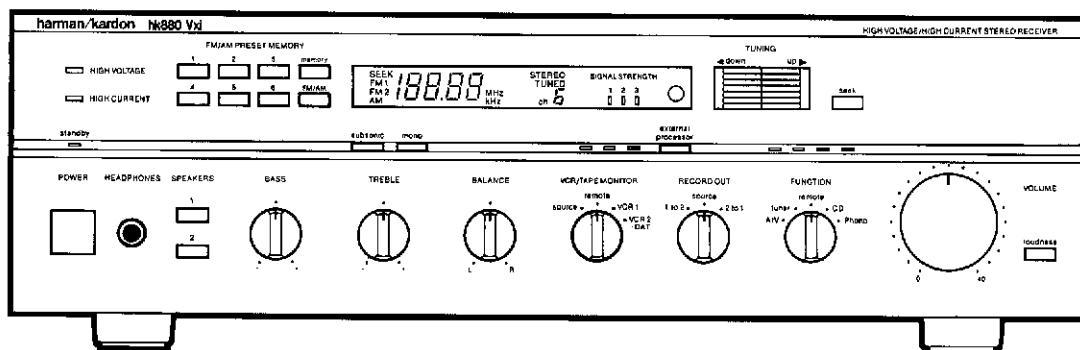


# The Harman Kardon Model hk880Vxi

Manual 134A

## HIGH VOLTAGE/HIGH CURRENT STEREO RECEIVER

# Technical Manual



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

- UA : North America area model
- BK : North America area model Black version
- G : General model
- GB : General model Black version
- BB : Australia model Black version

**harman/kardon**

240 Crossways Park West, Woodbury, N.Y. 11797  
1112-3152134A8 P-078803 1500 Printed in Japan

hk880Vxi

## SPECIFICATIONS

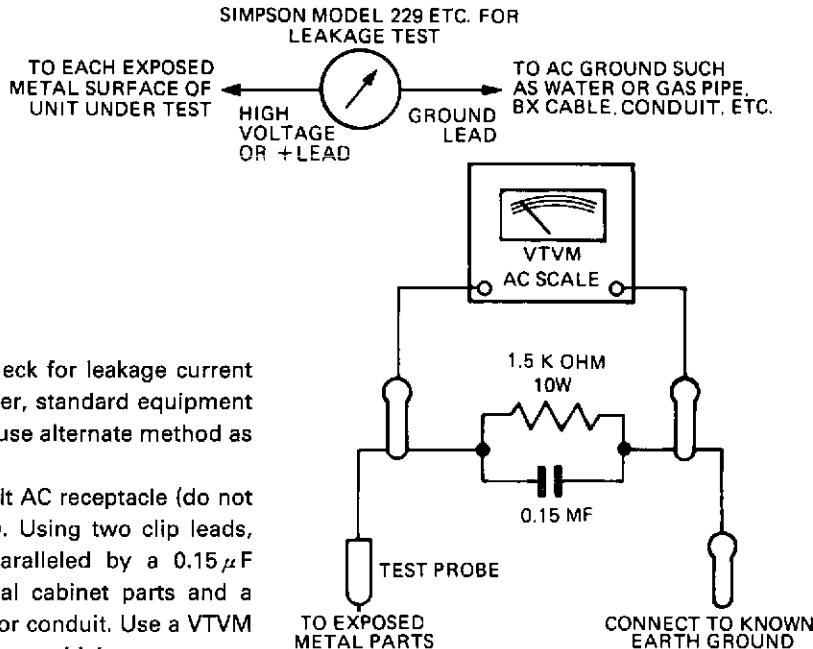
● FM SECTION	Nominal	Limit	Nominal	Limit
Tuning Range	87.5 ~ 108.0MHz		IM Distortion Ratio	0.06% ≤ 0.015%
50dB Quieting Sensitivity			RMS Output Power	
Mono	15.2dBf ≤ 19dBf		8Ω, 1kHz, THD 0.1%	77.6W ≥ 60W
Stereo	37dBf ≤ 41dBf		4Ω, 1kHz, THD 0.3%	123.2W ≥ 60W
Usable Sensitivity	10.7dBf ≤ 15dBf		Damping Factor at 1kHz	58 ≥ 50
Image Ratio	75dB ≥ 60dB		Tone Control Characteristics	
IF Rejection	100dB ≥ 85dB		Bass at 50Hz	
Spurious Response Rejection	100dB ≥ 85dB		Boost	10dB ± 2dB
Capture Ratio	1.5dB ≤ 2.5dB		Cut	-10dB ± 2dB
Alternate Channel Selectivity	70dB ≥ 60dB		Treble at 10kHz	
AM Rejection	54.5dB ≥ 45dB		Boost	10dB ± 2dB
Signal to Noise Ratio			Cut	-10dB ± 2dB
Mono	80dB ≥ 74dB		Loudness Control	
Stereo	73.5dB ≥ 70dB		at 10kHz	3dB ± 1dB
Total Harmonic Distortion (65dBf 1kHz Input)			at 50Hz	10dB ± 2dB
Mono	0.08% ≤ 0.3%		Subsonic Control	
Stereo	0.08% ≤ 0.3%		at 15Hz	-3.5dB ± 1.5dB
Stereo Separation at 1kHz	53dB ≥ 45dB		DC Output Voltage	
● AM SECTION			L channel	8mV ± 60mV
Tuning Range			R channel	5mV ± 60mV
North America area model	520 ~ 1,620kHz		RIAA Equalization at Tape Out (20Hz/20kHz)	
General and Australia models	531 ~ 1,602kHz		0.07dB ± 0.5dB/0.28dB ± 0.5dB	
Usable Sensitivity	16 μVm ≤ 40 μVm		● DIMENSIONS (W x H x D) 17-3/8" x 5-1/4" x 14-1/2"	
Selectivity	32dB ≥ 25dB		(443 x 134 x 368 mm)	
Signal to Noise Ratio	53dB ≥ 48dB		● WEIGHT 22 lbs. (10 kg)	
Image Rejection	40dB ≥ 32dB		● POWER SUPPLY	
IF Rejection	62dB ≥ 50dB		North America area model AC120V, 60Hz	
● AUDIO SECTION			General and Australia models AC220/240V, 50/60Hz	
Usable Sensitivity			● POWER CONSUMPTION	
Video/CD	135mV ± 25mV		North America area model 280W (340VA)	
Phono	2.2mV ± 0.2mV		General and Australia models 210W	
Signal to Noise Ratio			These specifications are Service target specs.	
Video/CD	81dB ≥ 75dB		Specifications and components subject to change without notice.	
Phono	79.5dB ≥ 73dB		Overall performance will be maintained or improved.	
Channel Separation at 10kHz				
Video/CD	52.5dB ≥ 45dB			
Phono	56dB ≥ 45dB			

## LEAKAGE TEST (FOR SERVICE ENGINEERS IN THE U.S.A.)

Before returning the unit to the user, perform the following safety checks:

1. Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the unit.
2. Replace all protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacitor networks, mechanical insulators, etc.
3. Be sure that no shock hazard exists; check for leakage current using Simpson Model 229 Leakage Tester, standard equipment item No. 21641, RCA Model WT540A or use alternate method as follows:

Plug the AC line cord directly into a 120-volt AC receptacle (do not use an Isolation Transformer for this test). Using two clip leads, connect a 1500 ohm, 10-watt resistor paralleled by a 0.15 μF capacitor, in series with all exposed metal cabinet parts and a known earth ground, such as a water pipe or conduit. Use a VTVM or VOM with 1000 ohms per volt, or higher sensitivity to measure the AC voltage drop across the resistor. (See Diagram.) Move the resistor connection to each exposed metal part having a return path to the chassis (antenna, metal, cabinet, screw heads, knobs and control shafts, escutcheon, etc.) and measure the AC voltage drop across the resistor. (This test should be performed with the power switch in both the On and Off positions.) A reading of 0.35 volt RMS or more is excessive and indicates a potential shock hazard which must be corrected before returning the unit to the owner.



## DISASSEMBLY PROCEDURES (REFER TO PAGES 8, 9, 10, 11, 22 AND 23)

### **[1] CABINET TOP (131) REMOVAL**

Remove 6 screws (A) and then remove the Cabinet Top (131).

### **[2] CABINET BOTTOM (135) REMOVAL**

Remove 6 screws (B) and then remove the Cabinet Bottom (135).

### **[3] FRONT PANEL ASSEMBLY (AA) REMOVAL**

1. Remove the Cabinet Top (131), referring to the previous step **[1]**.
2. Remove 6 screws (C) and then remove the Front Panel Assembly (AA).

### **[4] TUNER P.C. BOARD (PCB-21) REMOVAL**

1. Remove the Front Panel Assembly (AA), referring to the previous step **[3]**.
2. Disconnect the (CW804) from (CN107) on the Tuner P.C. Board (PCB-21).
3. Open the lid of connectors (CN101, CN102, CN103, CN105 and CN106) on the Tuner P.C. Board (PCB-21) and then disconnect the lead wires.
4. Remove 3 screws (D) and then remove the Tuner P.C. Board (PCB-21). If necessary, unsolder the lead wires.

### **[5] EQUALIZER P.C. BOARD (PCB-5) REMOVAL**

1. Remove the Tuner P.C. Board (PCB-21), referring to the previous step **[4]**.
2. Remove 2 screws (E) and then remove the Metal Fitting (166).
3. Disconnect the (CW602) from (CN804) on the Control P.C. Board (PCB-6).
4. Open the lid of connector (CN401) on the Main P.C. Board (PCB-1) and (CN802) on the Control P.C. Board (PCB-6) and then disconnect the lead wires.
5. Open the lid of connector (CN601) on the Equalizer P.C. Board (PCB-5) and then disconnect the lead wire.
6. Remove 3 screws (F) and then remove the Equalizer P.C. Board (PCB-5). If necessary, unsolder the lead wires.

### **[6] CONTROL P.C. BOARD-D (PCB-6) REMOVAL**

1. Remove the Equalizer P.C. Board (PCB-5), referring to the previous step **[5]**.
  2. Disconnect the (CW801, CW802 and CW803) from (CN806, CN808 and CN810) on the Function P.C. Board (PCB-8).
  3. Disconnect the (CW808 and CW813) from (CN803 and CN805) on the Control P.C. Board (PCB-6).
  4. Remove 2 screws (G) and then remove the Control P.C. Board (PCB-6).
- If necessary, unsolder the lead wires.

### **[7] MAIN P.C. BOARD (PCB-1) REMOVAL**

1. Remove the Control P.C. Board (PCB-6), referring to the previous step **[6]**.
2. Open the lid of connectors (CN402 and CN403) on the Main P.C. Board (PCB-1) and then disconnect the lead wires.
3. Remove 5 screws (H) and then remove the Main P.C. Board (PCB-1) with Metal Fittings (163 and 165) and Heat Sink (171).  
If necessary, unsolder the lead wires.

### **[8] VOLUME P.C. BOARD (PCB-11) REMOVAL**

1. Remove the Tuner P.C. Board (PCB-21), referring to the previous Step **[4]**.
2. Open the lid of connector (CN402) on the Main P.C. Board (PCB-1) and (CN501) on the Tone Control P.C. Board (PCB-2) and the disconnect the lead wires.
3. Pull out Volume Knob (154).
4. Remove hexagon nut (I) and then remove the Volume P.C. Board (PCB-11).  
If necessary, unsolder the lead wires.

### **[9] FUNCTION P.C. BOARD (PCB-2) REMOVAL**

1. Remove the Tuner P.C. Board (PCB-21), referring to the previous step **[4]**.
2. Disconnect the (CW801, CW802, CW803, CW805 and CW806) from (CN806, CN807, CN808, CN809 and CN810) on the Function P.C. Board (PCB-8).
3. Pull out VCR/TAPE Monitor, Record Out and Function Knob (155).
4. Remove 3 hexagon nuts (J) and then remove the Function P.C. Board (PCB-8).

### **[10] TONE CONTROL P.C. BOARD (PCB-2) REMOVAL**

1. Remove the Tuner P.C. Board (PCB-21), referring to the previous step **[4]**.
2. Open the lid of connector (CN403) on the Main P.C. Board (PCB-1) and then disconnect the lead wires.
3. Open the lid of connector (CN501 and CN502) on the Tone Control P.C. Board (PCB-2) and then disconnect the lead wires.
4. Pull out Bass, Treble and Balance Knob (155).
5. Remove 3 hexagon nuts (K) and then remove the Tone Control P.C. Board (PCB-2).

### **[11] LED P.C. BOARD (PCB-7) REMOVAL**

1. Remove the Tuner P.C. Board (PCB-21), referring to the previous step **[4]**.
2. Open the lid of connector (CN601) on the Equalizer P.C. Board (PCB-5) and (CN801) on the Control P.C. Board (PCB-6) and then disconnect the lead wires.
3. Disconnect the (CW807) from (CN811) on the Relay P.C. Board (PCB-9).
4. Remove 4 screws (L), then remove the Holder (176), and the remove the LED P.C. Board (PCB-7).

**12 RELAY P.C. BOARD (PCB-9) REMOVAL**

1. Remove the Cabinet Top (131), referring to the previous step ①.
2. Remove 2 screws (M) and then remove the Relay P.C. Board (PCB-9) with Metal Fitting (168).

**13 AV P.C. BOARD (PCB-10) REMOVAL**

1. Remove the Cabinet Top (131), referring to the previous Step ①.
2. Disconnect the (CW808) from (CN803) on the Control P.C. Board (PCB-6).
3. Remove 2 screws (N) and then remove the AV P.C. Board (PCB-10).

**14 ANTENNA TERMINAL P.C. BOARD (PCB-24) AND AM ADJUSTMENT P.C. BOARD (PCB-25) REMOVAL**

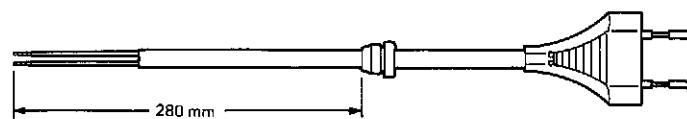
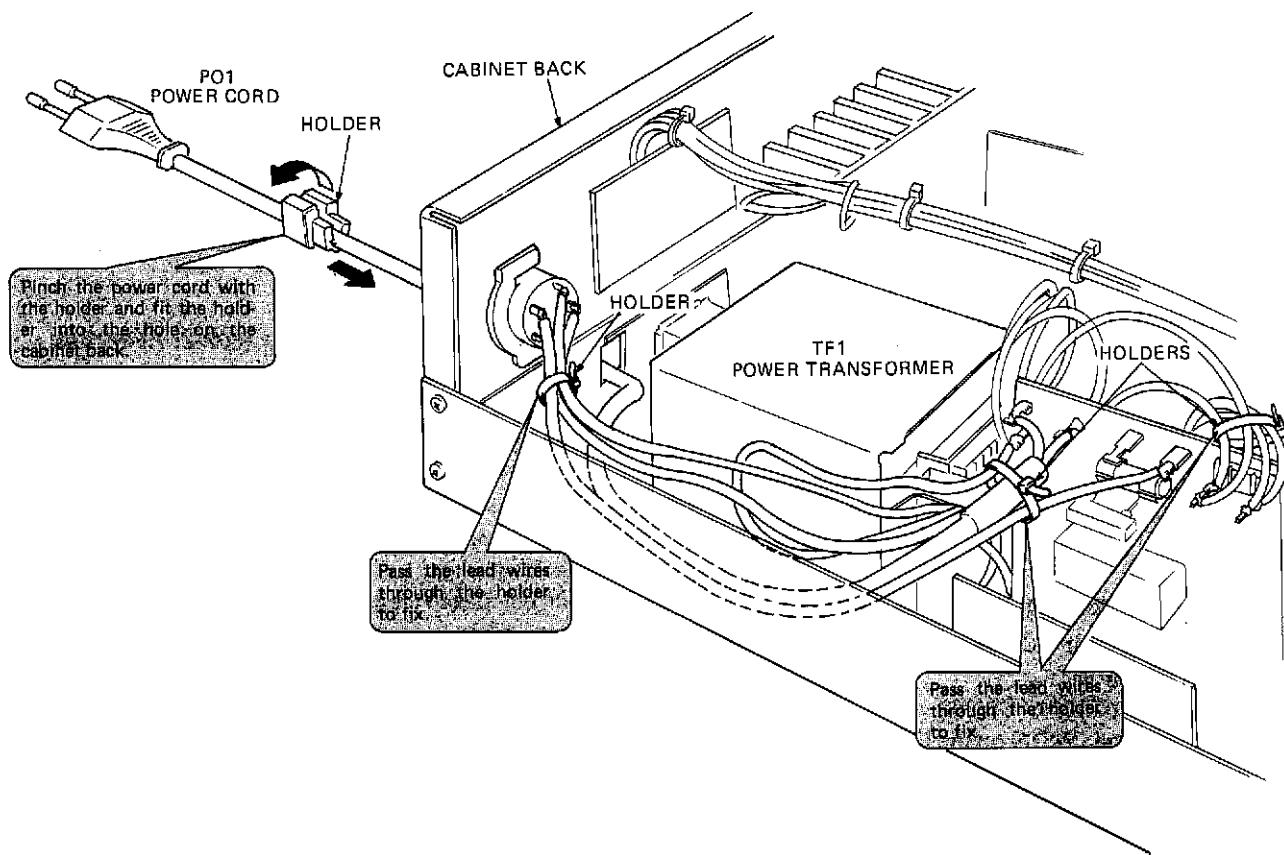
1. Remove the Cabinet Top (131), referring to the previous step ①.
2. Remove 3 screws (O) and then remove the Antenna Terminal P.C. Board (PCB-24) and AM Adjustment P.C. Board (PCB-25). If necessary, unsolder the lead wires.

**15 SPEAKER TERMINAL P.C. BOARD (PCB-14) REMOVAL**

1. Remove the Cabinet Top (131), referring to the previous step ①.
2. Remove 2 screws (P) and then remove the Speaker Terminal P.C. Board (PCB-14). If necessary, unsolder the lead wires.

**POWER CORD REPLACEMENT (FOR SERVICE ENGINEERS OTHER THAN NORTH AMERICA)**

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



## CIRCUIT DESCRIPTION

### ■FM TUNER SECTION

The FM signal which has entered through the antenna is high-frequency amplified in the front end. Then it is mixed with the output of the local oscillators and converted into the 10.7MHz intermediate-frequency.

The 10.7MHz signal is amplified in the intermediate frequency amplifying section which consists of CF201, Q201, CF202, Q202 and CF203 and fed to pin 1 of IC201. In IC201, the signal is sent through the IF amplifier and after being detected in the quadrature, it is sent through the post amplifier to pin 12 and then input to pin 2 of IC301. In IC301, the pilot signal is detected out of the signal which has been fed and 38kHz signal is produced. Then by this signal, stereo signal is demodulated, output from pin 4 for the left channel and from pin 7 for the right channel and transmitted to the input selector section.

### ■AM TUNER SECTION

The AM signal which has entered through the antenna passes through the tuning circuit consisting of L251 and TC251 and is inputted to pin 21 of IC201. In IC201, it undergoes radio-frequency amplification and local oscillation and is output from pin 20, and passed through the transformer (T251) and ceramic filter (CF251) and enters pin 18 of IC301. It is then passed through the IF amplification and detection and is output from pin 15. This signal is fed to IC301.

### ■AUDIO AMPLIFIER SECTION

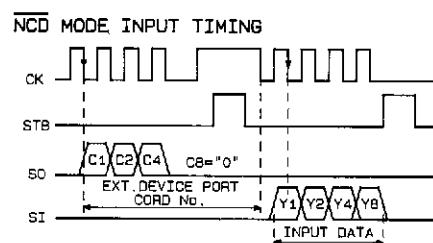
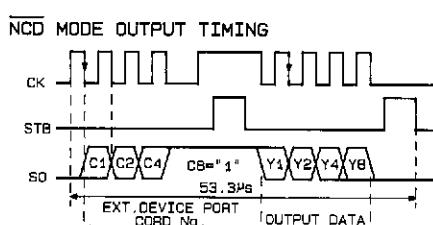
The signal which has entered from each input terminal is selected by the input selector, passes through the audio mode switch, subsonic switch balance circuit, volume and loudness circuit and is fed into the pre-amplifier.

Then it is fed into the power amplifier through the tone control circuit, power amplified and transmitted to the speaker terminal.

The power amplifier has an over-output protective circuit. If current exceeding the specification flows to Q431, Q433 (L ch), Q432, Q434 (R ch), it is detected at Q3 (L ch) and Q4 (R ch) and the protective circuit consisting of Q1 and Q7 draws in the base of Q5 (L ch) and Q6 (R ch), and thus the input signal is cut to protect the circuit.

## TIMING CHART

Frequency display timing chart of IC701 (TC9306F-025)



### ■MUTING CIRCUIT

If FM or AM is received out of tuning or in a very weak field intensity, pin 41 of IC701 becomes high level. This is fed to the base of Q351, whose collector then becomes low level and the collector of Q356 high level. As a result, Q301 (L ch) and Q302 (R ch) are conducted to mute the output.

### ■SYNTHESIZER SECTION

#### ● FM

The local oscillation output at the front end is fed to pin 15 of the prescaler IC702 and after being frequency divided into 30 or 32, control output signal if fed from IC701, compared with the divided local oscillation output and output to pin 10. This voltage is level converted at Q701 and Q702, and fed to the front end.

#### ● AM

The local oscillation output is fed from pin 24 of IC201 to pin 13 of IC702. In IC702, control output signal is fed from IC701, compared with the local oscillation output and output to pin 10. This voltage is level converted at Q701 and Q702, and fed to the AM local oscillation section.

### ■INDICATOR SECTION

#### ● Frequency display

The indicator tube is turned ON by the output decoded in IC701.

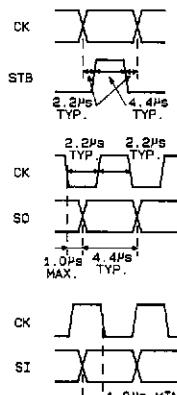
#### ● Signal strength

The voltage corresponding to the signal level is output from pin 16 of IC201 and fed into pin 8 of the level comparator IC351. Then D381, D383 and D385 of the signal strength indicator turn ON according to the signal level.

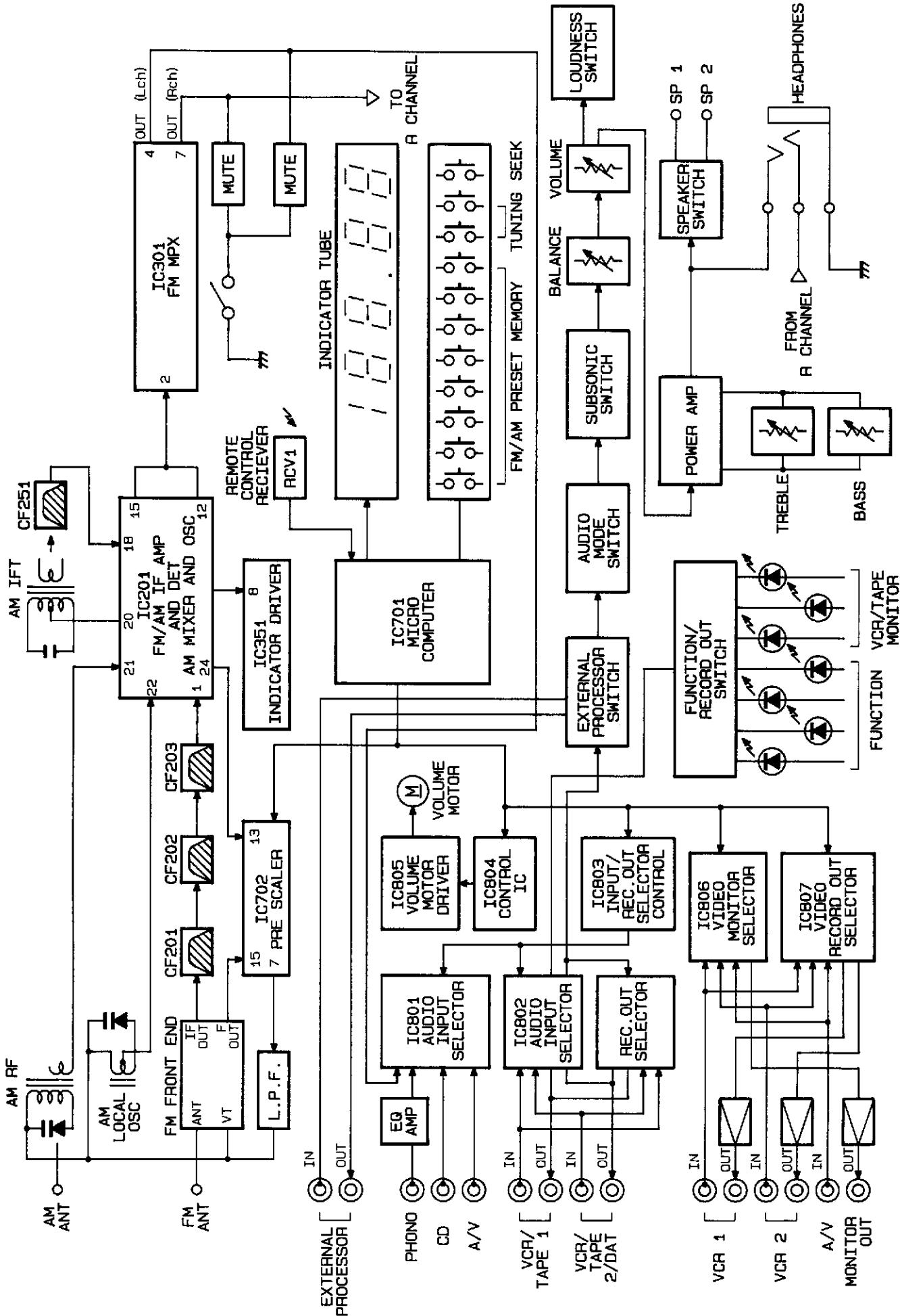
#### ● Tuning

When broadcast is received, "Tuned" of the indicator tube is turned ON by the control signal in IC701. When FM or stereo broadcast is received, pin 9 of IC301 becomes low level, Q705 turns ON and "Stereo" of the indicator tube is turned ON by the control signal in IC701.

### SERIAL TIMING PULSE WIDTH



## BLOCK DIAGRAM



## ALIGNMENT PROCEDURES (REFER TO PAGES 19, 20, 21, 24, 27 AND 28)

### ■ IDLING CURRENT ADJUSTMENT

Conditions: ● Set the Volume control to minimum.

- Press the "Speakers 1 and 2" switches to on (button in) position.
- Set the Speaker Operating Mode switch to "8Ω" position.
- Make the adjustment at a room temperature of 77°F (25°C).
- After the Power switch is pushed on, wait for 30 minutes before measuring to be sure of the most stable operation.
- Set the Function switch to tuner position.

Step	Connection Equipments	Adjustment	For
1	Connect the Digital Volt Meter to TP1 and TP2.	VR401 (L ch)	40mV ±2mV
2	Connect the Digital Volt Meter to TP3 and TP4.	VR402 (R ch)	40mV ±2mV

### ■ AM ADJUSTMENT

Conditions: ● Set the AM mode by pressing the "FM/AM" button.

- Set the Seek switch to off (put out seek indicator) position.
- Standard modulation of the AM signal Generator is 400Hz at 30%.

Step	Alignment	Connection Equipments	Measurement Frequency	Station Display	Adjustment	For
1	IF	• Connect the AM Test Loop Antenna cable into the output jack of AM Signal Generator (80 dB $\mu$ V signal). Place AM Test Loop Antenna close enough to couple signal into the AM Loop Antenna. • Connect the VTVM and oscilloscope to the OUTPUT jacks.	1400kHz ※1404kHz	1400kHz ※1404kHz	T251	Maximum output level and symmetrical curve on scope.
2			1400kHz ※1404kHz	1400kHz ※1404kHz	TC251	Maximum output.
3	Tracking		600kHz ※603kHz	600kHz ※603kHz	L251	Maximum output.
4			Repeat steps 2 and 3 for optimum sensitivity.			
5	Signal indicator		1000kHz ※999kHz	1000kHz ※999kHz		Confirm the all Signal indicators light at 5000 $\mu$ V/m input.

\*General and Australia models

### ■ FM ADJUSTMENT

Conditions: ● Set the FM mode by pressing the "FM/AM" button.

- Set the Seek switch to off (put out seek indicator) position.

		U.S.A. model	General model
FM Signal Generator		1kHz, 100% modulation	1kHz, 45% modulation
Stereo Modulator		L+R=45.5%, L-R=45.5%, 19kHz=9%	L+R=22.5%, L-R=22.5%, 19kHz=8%

Step	Alignment	Connection Equipments	Measurement Frequency	Station Display	Adjustment	For
1	IF	• Connect the FM Signal Generator to FM 300Ω BAL Antenna terminals through the 300Ω balanced dummy. [1mV(65dBf) input signal]	97.9MHz	97.9MHz	T201 T202	Maximum output level.
2	Discriminator	• Connect the Oscilloscope and Distortion meter to the Tape 1 OUTPUT jacks. • Set the Seek switch to on (seek indicator lights) position.	97.9MHz	97.9MHz	T203(A)	Adjust so that the TUNED indicator lights in the same range on both plus (+) and minus (-) sides of 97.9 MHz.
3			97.9MHz	97.9MHz	T203(B)	Minimum distortion.
4			Repeat steps 2 and 3 for optimum sensitivity.			
5	Muting level		97.9MHz	97.9MHz	VR251	Apply 30dBf signal, and adjust VR251 so that the waveform becomes undistorted.

Step	Alignment	Connection Equipments	Measurement Frequency	Station Display	Adjustment	For
6	Separation	<ul style="list-style-type: none"> <li>Connect the Stereo Modulator to FM Signal Generator. Connect FM Signal Generator to FM <math>300\Omega</math> BAL Antenna terminal through the <math>300\Omega</math> balanced dummy. (65 dBf input signal)</li> <li>Connect the VTVM and Oscilloscope to the Tape 1 OUTPUT jacks.</li> </ul>	97.9MHz	97.9MHz	VR301	Adjust so that the left channel output becomes minimum when only the right channel of the Stereo Modulator is modulated.
					VR301	Adjust so that the right channel output becomes minimum when only the left channel of the Stereo Modulator is modulated.
7	Signal indicator					Confirm the all signal indicators light at 1mV (65 dBf) input.

