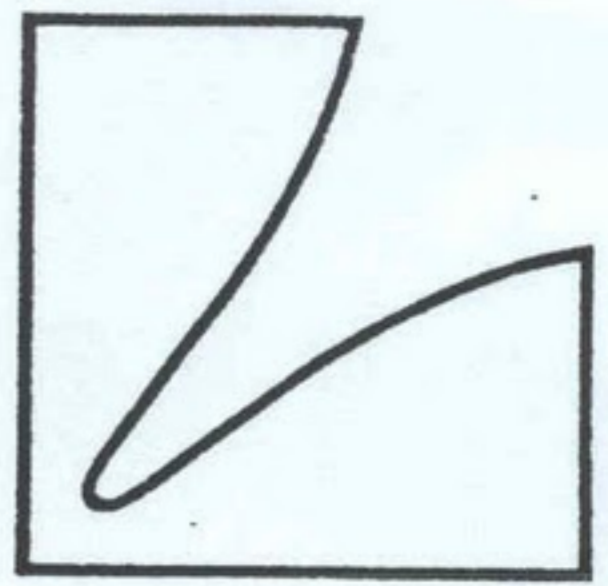
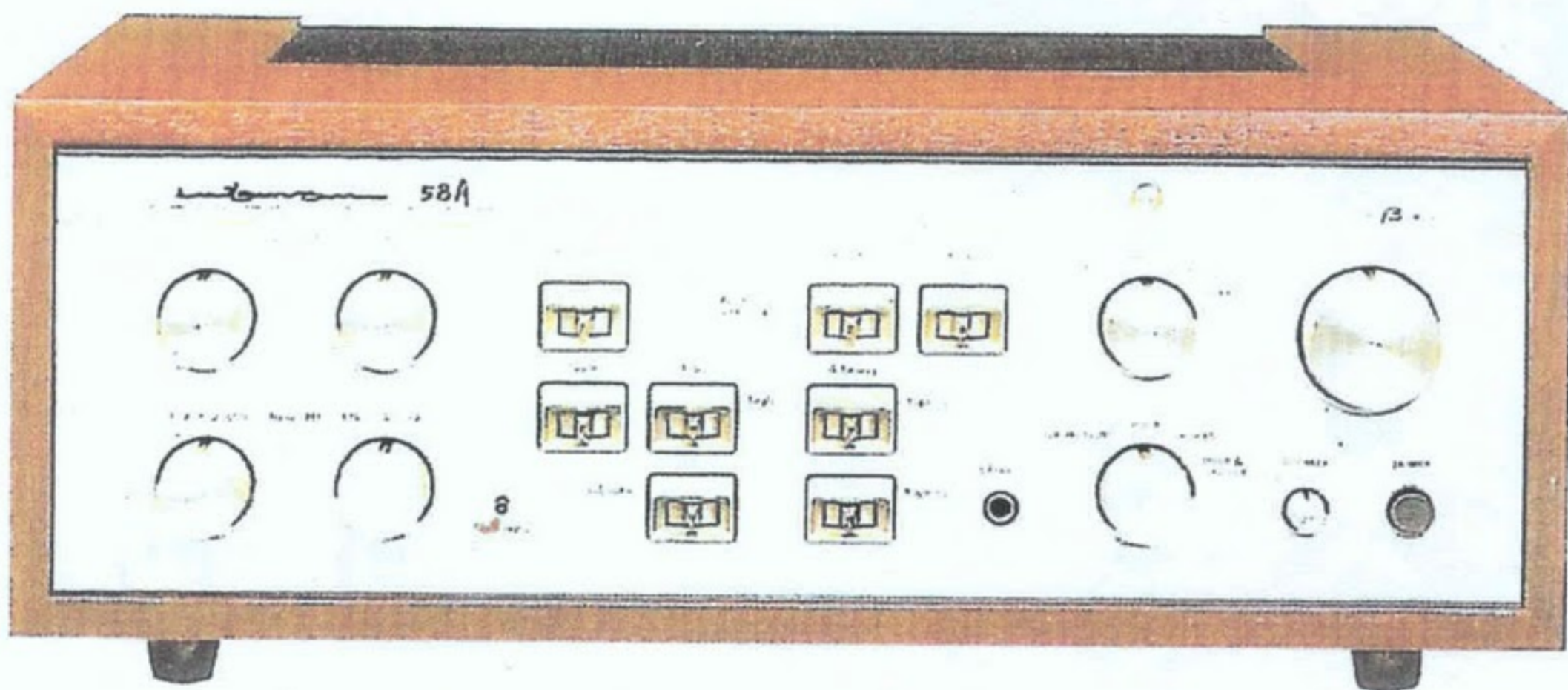


