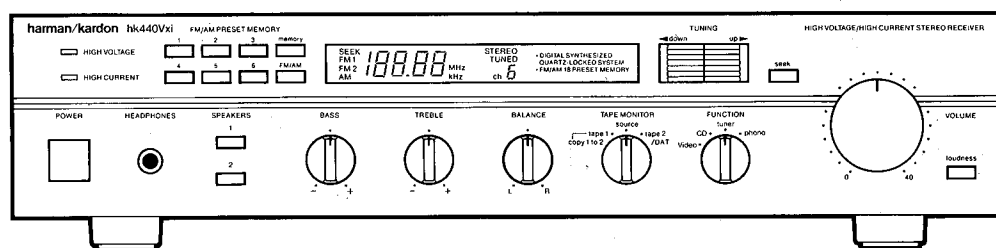


# The Harman Kardon Model hk440 Vxi

Manual 122A

## HIGH VOLTAGE/HIGH CURRENT STEREO RECEIVER

# Technical Manual



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

- UA : North America area model
- GB : General model

hk440 Vxi

**harman/kardon**

240 Crossways Park West, Woodbury, N.Y. 11797  
1112-3152122A6 P-088801 1500 Printed in Japan

## SPECIFICATIONS

|                               | Nominal | Limit     |                                     | Nominal               | Limit  |
|-------------------------------|---------|-----------|-------------------------------------|-----------------------|--------|
| <b>•FM SECTION</b>            |         |           | <b>Channel Separation at 10kHz</b>  |                       |        |
| Tuning Range                  | 87.5    | 108.0 MHz | Video/CD                            | 59dB                  | ≥ 45dB |
| 50dB Quieting Sensitivity     |         |           | Phono                               | 57dB                  | ≥ 45dB |
| Mono                          | 15.7dBf | ≤ 19dBf   | IM Distortion Ratio                 | 0.05%                 | ≤ 0.1% |
| Stereo                        | 38dBf   | ≤ 41dBf   | RMS Output Power                    | 34W                   | ≥ 30W  |
| Usable Sensitivity            | 11.7dBf | ≤ 15dBf   | 8Ω, 1kHz, THD 0.1%                  |                       |        |
| Image Ratio                   | 45dB    | ≥ 40dB    | Damping Factor at 1kHz              | 63                    | ≥ 50   |
| IF Rejection                  | 105dB   | ≥ 75dB    | <b>Tone Control Characteristics</b> |                       |        |
| Spurious Response Rejection   | 96dB    | ≥ 60dB    | Bass at 50Hz                        |                       |        |
| Capture Ratio                 | 1.5dB   | ≤ 2dB     | Boost                               | 10dB                  | ± 2dB  |
| Alternate Channel Selectivity | 75dB    | ≥ 60dB    | Cut                                 | - 10dB                | ± 2dB  |
| AM Rejection                  | 60dB    | ≥ 45dB    | Treble at 10kHz                     |                       |        |
| Signal to Noise Ratio         |         |           | Boost                               | 10dB                  | ± 2dB  |
| Mono                          | 78dB    | ≥ 73dB    | Cut                                 | - 10dB                | ± 2dB  |
| Stereo                        | 72dB    | ≥ 67dB    | <b>Loudness Control</b>             |                       |        |
| Total Harmonic Distortion     |         |           | at 10kHz                            | 3dB                   | ± 1dB  |
| Mono                          | 0.09%   | ≤ 0.3%    | at 50Hz                             | 10dB                  | ± 2dB  |
| Stereo                        | 0.07%   | ≤ 0.4%    | <b>DC Output Voltage</b>            |                       |        |
| Stereo Separation at 1kHz     | 55dB    | ≥ 45dB    | L channel                           | 0mV                   | ± 60mV |
| <b>•AM SECTION</b>            |         |           | R channel                           | 0mV                   | ± 60mV |
| Tuning Range                  | 520     | 1,710kHz  | <b>RIAA Equalization at</b>         |                       |        |
| Usable Sensitivity            |         |           | Tape Out                            |                       |        |
| External Antenna              | 20μV    | ≤ 40μV    | (20Hz/20kHz)                        | ± 1dB                 |        |
| Loop Antenna                  | 400μV/m |           | <b>•DIMENSIONS</b>                  |                       |        |
| Selectivity                   | 26dB    | ≥ 20dB    | (W × H × D)                         | 17-3/8" × 4 × 14-1/2" |        |
| Signal to Noise Ratio         | 52dB    | ≥ 47dB    |                                     | (443 × 103 × 368 mm)  |        |
| Image Rejection               | 40dB    | ≥ 30dB    | <b>•WEIGHT</b>                      |                       |        |
| IF Rejection                  | 66dB    | ≥ 50dB    |                                     | 13.9 lbs. (6.3 kg)    |        |
| <b>•AUDIO SECTION</b>         |         |           | <b>•POWER SUPPLY</b>                |                       |        |
| Usable Sensitivity            |         |           | North America area model            | AC 120V, 60Hz         |        |
| Video/CD                      | 135mV   | ± 25mV    | General model                       | AC 220/240V, 50/60Hz  |        |
| Phono                         | 2.2mV   | ± 0.2mV   | <b>•POWER CONSUMPTION</b>           |                       |        |
| Signal to Noise Ratio         |         |           | North America area model            | 180W                  |        |
| Video/CD                      | 83dB    | ≥ 77dB    | General model                       | 140W                  |        |
| Phono                         | 81dB    | ≥ 73dB    |                                     |                       |        |

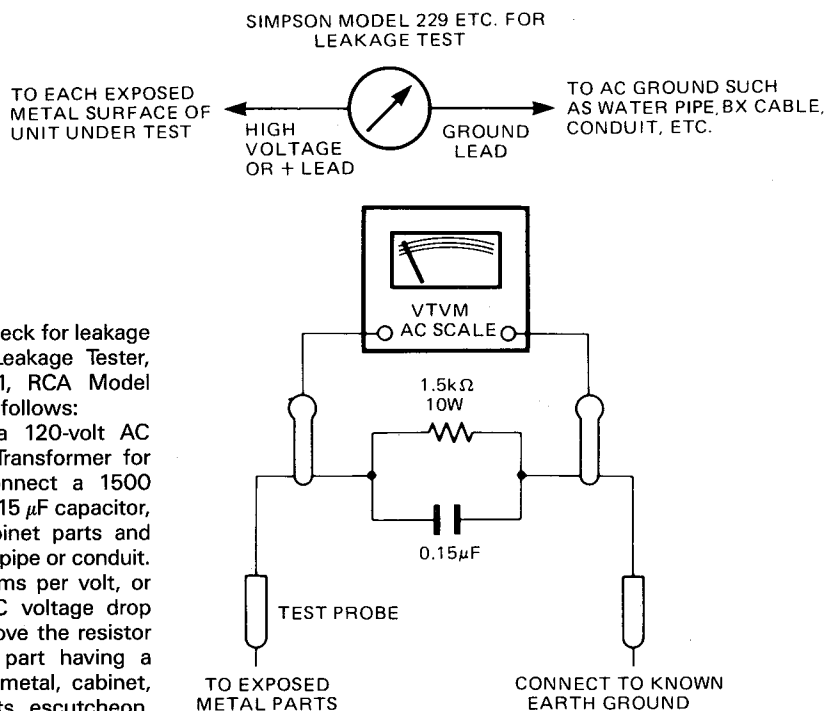
These specifications are service target specs.

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.



## DISASSEMBLY PROCEDURES (REFER TO PAGES 7 THROUGH 10 AND 18)

### ① CABINET TOP REMOVAL

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

### ② FRONT PANEL ASS'Y REMOVAL

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

### ③ TUNER P. C. BOARD (PCB-13) REMOVAL

1. Remove the Front Panel Ass'y (AA), referring to the previous step ②.
2. Open the lid of connector (CN1) on the Power Switch P. C. Board (PCB-17) and then disconnect the lead wire (JL4).
3. Open the lid of connector (CN2) on the Tuner P. C. Board (PCB-13) and then disconnect the lead wire (JL14).
4. Remove 4 screws (C) and then remove the Tuner P. C. Board (PCB-13) with Lamp P. C. Board (PCB-18).  
If necessary, unsolder the lead wires.

### ④ POWER AMP. P. C. BOARD (PCB-1) REMOVAL

1. Remove the Tuner P. C. Board (PCB-13), referring to the previous step ③.
2. Pull out the Power Push Button (146).
3. Remove 6 screws (D) and then remove the Front Chassis (161) with the Tone Control, Loudness Switch, Volume, Headphone Jack, Indicators, Speaker Switch, Function and Tape Mon. Switch, Preset Memory Switches and Tuning Switch P. C. Boards (PCB-2, PCB-4, PCB-5, PCB-6, PCB-7, PCB-9, PCB-12, PCB-14 and PCB-15).
4. Remove 6 screws (E) and then remove the Power Amp. P. C. Board (PCB-1) with Heat Sink (170) and Brackets (163, 164 and 165).  
If necessary, unsolder the lead wires.  
Removal of P. C. Boards attached to the Front Chassis (161)
5. Straighten the catches fixing the Preset Memory Switches P. C. Board (PCB-14) and then remove it.
6. Straighten the catches fixing the Tuning Switch P. C. Board (PCB-15) and then remove it.

7. Straighten the catches fixing the Indicators P. C. Board (PCB-7) and then remove it.
8. Remove the metal fixture (F) fixing the Headphone Jack P. C. Board (PCB-6) and then remove it.
9. Pull out the Speakers Push Buttons (151).
10. Remove 2 screws (G) and then remove the Speaker Switch P. C. Board (PCB-9).
11. Pull out the Knob (153).
12. Remove a hexagon-nut (H) and then remove the Volume P. C. Board (PCB-5).
13. Pull out the Loudness Push Button (151).
14. Remove 2 screws (I) and then remove the Loudness Switch P. C. Board (PCB-4).
15. Pull out the Function and Tape Mon. Switch Knobs (155).
16. Remove 2 hexagon-nuts (J) and then remove the Function and Tape Mon. Switch P. C. Board (PCB-12).
17. Pull out the Bass, Treble and Balance Knobs (155).
18. Remove 2 hexagon-nuts (K) and then remove the Tone Control P. C. Board (PCB-2).

### ⑤ PIN JACK P. C. BOARD (PCB-11) REMOVAL

1. Remove the Power Amp. P. C. Board (PCB-1), referring to the previous step ④.
2. Remove 4 screws (L) and then remove the Pin Jack P. C. Board (PCB-11).  
If necessary, unsolder the lead wires.

### ⑥ SPEAKER TERMINAL P. C. BOARD (PCB-10) REMOVAL

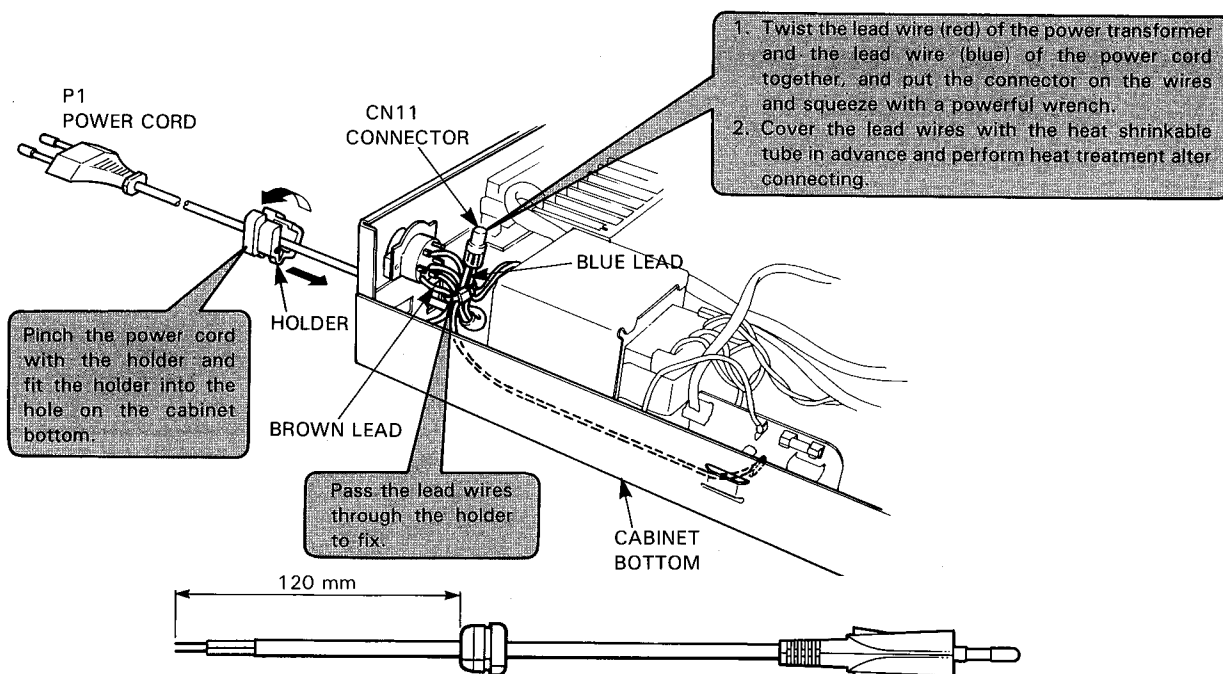
1. Remove the Cabinet Top (131), referring to the previous step ①.
2. Remove 2 screws (M) and then remove the Speaker Terminal P. C. Board (PCB-10).  
If necessary, unsolder the lead wires.

### ⑦ ANTENNA TERMINAL P. C. BOARD (PCB-16) REMOVAL

1. Remove the Cabinet Top (131), referring to the previous step ①.
2. Remove 2 screws (N) and then remove the Antenna Terminal P. C. Board (PCB-16).  
If necessary, unsolder the lead wires.

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

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



## CIRCUIT DESCRIPTION

### ■ FM TUNER SECTION

The FM signal which has entered through the antenna is high-frequency amplified in the front end 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 1 pin 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 12 pin and then input to 2 pin 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 4 pin for the left channel and from 7 pin 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 T251 and TC251 to IC201. In IC201 it undergoes high-frequency amplification, intermediate-frequency amplification local oscillation, intermediate-frequency amplification and detection, and then output from 15 pin. This signal is turned ON and OFF at Q703 and Q704 according to the signal from the input selector and fed to 2 pin of IC301.

### ■ MUTING CIRCUIT

If FM is received out of tuning or in a very weak field intensity, 41 pin of IC701 becomes high level. This is fed to the base of Q705, whose collector then becomes low level and the collector of Q709 high level. As a result, Q301 (L ch) and Q302 (R ch) are conducted to mute the output.

### ■ 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 Q431, Q433 (L ch), Q432, Q434 (R ch), it is detected at Q3 (L ch) and Q4 (R ch) and the protective circuit consisting of Q1, Q2, Q5, Q6 and Q7 draws in the base of Q413 (L ch) and Q414 (R ch), and thus the input signal is cut to protect the circuit.

### ■ SYNTHESIZER SECTION

#### ● FM

The local oscillation output at the front end is fed to 47 pin of IC701 and after being frequency divided into 30 or 32, the standard frequency is oscillated by the crystal oscillator, compared with the divided local oscillation output signal and output to 45 pin. This voltage is level converted at Q707 and Q708, and fed to the varicap diode at the front end.

#### ● AM

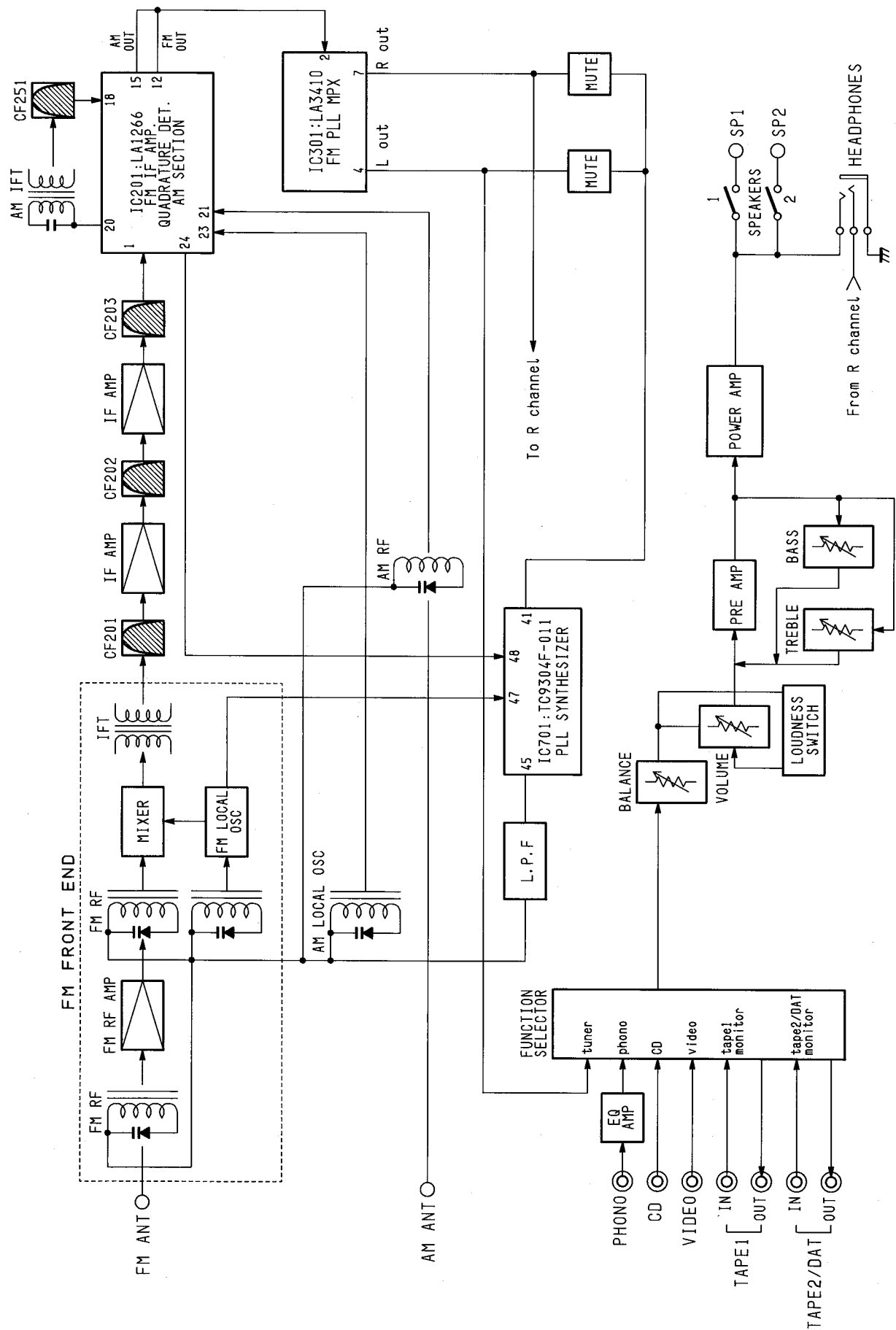
The local oscillation output is fed from 24 pin of IC201 to 48 pin of IC701. In IC701, the standard frequency is oscillated by the crystal oscillator, compared with the local oscillation output and output to 45 pin.

### ■ INDICATOR SECTION

#### ● Frequency display

The serial data sent out of 1 to 22 and 56 to 60 pins of IC702, where the data is decoded to provide a signal which turns ON the indicator.

## BLOCK DIAGRAM



## ALIGNMENT PROCEDURES (REFER TO PAGES 14, 16, 25 AND 26)

- 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 | Connection Equipments                          | Adjustment   | For            |
|------|------------------------------------------------|--------------|----------------|
| 1    | Connect the Digital Volt Meter to TP1 and TP2. | VR401 (L ch) | 40mV $\pm$ 2mV |
| 2    | Connect the Digital Volt Meter to TP3 and TP4. | VR402 (R ch) | 40mV $\pm$ 2mV |

### ■ AM ADJUSTMENT

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

| Step | Alignment | Connection Equipments                                                                                                                                                                                                                                                                             | 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.</li><li>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         | T252       | Maximum output level and symmetrical curve on scope. |
| 2    | Tracking  |                                                                                                                                                                                                                                                                                                   | 1400kHz                                       | 1400kHz         | TC251      | Maximum output.                                      |
| 3    |           |                                                                                                                                                                                                                                                                                                   | 600kHz                                        | 600kHz          | T251       | Maximum output.                                      |
| 4    |           |                                                                                                                                                                                                                                                                                                   | Repeat steps 2 and 3 for optimum sensitivity. |                 |            |                                                      |

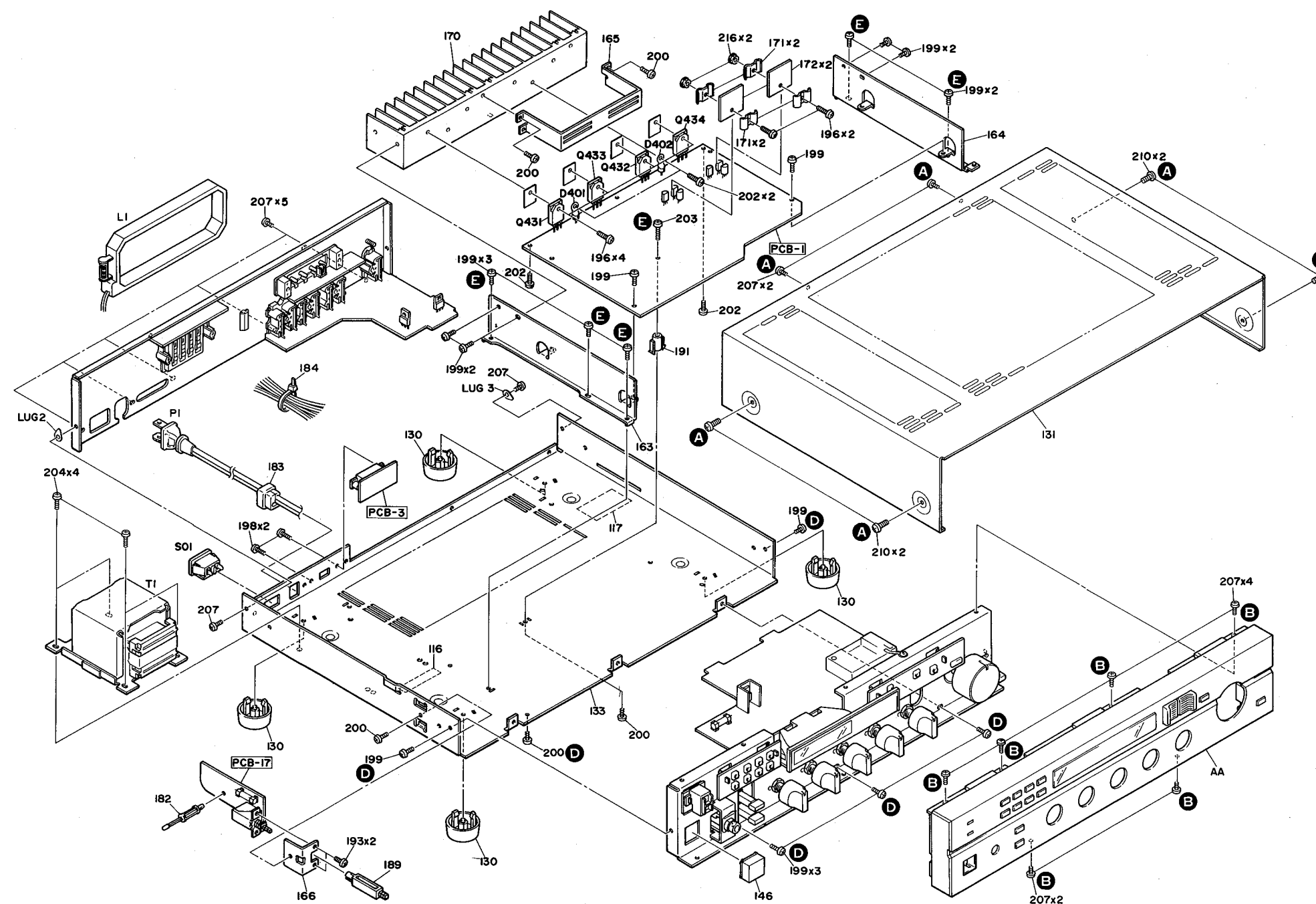
### ■ FM ADJUSTMENT

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

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

| Step | Alignment     | Connection Equipments                                                                                                                                                                                                                                                                                                                    | Measurement Frequency                         | Station Display | Adjustment | For                                                                                                                      |
|------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-----------------|------------|--------------------------------------------------------------------------------------------------------------------------|
| 1    | 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> <li>• Set the Seek switch to on (seek indicator lights) position.</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>• Connect the Stereo Modulator to FM Signal Generator. Connect the FM Signal Generator to FM 300Ω BAL Antenna terminal through the 300Ω balanced dummy. (65 dBf input)</li> <li>• Connect the VTVM and Oscilloscope to the TAPE 1 OUT jacks.</li> </ul>                                           | 97.9MHz                                       | 97.9MHz         | VR251      | Adjust VR251 so that the waveform is disappear at 30 dBf input.                                                          |
| 5    | Separation    |                                                                                                                                                                                                                                                                                                                                          | 97.9MHz                                       | 97.9MHz         | VR301      | Adjust so that the left channel output becomes minimum when only the right channel of the Stereo Modulator is ulated.    |
|      |               |                                                                                                                                                                                                                                                                                                                                          |                                               |                 | VR301      | Adjust so that the right channel output becomes minimum when only the left channel of the Stereo Modulator is modulated. |

# GENERAL UNIT EXPLODED VIEW



## PARTS LIST

| Ref. No. | Part No.      | Description                  |
|----------|---------------|------------------------------|
| AA       | A443-HK440A   | FRONT PANEL ASS'Y            |
| 116      | 1756-05910    | LABEL <b>UA</b>              |
| 117      | 1756-CSA      | LABEL, CSA <b>UA</b>         |
| 130      | 1319-0139     | LEG                          |
| 131      | 1414-11501    | CABINET                      |
| 133      | 1424-24001    | CABINET BOTTOM               |
| 146      | 1660-00403    | PUSH BUTTON, POWER           |
| 163      | 2219-8194     | METAL FITTG, L               |
| 164      | 2219-8195     | METAL FITTG, R               |
| 165      | 2219-8214     | METAL FITTG, TUNER PCB       |
| 166      | 2219-8197     | METAL FITTG, POWER SW        |
| 170      | 2222-7235     | HEAT SINK, MAIN              |
| 171      | 2222-7106     | HEAT SINK, DRIVER            |
| 172      | 2222-7231     | HEAT SINK, DRIVER            |
| 182      | 2240-7236     | HOLDER, POWER SW PCB         |
| 183      | 2240-364      | HOLDER, POWER CORD           |
| 184      | 2240-7120     | HOLDER                       |
| 189      | 2672-7018     | LEVER, POWER SW              |
| 191      | 2360-7015     | SPECIAL BOSS, POWER AMP PCB  |
| 193      | 2327-R0130062 | SCREW                        |
| 196      | 2557-301029   | SCREW                        |
| 198      | 2347-R0126104 | SCREW                        |
| 199      | 2347-R0130062 | SCREW                        |
| 200      | 2347-R0130062 | SCREW                        |
| 202      | 2347-R0130062 | SCREW                        |
| 203      | 2347-R0130102 | SCREW                        |
| 204      | 2592-400826   | SCREW                        |
| 207      | 2347-R0130064 | SCREW                        |
| 210      | 2347-R0140064 | SCREW                        |
| 216      | 2440-7016     | SPECIAL NUT                  |
| ΔPI      | 4161-71151    | POWER CORD <b>UA</b>         |
| ΔPI      | 4161-7256     | POWER CORD <b>GB</b>         |
| ΔPI      | 4161-04100    | POWER CORD (Australia model) |
| ΔSO1     | 4474-164      | SOCKET <b>UA</b>             |
| ΔTI      | 5584-51402    | XFORMER, POWER <b>UA</b>     |
| ΔTI      | 5584-S1403    | XFORMER, POWER <b>GB</b>     |
| LUG2     | 4211-4        | LUG <b>UA</b>                |
| LUG3     | 4211-4        | LUG                          |
| Q431     | 5613-3181(O)  | XISTOR, NPN R                |
| Q432     | 5613-3181(O)  | XISTOR, NPN R                |
| Q433     | 5611-1264(O)  | XISTOR, PNP R                |
| Q434     | 5611-1264(O)  | XISTOR, PNP R                |
| D401     | 5641-MV12YM   | VARISTOR                     |
| D402     | 5641-MV12YM   | VARISTOR                     |
| LI       | 5911-235      | AM LOOP ANTENNA              |

