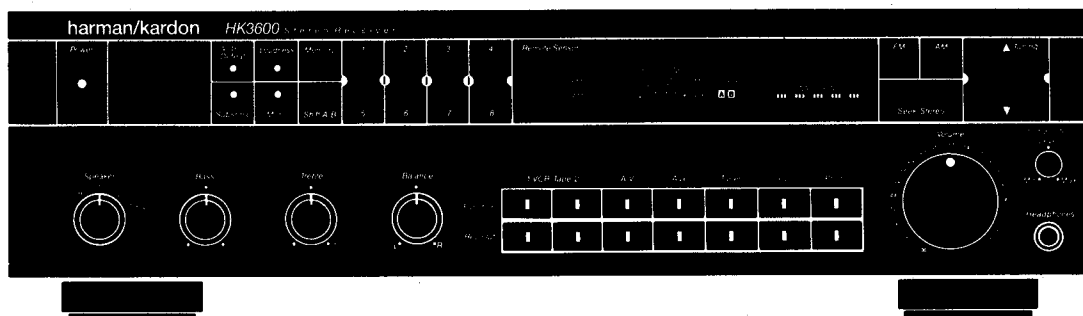


# The Harman Kardon Model HK3600 STEREO RECEIVER

Manual 169A

HK3600

## 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

**harman/kardon**

240 Crossways Park West, Woodbury, N.Y. 11797  
1112-3152169A2 P-089010 1000 Printed in Japan

**SPECIFICATIONS**

● **FM SECTION**

	Nominal	Limit
Tuning Range	87.5 – 108.0MHz	
50dB Quieting Sensitivity (at 98MHz)		
Mono	15.2dBf	≥ 19.0dBf
Stereo	35.0dBf	≥ 41.0dBf
Usable Sensitivity (at 98MHz)	11.2dBf	≥ 15.0dBf
Image Ratio	45.0dB	≥ 40.0dB
IF Rejection	94.0dB	≥ 80.0dB
Capture Ratio (at 65dBf)	1.2dB	
Alternate Channel Selectivity	66dB	≥ 60dB
AM Rejection (at 45dBf)	62dB	≥ 45dB
Signal to Noise Ratio (at 65dBf)		
Mono	80.5dB	≥ 76.0dB
Stereo	76.0dB	≥ 68.0dB
Total Harmonic Distortion (at 65dBf, 1kHz)		
Mono	0.06%	≤ 0.3%
Stereo	0.12%	≤ 0.4%
Stereo Separation (at 65dBf, 1kHz)	56.0dB	≥ 42.0dB

● **AM SECTION**

Tuning Range	530kHz – 1710kHz	
Usable Sensitivity		
External Antenna	23.0μV	≥ 25.0μV
Selectivity	50dB	
Signal to Noise Ratio	52.0dB	≥ 47.0dB
Image Rejection (at 1400kHz)	35.0dB	≥ 30.0dB
IF Rejection	62.0dB	≥ 50dB

● **AUDIO SECTION**

Usable Sensitivity		
Video/CD/Tape (at 75W)	133mV/25kΩ	
Phono	2.2mV/47kΩ	
Signal to Noise Ratio		
Video/CD/Tape	80dB	≥ 75dB
Phono	78dB	≥ 73dB

Channel Separation

	Nominal	Limit
Video/CD/Tape	54.0dB	≥ 45dB
Phono	59.5dB	≥ 45dB
IM Distortion Ratio	0.042%	≤ 0.1%
RMS Output Power		
8Ω, 1kHz, THD 0.1%	89.8W	≥ 50W
4Ω, 1kHz, THD 0.3%	91.1W	≥ 50W
High Instantaneous Current Capability (HCC) (at 8Ω)	38A	≥ 30A
Damping Factor at 1kHz	88.6	≥ 60
Tone Control Characteristics		
Bass at 50Hz		
Boost	10dB	± 2dB
Cut	-10dB	± 2dB
Treble at 10kHz		
Boost	10dB	± 2dB
Cut	-10dB	± 2dB
Loudness Control at 50Hz	10dB	± 2dB
DC Output Voltage		
L channel	0mV	± 60mV
R channel	0mV	± 60mV
RIAA Equalization at Tape Out (20Hz/20kHz)	0dB	± 0.5dB

- **DIMENSIONS** 17-3/8" x 5" x 13-3/4" (443 x 126 x 349 mm)
- **WEIGHT** 19.8lbs/9kg
- **POWER SUPPLY** AC120V, 60Hz
- **POWER CONSUMPTION** 290W

These specifications are service target specs.

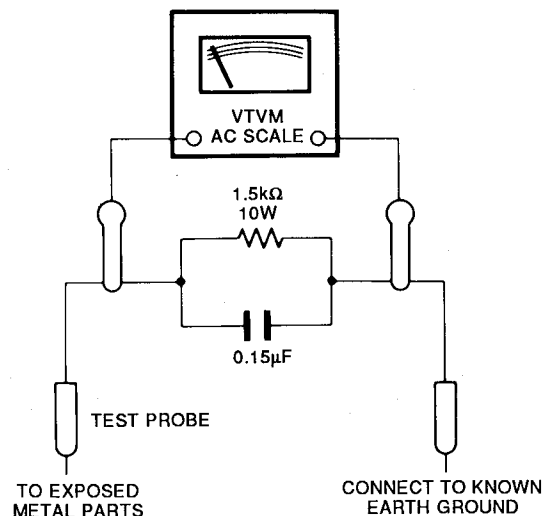
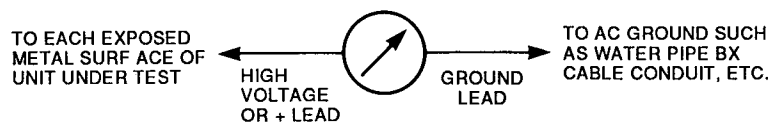
Specifications and components subject to change without notice. Overall performance will be maintained or improved.

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

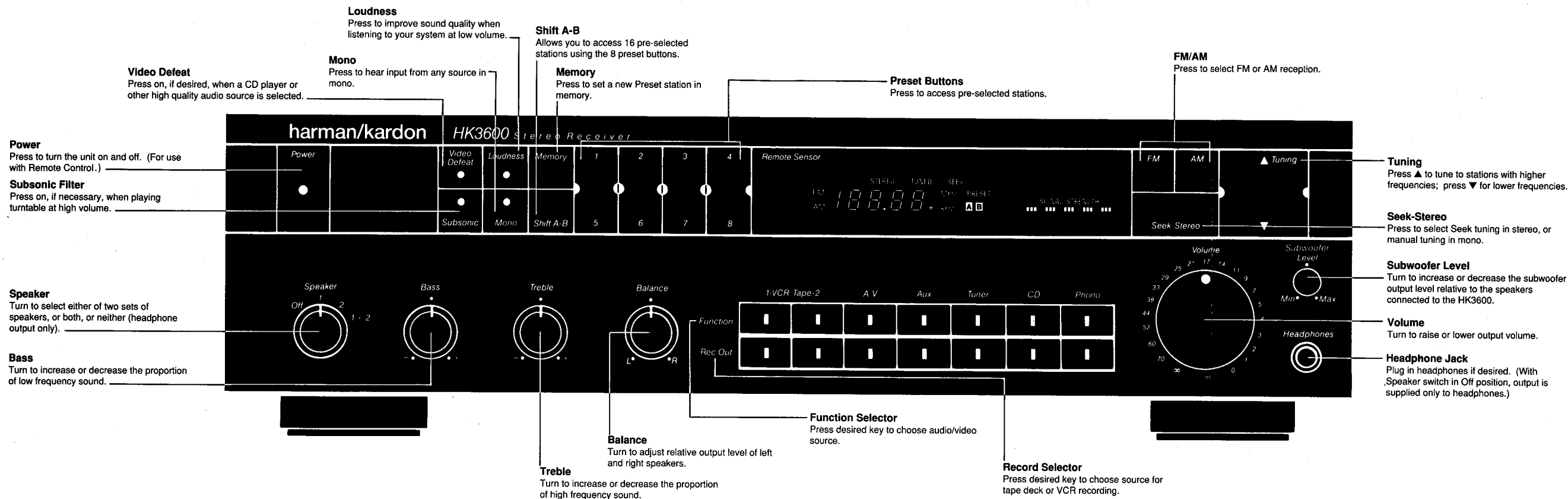
Before returning the unit to the user, perform the following safety checks:

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. Be sure that any protective devices such as nonmetallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor-capacity networks, mechanical insulators, etc. which were removed for servicing are properly reinstalled.
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 power 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.

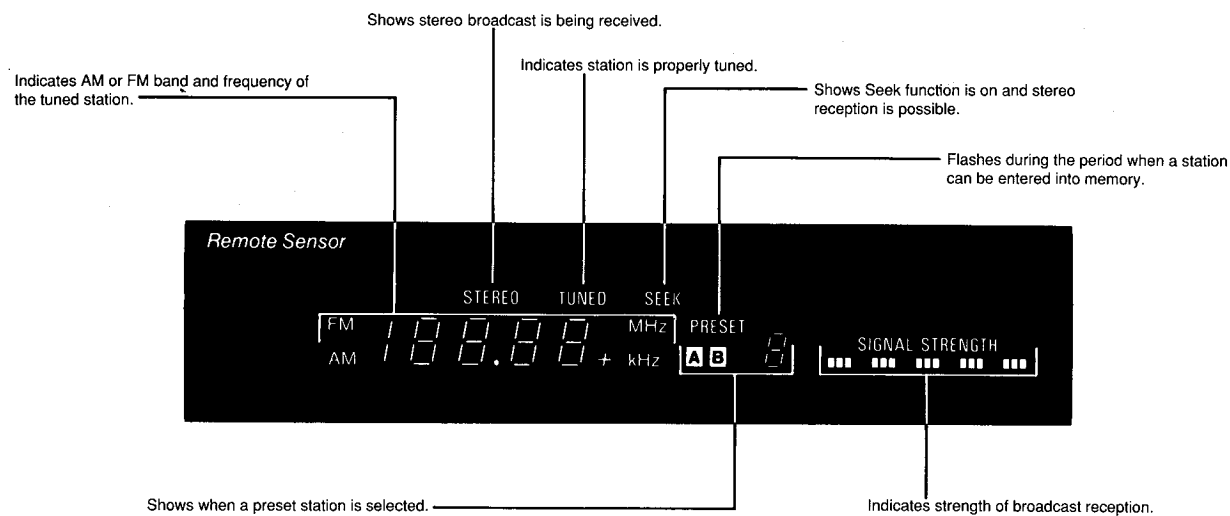
SIMPSON MODEL 229 ETC. FOR LEAKAGE TEST



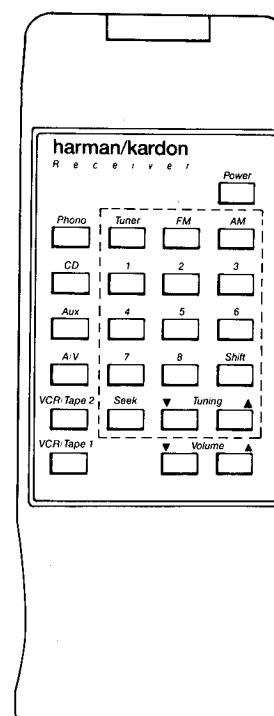
CONTROLS AND FUNCTIONS



DISPLAYS



REMOTE CONTROL



Using the Remote Control

The keys on the remote control unit function the same as the corresponding buttons on the receiver itself, except for the power switch.

The power switch on the receiver turns the unit On and Off. The switch on the remote control switches the receiver from On (green LED illuminated on receiver power switch) to Standby (amber LED), as follows.

When power is On, pressing the power switch on the remote control puts the receiver in Standby mode. From this mode, the receiver can be turned back On from the remote control.

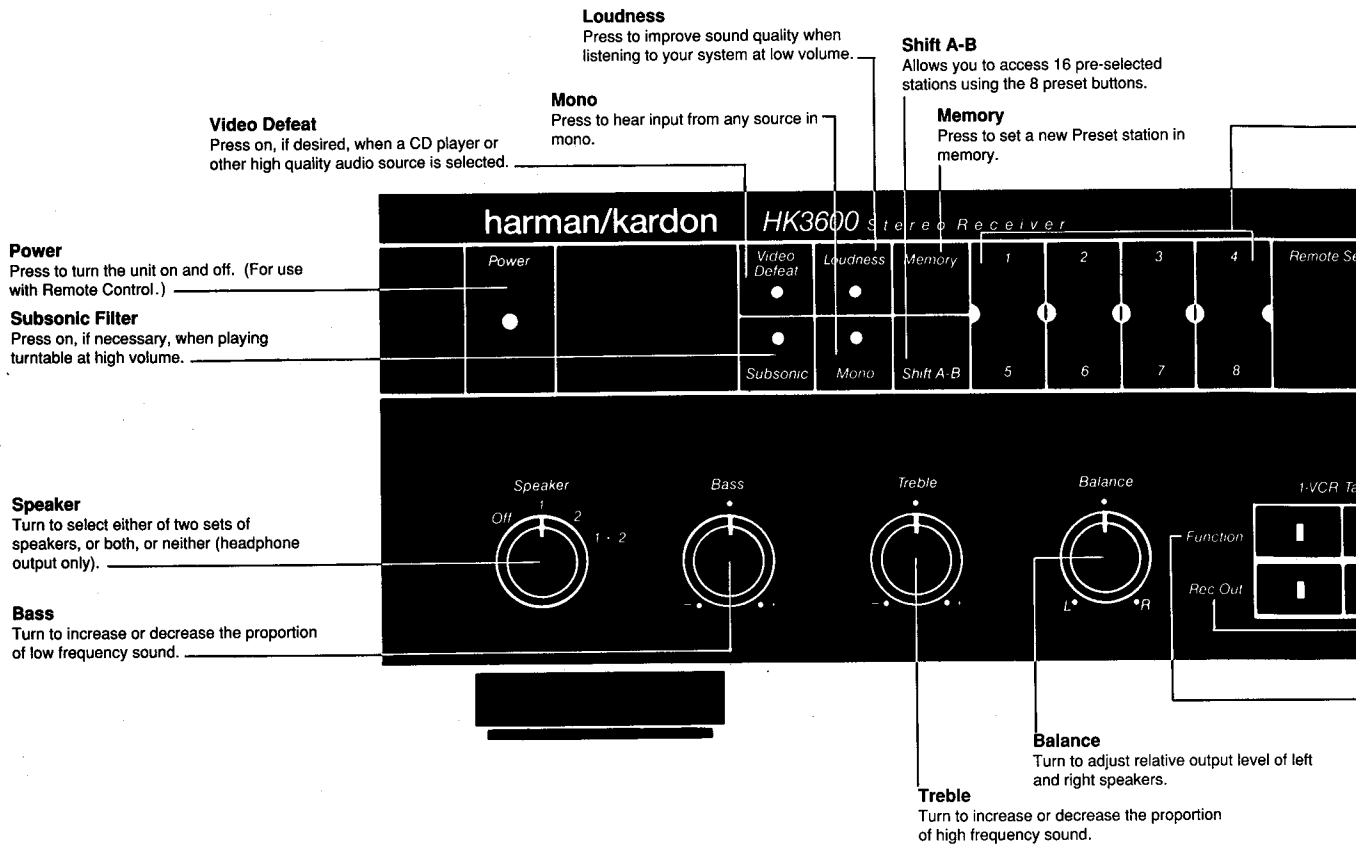
When power is Off, the receiver can be turned on only from the unit itself, not from the remote control.

Operating Conditions

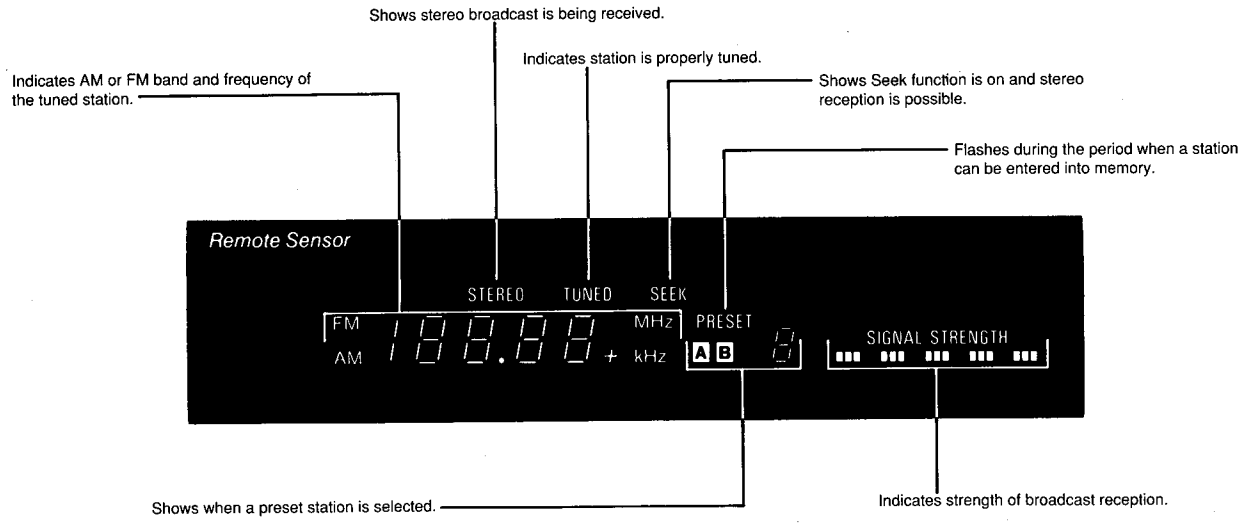
The control unit operates effectively within a distance of 7 meters (23 feet) and an angle of 30° from the receiver. Using the control near fluorescent lights may shorten this range, as will any dust or dirt that accumulates on the front of the remote control, or the "Remote Sensor" area of the receiver. Also avoid blocking the line of sight between receiver and remote.

The control unit is powered by two AA batteries, included with your receiver. When you replace weak batteries, replace both at the same time. When the remote is to be unused for an extended period, remove the batteries to prevent damage from corrosion.

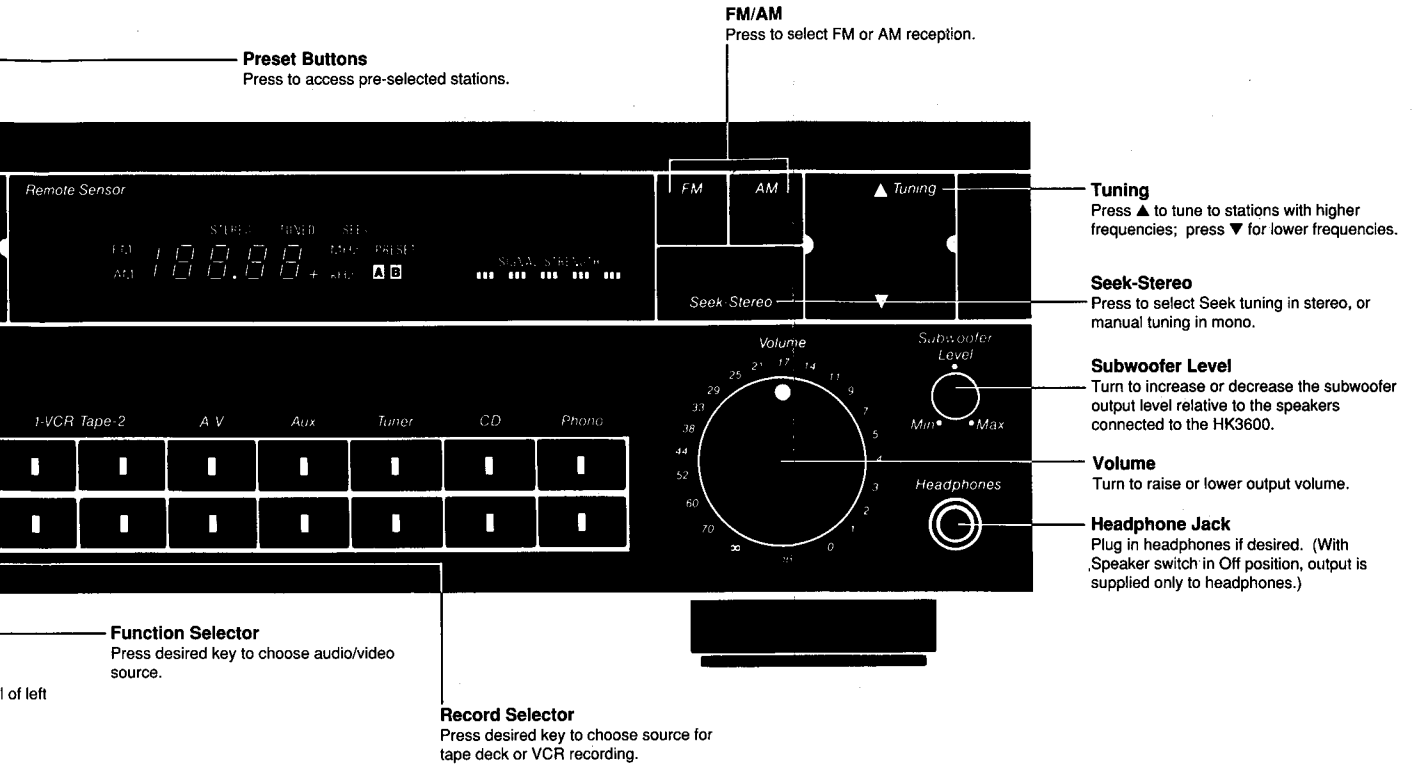
# CONTROLS AND FUNCTIONS



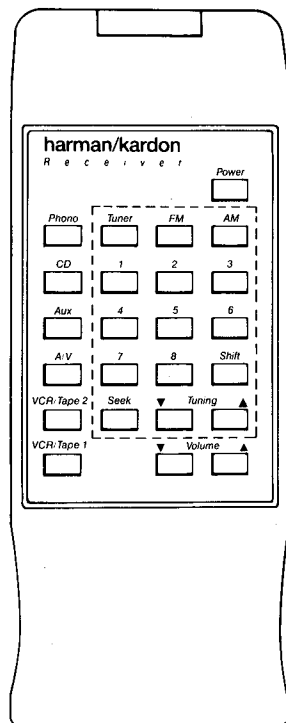
# DISPLAYS







**REMOTE CONTROL**



**Using the Remote Control**

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When power is Off, the receiver can be turned on only from the unit itself, not from the remote control.

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The control unit is powered by two AA batteries, included with your receiver. When you replace weak batteries, replace both at the same time. When the remote is to be unused for an extended period, remove the batteries to prevent damage from corrosion.

## DISASSEMBLY PROCEDURES (REFER TO PAGES 11 AND 35)

**1 CABINET TOP REMOVAL**

Remove 6 screws (A) and then remove the Cabinet Top (127).

**2 FRONT PANEL ASS'Y REMOVAL**

- Remove the Cabinet Top (127), referring to the previous step **1**.
- Disconnect the lead wires (JL101 and JL804) from connector (CN101A and CN804B) on the Tuner P. C. Board (PCB-1).
- Disconnect the connector with lead wire (CW15) from connector (CN15) on the Tuner P. C. Board (PCB-1).
- Pull out the Volume knob (139).
- Disconnect the connector with lead wire (CW101) from connector (CN101) on the Secondary P. C. Board (PCB-10).
- Remove 6 screws (B) and then remove the Front Panel Ass'y (AA).

**3 TUNER P. C. BOARD (PCB-1) REMOVAL**

- Remove the Cabinet Top (127), referring to the previous step **1**.
- Disconnect the connector with lead wires (CW15, CW102, CW105, CW504 and CW901) from Connectors (CN15, CN102, CN105, CN504 and CN901) on the Tuner P. C. Board (PCB-1).
- Disconnect the lead wires (JL101 and JL804) from connector (CN101A and CN804B) on the Tuner P. C. Board (PCB-1).
- Open the lid of connectors (CN12 and CN501) on the Tuner P. C. Board (PCB-1) and then disconnect the lead wires (JL12 and W-501).
- Remove 12 screws (C and D) and then remove the Tuner P. C. Board (PCB-1) with Equalizer, Monitor, Sub Woofer and MPX P. C. Boards (PCB-2, PCB-3, PCB-5 and PCB-21).

**4 MAIN P. C. BOARD (PCB-6) REMOVAL**

- Remove the Cabinet Top (127), referring to the previous step **1**.
- Remove 2 screws (E) and then remove the Speaker Terminal P. C. Board (PCB-14).
- Remove 5 screws (F) and then remove the Main P. C. Board (PCB-6) with Heat Sink (173) and Metal Fittings (167 and 168) and Speaker Terminal P. C. Board (PCB-14). If necessary, unsolder the lead wires.

**5 FRONT CHASSIS REMOVAL**

- Remove the Cabinet Top (127), referring to the previous step **1**.
- Remove the Front Panel Ass'y (AA), referring to the previous step **2**.
- Remove 7 screws (G) and then remove the Front Chassis (161) with the Tone Control, Volume, Speaker Switch, Headphone, Sub Woofer VR, Power Switch and Power Indicator P. C. Boards (PCB-7, PCB-8, PCB-11, PCB-12, PCB-13, PCB-17 and PCB-19).
- \* Removal of P. C. Boards attached to the Front Chassis (161).
- Pull out the Bass, Treble and Balance knobs (140).
- Remove 3 hexagon-nuts (H) and then remove the Tone Control P. C. Board (PCB-7).
- Remove a hexagon-nut (I) and then remove the Volume P. C. Board (PCB-8).
- Pull out the Speaker knob (140).
- Remove a hexagon-nut (J) and then remove the Speaker Switch P. C. Board (PCB-11).
- Remove the metal fixture (K) fixing the Headphone P. C. Board (PCB-12) and then remove it.
- Pull out the Sub Woofer Level knob (141).
- Remove a hexagon-nut (L) and then remove the Subwoofer VR P. C. Board (PCB-13).
- Pull out the Power Indicator P. C. Board (PCB-19).
- Remove 2 screws (M) and then remove the Power Switch P. C. Board (PCB-17).

**6 SECONDARY P. C. BOARD (PCB-10) REMOVAL**

- Remove the Cabinet Top (127), referring to the previous step **1**.
- Remove the 4/8 Holder (188).
- Disconnect the connector with lead wire (CW101) from connector (CN101) on the Secondary P. C. Board (PCB-10).
- Remove 6 screws (N and O) and then remove the Power Transformer (T1) with Secondary P. C. Board (PCB-10).

**7 PRIMARY P. C. BOARD (PCB-9) REMOVAL**

- Remove the Cabinet Top (127), referring to the previous step **1**.
- Remove the Secondary P. C. Board (PCB-10), referring to the previous step **6**.
- Remove 2 screws (P) and then remove the Primary P. C. Board (PCB-9).

## CIRCUIT DESCRIPTION

**FM TUNER SECTION**

The FM signal which has entered through the antenna is high-frequency amplified in the front end unit FE101, mixed with the output of the local oscillator 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 transmitted through the IF amplifier in two steps, and after being detected in the quadrature, it is transmitted through the post amplifier to pin 12 and then input to pin 24 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 18 for the left channel and from pin 20 for the right channel be fed to the amplifier.

**AM TUNER SECTION**

The AM signal which has entered through the antenna is transmitted through the tuning circuit consisting of CB251 to IC201. In IC201 it undergoes high-frequency amplification, intermediate-frequency amplification local oscillation, intermediate-frequency amplification and detection, and then output from pin 15. This signal is turned ON and OFF at Q704 and Q705 according to the signal from the input selector and fed to pin 23 of IC301.

**MUTING CIRCUIT**

If FM is received out of tuning or in a very weak field intensity, pin 31 of IC701 becomes high level. This is fed to the base of Q706, whose collector then becomes low level and the collector of Q707 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 21 of IC702. Control output signal if fed from IC701, compared with the divided local oscillation output and output to pin 16. 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 19 of IC702. In IC702, Control output signal is fed from IC701, compared with the local oscillation output and output to pin 16. This voltage is level converted at Q701 and Q702, and fed to the AM local oscillation section.

**AUDIO AMPLIFIER SECTION**

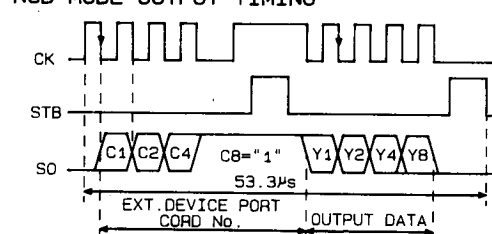
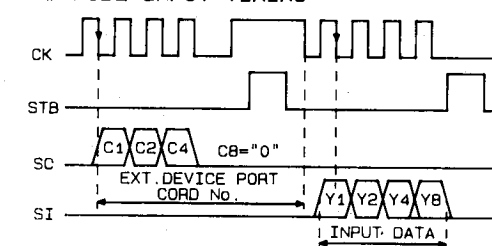
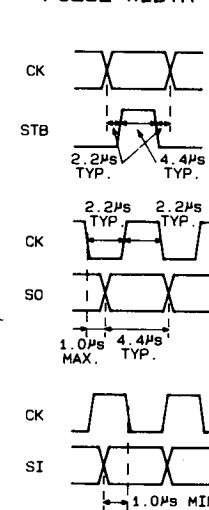
The signal which has entered from each input terminal is selected by the function selector, passes through the balance circuit, volume and loudness circuit and is fed into the pre-amplifier.

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 Q419, Q421 (L ch), Q420, Q422 (R ch), it is detected at Q27 (L ch) and Q28 (R ch) and the protective circuit consisting of Q22 to Q24 draws in the base of Q425 (L ch) and Q426 (R ch), and thus the input signal is cut to protect the circuit.

## TIMING CHART

Frequency display timing chart of IC701 (TC9301AN-020)

**NCD MODE OUTPUT TIMING****NCD MODE INPUT TIMING****SERIAL TIMING PULSE WIDTH**

## DISASSEMBLY PROCEDURES (REFER TO PAGES 11 AND 35)

**1 CABINET TOP REMOVAL**

Remove 6 screws (A) and then remove the Cabinet Top (127).

**2 FRONT PANEL ASS'Y REMOVAL**

1. Remove the Cabinet Top (127), referring to the previous step **1**.
2. Disconnect the lead wires (JL101 and JL804) from connector (CN101A and CN804B) on the Tuner P. C. Board (PCB-1).
3. Disconnect the connector with lead wire (CW15) from connector (CN15) on the Tuner P. C. Board (PCB-1).
4. Pull out the Volume knob (139).
5. Disconnect the connector with lead wire (CW101) from connector (CN101) on the Secondary P. C. Board (PCB-10).
6. Remove 6 screws (B) and then remove the Front Panel Ass'y (AA).

**3 TUNER P. C. BOARD (PCB-1) REMOVAL**

1. Remove the Cabinet Top (127), referring to the previous step **1**.
2. Disconnect the connector with lead wires (CW15, CW102, CW105, CW504 and CW901) from Connectors (CN15, CN102, CN105, CN504 and CN901) on the Tuner P. C. Board (PCB-1).
3. Disconnect the lead wires (JL101 and JL804) from connector (CN101A and CN804B) on the Tuner P. C. Board (PCB-1).
4. Open the lid of connectors (CN12 and CN501) on the Tuner P. C. Board (PCB-1) and then disconnect the lead wires (JL12 and W-501).
5. Remove 12 screws (C and D) and then remove the Tuner P. C. Board (PCB-1) with Equalizer, Monitor, Sub Woofer and MPX P. C. Boards (PCB-2, PCB-3, PCB-5 and PCB-21).

**4 MAIN P. C. BOARD (PCB-6) REMOVAL**

1. Remove the Cabinet Top (127), referring to the previous step **1**.
2. Remove 2 screws (E) and then remove the Speaker Terminal P. C. Board (PCB-14).
3. Remove 5 screws (F) and then remove the Main P. C. Board (PCB-6) with Heat Sink (173) and Metal Fittings (167 and 168) and Speaker Terminal P. C. Board (PCB-14). If necessary, unsolder the lead wires.

**5 FRONT CHASSIS REMOVAL**

1. Remove the Cabinet Top (127), referring to the previous step **1**.
2. Remove the Front Pannel Ass'y (AA), referring to the previous step **2**.
3. Remove 7 screws (G) and then remove the Front Chassis (161) with the Tone Control, Volume, Speaker Switch, Headphone, Sub Woofer VR, Power Switch and Power Indicator P. C. Boards (PCB-7, PCB-8, PCB-11, PCB-12, PCB-13, PCB-17 and PCB-19).
  - \* Removal of P. C. Boards attached to the Front Chassis (161).
4. Pull out the Bass, Treble and Balance knobs (140).
5. Remove 3 hexagon-nuts (H) and then remove the Tone Control P. C. Board (PCB-7).
6. Remove a hexagon-nut (I) and then remove the Volume P. C. Board (PCB-8).
7. Pull out the Speaker knob(140).
8. Remove a hexagon-nut (J) and then remove the Speaker Switch P. C. Board (PCB-11).
9. Remove the metal fixture (K) fixing the Headphone P. C. Board (PCB-12) and then remove it.
10. Pull out the Sub Woofer Level knob (141).
11. Remove a hexagon-nut (L) and then remove the Subwoofer VR P. C. Board (PCB-13).
12. Pull out the Power Indicator P. C. Board (PCB-19).
13. Remove 2 screws (M) and then remove the Power Switch P. C. Board (PCB-17).

**6 SECONDARY P. C. BOARD (PCB-10) REMOVAL**

1. Remove the Cabinet Top (127), referring to the previous step **1**.
2. Remove the 4/8 Holder (188).
3. Disconnect the connector with lead wire (CW101) from connector (CN101) on the Secondary P. C. Board (PCB-10).
4. Remove 6 screws (N and O) and then remove the Power Transformer (T1) with Secondary P. C. Board (PCB-10).

**7 PRIMARY P. C. BOARD (PCB-9) REMOVAL**

1. Remove the Cabinet Top (127), referring to the previous step **1**.
2. Remove the Secondary P. C. Board (PCB-10), referring to the previous step **6**.
3. Remove 2 screws (P) and then remove the Primary P. C. Board (PCB-9).

## CIRCUIT DESCRIPTION

### ■ FM TUNER SECTION

The FM signal which has entered through the antenna is high-frequency amplified in the front end unit FE101, mixed with the output of the local oscillator 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 transmitted through the IF amplifier in two steps, and after being detected in the quadrature, it is transmitted through the post amplifier to pin 12 and then input to pin 24 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 18 for the left channel and from pin 20 for the right channel be fed to the amplifier.

### ■ AM TUNER SECTION

The AM signal which has entered through the antenna is transmitted through the tuning circuit consisting of CB251 to IC201. In IC201 it undergoes high-frequency amplification, intermediate-frequency amplification local oscillation, intermediate-frequency amplification and detection, and then output from pin 15. This signal is turned ON and OFF at Q704 and Q705 according to the signal from the input selector and fed to pin 23 of IC301.

### ■ MUTING CIRCUIT

If FM is received out of tuning or in a very weak field intensity, pin 31 of IC701 becomes high level. This is fed to the base of Q706, whose collector then becomes low level and the collector of Q707 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 21 of IC702. Control output signal is fed from IC701, compared with the divided local oscillation output and output to pin 16. 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 19 of IC702. In IC702, Control output signal is fed from IC701, compared with the local oscillation output and output to pin 16. This voltage is level converted at Q701 and Q702, and fed to the AM local oscillation section.

### ■ AUDIO AMPLIFIER SECTION

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

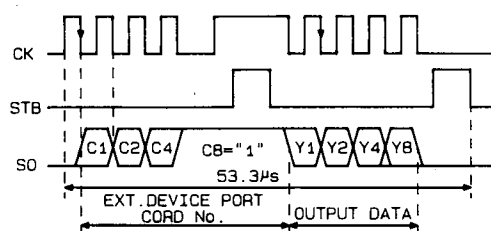
Then it is fed into the power amplifier through the tone control circuit, power amplified and transmitted to the speaker terminal.

The power amplifier has an over-output protective circuit. If current exceeding the specification flows to Q419, Q421 (L ch), Q420, Q422 (R ch), it is detected at Q27 (L ch) and Q28 (R ch) and the protective circuit consisting of Q22 to Q24 draws in the base of Q425 (L ch) and Q426 (R ch), and thus the input signal is cut to protect the circuit.

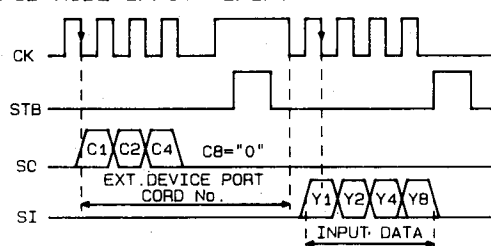
## TIMING CHART

Frequency display timing chart of IC701 (TC9301AN-020)

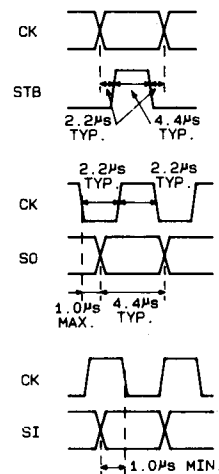
### NCD MODE OUTPUT TIMING



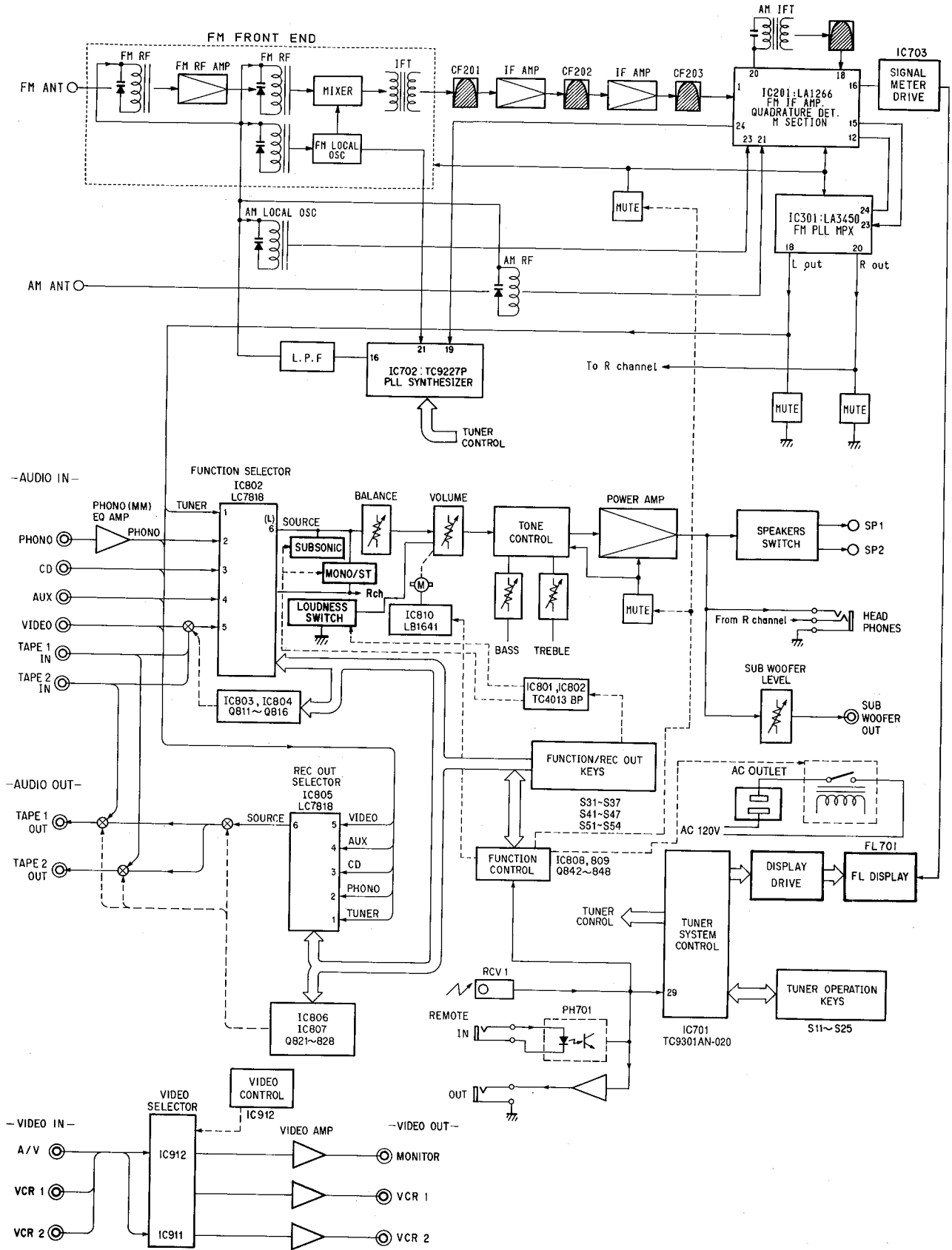
### NCD MODE INPUT TIMING



### SERIAL TIMING PULSE WIDTH



BLOCK DIAGRAM



**ALIGNMENT PROCEDURES (REFER TO PAGES 13 AND 14)**

- Conditions:**
- Set the Volume control to minimum.
  - Set the Speaker switches to on (button in) position.
  - Set the Speaker Operating Mode switch to "8Ω" position.
  - Set the Function switch to tuner 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.

