TECHNICAL MANUAL

OPERATOR'S ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST (INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS)

> VOLUME. V SCHEMATICS

THERMAL SYSTEM TEST SET

(4931-01-119-7092)

DISTRIBUTION STATEMENT: Approved for public release; distribution is unlimited.

HEADQUARTERS, DEPARTMENT OF THE ARMY

DECEMBER 1986



WARNING

HIGH VOLTAGE

is used in the operation of this equipment.

DEATH ON CONTACT

may result if personnel fail to observe safety precautions.

Never work on electronic equipment unless there is another person nearby. He should be familiar with the operation and hazards of the equipment. He should also be competent in giving first aid. When the technician is helped by operators, he must warn them about dangerous areas.

The power supply to the equipment must be shut off before beginning work on the equipment. Take special care to ground every capacitor likely to hold a dangerous potential.

Be careful not to contact high-voltage connections when installing or operating this equipment.

When possible, keep one hand away from the equipment to reduce the hazard of current flowing through vital organs of the body.

WARNING

Do not be misled by the term "low voltage." Potentials as low as 50 volts may cause death.

For artifical respiration, refer to FM 2I-II.



WARNING

RADIATION HAZARD

The anti-reflective coating on all infrared optics contains thorium fluoride which is slightly radioactive. The only potential hazard involves ingestion (swallowing or inhaling) of this coating material. Dispose of broken lens, etc., in accordance with AR 385-II.

DON'T TAKE CHANCES!

HEADQUARTERS DEPARTMENT OF THE ARMY WASHINGTON, D.C. 31 December 1986

TECHNICAL MANUAL OPERATOR'S, ORGANIZATIONAL, DIRECT SUPPORT, AND GENERAL SUPPORT MAINTENANCE MANUAL INCLUDING REPAIR PARTS AND SPECIAL TOOLS LIST INCLUDING DEPOT MAINTENANCE REPAIR PARTS AND SPECIAL TOOLS THERMAL SYSTEM TEST SET (4931-01-119-7092)

RPSTL current as of technical manual date

Software PN 12303273 Revision C, current as of technical manual date.

Reporting Errors and Recommending Improvements

You can help improve this manual. If you find any mistakes or if you know a way to improve the procedures, please let us know. Mai I your letter DA Form 2028 (Recommended Changes to Publication and Blank Forms), or DA Form 2028-2 located in back of this manual direct to: Commander, US Army Armament, Munitions and Chemical Command, ATTN: AMSMC-MAS, Rock Island, IL 61299-6000. A reply will be furnished to you.

DISTRIBUTION STATEMENT: Approved for public release; distribution is unlimited.

NOTE

This manual is divided into three bindings. The first binding consists of volumes I, II, and III and front matter for all three bindings. The second binding consists of volume IV and an index for volumes I through IV. Test set schematic and functional diagrams are contained in the third binding.

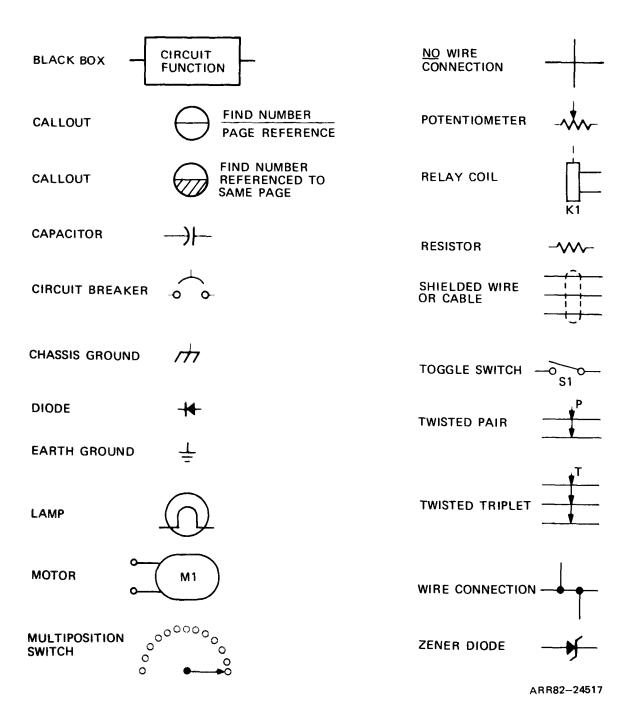
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APPENDIX A

SCHEMATIC DIAGRAM ELECTRICAL SYMBOLS

A-1. Genera!. The following symbols are used in schematic diagrams throughout this manual. Use this appendix to detirmine what each symbol represents.



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By Order of the Secretary of the Army:

JOHN A. WICKHAM, JR. General, United States Army Chief of Staff

Official:

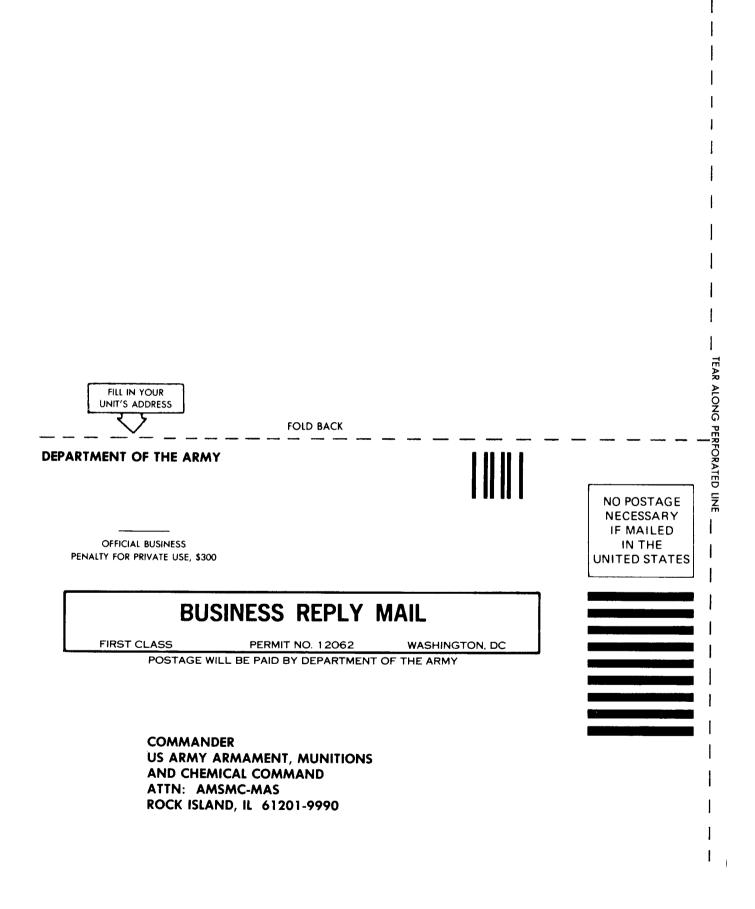
R. L. DILWORTH Brigadier General, United States Army The Adjutant General

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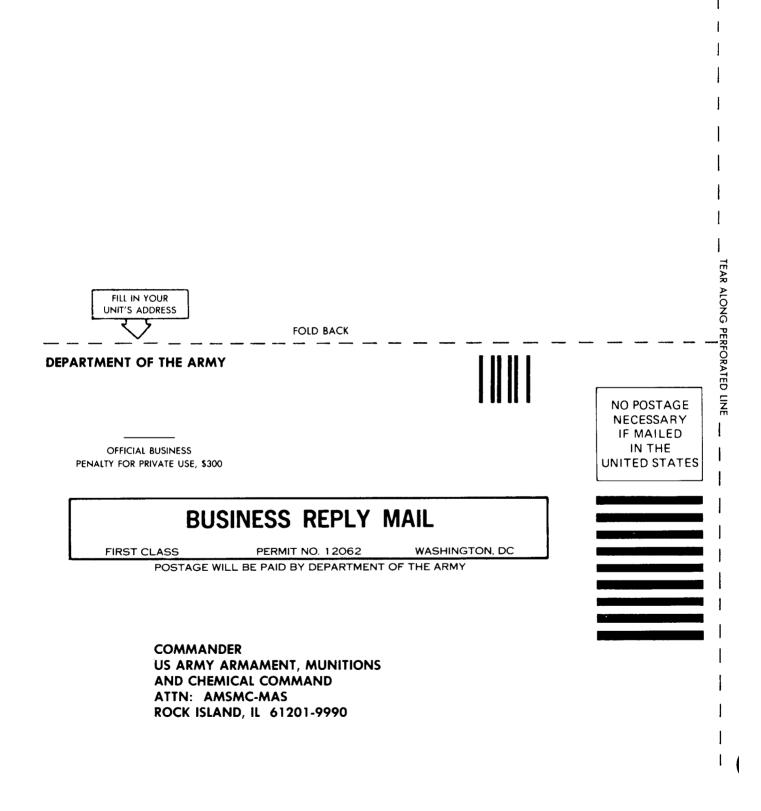
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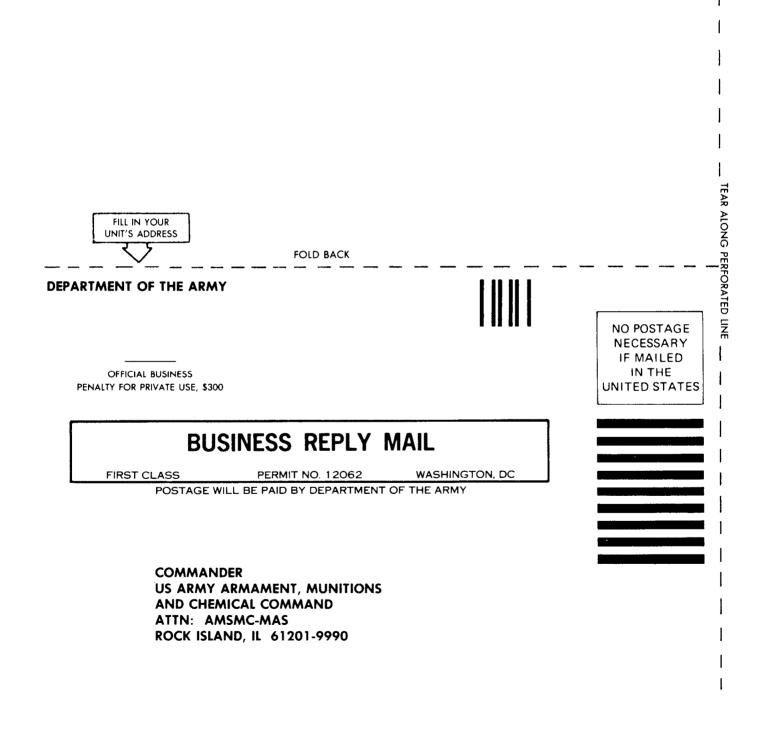
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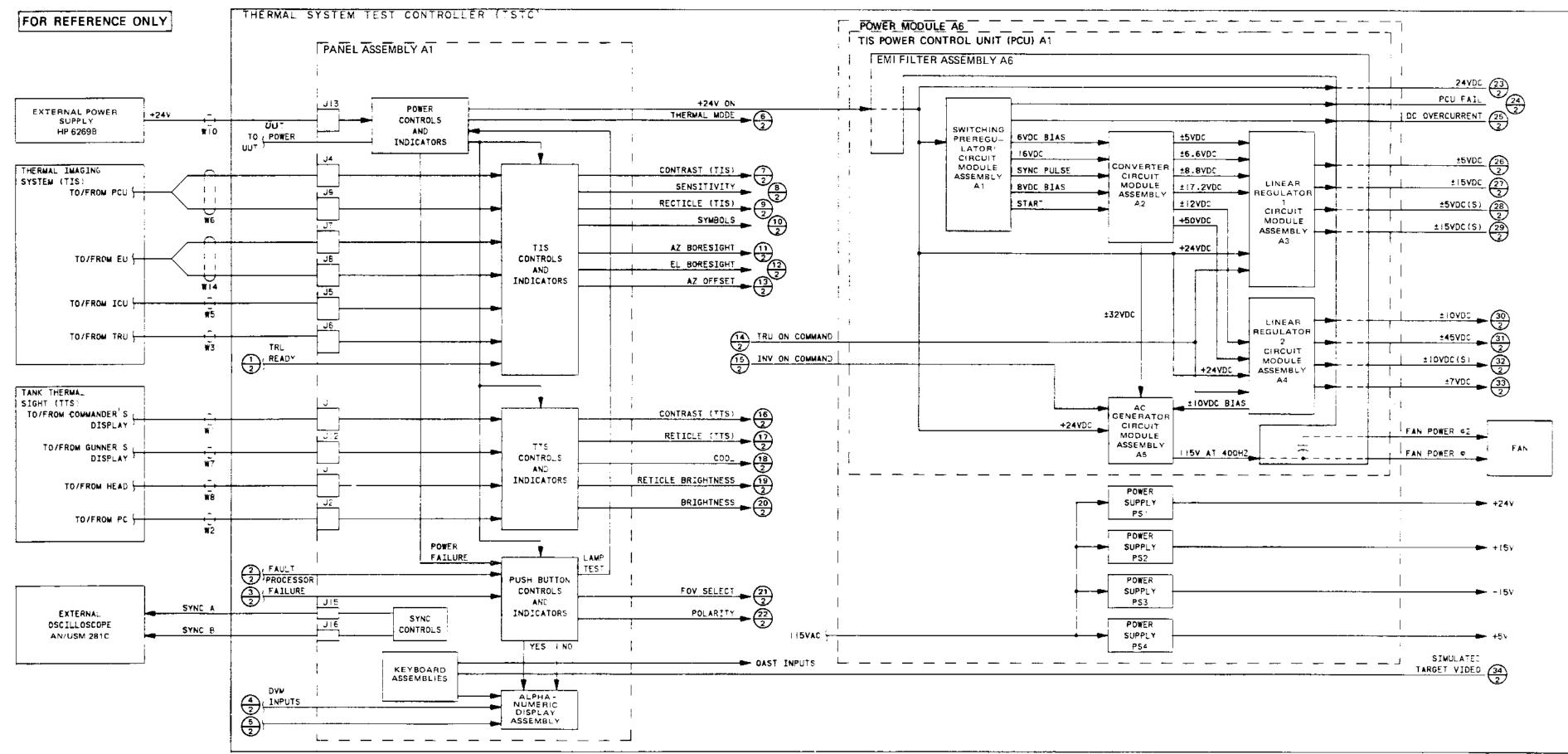


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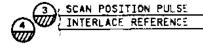


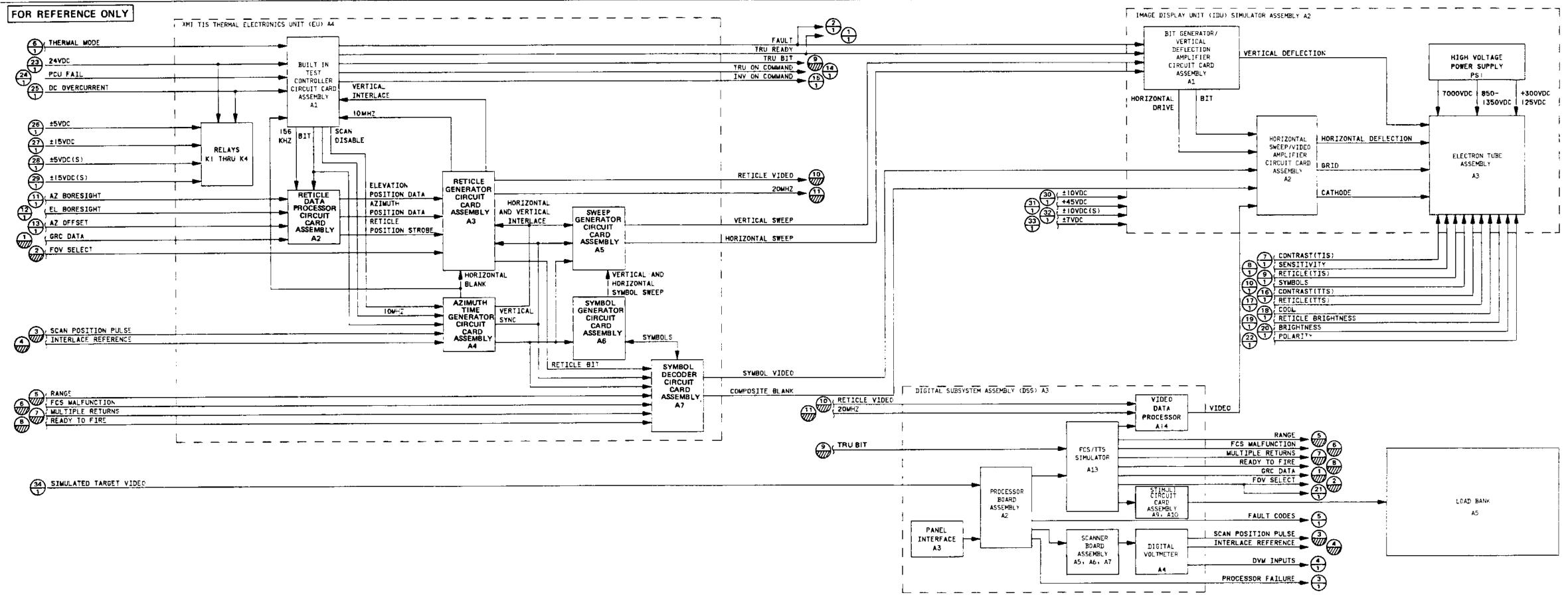
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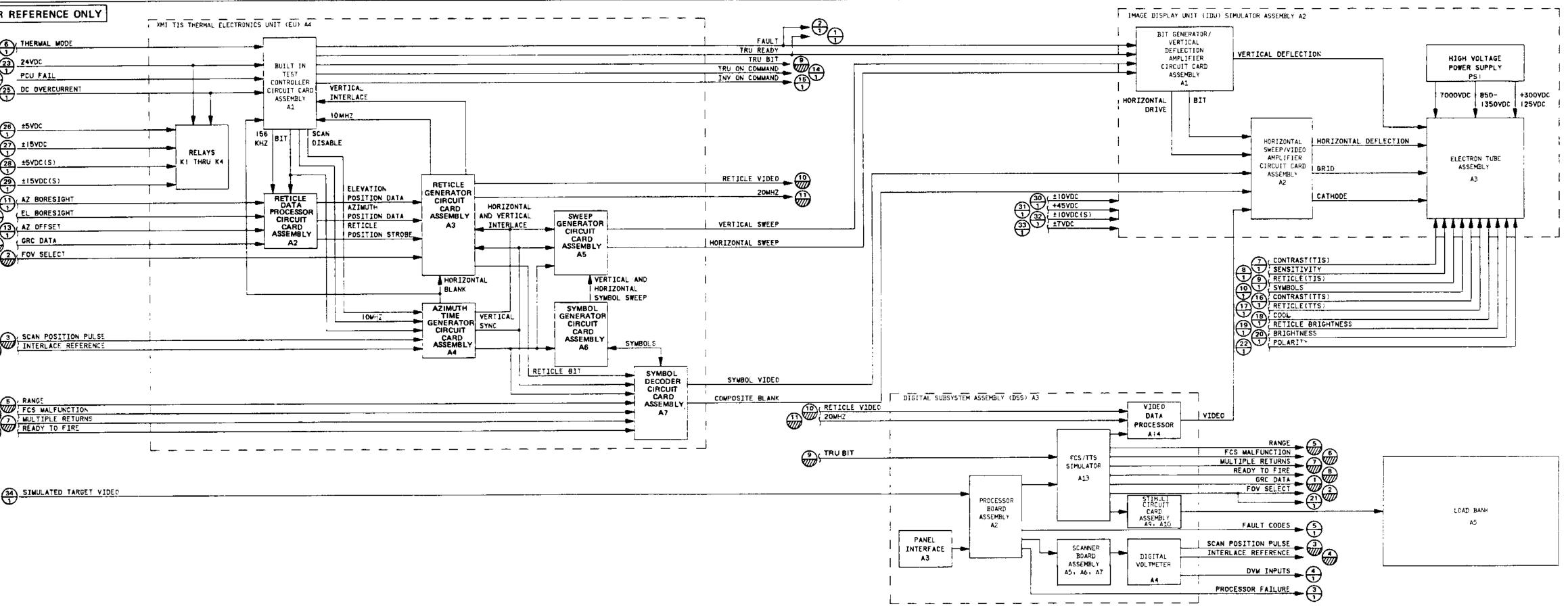
FO-1. Thermal System Test Set (TSTS) Functional Block Diagram (Sheet 1 of 2)

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23 24VDC
24 PCU FAIL
25 DC OVERCURRENT
\oplus
26 ±5VDC
1 (27) ±15VDC
<u> </u>
28 ±5VDC(S)
29 ±15VDC(S)
AZ BORESIGHT
EL BORESIGHT
AZ OFFSET
GRC DATA
POV SELECT
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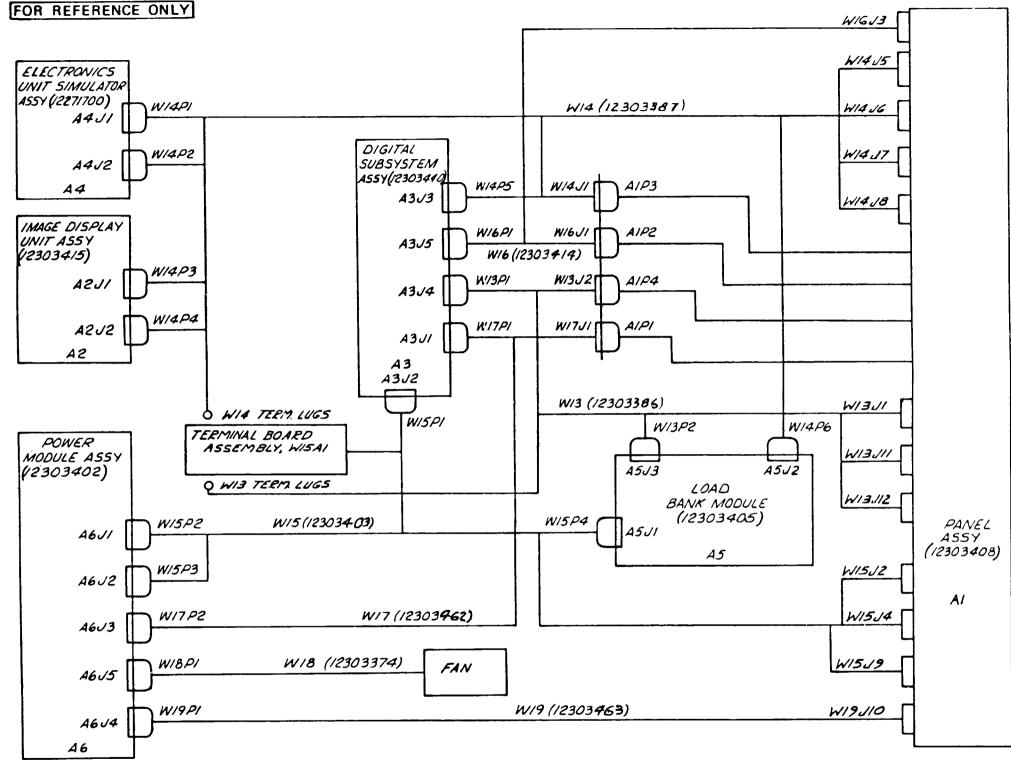






