELD115	SHIELD	22	90	2F	
TB2- 17	TB2-18	TB2R6			151	CMPT
TB2- 18	E12		22	95	168	T169
TB2- 18	J1- 10	JOY STICK Y	22	6	2B	
TB2- 18	TB2-17	TB2R6			151	CMPT
TB2- 18	TB2R4-RED	TB2R4 (FURN)		2	147	
TB2- 19	MT1- 5		22	92		76
TB2- 19	TB2R4-YEL	TB2R4 (FURN)		4	148	
TB2- 20	MT1- 2		22	94		78
TB2- 20	TB2R4-GRN	TB2R4 (FURN)		5	149	

905796-T

TABLE 6-55. RIGHT CONTROL PANEL A12 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME		WIRE AWG	COLOR	NO	REMARKS
TB1R1								
TB1R1-	GRN	TB1- 2	TB1R1	(FURN)		5	122	
TB1R1-	RED	TB1- 2	TB1R1	(FURN)		2	121	
TB1R1-	YEL	TB1- 3	TB1R1	(FURN)		4	123	
TB R2								
TB1R2-	GRN	TB1- 3	TB1R2	(FURN)		5	125	
TB1R2-	RED	TB1- 3	TB1R2	(FURN)		2	124	
TB1R2-	YEL	TB1- 4	TB1R2	(FURN)		4	126	
TB1R3								
TB1R3-	GRN	TB1- 4	TB1R3	(FURN)		5	128	
TB1R3-	RED	TB1- 4	TB1R3	(FURN)		2	127	
TB1R3-	YEL	TB1- 5	TB1R3	(FURN)		4	129	
TB1R5								
TB1R5-	GRN	TB1- 7	TB1R5	(FURN)		5	131	
TB1R5-	RED	TB1- 7	TB1R5	(FURN)		2	130	
TB1R5-	YEL	TB1- 8	TB1R5	(FURN)		4	132	
TB1R6								
TB1R6-	GRN	TB1- 8	TB1R6	(FURN)		5	134	
TB1R6-	RED	TB1- 8	TB1R6	(FURN)		2	133	
TB1R6-	YEL	TB1- 9	TB1R6	(FURN)		4	135	
TB1R7								
TB1R7-	GRN	TB11-9	TB1R7	(FURN)		5	159	
TB1R7-	RED	TB1- 9	TB1R7	(FURN)		2	136	
TB1R7-	YEL	TB1-10	TB1R7	(FURN)		4	160	
TB2R3								
TB2R3-	GRN	TB2-13	TB2R3	(FURN)		5	144	
TB2R3-	RED	TB2-15	TB2R3	(FURN)		2	146	
TB2R3-	YEL	TB2-14	TB2R3	(FURN)		4	145	
TB2R4								
TB2R4-	GRN	TB2-20	TB2R4	(FURN)		5	149	
TB2R4-	RED	TB2-18	TB2R4	(FURN)		2	147	
TB2R4-	YEL	TB2-19	TB2R4	(FURN)		4	148	

905796-T

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J3							
J3-		CB6-	JACKET FOR WIRE NO 151 NOTE7		9	151	S151
J3-	A	CB6-A1		14	9	151A	
SHIELD	151	E15	SHIELD	22	90	151S	
J3-	B	CB6-B1		14	6	151B	
J3-	C	CB6-C1		14	3	151C	
J3-	D	E14	NEUTRAL	16	90	190	
J4							
J4-		CB5-	JACKET FOR WIRE NO 194 NOTE7		92	194	S194
J4-	1	CB5- 2	FAN POWER PH A	22	9	194A	
SHIELD	194	E4	SHIELD	22	90	194S	
J4-		E1	JACKET FOR WIRE NO 195		905	195	S195
J4-	2	E1	NEUTRAL	22	9	195A	
SHIELD	195	E4	SHIELD	22	90	195S	
J4-	4	E4	SHIELD	22	90	22	
J4-		TB1-	JACKET FOR WIRE NO 35		92	35	S 35
J4-	8	TB1-17	AIR VANE SWITCH	22	9	35A	
J4-	9	TB1-18	AIR VANE SWITCH RTN	22	6	35B	
J4-	10	SHIELD35	SHIELD	22	90	35S	
J5							
J5-	1	CB5- 2	PH A	22	97	192	
J5-	2	E1	NEUTRAL	22	92	191	
J5-	4	E5	SHIELD	22	90	86	
J5-		TB1-	JACKET FOR WIRE NO 37		93	37	S 37
J5-	8	TBI-18	AIR VANE SWITCH	22	9	37A	
J5-	9	TB1-19	AIR VANE SWITCH RTN	22	6	37B	
J5-	10	SHIELD37	SHIELD	22	90	37S	
J6							
J6-		TB1-	JACKET FOR WIRE NO 31		91	31	S 31
J6-	1	TB1- 3	+28 VDC CONTROL	22	9	31A	
J6-	2	TB1- 2	28 VDC CONTROL RTN	22	6	31B	
J6-	3	SHIELD31	SHIELD	22	90	31S	
J6-		CB1-	JACKET FOR WIRE NO 32 NOTE 7		92	32	S 32
J6-	4	CB1-LOAD	120 VAC 400 HZ PH A NOTE 8	22	9	32A	
SHIELD	32	SHIELD33	SHIELD	22	90	32S	
J6-		E1	JACKET FOR WIRE NO 33		94	33	S 33
J6-	5	E1	NEUTRAL	22	9	33A	
J6-	6	SHIELD33	SHIELD	22	90	33S	
J7							
J7-		CB2-	JACKET FOR WIRE NO 16 NOTE 7		91	16	S 16
J7-	A	CB2-LOAD	DIR VIEW FAN PH B NOTE 8	22	9	16A	
SHIELD	16	SHIELD17	SHIELD	22	90	16S	
J7-		P15-	JACKET FOR WIRE NO 17		92	17	S 17
J7-	B	P15- 9	DIR VIEW FAN RTN	22	9	17A	
SHIELD	17	SHIELD18	SHIELD	22	90	17S	
J7-		CB2-	JACKET FOR WIRE NO 18 NOTE 7		93	18	S 18
J7-	C	CB2-LOAD	DIR VIEW HEATER PH B NOTE 8	22	9	18A	
SHIELD	18	SHIELD19	SHIELD	22	90	18S	
J7-		P15-	JACKET FOR WIRE NO 19		94	19	S 19
J7-	D	P15- 2	DIR VIEW HEATER RTN	22	9	19A	
SHIELD	19	SHIELD20	SHIELD	22	90	19S	
J7-		P15-	JACKET FOR WIRE NO 21		96	21	S 21
J7-	F	P15-29	STEREO FAN RTN	22	9	21A	
SHIELD	21	SHIELD23	SHIELD	22	90	21S	
J7-		CB3-	JACKET FOR WIRE NO 20 NOTE 7		95	20	S 20
J7-	G	CB3-LOAD	STEREO HTR PH C	NOTE 8	22	9	20A
SHIELD	20	SHIELD21	SHIELD	22	90	20S	

2036349-H

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J7-		P15-	JACKET FOR WIRE NO 23		97	23	S 23
J7-	H	P15-22	STEREO HEATER RTN	22	9	23A	
J7-	J	SHIELD23	SHIELD	22	90	23S	
J7-	M	E2	CHASSIS GROUND	22	912	135	
J7-	N	XA2- 2	TEMP SENSOR DIR VIEW HIGH	22	98	24	T 69
J7-	P	XA2- 3	TEMP SENSOR DIR VIEW LOW	22	914	69	T 24
J7-	R	XA3- 2	TEMP SENSOR STEREO HIGH	22	901	25	T 66
J7-	S	XA3- 3	TEMP SENSOR STEREO LOW	22	907	66	T 25
J7-	T	XA2-13	HV INTLK (ON COMMAND)	22	902	26	T 70
J7-	U	XA2-14	28 VDC	22	915	70	T 26
J7-	V	XA3-15	STEREO HIGH TEMP LAMP	22	903	27	T 71
J7-	W	XA3-11	STEREO HIGH TEMP INTLK	22	908	71	T 27
J7-	X	XA2-15	DIR VIEW HIGH TEMP LAMP	22	904	28	T 74
J7-	Y	XA2-11	DIR VIEW HIGH TEMP INTLK	22	916	74	T 28
J7-	Z	E2	CHASSIS GROUND	22	913	158	
J7-		XA3-	JACKET FOR WIRE NO 29		905	29	S 29
J7-	>N	XA3-16	BFR TEMP CONTROL STEREO	22	9	29A	
SHIELD	29	SHIELD30	SHIELD	22	90	29S	
J7-		XA2-	JACKET FOR WIRE NO 30		906	30	S 30
J7-	>P	XA2-16	BFR TEMP CONT DIR VIEW NOTE 8	22	9	30A	
J7-	>Q	SHIELD30	SHIELD	22	90	30S	
J10							
J10-		C87-	JACKET FOR WIRE NO 14 NOTE 7		90	14	S14
J10-	A	CB7- 1	PHASE A	18	9	14A	
SHIELD	14	E12	SHIELD	22	90	14S	
J10-	B	CB7- 3	PHASE B	18	6	14B	
J10-	C	CB7- 5	PHASE C	18	3	14C	
J10-	D	E14	NEUTRAL	16	94	15	
J10-	E	E12	CHASSIS GROUND	22	91	183	
J11							
J11-		CB6-	JACKET FOR WIRE NO 12 NOTE 7		90	12	S12
J11-	A	CB6-C2	PHASE C	18	9	12A	
SHIELD	12	E11	SHIELD	22	90	12S	
J11-	C	CB6-B2	PHASEB	18	6	12B	
J11-	E	CB6-A2	PHASE A	18	3	12C	
J11-	G	E14	NEUTRAL	16	91	13	
J11-	H	E11	CHASSIS GROUND	22	92	182	
J12							
J12-		CB4-	JACKET FOR WIRE NO 1 NOTE 7		90	1	S 1
J12-	A	CB4-A2	DIR VIEW HV PWR SPLY PH A	20	9	1A	
SHIELD	1	E3	SHIELD	22	90	1S	
J12-	B	CB4-82	DIR VIEW HV PWR SPLY PH B	20	6	18B	
J12-	C	CB4-C2	DIR VIEW HV PWR SPLY PH C	20	3	1C	
J12-	D	E1	NEUTRAL	20	91	2	
J12-	E	XA2-23	+15VDC	22	917	78	T 67
J12-	F	XA2- 1	-15 VDC	22	96	67	T 68
J12-	G	XA2-12	15 VDC RETURN	22	97	68	T 78
J12-	J	E3	CHASSIS GROUND	22	902	179	
J12-	N	E3	CHASSIS GROUND	22	98	146	
J12-	>B	E3	CHASSIS GROUND	22	901	167	
J12-		CB11-	JACKET FOR WIRE NO 7 NOTE 7		92	7	S 7
J12-	>G	CB11-A2	LOW VOLTAGE PH A	20	9	7A	
SHIELD	7	SHIELD9	SHIELD	22	90	7S	
J12-	>H	CB11-B2	LOW VOLTAGE PH B	20	6	7B	
J12-	>1	CB11-C2	LOW VOLTAGE PH C	20	3	7C	
J12-	>J	E1	LOW VOLTAGE NEUTRAL	20	93	8	
J12-		CB11-	JACKET FOR WIRE NO 9 NOTE 7		94	9	S 9
J12-	>K	CB11-A2	DRAWER FANS PH A	20	9	9A	
SHIELD	9	E3	SHIELD	22	90	9S	

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J12- >N	CB11-B2	DRAWER FANS PH B	20	6	9B	
J12- >P	CB11-C2	DRAWER FANS PH C	20	3	9C	
J12- >Q	E1	DRAWER FANS NEUTRAL	20	95	10	
J13						
J13- A	S5-A1	115 VAC PHASE A	12	96	169	T170
J13- B	S5-B1	115VACPHASEB	12	97	170	T171
J13- C	S5-C1	115 VAC PHASE C	12	98	171	T172
J13- D	E1	NEUTRAL	12	90	172	T169
J13- E	E16	CHASSIS GROUND	12	93	193	
J17						
J17	TB1-14		22	97	102	
J18						
J18	TB1- 4		22	901	103	
J19						
J19	TB1- 5		22	902	104	
J20						
J20	TB1- 6		22	904	105	
J21						
J21	TB1- 7		22	905	106	
J22						
J22	TB1- 8		22	906	107	
J23						
J23	TB1- 9		22	907	108	
J24						
J24	TB1-10		22	908	109	
J25						
J25	TB1-11		22	912	110	
J26						
J26	TB1-12		22	913	111	
J27						
J27	P15-	JACKET FOR WIRE NO 87 NOTE 7		924	87	S 87
J27	P15-41	DIR VIEW HEATER	22	9	87A	
J28						
J28	P15-42	DIR VIEW FAN	22	6	87B	
J29						
J29	P15-43	STEREO HEATER	22	3	87C	
J30						
J30	P15-44	SPARE	22	5	87D	
P15						
P15- 1	SHIELD19	SHIELD	22	90	19F	
P15-	J7-	JACKET FOR WIRE NO 19		94	19	S 19
P15- 2	J7- D	DIR VIEW HEATER RTN	22	9	19A	
P15- 3	XA2- 5	DIR VIEW CATHODE 2	22	93	39	T 40
P15- 4	XA2- 7	DIR VIEW GATE 1	22	901	41	T 42

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
P15- 5	XA2- 4	DIR VIEW GATE 2	22	91	38	T 39
P15- 6	XA2- 6	DIR VIEW CATHODE 1	22	95	40	T 41
P15- 7	E9	CHASSIS GROUND	22	98	42	T 38
P15- 8	SHIELD17	SHIELD	22	90	17F	
P15-	J7-	JACKET FOR WIRE NO 17		92	17	S 17
P15- 9	J7- B	DIR VIEW FAN RTN	22	9	17A	
P15- 10	XA2-20	DIR VIEW XFMR SEC 1 HIGH	22	903	43	T 44
P15- 11	XA2-17	DIR VIEW XFMR SEC2HIGH	22	905	44	T45
P15- 12	XA2-22	DIR VIEW XFMR SEC 2 LOW	22	907	45	T 46
P15- 13	XA2-21	DIR VIEW XFMR SEC 1 LOW	22	908	46	T 47
P15- 14	E9	CHASSIS GROUND	22	902	47	T 43
P15- 15	CB2-LOAD	115 V PHASEB NOTE 8	22	904	48	
P15- 16	E1	NEUTRAL	22	906	49	
P15- 18	XA2-19	GATE 3	22	912	50	T 51
P15- 19	XA2-18	GATE 4	22	913	51	T 50
P15- 21	SHIELD23	SHIELD	22	90	23F	
P15-	J7-	JACKET FOR WIRE NO 23		97	23	S 23
P15- 22	J7- H	STEREO HEATER RTN	22	9	23A	
P15- 23	XA3- 5	STEREO CATHODE 2	22	914	52	T 53
P15- 24	XA3- 7	STEREO GATEI	22	915	53	T 54
P15- 25	XA3- 4	STEREO GATE 2	22	916	54	T 55
P15- 26	XA3- 6	STEREO CATHODE 1	22	917	55	T 56
P15- 27	E10	CHASSIS GROUND	22	918	56	T 52
P15- 28	SHIELD21	SHIELD	22	90	21F	
P15-	J7-	JACKET FOR WIRE NO 21		96	21	S 21
P15- 29	J7- F	STEREO FAN RTN	22	9	21A	
P15- 36	E1	NEUTRAL	22	923	63	
P15-	J27	JACKET FOR WIRE NO 87 NOTE 7		924	87	S 87
P15- 41	J27	DIR VIEW HEATER	22	9	87A	
P15- 42	J28	DIR VIEW FAN	22	6	87B	
P15- 43	J29	STEREO HEATER	22	3	87C	
P15- 44	J30	SPARE	22	5	87D	
P15- 45	SHIELD87	SHIELD	22	90	87S	
P16						
P16- 1	XA1-20	28 V RGLTD CONTROL	22	901	95	T 81
P16- 2	XA1-18	28 V UNRGLTD	22	93	81	T 82
P16- 3	XA1-16	BASE DRIVE	22	96	82	T 83
P16- 4	XA1-13	28 V RETURN	22	97	83	T 84
P16- 5	T1- 4	PHASE A	22	902	96	T 77
P16- 6	T1- 5	PHASEB	22	90	77	T 79
P16- 7	T1- 6	PHASE C	22	91	79	T 80
P16- 8	E7	CHASSIS GROUND	22	92	80	T 96
P16- 9	TB1- 3	28 VDC	22	903	97	T 75
P16- 10	TB1- 2	28 V RETURN	22	94	75	T 76
P16- 11	TB1-25	CHASSIS GROUND	22	95	76	T 97
P16- 12	E8	CHASSIS GROUND	22	98	84	T 95
XA1						
XA1- 2	TB1-17		22	98	99	
XA1- 4	CB6-A1	PHASE A	22	92	98	T 72
XA1- 6	CB6-C1	PHASE C	22	90	72	T 73
XA1- 8	CB6-B1	PHASE B	22	91	73	T 98
XA1- 10	S6-1NC		22	94	100	
XA1- 13	P16- 4	28 V RETURN	22	97	83	T 84
XA1- 14	S6- G		22	95	101	
XA1- 16	P16- 3	BASE DRIVE	22	96	82	T 83
XA1- 18	P16- 2	28 V UNRGLTD	22	93	81	T 82
XA1- 20	P16- 1	28 V RGLTD CONTROL	22	901	95	T 81

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
XA2						
XA2- 1	J12- F	-15 VDC	22	96	67	T 68
XA2- 1	XA3- 1	-15 V	22	92	88	
XA2- 2	J7- N	TEMP SENSOR DIR VIEW HIGH	22	98	24	T 69
XA2- 3	J7- P	TEMP SENSOR DIR VIEW LOW	22	914	69	T 24
XA2- 4	P15- 5	DIR VIEW GATE 2	22	91	38	T 39
XA2- 5	P15- 3	DIR VIEW CATHODE 2	22	93	39	T 40
XA2- 6	P15- 6	DIR VIEW CATHODE 1	22	95	40	T41
XA2- 7	P15- 4	DIR VIEW GATE 1	22	901	41	T42
XA2- 8	XA3- 8	115V ISOLATED	22	926	94	T168
XA2- 8	T2- 6	115V ISOLATED	22	925	93	T11
XA2- 9	T2- 4	115V ISOLATED	22	90	11	T 93
XA2- 9	XA3- 9	115V ISOLATED	22	927	168	T 94
XA2- 11	J7- Y	DIR VIEW HIGH TEMP INTLK	22	916	74	T 28
XA2- 12	XA3-12	15 V RETURN	22	94	89	
XA2- 12	J12- G	15 VDC RETURN	22	97	68	T 78
XA2- 13	XA3-13	28 VDC	22	918	90	
XA2- 13	J7- T	HV INTLK (ON COMMAND)	22	902	26	T 70
XA2- 14	XA3-14	HIGH TEMP INTLK	22	923	91	
XA2- 14	J7- U	28 VDC	22	915	70	T 26
XA2- 15	J7- X	DIR VIEW HIGH TEMP LAMP	22	904	28	T 74
XA2-	J7-	JACKET FOR WIRE NO 30		906	30	S 30
XA2- 16	J7->P	BFR TEMP CONT DIR VIEW NOTE 8	22	9	30A	
SHIELD 30	E9	SHIELD	22	90	30F	
XA2- 17	P15-11	DIR VIEW XFMR SEC 2 HIGH	22	905	44	T 45
XA2- 18	P15-19	GATE 4	22	913	51	T 50
XA2- 19	P15-18	GATE 3	22	912	50	T 51
XA2- 20	P15-10	DIR VIEW XFMR SEC I HIGH	22	903	43	T 44
XA2- 21	P15-13	DIR VIEW XFMR SEC 1 LOW	22	908	46	T 47
XA2- 22	P15-12	DIR VIEW XFMR SEC 2 LOW	22	907	45	T 46
XA2- 23	XA3-23	+15 V	22	924	92	
XA2- 23	J12- E	+15 VDC	22	917	78	T 67
XA3						
XA3- 1	XA2- 1	-15 V	22	92	88	
XA3- 2	J7- R	TEMP SENSOR STEREO HIGH	22	901	25	T 66
XA3- 3	J7- S	TEMP SENSOR STEREO LOW	22	907	66	T 25
XA3- 4	P15-25	STEREO GATE 2	22	916	54	T 55
XA3- 5	P15-23	STEREO CATHODE 2	22	914	52	T 53
XA3- 6	P15-26	STEREO CATHODE 1	22	917	55	T 56
XA3- 7	P15-24	STEREO GATE 1	22	915	53	T 54
XA3- 8	XA2- 8	115V ISOLATED	22	926	94	T168
XA3- 9	XA2- 9	115V ISOLATED	22	927	168	T 94
XA3- 9	XA3-12	115V ISOLATED DC RETURN	22	90	134	
XA3- 11	J7- W	STEREO HIGH TEMP INTLK	22	908	71	T 27
XA3- 12	XA2-12	15 V RETURN	22	94	89	
XA3- 12	XA3- 9	115V ISOLATED DC RETURN	22	90	134	
XA3- 13	XA2-13	28 VDC	22	918	90	
XA3- 14	XA2-14	HIGH TEMP INTLK	22	923	91	
XA3- 15	J7- V	STEREO HIGH TEMP LAMP	22	903	27	T 71
XA3-	J7-	JACKET FOR WIRE NO 29		905	29	S 29
XA3- 16	J7->N	BFR TEMP CONTROL STEREO	22	9	29A	
SHIELD 29	E10	SHIELD	22	90	29F	
XA3- 23	XA2-23	+ 15 V	22	924	92	
CB1						
CB1- LINE	S5-A2	NOTE 8	22	95	153	
CB1-	J6-	JACKET FOR WIRE NO 32 NOTE 7		92	32	S 32
CB1- LOAD	J6- 4	120 VAC 400 HZ PH A NOTE 8	22	9	32A	

2036349-H

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
CB2							
CB2-		CB4-	JACKET FOR WIRE NO 154 NOTE7		92	154	S154
CB2-	LINE	CB4-81	NOTE 8	20	9	154A	
CB2-	LINE	CB3-LINE	115V PH B NOTE 8	20	90	155	
CB2-	LOAD	P15-15	115 V PHASE B NOTE 8	22	904	48	
CB2-	LOAD	T2- 1	115V PH B NOTE 8	22	94	180	
CB2-		J7-	JACKET FOR WIRE NO 18 NOTE 7		93	18	S 18
CB2-	LOAD	J7- C	DIR VIEW HEATER PH B NOTE 8	22	9	18A	
CB2-		J7-	JACKET FOR WIRE NO 16 NOTE 7		91	16	S 16
CB2-	LOAD	J7- A	DIR VIEW FAN PH B NOTE 8	22	9	16A	
CB3							
CB3-	LINE	CB2-LINE	115V PH B NOTE 8	20	90	155	
CB3-		J7-	JACKET FOR WIRE NO 20 NOTE 7		95	20	S 20
CB3-	LOAD	J7- G	STEREO HTR PH C NOTE 8	22	9	20A	
CB4							
CB4-	A1	K1-A2		12	93	159	T176
CB4-		CB11-	JACKET FOR WIRE NO 152 NOTE7		91	152	S152
CB4-	A1	CB1l-A1		18	9	152A	
CB4-		J12-	JACKET FOR WIRE NO 1 NOTE 7		90	1	S 1
CB4-	A2	J12- A	DIR VIEW HV PWR SPLY PH A	20	9	1A	
CB4-	B1	CB11-B1		18	6	152B	
CB4-	B1	K1-B2		12	94	176	T177
CB4-		CB2-	JACKET FOR WIRE NO 154 NOTE7		92	154	S154
CB4-	B1	CB2-LINE	NOTE 8	20	9	154A	
CB4-	B2	J12- B	DIR VIEW HV PWR SPLY PH B	20	6	1B	
CB4-	C1	K1-C2		12	95	177	T159
CB4-	C1	CB11-C1		18	3	152C	
CB4-	C2	J12- C	DIR VIEW HV PWR SPLY PH C	20	3	1C	
CB5							
CB5-		CB10-	JACKET FOR WIRE NO 150 NOTE7		93	150	S150
CB5-	1	CB10-A1		20	9	150A	
CB5-		J4-	JACKET FOR WIRE NO 194 NOTE7		92	194	S194
CB5-	2	J4- 1	FAN POWER PH A	22	9	194A	
CB5-	2	J5- 1	PH A	22	97	192	
CB5-	2	S1- 1		22	94	116	
CB6							
CB6-		CB7-	JACKET FOR WIRE NO 157 NOTE7		9	157	S157
CB6-	A1	CB7- 2		14	9	157A	
CB6-	A1	XA1- 4	PHASE A	22	92	98	T 72
CB6-		J3-	JACKET FOR WIRE NO 151 NOTE7		9	151	S151
CB6-	A1	J3- A		14	9	151A	
CB6-	A2	J11- E	PHASEA	18	3	12C	
CB6-	B1	XA1- 8	PHASE B	22	91	73	T 98
CB6-	B1	J3- B		14	6	151B	
CB6-	B1	CB7- 4		14	6	157B	
CB6-	B2	J11- C	PHASEB	18	6	12B	
CB6-	C1	CB7- 6		14	3	157C	
CB6-	C1	J3- C		14	3	151C	
CB6-	C1	XA1- 6	PHASE C	22	90	72	T 73
CB6-		J11-	JACKET FOR WIRE NO 12 NOTE 7		90	12	S12
CB6-	C2	J11- A	PHASE C	18	9	12A	

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
CB7							
CB7-		J10-	JACKET FOR WIRE NO 14 NOTE 7		90	14	S 14
CB7-	1	J10- A	PHASE A	18	9	14A	
CB7-		CB6-	JACKET FOR WIRE NO 157 NOTE7		9	157	S157
CB7-	2	CB6-A1		14	9	157A	
CB7-	3	J10- B	PHASEB	18	6	148	
CB7-	4	CB6-B1		14	6	157B	
CB7-	5	J10- C	PHASE C	18	3	14C	
CB7-	6	CB6-C1		14	3	157C	
CB10							
CB10-		S5-	JACKET FOR WIRE NO 149 NOTE7		94	149	S149
CB10-	A1	S5-A2		20	9	149A	
CB10-		CB5-	JACKET FOR WIRE NO 150 NOTE7		93	150	S150
CB10-	A1	CB5- 1		20	9	150A	
CB10-		T1-	JACKET FOR WIRE NO 148 NOTE7		92	148	S148
CB10-	A2	T1- 1		20	9	148A	
CB10-	B1	M1- 1	ETM 115V	22	90	120	T121
CB10-	B1	S5-B2		20	6	149B	
CB10-	B2	T1- 2		20	6	148B	
CB10-	C1	S5-C2		20	3	149C	
CB10-	C2	T1- 3		20	3	148C	
CB11							
CB11-		CB4-	JACKET FOR WIRE NO 152 NOTE7		91	152	S152
CB11-	A1	CB4-A1		18	9	152A	
CB11-		J12-	JACKET FOR WIRE NO 9 NOTE 7		94	9	S 9
CB11-	A2	J12- >K	DRAWER FANS PH A	20	9	9A	
CB11-		J12-	JACKET FOR WIRE NO 7 NOTE 7		92	7	S 7
CB11-	A2	J12->G	LOW VOLTAGE PH A	20	9	7A	
CB11-	B1	CB4-B1		18	6	152B	
CB11-	B2	J12->N	DRAWER FANS PH B	20	6	9B	
CB11-	B2	J12->H	LOW VOLTAGE PH B	20	6	7B	
CB11-	C1	CB4-C1		18	3	152C	
CB11-	C2	J12->P	DRAWER FANS PH C	20	3	9C	
CB11-	C2	J12- >I	LOW VOLTAGE PH C	20	3	7C	
E1							
E1		J12->J	LOW VOLTAGE NEUTRAL	20	93	8	
E1		J12->Q	DRAWER FANS NEUTRAL	20	95	10	
E1		J6-	JACKET FOR WIRE NO 33		94	33	S 33
E1		J6- 5	NEUTRAL	22	9	33A	
SHIELD	33	E13	SHIELD	22	90	33F	
E1		P15-16	NEUTRAL	22	906	49	
E1		P15-36	NEUTRAL	22	923	63	
E1		TB1- 1	NEUTRAL	20	96	85	
E1		J13- D	NEUTRAL	12	90	172	T169
E1		T2- 2	NEUTRAL	22	903	181	
E1		J5- 2	NEUTRAL	22	92	191	
E1		J4-	JACKET FOR WIRE NO 195		905	195	S195
E1		J4- 2	NEUTRAL	22	9	195A	
SHIELD	195	E13	SHIELD	22	90	195F	
E1		J12- D	NEUTRAL	20	91	2	
E2							
E2		J7- Z	CHASSIS GROUND	22	913	158	
E2		J7- M	CHASSIS GROUND	22	912	135	

2036349-H

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E3						
E3	SHIELD9	SHIELD	22	90	9S	
E3	J12- N	CHASSIS GROUND	22	98	146	
E3	J12->B	CHASSIS GROUND	22	901	167	
E3	J12- J	CHASSIS GROUND	22	902	179	
E3	SHIELD1	SHIELD	22	90	1S	
E4						
E4	SHIELD194	SHIELD	22	90	194S	
E4	SHIELD195	SHIELD	22	90	195S	
E4	J4- 4	SHIELD	22	90	22	
E5						
E5	J5- 4	SHIELD	22	90	86	
E6						
E6	TB1-25	CHASSIS GROUND	20	934	178	
E7						
E7	SHIELD148	SHIELD	22	90	148F	
E7	P16- 8	CHASSIS GROUND	22	92	80	T 96
E8						
E8	P16-12	CHASSIS GROUND	22	98	84	T 95
E9						
E9	P15- 7	CHASSIS GROUND	22	98	42	T 38
E9	P15-14	CHASSIS GROUND	22	902	47	T 43
E9	SHIELD30	SHIELD	22	90	30F	
E10						
E10	P15-27	CHASSIS GROUND	22	918	56	T 52
E10	SHIELD29	SHIELD	22	90	29F	
E11						
E11	J11- H	CHASSIS GROUND	22	92	182	
E11	SHIELD12	SHIELD	22	90	12S	
E12						
E12	J10- E	CHASSIS GROUND	22	91	183	
E12	SHIELD14	SHIELD	22	90	14S	
E13						
E13	SHIELD195	SHIELD	22	90	195F	
E13	SHIELD33	SHIELD	22	90	33F	
E14						
E14	J10- D	NEUTRAL	16	94	15	
E14	J3- D	NEUTRAL	16	90	190	
E14	J11- G	NEUTRAL	16	91	13	
E15						
E15	SHIELD151	SHIELD	22	90	151S	
E16						
E16	J13- E	CHASSIS GROUND	12	93	193	

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
K1						
K1- A1	S5-A2		12	901	173	T174
K1- A2	CB4-A1		12	93	159	T176
K1- B1	S5-B2		12	902	174	T175
K1- B2	CB4-B1		12	94	176	T177
K1- C1	S5-C2		12	903	175	T173
K1- C2	CB4-C1		12	95	177	T159
K1- X1	TB1-22		22	926	130	
K1- X2	TB1-14		22	928	132	
M1						
M1- 1	CB10-B1	ETM 115V	22	90	120	T121
M1- 2	TB1- 2	ETM NEUTRAL	22	915	121	T120
M2						
M2- 1	S1- C	VOLTMETER NOTE 9	22	90	112	
M2- 2	TB1- 1	NOTE 9	22	914	119	
S1						
S1- C	M2- 1	VOLTMETER NOTE 9	22	90	112	
S1- 1	CB5- 2		22	94	116	
51- 2	S5-A2		22	93	115	T113
S1- 3	S5-B2		22	92	114	T115
S1- 4	S5-C2		22	91	113	T114
S2						
S2- 1	TB1-19		22	923	126	
S2- 2	S3- 1		22	90	127	
S3						
S3- 1	TB1-20		22	917	124	
S3- 1	S2- 2		22	90	127	
S3- 2	TB1-21		22	918	125	
S4						
S4- A	S4- B		22	90	160	
S4- A	S6- A		22	92	145	
S4- B	S4- C		22	91	161	
S4- B	S4- A		22	90	160	
S4- C	S4- B		22	91	161	
S4- C	S4- D		22	93	162	
S4- D	TB1-14		22	927	131	
S4- D	S4- C		22	93	162	
S4- G	S4-1NO		22	94	163	
S4- H	S4-1NC		22	95	164	
S4- 1C	TB1-21		22	924	128	
S4- 1NC	S4- H		22	95	164	
S4- 1NO	S4- G		22	94	163	
S4- 1NO	TB1-22		22	925	129	
S5						
S5- A1	J13- A	115 VAC PHASE A	12	96	169	T170
S5- A2	CB1-LINE	NOTE 8	22	95	153	
S5-	CB10-	JACKET FOR WIRE NO 149 NOTE7		94	149	S149
S5- A2	CB10-A1		20	9	149A	
S5- A2	S1- 2		22	93	115	T113
S5- A2	K1-A1		12	901	173	T174
S5- B1	J13- B	115 VAC PHASE B	12	97	170	T171
S5- B2	K1-B1		12	902	174	T175

2036349-H

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S5- B2	XDS1-1	NOTE 6	22	90	122	
S5- B2	S1- 3		22	92	114	T115
S5- B2	CB1O-B1		20	6	149B	
S5- C1	J13- C	115VAC PHASEC	12	98	171	T172
S5- C2	K1-C1		12	903	175	T173
S5- C2	CB10-C1		20	3	149C	
S5- C2	S1- 4		22	91	113	T114
S6						
S6- A	S4- A		22	92	145	
S6- A	S6- B		22	90	3	
S6- B	S6- C		22	91	4	
S6- B	S6- A		22	90	3	
S6- C	S6- B		22	91	4	
S6- C	S6- D		22	93	165	
S6- D	S6-1C		22	96	166	
S6- D	S6- C		22	93	165	
S6- G	XA1-14		22	95	101	
S6- 1C	S6- D		22	96	166	
S6- 1NC	XA1-10		22	94	100	
T1						
T1-	CB10-	JACKET FOR WIRE NO 148 NOTE7		92	148	S148
T1- 1	CB10-A2		20	9	148A	
SHIELD 148	E7	SHIELD	22	90	148F	
T1- 2	CB10-B2		20	6	148B	
T1- 3	CB10-C2		20	3	148C	
T1- 4	P16- 5	PHASE A	22	902	96	T 77
T1- 5	P16- 6	PHASE B	22	90	77	T 79
T1- 6	P16- 7	PHASE C	22	91	79	T 80
T2						
T2- 1	CB2-LOAD	115V PH B NOTE 8	22	94	180	
T2- 2	E1	NEUTRAL	22	903	181	
T2- 4	XA2- 9	115 VISOLATED	22	90	11	T 93
T2- 6	XA2- 8	115 VISOLATED	22	925	93	T 11
TB1						
TB1- 1	TB1- 2		22	BUS	196	
TB1- 1	M2- 2	NOTE 9	22	914	119	
TB1- 1	XDS1-2	NOTE 6	22	916	123	
TB1- 1	E1	NEUTRAL	20	96	85	
TB1- 2	M1- 2	ETM NEUTRAL	22	915	121	T120
TB1- 2	P16-10	28 V RETURN	22	94	75	T 76
TB1- 2	TB1-14	NOTE 5	22	BUS	197	
TB1- 2	J6- 2	28 VDC CONTROL RTN	22	6	31B	
TB1- 2	TB1- 1		22	BUS	196	
TB1- 3	P16- 9	28 VDC	22	903	97	T 75
TB1-	J6-	JACKET FOR WIRE NO 31		91	31	S 31
TB1- 3	J6- 1	+28 VDC CONTROL	22	9	31A	
TB1- 4	J18		22	901	103	
TB1- 4	TB1-16	R1			136	CMPT
TB1- 5	J19		22	902	104	
TB1- 5	TB1-17	R2			137	CMPT
TB1- 6	TB1-18	R3			138	CMPT
TB1- 6	J20		22	904	105	
TB1- 7	J21		22	905	106	
TB1- 7	TB1-19	R4			139	CMPT
TB1- 8	TB1-20	R5			140	CMPT
TB1- 8	J22		22	906	107	

2036349-H

TABLE 6-56. POWER DISTRIBUTION PANEL A13 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
TB1- 9	TB1- 21	R6			141	CMPT
TB1- 9	J23		22	907	108	
TB1- 10	TB1- 22	R7			142	CMPT
TB1- 10	J24		22	908	109	
TB1- 11	TB1- 23	R8			143	CMPT
TB1- 11	J25		22	912	110	
TB1- 12	TB1- 24	R9			144	CMPT
TB1- 12	J26		22	913	111	
TB1- 14	K1- X2		22	928	132	
TB1- 14	S4- D		22	927	131	
TB1- 14	J17		22	97	102	
TB1- 14	TB1- 2	NOTE 5	22	BUS	197	
TB1- 16	TB1- 4	R1			136	CMPT
TB1-	J4-	JACKET FOR WIRE NO 35		92	35	S 35
TB1- 17	J4- 8	AIR VANE SWITCH	22	9	35A	
SHIELD 35	SHIELD 37	SHIELD	22	90	35F	
TB1- 17	TB1- 5	R2			137	CMPT
TB1- 17	XA1- 2		22	98	99	
TB1- 18	J4- 9	AIR VANE SWITCH RTN	22	6	35B	
TB1- 18	TB1- 6	R3			138	CMPT
TB1-	J5-	JACKET FOR WIRE NO 37		93	37	S 37
TB1- 18	J5- 8	AIR VANE SWITCH	22	9	37A	
TB1- 19	TB1- 7	R4			139	CMPT
TB1- 19	J5- 9	AIR VANE SWITCH RTN	22	6	37B	
TB1- 19	S2- 1		22	923	126	
TB1- 20	S3- 1		22	917	124	
TB1- 20	TB1- 8	R5			140	CMPT
TB1- 21	S3- 2		22	918	125	
TB1- 21	TB1- 9	R6			141	CMPT
TB1- 21	S4- 1C		22	924	128	
TB1- 22	TB1- 10	R7			142	CMPT
TB1- 22	K1- X1		22	926	130	
TB1- 22	S4- 1NO		22	925	129	
TB1- 23	TB1- 11	R8			143	CMPT
TB1- 24	TB1- 12	R9			144	CMPT
TB1- 25	E6	CHASSIS GROUND	20	934	178	
TB1- 25	P16- 11	CHASSIS GROUND	22	95	76	T 97
TB1- 25	SHIELD 37	SHIELD	22	90	37F	
TB1- 25	SHIELD 31	SHIELD	22	90	31F	
XDS1						
XDS1- 1	S5- B2	NOTE 6	22	90	122	
XDS1- 2	TB1- 1	NOTE 6	22	916	123	

2036349-H

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J1						
J1- 1	XA15- J	MAP Y MOTOR V	22	3	229C	
J1- 2	XA15- P	MAP Y MOTOR W	22	6	229B	
J1-	XA15-	JACKET FOR WIRE NO 229		903	229	S229
J1- 3	XA15- L	MAP Y MOTOR X	22	9	229A	
SHIELD 229	SHIELD 228	SHIELD	22	90	229S	
J1- 4	XA16- J	MAP Y MOTOR Y	22	6	228B	
J1-	XA16-	JACKET FOR WIRE NO 228		92	228	S228
J1- 5	XA16- P	MAP Y MOTOR Z	22	9	228A	
J1- 6	E17	MAP Y MOTOR RTN	22	94	226	
J1- 7	E17	MAP Y MOTOR RTN	22	95	227	
J1- 8	E17	MAP Y MOTOR RTN	22	93	225	
J1- 9	E17	MAP Y MOTOR	22	936	224	T223
J1- 10	E17	MAP Y MOTOR RTN	22	902	223	T224
J1- 11	SHIELD 228	SHIELD	22	90	228S	
J1- 12	SHIELD 230	SHIELD	22	90	230S	
J1- 13	XA5- J	MAP X MOTOR V	22	3	234C	
J1- 14	XA5- P	MAP X MOTOR W	22	6	234B	
J1-	XA5-	JACKET FOR WIRE NO 234		91	234	S234
J1- 15	XA5- L	MAP X MOTOR X	22	9	234A	
SHIELD 234	SHIELD 230	SHIELD	22	90	234S	
J1- 16	XA6- J	MAP X MOTOR Y	22	6	230B	
J1-	XA6-	JACKET FOR WIRE NO 230		901	230	S230
J1- 17	XA6- P	MAP X MOTOR Z	22	9	230A	
J1- 18	E17	MAP X MOTOR RETURN	22	98	233	
J1- 19	E17	MAP X MOTOR RETURN	22	97	232	
J1- 20	E17	MAP X MOTOR RETURN	22	96	231	
J1- 21	E17	MAP X MOTOR RTN	22	935	241	
J1- 22	E17	MAP X MOTOR RTN	22	925	222	
J2						
J2-	XA10-	JACKET FOR WIRE NO 238		93	238	S238
J2- 9	XA10- 23	MAP X FIRST LIMIT	22	9	238A	
J2- 10	XA10- 10	MAP X FIRST LIMIT	22	6	2388	
J2-	K1-	JKT FOR WIRE NO 236 NOTE 9		96	236	S236
J2- 11	K1- 4	MAP Y STOW LIMIT	22	9	236A	
SHIELD 236	SHIELD 238	SHIELD	22	90	236S	
J2- 12	K2- 4	MAP Y STOW LIMIT	22	6	236B	
J2- 13	SHIELD 238	SHIELD	22	90	238S	
J2- 14	E21	15V RETURN	22	94	242	
J2-	XA11-	JACKET FOR WIRE NO 239		92	239	S239
J2- 15	XA11- 8	MAP Y CCW LIMIT (FINAL)	22	9	239A	
SHIELD 239	SHIELD 206	SHIELD	22	90	239S	
J2- 16	XA11- 6	MAP Y CW LIMIT (FINAL)	22	6	239B	
J2- 17	XA9- 8	MAP CCW X LIMIT(FINAL)	22	6	206B	
J2-	XA9-	JACKET FOR WIRE NO 206		95	206	S206
J2- 18	XA9- 6	MAP CW X LIMIT (FINAL)	22	9	206A	
J2- 19	SHIELD 206	SHIELD	22	90	206F	
J3						
J3- F	SHIELD 243	SHIELD	22	90	243S	
J3- G	E18	+15 VDC	20	5	243D	
J3-	E18	JKT FOR WIRE NO 243 NOTE 10		90	243	S243
J3- H	E18	+15VDC	20	9	243A	
J3- J	E21	+15V RETURN	20	6	243B	
J3- K	E21	+15V RETURN	20	3	243C	
J3- L	SHIELD 245	SHIELD	22	90	245S	
J3- M	E19	-15VDC RETURN	20	6	245B	
J3-	E19	JKT FOR WIRE NO 245 NOTE 10		91	245	S245
J3- N	E19	-15VDC	20	9	245A	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J3- P	E21	-15V RETURN	20	3	245C	
J3- R	E21	-15V RETURN	20	5	245D	
J4						
J4-	XA24-	JACKET FOR WIRE NO 248		94	248	S248
J4- 1	XA24- 9	DIR JOY STICK FILM X	22	9	248A	
SHIELD 248	SHIELD 249	SHIELD	22	90	248S	
J4-	XA10-	JACKET FOR WIRE NO 249		95	249	S249
J4- 2	XA10- 20	JOY STICK X	22	9	249A	
J4- 3	XA10- 19	JOY STICK X RETURN	22	6	249B	
J4- 4	SHIELD 249	SHIELD	22	90	249S	
J4-	XA26-	JACKET FOR WIRE NO 250		91	250	S250
J4- 5	XA26- 9	DIR JOY STICK FILM Y	22	9	250A	
SHIELD 250	SHIELD 251	SHIELD	22	90	250S	
J4-	XA10-	JKT FOR WIRE NO 251 NOTE 9		907	251	S251
J4- 6	XA10- 4	JOY STICK Y	22	9	251A	
J4- 7	XA10- 13	JOY STICK Y RETURN	22	6	251B	
J4- 8	SHIELD 251	SHIELD	22	90	251S	
J4- 9	E68	SHIELD	22	92	244	
J4-	XA28-	JACKET FOR WIRE NO 252		96	252	S252
J4- 10	XA28- 9	CURSOR ENTER NO	22	9	252A	
SHIELD 252	E68	SHIELD	22	90	252S	
J4- 11	XA28- 11	CURSOR ENTER NC	22	6	252B	
J4- 12	XA28- 16	+5 V RETURN	22	3	252C	
J4- 13	E68	SHIELD	22	93	246	
J4-	E21	JKT FOR WIRE NO 253 NOTE 10		97	253	S253
J4- 14	E21	15 V RETURN	22	9	253A	
SHIELD 253	E68	SHIELD	22	90	253S	
J4- 15	E19	-15 VDC	22	6	253B	
J4- 16	E18	+15 VDC	22	3	253C	
J4- 18	E24	28V GP	22	96	561	
J4- 19	E25	28V GP RTN	22	97	562	
J5						
J5- A	TB1- A2	28V UNRGLTD	12	902	256	T258
J5- B	TB1- A4	28V UNRGLTD	12	904	257	T259
J5-	B1-	JACKET FOR WIRE NO 268		95	268	S268
J5- C	B1- T4	PHASE A	18	9	268A	
J5- D	TB2- A4	28V RETURN	12	94	258	T256
J5- E	TB2- A4	28V RETURN	12	93	259	T257
J5- F	B1- T3	PHASE B	18	6	268B	
J5- G	B1- T1	PHASE C	18	3	268C	
J5- H	SHIELD 268	SHIELD	22	90	268S	
J5- J	M1- 2	115 VAC RETURN	22	91	513	
J5- K	M1- 1	115 VAC	22	903	512	
J5- L	TB1- A1	6V UNRGLTD	12	905	260	T262
J5- M	TB1- A3	6V UNRGLTD	12	906	261	T263
J5- P	TB2- A3	6V RETURN	12	96	262	T260
J5- R	TB2- A2	6V RETURN	12	97	263	T261
J5- S	TB2- A1	STAR	12	98	264	T265
J5- T	TB2- A1	STAR	12	901	265	T264
J5-	E22	JKT FOR WIRE NO 270 NOTE 10		92	270	S270
J5- U	E22	+5 VDC	22	5	270A	
J5- V	E22	+5 VDC	22	9	2708	
J5- W	E20	+5 V RETURN	22	6	270C	
J5- X	E24	28 VDC GP	12	96	559	
J5- Y	E25	28 VDC RTN	12	97	560	
J5- Z	E20	+5 V RETURN	22	3	270D	
J5- >A	SHIELD 270	SHIELD	22	90	270S	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J6						
J6- 4	SHIELD 272	SHIELD	22	90	272S	
J6-	E21	JACKET FOR WIRE NO 272		93	272	S272
J6- 5	E21	15 V RETURN	22	9	272A	
SHIELD 272	E69	SHIELD	22	90	272S	
J6- 6	El9	-15 VDC	22	6	272B	
J6- 7	E18	+15 VDC	22	3	272C	
J6- 8	SHIELD 273	SHIELD	22	90	273S	
J6-	XA27-	JACKET FOR WIRE NO 273		906	273	S273
J6- 9	XA27- 9	DIR JOY STICK MAP Y	22	9	273A	
J6-	XA10-	JACKET FOR WIRE NO 274		908	274	S274
J6- 10	XA10- 6	JOY STICK Y	22	9	274A	
SHIELD 274	SHIELD 273	SHIELD	22	90	274S	
J6-	XA25-	JACKET FOR WIRE NO 275		91	275	S275
J6- 11	XA25- 9	DIR JOY STICK MAP X	22	9	275A	
SHIELD 275	SHIELD 274	SHIELD	22	90	275S	
J6- 12	XA10- 19	JOY STICK X AND Y RTN	22	6	274B	
J6- 13	XA10- 22	JOY STICK X	22	3	274C	
J7						
J7- 3	XA31- 22	+28V CURSOR	22	907	532	
J7- 4	XA27- 16	MAP Y JOY STICK OFF LGC	22	908	279	
J7- 5	XA26- 16	FILM Y JOY STICK OFF LGC	22	926	280	
J7- 6	XA10- 2	Y JOY STICK OFF LGC	22	924	281	
J7- 7	XA25- 16	MAP X JOY STICK OFF LGC	22	98	282	
J7- 8	XA24- 16	FILM X JOY STICK OFF LGC	22	95	283	
J7- 9	XA10- 18	X JOY STICK OFF LGC	22	96	284	
J7- 10	SHIELD 285	SHIELD	22	90	285S	
J7-	XA29-	JACKET FOR WIRE NO 285		916	285	S285
J7- 11	XA29- 8	FILM CURSOR SELECT	22	9	285A	
J7-	XA28-	JACKET FOR WIRE NO 286		923	286	S286
J7- 12	XA28- 8	MAP CURSOR SELECT	22	9	286A	
SHIELD 286	SHIELD 285	SHIELD	22	90	286S	
J7- 13	XA17- 14	CURSOR OFF LOGIC	22	97	287	
J7- 14	E22	+5 VDC OFF POSITION	22	917	288	
J7- 15	E21	15 V RETURN	22	91	209	
J7- 16	XA11- 14	CURSOR SELECT MAP Y	22	93	506	
J7- 17	XA11- 22	CURSOR SELECT FILM Y	22	913	507	
J7- 18	XA9- 14	CURSOR SELECT MAP X	22	914	508	
J7- 19	XA9- 22	CURSOR SELECT FILM X	22	915	509	
J7- 20	E67		22	9013	419	
J7- 21	XA29- 9	CURSOR ENTER NO	22	6	285B	
J7- 22	XA29- 11	CURSOR ENTER NC	22	3	285C	
J7- 23	E20	5 V RETURN	22	9056	491	
J7-	XA10-	JACKET FOR WIRE NO 289		92	289	S289
J7- 24	XA10- 24	FILM X FIRST LIMIT	22	9	289A	
SHIELD 289	E67	SHIELD	22	90	289S	
J7- 25	XA10- 12	FILM Y FIRST LIMIT	22	6	289B	
J7- 26	K1- 7	STOW	22	9014	482	
J7- 27	K2- 7	STOW (X)	22	901	290	
J7- 28	E17	+28 V RETURN	22	918	291	
J7- 29	E21	+15V RETURN	22	906	277	
J7- 30	XA11- 25	FILM Y CCW LIMIT	22	902	292	T293
J7- 31	XAII- 24	FILM Y CW LIMIT	22	905	293	T292
J7- 32	XA9- 25	FILM X CCW LIMIT	22	904	216	T215
J7- 33	XA9- 24	FILM X CW LIMIT	22	903	215	T216
J7-	XA10	JACKET FOR WIRE NO 294		924	294	S294
J7- 34	XA10- 23	MAP X FIRST LIMIT	22	9	294A	
SHIELD 294	SHIELD 289	SHIELD	22	90	294S	

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J7- 35	XA10- 10	MAP Y FIRST LIMIT	22	6	294B	
J7- 36	XA10- 21	X FIRST LIMIT	22	3	294C	
J7- 37	XA10- 9	Y FIRST LIMIT	22	5	294D	
J8						
J8- 1	XA13- J	FILM Y MOTOR DIR VIEW V	22	3	302C	
J8- 2	XA13- P	FILM Y MOTOR DIR VIEW W	22	6	3028	
J8-	XA13-	JACKET FOR WIRE NO 302		902	302	S302
J8- 3	XA13- L	FILM Y MOTOR DIR VIEW X	22	9	302A	
SHIELD 302	SHIELD 301	SHIELD	22	90	302S	
J8- 4	XA14- J	FILM Y MOTOR DIR VIEW Y	22	6	301B	
J8-	XA14-	JACKET FOR WIRE NO 301		91	301	S301
J8- 5	XA14- P	FILM Y MOTOR DIR VIEW Z	22	9	301A	
J8- 6	E17 FILM	Y MOTOR DIR VIEW RTN	22	924	299	
J8- 7	E17 FILM	Y MOTOR DIR VIEW RTN	22	903	300	
J8- 8	E17 FILM	Y MOTOR DIR VIEW RTN	22	923	298	
J8- 9	E17 FILM	Y MOTOR D.V. RTN	22	947	297	
J8- 10	E17 FILM	Y MOTOR D.V. RTN	22	937	296	T295
J8- 11	SHIELD 301	SHIELD	22	90	301S	
J8- 12	SHIELD 306	SHIELD	22	90	306S	
J8- 13	XA7- J	FILM X MOTOR DIR VIEW V	22	3	307C	
J8- 14	XA7- P	FILM X MOTOR DIR VIEW W	22	6	307B	
J8-	XA7-	JKT FOR WIRE NO 307 NOTE 10		906	307	S307
J8- 15	XA7- L	FILM X MOTOR DIR VIEW X	22	9	307A	
SHIELD 307	SHIELD 306	SHIELD	22	90	307S	
J8- 16	XA8- J	FILM X MOTOR DIR VIEW Y	22	6	306B	
J8-	XA8-	JKT FOR WIRE NO 306 NOTE 9		93	306	S306
J8- 17	XA8- P	FILM X MOTOR DIR VIEW Z	22	9	306A	
J8- 18	E17	FILM X MOTOR DIR VIEW	22	926	303	
J8- 19	E17	FILM X MOTOR DIR VIEW	22	927	304	
J8- 20	E17	FILM X MOTOR DIR VIEW	22	934	305	
J8- 21	E17	FILM X MOTOR D V RTN	22	901	278	
J8- 22	E17	FILM X MOTOR D.V RTN	22	928	295	T296
J9						
J9-	XA28-	JACKET FOR WIRE NO 311	92	311	S311	
J9- 9	XA28- 20	REAR ENCODER B	316	COAX	311A	
J9- 10	SHIELD 311	SHIELD	22	90	311S	
J9-	XA28-	JACKET FOR WIRE NO 312		93	312	S312
J9- 11	XA28- 22	REAR ENCODERA	316	COAX	312A	
J9- 12	SHIELD 312	SHIELD	22	90	312S	
J9-	XA29	JACKET FOR WIRE NO 313		94	313	S313
J9- 13	XA29- 22	FRONT ENCODER B	316	COAX	313A	
J9- 14	SHIELD 313	SHIELD	22	90	313S	
J9-	XA29-	JACKET FOR WIRE NO 314		95	314	S314
J9- 15	XA29- 20	FRONT ENCODER A	316	COAX	314A	
J9- 16	SHIELD 314	SHIELD	22	90	314S	
J9- 17	SHIELD 315	SHIELD	22	90	315S	
J9-	E22	JKT FOR WIRE NO 315 NOTE 9		91	315	S315
J9- 18	E22	+5 VDC REAR ENCODER	22	9	315A	
J9- 19	E20	5 V RTN REAR ENCODER	22	6	315B	
J10						
J10-	XA24-	JACKET FOR WIRE NO 317		914	317	S317
J10- 1	XA24- 5	FILM CURSOR (+) X	316	COAX	317A	
J10- 2	SHIELD 317	SHIELD	22	90	317S	
J10-	XA31-	JACKET FOR WIRE NO 316		91	316	S316
J10- 3	XA31- 9	PWR FAIL SIG	316	COAX	316A	
J10- 4	SHIELD 319	SHIELD	22	90	319S	
J10-	XA24-	JACKET FOR WIRE NO 319		915	319	S319
J10- 5	XA24- 7	FILM CURSOR (-) X	316	COAX	319A	

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J10- 6	SHIELD 320	SHIELD	22	90	320S	
J10-	XA26-	JACKET FOR WIRE NO 320		93	320	S320
J10- 7	XA26- 5	FILM CURSOR (+) Y	316	COAX	320A	
J10- 8	SHIELD 321	SHIELD	22	90	321S	
J10-	XA26-	JACKET FOR WIRE NO 321		94	321	S321
J10- 9	XA26- 7	FILM CURSOR (-) Y	316	COAX	321A	
J10- 10	SHIELD 322	SHIELD	22	90	322S	
J10-	XA25-	JACKET FOR WIRE NO 322		95	322	S322
J10- 11	XA25- 5	MAP CURSOR (+) X	316	COAX	322A	
J10- 12	SHIELD 323	SHIELD	22	90	323S	
J10-	XA25-	JACKET FOR WIRE NO 323		926	323	S323
J10- 13	XA25- 7	MAP CURSOR (-) X	316	COAX	323A	
J10- 14	SHIELD 324	SHIELD	22	90	324S	
J10-	XA27-	JACKET FOR WIRE NO 324		907	324	S324
J10- 15	XA27- 5	MAP CURSOR (+) Y	316	COAX	324A	
J10- 16	SHIELD 316	SHIELD	22	90	316S	
J10-	XA27-	JACKET FOR WIRE NO 325		916	325	S325
J10- 17	XA27- 7	MAP CURSOR (-) Y	316	COAX	325A	
J10- 18	SHIELD 325	SHIELD	22	90	325S	
J10-	XA29-	JACKET FOR WIRE NO 326		901	326	S326
J10- 19	XA29- 2	FILM TRANSPORT 1 (+) MTN	316	COAX	326A	
J10- 20	SHIELD 326	SHIELD	22	90	326S	
J10-	XA29-	JACKET FOR WIRE NO 327		902	327	S327
J10- 21	XA29- 3	FILM TRANSPORT 1(-) MTN	316	COAX	327A	
J10- 22	SHIELD 327	SHIELD	22	90	327S	
J10-	XA28-	JACKET FOR WIRE NO 328		903	328	S328
J10- 23	XA28- 2	FILM TRANSPORT 2 (+) MTN	316	COAX	328A	
J10- 24	SHIELD 328	SHIELD	22	90	328S	
J10-	XA28-	JACKET FOR WIRE NO 329		904	329	S329
J10- 25	XA28- 3	FILM TRANSPORT 2 (-) MTN	316	COAX	329A	
J10- 26	SHIELD 329	SHIELD	22	90	329S	
J10-	XA29-	JACKET FOR WIRE NO 330		905	330	S330
J10- 27	XA29- 6	FILM CURSOR ENTER	316	COAX	330A	
J10- 28	SHIELD 330	SHIELD	22	90	330S	
J10-	XA28-	JACKET FOR WIRE NO 331		906	331	S331
J10- 29	XA28- 6	MAP CURSOR ENTER	316	COAX	331A	
J10- 30	SHIELD 331	SHIELD	22	90	331S	
J10-	XA24-	JACKET FOR WIRE NO 332		917	332	S332
J10- 31	XA24- 17	FILM CURSOR (+) X FAST	316	COAX	332A	
J10- 32	SHIELD 332	SHIELD	22	90	332S	
J10- 34	SHIELD 333	SHIELD	22	90	333S	
J10-	XA24-	JACKET FOR WIRE NO 333		936	333	S333
J10- 35	XA24- 20	FILM CURSOR (+) X SLOW	316	COAX	333A	
J10- 36	SHIELD 335	SHIELD	22	90	335S	
J10-	XA24-	JACKET FOR WIRE NO 335		912	335	S335
J10- 37	XA24- 22	FILM CURSOR (-) X FAST	316	COAX	335A	
J10- 38	SHIELD 336	SHIELD	22	90	336S	
J10-	XA24-	JACKET FOR WIRE NO 336		913	336	S336
J10- 39	XA24- 18	FILM CURSOR (-) X SLOW	316	COAX	336A	
J10- 40	SHIELD 337	SHIELD	22	90	337S	
J10-	XA26-	JACKET FOR WIRE NO 337		937	337	S337
J10- 41	XA26- 17	FILM CURSOR (+) Y FAST	316	COAX	337A	
J10-	XA26-	JACKET FOR WIRE NO 338		938	338	S338
J10- 43	XA26- 20	FILM CURSOR (+) Y SLOW	316	COAX	338A	
J10- 44	SHIELD 338	SHIELD	22	90	338S	
J10-	XA26-	JACKET FOR WIRE NO 339		945	339	S339
J10- 45	XA26- 22	FILM CURSOR (-) Y FAST	316	COAX	339A	
J10- 46	SHIELD 339	SHIELD	22	90	339S	
J10-	XA26-	JACKET FOR WIRE NO 340		946	340	S340
J10- 47	XA26-	18 FILM CURSOR (-) Y SLOW	316	COAX	340A	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J10- 48	SHIELD 340	SHIELD	22	90	340S	
J10-	XA25-	JACKET FOR WIRE NO 342		918	342	S342
J10- 49	XA25- 17	MAP CURSOR (+) X FAST	316	COAX	342A	
J10- 50	SHIELD 342	SHIELD	22	90	342S	
J10-	XA25-	JACKET FOR WIRE NO 343		923	343	S343
J10- 51	XA25- 20	MAP CURSOR (+) SLOW	316	COAX	343A	
J10- 52	SHIELD 343	SHIELD	22	90	343S	
J10-	XA25-	JACKET FOR WIRE NO 344		924	344	S344
J10- 53	XA25- 22	MAP CURSOR (-) X FAST	316	COAX	344A	
J10- 54	SHIELD 344	SHIELD	22	90	344S	
J10-	XA25-	JACKET FOR WIRE NO 345		925	345	S345
J10- 55	XA25- 18	MAP CURSOR (-) X SLOW	316	COAX	345A	
J10- 56	SHIELD 345	SHIELD	22	90	345S	
J10- 58	SHIELD 347	SHIELD	22	90	347S	
J10-	XA27-	JACKET FOR WIRE NO 347		927	347	S347
J10- 59	XA27- 17	MAP CURSOR (+) Y FAST	316	COAX	347A	
J10- 60	SHIELD 348	SHIELD	22	90	348S	
J10-	XA27-	JACKET FOR WIRE NO 348		928	348	S348
J10- 61	XA27- 20	MAP CURSOR (-) Y SLOW	316	COAX	348A	
J10- 62	SHIELD 349	SHIELD	22	90	349S	
J10-	XA27-	JACKET FOR WIRE NO 349		934	349	S349
J10- 63	XA27- 22	MAP CURSOR (-) Y FAST	316	COAX	349A	
J10- 64	SHIELD 350	SHIELD	22	90	350S	
J10-	XA27-	JACKET FOR WIRE NO 350		935	350	S350
J10- 65	XA27- 18	MAP CURSOR (-) Y SLOW	316	COAX	350A	
J11						
J11-	XA2-	JACKET FOR WIRE NO 181		926	181	S181
J11- 1	XA2- 5	28 VDC MAP X	22	9	181A	
SHIELD 181	SHIELD 5	SHIELD	22	90	181S	
J11-	XA5-	JACKET FOR WIRE NO 5		902	5	S 5
J11- 2	XA5- H	MAP X-V RES 28	22	9	5A	
SHIELD 5	SHIELD 10	SHIELD	22	90	5S	
J11-	XA5-	JACKET FOR WIRE NO 10		904	10	S 10
J11- 3	XA5- N	MAP X-W RES 28	22	9	10A	
SHIELD 10	SHIELD 9	SHIELD	22	90	10S	
J11-	XA5-	JACKET FOR WIRE NO 9		903	9	S 9
J11- 4	XA5- M	MAP X-X RES 28	22	9	9A	
SHIELD 9	SHIELD 21	SHIELD	22	90	9S	
J11-	XA6-	JACKET FOR WIRE NO 22		96	21	S 21
J11- 5	XA6- H	MAP X-Y RES 28	22	9	21A	
SHIELD 21	SHIELD 417	SHIELD	22	90	21S	
J11-	XA22P1-	JACKET FOR WIRENO 417		901	417	S417
J11- 6	XA22P1- N	+28 VDC MAP X	22	9	417A	
SHIELD 417	SHIELD 26	SHIELD	22	90	417S	
J11-	XA6-	JACKET FOR WIRE NO 26		94	26	S 26
J11- 7	XA6- N	MAP X-Z RES 28	22	9	26A	
J11- 8	SHIELD 26	SHIELD	22	90	26S	
J11-	XA1-	JACKET FOR WIRE NO 174		95	174	S174
J11- 9	XA1- 5	+28 VDC FILM X	22	9	174A	
SHIELD 174	SHIELD 36	SHIELD	22	90	174S	
J11-	XA7-	JACKET FOR WIRE NO 36		902	36	S 36
J11- 10	XA7- H	FILM X-V RES 28	22	9	36A	
SHIELD 36	SHIELD 41	SHIELD	22	90	36S	
J11-	XA7-	JACKET FOR WIRE NO 41		904	41	S 41
J11- 11	XA7- N	FILM X-W RES 28	22	9	41A	
SHIELD 41	SHIELD 40	SHIELD	22	90	41S	
J11-	XA7-	JACKET FOR WIRE NO 40		903	40	S 40
J11- 12	XA7- M	FILM X-X RES 28	22	9	40A	
SHIELD 40	SHIELD 52	SHIELD	22	90	40S	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J11-	XA8-	JACKET FOR WIRE NO 52		92	52	S 52
J11- 13	XA8- H	FILM X-Y RES 28	22	9	52A	
SHIELD 52	SHIELD 416	SHIELD	22	90	52S	
J11-	XA22P1-	JACKET FOR WIRE NO 416		90	416	S416
J11- 14	XA22P1- E	+28VFILMX	22	9	416A	
SHIELD 416	SHIELD 57	SHIELD	22	90	416S	
J11-	XA8-	JACKET FOR WIRE NO 57		912	57	S 57
J11- 15	XA8- N	FILM X-Z RES 28	22	9	57A	
J11- 16	SHIELD 57	SHIELD	22	90	57S	
J11-	XA3-	JACKET FOR WIRE NO 188		917	188	S188
J11- 17	XA3- 5	28 VDC FILM Y	22	9	188A	
SHIELD 188	SHIELD 67	SHIELD	22	90	188S	
J11-	XA13-	JACKET FOR WIRE NO 67		915	67	S 67
J11- 18	XA13- H	FILM Y-V RES 28	22	9	67A	
SHIELD 67	SHIELD 72	SHIELD	22	90	67S	
J11-	XA13-	JACKET FOR WIRENO 72		917	72	S 72
J11- 19	XA13- N	FILM Y-W RES 28	22	9	72A	
SHIELD 72	SHIELD 71	SHIELD	22	90	72S	
J11-	XA13-	JACKET FOR WIRE NO 71		916	71	S 71
J11- 20	XA13- M	FILM Y-X RES 28	22	9	71A	
SHIELD 71	SHIELD 82	SHIELD	22	90	71S	
J11-	XA14-	JACKET FOR WIRE NO 82		924	82	S 82
J11- 21	XA14- H	FILM Y-Y RES 28	22	9	82A	
SHIELD 82	SHIELD 422	SHIELD	22	90	82S	
J11-	XA22P2-	JACKET FOR WIRE NO 422		92	422	S422
J11- 22	XA22P2- E	+28 VDC FILM Y	22	9	422A	
SHIELD 422	SHIELD 88	SHIELD	22	90	422S	
J11-	XA14-	JACKET FOR WIRE NO 88		926	88	S 88
J11- 23	XA14- N	FILM Y-Z RES 28	22	9	88A	
J11- 24	SHIELD 88	SHIELD	22	90	88S	
J11-	XA22P2-	JACKET FOR WIRE NO 424		90	424	S424
J11- 25	XA22P2- N	+28 VDC MAP Y	22	9	424A	
SHIELD 424	SHIELD 97	SHIELD	22	90	424S	
J11-	XA15-	JACKET FOR WIRE NO 97		934	97	S 97
J11l- 26	XA15- H	MAP V-V RES 28	22	9	97A	
SHIELD 97	SHIELD 103	SHIELD	22	90	97S	
J11-	XA15-	JACKET FOR WIRE NO 103		936	103	S103
J11- 27	XA15- N	MAP Y-W RES 28	22	9	103A	
SHIELD 103	SHIELD 101	SHIELD	22	90	103S	
J11-	XA15-	JACKET FOR WIRE NO 101		935	101	S101
J11- 28	XA15- M	MAP Y-X RES 28	22	9	l01A	
SHIELD 101	SHIELD 112	SHIELD	22	90	101S	
J11-	XA16-	JACKET FOR WIRE NO 112		945	112	S112
J11- 29	XA16- H	MAP Y-Y RES 28	22	9	112A	
SHIELD 112	SHIELD 196	SHIELD	22	90	112S	
J11-	XA4-	JACKET FOR WIRE NO 196		915	196	S196
J11- 30	XA4- 5	28VDC MAPY	22	9	196A	
SHIELD 196	SHIELD 476	SHIELD	22	90	196S	
J11-	K2-	JACKET FOR WIRE NO 476		9034	476	S476
J11- 31	K2- 2	+28 V REGULATED	22	9	476A	
SHIELD 476	SHIELD 118	SHIELD	22	90	476S	
J11-	XA16-	JACKET FOR WIRE NO 118		947	118	S118
J11- 32	XA16- N	MAP Y-Z RES 23	22	9	118A	
J11- 33	SHIELD 118	SHIELD	22	90	118S	
XA1						
XA1- 1	E19	-15 VDC	22	936	353	
XA1- 1	XA2- 1	-15V FILM X	22	916	172	
XA1- 3	XA2- 3	28 V RETURN FILM X	22	917	173	
XA1- 4	XA8- C	FILM X- Y DRIVE 28	22	902	47	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA1-	J11-	JACKET FOR WIRE NO 174		95	174	S174
XA1- 5	J11- 9	+28 VDC FILM X	22	9	174A	
SHIELD 174	E72	SHIELD	22	90	174F	
XA1- 6	XA8- J	FILM X-Y COIL	22	906	53	
XA1- 7	XA8- A	FILM X-Y DRIVE 6	22	904	49	
XA1- 8	XA8- B	FILM X-Y DIODE	22	903	48	
XA1- 10	XA17- 10	FILM X-Y TO XLTR	22	912	128	
XA1- 11	XA7- K	FILM X-X DRIVE 28	22	94	38	
XA1- 12	XA8- L	FILM X-X COIL	22	901	55	
XA1- 13	XA8- K	FILM X-X DRIVE 6	22	907	54	
XA1- 14	XA17- 13	FILM X-X TO XLTR	22	913	131	
XA1- 15	E21	15 V RETURN	22	937	354	
XA1- 15	XA2- 15	+15 V RETURN FILM X	22	918	175	
XA1- 16	XA8- F	FILM X-X DIODE	22	905	51	
XA1- 17	XA7- U	FILM X-W DRIVE 28	22	97	44	
XA1- 18	XA2- 18	+6 V RETURN FILM X	22	923	176	
XA1- 19	XA7- P	FILM X-W COIL	22	96	42	
XA1- 20	XA7- W	FILM X-W DRIVE 6	22	908	46	
XA1- 21	XA7- V	FILM X-W DIODE	22	98	45	
XA1- 22	XA17- 18	FILM X-W TO XLTR	22	914	133	
XA1- 23	R6- 1	+6 VDC FILM X	22	924	177	
XA1- 24	XA7- C	FILM X- V DRIVE 28	22	92	34	
XA1- 25	XA7- J	FILM X-V COIL	22	93	37	
XA1- 26	XA7- A	FILM X-V DRIVE 6	22	90	32	
XA1- 27	XA17- 19	FILM X-V TO XLTR	22	915	134	
XA1- 28	XA7- B	FILM X-V DIODE	22	91	33	
XA1- 29	E18	+15 VDC	22	938	355	
XA1- 29	XA2- 29	+15 VDC FILM X	22	925	178	
XA2						
XA2- 1	XA1- 1	-15 V FILM X	22	916	172	
XA2- 1	XA3- 1	-15 V MAP X	22	915	179	
XA2- 3	XA3- 3	28 V RETURN MAP X	22	924	180	
XA2- 3	XA1- 3	28 V RETURN FILM X	22	917	173	
XA2- 4	XA6- C	MAP X-Y DRIVE 28	22	902	16	
XA2-	J11-	JACKET FOR WIRE NO 181		926	181	S181
XA2- 5	J11- 1	28 VDC MAP X	22	9	181A	
SHIELD 181	E72	SHIELD	22	90	181F	
XA2- 6	XA6- J	MAP X-Y COIL	22	906	22	
XA2- 7	XA6- A	MAP X-Y DRIVE 6	22	904	18	
XA2- 8	XA6- B	MAP X-Y DIODE	22	903	17	
XA2- 10	XA18- 10	MAP X-Y TO XLTR	22	95	140	
XA2- 11	XA5- K	MAP X-X DRIVE 28	22	94	7	
XA2- 12	XA6- L	MAP X-X COIL	22	908	24	
XA2- 13	XA6- K	MAP X-X DRIVE 6	22	907	23	
XA2- 14	XA18- 13	MAP X-X TO XLTR	22	912	143	
XA2- 15	XA1- 15	+15 V RETURN FILM X	22	918	175	
XA2- 15	XA3- 15	+15 V RTN MAP X	22	927	182	
XA2- 16	XA6- F	MAP X-X DIODE	22	905	20	
XA2- 17	XA5- U	MAP X-W DRIVE 28	22	97	13	
XA2- 18	XA3- 18	+6 V RTN MAP X NOTE 9	22	928	183	
XA2- 18	XA1- 18	+6 V RETURN FILM X	22	923	176	
XA2- 19	XA5- P	MAP X-W COIL	22	96	11	
XA2- 20	XA5- W	MAP X-W DRIVE 6	22	901	15	
XA2- 21	XA5- V	MAP X-W DIODE	22	98	14	
XA2- 22	XA18- 18	MAP X-W TO XLTR	22	913	145	
XA2- 23	R5- 1	+6 VDC MAP X	22	934	184	
XA2- 24	XA5- C	MAP X-V DRIVE 28	22	92	3	
XA2- 25	XA5- J	MAP X-V COIL	22	93	6	
XA2- 26	XA5- A	MAP X-V DRIVE 6	22	936	1	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA2- 27	XA18- 19	MAP X-V TO XLTR	22	914	146	
XA2- 28	XA5- B	MAP X-V DIODE	22	937	2	
XA2- 29	XA1- 29	+15 VDC FILM X	22	925	178	
XA2- 29	XA3- 29	+15 VDC MAP X	22	935	185	
XA3						
XA3- 1	XA4- 1	-15 V FILM Y	22	914	186	
XA3- 1	XA2- 1	-15 V MAP X	22	915	179	
XA3- 3	XA4- 3	28 V RTN FILM Y	22	90	187	
XA3- 3	XA2- 3	28 V RETURN MAP X	22	924	180	
XA3- 4	XA14- C	FILM Y-Y DRIVE 28	22	902	78	
XA3-	J11-	JACKET FOR WIRE NO 188		917	188	S188
XA3- 5	J11- 17	28 VDC FILM Y	22	9	188A	
SHIELD 188	E72	SHIELD	22	90	188F	
XA3- 6	XA14- J	FILM Y-Y COIL	22	906	84	
XA3- 7	XA14- A	FILM Y-Y DRIVE 6	22	904	80	
XA3- 8	XA14- B	FILM Y-Y DIODE	22	903	79	
XA3- 10	XA19- 10	FILM Y-YTOXLTR	22	95	154	
XA3- 11	XA13- K	FILM Y-X DRIVE 28	22	94	69	
XA3- 12	XA14- L	FILM Y-X COIL	22	918	189	
XA3- 13	XA14- K	FILM Y-X DRIVE 6	22	907	85	
XA3- 14	XA19- 13	FILM Y-X TO XLTR	22	908	157	
XA3- 15	XA2- 15	+15 V RTN MAP X	22	927	182	
XA3- 15	XA4- 15	15 V RTN FILM Y	22	923	190	
XA3- 16	XA14- F	FILM Y-X DIODE	22	905	83	
XA3- 17	XA13- U	FILM Y-W DRIVE 28	22	97	75	
XA3- 18	XA4- 18	6 V RTN FILM Y	22	925	191	
XA3- 18	XA2- 18	+6 V RTN MAP X NOTE 9	22	928	183	
XA3- 19	XA13- P	FILM Y-W COIL	22	96	73	
XA3- 20	XA13- W	FILM Y-W DRIVE 6	22	901	77	
XA3- 21	XA13- V	FILM Y-W DIODE	22	98	76	
XA3- 22	XA19- 18	FILM Y-WTOXLTR	22	912	159	
XA3- 23	R11- 1	+6 VDC FILM Y	22	936	192	
XA3- 24	XA13- C	FILM Y-V DRIVE 28	22	92	65	
XA3- 25	XA13- J	FILM Y-V COIL	22	93	68	
XA3- 26	XA13- A	FILM Y-V DRIVE 6	22	934	63	
XA3- 27	XA19- 19	FILM Y-V TO XLTR	22	913	160	
XA3- 28	XA13- B	FILM Y-V DIODE	22	91	64	
XA3- 29	XA2- 29	+15 VDC MAP X	22	935	185	
XA3- 29	XA4- 29	+15 VDC FILM Y	22	926	193	
XA4						
XA4- 1	XA12- 1	-15 V MAP Y	22	918	194	
XA4- 1	XA3- 1	-15 V FILM Y	22	914	186	
XA4- 3	XA12- 3	28 V RTN MAP Y	22	924	195	
XA4- 3	XA3- 3	28 V RTN FILM Y	22	90	187	
XA4- 4	XA16- C	MAP Y-Y DRIVE 28	22	902	108	
XA4-	J11-	JACKET FOR WIRE NO 196		915	196	S196
XA4- 5	J11- 30	28 VDC MAP Y	22	9	196A	
SHIELD 196	E38	SHIELD	22	90	196F	
XA4- 6	XA16- J	MAP Y-Y COIL	22	906	114	
XA4- 7	XA16- A	MAP Y-Y DRIVE 6	22	904	110	
XA4- 8	XA16- B	MAP Y-Y DIODE	22	903	109	
XA4- 10	XA20- 10	MAP Y-Y TO XLTR	22	95	167	
XA4- 11	XA15- K	MAP Y-X DRIVE 28	22	94	99	
XA4- 12	XA16- L	MAP Y-X COIL	22	927	197	
XA4- 13	XA16- K	MAP Y-X DRIVE 6	22	907	115	
XA4- 14	XA20- 13	MAP Y-X TO XLTR	22	908	169	
XA4- 15	XA3- 15	15 V RTN FILM Y	22	923	190	
XA4- 15	XA12- 15	15 V RTN MAP Y	22	928	198	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA4- 16	XA16- F	MAP Y-X DIODE	22	905	113	
XA4- 17	XA15- U	MAP Y-W DRIVE 28	22	97	105	
XA4- 18	XA12- 18	6 V RTN MAP Y	22	934	199	
XA4- 18	XA3- 18	6 V RTN FILM Y	22	925	191	
XA4- 19	XA15- P	MAP Y-W COIL	22	96	102	
XA4- 20	XA15- W	MAP Y-W DRIVE 6	22	901	107	
XA4- 21	XA15- V	MAP Y-W DIODE	22	98	106	
XA4- 22	XA20- 18	MAP Y-W TO XLTR	22	912	170	
XA4- 23	R16- 1	+6 VDC MAP Y	22	935	200	
XA4- 24	XA15- C	MAP Y-V DRIVE 28	22	92	95	
XA4- 25	XA15- J	MAP Y-V COIL	22	93	98	
XA4- 26	XA15- A	MAP Y-V DRIVE 6	22	916	93	
XA4- 27	XA20- 19	MAP Y-V TO XLTR	22	913	171	
XA4- 28	XA15- B	MAP Y-V DIODE	22	91	94	
XA4- 29	XA3- 29	+15 VDC FILM Y	22	926	193	
XA4- 29	XA12- 29	+15 VDC MAP Y	22	936	201	
XA5						
XA5- A	XA2- 26	MAP X-V DRIVE 6	22	936	1	
XA5- B	XA2- 28	MAP X-V DIODE	22	937	2	
XA5- C	XA2- 24	MAP X-V DRIVE 28	22	92	3	
XA5-	R1-	JACKET FOR WIRE NO 4		95	4	S 4
XA5- D	R1- 2	MAP X-V RES 6	22	9	4A	
XA5- E	SHIELD 4	SHIELD	22	90	4S	
XA5- F	SHIELD 5	SHIELD	22	90	5F	
XA5-	J11-	JACKET FOR WIRE NO 5		902	5	S 5
XA5- H	J11- 2	MAP X-V RES 28	22	9	5A	
XA5- J	J1- 13	MAP X MOTOR V	22	3	234C	
XA5- J	XA2- 25	MAP X-V COIL	22	93	6	
XA5- K	XA2- 11	MAP X-X DRIVE 28	22	94	7	
XA5-	J1-	JACKET FOR WIRE NO 234		91	234	S234
XA5- L	J1- 15	MAP X MOTOR X	22	9	234A	
SHIELD 234	E38	SHIELD	22	90	234F	
XA5- L	XA6- L	MAP X-X COIL	22	912	8	
XA5-	J11-	JACKET FOR WIRE NO 9		903	9	S 9
XA5- M	J11- 4	MAP X-X RES 28	22	9	9A	
XA5-	J11-	JACKET FOR WIRE NO 10		904	10	S 10
XA5- N	J11- 3	MAP X-W RES 28	22	9	10A	
XA5- P	J1- 14	MAP X MOTOR W	22	6	234B	
XA5- P	XA2- 19	MAP X-W COIL	22	96	11	
XA5- R	SHIELD 9	SHIELD	22	90	9F	
XA5- R	SHIELD 10	SHIELD	22	90	1OF	
XA5- S	SHIELD 12	SHIELD	22	90	12S	
XA5-	R2-	JACKET FOR WIRE NO 12		905	12	S12
XA5- T	R2- 2	MAP X-W RES 6	22	9	12A	
XA5- U	XA2- 17	MAP X-W DRIVE 28	22	97	13	
XA5- V	XA2- 21	MAP X-W DIODE	22	98	14	
XA5- W	XA2- 20	MAP X-W DRIVE 6	22	901	15	
XA6						
XA6- A	XA2- 7	MAP X-Y DRIVE 6	22	904	18	
XA6- B	XA2- 8	MAP X-Y DIODE	22	903	17	
XA6- C	XA2- 4	MAP X-Y DRIVE 28	22	902	16	
XA6-	R4-	JACKET FOR WIRE NO 19		95	19	S 19
XA6- D	R4- 2	MAP X-Y RES 6	22	9	19A	
XA6- E	SHIELD 21	SHIELD	22	90	21F	
XA6- E	SHIELD 19	SHIELD	22	90	19S	
XA6- F	XA2- 16	MAP X-X DIODE	22	905	20	
XA6-	J11-	JACKET FOR WIRE NO 22		96	21	S 21
XA6- H	J1- 5	MAP X-Y RES 28	22	9	21A	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA6- J	J1- 16	MAP X MOTOR Y	22	6	230B	
XA6- J	XA2- 6	MAP X-Y COIL	22	906	22	
XA6- K	XA2- 13	MAP X-X DRIVE 6	22	907	23	
XA6- L	XA2- 12	MAP X-X COIL	22	908	24	
XA6- L	XA5- L	MAP X-X COIL	22	912	8	
XA6-	R3-	JACKET FOR WIRE NO 25		97	25	S 25
XA6- M	R3- 2	MAP X-X RES 6	22	9	25A	
XA6-	J11-	JACKET FOR WIRE NO 26		94	26	S 26
XA6- N	J11- 7	MAP X-Z RES 28	22	9	26A	
XA6-	J1	JACKET FOR WIRE NO 230		901	230	S230
XA6- P	J1- 17	MAP X MOTOR Z	22	9	230A	
SHIELD 230	E39	SHIELD	22	90	230F	
XA6- P	XA12- 19	MAP X-Z COIL	22	923	27	
XA6- R	SHIELD 26	SHIELD	22	90	26F	
XA6- R	SHIELD 25	SHIELD	22	90	25S	
XA6- S	SHIELD 28	SHIELD	22	90	28S	
XA6-	R5-	JACKET FOR WIRE NO 28		98	28	S 28
XA6- T	R5- 2	MAP X-Z RES 6	22	9	28A	
XA6- U	XA12- 17	MAP X-Z DRIVE 28	22	91	29	
XA6- V	XA12- 21	MAP X-Z DIODE	22	92	30	
XA6- W	XA12- 20	MAP X-Z DRIVE 6	22	93	31	
XA7						
XA7- A	XA1- 26	FILM X-V DRIVE 6	22	90	32	
XA7- B	XA1- 28	FILM X-V DIODE	22	91	33	
XA7- C	XA1- 24	FILM X-V DRIVE 28	22	92	34	
XA7-	R6-	JACKET FOR WIRE NO 35		901	35	S 35
XA7- D	R6- 2	FILM X-V RES 6	22	9	35A	
XA7- E	SHIELD 35	SHIELD	22	90	35S	
XA7- F	SHIELD 36	SHIELD	22	90	36F	
XA7-	J11-	JACKET FOR WIRE NO 36		902	36	S 36
XA7- H	J11- 10	FILM X-V RES 28	22	9	36A	
XA7- J	J8- 13	FILM X MOTOR DIR VIEW V	22	3	307C	
XA7- J	XA1- 25	FILM X- V COIL	22	93	37	
XA7- K	XA1- 11	FILM X- X DRIVE 28	22	94	38	
XA7-	J8-	JKT FOR WIRE NO 307 NOTE 10		906	307	S307
XA7- L	J8- 15	FILM X MOTOR DIR VIEW X	22	9	307A	
XA7- L	XA8- L	FILM X- X COIL	22	95	39	
XA7-	J11-	JACKET FOR WIRE NO 40		903	40	S 40
XA7- M	J11- 12	FILM X-X RES 28	22	9	40A	
XA7-	J11-	JACKET FOR WIRE NO 41		904	41	S41
XA7- N	J11- 11	FILM X-W RES 28	22	9	41A	
XA7- P	J8- 14	FILM X MOTOR DIR VIEW W	22	6	307B	
XA7- P	XA1- 19	FILM X-W COIL	22	96	42	
XA7- R	SHIELD 40	SHIELD	22	90	40F	
XA7- R	SHIELD 41	SHIELD	22	90	41F	
XA7- S	SHIELD 43	SHIELD	22	90	43S	
XA7-	R7-	JACKET FOR WIRE NO 43		905	43	S 43
XA7- T	R7- 2	FILM X-W RES 6	22	9	43A	
XA7- U	XA1- 17	FILM X-W DRIVE 28	22	97	44	
XA7- V	XA1- 21	FILM X-W DIODE	22	98	45	
XA7- W	XA1- 20	FILM X-W DRIVE 6	22	908	46	
XA8						
XA8- A	XA1- 7	FILM X- Y DRIVE 6	22	904	49	
XA8- B	XA1- 8	FILM X- Y DIODE	22	903	48	
XA8- C	XA1- 4	FILM X- Y DRIVE 28	22	902	47	
XA8-	R8-	JACKET FOR WIRE NO 50	91	50 S 50		
XA8- D	R8- 2	FILM X- Y RES 6	22	9	50A	
XA8- E	SHIELD 52	SHIELD	22	90	52F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA8- E	SHIELD 50	SHIELD	22	90	50S	
XA8- F	XA1- 16	FILM X-X DIODE	22	905	51	
XA8-	J11-	JACKET FOR WIRE NO 52		92	52	S 52
XA8- H	J11- 13	FILM X-Y RES 28	22	9	52A	
XA8- J	J8- 16	FILM X MOTOR DIR VIEW Y	22	6	306B	
XA8- J	XA1- 6	FILM X-Y COIL	22	906	53	
XA8- K	XA1- 13	FILM X-X DRIVE 6	22	907	54	
XA8- L	XA1- 12	FILM X-X COIL	22	901	55	
XA8- L	XA7- L	FILM X-X COIL	22	95	39	
XA8-	R9-	JACKET FOR WIRE NO 56		908	56	S 56
XA8- M	R9- 2	FILM X-X RES 6	22	9	56A	
XA8-	J11-	JACKET FOR WIRE NO 57		912	57	S 57
XA8- N	J11- 15	FILM X-Z RES 28	22	9	57A	
XA8-	J8-	JKT FOR WIRE NO 306 NOTE 9		93	306	S306
XA8- P	J8- 17	FILM X MOTOR DIR VIEW Z	22	9	306A	
XA8- P	XA12- 25	FILM X-Z COIL	22	94	58	
XA8- R	SHIELD 57	SHIELD	22	90	57F	
XA8- R	SHIELD 56	SHIELD	22	90	56S	
XA8- S	SHIELD 59	SHIELD	22	90	59S	
XA8-	R10-	JACKET FOR WIRE NO 59		913	59	S 59
XA8- T	R10- 2	FILM X-Z RES 6	22	9	59A	
XA8- U	XA12- 24	FILM X-Z DRIVE 28	22	96	60	
XA8- V	XA12- 28	FILM X-Z DIODE	22	97	61	
XA8- W	XA12- 26	FILM X-Z DRIVE 6	22	98	62	
XA9						
XA9- 1	E19	-15 VDC	22	90	202	
XA9- 1	XA10- 1	-15VDC	22	913	240	
XA9-	XA18-	JKT FOR WIRE NO 135 NOTE 9		91	135	S135
XA9- 2	XA18- 1	MAP X OSC OUT	22	9	135A	
XA9- 3	XA25- 21	MAP X RAMP	22	94	203	
XA9- 4	XA25- 13	MAP X CCW TO XLTR	22	938	204	
XA9- 5	XA25- 6	MAP X CW TO XLTR	22	96	205	
XA9-	J2-	JACKET FOR WIRE NO 206		95	206	S206
XA9- 6	J2- 18	MAP CW X LIMIT (FINAL)	22	9	206A	
SHIELD 206	E42	SHIELD	22	90	206S	
XA9- 8	J2- 17	MAP CCW X LIMIT (FINAL)	22	6	206B	
XA9- 10	XA25- 14	MAP X SLOW	22	97	207	
XA9- 12	XA10- 28	MAP X FAST OUT	22	918	208	
XA9- 14	J7- 18	CURSOR SELECT MAP X	22	914	508	
XA9- 15	E21	15 V RTN	22	92	210	
XA9- 15	XA10- 15	15 V RETURN	22	916	309	
XA9- 16	XA10- 17	MAP X JOY STICK OUT	22	923	211	
XA9- 17	XA24- 21	FILM X RAMP	22	98	212	
XA9-	XA17-	JKT FOR WIRE NO 123 NOTE 9		917	123	S123
XA9- 18	XA17- 1	FILM X OSC OUT	22	9	123A	
XA9- 21	XA10- 16	FILM X JOY STICK	22	901	213	
XA9- 22	J7- 19	CURSOR SELECT FILM X	22	915	509	
XA9- 23	XA24- 14	FILM X SLOW	22	902	214	
XA9- 24	J7- 33	FILM X CW LIMIT	22	903	215	T216
XA9- 25	J7- 32	FILM X CCW LIMIT	22	904	216	T215
XA9- 26	XA10- 27	FILM X FAST	22	905	217	
XA9- 27	XA24- 6	FILM X CW TO XLTR	22	906	218	
XA9- 28	XA24- 13	FILM X CCW TO XLTR	22	907	219	
XA9- 29	XA10- 29	+15 VDC	22	912	221	
XA9- 29	E18	+15 VDC	22	908	220	

