#### **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.

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#### 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.

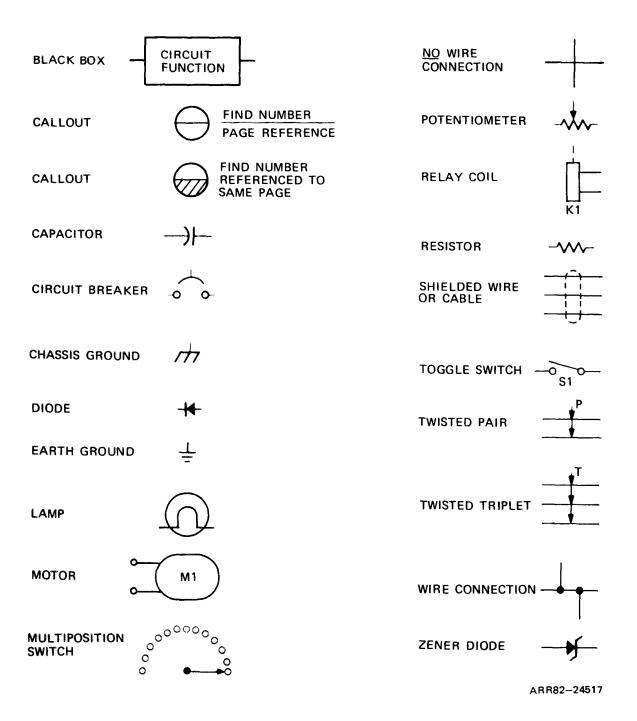
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#### APPENDIX A

#### 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:

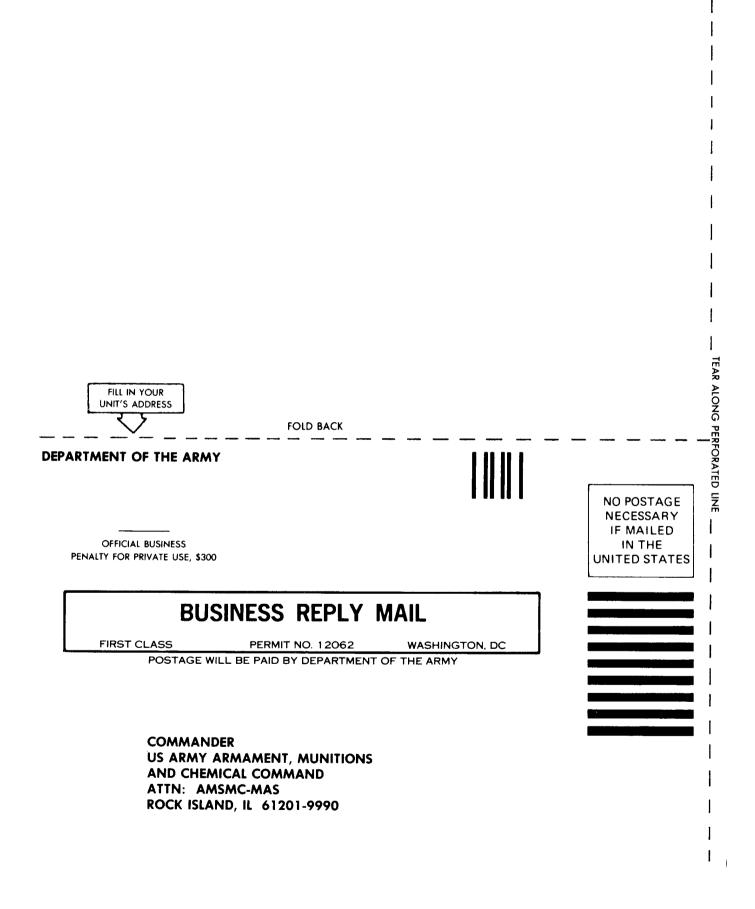
#### R. L. DILWORTH Brigadier General, United States Army The Adjutant General

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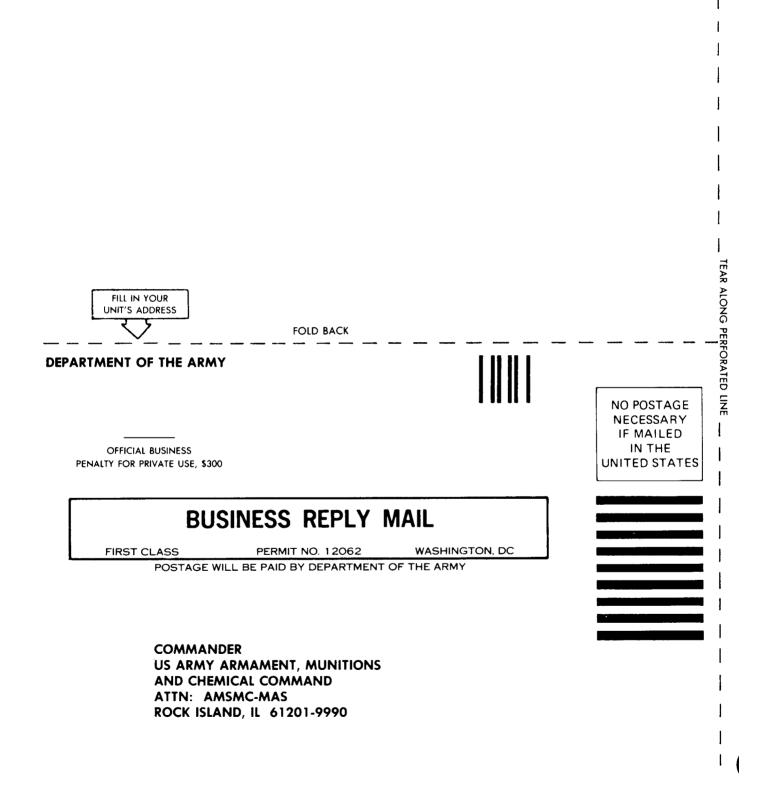
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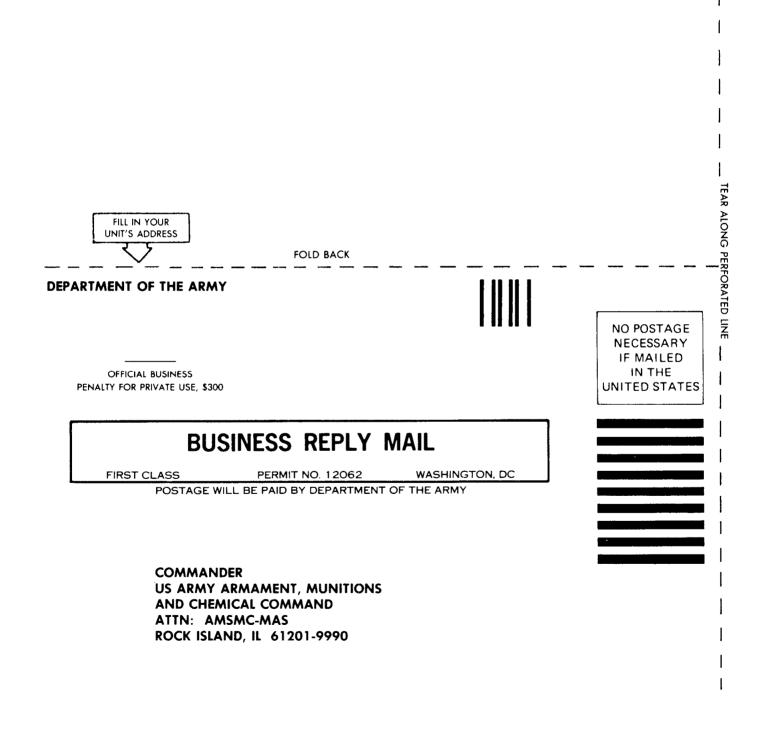
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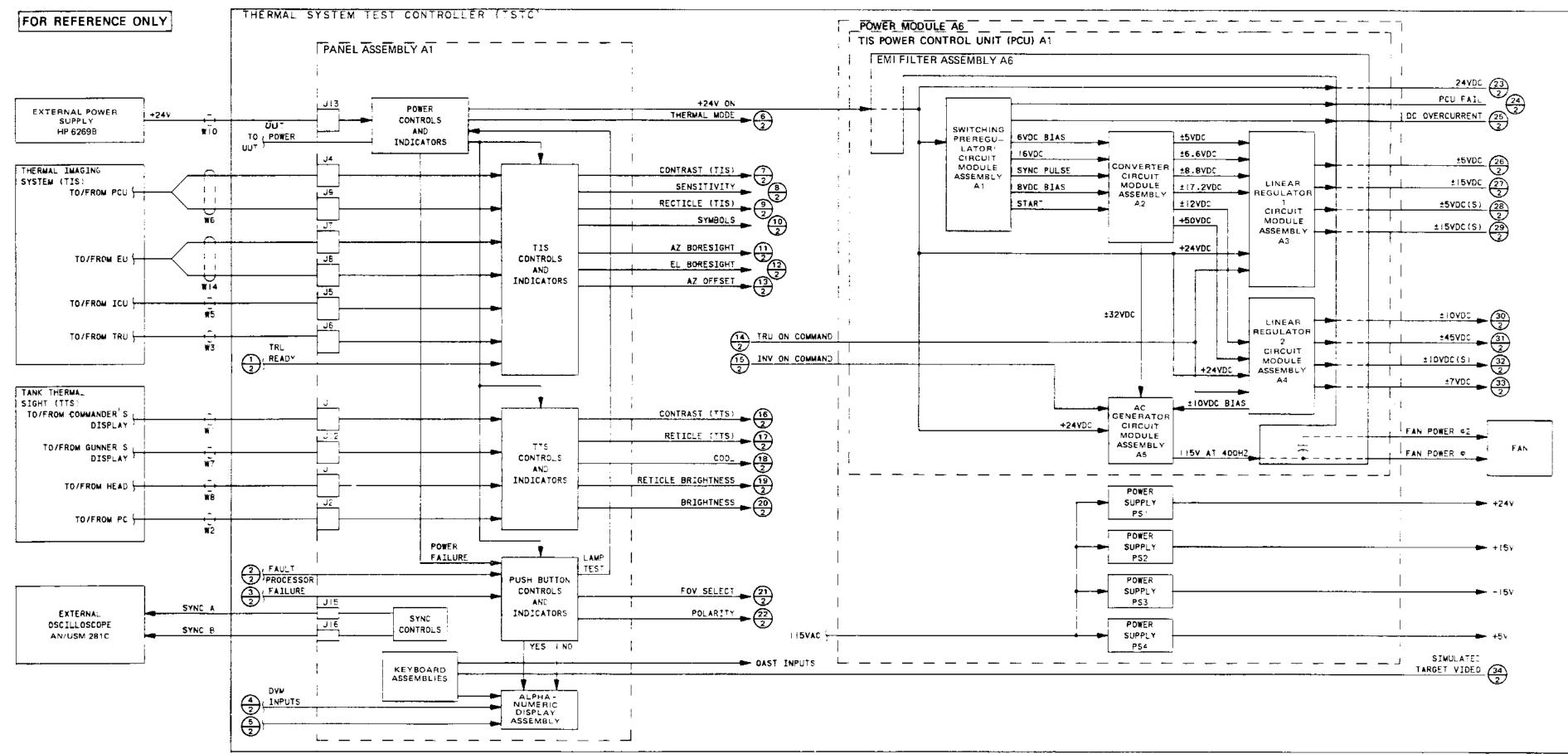


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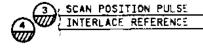


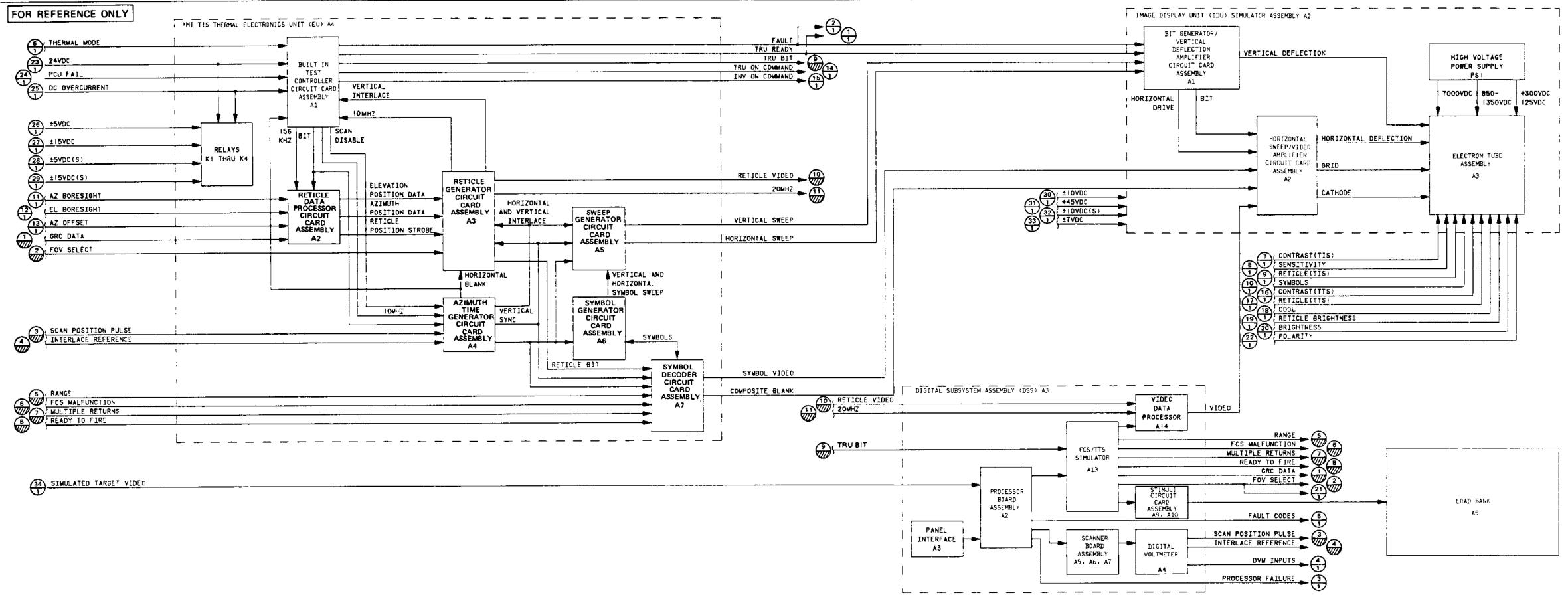
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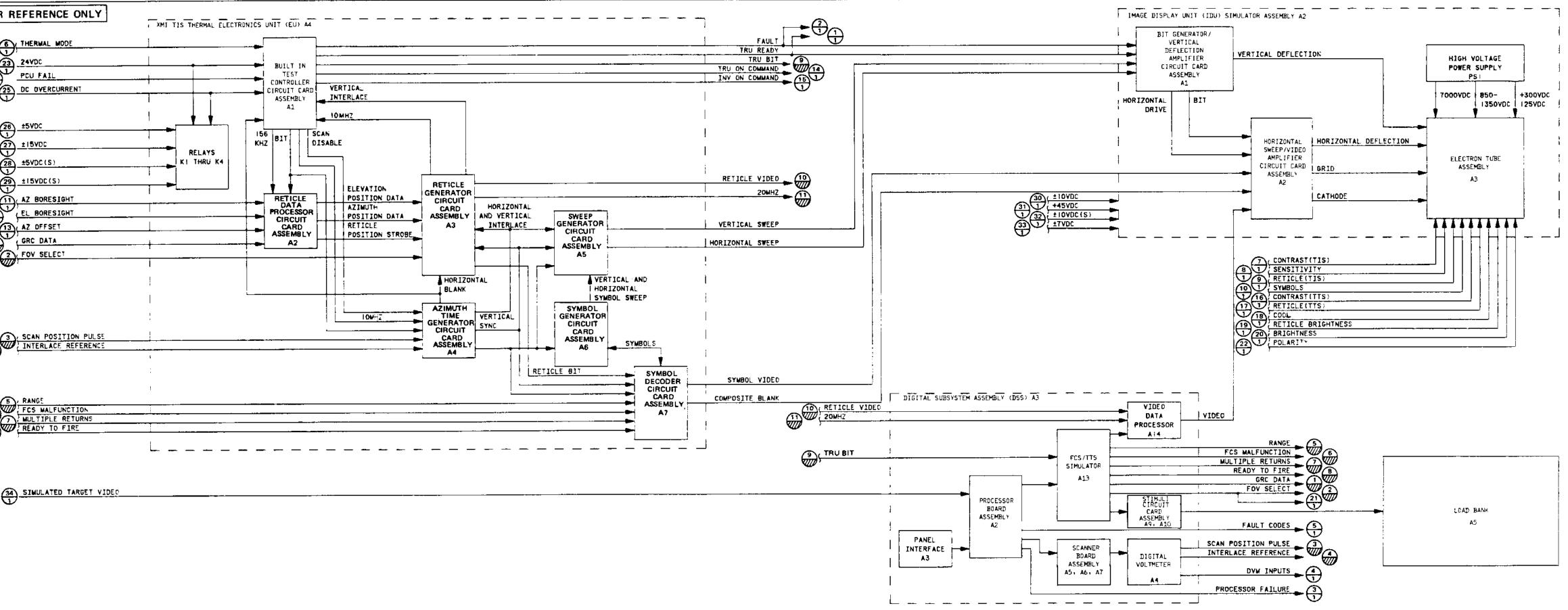
FO-1. Thermal System Test Set (TSTS) Functional Block Diagram (Sheet 1 of 2)

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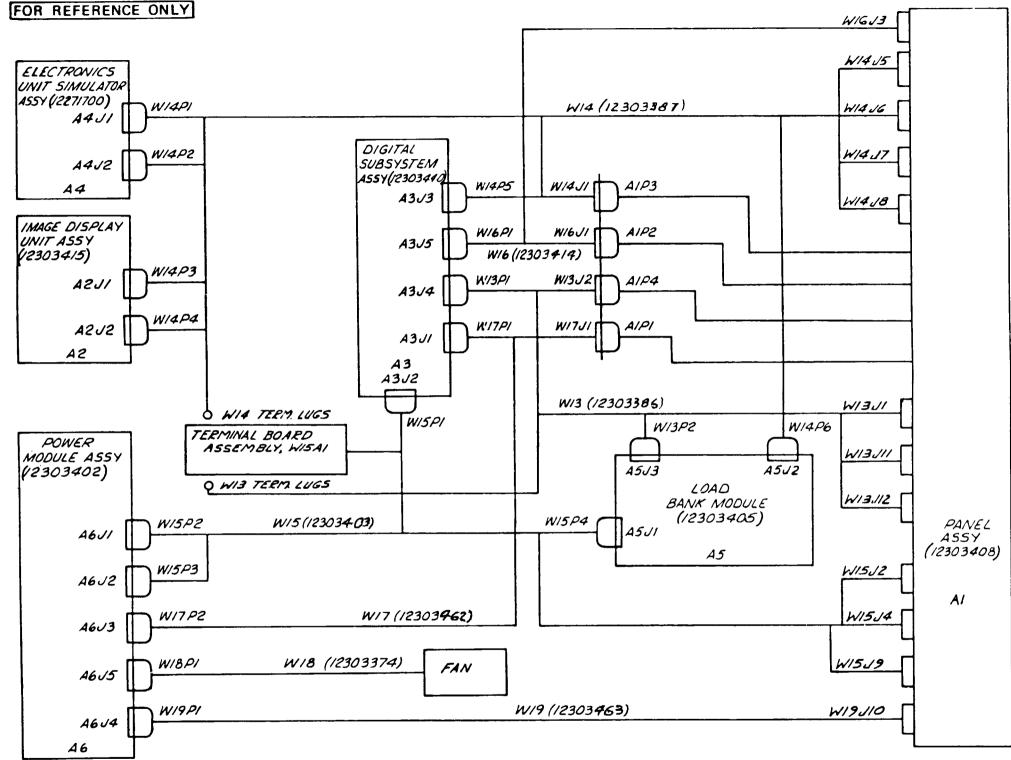






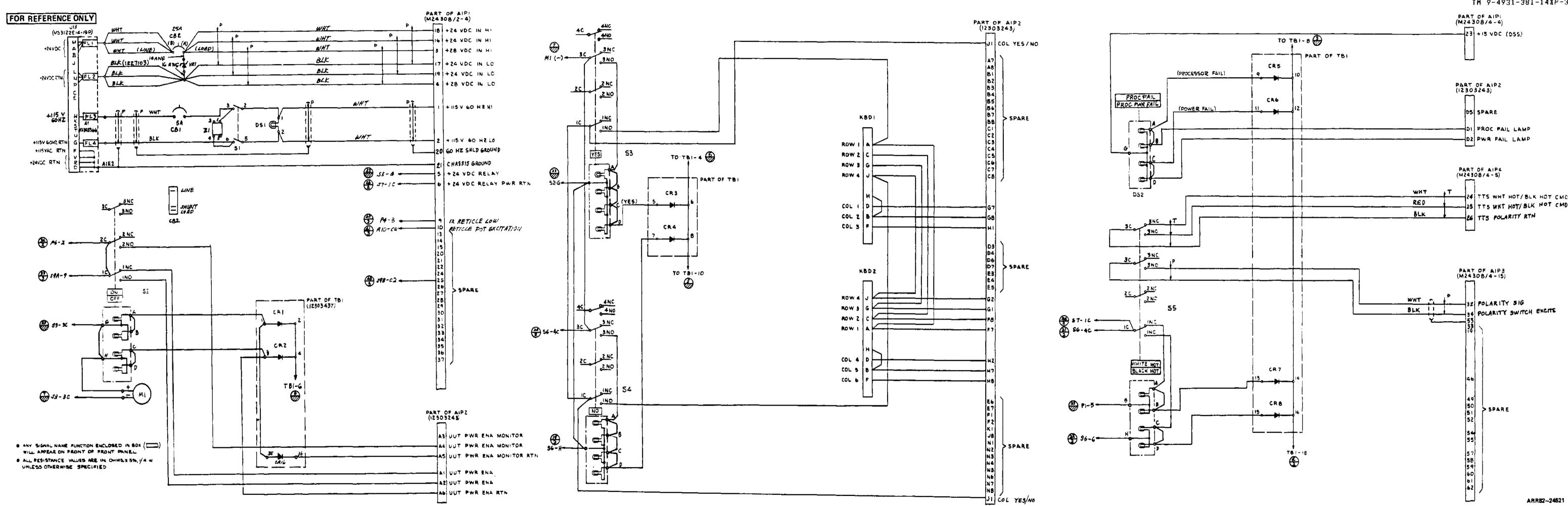
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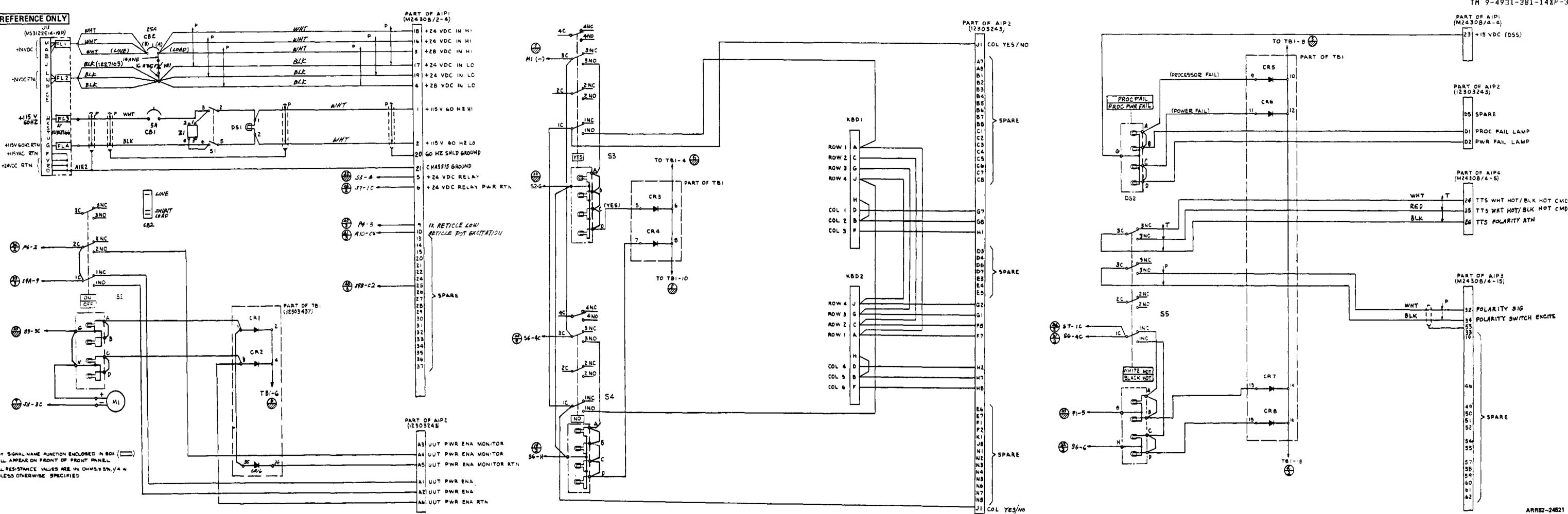
### FO-1. Thermal System Test Set (TSTS) Functional Block Diagram (Sheet 2 of 2)



