

# SERVICE MANUAL



# FISHER

INTEGRATED DIGITAL  
AMPLIFIER WITH RCA-9060  
WIRELESS REMOTE CONTROL

## CA-9060

(EUROPE)



132 354 40

## SPECIFICATIONS

RCA-9060  
Wireless Remote Control ..... 48 Buttons

### POWER AMPLIFIER SECTION

Minimum RMS sine wave power per channel  
within the stated bandwidth at no more than the stated  
distortion and with an 8-ohm load ..... DIN 100 Watts  
Power Bandwidth ..... 40 Hz - 12.5 kHz  
Total Harmonic Distortion ..... 0.02 %  
I.M. Distortion ..... 0.02 %  
Speaker Damping ..... > 30

### DIGITAL INPUT SECTION

Optical Input ..... -15 ~ -21 dBm  
Coaxial Input ..... 0.5 Vpp (75Ω)  
Sampling Frequency ..... 32 kHz, 44.1 kHz, 48 kHz

### PREAMPLIFIER SECTION

Frequency Response  
Phono (RIAA) ..... ±1 dB  
AUX (20 Hz - 20 kHz) ..... ±0.5 dB

### Input Sensitivity and Impedance

Phono ..... 2.5 mV/50 kΩ  
Tape Monitor 1,2,3 ..... 150 mV/50 kΩ  
Tuner/AUX/CD ..... 150 mV/50 kΩ  
Phono Maximum Input Capability ..... 160 mV  
Tone Control  
(100 Hz, 1 kHz, 10 kHz) ..... ±10 dB  
Subsonic Filter (Below 20 Hz) ..... -12 dB/Oct.  
Loudness Contour (100 Hz/10 kHz) ..... +8 dB/+4 dB  
Hum and Noise (IHF Short Circuit, A Network)  
Phono ..... 80 dB  
Tape Monitor 1,2,3 ..... 90 dB  
Tuner/AUX/CD ..... 90 dB

### GENERAL

Power Requirements ..... AC 220 V  
(50 Hz) ..... 500 W  
AC Outlets (Switched) ..... 2  
Dimensions (WxHxD) ..... 440 x 146 x 340 mm  
Weight (Approximate) ..... 12.0 kg

- Specifications and design are subject to change without notice. -

REFERENCE No. WM-570347

# POWER AMPLIFIER ADJUSTMENT

## BEFORE ADJUSTMENT

Unplug the AC power cord and set the front panel controls as follows:

- Power switch to OFF position.
- Set the SPEAKERS switch to the OFF position.
- Turn the MASTER VOLUME Control to minimum.
- IDLING CURRENT ADJUSTMENT VR301/VR302 (on the Main P.C.Board) setting to mechanical center position.
- Connect the AC power cord and Power switch to the ON position.

## IDLING CURRENT ADJUSTMENT

This adjustment is very sensitive to changes in ambient temperature. Allow set to operate for 2 minutes before attempting this alignment.

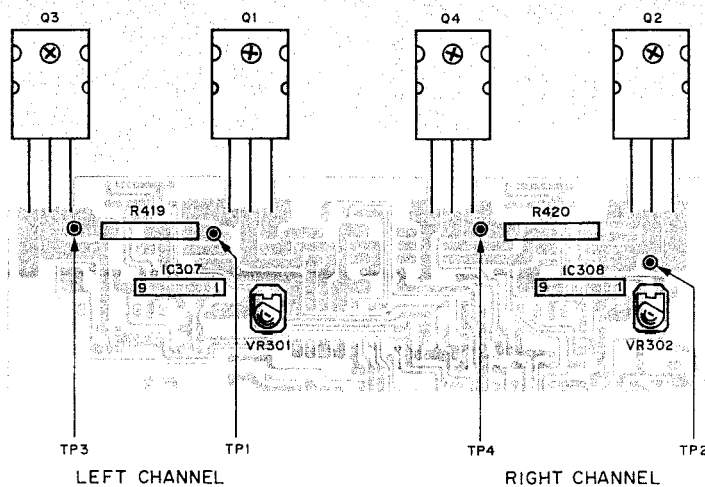
### LEFT CHANNEL AMPLIFIER

1. Connect the DC Voltmeter between Test Point TP1 and TP3 on the Main P.C.Board.
2. Adjust the VR301 for an indication of  $15\text{mV} \pm 5\text{mV}$  on the DC Voltmeter.

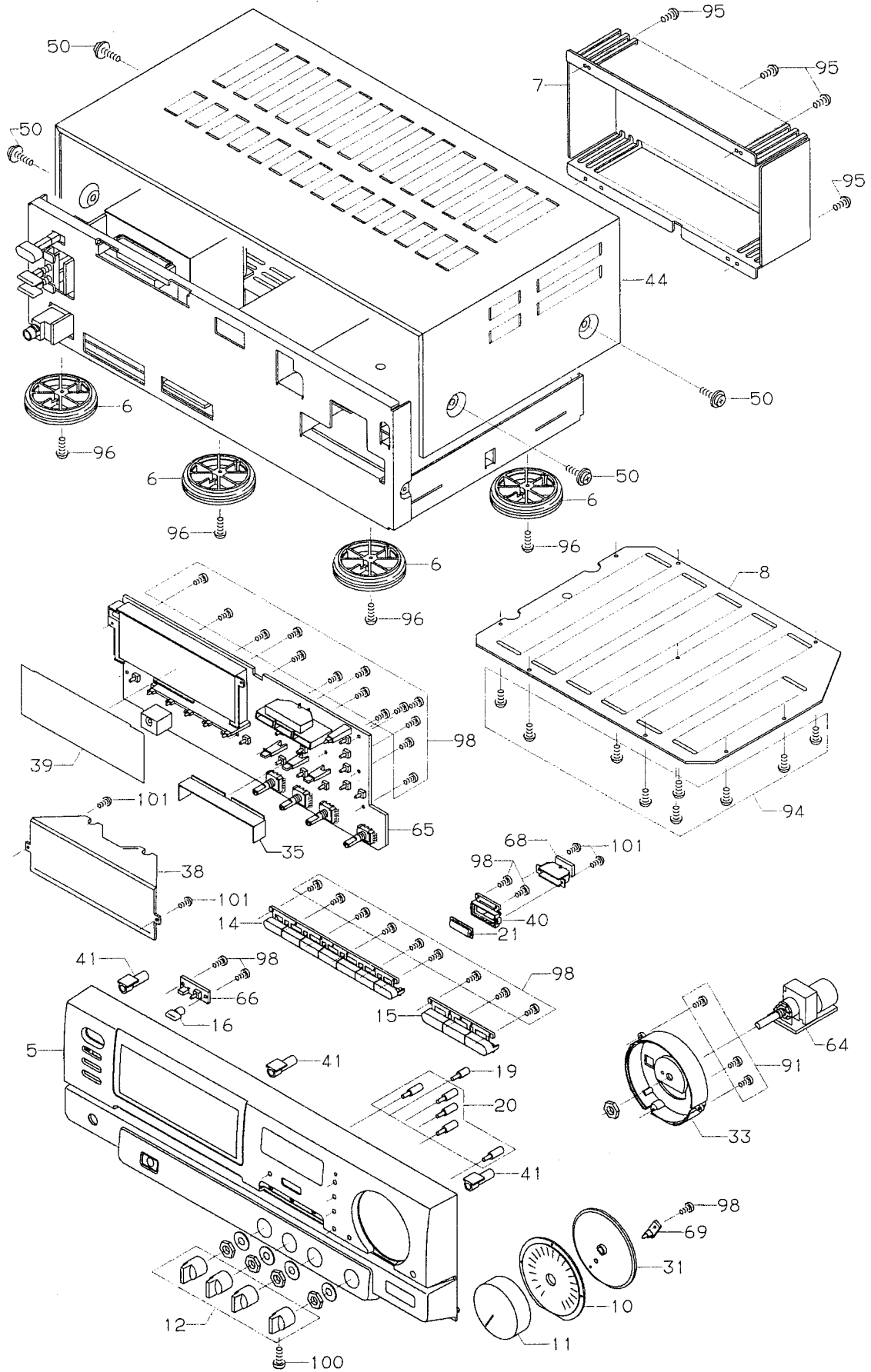
### RIGHT CHANNEL AMPLIFIER

1. Connect the DC Voltmeter between Test Point TP2 and TP4 on the Main P.C.Board.
2. Adjust the VR302 for an indication of  $15\text{mV} \pm 5\text{mV}$  on the DC Voltmeter.

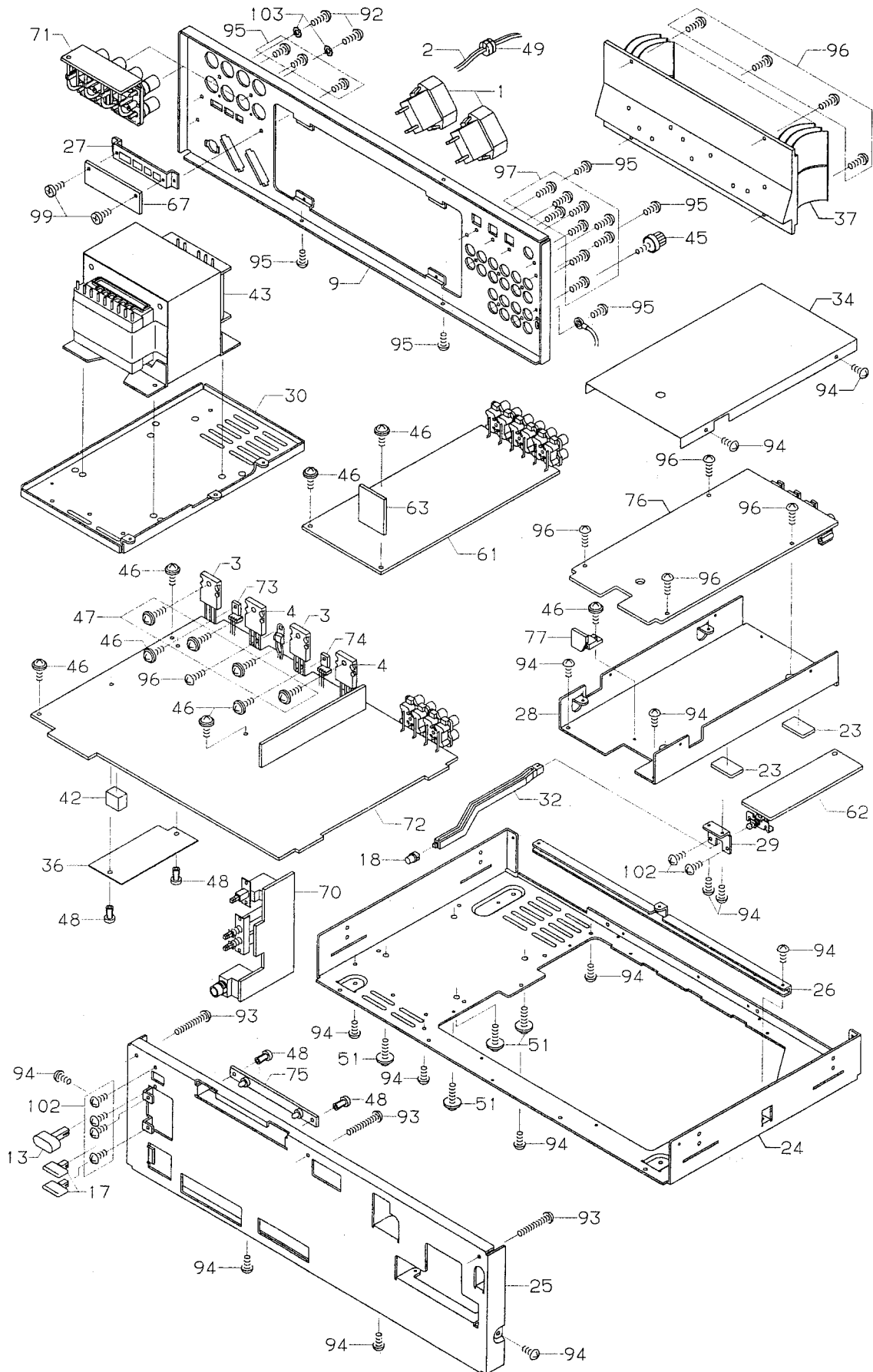
## ADJUSTMENT POINTS



# CABINET & CHASSIS EXPLODED VIEW (1)



# CABINET & CHASSIS EXPLODED VIEW (2)



# CABINET & CHASSIS PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>PACKAGE</b>				61	620 202 7487	Assy,PCB,Input	1
	620 202 5810	Outer Carton	1	62	620 202 7494	Assy,PCB,Phono EQ.	1
	620 204 7997	Pad,Left	1	63	620 202 7500	Assy,PCB,Flat Amplifier	1
	620 204 8000	Pad,Right	1	64	620 202 7517	Assy,PCB,Volume	1
	620 059 6596	Patching Sheet	1	65	620 202 7524	Assy,PCB,Control	1
	620 148 8012	Sheet Polyethylene	1	66	620 202 7531	Assy,PCB,Standby Switch	1
	620 152 7452	Serial No. Sheet	2	67	620 202 7555	Assy,PCB,Remocon	1
<b>ACCESSORIES</b>				68	620 202 7562	Assy,PCB,DIG Lamp	1
	620 204 4323	Assy,Poly Cover	1	69	620 202 7579	Assy,PCB,Volume Indicator	1
	620 021 2373	Plug 1P	2	70	620 202 7586	Assy,PCB,Speaker Switch	1
	620 204 4644	Remocon,RCA-9060	1	71	620 202 7593	Assy,PCB,Speaker Terminal	1
	620 204 4224	Instruction Manual	1	72	620 202 7609	Assy,PCB,Main	1
	620 057 8783	Bag Fan	1	73	620 202 7616	Assy,PCB,Bias,Left	1
	620 062 0543	Serial No. Sheet	1	74	620 202 7623	Assy,PCB,Bias,Right	1
	620 152 2624	Certificate Card	1	75	620 202 7630	Assy,PCB,Lamp	1
				76	620 202 7654	Assy,PCB-W,DAC	1
				77	620 202 7678	Assy,PCB-W,5V	1
<b>CABINET</b>				91	411 020 5706	SCR S-TPG BRZ 2.6X8	3
	620 022 3492	Terminal Lug	1	92	411 099 9506	SCR S-TPG BRZ 3X10	2
	620 125 8424	Wire Band	23	93	411 020 7304	SCR S-TPG BRZ 3X30	3
	620 152 7452	Serial No. Sheet	1	94	411 020 7700	SCR S-TPG BRZ 3X6	24
1	△ 620 017 1212	AC Socket	2	95	411 099 9704	SCR S-TPG BRZ 3X6	12
2	△ 620 023 7550	Power Cord	1	96	411 020 8004	SCR S-TPG BRZ 3X8	13
3	405 003 4008	TR 2SA1302-O [Q3]	1	97	411 099 9803	SCR S-TPG BRZ 3X8	6
or	405 031 2205	TR 2SA1302-R	1	98	411 021 0809	SCR S-TPG BIN 2X6	29
3	405 003 4008	TR 2SA1302-O [Q4]	1	99	411 021 2704	SCR S-TPG BIN 2.6X6	2
or	405 031 2205	TR 2SA1302-R	1	100	411 021 6603	SCR S-TPG BIN 3X8	1
4	405 017 7804	TR 2SC3281-O [Q1]	1	101	411 022 7708	SCR S-TPG PAN 2X5	4
or	405 017 7903	TR 2SC3281-R	1	102	411 002 8503	SCR PAN 3X6	6
4	405 017 7804	TR 2SC3281-O [Q2]	1	103	411 085 2405	WASHER Out TW 3	2
or	405 017 7903	TR 2SC3281-R	1				
5	620 202 5865	Assy,Cabinet	1				
6	620 198 6969	Assy,Foot	4				
7	620 202 5797	Cover,Heat Sink	1				
8	620 199 6470	Plate,Bottom	1				
9	620 202 5421	Panel,Rear	1				
10	620 198 0813	Dial Scale	1				
11	620 198 0769	Knob,Rotary,Volume	1				
12	620 198 0776	Knob,Rotary,Equalizer	4				
13	620 198 6938	Knob,Power	1				
14	620 199 3868	Knob,Function	1				
15	620 199 3875	Knob,Touch	1				
16	620 198 0745	Button,Stand BY	1				
17	620 198 0752	Button,Push (Speakers Select)	2				
18	620 198 4866	Button,Push	1				
19	620 198 4897	Button,Tact (Mode)	1				
20	620 199 3882	Button,Tact	4				
21	620 199 4018	Button,Clear	1				
23	620 199 5275	Foot,Felt	2				
24	620 199 6463	Chassis	1				
25	620 202 5407	Chassis,Front	1				
26	620 199 6494	Bracket-E,PCB	1				
27	620 199 6630	Bracket-E	1				
28	620 202 5308	Bracket-E,Digital P.C.B.	1				
29	620 204 8710	Bracket-E,Switch	1				
30	620 199 6487	Bracket-M	1				
31	620 198 0837	Mount-E,Indicator	1				
32	620 204 8543	Joint	1				
33	620 198 0844	Support,Shaft	1				
34	620 202 5360	Shield,Cover,Digital	1				
35	620 208 4619	Shield,Cover	1				
36	620 204 7492	Insulator,Plate	1				
37	620 202 5339	Heat Sink	1				
38	620 202 5803	Filter,Clear	1				
39	620 199 6449	Filter,FL	1				
40	620 199 4063	Reflector	1				
41	620 198 0912	Spacer,Cabinet	3				
42	620 208 4626	Cushion,Rubber	1				
43	△ 620 201 8591	Power Trans,SEV,200VA	1				
44	620 045 4711	Cover	1				
45	620 051 2152	Screw Ground	1				
46	620 051 3708	Screw Braz. HD. + M3X8	8				
47	620 051 3746	Screw 3X10	4				
48	620 191 2746	Rivet 3.5	4				
49	620 053 2136	Bushing (AC Cord)	1				
50	620 123 0284	SCR TPG BIN + M4.0X8	4				
51	620 123 0833	SCR Bind TAP-B + M4X10	4				

**NOTES:**

1. Parts order must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and resistors must be multiple of 10 pcs.

**PRODUCT SAFETY NOTICE**

Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol △ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with △, use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

