

**APPENDIX B**

**BOSCHERT POWER SUPPLY**

**PARTS LISTS AND SCHEMATIC**

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<b>TITLE/MODEL NO.</b>	<b>DRAWING NO.</b>	<b>REV.</b>	<b>PAGE NO.</b>
Power Supply OL130-3022R/4022R	45-10451-0/02  Ampex No. 570-582 Ref. LM 1465093	T	B-1
Schematic	90-10542	H	B-11



T.E.M	PART NO.	QTY		DESCRIPTION	QTY ISSUED	REF DES
		-1	-2			
1	51-9183	1	1	BOARD , P.C.		
2						
3	50-9186	1	1	BRACKET , HEATSINK		
4	50-9173	1	1	BRACKET , "L"		
5						
6	43-80003-02	1	1	ASSY , NEG RES CONT		
7	43-10546	1	1	TRANSFORMER		T1
8	80-8139	1	1	TRANSFORMER ,		T2
9	80-8120	1	1	TRANSFORMER		T3
10	80-8001	1	1	INDUCTOR , 100 mH Ø AMP		L1
11	80-8140	1	1	↑ , 7 MH		L2
12	80-8034	3	3	↑ , LOW CURR		L3,6,4
13				↓		
14	80 10795	1	1	INDUCTOR , 1.6µH		L5
15						
16						
17	22-2000	2	2	CAP, CERM , .0047µf, 1000V		C10,12
18	22-2002	4	4	↑ , .005µf, 1400V		C1-4
19	23-10181-01	2	2	↑ , .01µf, 50V		C13,36
20	22-2059	4	4	↑ , .01µf, 100V		C46,47,50,51
21	22-2005	1	1	↓ , .01µf, 1000V		C28
22	22-2008	10	10	↑ , CERM , .1µf, 100V		C7,11,20-22
23						29,32-34
24						38
25						
26						
27	23-10186-07	2	2	CAP, M.F. , .1µf, ±10%, 400V		C15,35

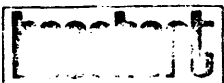
POWER SUPPLY,  
MODEL:UL130-3022R/4022R



DRAWING NO. 45-10451-0/02 T  
Size A Sheet 1

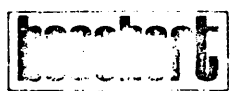


ITEM	PART NO.	QTY		DESCRIPTION	QTY ISSUED	REF DES
		-1	-2			
28	22-2006	1	1	CAP, CERM, 150pf, 1000V		C14
29	22-2060	2	2	CAP, CERM, 470pf, 1000V		C9,8
30	22-2032	2	2	CAP, CERM, .001uf, 1000V		C48,49
31	21-2069	2	2	CAP, TANT, 2.2uf, 35V		C16,18,
32	20-11659-02	1	1	CAP, AL, ELECT, 3.3uf, 250V		C37
33	20-2089	4	4	CAP, AL, 100uf, 200V		C5,6,43,44
34						
35	20-2046	3	3	CAP, AL, 1000uf, 35V		C23,30,25
36	20-2047	1	1	CAP, AL, ELECT, 2200uf, 10V		C27
37	20-2064	1	1	CAP, AL, ELECT, 2200uf, 35V		C42
38	23-2115	2	2	CAP, MET FILM 1uf, 250V		C17,19
39						
40	10-1043	2	2	RECT, SILICON, MR504		CR1,3
41	10-1046	1	1	DIODE, RECT, PWR MR824		CR6
42	10-1049	2	2	DIODE, RECT, MR850, 50V, 3A		CR26,27
43	10-1022	2	2	DIODE, RECT, FAST RECV MR820		CR20,21
44	10-1038	3	3	RECT, GEN PURP, IN4004 1A 400V		CR10,12,19
45	10-1013	7	7	DIODE, SILICON IN4148		CR5,7,9,14-17
46	10-10383-01	1	1	RECT, STD, MR504(VERT PREP)		CR4
47	10-10383-02	1	1	RECT, STD, MR504(VERT PREP)		CR2
48	10-1078	2	2	DIODE, SCHOTTKY, 25AMPS 30V		CR24,25
49	10-1088	2	2	DIODE, RECT, MR851 100V 3A		CR22,23
50	10-1014	1	1	DIODE, ZENER, IN5994B		CR18
51	11-1008	1	1	DIODE, ZENER, 15V		CR8
52						
53	16-1029	1	1	RECT. SILICON CONTROLLED 8A 50V		SCR1
54						

