

SERVICE MANUAL



FISHER

INTEGRATED STEREO
AMPLIFIER WITH RCA-9050
WIRELESS REMOTE CONTROL

CA-9050

(EUROPE)



132 352 40

SPECIFICATIONS

RCA-9050
Wireless Remote Control 43 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
(2-speaker system)
or
25 Watts (satellite speakers)
and 100 Watts (woofer)
Power Bandwidth 40 Hz - 12.5 kHz
Total Harmonic Distortion 0.05 %
I.M. Distortion 0.05 %
Speaker Damping > 30

PREAMPLIFIER SECTION

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

Input Sensitivity and Impedance

Phono 2.5 mV/50 k Ω
Tape Monitor 1,2,3 150 mV/50 k Ω
Tuner/AUX/CD 150 mV/50 k Ω
Phono Maximum Input Capability 160 mV
Graphic Equalizer
(63 Hz/250 Hz/1 kHz/4 kHz/16 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 70 dB
Tape Monitor 1,2,3 90 dB
Tuner/AUX/CD 90 dB
Source Direct (AUX) 95 dB

GENERAL

Power Requirements AC 220 V
(50 Hz) 500 W
AC Outlets (Switched) 3
Dimensions (WxHxD) 440 x 146 x 340 mm
Weight (Approximate) 11.0 kg

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

REFERENCE No. WM-570408

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 VR401/VR402 (on the Main P.C.Board) and VR601 (on the Center Amp. 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.

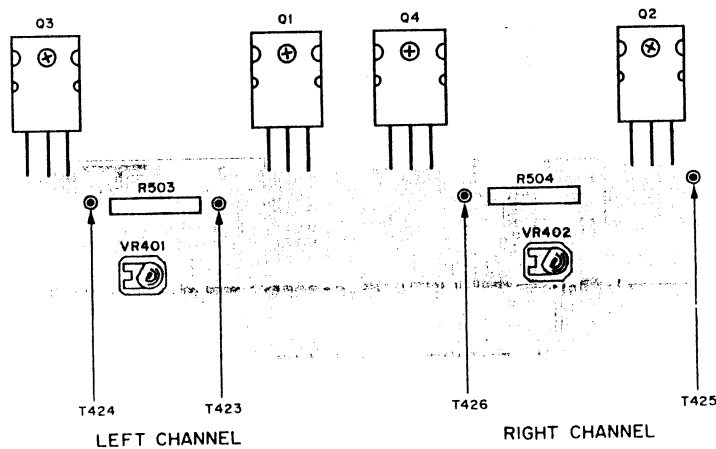
LEFT CHANNEL AMPLIFIER

1. Connect the DC Voltmeter between Pins T423 and T424 on the Main P.C.Board.
2. Adjust the VR401 for an indication of $3\text{mV} \pm 0.5\text{mV}$ on the DC Voltmeter.

RIGHT CHANNEL AMPLIFIER

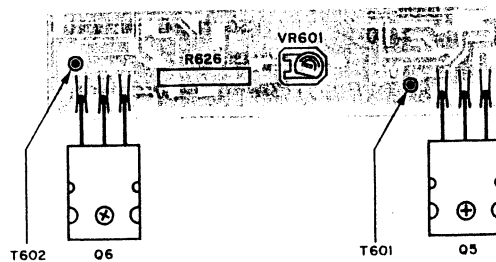
1. Connect the DC Voltmeter between Pins T425 and T426 on the Main P.C.Board.
2. Adjust the VR402 for an indication of $3\text{mV} \pm 0.5\text{mV}$ on the DC Voltmeter.

ADJUSTMENT POINTS

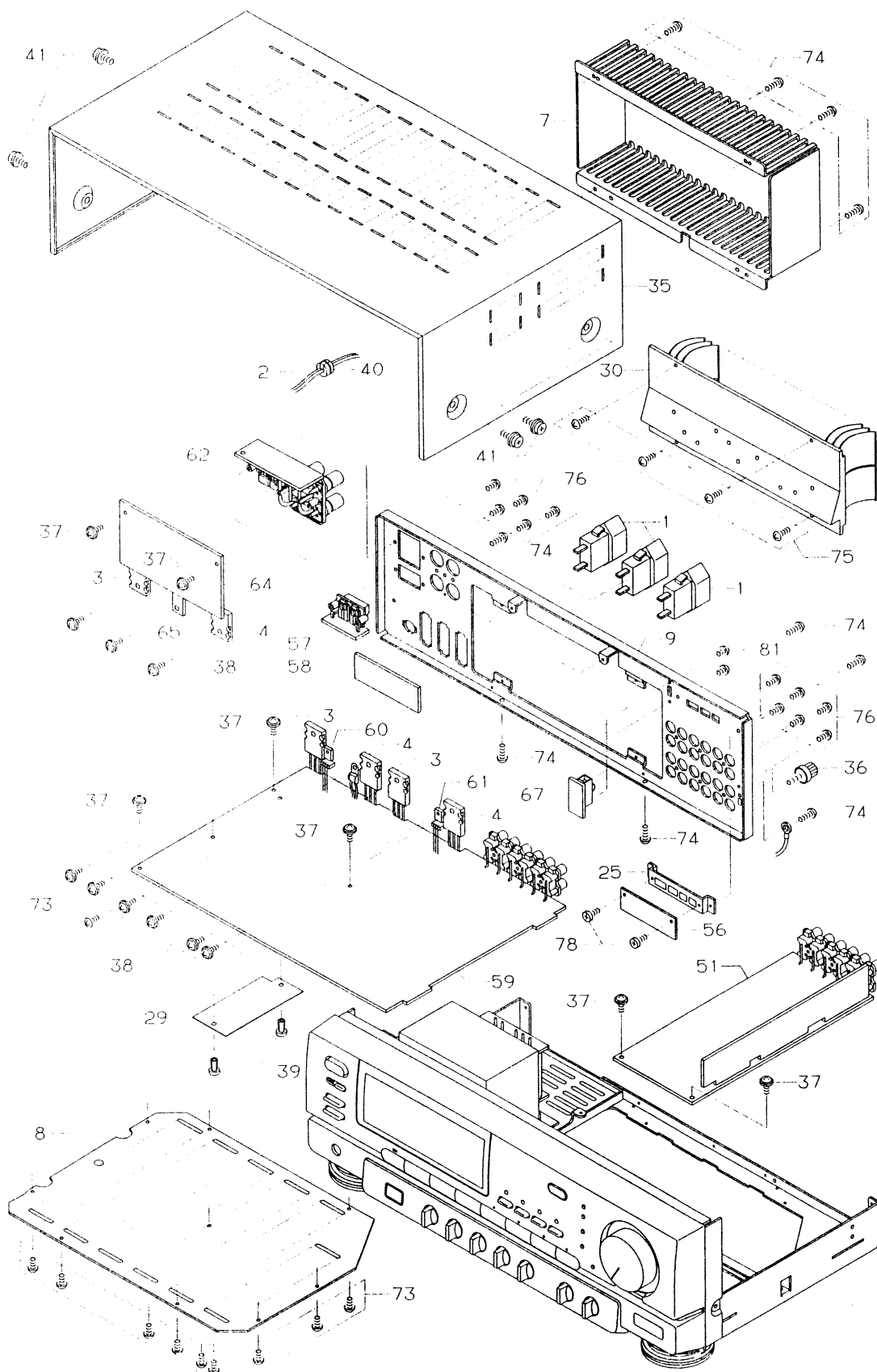


CENTER CHANNEL AMPLIFIER

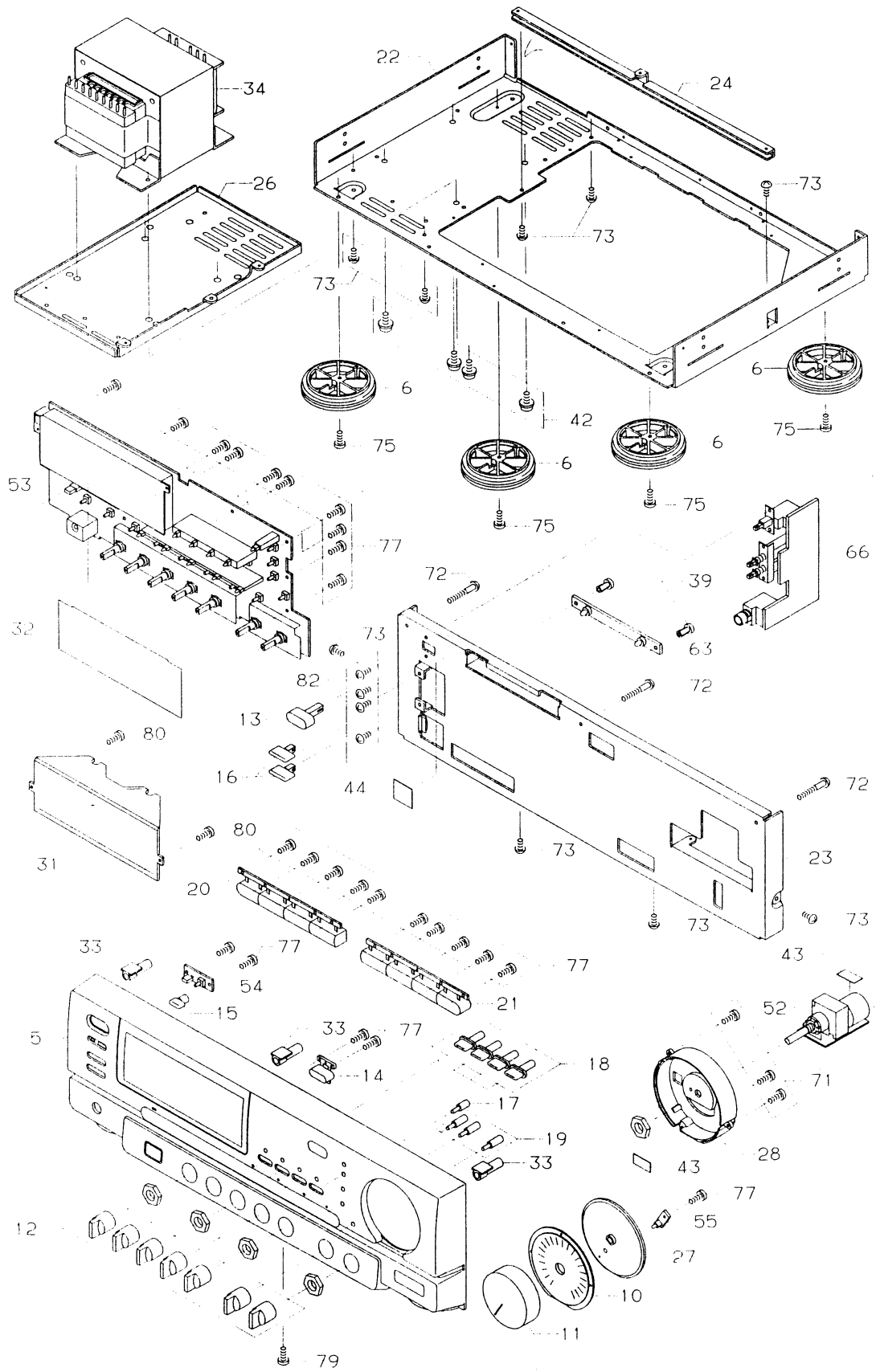
1. Connect the DC Voltmeter between Pins T601 and T602 on the Center Amp. P.C.Board.
2. Adjust the VR601 for an indication of $3\text{mV} \pm 0.5\text{mV}$ on the DC Voltmeter.



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
PACKAGE				55	620 200 5591	Assy,PCB,LED Indicator	1
	620 204 9489	Inner Carton	1	56	620 204 8444	Assy,PCB,Remote Control	1
	620 201 0809	Pad,Remote Control	1	57	620 203 9961	Assy,PCB,Center SP Terminal	1
	620 204 7997	Pad,Left	1	58	620 204 0011	Assy,PCB,AC Outlet	1
	620 204 8000	Pad,Right	1	59	620 203 9978	Assy,PCB,Main	1
	620 059 6596	Patching Sheet	1	60	620 200 5645	Assy,PCB,Transistor Left	1
	620 148 8012	Sheet Polyethylene	1	61	620 200 5652	Assy,PCB,Transistor Right	1
	620 152 7452	Serial No. Sheet	2	62	620 204 0004	Assy,PCB,Speaker Terminal	1
ACCESSORIES				63	620 205 8412	Assy,PCB,Lamp	1
	620 204 4293	Assy,Poly Cover	1	64	620 203 9985	Assy,PCB,Center Amplifier	1
	620 021 2373	Plug 1P	2	65	620 200 5690	Assy,PCB,Bias	1
	620 204 4637	Remoccon,RCA-9050	1	66	620 203 9992	Assy,PCB,Speaker Switch	1
	620 204 4194	Instruction Manual	1	67	620 204 7935	Assy,PCB,Slide Switch	1
	620 057 8783	Bag Fan	1	71	411 020 5706	SCR S-TPG BRZ 2.6X8	3
	620 062 0543	Serial No. Sheet	1	72	411 020 7304	SCR S-TPG BRZ 3X30	3
	620 152 2624	Certificate Card	1	73	411 020 7700	SCR S-TPG BRZ 3X6	19
CABINET				74	411 099 9704	SCR S-TPG BRZ 3X6	10
	620 152 7452	Serial No. Sheet	1	75	411 020 8004	SCR S-TPG BRZ 3X8	8
1	△ 620 017 1212	AC Socket	3	76	411 099 9803	SCR S-TPG BRZ 3X8	11
2	△ 620 023 7550	Power Cord	1	77	411 021 0809	SCR S-TPG BIN 2X6	25
3	405 003 3902	TR 2SA1301-O [Q3]	1	78	411 021 2704	SCR S-TPG BIN 2.6X6	2
or	405 031 2106	TR 2SA1301-R	1	79	411 021 6603	SCR S-TPG BIN 3X8	1
3	405 003 3902	TR 2SA1301-O [Q4]	1	80	411 022 7708	SCR S-TPG PAN 2X5	2
or	405 031 2106	TR 2SA1301-R	1	81	411 040 1702	SCR PAN 2.6X4	2
3	405 003 3902	TR 2SA1301-O [Q6]	1	82	411 045 6702	SCR PAN + SW 3X8	4
or	405 031 2106	TR 2SA1301-R	1	NOTES:			
4	405 017 7705	TR 2SC3280-O [Q1]	1	1.	Parts order must contain Model Number, Part Number and Description.		
or	405 033 3309	TR 2SC3280-R	1	2.	Ordering quantity of screws and resistors must be multiple of 10 pcs.		
4	405 017 7705	TR 2SC3280-O [Q2]	1	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.			
or	405 033 3309	TR 2SC3280-R	1				
4	405 017 7705	TR 2SC3280-O [Q5]	1				
or	405 033 3309	TR 2SC3280-R	1				
5	620 202 5780	Assy,Cabinet	1				
6	620 198 6969	Assy,Foot	4				
7	620 204 7508	Cover,Heat Sink	1				
8	620 199 6470	Plate,Bottom	1				
9	620 204 9496	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	7				
13	620 198 6938	Knob,Power	1				
14	620 199 0003	Knob,Touch (CD Record)	1				
15	620 198 0745	Button,Standby	1				
16	620 198 0752	Button,Push (Speakers Select)	2				
17	620 198 4897	Button,Tact (Mode)	1				
18	620 199 0010	Button (Crossover)	4				
19	620 199 3882	Button,Tact (Muting/Subsonic/Loud)	3				
20	620 199 7330	Button,Function,Left	1				
21	620 199 7347	Button,Function,Right	1				
22	620 199 6463	Chassis	1				
23	620 199 6456	Chassis,Front	1				
24	620 199 6494	Bracket-E,PCB	1				
25	620 199 6630	Bracket-E	1				
26	620 199 6487	Bracket-M	1				
27	620 198 0837	Mount-E,Indicator	1				
28	620 198 0844	Support,Shaft	1				
29	620 204 7492	Insulator,Plate	1				
30	620 199 6517	Heat Sink	1				
31	620 205 6272	Filter,Clear	1				
32	620 199 6449	Filter,FL	1				
33	620 198 0912	Spacer,Cabinet	3				
34	△ 620 204 0103	Power Trans,SEV,200VA	1				
35	620 045 4711	Cover	1				
36	620 051 2152	Screw Ground	1				
37	620 051 3708	Screw Braz. HD. + M3X8	7				
38	620 051 3746	Screw 3X10	9				
39	620 191 2746	Rivet 3.5	4				
40	620 053 2136	Bushing (Power Cord)	1				
41	620 123 0284	SCR TPG BIN + M4.0X8	4				
42	620 123 0833	SCR Bind TAP-B + M4X10	4				
43	620 123 7658	Sheet	2				
44	620 124 9606	Spacer	1				
51	620 203 9947	Assy,PCB,Input	1				
52	620 200 5560	Assy,PCB,Volume	1				
53	620 203 9954	Assy,PCB,Control	1				
54	620 200 5584	Assy,PCB,Standby Switch	1				

