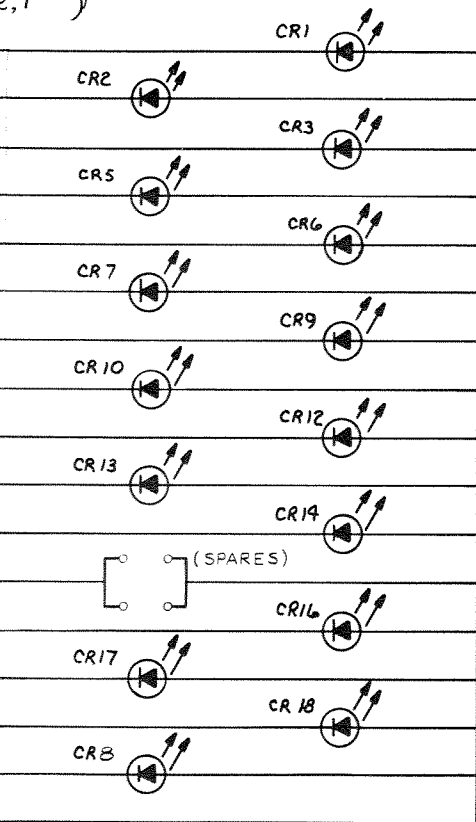
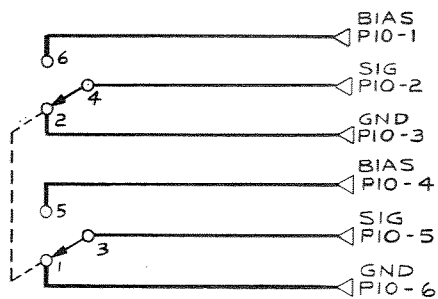


ON
EXT BIAS
OFF

310



VALUE
BIN No.
LIMITS
SLOW
MED
FAST
SERIES
PARALLEL
NO-GO
{ 120 Hz
{ 100 Hz
1 kHz
CONT
AVERAGE
SINGLE
GO

RESISTANCE IS IN OHMS, $k=10^3$, $M=10^6$
CAPACITANCE IS IN FARADS, $\mu=10^{-6}$, $p=10^{-12}$
VOLTAGES EXPLAINED IN INSTRUCTION BOOK SERVICE NOTES
□ PANEL CONTROL ◻ REAR CONTROL
⊙ SCREWDRIVER CONTROL WT-WIRE TIE TP-TEST POINT
COMPLETE REFERENCE DESIGNATION INCLUDES SUBASSEMBLY
LETTER C, R, B, RI, ETC.

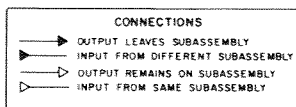
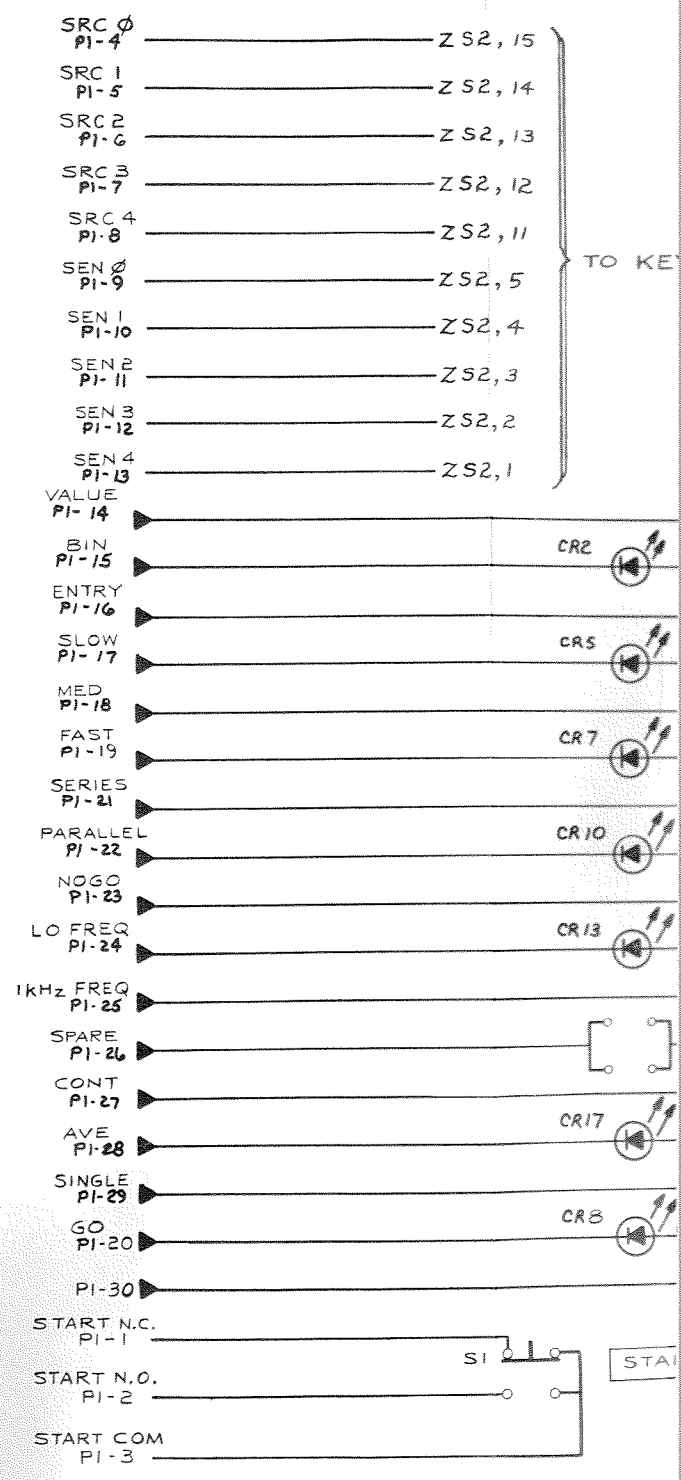