TITLE POWER SUPPLY MODEL:0L130-3022R/4022R				DRAWING NO. 45-10451-01/02		REV T
SIZE A	SCALE NONE	SHEET	2			

ITEM	PART NO.	QTY		DESCRIPTION	QTY ISSUED	REF DES
		-1	-2			
55	14-1000	1	1	I.C., REG, 723		A1
56	89-12960	1	1	OPTO PLUS RES MATCHED B-F		A3 + R34 5
57	14-1071	1	1	I.C., SHUNT REG, TL430		A2
58						
59						
60	13-1118	1	1	T.RANS, NPN, SILICON PWR TRANS MJE13007 80W		Q1
61	13-1005	1	1	TRANS, NPN, POWER, TIP-50		Q2
62	13-10211	2	2	TRANS, NPN, PWR, MJE13006, MATCHED		Q10, 11 4
63	12-1016	1	1	TRANS, PNP, AMPLIFIER, 2N4126		Q6
64	12-1154	1	1	TRANS, PNP, 400V, ST1076		Q3
65	13-1023	2	2	TRANS, NPN, GEN PURP, 2N3439		Q5, 7
66						
67	13-1017	3	3	TRANS, NPN, SILICON, MPS-5172		Q4, 8, 9
68	83-10180-01	1	1	FUSE, GLASS-TUBE, 5 AMP, 250V		F1
69	83-7015	2	2	FUSE CLIPS		XF1
70	30-3074	1	1	RES, C.F. 1.2K, ±5%, 1/4W		R26
71	30-3024	2	2	RES, C.F., 10, ±5%, 1/4W		R6, 42
72	30-3040	1	1	RES, C.F., .47, ±5%, 1/4W		R41
73	30-3019	1	1	RES, C.F., 6.2, ±5%, 1/4W		R24
74	30-3080	1	1	RES, C.F., 2.2K, ±5%, 1/4W		R49
75	30-3053	1	1	RES, C.F., 160, ±5%, 1/4W		R22
76						
77	30-3064	1	1	RES, C.F., .470, ±5%, 1/4W		R35
78						
79	30-3072	5	5	RES, C.F., 1K, ±5%, 1/4W		R9, 20, 21,
80						32, 33
81	30-3088	1	1	RES, C.F., 4.7K, ±5%, 1/4W		R19

TITLE  
**POWER SUPPLY**  
 MODEL: 0130-3022R/4022R

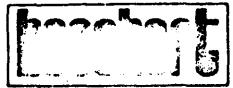


DRAWING NO  
**45-10451-01/02** REF. T

SIZE A SCALE NONE SHEET 3

ITEM	PART NO.	QTY		DESCRIPTION	QTY ISSUED	REF DES
		-1	-2			
82	30-3096	2	2	RES, C.F., 10K, ± 5%, 1/4 W		R23,50
83	30-3099	1	1	, , 13K , , ,		R18
84	30-3104	2	2	, , 22K , , ,		R11,37
85	30-3120	1	1	, , 100K , , ,		R39
86	30-3110	1	1	, , 39K , , ,		R16
87	30-3082	1	1	, , 2.7K , , ,		R47
88	30-3124	2	2	, , 150K , , ,		R14,15
89	30-3134	1	1	, , 390K , , ,		R17
90	30-3136	1	1	, , 470K , , ,		R27
91						
92	30-3132	1	1	, 330K, , 1/4W		R28
93						
94	30-3232	1	1	, , 22 , , 1/2 W		R31
95	30-3308	2	2	, , 33K , , ,		R29,30
96						
97	30-3312	2	2	, , 47K , , ,		R12,10
98	30-3320	2	2	, , 100K , , ,		R3,4
99	30-3336	1	1	, C.F., 470K, ± 5%, 1/2 W		R13
100						
101	39-3811	3	3	, WW , 10 , ± 10% , BW20F, 1W		R5,7,48
102	32-3440	1	1	, M.F. , 47 , , 1W,		R45
103	39-3812	1	1	, WW , 82 , , BW20F, 1W		R8
104	39-3813	1	1	, WW , .1 , , BW20F, 1W		R25
105	32-3472	1	1	, M.F. , 1K , ± 10% , 1W		R43
106						
107	39-3832-13	1	1	, WW , .24 , ± 5% , BWH, 2W		R36
108	39-3815	1	1	RES, WW , 1K , ± 5% , BWH, 2W		R44