P.C.BOARD PARTS LIST

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
ASSY,PCB,INPUT				C129	403 067 6709	MT-COMPO 0.22U J 50V	1
51	620 203 9947	Assy,PCB,Input	1	C130	403 067 6709	MT-COMPO 0.22U J 50V	1
	620 201 6146	Jack,RCA PIN,2P,WH/RE (PHONO)	1	C131	403 051 2106	ELECT 4.7U M 50V	1
	620 201 6153	Jack,RCA PIN,4P,WH/RE (TAPE 1)	1	C132	403 051 2106	ELECT 4.7U M 50V	1
	620 201 6160	Jack,RCA PIN,6P,WH/RE (TU, CD, AUX)	1	C133	403 068 9402	CERAMIC 100P K 50V	1
	620 118 1630	Plate Shield	1	C134	403 068 9402	CERAMIC 100P K 50V	1
CN101	620 202 8286	Socket,52151-0710,7P	1	C135	403 068 9402	CERAMIC 100P K 50V	1
CN102	620 202 7708	Socket,52147-0710,7P	1	C136	403 068 9402	CERAMIC 100P K 50V	1
CN103	620 202 7708	Socket,52147-0710,7P	1	C137	403 051 2106	ELECT 4.7U M 50V	1
CN104	620 202 7722	Socket,32151-0310,3P	1	C138	403 051 2106	ELECT 4.7U M 50V	1
CN105	620 201 6443	Socket,Jumper,3P	1	C139	403 071 6207	CERAMIC 220P K 50V	1
CN106	620 201 6467	Socket,Jumper,5P	1	C140	403 071 6207	CERAMIC 220P K 50V	1
CN107	620 017 5029	Socket Jumper 9P	1	C141	403 062 0504	POLYESTER 0.047U K 50V	1
CN108	620 202 7722	Socket,32151-0310,3P	1	C142	403 062 0504	POLYESTER 0.047U K 50V	1
CN201	620 200 5768	Connector-P,TFC-B03Y-E1	1	C143	403 051 2106	ELECT 4.7U M 50V	1
CN202	620 200 5775	Connector-P,TFC-B06Y-E1	1	C144	403 051 2106	ELECT 4.7U M 50V	1
CN203	620 200 5782	Connector-P,TFC-B08Y-E1	1	C153	403 044 0300	ELECT 47U M 16V	1
CN204	620 203 7066	Socket,32151-0810,8P	1	C154	403 044 0300	ELECT 47U M 16V	1
CN205	620 203 7066	Socket,32151-0810,8P	1	C155	403 045 0606	ELECT 100U M 25V	1
PC102	620 200 6994	Wire,7-4	1	C156	403 045 0606	ELECT 100U M 25V	1
RB101	620 004 5551	Resistor 3X10K J	1	C159	403 045 9104	ELECT 220U M 25V	1
W101	620 020 5887	Connector 1P Assy	1	C160	403 045 9104	ELECT 220U M 25V	1
IC101	409 109 5105	IC LC7821	1	C161	403 072 2703	CERAMIC 0.022U Z 50V	1
IC103	409 166 5308	IC TC9215P	1	C162	403 072 2703	CERAMIC 0.022U Z 50V	1
IC104	409 166 5308	IC TC9215P	1	C163	403 001 1906	CERAMIC 0.01U M 16V	1
IC105	409 018 4503	IC LA6458DS	1	C164	403 001 1906	CERAMIC 0.01U M 16V	1
IC106	409 018 4503	IC LA6458DS	1	C165	403 051 2106	ELECT 4.7U M 50V	1
IC107	409 166 5308	IC TC9215P	1	C166	403 051 2106	ELECT 4.7U M 50V	1
IC108	409 166 5308	IC TC9215P	1	C167	403 071 6207	CERAMIC 220P K 50V	1
IC110	409 039 7101	IC NJM4556D	1	C168	403 071 6207	CERAMIC 220P K 50V	1
IC201	409 018 5203	IC LA6462D	1	C201	403 071 6207	CERAMIC 220P K 50V	1
Q101	405 060 6304	TR DTC144-TS-TP	1	C202	403 071 6207	CERAMIC 220P K 50V	1
Q102	405 034 6804	TR DTA114-ES-TP	1	C203	403 051 2106	ELECT 4.7U M 50V	1
Q103	405 021 0907	TR 2SD1012-H-SPA-AC	1	C204	403 051 2106	ELECT 4.7U M 50V	1
or	405 021 0600	TR 2SD1012-G-SPA-AC	1	C205	403 071 6207	CERAMIC 220P K 50V	1
Q104	405 021 0907	TR 2SD1012-H-SPA-AC	1	C206	403 071 6207	CERAMIC 220P K 50V	1
or	405 021 0600	TR 2SD1012-G-SPA-AC	1	C207	403 038 7209	ELECT 220U M 6.3V	1
Q201	405 010 9201	TR 2SC1570-G-NP-AA	1	C208	403 038 7209	ELECT 220U M 6.3V	1
or	405 010 9102	TR 2SC1570-F-NP-AA	1	C209	403 062 7107	POLYESTER 0.056U K 50V	1
Q202	405 010 9201	TR 2SC1570-G-NP-AA	1	C210	403 062 7107	POLYESTER 0.056U K 50V	1
or	405 010 9102	TR 2SC1570-F-NP-AA	1	C211	403 058 3403	POLYESTER 0.015U K 50V	1
Q203	405 010 9201	TR 2SC1570-G-NP-AA	1	C212	403 058 3403	POLYESTER 0.015U K 50V	1
or	405 010 9102	TR 2SC1570-F-NP-AA	1	C213	403 051 2106	ELECT 4.7U M 50V	1
Q204	405 010 9201	TR 2SC1570-G-NP-AA	1	C214	403 051 2106	ELECT 4.7U M 50V	1
or	405 010 9102	TR 2SC1570-F-NP-AA	1	C215	403 047 4305	ELECT 47U M 25V	1
Q205	405 017 9600	TR 2SC3330-T-AC	1	C216	403 047 4305	ELECT 47U M 25V	1
or	405 017 9501	TR 2SC3330-S-AC	1	C217	403 050 1308	ELECT 2.2U M 50V	1
Q206	405 017 9600	TR 2SC3330-T-AC	1	C218	403 050 1308	ELECT 2.2U M 50V	1
or	405 017 9501	TR 2SC3330-S-AC	1	C219	403 048 7701	ELECT 0.47U M 50V	1
Q207	405 017 9600	TR 2SC3330-T-AC	1	C220	403 048 7701	ELECT 0.47U M 50V	1
or	405 017 9501	TR 2SC3330-S-AC	1	C221	403 063 7809	POLYESTER 0.082U K 50V	1
Q208	405 017 9600	TR 2SC3330-T-AC	1	C222	403 063 7809	POLYESTER 0.082U K 50V	1
or	405 017 9501	TR 2SC3330-S-AC	1	C223	403 003 3700	CERAMIC 0.022U Z 25V	1
Q209	405 017 9600	TR 2SC3330-T-AC	1	C224	403 003 3700	CERAMIC 0.022U Z 25V	1
or	405 017 9501	TR 2SC3330-S-AC	1	C225	403 001 7601	CERAMIC 4700P M 16V	1
Q210	405 017 9600	TR 2SC3330-T-AC	1	C226	403 001 7601	CERAMIC 4700P M 16V	1
or	405 017 9501	TR 2SC3330-S-AC	1	C227	403 003 0600	CERAMIC 0.018U K 25V	1
C101	403 071 6207	CERAMIC 220P K 50V	1	C228	403 003 0600	CERAMIC 0.018U K 25V	1
C102	403 071 6207	CERAMIC 220P K 50V	1	C229	403 001 9704	CERAMIC 8200P M 16V	1
C103	403 071 6207	CERAMIC 220P K 50V	1	C230	403 001 9704	CERAMIC 8200P M 16V	1
C104	403 071 6207	CERAMIC 220P K 50V	1	C231	403 001 7601	CERAMIC 4700P M 16V	1
C105	403 071 6207	CERAMIC 220P K 50V	1	C232	403 001 7601	CERAMIC 4700P M 16V	1
C106	403 071 6207	CERAMIC 220P K 50V	1	C233	403 001 4006	CERAMIC 1500P M 16V	1
C107	403 071 6207	CERAMIC 220P K 50V	1	C234	403 001 4006	CERAMIC 1500P M 16V	1
C108	403 071 6207	CERAMIC 220P K 50V	1	C235	403 074 9205	CERAMIC 680P K 50V	1
C109	403 071 6207	CERAMIC 220P K 50V	1	C236	403 074 9205	CERAMIC 680P K 50V	1
C110	403 071 6207	CERAMIC 220P K 50V	1	R101	401 024 7004	CARBON 1K JA 1/6W	1
C111	403 071 6207	CERAMIC 220P K 50V	1	R102	401 024 7004	CARBON 1K JA 1/6W	1
C112	403 071 6207	CERAMIC 220P K 50V	1	R103	401 024 7004	CARBON 1K JA 1/6W	1
C113	403 049 1708	ELECT 1U M 50V	1	R104	401 024 7004	CARBON 1K JA 1/6W	1
C114	403 074 2701	CERAMIC 0.047U Z 50V	1	R105	401 024 7004	CARBON 1K JA 1/6W	1
C121	403 051 2106	ELECT 4.7U M 50V	1	R106	401 024 7004	CARBON 1K JA 1/6W	1
C122	403 051 2106	ELECT 4.7U M 50V	1	R107	401 024 7004	CARBON 1K JA 1/6W	1
C123	403 068 9402	CERAMIC 100P K 50V	1	R108	401 024 7004	CARBON 1K JA 1/6W	1
C124	403 068 9402	CERAMIC 100P K 50V	1	R109	401 024 7004	CARBON 1K JA 1/6W	1
C125	403 051 2106	ELECT 4.7U M 50V	1	R110	401 024 7004	CARBON 1K JA 1/6W	1
C126	403 051 2106	ELECT 4.7U M 50V	1	R111	401 024 7004	CARBON 1K JA 1/6W	1
C127	403 067 6709	MT-COMPO 0.22U J 50V	1	R112	401 024 7004	CARBON 1K JA 1/6W	1
C128	403 067 6709	MT-COMPO 0.22U J 50V	1	R113	401 027 0507	CARBON 470K JA 1/6W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
R114	401 027 0507	CARBON 470K JA 1/6W	1	R211	401 024 7004	CARBON 1K JA 1/6W	1
R115	401 027 0507	CARBON 470K JA 1/6W	1	R212	401 024 7004	CARBON 1K JA 1/6W	1
R116	401 027 0507	CARBON 470K JA 1/6W	1	R213	401 024 7707	CARBON 100K JA 1/6W	1
R117	401 027 0507	CARBON 470K JA 1/6W	1	R214	401 024 7707	CARBON 100K JA 1/6W	1
R118	401 027 0507	CARBON 470K JA 1/6W	1	R215	401 016 2604	CARBON 220 JA 1/4W	1
R119	401 027 0507	CARBON 470K JA 1/6W	1	R216	401 016 2604	CARBON 220 JA 1/4W	1
R120	401 027 0507	CARBON 470K JA 1/6W	1	R217	401 026 6609	CARBON 390 JA 1/6W	1
R121	401 025 2305	CARBON 150K JA 1/6W	1	R218	401 026 6609	CARBON 390 JA 1/6W	1
R122	401 025 2305	CARBON 150K JA 1/6W	1	R219	401 026 6609	CARBON 390 JA 1/6W	1
R123	401 024 7400	CARBON 10K JA 1/6W	1	R220	401 026 6609	CARBON 390 JA 1/6W	1
R131	401 027 0507	CARBON 470K JA 1/6W	1	R221	401 026 6609	CARBON 390 JA 1/6W	1
R132	401 027 0507	CARBON 470K JA 1/6W	1	R222	401 026 6609	CARBON 390 JA 1/6W	1
R133	401 025 8703	CARBON 220K JA 1/6W	1	R223	401 026 6609	CARBON 390 JA 1/6W	1
R134	401 025 8703	CARBON 220K JA 1/6W	1	R224	401 026 6609	CARBON 390 JA 1/6W	1
R135	401 024 7707	CARBON 100K JA 1/6W	1	R225	401 026 6609	CARBON 390 JA 1/6W	1
R136	401 024 7707	CARBON 100K JA 1/6W	1	R226	401 026 6609	CARBON 390 JA 1/6W	1
R137	401 026 9600	CARBON 470 JA 1/6W	1	R227	401 027 8602	CARBON 8.2K JA 1/6W	1
R138	401 026 9600	CARBON 470 JA 1/6W	1	R228	401 027 8602	CARBON 8.2K JA 1/6W	1
R139	401 025 0004	CARBON 120K JA 1/6W	1	R229	401 027 8602	CARBON 8.2K JA 1/6W	1
R140	401 025 0004	CARBON 120K JA 1/6W	1	R230	401 027 8602	CARBON 8.2K JA 1/6W	1
R141	401 024 7707	CARBON 100K JA 1/6W	1	R231	401 027 8602	CARBON 8.2K JA 1/6W	1
R142	401 024 7707	CARBON 100K JA 1/6W	1	R232	401 027 8602	CARBON 8.2K JA 1/6W	1
R143	401 026 1307	CARBON 27K JA 1/6W	1	R233	401 027 8602	CARBON 8.2K JA 1/6W	1
R144	401 026 1307	CARBON 27K JA 1/6W	1	R234	401 027 8602	CARBON 8.2K JA 1/6W	1
R145	401 026 4308	CARBON 3.3K JA 1/6W	1	R235	401 027 8602	CARBON 8.2K JA 1/6W	1
R146	401 026 4308	CARBON 3.3K JA 1/6W	1	R236	401 027 8602	CARBON 8.2K JA 1/6W	1
R147	401 025 8208	CARBON 22K JA 1/6W	1	R237	401 025 2305	CARBON 150K JA 1/6W	1
R148	401 025 8208	CARBON 22K JA 1/6W	1	R238	401 025 2305	CARBON 150K JA 1/6W	1
R149	401 026 1000	CARBON 2.7K JA 1/6W	1	R239	401 024 7707	CARBON 100K JA 1/6W	1
R150	401 026 1000	CARBON 2.7K JA 1/6W	1	R240	401 024 7707	CARBON 100K JA 1/6W	1
R151	401 027 2600	CARBON 5.6K JA 1/6W	1	R241	401 026 7408	CARBON 39K JA 1/6W	1
R152	401 027 2600	CARBON 5.6K JA 1/6W	1	R242	401 026 7408	CARBON 39K JA 1/6W	1
R157	401 027 2600	CARBON 5.6K JA 1/6W	1	R243	401 026 4605	CARBON 33K JA 1/6W	1
R158	401 027 2600	CARBON 5.6K JA 1/6W	1	R244	401 026 4605	CARBON 33K JA 1/6W	1
R159	401 027 2600	CARBON 5.6K JA 1/6W	1	R245	401 025 8208	CARBON 22K JA 1/6W	1
R160	401 027 2600	CARBON 5.6K JA 1/6W	1	R246	401 025 8208	CARBON 22K JA 1/6W	1
R161	401 024 7707	CARBON 100K JA 1/6W	1	R247	401 024 9305	CARBON 1.2K JA 1/6W	1
R162	401 024 7707	CARBON 100K JA 1/6W	1	R248	401 024 9305	CARBON 1.2K JA 1/6W	1
R163	401 024 7004	CARBON 1K JA 1/6W	1	R249	401 024 9305	CARBON 1.2K JA 1/6W	1
R164	401 024 7004	CARBON 1K JA 1/6W	1	R250	401 024 9305	CARBON 1.2K JA 1/6W	1
R165	401 026 8504	CARBON 430 JA 1/6W	1	R251	401 025 1605	CARBON 1.5K JA 1/6W	1
R166	401 026 8504	CARBON 430 JA 1/6W	1	R252	401 025 1605	CARBON 1.5K JA 1/6W	1
R167	401 025 4606	CARBON 18K JA 1/6W	1	R253	401 025 1605	CARBON 1.5K JA 1/6W	1
R168	401 025 4606	CARBON 18K JA 1/6W	1	R254	401 025 1605	CARBON 1.5K JA 1/6W	1
R169	401 012 4503	CARBON 100 JA 1/4W	1	R255	401 025 1605	CARBON 1.5K JA 1/6W	1
R170	401 012 4503	CARBON 100 JA 1/4W	1	R256	401 025 1605	CARBON 1.5K JA 1/6W	1
R171	401 018 2800	CARBON 330 JA 1/4W	1				
R172	401 018 2800	CARBON 330 JA 1/4W	1				
R173	402 037 6909	FUSIBLE RES 82 JA 1/4W	1	ASSY,PCB,VOLUME			
R174	402 037 6909	FUSIBLE RES 82 JA 1/4W	1	52	620 200 5560	Assy,PCB,Volume	1
R175	402 039 2800	FUSIBLE RES 10 JA 1/4W	1	CN210	620 200 5904	Connector-S,52067-0711	1
R176	402 039 2800	FUSIBLE RES 10 JA 1/4W	1	VR201	620 199 4520	VR,Rotary,2X100KA,Motor	1
R177	401 012 8105	CARBON 100K JA 1/4W	1				
R180	401 012 8105	CARBON 100K JA 1/4W	1	ASSY,PCB,CONTROL			
R181	401 027 3201	CARBON 560K JA 1/6W	1	53	620 203 9954	Assy,PCB,Control	1
R182	401 012 7009	CARBON 10K JA 1/4W	1		620 182 6630	Digitron BG-581GK	1
R185	401 026 7408	CARBON 39K JA 1/6W	1		620 016 7796	Tact Switch	17
R186	401 025 1902	CARBON 15K JA 1/6W	1		411 022 7807	SCR S-TPG PAN 2X6	12
R187	401 025 8703	CARBON 220K JA 1/6W	1		620 199 0027	Mount-E,FL	1
R188	401 025 8703	CARBON 220K JA 1/6W	1		620 199 7354	Shield,Plate	1
R189	401 024 7707	CARBON 100K JA 1/6W	1		620 201 0366	Shield,Cover	1
R190	401 024 7707	CARBON 100K JA 1/6W	1		620 199 0089	Spacer,LED,Function	1
R191	401 027 9005	CARBON 82K JA 1/6W	1		620 199 0096	Spacer,LED,A	1
R192	401 023 3700	CARBON 82K JA 1/4W	1		620 199 0102	Spacer,LED,B	1
R193	401 025 8703	CARBON 220K JA 1/6W	1		620 199 0119	Spacer,LED,C	1
R194	401 025 8703	CARBON 220K JA 1/6W	1		620 055 4985	Jumper	1
R195	401 024 7004	CARBON 1K JA 1/6W	1	CA301	620 018 1006	Connector 3P Assy	1
R196	401 012 5708	CARBON 1K JA 1/4W	1	PC301	620 200 7007	Wire,9-200	1
R199	401 024 7400	CARBON 10K JA 1/6W	1	PC302	620 200 7007	Wire,9-200	1
R201	401 024 7707	CARBON 100K JA 1/6W	1	PC303	620 200 7021	Wire,6-160	1
R202	401 024 7707	CARBON 100K JA 1/6W	1	PC304	620 200 7038	Wire,2-240	1
R203	401 024 7707	CARBON 100K JA 1/6W	1	PC306	620 204 0028	Wire,7-600	1
R204	401 024 7707	CARBON 100K JA 1/6W	1	PC307	620 200 7076	Wire,8-320	1
R205	401 024 6700	CARBON 100 JA 1/6W	1	PC308	620 200 7069	Wire,8-250	1
R206	401 024 6700	CARBON 100 JA 1/6W	1	PC311	620 200 6987	Wire,3-200	1
R207	401 027 3003	CARBON 56K JA 1/6W	1	RB301	620 004 5186	Resistor 9X10K J	1
