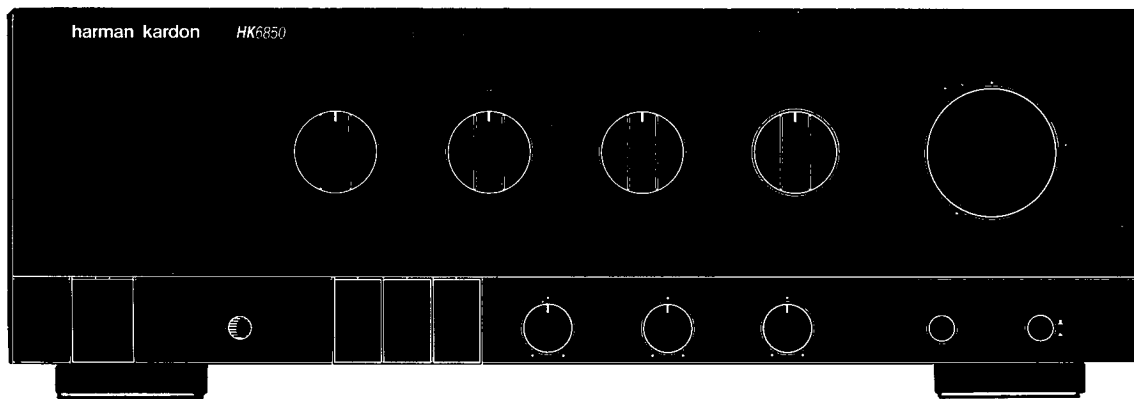


The Harman Kardon Model HK6850 INTEGRATED AMPLIFIER

Manual 184A

Technical Manual



The following marks found in the parts list of this manual identify the models as follows.

- G** : German model
- GB** : German model Black version
- B** : International model Black version

CONTENTS

SPECIFICATIONS	2	GENERAL UNIT	7
POWER CORD REPLACEMENT	2	P.C. BOARDS	8
DISASSEMBLY PROCEDURES	3	ELECTRICAL PARTS LIST	12
ALIGNMENT PROCEDURES	3	BLOCK DIAGRAM	19
CONTROLS & FUNCTIONS	4	SCHEMATIC DIAGRAMS	20
GENERAL UNIT PARTS LIST	6	WIRING DIAGRAM	24

harman/kardon

Parts and Service Office
240 Crossways Park West, Woodbury, N.Y. 11797
1112-0210A152 P-079202 500 Printed in Japan

HK6850

SPECIFICATIONS

	Nominal	Limit
Continuous Average Power (FTC) 20Hz—20kHz, both channels driven		
8Ω, 0.08% RMS	97W	≥ 85W
4Ω, 0.1% RMS	159W	≥ 120W
High instantaneous Current Capability (HCC)	80A	≥ 60A
Half Power Bandwidth	<10Hz~>100kHz	<10Hz~>70kHz
Frequency Response (at -3dB down)	<1Hz ~ >110kHz	
Square Wave Rise Time	2 μsec	≤ 2.5 μsec
Input Sensitivity (at 85W output)		
CD	135mV ± 25mV	
Phono (MM)	2.2mV ± 0.3mV	
Phono (MC)	130 μV ± 20 μV	
Signal to Noise Ratio		
CD	78dB	≥ 70dB
Phono (MM)	77.6dB	≥ 75dB
Phono (MC)	74dB	≥ 67dB
Channel Separation (at 10kHz)		
CD	46dB	≥ 40dB
Phono (MM)	48.2dB	≥ 40dB
Phono (MC)	49.6dB	≥ 40dB
IM Distortion Ratio	0.039%	≤ 0.1%
Damping Factor at 1kHz	100	≥ 70

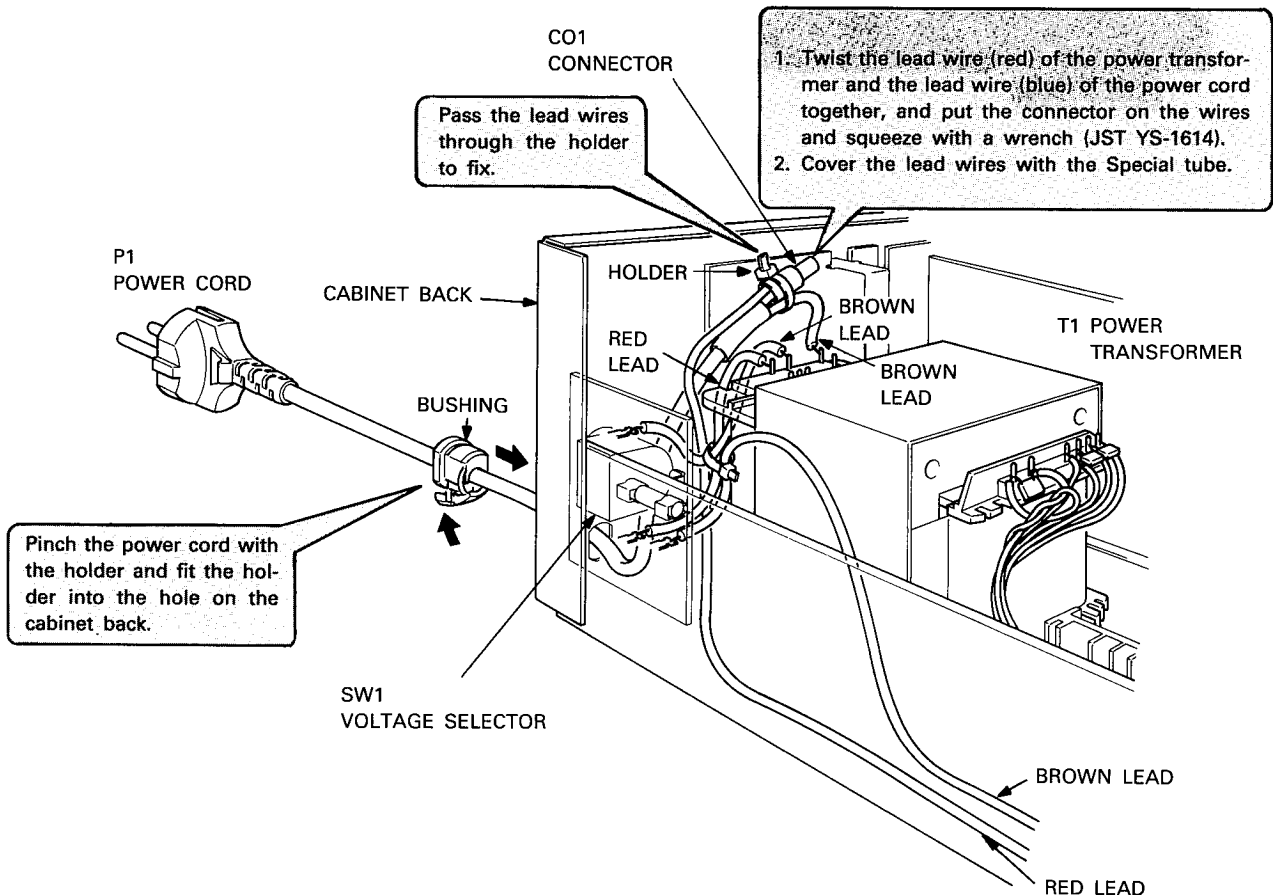
	Nominal	Limit
Tone Control Characteristics		
Bass (at 50Hz)		
Boost	10dB	± 2dB
Cut	10dB	± 2dB
Treble (at 10kHz)		
Boost	10dB	± 2dB
Cut	10dB	± 2dB
Filters		
Subsonic	15Hz, 3dB	± 1dB/Octave
Phase Correct Loudness at 50Hz	6dB	± 2dB
DC Output Voltage		
L channel	0mV	± 60mV
R channel	0mV	± 60mV
RIAA Equalization at Tape Out (20Hz/20kHz) (10kΩ load)	0.2dB	± 0.5dB
Phono Over load (No load)		
Phono (MM)	168mV	≥ 120mV
Phono (MC)	8.5mV	≥ 5mV
Dimensions (W x H x D)	17-3/8" x 6-5/16" x 15-15/16"	(443 x 160 x 405mm)
Weight	34lbs. 3oz.	(15.5kg)
Power Supply	AC 230/240V, 50/60Hz	
Power Consumption	280W	

These specifications are service target specs.

Specifications and components subject to change without notice. Overall performance will be maintained or improved.

POWER CORD REPLACEMENT

In order to prevent fire or shock hazard when replacing the power cord, follow the procedure below to replace the parts with the standard supply parts.



DISASSEMBLY PROCEDURES (REFER TO PAGES 7 AND 24)

① CABINET TOP (131) REMOVAL

Remove 10 screws (A) and then remove the Cabinet Top (131).

② FRONT PANEL ASS'Y (AA) REMOVAL

1. Remove the Cabinet Top (131), referring to the previous step ① .
2. Remove 6 screws (B) and then remove the Front Panel Ass'y (AA).

③ MAIN and DRIVER P.C. BOARDS (PCB-4 to 6) REMOVAL

1. Remove the Cabinet Top (131), referring to the previous step ① .
2. Disconnect 2 connectors (CW1 and CW504) from 2 connectors (CN405 and CN401) on the Main P.C. Board (PCB-4).
3. Remove 4 screws (C), 4 screws (D) and 2 screws (E) and then remove the Main and Driver P.C. Boards (PCB-4 to 6) with the Heat Sinks (183, 184, 186, 187, 178).

④ PHONO P.C. BOARD (PCB-1) REMOVAL

1. Remove the Cabinet Top (131), referring to the previous step ① .
2. Pull out the Shaft (230).
3. Disconnect 2 connectors (W-806 and CW701) from 2 connectors (CN701 and CN3) on the Phono P.C. Board (PCB-1).
4. Remove 1 screw (F) and 4 screws (G), and then remove the Phono P.C. Board (PCB-1).

⑤ CONTROL P.C. BOARD (PCB-3) REMOVAL

1. Remove the Main and Driver P.C. Boards (PCB-4 to 6), referring to the previous step ③ .
2. Remove 4 screws (H) and disconnect 2 connectors (W-805 and CW802) from 2 connectors (CN502 and CN2) on the Control P.C. Board (PCB-3). Disconnect 1 connector (W-806) from 1 connector (CN701) on the Phono P.C. Board (PCB-1). Remove the Control P.C. Board (PCB-3).

⑥ TONE P.C. BOARD (PCB-2) REMOVAL

1. Remove the Front Panel Ass'y (AA), referring to the previous step ② .
2. Pull out the 6 Rotary knobs (143 and 144).
3. Remove 6 hexagon nuts (I) and remove 3 screws (J).
4. Remove 2 screws (C), 4 screws(G), 7 screws (K), 4 screws (L) and screw (M) and the Chassis (162), than the Tone P.C. Board (PCB-2) can be removed. Unsolder the lead wires if necessary when removing each P.C. Board.

ALIGNMENT PROCEDURES (REFER TO PAGES 8 , 10 , 11 , 20 AND 23)

- **Conditions:**
- Set the Source selector to the "CD" position.
 - Set the Volume control to minimum.
 - Set the Speaker selector to the "off" position.
 - Make the adjustment at a room temperature of 77°F (25°C).

■ **PHONO DRIVER ADJUSTMENT**

Step	Connection Equipments	Adjustment	For
1	Connect the Digital Volt Meter to TP701.	VR601	2.2V
2	Connect the Digital Volt Meter to TP702.	VR602	2.2V

■ **IDLING CURRENT ADJUSTMENT**

Step	Connection Equipments	Adjustment	For
1	Connect the Digital Volt Meter to TP403.	VR405	43mV
2	Connect the Digital Volt Meter to TP404.	VR406	43mV

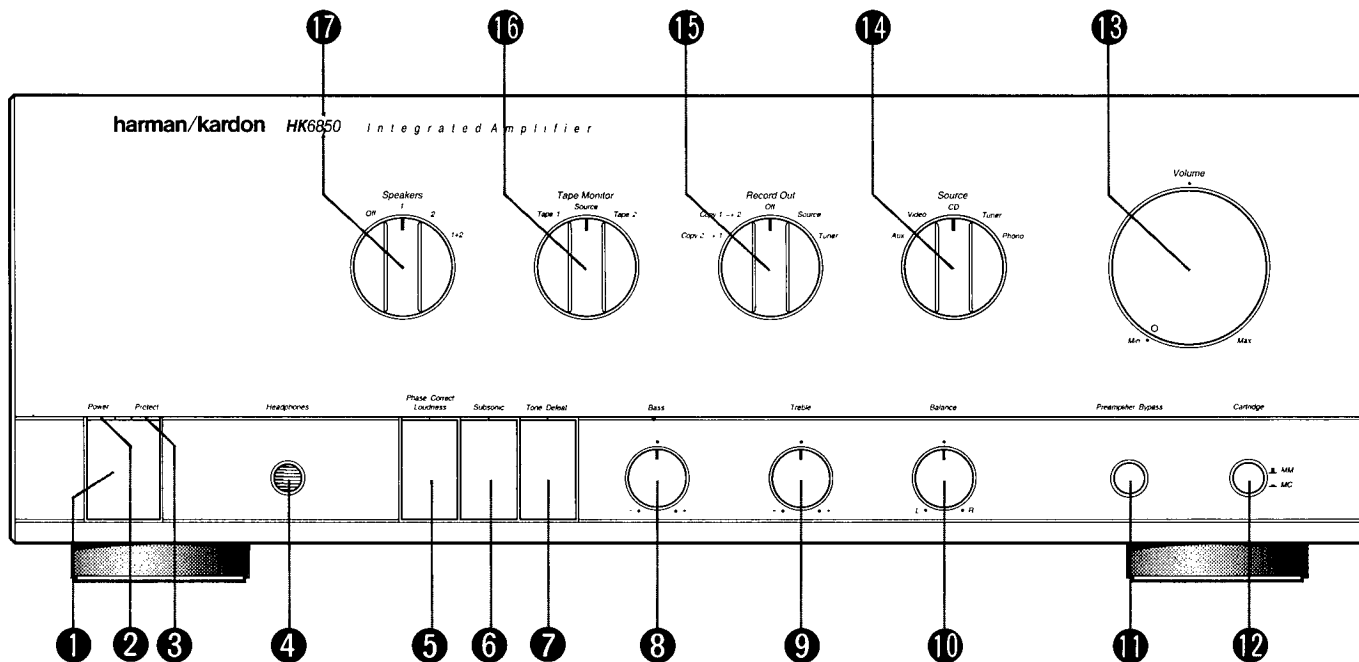
■ **MAIN OFFSET DC BALANCE ADJUSTMENT**

- Set the Speaker Selector switch to the "1" position.

Step	Connection Equipments	Adjustment	For
1	Connect the Digital Volt Meter to TM15 and TM17.	VR401	0mV
2	Connect the Digital Volt Meter to TM16 and TM18.	VR402	0mV

- After the above adjustment, leave the unit with its power on for longer than 30 minutes and then repeat the same adjustment.

CONROLS AND FUNCTIONS



1 Power Switch

Press this switch to turn the unit "On". Press it again to turn it "Off".

2 Power Indicator

This indicator is illuminated in green when the power switch is "On" and is not illuminated when the power switch is "Off".

3 PROTECT light

This light indicates that the protection circuitry of your amplifier is engaged. The light will come on under two circumstances:

- When you turn the unit on. As the unit prepares itself for operation, a muting circuit temporarily prevents pops or other noise from reaching your speakers. When the unit is ready for operation (in approximately 10 seconds), the light will go off.
- When the unit detects a problem. This light will come on if your speakers wires are touching, causing a short circuit, or if your amplifier overheats. In the case of overheating, a thermal sensor will shut down the unit before damage can occur. Depending on the cause and extent of the overheating, the unit may take some time to cool down, and the protection circuit will remain in operation until the unit is cool enough to operate safely. In the case of a short circuit in the speaker wires, the protection circuitry will attempt to reset itself every 10 seconds, and you may hear a slight click as it does so. The protection circuit will remain in operation until the condition is corrected.

4 HEADPHONE jack

Stereo headphones with a standard 6.5 mm (1/4") plug can be connected to this jack. You can listen to headphones regardless of whether your speakers are playing. To listen to headphones only, turn the speaker selector to "OFF."

5 PHASE CORRECT LOUDNESS

At low volume levels, your ear is less sensitive to very low bass frequencies than it is at normal listening levels. The loudness button provides a special equalization curve that boosts low frequencies. The loudness button is useful for restoring full frequency balance at low volume levels, and can also be used to improve the bass response of small bookshelf speakers. The indicator light will be lit when PHASE CORRECT LOUDNESS is on.

6 SUBSONIC filter

Warped records and turntable resonance can generate sub-audible frequencies that can cause your speaker's woofer cones to visibly flutter. This very low frequency noise, while inaudible, can rob power from your amplifier, can cause feedback through your turntable, can cause intermodulation distortion at audible frequencies, and can actually damage your woofers if the movement is violent enough. The subsonic filter reduces these inaudible frequencies at 6dB per octave below 15Hz. The audible portion of the frequency range will not be affected, so it is useful to leave the subsonic filter on at all times when listening to the turntable. The indicator light will be lit when the SUBSONIC filter is on.

7 TONE DEFEAT switch

When TONE DEFEAT is turned on, the bass and treble controls have no effect. The TONE DEFEAT switch internally bypasses the tone control circuitry, resulting in completely unaltered frequency response. If you want to use the bass and treble controls, turn TONE DEFEAT off. The indicator light will be lit when the TONE DEFEAT switch is on.

8 BASS control

The BASS control boosts or reduces the low frequency sound level. The BASS control affects only frequencies below 300Hz, and allows changes of up to ± 10 dB. The BASS tone control, in some circumstances, can help you adjust the overall sound of your system. For example, "boomy" room acoustics may be improved with a slight decrease in the bass, or the sound of smaller loudspeakers lacking in bass may be improved with a bass boost.

9 TREBLE control

The TREBLE control boosts or reduces the high frequency sound level. The TREBLE control affects only frequencies above 3000Hz, and allows changes of up to ± 10 dB. The TREBLE tone control, in some circumstances, can help you adjust the overall sound of your system. For example, an overly shrill recording or "bright" room acoustics may be improved by a reduction in the amount of treble.

10 BALANCE CONTROL

The BALANCE control distributes the sound between the right and left speakers. For equal balance in each channel, set the control in the center.

11 PREAMPLIFIER BYPASS

When the PREAMPLIFIER BYPASS switch is on, the source signal goes directly to the input of the amplifier, bypassing all tone controls and other preamplifier circuitry and is attenuated only by the volume control.

12 CARTRIDGE selector

This switch sets up the gain and input impedance of your amplifier's internal circuitry to match the type of cartridge being used on your turntable. Be sure you connect your turntable to the appropriate PHONO input jacks on the back of the HK6850 (MM for moving magnet cartridges, or MC for moving coil cartridges). Then use this switch to select the type of cartridge mounted on your turntable. Note that you can connect both moving coil and moving magnet cartridge inputs and use this switch to select between them. The MC setting engages a special MC step-up amplifier stage.

13 VOLUME control

This knob controls the sound level. Turn the VOLUME control all the way down before you turn on your amplifier or change sound source. This will protect your speakers from being damaged by sudden high-volume sound.

14 SOURCE selector

The SOURCE selector controls which program source you are listening to.

- PHONO - Selects a turntable connected to either the MM or MC phone jack.
- TUNER - Selects an AM or FM broadcast from a tuner connected to the tuner jacks.
- CD - Selects a compact disc player connected to the CD jacks.
- VIDEO - Selects sound from an audio/video component such as a camcorder, TV tuner connected to the VIDEO jacks.
- AUX - Selects sound from any component connected to the AUX jacks.

15 RECORD OUT selector

This selector controls which program source you can record on the tape deck(s) connected to your unit. Whatever source you select is sent to all tape decks connected to your HK6850, so you can record on both decks simultaneously.

- TUNER - In this position, the tuner signal is the source you are recording regardless of the position of the SOURCE selector. This permits you to record the tuner signal while listening to a completely different source (selected on the SOURCE selector, described above).
 - SOURCE - In this setting, whatever source you have selected on the SOURCE selector will be the source you are recording.
 - OFF - Leave the selector in this position when you are not recording. This will ensure the purest sound quality when you listen directly to a source selected with the SOURCE selector.
 - COPY 1 \rightarrow 2 - In this position, you are recording from the deck connected to the TAPE 1 jacks to the deck connected to the TAPE 2 jacks.
 - COPY 2 \rightarrow 1 - In this position, you are recording to the deck connected to the TAPE 1 jacks from the deck connected to the TAPE 2 jacks.
- For example, if you want to make a tape recording of a CD, set the RECORD OUT selector to SOURCE, and set the SOURCE selector to CD.

16 TAPE MONITOR selector

The TAPE MONITOR selector enables you to listen to your tape deck. Note that this selector does not select the source for recording. It selects only the deck you are listening to. An important use for this selector is for monitoring during recording. To monitor during recording, select the deck that is recording. For listening to one tape deck while the other deck is recording a different source, select the deck that is not recording.

- TAPE 1 - In this position, you are listening to the deck connected to the TAPE 1 jacks.
- SOURCE - The SOURCE position turns off the output from your deck and returns you to the source you have selected on the SOURCE selector.
- TAPE 2 - In this position, you are listening to the deck connected to the TAPE 2 jacks.

17 SPEAKER selector

You can connect either one or two sets of speakers to your HK6850. This selector enables you to play a single set of speakers by themselves, both sets of speakers at the same time, or to turn both sets of speakers off for headphone-only listening.

- OFF - Select this position to turn off both sets of speakers.
- 1 - Select this position to play the speakers connected to the SPEAKER SYSTEM 1 terminals.
- 2 - Select this position to play the speakers connected to the SPEAKER SYSTEM 2 terminals.
- 1+2 - Select this position to play both sets of speakers at the same time.