**■ IDLING CURRENT ADJUSTMENT**

Step	Terminals to be connected	Adjustment	For
1	Connect the Digital Volt Meter to TP401 and TP403.	VR401 (L ch)	40mV ±2mV
2	Connect the Digital Volt Meter to TP402 and TP404.	VR402 (R ch)	40mV ±2mV

**■ AM ADJUSTMENT**

- Conditions:**
- Set the AM mode by pressing the "AM" button.
  - Standard modulation of the AM Signal Generator is 400Hz at 30%.
  - Set the Seek-Stereo switch to off (put out seek indicator) position.

Step	Alignment	Terminals to be connected	Measurement Frequency	Station Display	Adjustment	For
1	IF	<ul style="list-style-type: none"> <li>• Connect the AM Test Loop Antenna cable into the output jack of AM Signal Generator. (80dBμV input signal) Place AM Test Loop Antenna close enough to couple signal into the AM Loop Antenna.</li> <li>• Connect the VTVM and oscilloscope to the OUTPUT jacks.</li> </ul>	1400kHz	1400kHz	T251	Maximum output level and symmetrical curve on scope.
2	Tracking		600kHz	600kHz	CB251	Maximum output

**■ FM ADJUSTMENT**

- Conditions:**
- Set the FM mode by pressing the "FM" button.
  - Set the Seek-Stereo switch to off (put out seek indicator) position.

<b>FM Signal Generator</b>	1kHz, 100% modulation
<b>Stereo Modulator</b>	L+R=45.5%, L-R=45.5%, 19kHz=9%

Step	Alignment	Terminals to be connected	Measurement Frequency	Station Display	Adjustment	For
1	Discriminator	<ul style="list-style-type: none"> <li>• Connect the FM Signal Generator to FM 300Ω BAL Antenna terminals through the 300Ω balanced dummy. [1mV (65dBf) input signal]</li> <li>• Connect the Oscilloscope and Distortion meter to the TAPE 1 OUT jacks.</li> </ul>	97.9MHz	97.9MHz	T201(A)	Adjust so that the TUNED indicator lights in the same range on both plus (+) and minus (-) sides of 97.9MHz.
2			97.9MHz	97.9MHz	T201(B)	Minimum distortion.
3			Repeat steps 1 and 2 for optimum sensitivity.			
4	Muting level	<ul style="list-style-type: none"> <li>• Set the Seek-Stereo switch to on (seek indicator lights) position.</li> </ul>	97.9MHz	97.9MHz	VR201	Adjust VR201 so that the waveform is muted at 30 dBf input.
5	Separation	<ul style="list-style-type: none"> <li>• Connect the Stereo Modulator to FM Signal Generator. Connect the FM Signal Generator to FM 300Ω BAL Antenna terminal through the 300Ω balanced dummy. [1mV (65dBf) input signal]</li> <li>• Connect the VTVM and Oscilloscope to the TAPE 1 OUT jacks.</li> </ul>	97.9MHz	97.9MHz	VR301	Adjust so that the left (or right) channel output becomes minimum when only the right (or left) channel of the Stereo Modulator is modulated.
6	Pilot cancel	<ul style="list-style-type: none"> <li>• Connect the Stereo Modulator (19kHz only) to FM Signal Generator. Connect the FM Signal Generator to FM 300Ω BAL Antenna terminal through the 300Ω balanced dummy. [1mV (65dBf) input signal]</li> <li>• Connect the VTVM and Oscilloscope to the TP301 (L ch) and TP302 (R ch).</li> </ul>	97.9MHz	97.9MHz	VR302	Observe with oscilloscope and reduce 19kHz carrier leak level to minimum.

## IC TERMINAL FUNCTIONS

## ■ IC701

Pin No.	Pin Name	I/O	Function
1	GND	—	GND pin
2	K0	I	4-bit key input port
3	K1	I	4-bit key input port
4	K2	I	4-bit key input port
5	K3	I	4-bit key input port
6	D0	O	Digit output
7	D1	O	Digit output
8	D2	O	Digit output
9	D3	O	Digit output
10	D4	O	Digit output
11	D5	O	Digit output
12	D6	O	Digit output
13	a	O	Segment output
14	b	O	Segment output
15	c	O	Segment output
16	d	O	Segment output
17	e	O	Segment output
18	f	O	Segment output
19	g	O	Segment output
20	h	O	Segment output
21	-VFL	I	Negative power terminal (4-bit key input port, digit output, segment output)
22	P3-1	I/O	4-bit I/O port (3)
23	P3-2	I/O	4-bit I/O port (3)
24	P3-3	I/O	4-bit I/O port (3)
25	P3-4	I/O	4-bit I/O port (3)
26	P2-1	I/O	4-bit I/O port (2)
27	P2-2	I/O	4-bit I/O port (2)
28	P2-3	I/O	4-bit I/O port (2)
29	P2-4	I/O	4-bit I/O port (2)
30	P1-2	I/O	1-bit I/O port (1)
31	MUTE	O	1-bit muting signal output port
32	TEST	I	Test mode control input terminal
33	STB	O	Serial interface (strobe pulse output)
34	CK	O	Serial interface (serial clock output)
35	SO	O	Serial interface (serial data output)
36	SI	I	Serial interface (serial data input)
37	REF	O	Reference frequency signal output terminal
38	$\overline{\text{INT}}$	I	Initialize input (system reset signal input terminal)
39	$\overline{\text{INH}}$	I	Inhibit input (select signal input port of radio mode)
40	$\overline{\text{XT}}$	—	Connect quartz oscillator
41	XT	—	Connect quartz oscillator
42	VDD	I	Power supply terminal

■ IC702

Pin No.	Pin Name	I/O	Function
1	NC	—	Not connected
2	REF	I	Reference frequency input
3	SO	O	Serial I/O port (serial output)
4	SI	I	Serial I/O port (serial input)
5	CK	I	Serial I/O port (clock signal input)
6	STB	I	Serial I/O port (strobe signal input)
7	A-STP	I	Autostop signal input
8	IFIN	I	IF signal input of IF counter detected autostop
9	IN1	I	Input port
10	OT1	O	Output port
11	OT2	O	Output port
12	OT3	O	Output port
13	OT4	O	Output port
14	OT5	O	Output port
15	OT6	O	Output port
16	DO2	O	Phase comparator output
17	DO1	O	Phase comparator output
18	TEST	I	Test mode control input
19	AMIN	I	AM local oscillator (programmable counter input)
20	GND	—	GND pin
21	FMIN	I	FM local oscillator (pre scaler input)
22	VDD	I	5V ± 10% power supply terminal

■ IC703, 704

Pin No.	Pin Name	I/O	Function
1	AD1	I	Input terminal for address setting (OPEN)
2	CG/DO	I/O	Lamp test input and data output terminal
3	LS	I	Strobe input terminal
4	$\overline{\text{CL}}$	I	Clear input terminal
5	VDD	—	Power terminal for logic section (+5V)
6	HVO-20	O	Driver output terminal
7	HVO-19	O	
8	HVO-18	O	
9	HVO-17	O	
10	HVO-16	O	
11	HVO-15	O	
12	HVO-14	O	
13	HVO-13	O	
14	HVO-12	O	
15	HVO-11	O	
16	HVO-10	O	
17	HVO-9	O	
18	HVO-8	O	
19	HVO-7	O	
20	HVO-6	O	



Pin No.	Pin Name	I/O	Function
21	HVO-5	O	Driver output terminal
22	HVO-4	O	
23	HVO-3	O	
24	HVO-2	O	
25	HVO-1	O	
26	VDR	—	Power terminal for driver section
27	GND	—	GND
28	CLK	I	Clock input terminal
29	DIN	I	Data input terminal
30	AD2	I	Input terminal for address setting (OPEN)

■ IC802, 805

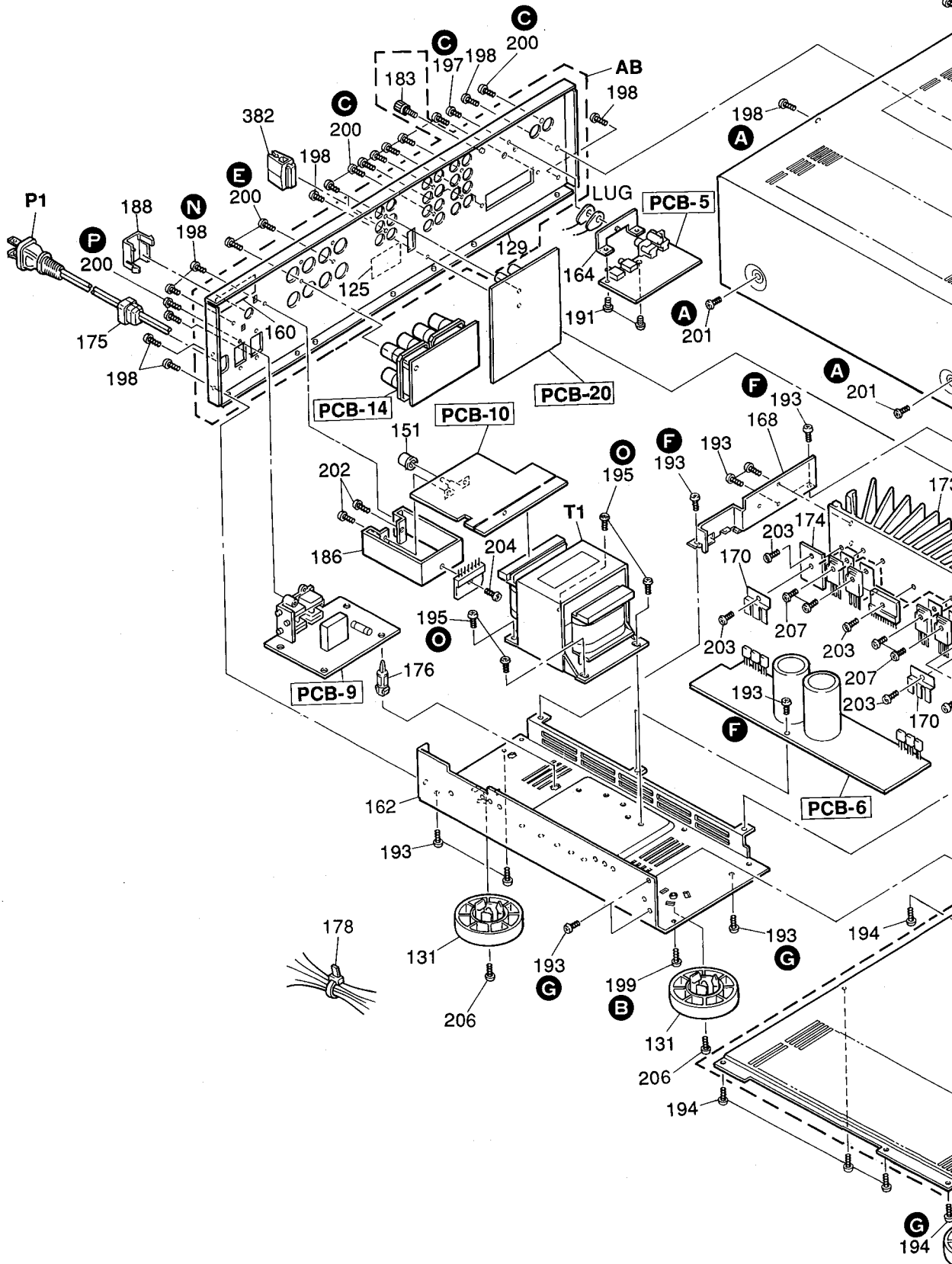
Pin No.	Pin Name	I/O	Function
1	A1	I	Audio signal input terminal
2	B1	I	
3	C1	I	
4	D1	I	
5	E1	I	
6	SOURSE1	O	Output terminal for recording
7	OUT1	O	Audio signal output terminal
8	TM1	I	Audio signal input terminal
9	VEE	—	-15V
10	$\overline{\text{T MOUT}}$	O	Driver output for LED to indicate TM ON/OFF state
11	$\overline{\text{A CTL}}$	I/O	Input/output terminal used for both analog switch control and driver output for LED to indicate its state
12	$\overline{\text{B CTL}}$	I/O	
13	$\overline{\text{C CTL}}$	I/O	
14	$\overline{\text{D CTL}}$	I/O	
15	$\overline{\text{E CTL}}$	I/O	
16	Vss	—	GND
17	$\overline{\text{T MCTL}}$	I	Input terminal for TM control
18	$\overline{\text{INIT}}$	I	Input terminal for each mode setting
19	$\overline{\text{MIN}}$	I	
20	CR	—	Input/output terminal for clock oscillation
21	MUTE	O	Output terminal for MUTE control
22	VDD	—	+15V
23	TM2	I	Audio signal input terminal
24	OUT2	O	Audio signal output terminal
25	SOURSE2	O	Output terminal for recording
26	E2	I	Audio signal input terminal
27	D2	I	
28	C2	I	
29	B2	I	
30	A2	I	

## ■ IC808

Pin No.	Pin Name	I/O	Function
1	I/O PORT D	I/O	9-bit terminal having output function on an independent bit basis. Output is open drain circuit for N channel transistor. Port D0 to D3 terminals have 4-bit input function. Programming output latch to "1" sets the output to floating (high impedance) state so that the terminals may be used as input port.
17		I/O	
18		I/O	
19		I/O	
2	OUT PORT D	O	
3		O	
6		O	
7		O	
8		O	
4	CNVss (0V)	—	Connect to Vss. Low input (0V) must be applied.
5	Vss (0V)	—	GND terminal
9	I/O PORT F	I/O	4-bit I/O terminal with output latch. Output is open drain circuit for N channel transistor. Programming port F output latch to "1" sets the output to floating (high impedance) state so that port F may be used as input port.
10		I/O	
11		I/O	
12		I/O	
13	RESET	I	Sets to reset state by applying low level signal for two or more machine cycles.
14	XOUT	O	Connect external resistor R for oscillation CR in the clock generation circuit. Ceramic resonator may be connected.
15	XIN	I	
16	SENSE INPUT S	I	Sense input terminal active on leading edge. Sets flag to "1" when terminal S signal changes from low to high. Allows test and flag clear to be performed by command.
20	VDD (5V)	—	Positive power supply terminal.



**GENERAL UNIT**  
EXPLODED VIEW



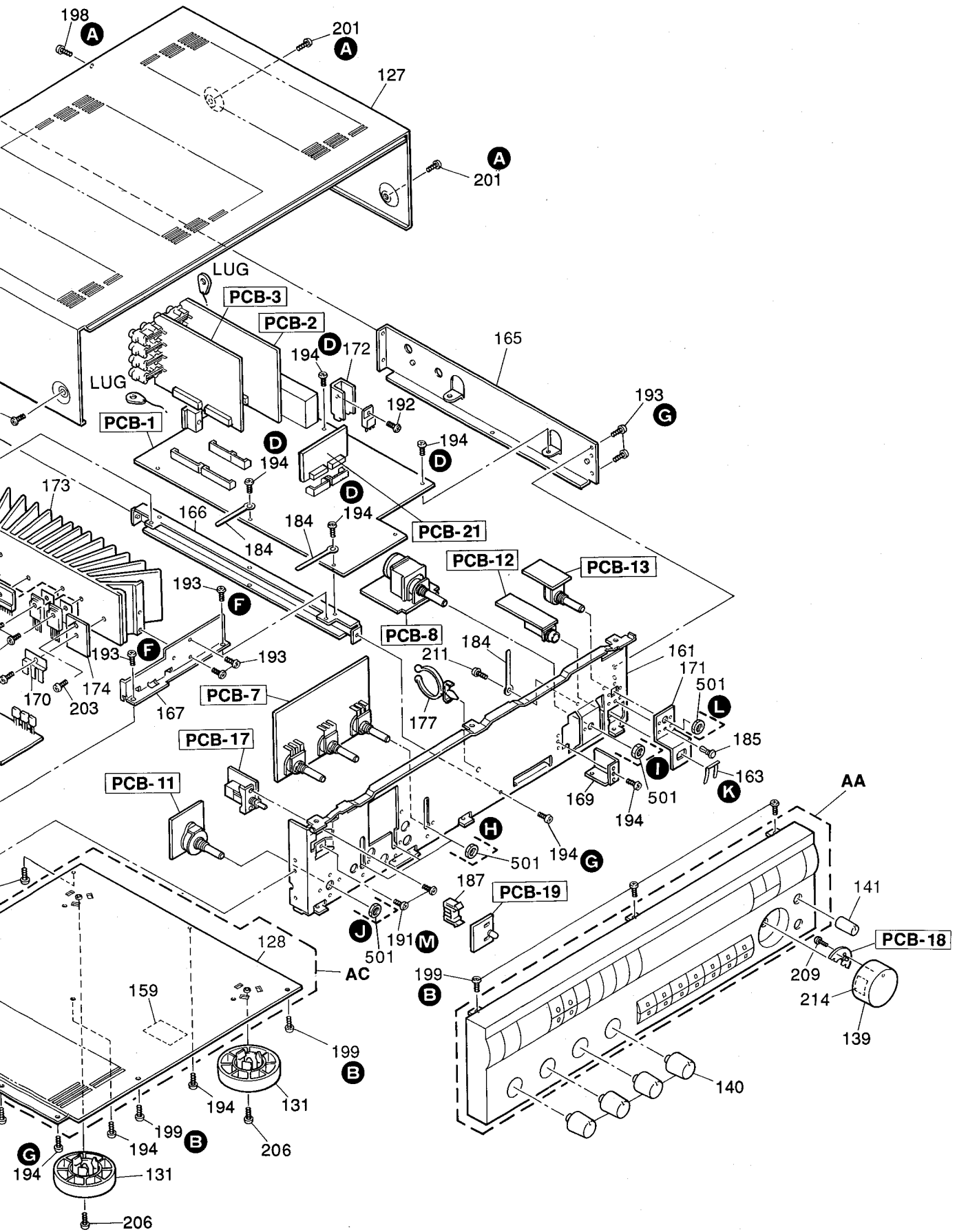
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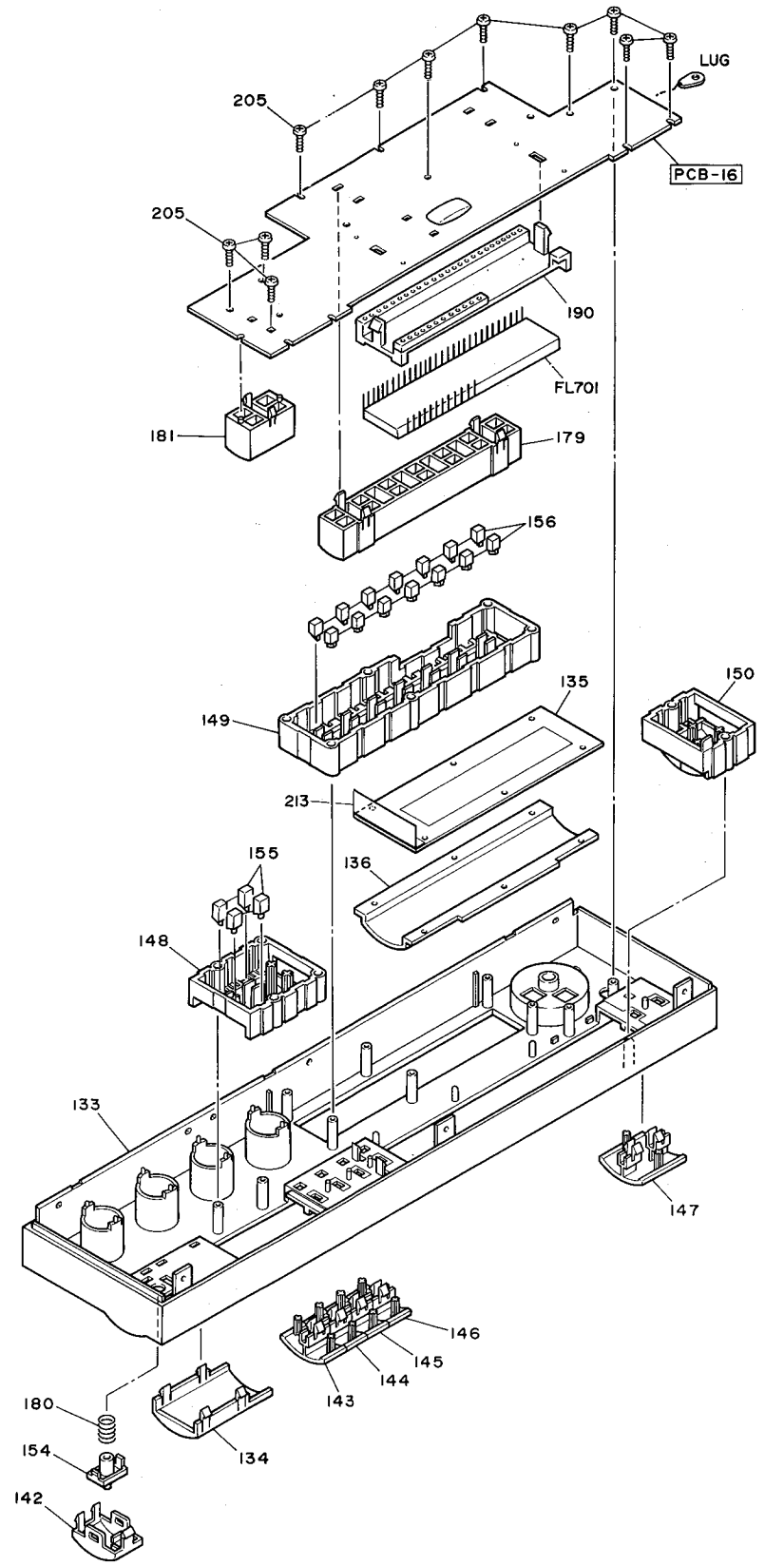
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**GENERAL UNIT**  
EXPLODED VIEW (FRONT PANEL ASS'Y)



**GENERAL UNIT PARTS LIST**

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
AA	A442-HK3600A	FRONT PANEL ASS'Y <b>UA</b>	186	2222-7286	HEAT SINK, SECONDARY PCB
AA	A442-HK3600B	FRONT PANEL ASS'Y <b>BK</b>	187	2240-7373	HOLDER, POWER SW
AB	A424-HK3600A	CABI BACK ASS'Y, REAR	188	2240-7359	HOLDER, 4/8 REAR
AC	A424-HK3600B	CABI BACK ASS'Y, BOTTOM	190	2240-7372	HOLDER, FL
125	1756-CSA	LABEL, CSA	191	2327-R0130062	SCREW, BND+ (3x6mm) (x4)
127	1414-16201	CABINET, TOP	192	2327-R0130082	SCREW, BND+ (3x8mm)
128	1424-33302	CABI BACK, BOTTOM	193	2347-R0130062	SCREW, BND T+ (3x6mm) (x16)
129	1424-33202	CABI BACK, REAR	194	2347-R0130062	SCREW, BND T+ (3x6mm) (x14)
131	1319-03301	LEG (x4)	195	2347-R0140082	SCREW, BND T+ (4x8mm) (x4)
133	1442-25703	PANEL, FRONT <b>UA</b>	197	2327-R0130084	SCREW, BND+ (3x8mm)
133	1442-25704	PANEL, FRONT <b>BK</b>	198	2347-R0130064	SCREW, BND T+ (3x6mm) (x9)
134	1442-24601	PANEL, DUMMY <b>UA</b>	199	2347-R0130084	SCREW, BND T+ (3x8mm) (x6)
134	1442-24602	PANEL, DUMMY <b>BK</b>	200	2347-R0130104	SCREW, BND T+ (3x10mm) (x13)
135	1511-19805	PLATE, FL FILTER	201	2347-R0140064	SCREW, BND T+ (4x6mm) (x4)
136	1532-17505	WINDOW, FRONT	202	2327-R0130062	SCREW, BND+ (3x6mm) (x2)
139	1630-04601	ROTARY KNOB, VOLUME <b>UA</b>	203	2347-R0130082	SCREW, BND T+ (3x8mm) (x5)
139	1630-04602	ROTARY KNOB, VOLUME <b>BK</b>	204	2347-R0130082	SCREW, BND T+ (3x8mm)
140	1632-20701	ROTARY KNOB, BASS, TRE, BAL, SP <b>UA</b>	205	2347-R0126082	SCREW, BND T+ (2.6x8mm) (x11)
140	1632-20702	ROTARY KNOB, BASS, TRE, BAL, SP <b>BK</b>	206	2347-R0140104	SCREW, BND T+ (4x10mm) (x4)
141	1632-20801	ROTARY KNOB, SUB WOOFER <b>UA</b>	207	2557-301029	SCREW, B SPW+ (3x10mm) (x4)
141	1632-20802	ROTARY KNOB, SUB WOOFER <b>BK</b>	209	2347-R0126082	SCREW, BND T+ (2.6x8mm)
142	1662-62501	PUSH BUTTON, POWER <b>UA</b>	211	2347-R0130062	SCREW, BND T+ (3x6mm)
142	1662-62502	PUSH BUTTON, POWER <b>BK</b>	213	2224-7135	INSULATOR, WINDOW
143	1662-58601	PUSH BUTTON, PRESET 1/5 <b>UA</b>	214	2134-11411	ADHESI SHEET
143	1662-58605	PUSH BUTTON, PRESET 1/5 <b>BK</b>	382	2240-7208	HOLDER, LOOP ANT
144	1662-58602	PUSH BUTTON, PRESET 2/6 <b>UA</b>	501	2440-62	NUT, SPE (x6)
144	1662-58606	PUSH BUTTON, PRESET 2/6 <b>BK</b>	△ P1	4161-71151	CORD W/PLUG
145	1662-58603	PUSH BUTTON, PRESET 3/7 <b>UA</b>	△ T1	5584-S9201	XFORMER, POWER
145	1662-58607	PUSH BUTTON, PRESET 3/7 <b>BK</b>			
146	1662-58604	PUSH BUTTON, PRESET 4/8 <b>UA</b>			
146	1662-58608	PUSH BUTTON, PRESET 4/8 <b>BK</b>			
147	1662-58901	PUSH BUTTON, TUNING <b>UA</b>			
147	1662-58902	PUSH BUTTON, TUNING <b>BK</b>			
148	1662-62801	PUSH BUTTON, SHIFT, MEMORY, LOUD, MONO <b>UA</b>			
148	1662-62802	PUSH BUTTON, SHIFT, MEMORY, LOUD, MONO <b>BK</b>			
149	1662-62701	PUSH BUTTON, FUNCTION <b>UA</b>			
149	1662-62702	PUSH BUTTON, FUNCTION <b>BK</b>			
150	1662-62401	PUSH BUTTON, FM/AM, SEEK <b>UA</b>			
150	1662-62402	PUSH BUTTON, FM/AM, SEEK <b>BK</b>			
151	1662-52601	PUSH BUTTON, 4/8 SW			
154	1732-07901	INDICATOR, POWER			
155	1732-08001	INDICATOR, LOUDNESS, MONO, VIDEO DEFEAT, SUBSONIC			
156	1732-08101	INDICATOR, FUNCTION (x14)			
159	1751-01018	LABEL			
160	1756-05910	LABEL, FUSE CAUTION			
161	2211-7313	CHASSIS, FRONT			
162	2211-7314	CHASSIS, TRANS			
163	2218-89	BRACKET, FIX H/P			
164	2219-8298	METAL FITTING, REMOTE IN/OUT			
165	2219-8300	METAL FITTING, R SIDE			
166	2219-8301	METAL FITTING, CENTER			
167	2219-8302	METAL FITTING, HS FRONT			
168	2219-8303	METAL FITTING, HS REAR			
169	2219-8304	METAL FITTING, TUNER PCB FRONT			
170	2219-8305	METAL FITTING, HS TR (x2)			
171	2219-8299	METAL FITTING, SUB WOOFER, HP			
172	2222-7230	HEAT SINK, TUNER PCB			
173	2222-7287	HEAT SINK, MAIN PCB			
174	2222-7285	HEAT SINK, SUB (x2)			
175	2240-364	HOLDER, AC CORD			
176	2240-7369	HOLDER, SECONDARY PCB			
177	2240-7049	HOLDER, WIRING			
178	2240-R0101	HOLDER, WIRING (x18)			
179	2240-7375	HOLDER, FRONT PCB			
180	2651-2101736	SPRING, POWER			
181	2240-7374	HOLDER, FRONT PCB			
183	4214-168	TERMINAL, GND			
184	2218-R0130	BRACKET, FIX, WIRING (x3)			
185	2459-3003511	RIVET, PLASTIC			

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

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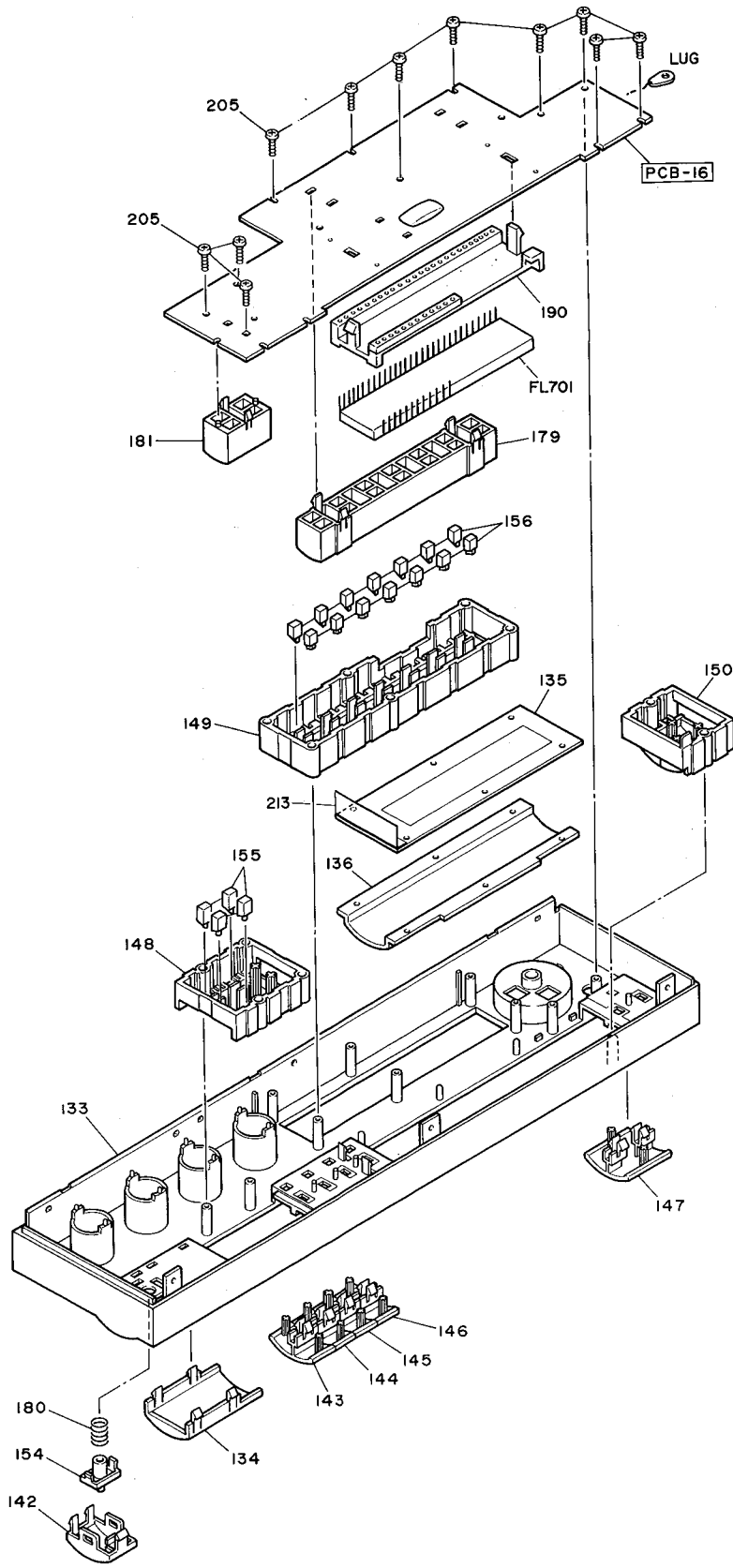
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# GENERAL UNIT PARTS LIST

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134	1442-24602	PANEL, DUMMY <b>BK</b>	200	2347-R0130104	SCREW, BND T+ (3x10mm) (x13)
135	1511-19805	PLATE, FL FILTER	201	2347-R0140064	SCREW, BND T+ (4x6mm) (x4)
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143	1662-58601	PUSH BUTTON, PRESET 1/5 <b>UA</b>	214	2134-11411	ADHESI SHEET
143	1662-58605	PUSH BUTTON, PRESET 1/5 <b>BK</b>	382	2240-7208	HOLDER, LOOP ANT
144	1662-58602	PUSH BUTTON, PRESET 2/6 <b>UA</b>	501	2440-62	NUT, SPE (x6)
144	1662-58606	PUSH BUTTON, PRESET 2/6 <b>BK</b>	△ P1	4161-71151	CORD W/PLUG
145	1662-58603	PUSH BUTTON, PRESET 3/7 <b>UA</b>	△ T1	5584-S9201	XFORMER, POWER
145	1662-58607	PUSH BUTTON, PRESET 3/7 <b>BK</b>			
146	1662-58604	PUSH BUTTON, PRESET 4/8 <b>UA</b>			
146	1662-58608	PUSH BUTTON, PRESET 4/8 <b>BK</b>			
147	1662-58901	PUSH BUTTON, TUNING <b>UA</b>			
147	1662-58902	PUSH BUTTON, TUNING <b>BK</b>			
148	1662-62801	PUSH BUTTON, SHIFT, MEMORY, LOUD, MONO <b>UA</b>			
148	1662-62802	PUSH BUTTON, SHIFT, MEMORY, LOUD, MONO <b>BK</b>			
149	1662-62701	PUSH BUTTON, FUNCTION <b>UA</b>			
149	1662-62702	PUSH BUTTON, FUNCTION <b>BK</b>			
150	1662-62401	PUSH BUTTON, FM/AM, SEEK <b>UA</b>			
150	1662-62402	PUSH BUTTON, FM/AM, SEEK <b>BK</b>			
151	1662-52601	PUSH BUTTON, 4/8 SW			
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155	1732-08001	INDICATOR, LOUDNESS, MONO, VIDEO DEFEAT, SUBSONIC			
156	1732-08101	INDICATOR, FUNCTION (x14)			
159	1751-01018	LABEL			
160	1756-05910	LABEL, FUSE CAUTION			
161	2211-7313	CHASSIS, FRONT			
162	2211-7314	CHASSIS, TRANS			
163	2218-89	BRACKET, FIX H/P			
164	2219-8298	METAL FITTING, REMOTE IN/OUT			
165	2219-8300	METAL FITTING, R SIDE			
166	2219-8301	METAL FITTING, CENTER			
167	2219-8302	METAL FITTING, HS FRONT			
168	2219-8303	METAL FITTING, HS REAR			
169	2219-8304	METAL FITTING, TUNER PCB FRONT			
170	2219-8305	METAL FITTING, HS TR (x2)			
171	2219-8299	METAL FITTING, SUB WOOFER, HP			
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173	2222-7287	HEAT SINK, MAIN PCB			
174	2222-7285	HEAT SINK, SUB (x2)			
175	2240-364	HOLDER, AC CORD			
176	2240-7369	HOLDER, SECONDARY PCB			
177	2240-7049	HOLDER, WIRING			
178	2240-R0101	HOLDER, WIRING (x18)			
179	2240-7375	HOLDER, FRONT PCB			
180	2651-2101736	SPRING, POWER			
181	2240-7374	HOLDER, FRONT PCB			
183	4214-168	TERMINAL, GND			
184	2218-R0130	BRACKET, FIX, WIRING (x3)			
185	2459-3003511	RIVET, PLASTIC			



P. C. BOARDS

PCB-1 Tuner P. C. Board

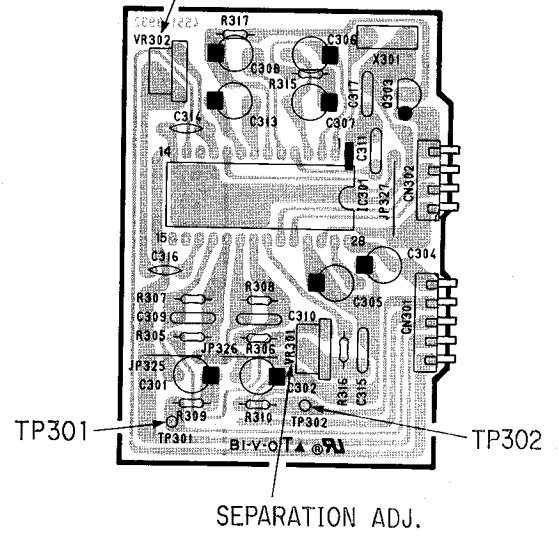
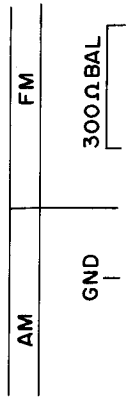
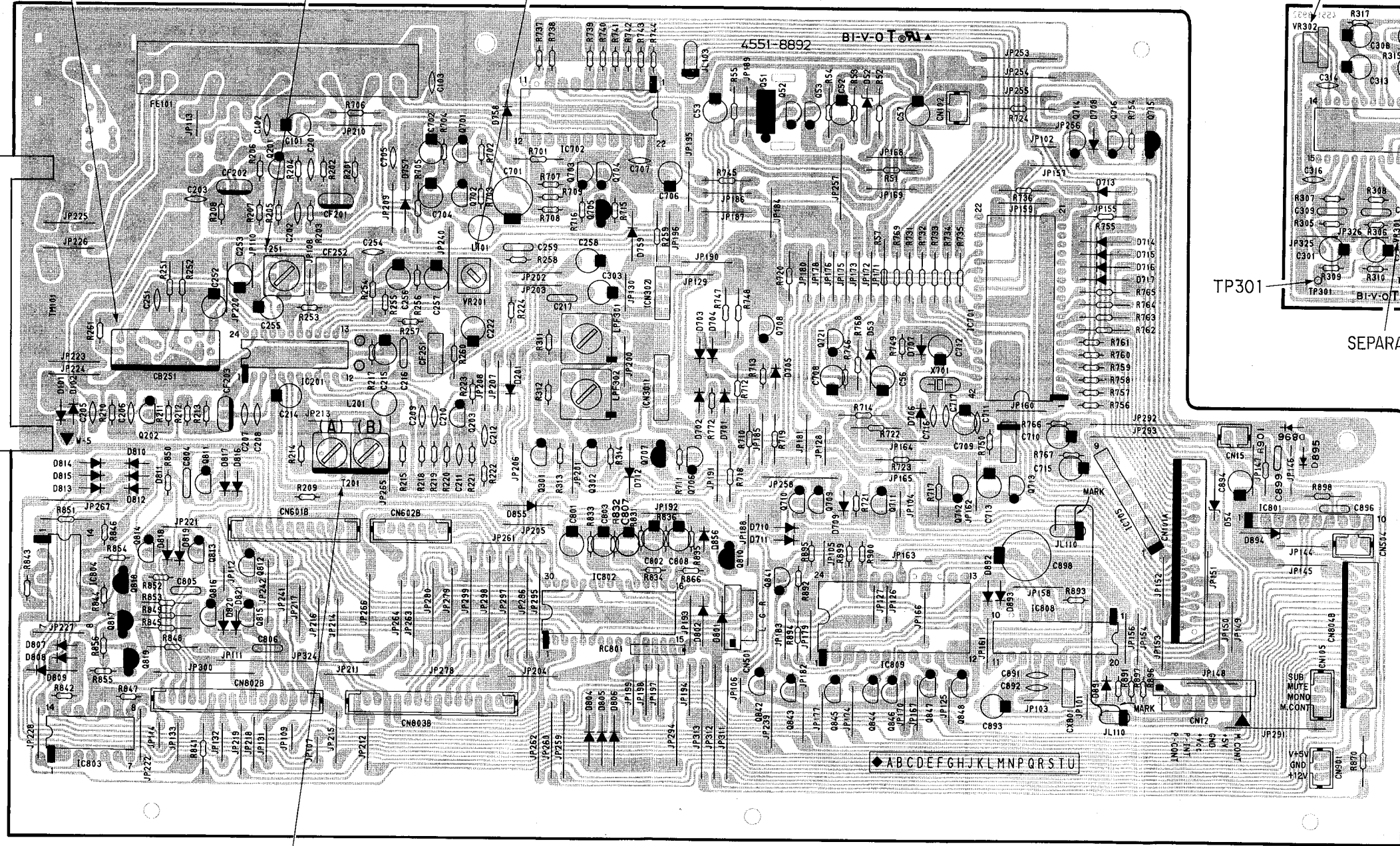
PCB-21 FM MPX P. C. Board

AM TRACKING ADJ.