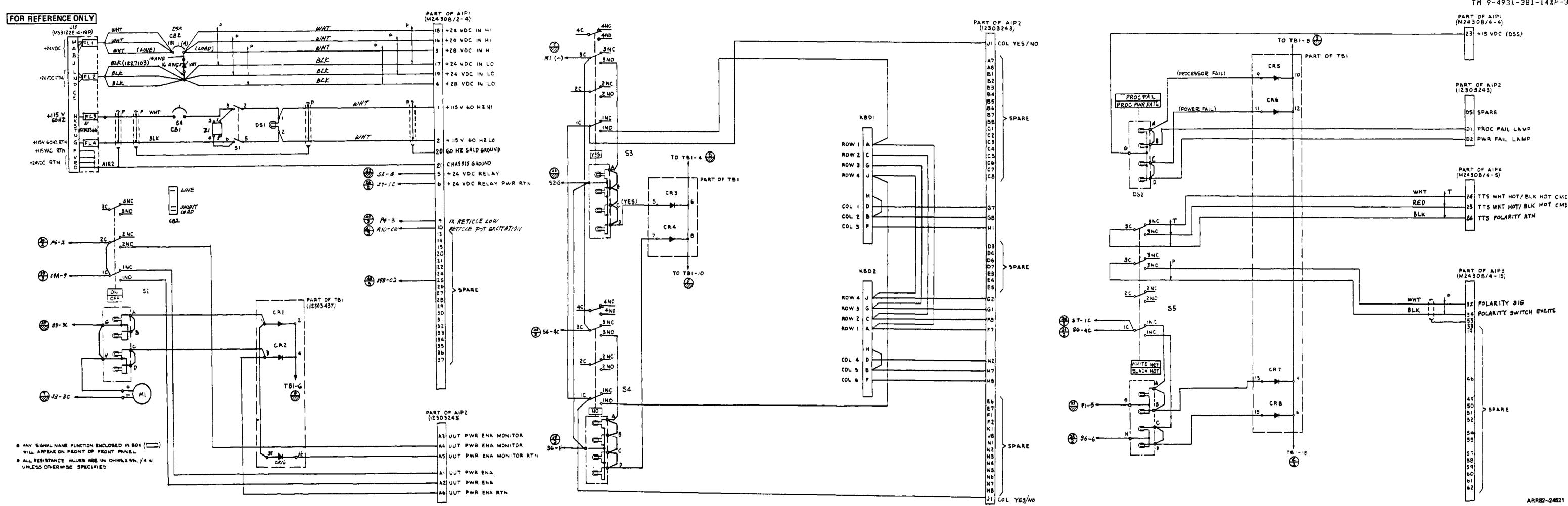
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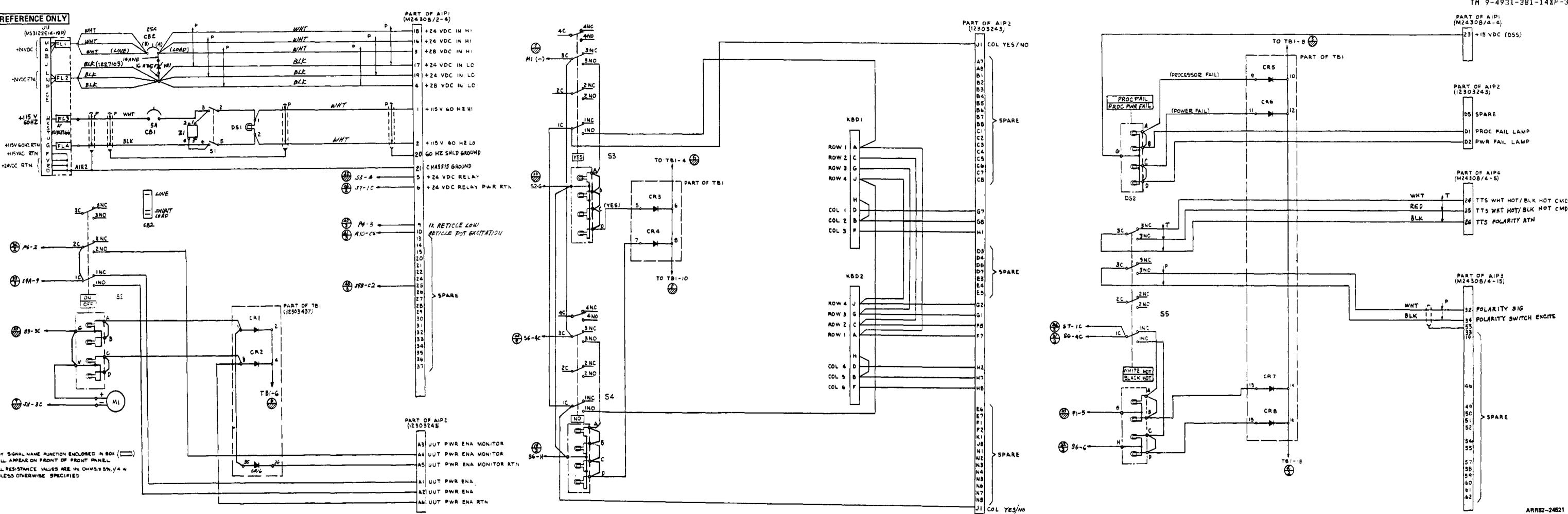
FO-1. Thermal System Test Set (TSTS) Functional Block Diagram (Sheet 2 of 2)



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FO-2. Internal Harness Interconnection Diagram

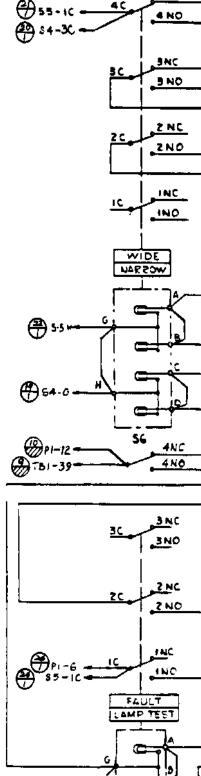


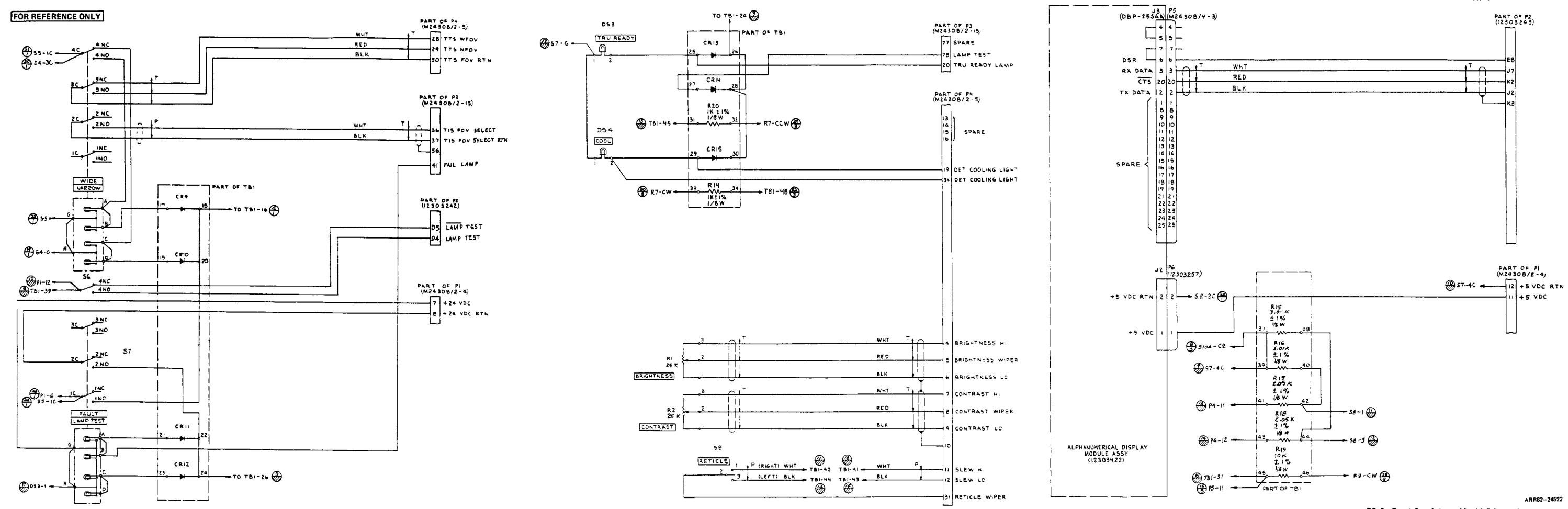


FO-3. Front Panel Assembly A1 Schematic Diagram (Sheet 1 of 3)

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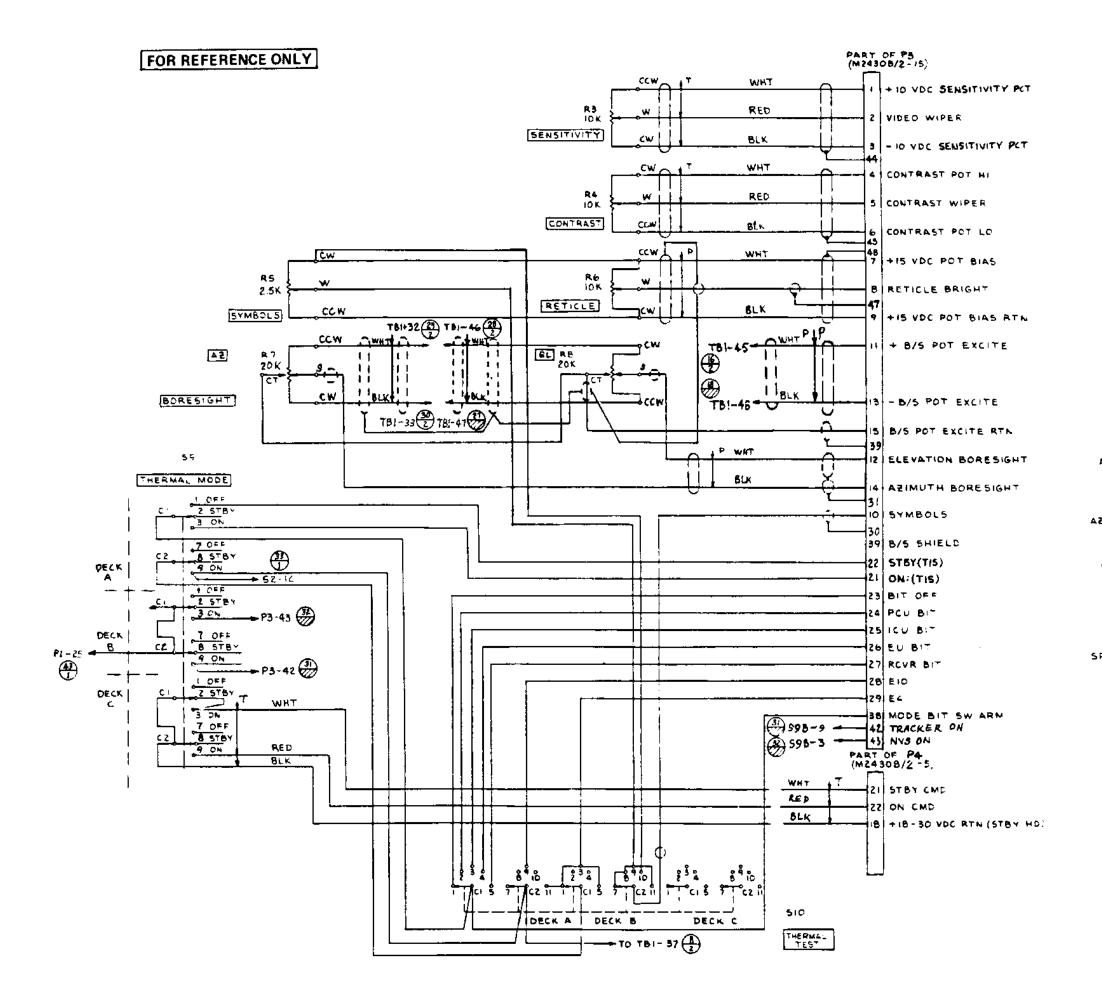
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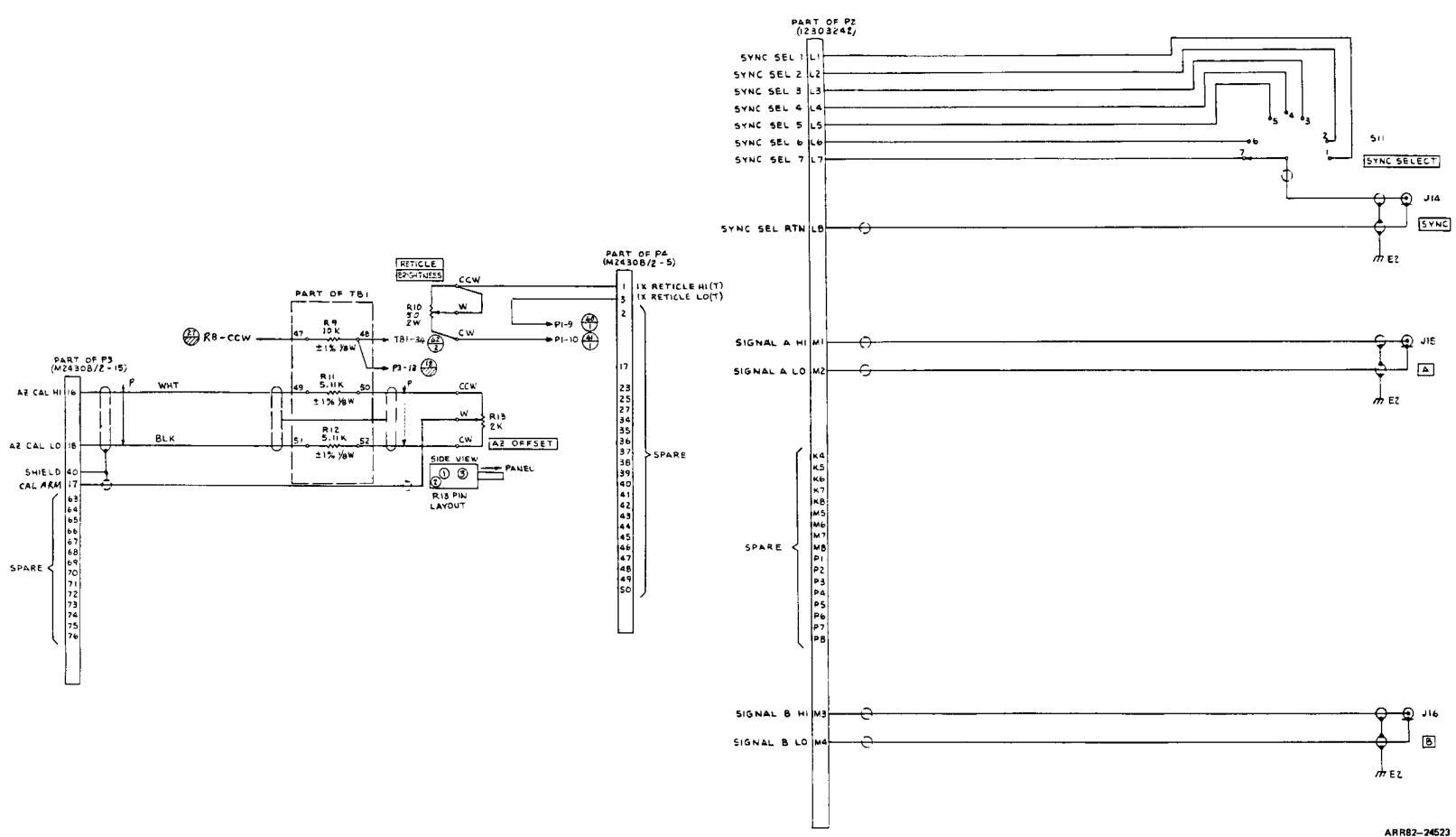




FO-3. Front Panel Assembly A1 Schematic Diagram (Sheet 2 of 3)

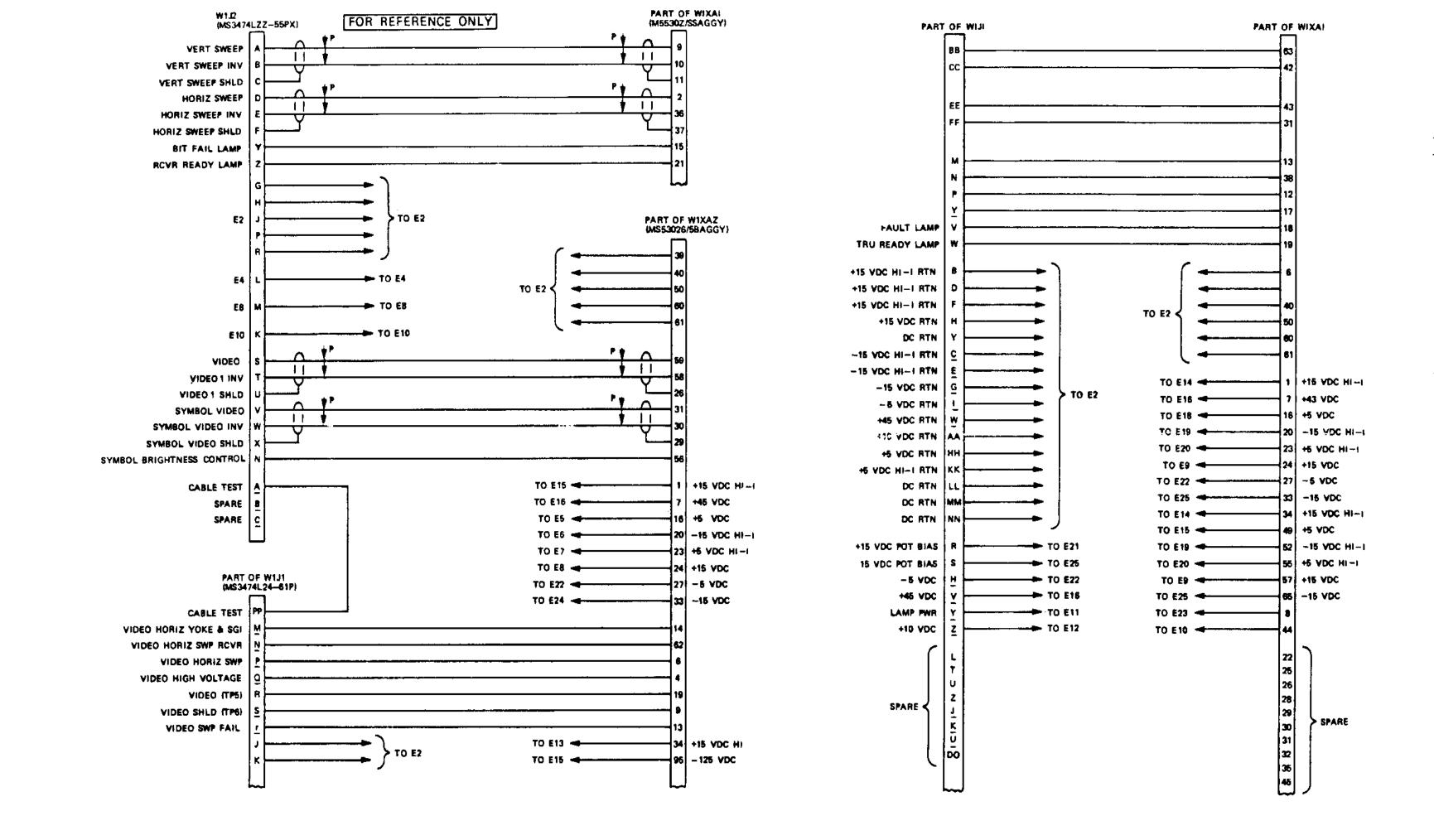
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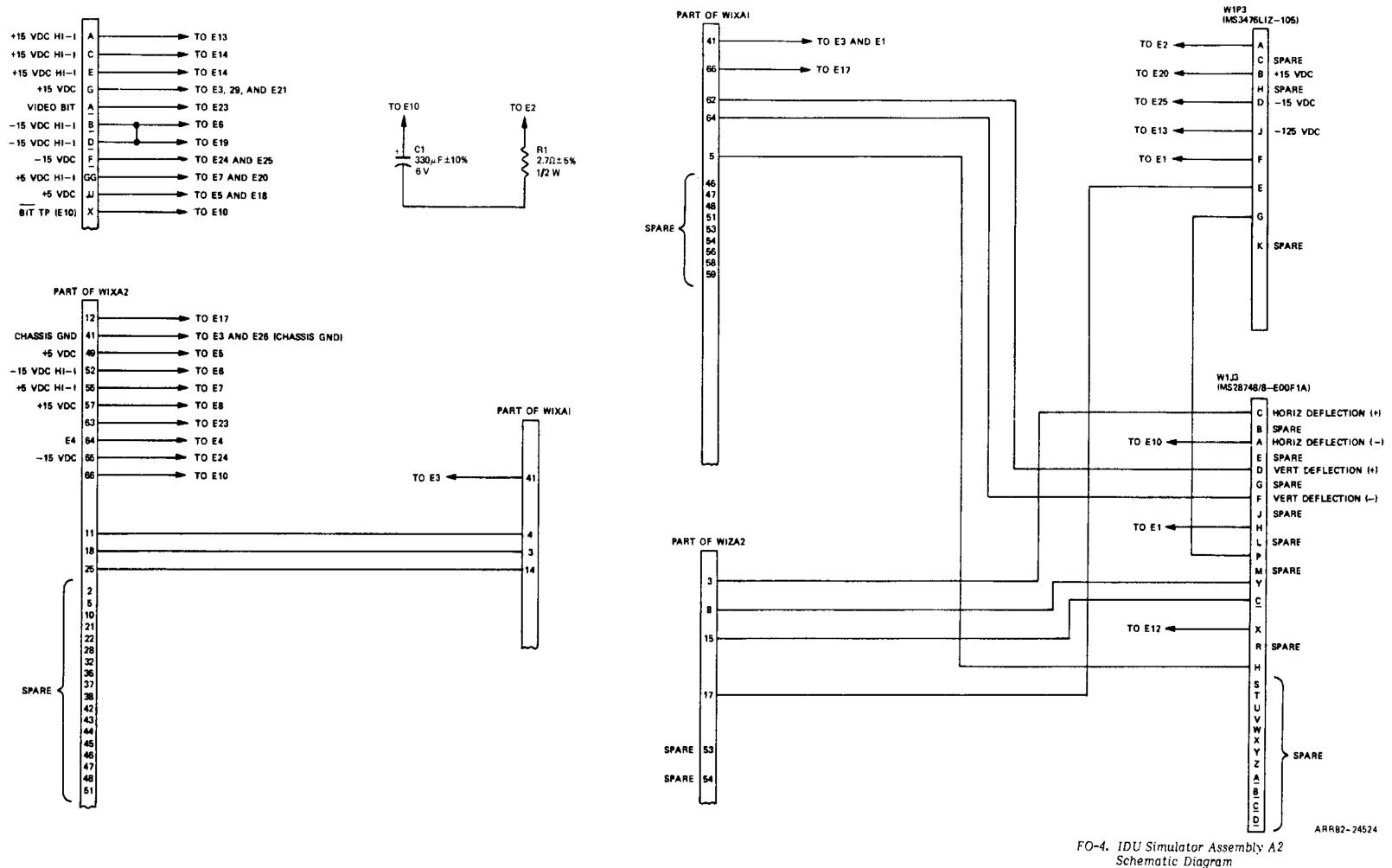




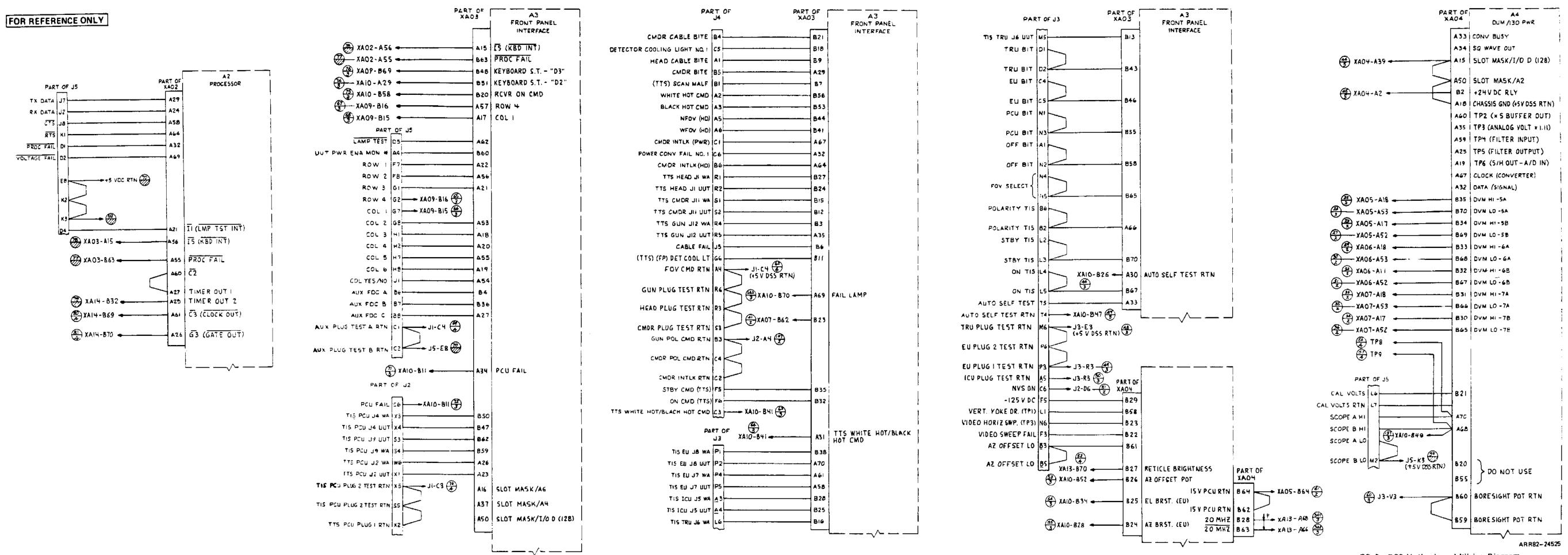
FO-3. Front Panel Assembly A1 Schematic Diagram (Sheet 3 of 3)