R208	401 027 3003	CARBON 56K JA 1/6W	1	RB302	620 004 5513	Resistor 7X10K	1
R209	401 026 9907	CARBON 4.7K JA 1/6W	1	VR301	620 196 2352	VR,Rotary 2X250KSW	1
R210	401 026 9907	CARBON 4.7K JA 1/6W	1	VR302	620 196 2352	VR,Rotary 2X250KSW	1
				VR303	620 196 2352	VR,Rotary 2X250KSW	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
VR304	620 196 2352	VR,Rotary 2X250KSW	1	or	407 008 0405	DIODE GMB01-BT	1
VR305	620 196 2352	VR,Rotary 2X250KSW	1	D329	407 125 8209	DIODE HSS271	1
VR306	620 199 4537	VR,Rotary,200KW	1	or	407 012 4208	DIODE 1SS131-T-77	1
VR307	620 206 7605	VR,Rotary,10KB	1	or	407 008 0405	DIODE GMB01-BT	1
XT301	620 026 9070	CSA 4.19M Resonator	1	D330	407 125 8209	DIODE HSS271	1
IC301	410 084 9101	IC TMP47C670N-1296	1	or	407 012 4208	DIODE 1SS131-T-77	1
IC302	409 114 4803	IC LB1641	1	or	407 008 0405	DIODE GMB01-BT	1
Q301	405 034 7306	TR DTA114-YS-AUTO	1	D331	407 125 8209	DIODE HSS271	1
Q302	405 034 9607	TR DTC114-YS-AUTO	1	or	407 012 4208	DIODE 1SS131-T-77	1
Q303	405 019 3804	TR 2SC536-G-NP-AA	1	or	407 008 0405	DIODE GMB01-BT	1
or	405 019 2708	TR 2SC536-F-NP-AA	1	D332	407 005 3805	DIODE DS442-BT	1
Q304	405 100 1207	TR DTA143-TS-TP	1	D333	407 065 5009	LED SLP-190B-51	1
Q305	405 100 1306	TR DTC123-JS-TP	1	D334	407 065 5009	LED SLP-190B-51	1
Q306	405 004 5004	TR 2SA608-G-NP-AA	1	D335	407 065 5009	LED SLP-190B-51	1
or	405 004 4502	TR 2SA608-F-NP-AA	1	D336	407 065 5009	LED SLP-190B-51	1
Q307	405 019 3804	TR 2SC536-G-NP-AA	1	D337	407 065 5009	LED SLP-190B-51	1
or	405 019 2708	TR 2SC536-F-NP-AA	1	D338	407 065 5009	LED SLP-190B-51	1
Q308	405 060 6304	TR DTC144-TS-TP	1	D339	407 050 3300	ZENER DIODE GZA4.3X-BT	1
Q309	405 019 3804	TR 2SC536-G-NP-AA	1	D340	407 125 8209	DIODE HSS271	1
or	405 019 2708	TR 2SC536-F-NP-AA	1	or	407 012 4208	DIODE 1SS131-T-77	1
Q310	405 019 3804	TR 2SC536-G-NP-AA	1	or	407 008 0405	DIODE GMB01-BT	1
or	405 019 2708	TR 2SC536-F-NP-AA	1	D341	407 125 8209	DIODE HSS271	1
Q311	405 057 6300	TR 2SC4038-S-TL2	1	or	407 012 4208	DIODE 1SS131-T-77	1
or	405 057 6409	TR 2SC4038-R-TL2	1	or	407 008 0405	DIODE GMB01-BT	1
Q312	405 057 6300	TR 2SC4038-S-TL2	1	C301	404 032 2207	ELECT 2200U M 10V	1
or	405 057 6409	TR 2SC4038-R-TL2	1	or	404 039 4303	ELECT 2200U M 10V	1
Q313	405 057 6300	TR 2SC4038-S-TL2	1	C302	404 032 5802	ELECT 100U M 10V	1
or	405 057 6409	TR 2SC4038-R-TL2	1	or	404 039 4402	ELECT 100U M 10V	1
Q314	405 057 6300	TR 2SC4038-S-TL2	1	C303	403 002 2902	CERAMIC 0.01U M 25V	1
or	405 057 6409	TR 2SC4038-R-TL2	1	C304	403 038 2402	ELECT 100U M 6.3V	1
Q315	405 057 6300	TR 2SC4038-S-TL2	1	C307	403 022 7703	CERAMIC 33P J 50V	1
or	405 057 6409	TR 2SC4038-R-TL2	1	C308	403 022 7703	CERAMIC 33P J 50V	1
Q316	405 057 6300	TR 2SC4038-S-TL2	1	C309	403 038 7209	ELECT 220U M 6.3V	1
or	405 057 6409	TR 2SC4038-R-TL2	1	C310	403 001 1906	CERAMIC 0.01U M 16V	1
D301	407 102 2800	SENSOR SBX1492-52	1	C312	403 049 1708	ELECT 1U M 50V	1
D302	407 069 1205	DIODE DS441-BT	1	C313	403 049 1708	ELECT 1U M 50V	1
D303	407 125 8209	DIODE HSS271	1	C318	403 073 7004	CERAMIC 470P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C320	403 073 7004	CERAMIC 470P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C321	403 001 1906	CERAMIC 0.01U M 16V	1
D304	407 005 3805	DIODE DS442-BT	1	C323	403 045 0606	ELECT 100U M 25V	1
D305	407 005 3805	DIODE DS442-BT	1	C324	403 069 8404	CERAMIC 0.01U Z 50V	1
D306	407 005 3805	DIODE DS442-BT	1	C325	403 067 5603	MT-COMPO 0.1U J 50V	1
D307	407 125 8209	DIODE HSS271	1	C326	403 038 7209	ELECT 220U M 6.3V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C327	403 001 1906	CERAMIC 0.01U M 16V	1
or	407 008 0405	DIODE GMB01-BT	1	C328	403 069 8404	CERAMIC 0.01U Z 50V	1
D308	407 005 3805	DIODE DS442-BT	1	R301	401 026 9600	CARBON 470 JA 1/6W	1
D309	407 005 3805	DIODE DS442-BT	1	R302	401 020 0801	CARBON 470 JA 1/4W	1
D310	407 005 3805	DIODE DS442-BT	1	R303	401 026 9600	CARBON 470 JA 1/6W	1
D311	407 005 3805	DIODE DS442-BT	1	R308	401 022 4104	CARBON 68K JA 1/4W	1
D312	407 005 3805	DIODE DS442-BT	1	R309	401 027 5908	CARBON 68K JA 1/6W	1
D313	407 125 8209	DIODE HSS271	1	R310	401 027 0309	CARBON 47K JA 1/6W	1
or	407 012 4208	DIODE 1SS131-T-77	1	R312	401 025 0608	CARBON 1.3K JA 1/6W	1
or	407 008 0405	DIODE GMB01-BT	1	R313	401 016 3809	CARBON 2.2K JA 1/4W	1
D314	407 005 3805	DIODE DS442-BT	1	R314	401 027 0507	CARBON 470K JA 1/6W	1
D315	407 005 3805	DIODE DS442-BT	1	R317	401 024 7707	CARBON 100K JA 1/6W	1
D316	407 125 8209	DIODE HSS271	1	R318	401 024 7707	CARBON 100K JA 1/6W	1
or	407 012 4208	DIODE 1SS131-T-77	1	R319	401 019 1000	CARBON 390 JA 1/4W	1
or	407 008 0405	DIODE GMB01-BT	1	R321	401 024 7707	CARBON 100K JA 1/6W	1
D317	407 125 8209	DIODE HSS271	1	R322	401 024 7707	CARBON 100K JA 1/6W	1
or	407 012 4208	DIODE 1SS131-T-77	1	R323	401 019 1000	CARBON 390 JA 1/4W	1
or	407 008 0405	DIODE GMB01-BT	1	R324	401 025 3807	CARBON 180 JA 1/6W	1
D318	407 125 8209	DIODE HSS271	1	R325	401 024 7004	CARBON 1K JA 1/6W	1
or	407 012 4208	DIODE 1SS131-T-77	1	R326	401 024 7004	CARBON 1K JA 1/6W	1
or	407 008 0405	DIODE GMB01-BT	1	R327	401 024 7004	CARBON 1K JA 1/6W	1
D319	407 125 8209	DIODE HSS271	1	R328	401 024 7004	CARBON 1K JA 1/6W	1
or	407 012 4208	DIODE 1SS131-T-77	1	R329	401 024 7707	CARBON 100K JA 1/6W	1
or	407 008 0405	DIODE GMB01-BT	1	R330	401 024 7004	CARBON 1K JA 1/6W	1
D320	407 125 8209	DIODE HSS271	1	R331	401 024 7004	CARBON 1K JA 1/6W	1
or	407 012 4208	DIODE 1SS131-T-77	1	R332	401 024 7707	CARBON 100K JA 1/6W	1
or	407 008 0405	DIODE GMB01-BT	1	R333	401 024 7004	CARBON 1K JA 1/6W	1
D321	407 065 5009	LED SLP-190B-51	1	R334	401 024 7400	CARBON 10K JA 1/6W	1
D322	407 065 5009	LED SLP-190B-51	1	R335	401 026 3905	CARBON 330 JA 1/6W	1
D323	407 065 5009	LED SLP-190B-51	1	R336	401 018 2800	CARBON 330 JA 1/4W	1
D324	407 065 5009	LED SLP-190B-51	1	R338	401 023 3700	CARBON 82K JA 1/4W	1
D325	407 031 5705	LED SLP-273B-50	1	R339	401 023 3700	CARBON 82K JA 1/4W	1
D326	407 005 3805	DIODE DS442-BT	1	R340	401 023 3700	CARBON 82K JA 1/4W	1
D327	407 005 3805	DIODE DS442-BT	1	R341	401 023 3700	CARBON 82K JA 1/4W	1
D328	407 125 8209	DIODE HSS271	1	R342	401 023 3700	CARBON 82K JA 1/4W	1
or	407 012 4208	DIODE 1SS131-T-77	1	R343	401 023 3700	CARBON 82K JA 1/4W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
R345	401 012 3407	CARBON 10 JA 1/4W	1	PC409	620 205 8955	Wire,2S Parallel	1
R346	401 024 7400	CARBON 10K JA 1/6W	1	PC410	620 199 6135	Wire,Jumper,3P,L = 160	1
R347	401 012 5708	CARBON 1K JA 1/4W	1	VR401	620 004 7319	Semi Fixed 200	1
R348	401 012 5708	CARBON 1K JA 1/4W	1	VR402	620 004 7319	Semi Fixed 200	1
R349	401 026 3905	CARBON 330 JA 1/6W	1	IC401	409 018 5203	IC LA6462D	1
R350	401 026 3905	CARBON 330 JA 1/6W	1	IC403	409 018 4503	IC LA6458DS	1
R351	401 026 3905	CARBON 330 JA 1/6W	1	IC404	409 166 5308	IC TC9215P	1
R352	401 026 3905	CARBON 330 JA 1/6W	1	IC405	409 018 5203	IC LA6462D	1
ASSY,PCB,STANDBY SWITCH				IC407	409 079 9509	IC LA2500	1
54	620 200 5584	Assy,PCB,Standby Switch	1	IC408	409 079 9509	IC LA2500	1
	620 016 7796	Tact Switch	1	IC409	409 018 4503	IC LA6458DS	1
D342	407 028 8504	LED SLP-173B	1	IC410	409 018 4503	IC LA6458DS	1
ASSY,PCB,LED INDICATOR				IC411	409 071 8500	IC TC4030B	1
55	620 200 5591	Assy,PCB,LED Indicator	1	IC412	409 018 4503	IC LA6458DS	1
D343	407 065 5009	LED SLP-190B-51	1	IC413	409 018 4503	IC LA6458DS	1
ASSY,PCB,REMOTE CONTROL				Q401	405 039 5802	TR 2SC3792-AA	1
56	620 204 8444	Assy,PCB,Remote Control	1	Q402	405 039 5802	TR 2SC3792-AA	1
	620 021 1970	Plug 2P (DECK)	1	Q403	405 016 9007	TR 2SC3066-G	1
	620 021 5923	Plug 3P (TUNER)	1	or	405 016 8901	TR 2SC3066-F	1
	620 021 5930	Plug 4P (CD)	1	Q404	405 016 9007	TR 2SC3066-G	1
D344	407 125 8209	DIODE HSS271	1	or	405 016 8901	TR 2SC3066-F	1
or	407 012 4208	DIODE 1SS131-T-77	1	Q405	405 002 9202	TR 2SA1209-T	1
or	407 008 0405	DIODE GMB01-BT	1	or	405 002 9103	TR 2SA1209-S	1
D345	407 125 8209	DIODE HSS271	1	Q406	405 002 9202	TR 2SA1209-T	1
or	407 012 4208	DIODE 1SS131-T-77	1	or	405 002 9103	TR 2SA1209-S	1
or	407 008 0405	DIODE GMB01-BT	1	Q407	405 002 9202	TR 2SA1209-T	1
ASSY,PCB,CENTER SP TERMINAL				or	405 002 9103	TR 2SA1209-S	1
57	620 203 9961	Assy,PCB,Center SP Terminal	1	Q408	405 002 9202	TR 2SA1209-T	1
	620 200 7182	Terminal,2P,AU2-2047	1	or	405 002 9103	TR 2SA1209-S	1
C851	403 010 1805	CERAMIC 1000P K 50V	1	Q409	405 016 4002	TR 2SC2911-T	1
C852	403 074 2701	CERAMIC 0.047U Z 50V	1	or	405 016 3906	TR 2SC2911-S	1
ASSY,PCB,AC OUTLET				Q410	405 016 4002	TR 2SC2911-T	1
58	620 204 0011	Assy,PCB,AC Outlet	1	or	405 016 3906	TR 2SC2911-S	1
	620 189 5216	Terminal 2P	1	Q411	405 019 3804	TR 2SC536-G-NP-AA	1
ASSY,PCB,MAIN				or	405 019 2708	TR 2SC536-F-NP-AA	1
59	620 203 9978	Assy,PCB,Main	1	Q412	405 019 3804	TR 2SC536-G-NP-AA	1
	620 017 2738	Fuse Clip	14	or	405 019 2708	TR 2SC536-F-NP-AA	1
	620 022 2587	EC Terminal 1P	2	Q413	405 004 5004	TR 2SA608-G-NP-AA	1
△	620 191 2692	Power Trans	1	or	405 004 4502	TR 2SA608-F-NP-AA	1
△	423 005 0507	FUSE 250V T1A	4	Q414	405 004 5004	TR 2SA608-G-NP-AA	1
△	423 006 4702	FUSE 250V T2.5A	1	or	405 004 4502	TR 2SA608-F-NP-AA	1
△	423 007 7702	FUSE 250V T6.3A	2	Q415	405 017 2601	TR 2SC3117-S	1
	411 020 7700	SCR S-TPG BRZ 3X6	5	or	405 017 2502	TR 2SC3117-R	1
	620 201 6146	Jack,RCA PIN,2P,WH/RE	1	Q416	405 017 2601	TR 2SC3117-S	1
	620 201 6153	Jack,RCA PIN,4P,WH/RE	1	or	405 017 2502	TR 2SC3117-R	1
	620 201 6160	Jack,RCA PIN,6P,WH/RE	1	Q417	405 003 1601	TR 2SA1249-S	1
△	620 202 2130	Relay,Power,1P-1T,TV-5	1	or	405 003 1502	TR 2SA1249-R	1
	620 196 1645	Relay,T-Cross DC24V	1	Q418	405 003 1601	TR 2SA1249-S	1
	620 031 4763	Wire Wrap Terminal	22	or	405 003 1502	TR 2SA1249-R	1
	620 053 6899	Cover Safety	1	Q419	405 034 6804	TR DTA114-ES-TP	1
	620 053 9241	Plate Heat Sink	5	Q420	405 039 5802	TR 2SC3792	1
	620 054 8168	Label 1AT 4X13	4	Q421	405 034 6804	TR DTA114-ES-TP	1
	620 055 1045	Label Fuse	1	Q422	405 019 3804	TR 2SC536-G-NP-AA	1
	620 186 7275	Plate Earth	1	or	405 019 2708	TR 2SC536-F-NP-AA	1
CN401	620 201 6498	Socket,Jumper,9P	1	Q423	405 019 3804	TR 2SC536-G-NP-AA	1
CN402	620 201 6474	Socket,Jumper,6P	1	or	405 019 2708	TR 2SC536-F-NP-AA	1
CN403	620 202 8460	Socket,Jumper,2P	1	Q424	405 019 3804	TR 2SC536-G-NP-AA	1
CN404	620 201 6467	Socket,Jumper,5P	1	or	405 019 2708	TR 2SC536-F-NP-AA	1
CN405	620 201 6443	Socket,Jumper,3P	1	Q425	405 019 2708	TR 2SC536-G-NP-AA	1
CN406	620 201 6443	Socket,Jumper,3P	1	or	405 019 2708	TR 2SC536-F-NP-AA	1
CN407	620 201 6474	Socket,Jumper,6P	1	Q426	405 100 1108	TR DTA113-ZS-TP	1
CN408	620 021 5923	Plug 3P	1	Q427	405 035 7206	TR 2SD1913-S	1
C539	△ 620 006 6679	Capacitor 0.01MF400V	1	or	405 035 7107	TR 2SD1913-R	1
JH401	620 201 0373	Socket,Holder,3P	1	Q428	405 052 8101	TR 2SB1274-S	1
L401	620 027 1240	AF Coil	1	or	405 052 8002	TR 2SB1274-R	1
L402	620 027 1240	AF Coil	1	Q429	405 023 8505	TR 2SD438-F-MP	1
PC401	620 200 7083	Wire,7-80	1	or	405 023 8307	TR 2SD438-E-MP	1
PC402	620 200 7090	Wire,7-180	1	Q430	405 023 8505	TR 2SD438-F-MP	1
PC403	620 200 7090	Wire,7-180	1	or	405 023 8307	TR 2SD438-E-MP	1
PC404	620 200 7045	Wire,3-80	1	Q431	405 004 5004	TR 2SA608-G-NP-AA	1
PC405	620 200 7106	Wire,3-130	1	or	405 004 4502	TR 2SA608-F-NP-AA	1
PC406	620 206 9289	Wire,5-100	1	Q432	405 035 0504	TR DTC143-TS-TP	1
PC408	620 200 7137	Wire,2-270	1	Q433	405 035 0504	TR DTC143-TS-TP	1
				or	405 022 8001	TR 2SD1682-S	1
				or	405 022 8209	TR 2SD1682-T	1
				Q434	405 019 3804	TR 2SC536-G-NP-AA	1
				or	405 019 2708	TR 2SC536-F-NP-AA	1
				Q435	405 035 0504	TR DTC143-TS-TP	1
				Q436	405 100 1405	TR DTC124-TS-TP	1
				Q437	405 035 0504	TR DTC143-TS-TP	1
				Q438	405 034 6804	TR DTA114-ES-TP	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty
Q439	405 039 5802	TR 2SC3792-AA	1	D451	407 088 6502	DIODE MPG06D-PKG3	1
Q440	405 039 5802	TR 2SC3792-AA	1	D452	407 049 6503	ZENER DIODE GZA13X-BT	1
	407 065 0707	THERMISTOR ZPP221E501A	1	D453	407 050 6301	ZENER DIODE GZA6.2Z-BT	1
D401	407 125 8209	DIODE HSS271	1	D454	407 005 3805	DIODE DS442-BT	1
or	407 012 4208	DIODE 1SS131-T-77	1	D455	407 088 6502	DIODE MPG06D-PKG3	1
