

# PARTS LIST

**B**M BLOWER MOTOR, DAYTON 4C006  
**C**1,2,9,14,19 CAPACITOR, .002 $\mu$ f., CERAMIC, 10KV.  
**C**3,4 CAPACITOR, .2 $\mu$ f., PLASTIC, 600V.  
**C**5,6,7,15 CAPACITOR, 9300pf., 10 kv., CERAMIC  
**C**8 CAPACITOR, 15 $\mu$ f., 1000V. OIL FILLED  
**C**10,11,12,13 CAPACITOR, .01 $\mu$ f., 8000V. MICA  
**C**16 CAPACITOR, 4000 pf. M  
**C**17,18 CAPACITOR, 1 $\mu$ f., 400V. MICA  
**C**20,21,24,25,26 CAPACITOR, .001 $\mu$ f., CERAMIC, FEEDTHRU  
 27,53,56,60,  
 61,62  
**C**22,23,29,30,31, CAPACITOR, .02 $\mu$ f., 1000V., DISC CERAMIC  
 35,36,37,38,39,  
 40,41,42  
**C**28 CAPACITOR, .5 $\mu$ f., 600V., PLASTIC  
**C**32,33,34 CAPACITOR, 100 $\mu$ f., 250V., ELECTROLYTIC  
**C**43,47 CAPACITOR, .001 $\mu$ f., 1000V., DISC CERAMIC  
**C**44 CAPACITOR, .05 $\mu$ f., 12V., DISC CERAMIC  
**C**48,51 CAPACITOR, 50 pf., 5 kv., CERAMIC  
**C**49,50 CAPACITOR, 175 pf., 5 kv., CERAMIC  
 (100 pf., 75 pf., PARALLELED)  
**C**52,55 CAPACITOR, 27 pf., DM  
**C**57,63,64,65, CAPACITOR, .01 $\mu$ f., 100V., DISC CERAMIC  
 66,68,69  
**C**58,59,54 CAPACITOR, .33 $\mu$ f., 100V., CHIP CERAMIC  
  
**D**1 DIODE, UGB10 (Unitrode)  
**D**2-7, **D**14 DIODE, V130PA20C VARISTOR (GE)  
**D**8,9 DIODE, IN4007  
**D**10 DIODE, IN3011B  
**D**11 DIODE, IN4153  
**D**12 DIODE, 7024 (Monsanto)  
**D**13 DIODE, IN5262  
**D**15,16,17,18 DIODE, HP2800  
  
**F**S 1 FUSE, 1A., 3AG  
  
**I**C 1 INTEGRATED CIRCUIT, 74LS00  
**I**C 2 INTEGRATED CIRCUIT, 9602PC  
  
**J**1 CONNECTOR, COAXIAL, UG58U  
**J**2 CONNECTOR, MILLEN H.V.  
**J**3 CONNECTOR, ROWE H.V.  
**J**4 CONNECTOR, COAXIAL, 50239  
**J**5 CONNECTOR, COAXIAL, UG492A/U  
**J**6,7,8,9,11 CONNECTOR, COAXIAL, UG560/U  
**J**10 CONNECTOR, COAXIAL, UG1094/U  
**J**12,13,14,15, CONNECTOR, COAXIAL, HN ON RELAYS  
 16,17,18  
  
**K**1 RELAY, COAXIAL, VACUUM, R.F. BYPASS  
**K**2 RELAY, COAXIAL, VACUUM, ANT./LOAD SW.  
  
**L**1,2,3,4,5,6 INDUCTOR, 3T. #12BC ON RESISTORS R4-9  
**L**7,8 INDUCTOR, 1.4 $\mu$ H<sub>y</sub>, FERRITE LOADED  
**L**9,13 INDUCTOR, .375 $\mu$ H<sub>y</sub>.  
**L**10,12 INDUCTOR, .55 $\mu$ H<sub>y</sub>.  
**L**11 INDUCTOR, .7 $\mu$ H<sub>y</sub>.  
**L**14 INDUCTOR, 750 $\mu$ H<sub>y</sub>.  
**L**15,16 INDUCTOR, 1 mH<sub>y</sub>.  
  
**M**1,2 METER, 0-1 ma.  
  
**P**1,2,3 PILOT LAMP, 115 VAC

**Q**1,6 TRANSISTOR, 2N3904  
**Q**2,4 TRANSISTOR, 2N2905  
**Q**3 TRANSISTOR, 2N697  
**Q**5 TRANSISTOR, MONSANTO MT-2  
**Q**7 TRANSISTOR, MJE340  
**Q**8 TRANSISTOR, MJ10004  
  
**R**1 RESISTOR, 15K $\Omega$ , 10W. W.W.  
**R**2,3 RESISTOR, 300 $\Omega$ , 30W., N.I.  
**R**4,5,6,7,8,9 RESISTOR, 10 $\Omega$ , 2 W. CARBON  
**R**10 RESISTOR, 1 $\Omega$ , 10W. N. I.  
**R**11,12,13 RESISTOR, 100K $\Omega$ , 50W. W.W.  
**R**14 RESISTOR, 100 $\Omega$ , 10W. W.W.  
**R**15 RESISTOR, 5K $\Omega$ , 9W. W.W.  
**R**16,17 RESISTOR, 1000 $\Omega$  1W., CARBON  
**R**18,25 RESISTOR, 470 $\Omega$ , 1/4W., CARBON  
**R**19 RESISTOR, 33K $\Omega$ , 1/4W., CARBON  
**R**20 RESISTOR, 30K $\Omega$ , 1/4W., CARBON  
**R**21 RESISTOR, 56K $\Omega$ , 1/4W., CARBON  
**R**22,54,55,56, RESISTOR, 1K $\Omega$ , 1/4W., CARBON  
 57,58,61,65  
**R**23, RESISTOR, 10K $\Omega$ , 1/4W., CARBON  
**R**24 RESISTOR, 3.3K $\Omega$ , 1/4W., CARBON  
**R**27,28 RESISTOR, 100K $\Omega$ , 1/4W., CARBON  
**R**29 RESISTOR, 62K $\Omega$ , 1/2W., CARBON  
**R**30 RESISTOR, 4.7K $\Omega$ , 3W., W.W.  
**R**31 RESISTOR, 100 $\Omega$ , 3W., W.W.  
**R**32 RESISTOR, 47K $\Omega$ , 1W., CARBON  
**R**33,34,35,36, RESISTOR, 1200 $\Omega$ , 1W., CARBON  
 38,39,40,41  
**R**37,42 RESISTOR, 50 $\Omega$ , 1W., CARBON  
**R**43,44 RESISTOR, 10 $\Omega$ , 1/8W., 190  
**R**45,46,47,49, RESISTOR, 10 MEGOHM, 1/4W., CARBON  
 51,53  
**R**48,50,52 RESISTOR, 20 MEGOHM, 1/4W., CARBON  
**R**59,60,62,66 RESISTOR, 10K., TRIMPOT  
**R**63,67 RESISTOR, 12K $\Omega$ , 1/4W. CARBON  
**R**64,68 RESISTOR, 50K $\Omega$ , TRIMPOT  
**R**69,70 RESISTOR, 1 $\Omega$ , 5W., N.I.  
**R**71 RESISTOR, 1.8 $\Omega$ , 30W. N.I.  
  