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA10						
XA10- 1	XA11-1- 1	-15VDC	22	914	308	
XA10- 1	XA9- 1	-15VDC	22	913	240	
XA10- 2	J7- 6	Y JOY STICK OFF LGC	22	924	281	
XA10- 3	XA11- 16	JOY STICK MAP Y	22	926	356	
XA10-	J4-	JKT FOR WIRE NO 251 NOTE 9		907	251	S251
XA10- 4	J4- 6	JOY STICK Y	22	9	251A	
XA10- 5	XA11- 21	JOY STICK FILM Y	22	94	357	
XA10-	J6-	JACKET FOR WIRE NO 274		908	274	S274
XA10- 6	J6-10 JOY STICK Y		22	9	274A	
SHIELD 274	E43 SHIELD	22	90	274F		
XA10-	XA11-	JKT FOR WIRE NO 363 NOTE 9		927	363	S363
XA10- 7	XA11- 26	FILM Y FAST	22	9	363A	
XA10- 8	XA11- 12	MAP Y FAST	22	906	364	
XA10- 9	J7- 37	Y FIRST LIMIT	22	5	294D	
XA10- 10	J7- 35	MAP Y FIRST LIMIT	22	6	294B	
XA10- 10	J2- 10	MAP X FIRST LIMIT	22	6	238B	
XA10- 11	XA26- 2	FILM Y FAST	22	904	362	
XA10- 12	J7- 25	FILM Y FIRST LIMIT	22	6	289B	
XA10- 13	J4- 7	JOY STICK Y RETURN	22	6	251B	
XA10- 13	SHIELD 363	SHIELD	22	90	363S	
XA10- 14	XA27- 2	MAP Y FAST	22	903	361	
XA10- 15	XA9- 15	15 V RETURN	22	916	309	
XA10- 15	XA11- 15	15V RETURN	22	917	318	
XA10- 16	XA9- 21	FILM X JOY STICK	22	901	213	
XA10- 17	XA9- 16	MAP X JOY STICK OUT	22	923	211	
XA10- 18	J7- 9 X	JOY STICK OFF LGC	22	96	284	
XA10- 19	J4- 3	JOY STICK X RETURN	22	6	249B	
XA10- 19	J6- 12	JOY STICK X AND Y RTN	22	6	274B	
XA10-	J4-	JACKET FOR WIRE NO 249		95	249	S249
XA10- 20	J4- 2	JOY STICK X	22	9	249A	
SHIELD 249	E43	SHIELD	22	90	249F	
XA10- 21	J7- 36	X FIRST LIMIT	22	3	294C	
XA10- 22	J6- 13	JOY STICK X	22	3	274C	
XA10-	J2-	JACKET FOR WIRE NO 238		93	238	S238
XA10- 23	J2- 9	MAP X FIRST LIMIT	22	9	238A	
SHIELD 238	E72	SHIELD	22	90	238F	
XA10-	J7-	JACKET FOR WIRE NO 294		924	294	S294
XA10- 23	J7- 34	MAP X FIRST LIMIT	22	9	294A	
SHIELD 294	E43	SHIELD	22	90	294F	
XA10-	J7-	JACKET FOR WIRE NO 289		92	289	S289
XA10- 24	J7- 24	FILM X FIRST LIMIT	22	9	289A	
SHIELD 289	E72	SHIELD	22	90	289F	
XA10- 25	XA24- 2	FILM X FAST IN	22	97	359	
XA10- 26	XA25- 2	MAP X FAST IN	22	902	358	
XA10- 27	XA9- 26	FILM X FAST	22	905	217	
XA10- 28	XA9- 12	MAP X FAST OUT	22	918	208	
XA10- 29	XA9- 29	+15 VDC	22	912	221	
XA10- 29	XA11- 29	+15 VDC	22	98	360	
XA11						
XA11- 1	XA10- 1	-15VDC	22	914	308	
XA11-	XA20-	JKT FOR WIRE NO 162 NOTE 9		91	162	S162
XA 1- 2	XA20- 1	MAP Y OSC OUT	22	9	162A	
XA11- 3	XA27- 21	MAP Y RAMP	22	95	369	
XA11- 4	XA27- 13	MAP Y CCW TO XLTR	22	96	370	
XA11- 5	XA27- 6	MAP Y CW TO XLTR	22	97	371	
XA111- 6	J2- 16	MAP Y CW LIMIT (FINAL)	22	6	239B	
XA11-	J2-	JACKET FOR WIRE NO 239		92	239	S239
XA11- 8	J2- 15	MAP Y CCW LIMIT (FINAL)	22	9	239A	
SHIELD 239	E44	SHIELD	22	90	239F	

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA11- 10	XA27- 14	MAP Y SLOW	22	924	372	
XA11- 12	XA10- 8	MAP Y FAST	22	906	364	
XA11- 14	J7- 16	CURSOR SELECT MAP Y	22	93	506	
XA11- 15	XA10- 15	15V RETURN	22	917	318	
XA11- 16	XA10- 3	JOY STICK MAP Y	22	926	356	
XA11- 17	XA26- 21	FILM Y RAMP	22	903	373	
XA11-	XA19-	JKT FOR WIRE NO 149 NOTE 9		915	149	S149
XA11- 18	XA19- 1	FILM Y OSC OUT	22	9	149A	
XA11- 21	XA10- 5	JOY STICK FILM Y	22	94	357	
XA11- 22	J7- 17	CURSOR SELECT FILM Y	22	913	507	
XA11- 23	XA26- 14	FILM Y SLOW	22	907	374	
XA11- 24	J7- 31	FILM Y CW LIMIT	22	905	293	T292
XA11- 25	J7- 30	FILM Y CCW LIMIT	22	902	292	T293
XA11-	XA10-	JKT FOR WIRE NO 363 NOTE 9		927	363	S363
XA11- 26	XA10- 7	FILM Y FAST	22	9	363A	
XA11- 27	XA26- 6	FILM Y CW TO XLTR	22	908	375	
XA11- 28	XA26- 13	FILM Y CCW TO XLTR	22	912	376	
XA11- 29	XA10- 29	+15VDC	22	98	360	
XA12						
XA12-	1XA4- 1	-15 V MAP Y	22	918	194	
XA12- 3	XA4- 3	28 V RTN MAP Y	22	924	195	
XA12- 3	E17	28 V RETURN	22	946	368	
XA12- 4	XA16- U	MAP Y-Z DRIVE 28	22	915	120	
XA12- 5	E83	+28 VDC	22	905	366	
XA12- 6	XA16- P	MAP Y-Z COIL	22	914	117	
XA12- 7	XA16- W	MAP Y-Z DRIVE 6	22	917	122	
XA12- 8	XA16- V	MAP Y-Z DIODE	22	916	121	
XA12- 10	XA20- 5	MAP Y-Z TO XLTR	22	903	165	
XA12- 11	XA14- U	FILM Y-Z DRIVE 28	22	908	90	
XA12- 12	XA14- P	FILM Y-Z COIL	22	901	87	
XA12- 13	XA14- W	FILM Y-Z DRIVE 6	22	913	92	
XA12- 14	XA19- 5	FILM Y-Z TO XLTR	22	904	152	
XA12- 15	XA4- 15	15 V RTN MAP Y	22	928	198	
XA12- 16	XA14- V	FILM Y-Z DIODE	22	912	91	
XA12- 17	XA6- U	MAP X-Z DRIVE 28	22	91	29	
XA12- 18	E17	6V RETURN	22	945	365	
XA12- 18	XA4- 18	6 V RTN MAP Y	22	934	199	
XA12- 19	XA6- P	MAP X-Z COIL	22	923	27	
XA12- 20	XA6- W	MAP X-Z DRIVE 6	22	93	31	
XA12- 21	XA6- V	MAP X-Z DIODE	22	92	30	
XA12- 22	XA18- 5	MAP X-Z TO XLTR	22	902	138	
XA12- 23	E80	+6 VDC	22	906	367	
XA12- 24	XA8- U	FILM X-Z DRIVE 28	22	96	60	
XA12- 25	XA8- P	FILM X-Z COIL	22	94	58	
XA12- 26	XA8- W	FILM X-Z DRIVE 6	22	98	62	
XA12- 27	XA17- 5	FILM X-Z TO XLTR	22	95	126	
XA12- 28	XA8- V	FILM X-Z DIODE	22	97	61	
XA12- 29	XA4- 29	+15 VDC MAP Y	22	936	201	
XA13						
XA13- A	XA3- 26	FILM Y-V DRIVE 6	22	934	63	
XA13- B	XA3- 28	FILM Y-V DIODE	22	91	64	
XA13- C	XA3- 24	FILM Y-V DRIVE 28	22	92	65	
XA13-	R11-	JACKET FOR WIRE NO 66		914	66	S 66
XA13- D	R11- 2	FILM Y-V RES 6	22	9	66A	
XA13- E	SHIELD 66	SHIELD	22	90	66S	
XA13- F	SHIELD 67	SHIELD	22	90	67F	
XA13-	J11-	JACKET FOR WIRE NO 67		915	67	S 67
XA13- H	J11- 18	FILM Y-V RES 28	22	9	67A	

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA13- J	J8- 1	FILM Y MOTOR DIR VIEW V	22	3	302C	
XA13- J	XA3- 25	FILM Y-V COIL	22	93	68	
XA13- K	XA3- 11	FILM Y-X DRIVE 28	22	94	69	
XA13-	J8-	JACKET FOR WIRE NO 302		902	302	S302
XA13- L	J8- 3	FILM Y MOTOR DIR VIEW X	22	9	302A	
SHIELD 302	E46	SHIELD	22	90	302F	
XA13- L	XA14- L	FILM Y-X COIL	22	95	70	
XA13-	J11-	JACKET FOR WIRE NO 71		916	71	S 71
XA13- M	J11- 20	FILM Y-X RES 28	22	9	71A	
XA13-	J11-	JACKET FOR WIRE NO 72		917	72	S 72
XA13- N	J11- 19	FILM Y-W RES 28	22	9	72A	
XA13- P	J8- 2	FILM Y MOTOR DIR VIEW W	22	6	302B	
XA13- P	XA3- 19	FILM Y-W COIL	22	96	73	
XA13- R	SHIELD 71	SHIELD	22	90	71F	
XA13- R	SHIELD 72	SHIELD	22	90	72F	
XA13- S	SHIELD 74	SHIELD	22	90	74S	
XA13-	R12-	JACKET FOR WIRE NO 74		918	74	S 74
XA13- T	R12- 2	FILM Y-W RES 6	22	9	74A	
XA13- U	XA3- 17	FILM Y-W DRIVE 28	22	97	75	
XA13- V	XA3- 21	FILM Y-W DIODE	22	98	76	
XA13- W	XA3- 20	FILM Y-W DRIVE 6	22	901	77	
XA14						
XA14- A	XA3- 7	FILM Y-Y DRIVE 6	22	904	80	
XA14- B	XA3- 8	FILM Y-Y DIODE	22	903	79	
XA14- C	XA3- 4	FILM Y-Y DRIVE 28	22	902	78	
XA14-	R13-	JACKET FOR WIRE NO 81		923	81	S 81
XA14- D	R13- 2	FILM Y-Y RES 6	22	9	81A	
XA14- E	SHIELD 81	SHIELD	22	90	81S	
XA14- E	SHIELD 82	SHIELD	22	90	82F	
XA14- F	XA3- 16	FILM Y-X DIODE	22	905	83	
XA14-	J11-	JACKET FOR WIRE NO 82		924	82	S 82
XA14- H	J11- 21	FILM Y-Y RES 28	22	9	82A	
XA14- J	J8- 4	FILM Y MOTOR DIR VIEW Y	22	6	301B	
XA14- J	XA3- 6	FILM Y-Y COIL	22	906	84	
XA14- K	XA3- 13	FILM Y-X DRIVE 6	22	907	85	
XA14- L	XA3- 12	FILM Y-X COIL	22	918	189	
XA14- L	XA13- L	FILM Y-X COIL	22	95	70	
XA14-	R14-	JACKET FOR WIRE NO 86		925	86	S 86
XA14- M	R14- 2	FILM Y-X RES 6	22	9	86A	
XA14-	J11-	JACKET FOR WIRE NO 88		926	88	S 88
XA14- N	J11- 23	FILM Y-Z RES 28	22	9	88A	
XA14-	J8-	JACKET FOR WIRE NO 301		91	301	S301
XA14- P	J8- 5	FILM Y MOTOR DIR VIEW Z	22	9	301A	
SHIELD 301	E47	SHIELD	22	90	301F	
XA14- P	XA12- 12	FILM Y-Z COIL	22	901	87	
XA14- R	SHIELD 88	SHIELD	22	90	88F	
XA14- R	SHIELD 86	SHIELD	22	90	86S	
XA14- S	SHIELD 89	SHIELD	22	90	89S	
XA14-	R15-	JACKET FOR WIRE NO 89		927	89	S 89
XA14- T	R15- 2	FILM Y-Z RES 6	22	9	89A	
XA14- U	XA12- 11	FILM Y-Z DRIVE 28	22	908	90	
XA14- V	XA12- 16	FILM Y-Z DIODE	22	912	91	
XA14- W	XA12- 13	FILM Y-Z DRIVE 6	22	913	92	
XA15						
XA15- A	XA4- 26	MAP Y-V DRIVE 6	22	916	93	
XA15- B	XA4- 28	MAP Y-V DIODE	22	91	94	
XA15- C	XA4- 24	MAP Y-V DRIVE 28	22	92	95	
XA15-	R16-	JACKET FOR WIRE NO 96		928	96	S 96
XA15- D	R16- 2	MAP Y-V RES 6	22	9	96A	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA15- E	SHIELD 96	SHIELD	22	90	96S	
XA15- F	SHIELD 97	SHIELD	22	90	97F	
XA15-	J11-	JACKET FOR WIRE NO 97		934	97	S 97
XA15- H	J11- 26	MAP V-V RES 28	22	9	97A	
XA15- J	J1- 1	MAP Y MOTOR V	22	3	229C	
XA15- J	XA4- 25	MAP Y- V COIL	22	93	98	
XA15- K	XA4- 11	MAP Y- X DRIVE 28	22	94	99	
XA15-	J1-	JACKET FOR WIRE NO 229		903	229	S229
XA15- L	J1- 3	MAP Y MOTOR X	22	9	229A	
SHIELD 229	E48	SHIELD	22	90	229F	
XA15- L	XA16- L	MAP Y- X COIL	22	95	100	
XA15-	J11-	JACKET FOR WIRE NO 101		935	101	S101
XA15- M	J11- 28	MAP Y-X RES 28	22	9	O11A	
XA15-	J11-	JACKET FOR WIRE NO 103		936	103	S103
XA15- N	J11- 27	MAP Y-W RES 28	22	9	103A	
XA15- P	JI- 2	MAP Y MOTOR W	22	6	229B	
XA15- P	XA4- 19	MAPY- WCOIL	22	96	102	
XA15- R	SHIELD 101	SHIELD	22	90	O11F	
XA15- R	SHIELD 103	SHIELD	22	90	103F	
XA15- S	SHIELD 104	SHIELD	22	90	104S	
XA15-	R17-	JACKET FOR WIRE NO 104		937	104	S104
XA15- T	R17- 2	MAP Y- W RES 6	22	9	104A	
XA15- U	XA4- 17	MAP Y-W DRIVE 28	22	97	105	
XA15- V	XA4- 21	MAP Y-W DIODE	22	98	106	
XA15- W	XA4- 20	MAP Y-W DRIVE 6	22	901	107	
XA16						
XA16- A	XA4- 7	MAP Y-Y DRIVE 6	22	904	110	
XA16- B	XA4- 8	MAP Y-Y DIODE	22	903	109	
XA16- C	XA4- 4	MAP Y-Y DRIVE 28	22	902	108	
XA16-	R18-	JACKET FOR WIRE NO 111		938	111	S111
XA16- D	R18- 2	MAP Y-Y RES 6	22	9	111A	
XA16- E	SHIELD 111	SHIELD	22	90	111S	
XA16- E	SHIELD 112	SHIELD	22	90	112F	
XA16- F	XA4- 16	MAP Y-X DIODE	22	905	113	
XA16-	J11-	JACKET FOR WIRE NO 112		945	112	S112
XA16- H	J11- 29	MAP Y-Y RES 28	22	9	112A	
XA16- J	J1- 4	MAP Y MOTOR Y	22	6	2288	
XA16- J	XA4- 6	MAP Y-YCOIL	22	906	114	
XA16- K	XA4- 13	MAP Y-X DRIVE 6	22	907	115	
XA16- L	XA4- 12	MAP Y-X COIL	22	927	197	
XA16- L	XA15- L	MAP Y-X COIL	22	95	100	
XA16-	R19-	JACKET FOR WIRE NO 116		946	116	S116
XA16- M	R19- 2	MAP Y-X RES 6	22	9	116A	
XA16-	J11-	JACKET FOR WIRE NO 118		947	118	S118
XA16- N	J11- 32	MAP Y-Z RES 23	22	9	118A	
XA16-	J1-	JACKET FOR WIRE NO 228		92	228	S228
XA16- P	J1- 5	MAP Y MOTOR Z	22	9	228A	
SHIELD 228	E49	SHIELD	22	90	228F	
XA16- P	XA12- 6	MAP Y-Z COIL	22	914	117	
XA16- R	SHIELD 118	SHIELD	22	90	118F	
XA16- R	SHIELD 116	SHIELD	22	90	116S	
XA16- S	SHIELD 119	SHIELD	22	90	119S	
XA16-	R20-	JACKET FOR WIRE NO 119		948	119	S119
XA16- T	R20- 2	MAP Y-Z RES 6	22	9	119A	
XA16- U	XA12- 4	MAP Y-Z DRIVE 28	22	915	120	
XA16- V	XA12- 8	MAP Y-Z DIODE	22	916	121	
XA16- W	XA12- 7	MAP Y-Z DRIVE 6	22	917	122	

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA17								
XA17-		XA9-		JKT FOR WIRE NO 123 NOTE 9		917	123	S123
XA17-	1	XA9-	18	FILM X OSC OUT	22	9	123A	
XA17-	2	XA17-	22	+5 VDC LAMP	22	98	124	
XA17-	3	XA24-	10	FILM X CLOCK	22	91	125	
XA17-	4	SHIELD	123	SHIELD	22	90	123S	
XA17-	5	XA12-	27	FILM X- Z TO XLTR	22	95	126	
XA17-	6	XA24-	13	FILM X CCW TO XLTR	22	92	127	
XA17-	10	XA1-	10	FILM X- Y TO XLTR	22	912	128	
XA17-	11	XA24-	6	FILM X CWTO XLTR	22	93	129	
XA17-	12	XA18-	12	+5 V RETURN	22	94	130	
XA17-	12	E20		5V RETURN	22	928	351	
XA17-	13	XA1-	14	FILM X- X TO XLTR	22	913	131	
XA17-	14	XA18-	14	FILM X CURSOR OFF LOGIC	22	96	132	
XA17-	14	J7-	13	CURSOR OFF LOGIC	22	97	287	
XA17-	18	XA1-	22	FILM X-W TO XLTR	22	914	133	
XA17-	19	XA1-	27	FILM X-V TO XLTR	22	915	134	
XA17-	22	E22		+5 VDC	22	935	352	
XA17-	22	XA18-	22	+5 VDC	22	901	147	
XA17-	22	XA17-	2	+5 VDC LAMP	22	98	124	
XA18								
XA18-		XA9-		JKT FOR WIRE NO 135 NOTE 9		91	135	S135
XA18-	1	XA9-	2	MAP X OSC OUT	22	9	135A	
XA18-	2	XA18-	22	+5 VDC LAMP	22	904	136	
XA18-	3	XA25-	10	MAP X CLOCK	22	917	137	
XA18-	4	SHIELD	135	SHIELD	22	90	135S	
XA18-	5	XA12-	22	MAP X- Z TO XLTR	22	902	138	
XA18-	6	XA25-	13	MAP X CCW TO XLTR	22	92	139	
XA18-	10	XA2-	10	MAP X- Y TO XLTR	22	95	140	
XA18-	11	XA25-	6	MAP X CW TO XLTR	22	93	141	
XA18-	12	XA19-	12	+5 V RETURN	22	97	142	
XA18-	12	XA17-	12	+5 V RETURN	22	94	130	
XA18-	13	XA2-	14	MAP X- X TO XLTR	22	912	143	
XA18-	14	XA19-	14	MAP X CURSOR OFF LOGIC	22	98	144	
XA18-	14	XA17-	14	FILM X CURSOR OFF LOGIC	22	96	132	
XA18-	18	XA2-	22	MAP X- W TO XLTR	22	913	145	
XA18-	19	XA2-	27	MAP X-V TO XLTR	22	914	146	
XA18-	22	XA18-	2	+5 VDCLAMP	22	904	136	
XA18-	22	XA19-	22	+5 VDC	22	903	148	
XA18-	22	XA17-	22	+5 VDC	22	901	147	
XA19								
XA19-		XA11-		JKT FOR WIRE NO 149 NOTE 9		915	149	S149
XA19-	1	XA11-	18	FILM Y OSC OUT	22	9	149A	
XA19-	2	XA19-	22	+5 VDC LAMP	22	91	150	
XA19-	3	XA26-	10	FILM Y CLOCK	22	924	151	
XA19-	4	SHIELD	149	SHIELD	22	90	149S	
XA19-	5	XA12-	14	FILM Y- Z TO XLTR	22	904	152	
XA19-	6	XA26-	13	FILM Y CCW TO XLTR	22	92	153	
XAI9-	10	XA3-	10	FILM Y- Y TO XLTR	22	95	154	
XA19-	11	XA26-	6	FILM Y CW TO XLTR	22	925	155	
XA19-	12	XA20-	12	+5 V RETURN	22	94	156	
XA19-	12	XA18-	12	+5 V RETURN	22	97	142	
XA19-	13	XA3-	14	FILM Y- X TO XLTR	22	908	157	
XA19-		E28		JKT FOR WIRE NO 235 NOTE 9		93	235	S235
XA19-	14	E28		CURSOR OFF LOGIC FILM Y	22	9	235A	
SHIELD	235	E52		SHIELD	22	90	235S	
XA19-	14	XA18-	14	MAP X CURSOR OFF LOGIC	22	98	144	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA19- 14	XA20- 14	FILM Y CURSOR OFF LOGIC	22	96	158	
XA19- 18	XA3- 22	FILM Y-W TO XLTR	22	912	159	
XA19- 19	XA3- 27	FILM Y-V TO XLTR	22	913	160	
XA19- 22	XA18- 22	+5 VDC	22	903	148	
XA19- 22	XA20- 22	+5 VDC	22	901	161	
XA19- 22	XA19- 2	+5 VDC LAMP	22	91	150	
XA20						
XA20-	XA11-	JKT FOR WIRE NO 162 NOTE 9		91	162	S162
XA20- 1	XA11- 2	MAP Y OSC OUT	22	9	162A	
XA20- 2	XA20- 22	+5 VDC LAMP	22	97	163	
XA20- 3	XA27- 10	MAP Y CLOCK	22	902	164	
XA20- 4	SHIELD 162	SHIELD	22	90	162S	
XA20- 5	XA12- 10	MAP Y-Z TO XLTR	22	903	165	
XA20- 6	XA27- 13	MAP Y CCW TO XLTR	22	92	166	
XA20- 10	XA4- 10	MAP Y-Y TO XLTR	22	95	167	
XA20- 11	XA27- 6	MAP Y CW TO XLTR	22	93	168	
XA20- 12	XA19- 12	+5 V RETURN	22	94	156	
XA20- 13	XA4- 14	MAP Y-X TO XLTR	22	908	169	
XA20- 14	XA19- 14	FILM Y CURSOR OFF LOGIC	22	96	158	
XA20- 18	XA4- 22	MAP Y-W TO XLTR	22	912	170	
XA20- 19	XA4- 27	MAP Y-V TO XLTR	22	913	171	
XA20- 22	XA19- 22	+5 VDC	22	901	161	
XA20- 22	XA20- 2	+5 VDC LAMP	22	97	163	
XA22P1						
XA22P1- A	E73	28 V UNREGULATED FILM X	20	903	413	
XA22P1-	XA31-	JACKET FOR WIRE NO 414		94	414	S414
XA22P1- C	XA31- 2	BASE SERIES XSTR FILM X	22	9	414A	
SHIELD 414	E55	SHIELD	22	90	414S	
XA22P1- D	XA31- 1	+28 VDC FILM X	22	6	414B	
XA22P1-	J11-	JACKET FOR WIRE NO 416		90	416	S416
XA22P1- E	J11- 14	+28V FILM X	22	9	416A	
SHIELD 416	E47	SHIELD	22	90	416F	
XA22P1- E	E81	28VDC (FILM)	22	92	549	
XA22P1- J	E15	28V UNRGLTD MAP X	20	902	415	
XA22P1-	XA31-	JACKET FOR WIRE NO 418		95	418	S418
XA22P1- L	XA31- 15	BASE SERIES XSTR MAP X	22	9	418A	
SHIELD 418	E55	SHIELD	22	90	418S	
XA22P1- M	XA31- 13	+28 VDC MAP X	22	6	418B	
XA22P1- N	E82	28VDC (MAP)	22	93	550	
XA22P1-	J11-	JACKET FOR WIRE NO 417		901	417	S417
XA22P1- N	J11- 6	+28 VDC MAP X	22	9	417A	
SHIELD 417	E47	SHIELD	22	90	417F	
XA22P2						
XA22P2- A	E73	28V UNRGLTD FILM Y	20	904	420	
XA22P2-	XA31-	JACKET FOR WIRE NO 421		96	421	S421
XA22P2- C	XA31- 11	BASE SERIES XSTR FILM Y	22	9	421A	
SHIELD 421	E65	SHIELD	22	90	421S	
XA22P2- D	XA31- 6	+28 VDC FILM Y	22	6	421B	
XA22P2-	J11-	JACKET FOR WIRE NO 422		92	422	S422
XA22P2- E	J11- 22	+28 VDC FILM Y	22	9	422A	
SHIELD 422	E71	SHIELD	22	90	422F	
XA22P2- J	E15	28 V UNRGLTD MAP Y	20	905	423	
XA22P2-	XA31-	JACKET FOR WIRE NO 425		97	425	S425
XA22P2- L	XA31- 23	BASE SERIES XSTR MAP Y	22	9	425A	
SHIELD 425	E65	SHIELD	22	90	425S	
XA22P2- M	XA31- 22	+28 VDC MAP Y	22	6	425B	
XA22P2-	J11-	JACKET FOR WIRE NO 424		90	424	S424
XA22P2- N	J11- 25	+28 VDC MAP Y	22	9	424A	
SHIELD 424	E71	SHIELD	22	90	424F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA23P1								
XA23P1-	A	E74		6 V UNRGLTD FILM Y	20	90	432	
XA23P1-		XA30-		JKT FOR WIRE NO 433 NOTE 10		96	433	S433
XA23P1-	B	XA30-	5	6 VDC UNRGLTD FILM Y	22	9	433A	
XA23P1-	B	E74		6V UNRGLTD FILM Y	20	91	537	
XA23PI-	C	XA30-	10	BASE SERIES XSTR FILM Y	22	6	433B	
XA23P1-	D	XA30-	8	+6 VDC FILM Y	22	3	433C	
XA23PI-	D	R15-	1	+6 VDC FILM Y	20	95	536	
XA23P1-	E	R15-	1	+6 VDC FILM Y	20	97	434	
XA23P1-	J	E16		6 V UNRGLTD MAP Y	20	902	435	
XA23P1-	K	E16		6 VDC UNRGLTD MAP Y	20	94	538	
XA23P1-		XA30-		JKT FOR WIRE NO 436 NOTE 10		92	436	S436
XA23P1-	K	XA30-	20	6 VDC UNRGLTD MAP Y	22	9	436A	
XA23P1-	L	XA30-	19	BASE SERIES XSTR MAP Y	22	6	436B	
XA23P1-	M	XA30-	18	+6 VDC MAP Y	22	3	436C	
XA23P1-	M	R20-	1	+6 VDC MAP Y	20	93	539	
XA23P1-	N	R20-	1	+6 VDC MAP Y	20	98	437	
XA23P2								
XA23P2-	A	E74		6V UNRGLTD FILM X	20	906	426	
XA23P2-		XA30-		JKT FOR WIRE NO 427 NOTE 10		90	427	S427
XA23P2-	B	XA30-	7	6 VDC UNRGLTD FILM X	22	9	427A	
XA23P2-	B	E74		6 VDC UNRGLTD FILM X	20	92	540	
XA23P2-	C	XA30-	2	BASE SERIES XSTR FILM X	22	6	427B	
XA23P2-	D	XA30-	3	+6 VDC FILM X	22	3	427C	
XA23P2-	D	R10-	1	+6 VDC FILM X	20	97	541	
XA23P2-	E	R10-	1	+6 VDC	20	94	428	
XA23P2-	E	E78	6VDC	(FILM)	22	901	547	
XA23P2-	J	E16		6 V UNRGLTD MAP X	20	91	429	
XA23P2-	K	E16		6 VDC UNRGLTD MAP X	20	93	542	
XA23P2-		XA30-		JKT FOR WIRE NO 430 NOTE 10		95	430	S430
XA23P2-	K	XA30-	22	6 VDC UNRGLTD MAP X	22	9	430A	
XA23P2-	L	XA30-	15	BASE SERIES XSTR MAP X	22	6	430B	
XA23P2-	M	XA30-	13	+6 VDC MAP X	22	3	430C	
XA23P2-	M	R1-	1	+6 VDC MAP X	20	98	543	
XA23P2-	N	R1-	1	+6 VDC MAP X	20	96	431	
XA23P2-	N	E79		6VDC (MAP)	22	902	548	
XA24								
XA24-	1	E19		-15 VDC	22	947	383	
XA24-	1	XA25-	1	-15 VDC	22	901	384	
XA24-	2	XA10-	25	FILM X FAST IN	22	97	359	
XA24-	3	XA26-	3	5V RTN	22	96	341	
XA24-	4	XA24-	11	5 V RETURN	22	916	385	
XA24-	4	E20		5 V RETURN	22	948	386	
XA24-		J10-		JACKET FOR WIRE NO 317		914	317	S317
XA24-	5	J10-	1	FILM CURSOR (+) X	316	COAX	317A	
XA24-	6	XA9-	27	FILM X CW TO XLTR	22	906	218	
XA24-	6	XA17-	11	FILM X CW TO XLTR	22	93	129	
XA24-		J10-		JACKET FOR WIRE NO 319		915	319	S319
XA24-	7	J10-	5	FILM CURSOR (-) X	316	COAX	319A	
XA24-	8	SHIELD	317	SHIELD	22	90	317F	
XA24-	8	SHIELD	335	SHIELD	22	90	335F	
XA24-	8	SHIELD	319	SHIELD	22	90	319F	
XA24-	9	XA25-	9	DIR JOY STICK MAP X	22	903	388	
XA24-		J4-		JACKET FOR WIRE NO 248		94	248	S248
XA24-	9	J4-	1	DIR JOY STICK FILM X	22	9	248A	
SHIELD	248	E57		SHIELD	22	90	248F	
XA24-	10	XA17-	3	FILM X CLOCK	22	91	125	

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA24- 11	XA24- 4	5 V RETURN	22	916	385	
XA24- 12	XA25- 12	15 V RETURN	22	904	390	
XA24- 12	E21	15 V RETURN	22	956	389	
XA24- 13	XA9- 28	FILM X CCW TO XLTR	22	907	219	
XA24- 13	XA17- 6	FILM X CCW TO XLTR	22	92	127	
XA24- 14	XA9- 23	FILM X SLOW	22	902	214	
XA24- 15	XA25- 15	+5 VDC	22	905	392	
XA24- 15	E22	+5 VDC	22	957	391	
XA24- 16	J7- 8	FILM X JOY STICK OFF LGC	22	95	283	
XA24-	J10-	JACKET FOR WIRE NO 332		917	332	S332
XA24- 17	J10- 31	FILM CURSOR (+) X FAST	316	COAX	332A	
XA24-	J10-	JACKET FOR WIRE NO 336		913	336	S336
XA24- 18	J10- 39	FILM CURSOR (-) X SLOW	316	COAX	336A	
XA24- 19	SHIELD 336	SHIELD	22	90	336F	
XA24- 19	SHIELD 333	SHIELD	22	90	333F	
XA24- 19	SHIELD 332	SHIELD	22	90	332F	
XA24-	J10-	JACKET FOR WIRE NO 333		936	333	S333
XA24- 20	J10- 35	FILM CURSOR (+) X SLOW	316	COAX	333A	
XA24- 21	XA9- 17	FILM X RAMP	22	98	212	
XA24-	J10-	JACKET FOR WIRE NO 335		912	335	S335
XA24- 22	J10- 37	FILM CURSOR (-) X FAST	316	COAX	335A	
XA24- 23	XA25- 23	+15 VDC	22	908	394	
XA24- 23	E18	+15 VDC	22	958	393	
XA25						
XA25- 1	XA26- 1	-15 VDC	22	906	395	
XA25- 1	XA24- 1	-15 VDC	22	901	384	
XA25- 2	XA10- 26	MAP X FAST IN	22	902	358	
XA25- 3	K2- 3	STOW	22	907	396	
XA25- 4	E20	5 V RETURN	22	913	397	
XA25-	J10-	JACKET FOR WIRE NO 322		95	322	S322
XA25- 5	J10- 11	MAP CURSOR (+) X	316	COAX	322A	
XA25- 6	XA9- 5	MAP X CW TO XLTR	22	96	205	
XA25- 6	XA18- 11	MAP X CW TO XLTR	22	93	141	
XA25-	J10-	JACKET FOR WIRE NO 323		926	323	S323
XA25- 7	J10- 13	MAP CURSOR (-) X	316	COAX	323A	
XA25- 8	SHIELD 322	SHIELD	22	90	322F	
XA25- 8	SHIELD 344	SHIELD	22	90	344F	
XA25- 8	SHIELD 323	SHIELD	22	90	323F	
XA25- 9	XA24- 9	DIR JOY STICK MAP X	22	903	388	
XA25-	J6-	JACKET FOR WIRE NO 275		91	275	S275
XA25- 9	J6- 11	DIR JOY STICK MAP X	22	9	275A	
SHIELD 275	E58	SHIELD	22	90	275F	
XA25- 10	XA18- 3	MAP X CLOCK	22	917	137	
XA25- 11	XA25- 15	+5 VDC	22	912	398	
XA25- 12	XA26- 12	15 V RETURN	22	914	399	
XA25- 12	XA24- 12	15 V RETURN	22	904	390	
XA25- 13	XA9- 4	MAP X CCW TO XLTR	22	938	204	
XA25- 13	XA18- 6	MAP X CCW TO XLTR	22	92	139	
XA25- 14	XA9- 10	MAP X SLOW	22	97	207	
XA25- 15	XA26- 15	+5 VDC	22	915	400	
XA25- 15	XA25- 11	+5 VDC	22	912	398	
XA25- 15	XA24- 15	+5 VDC	22	905	392	
XA25- 16	J7- 7	MAP X JOY STICK OFF LGC	22	98	282	
XA25-	J10-	JACKET FOR WIRE NO 342		918	342	S342
XA25- 17	J10- 49	MAP CURSOR (+) X FAST	316	COAX	342A	
XA25-	J10-	JACKET FOR WIRE NO 345		925	345	S345
XA25- 18	J10- 55	MAP CURSOR (-) X SLOW	316	COAX	345A	
XA25- 19	SHIELD 345	SHIELD	22	90	345F	
XA25- 19	SHIELD 343	SHIELD	22	90	343F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA25- 19	SHIELD 342	SHIELD	22	90	342F	
XA25-	J10-	JACKET FOR WIRE NO 343		923	343	S343
XA25- 20	J10- 51	MAP CURSOR (+) SLOW	316	COAX	343A	
XA25- 21	XA9- 3	MAP X RAMP	22	94	203	
XA25-	J10-	JACKET FOR WIRE NO 344		924	344	S344
XA25- 22	J10- 53	MAP CURSOR (-) X FAST	316	COAX	344A	
XA25- 23	XA26- 23	+15 VDC	22	916	401	
XA25- 23	XA24- 23	+15 VDC	22	908	394	
XA26						
XA26- 1	XA27- 1	-15 VDC	22	98	402	
XA26- 1	XA25- 1	-15 VDC	22	906	395	
XA26- 2	XA10- 11	FILM Y FAST	22	904	362	
XA26- 3	E20	5V RTN	22	97	346	
XA26- 3	XA24- 3	5V RTN	22	96	341	
XA26- 4	E20	5 V RETURN	22	902	404	
XA26- 4	XA26- 11	5 V RETURN	22	95	403	
XA26-	J10-	JACKET FOR WIRE NO 320		93	320	S320
XA26- 5	J10- 7	FILM CURSOR (+) Y	316	COAX	320A	
XA26- 6	XA1I- 27	FILM Y CW TO XLTR	22	908	375	
XA26- 6	XA19- 11	FILM Y CW TO XLTR	22	925	155	
XA26-	J10-	JACKET FOR WIRE NO 321		94	321	S321
XA26- 7	J10- 9	FILM CURSOR (-)Y	316	COAX	321A	
XA26- 8	SHIELD 321	SHIELD	22	90	321F	
XA26- 8	SHIELD 339	SHIELD	22	90	339F	
XA26- 8	SHIELD 320	SHIELD	22	90	320F	
XA26-	J4-	JACKET FOR WIRE NO 250		91	250	S250
XA26- 9	J4- 5	DIR JOY STICK FILM Y	22	9	250A	
SHIELD 250	E59	SHIELD	22	90	250F	
XA26- 9	XA27- 9	DIR JOY STICK FILM Y	22	905	405	
XA26- 10	XA19- 3	FILM Y CLOCK	22	924	151	
XA26- 11	XA26- 4	5 V RETURN	22	95	403	
XA26- 12	XA27- 12	15 V RETURN	22	917	406	
XA26- 12	XA25- 12	15 V RETURN	22	914	399	
XA26- 13	XAI11- 28	FILM Y CCW TO XLTR	22	912	376	
XA26- 13	XA19- 6	FILM Y CCW TO XLTR	22	92	153	
XA26- 14	XA11- 23	FILM Y SLOW	22	907	374	
XA26- 15	XA27- 15	+5 VDC	22	918	407	
XA26- 15	XA25- 15	+5 VDC	22	915	400	
XA26- 16	J7- 5	FILM Y JOY STICK OFF LGC	22	926	280	
XA26-	J10-	JACKET FOR WIRE NO 337		937	337	S337
XA26- 17	J10- 41	FILM CURSOR (+) Y FAST	316	COAX	337A	
XA26-	J10-	JACKET FOR WIRE NO 340		946	340	S340
XA26- 18	J10- 47	FILM CURSOR (-) Y SLOW	316	COAX	340A	
XA26- 19	SHIELD 337	SHIELD	22	90	337F	
XA26- 19	SHIELD 340	SHIELD	22	90	340F	
XA26- 19	SHIELD 338	SHIELD	22	90	338F	
XA26-	J10-	JACKET FOR WIRE NO 338		938	338	S338
XA26- 20	J10- 43	FILM CURSOR (+) Y SLOW	316	COAX	338A	
XA26- 21	XAI1- 17	FILM Y RAMP	22	903	373	
XA26-	J10-	JACKET FOR WIRE NO 339		945	339	S339
XA26- 22	J10- 45	FILM CURSOR (-) Y FAST	316	COAX	339A	
XA26- 23	XA27- 23	+15 VDC	22	923	408	
XA26- 23	XA25- 23	+15 VDC	22	916	401	
XA27						
XA27- 1	XA26- 1	-15 VDC	22	98	402	
XA27- 2	XA10- 14	MAP Y FAST	22	903	361	
XA27- 3	K1- 3	STOW	22	94	409	
XA27- 4	E20	5 V RETURN	22	901	387	

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA27-	J10-	JACKET FOR WIRE NO 324		907	324	S324
XA27- 5	J10- 15	MAP CURSOR (+) Y	316	COAX	324A	
XA27- 6	XA11- 5	MAP Y CW TO XLTR	22	97	371	
XA27- 6	XA20- 11	MAP Y CW TO XLTR	22	93	168	
XA27-	J10-	JACKET FOR WIRE NO 325		916	325	S325
XA27- 7	J10- 17	MAP CURSOR (-) Y	316	COAX	325A	
XA27- 8	SHIELD 324	SHIELD	22	90	324F	
XA27- 8	SHIELD 325	SHIELD	22	90	325F	
XA27- 8	SHIELD 349	SHIELD	22	90	349F	
XA27-	J6-	JACKET FOR WIRE NO 273		906	273	S273
XA27- 9	J6- 9	DIR JOY STICK MAP Y	22	9	273A	
SHIELD 273	E60	SHIELD	22	90	273F	
XA27- 9	XA26- 9	DIR JOY STICK FILM Y	22	905	405	
XA27- 10	XA20- 3	MAP Y CLOCK	22	902	164	
XA27- 11	XA27- 15	+5 VDC	22	904	410	
XA27- 12	XA26- 12	15 V RETURN	22	917	406	
XA27- 13	XA11- 4	MAP Y CCW TO XLTR	22	96	370	
XA27- 13	XA20- 6	MAP Y CCW TO XLTR	22	92	166	
XA27- 14	XA11- 10	MAP Y SLOW	22	924	372	
XA27- 15	XA27- 11	+5 VDC	22	904	410	
XA27- 15	XA26- 15	+5 VDC	22	918	407	
XA27- 16	J7- 4	MAP Y JOY STICK OFF LGC	22	908	279	
XA27-	J10-	JACKET FOR WIRE NO 347		927	347	S347
XA27- 17	J10- 59	MAP CURSOR (+) Y FAST	316	COAX	347A	
XA27-	J10-	JACKET FOR WIRE NO 350		935	350	S350
XA27- 18	J10- 65	MAP CURSOR (-) Y SLOW	316	COAX	350A	
XA27- 19	SHIELD 347	SHIELD	22	90	347F	
XA27- 19	SHIELD 350	SHIELD	22	90	350F	
XA27- 19	SHIELD 348	SHIELD	22	90	348F	
XA27-	J10-	JACKET FOR WIRE NO 348		928	348	S348
XA27- 20	J10- 61	MAP CURSOR (-) Y SLOW	316	COAX	348A	
XA27- 21	XA11- 3	MAP Y RAMP	22	95	369	
XA27-	J10-	JACKET FOR WIRE NO 349		934	349	S349
XA27- 22	J10- 63	MAP CURSOR (-) Y FAST	316	COAX	349A	
XA27- 23	XA26- 23	+15 VDC	22	923	408	
XA28						
XA28-	J10-	JACKET FOR WIRE NO 328		903	328	S328
XA28- 2	J10- 23	FILM TRANSPORT 2 (+) MTN	316	COAX	328A	
XA28-	J10-	JACKET FOR WIRE NO 329		904	329	S329
XA28- 3	J10- 25	FILM TRANSPORT 2 (-) MTN	316	COAX	329A	
XA28- 4	XA29- 4	INITIALIZE IN	22	97	377	
XA28-	J10-	JACKET FOR WIRE NO 331		906	331	S331
XA28- 6	J10- 29	MAP CURSOR ENTER	316	COAX	331A	
XA28- 7	XA29- 10	CURSOR ENTER IN	22	907	380	
XA28-	J7-	JACKET FOR WIRE NO 286		923	286	S286
XA28- 8	J7- 12	MAP CURSOR SELECT	22	9	286A	
SHIELD 286	E61	SHIELD	22	90	286F	
XA28-	J4-	JACKET FOR WIRE NO 252		96	252	S252
XA28- 9	J4- 10	CURSOR ENTER NO	22	9	252A	
SHIELD 252	E61	SHIELD	22	90	252F	
XA28- 10	XA29- 7	CURSOR ENTER OUT	22	98	379	
XA28- 11	J4- 11	CURSOR ENTER NC	22	6	252B	
XA28- 12	E20	5 V RETURN	22	967	411	
XA28- 12	XA29- 12	+5 V RETURN	22	908	381	
XA28- 13	SHIELD 328	SHIELD	22	90	328F	
XA28- 14	SHIELD 329	SHIELD	22	90	329F	
XA28- 16	J4- 12	+5 V RETURN	22	3	252C	
XA28- 17	SHIELD 331	SHIELD	22	90	331F	
XA28- 19	SHIELD 311	SHIELD	22	90	311F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA28-	J9-	JACKET FOR WIRE NO 311		92	311	S311
XA28- 20	J9- 9	REAR ENCODER B	316	COAX	311A	
XA28- 21	SHIELD 312	SHIELD	22	90	312F	
XA28-	J9-	JACKET FOR WIRE NO 312		93	312	S312
XA28- 22	J9- 11	REAR ENCODER A	316	COAX	312A	
XA28- 23	E22	+5 VDC	22	968	412	
XA28- 23	XA29- 23	+5 VDC	22	912	382	
XA29						
XA29-	J10-	JACKET FOR WIRE NO 326		901	326	S326
XA29- 2	J10- 19	FILM TRANSPORT 1 (+) MTN	316	COAX	326A	
XA29-	J10-	JACKET FOR WIRE NO 327		902	32	S327
XA29- 3	J10- 21	FILM TRANSPORT 1(-) MTN	316	COAX	327A	
XA29- 4	XA28- 4	INITIALIZE IN	22	97	377	
XA29- 4	XA29- 5	INITIALIZE OUT	22	91	378	
XA29- 5	XA29- 4	INITIALIZE OUT	22	91	378	
XA29-	J10-	JACKET FOR WIRE NO 330		905	330	S330
XA29- 6	J10- 27	FILM CURSOR ENTER	316	COAX	330A	
XA29- 7	XA28- 10	CURSOR ENTER OUT	22	98	379	
XA29-	J7-	JACKET FOR WIRE NO 285		916	285	S285
XA29- 8	J7- 11	FILM CURSOR SELECT	22	9	285A	
SHIELD 285	E62	SHIELD	22	90	285F	
XA29- 9	J7- 21	CURSOR ENTER NO	22	6	285B	
XA29- 10	XA28- 7	CURSOR ENTER IN	22	907	380	
XA29- 11	J7- 22	CURSOR ENTER NC	22	3	285C	
XA29- 12	XA28- 12	+5 V RETURN	22	908	381	
XA29- 13	SHIELD 326	SHIELD	22	90	326F	
XA29- 14	SHIELD 327	SHIELD	22	90	327F	
XA29- 16	SHIELD 330	SHIELD	22	90	330F	
XA29- 19	SHIELD 313	SHIELD	22	90	313F	
XA29-	J9-	JACKET FOR WIRE NO 314		95	314	S314
XA29- 20	J9- 15	FRONT ENCODER A	316	COAX	314A	
XA29- 21	SHIELD 314	SHIELD	22	90	314F	
XA29-	J9-	JACKET FOR WIRE NO 313		94	313	S313
XA29- 22	J9- 13	FRONT ENCODER B	316	COAX	313A	
XA29- 23	XA28- 23	+5 VDC	22	912	382	
XA30						
XA30- 2	XA23P2- C	BASE SERIES XSTR FILM X	22	6	427B	
XA30- 3	XA23P2- D	+6 VDC FILM X	22	3	427C	
XA30-	XA23P1-	JKT FOR WIRE NO 433 NOTE 10		96	433	S433
XA30- 5	XA23P1- B	6 VDC UNRGLTD FILM Y	22	9	433A	
SHIELD 433	E70	SHIELD	22	90	433F	
XA30-	XA23P2-	JKT FOR WIRE NO 427 NOTE 10		90	42	S427
XA30- 7	XA23P2- B	6 VDC UNRGLTD FILM X	22	9	427A	
SHIELD 427	E63	SHIELD	22	90	427F	
XA30- 8	XA23P1- D	+6 VDC FILM Y	22	3	433C	
XA30- 10	XA23P1- C	BASE SERIES XSTR FILM Y	22	6	433B	
XA30- 12	E21	+15 VDC RETURN	22	9024	438	
XA30- 13	XA23P2- M	+6 VDC MAP X	22	3	430C	
XA30- 14	E17	+6 VDC RETURN	22	9025	439	
XA30- 15	XA23P2- L	BASE SERIES XSTR MAP X	22	6	430B	
XA30- 18	XA23P1- M	+6 VDC MAP Y	22	3	436C	
XA30- 19	XA23P1- L	BASE SERIES XSTR MAP Y	22	6	436B	
XA30-	XA23P1-	JKT FOR WIRE NO 436 NOTE 10		92	436	S436
XA30- 20	XA23P1- K	6 VDC UNRGLTD MAP Y	22	9	436A	
SHIELD 436	E70	SHIELD	22	90	436F	
XA30-	XA23P2-	JKT FOR WIRE NO 430 NOTE 10		95	430	S430
XA30- 22	XA23P2- K	6 VDC UNRGLTD MAP X	22	9	430A	
SHIELD 430	E63	SHIELD	22	90	430F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA30- 23	E18	+15 VDC	22	9026	440	
XA31						
XA31- 1	XA22P1- D	+28 VDC FILM X	22	6	414B	
XA31-	XA22P1-	JACKET FOR WIRE NO 414		94	414	S414
XA31- 2	XA22P1- C	BASE SERIES XSTR FILM X	22	9	414A	
SHIELD 414	E64	SHIELD	22	90	414F	
XA31- 3	E73	28 VDC UNRGLTD	22	98	441	
XA31- 4	SHIELD 316	SHIELD	22	90	316F	
XA31- 4	E20	5V RTN	22	903	533	
XA31- 6	XA22P2- D	+28 VDC FILM Y	22	6	421B	
XA31- 8	E19	-15 VDC	22	92	534	
XA31-	J10-	JACKET FOR WIRE NO 316		91	316	S316
XA31- 9	J10- 3	PWR FAIL SIG	316	COAX	316A	
XA31- 10	E22	+5 VDC	22	93	535	
XA31-	XA22P2-	JACKET FOR WIRE NO 421		96	421	S421
XA31- 11	XA22P2- C	BASE SERIES XSTR FILM Y	22	9	421A	
SHIELD 421	E71	SHIELD	22	90	421F	
XA31- 12	E17	28 V RETURN	22	9027	442	
XA31- 13	XA22P1- M	+28 VDC MAP X	22	6	418B	
XA31-	XA22P1-	JACKET FOR WIRE NO 418		95	418	S418
XA31- 15	XA22P1- L	BASE SERIES XSTR MAP X	22	9	418A	
SHIELD 418	E64	SHIELD	22	90	418F	
XA31- 21	E15	28 VDC UNRGLTD	22	9028	443	
XA31- 22	XA22P2- M	+28VDC MAP Y	22	6	425B	
XA31- 22	J7- 3	+28V CURSOR	22	907	532	
XA31-	XA22P2-	JACKET FOR WIRE NO 425		97	425	S425
XA31- 23	XA22P2- L	BASE SERIES XSTR MAP Y	22	9	425A	
SHIELD 425	E71	SHIELD	22	90	425F	
B1						
B1- T1	J5- G	PHASE C	18	3	268C	
B1- T3	J5- F	PHASE B	18	6	268B	
B1-	J5-	JACKET FOR WIRE NO 268		95	268	S268
B1- T4	J5- C	PHASE A	18	9	268A	
E8						
E8	SHIELD 116	SHIELD	22	90	116F	
E8	SHIELD 119	SHIELD	22	90	119F	
E8	SHIELD 111	SHIELD	22	90	111F	
E9						
E9	SHIELD 104	SHIELD	22	90	104F	
E9	SHIELD 96	SHIELD	22	90	96F	
E10						
E10	SHIELD 86	SHIELD	22	90	86F	
E10	SHIELD 89	SHIELD	22	90	89F	
E10	SHIELD 81	SHIELD	22	90	81F	
E11						
E11	SHIELD 66	SHIELD	22	90	66F	
E11	SHIELD 74	SHIELD	22	90	74F	
E11	SHIELD 59	SHIELD	22	90	59F	
E12						
E12	SHIELD 12	SHIELD	22	90	12F	
E12	SHIELD 25	SHIELD	22	90	25F	
E12	SHIELD 4	SHIELD	22	90	4F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E13								
E13		SHIELD	28	SHIELD	22	90	28F	
E13		SHIELD	35	SHIELD	22	90	35F	
E13		SHIELD	19	SHIELD	22	90	19F	
E14								
E14		SHIELD	50	SHIELD	22	90	50F	
E14		SHIELD	56	SHIELD	22	90	56F	
E14		SHIELD	43	SHIELD	22	90	43F	
E15								
E15		XA22P2-	J	28 V UNRGLTD MAP Y	20	905	423	
E15		XA31-	21	28 VDC UNRGLTD	22	9028	443	
E15		TB1-	A2	28 V UNREGULATED,MAP	16	95	504	
E15	X	A22P1-	J	28 V UNRGLTD MAP X	20	902	415	
E16								
E16		XA23P1-	J	6 V UNRGLTD MAP Y	20	902	435	
E16		TB1-	B1	6 V UNREGULATED,MAP	16	96	510	
E16		TB1-	B1	6 V UNREGULATED,MAP	16	97	511	
E16		TB1-	A1	6 V UNREGULATED,MAP	16	903	531	
E16		XA23P1-	K	6 VDC UNRGLTD MAP Y	20	94	538	
E16		XA23P2-	K	6 VDC UNRGLTD MAP X	20	93	542	
E16		XA23P2-	J	6 V UNRGLTD MAP X	20	91	429	
E17								
E17		J1-	10	MAP Y MOTOR RTN	22	902	223	T224
E17		J1-	9	MAP Y MOTOR	22	936	224	T223
E17		J1-	8	MAP Y MOTOR RTN	22	93	225	
E17		J1-	6	MAP Y MOTOR RTN	22	94	226	
E17		J1-	7	MAP Y MOTOR RTN	22	95	227	
E17		J1-	20	MAP X MOTOR RETURN	22	96	231	
E17		J1-	19	MAP X MOTOR RETURN	22	97	232	
E17		J1-	18	MAP X MOTOR RETURN	22	98	233	
E17		J1-	21	MAP X MOTOR RTN	22	935	241	
E17		J8-	21	FILM X MOTOR D V RTN	22	901	278	
E17		J7-	28	+28V RETURN	22	918	291	
E17		J8-	22	FILM X MOTOR D.V RTN	22	928	295	T296
E17		J8-	10	FILM Y MOTOR D.V. RTN	22	937	296	T295
E17		J8-	9	FILM Y MOTOR D.V. RTN	22	947	297	
E17		J8-	8	FILM Y MOTOR DIR VIEW RTN	22	923	298	
E1	7	J8-	6	FILM Y MOTOR DIR VIEW RTN	22	924	299	
E17		J8-	7	FILM Y MOTOR DIR VIEW RTN	22	903	300	
E17		J8-	18	FILM X MOTOR DIR VIEW	22	926	303	
E17		J8-	19	FILM X MOTOR DIR VIEW	22	927	304	
E17		J8-	20	FILM X MOTOR DIR VIEW	22	934	305	
E17		XA12-	18	6V RETURN	22	945	365	
E17		XA12-	3	28 V RETURN	22	946	368	
E17		XA30-	14	+6 VDC RETURN	22	9025	439	
E17		XA31-	12	28 V RETURN	22	9027	442	
E17		TB2-	B4	6V&28V RTN	16	90	522	
E17		TB2-	84	6V&28V RTN	16	904	523	
E17		TB2-	B3	6V&28V RTN	16	905	524	
E17		TB2-	83	6V&28V RTN	16	90	525	
E17		TB2-	B2	6V&28V RTN	16	906	526	
E17		TB2-	B2	6V&28V RTN	16	92	527	
E17		TB2-	B1	6V&28V RTN	16	907	528	
E17		TB2-	B1	6V&28V RTN	16	908	529	
E17		J1-	22	MAP X MOTOR RTN	22	925	222	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E18						
E18	J3-	JKT FOR WIRE NO 243 NOTE 10		90	243	S243
E18	J3- H	+15 VDC	20	9	243A	
E18	J3- G	+15 VDC	20	5	243D	
E18	J4- 16	+15 VDC	22	3	253C	
E18	J6- 7	+15 VDC	22	3	272C	
E18	XA1- 29	+15 VDC	22	938	355	
E18	XA24- 23	+15 VDC	22	958	393	
E18	XA30- 23	+15 VDC	22	9026	440	
E18	E75	+15 VDC	22	9047	489	
E18	XA9- 29	+15 VDC	22	908	220	
E19						
E19	J3-	JKT FOR WIRE NO 245 NOTE 10		91	245	S245
E19	J3- N	-15 VDC	20	9	245A	
E19	J3- M	-15VDC RETURN	20	6	245B	
E19	J4- 15	-15 VDC	22	6	253B	
E19	J6- 6	-15 VDC	22	6	2728	
E19	XA1- 1	-15 VDC	22	936	353	
E19	XA24- 1	-15 VDC	22	947	383	
El9	XA31- 8	-15 VDC	*22*	92	534	
E19	XA9- 1	-15 VDC	22	90	202	
E20						
E20	J5- Z	+5 V RETURN	22	3	270D	
E20	J9- 19 5	V RTN REAR ENCODER	22	6	315B	
E20	XA26- 3	5V RTN	22	97	346	
E20	XA17- 12	5V RETURN	22	928	351	
E20	XA24- 4	5 V RETURN	22	948	386	
E20	XA27- 4	5 V RETURN	22	901	387	
E20	XA25- 4	5 V RETURN	22	913	397	
E20	XA26- 4	5 V RETURN	22	902	404	
E20	XA28- 12	5 V RETURN	22	967	411	
E20	K2- 1	+5V RETURN	22	9037	485	
E20	J7- 23	5 V RETURN	22	9056	491	
E20	XA31- 4	5V RTN	22	903	533	
E20	J5- W	+5 V RETURN	22	6	270C	
E21						
E21	XA9- 15	15 V RTN	22	92	210	
E21	J2- 14	15V RETURN	22	94	242	
E21	J3- J	+15V RETURN	20	6	243B	
E21	J3- K	+15V RETURN	20	3	243C	
E21	J3- P	-15V RETURN	20	3	245C	
E21	J3- R	-15V RETURN	20	5	245D	
E21	J4-	JKT FOR WIRE NO 253 NOTE 10		97	253	S253
E21	J4- 14	15 V RETURN	22	9	253A	
E21	J6-	JACKET FOR WIRE NO 272		93	272	S272
E21	J6- 5	15 V RETURN	22	9	272A	
SHIELD 272	E63	SHIELD	22	90	272F	
E21	J7- 29	+15V RETURN	22	906	277	
E21	XA1- 15	15 V RETURN	22	937	354	
E21	XA24- 12	15 V RETURN	22	956	389	
E21	XA30- 12	+15 VDC RETURN	22	9024	438	
E21	E76	15 V RETURN	22	9048	490	
E21	E29	15 V RETURN	22	9057	492	
E21	J7- 15	15 V RETURN	22	91	209	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E22							
E22	J5-		JKT FOR WIRE NO 270 NOTE 10		92	270	S270
E22	J5-	U	+5 VDC	22	5	270A	
E22	J5-	V	+5 VDC	22	9	2708	
E22	J7-	14	+5 VDC OFF POSITION	22	917	288	
E22	J9-		JKT FOR WIRE NO 315 NOTE 9		91	315	S315
E22	J9-	18	+5 VDC REAR ENCODER	22	9	315A	
E22	XA17-	22	+5 VDC	22	935	352	
E22	XA24-	15	+5 VDC	22	957	391	
E22	XA28-	23	+5 VDC	22	968	412	
E22	K2-	5	+5V	22	9038	486	
E22	XA31-	10	+5VDC	22	93	535	
E23							
E23	E28		R41			495	CMPT
E23	E75			22	9058	493	
E24							
E24	J4-	18	28V GP	22	96	561	
E24	J5-	X	28 VDC GP	12	96	559	
E25							
E25	J4-	19	28V GP RTN	22	97	562	
E25	J5-	Y	28 VDC RTN	12	97	560	
E28							
E28	XA19-		JKT FOR WIRE NO 235 NOTE 9		93	235	S235
E28	XA19-	14	CURSOR OFF LOGIC FILM Y	22	9	235A	
E28	E77			22	9067	494	
E28	E23		R41			495	CMPT
E28	E29		VR1 E28 (C) E29 (A)			505	CMPT
E29							
E29	E28		VR1 E28 (C) E29 (A)			505	CMPT
E29	E21		15 V RETURN	22	9057	492	
E38							
E38	SHIELD	234	SHIELD	22	90	234F	
E38	SHIELD	196	SHIELD	22	90	196F	
E39							
E39	SHIELD	230	SHIELD	22	90	230F	
E42							
E42	SHIELD	206	SHIELD	22	90	206S	
E43							
E43	SHIELD	274	SHIELD	22	90	274F	
E43	SHIELD	294	SHIELD	22	90	294F	
E43	SHIELD	249	SHIELD	22	90	249F	
E44							
E44	SHIELD	239	SHIELD	22	90	239F	
E46							
E46	SHIELD	302	SHIELD	22	90	302F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E47							
E47	SHIELD	416	SHIELD	22	90	416F	
E47	SHIELD	417	SHIELD	22	90	417F	
E47	SHIELD	301	SHIELD	22	90	301F	
E48							
E48	SHIELD	229	SHIELD	22	90	229F	
E49							
E49	SHIELD	228	SHIELD	22	90	228F	
E52							
E52	SHIELD	235	SHIELD	22	90	235S	
E55							
E55	SHIELD	418	SHIELD	22	90	418S	
E55	SHIELD	414	SHIELD	22	90	414S	
E57							
E57	SHIELD	248	SHIELD	22	90	248F	
E58							
E58	SHIELD	275	SHIELD	22	90	275F	
E59							
E59	SHIELD	250	SHIELD	22	90	250F	
E60							
E60	SHIELD	273	SHIELD	22	90	273F	
E61							
E61	SHIELD	286	SHIELD	22	90	286F	
E61	SHIELD	252	SHIELD	22	90	252F	
E62							
E62	SHIELD	285	SHIELD	22	90	285F	
E63							
E63	SHIELD	427	SHIELD	22	90	427F	
E63	SHIELD	430	SHIELD	22	90	430F	
E63	SHIELD	272	SHIELD	22	90	272F	
E64							
E64	SHIELD	418	SHIELD	22	90	418F	
E64	SHIELD	476	SHIELD	22	90	476F	
E64	SHIELD	414	SHIELD	22	90	414F	
E65							
E65	SHIELD	425	SHIELD	22	90	425S	
E65	SHIELD	421	SHIELD	22	90	421S	
E67							
E67	J7-	20		22	9013	419	
E67	SHIELD	289	SHIELD	22	90	289S	
E68							
E68	J4-	13	SHIELD	22	93	246	
E68	SHIELD	252	SHIELD	22	90	252S	
E68	SHIELD	253	SHIELD	22	90	253S	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT		SIGNAL FUNCTION OR NAME		AWG	COLOR	WIRE NO	REMARKS
E68	J4-	9	SHIELD		22	92	244	
E69								
E69	SHIELD	272	SHIELD		22	90	272S	
E70								
E70	SHIELD	436	SHIELD		22	90	436F	
E70	SHIELD	433	SHIELD		22	90	433F	
E71								
E71	SHIELD	422	SHIELD		22	90	422F	
E71	SHIELD	424	SHIELD		22	90	424F	
E71	SHIELD	425	SHIELD		22	90	425F	
E71	SHIELD	421	SHIELD		22	90	421F	
E72								
E72	SHIELD	181	SHIELD		22	90	181F	
E72	SHIELD	188	SHIELD		22	90	188F	
E72	SHIELD	238	SHIELD		22	90	238F	
E72	SHIELD	289	SHIELD		22	90	289F	
E72	SHIELD	174	SHIELD		22	90	174F	
E73								
E73	XA22P2-	A	28V UNRGLTD FILM Y		20	904	420	
E73	XA31-	3	28 VDC UNRGLTD		22	98	441	
E73	TB1-	A4	28V UNREGULATED, FILM		16	90	517	
E73	XA22P1-	A	28 V UNREGULATED FILM X		20	903	413	
E74								
E74	XA23P1-	A	6V UNRGLTD FILM Y		20	90	432	
E74	TB1-	A3	6V UNREGULATED, FILM		16	93	519	
E74	TB1-	B3	6V UNREGULATED, FILM		16	94	520	
E74	XA23PI-	B	6V UNRGLTD FILM Y		20	91	537	
E74	XA23P2-	B	6 VDC UNRGLTD FILM X		20	92	540	
E74	TB1-	B3	6V UNREG, FILM		16	901	555	
E74	XA23P2-	A	6V UNRGLTD FILM X		20	906	426	
E75								
E75	E23				22	9058	493	
E75	S1-	2	S1-(+)	NOTE 8	22	2	546	
E75	E18		+15 VDC		22	9047	489	
E76								
E76	S1-	9	S1-(-)	NOTE 7	22	9	545	
E76	E21		15 V RETURN		22	9048	490	
E77								
E77	S1-	5	S1-L	NOTE 6	22	5	544	
E77	E28				22	9067	494	
E78								
E78	E80		CR1 E-78(A), E-80(C)				551	CMPT
E78	XA23P2-	E	6VDC (FILM)		22	901	547	
E79								
E79	E80		CR2 E-79(A), E-80(C)				552	CMPT
E79	XA23P2-	N	6VDC (MAP)		22	902	548	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E80						
E80	E78	CR1 E-78(A), E-80(C)			551	CMPT
E80	E79	CR2 E-79(A), E-80(C)			552	CMPT
E80	XA12- 23	+6 VDC	22	906	367	
E81						
E81	E83	CR3 E-81(A), E-83(C)			553	CMPT
E81	XA22P1- E	28VDC (FILM)	22	92	549	
E82						
E82	E83	CR4 E-82(A), E-83(C)			554	CMPT
E82	XA22P1- N	28VDC (MAP)	22	93	550	
E83						
E83	E81	CR3 E-81(A), E-83(C)			553	CMPT
E83	E82	CR4 E-82(A), E-83(C)			554	CMPT
E83	XA12- 5	+28 VDC	22	905	366	
K1						
K1- 1	K2- 1		22	90	479	
K1- 2	K2- 2		22	91	480	
K1- 3	XA27- 3	STOW	22	94	409	
K1-	J2-	JKT FOR WIRE NO 236 NOTE 9		96	236	S236
K1- 4	J2- 11	MAP Y STOW LIMIT	22	9	236A	
K1- 5	K2- 5		22	92	481	
K1- 6	K1- 7		22	95	483	
K1- 7	J7- 26	STOW	22	9014	482	
K1- 7	K1- 6		22	95	483	
K2						
K2- 1	K1- 1		22	90	479	
K2- 1	E20	+5V RETURN	22	9037	485	
K2- 2	K1- 2		22	91	480	
K2-	J11-	JACKET FOR WIRE NO 476		9034	4761	S476
K2- 2	J11- 31	+28 V REGULATED	22	9	476A	
SHIELD 476	E64	SHIELD	22	90	476F	
K2- 3	XA25- 3	STOW	22	907	396	
K2- 4	J2- 12	MAP Y STOW LIMIT	22	6	236B	
K2- 5	E22	+5V	22	9038	486	
K2- 5	K1- 5		22	92	481	
K2- 6	K2- 7		22	94	484	
K2- 7	K2- 6		22	94	484	
K2- 7	J7- 27	STOW (X)	22	901	290	
M1						
M1- 1	J5- K	115VAC	22	903	512	
M1- 2	J5- J	115 VAC RETURN	22	91	513	
R1						
R1- 1	XA23P2- N	+6VDC MAP X	20	96	431	
R1- 1	R2- 1		22	BUS	444	
R1- 1	XA23P2- M	+6 VDC MAP X	20	98	543	
R1-	XA5-	JACKET FOR WIRE NO 4		95	4	S 4
R1- 2	XA5- D	MAP X-V RES 6	22	9	4A	
SHIELD 4	E12	SHIELD	22	90	4F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
R2								
R2-	1	R1-	1		22	BUS	444	
R2-	1	R3-	1		22	BUS	445	
R2-		XA5-		JACKET FOR WIRE NO 12		905	12	S 12
R2-	2	XA5-	T	MAP X-W RES 6	22	9	12A	
SHIELD	12	E12		SHIELD	22	90	12F	
R3								
R3-	1	R2-	1		22	BUS	445	
R3-	1	R4-	1		22	BUS	446	
R3-		XA6-		JACKET FOR WIRE NO 25		97	25	S 25
R3-	2	XA6-	M	MAP X-X RES 6	22	9	25A	
SHIELD	25	E12		SHIELD	22	90	25F	
R4								
R4-	1	R3-	1		22	BUS	446	
R4-	1	R5-	1		22	BUS	447	
R4-		XA6-		JACKET FOR WIRE NO 19		95	19	S 19
R4-	2	XA6-	D	MAP X-Y RES 6	22	9	19A	
SHIELD	19	E13		SHIELD	22	90	19F	
R5								
R5-	1	XA2-	23	+6 VDC MAP X	22	934	184	
R5-	1	R4-	1		22	BUS	447	
R5-		XA6-		JACKET FOR WIRE NO 28		98	28	S 28
R5-	2	XA6-	T	MAP X-Z RES 6	22	9	28A	
SHIELD	28	E13		SHIELD	22	90	28F	
R6								
R6-	1	XA1-	23	+6 VDC FILM X	22	924	177	
R6-	1	R7-	1		22	BUS	448	
R6-		XA7-		JACKET FOR WIRE NO 35		901	35	S 35
R6-	2	XA7-	D	FILM X-V RES 6	22	9	35A	
SHIELD	35	E13		SHIELD	22	90	35F	
R7								
R7-	1	R6-	1		22	BUS	448	
R7-	1	R8-	1		22	BUS	449	
R7-		XA7-		JACKET FOR WIRE NO 43		905	43	S 43
R7-	2	XA7-	T	FILM X-W RES 6	22	9	43A	
SHIELD	43	E14		SHIELD	22	90	43F	
R8								
R8-	1	R7-	1		22	BUS	449	
R8-	1	R9-	1		22	BUS	450	
R8-		XA8-		JACKET FOR WIRE NO 50		91	50	S 50
R8-	2	XA8-	D	FILM X-Y RES 6	22	9	50A	
SHIELD	50	E14		SHIELD	22	90	50F	
R9								
R9-	1	R8-	1		22	BUS	450	
R9-	1	R10-	1		22	90	451	
R9-		XA8-		JACKET FOR WIRE NO 56		908	56	S 56
R9-	2	XA8-	M	FILM X-X RES 6	22	9	56A	
SHIELD	56	E14		SHIELD	22	90	56F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
R10								
R10-	1	XA23P2-	E	+6 VDC	20	94	428	
R10-	1	R9-	1		22	90	451	
R10-	1	XA23P2-	D	+6 VDC FILM X	20	97	541	
R10-		XA8-		JACKET FOR WIRE NO 59		913	59	S 59
R10-	2	XA8-	T	FILM X- Z RES 6	22	9	59A	
SHIELD	59	E11		SHIELD	22	90	59F	
R11								
R11-	1	XA3-	23	+6 VDC FILM Y	22	936	192	
R11-	1	R12-	1		22	BUS	452	
R11-		XA13-		JACKET FOR WIRE NO 66		914	66	S 66
R11-	2	XA13-	D	FILM Y-V RES 6	22	9	66A	
SHIELD	66	E11		SHIELD	22	90	66F	
R12								
R12-	1	R11-	1		22	BUS	452	
R12-	1	R13-	1		22	BUS	453	
R12-		XA13-		JACKET FOR WIRE NO 74		918	74	S 74
R12-	2	XA13-	T	FILM Y-W RES 6	22	9	74A	
SHIELD	74	E11		SHIELD	22	90	74F	
R13								
R13-	1	R12-	1		22	BUS	453	
R13-	1	R14-	1		22	BUS	454	
R13-		XA14-		JACKET FOR WIRE NO 81		923	81	S 81
R13-	2	XA14-	D	FILM Y-Y RES 6	22	9	81A	
SHIELD	81	E10		SHIELD	22	90	81F	
R14								
R14-	1	R13-	1		22	BUS	454	
R14-	1	R15-	1		22	BUS	455	
R14-		XA14-		JACKET FOR WIRE NO 86		925	86	S 86
R14-	2	XA14-	M	FILM Y-X RES 6	22	9	86A	
SHIELD	86	E10		SHIELD	22	90	86F	
R15								
R15-	1	XA23P1-	E	+6 VDC FILM Y	20	97	434	
R15-	1	R14-	1		22	BUS	455	
R15-	1	XA23P1-	D	+6 VDC FILM Y	20	95	536	
R15-		XA14-		JACKET FOR WIRE NO 89		927	89	S 89
R15-	2	XA14-	T	FILM Y-Z RES 6	22	9	89A	
SHIELD	89	E10		SHIELD	22	90	89F	
R16								
R16-	1	XA4-	23	+6 VDC MAP Y	22	935	200	
R16-	1	R17-	1		22	BUS	456	
R16-		XA15-		JACKET FOR WIRE NO 96		928	96	S 96
R16-	2	XA15-	D	MAP Y-V RES 6	22	9	96A	
SHIELD	96	E9		SHIELD	22	90	96F	
R17								
R17-	1	R16-	1		22	BUS	456	
R17-	1	R18-	1		22	BUS	457	
R17-		XA15-		JACKET FOR WIRE NO 104		937	104	S104
R17-	2	XA15-	T	MAP Y-W RES 6	22	9	104A	
SHIELD	104	E9		SHIELD	22	90	104F	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
R18						
R18- 1	R17- 1		22	BUS	457	
R18- 1	R19- 1		22	BUS	458	
R18-	XA16-	JACKET FOR WIRE NO 11		938	111	S111
R18- 2	XA16- D	MAP Y-Y RES 6	22	9	111A	
SHIELD 111	E8	SHIELD	22	90	111F	
R19						
R19- 1	R18- 1		22	BUS	458	
R19- 1	R20- 1		22	BUS	459	
R19-	XA16-	JACKET FOR WIRE NO 116		946	116	S116
R19- 2	XA16- M	MAP Y-X RES 6	22	9	116A	
SHIELD 116	E8	SHIELD	22	90	116F	
R20						
R20- 1	XA23P1- N	+6 VDC MAP Y	20	98	437	
R20- 1	R19- 1		22	BUS	459	
R20- 1	XA23P1- M	+6 VDC MAP Y	20	93	539	
R20-	XA16-	JACKET FOR WIRE NO 119		948	119	S119
R20- 2	XA16- T	MAP Y-Z RES 6	22	9	119A	
SHIELD 119	E8	SHIELD	22	90	119F	
S1						
S1- 2	E75	S1-(+) NOTE 8	22	2	546	
S1- 5	E77	S1-L NOTE 6	22	5	544	
S1- 9	E76	S1-(-) NOTE 7	22	9	545	
TB1						
TB1- A1	E16	6 V UNREGULATED,MAP	16	903	531	
TB1- A1	J5- L	6V UNRGLTD	12	905	260	T262
TB1- A2	E15	28 V UNREGULATED,MAP	16	95	504	
TB1- A2	J5- A	28V UNRGLTD	12	902	256	T258
TB1- A3	E74	6V UNREGULATED, FILM	16	93	519	
TB1-- A3	J5- M	6V UNRGLTD	12	906	261	T263
TB1- A4	J5- B	28V UNRGLTD	12	904	257	T259
TB1- A4	E73	28V UNREGULATED, FILM	16	90	517	
TB1- B1	E16	6V UNREGULATED,MAP	16	97	511	
TB1- B1	E16	6V UNREGULATED,MAP	16	96	510	
TB1- B3	E74	6V UNREG, FILM	16	901	555	
TB1- B3	E74	6V UNREGULATED, FILM	16	94	520	
TB2						
TB2- Al	J5- S	STAR	12	98	264	T265
TB2- Al	J5- T	STAR	12	901	265	T264
TB2- A2	TB2- A3	LINK			556	CMPT
TB2- A2	J5- R	6V RETURN	12	97	263	T261
TB2- A3	J5- P	6V RETURN	12	96	262	T260
TB2- A3	TB2- A2	LINK			556	CMPT
TB2- A4	J5- D	28V RETURN	12	94	258	T256
TB2- A4	J5- E	28V RETURN	12	93	259	T257
TB2- B1	E17	6V&28V RTN	16	908	529	
TB2- B1	E17	6V&28V RTN	16	907	528	
TB2- B1	TB2- B2	LINK			558	CMPT
TB2- B2	E17	6V&28V RTN	16	92	527	
TB2- B2	E17	6V&28V RTN	16	906	526	
TB2- B2	TB2- B1	LINK			558	CMPT
TB2- B3	E17	6V&28V RTN	16	90	525	
TB2- B3	TB2- B4	LINK			557	CMPT
TB2- B3	E17	6V&28V RTN	16	905	524	