Figure 6-14. Keyboard (KB) circuit board, -4710, diagram.



ELECTRICAL PARTS LIST

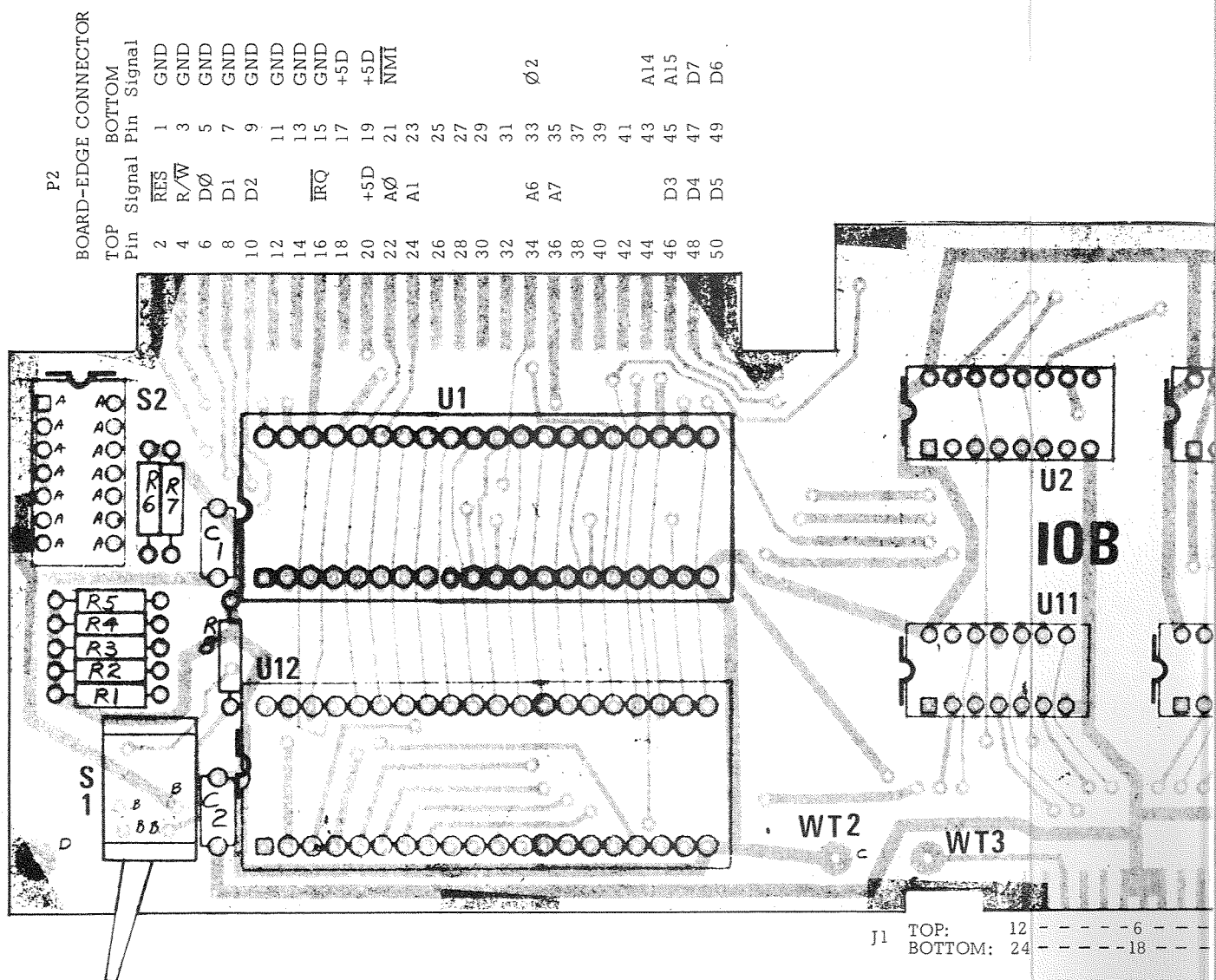
INTERFACE OPTION ASM P/N 1658-4J20

REFDES	DESCRIPTION	PART NO.	FMC	MFGR	PART NUMBER
J 1	RECPT MICRO RIB 24 CNT	4230-4024	02660	57-4J240	
J 2	CCNN PNL 24FEM CONT MICRO RIB	4230-4824	02660	57-20240-2	

NOTE: THIS ASSEMBLY INCLUDES THE 1658-4720 CIRCUIT BOARD; SEE BELOW.