## P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>ASSY,PCB,INPUT</b>				C168	403 143 2809	CERAMIC 0.047U Z 50V	1
61	620 202 7487	Assy,PCB,Input	1	C169	403 043 1001	ELECT 220U M 16V	1
	620 201 6153	Jack,RCA PIN,4P,WH/RE	3	C171	403 073 7004	CERAMIC 470P K 50V	1
	620 202 8064	Connector-P,9115B-07,7P	1	C172	403 073 7004	CERAMIC 470P K 50V	1
CN101	620 202 8293	Socket,52151-1010,10P	1	R119	401 024 7707	CARBON 100K JA 1/6W	1
CN103	620 202 8286	Socket,52151-0710,7P	1	R120	401 024 7707	CARBON 100K JA 1/6W	1
CN104	620 202 8279	Socket,52151-0610,6P	1	R121	401 025 7805	CARBON 2.2K JA 1/6W	1
CN110	620 202 7708	Socket,52147-0710,7P	1	R122	401 025 7805	CARBON 2.2K JA 1/6W	1
CN111	620 201 6467	Socket,Jumper,5P	1	R123	401 027 0507	CARBON 470K JA 1/6W	1
CN112	620 202 7708	Socket,52147-0710,7P	1	R124	401 027 0507	CARBON 470K JA 1/6W	1
CN114	620 202 8262	Socket,52151-0510,5P	1	R125	401 027 0507	CARBON 470K JA 1/6W	1
CN117	620 021 5923	Plug 3P	1	R126	401 027 0507	CARBON 470K JA 1/6W	1
CN118	620 021 8320	Plug 5P	1	R127	401 027 0507	CARBON 470K JA 1/6W	1
L101	620 207 2838	Inductor 47UH K	1	R128	401 027 0507	CARBON 470K JA 1/6W	1
L102	620 207 2838	Inductor 47UH K	1	R129	401 027 0507	CARBON 470K JA 1/6W	1
L103	620 207 2838	Inductor 47UH K	1	R130	401 027 0507	CARBON 470K JA 1/6W	1
L104	620 207 2838	Inductor 47UH K	1	R131	401 025 2305	CARBON 150K JA 1/6W	1
W101	620 019 7410	Connector 1P Assy	1	R132	401 025 2305	CARBON 150K JA 1/6W	1
IC102	409 109 5105	IC LC7821	1	R133	401 012 5708	CARBON 1K JA 1/4W	1
IC103	409 166 5308	IC TC9215P	1	R134	401 024 7004	CARBON 1K JA 1/6W	1
IC104	409 166 5308	IC TC9215P	1	R135	401 012 5708	CARBON 1K JA 1/4W	1
IC105	409 161 3101	IC TC9214P	1	R136	401 024 7004	CARBON 1K JA 1/6W	1
IC106	409 161 3101	IC TC9214P	1	R137	401 012 5708	CARBON 1K JA 1/4W	1
IC107	409 018 4503	IC LA6458DS	1	R138	401 024 7004	CARBON 1K JA 1/6W	1
IC108	409 018 4503	IC LA6458DS	1	R139	401 012 5708	CARBON 1K JA 1/4W	1
IC110	409 166 5308	IC TC9215P	1	R140	401 024 7004	CARBON 1K JA 1/6W	1
IC111	409 200 1402	IC MC74HC04AN	1	R141	401 012 5708	CARBON 1K JA 1/4W	1
Q101	405 010 9201	TR 2SC1570-G-NP	1	R142	401 024 7004	CARBON 1K JA 1/6W	1
or	405 010 9102	TR 2SC1570-F-NP	1	R143	401 016 2604	CARBON 220 JA 1/4W	1
Q102	405 010 9201	TR 2SC1570-G-NP	1	R144	401 016 2604	CARBON 220 JA 1/4W	1
or	405 010 9102	TR 2SC1570-F-NP	1	R145	401 014 4105	CARBON 1.5K JA 1/4W	1
D101	407 125 8209	DIODE HSS271	1	R147	401 016 3809	CARBON 2.2K JA 1/4W	1
or	407 008 0405	DIODE GMB01-BT	1	R149	401 024 7400	CARBON 10K JA 1/6W	1
D102	407 005 3805	DIODE DS442-BT	1	R151	401 027 0507	CARBON 470K JA 1/6W	1
D103	407 125 8209	DIODE HSS271	1	R152	401 027 0507	CARBON 470K JA 1/6W	1
C123	403 068 9402	CERAMIC 100P K 50V	1	R153	401 027 0507	CARBON 470K JA 1/6W	1
C124	403 068 9402	CERAMIC 100P K 50V	1	R154	401 027 0507	CARBON 470K JA 1/6W	1
C125	403 068 9402	CERAMIC 100P K 50V	1	R155	401 024 7707	CARBON 100K JA 1/6W	1
C126	403 068 9402	CERAMIC 100P K 50V	1	R156	401 024 7707	CARBON 100K JA 1/6W	1
C127	403 068 9402	CERAMIC 100P K 50V	1	R157	401 026 9600	CARBON 470 JA 1/6W	1
C128	403 068 9402	CERAMIC 100P K 50V	1	R158	401 026 9600	CARBON 470 JA 1/6W	1
C129	403 068 9402	CERAMIC 100P K 50V	1	R159	401 025 0004	CARBON 120K JA 1/6W	1
C130	403 068 9402	CERAMIC 100P K 50V	1	R160	401 025 0004	CARBON 120K JA 1/6W	1
C131	403 068 9402	CERAMIC 100P K 50V	1	R161	401 024 7707	CARBON 100K JA 1/6W	1
C132	403 068 9402	CERAMIC 100P K 50V	1	R162	401 024 7707	CARBON 100K JA 1/6W	1
C133	403 047 1502	ELECT 4.7U M 25V	1	R163	401 026 1307	CARBON 27K JA 1/6W	1
C134	403 047 1502	ELECT 4.7U M 25V	1	R164	401 026 1307	CARBON 27K JA 1/6W	1
C135	403 049 1609	ELECT 1U M 50V	1	R165	401 026 9907	CARBON 4.7K JA 1/6W	1
C137	403 047 1502	ELECT 4.7U M 25V	1	R166	401 026 9907	CARBON 4.7K JA 1/6W	1
C138	403 047 1502	ELECT 4.7U M 25V	1	R167	401 026 9907	CARBON 4.7K JA 1/6W	1
C139	403 068 9402	CERAMIC 100P K 50V	1	R168	401 026 9907	CARBON 4.7K JA 1/6W	1
C140	403 068 9402	CERAMIC 100P K 50V	1	R169	401 027 0507	CARBON 470K JA 1/6W	1
C141	403 047 1502	ELECT 4.7U M 25V	1	R170	401 027 0507	CARBON 470K JA 1/6W	1
C142	403 047 1502	ELECT 4.7U M 25V	1	R171	401 025 2305	CARBON 150K JA 1/6W	1
C143	403 071 6207	CERAMIC 220P K 50V	1	R172	401 025 2305	CARBON 150K JA 1/6W	1
C144	403 071 6207	CERAMIC 220P K 50V	1	R173	401 026 4308	CARBON 3.3K JA 1/6W	1
C145	403 067 6709	MT-COMPO 0.22U J 50V	1	R174	401 026 4308	CARBON 3.3K JA 1/6W	1
C146	403 067 6709	MT-COMPO 0.22U J 50V	1	R175	401 026 6609	CARBON 390 JA 1/6W	1
C147	403 067 6709	MT-COMPO 0.22U J 50V	1	R176	401 026 6609	CARBON 390 JA 1/6W	1
C148	403 067 6709	MT-COMPO 0.22U J 50V	1	R177	401 027 2600	CARBON 5.6K JA 1/6W	1
C149	403 047 1502	ELECT 4.7U M 25V	1	R178	401 027 2600	CARBON 5.6K JA 1/6W	1
C150	403 047 1502	ELECT 4.7U M 25V	1	R179	401 018 1605	CARBON 33 JA 1/4W	1
C151	403 068 9402	CERAMIC 100P K 50V	1	R180	401 018 1605	CARBON 33 JA 1/4W	1
C152	403 068 9402	CERAMIC 100P K 50V	1	R181	401 026 4308	CARBON 3.3K JA 1/6W	1
C153	403 068 9402	CERAMIC 100P K 50V	1	R182	401 026 4308	CARBON 3.3K JA 1/6W	1
C154	403 068 9402	CERAMIC 100P K 50V	1	R183	401 026 4308	CARBON 3.3K JA 1/6W	1
C155	403 047 1502	ELECT 4.7U M 25V	1	R184	401 024 7400	CARBON 10K JA 1/6W	1
C156	403 047 1502	ELECT 4.7U M 25V	1	R185	401 024 7400	CARBON 10K JA 1/6W	1
C157	403 049 1609	ELECT 1U M 50V	1	<b>ASSY,PCB,PHONO EQ.</b>			
C158	403 049 1609	ELECT 1U M 50V	1	62	620 202 7494	Assy,PCB,Phono EQ.	1
C159	403 058 3106	POLYESTER 0.015U J 50V	1	CA117	620 205 8337	Assy,Wire,XH-SUN,3P	1
C160	403 058 3106	POLYESTER 0.015U J 50V	1	CA118	620 197 5239	Assy,Wire,KR-DA 5P	1
C161	403 045 0606	ELECT 100U M 25V	1	SW701	620 205 8344	Switch,Push,2P-2S,S (MM/MC)	1
C162	403 045 0606	ELECT 100U M 25V	1	IC701	409 057 4403	IC UPC4570C	1
C163	403 071 6207	CERAMIC 220P K 50V	1	Q701	405 034 3803	TR 2SK170-V	1
C164	403 071 6207	CERAMIC 220P K 50V	1	or	405 026 6003	TR 2SK170-BL	1
C165	403 069 8404	CERAMIC 0.01U Z 50V	1	Q702	405 034 3803	TR 2SK170-V	1
C166	403 069 8404	CERAMIC 0.01U Z 50V	1	or	405 026 6003	TR 2SK170-BL	1
C167	403 069 8404	CERAMIC 0.01U Z 50V	1				

## P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
Q703	405 034 3803	TR 2SK170-V	1	CN108	620 202 8316	Connector-S,TKC-B07X-E1	1
or	405 026 6003	TR 2SK170-BL	1	CN109	620 202 8316	Connector-S,TKC-B07X-E1	1
Q704	405 034 3803	TR 2SK170-V	1	PC110	620 206 9067	Wire, 7-130,P=2	1
or	405 026 6003	TR 2SK170-BL	1	PC111	620 206 9081	Wire, 5-240,P=2	1
C701	403 071 6207	CERAMIC 220P K 50V	1	PC112	620 206 9098	Wire, 7-240,P=2	1
C702	403 071 6207	CERAMIC 220P K 50V	1	PC113	620 206 9142	Assy,Wire,PH-SH, 7-150	1
C703	403 068 9402	CERAMIC 100P K 50V	1	PC116	620 206 9104	Wire, 3- 70,P=2	1
C704	403 068 9402	CERAMIC 100P K 50V	1	PC118	620 206 9111	Wire, 7-420,P=2	1
C705	403 069 1207	CERAMIC 1000P K 50V	1	RB201	620 004 5186	Resistor 9X10K J	1
C706	403 069 1207	CERAMIC 1000P K 50V	1	RB202	620 004 5513	Resistor 7X10K	1
C707	403 038 2402	ELECT 100U M 6.3V	1	SH110	620 202 9108	Socket,Holder,7P	1
C708	403 038 2402	ELECT 100U M 6.3V	1	SH111	620 202 9153	Socket,Holder,12P	1
C709	403 062 6605	POLYESTER 0.056U J 50V	1	SH113	620 202 9108	Socket,Holder,7P	1
C710	403 062 6605	POLYESTER 0.056U J 50V	1	SH116	620 202 9061	Socket,Holder,3P	1
C711	403 058 3106	POLYESTER 0.015U J 50V	1	SH118	620 202 9108	Socket,Holder,7P	1
C712	403 058 3106	POLYESTER 0.015U J 50V	1	SH119	620 202 9054	Socket,Holder,2P	1
C713	403 050 3708	ELECT 22U M 50V	1	SW201	620 016 7796	Tact Switch	1
C714	403 050 3708	ELECT 22U M 50V	1	SW202	620 016 7796	Tact Switch	1
C715	403 047 4305	ELECT 47U M 25V	1	SW203	620 016 7796	Tact Switch	1
C716	403 047 4305	ELECT 47U M 25V	1	SW204	620 016 7796	Tact Switch	1
R703	401 024 6700	CARBON 100 JA 1/6W	1	SW205	620 016 7796	Tact Switch	1
R704	401 012 4503	CARBON 100 JA 1/4W	1	SW206	620 016 7796	Tact Switch	1
R705	401 027 0309	CARBON 47K JA 1/6W	1	SW207	620 016 7796	Tact Switch	1
R706	401 027 0309	CARBON 47K JA 1/6W	1	SW208	620 016 7796	Tact Switch	1
R707	401 012 3407	CARBON 10 JA 1/4W	1	SW209	620 016 7796	Tact Switch	1
R708	401 012 3407	CARBON 10 JA 1/4W	1	SW210	620 016 7796	Tact Switch	1
R709	401 027 8305	CARBON 820 JA 1/6W	1	SW211	620 016 7796	Tact Switch	1
R710	401 027 8305	CARBON 820 JA 1/6W	1	SW212	620 016 7796	Tact Switch	1
R711	401 027 8305	CARBON 820 JA 1/6W	1	SW213	620 016 7796	Tact Switch	1
R712	401 027 8305	CARBON 820 JA 1/6W	1	SW214	620 016 7796	Tact Switch	1
R713	401 024 6700	CARBON 100 JA 1/6W	1	SW215	620 016 7796	Tact Switch	1
R714	401 024 6700	CARBON 100 JA 1/6W	1	SW216	620 016 7796	Tact Switch	1
R715	401 025 4200	CARBON 1.8K JA 1/6W	1	SW217	620 016 7796	Tact Switch	1
R716	401 015 2704	CARBON 1.8K JA 1/4W	1	VR201	620 196 2352	VR,Rotary 2X250KSW	1
R717	401 024 6403	CARBON 10 JA 1/6W	1	VR202	620 196 2352	VR,Rotary 2X250KSW	1
R718	401 012 3407	CARBON 10 JA 1/4W	1	VR203	620 196 2352	VR,Rotary 2X250KSW	1
R719	401 024 6700	CARBON 100 JA 1/6W	1	VR204	620 199 4537	VR,Rotary,200KW	1
R720	401 024 6700	CARBON 100 JA 1/6W	1	XT201	620 026 9070	CSA 4.19M Resonator	1
R721	401 022 5101	CARBON 680K JA 1/4W	1	IC201	410 104 3706	IC TMP47P870N-CA-9060E	1
R722	401 027 6103	CARBON 680K JA 1/6W	1	IC202	409 114 4803	IC LB1641	1
R723	401 027 3003	CARBON 56K JA 1/6W	1	Q201	405 010 9102	TR 2SC1570-F-NP-AA	1
R724	401 027 3003	CARBON 56K JA 1/6W	1	or	405 010 9201	TR 2SC1570-G-NP-AA	1
R725	401 026 9907	CARBON 4.7K JA 1/6W	1	Q202	405 010 9102	TR 2SC1570-F-NP-AA	1
R726	401 026 9907	CARBON 4.7K JA 1/6W	1	or	405 010 9201	TR 2SC1570-G-NP-AA	1
R727	401 016 2604	CARBON 220 JA 1/4W	1	Q203	405 010 9102	TR 2SC1570-F-NP-AA	1
R728	401 016 2604	CARBON 220 JA 1/4W	1	or	405 010 9201	TR 2SC1570-G-NP-AA	1
				Q204	405 010 9102	TR 2SC1570-F-NP-AA	1
				or	405 010 9201	TR 2SC1570-G-NP-AA	1
				Q205	405 057 6409	TR 2SC4038-R-TL2	1
				or	405 057 6300	TR 2SC4038-S-TL2	1
				Q206	405 057 6409	TR 2SC4038-R-TL2	1
				or	405 057 6300	TR 2SC4038-S-TL2	1
				Q207	405 057 6409	TR 2SC4038-R-TL2	1
				or	405 057 6300	TR 2SC4038-S-TL2	1
				Q208	405 057 6409	TR 2SC4038-R-TL2	1
				or	405 057 6300	TR 2SC4038-S-TL2	1
				Q209	405 057 6409	TR 2SC4038-R-TL2	1
				or	405 057 6300	TR 2SC4038-S-TL2	1
				Q210	405 057 6409	TR 2SC4038-R-TL2	1
				Q211	405 004 4601	TR 2SA608-F-SPA-AC	1
				or	405 004 5103	TR 2SA608-G-SPA-AC	1
				Q212	405 096 0901	TR DTC114-EL-TL2	1
				or	405 034 8808	TR DTC114-EF	1
				Q213	405 004 4601	TR 2SA608-F-SPA-AC	1
				or	405 004 5103	TR 2SA608-G-SPA-AC	1
				Q214	405 019 2807	TR 2SC536-F-SPA-AC	1
				or	405 019 3903	TR 2SC536-G-SPA-AC	1
				Q215	405 096 0901	TR DTC114-EL-TL2	1
				or	405 034 8808	TR DTC114-EF	1
				Q216	405 098 4105	TR DTA114-EL-TL2	1
				or	405 034 6705	TR DTA114-EF	1
				Q217	405 019 2807	TR 2SC536-F-SPA-AC	1
				or	405 019 3903	TR 2SC536-G-SPA-AC	1
				Q218	405 004 4601	TR 2SA608-F-SPA-AC	1
				or	405 004 5103	TR 2SA608-G-SPA-AC	1
				Q219	405 019 2807	TR 2SC536-F-SPA-AC	1
				or	405 019 3903	TR 2SC536-G-SPA-AC	1
				Q220	405 004 4601	TR 2SA608-F-SPA-AC	1
				or	405 004 5103	TR 2SA608-G-SPA-AC	1
<b>ASSY,PCB,FLAT AMPLIFIER</b>							
63	620 202 7500	Assy,PCB,Flat Amplifier	1				
CA119	620 202 8088	Connector-S,9115S-07L,7P	1				
IC109	409 018 4503	IC LA6458DS	1				
C181	403 047 1502	ELECT 4.7U M 25V	1				
C182	403 047 1502	ELECT 4.7U M 25V	1				
C183	403 068 9402	CERAMIC 100P K 50V	1				
C184	403 068 9402	CERAMIC 100P K 50V	1				
C185	403 047 1502	ELECT 4.7U M 25V	1				
C186	403 047 1502	ELECT 4.7U M 25V	1				
R191	401 024 7707	CARBON 100K JA 1/6W	1				
R192	401 024 7707	CARBON 100K JA 1/6W	1				
R193	401 024 7707	CARBON 100K JA 1/6W	1				
R194	401 024 7707	CARBON 100K JA 1/6W	1				
<b>ASSY,PCB,VOLUME</b>							
64	620 202 7517	Assy,PCB,Volume	1				
VR101	620 199 4520	VR,Rotary,2X100KA,Motor	1				
CN105	620 202 8286	Socket,52151-0710,7P	1				
<b>ASSY,PCB,CONTROL</b>							
65	620 202 7524	Assy,PCB,Control	1				
	620 182 6630	Digitron BG-581GK	1				
	620 030 8083	Lamp	1				
	411 022 7807	SCR S-TPG PAN 2X6	9				
	620 199 0027	Mount-E,FL	1				
	620 199 4049	Reflector,Lamp	1				
	620 199 4056	Reflector,LED	1				
	620 199 0102	Spacer,LED,B	1				
	620 199 3998	Spacer,LED,Function	1				
	620 199 4001	Spacer,LED,Digital	3				
	620 125 8424	Wire Band	1				