2036372-U

TABLE 6-57. CURSOR ELECTRONICS A14 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
TB2- B4	E17	6V&28V RTN	16	90	522	
TB2- B4	TB2- B3	LINK			557	CMPT
TB2- B4	E17	6V&28V RTN	16	904	523	

2036372-U

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J1	(P1)	INTERNAL CONNECTOR				
J1- 17	SHIELD 5	SHIELD	22	0	5S	
J1-	XA1-	JACKET FOR WIRE NO 5		91	5	S 5
J1- 18	XA1- 11	FR VEL POT POS SPLY	22	9	5A	
J1- 19	XA1- 19	FR VEL POT NEG SPLY	22	6	5B	
J1- 20	XA1- 13	FR VEL POT RETURN	22	3	5C	
J1- 21	XA1- 3	FR VEL POT WIPER RIGHT	22	5	5D	
J1-	XA4-	JACKET FOR WIRE NO 6		90	6	S 6
J1- 22	XA4- 19	FR LAMP RETURN	22	9	6A	
J1- 23	XA4- 20	FR END OF FILM LAMP	22	6	6B	
J1- 24	XA4- 3	FR OVERRIDE LAMP	22	3	6C	
J1- 25	SHIELD 7	SHIELD	22	0	7S	
J1-	XA6-	JACKET FOR WIRE NO 7		93	7	S 7
J1- 26	XA6- 3	REAR VEL POT WIPER RIGHT	22	9	7A	
J1- 27	XA6- 13	REAR VEL POT RETURN	22	6	7B	
J1- 28	XA6- 19	REAR VEL POT NEG SPLY	22	3	7C	
J1- 29	XA6- 11	REAR VEL POT POS SPLY	22	5	7D	
J1- 30	SHIELD 6	SHIELD	22	0	6S	
J1- 31	SHIELD 10	SHIELD	22	0	10S	
J1-	XA8-	JACKET FOR WIRE NO 8		90	8	S 8
J1- 32	XA8- 20	REAR CORE DIA SW RIGHT	22	9	8A	
J1- 33	XA8- 21	REAR CORE DIA SW RTN RIGHT	22	6	8B	
J1- 34	SHIELD 8	SHIELD	22	0	8S	
J1-	XA4-	JKT FOR WIRE NO 10 NOTE 12		92	10	S 10
J1- 38	XA4- 17	FR OVERRIDE SWITCH	22	9	10A	
J1- 39	XA4- 11	FR OVERRIDE SWITCH RTN	22	6	10B	
J1-	XA9-	JACKET FOR WIRE NO 11		92	11	S11
J1- 40	XA9- 3	REAR OVERRIDE LAMP	22	9	11A	
J1- 41	XA9- 20	REAR END OF FILM LAMP	22	6	11B	
J1- 42	XA9- 19	REAR LAMP RETURN	22	3	11C	
J1- 43	SHIELD 11	SHIELD	22	0	11S	
J1-	XA9-	JKT FOR WIRE NO 12 NOTE 12		94	12	S12
J1- 44	XA9- 17	REAR OVERRIDE SWITCH	22	9	12A	
J1- 45	XA9- 11	REAR OVERRIDE SW RETURN	22	6	12B	
J1- 46	SHIELD 12	SHIELD	22	0	12S	
J1-	XA9-	JKT FOR WIRE NO 13 NOTE 12		95	13	S13
J1- 47	XA9- 13	INTERLOCK NOT	22	9	13A	
J1- 48	XA9- 9	INTERLOCK NOT RETURN	22	6	13B	
J1- 49	SHIELD 13	SHIELD	22	0	13S	
J1-	XA3-	JACKET FOR WIRE NO 14		96	14	S14
J1- 52	XA3- 20	FRONT CORE DIA SW RIGHT	22	6	14A	
J1- 54	SHIELD 14	SHIELD	22	0	14S	
J1- 55	XA3- 21	FR CORE DIA SW RTN RIGHT	22	9	14B	
J2	(P2)	INTERNAL CONNECTOR				
J2-	XA8-	JACKET FOR WIRE NO 15		90	151	S15
J2- A	XA8- 23	+15 VOLTS	22	9	15A	
J2- B	XA8- 11	15 V RETURN	22	6	15B	
J2- C	XA8- 1	-15 VOLTS	22	3	15C	
J2- D	SHIELD 15	SHIELD	22	0	15S	
J2-	XA9-	JACKET FOR WIRE NO 16		90	161	S16
J2- E	XA9- 6	+5 VOLTS	22	9	16A	
J2-	XA4-	JACKET FOR WIRE NO 171		91	171	S171
J2- F	XA4- 6	+5 VOLTS	22	9	171A	
SHIELD 171	SHIELD 16	SHIELD	22	0	171S	
J2- G	SHIELD 16	SHIELD	22	0	16S	
J2- H	XA9- 4	5 V RETURN	22	6	16B	
J2- J	XA4- 4	5 V RETURN	22	6	171B	
J2- N	M1- 1	ETM 115V	22	95	20	T 3

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J2- P	M1- 2	ETM NEUTRAL	22	94	3	T 20
J2-	B1-	JKT FOR WIRE NO 19 NOTE 12		91	19	S 19
J2- R	B1- T1	FAN PHASE A	22	9	19A	
J2- S	B1- T4	FAN PHASE B	22	6	19B	
J2- T	B1- T3	FAN PHASE C	22	3	19C	
J2- U	SHIELD 19	SHIELD	22	0	19S	
J2- Y	J6- 7	+28 V POWER SUPPLY LAMP	22	92	56	T 57
J2- Z	J5- 7	+28 V POWER SUPPLY LAMP	22	92	49	T 50
J2- >A	J6- 8	+28 V RTN POWER SUPPLY LAMP	22	93	57	T 56
J2- >B	J5- 8	+28 V RTN POWER SUPPLY LAMP	22	93	50	T 49
J2- >D	SHIELD 22	SHIELD	22	0	22S	
J2-	XA11-	JACKET FOR WIRE NO 22		91	22	S 22
J2- >E	XA11- K	28 V UNREGULATED FRONT	22	9	22A	
J2- >F	XA11- L	28 V UNREGULATED FRONT	22	6	22B	
J2- >G	XA12- S	28 V UNREGULATED RETURN REAR	22	3	23C	
J2- >I	SHIELD 23	SHIELD	22	0	23S	
J2-	XA12-	JACKET FOR WIRE NO 23		92	23	S 23
J2- >J	XA12- K	28 V UNREGULATED REAR	22	9	23A	
J2- >K	XA12- L	28 V UNREGULATED REAR	22	6	23B	
J2- >M	XA11- T	STAR	22	90	24	
J2- >M	XA11- T	28 V UNREGULATED RETURN FRONT	22	5	22D	
J2- >P	XA11- S	28 V UNREGULATED RETURN FRONT	22	3	22C	
J2- >R	XA12- T	STAR	22	91	25	
J2- >R	XA12- T	28 V UNREGULATED RETURN REAR	22	5	23D	
J3	(P3)	INTERNAL CONNECTOR				
J3- 14	SHIELD 29	SHIELD	22	0	29S	
J3-	XA9-	JKT FOR WIRE NO 29 NOTE 12		91	29	S 29
J3- 15	XA9- 9	REAR ENABLE RTN	22	9	29A	
J3- 16	XA9- 16	REAR ENABLE	22	6	29B	
J3- 17	SHIELD 30	SHIELD	22	0	30S	
J3-	XA1-	JACKET FOR WIRE NO 30		92	30	S 30
J3- 18	XA1- 11	POS SPLY FR VEL POT	22	9	30A	
J3- 19	XA1- 19	NEG SPLY FR VEL POT	22	6	30B	
J3- 20	XA1- 13	FR VEL POT RETURN	22	3	30C	
J3- 21	XA1- 2	FR VEL POT WIPER LEFT	22	5	30D	
J3-	XA4-	JACKET FOR WIRE NO 31		91	31	S 31
J3- 22	XA4- 19	FR LAMP RETURN	22	9	31A	
J3- 23	XA4- 20	FR END OF FILM LAMP	22	6	31B	
J3- 24	XA4- 3	FR OVERRIDE LAMP	22	3	31C	
J3- 25	SHIELD 32	SHIELD	22	0	32S	
J3-	XA6-	JACKET FOR WIRE NO 32		94	32	S 32
J3- 26	XA6- 2	REAR VEL POT WIPER LEFT	22	9	32A	
J3- 27	XA6- 13	REAR VEL POT RETURN	22	6	32B	
J3- 28	XA6- 19	REAR VEL POT NEG SPLY	22	3	32C	
J3- 29	XA6- 11	REAR VEL POT POS SPLY	22	5	32D	
J3- 30	SHIELD 31	SHIELD	22	0	31S	
J3- 31	SHIELD 35	SHIELD	22	0	35S	
J3-	XA7-	JACKET FOR WIRE NO 33		92	33	S 33
J3- 32	XA7- 20	REAR CORE DIA SW LEFT	22	9	33A	
J3- 33	XA7- 21	REAR CORE DIA SW RTN LEFT	22	6	33B	
J3- 34	SHIELD 33	SHIELD	22	0	33S	
J3-	XA4-	JKT FOR WIRE NO 34 NOTE 12		93	34	S 34
J3- 35	XA4- 16	FRONT ENABLE	22	9	34A	
J3- 36	XA4- 9	FRONT ENABLE RETURN	22	6	348	
J3- 37	SHIELD 34	SHIELD	22	0	34S	
J3-	XA4-	JKT FOR WIRE NO 35 NOTE 12		94	35	S 35
J3- 38	XA4- 17	FR OVERRIDE SWITCH	22	9	35A	
J3- 39	XA4- 11	FR OVERRIDE SW RTN	22	6	35B	
J3-	XA9-	JACKET FOR WIRE NO 36		90	36	S 36
J3- 40	XA9- 3	REAR OVERRIDE LAMP	22	9	36A	

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J3- 41	XA9- 20	REAR END OF FILM LAMP	22	6	36B	
J3- 42	XA9- 19	REAR LAMP RETURN	22	3	36C	
J3- 43	SHIELD 36	SHIELD	22	0	36S	
J3-	XA9-	JKT FOR WIRE NO 37 NOTE 12		96	37	S 37
J3- 44	XA9- 17	REAR OVERRIDE SWITCH	22	9	37A	
J3- 45	XA9- 11	REAR OVERRIDE SW RETURN	22	6	37B	
J3- 46	SHIELD 37	SHIELD	22	0	37S	
J3-	XA4-	JKT FOR WIRE NO 38 NOTE 12		95	38	S 38
J3- 47	XA4- 13	INTERLOCK NOT	22	9	38A	
J3- 48	XA4- 9	INTERLOCK NOT RETURN	22	6	38B	
J3- 49	SHIELD 38	SHIELD	22	0	38S	
J3-	XA2-	JACKET FOR WIRE NO 39		90	39	S 39
J3- 52	XA2- 20	FRONT CORE DIA SW LEFT	22	9	39A	
J3- 54	SHIELD 39	SHIELD	22	0	39S	
J3- 55	XA2- 21	FR CORE DIA SW RTN LEFT	22	6	39B	
J4	(P4)	INTERNAL CONNECTOR				
J4-	XA3-	JACKET FOR WIRE NO 40		90	40	S40
J4- 1	XA3- 8	POS FRONT TACH RIGHT	22	9	40A	
J4- 2	XA3- 9	NEG FRONT TACH RIGHT	22	6	40B	
J4- 3	SHIELD 40	SHIELD	22	0	40S	
J4-	XA8-	JACKET FOR WIRE NO 41		91	41	S 41
J4- 4	XA8- 8	POS REAR TACH RIGHT	22	9	41A	
J4- 5	XA8- 9	NEG REAR TACH RIGHT	22	6	41B	
J4- 6	SHIELD 41	SHIELD	22	0	41S	
J4- 15	SHIELD 44	SHIELD	22	0	44S	
J4-	XA3-	JACKET FOR WIRE NO 44		90	44	S 44
J4- 16	XA3- 10	FR RAD POT LOW RIGHT	22	9	44A	
J4- 17	XA3- 19	FR RAD POT HIGH RIGHT	22	6	44B	
J4- 18	XA3- 18	FR RAD POT WIPER RIGHT	22	3	44C	
J4- 19	SHIELD 45	SHIELD	22	0	45S	
J4-	XA8-	JACKET FOR WIRE NO 45		91	45	S 45
J4- 20	XA8- 10	REAR RAD POT LOW RIGHT	22	9	45A	
J4- 21	XA8- 19	REAR RAD POT HIGH RIGHT	22	6	45B	
J4- 22	XA8- 18	REAR RAD POT WIPER RIGHT	22	3	45C	
J5	(P5)	INTERNAL CONNECTOR				
J5- 7	J2- Z	+28 V POWER SUPPLY LAMP	22	92	49	T 50
J5- 8	J2- >B	+28 V RTN POWER SUPPLY LAMP	22	93	50	T 49
J5-	XA11-	JACKET FOR WIRE NO 51		90	51	S 51
J5- 9	XA11- E	FRONT MOTOR DRIVE	22	9	51A	
J5- 10	XA11- F	FRONT MOTOR DRIVE	22	6	51B	
J5- 11	XA11- N	28 V REGULATED FR MOTOR	22	3	51C	
J5- 12	XA11- P	28 V REGULATED FR MOTOR	22	5	51D	
J5- 13	SHIELD 51	SHIELD	22	0	51S	
J5- 16	SHIELD 52	SHIELD	22	0	52S	
J5-	XA12-	JACKET FOR WIRE NO 52		91	521	S 52
J5- 17	XA12- N	28 V REGULATED REAR MOTOR	22	9	52A	
J5- 18	XA12- P	28 V REGULATED REAR MOTOR	22	6	52B	
J5- 19	XA12- E	REAR MOTOR DRIVE	22	3	52C	
J5- 20	XA12- F	REAR MOTOR DRIVE	22	5	52D	
J6	(P6)	INTERNAL CONNECTOR				
J6- 7	J2- Y	+28 V POWER SUPPLY LAMP	22	92	56	T 57
J6- 8	J2- >A	+28 V RTN POWER SUPPLY LAMP	22	93	57	T 56
J6-	XA11-	JACKET FOR WIRE NO 58		92	58	S 58
J6- 9	XA11- A	FRONT MOTOR DRIVE	22	9	58A	
J6- 10	XA11- B	FRONT MOTOR DRIVE	22	6	58B	
J6- 11	XA11- N	28 V REGULATED FR MOTOR	22	3	58C	
J6- 12	XA11- P	28 V REGULATED FR MOTOR	22	5	58D	

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J6- 13	SHIELD 58	SHIELD	22	0	58S	
J6- 16	SHIELD 59	SHIELD	22	0	59S	
J6-	XA12-	JACKET FOR WIRE NO 59		90	59	S 59
J6- 17	XA12- N	28 V REGULATED REAR MOTOR	22	9	59A	
J6- 18	XA12- P	28 V REGULATED REAR MOTOR	22	6	59B	
J6- 19	XA12- A	REAR MOTOR DRIVE	22	3	59C	
J6- 20	XA12- B	REAR MOTOR DRIVE	22	5	59D	
J7	(P7)	INTERNAL CONNECTOR				
J7-	XA2-	JACKET FOR WIRE NO 60		93	60	S 60
J7- 1	XA2- 8	POS FRONT TACH LEFT	22	9	60A	
J7- 2	XA2- 9	NEG FRONT TACH LEFT	22	6	60B	
J7- 3	SHIELD 60	SHIELD	22	0	60S	
J7-	XA7-	JACKET FOR WIRE NO 61		91	61	S 61
J7- 4	XA7- 8	POS REAR TACH LEFT	22	9	61A	
J7- 5	XA7- 9	NEG REAR TACH LEFT	22	6	61B	
J7- 6	SHIELD 61	SHIELD	22	0	61S	
J7- 15	SHIELD 64	SHIELD	22	0	64S	
J7-	XA2-	JACKET FOR WIRE NO 64		90	64	S 64
J7- 16	XA2- 10	FR RAD POT LOW LEFT	22	9	64A	
J7- 17	XA2- 19	FR RAD POT HIGH LEFT	22	6	648	
J7- 18	XA2- 18	FR RAD POT WIPER LEFT	22	3	64C	
J7- 19	SHIELD 65	SHIELD	22	0	65S	
J7-	XA7-	JACKET FOR WIRE NO 65		91	65	S 65
J7- 20	XA7- 10	REAR RAD POT LOW LEFT	22	9	65A	
J7- 21	XA7- 19	REAR RAD POT HIGH LEFT	22	6	658	
J7- 22	XA7- 18	REAR RAD POT WIPER LEFT	22	3	65C	
J8	(P8)	INTERNAL CONNECTOR				
J8-	XA1-	JACKET FOR WIRE NO 71		92	71	S 71
J8- 18	XA1- 17	FR FILM FAST FORWARD	COAX	71A		
J8- 19	SHIELD 71	SHIELD	22	0	71S	
J8-	XA1-	JACKET FOR WIRE NO 72		93	72	S 72
J8- 20	XA1- 18	FR FILM SLOW FORWARD	COAX	72A		
J8- 21	SHIELD 72	SHIELD	22	0	72S	
J8-	XA1-	JACKET FOR WIRE NO 73		94	73	S 73
J8- 22	XA1- 14	FR FILM FAST RVS	COAX	73A		
J8- 23	SHIELD 73	SHIELD	22	0	73S	
J8-	XA1-	JACKET FOR WIRE NO 74		95	74	S 74
J8- 24	XA1- 20	FR FILM SLOW RVS	COAX	74A		
J8- 25	SHIELD 74	SHIELD	22	0	74S	
J8-	XA6-	JACKET FOR WIRE NO 75		96	75	S 75
J8- 26	XA6- 17	REAR FILM FAST FORWARD	COAX	75A		
J8- 27	SHIELD 75	SHIELD	22	0	75S	
J8-	XA6-	JACKET FOR WIRE NO 76		97	76	S 76
J8- 28	XA6- 18	REAR FILM SLOW FORWARD	COAX	76A		
J8- 29	SHIELD 76	SHIELD	22	0	76S	
J8-	XA6-	JACKET FOR WIRE NO 77		98	77	S 77
J8- 30	XA6- 14	REAR FILM FAST RVS	COAX	77A		
J8- 31	SHIELD 77	SHIELD	22	0	77S	
J8-	XA6-	JACKET FOR WIRE NO 78		901	78	S 78
J8- 32	XA6- 20	REAR FILM SLOW RVS	COAX	78A		
J8- 33	SHIELD 78	SHIELD	22	0	78S	
J8-	XA4-	JACKET FOR WIRE NO 79		902	79	S 79
J8- 34	XA4- 18	FR END OF FILM	COAX	79A		
J8- 35	SHIELD 79	SHIELD	22	0	79S	
J8-	XA9-	JACKET FOR WIRE NO 80		903	80	S 80
J8- 36	XA9- 18	REAR END OF FILM	COAX	80A		
J8- 37	SHIELD 80	SHIELD	22	0	80S	

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA1	(A1P1)	INTERNAL CONNECTOR				
XA1- 1	XA2- 1	-15 VOLTS	22	90	122	
XA1- 2	J3- 21	FR VEL POT WIPER LEFT	22	5	30D	
XA1- 3	J1- 21	FR VEL POT WIPER RIGHT	22	5	5D	
XA1- 4	XA4- 4	5 V RETURN	22	91	123	
XA1- 4	XA1- 8		22	904	1	
XA1- 5	XA4- 13	NTERLOCK NOT	22	93	124	
XA1- 5	XA6- 5	INTERLOCK NOT	22	92	83	
XA1- 6	XA4- 6	+5 VOLTS	22	94	125	
XA1- 6	XA6- 6	+5 VOLTS	22	914	119	
XA1- 7	XA4- 7	FORWARD STOP	22	95	126	
XA1- 8	XA1- 4		22	904	1	
XA1- 8	XA1- 16	5 V RETURN	22	903	130	
XA1- 8	XA1- 15	5 V RETURN	22	902	129	
XA1- 10	XA4- 8	REVERSE STOP	22	96	127	
XA1-	J3-	JACKET FOR WIRE NO 30		92	30	S 30
XA1- 11	J3- 18	POS SPLY FR VEL POT	22	9	30A	
SHIELD 30	E1	SHIELD NOTE 11	22	0	30F	
XA1-	J1-	JACKET FOR WIRE NO 5		91	51	S 5
XA1- 11	J1-118	FR VEL POT POS SPLY	22	9	5A	
SHIELD 5	E1	SHIELD NOTE 11	22	0	5F	
XA1- 12	XA5- 14	SIGNAL GROUND	22	906	180	
XA1- 12	XA2- 12	15 V RETURN	22	97	128	
XA1- 13	J1- 20	FR VEL POT RETURN	22	3	5C	
XA1- 13	J3- 20	FR VEL POT RETURN	22	3	30C	
XA1-	J8-	JACKET FOR WIRE NO 73		94	73	S 73
XA1- 14	J8- 22	FR FILM FAST RVS		COAX	73A	
XA1- 15	SHIELD 71	SHIELD	22	0	71F	
XA1- 15	SHIELD 73	SHIELD	22	0	73F	
XA1- 15	XA1- 8	5 V RETURN	22	902	129	
XA1- 16	SHIELD 74	SHIELD	22	0	74F	
XA1- 16	XA1- 8	5 V RETURN	22	903	130	
XA1- 16	SHIELD 72	SHIELD	22	0	72F	
XA1-	J8-	JACKET FOR WIRE NO 71		92	71	S 71
XA1- 17	J8- 18	FR FILM FAST FORWARD		COAX	71A	
XA1-	J8-	JACKET FOR WIRE NO 72		93	72	S 72
XA1- 18	J8- 20	FR FILM SLOW FORWARD		COAX	72A	
XA1- 19	J1- 19	FR VEL POT NEG SPLY	22	6	5B	
XA1- 19	J3- 19	NEG SPLY FR VEL POT	22	6	30B	
XA1-	J8-	JACKET FOR WIRE NO 74		95	74	S 74
XA1- 20	J8- 24	FR FILM SLOW RVS		COAX	74A	
XA1- 21	XA4- 21	(-) RATE	22	98	131	
XA1- 23	XA2- 23	+15 VOLTS	22	901	132	
XA2	(A2P1)	INTERNAL CONNECTOR				
XA2- 1	XA1- 1	-15 VOLTS	22	90	122	
XA2- 1	XA3- 1	-15 VOLTS	22	91	133	
XA2- 2	XA3- 2	TACH ON	22	97	178	
XA2- 5	XA4- 10	INTERLOCK LEFT FRONT	22	92	134	
XA2-	J7-	JACKET FOR WIRE NO 60		93	60	S 60
XA2- 8	J7- 1	POS FRONT TACH LEFT	22	9	60A	
SHIELD 60	E2	SHIELD NOTE 11	22	0	60F	
XA2 9	J7- 2	NEG FRONT TACH LEFT	22	6	60B	
XA2- 9	XA2- 11	15 V RETURN	22	93	135	
XA2-	J7-	JACKET FOR WIRE NO 64		90	64	S 64
XA2- 10	J7- 16	FR RAD POT LOW LEFT	22	9	64A	
SHIELD 64	E7	SHIELD NOTE 11	22	0	64F	
XA2- 11	XA2- 12	15 V RETURN	22	94	136	
XA2- 11	XA2- 9	15 V RETURN	22	93	135	

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA2- 12	XA1- 12	15 V RETURN	22	97	128	
XA2- 12	XA3- 12	15 V RETURN	22	95	137	
XA2- 12	XA2- 11	15 V RETURN	22	94	136	
XA2- 13	XA4- 14	DISABLE LEFT FRONT	22	902	138	
XA2- 14	XA11- W	FEEDBACK LEFT FRONT	22	96	139	
XA2- 15	XA4- 2	(+) RATE LIMITED	22	903	140	
XA2- 16	XA2- 23	+15 VOLTS	22	98	141	
XA2- 17	XA11- C	AMP DRIVE LEFT FRONT	22	904	142	
XA2- 18	J7- 18	FR RAD POT WIPER LEFT	22	3	64C	
XA2- 19	J7- 17	FR RAD POT HIGH LEFT	22	6	64B	
XA2-	J3-	JACKET FOR WIRE NO 39		90	39	S 39
XA2- 20	J3- 52	FRONT CORE DIA SW LEFT	22	9	39A	
SHIELD 39	E7	SHIELD NOTE 11	22	0	39F	
XA2- 21	J3- 55	FR CORE DIA SW RTN LEFT	22	6	39B	
XA2- 22	XA4- 22	LT END OF FILM FRONT	22	905	143	
XA2- 23	XA3- 23	+15 VOLTS	22	906	144	
XA2- 23	XA1- 23	+15 VOLTS	22	901	132	
XA2- 23	XA2- 16	+15 VOLTS	22	98	141	
XA3	(A3P1)	INTERNAL CONNECTOR				
XA3- 1	XA2- 1	-15 VOLTS	22	91	133	
XA3- 1	XA4- 1	-15 VOLTS	22	90	145	
XA3- 2	XA2- 2	TACH ON	22	97	178	
XA3-	J4-	JACKET FOR WIRE NO 40		90	40	S 40
XA3- 8	J4- 1	POS FRONT TACH RIGHT	22	9	40A	
SHIELD 40	E8	SHIELD NOTE 11	22	0	40F	
XA3- 9	J4- 2	NEG FRONT TACH RIGHT	22	6	40B	
XA3- 9	XA3- 11	15 V RETURN	22	92	147	
XA3-	J4-1	JACKET FOR WIRE NO 44		90	44	S 44
XA3- 10	J4-116	FR RAD POT LOW RIGHT	22	9	44A	
SHIELD 44	E8	SHIELD NOTE 11	22	0	44F	
XA3- 11	XA3- 9	15 V RETURN	22	92	147	
XA3- 11	XA3- 12	15 V RETURN	22	93	148	
XA3- 12	XA2- 12	15 V RETURN	22	95	137	
XA3- 12	XA4- 12	15 V RETURN	22	901	149	
XA3- 12	XA3- 11	15 V RETURN	22	93	148	
XA3- 13	XA4- 14	DISABLE RIGHT FRONT	22	904	150	
XA3- 14	XA11- V	FEEDBACK RIGHT FRONT	22	94	151	
XA3- 15	XA4- 5	(-) RATE LIMITED	22	907	152	
XA3- 16	XA3- 23	+15 VOLTS	22	902	153	
XA3- 17	XA11-H AMP DRIVE RIGHT FRONT		22	903	154	
XA3- 18	J4-18 FR RAD POT WIPER RIGHT		22	3	44C	
XA3- 19	J4-17 FR RAD POT HIGH RIGHT		22	6	44B	
XA3-	J1-	JACKET FOR WIRE NO 14		96	14	S 14
XA3- 20	J1- 52	FRONT CORE DIA SW RIGHT	22	6	14A	
SHIELD 14	E3	SHIELD NOTE 11	22	0	14F	
XA3- 21	J1- 55	FR CORE DIA SW RTN RIGHT	22	9	14B	
XA3- 22	XA4- 15	RT END OF FILM FRONT	22	908	155	
XA3- 23	XA4- 23	+15 VOLTS	22	912	156	
XA3- 23	XA2- 23	+15 VOLTS	22	906	144	
XA3- 23	XA3- 16	+15 VOLTS	22	902	153	
XA4	(A4P1)	INTERNAL CONNECTOR				
XA4- 1	XA9- 1	-15VOLTS	22	906	117	
XA4- 1	XA3- 1	-15 VOLTS	22	90	145	
XA4- 2	XA2- 15	(+) RATE LIMITED	22	903	140	
XA4- 3	J3- 24	FR OVERRIDE LAMP	22	3	31C	
XA4- 3	J1- 24	FR OVERRIDE LAMP	22	3	6C	
XA4- 4	XA1- 4	5 V RETURN	22	91	123	
XA4- 4	J2- J	5 V RETURN	22	6	171B	

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA4- 4	XA9- 4	5 V RETURN	22	913	118	
XA4- 5	XA3- 15	(-) RATE LIMITED	22	907	152	
XA4-	J2-	JACKET FOR WIRE NO 171		91	171	S171
XA4- 6	J2- F	+5 VOLTS	22	9	171A	
SHIELD 171	E9	SHIELD NOTE 11	22	0	171F	
XA4- 6	XA1- 6	+5 VOLTS	22	94	125	
XA4- 7	XA1- 7	FORWARD STOP	22	95	126	
XA4- 8	XA1- 10	REVERSE STOP	22	96	127	
XA4- 9	J3- 36	FRONT ENABLE RETURN	22	6	34B	
XA4- 9	SHIELD 79	SHIELD	22	0	79F	
XA4- 9	J3- 48	INTERLOCK NOT RETURN	22	6	38B	
XA4- 10	XA2- 5	INTERLOCK LEFT FRONT	22	92	134	
XA4- 11	J1- 39	FR OVERRIDE SWITCH RTN	22	6	10B	
XA4- 11	J3- 39	FR OVERRIDE SW RTN	22	6	35B	
XA4- 12	XA9- 12	15 V RETURN	22	915	120	
XA4- 12	E32	FRONT VANE SW NEG	22	917	166	T167
XA4- 12	XA3- 12	15 V RETURN	22	901	149	
XA4- 13	XA1- 5	INTERLOCK NOT	22	93	124	
XA4-	J3-	JKT FOR WIRE NO 38 NOTE 12		95	38	S 38
XA4- 13	J3- 47	INTERLOCK NOT	22	9	38A	
XA4- 14	XA3- 13	DISABLE RIGHT FRONT	22	904	150	
XA4- 14	XA2- 13	DISABLE LEFT FRONT	22	902	138	
XA4- 15	XA3- 22	RT END OF FILM FRONT	22	908	155	
XA4-	J3-	JKT FOR WIRE NO 34 NOTE 12		93	34	S 34
XA4- 16	J3- 35	FRONT ENABLE	22	9	34A	
XA4- 16	E33	FRONT VANE SW LOAD	22	918	167	T165
XA4-	J1-	JKT FOR WIRE NO 10 NOTE 12		92	10	S 10
XA4- 17	J1- 38	FR OVERRIDE SWITCH	*22*	9	10A	
XA4-	J3-	JKT FOR WIRE NO 35 NOTE12		94	35	S 35
XA4- 17	J3- 38	FR OVERRIDE SWITCH	22	9	35A	
XA4-	J8-	JACKET FOR WIRE NO 79		902	79	S 79
XA4- 18	J8- 34	FR END OF FILM		COAX	79A	
XA4-	J1-	JACKET FOR WIRE NO 6		90	6	S 6
XA4- 19	J1- 22	FR LAMP RETURN	22	9	6A	
SHIELD 6	E9	SHIELD NOTE 11	22	0	6F	
XA4-	J3-	JACKET FOR WIRE NO 31		91	31	S 31
XA4- 19	J3- 22	FR LAMP RETURN	22	9	31A	
SHIELD 31	E9	SHIELD NOTE 11	22	0	31F	
XA4- 20	J1- 23	FR END OF FILM LAMP	22	6	6B	
XA4- 20	J3- 23	FR END OF FILM LAMP	22	6	31B	
XA4- 21	XA1- 21	(-) RATE	22	98	131	
XA4- 22	XA2- 22	LT END OF FILM FRONT	22	905	143	
XA4- 23	XA9- 23	+15 VOLTS	22	916	121	
XA4- 23	E31	FRONT VANE SW POS	22	914	165	T166
XA4- 23	XA3- 23	+15 VOLTS	22	912	156	
XA5	(A5P1)	INTERNAL CONNECTOR				
XA5- 1	XA12- N	28 V REGULATED REAR MOTOR	22	90	157	
XA5- 2	XA12- M	DRIVE	22	92	158	
XA5- 3	XA12- K	28 V UNREGULATED REAR	22	93	159	
XA5- 12	XA11- S	28 V RETURN FRONT	22	91	161	
XA5- 12	XA12- S	28 V RETURN REAR	22	95	160	
XA5- 14	XA1- 12	SIGNAL GROUND	22	906	180	
XA5- 19	XA11- K	28 V UNREGULATED FRONT	22	97	162	
XA5- 22	XA11- N	28 V REGULATED FRONT MOTOR	22	901	163	
XA5- 23	XA11- M	DRIVE	22	905	164	

905766- P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA6	(A6P1)	INTERNAL CONNECTOR				
XA6- 1	XA7- 1	-15 VOLTS	22	90	81	
XA6-	J3-	JACKET FOR WIRE NO 32		94	32	S 32
XA6- 2	J3- 26	REAR VEL POT WIPER LEFT	22	9	32A	
SHIELD 32	E17	SHIELD NOTE 11	22	0	32F	
XA6-	J1-	JACKET FOR WIRE NO 7		93	7	S 7
XA6- 3	J1- 26	REAR VEL POT WIPER RIGHT	22	9	7A	
SHIELD 7	E17	SHIELD NOTE 11	22	0	7F	
XA6- 4	XA9- 4	5 V RETURN	22	91	82	
XA6- 4	XA6- 8		22	904	2	
XA6- 5	XA1- 5	INTERLOCK NOT	22	92	83	
XA6- 5	XA9- 13	NTERLOCK NOT	22	93	84	
XA6- 6	XA9- 6	+5 VOLTS	22	94	85	
XA6- 6	XA1- 6	+5 VOLTS	22	914	119	
XA6- 7	XA9- 7	FORWARD STOP	22	95	86	
XA6- 8	XA6- 16	5 V RETURN	22	901	90	
XA6- 8	XA6- 4		22	904	2	
XA6- 8	XA6- 15	5 V RETURN	22	98	89	
XA6- 10	XA9- 8	REVERSE STOP	22	96	87	
XA6- 11	J1- 29	REAR VEL POT POS SPLY	22	5	7D	
XA6- 11	J3- 29	REAR VEL POT POS SPLY	22	5	32D	
XA6- 12	XA7- 12	15 V RETURN	22	97	88	
XA6- 13	J1- 27	REAR VEL POT RETURN	22	6	7B	
XA6- 13	J3- 27	REAR VEL POT RETURN	22	6	32B	
XA6-	J8-	JACKET FOR WIRE NO 77		98	77	S 77
XA6- 14	J8- 30	REAR FILM FAST RVS		COAX	77A	
XA6- 15	SHIELD 75	SHIELD	22	0	75F	
XA6- 15	SHIELD 77	SHIELD	22	0	77F	
XA6- 15	XA6- 8	5 V RETURN	22	98	89	
XA6- 16	SHIELD 78	SHIELD	22	0	78F	
XA6- 16	SHIELD 76	SHIELD	22	0	76F	
XA6- 16	XA6- 8	5 V RETURN	22	901	90	
XA6-	J8-	JACKET FOR WIRE NO 75		96	75	S 75
XA6- 17	J8- 26	REAR FILM FAST FORWARD		COAX	75A	
XA6-	J8-	JACKET FOR WIRE NO 76		97	76	S 76
XA6- 18	J8- 28	REAR FILM SLOW FORWARD		COAX	76A	
XA6- 19	J1- 28	REAR VEL POT NEG SPLY	22	3	7C	
XA6- 19	J3- 28	REAR VEL POT NEG SPLY	22	3	32C	
XA6-	J8-	JACKET FOR WIRE NO 78		901	78	S 78
XA6- 20	J8- 32	REAR FILM SLOW RVS		COAX	78A	
XA6- 21	XA9- 21	(-) RATE	22	902	91	
XA6- 23	XA7- 23	+15 VOLTS	22	903	92	
XA7	(A7P1)	INTERNAL CONNECTOR				
XA7- 1	XA6- 1	-15 VOLTS	22	90	81	
XA7- 1	XA8- 1	-15 VOLTS	22	91	93	
XA7- 2	XA8- 2	TACH ON	22	97	179	
XA7- 5	XA9- 10	INTERLOCK LEFT REAR	22	92	94	
XA7-	J7-	JACKET FOR WIRE NO 61		91	61	S 61
XA7- 8	J7- 4	POS REAR TACH LEFT	22	9	61A	
SHIELD 61	E17	SHIELD NOTE 11	22	0	61F	
XA7- 9	J7- 5	NEG REAR TACH LEFT	22	6	61B	
XA7- 9	XA7- 11	15 V RETURN	22	93	95	
XA7-	J7-	JACKET FOR WIRE NO 65		91	65	S 65
XA7- 10	J7- 20	REAR RAD POT LOW LEFT	22	9	65A	
SHIELD 65	E12	SHIELD NOTE 11	22	0	65F	
XA7- 11	XA7- 12	15 V RETURN	22	94	96	
XA7- 11	XA7- 9	15 V RETURN	22	93	95	
XA7- 12	XA6- 12	15 V RETURN	22	97	88	

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA7- 12	XA8- 12	15 V RETURN	22	95	97	
XA7- 12	XA7- 11	15 V RETURN	22	94	96	
XA7- 13	XA9- 14	DISABLE LEFT REAR	22	98	98	
XA7- 14	XA12- W	FEEDBACK LEFT REAR	22	96	99	
XA7- 15	XA9- 2	(+) RATE LIMITED	22	901	100	
XA7- 16	XA7- 23	+15 VOLTS	22	902	101	
XA7- 17	XA12- C	AMP DRIVE LEFT REAR	22	904	102	
XA7- 18	J7- 22	REAR RAD POT WIPER LEFT	22	3	65C	
XA7- 19	J7- 21	REAR RAD POT HIGH LEFT	22	6	65B	
XA7-	J3-	JACKET FOR WIRE NO 33		92	33	S 33
XA7- 20	J3- 32	REAR CORE DIA SW LEFT	22	9	33A	
SHIELD 33	E12	SHIELD NOTE 11	22	0	33F	
XA7- 21	J3- 33	REAR CORE DIA SW RTN LEFT	22	6	33B	
XA7- 22	XA9- 22	LT END OF FILM REAR	22	905	103	
XA7- 23	XA8- 23	+15 VOLTS	22	906	104	
XA7- 23	XA6- 23	+15 VOLTS	22	903	92	
XA7- 23	XA7- 16	+15 VOLTS	22	902	101	
XA8	(A8P1)	INTERNAL CONNECTOR				
XA8- 1	XA9- 1	-15 VOLTS	22	912	116	
XA8- 1	XA7- 1	-15 VOLTS	22	91	93	
XA8- 1	J2- C	-15 VOLTS	22	3	15C	
XA8- 2	XA7- 2	TACH ON	22	97	179	
XA8-	J4-	JACKET FOR WIRE NO 41		91	41	S 41
XA8- 8	J4- 4	POS REAR TACH RIGHT	22	9	41A	
SHIELD 41	E18	SHIELD NOTE 11	22	0	41F	
XA8- 9	J4- 5	NEG REAR TACH RIGHT	22	6	41B	
XA8- 9	XA8- 11	5 V RETURN	22	92	106	
XA8-	J4-	JACKET FOR WIRE NO 45		91	45	S 45
XA8- 10	J4- 20	REAR RAD POT LOW RIGHT	22	9	45A	
SHIELD 45	E14	SHIELD NOTE 11	22	0	45F	
XA8- 11	J2- B	15 V RETURN	22	6	158	
XA8- 11	XA8- 12	15 V RETURN	22	93	107	
XA8- 11	XA8- 9	15VRETURN	22	92	106	
XA8- 12	XA9- 12	15 V RETURN	22	97	108	
XA8- 12	XA8- 11	15 V RETURN	22	93	107	
XA8- 12	XA7- 12	15 V RETURN	22	95	97	
XA8- 13	XA9- 14	DISABLE RIGHT REAR	22	903	109	
XA8- 14	XA12- V	FEEDBACK RIGHT REAR	22	94	110	
XA8- 15	XA9- 5	(-) RATE LIMITED	22	904	111	
XA8- 16	XA8- 23	+15 VOLTS	22	98	112	
XA8- 17	XA12- H	AMP DRIVE RIGHT REAR	22	901	113	
XA8- 18	J4- 22	REAR RAD POT WIPER RIGHT	22	3	45C	
XA8- 19	J4- 21	REAR RAD POT HIGH RIGHT	22	6	45B	
XA8-	J1-	JACKET FOR WIRE NO 8		90	8	S 8
XA8- 20	J1- 32	REAR CORE DIA SW RIGHT	22	9	8A	
SHIELD 8	E14	SHIELD NOTE 11	22	0	8F	
XA8- 21	J1- 33	REAR CORE DIA SW RTN RIGHT	22	6	8B	
XA8- 22	XA9- 15	RT END OF FILM REAR	22	907	114	
XA8- 23	XA9- 23	+15 VOLTS	22	908	115	
XA8- 23	XA8- 16	+15 VOLTS	22	98	112	
XA8-	J2-	JACKET FOR WIRE NO 15		90	15	S 15
XA8- 23	J2- A	+15 VOLTS	22	9	15A	
SHIELD 15	E18	SHIELD NOTE 11	22	0	15F	
XA8- 23	XA7- 23	+15 VOLTS	22	906	104	
XA9	(A9P1)	INTERNAL CONNECTOR				
XA9- 1	XA4- 1	-15VOLTS	22	906	117	
XA9- 1	XA8- 1	-15 VOLTS	22	912	116	
XA9- 2	XA7- 15	(+) RATE LIMITED	22	901	100	

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA9-	J1-	JACKET FOR WIRE NO 11		92	11	S11
XA9- 3	J1- 40	REAR OVERRIDE LAMP	22	9	11A	
SHIELD 11	E18	SHIELD NOTE 11	22	0	11F	
XA9-	J3-	JACKET FOR WIRE NO 36		90	36	S 36
XA9- 3	J3- 40	REAR OVERRIDE LAMP	22	9	36A	
SHIELD 36	E17	SHIELD NOTE 11	22	0	36F	
XA9- 4	XA4- 4	5 V RETURN	22	913	118	
XA9- 4	J2- H	5 V RETURN	22	6	16B	
XA9- 4	XA6- 4	5 V RETURN	22	91	82	
XA9- 5	XA8- 15	(-) RATE LIMITED	22	904	111	
XA9- 6	XA6- 6	+5 VOLTS	22	94	85	
XA9-	J2-	JACKET FOR WIRE NO 16		90	16	S 16
XA9- 6	J2- E	+5 VOLTS	22	9	16A	
SHIELD 16	E14	SHIELD NOTE 11	22	0	16F	
XA9- 7	XA6- 7	FORWARD STOP	22	95	86	
XA9- 8	XA6- 10	REVERSE STOP	22	96	87	
XA9-	J3-	JKT FOR WIRE NO 29 NOTE 12		91	29	S 29
XA9- 9	J3- 15	REAR ENABLE RTN	22	9	29A	
XA9- 9	SHIELD 80	SHIELD	22	0	80F	
XA9- 9	J1- 48	INTERLOCK NOT RETURN	22	6	13B	
XA9- 10	XA7- 5	INTERLOCK LEFT REAR	22	92	94	
XA9- 11	J1- 45	REAR OVERRIDE SW RETURN	22	6	12B	
XA9- 11	J3- 45	REAR OVERRIDE SW RETURN	22	6	37B	
XA9- 12	XA8- 12	15 V RETURN	22	97	108	
XA9- 12	XA4- 12	15 V RETURN	22	915	120	
XA9- 12	E35	REAR VANE SW NEG	22	917	169	T170
XA9- 13	XA6- 5	INTERLOCK NOT	22	93	84	
XA9-	J1-	JKT FOR WIRE NO 13 NOTE 12		95	13	S 13
XA9- 13	J1- 47	INTERLOCK NOT	22	9	13A	
XA9- 14	XA8- 13	DISABLE RIGHT REAR	22	903	109	
XA9- 14	XA7- 13	DISABLE LEFT REAR	22	98	98	
XA9- 15	XA8- 22	RT END OF FILM REAR	22	907	114	
XA9- 16	E36	REAR VANE SW LOAD	22	918	170	T168
XA9- 16	J3- 16	REAR ENABLE	22	6	29B	
XA9-	J1-	JKT FOR WIRE NO 12 NOTE 12		94	12	S 12
XA9- 17	J1- 44	REAR OVERRIDE SWITCH	22	9	12A	
XA9-	J3-	JKT FOR WIRE NO 37 NOTE 12		96	37	S 37
XA9- 17	J3- 44	REAR OVERRIDE SWITCH	22	9	37A	
XA9-	J8-	JACKET FOR WIRE NO 80		903	80	S 80
XA9- 18	J8- 36	REAR END OF FILM		COAX	80A	
XA9- 19	J3- 42	REAR LAMP RETURN	22	3	36C	
XA9- 19	J1- 42	REAR LAMP RETURN	22	3	11C	
XA9- 20	J1- 41	REAR END OF FILM LAMP	22	6	11B	
XA9- 20	J3- 41	REAR END OF FILM LAMP	22	6	368	
XA9- 21	XA6- 21	(-) RATE	22	902	91	
XA9- 22	XA7- 22	LT END OF FILM REAR	22	905	103	
XA9- 23	E34	REAR VANE SW POS	22	914	168	T169
XA9- 23	XA4- 23	+15 VOLTS	22	916	121	
XA9- 23	XA8- 23	+15 VOLTS	22	908	115	
XA1	(A11P1)	INTERNAL CONNECTOR				
XA11-	J6-	JACKET FOR WIRE NO 58		92	58	S 58
XA11- A	J6- 9	FRONT MOTOR DRIVE	22	9	58A	
SHIELD 58	E23	SHIELD NOTE 11	22	0	58F	
XA11- B	J6- 10	FRONT MOTOR DRIVE	22	6	58B	
XA11- C	XA2- 17	AMP DRIVE LEFT FRONT	22	904	142	
XA11- D	E23	CHASSIS GND NOTE 11	22	901	21	
XA11-	J5-	JACKET FOR WIRE NO 51		90	51	S 51
XA11- E	J5- 9	FRONT MOTOR DRIVE	22	9	51A	
SHIELD 51	E23	SHIELD NOTE 11	22	0	51F	

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
XA11- F	J5- 10	FRONT MOTOR DRIVE	22	6	518	
XA11- H	XA3- 17	AMP DRIVE RIGHT FRONT	22	903	154	
XA11-	J2-	JACKET FOR WIRE NO 22		91	22	S 22
XA11- K	J2- >E	28 V UNREGULATED FRONT	22	9	22A	
SHIELD 22	E23	SHIELD NOTE 11	22	0	22F	
XA11- K	XA5- 19	28 V UNREGULATED FRONT	22	97	162	
XA11- L	J2- >F	28 V UNREGULATED FRONT	22	6	22B	
XA11- M	XA5- 23	DRIVE	22	905	164	
XA11- N	XA5- 22	28 V REGULATED FRONT MOTOR	22	901	163	
XA11- N	J5- 11	28 V REGULATED FR MOTOR	22	3	51C	
XA11- N	J6- 11	28 V REGULATED FR MOTOR	22	3	58C	
XA11- P	J5- 12	28 V REGULATED FR MOTOR	22	5	51D	
XA11- P	J6- 12	28 V REGULATED FR MOTOR	22	5	58D	
XA11- S	XA5- 12	28 V RETURN FRONT	22	91	161	
XA11- S	J2- >P	28 V UNREGULATED RETURN FRONT	22	3	22C	
XA11- T	J2- >M	STAR	22	90	24	
XA11- T	J2- >M	28 V UNREGULATED RETURN FRONT	22	5	22D	
XA11- V	XA3- 14	FEEDBACK RIGHT FRONT	22	94	151	
XA11- W	XA2- 14	FEEDBACK LEFT FRONT	22	96	139	
XA12	(A12P1)	INTERNAL CONNECTOR				
XA12- A	J6- 19	REAR MOTOR DRIVE	22	3	59C	
XA12- B	J6- 20	REAR MOTOR DRIVE	22	5	59D	
XA12- C	XA7- 17	AMP DRIVE LEFT REAR	22	904	102	
XA12- D	E24	CHASSIS GND NOTE 11	22	903	26	
XA12- E	J5- 19	REAR MOTOR DRIVE	22	3	52C	
XA12- F	J5- 20	REAR MOTOR DRIVE	22	5	52D	
XA12- H	XA8- 17	AMP DRIVE RIGHT REAR	22	901	113	
XA12-	J2-	JACKET FOR WIRE NO 23		92	23	S 23
XA12- K	J2- >J	28 V UNREGULATED REAR	22	9	23A	
SHIELD 23	E22	SHIELD NOTE 11	22	0	23F	
XA12- K	XA5- 3	28 V UNREGULATED REAR	22	93	159	
XA12- L	J2- >K	28 V UNREGULATED REAR	22	6	23B	
XA12- M	XA5- 2	DRIVE	22	92	158	
XA12-	J6-	JACKET FOR WIRE NO 59		90	59	S 59
XA12- N	J6- 17	28 V REGULATED REAR MOTOR	22	9	59A	
SHIELD 59	E24	SHIELD NOTE 11	22	0	59F	
XA12- N	XA5- 1	28 V REGULATED REAR MOTOR	22	90	157	
XA12-	J5-	JACKET FOR WIRE NO 52		91	52	S 52
XA12- N	J5- 17	28 V REGULATED REAR MOTOR	22	9	52A	
SHIELD 52	E22	SHIELD NOTE 11	22	0	52F	
XA12- P	J6- 18	28 V REGULATED REAR MOTOR	22	6	59B	
XA12- P	J5- 18	28 V REGULATED REAR MOTOR	22	6	52B	
XA12- S	XA5- 12	28 V RETURN REAR	22	95	160	
XA12- S	J2- >G	28 V UNREGULATED RETURN REAR	22	3	23C	
XA12- T	J2- >R	STAR	22	91	25	
XA12- T	J2- >R	28 V UNREGULATED RETURN REAR	22	5	23D	
XA12- V	XA8- 14	FEEDBACK RIGHT REAR	22	94	110	
XA12- W	XA7- 14	FEEDBACK LEFT REAR	22	96	99	
B1 FAN						
B1-	J2-	JKT FOR WIRE NO 19 NOTE 12		91	19	S 19
B1- T1	J2- R	FAN PHASE A	22	9	19A	
B1- T3	J2- T	FAN PHASE C	22	3	19C	
B1- T4	J2- S	FAN PHASE B	22	6	19B	
E1		TERMINAL POSTS				
E1	SHIELD 30	SHIELD NOTE 11	22	0	30F	
E1	SHIELD 5	SHIELD NOTE 11	22	0	5F	

905766- P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT		SIGNAL FUNCTION OR NAME		AWG	COLOR	WIRE NO	REMARKS
E2			TERMINAL POSTS					
E2	SHIELD	60	SHIELD	NOTE 11	22	0	60F	
E3			TERMINAL POSTS					
E3	SHIELD	14	SHIELD	NOTE 11	22	0	14F	
E7			TERMINAL POSTS					
E7	SHIELD	64	SHIELD	NOTE 11	22	0	64F	
E7	SHIELD	39	SHIELD	NOTE 11	22	0	39F	
E8			TERMINAL POSTS					
E8	SHIELD	44	SHIELD	NOTE 11	22	0	44F	
E8	SHIELD	40	SHIELD	NOTE 11	22	0	40F	
E9			TERMINAL POSTS					
E9	SHIELD	31	SHIELD	NOTE 11	22	0	31F	
E9	SHIELD	171	SHIELD	NOTE 11	22	0	171F	
E9	SHIELD	6	SHIELD	NOTE 11	22	0	6F	
E12			TERMINAL POSTS					
E12	SHIELD	65	SHIELD	NOTE 11	22	0	65F	
E12	SHIELD	33	SHIELD	NOTE 11	22	0	33F	
E14			TERMINAL POSTS					
E14	SHIELD	16	SHIELD	NOTE 11	22	0	16F	
E14	SHIELD	45	SHIELD	NOTE 11	22	0	45F	
E14	SHIELD	8	SHIELD	NOTE 11	22	0	8F	
E17			TERMINAL POSTS					
E17	SHIELD	32	SHIELD	NOTE 11	22	0	32F	
E17	SHIELD	36	SHIELD	NOTE 11	22	0	36F	
E17	SHIELD	61	SHIELD	NOTE 11	22	0	61F	
E17	SHIELD	7	SHIELD	NOTE 11	22	0	7F	
E18			TERMINAL POSTS					
E18	SHIELD	15	SHIELD	NOTE 11	22	0	15F	
E18	SHIELD	41	SHIELD	NOTE 11	22	0	41F	
E18	SHIELD	11	SHIELD	NOTE 11	22	0	11F	
E22			TERMINAL POSTS					
E22	SHIELD	52	SHIELD	NOTE 11	22	0	52F	
E22	SHIELD	23	SHIELD	NOTE 11	22	0	23F	
E23			TERMINAL POSTS					
E23	SHIELD	22	SHIELD	NOTE 11	22	0	22F	
E23	SHIELD	51	SHIELD	NOTE 11	22	0	51F	
E23	SHIELD	58	SHIELD	NOTE 11	22	0	58F	
E23	XA11-	D	CHASSIS GND	NOTE 11	22	901	21	
E24			TERMINAL POSTS					
E24	SHIELD	59	SHIELD	NOTE 11	22	0	59F	
E24	XA12-	D	CHASSIS GND	NOTE 11	22	903	26	
E31			TERMINAL POSTS					
E31	S1-	2	FRONT VANE SW POS	NOTE 8	22	2	172	T173
E31	XA4-	23	FRONT VANE SW POS		22	914	165	T166

905766-P

TABLE 6-58. FILM TRANSPORT ELECTRONICS A15 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E32		TERMINAL POSTS				
E32	S1- 9	FRONT VANE SW NEG NOTE 9	22	9	173	T174
E32	XA4- 12	FRONT VANE SW NEG	22	917	166	T167
E33		TERMINAL POSTS				
E33	S1- 5	FRONT VANE SW LOAD NOTE 10	22	5	174	T172
E33	XA4- 16	FRONT VANE SW LOAD	22	918	167	T165
E34		TERMINAL POSTS				
E34	S2- 2	FRONTVANE SW POS NOTE 8	22	2	175	T176
E34	XA9- 23	REAR VANE SW POS	22	914	168	T169
E35		TERMINAL POSTS				
E35	S2- 9	FRONT VANE SW NEG NOTE 9	22	9	176	T177
E35	XA9- 12	REAR VANE SW NEG	22	917	169	T170
E36		TERMINAL POSTS				
E36	S2- 5	FRONT VANE SW LOAD NOTE 10	22	5	177	T175
E36	XA9- 16	REAR VANE SW LOAD	22	918	170	T168
M1		ELAPSED TIME METER				
M1- 1	J2- N	ETM 115V	22	95	20	T 3
M1- 2	J2- P	ETM NEUTRAL	22	94	3	T 20
S1		FRONT VANE SW				
S1- 2	E31	FRONT VANE SW POS NOTE 8	22	2	172	T173
S1- 5	E33	FRONT VANE SW LOAD NOTE 10	22	5	174	T172
S1- 9	E32	FRONT VANE SW NEG NOTE 9	22	9	173	T174
S2		REAR VANE SW				
S2- 2	E34	FRONT VANE SW POS NOTE 8	22	2	175	T176
S2- 5	E36	FRONT VANE SW LOAD NOTE 10	22	5	177	T175
S2- 9	E35	FRONT VANE SW NEG NOTE 9	22	9	176	T177

905766-P

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J1						
J1-	J3-	JACKET FOR WIRE NO 1		90	1	S 1
J1- A	J3- A	HV POWER SUPPLY PHASE A	20	3	1A	
J1- B	J3- B	HV POWER SUPPLY PHASE B	20	5	1B	
J1- C	J3- C	HV POWER SUPPLY PHASE C	20	6	1C	
J1- D	J3- D	HV POWER SUPPLY N	20	9	1D	
J1- E	J2- U	+15	22	907	171	T172
J1- F	J2- V	-15V	22	908	172	T173
J1- G	J2- W	15 RTN	22	912	173	T171
J1- J	SHIELD 1	SHIELD	22	90	1S	
J1-	J3-	JACKET FOR WIRE NO 2		91	2	S 2
J1- K	J3- K	SPARE	20	3	2A	
J1- L	J3- L	SPARE	20	6	28	
J1- M	J3- M	SPARE	20	9	2C	
J1- N	SHIELD 2	SHIELD	22	90	2S	
J1-	T2-	JACKET FOR WIRE NO 4		93	4	S 4
J1- >G	T2- 1	LOW VOLTAGE XFMR PHASE A	20	3	4A	
SHIELD 4	E32	SHIELD	22	90	4S	
J1- >H	T2- 2	LOW VOLTAGE XFMR PHASE B	20	5	4B	
J1- >1	T2- 3	LOW VOLTAGE XFMR PHASE C	20	6	4C	
J1- >J	T2- N	LOW VOLTAGE XFMR N	20	9	4D	
J1-	J3-	JACKET FOR WIRE NO 5		94	5	S 5
J1- >K	J3- T	DRAWER FANS PHASE A	20	3	5A	
SHIELD 5	SHIELD 4	SHIELD	22	90	5S	
J1- >N	J3- U	DRAWER FANS PHASE B	20	6	5B	
J1- >P	J3- V	DRAWER FANS PHASE C	20	9	5C	
J2						
J2- A	E5	RECT 1 UNRGLTD +28V	14	91	10	T 11
J2- B	E10	RECT 2 UNRGLTD +28V	14	905	7	T 8
J2-	E28	JACKET FOR WIRE NO 18		906	18	S 18
J2- C	E28	UNRGLTD +5V	18	6	18A	
SHIELD 18	SHIELD 19	SHIELD	22	90	18S	
J2- D	E4	RECT 1 UNRGLTD +28V RTN	14	95	11	T10
J2- E	E9	RECT 2 UNRGLTD +28V RTN	14	95	9	T 6
J2- F	E27	UNRGLTD +5V RTN	18	9	18B	
J2-	E22	JACKET FOR WIRE NO 19		91	19	S 19
J2- G	E22	UNRGLTD +15V	18	6	19A	
SHIELD 19	SHIELD 20	SHIELD	22	90	19S	
J2- H	E21	UNRGLTD +15V RTN	18	9	19B	
J2-	E24	JACKET FOR WIRE NO 20		92	20	S 20
J2- J	E24	UNRGLTD -15V	18	6	20A	
J2- K	E25	UNRGLTD -15V RTN	18	9	20B	
J2- L	E10	RECT 2 UNRGLTD +28V	14	90	6	T 7
J2- M	E9	RECT 2 UNRGLTD +28V RTN	14	905	8	T 9
J2- N	SHIELD 20	SHIELD	22	90	20S	
J2- P	E15	RECT 1 UNRGLTD +6V	14	91	12	T13
J2- R	E14	RECT 1 UNRGLTD +6V RTN	14	95	13	T12
J2- S	E20	RECT 2 UNRGLTD +6V	14	90	14	T15
J2- T	E19	RECT 2 UNRGLTD +6V RTN	14	901	15	T16
J2- U	J1- E	+15	22	907	171	T172
J2- V	J1- F	-15V	22	908	172	T173
J2- W	J1- G	15 RTN	22	912	173	T171
J2- X	E19	RECT 2 UNRGLTD +6V RTN	14	905	17	T14
J2- Y	E20	RECT 2 UNRGLTD +6V	14	901	16	T17

2036364-D

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J3								
J3-		J1-		JACKET FOR WIRE NO 1		90	1	S 1
J3-	A	J1-	A	HV POWER SUPPLY PHASE A	20	3	1A	
SHIELD	1	E32		SHIELD	22	90	1F	
J3-	B	J1-	B	HV POWER SUPPLY PHASE B	20	5	1B	
J3-	C	J1-	C	HV POWER SUPPLY PHASE C	20	6	1C	
J3-	D	J1-	D	HV POWER SUPPLY N	20	9	1D	
J3-		J1-		JACKET FOR WIRE NO 2		91	2	S 2
J3-	K	J1-	K	SPARE	20	3	2A	
J3-	L	J1-	L	SPARE	20	6	2B	
J3-	M	J1-	M	SPARE	20	9	2C	
J3-	N	SHIELD	2	SHIELD	22	90	2F	
J3-		J1-		JACKET FOR WIRE NO 5		94	5	S 5
J3-	T	J1-	>K	DRAWER FANS PHASE A	20	3	5A	
J3-	U	J1-	>N	DRAWER FANS PHASE B	20	6	5B	
J3-	V	J1-	>P	DRAWER FANS PHASE C	20	9	5C	
J3-	X	SHIELD	5	SHIELD	22	90	5F	
J3-	Y	E32		CHASSIS GROUND	22	90	170	
CR1								
CR1-	A	E4			16	90	58	
CR1-	A	CR1	C	C1 CR1-A(-) CR1-C(+)			128	CMPT
CR1-	C	CR1-	A	C1 CR1-A(-) CR1-C(+)			128	CMPT
CR1-	C	E1			16	91	53	
CR2								
CR2-	A	E1			16	90	52	
CR2-	A	CR2-	C	C2 CR2-A(-) CR2-C(+)			129	CMPT
CR2-	C	CR2-	A	C2 CR2-A(-) CR2-C(+)			129	CMPT
CR2-	C	E5			16	91	61	
CR3								
CR3-	A	E4			16	91	59	
CR3-	A	CR3-	C	C3 CR3-A(-) CR3-C(+)			130	CMPT
CR3-	C	CR3-	A	C3 CR3-A(-) CR3-C(+)			130	CMPT
CR3-	C	E2			16	92	55	
CR4								
CR4-	A	E2			16	90	54	
CR4-	A	CR4-	C	C4 CR4-A(-) CR4-C(+)			131	CMPT
CR4-	C	CR4-	A	C4 CR4-A(-) CR4-C(+)			131	CMPT
CR4-	C	E5			16	92	62	
CR5								
CR5-	A	E4			16	92	60	
CR5-	A	CR5-	C	C5 CR5-A(-) CR5-C(+)			132	CMPT
CR5-	C	CR5-	A	C5 CR5-A(-) CR5-C(+)			132	CMPT
CR5-	C	E3			16	91	57	
CR6								
CR6-	A	E3			16	90	56	
CR6-	A	CR6-	C	C6 CR6-A(-) CR6-C(+)			133	CMPT
CR6-	C	CR6-	A	C6 CR6-A(-) CR6-C(+)			133	CMPT
CR6-	C	E5			16	93	63	
CR7								
CR7-	A	E9			16	91	70	
CR7-	A	CR7-	C	C7 CR7-A(-) CR7-C(+)			134	CMPT
CR7-	C	CR7-	A	C7 CR7-A(-) CR7-C(+)			134	CMPT

2036364-D

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
CR7- C	E6		16	90	64	
CR8						
CR8- A	E6		16	91	65	
CR8- A	CR8- C	C8 CR8-A(-) CR8-C(+)			135	CMPT
CR8- C	CR8- A	C8 CR8-A(-) CR8-C(+)			135	CMPT
CR8- C	EO1		16	92	73	
CR9						
CR9- A	E9		16	92	71	
CR9- A	CR9- C	C9 CR9-A(-) CR9-C(+)			136	CMPT
CR9- C	CR9- A	C9 CR9-A(-) CR9-C(+)			136	CMPT
CR9- C	E7		16	90	66	
CR10						
CR10- A	E7		16	91	67	
CR10- A	CR10- C	C10 CR10-A(-) CR10-C (+)			137	CMPT
CR10- C	CR10- A	C10 CR10-A(-) CR10-C (+)			137	CMPT
CR10- C	E10		16	93	74	
CR11						
CR11- A	E9		16	94	72	
CR11- A	CR11- C	C11 CR11-A(-)CR11-C (+)			138	CMPT
CR11- C	CR11- A	C11 CR11-A(-)CR11-C (+)			138	CMPT
CR11- C	E8		16	90	68	
CR12						
CR12- A	E8		16	91	69	
CR12- A	CR12- C	C12 CR12-A(-) CR12-C (+)			139	CMPT
CR12- C	CR12- A	C12 CR12-A(-) CR12-C (+)			139	CMPT
CR12- C	E10		16	94	75	
CR13						
CR13- A	E14		16	91	82	
CR13- A	CR13- C	C13 CR13-A(-) CR13-C (+)			140	CMPT
CR13- C	CR13- A	C13 CR13-A(-) CR13-C (+)			140	CMPT
CR13- C	E11		16	90	76	
CR14						
CR14- A	Eli		16	91	77	
CR14- A	CR14- C	C14 CR14-A(-) CR14-C (+)			141	CMPT
CR14- C	CR14- A	C14 CR14-A(-) CR14-C (+)			141	CMPT
CR14- C	E15		16	90	85	
CR15						
CR15- A	E14		16	92	83	
CR15- A	CR15- C	C15 CR15-A(-) CR15-C (+)			142	CMPT
CR15- C	CR15- A	C15 CR15-A(-) CR15-C (+)			142	CMPT
CR15- C	E12		16	90	78	
CR16						
CR16- A	E12		16	91	79	
CR16- A	CR16- C	C16 CR16-A(-) CR16-C (+)			143	CMPT
CR16- C	CR16- A	C16 CR16-A(-) CR16-C (+)			143	CMPT
CR16- C	E15		16	92	86	
CR17						
CR17- A	E14		16	93	84	
CR17- A	CR17- C	C17 CR17-A(-) CR17-C (+)			144	CMPT
CR17- C	CR17- A	C17 CR17-A(-) CR17-C (+)			144	CMPT

2036364-D

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
CR17- C	E13		16	90	80	
CR18						
CR18- A	E13		16	91	81	
CR18- A	CR18- C	C18 CR18-A(-) CR18-C(+)			145	CMPT
CR18- C	CR18- A	C18CR18-A(-)CR18-C(+)			145	CMPT
CR18- C	E15		16	93	87	
CR19						
CR19- A	E19		16	91	94	
CR19- A	CR19- C	C19 CR19-A(-) CR19-C (+)			146	CMPT
CR19- C	CR19- A	C19 CR19-A(-) CR19-C (+)			146	CMPT
CR19- C	E16		16	90	88	
CR20						
CR20- A	E16		16	91	89	
CR20- A	CR20- C	C20 CR20-A(-) CR20-C (+)			147	CMPT
CR20- C	CR20- A	C20 CR20-A(-) CR20-C (+)			147	CMPT
CR20- C	E20		16	90	97	
CR21						
CR21- A	E19		16	92	95	
CR21- A	CR21- C	C21 CR21-A(-) CR21-C (+)			148	CMPT
CR21- C	CR21- A	C21 CR21-A(-) CR21-C (+)			148	CMPT
CR21- C	E17		16	90	90	
CR22						
CR22- A	E17		16	91	91	
CR22- A	CR22- C	C22 CR22-A(-) CR22-C (+)			149	CMPT
CR22- C	CR22- A	C22 CR22-A(-) CR22-C (+)			149	CMPT
CR22- C	E20		16	92	98	
CR23						
CR23- A	E19		16	93	96	
CR23- A	CR23- C	C23 CR23-A(-) CR23-C (+)			150	CMPT
CR23- C	CR23- A	C23 CR23-A(-) CR23-C (+)			150	CMPT
CR23- C	E18		16	90	92	
CR24						
CR24- A	E18		16	91	93	
CR24- A	CR24- C	C24 CR24-A(-) CR24-C (+)			151	CMPT
CR24- C	CR24- A	C24 CR24-A(-) CR24-C (+)			151	CMPT
CR24- C	E20		16	93	99	
CR25						
CR25- A	E21		22	90	101	
CR25- A	CR25- C	C25 CR25-A(-) CR25-C (+)			152	CMPT
CR25- C	CR25- A	C25 CR25-A(-) CR25-C (+)			152	CMPT
CR25- C	CR26- A	22	91	107		
CR26						
CR26- A	T2- 4		22	901	43	T 44
CR26- A	CR25- C		22	91	107	
CR26- A	CR26- C	C26 CR26-A(-) CR26-C (+)			153	CMPT
CR26- C	CR26- A	C26 CR26-A(-) CR26-C (+)			153	CMPT
CR26- C	E22	22	90	104		