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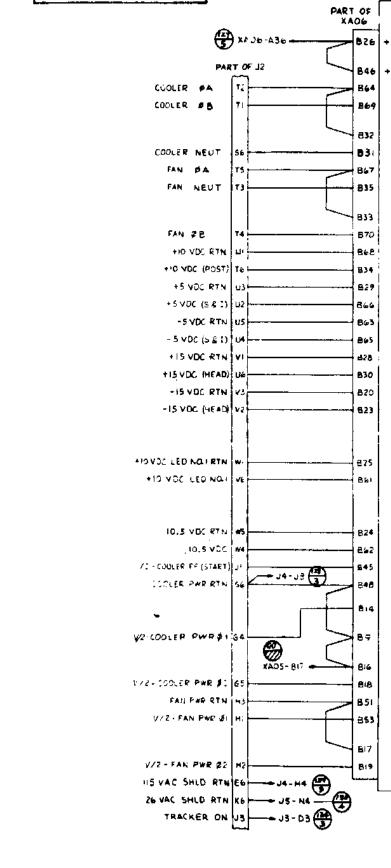


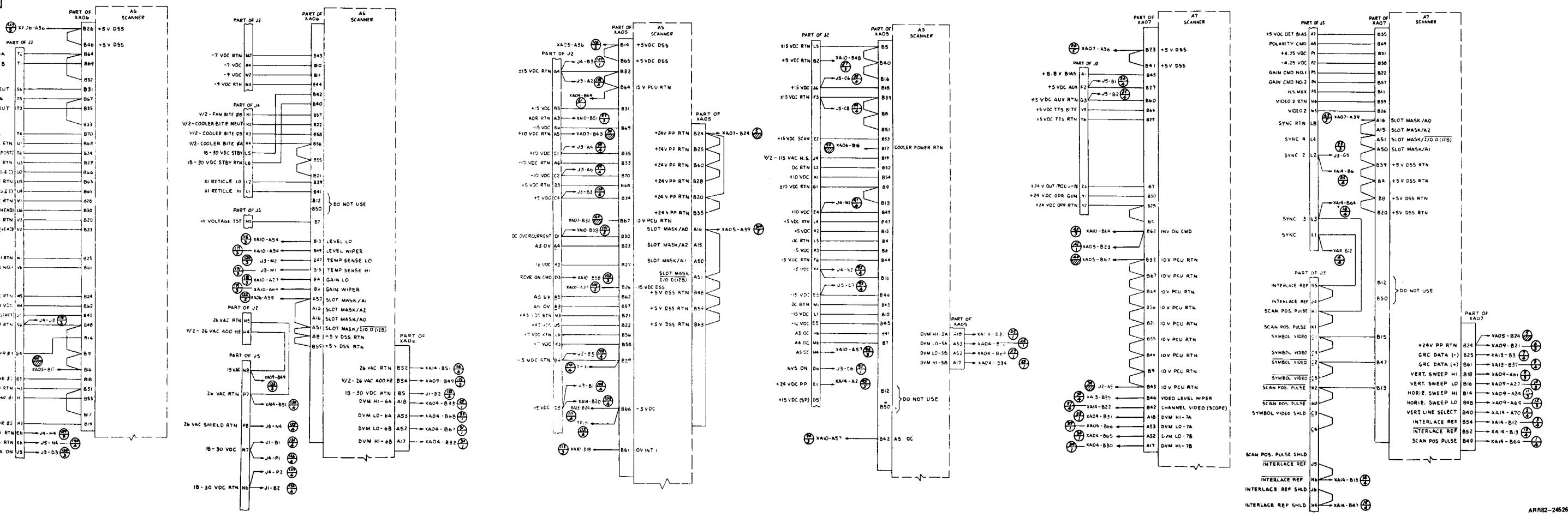
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FO-5. DSS Motherboard Wiring Diagram (Sheet 1 of 5)

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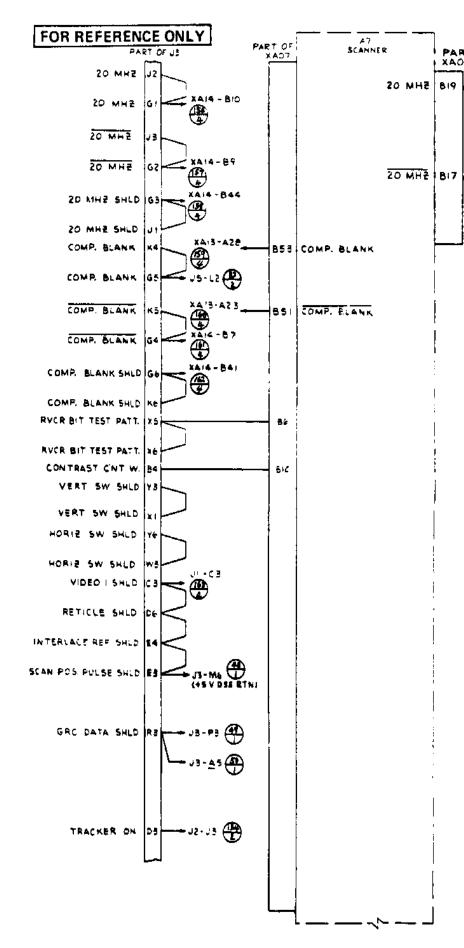
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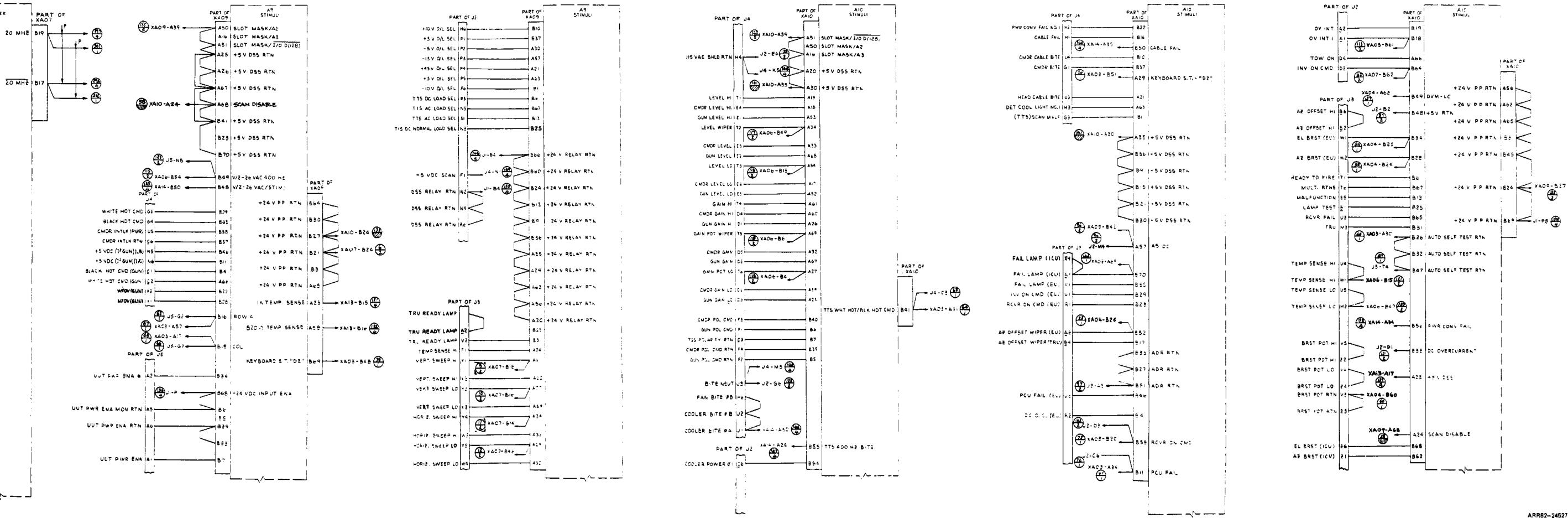




FO-5. DSS Motherboard Wiring Diagram (Sheet 2 of 5)

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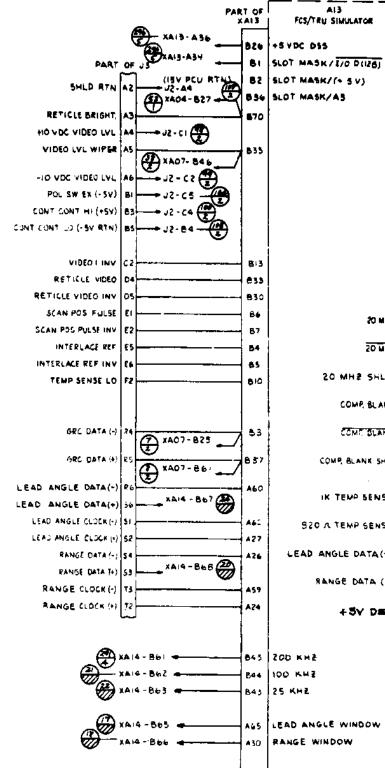


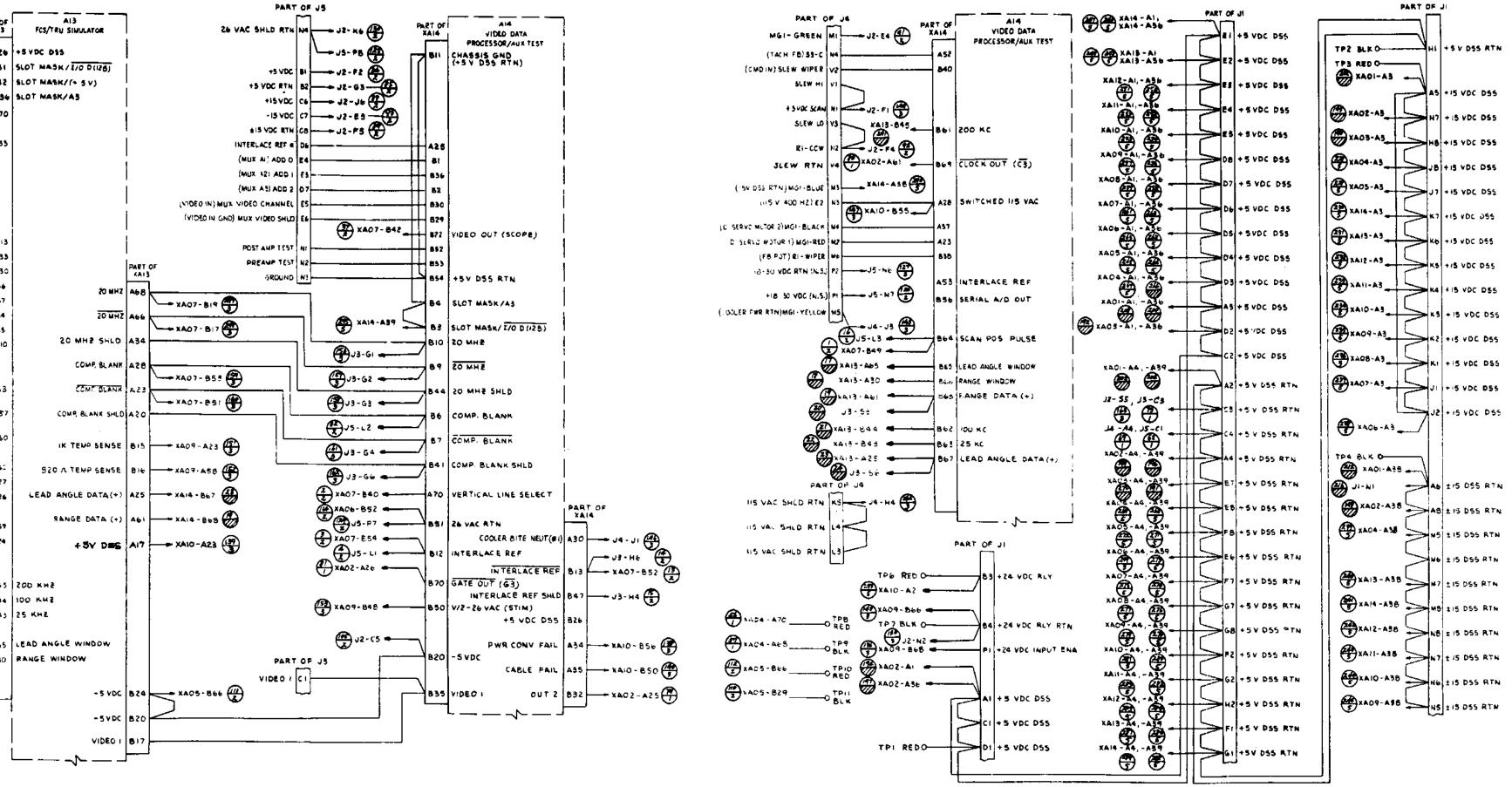
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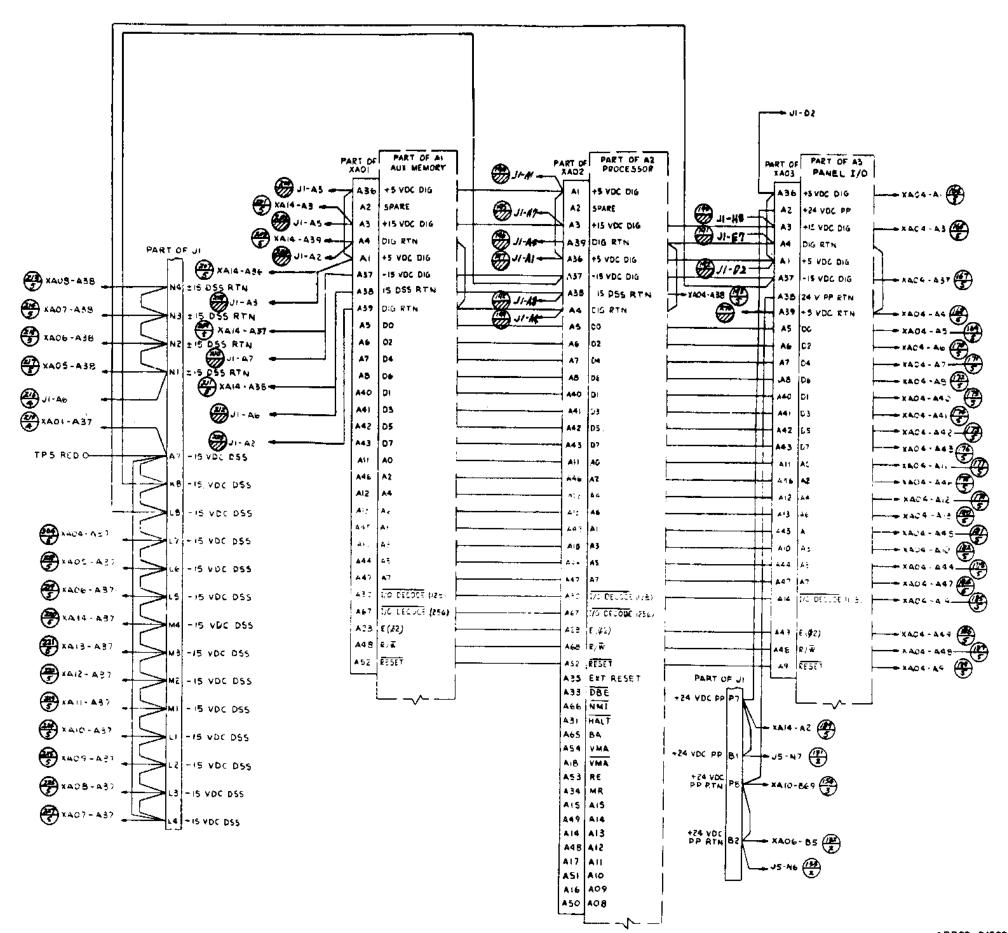
FO-5. DSS Motherboard Wiring Diagram (Sheet 3 of 5)

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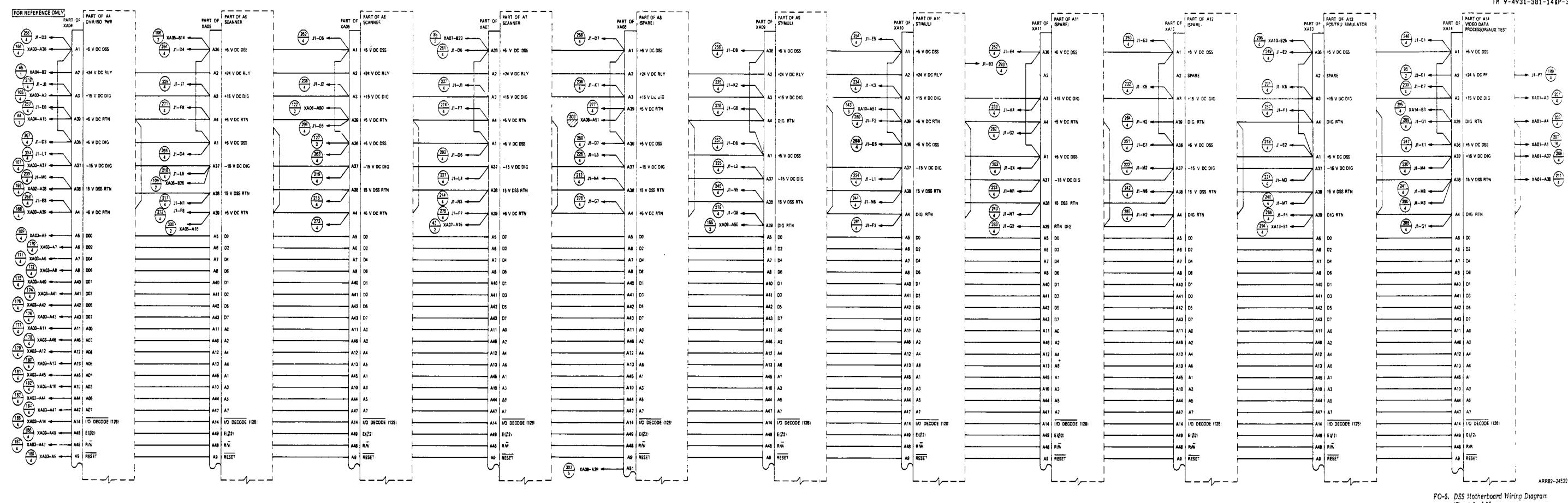




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FO-5. DSS Motherboard Wiring Diagram (Sheet 4 of 5)

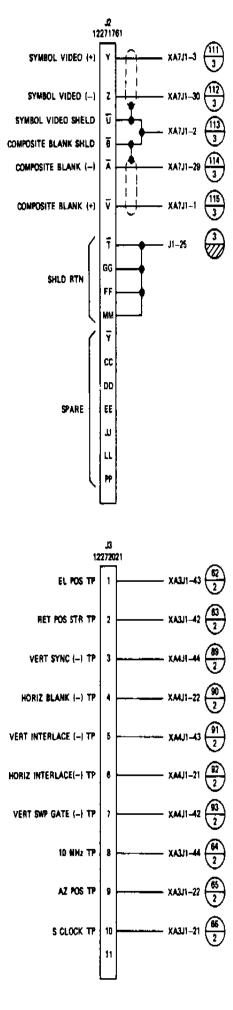
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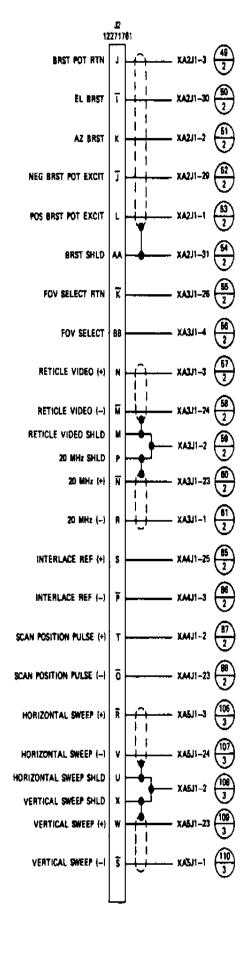


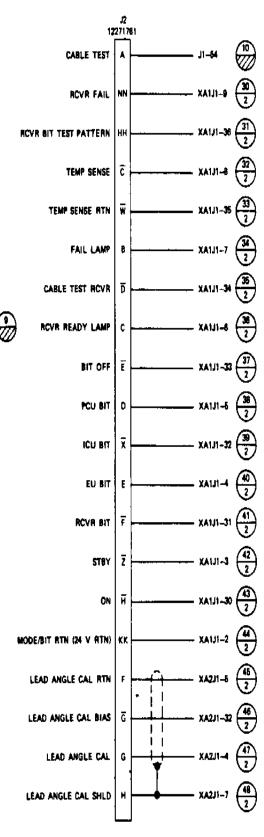
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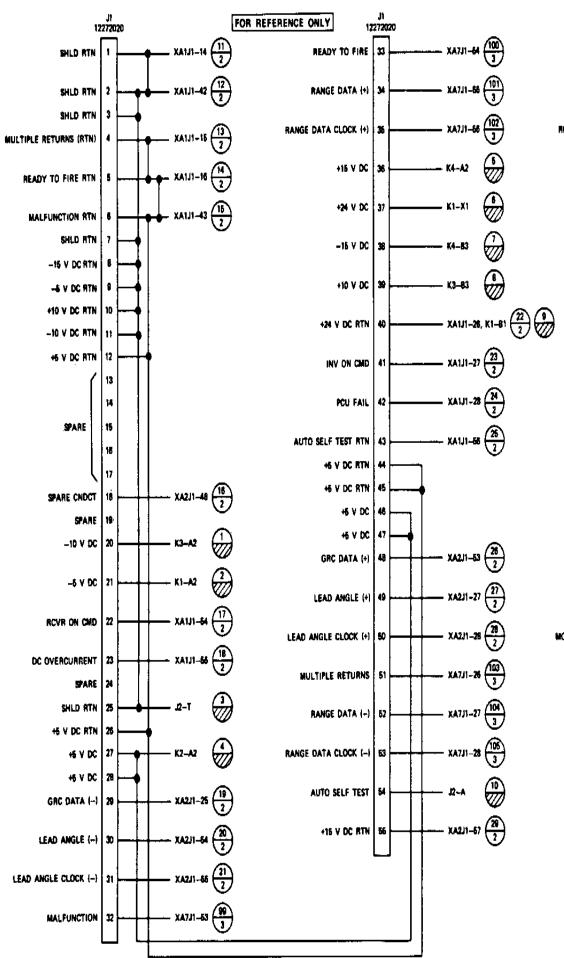
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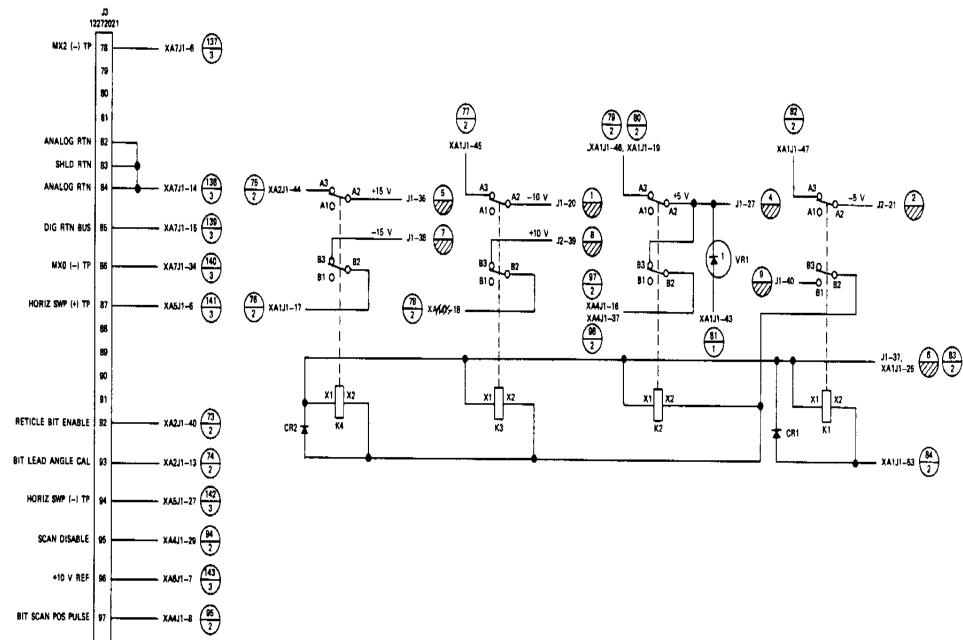
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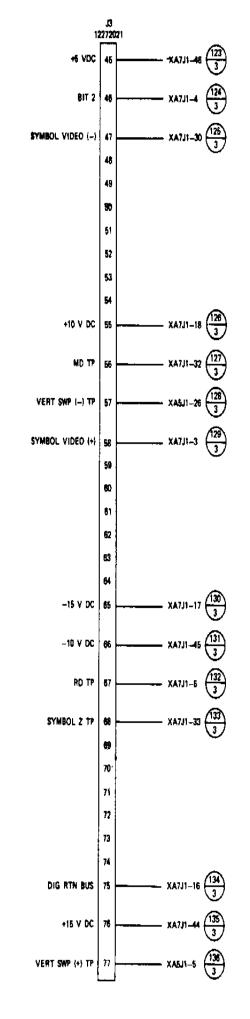