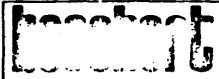
TITLE  
**POWER SUPPLY**  
**MODEL:0L130-3022R/4022R**



DRAWING NO. **45-10451-01/02**

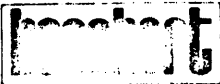
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**T**

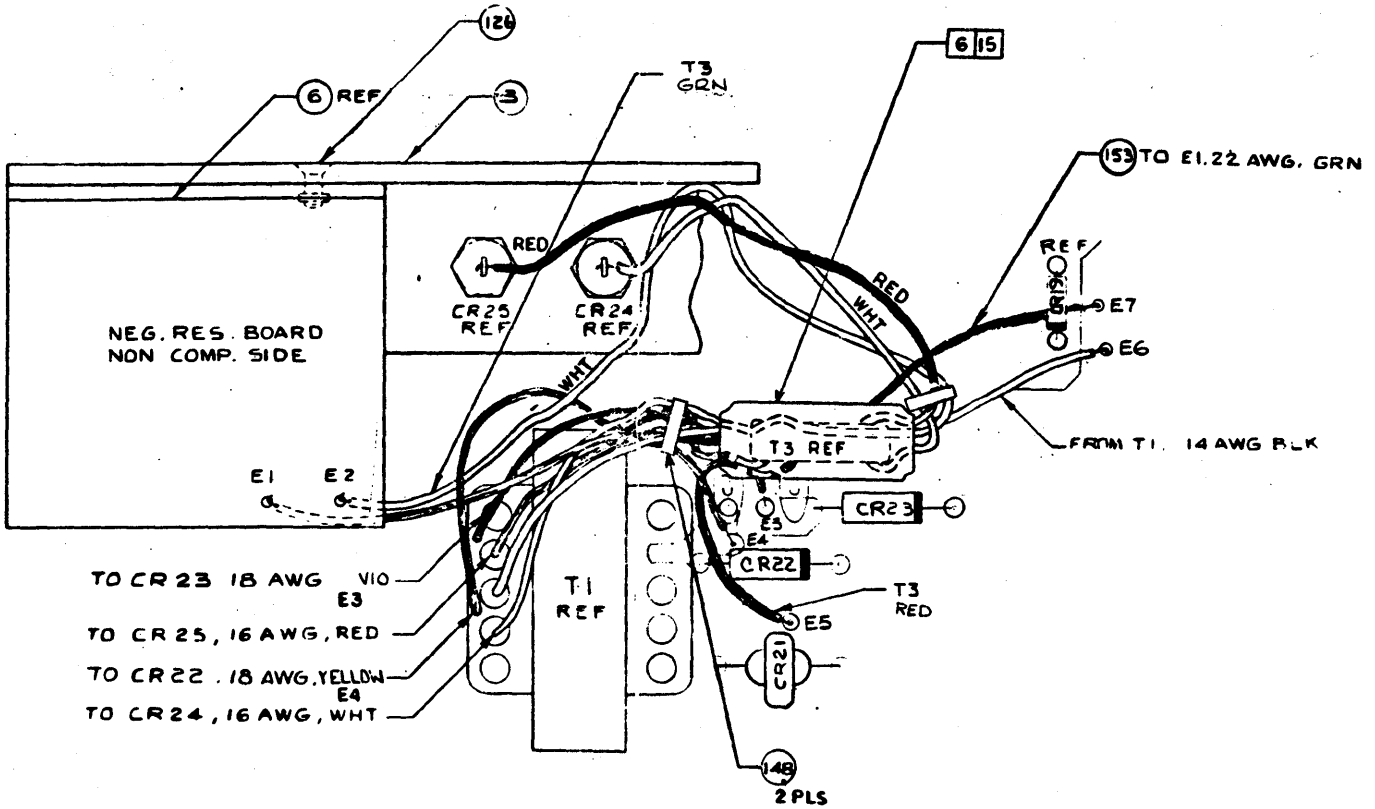
SIZE **A** SCALE **NONE** SHEET **4**

ITEM	PART NO.	QTY		DESCRIPTION	QTY ISSUED	REF DES	
		-1	-2				
109	39-3920	1	1	THERMISTOR DISC, 10 $\Omega$ EPOXY DIPPED		RT1	
110							
111	38-3902	1	1	POT HORZ ADJ 5K 200V		R38	
112	53-7740	1	1	LABEL, DANGER HIGH VOLTAGE			
113	53-7881	1	1	LABEL, MODEL & SERIAL NO.			
114	53-10449	1	1	LABEL, 120 V/240V SELECTABLE			
115	53-10483	1	1	LABEL, WARNING TAG			
116	53-12459	1	1	LABEL, FUSE WARNING			
117	41-11151	4	4	STD, MTG HDW PRI, T0-220, CONDCT PEM STUD		Q1,2,10,11 (REF)	
118	41-14463	1	1	STD, MTG HDW SEC, T0-220, CONDCT PEM STUD		SCR-1 (REF)	
119	41-10925	2	2	STD, MTG HDW, DO-4 DIODE W/SLDR LUG		CR24,25 (REF)	
120	52-10614	1	1	STIFFENER 130W		C5,6,43,44 (REF)	
121	70-12065-01	3	3	SCREW, CROSS REC., 6-32 x 3/8			
122	41-10918	1	1	STD, MTG HDW P.C. BD SUPPORT GNDING			
123	41-10915	4	4	STD, MTG HDW P.C. BD SUPPORT NYLON			
124	74-7202	<sup>100</sup> /LB	<sup>100</sup> /LB	RTV			
125	73 11662	3	3	MOUNTING PAD		Q3,5,7	