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FO-2. Internal Harness Interconnection Diagram

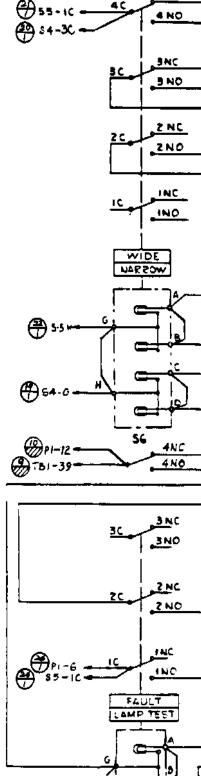


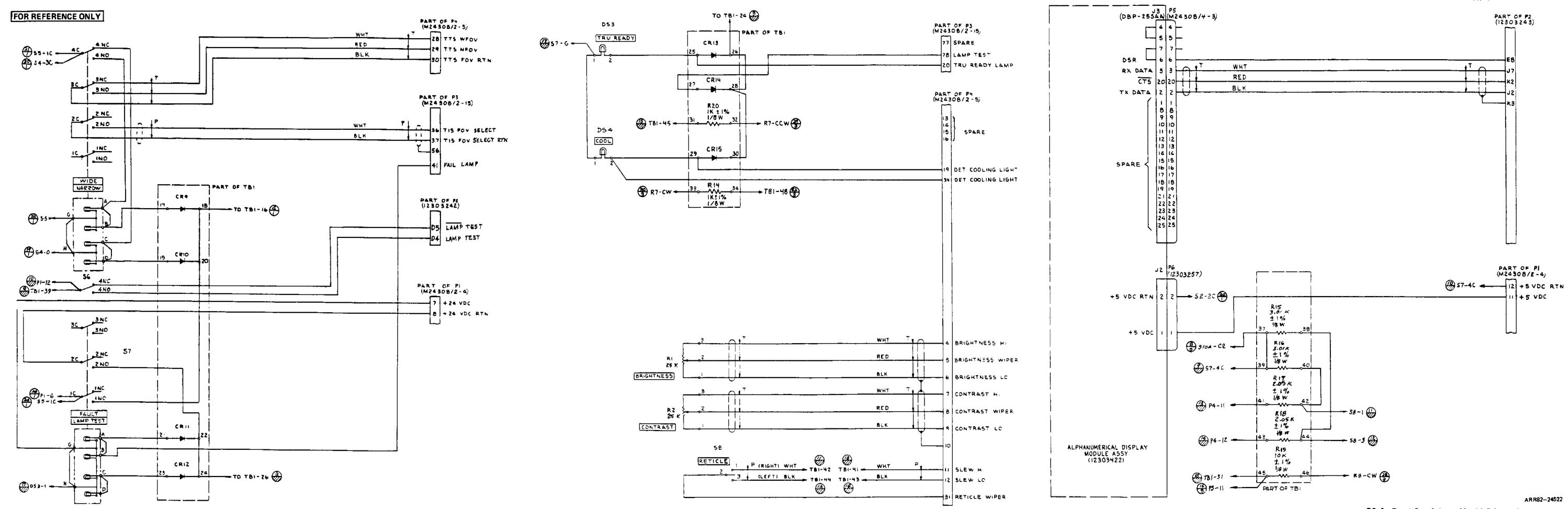


FO-3. Front Panel Assembly A1 Schematic Diagram (Sheet 1 of 3)

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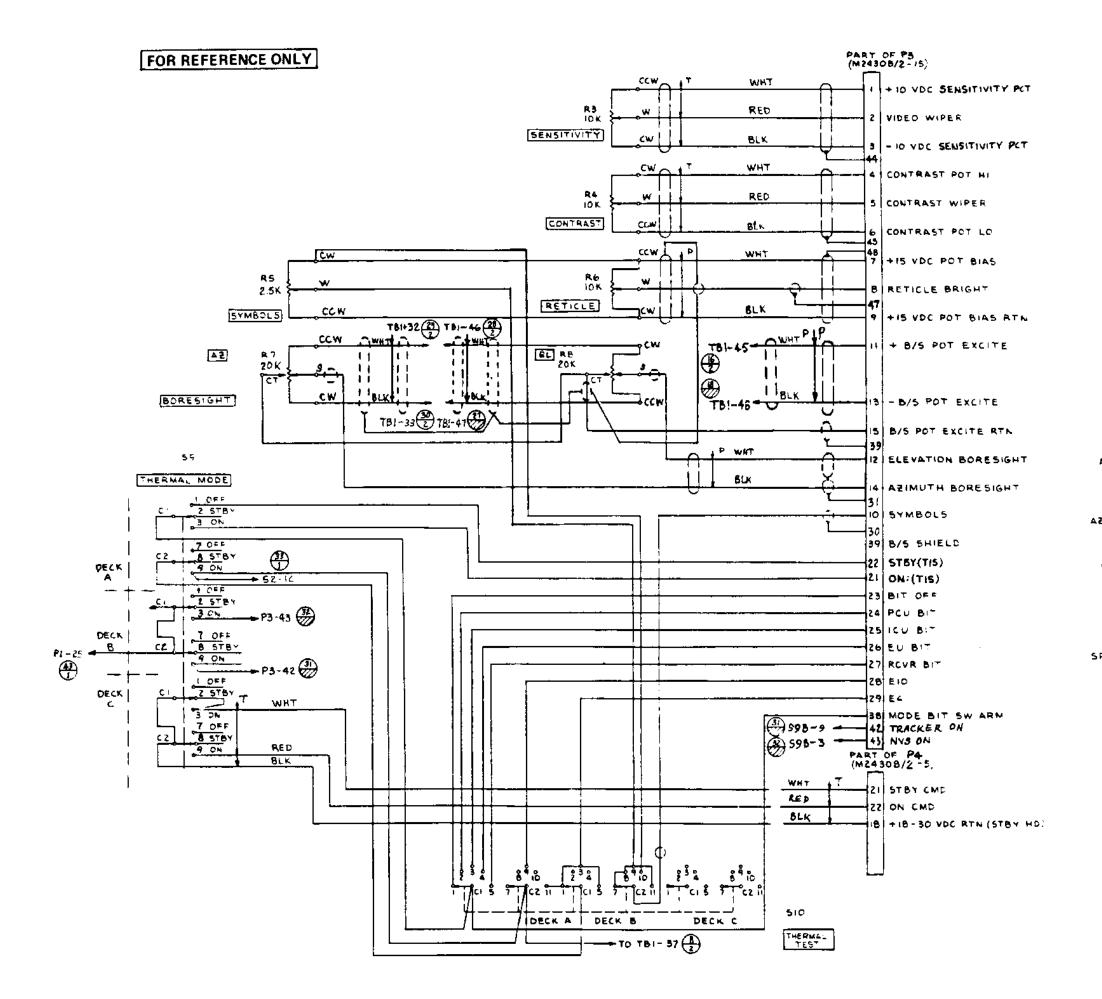
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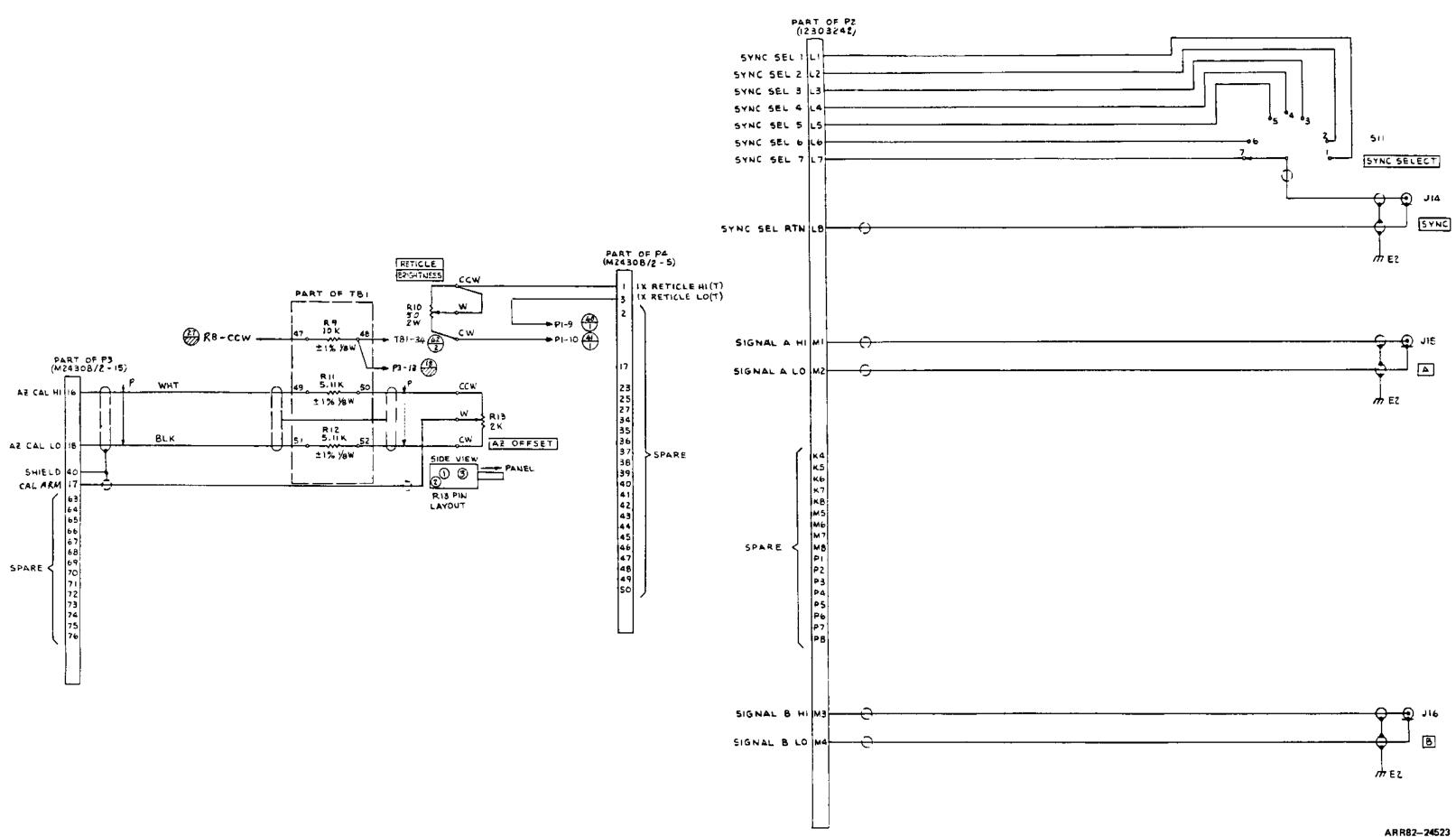




FO-3. Front Panel Assembly A1 Schematic Diagram (Sheet 2 of 3)

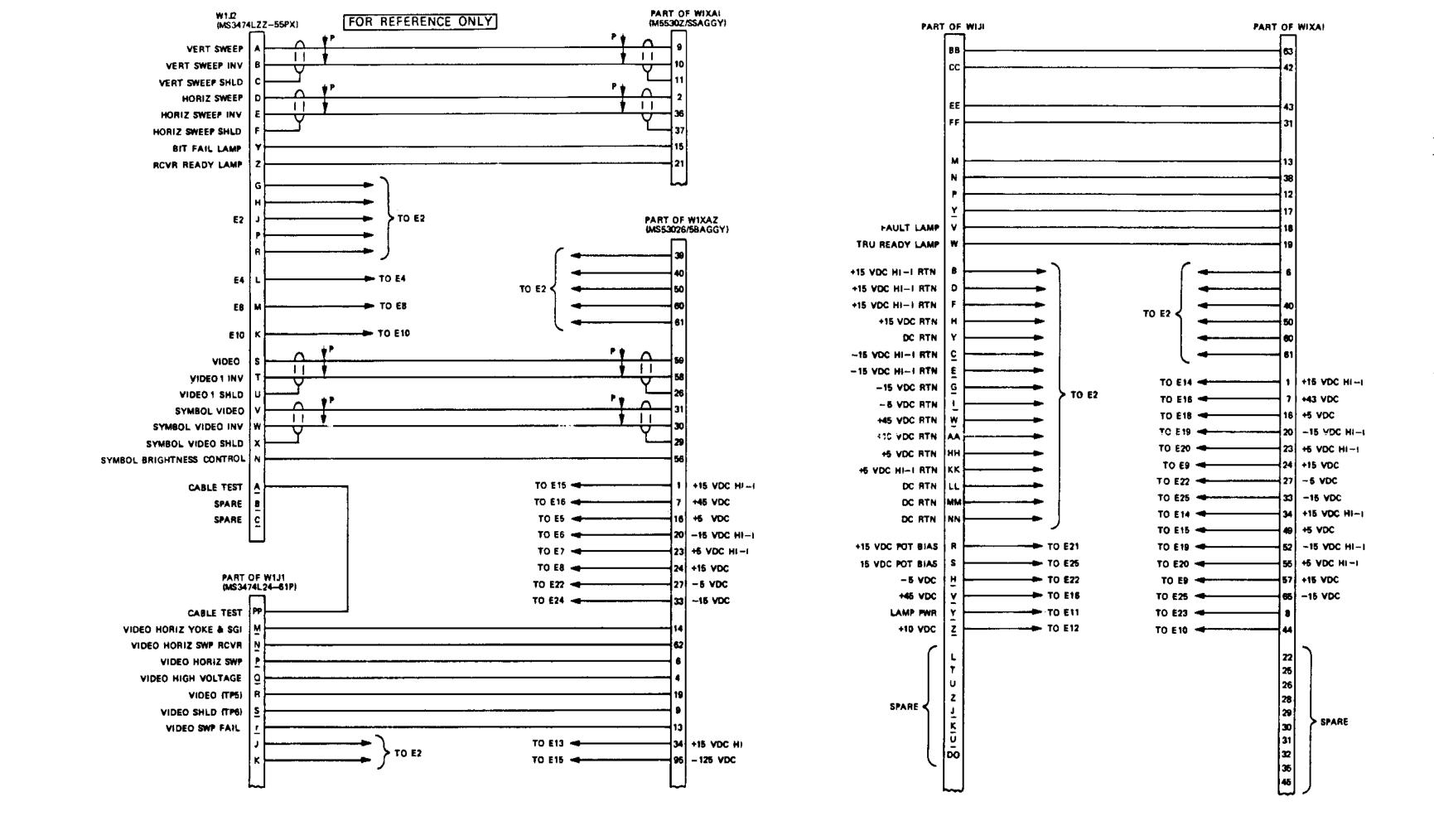
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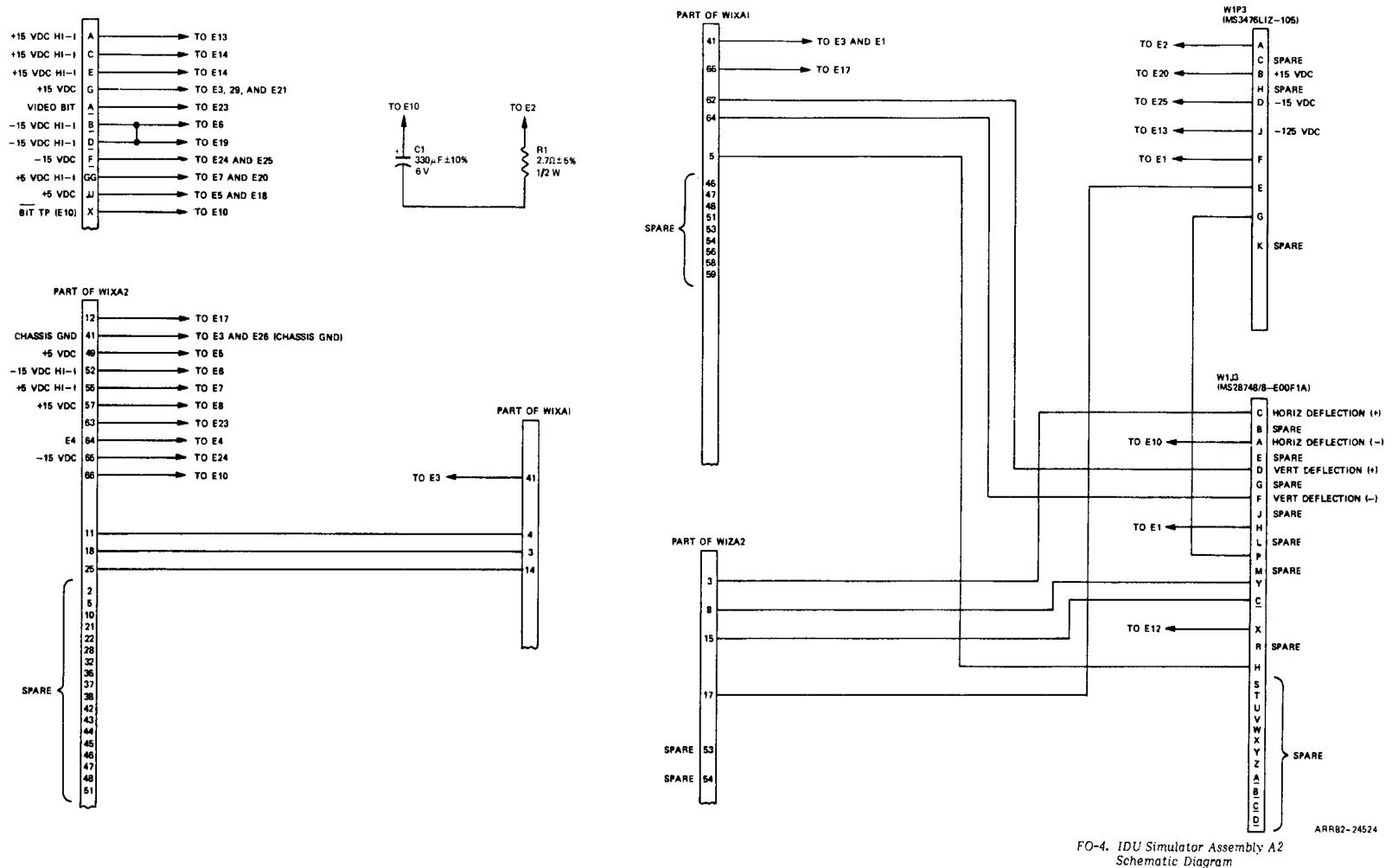




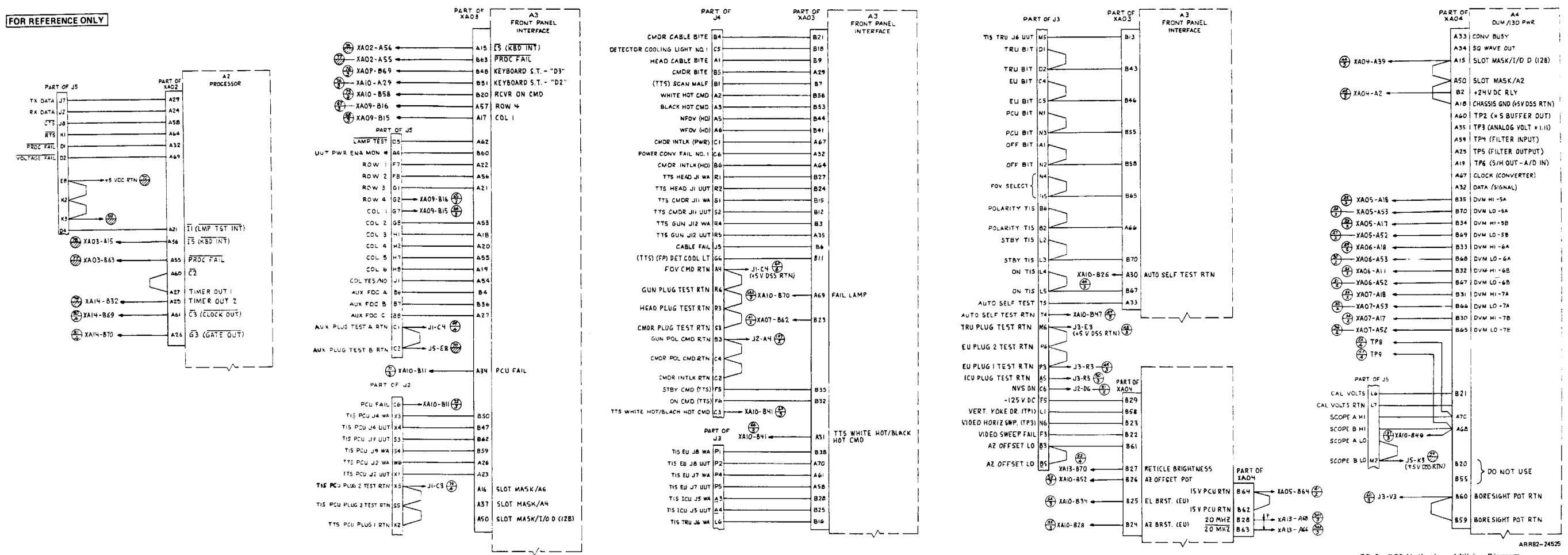
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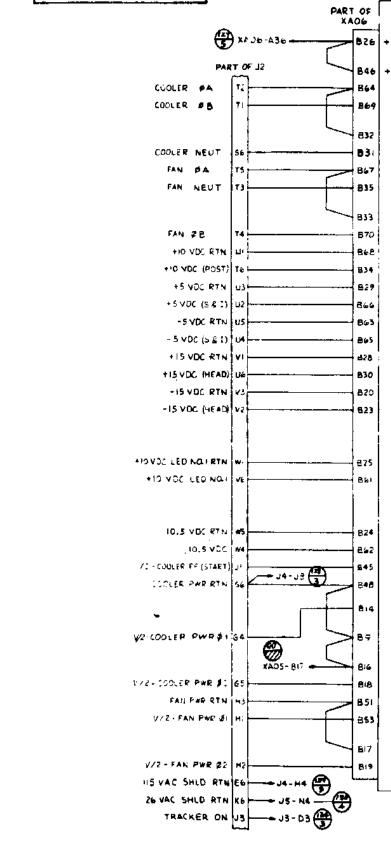