or	407 008 0405	DIODE GMB01-BT	1	D457	407 088 6502	DIODE MPG06D-PKG3	1
D402	407 125 8209	DIODE HSS271	1	D461	407 005 3805	DIODE DS442-BT	1
or	407 012 4208	DIODE 1SS131-T-77	1	D462	407 005 3805	DIODE DS442-BT	1
or	407 008 0405	DIODE GMB01-BT	1	D464	407 125 8209	DIODE HSS271	1
D405	407 049 9900	ZENER DIODE GZA22Z-BT	1	or	407 012 4208	DIODE 1SS131-T-77	1
D406	407 049 9900	ZENER DIODE GZA22Z-BT	1	or	407 008 0405	DIODE GMB01-BT	1
D407	407 005 3805	DIODE DS442-BT	1	D465	407 005 3805	DIODE DS442-BT	1
D408	407 005 3805	DIODE DS442-BT	1	D467	407 125 8209	DIODE HSS271	1
D409	407 049 9900	ZENER DIODE GZA22Z-BT	1	or	407 012 4208	DIODE 1SS131-T-77 (J705)	1
D410	407 049 9900	ZENER DIODE GZA22Z-BT	1	or	407 008 0405	DIODE GMB01-BT (J705)	1
D411	407 005 3805	DIODE DS442-BT	1	TH401	407 109 6702	THERMISTOR 300D-5	1
D412	407 005 3805	DIODE DS442-BT	1	TH402	407 109 6702	THERMISTOR 300D-5	1
D413	407 125 8209	DIODE HSS271	1	C401	403 071 6207	CERAMIC 220P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C402	403 071 6207	CERAMIC 220P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C403	403 071 6207	CERAMIC 220P K 50V	1
D414	407 125 8209	DIODE HSS271	1	C404	403 071 6207	CERAMIC 220P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C405	403 071 6207	CERAMIC 220P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C406	403 071 6207	CERAMIC 220P K 50V	1
D415	407 125 8209	DIODE HSS271	1	C407	403 071 6207	CERAMIC 220P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C408	403 071 6207	CERAMIC 220P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C409	403 071 6207	CERAMIC 220P K 50V	1
D416	407 125 8209	DIODE HSS271	1	C410	403 071 6207	CERAMIC 220P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C411	403 071 6207	CERAMIC 220P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C412	403 071 6207	CERAMIC 220P K 50V	1
D417	407 125 8209	DIODE HSS271	1	C421	403 051 2106	ELECT 4.7U M 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C422	403 051 2106	ELECT 4.7U M 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C423	403 071 6207	CERAMIC 220P K 50V	1
D418	407 125 8209	DIODE HSS271	1	C424	403 071 6207	CERAMIC 220P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C425	403 068 9402	CERAMIC 100P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C426	403 068 9402	CERAMIC 100P K 50V	1
D419	407 125 8209	DIODE HSS271	1	C427	403 038 2402	ELECT 100U M 6.3V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C428	403 038 2402	ELECT 100U M 6.3V	1
or	407 008 0405	DIODE GMB01-BT	1	C429	403 068 9402	CERAMIC 100P K 50V	1
D420	407 125 8209	DIODE HSS271	1	C430	403 068 9402	CERAMIC 100P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C431	403 051 2106	ELECT 4.7U M 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C432	403 051 2106	ELECT 4.7U M 50V	1
D421	407 050 1405	ZENER DIODE GZA3.6Z-BT	1	C433	403 010 1805	CERAMIC 1000P K 50V	1
D422	407 050 1405	ZENER DIODE GZA3.6Z-BT	1	C434	403 010 1805	CERAMIC 1000P K 50V	1
D423	407 125 8209	DIODE HSS271	1	C437	403 051 2106	ELECT 4.7U M 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C438	403 051 2106	ELECT 4.7U M 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C439	403 071 6207	CERAMIC 220P K 50V	1
D424	407 125 8209	DIODE HSS271	1	C440	403 071 6207	CERAMIC 220P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C441	403 071 6207	CERAMIC 220P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C442	403 071 6207	CERAMIC 220P K 50V	1
D425	407 125 8209	DIODE HSS271	1	C443	403 071 6207	CERAMIC 220P K 50V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C444	403 071 6207	CERAMIC 220P K 50V	1
or	407 008 0405	DIODE GMB01-BT	1	C445	403 038 2402	ELECT 100U M 6.3V	1
D426	407 125 8209	DIODE HSS271	1	C446	403 038 2402	ELECT 100U M 6.3V	1
or	407 012 4208	DIODE 1SS131-T-77	1	C447	403 035 2207	CERAMIC 15P K 500V	1
or	407 008 0405	DIODE GMB01-BT	1	C448	403 035 2207	CERAMIC 15P K 500V	1
D427	407 049 9504	ZENER DIODE GZA20Y-BT	1	C449	403 035 2207	CERAMIC 15P K 500V	1
D430	407 005 3805	DIODE DS442-BT	1	C450	403 035 2207	CERAMIC 15P K 500V	1
D433	407 050 1405	ZENER DIODE GZA3.6Z-BT	1	C451	404 012 6904	CERAMIC 0.047U Z 150V	1
D434	407 120 4909	DIODE DS5403	1	C452	404 012 6904	CERAMIC 0.047U Z 150V	1
or	407 088 3105	DIODE DSC30TC-KD2	1	C453	403 049 1708	ELECT 1U M 50V	1
D435	407 120 4909	DIODE DS5403	1	C454	403 049 1708	ELECT 1U M 50V	1
or	407 088 3105	DIODE DSC30TC-KD2	1	C457	403 052 4703	ELECT 47U M 63V	1
D436	407 120 4909	DIODE DS5403	1	C458	403 052 4703	ELECT 47U M 63V	1
or	407 088 3105	DIODE DSC30TC-KD2	1	C459	403 052 4703	ELECT 47U M 63V	1
D437	407 120 4909	DIODE DS5403	1	C460	403 052 4703	ELECT 47U M 63V	1
or	407 088 3105	DIODE DSC30TC-KD2	1	C461	403 049 1708	ELECT 1U M 50V	1
D438	407 004 9105	DIODE DSF10C-BT	1	C462	403 049 1708	ELECT 1U M 50V	1
D439	407 004 9105	DIODE DSF10C-BT	1	C463	403 049 1708	ELECT 1U M 50V	1
D440	407 004 9105	DIODE DSF10C-BT	1	C464	403 049 1708	ELECT 1U M 50V	1
D441	407 004 9105	DIODE DSF10C-BT	1	C465	403 034 9900	CERAMIC 100P K 500V	1
D442	407 049 7807	ZENER DIODE GZA18Y-BT	1	C466	403 034 9900	CERAMIC 100P K 500V	1
D443	407 049 7807	ZENER DIODE GZA18Y-BT	1	C467	403 034 9900	CERAMIC 100P K 500V	1
D444	407 049 6602	ZENER DIODE GZA13Y-BT	1	C468	403 034 9900	CERAMIC 100P K 500V	1
D445	407 050 6301	ZENER DIODE GZA6.2Z-BT	1	C471	403 062 0504	POLYESTER 0.047U K 50V	1
D446	407 049 9801	ZENER DIODE GZA22Y-BT	1	C472	403 062 0504	POLYESTER 0.047U K 50V	1
D447	407 050 0903	ZENER DIODE GZA3.3X-BT	1	C473	403 049 1708	ELECT 1U M 50V	1
D448	407 088 6502	DIODE MPG06D-PKG3	1	C474	403 049 1708	ELECT 1U M 50V	1
D449	407 088 6502	DIODE MPG06D-PKG3	1	C475	403 049 5508	ELECT 10U M 50V	1
D450	407 088 6502	DIODE MPG06D-PKG3	1	C477	403 051 2106	ELECT 4.7U M 50V	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty	Ref. No.	Part No.	Description	Q'ty	
C478	403 051 2106	ELECT	4.7U M 50V	1	R405	401 024 7004	CARBON 1K JA 1/6W	1
C479	403 068 9402	CERAMIC	100P K 50V	1	R406	401 024 7004	CARBON 1K JA 1/6W	1
C480	403 068 9402	CERAMIC	100P K 50V	1	R407	401 024 7004	CARBON 1K JA 1/6W	1
C481	403 051 2106	ELECT	4.7U M 50V	1	R408	401 024 7004	CARBON 1K JA 1/6W	1
C482	403 051 2106	ELECT	4.7U M 50V	1	R409	401 024 7004	CARBON 1K JA 1/6W	1
C483	403 051 2106	ELECT	4.7U M 50V	1	R410	401 024 7004	CARBON 1K JA 1/6W	1
C484	403 063 2309	POLYESTER	0.068U K 50V	1	R411	401 024 7004	CARBON 1K JA 1/6W	1
C485	403 062 0504	POLYESTER	0.047U K 50V	1	R412	401 024 7004	CARBON 1K JA 1/6W	1
C486	403 063 7809	POLYESTER	0.082U K 50V	1	R413	401 027 0507	CARBON 470K JA 1/6W	1
C487	403 067 6204	MT-COMPO	0.15U J 50V	1	R414	401 020 3901	CARBON 470K JA 1/4W	1
C488	403 067 6204	MT-COMPO	0.15U J 50V	1	R415	401 025 0004	CARBON 120K JA 1/6W	1
C489	403 063 7809	POLYESTER	0.082U K 50V	1	R416	401 025 0004	CARBON 120K JA 1/6W	1
C490	403 068 9402	CERAMIC	100P K 50V	1	R417	401 027 0507	CARBON 470K JA 1/6W	1
C491	403 051 2106	ELECT	4.7U M 50V	1	R418	401 027 0507	CARBON 470K JA 1/6W	1
C492	403 051 2106	ELECT	4.7U M 50V	1	R419	401 025 0004	CARBON 120K JA 1/6W	1
C493	403 071 6207	CERAMIC	220P K 50V	1	R420	401 025 0004	CARBON 120K JA 1/6W	1
C494	403 068 9402	CERAMIC	100P K 50V	1	R421	401 025 8703	CARBON 220K JA 1/6W	1
C495	403 038 2402	ELECT	100U M 6.3V	1	R422	401 025 8703	CARBON 220K JA 1/6W	1
C496	403 068 9402	CERAMIC	100P K 50V	1	R423	401 024 7707	CARBON 100K JA 1/6W	1
C497	403 051 2106	ELECT	4.7U M 50V	1	R424	401 024 7707	CARBON 100K JA 1/6W	1
C500	403 038 2402	ELECT	100U M 6.3V	1	R431	401 024 7004	CARBON 1K JA 1/6W	1
C501	403 049 5508	ELECT	10U M 50V	1	R432	401 024 7004	CARBON 1K JA 1/6W	1
C502	403 049 5508	ELECT	10U M 50V	1	R433	401 025 1605	CARBON 1.5K JA 1/6W	1
C503	403 047 4305	ELECT	47U M 25V	1	R434	401 025 1605	CARBON 1.5K JA 1/6W	1
C504	403 047 4305	ELECT	47U M 25V	1	R437	401 027 5908	CARBON 68K JA 1/6W	1
C505	403 045 0606	ELECT	100U M 25V	1	R438	401 027 5908	CARBON 68K JA 1/6W	1
C506	403 045 0606	ELECT	100U M 25V	1	R439	401 025 1902	CARBON 15K JA 1/6W	1
C507	403 049 5508	ELECT	10U M 50V	1	R440	401 025 1902	CARBON 15K JA 1/6W	1
C508	403 049 5508	ELECT	10U M 50V	1	R441	401 024 7004	CARBON 1K JA 1/6W	1
C513	404 012 7000	CERAMIC	0.01U P 500V	1	R442	401 024 7004	CARBON 1K JA 1/6W	1
C514	404 012 7000	CERAMIC	0.01U P 500V	1	R443	401 024 7707	CARBON 100K JA 1/6W	1
C515	404 041 0201	ELECT	6800U M 63V	1	R444	401 024 7707	CARBON 100K JA 1/6W	1
C516	404 041 0201	ELECT	6800U M 63V	1	R445	401 025 8208	CARBON 22K JA 1/6W	1
C517	403 069 8404	CERAMIC	0.01U Z 50V	1	R446	401 016 4806	CARBON 22K JA 1/4W	1
C518	403 069 8404	CERAMIC	0.01U Z 50V	1	R447	401 027 5908	CARBON 68K JA 1/6W	1
C519	403 052 9609	ELECT	1000U M 35V	1	R448	401 027 5908	CARBON 68K JA 1/6W	1
C520	403 052 9609	ELECT	1000U M 35V	1	R449	401 015 2704	CARBON 1.8K JA 1/4W	1
C521	403 045 0606	ELECT	100U M 25V	1	R450	401 015 2704	CARBON 1.8K JA 1/4W	1
C522	403 049 5508	ELECT	10U M 50V	1	R451	401 015 2704	CARBON 1.8K JA 1/4W	1
C523	403 045 0606	ELECT	100U M 25V	1	R452	401 015 2704	CARBON 1.8K JA 1/4W	1
C524	403 049 5508	ELECT	10U M 50V	1	R453	401 014 5201	CARBON 15K JA 1/4W	1
C525	403 049 5508	ELECT	10U M 50V	1	R454	401 014 5201	CARBON 15K JA 1/4W	1
C526	403 049 5508	ELECT	10U M 50V	1	R455	401 026 4308	CARBON 3.3K JA 1/6W	1
C527	403 049 5508	ELECT	10U M 50V	1	R456	401 026 4308	CARBON 3.3K JA 1/6W	1
C528	403 049 5508	ELECT	10U M 50V	1	R457	401 023 0709	CARBON 82 JA 1/4W	1
C529	403 045 0606	ELECT	100U M 25V	1	R458	401 023 0709	CARBON 82 JA 1/4W	1
C530	403 051 2106	ELECT	4.7U M 50V	1	R459	402 037 6909	FUSIBLE RES 82 JA 1/4W	1
C531	403 039 4504	ELECT	470U M 6.3V	1	R460	402 037 6909	FUSIBLE RES 82 JA 1/4W	1
C532	403 051 2106	ELECT	4.7U M 50V	1	R461	402 039 8406	OXIDE-MT 6.8K JB 1W	1
C533	403 069 8404	CERAMIC	0.01U Z 50V	1	R462	402 039 8406	OXIDE-MT 6.8K JB 1W	1
C535	403 054 2608	ELECT	470U M 35V	1	R463	401 019 9600	CARBON 47 JA 1/4W	1
C536	403 049 5508	ELECT	10U M 50V	1	R464	401 019 9600	CARBON 47 JA 1/4W	1
C537	403 049 5508	ELECT	10U M 50V	1	R465	401 019 9600	CARBON 47 JA 1/4W	1
C538	403 039 7901	ELECT	100U M 10V	1	R466	401 019 9600	CARBON 47 JA 1/4W	1
C540	403 067 5603	MT-COMPO	0.1U J 50V	1	R467	402 037 6909	FUSIBLE RES 82 JA 1/4W	1
C543	403 049 5508	ELECT	10U M 50V	1	R468	402 037 6909	FUSIBLE RES 82 JA 1/4W	1
C544	403 049 5508	ELECT	10U M 50V	1	R469	402 037 7005	FUSIBLE RES 47 JA 1/4W	1
C551	403 051 2106	ELECT	4.7U M 50V	1	R470	402 037 7005	FUSIBLE RES 47 JA 1/4W	1
C552	403 051 2106	ELECT	4.7U M 50V	1	R471	402 037 7005	FUSIBLE RES 47 JA 1/4W	1
C553	403 051 2106	ELECT	4.7U M 50V	1	R472	402 037 7005	FUSIBLE RES 47 JA 1/4W	1
C554	403 051 2106	ELECT	4.7U M 50V	1	R473	401 027 5908	CARBON 68K JA 1/6W	1
C555	403 068 9402	CERAMIC	100P K 50V	1	R474	401 027 5908	CARBON 68K JA 1/6W	1
C556	403 068 9402	CERAMIC	100P K 50V	1	R477	401 024 6700	CARBON 100 JA 1/6W	1
C557	403 051 2106	ELECT	4.7U M 50V	1	R478	401 024 6700	CARBON 100 JA 1/6W	1
C558	403 051 2106	ELECT	4.7U M 50V	1	R479	401 026 3905	CARBON 330 JA 1/6W	1
C559	403 051 2106	ELECT	4.7U M 50V	1	R480	401 026 3905	CARBON 330 JA 1/6W	1
C560	403 051 2106	ELECT	4.7U M 50V	1	R481	401 023 3700	CARBON 82K JA 1/4W	1
C561	403 068 9402	CERAMIC	100P K 50V	1	R482	401 023 3700	CARBON 82K JA 1/4W	1
C562	403 068 9402	CERAMIC	100P K 50V	1	R483	401 023 3700	CARBON 82K JA 1/4W	1
C563	403 047 4305	ELECT	47U M 25V	1	R484	401 023 3700	CARBON 82K JA 1/4W	1
C564	403 047 4305	ELECT	47U M 25V	1	R485	401 016 4806	CARBON 22K JA 1/4W	1
C567	403 040 4807	ELECT	220U M 10V	1	R486	401 016 4806	CARBON 22K JA 1/4W	1
C568	403 040 4807	ELECT	220U M 10V	1	R487	401 016 4806	CARBON 22K JA 1/4W	1
C571	403 035 4508	CERAMIC	2P C 500V	1	R488	401 016 4806	CARBON 22K JA 1/4W	1
C572	403 035 4508	CERAMIC	2P C 500V	1	R489	401 026 4308	CARBON 3.3K JA 1/6W	1
R401	401 024 7004	CARBON	1K JA 1/6W	1	R490	401 026 4308	CARBON 3.3K JA 1/6W	1
R402	401 012 5708	CARBON	1K JA 1/4W	1	R491	401 026 4308	CARBON 3.3K JA 1/6W	1
R403	401 024 7004	CARBON	1K JA 1/6W	1	R492	401 026 4308	CARBON 3.3K JA 1/6W	1
R404	401 024 7004	CARBON	1K JA 1/6W	1	R493	401 017 8605	CARBON 300 JA 1/4W	1