GENERAL UNIT PARTS LIST

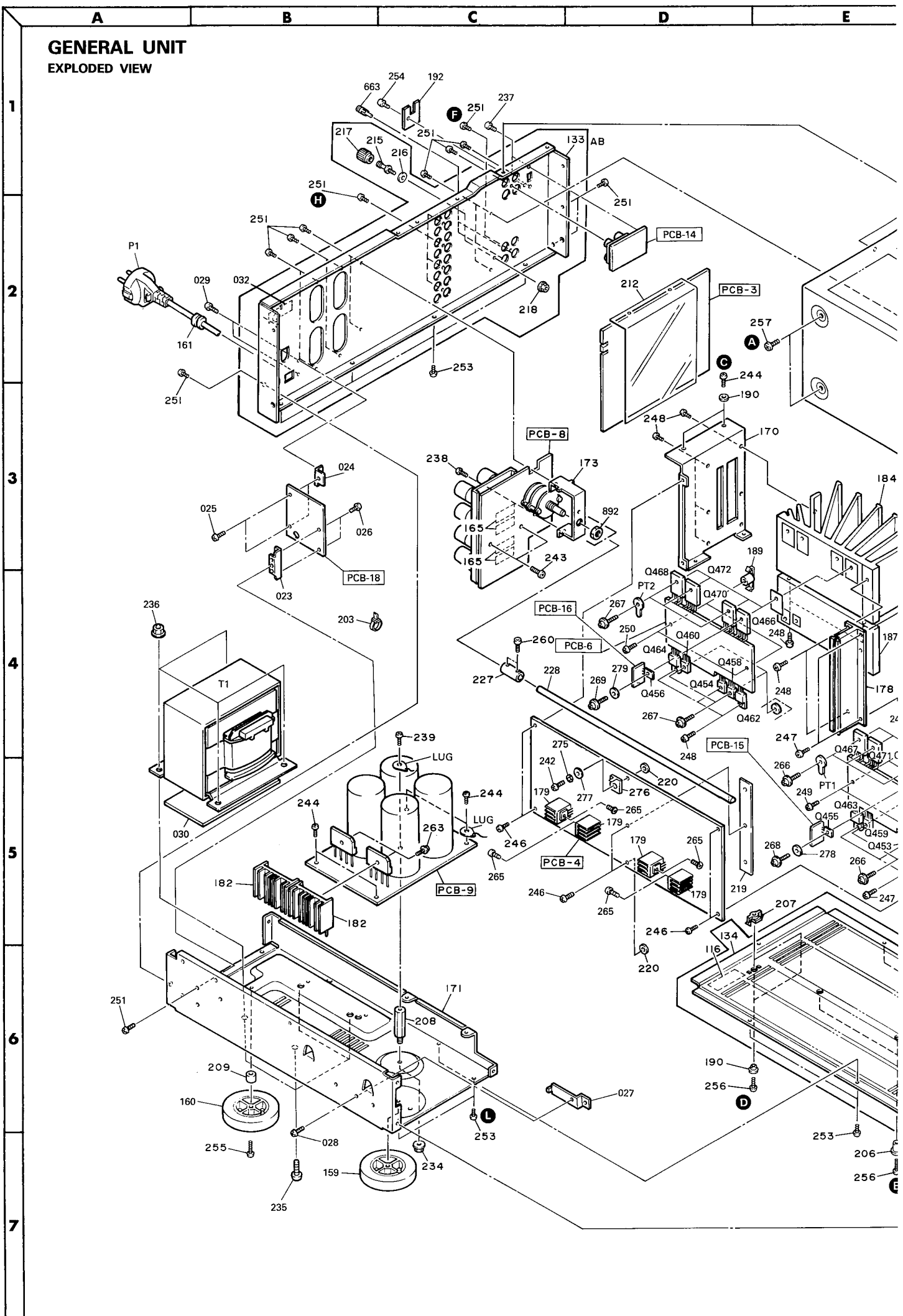
Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
AA	A443-HK6850A	CABINET FRONT ASSEMBLY G	192	2240-7395	HOLDER, PRE OUT/MAIN IN SWITCH
AA	A443-HK6850B	CABINET FRONT ASSEMBLY GB IB	193	2240-7397	HOLDER, TONE SWITCH (x 3)
AB	A424-HK6850C	CABINET BACK ASSEMBLY	195	2240-7360	HOLDER, SPEAKER SWITCH SHAFT
BB	B219-HK6850A	METAL FITTING ASSEMBLY	196	2240-7361	HOLDER, SPEAKER KNOB SHAFT
023	2219-8349	METAL FITTG, VOLTAGE SELECTOR	197	2240-7362	HOLDER, LINK
024	2219-8350	METAL FITTG, VOLTAGE SELECTOR (x 2)	198	2240-7363	HOLDER, SHAFT HOLD (FRONT)
025	2327-R0130062	SCREW, BND+ (3 x 6mm) (x 2)	199	2240-7364	HOLDER, SHAFT HOLD (REAR)
026	2347-R0130062	SCREW, BND T+ (3 x 6mm) (x 2)	200	2240-7396	HOLDER, POWER LED
027	2219-8283	METAL FITTG, TRANSFORMER BOTTOM	201	2240-7366	HOLDER, TONE LED (x 2)
028	2327-R0130062	SCREW, BND+ (3 x 6mm)	202	2240-7369	HOLDER, SUB PCB (x 3)
029	2459-3003511	RIVET PLASTIC (x 2)	203	2240-R0101	HOLDER, WIRING (x 36)
030	2219-8372	METAL FITTG, TRANS BOTTOM	206	2360-7019	BOSS, SPE, BOTTOM (x 2)
031	1756-R01TS122	LABEL, SUB FUSE (x 2)	207	2360-7020	BOSS, SPE, BOTTOM (x 4)
032	1756-21905	LABEL G GB	208	2362-961410	BOSS, THREAD, TRANS BOTTOM
116	1117-78	SERIAL LABEL, PRODUCT NO.	209	2363-501724	BOSS, PIPE, TRANS LEG
131	1414-14901	CABINET TOP	212	2224-7132	INSULATOR, CABINET BACK
133	1424-35801	CABINET BACK	213	2216-7184	SHIELD PLATE, CHASSIS
134	1424-29901	CABINET BOTTOM	214	2459-3005511	RIVET, PLASTIC, SHIELD PLATE (x 2)
136	1443-14101	PANEL, FRONT G	215	2310-7036	SCREW, SPE, GND
136	1443-14102	PANEL, FRONT GB IB	216	2410-7018	WASHER, SPE, GND
138	1562-08401	FRAME, L G	217	2440-7027	NUT, SPE, GND
138	1562-08402	FRAME, L GB IB	218	2440-7016	NUT, SPE, GND
139	1562-08501	FRAME, R G	219	2224-7100	INSULATOR, HEAT SINK
139	1562-08502	FRAME, R GB IB	220	2402-0374	WASHER, PLASTIC, DRIVER PCB (x 2)
140	1568-00301	FRAME, WIRING (x 3)	222	2431-0151	FASTENER, NAME PLATE (x 2)
142	1630-04701	ROTARY KNOB, VOLUME G	223	2459-3008011	RIVET, PLASTIC, LINK HOLD (x 2)
142	1630-04702	ROTARY KNOB, VOLUME GB IB	224	2446-30229	NUT, HEX, SPEAKER KNOB SHAFT
143	1630-04001	ROTARY KNOB, TAPE MONITOR, RECORD OUT, SOURCE G	225	2111-1387	FELT, SPEAKER KNOB SHAFT
143	1630-04002	ROTARY KNOB, TAPE MONITOR, RECORD OUT, SOURCE GB IB	226	2403-301	WASHER, POLY
144	1630-04101	ROTARY KNOB, BASS, TREBLE, BALANCE G	227	2601-7069	SHAFT, SPEAKER JOINT
144	1630-04102	ROTARY KNOB, BASS, TREBLE, BALANCE GB IB	228	2601-7188	SHAFT, SPEAKER SWITCH
145	1634-05901	ROTARY KNOB, SPEAKERS G	229	2601-7189	SHAFT, SPEAKER KNOB
145	1634-05902	ROTARY KNOB, SPEAKERS GB IB	230	2601-7190	SHAFT, MC
147	1660-01601	PUSH BUTTON, POWER G	231	2112-11773	SPONGE, PHONO PCB
147	1660-01602	PUSH BUTTON, POWER GB IB	232	2112-11800	SPONGE, HOLDER
148	1660-01701	PUSH BUTTON, PHASE CORRECT LOUDNESS, SUBSONIC, TONE DEFEAT G	233	2112-11771	SPONGE, TRANS BOTTOM (x 4)
148	1660-01702	PUSH BUTTON, PHASE CORRECT LOUDNESS, SUBSONIC, TONE DEFEAT GB IB	234	2440-7016	NUT, SPE, TRANS BOTTOM
150	1662-67201	PUSH BUTTON, PREAMPLIFIER BYPASS, CARTRIDGE G	235	2327-R0140102	SCREW, BND + (4 x 10mm) (x 4)
150	1662-67202	PUSH BUTTON, PREAMPLIFIER BYPASS, CARTRIDGE GB IB	236	2440-60	NUT, SPE (x 4)
153	1714-02601	NAME PLATE, BADGE G	237	2327-R0126044	SCREW, BND+ (2.6 x 4mm) (x 2)
153	1714-02602	NAME PLATE, BADGE GB IB	238	2327-R0130062	SCREW, BND+ (3 x 6mm)
155	1732-06901	INDICATOR, POWER, PROTECT, PHASE CORRECT LOUDNESS, SUBSONIC, TONE DEFEAT	239	2327-R0130062	SCREW, BND+ (3 x 6mm) (x 8)
157	1742-08501	ORNAMENT, POWER, TONE G	242	2347-R0130102	SCREW, BND T+ (3 x 10mm)
157	1742-08502	ORNAMENT, POWER, TONE GB IB	243	2343-300826	SCREW, CSK T+ (3 x 8mm) (x 2)
158	1742-08401	ORNAMENT, PREAMPLIFIER BYPASS, CARTRIDGE G	244	2347-R0130062	SCREW, BND T+ (3 x 6mm) (x 18)
158	1742-08402	ORNAMENT, PREAMPLIFIER BYPASS, CARTRIDGE GB IB	245	2347-R0130082	SCREW, BND T+ (3 x 8mm) (x 3)
159	1319-03901	LEG (x 3)	246	2347-R0130082	SCREW, BND T+ (3 x 8 mm) (x 6)
160	1319-02301	LEG, TRANS	247	2347-R0130082	SCREW, BND T+ (3 x 8mm) (x 11)
161	2114-71246	BUSHING, AC CORD	248	2347-R0130082	SCREW, BND T+ (3 x 8mm) (x 11)
162	2211-7308	CHASSIS	249	2347-R0130122	SCREW, BND T+ (3 x 12mm) (x 2)
163	2218-7038	BRACKET, FIX, MAIN PCB (L) (x 2)	250	2347-R0130122	SCREW, BND T+ (3 x 12mm) (x 2)
164	2218-7038	BRACKET, FIX, MAIN PCB (R) (x 2)	251	2347-R0130084	SCREW, BND T+ (3 x 8mm) (x 19)
165	2218-7038	BRACKET, FIX, SPEAKERS PCB (x 4)	252	2347-R0130062	SCREW, BND T+ (3 x 6mm) (x 3)
166	2218-89	BRACKET, FIX, HEADPHONES	253	2347-R0130064	SCREW, BND T+ (3 x 6mm) (x 24)
167	2219-8273	METAL FITTG, HEADPHONES	254	2347-R0130064	SCREW, BND T+ (3 x 6mm)
168	2219-8267	METAL FITTG, PHONO BOTTOM	255	2347-R0130124	SCREW, BND T+ (3 x 12mm)
169	2219-8268	METAL FITTG, HEAT SINK (L)	256	2347-R0130164	SCREW, BND T+ (3 x 16mm) (x 6)
170	2219-8269	METAL FITTG, HEAT SINK (R)	257	2347-R0140064	SCREW, BND T+ (4 x 6mm) (x 8)
171	2219-8266	METAL FITTG, TRANS	260	2396-300549	SCREW, SK HEX (3 x 5mm) (x 2)
172	2219-8271	METAL FITTG, PHONO TOP	261	2557-300829	SCREW, B SPW + (3 x 8mm) (x 2)
173	2219-8272	METAL FITTG, SPEAKERS SWITCH	263	2557-300829	SCREW, B SPW + (3 x 8mm) (x 2)
174	2219-8351	METAL FITTG, POWER SWITCH	264	2557-300829	SCREW, B SPW + (3 x 8mm) (x 2)
176	2222-7179	HEAT SINK, TONE	265	2557-300829	SCREW, B SPW + (3 x 8mm) (x 4)
177	2222-7194	HEAT SINK, PHONO (x 2)	266	2557-301229	SCREW, B SPW + (3 x 12mm) (x 5)
178	2222-7266	HEAT SINK, HEAT SINK JOINT	267	2557-301229	SCREW, B SPW + (3 x 12mm) (x 5)
179	2222-7315	HEAT SINK, DRIVER (x 4)	268	2557-301629	SCREW, B SPW + (3 x 16mm)
182	2222-7269	HEAT SINK, SCR (x 2)	269	2557-301629	SCREW, B SPW + (3 x 16mm)
183	2222-7304	HEAT SINK, MAIN (L)	271	2218-R0130	BRACKET, FIX, WIRING (x 3)
184	2222-7305	HEAT SINK, MAIN (R)	272	2651-2101733	SPRING, POWER (x 4)
186	2222-7275	HEAT SINK, MAIN (L)	275	2412-3022	WASHER, SPRING
187	2222-7275	HEAT SINK, MAIN (R)	276	2219-7945	METAL FITTING, DRIVER GND
188	2360-7064	BOSS, SPE, MAIN PCB (L) (x 2)	277	2401-0373	WASHER, METAL, DRIVER GND
189	2360-7064	BOSS, SPE, MAIN PCB (R) (x 2)	278	2401-0373	WASHER, METAL
190	2132-7136	SPACER (x 6)	279	2401-0373	WASHER, METAL
			892	2440-62	NUT, SPE HEX

NOTE



SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

GENERAL UNIT
EXPLODED VIEW



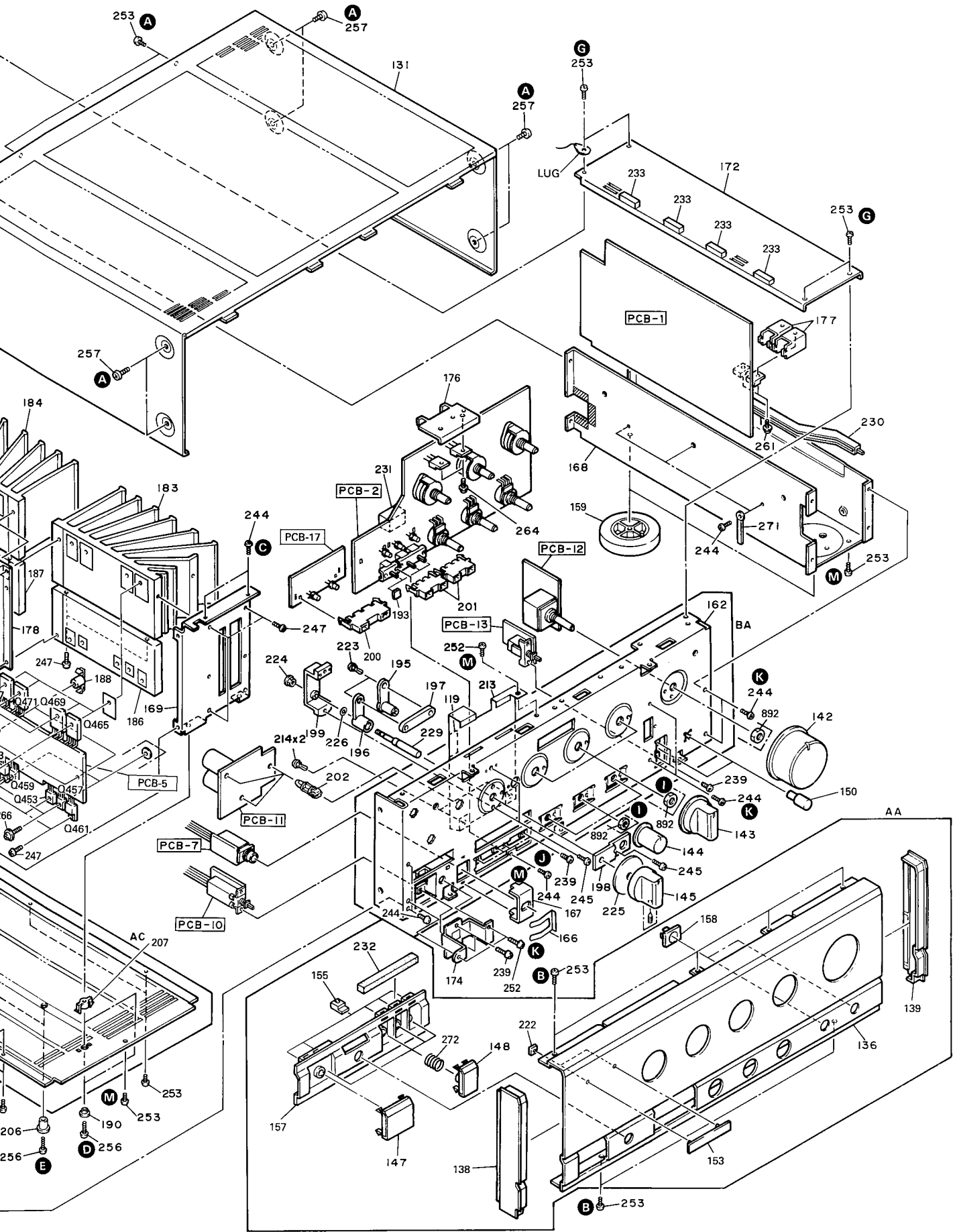
F

G

H

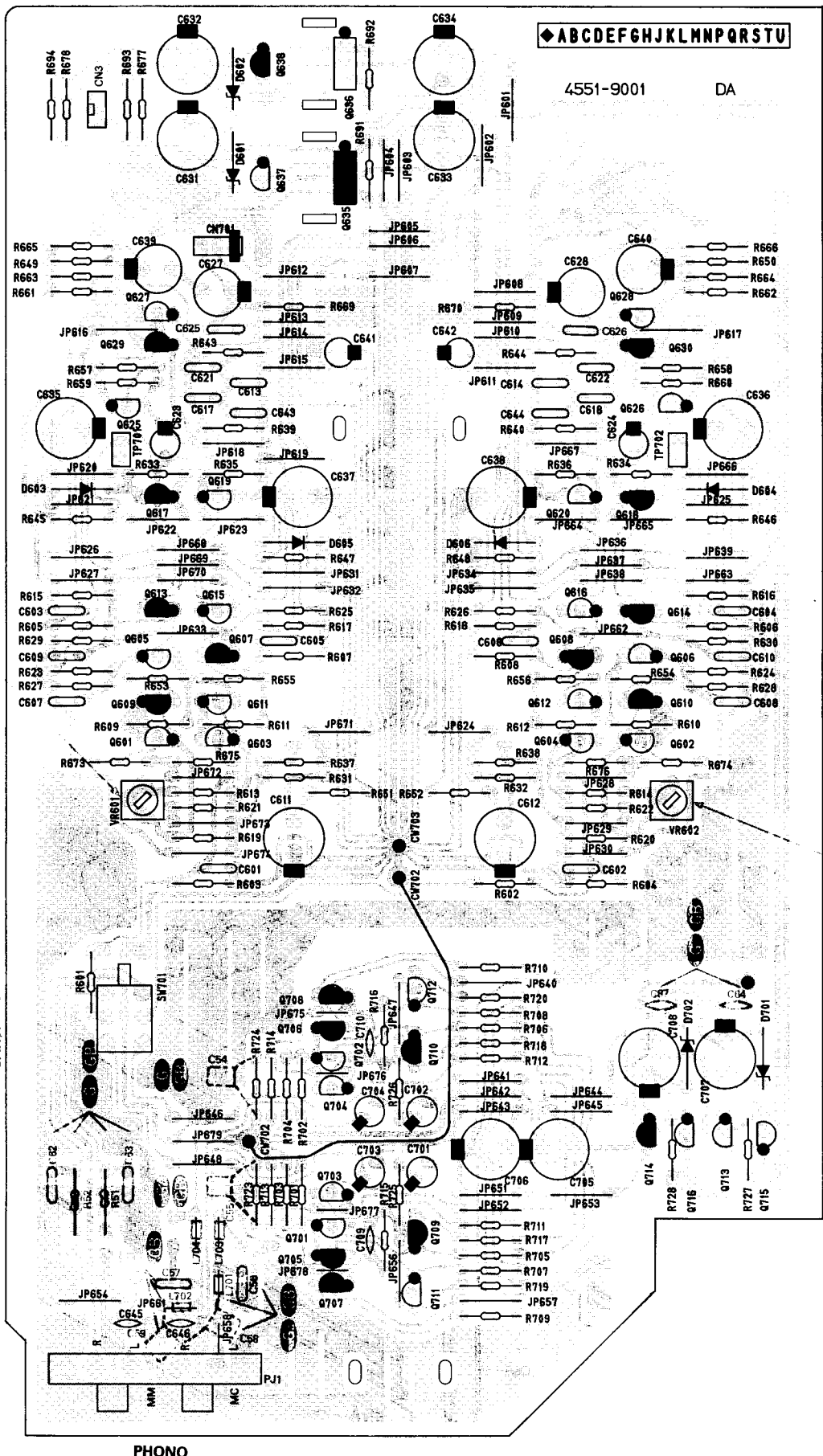
I

J



P.C. BOARDS

PCB-1 Phono P.C. Board



CARTRIDGE

PHONO

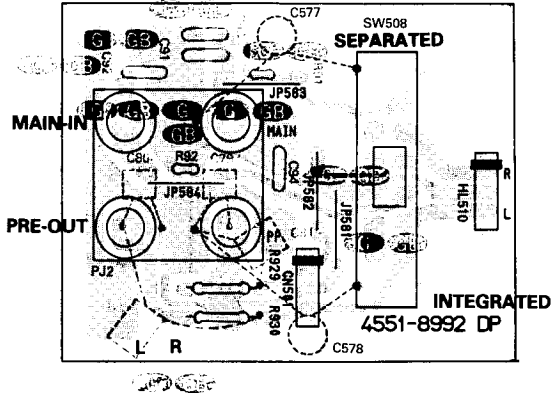
PHONO P.C. BOARD

◆ ABCDEFGHJKLMNPQRSTU

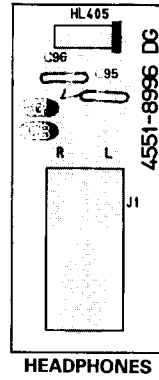
4551-9001 DA

1
2
3
4
5
6
7

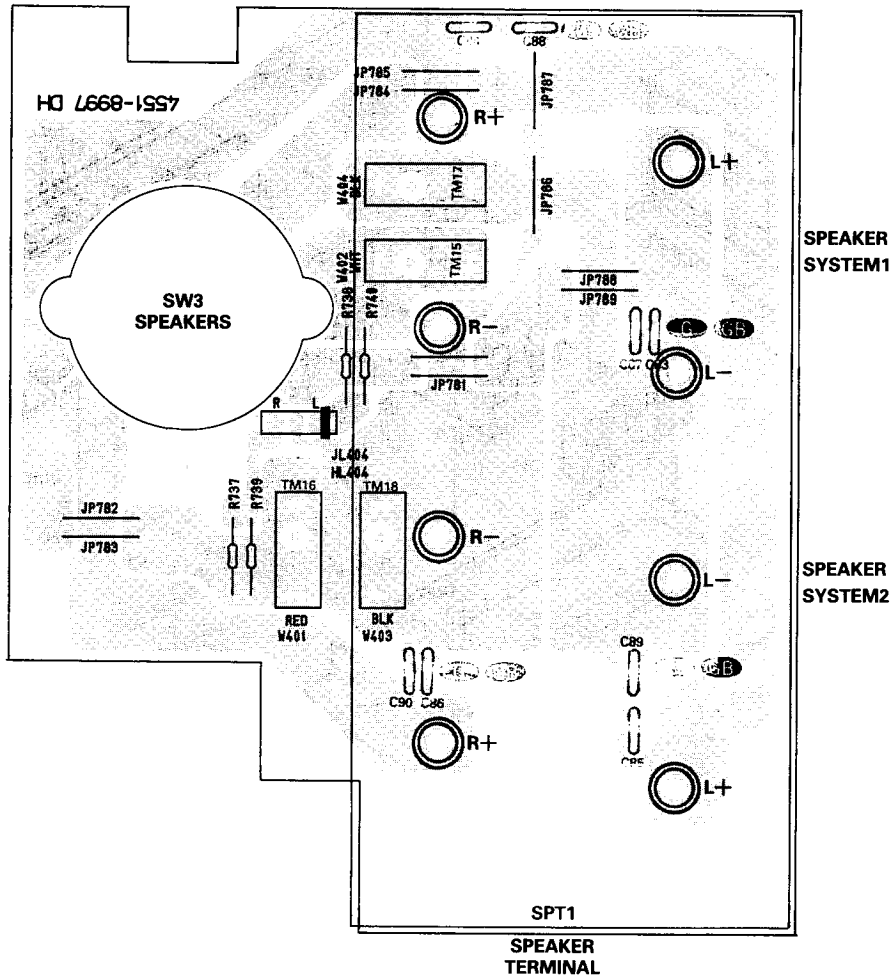
PCB-14 Pre/Main Separation P.C. Board



PCB-7 Headphones P.C. Board

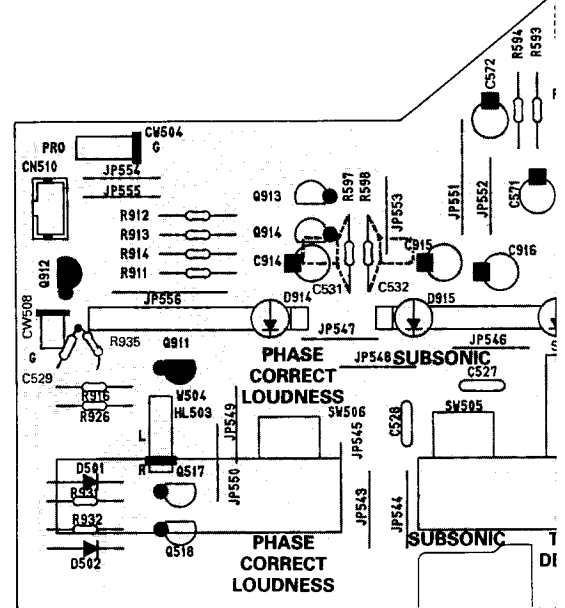
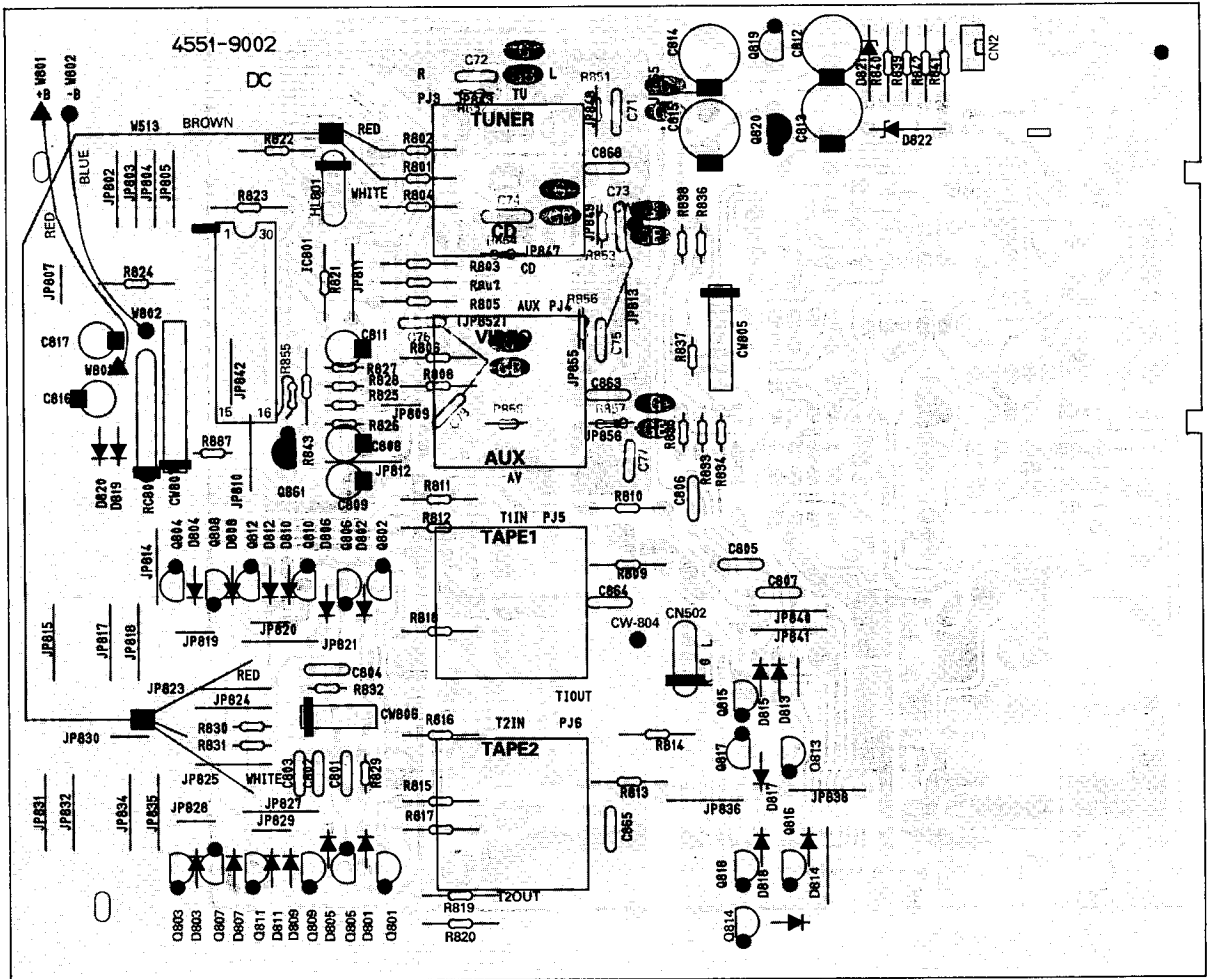