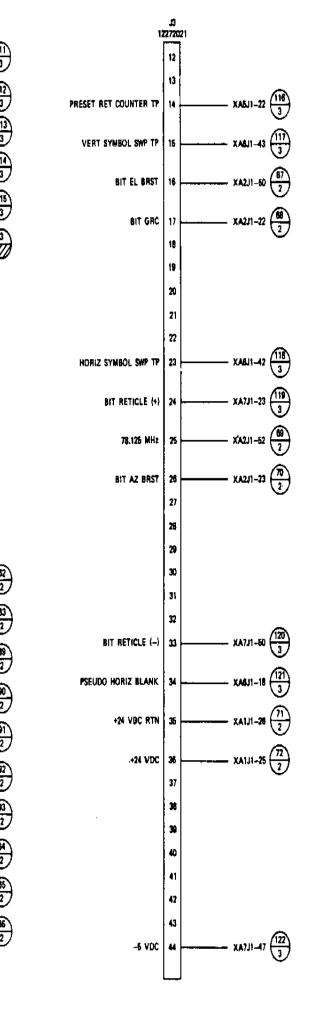




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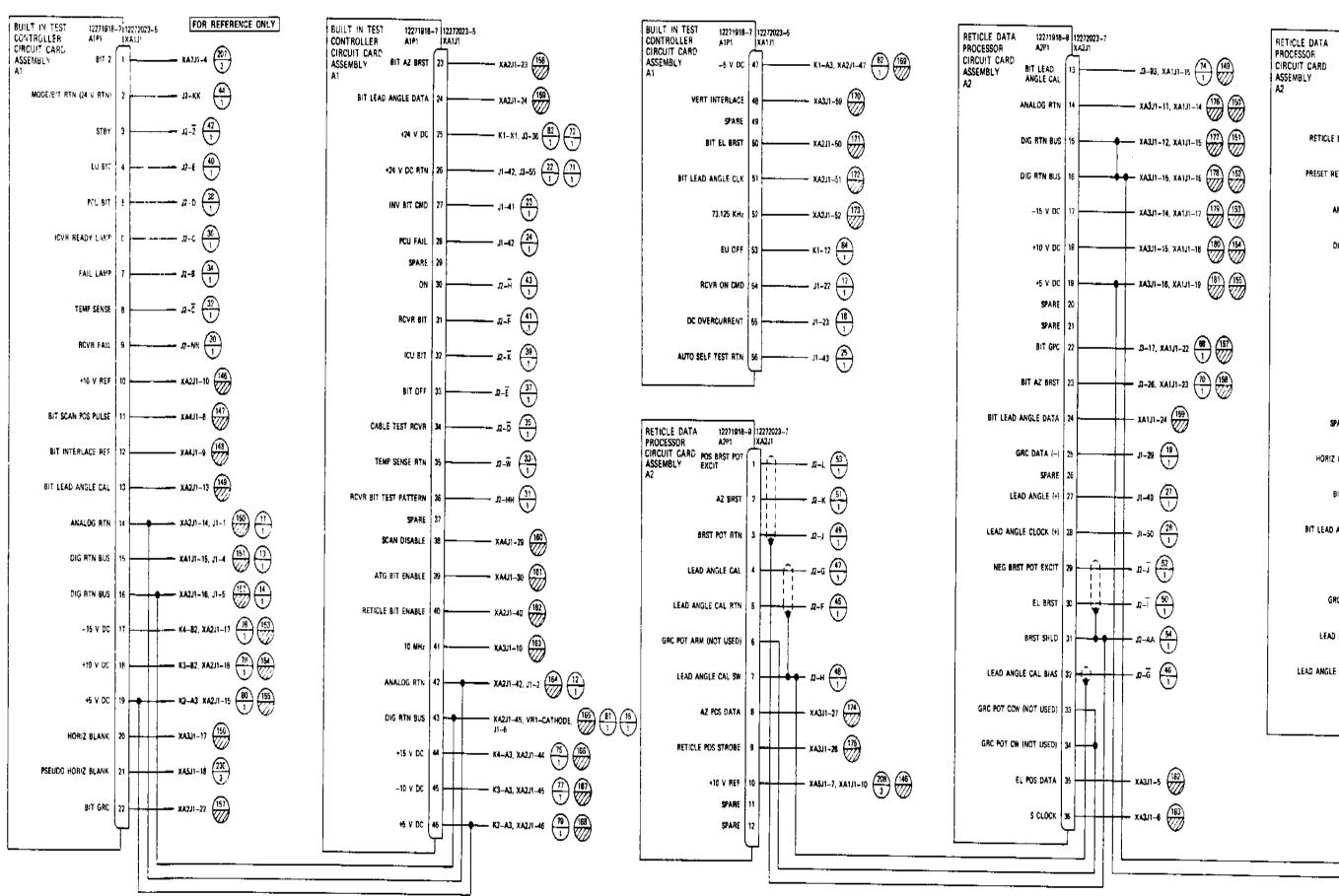
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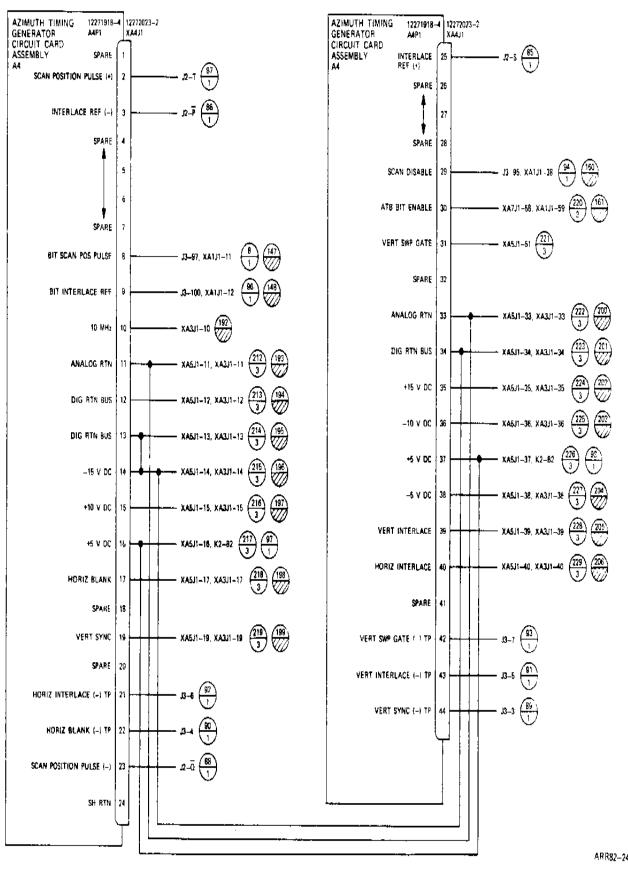
BIT INTERLACE REF 100 XA4JI-B

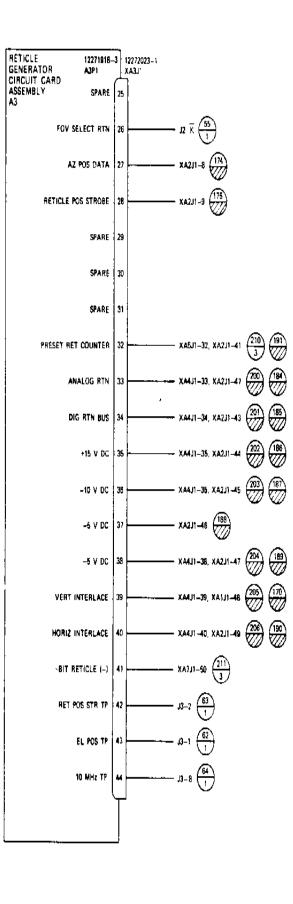


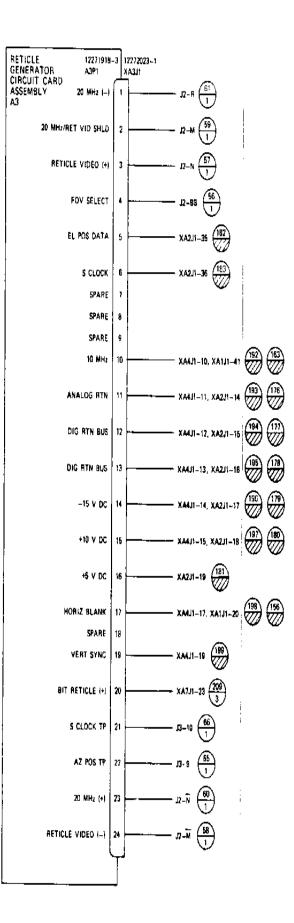
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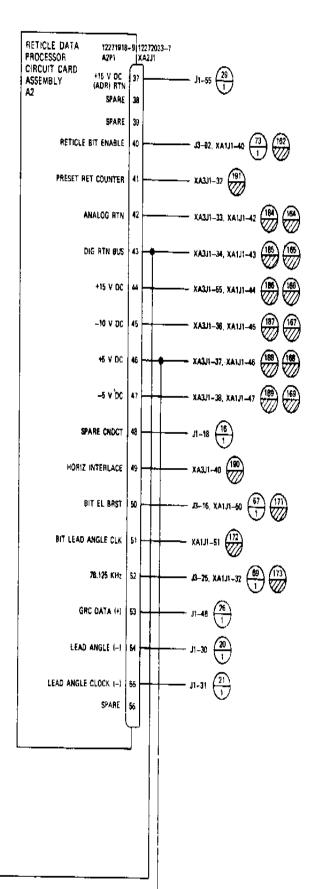
FO-6. Electronic Unit (EU) A4 Schematic Diagram (Sheet 1 of 3)

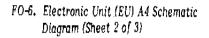


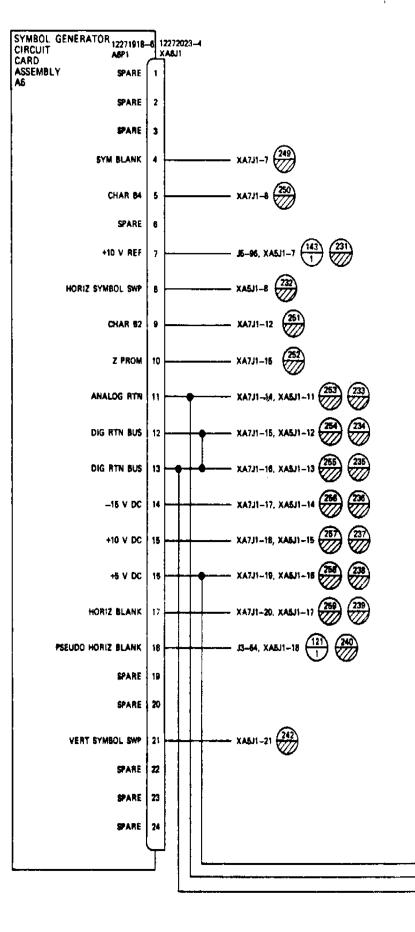


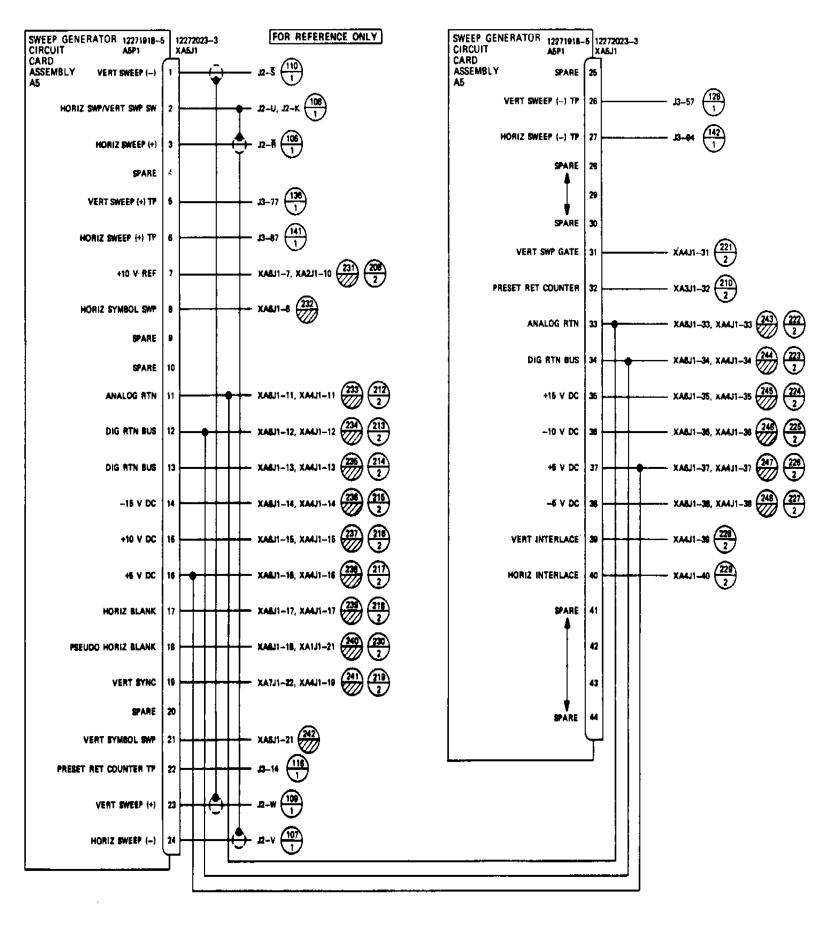


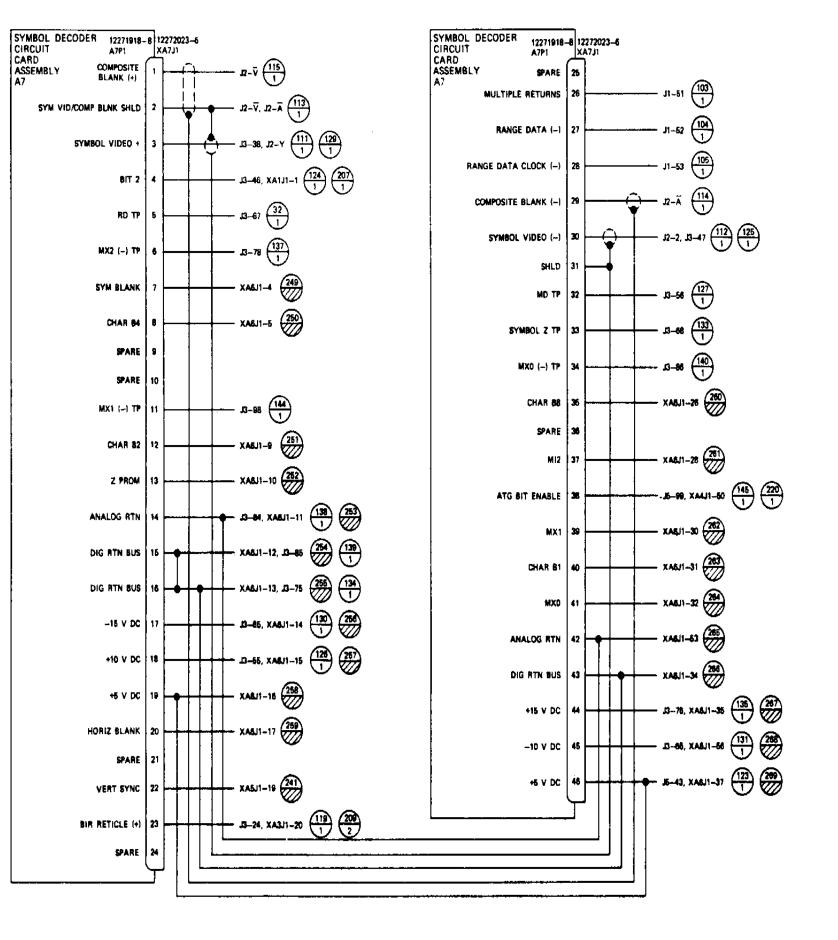


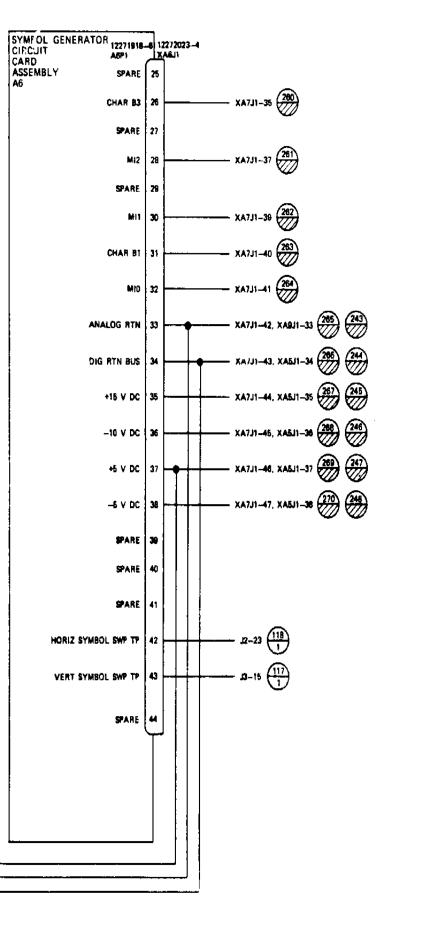


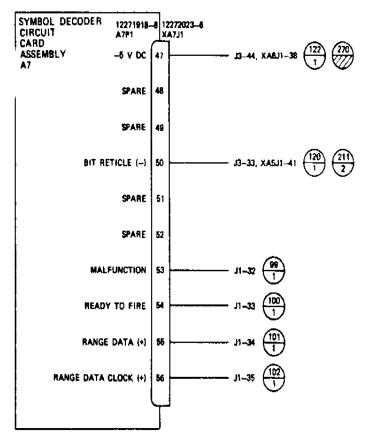








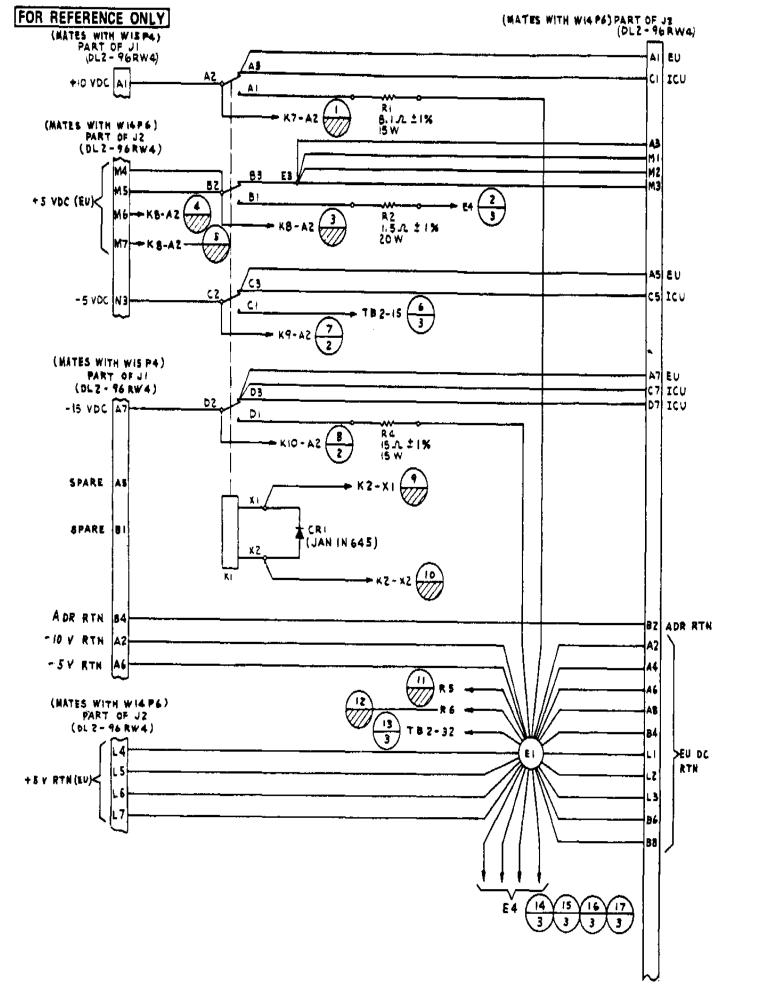


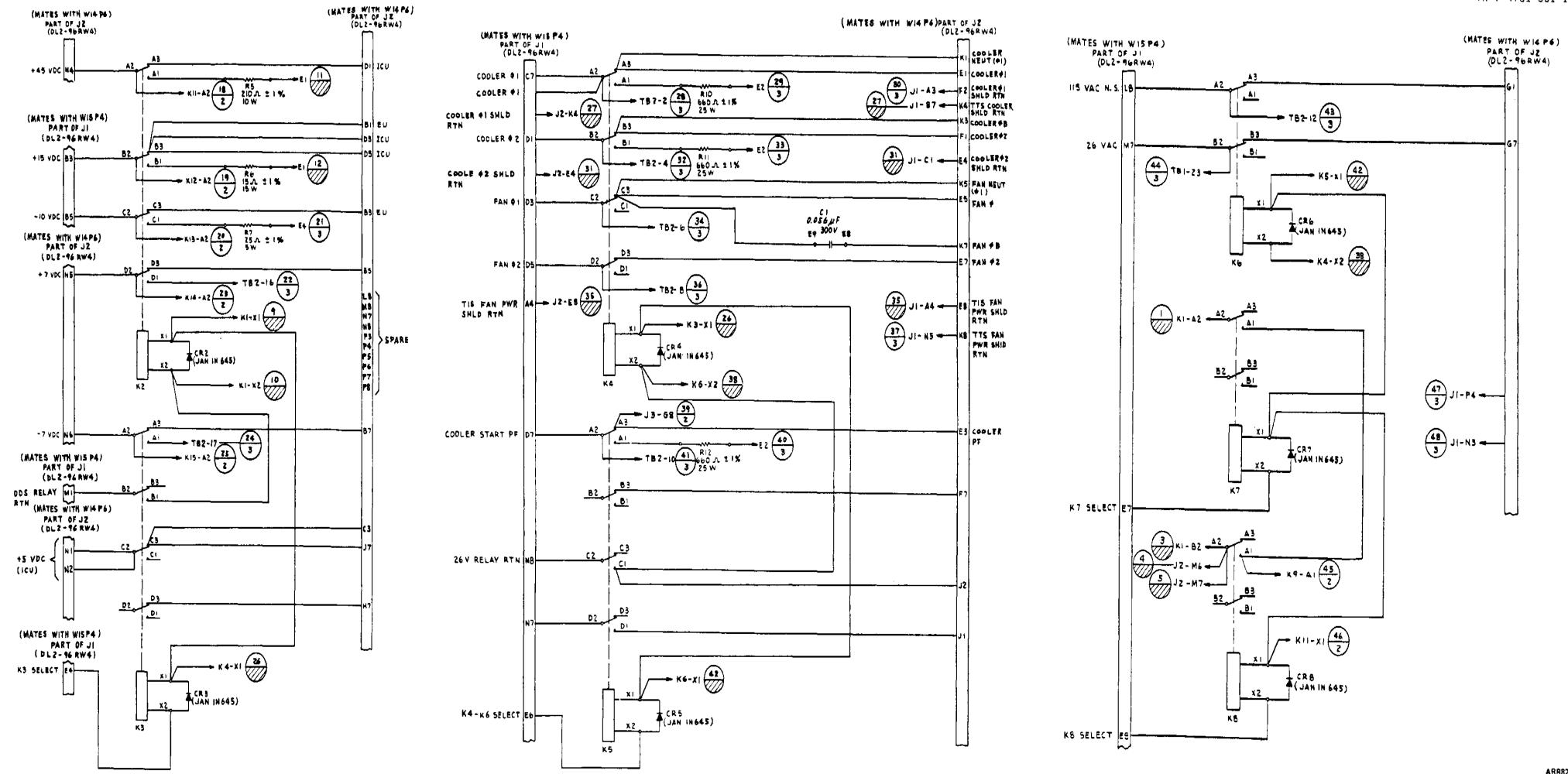


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FO-6. Electronic Unit (EU) A4 Schematic Diagram (Sheet 3 of 3)