# GENERAL UNIT EXPLODED VIEW

1

2

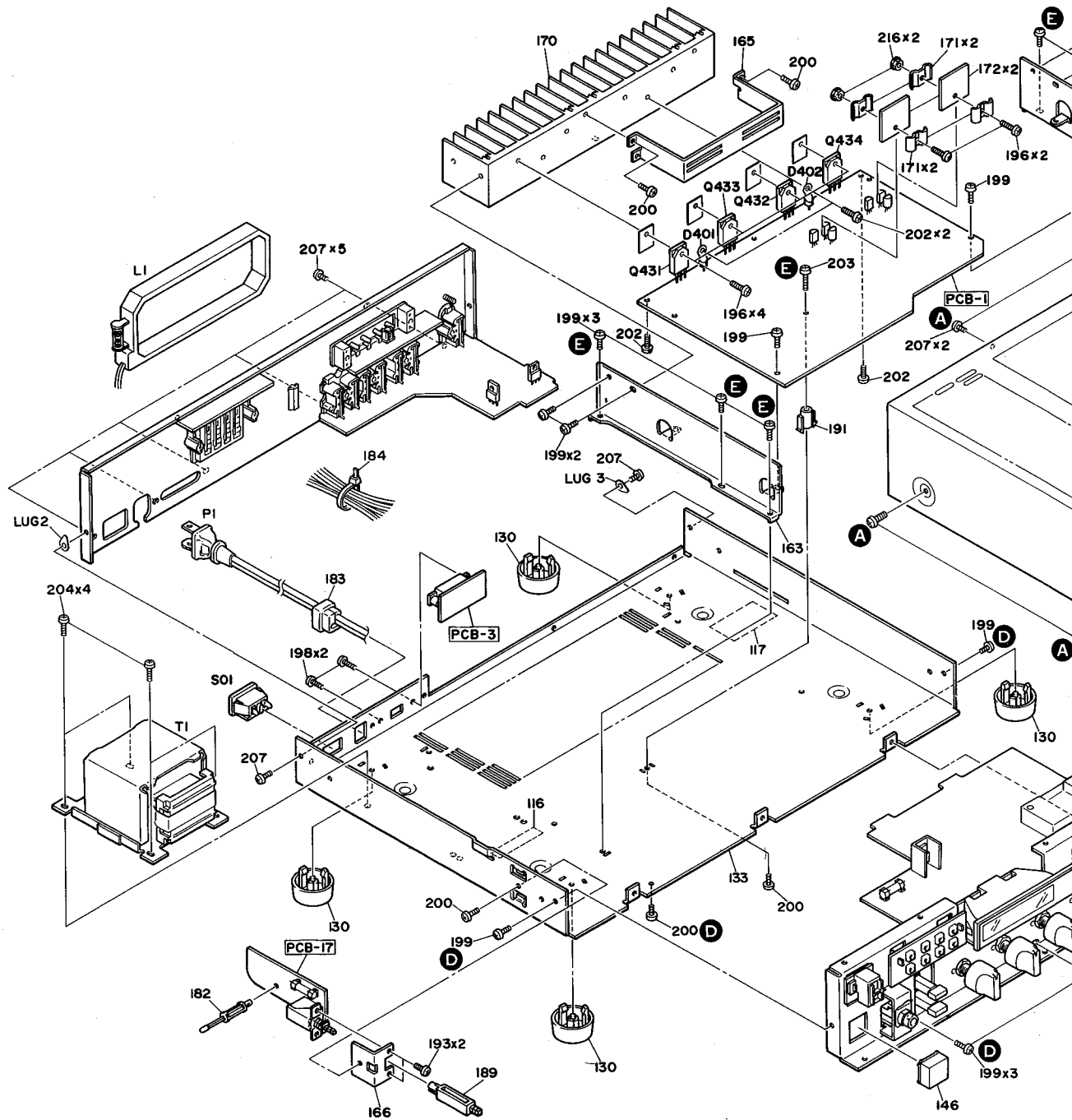
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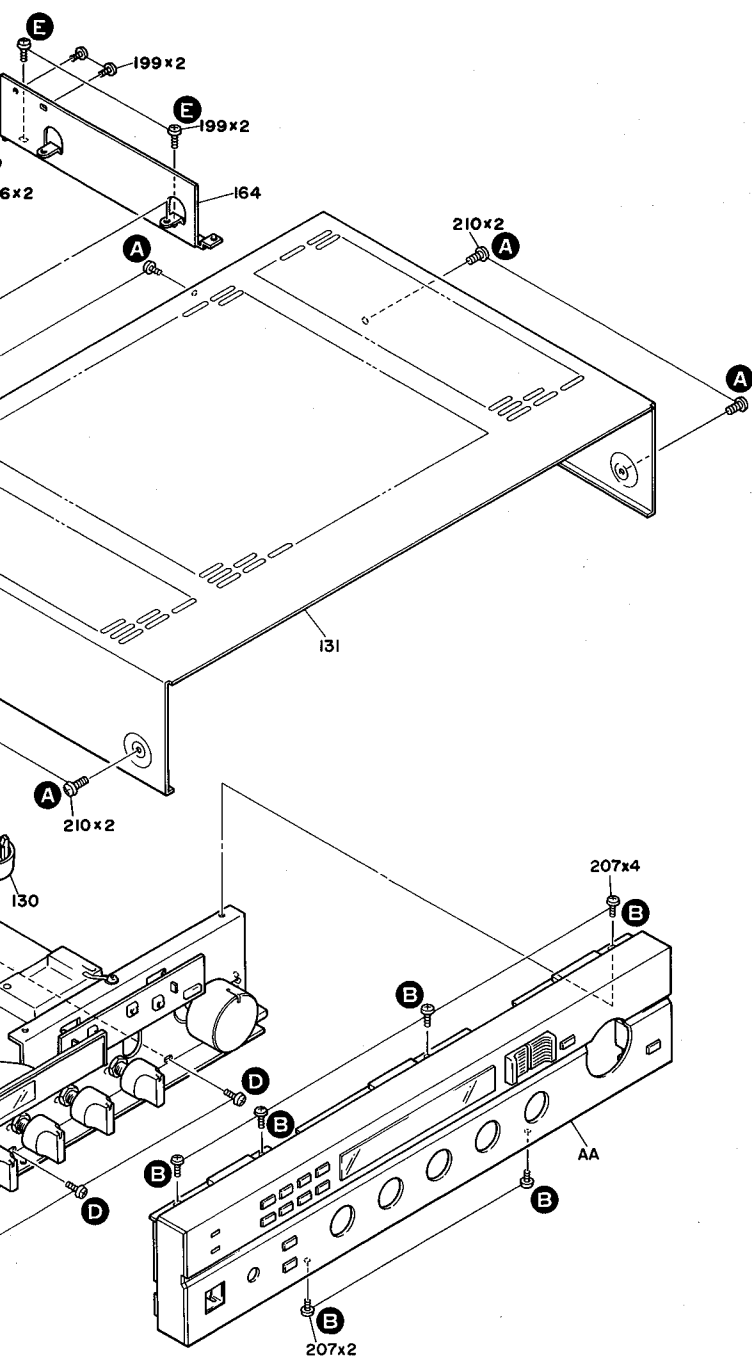
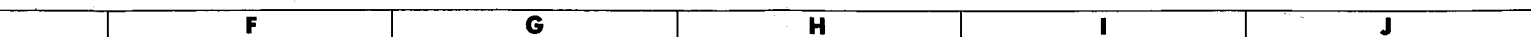
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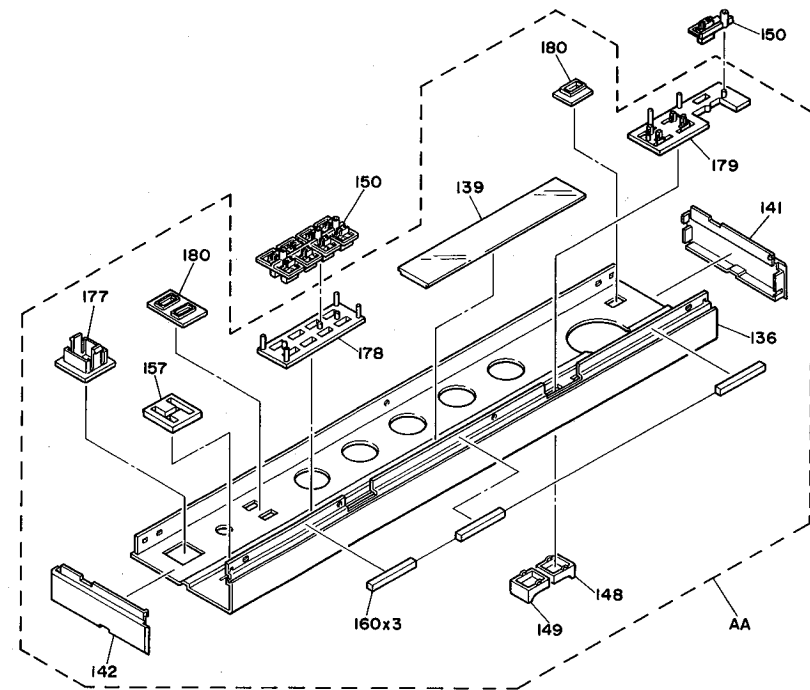


## PARTS LIST

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|----------|---------------|------------------------------|
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| 116      | 1756-05910    | LABEL <b>UA</b>              |
| 117      | 1756-CSA      | LABEL, CSA <b>UA</b>         |
| 130      | 1319-0139     | LEG                          |
| 131      | 1414-11501    | CABINET                      |
| 133      | 1424-24001    | CABINET BOTTOM               |
| 146      | 1660-00403    | PUSH BUTTON, POWER           |
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| 165      | 2219-8214     | METAL FITTG, TUNER PCB       |
| 166      | 2219-8197     | METAL FITTG, POWER SW        |
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| 171      | 2222-7106     | HEAT SINK, DRIVER            |
| 172      | 2222-7231     | HEAT SINK, DRIVER            |
| 182      | 2240-7236     | HOLDER, POWER SW PCB         |
| 183      | 2240-364      | HOLDER, POWER CORD           |
| 184      | 2240-7120     | HOLDER                       |
| 189      | 2672-7018     | LEVER, POWER SW              |
| 191      | 2360-7015     | SPECIAL BOSS, POWER AMP PCB  |
| 193      | 2327-R0130062 | SCREW                        |
| 196      | 2557-301029   | SCREW                        |
| 198      | 2347-R0126104 | SCREW                        |
| 199      | 2347-R0130062 | SCREW                        |
| 200      | 2347-R0130062 | SCREW                        |
| 202      | 2347-R0130062 | SCREW                        |
| 203      | 2347-R0130102 | SCREW                        |
| 204      | 2592-400826   | SCREW                        |
| 207      | 2347-R0130064 | SCREW                        |
| 210      | 2347-R0140064 | SCREW                        |
| 216      | 2440-7016     | SPECIAL NUT                  |
| ΔPI      | 4161-71151    | POWER CORD <b>UA</b>         |
| ΔPI      | 4161-7256     | POWER CORD <b>GB</b>         |
| ΔPI      | 4161-04100    | POWER CORD (Australia model) |
| ΔSO1     | 4474-164      | SOCKET <b>UA</b>             |
| ΔTI      | 5584-51402    | XFORMER, POWER <b>UA</b>     |
| ΔTI      | 5584-S1403    | XFORMER, POWER <b>GB</b>     |
| LUG2     | 4211-4        | LUG <b>UA</b>                |
| LUG3     | 4211-4        | LUG                          |
| Q431     | 5613-3181(O)  | XISTOR, NPN R                |
| Q432     | 5613-3181(O)  | XISTOR, NPN R                |
| Q433     | 5611-1264(O)  | XISTOR, PNP R                |
| Q434     | 5611-1264(O)  | XISTOR, PNP R                |
| D401     | 5641-MV12YM   | VARISTOR                     |
| D402     | 5641-MV12YM   | VARISTOR                     |
| LI       | 5911-235      | AM LOOP ANTENNA              |

## GENERAL UNIT

EXPLODED VIEW (FRONT PANEL ASS'Y)

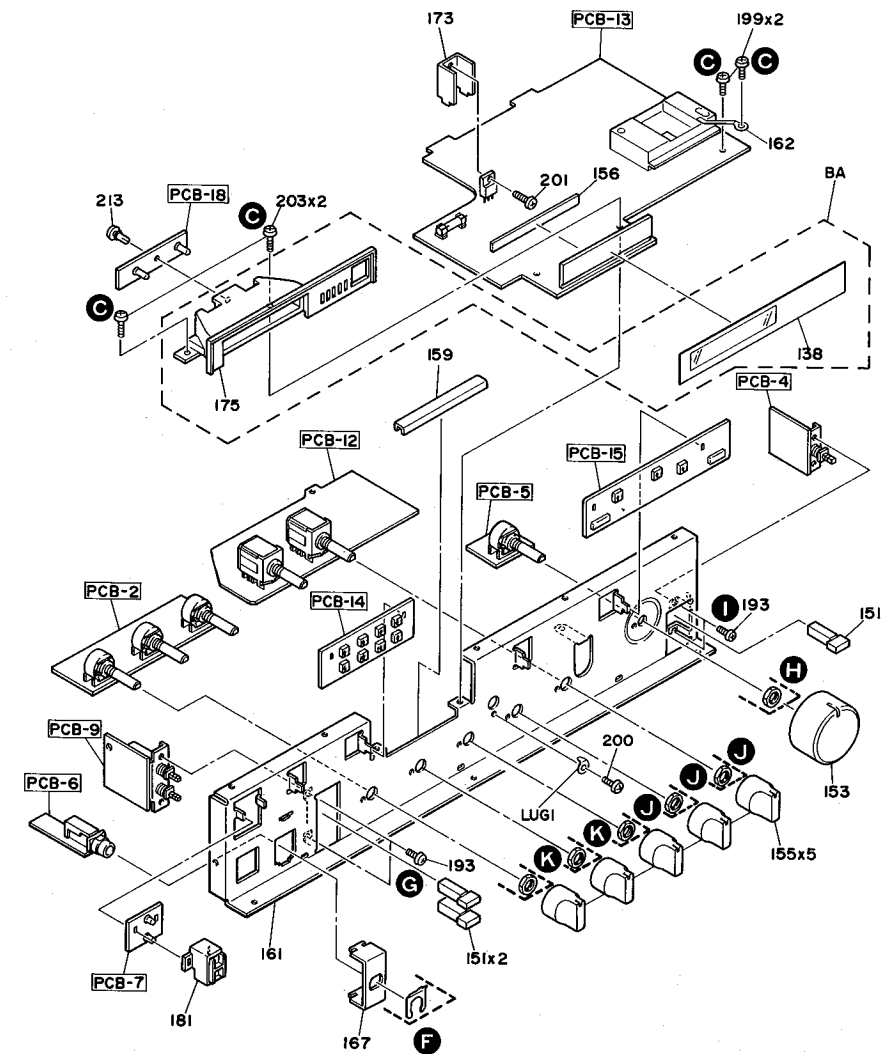


## PARTS LIST

| Ref. No. | Part No.    | Description                      |
|----------|-------------|----------------------------------|
| AA       | A443-HK440A | FRONT PANEL ASS'Y                |
| 136      | 1443-11801  | FRONT PANEL                      |
| 139      | 1531-12001  | FRONT WINDOW                     |
| 141      | 1562-06202  | FRAME, R                         |
| 142      | 1562-06302  | FRAME, L                         |
| 148      | 1662-35702  | PUSH BUTTON, TUNING UP           |
| 149      | 1662-35802  | PUSH BUTTON, TUNING DOWN         |
| 150      | 1662-37202  | PUSH BUTTON, PRESET MEMORY, SEEK |
| 157      | 1732-04201  | INDICATOR                        |
| 160      | 2112-11762  | SPONGE, PANEL TOP                |
| 177      | 2240-7209   | HOLDER, POWER                    |
| 178      | 2240-7333   | HOLDER, PRESET                   |
| 179      | 2240-7332   | HOLDER                           |
| 180      | 2240-7337   | HOLDER                           |

## GENERAL UNIT

EXPLODED VIEW (FRONT CHASSIS)

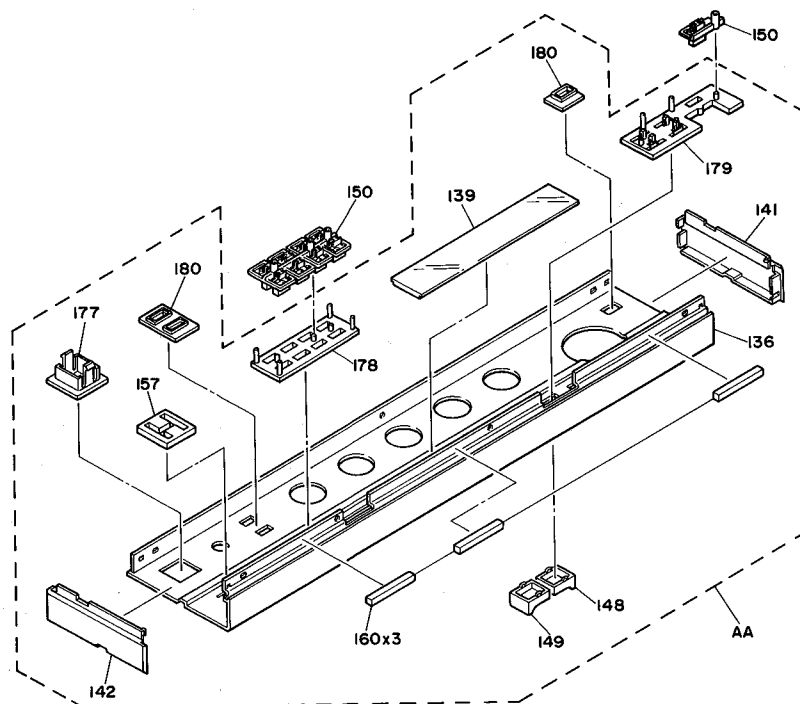


## PARTS LIST

| Ref. No. | Part No.      | Description             |
|----------|---------------|-------------------------|
| BA       | B223-HK440A   | REFLECTOR ASS'Y         |
| 138      | 1511-14301    | PLATE, REFLECTOR        |
| 151      | 1662-36002    | PUSH BUTTON, LOUDNESS   |
| 153      | 1630-02603    | ROTARY KNOB, VOLUME     |
| 155      | 1632-17101    | ROTARY KNOB             |
| 156      | 1731-00601    | INDICATOR, LCD REAR     |
| 159      | 2111-11768    | FELT, LCD UNDER         |
| 161      | 2211-7297     | CHASSIS, FRONT          |
| 162      | 2218-7001     | BRACKET FIX             |
| 167      | 2219-8206     | METAL FITTG, HEADPHONES |
| 173      | 2222-7239     | HEAT SINK, TUNER PCB    |
| 175      | 2223-7058     | REFLECTOR               |
| 181      | 2240-7325     | HOLDER                  |
| 193      | 2327-R0130062 | SCREW                   |
| 199      | 2347-R0130062 | SCREW                   |
| 200      | 2347-R0130062 | SCREW                   |
| 201      | 2347-R0130102 | SCREW                   |
| 203      | 2347-R0130102 | SCREW                   |
| 213      | 2459-3006511  | PLASTIC RIVET, LAMP PCB |
| LUG1     | 4211-4        | LUG                     |

## GENERAL UNIT

EXPLODED VIEW (FRONT PANEL ASS'Y)

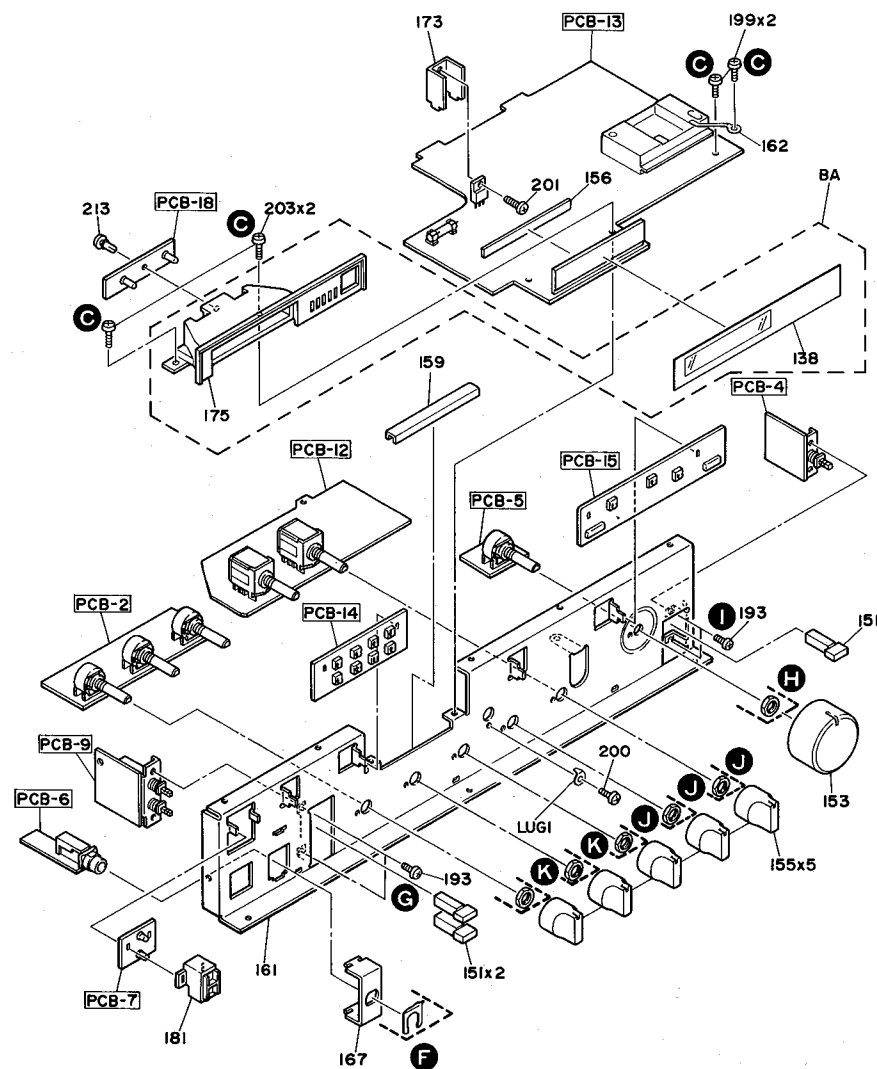


## PARTS LIST

| Ref. No. | Part No.    | Description                      |
|----------|-------------|----------------------------------|
| AA       | A443-HK440A | FRONT PANEL ASS'Y                |
| 136      | 1443-11801  | FRONT PANEL                      |
| 139      | 1531-12001  | FRONT WINDOW                     |
| 141      | 1562-06202  | FRAME, R                         |
| 142      | 1562-06302  | FRAME, L                         |
| 148      | 1662-35702  | PUSH BUTTON, TUNING UP           |
| 149      | 1662-35802  | PUSH BUTTON, TUNING DOWN         |
| 150      | 1662-37202  | PUSH BUTTON, PRESET MEMORY, SEEK |
| 157      | 1732-04201  | INDICATOR                        |
| 160      | 2112-11762  | SPONGE, PANEL TOP                |
| 177      | 2240-7209   | HOLDER, POWER                    |
| 178      | 2240-7333   | HOLDER, PRESET                   |
| 179      | 2240-7332   | HOLDER                           |
| 180      | 2240-7337   | HOLDER                           |

# GENERAL UNIT

EXPLODED VIEW (FRONT CHASSIS)

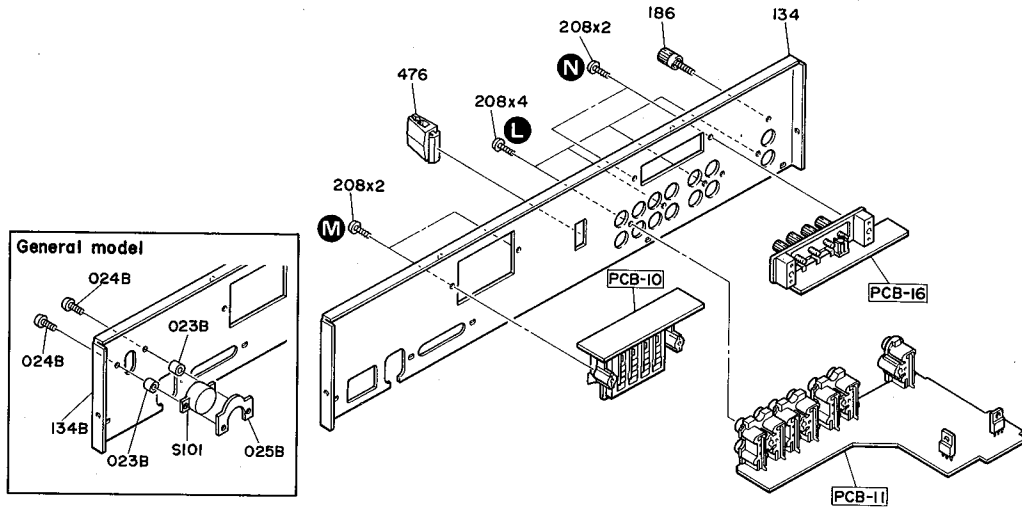


## PARTS LIST

| Ref. No. | Part No.      | Description             |
|----------|---------------|-------------------------|
| BA       | B223-HK440A   | REFLECTOR ASS'Y         |
| 138      | 1511-14301    | PLATE, REFLECTOR        |
| 151      | 1662-36002    | PUSH BUTTON, LOUDNESS   |
| 153      | 1630-02603    | ROTARY KNOB, VOLUME     |
| 155      | 1632-17101    | ROTARY KNOB             |
| 156      | 1731-00601    | INDICATOR, LCD REAR     |
| 159      | 2111-11768    | FELT, LCD UNDER         |
| 161      | 2211-7297     | CHASSIS, FRONT          |
| 162      | 2218-7001     | BRACKET FIX             |
| 167      | 2219-8206     | METAL FITTG, HEADPHONES |
| 173      | 2222-7239     | HEAT SINK, TUNER PCB    |
| 175      | 2223-7058     | REFLECTOR               |
| 181      | 2240-7325     | HOLDER                  |
| 193      | 2327-R0130062 | SCREW                   |
| 199      | 2347-R0130062 | SCREW                   |
| 200      | 2347-R0130062 | SCREW                   |
| 201      | 2347-R0130102 | SCREW                   |
| 203      | 2347-R0130102 | SCREW                   |
| 213      | 2459-3006511  | PLASTIC RIVET, LAMP PCB |
| LUG1     | 4211-4        | LUG                     |

**GENERAL UNIT**

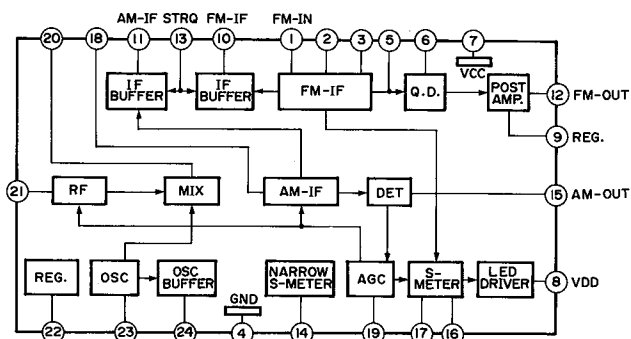
EXPLODED VIEW (CABINET BACK)

**PARTS LIST**

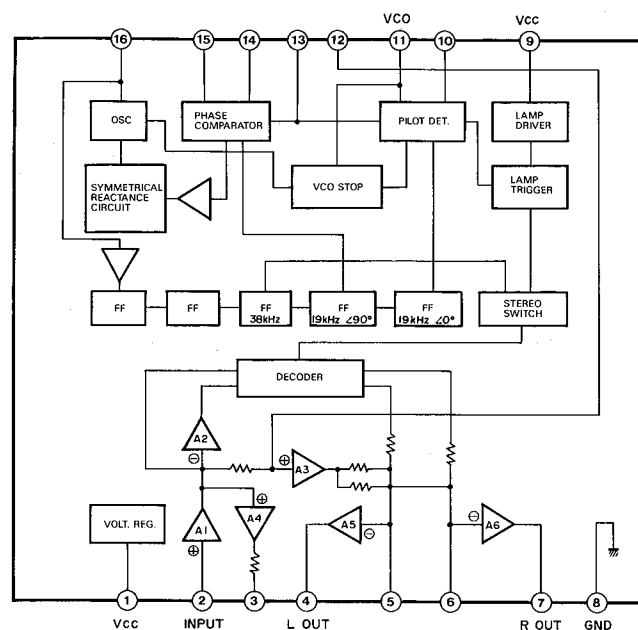
| Ref. No. | Part No.      | Description        |
|----------|---------------|--------------------|
| 023B     | 2132-7116     | SPACER (GB)        |
| 024B     | 2327-R0130124 | SCREW (GB)         |
| 025B     | 2440-7017     | SPECIAL NUT (GB)   |
| 134      | 1424-24301    | CABINET BACK (UA)  |
| 134B     | 1424-24401    | CABINET BACK (GB)  |
| 186      | 4214-168      | TERMINAL           |
| 208      | 2347-R0130104 | SCREW              |
| 476      | 2240-7208     | HOLDER             |
| △S101    | 4411-102729   | ROTARY SWITCH (GB) |