126	70-7608	1EA	1EA	SCREW, CROSS REC. HD. 6-32 x 1/4"			
127							
128	73-11428-01	4	4	SPACER, NYLON		L2	
129							
130	74-7765	.01	LBS.	THERMAL, COMPOUND			
131							
132	71-14465-01	1	1	P.C.B. PEM NUT SS 6-32 THREAD			
133	70-12891-03	5	5	PEM STUD 4-40 THREAD			
134							
135							
TITLE POWER SUPPLY MODEL: 0L130-3022R/4022R						DRAWING NO 45-10451-01/02	REV T
				SIZE A	SCALE NONE	SHEET	5



ITEM	PART NO.	QTY		DESCRIPTION	REF DES
		-1	-2		
136					
137					
138					
139					
140					
141					
142					
143					
144	84-6009	1	1	TERM PIN MALE LARGE	E1
145					
146	73-7982	1	1	JUMPER, FEMALE, 6.00 LG, YEL	JP2
147					
148	76-7500	2	2	TIE WRAP, SMALL	
149					
150					
151	87-7973	3	3	WIRE 22 AWG, BARE, .20 LG	JP4,5,6
152	87-7959	2	1	WIRE, 22 AWG, BARE, .50 LG	JPI,3
153	87-7413	1	1	WIRE 22 AWG GRN, 6.50 LG, 1/4 X 1/4	
154	87-7930	2	2	WIRE, 22 AWG RED 1.50 LG, ULIC07	1/4 X 1/4
155					
156	84-7036	1	1	TERMINAL BLOCK 11 POSITION	TB1
157					
158	87-10517-29	3	3	TUBING, SHRINK, .750 ID X 1.00 LG	C1,2,3 (REF)
159					
160					
161	87-10443-06	2	2	TUBING, TEFLON, .05 ID X .75 LG	CR2,4 (REF)
162					

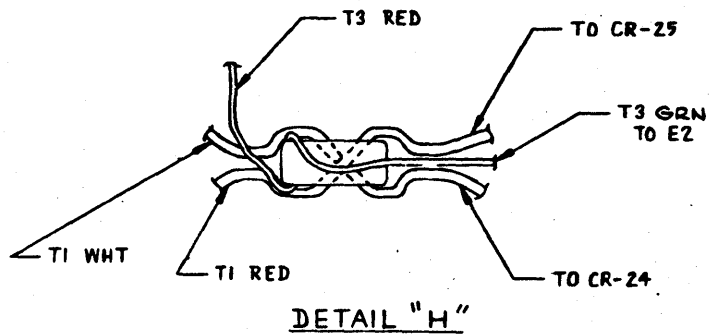
TITLE POWER SUPPLY MODEL: 0L130-3022R/4022R				DRAWING NO 45-10451-01/02		REV T
SIZE A	SCALE N/A	SHEET 6				