AM IF ADJ.

MUTING LEVEL ADJ.

PILOT CANCEL ADJ.



TP301

TP302

SEPARATION ADJ.

DISCRIMINATOR ADJ.

ABCDEFGHIJKLMNPQRSTU

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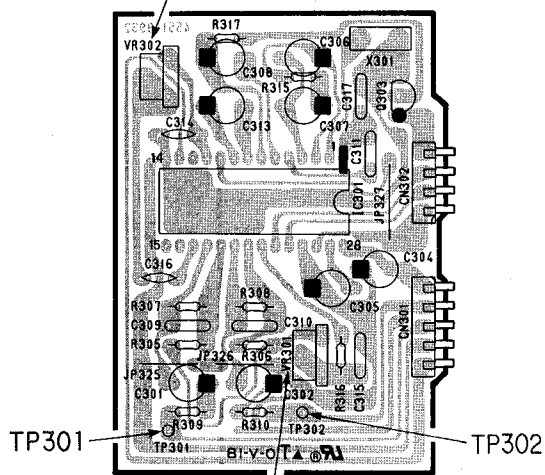
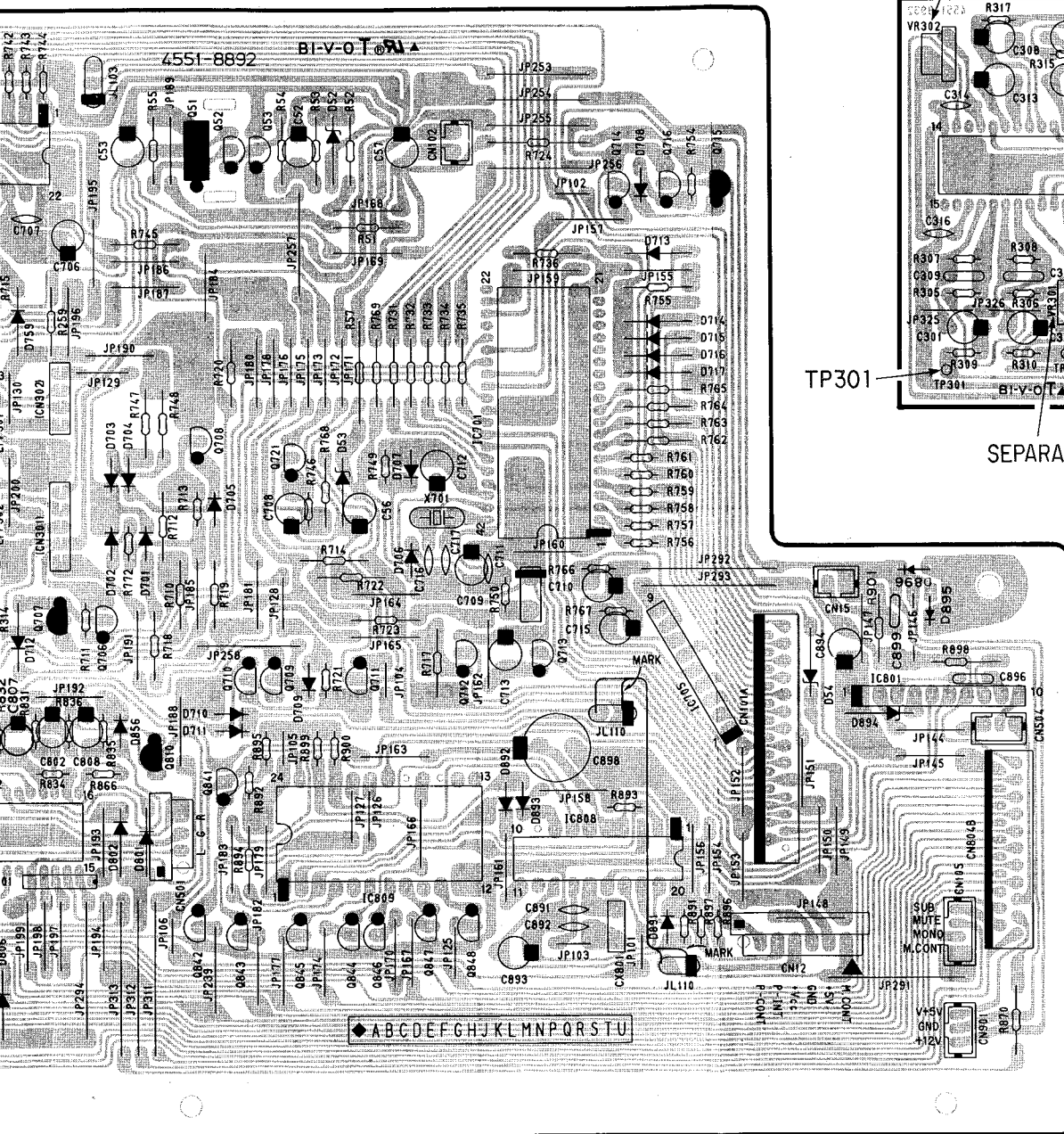
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PCB-21 FM MPX P. C. Board

EL ADJ.

PILOT CANCEL ADJ.

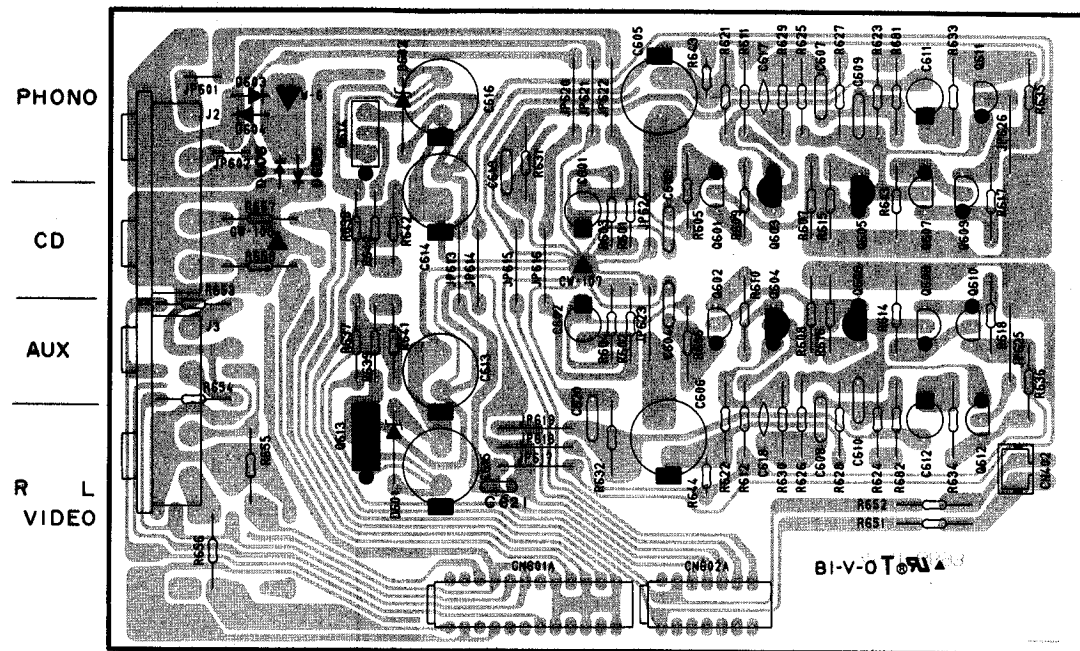


SEPARATION ADJ.

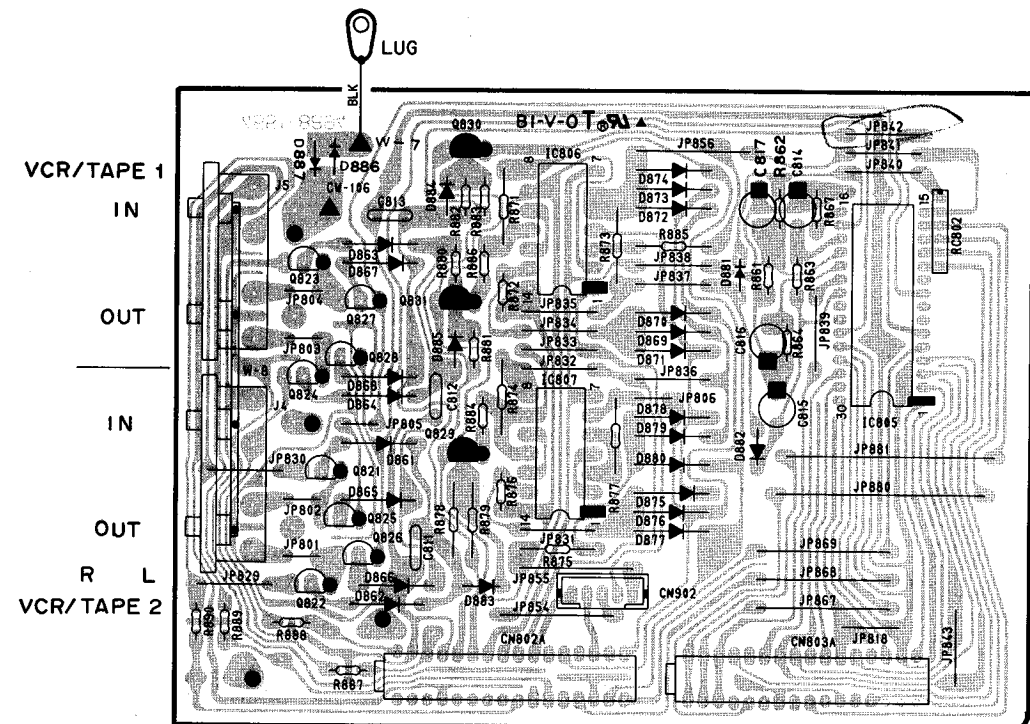


P. C. BOARDS

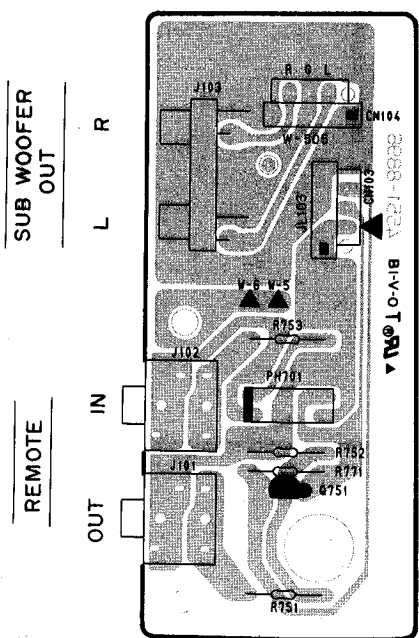
PCB-2 Equalizer P. C. Board



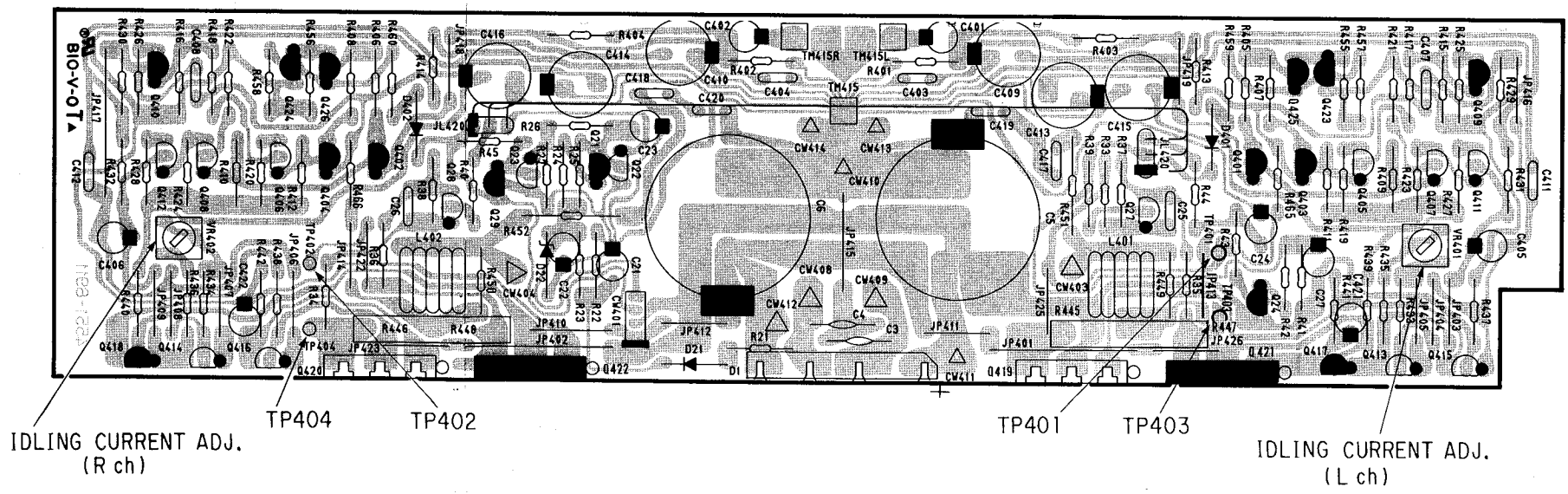
PCB-3 Monitor P. C. Board



PCB-5 Subwoofer P. C. Board

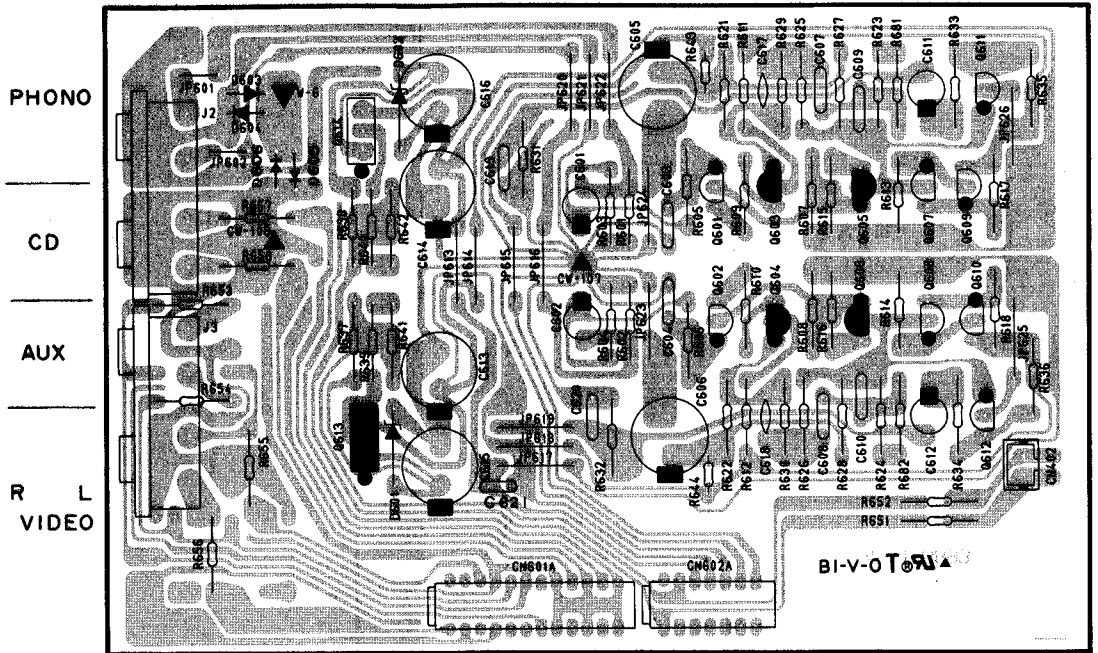


PCB-6 Main P. C. Board

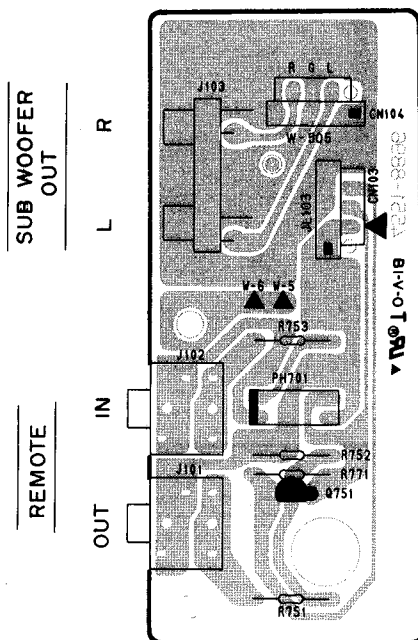


P. C. BOARDS

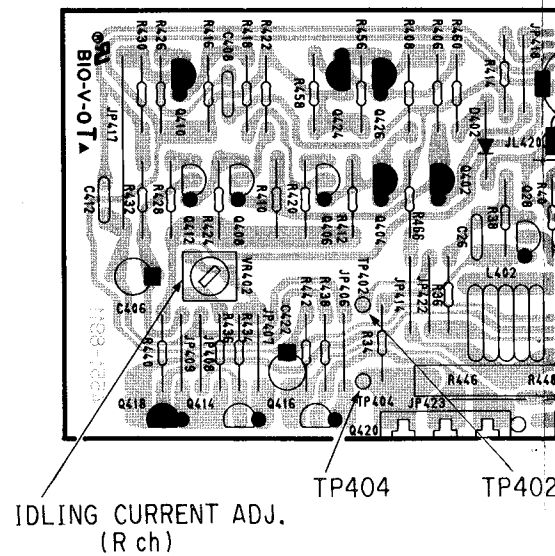
PCB-2 Equalizer P. C. Board



PCB-5 Subwoofer P. C. Board



PCB-6 Main P. C. Board



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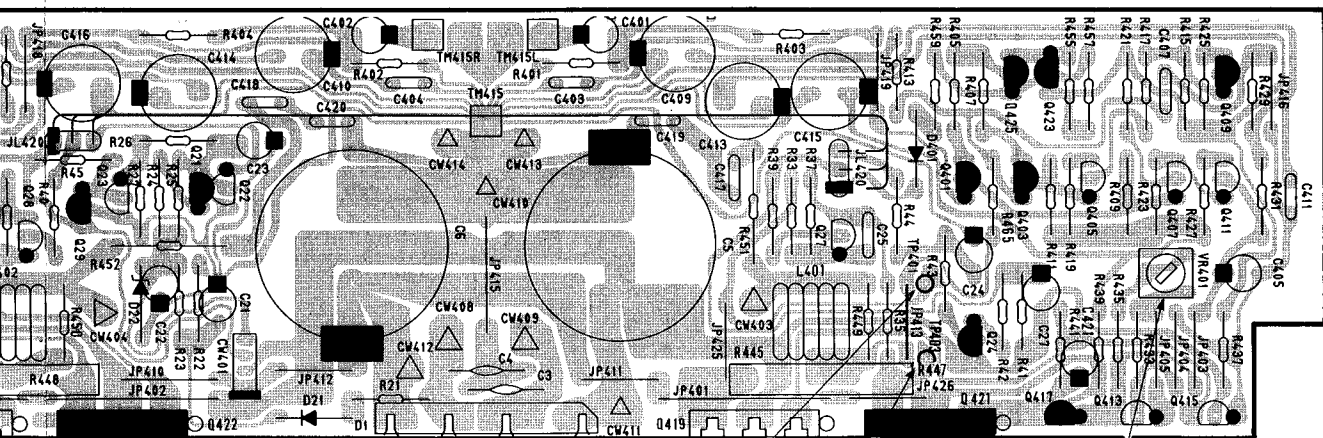
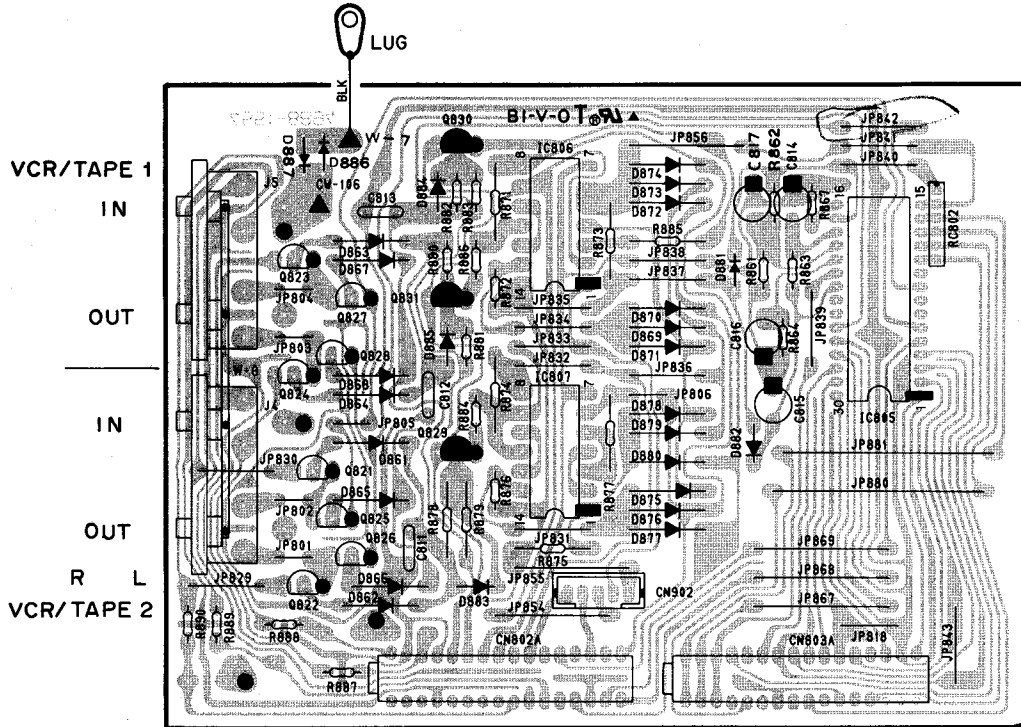
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PCB-3 Monitor P. C. Board



P402

TP401

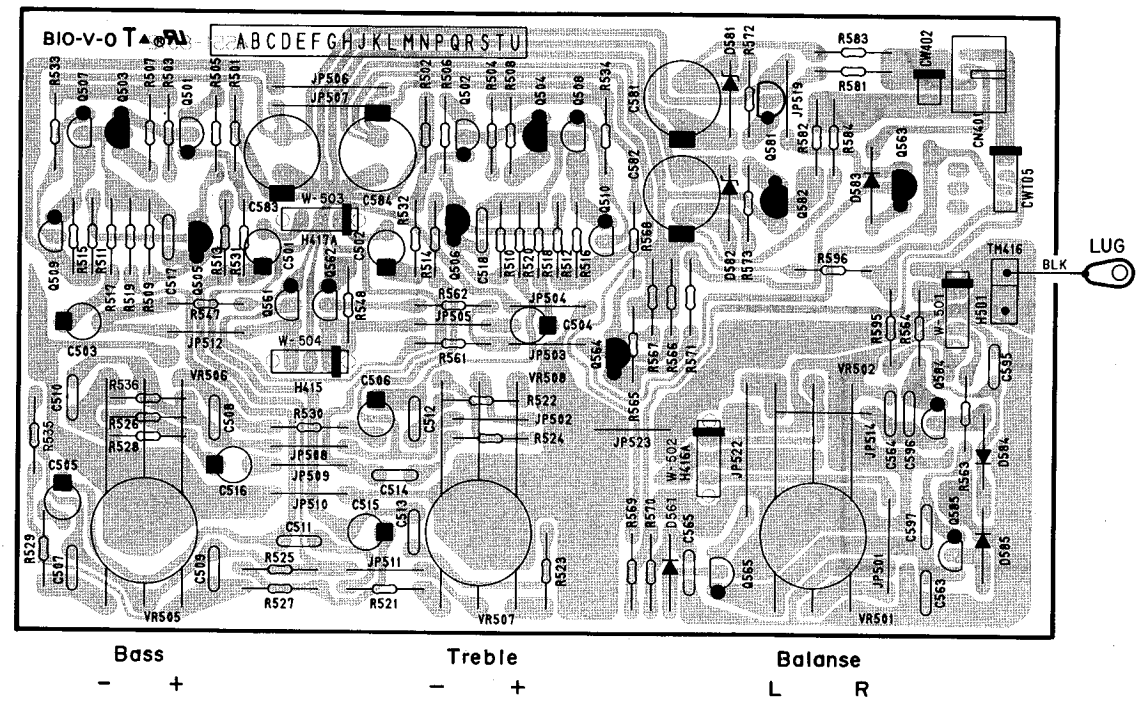
TP403

IDLING CURRENT ADJ. (L ch)

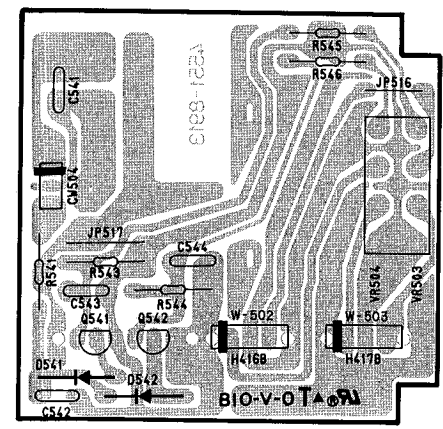


P. C. BOARDS

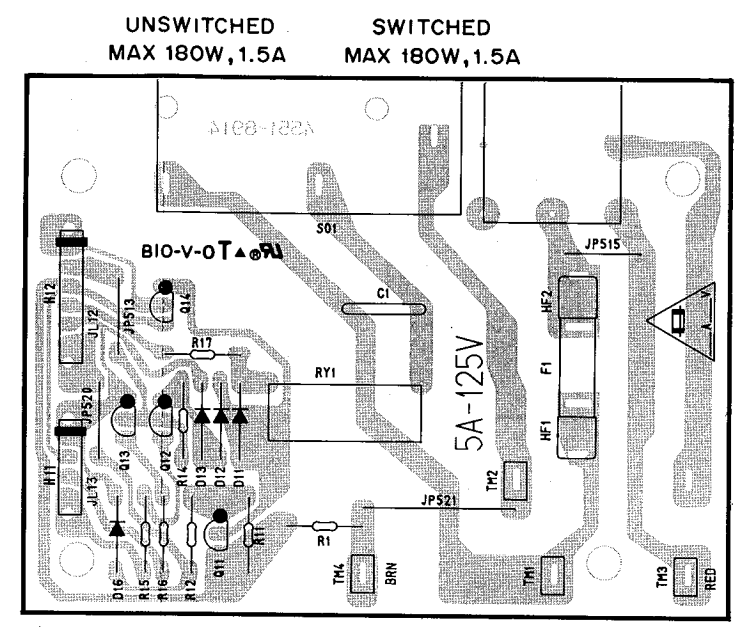
PCB-7 Tone Control P. C. Board



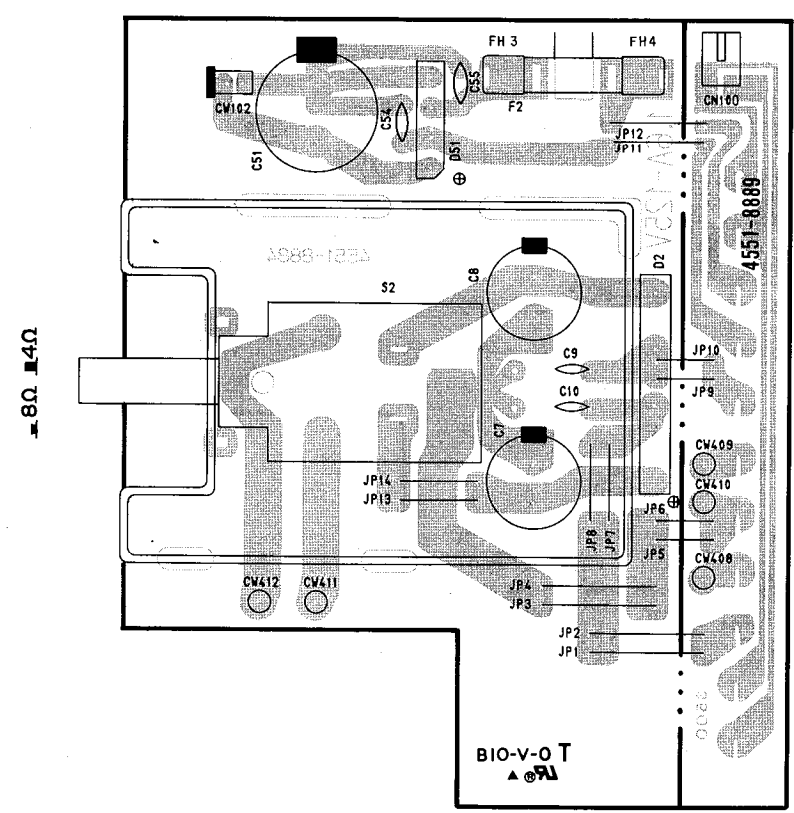
PCB-8 Volume P. C. Board



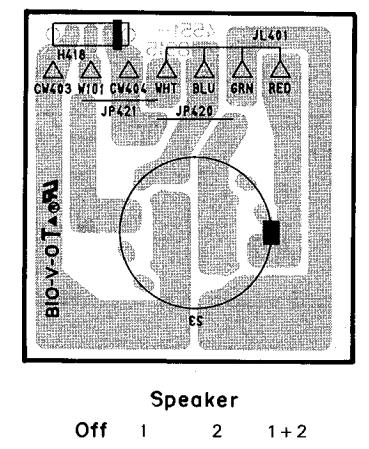
PCB-9 Primary P. C. Board



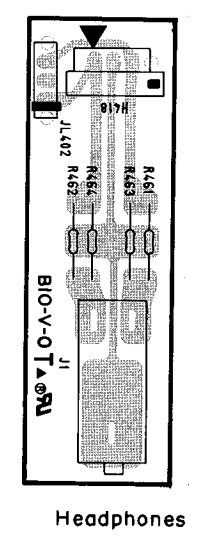
PCB-10 Secondary P. C. Board



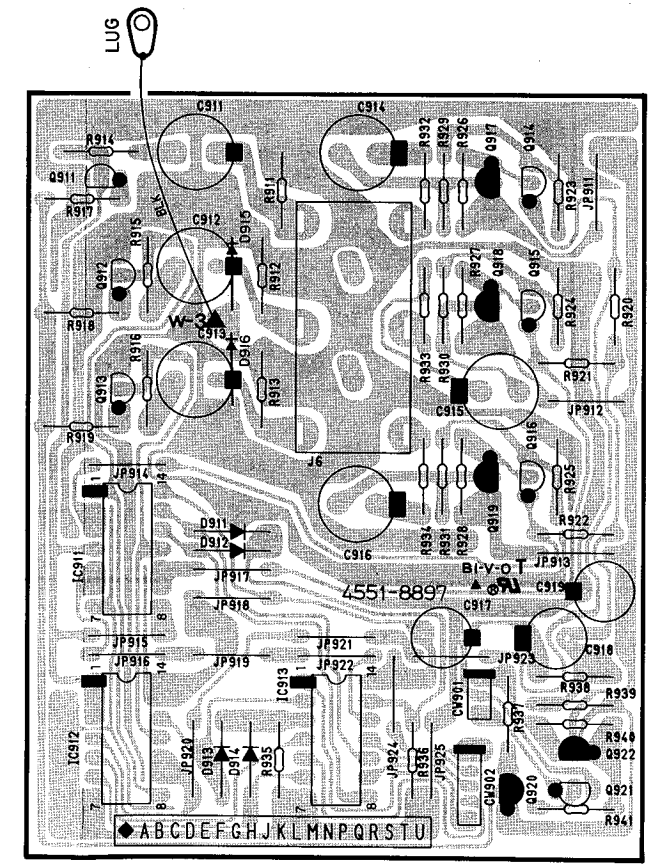
PCB-11 Speaker Switch P. C. Board



PCB-12 Headphone P. C. Board

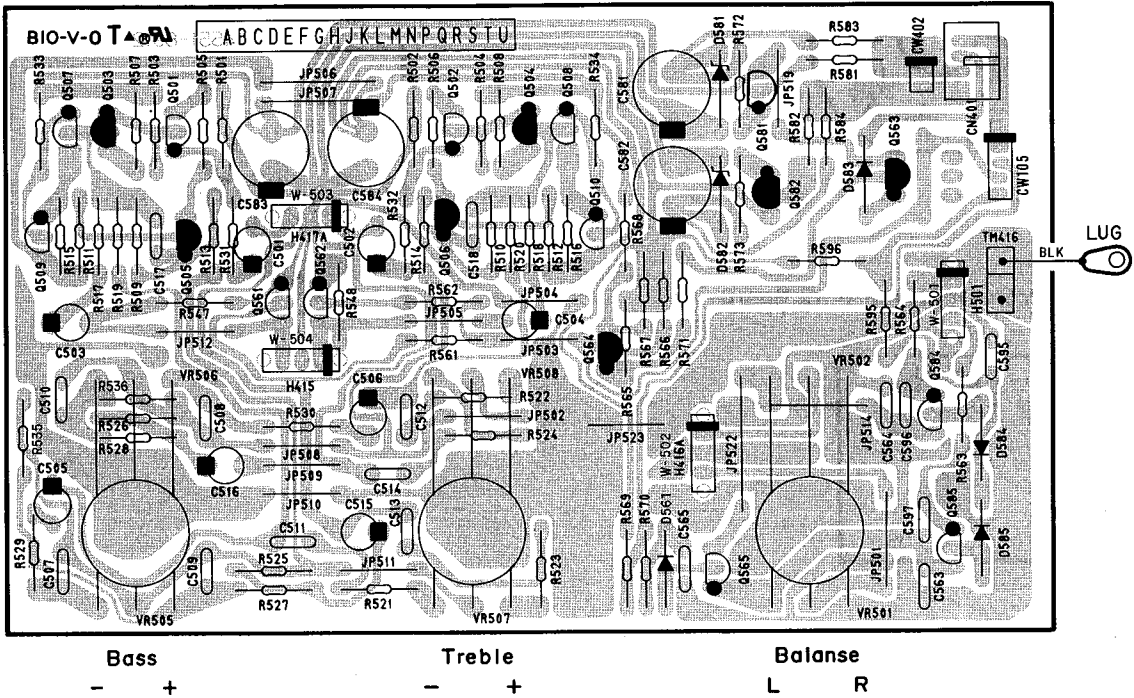


PCB-20 Video Switch P. C. Board

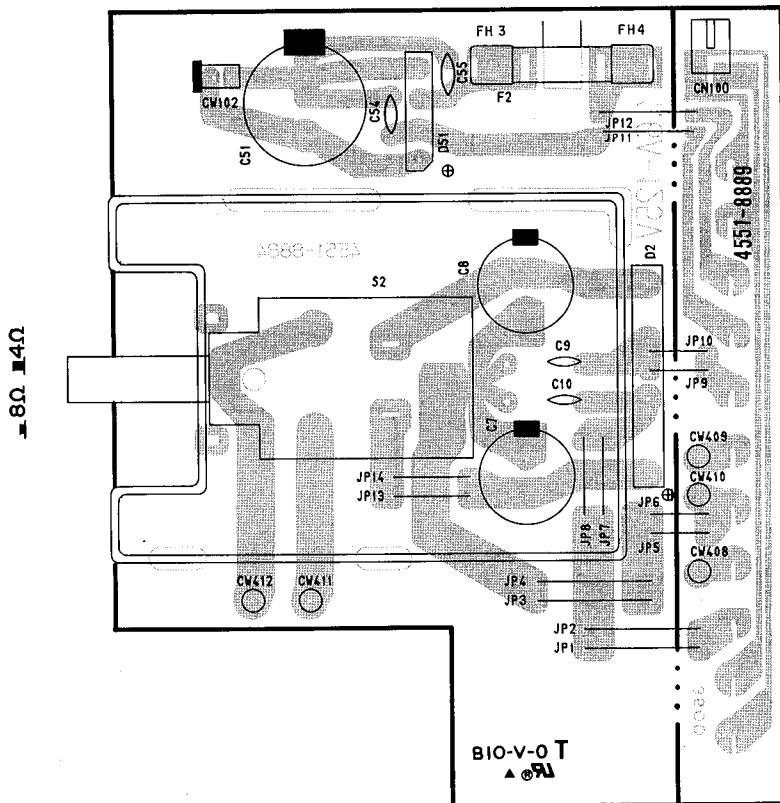


P. C. BOARDS

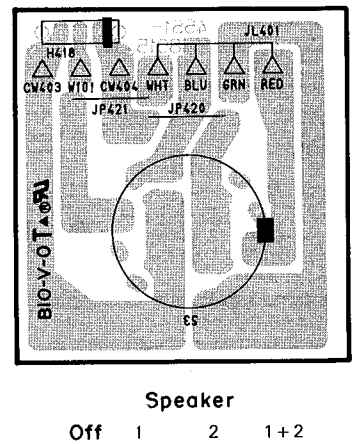
PCB-7 Tone Control P. C. Board



PCB-10 Secondary P. C. Board



PCB-11 Speaker Switch P. C. Board





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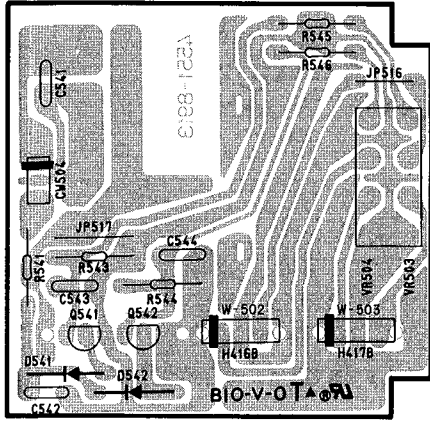
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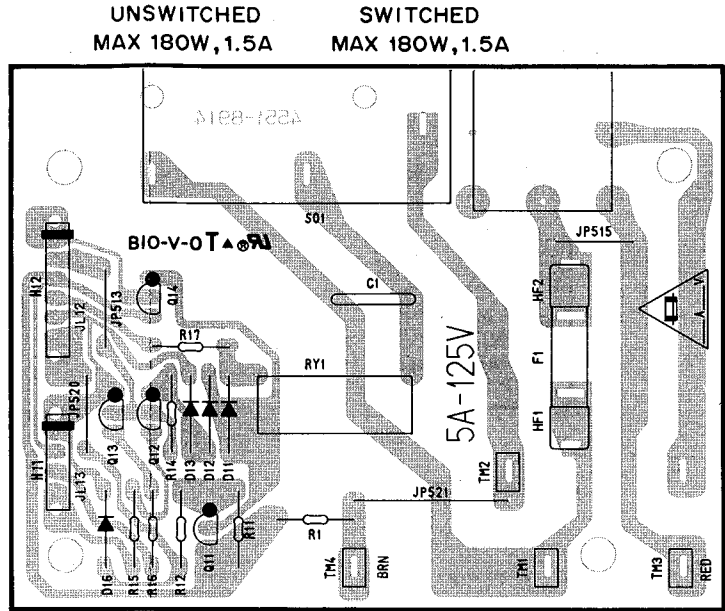
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PCB-8 Volume P. C. Board