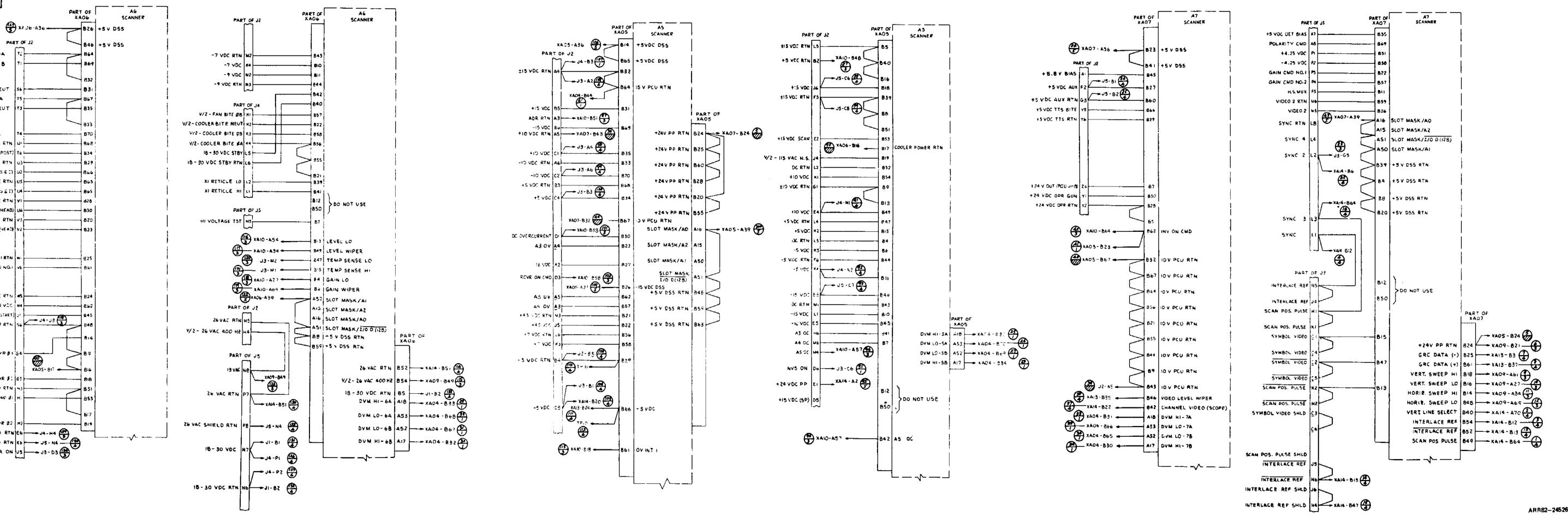
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FO-5. DSS Motherboard Wiring Diagram (Sheet 1 of 5)

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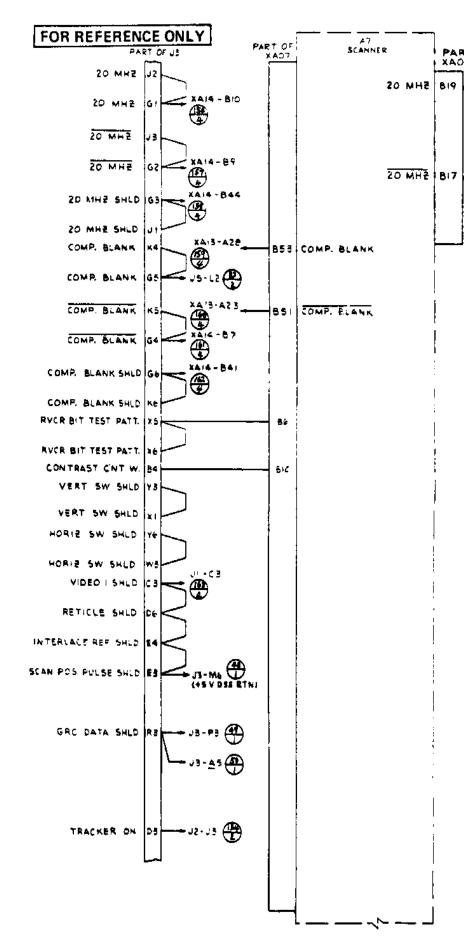
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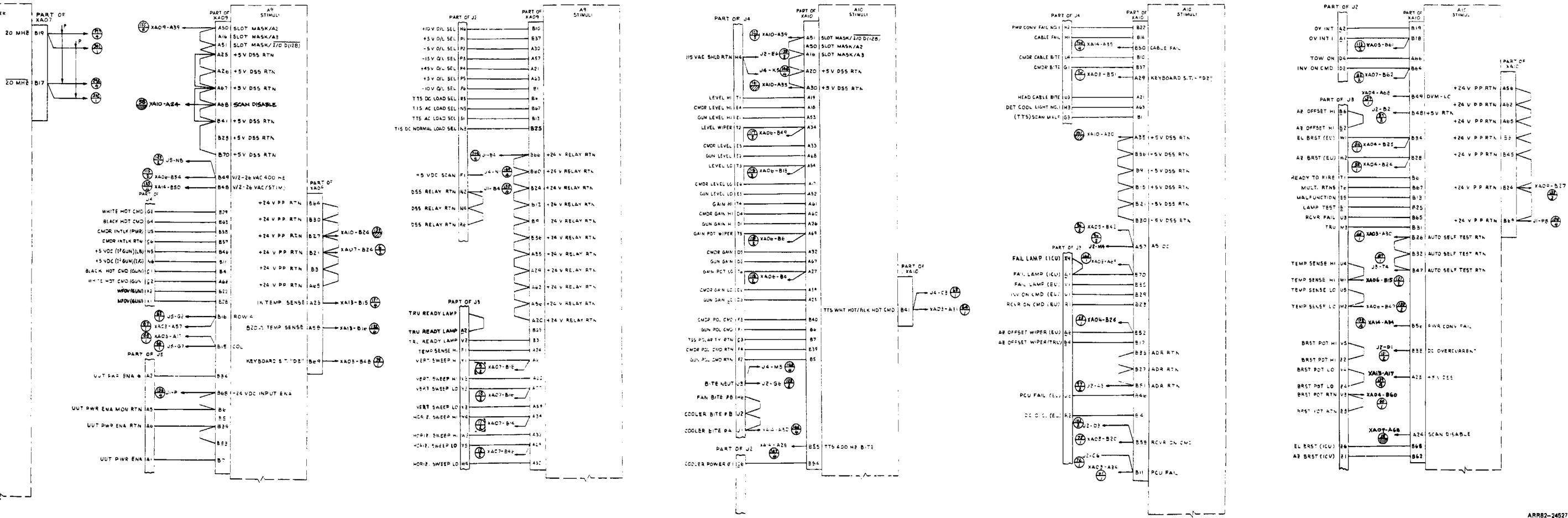




FO-5. DSS Motherboard Wiring Diagram (Sheet 2 of 5)

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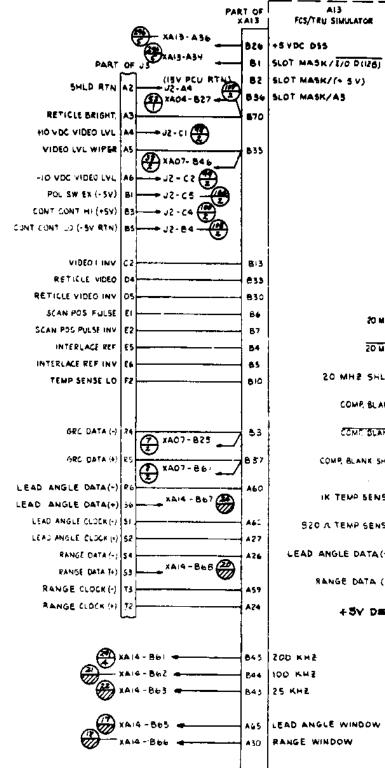


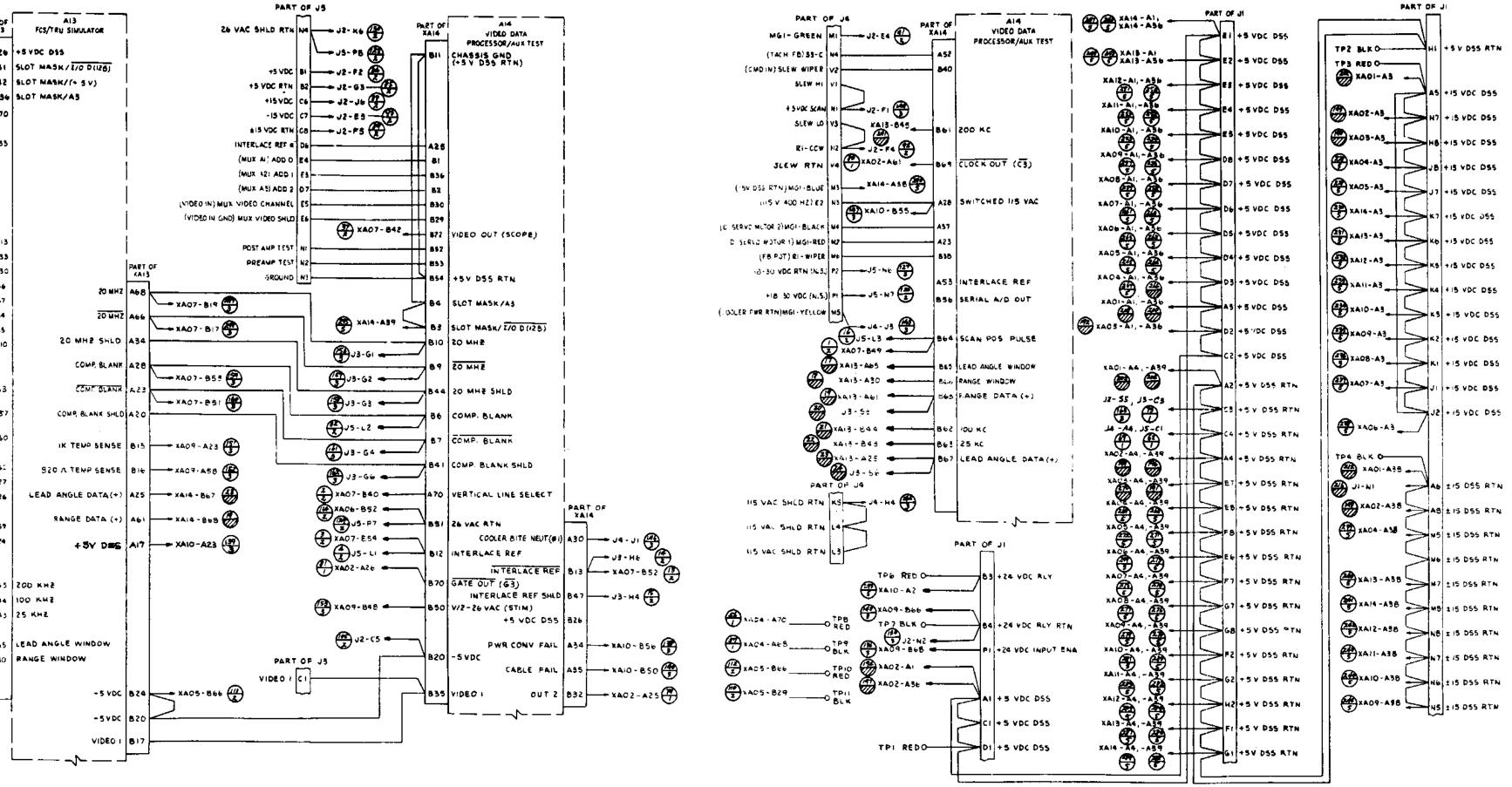
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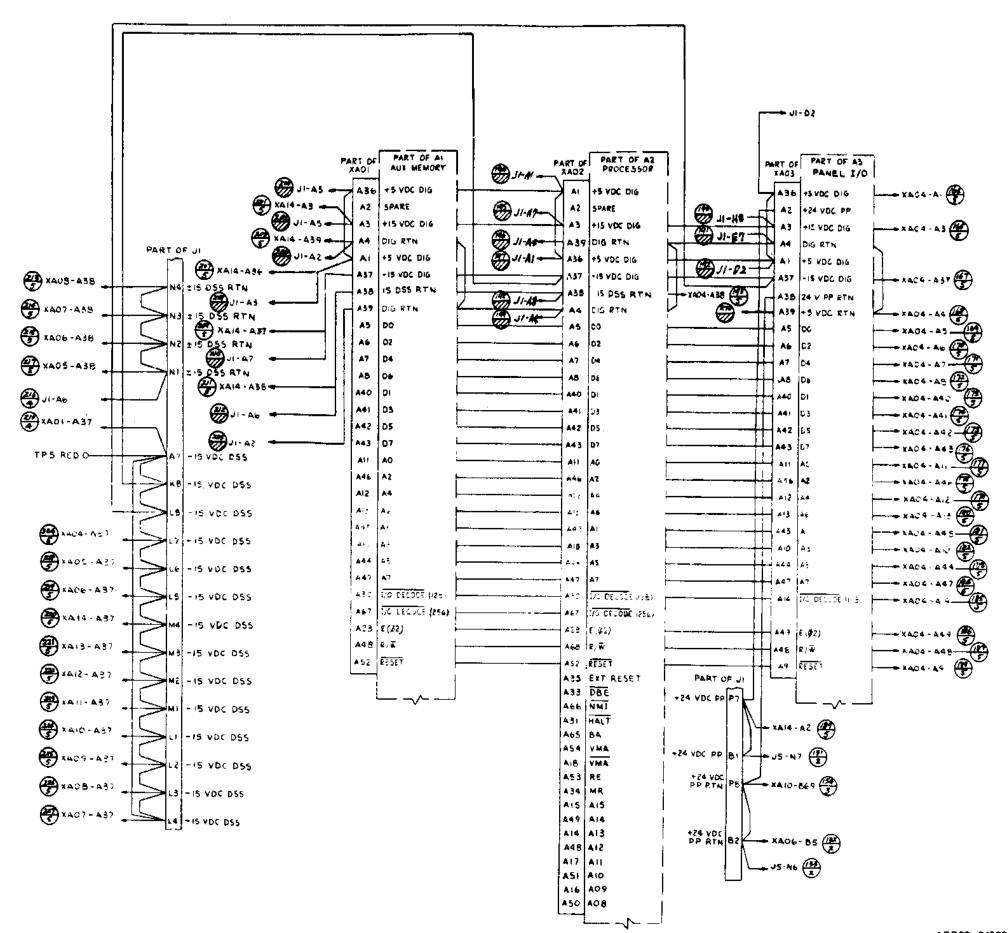
## FO-5. DSS Motherboard Wiring Diagram (Sheet 3 of 5)

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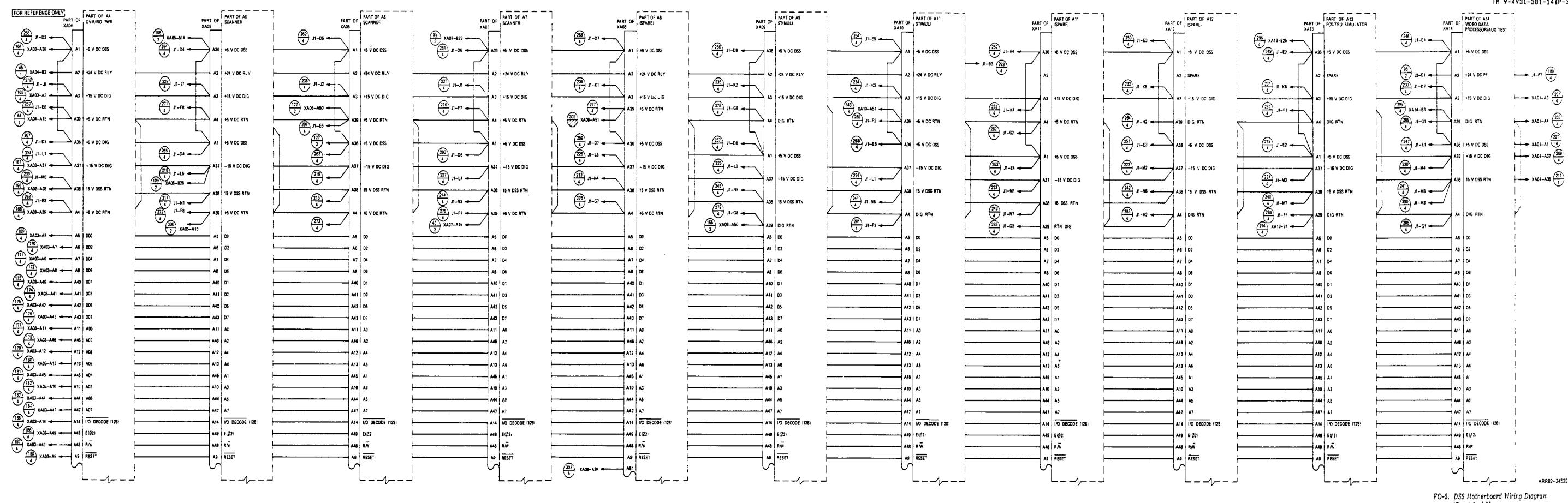




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FO-5. DSS Motherboard Wiring Diagram (Sheet 4 of 5)

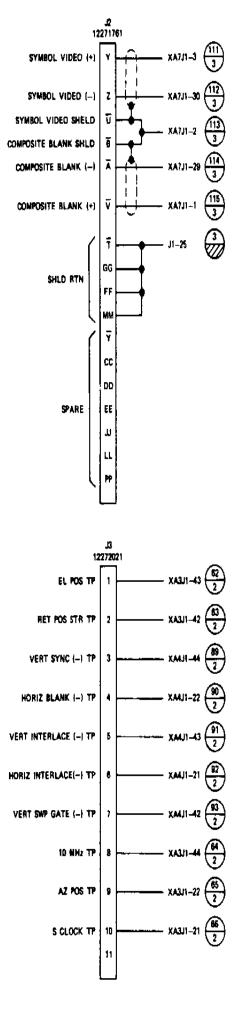
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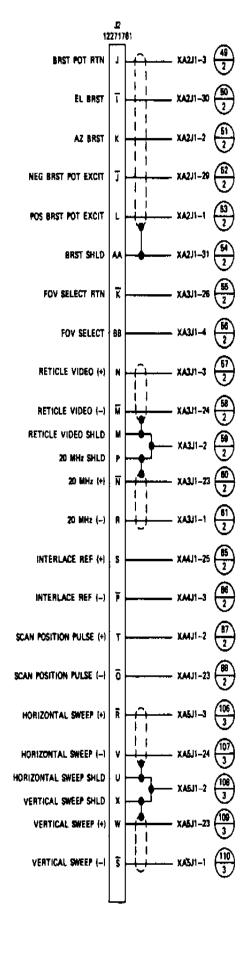


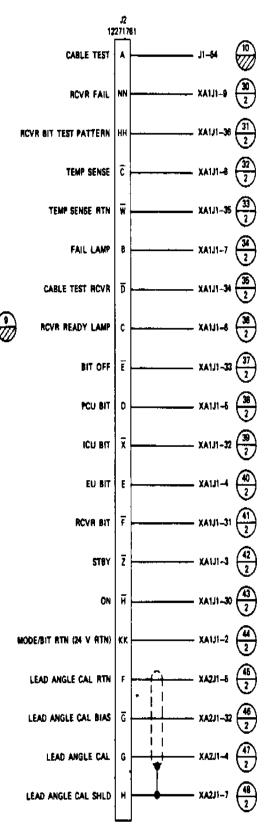
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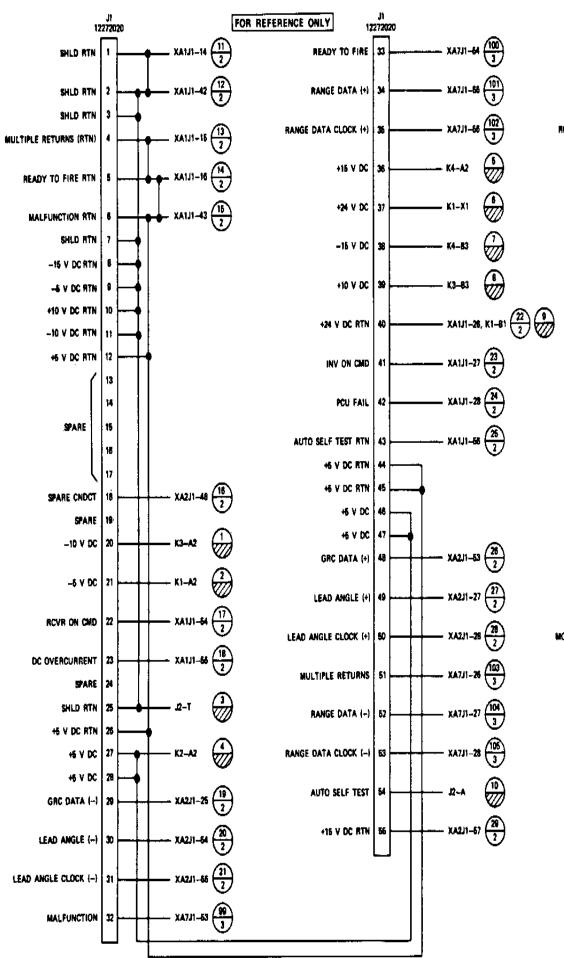
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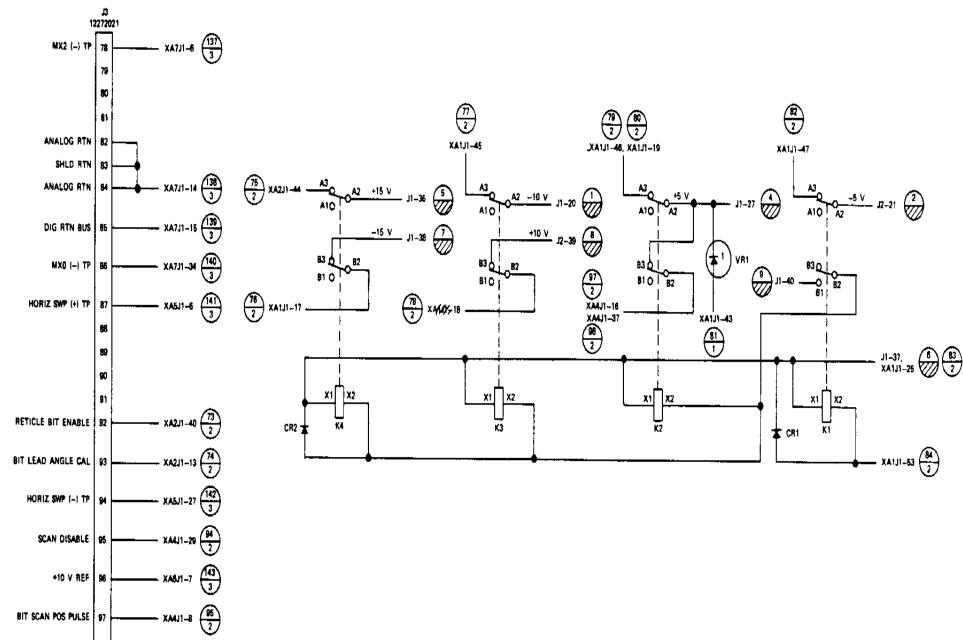
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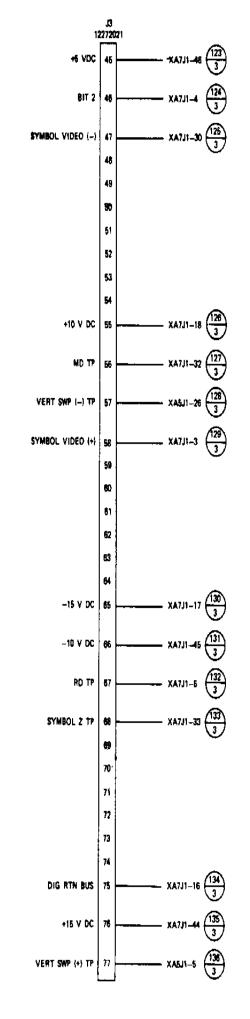