SERVICE MANUAL

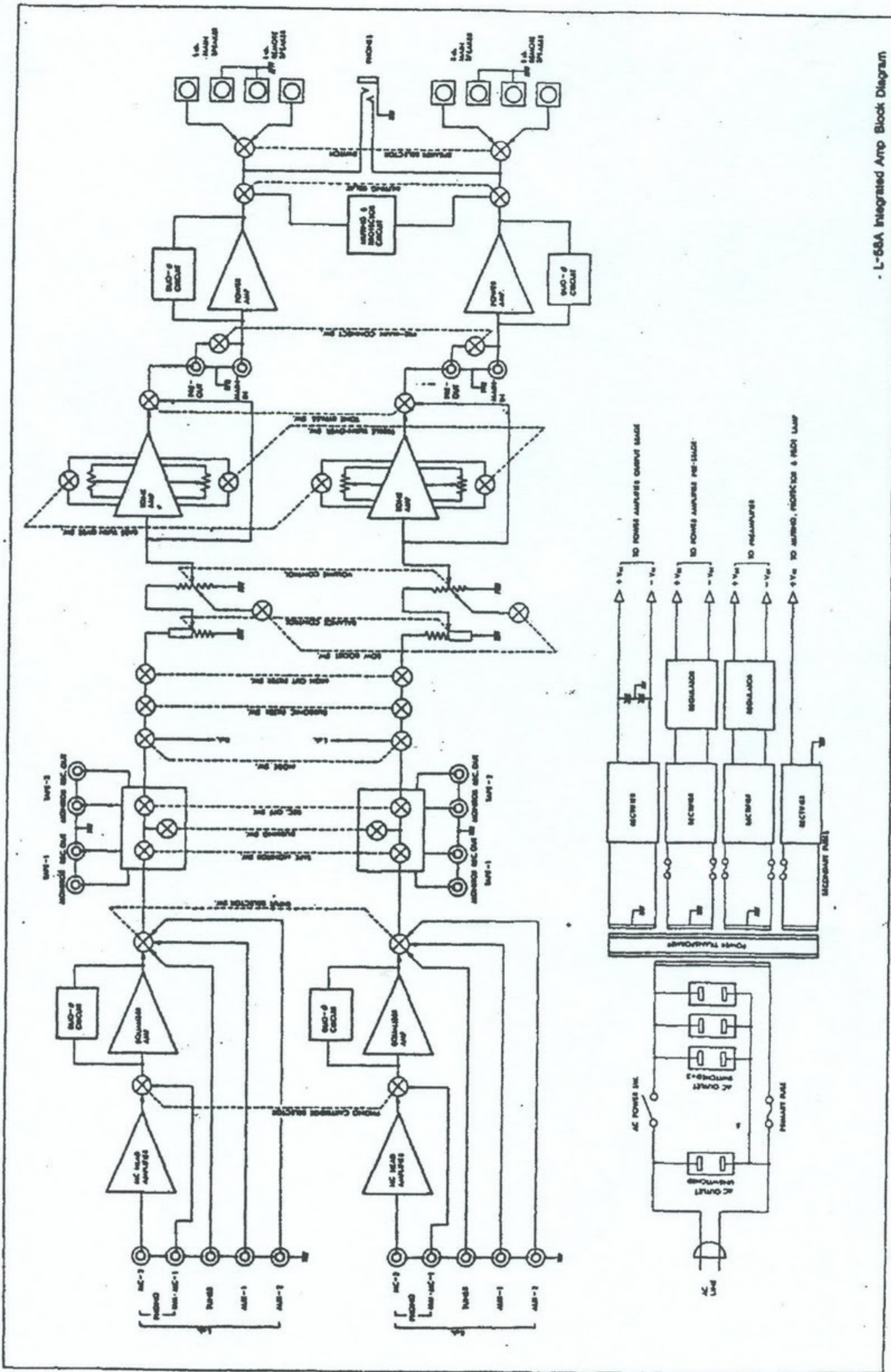


DUO-BETA CIRCUIT
INTEGRATED AMPLIFIER

L-58A

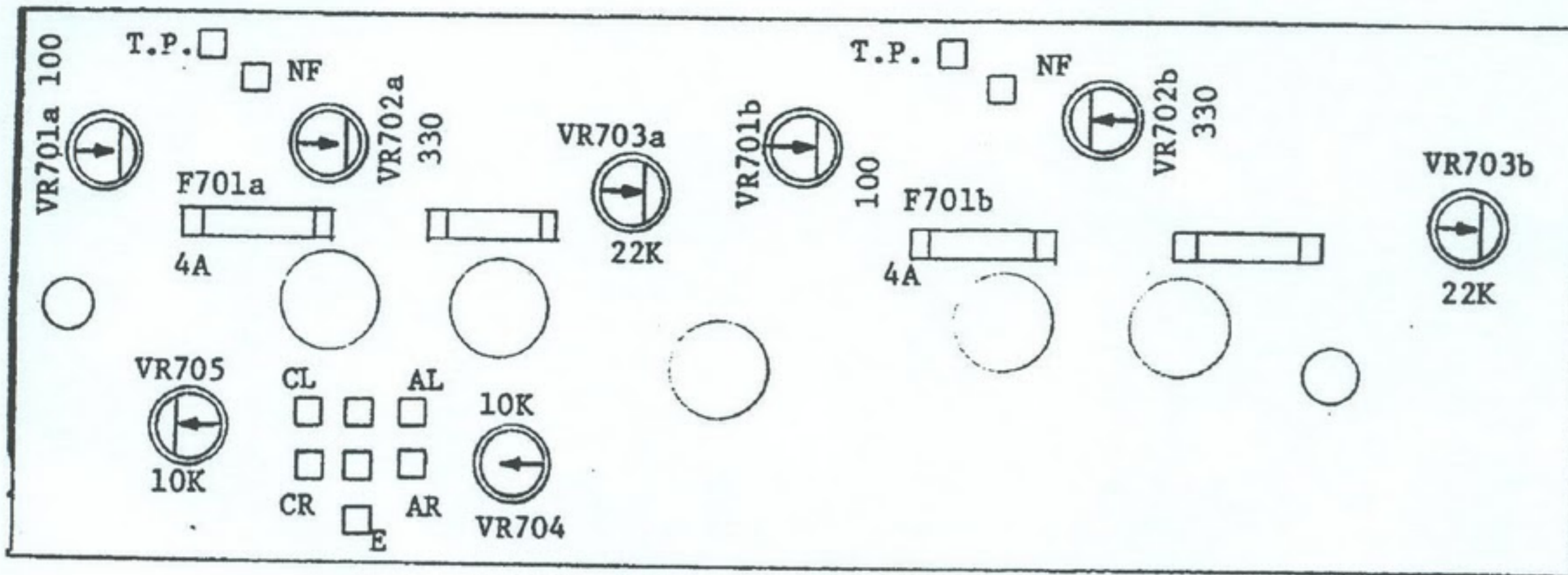


LUXMANS sätt att nedbringa den negativa motkopplingen, Duo Beta, måste ses som en milstolpe inom förstärkarterniken. Detta är de första integrerade förstärkarna i denna mycket exklusiva familj.