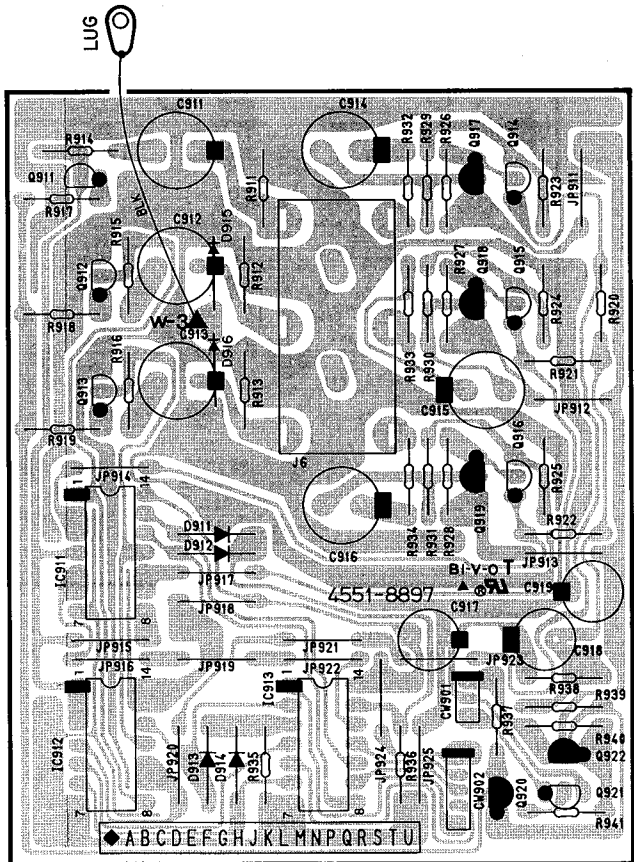


Volume

PCB-9 Primary P. C. Board

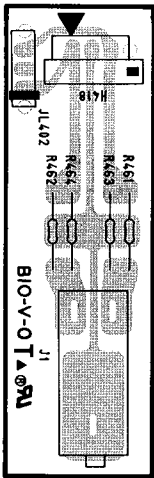


PCB-20 Video Switch P. C. Board



C. Board

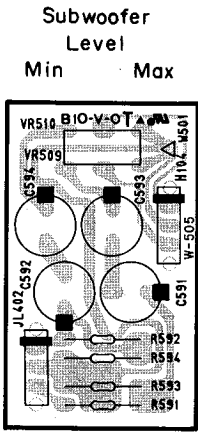
PCB-12 Headphone P. C. Board



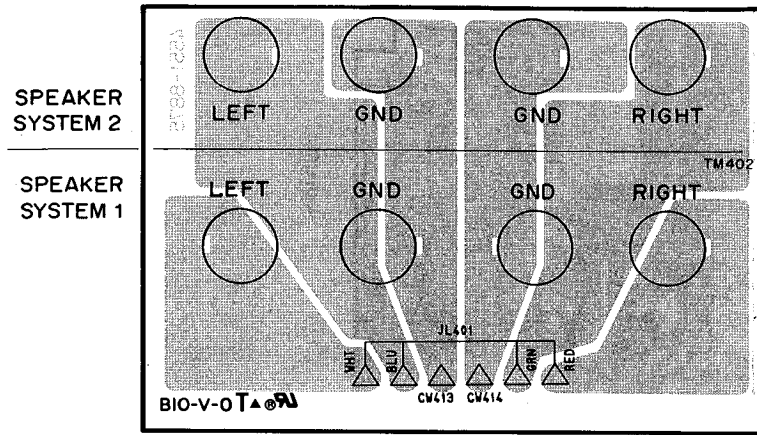
Headphones

P. C. BOARDS

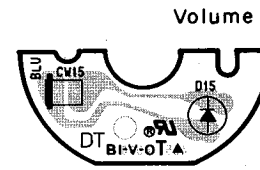
PCB-13 Subwoofer VR P. C. Board



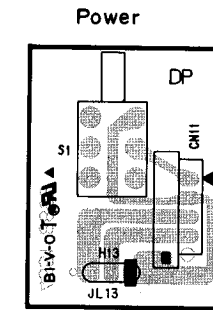
PCB-14 Speaker Terminal P. C. Board



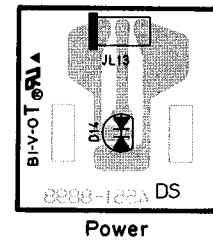
PCB-18 Volume Indicator P. C. Board



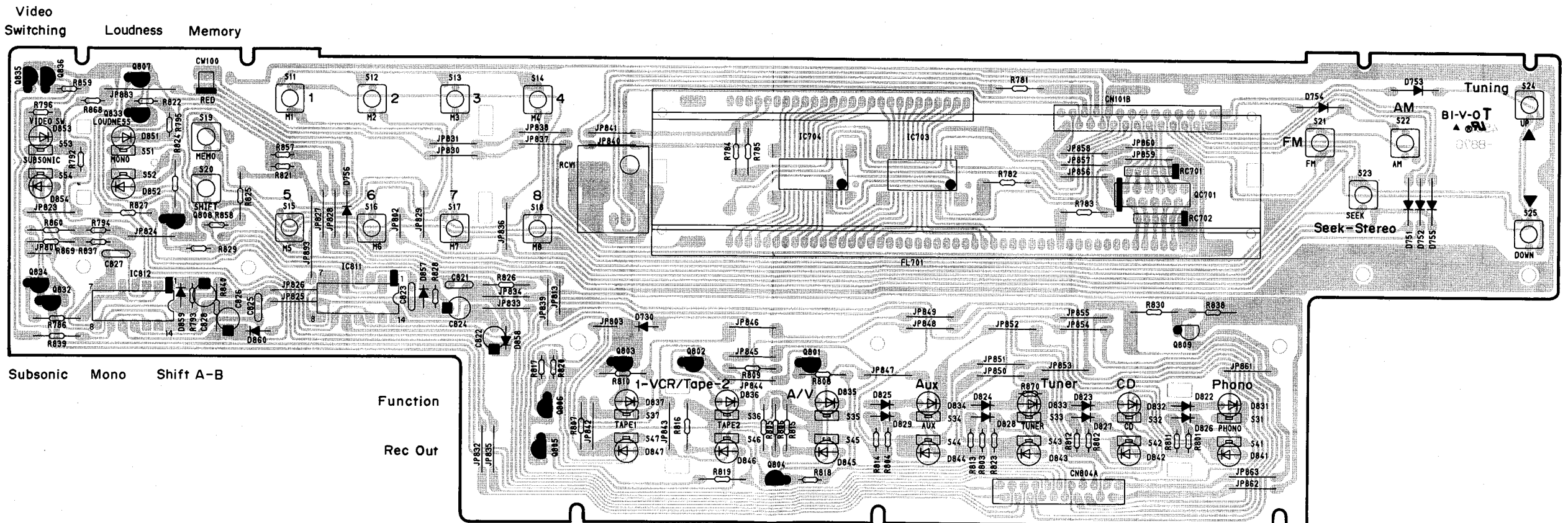
PCB-17 Power Switch P. C. Board



PCB-19 Power Indicator P. C. Board

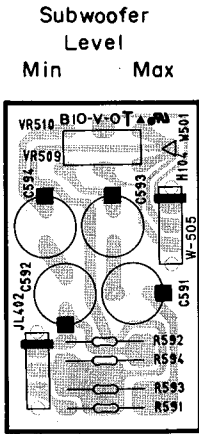


PCB-16 Front P. C. Board

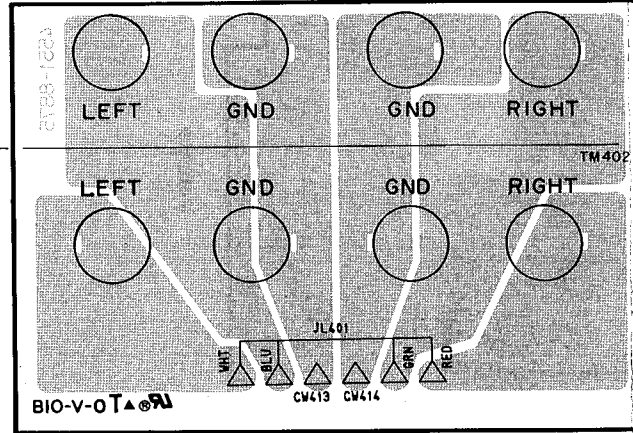


P. C. BOARDS

PCB-13 Subwoofer VR P. C. Board

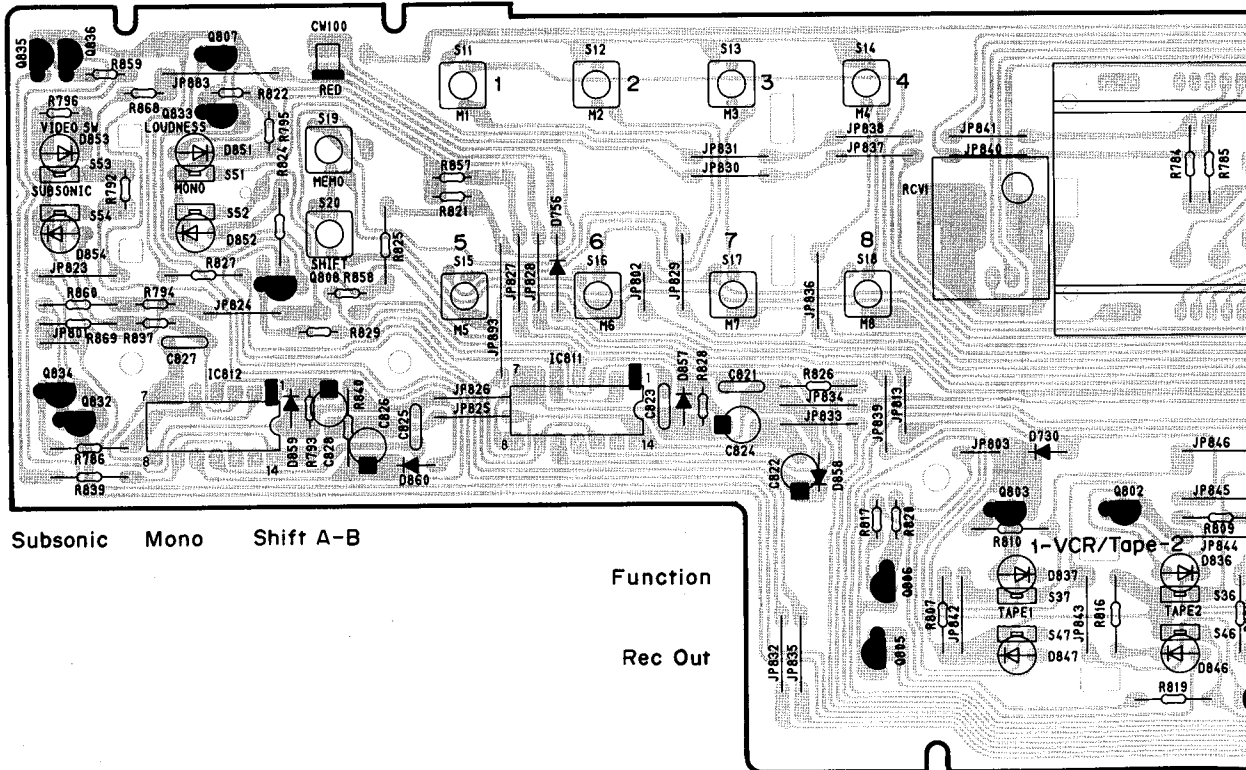


PCB-14 Speaker Terminal P. C. Board

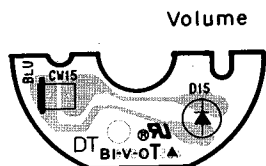


PCB-16 Front P. C. Board

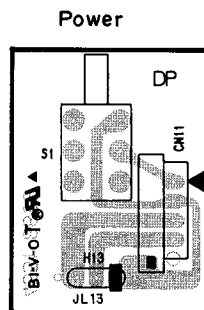
Video Switching Loudness Memory



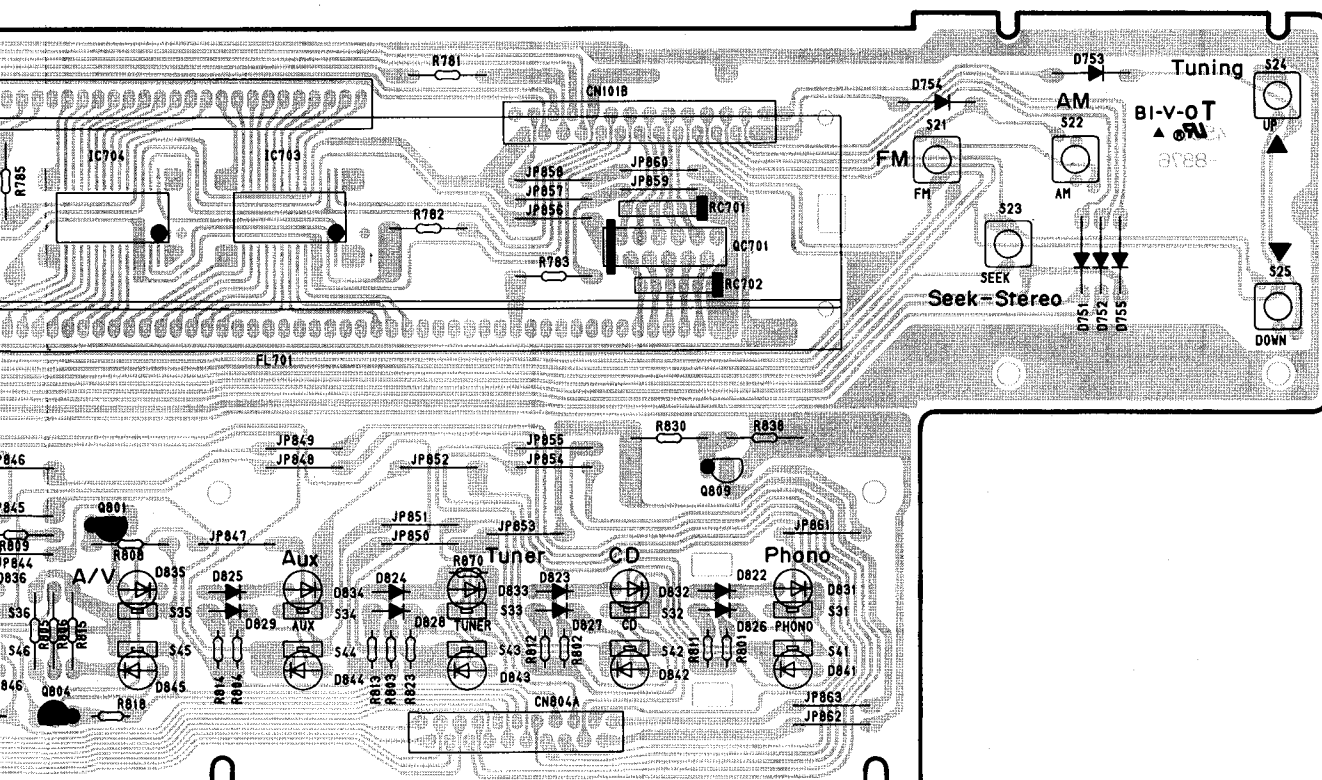
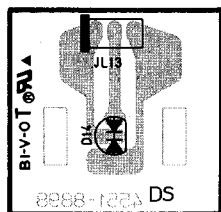
PCB-18 Volume Indicator P. C. Board



PCB-17 Power Switch P. C. Board



PCB-19 Power Indicator P. C. Board





Ser.No	Ref. No.	Part No.	Description
814	R736	5135-473522	RES, CBN 1/2P 47K
470	R737	5232-104J16P	RES, CBN 1/6P 100K
470	R738	5232-104J16P	RES, CBN 1/6P 100K
467	R739	5232-222J16P	RES, CBN 1/6P 2.2K
467	R740	5232-222J16P	RES, CBN 1/6P 2.2K
467	R741	5232-222J16P	RES, CBN 1/6P 2.2K
467	R742	5232-222J16P	RES, CBN 1/6P 2.2K
469	R743	5232-472J16P	RES, CBN 1/6P 4.7K
484	R744	5232-332J16P	RES, CBN 1/6P 3.3K
471	R745	5135-102522	RES, CBN 1/2P 1K
468	R746	5232-102J16P	RES, CBN 1/6P 1K
473	R747	5135-103522	RES, CBN 1/2P 10K
473	R748	5135-103522	RES, CBN 1/2P 10K
470	R749	5232-104J16P	RES, CBN 1/6P 100K
468	R750	5232-102J16P	RES, CBN 1/6P 1K
464	R754	5232-223J16P	RES, CBN 1/6P 22K
528	R755	5135-104522	RES, CBN 1/2P 100K
522	R756	5232-222J16P	RES, CBN 1/6P 2.2K
522	R757	5232-222J16P	RES, CBN 1/6P 2.2K
522	R758	5232-222J16P	RES, CBN 1/6P 2.2K
522	R759	5232-222J16P	RES, CBN 1/6P 2.2K
522	R760	5232-222J16P	RES, CBN 1/6P 2.2K
522	R761	5232-222J16P	RES, CBN 1/6P 2.2K
527	R762	5135-222522	RES, CBN 1/2P 2.2K
527	R763	5135-222522	RES, CBN 1/2P 2.2K
527	R764	5135-222522	RES, CBN 1/2P 2.2K
527	R765	5135-222522	RES, CBN 1/2P 2.2K
489	R766	5232-333J16P	RES, CBN 1/6P 33K
529	R767	5232-103J16P	RES, CBN 1/6P 10K
520	R768	5135-470522	RES, CBN 1/2P 47
518	R769	5135-101522	RES, CBN 1/2P 100
465	R772	5232-103J16P	RES, CBN 1/6P 10K
819	R831	5232-224J16P	RES, CBN 1/6P 220K
815	R832	5232-104J16P	RES, CBN 1/6P 100K
820	R833	5232-274J16P	RES, CBN 1/6P 270K
819	R834	5232-224J16P	RES, CBN 1/6P 220K
818	R835	5232-223J16P	RES, CBN 1/6P 22K
818	R836	5232-223J16P	RES, CBN 1/6P 22K
811	R841	5135-472522	RES, CBN 1/2P 4.7K
815	R842	5232-104J16P	RES, CBN 1/6P 100K
817	R843	5232-473J16P	RES, CBN 1/6P 47K
817	R844	5232-473J16P	RES, CBN 1/6P 47K
812	R845	5135-104522	RES, CBN 1/2P 100K
815	R846	5232-104J16P	RES, CBN 1/6P 100K
817	R847	5232-473J16P	RES, CBN 1/6P 47K
813	R848	5135-105522	RES, CBN 1/2P 1M
812	R849	5135-104522	RES, CBN 1/2P 100K
816	R850	5232-105J16P	RES, CBN 1/6P 1M
812	R851	5135-104522	RES, CBN 1/2P 100K
816	R852	5232-105J16P	RES, CBN 1/6P 1M
812	R853	5135-104522	RES, CBN 1/2P 100K
819	R854	5232-224J16P	RES, CBN 1/6P 220K
819	R855	5232-224J16P	RES, CBN 1/6P 220K
819	R856	5232-224J16P	RES, CBN 1/6P 220K
821	R866	5232-100J16P	RES, CBN 1/6P 10
812	R870	5135-104522	RES, CBN 1/2P 100K
872	R891	5232-104J16P	RES, CBN 1/6P 100K
873	R892	5232-473J16P	RES, CBN 1/6P 47K
817	R893	5232-473J16P	RES, CBN 1/6P 47K
814	R894	5135-473522	RES, CBN 1/2P 47K
873	R895	5232-473J16P	RES, CBN 1/6P 47K
880	R896	5232-472J16P	RES, CBN 1/6P 4.7K
880	R897	5232-472J16P	RES, CBN 1/6P 4.7K
874	△ R898	5102-2205116	RES, FUSE 22
873	R899	5232-473J16P	RES, CBN 1/6P 47K
873	R900	5232-473J16P	RES, CBN 1/6P 47K
881	R901	5135-821522	RES, CBN 1/2P 820

**INTEGRATED CIRCUITS**

Ser.No	Ref. No.	Part No.	Description
351	IC201	5653-LA1266	IC, LINEAR
441	IC701	5654-T9301-20	IC, DIGITAL
442	IC702	5654-TC9227P	IC, DIGITAL

Ser.No	Ref. No.	Part No.	Description
538	IC705	5652-BA6124	IC, MONO
875	IC801	5653-LB1641	IC, LINEAR
801	IC802	5654-LC7818	IC, DIGITAL
802	IC803	5654-TC4011BP	IC, DIGITAL
802	IC804	5654-TC4011BP	IC, DIGITAL
861	IC808	5654-M761281P	IC, DIGITAL
862	IC809	5654-TC4514BP	IC, DIGITAL

**TRANSISTORS**

Ser.No	Ref. No.	Part No.	Description
501	Q51	5612-1375	XISTOR, PNP A
502	Q52	5613-3311A(R)	XISTOR, NPN R
503	Q53	5613-UN4212	XISTOR, NPN R
352	Q201	5613-2058(N)	XISTOR, NPN R
352	Q202	5613-2058(N)	XISTOR, NPN R
353	Q203	5613-3311A(R)	XISTOR, NPN R
412	Q301	5614-1450(T)	XISTOR, NPN A
412	Q302	5614-1450(T)	XISTOR, NPN A
443	Q701	5613-2240(BL)	XISTOR, NPN R
444	Q702	5613-3311A(R)	XISTOR, NPN R
445	Q703	5613-UN4212	XISTOR, NPN R
445	Q704	5613-UN4212	XISTOR, NPN R
446	Q705	5611-UN4112	XISTOR, PNP R
444	Q706	5613-3311A(R)	XISTOR, NPN R
446	Q707	5611-UN4112	XISTOR, PNP R
445	Q708	5613-UN4212	XISTOR, NPN R
448	Q709	5613-UN4213	XISTOR, NPN R
448	Q710	5613-UN4213	XISTOR, NPN R
445	Q711	5613-UN4212	XISTOR, NPN R
445	Q712	5613-UN4212	XISTOR, NPN R
444	Q713	5613-3311A(R)	XISTOR, NPN R
445	Q714	5613-UN4212	XISTOR, NPN R
446	Q715	5611-UN4112	XISTOR, PNP R
445	Q716	5613-UN4212	XISTOR, NPN R
444	Q721	5613-3311A(R)	XISTOR, NPN R
822	Q810	5611-1309A(R)	XISTOR, PNP R
803	Q811	5616-2SK364BL	FET, N-CH
803	Q812	5616-2SK364BL	FET, N-CH
803	Q813	5616-2SK364BL	FET, N-CH
803	Q814	5616-2SK364BL	FET, N-CH
803	Q815	5616-2SK364BL	FET, N-CH
803	Q816	5616-2SK364BL	FET, N-CH
804	Q817	5611-UN4112	XISTOR, PNP R
804	Q818	5611-UN4112	XISTOR, PNP R
804	Q819	5611-UN4112	XISTOR, PNP R
863	Q841	5613-3311A(R)	XISTOR, NPN R
864	Q842	5613-UN4212	XISTOR, NPN R
864	Q843	5613-UN4212	XISTOR, NPN R
864	Q844	5613-UN4212	XISTOR, NPN R
864	Q845	5613-UN4212	XISTOR, NPN R
864	Q846	5613-UN4212	XISTOR, NPN R
864	Q847	5613-UN4212	XISTOR, NPN R
864	Q848	5613-UN4212	XISTOR, NPN R

**DIODES**

Ser.No	Ref. No.	Part No.	Description
506	D52	5635-HZ12C2L	DIODE, ZENER
507	D53	5635-HZ6B1L	DIODE, ZENER
508	D54	5635-HZ3B2	DIODE, ZENER
324	D101	5631-1SS133	DIODE, DET
324	D102	5631-1SS133	DIODE, DET
359	D201	5631-1S2473	DIODE, DET
450	D701	5631-1SS133	DIODE, DET
450	D702	5631-1SS133	DIODE, DET
450	D703	5631-1SS133	DIODE, DET
450	D704	5631-1SS133	DIODE, DET
450	D705	5631-1SS133	DIODE, DET
450	D706	5631-1SS133	DIODE, DET
450	D707	5631-1SS133	DIODE, DET
450	D708	5631-1SS133	DIODE, DET
450	D709	5631-1SS133	DIODE, DET
450	D710	5631-1SS133	DIODE, DET
450	D711	5631-1SS133	DIODE, DET
452	D712	5631-1S2473	DIODE, DET
451	D713	5631-1S2473	DIODE, DET



Ser.No	Ref. No.	Part No.	Description
451	D714	5631-1S2473	DIODE, DET
451	D715	5631-1S2473	DIODE, DET
451	D716	5631-1S2473	DIODE, DET
451	D717	5631-1S2473	DIODE, DET
452	D757	5631-1S2473	DIODE, DET
452	D758	5631-1S2473	DIODE, DET
452	D759	5631-1S2473	DIODE, DET
805	D801	5631-1S2473	DIODE, DET
805	D802	5631-1S2473	DIODE, DET
805	D804	5631-1S2473	DIODE, DET
805	D805	5631-1S2473	DIODE, DET
805	D806	5631-1S2473	DIODE, DET
806	D807	5631-1SS133	DIODE, DET
806	D808	5631-1SS133	DIODE, DET
805	D809	5631-1S2473	DIODE, DET
806	D810	5631-1SS133	DIODE, DET
806	D811	5631-1SS133	DIODE, DET
806	D812	5631-1SS133	DIODE, DET
806	D813	5631-1SS133	DIODE, DET
806	D814	5631-1SS133	DIODE, DET
806	D815	5631-1SS133	DIODE, DET
806	D816	5631-1SS133	DIODE, DET
806	D817	5631-1SS133	DIODE, DET
806	D818	5631-1SS133	DIODE, DET
806	D819	5631-1SS133	DIODE, DET
806	D820	5631-1SS133	DIODE, DET
806	D821	5631-1SS133	DIODE, DET
805	D855	5631-1S2473	DIODE, DET
866	D856	5631-1SS133	DIODE, DET
866	D891	5631-1SS133	DIODE, DET
866	D892	5631-1SS133	DIODE, DET
866	D893	5631-1SS133	DIODE, DET
878	D894	5635-HZ3C2	DIODE, ZENER
866	D895	5631-1SS133	DIODE, DET
866	D896	5631-1SS133	DIODE, DET

**COILS**

323	L101	5995-2R2J69	COIL W/CORE
357	L201	5995-2R2J69	COIL W/CORE

**TRANSFORMERS**

356	T201	5572-10201	DISCRI 7
384	T251	5552-00712	IFT, AM 7

**CONTROL**

354	VR201	5101-50301934	RES, SEMI FIX 50K
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**MISCELLANEOUS**

383	CB251	6111-02401	RF BLOCK
355	CF201	5671-7119A	FILTER, CER S
355	CF202	5671-7119A	FILTER, CER S
355	CF203	5671-7119A	FILTER, CER S
386	CF251	5671-7137C	FILTER, CER S
385	CF252	5671-0082A451	FILTER, CER S
941	CN12	4443-060185	CONNECTOR
958	CN15	4443-0201140	CONNECTOR
539	CN101A	4443-05501027	CONNECTOR
939	CN102	4443-0201140	CONNECTOR
946	CN105	4443-0401140	CONNECTOR
940	CN501	4443-030185	CONNECTOR
937	CN504	4443-0301140	CONNECTOR
825	CN601B	4443-01801012	CONNECTOR
826	CN602B	4443-01801007	CONNECTOR
827	CN802B	4443-01801016	CONNECTOR
827	CN803B	4443-01801016	CONNECTOR
867	CN804B	4443-05501021	CONNECTOR
947	CN901	4443-0301140	CONNECTOR
865	CX801	5693-CSB400P	OSC, CER
321	△ FE101	6114-00701	FM TUNER
543	JL101	4242-S0327131	JUMPER LEAD
959	JL103	4242-R0203181	JUMPER LEAD
545	JL110	4132-R0200600	CORD, 2C
868	JL804	4242-S0321151	JUMPER LEAD

Ser.No	Ref. No.	Part No.	Description
435	LPF301	5214-75	LC COMPOSITE
435	LPF302	5214-75	LC COMPOSITE
828	RC801	5212-223J0503	R COMPOSITE
547	TM101	4214-164	TERMINAL
358	TP1	4214-132	TERMINAL
358	TP2	4214-132	TERMINAL
449	X701	5691-00720027	XTAL, OSC

**PCB-2 EQUALIZER P.C. BOARD****CAPACITORS**

576	C601	5345-106C0951	CAP, MINI ELE 10μ/16V
576	C602	5345-106C0951	CAP, MINI ELE 10μ/16V
582	C603	5359-1215851	CAP, PPP 120p
582	C604	5359-1215851	CAP, PPP 120p
575	C605	5345-227A0951	CAP, MINI ELE 220μ/6.3V
575	C606	5345-227A0951	CAP, MINI ELE 220μ/6.3V
583	C607	5359-5625851	CAP, PPP 5600p
583	C608	5359-5625851	CAP, PPP 5600p
584	C609	5359-2025851	CAP, PPP 2000p
584	C610	5359-2025851	CAP, PPP 2000p
576	C611	5345-106C0951	CAP, MINI ELE 10μ/16V
576	C612	5345-106C0951	CAP, MINI ELE 10μ/16V
577	C613	5345-227D041	CAP, MINI ELE 220μ/25V
577	C614	5345-227D041	CAP, MINI ELE 220μ/25V
578	C615	5345-107D041	CAP, MINI ELE 100μ/25V
578	C616	5345-107D041	CAP, MINI ELE 100μ/25V
588	C617	5353-040934	CAP, MCA 4p
588	C618	5353-040934	CAP, MCA 4p
585	C619	5359-1825851	CAP, PPP 1800p
585	C620	5359-1825851	CAP, PPP 1800p
580	C621	5354-103K1HM	CAP, MYL .01μ

**RESISTORS**

591	R601	5135-823522	RES, CBN 1/2P 82K
591	R602	5135-823522	RES, CBN 1/2P 82K
592	R603	5135-124522	RES, CBN 1/2P 120K
592	R604	5135-124522	RES, CBN 1/2P 120K
593	R605	5135-221522	RES, CBN 1/2P 220
593	R606	5135-221522	RES, CBN 1/2P 220
594	R607	5135-122522	RES, CBN 1/2P 1.2K
594	R608	5135-122522	RES, CBN 1/2P 1.2K
595	R609	5135-220522	RES, CBN 1/2P 22
595	R610	5135-220522	RES, CBN 1/2P 22
594	R611	5135-122522	RES, CBN 1/2P 1.2K
594	R612	5135-122522	RES, CBN 1/2P 1.2K
596	R613	5135-473522	RES, CBN 1/2P 47K
596	R614	5135-473522	RES, CBN 1/2P 47K
597	R615	5135-820522	RES, CBN 1/2P 82
597	R616	5135-820522	RES, CBN 1/2P 82
597	R617	5135-820522	RES, CBN 1/2P 82
597	R618	5135-820522	RES, CBN 1/2P 82
599	R621	5135-821522	RES, CBN 1/2P 820
599	R622	5135-821522	RES, CBN 1/2P 820
600	R623	5135-393522	RES, CBN 1/2P 39K
600	R624	5135-393522	RES, CBN 1/2P 39K
601	R625	5135-564522	RES, CBN 1/2P 560K
601	R626	5135-564522	RES, CBN 1/2P 560K
602	R627	5135-334522	RES, CBN 1/2P 330K
602	R628	5135-334522	RES, CBN 1/2P 330K
603	R629	5135-102522	RES, CBN 1/2P 1K
603	R630	5135-102522	RES, CBN 1/2P 1K
604	R631	5135-333522	RES, CBN 1/2P 33K
604	R632	5135-333522	RES, CBN 1/2P 33K
603	R633	5135-102522	RES, CBN 1/2P 1K
603	R634	5135-102522	RES, CBN 1/2P 1K
605	R635	5135-222522	RES, CBN 1/2P 2.2K
605	R636	5135-222522	RES, CBN 1/2P 2.2K
606	R637	5135-472522	RES, CBN 1/2P 4.7K
606	R638	5135-472522	RES, CBN 1/2P 4.7K
593	R639	5135-221522	RES, CBN 1/2P 220

Ser.No	Ref. No.	Part No.	Description
593	R640	5135-221522	RES, CBN 1/2P 220
610	△ R641	5102-2214715	RES, FUSE 220
610	△ R642	5102-2214715	RES, FUSE 220
608	R643	5232-105J16P	RES, CBN 1/6P 1M
608	R644	5232-105J16P	RES, CBN 1/6P 1M
611	△ R651	5102-1005116	RES, FUSE 10
611	△ R652	5102-1005116	RES, FUSE 10
603	R653	5135-102522	RES, CBN 1/2P 1K
603	R654	5135-102522	RES, CBN 1/2P 1K
603	R655	5135-102522	RES, CBN 1/2P 1K
603	R656	5135-102522	RES, CBN 1/2P 1K
603	R657	5135-102522	RES, CBN 1/2P 1K
603	R658	5135-102522	RES, CBN 1/2P 1K
605	R681	5135-222522	RES, CBN 1/2P 2.2K
605	R682	5135-222522	RES, CBN 1/2P 2.2K

**TRANSISTORS**

561	Q601	5613-2320L(F)	XISTOR, NPN R
561	Q602	5613-2320L(F)	XISTOR, NPN R
563	Q603	5611-999L(F)	XISTOR, PNP R
563	Q604	5611-999L(F)	XISTOR, PNP R
564	Q605	5611-999(F)	XISTOR, PNP R
564	Q606	5611-999(F)	XISTOR, PNP R
562	Q607	5613-2320(F)	XISTOR, NPN R
562	Q608	5613-2320(F)	XISTOR, NPN R
562	Q609	5613-2320(F)	XISTOR, NPN R
562	Q610	5613-2320(F)	XISTOR, NPN R
562	Q611	5613-2320(F)	XISTOR, NPN R
562	Q612	5613-2320(F)	XISTOR, NPN R
565	Q613	5612-941(Q)	XISTOR, PNP A
566	Q614	5614-1266(Q)	XISTOR, NPN A

**DIODES**

569	D601	5635-HZ15-2L	DIODE, ZENER
569	D602	5635-HZ15-2L	DIODE, ZENER
570	D603	5631-1SS133	DIODE, DET
570	D604	5631-1SS133	DIODE, DET
570	D605	5631-1SS133	DIODE, DET
570	D606	5631-1SS133	DIODE, DET

**MISCELLANEOUS**

938	CN402	4443-0201141	CONNECTOR
613	CN601A	4443-01701012	CONNECTOR
614	CN602A	4443-01701007	CONNECTOR
936	CW107	4163-0145039	CONNECTOR W/W
936	CW108	4163-0145039	CONNECTOR W/W
912	△ J2	4484-46	PIN JACK, 4P
912	△ J3	4484-46	PIN JACK, 4P