PCB-8 Speaker P.C. Board

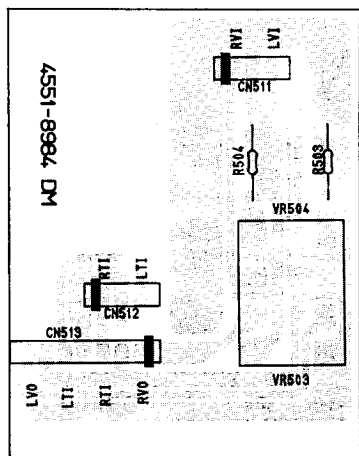


P.C. BOARDS

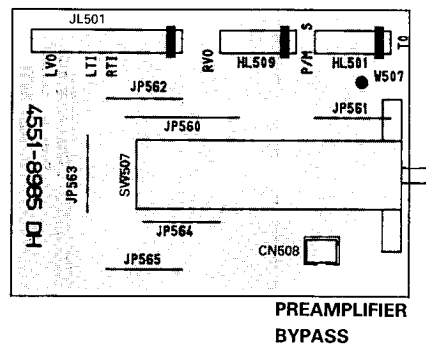
PCB-3 Control P.C. Board



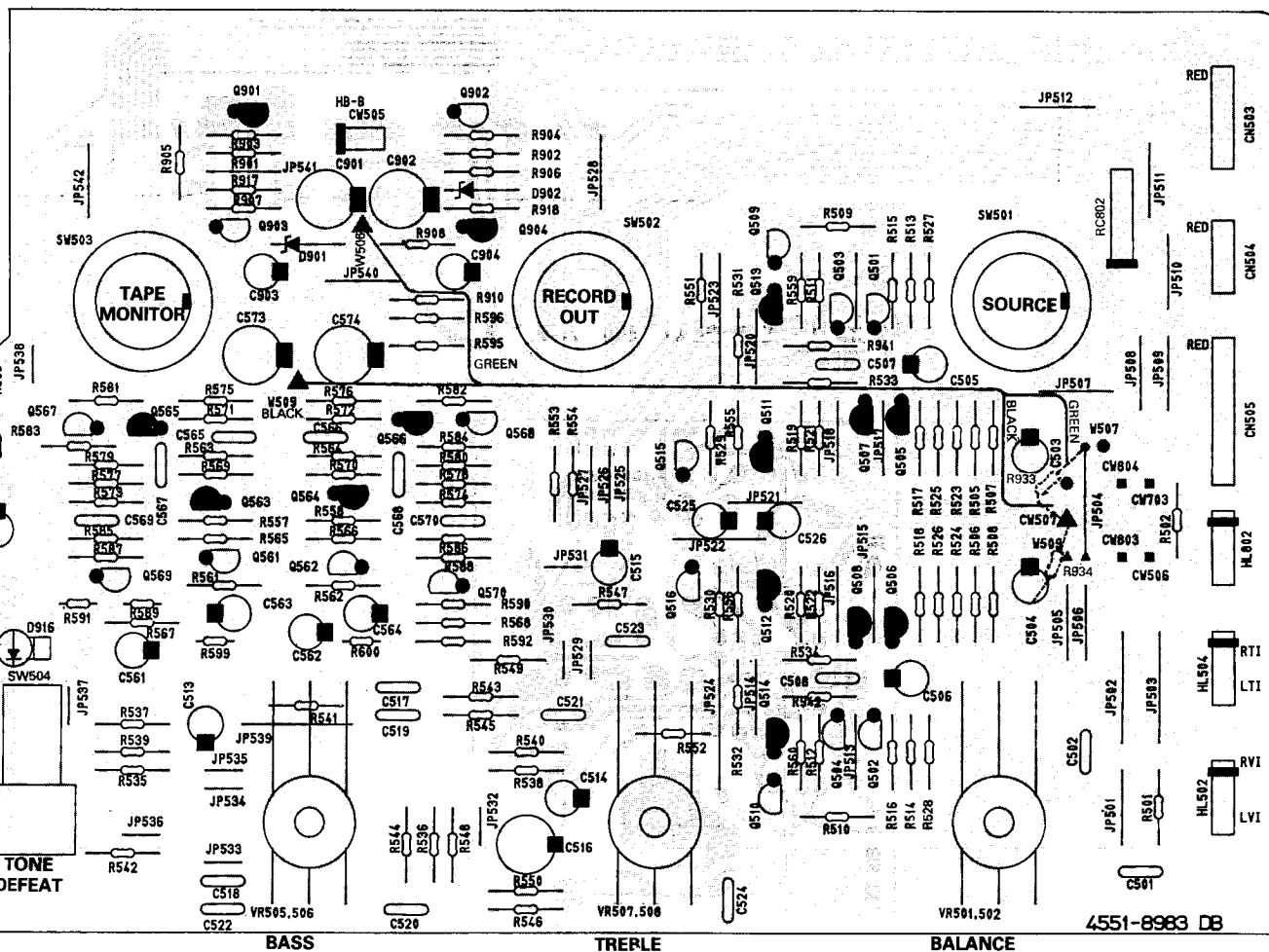
PCB-12 Volume P.C. Board



PCB-13 Bypass P.C. Board

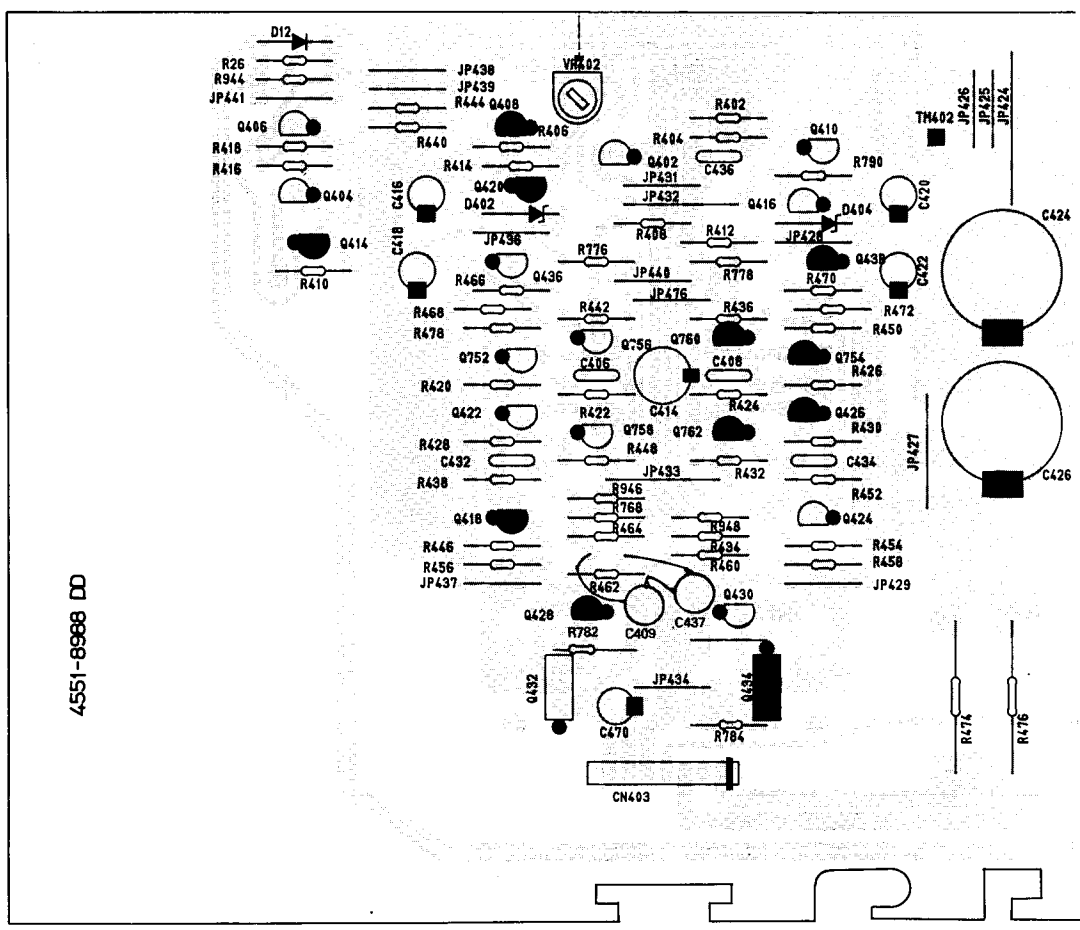


PCB-2 Tone P.C. Board

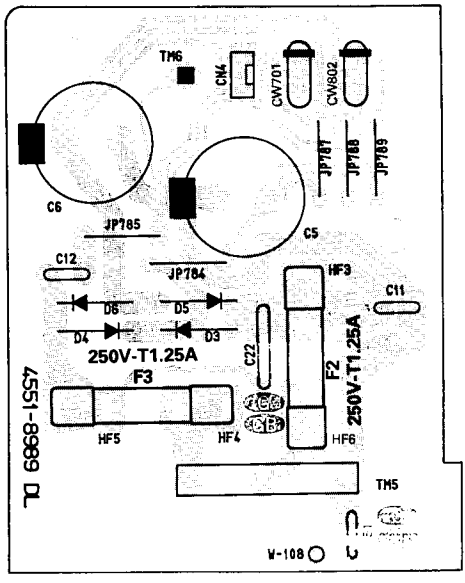


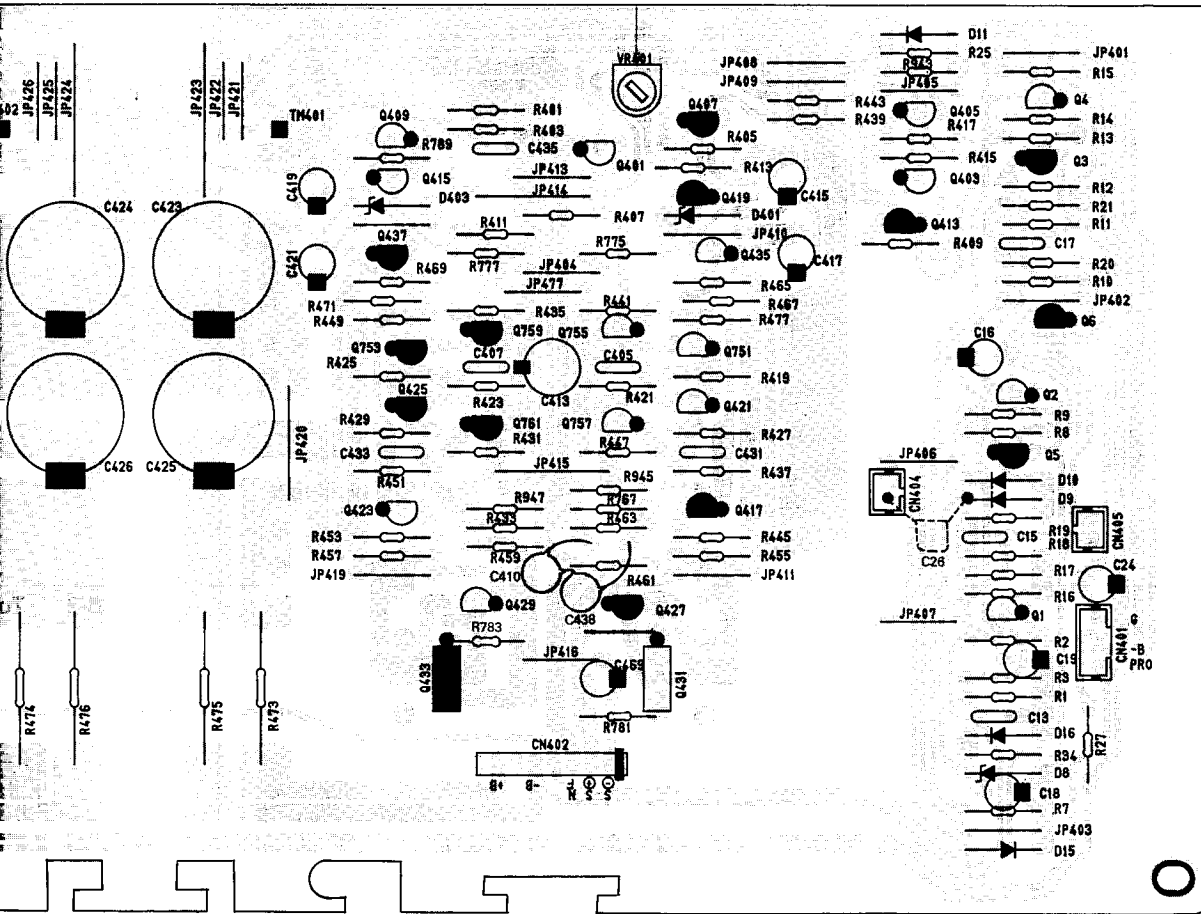
P.C. BOARDS

PCB-4 Driver P.C. Board

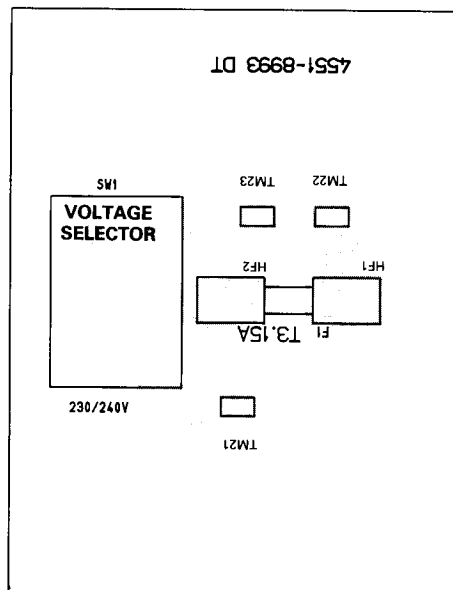


PCB-11 Sub Power Supply P.C. Board



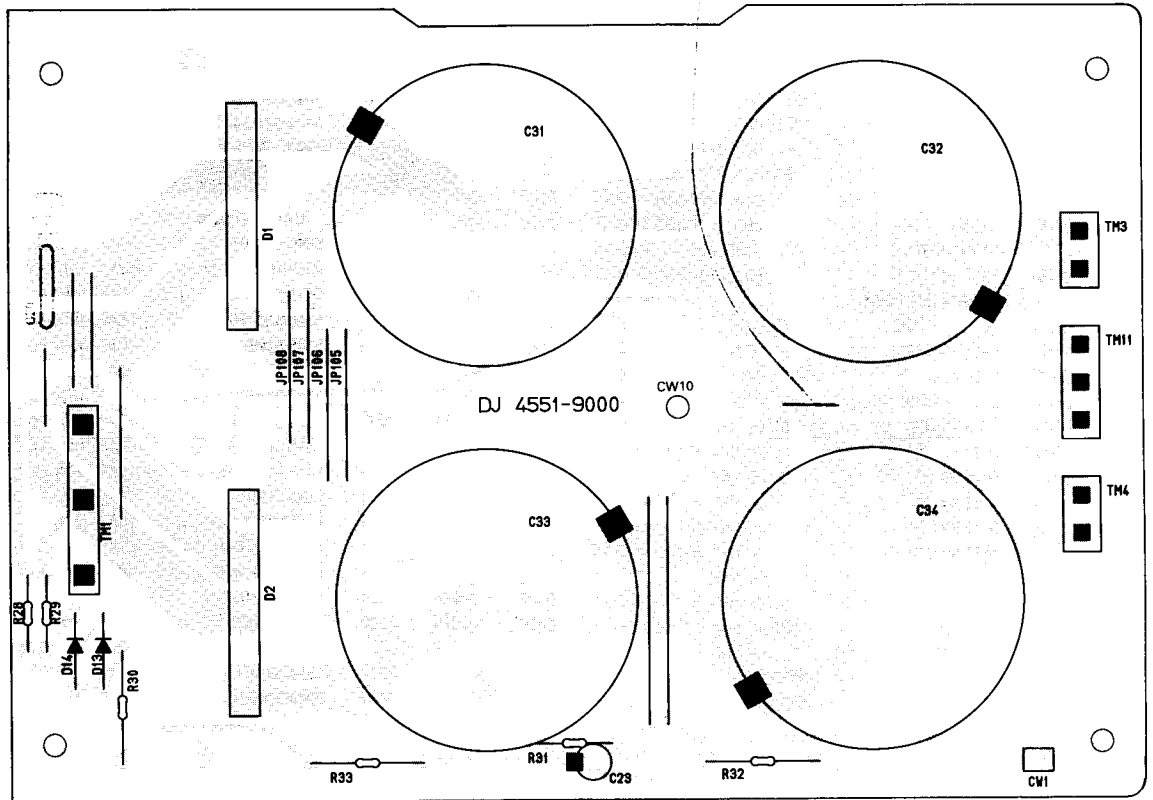


PCB-18 Volume Selector P.C. Board

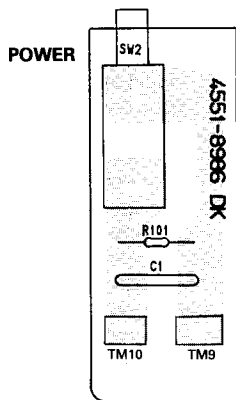


P.C. BOARDS

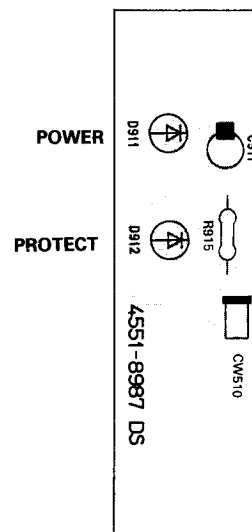
PCB-9 Main Power Supply P.C. Board



PCB-10 Power Switch P.C. Board



PCB-17 Power LED P.C. Board



ELECTRICAL PARTS LIST

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
PCB-1 PHONO P.C. BOARD							
CAPACITORS							
058A	C54	5353-470534	CAP, MCA 47p G GB	345	R603	5135-473522	RES, CBN 1/2P 47K
058A	C55	5353-470534	CAP, MCA 47p G GB	345	R604	5135-473522	RES, CBN 1/2P 47K
060A	C56	5359-1035851	CAP, PPP .01 μ G GB	363	R605	5174-102381	RES, MTL 1/4P 1K
060A	C57	5359-1035851	CAP, PPP .01 μ G GB	363	R606	5174-102381	RES, MTL 1/4P 1K
060A	C58	5359-1035851	CAP, PPP .01 μ G GB	363	R607	5174-102381	RES, MTL 1/4P 1K
060A	C59	5359-1035851	CAP, PPP .01 μ G GB	363	R608	5174-102381	RES, MTL 1/4P 1K
061A	C62	5359-1215851	CAP, PPP 120p G GB	359	R609	5135-221522	RES, CBN 1/2P 220
061A	C63	5359-1215851	CAP, PPP 120p G GB	359	R610	5135-221522	RES, CBN 1/2P 220
063A	C64	5361-223ZF	CAP, CER .022 μ G GB	359	R611	5135-221522	RES, CBN 1/2P 220
063A	C87	5361-223ZF	CAP, CER .022 μ G GB	359	R612	5135-221522	RES, CBN 1/2P 220
334	C601	5353-121534	CAP, MCA 120p IB	350	R613	5135-330522	RES, CBN 1/2P 33
334A	C601	5353-820534	CAP, MCA 82p G GB	350	R614	5135-330522	RES, CBN 1/2P 33
334	C602	5353-121534	CAP, MCA 120p IB	361	R615	5135-331522	RES, CBN 1/2P 330
334A	C602	5353-820534	CAP, MCA 82p G GB	361	R616	5135-331522	RES, CBN 1/2P 330
335	C603	5359-2215851	CAP, PPP 220p	361	R617	5135-331522	RES, CBN 1/2P 330
335	C604	5359-2215851	CAP, PPP 220p	361	R618	5135-331522	RES, CBN 1/2P 330
335	C605	5359-2215851	CAP, PPP 220p	360	R619	5135-680522	RES, CBN 1/2P 68
335	C606	5359-2215851	CAP, PPP 220p	360	R620	5135-680522	RES, CBN 1/2P 68
341	C607	5354-224593	CAP, MYL .22 μ	360	R621	5135-680522	RES, CBN 1/2P 68
341	C608	5354-224593	CAP, MYL .22 μ	360	R622	5135-680522	RES, CBN 1/2P 68
341	C609	5354-224593	CAP, MYL .22 μ	349	R623	5135-105522	RES, CBN 1/2P 1M
341	C610	5354-224593	CAP, MYL .22 μ	349	R624	5135-105522	RES, CBN 1/2P 1M
333	C611	5345-477A0952	CAP, MINI ELE 470 μ /6.3V	349	R625	5135-105522	RES, CBN 1/2P 1M
333	C612	5345-477A0952	CAP, MINI ELE 470 μ /6.3V	349	R626	5135-105522	RES, CBN 1/2P 1M
336	C613	5359-1035851	CAP, PPP .01 μ	351	R627	5135-334522	RES, CBN 1/2P 330K
336	C614	5359-1035851	CAP, PPP .01 μ	351	R628	5135-334522	RES, CBN 1/2P 330K
340	C617	5359-3315851	CAP, PPP 330p	351	R629	5135-334522	RES, CBN 1/2P 330K
340	C618	5359-3315851	CAP, PPP 330p	351	R630	5135-334522	RES, CBN 1/2P 330K
337	C621	5359-3325851	CAP, PPP 3300p	364	R631	5174-331381	RES, MTL 1/4P 330
337	C622	5359-3325851	CAP, PPP 3300p	364	R632	5174-331381	RES, MTL 1/4P 330
332	C623	5345-S19CM106	CAP, MINI ELE 10 μ /16V	362	R633	5135-102522	RES, CBN 1/2P 1K
332	C624	5345-S19CM106	CAP, MINI ELE 10 μ /16V	362	R634	5135-102522	RES, CBN 1/2P 1K
339	C625	5359-5615851	CAP, PPP 560p	362	R635	5135-102522	RES, CBN 1/2P 1K
339	C626	5359-5615851	CAP, PPP 560p	362	R636	5135-102522	RES, CBN 1/2P 1K
331	C627	5345-S19CM476	CAP, MINI ELE 47 μ /16V	354	R637	5135-102522	RES, CBN 1/2P 1K
331	C628	5345-S19CM476	CAP, MINI ELE 47 μ /16V	354	R638	5135-102522	RES, CBN 1/2P 1K
392	C631	5345-227F045	CAP, MINI ELE 220 μ /50V	367	R639	5174-394381	RES, MTL 1/4P 390K
392	C632	5345-227F045	CAP, MINI ELE 220 μ /50V	367	R640	5174-394381	RES, MTL 1/4P 390K
392	C633	5345-227F045	CAP, MINI ELE 220 μ /50V	365	R643	5174-223381	RES, MTL 1/4P 22K
392	C634	5345-227F045	CAP, MINI ELE 220 μ /50V	365	R644	5174-223381	RES, MTL 1/4P 22K
330	C635	5345-227F045	CAP, MINI ELE 220 μ /50V	369	R645	5174-221381	RES, MTL 1/4P 220
330	C636	5345-227F045	CAP, MINI ELE 220 μ /50V	369	R646	5174-221381	RES, MTL 1/4P 220
330	C637	5345-227F045	CAP, MINI ELE 220 μ /50V	369	R647	5174-221381	RES, MTL 1/4P 220
330	C638	5345-227F045	CAP, MINI ELE 220 μ /50V	369	R648	5174-221381	RES, MTL 1/4P 220
331	C639	5345-S19CM476	CAP, MINI ELE 47 μ /16V	346	R649	5135-683522	RES, CBN 1/2P 68K
331	C640	5345-S19CM476	CAP, MINI ELE 47 μ /16V	346	R650	5135-683522	RES, CBN 1/2P 68K
329	C641	5345-S19CM336	CAP, MINI ELE 33 μ /16V	347	R651	5135-333522	RES, CBN 1/2P 33K
329	C642	5345-S19CM336	CAP, MINI ELE 33 μ /16V	347	R652	5135-333522	RES, CBN 1/2P 33K
338	C643	5359-8215851	CAP, PPP 820p	348	R653	5135-101522	RES, CBN 1/2P 100
338	C644	5359-8215851	CAP, PPP 820p	348	R654	5135-101522	RES, CBN 1/2P 100
664	C645	5361-103KB	CAP, CER .01 μ	348	R655	5135-101522	RES, CBN 1/2P 100
664	C646	5361-103KB	CAP, CER .01 μ	348	R656	5135-101522	RES, CBN 1/2P 100
298	C701	5345-S19BM226	CAP, MINI ELE 22 μ /10V	355	R657	5135-182522	RES, CBN 1/2P 1.8K
298	C702	5345-S19BM226	CAP, MINI ELE 22 μ /10V	355	R658	5135-182522	RES, CBN 1/2P 1.8K
298	C703	5345-S19BM226	CAP, MINI ELE 22 μ /10V	354	R659	5135-102522	RES, CBN 1/2P 1K
298	C704	5345-S19BM226	CAP, MINI ELE 22 μ /10V	354	R660	5135-102522	RES, CBN 1/2P 1K
320	C705	5345-227D041	CAP, MINI ELE 220 μ /25V	356	R661	5135-470522	RES, CBN 1/2P 47
320	C706	5345-227D041	CAP, MINI ELE 220 μ /25V	356	R662	5135-470522	RES, CBN 1/2P 47
320	C707	5345-227D041	CAP, MINI ELE 220 μ /25V	356	R663	5135-470522	RES, CBN 1/2P 47
320	C708	5345-227D041	CAP, MINI ELE 220 μ /25V	356	R664	5135-470522	RES, CBN 1/2P 47
311	C709	5353-050934	CAP, MCA 5p IB	361	R665	5135-331522	RES, CBN 1/2P 330
311A	C709	5353-020934	CAP, MCA 2p G GB	361	R666	5135-331522	RES, CBN 1/2P 330
311	C710	5353-050934	CAP, MCA 5p IB	358	R669	5135-104522	RES, CBN 1/2P 100K
311A	C710	5353-020934	CAP, MCA 2p G GB	358	R670	5135-104522	RES, CBN 1/2P 100K
339	C625	5359-5615851	CAP, PPP 560p	348	R673	5135-101522	RES, CBN 1/2P 100
339	C625	5359-5615851	CAP, PPP 560p	348	R674	5135-101522	RES, CBN 1/2P 100
062A	R51	5135-102522	RES, CBN 1/2P 1K G GB	348	R675	5135-101522	RES, CBN 1/2P 100
062A	R52	5135-102522	RES, CBN 1/2P 1K G GB	348	R676	5135-101522	RES, CBN 1/2P 100
344	R601	5135-470522	RES, CBN 1/2P 47 IB	348	R677	5135-101522	RES, CBN 1/2P 100
344A	R601	5135-102522	RES, CBN 1/2P 1K G GB	394	R677	5135-182522	RES, CBN 1/2P 1.8K
344	R602	5135-470522	RES, CBN 1/2P 47 IB	394	R678	5135-182522	RES, CBN 1/2P 1.8K
344A	R602	5135-102522	RES, CBN 1/2P 1K G GB	395	R691	5135-102522	RES, CBN 1/2P 1K
				395	R692	5135-102522	RES, CBN 1/2P 1K
				398	△R693	5102-1005116	RES, FUSE 10
				398	△R694	5102-1005116	RES, FUSE 10
				301	R701	5135-1R0522	RES, CBN 1/2P 1 IB
				301A	R701	5135-5R6522	RES, CBN 1/2P 5.6 G GB
				301	R702	5135-1R0522	RES, CBN 1/2P 1 IB