**A                    B                    C                    D                    E**

**GENERAL UNIT  
EXPLODED VIEW (CABINET BACK)**

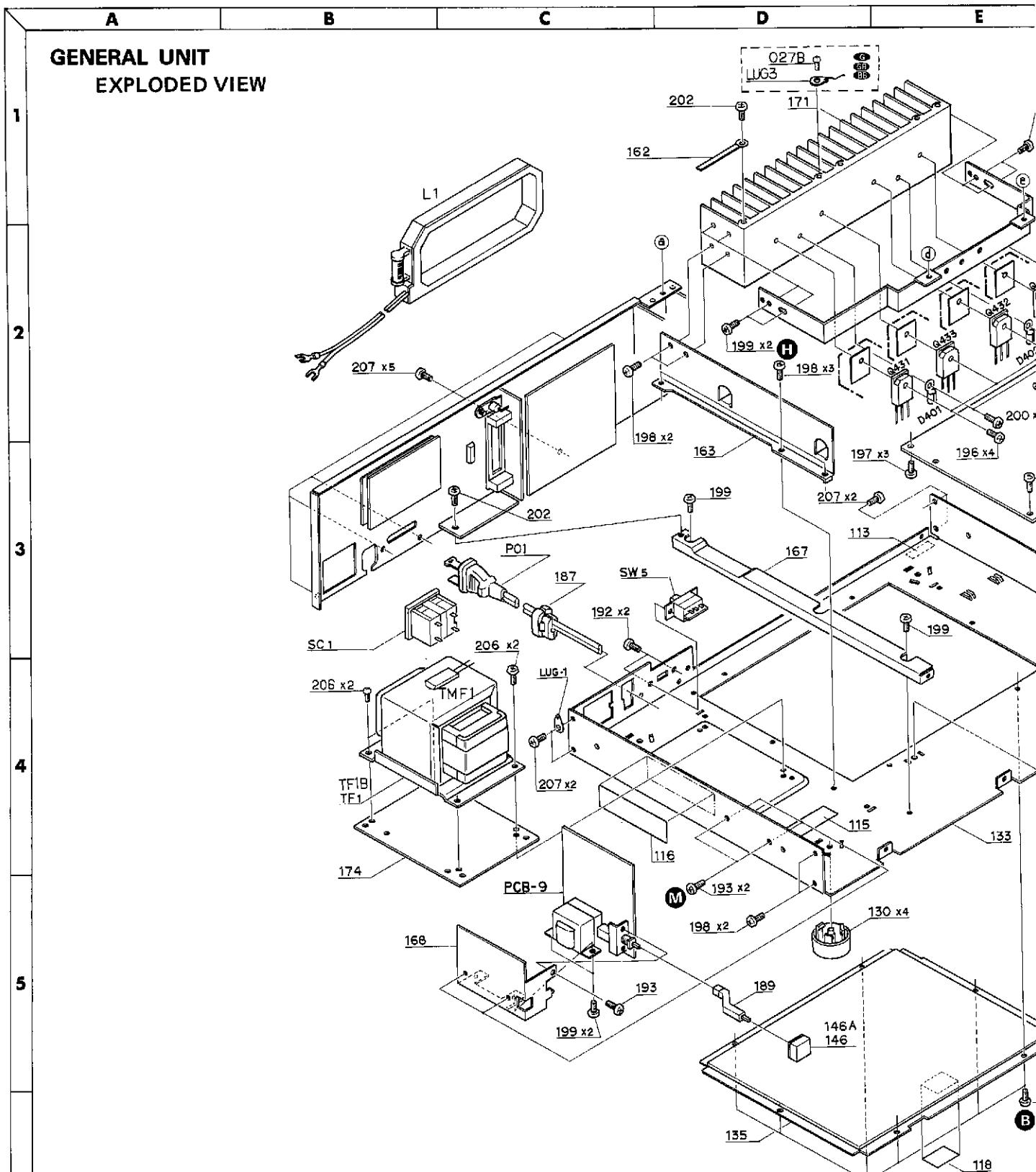
The diagram illustrates the exploded view of the General Unit Cabinet Back. It shows the following components and their part numbers:

- PCB-14
- PCB-24
- PCB-10
- PCB-25
- PCB-5
- PCB-6
- 175
- 195
- 197
- 207
- 208
- 208 x2
- 208 x5
- 190
- 822
- 117
- 134C
- 134B
- 134
- P
- O
- N
- F
- G
- 175
- 0614
- 0615

**4** General and Australia models

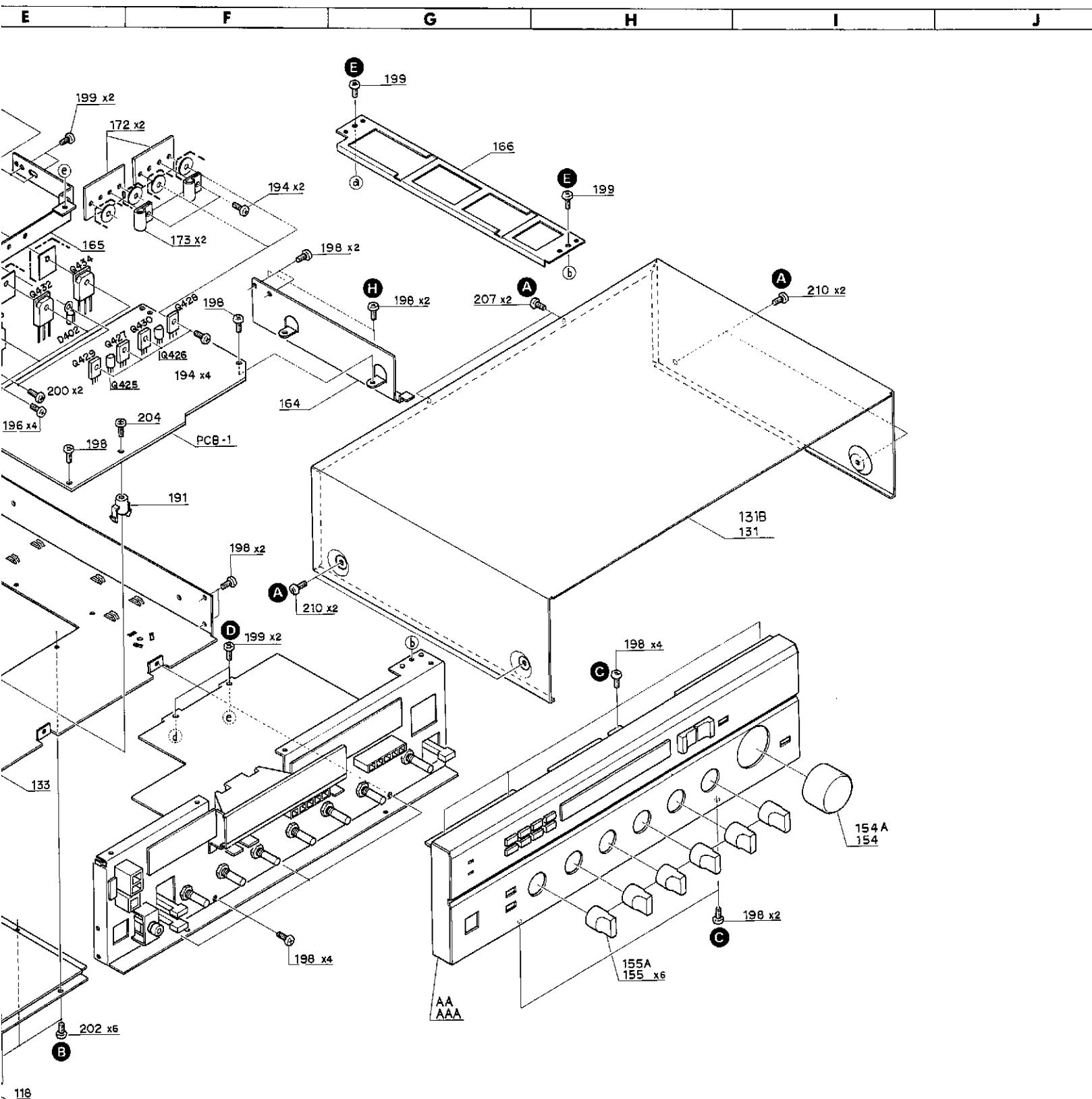
**PARTS LIST**

Ref. No.	Part No.	Description
023B	2132-7116	SPACER G GB BB
024B	2327-R0130124	SCREW (3 x 12mm) G GB BB
025B	2440-7017	SPECIAL NUT G GB BB
117	1756-CSA	LABEL CSA UA BK
134	1424-25301	CABI BACK REAR UA BK
134B	1424-25201	CABI BACK REAR G
134C	1424-25401	CABI BACK REAR GB BB
175	2222-7240	HEAT SINK
190	4214-168	TERMINAL
195	2327-R0130082	SCREW (3 x 8 mm)
197	2240-7208	HOLDER
207	2347-R0130064	SCREW (3 x 6 mm)
208	2347-R0130104	SCREW (3 x 10 mm)
822	2421-7004	PIN, SHORT
△S201	4411-102719	ROTARY SWITCH, VOLTAGE SELECTOR G GB BB



## PARTS LIST

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
AA	A443-HK880A	FRONT PANEL ASSY <span style="color: red;">UA G</span>	154A	1630-02603	ROTARY KNOB, VOLUME <span style="color: red;">BK GB BB</span>
AAA	A443-HK880B	FRONT PANEL ASSY <span style="color: red;">BK GB BB</span>	155	1632-16502	ROTARY KNOB, BASS, TREBLE, BALANCE,
027B	2347-R0130062	SCREW (3 x 6 mm) <span style="color: red;">G GB BB</span>	155A	1632-I7101	TAPE MONITOR, RECORD OUT, FUNCTION <span style="color: red;">UA</span>
113	1117-78	SERIAL LABEL, BOTTOM	162	2218-7011	ROTARY KNOB, BASS, TREBLE, BALANCE,
115	1756-11301	LABEL	163	2219-8194	TAPE MONITOR, RECORD OUT, FUNCTION <span style="color: red;">BK</span>
116	1756-05910	LABEL	164	2219-8195	BRACKET, FIX WIRING
118	1751-01018	LABEL	165	2219-8234	METAL FITTG L
130	1319-0139	LEG	166	2219-8209	METAL FITTG R
131	1414-11601	CABINET <span style="color: red;">UA BK</span>	167	2219-8212	METAL FITTG
131B	1414-04401	CABINET <span style="color: red;">G GB BB</span>	168	2219-8213	METAL FITTG
133	1424-25001	CABI BACK BOTTOM	171	2222-7237	METAL FITTG
135	1424-26101	CABI BACK	171B	2222-7247	HEAT SINK <span style="color: red;">UA BK</span>
146	1660-00401	PUSH BUTTON, POWER <span style="color: red;">UA G</span>	172	2222-7214	HEAT SINK <span style="color: red;">G GB BB</span>
146A	1660-00403	PUSH BUTTON, POWER <span style="color: red;">BK GB BB</span>			HEAT SINK
154	1630-02601	ROTARY KNOB, VOLUME <span style="color: red;">UA G</span>			

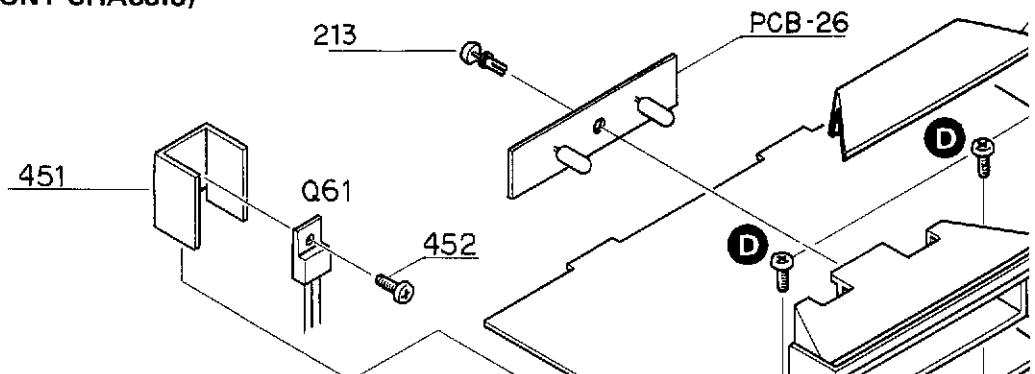


Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
173	2222-7067	HEAT SINK	206	2592-400826	SCREW (4 x 8 mm)
174	2219-8240	METAL FITTG	207	2347-R0130064	SCREW (3 x 6 mm)
187	2240-364	HOLDER, AC	210	2347-R0140064	SCREW (4 x 6 mm)
189	2601-7174	SHAFT POWER	L1	5911-235	ANT COIL BC
191	2360-7015	SPECIAL BOSS	LUG1	4211-4	LUG
192	2327-R0130064	SCREW (3 x 6 mm)	LUG3	4211-4	LUG G GB BB
193	2327-R0130062	SCREW (3 x 6 mm)	▲TF1	5584-S1406	XFORMER, POWER UA BK
194	2327-R0130082	SCREW (3 x 8 mm)	▲TF1B	5584-S1407	XFORMER, POWER G GB BB
196	2320-34	SPECIAL SCREW	SW5	4421-0227230	SWITCH, SLIDE
197	2347-R0130082	SCREW (3 x 8 mm)	▲SC1	4474-157	SOCKET, AC OUTLET UA BK
198	2347-R0130062	SCREW (3 x 6 mm)	▲PO1	4161-71151	CORD W/PLUG, POWER UA BK
199	2347-R0130062	SCREW (3 x 6 mm)	▲PO1B	4161-7256	CORD W/PLUG, POWER G GB
200	2347-R0130062	SCREW (3 x 6 mm)	▲PO1D	4161-04100	CORD W/PLUG, POWER BB
202	2347-R0130062	SCREW (3 x 6 mm)	▲TMF1	4318-00101080	THERMAL FUSE
204	2347-R0130102	SCREW (3 x 10 mm)			

A B C D E

**GENERAL UNIT****EXPLODED VIEW (FRONT CHASSIS)**

1



2

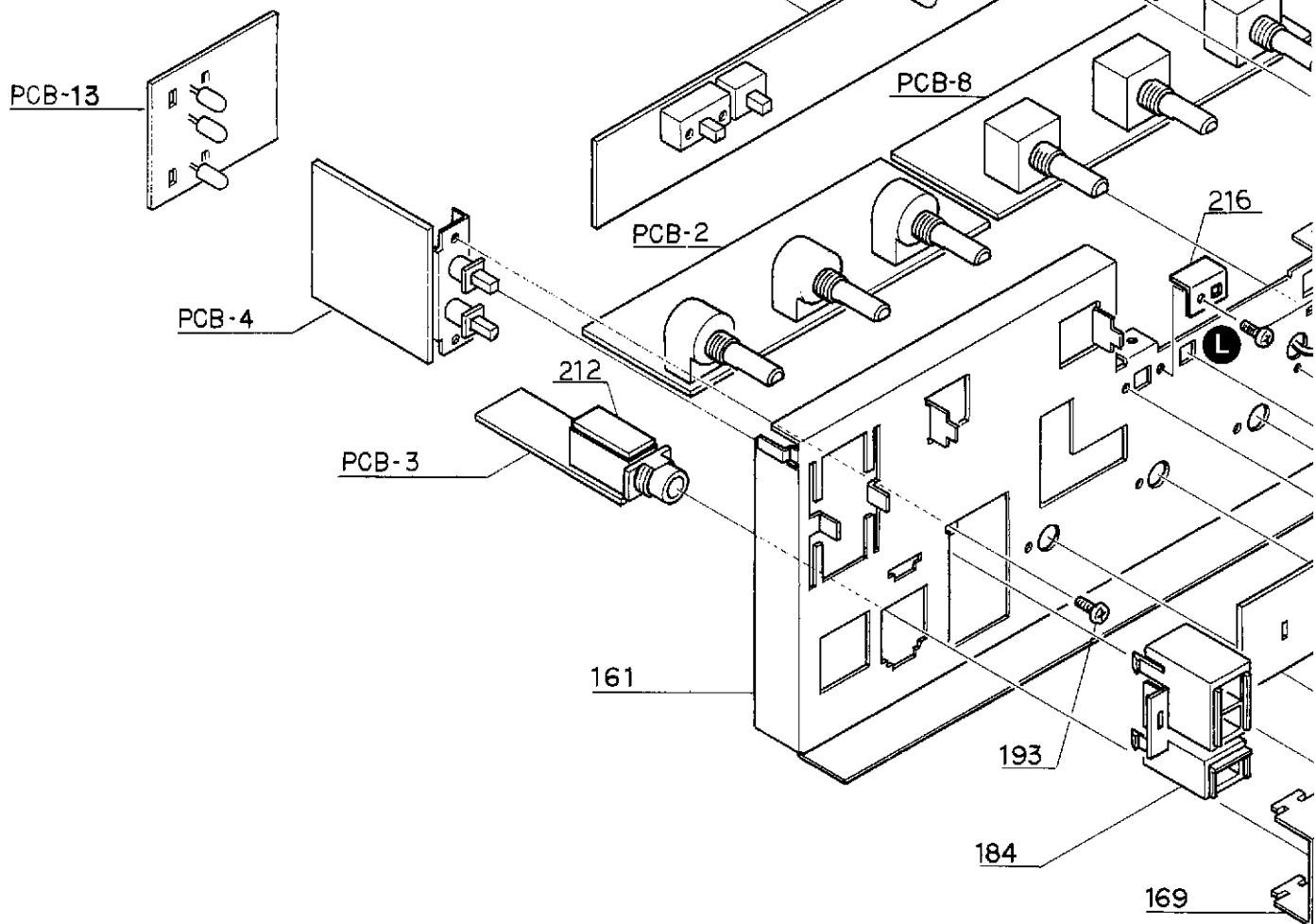
3

4

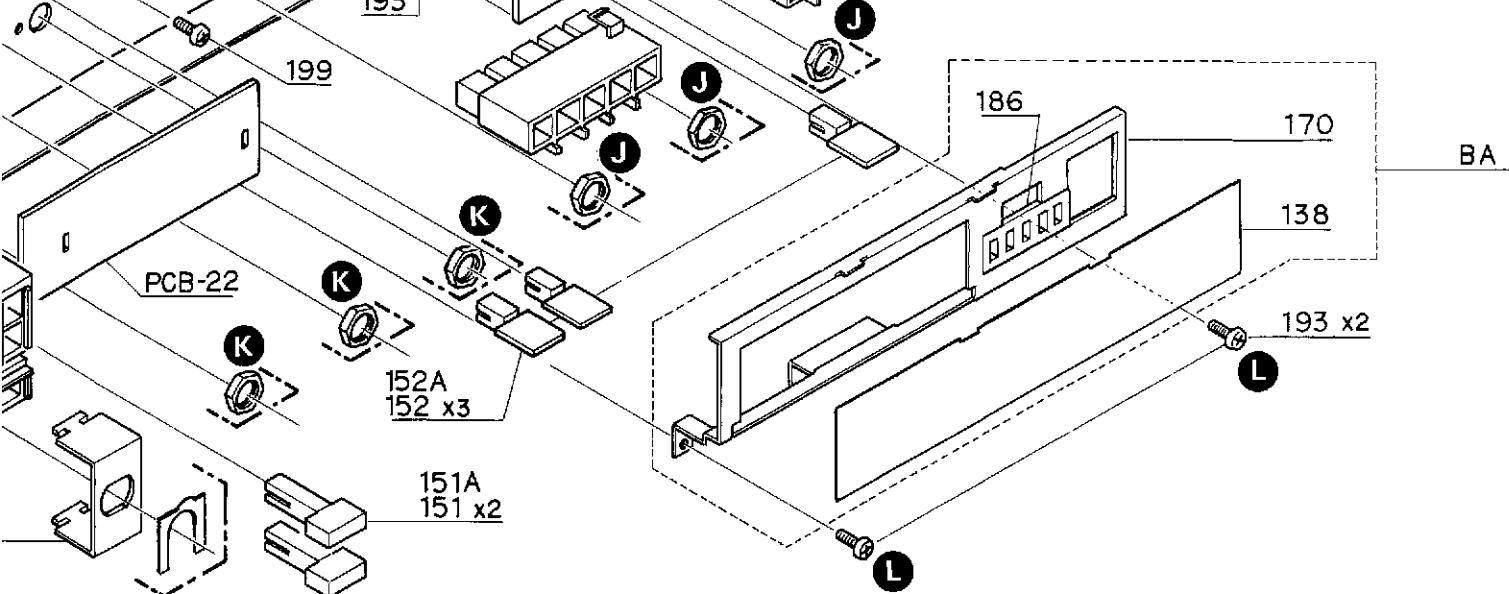
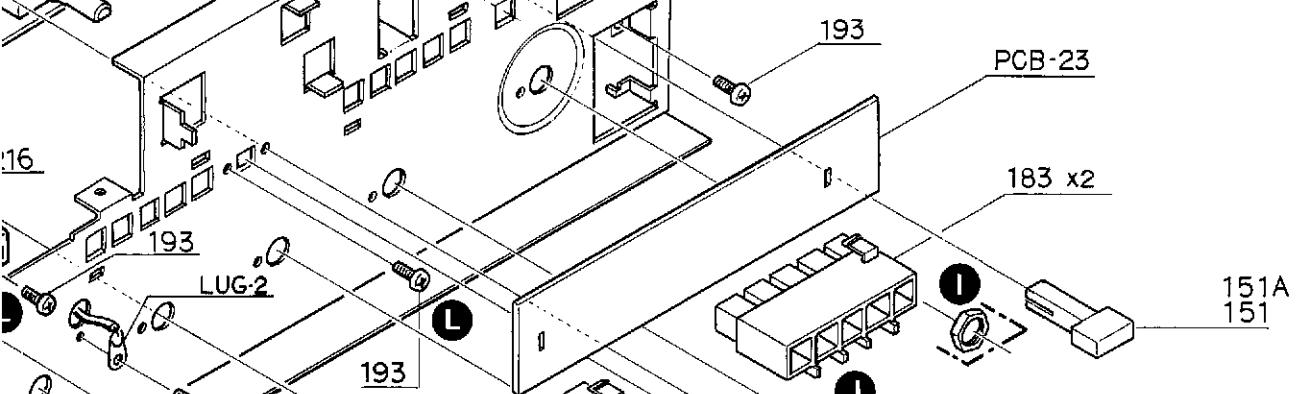
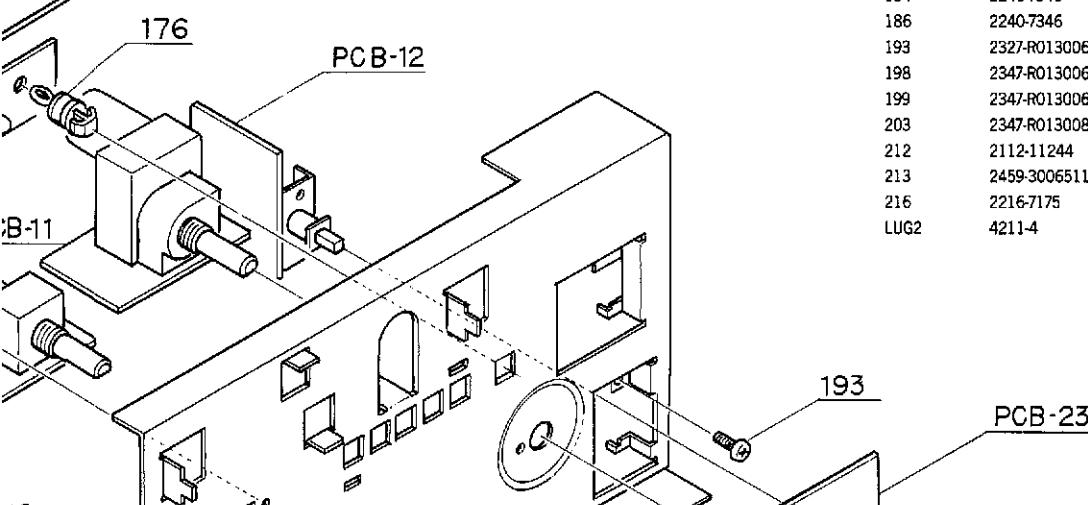
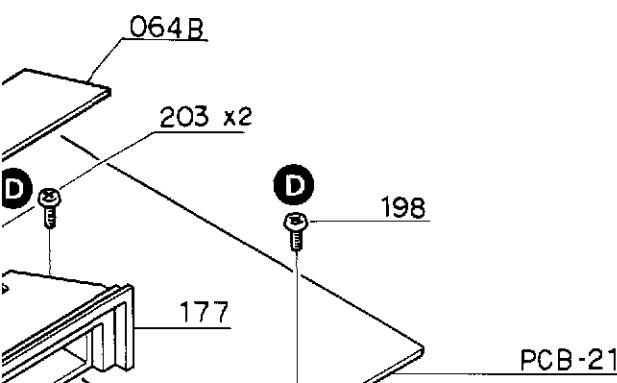
5

6

7



F G H I J

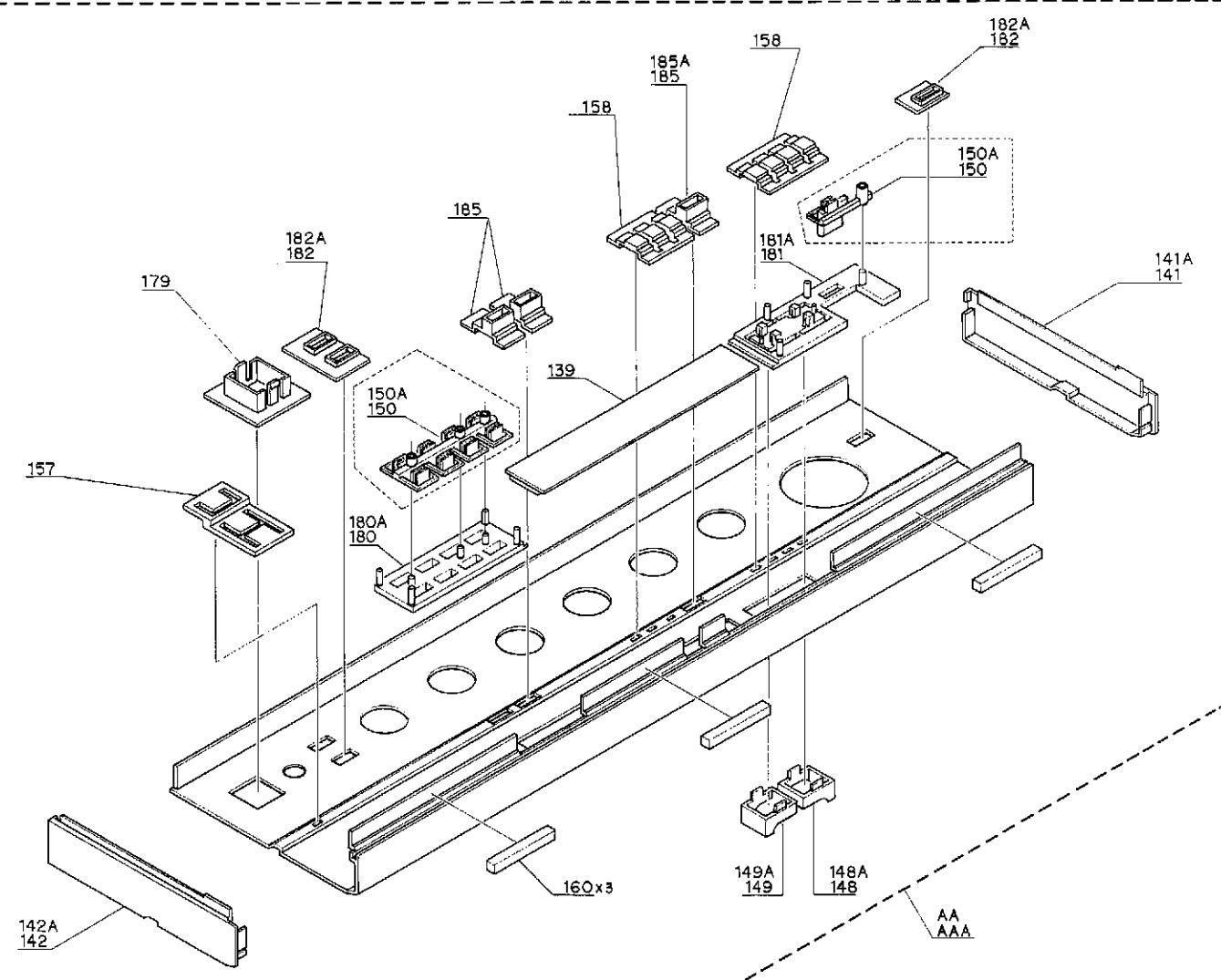


### PARTS LIST

Ref. No.	Part. No.	Description
BA	A219-HK880	BRACKET ASS'Y
064B	2224-7128	INSULATOR G GB BB
065B	2224-7129	INSULATOR G GB BB
138	1511-16702	PLATE, REFLECTOR
151	1662-36001VN	PUSH BUTTON, SPEAKERS, LOUDNESS UA G
151A	1662-36002	PUSH BUTTON, SPEAKERS, LOUDNESS BK GB BB
152	1662-36801VN	PUSH BUTTON, SUBSONIC, MONO, EXTERNAL PROCESSOR UA G
152A	1662-36802	PUSH BUTTON, SUBSONIC, MONO, EXTERNAL PROCESSOR BK GB BB
156	1731-00601	INDICATOR LCD
161	2211-7300	CHASSIS FRONT
169	2219-8215	METAL FITTG
170	2219-8232	METAL FITTG
176	2240-7348	HOLDER
177	2223-7058	REFLECTOR
183	2240-7339	HOLDER
184	2240-7340	HOLDER
186	2240-7346	HOLDER
193	2327-R0130062	SCREW (3 x 6 mm)
198	2347-R0130062	SCREW (3 x 6 mm)
199	2347-R0130062	SCREW (3 x 6 mm)
203	2347-R0130082	SCREW (3 x 8 mm)
212	2112-11244	SPONGE
213	2459-3006511	PLSTC RIVET, LAMP
216	2216-7175	SHIELD PLATE
LUG2	4211-4	LUG