**PCB-3 MONITOR P.C. BOARD**

**CAPACITORS**

838	C811	5354-104593	CAP, MYL .1μ
838	C812	5354-104593	CAP, MYL .1μ
838	C813	5354-104593	CAP, MYL .1μ
839	C814	5345-106F041	CAP, MINI ELE 10μ/50V
839	C815	5345-106F041	CAP, MINI ELE 10μ/50V
840	C816	5345-104F041	CAP, MINI ELE .1μ/50V
877	C817	5345-474F041	CAP, MINI ELE .47μ/50V

**RESISTORS**

847	R861	5232-104J16P	RES, CBN 1/6P 100K
846	R862	5232-224J16P	RES, CBN 1/6P 220K
846	R863	5232-224J16P	RES, CBN 1/6P 220K
807	R864	5232-274J16P	RES, CBN 1/6P 270K
837	R867	5232-100J16P	RES, CBN 1/6P 10
844	R871	5135-473522	RES, CBN 1/2P 47K
847	R872	5232-104J16P	RES, CBN 1/6P 100K
800	R873	5135-472522	RES, CBN 1/2P 4.7K
844	R874	5135-473522	RES, CBN 1/2P 47K
843	R875	5135-104522	RES, CBN 1/2P 100K
847	R876	5232-104J16P	RES, CBN 1/6P 100K

Ser.No	Ref. No.	Part No.	Description
844	R877	5135-473522	RES, CBN 1/2P 47K
842	R878	5135-105522	RES, CBN 1/2P 1M
843	R879	5135-104522	RES, CBN 1/2P 100K
850	R880	5232-105J16P	RES, CBN 1/6P 1M
847	R881	5232-104J16P	RES, CBN 1/6P 100K
850	R882	5232-105J16P	RES, CBN 1/6P 1M
847	R883	5232-104J16P	RES, CBN 1/6P 100K
846	R884	5232-224J16P	RES, CBN 1/6P 220K
882	R885	5135-224522	RES, CBN 1/2P 220K
846	R886	5232-224J16P	RES, CBN 1/6P 220K
845	R887	5232-102J16P	RES, CBN 1/6P 1K
845	R888	5232-102J16P	RES, CBN 1/6P 1K
845	R889	5232-102J16P	RES, CBN 1/6P 1K
845	R890	5232-102J16P	RES, CBN 1/6P 1K

**INTEGRATED CIRCUITS**

831	IC805	5654-LC7818	IC, DIGITAL
832	IC806	5654-TC4011BP	IC, DIGITAL
832	IC807	5654-TC4011BP	IC, DIGITAL

**TRANSISTORS**

833	Q821	5616-2SK364BL	FET, N-CH
833	Q822	5616-2SK364BL	FET, N-CH
833	Q823	5616-2SK364BL	FET, N-CH
833	Q824	5616-2SK364BL	FET, N-CH
833	Q825	5616-2SK364BL	FET, N-CH
833	Q826	5616-2SK364BL	FET, N-CH
833	Q827	5616-2SK364BL	FET, N-CH
833	Q828	5616-2SK364BL	FET, N-CH
834	Q829	5611-UN4112	XISTOR, PNP R
834	Q830	5611-UN4112	XISTOR, PNP R
834	Q831	5611-UN4112	XISTOR, PNP R

**DIODES**

835	D861	5631-1S2473	DIODE, DET
835	D862	5631-1S2473	DIODE, DET
835	D863	5631-1S2473	DIODE, DET
835	D864	5631-1S2473	DIODE, DET
835	D865	5631-1S2473	DIODE, DET
835	D866	5631-1S2473	DIODE, DET
835	D867	5631-1S2473	DIODE, DET
835	D868	5631-1S2473	DIODE, DET
835	D869	5631-1S2473	DIODE, DET
835	D870	5631-1S2473	DIODE, DET
835	D871	5631-1S2473	DIODE, DET
835	D872	5631-1S2473	DIODE, DET
835	D873	5631-1S2473	DIODE, DET
835	D874	5631-1S2473	DIODE, DET
835	D875	5631-1S2473	DIODE, DET
835	D876	5631-1S2473	DIODE, DET
835	D877	5631-1S2473	DIODE, DET
835	D878	5631-1S2473	DIODE, DET
835	D879	5631-1S2473	DIODE, DET
835	D880	5631-1S2473	DIODE, DET
836	D881	5631-1SS133	DIODE, DET
836	D882	5631-1SS133	DIODE, DET
836	D883	5631-1SS133	DIODE, DET
836	D884	5631-1SS133	DIODE, DET
836	D885	5631-1SS133	DIODE, DET
836	D886	5631-1SS133	DIODE, DET
836	D887	5631-1SS133	DIODE, DET

**MISCELLANEOUS**

849	CN802A	4443-01701016	CONNECTOR
849	CN803A	4443-01701016	CONNECTOR
950	CN902	4443-0501140	CONNECTOR
935	CW106	4163-0150039	CONNECTOR W/W
913	△ J4	4484-46	PIN JACK, 4P
913	△ J5	4484-46	PIN JACK, 4P
829	RC802	5212-223J0503	R COMPOSITE
919	LUG	4211-4	LUG, W-7



**PCB-5 SUB WOOFER P.C. BOARD**

**RESISTORS**

479	R751	5135-470522	RES, CBN 1/2P 47
480	R752	5135-473522	RES, CBN 1/2P 47K
481	R753	5135-271522	RES, CBN 1/2P 270
498	R771	5135-392522	RES, CBN 1/2P 3.9K

**TRANSISTORS**

447	Q751	5611-UN411L	XISTOR, PNP R
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**MISCELLANEOUS**

945	CN103	4443-030185	CONNECTOR
945	CN104	4443-030185	CONNECTOR
551	J101	4451-00184	JACK, 1P
551	J102	4451-00184	JACK, 1P
552	△ J103	4489-00705002	PIN JACK, MLT
556	PH701	5624-ON3161(R)	PHOTO COUPLR

**PCB-6 MAIN P.C. BOARD**

**CAPACITORS**

766	C3	5362-103048	CAP, CER .01μ
766	C4	5362-103048	CAP, CER .01μ
765	C5	5341-S21GM139	CAP, ELE 13000μ
765	C6	5341-S21GM139	CAP, ELE 13000μ
748	C21	5345-106F041	CAP, MINI ELE 10μ/50V
748	C22	5345-106F041	CAP, MINI ELE 10μ/50V
749	C23	5345-107B041	CAP, MINI ELE 100μ/10V
750	C24	5345-105F041	CAP, MINI ELE 1μ/50V
751	C25	5354-683J1HM	CAP, MYL .068μ
751	C26	5354-683J1HM	CAP, MYL .068μ
747	C27	5345-105J0962	CAP, MINI ELE 1μ/100V
696	C401	5345-476B0951	CAP, MINI ELE 47μ/10V
696	C402	5345-476B0951	CAP, MINI ELE 47μ/10V
699	C403	5359-6805851	CAP, PPP 68p
699	C404	5359-6805851	CAP, PPP 68p
698	C405	5345-106C0951	CAP, MINI ELE 10μ/16V
698	C406	5345-106C0951	CAP, MINI ELE 10μ/16V
700	C407	5353-050934	CAP, MCA 5p
700	C408	5353-050934	CAP, MCA 5p
697	C409	5345-477A0952	CAP, MINI ELE 470μ/6.3V
697	C410	5345-477A0952	CAP, MINI ELE 470μ/6.3V
703	C411	5359-1015851	CAP, PPP 100p
703	C412	5359-1015851	CAP, PPP 100p
704	C413	5345-476G041	CAP, MINI ELE 47μ/63V
704	C414	5345-476G041	CAP, MINI ELE 47μ/63V
704	C415	5345-476G041	CAP, MINI ELE 47μ/63V
704	C416	5345-476G041	CAP, MINI ELE 47μ/63V
701	C417	5354-104593	CAP, MYL .1μ
701	C418	5354-104593	CAP, MYL .1μ
701	C419	5354-104593	CAP, MYL .1μ
701	C420	5354-104593	CAP, MYL .1μ
705	C421	5345-475F0951	CAP, MINI ELE 4.7μ/50V
705	C422	5345-475F0951	CAP, MINI ELE 4.7μ/50V

**RESISTORS**

753	R21	5135-471522	RES, CBN 1/2P 470
754	R22	5135-392522	RES, CBN 1/2P 3.9K
755	R23	5135-332522	RES, CBN 1/2P 3.3K
756	R24	5135-472522	RES, CBN 1/2P 4.7K
757	R25	5135-104522	RES, CBN 1/2P 100K
758	R26	5135-683522	RES, CBN 1/2P 68K
759	R27	5135-333522	RES, CBN 1/2P 33K
763	R33	5135-162522	RES, CBN 1/2P 1.6K
763	R34	5135-162522	RES, CBN 1/2P 1.6K
762	R35	5135-152522	RES, CBN 1/2P 1.5K
762	R36	5135-152522	RES, CBN 1/2P 1.5K
752	R37	5135-331522	RES, CBN 1/2P 330
752	R38	5135-331522	RES, CBN 1/2P 330
767	R39	5135-682522	RES, CBN 1/2P 6.8K

767	R40	5135-682522	RES, CBN 1/2P 6.8K
757	R41	5135-104522	RES, CBN 1/2P 100K
758	R42	5135-683522	RES, CBN 1/2P 68K
756	R43	5135-472522	RES, CBN 1/2P 4.7K
756	R44	5135-472522	RES, CBN 1/2P 4.7K
761	R45	5135-222522	RES, CBN 1/2P 2.2K
711	R401	5135-333522	RES, CBN 1/2P 33K
711	R402	5135-333522	RES, CBN 1/2P 33K
712	R403	5135-331522	RES, CBN 1/2P 330
712	R404	5135-331522	RES, CBN 1/2P 330
712	R405	5135-331522	RES, CBN 1/2P 330
712	R406	5135-331522	RES, CBN 1/2P 330
712	R407	5135-331522	RES, CBN 1/2P 330
712	R408	5135-331522	RES, CBN 1/2P 330
714	R409	5135-152522	RES, CBN 1/2P 1.5K
714	R410	5135-152522	RES, CBN 1/2P 1.5K
714	R411	5135-152522	RES, CBN 1/2P 1.5K
714	R412	5135-152522	RES, CBN 1/2P 1.5K
715	R413	5135-102522	RES, CBN 1/2P 1K
715	R414	5135-102522	RES, CBN 1/2P 1K
716	R415	5135-561522	RES, CBN 1/2P 560
716	R416	5135-561522	RES, CBN 1/2P 560
716	R417	5135-561522	RES, CBN 1/2P 560
716	R418	5135-561522	RES, CBN 1/2P 560
716	R419	5135-561522	RES, CBN 1/2P 560
716	R420	5135-561522	RES, CBN 1/2P 560
716	R421	5135-561522	RES, CBN 1/2P 560
716	R422	5135-561522	RES, CBN 1/2P 560
716	R423	5135-561522	RES, CBN 1/2P 560
716	R424	5135-561522	RES, CBN 1/2P 560
717	△ R425	5102-5605116	RES, FUSE 56
717	△ R426	5102-5605116	RES, FUSE 56
717	△ R427	5102-5605116	RES, FUSE 56
717	△ R428	5102-5605116	RES, FUSE 56
718	R429	5135-223522	RES, CBN 1/2P 22K
718	R430	5135-223522	RES, CBN 1/2P 22K
718	R431	5135-223522	RES, CBN 1/2P 22K
718	R432	5135-223522	RES, CBN 1/2P 22K
714	R433	5135-152522	RES, CBN 1/2P 1.5K
714	R434	5135-152522	RES, CBN 1/2P 1.5K
719	R435	5135-471522	RES, CBN 1/2P 470
719	R436	5135-471522	RES, CBN 1/2P 470
721	△ R437	5102-8205116	RES, FUSE 82
721	△ R438	5102-8205116	RES, FUSE 82
721	△ R439	5102-8205116	RES, FUSE 82
721	△ R440	5102-8205116	RES, FUSE 82
721	△ R441	5102-8205116	RES, FUSE 82
721	△ R442	5102-8205116	RES, FUSE 82
730	R445/447	5275-S040JR27	RES, CEM 5P .27
730	R446/448	5275-S040JR27	RES, CEM 5P .27
726	R449	5135-100522	RES, CBN 1/2P 10
726	R450	5135-100522	RES, CBN 1/2P 10
731	R451	5171-100571	RES, MTL 1 10
731	R452	5171-100571	RES, MTL 1 10
724	R455	5135-271522	RES, CBN 1/2P 270
724	R456	5135-271522	RES, CBN 1/2P 270
725	R457	5135-103522	RES, CBN 1/2P 10K
725	R458	5135-103522	RES, CBN 1/2P 10K
711	R459	5135-333522	RES, CBN 1/2P 33K
711	R460	5135-333522	RES, CBN 1/2P 33K
711	R465	5135-333522	RES, CBN 1/2P 33K
711	R466	5135-333522	RES, CBN 1/2P 33K

**TRANSISTORS**

741	Q21	5611-1309A(R)	XISTOR, PNP R
742	Q22	5613-3311A(R)	XISTOR, NPN R
743	Q23	5613-2240(BL)	XISTOR, NPN R
744	Q24	5611-970(BL)	XISTOR, PNP R
743	Q27	5613-2240(BL)	XISTOR, NPN R
743	Q28	5613-2240(BL)	XISTOR, NPN R
744	Q29	5611-970(BL)	XISTOR, PNP R

Ser.No	Ref. No.	Part No.	Description
683	Q401	5611-970(BL)	XISTOR, PNP R
683	Q402	5611-970(BL)	XISTOR, PNP R
683	Q403	5611-970(BL)	XISTOR, PNP R
683	Q404	5611-970(BL)	XISTOR, PNP R
681	Q405	5613-2240(BL)	XISTOR, NPN R
681	Q406	5613-2240(BL)	XISTOR, NPN R
681	Q407	5613-2240(BL)	XISTOR, NPN R
681	Q408	5613-2240(BL)	XISTOR, NPN R
686	Q409	5612-646A(C)	XISTOR, PNP A
686	Q410	5612-646A(C)	XISTOR, PNP A
685	Q411	5614-666A(C)	XISTOR, NPN A
685	Q412	5614-666A(C)	XISTOR, NPN A
687	Q413	5613-945(K)	XISTOR, NPN R
687	Q414	5613-945(K)	XISTOR, NPN R
688	Q415	5614-667A(C)	XISTOR, NPN A
688	Q416	5614-667A(C)	XISTOR, NPN A
689	Q417	5612-647A(C)	XISTOR, PNP A
689	Q418	5612-647A(C)	XISTOR, PNP A
690	Q419	5613-3281(O)	XISTOR, NPN R
690	Q420	5613-3281(O)	XISTOR, NPN R
692	Q421	5611-1302(O)	XISTOR, PNP R
692	Q422	5611-1302(O)	XISTOR, PNP R
684	Q423	5611-999(F)	XISTOR, PNP R
684	Q424	5611-999(F)	XISTOR, PNP R
683	Q425	5611-970(BL)	XISTOR, PNP R
683	Q426	5611-970(BL)	XISTOR, PNP R

**DIODES**

764	△ D1	5685-D5SB20	SILICON, BRIG
745	△ D21	5636-1S2471	DIODE, SWITCH
746	D22	5635-HZ6B1L	DIODE, ZENER
694	D401	5631-1S2473	DIODE, DET
694	D402	5631-1S2473	DIODE, DET

**COILS**

707	L401	5991-7165	SPRING COIL
707	L402	5991-7165	SPRING COIL

**CONTROLS**

729	VR401	5101-50101930	RES, SEMI FIX 500
729	VR402	5101-50101930	RES, SEMI FIX 500

**MISCELLANEOUS**

921	CW401	4163-S0204351	CONNECTOR W/W
923	CW403	4163-0135027	CONNECTOR W/W
924	CW404	4163-0135025	CONNECTOR W/W
925	CW413	4163-0122024	CONNECTOR W/W
926	CW414	4163-0122026	CONNECTOR W/W
966	JL420	4242-R0103141	JUMPER LEAD
770	TM415	4214-11013	TERMINAL
770	TM415L	4214-11013	TERMINAL
770	TM415R	4214-11013	TERMINAL
769	TP401	4214-132	TERMINAL
769	TP402	4214-132	TERMINAL
769	TP403	4214-132	TERMINAL
769	TP404	4214-132	TERMINAL

**PCB-7 TONE CONTROL P.C. BOARD**

**CAPACITORS**

630	C501	5345-226C0951	CAP, MINI ELE 22μ/16V
630	C502	5345-226C0951	CAP, MINI ELE 22μ/16V
629	C503	5345-476C0951	CAP, MINI ELE 47μ/16V
629	C504	5345-476C0951	CAP, MINI ELE 47μ/16V
632	C505	5345-225F0951	CAP, MINI ELE 2.2μ/50V
632	C506	5345-225F0951	CAP, MINI ELE 2.2μ/50V
636	C507	5354-273J1HM	CAP, MYL .027μ
636	C508	5354-273J1HM	CAP, MYL .027μ
635	C509	5354-154593	CAP, MYL .15μ
635	C510	5354-154593	CAP, MYL .15μ
638	C511	5354-682J1HM	CAP, MYL 6800p
638	C512	5354-682J1HM	CAP, MYL 6800p

Ser.No	Ref. No.	Part No.	Description
637	C513	5354-393J1HM	CAP, MYL .039μ
637	C514	5354-393J1HM	CAP, MYL .039μ
630	C515	5345-226C0951	CAP, MINI ELE 22μ/16V
630	C516	5345-226C0951	CAP, MINI ELE 22μ/16V
640	C517	5353-020934	CAP, MCA 2p
640	C518	5353-020934	CAP, MCA 2p
643	C563	5359-1015851	CAP, PPP 100p
643	C564	5359-1015851	CAP, PPP 100p
644	C565	5354-104593	CAP, MYL .1μ
633	C581	5345-337D045	CAP, MINI ELE 330μ/25V
633	C582	5345-337D045	CAP, MINI ELE 330μ/25V
633	C583	5345-337D045	CAP, MINI ELE 330μ/25V
633	C584	5345-337D045	CAP, MINI ELE 330μ/25V
644	C595	5354-104593	CAP, MYL .1μ
634	C596	5354-394593	CAP, MYL .39μ
634	C597	5354-394593	CAP, MYL .39μ

**RESISTORS**

651	R501	5135-154522	RES, CBN 1/2P 150K
651	R502	5135-154522	RES, CBN 1/2P 150K
652	R503	5135-182522	RES, CBN 1/2P 1.8K
652	R504	5135-182522	RES, CBN 1/2P 1.8K
653	R505	5135-101522	RES, CBN 1/2P 100
653	R506	5135-101522	RES, CBN 1/2P 100
654	R507	5135-331522	RES, CBN 1/2P 330
654	R508	5135-331522	RES, CBN 1/2P 330
655	R509	5135-274522	RES, CBN 1/2P 270K
655	R510	5135-274522	RES, CBN 1/2P 270K
652	R511	5135-182522	RES, CBN 1/2P 1.8K
652	R512	5135-182522	RES, CBN 1/2P 1.8K
658	R513	5135-331522	RES, CBN 1/2P 330
658	R514	5135-331522	RES, CBN 1/2P 330
657	R515	5135-101522	RES, CBN 1/2P 100
657	R516	5135-101522	RES, CBN 1/2P 100
658	R517	5135-331522	RES, CBN 1/2P 330
658	R518	5135-331522	RES, CBN 1/2P 330
659	R519	5135-221522	RES, CBN 1/2P 220
659	R520	5135-221522	RES, CBN 1/2P 220
660	R521	5135-122522	RES, CBN 1/2P 1.2K
660	R522	5135-122522	RES, CBN 1/2P 1.2K
658	R523	5135-331522	RES, CBN 1/2P 330
658	R524	5135-331522	RES, CBN 1/2P 330
656	R525	5135-473522	RES, CBN 1/2P 47K
656	R526	5135-473522	RES, CBN 1/2P 47K
662	R527	5135-272522	RES, CBN 1/2P 2.7K
662	R528	5135-272522	RES, CBN 1/2P 2.7K
663	R529	5135-153522	RES, CBN 1/2P 15K
663	R530	5135-153522	RES, CBN 1/2P 15K
658	R531	5135-331522	RES, CBN 1/2P 330
658	R532	5135-331522	RES, CBN 1/2P 330
656	R533	5135-473522	RES, CBN 1/2P 47K
656	R534	5135-473522	RES, CBN 1/2P 47K
651	R535	5135-154522	RES, CBN 1/2P 150K
651	R536	5135-154522	RES, CBN 1/2P 150K
656	R547	5135-473522	RES, CBN 1/2P 47K
656	R548	5135-473522	RES, CBN 1/2P 47K
666	R561	5135-105522	RES, CBN 1/2P 1M
666	R562	5135-105522	RES, CBN 1/2P 1M
667	R563	5135-102522	RES, CBN 1/2P 1K
667	R564	5135-102522	RES, CBN 1/2P 1K
736	R565	5135-224522	RES, CBN 1/2P 220K
735	R566	5135-104522	RES, CBN 1/2P 100K
737	R567	5135-223522	RES, CBN 1/2P 22K
738	R568	5135-153522	RES, CBN 1/2P 15K
668	R569	5135-104522	RES, CBN 1/2P 100K
666	R570	5135-105522	RES, CBN 1/2P 1M
735	R571	5135-104522	RES, CBN 1/2P 100K
740	R572	5135-100522	RES, CBN 1/2P 10
740	R573	5135-100522	RES, CBN 1/2P 10
665	△ R581	5102-2715116	RES, FUSE 270
665	△ R582	5102-2715116	RES, FUSE 270
664	R583	5135-562522	RES, CBN 1/2P 5.6K

Ser.No	Ref. No.	Part No.	Description
664	R584	5135-562522	RES, CBN 1/2P 5.6K
666	R595	5135-105522	RES, CBN 1/2P 1M
735	R596	5135-104522	RES, CBN 1/2P 100K

**TRANSISTORS**

621	Q501	5613-2320L(F)	XISTOR, NPN R
621	Q502	5613-2320L(F)	XISTOR, NPN R
623	Q503	5611-999(F)	XISTOR, PNP R
623	Q504	5611-999(F)	XISTOR, PNP R
622	Q505	5611-999L(F)	XISTOR, PNP R
622	Q506	5611-999L(F)	XISTOR, PNP R
624	Q507	5613-2320L(F)	XISTOR, NPN R
624	Q508	5613-2320L(F)	XISTOR, NPN R
624	Q509	5613-2320L(F)	XISTOR, NPN R
624	Q510	5613-2320L(F)	XISTOR, NPN R
649	Q561	5616-2SK364BL	FET, N-CH
649	Q562	5616-2SK364BL	FET, N-CH
650	Q563	5611-UN4112	XISTOR, PNP R
650	Q564	5611-UN4112	XISTOR, PNP R
649	Q565	5616-2SK364BL	FET, N-CH
625	Q581	5614-667(C)	XISTOR, NPN A
626	Q582	5612-647(C)	XISTOR, PNP A
649	Q584	5616-2SK364BL	FET, N-CH
649	Q585	5616-2SK364BL	FET, N-CH

**DIODES**

628	D561	5631-1S2473	DIODE, DET
627	D581	5635-HZ15-2L	DIODE, ZENER
627	D582	5635-HZ15-2L	DIODE, ZENER
628	D583	5631-1S2473	DIODE, DET
628	D584	5631-1S2473	DIODE, DET
628	D585	5631-1S2473	DIODE, DET

**CONTROLS**

900	VR501/502	5113-S0906503	RES, V CBN 16 50K
894	VR505/506	5113-S0904104	RES, V CBN 16 100K
897	VR507/508	5113-S0905503	RES, V CBN 16 50K

**MISCELLANEOUS**

942	CN401	4443-0401141	CONNECTOR
933	CW105	4163-S0204141	CONNECTOR W/W
922	CW402	4163-S0202301	CONNECTOR W/W
647	TM416	4214-11021	TERMINAL
645	LUG	4211-4	LUG, W-104

**PCB-8 VOLUME P.C. BOARD**

**CAPACITORS**

675	C541	5354-104593	CAP, MYL .1μ
675	C542	5354-104593	CAP, MYL .1μ
646	C543	5354-823J1HM	CAP, MYL .082μ
646	C544	5354-823J1HM	CAP, MYL .082μ

**RESISTORS**

672	R541	5135-105522	RES, CBN 1/2P 1M
673	R543	5135-273522	RES, CBN 1/2P 27K
673	R544	5135-273522	RES, CBN 1/2P 27K
674	R545	5135-472522	RES, CBN 1/2P 4.7K
674	R546	5135-472522	RES, CBN 1/2P 4.7K

**TRANSISTORS**

678	Q541	5616-2SK364BL	FET, N-CH
678	Q542	5616-2SK364BL	FET, N-CH

**DIODES**

679	D541	5631-1S2473	DIODE, DET
679	D542	5631-1S2473	DIODE, DET

**CONTROLS**

891	VR503/504	6161-00701	VR BLOCK
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**MISCELLANEOUS**

934	CW504	4163-S0203101	CONNECTOR W/W
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Ser.No	Ref. No.	Part No.	Description
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**PCB-9 PRIMARY P.C. BOARD**

**CAPACITORS**

787	△ C1	5352-S010M103	CAP, MTL .01μ
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**RESISTORS**

788	△ R1	5135-335522	RES, CBN 1/2P 3.3M
794	R11	5135-103522	RES, CBN 1/2P 10K
795	R12	5135-332522	RES, CBN 1/2P 3.3K
799	R14	5135-472522	RES, CBN 1/2P 4.7K
796	R15	5135-331522	RES, CBN 1/2P 330
797	R16	5135-221522	RES, CBN 1/2P 220
797	R17	5135-221522	RES, CBN 1/2P 220

**TRANSISTORS**

791	Q11	5614-667(C)	XISTOR, NPN A
792	Q12	5613-3311A(R)	XISTOR, NPN R
792	Q13	5613-3311A(R)	XISTOR, NPN R
780	Q14	5613-UN4212	XISTOR, NPN R

**DIODES**

793	D11	5631-1S2473	DIODE, DET
793	D12	5631-1S2473	DIODE, DET
793	D13	5631-1S2473	DIODE, DET
793	D16	5631-1S2473	DIODE, DET

**MISCELLANEOUS**

784	△ FH1	4472-04501	HOLDER, FUSE
785	△ FH2	4472-04501	HOLDER, FUSE
961	JL11	4242-R0404351	JUMPER LEAD
962	JL12	4242-R0406601	JUMPER LEAD
789	△ RY1	4331-01702	RELAY, DC
916	△ SO1	4474-02901	SOCKET
790	TM1	4214-122	TERMINAL
790	TM2	4214-122	TERMINAL
790	TM3	4214-122	TERMINAL
790	TM4	4214-122	TERMINAL
786	△ F1	5732-502031	FUSE, 5A

**PCB-10 SECONDARY P.C. BOARD**

**CAPACITORS**

782	C7	5345-227G045	CAP, MINI ELE 220μ/63V
782	C8	5345-227G045	CAP, MINI ELE 220μ/63V
772	C9	5362-103048	CAP, CER .01μ
772	C10	5362-103048	CAP, CER .01μ
511	C51	5345-228D045	CAP, MINI ELE 2200μ/25V
514	C54	5361-473ZF	CAP, CER .047μ
514	C55	5361-473ZF	CAP, CER .047μ

**DIODES**

781	△ D2	5685-D5SB20	SILICON, BRIG
505	△ D51	5685-S1VB10	SILICON, BRIG

**MISCELLANEOUS**

943	CN100	4443-0201141	CONNECTOR
932	CW102	4163-S0202751	CONNECTOR W/W
928	CW408	4163-0125026	CONNECTOR W/W
928	CW409	4163-0125026	CONNECTOR W/W
929	CW410	4163-0125024	CONNECTOR W/W
930	CW411	4163-0130025	CONNECTOR W/W
927	CW412	4163-0130027	CONNECTOR W/W
535	△ F2	5732-162031	FUSE, 1.6A
536	△ FH3	4472-04501	HOLDER, FUSE
536	△ FH4	4472-04501	HOLDER, FUSE
783	△ S2	4431-S2102102	SWITCH, PUSH

**PCB-11 SPEAKER SWITCH P.C. BOARD**

**MISCELLANEOUS**

965	JL401	4242-044005	JUMPER LEAD
903	S3	4411-00305103	SWITCH, ROTRY

Ser.No	Ref. No.	Part No.	Description
<b>PCB-12 HEAD PHONE P.C. BOARD</b>			
<b>RESISTORS</b>			
732	R461	5135-102522	RES, CBN 1/2P 1K
732	R462	5135-102522	RES, CBN 1/2P 1K
732	R463	5135-102522	RES, CBN 1/2P 1K
732	R464	5135-102522	RES, CBN 1/2P 1K
<b>MISCELLANEOUS</b>			
956	CN418	4443-030185	CONNECTOR
911	△ J1	4451-51501	JACK, 1P

Ser.No	Ref. No.	Part No.	Description
<b>PCB-13 SUB WOOFER VR P.C. BOARD</b>			
<b>CAPACITORS</b>			
702	C591	5345-S06BM107	CAP, MINI ELE 100μ/10V
702	C592	5345-S06BM107	CAP, MINI ELE 100μ/10V
702	C593	5345-S06BM107	CAP, MINI ELE 100μ/10V
702	C594	5345-S06BM107	CAP, MINI ELE 100μ/10V
<b>RESISTORS</b>			
733	R591	5135-822522	RES, CBN 1/2P 8.2K
733	R592	5135-822522	RES, CBN 1/2P 8.2K
734	R593	5135-112522	RES, CBN 1/2P 1.1K
734	R594	5135-112522	RES, CBN 1/2P 1.1K
<b>CONTROLS</b>			
908	VR509/510	5113-50251122	RES, V CBN 16 5K
<b>MISCELLANEOUS</b>			
963	JL402	4242-R0103800	JUMPER LEAD

Ser.No	Ref. No.	Part No.	Description
<b>PCB-14 SPEAKER TERMINAL P.C. BOARD</b>			
<b>MISCELLANEOUS</b>			
915	△ TM402	4214-235	TERMINAL

Ser.No	Ref. No.	Part No.	Description
<b>PCB-16 FRONT P.C. BOARD</b>			
<b>CAPACITORS</b>			
886	C821	5354-104593	CAP, MYL .1μ
885	C822	5345-475F041	CAP, MINI ELE 4.7μ/50V
886	C823	5354-104593	CAP, MYL .1μ
885	C824	5345-475F041	CAP, MINI ELE 4.7μ/50V
886	C825	5354-104593	CAP, MYL .1μ
885	C826	5345-475F041	CAP, MINI ELE 4.7μ/50V
886	C827	5354-104593	CAP, MYL .1μ
885	C828	5345-475F041	CAP, MINI ELE 4.7μ/50V
<b>RESISTORS</b>			
559	R781	5135-102522	RES, CBN 1/2P 1K
554	R782	5135-153522	RES, CBN 1/2P 15K
558	R783	5135-272522	RES, CBN 1/2P 2.7K
560	R784	5135-472522	RES, CBN 1/2P 4.7K
560	R785	5135-472522	RES, CBN 1/2P 4.7K
887	R786	5135-822522	RES, CBN 1/2P 8.2K
618	R792	5232-472J16P	RES, CBN 1/6P 4.7K
615	R793	5232-104J16P	RES, CBN 1/6P 100K
617	R794	5232-102J16P	RES, CBN 1/6P 1K
617	R795	5232-102J16P	RES, CBN 1/6P 1K
617	R796	5232-102J16P	RES, CBN 1/6P 1K
616	R801	5232-681J16P	RES, CBN 1/6P 680
616	R802	5232-681J16P	RES, CBN 1/6P 680
616	R803	5232-681J16P	RES, CBN 1/6P 680
616	R804	5232-681J16P	RES, CBN 1/6P 680
859	R805	5135-681522	RES, CBN 1/2P 680
859	R806	5135-681522	RES, CBN 1/2P 680
859	R807	5135-681522	RES, CBN 1/2P 680
857	R808	5135-472522	RES, CBN 1/2P 4.7K

Ser.No	Ref. No.	Part No.	Description
857	R809	5135-472522	RES, CBN 1/2P 4.7K
857	R810	5135-472522	RES, CBN 1/2P 4.7K
617	R811	5232-102J16P	RES, CBN 1/6P 1K
617	R812	5232-102J16P	RES, CBN 1/6P 1K
617	R813	5232-102J16P	RES, CBN 1/6P 1K
617	R814	5232-102J16P	RES, CBN 1/6P 1K
858	R815	5135-102522	RES, CBN 1/2P 1K
858	R816	5135-102522	RES, CBN 1/2P 1K
617	R817	5232-102J16P	RES, CBN 1/6P 1K
618	R818	5232-472J16P	RES, CBN 1/6P 4.7K
857	R819	5135-472522	RES, CBN 1/2P 4.7K
618	R820	5232-472J16P	RES, CBN 1/6P 4.7K
618	R821	5232-472J16P	RES, CBN 1/6P 4.7K
619	R822	5232-681J16P	RES, CBN 1/6P 680
617	R823	5232-102J16P	RES, CBN 1/6P 1K
859	R824	5135-681522	RES, CBN 1/2P 680
857	R825	5135-472522	RES, CBN 1/2P 4.7K
856	R826	5135-104522	RES, CBN 1/2P 100K
887	R827	5135-822522	RES, CBN 1/2P 8.2K
615	R828	5232-104J16P	RES, CBN 1/6P 100K
620	R829	5232-822J16P	RES, CBN 1/6P 8.2K
857	R830	5135-472522	RES, CBN 1/2P 4.7K
618	R837	5232-472J16P	RES, CBN 1/6P 4.7K
848	R838	5135-471522	RES, CBN 1/2P 470
887	R839	5135-822522	RES, CBN 1/2P 8.2K
856	R840	5135-104522	RES, CBN 1/2P 100K
618	R857	5232-472J16P	RES, CBN 1/6P 4.7K
830	R858	5232-472J16P	RES, CBN 1/6P 4.7K
619	R859	5232-681J16P	RES, CBN 1/6P 680
859	R860	5135-681522	RES, CBN 1/2P 680
618	R868	5232-472J16P	RES, CBN 1/6P 4.7K
560	R869	5135-472522	RES, CBN 1/2P 4.7K
617	R870	5232-102J16P	RES, CBN 1/6P 1K

Ser.No	Ref. No.	Part No.	Description
<b>INTEGRATED CIRCUITS</b>			
532	IC703	5654-TB2104F	IC, DIGITAL
532	IC704	5654-TB2104F	IC, DIGITAL
883	IC811	5654-TC4013BP	IC, DIGITAL
883	IC812	5654-TC4013BP	IC, DIGITAL

Ser.No	Ref. No.	Part No.	Description
<b>TRANSISTORS</b>			
852	Q801	5611-1309A(R)	XISTOR, PNP R
852	Q802	5611-1309A(R)	XISTOR, PNP R
852	Q803	5611-1309A(R)	XISTOR, PNP R
852	Q804	5611-1309A(R)	XISTOR, PNP R
852	Q805	5611-1309A(R)	XISTOR, PNP R
852	Q806	5611-1309A(R)	XISTOR, PNP R
852	Q807	5611-1309A(R)	XISTOR, PNP R
852	Q808	5611-1309A(R)	XISTOR, PNP R
851	Q809	5613-3311A(R)	XISTOR, NPN R
841	Q832	5611-UN4112	XISTOR, PNP R
841	Q833	5611-UN4112	XISTOR, PNP R
852	Q834	5611-1309A(R)	XISTOR, PNP R
852	Q835	5611-1309A(R)	XISTOR, PNP R
841	Q836	5611-UN4112	XISTOR, PNP R
525	QC701	5613-DT5C	XISTOR, NPN R

Ser.No	Ref. No.	Part No.	Description
<b>DIODES</b>			
884	D730	5631-1SS133	DIODE, DET
612	D751	5631-1S2473	DIODE, DET
612	D752	5631-1S2473	DIODE, DET
612	D753	5631-1S2473	DIODE, DET
612	D754	5631-1S2473	DIODE, DET
612	D755	5631-1S2473	DIODE, DET
612	D756	5631-1S2473	DIODE, DET
884	D822	5631-1SS133	DIODE, DET
884	D823	5631-1SS133	DIODE, DET
884	D824	5631-1SS133	DIODE, DET
884	D825	5631-1SS133	DIODE, DET
884	D826	5631-1SS133	DIODE, DET
884	D827	5631-1SS133	DIODE, DET
884	D828	5631-1SS133	DIODE, DET
884	D829	5631-1SS133	DIODE, DET

Ser.No	Ref. No.	Part No.	Description
853	D831	5637-S2410E1	LED
853	D832	5637-S2410E1	LED
853	D833	5637-S2410E1	LED
853	D834	5637-S2410E1	LED
853	D835	5637-S2410E1	LED
853	D836	5637-S2410E1	LED
853	D837	5637-S2410E1	LED
854	D841	5637-S2210S1	LED
854	D842	5637-S2210S1	LED
854	D843	5637-S2210S1	LED
854	D844	5637-S2210S1	LED
854	D845	5637-S2210S1	LED
854	D846	5637-S2210S1	LED
854	D847	5637-S2210S1	LED
853	D851	5637-S2410E1	LED
853	D852	5637-S2410E1	LED
853	D853	5637-S2410E1	LED
853	D854	5637-S2410E1	LED
884	D857	5631-1SS133	DIODE, DET
884	D858	5631-1SS133	DIODE, DET
884	D859	5631-1SS133	DIODE, DET
884	D860	5631-1SS133	DIODE, DET

**MISCELLANEOUS**

540	CN101B	4443-05401027	CONNECTOR
860	CN804A	4443-05501021	CONNECTOR
931	CW100	4163-S0202401	CONNECTOR W/W
531	FL701	5722-053	TUBE DISPLAY
557	RC702	5212-153J0503	R COMPOSITE
534	S11	4437-00603	SWITCH, PU-TC
534	S12	4437-00603	SWITCH, PU-TC
534	S13	4437-00603	SWITCH, PU-TC
534	S14	4437-00603	SWITCH, PU-TC
534	S15	4437-00603	SWITCH, PU-TC
534	S16	4437-00603	SWITCH, PU-TC
534	S17	4437-00603	SWITCH, PU-TC
534	S18	4437-00603	SWITCH, PU-TC
533	S19	4437-00604	SWITCH, PU-TC
533	S20	4437-00604	SWITCH, PU-TC
533	S21	4437-00604	SWITCH, PU-TC
533	S22	4437-00604	SWITCH, PU-TC
533	S23	4437-00604	SWITCH, PU-TC
534	S24	4437-00603	SWITCH, PU-TC
534	S25	4437-00603	SWITCH, PU-TC
855	S31	4437-00901	SWITCH, PU-TC
855	S32	4437-00901	SWITCH, PU-TC
855	S33	4437-00901	SWITCH, PU-TC
855	S34	4437-00901	SWITCH, PU-TC
855	S35	4437-00901	SWITCH, PU-TC
855	S36	4437-00901	SWITCH, PU-TC
855	S37	4437-00901	SWITCH, PU-TC
855	S41	4437-00901	SWITCH, PU-TC
855	S42	4437-00901	SWITCH, PU-TC
855	S43	4437-00901	SWITCH, PU-TC
855	S44	4437-00901	SWITCH, PU-TC
855	S45	4437-00901	SWITCH, PU-TC
855	S46	4437-00901	SWITCH, PU-TC
855	S47	4437-00901	SWITCH, PU-TC
855	S51	4437-00901	SWITCH, PU-TC
855	S52	4437-00901	SWITCH, PU-TC
855	S53	4437-00901	SWITCH, PU-TC
855	S54	4437-00901	SWITCH, PU-TC
526	RC701	5212-223J0503	R COMPOSITE
555	△ RCV1	6143-00802	RECEIV BLOCK