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
301A	R702	5135-5R6522	RES, CBN 1/2P 5.6 G GB	372	D605	5631-1S2473	DIODE, DET
302	R703	5135-560522	RES, CBN 1/2P 56	372	D606	5631-1S2473	DIODE, DET
302	R704	5135-560522	RES, CBN 1/2P 56	317	D701	5635-HZ15-2L	DIODE, ZENER
308	R705	5174-471381	RES, MTL 1/4P 470	317	D702	5635-HZ15-2L	DIODE, ZENER
308	R706	5174-471381	RES, MTL 1/4P 470	CONTROLS			
308	R707	5174-471381	RES, MTL 1/4P 470	343	VR601	5101-S0401202	RES, SEMI FIX 2K, PHONO DRIVER
308	R708	5174-471381	RES, MTL 1/4P 470	343	VR602	5101-S0401202	RES, SEMI FIX 2K, PHONO DRIVER
303	R709	5135-332522	RES, CBN 1/2P 3.3K	MISCELLANEOUS			
303	R710	5135-332522	RES, CBN 1/2P 3.3K	793	CN701	4443-030185	CONNECTOR
303	R711	5135-332522	RES, CBN 1/2P 3.3K	792	CW701	4163-S0203551	CONNECTOR W/W
303	R712	5135-332522	RES, CBN 1/2P 3.3K	795	CW702	4163-0109040	CONNECTOR W/W
310	R713	5174-390381	RES, MTL 1/4P 39	065A	L701	5597-3	CORE, BEADS G GB
310	R714	5174-390381	RES, MTL 1/4P 39	065A	L702	5597-3	CORE, BEADS G GB
309	R715	5174-911381	RES, MTL 1/4P 910	065A	L703	5597-3	CORE, BEADS G GB
309	R716	5174-911381	RES, MTL 1/4P 910	065A	L704	5597-3	CORE, BEADS G GB
304	R717	5135-820522	RES, CBN 1/2P 82	658	PJ1	4489-03001004	PIN JACK, MLT, PHONO MM/MC
304	R718	5135-820522	RES, CBN 1/2P 82	910	SW701	4431-S0315102	SWITCH, PUSH, CARTRIDGE
304	R719	5135-820522	RES, CBN 1/2P 82	794	TP701	4443-027114	CONNECTOR
304	R720	5135-820522	RES, CBN 1/2P 82	794	TP702	4443-027114	CONNECTOR
305	R723	5135-562522	RES, CBN 1/2P 5.6K	PCB-2 TONE P.C. BOARD			
305	R724	5135-562522	RES, CBN 1/2P 5.6K	CAPACITORS			
306	R725	5135-331522	RES, CBN 1/2P 330	880	C501	5359-1015851	CAP, PPP 100p
306	R726	5135-331522	RES, CBN 1/2P 330	880	C502	5359-1015851	CAP, PPP 100p
318	△R727	5102-1005116	RES, FUSE 10	811	C503	5345-S19CM106	CAP, MINI ELE 10 μ /16V
318	△R728	5102-1005116	RES, FUSE 10	811	C504	5345-S19CM106	CAP, MINI ELE 10 μ /16V
TRANSISTORS			FET, N-CH	807	C505	5345-S19BM107	CAP, MINI ELE 100 μ /10V
322	Q601	5616-2SK170BL	FET, N-CH	807	C506	5345-S19BM107	CAP, MINI ELE 100 μ /10V
322	Q602	5616-2SK170BL	FET, N-CH	814	C507	5353-020934	CAP, MCA 2p
321	Q603	5615-2SJ74(BL)	FET, P-CH	814	C508	5353-020934	CAP, MCA 2p
321	Q604	5615-2SJ74(BL)	FET, P-CH	809	C513	5345-S19CM476	CAP, MINI ELE 47 μ /16V
326	Q605	5613-1844(E)	XISTOR, NPN R	809	C514	5345-S19CM476	CAP, MINI ELE 47 μ /16V
326	Q606	5613-1844(E)	XISTOR, NPN R	810	C515	5345-S19DM226	CAP, MINI ELE 22 μ /25V
325	Q607	5611-991(E)	XISTOR, PNP R	810	C516	5345-S19DM226	CAP, MINI ELE 22 μ /25V
325	Q608	5611-991(E)	XISTOR, PNP R	818	C517	5354-273J1HM	CAP, MYL .027 μ
323	Q609	5611-999(LF)	XISTOR, PNP R	818	C518	5354-273J1HM	CAP, MYL .027 μ
323	Q610	5611-999(LF)	XISTOR, PNP R	816	C519	5354-154593	CAP, MYL .15 μ
324	Q611	5613-2320(LF)	XISTOR, NPN R	816	C520	5354-154593	CAP, MYL .15 μ
324	Q612	5613-2320(LF)	XISTOR, NPN R	819	C521	5354-682J1HM	CAP, MYL 6800p
323	Q613	5611-999(LF)	XISTOR, PNP R	819	C522	5354-682J1HM	CAP, MYL 6800p
323	Q614	5611-999(LF)	XISTOR, PNP R	817	C523	5354-393J1HM	CAP, MYL .039 μ
324	Q615	5613-2320(LF)	XISTOR, NPN R	817	C524	5354-393J1HM	CAP, MYL .039 μ
324	Q616	5613-2320(LF)	XISTOR, NPN R	812	C525	5345-227F045	CAP, MINI ELE 220 μ /50V
327	Q617	5612-646A(C)	XISTOR, PNP A	812	C526	5345-227F045	CAP, MINI ELE 220 μ /50V
327	Q618	5612-646A(C)	XISTOR, PNP A	879	C527	5354-394593	CAP, MYL .39 μ
328	Q619	5614-666A(C)	XISTOR, NPN A	879	C528	5354-394593	CAP, MYL .39 μ
328	Q620	5614-666A(C)	XISTOR, NPN A	881	C529	5359-S010J102	CAP, PPP 1000p
324	Q625	5613-2320(LF)	XISTOR, NPN R	844	C531	5359-3315851	CAP, PPP 330p
324	Q626	5613-2320(LF)	XISTOR, NPN R	844	C532	5359-3315851	CAP, PPP 330p
328	Q627	5614-666A(C)	XISTOR, NPN A	838	C561	5345-S19CM106	CAP, MINI ELE 10 μ /16V
328	Q628	5614-666A(C)	XISTOR, NPN A	838	C562	5345-S19CM106	CAP, MINI ELE 10 μ /16V
327	Q629	5612-646A(C)	XISTOR, PNP A	837	C563	5345-107C041	CAP, MINI ELE 100 μ /16V
327	Q630	5612-646A(C)	XISTOR, PNP A	837	C564	5345-107C041	CAP, MINI ELE 100 μ /16V
384	Q635	5612-941(P)	XISTOR, PNP A	841	C565	5354-104593	CAP, MYL .1 μ
385	Q636	5614-1266(P)	XISTOR, NPN A	841	C566	5354-104593	CAP, MYL .1 μ
387	Q637	5613-2320(LF)	XISTOR, NPN R	841	C567	5354-104593	CAP, MYL .1 μ
386	Q638	5611-999(LF)	XISTOR, PNP R	841	C568	5354-104593	CAP, MYL .1 μ
292	Q701	5613-1844(E)	XISTOR, NPN R	843	C569	5353-050934	CAP, MCA 5p
292	Q702	5613-1844(E)	XISTOR, NPN R	843	C570	5353-050934	CAP, MCA 5p
292	Q703	5613-1844(E)	XISTOR, NPN R	839	C571	5345-S19FM225	CAP, MINI ELE 2.2 μ /50V
292	Q704	5613-1844(E)	XISTOR, NPN R	839	C572	5345-S19FM225	CAP, MINI ELE 2.2 μ /50V
291	Q705	5611-991(E)	XISTOR, PNP R	836	C573	5345-227F045	CAP, MINI ELE 220 μ /50V
291	Q706	5611-991(E)	XISTOR, PNP R	836	C574	5345-227F045	CAP, MINI ELE 220 μ /50V
291	Q707	5611-991(E)	XISTOR, PNP R	869	C901	5345-227F045	CAP, MINI ELE 220 μ /50V
291	Q708	5611-991(E)	XISTOR, PNP R	869	C902	5345-227F045	CAP, MINI ELE 220 μ /50V
293	Q709	5611-999(LF)	XISTOR, PNP R	870	C903	5345-476F041	CAP, MINI ELE 47 μ /50V
293	Q710	5611-999(LF)	XISTOR, PNP R	870	C904	5345-476F041	CAP, MINI ELE 47 μ /50V
294	Q711	5613-2320(LF)	XISTOR, NPN R	878	C914	5345-S19CM106	CAP, MINI ELE 10 μ /16V
294	Q712	5613-2320(LF)	XISTOR, NPN R	878	C915	5345-S19CM106	CAP, MINI ELE 10 μ /16V
315	Q713	5614-667A(C)	XISTOR, NPN A	878	C916	5345-S19CM106	CAP, MINI ELE 10 μ /16V
314	Q714	5612-647A(C)	XISTOR, PNP A	RESISTORS			
316	Q715	5616-SK246GR2	FET, N-CH	886	R501	5135-331522	RES, CBN 1/2P 330
316	Q716	5616-SK246GR2	FET, N-CH	886	R502	5135-331522	RES, CBN 1/2P 330
DIODES			DIODE, ZENER	821	R505	5135-274522	RES, CBN 1/2P 270K
389	D601	5635-HZ24-1L	DIODE, ZENER	821	R506	5135-274522	RES, CBN 1/2P 270K
389	D602	5635-HZ24-1L	DIODE, ZENER	828	R507	5135-331522	RES, CBN 1/2P 330
372	D603	5631-1S2473	DIODE, DET				
372	D604	5631-1S2473	DIODE, DET				

Ser. No.	Ref. No.	Part No.	Description
868	D502	5631-1S2473	DIODE, DET
867	D901	5635-HZ24-1L	DIODE, ZENER
867	D902	5635-HZ24-1L	DIODE, ZENER
908	D914	5637-LT3E47L	LED, PHASE CORRECT LOUDNESS
908	D915	5637-LT3E47L	LED, SUBSONIC
908	D916	5637-LT3E47L	LED, TONE DEFEAT
CONTROLS			
898	VR501	5113-S0901503	RES, V CBN 16 50K, BALANCE
	/502		
902	VR505	5113-S0903104	RES, V CBN 16 100K, BASS
	/506		
900	VR507	5113-S0902503	RES, V CBN 16 50K, TREBLE
	/508		
MISCELLANEOUS			
774	CN503	4443-0701141	CONNECTOR
777	CN504	4443-0501141	CONNECTOR
778	CN505	4443-1001141	CONNECTOR
798	CN510	4443-0301141	CONNECTOR
787	CW504	4163-S0204351	CONNECTOR W/W
788	CW505	4163-S0203301	CONNECTOR W/W
790	CW506	4163-0150039	CONNECTOR W/W
791	CW507	4163-0140020	CONNECTOR W/W
772	CW508	4163-S0202501	CONNECTOR W/W
796	CW703	4163-0160039	CONNECTOR W/W
780	CW803	4163-0155020	CONNECTOR W/W
781	CW804	4163-0150020	CONNECTOR W/W
882	RC802	5212-104J0401	R COMPOSITE 100K
891	SW501	4411-00303205	SWITCH, ROTARY, SOURCE
891	SW502	4411-00303205	SWITCH, ROTARY, RECORD OUT
893	SW503	4411-00304203	SWITCH, ROTARY, TAPE MONITOR
906	SW504	4431-S1303210	SWITCH, PUSH, TONE DEFEAT
906	SW505	4431-S1303210	SWITCH, PUSH, SUBSONIC
905	SW506	4431-S1306106	SWITCH, PUSH, PHASE CORRECT LOUD- NESS

PCB-3 CONTROL P.C. BOARD

CAPACITORS

068A	C71	5359-3315851	CAP, PPP 330p G GB
068A	C72	5359-3315851	CAP, PPP 330p G GB
068A	C73	5359-3315851	CAP, PPP 330p G GB
068A	C74	5359-3315851	CAP, PPP 330p G GB
068A	C75	5359-3315851	CAP, PPP 330p G GB
068A	C76	5359-3315851	CAP, PPP 330p G GB
068A	C77	5359-3315851	CAP, PPP 330p G GB
068A	C78	5359-3315851	CAP, PPP 330p G GB
946	C801	5359-S010J102	CAP, PPP 1000p
946	C802	5359-S010J102	CAP, PPP 1000p
946	C803	5359-S010J102	CAP, PPP 1000p
946	C804	5359-S010J102	CAP, PPP 1000p
947	C805	5354-104593	CAP, MYL .1
947	C806	5354-104593	CAP, MYL .1
947	C807	5354-104593	CAP, MYL .1
944	C808	5345-S19DM106	CAP, MINI ELE 10 μ /25V
940	C809	5345-S19DM106	CAP, MINI ELE 10 μ /25V
945	C811	5345-S19FM104	CAP, MINI ELE .1 μ /50V
647	C812	5345-107D041	CAP, MINI ELE 100 μ /25V
647	C813	5345-107D041	CAP, MINI ELE 100 μ /25V
647	C814	5345-107D041	CAP, MINI ELE 100 μ /25V
647	C815	5345-107D041	CAP, MINI ELE 100 μ /25V
944	C816	5345-S19DM106	CAP, MINI ELE 10 μ /25V
944	C817	5345-S19DM106	CAP, MINI ELE 10 μ /25V
665	C863	5361-103KB	CAP, CER .01 μ
665	C864	5361-103KB	CAP, CER .01 μ
665	C865	5361-103KB	CAP, CER .01 μ
665	C868	5361-103KB	CAP, CER .01 μ

RESISTORS

959	R801	5135-102522	RES, CBN 1/2P 1K
959	R802	5135-102522	RES, CBN 1/2P 1K
959	R803	5135-102522	RES, CBN 1/2P 1K
959	R804	5135-102522	RES, CBN 1/2P 1K
959	R805	5135-102522	RES, CBN 1/2P 1K
959	R806	5135-102522	RES, CBN 1/2P 1K
959	R807	5135-102522	RES, CBN 1/2P 1K
959	R808	5135-102522	RES, CBN 1/2P 1K
959	R809	5135-102522	RES, CBN 1/2P 1K
959	R810	5135-102522	RES, CBN 1/2P 1K

Ser. No.	Ref. No.	Part No.	Description
959	R811	5135-102522	RES, CBN 1/2P 1K
959	R812	5135-102522	RES, CBN 1/2P 1K
959	R813	5135-102522	RES, CBN 1/2P 1K
959	R814	5135-102522	RES, CBN 1/2P 1K
959	R815	5135-102522	RES, CBN 1/2P 1K
959	R816	5135-102522	RES, CBN 1/2P 1K
959	R817	5135-102522	RES, CBN 1/2P 1K
959	R818	5135-102522	RES, CBN 1/2P 1K
959	R819	5135-102522	RES, CBN 1/2P 1K
959	R820	5135-102522	RES, CBN 1/2P 1K
959	R821	5135-102522	RES, CBN 1/2P 1K
959	R822	5135-102522	RES, CBN 1/2P 1K
959	R823	5135-102522	RES, CBN 1/2P 1K
959	R824	5135-102522	RES, CBN 1/2P 1K
964	R825	5232-224J16P	RES, CBN 1/6P 220K
964	R826	5232-224J16P	RES, CBN 1/6P 220K
964	R827	5232-224J16P	RES, CBN 1/6P 220K
975	R828	5232-124J16P	RES, CBN 1/6P 120K
963	R829	5232-105J16P	RES, CBN 1/6P 1M
963	R830	5232-105J16P	RES, CBN 1/6P 1M
963	R831	5232-105J16P	RES, CBN 1/6P 1M
963	R832	5232-105J16P	RES, CBN 1/6P 1M
963	R833	5232-105J16P	RES, CBN 1/6P 1M
963	R834	5232-105J16P	RES, CBN 1/6P 1M
963	R835	5232-105J16P	RES, CBN 1/6P 1M
965	R836	5232-104J16P	RES, CBN 1/6P 100K
965	R837	5232-104J16P	RES, CBN 1/6P 100K
965	R838	5232-104J16P	RES, CBN 1/6P 100K
649	Δ R839	5102-2205116	RES, FUSE 22
650	R840	5135-272522	RES, CBN 1/2P 2.7K
650	R841	5135-272522	RES, CBN 1/2P 2.7K
649	Δ R842	5102-2205116	RES, FUSE 22
962	R843	5135-223522	RES, CBN 1/2P 22K
070A	R851	5232-102J16P	RES, CBN 1/6P 1K G GB
070A	R852	5232-102J16P	RES, CBN 1/6P 1K G GB
070A	R853	5232-102J16P	RES, CBN 1/6P 1K G GB
070A	R854	5232-102J16P	RES, CBN 1/6P 1K G GB
966	R855	5232-100J16P	RES, CBN 1/6P 10
070A	R856	5232-102J16P	RES, CBN 1/6P 1K G GB
070A	R857	5232-102J16P	RES, CBN 1/6P 1K G GB
070A	R858	5232-102J16P	RES, CBN 1/6P 1K G GB
973	R887	5232-223J16P	RES, CBN 1/6P 22K

INTEGRATED CIRCUIT

928	IC801	5654-LC7818	IC, DIGITAL
TRANSISTORS			
936	Q801	5616-2SK246BL	FET, N-CH
936	Q802	5616-2SK246BL	FET, N-CH
936	Q803	5616-2SK246BL	FET, N-CH
936	Q804	5616-2SK246BL	FET, N-CH
935	Q805	5616-2SK364V	FET, N-CH
935	Q806	5616-2SK364V	FET, N-CH
935	Q807	5616-2SK364V	FET, N-CH
935	Q808	5616-2SK364V	FET, N-CH
936	Q809	5616-2SK246BL	FET, N-CH
936	Q810	5616-2SK246BL	FET, N-CH
936	Q811	5616-2SK246BL	FET, N-CH
936	Q812	5616-2SK246BL	FET, N-CH
935	Q813	5616-2SK364V	FET, N-CH
935	Q814	5616-2SK364V	FET, N-CH
936	Q815	5616-2SK246BL	FET, N-CH
936	Q816	5616-2SK246BL	FET, N-CH
936	Q817	5616-2SK246BL	FET, N-CH
936	Q818	5616-2SK246BL	FET, N-CH
645	Q819	5614-667A(C)	XISTOR, NPN A
644	Q820	5612-647A(C)	XISTOR, PNP A
933	Q861	5611-933S(S)	XISTOR, PNP R

DIODES

939	D801	5631-1SS133	DIODE, DET
939	D802	5631-1SS133	DIODE, DET
939	D803	5631-1SS133	DIODE, DET
939	D804	5631-1SS133	DIODE, DET
939	D805	5631-1SS133	DIODE, DET
939	D806	5631-1SS133	DIODE, DET
939	D807	5631-1SS133	DIODE, DET
939	D808	5631-1SS133	DIODE, DET
939	D809	5631-1SS133	DIODE, DET
939	D810	5631-1SS133	DIODE, DET

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
939	D811	5631-1SS133	DIODE, DET	491	R15	5135-103522	RES, CBN 1/2P 10K
939	D812	5631-1SS133	DIODE, DET	491	R16	5135-103522	RES, CBN 1/2P 10K
939	D813	5631-1SS133	DIODE, DET	495	R17	5135-473522	RES, CBN 1/2P 47K
939	D814	5631-1SS133	DIODE, DET	488	R18	5135-223522	RES, CBN 1/2P 22K
939	D815	5631-1SS133	DIODE, DET	488	R19	5135-223522	RES, CBN 1/2P 22K
939	D816	5631-1SS133	DIODE, DET	495	R20	5135-473522	RES, CBN 1/2P 47K
939	D817	5631-1SS133	DIODE, DET	490	R21	5135-104522	RES, CBN 1/2P 100K
939	D818	5631-1SS133	DIODE, DET	487	R25	5135-105522	RES, CBN 1/2P 1M
939	D819	5631-1SS133	DIODE, DET	487	R26	5135-105522	RES, CBN 1/2P 1M
939	D820	5631-1SS133	DIODE, DET	488	R27	5135-223522	RES, CBN 1/2P 22K
646	D821	5635-HZ20-1L	DIODE, ZENER	486	△R34	5102-1015116	RES, FUSE 100
646	D822	5635-HZ20-1L	DIODE, ZENER	460	R401	5135-102522	RES, CBN 1/2P 1K
MISCELLANEOUS				460	R402	5135-102522	RES, CBN 1/2P 1K
779	CN502	4443-030185	CONNECTOR	451	R403	5135-273522	RES, CBN 1/2P 27K
773	CW802	4163-S0203901	CONNECTOR W/W	451	R404	5135-273522	RES, CBN 1/2P 27K
783	CW805	4163-S0207551	CONNECTOR W/W	457	R405	5135-151522	RES, CBN 1/2P 150
784	CW806	4163-S0205451	CONNECTOR W/W	457	R406	5135-151522	RES, CBN 1/2P 150
785	CW807	4163-S0210401	CONNECTOR W/W	459	R407	5135-330522	RES, CBN 1/2P 33
659	PJ3	4489-02901004	PIN JACK, MLT, TUNER/CD	459	R408	5135-330522	RES, CBN 1/2P 33
659	PJ4	4489-02901004	PIN JACK, MLT, VIDEO/AUX	462	R409	5135-103522	RES, CBN 1/2P 10K
659	PJ5	4489-02901004	PIN JACK, MLT, TAPE 1 IN/OUT	462	R410	5135-103522	RES, CBN 1/2P 10K
659	PJ6	4489-02901004	PIN JACK, MLT, TAPE 2 IN/OUT	459	R411	5135-330522	RES, CBN 1/2P 33
948	RC801	5212-223J0601	R COMPOSITE	459	R412	5135-330522	RES, CBN 1/2P 33
PCB-4 DRIVER P.C. BOARD				456	R413	5135-221522	RES, CBN 1/2P 220
CAPACITORS				456	R414	5135-221522	RES, CBN 1/2P 220
482	C13	5354-332J1HM	CAP, MYL 3300p	454	R415	5135-154522	RES, CBN 1/2P 150K
480	C15	5354-334593	CAP, MYL .33 μ	454	R416	5135-154522	RES, CBN 1/2P 150K
483	C16	5345-S19CM336	CAP, MINI ELE 33 μ /16V	452	R417	5135-563522	RES, CBN 1/2P 56K
480	C17	5354-334593	CAP, MYL .33 μ	452	R418	5135-563522	RES, CBN 1/2P 56K
484	C18	5345-S19FM105	CAP, MINI ELE 1 μ /50V	455	R419	5135-105522	RES, CBN 1/2P 1M
485	C19	5345-105J0962	CAP, MINI ELE 1 μ /100V	455	R420	5135-105522	RES, CBN 1/2P 1M
476	C24	5345-226D041	CAP, MINI ELE 22 μ /25V	454	R421	5135-154522	RES, CBN 1/2P 150K
481	C26	5354-104593	CAP, MYL .1 μ	454	R422	5135-154522	RES, CBN 1/2P 150K
434	C405	5354-104593	CAP, MYL .1 μ	454	R423	5135-154522	RES, CBN 1/2P 150K
434	C406	5354-104593	CAP, MYL .1 μ	454	R424	5135-154522	RES, CBN 1/2P 150K
434	C407	5354-104593	CAP, MYL .1 μ	455	R425	5135-105522	RES, CBN 1/2P 1M
434	C408	5354-104593	CAP, MYL .1 μ	455	R426	5135-105522	RES, CBN 1/2P 1M
437A	C409	5353-100534	CAP, MCA 10p	460	R427	5135-102522	RES, CBN 1/2P 1K
437A	C410	5353-100534	CAP, MCA 10p	460	R428	5135-102522	RES, CBN 1/2P 1K
430	C413	5345-S19CM225	CAP, MINI ELE 2.2 μ /16V	460	R429	5135-102522	RES, CBN 1/2P 1K
430	C414	5345-S19CM225	CAP, MINI ELE 2.2 μ /16V	460	R430	5135-102522	RES, CBN 1/2P 1K
429	C415	5345-227D041	CAP, MINI ELE 220 μ /25V	463	R431	5135-151522	RES, CBN 1/2P 150
429	C416	5345-227D041	CAP, MINI ELE 220 μ /25V	463	R432	5135-151522	RES, CBN 1/2P 150
429	C417	5345-227D041	CAP, MINI ELE 220 μ /25V	448	R433	5174-390381	RES, MTL 1/4P 39
429	C418	5345-227D041	CAP, MINI ELE 220 μ /25V	448	R434	5174-390381	RES, MTL 1/4P 39
429	C419	5345-227D041	CAP, MINI ELE 220 μ /25V	463	R435	5135-151522	RES, CBN 1/2P 150
429	C420	5345-227D041	CAP, MINI ELE 220 μ /25V	463	R436	5135-151522	RES, CBN 1/2P 150
429	C421	5345-227D041	CAP, MINI ELE 220 μ /25V	461	R437	5135-331522	RES, CBN 1/2P 330
429	C422	5345-227D041	CAP, MINI ELE 220 μ /25V	461	R438	5135-331522	RES, CBN 1/2P 330
429	C423	5345-477J0962	CAP, MINI ELE 470 μ /100V	453	R439	5135-563522	RES, CBN 1/2P 56K
429	C424	5345-477J0962	CAP, MINI ELE 470 μ /100V	453	R440	5135-563522	RES, CBN 1/2P 56K
429	C425	5345-477J0962	CAP, MINI ELE 470 μ /100V	463	R441	5135-151522	RES, CBN 1/2P 150
429	C426	5345-477J0962	CAP, MINI ELE 470 μ /100V	463	R442	5135-151522	RES, CBN 1/2P 150
438	C431	5359-8205851	CAP, PPP 82p	453	R443	5135-563522	RES, CBN 1/2P 56K
438	C432	5359-8205851	CAP, PPP 82p	453	R444	5135-563522	RES, CBN 1/2P 56K
438	C433	5359-8205851	CAP, PPP 82p	445	△R445	5102-4714713	RES, FUSE 470
438	C434	5359-8205851	CAP, PPP 82p	445	△R446	5102-4714713	RES, FUSE 470
436	C435	5353-680534	CAP, MCA 68p	463	R447	5135-151522	RES, CBN 1/2P 150
436	C436	5353-680534	CAP, MCA 68p	463	R448	5135-151522	RES, CBN 1/2P 150
437A	C437	5353-100534	CAP, MCA 10p	460	R449	5135-102522	RES, CBN 1/2P 1K
437A	C438	5353-100534	CAP, MCA 10p	460	R450	5135-102522	RES, CBN 1/2P 1K
433	C469	5345-S19CM106	CAP, MINI ELE 10 μ /16V	461	R451	5135-331522	RES, CBN 1/2P 330
433	C470	5345-S19CM106	CAP, MINI ELE 10 μ /16V	461	R452	5135-331522	RES, CBN 1/2P 330
RESISTORS				445	△R453	5102-4714713	RES, FUSE 470
495	R1	5135-473522	RES, CBN 1/2P 47K	445	△R454	5102-4714713	RES, FUSE 470
488	R2	5135-223522	RES, CBN 1/2P 22K	444	△R455	5102-5604713	RES, FUSE 56
497	R3	5135-152522	RES, CBN 1/2P 1.5K	444	△R456	5102-5604713	RES, FUSE 56
500	R7	5135-104522	RES, CBN 1/2P 100K	444	△R457	5102-5604713	RES, FUSE 56
495	R8	5135-473522	RES, CBN 1/2P 47K	444	△R458	5102-5604713	RES, FUSE 56
496	R9	5135-334522	RES, CBN 1/2P 330K	466	R459	5135-153522	RES, CBN 1/2P 15K
494	R10	5135-684522	RES, CBN 1/2P 680K	466	R460	5135-153522	RES, CBN 1/2P 15K
493	R11	5135-184522	RES, CBN 1/2P 180K	466	R461	5135-153522	RES, CBN 1/2P 15K
492	R12	5135-225522	RES, CBN 1/2P 2.2M	466	R462	5135-153522	RES, CBN 1/2P 15K
490	R13	5135-104522	RES, CBN 1/2P 100K	449	R463	5174-273381	RES, MTL 1/4P 27K
490	R14	5135-104522	RES, CBN 1/2P 100K	449	R464	5174-273381	RES, MTL 1/4P 27K
				446	△R465	5102-2205116	RES, FUSE 22
				446	△R466	5102-2205116	RES, FUSE 22