## **GENERAL UNIT**

**EXPLODED VIEW (FRONT PANEL ASS'Y)**



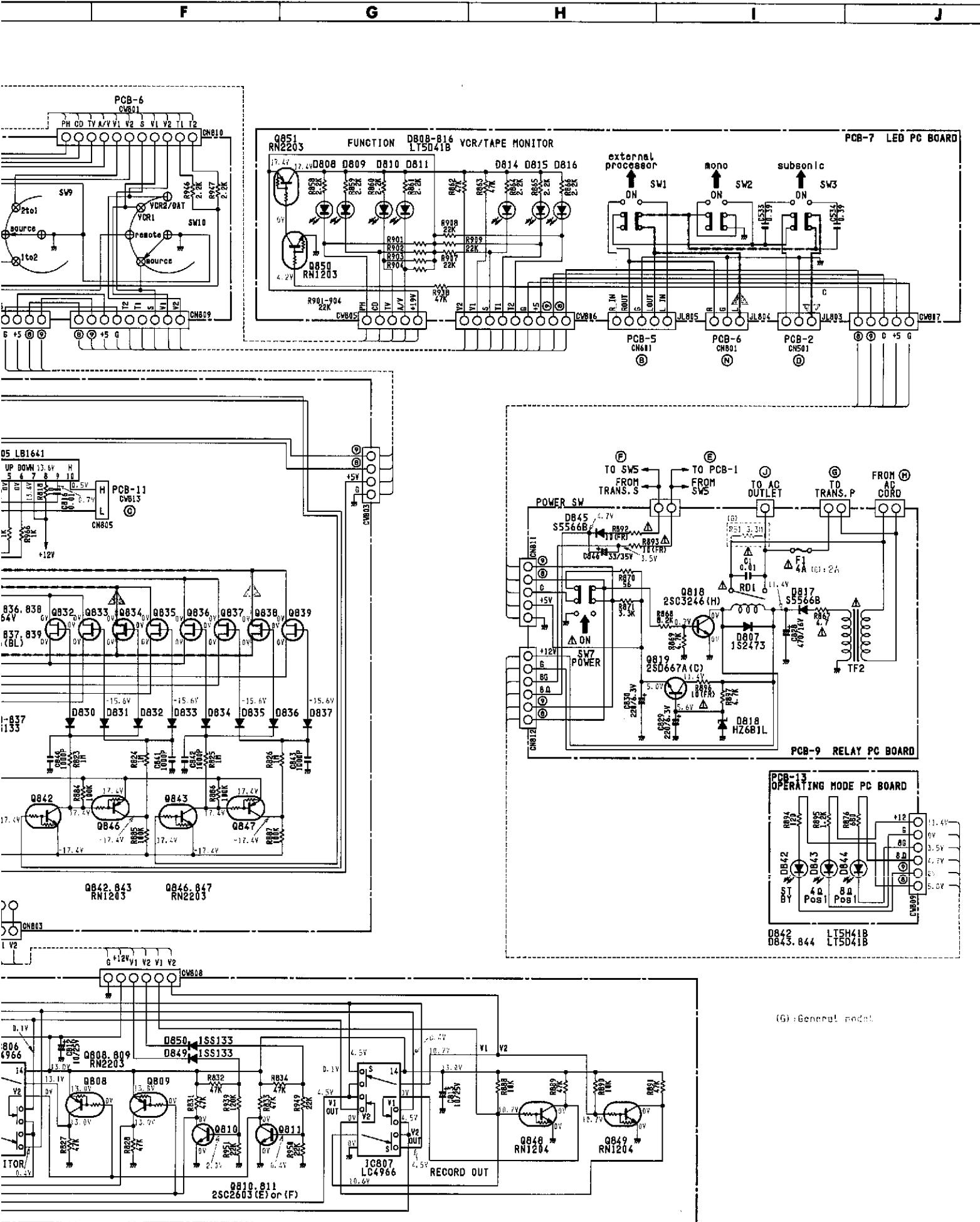
## PARTS LIST

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
AA	A443-HK880A	FRONT PANEL ASSY UA G
AAA	A443-HK880B	FRONT PANEL ASSY BK GB BB
139	153L-12001	WINDOW, FRONT
141	1562-06601	FRAME R UA G
141A	1562-06602	FRAME R BK GB BB
142	1562-06701	FRAME L UA G
142A	1562-06702	FRAME L BK GB BB
148	1662-35701VN	PUSH BUTTON, TUNING UA G
148A	1662-35702	PUSH BUTTON, TUNING BK GB BB
149	1662-35801VN	PUSH BUTTON, TUNING UA G
149A	1662-35802	PUSH BUTTON, TUNING BK GB BB
150	1662-37201VN	PUSH BUTTON, FM/AM PRESET MEMORY, SEEK UA G
150A	1662-37202	PUSH BUTTON, FM/AM PRESET MEMORY, SEEK BK GB BB
157	1732-04301	INDICATOR 4/8
158	1732-05401	INDICATOR
160	2112-11762	SPONGE, PANEL
179	2240-7209	HOLDER
180	2240-7322	HOLDER UA G
180A	2240-7333	HOLDER BK GB BB
181	2240-7323	HOLDER UA G
181A	2240-7332	HOLDER BK GB BB
182	2240-7324	HOLDER UA G
182A	2240-7337	HOLDER BK GB BB
185	2240-7341	HOLDER UA G
185A	2240-7342	HOLDER BK GB BB

## IC TERMINAL FUNCTIONS

	Terminal number	Port name	Terminal code	I/O	Outline of functions
IC701					Segment name COM1
	1	S7	S7	O	Received frequency display
	2	S8	S8	O	Received frequency display
	3	S9	S9	O	Point 1 on level meter
	4	S10	S10	O	Received frequency display
	5	S11	S11	O	Received frequency display
	6	S12	S12	O	Received frequency display
	7	S13	S13	O	Received frequency display
	8	S14	S14	O	Received frequency display
	9	S15	S15	O	Received frequency display
	10	S16	S16	O	Received frequency display
	11	S17	S17	O	Received frequency display
	12	S18	S18	O	Received frequency display
	13	S19	S19	O	Received frequency display
	14	S20	S20	O	Received frequency display
	15	S21	S21	O	Received frequency display
	16	S22	S22	O	Point 5 on level meter
	17	S23	S23	O	
	18	S24	S24	O	Received frequency display
	19	S25	S25	O	MW band
	20	S26	S26	O	MW band
	21	S27	S27	O	LW band
	22	COM1	COM1	O	Common 1
	23	V <sub>DD</sub>	V <sub>DD</sub>	I	Power supply
	24	K0	K0	I	Key input
	25	K1	K1	I	Key input
	26	K2	K2	I	Key input
	27	K3	K3	I	Key input
	28	T0	T0	O	Key timing output
	29	T1	T1	O	Key timing output
	30	T2	T2	O	Key timing output
	31	T3	T3	O	Key timing output
	32	T4	T4	O	Key timing output
	33	T5	T5	O	Key timing output

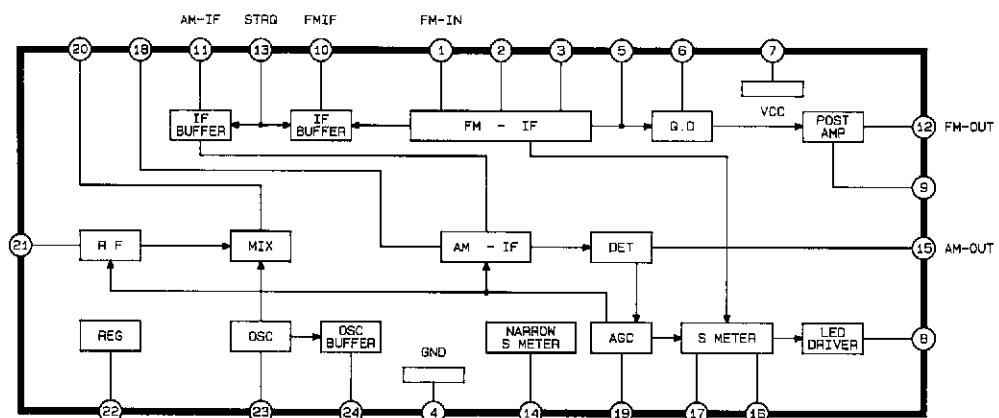
	<b>Terminal number</b>	<b>Port name</b>	<b>Terminal code</b>	<b>I/O</b>	<b>Outline of functions</b>	
IC701					Segment name COM1	
	34	T6	T6	O	Key timing output	
	35	P3-2	AD IN	I	AD IN signal strength display input	
	36	P3-1	VREF	I	AD IN reference voltage input	
	37	P2-4	LOCAL IF	O	LOCAL DX select control output (FM, MW, LW)	
	38	P2-3	MONO	O	Forced output of mono control (FM mode only)	
	39	P2-2	AUTO-STOP	I	Stop signal input	
	40	P2-1	R-I	I	Remote control serial data input	
	41	MUTE	MUTE	O	Mute output	
	42	STB	STB	I	Strobe signal input	
	43	CK	CK	I	Serial clock signal input	
	44	SO	SO	O	Serial data output	
	45	SI	SI	I	Serial data input	
	46	REF	REF	I	Reference frequency input	
	47	INT	INT	I	Initialize input terminal	
	48	INH	INH	I	Normal mode (H level) Inhibit mode (L level)	
	49	TEST	TEST	I	Test terminal	
	50	XT	XT	O	Clock output	
	51	XT	XT	O	Clock output	
	52	GND	GND	—	GND pin	
	53	V <sub>DD</sub>	V <sub>DD</sub>	I	Power supply	
	54	COM2	COM2	O	Common 2	
	55	S1	S1	O	Preset ch	
	56	S2	S2	O	Received frequency display	
	57	S3	S3	O	Received frequency display	
	58	S4	S4	O	Received frequency display	
	59	S5	S5	O	Point 4 on level meter	
	60	S6	S6	O	FM/SW unit	
					MW/LW unit	



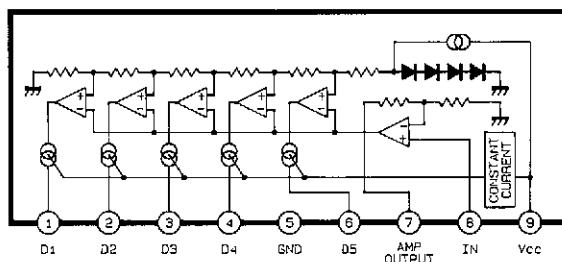
	<b>Terminal number</b>	<b>Port name</b>	<b>Terminal code</b>	<b>I/O</b>	<b>Outline of functions</b>
<b>IC804</b>	1	GND	GND	—	GND pin
	2	I/O-1	EX-OUT	O	This output terminal have no connection with Band, and reverse when EX-IN input.
	3	I/O-2	EX-RESET	I	Reset EX-OUT
	4	I/O-3	EX-IN	I	Whenever EX-IN input, EX-OUT reverse.
	5	I/O-4	Moni-en	I	Permit to select source, T1, T2, V1 or V2.
	6	I/O-5	Func-en	I	Permit to select a function from F1 through F5.
	7	I/O-6	F-Mute	O	This is the Mute output terminal when select Moni or Function.
	8	I/O-7	P-SW	I	Remote control receiver ON/OFF and P-Cont control input.
	9	I/O-8	P-CONT	O	Power supply control
	10	I/O-9	VR-UP	O	VR-UP output
	11	I/O-10	VR-DN	O	VR-DOWN output
	12	SO	SO	O	Serial data output
	13	SI	SI	I	Serial data input
	14	CK	CK	I	Serial clock signal input
	15	STB	STB	I	Strove signal input
	16	V <sub>DD</sub>	V <sub>DD</sub>	I	5V ± 10% power supply terminal

## IC BLOCK DIAGRAM

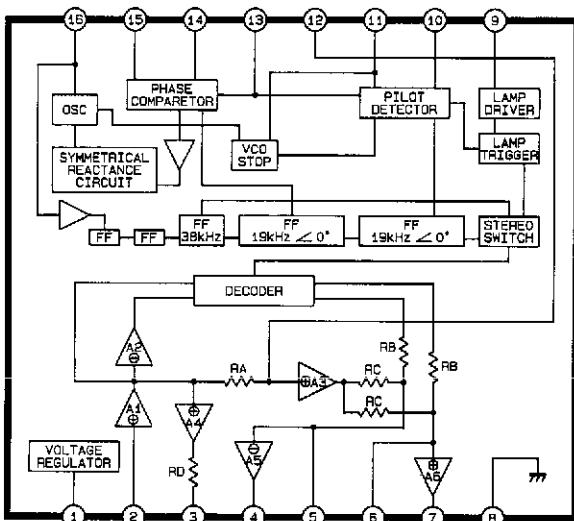
**IC201 : LA1266**  
FM/AM IF Amp. and  
Det., AM Mixer and OSC



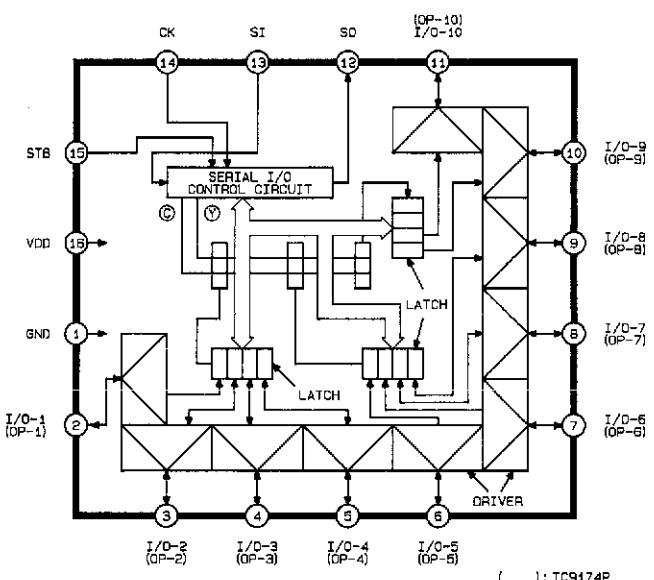
**IC351 : BA6124**  
Indicator Driver



**IC301 : LA3410**  
FM MPX

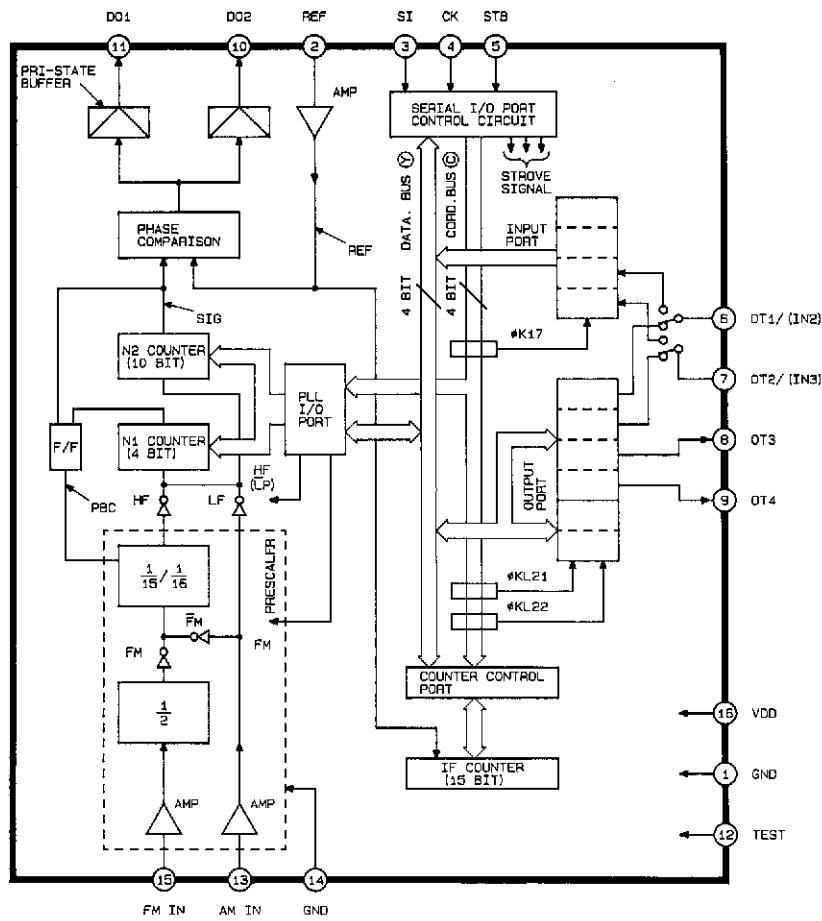


**IC803 : TC9174P**  
**IC804 : TC9173P**  
Audio Input Record  
Out Selector



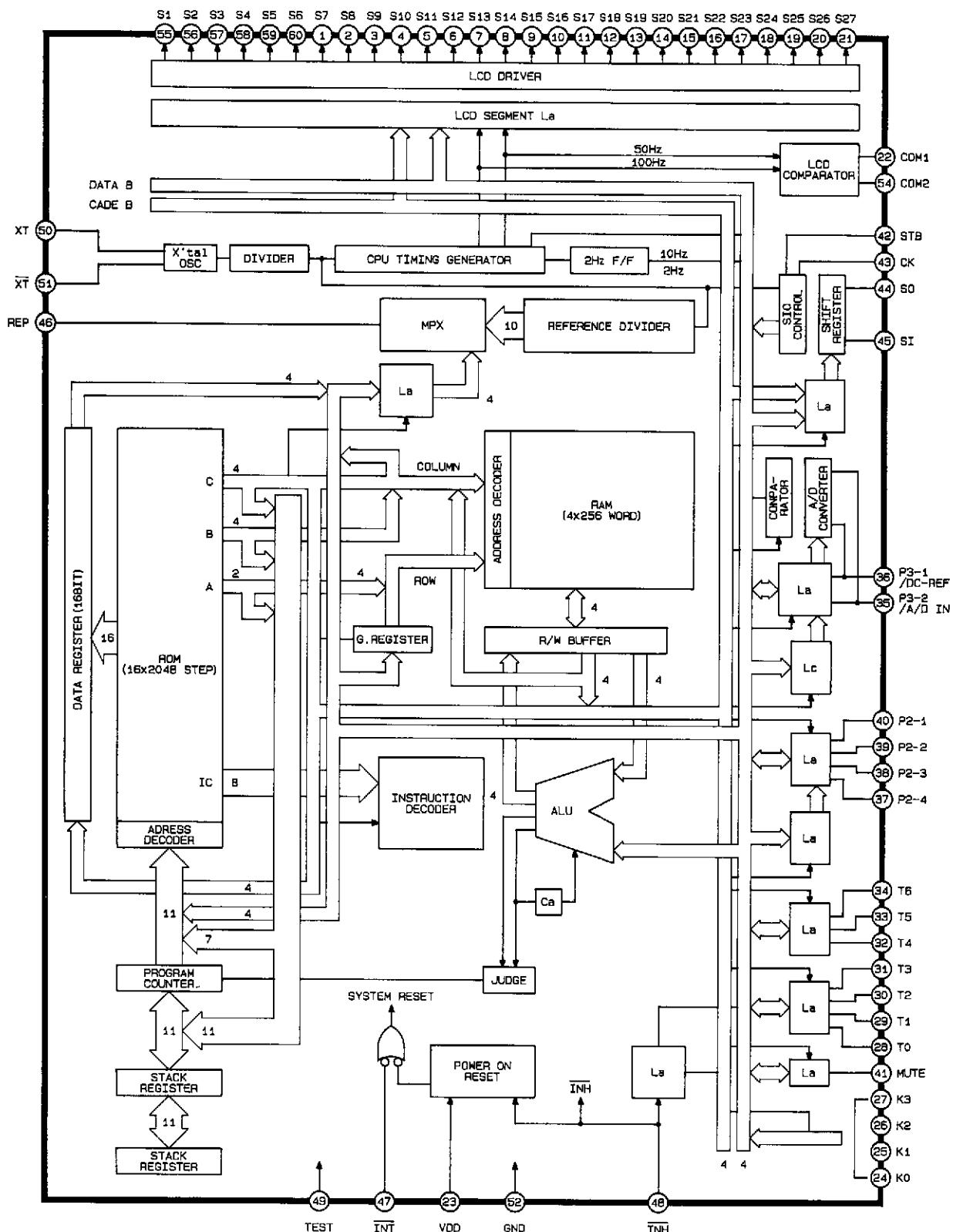
( ) : TC9174P

**IC702 : TC9172AP**  
Pre Scaler

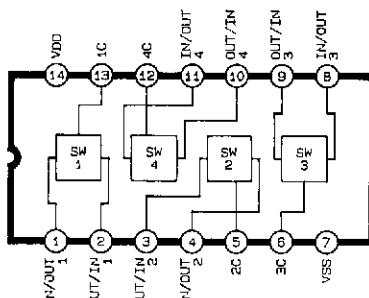


## IC701 : TC9306F-025

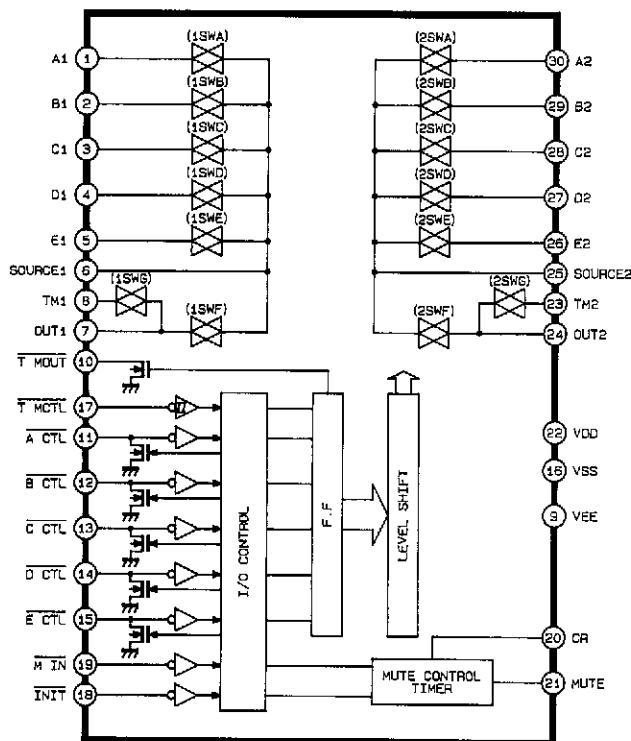
## Micro Computer



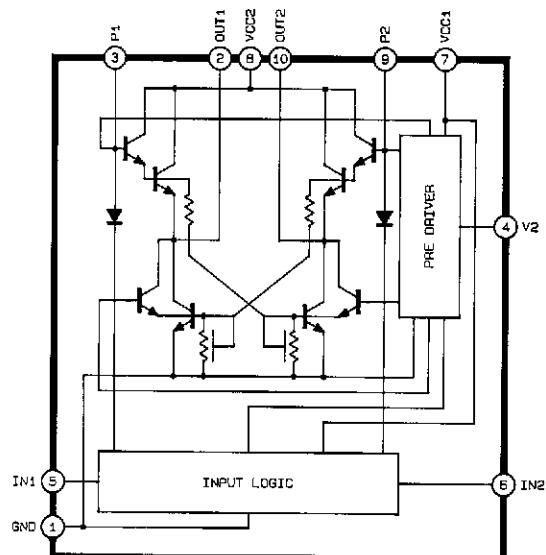
IC806, 807 : LC4966  
Video Input/Record Out  
Selector