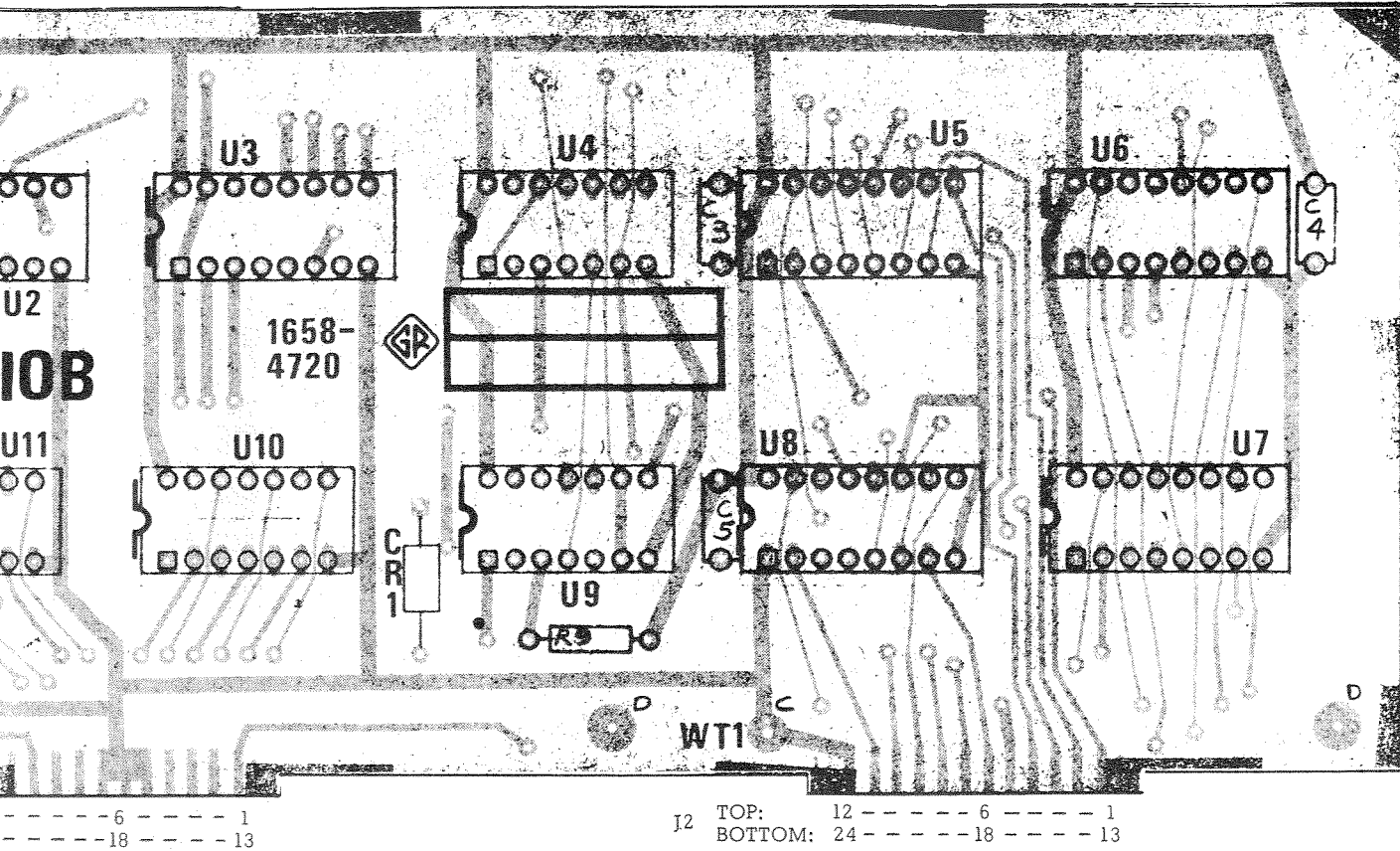
INTERFACE OPTION PC BOARD 108 P/N 1658-4720