Ser. No.	Ref. No.	Part No.	Description
467	R467	5135-562522	RES, CBN 1/2P 5.6K
467	R468	5135-562522	RES, CBN 1/2P 5.6K
446	△R469	5102-2205116	RES, FUSE 22
446	△R470	5102-2205116	RES, FUSE 22
467	R471	5135-562522	RES, CBN 1/2P 5.6K
467	R472	5135-562522	RES, CBN 1/2P 5.6K
443	△R473	5102-1005711	RES, FUSE 10
443	△R474	5102-1005711	RES, FUSE 10
443	△R475	5102-1005711	RES, FUSE 10
443	△R476	5102-1005711	RES, FUSE 10
460	R477	5135-102522	RES, CBN 1/2P 1K
460	R478	5135-102522	RES, CBN 1/2P 1K
447	R767	5174-561381	RES, MTL 1/4P 560
447	R768	5174-561381	RES, MTL 1/4P 560
458	R775	5135-472522	RES, CBN 1/2P 4.7K
458	R776	5135-472522	RES, CBN 1/2P 4.7K
458	R777	5135-472522	RES, CBN 1/2P 4.7K
458	R778	5135-472522	RES, CBN 1/2P 4.7K
464	R781	5135-101522	RES, CBN 1/2P 100
464	R782	5135-101522	RES, CBN 1/2P 100
464	R783	5135-101522	RES, CBN 1/2P 100
464	R784	5135-101522	RES, CBN 1/2P 100
457	R789	5135-151522	RES, CBN 1/2P 150
457	R790	5135-151522	RES, CBN 1/2P 150
468	R943	5135-102522	RES, CBN 1/2P 1K
468	R944	5135-102522	RES, CBN 1/2P 1K
465	R945	5135-392522	RES, CBN 1/2P 3.9K
465	R946	5135-392522	RES, CBN 1/2P 3.9K
465	R947	5135-392522	RES, CBN 1/2P 3.9K
465	R948	5135-392522	RES, CBN 1/2P 3.9K

TRANSISTORS

475	Q1	5613-2240(BL)	XISTOR, NPN R
473	Q2	5613-2320L(F)	XISTOR, NPN R
472	Q3	5611-999L(F)	XISTOR, PNP R
473	Q4	5613-2320L(F)	XISTOR, NPN R
472	Q5	5611-999L(F)	XISTOR, PNP R
472	Q6	5611-999L(F)	XISTOR, PNP R
471	Q401	5616-2SK364BL	FET, N-CH
471	Q402	5616-2SK364BL	FET, N-CH
417	Q403	5613-2240(BL)	XISTOR, NPN R
417	Q404	5613-2240(BL)	XISTOR, NPN R
414	Q405	5613-2320L(F)	XISTOR, NPN R
414	Q406	5613-2320L(F)	XISTOR, NPN R
418	Q407	5611-970(BL)	XISTOR, PNP R
418	Q408	5611-970(BL)	XISTOR, PNP R
417	Q409	5613-2240(BL)	XISTOR, NPN R
417	Q410	5613-2240(BL)	XISTOR, NPN R
418	Q413	5611-970(BL)	XISTOR, PNP R
418	Q414	5611-970(BL)	XISTOR, PNP R
416	Q415	5614-666A(C)	XISTOR, NPN A
416	Q416	5614-666A(C)	XISTOR, NPN A
415	Q417	5612-646A(C)	XISTOR, PNP A
415	Q418	5612-646A(C)	XISTOR, PNP A
415	Q419	5612-646A(C)	XISTOR, PNP A
415	Q420	5612-646A(C)	XISTOR, PNP A
417	Q421	5613-2240(BL)	XISTOR, NPN R
417	Q422	5613-2240(BL)	XISTOR, NPN R
416	Q423	5614-666A(C)	XISTOR, NPN A
416	Q424	5614-666A(C)	XISTOR, NPN A
418	Q425	5611-970(BL)	XISTOR, PNP R
418	Q426	5611-970(BL)	XISTOR, PNP R
413	Q427	5612-647A(C)	XISTOR, PNP A
413	Q428	5612-647A(C)	XISTOR, PNP A
421	Q429	5614-667A(C)	XISTOR, NPN A
421	Q430	5614-667A(C)	XISTOR, NPN A
420	Q431	5614-668A(C)	XISTOR, NPN A
420	Q432	5614-668A(C)	XISTOR, NPN A
419	Q433	5612-648A(C)	XISTOR, PNP A
419	Q434	5612-648A(C)	XISTOR, PNP A
417	Q435	5613-2240(BL)	XISTOR, NPN R
417	Q436	5613-2240(BL)	XISTOR, NPN R
418	Q437	5611-970(BL)	XISTOR, PNP R
418	Q438	5611-970(BL)	XISTOR, PNP R
417	Q751	5613-2240(BL)	XISTOR, NPN R
417	Q752	5613-2240(BL)	XISTOR, NPN R
418	Q753	5611-970(BL)	XISTOR, PNP R
418	Q754	5611-970(BL)	XISTOR, PNP R

Ser. No.	Ref. No.	Part No.	Description
412	Q755	5616-2SK170BL	FET, N-CH
412	Q756	5616-2SK170BL	FET, N-CH
412	Q757	5616-2SK170BL	FET, N-CH
412	Q758	5616-2SK170BL	FET, N-CH
411	Q759	5615-2SJ74(BL)	FET, P-CH
411	Q760	5615-2SJ74(BL)	FET, P-CH
411	Q761	5615-2SJ74(BL)	FET, P-CH
411	Q762	5615-2SJ74(BL)	FET, P-CH
DIODES			
477	D8	5635-HZ6A2L	DIODE, ZENER
478	D9	5631-1S2473	DIODE, DET
478	D10	5631-1S2473	DIODE, DET
478	D11	5631-1S2473	DIODE, DET
478	D12	5631-1S2473	DIODE, DET
478	D15	5631-1S2473	DIODE, DET
479	D16	5632-S5566B	DIODE, RECT
426	D401	5635-HZ24-2L	DIODE, ZENER
426	D402	5635-HZ24-2L	DIODE, ZENER
426	D403	5635-HZ24-2L	DIODE, ZENER
426	D404	5635-HZ24-2L	DIODE, ZENER
CONTROLS			
441	VR401	5101-S0401102	RES, SEMI FIX 1K, MAIN DRIVER
441	VR402	5101-S0401102	RES, SEMI FIX 1K, MAIN DRIVER
MISCELLANEOUS			
724	CN401	4443-0401140	CONNECTOR
727	CN402	4443-070185	CONNECTOR
727	CN403	4443-070185	CONNECTOR
725	CN404	4443-0201140	CONNECTOR
723	CN405	4443-0201140	CONNECTOR
729	TM401	4214-11012	TERMINAL
729	TM402	4214-11012	TERMINAL

PCB-5 MAIN LCH P.C. BOARD

CAPACITORS

534	C455	5353-470534	CAP, MCA 47p
534	C457	5353-470534	CAP, MCA 47p
691	C459	5354-104593	CAP, MYL .1μ
541	C465	5354-104593	CAP, MYL .1μ
541	C467	5354-104593	CAP, MYL .1μ
RESISTORS			
549	R479	5135-100522	RES, CBN 1/2P 10
518	R481	5272-S010KR15	RES, CEM 2P .15
518	R483	5272-S010KR15	RES, CEM 2P .15
518	R485	5272-S010KR15	RES, CEM 2P .15
517	R487	5275-S040JR22	RES, CME 5P .22
	/489		
518	R491	5272-S010KR15	RES, CEM 2P .15
517	R495	5275-S040JR22	RES, CEM 5P .22
	/497		
528	R743	5135-102522	RES, CBN 1/2P 1K
525	R745	5135-561522	RES, CBN 1/2P 560
693	R751	5135-562522	RES, CBN 1/2P 5.6K
693	R753	5135-562522	RES, CBN 1/2P 5.6K
694	R755	5135-272522	RES, CBN 1/2P 2.7K
531	R757	5171-100593	RES, MTL 1P 10
526	R759	5135-121522	RES, CBN 1/2P 120
532	R761	5175-100583	RES, MTL 3P 10
695	R763	5135-472J522	RES, CBN 1/2P 4.7K
527	R765	5135-150522	RES, CBN 1/2P 15
529	R769	5135-221522	RES, CBN 1/2P 220
529	R771	5135-221522	RES, CBN 1/2P 220
520	△R791	5102-1015116	RES, FUSE 100
520	△R793	5102-1015116	RES, FUSE 100
521	△R795	5102-1005116	RES, FUSE 10
521	△R797	5102-1005116	RES, FUSE 10
527	R799	5135-150522	RES, CBN 1/2P 15
549	R941	5135-100522	RES, CBN 1/2P 10

TRANSISTORS

505	Q453	5613-3423(Y)	XISTOR, NPN R
503	Q457	5614-668A(C)	XISTOR, NPN A
502	Q459	5612-648A(C)	XISTOR, PNP A
506	Q461	5611-1306A(Y)	XISTOR, PNP R
507	Q463	5613-3298A(Y)	XISTOR, NPN R
508	Q465	5611-1302(O)	XISTOR, PNP R
510	Q467	5613-3281(O)	XISTOR, NPN R
508	Q469	5611-1302(O)	XISTOR, PNP R

Ser. No.	Ref. No.	Part No.	Description
510	Q471	5613-3281(O)	XISTOR, NPN R
690	Q477	5611-970(BL)	XISTOR, PNP R
DIODES			
513	D407	5631-1S2473	DIODE, DET
513	D409	5631-1S2473	DIODE, DET
514	D411	5632-10DF2	DIODE, RECT
514	D413	5632-10DF2	DIODE, RECT
COIL			
535	L405	5991-7125	SPRING COIL
CONTROL			
543	VR405	5101-S0401102	RES, SEMI FIX 1K, IDLING CURRENT
MISCELLANEOUS			
739	CC401	4132-R0110121	CORD, 2C
736	CW401	4163-0140021	CONNECTOR W/W
737	CW402	4163-0140023	CONNECTOR W/W
738	CW403	4163-0140039	CONNECTOR W/W
735	CW410	4163-S0202201	CONNECTOR W/W
749	JL401	4242-R0507101	JUMPER LEAD
550	L401	5597-45502	CORE, BEADS
550	L403	5597-45502	CORE, BEADS
606	PT1	5192-00104	POSISTOR
606	PT2	5192-00104	POSISTOR
734	TP403	4443-024116	CONNECTOR

PCB-6 MAIN RCH P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
594	C456	5353-470534	CAP, MCA 47p
594	C458	5353-470534	CAP, MCA 47p
699	C460	5354-104593	CAP, MYL .1 μ
601	C466	5354-104593	CAP, MYL .1 μ
601	C468	5354-104593	CAP, MYL .1 μ
RESISTORS			
612	R480	5135-100522	RES, CBN 1/2P 10
578	R482	5272-S010KR15	RES, CEM 2P .15
578	R484	5272-S010KR15	RES, CEM 2P .15
578	R486	5272-S010KR15	RES, CEM 2P .15
577	R488	5275-S040JR22	RES, CEM 5P .22
	/490		
578	R492	5272-S010KR15	RES, CEM 2P .15
577	R496	5275-S040JR22	RES, CEM 5P .22
	/498		
588	R744	5135-102522	RES, CBN 1/2P 1K
585	R746	5135-561522	RES, CBN 1/2P 560
701	R752	5135-562522	RES, CBN 1/2P 5.6K
701	R754	5135-562522	RES, CBN 1/2P 5.6K
702	R756	5135-272522	RES, CBN 1/2P 2.7K
591	R758	5171-100593	RES, MTL 1P 10
586	R760	5135-121522	RES, CBN 1/2P 120
592	R762	5175-100583	RES, MTL 3P 10
703	R764	5135-472522	RES, CBN 1/2P 4.7K
587	R766	5135-150522	RES, CBN 1/2P 15
589	R770	5135-221522	RES, CBN 1/2P 220
589	R772	5135-221522	RES, CBN 1/2P 220
580	Δ R792	5102-1015116	RES, FUSE 100
580	Δ R794	5102-1015116	RES, FUSE 100
581	Δ R796	5102-1005116	RES, FUSE 10
581	Δ R798	5102-1005116	RES, FUSE 10
587	R800	5135-150522	RES, CBN 1/2P 15
612	R942	5135-100522	RES, CBN 1/2P 10
TRANSISTORS			
565	Q454	5613-3423(Y)	XISTOR, NPN R
563	Q458	5614-668A(C)	XISTOR, NPN A
562	Q460	5612-648A(C)	XISTOR, PNP A
566	Q462	5611-1306A(Y)	XISTOR, PNP R
567	Q464	5613-3298A(Y)	XISTOR, NPN R
568	Q466	5611-1302(O)	XISTOR, PNP R
570	Q468	5613-3281(O)	XISTOR, NPN R
568	Q470	5611-1302(O)	XISTOR, PNP R
570	Q472	5613-3281(O)	XISTOR, NPN R
698	Q478	5611-970(BL)	XISTOR, PNP R
DIODES			
573	D408	5631-1S2473	DIODE, DET
573	D410	5631-1S2473	DIODE, DET
574	D412	5632-10DF2	DIODE, RECT
574	D414	5632-10DF2	DIODE, RECT
COIL			

Ser. No.	Ref. No.	Part No.	Description
595	L406	5991-7125	SPRING COIL
CONTROL			
603	VR406	5101-S0401102	RES, SEMI FIX 1K, IDLING CURRENT
MISCELLANEOUS			
741	CC402	4132-R0110121	CORD, 2C
746	CW404	4163-0140021	CONNECTOR W/W
747	CW405	4163-0140020	CONNECTOR W/W
748	CW406	4163-0140039	CONNECTOR W/W
745	JL403	4242-R0507141	JUMPER LEAD
613	L402	5597-45502	CORE, BEADS
613	L404	5597-45502	CORE, BEADS
740	TP404	4443-024116	CONNECTOR

PCB-7 HEADPHONES P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
075A	C95	5359-3315851	CAP, PPP 330p G GB
075A	C96	5359-3315851	CAP, PPP 330p G GB
MISCELLANEOUS			
917	J1	4451-00161	JACK, 1P, HEADPHONES

PCB-8 SPEAKER P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
069A	C83	5359-S010J271	CAP, PPP 270p G GB
069A	C84	5359-S010J271	CAP, PPP 270p G GB
069A	C85	5359-S010J271	CAP, PPP 270p G GB
069A	C86	5359-S010J271	CAP, PPP 270p G GB
069A	C87	5359-S010J271	CAP, PPP 270p G GB
069A	C88	5359-S010J271	CAP, PPP 270p G GB
069A	C89	5359-S010J271	CAP, PPP 270p G GB
069A	C90	5359-S010J271	CAP, PPP 270p G GB
RESISTORS			
679	R737	5135-102522	RES, CBN 1/2P 1K
679	R738	5135-102522	RES, CBN 1/2P 1K
679	R739	5135-102522	RES, CBN 1/2P 1K
679	R740	5135-102522	RES, CBN 1/2P 1K
MISCELLANEOUS			
770	JL404	4242-R0303451	JUMPER LEAD
913	SW3	4411-204715	SWITCH, ROTARY, SPEAKERS
651	SPT1	4214-221	TERMINAL, SPEAKERS

PCB-9 MAIN POWER SUPPLY P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
051A	C20	5352-1041957	CAP, MTL .1 μ G GB
683	C23	5345-475J0962	CAP, MINI ELE 4.7 μ /100V
623	Δ C31	5341-S10HM758	CAP, ELE 7500 μ /85V
623	Δ C32	5341-S10HM758	CAP, ELE 7500 μ /85V
623	Δ C33	5341-S10HM758	CAP, ELE 7500 μ /85V
623	Δ C34	5341-S10HM758	CAP, ELE 7500 μ /85V
076A	C97	5361-223ZF	CAP, CER .022 μ G GB
RESISTORS			
685	Δ R28	5102-8205116	RES, FUSE 82
685	Δ R29	5102-8205116	RES, FUSE 82
688	R30	5171-331593	RES, MTL 1P 330
687	R31	5135-103522	RES, CBN 1/2P 10K
689	R32	5171-471593	RES, MTL 1P 470
688	R33	5171-331593	RES, MTL 1P 330
DIODES			
621	Δ D1	5685-D5SB40	SILICON, BRIG
621	Δ D2	5685-D5SB40	SILICON, BRIG
681	Δ D13	5632-S5566B	DIODE, RECT
681	Δ D14	5632-S5566B	DIODE, RECT
MISCELLANEOUS			
754	CW1	4163-S0202201	CONNECTOR W/W
800	CW10	4163-0135020	CONNECTOR W/W
753	TM1	4214-11023	TERMINAL
752	TM3	4214-11022	TERMINAL
752	TM4	4214-11022	TERMINAL
751	TM11	4214-11032	TERMINAL

PCB-10 POWER SWITCH P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITOR			
913A	△C1	5352-1030958	CAP, MTL .01
RESISTOR			
054A	△R101	5135-335J50P	RES, CBN 1/2P 3.3M
MISCELLANEOUS			
911	△SW2	4433-01101	SWITCH, PU-PW, POWER
916	TM9	4214-122	TERMINAL
916	TM10	4214-122	TERMINAL

PCB-11 SUB POWER SUPPLY P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
629	△C5	5345-228F0962	CAP, MINI ELE 2200 μ /50V
629	△C6	5345-228F0962	CAP, MINI ELE 2200 μ /50V
630	C11	5354-104593	CAP, MYL .1 μ
630	C12	5354-104593	CAP, MYL .1 μ
052A	C22	5352-1041957	CAP, MTL .1 μ G GB
057A	C51	5361-223ZF	CAP, CER .022 μ G GB
DIODES			
627	△D3	5632-S5566B	DIODE, RECT
627	△D4	5632-S5566B	DIODE, RECT
627	△D5	5632-S5566B	DIODE, RECT
627	△D6	5632-S5566B	DIODE, RECT
MISCELLANEOUS			
758	CN2	4443-0301140	CONNECTOR
758	CN3	4443-0301140	CONNECTOR
758	CN4	4443-0301140	CONNECTOR
632A	△F2	5732-122030	FUSE, T1.25A/250V
632A	△F3	5732-122030	FUSE, T1.25A/250V
633	△HF3	4472-0131	HOLDER, FUSE F2
633	△HF4	4472-0131	HOLDER, FUSE F3
633	△HF5	4472-0131	HOLDER, FUSE F3
633	△HF6	4472-0131	HOLDER, FUSE F2
756	TM5	4214-11033	TERMINAL
631	TM6	4214-11013	TERMINAL

PCB-12 VOLUME P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
RESISTORS			
920	R503	5135-472522	RES, CBN 1/2P 4.7K
920	R504	5135-472522	RES, CBN 1/2P 4.7K
CONTROLS			
896	VR503 /504	5113-10472147	RES, V CBN 16 100K, VOLUME
MISCELLANEOUS			
768	CN511	4443-030185	CONNECTOR
761	CN512	4443-030185	CONNECTOR
765	CN513	4443-070185	CONNECTOR

PCB-13 BYPASS P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
MISCELLANEOUS			
763	CN508	4443-0201140	CONNECTOR
744	JL501	4242-R0507101	JUMPER LEAD
904	SW507	4431-S2501106	SWITCH, PUSH, PREAMPLIFIER BYPASS

PCB-14 PRE/MAIN SEPARATION P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
066A	C79	5359-1015851	CAP, PPP 100p G GB
066A	C80	5359-1015851	CAP, PPP 100p G GB
066A	C81	5359-1015851	CAP, PPP 100p G GB
066A	C82	5359-1015851	CAP, PPP 100p G GB
073A	C91	5359-1015851	CAP, PPP 100P G GB
073A	C92	5359-1015851	CAP, PPP 100P G GB
073A	C93	5359-1015851	CAP, PPP 100P G GB
073A	C94	5359-1015851	CAP, PPP 100P G GB
922	C577	5361-103ZF	CAP, CER .01 μ
922	C578	5361-103ZF	CAP, CER .01 μ
RESISTORS			
074A	R91	5135-102522	RES, CBN 1/2P 1K G GB
074A	R92	5135-102522	RES, CBN 1/2P 1K G GB
919	R929	5135-331522	RES, CBN 1/2P 330 IB
919A	R929	5135-102522	RES, CBN 1/2P 1K G GB
921	R930	5135-331522	RES, CBN 1/2P 330 IB
921A	R930	5135-102522	RES, CBN 1/2P 1K G GB
MISCELLANEOUS			

Ser. No.	Ref. No.	Part No.	Description
760	CN507	4443-030185	CONNECTOR
661	PJ2	4489-00202004	PIN JACK, MLT, PRE-OUT/MAIN-IN
907	SW508	4421-02601042	SWITCH, SLIDE, INTEGRATED/SEPARATE

PCB-15 TERMINAL L P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
RESISTORS			
553	R747	5135-561522	RES, CBN 1/2P 560
554	R749	5135-122522	RES, CBN 1/2P 1.2K
TRANSISTOR			
557	Q455	5613-3423(Y)	XISTOR, NPN R

PCB-16 TERMINAL R P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
RESISTORS			
615	R748	5135-561522	RES, CBN 1/2P 560
616	R750	5135-122522	RES, CBN 1/2P 1.2K
TRANSISTOR			
618	Q456	5613-3423(Y)	XISTOR, NPN R

PCB-17 POWER LED P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
CAPACITOR			
890	C911	5345-S19CM106	CAP, MINI ELE 10 μ /16V
RESISTOR			
889	R915	5135-221522	RES, CBN 1/2P 220
DIODES			
918	D911	5637-LT3E47L	LED, POWER
909	D912	5637-GL3PR47	LED, PROTECTOR
MISCELLANEOUS			
797	CW510	4163-S0203101	CONNECTOR W/W

PCB-18 VOLTAGE SELECTOR P.C. BOARD

Ser. No.	Ref. No.	Part No.	Description
MISCELLANEOUS			
668	△HF1	4472-0131	HOLDER, FUSE F1
668	△HF2	4472-0131	HOLDER, FUSE F1
053A	△SW1	4411-00501102	SWITCH, ROTARY, VOLTAGE SELECTOR
915	TM21	4214-122	TERMINAL
915	TM22	4214-122	TERMINAL
915	TM23	4214-122	TERMINAL

CHASSIS MISCELLANEOUS

Ser. No.	Ref. No.	Part No.	Description
CAPACITORS			
624	C7	5352-2741957	CAP, MTL .27 μ
624	C8	5352-2741957	CAP, MTL .27 μ
MISCELLANEOUS			
054C	△CO1	4443-712	CONNECTOR
667A	△F1	5732-312030	FUSE, T3.15A/250V
654A	△P1	4161-71150	CORD W/PLUG
674A	△T1	5584-T0902	XFORMER, POWER
663		4442-14	PIN PLUG (X2)
053C	△	4150-8	TUBING, SPE
034A	LUG	4211-4	LUG, W-108 G GB
034A	LUG	4211-4	LUG, W-107 G GB
077A	LUG	4211-4	LUG, C97 G GB

PACKAGE PARTS LIST

Ser. No.	Ref. No.	Part No.	Description
021		1756-06304	LABEL 230V/50Hz
022		1756-03108	LABEL (I), IB
022		1756-03124	LABEL (G), G GB
107		1111-0320J152	OWNER GUIDE, OG
113		1241-R0123351	POLYETHY BAG, OG
122		1241-R0165751	POLYETHY BAG, SET
123		1222-7392	CUSHION, CARTON REAR SPACER (x 2)
125		1221-777198	CARTON BOX G
125		1221-31502	CARTON BOX GB IB
126		1222-7357	CUSHION, L
127		1222-7358	CUSHION, R
128		1223-11747	SOFT SHEET, SET
129		1223-11115	SOFT SHEET, AC CORD

Ser. No. Ref. No. Part No. Description

ABBREVIATIONS IN PARTS LIST

CAPACITORS

CAP, MINI ELE : Electrolytic
CAP, CER : Ceramic
CAP, PPP : Polypropylene
CAP, MYL : Mylar
CAP, MCA : Mica
CAP, MINI BP : Bipolar
CAP, ELE BP : Electrolytic Bipolar
CAP, STY : Polystyrene Film
CAP, SPE : Special
CAP, TAN : Tantalum
470 μ : 470 μ F
6800p : 6800pF
.047 μ : 0.047 μ F

RESISTORS

RES, CBN 1/6P : Carbon 1/6W
RES, FUSE : Fuse
RES, CEM 5P : Cement 5W
RES, MTL 1P : Metal 1W
2.2K : 2.2k Ω
220 : 220 Ω

