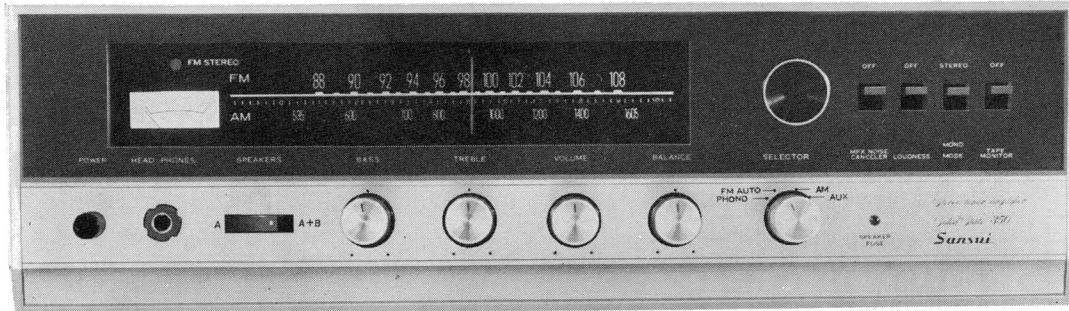


# SERVICE MANUAL

AM/FM STEREO TUNER AMPLIFIER

## SANSUI 350



*Sansui*®

SANSUI ELECTRIC COMPANY LIMITED

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# GENERAL SECTION

If the amplifier is otherwise operating satisfactorily, the more common causes of trouble may generally be attributed to the following:

1. Incorrect connections or loose terminal contacts. Check the speakers, record player, tape recorder, antenna and line cord.
2. Improper operation. Before operating any audio component, be sure to read the manufacturer's instructions.

structions.

3. Improper location of audio components. The proper positioning of components, such as speakers and turntable, is vital to stereo.
4. Defective audio components.

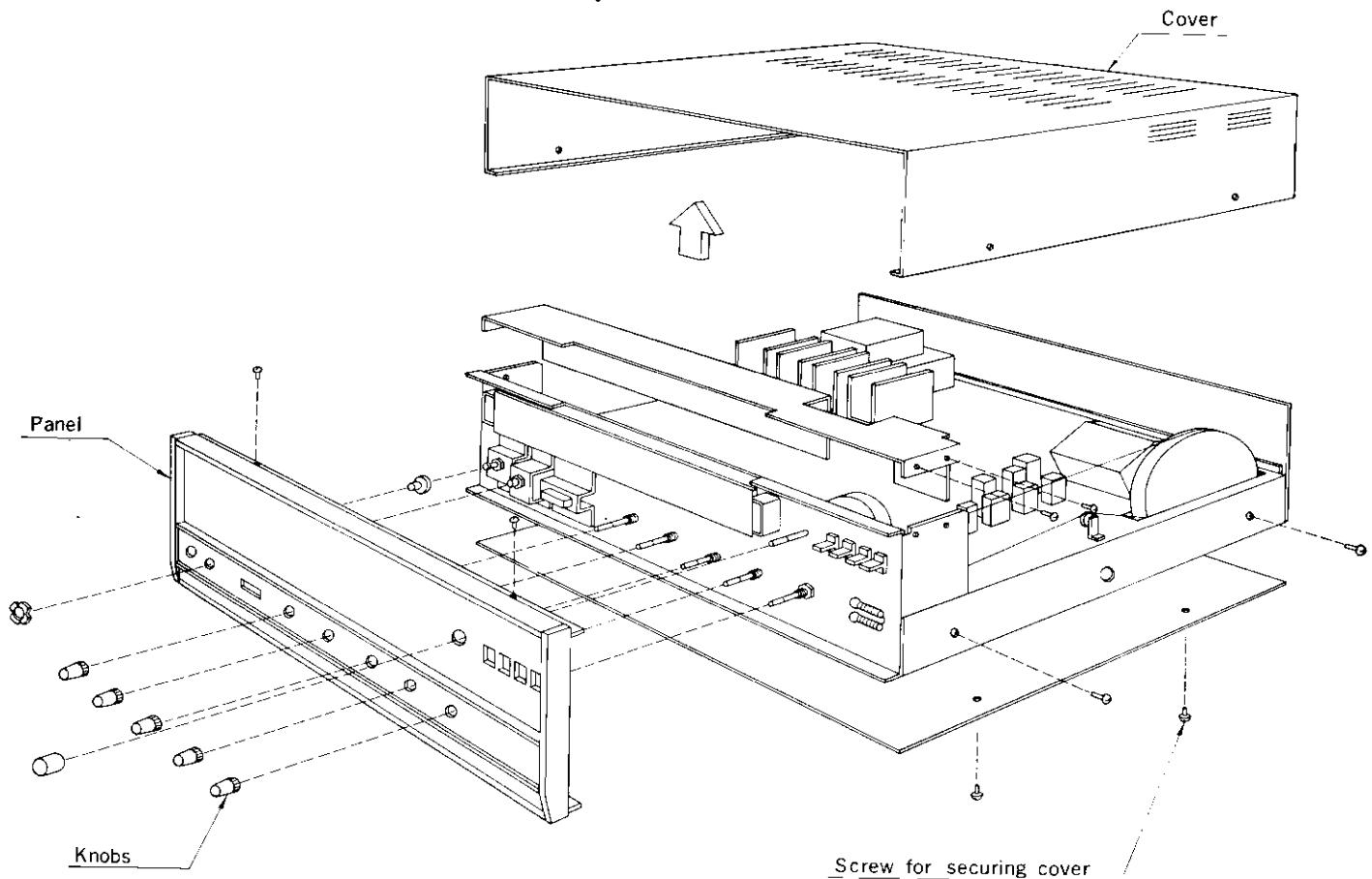
Following are some other common causes of malfunction and what to do about them:

| <b>PROGRAM</b>          | <b>SYMPTOM</b>   | <b>PROBABLE CAUSE</b>   | <b>WHAT TO DO</b>   |
|-------------------------|--|---|---|
| AM, FM or MPX reception | A. Constant or intermittent noise heard at certain times or in a certain area.   | <ul style="list-style-type: none"> <li>* Discharge or oscillation caused by electrical appliances, such as fluorescent lamps, TV sets, D.C. motors, rectifier and oscillator</li> <li>* Natural phenomena, such as atmospheric static, and thunderstorms.</li> <li>* Insufficient antenna input due to reinforced concrete walls or long distance from the station</li> <li>* Wave interference from other electrical appliances</li> </ul> | <ul style="list-style-type: none"> <li>* Attach a noise limiter to the electrical appliance that causes the noise, or attach it to the power source of the amplifier.</li> <li>* Install an outdoor antenna and ground the amplifier to raise the signal-to-noise ratio.</li> <li>* Reverse the power cord plug-receptacle connections.</li> <li>* If the noise occurs at a certain frequency, attach a wave trap to the ANT. input.</li> <li>* Place the set away from other electrical appliances.</li> </ul> |
|                         | B. Needle of the tuning meter does not move sharply.   | <ul style="list-style-type: none"> <li>* Needle movement is not necessarily related to the sensitivity of the amplifier.</li> </ul>   | * Tune the set for maximum signal strength.   |
|                         | C. Zero point of the meter moves greatly.  | <ul style="list-style-type: none"> <li>* Regional difference in field intensity.</li> </ul>   | * The unit is not at fault.   |
| AM reception            | A. Noise heard at a particular time of day, in a certain area or over part of the dial.  | <ul style="list-style-type: none"> <li>* Natural AM reception phenomenon.</li> </ul>  | <ul style="list-style-type: none"> <li>* Install an antenna for maximum antenna efficiency. See "ANTENNA" in the Operating Instructions.</li> <li>* In some cases, the noise can be eliminated by grounding the amplifier or reversing the power cord plug-receptacle connections.</li> </ul>   |
|                         | B. High-frequency noise  | <ul style="list-style-type: none"> <li>* Adjacent-channel interference or beat interference.</li> </ul>   | <ul style="list-style-type: none"> <li>* Although such noise cannot be eliminated by the amplifier, it is advisable to turn the TREBLE control from midpoint to left.</li> </ul>  |
|                         |  | <ul style="list-style-type: none"> <li>* TV set is too close to the audio system.</li> </ul>  | <ul style="list-style-type: none"> <li>* Place the TV set away from the audio system.</li> </ul>  |
| FM reception            | A. Noisy   | <ul style="list-style-type: none"> <li>* Poor noise limiter effect or too low S/N ratio due to insufficient antenna input.</li> </ul>   | <ul style="list-style-type: none"> <li>* Adjust the antenna provided for maximum signal strength.</li> <li>* If this is not effective, use an outdoor antenna designed exclusively for FM. When you use a TV antenna for both TV and FM with a divider, make sure TV reception is not affected.</li> <li>* An excessively long antenna may cause noise.</li> </ul>  |
|                         | <p>NOTE: FM reception is affected considerably by the conditions of the transmitting stations power and antenna efficiency. As a result, you may receive one station quite well while having difficulty receiving another station.</p> |   |   |