2036364-D

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
CR27						
CR27- A	E21		22	91	102	
CR27- A	CR27- C	C27 CR27-A(-) CR27-C (+)			154	CMPT
CR27- C	CR27- A	C27 CR27-A(-) CR27-C (+)			154	CMPT
CR27- C	CR28- A		22	90	108	
CR28						
CR28- A	T2- 5		22	91	44	T 45
CR28- A	CR27- C		22	90	108	
CR28- A	CR28- C	C28 CR28-A(-) CR28-C (+)			155	CMPT
CR28- C	CR28- A	C28 CR28-A(-) CR28-C (+)			155	CMPT
CR28- C	E22		22	92	105	
CR29						
CR29- A	E21		22	92	103	
CR29- A	CR29- C	C29 CR29-A(-) CR29-C (+)			156	CMPT
CR29- C	CR29- A	C29 CR29-A(-) CR29-C (+)			156	CMPT
CR29- C	CR30- A	22		90	109	
CR30						
CR30- A	T2- 6		22	92	45	T 43
CR30- A	CR29- C		22	90	109	
CR30- A	CR30- C	C30 CR30-A(-) CR30-C (+)			157	CMPT
CR30- C	CR30- A	C30 CR30-A(-) CR30-C (+)			157	CMPT
CR30- C	E22	22		93	106	
CR31						
CR31- A	E24		22	91	113	
CR31- A	CR31- C	C31CR31-A(-) CR31-C(+)			158	CMPT
CR31- C	CR31- A	C31CR31-A(-) CR31-C(+)			158	CMPT
CR31- C	CR32- A		22	90	110	
CR32						
CR32- A	T2- 7		22	904	46	T 47
CR32- A	CR31- C		22	90	110	
CR32- A	CR32- C	C32 CR32-A(-) CR32-C (+)			159	CMPT
CR32- C	E25		22	91	116	
CR32- C	CR32- A	C32 CR32-A(-) CR32-C (+)			159	CMPT
CR33						
CR33- A	E24		22	93	114	
CR33- A	CR33- C	C33 CR33-A(-) CR33-C (+)			160	CMPT
CR33- C	CR33- A	C33 CR33-A(-) CR33-C(+)			160	CMPT
CR33- C	CR34- A		22	90	111	
CR34						
CR34- A	T2- 8		22	94	47	T 48
CR34- A	CR33- C		22	90	111	
CR34- A	CR34- C	C34 CR34-A(-) CR34-C(+)			161	CMPT
CR34- C	E25		22	92	117	
CR34- C	CR34- A	C34 CR34-A(-) CR34-C(+)			161	CMPT
CR35						
CR35- A	E24		22	94	115	
CR35- A	CR35- C	C35 CR35-A(-) CR35-C(+)			162	CMPT
CR35- C	CR35- A	C35 CR35-A(-) CR35-C (+)			162	CMPT
CR35- C	CR36- A		22	90	112	

2036364-D

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
CR36						
CR36- A	T2- 9		22	95	48	T 46
CR36- A	CR35- C		22	90	112	
CR36- A	CR36- C	C36 CR36-A(-) CR36-C (+)			163	CMPT
CR36- C	E25		22	93	118	
CR36- C	CR36- A	C36 CR36-A(-) CR36-C (+)			163	CMPT
CR37						
CR37- A	E27		22	90	119	
CR37- A	CR37- C	C37 CR37-A(-) CR37-C (+)			164	CMPT
CR37- C	CR37- A	C37 CR37-A(-) CR37-C (+)			164	CMPT
CR37- C	CR38- A		22	91	125	
CR38						
CR38- A	T2- 10		22	96	49	T 50
CR38- A	CR37- C		22	91	125	
CR38- A	CR38- C	C38 CR38-A(-) CR38-C (+)			165	CMPT
CR38- C	CR38- A	C38 CR38-A(-) CR38-C (+)			165	CMPT
CR38- C	E28		22	90	122	
CR39						
CR39- A	E27		22	91	120	
CR39- A	CR39- C	C39 CR39-A(-) CR39-C (+)			166	CMPT
CR39- C	CR39- A	C39 CR39-A(-) CR39-C (+)			166	CMPT
CR39- C	CR40- A		22	90	126	
CR40						
CR40- A	T2- 11		22	97	50	T 51
CR40- A	CR39- C		22	90	126	
CR40- A	CR40- C	C40 CR40-A(-) CR40-C (+)			167	CMPT
CR40- C	CR40- A	C40 CR40-A(-) CR40-C (+)			167	CMPT
CR40- C	E28		22	91	123	
CR41						
CR41- A	E27		22	92	121	
CR41- A	CR41- C	C41 CR41-A(-) CR41-C (+)			168	CMPT
CR41- C	CR41- A	C41 CR41-A(-) CR41-C (+)			168	CMPT
CR41- C	CR42- A		22	93	127	
CR42						
CR42- A	T2- 12		22	98	51	T 49
CR42- A	CR41- C		22	93	127	
CR42- A	CR42- C	C42 CR42-A(-) CR42-C (+)			169	CMPT
CR42- C	CR42- A	C42 CR42-A(-) CR42-C (+)			169	CMPT
CR42- C	E28		22	92	124	
E1						
E1 CR2-	A		16	90	52	
E1 CR1-	C		16	91	53	
E1 T1-	4		16	907	31	T 33
E2						
E2 CR4-	A		16	90	54	
E2 CR3-	C		16	92	55	
E2 T1-	5		16	91	33	T 35

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E3							
E3	CR6-	A		16	90	56	
E3	CR5-	C		16	91	57	
E3	T1-	6		16	92	35	T 31
E4							
E4	CR1-	A		16	90	58	
E4	CR3-	A		16	91	59	
E4	CR5-	A		16	92	60	
E4	J2-	D	RECT 1 UNRGLTD +28V RTN	14	95	11	T 10
E5							
E5	CR2-	C		16	91	61	
E5	CR4-	C		16	92	62	
E5	CR6-	C		16	93	63	
E5	J2-	A	RECT 1 UNRGLTD +28V	14	91	10	T 11
E6							
E6	CR7-	C		16	90	64	
E6	CR8-	A		16	91	65	
E6	T1-	4		16	94	32	T 34
E7							
E7	CR9-	C		16	90	66	
E7	CR10-	A		16	91	67	
E7	T1-	5		16	95	34	T 36
E8							
E8	CR11-	C		16	90	68	
E8	CR12-	A		16	91	69	
E8	T1-	6		16	96	36	T 32
E9							
E9	J2-	E	RECT 2 UNRGLTD +28V RTN	14	95	9	T 6
E9	CR7-	A		16	91	70	
E9	CR9-	A		16	92	71	
E9	CR11-	A		16	94	72	
E9	J2-	M	RECT 2 UNRGLTD +28V RTN	14	905	8	T 9
E10							
E10	J2-	B	RECT 2 UNRGLTD +28V	14	905	7	T 8
E10	CR8-	C		16	92	73	
E10	CR10-	C		16	93	74	
E10	CR12-	C		16	94	75	
E10	J2-	L	RECT 2 UNRGLTD +28V	14	90	6	T 7
E11							
E11	CR13-	C		16	90	76	
E11	CR14-	A		16	91	77	
E11	T1-	8		16	93	37	T 39
E12							
E12	CR15-	C		16	90	78	
E12	CR16-	A		16	91	79	
E12	T1-	9		16	98	39	T 41

2036364-D

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E13						
E13	CR17- C		16	90	80	
E13	CR18- A		16	91	81	
E13 T1-	10		16	901	41	T 37
E14						
E14	CR13- A		16	91	82	
E14	CR15- A		16	92	83	
E14	CR17- A		16	93	84	
E14	2- R	RECT 1 UNRGLTD +6V RTN	14	95	13	T 12
E15						
E15	CR14- C		16	90	85	
E15	CR16- C		16	92	86	
E15	CR18- C		16	93	87	
E15	J2- P	RECT 1 UNRGLTD +6V	14	91	12	T 13
E16						
E16	CR19- C		16	90	88	
E16	CR20- A		16	91	89	
E16	T1- 8		16	97	38	T 40
E17						
E17	CR21- C		16	90	90	
E17	CR22- A		16	91	91	
E17	T1- 9		16	904	40	T 42
E18						
E18	CR23- C		16	90	92	
E18	CR24- A		16	91	93	
E18	T1- 10		16	905	42	T 38
E19						
E19	J2- X	RECT 2 UNRGLTD +6V RTN	14	905	17	T 14
E19	CR19- A		16	91	94	
E19	CR21- A		16	92	95	
E19	CR23- A		16	93	96	
E19	J2- T	RECT 2 UNRGLTD +6V RTN	14	901	15	T 16
E20						
E20	J2- Y	RECT 2 UNRGLTD +6V	14	901	16	T 17
E20	CR20- C		16	90	97	
E20	CR22- C		16	92	98	
E20	CR24- C		16	93	99	
E20	J2- S	RECT 2 UNRGLTD +6V	14	90	14	T15
E21						
E21	CR25- A		22	90	101	
E21	CR27- A		22	91	102	
E21	CR29- A		22	92	103	
E21	J2- H	UNRGLTD +15V RTN	18	9	19B	
E22						
E22	J2-	JACKET FOR WIRE NO 19		91	19	S 19
E22	J2- G	UNRGLTD +15V	18	6	19A	
SHIELD 19	E23	SHIELD	22	90	19F	
E22	CR26- C		22	90	104	
E22	CR28- C		22	92	105	
E22	CR30- C		22	93	106	

2036364-D

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
E23								
E23		SHIELD	19	SHIELD	22	90	19F	
E24								
E24		J2-		JACKET FOR WIRE NO 20		92	20	S 20
E24		J2-	J	UNRGLTD-15V	18	6	20A	
SHIELD		20	E26	SHIELD	22	90	20F	
E24		CR31-	A		22	91	113	
E24		CR33-	A		22	93	114	
E24		CR35-	A		22	94	115	
E25								
E25		CR32-	C		22	91	116	
E25		CR34-	C		22	92	117	
E25		CR36-	C		22	93	118	
E25		J2-	K	UNRGLTD-15V RTN	18	9	20B	
E26								
E26		SHIELD	20	SHIELD	22	90	20F	
E27								
E27		CR37-	A		22	90	119	
E27		CR39-	A		22	91	120	
E27		CR41-	A		22	92	121	
E27		J2-	F	UNRGLTD +5V RTN	18	9	18B	
E28								
E28		J2-		JACKET FOR WIRE NO 18		906	18	S 18
E28		J2-	C	UNRGLTD +5V	18	6	18A	
SHIELD	18	E29		SHIELD	22	90	18F	
E28		CR38-	C		22	90	122	
E28		CR40-	C		22	91	123	
E28		CR42-	C		22	92	124	
E29								
E29		SHIELD	18	SHIELD	22	90	18F	
E32								
E32		SHIELD	4	SHIELD	22	90	4S	
E32		J3-	Y	CHASSIS GROUND	22	90	170	
E32		SHIELD	1	SHIELD	22	90	1F	
T1								
T1-	N	T2-	N		20	906	30	T 27
T1-	1	T2-	1		20	90	27	T 28
T1-	2	T2-	2		20	902	28	T 29
T1-	3	T2-	3		20	903	29	T 30
T1-	4	E6			16	94	32	T 34
T1-	4	E1			16	907	31	T 33
T1-	5	E2			16	91	33	T 35
T1-	5	E7			16	95	34	T 36
T1-	6	E8			16	96	36	T 32
T1-	6	E3			16	92	35	T 31
T1-	8	E16			16	97	38	T 40
T1-	8	E11			16	93	37	T 39
T1-	9	E17			16	904	40	T 42
T1-	9	E12			16	98	39	T 41
T1-	10	E13			16	901	41	T 37
T1-	10	E18			16	905	42	T 38

2036364-D

TABLE 6-59. TRANSFORMER RECTIFIER A19 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
T2						
T2- N	T1- N		20	906	30	T 27
T2- N	J1- >J	LOW VOLTAGE XFMR N	20	9	4D	
T2- I	T1- 1		20	90	27	T 28
T2-	J1-	JACKET FOR WIRE NO 4		93	4	S 4
T2- I	J1- >G	LOW VOLTAGE XFMR PHRASE A	20	3	4A	
T2- 2	J1- >H	LOW VOLTAGE XFMR PHRASE B	20	5	4B	
T2- 2	T1- 2		20	902	28	T 29
T2- 3	J1- >1	LOW VOLTAGE XFMR PHRASE C	20	6	4C	
T2- 3	T1- 3		20	903	29	T 30
T2- 4	CR26- A		22	901	43	T 44
T2- 5	CR28- A		22	91	44	T 45
T2- 6	CR30- A		22	92	45	T 43
T2- 7	CR32- A		22	904	46	T 47
T2- 8	CR34- A		22	94	47	T 48
T2- 9	CR36- A		22	95	48	T 46
T2- 10	CR38- A		22	96	49	T 50
T2- 11	CR40- A		22	97	50	T 51
T2- 12	CR42- A		22	98	51	T 49

2036364-D

TABLE 6-60. STEREO HOUSING ASSEMBLY A21 WIRING LIST

CIRCUIT POINT		CIRCUIT POINT		SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
J1		(P1)		HV CABLE CONNECTOR				
J1-	1	DS1-	A	H V CABLE ASSY			4	
J2		(P2)		INTERNAL CONNECTOR				
J2-	11	SHIELD	1	SHIELD	22	90	1S	
J2-	12	S2-	NO	HV INTERLOCK	22	6	1B	
J2-		S2-		JACKET FOR WIRE NO 1		90	1	S 1
J2-	13	S2-	C	HV INTERLOCK (LAMP)	22	9	1A	
J2-		S1-		JACKET FOR WIRE NO 6 NOTE 4		93	6	S 6
J2-	14	S1-	C	+5VDC FILM XPORT INTERLOCK	22	9	6A	
J2-	15	S1-	NO	+5VDC FILM XPORT INTERLOCK	22	6	6B	
J2-	16	SHIELD	6	SHIELD	22	90	6S	
J2-		E1		JACKET FOR WIRE NO 2		91	2	S 2
J2-	17	E1		HEATER PHASE C	22	9	2A	
J2-	18	E2		HEATER DRIVE	22	6	2B	
J2-	19	SHIELD	2	SHIELD	22	90	2S	
J2-		E3		JACKET FOR WIRE NO 3		92	3	S 3
J2-	20	E3		SENSOR NO 1 HIGH	22	9	3A	
J2-	21	E4		SENSOR NO 1 LOW	22	6	3B	
J2-	22	SHIELD	3	SHIELD	22	90	3S	
J3		(P3)		HV CABLE CONNECTOR				
J3-	1	DSI-	B	H V CABLE ASSY			5	
DS1				LAMP				
DS1-	A	J1-	1	H V CABLE ASSY			4	
DS1-	B	J3-	1	H V CABLE ASSY			5	
E1				TERMINAL POST				
E1		J2-		JACKET FOR WIRE NO 2		91	2	S 2
E1		J2-	17	HEATER PHASE C	22	9	2A	
SHIELD	2	SHIELD	3	SHIELD	22	90	2F	
E2				TERMINAL POST				
E2		J2-	18	HEATER DRIVE	22	6	2B	
E3				TERMINAL POST				
E3		J2-		JACKET FOR WIRE NO 3		92	3	S 3
E3		J2-	20	SENSOR NO 1 HIGH	22	9	3A	
SHIELD	3	E7		SHIELD	22	90	3F	
E4				TERMINAL POST				
E4		J2-	21	SENSOR NO 1 LOW	22	6	3B	
E7								
E7		SHIELD	3	SHIELD	22	90	3F	
E8				TERMINAL POST				
E8		SHIELD	1	SHIELD	22	90	1F	
S1				SWITCH				
S1-		J2-		JACKET FOR WIRE NO 6 NOTE 4		93	6	S 6
S1-	C	J2-	14	+5VDC FILM XPORT INTERLOCK	22	9	6A	
S1-	NO	J2-	15	+5VDC FILM XPORT INTERLOCK	22	6	6B	
S2				SWITCH				
S2-		J2-		JACKET FOR WIRE NO 1		90	1	S 1
S2-	C	J2-	13	HV INTERLOCK (LAMP)	22	9	1A	
SHIELD	1	E8		SHIELD	22	90	1F	

905782-C

TABLE 6-60. STEREO HOUSING ASSEMBLY A21 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	AWG	COLOR	WIRE NO	REMARKS
S2- NO	J2- 12	HV INTERLOCK	22	6	1B	

905782-C

TABLE 6-61. JUNCTION BOX A22 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1-	(A22W390 1)					
J1-	J3-	JACKET FOR WIRE NO 1	90	1	S 1	
J1- 11	J3- N	D V TEMP SENSOR HI	22	9	1A	
J1- 12	J3- P	D VTEMP SENSOR LO	22	6	1B	
J1- 13	SHIELD 1	SHIELD	22	90	1S	
J1-	J3-	JACKET FOR WIRE NO 2		91	2	S 2
J1- 14	J3- C	D V HEATER 115 V PH B	22	9	2A	
J1- 15	J3- D	D V HEATER DRIVE	22	6	2B	
J1- 16	SHIELD 2	SHIELD	22	90	2S	
J1-	J3-	JACKET FOR WIRE NO 3		92	3	S 3
J1- 17	J3- A	D V FAN 115 V PH B	22	9	3A	
J1- 18	J3- B	D V FANDRIVE	22	6	38	
J1- 19	SHIELD 3	SHIELD	22	90	3S	
J1-	J3-	JACKET FOR WIRE NO 4		90	4	S 4
J1- 20	J3- Y	DV INTERLOCK HV N	22	9	4A	
SHIELD 4	SHIELD 5	SHIELD	22	90	4S	
J1-	J2-	JACKET FOR WIRE NO 5		91	5	S 5
J1- 21	J2- 6	D V INTERLOCK H V OUT	22	9	5A	
J1- 22	SHIELD 5	SHIELD	22	90	5S	
J2	(A22W41P 2)					
J2-	J1-	JACKET FOR WIRE NO 5		91	5	S 5
J2- 6	J1- 21	D V INTERLOCK H V OUT	22	9	5A	
SHIELD 5	SHIELD 6	SHIELD	22	90	5F	
J2-	J5-	JACKET FOR WIRE NO 6		92	6	S 6
J2- 7	J5- 13	H V INTERLOCK (LAMP)	22	9	6A	
SHIELD 6	SHIELD 7	SHIELD	22	90	6S	
J2-	J3-	JACKET FOR WIRE NO 7		93	7	S 7
J2- 8	J3- V	HI TEMP IND STEREO	22	9	7A	
SHIELD 7	SHIELD 8	SHIELD	22	90	7S	
J2-	J3-	JACKET FOR WIRE NO 8		94	8	S 8
J2- 9	J3- X	HI TEMP IND DV	22	9	8A	
J2- 10	SHIELD 8	SHIELD	22	90	8S	
J2- 11	SHIELD 9	SHIELD	22	90	9S	
J2-	J4-	JACKET FOR WIRE NO 9		90	9	S 9
J2- 12	J4- 1	FILM FINAL LIMITS CCW X	22	9	9A	
J2- 13	J4 2	FILM FINAL LIMITS CW X	22	6	9B	
J2- 14	J4- 3	FILM FINAL LIMITS CCW Y	22	3	9C	
J2- 15	J4- 4	FILM FINAL LIMITS CW Y	22	5	9D	
J2-	J4-	JACKET FOR WIRE NO 10		90	10	S 10
J2- 16	J4- 5	FIRST LIMIT FILM X	22	9	10A	
SHIELD 10	SHIELD 9	SHIELD	22	90	10S	
J2- 17	J4- 6	FIRST LIMIT FILM Y	22	6	10B	
J2- 18	J4- 7	LIMIT SW 15V RTN	22	3	10C	
J2-	J4-	JACKET FOR WIRE NO 11		91	11	S 11
J2- 19	J4- 17	CURSOR LAMP CONT 0-6 VDC	22	9	11A	
SHIELD 11	SHIELD 12	SHIELD	22	90	11S	
J2- 20	J4- 18	CURSOR LAMP CONT 0-6 VDC	22	6	11B	
J2- 21	J4- 19	CURSOR LAMP CONT 0-6 VDC	22	3	11C	
J2-	J4-	JACKET FOR WIRE NO 12		92	12	S 12
J2- 22	J4- 20	CURSOR LAMP CONT DC RTN	22	9	12A	
J2- 23	J4- 21	CURSOR LAMP CONT DC RTN	22	6	12B	
J2- 24	J4- 22	CURSOR LAMP CONT DC RTN	22	3	12C	
J2- 25	SHIELD 12	SHIELD	22	90	12S	
J2-	E1	JACKET FOR WIRE NO 13		95	13	S 13
J2- 26	E1	GP + 28VDC	22	9	13A	
SHIELD 13	SHIELD 14	SHIELD	22	90	13S	
J2-	J3-	JACKET FOR WIRE NO 14		96	14	S 14
J2- 27	J3- T	ON CMD HV INTERLOCK	22	9	14A	
SHIELD 14	SHIELD 15	SHIELD	22	90	14S	

905764-B

TABLE 6-61. JUNCTION BOX A22 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J2-	J7-	JACKET FOR WIRE NO 15		97	15	S 15
J2- 28	J7- 2	28V RTN SLACK LOOP SW	22	9	15A	
SHIELD 15	SHIELD 16	SHIELD	22	90	15S	
J2-	E4	JACKET FOR WIRE NO 16		98	16	S 16
J2- 29	E4	FILM TRANSPORT INTERLOCK	22	9	16A	
SHIELD 16	SHIELD 17	SHIELD	22	90	16S	
J2-	E3	JACKET FOR WIRE NO 17		901	17	S 17
J2- 30	E3	RTN FILM TRANSPORT INTERLOCK	22	9	17A	
J2- 31	SHIELD 17	SHIELD	22	90	17S	
J2-	J6-	JACKET FOR WIRE NO 18		93	18	S 18
J2- 32	J6- 1	+ SLACK LOOP MOTOR	22	9	18A	
J2- 33	J6- 2	- SLACK LOOP MOTOR	22	6	18B	
J2- 34	SHIELD 18	SHIELD	22	90	18S	
J2-	J3-	JACKET FOR WIRE NO 19		94	19	S 19
J2- 35	J3- >N	BFRTEMPCONTSTEREO	22	9	19A	
J2- 36	J3- >P	BFR TEMP CONT DV	22	6	19B	
J2- 37	SHIELD 19	SHIELD	22	90	19S	
J3	(A22W2P 3)					
J3-	J1-	JACKET FOR WIRE NO 3		92	3	S 3
J3- A	J1- 17	D V FAN 115 V PH B	22	9	3A	
SHIELD 3	SHIELD 2	SHIELD	22	90	3F	
J3- B	J1- 18	D V FAN DRIVE	22	6	3B	
J3-	J1-	JACKET FOR WIRE NO 2		91	2	S 2
J3- C	J1- 14	D V HEATER 115 V PH B	22	9	2A	
SHIELD 2	SHIELD 21	SHIELD	22	90	2F	
J3- D	J1- 15	D V HEATER DRIVE	22	6	2B	
J3-	J5-	JACKET FOR WIRE NO 21		96	21	S 21
J3- G	J5- 17	FILM X HEATER PH C	22	9	21A	
J3- H	J5- 18	FILM X HEATER DRIVE	22	6	21B	
J3- J	SHIELD 21	SHIELD	22	90	21S	
J3- M	SHIELD 1	SHIELD	22	90	1F	
J3-	J1-	JACKET FOR WIRE NO 1		90	1	S 1
J3- N	J1- 11	D VTEMP SENSOR HI	22	9	1A	
J3- P	J1- 12	D VTEMP SENSOR LO	22	6	1B	
J3-	J5-	JACKET FOR WIRE NO 22		97	22	S 22
J3- R	J5- 20	TEMP SENSOR STEREO HI	22	9	22A	
SHIELD 22	SHIELD 1	SHIELD	22	90	22S	
J3- S	J5- 21	TEMP SENSOR STEREO LOW	22	6	22B	
J3-	J2-	JACKET FOR WIRE NO 14		96	14	S 14
J3- T	J2- 27	ON CMD HV INTERLOCK	22	9	14A	
SHIELD 14	SHIELD 27	SHIELD	22	90	14F	
J3-	E1	JACKET FOR WIRE NO 27		902	27	S 27
J3- U	E1	+28V H V INTERLOCK ON/OFF	22	9	27A	
SHIELD 27	SHIELD 7	SHIELD	22	90	27S	
J3-	J2-	JACKET FOR WIRE NO 7		93	7	S 7
J3- V	J2- 8	HI TEMP IND STEREO	22	9	7A	
SHIELD 7	SHIELD 8	SHIELD	22	90	7F	
J3-	J5-	JACKET FOR WIRE NO 25		903	25	S 25
J3- W	J5- 12	H V INTERLOCK (LAMP)	22	9	25A	
SHIELD 25	SHIELD 4	SHIELD	22	90	25F	
J3-	J2-	JACKET FOR WIRE NO 8		94	8	S 8
J3- X	J- 9	HI TEMP IND DV	22	9	8A	
SHIELD 8	SHIELD 25	SHIELD	22	90	8F	
J3-	J1-	JACKET FOR WIRE NO 4		90	4	S 4
J3- Y	J1- 20	D V INTERLOCK H V IN	22	9	4A	
J3- Z	SHIELD 4	SHIELD	22	90	4F	
J3-	J2-	JACKET FOR WIRE NO 19		94	19	S 19
J3- >N	J2- 35	BFR TEMP CONT STEREO	22	9	19A	
J3- >P	J2- 36	BFR TEMP CONT D V	22	6	19B	

905764-B

TABLE 6-61. JUNCTION BOX A22 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J3- >Q	SHIELD 19	SHIELD	22	90	19F	
J4	(A22W38P 4)					
J4-	J2-	JACKET FOR WIRE NO 9		90	9	S 9
J4- 1	J2- 12	FILM FINAL LIMITS CCW X	22	9	9A	
SHIELD 9	SHIELD 10	SHIELD	22	90	9F	
J4- 2	J2- 13	FILM FINAL LIMITS CW X	22	6	9B	
J4- 3	J2- 14	FILM FINAL LIMITS CCW Y	22	3	9C	
J4- 4	J2- 15	FILM FINAL LIMITS CW Y	22	5	9D	
J4-	J2-	JACKET FOR WIRE NO 10		90	10	S 10
J4- 5	J2- 16	FIRST LIMIT FILM X	22	9	10A	
J4- 6	J2- 17	FIRST LIMIT FILM Y	22	6	10B	
J4- 7	J2- 18	LIMIT SW 15V RTN	22	3	10C	
J4- 8	SHIELD 10	SHIELD	22	90	10F	
J4- 14	E4	FILM XPORT INTERLOCK	22	90	23	T 24
J4- 15	E3	FILM XPORT INTERLOCK	22	91	24	T 23
J4- 16	SHIELD 11	SHIELD	22	90	11F	
J4-	J2-	JACKET FOR WIRE NO 11		91	11	S 11
J4- 17	J2- 19	CURSOR LAMP CONT 0-6 VDC	22	9	11A	
J4- 18	J2- 20	CURSORLAMPCONT0-6VDC	22	6	11B	
J4- 19	J2- 21	CURSOR LAMP CONT 0-6 VDC	22	3	11C	
J4-	J2-	JACKET FOR WIRE NO 12		92	12	S 12
J4- 20	J2- 22	CURSOR LAMP CONT DC RTN	22	9	12A	
SHIELD 12	SHIELD 11	SHIELD	22	90	12F	
J4- 21	J2- 23	CURSOR LAMP CONT DC RTN	22	6	128	
J4- 22	J2- 24	CURSOR LAMP CONT DC RTN	22	3	12C	
J5	(A22W34P 5)					
J5- 11	SHIELD 25	SHIELD	22	90	25S	
J5-	J3-	JACKET FOR WIRE NO 25		903	25	S 25
J5- 12	J3- W	H V INTERLOCK (LAMP)	22	9	25A	
J5-	J2-	JACKET FOR WIRE NO 6		92	6	S 6
J5- 13	J2- 7	H V INTERLOCK (LAMP)	22	9	6A	
SHIELD 6	SHIELD 25	SHIELD	22	90	6F	
J5-	E4	JACKET FOR WIRE NO 20		95	20	S 20
J5- 14	E4	FILM XPORT INTLK	22	9	20A	
J5- 15	E3	FILM XPORT INTLK	22	6	208	
J5- 16	SHIELD 20	SHIELD	22	90	20S	
J5-	J3-	JACKET FOR WIRE NO 21		96	21	S 21
J5- 17	J3- G	FILM X HEATER PH C	22	9	21A	
J5- 18	J3- H	FILM X HEATER DRIVE	22	6	21B	
J5- 19	SHIELD 21	SHIELD	22	90	21F	
J5-	J3-	JACKET FOR WIRE NO 22		97	22	S 22
J5- 20	J3- R	TEMP SENSOR STEREO HI	22	9	22A	
J5- 21	J3- S	TEMP SENSOR STEREO LOW	22	6	22B	
J5- 22	SHIELD 22	SHIELD	22	90	22F	
J6	(A22W40P 6)					
J6-	J2-	JACKET FOR WIRE NO 18		93	18	S 18
J6- 1	J2- 32	+ SLACK LOOP MOTOR	22	9	18A	
J6- 2	J2- 33	- SLACK LOOP MOTOR	22	6	18B	
J6- 3	SHIELD 18	SHIELD	22	90	18F	
J7	(A22W36P 7)					
J7-	E1	JACKET FOR WIRE NO 26		904	26	S 26
J7- 1	E1	+28V SLACK LOOP LAMPS	22	9	26A	
SHIELD 26	SHIELD 15	SHIELD	22	90	26S	
J7-	J2-	JACKET FOR WIRE NO 15		97	15	S 15
J7- 2	J2- 28	28V RTN SLACK LOOP SW	22	9	15A	
J7- 3	SHIELD 15	SHIELD	22	90	15F	

TABLE 6-61. JUNCTION BOX A22 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J7-	E4	JACKET FOR WIRE NO 28		905	28	S 28
J7- 4	E4	FILM XPORT INTLK	22	9	28A	
SHIELD 28	SHIELD 29	SHIELD	22	90	28S	
J7-	E4	JACKET FOR WIRE NO 28		905	28	S 28
J7- 5	E3	FILM XPORT INTLK	22	9	29A	
J7- 6	SHIELD 29	SHIELD	22	90	29S	
J8	(A22W37P 8)					
J8- 1	J10- 5	FILM Y MOTOR Z	22	94	34	T 35
J8- 2	J10- 4	FILM Y MOTOR Y	22	93	33	T 34
J8- 3	J10- 3	FILM Y MOTOR X	22	92	32	T 33
J8- 4	J10- 2	FILM Y MOTOR W	22	91	31	T 32
J8- 5	J10- 1	FILM Y MOTOR V	22	90	30	T 31
J8- 6	J10- 6	FILM Y MOTOR RTN	22	95	35	T 36
J8- 7	J10- 7	FILM Y MOTOR RTN	22	96	37	T 38
J8- 8	J10- 8	FILM Y MOTOR RTN	22	97	36	T 37
J8- 9	J10- 9	FILM Y MOTOR RTN	22	98	38	T 39
J8- 10	J10- 10	FILM Y MOTOR RTN	22	901	39	T 30
J9	(A22W36P 9)					
J9- 1	J10- 13	FILM X MOTOR V	22	90	40	T 41
J9- 2	J10- 14	FILM X MOTOR W	22	91	41	T 42
J9- 3	J10- 15	FILM X MOTOR X	22	92	42	T 43
J9- 4	J10- 16	FILM X MOTOR Y	22	93	43	T 44
J9- 5	J10- 17	FILM X MOTOR Z	22	94	44	T 45
J9- 6	J10- 18	FILM X MOTOR RTN	22	95	45	T 46
J9- 7	J10- 19	FILM X MOTOR RTN	22	96	46	T 47
J9- 8	J10- 20	FILM X MOTOR RTN	22	97	47	T 48
J9- 9	J10- 21	FILM X MOTOR RTN	22	98	48	T 49
J9- 10	J10- 22	FILM X MOTOR RTN	22	901	49	T 40
J10	(22W42P1 0)					
J10- 1	J8- 5	FILM Y MOTOR V	22	90	30	T 31
J10- 2	J8- 4	FILM Y MOTOR W	22	91	31	T 32
J10- 3	J8- 3	FILM Y MOTOR X	22	92	32	T 33
J10- 4	J8- 2	FILM Y MOTOR Y	22	93	33	T 34
J10- 5	J8- 1	FILM Y MOTOR Z	22	94	34	T 35
J10- 6	J8- 6	FILM Y MOTOR RTN	22	95	35	T 36
J10- 7	J8- 7	FILM Y MOTOR RTN	22	96	37	T 38
J10- 8	J8- 8	FILM Y MOTOR RTN	22	97	36	T 37
J10- 9	J8- 9	FILM Y MOTOR RTN	22	98	38	T 39
J10- 10	J8- 10	FILM Y MOTOR RTN	22	901	39	T 30
J10- 13	J9- 1	FILM X MOTOR V	22	90	40	T 41
J10- 14	J9- 2	FILM X MOTOR W	22	91	41	T 42
J10- 15	J9- 3	FILM X MOTOR X	22	92	42	T 43
J10- 16	J9- 4	FILM X MOTOR Y	22	93	43	T 44
J10- 17	J9- 5	FILM X MOTOR Z	22	94	44	T 45
J10- 18	J9- 6	FILM X MOTOR RTN	22	95	45	T 46
J10- 19	J9- 7	FILM X MOTOR RTN	22	96	46	T 47
J10- 20	J9- 8	FILM X MOTOR RTN	22	97	47	T 48
J10- 21	J9- 9	FILM X MOTOR RTN	22	98	48	T 49
J10- 22	J9- 10	FILM X MOTOR RTN	22	901	49	T 40
E1	J2-	JACKET FOR WIRE NO 13		95	13	S 13
E1	J2- 26	GP + 28VDC	22	9	13A	
SHIELD 13	SHIELD 26	SHIELD	22	90	13F	
E1	J7-	JACKET FOR WIRE NO 26		904	26	S 26
E1	J7- 1	+28V SLACK LOOP LAMPS	22	9	26A	
SHIELD 26	E2	SHIELD	22	90	26F	

905764-B

TABLE 6-61. JUNCTION BOX A22 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E1	J3-	JACKET FOR WIRE NO 27		902	27	S 27
E1	J3- U	+28V H V INTERLOCK ON/OFF	22	9	27A	
SHIELD 27	SHIELD 13	SHIELD	22	90	27F	
E2						
E2	SHIELD 17	SHIELD	22	90	17F	
E2	SHIELD 20	SHIELD	22	90	20F	
E2	SHIELD 26	SHIELD	22	90	26F	
E2	SHIELD 16	SHIELD	22	90	16F	
E3	J2-	JACKET FOR WIRE NO 17		901	17	5 17
E3	J2- 30	RTN FILM TRANSPORT INTERLOCK	22	9	17A	
SHIELD 17	E2	SHIELD	22	90	17F	
E3	J5- 15	FILM XPORT INTLK	22	6	20B	
E3	J4- 15	FILM XPORT INTERLOCK	22	91	24	T 23
E3	J7-	JACKET FOR WIRE NO 29		906	29	S 29
E3	J7- 5	FILM XPORT INTLK	22	9	29A	
SHIELD 29	SHIELD 17	SHIELD	22	90	29F	
E4	J2-	JACKET FOR WIRE NO 16		98	16	S 16
E4	J2- 29	FILM TRANSPORT INTERLOCK	22	9	16A	
SHIELD 16	E2	SHIELD	22	90	16F	
E4	J5-	JACKET FOR WIRE NO 20		95	20	$ 20
E4	J5- 14	FILM XPORT INTLK	22	9	20A	
SHIELD 20	E2	SHIELD	22	90	20F	
E4	J4- 14	FILM XPORT INTERLOCK	22	90	23	T 24
E4	J7-	JACKET FOR WIRE NO 28		905	28	S 28
E4	J7- 4	FILM XPORT INTLK	22	9	28A	
SHIELD 28	SHIELD 16	SHIELD	22	90	28F	

905764-B

TABLE 6-62. SLACK LOOP A23 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1	(P1)	INTERNAL CONNECTOR				
J1-	TB1-	JACKET FOR WIRE NO 1		90	1	S 1
J1- 1	TB1- 3	SLACK LOOP-	22	9	1A	
J1- 2	TB1- 5	SLACK LOOP +	22	6	1B	
J1- 3	SHIELD 1	SHIELD	22	90	1S	
A1		SHIELD				
A1- E1	A1- E3	CR1 A1-E3(C) A1-E1(A)			14	CMPT
A1- E1	A1- E2		22	BUS	15	
A1-	TB1-	JACKET FOR WIRE NO 4		92	4	S 4
A1- E1	TB1- 5		22	9	4A	
A1- E2	A1- E1		22	BUS	15	
A1- E2	S1- C		22	97	17	
A1- E2	A1- E5	R1 10 OHM			19	CMPT
A1- E3	A1- E1	CR1 A1-E3(C) A1-E1(A)			14	CMPT
A1- E3	TB1- 6		22	6	4B	
A1- E3	A1- E4		22	90	16	
A1- E4	A1- E5	C1 0.1 UF			20	CMPT
A1- E4	S1- NC		22	98	18	
A1- E4	A1- E3		22	90	16	
A1- E5	A1- E2	R1 10 OHM			19	CMPT
A1- E5	A1- E4	C1 0.1 UF			20	CMPT
A1- E6	SHIELD 4	SHIELD	22	90	4F	
A2		SHIELD				
A2- E1	A2- E2		22	BUS	7	
A2- E1	TB1- 4		22	6	2B	
A2- E1	A2- E3	CR1 A2-E1(A) A2-E3(C)			9	CMPT
A2- E2	S2- C		22	93	12	
A2- E2	A2- E5	R1 10 OHM			10	CMPT
A2- E2	A2- E1		22	BUS	7	
A2- E3	A2- E4		22	90	8	
A2- E3	A2- E1	CR1 A2-E1(A) A2-E3(C)			9	CMPT
A2-	TB1-	JACKET FOR WIRE NO 2		90	2	S 2
A2- E3	TB1- 6		22	9	2A	
A2- E4	A2- E5	C1 0.1 UF			11	CMPT
A2- E4	S2- NC		22	94	13	
A2- E4	A2- E3		22	90	8	
A2- E5	A2- E4	C1 0.1 UF			11	CMPT
A2- E5	A2- E2	R1 10 OHM			10	CMPT
A2- E6	SHIELD 2	SHIELD	22	90	2F	
A3		MOTOR				
A3-	TB1-	JACKET FOR WIRE NO 3		91	3	$ 3
A3- (+)	TB1- 4		22	9	3A	
SHIELD 3	E1	SHIELD	22	90	3F	
A3- (-)	TB1- 3		22	6	38	
E1	SHIELD 3	SHIELD	22	90	3F	
E1		TERMINAL POSTS				
E2	TB1- 1	SHIELD	22	91	6	
E2		TERMINAL POSTS				
S1		SWITCH				
S1- C	A1- E2		22	97	17	
S1- NC	A1- E4		22	98	18	

905630-J

TABLE 6-62. SLACK LOOP A23 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
S2		SWITCH				
S2- C	A2- E2		22	93	12	
S2- NC	A2- E4		22	94	13	
TB1		TERMINAL BOARD				
TB1- 1	TB1- 2	LINK			21	CMPT
TB1- 1	E2	SHIELD	22	91	6	
TB1- 1	SHIELD 4	SHIELD	22	90	4S	
TB1- 1	SHIELD 1	SHIELD	22	90	1F	
TB1- 2	SHIELD 3	SHIELD	22	90	3S	
TB1- 2	TB1- 1	LINK			21	CMPT
TB1- 2	SHIELD 2	SHIELD	22	90	2S	
TB1- 3	A3- (-)		22	6	3B	
TB1-	J1-	JACKET FOR WIRE NO 1		90	1	5 1
TB1- 3	J1- 1	SLACK LOOP-	22	9	1A	
TB1- 4	A2- E1		22	6	2B	
TB1-	A3-	JACKET FOR WIRE NO 3		91	3	5 3
TB1- 4	A3- (+)		22	9	3A	
TB1-	A1-	JACKET FOR WIRE NO 4		92	4	5 4
TB1- 5	A1- E1		22	9	4A	
TB1- 5	J1- 2	SLACK LOOP +	22	6	1B	
TB1- 6	A1- E3		22	6	4B	
TB1-	A2-	JACKET FOR WIRE NO 2		90	2	5 2
TB1- 6	A2- E3		22	9	2A	

905630-J

TABLE 6-63. STARTER A25 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1	(P1)	CONNECTOR				
J1-	E16	JACKET FOR WIRE NO 15			15	S 15
J1- 1	E16		16	COAX	15A	
J2	(P2)	CONNECTOR				
J2-	E8	JACKET FOR WIRE NO 7			7	S 7
J2- 1	E8		16	COAX	7A	
J3	(P3)	CONNECTOR				
J3-	E1	JACKET FOR WIRE NO 1			1	S 1
J3- 1	E1		16	COAX	1A	
J4	(P4)	CONNECTOR				
J4-	E8	JACKET FOR WIRE NO 5			5	S 5
J4- 1	E8		16	COAX	5A	
J5	(P5)	CONNECTOR				
J5-	E1	JACKET FOR WIRE NO 3			3	S 3
J5- 1	E1		16	COAX	3A	
J6	(P6)	CONNECTOR				
J6-	E9	JACKET FOR WIRE NO 11			11	S 11
J6- 1	E9		16	COAX	11A	
J7	(P7)	CONNECTOR				
J7-	E16	JACKET FOR WIRE NO 13		13	13	
J7- 1	E16		16	COAX	13A	
J8	(PS)	CONNECTOR				
J8-	E9	JACKET FOR WIRE NO 9			9	S 9
J8- 1	E9		16	COAX	9A	
J9	(P9)	CONNECTOR				
J9-	E4	JACKET FOR WIRE NO 22		90	22	S 22
J9- 1	E4	6 KV SUPPLY RTN	22	9	22A	
SHIELD 22	E23	SHIELD	22	90	22S	
SHIELD 22	SHIELD 23	SHIELD	22	90	22S	
J9-	E12	JACKET FOR WIRE NO 23		91	23	S 23
J9- 2	E12	1.4 KV SUPPLY RTN	22	9	23A	
SHIELD 23	SHIELD 29	SHIELD	22	90	23S	
J9- 3	SHIELD 23	SHIELD	22	90	23S	
J9-	S1-	JACKET FOR WIRE NO 29		90	29	S 29
J9- 4	S1- C	HV INTCK IN	22	9	29A	
SHIELD 29	SHIELD 30	SHIELD	22	90	29S	
J9- 5	S1- NO	HV INTLK OUT	22	6	29B	
J9- 6	SHIELD 29	SHIELD	22	90	29S	
J9-	K1-	JACKET FOR WIRE NO 30		91	30	S 30
J9- 7	K1- L2	DIR VIEW START RELAY DRIVE	22	9	30A	
SHIELD 30	SHIELD 31	SHIELD	22	90	305	
J9- 8	K1- L1	+28 V	22	6	308	
J9-	K2-	JACKET FOR WIRE NO 31		92	31	S 31
J9- 9	K2- L2	STEREO START RELAY DRIVE	22	9	31A	
J9- 10	SHIELD 31	SHIELD	22	90	315	
E1		TERMINAL POSTS				
E1	J3-	JACKET FOR WIRE NO 1			1	S 1
E1	J3- 1		16	COAX	1A	
E1	J5-	JACKET FOR WIRE NO 3			3	S 3
E1	J5- 1		16	COAX	3A	

905795J-C

TABLE 6-63. STARTER A25 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT		SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E1	E2		R1			17	CMPT
E2			TERMINAL POSTS				
E2	K1-	NO		24	9	18	
E2	E3			24	9	19	
E2	E1		R1			17	CMPT
E3			TERMINAL POSTS				
E3	E4	R2				20	CMPT
E3	E2			24	9	19	
E4			TERMINAL POSTS				
E4	K1-	NC		24	9	21	
E4	J9-		JACKET FOR WIRE NO 22		90	22	S 22
E4	J9-	1	6 KV SUPPLY RTN	22	9	22A	
E4	E3		R2			20	CMPT
E5			TERMINAL POSTS				
E5	K1-	C		24	9	32	
E5	E6		C1 (+) E6 (-) E5			2	CMPT
E6			TERMINAL POSTS				
E6	E7			24	9	6	
E6	E5		C1 (+) E6 (-) E5			2	CMPT
E7			TERMINAL POSTS				
E7	E6			24	9	6	
E7	E8		R3			4	CMPT
E8			TERMINAL POSTS				
E8	J4-		JACKET FOR WIRE NO 5			5	S 5
E8	J4-	1		16	COAX	5A	
E8	J2-		JACKET FOR WIRE NO 7			7	S 7
E8	J2-	1		16	COAX	7A	
E8	E7		R3			4	CMPT
E9			TERMINAL POSTS				
E9	J8-		JACKET FOR WIRE NO 9			9	S 9
E9	J8-	1		16	COAX	9A	
E9	J6-		JACKET FOR WIRE NO 11			11	S 11
E9	J6-	1		16	COAX	11A	
E9	E10		R4			24	CMPT
E10			TERMINAL POSTS				
E10	K2-	NO		24	9	25	
E10	E11			24	9	26	
E10	E9		R4			24	CMPT
E11			TERMINAL POSTS				
E11	E12		R5			27	CMPT
E11	E10			24	9	26	
E12			TERMINAL POSTS				
E12	J9-		JACKET FOR WIRE NO 23		91	23	S 23
E12	J9-	2	1.4 KV SUPPLY RTN	22	9	23A	
E12	E11		R5			27	CMPT
E12	K2-	NC		24	9	28	

905795-C

TABLE 6-63. STARTER A25 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
E13		TERMINAL POSTS				
E13	E14	C2 (+) E14 (-)E13			10	CMPT
E13	K2- C		24	9	8	
E14		TERMINAL POSTS				
E14	E15		24	9	12	
E14	E13	C2 (+) E14 (-) E13			10	CMPT
E15		TERMINAL POSTS				
E15	E16	R6			14	CMPT
E15	E14		24	9	12	
E16		TERMINAL POSTS				
E16	J7-	JACKET FOR WIRE NO 13			13	S 13
E16	J7- 1		16	COAX	13A	
E16	E15	R6			14	CMPT
E16	J1-	JACKET FOR WIRE NO 15			15	S 15
E16	J1- 1		16	COAX	15A	
E23		TERMINAL POSTS				
E23	SHIELD 22	SHIELD	22	90	22S	
K1		RELAY (SEE FIG. 1)				
K1- C	E5		24	9	32	
K1- L1	K2- L1		24	9	33	
K1- L1	J9- 8	+28V	22	6	30B	
K1- L1	K1- L2	CR1 (C) K1-L1 (A) K1-L2			34	CMPT
K1-	J9-	JACKET FOR WIRE NO 30		91	30	S 30
K1- L2	J9- 7	DIR VIEW START RELAY DRIVE	22	9	30A	
K1- L2	K1- L1	CR1 (C) K1-L1 (A) K1-L2			34	CMPT
K1- NC	E4		24	9	21	
K1- NO	E2		24	9	18	
K2		RELAY (SEE FIG 2)				
K2- C	E13		24	9	8	
K2- L1	K2- L2	CR2 (C) K2-L1 (A) K2-L2			16	CMPT
K2- L1	K1- L1		24	9	33	
K2- L2	K2- L1	CR2 (C) K2-L1 (A) K2-L2			16	CMPT
K2-	J9-	JACKET FOR WIRE NO 31		92	31	S 31
K2- L2	J9- 9	STEREO START RELAY DRIVE	22	9	31A	
K2- NC	E12		24	9	28	
K2- NO	E10		24	9	25	
S1		SWITCH				
S1-	J9-	JACKET FOR WIRE NO 29		90	29	S 29
S1- C	J9- 4	HV INTCK IN	22	9	29A	
S1- NO	J9- 5	HV INTLK OUT	22	6	29B	

905795-C

TABLE 6-64. CPU CONNECTOR HOUSING WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J5		CONNECTOR				
J5- 1	SHIELD 2	SHIELD	22	9	2S	
J5- 2	SHIELD 4	SHIELD	22	9	4S	
J5-	J6-	JACKET FOR WIRE NO 1		90	1	S 1
J5- 3	J6- 47	FILM CURSOR-Y SLOW		COAX	1A	
J5- 4	SHIELD 1	SHIELD	22	9	1S	
J5- 5	SHIELD 6	SHIELD	22	9	6S	
J5-	J6-	JACKET FOR WIRE NO 2		91	2	S 2
J5- 8	J6- 25	REAR TRANSPORT (2)- MOTION		COAX	2A	
J5-	J6-	JACKET FOR WIRE NO 3		92	3	S 3
J5- 9	J6- 27	FILM CURSOR ENTER		COAX	3A	
J5-	J6-	JACKET FOR WIRE NO 4		93	4	S 4
J5- 10	J6- 45	FILM CURSOR-Y FAST		COAX	4A	
J5-	J6-	JACKET FOR WIRE NO 5		94	5	S 5
J5- 11	J6- 49	MAP CURSOR +X FAST		COAX	5A	
J5-	J7-	JACKET FOR WIRE NO 6		95	6	S 6
J5- 12	J7- 20	FR TRANSPORT SLOW FWD		COAX	6A	
J5-	J7-	JACKET FOR WIRE NO 7		96	7	S 7
J5- 13	J7- 22	FR TRANSPORT FAST RVS		COAX	7A	
J5- 15	SHIELD 8	SHIELD	22	9	8S	
J5- 16	SHIELD 10	SHIELD	22	9	10S	
J5- 17	SHIELD 3	SHIELD	22	9	3S	
J5- 18	SHIELD 12	SHIELD	22	9	12S	
J5- 19	SHIELD 5	SHIELD	22	9	5S	
J5- 20	SHIELD 14	SHIELD	22	9	14S	
J5- 21	SHIELD 7	SHIELD	22	9	7S	
J5-	J6-	JACKET FOR WIRE NO 8		97	8	S 8
J5- 25	J6- 13	MAP CURSOR-X		COAX	8A	
J5-	J6-	JACKET FOR WIRE NO 9		98	9	S 9
J5- 26	J6- 15	MAP CURSOR +Y		COAX	9A	
J5-	J6-	JACKET FOR WIRE NO 10		901	10	10
J5- 27	J6- 23	REAR TRANSPORT (2)+ MOTION		COAX	10A	
J5-	J6-	JACKET FOR WIRE NO 11		902	11	S 11
J5- 28	J6- 29	MAP CURSOR ENTER		COAX	11A	
J5-	J6-	JACKET FOR WIRE NO 12		903	12	S 12
J5- 29	J6- 43	FILM CURSOR +Y SLOW		COAX	12A	
J5-	J6-	JACKET FOR WIRE NO 13		904	13	S 13
J5- 30	J6- 51	MAP CURSOR +X SLOW		COAX	13A	
J5-	J7-	JACKET FOR WIRE NO 14		905	14	S 14
J5- 31	J7- 18	FR TRANSPORT FAST FWD		COAX	14A	
J5-	J7-	JACKET FOR WIRE NO 15		906	15	S 15
J5- 32	J7- 24	FR TRANSPORT SLOW RVS		COAX	15A	
J5- 36	SHIELD 16	SHIELD	22	9	16S	
J5- 37	SHIELD 9	SHIELD	22	9	95	
J5- 38	SHIELD 18	SHIELD	22	9	18$	
J5- 39	SHIELD 11	SHIELD	22	9	115	
J5- 40	SHIELD 19	SHIELD	22	9	19$	
J5- 41	SHIELD 13	SHIELD	22	9	13S	
J5- 43	SHIELD 15	SHIELD	22	9	155	
J5-	J6-	JACKET FOR WIRE NO 16		907	16	S 16
J5- 48	J6- 11	MAP CURSOR +X		COAX	16A	
J5-	J6-	JACKET FOR WIRE NO 17		908	17	S 17
J5- 49	J6- 17	MAPCURSOR-Y		COAX	17A	
J5-	J6-	JACKET FOR WIRE NO 18		912	18	S 18
J5- 50	J6- 21	FR TRANSPORT (1)- MOTION		COAX	18A	
J5-	J6-	JACKET FOR WIRE NO 41		957	41	S 41
J5- 51	J6- 3	POWER FAIL		COAX	41A	
J5-	J6-	JACKET FOR WIRE NO 19		913	19	19
J5- 52	J6- 41	FILM CURSOR +Y FAST		COAX	19A	

903843-C

TABLE 6-64. CPU CONNECTOR HOUSING WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J5-	J6-	JACKET FOR WIRE NO 20		914	20	S 20
J5- 53	J6- 53	MAP CURSOR-X FAST		COAX	20A	
J5-	J7-	JACKET FOR WIRE NO 21		915	21	S 21
J5- 55	J7- 26	REAR TRANSPORT FAST FWD		COAX	21A	
J5- 60	SHIELD 17	SHIELD	22	9	17S	
J5- 61	SHIELD 23	SHIELD	22	9	23S	
J5- 62	SHIELD 41	SHIELD	22	9	41S	
J5- 63	SHIELD 24	SHIELD	22	9	24S	
J5- 64	SHIELD 20	SHIELD	22	9	20S	
J5- 66	SHIELD 21	SHIELD	22	9	21S	
J5-	J6-	JACKET FOR WIRE NO 22		916	22	S 22
J5- 72	J6- 1	FILM CURSOR +X		COAX	22A	
J5-	J6-	JACKET FOR WIRE NO 23		917	23	S 23
J5- 73	J6- 19	FR TRANSPORT (1)+ MOTION		COAX	23A	
J5-	J6-	JACKET FOR WIRE NO 24		918	24	S 24
J5- 75	J6- 39	FILM CURSOR-X SLOW		COAX	24A	
J5-	J6-	JACKET FOR WIRE NO 25		923	25	S 25
J5- 76	J6- 55	MAP CURSOR-X SLOW		COAX	25A	
J5-	J7-	JACKET FOR WIRE NO 26		924	26	S 26
J5- 78	J7- 28	REAR TRANSPORT SLOW FWD		COAX	26A	
J5- 83	SHIELD 22	SHIELD	22	9	22S	
J5- 84	SHIELD 28	SHIELD	22	9	28S	
J5- 86	SHIELD 30	SHIELD	22	9	30S	
J5- 87	SHIELD 25	SHIELD	22	9	25S	
J5- 89	SHIELD 26	SHIELD	22	9	26S	
J5-	J6-	JACKET FOR WIRE NO 27		925	27	S 27
J5- 95	J6- 5	FILM CURSOR-X		COAX	27A	
J5-	J6-	JACKET FOR WIRE NO 28		926	28	S 28
J5- 96	J6- 9	FILM CURSOR-Y		COAX	28A	
J5-	J7-	JACKET FOR WIRE NO 29		927	29	S 29
J5- 97	J7- 34	FR END OF FILM (1)		COAX	29A	
J5-	J6-	JACKET FOR WIRE NO 30		928	30	S 30
J5- 98	J6- 37	FILM CURSOR-X FAST		COAX	30A	
J5-	J6-	JACKET FOR WIRE NO 31		934	31	S 31
J5- 99	J6- 59	MAP CURSOR +Y FAST		COAX	31A	
J5-	J7-	JACKET FOR WIRE NO 32		935	32	S 32
J5- 101	J7- 30	REAR TRANSPORT FAST RVS		COAX	32A	
J5- 105	SHIELD 27	SHIELD	22	9	27S	
J5- 106	SHIELD 33	SHIELD	22	9	33S	
J5- 107	SHIELD 29	SHIELD	22	9	29S	
J5- 108	SHIELD 35	SHIELD	22	9	35S	
J5- 109	SHIELD 31	SHIELD	22	9	31S	
J5- 110	SHIELD 37	SHIELD	22	9	37S	
J5- 111	SHIELD 32	SHIELD	22	9	32S	
J5-	J6-	JACKET FOR WIRE NO 33		936	33	S 33
J5- 115	J6- 7	FILM CURSOR +Y		COAX	33A	
J5-	J7-	JACKET FOR WIRE NO 34		937	34	S 34
J5- 116	J7- 36	REAR END OF FILM (2)		COAX	34A	
J5-	J6-	JACKET FOR WIRE NO 35		938	35	S 35
J5- 117	J6- 35	FILM CURSOR +X SLOW		COAX	35A	
J5-	J6-	JACKET FOR WIRE NO 36		945	36	S 36
J5- 118	J6- 61	MAP CURSOR +Y SLOW		COAX	36A	
J5-	J6-	JACKET FOR WIRE NO 37		946	37	S 37
J5- 119	J6- 65	MAP CURSOR-Y SLOW		COAX	37A	
J5-	J7-	JACKET FOR WIRE NO 38		947	38	S 38
J5- 120	J7- 32	REAR TRANSPORT SLOW RVS		COAX	38A	
J5- 122	SHIELD 34	SHIELD	22	9	34S	
J5-	J6-	JACKET FOR WIRE NO 39		948	39	S 39
J5- 123	J6- 31	FILM CURSOR +X FAST		COAX	39A	
J5- 124	SHIELD 39	SHIELD	22	9	39S	

903843-C

TABLE 6-64. CPU CONNECTOR HOUSING WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J5- 125	SHIELD 36	SHIELD	22	9	36S	
J5-	J6-	JACKET FOR WIRE NO 40		956	40	S 40
J5- 126	J6- 63	MAP CURSOR-Y FAST		COAX	40A	
J5- 127	SHIELD 40	SHIELD	22	9	40S	
J5- 128	SHIELD 38	SHIELD	22	9	38S	
J6		CONNECTOR				
J6-	J5-	JACKET FOR WIRE NO 22		916	22	S 22
J6- 1	J5- 72	FILM CURSOR +X		COAX	22A	
J6- 2	SHIELD 22	SHIELD	22	9	22F	
J6-	J5-	JACKET FOR WIRE NO 41		957	41	S 41
J6- 3	J5- 51	POWER FAIL		COAX	41A	
J6- 4	SHIELD 27	SHIELD	22	9	27F	
J6-	J5-	JACKET FOR WIRE NO 27		925	27	S 27
J6- 5	J5- 95	FILM CURSOR-X		COAX	27A	
J6- 6	SHIELD 33	SHIELD	22	9	33F	
J6-	J5-	JACKET FOR WIRE NO 33		936	33	S 33
J6- 7	J5- 115	FILM CURSOR +Y		COAX	33A	
J6- 8	SHIELD 28	SHIELD	22	9	28F	
J6-	J5-	JACKET FOR WIRE NO 28		926	28	S 28
J6- 9	J5- 96	FILM CURSOR-Y		COAX	28A	
J6- 10	SHIELD 16	SHIELD	22	9	16F	
J6-	J5-	JACKET FOR WIRE NO 16		907	16	S 16
J6- 11	J5- 48	MAPCURSOR +X		COAX	16A	
J6- 12	SHIELD 8	SHIELD	22	9	8F	
J6-	J5-	JACKET FOR WIRE NO 8		97	8	S 8
J6- 13	J5- 25	MAP CURSOR-X		COAX	8A	
J6- 14	SHIELD 9	SHIELD	22	9	9F	
J6-	J5-	JACKET FOR WIRE NO 9	9	8	9	S 9
J6- 15	J5- 26	MAP CURSOR +Y		COAX	9A	
J6- 16	SHIELD 41	SHIELD	22	9	41F	
J6-	J5-	JACKET FOR WIRE NO 17		908	17	S 17
J6- 17	J5- 49	MAP CURSOR-Y		COAX	17A	
J6- 18	SHIELD 17	SHIELD	22	9	17F	
J6-	J5-	JACKET FOR WIRE NO 23		917	23	S 23
J6- 19	J5- 73	FR TRANSPORT (1)+ MOTION		COAX	23A	
J6- 20	SHIELD 23	SHIELD	22	9	23F	
J6-	J5-	JACKET FOR WIRE NO 18		912	18	S 18
J6- 21	J5- 50	FR TRANSPORT (1)- MOTION		COAX	18A	
J6- 22	SHIELD 18	SHIELD	22	9	18F	
J6-	J5-	JACKET FOR WIRE NO 10		901	10	S 10
J6- 23	J5- 27	REAR TRANSPORT (2)+ MOTION		COAX	10A	
J6- 24	SHIELD 10	SHIELD	22	9	10F	
J6-	J5-	JACKET FOR WIRE NO 2		91	2	S 2
J6- 25	J5- 8	REAR TRANSPORT (2)- MOTION		COAX	2A	
J6- 26	SHIELD 2	SHIELD	22	9	2F	
J6-	J5-	JACKET FOR WIRE NO 3		92	3	S 3
J6- 27	J5- 9	FILM CURSOR ENTER		COAX	3A	
J6- 28	SHIELD 3	SHIELD	22	9	3F	
J6-	J5-	JACKET FOR WIRE NO 11		902	11	S 11
J6- 29	J5- 28	MAP CURSOR ENTER		COAX	11A	
J6- 30	SHIELD 11	SHIELD	22	9	11F	
J6-	J5-	JACKET FOR WIRE NO 39		948	39	S 39
J6- 31	J5- 123	FILM CURSOR +X FAST		COAX	39A	
J6- 32	SHIELD 39	SHIELD	22	9	39F	
J6- 34	SHIELD 35	SHIELD	22	9	35F	
J6-	J5-	JACKET FOR WIRE NO 35		938	35	S 35
J6- 35	J5- 117	FILM CURSOR +X SLOW		COAX	35A	
J6- 36	SHIELD 30	SHIELD	22	9	30F	
J6-	J5-	JACKET FOR WIRE NO 30		928	30	S 30
J6- 37	J5- 98	FILM CURSOR-X FAST		COAX	30A	

903843 - C

TABLE 6-64. CPU CONNECTOR HOUSING WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J6- 38	SHIELD 24	SHIELD	22	9	24F	
J6-	J5-	JACKET FOR WIRE NO 24		918	24	S 24
J6- 39	J5- 75	FILM CURSOR-X SLOW		COAX	24A	
J6- 40	SHIELD 19	SHIELD	22	9	19F	
J6-	J5-	JACKET FOR WIRE NO 19		913	19	S 19
J6- 41	J5- 52	FILM CURSOR +Y FAST		COAX	19A	
J6-	J5-	JACKET FOR WIRE NO 12		903	12	S 12
J6- 43	J5- 29	FILM CURSOR +Y SLOW		COAX	12A	
J6- 44	SHIELD 12	SHIELD	22	9	12F	
J6-	J5-	JACKET FOR WIRE NO 4		93	4	S 4
J6- 45	J5- 10	FILM CURSOR-Y FAST		COAX	4A	
J6- 46	SHIELD 4	SHIELD	22	9	4F	
J6-	J5-	JACKET FOR WIRE NO 1		90	1	S 1
J6- 47	J5- 3	FILM CURSOR-Y SLOW		COAX	1A	
J6- 48	SHIELD 1	SHIELD	22	9	1F	
J6-	J5-	JACKET FOR WIRE NO 5		94	5	S 5
J6- 49	J5- 11	MAP CURSOR +X FAST		COAX	5A	
J6- 50	SHIELD 5	SHIELD	22	9	5F	
J6-	J5-	JACKET FOR WIRE NO 13		904	13	S 13
J6- 51	J5- 30	MAP CURSOR +X SLOW		COAX	13A	
J6- 52	SHIELD 13	SHIELD	22	9	13F	
J6-	J5-	JACKET FOR WIRE NO 20		914	20	S 20
J6- 53	J5- 53	MAP CURSOR-X FAST		COAX	20A	
J6- 54	SHIELD 20	SHIELD	22	9	20F	
J6-	J5-	JACKET FOR WIRE NO 25		923	25	S 25
J6- 55	J5- 76	MAP CURSOR-X SLOW		COAX	25A	
J6- 56	SHIELD 25	SHIELD	22	9	25F	
J6- 58	SHIELD 31	SHIELD	22	9	31F	
J6-	J5-	JACKET FOR WIRE NO 31		934	31	S 31
J6- 59	J5- 99	MAP CURSOR +Y FAST		COAX	31A	
16- 60	SHIELD 36	SHIELD	22	9	36F	
J6-	J5-	JACKET FOR WIRE NO 36		945	36	S 36
J6- 61	J5- 118	MAPCURSOR +YSLOW		COAX	36A	
J6- 62	SHIELD 40	SHIELD	22	9	40F	
J6-	J5-	JACKET FOR WIRE NO 40		956	40	S 40
J6- 63	J5- 126	MAPCURSOR-YFAST		COAX	40A	
J6- 64	SHIELD 37	SHIELD	22	9	37F	
J6-	J5-	JACKET FOR WIRE NO 37		946	37	S 37
J6- 65	J5- 119	MAPCURSOR-YSLOW		COAX	37A	
J7		CONNECTOR				
J7-	J5-	JACKET FOR WIRE NO 14		905	14	S 14
J7- 18	J5- 31	FR TRANSPORT FAST FWD		COAX	14A	
J7- 19	SHIELD 14	SHIELD	22	9	14F	
J7-	J5-	JACKET FOR WIRE NO 6		95	6	S 6
J7- 20	J5- 12	FR TRANSPORT SLOW FWD		COAX	6A	
J7- 21	SHIELD 6	SHIELD	22	9	6F	
J7-	J5-	JACKET FOR WIRE NO 7		96	7	S 7
J7- 22	J5- 13	FR TRANSPORT FAST RVS		COAX	7A	
J7- 23	SHIELD 7	SHIELD	22	9	7F	
J7-	J5-	JACKET FOR WIRE NO 15		906	15	S 15
J7- 24	J5- 32	FR TRANSPORT SLOW RVS		COAX	15A	
J7- 25	SHIELD 15	SHIELD	22	9	15F	
J7-	J5-	JACKET FOR WIRE NO 21		915	21	S 21
J7- 26	J5- 55	REAR TRANSPORT FAST FWD		COAX	21A	
J7- 27	SHIELD 21	SHIELD	22	9	21F	
J7-	J5-	JACKET FOR WIRE NO 26		924	26	S 26
J7- 28	J5- 78	REAR TRANSPORT SLOW FWD		COAX	26A	
J7- 29	SHIELD 26	SHIELD	22	9	26F	
J7-	J5-	JACKET FOR WIRE NO 32		935	32	S 32
17- 30	15- 101	REAR TRANSPORT FAST RVS		COAX	32A	

TABLE 6-64. CPU CONNECTOR HOUSING WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J7- 31	SHIELD 32	SHIELD	22	9	32F	
J7-	J5-	JACKET FOR WIRE NO 38		947	38	S 38
J7- 32	J5- 120	REAR TRANSPORT SLOW RVS		COAX	38A	
J7- 33	SHIELD 38	SHIELD	22	9	38F	
J7-	J5-	JACKET FOR WIRE NO 29		927	29	S 29
J7- 34	J5- 97	FR END OF FILM (1)		COAX	29A	
J7- 35	SHIELD 29	SHIELD	22	9	29F	
J7-	J5-	JACKET FOR WIRE NO 34		937	34	S 34
J7- 36	J5- 116	REAR END OF FILM (2)		COAX	34A	
J7- 37	SHIELD 34	SHIELD	22	9	34F	

TABLE 6-65. RESISTOR ASSEMBLY A29 WIRING LIST

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1-	R21-	JACKET FOR WIRE NO 1		91	1	S 1
J1- 1	R21- A	28VDC MAP X	22	9	1A	
SHIELD 1	SHIELD 2	SHIELD	22	90	IF	
J1-	R21-	JACKET FOR WIRE NO 2		92	2	S 2
J1- 2	R21- B	MAPX-VRES28	22	9	2A	
SHIELD 2	SHIELD 3	SHIELD	22	90	2F	
J1-	R22-	JACKET FOR WIRE NO 3		93	3	S 3
J1- 3	R22- B	MAP X-W RES 28	22	9	3A	
SHIELD 3	SHIELD 4	SHIELD	22	90	3F	
J1-	R23-	JACKET FOR WIRE NO 4		94	4	S 4
J1- 4	R23- B	MAP X-X RES 28	22	9	4A	
SHIELD 4	SHIELD 5	SHIELD	22	90	4F	
J1- 5	R24- B	MAP X-Y RES 28	22	9	5A	
SHIELD 5	SHIELD 6	SHIELD	22	90	5F	
J1- 6	R25- A	+28V MAPX	22	9	6A	
SHIELD 6	SHIELD 7	SHIELD	22	90	6F	
J1-	R25-	JACKET FOR WIRE NO 7		97	7	S 7
J1- 7	R25- B	MAP X-Z RES 28	22	9	7A	
J1- 8	SHIELD 7	SHIELD	22	90	7F	
J1-	R26-	JACKET FOR WIRE NO 8		98	8	S 8
J1- 9	R26- A	+28VFILMX	22	9	8A	
SHIELD 8	SHIELD 9	SHIELD	22	90	8F	
J1-	R26-	JACKET FOR WIRE NO 9		901	9	S 9
J1- 10	R26- B	FILM X-V RES 28	22	9	9A	
J1-	R27-	JACKET FOR WIRE NO 10		902	10	S 10
SHIELD 9	SHIELD 10	SHIELD	22	90	9F	
J1- 11	R27- B	FILM X-W RES 28	22	9	10A	
J1-	R28-	JACKET FOR WIRE NO 11		903	11	S 11
SHIELD 10	SHIELD 11	SHIELD	22	90	10F	
J1- 12	R28- B	FILM X-X RES 28	22	9	11A	
J1-	R29-	JACKET FOR WIRE NO 12		904	12	S 12
SHIELD 11	SHIELD 12	SHIELD	22	90	11F	
J1- 13	R29- B	FILM X-Y RES 28	22	9	12A	
J1-	R30-	JACKET FOR WIRE NO 13		905	13	S 13
SHIELD 12	SHIELD 13	SHIELD	22	90	12F	
J1- 14	R30- A	+28VFILMX	22	9	13A	
J1-	R30-	JACKET FOR WIRE NO 14		906	14	S 14
SHIELD 13	SHIELD 14	SHIELD	22	90	13F	
J1- 15	R30 B	FILM X-Z RES 28	22	9	14A	
J1- 16	SHIELD 14	SHIELD	22	90	14F	
J1-	R31-	JACKET FOR WIRE NO 15		907	15	S 15
J1- 17	R31- A	28VDC FILM Y	22	9	15A	
J1-	R31-	JACKET FOR WIRE NO 16		908	16	S 16
SHIELD 15	SHIELD 16	SHIELD	22	90	15F	
J1- 18	R31- B	FILM Y-V RES 28	22	9	16A	
J1-	R32-	JACKET FOR WIRE NO 17		912	17	S 17
SHIELD 16	SHIELD 17	SHIELD	22	90	16F	
J1- 19	R32- B	FILM Y-W RES 28	22	9	17A	
J1-	R33-	JACKET FOR WIRE NO 18		913	18	S 18
SHIELD 17	SHIELD 18	SHIELD	22	90	17F	
J1- 20	R33- B	FILM Y-X RES 28	22	9	18A	
J1-	R34-	JACKET FOR WIRE NO 19		914	19	S 19
SHIELD 18	SHIELD 19	SHIELD	22	90	18F	
J1- 21	R34- B	FILM Y-Y RES 28	22	9	19A	
J1-	R35-	JACKET FOR WIRE NO 20		915	20	S 20
SHIELD 19	SHIELD 20	SHIELD	22	90	19F	
J1- 22	R35- A	+28VDCFILMY	22	9	20A	
SHIELD 20	SHIELD 21	SHIELD	22	90	20F	

2085479-B

TABLE 6-65. RESISTOR ASSEMBLY A29 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
J1-	R35-	JACKET FOR WIRE NO 21		916	21	S 21
J1- 23	R35- B	FILM Y-Z RES 28	22	9	21A	
J1- 24	SHIELD 21	SHIELD	22	90	21F	
J1-	R36-	JACKET FOR WIRE NO 22		917	22	S 22
J1- 25	R36- A	+28 VDC MAP Y	22	9	22A	
SHIELD 22	SHIELD 23	SHIELD	22	90	22F	
J1-	R36-	JACKET FOR WIRE NO 23		918	23	S 23
J1- 26	R36- B	MAP Y-V RES 28	22	9	23A	
SHIELD 23	SHIELD 24	SHIELD	22	90	23F	
J1-	R37-	JACKET FOR WIRE NO 24		923	24	S 24
J1- 27	R37- B	MAP Y-W RES 28	22	9	24A	
SHIELD 24	SHIELD 25	SHIELD	22	90	24F	
J1-	R38-	JACKET FOR WIRE NO 25		924	25	S 25
J1- 28	R38- B	MAP Y-X RES 28	22	9	25A	
SHIELD 25	SHIELD 26	SHIELD	22	90	25F	
J1-	R39-	JACKET FOR WIRE NO 26		925	26	S 26
J1- 29	R39- B	MAP Y-Y RES 28	22	9	26A	
SHIELD 26	SHIELD 27	SHIELD	22	90	26F	
J1-	R40-	JACKET FOR WIRE NO 27		926	27	S 27
J1- 30	R40- A	28 VDC MAP Y	22	9	27A	
SHIELD 27	SHIELD 28	SHIELD	22	90	27F	
J1-	R40-	JACKET FOR WIRE NO 28		927	28	S 28
J1- 31	R40- A	+28V REGULATED	22	9	28A	
SHIELD 28	SHIELD 29	SHIELD	22	90	28F	
J1-	R40-	JACKET FOR WIRE NO 29		928	29	S 29
J1- 32	R40- B	MAP Y-Z RES 28	22	9	29A	
J1- 33	SHIELD 29	SHIELD	22	90	29F	
J2						
J2-	R1-	JACKET FOR WIRE NO 32		9	32	S 32
J2- 1	R1- A	BALLAST DV DIMMER	16	32A		
J3						
J3-	R3-	JACKET FOR WIRE NO 35		9	35	S 35
J3- 1	R3- B	BALLAST DV DIMMER	16	35A		
R1						
R1-	J2-	JACKET FOR WIRE NO 32		9	32	S 32
R1- A	J2- 1	BALLAST DVDIMMER	16	32A		
R1- B	R2- A	BALLAST DV DIMMER	22	9	33	
R2						
R2- A	R1- B	BALLAST DV DIMMER	22	9	33	
R2- B	R3- A	BALLAST DV DIMMER	22	9	34	
R3						
R3- A	R2- B	BALLAST DV DIMMER	22	9	34	
R3-	J3-	JACKET FOR WIRE NO 35		9	35	S 35
R3- B	J3- 1	BALLAST DV DIMMER	16	35A		
R21						
R21-	J1-	JACKET FOR WIRE NO 1		91	1	S 1
R21- A	J1- 1	28VDCMAPX	22	9	1A	
R21- A	R22- A		22	9	50	
R21-	J1-	JACKET FOR WIRE NO 2		92	2	S 2
R21- B	J1- 2	MAP X-V RES 28	22	9	2A	

2085479-B

TABLE 6-65. RESISTOR ASSEMBLY A29 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
R22						
R22- A	R21- A		22	9	50	
R22- A	R23- A		22	9	51	
R22-	J1-	JACKET FOR WIRE NO 3		93	3	S 3
R22- B	J1- 3	MAP X-W RES 28	22	9	3A	
R23						
R23- A	R22- A		22	9	51	
R23- A	R24- A		22	9	52	
R23-	J1-	JACKET FOR WIRE NO 4		94	4	S 4
R23- B	J1- 4	MAP X-X RES 28	22	9	4A	
R24						
R24- A	R23- A		22	9	52	
R24- A	R25- A		22	9	53	
R24-	J1-	JACKET FOR WIRE NO 5		95	5	S 5
R24- B	J1- 5	MAP X-Y RES 28	22	9	5A	
R25						
R25-	J1-	JACKET FOR WIRE NO 6		96	6	S 6
R25- A	J1- 6	+28VMAP X	22	9	6A	
R25- A	R24- A		22	9	53	
R25-	J1-	JACKET FOR WIRE NO 7		97	7	S 7
R25- B	J1- 7	MAP X-Z RES 28	22	9	7A	
R26						
R26-	J1-	JACKET FOR WIRE NO 8		98	8	S 8
R26- A	J- 9	+28V FILM X	22	9	8A	
R26- A	R27- A		22	9	54	
R26-	J1-	JACKET FOR WIRE NO 9		901	9	S 9
R26- B	J1- 10	FILM X-V RES 28	22	9	9A	
R27						
R27- A	R26- A		22	9	54	
R27- A	R28- A		22	9	55	
R27-	J1-	JACKET FOR WIRE NO 10		902	10	S 10
R27- B	J1- 11	FILM X-W RES 28	22	9	10A	
R28						
R28- A	R27- A		22	9	55	
R28- A	R29- A		22	9	56	
R28-	J1-	JACKET FOR WIRE NO 11		903	11	S 11
R28- B	J1- 12	FILM X-X RES 28	22	9	11A	
R29						
R29- A	R28- A		22	9	56	
R29- A	R30- A		22	9	57	
R29-	J1-	JACKET FOR WIRE NO 12		904	12	S 12
R29- B	J1- 13	FILM X-Y RES 28	22	9	12A	
R30						
R30-	J1-	JACKET FOR WIRE NO 13		905	13	S 13
R30- A	J1- 14	+28VFILMX	22	9	13A	
R30- A	R29- A		22	9	57	
R30-	J1-	JACKET FOR WIRE NO 14		906	14	14
R30- B	J1- 15	FILM X-Z RES 28	22	9	14A	