REFDES	DESCRIPTION	PART NO.	FMC	MFGR	PART NUMBER
C 1	CAP CER MOND 0.1UF 20PCT 50VGP	4400-2050	72982	8131-M050-651-104M	
C 2	CAP CER MOND 0.1UF 20PCT 50VGP	4400-2050	72982	8131-M050-651-104M	
C 3	CAP CER MOND 0.1UF 20PCT 50VGP	4400-2050	72982	8131-M050-651-104M	
C 4	CAP CER MOND 0.1UF 20PCT 50VGP	4400-2050	72982	8131-M050-651-104M	
C 5	CAP CER MOND 0.1UF 20PCT 50VGP	4400-2050	72982	8131-M050-651-104M	
CR 1	DIODE RECTIFIER 1N4003	6081-1001	14433	1N4003	
R 1	RES COMP 3.3 K 5PCT 1/4W	6099-2335	81349	RCR07G332J	
R 2	RES COMP 3.3 K 5PCT 1/4W	6099-2335	81349	RCR07G332J	
R 3	RES COMP 3.3 K 5PCT 1/4W	6099-2335	81349	RCR07G332J	
R 4	RES COMP 3.3 K 5PCT 1/4W	6099-2335	81349	RCR07G332J	
R 5	RES COMP 3.3 K 5PCT 1/4W	6099-2335	81349	RCR07G332J	
R 6	RES COMP 10 K 5PCT 1/4W	6099-3105	81349	RCR07G103J	
R 7	RES COMP 10 K 5PCT 1/4W	6099-3105	81349	RCR07G103J	
R 8	RES COMP 3.3 K 5PCT 1/4W	6099-2335	81349	RCR07G332J	
R 9	RES COMP 3.3 K 5PCT 1/4W	6099-2335	81349	RCR07G332J	
S 2	SWITCH TOGGLE 6STA SPST PC	7910-2030	31514	1006-692	
S 12	SWITCH TOGGLE PC 2CKT STEADY	7910-1920	05402	T8001	
U 1	ICD MC6820A 40C PIA FOR MPU	5431-2450	04713	MC6820A	
U 2	ICD DM8097	5431-9685	12040	DM8097	
U 3	ICD DM8097	5431-9685	12040	DM8097	
U 4	IC DIGITAL SN74LS04N	5421-8604	01295	SN74LS04N	
U 5	ICD MC3441	5431-9684	04713	MC3441	
U 6	ICD MC3441	5431-9684	04713	MC3441	
U 7	ICD MC3440	5431-9686	04713	MC3440	
U 8	ICD MC3441	5431-9684	04713	MC3441	
U 9	IC DIGITAL SN74LS02N	5431-8602	01295	SN74LS02N	
U 10	ICD SN7406N 14D HX INV COL 30V	5431-8106	01295	SN7406N	
U 11	ICD SN7406N 14D HX INV COL 30V	5431-8106	01295	SN7406N	
U 12	ICD MC6820A 40D PIA FOR MPU	5431-2450	04713	MC6820A	

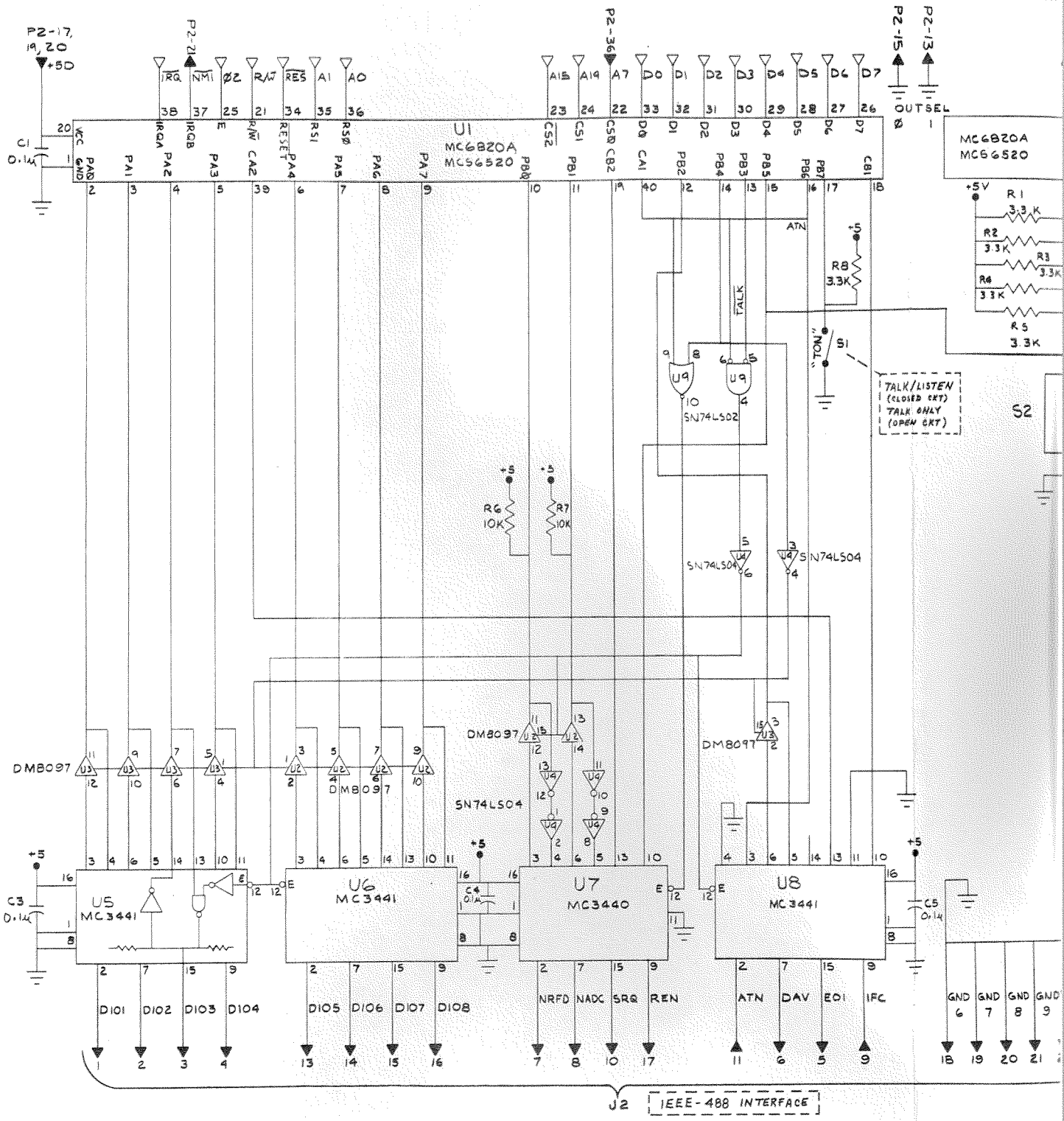


J1 TOP: 12 - - - - -6 - - -
 BOTTOM: 24 - - - - -18 - - -

Figure 6-15. Interface option (IOB) board



Interface option (IOB) board, 1658-4720, layout.