P.C.BOARD PARTS LIST (Continued)

Ref. No.	Part No.	Description	Q'ty
D605	407 125 8209	DIODE HSS271	1
or	407 012 4208	DIODE 1SS131-T-77	1
or	407 008 0405	DIODE GMB01-BT	1
D606	407 125 8209	DIODE HSS271	1
or	407 012 4208	DIODE 1SS131-T-77	1
or	407 008 0405	DIODE GMB01-BT	1
D607	407 125 8209	DIODE HSS271	1
or	407 012 4208	DIODE 1SS131-T-77	1
or	407 008 0405	DIODE GMB01-BT	1
D608	407 004 9105	DIODE DSF10C-BT	1
D609	407 049 9504	ZENER DIODE GZA20Y-BT	1
D610	407 050 4208	ZENER DIODE GZA43Z	1
D611	407 050 4208	ZENER DIODE GZA43Z	1
D612	407 005 3805	DIODE DS442	1
D613	407 005 3805	DIODE DS442	1
C601	403 051 2106	ELECT 4.7U M 50V	1
C602	403 071 6207	CERAMIC 220P K 50V	1
C603	403 071 6207	CERAMIC 220P K 50V	1
C604	403 071 6207	CERAMIC 220P K 50V	1
C605	403 038 2402	ELECT 100U M 6.3V	1
C606	403 035 2207	CERAMIC 15P K 500V	1
C607	403 035 2207	CERAMIC 15P K 500V	1
C608	404 012 6904	CERAMIC 0.047U Z 150V	1
C609	403 121 0506	ELECT 22U M 63V	1
C610	403 121 0506	ELECT 22U M 63V	1
C611	403 049 1708	ELECT 1U M 50V	1
C612	403 049 1708	ELECT 1U M 50V	1
C613	403 049 1708	ELECT 1U M 50V	1
C614	403 034 9900	CERAMIC 100P K 500V	1
C615	403 034 9900	CERAMIC 100P K 500V	1
C617	403 062 0504	POLYESTER 0.047U K 50V	1
C618	403 049 5508	ELECT 10U M 50V	1
C620	403 015 1602	CERAMIC 2P C 50V	1
R601	401 027 5908	CARBON 68K JA 1/6W	1
R602	401 016 3809	CARBON 2.2K JA 1/4W	1
R603	401 016 3809	CARBON 2.2K JA 1/4W	1
R604	401 014 5201	CARBON 15K JA 1/4W	1
R605	401 025 7805	CARBON 2.2K JA 1/6W	1
R606	401 023 0709	CARBON 82 JA 1/4W	1
R607	401 023 0709	CARBON 82 JA 1/4W	1
R608	402 039 8406	OXIDE-MT 6.8K JB 1W	1
R609	401 023 0709	CARBON 82 JA 1/4W	1
R610	402 051 7401	FUSIBLE RES 220 JA 1/4W	1
R611	402 051 7401	FUSIBLE RES 220 JA 1/4W	1
R612	401 022 4104	CARBON 68K JA 1/4W	1
R613	401 019 9600	CARBON 47 JA 1/4W	1
R614	401 019 9600	CARBON 47 JA 1/4W	1
R615	401 027 9005	CARBON 82K JA 1/6W	1
R616	401 027 9005	CARBON 82K JA 1/6W	1
R617	401 016 4806	CARBON 22K JA 1/4W	1
R618	401 016 4806	CARBON 22K JA 1/4W	1
R619	401 026 4308	CARBON 3.3K JA 1/6W	1
R620	401 026 4308	CARBON 3.3K JA 1/6W	1
R621	401 017 8605	CARBON 300 JA 1/4W	1
R622	401 017 8605	CARBON 300 JA 1/4W	1
R623	402 037 7104	FUSIBLE RES 2.2 JA 1/4W	1
R624	402 037 7104	FUSIBLE RES 2.2 JA 1/4W	1
R625	402 016 5107	FUSIBLE RES 330 J- 1/2W	1
R626	620 004 3885	Cement 2X0.22	1
R627	401 019 6203	CARBON 4.7 JA 1/4W	1
R628	402 039 5900	OXIDE-MT 10 JB 2W	1
R629	401 013 6407	CARBON 12K JA 1/4W	1
R630	401 016 4806	CARBON 22K JA 1/4W	1
R631	402 039 8406	OXIDE-MT 6.8K JB 1W	1
R632	401 023 0709	CARBON 82 JA 1/4W	1
R633	401 025 7102	CARBON 22 JA 1/6W	1

ASSY,PCB,BIAS

65	620 200 5690	Assy,PCB,Bias	1
Q609	405 026 0803	TR 2SD947	1
D610	407 005 3805	DIODE DS442-BT	1

ASSY,PCB,SPEAKER SWITCH

66	620 203 9992	Assy,PCB,Speaker Switch	1
△	620 015 2341	Switch Push Power	1
	620 018 0436	Jack 7P	1
	620 200 6147	Switch,Push,4P-2T,6P-2T	1
	620 031 4763	Wire Wrap Terminal	2
PC701	620 205 8962	Wire,2S Parallel	1

Ref. No.	Part No.	Description	Q'ty
PC702	620 024 1311	Wire 4 Parallel	1
PC703	620 205 8931	Wire,3-410	1
PC704	620 205 8917	Wire,3-290	1
PC705	620 205 8924	Wire,6-320	1

ASSY,PCB,SLIDE SWITCH

67	620 204 7935	Assy,PCB,Slide Switch	1
	620 204 7911	Switch,Slide,2P-2T	1
	620 191 0421	Jumper	1
JH101	620 201 0144	Socket,Holder,2P	1

NOTES:

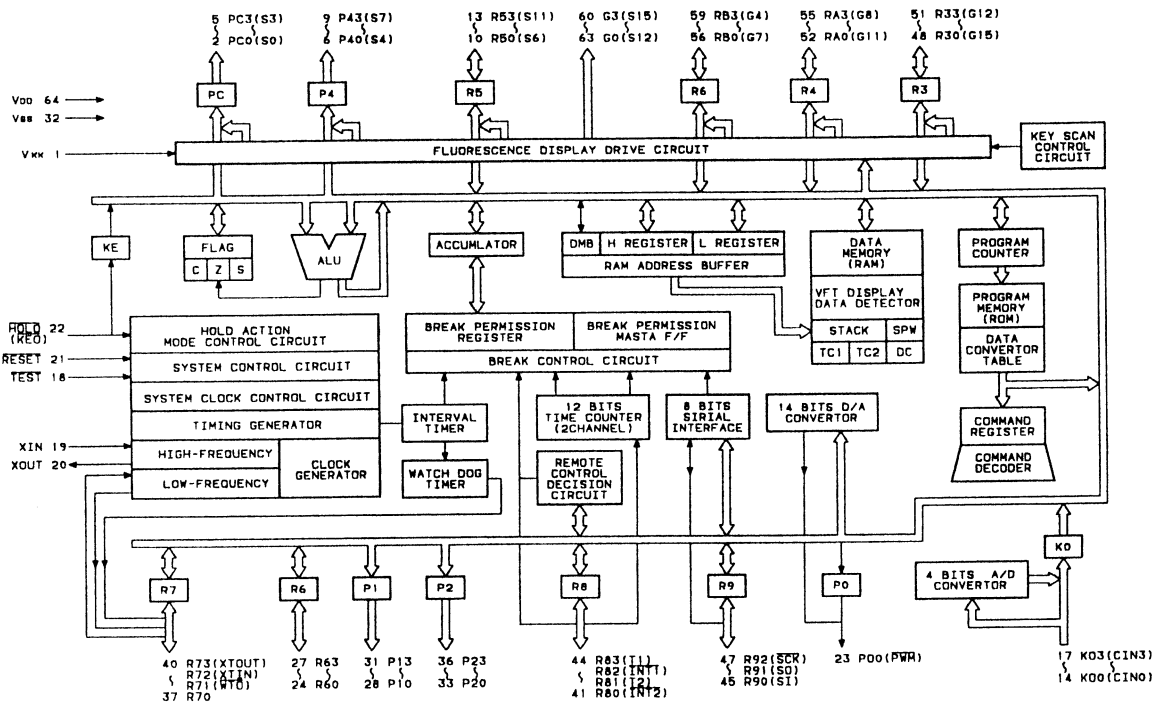
- Parts order must contain Model Number, Part Number and Description.
- Ordering quantity of screws and resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

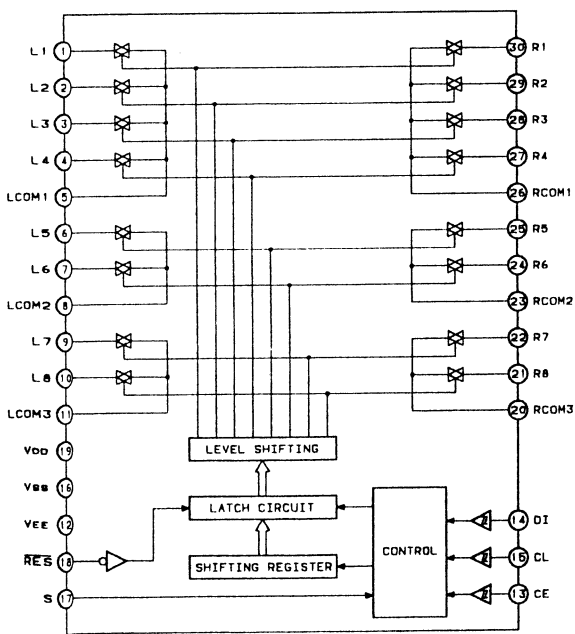
Each precaution in this manual should be followed during servicing. Components identified with the IEC symbol Δ in the parts list and the schematic diagram designate components in which safety can be of special significance. When replacing a component identified with Δ , use only the replacement parts 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

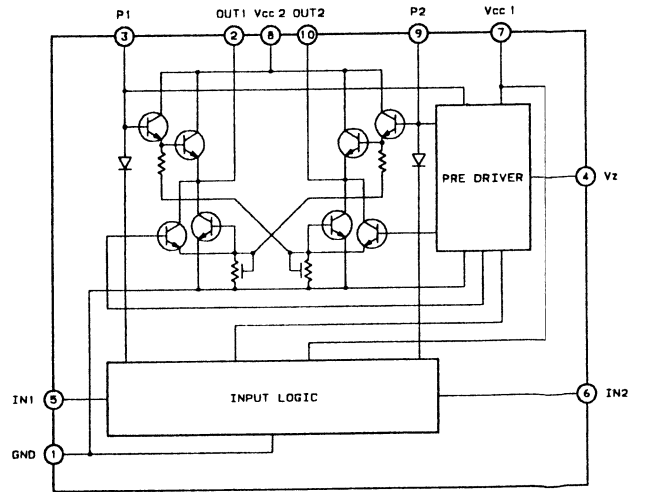
TMP47C670N-1296 BLOCK DIAGRAM



LC7821 BLOCK DIAGRAM

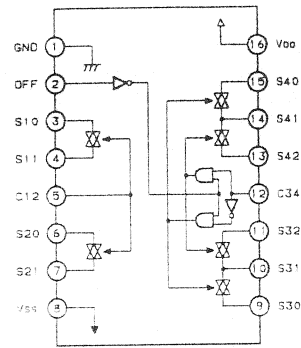


LB1641 BLOCK DIAGRAM

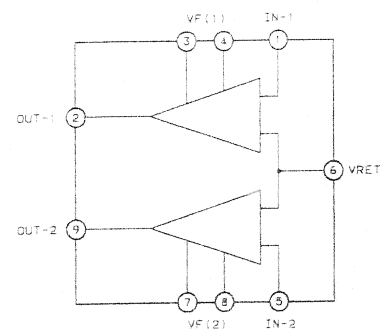


IC BLOCK DIAGRAM (Continued)

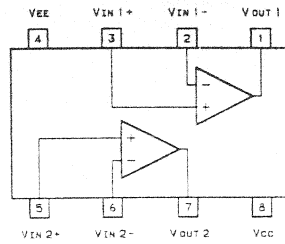
TC9215P BLOCK DIAGRAM



LA2500 BLOCK DIAGRAM



LA6458DS BLOCK DIAGRAM
LA6462D BLOCK DIAGRAM
NJM4556D BLOCK DIAGRAM



TC4030B BLOCK DIAGRAM

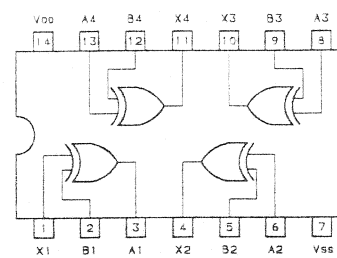
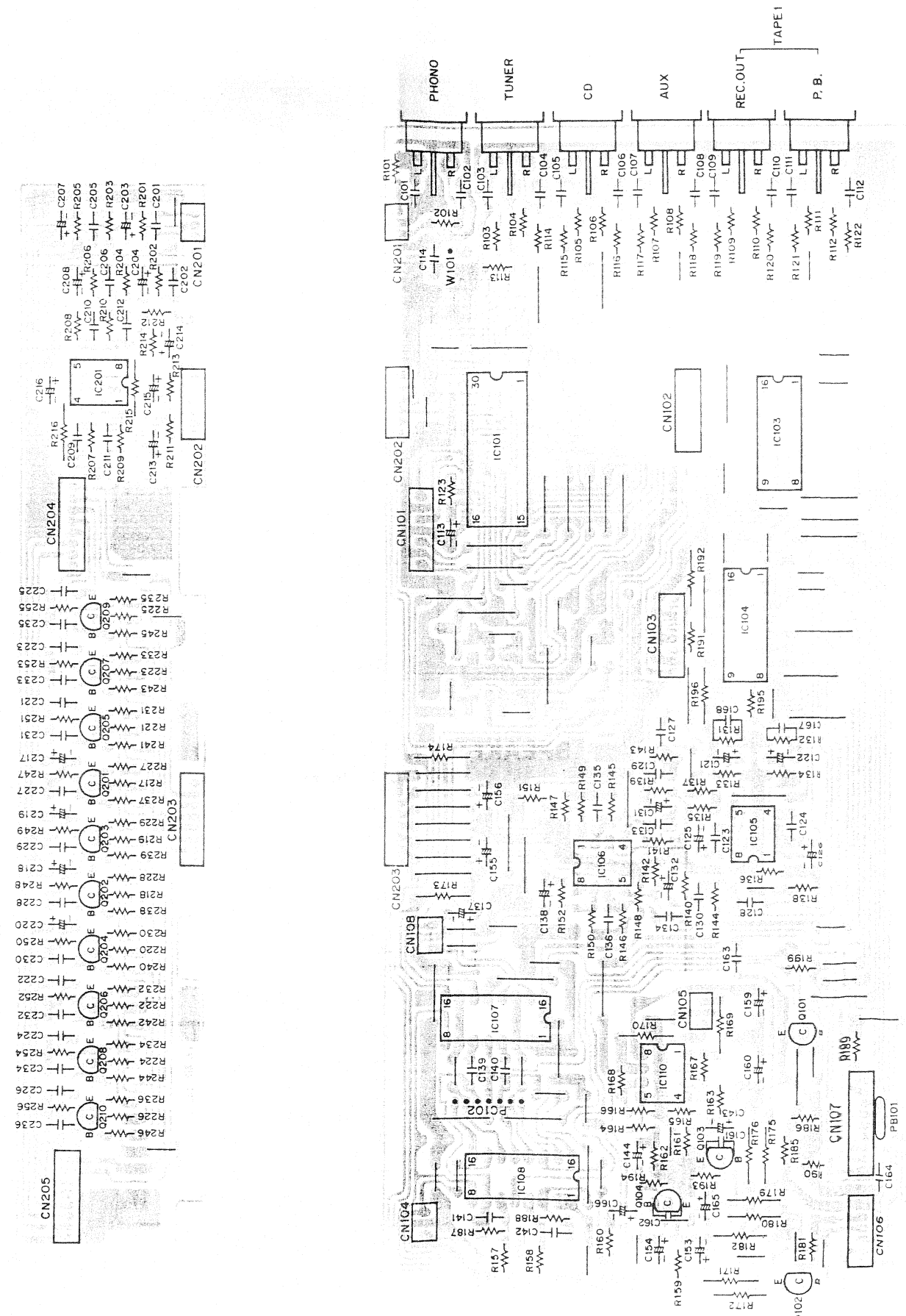