**S**1,2 SWITCH, ROTARY, 1 POLE, 2 POS.  
  
**T**1 TRANSFORMER, R.F. INPUT  
**T**2 TRANSFORMER, R.F. OUTPUT  
**T**3 TRANSFORMER, R.F. POWER MON.  
**T**4 TRANSFORMER, 150V@.25A; 5V@25A  
**T**5 TRANSFORMER, 5V@25A.  
**T**6 TRANSFORMER, 1A. VARIAC  
  
**V**1,2,3,4 TUBE, TYPE 3CPX1500A7 (EIMAC)

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	D18 added to Parts List	12/80	[Signature]
B	L9-13 Inductance added to list.	12/80	
C	D14 ADDED	7-31-81	

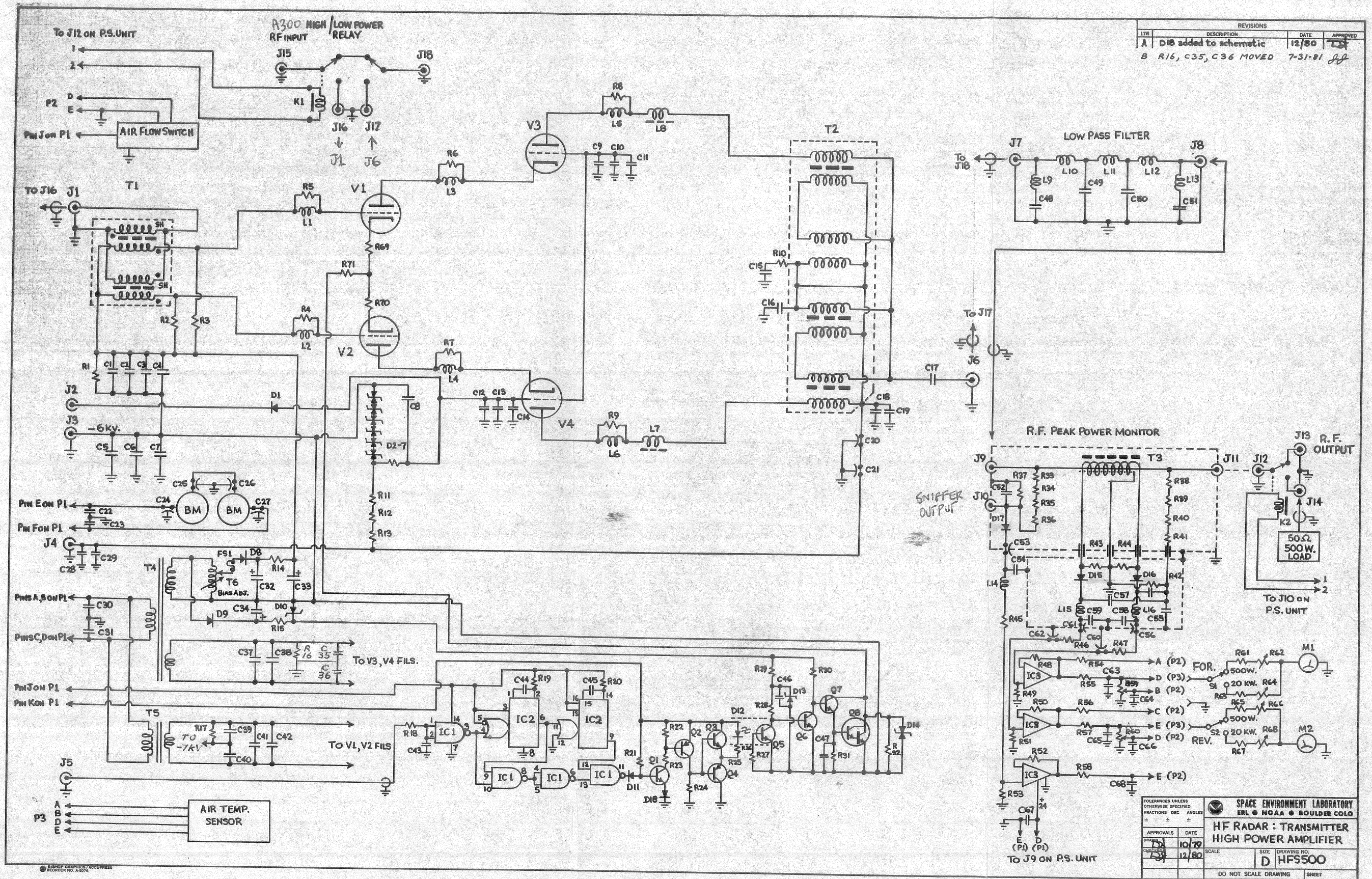
TOLERANCES UNLESS OTHERWISE SPECIFIED: FRACTIONS DEC. ANGLES

**SPACE ENVIRONMENT LABORATORY**  
 ERL • NOAA • BOULDER COLO.

**HF RADAR: TX HIGH POWER AMP. PARTS LIST**

APPROVALS	DATE	SCALE	SIZE	DRAWING NO.
[Signature]	10/79		D	HFS 500A
CHECKED	12/80			

DO NOT SCALE DRAWING SHEET



PS 7  
JP9  
FS1  
FS2  
FS5  
FS6

SNIPPER OUTPUT

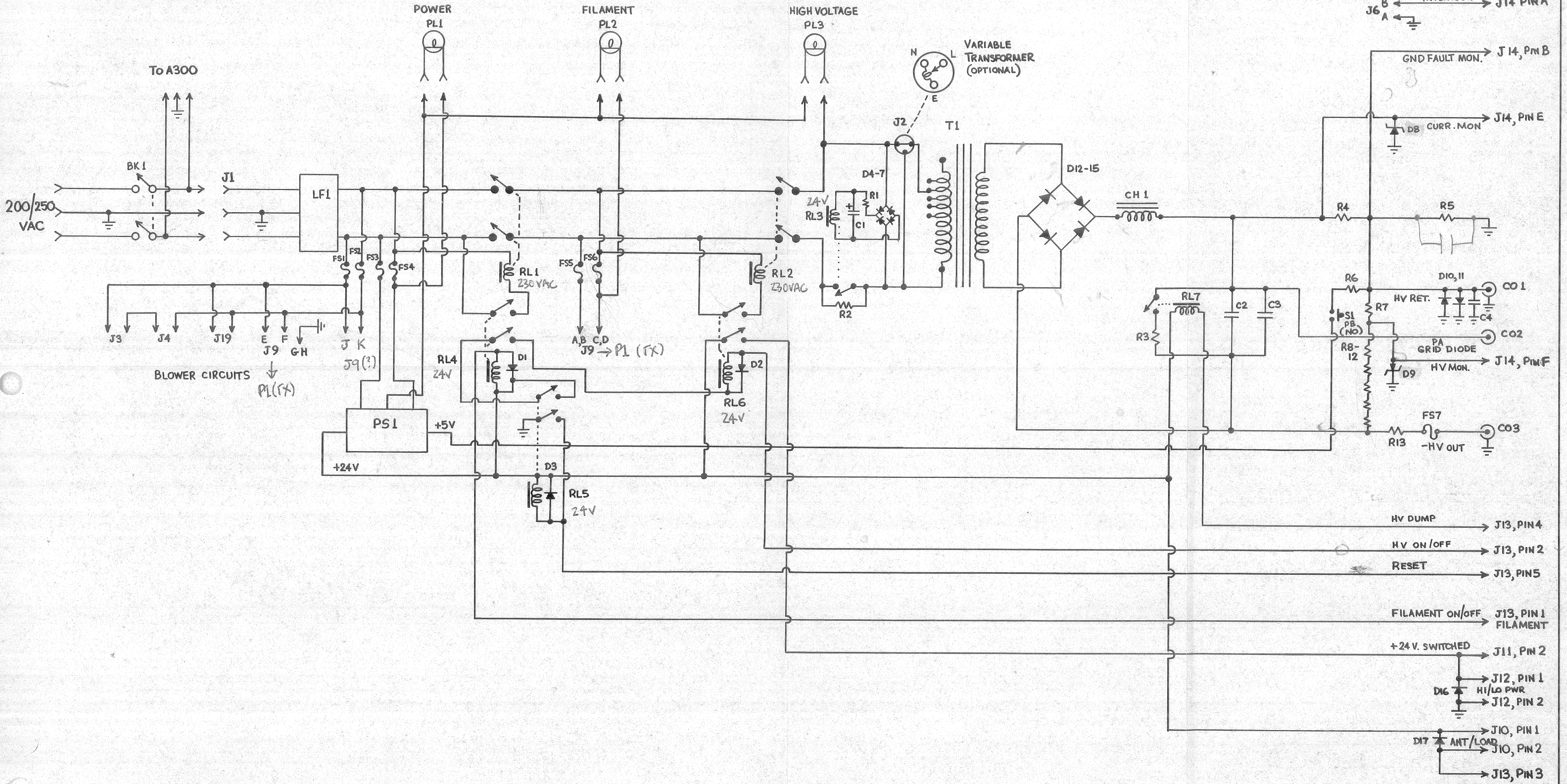
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	D18 added to schematic	12/80	[Signature]
B	R16, C35, C36 MOVED	7-31-81	[Signature]

