

ALPHA 87A

Schematic Set

Caution! Read all schematic notes carefully

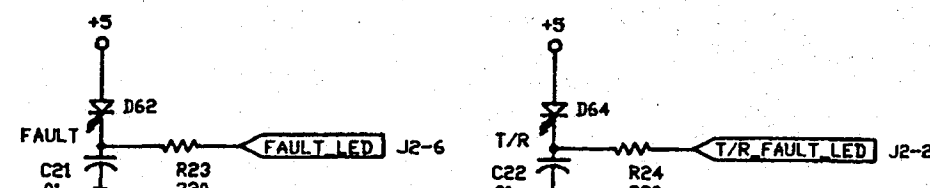
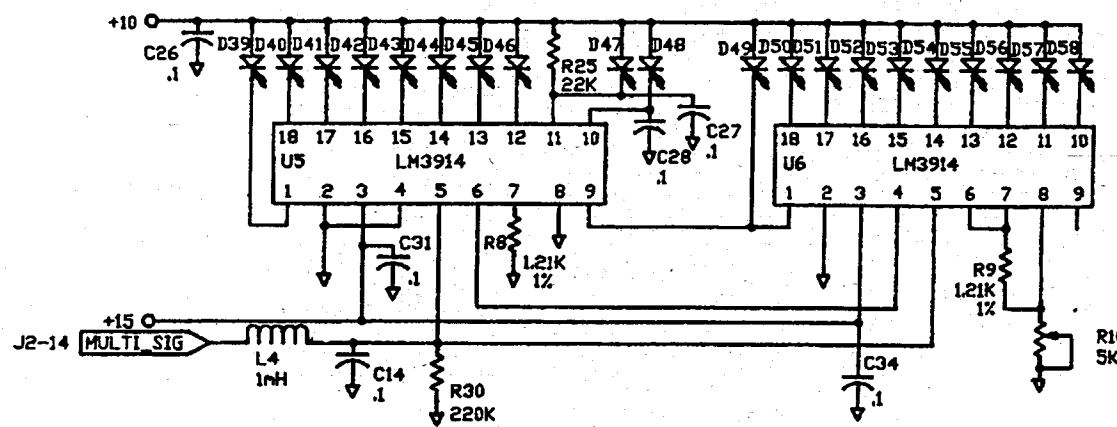
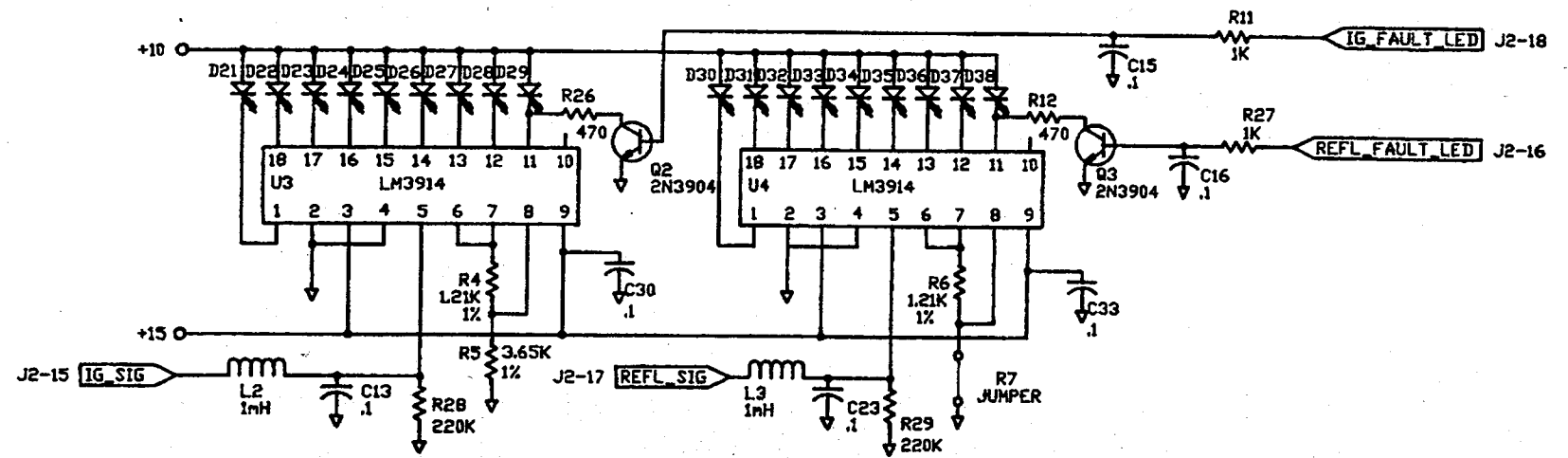
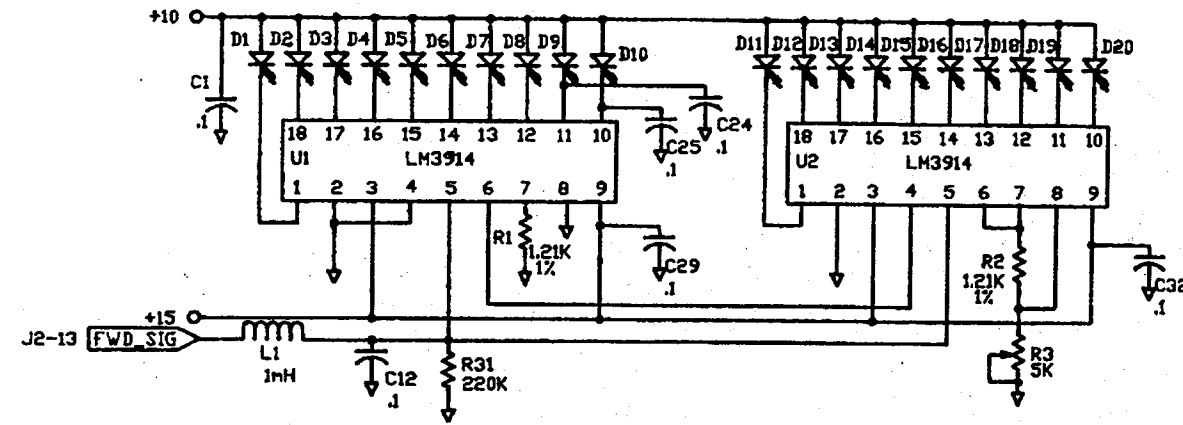
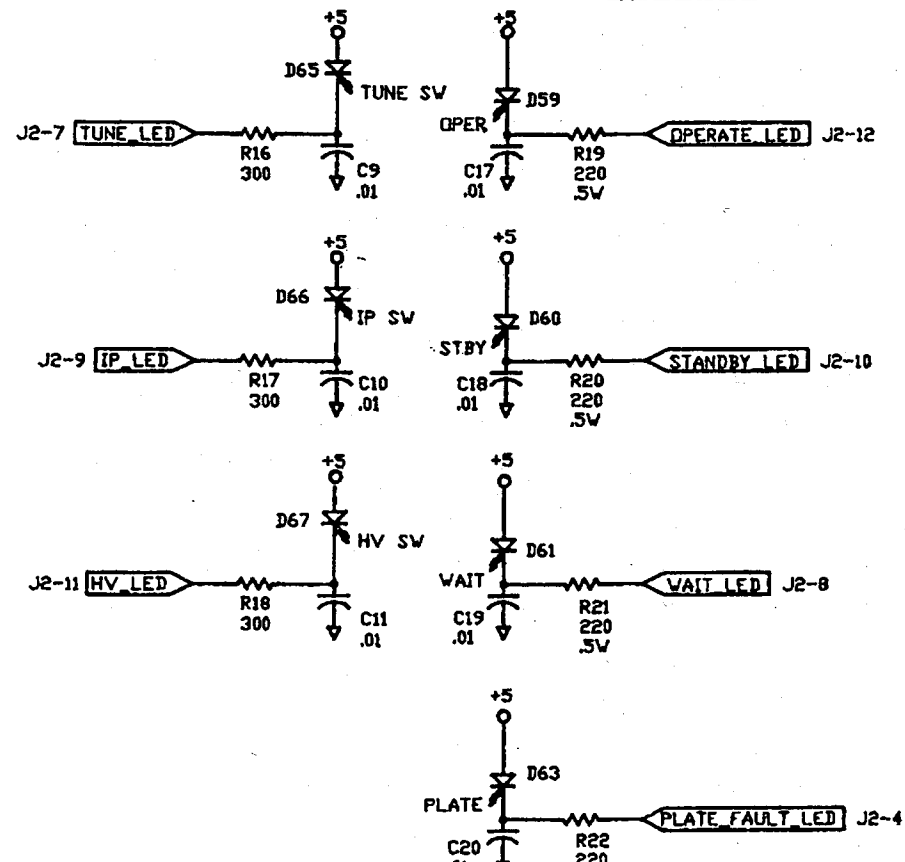
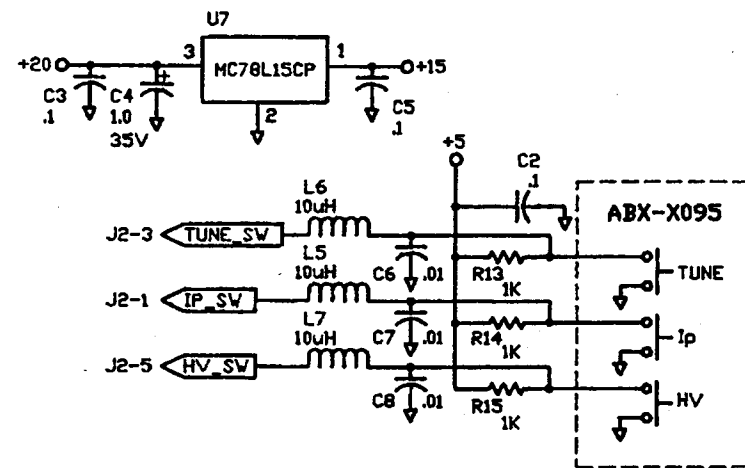
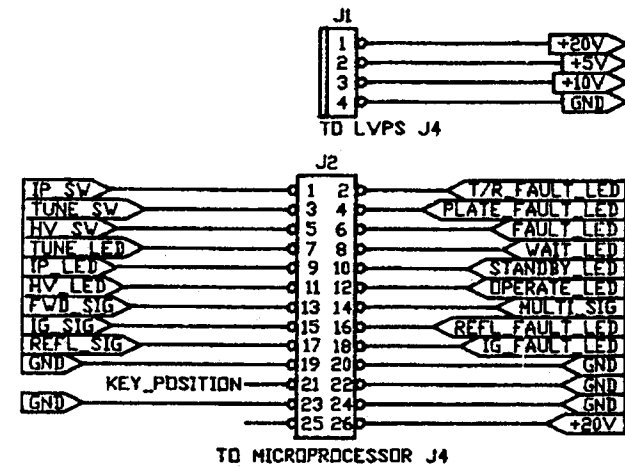
These diagrams are intended to be used in conjunction with the ZMX-X113 Operating Manual. All safety warnings described in the Operating Manuals must be adhered to while using these diagrams.