J2 IEEE-488 INTERFACE

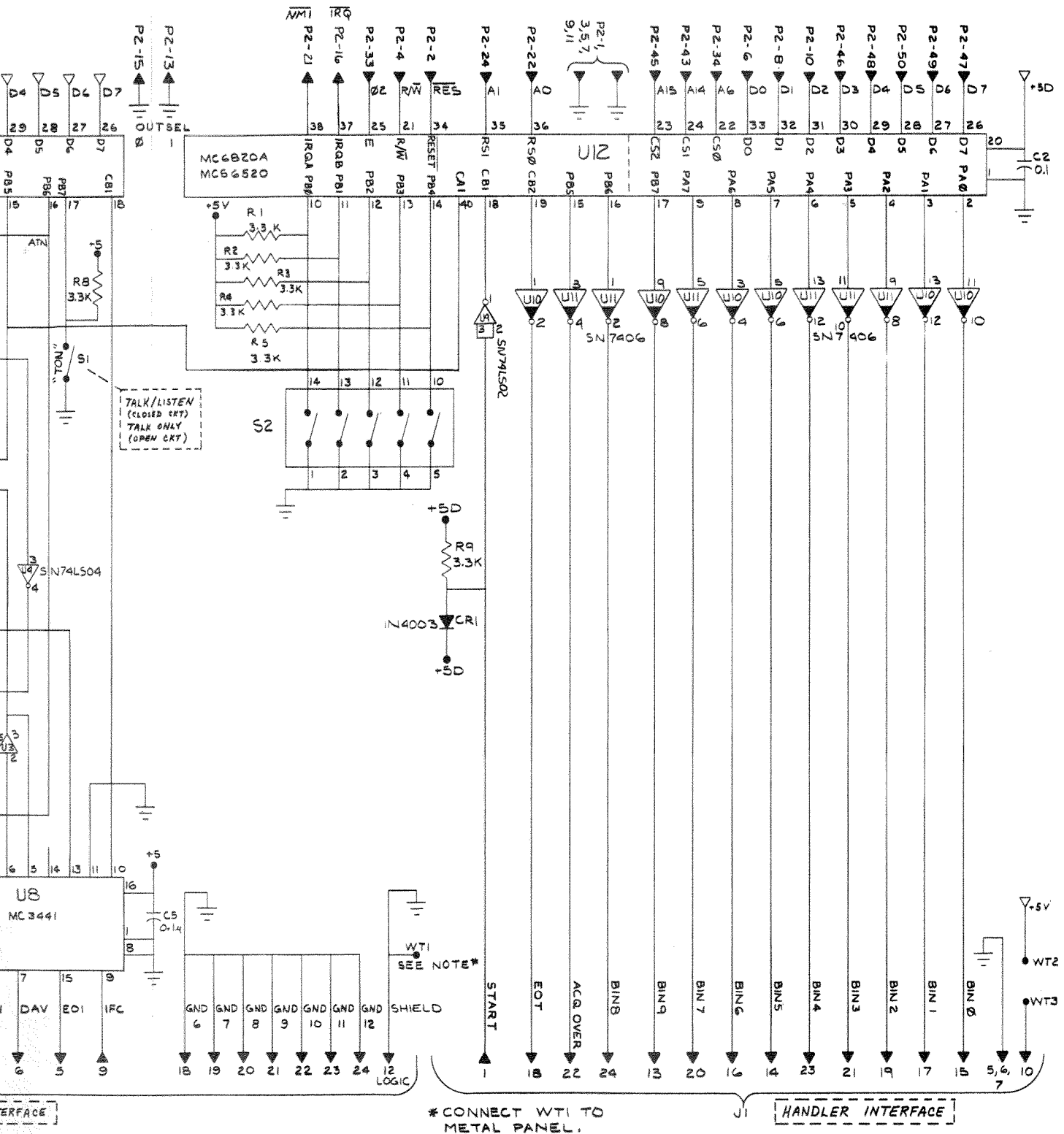


Figure 6-16. Interface option (IOB) board, 1658-4720, diagram.

ELECTRICAL PARTS LIST

		POWER SUPPLY ASM V		P/N 1658-4000		
REFDES		DESCRIPTION	PART NO.	FMC	MFGR	PART NUMBER
C	1	CAP ALUM 18000 UF 20V	4450-6231	24655		4450-6231
C	2	CAP ALUM 4500 UF 40V	4450-6221	90201		CGS 4500UF 40V
C	5	CAP TANT 1.0 UF 20PCT 35V	4450-4300	56289		150D105X0035A2
C	6	CAP TANT 1.0 UF 20PCT 35V	4450-4300	56289		150D105X0035A2
CR	1	DIODE BRIDGE	6081-1032	24655		6081-1032
CR	2	DIODE BRIDGE	6081-1032	24655		6081-1032
CR	3	DIODE BRIDGE	6081-1032	24655		6081-1032
CR	4	DIODE BRIDGE	6081-1032	24655		6081-1032
F	1	FUSE SLO-BLOW 1/2A 250V	5330-1000	75915		313 .500
J	101	RECEPTACLE POWER UL STD 15A250V	4240-0250	82389		EAC-302
S	2	SWITCH SLIDE 2 POS DPDT STEADY	7910-0832	82389		11A-1266
T	1	TRANSFORMER POWER	0485-4095	24655		0485-4095
U	1	IC LINEAR LM323	5432-1048	12040		LM323K

NOTE: THIS ASSEMBLY INCLUDES THE 1657-4720 BOARD; SEE BELOW.