TOLERANCES UNLESS OTHERWISE SPECIFIED		SPACE ENVIRONMENT LABORATORY ERL • NOAA • BOULDER COLO.	
±	°	HF RADAR : TRANSMITTER HIGH POWER AMPLIFIER	
APPROVALS	DATE	SIZE	DRAWING NO.
[Signature]	10/79	D	HF5500
[Signature]	12/80	SCALE	D
DO NOT SCALE DRAWING		SHEET	

Cable sockets

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

J8 D ← AIR TEMP → J14 PIN C  
 A ← GND →  
 J7 D ← AIR PRES. → J14 PIN D  
 A ← GND →  
 J6 B ← INTERLOCK → J14 PIN A  
 A ← GND →



GND FAULT MON. → J14, PIN B  
 DB CURR. MON → J14, PIN E  
 HV RET. → CO1  
 PA GRID DIODE → CO2  
 HV MON. → J14, PIN F  
 -HV OUT → CO3  
 HV DUMP → J13, PIN 4  
 HV ON/OFF → J13, PIN 2  
 RESET → J13, PIN 5  
 FILAMENT ON/OFF → J13, PIN 1  
 FILAMENT  
 +24 V. SWITCHED → J11, PIN 2  
 H1/LO PWR → J12, PIN 1  
 → J12, PIN 2  
 → J10, PIN 1  
 ANT/LOAD → J10, PIN 2  
 → J13, PIN 3

TOLERANCES UNLESS OTHERWISE SPECIFIED  
 FRACTIONS DEC ANGLES  
 ± ± ±

APPROVALS DATE  
 DRAWN 2/11/80  
 CHECKED 2/11/80

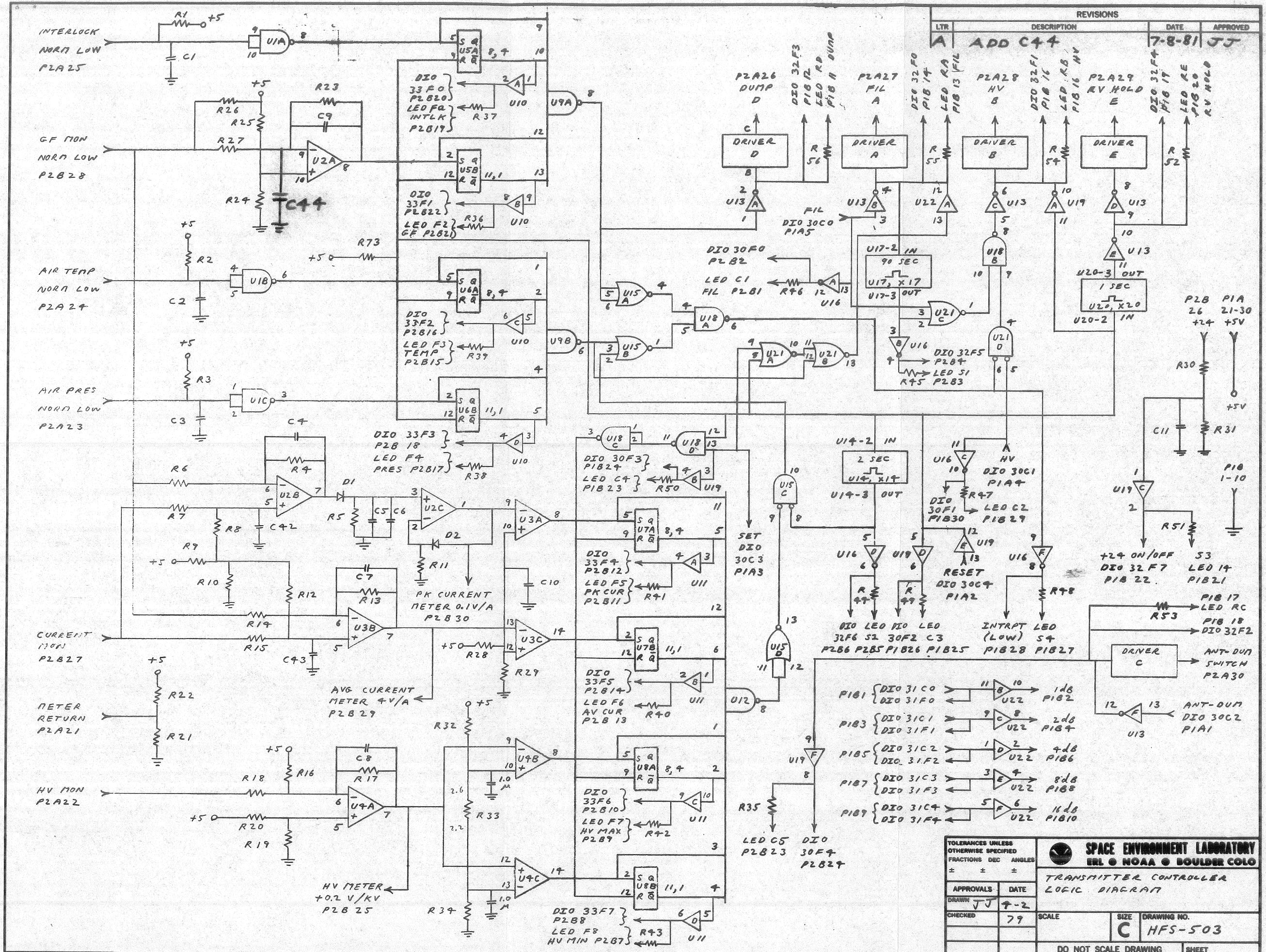
SPACE ENVIRONMENT LABORATORY  
 ERL • NOAA • BOULDER COLO.  
 H.F. RADAR - POWER AMP.  
 POWER SUPPLY UNIT  
 SIZE D DRAWING NO. HFS 501,502  
 DO NOT SCALE DRAWING SHEET