TRANSISTORS

XISTOR : Transistor
FET : Field Effect Transistor

CONTROLS

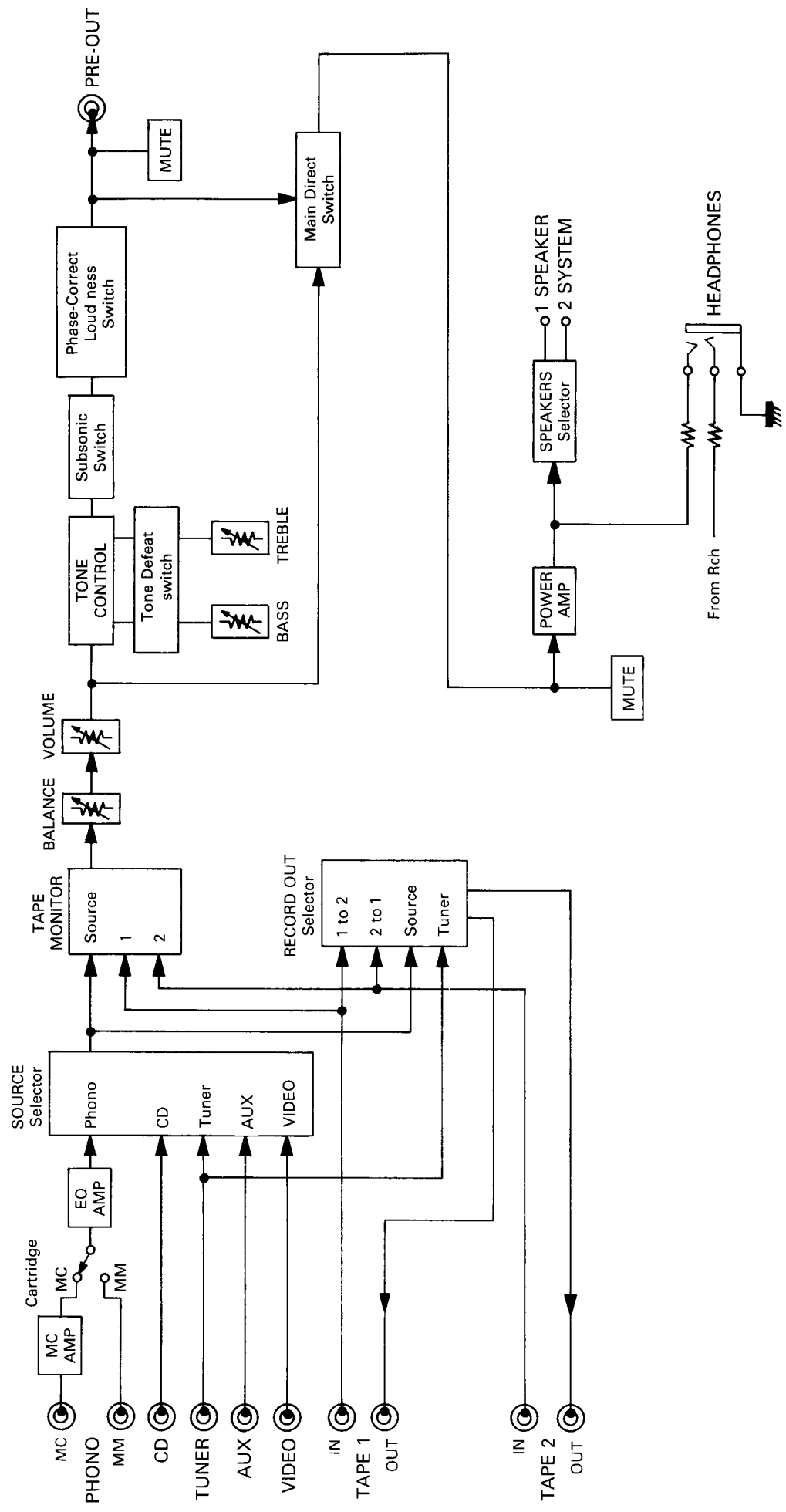
RES, V CBN : Variable Carbon Resistor
RES, SEMI FIX : Semi-fixed Resistor

NOTE



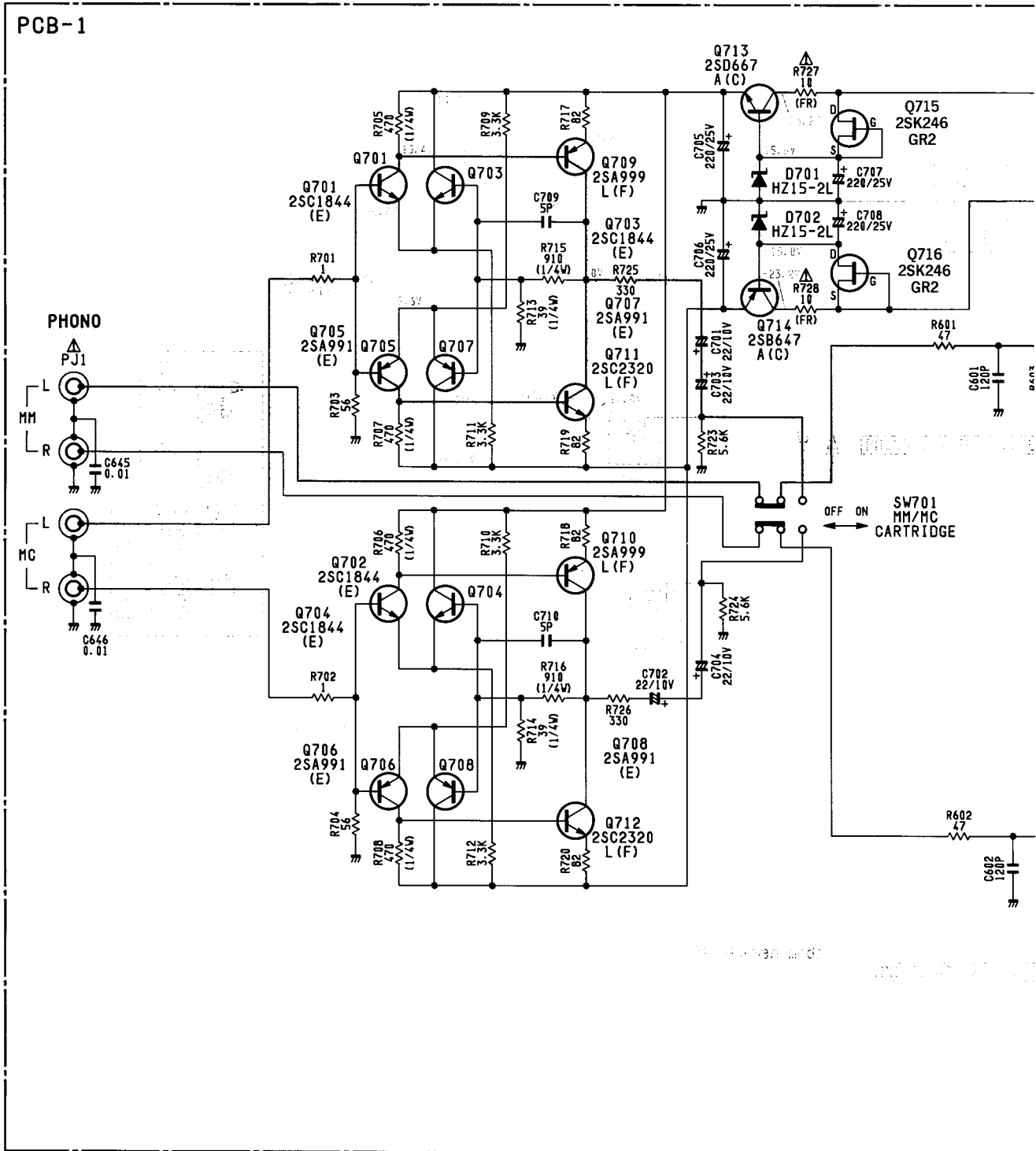
SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.

BLOCK DIAGRAM



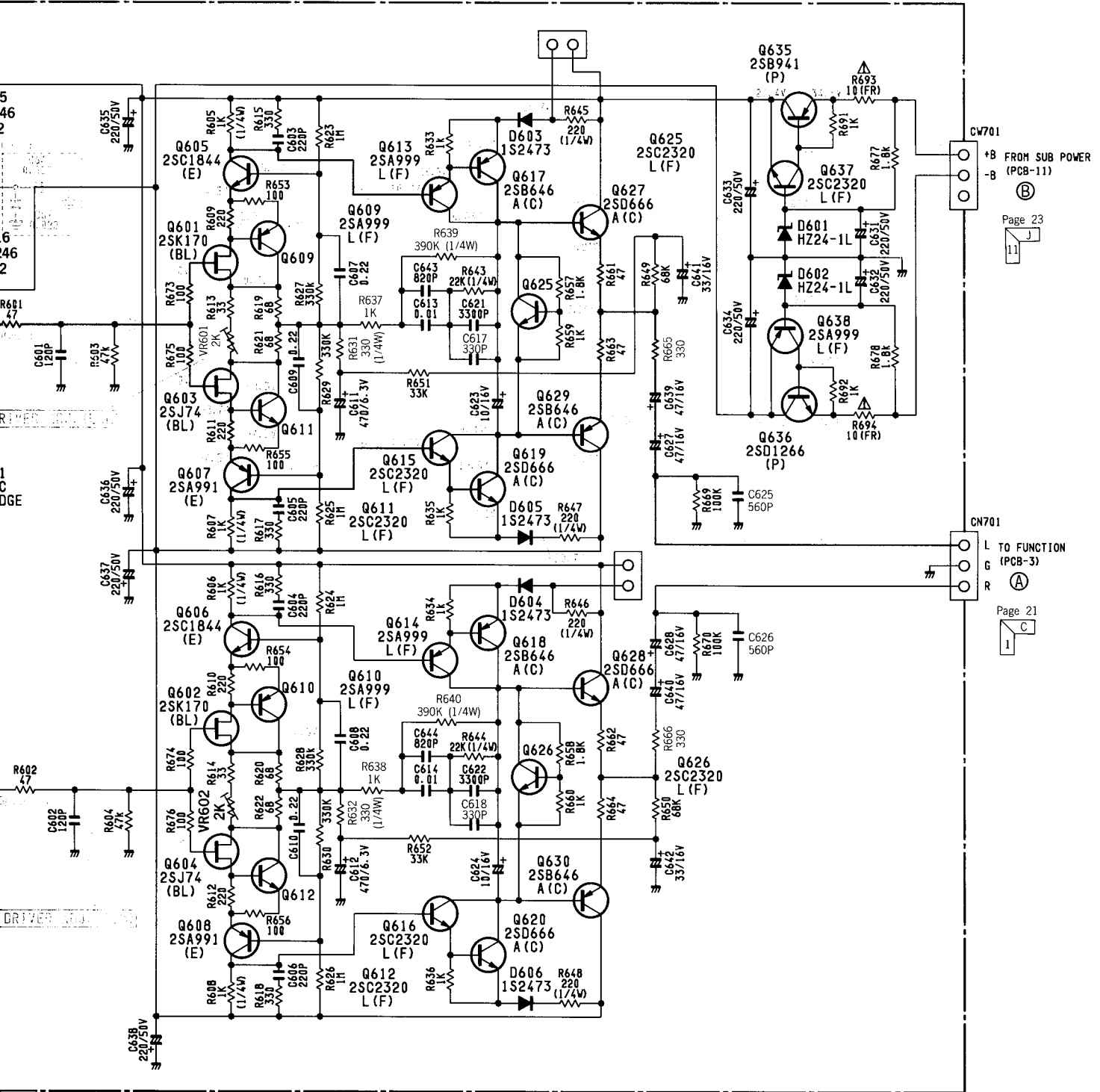
A B C D E
SCHEMATIC DIAGRAM (PHONO AMP SECTION)

1
2
3
4
5
6
7



NOTE:

1. ALL RESISTANCES VALUES ARE IN Ω .
K Ω =1000 Ω , M Ω =1000K Ω .
2. THE WATTAGE OF RESISTORS IS 1/2W UNLESS OTHERWISE NOTED.
3. ALL CAPACITANCES VALUES ARE IN μ F UNLESS OTHERWISE NOTED. P=# μ F.
4. ... V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
5. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.

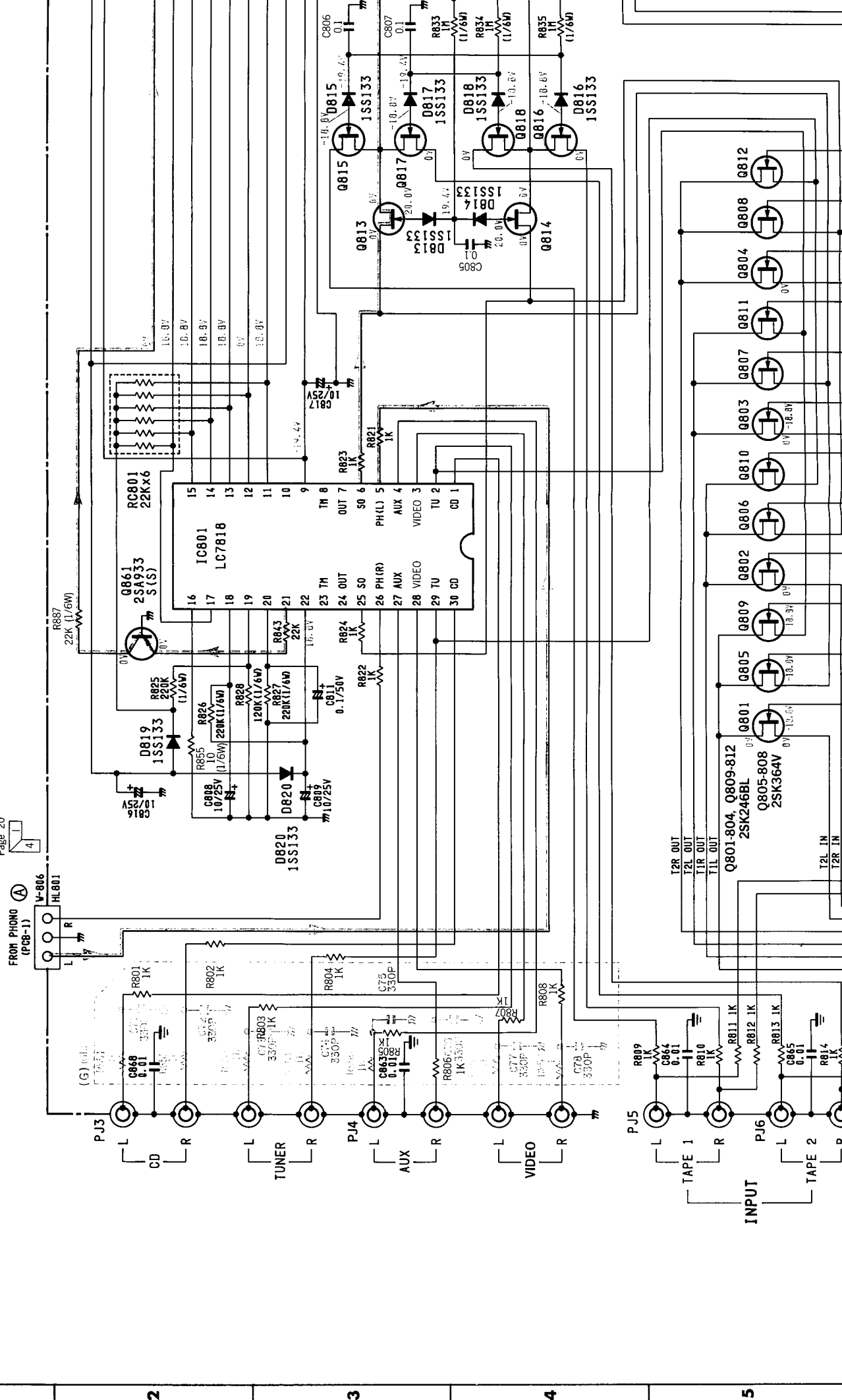


Page 23
J
11

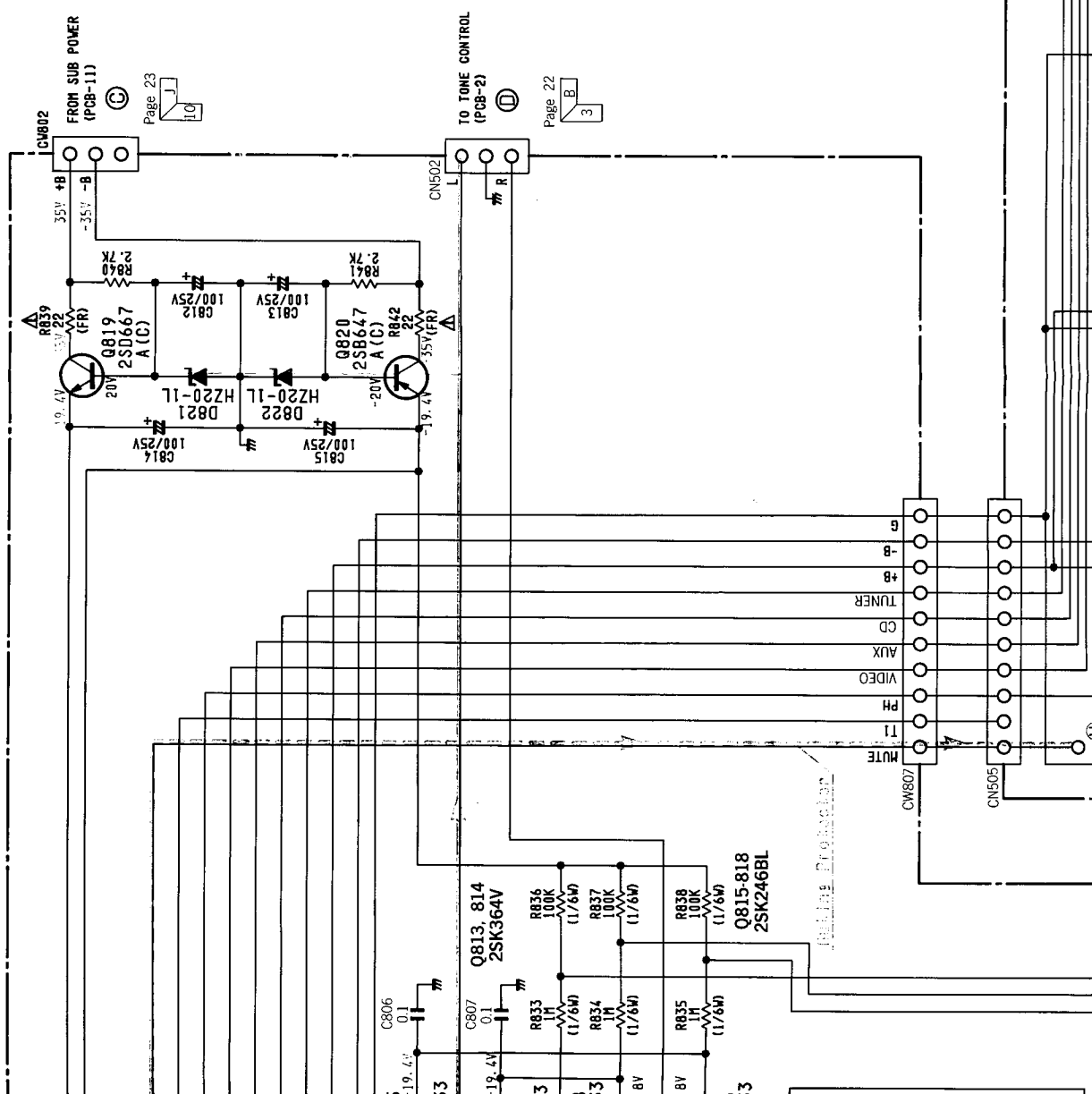
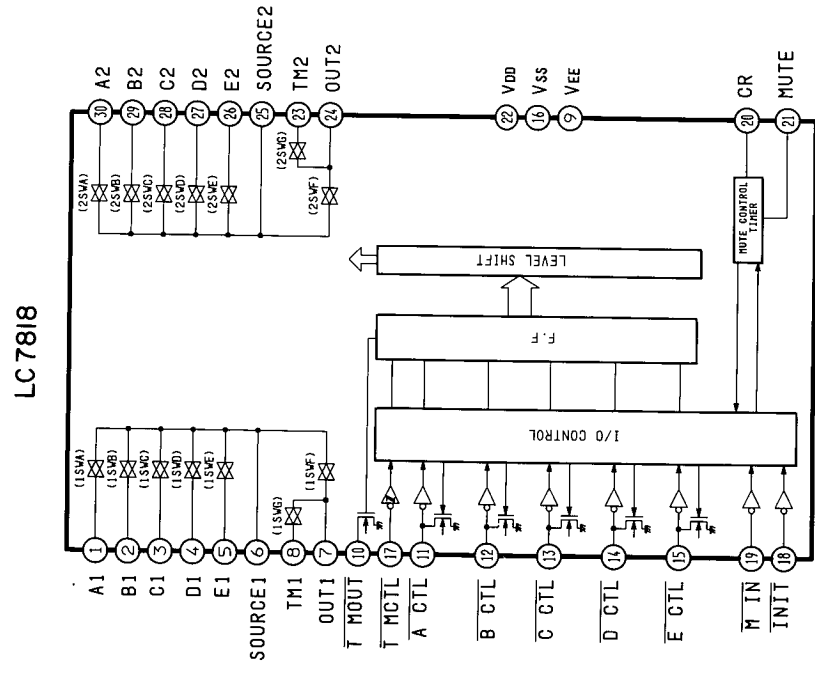
Page 21
C
1

SCHEMATIC DIAGRAM (FUNCTION & VIDEO SECTION)

Page 20



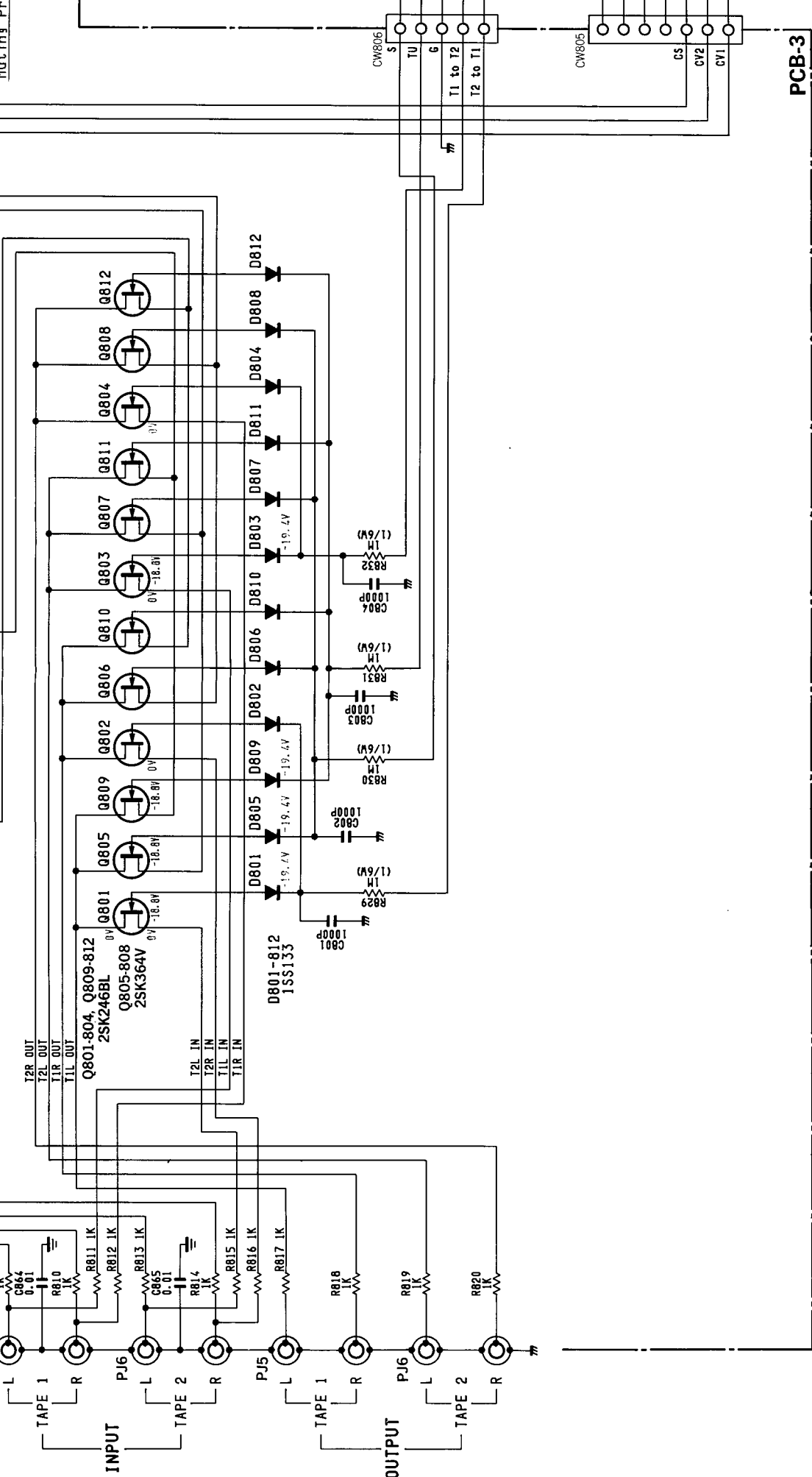
N M L K J I H

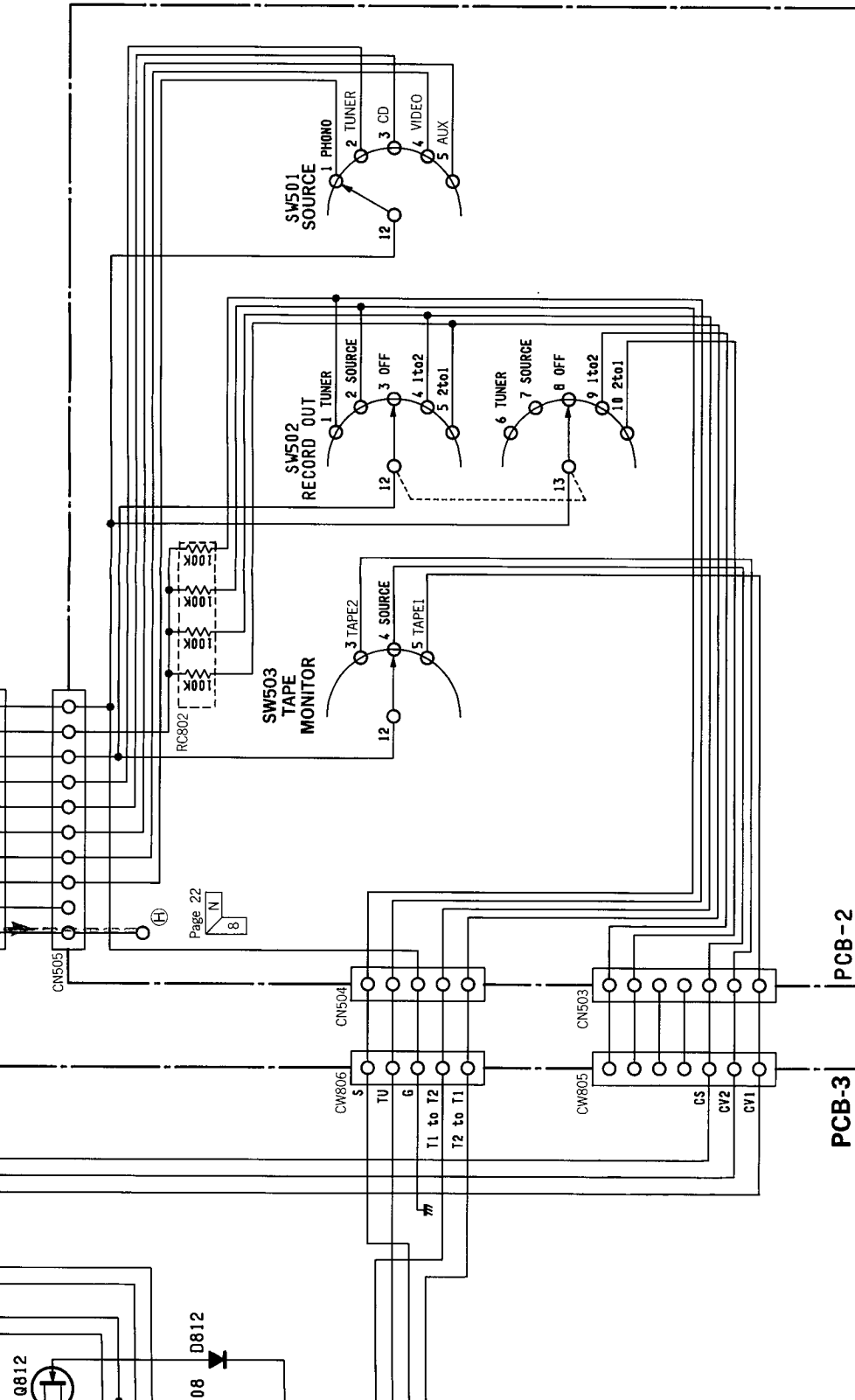


Page 23

Page 22

Building Products





NOTE:

1. ALL RESISTANCES VALUES ARE IN Ω .
K Ω =1000 Ω , M Ω =1000K Ω .
2. THE WATTAGE OF RESISTORS IS 1/2W UNLESS OTHERWISE NOTED.
3. ALL CAPACITANCES VALUES ARE IN μ F UNLESS OTHERWISE NOTED. P=# μ F.
4. ... V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
5. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS, THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.