## P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
Q221	405 019 2807	TR 2SC536-F-SPA-AC	1	C230	403 001 1906	CERAMIC 0.01U M 16V	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	C231	403 073 7004	CERAMIC 470P K 50V	1
Q222	405 019 2807	TR 2SC536-F-SPA-AC	1	C232	403 001 1906	CERAMIC 0.01U M 16V	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	C233	403 121 9509	CERAMIC 0.1U Z 50V	1
Q223	405 019 2807	TR 2SC536-F-SPA-AC	1	C234	403 045 0606	ELECT 100U M 25V	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	R201	401 026 6609	CARBON 390 JA 1/6W	1
Q224	405 019 2807	TR 2SC536-F-SPA-AC	1	R202	401 026 6609	CARBON 390 JA 1/6W	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	R203	401 026 6609	CARBON 390 JA 1/6W	1
Q225	405 019 2807	TR 2SC536-F-SPA-AC	1	R204	401 026 6609	CARBON 390 JA 1/6W	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	R205	401 027 2600	CARBON 5.6K JA 1/6W	1
Q226	405 019 2807	TR 2SC536-F-SPA-AC	1	R206	401 027 2600	CARBON 5.6K JA 1/6W	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	R207	401 027 2600	CARBON 5.6K JA 1/6W	1
Q227	405 096 0901	TR DTC114-EL-TL2	1	R208	401 027 2600	CARBON 5.6K JA 1/6W	1
or	405 034 8808	TR DTC114-EF	1	R209	401 027 8305	CARBON 820 JA 1/6W	1
Q228	405 096 0901	TR DTC114-EL-TL2	1	R210	401 027 8305	CARBON 820 JA 1/6W	1
or	405 034 8808	TR DTC114-EF	1	R211	401 025 1605	CARBON 1.5K JA 1/6W	1
D201	407 005 3805	DIODE DS442-BT	1	R212	401 025 1605	CARBON 1.5K JA 1/6W	1
D202	407 005 3805	DIODE DS442-BT	1	R213	401 025 2305	CARBON 150K JA 1/6W	1
D203	407 008 0405	DIODE GMB01-BT	1	R214	401 025 2305	CARBON 150K JA 1/6W	1
D204	407 005 3805	DIODE DS442-BT	1	R215	401 026 7408	CARBON 39K JA 1/6W	1
D205	407 008 0405	DIODE GMB01-BT	1	R216	401 026 7408	CARBON 39K JA 1/6W	1
D206	407 008 0405	DIODE GMB01-BT	1	R217	401 024 9305	CARBON 1.2K JA 1/6W	1
D207	407 008 0405	DIODE GMB01-BT	1	R218	401 024 9305	CARBON 1.2K JA 1/6W	1
D208	407 005 3805	DIODE DS442-BT	1	R221	401 023 3700	CARBON 82K JA 1/4W	1
D209	407 005 3805	DIODE DS442-BT	1	R222	401 023 3700	CARBON 82K JA 1/4W	1
D210	407 005 3805	DIODE DS442-BT	1	R223	401 023 3700	CARBON 82K JA 1/4W	1
D211	407 008 0405	DIODE GMB01-BT	1	R224	401 023 3700	CARBON 82K JA 1/4W	1
D212	407 008 0405	DIODE GMB01-BT	1	R225	401 023 3700	CARBON 82K JA 1/4W	1
D213	407 008 0405	DIODE GMB01-BT	1	R226	401 023 3700	CARBON 82K JA 1/4W	1
D214	407 069 1205	DIODE DS441	1	R228	401 026 3905	CARBON 330 JA 1/6W	1
D215	407 008 0405	DIODE GMB01-BT	1	R229	401 012 5708	CARBON 1K JA 1/4W	1
D216	407 008 0405	DIODE GMB01-BT	1	R230	401 012 5708	CARBON 1K JA 1/4W	1
D217	407 005 3805	DIODE DS442-BT	1	R231	401 027 0309	CARBON 47K JA 1/6W	1
D218	407 005 3805	DIODE DS442-BT	1	R232	401 025 1605	CARBON 1.5K JA 1/6W	1
D219	407 005 3805	DIODE DS442-BT	1	R233	401 026 4308	CARBON 3.3K JA 1/6W	1
D220	407 005 3805	DIODE DS442-BT	1	R234	401 026 9600	CARBON 470 JA 1/6W	1
D221	407 005 3805	DIODE DS442-BT	1	R235	401 025 7805	CARBON 2.2K JA 1/6W	1
D222	407 005 3805	DIODE DS442-BT	1	R236	401 025 0608	CARBON 1.3K JA 1/6W	1
D223	407 008 0405	DIODE GMB01-BT	1	R237	401 024 7707	CARBON 100K JA 1/6W	1
D226	407 096 1704	LED SLP-290B-51	1	R238	401 024 7707	CARBON 100K JA 1/6W	1
D227	407 096 1704	LED SLP-290B-51	1	R239	401 024 7707	CARBON 100K JA 1/6W	1
D228	407 096 1704	LED SLP-290B-51	1	R240	401 027 0507	CARBON 470K JA 1/6W	1
D229	407 096 1704	LED SLP-290B-51	1	R241	401 024 7400	CARBON 10K JA 1/6W	1
D230	407 065 5009	LED SLP-190B-51	1	R242	401 024 7400	CARBON 10K JA 1/6W	1
D231	407 065 5009	LED SLP-190B-51	1	R243	401 026 4308	CARBON 3.3K JA 1/6W	1
D232	407 028 9105	LED SLP-173B-50	1	R244	401 024 7707	CARBON 100K JA 1/6W	1
D233	407 028 9105	LED SLP-173B-50	1	R245	401 024 7707	CARBON 100K JA 1/6W	1
D234	407 028 9105	LED SLP-173B-50	1	R246	401 024 7004	CARBON 1K JA 1/6W	1
D235	407 005 3805	DIODE DS442-BT	1	R247	401 024 7004	CARBON 1K JA 1/6W	1
D236	407 062 7204	LED SEL2213C	1	R248	401 024 7004	CARBON 1K JA 1/6W	1
D237	407 062 7204	LED SEL2213C	1	R249	401 024 7004	CARBON 1K JA 1/6W	1
D238	407 062 7204	LED SEL2213C	1	R250	401 024 7004	CARBON 1K JA 1/6W	1
D239	407 008 0405	DIODE GMB01-BT	1	R251	401 013 6407	CARBON 12K JA 1/4W	1
D240	407 004 9709	DIODE DSK10C-BT	1	R252	401 012 8105	CARBON 100K JA 1/4W	1
D241	407 051 6300	ZENER DIODE GZS4.3X-BT	1	R253	401 025 1605	CARBON 1.5K JA 1/6W	1
D242	407 102 2800	SENSOR SBX1492-52	1	R254	401 026 9907	CARBON 4.7K JA 1/6W	1
C201	403 044 8207	ELECT 10U M 25V	1	R255	401 014 4105	CARBON 1.5K JA 1/4W	1
C202	403 044 8207	ELECT 10U M 25V	1	R256	401 024 7707	CARBON 100K JA 1/6W	1
C203	403 063 8301	POLYESTER 0.082U K 50V	1	R257	401 026 9600	CARBON 470 JA 1/6W	1
C204	403 063 8301	POLYESTER 0.082U K 50V	1	R258	401 026 9907	CARBON 4.7K JA 1/6W	1
C205	403 059 5802	POLYESTER 0.022U J 50V	1	R259	401 024 7400	CARBON 10K JA 1/6W	1
C206	403 059 5802	POLYESTER 0.022U J 50V	1	R260	401 024 7400	CARBON 10K JA 1/6W	1
C207	403 061 8006	POLYESTER 4700P J 50V	1	R261	401 012 8105	CARBON 100K JA 1/4W	1
C208	403 061 8006	POLYESTER 4700P J 50V	1	R262	401 012 8105	CARBON 100K JA 1/4W	1
C209	403 057 7402	POLYESTER 0.012U J 50V	1	R263	401 012 8105	CARBON 100K JA 1/4W	1
C210	403 057 7402	POLYESTER 0.012U J 50V	1	R265	401 020 0801	CARBON 470 JA 1/4W	1
C211	403 044 8207	ELECT 10U M 25V	1	R267	401 026 9600	CARBON 470 JA 1/6W	1
C212	403 044 8207	ELECT 10U M 25V	1	R268	401 024 6403	CARBON 10 JA 1/6W	1
C221	403 001 1906	CERAMIC 0.01U M 16V	1	R269	401 026 9600	CARBON 470 JA 1/6W	1
C222	404 039 4402	ELECT 100U M 10V	1	R270	401 020 2003	CARBON 4.7K JA 1/4W	1
or	404 032 5802	ELECT 100U M 10V	1	R273	401 012 4503	CARBON 100 JA 1/4W	1
C223	403 022 7703	CERAMIC 33P J 50V	1	R274	401 012 4503	CARBON 100 JA 1/4W	1
C224	403 022 7703	CERAMIC 33P J 50V	1	R275	401 012 4503	CARBON 100 JA 1/4W	1
C225	403 001 1906	CERAMIC 0.01U M 16V	1	R276	401 012 4503	CARBON 100 JA 1/4W	1
C226	404 039 4303	ELECT 2200U M 10V	1	R277	401 012 5708	CARBON 1K JA 1/4W	1
or	404 032 2207	ELECT 2200U M 10V	1	R278	401 012 5708	CARBON 1K JA 1/4W	1
C227	403 038 2303	ELECT 100U M 6.3V	1	R279	401 012 5708	CARBON 1K JA 1/4W	1
C228	403 049 1609	ELECT 1U M 50V	1				
C229	403 042 0302	ELECT 10U M 16V	1				



## P.C. BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
<b>ASSY,PCB,STANDBY SWITCH</b>							
66	620 202 7531	Assy,PCB,Standby Switch	1	F308	△ 423 005 0507	FUSE 250V T1A	1
S218	620 016 7796	Tact Switch	1	LC301	620 206 5601	Filter,LC,AC Line	1
D251	407 028 8504	LED SLP-173B (STANDBY,)	1	L301	620 027 1240	AF Coil	1
<b>ASSY,PCB,REMOCON</b>							
67	620 202 7555	Assy,PCB,Remocon	1	L302	620 027 1240	AF Coil	1
	620 021 1970	Plug 2P	1	PC101	620 206 8329	Wire,10-100,P=2	1
	620 021 5923	Plug 3P	1	PC103	620 206 8336	Wire,7-100,P=2	1
	620 021 5930	Plug 4P	1	PC104	620 206 8343	Wire,6-100,P=2	1
SH118	620 202 9108	Socket,Holder,7P	1	PC105	620 206 8350	Wire,7-180,P=2	1
D253	407 008 0405	DIODE GMB01-BT	1	PC106	620 206 8381	Wire,3-170,P=2	1
D254	407 008 0405	DIODE GMB01-BT	1	R419	620 004 3892	Cement 2X0.33	1
C235	403 069 1207	CERAMIC 1000P K 50V	1	R420	620 004 3892	Cement 2X0.33	1
C236	403 069 1207	CERAMIC 1000P K 50V	1	SH101	620 202 9139	Socket,Holder,10P	1
<b>ASSY,PCB,DIG LAMP</b>							
68	620 202 7562	Assy,PCB,DIG Lamp	1	SH103	620 202 9108	Socket,Holder,7P	1
	620 188 0861	Lamp (16V, 67mA)	1	SH104	620 202 9160	Socket,Holder,13P	1
	620 202 5278	Reflector,Lamp-A	1	SH106	620 202 9061	Socket,Holder,3P	1
<b>ASSY,PCB,VOLUME INDICATOR</b>							
69	620 202 7579	Assy,PCB,Volume Indicator	1	TW107	620 204 9229	Terminal,Wrapper,5P,I-505	1
D256	407 065 5009	LED SLP-190B-51	1	VR301	620 005 6212	Potentiometer 301	1
<b>ASSY,PCB,SPEAKER SWITCH</b>							
70	620 202 7586	Assy,PCB,Speaker Switch	1	VR302	620 005 6212	Potentiometer 301	1
	620 185 1946	Jack 3P	1	IC301	409 166 5308	IC TC9215P	1
	620 202 8033	Terminal,I-102NA,2P	1	IC302	409 018 4503	IC LA6458DS	1
PC107	620 206 8756	Wire,AWG22,105DEG,5-400	1	IC305	409 018 5203	IC LA6462D	1
PC115	620 206 8749	Wire,AWG22,105DEG,6-340	1	IC307	409 079 9509	IC LA2500	1
SH107	620 200 2637	Socket,Holder,5P	1	IC308	409 079 9509	IC LA2500	1
SH115	620 205 5091	Socket,Holder,6P	1	IC309	409 018 4503	IC LA6458DS	1
SW601△	620 015 2341	Switch Push Power (POWER,)	1	Q301	405 021 0600	TR 2SD1012-G-SPA-AC	1
SW602	620 207 8083	Switch,Push,2K-4P-2T	1	or	405 021 0907	TR 2SD1012-H-SPA-AC	1
R601	401 069 2705	OXIDE-MT 680 JB 2W	1	Q302	405 021 0600	TR 2SD1012-G-SPA-AC	1
R602	401 069 2705	OXIDE-MT 680 JB 2W	1	or	405 021 0907	TR 2SD1012-H-SPA-AC	1
R603	401 017 0807	CARBON 270 JA 1/4W	1	Q303	405 016 8802	TR 2SC3065-F	1
R604	401 017 0807	CARBON 270 JA 1/4W	1	or	405 016 8703	TR 2SC3065-G	1
R605	401 017 0807	CARBON 270 JA 1/4W	1	Q304	405 016 8802	TR 2SC3065-G	1
R606	401 017 0807	CARBON 270 JA 1/4W	1	or	405 016 8703	TR 2SC3065-F	1
<b>ASSY,PCB,SPEAKER TERMINAL</b>							
71	620 202 7593	Assy,PCB,Speaker Terminal	1	Q305	405 016 8901	TR 2SC3066-F	1
	620 196 5353	Terminal	1	or	405 016 9007	TR 2SC3066-G	1
SH115	620 205 5091	Socket,Holder,6P	1	Q306	405 016 8901	TR 2SC3066-F	1
C603	403 074 6303	CERAMIC 560P K 50V	1	or	405 016 9007	TR 2SC3066-G	1
C604	403 074 6303	CERAMIC 560P K 50V	1	Q307	405 003 0109	TR 2SA1240-G	1
C605	403 074 6303	CERAMIC 560P K 50V	1	or	405 003 0000	TR 2SA1240-F	1
C606	403 074 6303	CERAMIC 560P K 50V	1	Q308	405 003 0109	TR 2SA1240-G	1
C607	403 001 5102	CERAMIC 2200P M 16V	1	or	405 003 0000	TR 2SA1240-F	1
C608	403 001 5102	CERAMIC 2200P M 16V	1	Q309	405 016 3203	TR 2SC2909-R	1
<b>ASSY,PCB,MAIN</b>							
72	620 202 7609	Assy,PCB,Main	1	or	405 016 3302	TR 2SC2909-S	1
	620 017 2721	Fuse Clip	16	Q310	405 016 3203	TR 2SC2909-R	1
	620 022 2587	EC Terminal 1P	2	or	405 016 3302	TR 2SC2909-S	1
△	620 191 2692	Power Trans	1	Q311	405 002 8809	TR 2SA1207-T	1
	411 020 7700	SCR S-TPG BRZ 3X6	10	or	405 002 8700	TR 2SA1207-S	1
	620 201 6153	Jack,RCA PIN,4P,WH/RE	2	Q312	405 002 8809	TR 2SA1207-T	1
	620 202 3458	Terminal,1P	4	or	405 002 8700	TR 2SA1207-S	1
	620 202 4196	Terminal,Wrapper,3P	3	Q313	405 002 9202	TR 2SA1209-T	1
	620 202 8033	Terminal,I-102NA,2P	2	or	405 002 9103	TR 2SA1209-S	1
	620 202 8040	Terminal,I-103NA,3P	1	Q314	405 002 9202	TR 2SA1209-T	1
	620 206 8237	Relay,Power,1P-1T,12V,TV5	1	or	405 002 9103	TR 2SA1209-S	1
	620 196 1645	Relay,T-Cross DC24V	1	Q315	405 016 4002	TR 2SC2911-T	1
	620 053 6899	Cover Safety	1	or	405 016 3906	TR 2SC2911-S	1
	620 053 9241	Plate Heat Sink	10	Q316	405 016 4002	TR 2SC2911-T	1
	620 186 7275	Plate Earth	1	or	405 016 3906	TR 2SC2911-S	1
CN108	620 202 8323	Connector-P,TKC-107P-G1	1	Q317	405 019 2807	TR 2SC536-F-SPA-AC	1
CN109	620 202 8323	Connector-P,TKC-107P-G1	1	or	405 019 3903	TR 2SC536-G-SPA-AC	1
C434	△ 620 006 6679	Capacitor 0.01MF400V	1	Q318	405 019 2807	TR 2SC536-F-SPA-AC	1
F301	△ 423 006 4702	FUSE 250V T2.5A	1	or	405 019 3903	TR 2SC536-G-SPA-AC	1
F302	△ 423 007 7702	FUSE 250V T6.3A	1	Q319	405 004 4601	TR 2SA608-F-SPA-AC	1
F303	△ 423 007 7702	FUSE 250V T6.3A	1	or	405 004 5103	TR 2SA608-G-SPA-AC	1
F304	△ 423 005 0507	FUSE 250V T1A	1	Q320	405 004 4601	TR 2SA608-F-SPA-AC	1
F305	△ 423 005 0507	FUSE 250V T1A	1	or	405 004 5103	TR 2SA608-G-SPA-AC	1
F306	△ 423 005 0507	FUSE 250V T1A	1	Q321	405 017 2601	TR 2SC3117-S	1
F307	△ 423 005 0507	FUSE 250V T1A	1	or	405 017 2502	TR 2SC3117-R	1
				Q322	405 017 2601	TR 2SC3117-S	1
				or	405 017 2502	TR 2SC3117-R	1
				Q323	405 003 1601	TR 2SA1249-S	1
				or	405 003 1502	TR 2SA1249-R	1
				Q324	405 003 1601	TR 2SA1249-S	1
				or	405 003 1502	TR 2SA1249-R	1
				Q331	405 019 2807	TR 2SC536-F-SPA-AC	1
				or	405 019 3903	TR 2SC536-G-SPA-AC	1
				Q332	405 019 2807	TR 2SC536-F-SPA-AC	1
				or	405 019 3903	TR 2SC536-G-SPA-AC	1
				Q333	405 019 2807	TR 2SC536-F-SPA-AC	1
				or	405 019 3903	TR 2SC536-G-SPA-AC	1
				Q334	405 004 4601	TR 2SA608-F-SPA-AC	1