**IC801, 802 : LC7818**  
**Audio Input Record**  
**Out Selector**

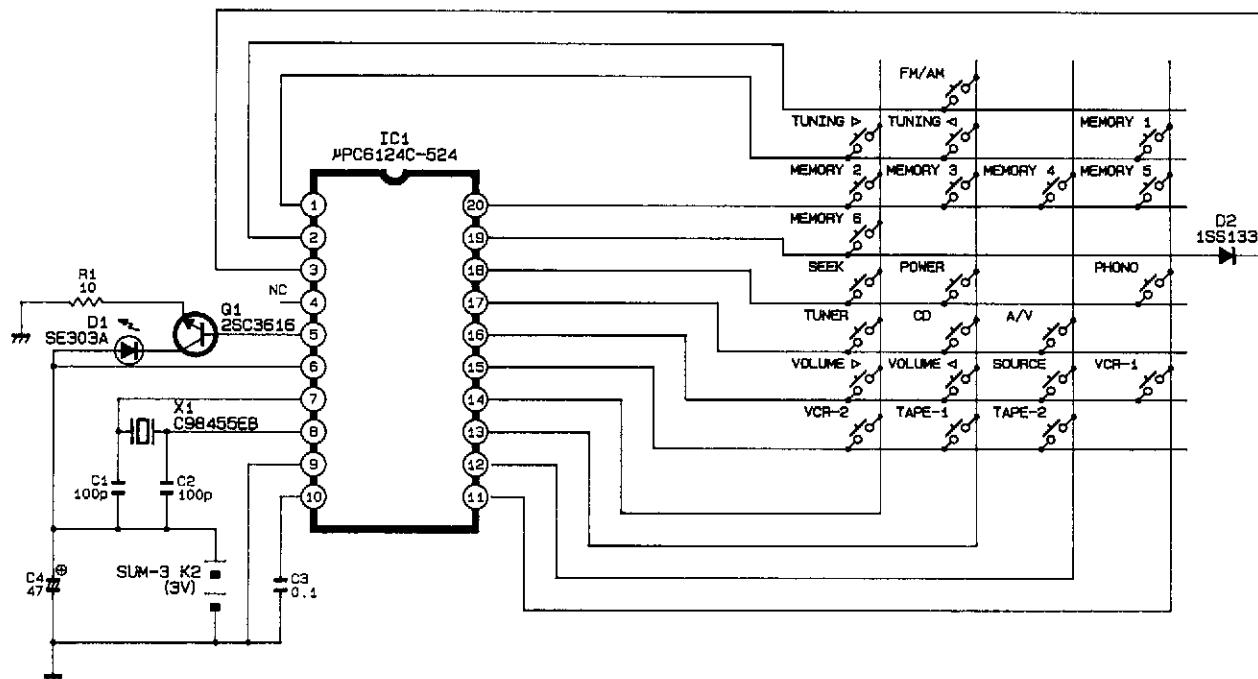


**IC805 : LB1641**  
**Volume Motor Driver**



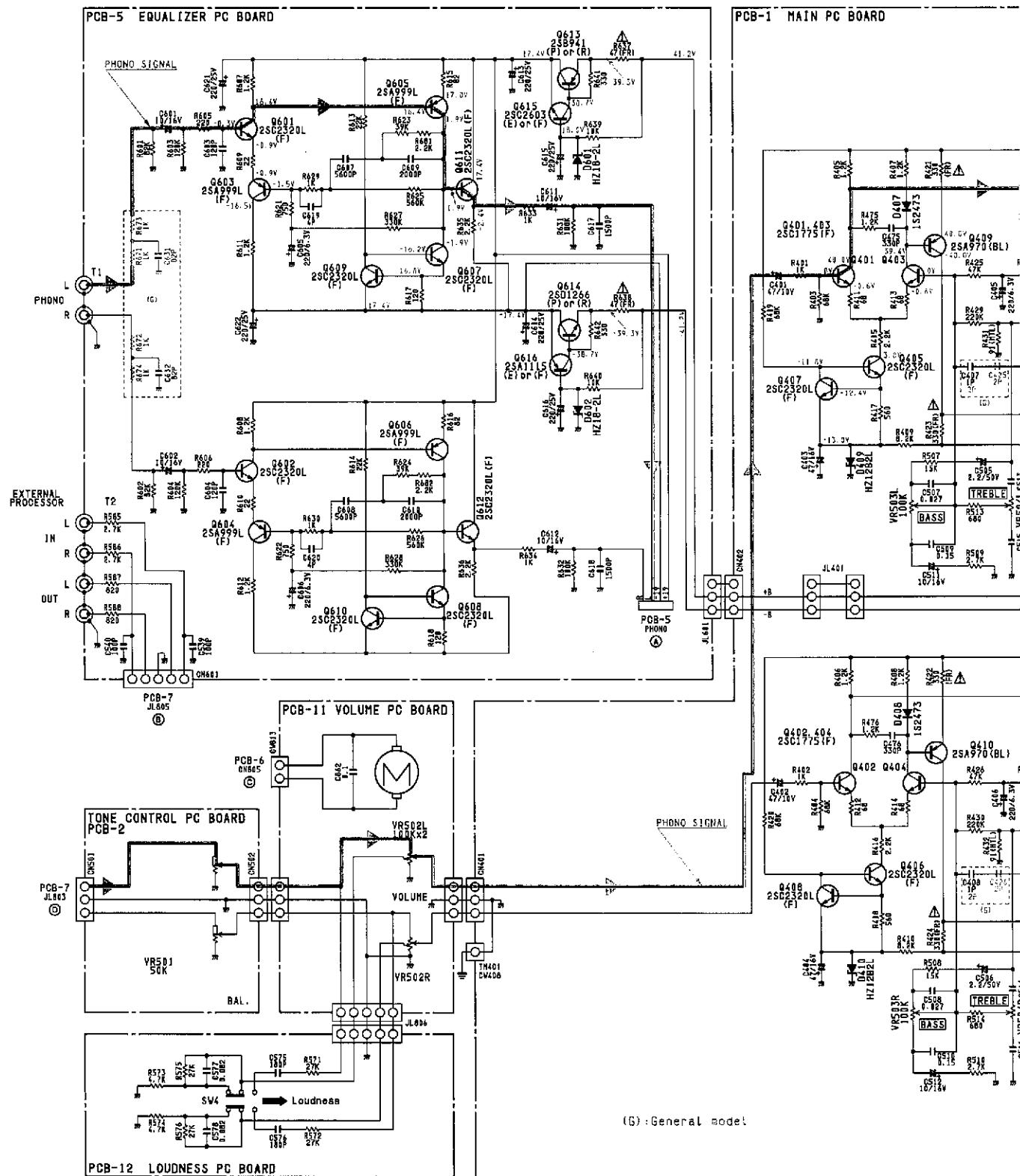
## SCHEMATIC DIAGRAM

Infrared remote control

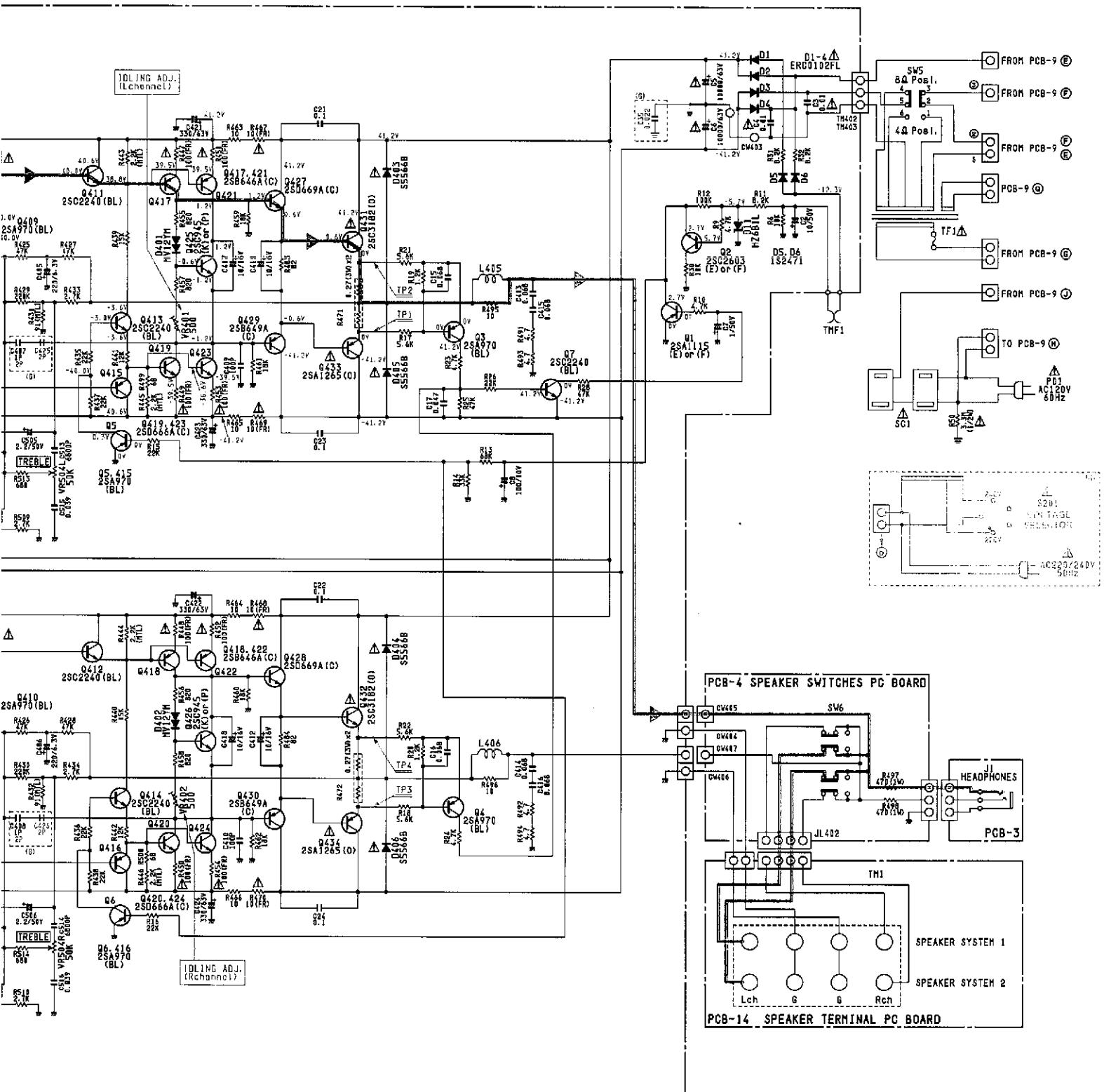


**NOTE:** Infrared remote control parts not available.  
 Schematic diagram supplied for reference only.

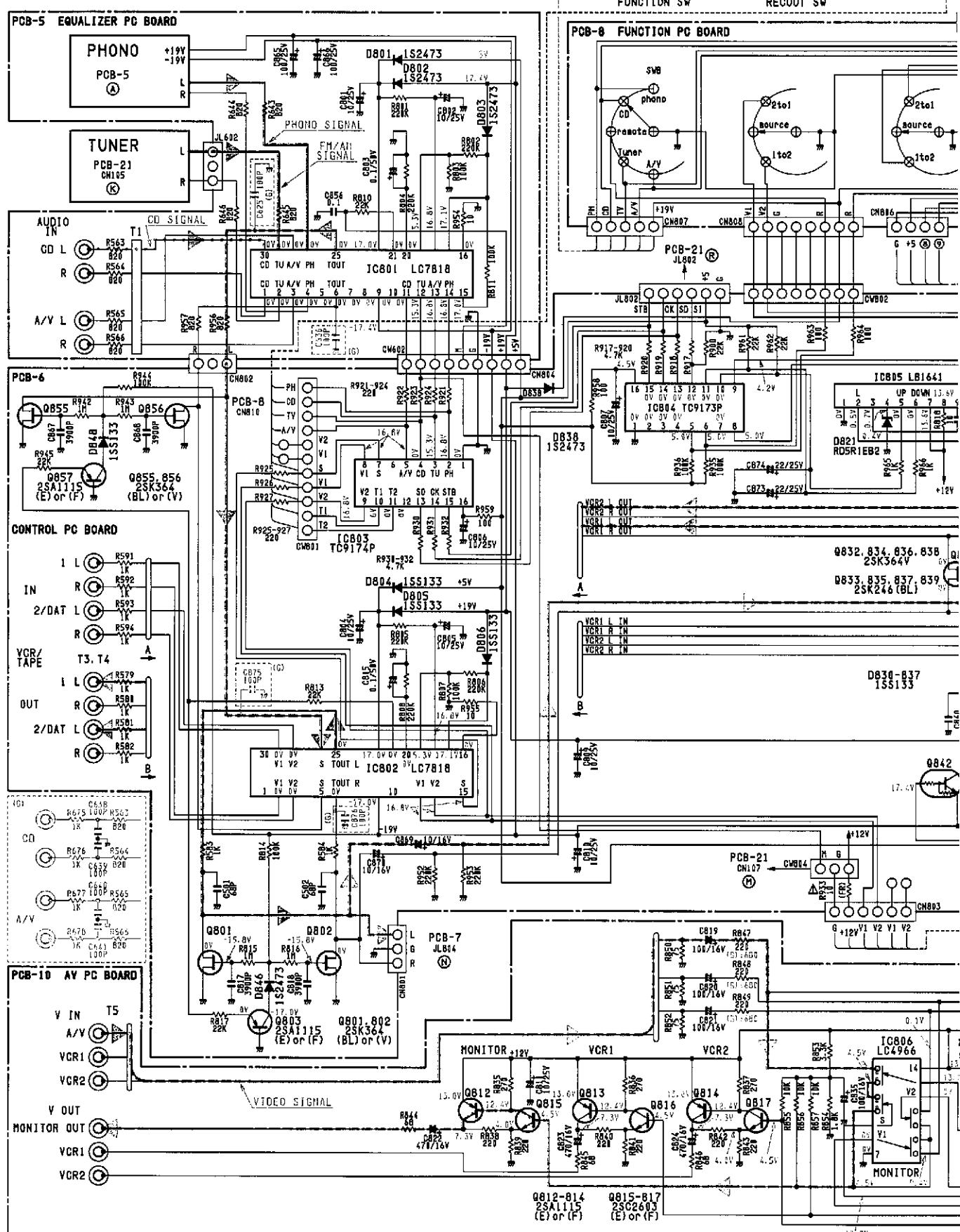
# SCHEMATIC DIAGRAM (1)

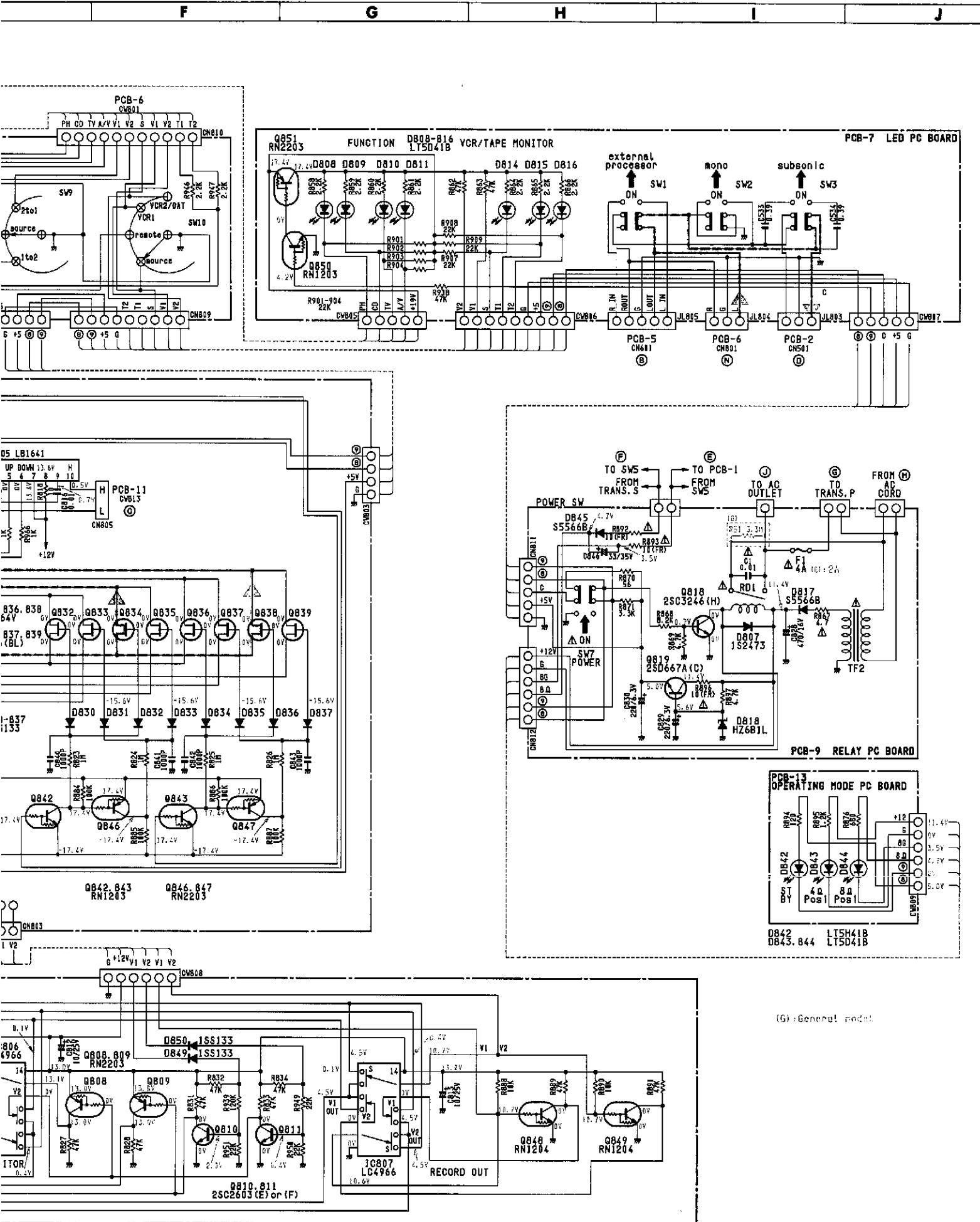


**E**      **F**      **G**      **H**      **I**      **J**

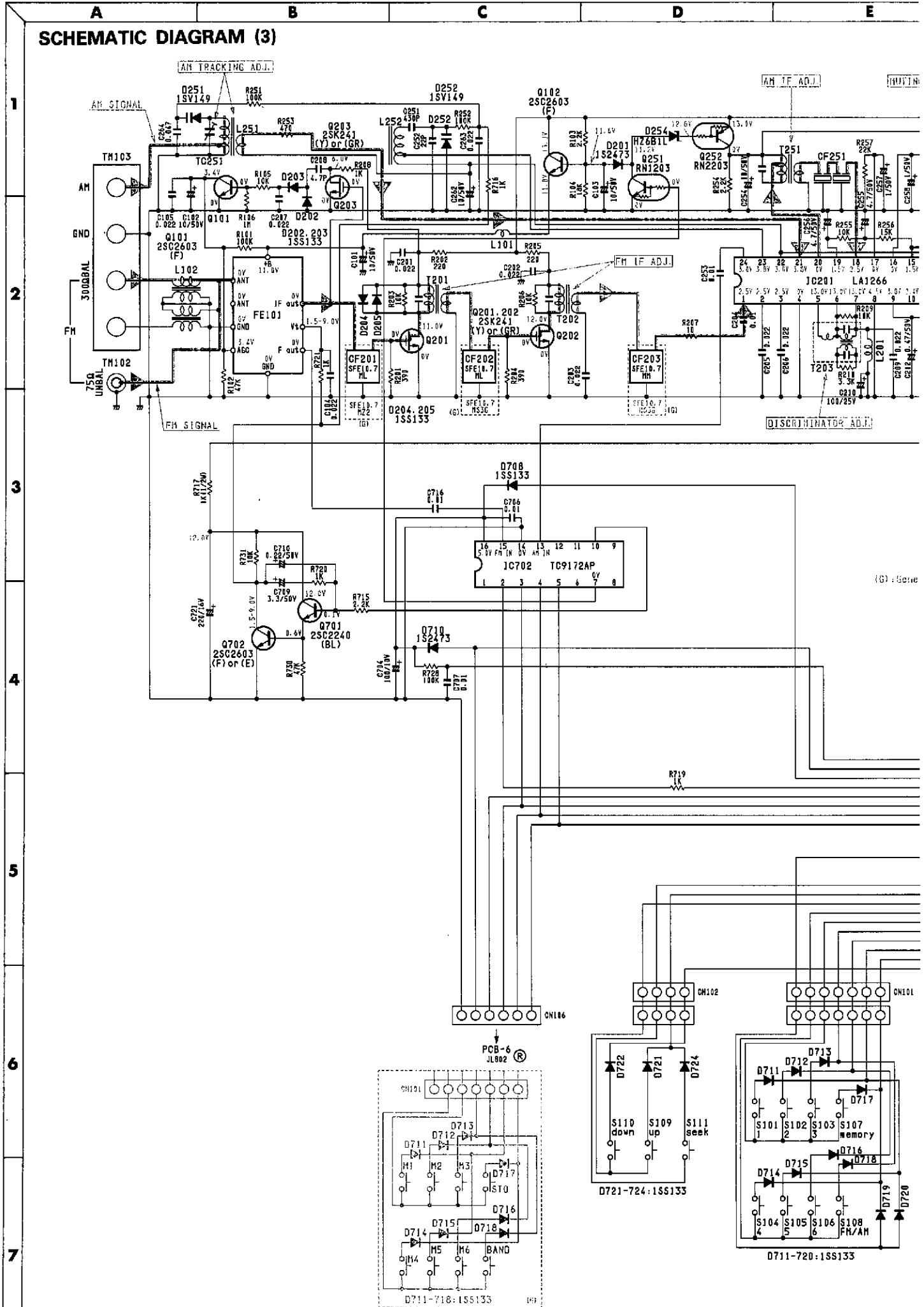


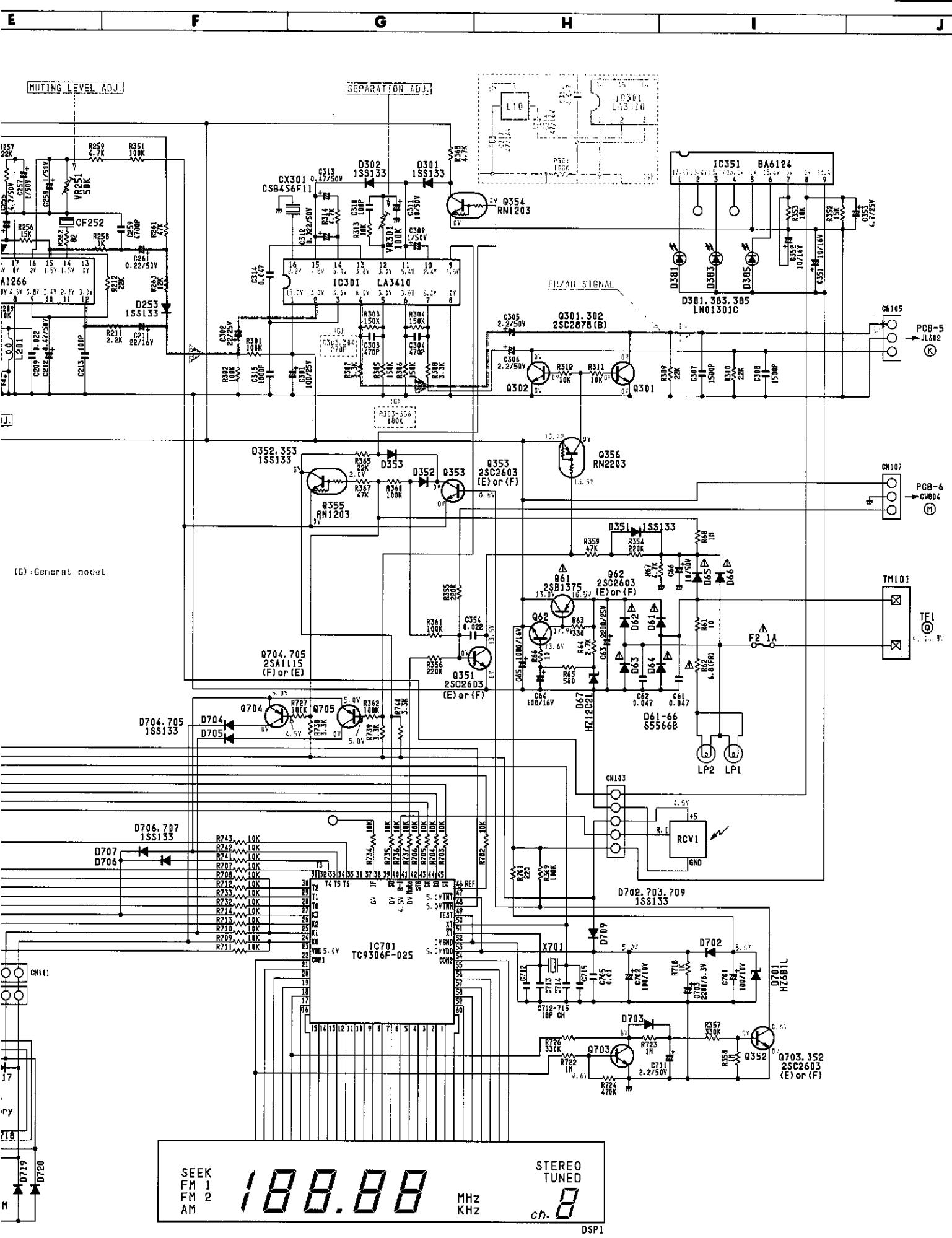
## **SCHEMATIC DIAGRAM (2)**

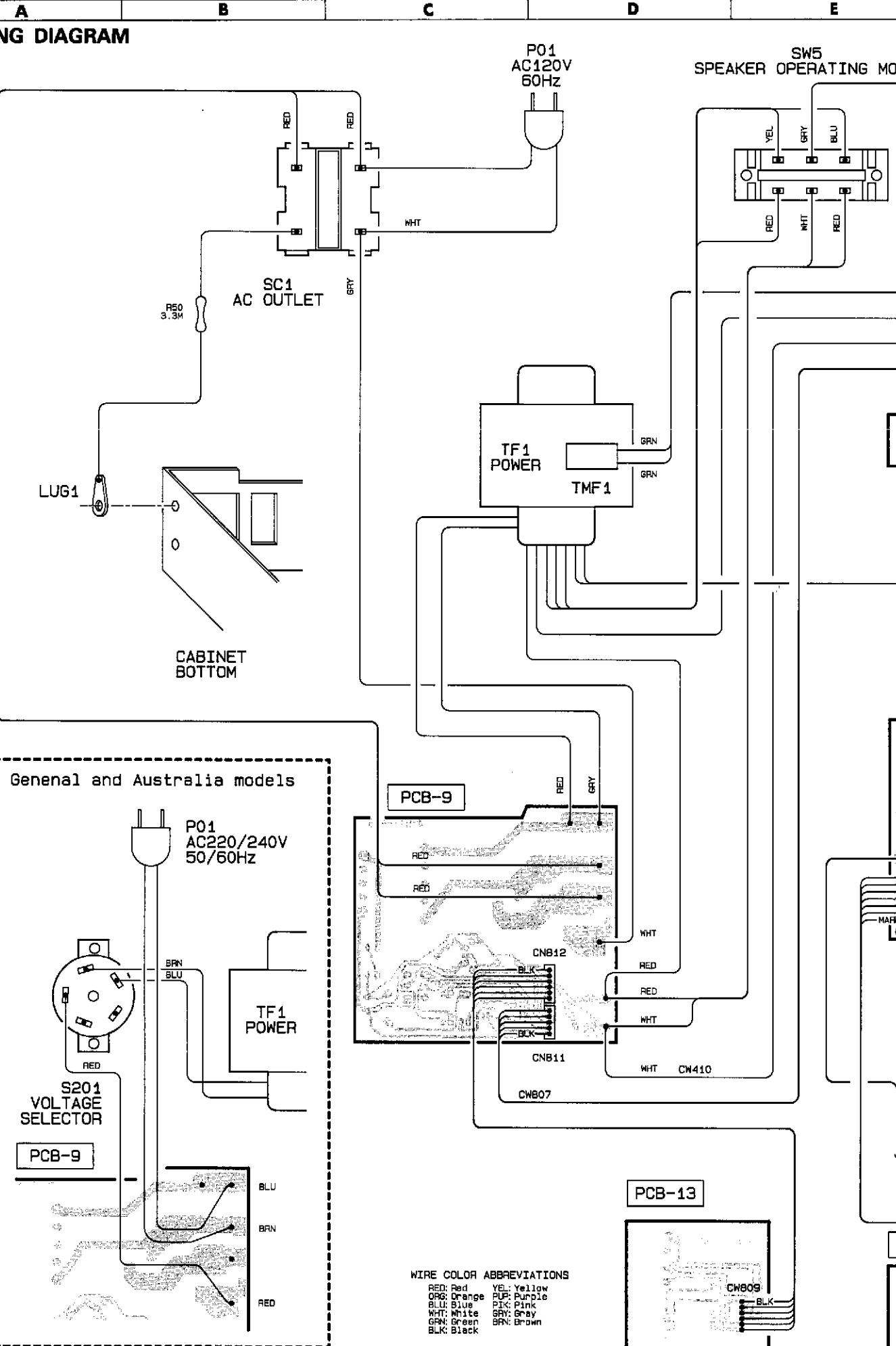




### **SCHEMATIC DIAGRAM (3)**







F

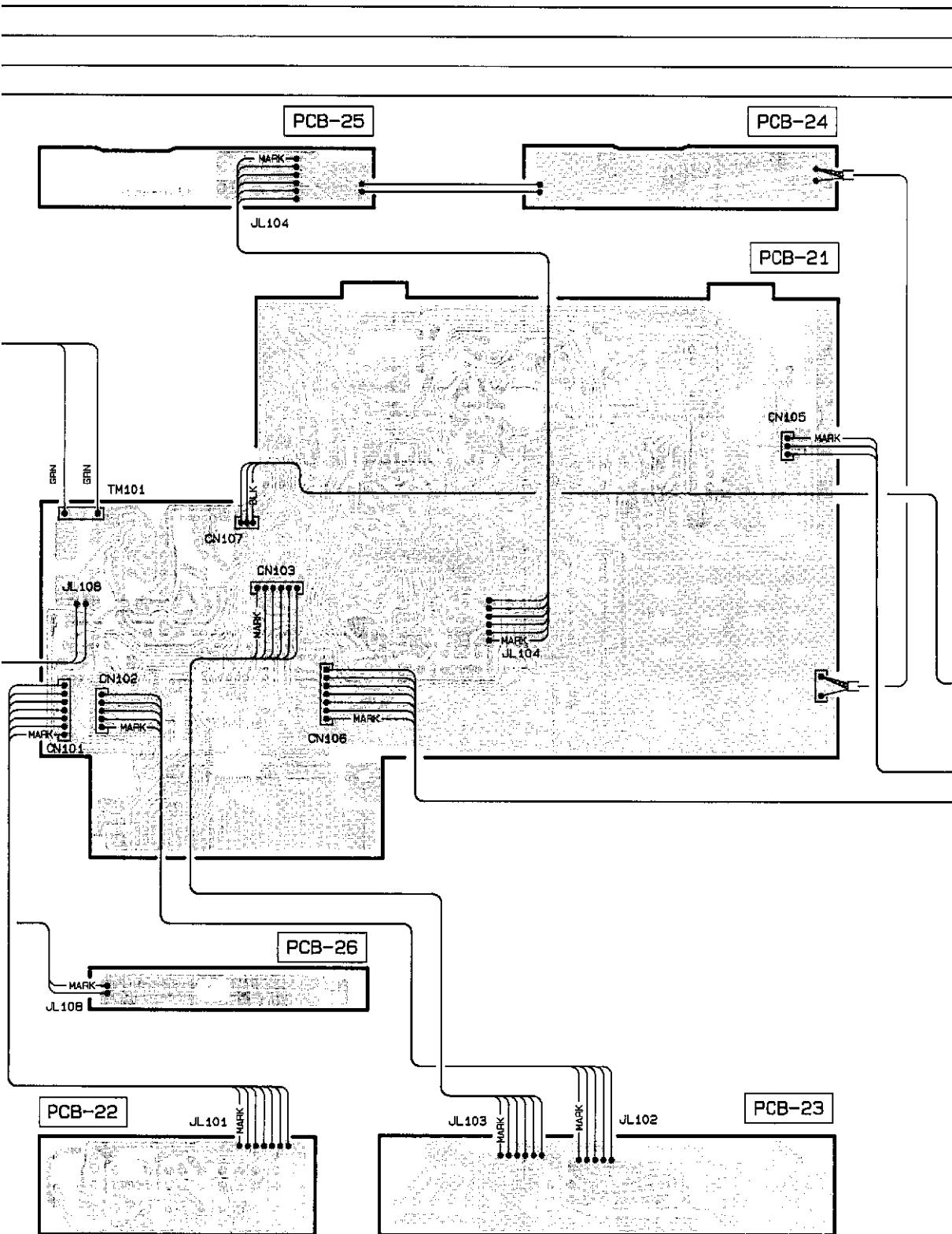
G

H

I

J

NG MODE



CW409

**A**

BLK

**B**

CW410

**C**

CWB07

**D**

JL802

**E**

CWB04

**F**

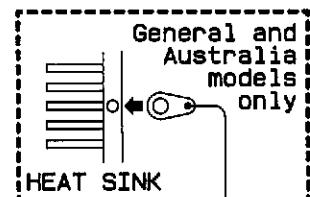
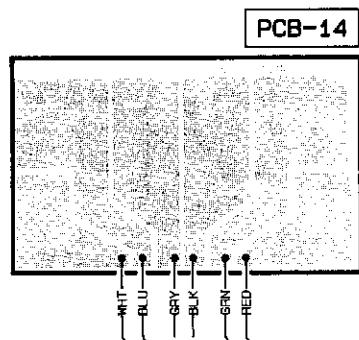
JL602