		POWER SUPPLY PC BOARD		P/N 1657-4720		
REFDES		DESCRIPTION	PART NO.	FMC	MFGR	PART NUMBER
C	3	CAP TANT 1.0 UF 20PCT 35V	4450-4300	56289		150D105X0035A2
C	4	CAP TANT 1.0 UF 20PCT 35V	4450-4300	56289		150D105X0035A2
C	7	CAP TANT 1.0 UF 20PCT 35V	4450-4300	56289		150D105X0035A2
C	8	CAP CER MONO .01 UF 10PCT 50V	4400-6351	72982		8121-M050-W5R-103K
C	9	CAP CER MONO .01 UF 10PCT 50V	4400-6351	72982		8121-M050-W5R-103K
C	10	CAP CER MONO .01 UF 10PCT 50V	4400-6351	72982		8121-M050-W5R-103K
C	11	CAP TANT 1.0 UF 20PCT 35V	4450-4300	56289		150D105X0035A2
CR	5	DIODE RECTIFIER 1N4003	6081-1001	14433		1N4003
CR	6	DIODE RECTIFIER 1N4003	6081-1001	14433		1N4003
CR	7	DIODE RECTIFIER 1N4003	6081-1001	14433		1N4003
CR	8	DIODE RECTIFIER 1N4003	6081-1001	14433		1N4003
CR	9	RECT 1N4140 100PIV 3A SI ALXM	6081-1014	14433		1N4140
CR	10	RECT 1N4140 100PIV 3A SI ALXM	6081-1014	14433		1N4140
S	1	SWITCH PUSH PUSH AC UL 6A	7870-1570	24655		7870-1570
U	2	IC LINEAR LM342P-5	5432-1058	12040		LM342P-5
U	3	IC LINEAR LM320MP-8	5432-1059	12040		LM320MP-8