## P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
or	405 004 5103	TR 2SA608-G-SPA-AC	1	D335	407 004 9709	DIODE DSK10C-BT	1
Q335	405 019 2807	TR 2SC536-F-SPA-AC	1	D336	407 004 9709	DIODE DSK10C-BT	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	D337	407 004 9709	DIODE DSK10C-BT	1
Q336	405 004 4601	TR 2SA608-F-SPA-AC	1	D338	407 004 9709	DIODE DSK10C-BT	1
or	405 004 5103	TR 2SA608-G-SPA-AC	1	D339	407 049 7807	ZENER DIODE GZA18Y-BT	1
Q337	405 023 8505	TR 2SD438-F-MP	1	D340	407 049 7807	ZENER DIODE GZA18Y-BT	1
or	405 023 8307	TR 2SD438-E-MP	1	D341	407 049 7005	ZENER DIODE GZA15Y-BT	1
Q338	405 027 0505	TR 2SK246-GR (TPE2)	1	D342	407 050 6301	ZENER DIODE GZA6.2Z-BT	1
or	405 034 5104	TR 2SK246-BL	1	D343	407 049 9801	ZENER DIODE GZA22Y	1
Q339	405 007 5308	TR 2SB560-F-MP	1	D344	407 050 6301	ZENER DIODE GZA6.2Z-BT	1
or	405 007 5100	TR 2SB560-E-MP	1	D345	407 050 6301	ZENER DIODE GZA6.2Z-BT	1
Q340	405 027 0505	TR 2SK246-GR (TPE2)	1	D346	407 049 6305	ZENER DIODE GZA12Y-BT	1
or	405 034 5104	TR 2SK246-BL	1	D347	407 004 9709	DIODE DSK10C-BT	1
Q341	405 022 8209	TR 2SD1682-T	1	D348	407 004 9709	DIODE DSK10C-BT	1
or	405 022 8001	TR 2SD1682-S	1	D349	407 004 9709	DIODE DSK10C-BT	1
Q342	405 023 8505	TR 2SD438-F-MP	1	D350	407 004 9709	DIODE DSK10C-BT	1
or	405 023 8307	TR 2SD438-E-MP	1	D351	407 004 9709	DIODE DSK10C-BT	1
Q343	405 004 4601	TR 2SA608-F-SPA-AC	1	D352	407 004 9709	DIODE DSK10C-BT	1
or	405 004 5103	TR 2SA608-G-SPA-AC	1	D499	407 005 3805	DIODE DS442-BT	1
Q344	405 024 9907	TR 2SD734-F-AA	1	TH301	407 109 6702	THERMISTOR 300D-5	1
or	405 024 9709	TR 2SD734-E	1	TH302	407 109 6702	THERMISTOR 300D-5	1
Q345	405 022 8209	TR 2SD1682-T	1	TH303	407 065 0707	THERMISTOR ZPP221E501A	1
or	405 022 8001	TR 2SD1682-S	1	C301	403 068 9402	CERAMIC 100P K 50V	1
Q346	405 019 2807	TR 2SC536-F-SPA-AC	1	C302	403 068 9402	CERAMIC 100P K 50V	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	C303	403 068 9402	CERAMIC 100P K 50V	1
Q347	405 019 2807	TR 2SC536-F-SPA-AC	1	C304	403 068 9402	CERAMIC 100P K 50V	1
or	405 019 3903	TR 2SC536-G-SPA-AC	1	C305	403 068 9402	CERAMIC 100P K 50V	1
D301	407 125 8209	DIODE HSS271	1	C306	403 068 9402	CERAMIC 100P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C307	403 047 1502	ELECT 4.7U M 25V	1
D302	407 125 8209	DIODE HSS271	1	C308	403 047 1502	ELECT 4.7U M 25V	1
or	407 008 0405	DIODE GMB01-BT	1	C309	403 068 9402	CERAMIC 100P K 50V	1
D303	407 125 8209	DIODE HSS271	1	C310	403 068 9402	CERAMIC 100P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C311	403 047 1502	ELECT 4.7U M 25V	1
D304	407 125 8209	DIODE HSS271	1	C312	403 047 1502	ELECT 4.7U M 25V	1
or	407 008 0405	DIODE GMB01-BT	1	C313	403 068 9402	CERAMIC 100P K 50V	1
D305	407 125 8209	DIODE HSS271	1	C314	403 068 9402	CERAMIC 100P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C331	403 047 1502	ELECT 4.7U M 25V	1
D306	407 125 8209	DIODE HSS271	1	C332	403 047 1502	ELECT 4.7U M 25V	1
or	407 008 0405	DIODE GMB01-BT	1	C333	403 071 6207	CERAMIC 220P K 50V	1
D307	407 125 8209	DIODE HSS271	1	C334	403 071 6207	CERAMIC 220P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C335	403 062 0900	POLYESTER 0.047U K 50V	1
D308	407 125 8209	DIODE HSS271	1	C336	403 062 0900	POLYESTER 0.047U K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C337	403 049 1609	ELECT 1U M 50V	1
D309	407 125 8209	DIODE HSS271	1	C338	403 049 1609	ELECT 1U M 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C339	403 044 8207	ELECT 10U M 25V	1
D310	407 125 8209	DIODE HSS271	1	C340	403 044 8207	ELECT 10U M 25V	1
or	407 008 0405	DIODE GMB01-BT	1	C341	403 047 1502	ELECT 4.7U M 25V	1
D311	407 125 8209	DIODE HSS271	1	C342	403 047 1502	ELECT 4.7U M 25V	1
or	407 008 0405	DIODE GMB01-BT	1	C343	403 068 9402	CERAMIC 100P K 50V	1
D312	407 125 8209	DIODE HSS271	1	C344	403 068 9402	CERAMIC 100P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C345	403 068 9402	CERAMIC 100P K 50V	1
D313	407 125 8209	DIODE HSS271	1	C346	403 068 9402	CERAMIC 100P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C347	403 047 1502	ELECT 4.7U M 25V	1
D314	407 125 8209	DIODE HSS271	1	C348	403 047 1502	ELECT 4.7U M 25V	1
or	407 008 0405	DIODE GMB01-BT	1	C349	403 047 1502	ELECT 4.7U M 25V	1
D315	407 125 8209	DIODE HSS271	1	C350	403 047 1502	ELECT 4.7U M 25V	1
or	407 008 0405	DIODE GMB01-BT	1	C351	403 056 7809	POLYESTER 1000P J 50V	1
D316	407 125 8209	DIODE HSS271	1	C352	403 056 7809	POLYESTER 1000P J 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C353	403 068 9402	CERAMIC 100P K 50V	1
D317	407 005 4703	DIODE DS446-BT	1	C354	403 068 9402	CERAMIC 100P K 50V	1
D318	407 005 4703	DIODE DS446-BT	1	C355	403 068 9402	CERAMIC 100P K 50V	1
D319	407 005 4703	DIODE DS446-BT	1	C356	403 068 9402	CERAMIC 100P K 50V	1
D320	407 005 4703	DIODE DS446-BT	1	C357	403 071 6207	CERAMIC 220P K 50V	1
D321	407 051 5709	ZENER DIODE GZS3.6Z-BT	1	C358	403 071 6207	CERAMIC 220P K 50V	1
D322	407 051 5709	ZENER DIODE GZS3.6Z-BT	1	C359	403 039 7802	ELECT 100U M 10V	1
D323	407 125 8209	DIODE HSS271	1	C360	403 039 7802	ELECT 100U M 10V	1
or	407 008 0405	DIODE GMB01-BT	1	C361	403 036 3005	CERAMIC 5P C 500V	1
D324	407 125 8209	DIODE HSS271	1	C362	403 036 3005	CERAMIC 5P C 500V	1
or	407 008 0405	DIODE GMB01-BT	1	C363	403 035 4508	CERAMIC 2P C 500V	1
D325	407 005 3805	DIODE DS442-BT	1	C364	403 035 4508	CERAMIC 2P C 500V	1
D326	407 005 3805	DIODE DS442-BT	1	C371	403 035 4508	CERAMIC 2P C 500V	1
D327	407 088 3105	DIODE DSC30TC-KD2	1	C372	403 035 4508	CERAMIC 2P C 500V	1
D328	407 088 3105	DIODE DSC30TC-KD2	1	C373	403 056 7809	POLYESTER 1000P J 50V	1
D329	407 088 3105	DIODE DSC30TC-KD2	1	C374	403 056 7809	POLYESTER 1000P J 50V	1
D330	407 088 3105	DIODE DSC30TC-KD2	1	C375	403 034 9900	CERAMIC 100P K 500V	1
D331	407 004 9709	DIODE DSK10C-BT	1	C376	403 034 9900	CERAMIC 100P K 500V	1
D332	407 004 9709	DIODE DSK10C-BT	1	C377	403 034 9900	CERAMIC 100P K 500V	1
D333	407 004 9709	DIODE DSK10C-BT	1	C378	403 034 9900	CERAMIC 100P K 500V	1
D334	407 004 9709	DIODE DSK10C-BT	1	C379	403 049 1609	ELECT 1U M 50V	1

## P.C. BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
C380	403 049 1609	ELECT 1U M 50V	1	R351	401 024 7004	CARBON 1K JA 1/6W	1
C381	403 049 1609	ELECT 1U M 50V	1	R352	401 024 7004	CARBON 1K JA 1/6W	1
C382	403 049 1609	ELECT 1U M 50V	1	R353	401 024 7707	CARBON 100K JA 1/6W	1
C383	403 062 0900	POLYESTER 0.047U K 50V	1	R354	401 024 7707	CARBON 100K JA 1/6W	1
C384	403 062 0900	POLYESTER 0.047U K 50V	1	R355	401 024 7707	CARBON 100K JA 1/6W	1
C385	403 054 9706	ELECT 47U M 100V	1	R356	401 024 7707	CARBON 100K JA 1/6W	1
C386	403 054 9706	ELECT 47U M 100V	1	R357	401 025 4200	CARBON 1.8K JA 1/6W	1
C387	403 054 9706	ELECT 47U M 100V	1	R358	401 025 4200	CARBON 1.8K JA 1/6W	1
C388	403 054 9706	ELECT 47U M 100V	1	R359	401 027 8602	CARBON 8.2K JA 1/6W	1
C389	403 041 3304	ELECT 47U M 10V	1	R360	401 027 8602	CARBON 8.2K JA 1/6W	1
C390	403 041 3304	ELECT 47U M 10V	1	R361	401 027 0309	CARBON 47K JA 1/6W	1
C391	403 049 1609	ELECT 1U M 50V	1	R362	401 027 0309	CARBON 47K JA 1/6W	1
C392	403 049 1609	ELECT 1U M 50V	1	R363	401 024 7004	CARBON 1K JA 1/6W	1
C393	403 042 0302	ELECT 10U M 16V	1	R364	401 024 7004	CARBON 1K JA 1/6W	1
C394	403 042 0302	ELECT 10U M 16V	1	R365	401 026 9600	CARBON 470 JA 1/6W	1
C395	403 042 0302	ELECT 10U M 16V	1	R366	401 026 9600	CARBON 470 JA 1/6W	1
C396	403 047 9607	ELECT 0.1U M 50V	1	R367	401 026 4605	CARBON 33K JA 1/6W	1
C397	403 041 3304	ELECT 47U M 10V	1	R368	401 026 4605	CARBON 33K JA 1/6W	1
C402	404 012 7000	CERAMIC 0.01U P 500V	1	R369	401 027 5908	CARBON 68K JA 1/6W	1
C403	404 012 7000	CERAMIC 0.01U P 500V	1	R370	401 027 5908	CARBON 68K JA 1/6W	1
C404	404 041 0201	ELECT 6800U M 63V	1	R371	401 024 9701	CARBON 12K JA 1/6W	1
C405	404 041 0201	ELECT 6800U M 63V	1	R372	401 024 9701	CARBON 12K JA 1/6W	1
C406	403 069 8404	CERAMIC 0.01U Z 50V	1	R373	401 027 2105	CARBON 56 JA 1/6W	1
C407	403 069 8404	CERAMIC 0.01U Z 50V	1	R374	401 027 2105	CARBON 56 JA 1/6W	1
C408	403 052 9609	ELECT 1000U M 35V	1	R375	401 027 2105	CARBON 56 JA 1/6W	1
C409	403 052 9609	ELECT 1000U M 35V	1	R376	401 027 2105	CARBON 56 JA 1/6W	1
C410	403 044 8207	ELECT 10U M 25V	1	R377	401 025 1605	CARBON 1.5K JA 1/6W	1
C411	403 044 8207	ELECT 10U M 25V	1	R378	401 025 1605	CARBON 1.5K JA 1/6W	1
C412	403 044 8207	ELECT 10U M 25V	1	R379	401 027 2600	CARBON 5.6K JA 1/6W	1
C413	403 044 8207	ELECT 10U M 25V	1	R380	401 027 2600	CARBON 5.6K JA 1/6W	1
C414	403 042 0302	ELECT 10U M 16V	1	R381	401 026 3905	CARBON 330 JA 1/6W	1
C415	403 042 3501	ELECT 100U M 16V	1	R382	401 026 3905	CARBON 330 JA 1/6W	1
C416	403 042 0302	ELECT 10U M 16V	1	R383	401 027 8305	CARBON 820 JA 1/6W	1
C417	403 039 7802	ELECT 100U M 10V	1	R384	401 027 8305	CARBON 820 JA 1/6W	1
C418	403 044 8207	ELECT 10U M 25V	1	R385	401 027 3003	CARBON 56K JA 1/6W	1
C419	403 044 8207	ELECT 10U M 25V	1	R386	401 027 3003	CARBON 56K JA 1/6W	1
C420	403 069 8404	CERAMIC 0.01U Z 50V	1	R387	401 024 7004	CARBON 1K JA 1/6W	1
C421	403 046 0605	ELECT 2200U M 25V	1	R388	401 024 7004	CARBON 1K JA 1/6W	1
C422	403 042 0302	ELECT 10U M 16V	1	R389	402 035 9902	FUSIBLE RES 82 J- 1/4W	1
C423	403 042 0302	ELECT 10U M 16V	1	R390	402 035 9902	FUSIBLE RES 82 J- 1/4W	1
C424	403 042 0302	ELECT 10U M 16V	1	R391	402 035 9902	FUSIBLE RES 82 J- 1/4W	1
C425	403 042 0302	ELECT 10U M 16V	1	R392	402 035 9902	FUSIBLE RES 82 J- 1/4W	1
C426	403 054 2608	ELECT 470U M 35V	1	R393	401 021 4105	CARBON 56K JA 1/4W	1
C427	403 069 8404	CERAMIC 0.01U Z 50V	1	R394	401 021 4105	CARBON 56K JA 1/4W	1
C428	403 038 2303	ELECT 100U M 6.3V	1	R395	402 036 0106	FUSIBLE RES 47 J- 1/4W	1
C429	403 069 8404	CERAMIC 0.01U Z 50V	1	R396	402 036 0106	FUSIBLE RES 47 J- 1/4W	1
C430	403 069 8404	CERAMIC 0.01U Z 50V	1	R397	402 036 0106	FUSIBLE RES 47 J- 1/4W	1
C432	403 069 8404	CERAMIC 0.01U Z 50V	1	R398	402 036 0106	FUSIBLE RES 47 J- 1/4W	1
C433	403 049 1609	ELECT 1U M 50V	1	R399	401 018 4903	CARBON 33K JA 1/4W	1
R301	401 024 7004	CARBON 1K JA 1/6W	1	R400	401 018 4903	CARBON 33K JA 1/4W	1
R302	401 024 7004	CARBON 1K JA 1/6W	1	R401	401 024 6700	CARBON 100 JA 1/6W	1
R303	401 025 0004	CARBON 120K JA 1/6W	1	R402	401 024 6700	CARBON 100 JA 1/6W	1
R304	401 025 0004	CARBON 120K JA 1/6W	1	R405	402 059 3108	FUSIBLE RES 1K J- 1/4W	1
R305	401 024 7004	CARBON 1K JA 1/6W	1	R406	402 059 3108	FUSIBLE RES 1K J- 1/4W	1
R306	401 012 5708	CARBON 1K JA 1/4W	1	R407	402 059 3108	FUSIBLE RES 1K J- 1/4W	1
R307	401 027 0507	CARBON 470K JA 1/6W	1	R408	402 059 3108	FUSIBLE RES 1K J- 1/4W	1
R308	401 027 0507	CARBON 470K JA 1/6W	1	R409	401 014 9100	CARBON 16K JA 1/4W	1
R309	401 012 5708	CARBON 1K JA 1/4W	1	R410	401 014 9100	CARBON 16K JA 1/4W	1
R310	401 012 5708	CARBON 1K JA 1/4W	1	R411	401 014 9100	CARBON 16K JA 1/4W	1
R311	401 024 7707	CARBON 100K JA 1/6W	1	R412	401 014 9100	CARBON 16K JA 1/4W	1
R312	401 024 7707	CARBON 100K JA 1/6W	1	R413	401 061 2604	OXIDE-MT 330 JB 1W	1
R313	401 012 5708	CARBON 1K JA 1/4W	1	R414	401 061 2604	OXIDE-MT 330 JB 1W	1
R314	401 012 5708	CARBON 1K JA 1/4W	1	R415	402 036 0205	FUSIBLE RES 2.2 J- 1/4W	1
R315	401 027 0507	CARBON 470K JA 1/6W	1	R416	402 036 0205	FUSIBLE RES 2.2 J- 1/4W	1
R316	401 027 0507	CARBON 470K JA 1/6W	1	R417	402 036 0205	FUSIBLE RES 2.2 J- 1/4W	1
R317	401 024 7004	CARBON 1K JA 1/6W	1	R418	402 036 0205	FUSIBLE RES 2.2 J- 1/4W	1
R318	401 024 7004	CARBON 1K JA 1/6W	1	R421	401 012 4503	CARBON 100 JA 1/4W	1
R319	401 024 7707	CARBON 100K JA 1/6W	1	R422	401 012 4503	CARBON 100 JA 1/4W	1
R320	401 024 7707	CARBON 100K JA 1/6W	1	R423	401 064 6203	OXIDE-MT 10 JB 2W	1
R335	401 016 2604	CARBON 220 JA 1/4W	1	R424	401 064 6203	OXIDE-MT 10 JB 2W	1
R336	401 016 2604	CARBON 220 JA 1/4W	1	R425	402 036 0106	FUSIBLE RES 47 J- 1/4W	1
R341	401 025 8703	CARBON 220K JA 1/6W	1	R426	402 036 0106	FUSIBLE RES 47 J- 1/4W	1
R342	401 025 8703	CARBON 220K JA 1/6W	1	R427	402 036 0106	FUSIBLE RES 47 J- 1/4W	1
R343	401 027 5502	CARBON 6.8K JA 1/6W	1	R428	402 036 0106	FUSIBLE RES 47 J- 1/4W	1
R344	401 027 5502	CARBON 6.8K JA 1/6W	1	R431	401 012 7009	CARBON 10K JA 1/4W	1
R345	401 023 2802	CARBON 8.2K JA 1/4W	1	R432	401 012 7009	CARBON 10K JA 1/4W	1
R346	401 027 8602	CARBON 8.2K JA 1/6W	1	R433	401 027 2303	CARBON 560 JA 1/6W	1
R349	401 020 0801	CARBON 470 JA 1/4W	1	R434	401 027 2303	CARBON 560 JA 1/6W	1
R350	401 020 0801	CARBON 470 JA 1/4W	1	R435	401 026 1307	CARBON 27K JA 1/6W	1