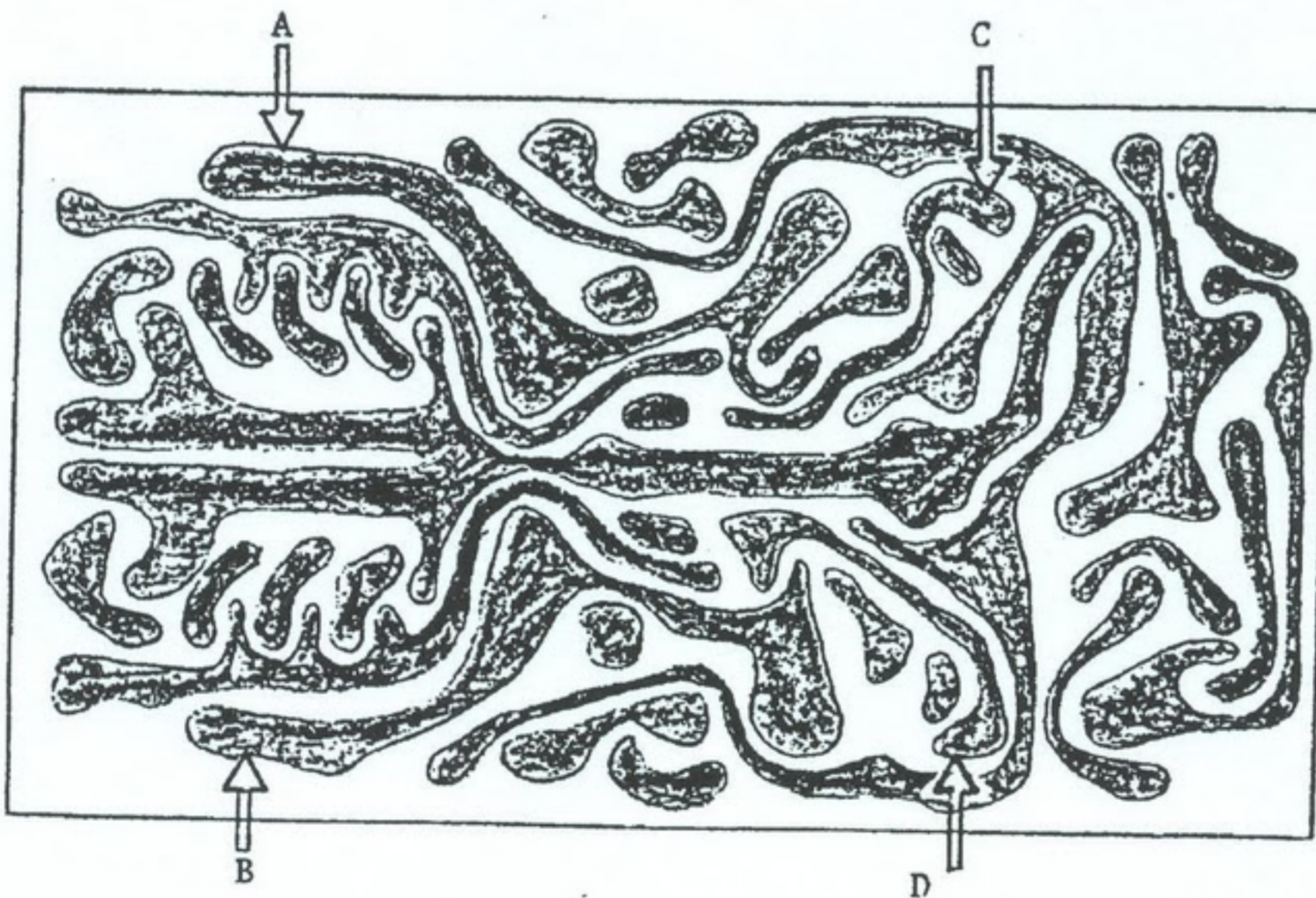
L-58A Integrated Amp Block Diagram

Adjustment Locations



----Fig. 1 ----

PB-1271



----Fig. 2 ----

L-58A Alignment Procedure

(1) DC Drift Adjustment (Main Amp Section)

1. Connect DC voltmeter to the unit without any dummy load.
2. Set each variable resistors to center positions.
3. Make earth connection of T.P. terminals for L and R channels respectively.
4. Switch on the unit, and adjust VR701a,b (100 ohm) to obtain $0\pm 50\text{mV}$ for L and R channels respectively.
5. Remove earth connection made in (3) and adjust the VR703a,b (22K ohm) to obtain $0\pm 5\text{mV}$ for L and R channels respectively.

(2) Quiescent Current Adjustment (Main Amp Section)

1. Remove fuse F701a,b (4A) and connect DC ampere meter capable of measuring over 1A across the fuse holder(connect plus lead of meter to +B2 terminal).
2. Switch off the unit, and only after one minute's lapse adjust VR702a,b (330 ohm) to obtain quiescent current of 250mA.

(3) AVR Adjustment(Aain Amp Section)

1. Connect DC voltmeter between either of AL or AR. and GND.
2. Adjust VR704 to obtain +70V.
3. Adjust VR705 to obtain -70V.

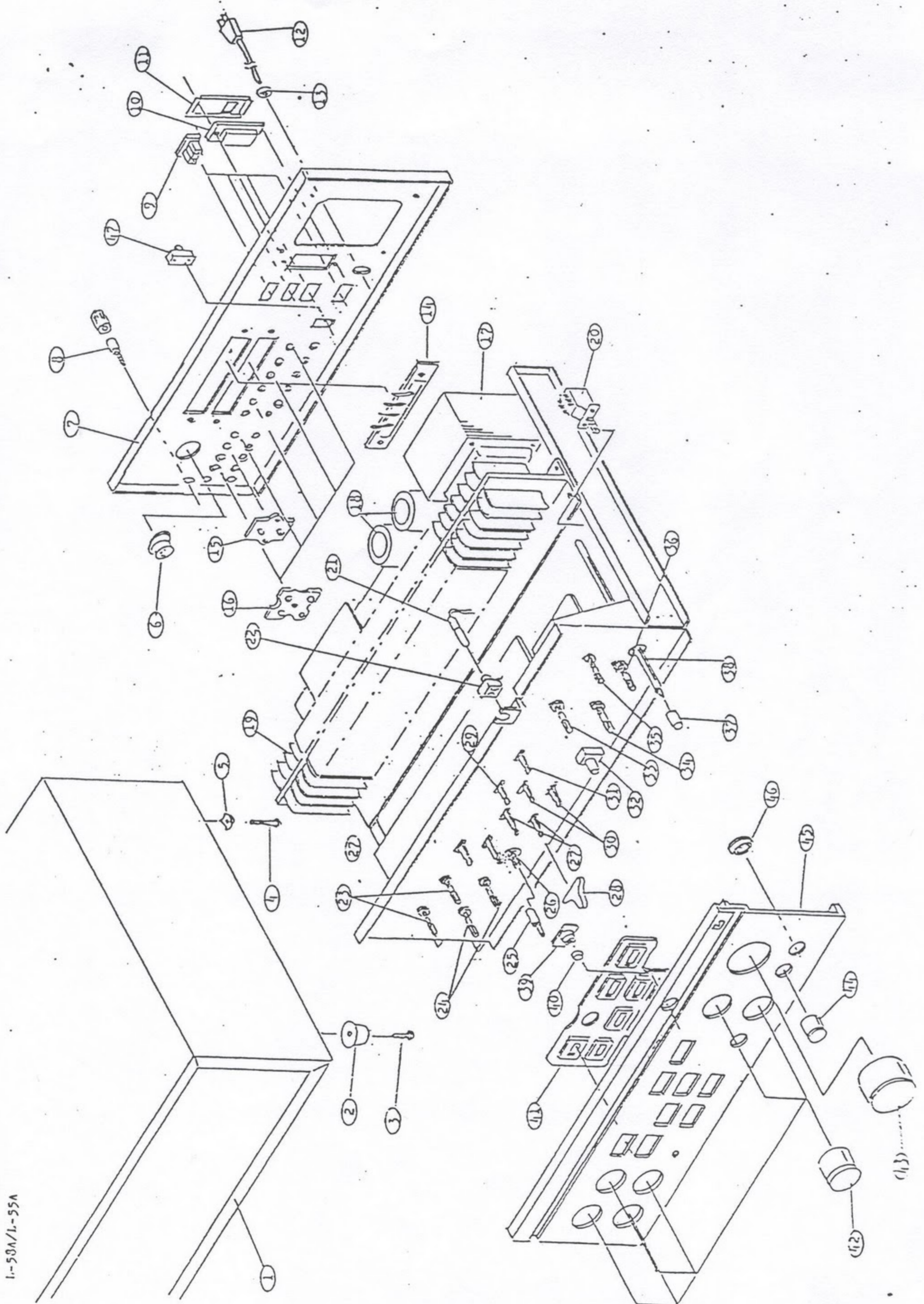
(4) AVR Adjustment (Pre Amp Section)