**PCB-17 POWER SWITCH P.C. BOARD**

**MISCELLANEOUS**

944	CN11	4443-040185	CONNECTOR
964	JL13	4242-R0403101	JUMPER LEAD
906	S1	4431-A027610	SWITCH, PUSH

Ser.No	Ref. No.	Part No.	Description
<b>PCB-18 VOLUME INDICATOR P.C. BOARD</b>			
<b>DIODES</b>			
889	D15	5637-S2410E1	LED
<b>MISCELLANEOUS</b>			
949	CW15	4163-01524002	CONNECTOR W/W

**PCB-19 POWER INDICATOR P.C. BOARD**

<b>DIODES</b>			
888	D14	5637-GL3ED8	LED

**PCB-20 VIDEO SW P.C. BOARD**

Ser.No	Ref. No.	Part No.	Description
<b>CAPACITORS</b>			
339	C911	5345-227C041	CAP, MINI ELE 220μ/16V
339	C912	5345-227C041	CAP, MINI ELE 220μ/16V
339	C913	5345-227C041	CAP, MINI ELE 220μ/16V
338	C914	5345-477C045	CAP, MINI ELE 470μ/16V
338	C915	5345-477C045	CAP, MINI ELE 470μ/16V
338	C916	5345-477C045	CAP, MINI ELE 470μ/16V
350	C917	5345-107C041	CAP, MINI ELE 100μ/16V
350	C918	5345-107C041	CAP, MINI ELE 100μ/16V
339	C919	5345-227C041	CAP, MINI ELE 220μ/16V

**RESISTORS**

348	R911	5135-750522	RES, CBN 1/2P 75
348	R912	5135-750522	RES, CBN 1/2P 75
348	R913	5135-750522	RES, CBN 1/2P 75
347	R914	5135-221522	RES, CBN 1/2P 220
347	R915	5135-221522	RES, CBN 1/2P 220
347	R916	5135-221522	RES, CBN 1/2P 220
341	R917	5135-103522	RES, CBN 1/2P 10K
341	R918	5135-103522	RES, CBN 1/2P 10K
341	R919	5135-103522	RES, CBN 1/2P 10K
342	R920	5135-333522	RES, CBN 1/2P 33K
342	R921	5135-333522	RES, CBN 1/2P 33K
342	R922	5135-333522	RES, CBN 1/2P 33K
347	R923	5135-221522	RES, CBN 1/2P 220
347	R924	5135-221522	RES, CBN 1/2P 220
347	R925	5135-221522	RES, CBN 1/2P 220
346	R926	5135-271522	RES, CBN 1/2P 270
346	R927	5135-271522	RES, CBN 1/2P 270
346	R928	5135-271522	RES, CBN 1/2P 270
347	R929	5135-221522	RES, CBN 1/2P 220
347	R930	5135-221522	RES, CBN 1/2P 220
347	R931	5135-221522	RES, CBN 1/2P 220
349	R932	5135-680522	RES, CBN 1/2P 68
349	R933	5135-680522	RES, CBN 1/2P 68
349	R934	5135-680522	RES, CBN 1/2P 68
340	R935	5135-473522	RES, CBN 1/2P 47K
340	R936	5135-473522	RES, CBN 1/2P 47K
345	R937	5135-102522	RES, CBN 1/2P 1K
344	R938	5135-182522	RES, CBN 1/2P 1.8K
343	R939	5135-332522	RES, CBN 1/2P 3.3K
345	R940	5135-102522	RES, CBN 1/2P 1K
345	R941	5135-102522	RES, CBN 1/2P 1K

**INTEGRATED CIRCUITS**

331	IC911	5654-LC4966	IC, DIGITAL
331	IC912	5654-LC4966	IC, DIGITAL
332	IC913	5654-TC4069UB	IC, DIGITAL

**TRANSISTORS**

335	Q911	5613-3311A(R)	XISTOR, NPN R
335	Q912	5613-3311A(R)	XISTOR, NPN R
335	Q913	5613-3311A(R)	XISTOR, NPN R
335	Q914	5613-3311A(R)	XISTOR, NPN R
335	Q915	5613-3311A(R)	XISTOR, NPN R

Ser.No	Ref. No.	Part No.	Description
335	Q916	5613-3311A(R)	XISTOR, NPN R
334	Q917	5611-1309A(R)	XISTOR, PNP R
334	Q918	5611-1309A(R)	XISTOR, PNP R
334	Q919	5611-1309A(R)	XISTOR, PNP R
336	Q920	5611-UN4112	XISTOR, PNP R
330	Q921	5613-UN4212	XISTOR, NPN R
333	Q922	5612-647(C)	XISTOR, PNP A

**DIODES**

337	D911	5631-1S2473	DIODE, DET
337	D912	5631-1S2473	DIODE, DET
337	D913	5631-1S2473	DIODE, DET
337	D914	5631-1S2473	DIODE, DET
337	D915	5631-1S2473	DIODE, DET
337	D916	5631-1S2473	DIODE, DET

**MISCELLANEOUS**

948	CW901	4163-S0203351	CONNECTOR W/W
957	CW902	4163-S0205141	CONNECTOR W/W
914	△ J6	4489-00901006	PIN JACK, MLT
329	LUG	4211-4	LUG, W-3

**PCB-21 FM MPX P.C. BOARD**

**CAPACITORS**

420	C301	5345-225F041	CAP, MINI ELE 2.2μ/50V
420	C302	5345-225F041	CAP, MINI ELE 2.2μ/50V
421	C304	5345-476D041	CAP, MINI ELE 47μ/25V
421	C305	5345-476D041	CAP, MINI ELE 47μ/25V
423	C306	5345-224F0951	CAP, MINI ELE 22μ/50V
424	C307	5345-474F0951	CAP, MINI ELE 47μ/50V
422	C308	5345-105F041	CAP, MINI ELE 1μ/50V
418	C309	5359-2715851	CAP, PPP 270p
418	C310	5359-2715851	CAP, PPP 270p
419	C311	5354-473K1HM	CAP, MYL .047μ
422	C313	5345-105F041	CAP, MINI ELE 1μ/50V
426	C314	5361-103M919	CAP, CER .01μ
425	C315	5359-3915851	CAP, PPP 390p
426	C316	5361-103M919	CAP, CER .01μ
427	C317	5359-1025851	CAP, PPP 1000p

**RESISTORS**

417	R305	5232-244J16P	RES, CBN 1/6P 240K
417	R306	5232-244J16P	RES, CBN 1/6P 240K
429	R307	5232-164J16P	RES, CBN 1/6P 160K
429	R308	5232-164J16P	RES, CBN 1/6P 160K
430	R309	5232-272J16P	RES, CBN 1/6P 2.7K
430	R310	5232-272J16P	RES, CBN 1/6P 2.7K
432	R315	5232-472J16P	RES, CBN 1/6P 4.7K

**INTEGRATED CIRCUITS**

411	IC301	5653-LA3450	IC, LINEAR
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**TRANSISTORS**

413	Q303	5613-UN4212	XISTOR, NPN R
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**CONTROLS**

415	VR301	5101-50402934	RES, SEMI FIX 500K
416	VR302	5101-50302934	RES, SEMI FIX 50K

**MISCELLANEOUS**

549	CN301	4443-057175	CONNECTOR
550	CN302	4443-047175	CONNECTOR
414	CX301	5693-CSB456F1	OSC, CER
436	TP301	4214-132	TERMINAL
436	TP302	4214-132	TERMINAL

**CHASSIS MISCELLANEOUS**

**MISCELLANEOUS**

381	L251	5911-266	ANT COIL, BC
917	△ P1	4161-71151	CORD W/PLUG

Ser.No	Ref. No.	Part No.	Description
771	△ T1	5584-S9201	XFORMER, POWER
382	△	2240-7208	HOLDER

**PACKAGE PART LIST**

111	1221-29901	CARTON BOX <b>UA</b>
111	1221-29902	CARTON BOX <b>BK</b>
112	1222-7380	CUSHION
113	1222-7381	CUSHION
116	1223-R0120055	SOFT SHEET
117	1241-R0123350	POLYETHY BAG, IB
118	1241-R0160600	POLYETHY BAG, SET
119	1111-J30341	OWNER GUIDE
120	1113-717004	OWNER CARD
121	1119-047	ATTACH SHEET, WARRANTY
122	1119-01201	ATTACH SHEET, IMPORT SAFETY
123	1119-0137	ATTACH SHEET
548	1397-6	T FEEDER ANT
890	6142-02705	CONT BLOCK
960	4191-0355	BATTERY, DRY

**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
470μ	: 470μF
6800p	: 6800pF
.047μ	: 0.047μF

**RESISTORS**

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

**TRANSISTORS**

XISTOR	: Transistor
FET	: Field Effect Transistor

**CONTROLS**

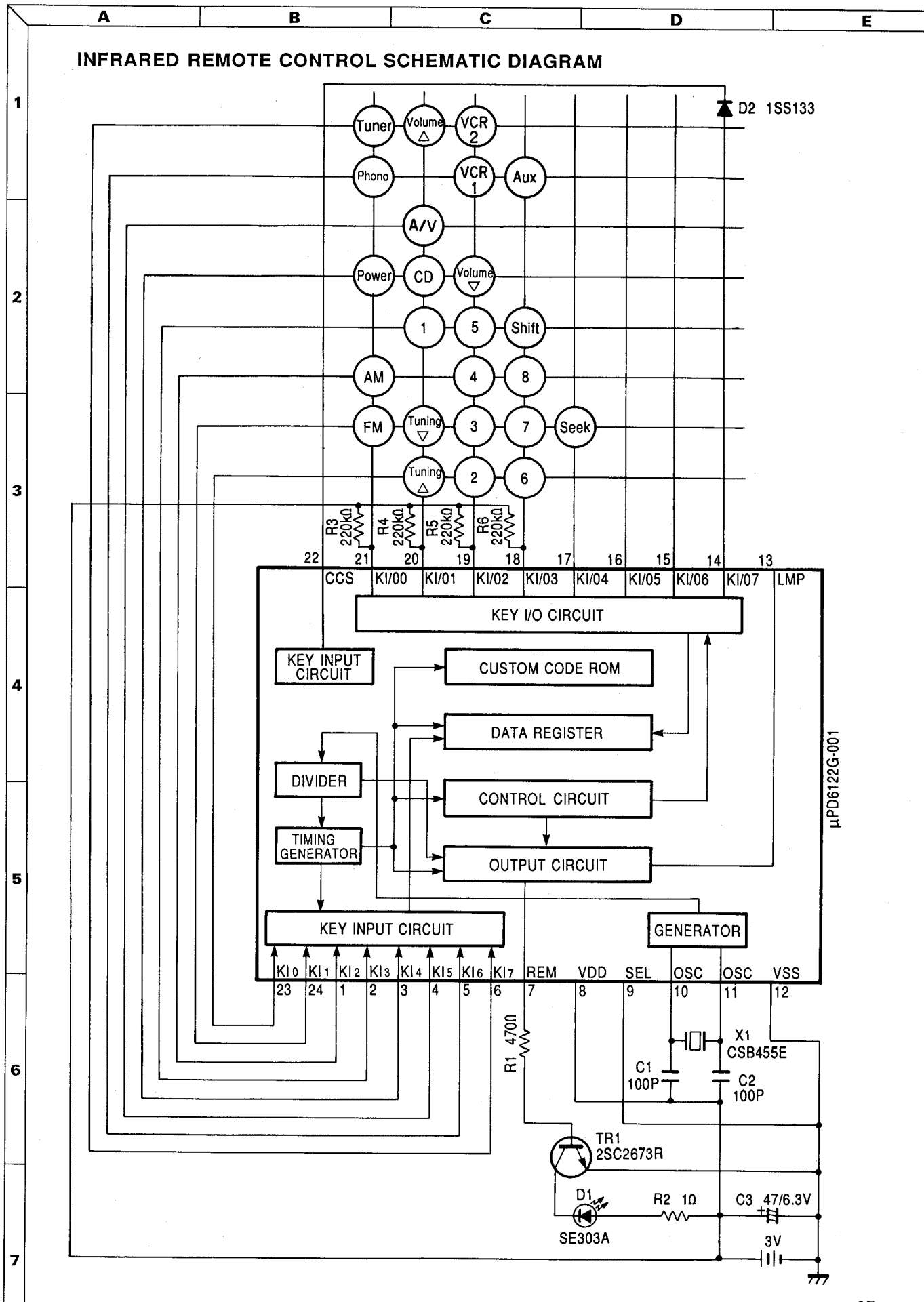
RES, V CBN	: Variable Carbon Resistor
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RES, SEMI FIX : Semi-fixed Resistor

**NOTE**

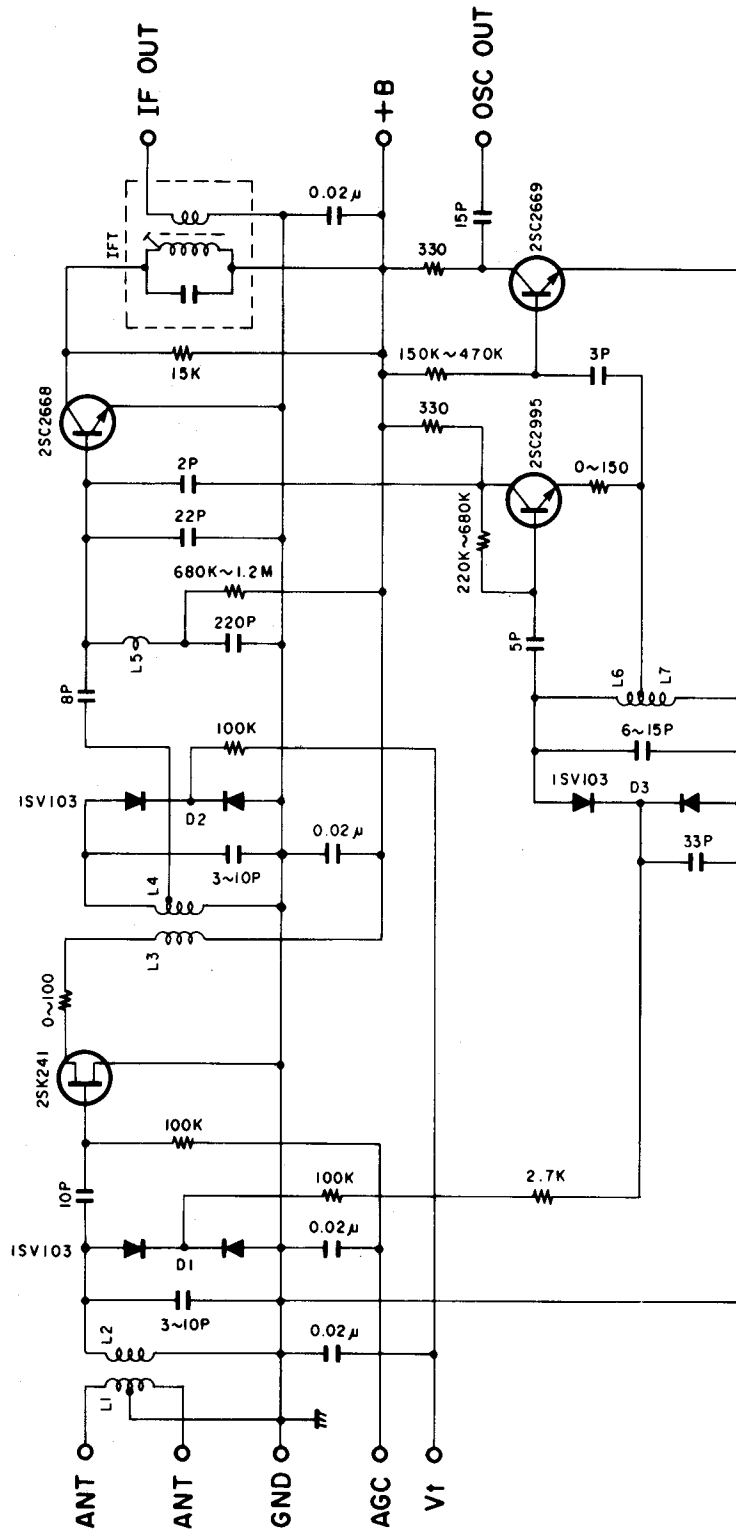


SAFETY RELATED COMPONENT. USE ONLY EXACT REPLACEMENT PART AS SPECIFIED.



µPD6122G-001

**SCHEMATIC DIAGRAM (1)**  
(FM TUNER PACK SECTION)



NOTE: Front End parts not available.  
Schematic diagram supplied for  
reference only.

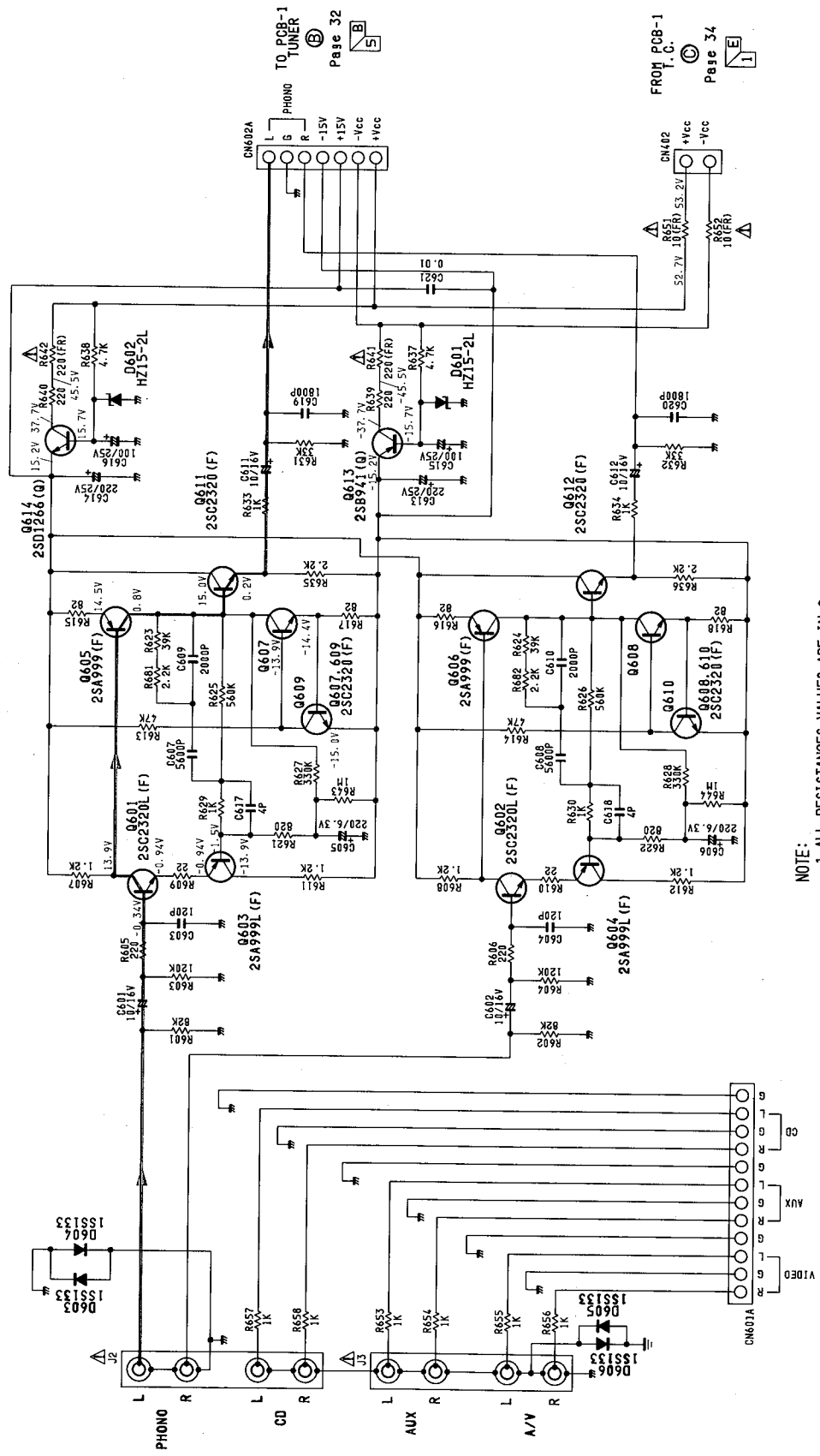


**SCHEMATIC DIAGRAM (2)**  
(PHONO EQUALIZER AMP SECTION)

1  
2  
3  
4  
5  
6  
7

**PCB-2 EQ**

Condition:  
⊙ Set the Function switch to phono position.



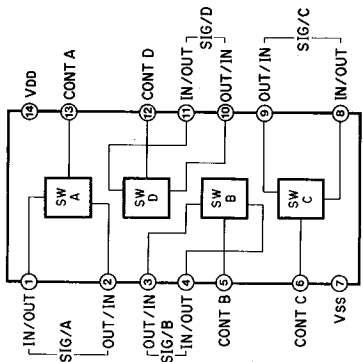
- NOTE:
1. ALL RESISTANCE VALUES ARE IN  $\Omega$ .
  2. ALL CAPACITANCE VALUES ARE IN  $\mu F$  UNLESS OTHERWISE NOTED. P=44F.
  3. ...DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
  4. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.

TO PCB-1 Page 32  
TUNER

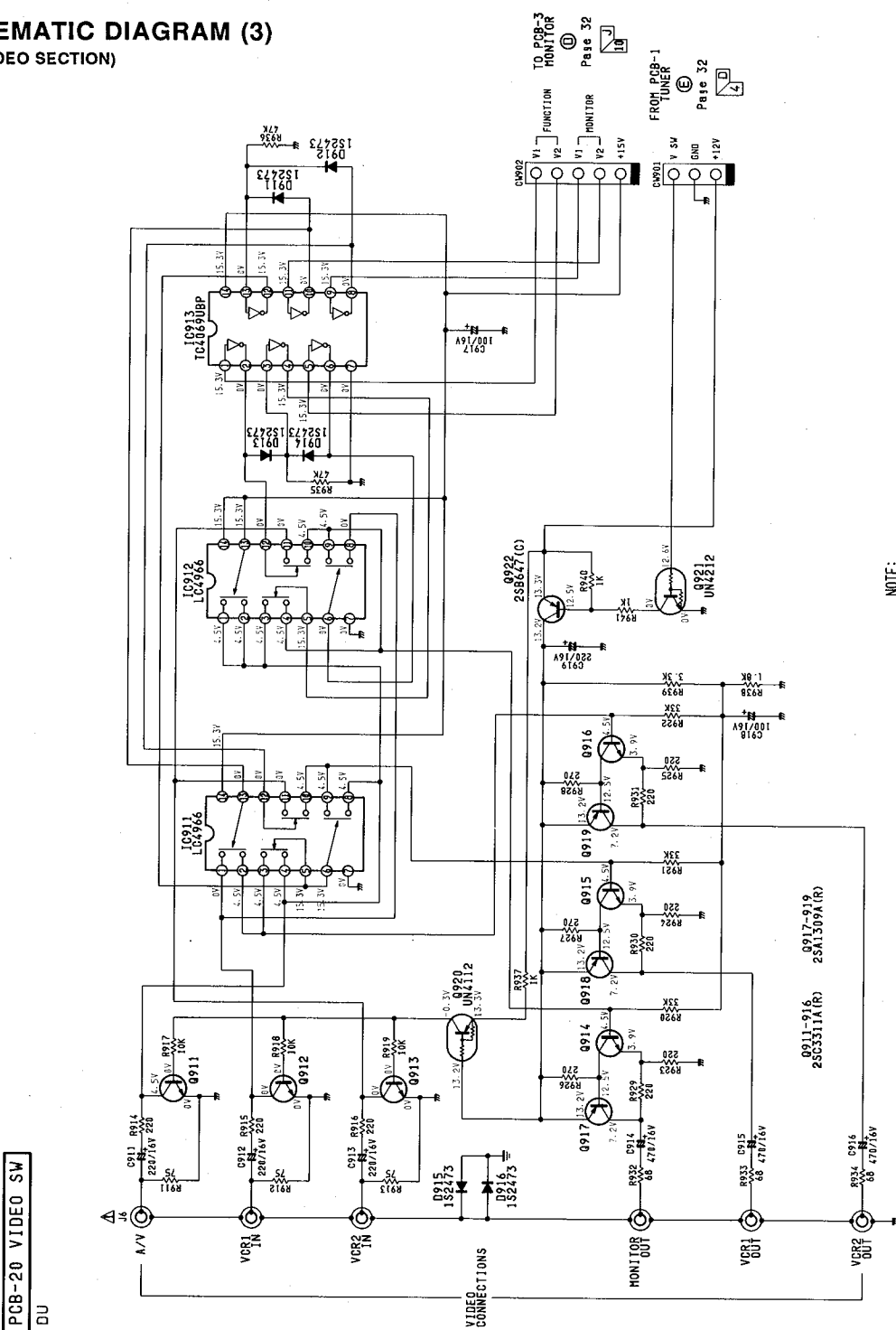
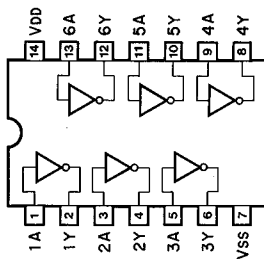
**SCHEMATIC DIAGRAM (3)**  
(VIDEO SECTION)

1  
2  
3  
4  
5  
6  
7

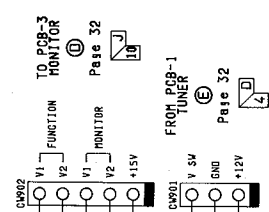
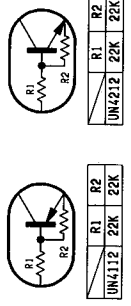
IC911, 912 : LC4966  
VIDEO SELECTOR



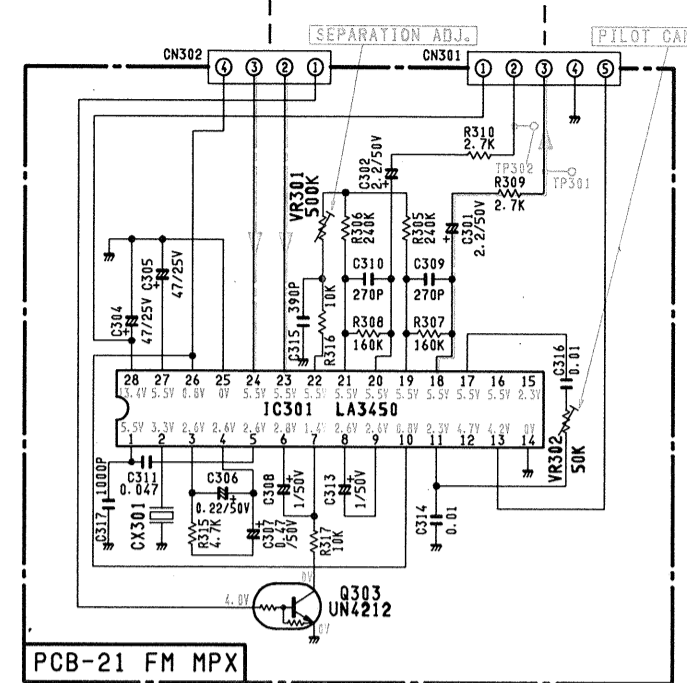
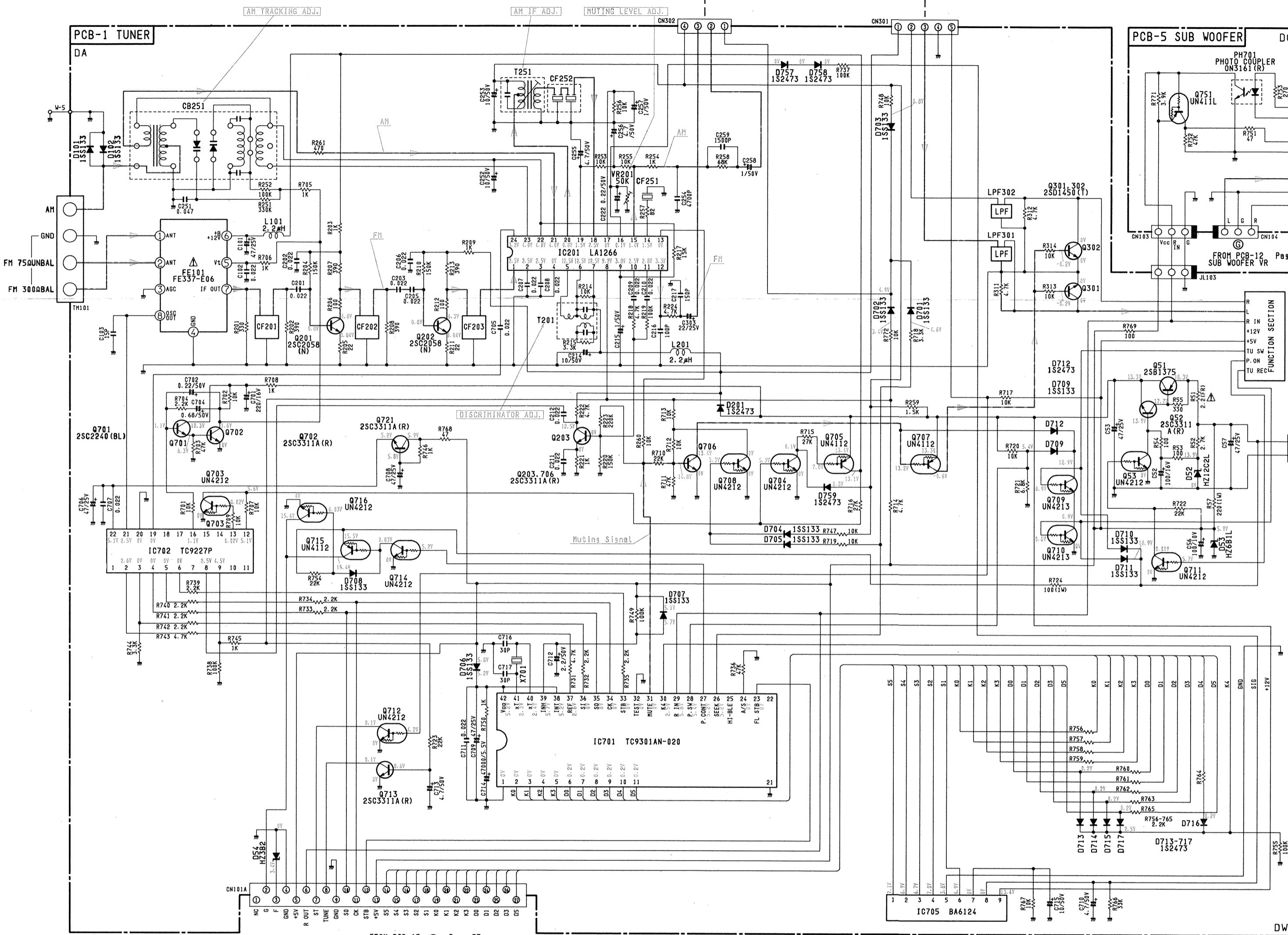
IC913 : TC4069UB  
VIDEO SELECTOR CONTROL



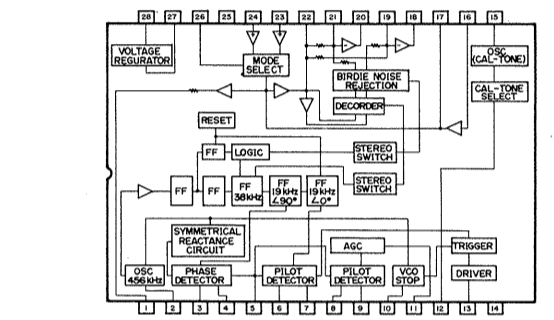
- NOTE:
1. ALL RESISTANCE VALUES ARE IN  $\Omega$ .
  2. THE VOLTAGE OF RESISTORS IS 1/4W UNLESS OTHERWISE NOTED.
  3. ALL CAPACITANCE VALUES ARE IN  $\mu F$  UNLESS OTHERWISE NOTED. P=PF.
  4. ... V: DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
  5. SAFETY REGULATIONS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.



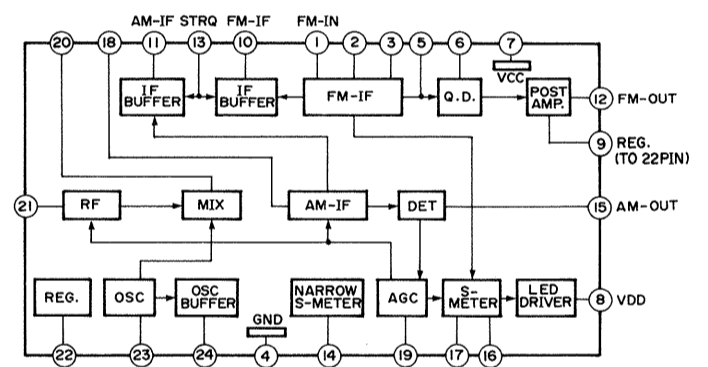
SCHEMATIC DIAGRAM (4)  
(TUNER SECTION)



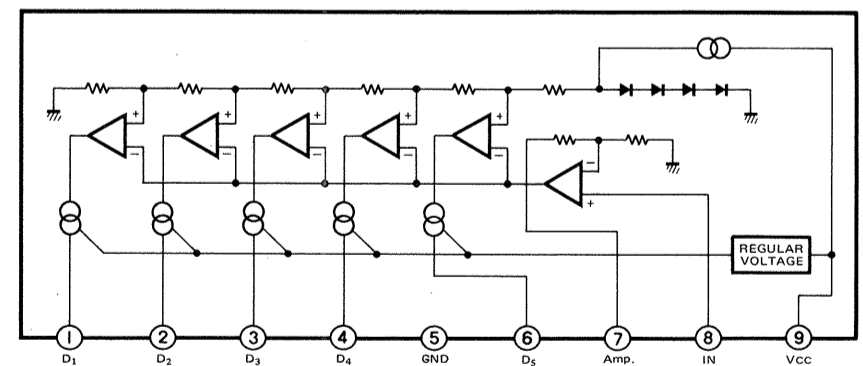
IC301 : LA3450 MPX



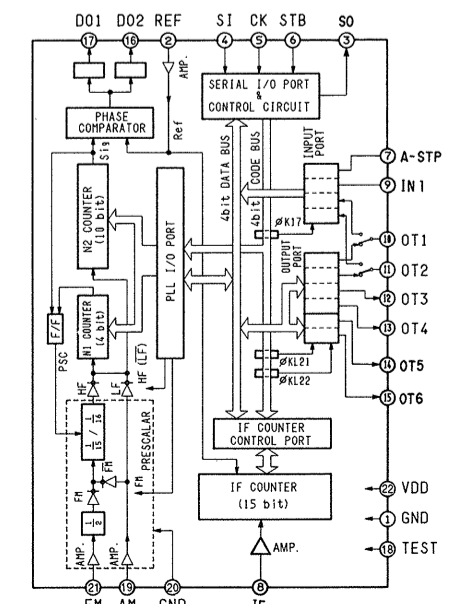
IC201 : LA1266 AM/FM IF AMP. and FM DET.



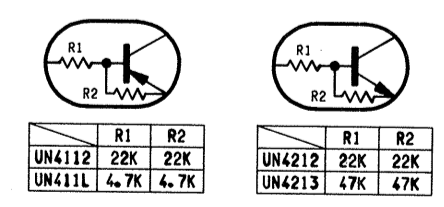
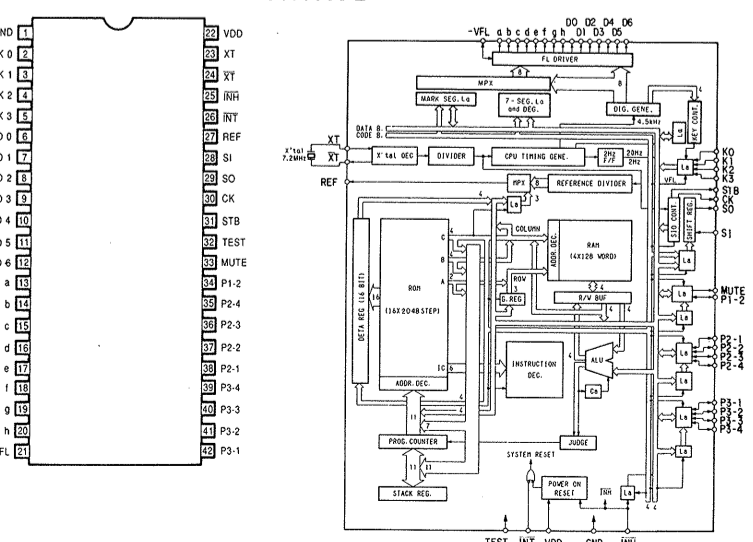
IC705 : BA6124 SIGNAL METER DRIVE



IC702 : TC9227P PLL SYNTHESIZER



IC701 : TC9301AN-020 TUNER SYSTEM CONTROL



Conditions:  
 ① Set the FM mode by pressing the 'FM' button.  
 ② Set the Seek-Store switch to off (put out seek indicator) position.  
 ③ Set the Function switch to tuner position.