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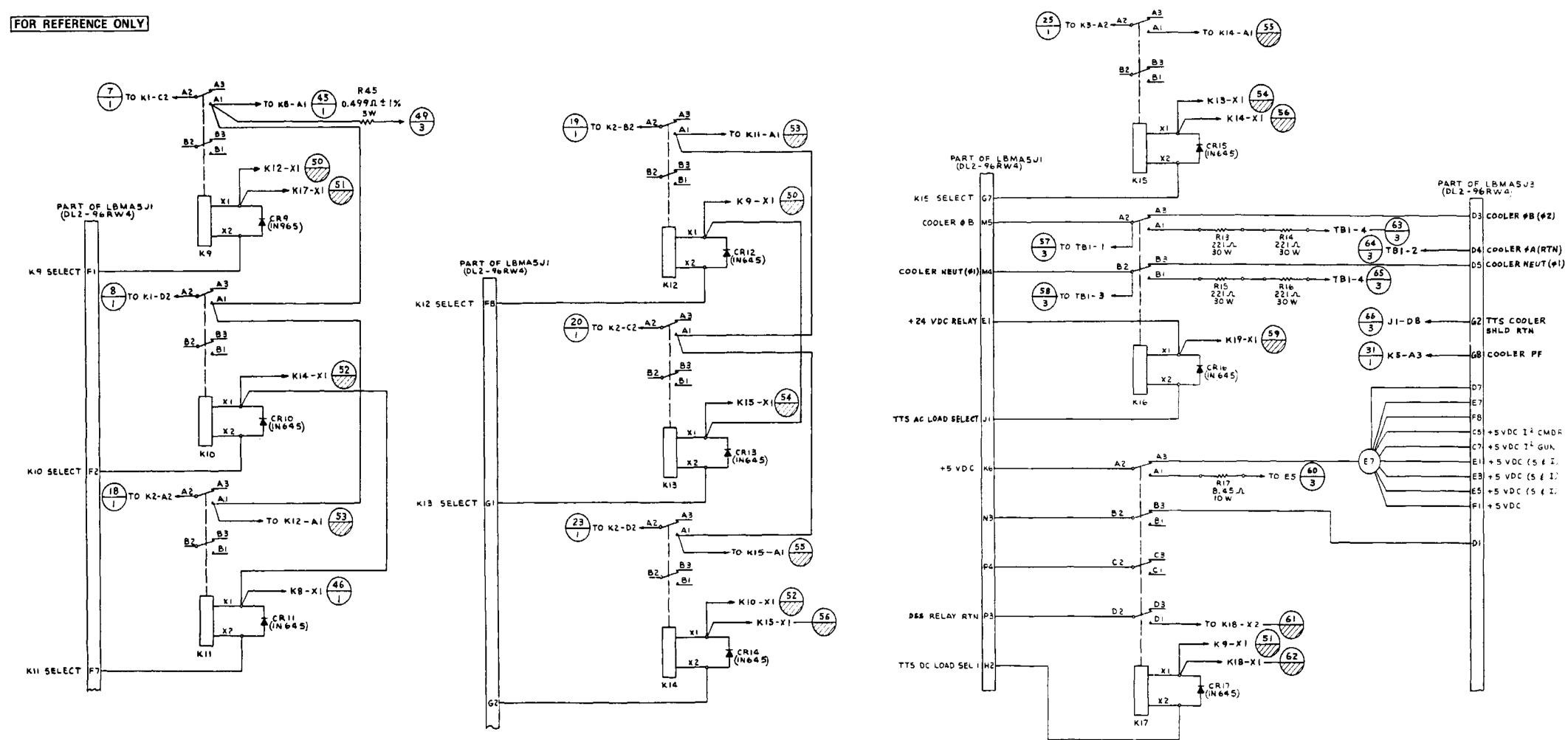


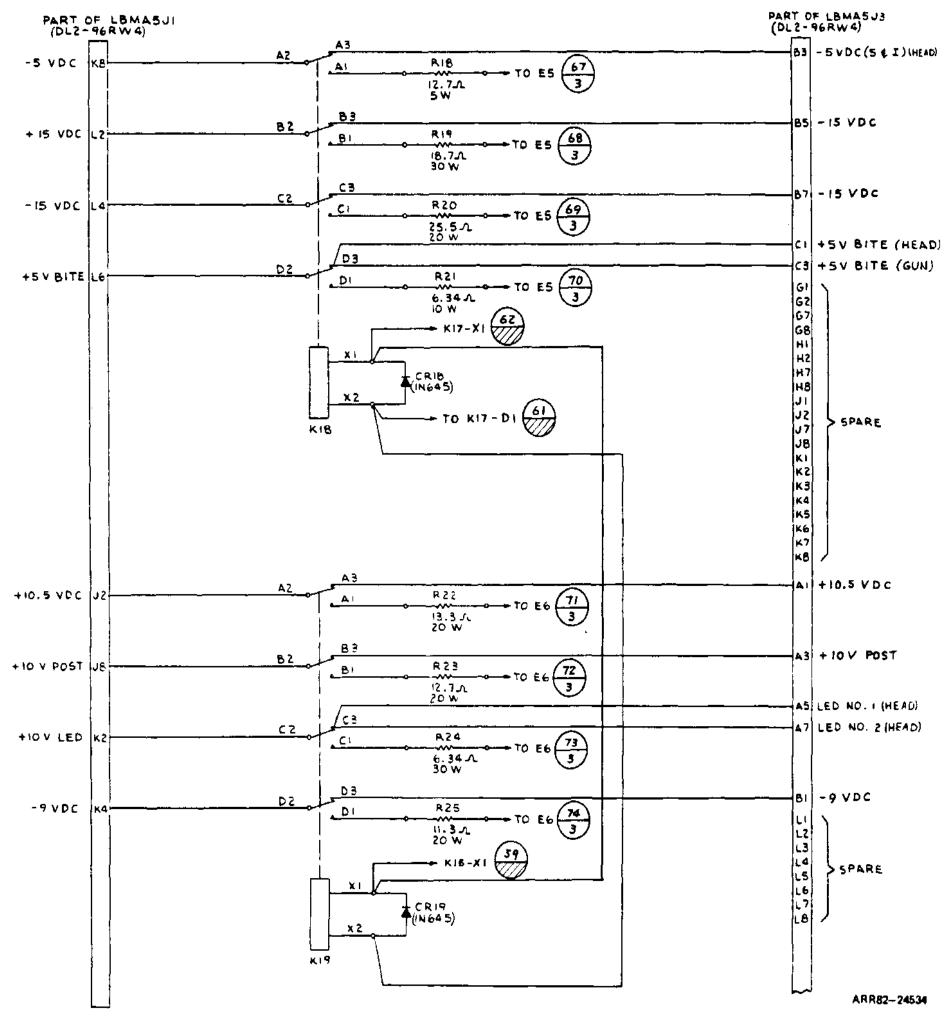


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FO-7. Load Bank A5 Schematic Diagram (Sheet 1 of 3)

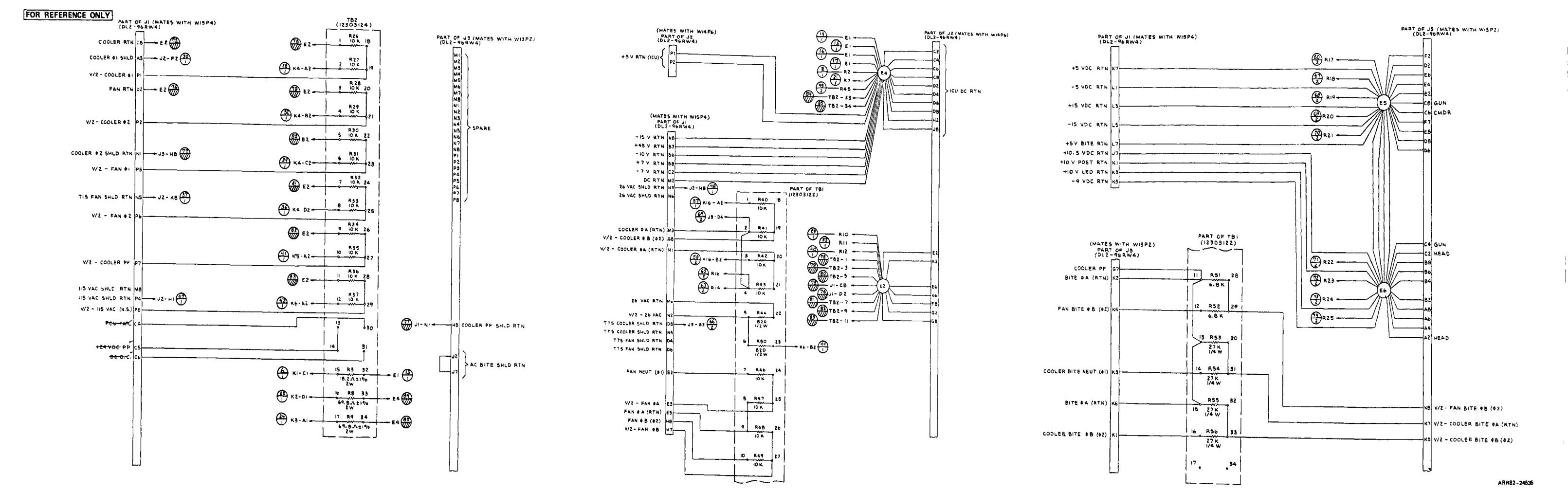
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FO-7. Load Bank A5 Schematic Diagram (Sheet 2 of 3)

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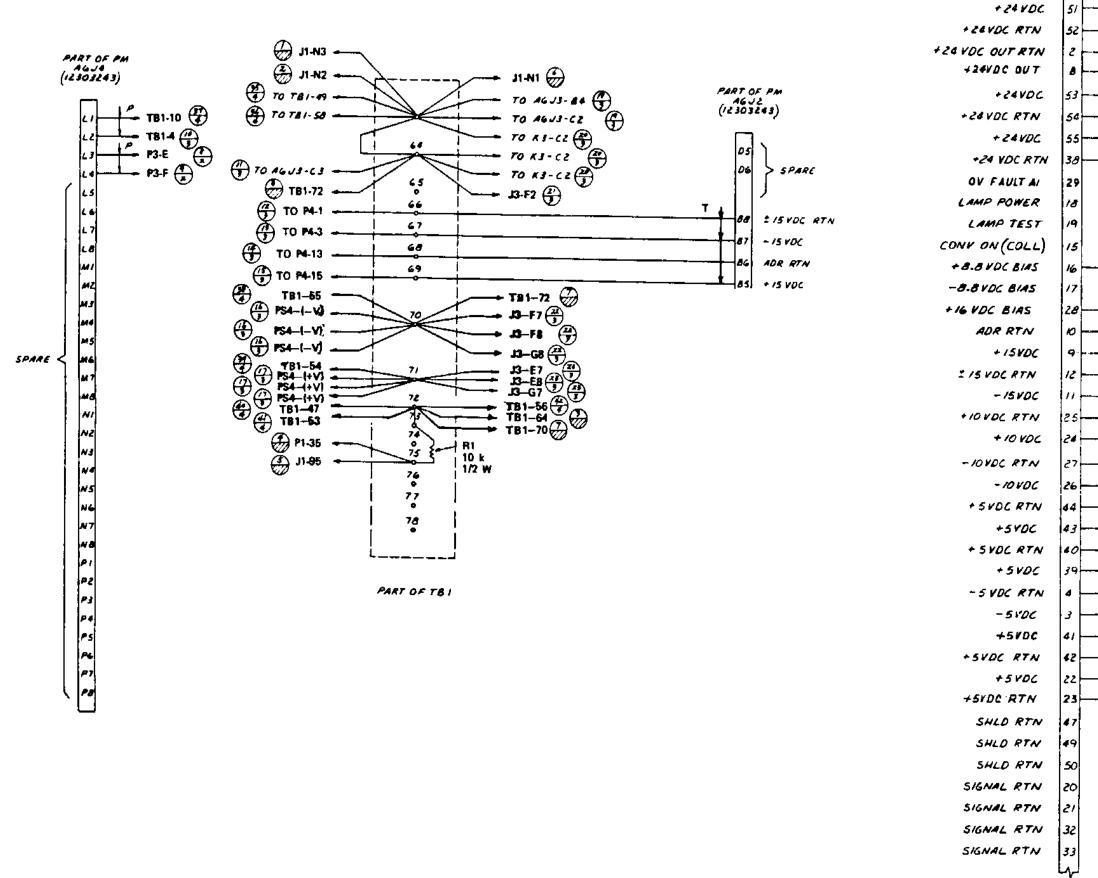


FO-7. Load Bank A5 Schematic Diagram (Sheet 3 of 3)

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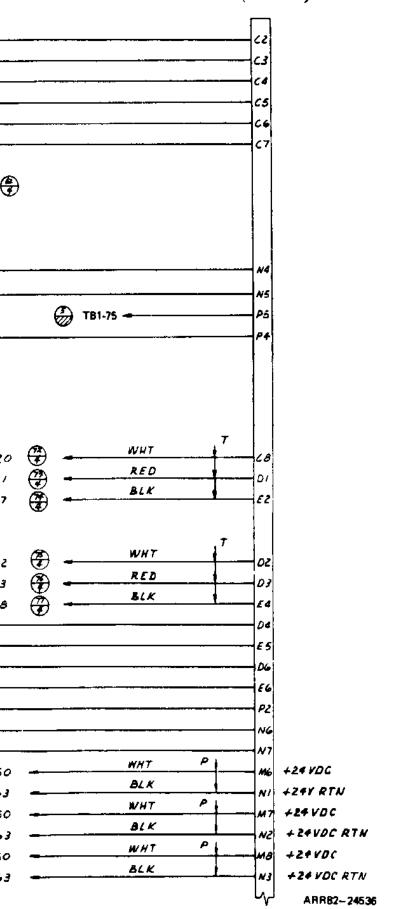
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PART OF JI (MATES WITH WI5P2) (12303243)

PCU FAIL	5			
DC OVERCURRENT	6			
INV ON CMD	7	= ==		
REVR ON CMD	/			
TOW ON(FVS)	3/			
+ IS VOC SPARE	30			
+15 VDC SPARE	48			<u>^</u>
OV FALLT AS	13			TO JE-H7 😨
SHLO RTN	46			
SIGNAL RTN	37			
SIGNAL RTN	34			
NVS ON(FVS)	14			
27 YDC SWITCHED (FV3)	36			
OV INTI (FVS)	35		🗕 TB1-75 🥳	<i>.</i>
OV INTI (FVS)	45			
(MATES)	RT OF PL VITH AGAIJ VSL - 22-55P	(2) (m)		
+15 VDL SCAN	N	7 #	VHT	🔁 TO TBI-20
-ISVDC SCAN	R	· · · ·	RED	🦉 TO TBI-21
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+15 VDC 5 75	4			¥
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- 10 VDC	66	<u> </u>	RED .	🗿 TO TB1-23
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T IONOC AUX RTN	r	-	SLK	
+ SYDC AUX	E	<u> </u>	NHT	
1 SYDC AUX RTN	F	1	BLK	
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+7 VDC (FVS)	1			
-TVOC (FVS)	z	-	<u> </u>	
+ IO VOL BIAS REG	5			😨 TO TB1-50
+ 10 VOC BIAS REG	<u>u</u>			💮 TO TBI- 63
+ IOVOC AUX	x			🔁 TO TBI- 50
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- 10 VDC LOGIC	4			🦉 TO TBI- 50
	لہا			🤂 TO TBI-63

рагт об Рі (MATES WITH ЛЬЛ IJI) (M 83723-75722-55)

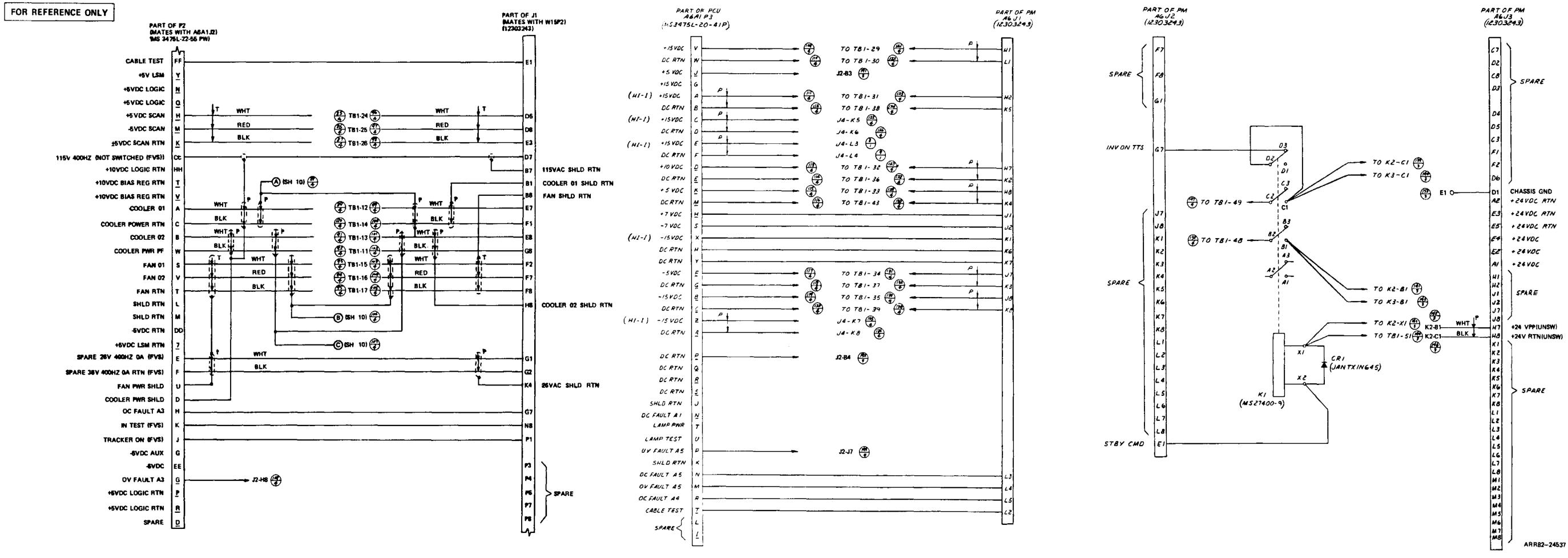
PART OF JI (MATES WITH WI5P2) (12303243)



FO-8. Power Module A6 Schematic Diagram (Sheet 1 of 4)

FP-37/(FP-38 blank)





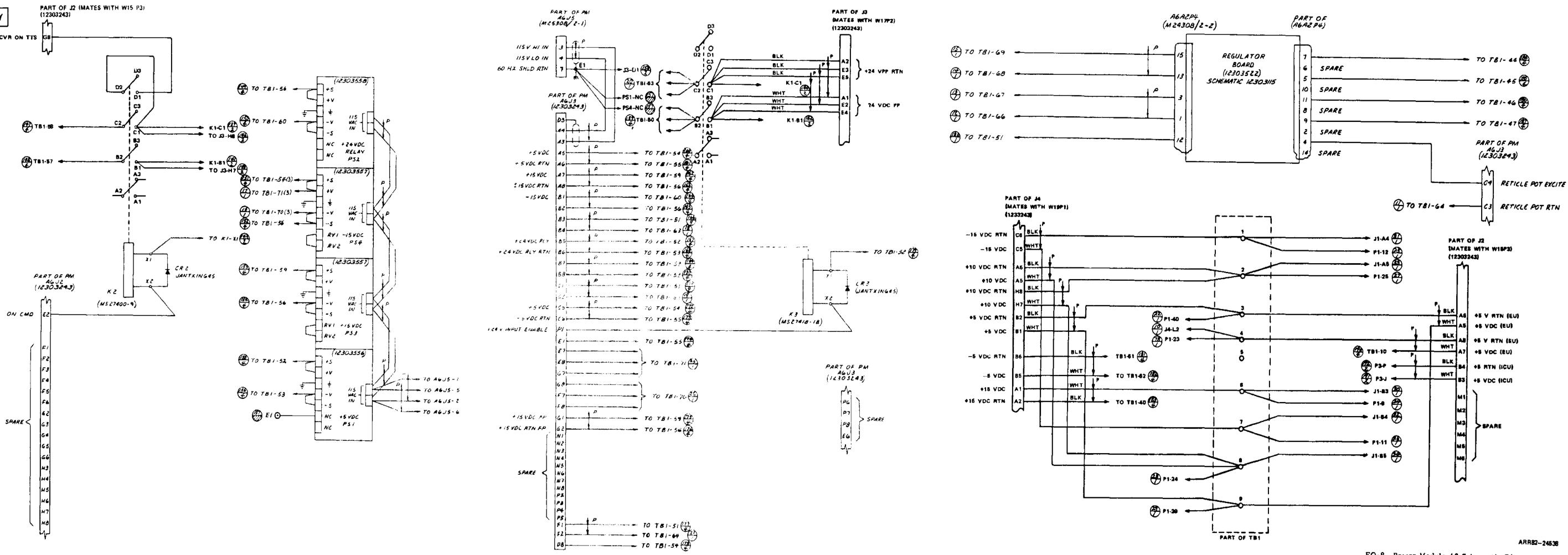
FO-8. Power Module A6 Schematic Diagram (Sheet 2 of 4)

FP-39/(FP-40 blank)

FOR	REFERENCE	ONLY

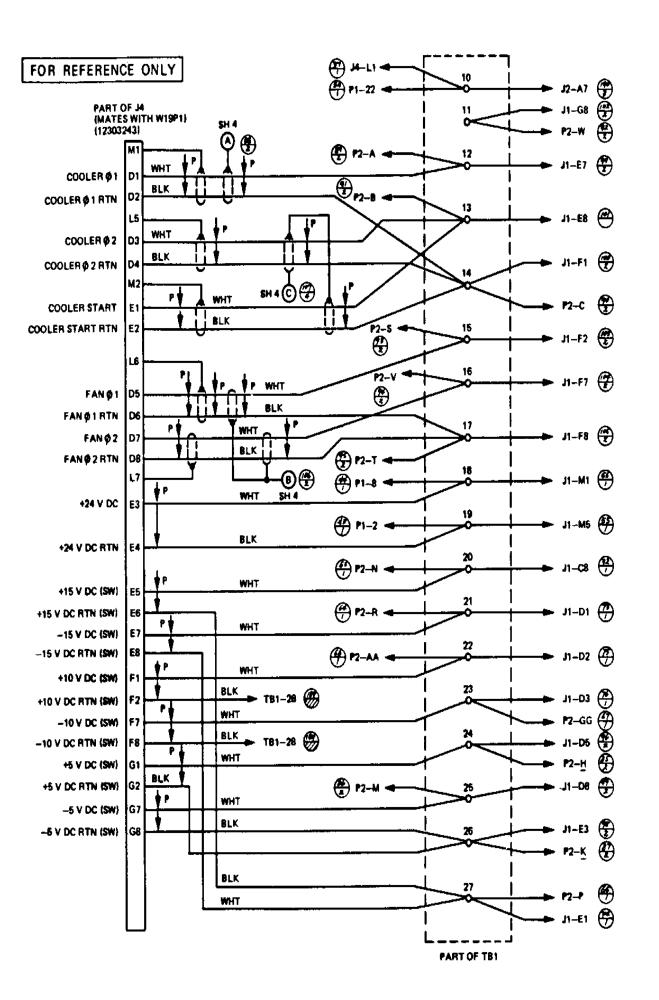
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FO-8. Power Module A6 Schematic Diagram (Sheet 3 of 4)