## PARTS LIST

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

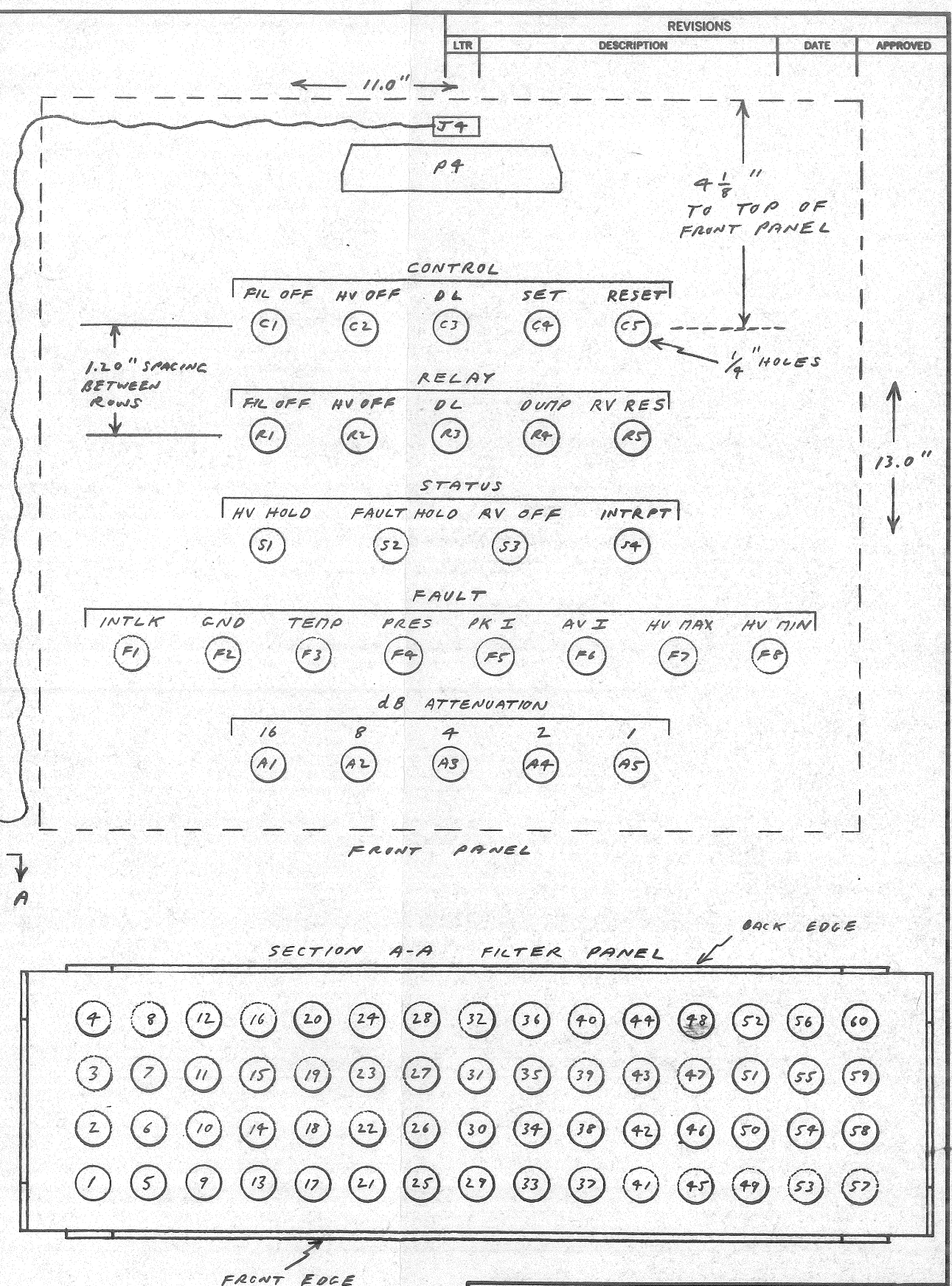
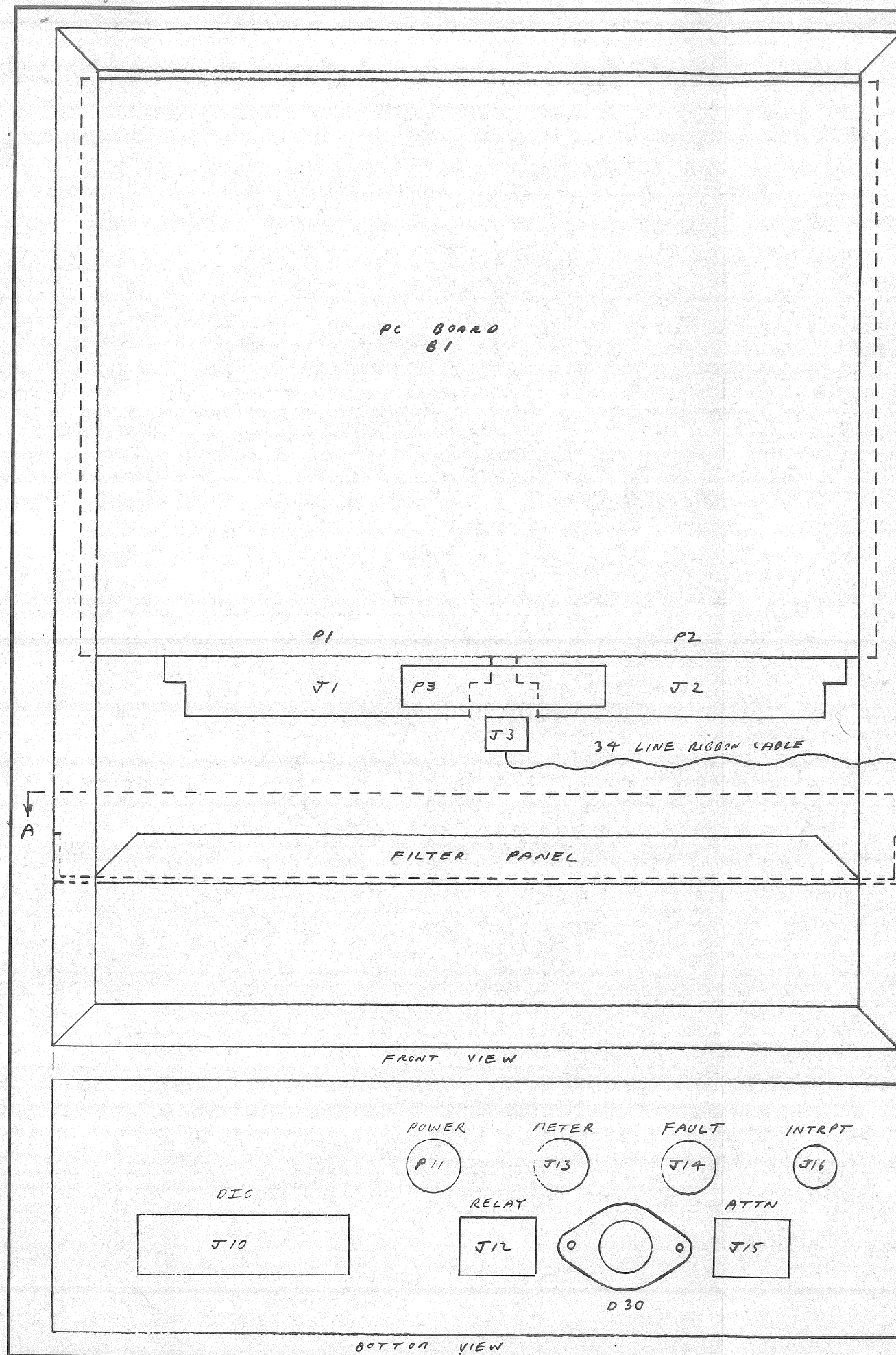
BK1	BREAKER, 230V., 30A. (2263S,Heinemann)	R6	RESISTOR, 270Ω, 1/2W. CARBON
C1	CAPACITOR, 100μf., 250V., ELECTROLYTIC	R7	RESISTOR, 200Ω, 1W. CARBON
C2,3	CAPACITOR, 25μf., 6250V., OIL FILLED	R8,9,10,11,12	RESISTOR, 200KΩ, 50W.W.W.
C4	CAPACITOR, .5μf., 600V., PLASTIC	RL1,2	CONTACTOR, POWER, DPDT, 230VAC COIL <span style="float: right;">POWER, HV</span>
DI,2,3,4,5,6, 7,16,17	DIODE, IN4007	RL3	RELAY, DPDT, 24V. COIL, PRDIIYO (P.B.)
D8,9	DIODE, IN4551 R	RL4,6	RELAY, DPDT, 24 V. COIL, PLUG IN
D10	DIODE, IN3209 R	RL5	RELAY, 4PDT, 24V. COIL, PLUG IN, KHU17DII (P.B.)
D11	DIODE, IN3209	RL7	RELAY, SPST, VACUUM, H.V. DUMP. (JENNINGS)
D12,13,14,15	DIODE, UGB10, (UNITRODE)	T1	TRANSFORMER, H.V. (PETER DAHL CO.) <del>RETRACT</del>
FS1,2,3,4,5,6	FUSE, 5A., 3AG	CHI	CHOKE, FILTER (PETER DAHL CO.)
FS7	FUSE, HIGH VOLTAGE 2-3" #32 WIRE		
J1	CONNECTOR, 230VAC, 20A., TWIST LOCK		
J2	CONNECTOR, 230VAC, 10A., TWIST LOCK		
J3,4	CONNECTOR, 230VAC, (230V. to blowers, rack)		
J5	CONNECTOR, OCTAL SOCKET		
J6,7,8	CONNECTOR, AMPHENOL, BLUE, 5 PIN, MALE		
J9	CONNECTOR, AMPHENOL, 14 PIN, 20-27SF		
J10	CONNECTOR, JONES, 2 PIN, MALE		
J11	CONNECTOR, JONES, 4 PIN, FEMALE		
J12	CONNECTOR, JONES, 2 PIN, FEMALE		
J13	CONNECTOR, JONES, 6 PIN, FEMALE		
J14	CONNECTOR, AMPHENOL, BLUE, 9 PIN, FEMALE		
J15	CONNECTOR, AMPHENOL, BLUE, 5 PIN, FEMALE		
J16	CONNECTOR, ROWE, H.V.		
J17	CONNECTOR, COAXIAL, SO-239		
J18	CONNECTOR, MILLEN, H.V.		
LF1	LINE FILTER, CORCOM, EMI-20W1		
PL1,2,3	LAMP, PILOT, 115VAC		
PS1	POWER SUPPLY, 5V. @ 3A; 24V @ 1.5A		
R1	RESISTOR, 5KΩ, 50W. ADJ., W.W.		
R2,13	RESISTOR, 10Ω, 225W. W.W.		
R3	RESISTOR, 1000Ω, 225W.W.W.		
R4	RESISTOR, .1Ω, 10W.		
R5	RESISTOR, 10Ω, 10W.W.W.		