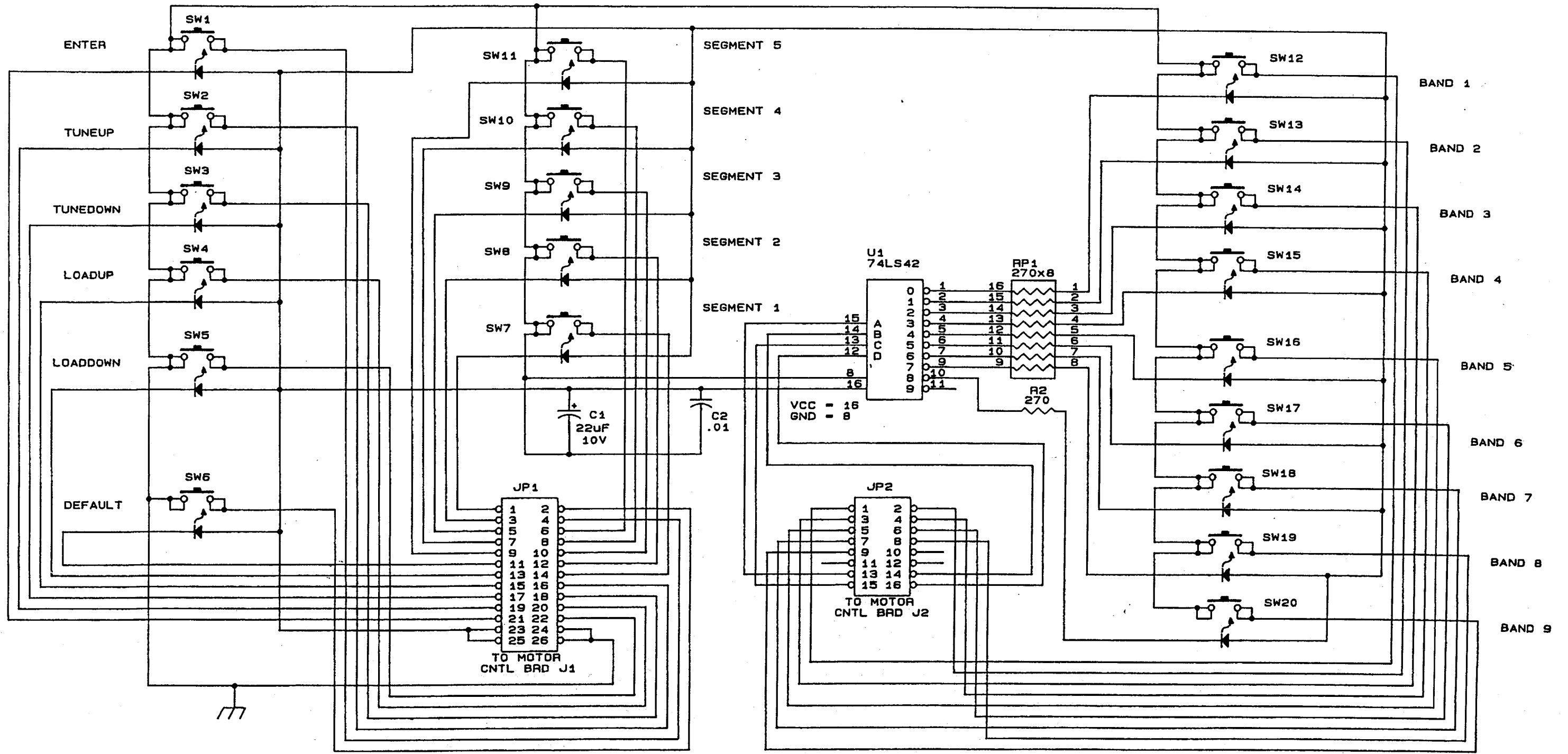
ALPHA/POWER PART NO. ZMX-X131

Revision A

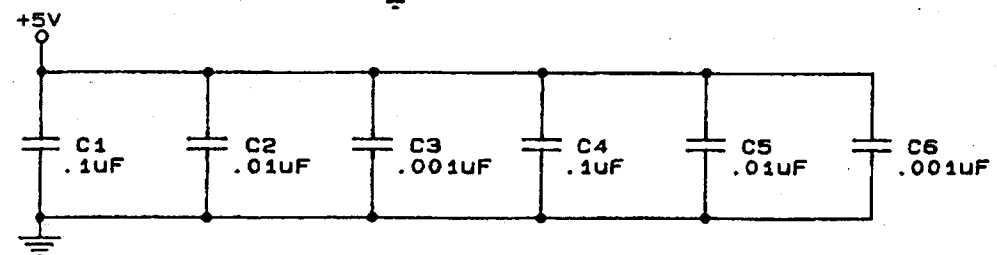
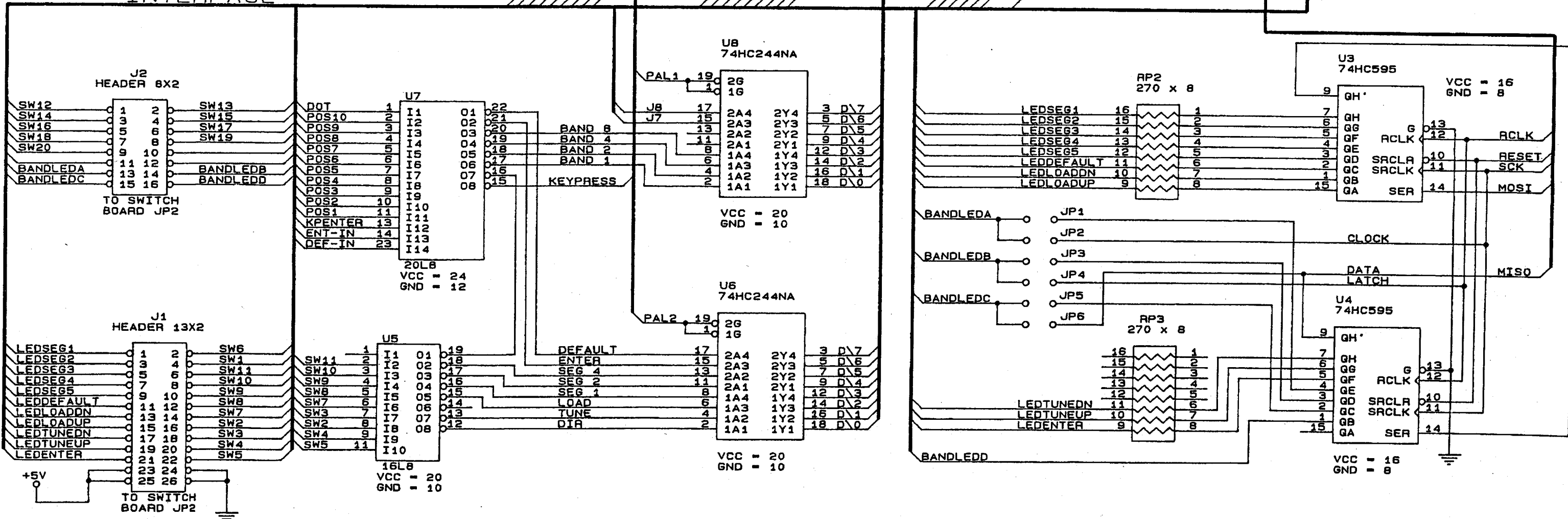
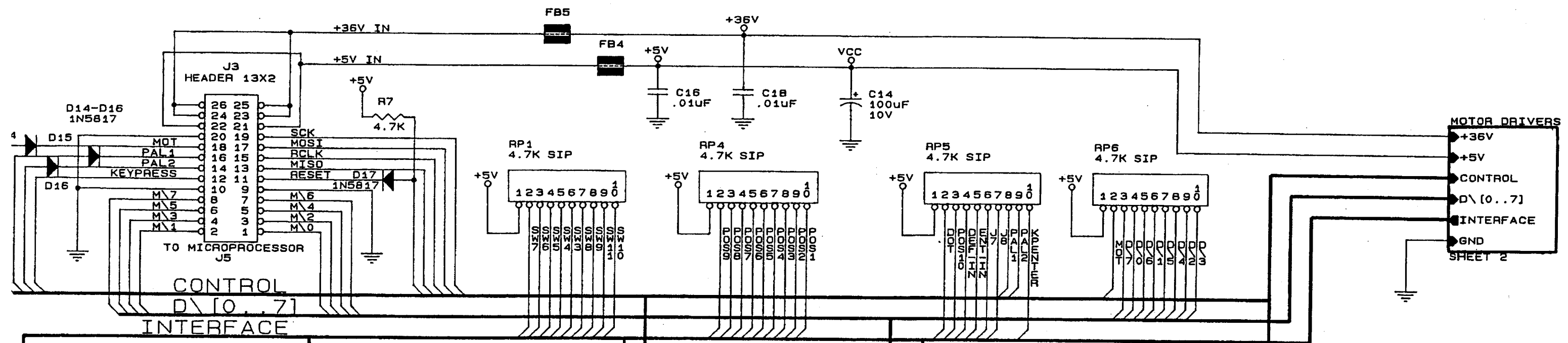
May 24th 1994

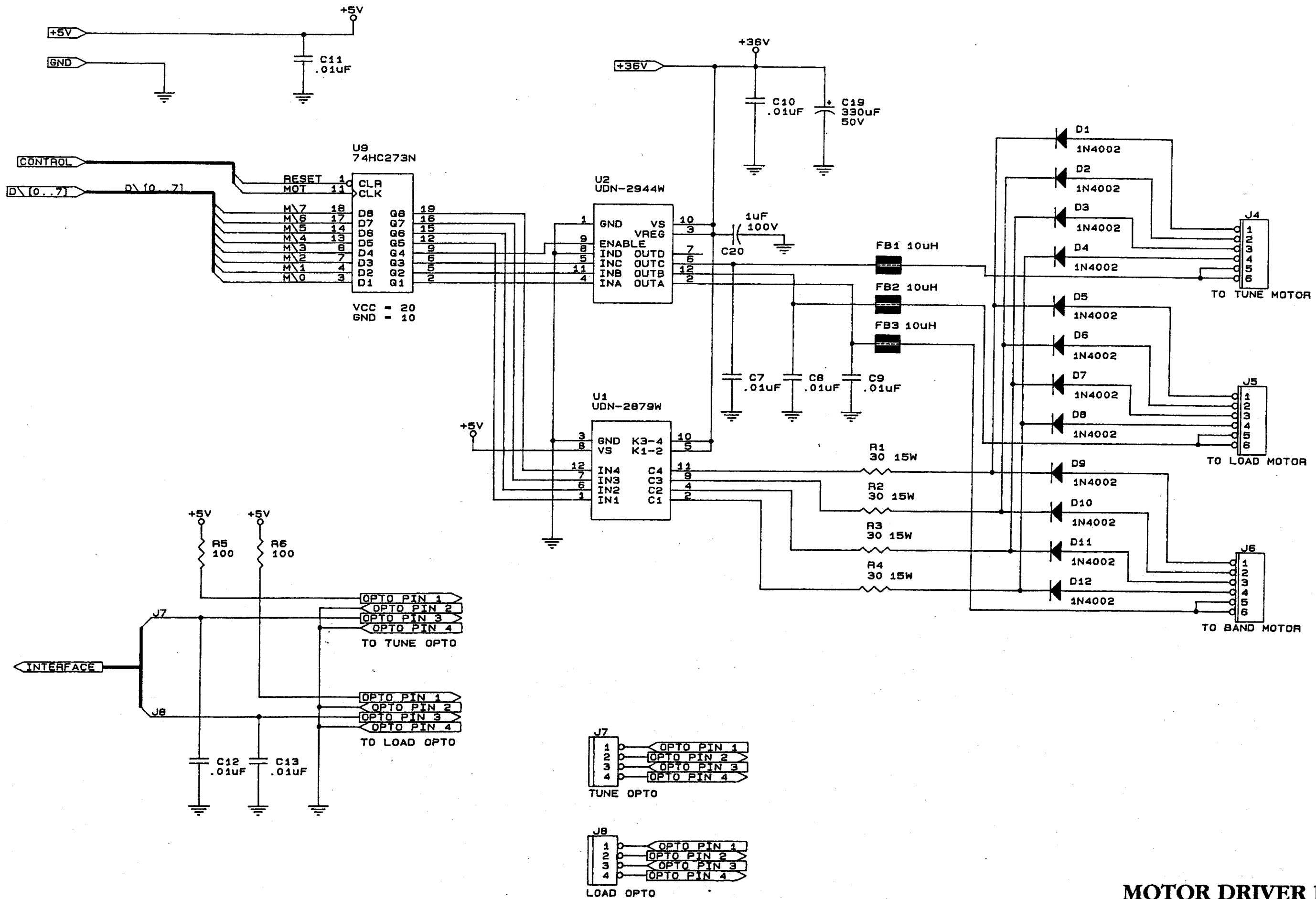
NOTES: UNLESS OTHERWISE SPECIFIED,
 1. CAPACITOR VALUES ARE UF.
 2. RESISTORS ARE 1/4W.





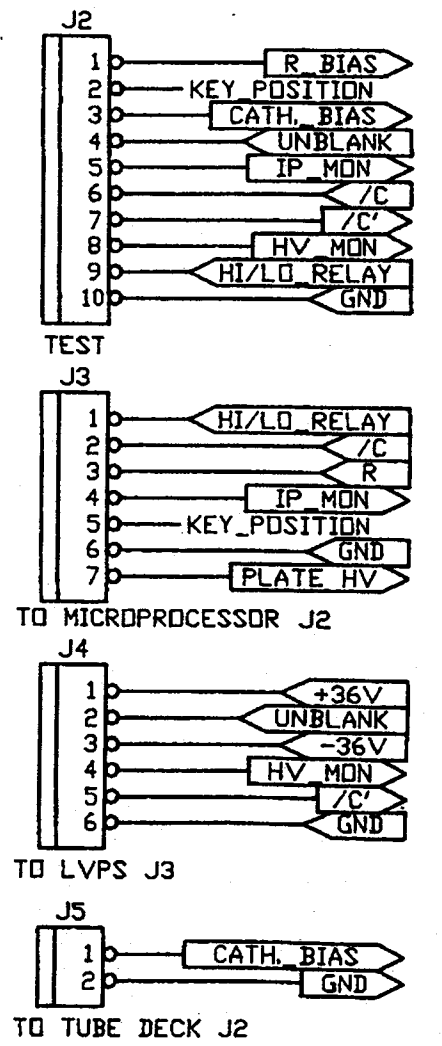
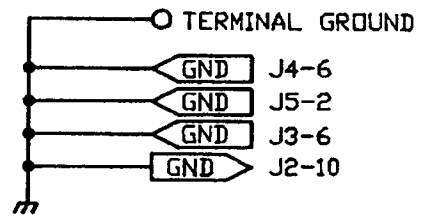
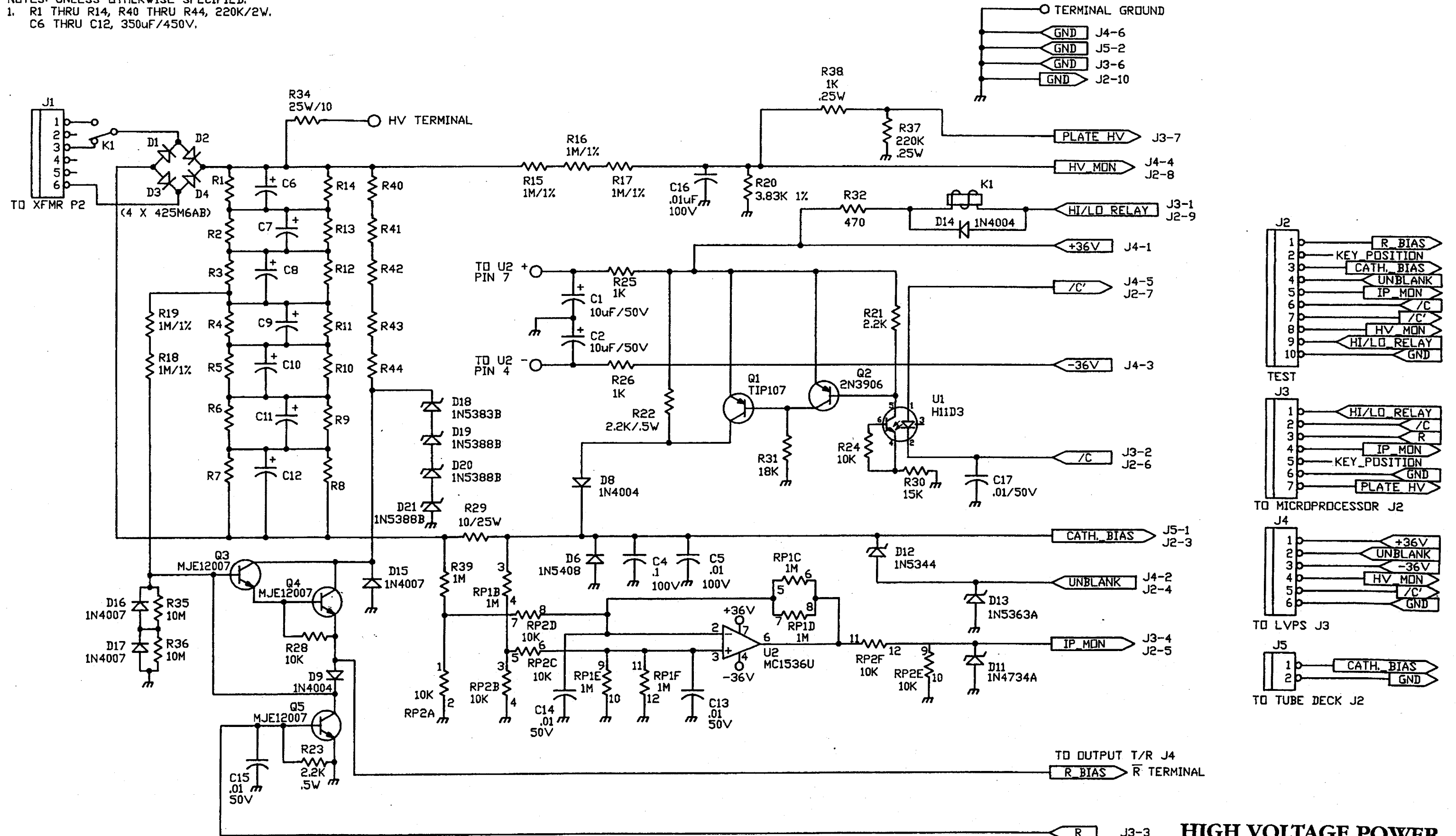
SWITCH BOARD