SCHEMATIC DIAGRAM (POWER AMP SECTION)

MAIN OFFSET
DC BALANCE
ADJ. (100)

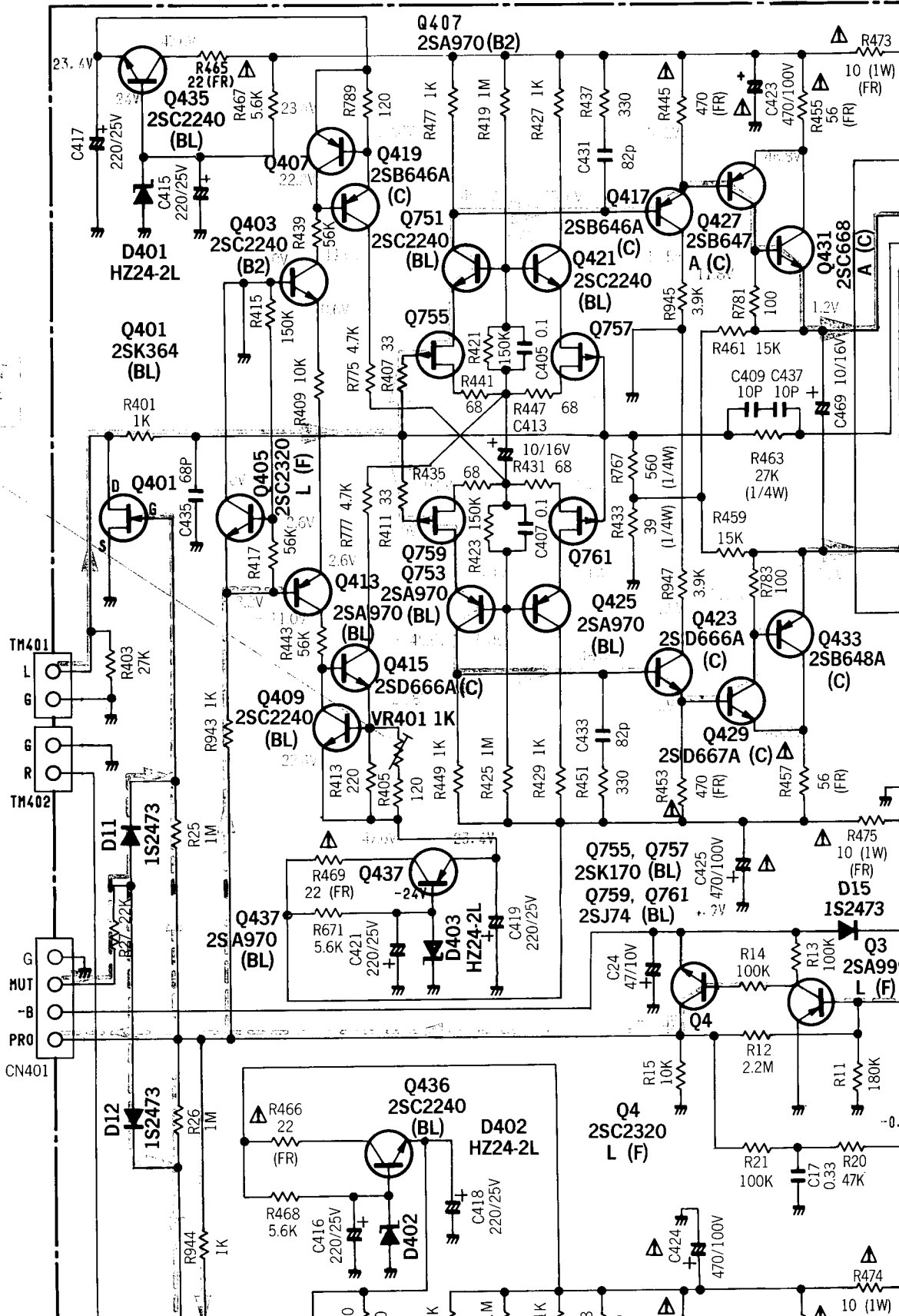
FROM PRE/MAIN
SEPARATION
(PCB-14)

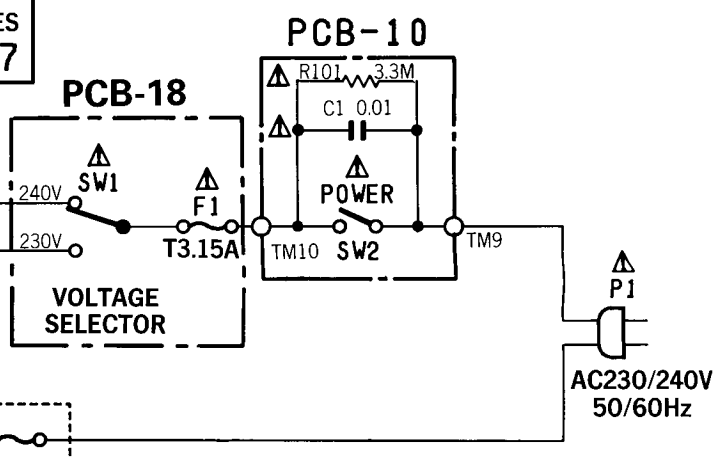
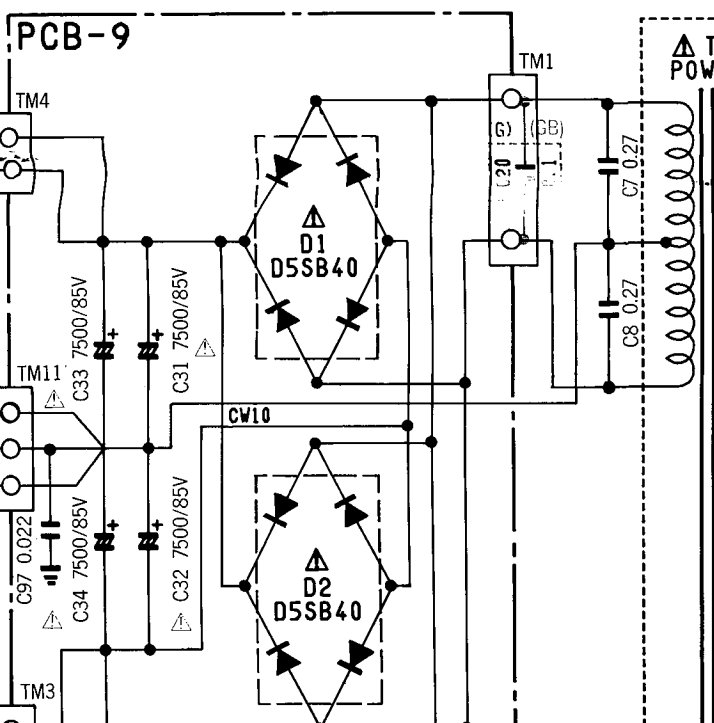
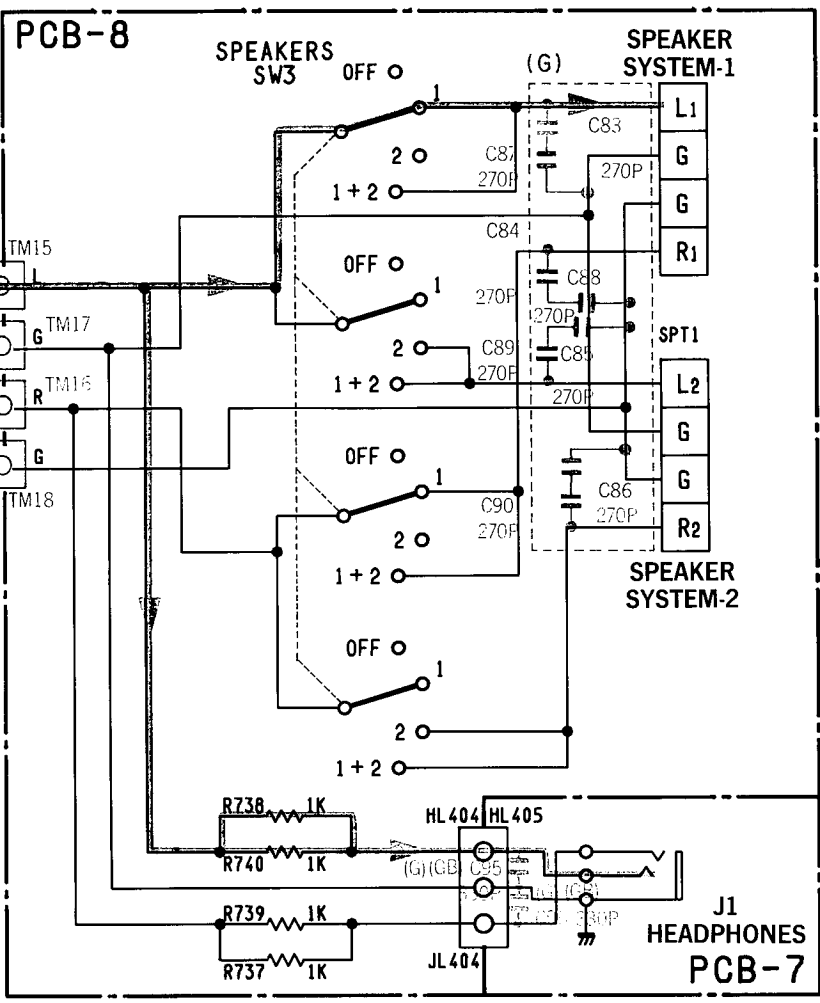
Page 22



TO TONE
CONTROL
(PCB-2)

Page 22



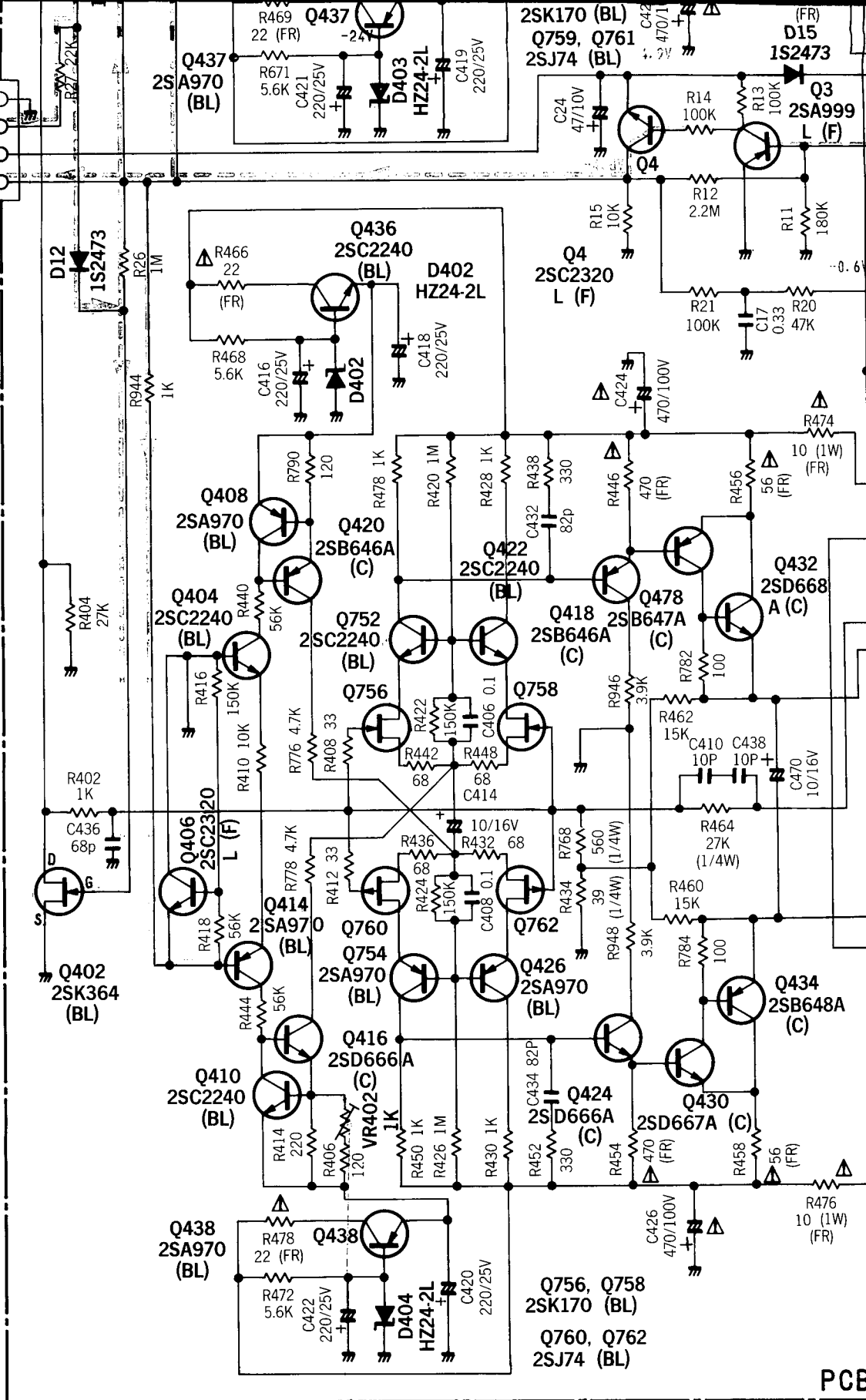


TO TONE CONTROL (PCB-2)

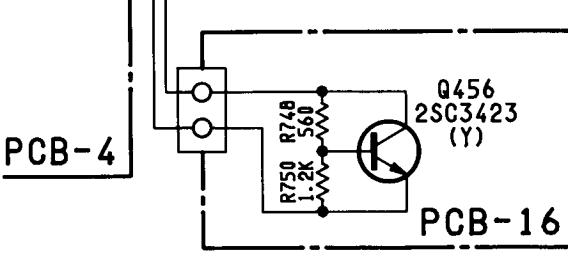
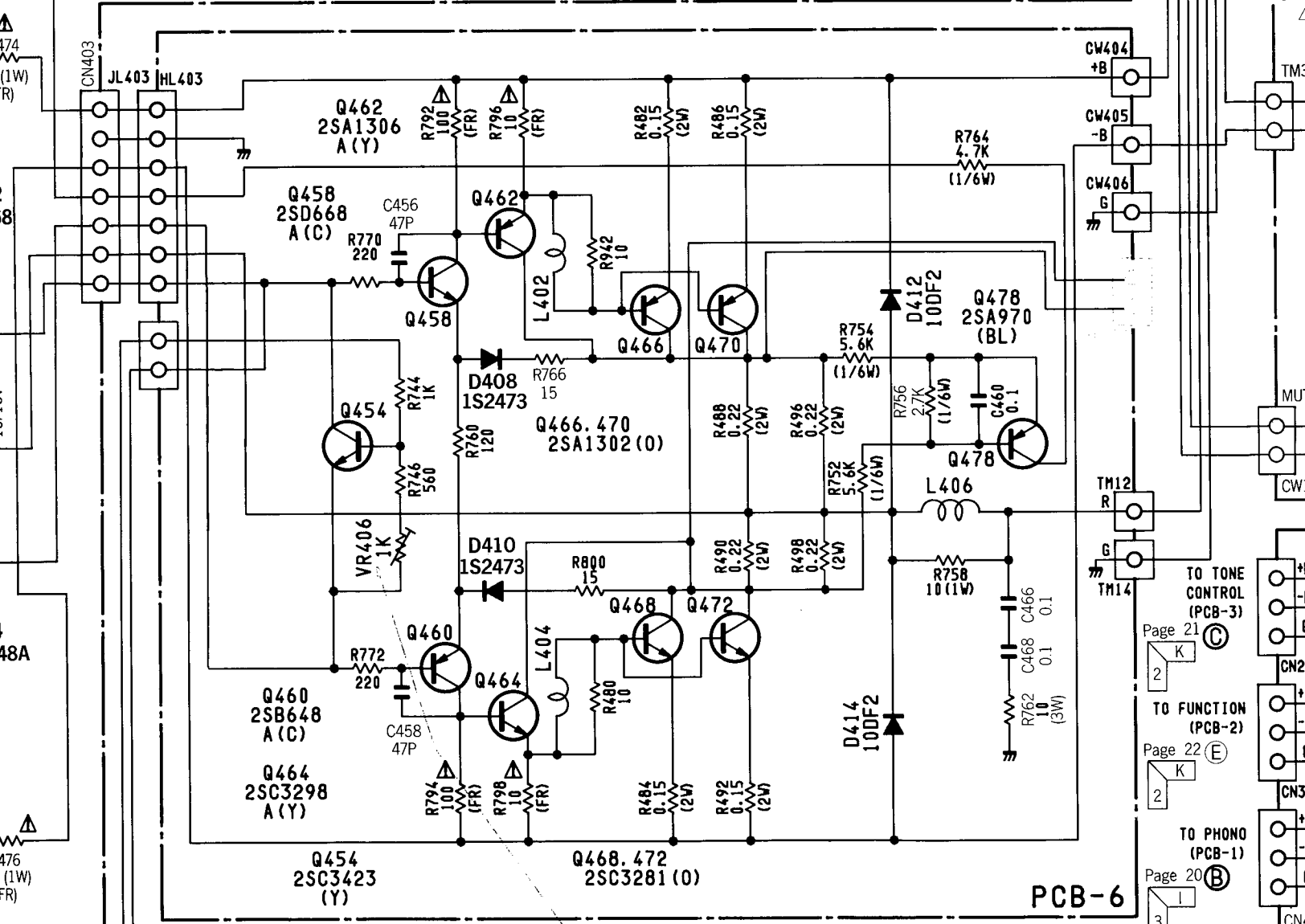
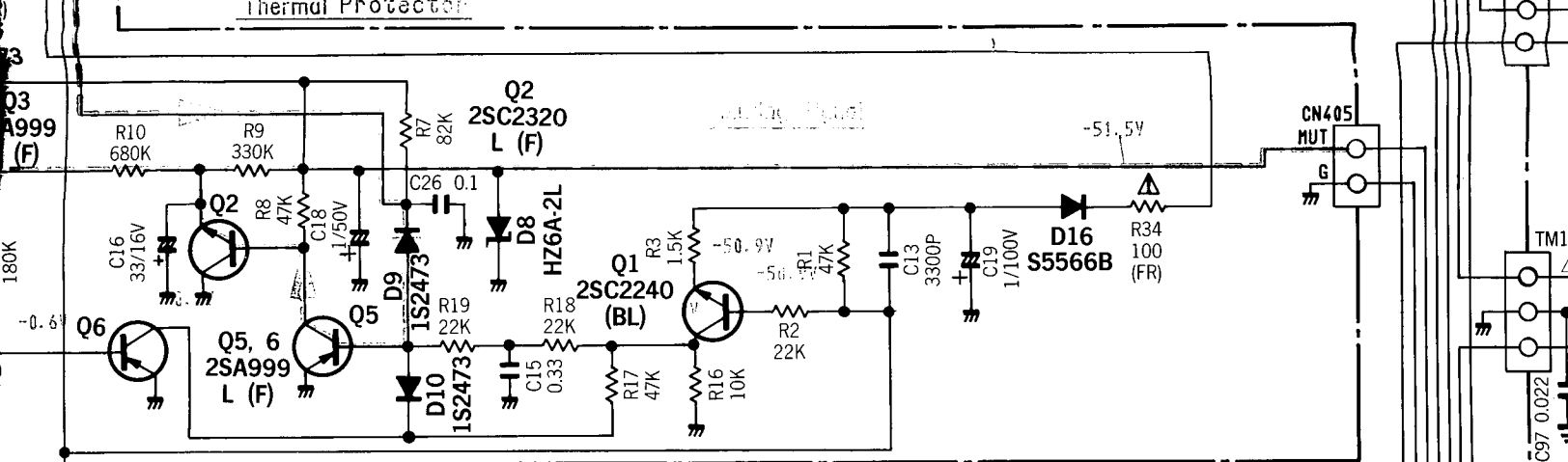
Page 22

9 M

CN401



PCB



ICLING CURRENT (1/100)

continued on p. 10
100% component & pack tested
Guaranteed to be 100% functional

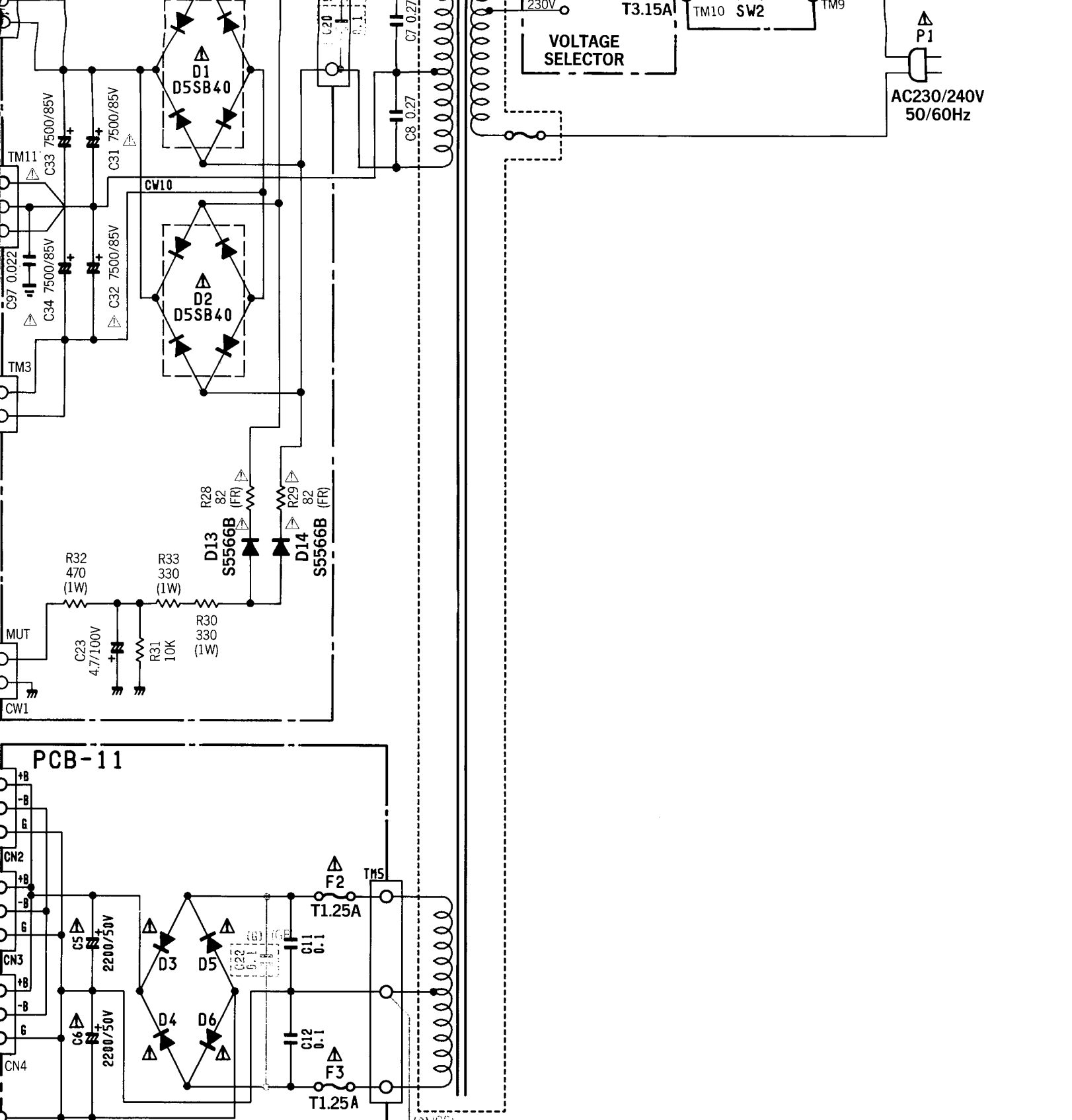
Page 21 (C)

Page 22 (E)

Page 20 (B)

Page 22 (3)

TO PCB-2



NOTE:

1. ALL RESISTANCES VALUES ARE IN Ω .
 $K\Omega=1000\Omega$, $M\Omega=1000K\Omega$.
2. THE WATTAGE OF RESISTORS IS 1/2W UNLESS OTHERWISE NOTED.
3. ALL CAPACITANCES VALUES ARE IN μF UNLESS OTHERWISE NOTED. $P=\mu\mu F$
4. ...V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
5. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS, THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.