**G****H**

A B C D E

WIRING DIAGRAM

1



2

CW404 CW405

GRY WHT

CW406 CW407

BLK RED

3

A CH409

B BLK

C CH410

D CN807

E JL802

F CW804

G JL602

H

GRY CH409  
WHT CH410  
BLK CH403  
GRN  
GRN

CN403 MARK

CN403

BLK

BLK  
BLK  
CN402

RED

GRY

LUG2

FRONT CHASSIS

4

PCB-3

PCB-4

MARK

RED WHT GRN BLU BLK

JL108

5

PCB-2

MARK

W108

BLK

RED

GRY

CN501

6

CN502

MARK

W108

BLK

RED

GRY

CN501

7

JL803

MARK

BLK

CW807

MARK

BLK

CW806

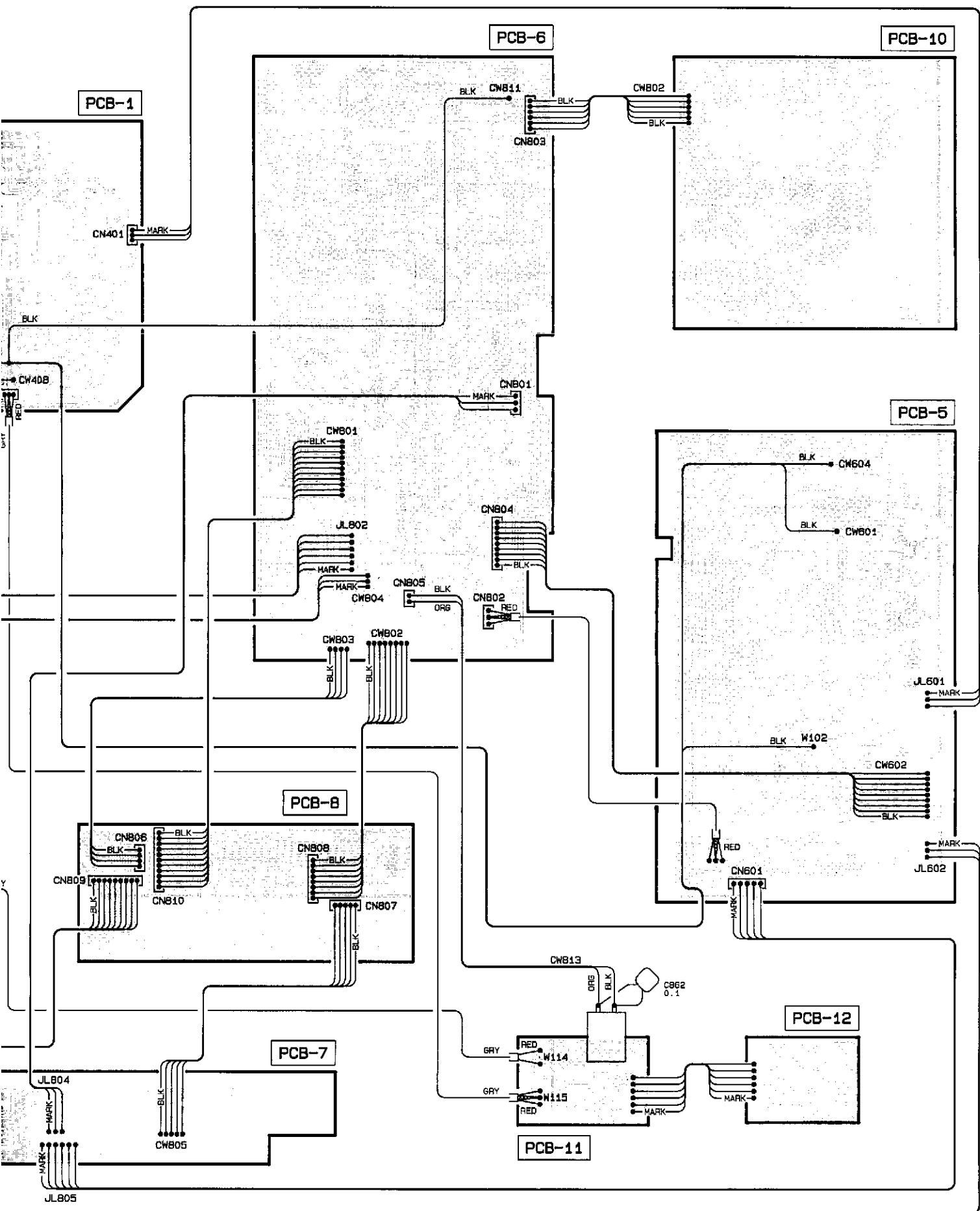
F

G

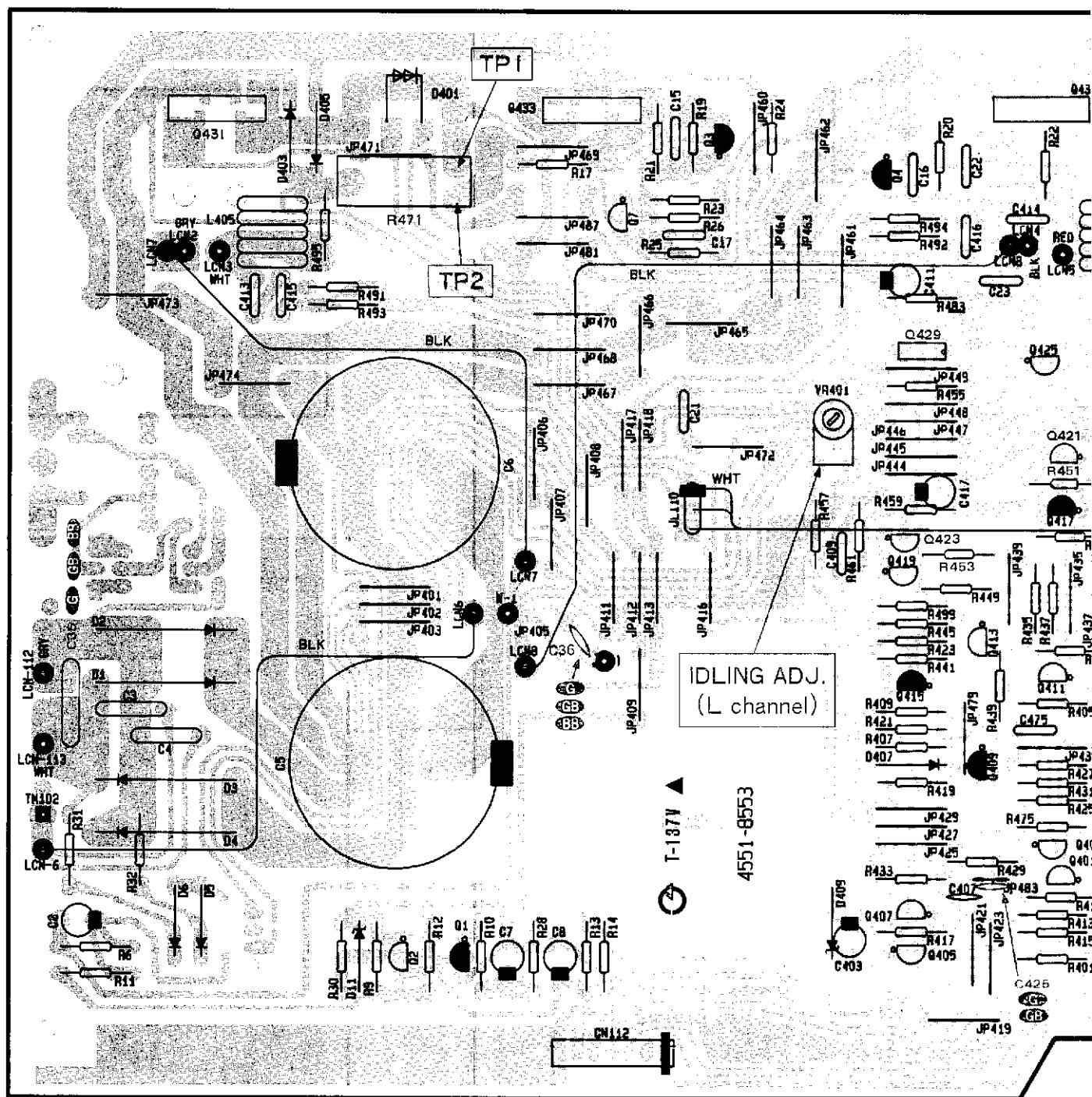
H

1

J



## P.C. BOARDS (1)



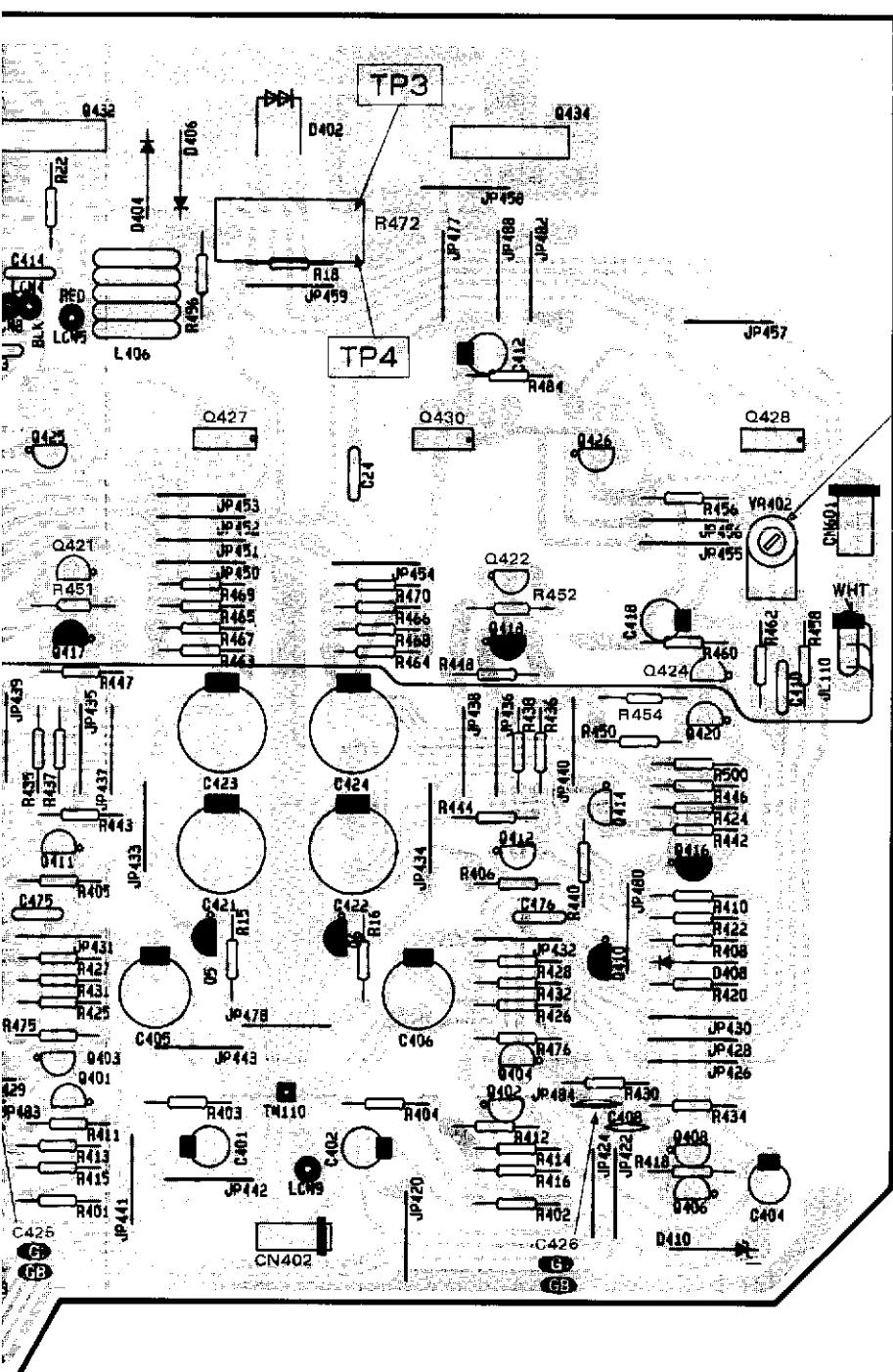
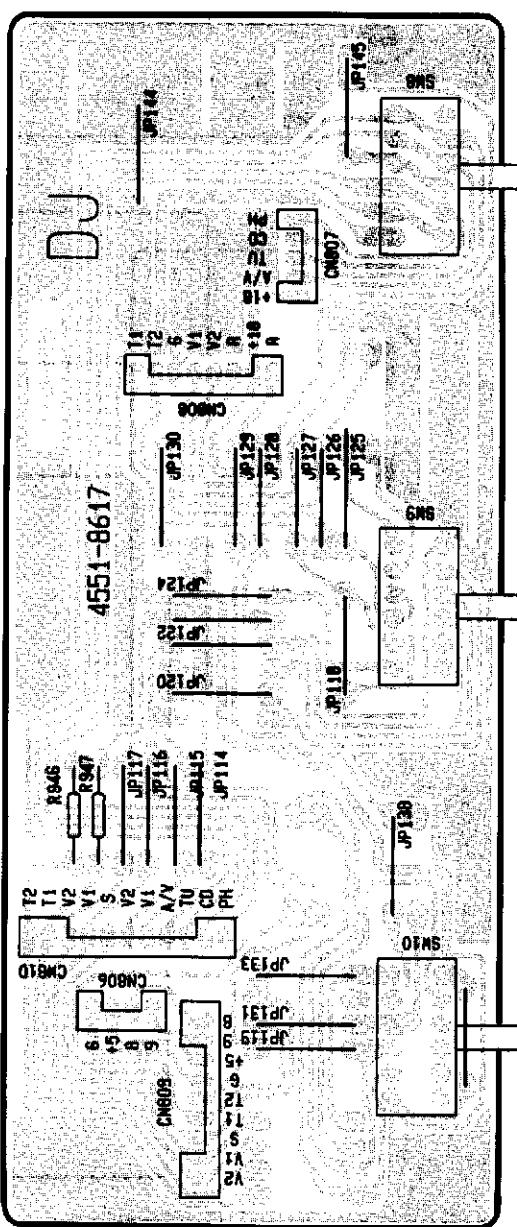
F

G

H

I

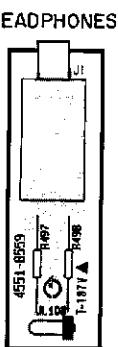
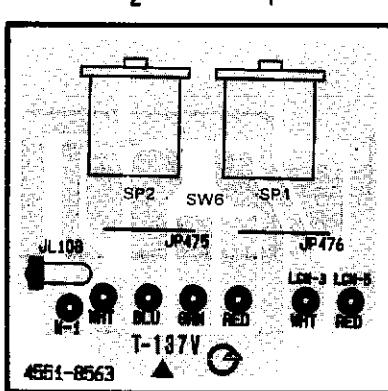
J

**PCB-1 Main P.C. Board**IDLING ADJ.  
(R channel)**PCB-8 Function P.C. Board**

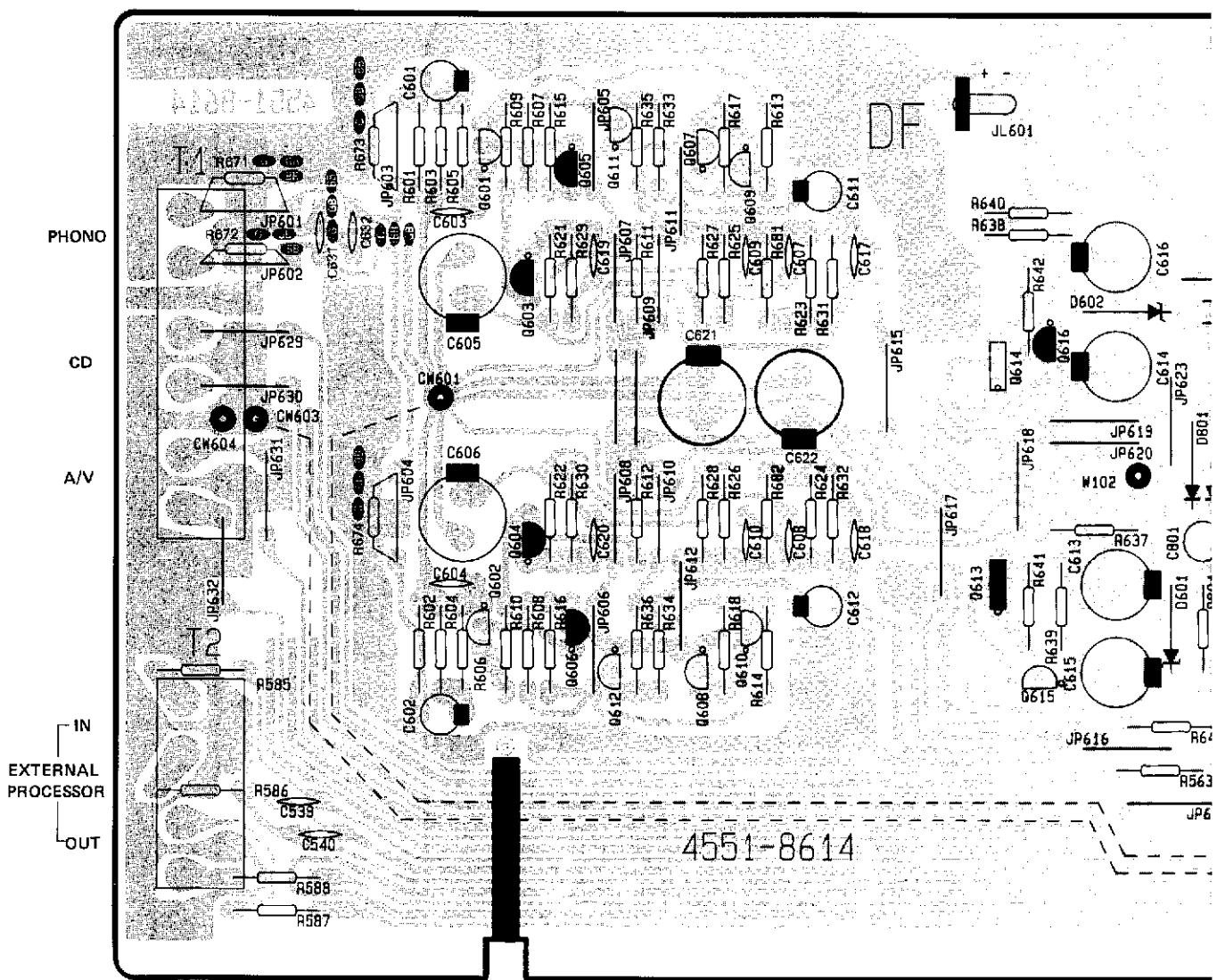
FUNCTION

RECORD OUT

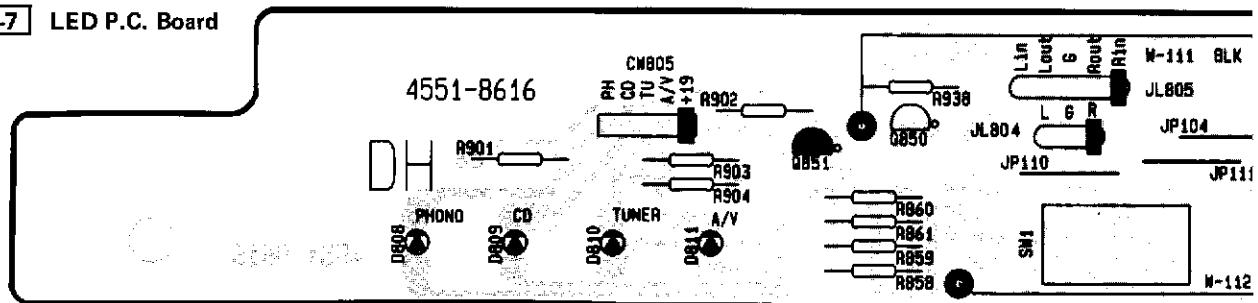
VCR/TAPE MONITOR

**B-3 Headphone Jack P.C. Board****PCB-4 Speaker Switches P.C. Board****SPEAKERS**

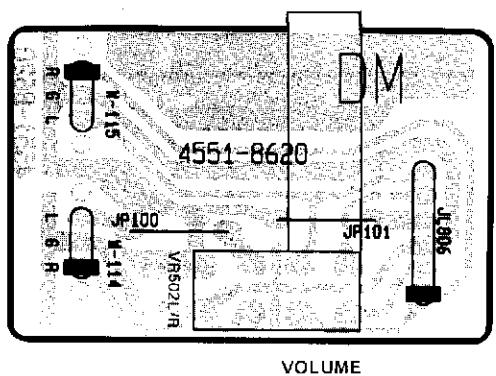
## P.C. BOARDS (2)



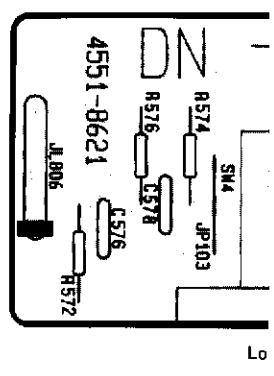
## **PCB-7** LED P.C. Board



## **PCB-11 Volume P.C. Board**

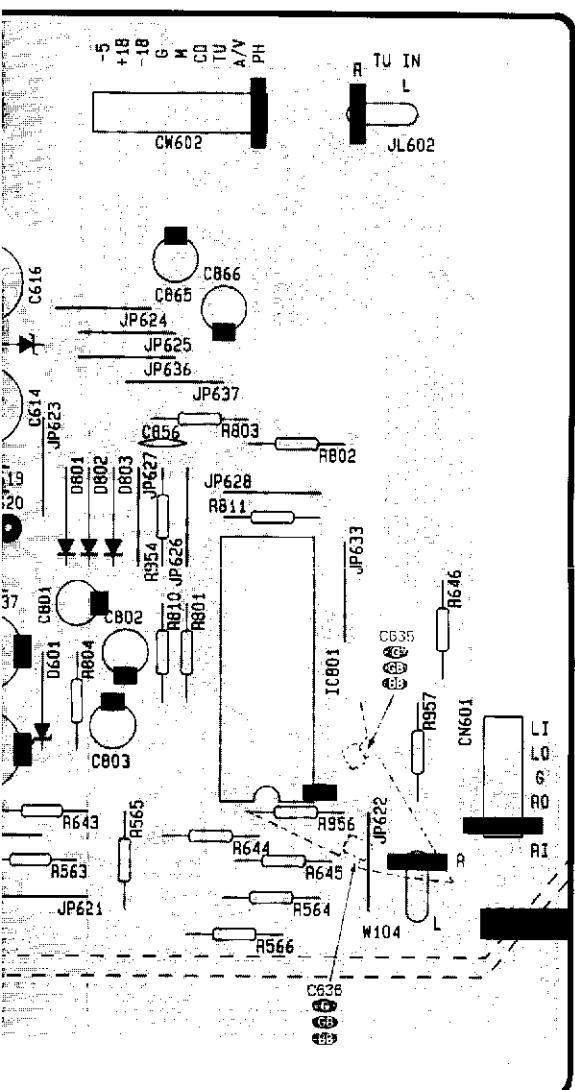


PCB-12 Loudness P.C.

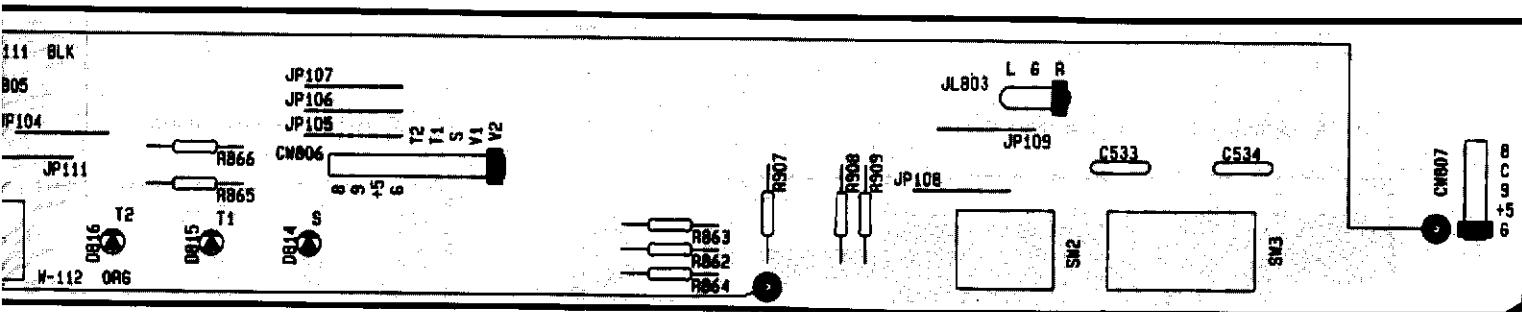
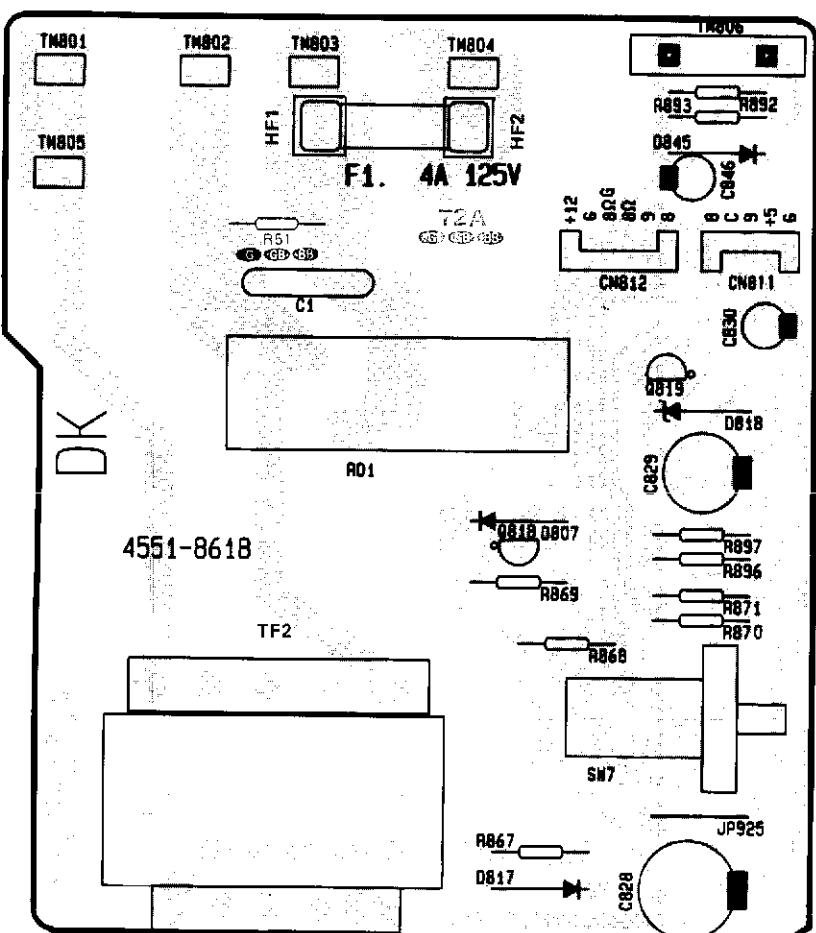