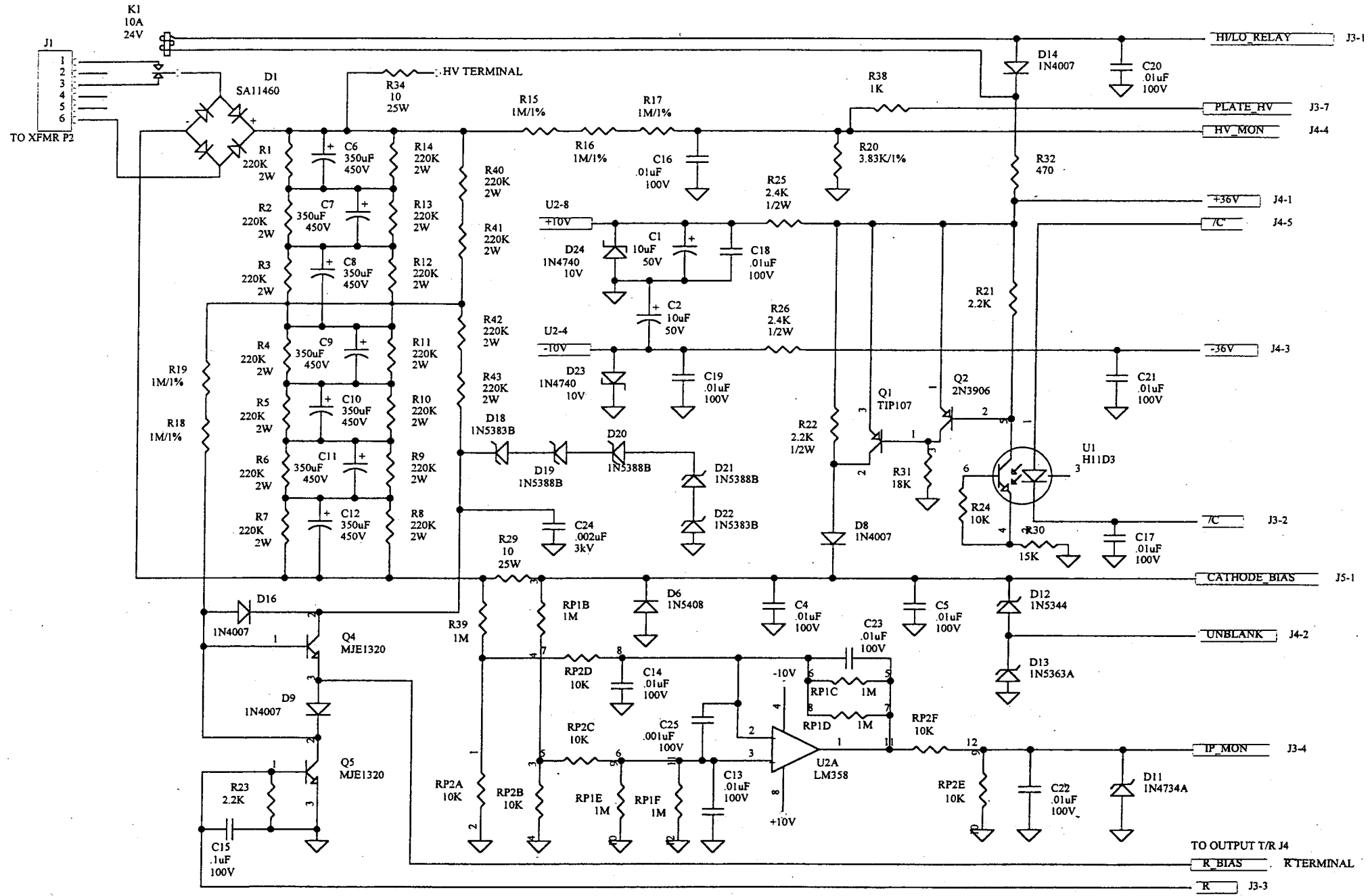
NOTES: UNLESS OTHERWISE SPECIFIED,

1. R1 THRU R14, R40 THRU R44, 220K/2W.
C6 THRU C12, 350uF/450V.

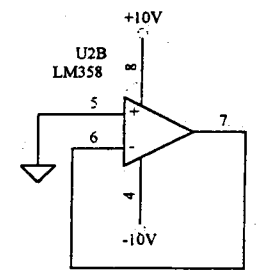
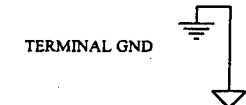
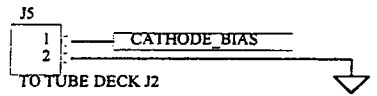
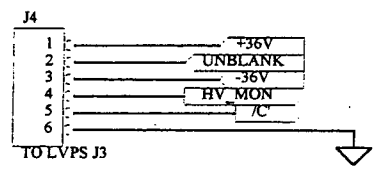
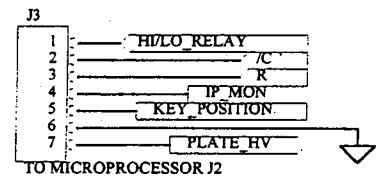


HIGH VOLTAGE POWER SUPPLY BOARD

NOTES: UNLESS OTHERWISE SPECIFIED.
 1. ALL RESISTORS ARE 1/4W AND ALL CAPACITORS ARE (uF).

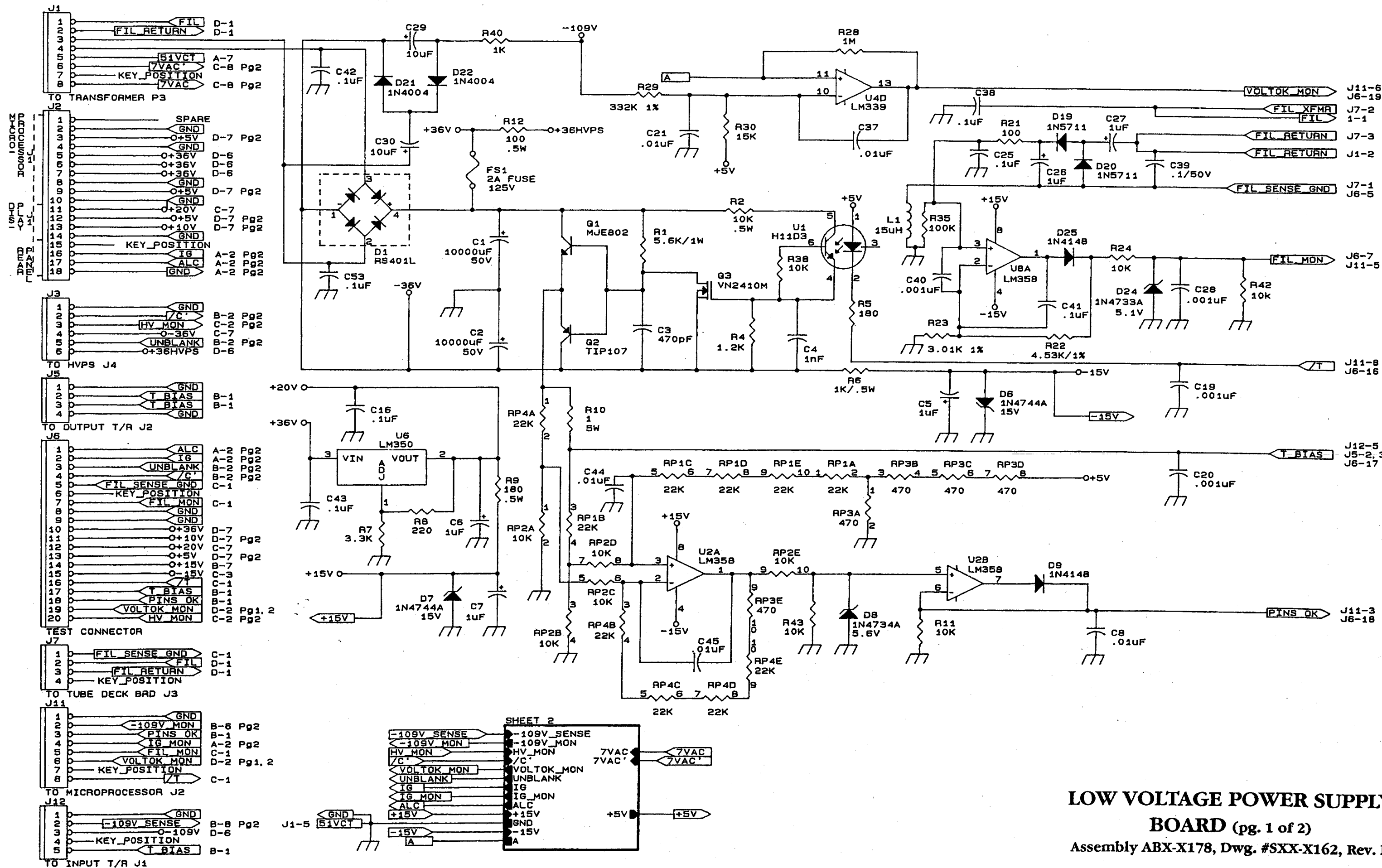


REVISIONS			
LT#	DESCRIPTION	DATE	APPR
A	INITIAL DESIGN, DLM	02/26/90	CKL
B	CHG VARIOUS VAL & J#, DLM	03/08/90	CKL
C	CHG CONN/ADD RP VAL, DLM	04/11/90	CKL
D	ADD R24, DLM	05/25/90	CKL
E	DEL D10/CHG Q1&R20, DLM	07/03/90	JKJ
F	DEL D5,D7/CHG R30,R32,RP1A TO R39/ADD D&R#, DLM	08/07/90	JKJ
G	CHG C16,R37,R38 VAL, JKJ	10/15/90	JKJ
H	REV'D PER ECN #971, DLM	07/29/91	JKJ
I	REV'D PER ECN #1023, DLM	11/05/91	CCM
J	REV'D PER ECN #1335, DLM	11/17/93	CCM
K	REV'D PER ECN #1575, DLM	04/28/95	CCM