2085479-B

TABLE 6-65. RESISTOR ASSEMBLY A29 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
R31						
R31-	J1-	JACKET FOR WIRE NO 15		907	15	S 15
R31- A	J1- 17	28VDC FILM Y	22	9	15A	
R31- A	R32- A		22	9	58	
R31-	J1-	JACKET FOR WIRE NO 16		908	16	S 16
R31- B	J1- 18	FILM Y-V RES 28	22	9	16A	
R32						
R32- A	R31- A		22	9	58	
R32- A	R33- A		22	9	59	
R32-	J1-	JACKET FOR WIRE NO 17		912	17	S 17
R32- B	J1- 19	FILM Y-W RES 28	22	9	17A	
R33						
R33- A	R32- A		22	9	59	
R33- A	R34- A		22	9	60	
R33-	J1-	JACKET FOR WIRE NO 18S		913	18	S 18
R33- B	J1- 20	FILM Y-X RES 28	22	9	18A	
R34						
R34- A	R33- A		22	9	60	
R34- A	R35- A		22	9	61	
R34-	J1-	JACKET FOR WIRE NO 19		914	19	S 19
R34- B	J1- 21	FILM Y-Y RES 28	22	9	19A	
R35						
R35-	J1-	JACKET FOR WIRE NO 20		915	20	S 20
R35- A	J1- 22	+28VDC FILM Y	22	9	20A	
R35- A	R34- A		22	9	61	
R35-	J1-	JACKET FOR WIRE NO 21		916	21	S 21
R35- B	J1- 23	FILM Y-Z RES 28	22	9	21A	
R36						
R36-	J1-	JACKET FOR WIRE NO 22		917	22	S 22
R36- A	J1- 25	+28VDC MAP Y	22	9	22A	
R36- A	R37- A		22	9	62	
R36-	J1-	JACKET FOR WIRE NO 23		918	23	S 23
R36- B	J1- 26	MAP Y-V RES 28	22	9	23A	
R37						
R37- A	R36- A		22	9	62	
R37- A	R38- A		22	9	63	
R37-	J1-	JACKET FOR WIRE NO 24		923	24	S 24
R37- B	J1- 27	MAP Y-W RES 28	22	9	24A	
R38						
R38- A	R37- A		22	9	63	
R38- A	R39- A		22	9	64	
R38-	J1-	JACKET FOR WIRE NO 25		924	25	S 25
R38- B	J1- 28	MAP Y-X RES 28	22	9	25A	
R39						
R39- A	R38- A		22	9	64	
R39- A	R40- A		22	9	65	
R39-	J1-	JACKET FOR WIRE NO 26		925	26	S 26
R39- B	J1- 29	MAP Y-Y RES 28	22	9	26A	

TABLE 6-65. RESISTOR ASSEMBLY A29 WIRING LIST (CONT)

CIRCUIT POINT	CIRCUIT POINT	SIGNAL FUNCTION OR NAME	WIRE AWG	COLOR	NO	REMARKS
R40						
R40- A	R39- A		22	9	65	
R40-	J1-	JACKET FOR WIRE NO 28		927	28	S 28
R40- A	J1- 31	+28V REGULATED	22	9	28A	
R40-	J1-	JACKET FOR WIRE NO 27		926	27	S 27
R40- A	J1- 30	28VDC MAP Y	22	9	27A	
R40-	J1-	JACKET FOR WIRE NO 29		928	29	S 29
R40- B	J1- 32	MAP Y-Z RES 28	22	9	29A	

2085479-B

TABLE 6-66. POINT-TO-POINT CABLE LIST

CABLE NO.	PART NO.	START STATION	FINISH STATION
W1	9056982	A18-J2	A26-J1
W1	905698-2	A18-J2	A13-J13
W2	05699-1	A13-J7	A22-J3
W3	9051701	A2-J1	A13-J11
W4	05701-1	A4-J4	A13-J10
W5	2041561-1	A13-J4	A27
W6	2041562-1	A13-JS	A28
W7	90824-1	A9-J13	A25-J1
W8	905705-1	A13-J12	A19-J1
W9	905706-1	A6-J2	A13-J6
W10	905707-1	A14-J10	CPU HSG CONN 4J6 OR 5J6
W11	905708-2	A9-J10	A17-J4
W11	05708-2	A9-J10	A17-J2
W11	905708-2	A9-J10	A17-J5
W11	05708-2	A9-J10	A17-TB4
W12	905709-1	A15-J8	CPU CONN HSG 4J7 OR 5J7
W13	905710-1	A8-J1	A15-J4
W14	905711-1	A8-J2	A15-J5
W15	05712-1	A7-J2	A15-J6
W16	905713-1	A7-J1	A15-J7
W17	905714-1	A12-J3	A15-J1
W18	905715-1	A11-JS	A15-J3
W19	905716-1	A9-J7	A15-J2
W20	905717-1	A7-J3	A14-J9
W21	905718-1	A9-J6	A12-J5
W23	2036377-1	A9-J1	A14-J5
W24	905721-1	A9-J9	A14-J3
W30	2036375-1	A11-J1	A14-J4
W31	05824-10	A17-J1	A25-J6
W32	905824-3	A25-J2	A29-J3
W33	95824-11	A17-J3	A25-J5
W34	905731-1	A21-J2	A22-J5
W35	905732-1	A10	A22-J7
W36	905733-1	A10-J5	A22-J9
W37	905734-1	A10-J4	A22-J8
W38	905735-1	A10-J3	A22-J4
W39	905736-1	A10-J2	A22-J1
W40	905737-1	A22-J6	A23-J1
W41	905738-1	A12-J4	A22-J2
W42	905739-1	A14-J8	A22-J10
W43	05740-1	A12-J2	A14-J7
W44	05741-1	A12-J1	A14-J6
W45	905742-1	A6-J1	A14-J1
W46	905743-1	A6-J3	A14-J2
W48	905745-1	A9-J5	A19-J2
W49	05746-1	A2-J5	CPU CONN HSG 4J3 OR 5J3
W50	905747-1	A4-J2	CPU CONN HSG

TABLE 6-66. POINT-TO-POINT CABLE LIST (CONTINUED)

CABLE NO.	PART NO.	START STATION	FINISH STATION
W51	2062114-1	A4-J3	J14-P14
W52	2062113-1	A5-J1	J14-P14
		A5-J2	J14-P14
W53	9026881	A4-J1	J2-P2
W54	902687-1	A3-J1	J2-P2
W55	2041605-1	A1-J1	A2-J2
W56	2041605-1	A1-J2	A2-J3
W58	905748-1	A9-J11	A19-J3
W61	905824-5	A10-J1	A25-J3
W62	905824-6	A10-J6	A25J4
W63	905824-7	A21-J1	A25-J8
W64	905824-8	A21-J3	A25-J7
W68	905807-1	A9-J14	A25-J9
W69	2085489-1	A14-J1	A29-J1
W70	905824-9	A9-J12	A29-J2

TABLE 6-67. TWO-WAY INTERCONNECTING CABLE LIST

CONNECTOR	CONNECTOR	CABLE
SUB ASSY MOUNTED		
A1-J1	A2-J2	W55
A1-J2	A2-J3	W56
A2-J1	A13-J11	W3
A2-J2	A1-J1	W55
A2-J3	A1-J2	W56
A2-JS	4J2 OR 5J2	W49
A3-J1	J2-P2	W54
A4-J1	J2-P2	W53
A4-J2	4J3 OR 5J3	W50
A4-J3	J14-P14	W51
A4-J4	A13-J10	W4
AS-J1	J14-P14	W52
AS-J2	J14-P14	W52
A6-J1	A14-J1	W45
A6-J2	A13-J6	W9
A6-J3	A14-J2	W46
A7-J1	A15-J7	W16
A7-J2	A1S-J6	W15
A7-J3	A14-J9	W20
A8-J1	A15-J4	W13
A8-J2	A15-J5	W14
A9-J1	A14-J5	W23
A9-J5	A19-J2	W48
A9-J6	A12-J5	W21
A9-J7	A15-J2	W19
A9-J9	A14-J3	W24
A9-J10	A17-J2	W11
A9-J10	A17-J4	W11
A9-J10	A17-J5	W11
A9-J10	A17-TB4	W11
A9-J11	A19-J3	W58
A9-J12	A29-J2	W70
A9-J13	A2-J1	W7
A9-J14	A25-J9	W68
A10-J1	A25-J3	W61
A10-J2	A22-J1	W39
A10-J3	A22-J4	W38
A10-J4	A22-J8	W37
A10-J5	A22-J9	W36
A10-J6	A25-J4	W62
A10	A22-J7	W35
A11-J1	A14-J4	W30
A1-J5	A15-J3	W18
A12-J1	A14-J6	W44
A12-J2	A14-J7	W43
A12-J3	A15-J1	W17
A12-J4	A22-J2	W41
A12-J5	A9-J6	W21
A13-J3	A18-J1	W5 OR W6
A13-J3	POWER (EXTERNAL)	W5 OR W6
A13-J4	A27	WS
A13-JS	A28	W6
A13-J6	A6-J2	W9
A13-J7	A22-J3	W2
A13-J10	A4-J4	W4
A13-J11	A2-J1	W3
A13-J12	A19-J1	W8
A13-J13	A26-J1	W1
A13-J13	A18-J2	W1

TABLE 6-67. TWO-WAY INTERCONNECTING CABLE LIST (CONTINUED)

CONNECTOR	CONNECTOR	CABLE
SUB ASSY MOUNTED (CONT)		
A14-J1	A6-J1	W45
A14-J2	A6-J3	W46
A14-J3	A9-J9	W24
A14-J4	A11-J1	W30
A14-J5	A9-J1	W23
A14-J6	A12-J1	W44
A14-J7	A12-J2	W43
A14-J8	A22-J10	W42
A14-J9	A7-J3	W20
A14-J10	CPU CONN HSG 4J6 OR 5J6	W10
A14-J11	A29-J1	W69
A15-J1	A12-J3	W17
A15-J2	A9-J7	W19
A15-J3	A1-J5	W18
A15-J4	A8-J1	W13
A15-J5	A8-J2	W14
A15-J6	A7-J2	W11
A15-J7	A7-J1	W16
A15-J8	CPU CONN HSG-J7	W12
A17-J1	A25-J6	W31
A17-J2	A9-J10	W11
A17-J3	A25-J5	W33
A17-J4	A9-J10	W11
A17-J5	A9-J10	W11
A17-TB4	A9-J10	W11
A18-J1	A13-J3	W5 OR W6
A18-J2	A26-J1	W1
A18-J2	A13-J13	W1
A1-J1	A13-J12	W8
A19-J2	A9-J5	W48
A19-J3	A9-J11	W58
A21-J1	A2-J8	W63
A21-J2	A22-J5	W34
A21-J3	A25-J7	W64
A22-J1	A10-J2	W39
A22-J2	A12-J4	W41
A22-J3	A13-J7	W2
A22-J4	A10-J3	W38
A22-J5	A21-J2	W34
A22-J6	A23-J1	W40
A22-J7	A10	W35
A22-J8	A10-J4	W37
A22-J9	A10-J5	W36
A22-J10	A14-J8	W42
A23-J1	A22-J6	W40
A25-J1	A9-J13	W7
A25-J2	A29-J3	W32
A25-J3	A10-J1	W61
A25-J4	A10-J6	W62
A25-J5	A17-J3	W33
A25-J6	A17-J6	W31
A25-J7	A21-J3	W64
A25-J8	A21-J1	W63
A25-J9	A9-J14	A68
A26-J1	A18-J2	W1
A26-J1	A13-J13	W1
A27	A13-J4	W5
A28	A13-J5	W6
A29-J1	A14-J11	W69
A29-J2	A9-J12	W70
A29-J3	A25-J2	W32

TABLE 6-67. TWO-WAY INTERCONNECTING CABLE LIST (CONTINUED)

CONNECTOR	CONNECTOR	CABLE
FRAME MOUNTED		
P2-J2	A3-J1	W54
P2-J2	A4-J1	W53
P14-J14	A5-J1	W52
P14-J14	AS-J2	W52
P14-J1	A4-J3	W51
CPU CONN HSG MOUNTED		
4J5 OR 5J5	TO CPU	W8 OR W11
4J6 OR 5J6	A14-J10	W10
4J7 OR 5J7	A15-J8	W12
4J2 OR 5J2	A2-J5	W49
4J2 OR 5J2	TO CPU	W7 OR W10
4J3 OR 5J3	A4-J2	W50
4J3 OR 5J3	TO CPU	W9 OR W11

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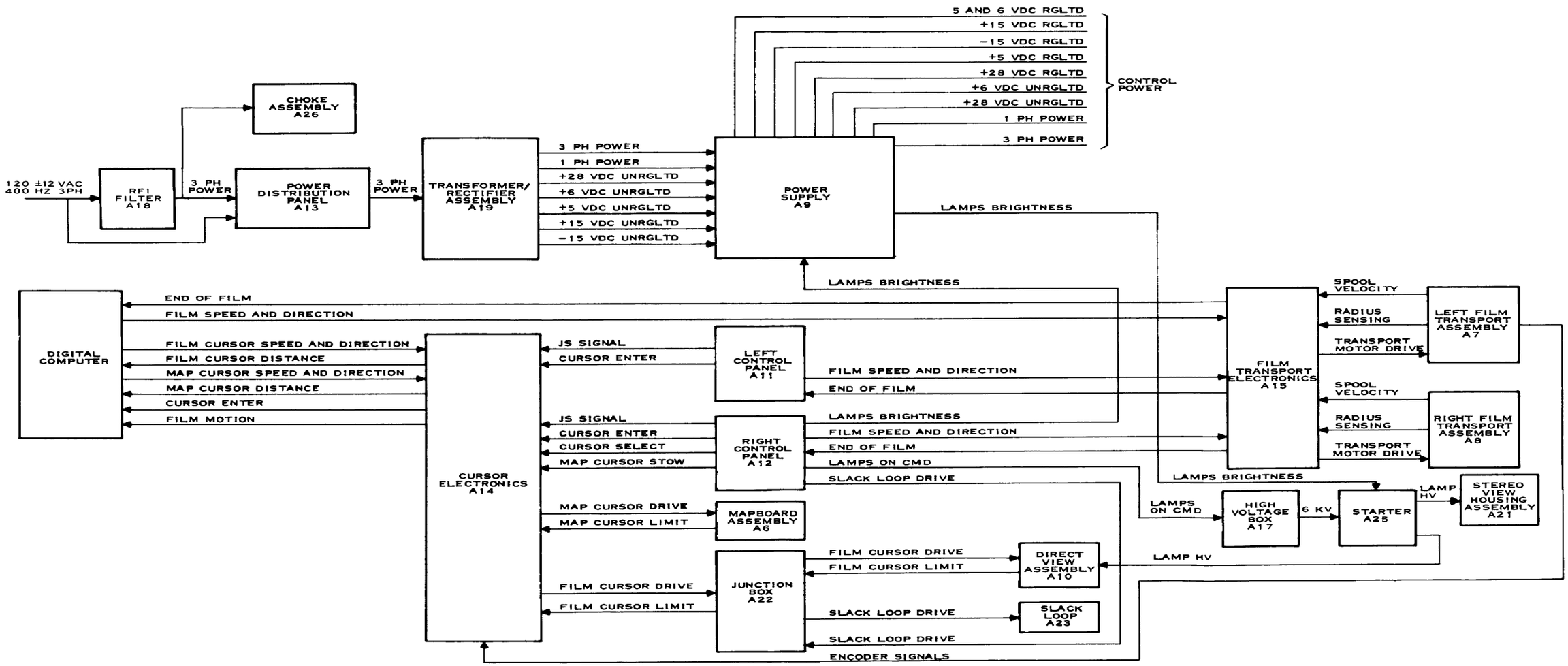

Figure 4-1. Console Overall Block Diagram

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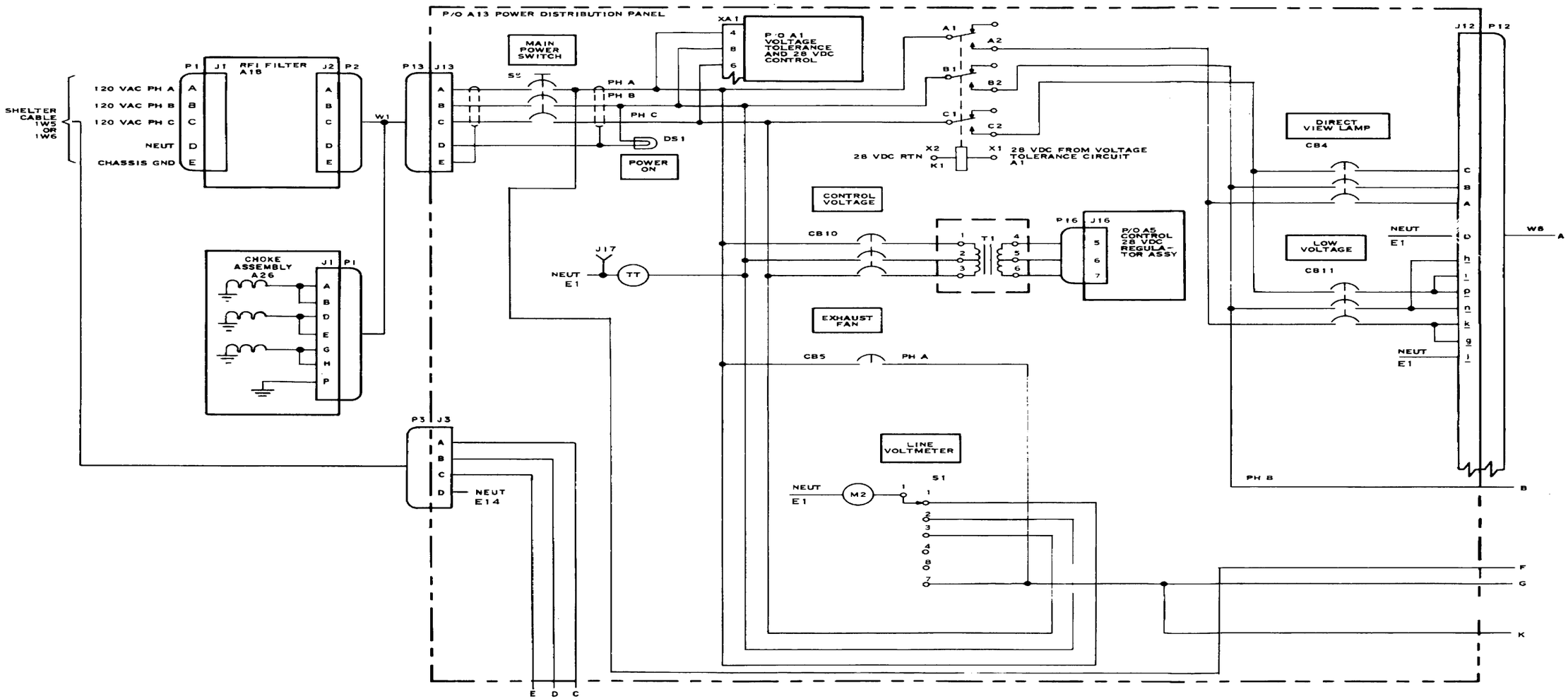

Figure 4-2. AC Power distribution Diagram (Sheet 1of 4)

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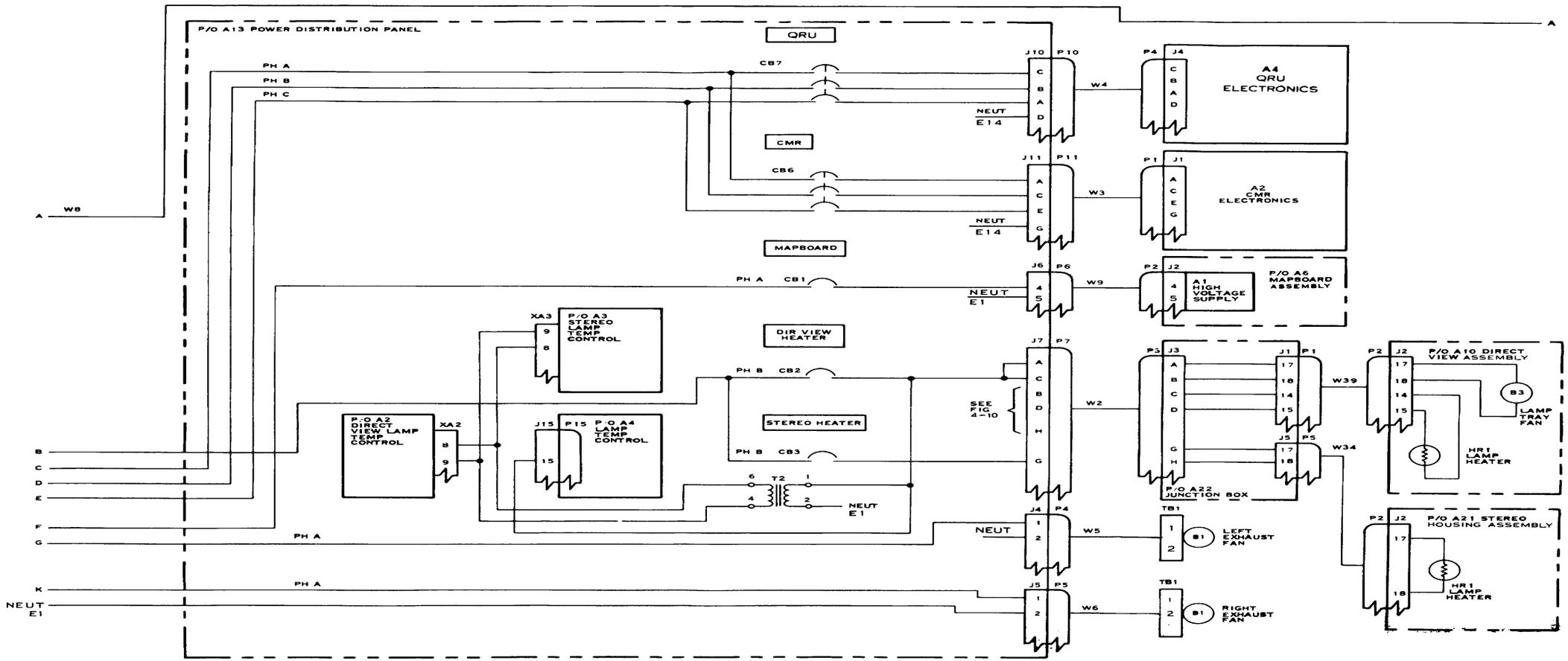

Figure 4-2. AC Power Distribution Diagram (Sheet 2 of 4)

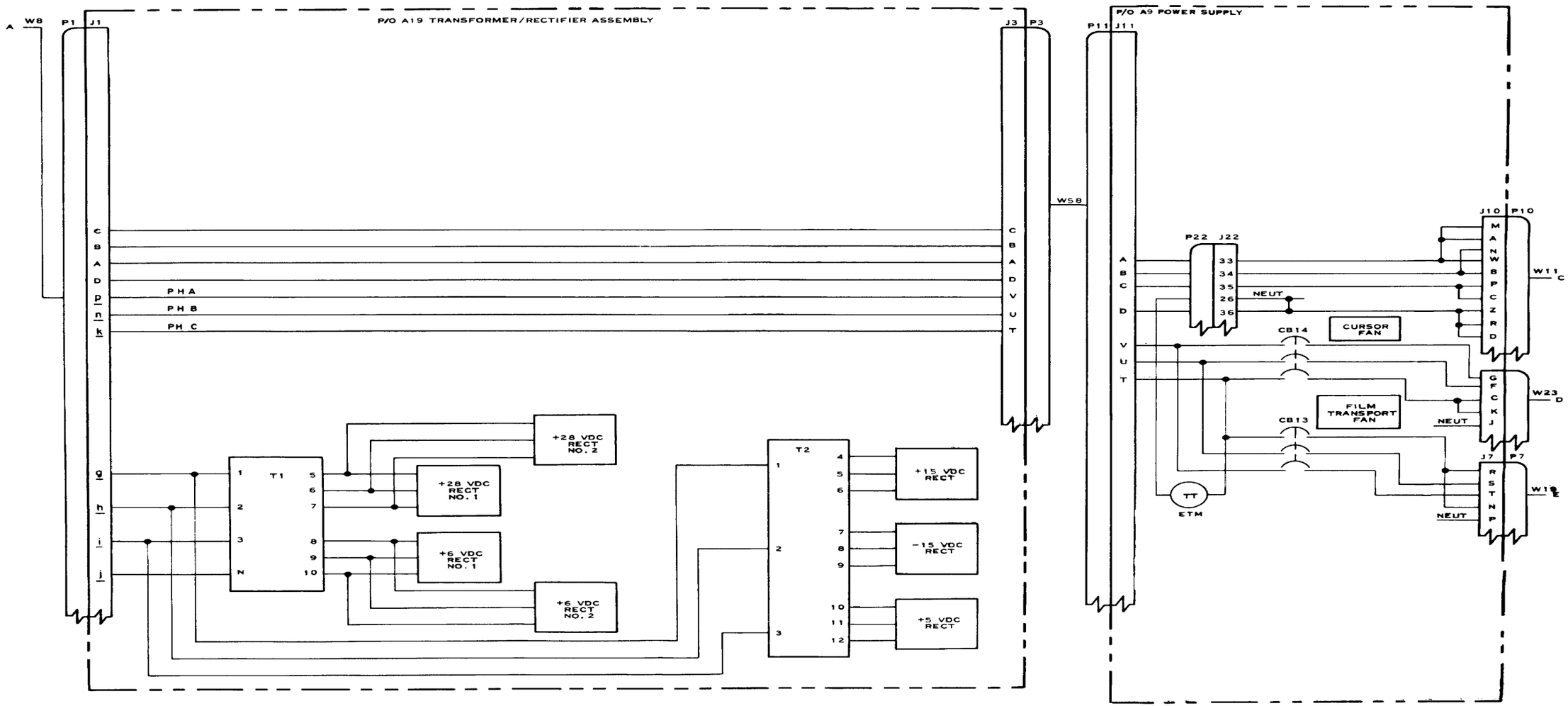

Figure 4-2. AC Power Distribution Diagram (Sheet 3of 4)

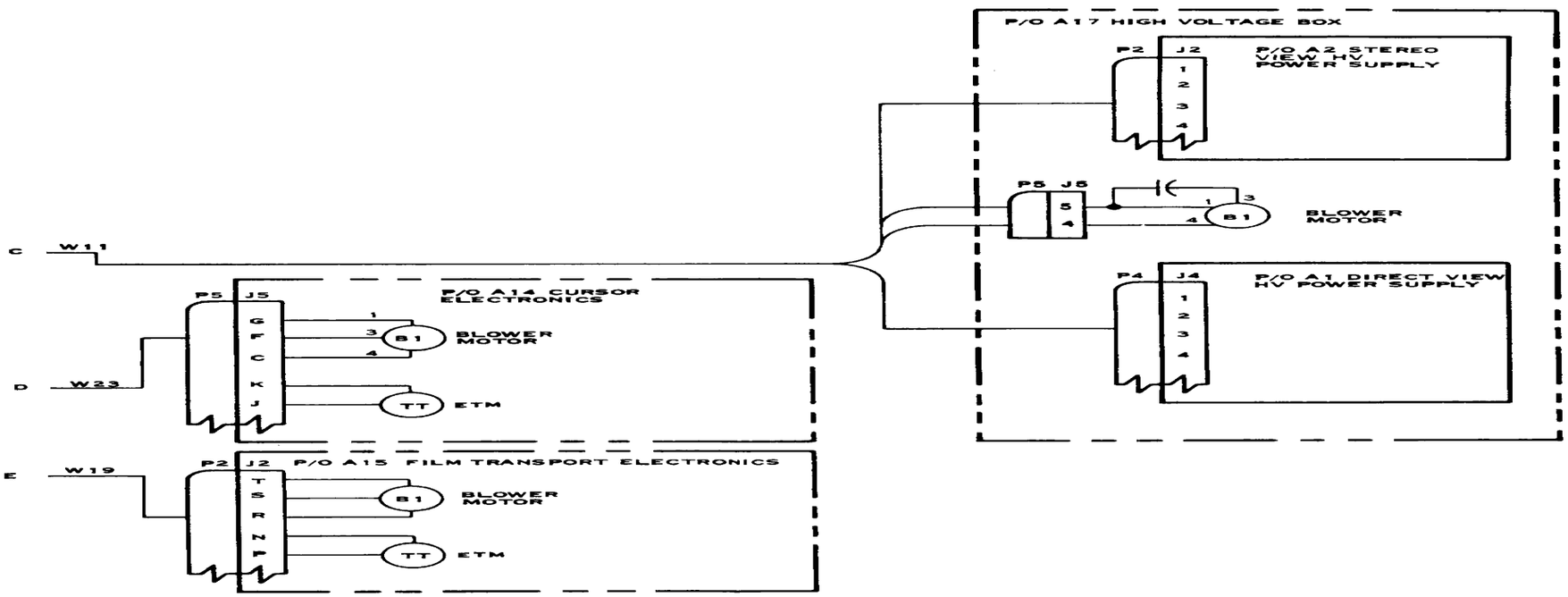

Figure 4-2. AC Power Distribution Diagram (Sheet 4 of 4)

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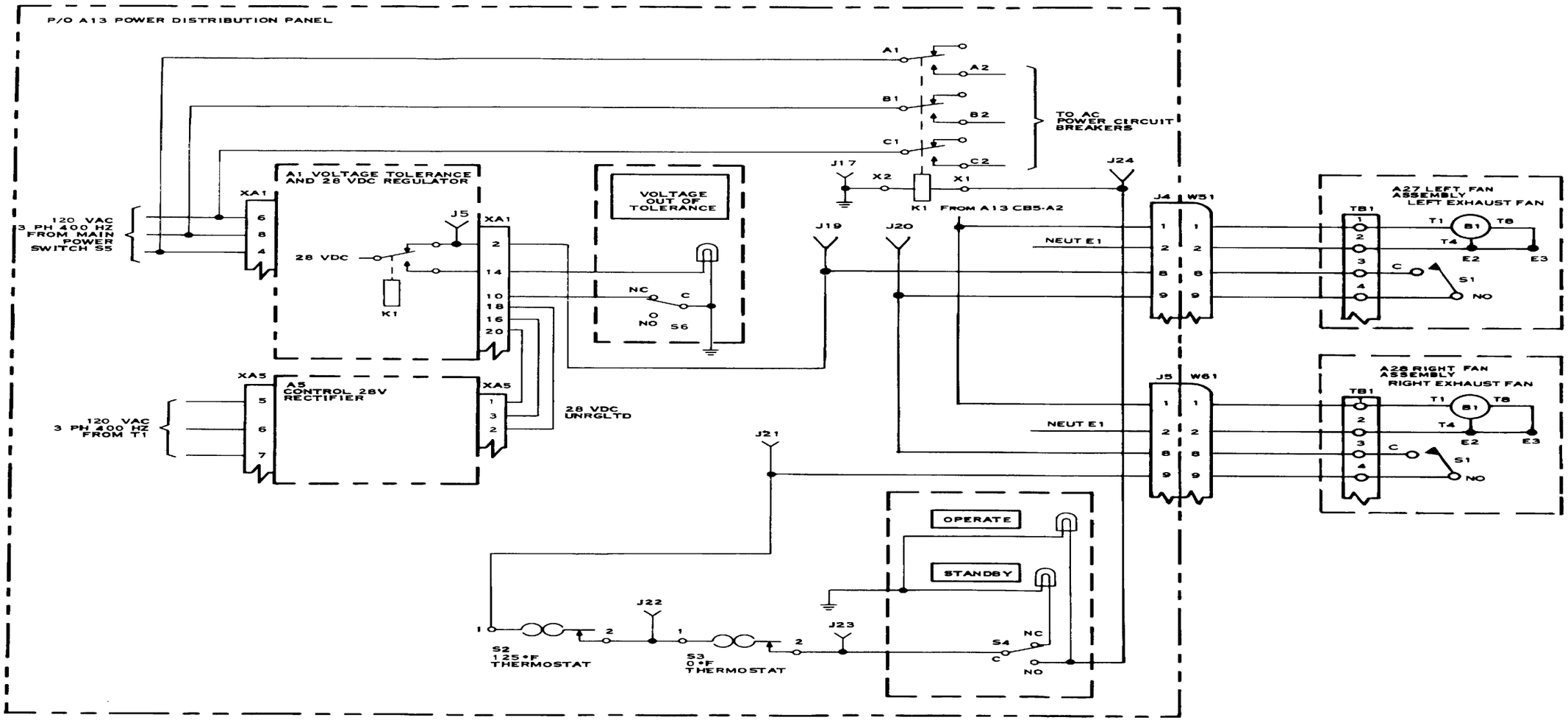

Figure 4-3. Voltage Tolerance and Main Power Control Functional Diagram

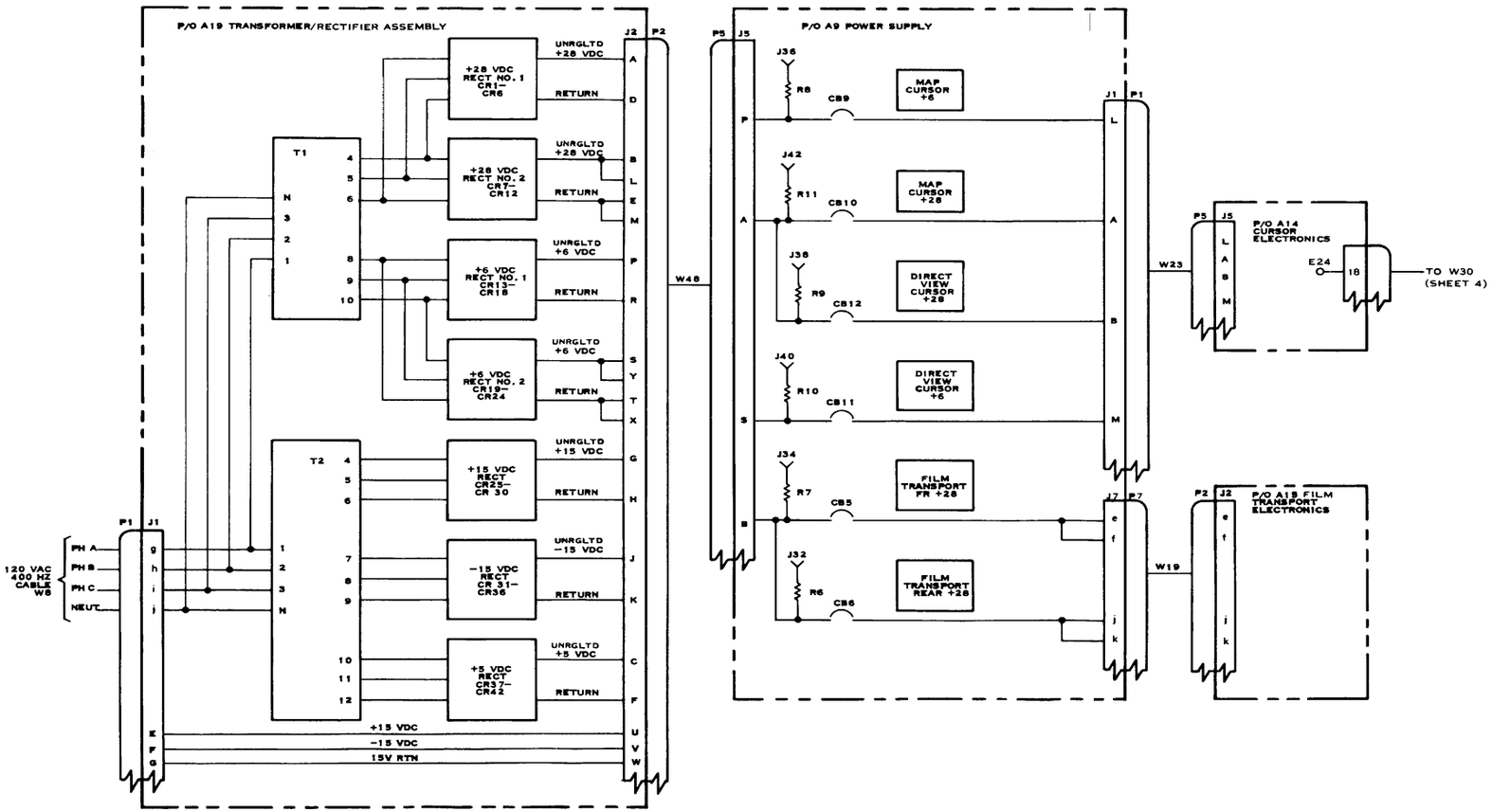

Figure 4-4. DC Power Distribution Functional Diagram (Sheet 1 of 4)

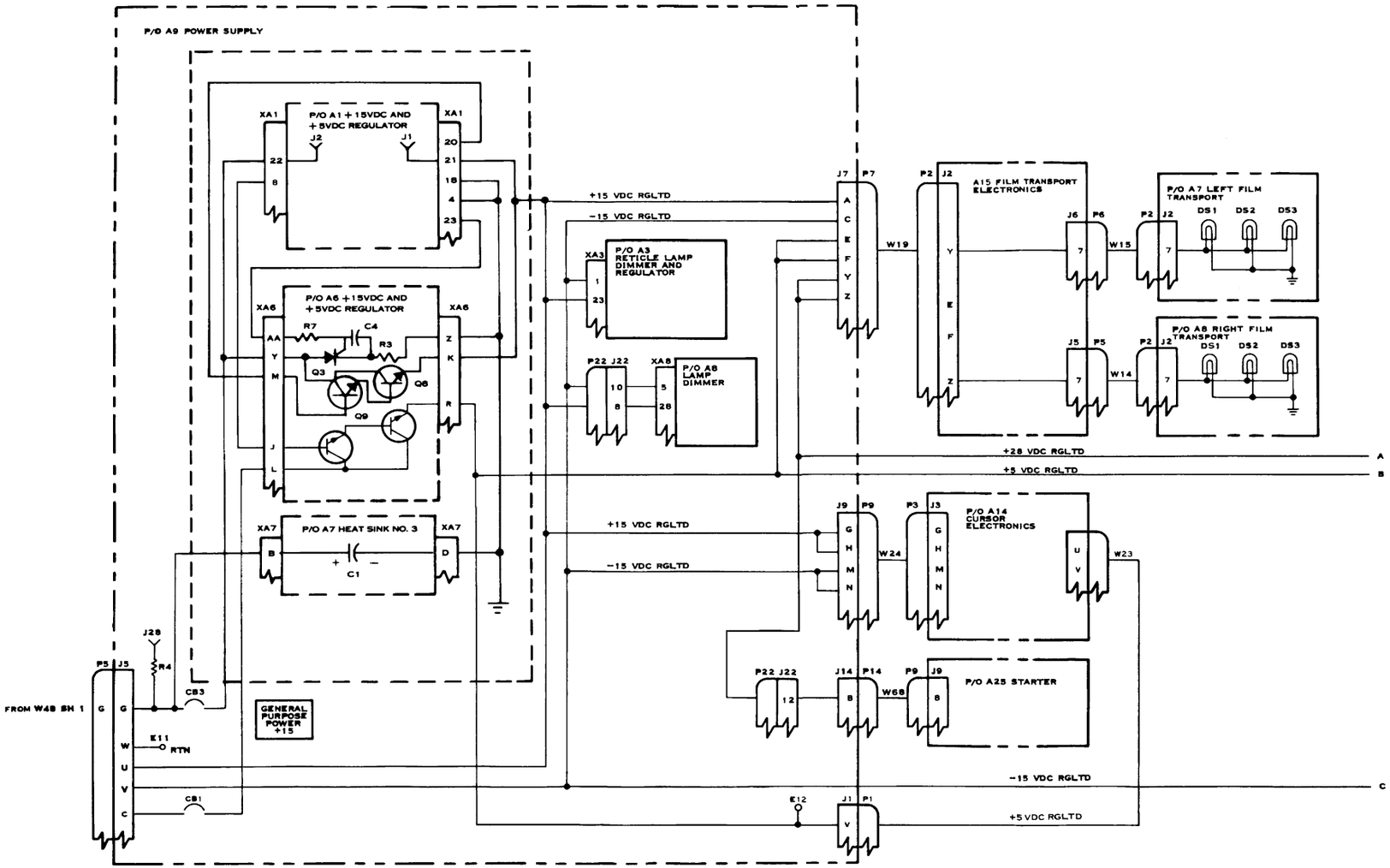

Figure 4-4. DC Power Distribution Functional Diagram (Sheet 2 of 4)

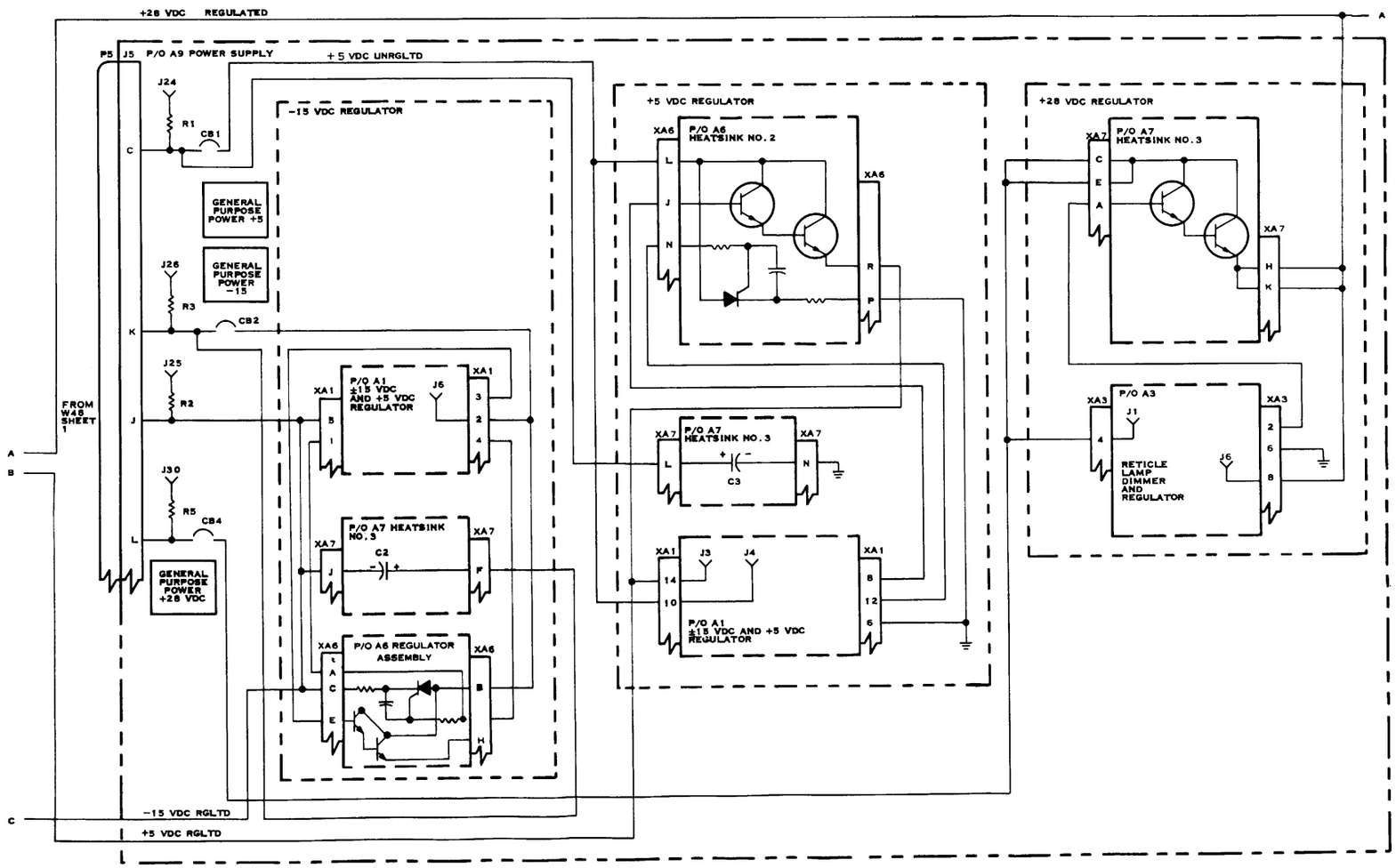

Figure 4-4. DC Power Distribution Functional Diagram
(Sheet 3 of 4)

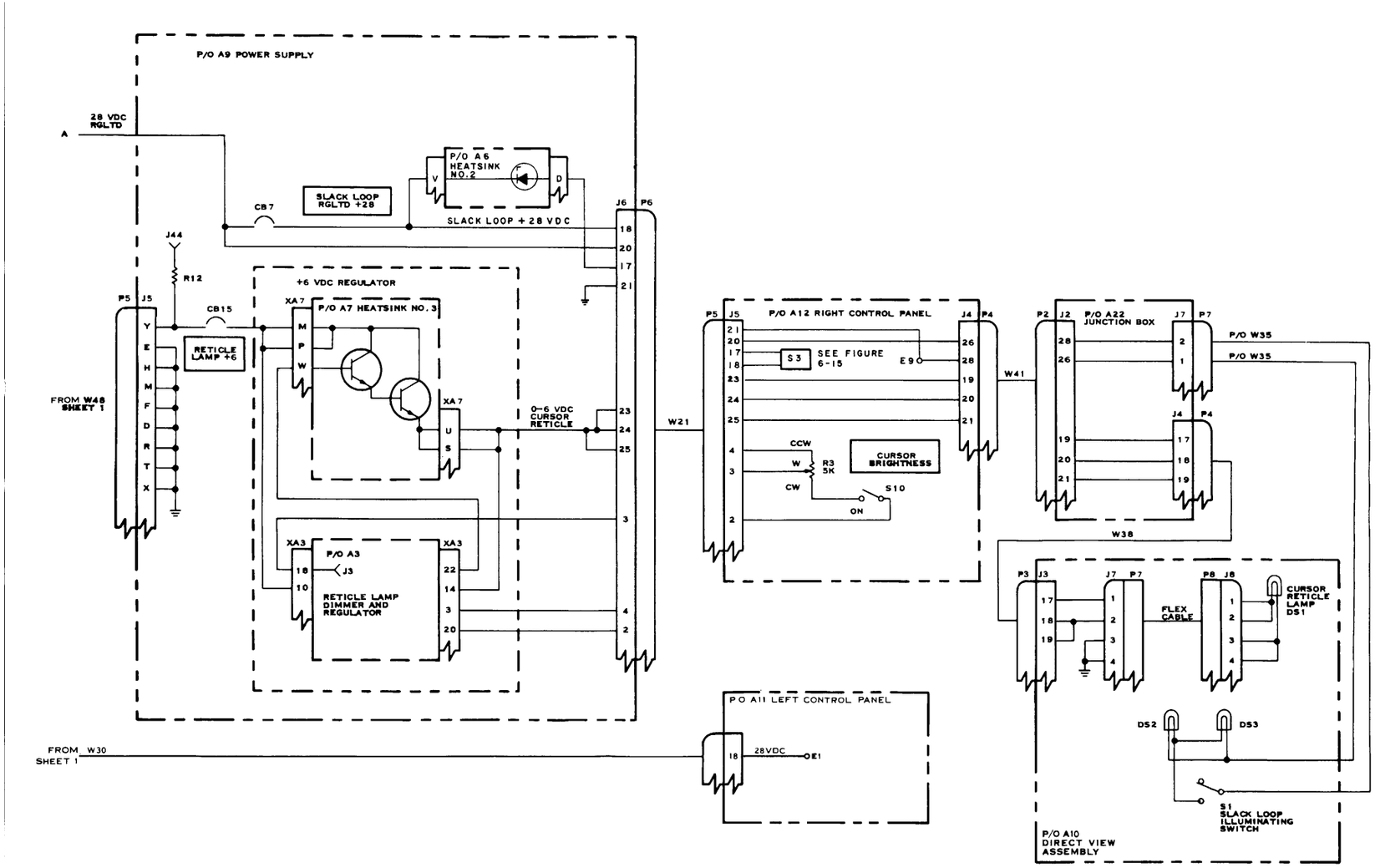

Figure 4-4. DC Power Distribution Functional Diagram (Sheet 4 of 4)

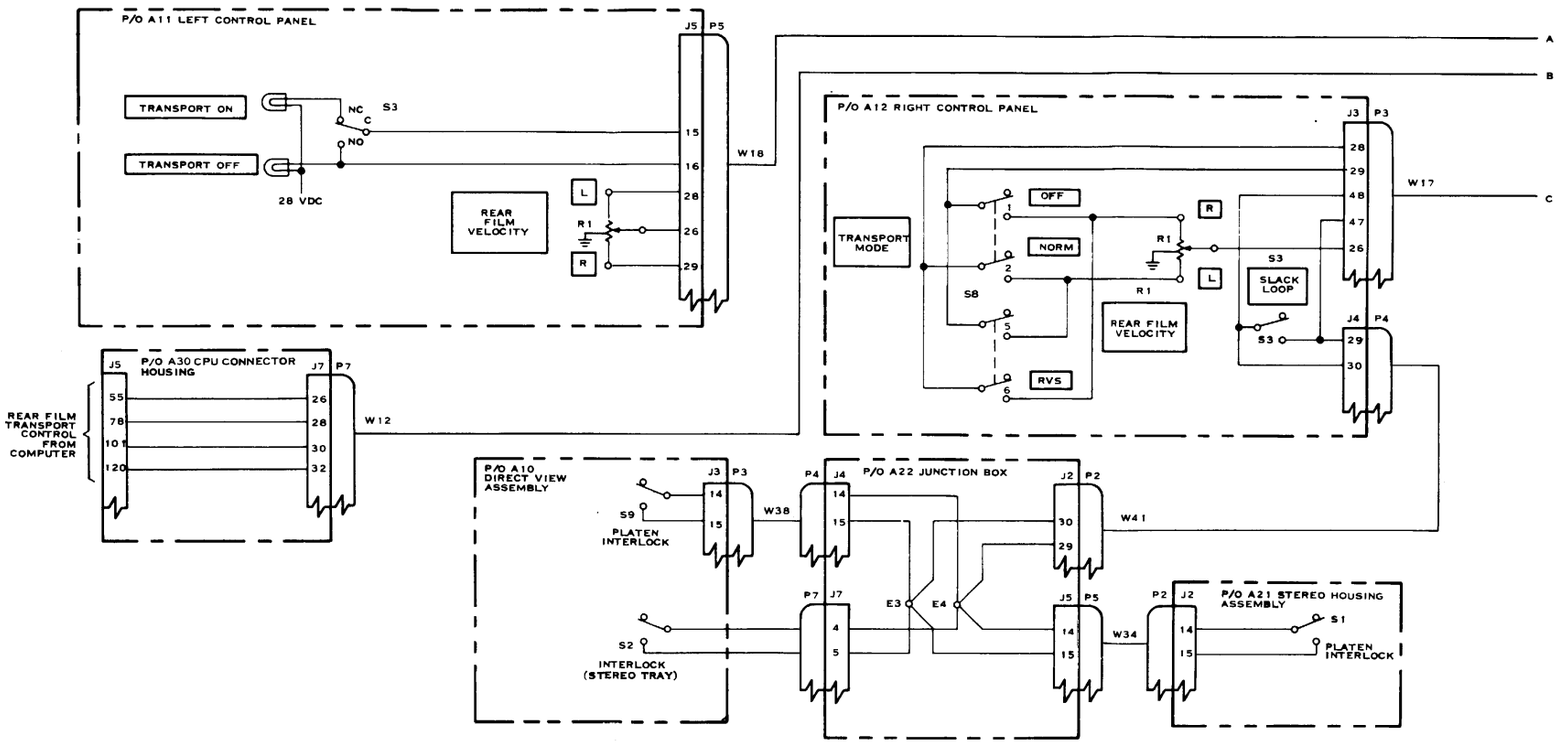

Figure 4-5. Rear Film Transportation Drive Circuit Functional Diagram (Sheet 1 of 2)

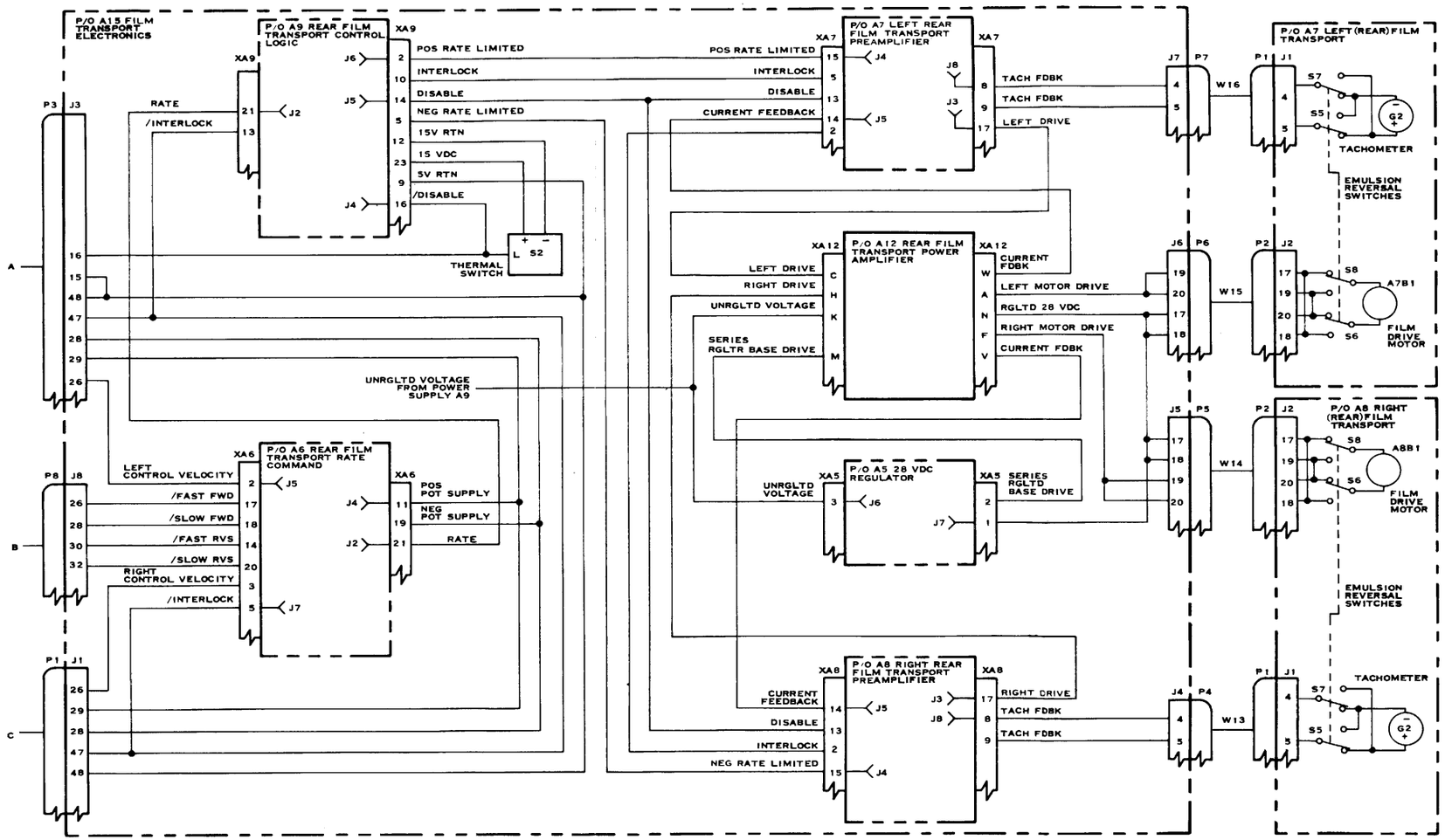

Figure 4-5. Rear Film Transportation Drive Circuit Functional Diagram (Sheet 2 of 2)

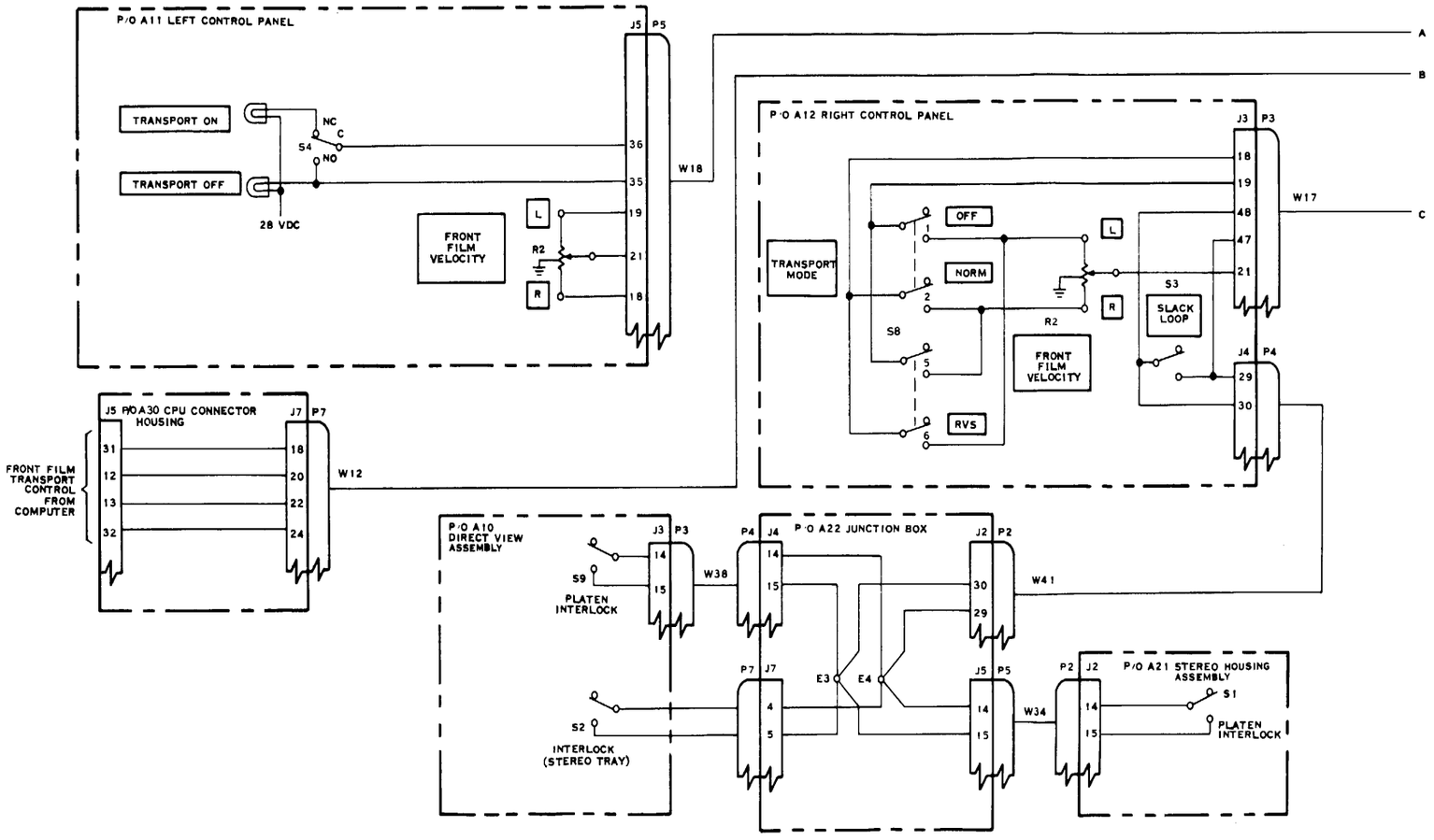

Figure 4-6. Front Film Transport Drive Circuit Functional Diagram (Sheet 1 of 2)

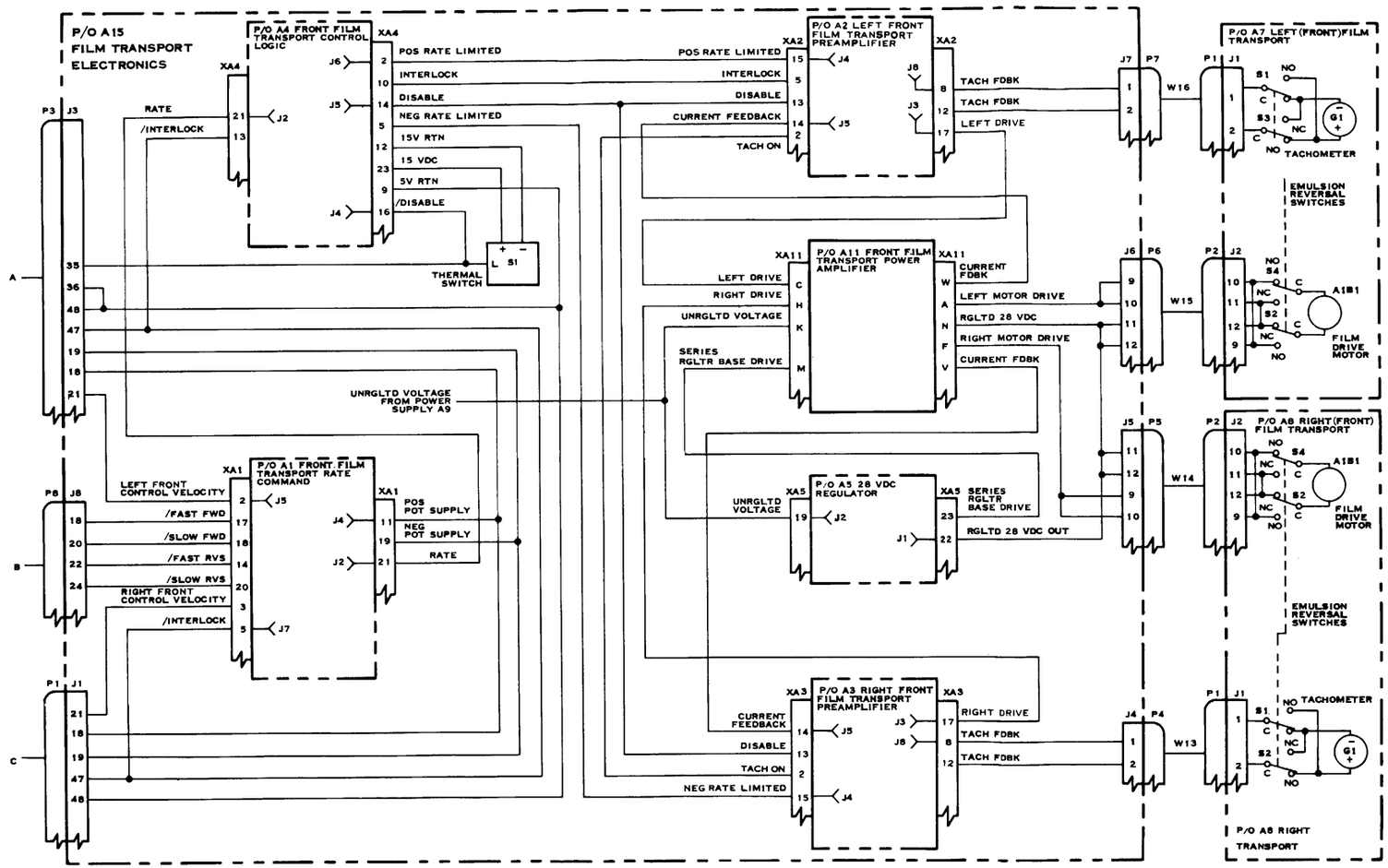

Figure 4-6. Front Film Transport Drive Circuit Functional Diagram (Sheet 2 of 2)

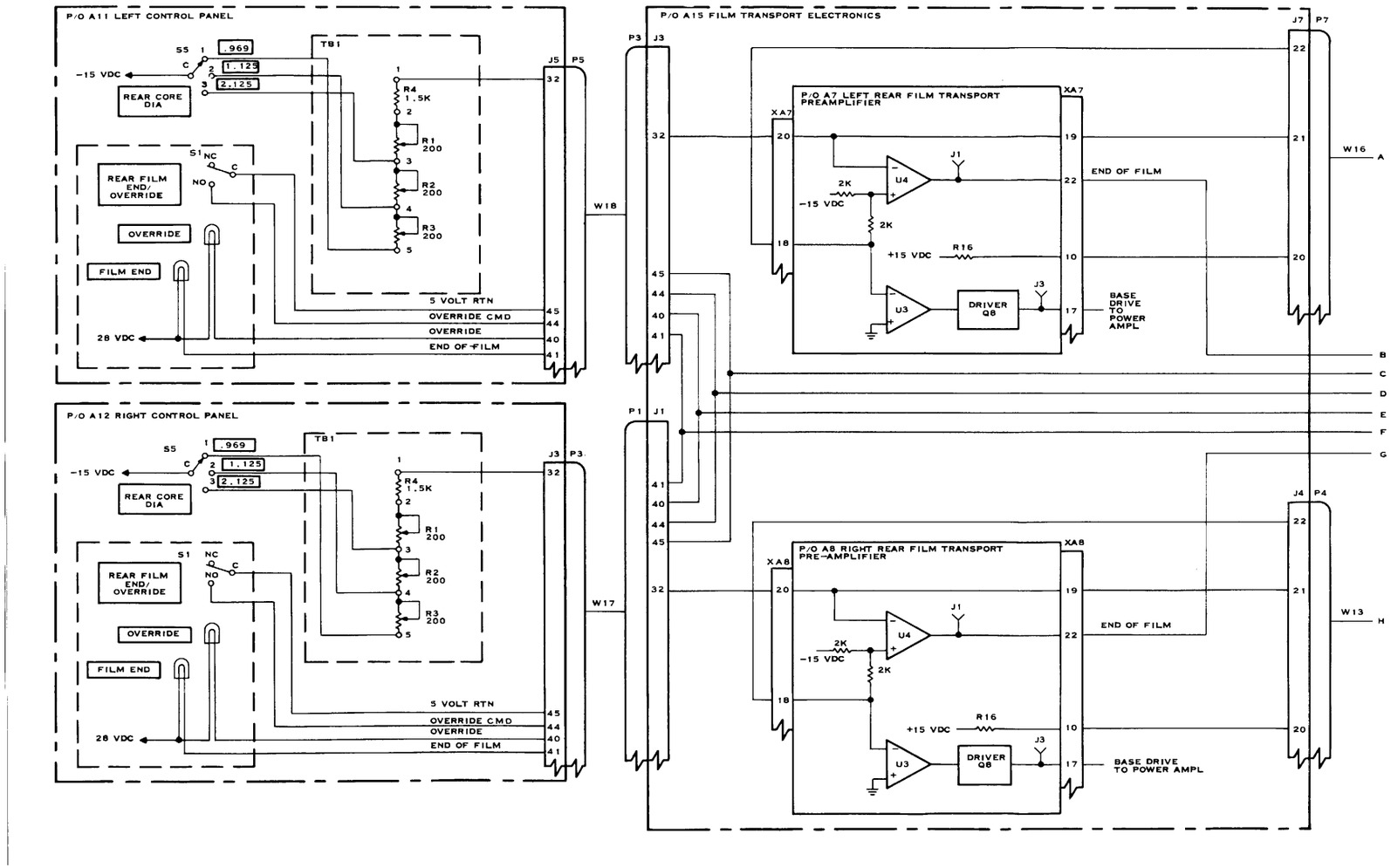

Figure 4-7. Rear Film Transport End-of-Film Circuit Functional Diagram (Sheet 1 of 2)

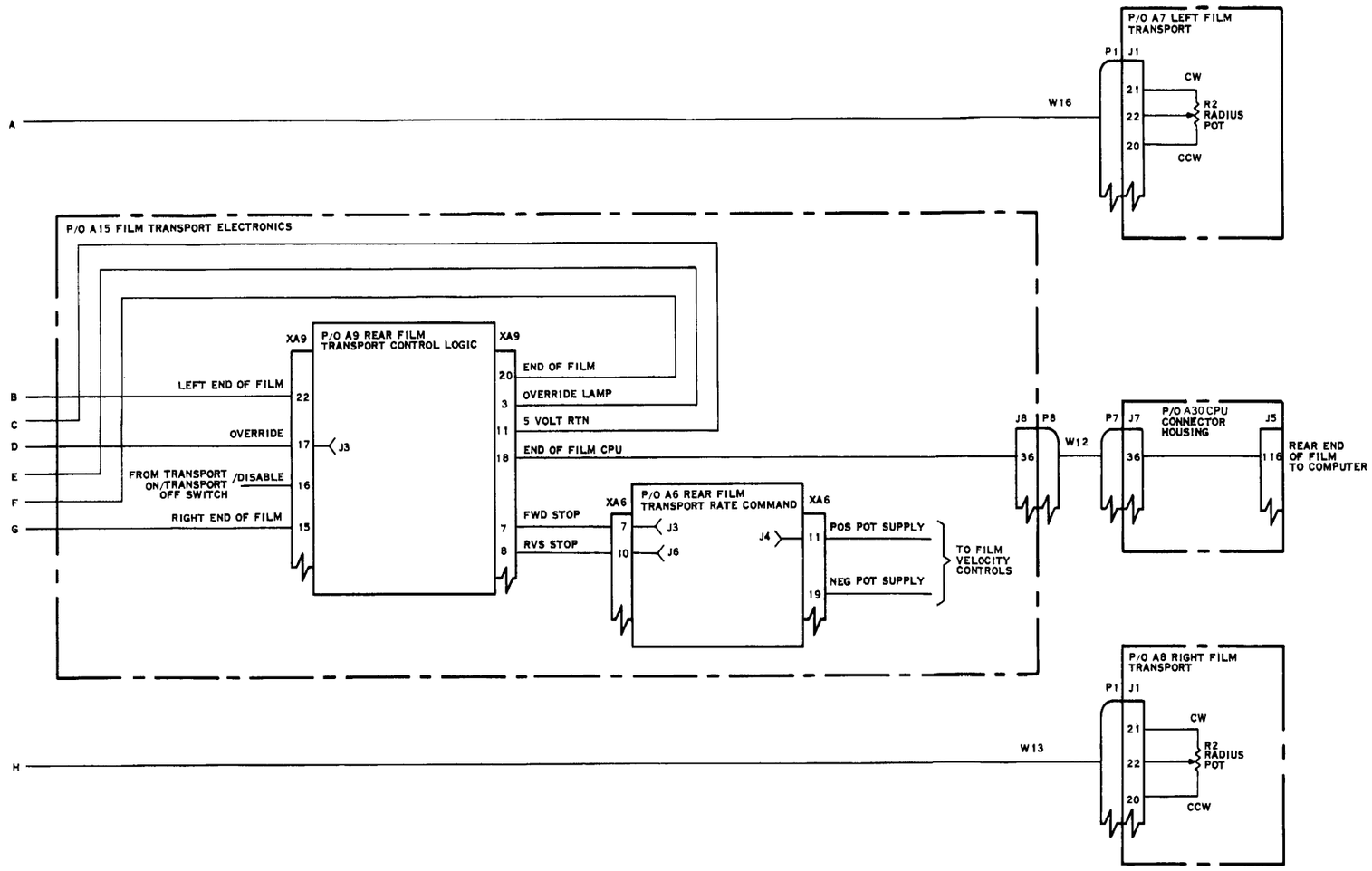

Figure 4-7. Rear Film Transport End-of-Film Circuit Functional Diagram (Sheet 2 of 2)

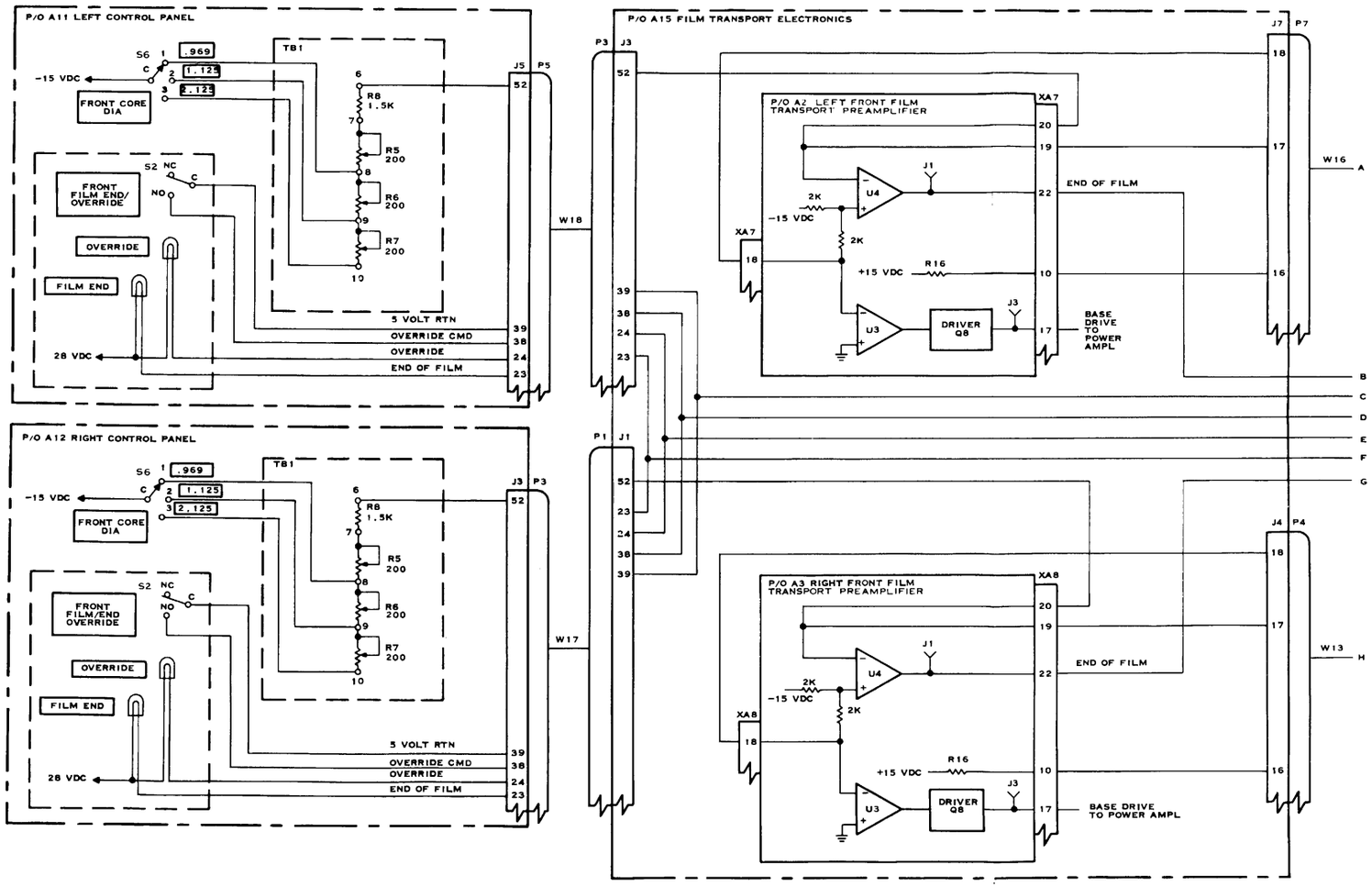

Figure 4-8. Front Film Transport End-of-Film Circuit Functional Diagram (Sheet 1 of 2)

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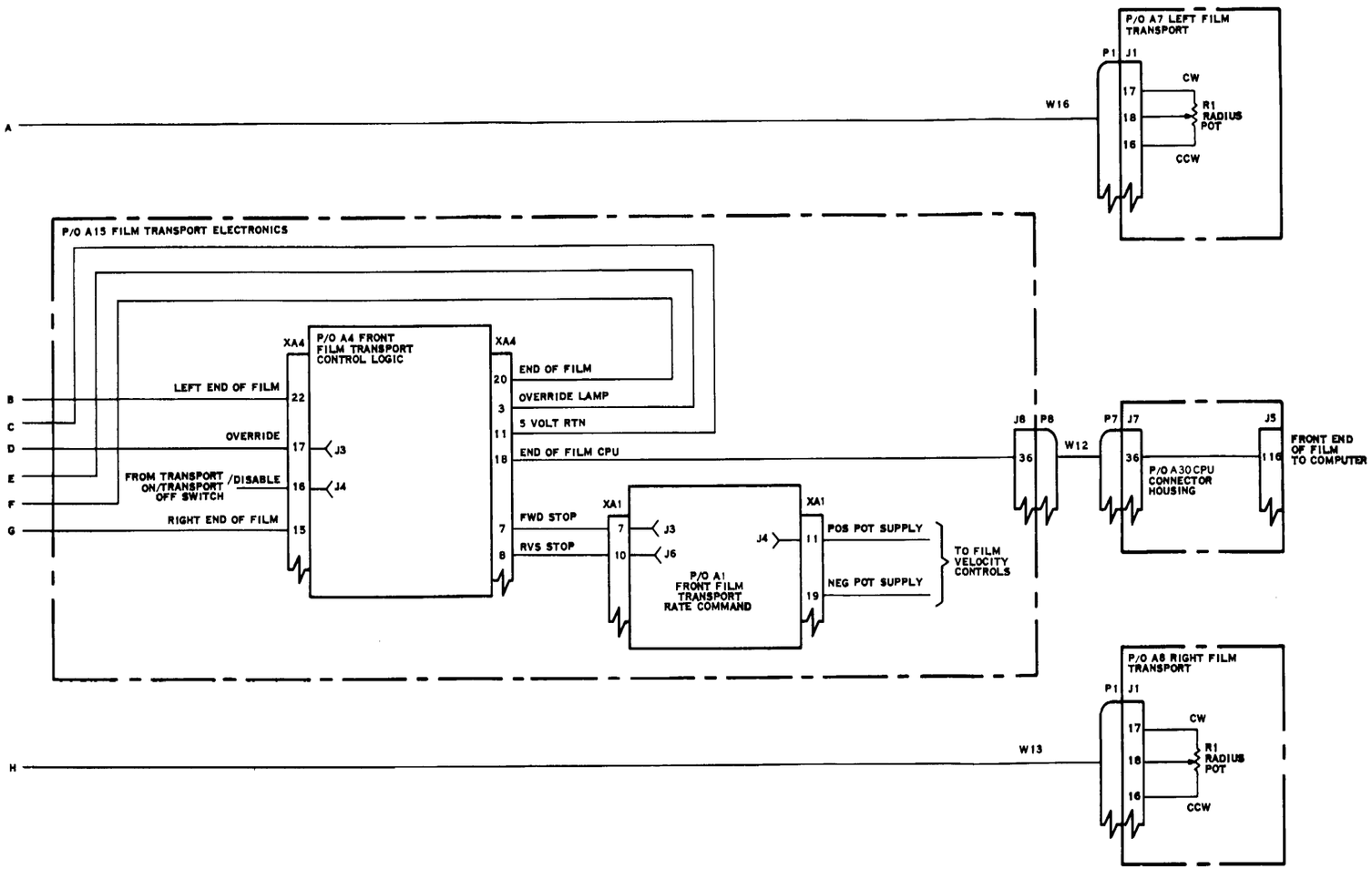