E F G H I J

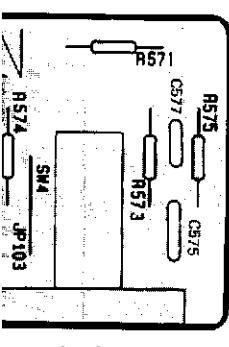
PCB-5 Equarizer P.C. Board



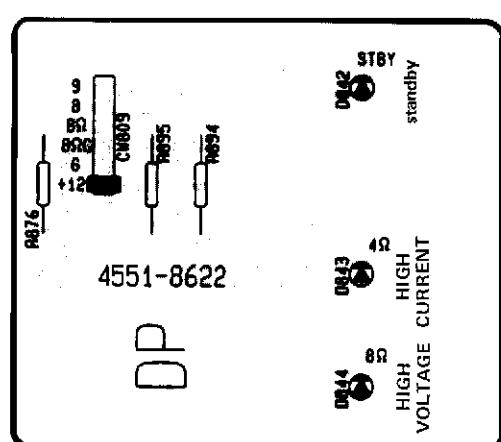
PCB-9 Lelay P.C. Board

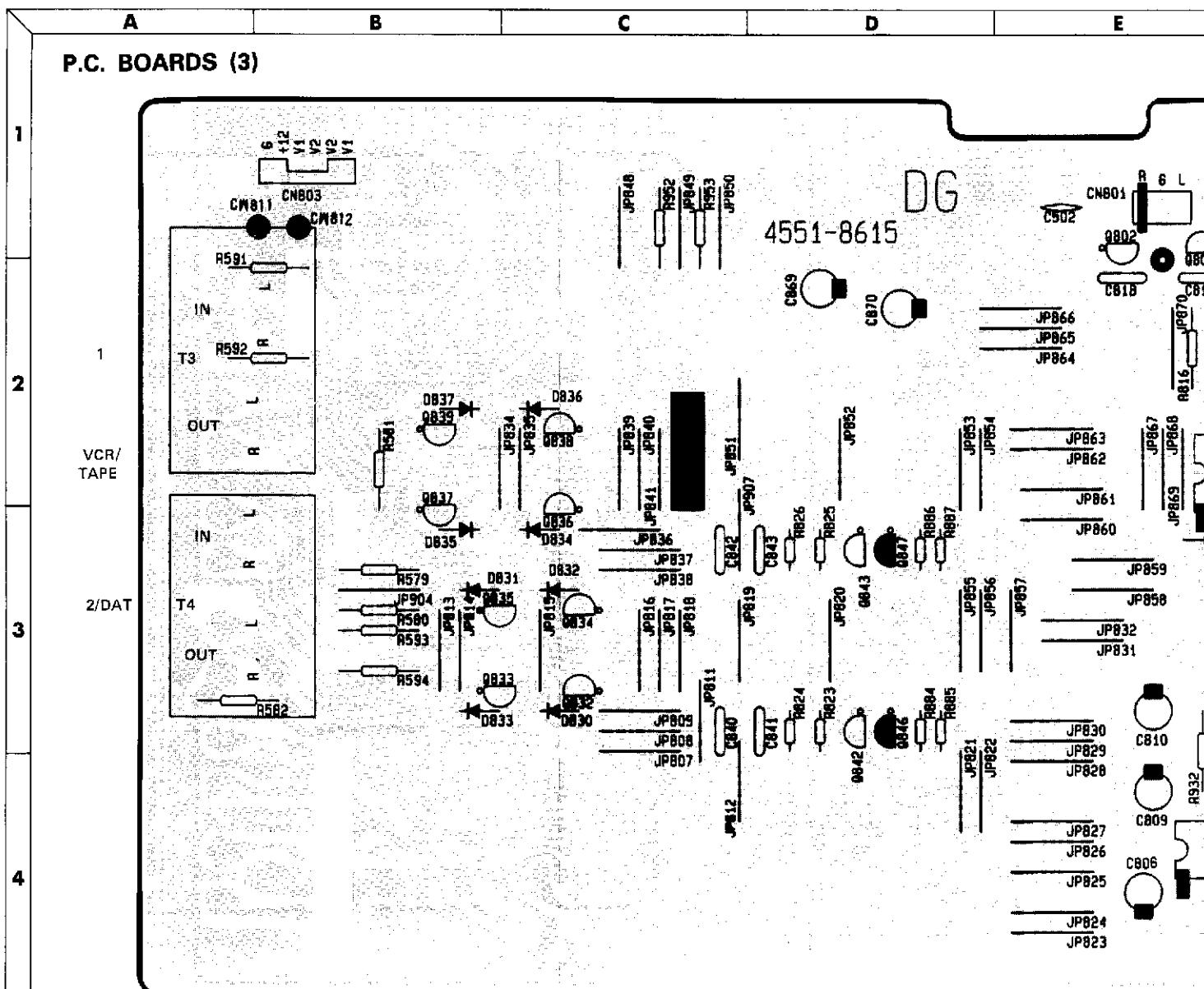


Loudness P.C. Board

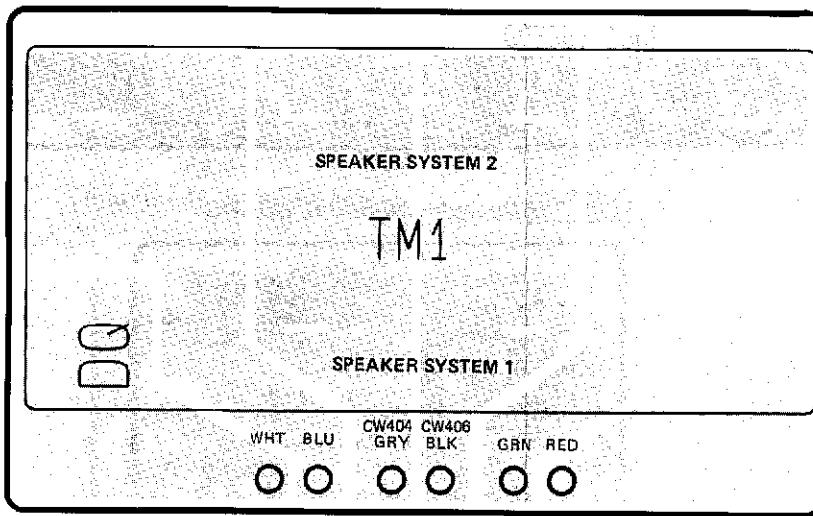


PCB-13 Operating Mode P.C. BOARD

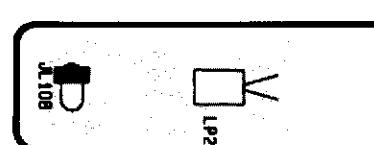




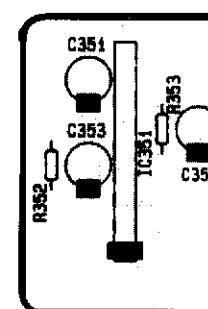
**PCB-14** Speaker Terminal P.C. Board



PCB-26 Lamp P.C. Board



PCB-23 Tuni

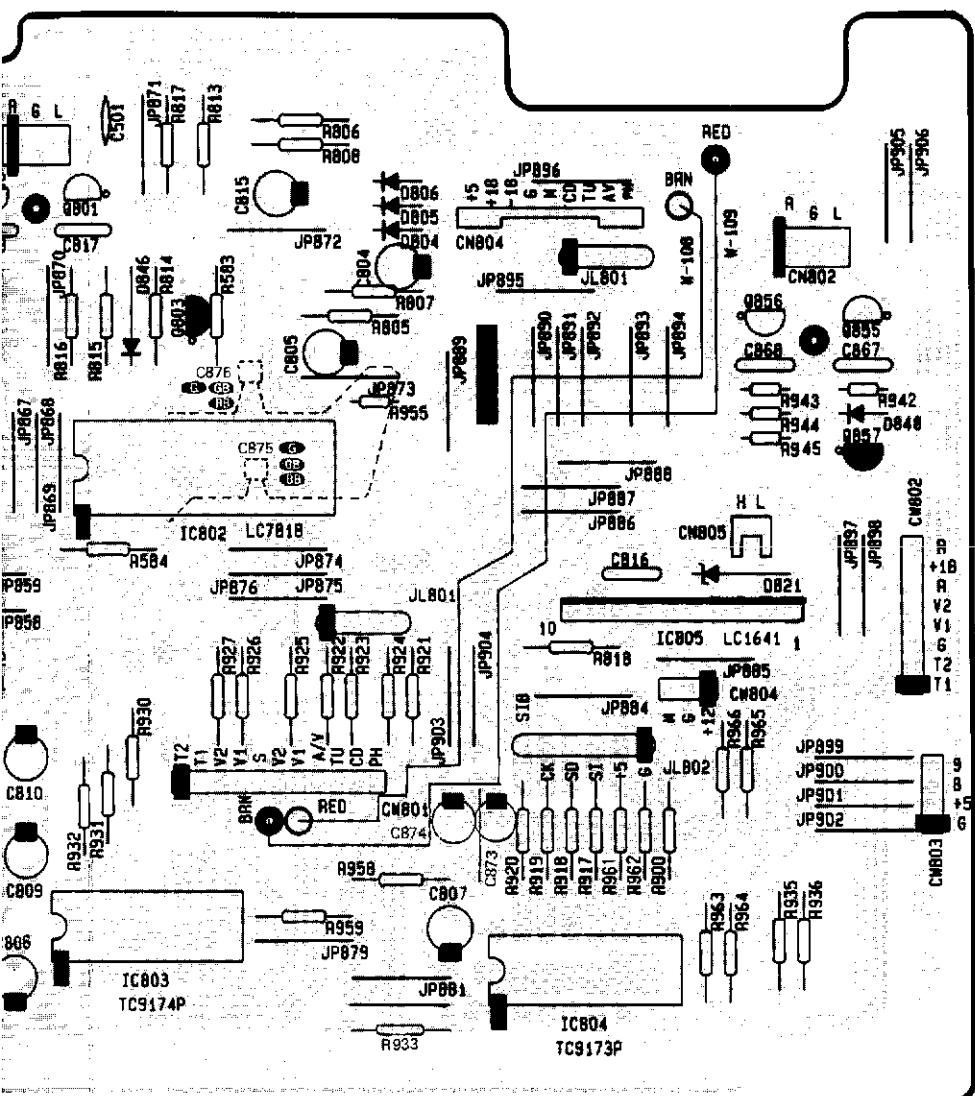


F

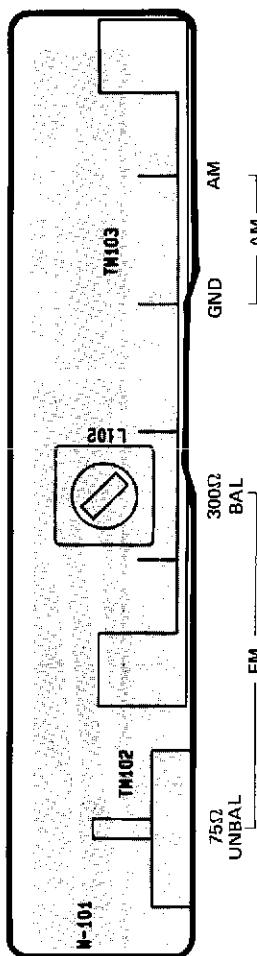
G

H

## **PCB-6 Control P.C. Board**

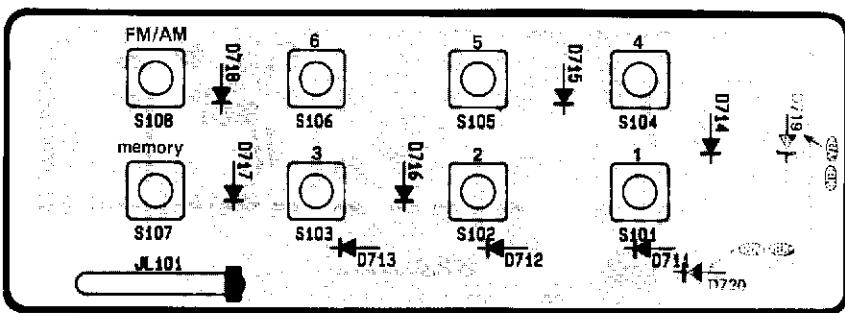


PCB-24 Antenna Terminal P.C. Board

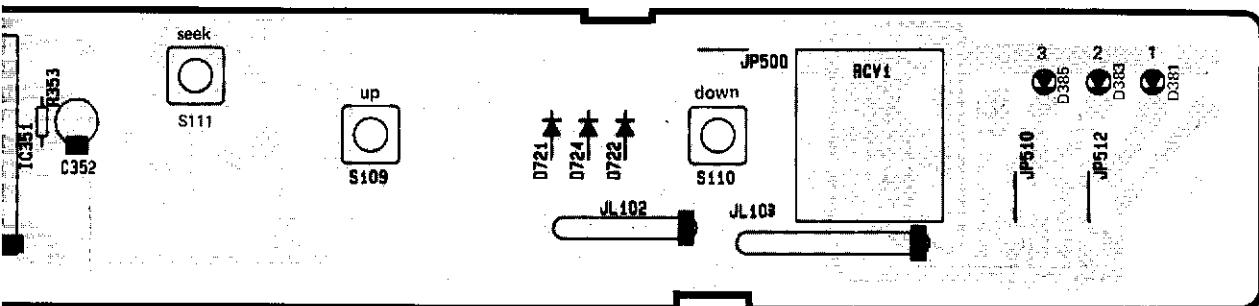


PCB-22 Tact Switches P.C. Board

#### **FM/AM PRESET MEMORY**



## 23 Tuning Switch P.C. Board



## **P.C. BOARDS (4)**

## **PCB-21 Tuner P.C. Board**

8

2

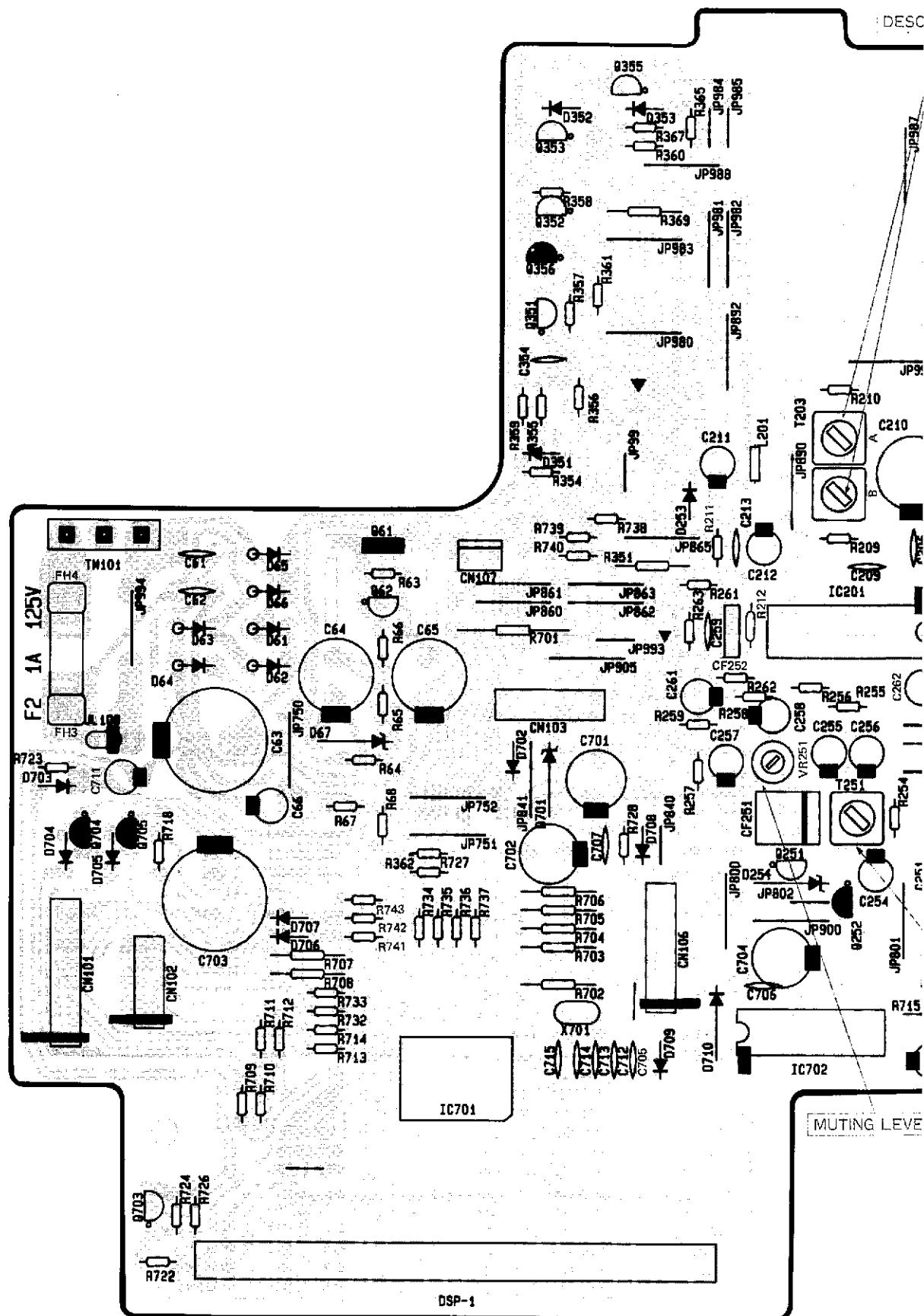
1

1

5

6

7



---

5

---

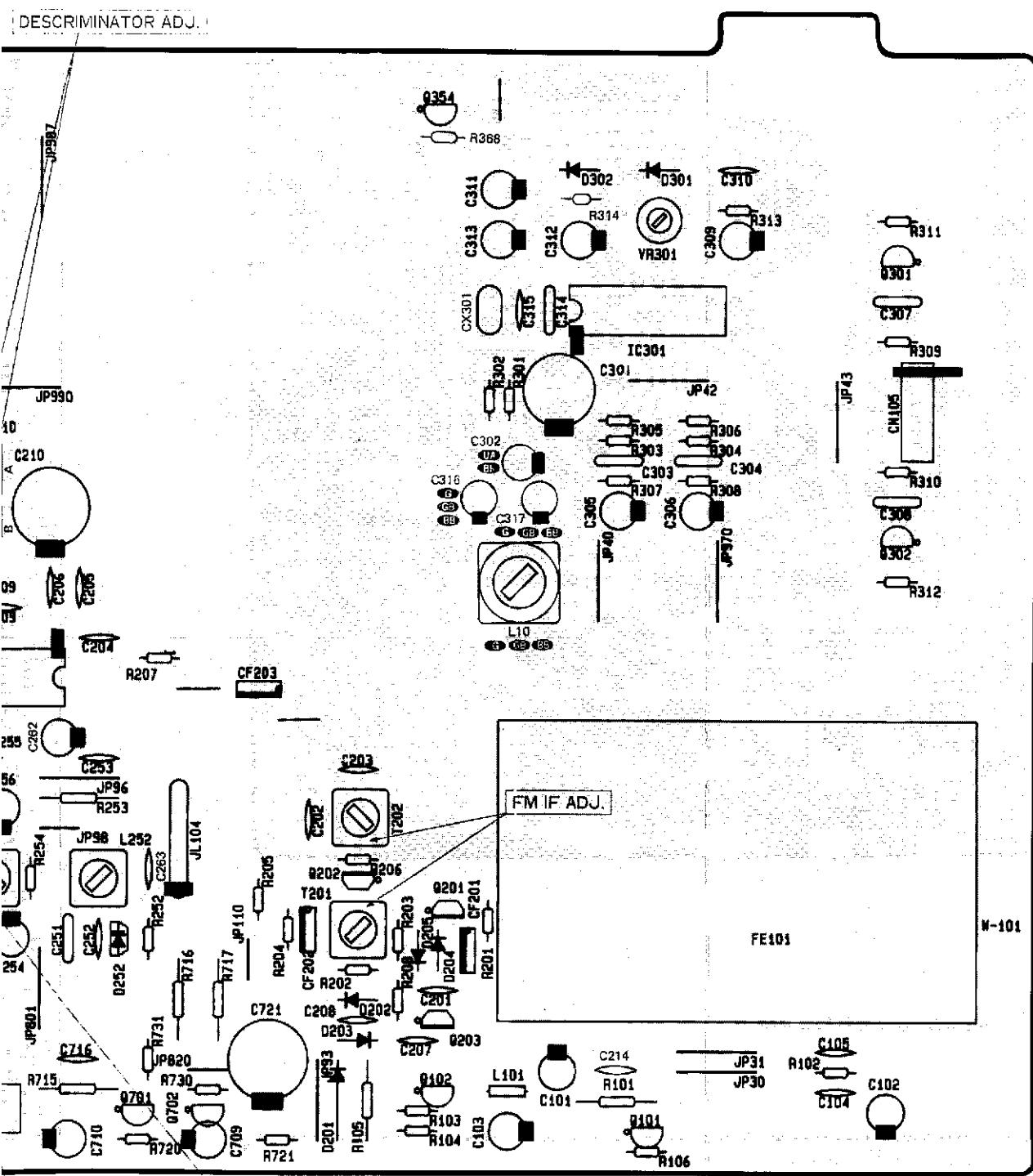
8

1

1

1

**DISCRIMINATOR ADJ.**



G LEVEL ADJ.

AM IF ADJ.

A

B

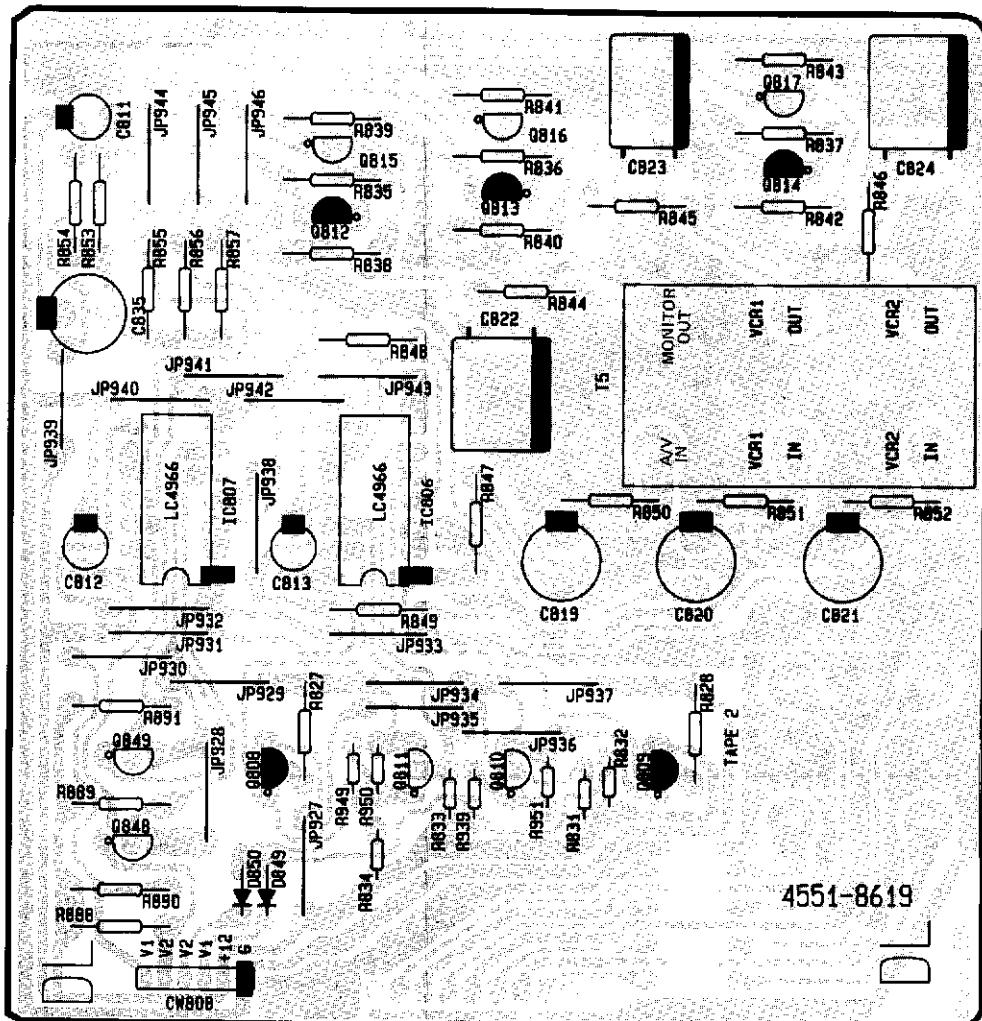
C

D

E

**P.C. BOARDS (5)**

1

**PCB-10** AV P.C. Board

2

3

4

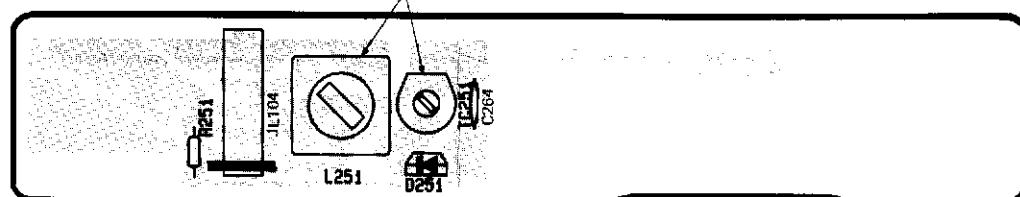
5

6

7

**PCB-25** AM adjustment P.C. Board

AM TRACKING ADJ.



# ELECTRICAL PARTS LIST

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
<b>PCB-1 MAIN P.C. BOARD</b>							
<b>CAPACITORS</b>							
662	C2	5345-106F041	CAP, MINI ELE 10 $\mu$ /50V	604	R404	5135-683522	RES, CBN 1/2P 68K
689	△C3	5362-103048	CAP, CER .01 $\mu$	631	R405	5174-122381	RES, MTL 1/4P 1.2K
689	△C4	5362-103048	CAP, CER .01 $\mu$	631	R406	5174-122381	RES, MTL 1/4P 1.2K
687	△C5	5341-002GM109	CAP, ELE 1000 $\mu$ /63V	606	R409	5135-822522	RES, CBN 1/2P 8.2K
687	△C6	5341-002GM109	CAP, ELE 1000 $\mu$ /63V	607	R410	5135-822522	RES, CBN 1/2P 8.2K
660	C7	5345-105F041	CAP, MINI ELE 1 $\mu$ /50V	607	R412	5135-680522	RES, CBN 1/2P 68
661	C8	5345-107B041	CAP, MINI ELE 100 $\mu$ /10V	607	R413	5135-680522	RES, CBN 1/2P 68
663	C15	5354-683593	CAP, MYL .068 $\mu$	623	R415	5135-222522	RES, CBN 1/2P 2.2K
663	C16	5354-683593	CAP, MYL .068 $\mu$	623	R416	5135-222522	RES, CBN 1/2P 2.2K
664	C17	5354-683J1HM	CAP, MYL .047 $\mu$	609	R417	5135-561522	RES, CBN 1/2P 560
665	C21	5354-104593	CAP, MYL .1 $\mu$	609	R418	5135-561522	RES, CBN 1/2P 560
665	C22	5354-104593	CAP, MYL .1 $\mu$	604	R419	5135-683522	RES, CBN 1/2P 68K
665	C23	5354-104593	CAP, MYL .1 $\mu$	604	R420	5135-683522	RES, CBN 1/2P 68K
665	C24	5354-104593	CAP, MYL .1 $\mu$	638	△R421	5102-3315116	RES, FUSE 330
057B	C35	5352-1041957	CAP, MTL 1 $\mu$ G GB BB	638	△R422	5102-3315116	RES, FUSE 330
061B	C36	5361-223ZF	CAP, CER .022 $\mu$ G GB BB	638	△R423	5102-3315116	RES, FUSE 330
581	C401	5345-476B0951	CAP, MINI ELE 47 $\mu$ /10V	638	△R424	5102-3315116	RES, FUSE 330
581	C402	5345-476B0951	CAP, MINI ELE 47 $\mu$ /10V	610	R425	5135-473522	RES, CBN 1/2P 47K
583	C403	5345-476C0951	CAP, MINI ELE 47 $\mu$ /16V	610	R426	5135-473522	RES, CBN 1/2P 47K
583	C404	5345-476C0951	CAP, MINI ELE 47 $\mu$ /16V	610	R427	5135-473522	RES, CBN 1/2P 47K
582	C405	5345-227A0951	CAP, MINI ELE 220 $\mu$ /6.3V	610	R428	5135-473522	RES, CBN 1/2P 47K
582	C406	5345-227A0951	CAP, MINI ELE 220 $\mu$ /6.3V	611	R429	5135-224522	RES, CBN 1/2P 220K
592	C407	5353-010933	CAP, MCA 1p UA BK	611	R430	5135-224522	RES, CBN 1/2P 220K
034B	C407	5353-020934	CAP, MCA 2p G GB BB	632	R431	5174-910381	RES, MTL 1/4P 91
592	C408	5353-010933	CAP, MCA 1p UA BK	632	R432	5174-910381	RES, MTL 1/4P 91
034B	C408	5353-020934	CAP, MCA 2p G GB BB	612	R433	5135-272522	RES, CBN 1/2P 2.7K
590	C409	5359-1015851	CAP, PPP 100p	612	R434	5135-272522	RES, CBN 1/2P 2.7K
590	C410	5359-1015851	CAP, PPP 100p	613	R435	5135-223522	RES, CBN 1/2P 22K
580	C411	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	613	R436	5135-223522	RES, CBN 1/2P 22K
580	C412	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	613	R437	5135-223522	RES, CBN 1/2P 22K
595	C413	5354-683J1HM	CAP, MYL .068 $\mu$	613	R438	5135-223522	RES, CBN 1/2P 22K
595	C414	5354-683J1HM	CAP, MYL .068 $\mu$	624	R439	5135-153522	RES, CBN 1/2P 15K
595	C415	5354-683J1HM	CAP, MYL .068 $\mu$	624	R440	5135-153522	RES, CBN 1/2P 15K
595	C416	5354-683J1HM	CAP, MYL .068 $\mu$	614	R441	5135-123522	RES, CBN 1/2P 12K
580	C417	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	614	R442	5135-123522	RES, CBN 1/2P 12K
580	C418	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	633	R443	5174-222381	RES, MTL 1/4P 2.2K
584	C421	5345-337G045	CAP, MINI ELE 330 $\mu$ /63V	633	R444	5174-222381	RES, MTL 1/4P 2.2K
584	C422	5345-337G045	CAP, MINI ELE 330 $\mu$ /63V	633	R445	5174-222381	RES, MTL 1/4P 2.2K
584	C423	5345-337G045	CAP, MINI ELE 330 $\mu$ /63V	633	R446	5174-222381	RES, MTL 1/4P 2.2K
584	C424	5345-337G045	CAP, MINI ELE 330 $\mu$ /63V	636	△R447	5102-1015116	RES, FUSE 100
034B	C425	5353-020934	CAP, MCA 2p G GB BB	636	△R448	5102-1015116	RES, FUSE 100
034B	C426	5353-020934	CAP, MCA 2p G GB BB	636	△R449	5102-1015116	RES, FUSE 100
589	C475	5359-3315851	CAP, PPP 330p	636	△R450	5102-1015116	RES, FUSE 100
589	C476	5359-3315851	CAP, PPP 330p	636	△R451	5102-1015116	RES, FUSE 100
<b>RESISTORS</b>							
668	R6	5135-103522	RES, CBN 1/2P 10K	636	△R452	5102-1015116	RES, FUSE 100
670	R9	5135-472522	RES, CBN 1/2P 4.7K	636	△R453	5102-1015116	RES, FUSE 100
670	R10	5135-472522	RES, CBN 1/2P 4.7K	636	△R454	5102-1015116	RES, FUSE 100
667	R11	5135-822522	RES, CBN 1/2P 8.2K	615	R455	5135-821522	RES, CBN 1/2P 820
669	R12	5135-104522	RES, CBN 1/2P 100K	615	R456	5135-821522	RES, CBN 1/2P 820
675	R13	5135-683522	RES, CBN 1/2P 68K	615	R457	5135-821522	RES, CBN 1/2P 820
676	R14	5135-333522	RES, CBN 1/2P 33K	625	R458	5135-183522	RES, CBN 1/2P 820
672	R15	5135-223522	RES, CBN 1/2P 22K	625	R459	5135-183522	RES, CBN 1/2P 820
672	R16	5135-223522	RES, CBN 1/2P 22K	625	R460	5135-183522	RES, CBN 1/2P 820
674	R17	5135-562522	RES, CBN 1/2P 5.6K	625	R461	5135-183522	RES, CBN 1/2P 820
674	R18	5135-562522	RES, CBN 1/2P 5.6K	625	R462	5135-183522	RES, CBN 1/2P 820
673	R19	5135-122522	RES, CBN 1/2P 1.2K	617	R463	5135-100522	RES, CBN 1/2P 10
673	R20	5135-122522	RES, CBN 1/2P 1.2K	617	R464	5135-100522	RES, CBN 1/2P 10
674	R21	5135-562522	RES, CBN 1/2P 5.6K	617	R465	5135-100522	RES, CBN 1/2P 10
674	R22	5135-562522	RES, CBN 1/2P 5.6K	637	△R467	5102-1005116	RES, FUSE 10
670	R23	5135-472522	RES, CBN 1/2P 4.7K	637	△R468	5102-1005116	RES, FUSE 10
670	R24	5135-472522	RES, CBN 1/2P 4.7K	637	△R469	5102-1005116	RES, FUSE 10
671	R25	5135-473522	RES, CBN 1/2P 47K	637	△R470	5102-1005116	RES, FUSE 10
672	R26	5135-223522	RES, CBN 1/2P 22K	639	R471	5273-R27672	RES, CEM 3P .27
671	R28	5135-473522	RES, CBN 1/2P 47K	639	R472	5273-R27672	RES, CEM 3P .27
668	R30	5135-103522	RES, CBN 1/2P 10K	605	R475	5135-122522	RES, CBN 1/2P 1.2K
667	R31	5135-822522	RES, CBN 1/2P 8.2K	605	R476	5135-122522	RES, CBN 1/2P 1.2K
667	R32	5135-822522	RES, CBN 1/2P 8.2K	616	R483	5135-820522	RES, CBN 1/2P 82
603	R401	5135-102522	RES, CBN 1/2P 1K	616	R484	5135-820522	RES, CBN 1/2P 82
603	R402	5135-102522	RES, CBN 1/2P 1K	627	R491	5135-4R7522	RES, CBN 1/2P 4.7
604	R403	5135-683522	RES, CBN 1/2P 68K	627	R492	5135-4R7522	RES, CBN 1/2P 4.7