## IC BLOCK DIAGRAM

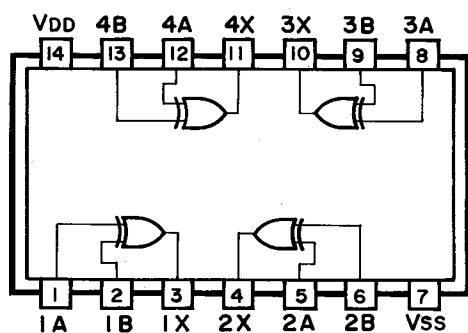
LA1266 : IC201 FM/AM IF



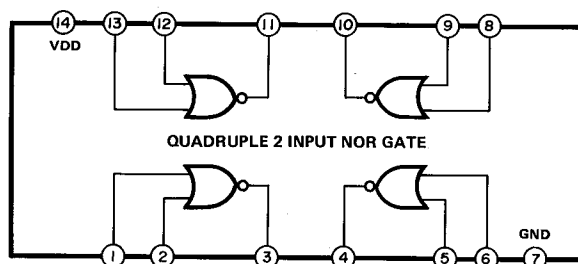
LA3410 : IC301 PLL MPX



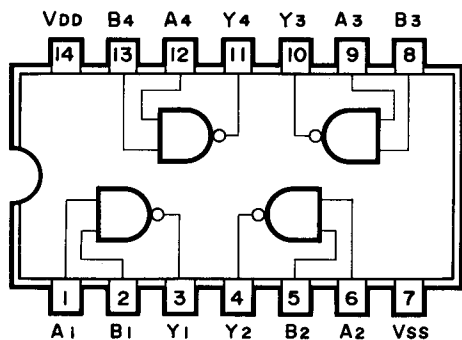
TC4030BP : IC702 QUAD EXCLUSIVE-OR GATE



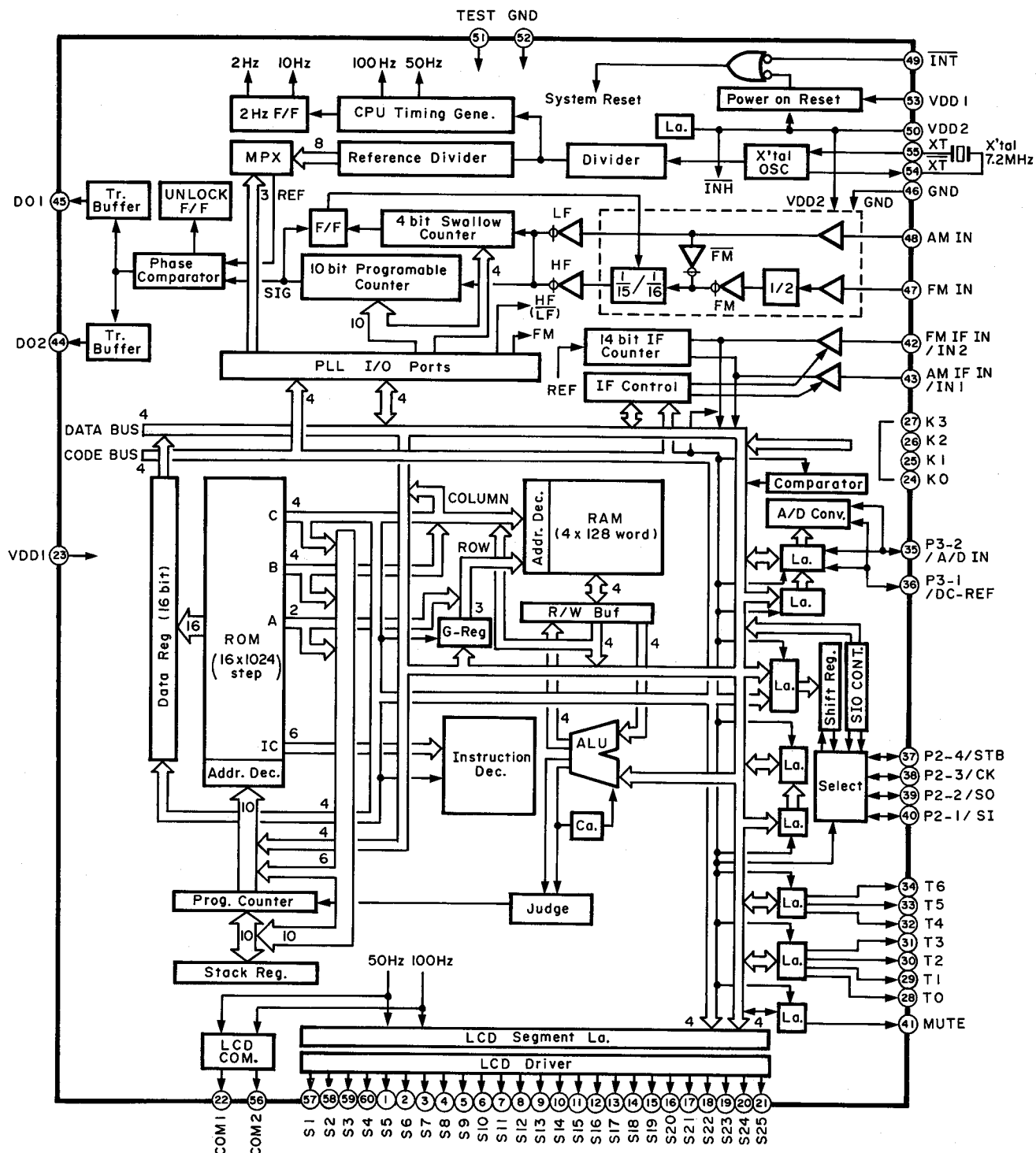
TC4001BP : IC752 QUAD 2 INPUT NOR GATE



TC4011BP : IC751 QUAD 2 INPUT NAND GATE



## TC9304F-011 : IC701 LSI MICRO PROCESSOR

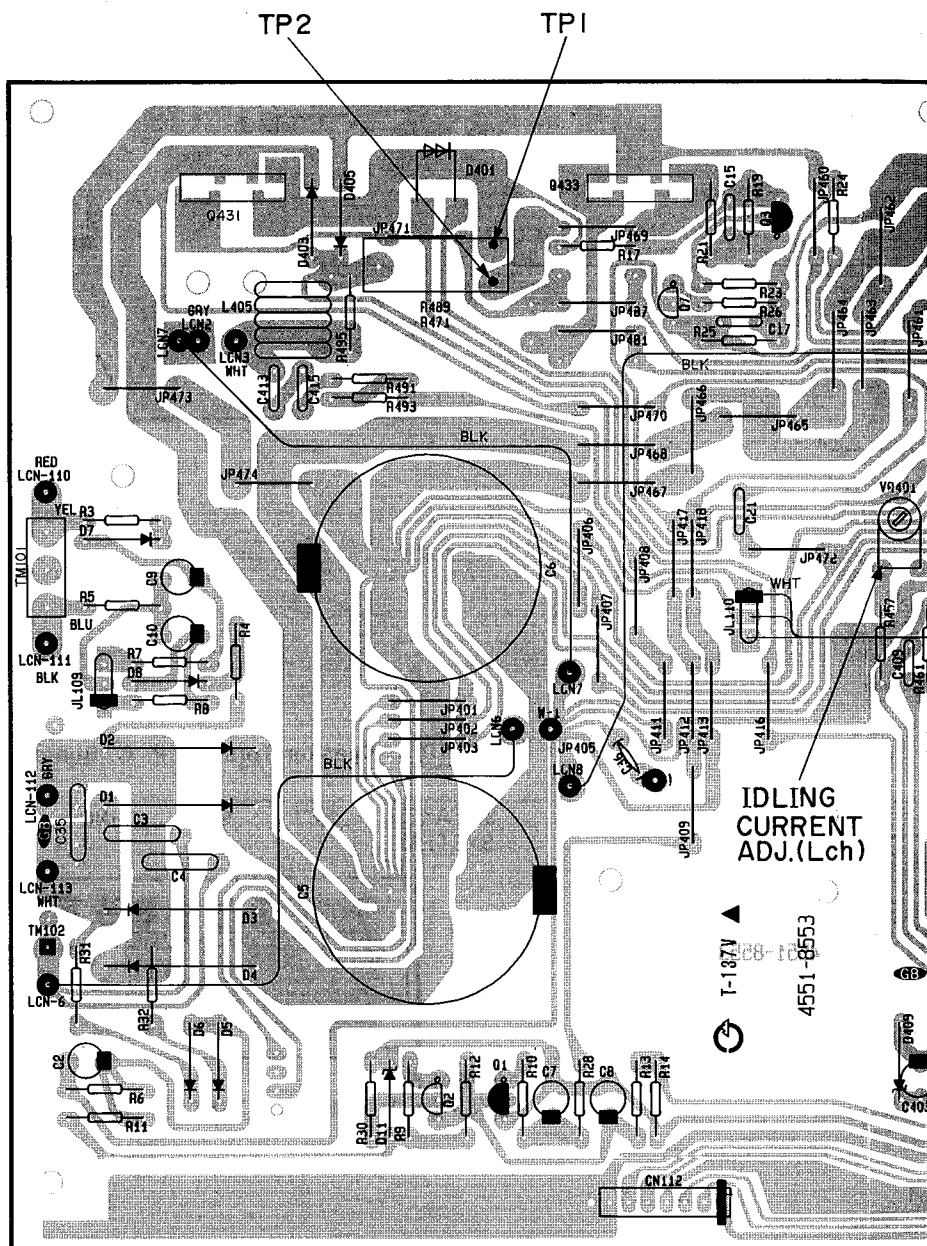






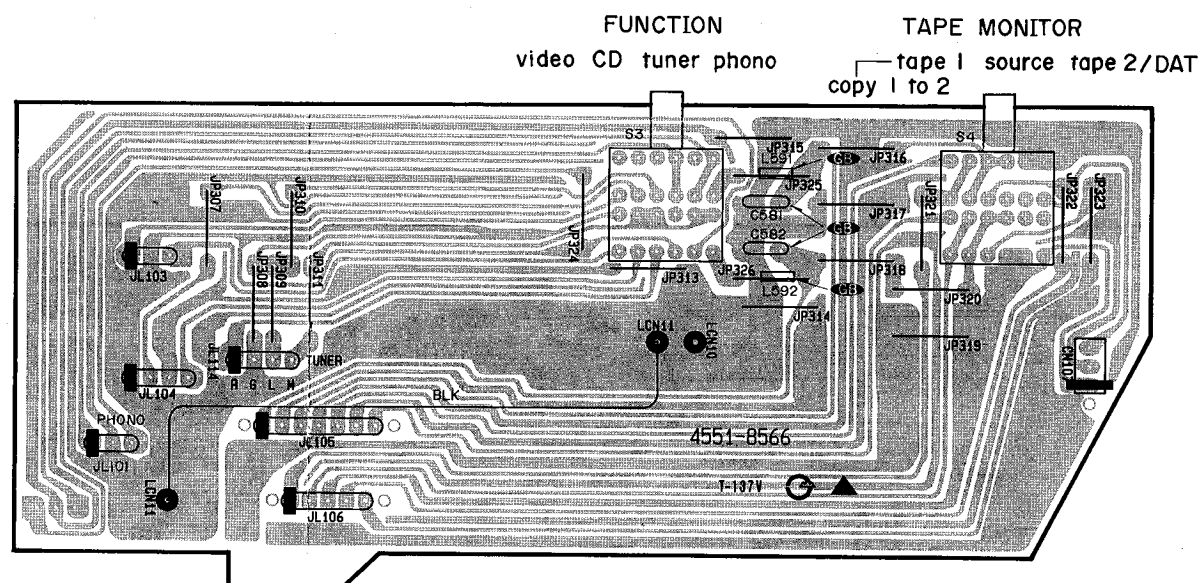
# P. C. BOARDS

PCB-1 Power Amp. P. C. Board

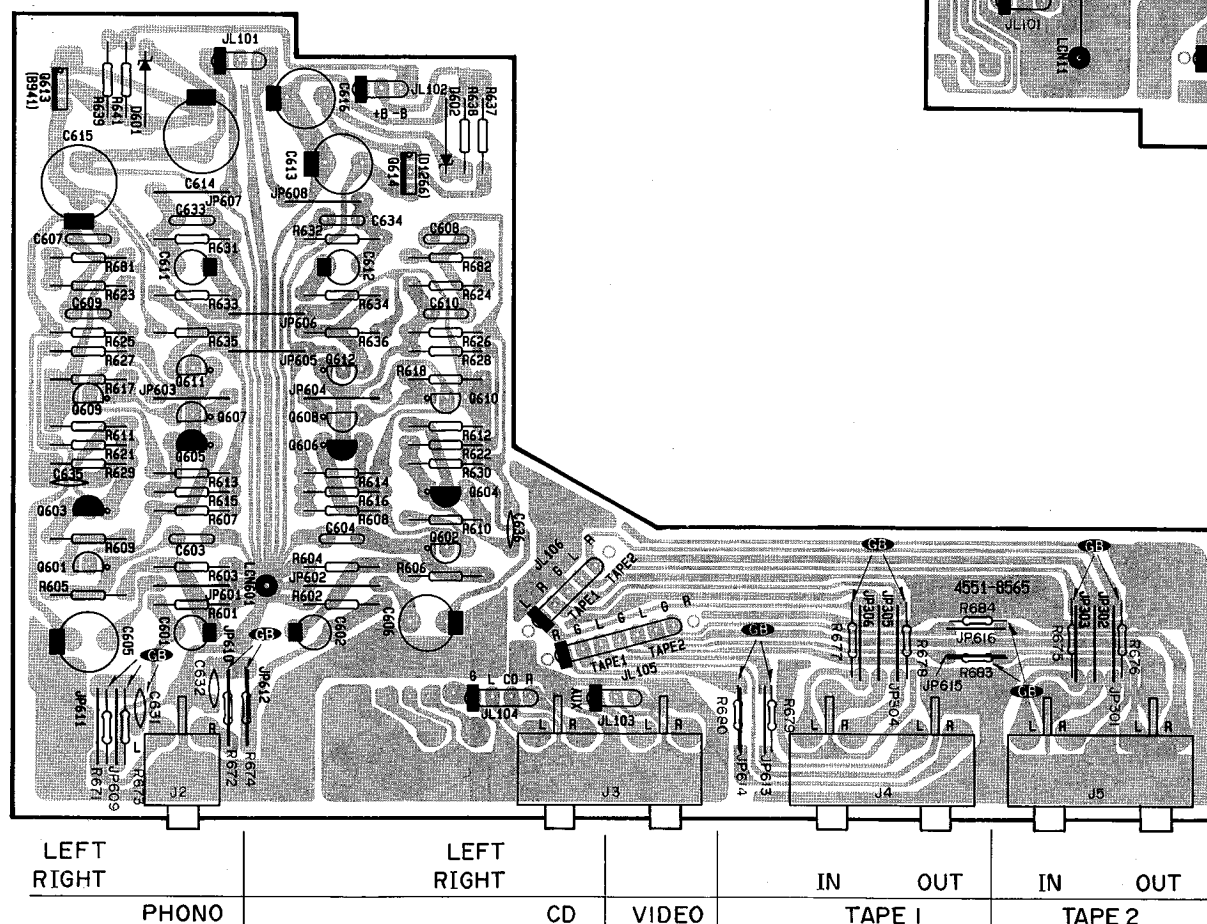




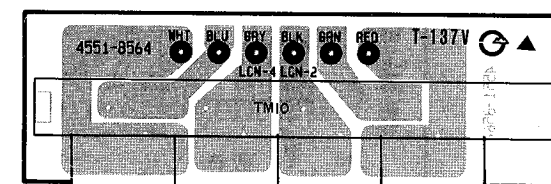
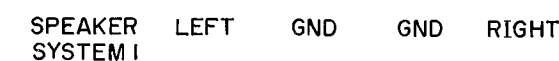
## PCB-12      Function and Tape Mon. Switch P. C. Board



**PCB-11**      **Pin Jack P. C. Board**



**PCB-10**      **Speaker Terminal P. C. Board**

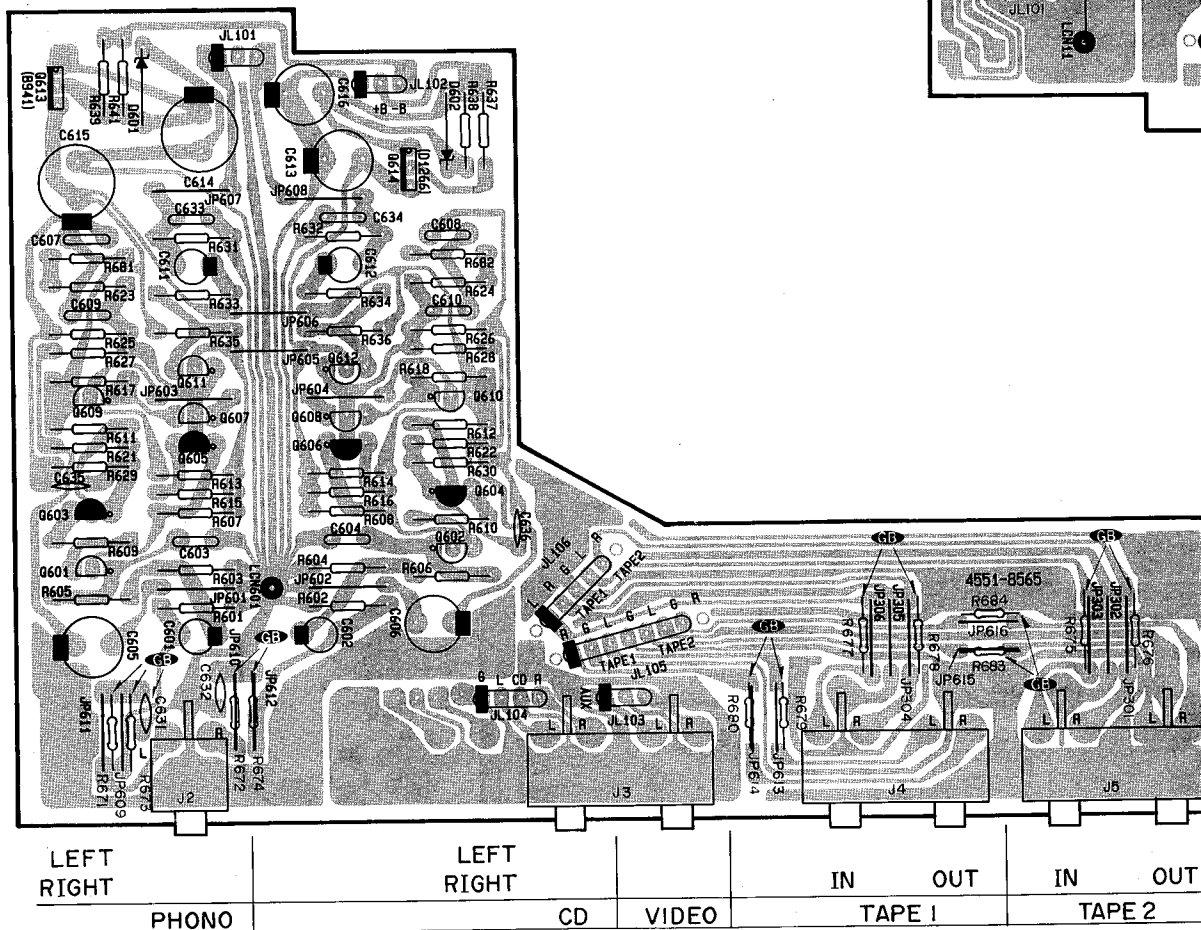


| SPEAKER  | LEFT | GND | GND | RIGHT |
|----------|------|-----|-----|-------|
| SYSTEM 2 |      |     |     |       |

P. C. BOARDS

PCB-12 Function an

PCB-11 Pin Jack P. C. Board



F

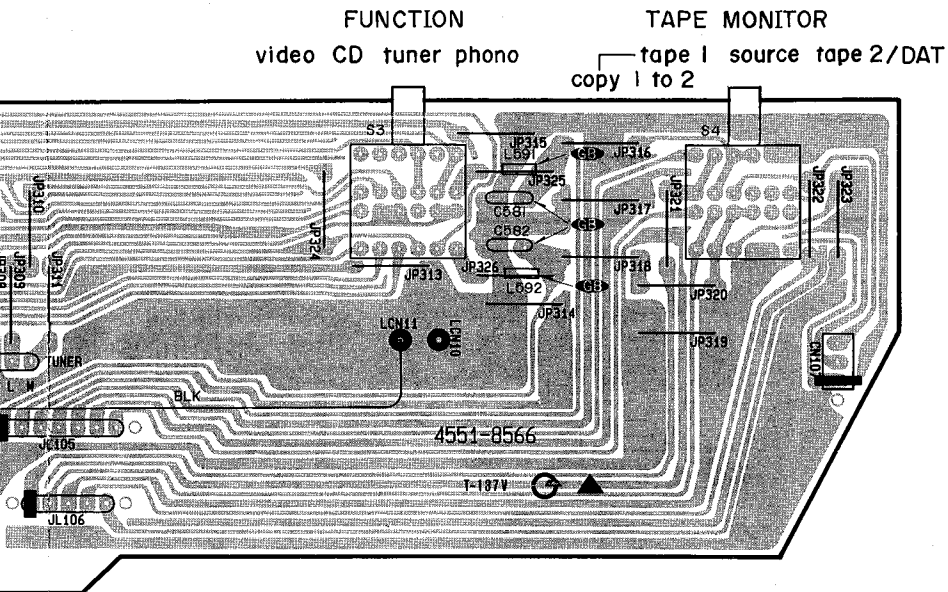
G

H

I

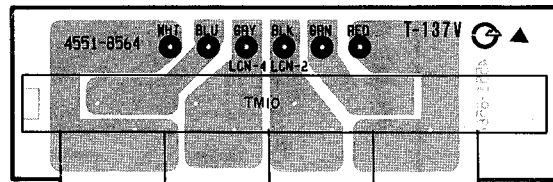
J

# and Tape Mon. Switch P. C. Board



## PCB-10 Speaker Terminal P. C. Board

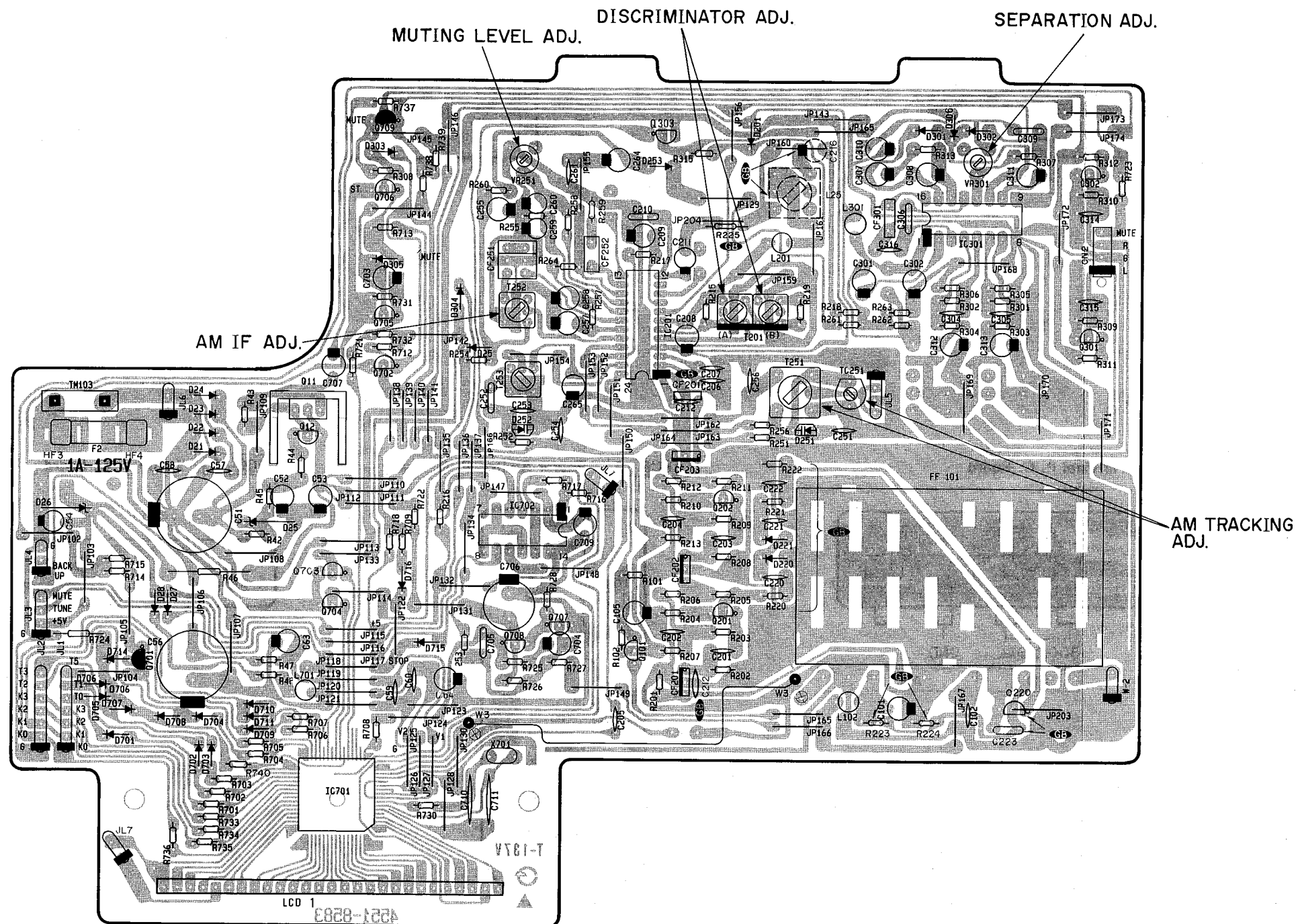
SPEAKER SYSTEM 1 LEFT GND GND RIGHT



SPEAKER SYSTEM 2 LEFT GND GND RIGHT

## P. C. BOARDS

PCB-13 Tuner P. C. Board



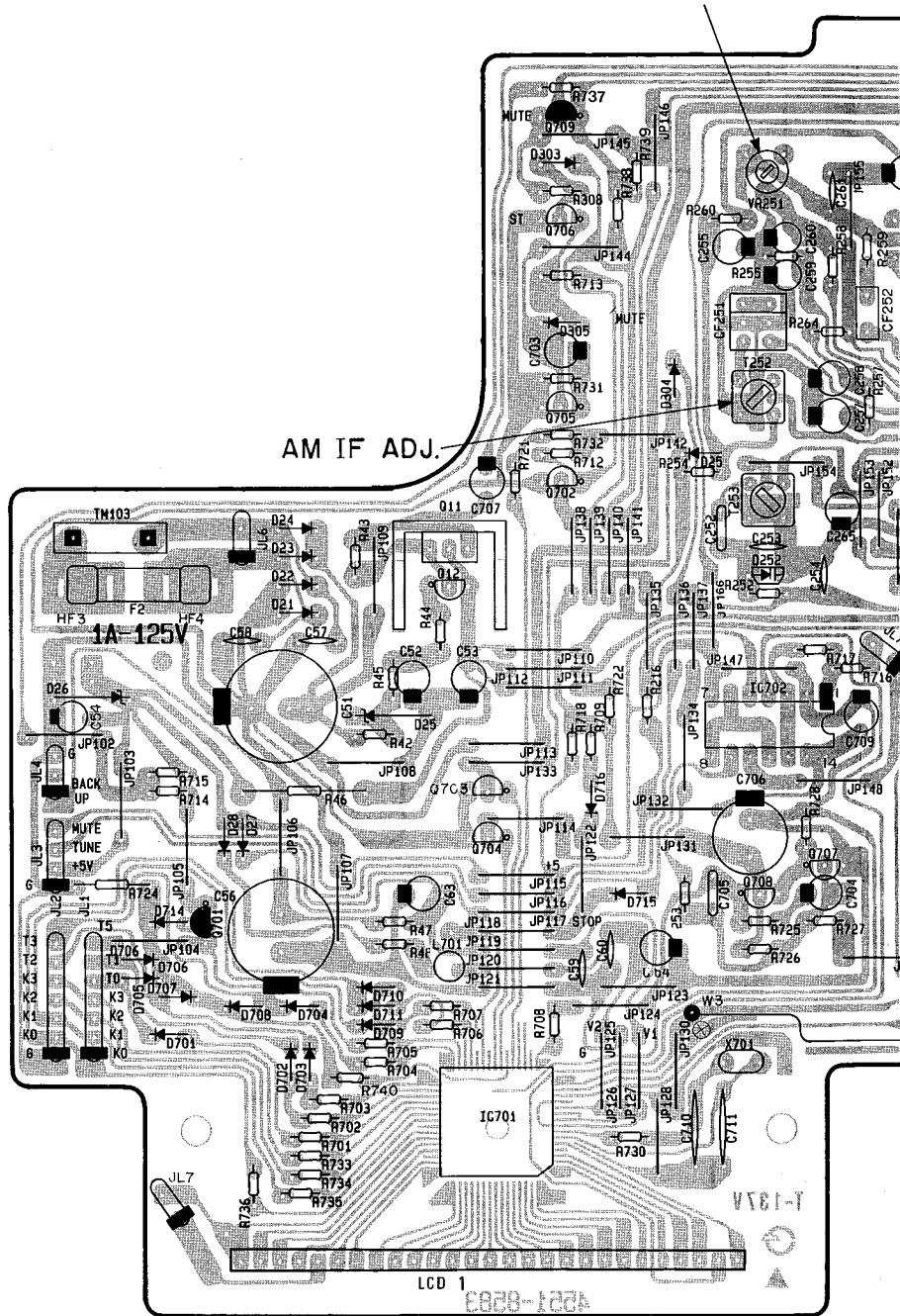
# P. C. BOARDS

PCB-13

Tuner P. C. Board

MUTING LEVEL ADJ.

AM IF ADJ.