Figure 4-8. Front Film Transport End-of-Film Circuit Functional Diagram (Sheet 2 of 2)

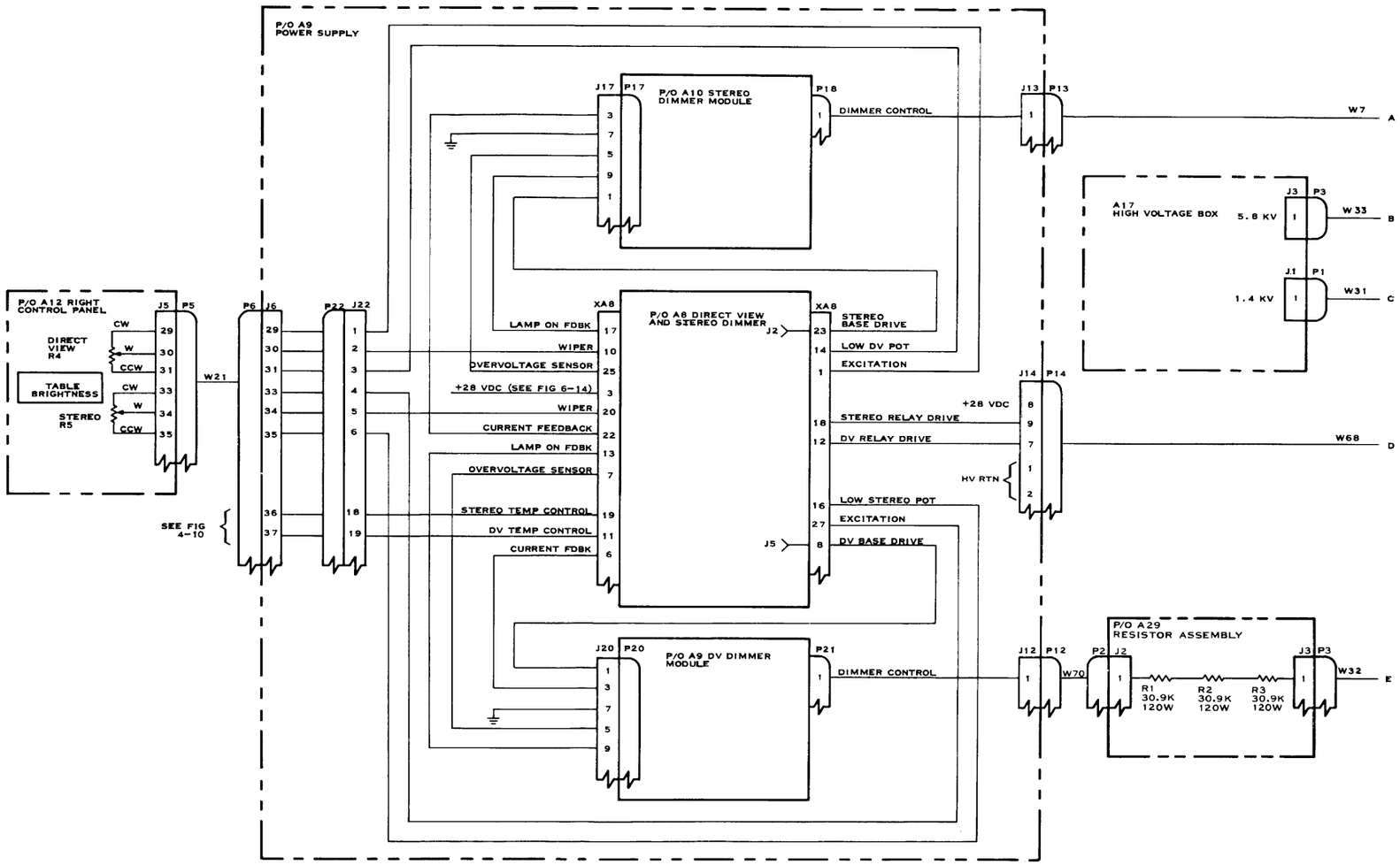


Figure 4-9. Direct-view and Stereo-View Lamps Brightness Control Functional Diagram (Sheet 1 of 2)

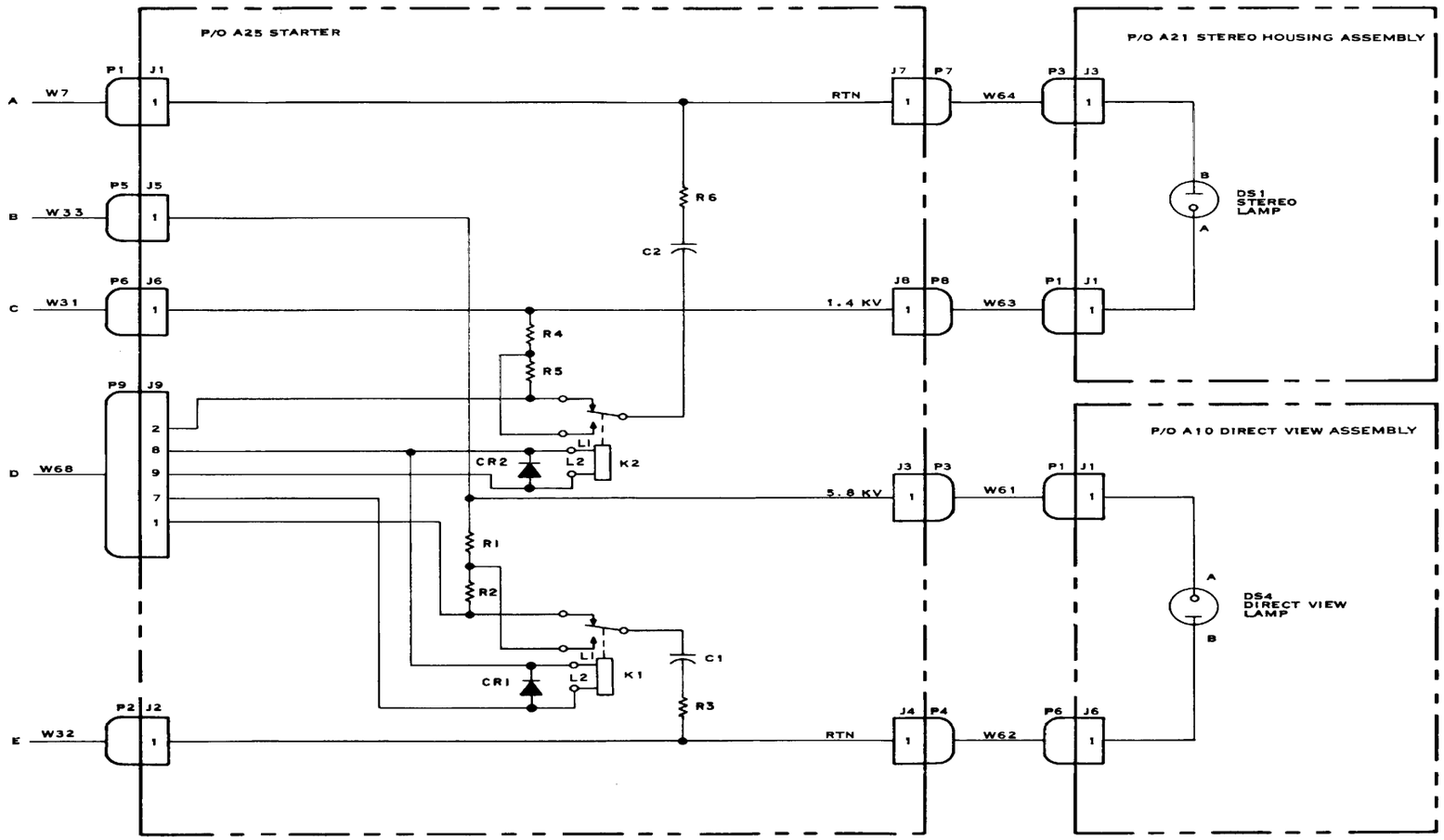


Figure 4-9. Direct-view and Stereo-View Lamps Brightness Control Functional Diagram (Sheet 2 of 2)

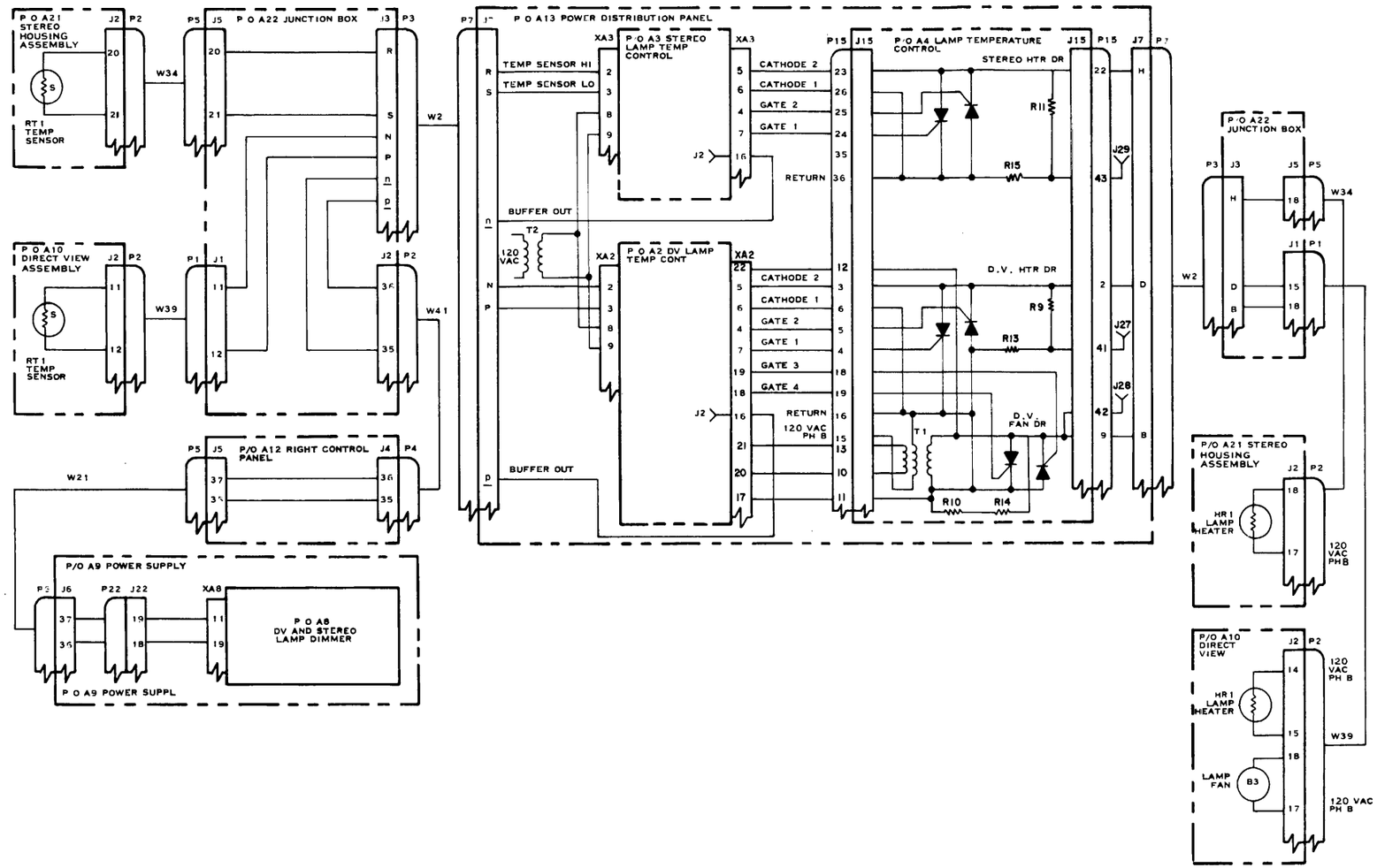


Figure 4-10. Direct-view and Stereo-View Lamps Temperature Control Functional Diagram

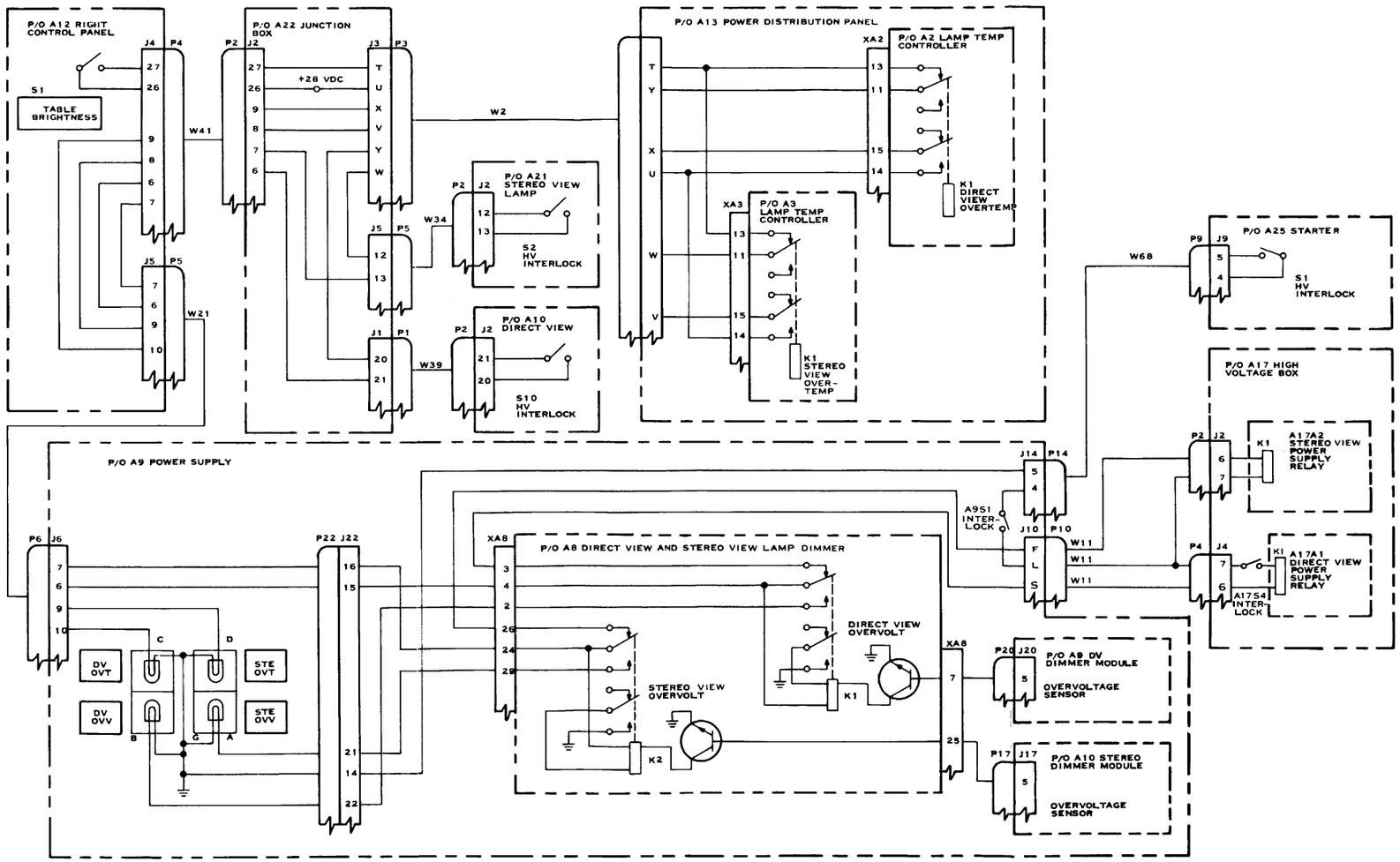


Figure 4-11. High Voltage Interlock Functional Diagram

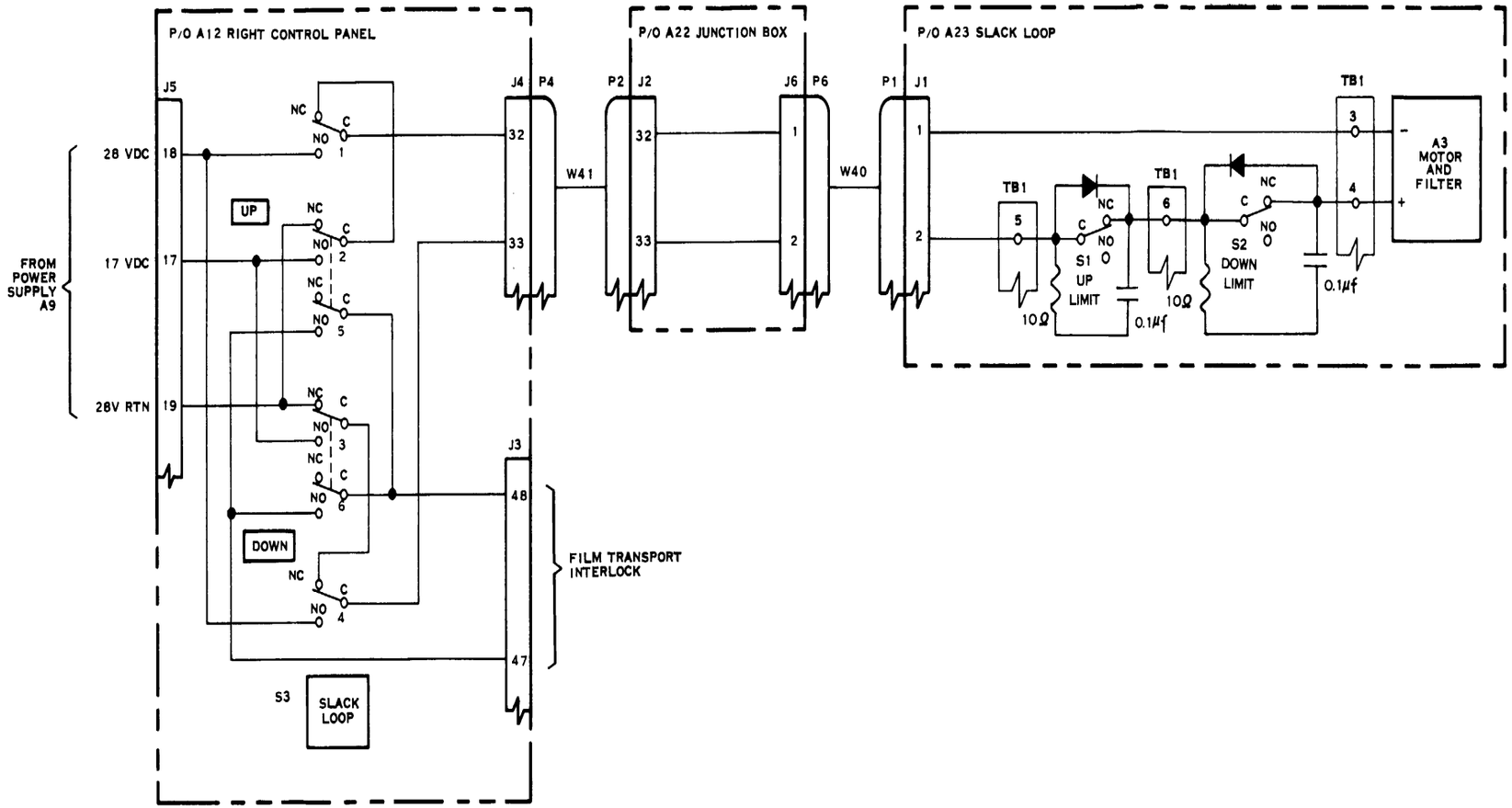


Figure 4-12. Slack Loop Drive Circuit Functional Diagram

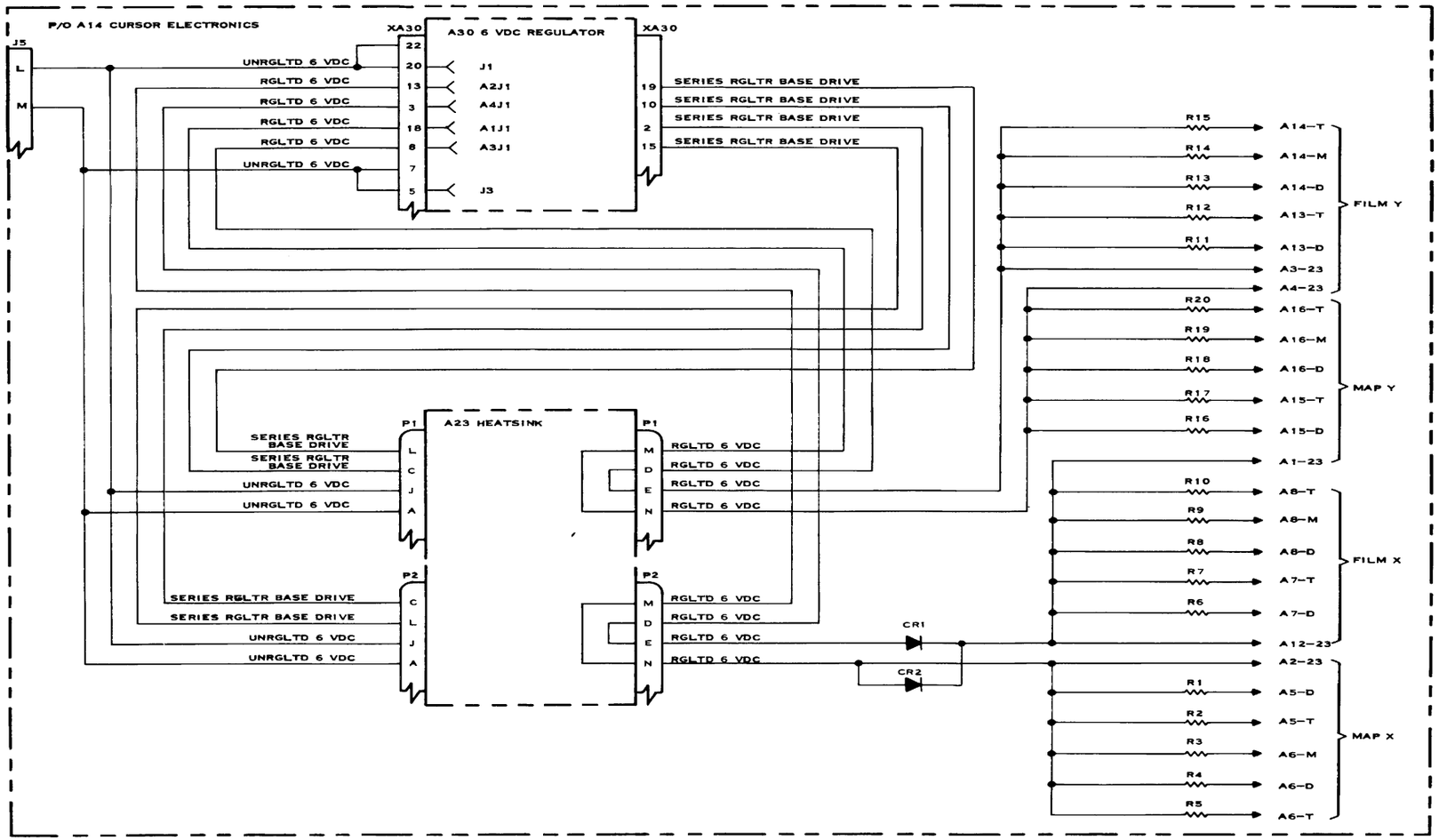


Figure 4-13. Cursor Voltage Regulator and Power Failure Functional Diagram (Sheet 1 of 2)

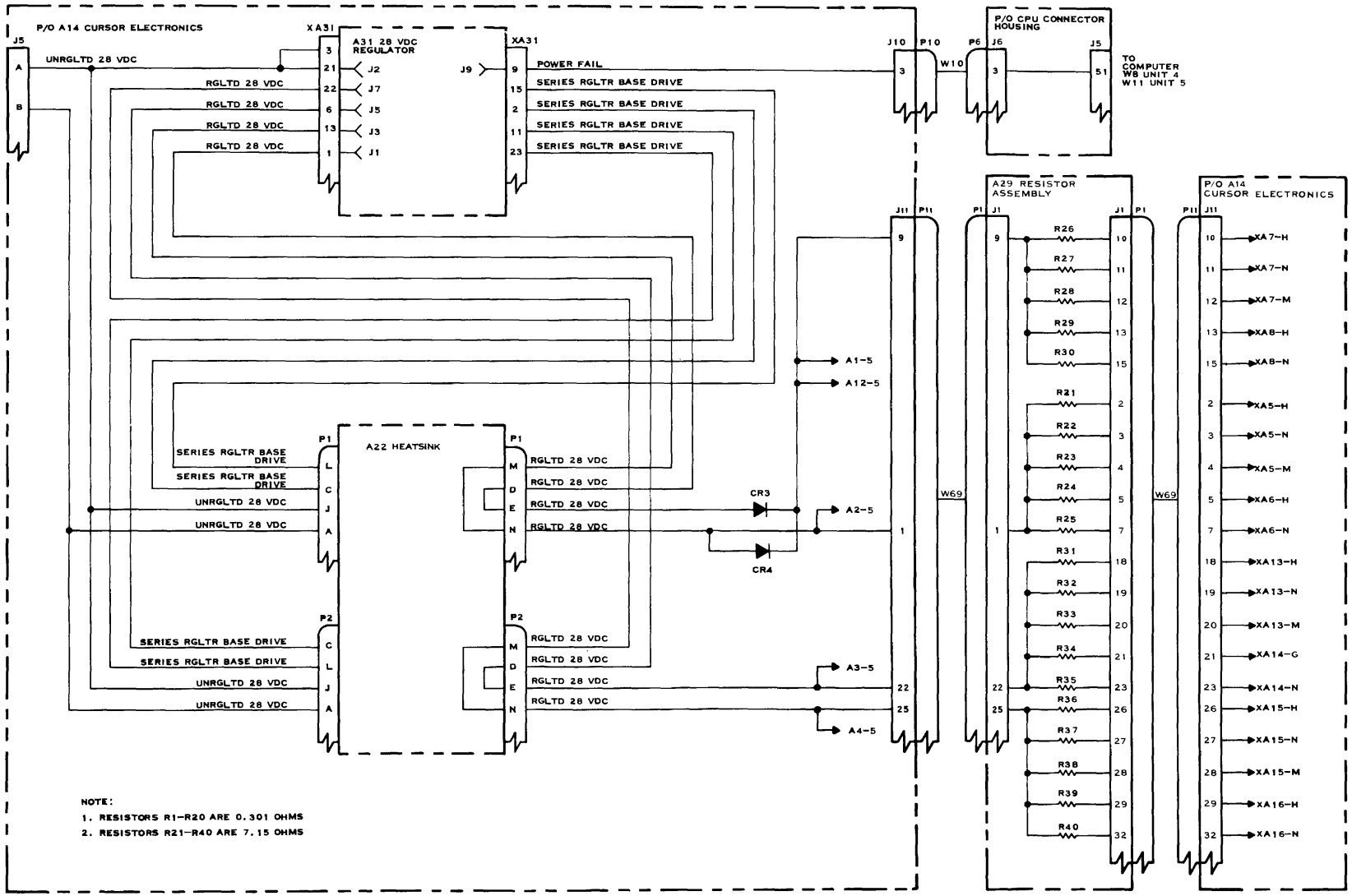


Figure 4-13. Cursor Voltage Regulator and Power Failure Functional Diagram (Sheet 2 of 2)

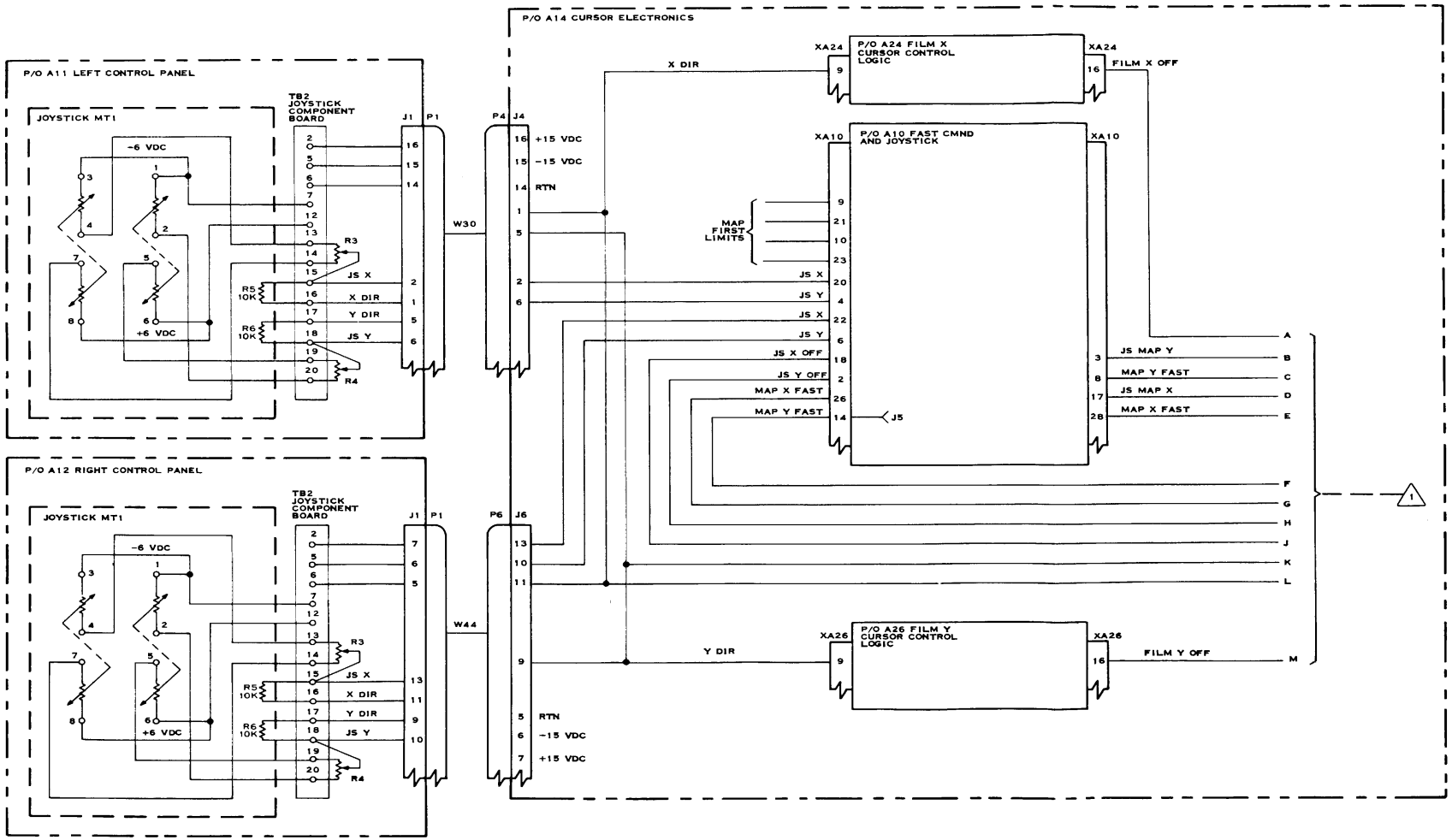


Figure 4-14. Map cursor Drive Functional Diagram (Sheet 1 of 4)

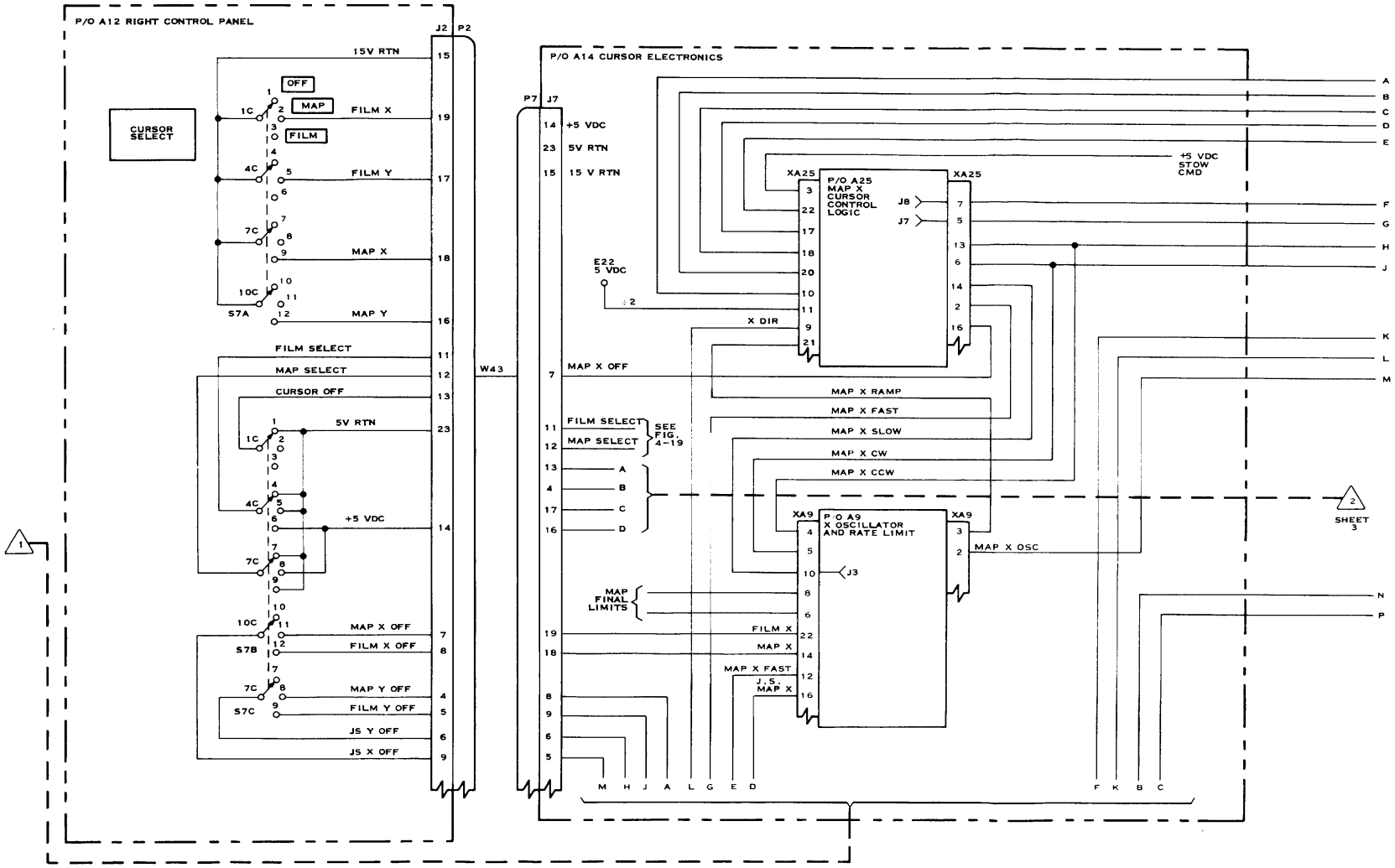


Figure 4-14. Map Cursor Drive Functional Diagram (Sheet 2 of 4)

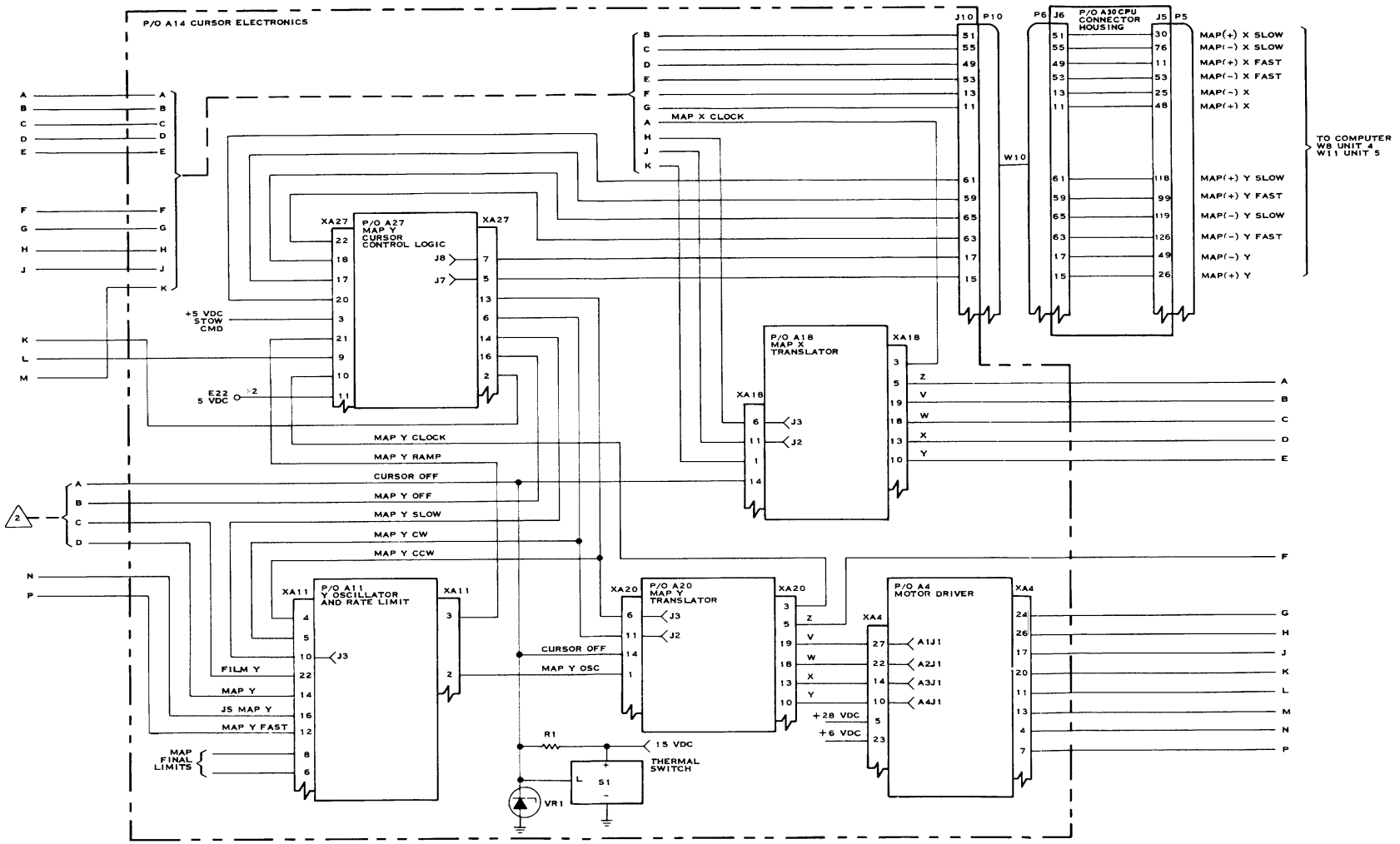


Figure 4-14. Map Cursor Drive Functional Diagram (Sheet 3 of 4)

4-67/(4-68 blank)

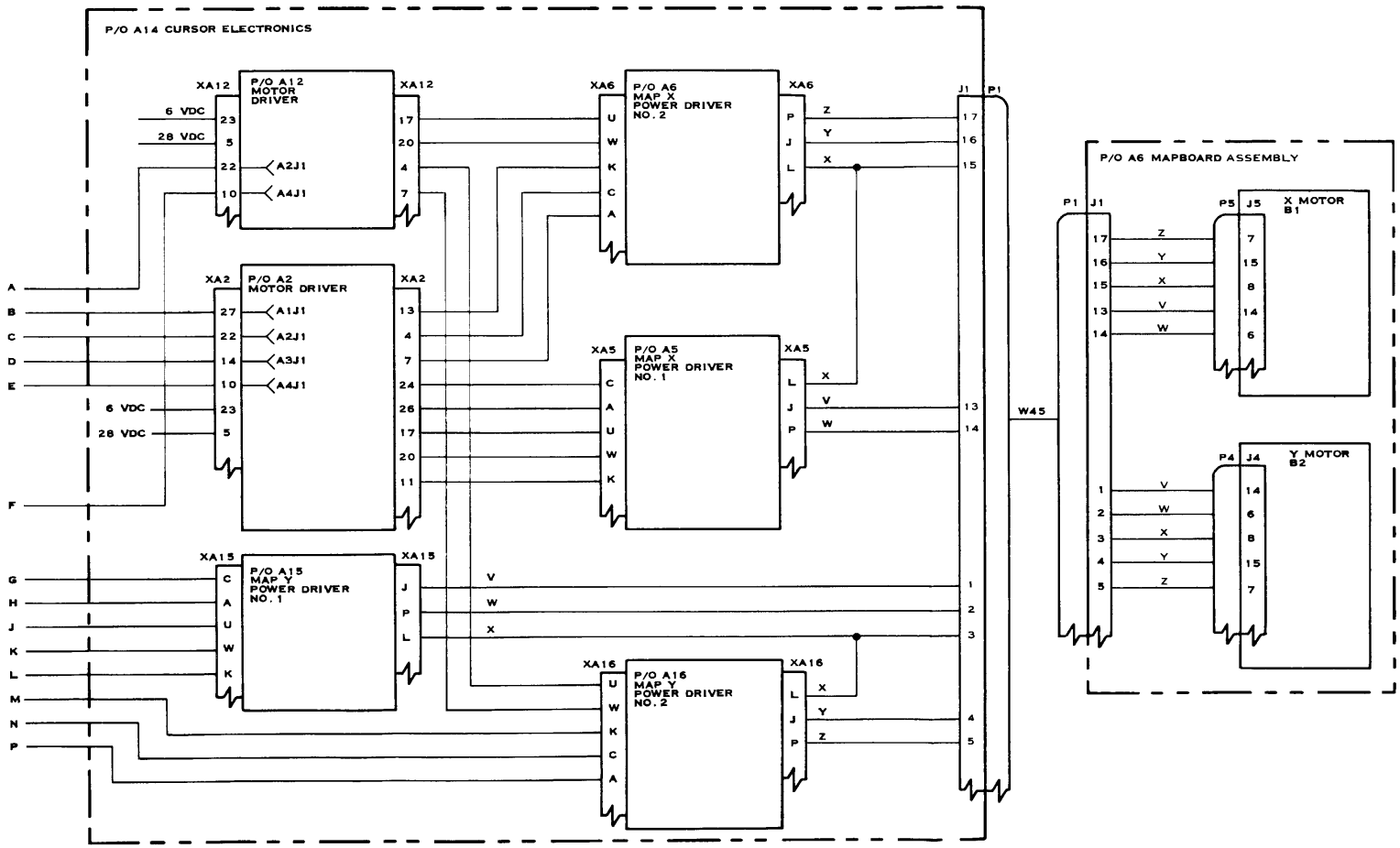


Figure 4-14. Map cursor Drive Functional Diagram (Sheet 4 of 4)

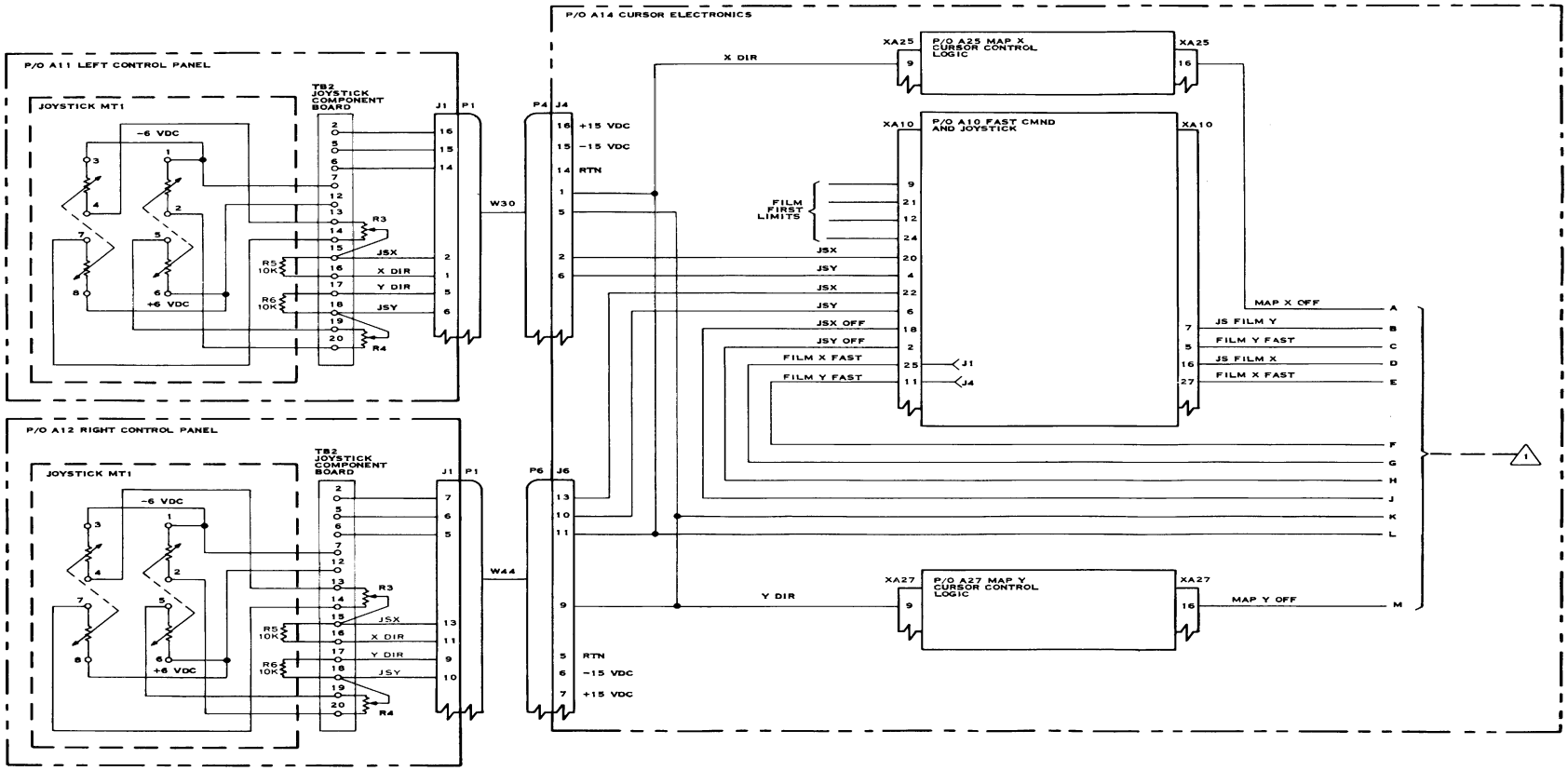


Figure 4-17. Film Cursor Drive Functional Diagram (Sheet 1 of 4)

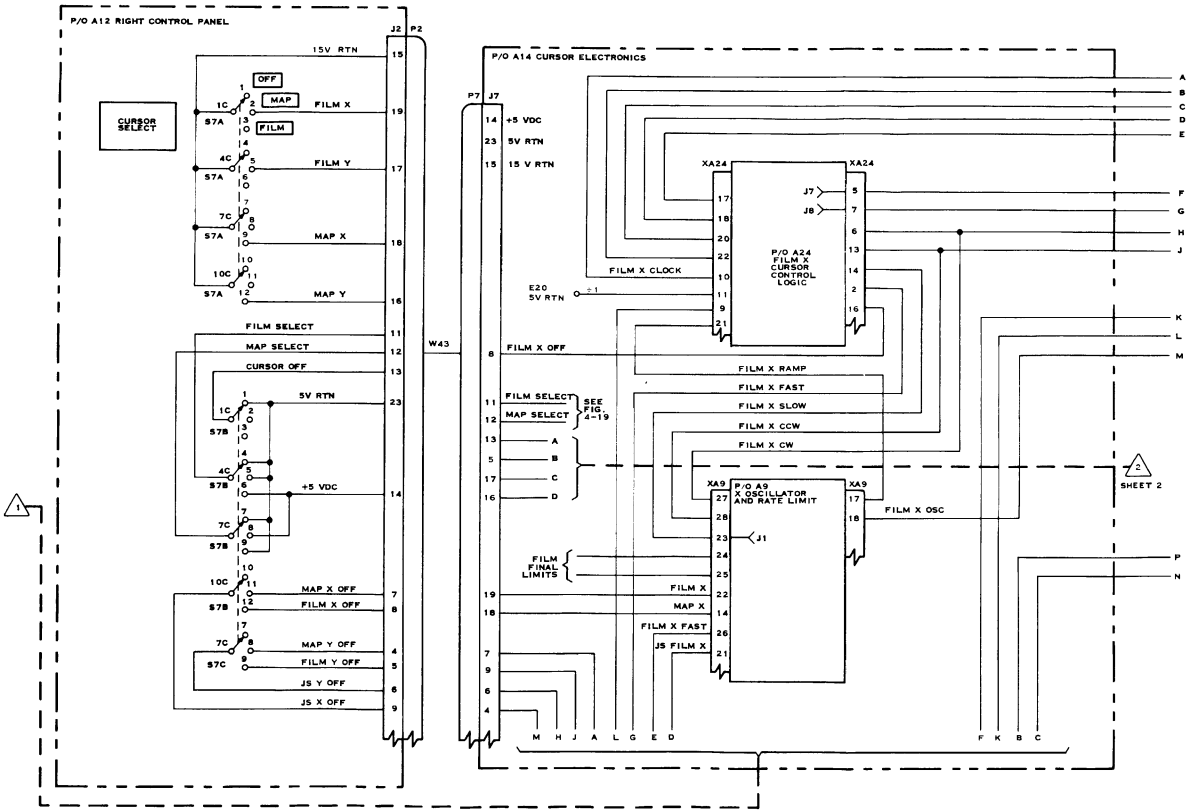


Figure 4-17. Film Cursor Drive Functional Diagram (Sheet 2 of 4)

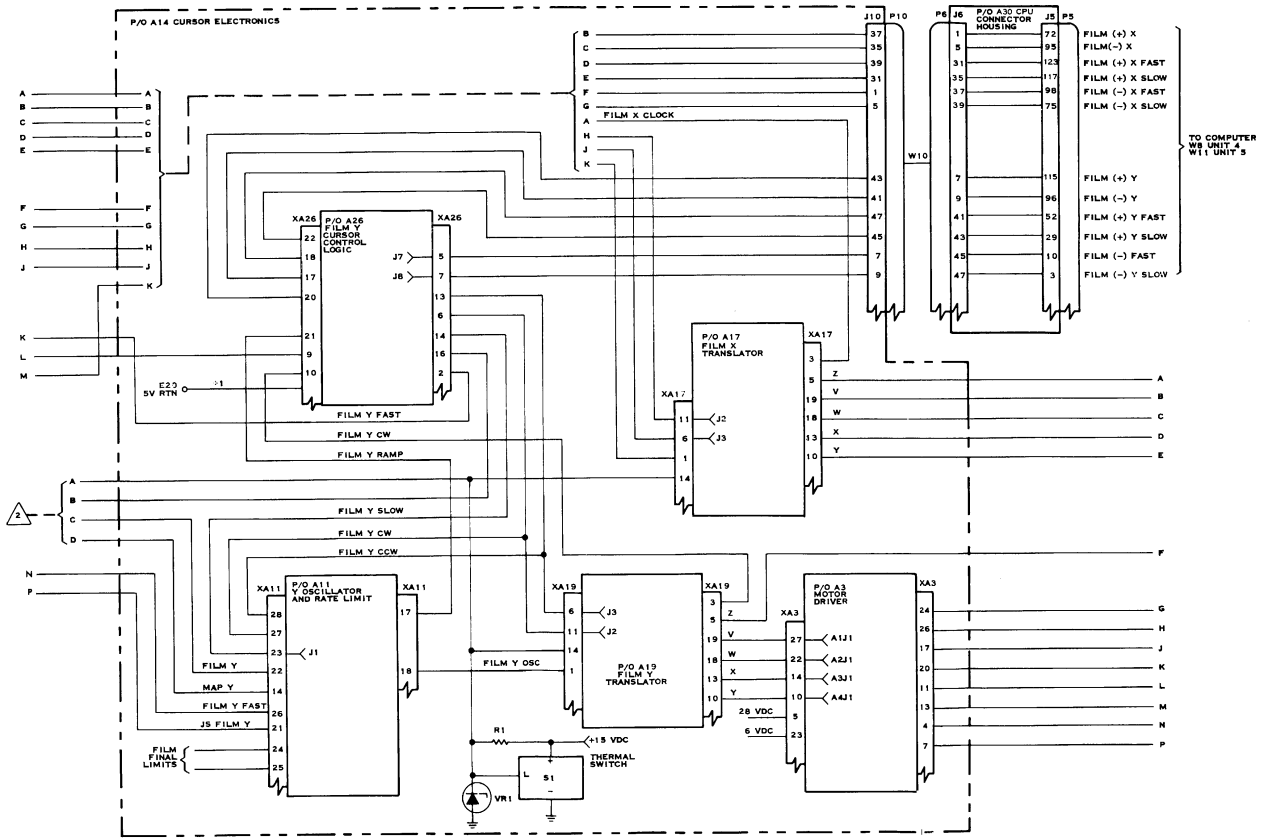


Figure 4-17. Film Cursor Drive Functional Diagram (Sheet 3 of 4)

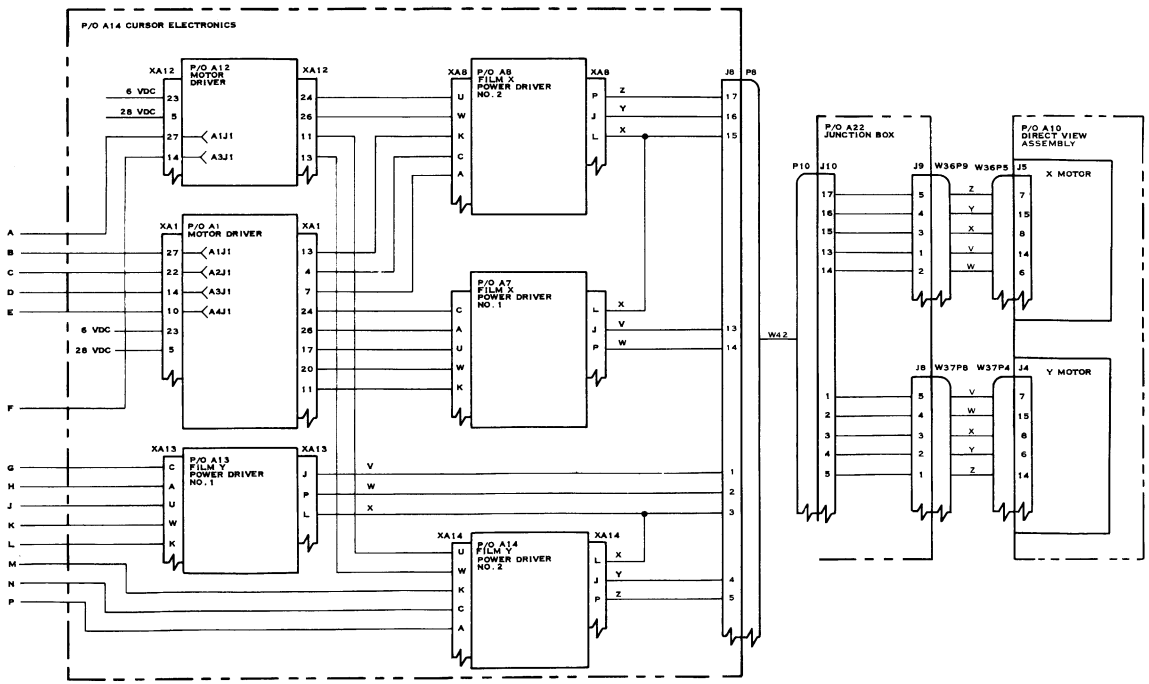


Figure 4-17. Film Cursor Drive Functional Diagram
(Sheet 4 of 4)

4-83/(4-84 blank)

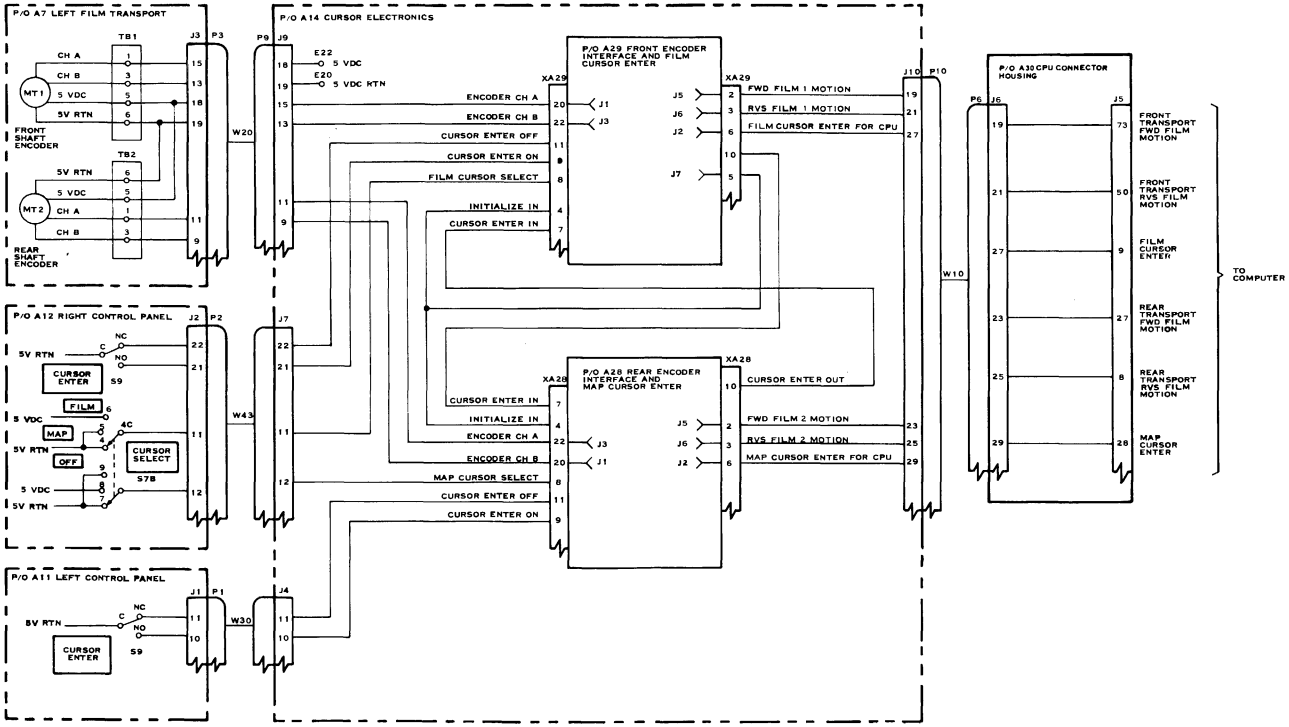


Figure 4-19. Shaft Encoder and Cursor Enter Circuit Functional Diagram

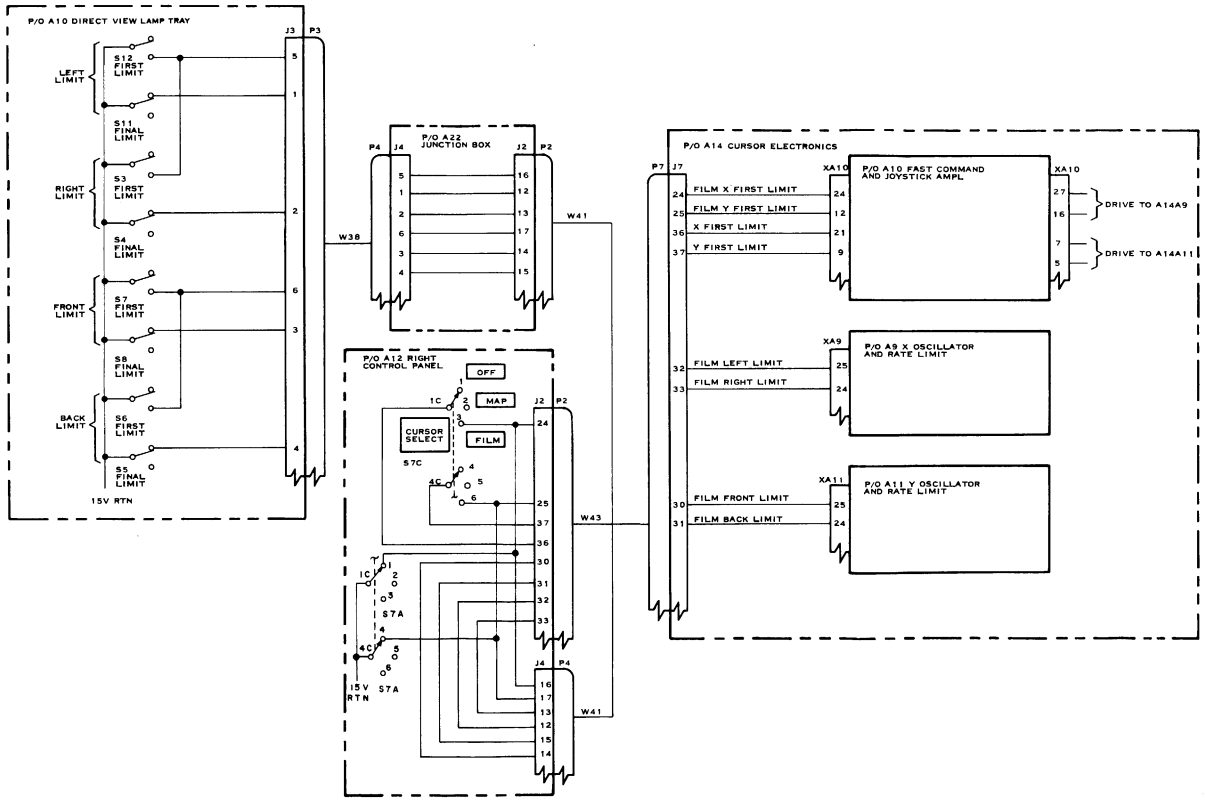


Figure 4-20. Film Cursor Limit Circuit Functional Diagram

4-91/(4-92 blank)