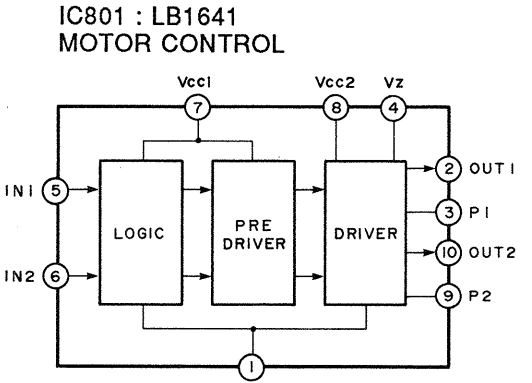
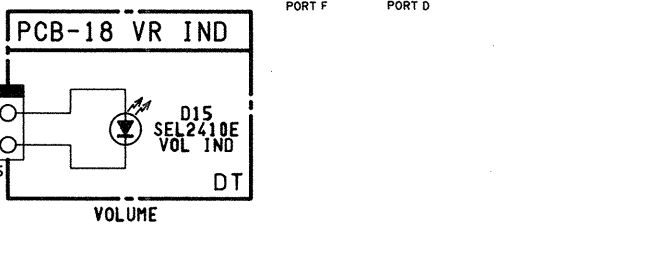
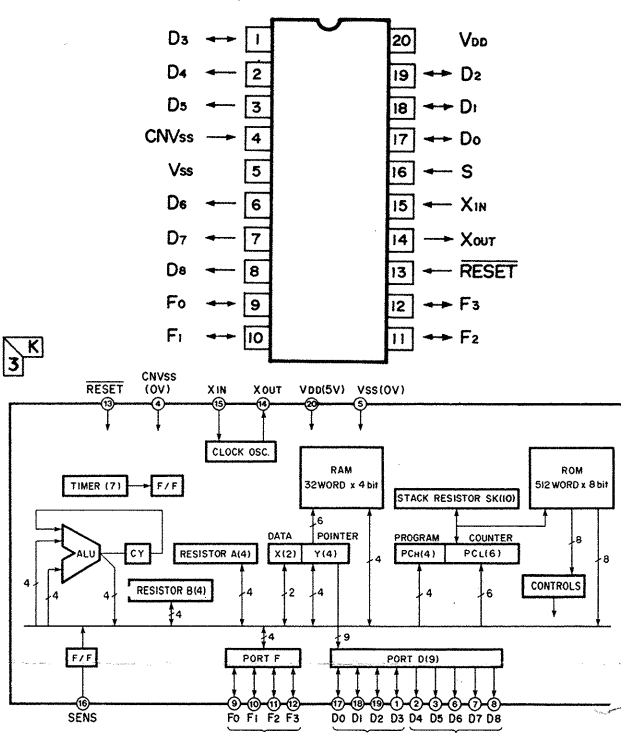
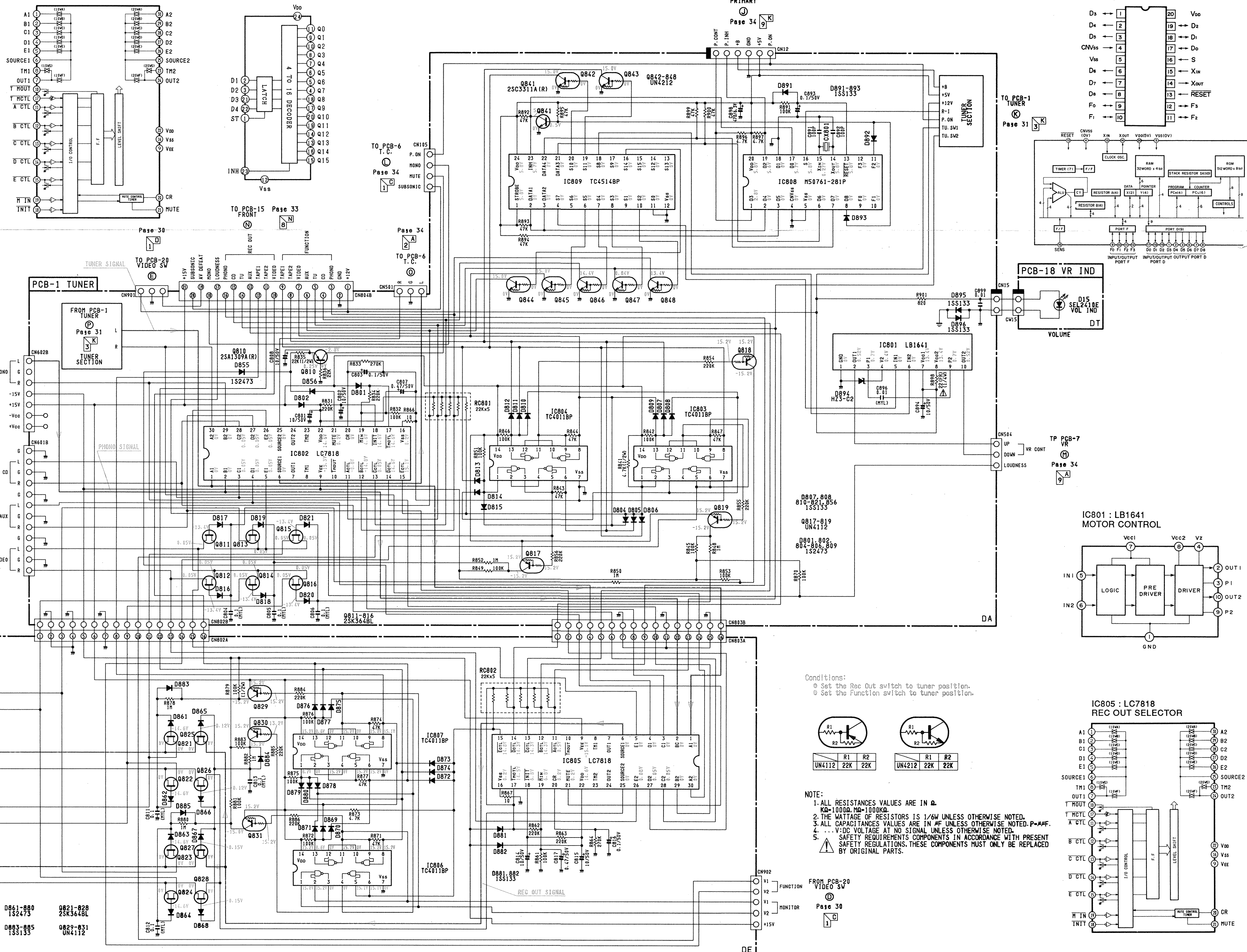
NOTE:  
 1. ALL RESISTANCE VALUES ARE IN Ω.  
 KΩ=1000Ω, MΩ=1000KΩ.  
 2. ALL CAPACITANCE VALUES ARE IN pF UNLESS OTHERWISE NOTED. P=μF.  
 3. ... VDC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.  
 4. SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.

SCHMATIC DIAGRAM (5)  
(FUNCTION SECTION)

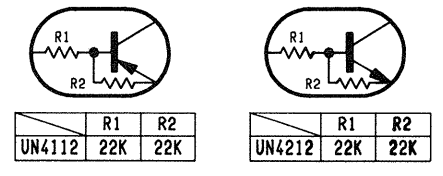
IC802 : LC7818  
FUNCTION SELECTOR

IC809 : TC4514BP  
2nd REMOTE CONTROL DECODER

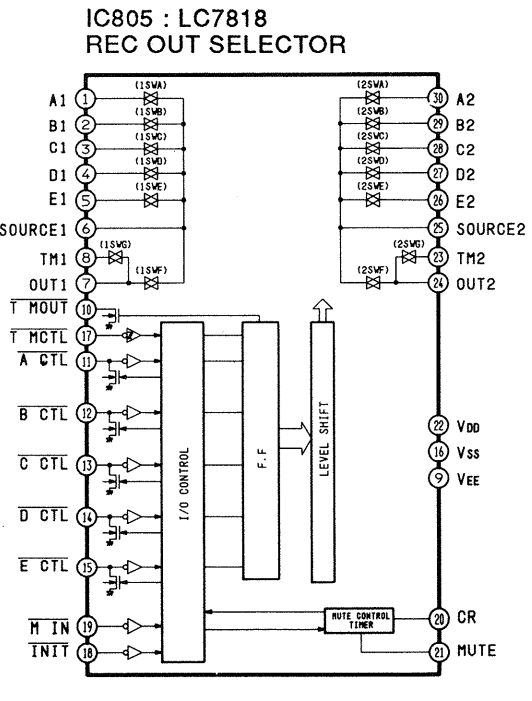
IC808 : M50761-281P  
1st REMOTE CONTROL DECODER



Conditions:  
 ⓪ Set the Rec Out switch to tuner position.  
 ⓫ Set the Function switch to tuner position.



NOTE:  
 1. ALL RESISTANCE VALUES ARE IN Ω.  
 KΩ=1000Ω, MΩ=1000KΩ.  
 2. THE WATTAGE OF RESISTORS IS 1/4W UNLESS OTHERWISE NOTED.  
 3. ALL CAPACITANCE VALUES ARE IN #F UNLESS OTHERWISE NOTED. P-#M/F.  
 4. ... V<sub>DD</sub> 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.

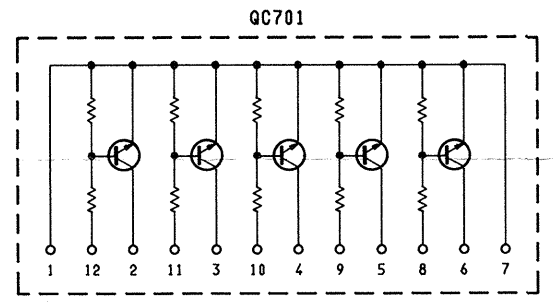
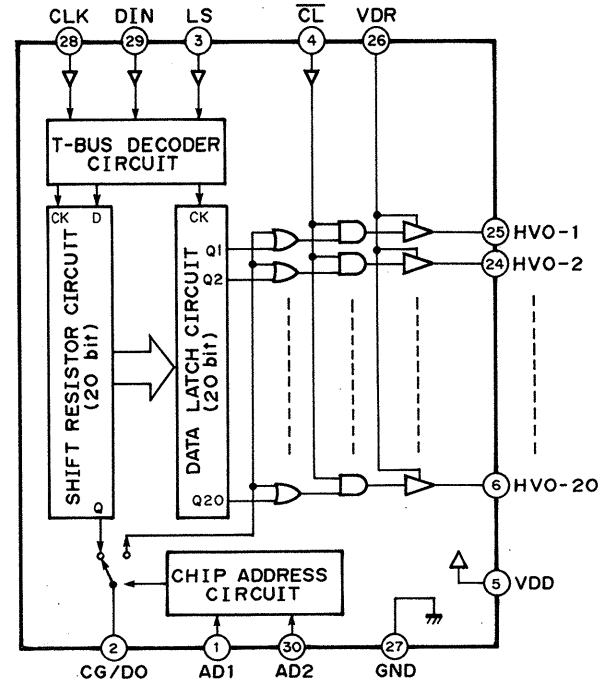
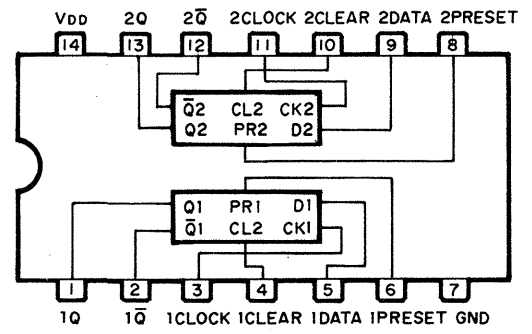




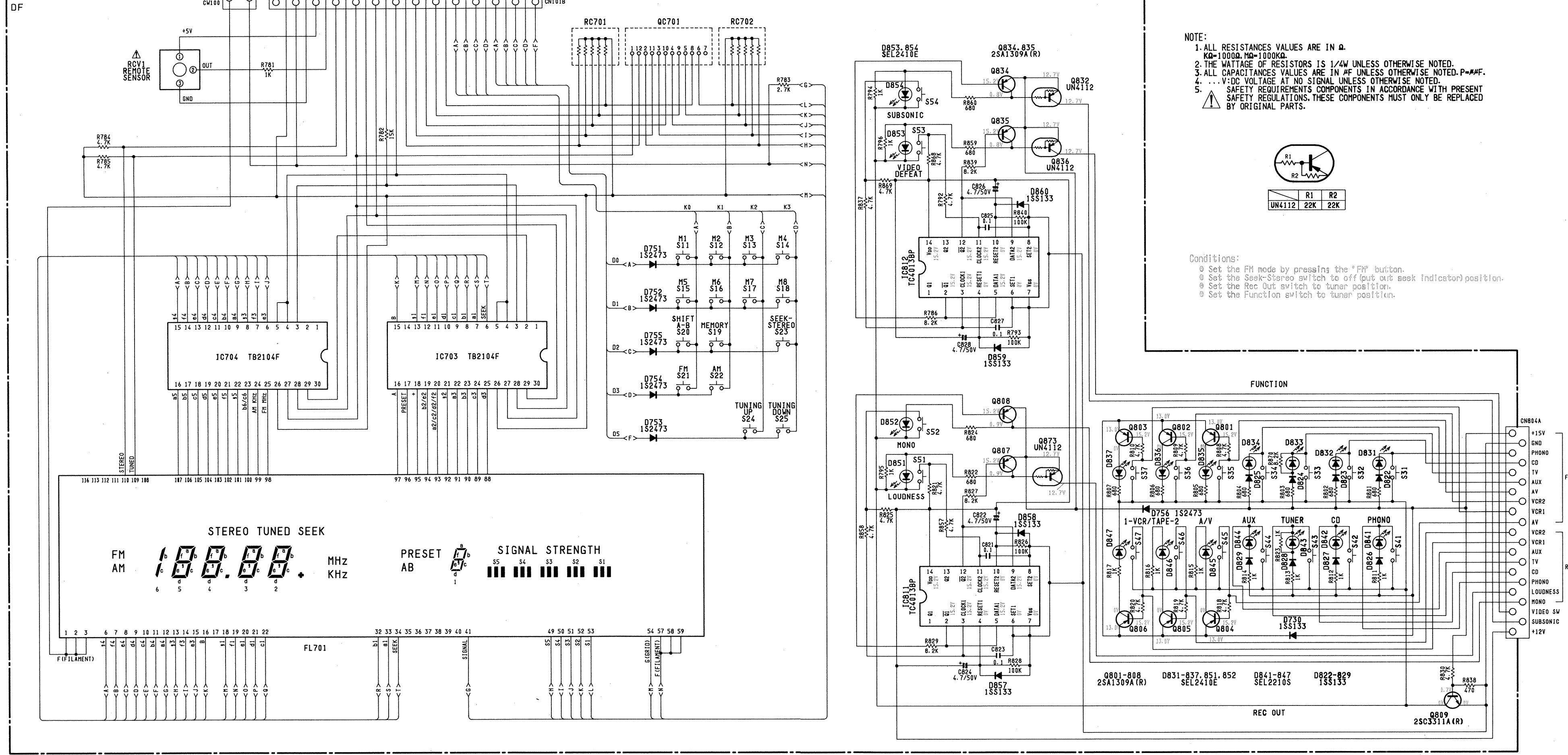
**SCHEMATIC DIAGRAM (6)**  
(DISPLAY & KEY CONTROL SECTIONS)

IC811, 812 : TC4013PP  
MONO/STEREO, LOUDNESS,  
SUBSONIC and VIDEO switches CONTROL

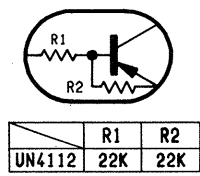
IC 703, 704 : TB2104F  
FL DRIVER



**PCB-16 FRONT**



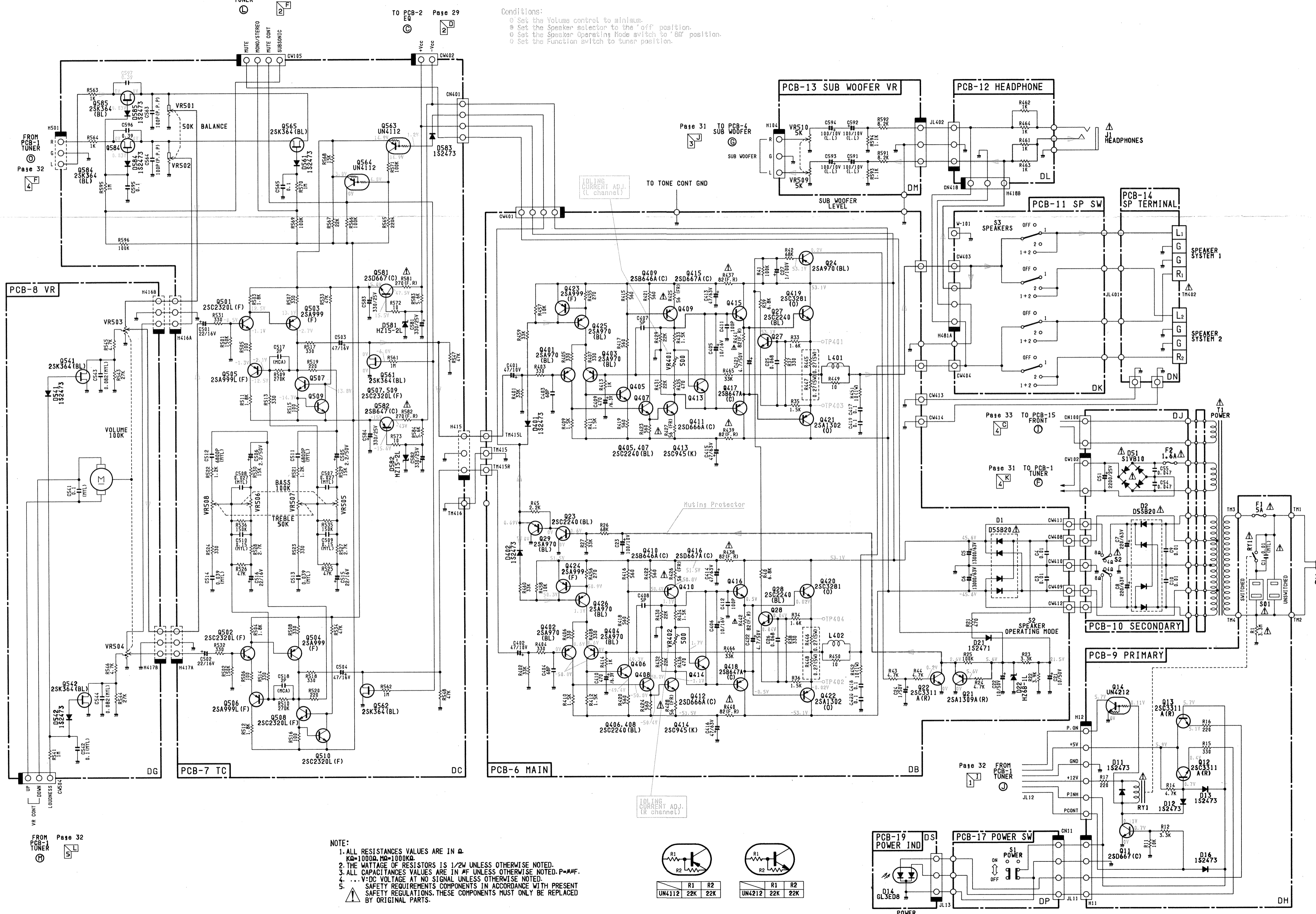
NOTE:  
1. ALL RESISTANCES VALUES ARE IN  $\Omega$ .  
K $\Omega$ =1000 $\Omega$ , M $\Omega$ =100K $\Omega$ .  
2. THE WATTAGE OF RESISTORS IS 1/4W UNLESS OTHERWISE NOTED.  
3. ALL CAPACITANCES VALUES ARE IN  $\mu$ F UNLESS OTHERWISE NOTED. P= $\mu$ F.  
4. ... V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.  
5. SAFETY REGULATIONS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS.THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.



Conditions:  
① Set the FM mode by pressing the "FM" button.  
② Set the Seek-Store switch to off (put out seek indicator) position.  
③ Set the Rec Out switch to tuner position.  
④ Set the Function switch to tuner position.

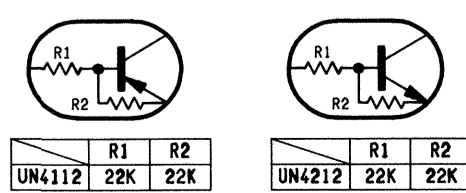
FROM PCB-1 TUNER  
Page 32  
REC OUT

SCHEMATIC DIAGRAM (7)  
(TONE CONTROL & POWER AMP SECTIONS)



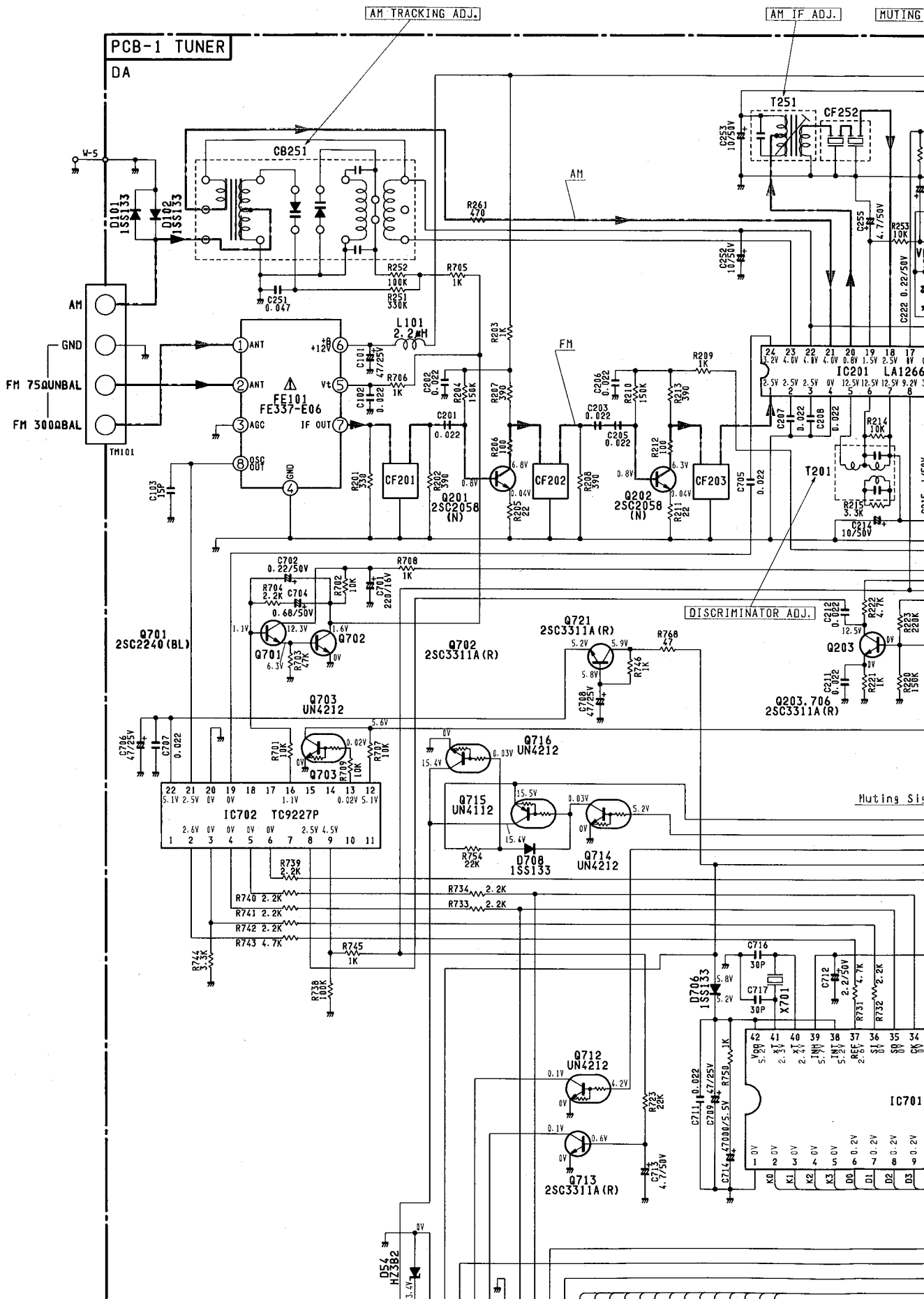
Conditions:  
 \* Set the Volume control to minimum.  
 \* Set the Speaker selector to the "off" position.  
 \* Set the Speaker Operating Mode switch to "DR" position.  
 \* Set the Function switch to tuner position.

- NOTE:
1. ALL RESISTANCE VALUES ARE IN  $\Omega$ .  
K $\Omega$ =1000 $\Omega$ , M $\Omega$ =1000K $\Omega$ .
  2. THE WATTAGE OF RESISTORS IS 1/2W UNLESS OTHERWISE NOTED.
  3. ALL CAPACITANCE VALUES ARE IN  $\mu$ F UNLESS OTHERWISE NOTED. P=PPF.
  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 (4)

(TUNER SECTION)



F

G

H

I

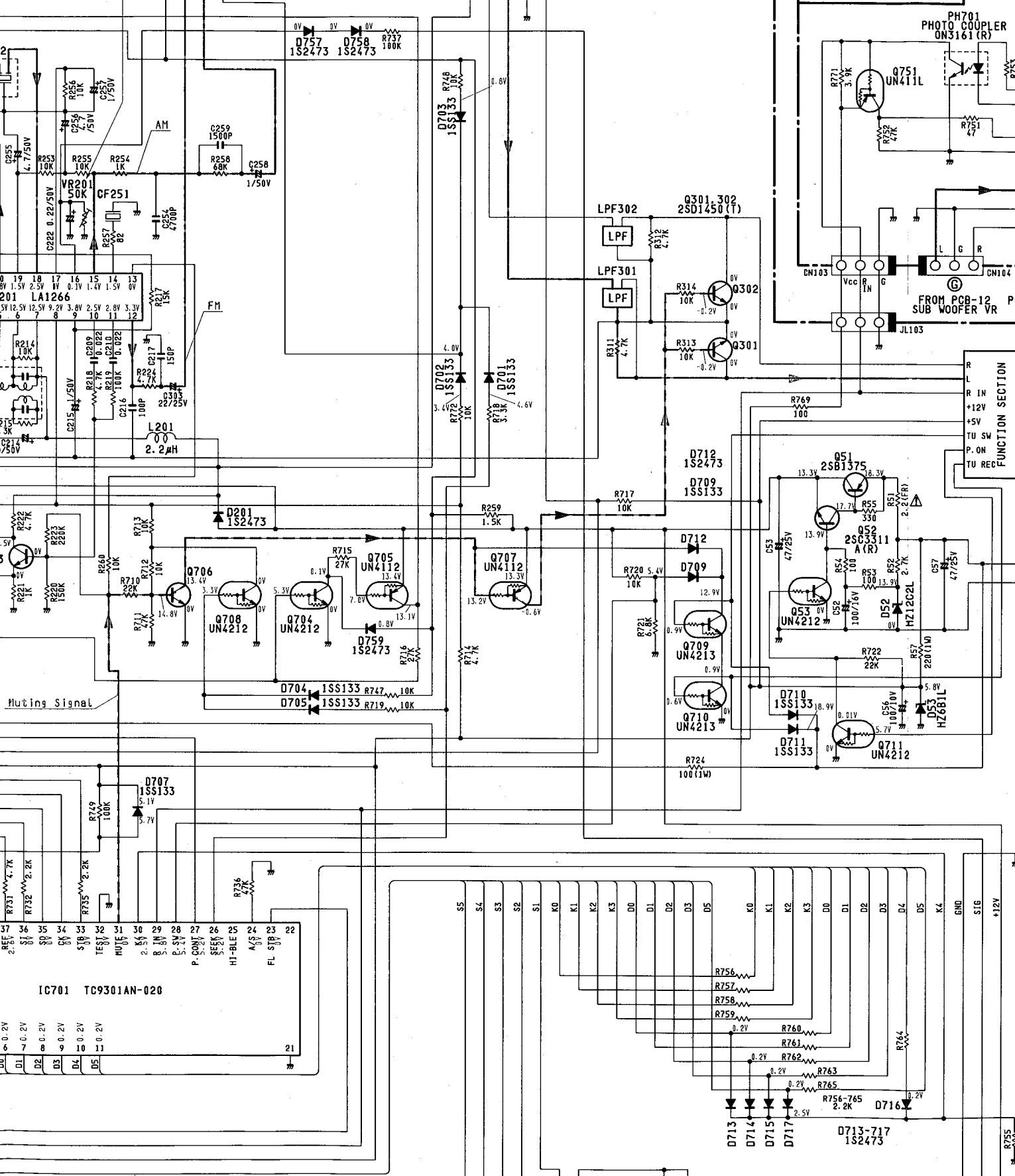
J

MUTING LEVEL ADJ.

CN302

CN301

PCB-5 SUB WOOFER





J

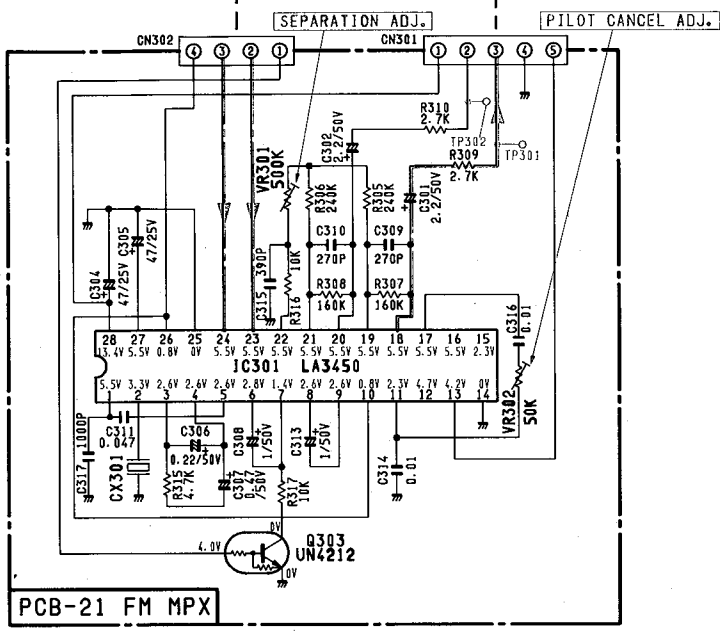
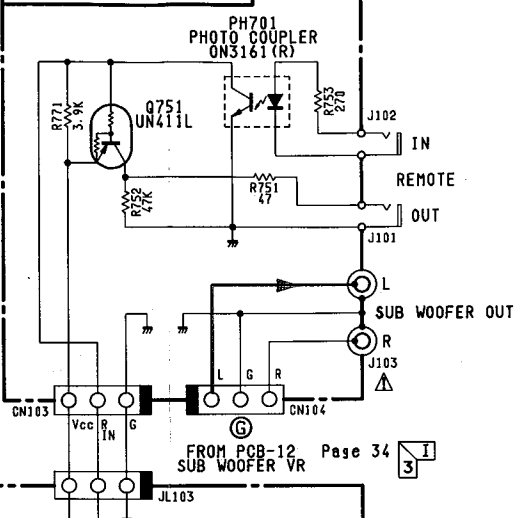
K

L

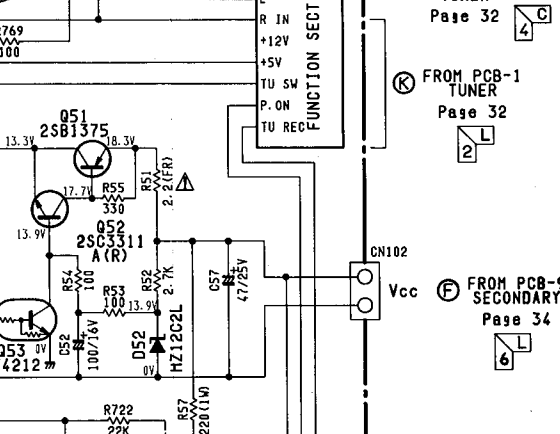
M

N

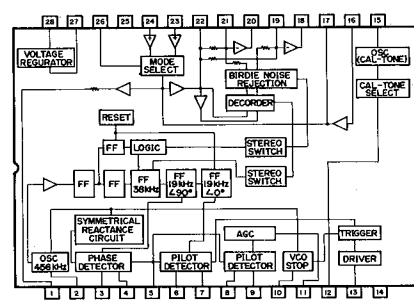
**PCB-5 SUB WOOFER**



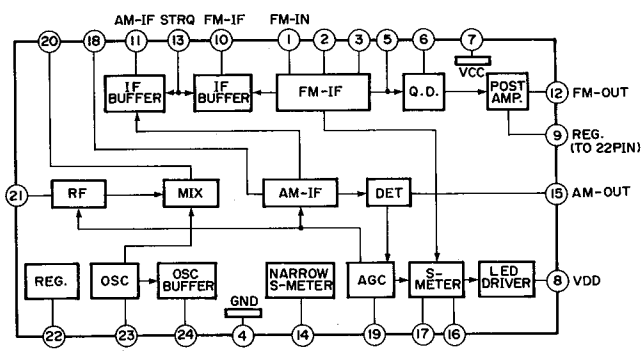
**FUNCTION SECTION**



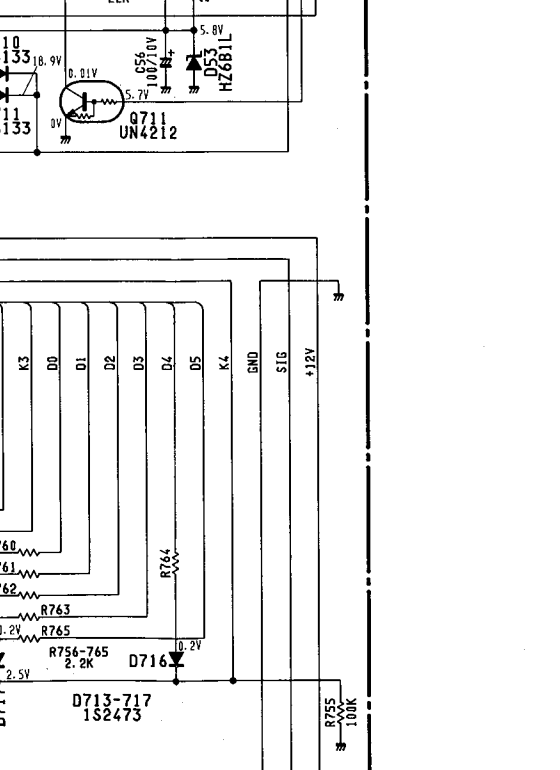
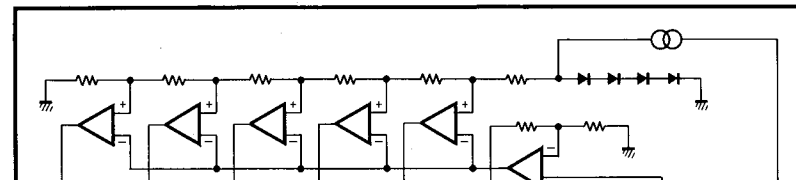
**IC301 : LA3450 MPX**



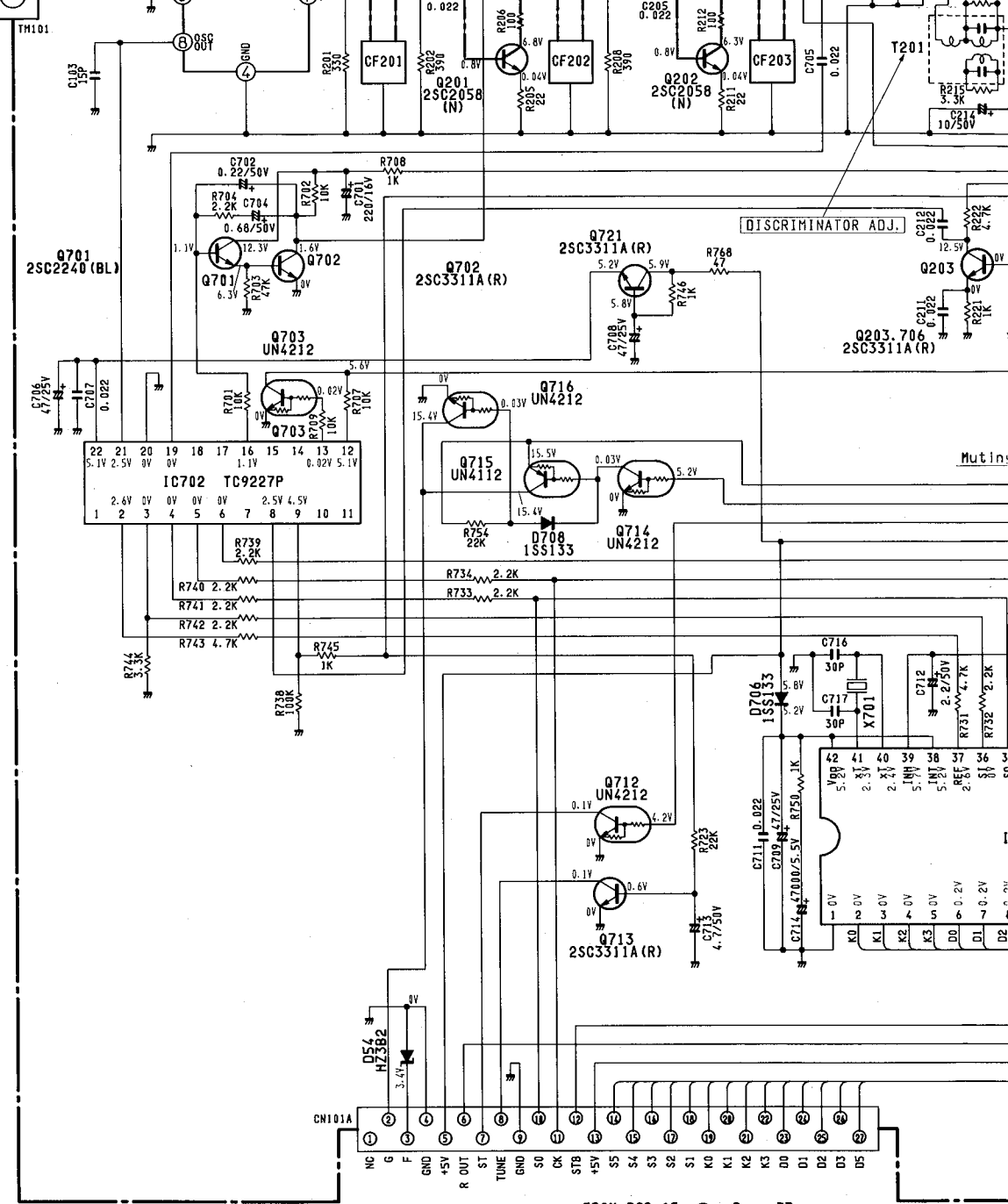
**IC201 : LA1266 AM/FM IF AMP. and FM DET.**