1. Connect DC voltmeter between +B1 and GND.
2. Adjust the VR801 to obtain +32V. Simultaneously confirm that $-32\text{V}\pm 2\text{V}$ can be obtained at -B1 terminal.

(5) Drain Voltage Adjustment On 2SK247(PB-1271)

1. Adjust VR101a,b (100 ohm) for C and D respectively to obtain 9V each at A and B patterns referring to copper-foil pattern side(fig. 2) of PB-1271.

Exploded View
1-50A/L-55A



Exploded View Parts List
Model :L-58A/L-55A

Symbol No.	Stock No.	Description	Q'ty	
1	WB1070	Wooden Case (E,J)	1	
	WB1089	Wooden Case (A)	1	
2	WB1005A	Ventilation (A)	4	
	WN1018	Foot	4	
3	YCG38A25	Screw, M3.8x25	4	
4	YAA40A25	Screw, M4x25	8	
5	UR1125	Bkt.	8	
6	AS0002	Socket, Din	1	
7	UC1141	Rear, Panel (L-55A)(J,U)	1	
	UC1142	Rear, Panel (L-55A)(S)	1	
	UC1143	Rear, Panel (L-55A)(E,A)	1	
	UC1136	Rear, Panel (L-58A)(J,U)	1	
	UC1137	Rear, Panel (L-58A)(S)	1	
	UC1138	Rear, Panel (L-58A)(E,A)	1	
	8	AG0110	Terminal, GND	1
	9	AC0010	AC Outlet (A,E)	4
AC0051		AC Outlet (U,J)	4	
10	AC0013	Socket, Voltage (A,E)	1	
	AC0014	Plug, Voltage (A,E)	1	
11	UJ1066	Cover (A,E)	1	
12	BK0019	AC Cord (AZ,EZ)	1	
	BK0023	AC Cord (AG)	1	
	BK0029	AC Cord (AK,EK)	1	
	BK0048	AC Cord (J)	1	
	13	BU0033	Bush, Cord (AZ,EZ)	1
13	BU0039	Bush, Cord (AK,EK,AG)	1	
	BU0080	Bush, Cord (J)	1	
14	AT0110	Terminal, SP	2	
15	AT0128	Pin Jack, 2P	1	
16	AT0127	Pin Jack, 4P	5	
17	PT2387	Trans, Power (L-58A)(J)	1	
	PT2426	Trans, Power (L-58A)(A,E)	1	
	PT2396	Trans, Power (L-55A)(J)	1	
	PT2425	Trans, Power (L-55A)(A,E)	1	
	18	CE1447	Cap, 63V 10,000uF (L-55A)	1
	CE1447A	Cap, 63V 10,000uF (L-55A)	1	
	CE1445	Cap, 80V 10,000uF (L-58A)	1	
	CE1445A	Cap, 80V 10,000uF (L-58A)	1	

Symbol No.	Stock No.	Description	Q'ty
19	BE1071	Heatsink (L-55A)	1
	BE1070	Heatsink (L-58A)	1
20	SPO063	SW, Power (J)	1
	SPO090	SW, Power (A,E)	1
21	AL0039	Lamp	1
22	WZ0002	Holder, Lamp	1
23	RVO233	VR, 50KBx2 (Tone)	2
24	SRO128	SW, Rotary (Tone)	2
25	WJ1127	Knob	1
26	SPO129	SW, Push SUF12	1
27	SLO050	SW, Lever	4
28	WJ1121	Knob	8
29	SLO051	SW, Lever	1
30	SLO052	SW, Lever	2
31	SLO053	SW, Lever	1
32	AJ0014	Jack HD	1
33	SRO125	SW, Rotary	1
34	SRO126	SW, Rotray	1
35	RVO256	VR, 60Kx2 (Volume)	1
36	RVO231	VR, 250KMN (Balance)	1
37	WJ1125	Knob, Power	1
38	UZ1166	Shaft	1
39	WG1011	Pilot	1
40	WG1004	Pilot	1
41	WD1128	Escutcheon	1
42	WH1097	Knob	6
43	WH1096	Knob (Volume)	1
44	WH1098	Knob (Balance)	1
45	WA1172	Front Panel(L-55A)	1
	WA1170	Front Panel(L-58A)	1
46	WE1051	Protector	1
47	SS0014	SW, Slide	1
*	ME0130	Owner's Manual(L-55A) (EX)	1
*	MA0114	Owner's Manual (L55A) (J)	1
*	ME0125	Owner's Manual (L-58A)(EX)	1
*	MA0109	Owner's Manual (L-58A)(J)	1