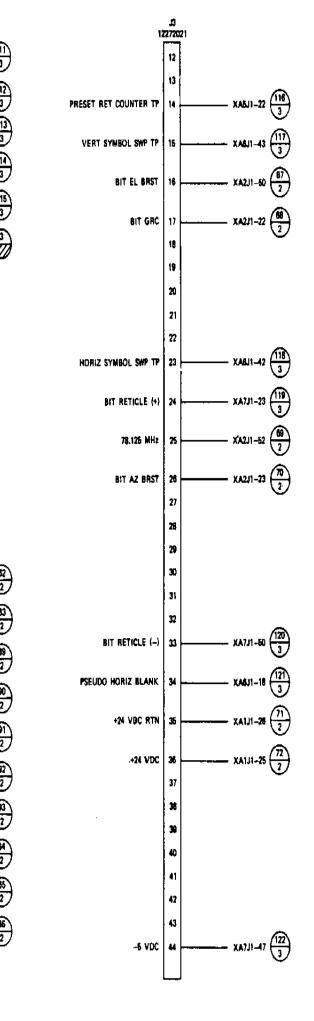




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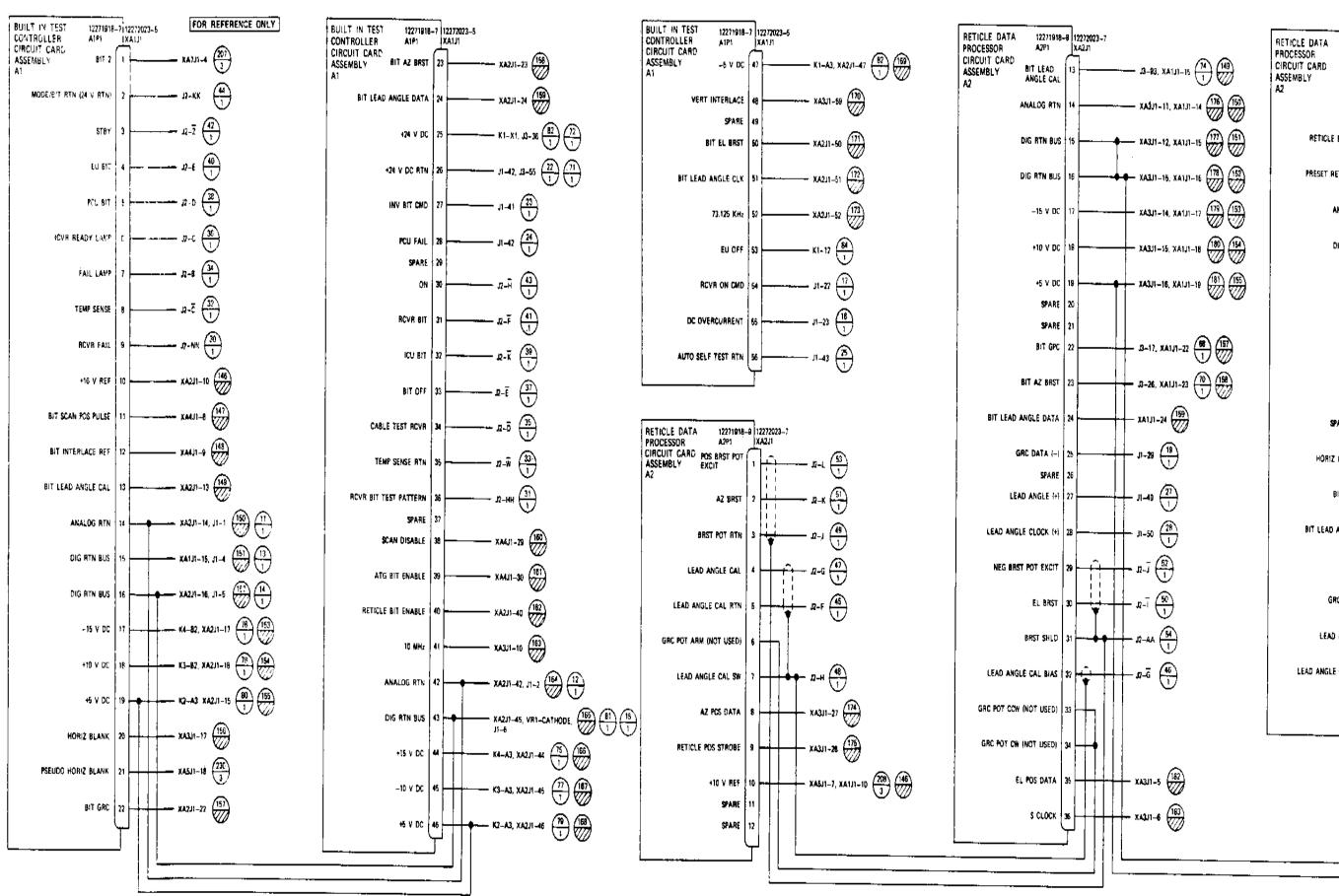
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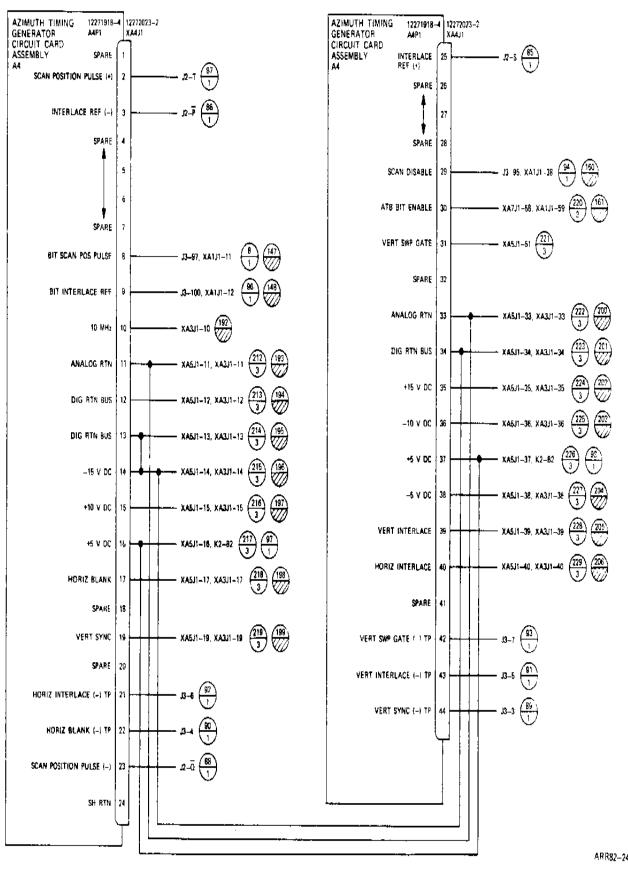
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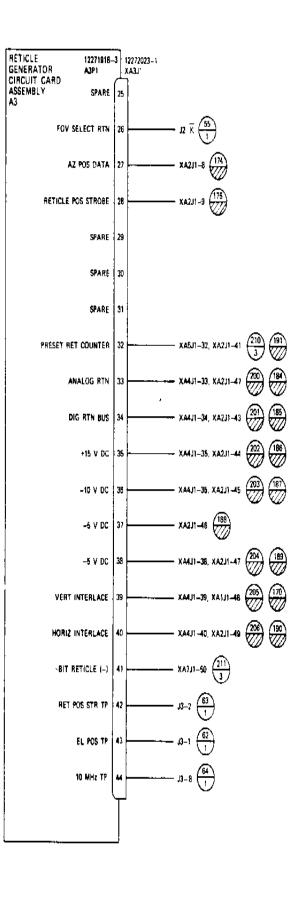


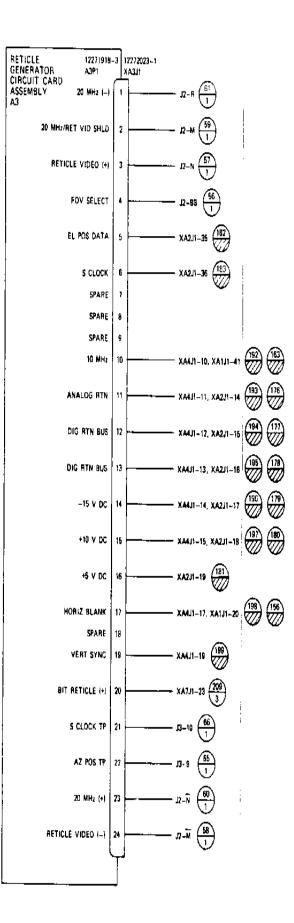
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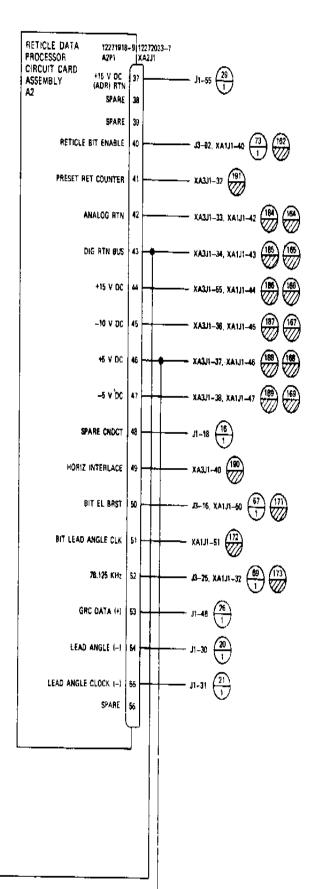
FO-6. Electronic Unit (EU) A4 Schematic Diagram (Sheet 1 of 3)

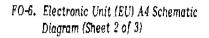


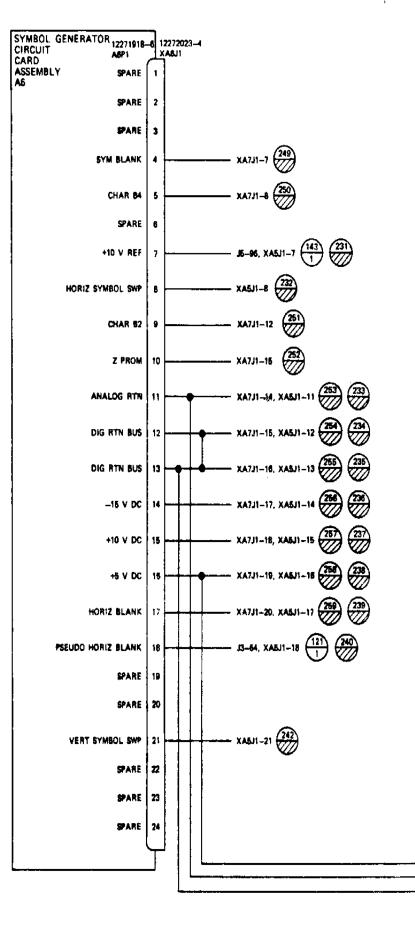


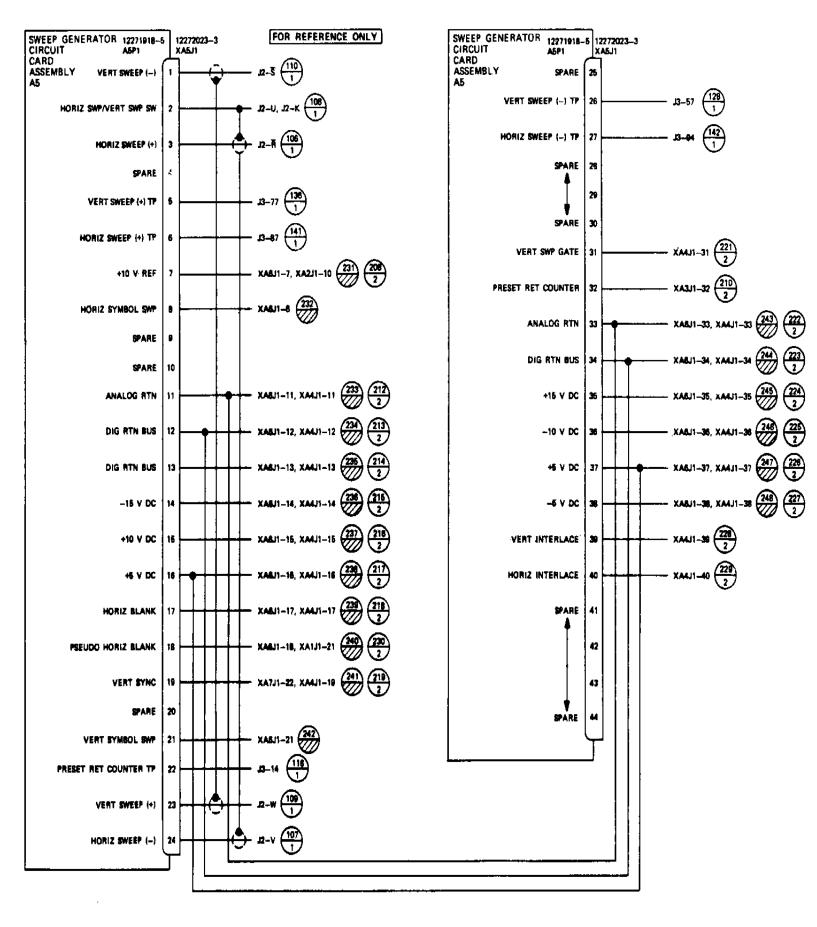


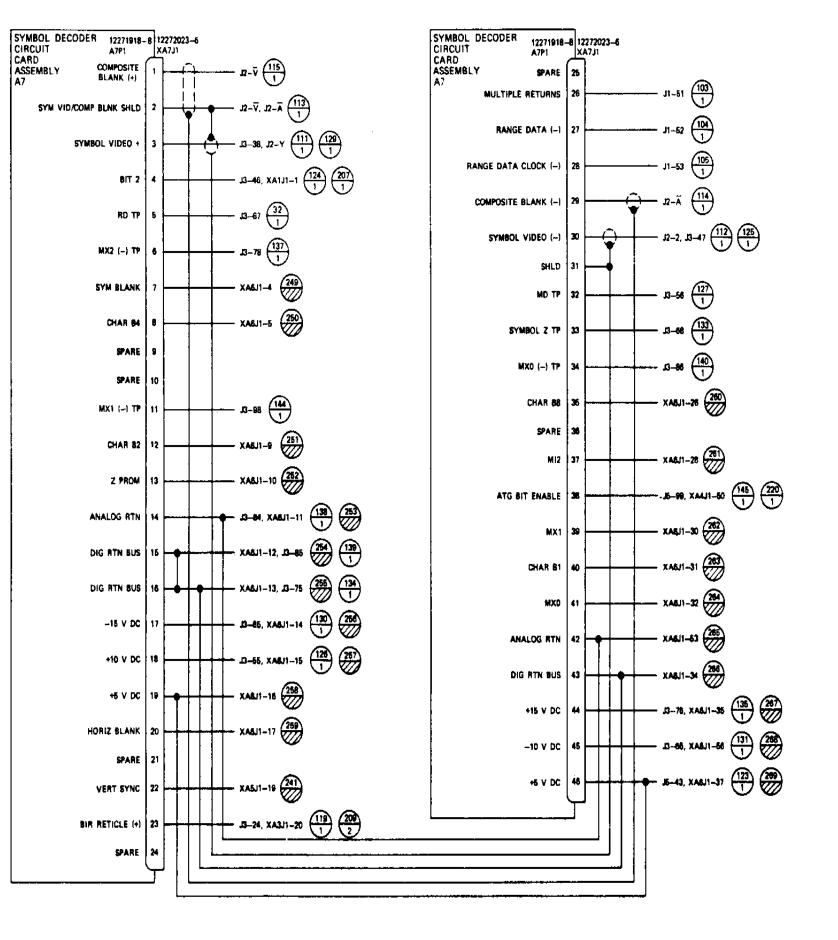


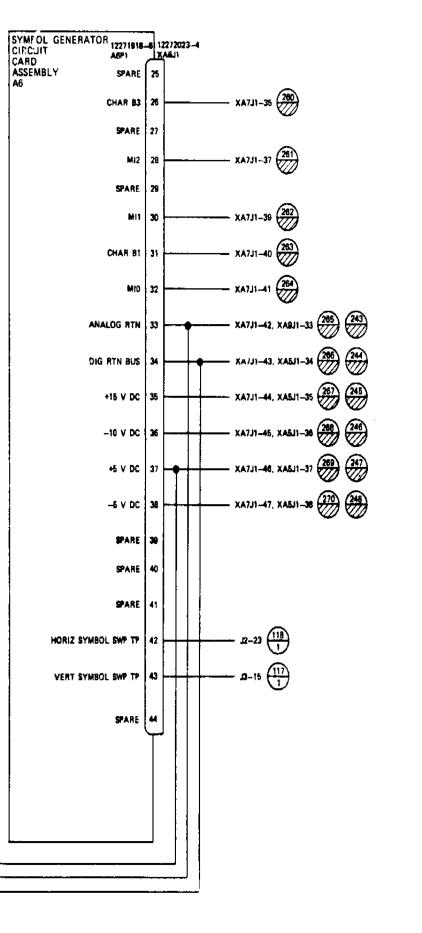


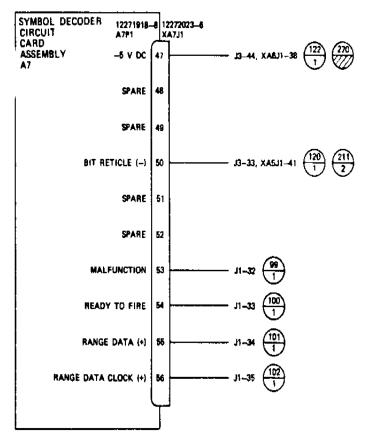








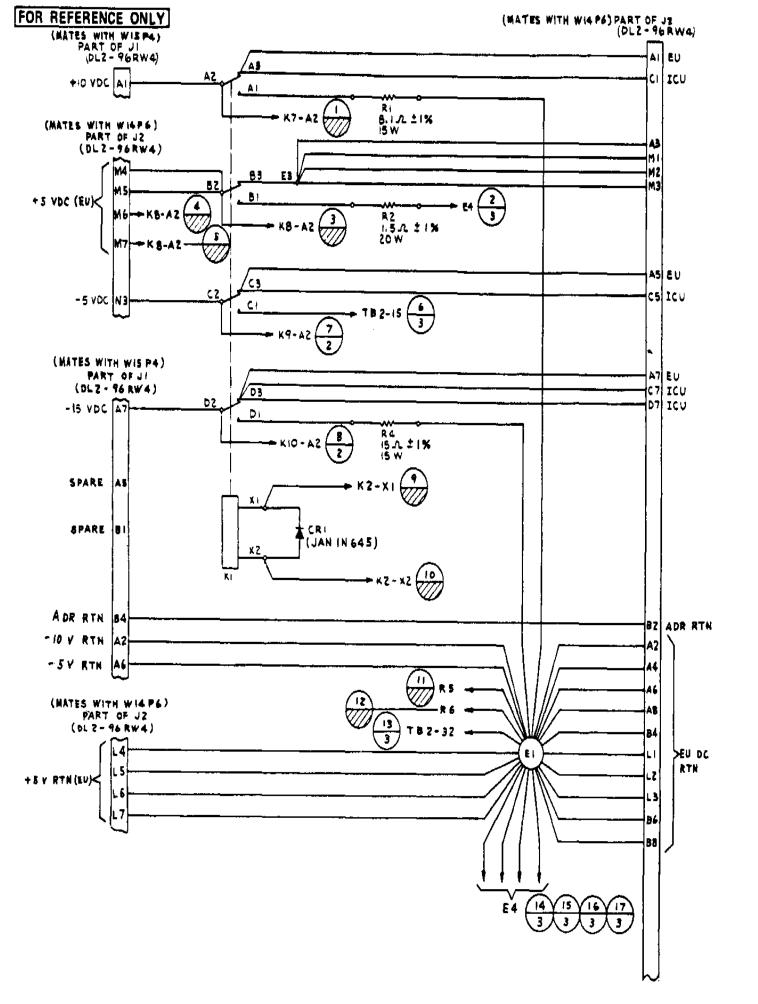


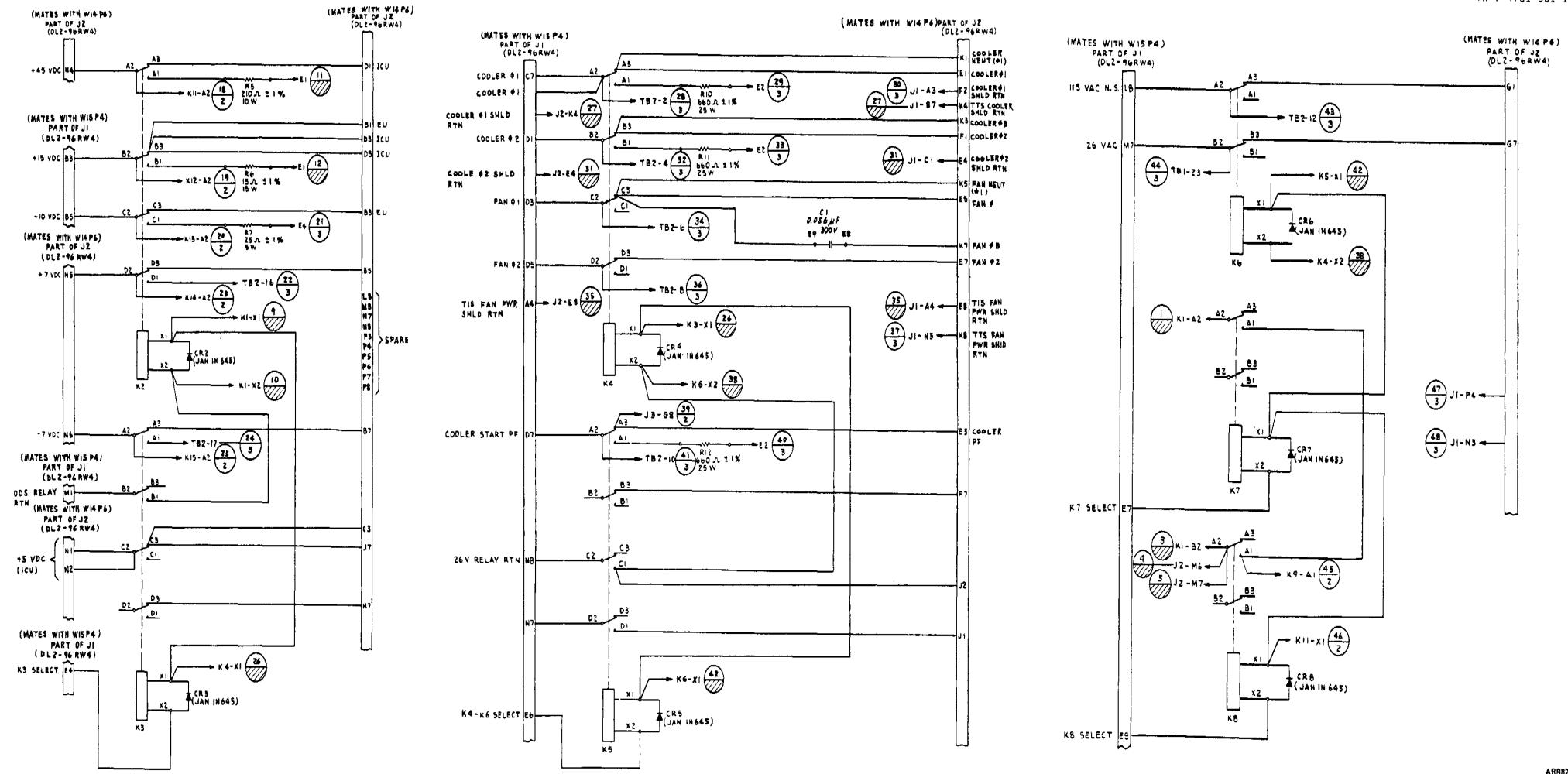


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FO-6. Electronic Unit (EU) A4 Schematic Diagram (Sheet 3 of 3)