## P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
R436	401 026 1307	CARBON 27K JA 1/6W	1	FB511	620 198 5016	Inductor,Ferrite BL03	1
R437	401 024 6700	CARBON 100 JA 1/6W	1	FB512	620 198 5016	Inductor,Ferrite BL03	1
R438	401 024 6700	CARBON 100 JA 1/6W	1	L501	620 197 9558	Inductor 4.7UH K	1
R441	401 023 1706	CARBON 820 JA 1/4W	1	L502	620 197 9558	Inductor 4.7UH K	1
R442	401 023 1706	CARBON 820 JA 1/4W	1	L503	620 197 9558	Inductor 4.7UH K	1
R443	401 027 3003	CARBON 56K JA 1/6W	1	L504	620 197 9558	Inductor 4.7UH K	1
R444	401 027 3003	CARBON 56K JA 1/6W	1	L505	620 197 9558	Inductor 4.7UH K	1
R445	401 025 1902	CARBON 15K JA 1/6W	1	L506	620 197 9558	Inductor 4.7UH K	1
R446	401 026 9907	CARBON 4.7K JA 1/6W	1	L507	620 197 9558	Inductor 4.7UH K	1
R447	401 024 7004	CARBON 1K JA 1/6W	1	L508	620 197 9558	Inductor 4.7UH K	1
R448	401 024 7400	CARBON 10K JA 1/6W	1	L509	620 197 9558	Inductor 4.7UH K	1
R449	401 024 7707	CARBON 100K JA 1/6W	1	L510	620 197 9558	Inductor 4.7UH K	1
R450	401 024 7400	CARBON 10K JA 1/6W	1	PC114	620 206 9234	Wire, 5-100,P=2	1
R451	401 024 7400	CARBON 10K JA 1/6W	1	SH114	620 202 9085	Socket,Holder,5P	1
R452	401 025 8208	CARBON 22K JA 1/6W	1	IC501	409 052 1407	IC TC74HCU04P	1
R453	401 027 5502	CARBON 6.8K JA 1/6W	1	IC502	409 203 1300	IC SN74LS08N	1
R461	401 026 1307	CARBON 27K JA 1/6W	1	IC503	409 052 2206	IC TC74HC08P	1
R462	401 020 2003	CARBON 4.7K JA 1/4W	1	IC504	409 199 2305	IC PD0052	1
R463	401 055 9107	OXIDE-MT 33 JB 1/2W	1	IC505	409 165 5804	IC TC74HC04AP	1
R464	401 055 9107	OXIDE-MT 33 JB 1/2W	1	IC506	409 181 9206	IC TC74HC164AP	1
R465	401 014 4105	CARBON 1.5K JA 1/4W	1	IC507	409 181 9206	IC TC74HC164AP	1
R467	401 018 3807	CARBON 3.3K JA 1/4W	1	IC508	409 203 1409	IC TC74HC123AP	1
R468	401 060 7501	OXIDE-MT 270 JB 1W	1	IC509	409 051 9107	IC TC5081AP	1
R469	401 012 5708	CARBON 1K JA 1/4W	1	IC510	409 181 9800	IC TC74HC163AP	1
R470	402 041 8302	FUSIBLE RES 56 J-1/4W	1	IC511	409 181 9800	IC TC74HC163AP	1
R471	401 018 3807	CARBON 3.3K JA 1/4W	1	IC512	409 194 9309	IC SAA7320	1
R472	401 012 5708	CARBON 1K JA 1/4W	1	IC513	409 180 3304	IC NJM5532D	1
R473	401 012 7009	CARBON 10K JA 1/4W	1	IC515	409 203 1201	IC NJM78M08FA	1
R475	401 012 4503	CARBON 100 JA 1/4W	1	Q501	405 019 2807	TR 2SC536-F-SPA-AC	1
R481	401 027 0507	CARBON 470K JA 1/6W	1	or	405 019 3903	TR 2SC536-G-SPA-AC	1
R482	401 027 0507	CARBON 470K JA 1/6W	1	Q502	405 019 2807	TR 2SC536-F-SPA-AC	1
R483	401 024 7400	CARBON 10K JA 1/6W	1	or	405 019 3903	TR 2SC536-G-SPA-AC	1
R484	401 024 7400	CARBON 10K JA 1/6W	1	Q503	405 004 4601	TR 2SA608-F-SPA-AC	1
R485	401 026 3905	CARBON 330 JA 1/6W	1	or	405 004 5103	TR 2SA608-G-SPA-AC	1
R486	401 026 3905	CARBON 330 JA 1/6W	1	Q504	405 019 2807	TR 2SC536-F-SPA-AC	1
R487	401 024 7004	CARBON 1K JA 1/6W	1	or	405 019 3903	TR 2SC536-G-SPA-AC	1
R488	402 039 9908	OXIDE-MT 68 JB 1W	1	Q505	405 021 0204	TR 2SD1012-F-SPA-AC	1
R489	402 039 9908	OXIDE-MT 68 JB 1W	1	or	405 021 0600	TR 2SD1012-G-SPA-AC	1
				Q506	405 021 0204	TR 2SD1012-F-SPA-AC	1
				or	405 021 0600	TR 2SD1012-G-SPA-AC	1
<b>ASSY,PCB,BIAS,LEFT</b>				Q509	405 034 5104	TR 2SK246-BL	1
73	620 202 7616	Assy,PCB,Bias,Left	1	or	405 027 0505	TR 2SK246-GR	1
Q329	405 022 8209	TR 2SD1682-T	1	D501	407 125 8209	DIODE HSS271	1
or	405 022 8001	TR 2SD1682-S	1	or	407 008 0405	DIODE GMB01-BT	1
				D502	407 125 8209	DIODE HSS271	1
				or	407 008 0405	DIODE GMB01-BT	1
<b>ASSY,PCB,BIAS,RIGHT</b>				D503	407 125 8209	DIODE HSS271	1
74	620 202 7623	Assy,PCB,Bias,Right	1	or	407 008 0405	DIODE GMB01-BT	1
Q330	405 022 8209	TR 2SD1682-T	1	D504	407 125 8209	DIODE HSS271	1
or	405 022 8001	TR 2SD1682-S	1	or	407 008 0405	DIODE GMB01-BT	1
				D505	407 125 8209	DIODE HSS271	1
				or	407 008 0405	DIODE GMB01-BT	1
<b>ASSY,PCB,LAMP</b>				D506	407 125 8209	DIODE HSS271	1
75	620 202 7630	Assy,PCB,Lamp	1	or	407 008 0405	DIODE GMB01-BT	1
	620 030 8083	Lamp	2	D507	407 125 8209	DIODE HSS271	1
	620 198 0875	Spacer	2	or	407 008 0405	DIODE GMB01-BT	1
SH106	620 202 9061	Socket,Holder,3P	1	D508	407 125 8209	DIODE HSS271	1
				or	407 008 0405	DIODE GMB01-BT	1
<b>ASSY,PCB-W,DAC</b>				D509	407 125 8209	DIODE HSS271	1
76	620 202 7654	Assy,PCB-W,DAC	1	or	407 008 0405	DIODE GMB01-BT	1
	620 205 2359	Shield,Cover	1	D510	407 125 8209	DIODE HSS271	1
	620 202 8095	Jack,RCA PIN,1P,GR	1	or	407 008 0405	DIODE GMB01-BT	1
	620 197 8421	Assy,Converter,TORX174	1	D511	407 125 8209	DIODE HSS271	1
	620 197 8445	CAP,TORX174	1	or	407 008 0405	DIODE GMB01-BT	1
	620 196 1591	Converter,O/E,Torx-174	1	D512	407 125 8209	DIODE HSS271	1
	620 197 8421	Assy,Converter,TORX174	1	or	407 008 0405	DIODE GMB01-BT	1
	620 197 8445	CAP,TORX174	1	D513	407 125 8209	DIODE HSS271	1
	620 196 1591	Converter,O/E,Torx-174	1	or	407 008 0405	DIODE GMB01-BT	1
	620 197 8438	Assy,Converter,TOTX174	1	D514	407 049 6107	ZENER DIODE GZA11Z	1
	620 197 8445	CAP,TORX174	1	C501	403 121 9509	CERAMIC 0.1U Z 50V	1
	620 196 1607	Converter,E/O,Totx-174	1	C502	403 038 2303	ELECT 100U M 6.3V	1
CN113	620 022 0231	Plug 7P	1	C503	403 001 1906	CERAMIC 0.01U M 16V	1
FB501	620 198 5016	Inductor,Ferrite BL03	1	C504	403 038 2303	ELECT 100U M 6.3V	1
FB502	620 198 5016	Inductor,Ferrite BL03	1	C505	403 001 1906	CERAMIC 0.01U M 16V	1
FB503	620 198 5016	Inductor,Ferrite BL03	1	C506	403 038 2303	ELECT 100U M 6.3V	1
FB504	620 198 5016	Inductor,Ferrite BL03	1	C507	403 001 1906	CERAMIC 0.01U M 16V	1
FB505	620 198 5016	Inductor,Ferrite BL03	1	C508	403 038 2303	ELECT 100U M 6.3V	1
FB506	620 198 5016	Inductor,Ferrite BL03	1	C509	403 001 1906	CERAMIC 0.01U M 16V	1
FB507	620 198 5016	Inductor,Ferrite BL03	1	C510	403 001 1906	CERAMIC 0.01U M 16V	1
FB508	620 198 5016	Inductor,Ferrite BL03	1				
FB509	620 198 5016	Inductor,Ferrite BL03	1				
FB510	620 198 5016	Inductor,Ferrite BL03	1				

## P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty	
C511	403 001 1906	CERAMIC	0.01U M 16V	1	R521	401 026 7002	CARBON 3.9K JA 1/6W	1
C512	403 001 1906	CERAMIC	0.01U M 16V	1	R522	401 026 6401	CARBON 39 JA 1/6W	1
C513	403 001 1906	CERAMIC	0.01U M 16V	1	R523	401 026 9907	CARBON 4.7K JA 1/6W	1
C514	403 067 6709	MT-COMPO	0.22U J 50V	1	R524	401 024 7707	CARBON 100K JA 1/6W	1
C515	403 042 0302	ELECT	10U M 16V	1	R525	401 024 7707	CARBON 100K JA 1/6W	1
C516	403 001 1906	CERAMIC	0.01U M 16V	1	R526	401 012 5708	CARBON 1K JA 1/4W	1
C517	403 038 2303	ELECT	100U M 6.3V	1	R527	401 024 7707	CARBON 100K JA 1/6W	1
C518	403 017 9705	CERAMIC	22P J 50V	1	R528	401 024 7400	CARBON 10K JA 1/6W	1
C519	403 001 1906	CERAMIC	0.01U M 16V	1	R529	401 025 7805	CARBON 2.2K JA 1/6W	1
C520	403 038 2303	ELECT	100U M 6.3V	1	R530	401 024 7400	CARBON 10K JA 1/6W	1
C521	403 001 1906	CERAMIC	0.01U M 16V	1	R531	401 012 7009	CARBON 10K JA 1/4W	1
C522	403 001 1906	CERAMIC	0.01U M 16V	1	R532	401 024 7400	CARBON 10K JA 1/6W	1
C523	403 001 1906	CERAMIC	0.01U M 16V	1	R533	401 012 5708	CARBON 1K JA 1/4W	1
C524	403 042 0302	ELECT	10U M 16V	1	R534	401 024 7400	CARBON 10K JA 1/6W	1
C525	403 001 1906	CERAMIC	0.01U M 16V	1	R535	401 024 7400	CARBON 10K JA 1/6W	1
C526	403 001 1906	CERAMIC	0.01U M 16V	1	R536	401 027 0309	CARBON 47K JA 1/6W	1
C527	403 042 0302	ELECT	10U M 16V	1	R541	401 027 7209	CARBON 7.5K JA 1/6W	1
C528	403 121 9509	CERAMIC	0.1U Z 50V	1	R542	401 027 7209	CARBON 7.5K JA 1/6W	1
C529	403 121 9509	CERAMIC	0.1U Z 50V	1	R543	401 027 2600	CARBON 5.6K JA 1/6W	1
C530	403 038 7209	ELECT	220U M 6.3V	1	R544	401 027 2600	CARBON 5.6K JA 1/6W	1
C531	403 080 4904	POLYPRO	100P J 100V	1	R545	401 027 2600	CARBON 5.6K JA 1/6W	1
C532	403 080 4904	POLYPRO	100P J 100V	1	R546	401 027 2600	CARBON 5.6K JA 1/6W	1
C533	403 080 5208	POLYPRO	1000P J 100V	1	R547	401 026 0003	CARBON 24K JA 1/6W	1
C534	403 080 5208	POLYPRO	1000P J 100V	1	R548	401 026 0003	CARBON 24K JA 1/6W	1
C535	403 149 7105	POLYPRO	680P J 100V	1	R549	401 024 8001	CARBON 1M JA 1/6W	1
C536	403 149 7105	POLYPRO	680P J 100V	1	R550	401 024 8001	CARBON 1M JA 1/6W	1
C537	403 080 5208	POLYPRO	1000P J 100V	1	R551	401 025 8208	CARBON 22K JA 1/6W	1
C538	403 080 5208	POLYPRO	1000P J 100V	1	R552	401 025 8208	CARBON 22K JA 1/6W	1
C539	403 081 6105	POLYPRO	330P J 100V	1	R553	401 024 7004	CARBON 1K JA 1/6W	1
C540	403 081 6105	POLYPRO	330P J 100V	1	R554	401 024 7004	CARBON 1K JA 1/6W	1
C541	403 082 0300	POLYPRO	470P J 100V	1	R555	401 024 7400	CARBON 10K JA 1/6W	1
C542	403 082 0300	POLYPRO	470P J 100V	1	R556	401 024 7400	CARBON 10K JA 1/6W	1
C543	403 042 0302	ELECT	10U M 16V	1	R557	401 025 8208	CARBON 22K JA 1/6W	1
C544	403 042 0302	ELECT	10U M 16V	1	R558	401 025 8208	CARBON 22K JA 1/6W	1
C545	403 042 0302	ELECT	10U M 16V	1	R559	401 027 0309	CARBON 47K JA 1/6W	1
C546	403 042 0302	ELECT	10U M 16V	1	R560	401 027 0309	CARBON 47K JA 1/6W	1
C549	403 039 7802	ELECT	100U M 10V	1	R561	401 024 7004	CARBON 1K JA 1/6W	1
C550	403 044 0201	ELECT	47U M 16V	1	R562	401 024 7004	CARBON 1K JA 1/6W	1
C551	403 042 0302	ELECT	10U M 16V	1	R563	401 012 7009	CARBON 10K JA 1/4W	1
C554	403 121 9509	CERAMIC	0.1U Z 50V	1	R564	401 024 7400	CARBON 10K JA 1/6W	1
C555	403 121 9509	CERAMIC	0.1U Z 50V	1	R565	401 026 9907	CARBON 4.7K JA 1/6W	1
C556	403 039 4504	ELECT	470U M 6.3V	1	R566	401 026 9907	CARBON 4.7K JA 1/6W	1
C557	403 041 5704	ELECT	470U M 10V	1	R571	401 024 7707	CARBON 100K JA 1/6W	1
C558	404 037 1304	CERAMIC	1U Z 50V	1	R572	401 026 4605	CARBON 33K JA 1/6W	1
C559	403 001 1906	CERAMIC	0.01U M 16V	1	R573	401 026 4308	CARBON 3.3K JA 1/6W	1
C560	403 039 7802	ELECT	100U M 10V	1	R574	401 026 4308	CARBON 3.3K JA 1/6W	1
C561	403 074 6303	CERAMIC	560P K 50V	1	R575	401 012 4503	CARBON 100 JA 1/4W	1
C562	403 039 7802	ELECT	100U M 10V	1	R576	401 020 0801	CARBON 470 JA 1/4W	1
C563	403 001 1906	CERAMIC	0.01U M 16V	1	R577	401 024 7004	CARBON 1K JA 1/6W	1
C564	403 001 1906	CERAMIC	0.01U M 16V	1	R578	401 024 6700	CARBON 100 JA 1/6W	1
C568	403 017 7701	CERAMIC	22P J 50V	1	R579	401 024 7707	CARBON 100K JA 1/6W	1
C569	403 068 9402	CERAMIC	100P K 50V	1				
C570	403 071 6207	CERAMIC	220P K 50V	1				
C571	403 121 9509	CERAMIC	0.1U Z 50V	1	<b>ASSY,PCB-W,5V</b>			
C572	403 121 9509	CERAMIC	0.1U Z 50V	1	77	620 202 7678	Assy,PCB-W,5V	1
C573	403 069 1207	CERAMIC	1000P K 50V	1	IC514	409 169 7804	IC NJM78M05FA	1
C579	403 026 2209	CERAMIC	47P J 50V	1	C552	403 121 9509	CERAMIC 0.1U Z 50V	1
C580	403 001 2309	CERAMIC	0.01U N 16V	1	C553	403 121 9509	CERAMIC 0.1U Z 50V	1
C581	403 001 2309	CERAMIC	0.01U N 16V	1				
C582	403 001 2309	CERAMIC	0.01U N 16V	1				
R501	401 025 1308	CARBON	150 JA 1/6W	1				
R502	401 025 1308	CARBON	150 JA 1/6W	1				
R503	401 026 7408	CARBON	39K JA 1/6W	1				
R504	401 026 4308	CARBON	3.3K JA 1/6W	1				
R506	401 026 9600	CARBON	470 JA 1/6W	1				
R507	401 020 0801	CARBON	470 JA 1/4W	1				
R508	401 027 8602	CARBON	8.2K JA 1/6W	1				
R509	401 020 0801	CARBON	470 JA 1/4W	1				
R510	401 026 9907	CARBON	4.7K JA 1/6W	1				
R511	401 020 0801	CARBON	470 JA 1/4W	1				
R512	401 024 7707	CARBON	100K JA 1/6W	1				
R513	401 024 7707	CARBON	100K JA 1/6W	1				
R514	401 024 7707	CARBON	100K JA 1/6W	1				
R515	401 024 7707	CARBON	100K JA 1/6W	1				
R516	401 012 5708	CARBON	1K JA 1/4W	1				
R517	401 024 7707	CARBON	100K JA 1/6W	1				
R518	401 024 7004	CARBON	1K JA 1/6W	1				
R519	401 025 6204	CARBON	2K JA 1/6W	1				
R520	401 024 7004	CARBON	1K JA 1/6W	1				

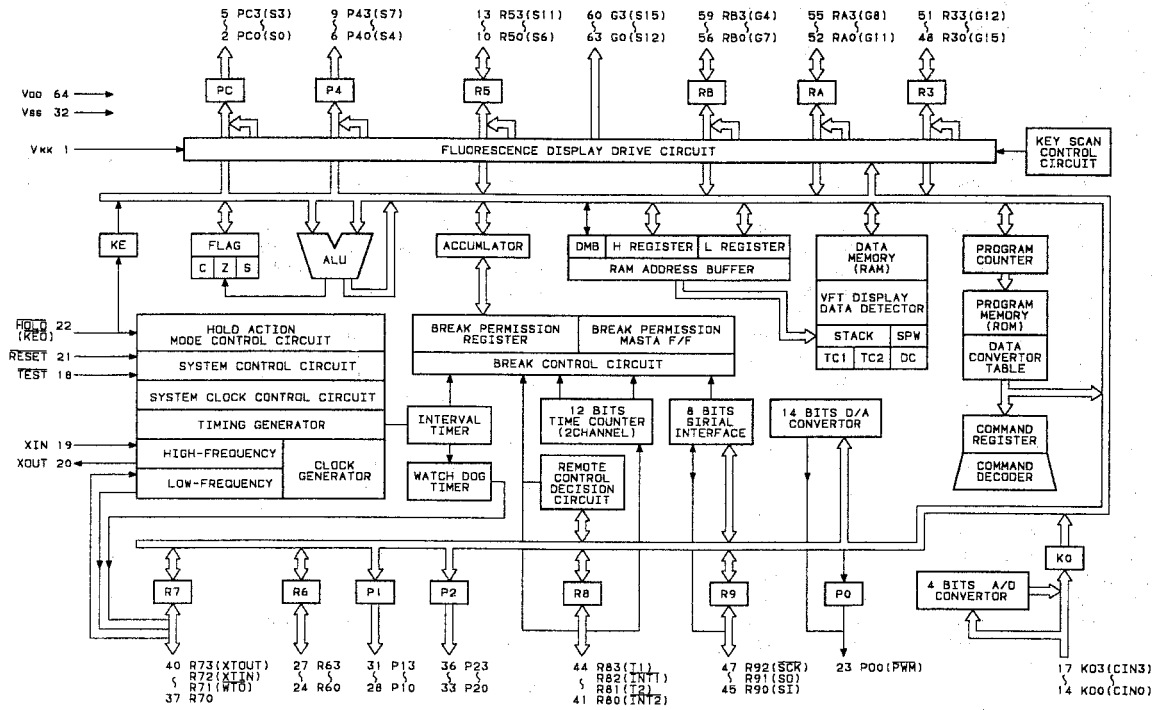
- NOTES:**
- Parts order must contain Model Number, Part Number and Description.
  - Ordering quantity of screws and resistors must be multiple of 10 pcs.