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description								
627	R493	5135-4R7522	RES, CBN 1/2P 4.7	693	CN401	4443-030185	MISCELLANEOUS CONNECTOR								
627	R494	5135-4R7522	RES, CBN 1/2P 4.7	693	CN402	4443-030185	CONNECTOR								
625	R495	5135-100522	RES, CBN 1/2P 10	694	CN403	4443-070185	CONNECTOR								
626	R496	5135-100522	RES, CBN 1/2P 10	697	CW401	4163-0110024	CONNECTOR W/W								
607	R499	5135-680522	RES, CBN 1/2P 68	698	CW402	4163-0113024	CONNECTOR W/W								
607	R500	5135-680522	RES, CBN 1/2P 68	699	CW403	4163-0111024	CONNECTOR W/W								
<b>TRANSISTORS</b>															
652	Q1	5611-1115 (F) or (E)	XISTOR, PNP R	700	CW404	4163-0125022	CONNECTOR W/W								
651	Q2	5613-2303 (F) or (E)	XISTOR, NPN R	701	CW405	4163-0140027	CONNECTOR W/W								
653	Q3	5611-970 (BL)	XISTOR, PNP R	702	CW406	4163-0135020	CONNECTOR W/W								
653	Q4	5611-970 (BL)	XISTOR, PNP R	703	CW407	4163-0140025	CONNECTOR W/W								
653	Q5	5611-970 (BL)	XISTOR, PNP R	704	CW408	4163-0120020	CONNECTOR W/W								
653	Q6	5611-970 (BL)	XISTOR, PNP R	695	CW409	4163-0125022	CONNECTOR W/W								
654	Q7	5613-2240 (BL)	XISTOR, NPN R	696	CW410	4163-0120023	CONNECTOR W/W								
561	Q401	5613-1775 (F)	XISTOR, NPN R	706	JL401	4242-R0103201	JUMPER LEAD								
561	Q402	5613-1775 (F)	XISTOR, NPN R	705	JL402	4242-043405	JUMPER LEAD								
561	Q403	5613-1775 (F)	XISTOR, NPN R	691	TM401	4214-11013	TERMINAL								
561	Q404	5613-1775 (F)	XISTOR, NPN R	691	TM402	4214-11013	TERMINAL								
562	Q405	5613-2320L (F)	XISTOR, NPN R	<b>PCB-2 TONE CONTROL P.C. BOARD</b>											
562	Q406	5613-2320L (F)	XISTOR, NPN R	<b>CAPACITORS</b>											
562	Q407	5613-2320L (F)	XISTOR, NPN R	585	C505	5345-225F0951	CAP, MINI ELE 2.2 $\mu$ /50V								
562	Q408	5613-2320L (F)	XISTOR, NPN R	585	C506	5345-225F0951	CAP, MINI ELE 2.2 $\mu$ /50V								
563	Q409	5611-970 (BL)	XISTOR, PNP R	596	C507	5354-273J1HM	CAP, MYL .027 $\mu$								
563	Q410	5611-970 (BL)	XISTOR, PNP R	596	C508	5354-273J1HM	CAP, MYL .027 $\mu$								
574	Q411	5613-2240 (BL)	XISTOR, NPN R	599	C509	5354-154593	CAP, MYL .15 $\mu$								
574	Q412	5613-2240 (BL)	XISTOR, NPN R	599	C510	5354-154593	CAP, MYL .15 $\mu$								
573	Q413	5613-2240 (BL)	XISTOR, NPN R	586	C511	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V								
573	Q414	5613-2240 (BL)	XISTOR, NPN R	586	C512	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V								
563	Q415	5611-970 (BL)	XISTOR, PNP R	597	C513	5354-682J1HM	CAP, MYL 6800p								
563	Q416	5611-970 (BL)	XISTOR, PNP R	597	C514	5354-682J1HM	CAP, MYL 6800p								
564	Q417	5612-646A (C)	XISTOR, PNP A	598	C515	5354-393J1HM	CAP, MYL .039 $\mu$								
564	Q418	5612-646A (C)	XISTOR, PNP A	598	C516	5354-393J1HM	CAP, MYL .039 $\mu$								
565	Q419	5614-666A (C)	XISTOR, NPN A	<b>RESISTORS</b>											
565	Q420	5614-666A (C)	XISTOR, NPN A	620	R507	5135-153522	RES, CBN 1/2P 15K								
564	Q421	5612-646A (C)	XISTOR, PNP A	620	R508	5135-153522	RES, CBN 1/2P 15K								
564	Q422	5612-646A (C)	XISTOR, PNP A	621	R509	5135-272522	RES, CBN 1/2P 2.7K								
565	Q423	5614-666A (C)	XISTOR, NPN A	621	R510	5135-272522	RES, CBN 1/2P 2.7K								
565	Q424	5614-666A (C)	XISTOR, NPN A	622	R513	5135-681522	RES, CBN 1/2P 680								
566	Q425	5613-945 (K) or (P)	XISTOR, NPN R	622	R514	5135-681522	RES, CBN 1/2P 680								
566	Q426	5613-945 (K) or (P)	XISTOR, NPN R	<b>CONTROLS</b>											
567	Q427	5614-669A (C)	XISTOR, NPN A	720	VR501	5113-50346122	RES, V CBN 16 50K								
567	Q428	5614-669A (C)	XISTOR, NPN A	714	VR503	5113-10447122	RES, V CBN 16 100K								
587	Q429	5612-649A (C)	XISTOR, PNP A	717	VR504	5113-50348122	RES, V CBN 16 50K								
587	Q430	5612-649A (C)	XISTOR, PNP A	<b>MISCELLANEOUS</b>											
569	△Q431	5613-3182 (O)	XISTOR, NPN R	709	CN501	4443-030185	CONNECTOR								
569	△Q432	5613-3182 (O)	XISTOR, NPN R	709	CN502	4443-030185	CONNECTOR								
571	△Q433	5611-1265 (O)	XISTOR, PNP R	710	JL501	4242-R0107101	JUMPER LEAD								
571	△Q434	5611-1265 (O)	XISTOR, PNP R	<b>PCB-3 HEADPHONES JACK P.C. BOARD</b>											
<b>DIODES</b>								<b>RESISTORS</b>							
681	△D1	5632-ERC102FL	DIODE, RECT	634	R497	5171-471571	RES, MTL 1P 470								
681	△D2	5632-ERC102FL	DIODE, RECT	634	R498	5171-471571	RES, MTL 1P 470								
681	△D3	5632-ERC102FL	DIODE, RECT	<b>MISCELLANEOUS</b>											
681	△D4	5632-ERC102FL	DIODE, RECT	736	J1	4451-00159	JACK, 1P								
656	D5	5636-1S2471	DIODE, SWITCH	707	JL108	4242-R0103121	JUMPER LEAD								
656	D6	5636-1S2471	DIODE, SWITCH	<b>PCB-4 SPEAKER SWITCHES P.C. BOARD</b>											
657	D11	5635-H26B1L	DIODE, ZENER	728	SW6	4431-S0303204	MISCELLANEOUS SWITCH, PUSH								
579	D401	5641-MV12YM	VARISTOR	<b>PCB-5 EQUALIZER P.C. BOARD</b>											
579	D402	5641-MV12YM	VARISTOR	<b>CAPACITORS</b>											
577	△D403	5632-S5566B	DIODE, RECT	845	C539	5359-1015851	CAP, PPP 100p								
577	△D404	5632-S5566B	DIODE, RECT	845	C540	5359-1015851	CAP, PPP 100p								
577	△D405	5632-S5566B	DIODE, RECT	511	C601	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V								
577	△D406	5632-S5566B	DIODE, RECT												
575	D407	5631-1S2473	DIODE, DET												
575	D408	5631-1S2473	DIODE, DET												
576	D409	5635-HZ12B2L	DIODE, ZENER												
576	D410	5635-HZ12B2L	DIODE, ZENER												
<b>COILS</b>								<b>PCB-5 EQUALIZER P.C. BOARD</b>							
644	L405	5991-7165	SPRING COIL												
644	L406	5991-7165	SPRING COIL												
<b>CONTROLS</b>								<b>CAPACITORS</b>							
641	VR401	5101-50171920	RES, SEMI FIX 500	845	C539	5359-1015851	CAP, PPP 100p								
641	VR402	5101-50171920	RES, SEMI FIX 500	845	C540	5359-1015851	CAP, PPP 100p								
641	VR402	5101-50171920	RES, SEMI FIX 500	511	C601	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V								

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
511	C602	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	542	△R637	5102-4705116	RES, FUSE 47
513	C603	5359-1215851	CAP, PPP 120p	542	△R638	5102-4705116	RES, FUSE 47
513	C604	5359-1215851	CAP, PPP 120p	544	R639	5135-103522	RES, CBN 1/2P 10K
510	C605	5345-227A0951	CAP, MINI ELE 220 $\mu$ /6.3V	544	R640	5135-103522	RES, CBN 1/2P 10K
510	C606	5345-227A0951	CAP, MINI ELE 220 $\mu$ /6.3V	543	R641	5135-331522	RES, CBN 1/2P 330
514	C607	5359-5625851	CAP, PPP 5600p	543	R642	5135-331522	RES, CBN 1/2P 330
514	C608	5359-5625851	CAP, PPP 5600p	518	R643	5135-821522	RES, CBN 1/2P 820
515	C609	5359-2025851	CAP, PPP 2000p	518	R644	5135-821522	RES, CBN 1/2P 820
515	C610	5359-2025851	CAP, PPP 2000p	518	R645	5135-821522	RES, CBN 1/2P 820
511	C611	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	518	R646	5135-821522	RES, CBN 1/2P 820
511	C612	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	0558	R671	5135-102522	RES, CBN 1/2P 1K G GB BB
546	C613	5345-227D041	CAP, MINI ELE 220 $\mu$ /25V	0558	R672	5135-102522	RES, CBN 1/2P 1K G GB BB
546	C614	5345-227D041	CAP, MINI ELE 220 $\mu$ /25V	0558	R673	5135-102522	RES, CBN 1/2P 1K G GB BB
546	C615	5345-227D041	CAP, MINI ELE 220 $\mu$ /25V	0558	R674	5135-102522	RES, CBN 1/2P 1K G GB BB
546	C616	5345-227D041	CAP, MINI ELE 220 $\mu$ /25V	532	R681	5135-222522	RES, CBN 1/2P 2.2K
516	C617	5359-1525851	CAP, PPP 1500p	532	R682	5135-222522	RES, CBN 1/2P 2.2K
516	C618	5359-1525851	CAP, PPP 1500p	837	R801	5135-224522	RES, CBN 1/2P 220K
517	C619	5353-040933	CAP, MCA 4p	837	R802	5135-224522	RES, CBN 1/2P 220K
517	C620	5353-040933	CAP, MCA 4p	838	R803	5135-104522	RES, CBN 1/2P 100K
509	C621	5345-227D041	CAP, MINI ELE 220 $\mu$ /25V	837	R804	5135-224522	RES, CBN 1/2P 220K
509	C622	5345-227D041	CAP, MINI ELE 220 $\mu$ /25V	839	R810	5135-223522	RES, CBN 1/2P 22K
056B	C631	5353-820534	CAP, MCA 82P G GB BB	838	R811	5135-104522	RES, CBN 1/2P 100K
056B	C632	5353-820534	CAP, MCA 82P G GB BB	842	R954	5135-100522	RES, CBN 1/2P 10
052B	C635	5359-1015851	CAP, PPP 100P G GB BB	841	R956	5135-821522	RES, CBN 1/2P 820
052B	C636	5359-1015851	CAP, PPP 100P G GB BB	841	R957	5135-821522	RES, CBN 1/2P 820
834	C801	5345-106D0951	CAP, MINI ELE 10 $\mu$ /25V				<b>INTEGRATED CIRCUIT</b>
834	C802	5345-106D0951	CAP, MINI ELE 10 $\mu$ /25V	832	IC801	5654-LC7818	IC, DIGITAL
835	C803	5345-104F0951	CAP, MINI ELE .1 $\mu$ /50V				<b>TRANSISTORS</b>
840	C856	5354-104593	CAP, MYL .1 $\mu$	501	Q601	5613-2320L (F)	XISTOR, NPN R
836	C865	5345-1070041	CAP, MINI ELE 100 $\mu$ /25V	501	Q602	5613-2320L (F)	XISTOR, NPN R
836	C866	5345-107D041	CAP, MINI ELE 100 $\mu$ /25V	504	Q603	5611-999L (F)	XISTOR, PNP R
		<b>RESISTORS</b>		504	Q604	5611-999L (F)	XISTOR, PNP R
841	R563	5135-821522	RES, CBN 1/2P 820	504	Q605	5611-999L (F)	XISTOR, PNP R
841	R564	5135-821522	RES, CBN 1/2P 820	504	Q606	5611-999L (F)	XISTOR, PNP R
841	R555	5135-821522	RES, CBN 1/2P 820	501	Q607	5613-2320L (F)	XISTOR, NPN R
841	R566	5135-821522	RES, CBN 1/2P 820	501	Q608	5613-2320L (F)	XISTOR, NPN R
843	R585	5135-272522	RES, CBN 1/2P 2.7K	501	Q609	5613-2320L (F)	XISTOR, NPN R
843	R586	5135-272522	RES, CBN 1/2P 2.7K	501	Q610	5613-2320L (F)	XISTOR, NPN R
841	R587	5135-821522	RES, CBN 1/2P 820	501	Q611	5613-2320L (F)	XISTOR, NPN R
841	R588	5135-821522	RES, CBN 1/2P 820	501	Q612	5613-2320L (F)	XISTOR, NPN R
519	R601	5135-823522	RES, CBN 1/2P 82K	538	Q613	5612-941 (P) or (S)	XISTOR, PNP A
519	R602	5135-823522	RES, CBN 1/2P 82K	537	Q614	5614-1266 (P) or (S)	XISTOR, NPN A
520	R603	5135-124522	RES, CBN 1/2P 120K	539	Q615	5613-2603 (E) or (F)	XISTOR, NPN R
520	R604	5135-124522	RES, CBN 1/2P 120K	540	Q616	5611-1115 (E) or (F)	XISTOR, PNP R
521	R605	5135-221522	RES, CBN 1/2P 220				<b>DIODES</b>
521	R606	5135-221522	RES, CBN 1/2P 220	541	D601	5635-HZ18-2L	DIODE, ZENER
522	R607	5135-122522	RES, CBN 1/2P 1.2K	541	D602	5635-HZ18-2L	DIODE, ZENER
522	R608	5135-122522	RES, CBN 1/2P 1.2K	833	D801	5631-IS2473	DIODE, DET
523	R609	5135-220522	RES, CBN 1/2P 22	833	D802	5631-IS2473	DIODE, DET
523	R610	5135-220522	RES, CBN 1/2P 22	833	D803	5631-IS2473	DIODE, DET
522	R611	5135-122522	RES, CBN 1/2P 1.2K				<b>MISCELLANEOUS</b>
522	R612	5135-122522	RES, CBN 1/2P 1.2K	737	T1	4489-01302006	PIN JACK, MLT
524	R613	5135-223522	RES, CBN 1/2P 22K	738	T2	4484-46	PIN JACK, 4P
524	R614	5135-223522	RES, CBN 1/2P 22K	844	CN601	4443-050185	CONNECTOR
525	R615	5135-820522	RES, CBN 1/2P 82	847	CW601	4163-0150020	CONNECTOR W/W
525	R616	5135-820522	RES, CBN 1/2P 82	848	CW602	4163-S0209121	CONNECTOR W/W
526	R617	5135-121522	RES, CBN 1/2P 120	849	CW603	4163-0150020	CONNECTOR W/W
526	R618	5135-121522	RES, CBN 1/2P 120	849	CW604	4163-0150020	CONNECTOR W/W
527	R621	5135-751522	RES, CBN 1/2P 750	851	JL601	4242-R0403161	JUMPER LEAD
527	R622	5135-751522	RES, CBN 1/2P 750	852	JL602	4242-R0403101	JUMPER LEAD
528	R623	5135-393522	RES, CBN 1/2P 39K				<b>CAPACITORS</b>
528	R624	5135-393522	RES, CBN 1/2P 39K	876	C501	5353-680534	CAP, MCA 68p
529	R625	5135-564522	RES, CBN 1/2P 560K	876	C502	5353-680534	CAP, MCA 68p
529	R626	5135-564522	RES, CBN 1/2P 560K	883	C804	5345-106D0951	CAP, MINI ELE 10 $\mu$ /25V
530	R627	5135-334522	RES, CBN 1/2P 330K	883	C805	5345-106D0951	CAP, MINI ELE 10 $\mu$ /25V
530	R628	5135-334522	RES, CBN 1/2P 330K	881	C806	5345-106D041	CAP, MINI ELE 10 $\mu$ /25V
531	R629	5135-102522	RES, CBN 1/2P 1K	881	C807	5345-106D041	CAP, MINI ELE 10 $\mu$ /25V
531	R630	5135-102522	RES, CBN 1/2P 1K	881	C809	5345-106D041	CAP, MINI ELE 10 $\mu$ /25V
533	R631	5135-104522	RES, CBN 1/2P 100K	881	C810	5345-106D041	CAP, MINI ELE 10 $\mu$ /25V
533	R632	5135-104522	RES, CBN 1/2P 100K	882	C815	5345-104F0951	CAP, MINI ELE .1 $\mu$ /50V
531	R633	5135-102522	RES, CBN 1/2P 1K				
531	R634	5135-102522	RES, CBN 1/2P 1K				
532	R635	5135-222522	RES, CBN 1/2P 2.2K				
532	R636	5135-222522	RES, CBN 1/2P 2.2K				



Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
877	C816	5354-103M1HM	CAP, MYL .01 $\mu$	898	R964	5135-102522	RES, CBN 1/2P 1K
879	C817	5354-392M1HM	CAP, MYL 3900p	898	R965	5135-102522	RES, CBN 1/2P 1K
879	C818	5354-392M1HM	CAP, MYL 3900p	898	R966	5135-102522	RES, CBN 1/2P 1K
878	C840	5354-102M1HM	CAP, MYL 1000p				<b>INTEGRATED CIRCUITS</b>
878	C841	5354-102M1HM	CAP, MYL 1000p	861	IC802	5654-LC7818	IC, DIGITAL
878	C842	5354-102M1HM	CAP, MYL 1000p	862	IC803	5654-TC9174P	IC, DIGITAL
878	C843	5354-102M1HM	CAP, MYL 1000p	863	IC804	5654-TC9173P	IC, DIGITAL
879	C867	5354-392M1HM	CAP, MYL 3900p	866	IC805	5653-LB1641	IC, LINEAR
879	C868	5354-392M1HM	CAP, MYL 3900p				<b>TRANSISTORS</b>
880	C859	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	868	Q801	5616-2SK364 (V) or (BL)	FET, N-CR
880	C870	5345-106C0951	CAP, MINI ELE 10 $\mu$ /16V	868	Q802	5616-2SK364 (V) or (BL)	FET, N-CH
865	C873	5345-226D041	CAP, MINI ELE 22 $\mu$ /25V	870	Q803	5611-1115 (E) or (F)	XISTOR, PNP R
865	C874	5345-226D041	CAP, MINI ELE 22 $\mu$ /25V	867	Q832	5616-2SK364V	FET, N-CH
053B	C875	5359-1015851	CAP, PPP 100P	869	Q833	5616-2SK246BL	FET, N-CH
053B	C876	5359-1015851	CAP, PPP 100P	867	Q834	5616-2SK364V	FET, N-CH
		<b>RESISTORS</b>		869	Q835	5616-2SK246BL	FET, N-CH
898	R579	5135-102522	RES, CBN 1/2P 1K	867	Q836	5616-2SK364V	FET, N-CH
898	R580	5135-102522	RES, CBN 1/2P 1K	869	Q837	5616-2SK246BL	FET, N-CH
898	R581	5135-102522	RES, CBN 1/2P 1K	867	Q838	5616-2SK364V	FET, N-CH
898	R582	5135-102522	RES, CBN 1/2P 1K	869	Q839	5616-2SK246BL	FET, N-CH
898	R583	5135-102522	RES, CBN 1/2P 1K	871	Q842	5613-RN1203	XISTOR, NPN R
898	R584	5135-102522	RES, CBN 1/2P 1K	871	Q843	5613-RN1203	XISTOR, NPN R
898	R591	5135-102522	RES, CBN 1/2P 1K	873	Q845	5611-RN2203	XISTOR, PNP R
898	R592	5135-102522	RES, CBN 1/2P 1K	873	Q847	5611-RN2203	XISTOR, PNP R
898	R593	5135-102522	RES, CBN 1/2P 1K	868	Q855	5616-2SK364 (V) or (BL)	FET, N-CH
898	R594	5135-102522	RES, CBN 1/2P 1K	868	Q856	5616-2SK364 (V) or (BL)	FET, N-CH
891	R805	5135-224522	RES, CBN 1/2P 220K	870	Q857	5611-1115 (E) OR (F)	XISTOR, PNP R
891	R806	5135-224522	RES, CBN 1/2P 220K				<b>DIODES</b>
892	R807	5135-104522	RES, CBN 1/2P 100K	872	D804	5631-ISS133	DIODE, DET
891	R808	5135-224522	RES, CBN 1/2P 220K	872	D805	5631-ISS133	DIODE, DET
894	R813	5135-223522	RES, CBN 1/2P 22K	872	D806	5631-ISS133	DIODE, DET
896	R814	5135-104522	RES, CBN 1/2P 100K	874	D821	5635-RD5R1EB2	DIODE, ZENER
893	R815	5135-105522	RES, CBN 1/2P 1M	872	D830	5631-ISS133	DIODE, DET
893	R816	5135-105522	RES, CBN 1/2P 1M	872	D831	5631-ISS133	DIODE, DET
894	R817	5135-223522	RES, CBN 1/2P 22K	872	D832	5631-ISS133	DIODE, DET
895	R818	5135-100522	RES, CBN 1/2P 10	872	D833	5631-ISS133	DIODE, DET
889	R823	5232-105J16P	RES, CBN 1/6P 1M	872	D834	5631-ISS133	DIODE, DET
889	R824	5232-105J16P	RES, CBN 1/6P 1M	872	D835	5631-ISS133	DIODE, DET
889	R825	5232-105J16P	RES, CBN 1/6P 1M	872	D836	5631-ISS133	DIODE, DET
889	R826	5232-105J16P	RES, CBN 1/6P 1M	872	D837	5631-ISS133	DIODE, DET
890	R884	5232-104J16P	RES, CBN 1/6P 100K	875	D846	5631-1S2473	DIODE, DET
890	R885	5232-104J16P	RES, CBN 1/6P 100K	872	D848	5631-ISS133	DIODE, DET
890	R886	5232-104J16P	RES, CBN 1/6P 100K				<b>MISCELLANEOUS</b>
890	R887	5232-104J16P	RES, CBN 1/6P 100K	739	T3	4484-46	PIN JACK, 4P
885	R900	5135-223522	RES, CBN 1/2P 22K	739	T4	4484-46	PIN JACK, 4P
886	R917	5135-472522	RES, CBN 1/2P 4.7K	749	CN801	4443-030185	CONNECTOR
886	R918	5135-472522	RES, CBN 1/2P 4.7K	749	CN802	4443-030185	CONNECTOR
886	R919	5135-472522	RES, CBN 1/2P 4.7K	750	CN803	4443-0601140	CONNECTOR
886	R920	5135-472522	RES, CBN 1/2P 4.7K	751	CN804	4443-0901140	CONNECTOR
887	R921	5135-221522	RES, CBN 1/2P 220	752	CN805	4443-0201140	CONNECTOR
887	R922	5135-221522	RES, CBN 1/2P 220	753	CW801	4163-S0211221	CONNECTOR W/W
887	R923	5135-221522	RES, CBN 1/2P 220	754	CW802	4163-S0208121	CONNECTOR W/W
887	R924	5135-221522	RES, CBN 1/2P 220	755	CW803	4163-S0204161	CONNECTOR W/W
887	R925	5135-221522	RES, CBN 1/2P 220	756	CW804	4163-S0203351	CONNECTOR W/W
887	R926	5135-221522	RES, CBN 1/2P 220	757	CW811	4163-0145020	CONNECTOR W/W
886	R930	5135-472522	RES, CBN 1/2P 4.7K	757	CW812	4163-0145020	CONNECTOR W/W
886	R931	5135-472522	RES, CBN 1/2P 4.7K	759	JL801	4242-R0104700	JUMPER LEAD
886	R932	5135-472522	RES, CBN 1/2P 4.7K	760	JL802	4242-R0406301	JUMPER LEAD
884	△R933	5102-1005116	RES, FUSE 10				
888	R935	5135-104522	RES, CBN 1/2P 100K				
888	R936	5135-104522	RES, CBN 1/2P 100K				
893	R942	5135-105522	RES, CBN 1/2P 1M				
893	R943	5135-105522	RES, CBN 1/2P 1M				
896	R944	5135-104522	RES, CBN 1/2P 100K	958	C533	5354-394593	CAP, MYL .39 $\mu$
894	R945	5135-223522	RES, CBN 1/2P 22K	958	C534	5354-394593	CAP, MYL .39 $\mu$
891	R952	5135-224522	RES, CBN 1/2P 220K				<b>CAPACITORS</b>
891	R953	5135-224522	RES, CBN 1/2P 220K	955	R858	5135-222522	RES, CBN 1/2P 2.2K
899	R955	5232-100J16P	RES, CBN 1/6P 10	955	R859	5135-222522	RES, CBN 1/2P 2.2K
898	R958	5135-102522	RES, CBN 1/2P 1K	955	R860	5135-222522	RES, CBN 1/2P 2.2K
898	R959	5135-102522	RES, CBN 1/2P 1K	955	R861	5135-222522	RES, CBN 1/2P 2.2K
894	R961	5135-223522	RES, CBN 1/2P 22K	956	R862	5135-473522	RES, CBN 1/2P 47K
894	R962	5135-223522	RES, CBN 1/2P 22K	956	R863	5135-473522	RES, CBN 1/2P 47K
898	R963	5135-102522	RES, CBN 1/2P 1K	955	R864	5135-222522	RES, CBN 1/2P 2.2K

**PCB-7 LED P.C. BOARD****CAPACITORS****RESISTORS**

<u>Ser. No.</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Ser. No.</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
955	R865	5135-222522	RES, CBN 1/2P 2.2K				<b>DIODES</b>
955	R866	5135-222522	RES, CBN 1/2P 2.2K	924	D807	5631-1S2473	DIODE, DET
957	R901	5135-223522	RES, CBN 1/2P 22K	925	D817	5632-S5566B	DIODE, RECT
957	R902	5135-223522	RES, CBN 1/2P 22K	926	D818	5635-HZ6B1L	DIODE, ZENER
957	R903	5135-223522	RES, CBN 1/2P 22K	925	D845	5632-S5566B	DIODE, RECT
957	R904	5135-223522	RES, CBN 1/2P 22K				<b>MISCELLANEOUS</b>
957	R907	5135-223522	RES, CBN 1/2P 22K	782	CN811	4443-0501140	CONNECTOR
957	R908	5135-223522	RES, CBN 1/2P 22K	783	CN812	4443-0601140	CONNECTOR
957	R909	5135-223522	RES, CBN 1/2P 22K	948	△HF1	4472-0131	HOLDER, FUSE
956	R938	5135-473522	RES, CBN 1/2P 47K	948	△HF2	4472-0131	HOLDER, FUSE
<b>TRANSISTORS</b>				945	△RD1	4331-10120137	RELAY, DC <b>UA BK</b>
952	Q850	5613-RN1203	XISTOR, NPN R	945B	△RD1	4331-10120237	RELAY, DC <b>G GB BB</b>
953	Q851	5611-RN2203	XISTOR, PNP R	732	SW7	4431-S0701102	SWITCH, PUSH
<b>DIODES</b>				944	△TF2	5584-702550	XFORMER, POWER <b>UA BK</b>
951	D808	5637-LT5D41B	LED	944B	△TF2	5584-701550	XFORMER, POWER <b>G GB BB</b>
951	D809	5637-LT5D41B	LED	779	TM801	4214-122	TERMINAL
951	D810	5637-LT5D41B	LED	779	TM802	4214-122	TERMINAL
951	D811	5637-LT5D41B	LED	779	TM803	4214-122	TERMINAL
951	D814	5637-LT5D41B	LED	779	TM804	4214-122	TERMINAL
951	D815	5637-LT5D41B	LED	779	TM805	4214-122	TERMINAL
951	D816	5637-LT5D41B	LED	780	TM806	4214-11023	TERMINAL

## **PCB-10 AV P.C. BOARD**

766	CW806	4163-S0109500	CONNECTOR W/W									
767	CW807	4163-S0105141	CONNECTOR W/W									
												<b>CAPACITORS</b>
768	JL803	4242-R0403101	JUMPER LEAD	906	C811	5345-106D041	CAP, MINI ELE	10 $\mu$ /25V				
769	JL804	4242-R0403301	JUMPER LEAD	906	C812	5345-106D041	CAP, MINI ELE	10 $\mu$ /25V				
770	JL805	4242-R0405301	JUMPER LEAD	906	C813	5345-106D041	CAP, MINI ELE	10 $\mu$ /25V				
735	SW1	4431-S0105102	SWITCH, PUSH	907	C819	5345-107C041	CAP, MINI ELE	100 $\mu$ /16V				
731	SW2	4431-A027261	SWITCH, PUSH	907	C820	5345-107C041	CAP, MINI ELE	100 $\mu$ /16V				
733	SW3	4431-S0104102	SWITCH, PUSH	907	C821	5345-107C041	CAP, MINI ELE	100 $\mu$ /16V				
				908	C822	5345-477C041	CAP, MINI ELE	470 $\mu$ /16V				
				908	C823	5345-477C041	CAP, MINI ELE	470 $\mu$ /16V				
				908	C824	5345-477C041	CAP, MINI ELE	470 $\mu$ /16V				
				907	C825	5345-107C041	CAP, MINI ELE	100 $\mu$ /16V				

## **PCB-B FUNCTION P.C. BOARD**

RESISTORS					907	C835	5345-107C041	CAP, MINI	ELE	100 $\mu$ /16V
776	R946	5135-222522	RES, CBN	1/2P	2.2K			RESISTORS		
776	R947	5135-222522	RES, CBN	1/2P	2.2K	911	R827	5135-473522	RES, CBN	1/2P 47K
<b>MISCELLANEOUS</b>										
771	CN806	4443-0401140	CONNECTOR			909	R831	5232-473J16P	RES, CBN	1/6P 47K
772	CN807	4443-0501140	CONNECTOR			909	R832	5232-473J16P	RES, CBN	1/6P 47K
773	CN808	4443-0801140	CONNECTOR			909	R833	5232-473J16P	RES, CBN	1/6P 47K
774	CN809	4443-0901140	CONNECTOR			912	R835	5135-271522	RES, CBN	1/2P 270
775	CN810	4443-1101140	CONNECTOR			912	R836	5135-271522	RES, CBN	1/2P 270
723	SW8	4411-00210105	SWITCH, ROTRY			912	R837	5135-271522	RES, CBN	1/2P 270
726	SW9	4411-00209103	SWITCH, ROTRY			913	R838	5135-221522	RES, CBN	1/2P 220
729	SW10	4411-00211104	SWITCH, ROTRY						RES, CBN	1/2P 220