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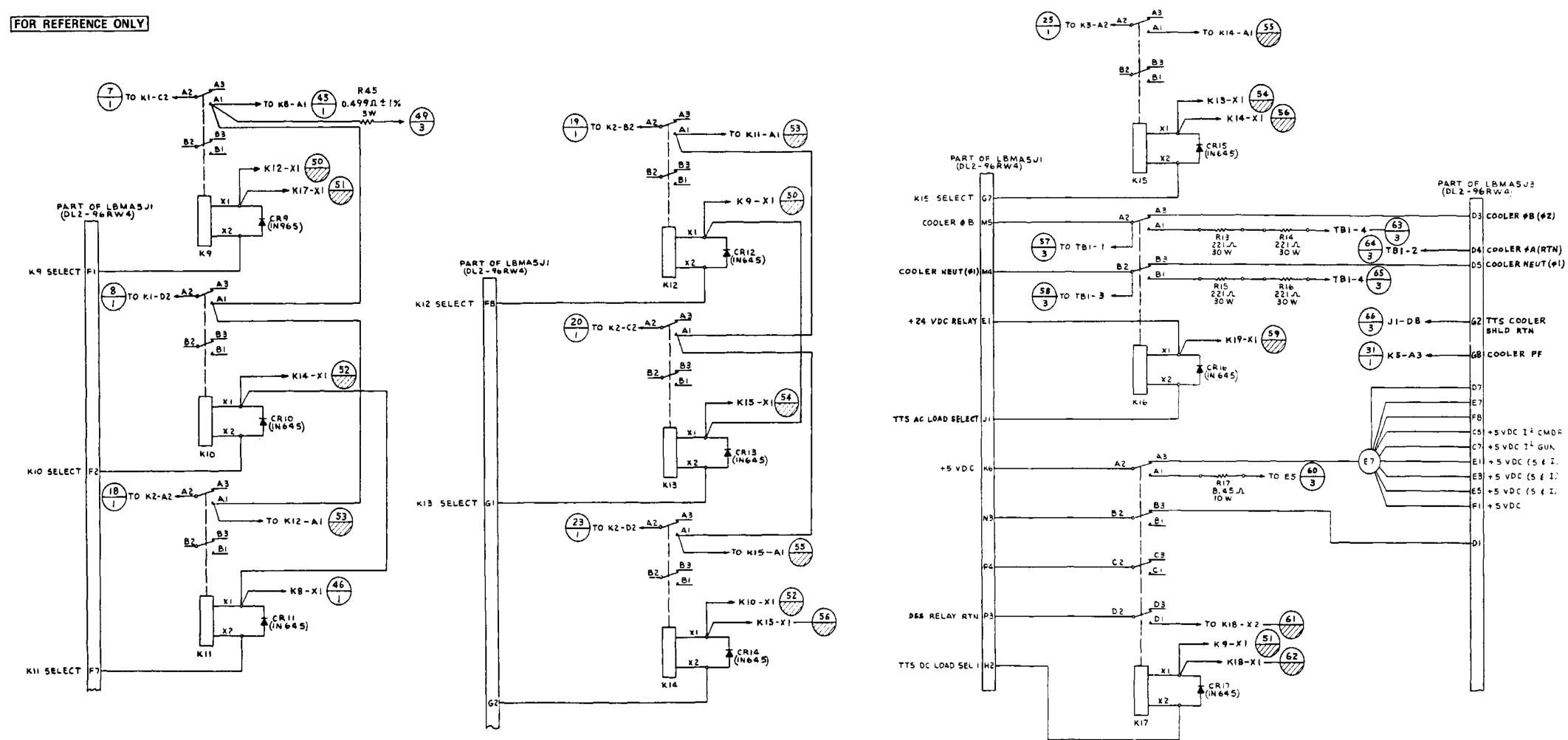


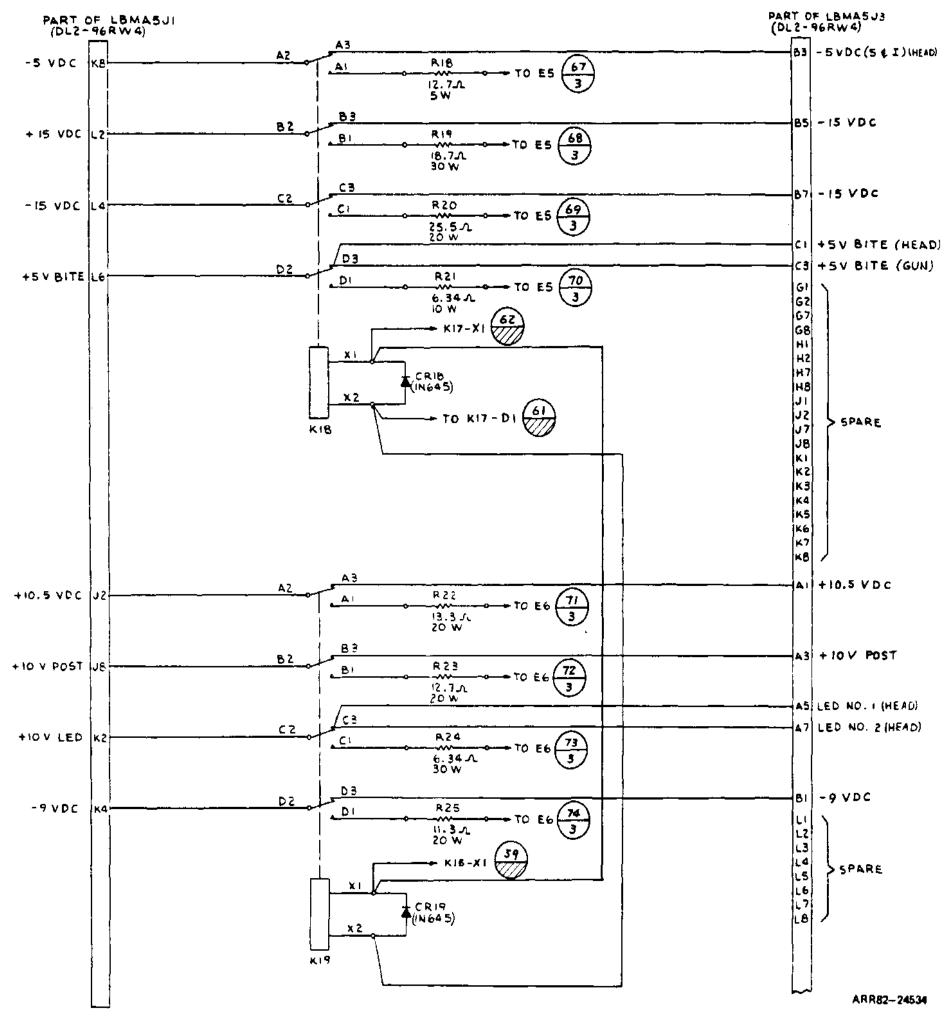


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FO-7. Load Bank A5 Schematic Diagram (Sheet 1 of 3)

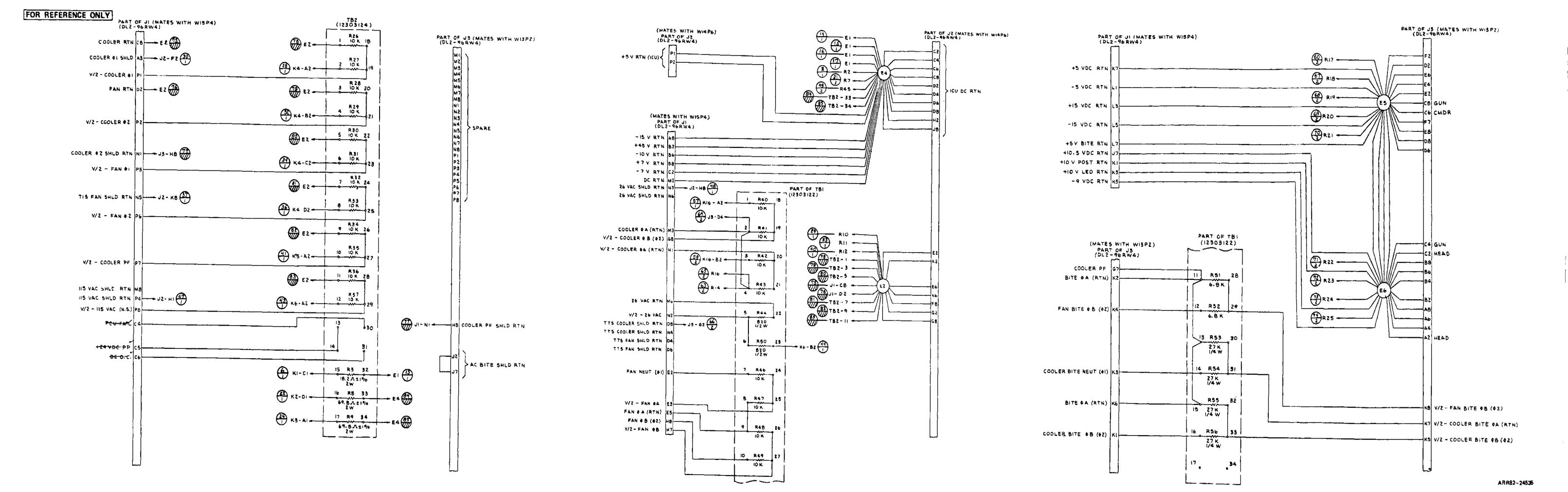
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FO-7. Load Bank A5 Schematic Diagram (Sheet 2 of 3)

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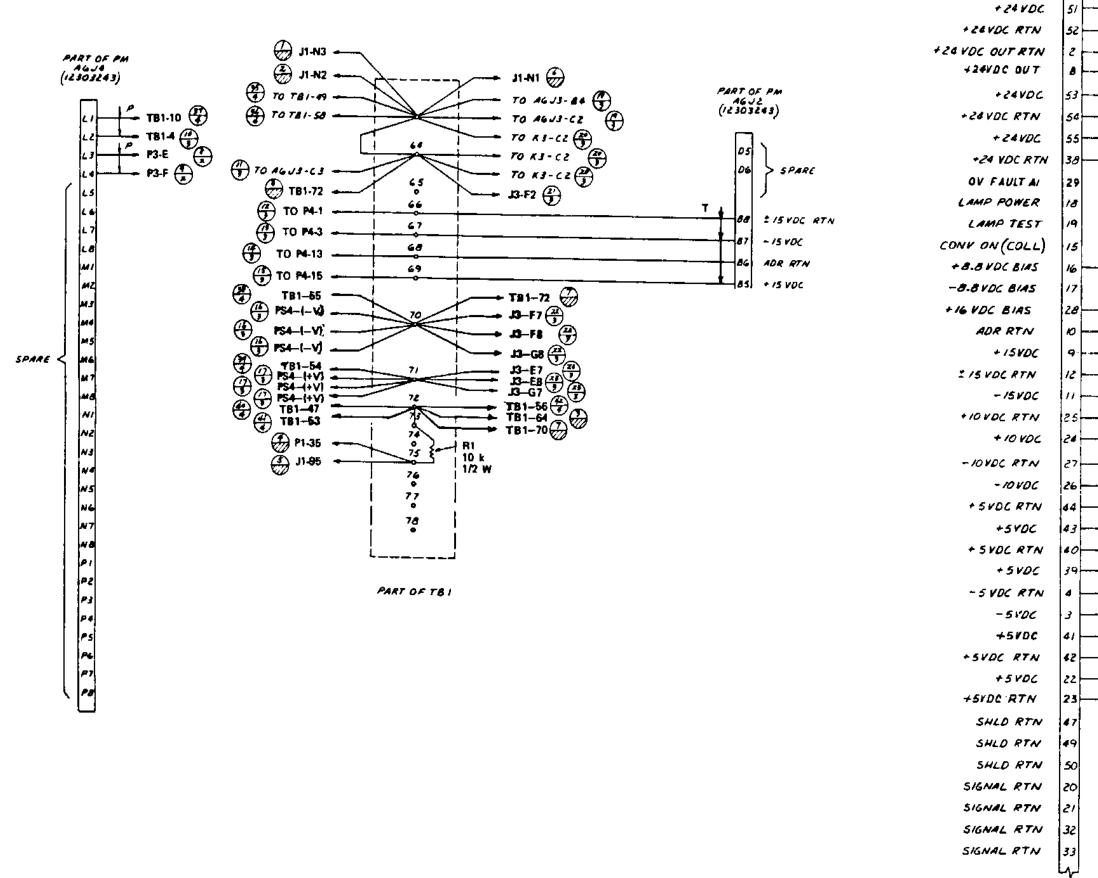


FO-7. Load Bank A5 Schematic Diagram (Sheet 3 of 3)

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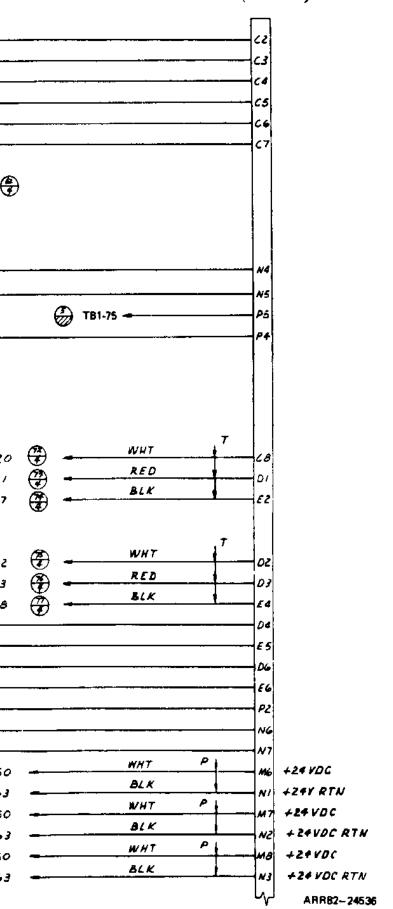
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PCU FAIL	5			
DC OVERCURRENT	<b>6</b>			
INV ON CMD	7	= ==		
REVR ON CMD	/			
TOW ON(FVS)	3/			
+ IS VOC SPARE	30			
+15 VDC SPARE	48			<u>^</u>
OV FALLT AS	13			TO JE-H7 😨
SHLO RTN	46			
SIGNAL RTN	37			
SIGNAL RTN	34			
NVS ON(FVS)	14			
27 YDC SWITCHED (FV3)	36			
OV INTI (FVS)	35		🗕 TB1-75 🥳	<i>.</i>
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+ IO VOL BIAS REG	5			😨 TO TB1-50
+ 10 VOC BIAS REG	<u>u</u>			💮 TO TBI- 63
+ IOVOC AUX	x			🔁 TO TBI- 50
+IOVDE LOGIC	M			🥭 TO TE /- 63
- 10 VDC LOGIC	4			🦉 TO TBI- 50
	لہا			🤂 TO TBI-63

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

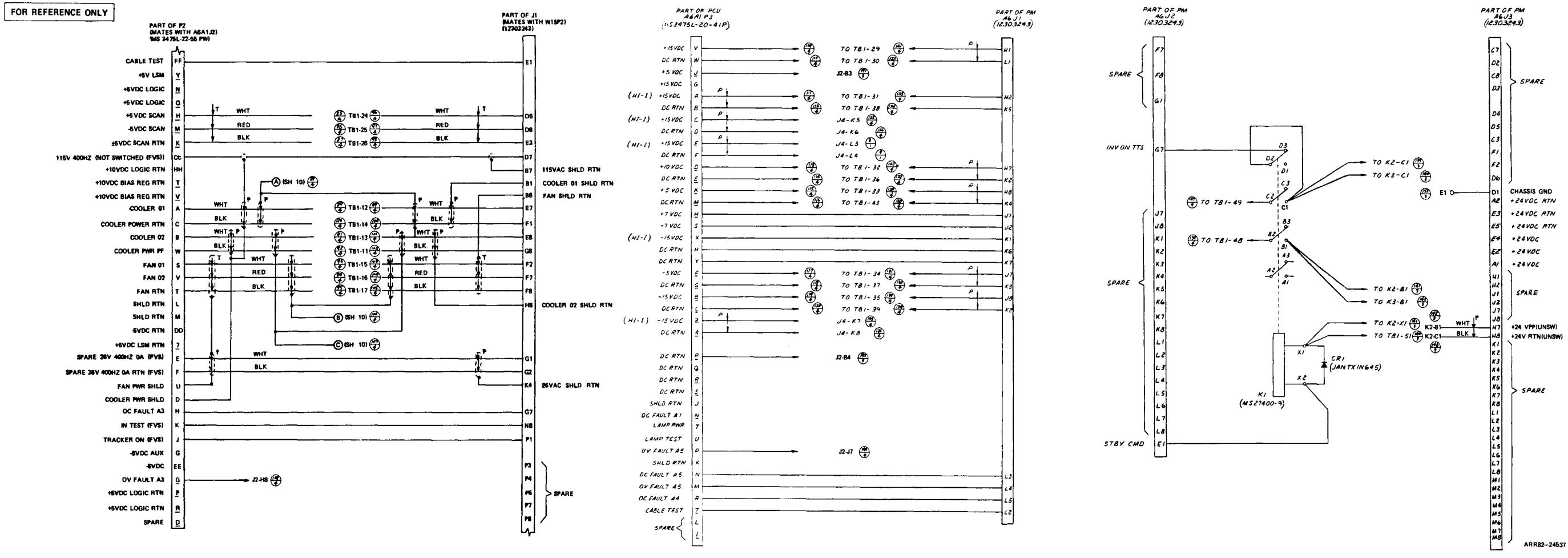
PART OF JI (MATES WITH WI5P2) (12303243)



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

FP-37/(FP-38 blank)





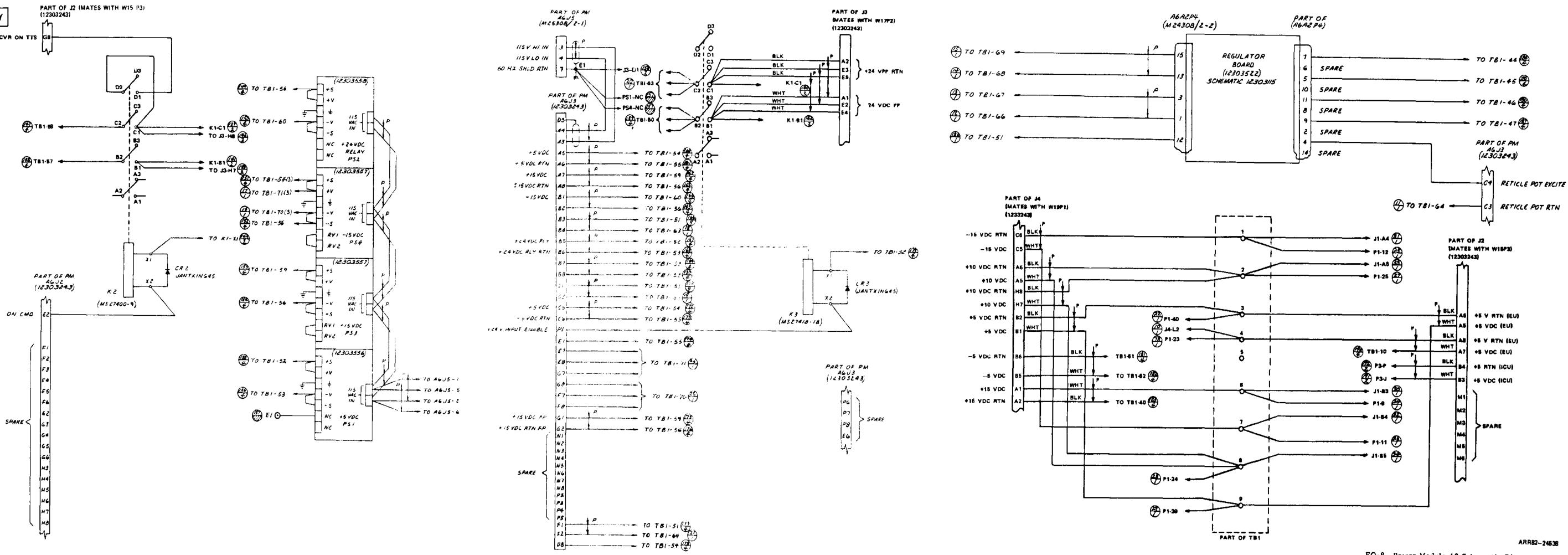
FO-8. Power Module A6 Schematic Diagram (Sheet 2 of 4)

FP-39/(FP-40 blank)

FOR	REFERENCE	ONLY

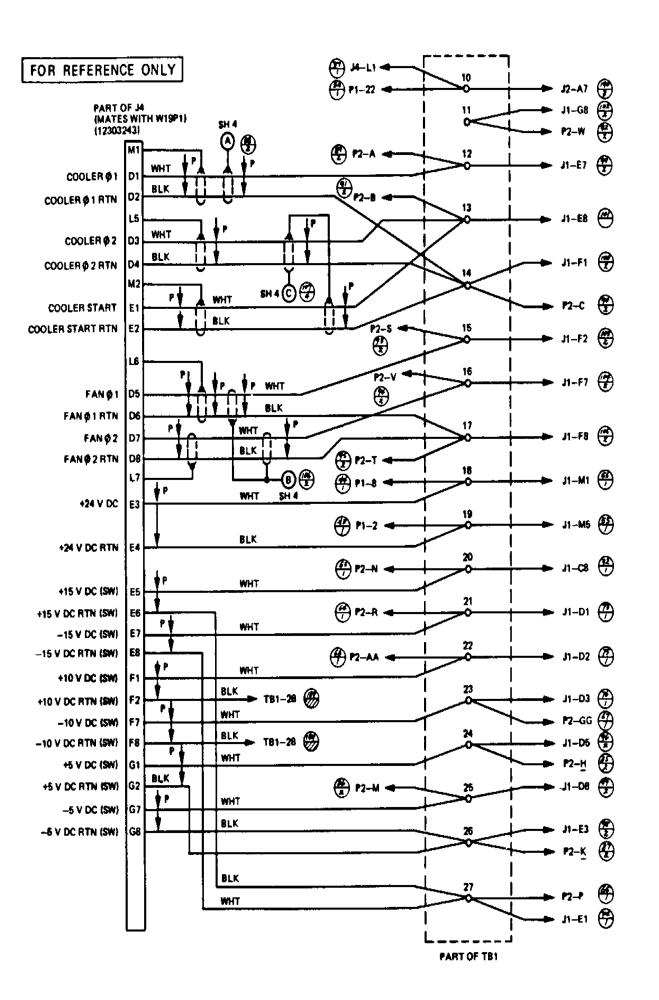
REVA ON TTS G8-

SPARE



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

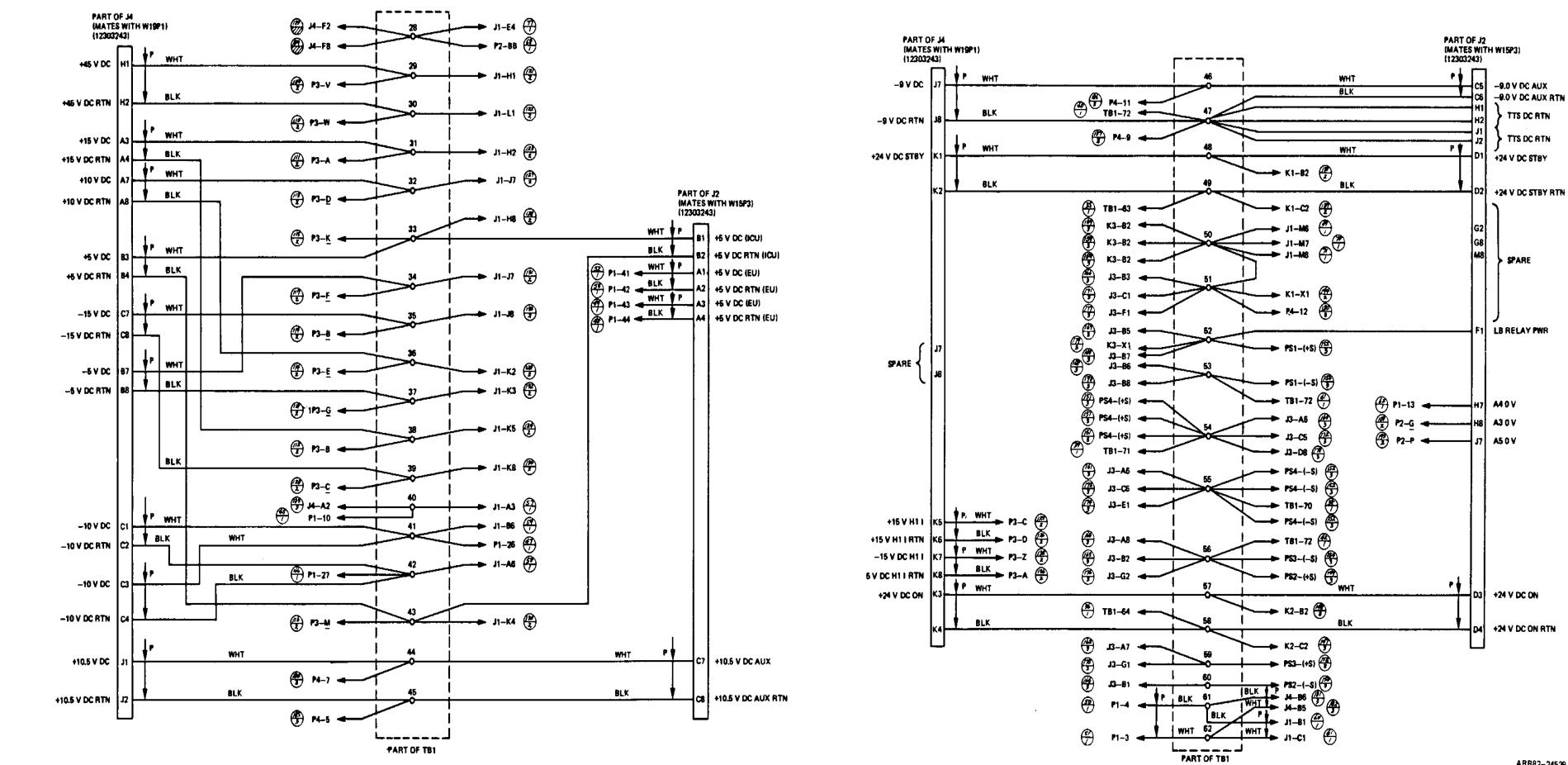
FP-41/(FP-42 blank)