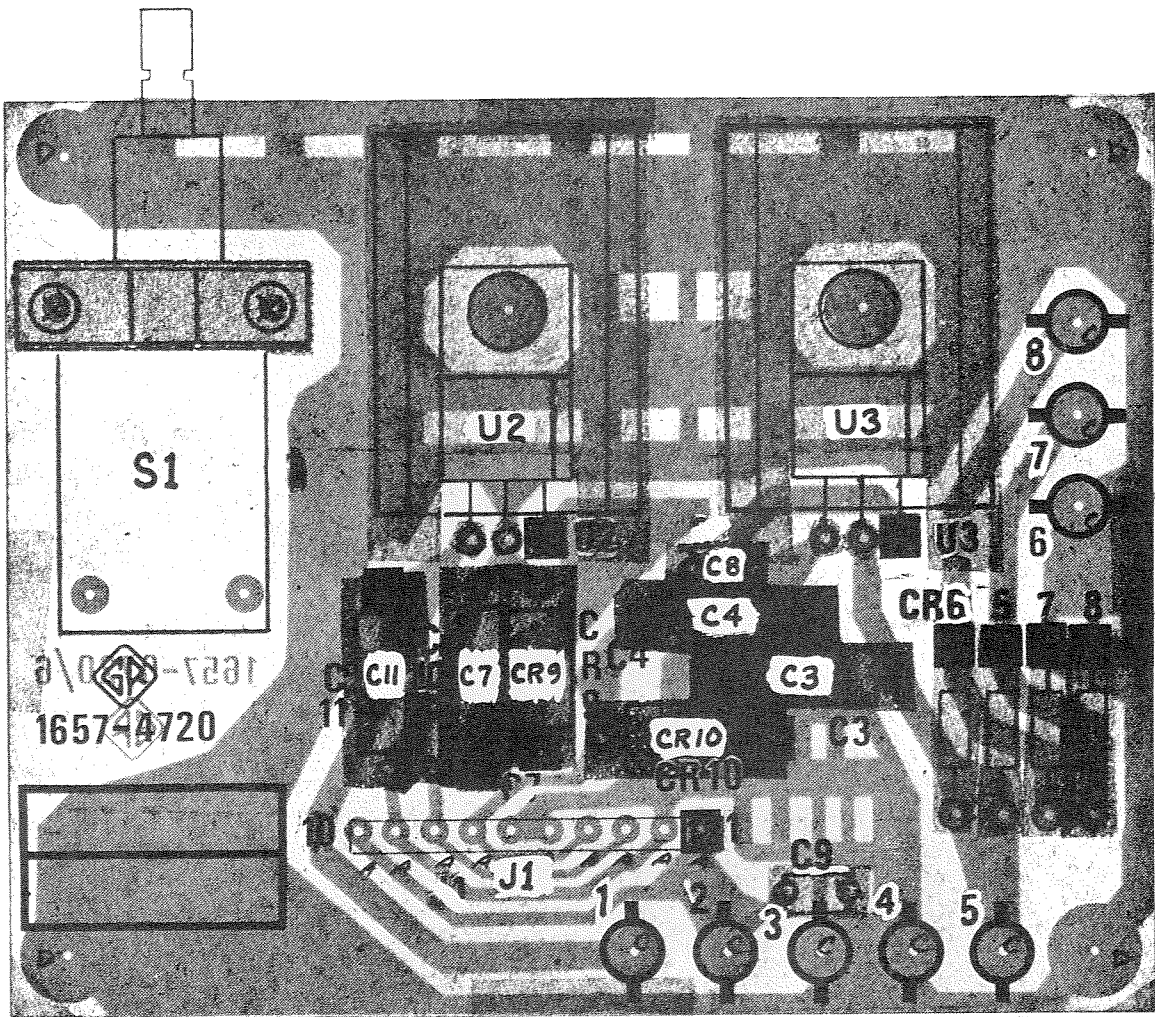
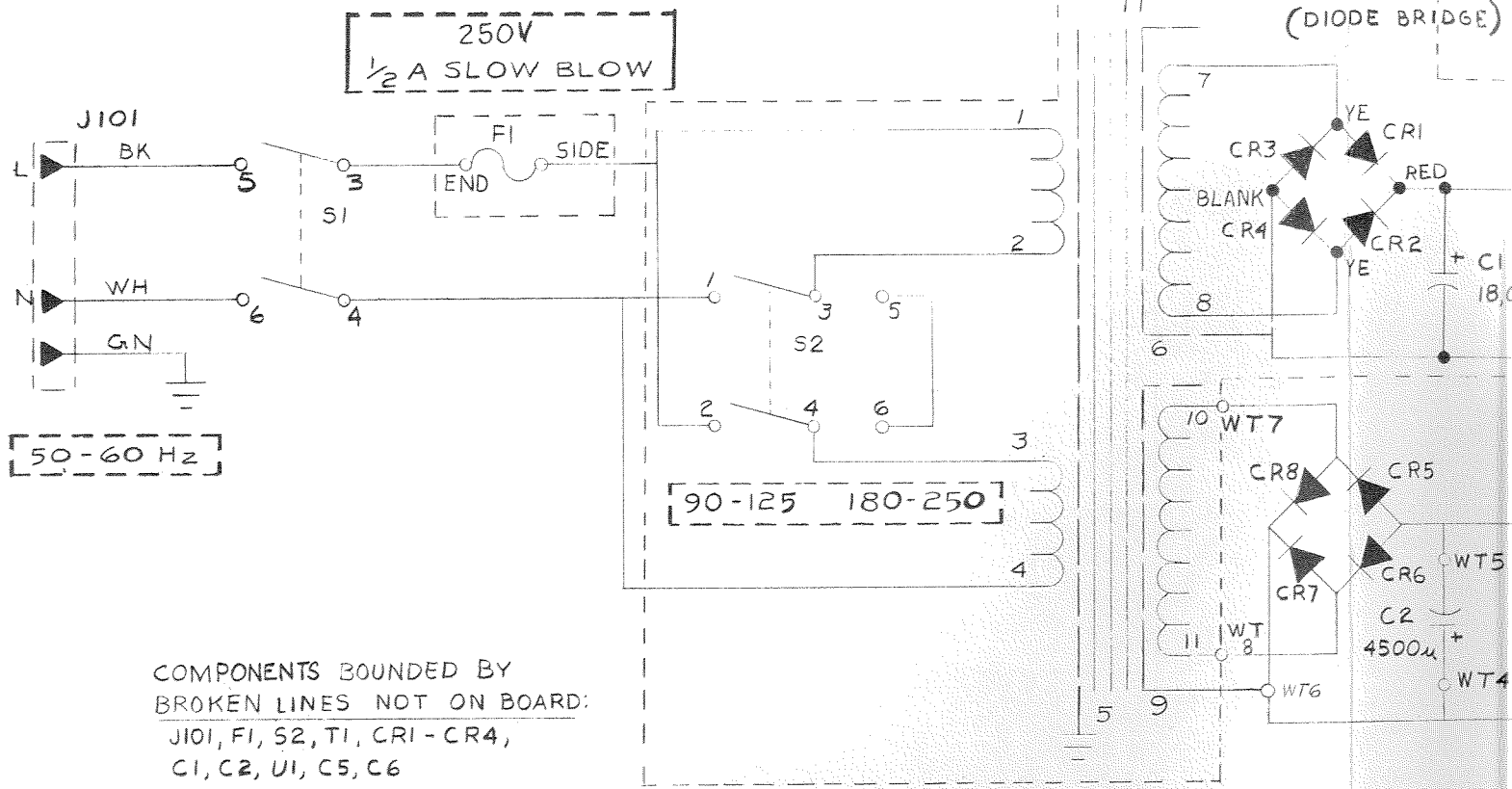
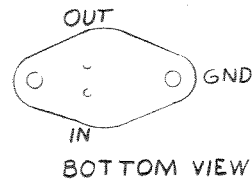


Figure 6-17. Power supply (V) board, 1657-4720, layout.