TOLERANCES UNLESS OTHERWISE SPECIFIED		<b>SPACE ENVIRONMENT LABORATORY</b>	
FRACTIONS DEC ANGLES		ERL • NOAA • BOULDER COLO	
± ± ±		<b>HF RADAR: TX POWER SUPPLY</b>	
APPROVALS DATE		<b>PARTS LIST</b>	
DRAWN	DATE	SCALE	SIZE DRAWING NO.
CHECKED	DATE	SCALE	DRAWING NO.
	10/79		C HFS501-A
	3/11/80		SHEET
DO NOT SCALE DRAWING			



REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	ADD C44	7-8-81	JJ

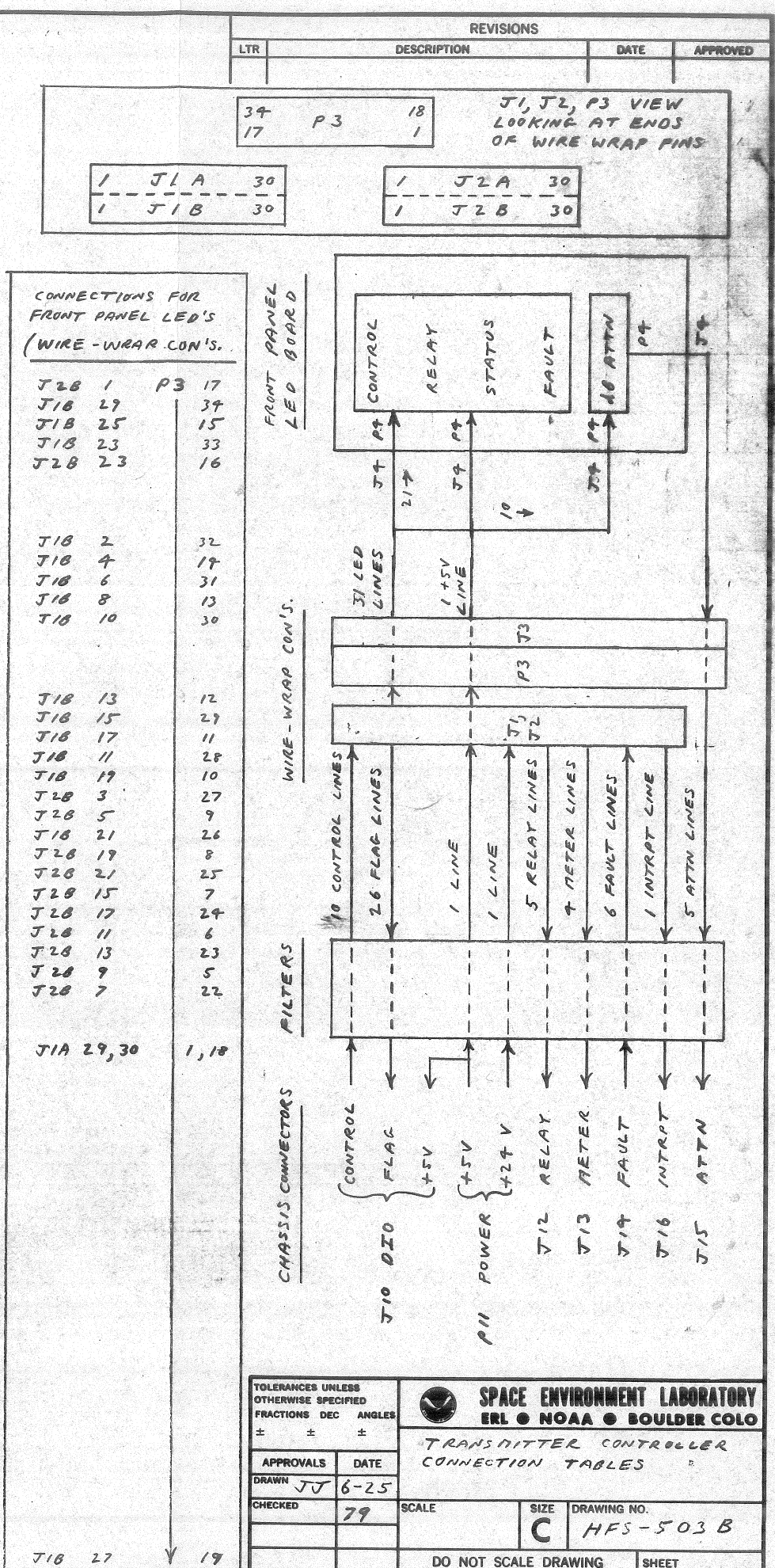
TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC ANGLES	
±	±	±	±
<b>SPACE ENVIRONMENT LABORATORY</b> ERL • NOAA • BOULDER COLO			
<b>TRANSMITTER CONTROLLER</b> LOGIC DIAGRAM			
APPROVALS	DATE	SCALE	SIZE
DRAWN JJ	7-2		C
CHECKED	79		HFS-503
DO NOT SCALE DRAWING			SHEET



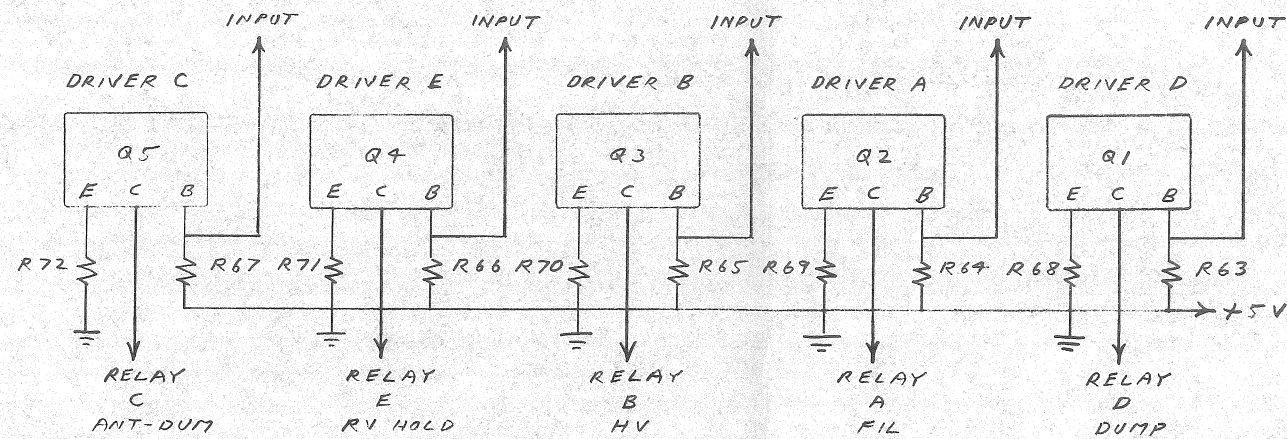
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED

TOLERANCES UNLESS OTHERWISE SPECIFIED		SPACE ENVIRONMENT LABORATORY	
FRACTIONS DEC	ANGLES	ERL • NOAA • BOULDER COLO	
± ± ±	±	TRANSMITTER CONTROLLER CHASSIS CONSTRUCTION	
APPROVALS	DATE	SCALE	SIZE
DRAWN JJ	7-9	SCALE	C
CHECKED	79	DRAWING NO.	HFS-503 A
DO NOT SCALE DRAWING		SHEET	