A B C D E

WIRING DIAGRAM

1

2

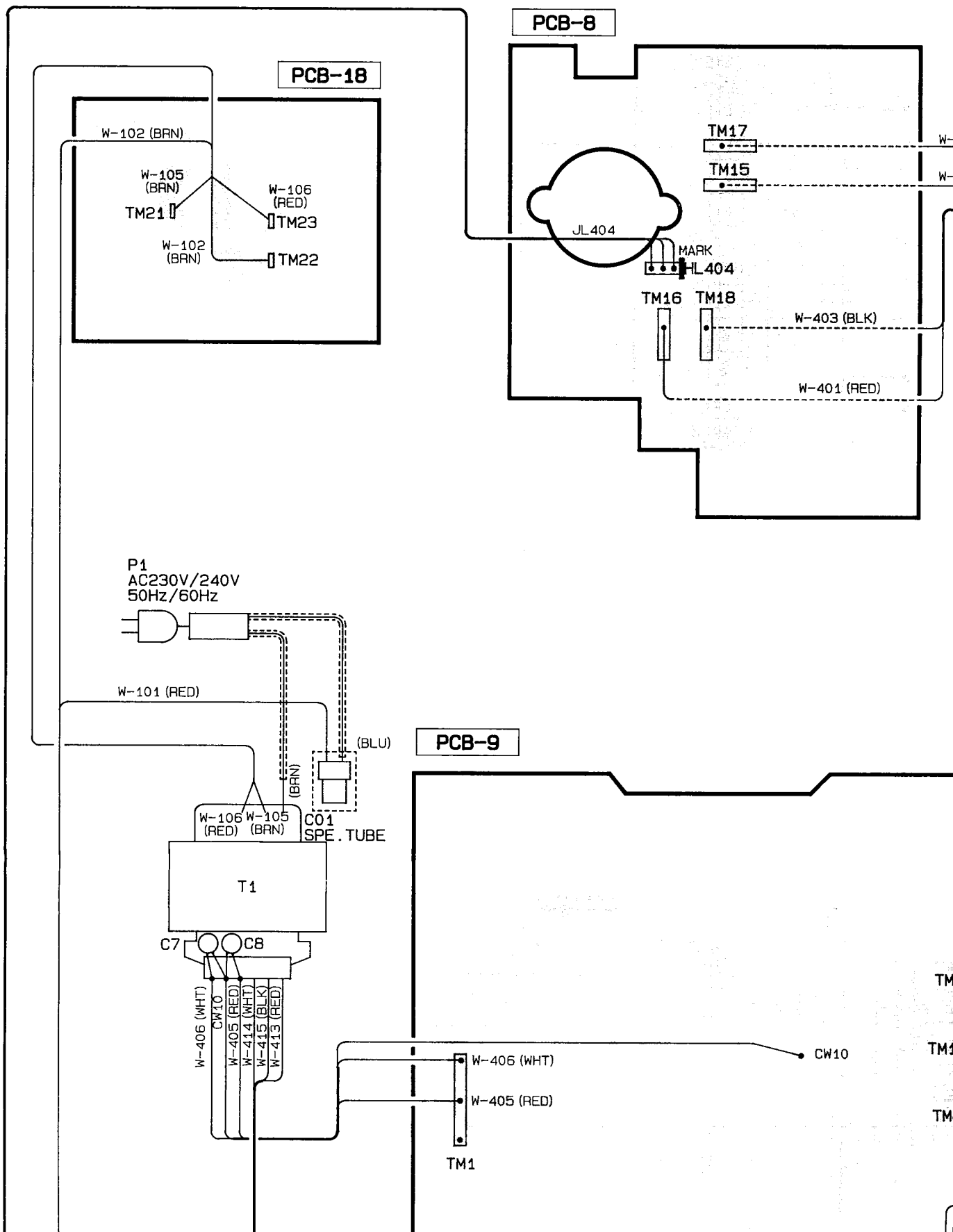
3

4

5

6

7



TM2
TM1
TM4

F

G

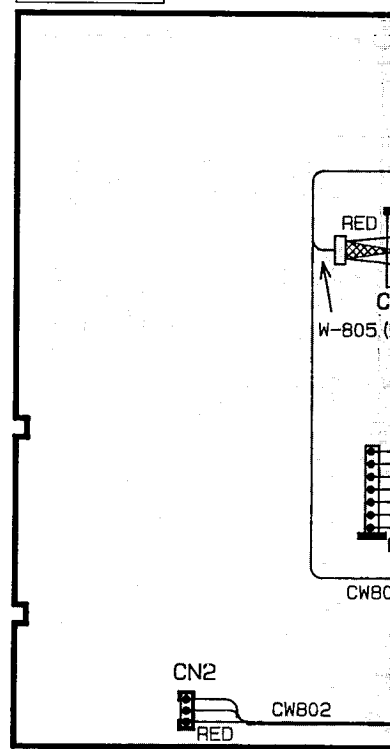
H

I

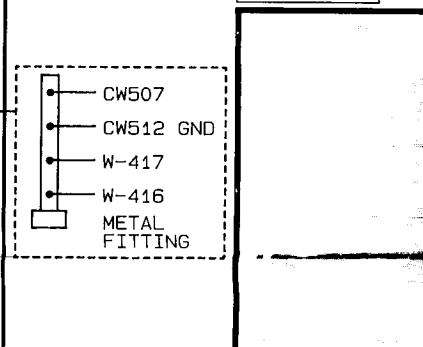
J

K

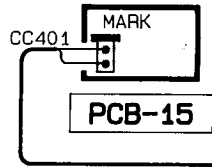
PCB-3



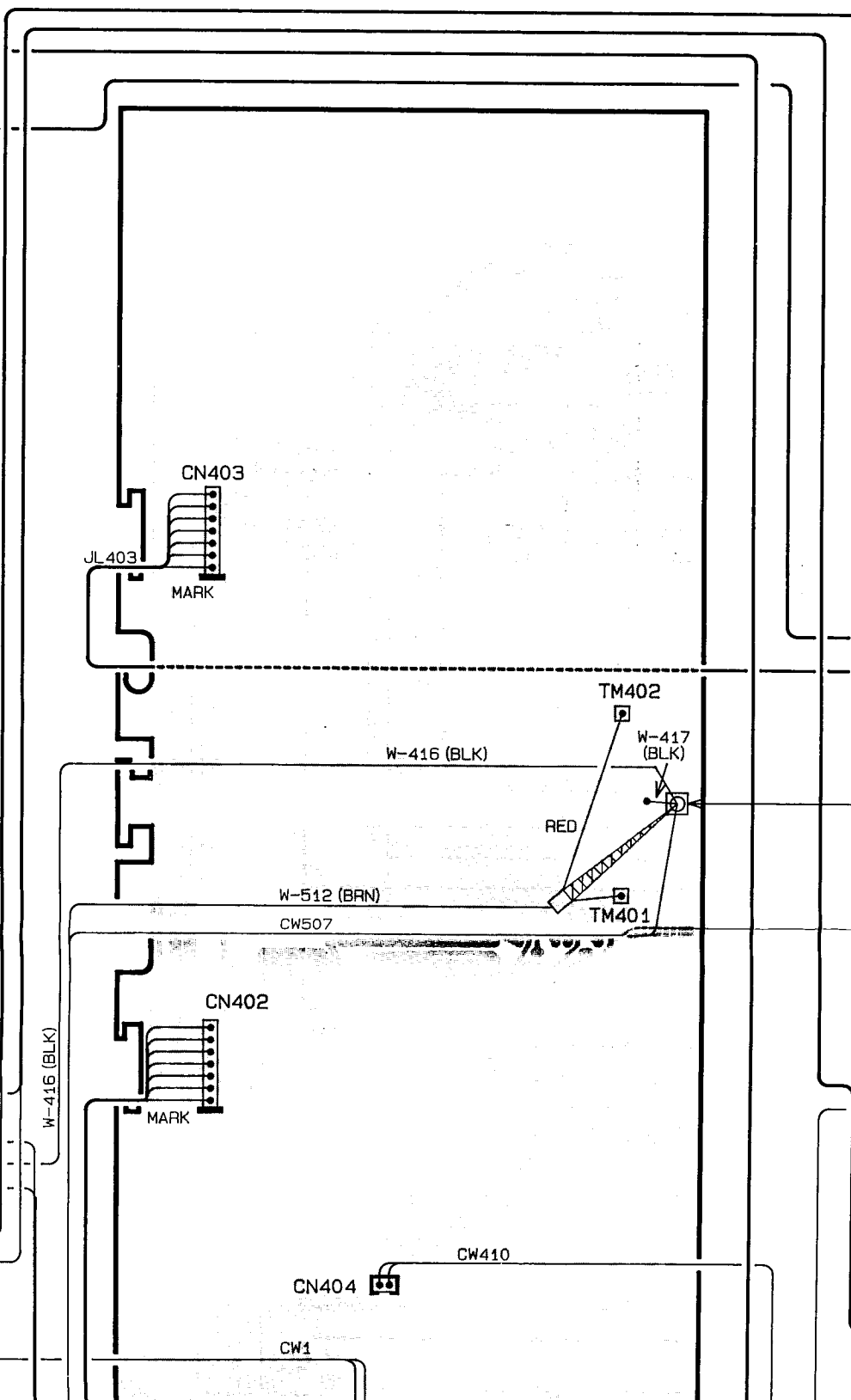
PCB-6



PCB-15



PCB-5

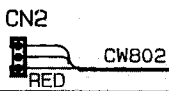
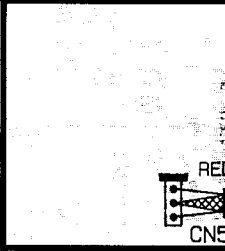
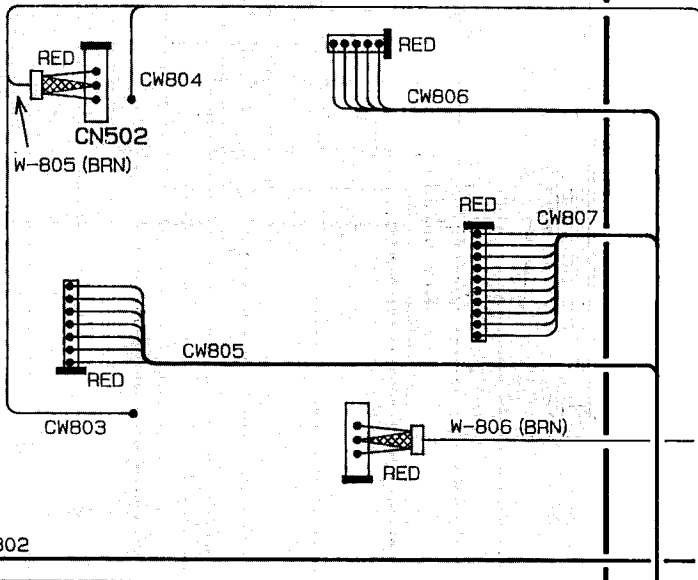


W-404 (BLK)
W-402 (WHT)

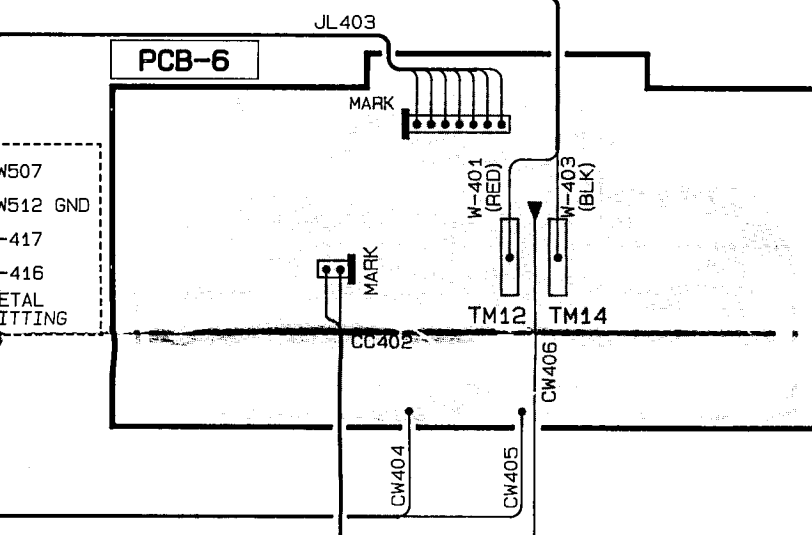
CW405
CW402
CW403
CW406
CW404
CW401
TM3
TM11
TM4
CW1

3-3

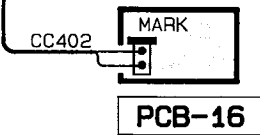
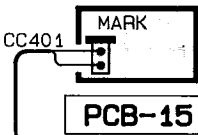
PCB-14



CW802



W507
W512 GND
-417
-416
METAL
FITTING

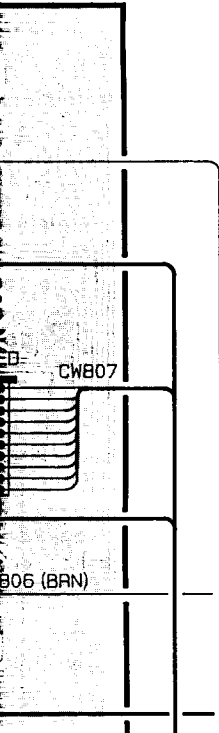
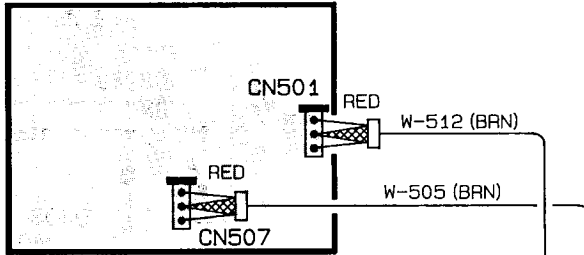


PCB-5

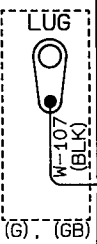


W-806 (BROWN)

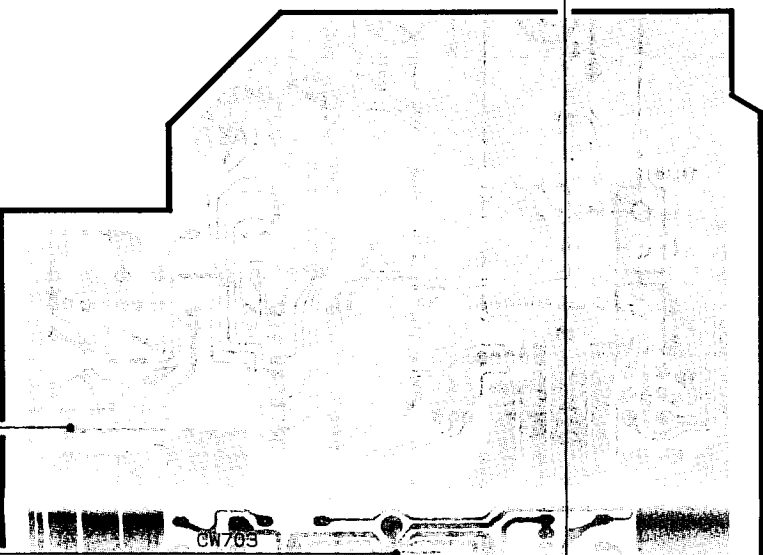
PCB-14



CW802



(6), (6B)



CW705

W-806 (BROWN)

6

7

8

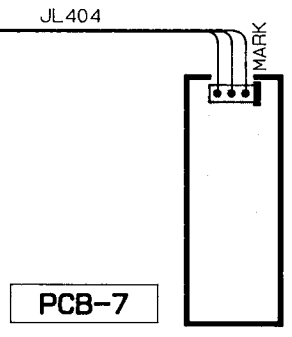
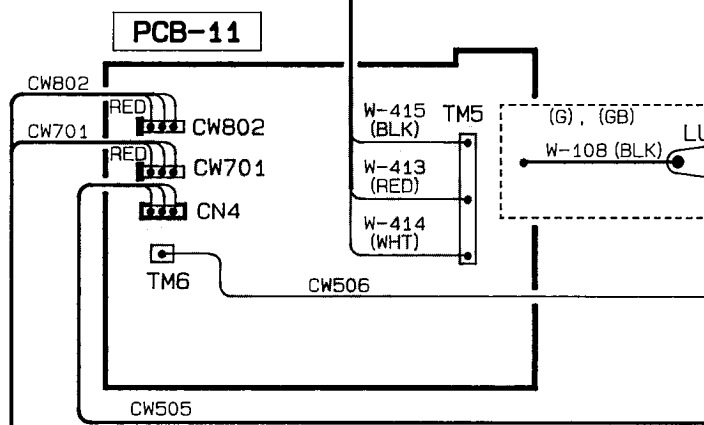
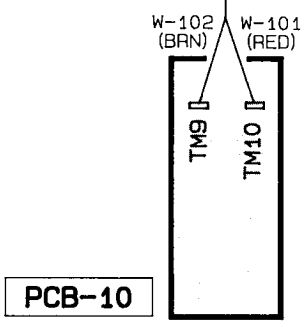
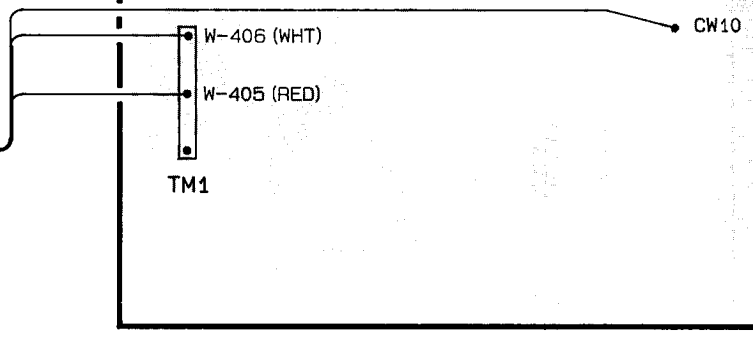
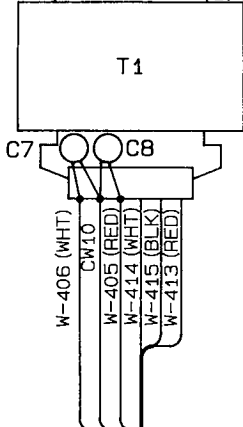
9

10

11

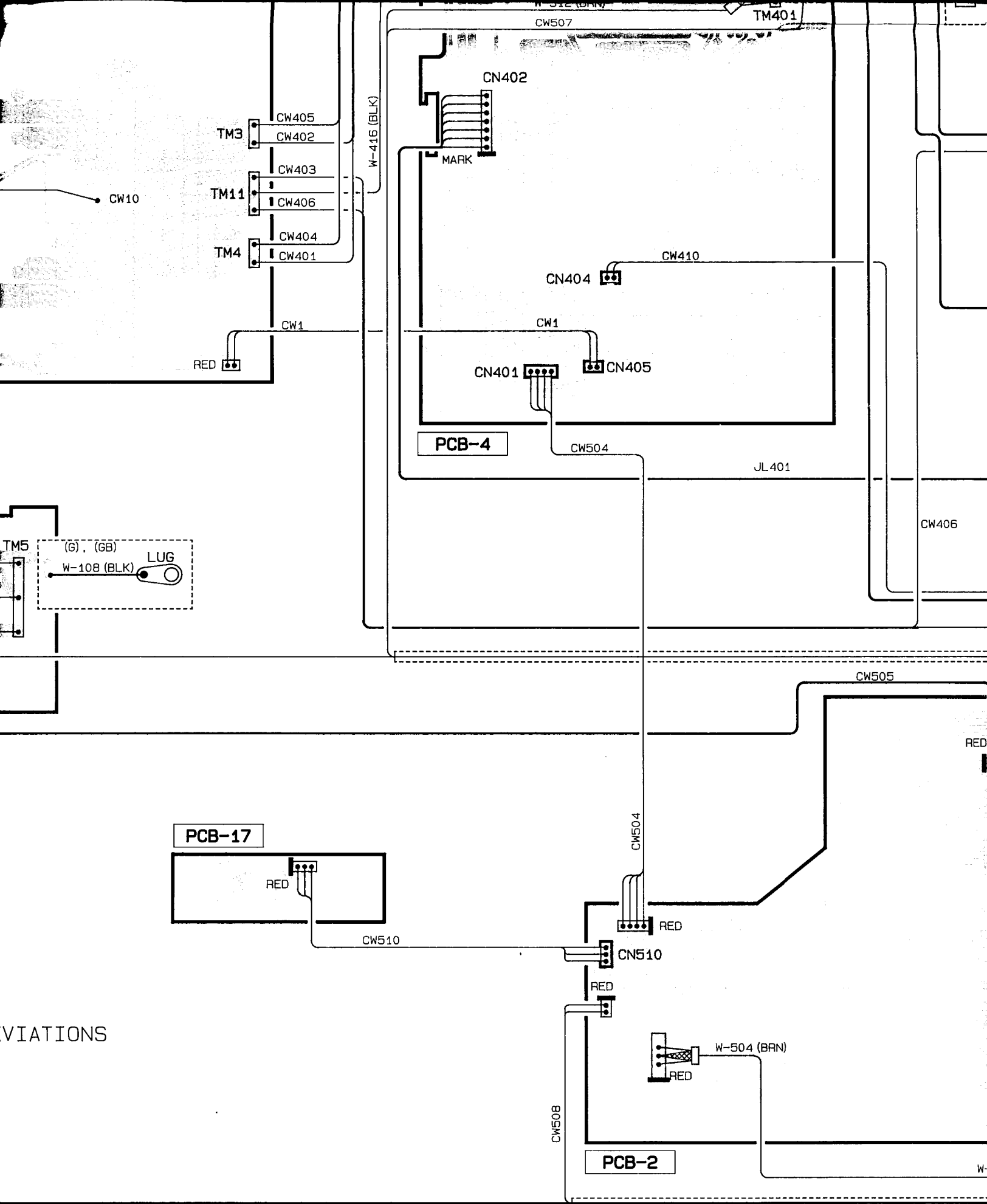
12

(RED) (BRN) SPE. TUBE

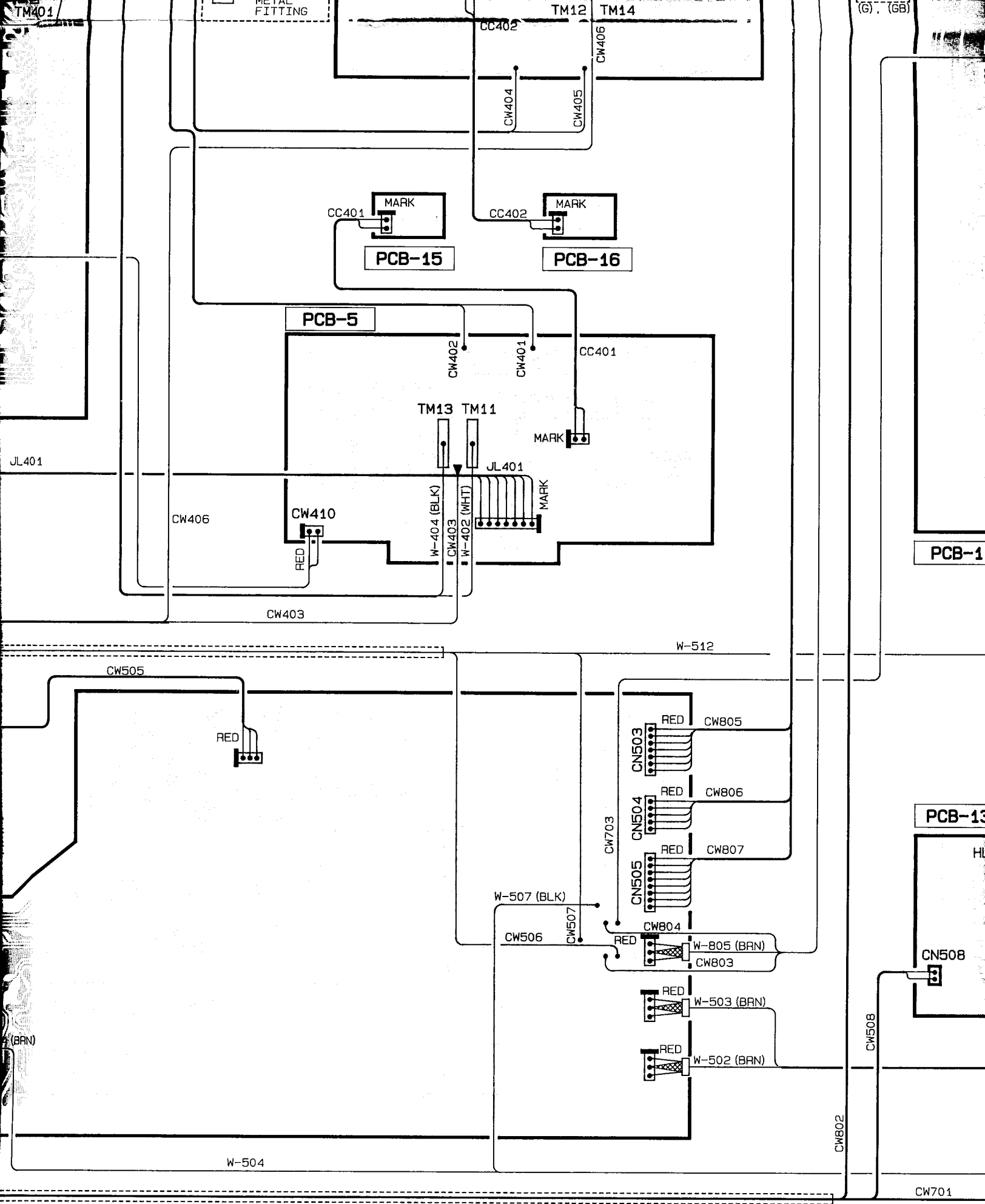


WIRE COLOR ABBREVIATIONS

- RED : RED
- BLU : BLUE
- WHT : WHITE
- BLK : BLACK
- BRN : BROWN



VIATIONS



(6) (6B)

PCB-1

PCB-13

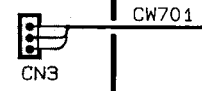
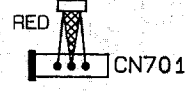
CN508

CW701

(G), (GB)

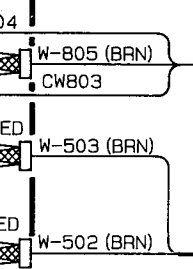
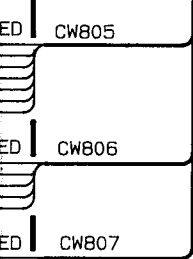
CW703

W-806 (BROWN)



PCB-1

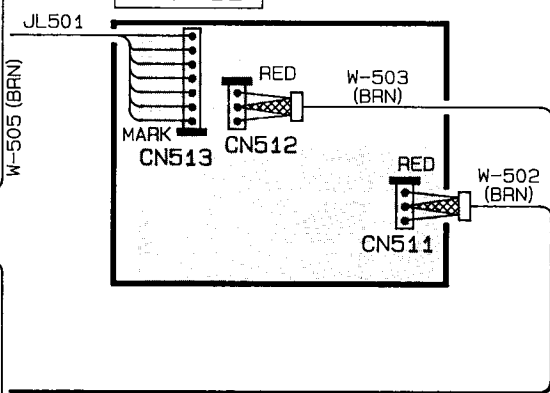
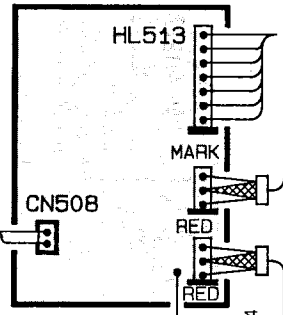
W-512



W-505 (BRN)

PCB-13

PCB-12



CW602

CW508

W-507 (BLK)

CW701