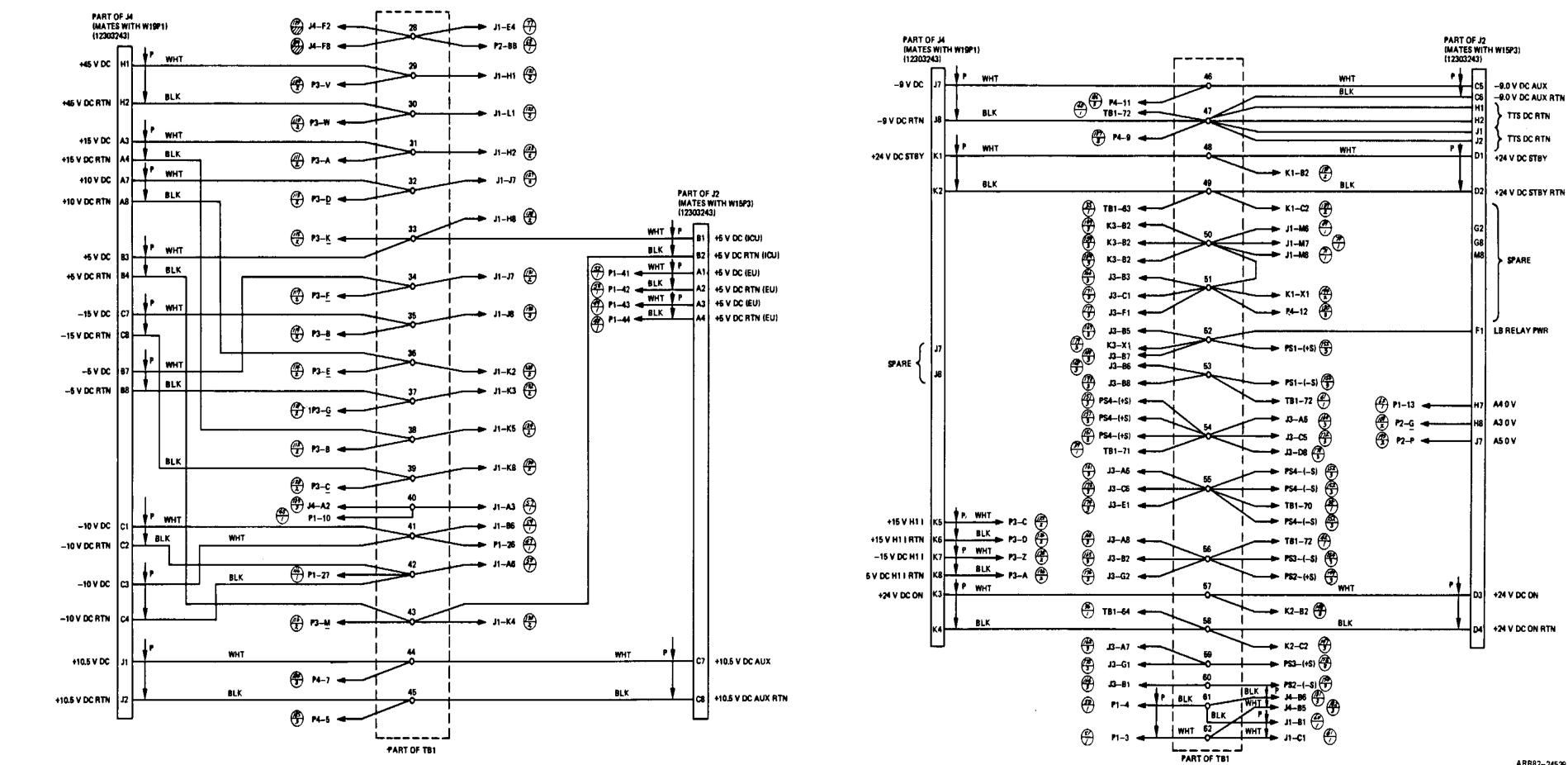
FP-41/(FP-42 blank)



PART OF J2 (MATES WITH W15P3)

M7 N1 N2 N3 N4 N5 N5 N5 N5 N7 N8 P1 P2 P3 P4 P5 P6 P7 P8

(12303243)

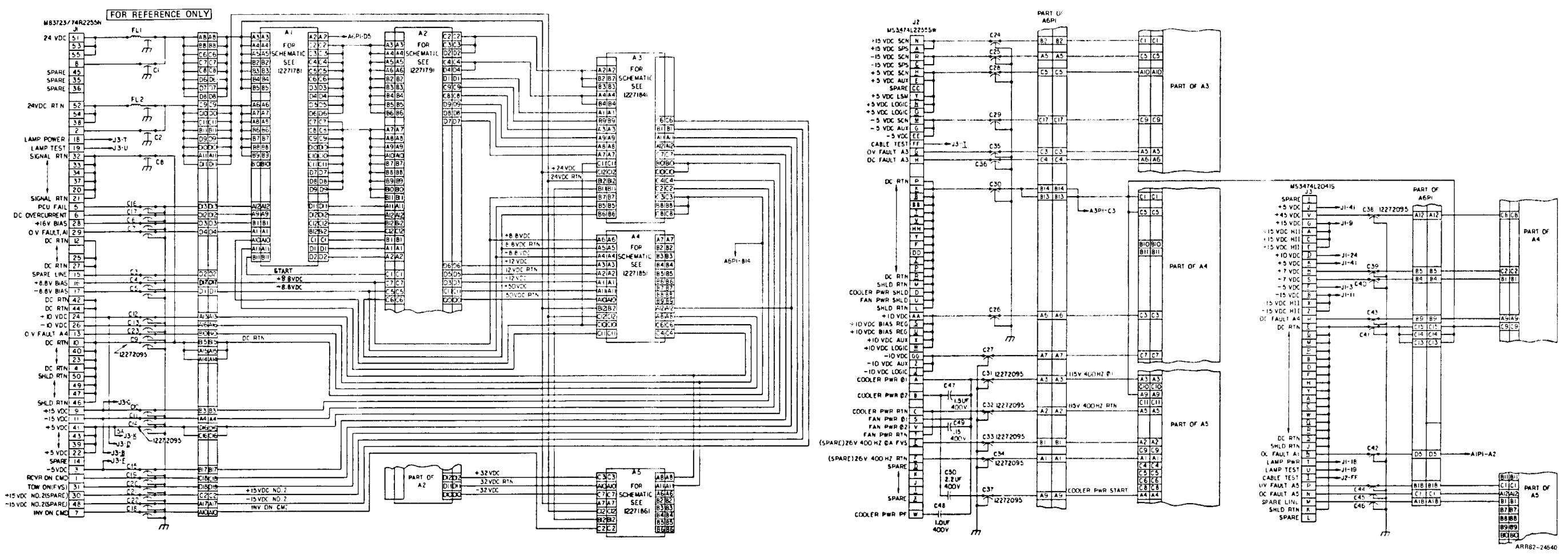


ARR82-24539

FO-8. Power Module A6 Schematic Diagram (Sheet 4 of 4)

FP-43/(FP-44 blank)

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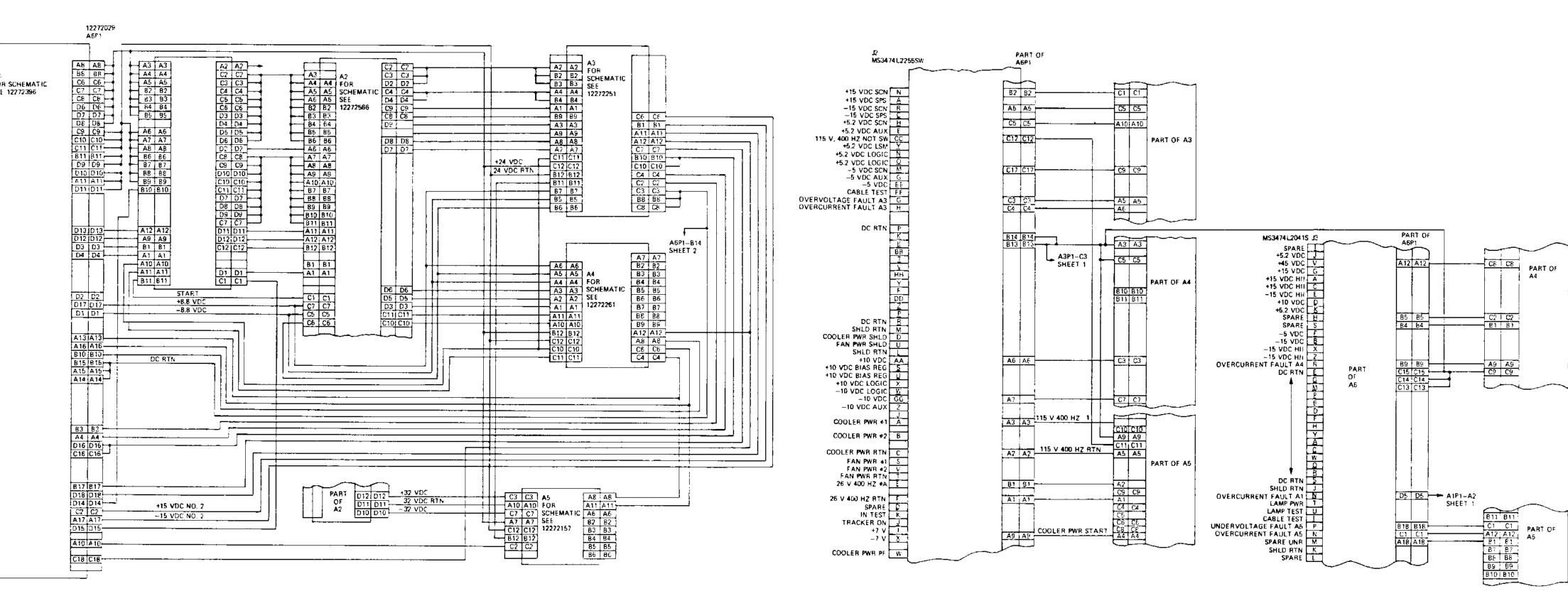


FO-9. Power Control Unit (PCU) A6A1 Schematic Diagram

FP-45/(FP-46 blank)

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ABR82-24541 FO-10. Common Power Control Unit (PCU) A6A1 Schematic Diagram

FP-47/(FP-48 blank)

253 43.14

FOR REFERENCE ONLY

(12303344) NI3 PI

HEAD CABLE BITE JI-2

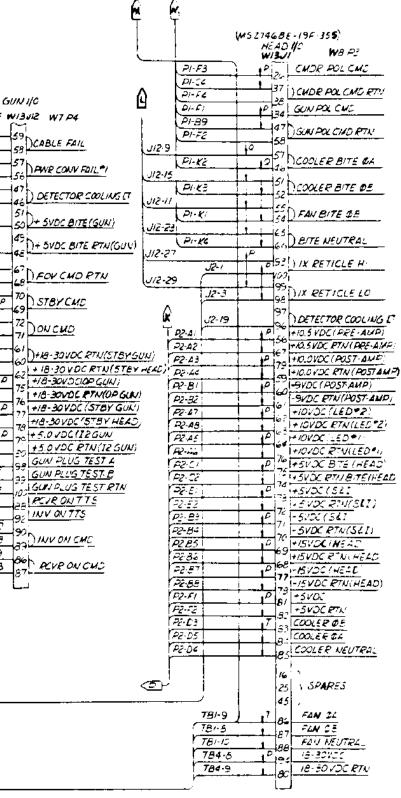
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HEAD CAPLE BITE	A / }	JI-2		<u></u>		(12303)
WHITE HOT CHO	42	J1-4	_r_		LB M ASJ3	W15 F
BLACK HOT CMD	431				+ 10.5 V DC (PRE	
FON CHID RTN	64	<u>J1-8</u>	1 7		+ 10. SYDC RTNI	
NEOV (HD	A5	J1-6				A/
NEDVIES	1	J1-14			+IOVDC POST(H	A 1
SCHU MALE	46	J1-12			+IOVOC POST PTL	KHEAD AL
	<i>3</i> 7		· · · · · · · · · · · · · · · · · · ·		+IOVDC(LED#I	45
GUN POLICMD RTN		JI- 4 7			+IOVOC RTH(LE	'D¶D :
	133				+ 10V01 (LED 2)	1 46
CMDR CABLE B TE	, I			311-1	FIOYOC RTNILE	A7
CNOR = TE	84			J11-2	-92 DC (POST A	40
	85	11. 8 :				18/
CMOR INTLK (HD	Bé	JI-23	ť~		-9VDC RTN(PO	B2
SYDE WILK(PWE	1cr			JII-3	-5VDC(\$11)	8:
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TTS ANTE HOTSLK HOTCHO	1.		12	JH-6	+15VDC(HEA:	
INTRACTORY	C^{2}	JF-37			+ISYDC PTNI	164.73
	(4				+5VDC BITE (+	
Carrow M		JI-20	V^{T}			
GUILGAIN HI			-+	!!	+ SVEC RTN BO	
SUNGAN	D2	J7-28		1 !	+5VDC 8/TE (GUNI
SJN GAIN LO	1	101-24		4	+SVDC RTH BR	E(GUN)
CHERGAIN H	1.	Ji-22	Ē	i l	+5YDC IZ CMC	DP (
CHOR SAIL		JI-32	i		+5VDC RTN IZ (MOR
CHOR GAINLO	DS	Ji- 74		j	+5VD2 12 GU	
GJULEVEL H	126	J1-42		1 !		
	181			1	+SVOC PTN I	
GUN LEVE .	EZ.	JI-4E	!	4	+15VDC (HEAL	
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CHOR LEVEL	ES.	J1-46)	COOLER NEUT	TRAL DE
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	- 72			/	+ 5 VDC PTA	
CHOR POLCHE	- 53	11-24		1	+ SVDC RTN!	
CHOR POLICHO RIN	1-4	J1-35	<u> </u>	4	+ 5VDC(511	E
				۱. I	+ SVDC RTN	SEII E
ELACK HOT CHO	-164	N.		i	+ 5VDC (5L1	·. 1-
CHOR BITE	<u>i</u>	1	Ji2-2		+ SVDC RTN	(SZI) E
WHITE HOT CHE	6/	N		· ·	+ 5VDC(582	j e
SCALL MALE	- JGZ		J-2-6	i	+ SVOCETN	
	-63		J12-4	1		
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BLACK HOT CHOIGINI	-122		J12-14	<u>, </u>	+ <u>5/00(</u> 581	
	1	1	112 60	1 1	+SVDC PTN (S	11.
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RTU(LED#I) (LED#2)	A6	J1-76	5				112-16	6	JTIS WATE HUIJELE HUI CHU			0.64	3	
RTN(LED*2)	A7	JI-63	ri i	_	PIC			35)TTS POLARTY RTK			<u>РІ-СІ</u> JI-5	4 JWHITE HOT	<u>CMC </u>
(POST AMP)	48 8/	JI-60 I	2	, 782.4	Pi-B	<u> 1</u>		23	CHOR CARLE BITE			PI-G?	5 SCANMALE	
RTU(POSTANP	B 2	JI-61	1		K			1)CMDR CABLE BITE		F2 57		+SYDE PTNIC	
(511) RTN(SL1)	83	101-70			P/15) CMOR INTLK (PWR			01 C 2	13 BLACK HOT	
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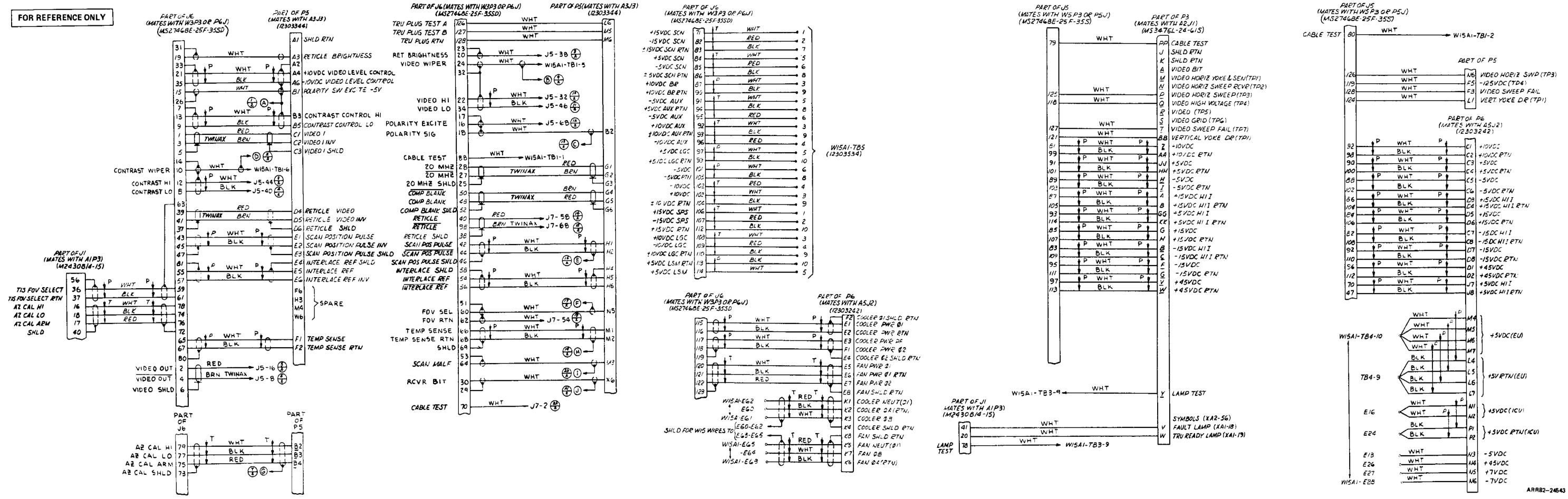
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*E-30 / CC FTM/OPERATE 4'2 JII-30 JIZ-76 *E-30 / CC STBY 4'2 TB4-2 *G-30 / CC FTM STBY 4'2 TB4-2 *G-30 / CC FTM STBY 4'9 TB4-2 *FAN 22 1'9 FAN 22 1'9 *FAN 24 1'9 FAN 24 1'9 *G-30 / CC FTM / C 1'8 *G-30 / CC 1'4 PI-F5 JIZ-69 W 1'4 PI-F5 JIZ-69 W 1'4 PI-F6 JIZ-71	E EE 36 JULADE LEVEL LI		+18-35 VDS PTN STBY 784-9 U12-40-62; J2-32:33	ן נ
FAN 22 49 IV 1.9 FAN 25 1.9 FAN XEJTRX: 1.8 ST5 Y CM2 1.4 OW CM2 1.4			+16-30 10C RTN OPERATE JII-30 JIZ-76	
FAU NE JTRA: 1-8 STE Y CMC 1-10 OU CWC 1-4 PH-FG; JI2-71			FAN 21	\equiv
04 CHC 1.4 PFF6; JI2-71	₩ E		FAN NE JTRAL	
			04 CMC 1.4 PFF6; JI2-71	
PCVR OU TTS JI2-88 INV GNT TS JI2-92 2-3			140 GALTIS	
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ARR82-24542

FO-11. Internal TTS Interconnect Harness W13 Wiring Diagram

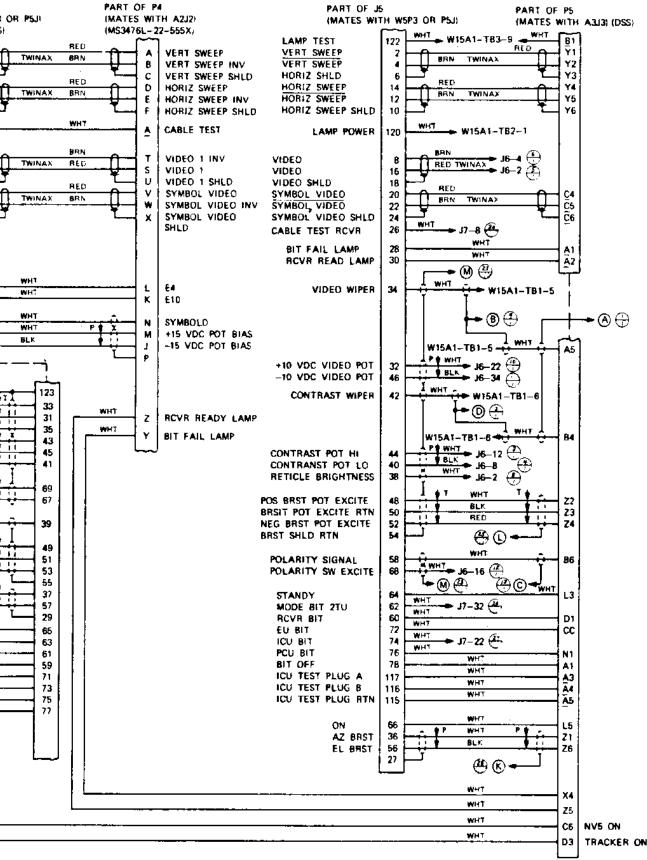
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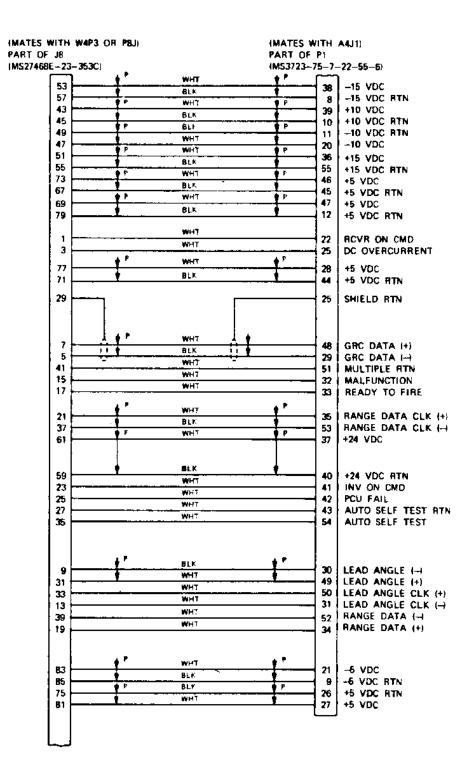


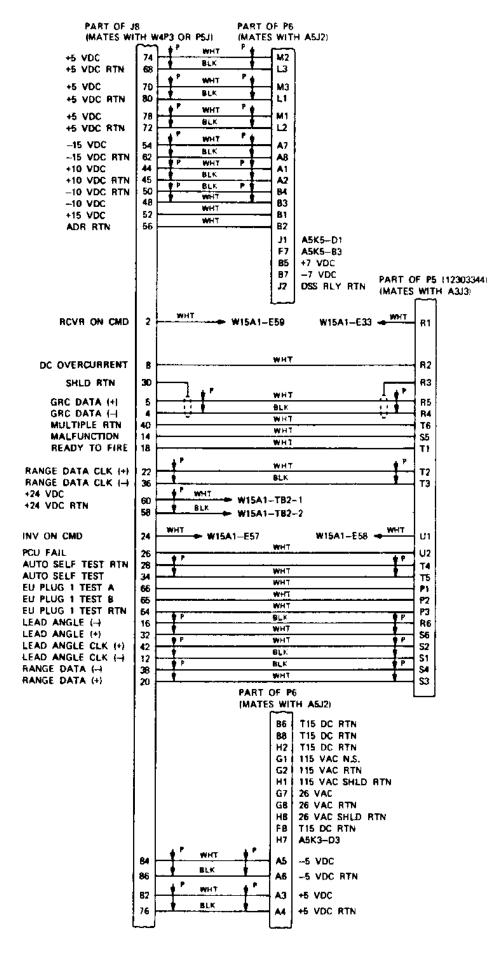
FO-12. Internal TIS Interconnect Harness W14 Wiring Diagram (Sheet 1 of 2)

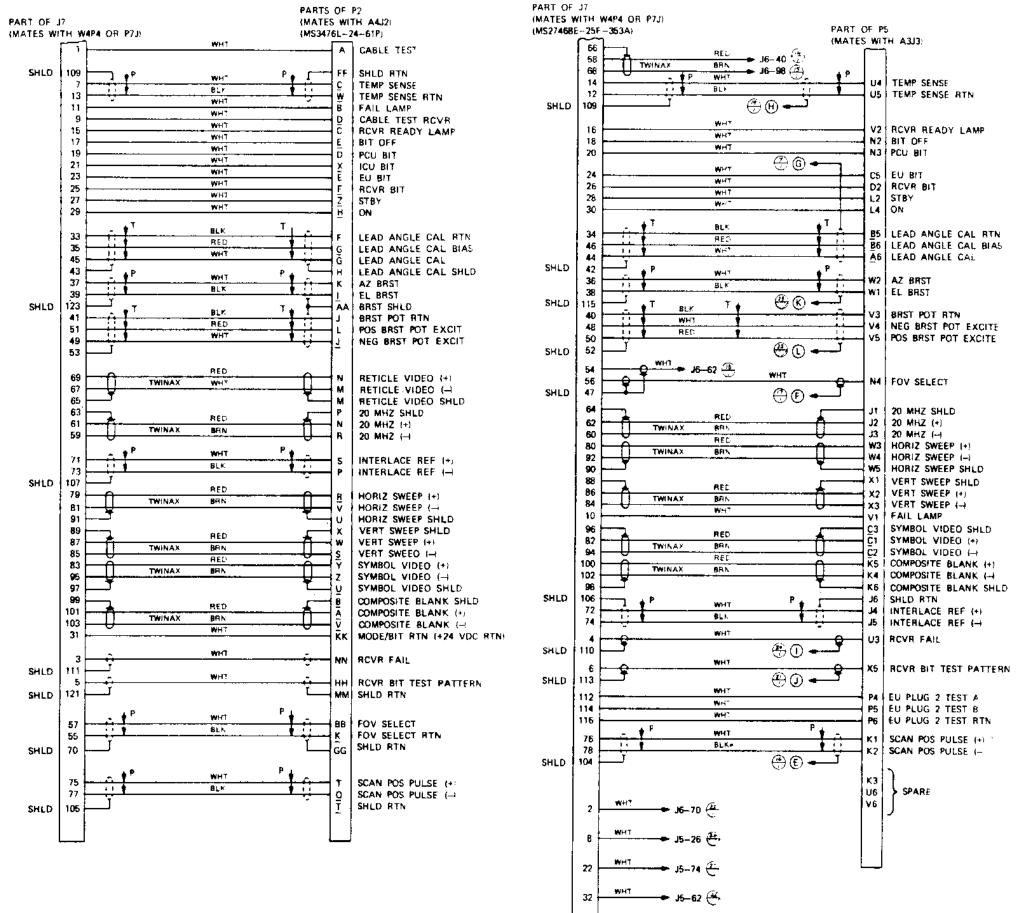
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+10 VDC VIDEO POT	ī		1	WHT		L
-10 VDC VIDEO POT	3	L'		BLK		
CONTRAST WIPER	5		1	RED WHT		
CONTRAST POT HI			<u>⊷</u> <u> </u>	BLK		\vdash
CONTRAST POT LO	6	Ť				<u> </u>
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+ BRST POT EXCITE	11	Ť	÷Ľ	WHT	\rightarrow	H
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ON	21			WHT		
STANDBY	22			WHT		
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RCVR BIT	27			WHT		_
	26			WHT		
ICU BIT PCU BIT	25 24			WHT		
BIT OFF	23			WH*		
	– [
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	43			WHT		
	42			WHT.		