CHASSIS CON.	FILTER	FUNCTION	DIO ADDRESS	FRONT PANEL LED	WIRE-WRAP CON'S.
DIO (J10) A	1	FILAMENT	CONTROL 30 0		J1A 5
B	2	HV	1		J1A 4
C	3	RESET	2		J1A 2
D	4	SET	3		J1A 3
E	5	DL	4		J1A 1
F					
H	6	1 dB	CONTROL 31 0		J1B 1
J	7	2 dB	1		J1B 3
K	8	4 dB	2		J1B 5
L	9	8 dB	3		J1B 7
	10	16 dB	4		J1B 9
M					
N	11	FILAMENT	FLAG 30 0	CONTROL(-) FIL OFF	J2B 2
P	12	HV	1	HV OFF	J1B 30
R	13	RESET	2	RESET	J1B 26
S	14	SET	3	SET	J1B 24
	15	DL	4	DL	J2B 24
T					
U	16	1 dB	FLAG 31 0	dB ATTN(-) 1	J1B 1
V	17	2 dB	1	2	J1B 3
W	18	4 dB	2	4	J1B 5
X	19	8 dB	3	8	J1B 7
	20	16 dB	4	16	J1B 9
Y					
Z	21	RELAY A	FLAG 32 0	RELAY(-) FIL OFF	J1B 14
a	22	RELAY B	1	HV OFF	J1B 16
b	23	RELAY C	2	DL	J1B 18
c	24	RELAY D	3	DUAP	J1B 12
d	25	RELAY E	4	RV RES	J1B 20
e	26	HV DELAY	5	HV HOLD	J2B 9
f	27	V-C FAULT HOLD	6	FAULT HOLD	J2B 6
g	28	RV ON-OFF	7	RV OFF	J1B 22
h	29	INTERLOCK	FLAG 35 0	FAULT(-) INTLK	J2B 20
i	30	GROUND FAULT	1	GND	J2B 22
j	31	AIR TEMP	2	TEMP	J2B 16
k	32	AIR PRES	3	PRES	J2B 18
m	33	PEAK CURRENT	4	PK I	J2B 12
n	34	AVG CURRENT	5	AV I	J2B 14
p	35	HV MAX	6	HV MAX	J2B 10
q	36	HV MIN	7	HV MIN	J2B 8
r					
s					
EE	37	GND			
HH	37	GND			
POWER (J11) A, B	38	+5 V POWER INPUT		CON, REL, STAT, FAULT (+)	J1A 26-28
H	38	+24 V MONITOR INPUT			J2B 26
D, E	38	GND			J2A 1-3
RELAY (J12) 1	39	A (FIL)			J2A 27
2	40	B (HV)			J2A 28
3	41	C (ANT-DUP)			J2A 30
4	42	D (DUAP)			J2A 26
5	43	E (RV HOLD)			J2A 29
6	43	GND			
METER (J13) A	44	GND			
B	44	PK CURRENT			J2B 30
C	45	AV CURRENT			J2B 29
J	46	H V			J2B 25
FAULT (J14) A	47	RETURN			J2A 21
B	48	INTERLOCK			J2A 25
C	49	GND FAULT			J2B 28
D	50	AIR TEMP			J2A 24
E	51	AIR PRES			J2A 23
F	52	CURRENT			J2B 27
K	53	HV			J2A 22
ATTN (J15) 1	54	GND			
2	54	1		dB ATTN (+)	P3 4
3	55	2			P3 21
4	56	4			P3 3
5	57	8			P3 20
6	58	16			P3 2
38	58	+24 V ATTN. POWER			
INTRPT (J16) BNC	59	INTRPT OUTPUT		STATUS(-) INTRPT	J1B 28



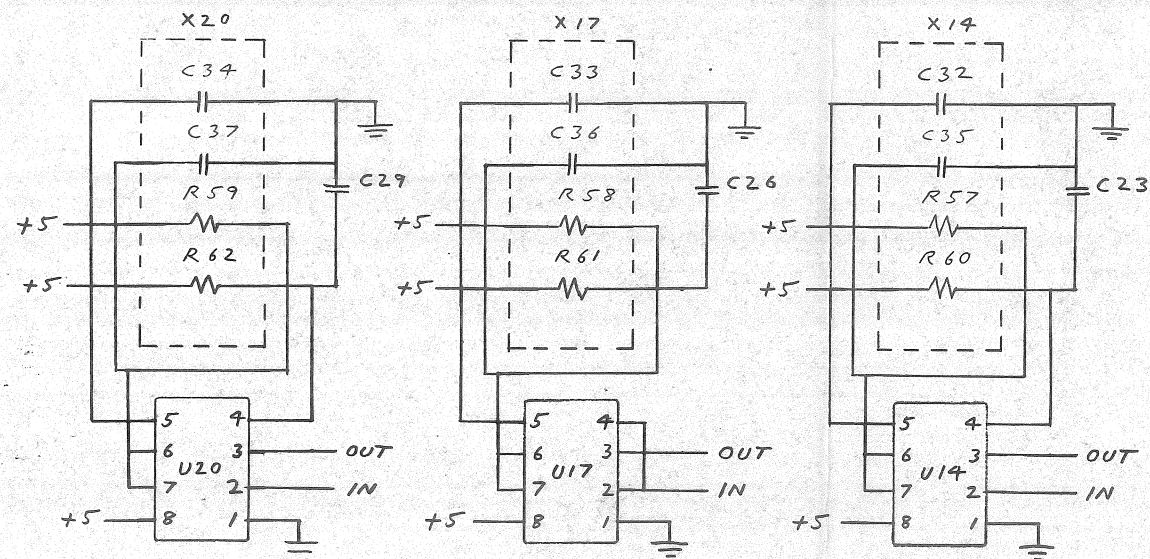
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	U5, U6, D30 ADDED	11-20-80	JJ



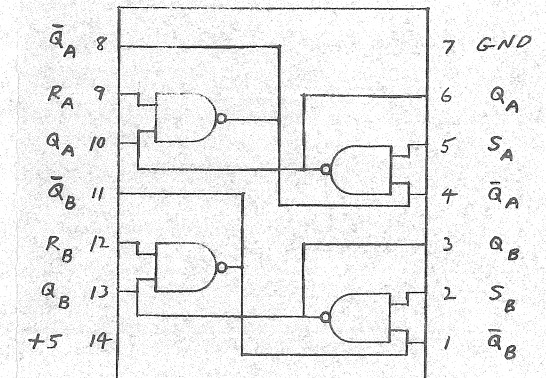
RV HOLD  
15 DELAY

HV HOLD  
90 S DELAY

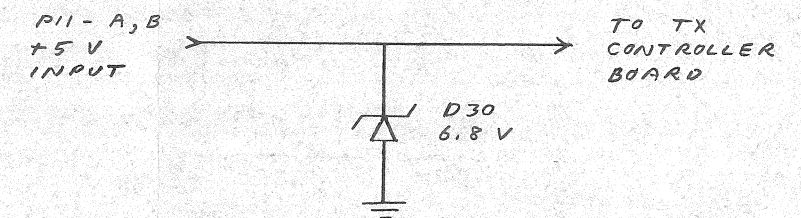
FAULT HOLD  
2 S DELAY



NOTE: SEE TRANSMITTER CONTROLLER PARTS LIST FOR COMPONENT VALUES.