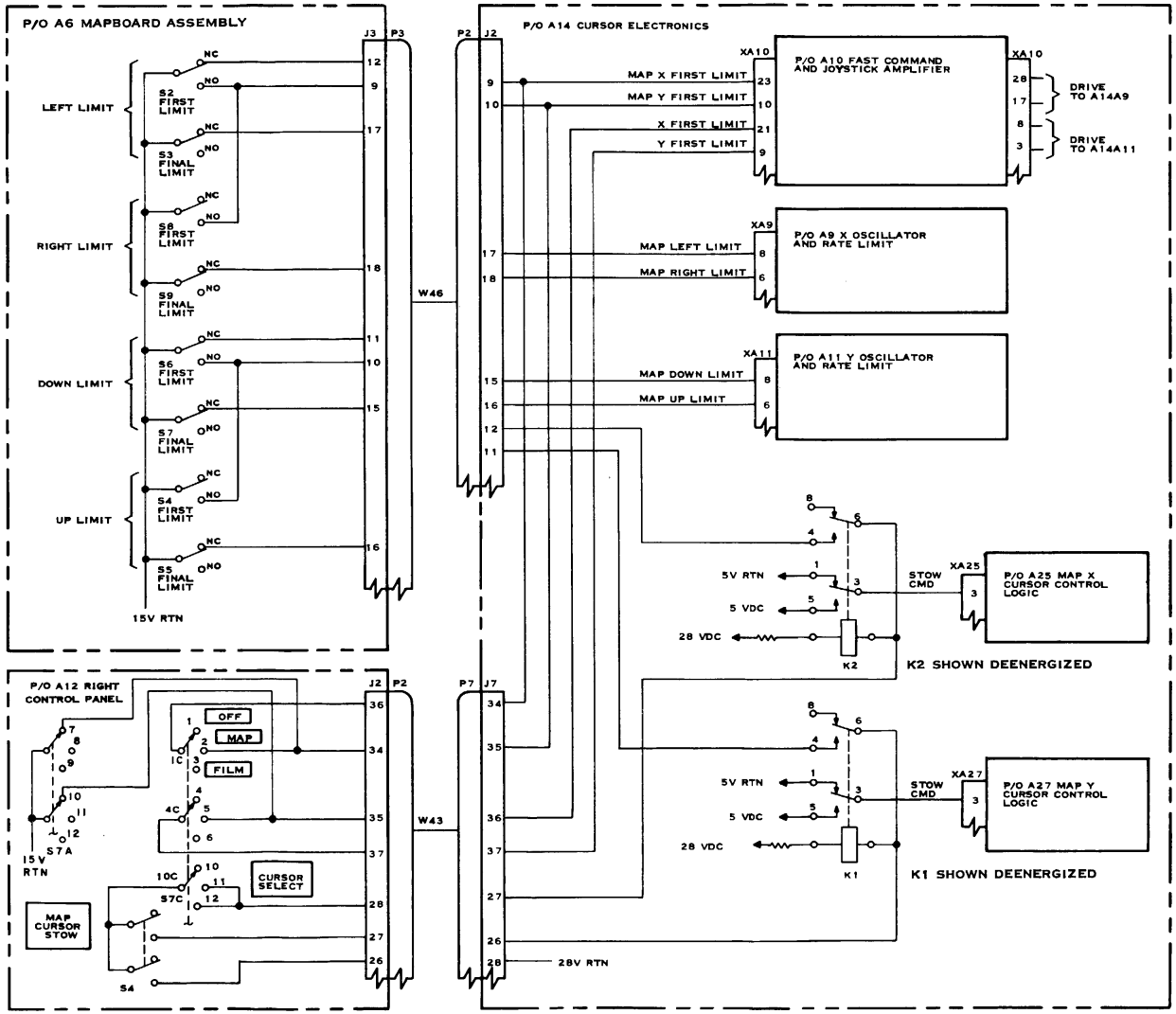


Figure 4-21. Map Cursor and Stow Circuit Functional Diagram

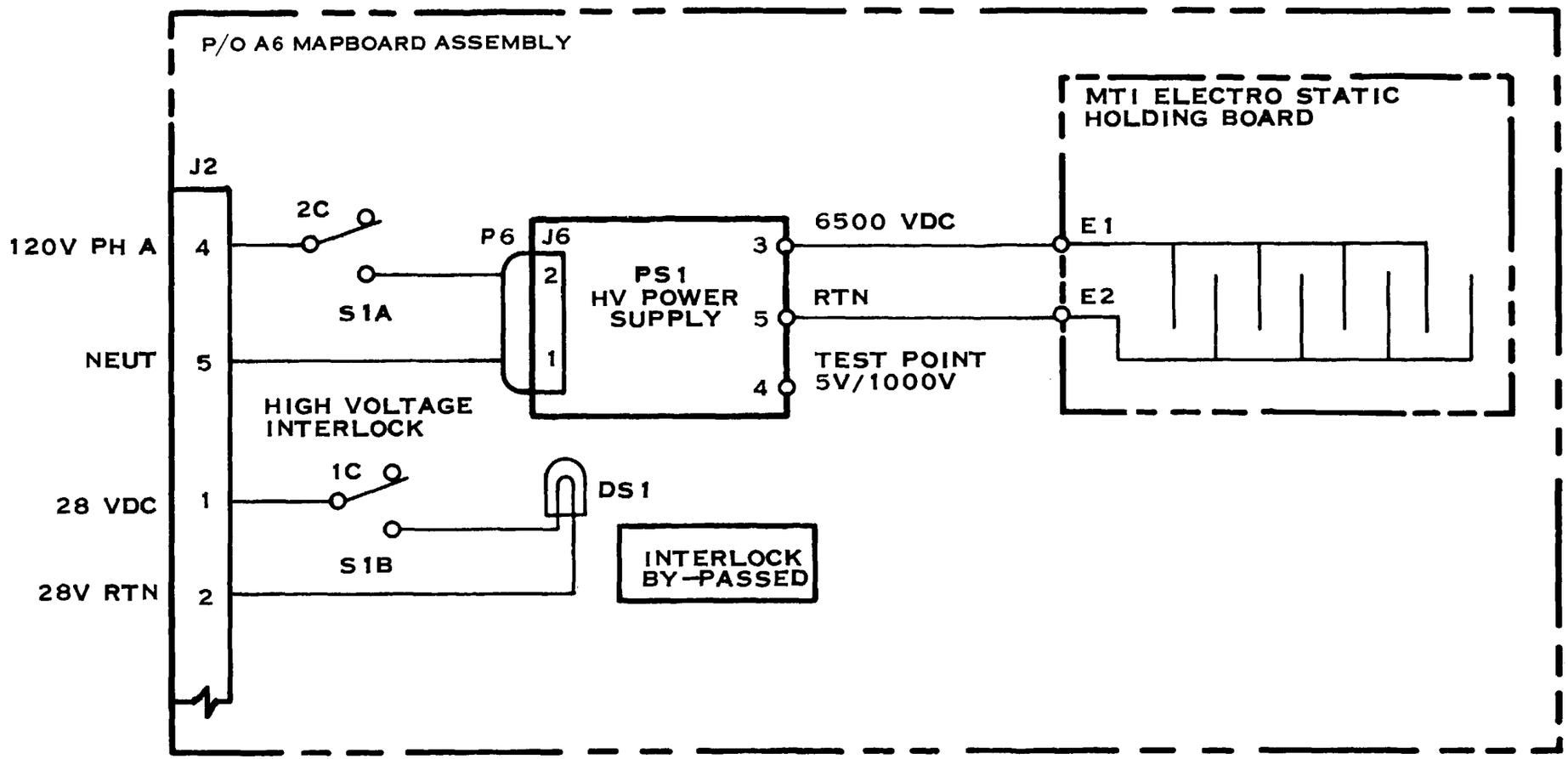


Figure 4-22. Mapboard High Voltage Control Functional Diagram

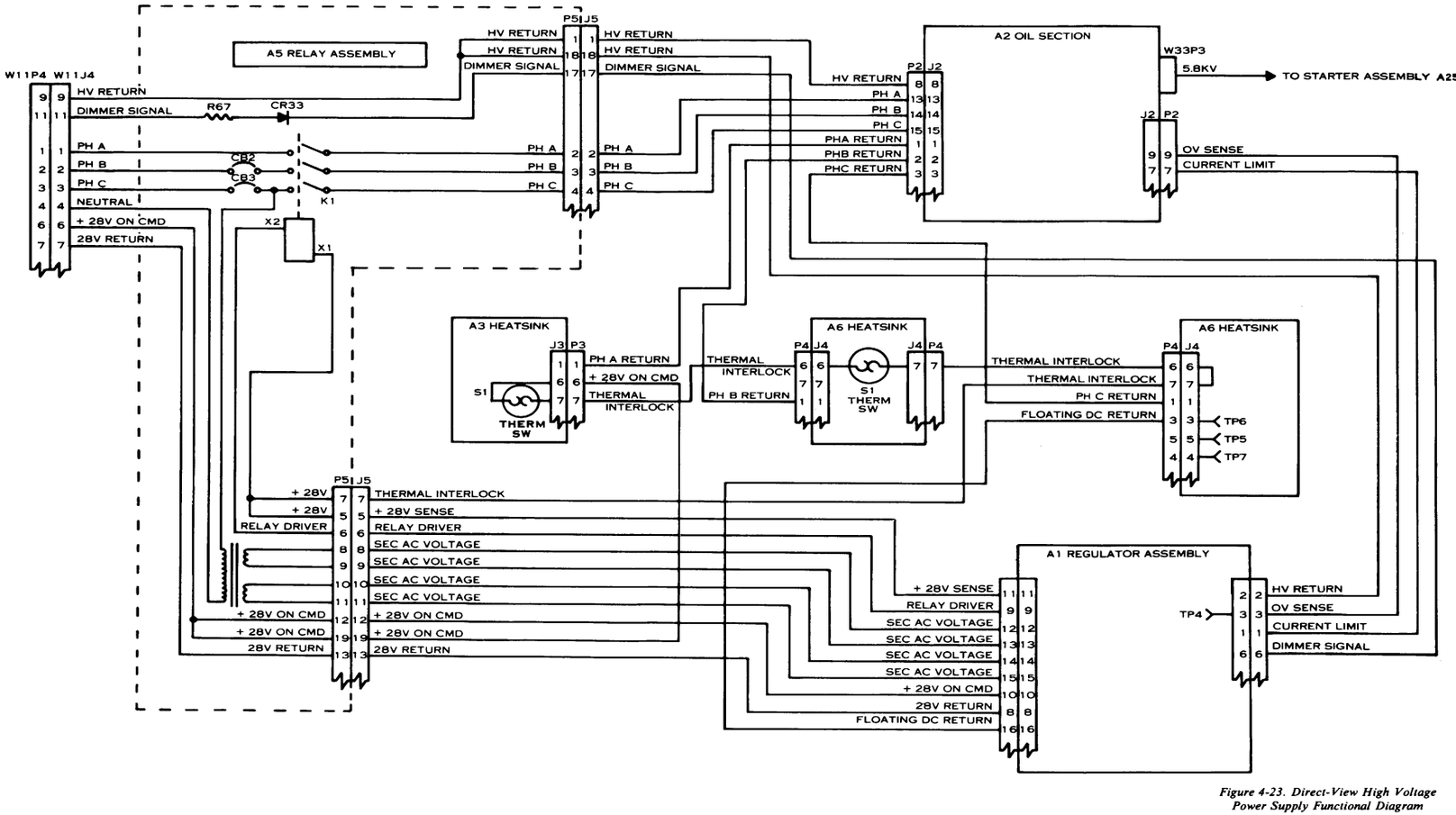


Figure 4-23. Direct-View High Voltage Power Supply Functional Diagram

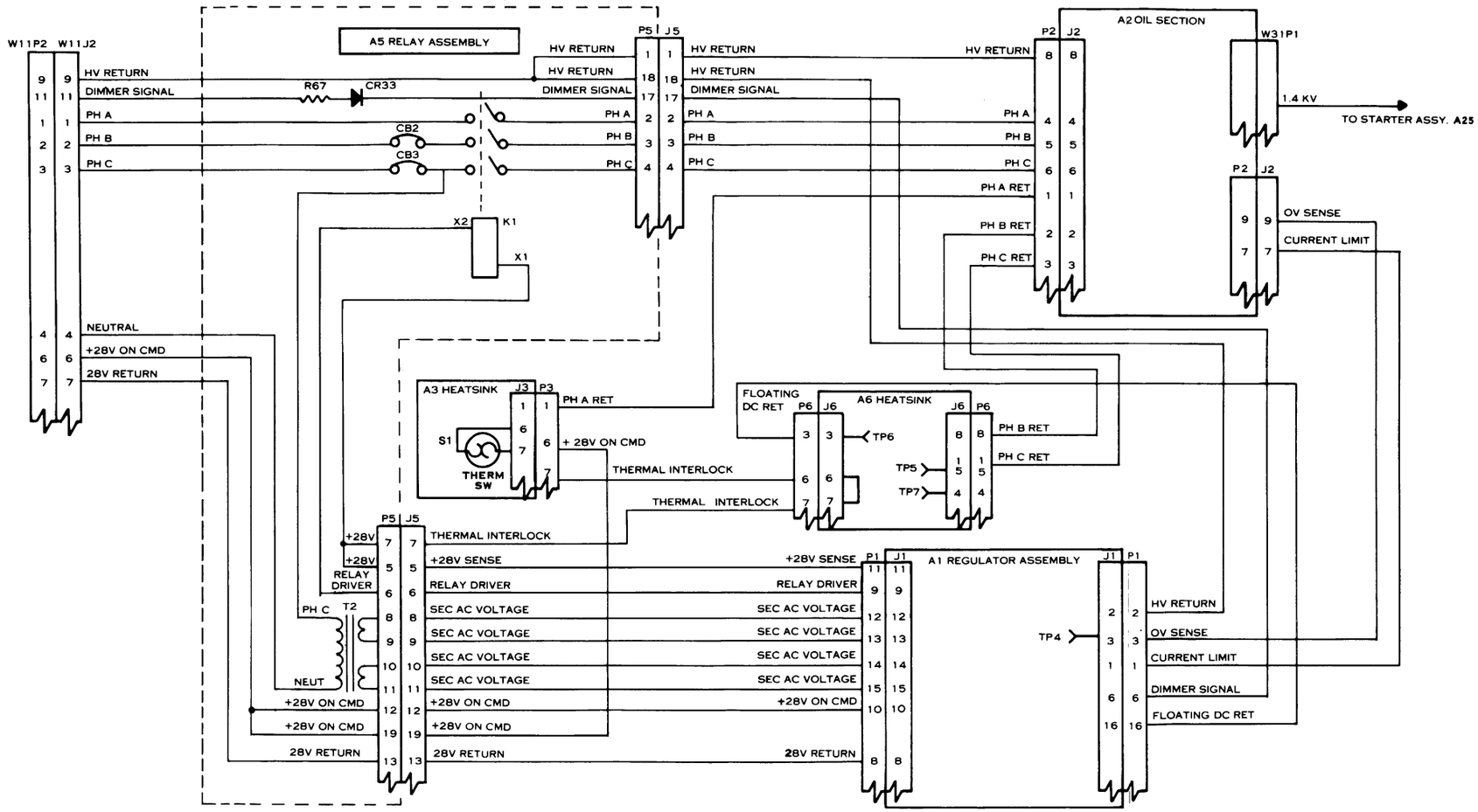


Figure 4-24. Stereo View High Voltage Power Supply A17A2 Functional Diagram

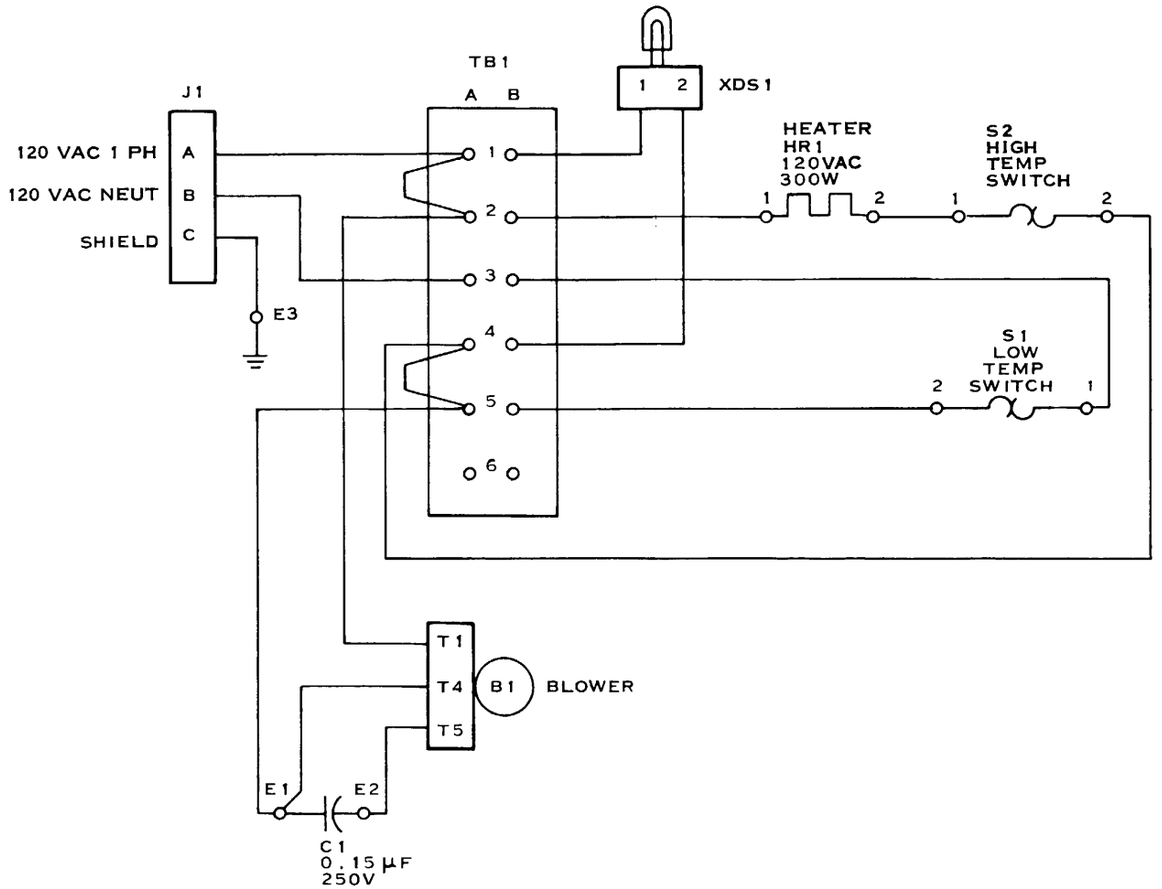


Figure 4-25. Stereo Transit Case Temperature Control Functional Diagram

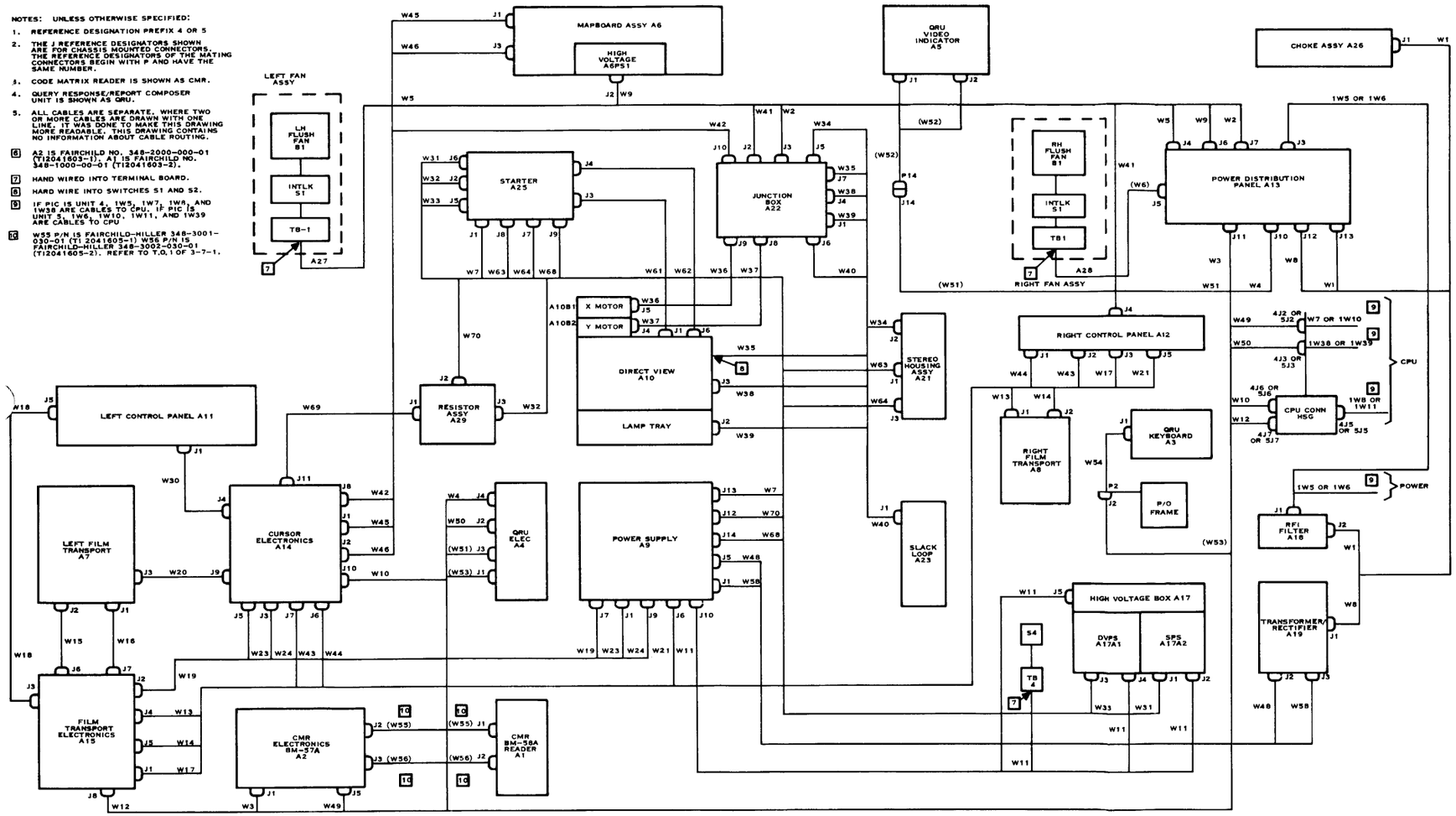


Figure 6-1. Interconnecting Cabling Diagram

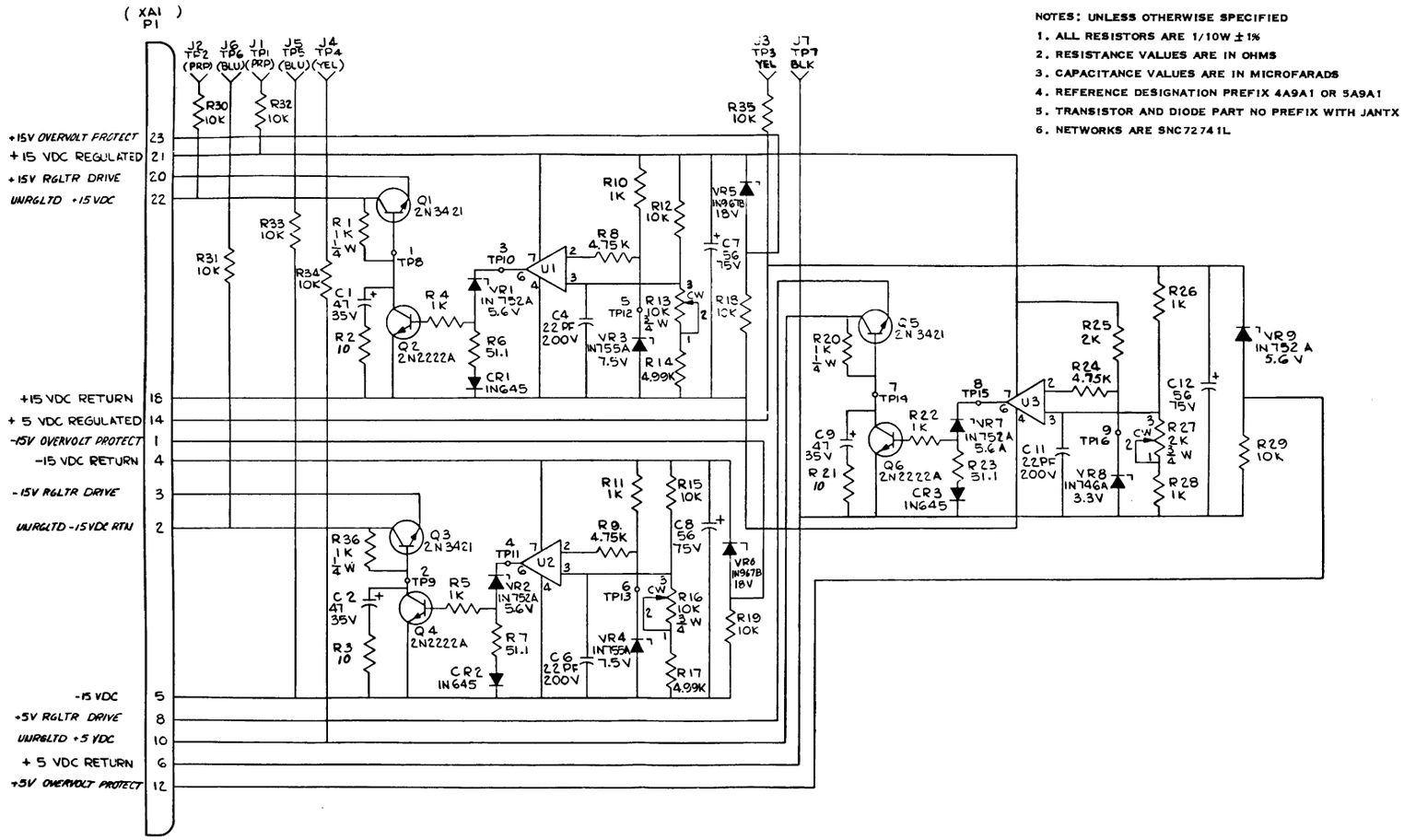


Figure 6-2. – 15 Vdc and + 5 Vdc Regulator A9A1 Schematic Diagram

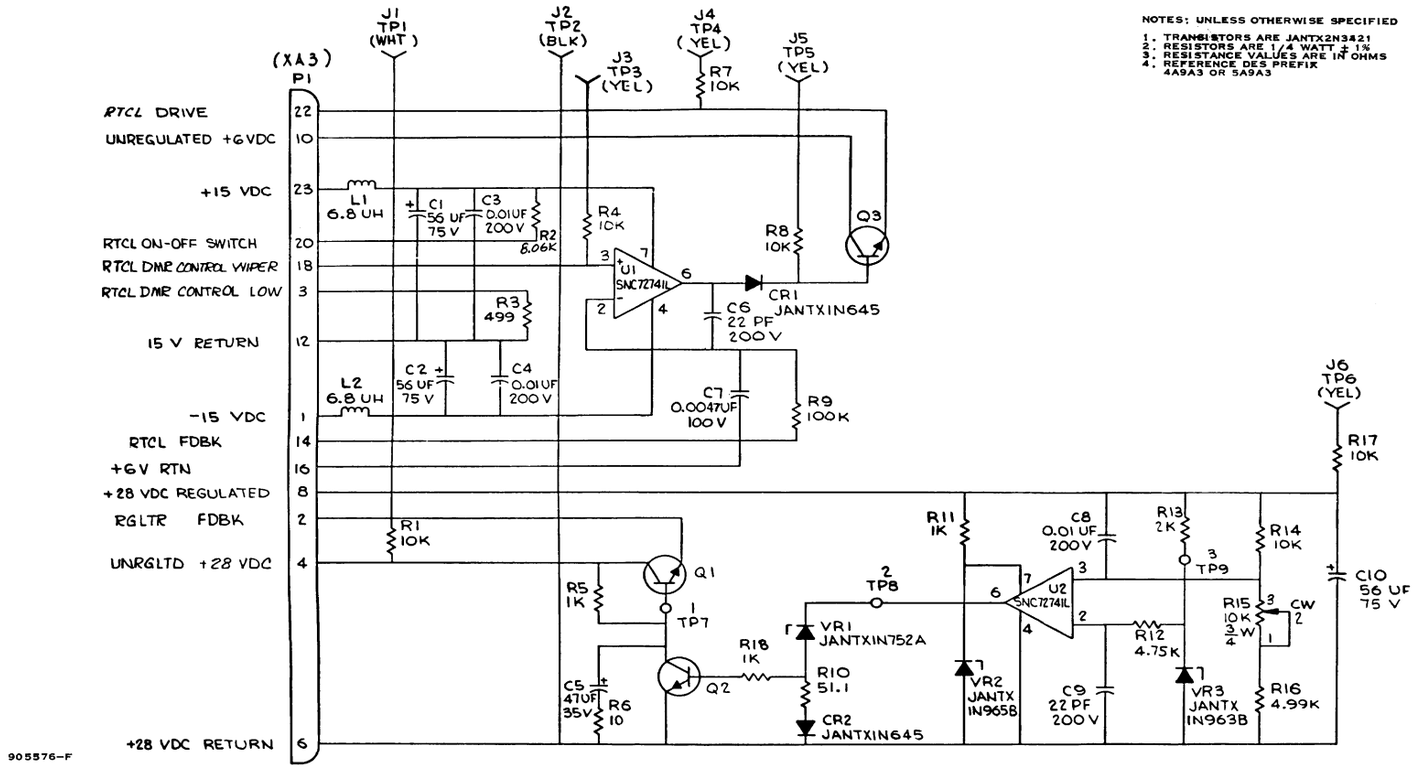


Figure 6-3. Reticle Lamp Dimmer and + 28 Vdc Regulator A9A3 Schematic Diagram

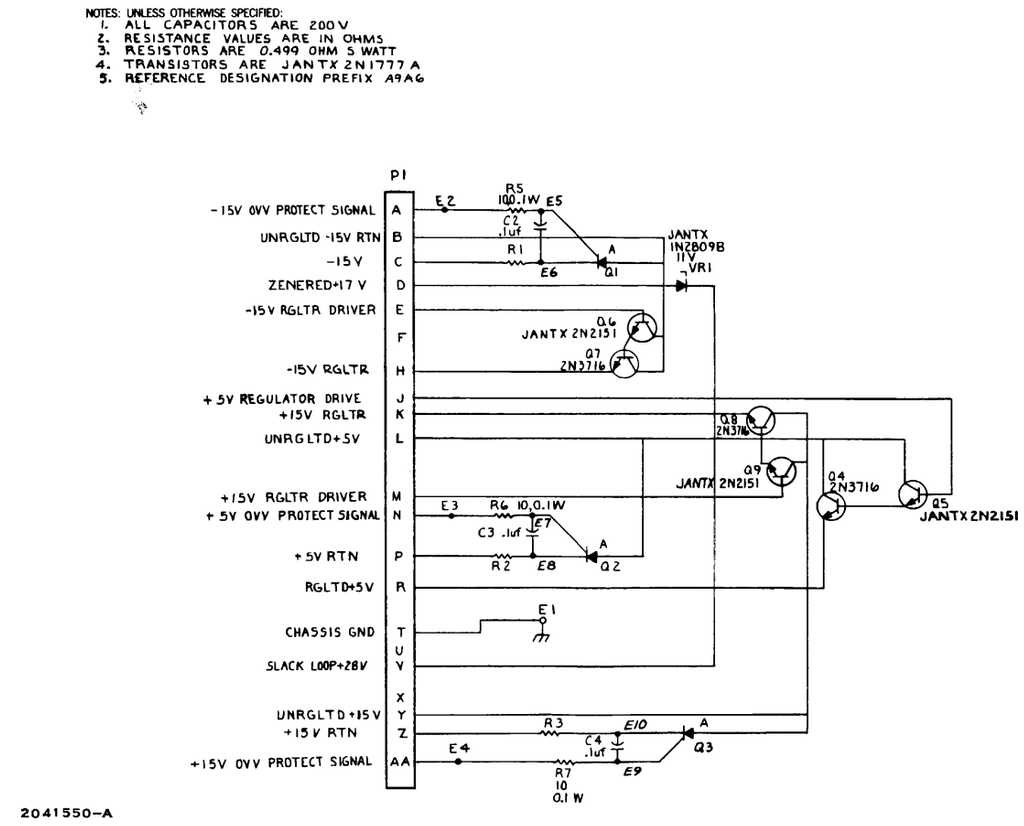


Figure 6-4. Regulator Assembly A9A6 Schematic Diagram

6-235/(6-236 blank)

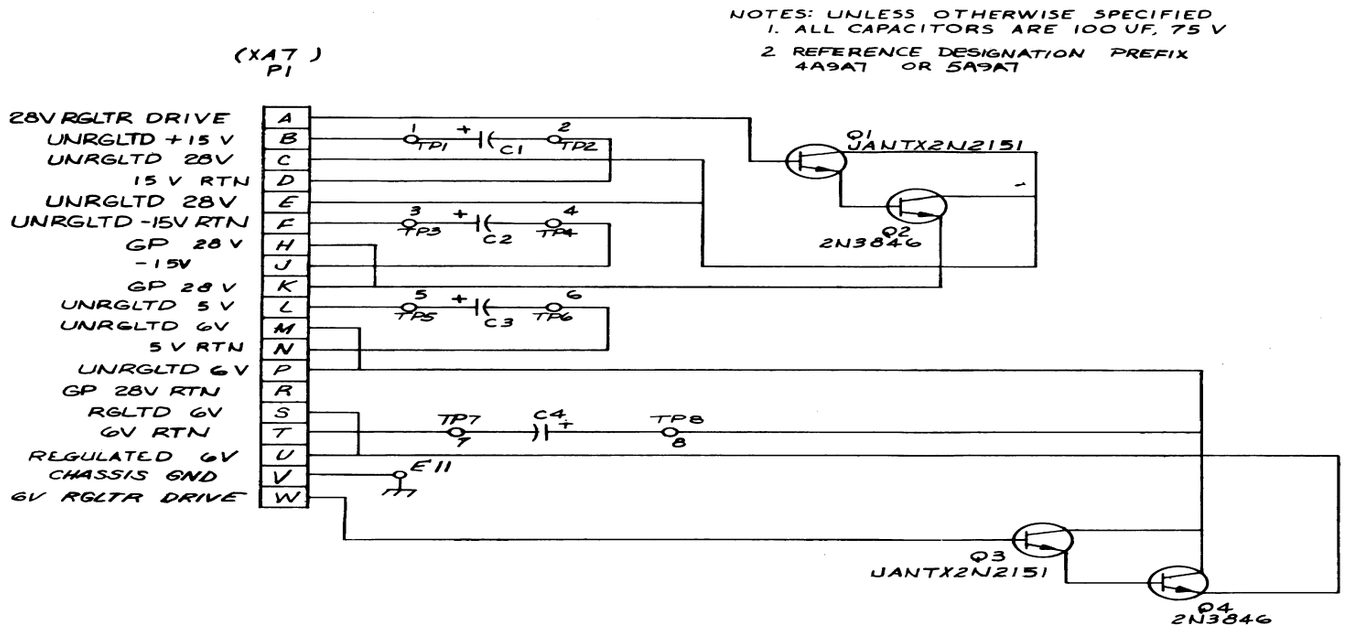


Figure 6-5. Heatsink Assembly A9A7 Schematic Diagram

6-237/(6-238 blank)

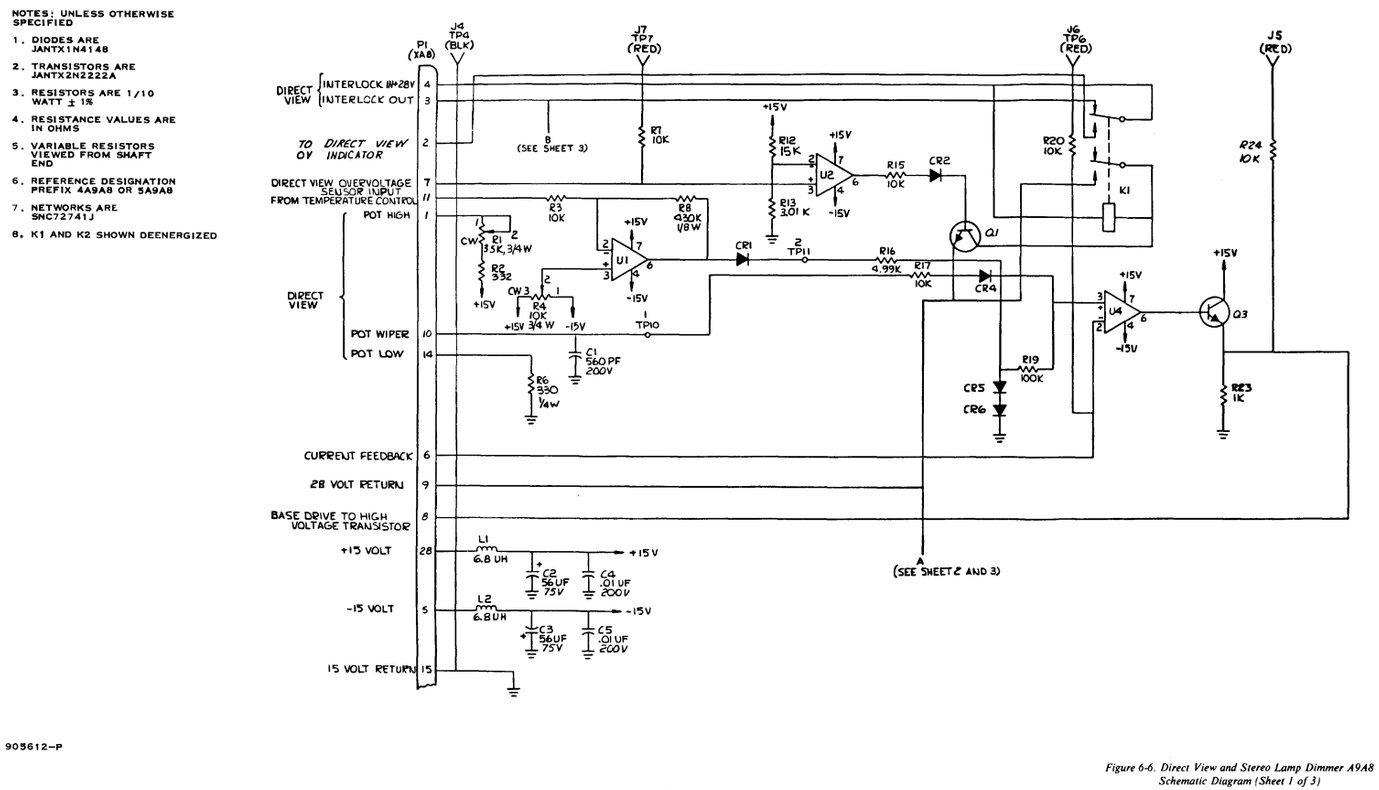


Figure 6-6. Direct View and Stereo Lamp Dimmer A9A8 Schematic Diagram (Sheet 1 of 3)

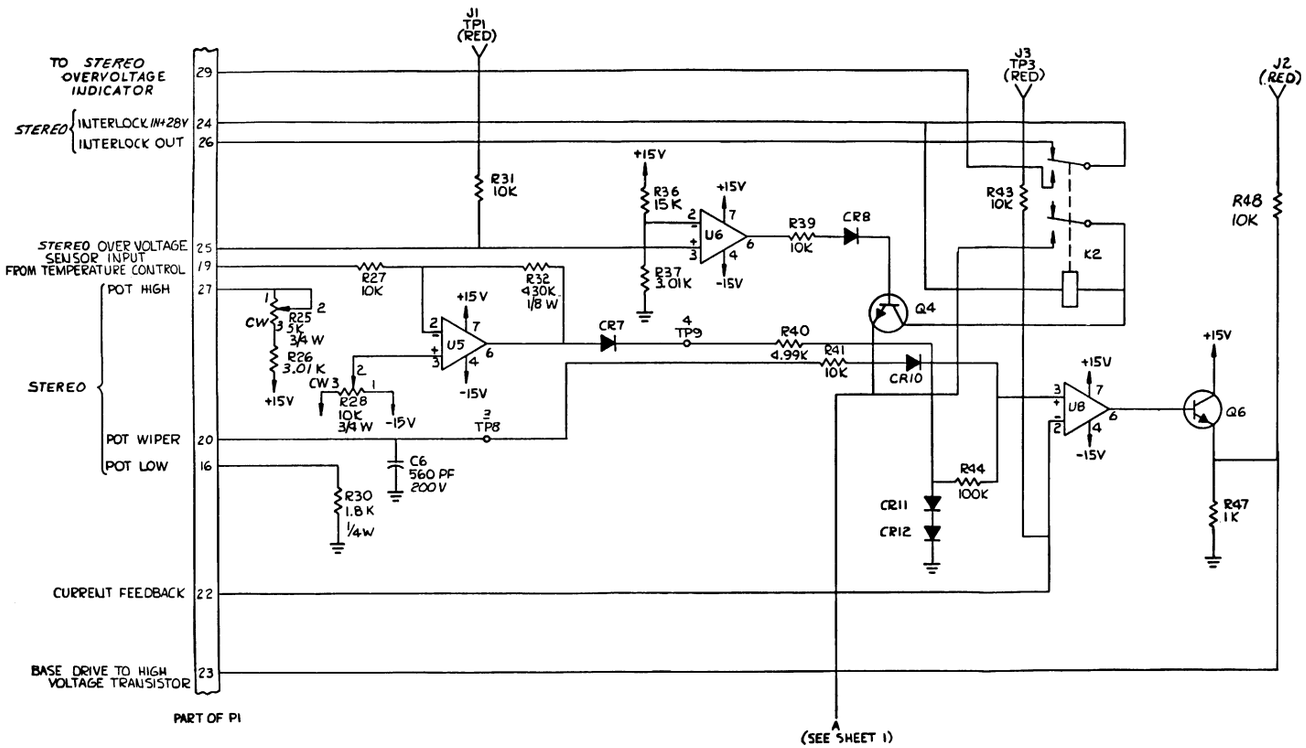


Figure 6-6. Direct View and Stereo Lamp Dimmer A9A8 Schematic Diagram (Sheet 2 of 3)

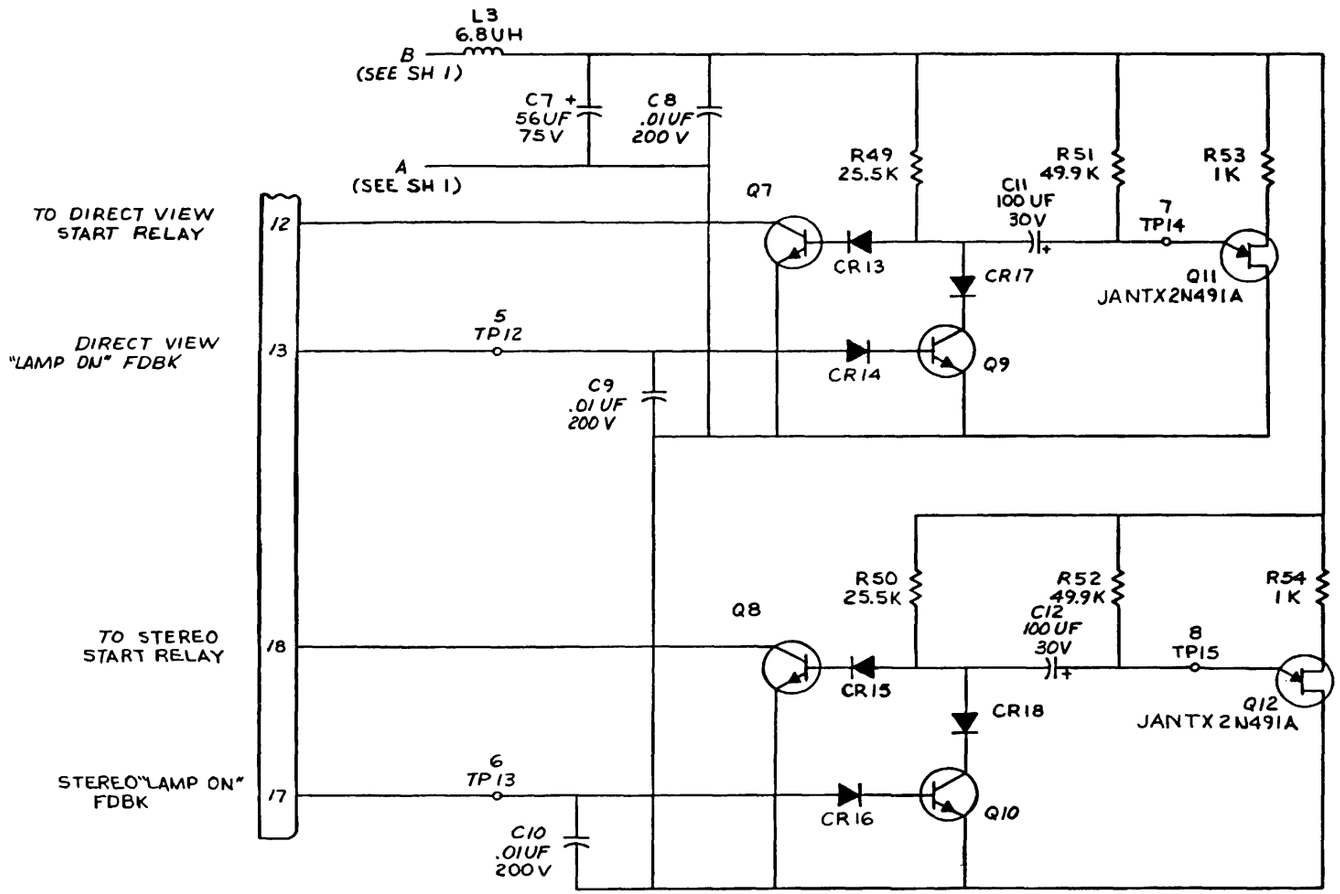
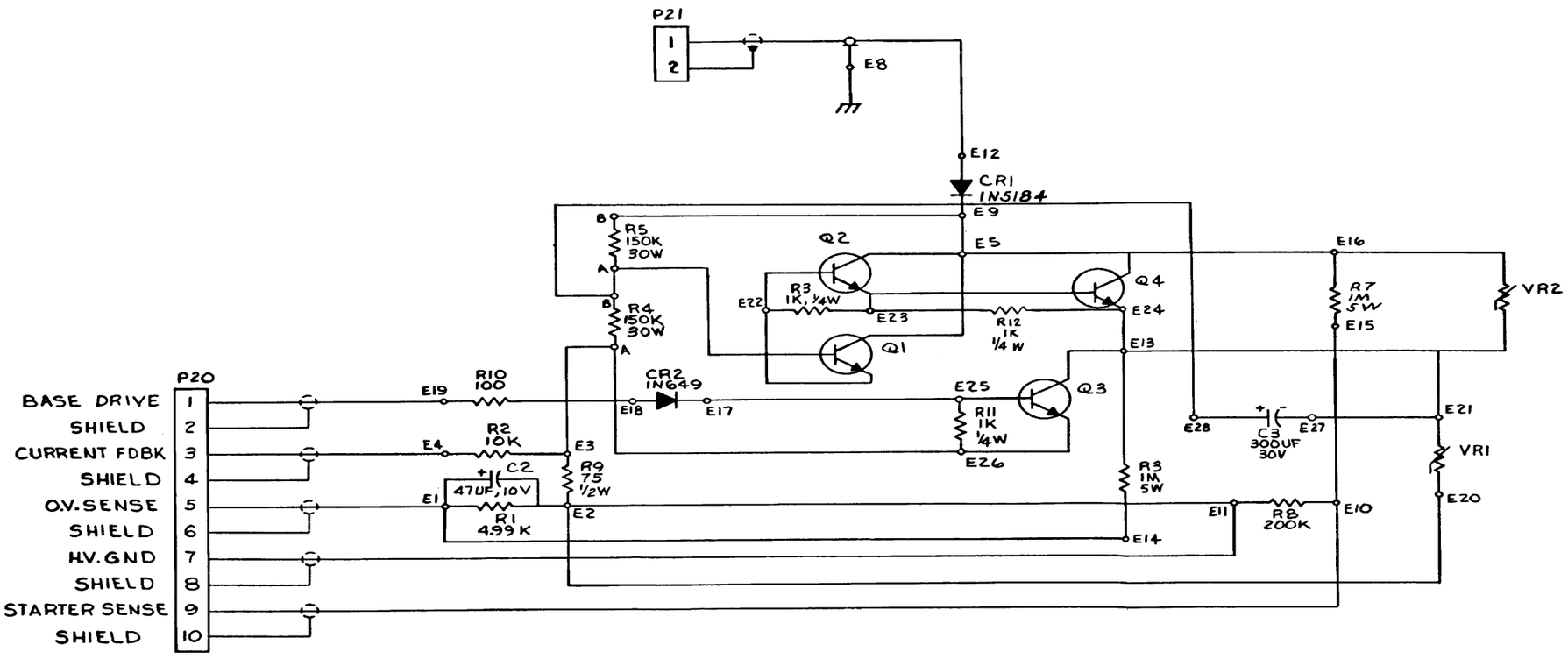


Figure 6-6. Direct View and Stereo Lamp Dimmer A9A8 Schematic Diagram (Sheet 3 of 3)

NOTES: UNLESS OTHERWISE SPECIFIED:
1. REFERENCE DESIGNATOR PREFIX 4A9A9 OR 5A9A9
2. ALL RESISTORS ARE WATTS
3. NPN TRANSISTORS ARE TYPE DTS-720
4. RESISTANCE VALUES ARE IN OHMS
5. CAPACITANCE VALUES ARE IN MICROFARADS



55-E

Figure 6-7. Direct View Dimmer Assembly A9A9 Schematic Diagram

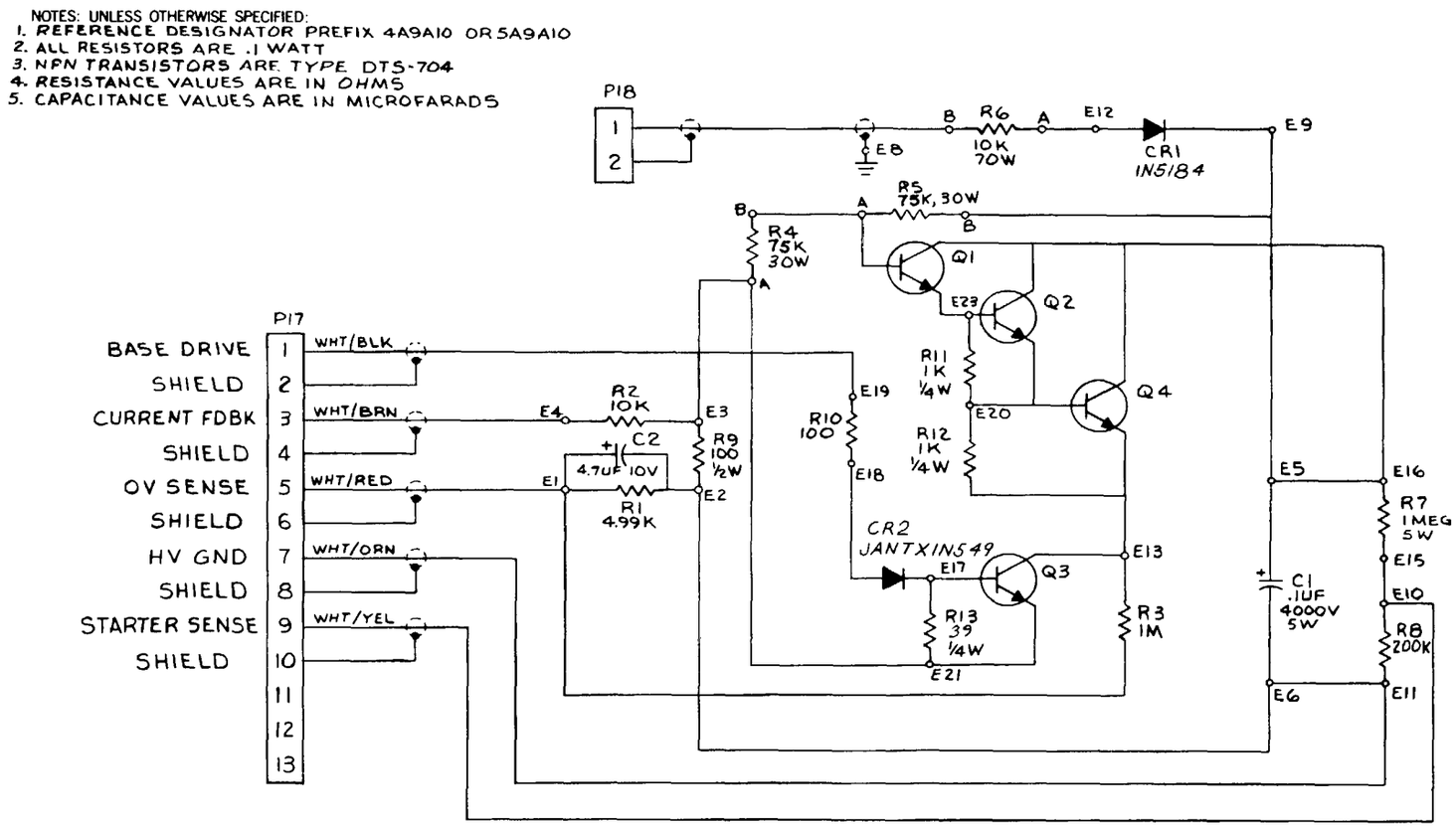


Figure 6-8. Stereo Dimmer Assembly A9A10 Schematic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTANCE VALUES ARE IN OHMS
2. RESISTORS ARE 1/4 WATT, 1%
3. CAPACITANCE VALUES ARE IN MICROFARADS
4. REFERENCE DESIGNATOR PREFIX 4A13A1 OR 5A13A1
5. PREFIX ALL DIODE AND TRANSISTOR PART NO. WITH JANTX
6. K1 SHOWN DEENERGIZED

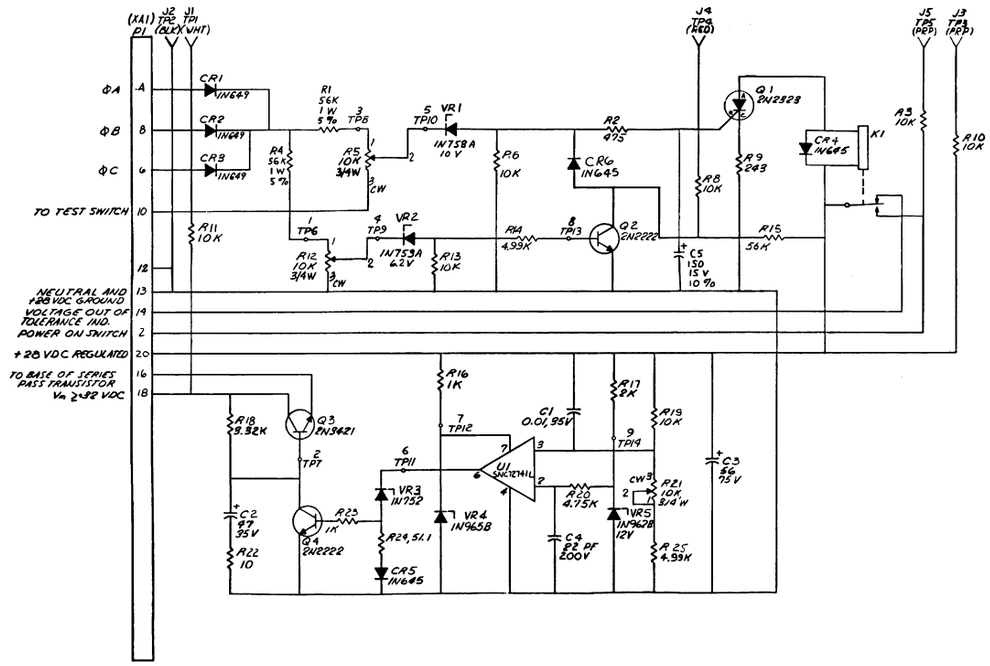


Figure 6-9. Voltage Tolerance and 28 Vdc Regulator A13A1 Schematic Diagram

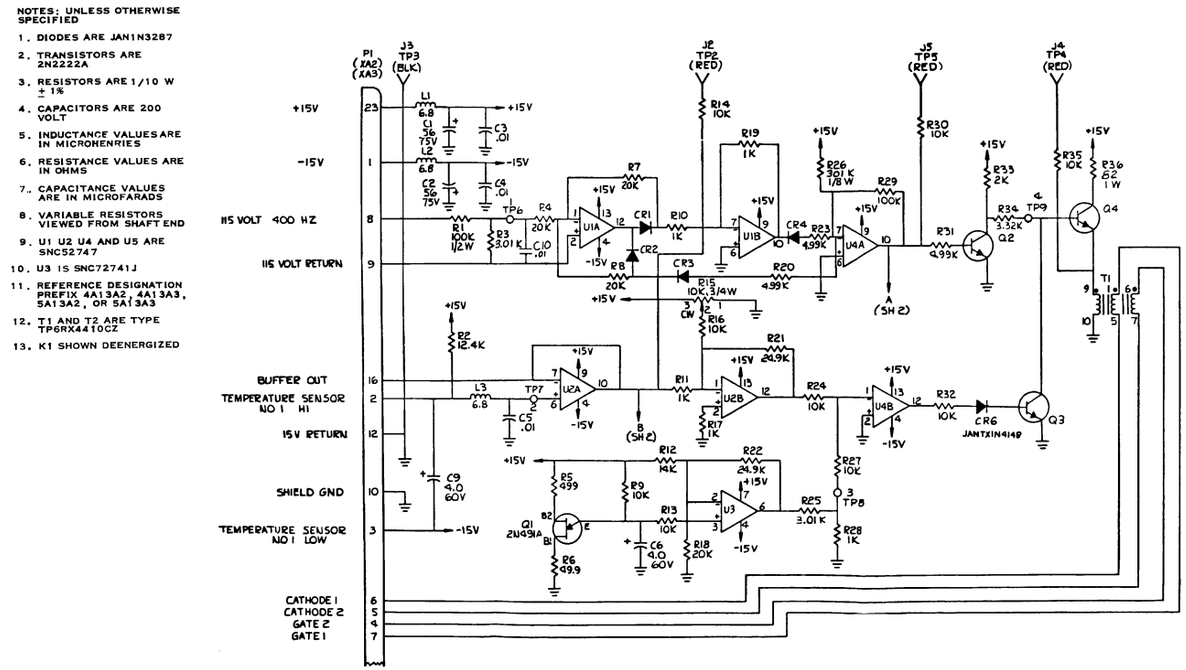


Figure 6-10. Direct View and Stereo View Lamp Temperature Controller A13A2 and A13A3 Schematic Diagram (Sheet 1 of 2)

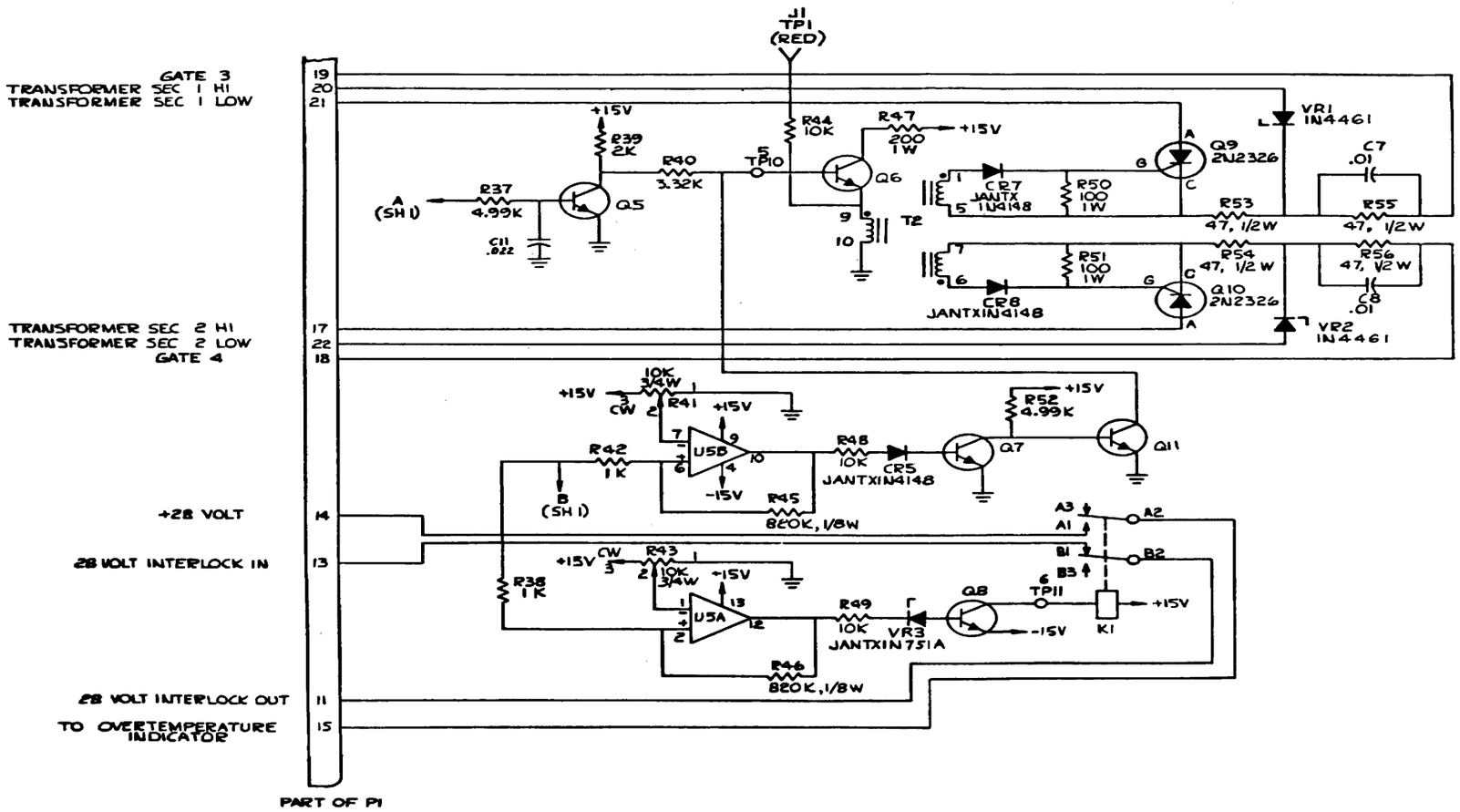


Figure 6-10. Direct View and Stereo View Lamp Temperature Controller A13A2 and A13A3 Schematic Diagram (Sheet 2 of 2)

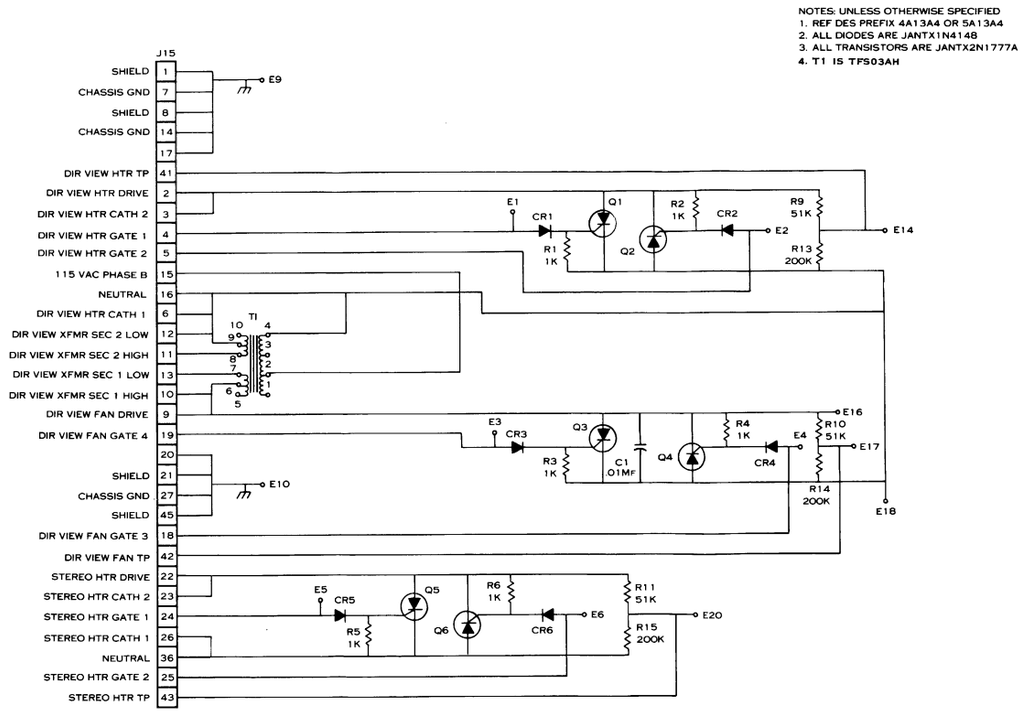


Figure 6-11. Lamp Temperature Control Assembly A13A4 Schematic Diagram

NOTES:
1. C1 THRU C6 ARE 100 PF 400V
2. CR1 THRU CR6 ARE JANTX1204A
3. REFERENCE DESIGNATION PREFIX 4A13A5 OR 5A13A5

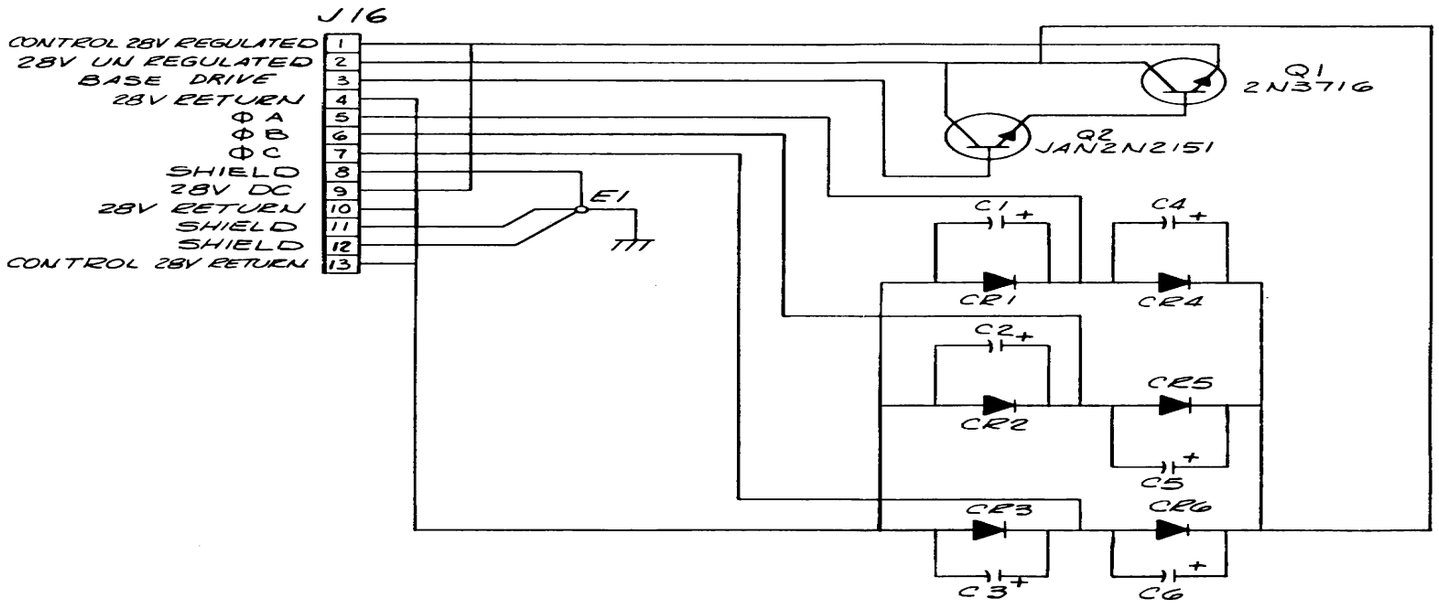


Figure 6-12. Control 28 Vdc Regulator A13A5 Schematic Diagram

6-257/(6-258 blank)

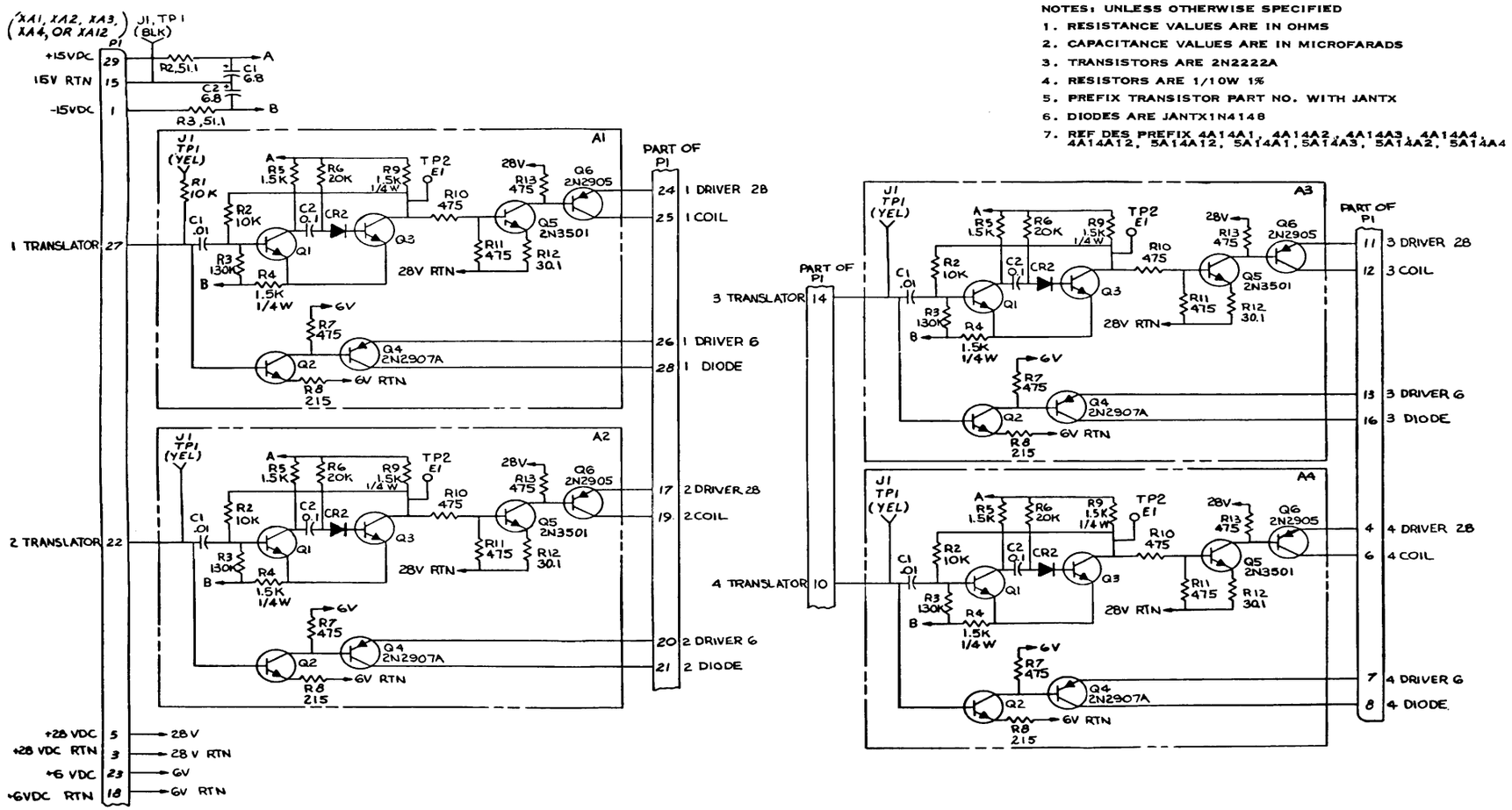


Figure 6-13. Motor Driver A14A1, A14A2, A14A3, A14A4, and A14A12 Schematic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED
1. TRANSISTORS ARE JANTX2N3792
2. DIODES ARE JANTX1N5550
3. ZENER DIODES ARE JANTX1N4972
4. REF DES PREFIX 4A14A5, 4A14A7, 4A14A13, 4A14A15, 5A14A5, 5A14A7, 5A14A13, OR 5A14A15

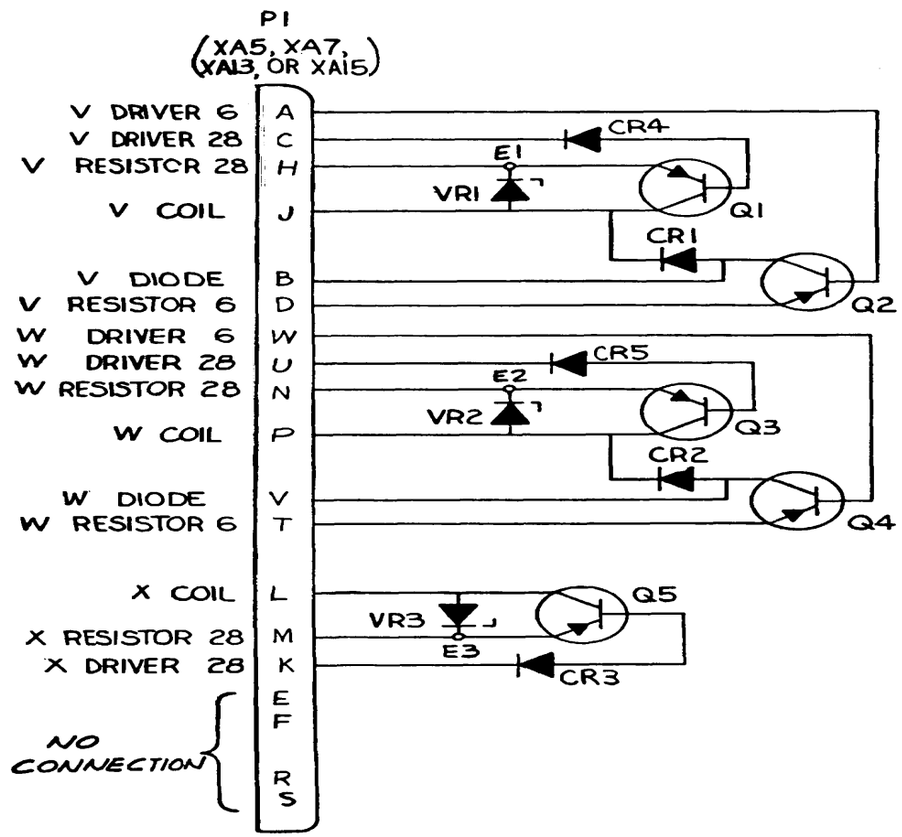


Figure 6-14. Power Driver 1 A14A5, A14A7, A14A13, and A14A15 Schematic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED

1. TRANSISTORS ARE JANTX2N3792
2. DIODES ARE JANTX1N5550
3. ZENER DIODES ARE JANTX1N4972
4. REF DES PREFIX 4A14A6, 4A14A8, 4A14A14, 4A14A16, 5A14A6, 5A14A8, 5A14A14, OR 5A14A16

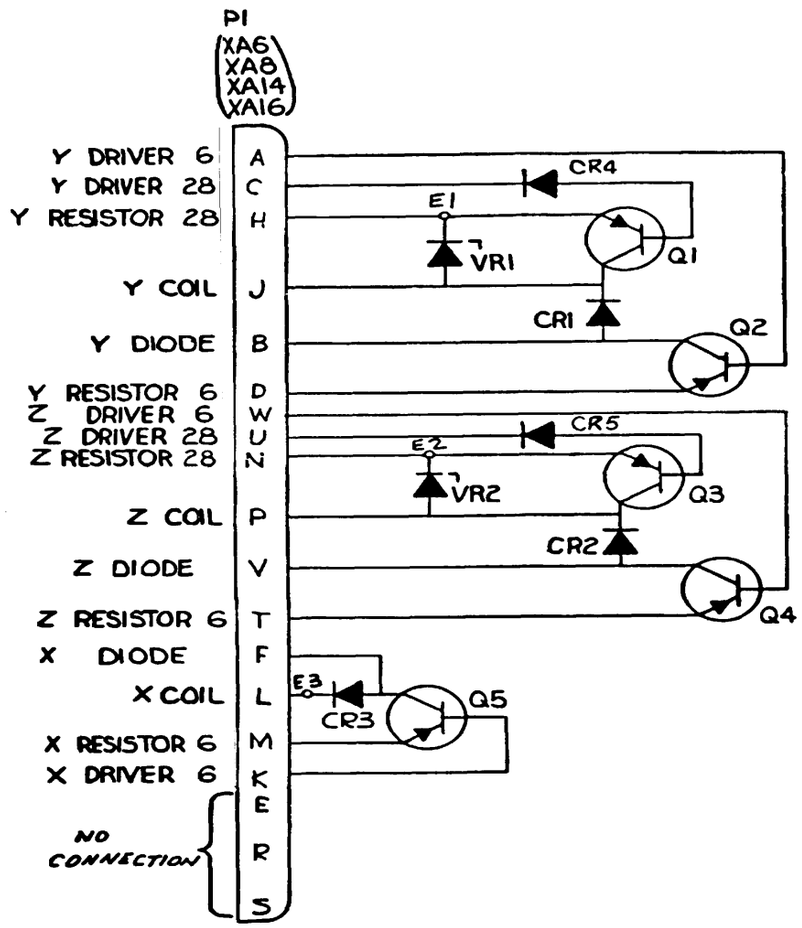


Figure 6-15. Power Driver 2 A14A6, A14A8, A14A14 and A14A16 Schematic Diagram

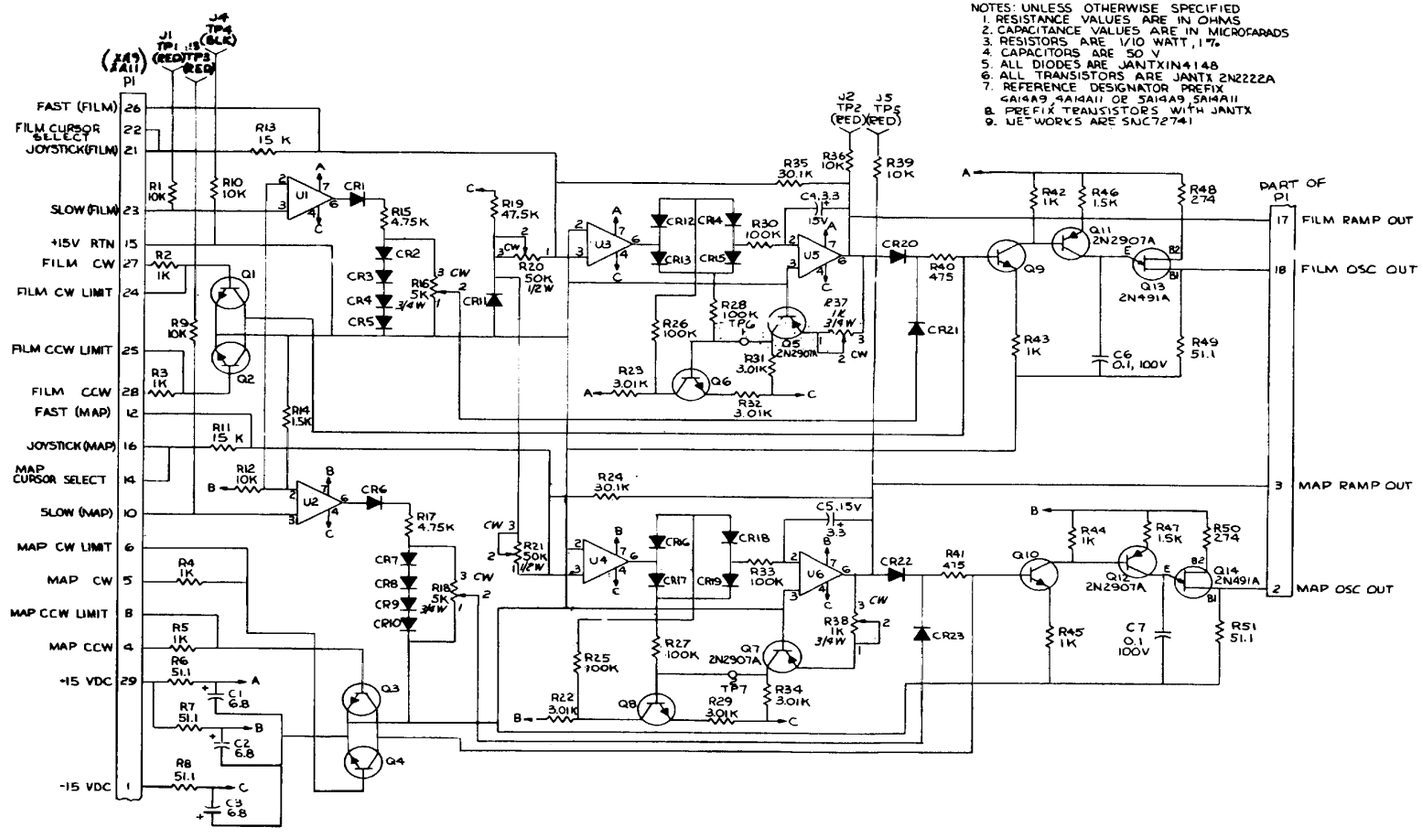


Figure 6-16. Oscillator and Rate Limit A14A9 and A14A11 Schematic Diagram

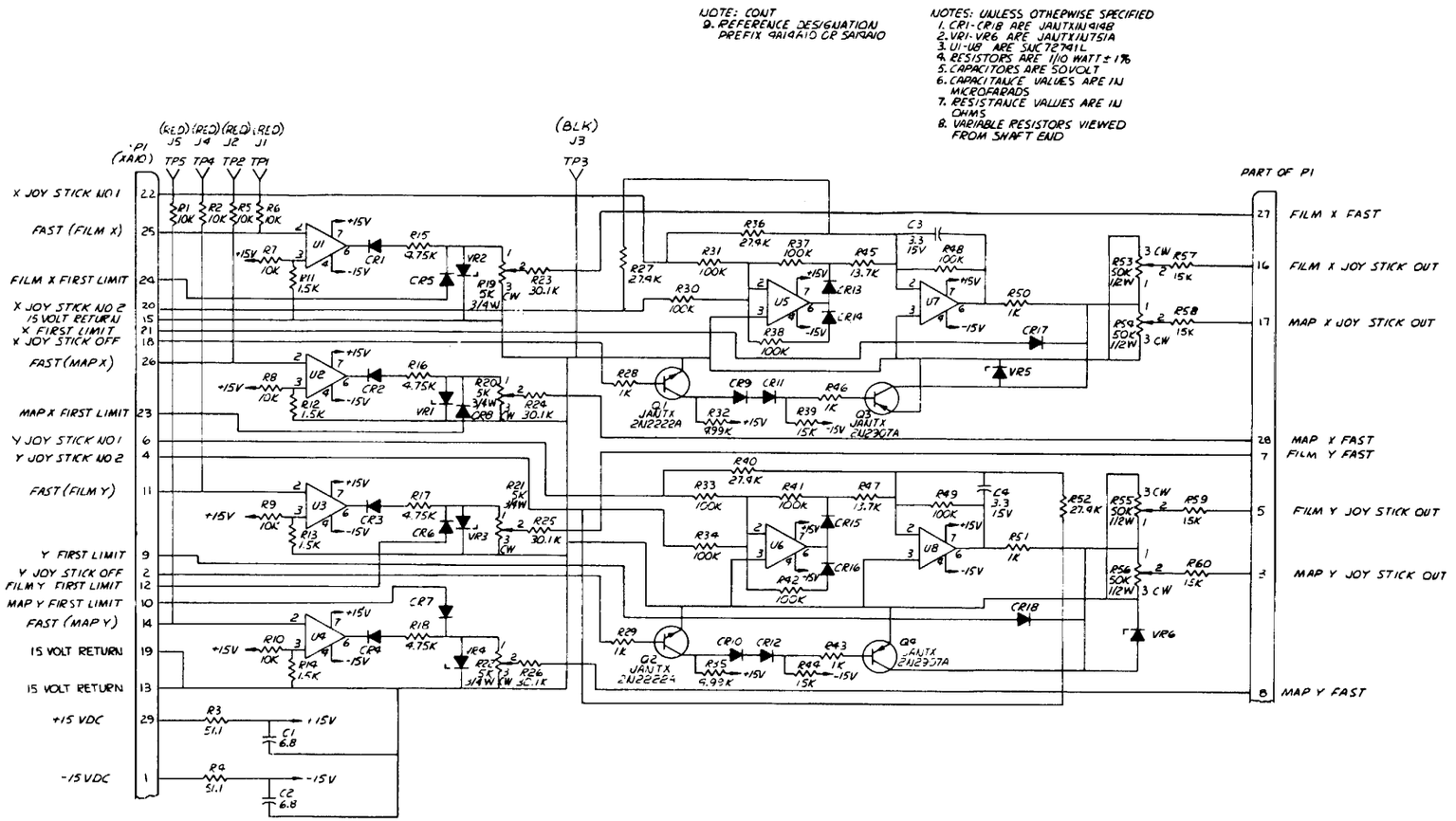


Figure 6-17. Fast Command and Joystick Amplifier A14A10 Schematic Diagram

6-267/(6-268 blank)

NOTES: UNLESS OTHERWISE SPECIFIED

1. DIODES ARE JANTX1N4148
2. TRANSISTORS ARE JANTX2N2222A
3. RESISTORS ARE 1K 1/10W
4. CAPACITORS ARE .01 UF
5. RESISTANCE VALUES ARE IN OHMS
6. PIN 14 OF NETWORKS U1 THROUGH U9 IS CONNECTED TO +5V
7. PIN 7 OF NETWORKS U1 THROUGH U9 IS CONNECTED TO GROUND
8. REF DES PREFIX 4A14A17, 4A14A18, 4A14A19, 4A14A20, 5A14A17, 5A14A18, 5A14A19, 5A14A20
9. U3, U5, U7, ARE SNC5474J
10. U1, U2, U4, U8, U9 ARE SNC5400J

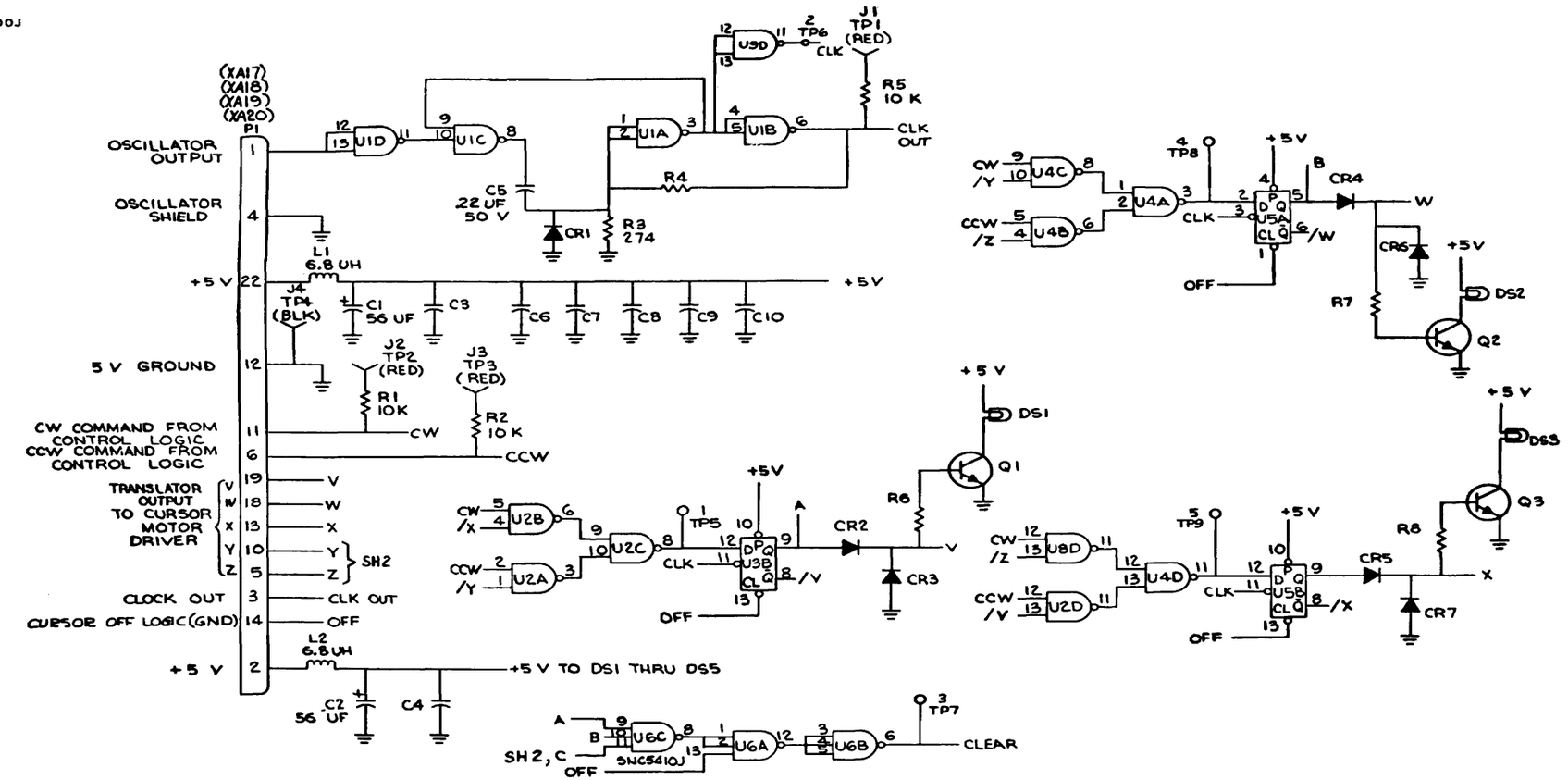


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Figure 6-18. Translator A14A17, A14A18, A14A19, and A14A20 Schematic Diagram (Sheet 1 of 2)

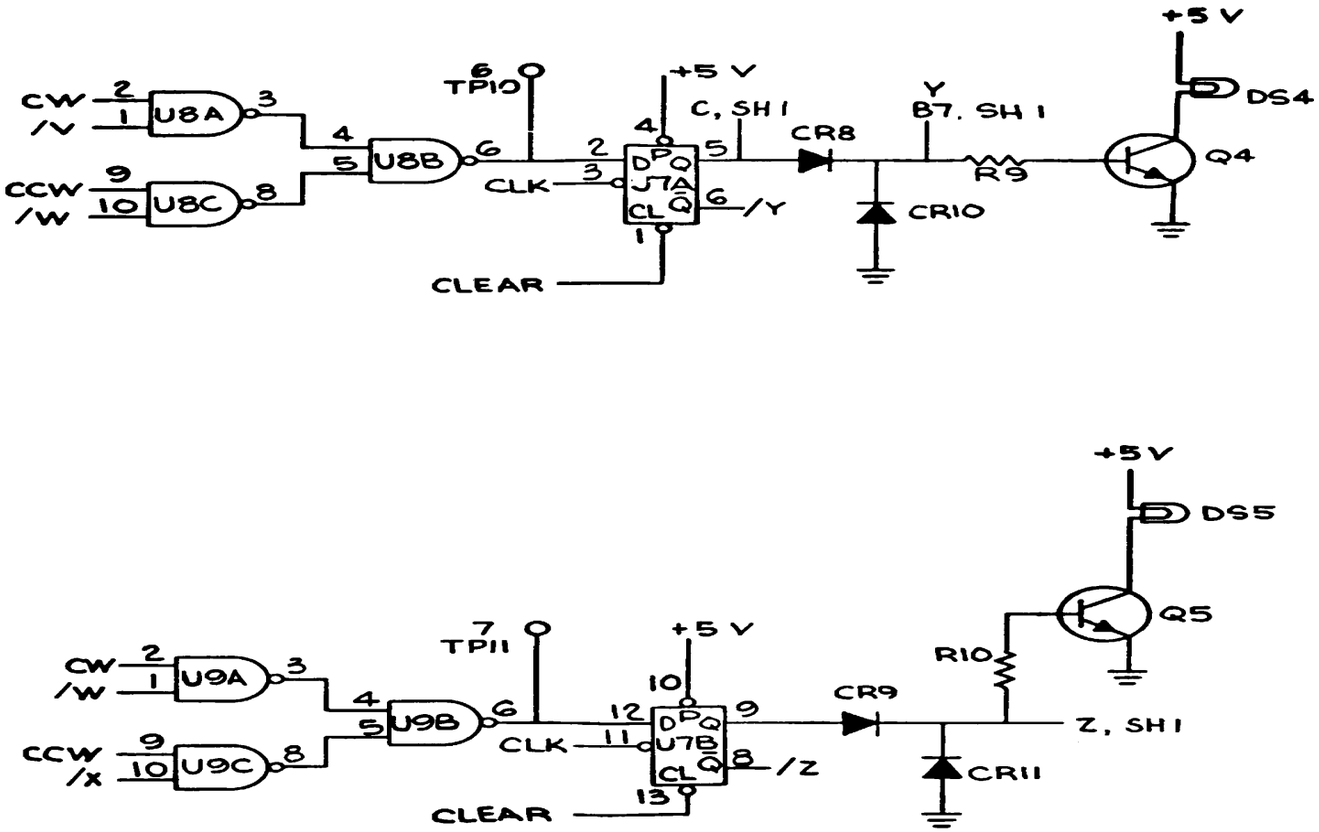


Figure 6-18. Translator A14A17, A14A18, A14A19, and A14A20 Schematic Diagram (Sheet 2 of 2)