U1
LM323K



RESISTANCE IS IN OHMS, K=10³, M=10⁶
CAPACITANCE IS IN FARADS, µ=10⁻⁶, p=10⁻¹²
VOLTAGES EXPLAINED IN INSTRUCTION BOOK SERVICE NOTES
— PANEL CONTROL - - - - - REAR CONTROL
⊗ SCREWDRIVER CONTROL WT= WIRE TIE TP= TEST POINT
COMPLETE REFERENCE DESIGNATION INCLUDES SUBASSEMBLY
LETTER, C-R1, B-R1, ETC.

CONNECTIONS

- OUTPUT LEAVES SUBASSEMBLY
- INPUT FROM DIFFERENT SUBASSEMBLY
- OUTPUT REMAINS ON SUBASSEMBLY
- INPUT FROM SAME SUBASSEMBLY

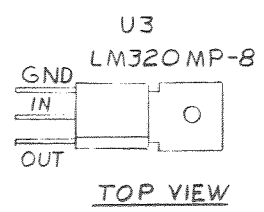
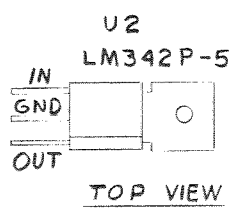
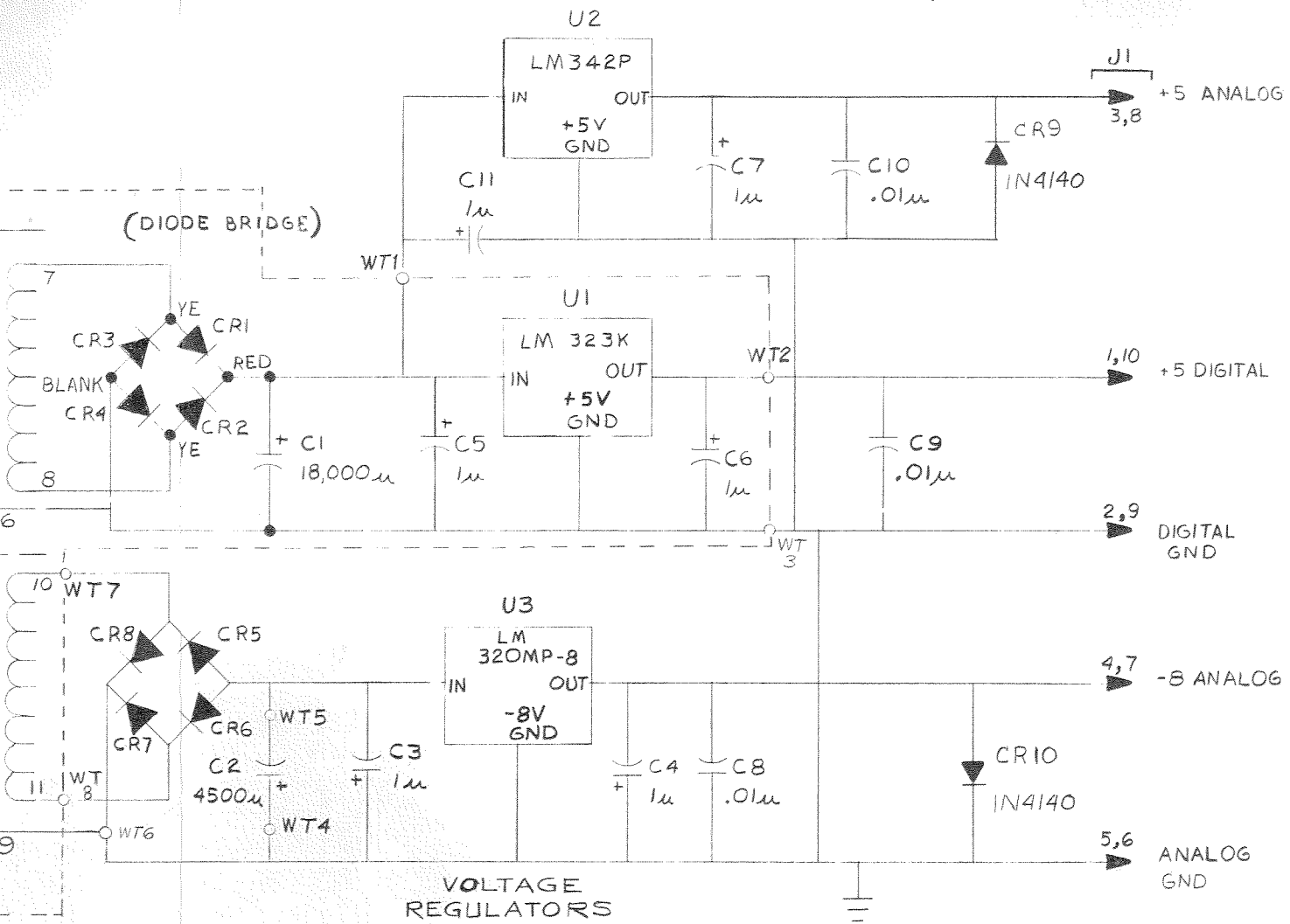


Figure 6-18. Power supply (V) assembly, 1658-4000, diagram.



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