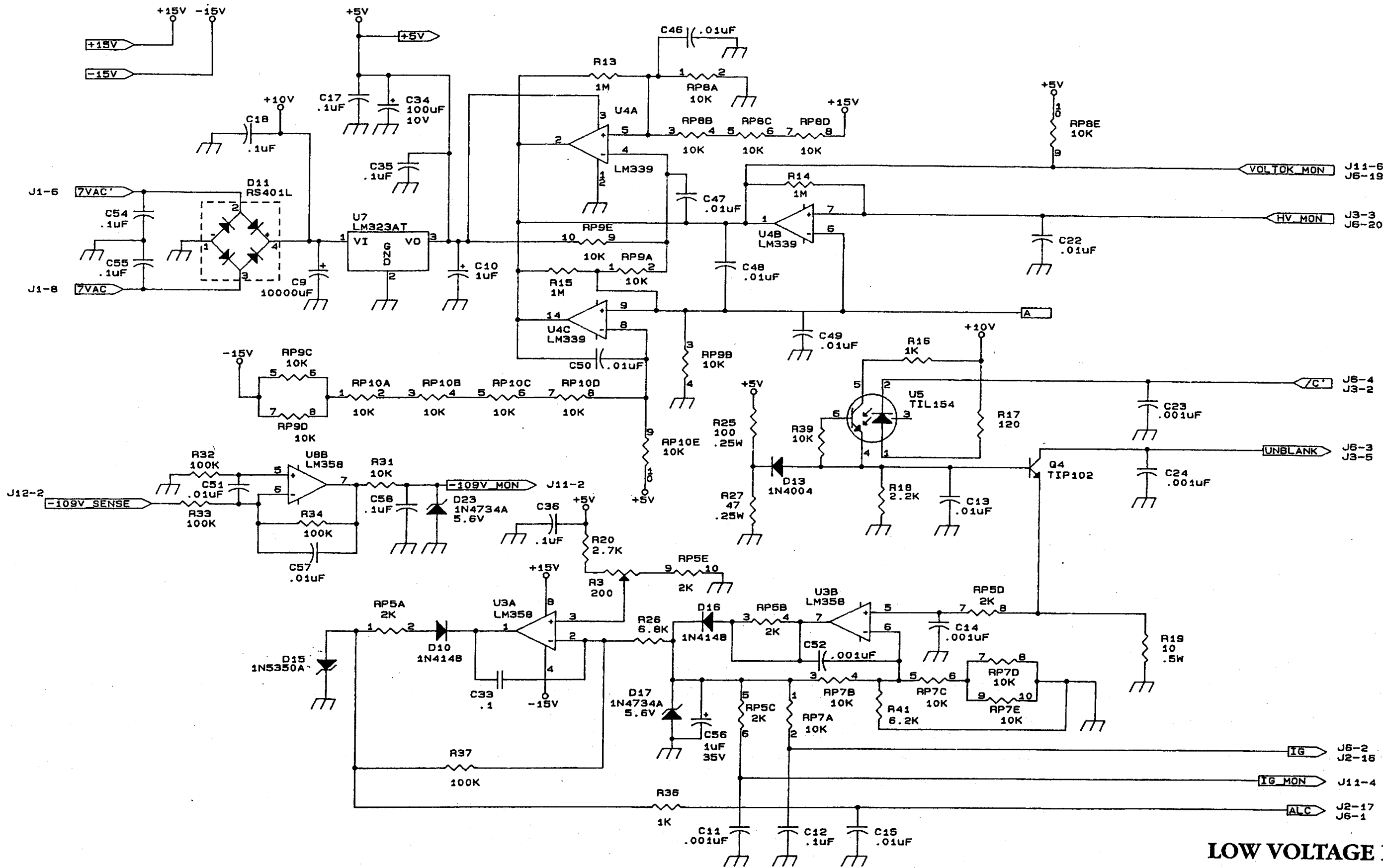


LAST USED	NOT USED
C25	C3
D24	D2-5,7,10,15,17
K1	Q3
Q5	R27,28,33,35-37
R43	
RP2	
U2	

DRN BY DLM 2/26/90	EHRHORN TECHNOLOGICAL OPERATIONS, INC. 4975 N. 30th COLO SPGS, CO 80919	DWG NO. SXX-XI61	REV K
CHK BY CKL 2/26/90			
DRIG BY JRP 2/22/90	SCHEM, HIGH VOLTAGE POWER SUPPLY PCB		
DWG TITLE	USED ON ALPHA 87A	DWG SIZE B	
	NEXT ASSY ABX-XI77	SCALE NONE	
	REF DOC BCX-X236	SHEET NO.	

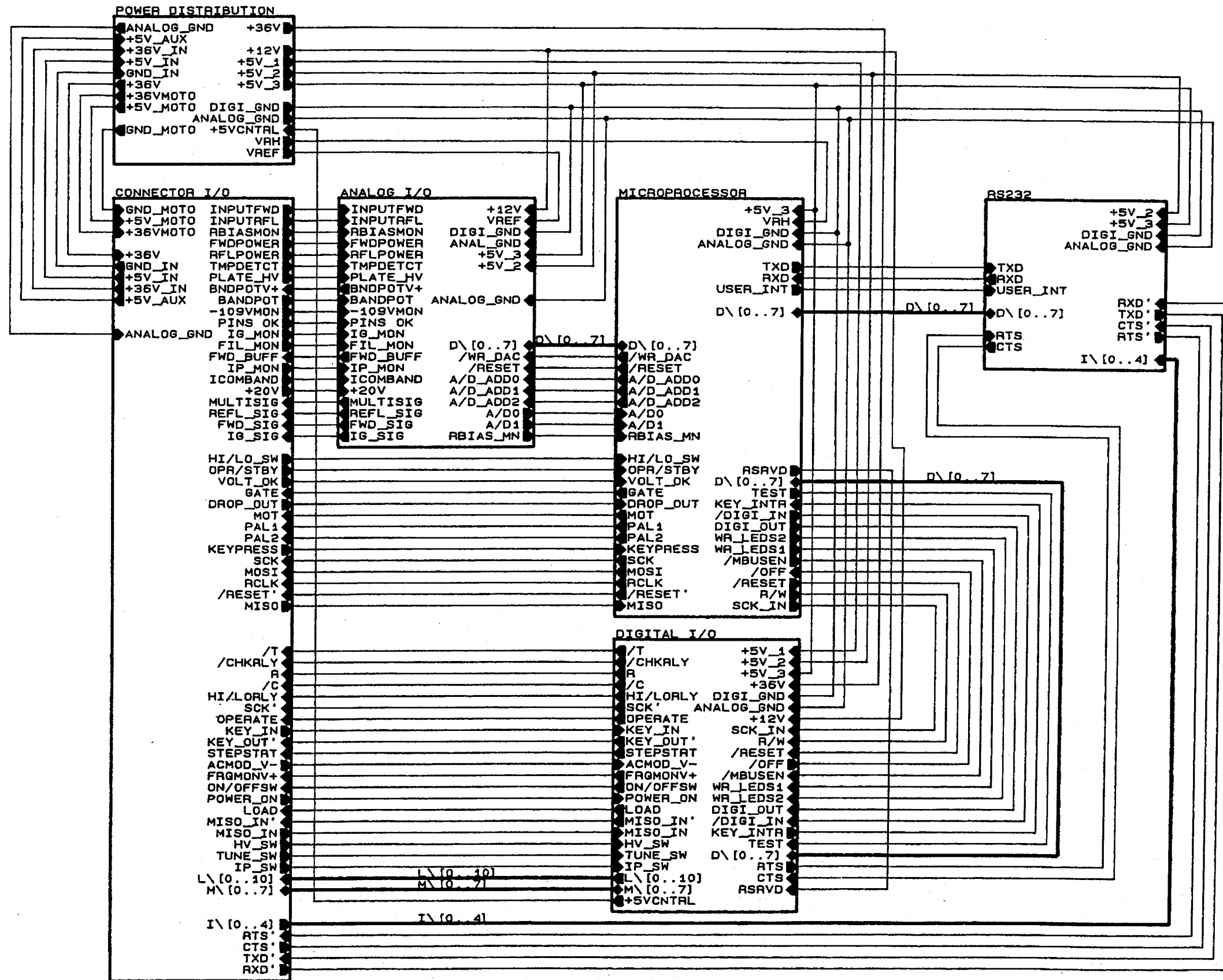


LOW VOLTAGE POWER SUPPLY BOARD (pg. 1 of 2)
 Assembly ABX-X178, Dwg. #SXX-X162, Rev. P