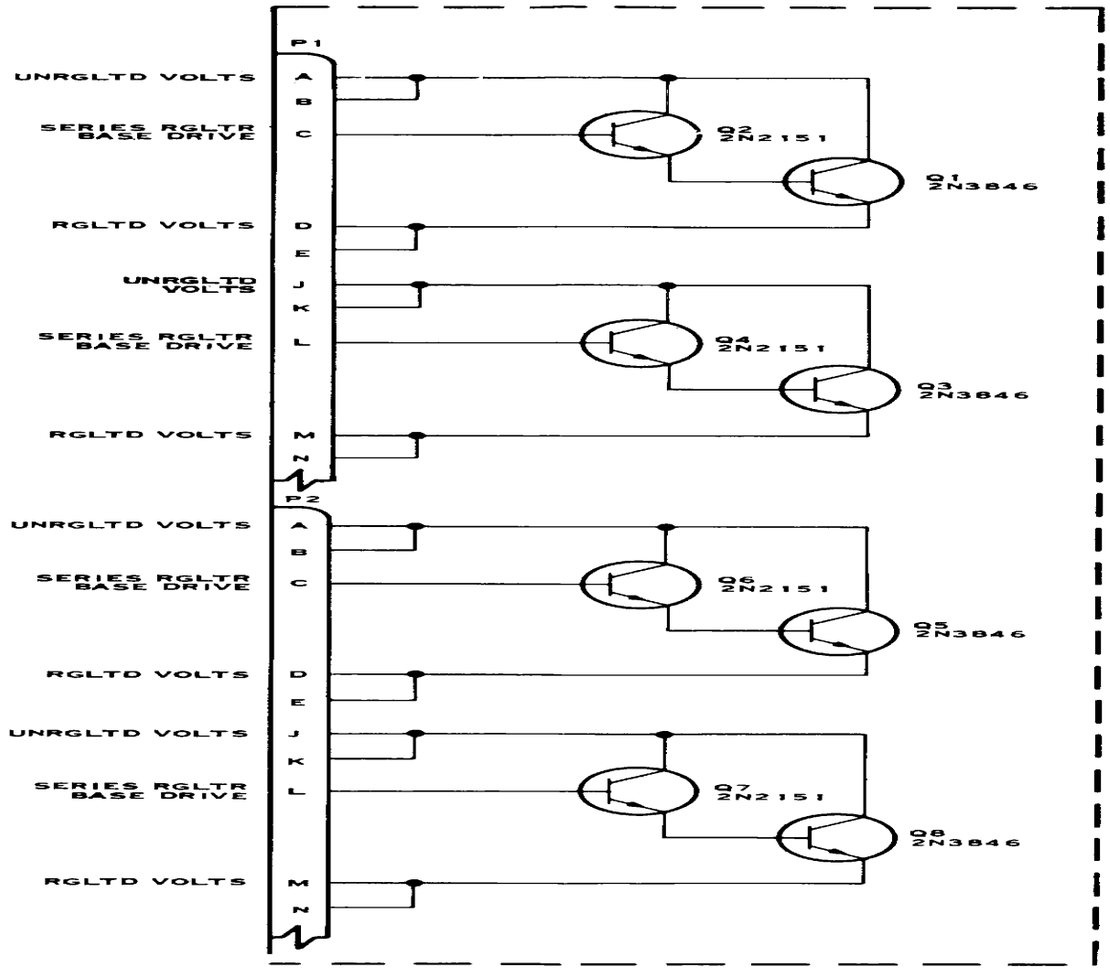
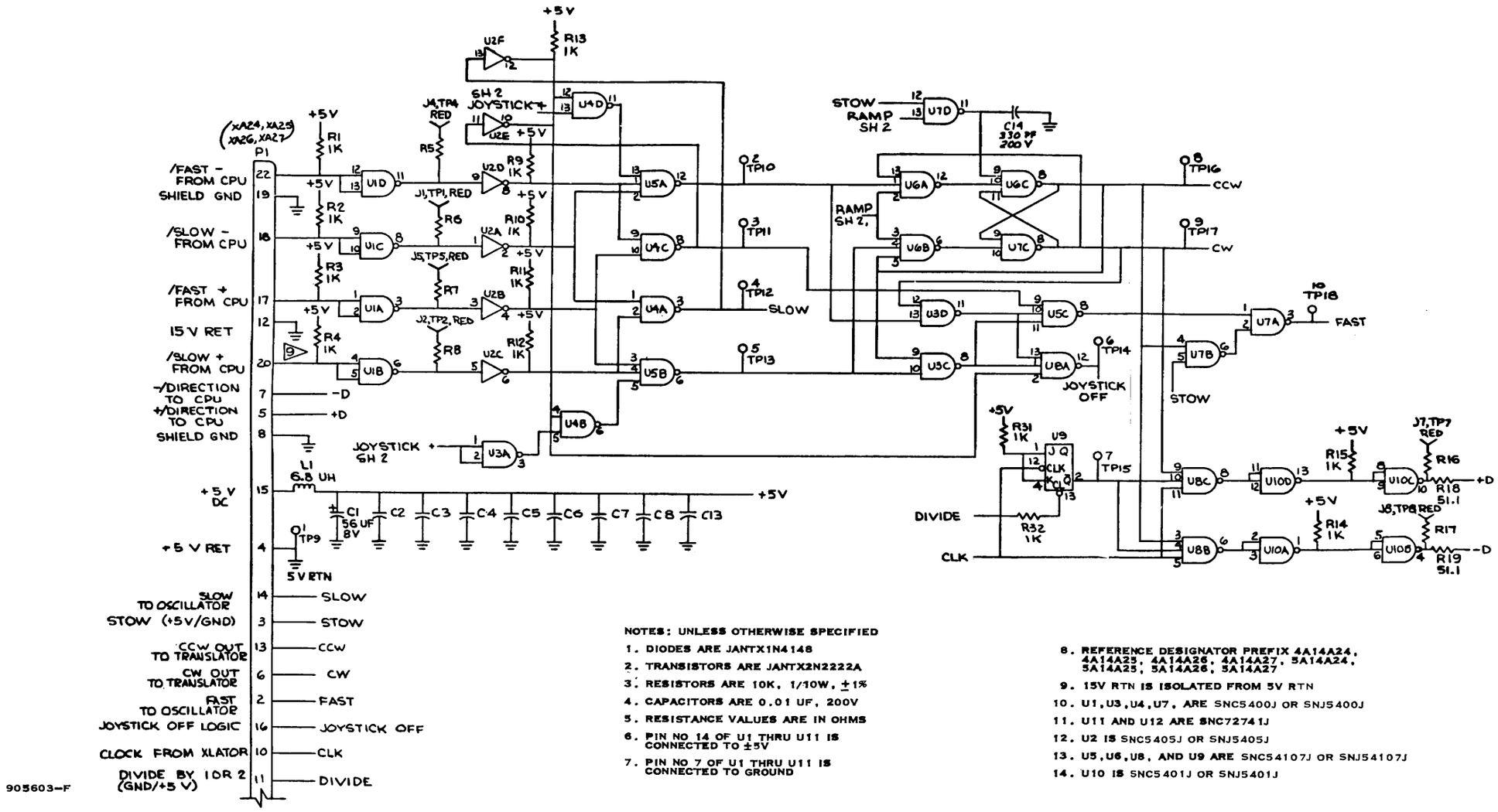


Figure 6-19. Regulator Heatsink A14A22 and A14A23 Schematic Diagram



NOTES: UNLESS OTHERWISE SPECIFIED

1. DIODES ARE JANTX1N4148
2. TRANSISTORS ARE JANTX2N2222A
3. RESISTORS ARE 10K, 1/10W, ±1%
4. CAPACITORS ARE 0.01 UF, 200V
5. RESISTANCE VALUES ARE IN OHMS
6. PIN NO 14 OF U1 THRU U11 IS CONNECTED TO +5V
7. PIN NO 7 OF U1 THRU U11 IS CONNECTED TO GROUND
8. REFERENCE DESIGNATOR PREFIX 4A14A24, 4A14A25, 4A14A26, 4A14A27, 5A14A24, 5A14A25, 5A14A26, 5A14A27
9. 15V RTN IS ISOLATED FROM 5V RTN
10. U1, U3, U4, U7, ARE SNC5400J OR SNJ5400J
11. U11 AND U12 ARE SNC72741J
12. U2 IS SNC5405J OR SNJ5405J
13. U5, U6, U8, AND U9 ARE SNC54107J OR SNJ54107J
14. U10 IS SNC5401J OR SNJ5401J

Figure 6-20. Control logic A14A24, A14A25, A14A26, and A14A27 Schematic Diagram (Sheet 1 of 2)

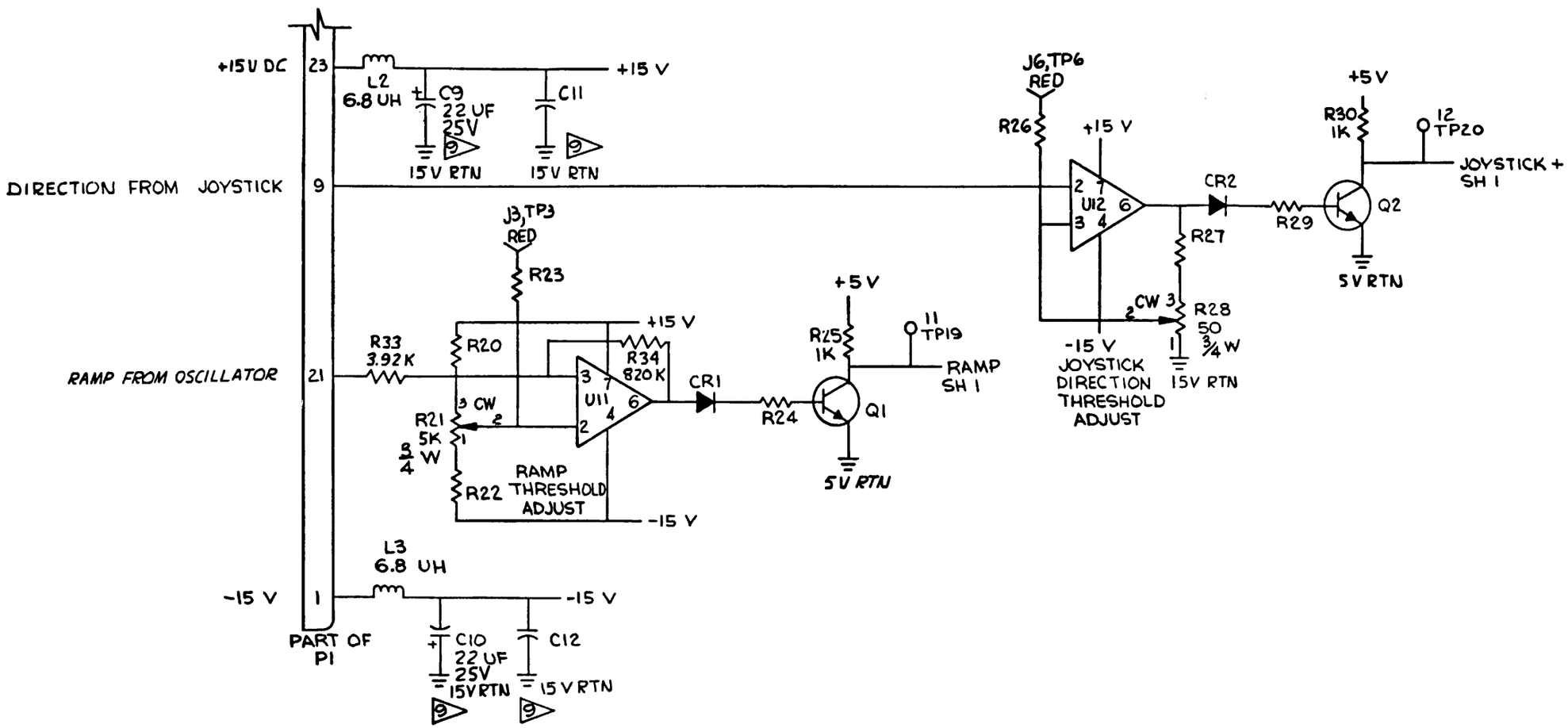


Figure 6-20. Control logic A14A24, A14A25, A14A26, and A14A27 Schematic Diagram (Sheet 2 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTORS ARE 1K 1/10 W
2. CAPACITORS ARE .01 UF, 200V
3. RESISTANCE VALUES ARE IN OHMS
4. REFERENCE DESIGNATION PREFIX 4A14A28, 4A14A29, 5A14A28, OR 5A14A29
5. CAPACITANCE VALUES ARE IN MICROFARADS
6. U3,U4,U5,U6,U12,U13, AND U15 ARE SNC74121J
7. U1 IS SNC7404J
8. U2,U8, AND U16 ARE SNC7400J
9. U11 AND U14 ARE SNC7401J
10. ⏚ IS 5V RTN

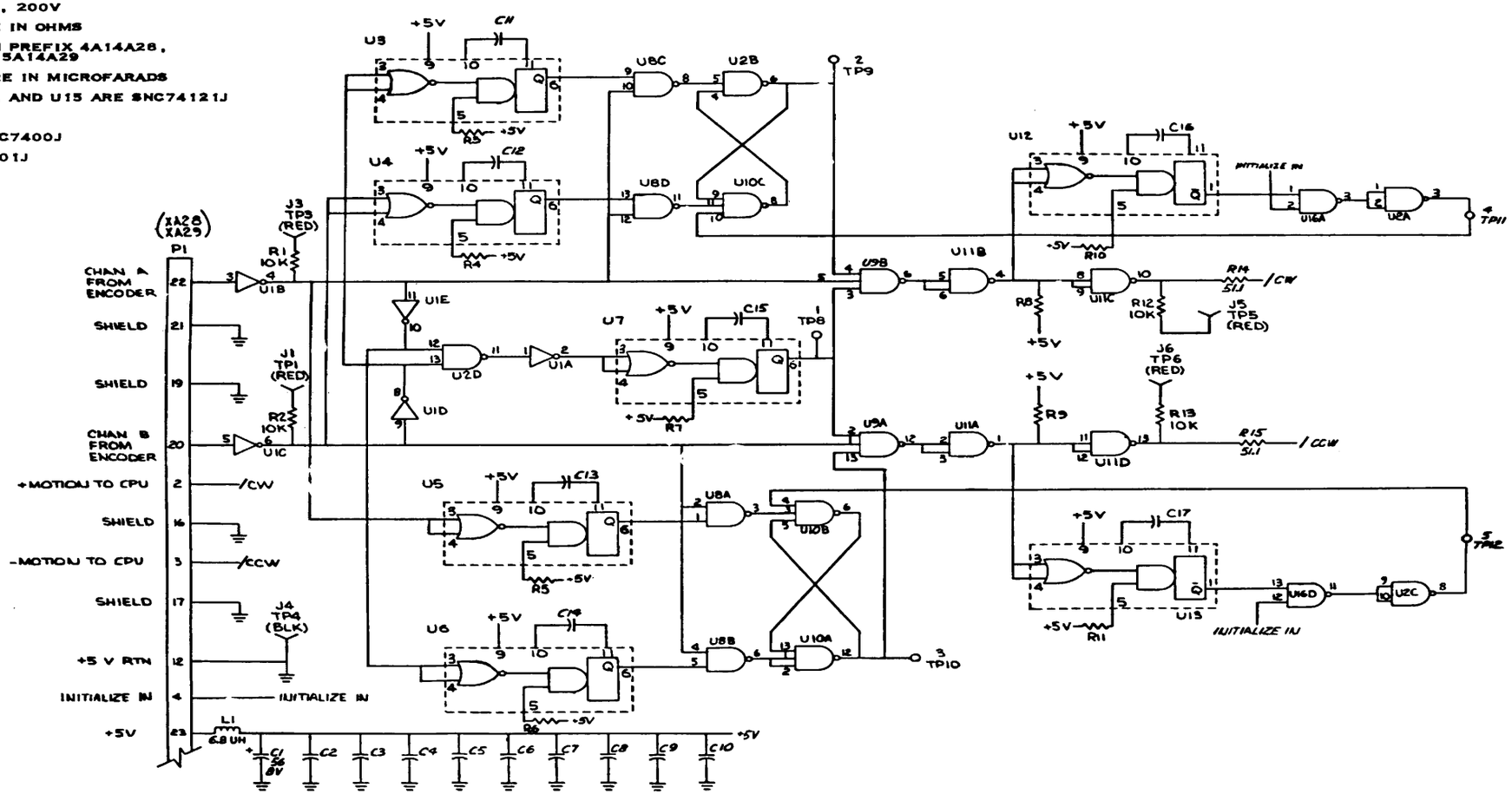


Figure 6-21. Encoder Interface A14A28 and A14A29 Schematic Diagram (Sheet 1 of 2)

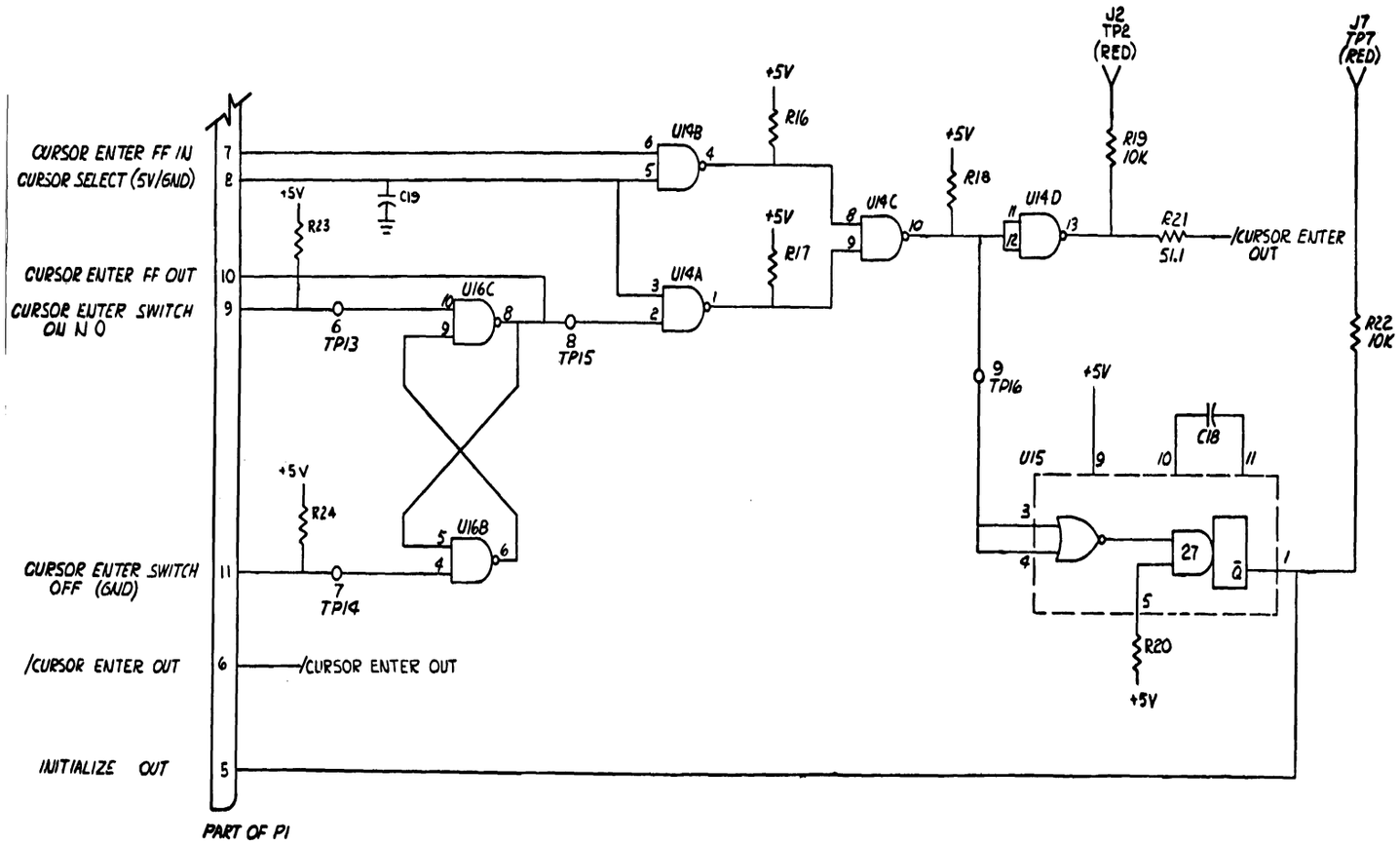


Figure 6-21. Encoder Interface A14A28 and A14A29 Schematic Diagram (Sheet 2 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED
1. DIODES ARE JANTX1N645
2. NETWORKS ARE SNC72741L
3. TRANSISTORS ARE JANTX2N3421
4. RESISTORS ARE 1/10 WATT ±1%
5. RESISTANCE VALUES ARE IN OHMS
6. CAPACITANCE VALUES ARE IN MICROFRADS
7. REFERENCE DESIGNATION PREFIX 4A14A30 OR 5A14A30
8. PREFIX DIODES WITH JANTX

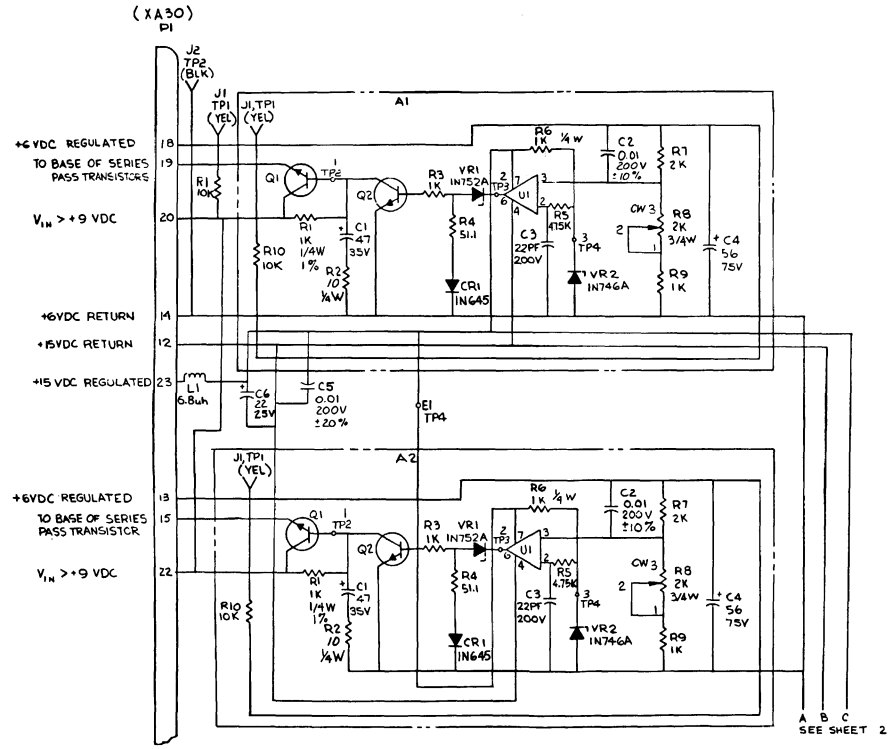


Figure 6-22. Vdc Regulator A14A30 Schematic Diagram (Sheet 1 of 2)

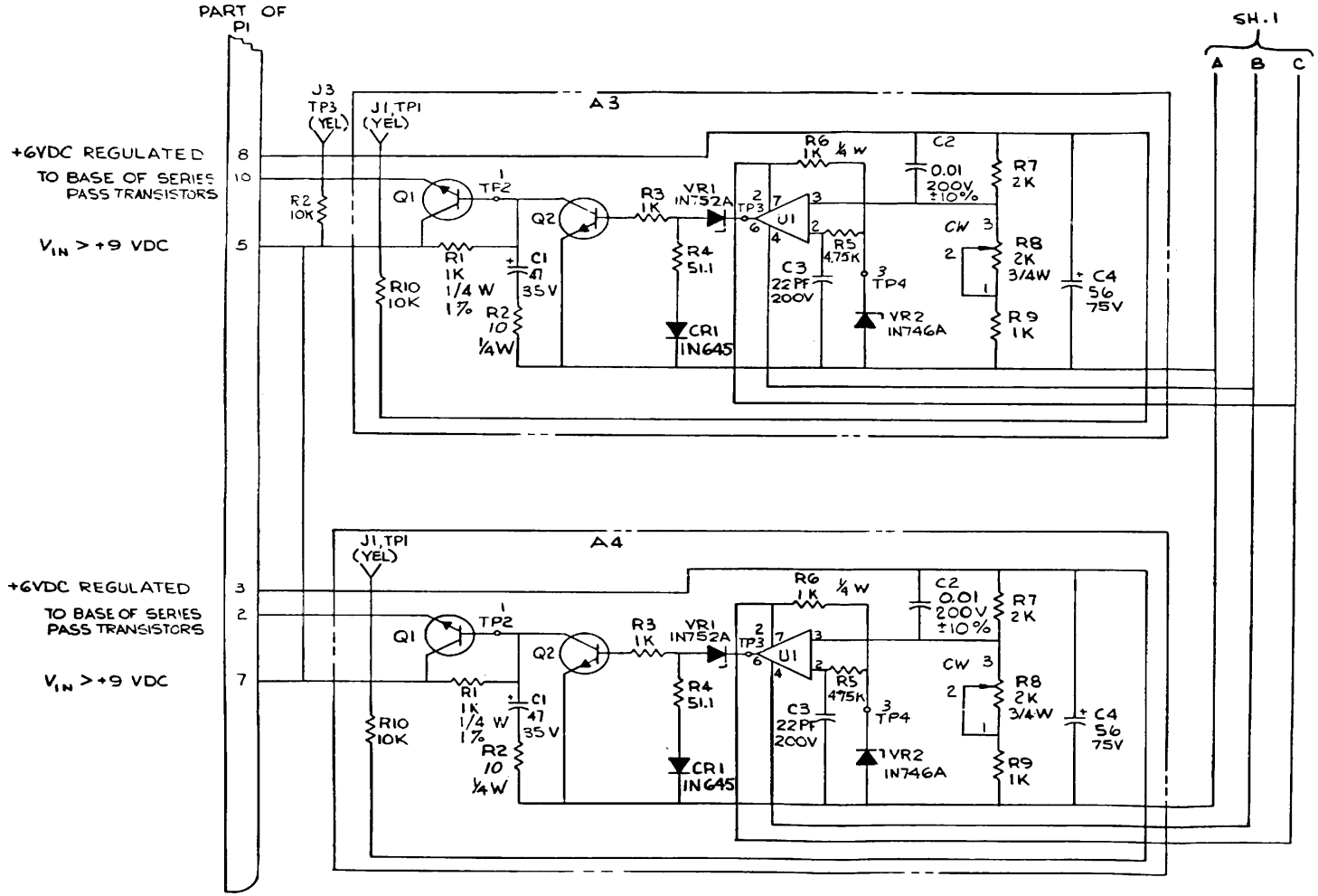


Figure 6-22. Vdc Regulator A14A30 Schematic Diagram (Sheet 2 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED
1. RESISTANCE VALUES ARE IN OHMS
2. DIODES ARE 1N645
3. RESISTORS ARE 0.1 WATT ± 1%
4. TRANSISTORS ARE JANTX2N3421
5. REFERENCE DESIGNATOR PREFIX
6. NETWORKS ARE SNC72741L
7. PREFIX ALL DIODE WITH JANTX

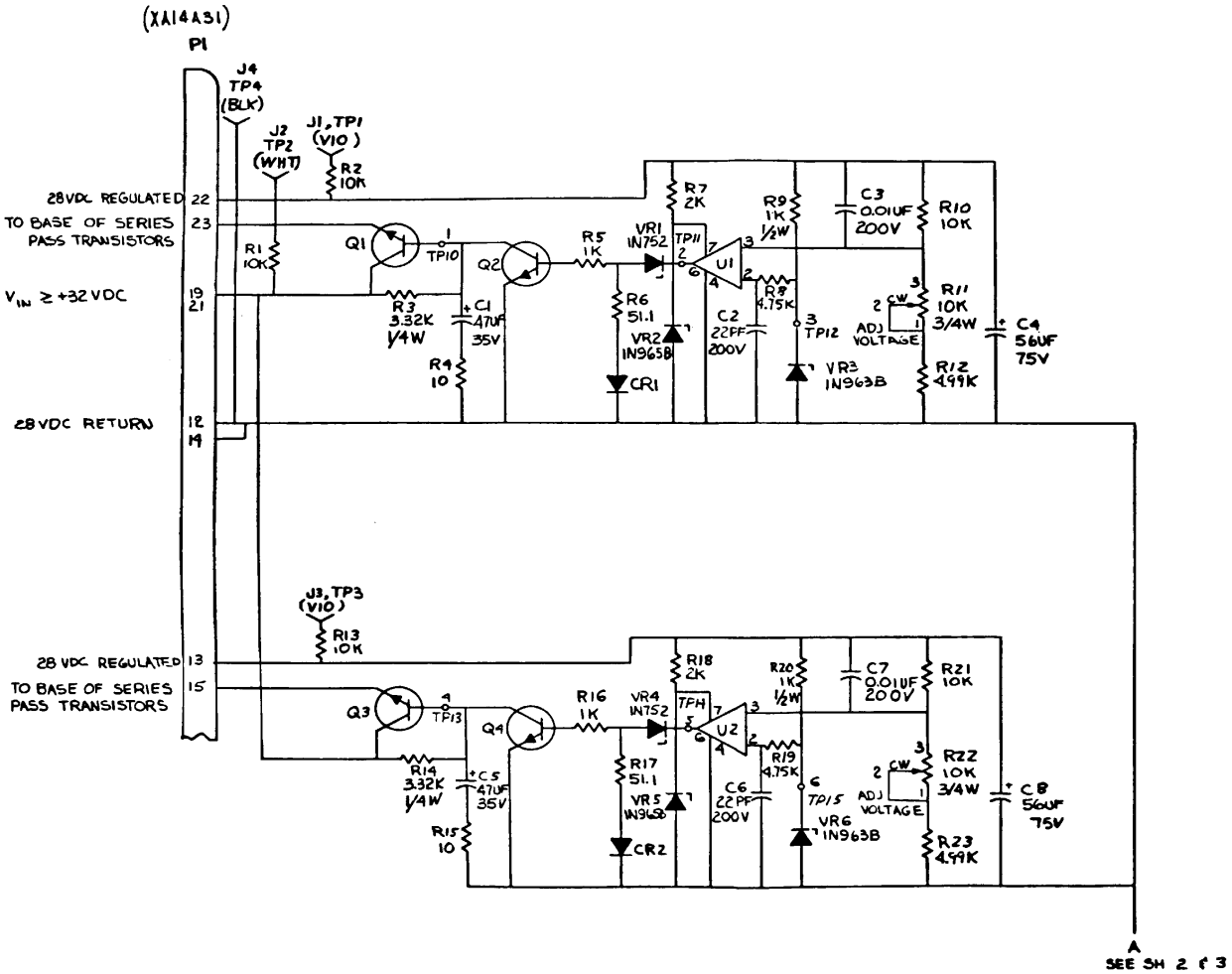


Figure 6-23. 28 Vdc Regulator A14A31 Schematic Diagram (Sheet 1 of 3)

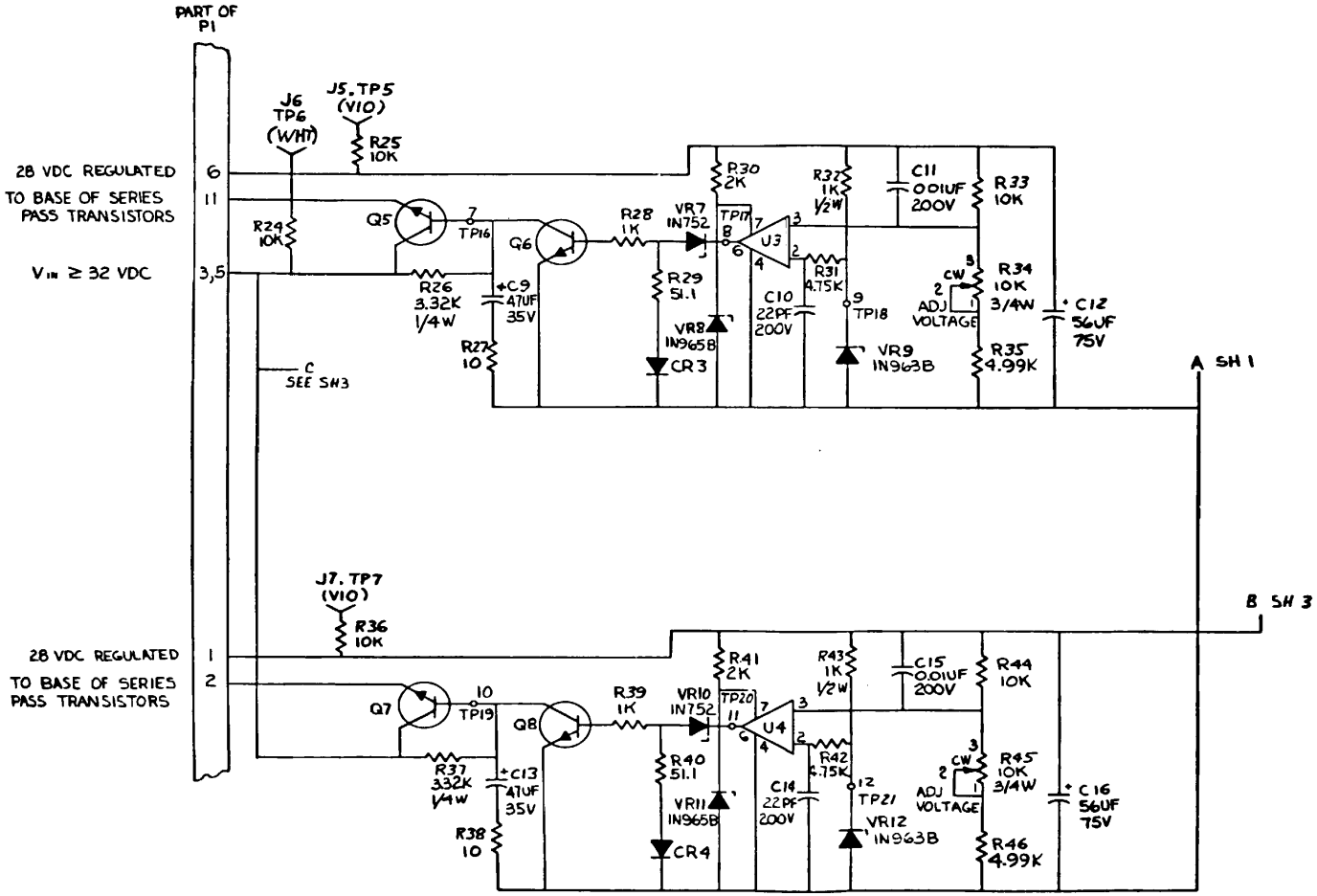


Figure 6-23. 28 Vdc Regulator A14A31 Schematic Diagram (Sheet 2 of 3)

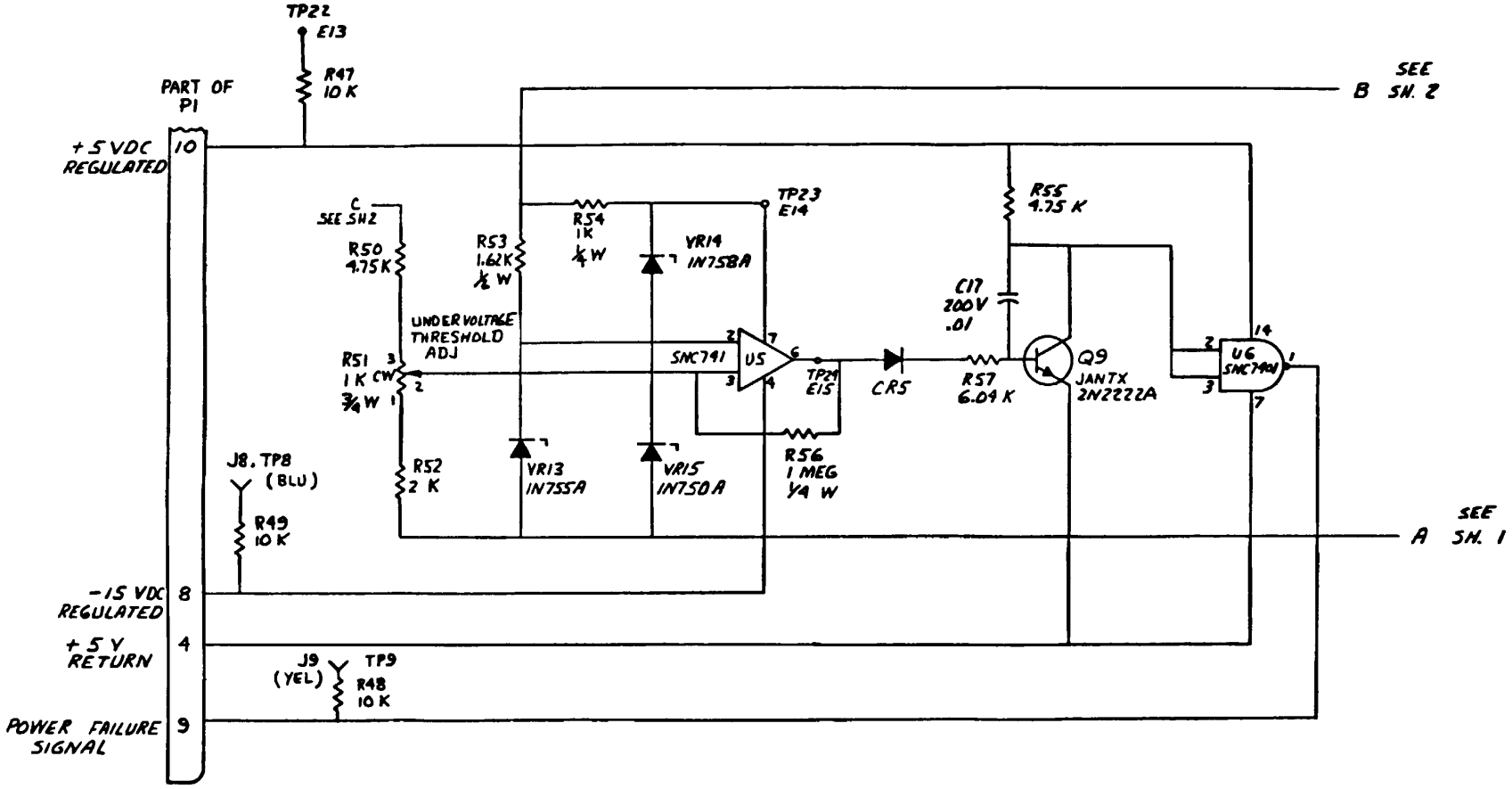


Figure 6-23. 28 Vdc Regulator A14A31 Schematic Diagram
(Sheet 3 of 3)

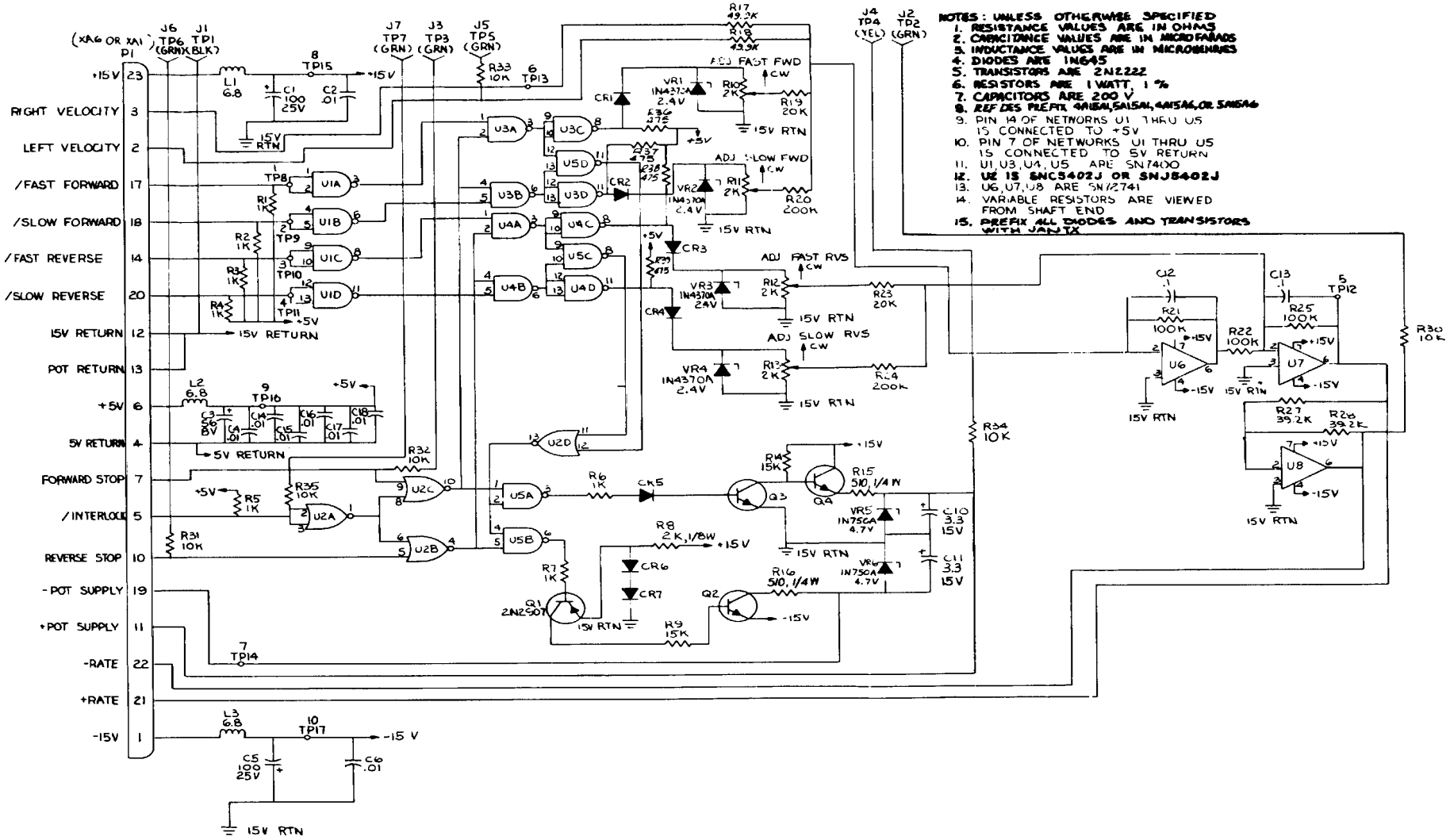


Figure 6-24. Front or Rear Rate Command A15A1 and A15A6 Schematic Diagram

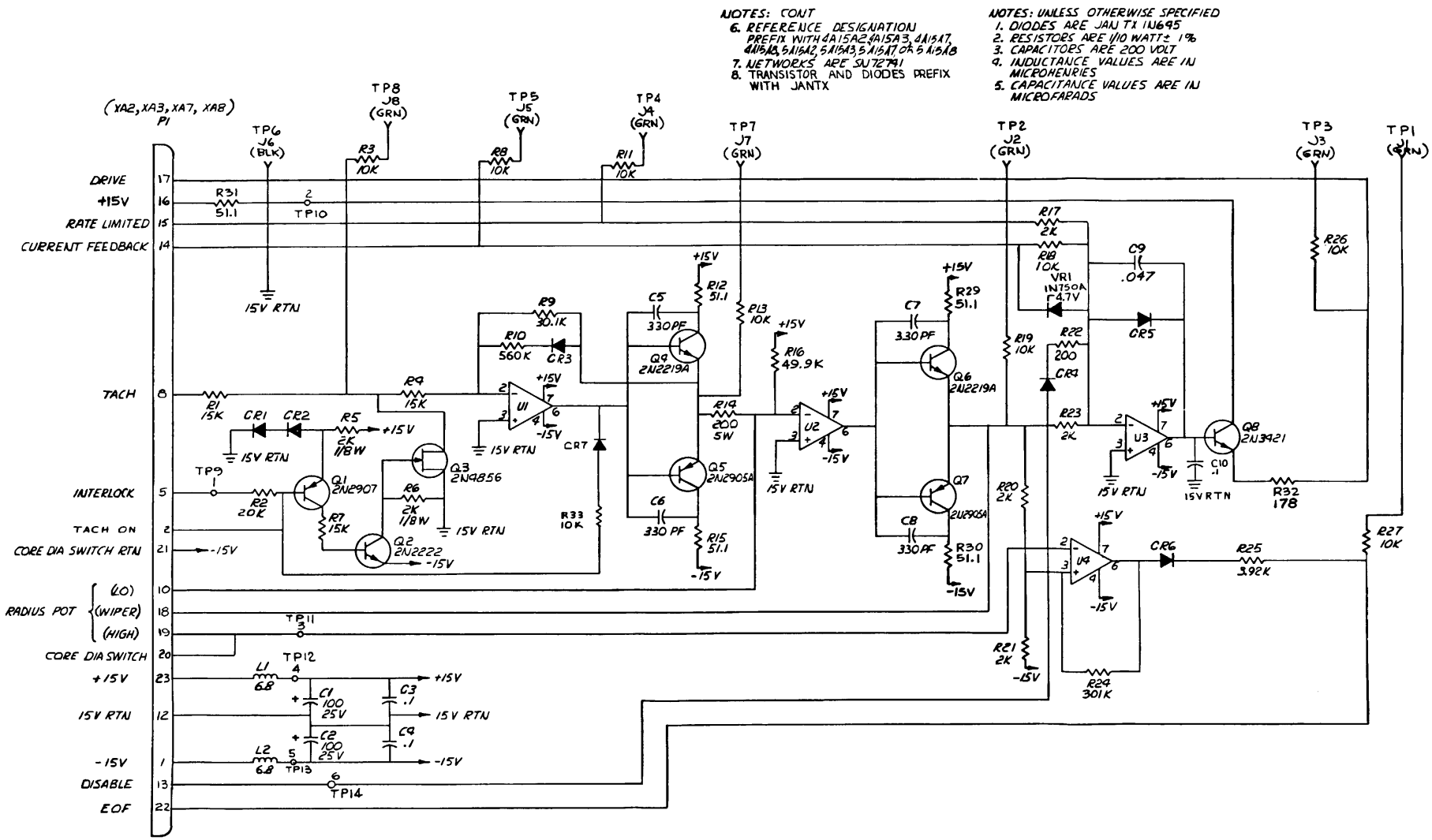


Figure 6-25. Front or Rear Preamplifier A5A2, A15A3, A15A7, and 15A8 Schematic Diagram

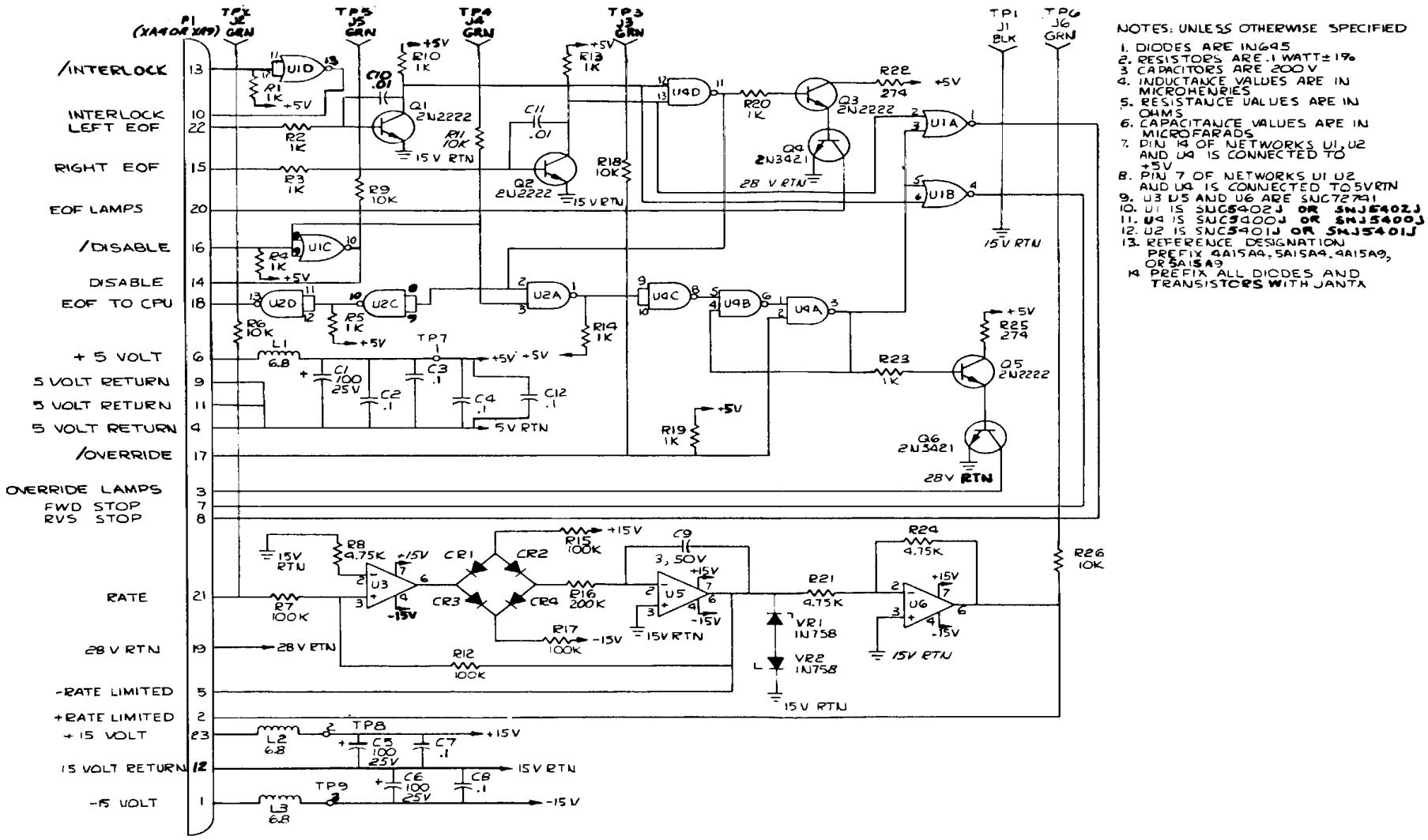


Figure 6-26. Control Logic A15A4 and A15A9 Schematic Diagram

NOTES: UNLESS OTHERWISE SPECIFIED
1. RESISTANCE VALUES ARE IN OHMS
2. DIODES ARE 1N645
3. RESISTORS ARE 0.1 WATT ±1%
4. TRANSISTORS ARE JANTX2N3421
5. REFERENCE DESIGNATOR PREFIX 4A15A5 & 5A15A5
6. NETWORKS ARE SNJ52741
7. PREFIX ALL DIODE WITH JANTX

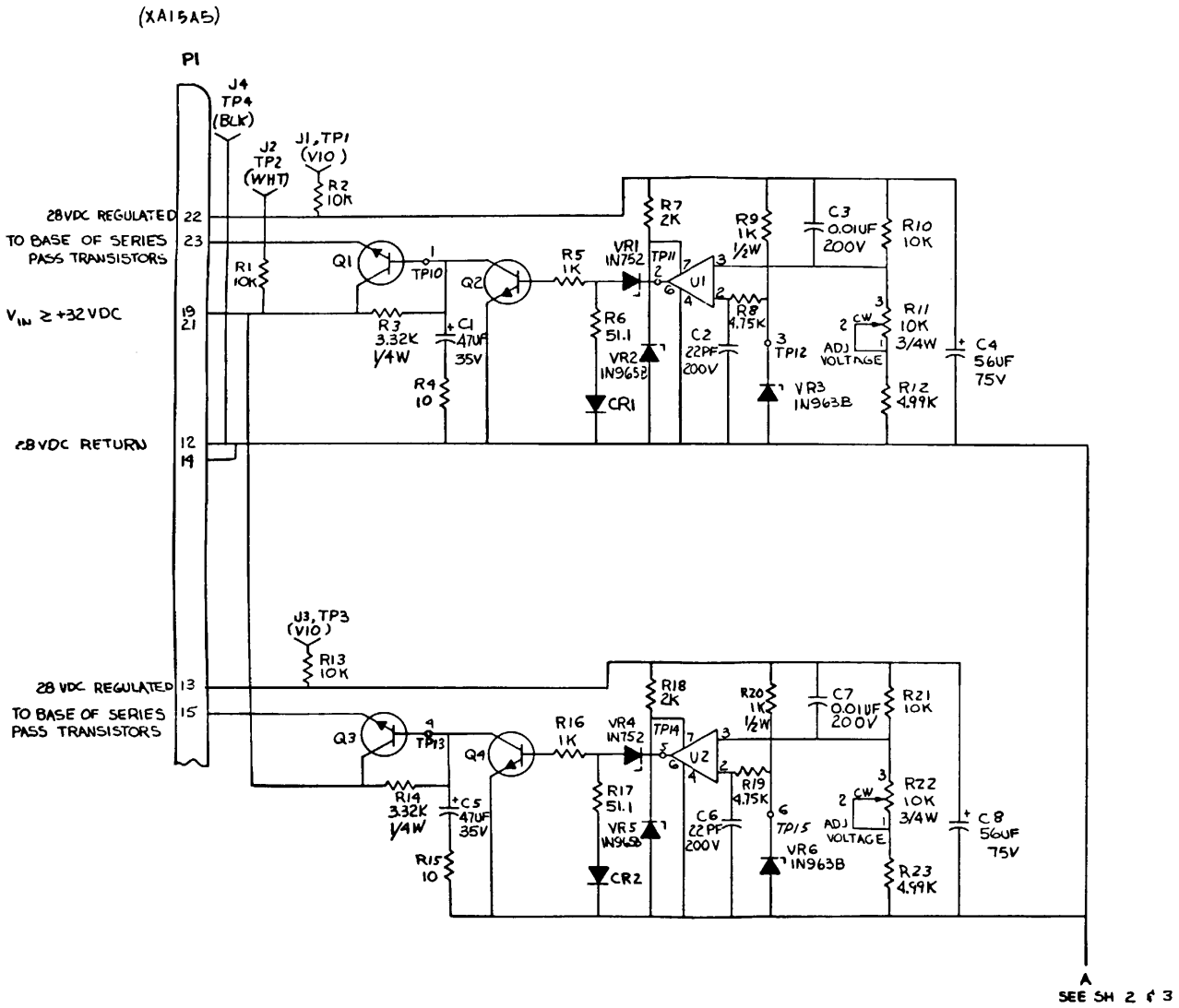


Figure 6-27. 28 Vdc Regulator A15A5 Schematic Diagram (Sheet 1 of 3)

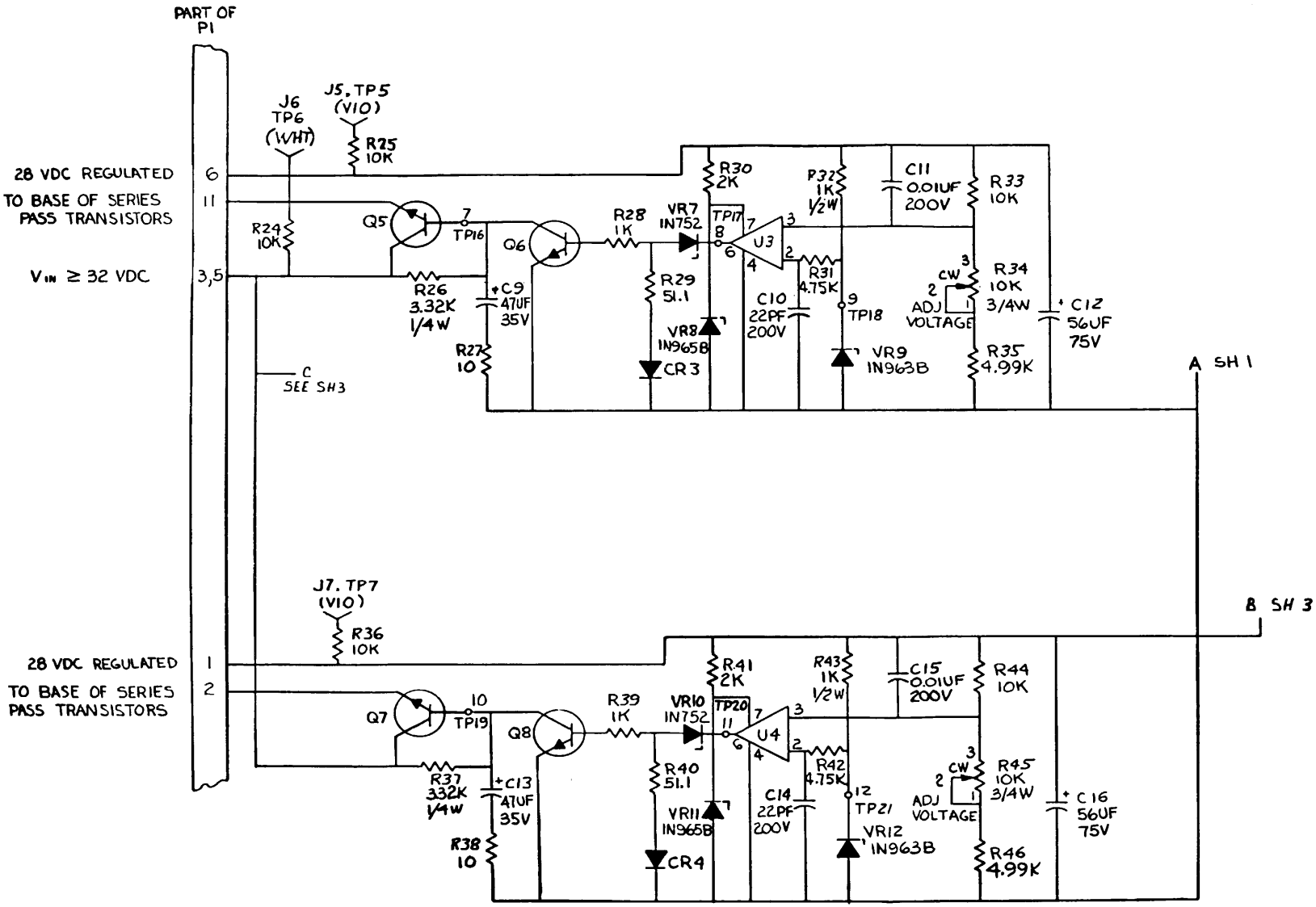


Figure 6-27. 28 Vdc Regulator A15A5 Schematic Diagram (Sheet 2 of 3)

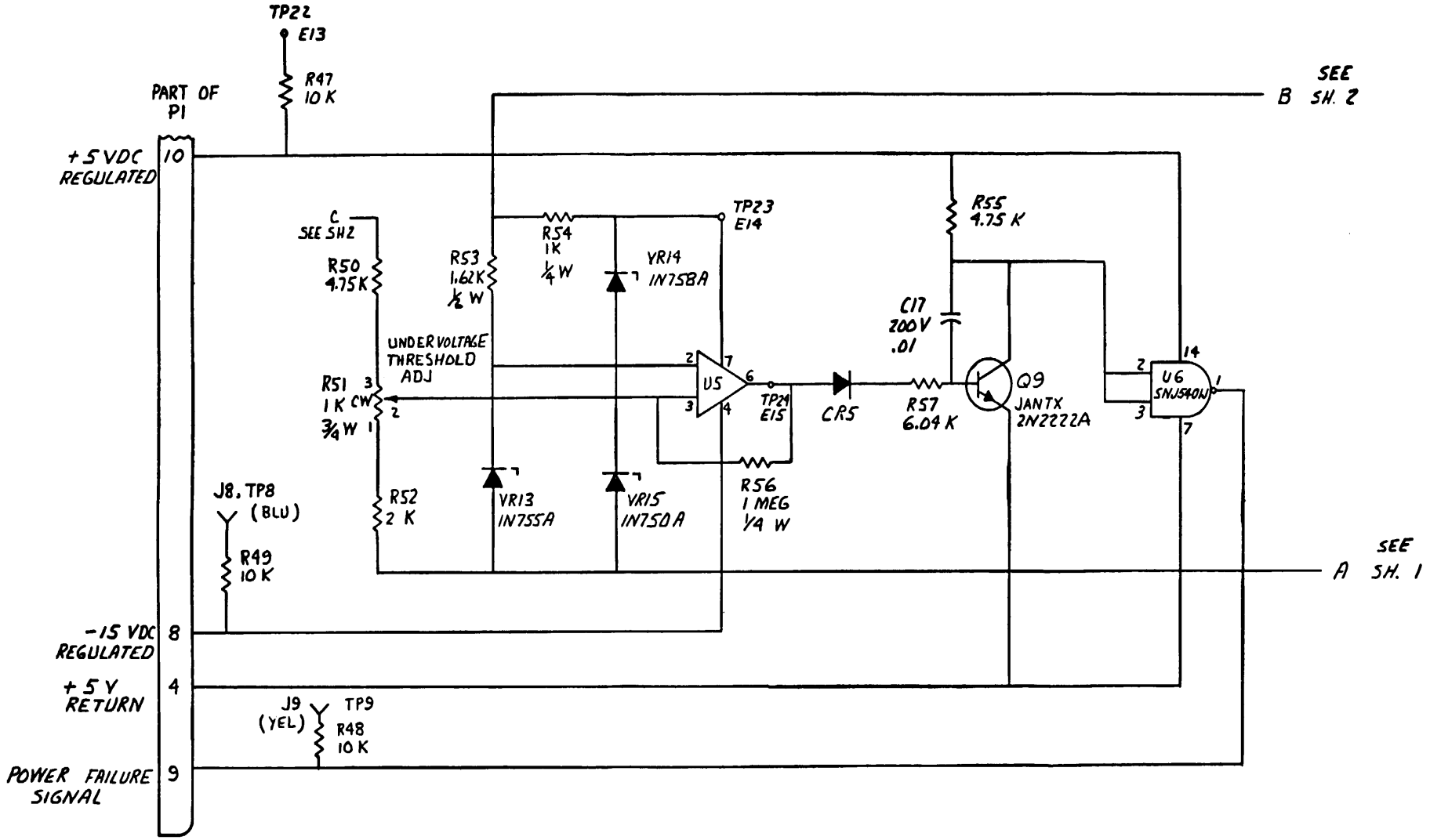


Figure 6-27. 28 Vdc Regulator A15A5 Schematic Diagram (Sheet 3 of 3)

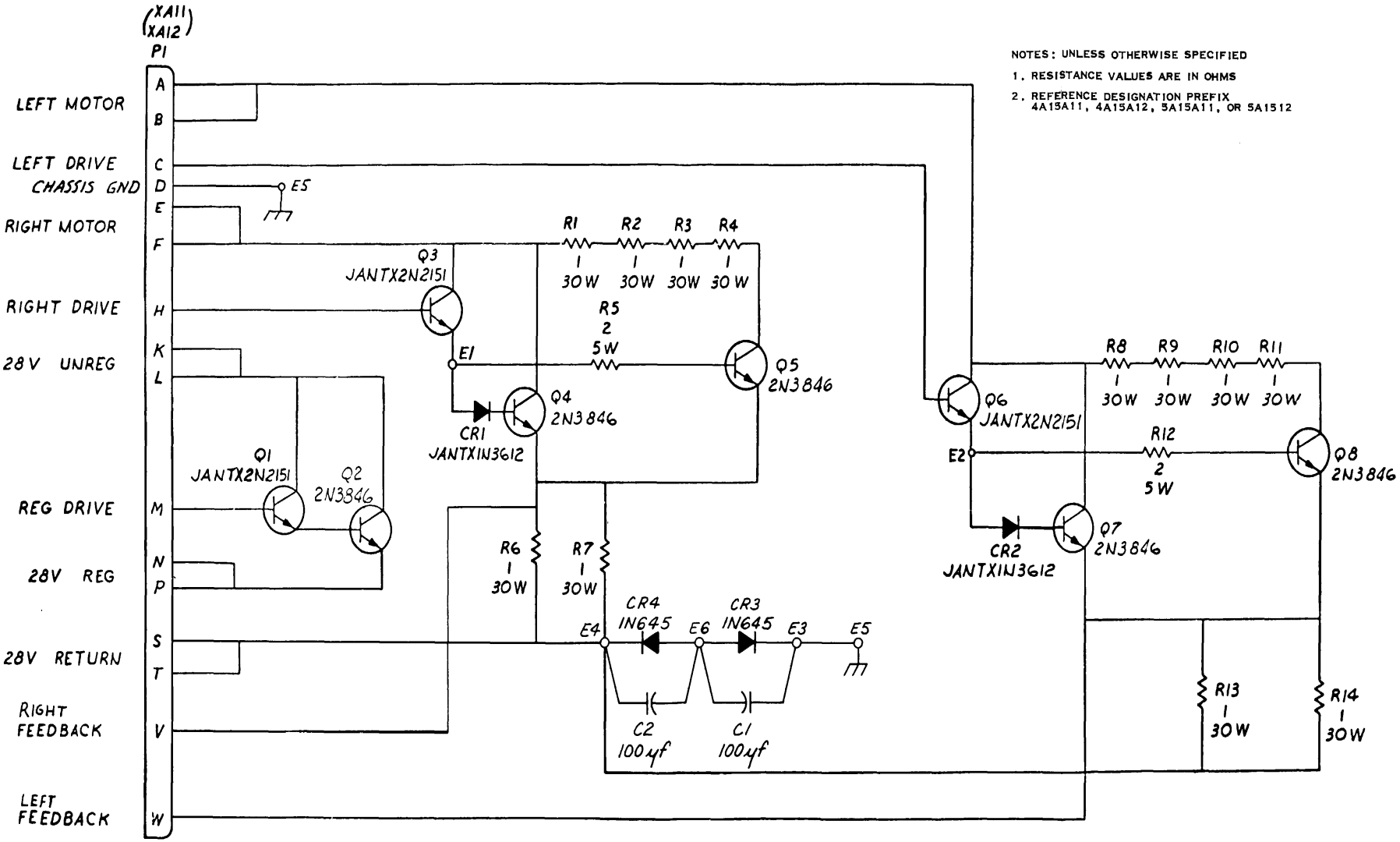


Figure 6-28. Front or Rear Power Amplifier A15A11 and A15A12 Schematic Diagram

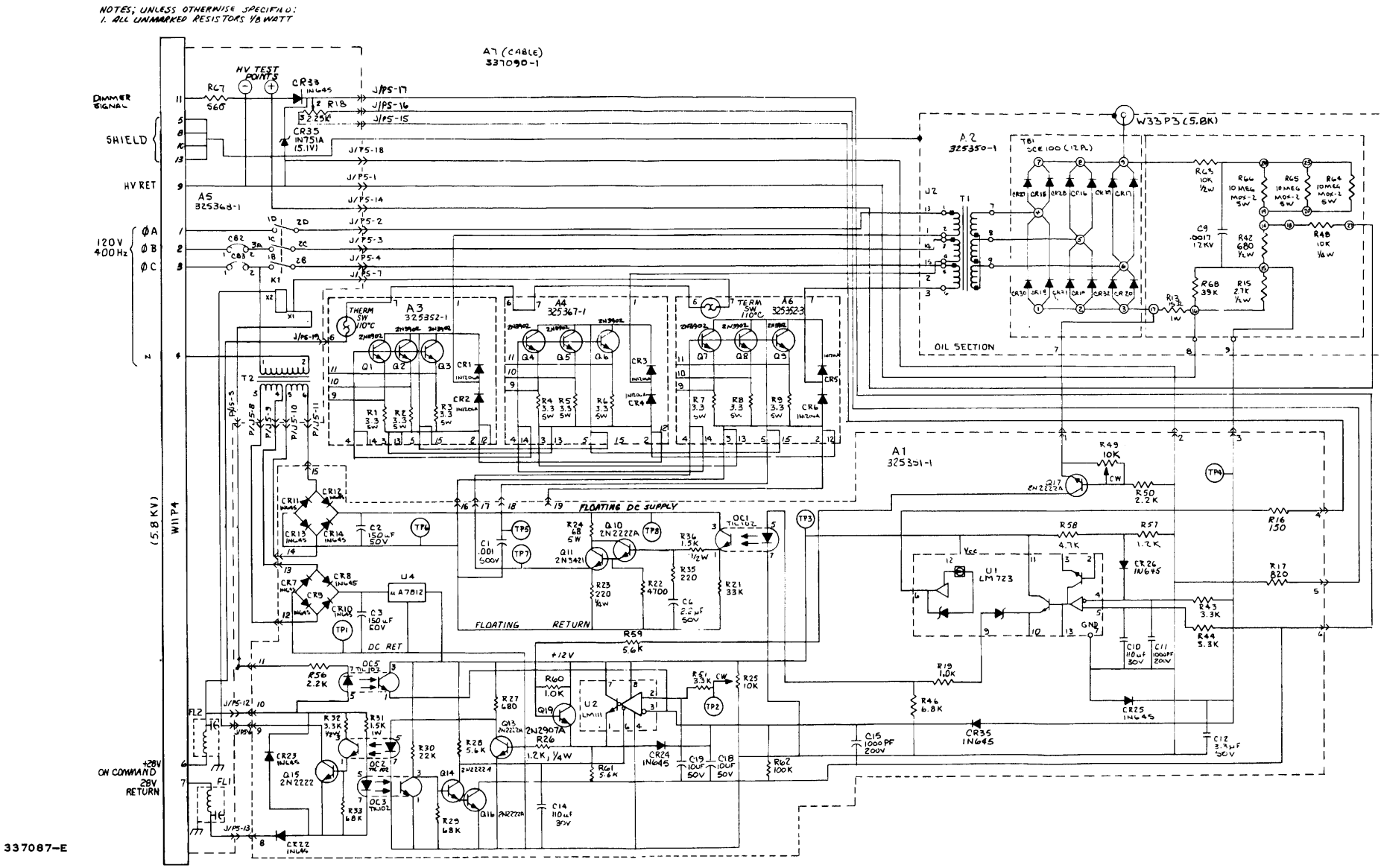


Figure 6-29. Direct View Power Supply A17A1 Schematic Diagram

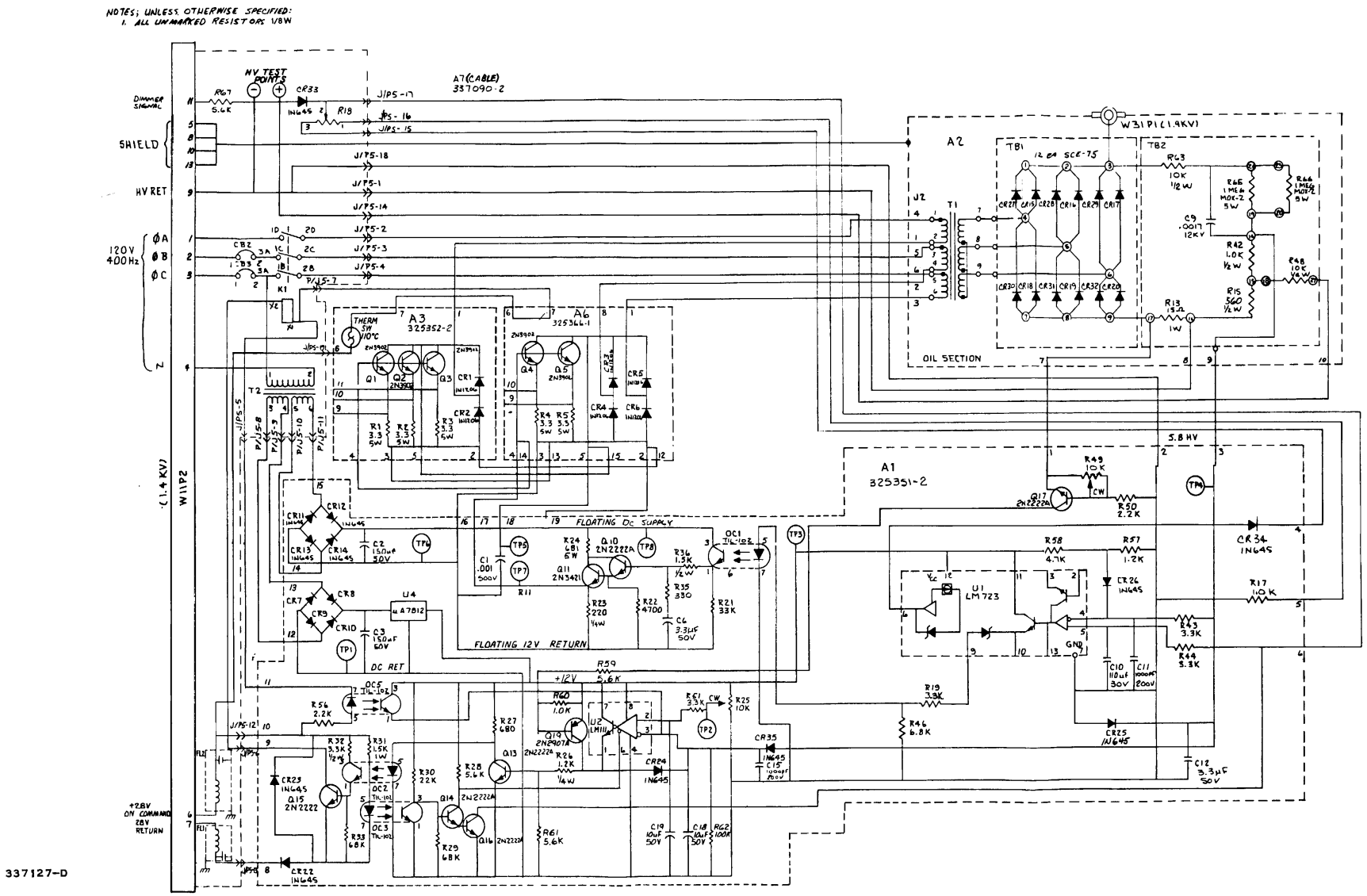


Figure 6-30. Stereo-View Power Supply A17A Schematic Diagram

NOTES:

1. ALL REFERENCE DESIGNATORS ARE PREFIXED WITH 4A25 OR 5A25
2. K1 AND K2 SHOWN DEENERGIZED

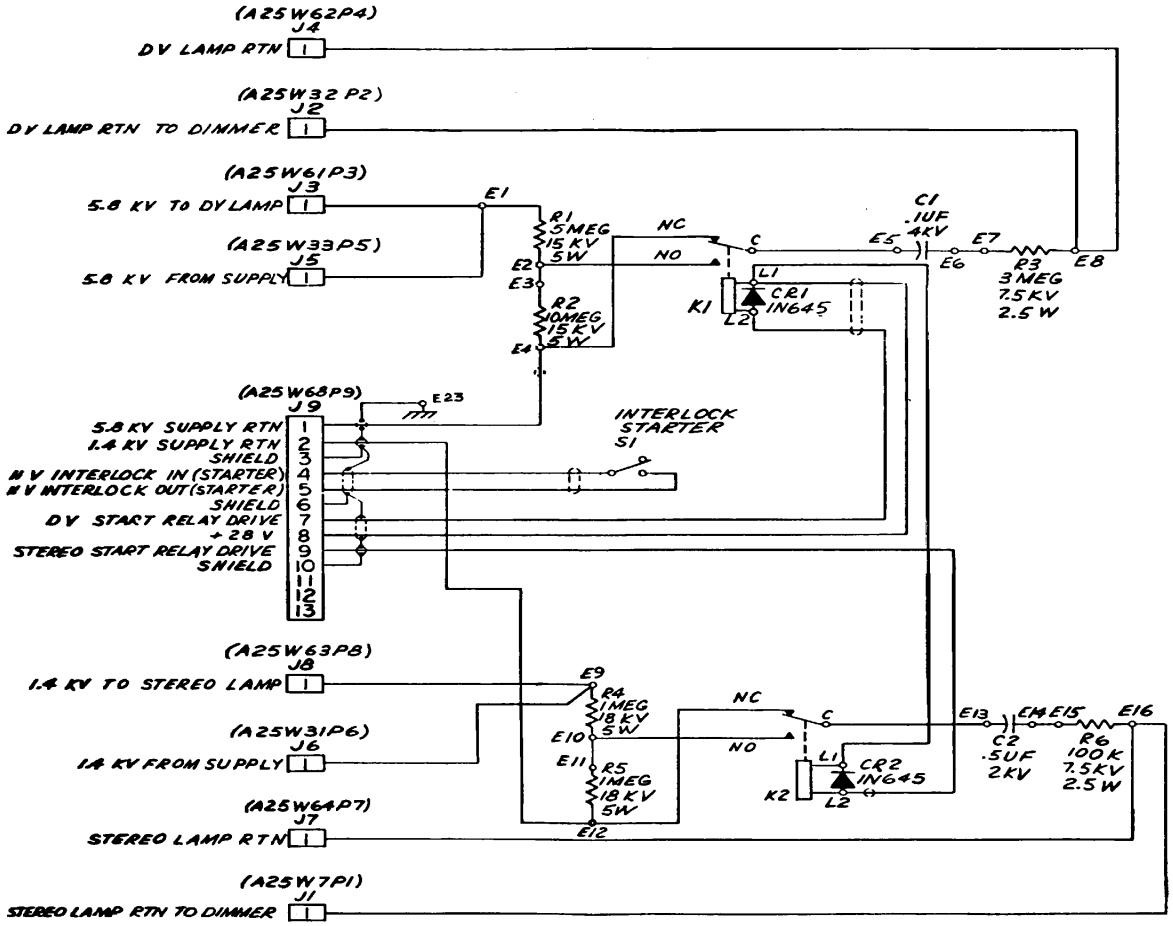


Figure 6-31. Starter A25 Schematic Diagram

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