**PRODUCT SAFETY NOTICE**

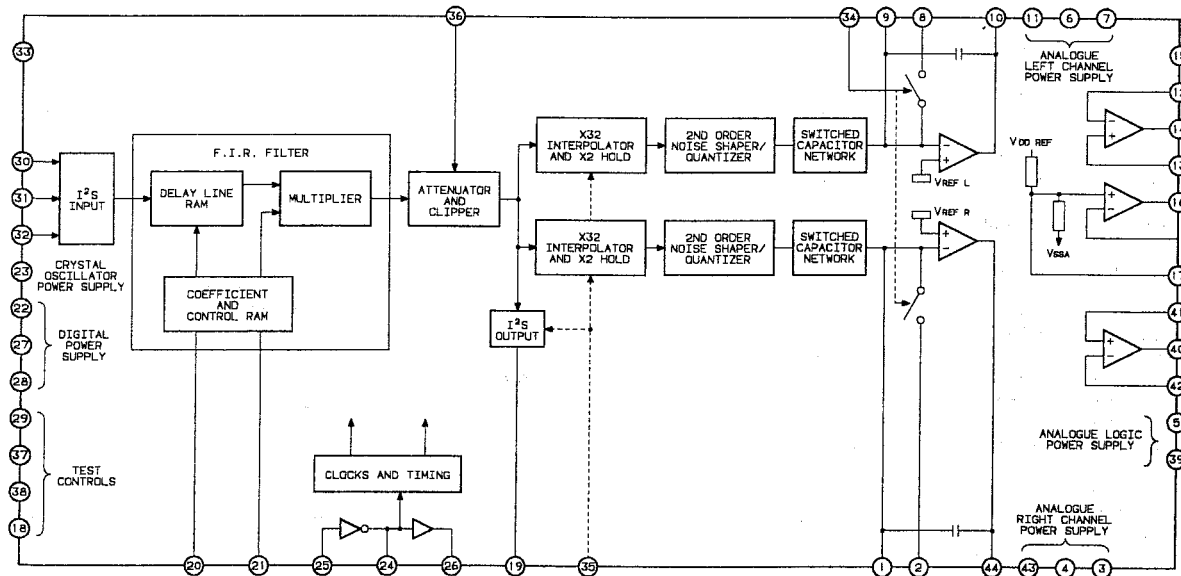
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol  $\Delta$  in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with  $\Delta$ , use only the replacement parts designated, or parts with the same ratings of resistance, wattage or voltage that are designated in the parts list in this manual. Leakage-current or resistance measurements must be made to determine that exposed parts are acceptably insulated from the supply circuit before returning the product to the customer.

# IC BLOCK DIAGRAM

## TMP47P870N-CA-9060E BLOCK DIAGRAM

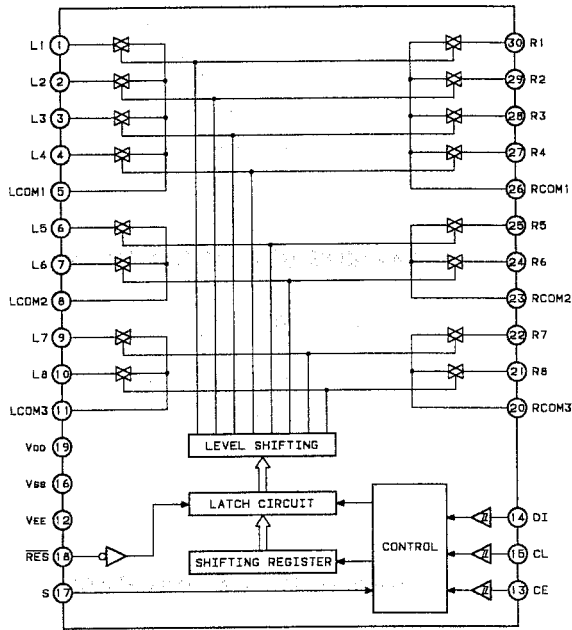


## SAA7320 BLOCK DIAGRAM

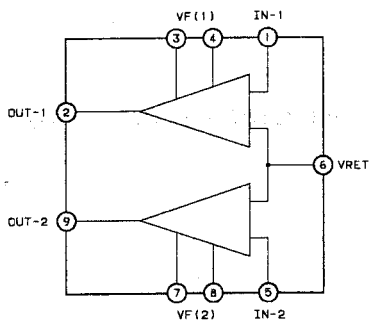


# IC BLOCK DIAGRAM (Continued)

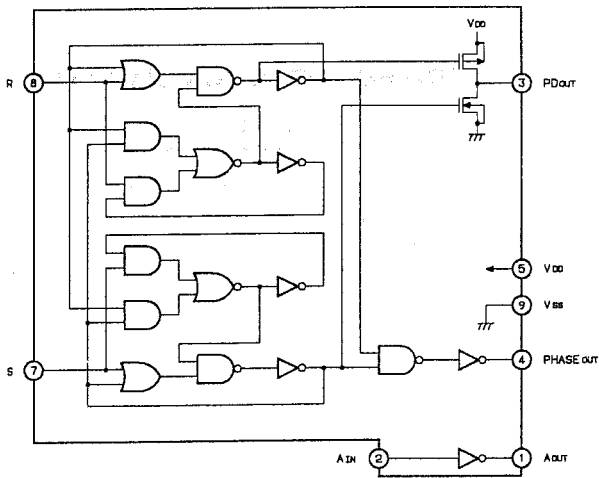
## LC7821 BLOCK DIAGRAM



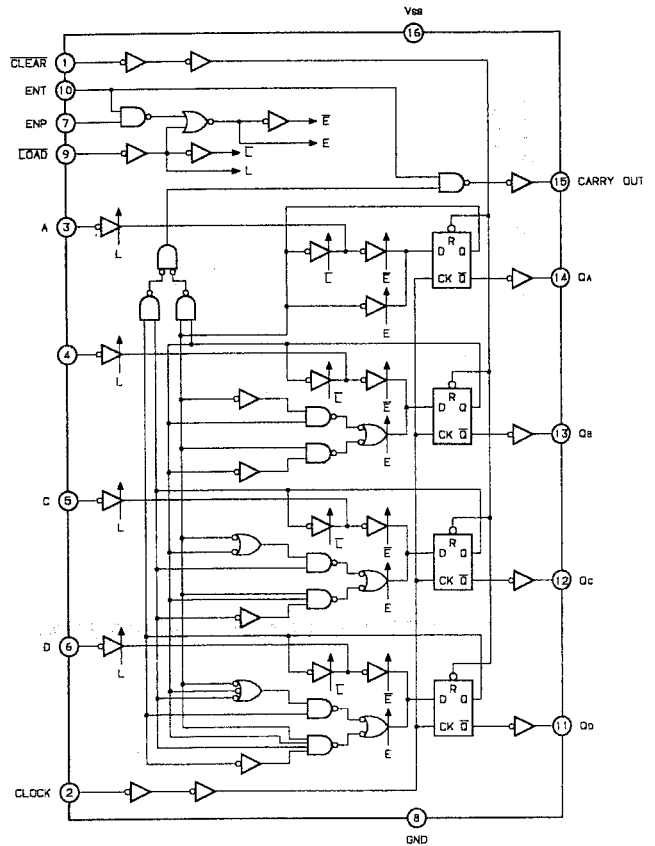
## LA2500 BLOCK DIAGRAM



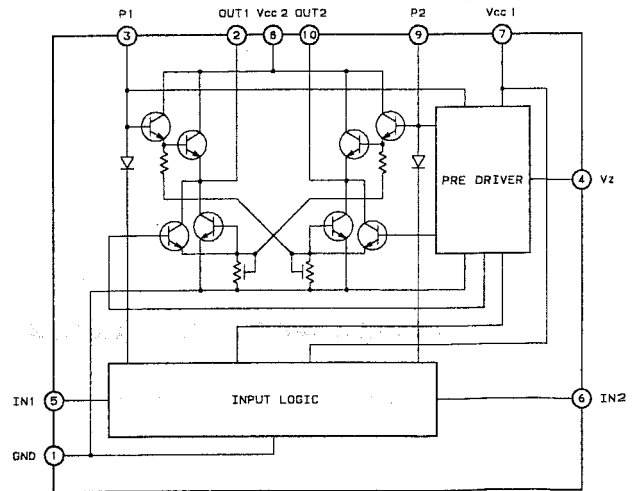
## TC5081AP BLOCK DIAGRAM



## TC74HC163AP BLOCK DIAGRAM

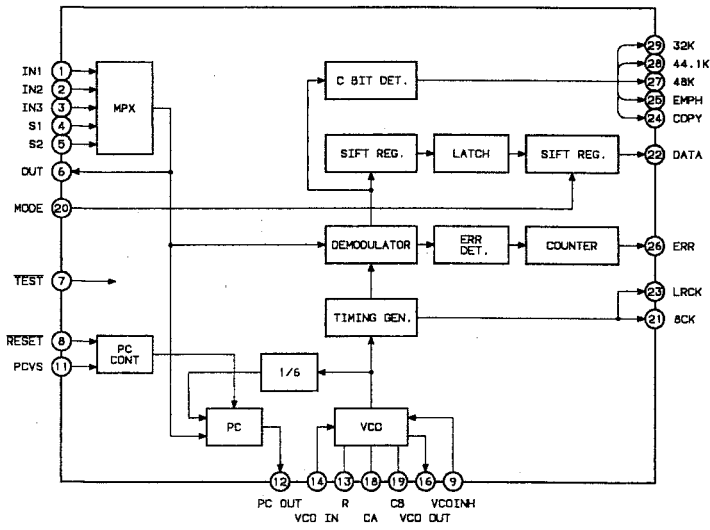


## LB1641 BLOCK DIAGRAM

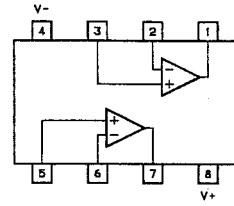


IC BLOCK DIAGRAM (Continued)

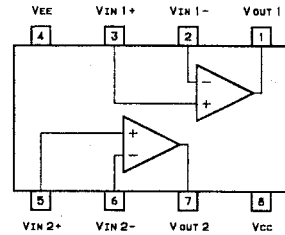
PD0052 BLOCK DIAGRAM



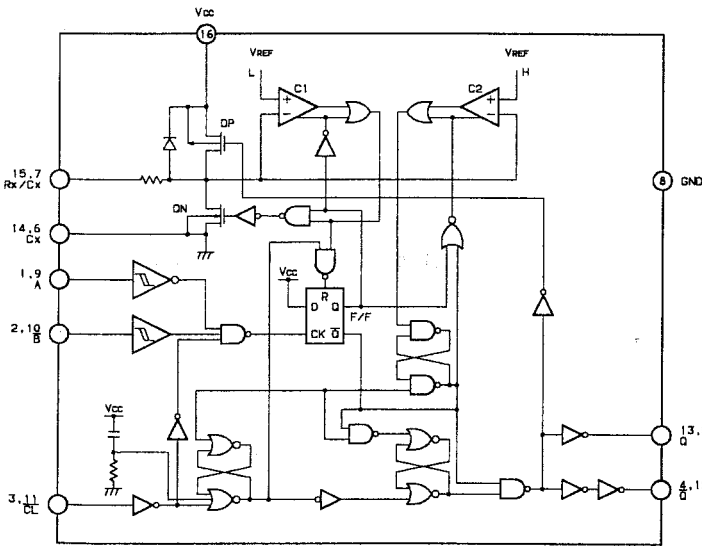
UPC4570C BLOCK DIAGRAM



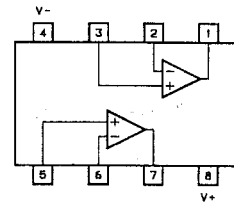
LA6458DS BLOCK DIAGRAM



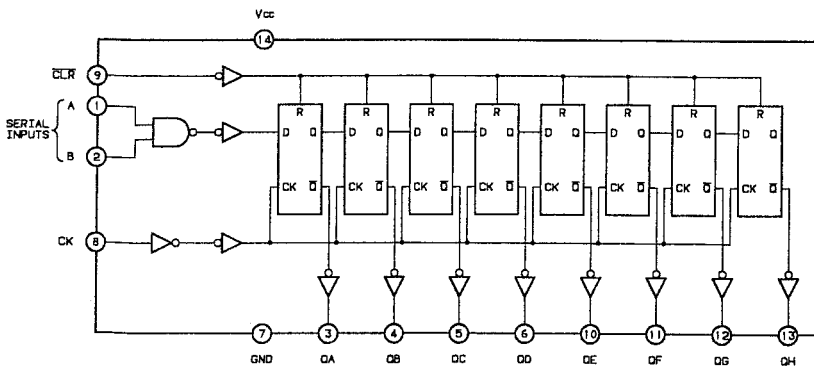
TC74HC123AP BLOCK DIAGRAM



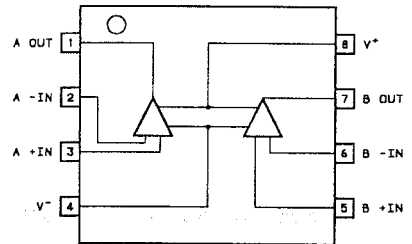
LA6462D BLOCK DIAGRAM



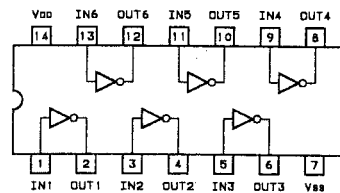
TC74HC164AP BLOCK DIAGRAM



NJM5532D BLOCK DIAGRAM



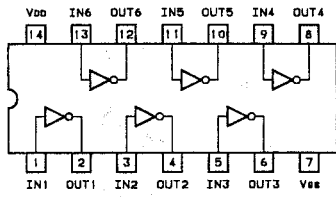
TC74HCU04P BLOCK DIAGRAM



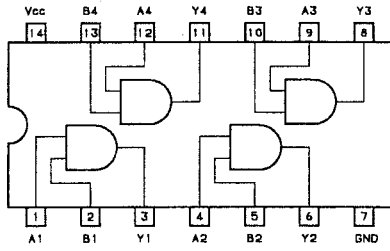


IC BLOCK DIAGRAM (Continued)