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)

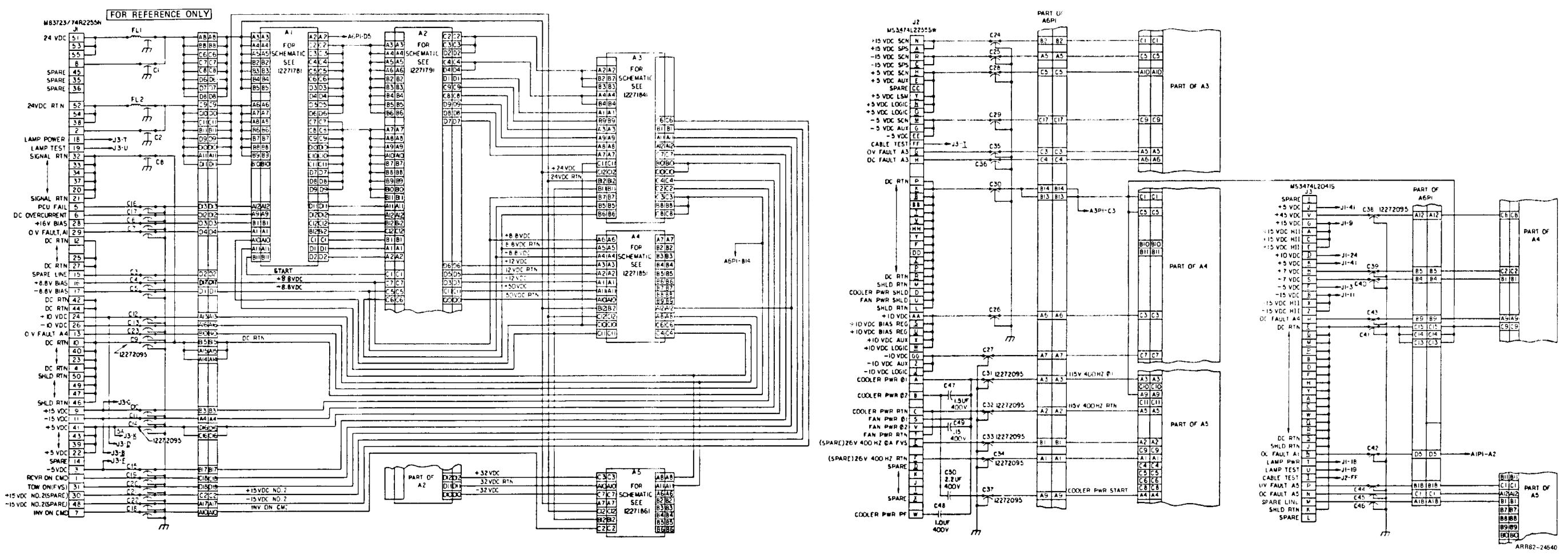


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### FO-8. Power Module A6 Schematic Diagram (Sheet 4 of 4)

FP-43/(FP-44 blank)

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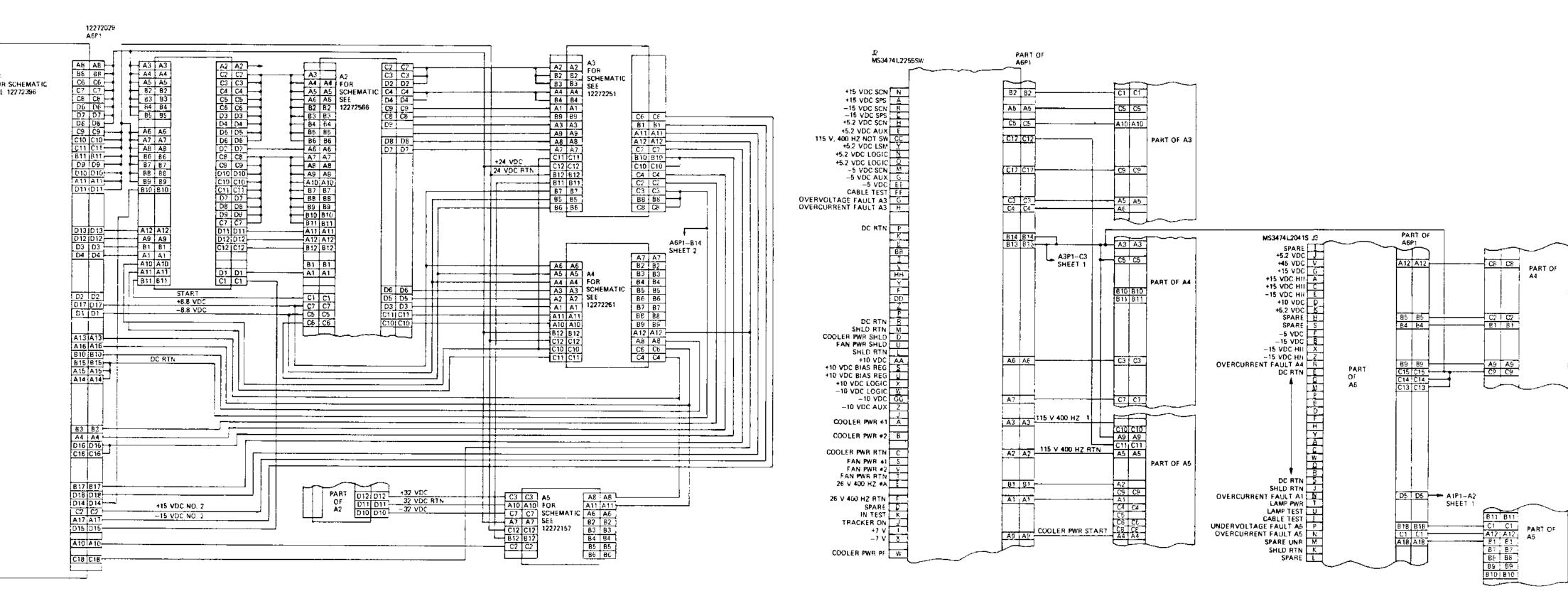


FO-9. Power Control Unit (PCU) A6A1 Schematic Diagram

FP-45/(FP-46 blank)

M83723/7482255N

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		11	[	
24	VDC	51		• •
		55 B		A6 FOR 1
		Ļ		SEE 1
24 VDC	RTN	52		
		54		
		3E 2		
LAMP PO		18		
SIGNAL	RTN	32 33		
	1	34		
	ŧ.	37 20		
SIGNAL PCU		21		
DC OVERCUR	IENT	6		
+16 V OVERVOLTAGE FAUL	T A1	28 29		
DC	RTN	12		
DC	∳ RTN	25 27		
SPARE	LINE	15		
+8.8 V −8.8 V		16		
	RTN RTN	42		
	VDC	24		
VOLTAGE FAUL	T A4	26 13		
DC	RTN	10 40		
br	🕴 RTN 🖢	23 4		
SHLD		50		
	ŧ	49 47		
SHLD +15		<b>4</b> 6 9		
- 15 +5.2		11 41		
75.2	4 C	43		
+5.2	VDC	39 22		
	VDC V ON	3		
S. V. (N	⊤. ਸ਼	45		
+15 VDC N -15 VDC N	0.2	30 48		
S. V. IN 1N.V. ON		35 7		
	VDC			
RCR ON	CMD			
	ON			
		L	•	



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

FP-47/(FP-48 blank)

### 253 43.14

FOR REFERENCE ONLY

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#### (12303344) NI3 PI

HEAD CABLE BITE JI-2

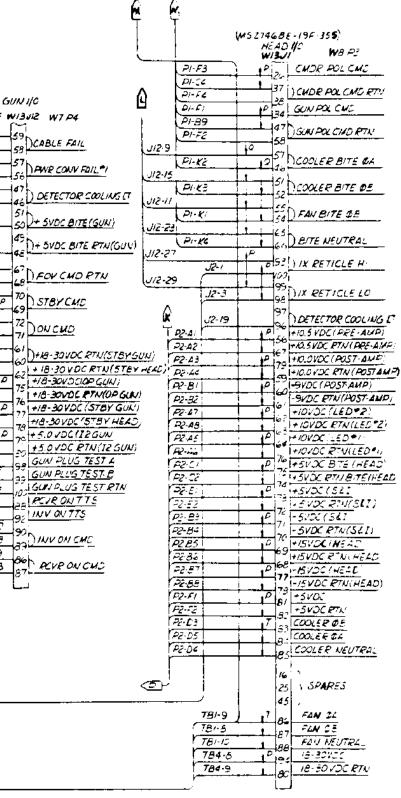
USED CARLE RITE		11.2	!		••• • • •	
HEAD CAPLE BITE	<b>A</b> / }	JI-2		<u></u>		(12303)
WHITE HOT CHO	42	J1-4	_r_		LB M ASJ3	W15 F
BLACK HOT CMD	431				+ 10.5 V DC (PRE	
FON CHID RTN	64	<u>J1-8</u>	<b>1</b> 7		+ 10. SYDC RTNI	
NEOV (HD	A5	J1-6				A/
NEDVIES	1	J1-14			+IOVDC POST(H	A 1
SCHU MALE	46	J1-12			+IOVOC POST PTL	KHEAD AL
	<i>3</i> 7		· · · · · · · · · · · · · · · · · · ·		+IOVDC(LED#I	45
GUN POLICMD RTN		JI- <b>4</b> 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. <b>8</b> :				18/
CMOR INTLK (HD	Bé	JI-23	ť~		-9VDC RTN(PO	B2
SYDE WILK(PWE	1cr	<b></b>		JII-3	-5VDC(\$11)	8:
CHOR INTLE (RTN.	cz.	JI-9.		4 1	-SVDC PTN(SL	T! i'
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	<b>!</b>	4	+15VDC (HEAL	
GUN LEVEL LO	E3	JI-54	L	4	-ISVOC RTN (HI	EAD) BE
CMOR LEVEL H	E4	JI-42	<u>I</u>	i l	COOLER DE	
CHOR LEVEL	ES.	J1-46		)	COOLER NEUT	TRAL DE
CMDRLEVELLO	1.	J1-36	t	1	COOLER OF	
GUN POL CME	Εô	J1-36	10	2	+5 VDS	D:
GUIL POL CMD RTN	-171	J1-55				,
	- 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	<b></b>	J-2-6	i	+ SVOCETN	
	-63		J12-4	1		
WHITE HOT CHEDIGUN:	-ler				+SVOCBITE PT	U. MURI
BLACK HOT CHOIGINI	-122		J12-14	<u>,                                    </u>	+ <u>5/00(</u> 581	
	1	1	112 60	1 1	+SVDC PTN (S	11.
CAELE FAL	4.	L	2.55		+ 5700 (521	
PINE CONVIFA	442		J12-50	/ /	+ SVDE PTNS	SLD D
DETECTOR SOCIANS IT .			J/2-46	i		<u> </u>
	777					
	1	1				
FAN BITE ØS			J12-12	) i		
COOLER BITE 04	-   +=4		J12-10	j I		
COOLER BITE CE	-37		512-14	<u> </u>		
EITE HEUTRAL	-12		JIE 22	1		
	ور ا		0/2 11	111-7		
TTS POLARITY RTN	-12	·				
CHORINTLY PTIL	-12			1.11.25		
	12					
FALL BITE CO		J1-54	i <sup>c</sup>	ן גי		
COUSE E'TE CA	- <	11-45				
COOLER BITE DE	- K.	2 JI-52				
· · · · · · · · · · · · · · · · · · ·	$-\kappa$	<u>ج ا</u>	<b>1</b>	~		
EITE NEUTRAL	- 10	J	<b>1</b>	ノー		
				1		
LX RETICLE NI	ł	{	J12-24	, i		
LY RETICLE LC	10	/ <u>}</u>	J12-2E	-; i		
	-j <i>u</i>	2		- I		
	<u> </u>	i		: I		
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				5 8		
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<u>.</u> <b>_</b>					<u> </u>					<u>\</u>				<u>`</u> `
A5J3 (123	032 5 P2			)					-	- - T \				<u> </u>
DC (PRE)		JI-56 F	, 				CH	бе. Э.Л			1	(M5274681	(-25F-35S)	
C RTN(PRE) POST(HEAD)	42	JI-67 JI-79 F	4			ti.	112-1 [	 		i i			N//6 /	
POST PTIXHEAD	43	JI-59	4		PI-85			$\frac{25}{2}$	)CMDR BITE		JII-25	· ///	3v/z ₩7₽ —	•
(LED#II	44	JI-64 C	2		l LP/C∃		12.8 P	331	TTS WHITE HOTIELY HOT CHO			Pi-GI	5 CHORBTE	
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	, <del>782.4</del>	Pi-B	<u>   1</u>		23	CHOR CARLE BITE			PI-G?	5 SCANMALE	
RTU(POSTANP	<b>B</b> 2	JI-61	1		K			1	)CMDR CABLE BITE		F2 57		+SYDE PTNIC	
(511) RTN(SL1)	83	101-70		<b></b>	P/15				) CMOR INTLK (PWR			01 C 2	13 BLACK HOT	
C(HEAD)	84 85	JI-69 1	21	782-6	<u>.</u>		<u>~</u> -   <sup>P</sup>	3/;	CHORNEL HOUS			₽1- <u>(2</u> J1-55 +€	14 BLACK NO. L	<u>ML</u> J12-
C PTN (HEAD) BITE (HEAD)	86	JI-68 JI-75	ו	•	PI-CA	JI-5	*	2 2	CMDR INTLK (HD)	L.	. i	PI-HG	TFAN BITE 2	e
. BITE (HEAL) . RTALBITE(HEAL)	0	1.74	-		[	JI-	92	29 4	CMOR INTLE RTN			3.57	9 D	
C BITE (GUNI	122	JIZ 50	2			32-7	7	9	CHOR CALL VI	N.		Pi-JI JI-51	9 DEDOLER BIT	
RTN BITE (GUN)	104	J12- <b>4</b> 6	<u>-</u>	, 1		J2.5	/12-45	8	CMDR GAIN HI			Pr J2	15 YLOGLER BIT	EØB
E IZ CMDR	C5	<b>!</b>		JII-26			J12-55	15	CMDR GAIN	i		1-65		
C 12 GUN	16	PHN5			]	12.5	112-74	$\overline{n}$				PI-13	23 BITE NEUT	<u>***:</u>
CRTN RIGUM	ce.	J2-80 J1-77				1 1 1 2 - 4	JI2-65 T	16	)CMDR GAIN LO			P1-X/	2' NFOV	
C (HEAD) RTN (HEAD)	E7	JI-78	41				JI2-73	1/3 1/2	CMORLEVEL NI			51.45	/9 t	5/2-2
RØE	88 03	JI-83				132-5	112-53	177		<u>_</u>		DI-XZ JZ-24	TTS WHITE	uar (
RNEUTRAL	D¢	JI-84				12-6	/2-35	10	CMDR LEVEL		_ ڊو-اال		BLACK HOT	
ER ØA DS	D5	J:84 1	ן ויס				112-43	19 18	CMOR LEVEL LO		r	J2-26	25	
DC PTK	FI F2	J1-82		· -	i 	P2-D6 P2-C5		20	+SVDC BITE RTN(CHOP)		JI-35	JI-93	16 NTTS POLARI	<u>rre</u> r [
DE <u>RTHI(GUN)</u> DE(S&I:	F7	JIZ-7			+	F2 (6	<u> </u>	26	+5VDC(IZCMDR) +5VDC RTN(IZCMDR)			PI-LI	27 WX RETICLE	HI.
DC RTN(581)	E!	JI-73 JI-72	-		7P4-3		1 <sup>p</sup>	28	+18-30VDCTOPEMOR	i	1	11-94	29	
C (SLI)	1 E 2   E 3	Ji 3i	হ	[	7847		1	30	+18-30VOC RTHOP CHER	- <u>}</u>		Pr LZ Pr Mr 5	24 MG1-GREE	
C PTN(SII)	154	JI-47 1	21		1	i	NC		SHIELD ETK			2.42	30 MG1-REE	-
00 ( 5 8 1 DC R7N (5 81 )	÷E5	JI-29 +		!!	i.			20 22	SPAP:			D+M3	32 MGI-BLUE	
BITE PTN SHER	126 126		<u>-i !</u>	J11-24	i Dur				I CHOR PLUG TEST A	<u>k</u>		DING DINS	MGI-BLACK	
	127	JI-23	4		Post	•		164	CHER PLUG TEST 8			PHO T	PI WIDER	
<u>: FTN (S11</u> DC (S11.	120		<sup>ا</sup> ام		(P. 5			166 166	CMOR ALUG TEST PTU			Pr-W/	2 P CW	1
E PTN(SLT)	-  <i>D</i> 7 -  <i>D</i> 8		1					<u> </u>	-	-	<del>_</del>	P: N2 P: N2	PICCW E2	
		-	1 ~	<u></u>					,/		t		39 53-5	j
			2										40 CTS INTER	
			ji	E								p:pip	41 CTS INTERL	
			1	¥								PI-P2	42 +18-30VX PT	
			i-j	5							J11-8	T 1 PI-T4	45	
											J11-14	Prine -	46 DOUN GAIN	<u> </u>
												P-75 P	154 () GUN GAIN	
											J11-16	<u>↓ I <sub>¬¬</sub> </u>	Trei.	
											JUGZ	D/ 7.0	GAL GUN GAIN	
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						V			$\lambda_{i}$		211-10		<b>4</b> .	
												PI-TZ	52 GUN LEVE	— I
												Di-73	GUN LEVE	4 40
											Ī	1		