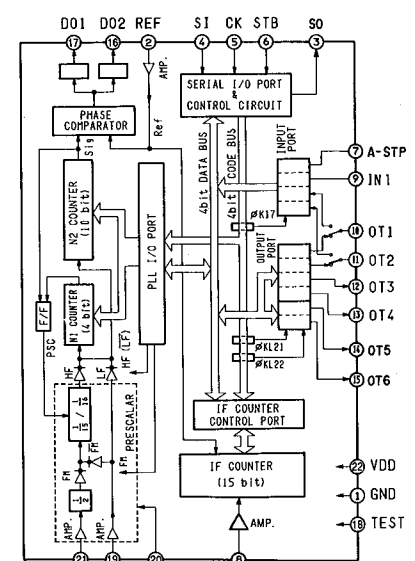
**IC705 : BA6124 SIGNAL METER DRIVE**



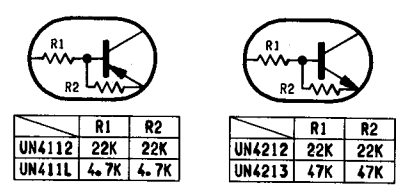
4  
5  
6  
7  
8  
9  
10



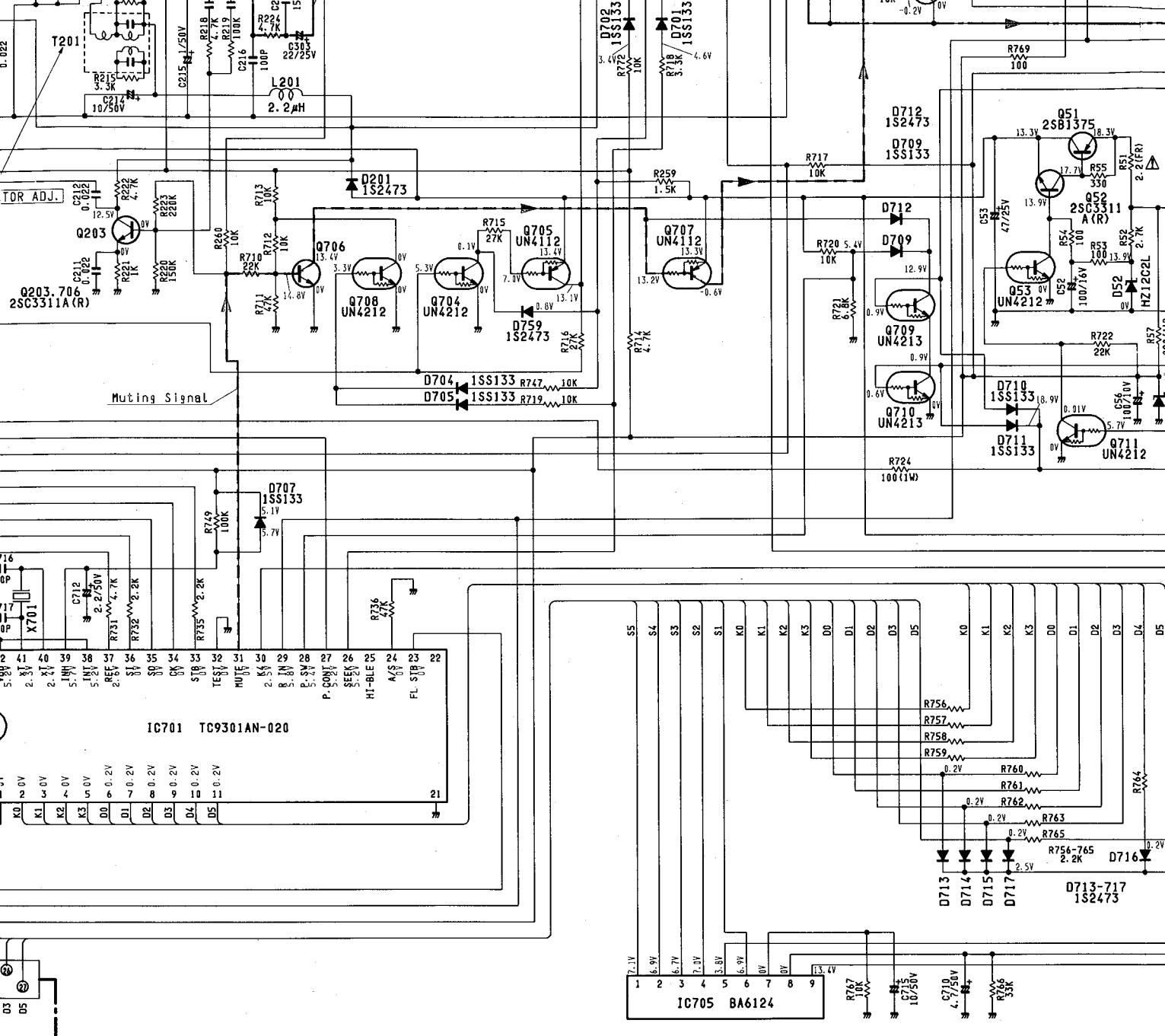
**IC702 : TC9227P  
PLL SYNTHESIZER**



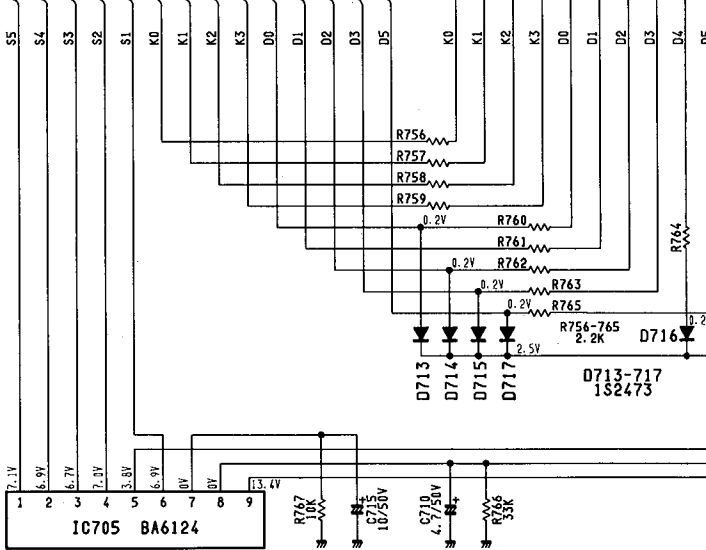
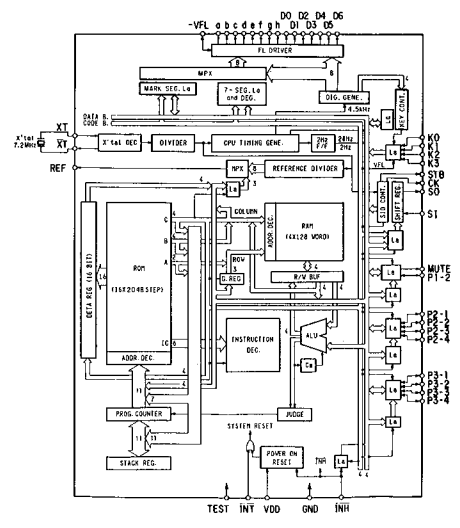
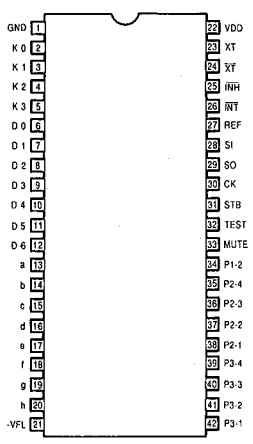
FROM PCB-15 (H) Page 33  
FRONT



GND  
X0  
X1  
K1  
K2  
K3  
D0  
D1  
D2  
D3  
D4  
D5  
D6  
D7  
D8  
D9  
A  
B  
C  
D  
E  
F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
Q  
R  
S  
T  
U  
V  
W  
X  
Y  
Z



IC701 : TC9301AN-020  
TUNER SYSTEM CONTROL



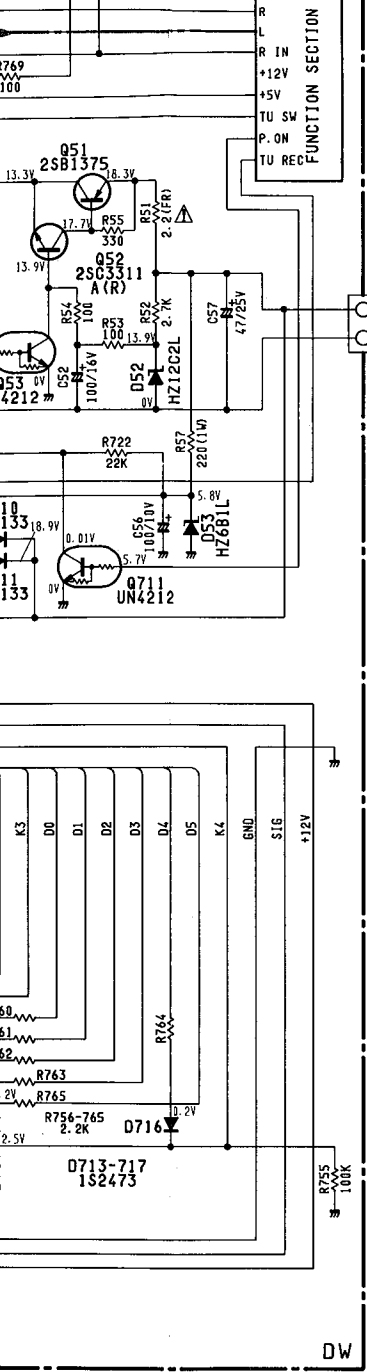
Conditions:

- Set the FM mode by pressing the 'FM' button
- Set the Seek-Stereo switch to off (put out s)
- Set the Function switch to tuner position.

NOTE:

1. ALL RESISTANCES VALUES ARE IN Ω.  
KΩ=1000Ω, MΩ=1000KΩ.
2. ALL CAPACITANCES VALUES ARE IN #F UNLESS OT
3. ...V=DC VOLTAGE AT NO SIGNAL UNLESS OTHERW
4. SAFETY REQUIREMENTS COMPONENTS IN ACCO  
SAFETY REGULATIONS. THESE COMPONENTS MU  
BY ORIGINAL PARTS.



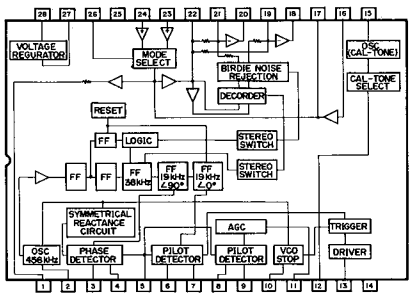


TO PCB-1  
TUNER  
Page 32

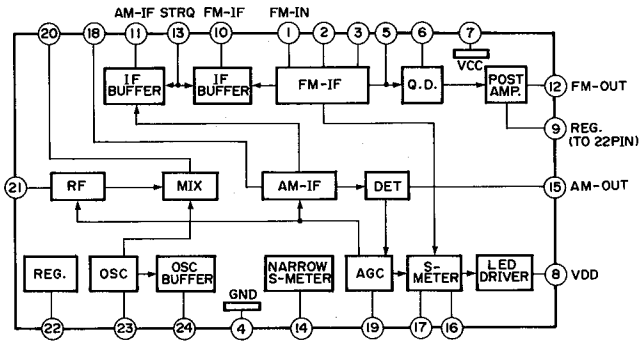
FROM PCB-1  
TUNER  
Page 32

FROM PCB-9  
SECONDARY  
Page 34

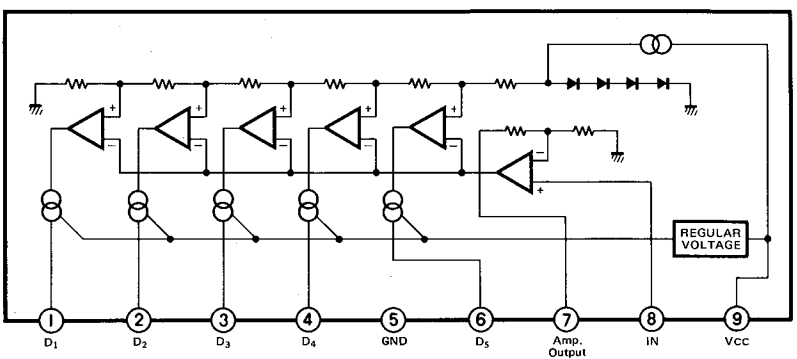
IC301 : LA3450  
MPX



IC201 : LA1266  
AM/FM IF AMP. and FM DET.



IC705 : BA6124  
SIGNAL METER DRIVE



Pressing the 'FM' button.  
Switch to off (put out seek Indicator) position.  
Switch to tuner position.

COMPONENTS ARE IN Ω.  
RESISTORS ARE IN Ω UNLESS OTHERWISE NOTED. P=MHF.  
CAPACITORS ARE IN P.F. UNLESS OTHERWISE NOTED.  
RESISTOR VALUES IN ACCORDANCE WITH PRESENT  
ELECTRICAL SPECIFICATIONS. THESE COMPONENTS MUST ONLY BE REPLACED

**SCHEMATIC DIAGRAM (6)**  
(DISPLAY & KEY CONTROL SECTIONS)

1

2

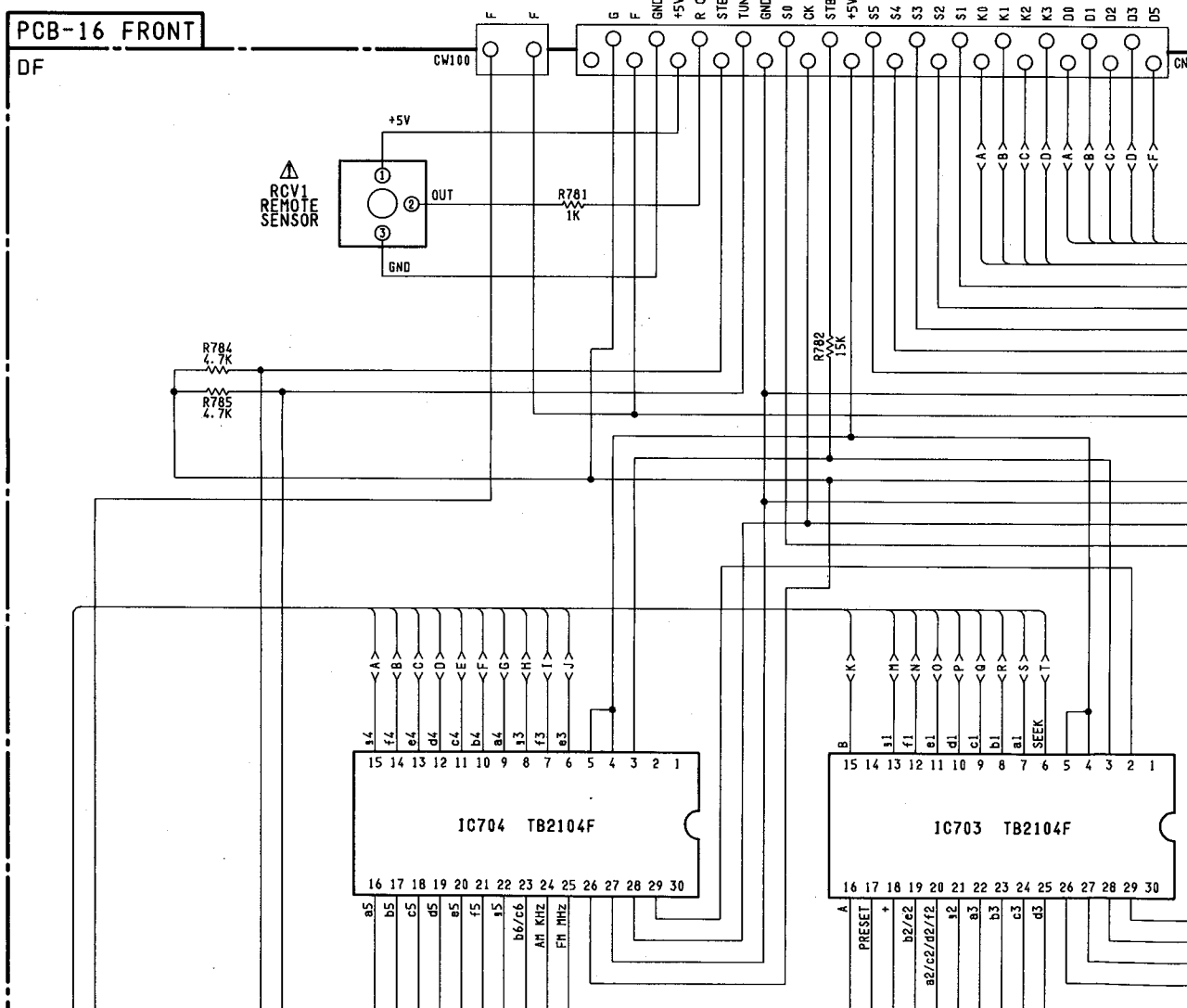
3

4

5

6

7



Page 34



FROM PCB-10  
SECONDARY

Page 31



TO PCB-1  
TUNER

F

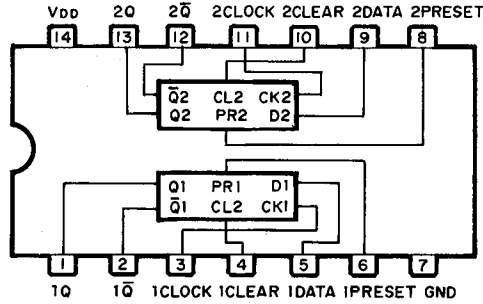
G

H

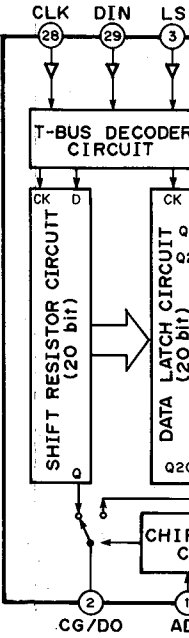
I

J

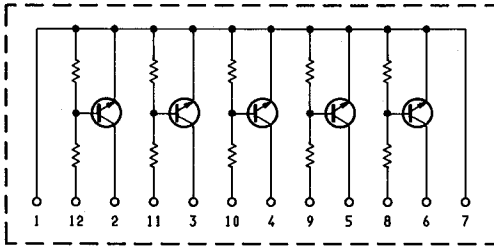
IC811, 812 : TC4013PP  
 MONO/STEREO, LOUDNESS,  
 SUBSONIC and VIDEO switches CONTROL



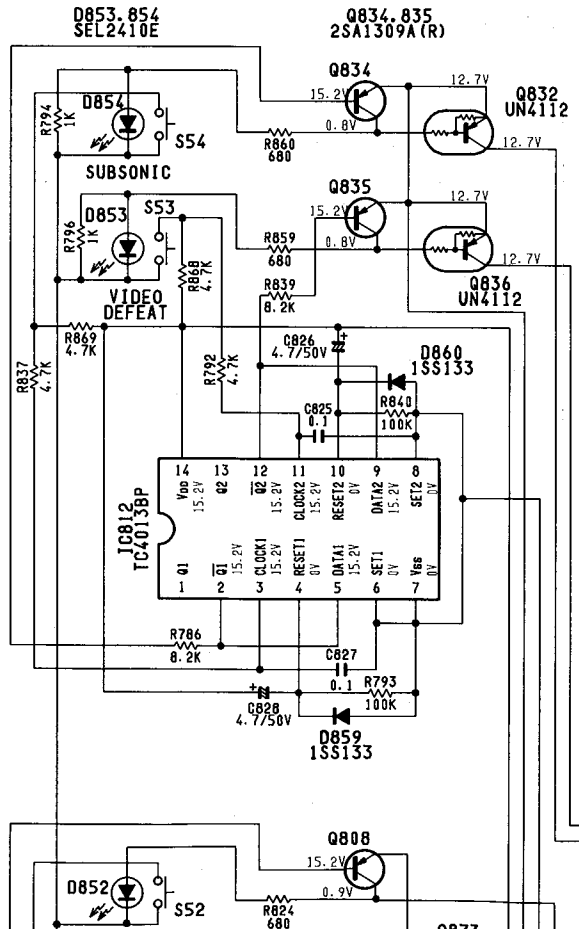
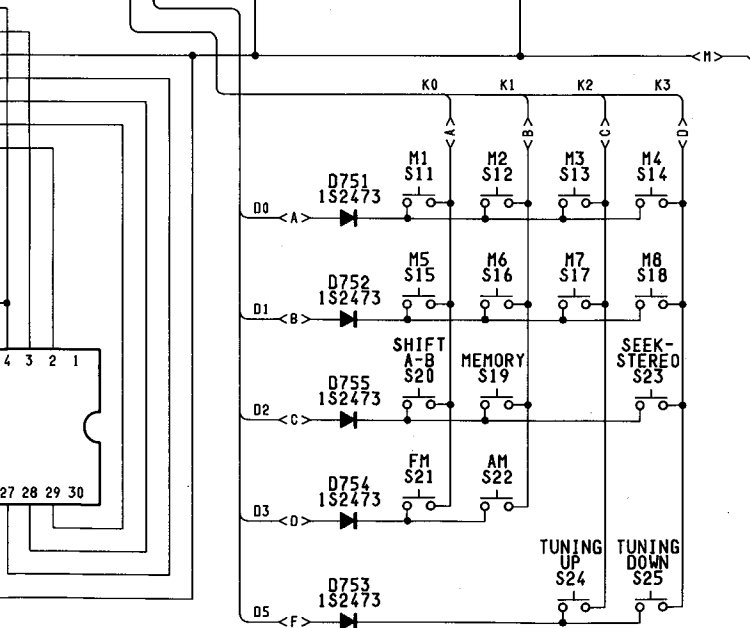
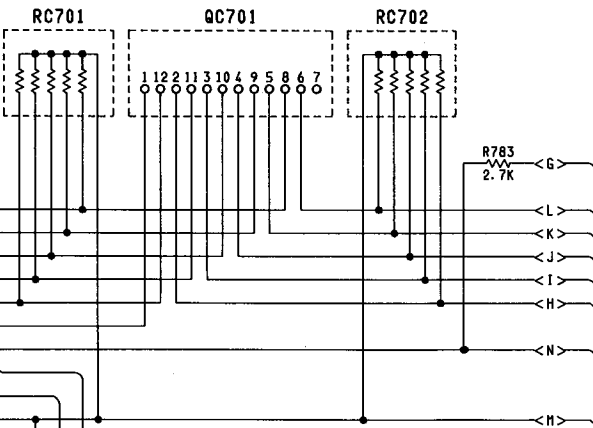
IC 703,  
 FL DRIV



QC701

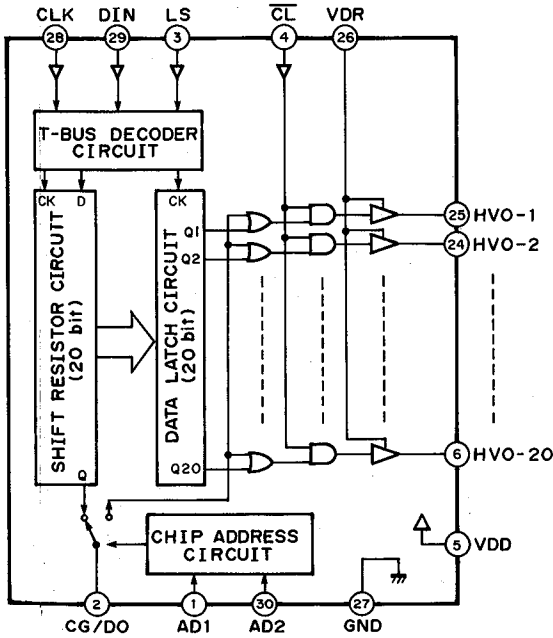


D1 D2 D3 D5  
 CN101B



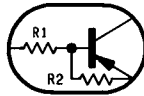
J K L M N

IC 703, 704 : TB2104F  
FL DRIVER



NOTE:

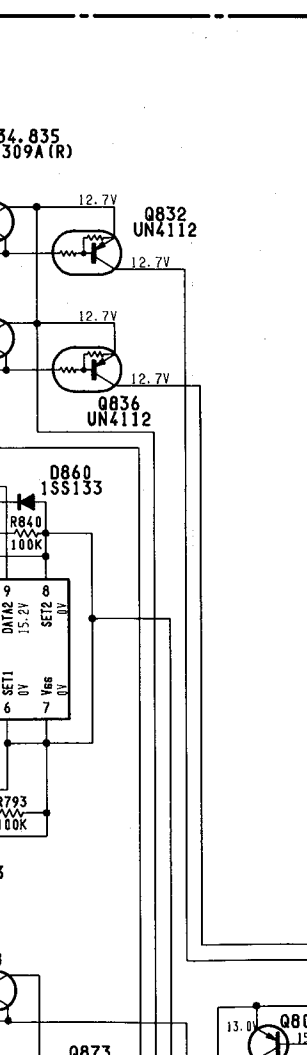
1. ALL RESISTANCES VALUES ARE IN  $\Omega$ .  
K $\Omega$ -1000 $\Omega$ , M $\Omega$ -1000K $\Omega$ .
2. THE WATTAGE OF RESISTORS IS 1/4W UNLESS OTHERWISE NOTED.
3. ALL CAPACITANCES VALUES ARE IN  $\mu$ F UNLESS OTHERWISE NOTED. P= $\mu$ F.
4. ...V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
5.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



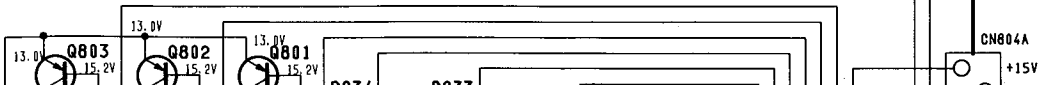
	R1	R2
UN4112	22K	22K

Conditions:

- ⊙ Set the FM mode by pressing the °FM° button.
- ⊙ Set the Seek-Stereo switch to off (put out seek indicator) position.
- ⊙ Set the Rec Out switch to tuner position.
- ⊙ Set the Function switch to tuner position.



FUNCTION







FROM PCB-10  
SECONDARY

TO PCB-1  
TUNER

PCB-16 FRONT

DF

4

5

6

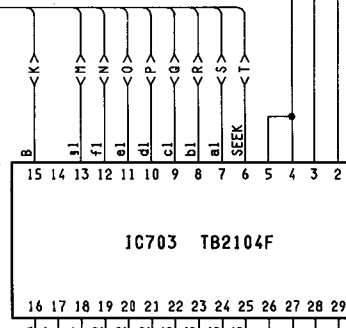
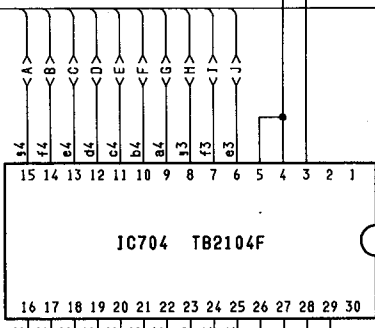
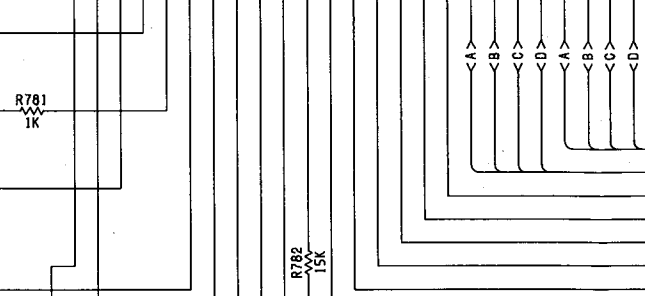
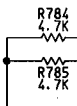
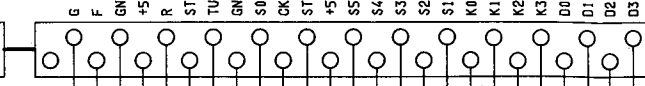
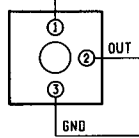
7

8

9

10

RCV1  
REMOTE  
SENSOR



STEREO  
TUNED

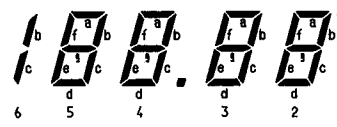
136 133 132 111 110 109 108

107 106 105 104 103 102 101 100 99 98

97 96 95 94 93 92 91 90 89 88

STEREO TUNED SEEK

FM  
AM



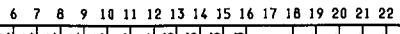
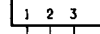
MHZ  
KHZ

PRESET  
AB

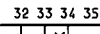


SIGNAL  
S5 S4

F (FILAMENT)

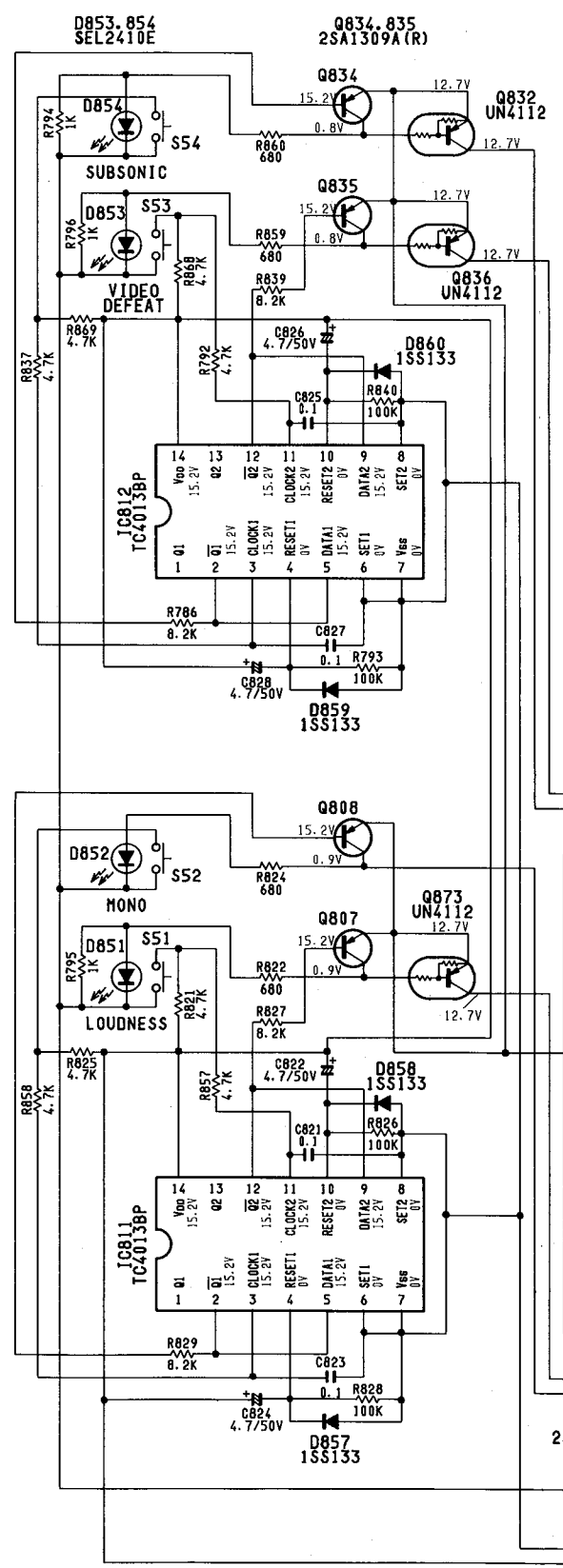
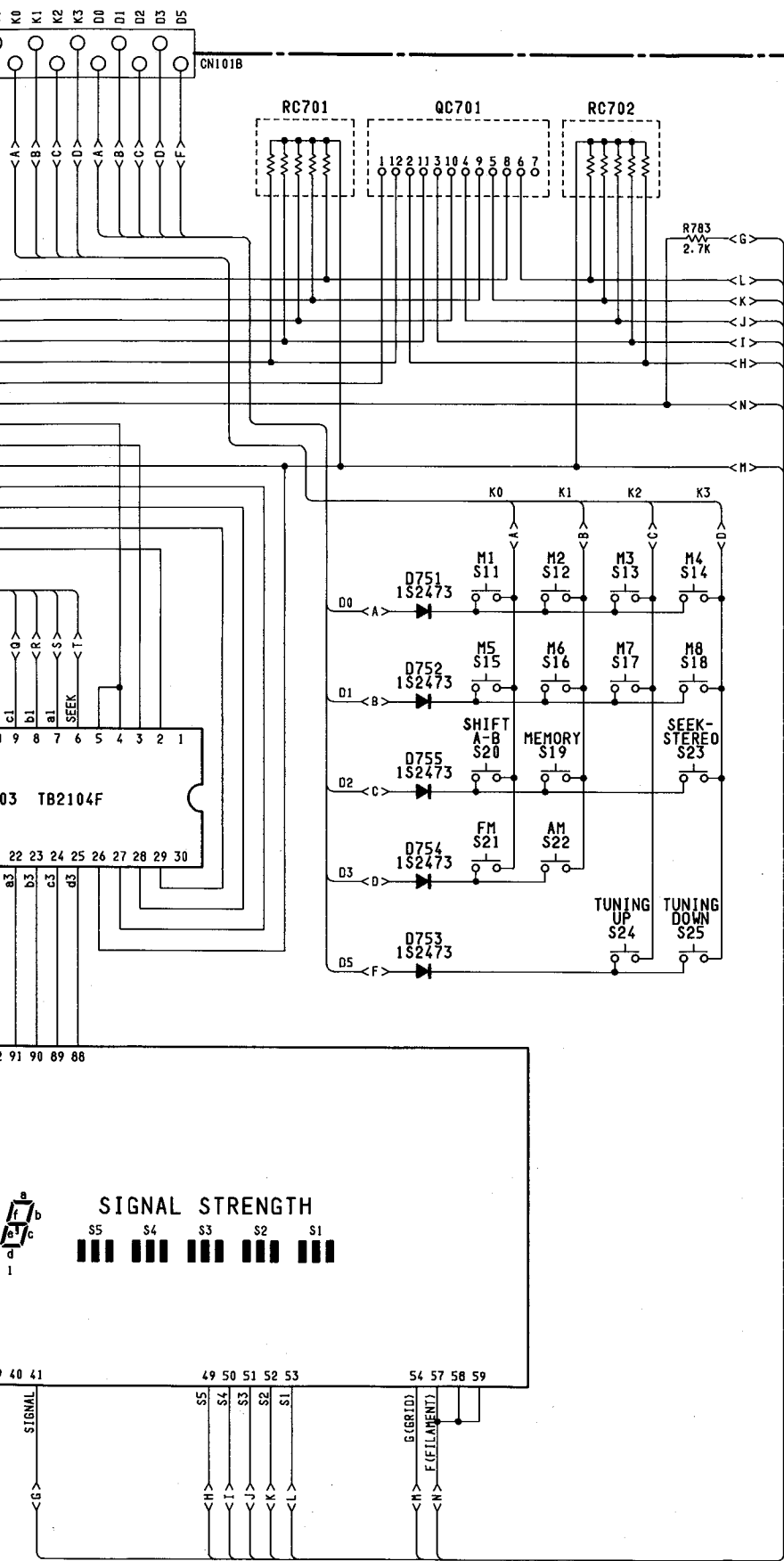
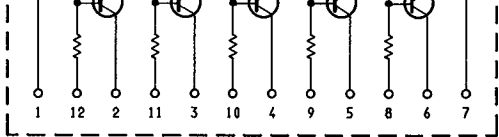


FL701



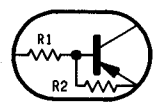
SIGNAL





**NOTE:**

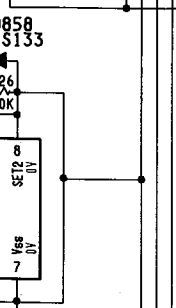
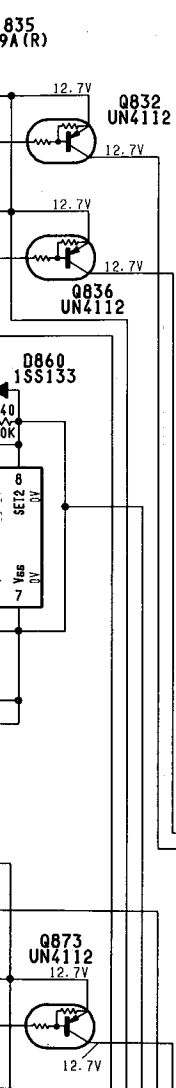
1. ALL RESISTANCES VALUES ARE IN  $\Omega$ .  
K $\Omega$ -1000 $\Omega$ , M $\Omega$ -1000K $\Omega$ .
2. THE WATTAGE OF RESISTORS IS 1/4W UNLESS OTHERWISE NOTED.
3. ALL CAPACITANCES VALUES ARE IN  $\mu$ F UNLESS OTHERWISE NOTED. P= $\mu$ F.
4. ... V:DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
5.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



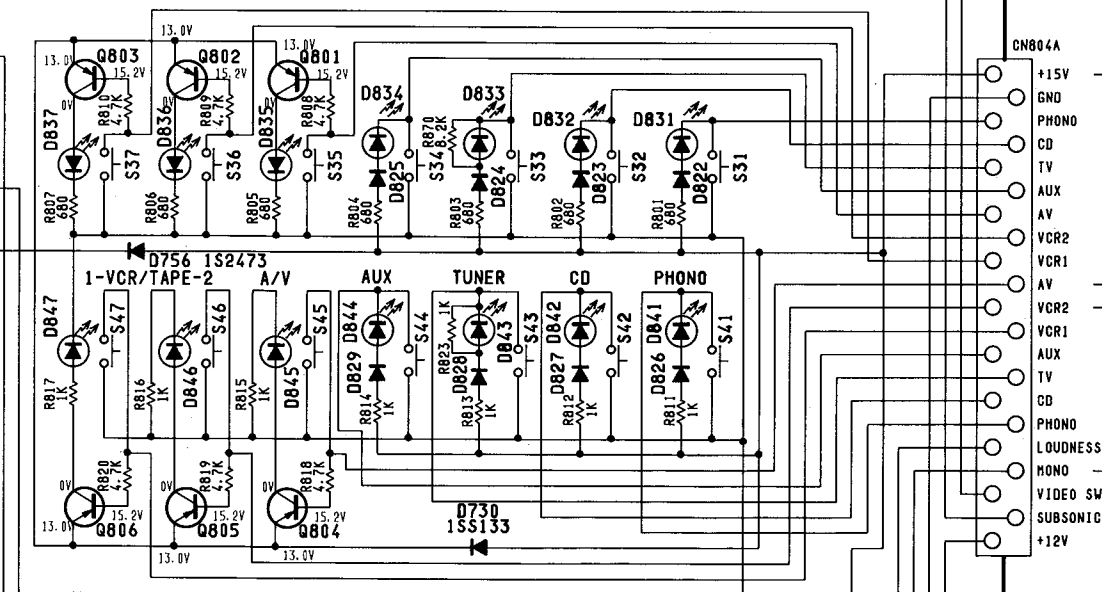
	R1	R2
UN4112	22K	22K

**Conditions:**

- ⊙ Set the FM mode by pressing the "FM" button.
- ⊙ Set the Seek-Stereo switch to off (put out seek indicator) position.
- ⊙ Set the Rec Out switch to tuner position.
- ⊙ Set the Function switch to tuner position.



**FUNCTION**



FROM PCB-1  
TUNER  
Page 32  
REC OUT

Q801-808 2SA1309A (R)    D831-837, 851, 852 SEL2410E    D841-847 SEL2210S    D822-829 1SS133

**REC OUT**