PB-1271T PCB Parts List

Stock No.	Description	Q'ty
BE1037	Heat Sink 1037	3
CE0095	Cap, (El) 100uF 35V	1
CE1064	Cap, (El) 470uF 35V	1
CE2040	Cap, (El) 10uF 50V	2
CE2042	Cap, (El) 47uF 50V	2
CQ0012T	Cap, (My) 0.027uF	1
CQ0267	Cap, (St) 100pF	2
CQ0953	Cap, (My) 1uF	1
CQ0954	Cap, (My) 2.2uF	2
RD0012	Res, (Rd) 270K 1/4W	1
RD0013	Res, (Rd) 220K 1/4W	2
RD0026	Res, (Rd) 22K 1/4W	1
RD0030	Res, (Rd) 10K 1/4W	2
RD0032	Res, (Rd) 8.2K 1/4W	2
RD0035	Res, (Rd) 4.7K 1/4W	2
RD0052	Res, (Rd) 220 1/4W	2
RD0056	Res, (Rd) 100 1/4W	2
RD0061	Res, (Rd) 47 1/4W	2
RD0133	Res, (Rd) 560 1/2W	2
RD0139	Res, (Rd) 100 1/2W	2
RD0437	Res, (Rd) 270K 1/3W	1
RD0438	Res, (Rd) 220K 1/3W	2
RD0450	Res, (Rd) 22K 1/3W	1
RD0454	Res, (Rd) 10K 1/3W	2
RD0455	Res, (Rd) 8.2K 1/3W	2
RD0458	Res, (Rd) 4.7K 1/3W	2
RD0458	Res, (Rd) 4.7K 1/3W	2
RD0472	Res, (Rd) 330 1/3W	2
RD0474	Res, (Rd) 220 1/3W	2
RD0478	Res, (Rd) 100 1/3W	2
RD0482	Res, (Rd) 47 1/3W	2
RD1531	Res, (Rd) 6.8 1/2W	4
RD1538	Res, (Rd) 39 1/2W	2
RT0094	Semi-VR CR19R-100B	2
TD0214	Diode, US1035	4
TF0027	FET, 2SK147-GR Pair	4
TR0286	Tr, 2SB649	2
TR5004	Tr, 2SC2240	1
TR5012	Tr, 2SD880	1

PB-1272T PCB Parts List

Stock No.	Description	Q'ty
BE1066	Heat Sink 1066	8
CE2041	Cap, (El) 22uF 50V	2
CE2042	Cap, (El) 47uF 50V	4
CM0127	Cap, (Mi) FM072C-560K5	2
CQ0031	Cap, (My) 0.033uF	2
CQ0170	Cap, (St) 470pF	2
CQ0258	Cap, (St) 680pF	6
CQ0267	Cap, (St) 100pF	6
CQ0953	Cap, (My) 1uF	2
CQ0954	Cap, (My) 2.2uF	6
CQ0955	Cap, (My) 3.3uF	2
CQ1202	Cap, (St) 6400pF	2
CQ1204	Cap, (St) 1800pF	2
RD0004	Res, (Rd) 1M 1/4W	8

Stock No.	Description	Q'ty
RD0009	Res, (Rd) 470K	4
RD0013	Res, (Rd) 220K	4
RD0015	Res, (Rd) 150K	2
RD0017	Res, (Rd) 100K 1/4W	4
RD0020	Res, (Rd) 68K 1/4W	2
RD0021	Res, (Rd) 56K 1/4W	2
RD0022	Res, (Rd) 47K	2
RD0023	Res, (Rd) 39K 1/4W	4
RD0024	Res, (Rd) 33K 1/4W	2
RD0024	Res, (Rd) 33K 1/4W	4
RD0027	Res, (Rd) 18K 1/4W	2
RD0028	Res, (Rd) 15K 1/4W	4
RD0030	Res, (Rd) 10K 1/4W	2
RD0041	Res, (Rd) 1.5K 1/4W	2
RD0046	Res, (Rd) 680 1/4W	2
RD0051	Res, (Rd) 270 1/4W	2
RD0053	Res, (Rd) 180 1/4W	2
RD0055	Res, (Rd) 120 1/4W	4
RD0058	Res, (Rd) 82 1/4W	4
RD0061	Res, (Rd) 47 1/4W	4
RD0066	Res, (Rd) 18 1/4W	4
RD0069	Res, (Rd) 10 1/4W	2
RD0135	Res, (Rd) 390 1/2W	2
RD0354	Res, (Rd) 1K 1/2W	2
RD0430	Res, (Rd) 1M 1/3W	8
RD0432	Res, (Rd) 680K 1/3W	2
RD0434	Res, (Rd) 470K 1/3W	2
RD0434	Res, (Rd) 470K 1/3W	6
RD0438	Res, (Rd) 220K	2
RD0440	Res, (Rd) 150K 1/3W	2
RD0442	Res, (Rd) 100K 1/3W	6
RD0444	Res, (Rd) 68K 1/3W	2
RD0445	Res, (Rd) 56K 1/3W	2
RD0446	Res, (Rd) 47K 1/3W	2
RD0447	Res, (Rd) 39K 1/3W	4
RD0448	Res, (Rd) 33K 1/3W	6
RD0451	Res, (Rd) 18K 1/3W	2
RD0452	Res, (Rd) 15K 1/3W	2
RD0454	Res, (Rd) 10K 1/3W	2
RD0464	Res, (Rd) 1.5K 1/3W	2
RD0468	Res, (Rd) 680 1/3W	2
RD0473	Res, (Rd) 270 1/3W	2
RD0475	Res, (Rd) 180 1/3W	2
RD0471	Res, (Rd) 120 1/3W	4
RD0479	Res, (Rd) 82 1/3W	4
RD0482	Res, (Rd) 47 1/3W	4
RD0487	Res, (Rd) 18 1/3W	4
RD0489	Res, (Rd) 10 1/3W	2
RD2147	Res, (Rd) 510K 1/3W	2
RV0233	VR, GJ60E-50KBx2	2
SR0125	Rotary SW, SRZW64S	1
SS0053L	Lever SW, 4-3S	1
TF0020	FET, 2SK163 L Pair	10
TR0090	Tr, 2SD756	2
TR0091	Tr, 2SA836 (TO-92)	12
TR0192	Tr, 2SB648	2
TR0196	Tr, 2SD668	4
TR0197	Tr, 2SB716	2
TV0030	Varistor, KB-265C4	12