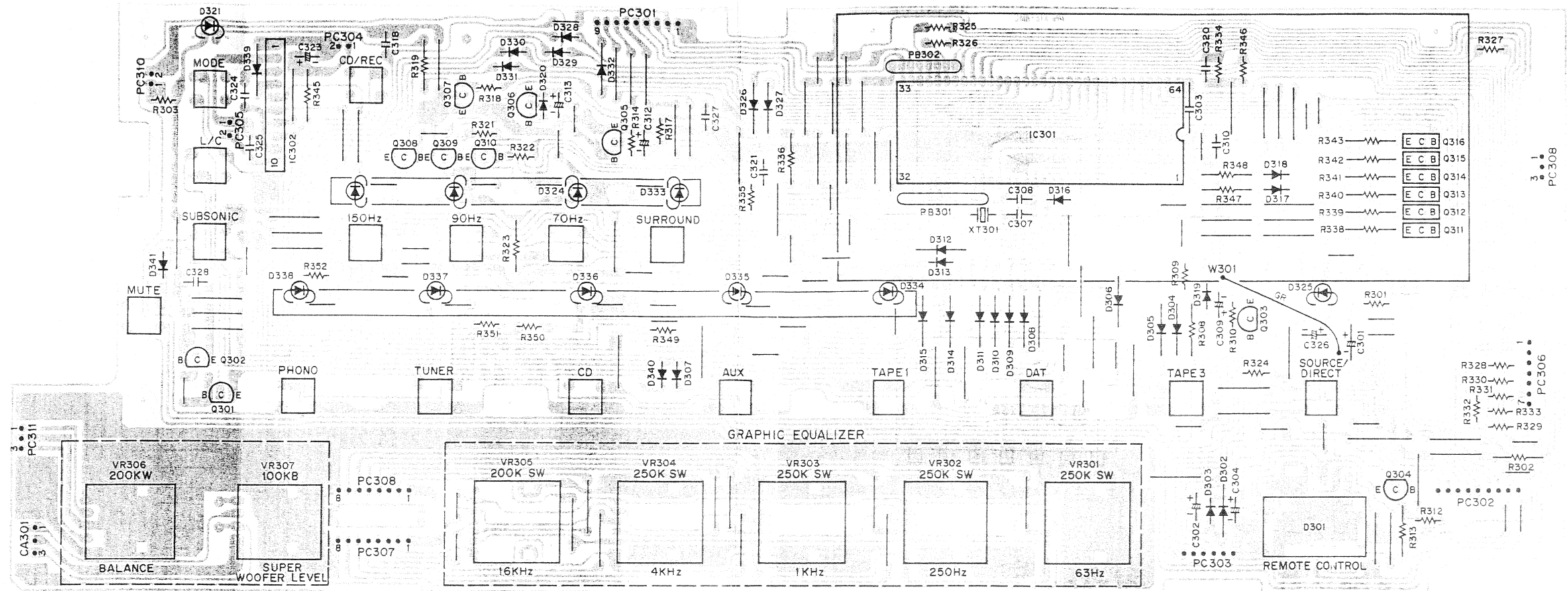
TABLE OF IC REFERENCE VOLTAGE

IC PIN NUMBERS DC VOLTAGES																						
Ref. No.	DEVICE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	
IC101	LC7821	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	0V	-16.0V	0V	0V	0V	0V	0V	15.7V	15.7V	0V
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
IC102	LA6458DS	0V	0V	0V	-16.0V	0V	0V	0V	15.7V	-	-	-	-	-	-	-	-	-	-	-	-	-
IC103,104	TC9215P	0V	0V	0V	0V	0V	0V	0V	-15.9V	0V	0V	0V	4.4V	0V	0V	0V	15.7V	-	-	-	-	-
IC105	LA6458DS	0V	0V	0V	-16.0V	0V	0V	0V	15.8V	-	-	-	-	-	-	-	-	-	-	-	-	-
IC106	LA6458DS	0V	0V	0V	-17.8V	0V	0V	0V	17.8V	-	-	-	-	-	-	-	-	-	-	-	-	-
IC107	TC9215P	0V	0V	0V	0V	4.3V	0V	0V	-16.0V	0V	0V	0V	5.0V	0V	0V	0V	15.8V	-	-	-	-	-
IC108	TC9215P	0V	0V	0V	0V	0V	0V	0V	-16.0V	0V	0V	0V	0V	0V	0V	0V	15.8V	-	-	-	-	-
IC110	NJM4556D	0V	0V	0V	-18.3V	0V	0V	0.1V	18.2V	-	-	-	-	-	-	-	-	-	-	-	-	-
IC201	LA6462D	0V	0V	0V	-17.0V	0V	0V	0V	17.0V	-	-	-	-	-	-	-	-	-	-	-	-	-
IC301	TMP47C670N	0V	0V	0V	4.7V	5.4V	0V	0V	0V	0V	4.3V	4.7V	4.8V	2.3V	2.2V	0V	0V	0V	2.1V	0.1V	-21.6V	
		21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	
		-21.6V	-17.1V	-21.6V	-13.1V	-9.4V	-17.6V	-9.4V	-22.1V	-13.6V	-9.5V	-13.5V	-22.4V	4.9V	-18.5V	-18.5V	-18.5V	-18.5V	-18.5V	-18.5V	-18.5V	-22.3V
		41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	
		-22.2V	-22.2V	4.4V	-22.2V	-22.2V	-22.2V	-22.2V	4.8V	4.8V	5.1V	0V	0V	5.1V	0V	5.7V	0V	5.1V	5.1V	5.1V	5.1V	
61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80			
5.1V	5.1V	5.1V	5.1V	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
IC302	LB1641	0V	0.5V	0.7V	0.8	0V	0V	13.2V	13.2V	0.6V	0.5V	-	-	-	-	-	-	-	-	-	-	
IC401	LA6462D	0V	0V	0V	-18.0V	0V	0V	0V	18.0V	-	-	-	-	-	-	-	-	-	-	-	-	
IC402	TC9215P	0V	0V	0V	0V	0V	0V	0V	-16.9V	0V	0V	0V	2.3V	0V	0V	0V	16.7V	-	-	-	-	
IC403	LA6458D	0V	0V	0V	-16.9V	0V	0V	0V	16.7V	-	-	-	-	-	-	-	-	-	-	-	-	
IC404	TC9215P	0V	0V	0V	0V	0V	0V	0V	-16.8V	0V	0V	0V	4.7V	0V	0V	0V	18.8V	-	-	-	-	
IC405	LA6462D	0V	0V	0V	-17.8V	0V	0V	0V	17.8V	-	-	-	-	-	-	-	-	-	-	-	-	
IC407,408	LA2500	0.9V	0.2V	0.9V	0.9V	-1.1V	0V	-0.5V	-0.5V	-0.3V	-	-	-	-	-	-	-	-	-	-	-	
IC409	LA6458DS	0.1V	0V	0V	-13.2V	0V	0V	0.1V	13.2V	-	-	-	-	-	-	-	-	-	-	-	-	
IC410	LA6458DS	12.6V	0.6V	0.6V	-13.2V	0V	0V	0.1V	13.2V	-	-	-	-	-	-	-	-	-	-	-	-	
IC412	LA6458D	0V	0V	0V	-16.2V	0V	0V	0V	16.2V	-	-	-	-	-	-	-	-	-	-	-	-	
IC413	LA6458D	0V	0V	0V	-16.2V	0V	0V	0V	16.2V	-	-	-	-	-	-	-	-	-	-	-	-	

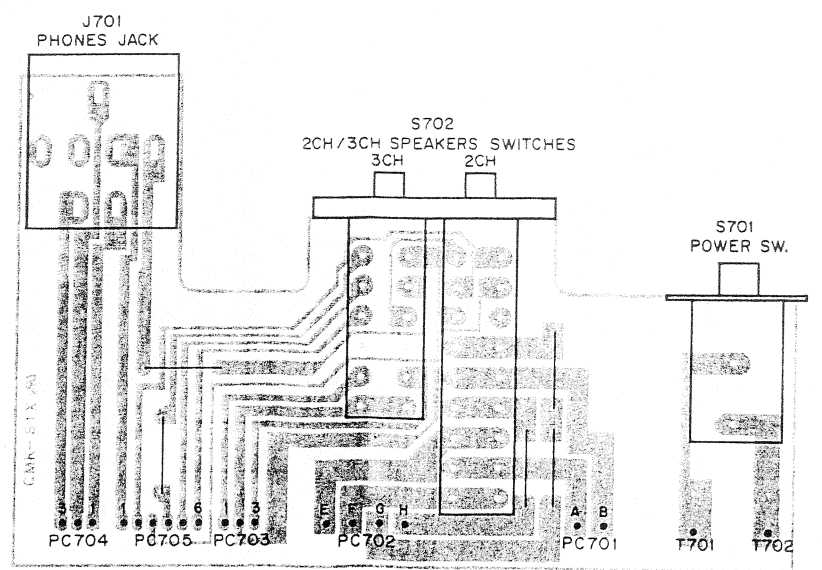
INPUT P.C. BOARD
(BOTTOM VIEW)



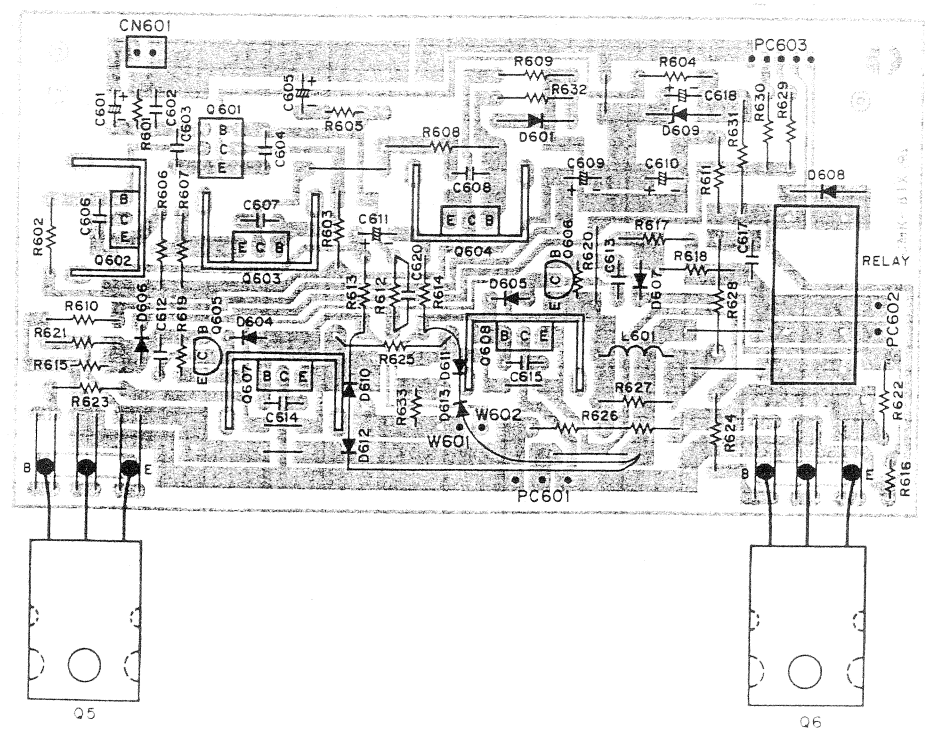
**CONTROL PRINTED CIRCUIT BOARD
(BOTTOM VIEW)**



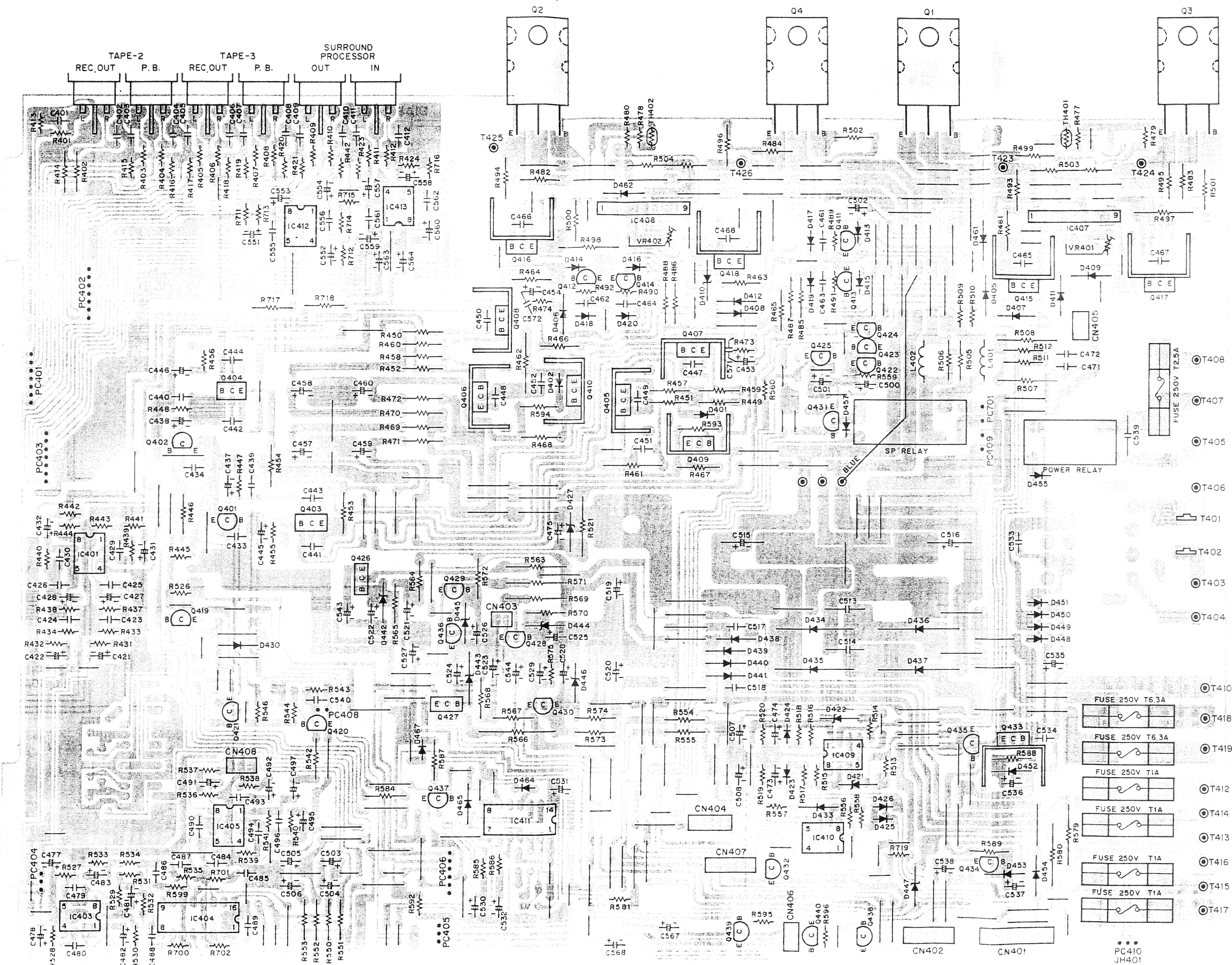
**SPEAKER SWITCH P.C.BOARD
(BOTTOM VIEW)**