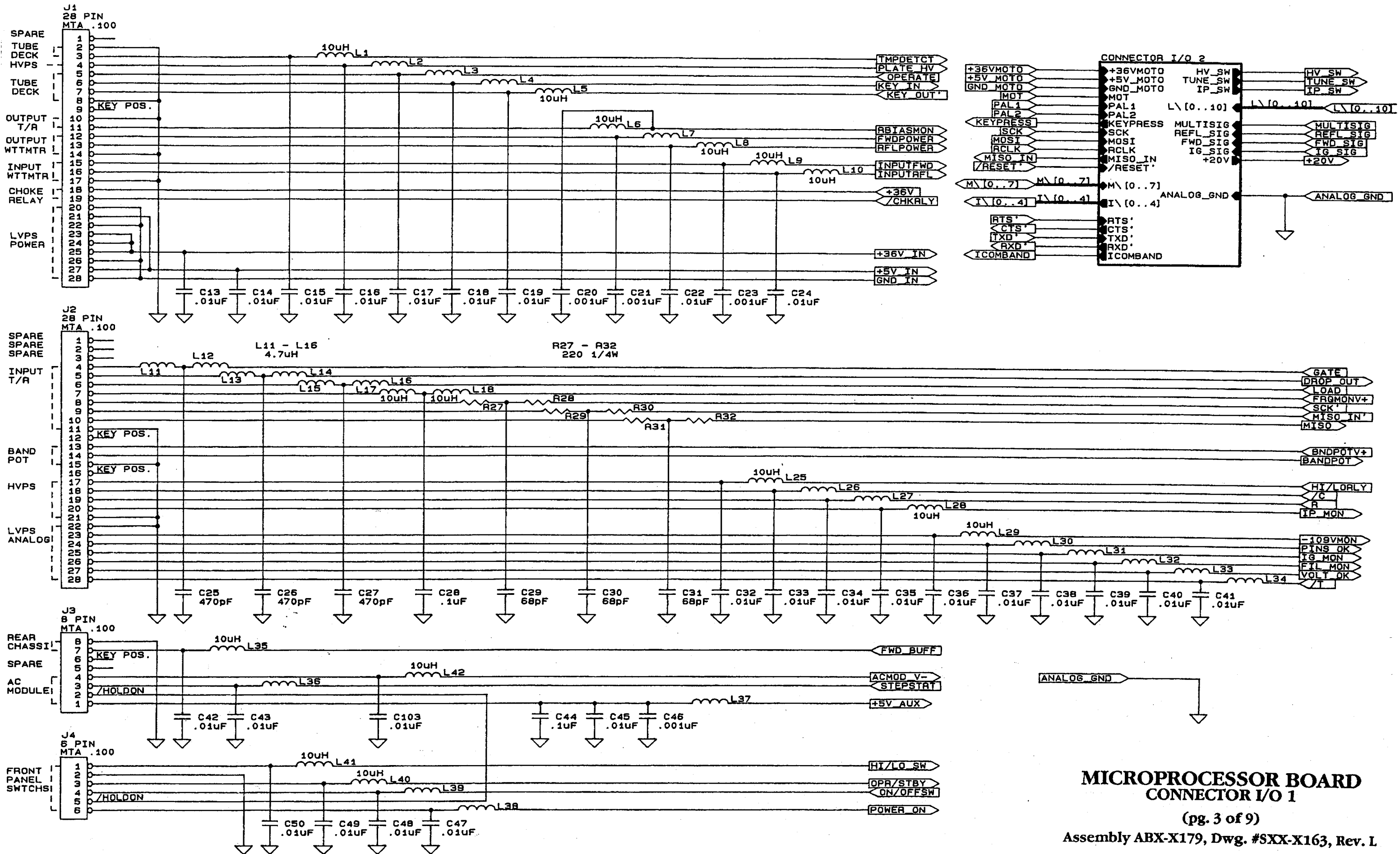


**LOW VOLTAGE POWER
SUPPLY BOARD (pg. 2 of 2)**

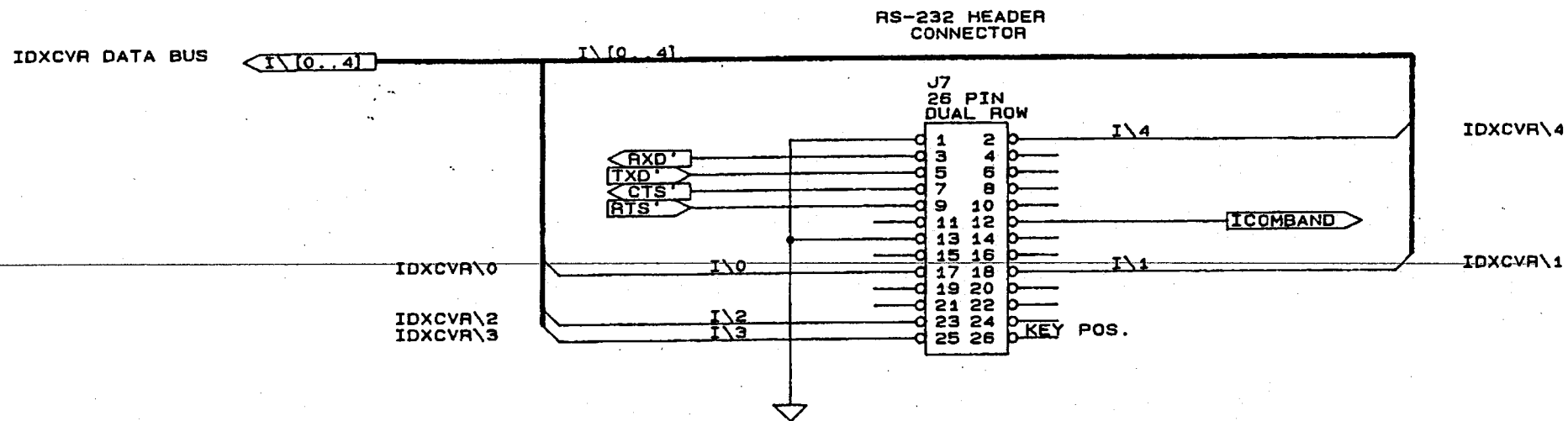
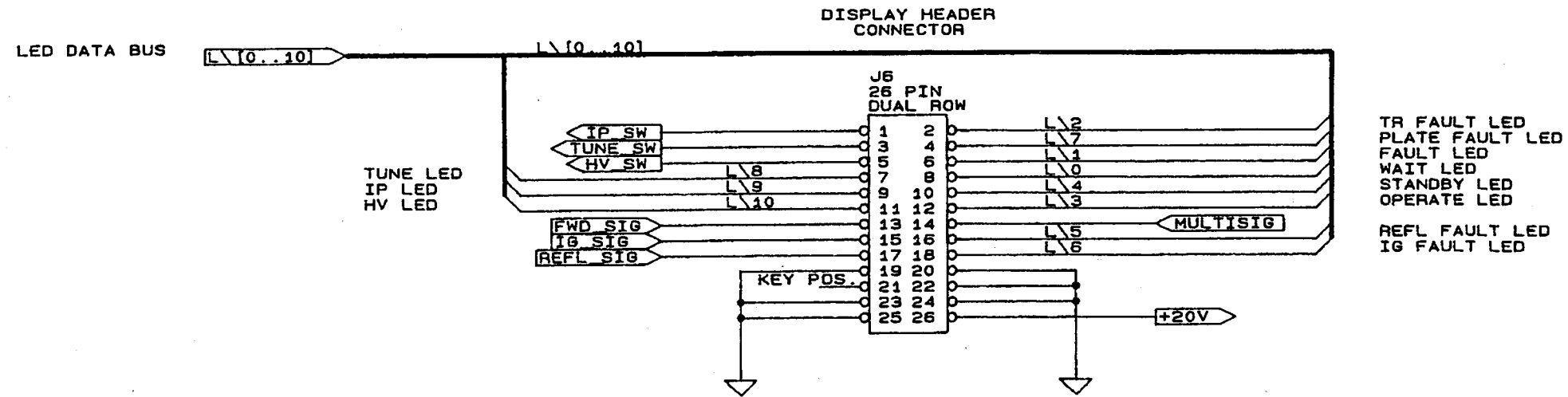
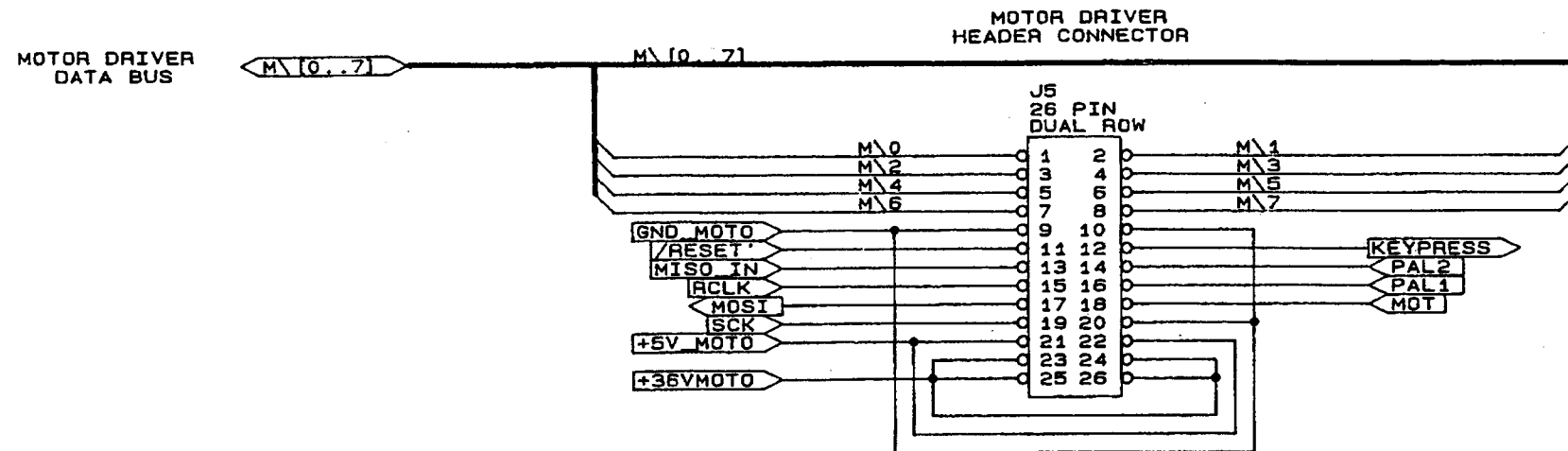
Assembly ABX-X178, Dwg. #SXX-X162, Rev. P



**MICROPROCESSOR BOARD
BLOCK DIAGRAM**



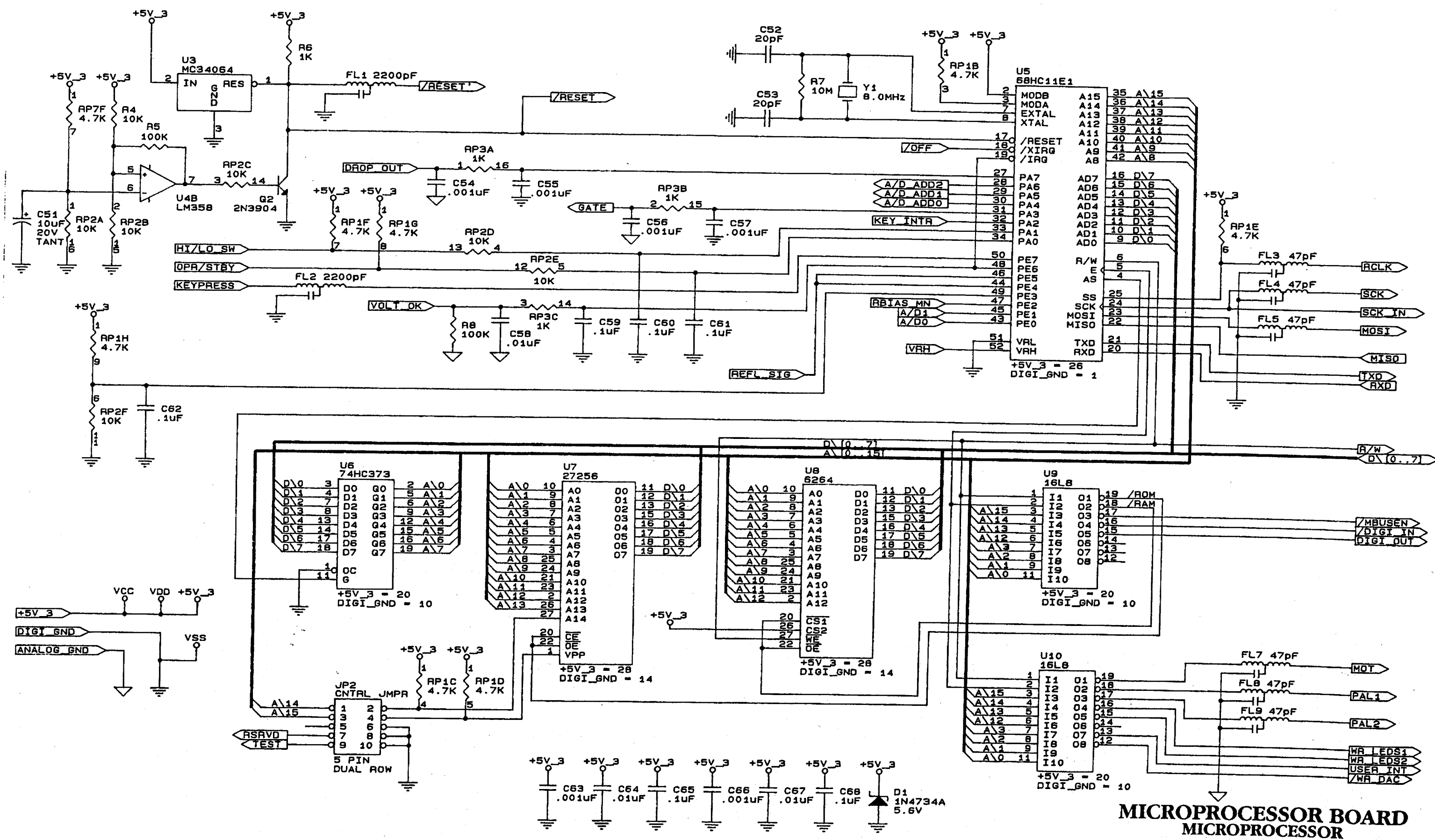
**MICROPROCESSOR BOARD
CONNECTOR I/O 1**
(pg. 3 of 9)
Assembly ABX-X179, Dwg. #SXX-X163, Rev. L



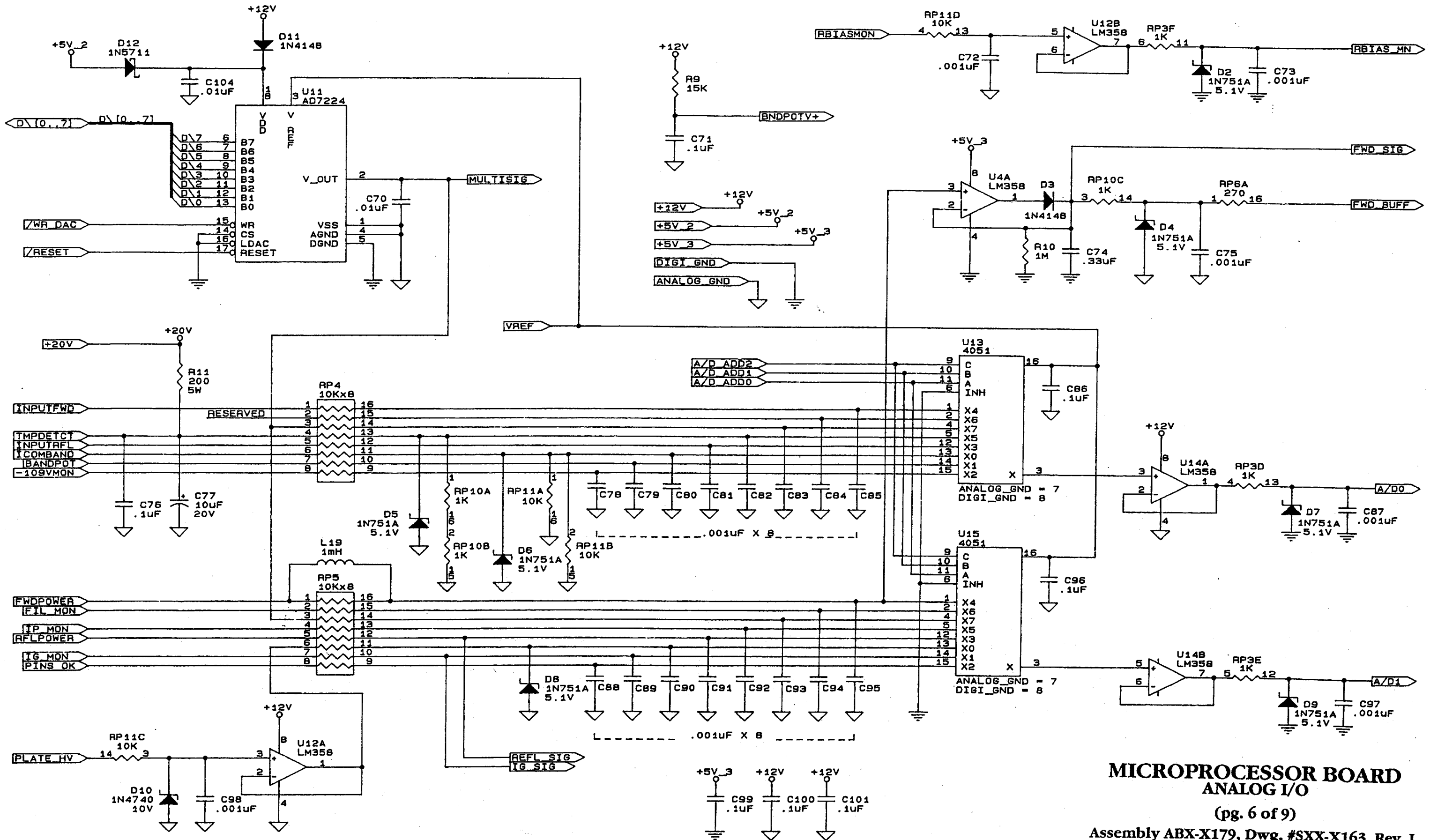
**MICROPROCESSOR BOARD
CONNECTOR I/O 2**

(pg. 4 of 9)