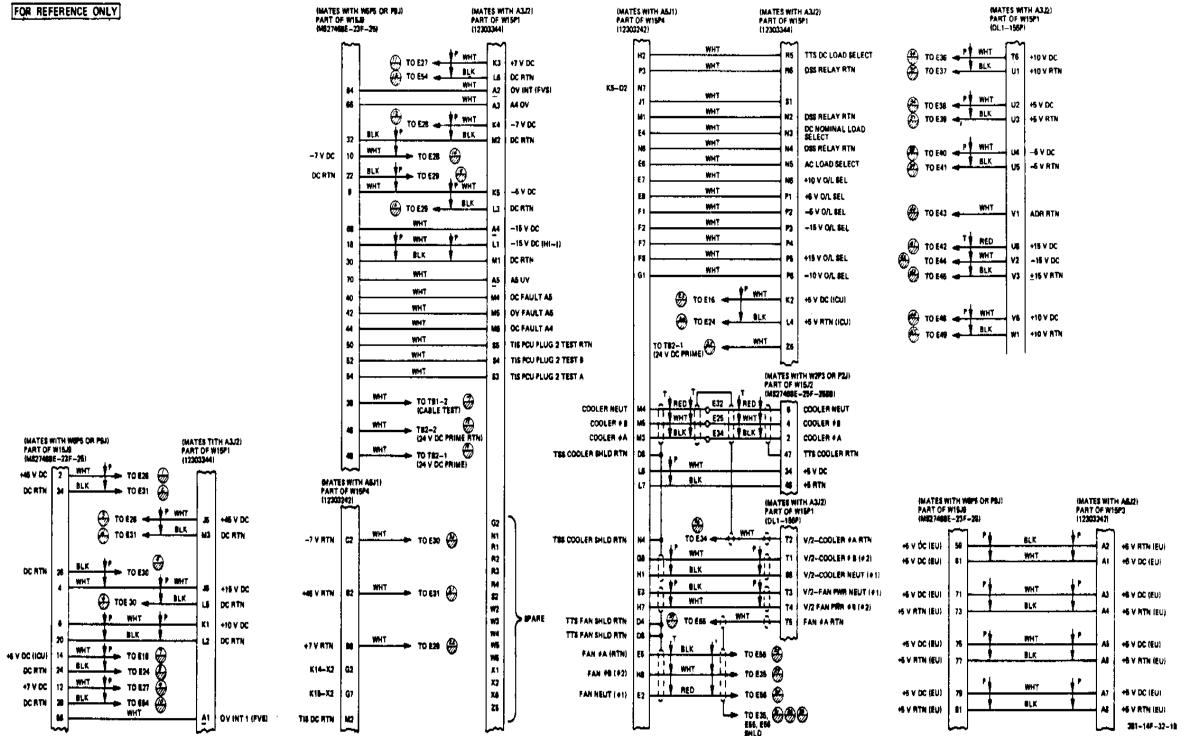


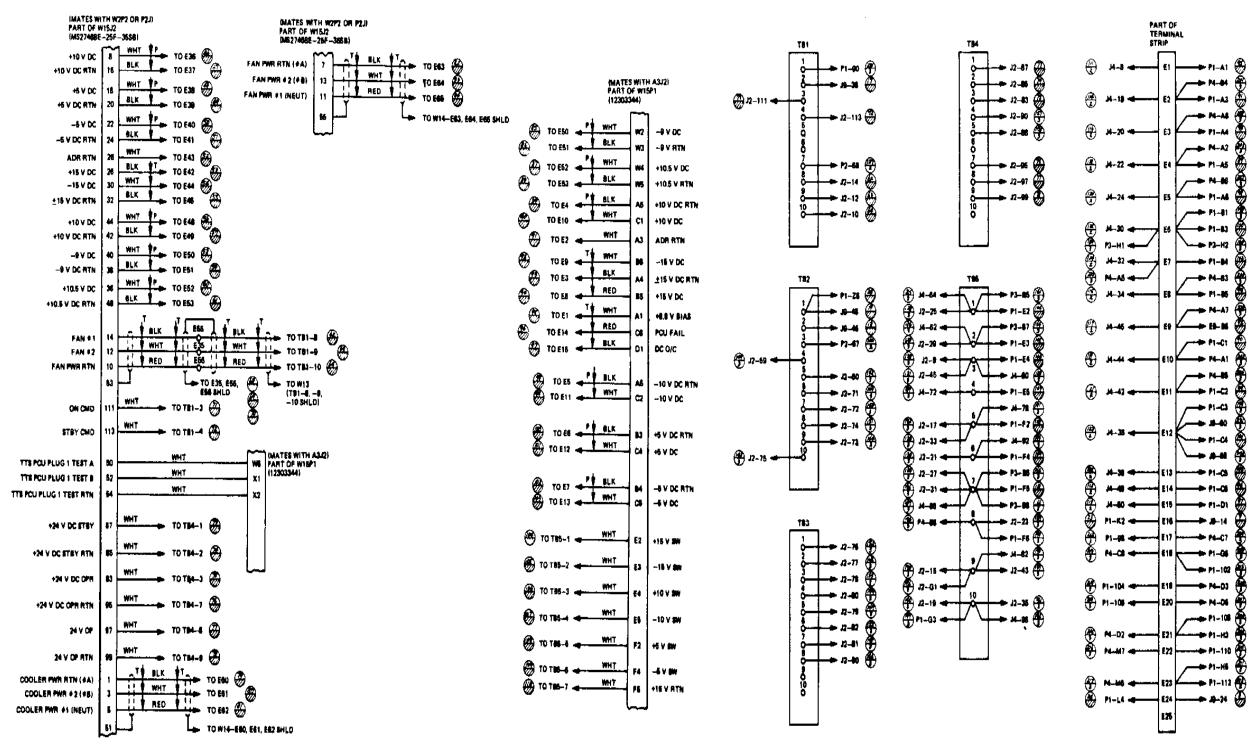
ARR82-24544

FO-12. Internal TIS Interconnect Harness W14 Wiring Diagram (Sheet 2 of 2)

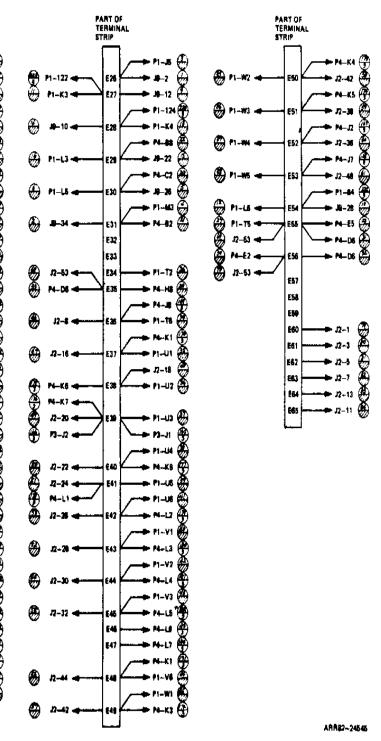
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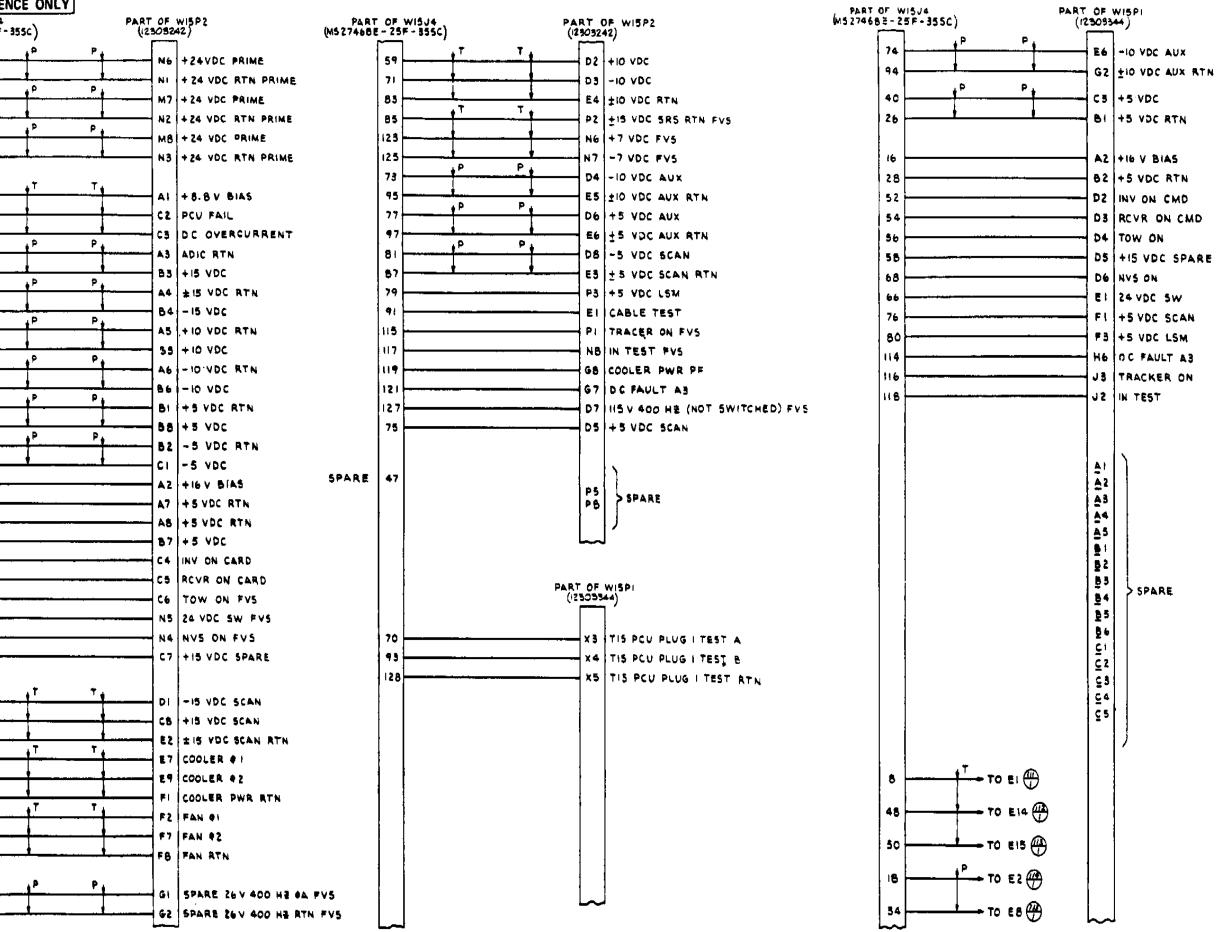


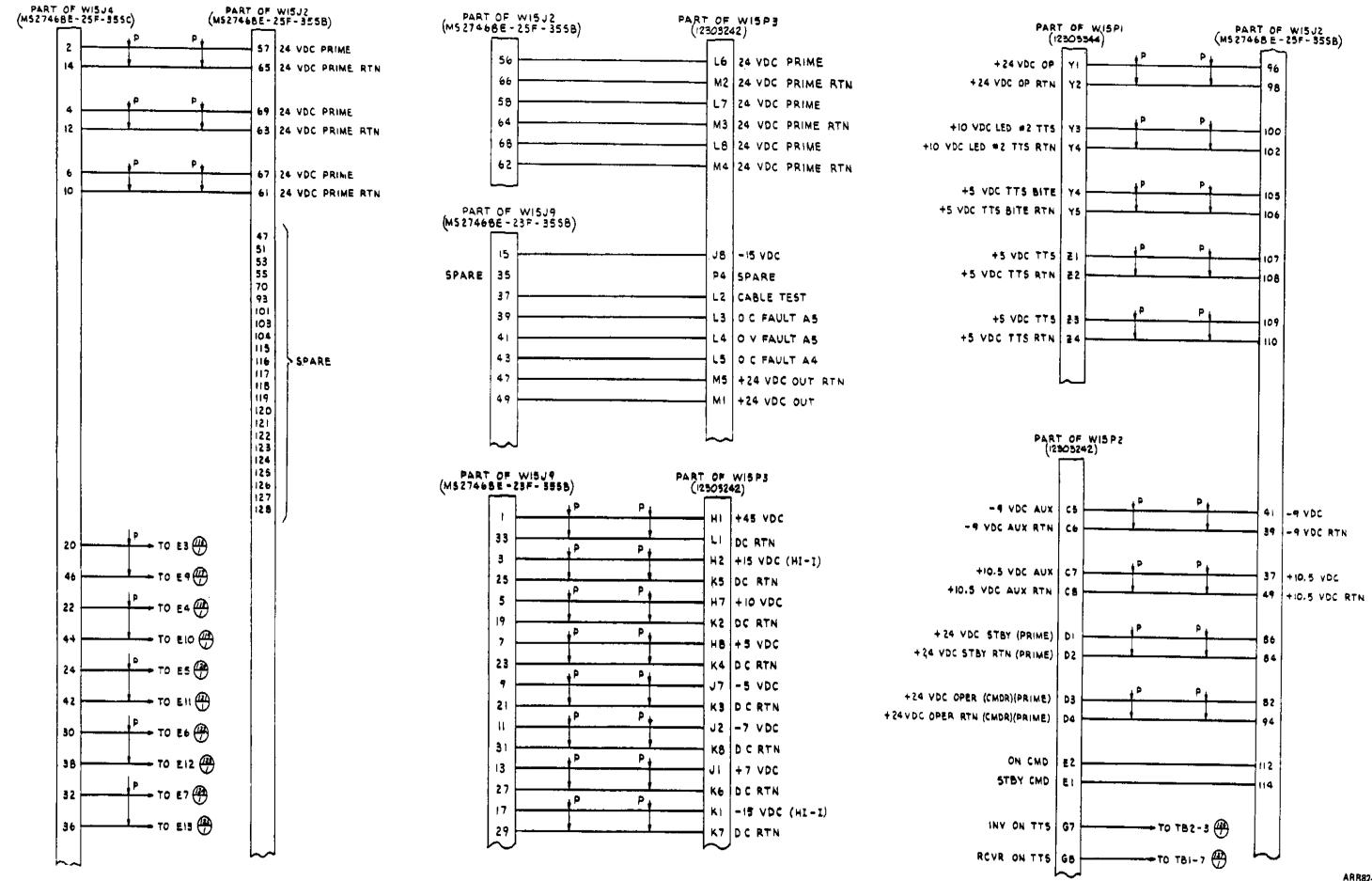
TN 9-4931-381-148P-3



FO-13. Internal PCU Interconnect Harness W15 Wiring Diagram (Sheet 1 of 3)

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105	1 1
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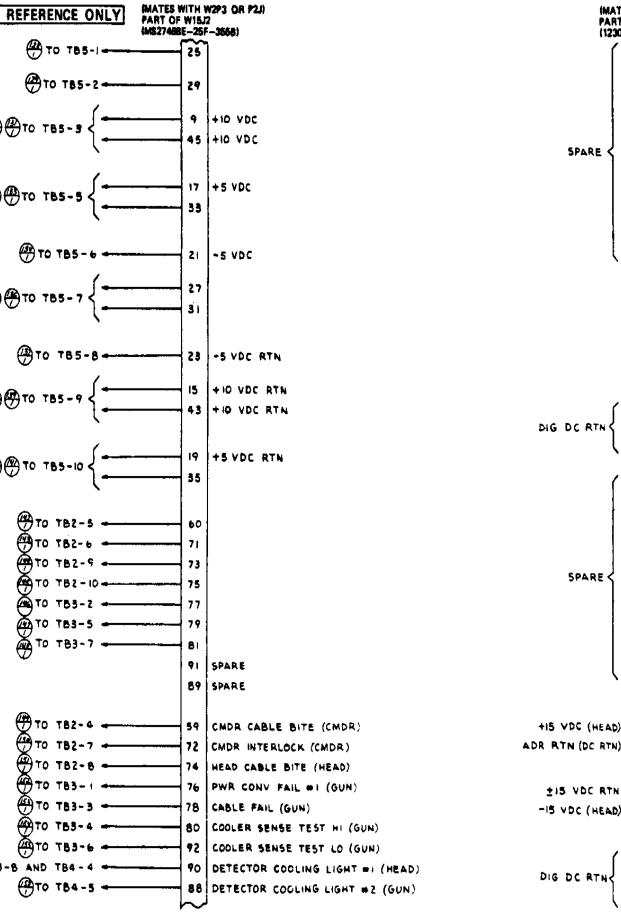


ARR82-24546

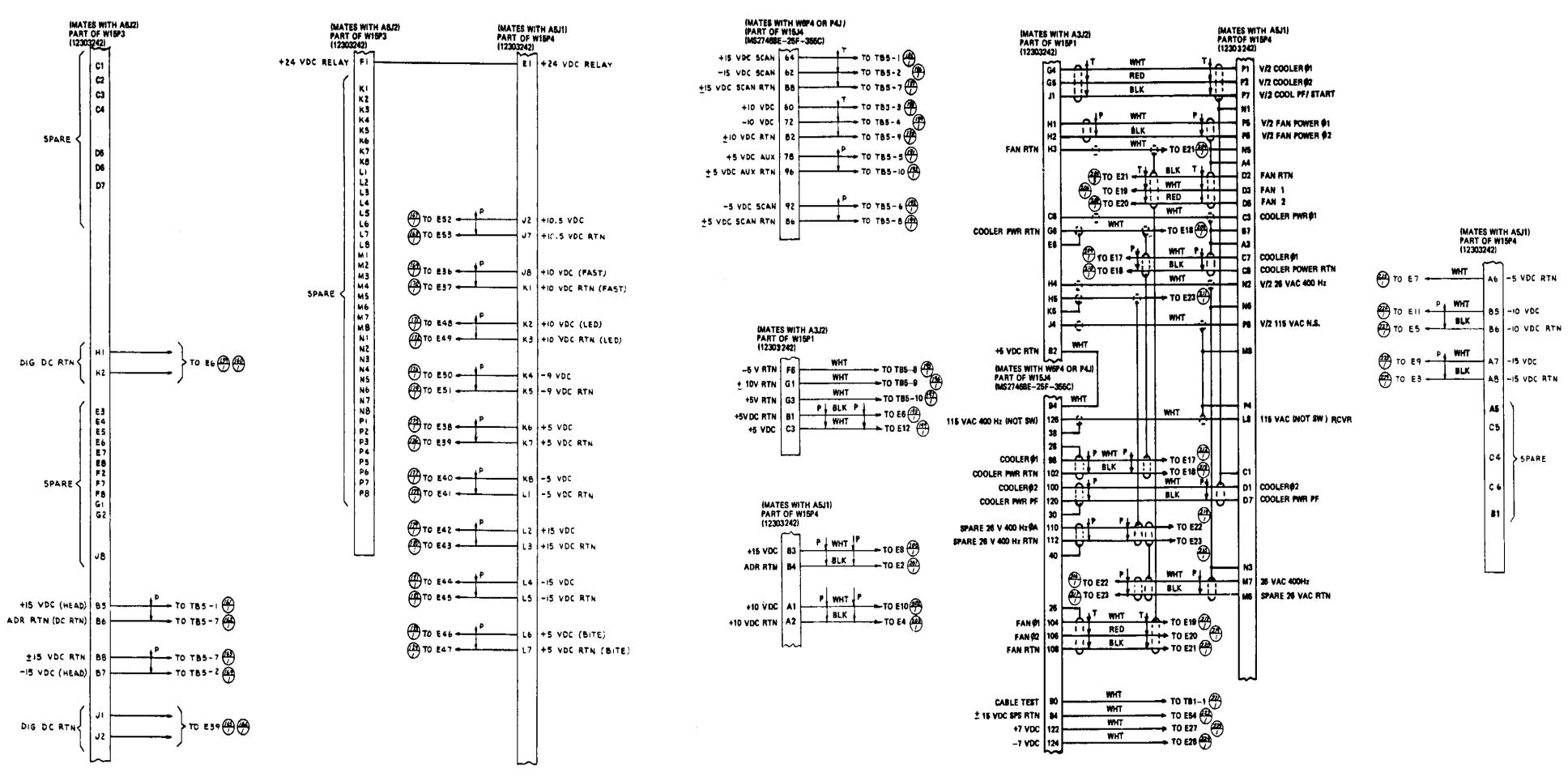
FO-13. Internal PCU Interconnect Harness W15 Wiring Diagram (Sheet 2 of 3)

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(MATES WI PART OF W (MS27468E-	15.0)	995 or 99J) -25)
A TO EIZ		+5 VOC (EU)
A 10 EI2	60	+5 VDC (EU)
	36555556634566789777777778901233456789012234567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334556789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789001233456789001233456789001233456789001233456789001233456789000000000000000000000000000000000000	

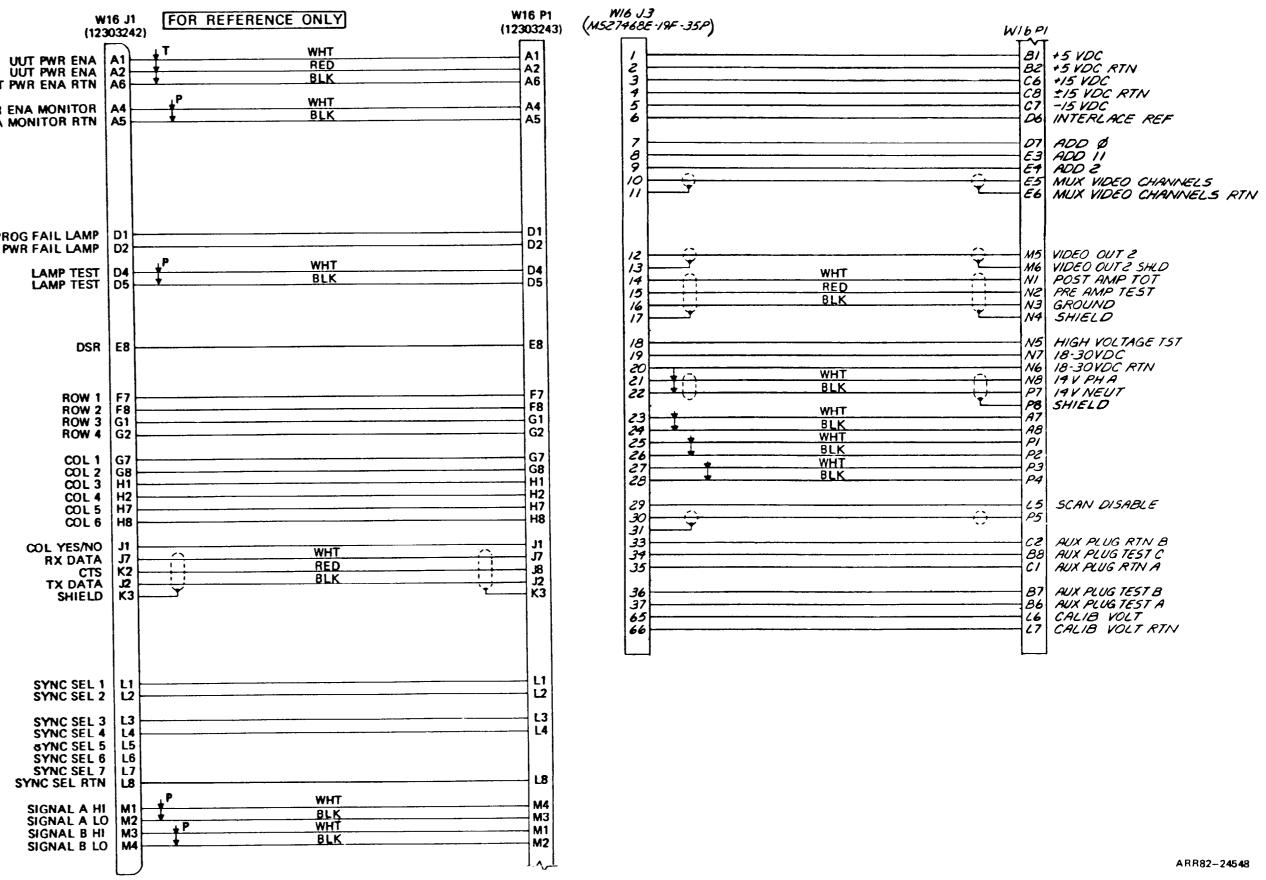
ARR82-24547

FO-13. Internal PCU Interconnect Harness W15 Wiring Diagram (Sheet 3 of 3)