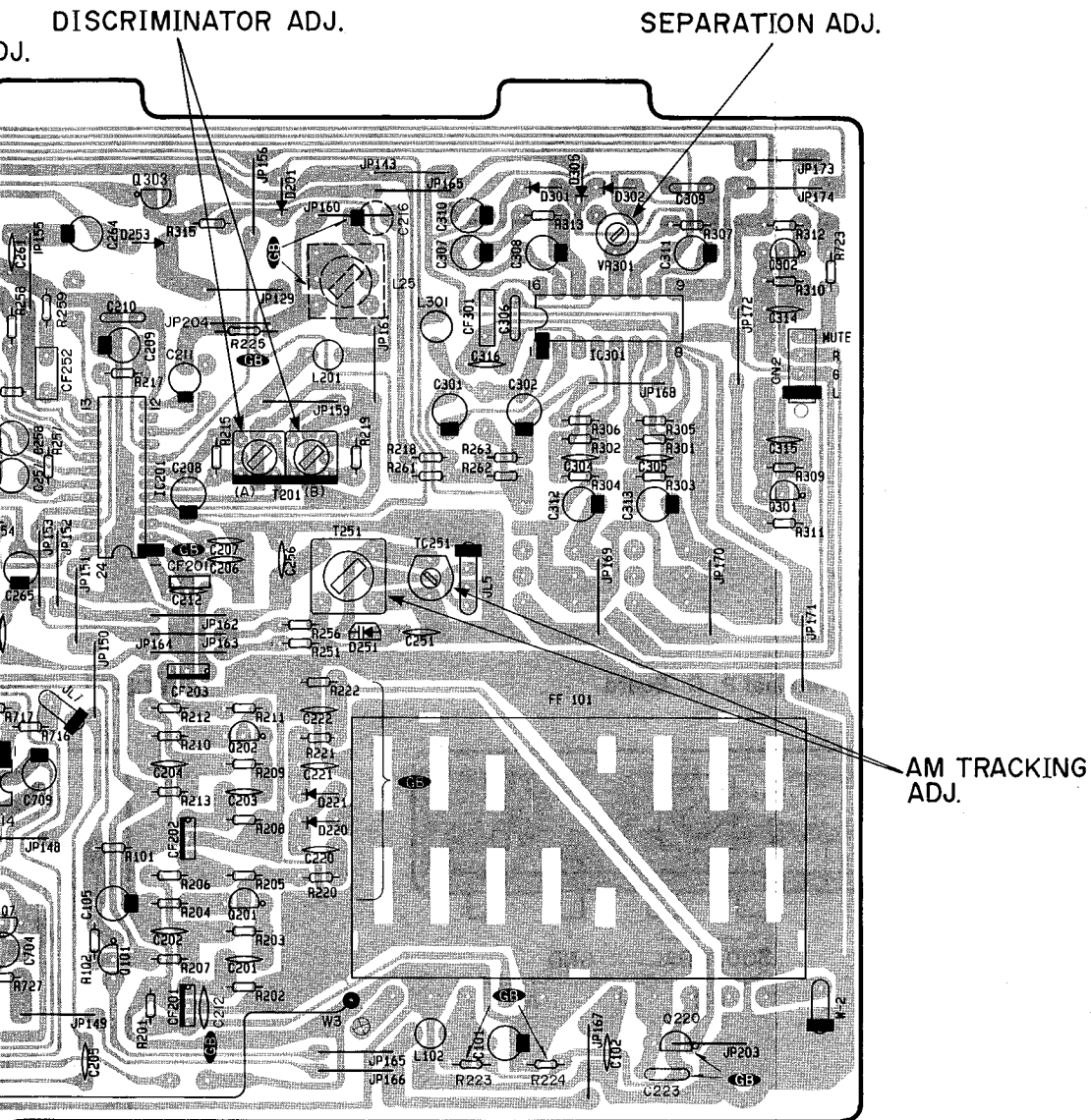
F

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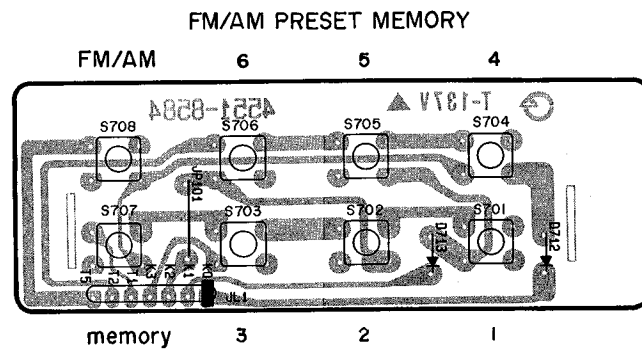
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J

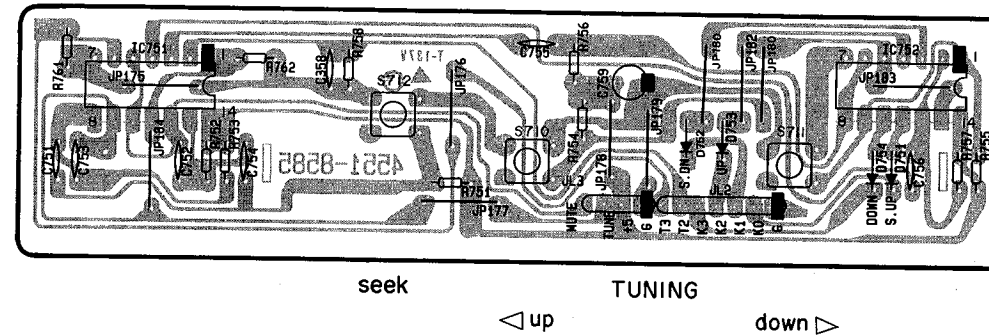


## P. C. BOARDS

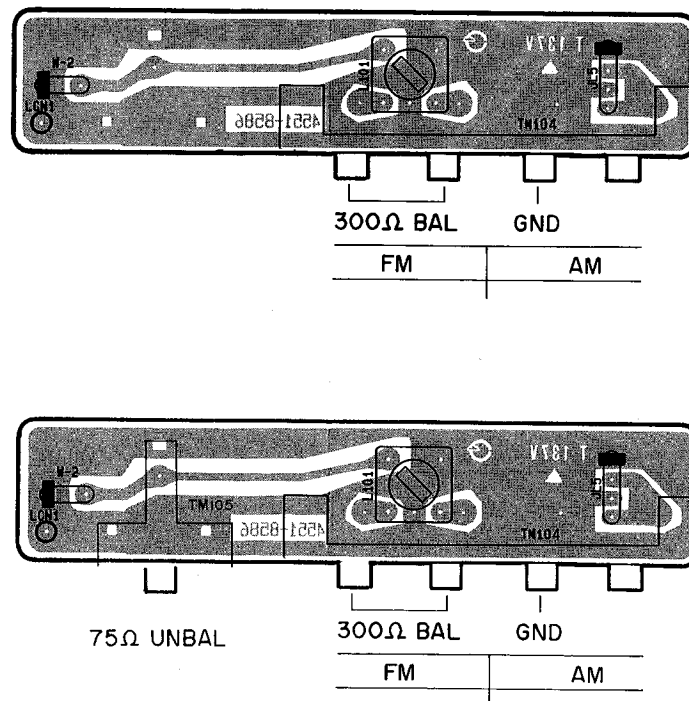
PCB-14 Preset Memory Switches P. C. Board



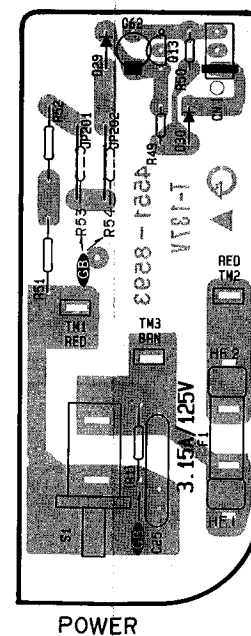
PCB-15 Tuning Switch P. C. Board



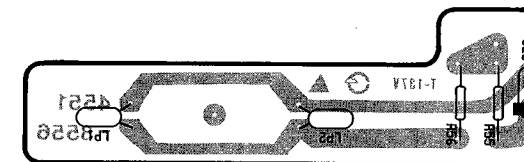
PCB-16 Antenna Terminal P. C. Board



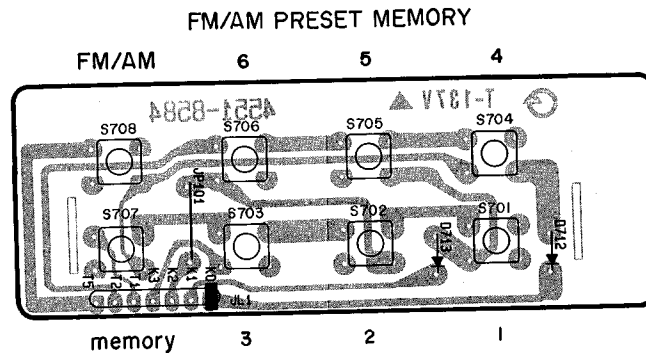
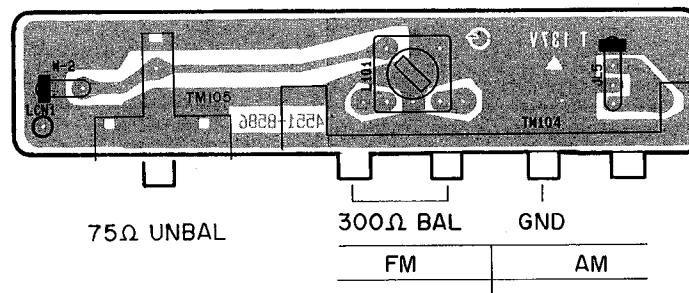
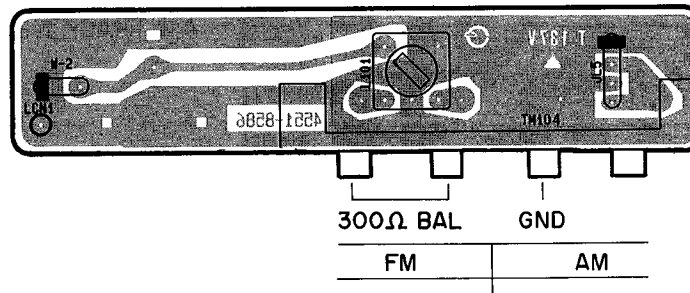
PCB-17 Power Switch P. C. Board



PCB-18 Lamp P. C. Board



## P. C. BOARDS

**PCB-14** Preset Memory Switches P. C. Board**PCB-16** Antenna Terminal P. C. Board**PCB-17**

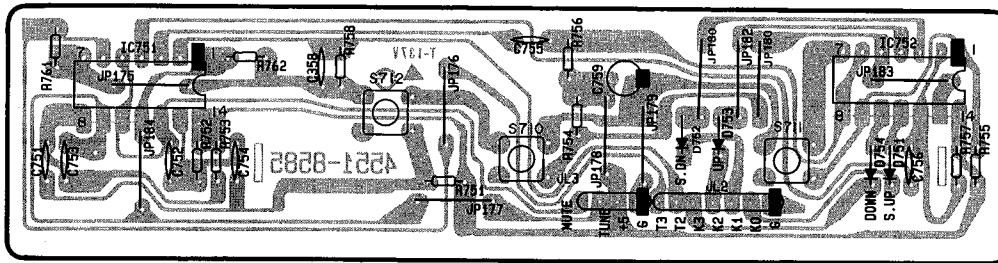
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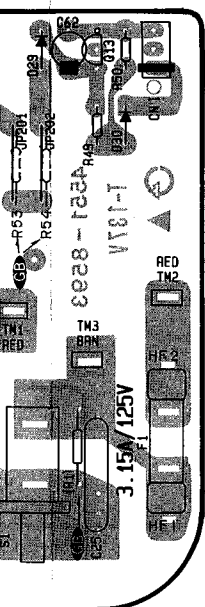
**PCB-15** Tuning Switch P. C. Board

seek

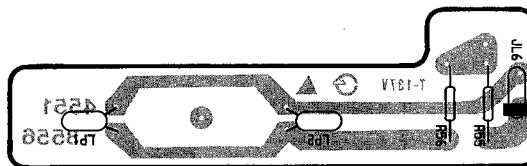
TUNING

◁ up

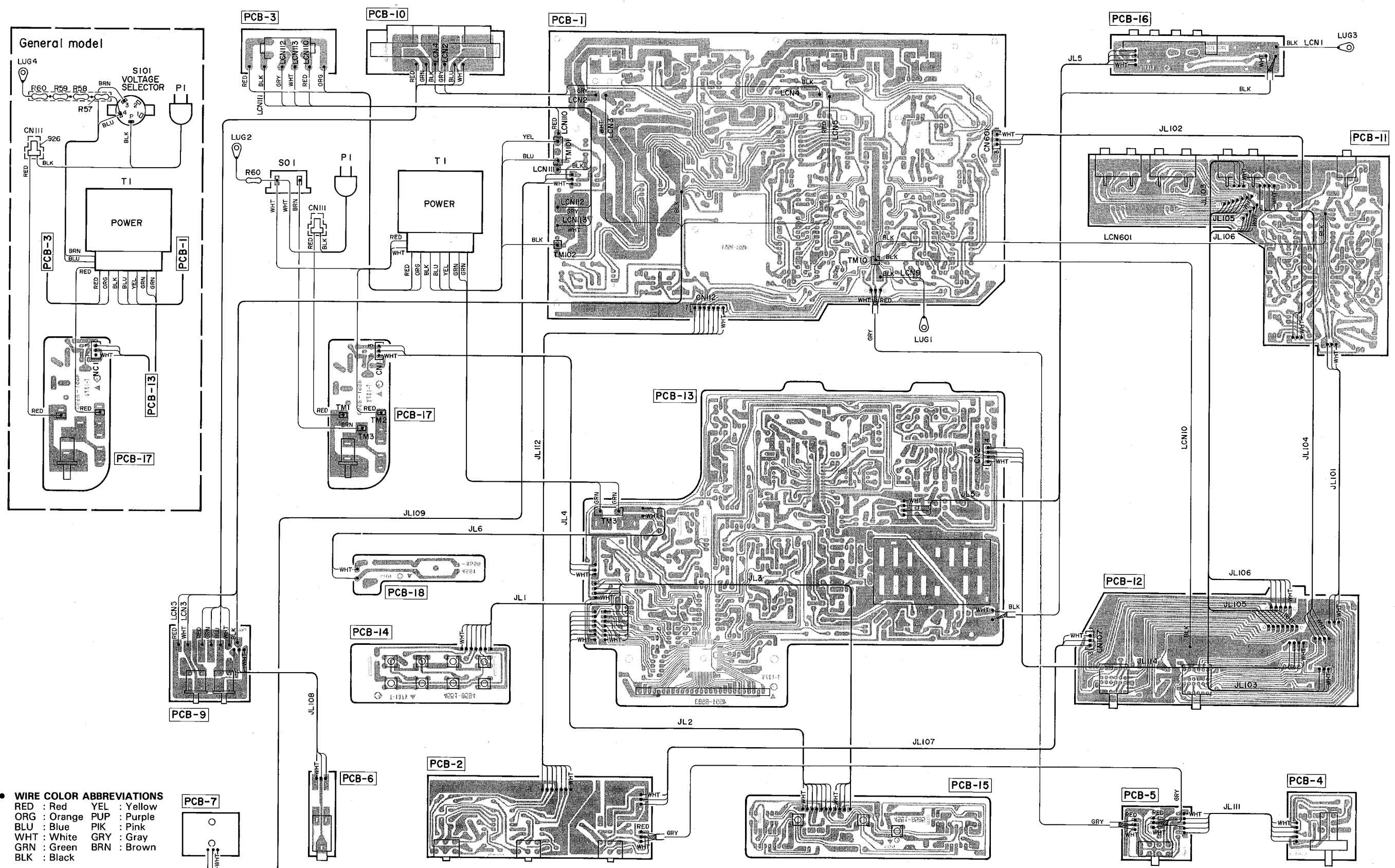
down ▷

**Power Switch P. C. Board**

POWER

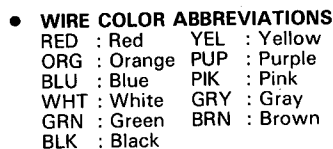
**PCB-18** Lamp P. C. Board

WIRING DIAGRAM



- WIRE COLOR ABBREVIATIONS
- RED : Red
- ORG : Orange
- BLU : Blue
- WHT : White
- GRN : Green
- BLK : Black
- YEL : Yellow
- PUP : Purple
- PIK : Pink
- GRY : Gray
- BRN : Brown

## General model



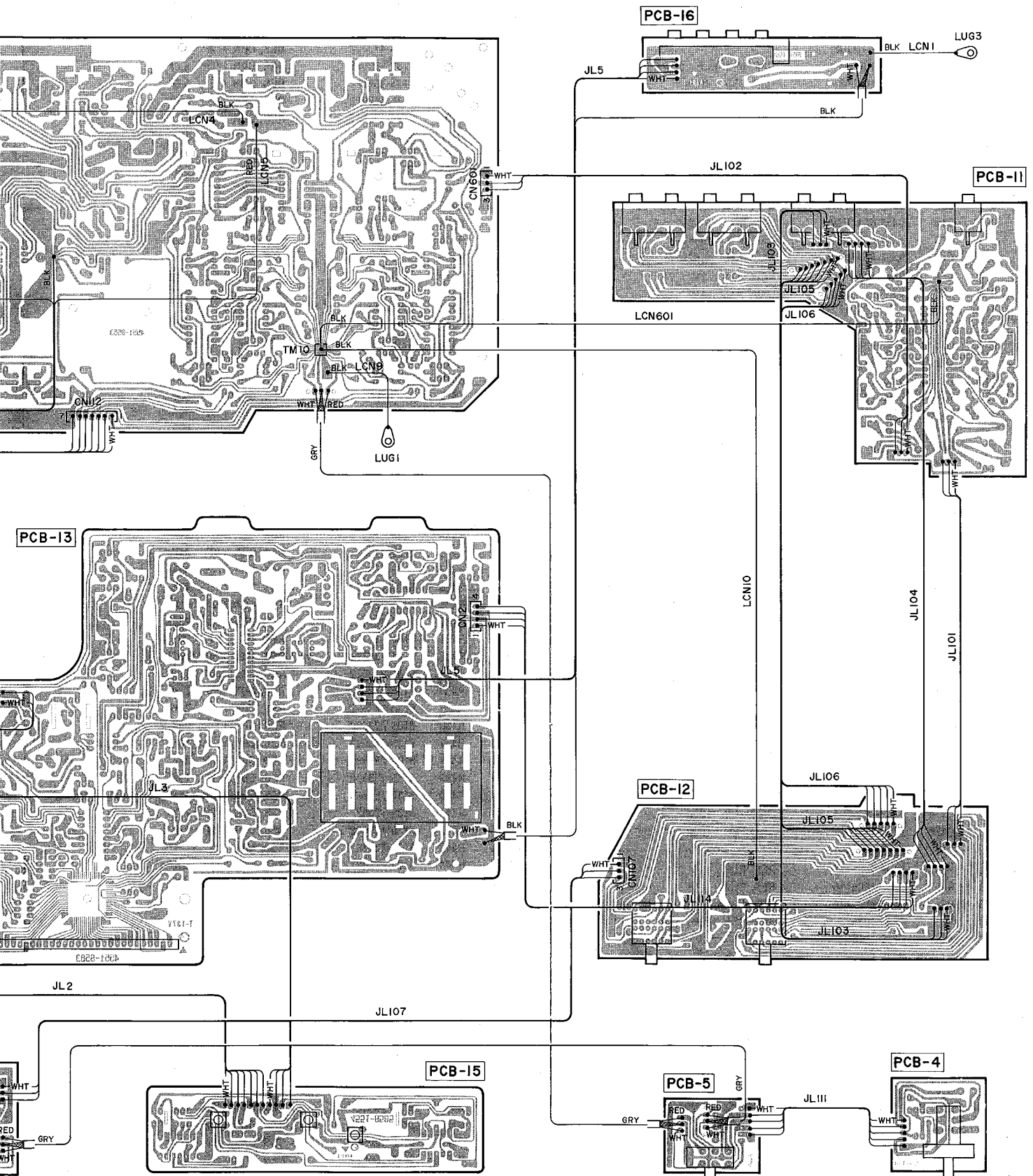
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ELECTRICAL PARTS LIST

| Ser. No.                     | Ref. No. | Part No.      | Description                 |
|------------------------------|----------|---------------|-----------------------------|
| PCB-1 POWER AMP. P. C. BOARD |          |               |                             |
| CAPACITORS                   |          |               |                             |
| 812                          | C2       | 5345-106F041  | CAP, MINI ELE 10μ/50V       |
| 839                          | C3       | 5362-103048   | CAP, CER .01μ               |
| 839                          | C4       | 5362-103048   | CAP, CER .01μ               |
| 837                          | C5       | 5341-S08FM688 | CAP, ELE 6800μ/50V          |
| 837                          | C6       | 5341-S08FM688 | CAP, ELE 6800μ/50V          |
| 810                          | C7       | 5345-105F041  | CAP, MINI ELE 1μ/50V        |
| 811                          | C8       | 5345-107B041  | CAP, MINI ELE 100μ/10V      |
| 811                          | C9       | 5345-107B041  | CAP, MINI ELE 100μ/10V      |
| 811                          | C10      | 5345-107B041  | CAP, MINI ELE 100μ/10V      |
| 813                          | C15      | 5354-683J1HM  | CAP, MYL .068μ              |
| 813                          | C16      | 5354-683J1HM  | CAP, MYL .068μ              |
| 814                          | C17      | 5354-473J1HM  | CAP, MYL .047μ              |
| 815                          | C21      | 5354-104593   | CAP, MYL .1μ                |
| 815                          | C22      | 5354-104593   | CAP, MYL .1μ                |
| 815                          | C23      | 5354-104593   | CAP, MYL .1μ                |
| 815                          | C24      | 5354-104593   | CAP, MYL .1μ                |
| 058B                         | C35      | 5352-1041957  | CAP, MTL .1μ <b>GB</b>      |
| 731                          | C401     | 5345-107B0951 | CAP, MINI ELE 100μ/10V      |
| 731                          | C402     | 5345-107B0951 | CAP, MINI ELE 100μ/10V      |
| 733                          | C403     | 5345-106C041  | CAP, MINI ELE 10μ/16V       |
| 733                          | C404     | 5345-106C041  | CAP, MINI ELE 10μ/16V       |
| 732                          | C405     | 5345-227A0951 | CAP, MINI ELE 220μ/6.3V     |
| 732                          | C406     | 5345-227A0951 | CAP, MINI ELE 220μ/6.3V     |
| 742                          | C407     | 5353-020934   | CAP, MCA 2p <b>UA</b>       |
| 742B                         | C407     | 5353-040934   | CAP, MCA 4p <b>GB</b>       |
| 742                          | C408     | 5353-020934   | CAP, MCA 2p <b>UA</b>       |
| 742B                         | C408     | 5353-040934   | CAP, MCA 4p <b>GB</b>       |
| 740                          | C409     | 5359-1015851  | CAP, PPP 100p               |
| 740                          | C410     | 5359-1015851  | CAP, PPP 100p               |
| 733                          | C411     | 5345-106C041  | CAP, MINI ELE 10μ/16V       |
| 733                          | C412     | 5345-106C041  | CAP, MINI ELE 10μ/16V       |
| 745                          | C413     | 5354-683J1HM  | CAP, MYL .068μ              |
| 745                          | C414     | 5354-683J1HM  | CAP, MYL .068μ              |
| 745                          | C415     | 5354-683J1HM  | CAP, MYL .068μ              |
| 745                          | C416     | 5354-683J1HM  | CAP, MYL .068μ              |
| 733                          | C417     | 5345-106C041  | CAP, MINI ELE 10μ/16V       |
| 733                          | C418     | 5345-106C041  | CAP, MINI ELE 10μ/16V       |
| 734                          | C421     | 5345-107F041  | CAP, MINI ELE 100μ/50V      |
| 734                          | C422     | 5345-107F041  | CAP, MINI ELE 100μ/50V      |
| 734                          | C423     | 5345-107F041  | CAP, MINI ELE 100μ/50V      |
| 734                          | C424     | 5345-107F041  | CAP, MINI ELE 100μ/50V      |
| 059B                         | C425     | 5353-040934   | CAP, MCA 4p <b>GB</b>       |
| 059B                         | C426     | 5353-040934   | CAP, MCA 4p <b>GB</b>       |
| 740                          | C475     | 5359-1015851  | CAP, PPP 100p               |
| 740                          | C476     | 5359-1015851  | CAP, PPP 100p               |
| RESISTORS                    |          |               |                             |
| 830                          | ΔR3      | 5102-1005116  | RES, FUSE 10                |
| 830                          | ΔR4      | 5102-1005116  | RES, FUSE 10                |
| 829                          | ΔR5      | 5102-5R65116  | RES, FUSE 5.6               |
| 818                          | R6       | 5135-103522   | RES, CBN 1/2P 10K           |
| 827                          | R7       | 5135-101522   | RES, CBN 1/2P 100 <b>UA</b> |
| 827B                         | R7       | 5135-100522   | RES, CBN 1/2P 10 <b>GB</b>  |
| 827                          | R8       | 5135-101522   | RES, CBN 1/2P 100 <b>UA</b> |
| 827B                         | R8       | 5135-100522   | RES, CBN 1/2P 10 <b>GB</b>  |
| 820                          | R9       | 5135-472522   | RES, CBN 1/2P 4.7K          |
| 820                          | R10      | 5135-472522   | RES, CBN 1/2P 4.7K          |
| 817                          | R11      | 5135-682522   | RES, CBN 1/2P 6.8K          |
| 819                          | R12      | 5135-104522   | RES, CBN 1/2P 100K          |
| 825                          | R13      | 5135-683522   | RES, CBN 1/2P 68K           |
| 826                          | R14      | 5135-333522   | RES, CBN 1/2P 33K           |
| 822                          | R15      | 5135-223522   | RES, CBN 1/2P 22K           |
| 822                          | R16      | 5135-223522   | RES, CBN 1/2P 22K           |
| 824                          | R17      | 5135-332522   | RES, CBN 1/2P 3.3K          |
| 824                          | R18      | 5135-332522   | RES, CBN 1/2P 3.3K          |
| 823                          | R19      | 5135-821522   | RES, CBN 1/2P 820           |
| 823                          | R20      | 5135-821522   | RES, CBN 1/2P 820           |
| 824                          | R21      | 5135-332522   | RES, CBN 1/2P 3.3K          |
| 824                          | R22      | 5135-332522   | RES, CBN 1/2P 3.3K          |
| 820                          | R23      | 5135-472522   | RES, CBN 1/2P 4.7K          |

| Ser. No. | Ref. No. | Part No.     | Description        |
|----------|----------|--------------|--------------------|
| 820      | R24      | 5135-472522  | RES, CBN 1/2P 4.7K |
| 821      | R25      | 5135-473522  | RES, CBN 1/2P 47K  |
| 822      | R26      | 5135-223522  | RES, CBN 1/2P 22K  |
| 821      | R28      | 5135-473522  | RES, CBN 1/2P 47K  |
| 816      | R30      | 5135-562522  | RES, CBN 1/2P 5.6K |
| 816      | R31      | 5135-562522  | RES, CBN 1/2P 5.6K |
| 816      | R32      | 5135-562522  | RES, CBN 1/2P 5.6K |
| 753      | R401     | 5135-102522  | RES, CBN 1/2P 1K   |
| 753      | R402     | 5135-102522  | RES, CBN 1/2P 1K   |
| 754      | R403     | 5135-683522  | RES, CBN 1/2P 68K  |
| 754      | R404     | 5135-683522  | RES, CBN 1/2P 68K  |
| 755      | R405     | 5135-122522  | RES, CBN 1/2P 1.2K |
| 755      | R406     | 5135-122522  | RES, CBN 1/2P 1.2K |
| 755      | R407     | 5135-122522  | RES, CBN 1/2P 1.2K |
| 755      | R408     | 5135-122522  | RES, CBN 1/2P 1.2K |
| 756      | R409     | 5135-682522  | RES, CBN 1/2P 6.8K |
| 756      | R410     | 5135-682522  | RES, CBN 1/2P 6.8K |
| 757      | R411     | 5135-680522  | RES, CBN 1/2P 68   |
| 757      | R412     | 5135-680522  | RES, CBN 1/2P 68   |
| 757      | R413     | 5135-680522  | RES, CBN 1/2P 68   |
| 757      | R414     | 5135-680522  | RES, CBN 1/2P 68   |
| 773      | R415     | 5135-222522  | RES, CBN 1/2P 2.2K |
| 773      | R416     | 5135-222522  | RES, CBN 1/2P 2.2K |
| 759      | R417     | 5135-561522  | RES, CBN 1/2P 560  |
| 759      | R418     | 5135-561522  | RES, CBN 1/2P 560  |
| 754      | R419     | 5135-683522  | RES, CBN 1/2P 68K  |
| 754      | R420     | 5135-683522  | RES, CBN 1/2P 68K  |
| 788      | ΔR421    | 5102-3315116 | RES, FUSE 330      |
| 788      | ΔR422    | 5102-3315116 | RES, FUSE 330      |
| 788      | ΔR423    | 5102-3315116 | RES, FUSE 330      |
| 788      | ΔR424    | 5102-3315116 | RES, FUSE 330      |
| 760      | R425     | 5135-473522  | RES, CBN 1/2P 47K  |
| 760      | R426     | 5135-473522  | RES, CBN 1/2P 47K  |
| 760      | R427     | 5135-473522  | RES, CBN 1/2P 47K  |
| 760      | R428     | 5135-473522  | RES, CBN 1/2P 47K  |
| 761      | R429     | 5135-224522  | RES, CBN 1/2P 220K |
| 761      | R430     | 5135-224522  | RES, CBN 1/2P 220K |
| 782      | R431     | 5174-131381  | RES, MTL 1/4 130   |
| 782      | R432     | 5174-131381  | RES, MTL 1/4 130   |
| 762      | R433     | 5135-272522  | RES, CBN 1/2P 2.7K |
| 762      | R434     | 5135-272522  | RES, CBN 1/2P 2.7K |
| 763      | R435     | 5135-223522  | RES, CBN 1/2P 22K  |
| 763      | R436     | 5135-223522  | RES, CBN 1/2P 22K  |
| 763      | R437     | 5135-223522  | RES, CBN 1/2P 22K  |
| 763      | R438     | 5135-223522  | RES, CBN 1/2P 22K  |
| 774      | R439     | 5135-153522  | RES, CBN 1/2P 15K  |
| 774      | R440     | 5135-153522  | RES, CBN 1/2P 15K  |
| 764      | R441     | 5135-123522  | RES, CBN 1/2P 12K  |
| 764      | R442     | 5135-123522  | RES, CBN 1/2P 12K  |
| 783      | R443     | 5174-222381  | RES, MTL 1/4 2.2K  |
| 783      | R444     | 5174-222381  | RES, MTL 1/4 2.2K  |
| 783      | R445     | 5174-222381  | RES, MTL 1/4 2.2K  |
| 783      | R446     | 5174-222381  | RES, MTL 1/4 2.2K  |
| 786      | ΔR447    | 5102-4705116 | RES, FUSE 47       |
| 786      | ΔR448    | 5102-4705116 | RES, FUSE 47       |
| 786      | ΔR449    | 5102-4705116 | RES, FUSE 47       |
| 786      | ΔR450    | 5102-4705116 | RES, FUSE 47       |
| 765      | R455     | 5135-821522  | RES, CBN 1/2P 820  |
| 765      | R456     | 5135-821522  | RES, CBN 1/2P 820  |
| 765      | R457     | 5135-821522  | RES, CBN 1/2P 820  |
| 765      | R458     | 5135-821522  | RES, CBN 1/2P 820  |
| 775      | R459     | 5135-183522  | RES, CBN 1/2P 18K  |
| 775      | R460     | 5135-183522  | RES, CBN 1/2P 18K  |
| 775      | R461     | 5135-183522  | RES, CBN 1/2P 18K  |
| 775      | R462     | 5135-183522  | RES, CBN 1/2P 18K  |
| 767      | R463     | 5135-100522  | RES, CBN 1/2P 10   |
| 767      | R464     | 5135-100522  | RES, CBN 1/2P 10   |
| 767      | R465     | 5135-100522  | RES, CBN 1/2P 10   |
| 767      | R466     | 5135-100522  | RES, CBN 1/2P 10   |
| 787      | ΔR467    | 5102-1005116 | RES, FUSE 10       |
| 787      | ΔR468    | 5102-1005116 | RES, FUSE 10       |
| 787      | ΔR469    | 5102-1005116 | RES, FUSE 10       |
| 787      | ΔR470    | 5102-1005116 | RES, FUSE 10       |