Stock No.	Description	Q'ty	Stock No.	Description	Q'ty
CQ0067	Cap, (St) 1200pF	4	RT0095	Semi-VR CR19R-22K	2
CQ0950	Cap, (My) 0.068uF	2	SS126R	Rotary 4-4N	1
CQ0953	Cap, (My) 1uF	2	TC0128	IC, LF-356	2
CQ0956	Cap, (My) 4.7uF	4	TD0116	Diode, 1S2075 TP	5
CU0014	Cap, (Ac) 0.0042uF	2	TD0137	Bridge Diode, S1VB10	1
LA1020	Choke Coil, LUX-1020	2	TD0140	Bridge Diode, S1VB40	1
RD0002	Res, (Rd) 2.2M 1/4W	4	TD0141	Zener Diode BZ-340	2
RD0006	Res, (Rd) 820K 1/4W	2	TD0179	Diode S1S10	3
RD0007	Res, (Rd) 680K 1/4W	4	TD0180	Zener Diode BZ-150	2
RD0011	Res, (Rd) 330K 1/4W	4	TD0181	Zener Diode WZ-085	4
RD0019	Res, (Rd) 82K 1/4W	4	TF0020	FET, 2SK163 L pair	4
RD0020	Res, (Rd) 68K 1/4W	1	TF0023	FET, 2SJ44 L Pair	4
RD0025	Res, (Rd) 27K 1/4W	4	TR0008	Tr, 2SA562	1
RD0030	Res, (Rd) 10K 1/4W	1	TR0165	Tr, 2SC1775A	7
RD0032	Res, (Rd) 8.2K 1/4W	2	TR0176	Tr, 2SB595	1
RD0035	Res, (Rd) 4.7K 1/4W	2	TR0177	Tr, 2SD525	1
RD0039	Res, (Rd) 2.2K 1/4W	3	TR0192	Tr, 2SB648	4
RD0043	Res, (Rd) 1K 1/4W	2	TR0196	Tr, 2SD668	4
RD0048	Res, (Rd) 470 1/4W	12	TR0218	Tr, 2SA872A	7
RD0052	Res, (Rd) 220 1/4W	2	TR0227	Tr, 2SA941	1
RD0054	Res, (Rd) 150 1/4W	2	TR0234	Tr, 2SC2088	4
RD0056	Res, (Rd) 100 1/4W	4	TR0236	Tr, 2SC2229	1
RD0061	Res, (Rd) 47 1/4W	4	TR0237	Tr, 2SA949	1
RD0065	Res, (Rd) 22 1/4W	8	TR0292	Tr, 2SD756A	2
RD0069	Res, (Rd) 10 1/4W	1	TR0293	Tr, 2SB716A	2
RD0431	Res, (Rd) 820K 1/3W	2	TV0030	Varistor, KB-265C4	6
RD0432	Res, (Rd) 680K 1/3W	4			
RD0436	Res, (Rd) 330K 1/3W	4			
RD0443	Res, (Rd) 82K 1/3W	4			
RD0444	Res, (Rd) 68K 1/3W	1			
RD0449	Res, (Rd) 27K 1/3W	4			
RD0454	Res, (Rd) 10K 1/3W	1			
RD0455	Res, (Rd) 8.2K 1/3W	2			
RD0458	Res, (Rd) 4.7K 1/3W	2			
RD0462	Res, (Rd) 2.2K 1/3W	3			
RD0466	Res, (Rd) 1K 1/3W	3			
RD0470	Res, (Rd) 470 1/3W	12			
RD0474	Res, (Rd) 220 1/3W	2			
RD0476	Res, (Rd) 150 1/3W	2			
RD0478	Res, (Rd) 100 1/3W	4			
RD0482	Res, (Rd) 47 1/3W	4			
RD0486	Res, (Rd) 22 1/3W	8			
RD0489	Res, (Rd) 10 1/3W	1			
RD2162	Res, (Rd) 2.2M 1/3W	4			
RD2574	Res, (Rd) 470 1/2W	2			
RD2590	Res, (Rd) 2.2K 1/2W	4			
RD2604	Res, (Rd) 8.2K 1/2W	2			
RD2616	Res, (Rd) 27K 1/2W	2			
RD2624	Res, (Rd) 56K 1/2W	4			
RG0500	Res, () 15 5W	2			
RG1500	Res, (Rc) RGB-5 R1K	4			
RS1281	Res, (Rd) 100 1/3W	4			
RS1284	Res, (Rd) 150 1/3W	4			
RS1296	Res, (Rd) 470 1/3W	8			
RS2516	Res, (Rf) 220 1/2W	8			
RS2709	Res, (Rf) 10 1W	2			
RS5035	Res, (Rf) 1K 1W	2			
RT0009	Semi-VR SR19R-10KB	2			
RT0020	Semi-VR CR19R-330B	2			
RT0090	Semi-VR SR19R-100B	2			

PB-1278T PCB Parts List

Stock No.	Description	Q'ty
CE0079	Cap, (E1) 220uF 16V	1
CE0096	Cap, (E1) 220uF 35V	2
CE1088	Cap, (E1) 220uF 63V	1
CE1090	Cap, (E1) 470uF 63V	2
CE2042	Cap, (E1) 47uF 50V	2
CM0137	Cap, (M1) FM05ZC-3R0K05	2
CQ0691	Cap, () ECQ-E1104KA	2
RD0023	Res, (Rd) 39K 1/4W	2
RD0024	Res, (Rd) 33K 1/4W	4
RD0028	Res, (Rd) 15K 1/4W	1
RD0030	Res, (Rd) 10K 1/4W	2
RD0032	Res, (Rd) 8.2K 1/4W	1
RD0037	Res, (Rd) 3.3K 1/4W	1
RD0047	Res, (Rd) 560 1/4W	2
RD0048	Res, (Rd) 470 1/4W	2
RD0106	Res, (Rd) 100K 1/2W	2
RD0447	Res, (Rd) 39K 1/3W	2
RD0448	Res, (Rd) 33K 1/3W	4
RD0452	Res, (Rd) 15K 1/3W	1
RD0454	Res, (Rd) 10K 1/3W	2
RD0455	Res, (Rd) 8.2K 1/3W	1
RD0460	Res, (Rd) 3.3K 1/3W	1
RD0469	Res, (Rd) 560 1/3W	2
RD0470	Res, (Rd) 470 1/3W	2
RS2877	Res, (Rf) 4.7K 1W	2
RT0100	Semi-VR SR19R-2.2KB	1
TD0060	Zener Diode WZ-061 T8	1
TD0116	Diode, 1S2075 TP	3
TD0142	Bridge Diode S1VB20	1

Stock No.	Description	Q'ty
TR0091	Tr, 2SA836 (TO-92)	3
TR0174	Tr, 2SC1345 (TO-92)	3
TR0236	Tr, 2SC2229	1
TR0237	Tr, 2SA949	1
TV0030	Varistor, KB-265C4	2

Electrolytic Parts List

Stock No.	Description	Q'ty
TF0021	Power FET, 2SJ49	2
TF0022	Power FET, 2SK134	2
TR0290	Power Tr, 2SA1135	1
TR0291	Power Tr, 2SC2665	1

Packing Material Parts List

Stock No.	Description	Q'ty
XA1230	Packing Case	1
XB1031-1	Styrol	2
MA0109	Owner's Manual (J)	1
ME0125	Owner's Manual	1