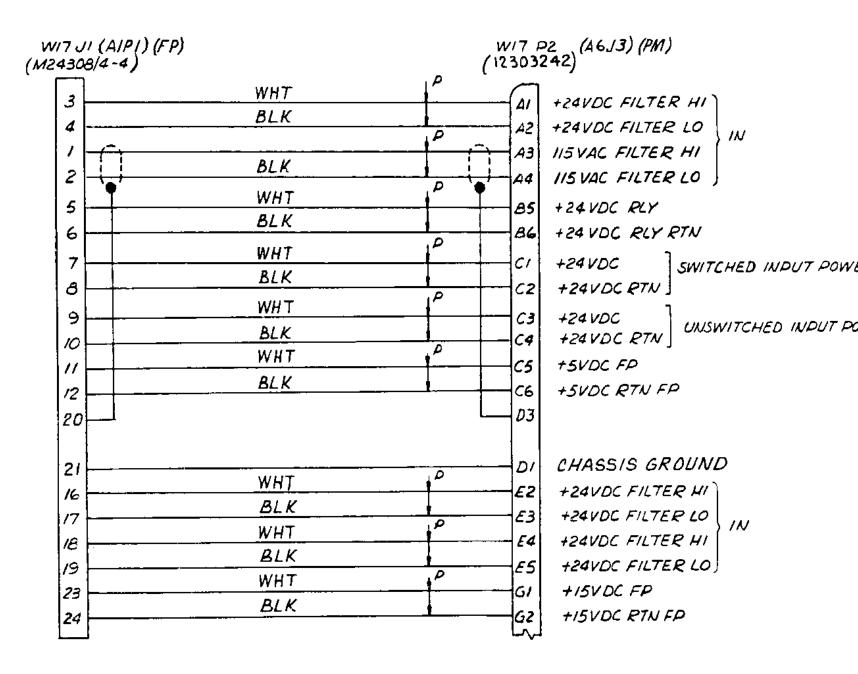
UUT PWR ENA RTN

UUT PWR ENA MONITOR UUT PWR ENA MONITOR RTN

PROG FAIL LAMP PWR FAIL LAMP



FO-14. Internal Panel Interconnect Harness W16 Wiring Diagram

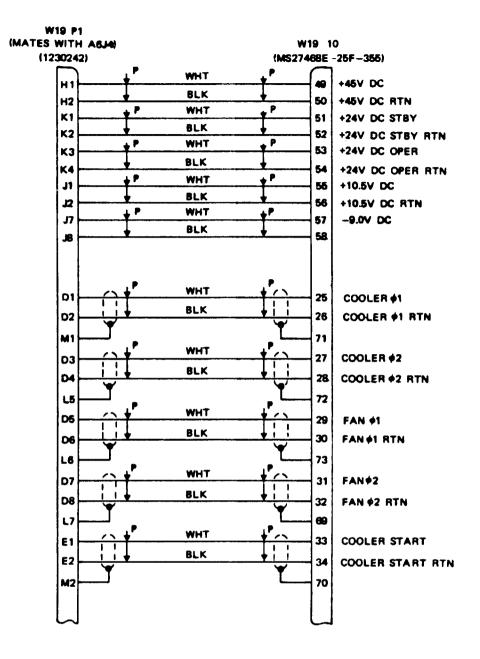


	WIT PI (AJJI) (12303242)	(DSS)	/	PART OF WI.T. P2
	A)	WHT	P	
	A2	BLK		- AS + SVDC DSS - AG + SVDC RTN DSS
	A5	WHT		
	A6	BLK		
	A7	WHT		
	A8	BLK	-	
		WHT	P	B2 -15VDC RTN DSS
VER	81	BLK		
	82	WHT	P	- B4 +24VDC ETN
	83 84	BLK		B7 +24VDC RLY B8 +24VDC RLY RTN
POWER				
	P1		P	PI
	Ρ7			-FI +24YDC PRIME POWER (SW)
	PB	BLK	<u> </u>	-F2 +24VDC PRIME POWER RTN (SV
		WHT	P	+24 VDC INPUT ENABLE
	A3	BLK		D8 +5VDC
	Δ4 	WHT	P	EI +5VDC RTN DSS
		BLK		E7 +5VDC DSS
	F/	WHT	P	F7 +SVDC RTN DSS
	E5	BLK		EB +5VDC DSS
	E6	WHT	P	F8 +SVDC RTN DSS
	DS	BLK		-67 + 5VDC DSS
	D6	WHT	P	- G8 +SVDC RTN DSS
	C7	BLK	·····	
	(8)			HB +24VPP RTN (UNSW)

ARR82-2454

FO-15. Internal Power Distribution Harness W17 Wiring Diagram

	P L	LP (
A1		1 + 15V DC (EU)
~Z	P 1	2 +15V DC RTN (EU)
▲ 3 		3 + 15V DC (IDU)
44 <u> </u>	P +	4 + ISV DC (IDU)
` ≤}		5 +10V DC (EV)
AG	P 1	6 +IOV DC RTN (EV)
a 7		
A8	<u>¥</u>	9 + IOV DC RTN (IDU)
BI		
82	!	10 + 5V DC RTN (EU)
84-	<u> </u>	12 + 5V DC RTN (IDU)
85		
ac		
87	P	
33 -	<u>t</u>	16 - 5V DC RTN (IDU)
c	P +	17 - 10V DG (EU)
c2	<u> t</u>	18 - IOV DC RTN (EU)
(c)	P /	
c•	k	20 - IOV DC RTN (DU)
:s	P +	21 -15V DC (EU)
c6 –		22 - ISV DC RTN (EU)
c7 🗕	P	23 - 15V DC (IDU)
ca	I	24 -ISV DC RTN (IDU)
01	P	25 COOLER Ø1
02	•	26 COOLER ØI RTN
03	P	27 CCOLER 02
04		28 COOLER OZ RTN
0.5	P	29 FAN ØI
		30 FAN QI RTN
~_	P 1	P 31 FAN Ø2
	<u> </u>	32 FAN 92 RTN
EI	P +	
EZ -		34 COOLER START RTN
E3	P	
		35 +24V DC RTN
ε	₽ ↓	
ε		
	P +	38 +15V DC RTN (SWITCHED
		39 - ISV DC (SWITCHE
C0 -	P	40 -ISV DC RTN (SWITCHE
		41 + OV DC (SWITCHE
F2	P	42 +IOV DC RTN (SWITCHE
67		43 - IOV DC (SWITCHE
F8	Ρ.	44 -IOV DC RTN (SWITCHER
<u>م</u> ا		45 + 5V DC (SWITCHED
G2	P 1	46 + 5V DC RTN (SWITCHE
57 -	<u> </u>	
G8		48 -5V DC RTN (SWITCHED



Т	TABLE		
REF DES	PINS NOT USED		
P1	M3 THRU M8 N1 Thru N8 P1 Thru P8		
J10	74 THRU 128		

ARR82-24550

FO-16. Internal TIS Interconnect Harness W19 Wiring Diagram

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FR	DM NTACT	T
	1A -1	╈
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	-47	\perp
	-89	
	-91	-
	A <u>-</u> 93	
64,	ITACTS 16 67 THRU 1	, 18, 88, 9

FERENCE ONLY

TO CONT	ACT	
P1A	-2	
	-4	
	-96	
	-98	
	-10	
	-12	
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	-22	
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	-42	
	-44	
	-46	
	-48	
	60	
	52	
	54	
	66	
	-58	
	-00	
	-92	
P1A	-100	
16, 18, 25, 59, THRU J 88, 94, 95, NOT USED		

FR CO	DM NTACT	T0 C0	NTACT
P.	2A -1	P.	2A -2
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	-41		-40
	43		42
	-45		44
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	-49		-48
	-65		-66
P.	ZA67	P	2A68

		_	
	FROM TO CONTACT CONTACT		TACT
P	2A83	P	2A -82
	85		-84
	87		-86
	89		-88
	91		00
	81		-92
	-95		-94
	-97		-96
	-89		-96
	71		-72
	-73		-74
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	-113		-114
	-75		-76
	-17		-78
	-111		-112
	67		56
	-69		58
	-63		-64
	-61		-62
P	P2A -59 P2A -60		
93,	NTACTS 47, 100 THRU 1 NOT USED		

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P	IA -1	P	4A-2	
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	-35		-46	
	49		-48	
	51		50	
	53		52	
	-55		-54	
	57		-56	
	69		-58	
	-59		-80	
M	A61	PI	A-62	

FROM		TO CONTACT	
P4A -63		P4A64	
	-65		-66
	67		68
	-71		-72
	-73		-74
	- 75		76
	-77		-78
	-79		-80
	-83		-82
	-85		84
	-87		-86
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	91		-90
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	-125		124
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PIA -127 PIA -126		IA -126	
P4A -70 P4A -128			
CONTACTS 47, 93 NOT USED			

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	TO CONTACT
P5A1	P5A2
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-27	28
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39	-38
-41	40
-43	-42
-45	-44
-35	-46
-49	48
-51	60
-53	-62
55	-54
-67	-56
-69	-58
59	-60
-61	-62
-63	-64
-65	-66
-67	-68
-71	- <i>n</i>
-73	-74
-75	-76
P5A77	P5A -78

P2A

PIA

75A

FROM	TO CONTACT	
<u> 154 - 79</u>	P5A80	
-82	-83	
-85	-84	
-101	-100	
91	-40	
-89	88	
87	-86	
-95	-94	
97	~-96	
-99	-98	
-103	-102	
-105	-104	
-107	-106	
-109	-108	
-111	-110	
-113	-112	
-81	-02	
-70	-03	
-115	-117	
P5A-47 P5A-114		
CONTACTS 116, 118, THRU 128 NOT USED		

	FROM CONTACT		ONTACT
	P6A -1	PE	iA -2
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	-6		-6
	-9		-6
	-41		-98
	-13		-12
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	-17	Π	-18
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	~21	Π	-22
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	-31	Π	-30
	-33	Ħ	-32
	-35	\square	-34
	-73	$\dagger \dagger$	-12
	-37	$\uparrow \uparrow$	-38
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	-47	\dagger	-46
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	-65	11	-66
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	-81	\dagger	58
	-59		-60
	P6A61	A A	6A -62
3 6	ONTACTS 10, 6, 48 THRU 53 2 THRU 97, 98 OT USED		7D 71 80

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-45	-44	
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-63	-52	
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-50	-60	
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-65	-66	
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-73	-74	
-75	-76	
-79	-80	
F7A -83	P7A82	

FROM CONTACT	TO CONTACT
P7A -85	97A -84
-87	86
-89	88
91	90
81	-92
-103	-102
-105	-104
-77	-78
-95	94
97	96
-99	-98
-101	-100
-107	-106
-109	-108
112	-116
-119	-118
-121	120
-123	-122
P7A -125	P7A -124
CONTACTS 47, 114, 115, 117, 1 NOT USED	70, 93, 111, 113, 26, 127, 128

FRO	M	TO CON	TACT
PB	A -1	P8.	A -2
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	-7		-6
	-3		-8
	-0		-16
	-13		-12
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	51		-52
	-53		-54
	55		-56
	67		-62
	-61		-60
	-59		58
	BA -64		ia -66
	NTACTS 10, RU 100 NOT	11, 63, I USED	66, 67

<u> </u>			
FROM CONTACT			ITACT
P9	A -1	P9	A −2
	-3		-4
	-5		-6
	-7		-14
	-9		-8
	-13		-12
	-15		-16
	-17		-18
	-11		-10
	-19		-20
	-23		-24
	-25		-26
	-27		-28
	-29		-30
	-31		-32
	-33		-34
	-35		-36
	-37		-38
	39		-40
	-41		-42
	-43		44
	21		-22
	-47		46
	-49		-48
P.	A -50	P	DA -54
CONTACTS 45, 51, 52, 53, 55 THRU 85 NOT USED			
.			

PBA

P6A

P8A

FRO	IM ITACT	TO CON	TACT
P11	A-3	P11	A2
	-5		-4
	-7		-6
	-9		-8
	-11		-10
	-13		-12
	-15		14
	-23		-16
	-17		-18
	-19		-20
	-21		-22
	-27		-32
1	-25	1	-26
P11A-64		P11	A -66
CONTACTS 1, 24, 28 THRU 31, 33 THRU 63, 65 NOT USED			

P11A

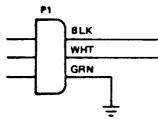
FRO	M	TO CON	таст
P12	A-1	P1 2	A-2
- 1	-3	-	-4
	6		6
	-17		-8
	-9		-10
	-11		-12
_	-13		-14
	-25		-16
	-19		-18
	-21		-20
	-23		22
	-15		-24
	-27		-26
	-29		-28
	-63		-65
	-65		-66
	-67		-68
	-89		-70
	-45		-44
	-47		-46
	-49		48
	-51		50
	-53		52
	-55		-64
<u>۲</u>	57		56
<u>├</u>	59		-58
	-61		-60
	-71		-72
	-73		-74
	-86		-\$7
	-89		
P12	A -98	P12	A - 100
00N 75, NOT	FTACTS 7, 3 85, 88, 91 T ' USED	o thri Hru 10	u 43, 62, X0

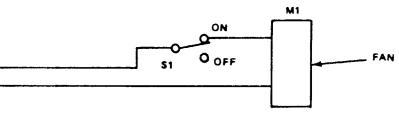
P12A

ARR82-24551

FO-17. Shorting Plug Connectors Wiring Lists

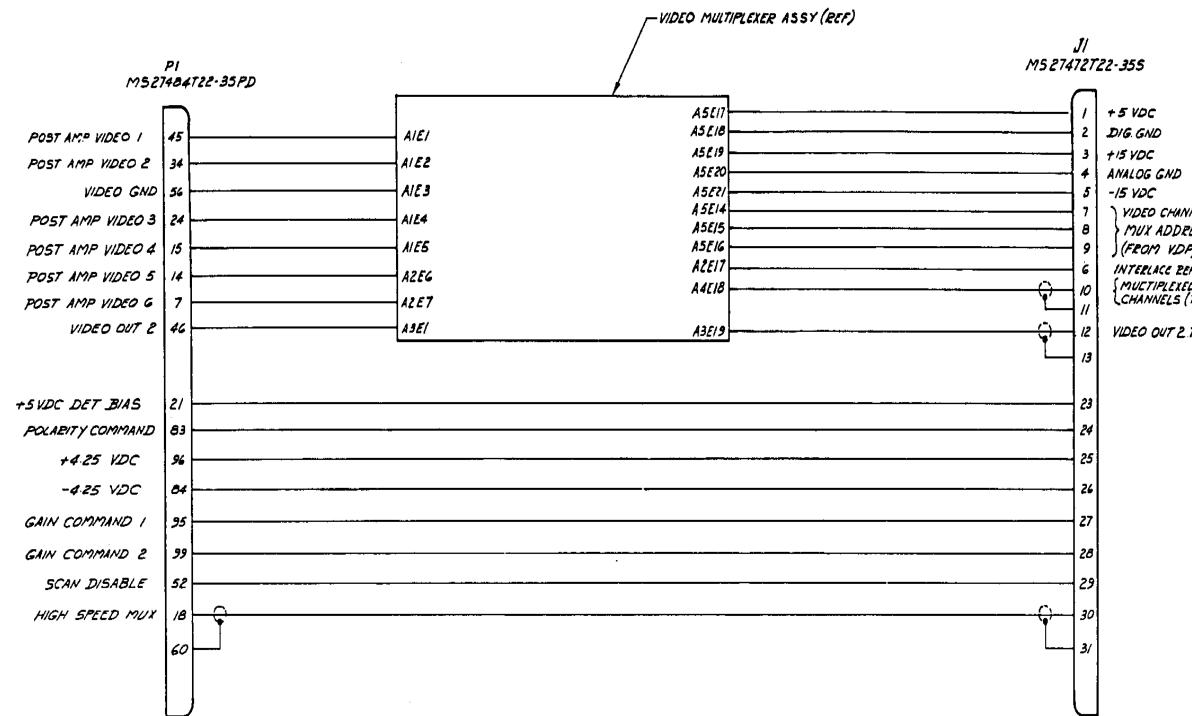
FP-67/(FP-68 blank)





FO-18. PCU Heatsink Holding Fixture Schematic Diagram

FP-69/(FP-70 blank)



+ 5VDC	WHT	(M527
2 DIG GND	WHT	
- _/5V0C '	WHT	
ANALOG GND	WHT	
4 -15 1/00	WHT	
VIDED CHANNEL MUY ADDRESS	(FROM VDP) WHT	
VIDED CHANNEL MUY ADDRESS	(FROM VDP) WHT	
VIDED CHANNEL MUX ADDRESS	(FRUM VOP) WHT	
INTERIACE REF	(FROM VDP) WHT	
6 MUX VIDEO	(70 YDP) WHT	
	WHT	
لــــ ور ۱ ۱		
23 + 5VDC DET BIAS POLARITY COMMAND	и WHT	
24 + 4.25 VUC	WHT	
25 - 4.25 VOC	WHT	· · · ·
CAIN COMMAND (WHT	
CAIN COMMAND 2	WHT	
28 SCAN DISABLE	WHT	
29 HIGH SPEED MUX	WHT	
30	• • • • • • • • • • • • • • • • • • •	
31		· · · · · · · · · · · · · · · · · · ·

5 -IS VDC 7 VIDEO CHANNELS 8 MUX ADDRESS (FROM VDP) INTERLACE REF (FROM VDP) { MUETIPLEXED VIDEO { CHANNELS (TO VDC)

VIDEO OUT 2.TO SCOPE

TO JI VIDEO) | [] XUIY

r**·**355)

SHIELD (COPPER BRAID)

TO WI6J3T5T5 (1230353/)

 \mathbf{v}

	TABLE	
REF DESIG	PINS, NOT USED	
Ρ2	14 THRU 22, 32 THRU 100	
PI	14 THRU 22, 32, 37 THRU 66	

ARR82-24553

FO-19. Cable Assembly W9/Video Multiplexer Assembly Schematic Diagram

FP-71/(FP-72 blank)

THE METRIC SYSTEM AND EQUIVALENTS

LINEAR MEASURE

1 Centimeter = 10 Millimeters = 0.01 Meters = 0.3937 Inches 1 Meter= 100 Centimeters = 1000 Millimeters = 39.37 Inches 1 Kilometer=1000 Meters= 0.621 Miles

WEIGHTS

- 1 Gram = 0.001 Kilograms = 1000 Milligrams = 0.035 Ounces
- 1 Kilogram =1000 Grams =2.2 Lb
- 1 Metric Ton =1000 Kilograms =1 Megagram =1.1 Short Tons

LIQUID MEASURE

1 Milliliter=0.001 Liters=0.0338 Fluid Ounces 1 Liter=1000 Milliliters=33.82 Fluid Ounces

SQUARE MEASURE

- 1 Sq. Centimeter = 100 Sq. Millimeters = 0.155 Sq. Inches 1 Sq. Meter = 10,000 Sq. Centimeters = 10.76 Sq. Feet 1 Sq. Kilometer = 1,000,000 Sq. Meters = 0.386 Sq. Miles

CUBIC MEASURE

- 1 Cu Centimeter =1000 Cu M Ilimeters =0.06 Cu Inches 1 Cu Meter =1,000,000 Cu Centimeters =35.31 Cu Feet

TEMPERATURE

5/9 ($^{0}F - 32$) = ^{0}C 212° Fohrenheit is equivalent to 100° Celsius 90° Fahrenheit is equivalent to 32.2° Celsius 32° Fahrenheit is equivalent to 0° Celsius 9/5 C° + 32= F°

APPROXIMATE CONVERSION FACTORS

		2
TO CHANGE	TO MULTIPLY BY	
lachar	TO <u>MULTIPLY BY</u> Centimeters2.540	5
	Meters 0.305	
Yards		
	Kilometers 1.609	3-0
	Square Centimeters 6.451	
Square Feet	Square Meters 0.093	
	Square Meters 0.836	1
	Square Kilometers 2.590	-
	Square Hectometers 0.405	_ 1
	Cubic Meters 0.028	
Cubic Yards	Cubic Meters 0.765	-F
Fluid Ounces	Milliliters 29.573	5
Pints		2
Quarts	Liters 0.946	- -
Gallons	Liters	1
Ounces.	Grams	£
Pounds.	Kilograms 0.454	°-1
	Metric Tons 0.907	L L
	Newton-Meters 1.356	3
	Kilopascals 6.895	~~ <u>+</u>
	Kilometers per Liter . 0.425	Ł
	Kilometers per Hour 1.609	- - - - - - - - - - -
	VIIUmerers ber nour. • • • • • • •	2
		~ 🗲
TO CHANGE	TO MULTIPLY BY	
TO CHANGE		4
TO CHANGE Centimeters	Inches 0.394	el e tre de
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TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094	oppelse of
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621	s futtulutut
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TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches Square Feet Square Feet	4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches Square Feet Square Yards Yards Miles 1.094 Square Inches Square Yards Square Yards Yards 1.196	s of the state of
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 10.764 Square Yards 1.196 Square Miles 0.386	4 5 6 1 Hirdricherherherh
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 10.764 Square Yards 1.196 Square Miles 0.386 Acres 2.471	4 5 6 7 44444444444444444444444444444444444
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 10.764 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315	4 5 6 7 6 7
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 10.764 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308	3 4 5 6 7
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 10.764 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034	3 4 5 6 7 mhydrydrydrydrydrydd
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 10.764 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034 Pints 2.113	Hurtiperterterterterterte
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 10.764 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034 Pints 2.113 Quarts 1.057	4 5 6 7 44 14 14 14 14 14 14 14 14 14 14 14 14 1
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 10.764 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034 Pints 2.113 Quarts 1.057 Gallons 0.264	² ³ ⁴ ⁵ ⁶ ⁷ ⁵ ¹ ² ⁵ ⁶
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Feet 1.094 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034 Pints 2.113 Quarts 1.057 Gallons 0.264 Ounces 0.035	A. 2 3 4 5 6 7 pribududry hydrophylicherholds ES 2 2
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.155 Square Yards 1.0764 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034 Pints 2.113 Quarts 0.264 Ounces 0.035 Pounds 2.205	CM. 2 3 4 5 6 7 physician physician
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TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.621 Square Inches 0.155 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034 Pints 2.113 Quarts 0.264 Ounces 0.035 Pounds 2.205 Short Tons 1.102 Pound-Feet 0.738	¹ CM. ² ³ ⁴ ⁵ ⁶ ⁷ whythythythythythythythythythythyth INCHES ¹ ²
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TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.621 Square Inches 0.155 Square Yards 1.196 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034 Pints 2.113 Quarts 0.264 Ounces 0.035 Pounds 1.102 Pound-Feet 0.738 Pounds per Square Inch 0.145	
TO CHANGE Centimeters	Inches 0.394 Feet 3.280 Yards 1.094 Miles 0.621 Square Inches 0.621 Square Inches 0.155 Square Yards 1.196 Square Yards 1.196 Square Miles 0.386 Acres 2.471 Cubic Feet 35.315 Cubic Yards 1.308 Fluid Ounces 0.034 Pints 2.113 Quarts 0.264 Ounces 0.035 Pounds 1.102 Pound-Feet 0.738 Pounds per Square Inch 0.145	

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