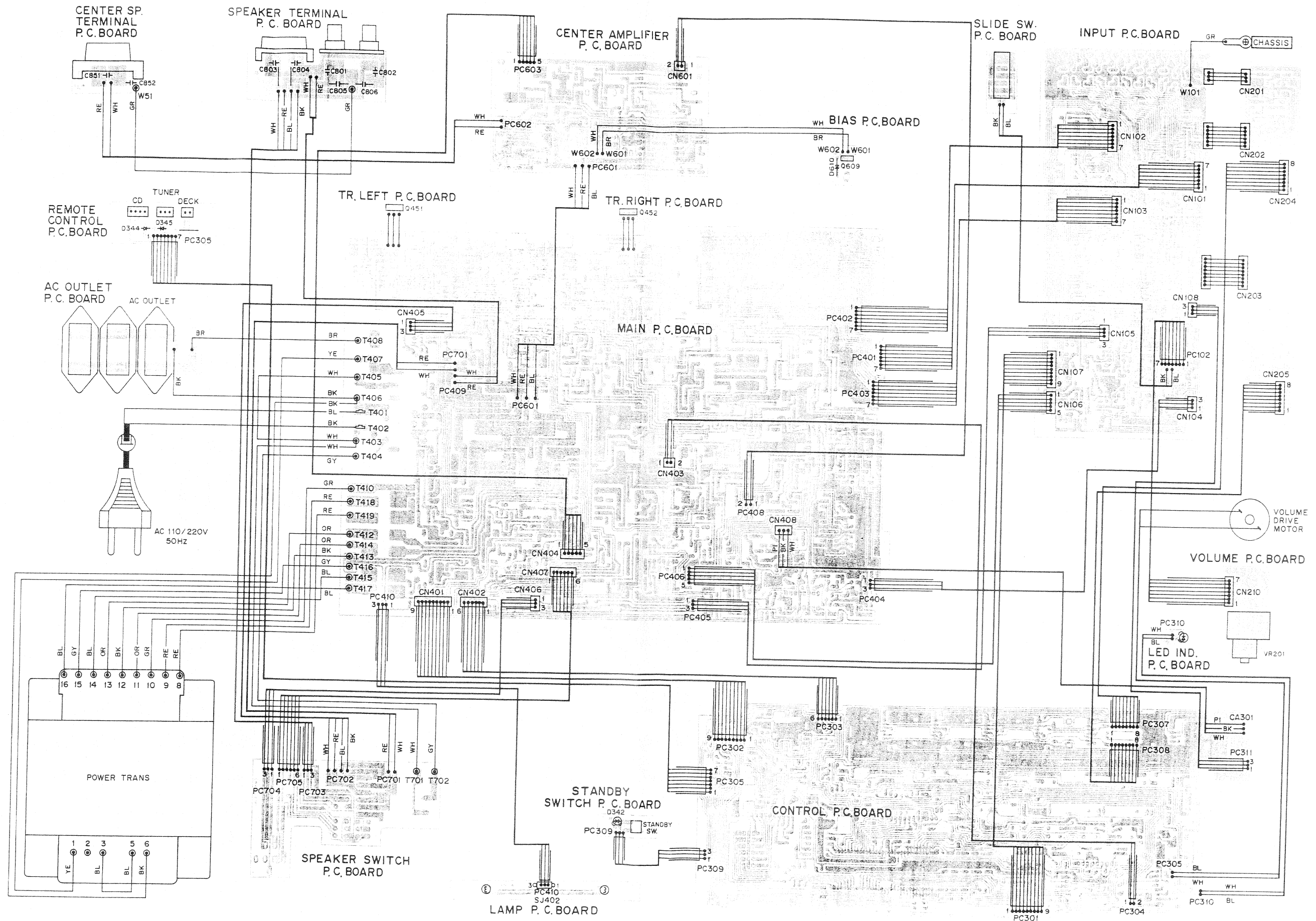
**CENTER AMP. P.C.BOARD
(BOTTOM VIEW)**



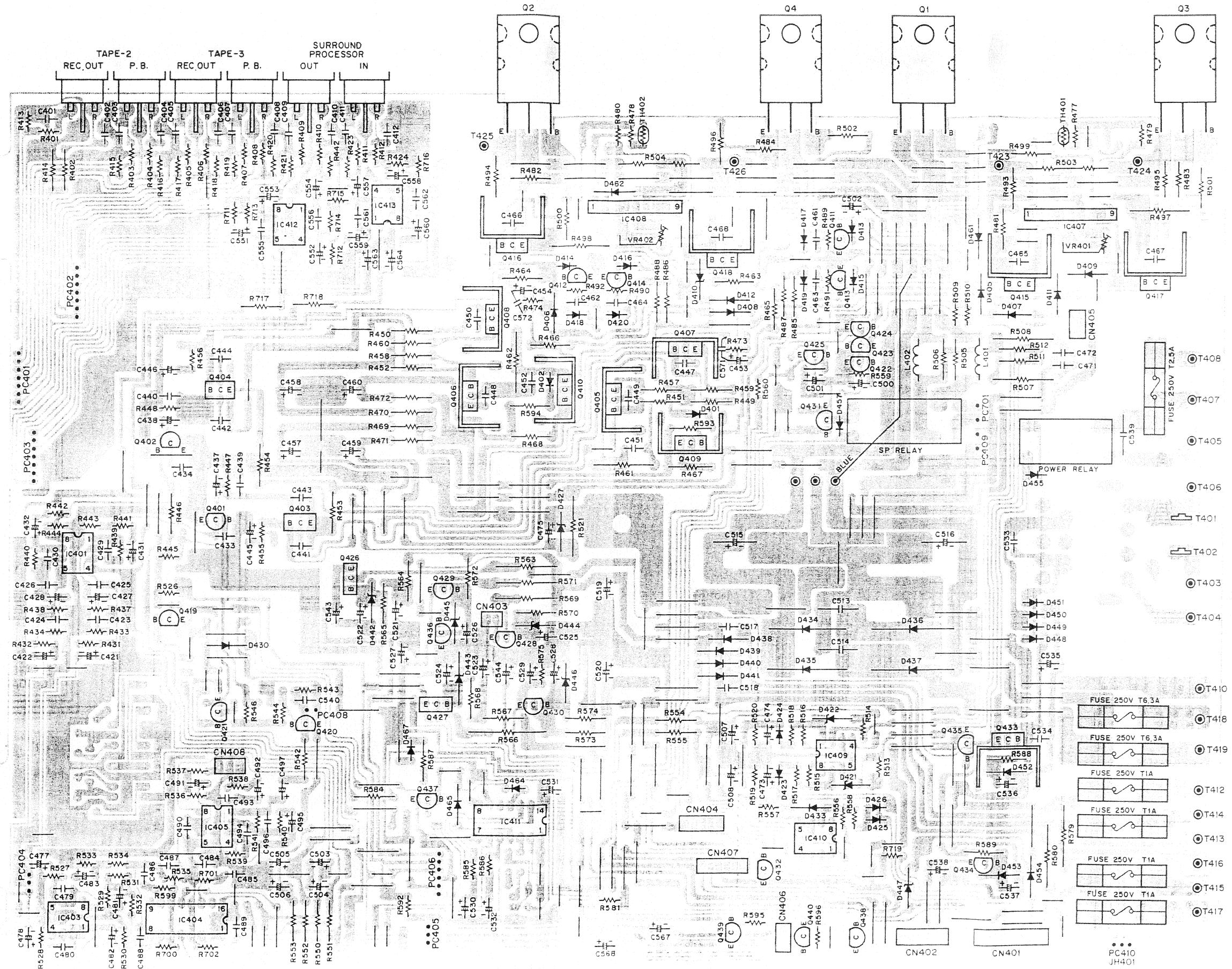
MAIN PRINTED CIRCUIT BOARD (BOTTOM VIEW)



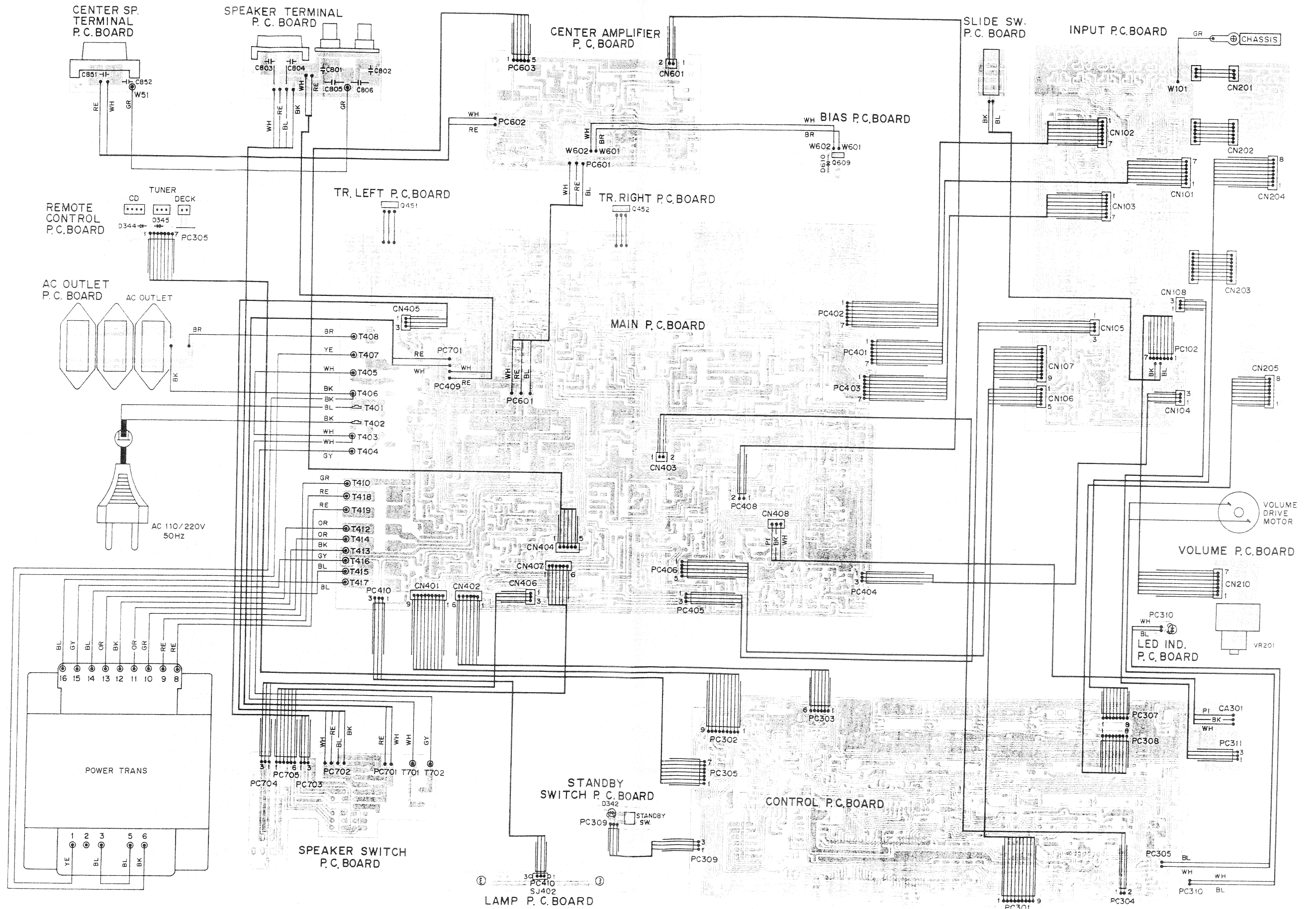
POINT TO POINT WIRING DIAGRAM



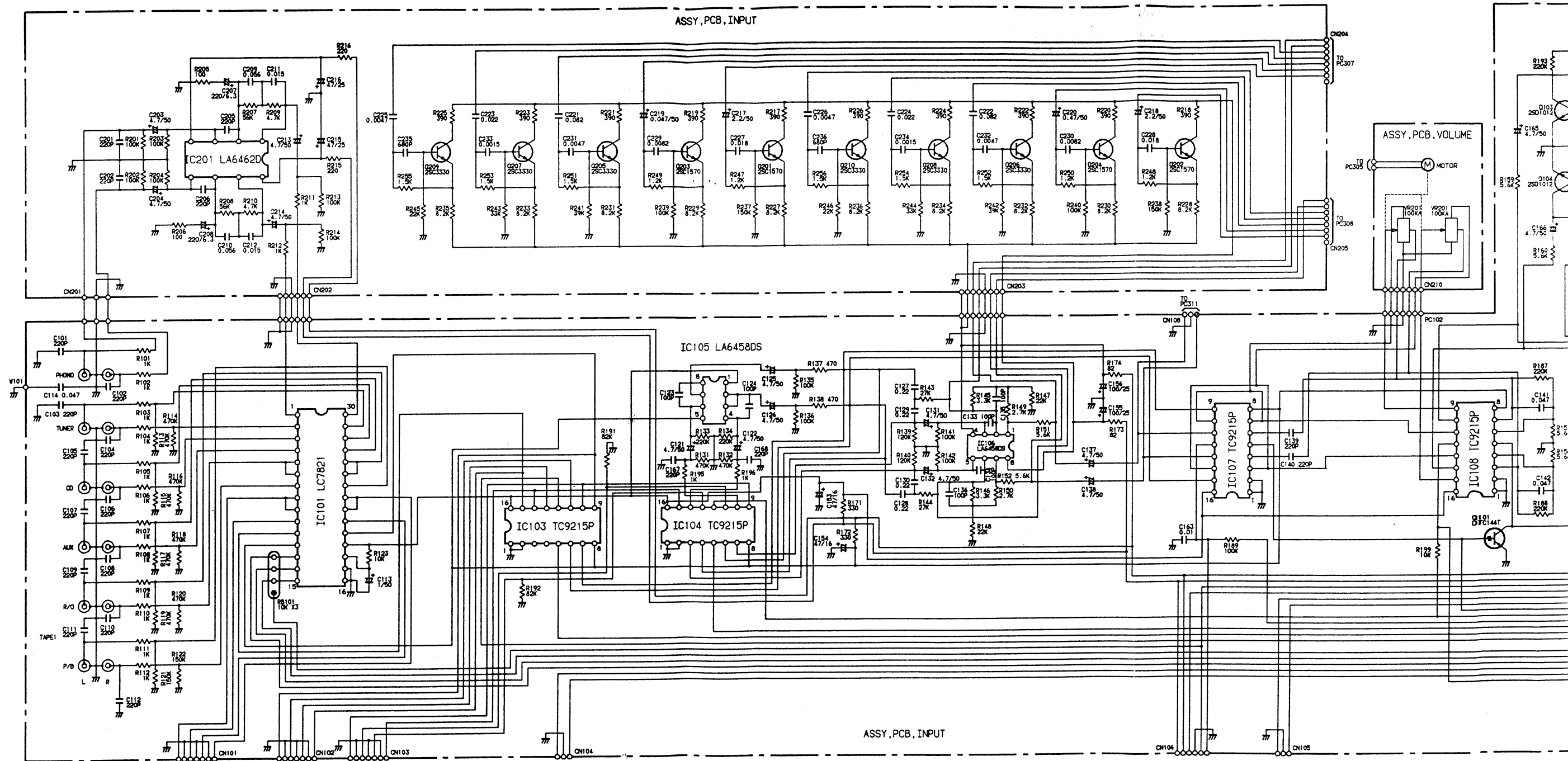
MAIN PRINTED CIRCUIT BOARD (BOTTOM VIEW)



POINT TO POINT WIRING DIAGRAM



SCHEMATIC DIAGRAM (Equalizer / Input P.C.Board Section)

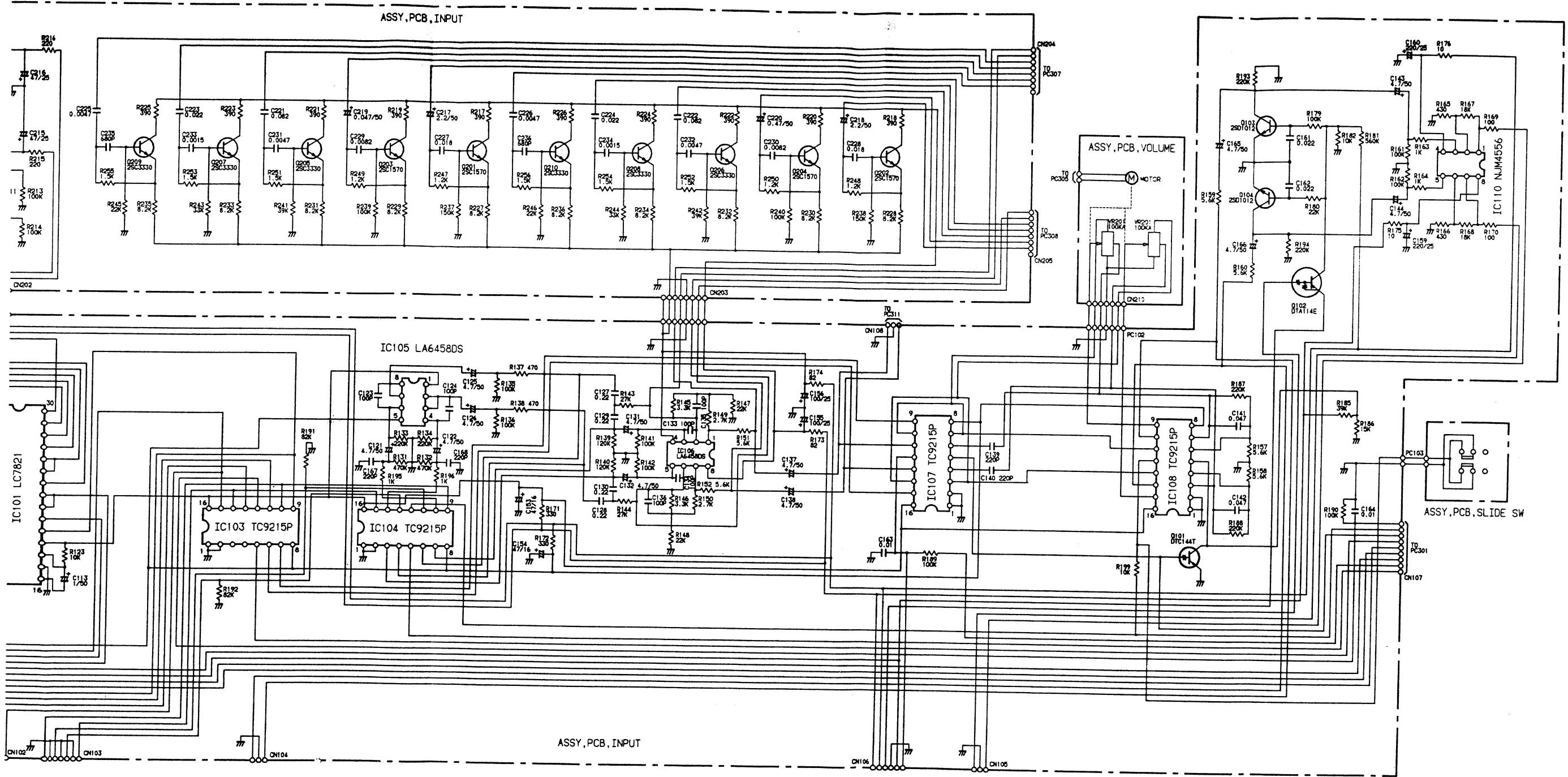


TRANSISTOR DC VOLTAGES														
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q101	DTC144	0V	5.0V	0V	Q301	DTA114	3.2V	2.1V	2.3V	Q311	2SC4038	-18.5V	5.8V	-18.7V
Q102	DTA114	5.4V	-0.3V	5.9V	Q302	DTC114	0V	3.2V	0V	Q312	2SC4038	-18.5V	5.8V	-18.5V
Q103	2SD1012	-0.3V	0V	0V	Q303	2SC536	0V	4.8V	0V	Q313	2SC4038	-18.5V	5.8V	-18.5V
Q104	2SD1012	-0.3V	0V	0V	Q304	DTA143	4.9V	0V	2.1V	Q314	2SC4038	-18.5V	5.8V	-18.5V
Q201,202	2SC1570	-1.1V	15.9V	-1.8V	Q305	DTC123	0V	4.7V	0V	Q315	2SC4038	-18.5V	5.8V	-18.2V
Q203,204	2SC1570	-0.7V	15.9V	-1.3V	Q306	2SA808	5.8V	0V	5.5V	Q316	2SC4038	-18.5V	5.8V	-18.6V
Q205,206	2SC3330	-0.2V	15.9V	-0.8V	Q307	2SC536	0V	4.6V	0V	Q451	2SD1682	0.1V	0.3V	-0.4V
Q207,208	2SC3330	-0.1V	15.9V	-0.8V	Q308	DTC144	0.8V	0V	0V	Q452	2SD1682	0.1V	0.3V	-0.4V
Q209,210	2SC3330	-0.1V	15.9V	-0.8V	Q309	2SC536	0V	0.6V	0V					
					Q310	2SC536	0V	0V	0V					

TRANSISTOR DC VOLTAGES														
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q401,402	2SC3792	-18.8V	0V	0V	Q420	2SC3792	0.6V	0V	0V	Q430	2SA808	-22.6V	-25.6V	-21.9V
Q403,404	2SC3086	-0.1V	55.6V	-0.6V	Q421	DTA114	2.8V	5.8V	5.9V	Q431	DTC143	2.7V	0V	0V
Q405,406	2SA1209	56.1V	-12.3V	55.4V	Q422	2SC536	0V	5.1V	0V	Q432	DTC143	2.7V	0V	0V
Q407,408	2SA1209	55.9V	1.3V	55.4V	Q423	2SC536	0V	5.1V	0V	Q433	2SD1682	14.0V	23.1V	13.4V
Q409,410	2SC2911	-55.9V	-1.4V	-55.3V	Q424	2SC536	0V	2.7V	0V	Q434	2SC536	6.4V	13.3V	5.8V
Q411,412	2SC536	0.2V	1.0V	0V	Q425	DTA113	5.1V	0V	5.1V	Q435	DTC143	4.3V	0.1V	0V
Q413,414	2SA808	-0.2V	-0.9V	0V	Q426	2SD1913	19.2V	24.2V	18.6V	Q436	DTC124	0.1V	6.4V	0V
Q415,416	2SC3117	1.0V	57.2V	0.5V	Q427	2SB1274	-19.5V	-24.8V	-18.9V	Q437	DTC143	0V	5.8V	0V
Q417,418	2SA1249	-1.0V	-57.2V	-0.5V	Q428	2SD438	14.3V	25.8V	13.7V	Q438	DTA114	5.4V	-18.8V	5.8V
Q419	DTA114	5.3V	-18.8V	5.8V	Q429	2SD438	6.4V	17.4V	5.8V	Q439,440	2SC3792	-18.8V	0V	0V