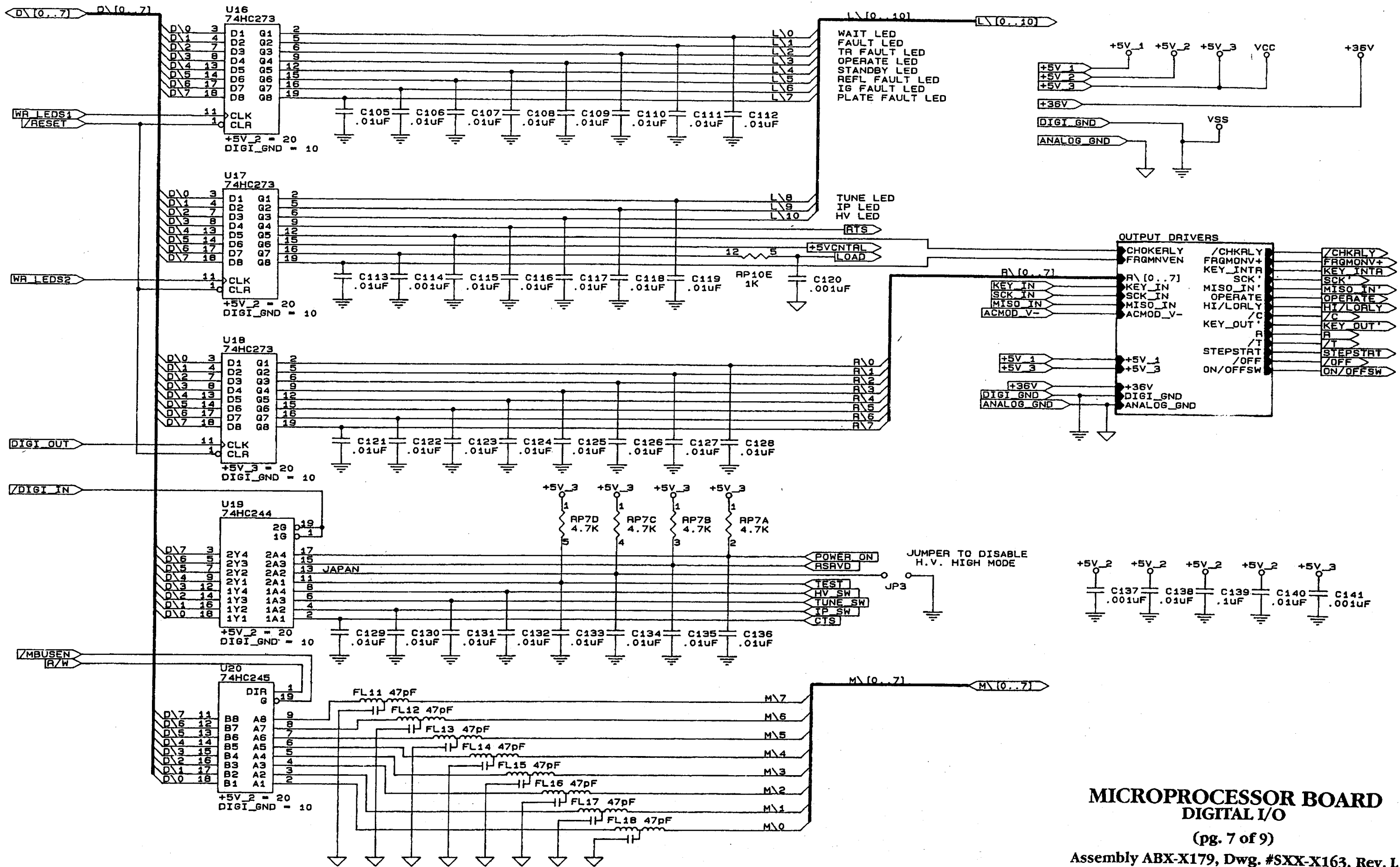
Assembly ABX-X179, Dwg. #SXX-X163, Rev. L



**MICROPROCESSOR BOARD
MICROPROCESSOR**



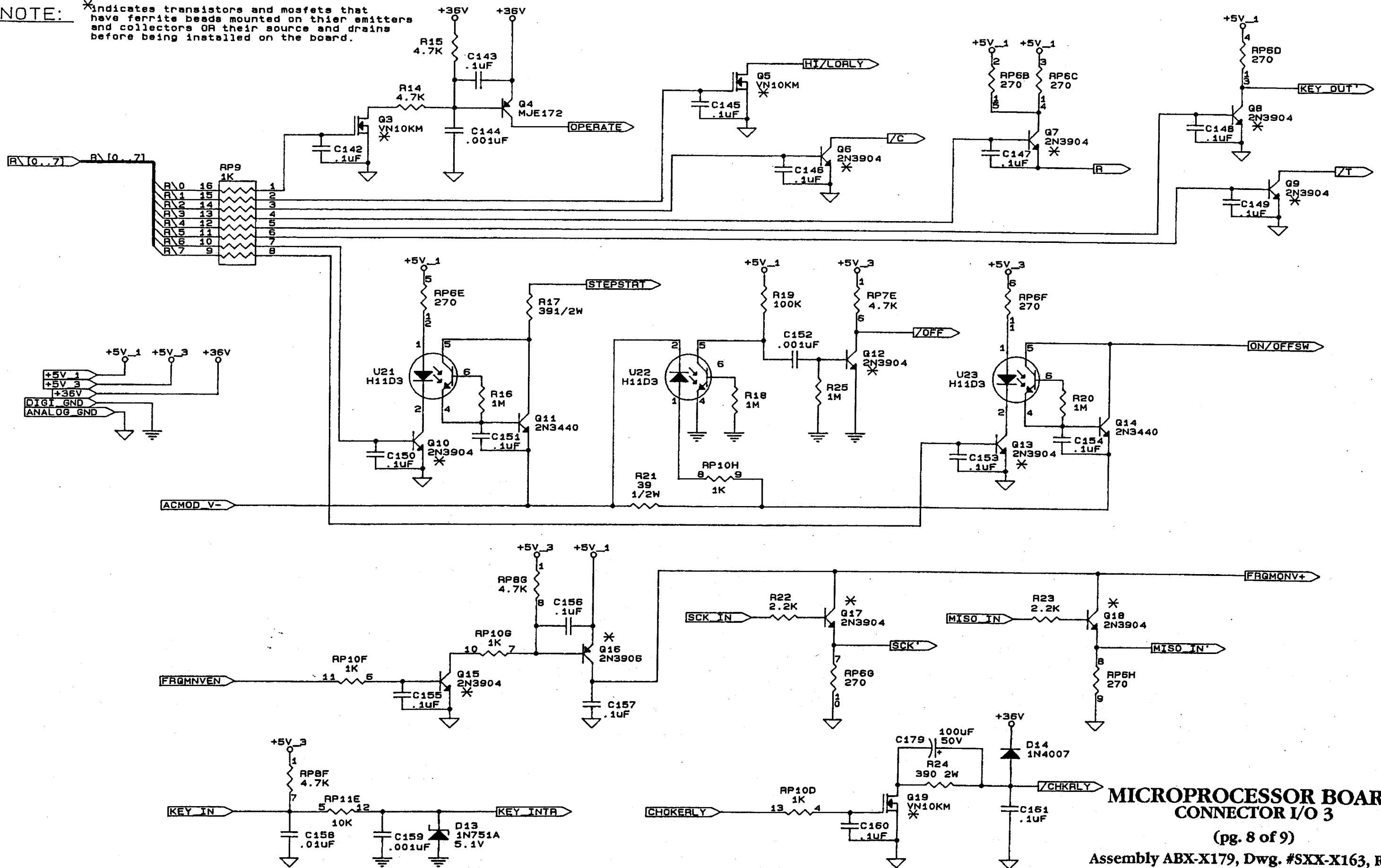
**MICROPROCESSOR BOARD
ANALOG I/O**
(pg. 6 of 9)
Assembly ABX-X179, Dwg. #SXX-X163, Rev. L



**MICROPROCESSOR BOARD
DIGITAL I/O**
(pg. 7 of 9)
Assembly ABX-X179, Dwg. #SXX-X163, Rev. L

NOTE:

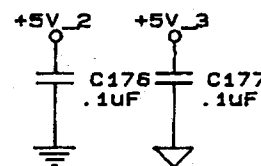
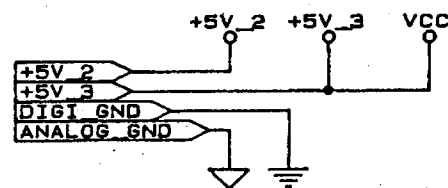
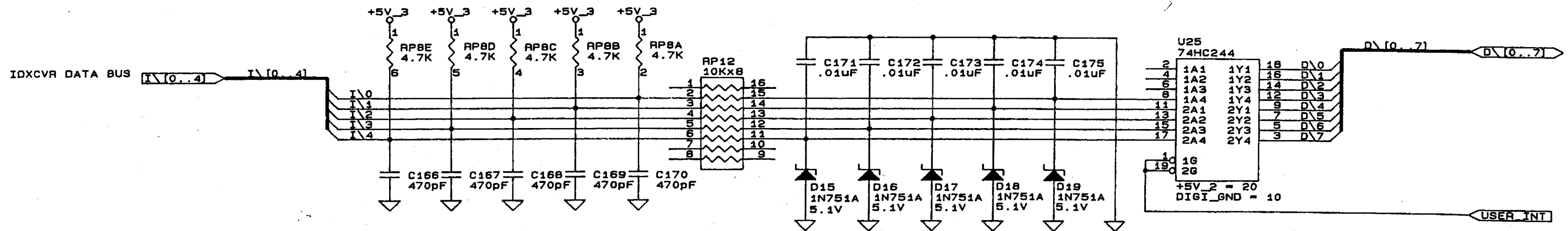
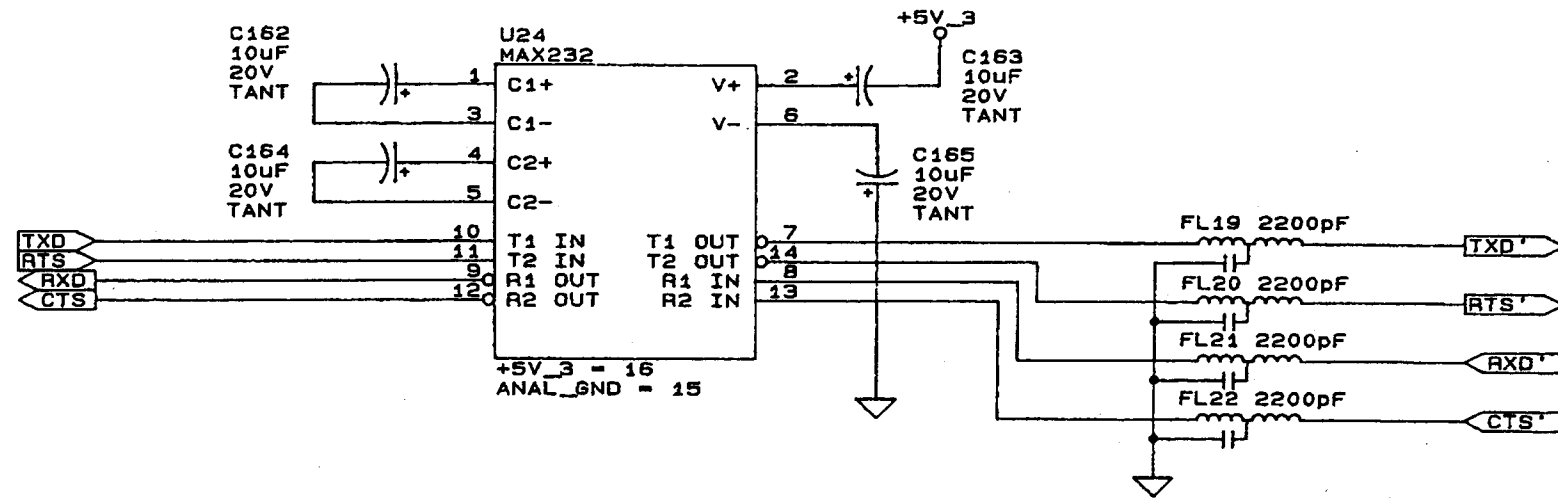
*Indicates transistors and mosfets that have ferrite beads mounted on their emitters and collectors OR their source and drains before being installed on the board.



MICROPROCESSOR BOARD CONNECTOR I/O 3

(pg. 8 of 9)

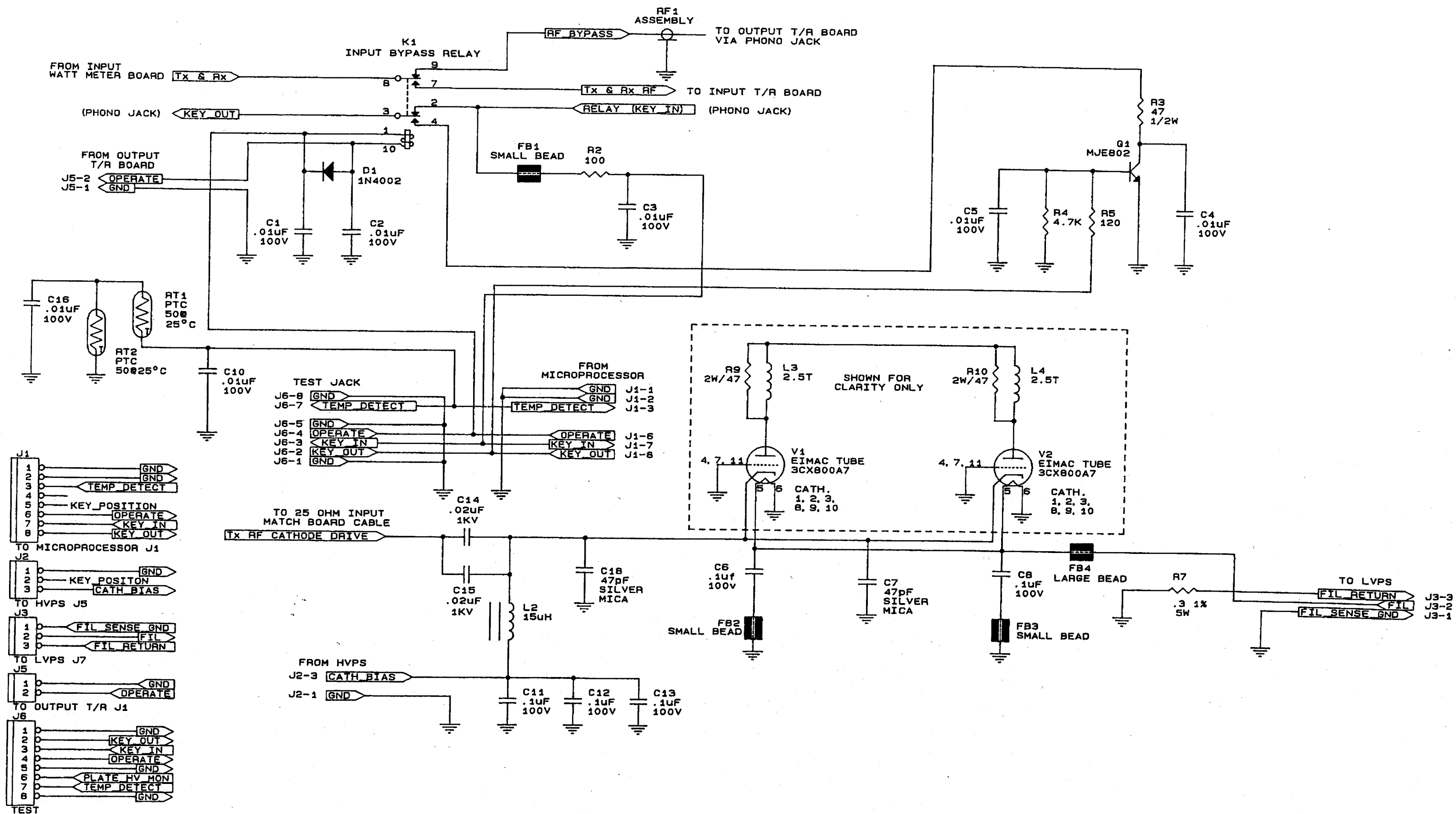
Assembly ABX-X179, Dwg. #SXX-X163, Rev. L