U5 AND U6 (7400)  
CONNECTED AS FLIP-FLOPS

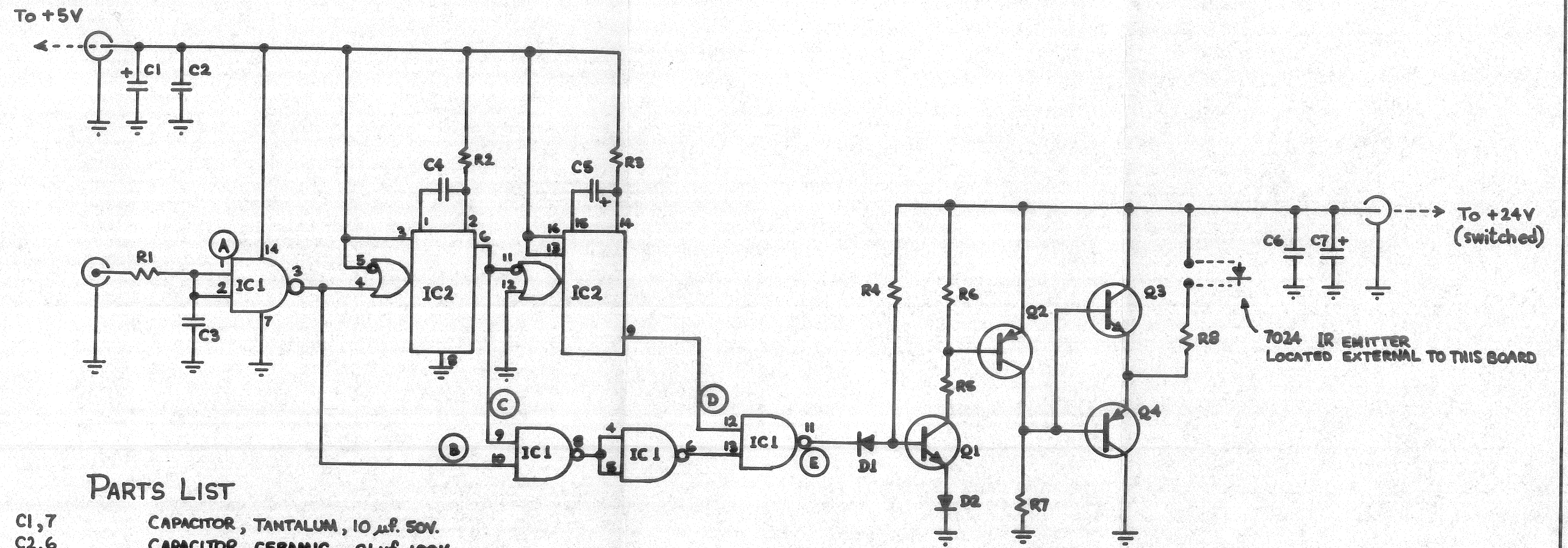


ZENER DIODE OVERVOLTAGE PROTECTION. DIODE MOUNTED ON BOTTOM SURFACE OF TX CONTROLLER BOX.

TOLERANCES UNLESS OTHERWISE SPECIFIED		FRACTIONS DEC ANGLES		SPACE ENVIRONMENT LABORATORY	
±	±	±	±	ERL • NOAA • BOULDER COLO	
APPROVALS	DATE	TRANSMITTER CONTROLLER RELAY DRIVER & HOLD CIRCUIT DETAIL. COMPONENT SIDE			
DRAWN JJ	11-12	SCALE	SIZE	DRAWING NO.	
CHECKED	80		C	HFS 503 - C	
DO NOT SCALE DRAWING				SHEET	

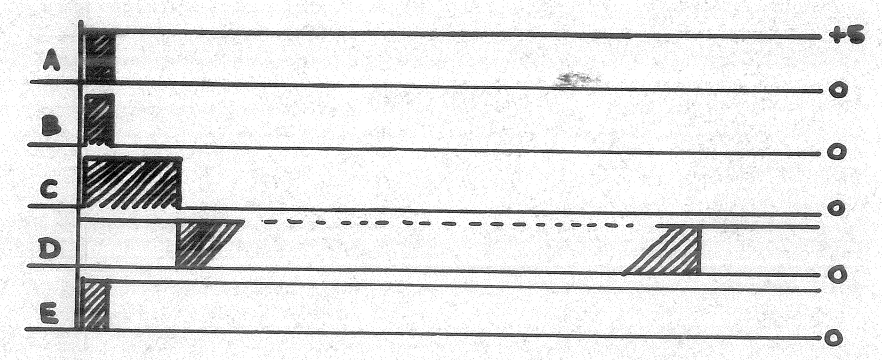


REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



### PARTS LIST

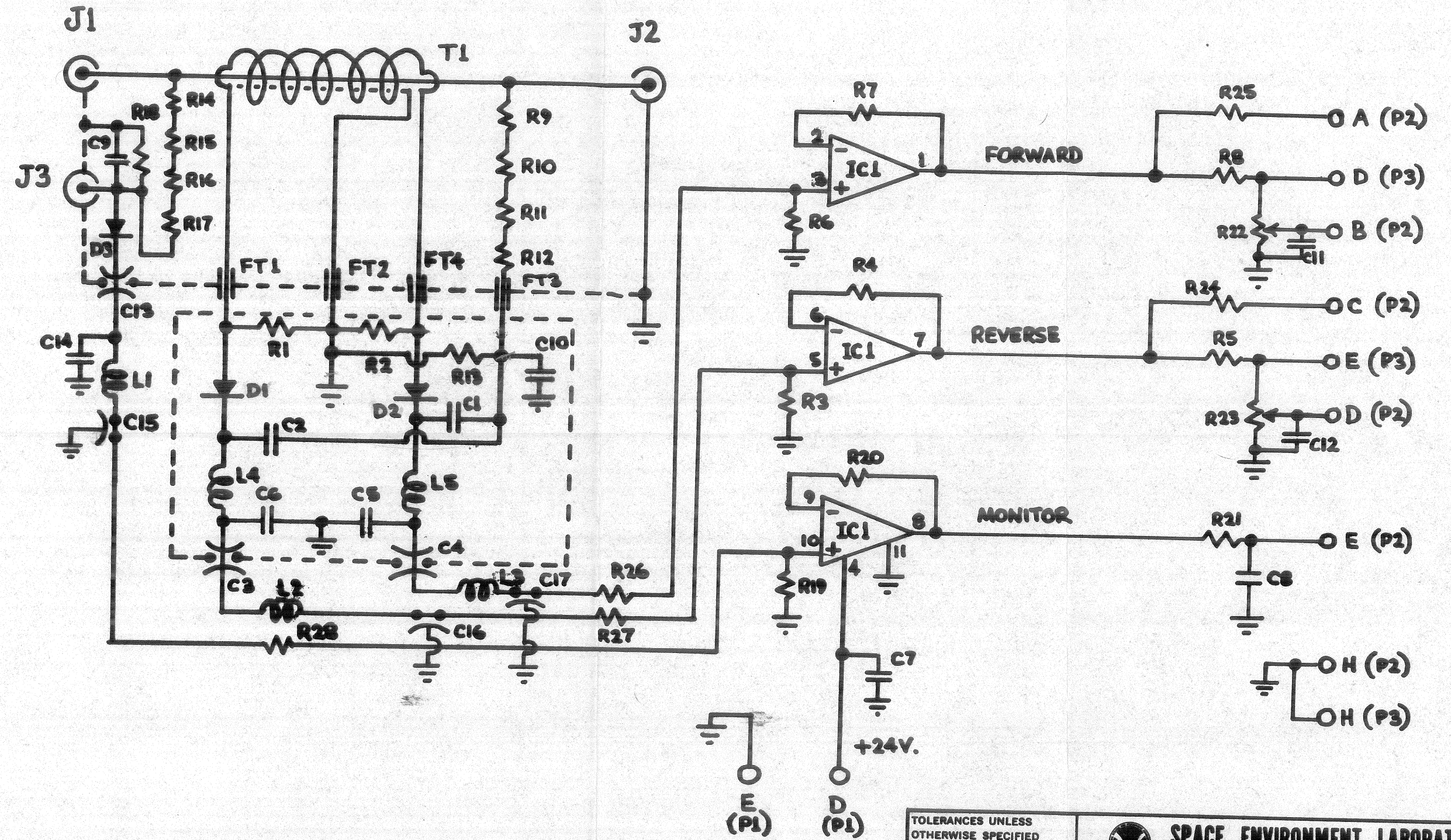
C1,7	CAPACITOR, TANTALUM, 10 $\mu$ F. 50V.
C2,6	CAPACITOR, CERAMIC, .01 $\mu$ F. 100V.
C3	CAPACITOR, CERAMIC, .001 $\mu$ F. 1KV.
C4	CAPACITOR, CERAMIC, .05 $\mu$ F. 12V.
C5	CAPACITOR, TANTALUM, 1 $\mu$ F. 35V.
D1,2	DIODE, 1N4153
IC1	INTEGRATED CIRCUIT, 74LS00
IC2	INTEGRATED CIRCUIT, 9602PC
Q1	TRANSISTOR, 2N3904
Q2,4	TRANSISTOR, 2N2905
Q3	TRANSISTOR, 2N697
R1	RESISTOR, 560 $\Omega$ 1/4 W.
R2	RESISTOR, 33K. 1/4 W.
R3	RESISTOR, 30K. 1/4 W.
R4	RESISTOR, 56K. 1/4 W.
R5	RESISTOR, 10K. 1/4 W.
R6	RESISTOR, 1K. 1/4 W.
R7	RESISTOR, 3.3K. 1/4 W.
R8	RESISTOR, 470 $\Omega$ 1/2 W.