(M527468E-25E-35S) GUN 1/6	
W/30/2 W7 P4	
PFGT 2 CM2287E	(MSZ7468E HEAST WIJJ
PI-CI 3 MANTE HETCHE	722.9
JI-5 4 WHITE HOTCHS	
PI-G2 5 )SCAN MALE 6 +57DC PTN(GJN)	PH 42 0 3
PICE 13 BLACK HOTCHD	<b>A</b> 443 1 15
11-55 12 11 5	J/2-6"
PI-HG 12 VELN BITE 28	
PI-JI COOLER BITE QU	F/AS
1/0	1 P. 46
FIJ2 15 YOOLER BITE OB	Dr. And And 15
PI-13 23 BITE NEUTRAL	J!! 5 50
1	1.J 4 51
PI-XI ZOLINFOU	9:
PI-XZ 19 WFOV	<u>P/ P</u> .
JZ-24 17 TTS WHITE HOT!	Pred T
J2-26 BLACK HOTCHD	₽
VITS POLAPITY PX	$\frac{R^2}{E^2}$
JI-93	P-0-1-2
PI-LI 26 VIX RETICLE HI	P
PILZ 29 VIX PETICIEIC	
PriMi 5 DE MGI-GREEN	
DE NO 1 ANG 7- REE	102-FT 10 22 14 04 17
DUNA, JOC MOUNT OF	
PINS MGI-YELLOW	
PHONT I TE KI WIDER	
PINI SU RICH	المتح <u>ام مح</u> د ا
PT-N3 EZ	
<u>34</u> <u>2-52</u> 29	
40 CTS INTERLOCK	P2-E4 49
P:-PI 1 P 1 +18-30 VDC (NS)	
PI-D2 4 4 +18-30VOC PTAKNS)	F2-57 5-62 7
1 PI-TA SOUN GAIN HI	/**********************************
44	21-55 53
P75 P 55 ) GUN GAIN	P2-08
	F 16 36
DI-TO GS GON GAIN LO	
PITT 73 GUN LEVEL HI	
Star Star	
PI-TZ 52 GUN LEVEL	
DI-T3 GUN LEVEL LO	
	1
	9
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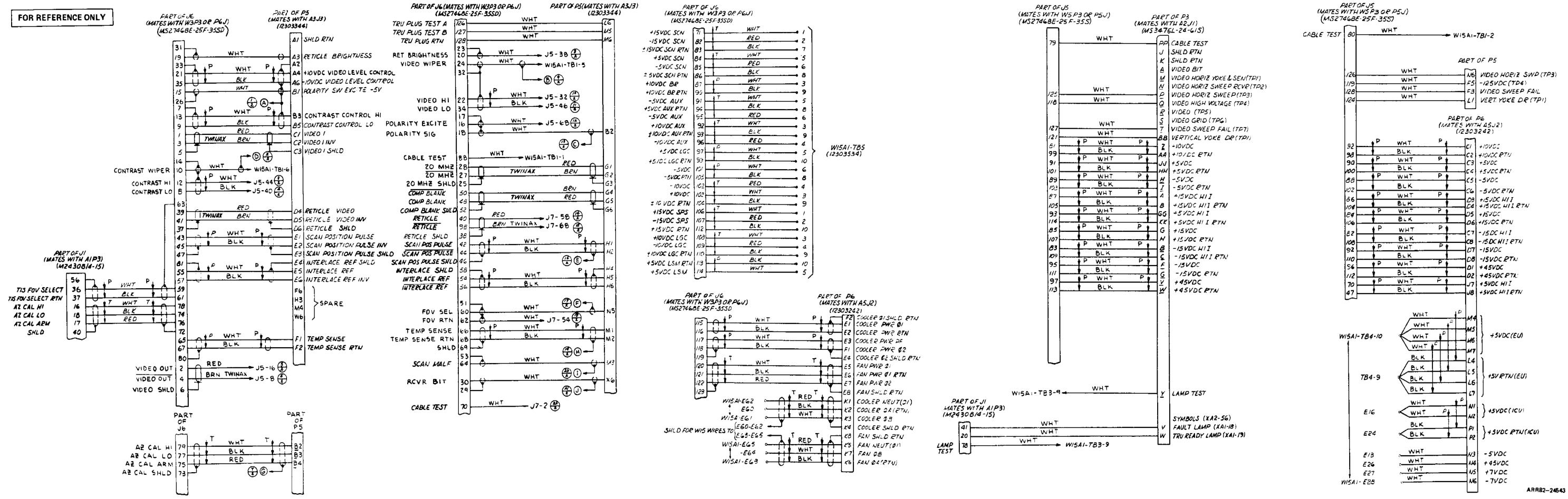
		Δ	G	
		WIB PI		
		MST-REE M2 UI2-31	μ΄	A A
		MST. 3_22K 483 U2-33		
No.         Cont         No.         Cont         No.         No. </td <td></td> <td>RI-WIPER J/2-35 T</td> <td></td> <td><i>i</i></td>		RI-WIPER J/2-35 T		<i>i</i>
1     1 <td>HEADING</td> <td>R1-COW J12-37</td> <td>W/3.72</td> <td></td>	HEADING	R1-COW J12-37	W/3.72	
Cont     Cont     Cont     Cont     Cont     Cont     Cont       Cont     Cont     Cont     Cont     Cont     Cont     Cont     Cont       Cont		STR-C , AK , J/2:39	+ 10-30 VDC PTN(STBYHE: PJ12-4	
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	CHEZ DE WHITE HOT SHE	+5V22(12GUN)(110) 11K U12-75	TTS BLK HOT WHITE HOT CHC 26 AMC	
Image: Section 2     Section 2 <t< td=""><td>PHA3 1 HELASK HOT SUS</td><td>- 3-30 VDC PTN(NS) D2 J12-43</td><td></td><td>47</td></t<>	PHA3 1 HELASK HOT SUS	- 3-30 VDC PTN(NS) D2 J12-43		47
exest     19     20000     2000     2000     2000	E123 T 3 157Y CUS F"	SLEW WIPER J2-31	FOV CHO RTN 30 JIZ-68	50
ar.d.	F/45 12 N.F.3.	26VDC. 4MD V3 J220		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
Mark     Contraction			+15-30 VDC RTW (STBY HC) 33 754-2	J2-30 18
Image: state of the s	IN 5 CHOR WILKING	HEAD PLUG TEST B PZ UNE		78-4 P
<sup>1</sup> / <sub>1</sub>	June 95 DEMOR MATLERTA	5.11 PLUG TEST A R3 JI2-98	DETECTOR COOLING LT 19 JI-96	12 /2 78+3
Image: Constraint of the constr	ELE	SUN PLUS TEST RTN PL JIZ-100	CMDR INTERLOCK RTN 13	1784-2 60
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Preze HEADPLISTE	CAUR PLUGTEST B SI JIII		TE4 5 P 62 75
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $			CONTRAST WIDER B JINE	7 <u>84-1</u>
$ \begin{array}{c}                                     $		CONTRAST H: T, JI2-74		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		CONTRAST LO 12	SLEW H. I PHV.	PH-R5 23
$\frac{1}{2} \frac{1}{2} \frac{1}$		ER GHTNESS WIFER	SLEW WIPER 31 PI-V2 SLEW LO 31 PI-V3 TE TTS-PC	TEL 7
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	D US BETTERORGAN	NFOVIGUAL VI JIZ-20		762-2 92 0 <u>557</u> 92
121     121 <td></td> <td>HEASCABLE BITE X2 782-8</td> <td>CHOR INTLK (PWR) 27 PI-US</td> <td>70 0 <u>E58</u> 394 W/c 0 <u>E59</u> 394</td>		HEASCABLE BITE X2 782-8	CHOR INTLK (PWR) 27 PI-US	70 0 <u>E58</u> 394 W/c 0 <u>E59</u> 394
$\frac{FE}{E} = \frac{E^{2}}{E^{2}} =$		CMDP INTLK (PWR. US		
E:E       DUNCEVENCE       DUNCEVENCE       DUNCEVENCE       DUNCE       DUNCE </td <td></td> <td></td> <td>PWE CONV FAIL PI 21 PI-CG</td> <td></td>			PWE CONV FAIL PI 21 PI-CG	
E FE     CODE (2VEL A     STE/CMO(TTS)     F5     TB/A       COE     STE/CMO(TTS)     F5     TB/A       COE     STE/CMO(TTS)     F5     TB/A       COE     STE/CMO(TTS)     F5       STE/CMO(TTS)     F5     TB/A       STE/CMO(TT	P-53 GULLEVEL 10	POWER COUN FAIL " 1 C5 T53-1	CLOLE FA	
0:-ES     1/2     2/2     1/2<		STERCEDUTTS) US TBHA	DETECTOR COOLING LT */ PI-CS	
Image: Struct Struct     Image: Struct Struct Struct     Image: Struct Struct Struct Struct     Image: Struct	De la	-NCMD(115) FG 10/3	DETECTSE COOLING LT 2 4.5	
*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	
		l		



ARR82-24542

# FO-11. Internal TTS Interconnect Harness W13 Wiring Diagram

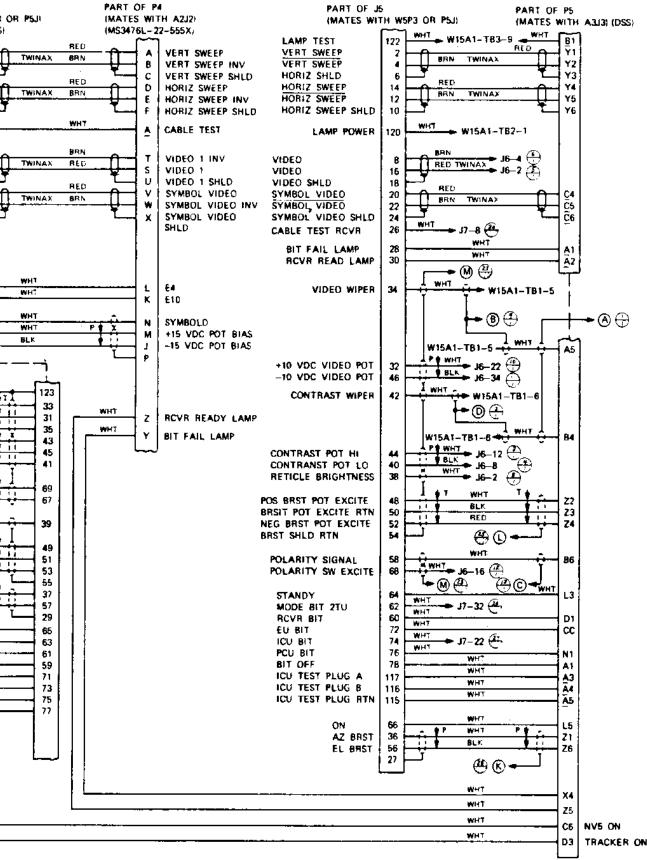
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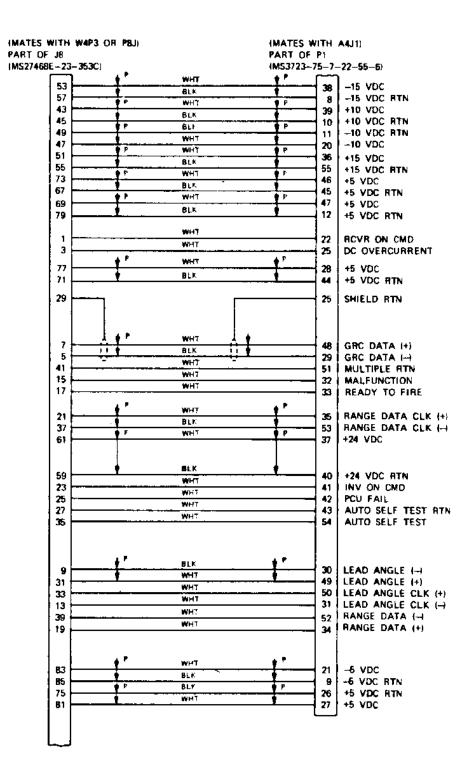


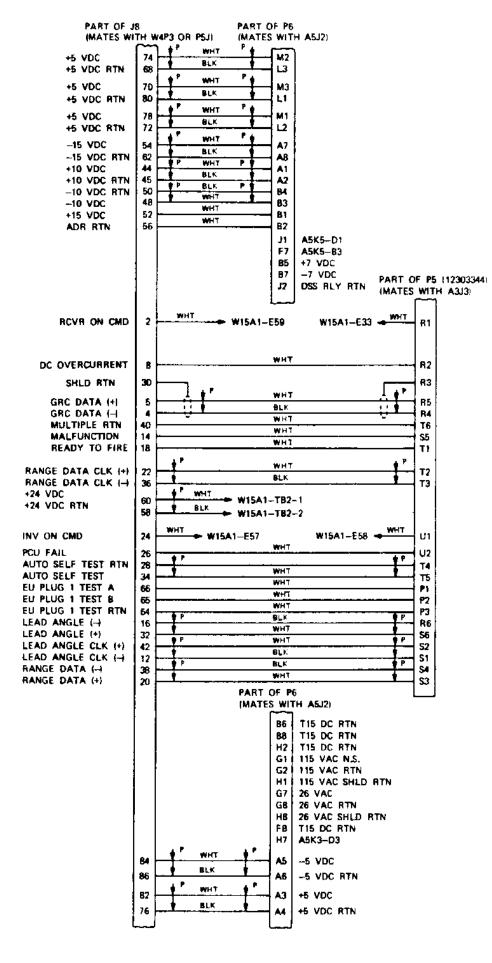
FO-12. Internal TIS Interconnect Harness W14 Wiring Diagram (Sheet 1 of 2)

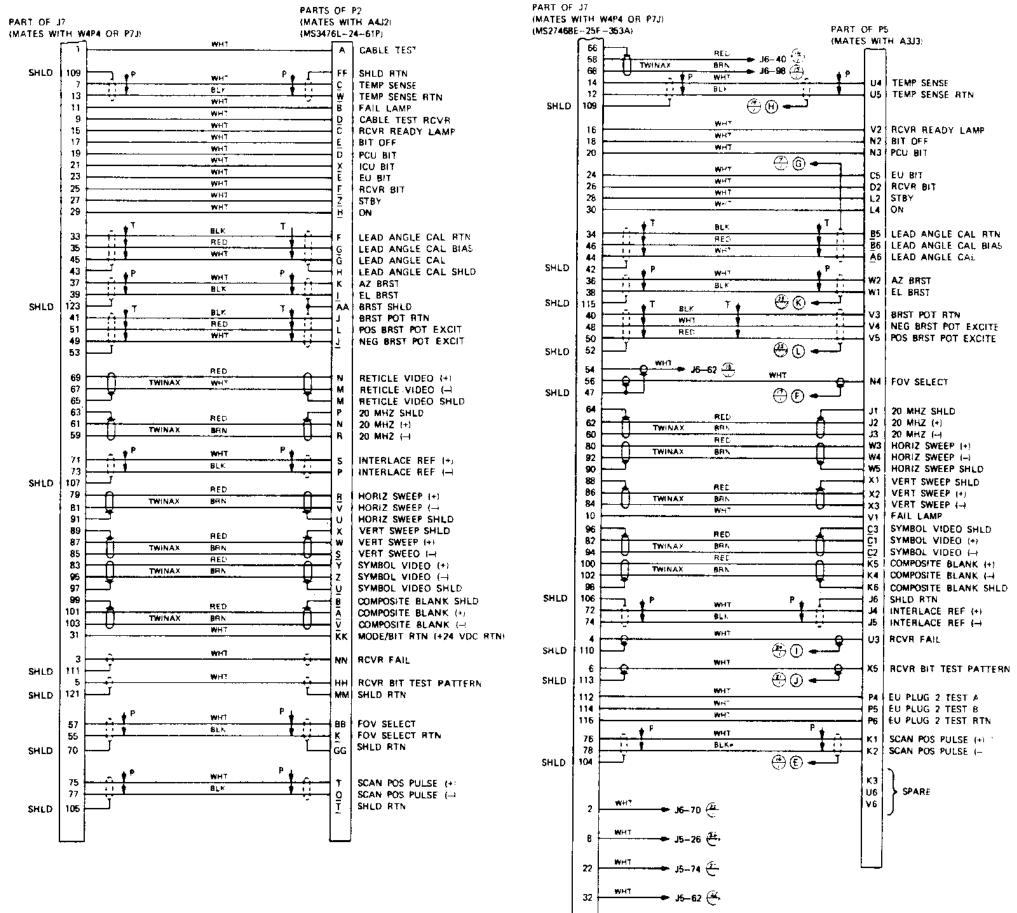
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+10 VDC VIDEO POT	ī	<b></b>	1	WHT		L
-10 VDC VIDEO POT	3	L'		BLK		
CONTRAST WIPER	5		1	RED WHT		
CONTRAST POT HI			<u>⊷</u> <u> </u>	BLK		$\vdash$
CONTRAST POT LO	6	Ť				<u> </u>
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RET BRIGHTNESS	8			WHT		
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BRST POT EXCITE RTN	15	$\vdash$		RED		
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ON	21			WHT		
STANDBY	22			WHT		
MODE BIT RTN	38			WH: WH*		
RCVR BIT	27			WHT		_
	26			WHT		
ICU BIT PCU BIT	25 24			WHT		
BIT OFF	23			WH*		
	<b>–</b> [					
	1					
				have not		
	43			WHT		
	42			WHT.		







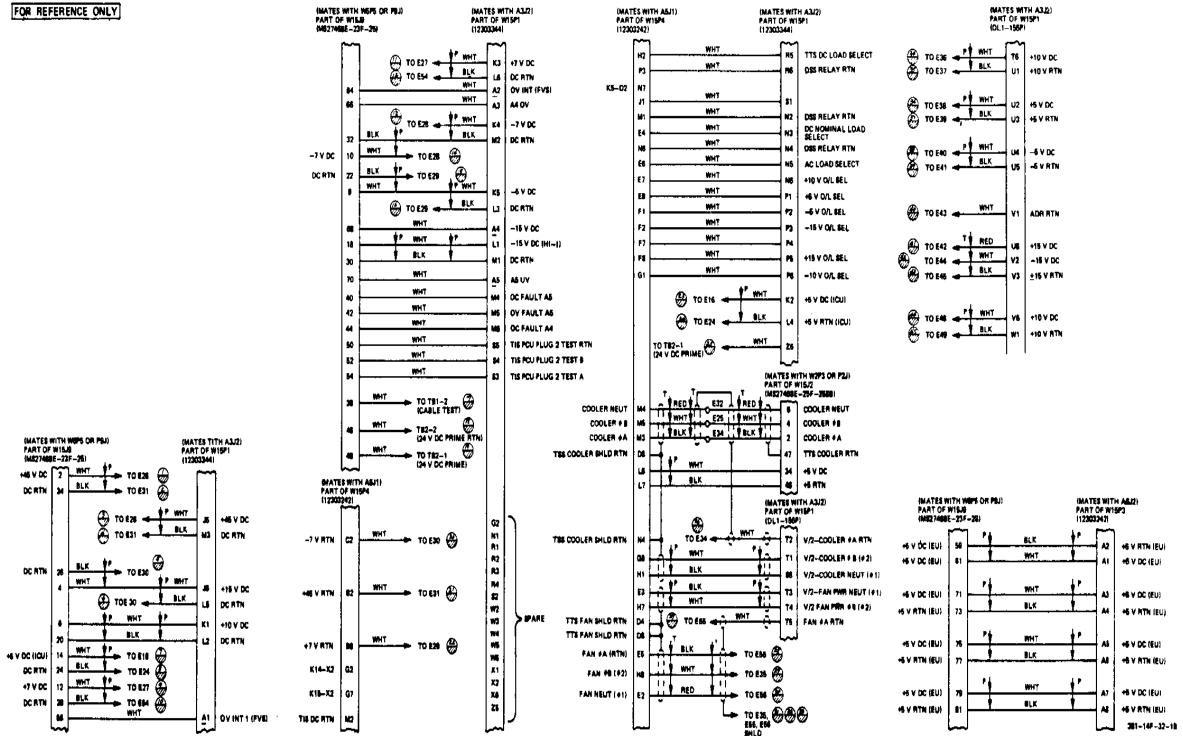


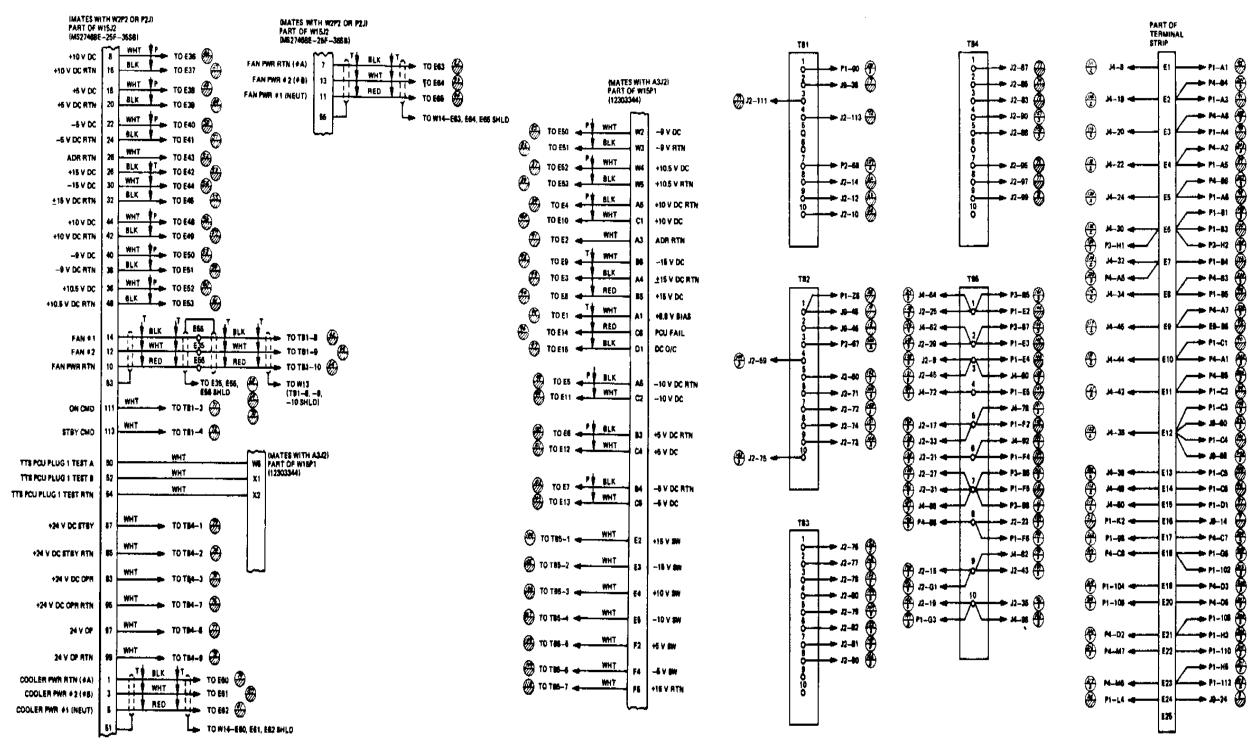
ARR82-24544

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

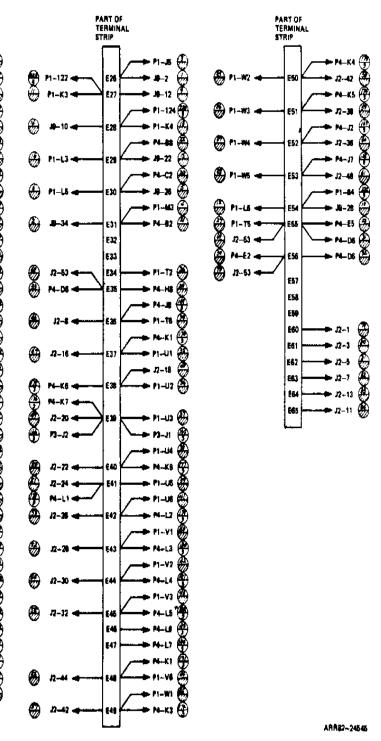
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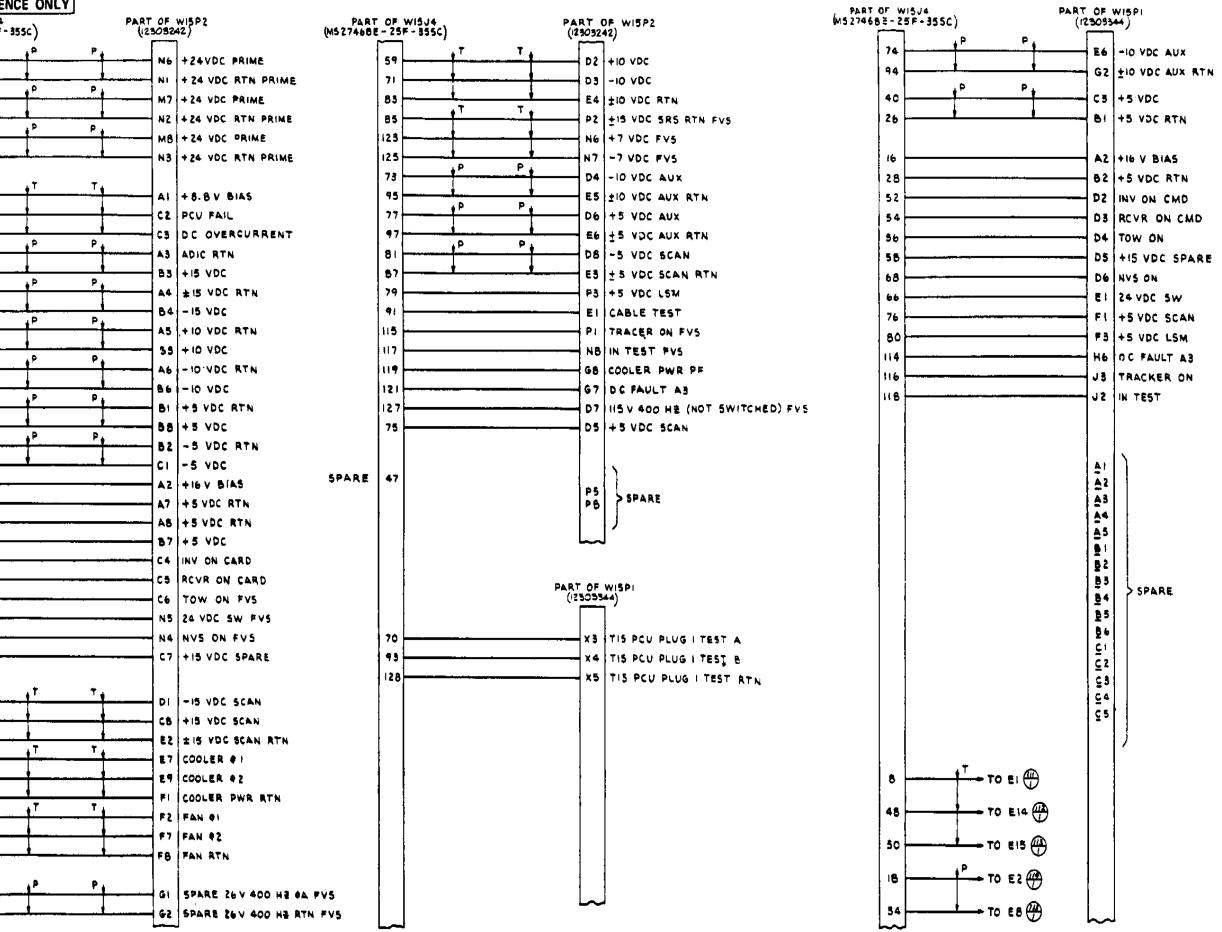