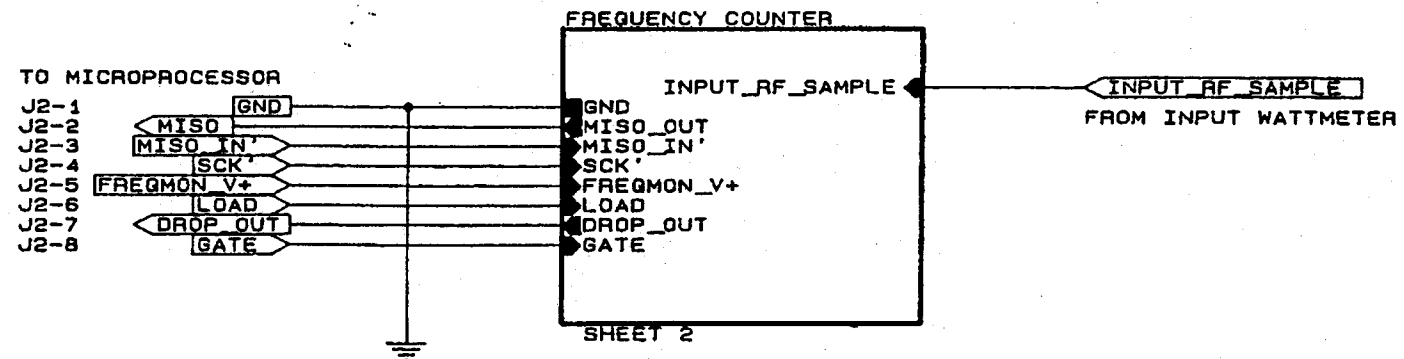
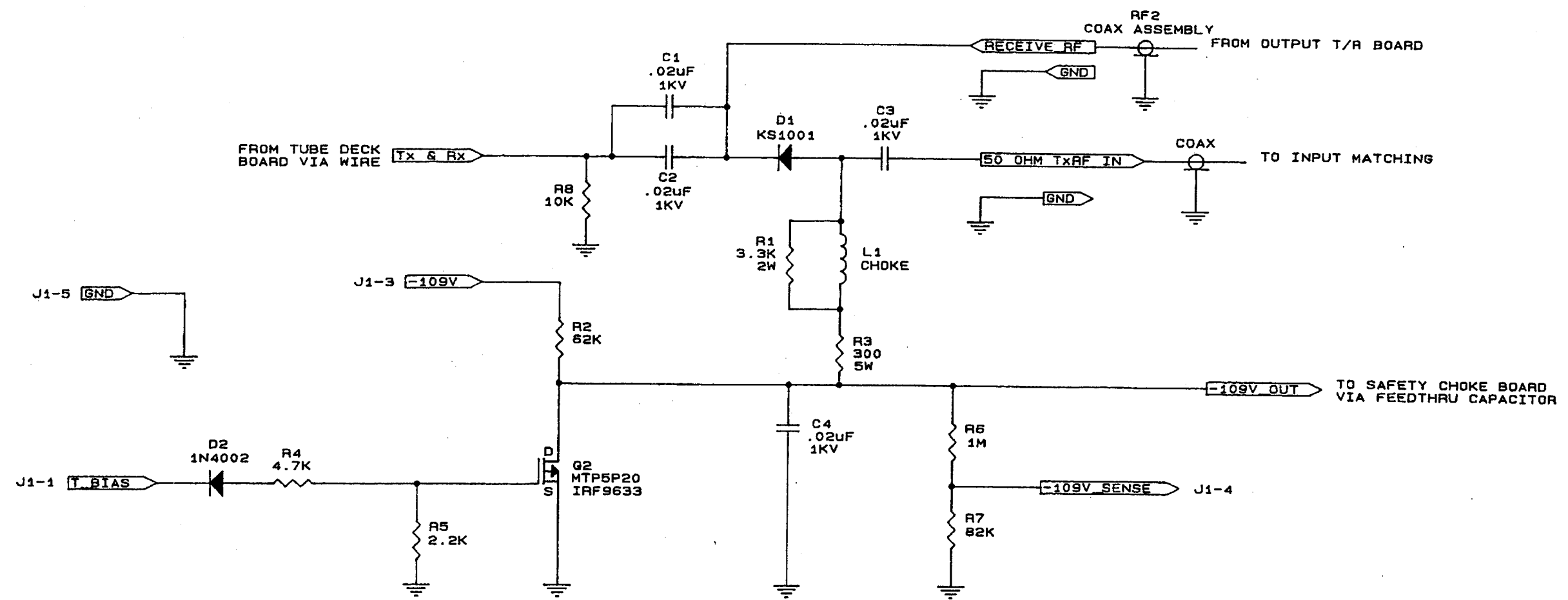
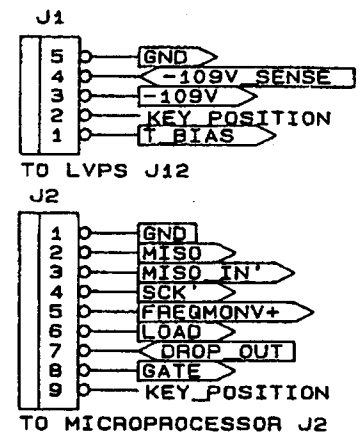
**MICROPROCESSOR BOARD
RS-232**

(pg. 9 of 9)

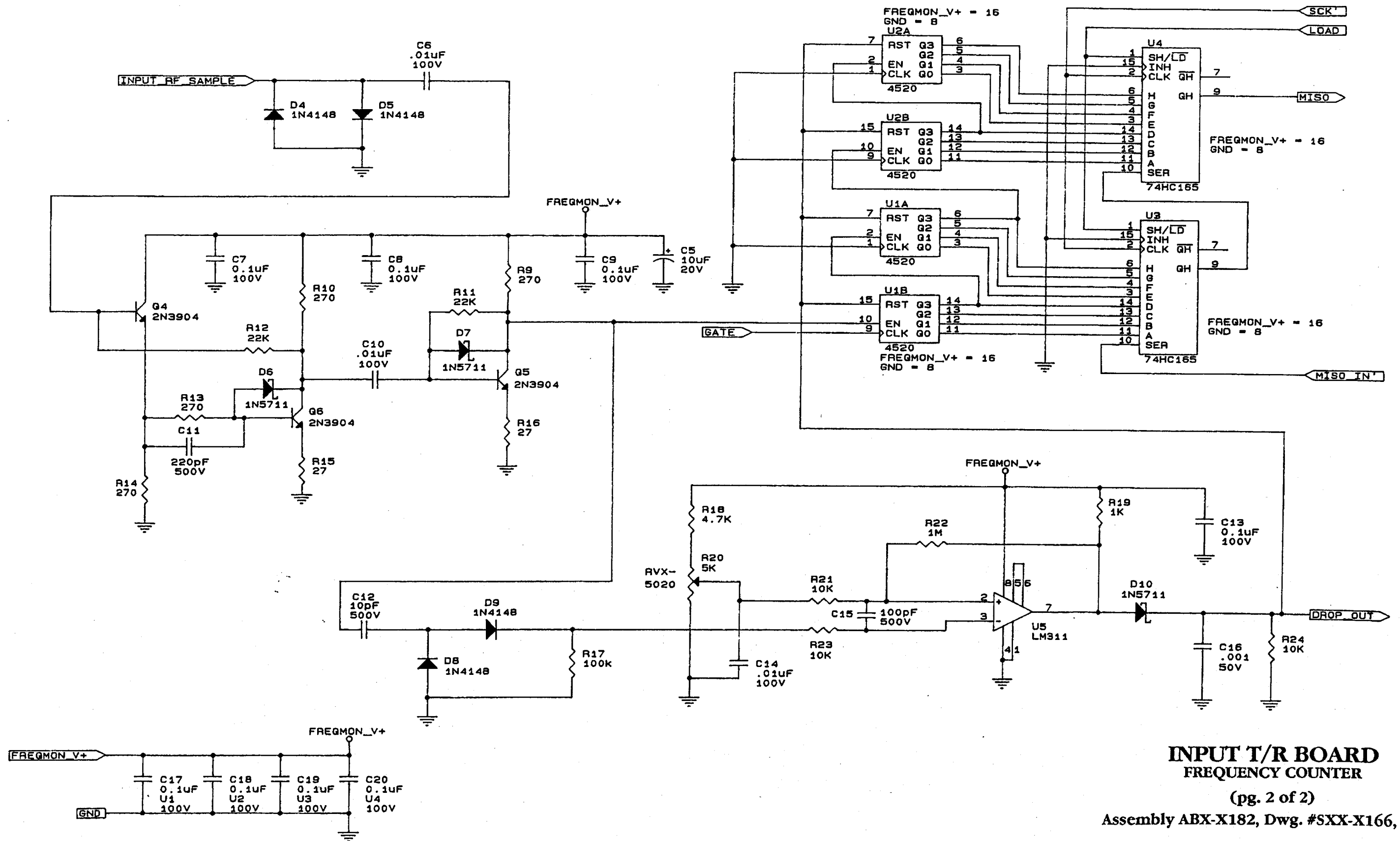
Assembly ABX-X179, Dwg. #SXX-X163, Rev. L



TUBE DECK BOARD
 Assembly ABX-X181, Dwg. #SXX-X165, Rev. H



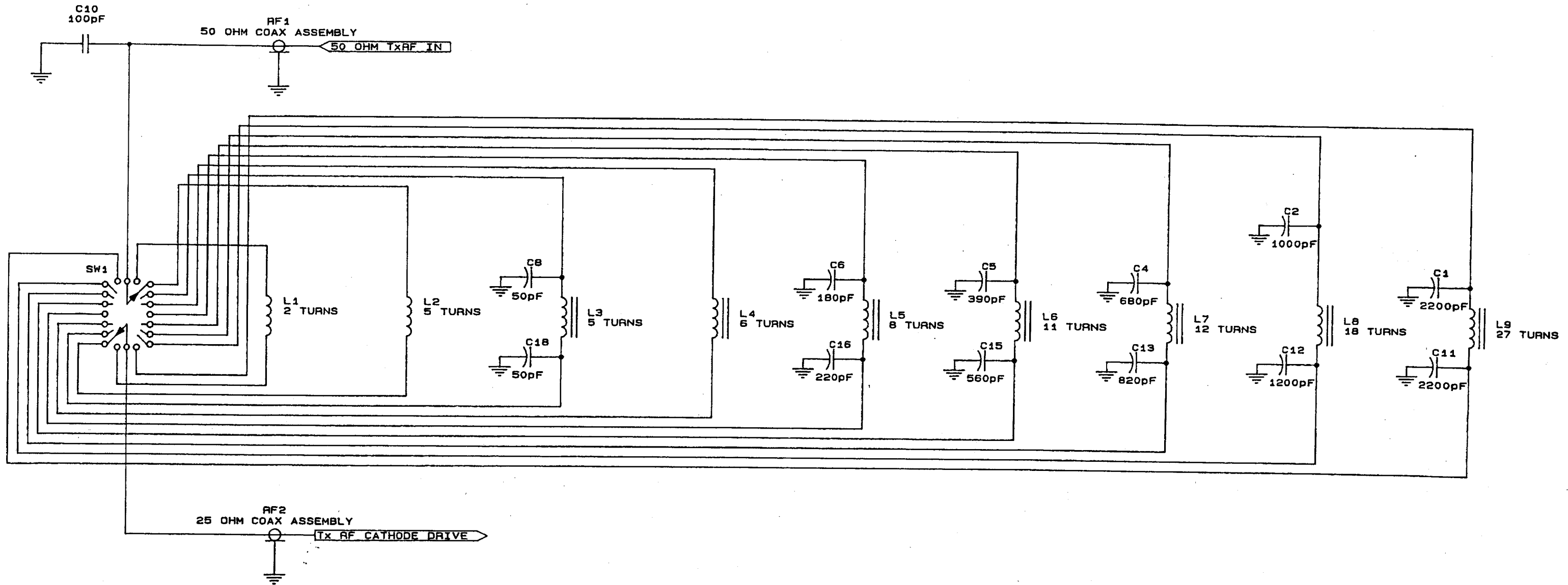
INPUT T/R BOARD
CATHODE PIN SWITCH
 (pg. 1 of 2)
 Assembly ABX-X182, Dwg. #SXX-X166, Rev. I