| Ser. No.    | Ref. No. | Part No.          | Description        |
|-------------|----------|-------------------|--------------------|
| 789         | R471     | 5273-R27672       | RES, CEM 3P .27    |
| 789         | R472     | 5273-R27672       | RES, CEM 3P .27    |
| 755         | R475     | 5135-122522       | RES, CBN 1/2P 1.2K |
| 755         | R476     | 5135-122522       | RES, CBN 1/2P 1.2K |
| 766         | R483     | 5135-820522       | RES, CBN 1/2P 82   |
| 766         | R484     | 5135-820522       | RES, CBN 1/2P 82   |
| 789         | R489     | 5273-R27672       | RES, CEM 3P .27    |
| 789         | R490     | 5273-R27672       | RES, CEM 3P .27    |
| 776         | R491     | 5135-4R7522       | RES, CBN 1/2P 4.7  |
| 776         | R492     | 5135-4R7522       | RES, CBN 1/2P 4.7  |
| 776         | R493     | 5135-4R7522       | RES, CBN 1/2P 4.7  |
| 776         | R494     | 5135-4R7522       | RES, CBN 1/2P 4.7  |
| 767         | R495     | 5135-100522       | RES, CBN 1/2P 10   |
| 767         | R496     | 5135-100522       | RES, CBN 1/2P 10   |
| 757         | R499     | 5135-680522       | RES, CBN 1/2P 68   |
| 757         | R500     | 5135-680522       | RES, CBN 1/2P 68   |
| TRANSISTORS |          |                   |                    |
| 802         | Q1       | 5611-1115(F)or(E) | XISTOR, PNP R      |
| 801         | Q2       | 5613-2603(F)or(E) | XISTOR, NPN R      |
| 803         | Q3       | 5611-970(BL)      | XISTOR, PNP R      |
| 803         | Q4       | 5611-970(BL)      | XISTOR, PNP R      |
| 803         | Q5       | 5611-970(BL)      | XISTOR, PNP R      |
| 803         | Q6       | 5611-970(BL)      | XISTOR, PNP R      |
| 804         | Q7       | 5613-2240(BL)     | XISTOR, NPN R      |
| 711         | Q401     | 5613-2240(BL)     | XISTOR, NPN R      |
| 711         | Q402     | 5613-2240(BL)     | XISTOR, NPN R      |
| 711         | Q403     | 5613-2240(BL)     | XISTOR, NPN R      |
| 711         | Q404     | 5613-2240(BL)     | XISTOR, NPN R      |
| 712         | Q405     | 5613-2603(F)or(E) | XISTOR, NPN R      |
| 712         | Q406     | 5613-2603(F)or(E) | XISTOR, NPN R      |
| 712         | Q407     | 5613-2603(F)or(E) | XISTOR, NPN R      |
| 712         | Q408     | 5613-2603(F)or(E) | XISTOR, NPN R      |
| 713         | Q409     | 5611-970(BL)      | XISTOR, PNP R      |
| 713         | Q410     | 5611-970(BL)      | XISTOR, PNP R      |
| 723         | Q411     | 5613-2240(BL)     | XISTOR, NPN R      |
| 723         | Q412     | 5613-2240(BL)     | XISTOR, NPN R      |
| 723         | Q413     | 5613-2240(BL)     | XISTOR, NPN R      |
| 723         | Q414     | 5613-2240(BL)     | XISTOR, NPN R      |
| 713         | Q415     | 5611-970(BL)      | XISTOR, PNP R      |
| 713         | Q416     | 5611-970(BL)      | XISTOR, PNP R      |
| 714         | Q417     | 5612-646A(C)      | XISTOR, PNP A      |
| 714         | Q418     | 5612-646A(C)      | XISTOR, PNP A      |
| 715         | Q419     | 5614-666A(C)      | XISTOR, NPN A      |
| 715         | Q420     | 5614-666A(C)      | XISTOR, NPN A      |
| 716         | Q425     | 5613-945(K)or(P)  | XISTOR, NPN R      |
| 716         | Q426     | 5613-945(K)or(P)  | XISTOR, NPN R      |
| 717         | Q427     | 5614-667A(C)      | XISTOR, NPN A      |
| 717         | Q428     | 5614-667A(C)      | XISTOR, NPN A      |
| 718         | Q429     | 5612-647A(C)      | XISTOR, PNP A      |
| 718         | Q430     | 5612-647A(C)      | XISTOR, PNP A      |
| 719         | Q431     | 5613-3181(O)      | XISTOR, NPN R      |
| 719         | Q432     | 5613-3181(O)      | XISTOR, NPN R      |
| 721         | Q433     | 5611-1264(O)      | XISTOR, PNP R      |
| 721         | Q434     | 5611-1264(O)      | XISTOR, PNP R      |
| DIODES      |          |                   |                    |
| 831         | ΔD1      | 5632-ERC402FL     | DIODE, RECT        |
| 831         | ΔD2      | 5632-ERC402FL     | DIODE, RECT        |
| 831         | ΔD3      | 5632-ERC402FL     | DIODE, RECT        |
| 831         | ΔD4      | 5632-ERC402FL     | DIODE, RECT        |
| 806         | D5       | 5636-1S2471       | DIODE, SWITCH      |
| 806         | D6       | 5636-1S2471       | DIODE, SWITCH      |
| 806         | D7       | 5636-1S2471       | DIODE, SWITCH      |
| 806         | D8       | 5636-1S2471       | DIODE, SWITCH      |
| 807         | D11      | 5635-HZ6B1L       | DIODE, ZENER       |
| 729         | D401     | 5641-MV12YM       | VARISTOR           |
| 729         | D402     | 5641-MV12YM       | VARISTOR           |
| 727         | D403     | 5632-S5566B       | DIODE, RECT        |
| 727         | D404     | 5632-S5566B       | DIODE, RECT        |
| 727         | D405     | 5632-S5566B       | DIODE, RECT        |
| 727         | D406     | 5632-S5566B       | DIODE, RECT        |
| 725         | D407     | 5636-1S2473       | DIODE, DET         |
| 725         | D408     | 5636-1S2473       | DIODE, DET         |
| 726         | D409     | 5635-HZ12B2L      | DIODE, ZENER       |

| Ser. No.                       | Ref. No. | Part No.      | Description        |
|--------------------------------|----------|---------------|--------------------|
| 726                            | D410     | 5635-HZ12B2L  | DIODE, ZENER       |
| COILS                          |          |               |                    |
| 794                            | L405     | 5991-7165     | SPRING COIL        |
| 794                            | L406     | 5991-7165     | SPRING COIL        |
| CONTROLS                       |          |               |                    |
| 791                            | VR401    | 5101-50171920 | RES, SEMI FIX 500  |
| 791                            | VR402    | 5101-50171920 | RES, SEMI FIX 500  |
| MISCELLANEOUS                  |          |               |                    |
| 799                            | CN112    | 4443-070185   | CONNECTOR          |
| 849                            | CN601    | 4443-030185   | CONNECTOR          |
| 913                            | JL109    | 4242-R0103251 | JUMPER LEAD        |
| 912                            | JL110    | 4242-R0103181 | JUMPER LEAD        |
| 844                            | TM101    | 4214-11023    | TERMINAL           |
| 843                            | TM102    | 4214-11013    | TERMINAL           |
| 796                            | TM110    | 4214-11013    | TERMINAL           |
| 897                            | LCN2     | 4163-0140026  | CONNECTOR W/W      |
| 898                            | LCN3     | 4163-0140027  | CONNECTOR W/W      |
| 899                            | LCN4     | 4163-0140024  | CONNECTOR W/W      |
| 900                            | LCN5     | 4163-0140025  | CONNECTOR W/W      |
| 901                            | LCN6     | 4163-0110024  | CONNECTOR W/W      |
| 901                            | LCN7     | 4163-0110024  | CONNECTOR W/W      |
| 909                            | LCN8     | 4163-0112024  | CONNECTOR W/W      |
| 903                            | LCN9     | 4163-0115020  | CONNECTOR W/W      |
| 905                            | LCN110   | 4163-0130025  | CONNECTOR W/W      |
| 906                            | LCN111   | 4163-0130024  | CONNECTOR W/W      |
| 907                            | LCN112   | 4163-0130026  | CONNECTOR W/W      |
| 908                            | LCN113   | 4163-0130027  | CONNECTOR W/W      |
| PCB-2 TONE CONTROL P. C. BOARD |          |               |                    |
| CAPACITORS                     |          |               |                    |
| 735                            | C505     | 5345-225F0951 | CAP, MINI ELE 2.2μ |
| 735                            | C506     | 5345-225F0951 | CAP, MINI ELE 2.2μ |
| 746                            | C507     | 5354-273J1HM  | CAP, MYL .027μ     |
| 746                            | C508     | 5354-273J1HM  | CAP, MYL .027μ     |
| 749                            | C509     | 5354-154593   | CAP, MYL .15μ      |
| 749                            | C510     | 5354-154593   | CAP, MYL .15μ      |
| 736                            | C511     | 5345-106C0951 | CAP, MINI ELE 10μ  |
| 736                            | C512     | 5345-106C0951 | CAP, MINI ELE 10μ  |
| 747                            | C513     | 5354-682J1HM  | CAP, MYL 6800p     |
| 747                            | C514     | 5354-682J1HM  | CAP, MYL 6800p     |
| 748                            | C515     | 5354-393J1HM  | CAP, MYL .039μ     |
| 748                            | C516     | 5354-393J1HM  | CAP, MYL .039μ     |
| 741                            | C517     | 5359-2715851  | CAP, PPP 270p      |
| 741                            | C518     | 5359-2715851  | CAP, PPP 270p      |
| RESISTORS                      |          |               |                    |
| 771                            | R501     | 5135-152522   | RES, CBN 1/2P 1.5K |
| 771                            | R502     | 5135-152522   | RES, CBN 1/2P 1.5K |
| 769                            | R505     | 5135-683522   | RES, CBN 1/2P 68K  |
| 769                            | R506     | 5135-683522   | RES, CBN 1/2P 68K  |
| 768                            | R507     | 5135-153522   | RES, CBN 1/2P 15K  |
| 768                            | R508     | 5135-153522   | RES, CBN 1/2P 15K  |
| 770                            | R509     | 5135-272522   | RES, CBN 1/2P 2.7K |
| 770                            | R510     | 5135-272522   | RES, CBN 1/2P 2.7K |
| 772                            | R513     | 5135-681522   | RES, CBN 1/2P 680  |
| 772                            | R514     | 5135-681522   | RES, CBN 1/2P 680  |
| CONTROLS                       |          |               |                    |
| 770                            | VR501    | 5113-50346122 | RES, V CBN 16 50K  |
| 770                            | VR502    | 5113-50346122 | RES, V CBN 16 50K  |
| 764                            | VR505    | 5113-10447122 | RES, V CBN 16 100K |
| 764                            | VR506    | 5113-10447122 | RES, V CBN 16 100K |
| 767                            | VR507    | 5113-50348122 | RES, V CBN 16 50K  |
| 767                            | VR508    | 5113-50348122 | RES, V CBN 16 50K  |
| MISCELLANEOUS                  |          |               |                    |
| 714                            | JL107    | 4242-R0203600 | JUMPER LEAD        |
| 710                            | JL112    | 4242-R0207600 | JUMPER LEAD        |

## ELECTRICAL PARTS LIST

Ser. No. Ref. No. Part No.

Description

## PCB-1 POWER AMP. P. C. BOARD

## CAPACITORS

|      |      |               |                               |
|------|------|---------------|-------------------------------|
| 812  | C2   | 5345-106F041  | CAP, MINI ELE 10 $\mu$ /50V   |
| 839  | C3   | 5362-103048   | CAP, CER .01 $\mu$            |
| 839  | C4   | 5362-103048   | CAP, CER .01 $\mu$            |
| 837  | C5   | 5341-S08FM688 | CAP, ELE 6800 $\mu$ /50V      |
| 837  | C6   | 5341-S08FM688 | CAP, ELE 6800 $\mu$ /50V      |
| 810  | C7   | 5345-105F041  | CAP, MINI ELE 1 $\mu$ /50V    |
| 811  | C8   | 5345-107B041  | CAP, MINI ELE 100 $\mu$ /10V  |
| 811  | C9   | 5345-107B041  | CAP, MINI ELE 100 $\mu$ /10V  |
| 811  | C10  | 5345-107B041  | CAP, MINI ELE 100 $\mu$ /10V  |
| 813  | C15  | 5354-683J1HM  | CAP, MYL .068 $\mu$           |
| 813  | C16  | 5354-683J1HM  | CAP, MYL .068 $\mu$           |
| 814  | C17  | 5354-473J1HM  | CAP, MYL .047 $\mu$           |
| 815  | C21  | 5354-104593   | CAP, MYL .1 $\mu$             |
| 815  | C22  | 5354-104593   | CAP, MYL .1 $\mu$             |
| 815  | C23  | 5354-104593   | CAP, MYL .1 $\mu$             |
| 815  | C24  | 5354-104593   | CAP, MYL .1 $\mu$             |
| 058B | C35  | 5352-1041957  | CAP, MTL .1 $\mu$ <b>GP</b>   |
| 731  | C401 | 5345-107B0951 | CAP, MINI ELE 100 $\mu$ /10V  |
| 731  | C402 | 5345-107B0951 | CAP, MINI ELE 100 $\mu$ /10V  |
| 733  | C403 | 5345-106C041  | CAP, MINI ELE 10 $\mu$ /16V   |
| 733  | C404 | 5345-106C041  | CAP, MINI ELE 10 $\mu$ /16V   |
| 732  | C405 | 5345-227A0951 | CAP, MINI ELE 220 $\mu$ /6.3V |
| 732  | C406 | 5345-227A0951 | CAP, MINI ELE 220 $\mu$ /6.3V |
| 742  | C407 | 5353-020934   | CAP, MCA 2p <b>UA</b>         |
| 742B | C407 | 5353-040934   | CAP, MCA 4p <b>GB</b>         |
| 742  | C408 | 5353-020934   | CAP, MCA 2p <b>UA</b>         |
| 742B | C408 | 5353-040934   | CAP, MCA 4p <b>GB</b>         |
| 740  | C409 | 5359-1015851  | CAP, PPP 100p                 |
| 740  | C410 | 5359-1015851  | CAP, PPP 100p                 |
| 733  | C411 | 5345-106C041  | CAP, MINI ELE 10 $\mu$ /16V   |
| 733  | C412 | 5345-106C041  | CAP, MINI ELE 10 $\mu$ /16V   |
| 745  | C413 | 5354-683J1HM  | CAP, MYL .068 $\mu$           |
| 745  | C414 | 5354-683J1HM  | CAP, MYL .068 $\mu$           |
| 745  | C415 | 5354-683J1HM  | CAP, MYL .068 $\mu$           |
| 745  | C416 | 5354-683J1HM  | CAP, MYL .068 $\mu$           |
| 733  | C417 | 5345-106C041  | CAP, MINI ELE 10 $\mu$ /16V   |
| 733  | C418 | 5345-106C041  | CAP, MINI ELE 10 $\mu$ /16V   |
| 734  | C421 | 5345-107F041  | CAP, MINI ELE 100 $\mu$ /50V  |
| 734  | C422 | 5345-107F041  | CAP, MINI ELE 100 $\mu$ /50V  |
| 734  | C423 | 5345-107F041  | CAP, MINI ELE 100 $\mu$ /50V  |
| 734  | C424 | 5345-107F041  | CAP, MINI ELE 100 $\mu$ /50V  |
| 059B | C425 | 5353-040934   | CAP, MCA 4p <b>GB</b>         |
| 059B | C426 | 5353-040934   | CAP, MCA 4p <b>GB</b>         |
| 740  | C475 | 5359-1015851  | CAP, PPP 100p                 |
| 740  | C476 | 5359-1015851  | CAP, PPP 100p                 |

## RESISTORS

|      |             |              |                             |
|------|-------------|--------------|-----------------------------|
| 830  | $\Delta$ R3 | 5102-1005116 | RES, FUSE 10                |
| 830  | $\Delta$ R4 | 5102-1005116 | RES, FUSE 10                |
| 829  | $\Delta$ R5 | 5102-5R65116 | RES, FUSE 5.6               |
| 818  | R6          | 5135-103522  | RES, CBN 1/2P 10K           |
| 827  | R7          | 5135-101522  | RES, CBN 1/2P 100 <b>UA</b> |
| 827B | R7          | 5135-100522  | RES, CBN 1/2P 10 <b>GB</b>  |
| 827  | R8          | 5135-101522  | RES, CBN 1/2P 100 <b>UA</b> |
| 827B | R8          | 5135-100522  | RES, CBN 1/2P 10 <b>GB</b>  |
| 820  | R9          | 5135-472522  | RES, CBN 1/2P 4.7K          |
| 820  | R10         | 5135-472522  | RES, CBN 1/2P 4.7K          |
| 817  | R11         | 5135-682522  | RES, CBN 1/2P 6.8K          |
| 819  | R12         | 5135-104522  | RES, CBN 1/2P 100K          |
| 825  | R13         | 5135-683522  | RES, CBN 1/2P 68K           |
| 826  | R14         | 5135-333522  | RES, CBN 1/2P 33K           |
| 822  | R15         | 5135-223522  | RES, CBN 1/2P 22K           |
| 822  | R16         | 5135-223522  | RES, CBN 1/2P 22K           |
| 824  | R17         | 5135-332522  | RES, CBN 1/2P 3.3K          |
| 824  | R18         | 5135-332522  | RES, CBN 1/2P 3.3K          |
| 823  | R19         | 5135-821522  | RES, CBN 1/2P 820           |
| 823  | R20         | 5135-821522  | RES, CBN 1/2P 820           |
| 824  | R21         | 5135-332522  | RES, CBN 1/2P 3.3K          |
| 824  | R22         | 5135-332522  | RES, CBN 1/2P 3.3K          |
| 820  | R23         | 5135-472522  | RES, CBN 1/2P 4.7K          |

Ser. No. Ref. No. Part No.

Description

|     |               |              |                    |
|-----|---------------|--------------|--------------------|
| 820 | R24           | 5135-472522  | RES, CBN 1/2P 4.7K |
| 821 | R25           | 5135-473522  | RES, CBN 1/2P 47K  |
| 822 | R26           | 5135-223522  | RES, CBN 1/2P 22K  |
| 821 | R28           | 5135-473522  | RES, CBN 1/2P 47K  |
| 816 | R30           | 5135-562522  | RES, CBN 1/2P 5.6K |
| 816 | R31           | 5135-562522  | RES, CBN 1/2P 5.6K |
| 816 | R32           | 5135-562522  | RES, CBN 1/2P 5.6K |
| 753 | R401          | 5135-102522  | RES, CBN 1/2P 1K   |
| 753 | R402          | 5135-102522  | RES, CBN 1/2P 1K   |
| 754 | R403          | 5135-683522  | RES, CBN 1/2P 68K  |
| 754 | R404          | 5135-683522  | RES, CBN 1/2P 68K  |
| 755 | R405          | 5135-122522  | RES, CBN 1/2P 1.2K |
| 755 | R406          | 5135-122522  | RES, CBN 1/2P 1.2K |
| 755 | R407          | 5135-122522  | RES, CBN 1/2P 1.2K |
| 755 | R408          | 5135-122522  | RES, CBN 1/2P 1.2K |
| 756 | R409          | 5135-682522  | RES, CBN 1/2P 6.8K |
| 756 | R410          | 5135-682522  | RES, CBN 1/2P 6.8K |
| 757 | R411          | 5135-680522  | RES, CBN 1/2P 68   |
| 757 | R412          | 5135-680522  | RES, CBN 1/2P 68   |
| 757 | R413          | 5135-680522  | RES, CBN 1/2P 68   |
| 757 | R414          | 5135-680522  | RES, CBN 1/2P 68   |
| 773 | R415          | 5135-222522  | RES, CBN 1/2P 2.2K |
| 773 | R416          | 5135-222522  | RES, CBN 1/2P 2.2K |
| 759 | R417          | 5135-561522  | RES, CBN 1/2P 560  |
| 759 | R418          | 5135-561522  | RES, CBN 1/2P 560  |
| 754 | R419          | 5135-683522  | RES, CBN 1/2P 68K  |
| 754 | R420          | 5135-683522  | RES, CBN 1/2P 68K  |
| 788 | $\Delta$ R421 | 5102-3315116 | RES, FUSE 330      |
| 788 | $\Delta$ R422 | 5102-3315116 | RES, FUSE 330      |
| 788 | $\Delta$ R423 | 5102-3315116 | RES, FUSE 330      |
| 788 | $\Delta$ R424 | 5102-3315116 | RES, FUSE 330      |
| 760 | R425          | 5135-473522  | RES, CBN 1/2P 47K  |
| 760 | R426          | 5135-473522  | RES, CBN 1/2P 47K  |
| 760 | R427          | 5135-473522  | RES, CBN 1/2P 47K  |
| 760 | R428          | 5135-473522  | RES, CBN 1/2P 47K  |
| 761 | R429          | 5135-224522  | RES, CBN 1/2P 220K |
| 761 | R430          | 5135-224522  | RES, CBN 1/2P 220K |
| 782 | R431          | 5174-131381  | RES, MTL 1/4 130   |
| 782 | R432          | 5174-131381  | RES, MTL 1/4 130   |
| 762 | R433          | 5135-272522  | RES, CBN 1/2P 2.7K |
| 762 | R434          | 5135-272522  | RES, CBN 1/2P 2.7K |
| 763 | R435          | 5135-223522  | RES, CBN 1/2P 22K  |
| 763 | R436          | 5135-223522  | RES, CBN 1/2P 22K  |
| 763 | R437          | 5135-223522  | RES, CBN 1/2P 22K  |
| 763 | R438          | 5135-223522  | RES, CBN 1/2P 22K  |
| 774 | R439          | 5135-153522  | RES, CBN 1/2P 15K  |
| 774 | R440          | 5135-153522  | RES, CBN 1/2P 15K  |
| 764 | R441          | 5135-123522  | RES, CBN 1/2P 12K  |
| 764 | R442          | 5135-123522  | RES, CBN 1/2P 12K  |
| 783 | R443          | 5174-222381  | RES, MTL 1/4 2.2K  |
| 783 | R444          | 5174-222381  | RES, MTL 1/4 2.2K  |
| 783 | R445          | 5174-222381  | RES, MTL 1/4 2.2K  |
| 783 | R446          | 5174-222381  | RES, MTL 1/4 2.2K  |
| 786 | $\Delta$ R447 | 5102-4705116 | RES, FUSE 47       |
| 786 | $\Delta$ R448 | 5102-4705116 | RES, FUSE 47       |
| 786 | $\Delta$ R449 | 5102-4705116 | RES, FUSE 47       |
| 786 | $\Delta$ R450 | 5102-4705116 | RES, FUSE 47       |
| 765 | R455          | 5135-821522  | RES, CBN 1/2P 820  |
| 765 | R456          | 5135-821522  | RES, CBN 1/2P 820  |
| 765 | R457          | 5135-821522  | RES, CBN 1/2P 820  |
| 765 | R458          | 5135-821522  | RES, CBN 1/2P 820  |
| 775 | R459          | 5135-183522  | RES, CBN 1/2P 18K  |
| 775 | R460          | 5135-183522  | RES, CBN 1/2P 18K  |
| 775 | R461          | 5135-183522  | RES, CBN 1/2P 18K  |
| 775 | R462          | 5135-183522  | RES, CBN 1/2P 18K  |
| 767 | R463          | 5135-100522  | RES, CBN 1/2P 10   |
| 767 | R464          | 5135-100522  | RES, CBN 1/2P 10   |
| 767 | R465          | 5135-100522  | RES, CBN 1/2P 10   |
| 767 | R466          | 5135-100522  | RES, CBN 1/2P 10   |
| 787 | $\Delta$ R467 | 5102-1005116 | RES, FUSE 10       |
| 787 | $\Delta$ R468 | 5102-1005116 | RES, FUSE 10       |
| 787 | $\Delta$ R469 | 5102-1005116 | RES, FUSE 10       |
| 787 | $\Delta$ R470 | 5102-1005116 | RES, FUSE 10       |

| Ser. No. | Ref. No. | Part No.    | Description        |
|----------|----------|-------------|--------------------|
| 789      | R471     | 5273-R27672 | RES, CEM 3P .27    |
| 789      | R472     | 5273-R27672 | RES, CEM 3P .27    |
| 755      | R475     | 5135-122522 | RES, CBN 1/2P 1.2K |
| 755      | R476     | 5135-122522 | RES, CBN 1/2P 1.2K |
| 766      | R483     | 5135-820522 | RES, CBN 1/2P 82   |
| 766      | R484     | 5135-820522 | RES, CBN 1/2P 82   |
| 789      | R489     | 5273-R27672 | RES, CEM 3P .27    |
| 789      | R490     | 5273-R27672 | RES, CEM 3P .27    |
| 776      | R491     | 5135-4R7522 | RES, CBN 1/2P 4.7  |
| 776      | R492     | 5135-4R7522 | RES, CBN 1/2P 4.7  |
| 776      | R493     | 5135-4R7522 | RES, CBN 1/2P 4.7  |
| 776      | R494     | 5135-4R7522 | RES, CBN 1/2P 4.7  |
| 767      | R495     | 5135-100522 | RES, CBN 1/2P 10   |
| 767      | R496     | 5135-100522 | RES, CBN 1/2P 10   |
| 757      | R499     | 5135-680522 | RES, CBN 1/2P 68   |
| 757      | R500     | 5135-680522 | RES, CBN 1/2P 68   |

#### TRANSISTORS

|     |      |                   |               |
|-----|------|-------------------|---------------|
| 802 | Q1   | 5611-1115(F)or(E) | XISTOR, PNP R |
| 801 | Q2   | 5613-2603(F)or(E) | XISTOR, NPN R |
| 803 | Q3   | 5611-970(BL)      | XISTOR, PNP R |
| 803 | Q4   | 5611-970(BL)      | XISTOR, PNP R |
| 803 | Q5   | 5611-970(BL)      | XISTOR, PNP R |
| 803 | Q6   | 5611-970(BL)      | XISTOR, PNP R |
| 804 | Q7   | 5613-2240(BL)     | XISTOR, NPN R |
| 711 | Q401 | 5613-2240(BL)     | XISTOR, NPN R |
| 711 | Q402 | 5613-2240(BL)     | XISTOR, NPN R |
| 711 | Q403 | 5613-2240(BL)     | XISTOR, NPN R |
| 711 | Q404 | 5613-2240(BL)     | XISTOR, NPN R |
| 712 | Q405 | 5613-2603(F)or(E) | XISTOR, NPN R |
| 712 | Q406 | 5613-2603(F)or(E) | XISTOR, NPN R |
| 712 | Q407 | 5613-2603(F)or(E) | XISTOR, NPN R |
| 712 | Q408 | 5613-2603(F)or(E) | XISTOR, NPN R |
| 713 | Q409 | 5611-970(BL)      | XISTOR, PNP R |
| 713 | Q410 | 5611-970(BL)      | XISTOR, PNP R |
| 723 | Q411 | 5613-2240(BL)     | XISTOR, NPN R |
| 723 | Q412 | 5613-2240(BL)     | XISTOR, NPN R |
| 723 | Q413 | 5613-2240(BL)     | XISTOR, NPN R |
| 723 | Q414 | 5613-2240(BL)     | XISTOR, NPN R |
| 713 | Q415 | 5611-970(BL)      | XISTOR, PNP R |
| 713 | Q416 | 5611-970(BL)      | XISTOR, PNP R |
| 714 | Q417 | 5612-646A(C)      | XISTOR, PNP A |
| 714 | Q418 | 5612-646A(C)      | XISTOR, PNP A |
| 715 | Q419 | 5614-666A(C)      | XISTOR, NPN A |
| 715 | Q420 | 5614-666A(C)      | XISTOR, NPN A |
| 716 | Q425 | 5613-945(K)or(P)  | XISTOR, NPN R |
| 716 | Q426 | 5613-945(K)or(P)  | XISTOR, NPN R |
| 717 | Q427 | 5614-667A(C)      | XISTOR, NPN A |
| 717 | Q428 | 5614-667A(C)      | XISTOR, NPN A |
| 718 | Q429 | 5612-647A(C)      | XISTOR, PNP A |
| 718 | Q430 | 5612-647A(C)      | XISTOR, PNP A |
| 719 | Q431 | 5613-3181(O)      | XISTOR, NPN R |
| 719 | Q432 | 5613-3181(O)      | XISTOR, NPN R |
| 721 | Q433 | 5611-1264(O)      | XISTOR, PNP R |
| 721 | Q434 | 5611-1264(O)      | XISTOR, PNP R |