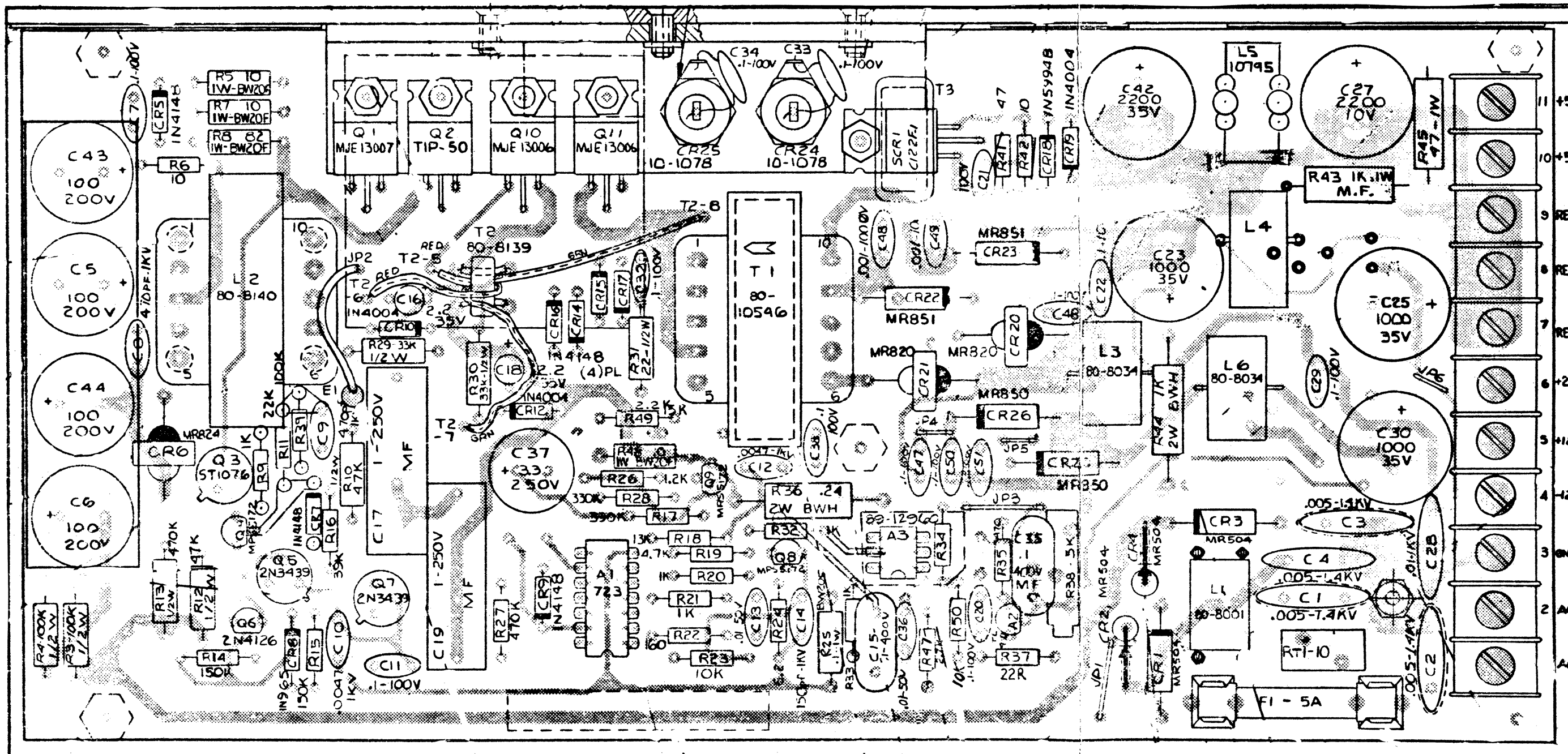
- TO CR 23 18 AWG VIO
- TO CR 25, 16 AWG, RED
- TO CR 22 .18 AWG, YELLOW
- TO CR 24, 16 AWG, WHT

**DETAIL "D"**  
NEGATIVE RESISTANCE & TRANSFORMER T3

WIRE CHART	
FROM	TO
T3 (GRN)	E2
T3 (RED)	E5
T1 (VIO)	E3
T1 (RED)	CR25
T1 (BLK)	E6
T1 (YEL)	E4
T1 (WHT)	CR24
E7 (GRN)	E1



**Power Supply Assembly**



Assembly No. 570-582.