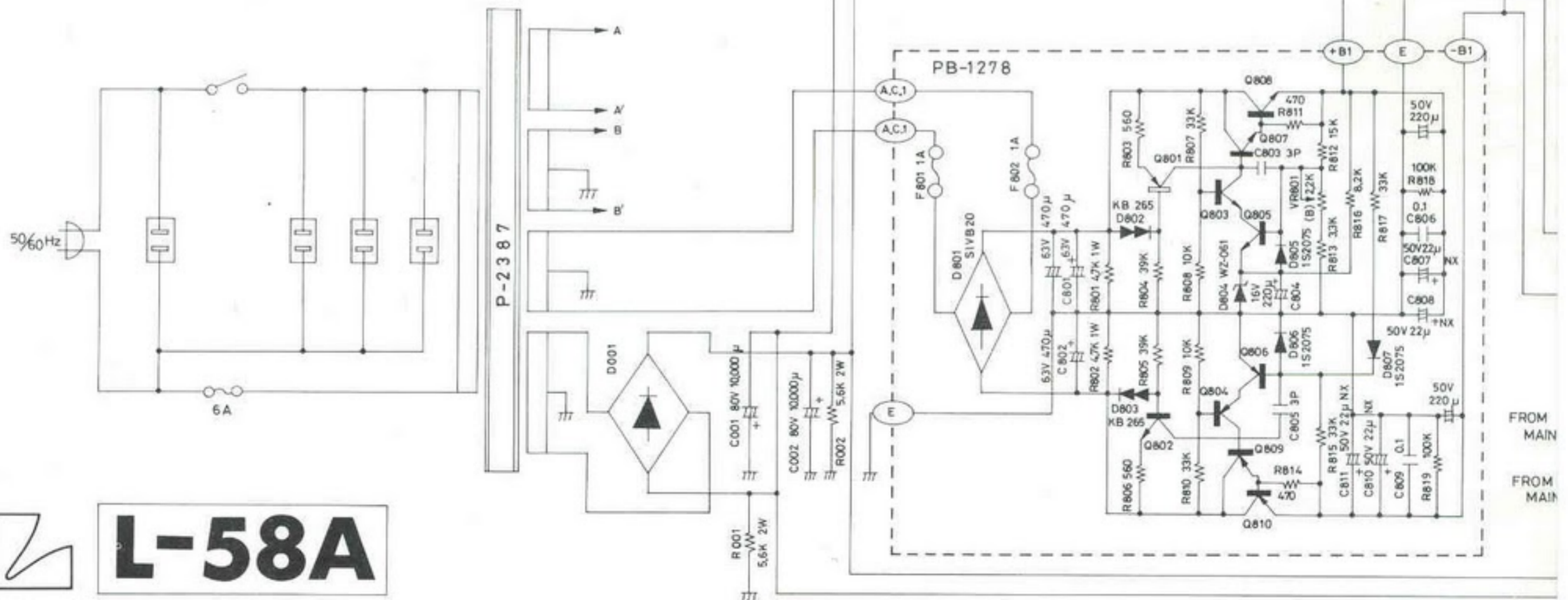
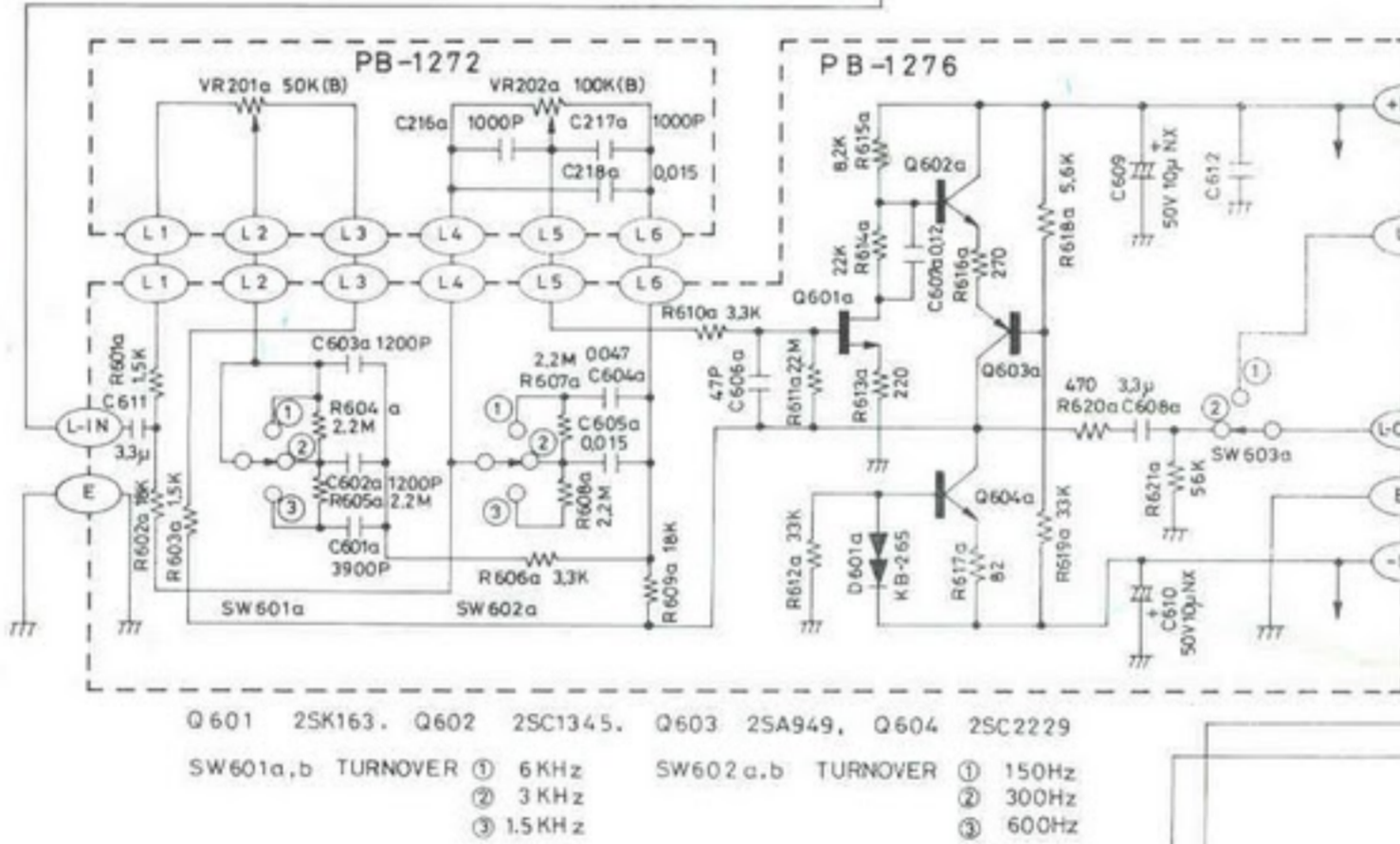
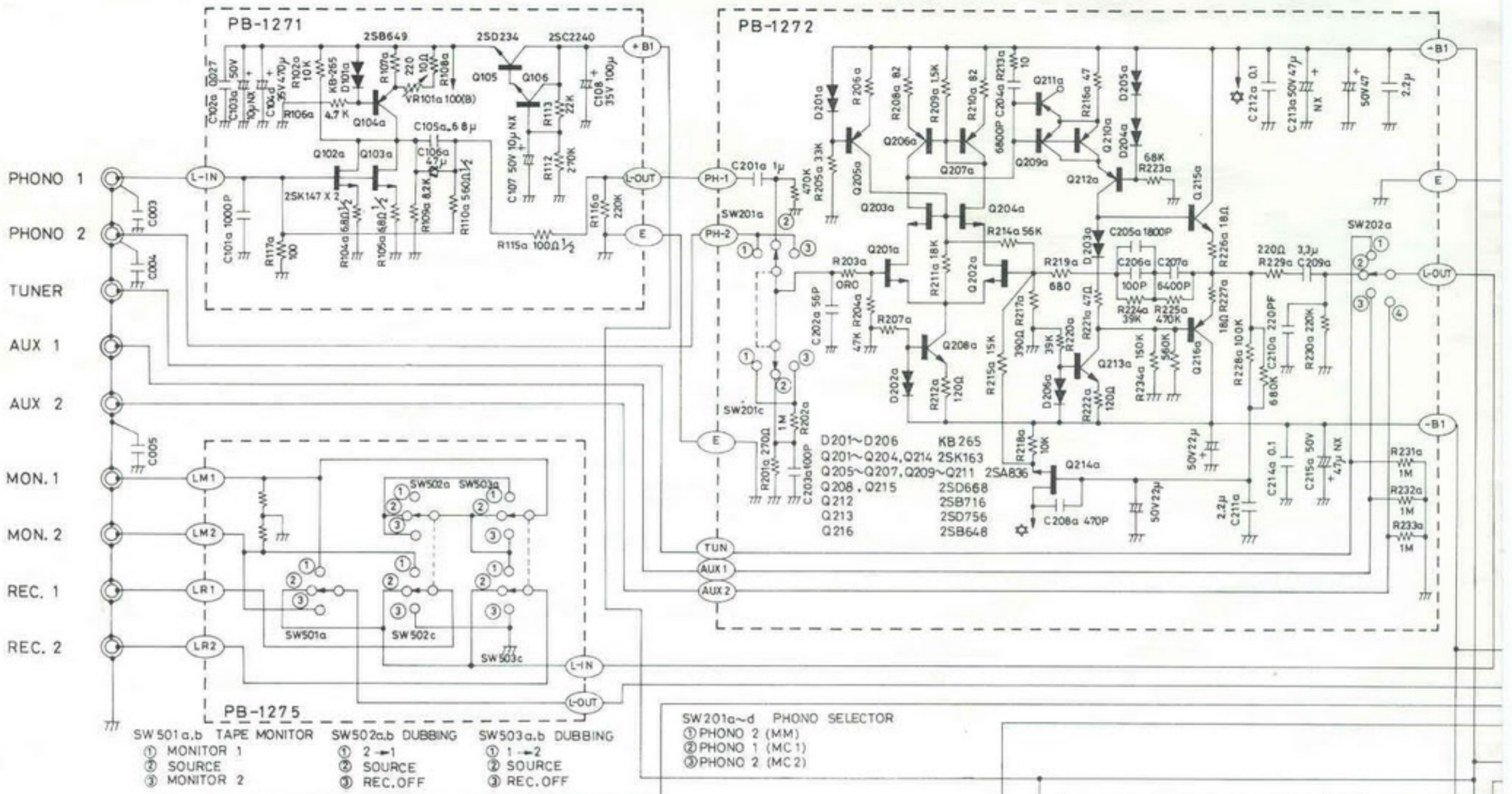
Remarks