#### DIODES

|     |      |               |               |
|-----|------|---------------|---------------|
| 831 | ΔD1  | 5632-ERC402FL | DIODE, RECT   |
| 831 | ΔD2  | 5632-ERC402FL | DIODE, RECT   |
| 831 | ΔD3  | 5632-ERC402FL | DIODE, RECT   |
| 831 | ΔD4  | 5632-ERC402FL | DIODE, RECT   |
| 806 | D5   | 5636-1S247I   | DIODE, SWITCH |
| 806 | D6   | 5636-1S247I   | DIODE, SWITCH |
| 806 | D7   | 5636-1S247I   | DIODE, SWITCH |
| 806 | D8   | 5636-1S247I   | DIODE, SWITCH |
| 807 | D11  | 5635-HZ6BIL   | DIODE, ZENER  |
| 729 | D401 | 5641-MV12YM   | VARISTOR      |
| 729 | D402 | 5641-MV12YM   | VARISTOR      |
| 727 | D403 | 5632-S5566B   | DIODE, RECT   |
| 727 | D404 | 5632-S5566B   | DIODE, RECT   |
| 727 | D405 | 5632-S5566B   | DIODE, RECT   |
| 727 | D406 | 5632-S5566B   | DIODE, RECT   |
| 725 | D407 | 5636-1S2473   | DIODE, DET    |
| 725 | D408 | 5636-1S2473   | DIODE, DET    |
| 726 | D409 | 5635-HZ12B2L  | DIODE, ZENER  |

| Ser. No.     | Ref. No. | Part No.     | Description  |
|--------------|----------|--------------|--------------|
| 726          | D410     | 5635-HZ12B2L | DIODE, ZENER |
| <b>COILS</b> |          |              |              |
| 794          | L405     | 5991-7165    | SPRING COIL  |
| 794          | L406     | 5991-7165    | SPRING COIL  |

#### CONTROLS

|     |       |               |                   |
|-----|-------|---------------|-------------------|
| 791 | VR401 | 5101-50171920 | RES, SEMI FIX 500 |
| 791 | VR402 | 5101-50171920 | RES, SEMI FIX 500 |

#### MISCELLANEOUS

|     |        |               |               |
|-----|--------|---------------|---------------|
| 799 | CN112  | 4443-070185   | CONNECTOR     |
| 849 | CN601  | 4443-030185   | CONNECTOR     |
| 913 | JL109  | 4242-R010325I | JUMPER LEAD   |
| 912 | JL110  | 4242-R010318I | JUMPER LEAD   |
| 844 | TM101  | 4214-11023    | TERMINAL      |
| 843 | TM102  | 4214-11013    | TERMINAL      |
| 796 | TM110  | 4214-11013    | TERMINAL      |
| 897 | LCN2   | 4163-0140026  | CONNECTOR W/W |
| 898 | LCN3   | 4163-0140027  | CONNECTOR W/W |
| 899 | LCN4   | 4163-0140024  | CONNECTOR W/W |
| 900 | LCN5   | 4163-0140025  | CONNECTOR W/W |
| 901 | LCN6   | 4163-0110024  | CONNECTOR W/W |
| 901 | LCN7   | 4163-0110024  | CONNECTOR W/W |
| 909 | LCN8   | 4163-0112024  | CONNECTOR W/W |
| 903 | LCN9   | 4163-0115020  | CONNECTOR W/W |
| 905 | LCN110 | 4163-0130025  | CONNECTOR W/W |
| 906 | LCN111 | 4163-0130024  | CONNECTOR W/W |
| 907 | LCN112 | 4163-0130026  | CONNECTOR W/W |
| 908 | LCN113 | 4163-0130027  | CONNECTOR W/W |

#### PCB-2 TONE CONTROL P. C. BOARD

#### CAPACITORS

|     |      |               |                        |
|-----|------|---------------|------------------------|
| 735 | C505 | 5345-225F095I | CAP, MINI ELE 2.2μ/50V |
| 735 | C506 | 5345-225F095I | CAP, MINI ELE 2.2μ/50V |
| 746 | C507 | 5354-273J1HM  | CAP, MYL .027μ         |
| 746 | C508 | 5354-273J1HM  | CAP, MYL .027μ         |
| 749 | C509 | 5354-154593   | CAP, MYL .15μ          |
| 749 | C510 | 5354-154593   | CAP, MYL .15μ          |
| 736 | C511 | 5345-106C095I | CAP, MINI ELE 10μ/16V  |
| 736 | C512 | 5345-106C095I | CAP, MINI ELE 10μ/16V  |
| 747 | C513 | 5354-682J1HM  | CAP, MYL 6800p         |
| 747 | C514 | 5354-682J1HM  | CAP, MYL 6800p         |
| 748 | C515 | 5354-393J1HM  | CAP, MYL .039μ         |
| 748 | C516 | 5354-393J1HM  | CAP, MYL .039μ         |
| 741 | C517 | 5359-271585I  | CAP, PPP 270p          |
| 741 | C518 | 5359-271585I  | CAP, PPP 270p          |

#### RESISTORS

|     |      |             |                    |
|-----|------|-------------|--------------------|
| 771 | R501 | 5135-152522 | RES, CBN 1/2P 1.5K |
| 771 | R502 | 5135-152522 | RES, CBN 1/2P 1.5K |
| 769 | R505 | 5135-683522 | RES, CBN 1/2P 68K  |
| 769 | R506 | 5135-683522 | RES, CBN 1/2P 68K  |
| 768 | R507 | 5135-153522 | RES, CBN 1/2P 15K  |
| 768 | R508 | 5135-153522 | RES, CBN 1/2P 15K  |
| 770 | R509 | 5135-272522 | RES, CBN 1/2P 2.7K |
| 770 | R510 | 5135-272522 | RES, CBN 1/2P 2.7K |
| 772 | R513 | 5135-681522 | RES, CBN 1/2P 680  |
| 772 | R514 | 5135-681522 | RES, CBN 1/2P 680  |

#### CONTROLS

|     |       |               |                    |
|-----|-------|---------------|--------------------|
| 870 | VR501 | 5113-50346122 | RES, V CBN 16 50K  |
| 870 | VR502 | 5113-50346122 | RES, V CBN 16 50K  |
| 864 | VR505 | 5113-10447122 | RES, V CBN 16 100K |
| 864 | VR506 | 5113-10447122 | RES, V CBN 16 100K |
| 867 | VR507 | 5113-50348122 | RES, V CBN 16 50K  |
| 867 | VR508 | 5113-50348122 | RES, V CBN 16 50K  |

#### MISCELLANEOUS

|     |       |               |             |
|-----|-------|---------------|-------------|
| 914 | JL107 | 4242-R0203600 | JUMPER LEAD |
| 910 | JL112 | 4242-R0207600 | JUMPER LEAD |

| Ser. No.                                       | Ref. No. | Part No.     | Description   |
|------------------------------------------------|----------|--------------|---------------|
| <b>PCB-3 SPEAKER MODE SELECTOR P. C. BOARD</b> |          |              |               |
| 884                                            | S2       | 4421-0227143 | SWITCH, SLIDE |

#### PCB-4 LOUDNESS SWITCH P. C. BOARD

|                      |       |               |                    |
|----------------------|-------|---------------|--------------------|
| <b>CAPACITORS</b>    |       |               |                    |
| 739                  | C575  | 5359-1815851  | CAP, PPP 180p      |
| 739                  | C576  | 5359-1815851  | CAP, PPP 180p      |
| 744                  | C577  | 5354-823J1HM  | CAP, MYL .082μ     |
| 744                  | C578  | 5354-823J1HM  | CAP, MYL .082μ     |
| <b>RESISTORS</b>     |       |               |                    |
| 779                  | R573  | 5135-472522   | RES, CBN 1/2P 4.7K |
| 779                  | R574  | 5135-472522   | RES, CBN 1/2P 4.7K |
| 780                  | R575  | 5135-273522   | RES, CBN 1/2P 27K  |
| 780                  | R576  | 5135-273522   | RES, CBN 1/2P 27K  |
| <b>MISCELLANEOUS</b> |       |               |                    |
| 883                  | S8    | 4431-A027610  | SWITCH, PUSH       |
| 916                  | JL111 | 4242-R0105121 | JUMPER LEAD        |

#### PCB-5 VOLUME P. C. BOARD

|                  |       |               |                    |
|------------------|-------|---------------|--------------------|
| <b>RESISTORS</b> |       |               |                    |
| 781              | R571  | 5135-273522   | RES, CBN 1/2P 27K  |
| 781              | R572  | 5135-273522   | RES, CBN 1/2P 27K  |
| <b>CONTROLS</b>  |       |               |                    |
| 861              | VR503 | 5113-10419122 | RES, V CBN 16 100K |
| 861              | VR504 | 5113-10419122 | RES, V CBN 16 100K |

#### PCB-6 HEADPHONE JACK P. C. BOARD

|                      |       |               |                |
|----------------------|-------|---------------|----------------|
| <b>RESISTORS</b>     |       |               |                |
| 784                  | R497  | 5171-471571   | RES, MTL 1 470 |
| 784                  | R498  | 5171-471571   | RES, MTL 1 470 |
| <b>MISCELLANEOUS</b> |       |               |                |
| 886                  | J1    | 4451-00159    | JACK, 1P       |
| 915                  | JL108 | 4242-R0103121 | JUMPER LEAD    |

#### PCB-7 INDICATORS P. C. BOARD

|     |     |              |     |
|-----|-----|--------------|-----|
| 891 | D9  | 5637-GL5HD41 | LED |
| 891 | D10 | 5637-GL5HD41 | LED |

#### PCB-9 SPEAKER SWITCH P. C. BOARD

|     |    |               |              |
|-----|----|---------------|--------------|
| 879 | S9 | 4431-S0303204 | SWITCH, PUSH |
|-----|----|---------------|--------------|

#### PCB-10 SPEAKER TERMINAL P. C. BOARD

|     |       |             |             |
|-----|-------|-------------|-------------|
| 911 | JL120 | 4242-043805 | JUMPER LEAD |
| 893 | TM10  | 4214-165    | TERMINAL    |

#### PCB-11 PIN JACK P. C. BOARD

|                   |      |               |                         |
|-------------------|------|---------------|-------------------------|
| <b>CAPACITORS</b> |      |               |                         |
| 665               | C601 | 5345-106C0951 | CAP, MINI ELE 10μ/16V   |
| 665               | C602 | 5345-106C0951 | CAP, MINI ELE 10μ/16V   |
| 670               | C603 | 5359-1215851  | CAP, PPP 120p           |
| 670               | C604 | 5359-1215851  | CAP, PPP 120p           |
| 664               | C605 | 5345-227A0951 | CAP, MINI ELE 220μ/6.3V |
| 664               | C606 | 5345-227A0951 | CAP, MINI ELE 220μ/6.3V |
| 671               | C607 | 5359-5625851  | CAP, PPP 5600p          |
| 671               | C608 | 5359-5625851  | CAP, PPP 5600p          |
| 672               | C609 | 5359-2025851  | CAP, PPP 2000p          |
| 672               | C610 | 5359-2025851  | CAP, PPP 2000p          |
| 665               | C611 | 5345-106C0951 | CAP, MINI ELE 10μ/16V   |
| 665               | C612 | 5345-106C0951 | CAP, MINI ELE 10μ/16V   |
| 667               | C613 | 5345-107D041  | CAP, MINI ELE 100μ/25V  |

| Ser. No.           | Ref. No. | Part No.          | Description                |
|--------------------|----------|-------------------|----------------------------|
| 666                | C614     | 5345-227D041      | CAP, MINI ELE 220μ/25V     |
| 666                | C615     | 5345-227D041      | CAP, MINI ELE 220μ/25V     |
| 667                | C616     | 5345-107D041      | CAP, MINI ELE 100μ/25V     |
| 060B               | C631     | 5353-820534       | CAP, MCA 82p <b>GB</b>     |
| 060B               | C632     | 5353-820534       | CAP, MCA 82p <b>GB</b>     |
| 673                | C633     | 5359-1825851      | CAP, PPP 1800p             |
| 673                | C634     | 5359-1825851      | CAP, PPP 1800p             |
| 676                | C635     | 5353-030934       | CAP, MCA 3p                |
| 676                | C636     | 5353-030934       | CAP, MCA 3p                |
| <b>RESISTORS</b>   |          |                   |                            |
| 681                | R601     | 5135-823522       | RES, CBN 1/2P 82K          |
| 681                | R602     | 5135-823522       | RES, CBN 1/2P 82K          |
| 682                | R603     | 5135-124522       | RES, CBN 1/2P 120K         |
| 682                | R604     | 5135-124522       | RES, CBN 1/2P 120K         |
| 683                | R605     | 5135-221522       | RES, CBN 1/2P 220          |
| 683                | R606     | 5135-221522       | RES, CBN 1/2P 220          |
| 684                | R607     | 5135-122522       | RES, CBN 1/2P 1.2K         |
| 684                | R608     | 5135-122522       | RES, CBN 1/2P 1.2K         |
| 685                | R609     | 5135-220522       | RES, CBN 1/2P 22           |
| 685                | R610     | 5135-220522       | RES, CBN 1/2P 22           |
| 684                | R611     | 5135-122522       | RES, CBN 1/2P 1.2K         |
| 684                | R612     | 5135-122522       | RES, CBN 1/2P 1.2K         |
| 686                | R613     | 5135-223522       | RES, CBN 1/2P 22K          |
| 686                | R614     | 5135-223522       | RES, CBN 1/2P 22K          |
| 687                | R615     | 5135-820522       | RES, CBN 1/2P 82           |
| 687                | R616     | 5135-820522       | RES, CBN 1/2P 82           |
| 688                | R617     | 5135-121522       | RES, CBN 1/2P 120          |
| 688                | R618     | 5135-121522       | RES, CBN 1/2P 120          |
| 689                | R621     | 5135-751522       | RES, CBN 1/2P 750          |
| 689                | R622     | 5135-751522       | RES, CBN 1/2P 750          |
| 690                | R623     | 5135-393522       | RES, CBN 1/2P 39K          |
| 690                | R624     | 5135-393522       | RES, CBN 1/2P 39K          |
| 691                | R625     | 5135-564522       | RES, CBN 1/2P 560K         |
| 691                | R626     | 5135-564522       | RES, CBN 1/2P 560K         |
| 692                | R627     | 5135-334522       | RES, CBN 1/2P 330K         |
| 692                | R628     | 5135-334522       | RES, CBN 1/2P 330K         |
| 693                | R629     | 5135-102522       | RES, CBN 1/2P 1K           |
| 693                | R630     | 5135-102522       | RES, CBN 1/2P 1K           |
| 694                | R631     | 5135-104522       | RES, CBN 1/2P 100K         |
| 694                | R632     | 5135-104522       | RES, CBN 1/2P 100K         |
| 693                | R633     | 5135-102522       | RES, CBN 1/2P 1K           |
| 693                | R634     | 5135-102522       | RES, CBN 1/2P 1K           |
| 695                | R635     | 5135-222522       | RES, CBN 1/2P 2.2K         |
| 695                | R636     | 5135-222522       | RES, CBN 1/2P 2.2K         |
| 701                | △R637    | 5102-1215116      | RES, FUSE 120              |
| 696                | R638     | 5135-682522       | RES, CBN 1/2P 6.8K         |
| 701                | △R639    | 5102-1215116      | RES, FUSE 120              |
| 696                | R641     | 5135-682522       | RES, CBN 1/2P 6.8K         |
| 065B               | R671     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R672     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R673     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R674     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R675     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R676     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R677     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R678     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R679     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R680     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 695                | R681     | 5135-222522       | RES, CBN 1/2P 2.2K         |
| 695                | R682     | 5135-222522       | RES, CBN 1/2P 2.2K         |
| 065B               | R683     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| 065B               | R684     | 5135-102522       | RES, CBN 1/2P 1K <b>GB</b> |
| <b>TRANSISTORS</b> |          |                   |                            |
| 651                | Q601     | 5613-2320L(F)     | XISTOR, NPN R              |
| 651                | Q602     | 5613-2320L(F)     | XISTOR, NPN R              |
| 653                | Q603     | 5611-999L(F)      | XISTOR, PNP R              |
| 653                | Q604     | 5611-999L(F)      | XISTOR, PNP R              |
| 654                | Q605     | 5611-1115(F)or(E) | XISTOR, PNP R              |
| 654                | Q606     | 5611-1115(F)or(E) | XISTOR, PNP R              |
| 652                | Q607     | 5613-2603(F)or(E) | XISTOR, NPN R              |
| 652                | Q608     | 5613-2603(F)or(E) | XISTOR, NPN R              |
| 652                | Q609     | 5613-2603(F)or(E) | XISTOR, NPN R              |
| 652                | Q610     | 5613-2603(F)or(E) | XISTOR, NPN R              |
| 652                | Q611     | 5613-2603(F)or(E) | XISTOR, NPN R              |

| Ser. No.             | Ref. No. | Part No.          | Description   |
|----------------------|----------|-------------------|---------------|
| 652                  | Q612     | 5613-2603(F)or(E) | XISTOR, NPN R |
| 655                  | Q613     | 5612-941(Q)or(P)  | XISTOR, PNP A |
| 656                  | Q614     | 5614-1266(Q)or(P) | XISTOR, NPN A |
| <b>DIODES</b>        |          |                   |               |
| 659                  | D601     | 5635-HZ18-2L      | DIODE, ZENER  |
| 659                  | D602     | 5635-HZ18-2L      | DIODE, ZENER  |
| <b>MISCELLANEOUS</b> |          |                   |               |
| 887                  | J2       | 4482-0133         | PIN JACK, 2P  |
| 888                  | J3       | 4484-46           | PIN JACK, 4P  |
| 888                  | J4       | 4484-46           | PIN JACK, 4P  |
| 888                  | J5       | 4484-46           | PIN JACK, 4P  |
| 902                  | LCN601   | 4163-0135020      | CONNECTOR W/W |

**PCB-12 FUNCTION AND TAPE MON. SWITCH P. C. BOARD**

|      |       |               |                         |
|------|-------|---------------|-------------------------|
| 061B | C581  | 5359-1015851  | CAP, PPP 100p <b>GB</b> |
| 061B | C582  | 5359-1015851  | CAP, PPP 100p <b>GB</b> |
| 873  | S3    | 4411-00206204 | SWITCH, ROTARY          |
| 876  | S4    | 4411-00208203 | SWITCH, ROTARY          |
| 062B | L591  | 5597-45502    | CORE, BEADS <b>GB</b>   |
| 062B | L592  | 5597-45502    | CORE, BEADS <b>GB</b>   |
| 850  | CN107 | 4443-030185   | CONNECTOR               |
| 918  | JL101 | 4242-R0103161 | JUMPER LEAD             |
| 917  | JL102 | 4242-R0203141 | JUMPER LEAD             |
| 919  | JL103 | 4242-R0103401 | JUMPER LEAD             |
| 922  | JL104 | 4242-R0104351 | JUMPER LEAD             |
| 921  | JL105 | 4242-R0307301 | JUMPER LEAD             |
| 920  | JL106 | 4242-R0305251 | JUMPER LEAD             |
| 924  | JL114 | 4242-R0204201 | JUMPER LEAD             |
| 904  | LCN10 | 4163-0118020  | CONNECTOR W/W           |
| 896  | LCN11 | 4163-0108024  | CONNECTOR W/W           |

**PCB-13 TUNER P. C. BOARD****CAPACITORS**

|      |      |               |                                 |
|------|------|---------------|---------------------------------|
| 607  | C25  | 5352-S010M103 | CAP, MTL .01μ                   |
| 601  | C51  | 5345-228D045  | CAP, MINI ELE 2200μ/25V         |
| 602  | C52  | 5345-476D041  | CAP, MINI ELE 47μ/25V           |
| 602  | C53  | 5345-476D041  | CAP, MINI ELE 47μ/25V           |
| 603  | C54  | 5345-107B041  | CAP, MINI ELE 100μ/10V          |
| 604  | C56  | 5345-228A041  | CAP, MINI ELE 2200μ/6.3V        |
| 608  | C57  | 5361-473ZF    | CAP, CER .047μ                  |
| 608  | C58  | 5361-473ZF    | CAP, CER .047μ                  |
| 606  | C59  | 5361-223ZF    | CAP, CER .022μ                  |
| 606  | C60  | 5361-223ZF    | CAP, CER .022μ                  |
| 600  | C62  | 5345-105F041  | CAP, MINI ELE 1μ/50V            |
| 599  | C63  | 5345-227A041  | CAP, MINI ELE 220μ/6.3V         |
| 598  | C64  | 5345-107A041  | CAP, MINI ELE 100μ/6.3V         |
| 415  | C101 | 5345-476C041  | CAP, MINI ELE 47μ/16V           |
| 417  | C102 | 5361-223ZF    | CAP, CER .022μ                  |
| 416  | C105 | 5345-226C041  | CAP, MINI ELE 22μ/16V           |
| 452  | C201 | 5361-223ZF    | CAP, CER .022μ                  |
| 452  | C202 | 5361-223ZF    | CAP, CER .022μ                  |
| 452  | C203 | 5361-223ZF    | CAP, CER .022μ                  |
| 452  | C204 | 5361-223ZF    | CAP, CER .022μ                  |
| 451  | C205 | 5361-103ZF    | CAP, CER .01μ                   |
| 452  | C206 | 5361-223ZF    | CAP, CER .022μ                  |
| 452  | C207 | 5361-223ZF    | CAP, CER .022μ                  |
| 453  | C208 | 5345-106C041  | CAP, MINI ELE 10μ/16V           |
| 454  | C209 | 5345-105F041  | CAP, MINI ELE 1μ/50V            |
| 456  | C210 | 5359-1015851  | CAP, PPP 100p <b>UA</b>         |
| 456B | C210 | 5359-3315851  | CAP, PPP 330p <b>GB</b>         |
| 455  | C211 | 5345-226C0952 | CAP, MINI ELE 22μ/16V           |
| 452  | C212 | 5361-223ZF    | CAP, CER .022μ                  |
| 053B | C216 | 5345-226C0951 | CAP, MINI ELE 22μ/16V <b>GB</b> |
| 043B | C220 | 5361-050DSL   | CAP, PPP 5P <b>GB</b>           |
| 044B | C221 | 5361-223ZF    | CAP, CER .022μ <b>GB</b>        |
| 046B | C222 | 5345-106C041  | CAP, MINI ELE 10μ/16V <b>GB</b> |
| 045B | C223 | 5361-473ZF    | CAP, CER .047μ <b>GB</b>        |
| 481  | C251 | 5361-473ZF    | CAP, CER .047μ                  |
| 482  | C252 | 5359-4315851  | CAP, PPP 430p                   |
| 483  | C253 | 5361-220JPH   | CAP, CER 22p                    |

| Ser. No. | Ref. No. | Part No.      | Description              |
|----------|----------|---------------|--------------------------|
| 481      | C254     | 5361-473ZF    | CAP, CER .047μ           |
| 487      | C255     | 5345-106C041  | CAP, MINI ELE 10μ/16V    |
| 481      | C256     | 5361-473ZF    | CAP, CER .047μ           |
| 489      | C257     | 5345-475D041  | CAP, MINI ELE 4.7μ/25V   |
| 489      | C258     | 5345-475D041  | CAP, MINI ELE 4.7μ/25V   |
| 488      | C259     | 5345-335F041  | CAP, MINI ELE 3.3μ/50V   |
| 491      | C260     | 5345-105F041  | CAP, MINI ELE 1μ/50V     |
| 485      | C261     | 5361-472KB    | CAP, CER 4700p <b>UA</b> |
| 490      | C264     | 5345-224F041  | CAP, MINI ELE .22μ/50V   |
| 487      | C265     | 5345-106C041  | CAP, MINI ELE 10μ/16V    |
| 509      | C301     | 5345-226C0952 | CAP, MINI ELE 22μ/16V    |
| 510      | C302     | 5345-476C041  | CAP, MINI ELE 47μ/16V    |
| 517      | C304     | 5361-331KB    | CAP, CER 330p <b>UA</b>  |
| 517B     | C304     | 5361-221KB    | CAP, CER 220p <b>GB</b>  |
| 517      | C305     | 5361-331KB    | CAP, CER 330p <b>UA</b>  |
| 517B     | C305     | 5361-221KB    | CAP, CER 220p <b>GB</b>  |
| 518      | C306     | 5354-473K1HM  | CAP, MYL .047μ           |
| 511      | C307     | 5345-474F0952 | CAP, MINI ELE .47μ/50V   |
| 512      | C308     | 5345-224F0952 | CAP, MINI ELE .22μ/50V   |
| 519      | C309     | 5359-1015851  | CAP, PPP 100p            |
| 513      | C310     | 5345-106C041  | CAP, MINI ELE 10μ/16V    |
| 514      | C311     | 5345-225F0952 | CAP, MINI ELE 2.2μ/50V   |
| 514      | C312     | 5345-225F0952 | CAP, MINI ELE 2.2μ/50V   |
| 514      | C313     | 5345-225F0952 | CAP, MINI ELE 2.2μ/50V   |
| 520      | C314     | 5361-472KB    | CAP, CER 4700p           |
| 520      | C315     | 5361-472KB    | CAP, CER 4700p           |
| 516      | C316     | 5361-471KB    | CAP, CER 470p            |
| 541      | C703     | 5345-474F041  | CAP, MINI ELE .47μ/50V   |
| 543      | C704     | 5345-684F0951 | CAP, MINI ELE .68μ/50V   |
| 544      | C705     | 5354-473K1HM  | CAP, MYL .047μ           |
| 545      | C706     | 5345-227C041  | CAP, MINI ELE 220μ/16V   |
| 542      | C707     | 5345-106D041  | CAP, MINI ELE 10μ/25V    |
| 542      | C709     | 5345-106D041  | CAP, MINI ELE 10μ/25V    |
| 559      | C710     | 5361-360J930  | CAP, CER 36p             |
| 559      | C711     | 5361-360J930  | CAP, CER 36p             |

**RESISTORS**

|      |      |              |                              |
|------|------|--------------|------------------------------|
| 611  | R42  | 5232-222J16P | RES, CBN 1/6P 2.2K           |
| 612  | R43  | 5232-331J16P | RES, CBN 1/6P 330            |
| 613  | R44  | 5232-101J16P | RES, CBN 1/6P 100            |
| 613  | R45  | 5232-101J16P | RES, CBN 1/6P 100            |
| 609  | R46  | 5171-221593  | RES, MTL 1 220               |
| 614  | R47  | 5232-471J16P | RES, CBN 1/6P 470            |
| 615  | R48  | 5232-100J16P | RES, CBN 1/6P 10             |
| 616  | R49  | 5232-334J16P | RES, CBN 1/6P 330K           |
| 617  | R50  | 5232-105J16P | RES, CBN 1/6P 1M             |
| 618  | R51  | 5135-155522  | RES, CBN 1/2P 1.5M           |
| 618  | R52  | 5135-155522  | RES, CBN 1/2P 1.5M           |
| 427  | R101 | 5232-183J16P | RES, CBN 1/6P 18K            |
| 428  | R102 | 5232-272J16P | RES, CBN 1/6P 2.7K           |
| 459  | R201 | 5232-391J16P | RES, CBN 1/6P 390 <b>UA</b>  |
| 460  | R202 | 5232-331J16P | RES, CBN 1/6P 330            |
| 461  | R203 | 5232-154J16P | RES, CBN 1/6P 150K           |
| 466  | R204 | 5232-330J16P | RES, CBN 1/6P 33             |
| 462  | R205 | 5232-101J16P | RES, CBN 1/6P 100            |
| 459  | R206 | 5232-391J16P | RES, CBN 1/6P 390            |
| 463  | R207 | 5232-102J16P | RES, CBN 1/6P 1K             |
| 460  | R208 | 5232-331J16P | RES, CBN 1/6P 330            |
| 461  | R209 | 5232-154J16P | RES, CBN 1/6P 150K           |
| 466  | R210 | 5232-330J16P | RES, CBN 1/6P 33             |
| 462  | R211 | 5232-101J16P | RES, CBN 1/6P 100            |
| 459  | R212 | 5232-391J16P | RES, CBN 1/6P 390            |
| 463  | R213 | 5232-102J16P | RES, CBN 1/6P 1K             |
| 465  | R215 | 5232-103J16P | RES, CBN 1/6P 10K            |
| 463  | R216 | 5232-102J16P | RES, CBN 1/6P 1K             |
| 467  | R217 | 5232-123J16P | RES, CBN 1/6P 12K <b>UA</b>  |
| 467B | R217 | 5232-223J16P | RES, CBN 1/6P 22K <b>GB</b>  |
| 468  | R218 | 5232-472J16P | RES, CBN 1/6P 4.7K <b>UA</b> |
| 468B | R218 | 5232-222J16P | RES, CBN 1/6P 2.2K <b>GB</b> |
| 469  | R219 | 5232-332J16P | RES, CBN 1/6P 3.3K           |
| 047B | R220 | 5232-331J16P | RES, CBN 1/6P 330 <b>GB</b>  |
| 048B | R221 | 5232-332J16P | RES, CBN 1/6P 3.3K <b>GB</b> |
| 049B | R222 | 5232-473J16P | RES, CBN 1/6P 47K <b>GB</b>  |
| 050B | R223 | 5232-104J16P | RES, CBN 1/6P 100K <b>GB</b> |
| 049B | R224 | 5232-473J16P | RES, CBN 1/6P 47K <b>GB</b>  |