#### **PCB-9 RELAY PC BOARD**

CAPACITORS				913	N842	5135-221522	RES, CBN	1/2P	220
946	▲C1	5352-S010M103	CAP, MTL .01 $\mu$ <span style="color: red;">UA</span> <span style="color: blue;">BK</span>	913	R843	5135-221522	RES, CBN	1/2P	220
946B	▲C1	5352-1030958	CAP, MTL .01 $\mu$ <span style="color: red;">G</span> <span style="color: blue;">GB</span> <span style="color: black;">BB</span>	914	R844	5135-680522	RES, CBN	1/2P	68
930	C828	5345-477C041	CAP, MINI ELE 470 $\mu$ /16V	914	R845	5135-680522	RES, CBN	1/2P	68
931	C829	5345-227A041	CAP, MINI ELE 220 $\mu$ /6.3V	913	R846	5135-680522	RES, CBN	1/2P	68
931	C830	5345-227A041	CAP, MINI ELE 220 $\mu$ /6.3V	058B	R847	5135-221522	RES, CBN	1/2P	220 <span style="color: red;">UA</span> <span style="color: blue;">BK</span>
932	C846	5345-336E041	CAP, MINI ELE 33 $\mu$ /35V	913	R848	5135-681522	RES, CBN	1/2P	220 <span style="color: red;">UA</span> <span style="color: blue;">BK</span>
RESISTORS				058B	R848	5135-681522	RES, CBN	1/2P	680 <span style="color: red;">G</span> <span style="color: blue;">GB</span> <span style="color: black;">BB</span>
054B	R51	5135-335522	RES, CBN 1/2P 3.3M <span style="color: red;">G</span> <span style="color: blue;">GB</span> <span style="color: black;">BB</span>	913	R849	5135-221522	RES, CBN	1/2P	220 <span style="color: red;">UA</span> <span style="color: blue;">BK</span>
935	▲R867	5102-4R74715	RES, FUSE 4.7	058B	R849	5135-681522	RES, CBN	1/2P	680 <span style="color: red;">G</span> <span style="color: blue;">GB</span> <span style="color: black;">BB</span>
938	R868	5135-822522	RES, CBN 1/2P 8.2K	915	R850	5135-750522	RES, CBN	1/2P	75
941	R869	5135-472522	RES, CBN 1/2P 4.7K	915	R851	5135-750522	RES, CBN	1/2P	75
940	R870	5135-560522	RES, CBN 1/2P 56	915	R852	5135-750522	RES, CBN	1/2P	75
939	R871	5135-332522	RES, CBN 1/2P 3.3K	916	R853	5135-332522	RES, CBN	1/2P	3.3K
936	▲R892	5102-1005116	RES, FUSE 10	917	R854	5135-182522	RES, CBN	1/2P	1.8K
936	▲R893	5102-1005116	RES, FUSE 10	918	R855	5135-103522	RES, CBN	1/2P	10K
936	▲R896	5102-1005116	RES, FUSE 10	918	R856	5135-103522	RES, CBN	1/2P	10K
941	R897	5135-472522	RES, CBN 1/2P 4.7K	918	R888	5135-103522	RES, CBN	1/2P	10K
TRANSISTORS				911	R889	5135-473522	RES, CBN	1/2P	47K
922	Q818	5613-3246 (H)	XISTOR, NPN R	918	R890	5135-103522	RES, CBN	1/2P	10K
921	Q819	5614-667A (C)	XISTOR, NPN A	911	R891	5135-473522	RES, CBN	1/2P	47K
				910	R939	5232-124116P	RES, CBN	1/6P	120K

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
920	R949	5232-223J16P	RES, CBN 1/6P 22K				
920	R950	5232-223J16P	RES, CBN 1/6P 22K				
920	R951	5232-223J16P	RES, CBN 1/6P 22K				
<b>INTEGRATED CIRCUITS</b>							
900	IC806	5654-LC4966	IC, DIGITAL	381	C61	5361-473ZF	CAP, CER .047 μ
900	IC807	5654-LC4966	IC, DIGITAL	381	C62	5361-473ZF	CAP, CER .047 μ
<b>TRANSISTORS</b>							
905	Q808	5611-RN2203	XISTOR, PNP R	378	C65	5345-108C041	CAP, MINI ELE 2200 μ/25V
905	Q809	5611-RN2203	XISTOR, PNP R	380	C66	5345-106F041	CAP, MINI ELE 100 μ/25V
904	Q810	5613-2603 (E) or (F)	XISTOR, NPN R	106	C101	5345-106F041	CAP, MINI ELE 10 μ/50V
904	Q811	5613-2603 (E) or (F)	XISTOR, NPN R	106	C102	5345-106F041	CAP, MINI ELE 10 μ/50V
902	Q812	5611-1115 (E) or (F)	XISTOR, PNP R	106	C103	5345-106F041	CAP, MINI ELE 10 μ/50V
902	Q813	5611-1115 (E) or (F)	XISTOR, PNP R	110	C104	5361-223Z921	CAP, CER .022 μ
902	Q814	5611-1115 (E) or (F)	XISTOR, PNP R	110	C105	5361-223Z921	CAP, CER .022 μ
904	Q815	5613-2603 (E) or (F)	XISTOR, NPN R	148	C201	5361-223Z921	CAP, CER .022 μ
904	Q816	5613-2603 (E) or (F)	XISTOR, NPN R	148	C202	5361-223Z921	CAP, CER .022 μ
904	Q817	5613-2603 (E) or (F)	XISTOR, NPN R	148	C203	5361-223Z921	CAP, CER .022 μ
903	Q848	5613-RN1204	XISTOR, NPN R	149	C204	5361-105M920	CAP, CER .01 μ
903	Q849	5613-RN1204	XISTOR, NPN R	148	C205	5361-223Z921	CAP, CER .022 μ
				148	C206	5361-223Z921	CAP, CER .022 μ
<b>DIODES</b>							
901	D849	5631-1SS133	DIODE, DET	148	C207	5361-223Z921	CAP, CER .022 μ
901	D850	5631-1SS133	DIODE, DET	151	C208	5361-4R7K917	CAP, CER 4.7p
<b>MISCELLANEOUS</b>							
740	T5	4489-00901006	PIN JACK, MLT	143	C210	5345-107D041	CAP, MINI ELE 100 μ/25V
786	CW808	4163-S0106800	CONNECTOR W/W	144	C211	5345-226D0951	CAP, MINI ELE 22 μ/25V
				145	C212	5345-474F0951	CAP, MINI ELE .47 μ/50V
<b>PCB-11 VOLUME P.C. BOARD</b>							
<b>CAPACITOR</b>							
790	C862	5354-104593	CAP, MYL .1 μ	212	C253	5361-105M920	CAP, CER .01 μ
<b>MISCELLANEOUS</b>							
789	JLB06	4242-R0106800	JUMPER LEAD	204	C254	5345-106F041	CAP, MINI ELE 10 μ/50V
711	VR502	6161-00202	VR BLOCK	205	C255	5345-475F041	CAP, MINI ELE 4.7 μ/50V
				205	C256	5345-475F041	CAP, MINI ELE 4.7 μ/50V
<b>PCB-12 LOUDNESS P.C. BOARD</b>							
<b>CAPACITORS</b>							
551	C575	5359-1815851	CAP, PPP 180p	213	C259	5361-472K919	CAP, CER 4700p
551	C576	5359-1815851	CAP, PPP 180p	204	C261	5345-224F041	CAP, MINI ELE .22 μ/50V
552	C577	5354-823J1HM	CAP, MYL .082 μ	206	C258	5345-105F041	CAP, MINI ELE 1 μ/50V
552	C578	5354-823J1HM	CAP, MYL .082 μ	213	C259	5361-472K919	CAP, CER 4700p
<b>RESISTORS</b>							
553	R571	5135-273522	RES, CBN 1/2P 27K	214	C263	5361-223Z921	CAP, CER .022 μ
553	R572	5135-273522	RES, CBN 1/2P 27K	256	C301	5345-107D041	CAP, MINI ELE 100 μ/25V
554	R573	5135-472522	RES, CBN 1/2P 4.7K	257	C302	5345-226D041	CAP, MINI ELE 22 μ/25V <b>UA BK</b>
554	R574	5135-472522	RES, CBN 1/2P 4.7K	266	C303	5359-S010J471	CAP, PPP 470p <b>UA BK</b>
553	R575	5135-273522	RES, CBN 1/2P 27K	266C	C303	5359-271585	CAP, PPP 270p <b>G GB BB</b>
553	R576	5135-273522	RES, CBN 1/2P 27K	266	C304	5359-S010J471	CAP, PPP 470p <b>UA BK</b>
<b>MISCELLANEOUS</b>							
741	SW4	4431-A027610	SWITCH, PUSH	266C	C304	5359-271585	CAP, PPP 270p <b>G GB BB</b>
<b>PCB-13 OPERATING MODE P.C. BOARD</b>							
<b>RESISTORS</b>							
961	R876	5135-681522	RES, CBN 1/2P 680	267	C315	5361-102K918	CAP, CER 1000p
962	R894	5135-121522	RES, CBN 1/2P 120	267	C316	5345-476C0951	CAP, MINI ELE 47 μ/16V <b>G GB BB</b>
963	R895	5135-122522	RES, CBN 1/2P 1.2K	267	C317	5345-476C0951	CAP, MINI ELE 47 μ/16V <b>G GB BB</b>
<b>DIODES</b>							
960	D842	5637-LT5H41B	LED	268	C318	5345-224F0951	CAP, MINI ELE 10 μ/50V
959	D843	5637-LT5D41B	LED	269	C319	5345-474F0951	CAP, MINI ELE .47 μ/50V
959	D844	5637-LT5D41B	LED	270	C320	5345-474F0951	CAP, MINI ELE .47 μ/50V
<b>MISCELLANEOUS</b>							
792	CW809	4163-S0106900	CONNECTOR W/W	270	C321	5345-474F0951	CAP, MINI ELE 10 μ/50V
<b>PCB-14 SPEAKER TERMINAL P.C. BOARD</b>							
<b>MISCELLANEOUS</b>							
743	TM1	4214-156	TERMINAL	271	C322	5345-335F0951	CAP, MINI ELE 3.3 μ/50V
				272	C323	5345-224F0951	CAP, MINI ELE .22 μ/50V
				273	C324	5345-225F041	CAP, MINI ELE 2.2 μ/50V
				274	C325	5361-180J922	CAP, CER 18p
				275	C326	5361-180J922	CAP, CER 18p
				276	C327	5361-180J922	CAP, CER 18p
				277	C328	5361-180J922	CAP, CER 18p

Ser. No.	Ref. No.	Part No.	Description	Ser. No.	Ref. No.	Part No.	Description
334	C716	5361-103M920	CAP, CER .01 $\mu$	343	R703	5135-103522	RES, CBN 1/2P 10K
326	C721	5345-227C041	CAP, MINI ELE 220 $\mu$ /16V	343	R704	5135-103522	RES, CBN 1/2P 10K
		<b>RESISTORS</b>		343	R705	5135-103522	RES, CBN 1/2P 10K
387	R63	5232-331J16P	RES, CBN 1/6P 330	343	R706	5135-103522	RES, CBN 1/2P 10K
385	R64	5232-272J16P	RES, CBN 1/6P 2.7K	343	R707	5135-103522	RES, CBN 1/2P 10K
386	R65	5232-561J16P	RES, CBN 1/6P 560	343	R708	5135-103522	RES, CBN 1/2P 10K
388	R66	5232-100J16P	RES, CBN 1/6P 10	353	R709	5232-103J16P	RES, CBN 1/6P 10K
389	R67	5232-472J16P	RES, CBN 1/6P 4.7K	353	R710	5232-103J16P	RES, CBN 1/6P 10K
390	R68	5232-105J16P	RES, CBN 1/6P 1M	353	R711	5232-103J16P	RES, CBN 1/6P 10K
112	R101	5135-104522	RES, CBN 1/2P 100K	353	R712	5232-103J16P	RES, CBN 1/6P 10K
118	R102	5232-473J16P	RES, CBN 1/6P 47K	353	R713	5232-103J16P	RES, CBN 1/6P 10K
120	R103	5232-222J16P	RES, CBN 1/6P 2.2K	353	R714	5232-103J16P	RES, CBN 1/6P 10K
119	R104	5232-183J16P	RES, CBN 1/6P 18K	344	R715	5135-222522	RES, CBN 1/2P 2.2K
113	R105	5135-103522	RES, CBN 1/2P 10K	345	R716	5135-102522	RES, CBN 1/2P 1K
117	R106	5232-105J16P	RES, CBN 1/6P 1M	345	R717	5135-102522	RES, CBN 1/2P 1K
166	R201	5232-391J16P	RES, CBN 1/6P 390	354	R718	5232-102J16P	RES, CBN 1/6P 1K
167	R202	5232-221J16P	RES, CBN 1/6P 220	354	R720	5232-102J16P	RES, CBN 1/6P 1K
162	R203	5232-103J16P	RES, CBN 1/6P 10K	354	R721	5232-102J16P	RES, CBN 1/6P 1K
166	R204	5232-391J16P	RES, CBN 1/6P 390	348	R722	5232-105J16P	RES, CBN 1/6P 1M
167	R205	5232-221J16P	RES, CBN 1/6P 220	348	R723	5232-105J16P	RES, CBN 1/6P 1M
162	R206	5232-103J16P	RFS, CBN 1/6P 10K	349	R724	5232-474J16P	RES, CBN 1/6P 470K
168	R207	5232-100J16P	RES, CBN 1/6P 10	350	R725	5232-334J16P	RES, CBN 1/6P 330K
165	R208	5232-102J16P	RES, CBN 1/6P 1K	351	R727	5232-104J16P	RES, CBN 1/6P 100K
162	R209	5232-103J16P	RES, CBN 1/6P 10K	351	R728	5232-104J16P	RES, CBN 1/6P 100K
163	R210	5232-332J16P	RES, CBN 1/6P 3.3K	352	R730	5232-473J16P	RES, CBN 1/6P 47K
164	R211	5232-222J16P	RES, CBN 1/6P 2.2K	355	R731	5232-103J16P	RES, CBN 1/6P 10K
161	R212	5232-223J16P	RES, CBN 1/6P 22K	355	R732	5232-103J16P	RES, CBN 1/6P 10K
230	R252	5232-104J16P	RES, CBN 1/6P 100K	355	R733	5232-103J16P	RES, CBN 1/6P 10K
227	R253	5135-471522	RES, CBN 1/2P 470	355	R734	5232-103J16P	RES, CBN 1/6P 10K
236	R254	5232-222J16P	RES, CBN 1/6P 2.2K	355	R735	5232-103J16P	RES, CBN 1/6P 10K
234	R255	5232-103J16P	RES, CBN 1/6P 10K	355	R736	5232-103J16P	RES, CBN 1/6P 10K
233	R256	5232-153J16P	RES, CBN 1/6P 15K	355	R737	5232-103J16P	RES, CBN 1/6P 10K
232	R257	5232-223J16P	RES, CBN 1/6P 22K	356	R738	5232-332J16P	RES, CBN 1/6P 3.3K
237	R258	5232-102J16P	RES, CBN 1/6P 1K	356	R739	5232-332J16P	RES, CBN 1/6P 3.3K
235	R259	5232-472J16P	RES, CBN 1/6P 4.7K	356	R740	5232-332J16P	RES, CBN 1/6P 3.3K
231	R260	5232-473J16P	RES, CBN 1/6P 47K	353	R741	5232-103J16P	RES, CBN 1/6P 10K
231	R261	5232-473J16P	RES, CBN 1/6P 47K	353	R742	5232-103J16P	RES, CBN 1/6P 10K
238	R262	5232-820J16P	RES, CBN 1/6P 82	353	R743	5232-103J16P	RES, CBN 1/6P 10K
240	R263	5232-123J16P	RES, CBN 1/6P 12K <b>(UA BK)</b>				<b>INTEGRATED CIRCUITS</b>
240C	R263	5232-153J16P	RES, CBN 1/6P 15K <b>(G GB BB)</b>	131	IC201	5653-LA1256	IC, LINEAR
270	R301	5232-104J16P	RES, CBN 1/6P 100K	251	IC301	5653-LA3410	IC, LINEAR
270	R302	5232-104J16P	RES, CBN 1/6P 100K	311	IC701	5654-T9306F25	IC, DIGITAL
269	R303	5232-154J16P	RES, CBN 1/6P 150K <b>(UA BK)</b>	312	IC702	5654-TC9172AP	IC, DIGITAL
269C	R303	5232-184J16P	RES, CBN 1/6P 180K <b>(G GB BB)</b>				<b>TRANSISTORS</b>
269	R304	5232-154J16P	RES, CBN 1/6P 150K <b>(UA BK)</b>	371	Q61	5612-1375	XISTOR, PNP A
269C	R304	5232-184J16P	RES, CBN 1/6P 180K <b>(G GB BB)</b>	372	Q62	5613-2603 (F) or (E)	XISTOR, NPN R
269	R305	5232-154J16P	RES, CBN 1/6P 150K <b>(UA BK)</b>	102	Q101	5613-2603 (F)	XISTOR, NPN R
269C	R305	5232-184J16P	RES, CBN 1/6P 180K <b>(G GB BB)</b>	102	Q102	5613-2603 (F)	XISTOR, NPN R
269	R306	5232-154J16P	RES, CBN 1/6P 150K <b>(UA BK)</b>	133	Q201	5616-2SK241 (Y) or (GR)	FET, N-CH
269C	R306	5232-184J16P	RES, CBN 1/6P 180K <b>(G GB BB)</b>	133	Q202	5616-2SK241 (Y) or (GR)	FET, N-CH
273	R307	5232-332J16P	RES, CBN 1/6P 3.3K	133	Q203	5616-2SK241 (Y) or (GR)	FET, N-CH
273	R308	5232-332J16P	RES, CBN 1/6P 3.3K	221	Q251	5613-RN1203	XISTOR, NPN R
274	R309	5232-223J16P	RES, CBN 1/6P 22K	222	Q252	5611-RN2203	XISTOR, PNP R
274	R310	5232-223J16P	RES, CBN 1/6P 22K	252	Q301	5613-2878 (B)	XISTOR, NPN R
271	R311	5232-103J16P	RES, CBN 1/6P 10K	252	Q302	5613-2878 (B)	XISTOR, NPN R
271	R312	5232-103J16P	RES, CBN 1/6P 10K	282	Q351	5613-2603 (F) or (E)	XISTOR, NPN R
271	R313	5232-103J16P	RES, CBN 1/6P 10K	282	Q352	5613-2603 (F) or (E)	XISTOR, NPN R
272	R314	5232-472J16P	RES, CBN 1/6P 4.7K	282	Q353	5613-2603 (F) or (E)	XISTOR, NPN R
290	R351	5135-104522	RES, CBN 1/2P 100K	283	Q354	5613-RN1203	XISTOR, NPN R
293	R354	5232-224J16P	RES, CBN 1/6P 220K	283	Q355	5613-RN1203	XISTOR, NPN R
293	R355	5232-224J16P	RES, CBN 1/6P 220K	284	Q356	5611-RN2203	XISTOR, PNP R
293	R356	5232-224J16P	RES, CBN 1/6P 220K	314	Q701	5613-2240 (BL)	XISTOR, NPN R
292	R357	5232-334J16P	RES, CBN 1/6P 330K	315	Q702	5613-2603 (F) or (E)	XISTOR, NPN R
291	R358	5232-105J16P	RES, CBN 1/6P 1M	315	Q703	5613-2603 (F) or (E)	XISTOR, NPN R
295	R359	5232-473J16P	RES, CBN 1/6P 47K	316	Q704	5611-1115 (F) or (E)	XISTOR, PNP R
294	R360	5232-104J16P	RES, CBN 1/6P 100K	316	Q705	5611-1115 (F) or (E)	XISTOR, PNP R
294	R361	5232-104J16P	RES, CBN 1/6P 100K				<b>DIODES</b>
294	R362	5232-104J16P	RES, CBN 1/6P 100K	374	D61	5632-S5566B	DIODE, RECT
296	R365	5232-223J16P	RES, CBN 1/6P 22K	374	D62	5632-S5566B	DIODE, RECT
295	R367	5232-473J16P	RES, CBN 1/6P 47K	374	D63	5632-S5566B	DIODE, RECT
299	R368	5232-472J16P	RES, CBN 1/6P 4.7K	374	D64	5632-S5566B	DIODE, RECT
290	R369	5135-104522	RES, CBN 1/2P 100K	374	D65	5632-S5566B	DIODE, RECT
341	R701	5171-221593	RES, MTL 1P 220	374	D66	5632-S5566B	DIODE, RECT
343	R702	5135-103522	RES, CBN 1/2P 10K	375	D67	5635-HZ12C2L	DIODE, ZENER

Ser. No.	Ref. No.	Part No.	Description
135	D201	5631-1S2473	DIODE, DET
136	D202	5631-1SS133	DIODE, DET
136	D203	5631-1SS133	DIODE, DET
136	D204	5631-1SS133	DIODE, DET
136	D205	5631-1SS133	DIODE, DET
191	D252	5633-1SV149	DIODE, CAP
193	D253	5631-1SS133	DIODE, DET
224	D254	5635-HZ6B1L	DIODE, ZENER
253	D301	5631-1SS133	DIODE, DET
253	D302	5631-1SS133	DIODE, DET
303	D351	5631-1SS133	DIODE, DET
303	D352	5631-1SS133	DIODE, DET
303	D353	5631-1SS133	DIODE, DET
357	D701	5635-HZ6B1L	DIODE, ZENER
318	D702	5631-1SS133	DIODE, DET
318	D703	5631-1SS133	DIODE, DET
318	D704	5631-1SS133	DIODE, DET
318	D705	5631-1SS133	DIODE, DET
318	D706	5631-1SS133	DIODE, DET
318	D707	5631-1SS133	DIODE, DET
318	D708	5631-1SS133	DIODE, DET
318	D709	5631-1SS133	DIODE, DET
319	D710	5631-1S2473	DIODE, DET
<b>COILS</b>			
022C	L10	5214-86	LC COMPOSITE G GB BB
104	L101	5995-2R2J107	COIL W/CORE
154	L201	5995-2R2J107	COIL W/CORE
198	L252	5922-00112	OSC COIL, 7
<b>CONTROLS</b>			
242	VR251	5101-50301937	RES, SEMI FIX 50K
255	VR301	5101-10401937	RES, SEMI FIX 100K
<b>MISCELLANEOUS</b>			
141	T201	5562-01011	IFT, FM 7
141	T202	5562-01011	IFT, FM 7
140	T203	5572-10201	DISCRI 7
199	T251	5552-70114	IFT, AM 7
323	X701	5691-00720027	XTAL, OSC
138	CF201	5671-7119A	FILTER, CER S UA BK
138C	CF201	5671-7141A	FILTER, CER S G GB BB
138	CF202	5671-7119A	FILTER, CER S UA BK
139C	CF202	5671-7142A	FILTER, CER S G GB BB
139	CF203	5671-7120A	FILTER, CER S UA BK
139C	CF203	5671-7142A	FILTER, CER S G GB BB
201	CF251	5671-0159	FILTER, CER S
202	CF252	5671-7137C	FILTER, CER S
417	CN101	4443-070185	CONNECTOR
419	CN102	4443-040185	CONNECTOR
422	CN103	4443-050185	CONNECTOR
420	CN105	4443-030185	CONNECTOR
418	CN106	4443-060185	CONNECTOR
421	CN107	4443-0301140	CONNECTOR
254	CX301	5693-CSB456F1	OSC, CER
101	FE101	6114-00301	FM TUNER UA BK
101C	FE101	6114-00201	FM TUNER G GB BB
394	HF1	4472-0131	HOLDER, FUSE
394	HF2	4472-0131	HOLDER, FUSE
425	TM101	4214-11023	TERMINAL
401	DSP1	5791-BP8A9041	LCD

PCB-22 TACT SWITCHES P.C. BOARD

<b>DIODES</b>			
320	D711	5631-1SS133	DIODE, DET
320	D712	5631-1SS133	DIODE, DET
320	D713	5631-1SS133	DIODE, DET
320	D714	5631-1SS133	DIODE, DET
320	D715	5631-1SS133	DIODE, DET
320	D716	5631-1SS133	DIODE, DET
320	D717	5631-1SS133	DIODE, DET
320	D718	5631-1SS133	DIODE, DET
320	D719	5631-1SS133	DIODE, DET <b>UA</b> <b>BK</b>
320	D720	5631-1SS133	DIODE, DET <b>UA</b> <b>BK</b>

<u>Ser. No.</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
<b>MISCELLANEOUS</b>			
405	S101	4431-A010196	SWITCH, PUS
405	S102	4431-A010196	SWITCH, PUS
405	S103	4431-A010196	SWITCH, PUS
405	S104	4431-A010196	SWITCH, PUS
405	S105	4431-A010196	SWITCH, PUS
405	S106	4431-A010196	SWITCH, PUS
405	S107	4431-A010196	SWITCH, PUS
405	S108	4431-A010196	SWITCH, PUS
411	JL101	4242-R0407121	JUMPER LE

## **PCB-23 TUNING SWITCH P.C. BOARD**

CAPACITORS						
286	C351	5345-106C0356	CAP, MINI	ELE	10 $\mu$	/16V
286	C352	5345-106C0356	CAP, MINI	ELE	10 $\mu$	/16V
287	C353	5345-475D0356	CAP, MINI	ELE	4.7 $\mu$	/25V
RESISTORS						
297	R352	5232-153J16P	RES, CBN	1/6P	15K	
298	R353	5232-103J16P	RES, CBN	1/6P	10K	
INTEGRATED CIRCUIT						
291	I2351	5555-1A1G121	ID, MCNP			

## INTEGRATED CIRCUIT

DIODES			
403	D381	5637-LN01301C	LED
403	D383	5637-LN01301C	LED
403	D385	5637-LN01301C	LED
321	D721	5631-ISS133	DIODE, DET
321	D722	5631-ISS133	DIODE, DET
321	D723	5631-ISS133	DIODE, DET
321	D724	5631-ISS133	DIODE, DET

## MISCELLANEOUS

406	S109	4431-A010196	SWITCH, PUSH
406	S110	4431-A010196	SWITCH, PUSH
406	S111	4431-A010196	SWITCH, PUSH
410	JL102	4242-R0404181	JUMPER LEAD
412	JL103	4242-R0405161	JUMPER LEAD
408	RCV1	6143-00301	RECEIVER BLOCK

## **PCB-24 ANTENNA TERMINAL P.C. BOARD**

<b>COIL</b>			
123	L102	5943-00136	COIL BBN, 10
<b>MISCELLANEOUS</b>			
413	JL104	4242-R0304601	JUMPER LEAD
424	TM102	4214-166	TERMINAL <b>UA</b> <b>BK</b>
424C	TM102	4214-167	TERMINAL <b>G</b> <b>GB</b> <b>BB</b>
423	TM103	4214-164	TERMINAL

ESB-25 AM ADJUSTMENT P.C. BOARD

**CAPACITOR**

## **RESISTOR**

239	R251	5232-104J16P	RES, CBN	1/6P	100K
<b>DIODE</b>					
192	D251	5633-1SV149	DIODE, CAP		
<b>MISCELLANEOUS</b>					

PCB-26 LAMP P.C. BOARD

<b>RESISTORS</b>				
383	R61	5135-100522	RES, CBN	1/2P 10
391	ΔR62	5102-6R85116	RES, FUSE	6.8
<b>MISCELLANEOUS</b>				
415	JL108	4132-R0100101	CORD, 2C	
402	LP1	5731-00101140	LAMP	
402	LP2	5731-00101140	LAMP	

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

**ABBREVIATIONS IN PARTS LIST**

<b>CAPACITORS</b>		<b>RESISTORS</b>
CAP, MINI ELE	: Electrolytic	RES, CBN 1/6P : Carbon 1/6W
CAP, CER	: Ceramic	RES, FUSE : Fuse
CAP, PPP	: Polypropylene	RES, CEM 5P : Cement 5W
CAP, MYL	: Mylar	RES, MTL 1P : Metal 1W
CAP, MCA	: Mica	2.2K : 2.2kΩ
CAP, MINI BP	: Bipolar	220 : 220Ω
CAP, ELE BP	: Electrolytic Bipolar	<b>TRANSISTORS</b>
CAP, STY	: Polystyrene Film	XISTOR : Transistor
CAP, SPE	: Special	FET : Field Effect Transistor
CAP, TAN	: Tantalum	<b>CONTROLS</b>
470 μ	: 470 μF	RES, V CBN : Variable Carbon Resistor
6800p	: 6800pF	RES, SEMI FIX : Semi-fixed Resistor
.047 μ	: 0.047 μF	

**CHASSIS MISCELLANEOUS**

947 ΔF1	5732-402031	FUSE <b>UA BK</b>
947B ΔF1	5732-202030	FUSE <b>G GB BB</b>
395 ΔF2	5732-102031	FUSE
683 ΔTF1	5584-S1406	XFORMER, POWER <b>UA BK</b>
683B ΔTF1	5584-S1407	XFORMER, POWER <b>G GB BB</b>
051B ΔS201	4411-102719	ROTRY SWITCH, VOLTAGE SELECTOR <b>G GB BB</b>
734 SW5	4421-0227230	SWITCH, SLIDE
744 ΔSC1	4474-157	SOCKET, AC OUTLET <b>UA BK</b>
745 ΔPO1	4161-71151	CORD W/PLUG, POWER <b>UA BK</b>
745B ΔPO1	4161-7256	CORD W/PLUG, POWER <b>G GB</b>
745D ΔPO1	4161-04100	CORD W/PLUG, POWER <b>BB</b>
820 R50	5135-335522	RES, CBN 1/2P 3.3M
823 TMF1	4318-00101080	THERMAL FUSE

**PACKAGE PARTS LIST**

021B	1756-06303	LABEL <b>G GB BB</b>
022B	1756-03108	LABEL <b>G GB</b>
022D	1756-03111	LABEL <b>BB</b>
026B	1756-01405	LABEL <b>G GB</b>
027D	1756-08501	LABEL <b>BB</b>
106	1111-J90195	OWNER GUIDE, UL <b>UA BK</b>
107	1111-J30283	OWNER GUIDE <b>UA BK</b>
107B	1111-J30284	OWNER GUIDE <b>G GB BB</b>
108	1113-717004	OWNER CARD <b>UA BK</b>
109	1119-047	ATTACH SHEET <b>UA BK</b>
110	1119-0137	ATTACH SHEET <b>UA BK</b>
120	4191-0355	BATTERY, DRY UM-3X2
121	1241-C12732	POLYETHY BAG OG
122	1241-C1491	POLYETHY BAG SET
123	1241-C1227	POLYETHY BAG ANT
124	1221-757167	CARTON BOX <b>UA G</b>
124A	1221-767167	CARTON BOX <b>BK GB BB</b>
125	1222-7264	CUSHION L
126	1222-7265	CUSHION R
127	1223-11729	SOFT SHEET
128	1397-6	T FEEDER ANT
129	6142-02701	CONT BLOCK REMOCON
822	2421-7004	PIN, SHORT
195	5911-235	ANT COIL BC

**NOTE**

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