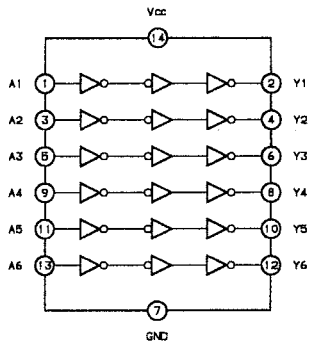
**TC74HC04AP BLOCK DIAGRAM**



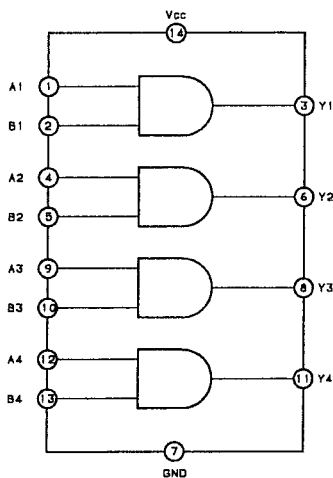
**TC74HC08P BLOCK DIAGRAM**



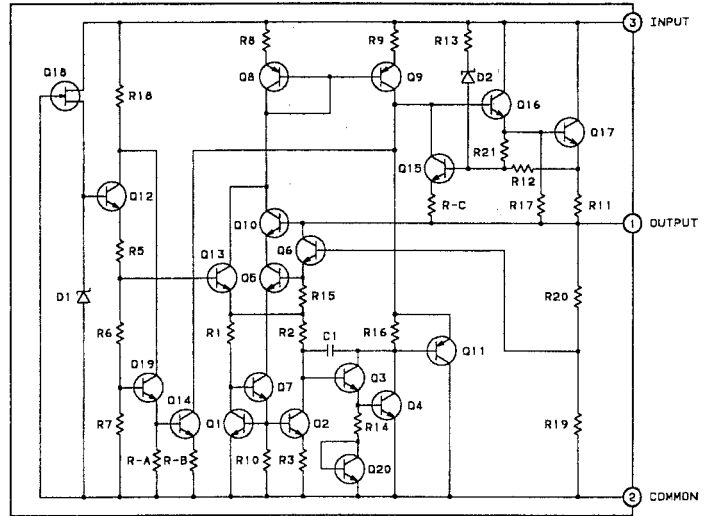
**MC74HC04AN BLOCK DIAGRAM**



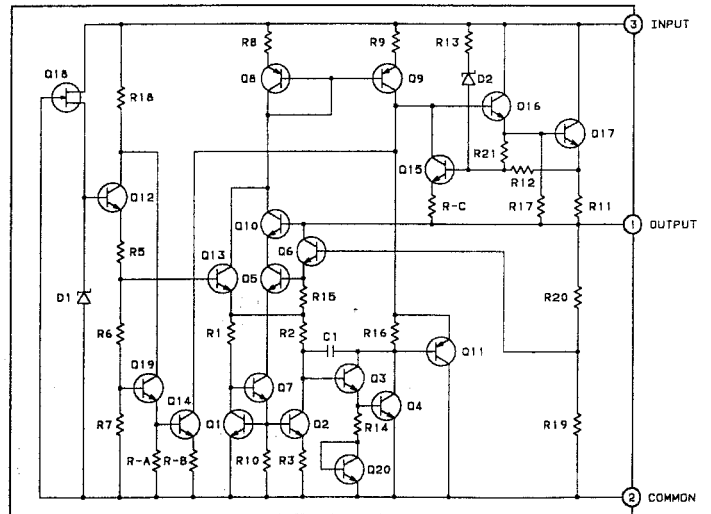
**SN74LS08N BLOCK DIAGRAM**



**NJM78M08FA BLOCK DIAGRAM**

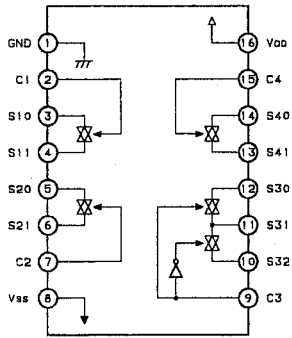


**NJM78M05FA BLOCK DIAGRAM**

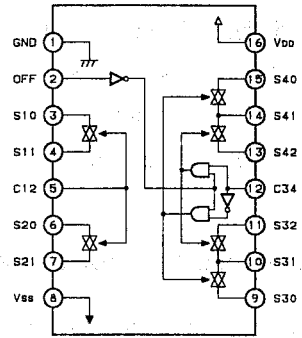


# IC BLOCK DIAGRAM (Continued)

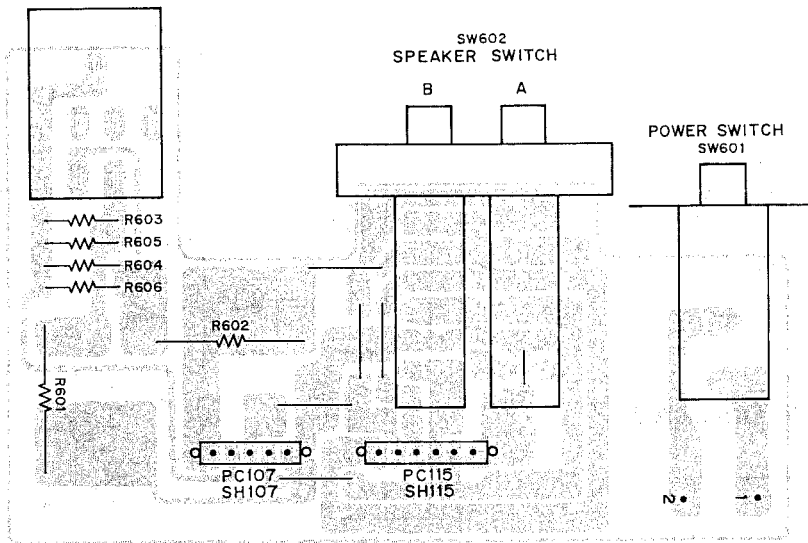
## TC9214P BLOCK DIAGRAM



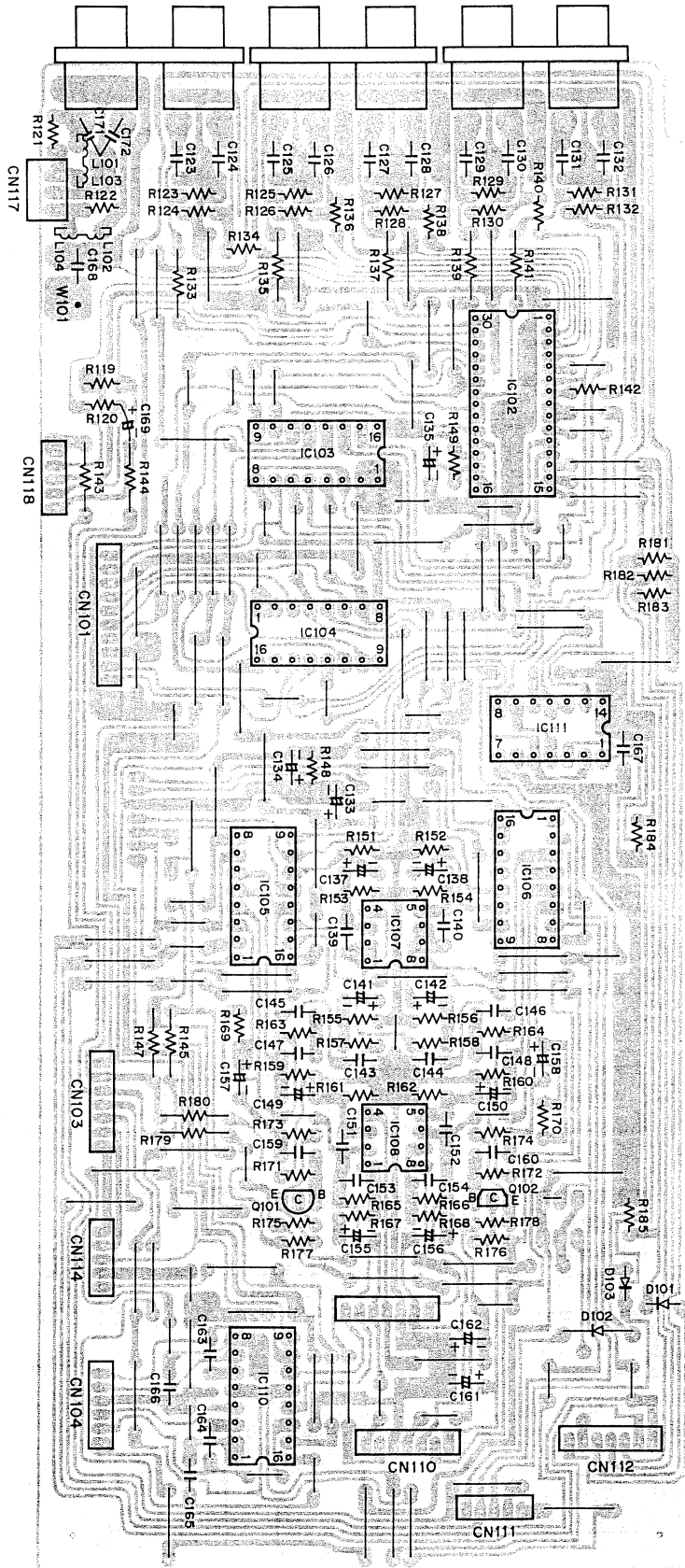
## TC9215P BLOCK DIAGRAM



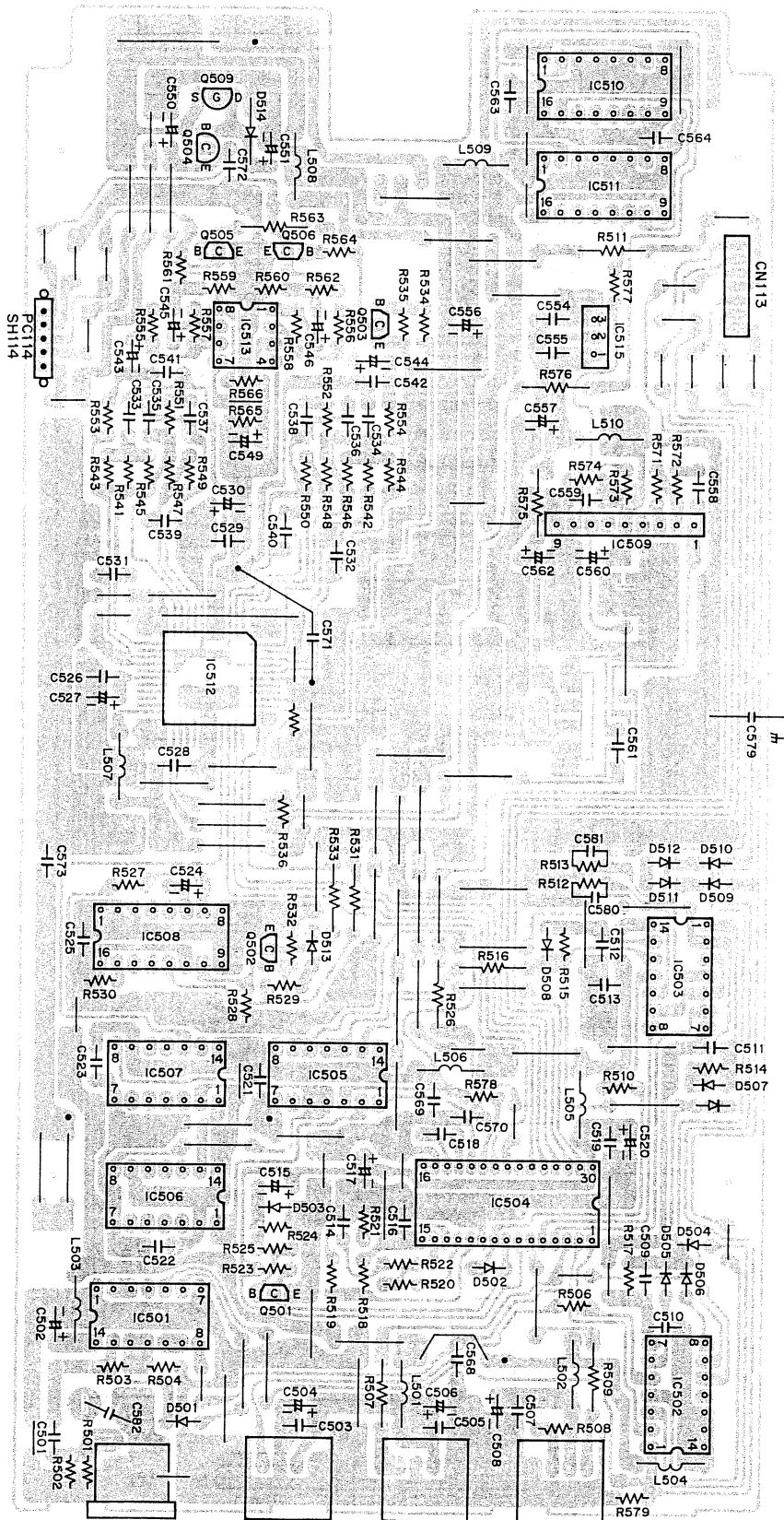
# SPEAKER SWITCH P.C.BOARD (BOTTOM VIEW)



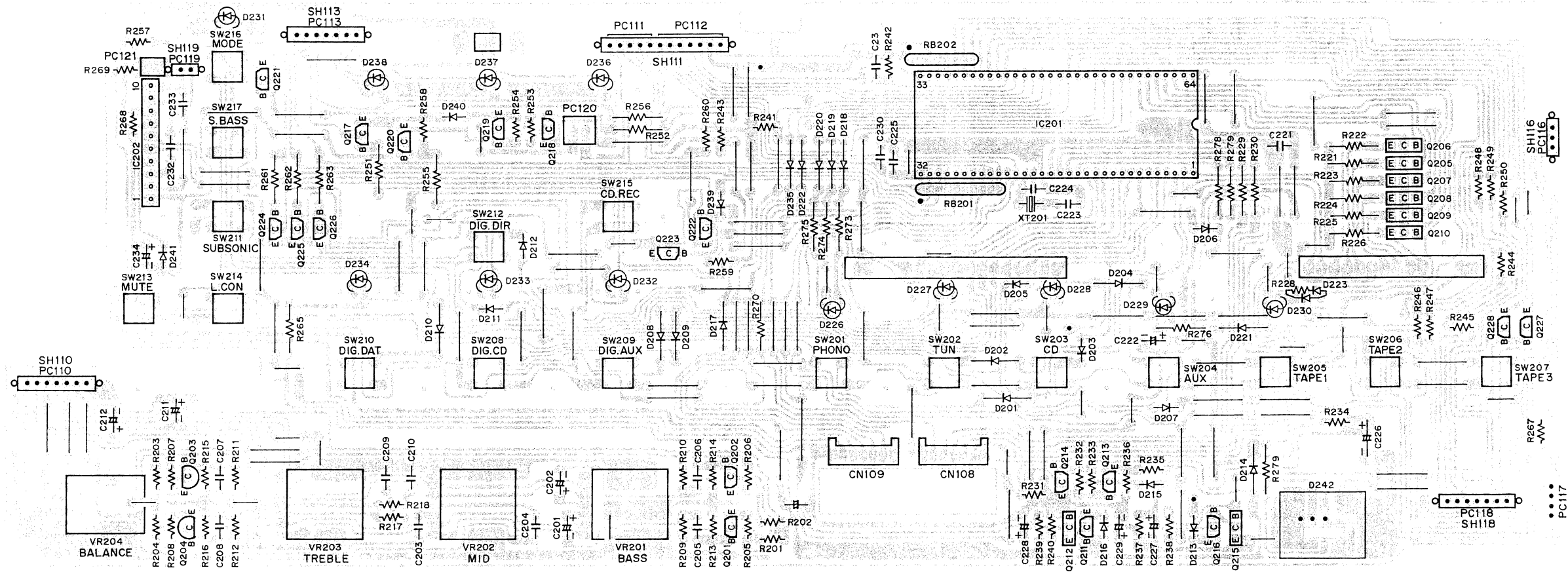
# INPUT PRINTED CIRCUIT BOARD (BOTTOM VIEW)



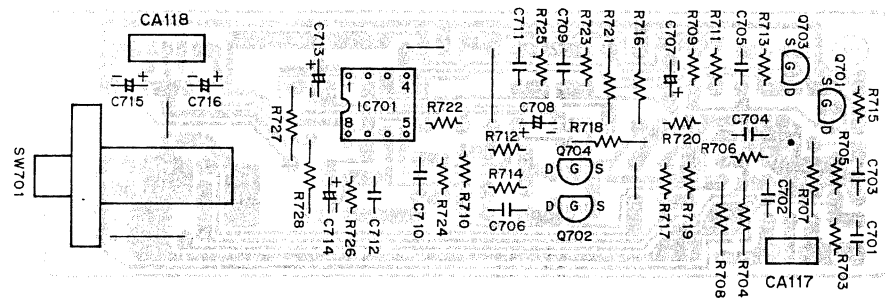
# DAC PRINTED CIRCUIT BOARD (BOTTOM VIEW)



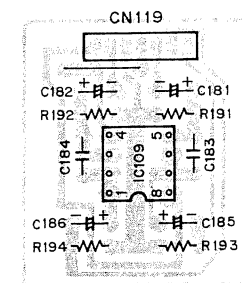
## CONTROL PRINTED CIRCUIT BOARD (BOTTOM VIEW)



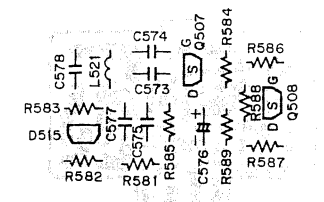
### PHONO EQ P.C. BOARD (BOTTOM VIEW)



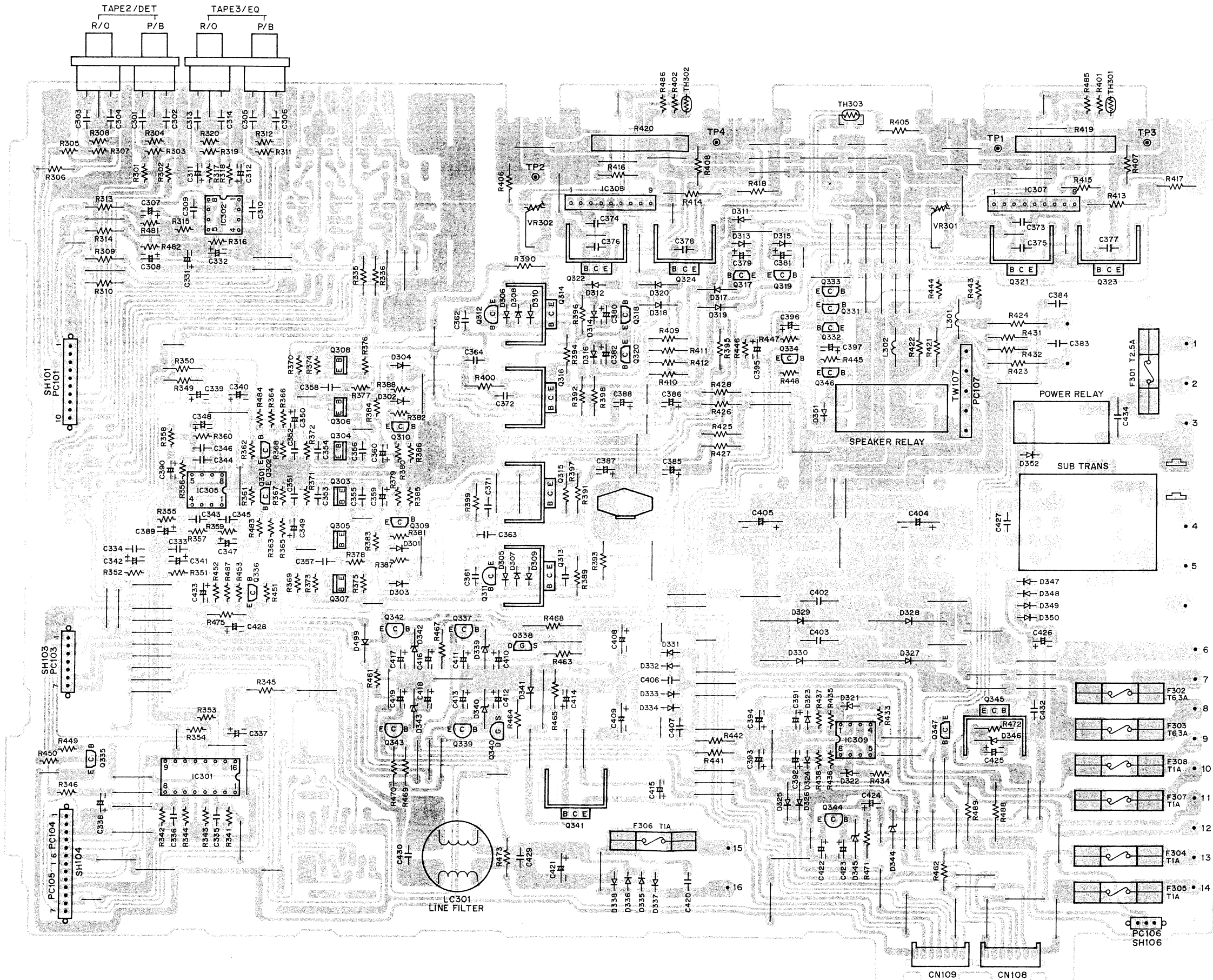
### FLAT AMP P.C. BOARD (BOTTOM VIEW)