A = 100 $\mu$ sec. Neg. going	74LS00
B = 100 $\mu$ sec. Pos. going	PIN 1
C = .4 msec. Pos. going	PIN 10
D = 8.5 msec. Neg. going	PIN 9
E = 100 $\mu$ sec. Neg. going	PIN 12

TOLERANCES UNLESS OTHERWISE SPECIFIED		SPACE ENVIRONMENT LABORATORY	
FRACTIONS DEC ANGLES	ERL • NOAA • BOULDER COLO		
± ± ±	HF SOUNDER		
APPROVALS	DATE	KEYING DRIVER CIRCUIT	
CHECKED	8/1/78	SCALE	
SIZE		DRAWING NO.	
C		HFS 504	
DO NOT SCALE DRAWING			

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



D1, D2  
IN REMOVA  
BOX!

TOLERANCES UNLESS OTHERWISE SPECIFIED		SPACE ENVIRONMENT LABORATORY	
FRACTIONS	DEC.	ANGLES	ERL • NOAA • BOULDER COLO
±	±	±	
APPROVALS	DATE	HF SOUNDER, FORWARD AND REV.	
DRAWN	2/5/79	PEAK POWER MONITOR	
CHECKED		SCALE	SIZE B DRAWING NO. HFS505
		DO NOT SCALE DRAWING SHEET 1 OF 2	


# PARTS LIST

**C1,2** CAPACITOR, DISC CERAMIC, .01  $\mu$ f. 100V.  
**C3,4,13,15,16,17** CAPACITOR, FEEDTHRU CERAMIC, 1000 pf. 500V.  
**C5,6,7,14,8,11,12,9,10** CAPACITOR, CERAMIC, .33  $\mu$ f. 100V.  
 CAPACITOR, CERAMIC, 0.1  $\mu$ f. 100V.  
 CAPACITOR, DIPPED MICA, 27 pf. 500V.  
  
**D1,2,3** DIODE, HP2800  
  
**FT1,2,3** TEFLON FEEDTHRU  
  
**IC 1** INTEGRATED CIRCUIT, LM324 N  
  
**J1,2** CONNECTOR, COAXIAL, TYPE HN, UG560/U  
**J3** CONNECTOR, COAXIAL, BNC, UG1094/U  
  
**L1,2,3** INDUCTOR, MOLDED, 750  $\mu$ H.  
**L4,5** INDUCTOR, MOLDED, 1 mH.  
  
**P1** PLUG, AMPHENOL, 5 PIN, BLUE MIN.  
**P2** SOCKET, AMPHENOL, 9 PIN, BLUE MIN.  
**P3** SOCKET, AMPHENOL, 5 PIN, BLUE MIN.  
  
**R1,2** RESISTOR, 1%, 10 ohm, 1/4 W.  
**R3,4,6,7,19,20,26,27,28** RESISTOR, CARBON, 5%, 10 Meq., 1/4 W.  
  
**R5,8,21,24,25** RESISTOR, CARBON, 5%, 1 K $\Omega$ , 1/4 W.  
  
**R9,10,11,12,14,15,16,17** RESISTOR, CARBON, 5%, 1.2 K $\Omega$  1W.  
 (EACH CONSISTS OF (2) 2.4 K., 1/2 W,  
 RESISTORS IN PARALLEL)

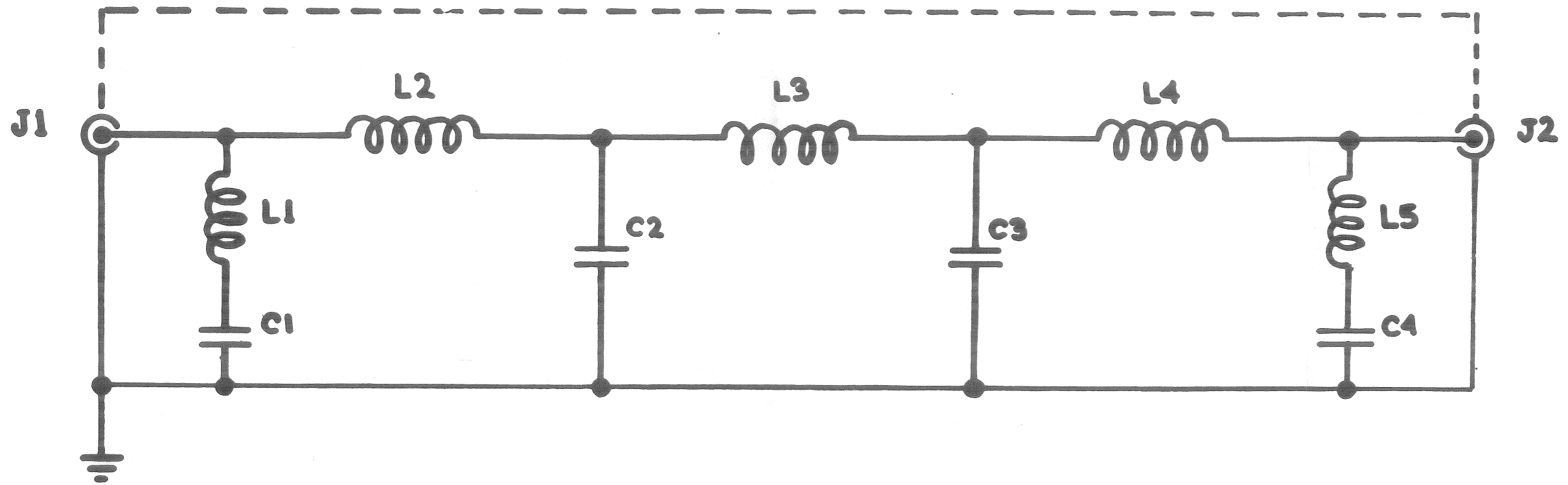
**R13,18**  
**R22,23**  
  
**T1**

RESISTOR, CARBON, 5%, 51  $\Omega$  1/2 W.  
 RESISTOR, VARIABLE, TRIMPOT, 10 K $\Omega$   
  
 TRANSFORMER, 20T. #26 FORMVAR ON  
 FERROXCUBE 528T500/4C4 TORROID

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED


TOLERANCES UNLESS OTHERWISE SPECIFIED		 <b>SPACE ENVIRONMENT LABORATORY</b> ERL • NOAA • BOULDER COLO	
FRACTIONS	DEC. ANGLES		
±	±	<b>HF SOUNDER, FORWARD AND REV. PEAK POWER MONITOR</b>	
APPROVALS	DATE	SCALE	DRAWING NO.
DRAWN <i>DA</i>	2/5/79	B	HFS 505 A
CHECKED		DO NOT SCALE DRAWING	
		SHEET 2 OF 2	

REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED



### PARTS LIST

C1, 4	CAPACITOR, CERAMIC, 50 pf., CRL850S
C2, 3	CAPACITOR, CERAMIC, 175 pf., CRL850S, 100 pf./75 pf.
J1, 2	CONNECTOR, COAXIAL, TYPE HN, UG-560/U
L1, 5	INDUCTOR, AIR WOUND, 4 T. #14 tinned, 3/4" dia.
L2, 4	INDUCTOR, AIR WOUND, 5 T. #14 tinned, 3/4" dia.
L3	INDUCTOR, AIR WOUND, 6 T. #14 tinned, 3/4" dia.

TOLERANCES UNLESS OTHERWISE SPECIFIED		 <b>SPACE ENVIRONMENT LABORATORY</b> ERL • NOAA • BOULDER COLO	
FRACTIONS	DEC.		
±	±	±	<b>H.F. SOUNDER POWER AMPLIFIER</b> <b>LOW PASS FILTER</b>
APPROVALS	DATE	SCALE	
DRAWN		SIZE	
CHECKED		DRAWING NO.	<b>B HFS506</b>
DO NOT SCALE DRAWING		SHEET	