**INPUT T/R BOARD
FREQUENCY COUNTER**

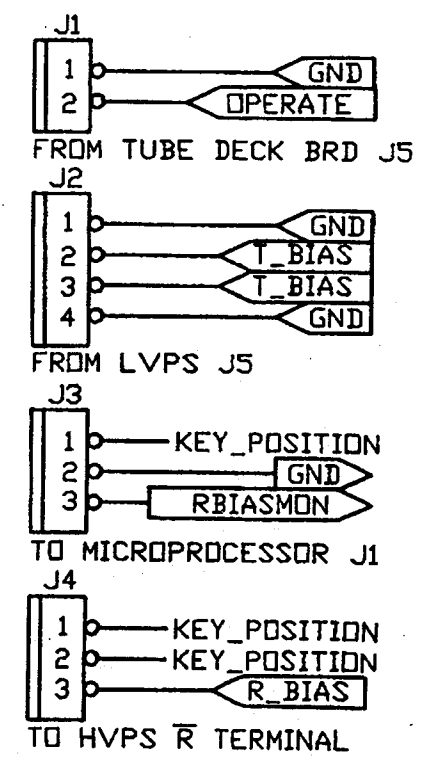
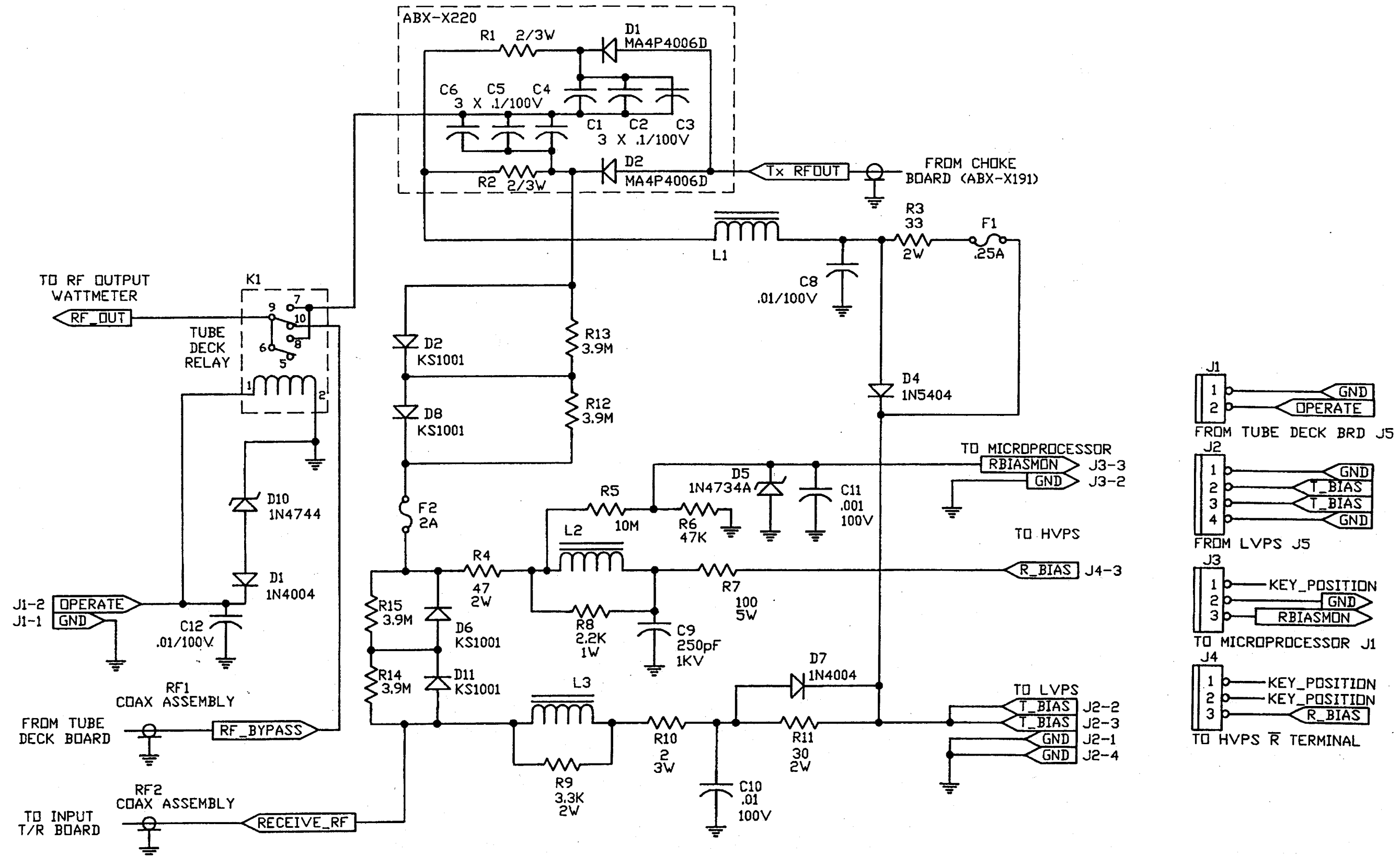
(pg. 2 of 2)

NOTES: UNLESS OTHERWISE SPECIFIED.
 1. ALL CAPACITOR VALUES ARE IN (UF).
 ALL RESISTOR VALUES ARE 1/4 WATT.



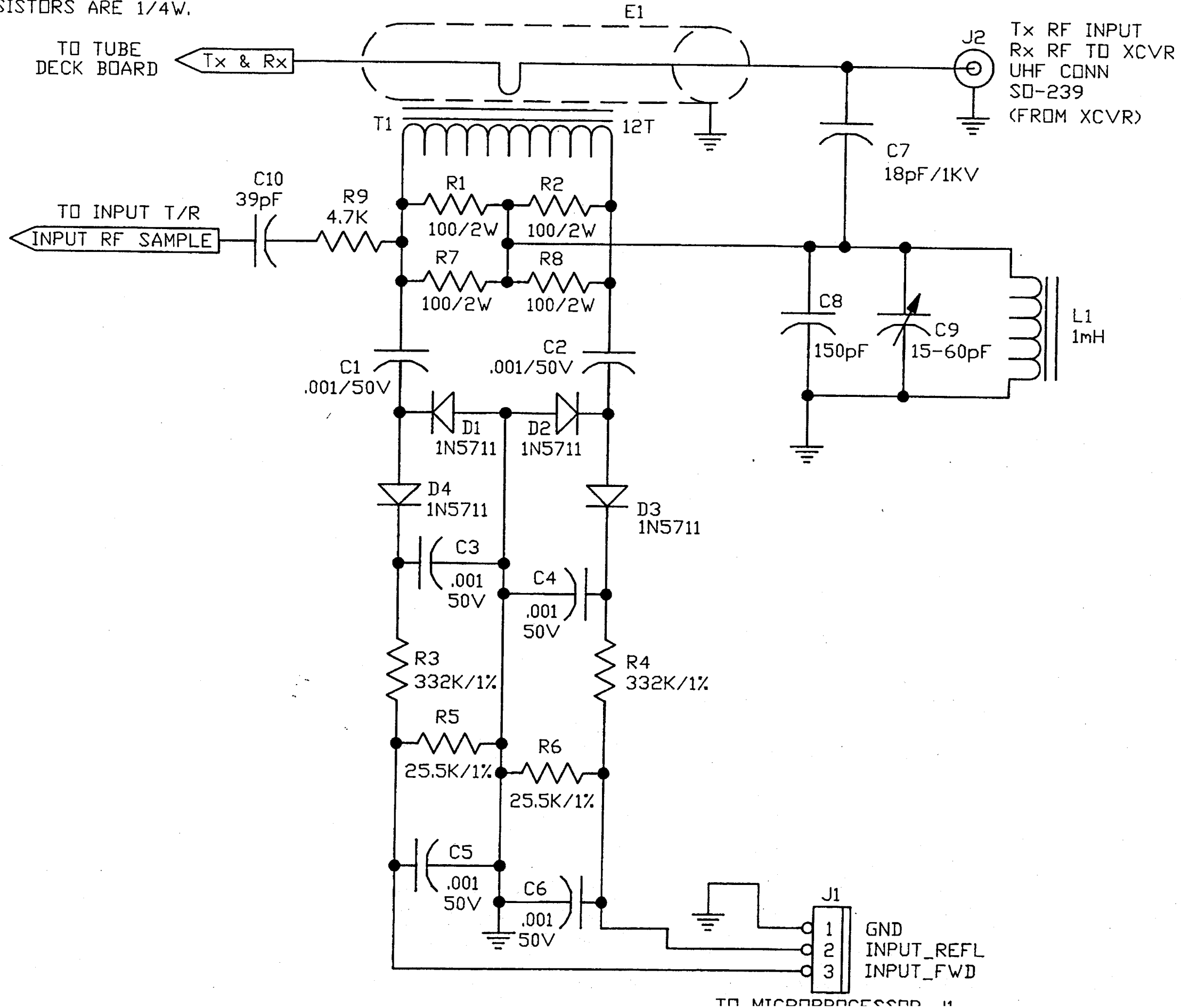
**INPUT MATCHING NETWORK
 BOARD**
 Assembly ABX-X183, Dwg. #SXX-X167, Rev. F

NOTE: UNLESS OTHERWISE NOTED, RESISTORS ARE 1/4W AND CAPACITORS ARE IN μF .



OUTPUT T/R BOARD

NOTES: UNLESS OTHERWISE SPECIFIED.
 1. CAPACITOR VALUES ARE μF .
 2. RESISTORS ARE 1/4W.

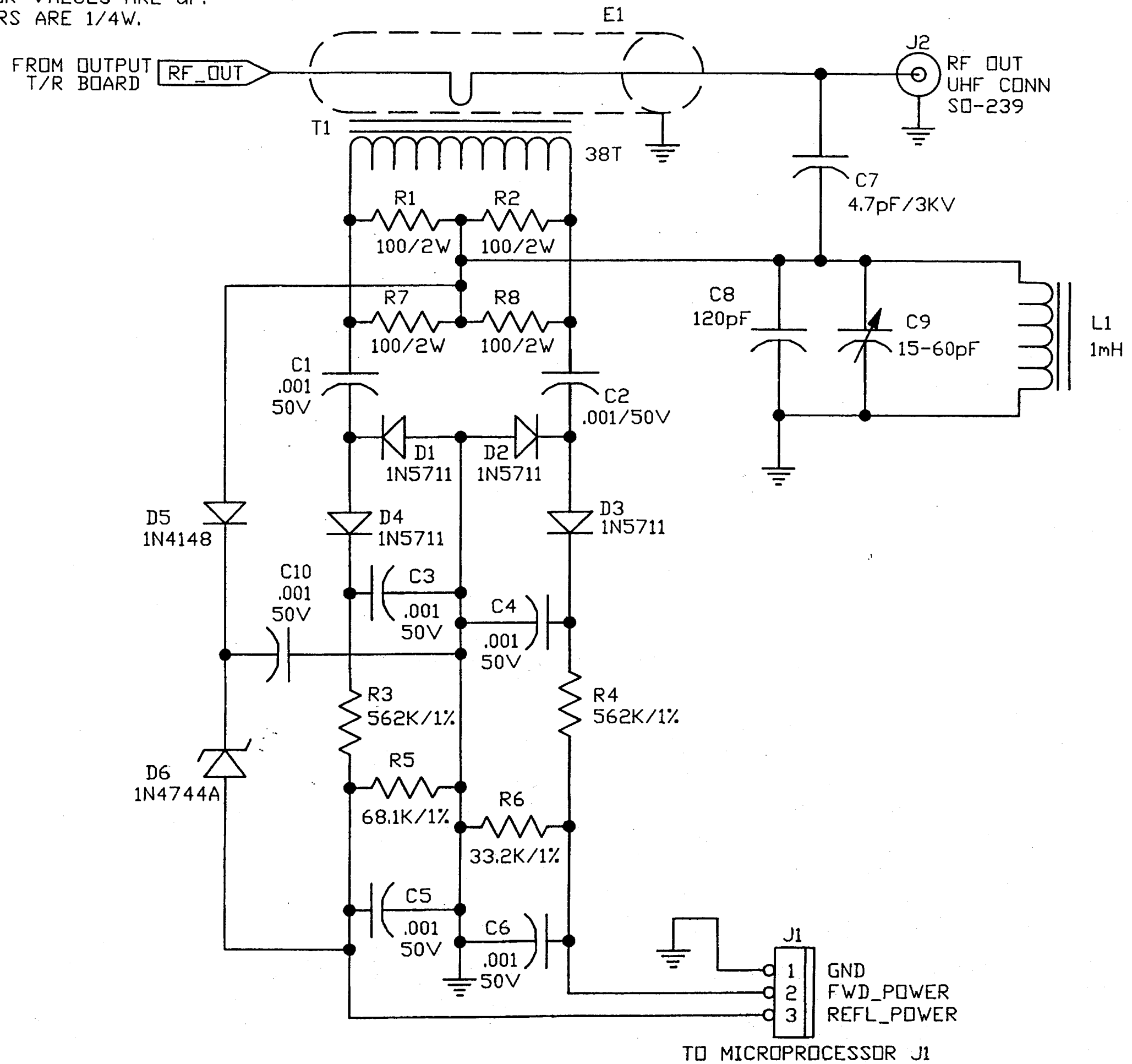


INPUT WATTMETER BOARD
 Assembly ABX-X184, Dwg. #SXX-X169, Rev. G

NOTES: UNLESS OTHERWISE SPECIFIED.

1. CAPACITOR VALUES ARE μF .

2. RESISTORS ARE 1/4W.



OUTPUT WATTMETER BOARD
Assembly ABX-X190, Dwg. #SXX-X174, Rev. C