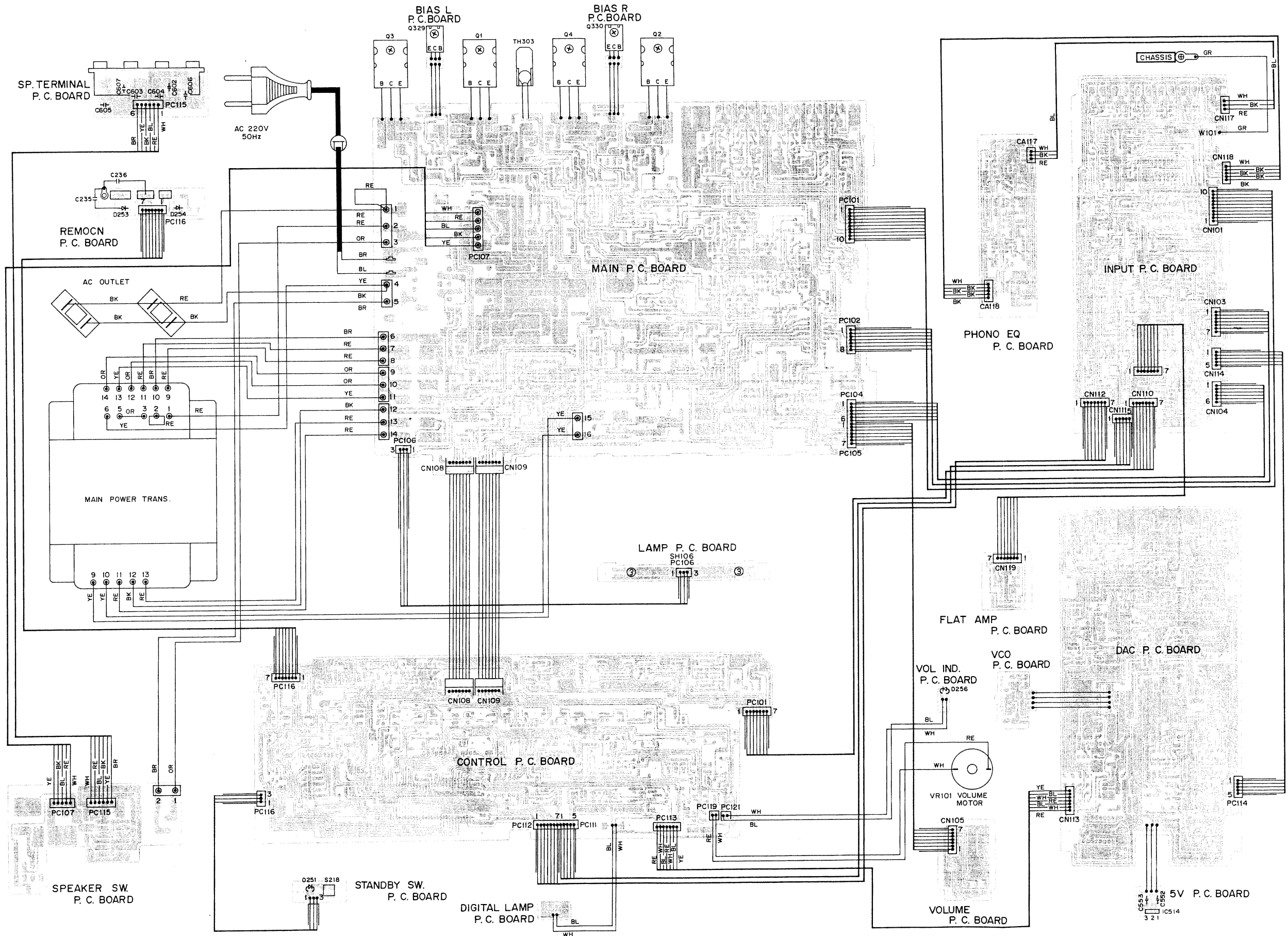
### VCO P.C. BOARD (BOTTOM VIEW)



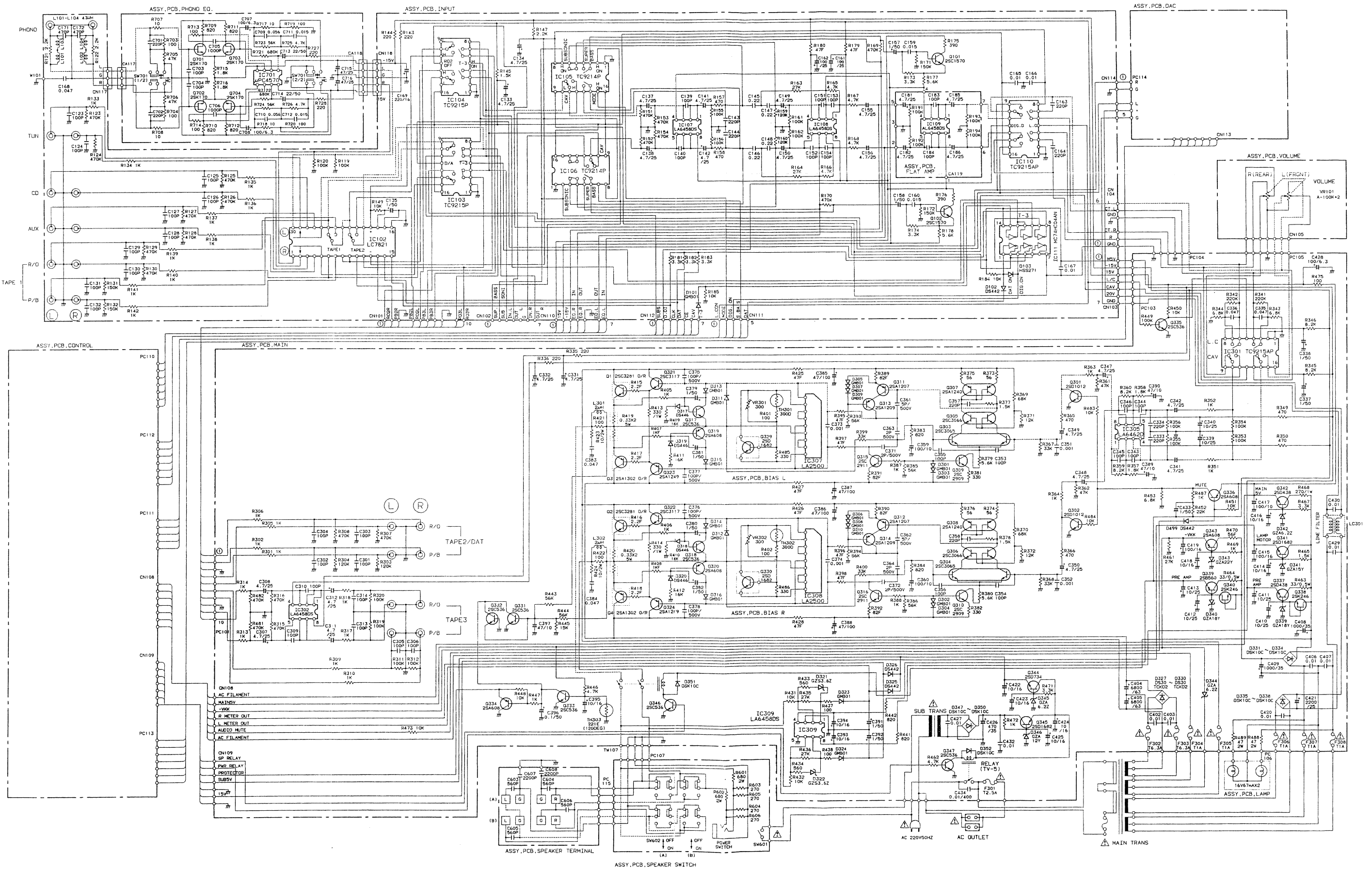
# MAIN PRINTED CIRCUIT BOARD (BOTTOM VIEW)



# POINT TO POINT WIRING DIAGRAM

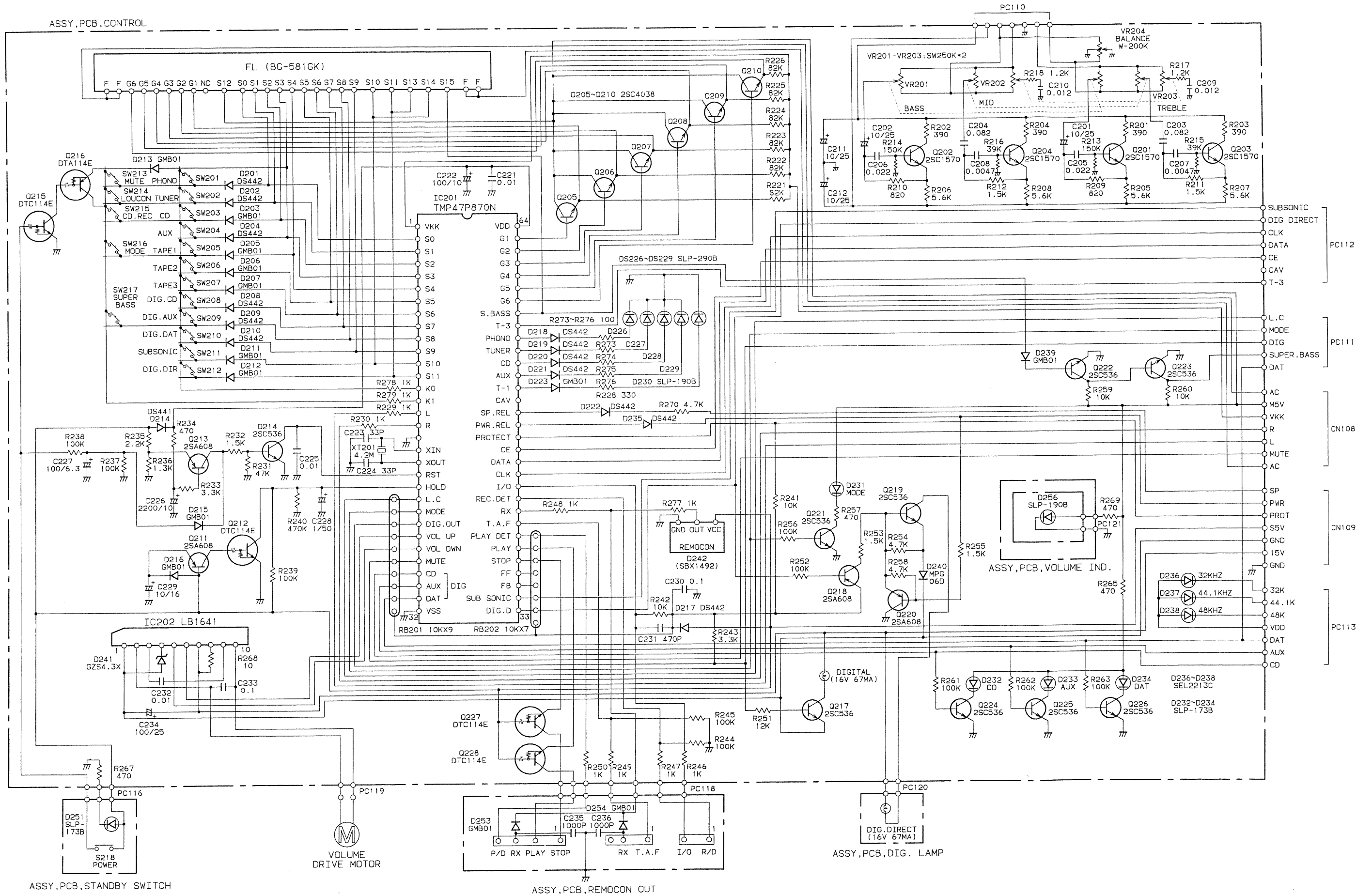


# SCHEMATIC DIAGRAM (Main Unit Section)

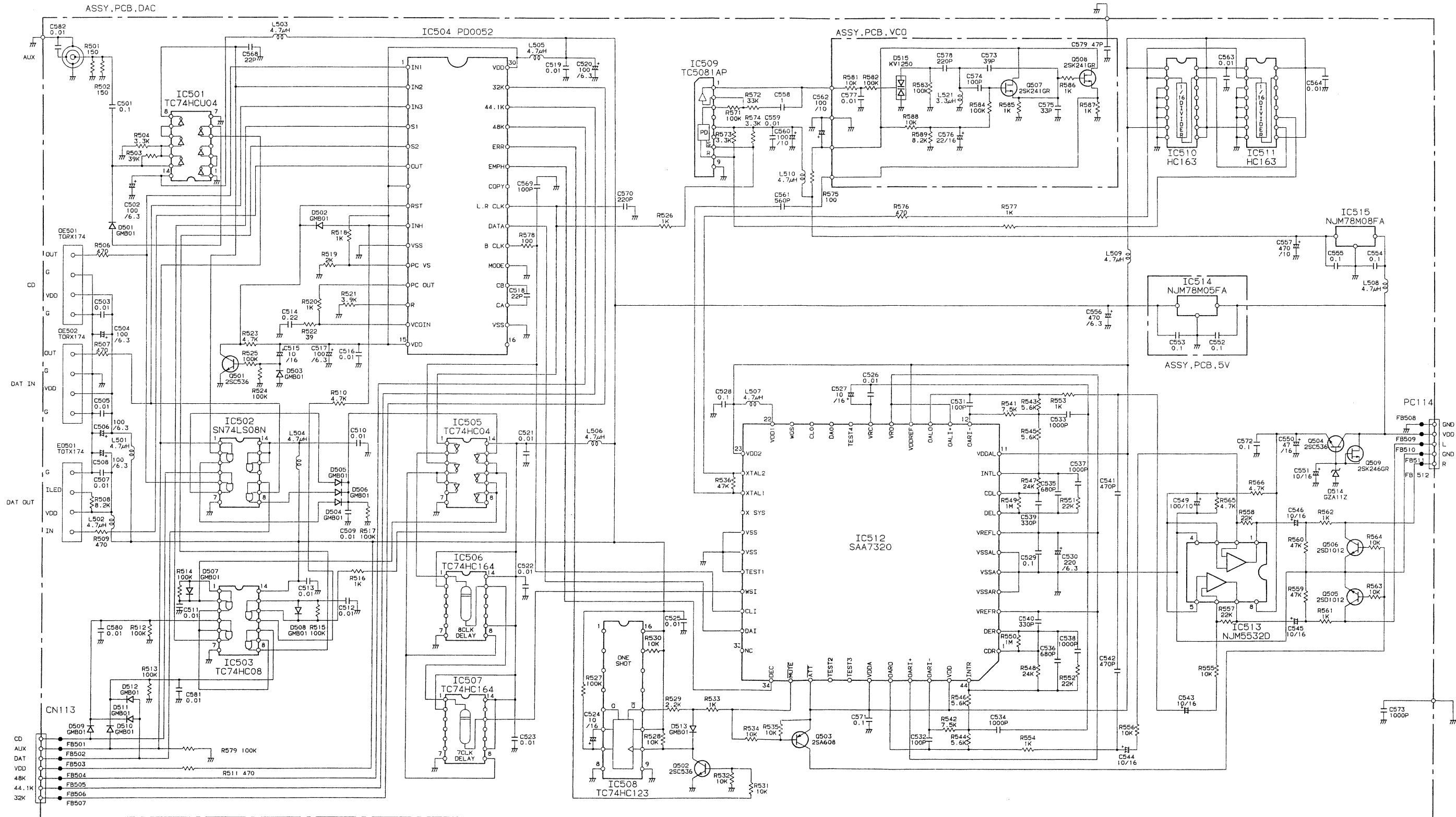




# SCHEMATIC DIAGRAM (Control P.C.Board Section)



# SCHEMATIC DIAGRAM (DAC P.C.Board Section)

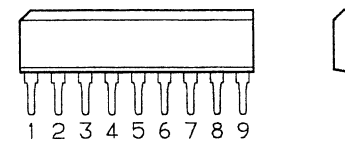


## IC & TRANSISTOR LEAD IDENTIFICATION

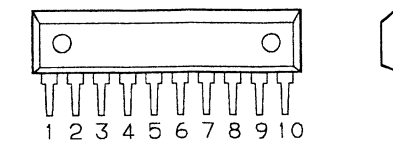
TRANSISTOR	FRONT VIEW	BOTTOM VIEW	TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SA1207 2SC1570 2SC2909 2SD734			2SB560 2SD438		
2SA1209 2SA1249 2SC2911 2SC3117			2SA1302 2SC3281		
DTA114 2SA608 2SC536 2SD1012			2SK241		
2SK246			2SA1240 2SC3065 2SC3066		
2SD1682			DTC114 2SC4038		
2SK170					
<b>TERMINAL NAME</b>					
B → BASE		S → SOURCE			
C → COLLECTOR		G → GATE			
E → EMITTER		D → DRAIN			

## IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

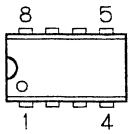
LA2500 FRONT/SIDE VIEWS  
TC5081AP FRONT/SIDE VIEWS



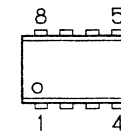
LB1641 FRONT/SIDE VIEWS



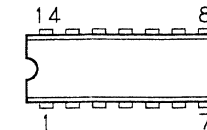
UPC4570C TOP VIEW



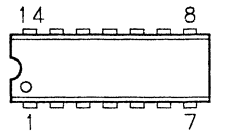
LA6458DS TOP VIEW  
LA6462D TOP VIEW  
NJM5532D TOP VIEW



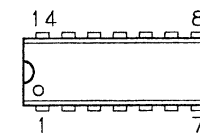
TC74HCU04P TOP VIEW  
TC74HC04AP TOP VIEW  
TC74HC08P TOP VIEW  
TC74HC164AP TOP VIEW



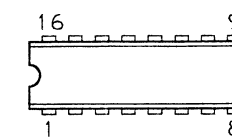
SN74LS08N TOP VIEW



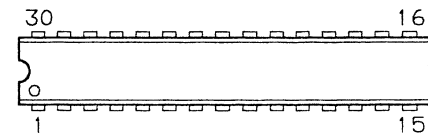
MC74HC04AN TOP VIEW



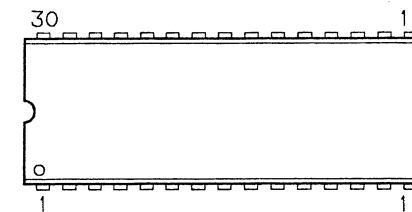
TC74HC123AP TOP VIEW  
TC74HC163AP TOP VIEW  
TC9214P TOP VIEW  
TC9215P TOP VIEW



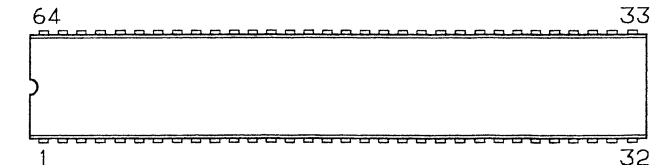
LC7821 TOP VIEW



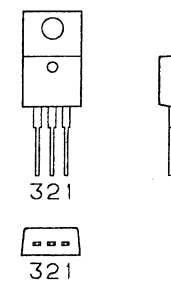
PD0052 TOP VIEW



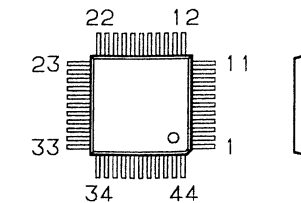
TMP47P870N-CA-9060E TOP VIEW



NJM78M05FA TOP/SIDE VIEWS



SAA7320 TOP/SIDE VIEWS



NJM78M08FA TOP/SIDE VIEWS