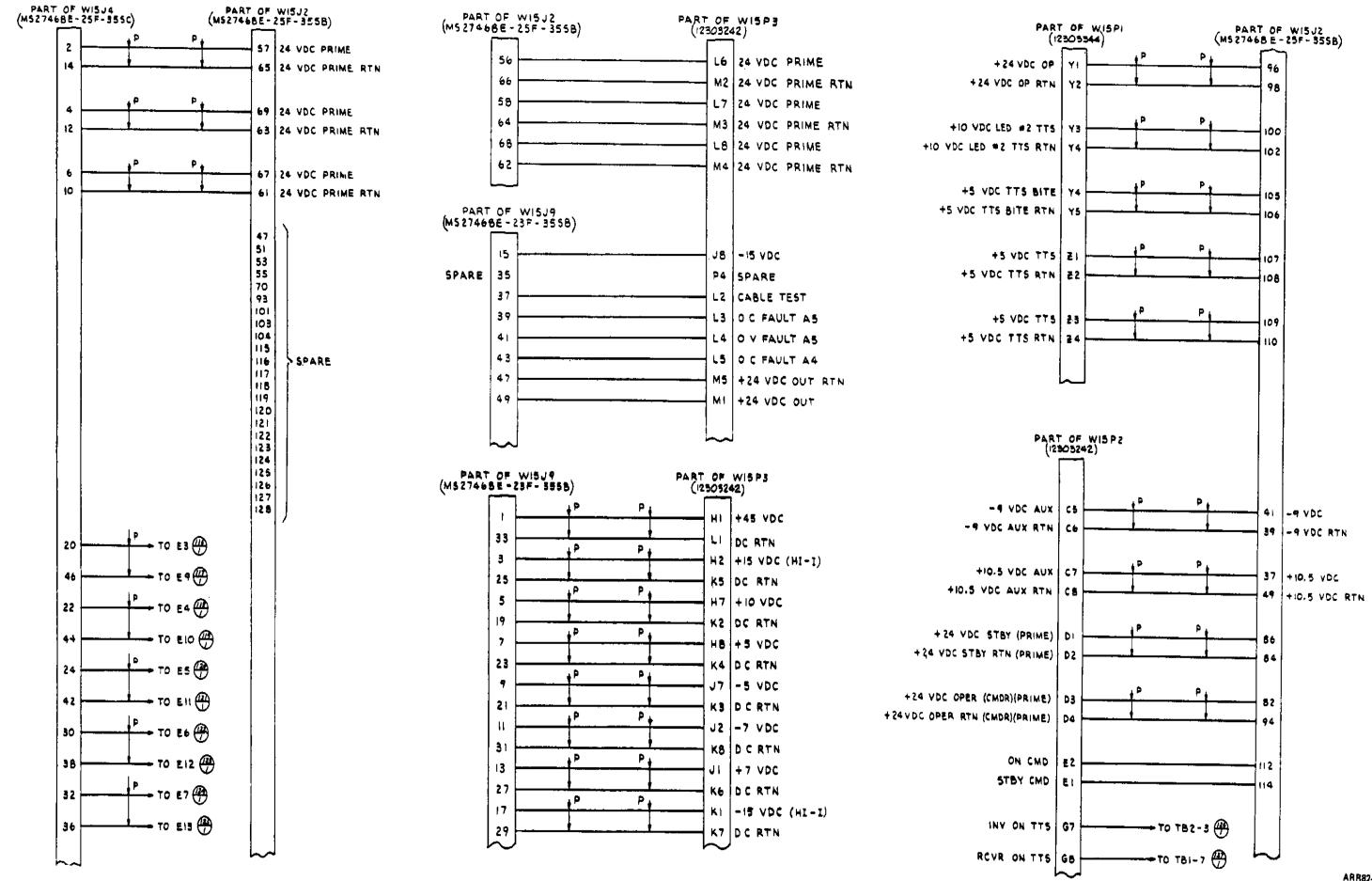
TN 9-4931-381-148P-3



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

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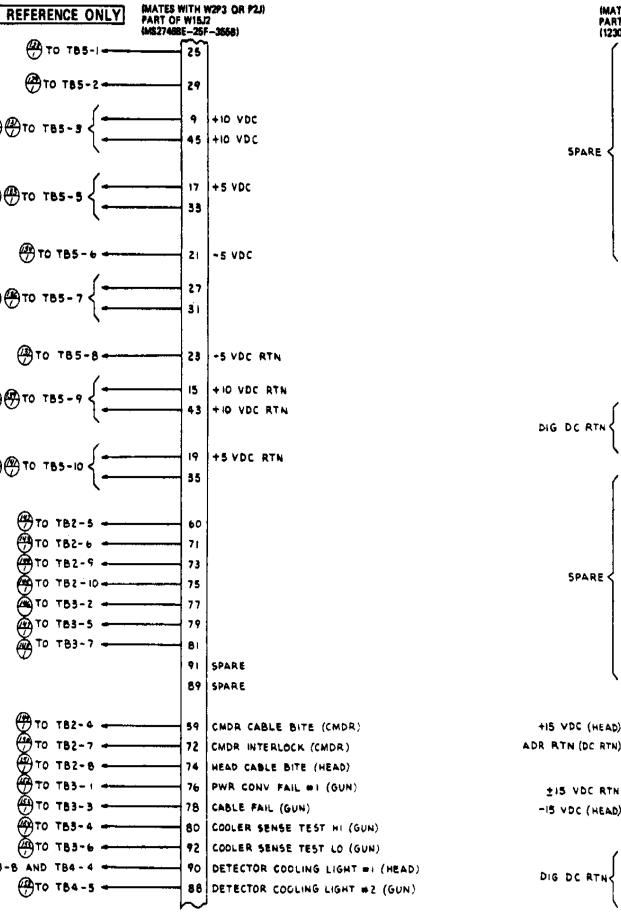


ARR82-24546

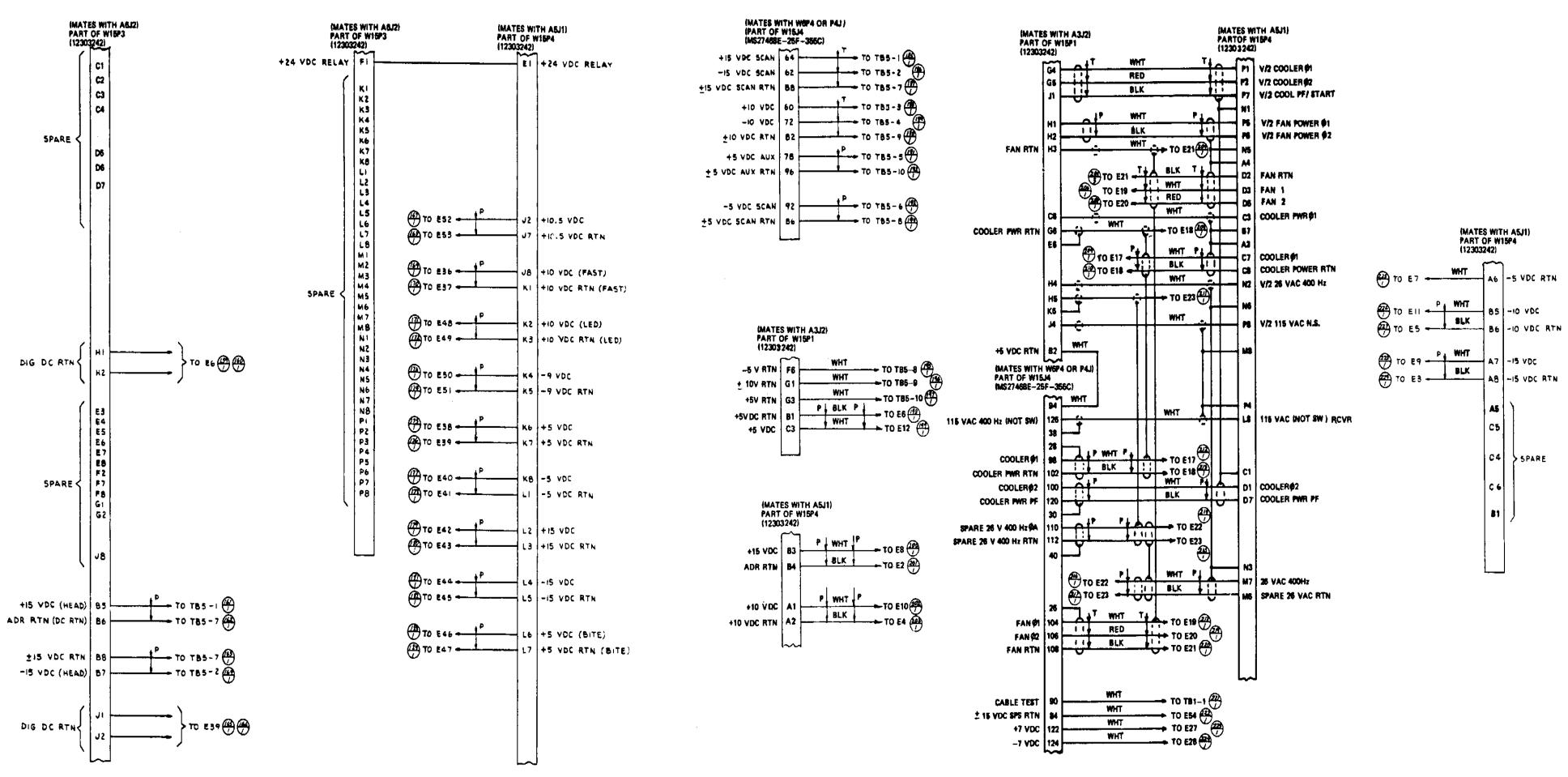
FO-13. Internal PCU Interconnect Harness W15 Wiring Diagram (Sheet 2 of 3)

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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)
	3655555663456678977777777890123345678901223456789012334556789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789012334567890123345678901233456789001233456789001233456789001233456789001233456789001233456789000000000000000000000000000000000000	

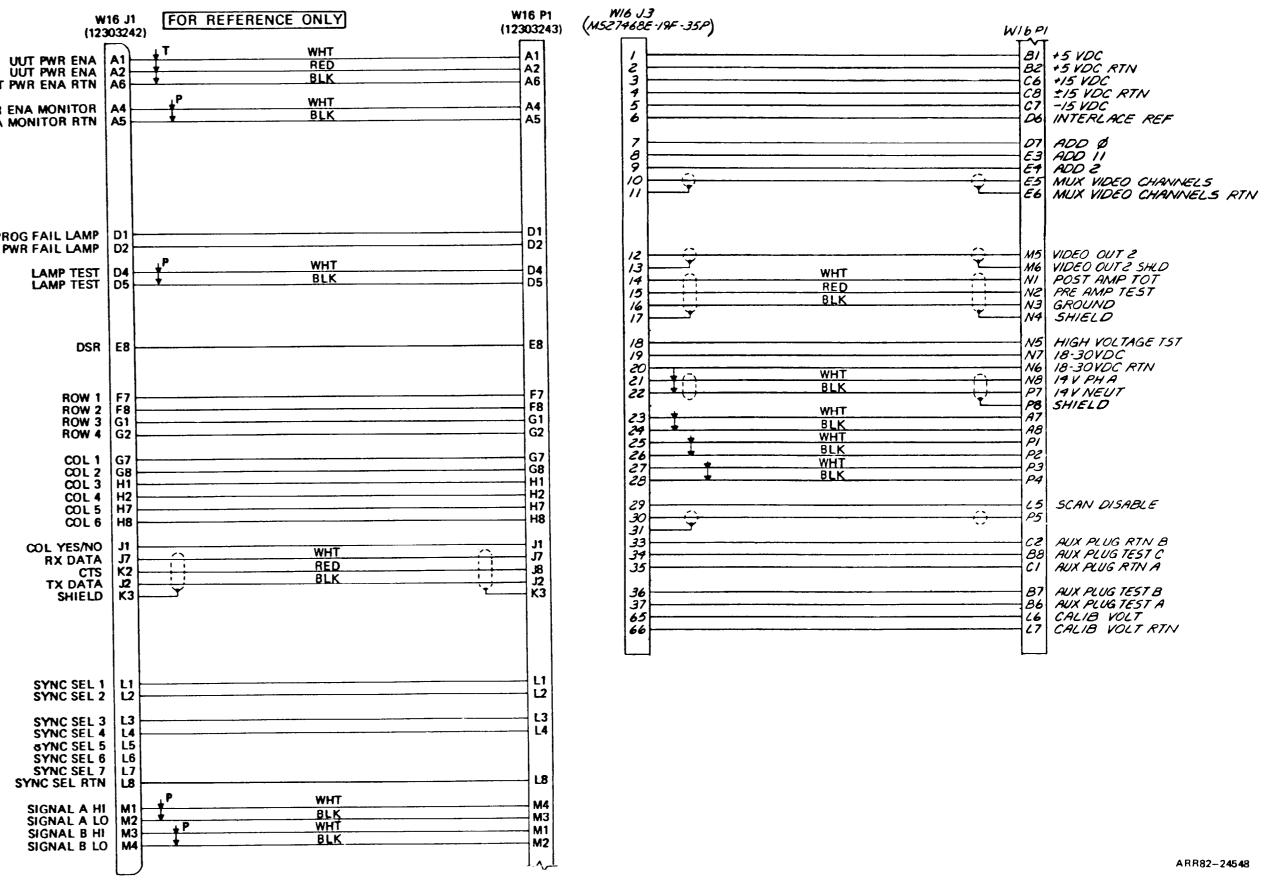
ARR82-24547

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

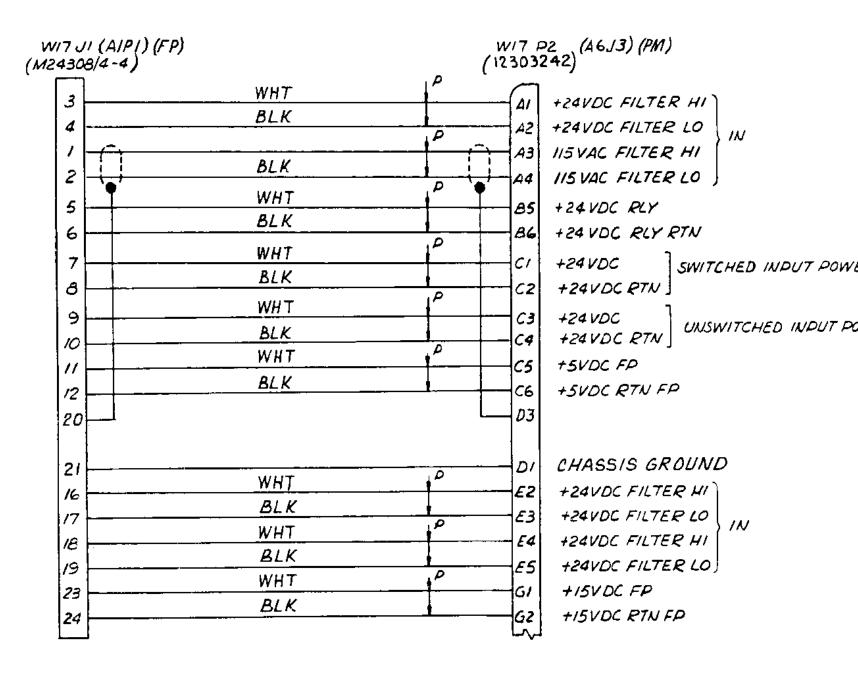
UUT PWR ENA RTN

UUT PWR ENA MONITOR UUT PWR ENA MONITOR RTN

PROG FAIL LAMP PWR FAIL LAMP



FO-14. Internal Panel Interconnect Harness W16 Wiring Diagram

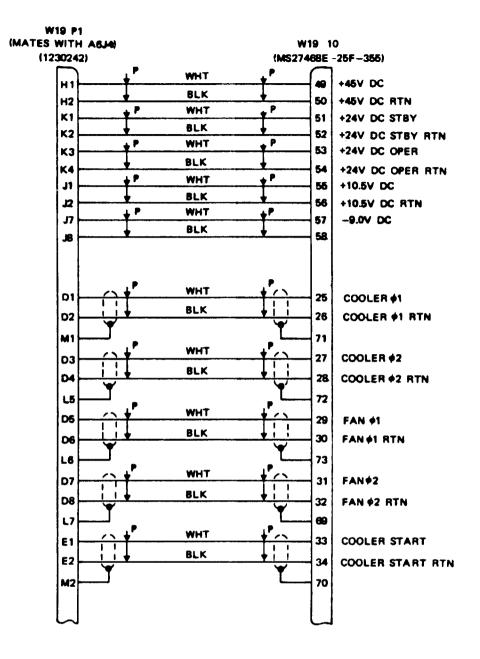


	WIT PI (AJJI) (12303242)	(DSS)	/	PART OF WI.T. P2
	A)	WHT	P	
	A2	BLK		- AS + SVDC DSS - AG + SVDC RTN DSS
	A5	WHT		
	A6	BLK		
	A7	WHT		
	A8	BLK	-	
		WHT	P	B2 -15VDC RTN DSS
VER	81	BLK		
	82	WHT	P	- B4 +24VDC ETN
	83 84	BLK		B7 +24VDC RLY B8 +24VDC RLY RTN
POWER				
	P1		P	PI
	Ρ7			-FI +24YDC PRIME POWER (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 <b> </b>		3 + 15V DC (IDU)
44 <u> </u>	P +	4 + ISV DC (IDU)
<b>`</b> ≤}		5 +10V DC (EV)
AG	P 1	6 +IOV DC RTN (EV)
a 7		
A8	<u>¥</u>	9 + IOV DC RTN (IDU)
BI		
82	<b>!</b>	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•	<b>k</b>	20 - IOV DC RTN (DU)
:s	P +	21 -15V DC (EU)
c6 –		22 - ISV DC RTN (EU)
c7 🗕	P	23 - 15V DC (IDU)
ca	<b>I</b>	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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	-91	-
	A <u>-</u> 93	
64,	ITACTS 16 67 THRU 1	, 18, 88, 9

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P1A	-2	
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	-46	
	-48	
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	66	
	-58	
	-00	
	-92	
P1A	-100	
16, 18, 25, 59, THRU J 88, 94, 95, NOT USED		

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	-49		-48
	-65		-66
P.	ZA67	P	2A68

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	FROM TO CONTACT CONTACT		TACT
P	2A83	P	2A -82
	85		-84
	87		-86
	89		-88
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	-69		58
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P	P2A -59 P2A -60		
93,	NTACTS 47, 100 THRU 1 NOT USED		

	FROM CONTACT		TO CONTACT	
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	-35		-46	
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	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
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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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-49	48
-51	60
-53	-62
55	-54
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-61	-62
-63	-64
-65	-66
-67	-68
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-73	-74
-75	-76
P5A77	P5A -78

P2A

PIA

**75**A

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		

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	P6A -1	PE	iA -2
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	-9		-6
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	~21	Π	-22
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	-65	11	-66
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	-67	$\mathbf{T}$	-56
	-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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-65	-66	
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-73	-74	
-75	-76	
-79	-80	
F7A -83	P7A82	

FROM CONTACT	TO CONTACT
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-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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	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	<b>A −2</b>
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	-47		46
	-49		-48
P.	A -50	P	DA -54
CONTACTS 45, 51, 52, 53, 55 THRU 85 NOT USED			
<b>.</b>			

PBA

P6A

**P8A** 

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

P11A

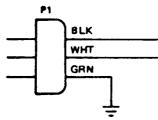
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	-89		
P12	A -98	P12	A - 100
00N 75, NOT	FTACTS 7, 3 85, 88, 91 T ' USED	o thri Hru 10	u 43, 62, X0

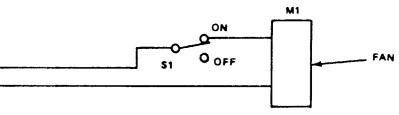
P12A

### ARR82-24551

### FO-17. Shorting Plug Connectors Wiring Lists

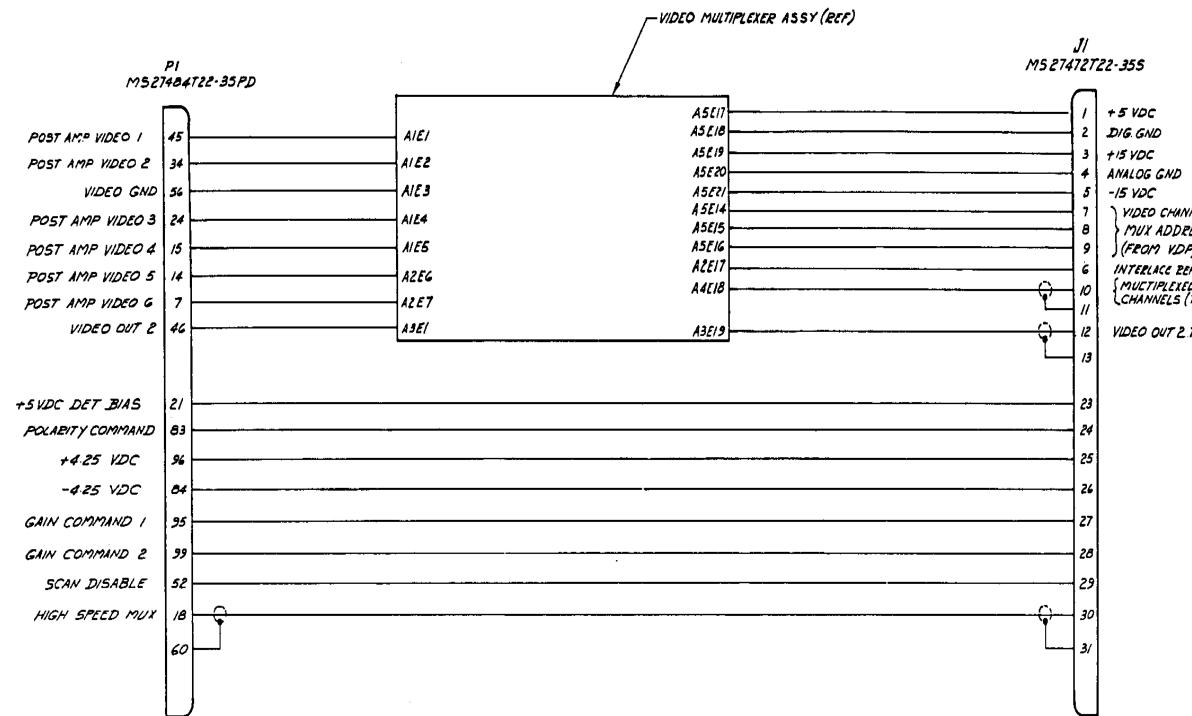
FP-67/(FP-68 blank)





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	<b>5</b>
	Meters 0.305	
Yards		
	Kilometers 1.609	3-0
	Square Centimeters 6.451	
Square Feet	Square Meters 0.093	
	Square Meters 0.836	<b>1</b>
	Square Kilometers 2.590	<b>-</b>
	Square Hectometers 0.405	_ 1
	Cubic Meters 0.028	
Cubic Yards	Cubic Meters 0.765	-F
Fluid Ounces	Milliliters 29.573	5
Pints		2 <b></b>
Quarts	Liters 0.946	- <b>-</b>
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	- <b>- - - - - - - - - -</b>
	VIIUmerers ber nour. • • • • • • •	2
		~ 🗲
TO CHANGE	TO MULTIPLY BY	
TO CHANGE		4
TO CHANGE Centimeters	Inches 0.394	el e tre de
TO CHANGE Centimeters	Inches 0.394 Feet	opologiants
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
TO CHANGE Centimeters	Inches          0.394           Feet          3.280           Yards          1.094           Miles          0.621           Square Inches          0.155	s 6 7 14 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          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	<sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> <sup>7</sup> <sup>5</sup> <sup>1</sup> <sup>2</sup> <sup>5</sup> <sup>6</sup>
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
TO CHANGECentimetersMetersMetersSquare CentimetersSquare MetersSquare MetersCubic MetersMillilitersLitersLitersLitersGramsKilogramsMetric Tons	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       1.057         Gallons       0.3264         Ounces       0.035         Pounds       2.205         Short Tons       1.102	
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	<sup>1</sup> CM. <sup>2</sup> <sup>3</sup> <sup>4</sup> <sup>5</sup> <sup>6</sup> <sup>7</sup> whythythythythythythythythythythyth INCHES <sup>1</sup> <sup>2</sup>
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       1.057         Gallons       0.3264         Ounces       0.035         Pounds       2.205         Short Tons       1.102	
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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