| Ser. No.                   | Ref. No. | Part No.      | Description                   |
|----------------------------|----------|---------------|-------------------------------|
| 064B                       | R225     | 5232-222J16P  | RES, CBN 1/6P 2.2K <b>GB</b>  |
| 493                        | R251     | 5232-104J16P  | RES, CBN 1/6P 100K            |
| 493                        | R252     | 5232-104J16P  | RES, CBN 1/6P 100K            |
| 494                        | R253     | 5232-102J16P  | RES, CBN 1/6P 1K              |
| 495                        | R254     | 5232-272J16P  | RES, CBN 1/6P 2.7K            |
| 500                        | R255     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 497                        | R256     | 5232-471J16P  | RES, CBN 1/6P 470             |
| 496                        | R257     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 496                        | R258     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 498                        | R259     | 5232-820J16P  | RES, CBN 1/6P 82              |
| 499                        | R260     | 5232-473J16P  | RES, CBN 1/6P 47K             |
| 492                        | R261     | 5232-153J16P  | RES, CBN 1/6P 15K <b>UA</b>   |
| 492B                       | R261     | 5232-183J16P  | RES, CBN 1/6P 18K <b>GB</b>   |
| 493                        | R262     | 5232-104J16P  | RES, CBN 1/6P 100K            |
| 493                        | R263     | 5232-104J16P  | RES, CBN 1/6P 100K            |
| 496                        | R264     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 521                        | R301     | 5232-154J16P  | RES, CBN 1/6P 150K <b>UA</b>  |
| 521B                       | R301     | 5232-184J16P  | RES, CBN 1/6P 180K <b>GB</b>  |
| 521                        | R302     | 5232-154J16P  | RES, CBN 1/6P 150K <b>UA</b>  |
| 521B                       | R302     | 5232-184J16P  | RES, CBN 1/6P 180K <b>GB</b>  |
| 522                        | R303     | 5232-332J16P  | RES, CBN 1/6P 3.3K            |
| 522                        | R304     | 5232-332J16P  | RES, CBN 1/6P 3.3K            |
| 523                        | R305     | 5232-124J16P  | RES, CBN 1/6P 120K <b>UA</b>  |
| 523B                       | R305     | 5232-154J16P  | RES, CBN 1/6P 150K <b>GB</b>  |
| 523                        | R306     | 5232-124J16P  | RES, CBN 1/6P 120K <b>UA</b>  |
| 523B                       | R306     | 5232-154J16P  | RES, CBN 1/6P 150K <b>GB</b>  |
| 524                        | R307     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 526                        | R308     | 5232-473J16P  | RES, CBN 1/6P 47K             |
| 524                        | R309     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 524                        | R310     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 524                        | R311     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 524                        | R312     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 525                        | R313     | 5232-472J16P  | RES, CBN 1/6P 4.7K            |
| 525                        | R315     | 5232-472J16P  | RES, CBN 1/6P 4.7K            |
| 547                        | R701     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R702     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R703     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R704     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R705     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R706     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R707     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R708     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 548                        | R709     | 5232-100J16P  | RES, CBN 1/6P 10              |
| 550                        | R712     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 550                        | R713     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 550                        | R714     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 550                        | R715     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 555                        | R716     | 5232-105J16P  | RES, CBN 1/6P 1M              |
| 556                        | R717     | 5232-335J16P  | RES, CBN 1/6P 3.3M            |
| 550                        | R718     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 547                        | R721     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 552                        | R722     | 5232-102J16P  | RES, CBN 1/6P 1K              |
| 550                        | R723     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 554                        | R724     | 5135-155522   | RES, CBN 1/2P 1.5M            |
| 557                        | R725     | 5232-222J16P  | RES, CBN 1/6P 2.2K            |
| 547                        | R726     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 552                        | R727     | 5232-102J16P  | RES, CBN 1/6P 1K              |
| 549                        | R728     | 5232-473J16P  | RES, CBN 1/6P 47K             |
| 553                        | R730     | 5232-562J16P  | RES, CBN 1/6P 5.6K            |
| 550                        | R731     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 550                        | R732     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 547                        | R733     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R734     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R735     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 547                        | R736     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| 558                        | R737     | 5232-104J16P  | RES, CBN 1/6P 100K            |
| 550                        | R738     | 5232-223J16P  | RES, CBN 1/6P 22K             |
| 549                        | R739     | 5232-473J16P  | RES, CBN 1/6P 47K             |
| 547                        | R740     | 5232-103J16P  | RES, CBN 1/6P 10K             |
| <b>INTEGRATED CIRCUITS</b> |          |               |                               |
| 441                        | IC201    | 5653-LA1266   | IC, FM/AM IF                  |
| 501                        | IC301    | 5653-LA3410   | IC, PLL MPX                   |
| 531                        | IC701    | 5654-T9304F11 | IC, DIGITAL TUNING SYSTEM LSI |
| 538                        | IC702    | 5654-TC4030BP | IC, QUAD EXCLUSIVE-OR GATE    |

| Ser. No.            | Ref. No. | Part No.          | Description             |
|---------------------|----------|-------------------|-------------------------|
| <b>TRANSISTORS</b>  |          |                   |                         |
| 591                 | Q11      | 5612-1375         | XISTOR, PNP A           |
| 592                 | Q12      | 5613-2603(E)or(F) | XISTOR, NPN R           |
| 592                 | Q13      | 5613-2603(E)or(F) | XISTOR, NPN R           |
| 424                 | Q101     | 5613-2603(F)or(E) | XISTOR, NPN R           |
| 442                 | Q201     | 5613-2058(N)or(P) | XISTOR, NPN R           |
| 442                 | Q202     | 5613-2058(N)or(P) | XISTOR, NPN R           |
| 041B                | Q220     | 5613-2603(E)or(F) | XISTOR, NPN R <b>GB</b> |
| 502                 | Q301     | 5613-2878(B)      | XISTOR, NPN R           |
| 502                 | Q302     | 5613-2878(B)      | XISTOR, NPN R           |
| 507                 | Q303     | 5613-RN1203       | XISTOR, NPN R           |
| 532                 | Q701     | 5611-1115(E)or(F) | XISTOR, PNP R           |
| 533                 | Q702     | 5613-RN1203       | XISTOR, NPN R           |
| 533                 | Q703     | 5613-RN1203       | XISTOR, NPN R           |
| 533                 | Q704     | 5613-RN1203       | XISTOR, NPN R           |
| 535                 | Q705     | 5613-2603(E)or(F) | XISTOR, NPN R           |
| 533                 | Q706     | 5613-RN1203       | XISTOR, NPN R           |
| 535                 | Q707     | 5613-2603(E)or(F) | XISTOR, NPN R           |
| 534                 | Q708     | 5613-2240(BL)     | XISTOR, NPN R           |
| 532                 | Q709     | 5611-1115(E)or(F) | XISTOR, PNP R           |
| <b>DIODES</b>       |          |                   |                         |
| 594                 | ΔD21     | 5632-S5566B       | DIODE, RECT             |
| 594                 | ΔD22     | 5632-S5566B       | DIODE, RECT             |
| 594                 | ΔD23     | 5632-S5566B       | DIODE, RECT             |
| 594                 | ΔD24     | 5632-S5566B       | DIODE, RECT             |
| 596                 | D25      | 5635-HZ12C2L      | DIODE, ZENER            |
| 597                 | D26      | 5635-HZ6B1L       | DIODE, ZENER            |
| 595                 | D27      | 5631-ISS133       | DIODE, DET              |
| 595                 | D28      | 5631-ISS133       | DIODE, DET              |
| 595                 | D29      | 5631-ISS133       | DIODE, DET              |
| 595                 | D30      | 5631-ISS133       | DIODE, DET              |
| 448                 | D201     | 5631-ISS133       | DIODE, DET              |
| 042B                | D220     | 5631-ISS133       | DIODE, DET <b>GB</b>    |
| 042B                | D221     | 5631-ISS133       | DIODE, DET <b>GB</b>    |
| 471                 | D251     | 5633-ISV149       | DIODE, CAP              |
| 471                 | D252     | 5633-ISV149       | DIODE, CAP              |
| 472                 | D253     | 5631-ISS133       | DIODE, DET              |
| 472                 | D254     | 5631-ISS133       | DIODE, DET              |
| 503                 | D301     | 5631-ISS133       | DIODE, DET              |
| 503                 | D302     | 5631-ISS133       | DIODE, DET              |
| 503                 | D303     | 5631-ISS133       | DIODE, DET              |
| 503                 | D334     | 5631-ISS133       | DIODE, DET              |
| 503                 | D305     | 5631-ISS133       | DIODE, DET              |
| 503                 | D306     | 5631-ISS133       | DIODE, DET              |
| 539                 | D701     | 5631-ISS133       | DIODE, DET              |
| 539                 | D702     | 5631-ISS133       | DIODE, DET              |
| 539                 | D703     | 5631-ISS133       | DIODE, DET              |
| 539                 | D704     | 5631-ISS133       | DIODE, DET              |
| 539                 | D705     | 5631-ISS133       | DIODE, DET              |
| 539                 | D706     | 5631-ISS133       | DIODE, DET              |
| 539                 | D707     | 5631-ISS133       | DIODE, DET              |
| 539                 | D708     | 5631-ISS133       | DIODE, DET              |
| 539                 | D709     | 5631-ISS133       | DIODE, DET              |
| 539                 | D710     | 5631-ISS133       | DIODE, DET              |
| 539                 | D711     | 5631-ISS133       | DIODE, DET <b>UA</b>    |
| 539                 | D714     | 5631-ISS133       | DIODE, DET              |
| 539                 | D715     | 5631-ISS133       | DIODE, DET              |
| 539                 | D716     | 5631-ISS133       | DIODE, DET              |
| <b>COILS</b>        |          |                   |                         |
| 413                 | L102     | 5995-2R2J107      | COIL W/CORE             |
| 447                 | L201     | 5995-2R2J107      | COIL W/CORE             |
| 054B                | L251     | 5214-86           | LC COMPOSITE <b>GB</b>  |
| 506                 | L301     | 5995-2R2J107      | COIL W/CORE             |
| 537                 | L701     | 5995-2R2J107      | COIL W/CORE             |
| <b>TRANSFORMERS</b> |          |                   |                         |
| 446                 | T201     | 5572-10201        | DISCRI 7                |
| 480                 | T251     | 5933-00101        | COIL CASE, 10           |
| 475                 | T252     | 5552-70114        | IFT, AM 7               |
| 474                 | T253     | 5922-00112        | OSC COIL, 7             |
| <b>CONTROLS</b>     |          |                   |                         |
| 444                 | VR251    | 5101-5030193750K  | RES, SEMI FIX           |
| 505                 | VR301    | 5101-10401937100K | RES, SEMI FIX           |

| Ser. No.             | Ref. No. | Part No.      | Description             |
|----------------------|----------|---------------|-------------------------|
| <b>MISCELLANEOUS</b> |          |               |                         |
| 634                  | ΔF2      | 5732-102031   | FUSE <b>UA</b>          |
| 634B                 | ΔF2      | 5732-102030   | FUSE <b>GB</b>          |
| 536                  | X701     | 5691-00720027 | XTAL, OSC               |
| 445                  | CF201    | 5671-7120A    | FILTER, CER S <b>UA</b> |
| 445B                 | CF201    | 5671-7142A    | FILTER, CER S <b>GB</b> |
| 445                  | CF202    | 5671-7120A    | FILTER, CER S <b>UA</b> |
| 445B                 | CF202    | 5671-7142A    | FILTER, CER S <b>GB</b> |
| 449                  | CF203    | 5671-012A     | FILTER, CER S <b>UA</b> |
| 445B                 | CF203    | 5671-7142A    | FILTER, CER S <b>GB</b> |
| 478                  | CF251    | 5671-7137C    | FILTER, CER S           |
| 477                  | CF252    | 5671-0159     | FILTER, CER S           |
| 504                  | CF301    | 5693-CSB456F1 | OSC, CER                |
| 626                  | CN2      | 4443-040185   | CONNECTOR               |
| 411                  | FE101    | 6114-00101    | FM TUNER <b>UA</b>      |
| 411B                 | FE101    | 6114-00201    | FM TUNER <b>GB</b>      |
| 632                  | ΔHF3     | 4472-0131     | HOLDER, FUSE            |
| 632                  | ΔHF4     | 4472-0131     | HOLDER, FUSE            |
| 641                  | JL1      | 4242-R0107161 | JUMPER LEAD             |
| 643                  | JL2      | 4242-10301351 | JUMPER LEAD             |
| 644                  | JL3      | 4242-R0104351 | JUMPER LEAD             |
| 642                  | JL4      | 4242-R0203201 | JUMPER LEAD             |
| 645                  | JL5      | 4242-R0104451 | JUMPER LEAD             |
| 647                  | JL6      | 4132-R0100201 | CORD, 2C                |
| 648                  | JL7      | 4132-R0100141 | CORD, 2C                |
| 479                  | TC251    | 5371-93       | TRIMMER, 1P             |
| 637                  | TM103    | 4214-11023    | TERMINAL                |
| 621                  | LCD1     | 5791-BP8A9041 | LCD                     |

**PCB-14 PRESET MEMORY SWITCHES P. C. BOARD**

|                 |      |              |              |
|-----------------|------|--------------|--------------|
| <b>DIODES</b>   |      |              |              |
| 540             | D712 | 5631-ISS133  | DIODE, DET   |
| 540             | D713 | 5631-ISS133  | DIODE, DET   |
| <b>SWITCHES</b> |      |              |              |
| 629             | S701 | 4431-A017169 | SWITCH, PUSH |
| 629             | S702 | 4431-A017169 | SWITCH, PUSH |
| 629             | S703 | 4431-A017169 | SWITCH, PUSH |
| 629             | S704 | 4431-A017169 | SWITCH, PUSH |
| 629             | S705 | 4431-A017169 | SWITCH, PUSH |
| 629             | S706 | 4431-A017169 | SWITCH, PUSH |
| 629             | S707 | 4431-A017169 | SWITCH, PUSH |
| 629             | S708 | 4431-A017169 | SWITCH, PUSH |

**PCB-15 TUNING SWITCH P. C. BOARD**

|                            |       |               |                            |
|----------------------------|-------|---------------|----------------------------|
| <b>CAPACITORS</b>          |       |               |                            |
| 566                        | C751  | 5361-103ZF    | CAP, CER .01μ              |
| 566                        | C752  | 5361-103ZF    | CAP, CER .01μ              |
| 567                        | C753  | 5361-472KB    | CAP, CER 4700p             |
| 567                        | C754  | 5361-472KB    | CAP, CER 4700p             |
| 567                        | C755  | 5361-472KB    | CAP, CER 4700p             |
| 567                        | C756  | 5361-472KB    | CAP, CER 4700p             |
| 565                        | C758  | 5361-220KSL   | CAP, CER 22p               |
| 568                        | C759  | 5345-106C041  | CAP, MINI ELE 10μ/16V      |
| <b>RESISTORS</b>           |       |               |                            |
| 569                        | R751  | 5232-105J16P  | RES, CBN 1/6P 1M           |
| 569                        | R752  | 5232-105J16P  | RES, CBN 1/6P 1M           |
| 569                        | R753  | 5232-105J16P  | RES, CBN 1/6P 1M           |
| 570                        | R754  | 5232-104J16P  | RES, CBN 1/6P 100K         |
| 570                        | R755  | 5232-104J16P  | RES, CBN 1/6P 100K         |
| 570                        | R756  | 5232-104J16P  | RES, CBN 1/6P 100K         |
| 570                        | R757  | 5232-104J16P  | RES, CBN 1/6P 100K         |
| 569                        | R758  | 5232-105J16P  | RES, CBN 1/6P 1M           |
| 570                        | R761  | 5232-104J16P  | RES, CBN 1/6P 100K         |
| 570                        | R762  | 5232-104J16P  | RES, CBN 1/6P 100K         |
| <b>INTEGRATED CIRCUITS</b> |       |               |                            |
| 561                        | IC751 | 5654-TC4011BP | IC, QUAD 2 INPUT NAND GATE |
| 562                        | IC752 | 5654-TC4001BP | IC, QUAD 2 INPUT NOR GATE  |

| Ser. No.        | Ref. No. | Part No.     | Description  |
|-----------------|----------|--------------|--------------|
| <b>DIODES</b>   |          |              |              |
| 563             | D751     | 5631-ISS133  | DIODE, DET   |
| 563             | D752     | 5631-ISS133  | DIODE, DET   |
| 563             | D753     | 5631-ISS133  | DIODE, DET   |
| 563             | D754     | 5631-ISS133  | DIODE, DET   |
| <b>SWITCHES</b> |          |              |              |
| 630             | S710     | 4431-A017169 | SWITCH, PUSH |
| 630             | S711     | 4431-A017169 | SWITCH, PUSH |
| 630             | S712     | 4431-A017169 | SWITCH, PUSH |

**PCB-16 ANTENNA TERMINAL P. C. BOARD**

|      |       |              |                        |
|------|-------|--------------|------------------------|
| 421  | L101  | 5943-00136   | COIL BBN, 10           |
| 636  | TM104 | 4214-164     | TERMINAL               |
| 052B | TM105 | 4214-167     | TERMINAL <b>GB</b>     |
| 649  | LCN1  | 4163-0110020 | CONNECTR W/W <b>UA</b> |

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

|      |      |             |                              |
|------|------|-------------|------------------------------|
| 057B | R1   | 5135-335522 | RES, CBN 1/2P 3.3M <b>GB</b> |
| 618B | R53  | 5135-155522 | RES, CBN 1/2P 1.5M <b>GB</b> |
| 618B | R54  | 5135-155522 | RES, CBN 1/2P 1.5M <b>GB</b> |
| 633  | ΔF1  | 5732-252031 | FUSE <b>UA</b>               |
| 633B | ΔF1  | 5732-122030 | FUSE <b>GB</b>               |
| 628  | ΔS1  | 4433-00103  | SWITCH, POWER                |
| 625  | CN1  | 4443-030185 | CONNECTOR                    |
| 631  | ΔHF1 | 4472-0131   | HOLDER, FUSE                 |
| 631  | ΔHF2 | 4472-0131   | HOLDER, FUSE                 |
| 635  | TM1  | 4214-122    | TERMINAL                     |
| 635  | TM2  | 4214-122    | TERMINAL                     |
| 635  | TM3  | 4214-122    | TERMINAL                     |

**PCB-18 LAMP P. C. BOARD**

|                  |      |               |                  |
|------------------|------|---------------|------------------|
| <b>RESISTORS</b> |      |               |                  |
| 619              | R55  | 5135-100522   | RES, CBN 1/2P 10 |
| 620              | ΔR56 | 5102-6R85116  | RES, FUSE 6.8    |
| <b>LAMPS</b>     |      |               |                  |
| 622              | LPI  | 5731-00101140 | LAMP             |
| 622              | LP2  | 5731-00101140 | LAMP             |

**CHASSIS MISCELLANEOUS**

|      |        |              |                              |
|------|--------|--------------|------------------------------|
| 895  | ΔPI    | 4161-71151   | POWER CORD <b>UA</b>         |
| 895B | ΔPI    | 4161-7256    | POWER CORD <b>GB</b>         |
| 895C | ΔPI    | 4161-04100   | POWER CORD (Australia model) |
| 833  | ΔTI    | 5584-S1402   | XFORMER, POWER <b>UA</b>     |
| 833B | ΔTI    | 5584-S1403   | XFORMER, POWER <b>GB</b>     |
| 894  | ΔSO1   | 4474-164     | SOCKET <b>UA</b>             |
| 055B | ΔR57   | 5135-155522  | RES, CBN 1/2P 1.5M <b>GB</b> |
| 055B | ΔR58   | 5135-155522  | RES, CBN 1/2P 1.5M <b>GB</b> |
| 055B | ΔR59   | 5135-155522  | RES, CBN 1/2P 1.5M <b>GB</b> |
| 055B | ΔR60   | 5135-155522  | RES, CBN 1/2P 1.5M <b>GB</b> |
| 639  | ΔR60   | 5135-335J50P | RES, CBN 1/2P 3.3M <b>UA</b> |
| 063B | ΔS101  | 4411-102729  | ROTARY SWITCH <b>GB</b>      |
| 624  | LI     | 5911-235     | AM LOOP ANTENNA              |
| 925  | ΔCN111 | 4443-712     | CONNECTOR                    |
| 800  | LUG1   | 4211-4       | LUG                          |
| 650  | LUG2   | 4211-4       | LUG <b>UA</b>                |
| 650  | LUG3   | 4211-4       | LUG                          |
| 056B | LUG4   | 4211-4       | LUG <b>GB</b>                |
| 623  |        | 1397-6       | T FEEDER ANT                 |
| 926  |        | 4150-8       | SPECIAL TUBING               |

**PACKAGE PARTS LIST**

|     |             |                       |
|-----|-------------|-----------------------|
| 106 | 1111-J90195 | OWNER GUIDE <b>UA</b> |
| 107 | 1111-J30281 | OWNER GUIDE <b>UA</b> |

|      |             |                               |
|------|-------------|-------------------------------|
| 107B | 1111-J30282 | OWNER GUIDE <b>GB</b>         |
| 108  | 1113-717004 | OWNER CARD <b>UA</b>          |
| 109  | 1119-047    | ATTACH SHEET <b>UA</b>        |
| 110  | 1119-0137   | ATTACH SHEET <b>UA</b>        |
| 121  | 1241-C12732 | POLYETHYLENE BAG, OWNER GUIDE |
| 122  | 1241-C1491  | POLYETHYLENE BAG, SET         |
| 124  | 1221-21303  | CARTON BOX                    |
| 125  | 1222-7327   | CUSHION, L                    |
| 126  | 1222-7328   | CUSHION, R                    |
| 127  | 1223-11729  | SOFT SHEET                    |
| 624  | LI 5911-235 | AM LOOP ANTENNA               |

**ABBREVIATIONS IN PARTS LIST****CAPACITORS**

CAP, MINI ELE : Electrolytic  
 CAP, CER : Ceramic  
 CAP, PPP : Polypropylene  
 CAP, MYL : Mylar  
 CAP, MCA : Mica  
 CAP, MINI BP : Bipolar  
 CAP, ELE BP : Electrolytic Bipolar  
 CAP, STY : Polystyrene Film  
 CAP, SPE : Special  
 CAP, TAN : Tantalum

470 $\mu$  : 470 $\mu$ F  
 6800p : 6800pF  
 .047 $\mu$  : 0.047 $\mu$ F

**RESISTORS**

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

**TRANSISTORS**

XISTOR : Transistor  
 FET : Field Effect Transistor

**CONTROLS**

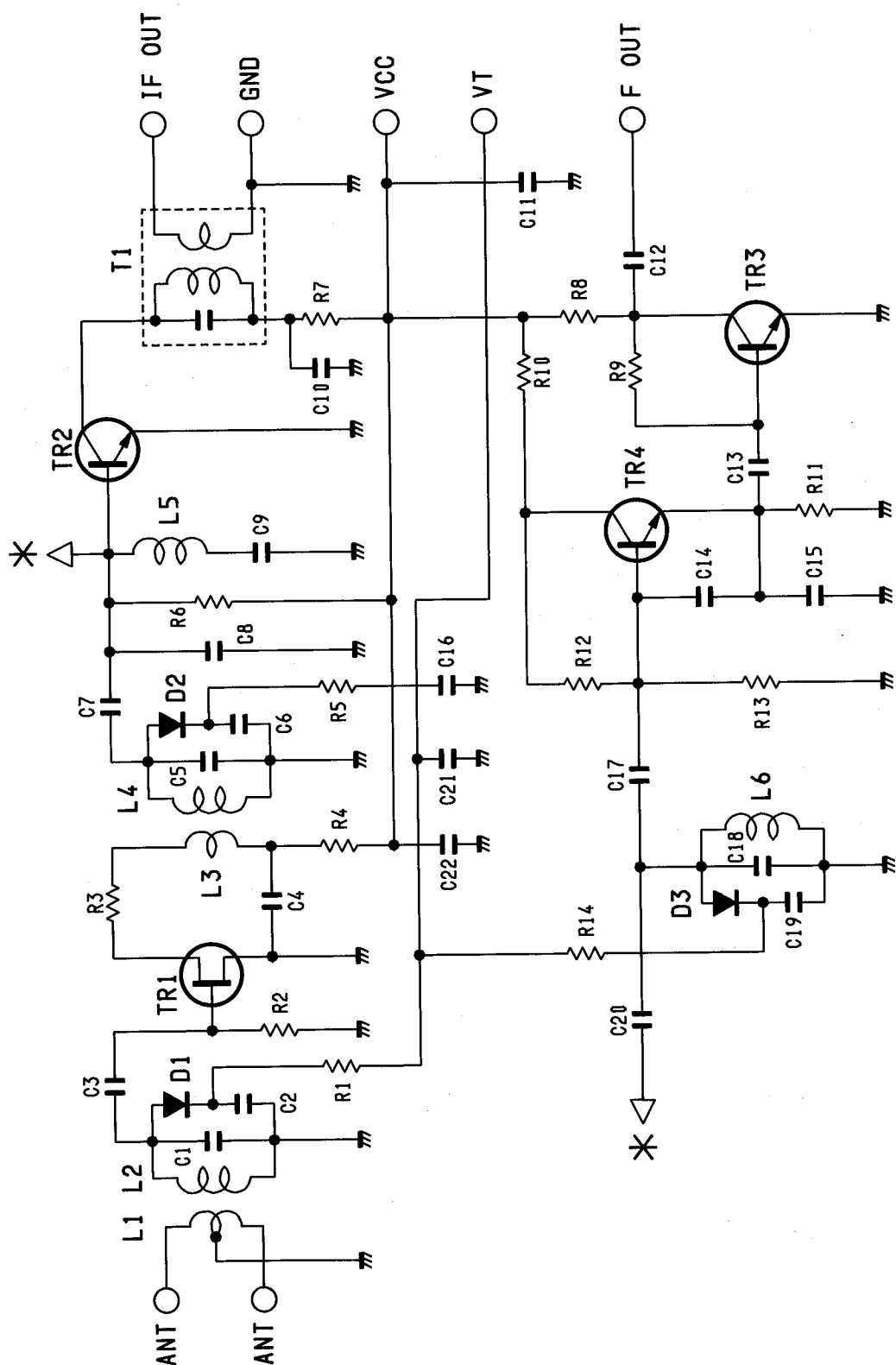
RES, V CBN : Variable Carbon Resistor  
 RES, SEMI FIX : Semi-fixed Resistor

**NOTE**

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

## SCHEMATIC DIAGRAM (1)

(FM TUNER)

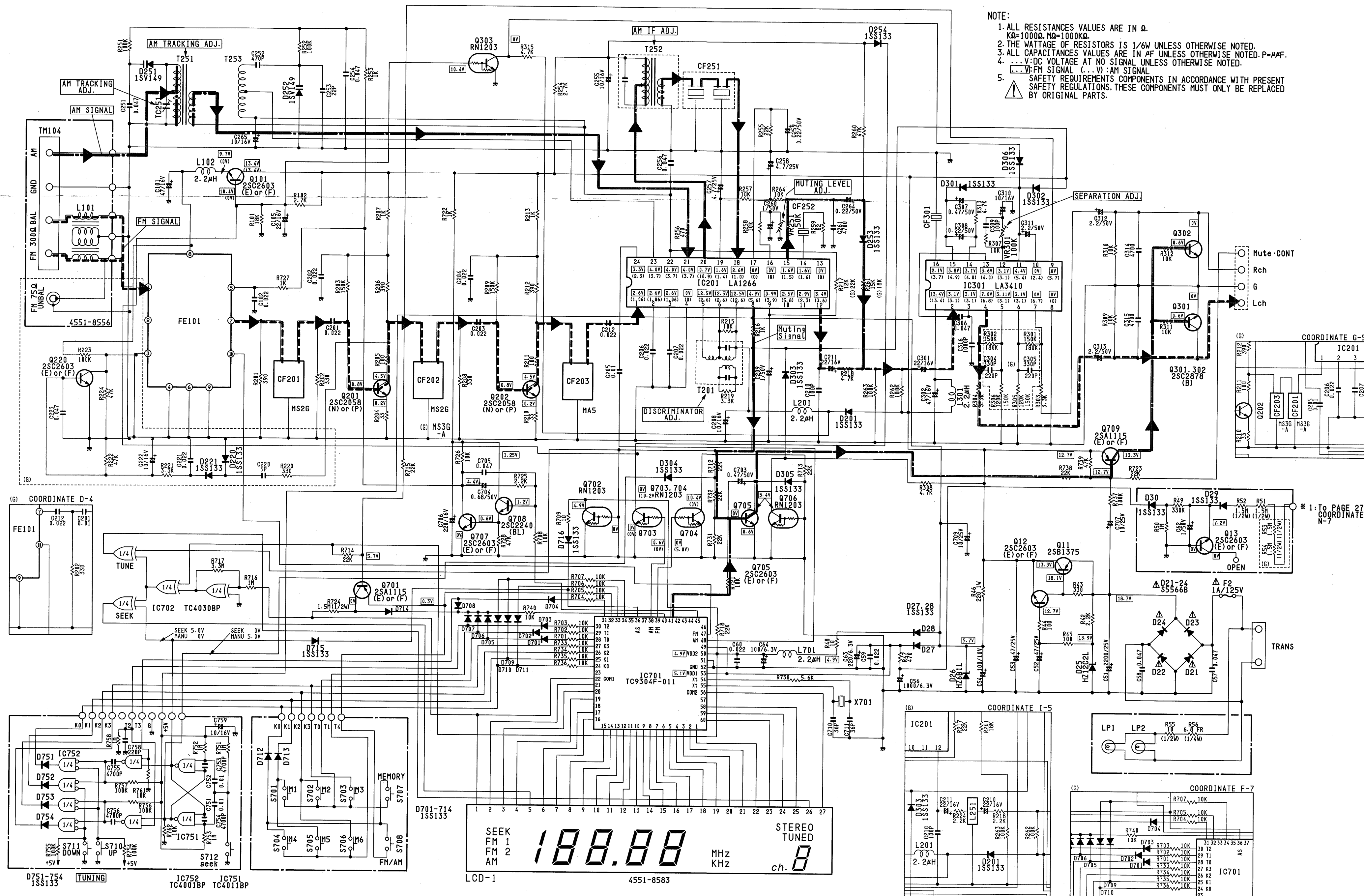


SCHEMATIC DIAGRAM (2)