TRANSISTOR DC VOLTAGES														
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q601	2SC3086	-0.1V	52.3V	-0.7V	Q608	2SA1249	-1.1V	-57.2V	-0.5V	Q609	2SD947	-0.8V	0.3V	
Q602	2SA1209	52.4V	1.5V	52.9V	Q610	2SC3280	0.5V	57.2V	-0.5V					
Q603	2SA1209	52.2V	3.8V	52.8V	Q611	2SA1301	-0.5V	-57.2V	-0.5V					
Q604	2SC2911	-52.3V	-1.5V	-53.1V	Q612	2SC3280	0.5V	57.2V	-0.5V					
Q605	2SC536	0.2V	0.9V	0V	Q613	2SA1301	-0.5V	-57.2V	-0.5V					
Q606	2SA808	-0.2V	-0.9V	0V	Q614	2SC3280	0.5V	57.2V	-0.5V					
Q607	2SC3117	1.0V	57.8V	0.5V	Q615	2SA1301	-0.5V	-57.2V	-0.5V					

SCHEMATIC DIAGRAM (Equalizer / Input P.C.Board Section)



E	Ref. No.	DEVICE	B	C	E
2.3V	Q311	2SC4036	-18.5V	5.6V	-18.7V
0V	Q312	2SC4036	-18.5V	5.6V	-18.5V
0V	Q313	2SC4036	-18.5V	5.6V	-18.5V
2.1V	Q314	2SC4036	-18.5V	5.6V	-18.5V
0V	Q315	2SC4036	-18.5V	5.6V	-18.2V
5.5V	Q316	2SC4036	-18.5V	5.6V	-18.6V
0V					
0V	Q451	2SD1682	0.1V	0.3V	-0.4V
0V	Q452	2SD1682	0.1V	0.3V	-0.4V
0V					

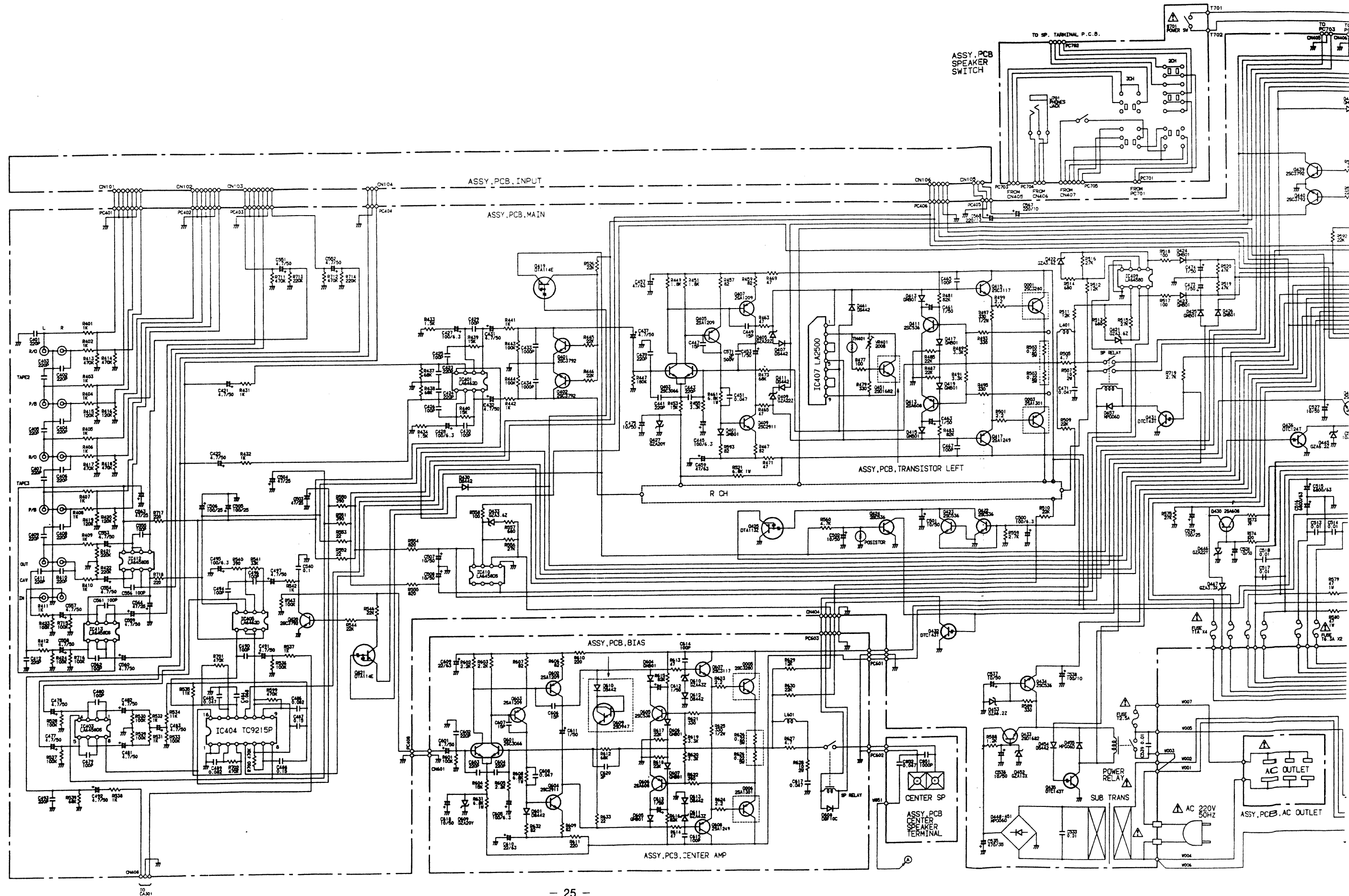
TRANSISTOR DC VOLTAGES														
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q401,402	2SC3792	-18.8V	0V	0V	Q420	2SC3792	0.6V	0V	0V	Q430	2SA808	-22.6V	-25.6V	-21.9V
Q403,404	2SC3066	-0.1V	55.6V	-0.6V	Q421	DTA114	2.8V	5.8V	5.9V	Q431	DTC143	2.7V	0V	0V
Q405,406	2SA1209	56.1V	-12.3V	55.4V	Q422	2SC536	0V	5.1V	0V	Q432	DTC143	2.7V	0V	0V
Q407,408	2SA1209	55.9V	1.3V	55.4V	Q423	2SC536	0V	5.1V	0V	Q433	2SD1682	14.0V	23.1V	13.4V
Q409,410	2SC2911	-55.9V	-1.4V	-55.3V	Q424	2SC536	0V	2.7V	0V	Q434	2SC536	6.4V	13.3V	5.8V
Q411,412	2SC536	0.2V	1.0V	0V	Q425	DTA113	5.1V	0V	5.1V	Q435	DTC143	4.3V	0.1V	0V
Q413,414	2SA808	-0.2V	-0.9V	0V	Q426	2SD1913	19.2V	24.2V	18.6V	Q436	DTC124	0.1V	6.4V	0V
Q415,416	2SC3117	1.0V	57.2V	0.5V	Q427	2SB1274	-19.5V	-24.8V	-18.9V	Q437	DTC143	0V	5.8V	0V
Q417,418	2SA1249	-1.0V	-57.2V	-0.5V	Q428	2SD438	14.3V	25.8V	13.7V	Q438	DTA114	5.4V	-18.8V	5.8V
Q419	DTA114	5.3V	-18.8V	5.8V	Q429	2SD438	6.4V	17.4V	5.8V	Q439,440	2SC3792	-18.8V	0V	0V

TRANSISTOR DC VOLTAGES														
Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E	Ref. No.	DEVICE	B	C	E
Q601	2SC3066	-0.1V	52.3V	-0.7V	Q608	2SA1249	-1.1V	-57.8V	-0.5V					
Q602	2SA1209	52.4V	1.5V	52.9V	Q609	2SD947	-0.8V	0.3V	0.3V					
Q603	2SA1209	52.2V	3.8V	52.8V										
Q604	2SC2911	-52.3V	-1.5V	-53.1V	Q1,2	2SC3280	0.5V	57.0V	0V					
Q605	2SC536	0.2V	0.9V	0V	Q3,4	2SA1301	-0.5V	-57.0V	0V					
Q606	2SA808	-0.2V	-0.9V	0V	Q5	2SC3280	0.5V	57.8V	0V					
Q607	2SC3117	1.0V	57.8V	0.5V	Q6	2SA1301	-0.5V	-57.4V	0V					

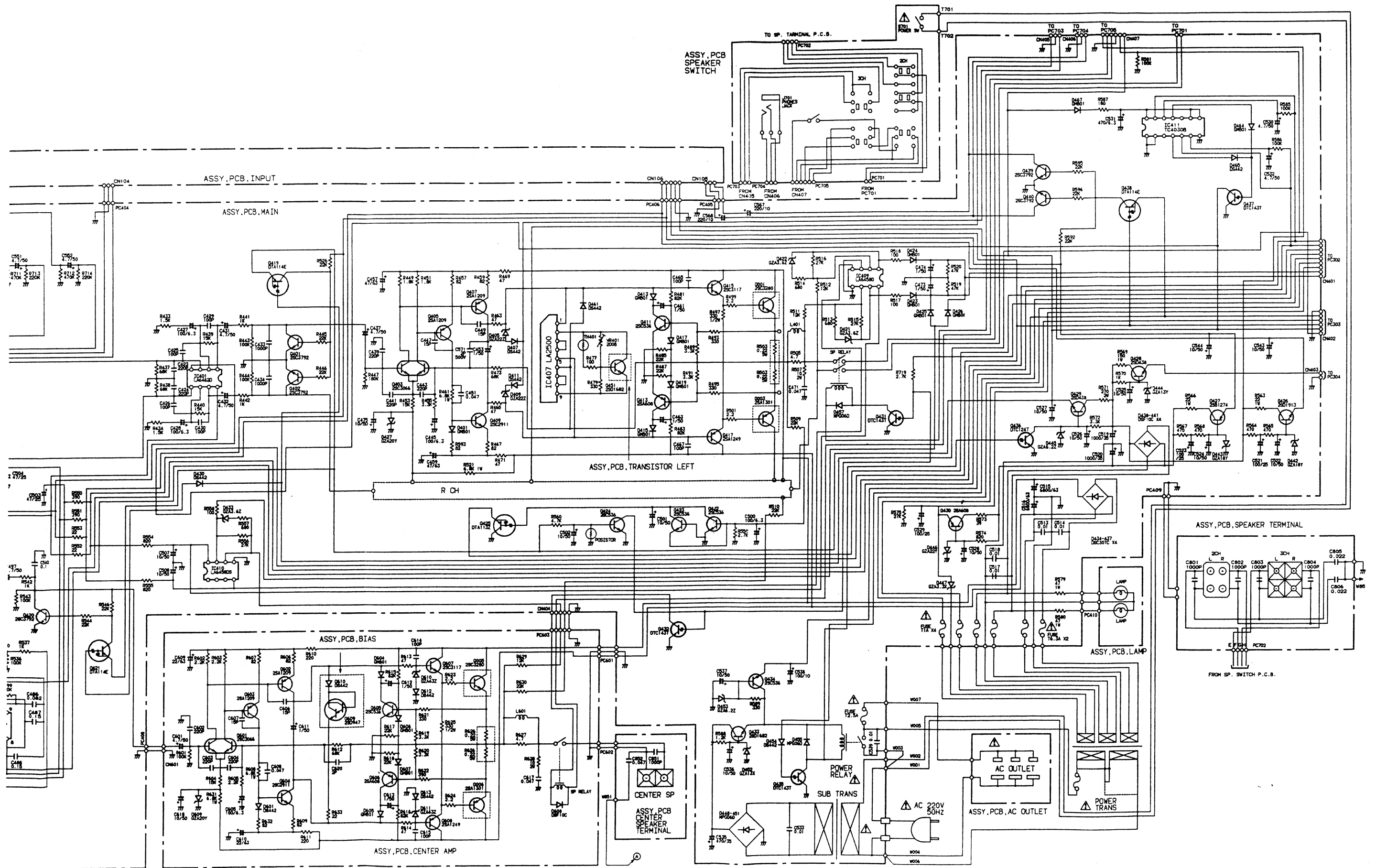
NOTES:

1. All resistors values are indicated in "ohm" (K = 10³, M = 10⁶).
2. All capacitors values are indicated in "µF" (P = 10⁻¹²).
3. This is a basic schematic diagram.

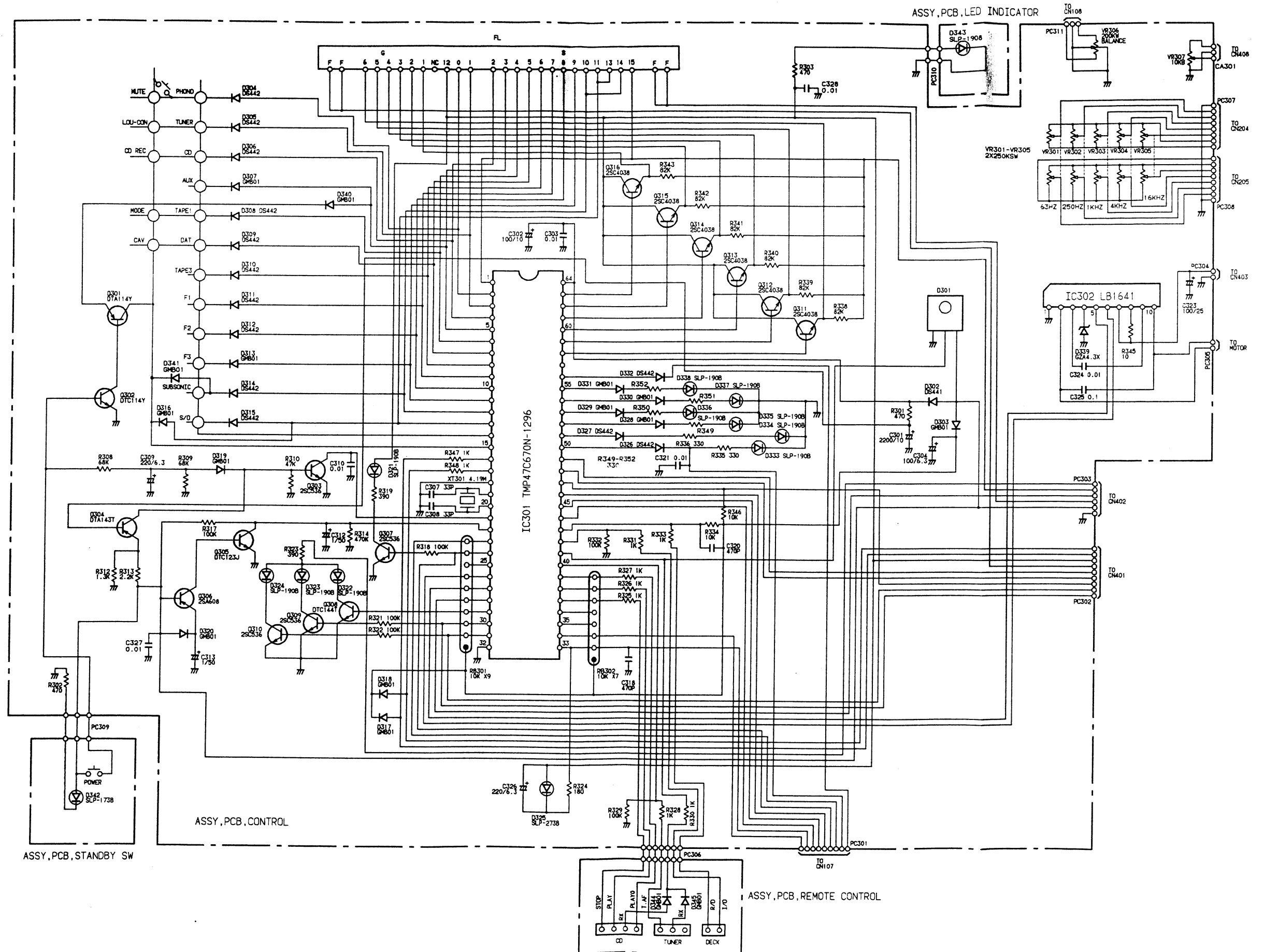
SCHEMATIC DIAGRAM (Main P.C.Board Section)



SCHEMATIC DIAGRAM (Main P.C.Board Section)



SCHEMATIC DIAGRAM (Control P.C.Board Section)

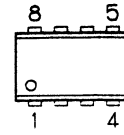


IC & TRANSISTOR LEAD IDENTIFICATION

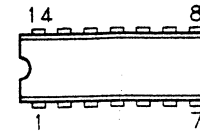
TRANSISTOR	FRONT VIEW	BOTTOM VIEW	TRANSISTOR	FRONT VIEW	BOTTOM VIEW
2SA608 2SC1570 2SC3792 2SC536			2SD438		
2SA1209 2SA1249 2SC2911 2SC3117 2SD947			2SB1274 2SD1913		
DTA143			2SA1301 2SC3280		
DTA113 DTA114 DTC114 DTC123 DTC124 DTC143 DTC144 2SC3330 2SD1012			2SC3066		
2SD1682			2SC4038		
TERMINAL NAME					
B → BASE C → COLLECTOR E → EMITTER					

IC & TRANSISTOR LEAD IDENTIFICATION (Continued)

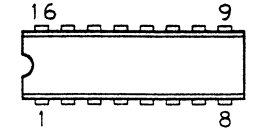
LA6458DS TOP VIEW
LA6462D TOP VIEW
NJM4556D TOP VIEW



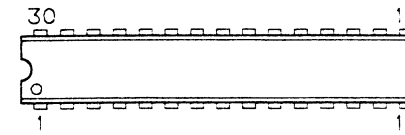
TC4030B TOP VIEW



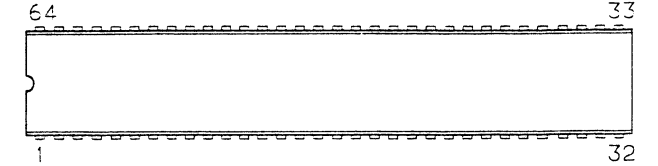
TC9215P TOP VIEW



LC7821 TOP VIEW

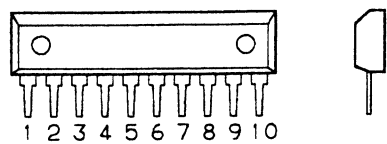


TMP47C670N-1296 TOP VIEW



Bezeichnung/Description
SERVICE MANUAL
Teile-Nr./Parts No. WM570408 Menge/Quantity 1
Lagerort 38C03 LS-Nr. 817262 / 9
SANYO FISHER Vertriebs GmbH

LB1641 FRONT/SIDE VIEWS



LA2500 FRONT/SIDE VIEWS