Resistor: Rd...Carbon
Rf...Frame Proof.
Rc...Cement
Capacitor: El...Electrolytic
My...Mylar
Mi...Mica
St...Styrol
Ac...AC

Specifications

- * Power Output: 100 watts minimum continuous per channel
both channels driven into 8 ohms load, at
any frequency from 20Hz to 20,000Hz with
no more than 0.015% total harmonic distortion.
- * Rated I.M.: no more than 0.015%
(8 ohms, 100W/ch, 60Hz : 7kHz = 4 : 1)
- * Input Sensitivity: phono(MM); 1.5mV
phono(MC-1); 1.5mV [direct to EQ stage]
phono(MC-1); 0.05mV (2 ohms) ~ 0.15mV (40 ohms)
tuner; 220mV
aux-1, -2; 220mV
main in; 220mV
- * Input Impedance: phono(MM); 50k ohms
phono(MC-1); 100 ohms
tuner; 20k ohms
aux-1, -2; 20k ohms
main in; 820k ohms
- Signal-to-Noise Ratio:
(IHF-A wtd, input short-
circuited) phono(MM); better than 80dB
phono(MC-1); better than 80dB
tuner; better than 100dB
aux-1, -2; better than 100dB
main in; better than 100dB
- * Frequency Response: phono(MM); 20Hz ~ 20,000Hz (± 0.2 dB)
phono(MC-1); 20Hz ~ 20,000Hz (± 0.2 dB)
tuner; 10Hz ~ 100,000Hz (-1 dB)
aux-1, -2; 10Hz ~ 100,000Hz (-1 dB)
main in; 10Hz ~ 100,000Hz (-1 dB)
- * Tone Control: LUX NF type with turnover frequency selector
Bass Turnover Frequency: 150Hz, 300Hz, 600Hz
Treble Turnover Frequency: 1.5kHz, 3kHz, 6kHz
- * Preamp Output: 220mV (impedance: 220 ohms)
- * Additional Features: Subsonic Filter (15Hz, off, 30Hz), High Cut Filter
(9kHz, off, 15kHz), Low-boost Switch (70Hz, off,
150Hz), Tape Monitor Switch, Tape Dubbing & REC.
OFF Switch, Speaker Selector Switch, Headphone
Jack, Extra AC Outlet
- * Dimensions: 466(W) x 378(D) x 181(H)mm
(18-11/32" x 14-1/2" x 7-1/8")
(including legs, front & rear protrusions)
- * Weight: Net 15.3 kgs (33.7 lbs.)
Gross 17.0 kgs (37.4 lbs.)

Specifications and appearance design subject to change without notice.



L-58A