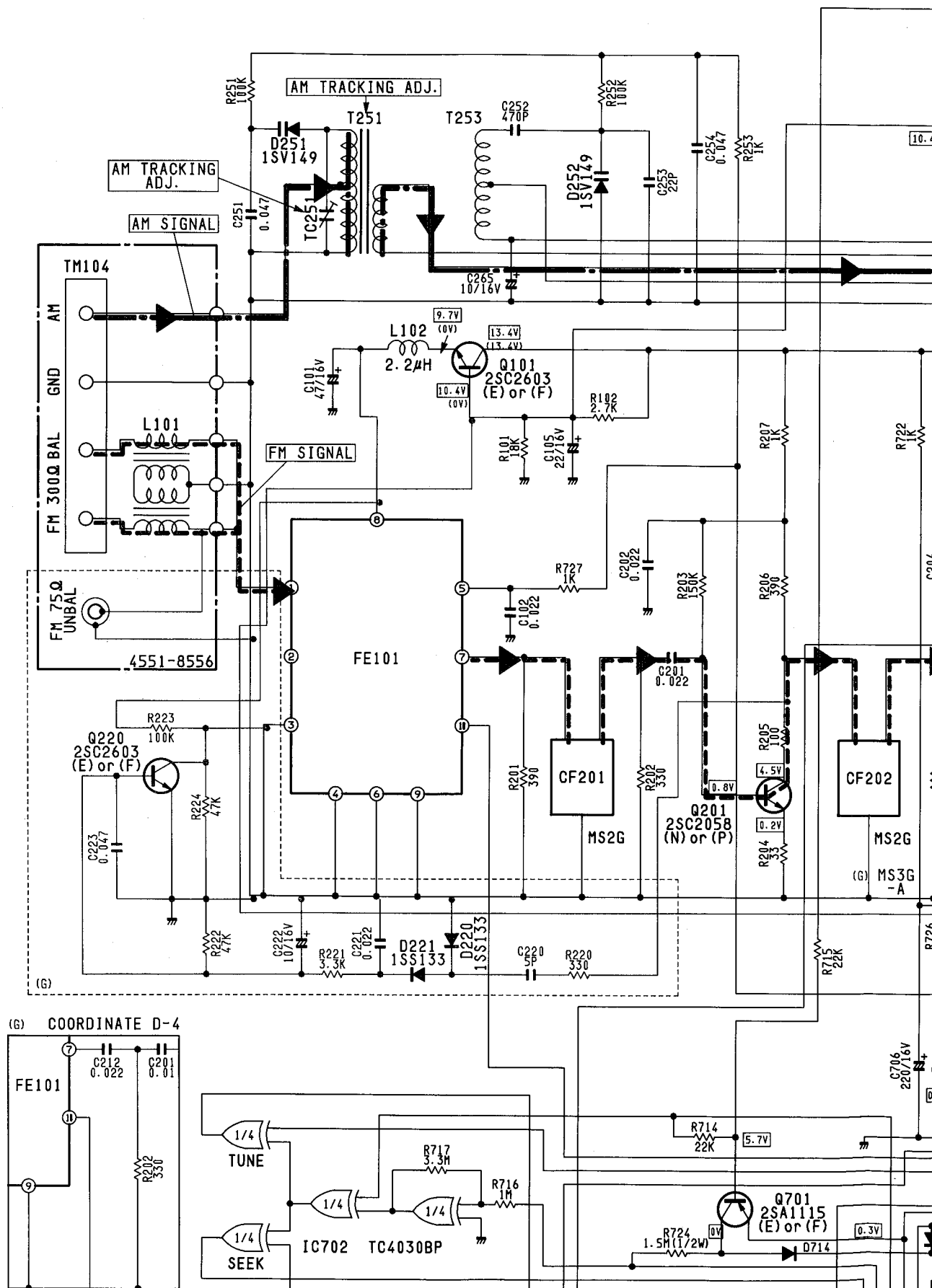
(G): General model

## NOTE:

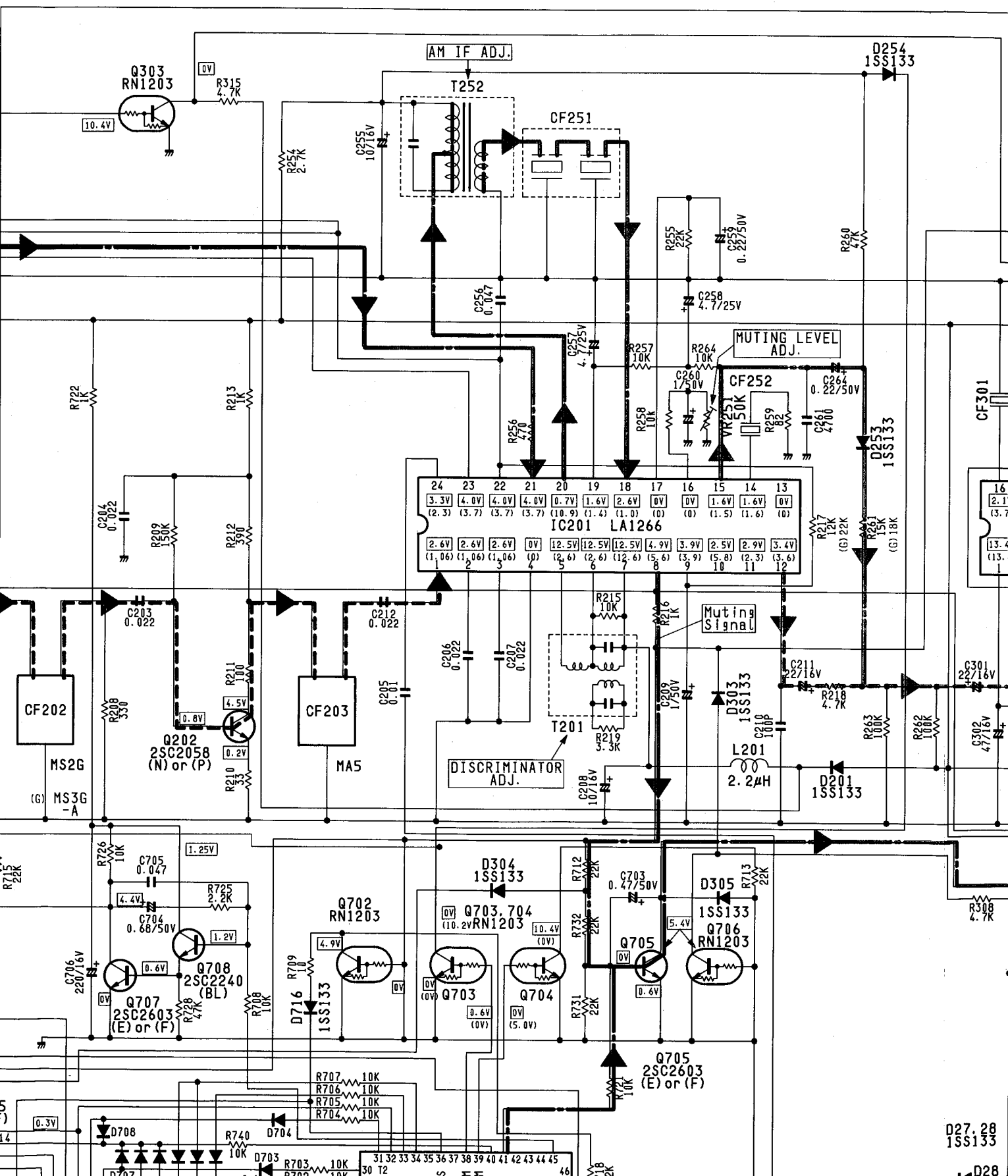
1. ALL RESISTANCE VALUES ARE IN  $\Omega$ .  
K $\Omega$ =1000 $\Omega$ , M $\Omega$ =1000K $\Omega$ .
  2. THE WATTAGE OF RESISTORS IS 1/6W UNLESS OTHERWISE NOTED.
  3. ALL CAPACITANCE VALUES ARE IN  $\mu$ F UNLESS OTHERWISE NOTED. P=PPF.
  4. ...V: DC VOLTAGE AT NO SIGNAL UNLESS OTHERWISE NOTED.
  5. ...V: FM SIGNAL (...V): AM SIGNAL
- SAFETY REQUIREMENTS COMPONENTS IN ACCORDANCE WITH PRESENT SAFETY REGULATIONS. THESE COMPONENTS MUST ONLY BE REPLACED BY ORIGINAL PARTS.



# SCHEMATIC DIAGRAM (2)

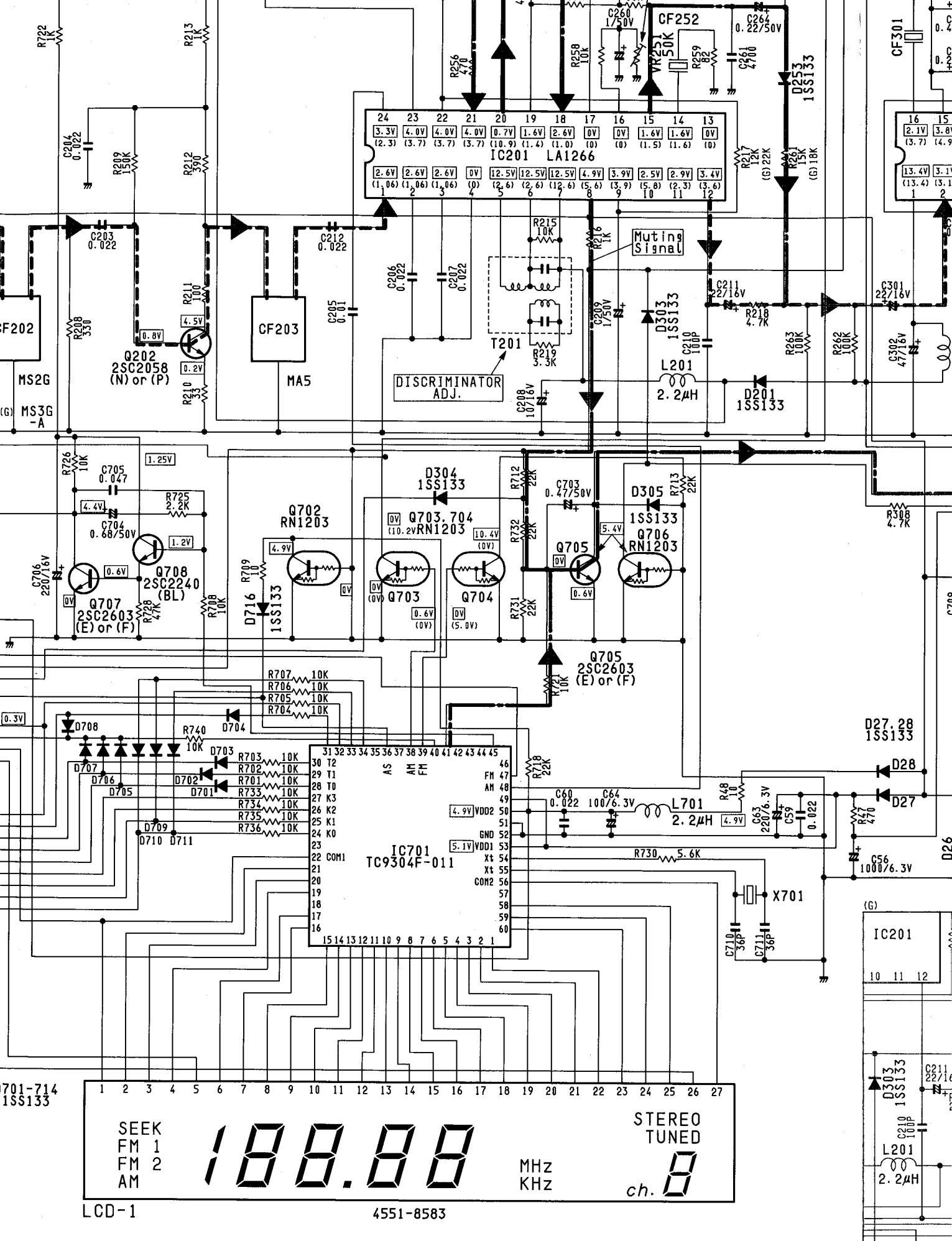


(G) : General model



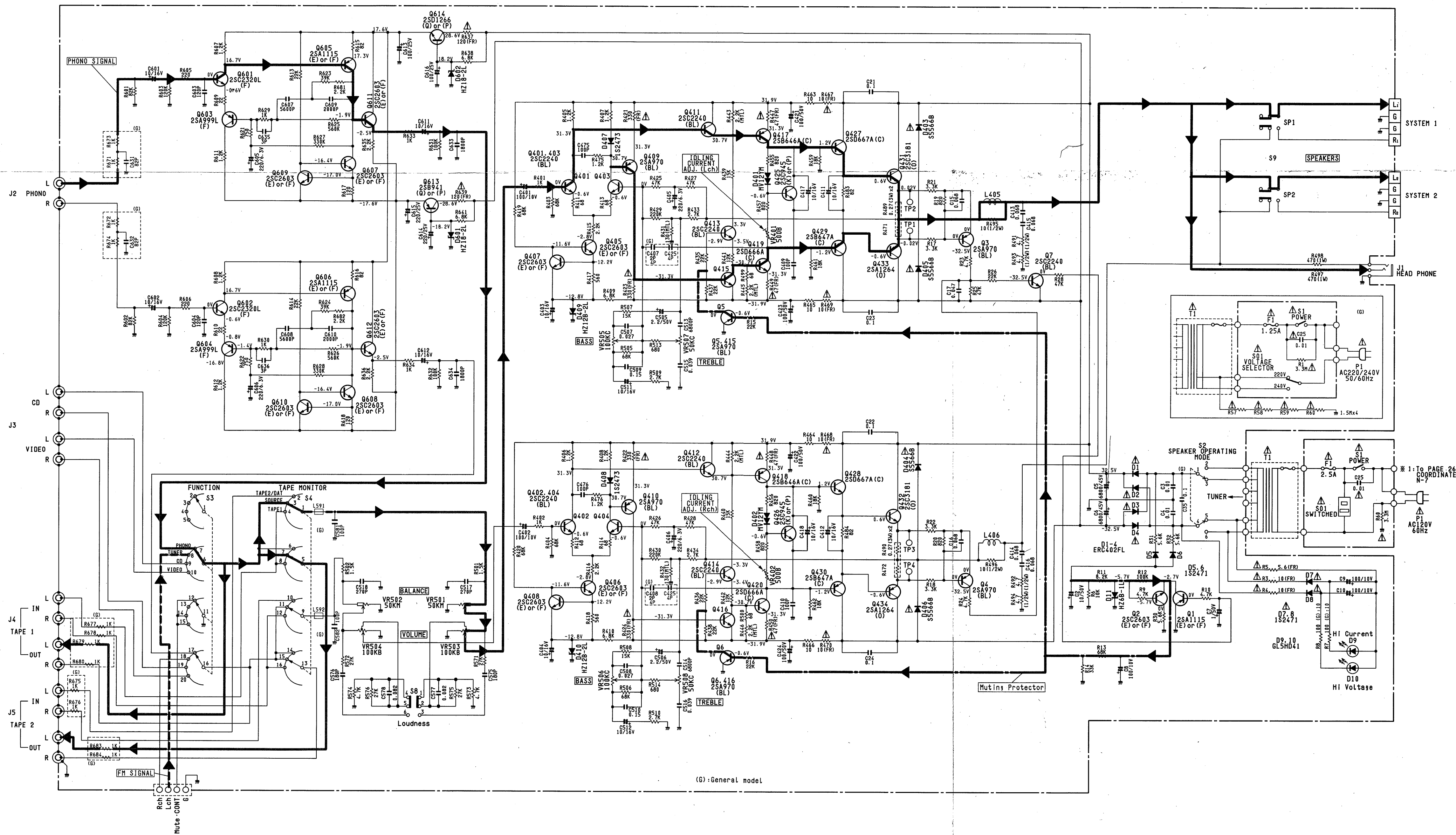




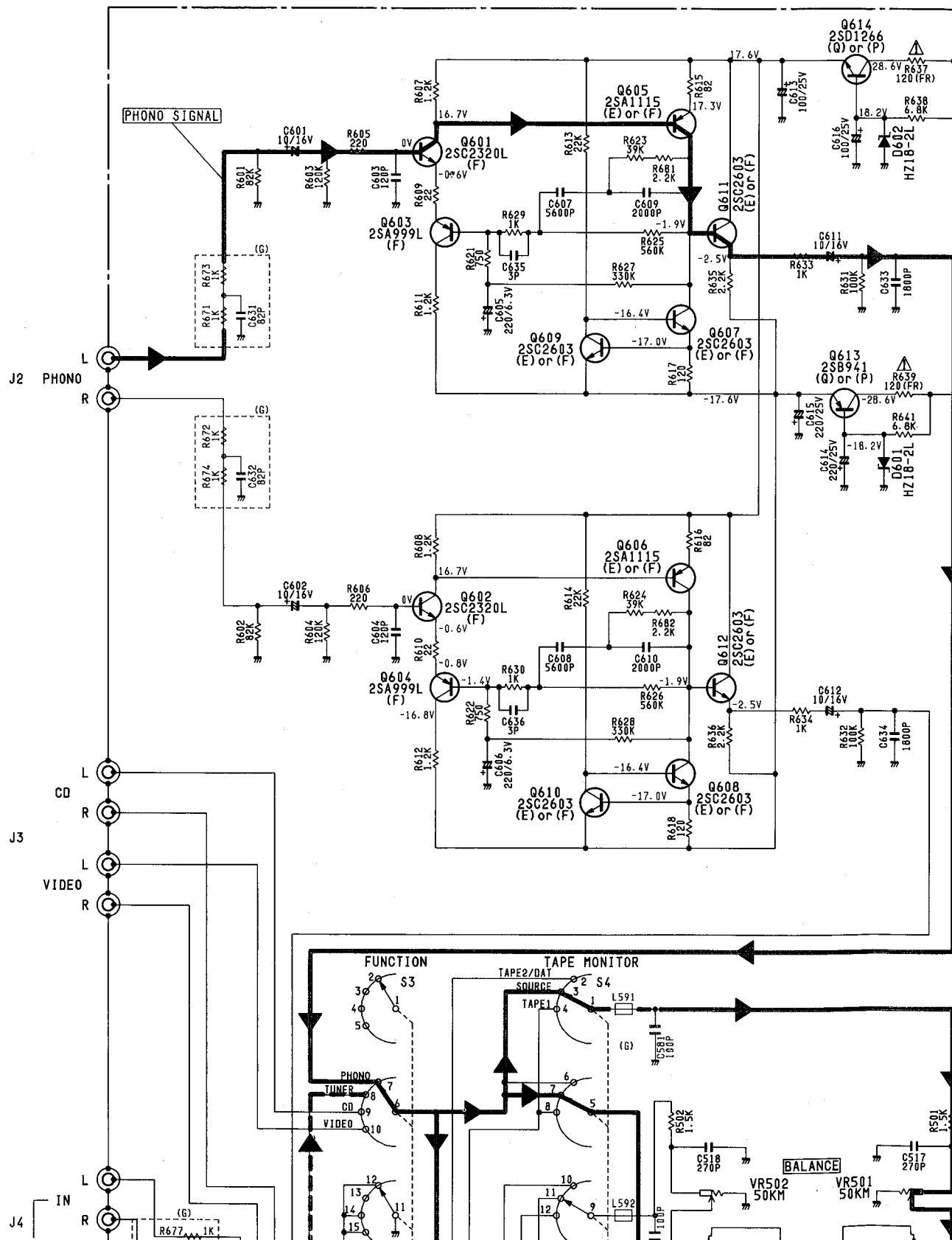


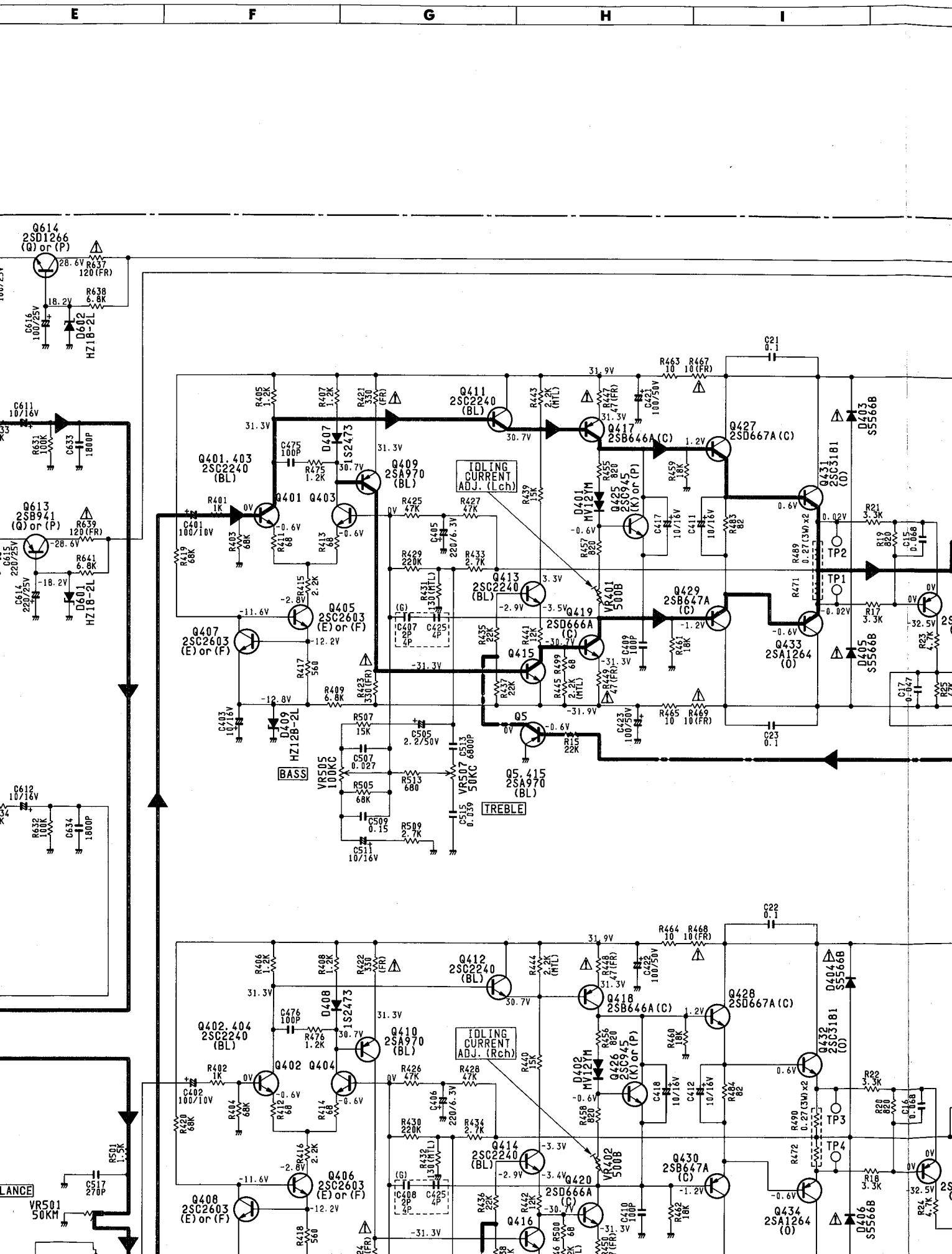


SCHEMATIC DIAGRAM (3)



### SCHEMATIC DIAGRAM (3)





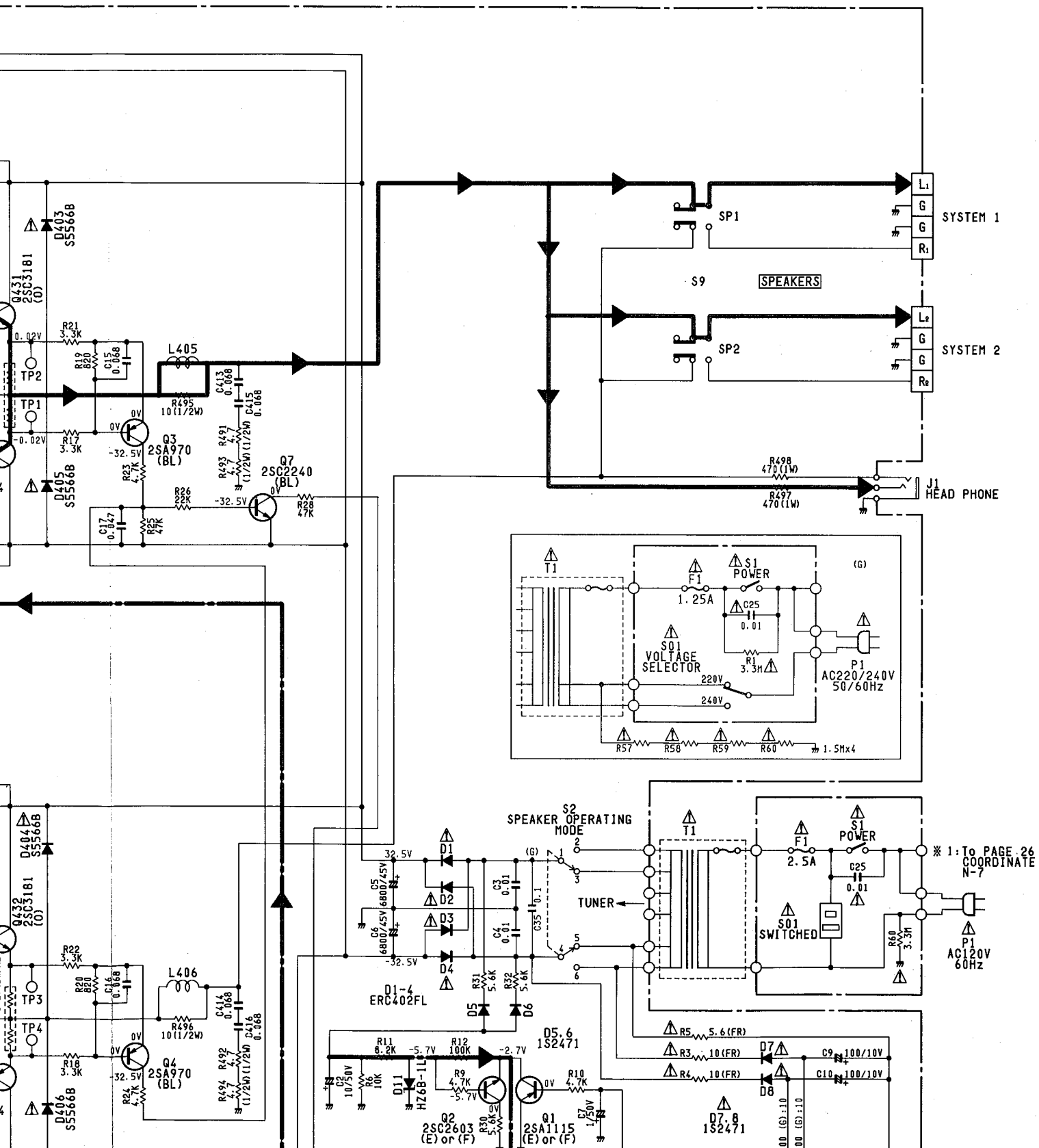
J

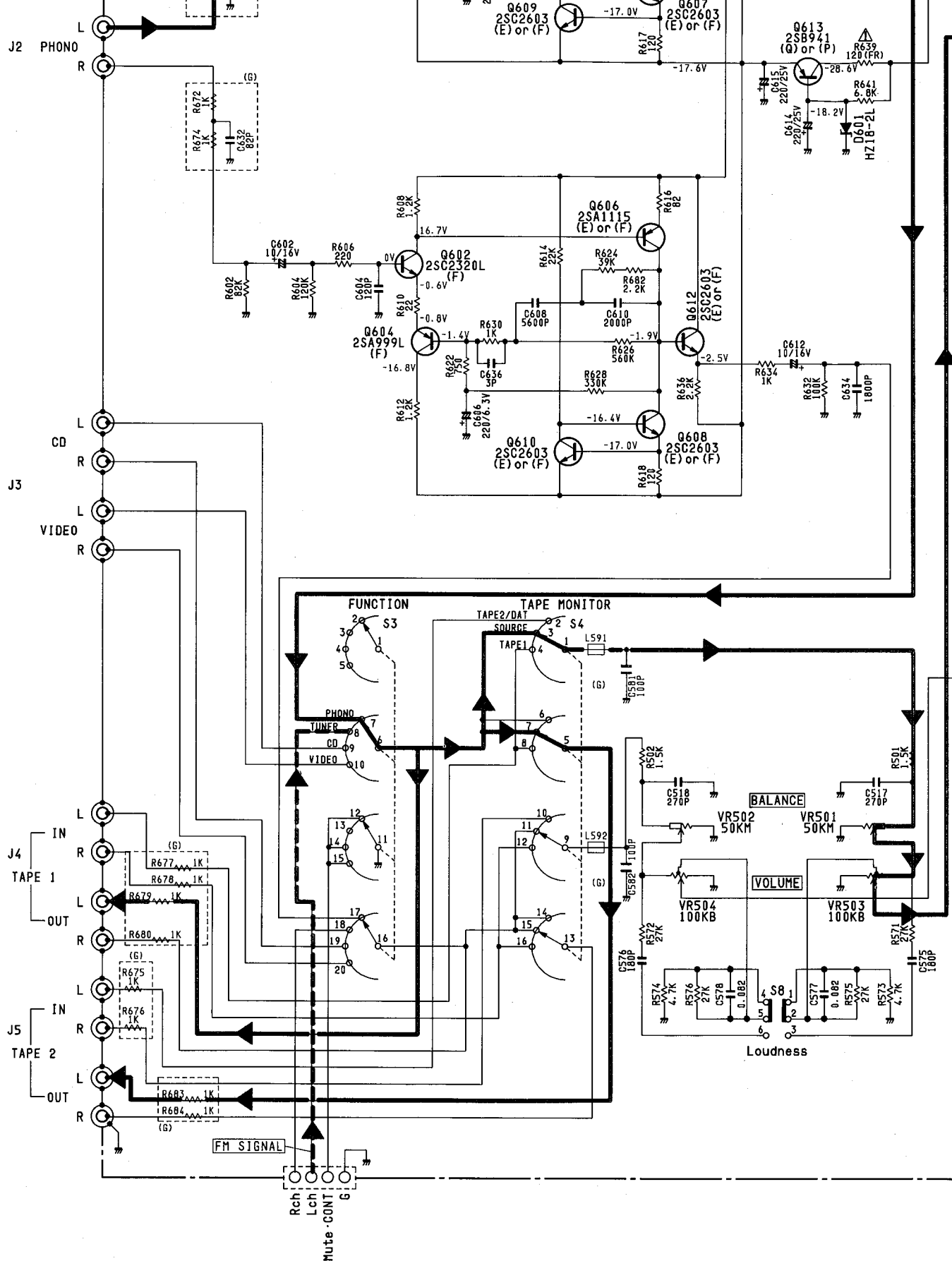
K

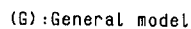
L

M

N







## Muting Prote