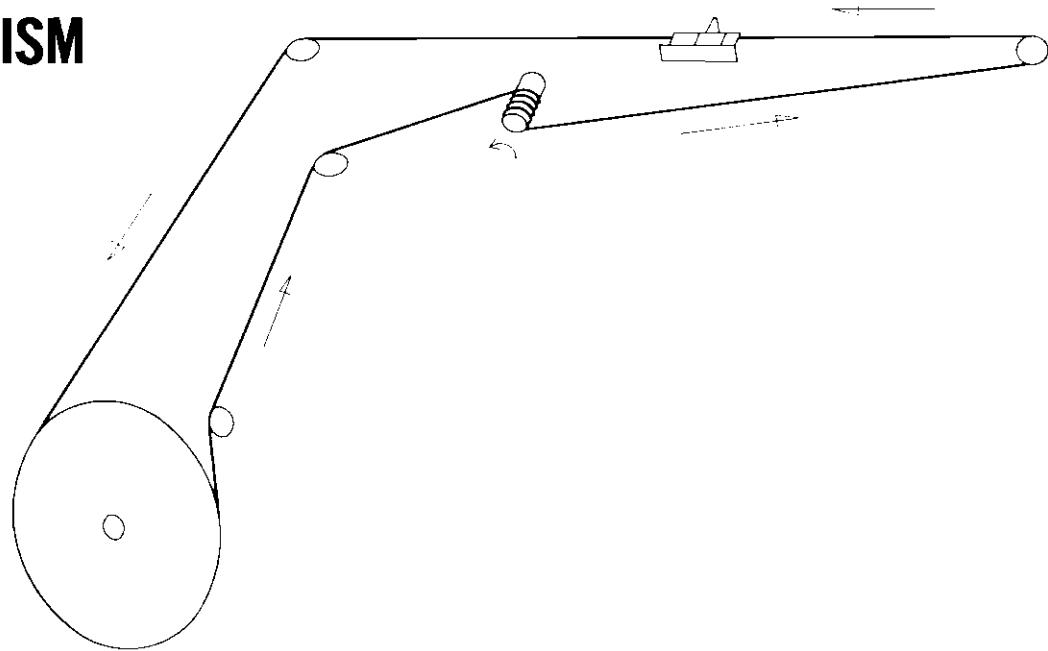
| <b>PROGRAM</b>                  | <b>SYMPTOM</b>  | <b>PROBABLE CAUSE</b>   | <b>WHAT TO DO</b>  |
|---------------------------------|---|---|--|
| FM reception<br>(Cont'd)        | B. "Scratch-like" noise is heard.   | * Ignition noise caused by the starting of an automobile.   | * Install the antenna and its lead-in wire away from the road or raise the antenna input as previously described.  |
|                                 | C. Tuning noise between stations.   | * This noise results from the nature of FM reception. As the station signal becomes weak, the noise limiter effect is decreased. The amplification of the limiter, in turn, is enlarged and a noise is generated.   | * Increase the volume.   |
| FM-MPX reception                | A. Noise heard during FM-MPX reception while not heard during FM mono reception.            | * The service area of the FM-MPX broadcast is only half that of the FM mono broadcast.  | * Install the antenna for maximum antenna input.<br>* Turn the TREBLE control from midpoint to left.   |
|                                 | B. Clearness of channel separation is decreased during reception.                           | * Excess heat   | * Make sure that air can flow underneath the amplifier.  |
|                                 | C. The stereo indicator goes on and off.  | * Interference  | * The indicator is not at fault.<br>* Readjust VR <sub>401</sub> .   |
|                                 | D. The stereo indicator goes on and off even though a stereo station is not received.       | * Interference  | * The indicator is not at fault.<br>* Readjust VR <sub>401</sub> .   |
| Record playing or tape playback | A. Hum or howling   | * Record player placed directly on the speaker box.<br><br>* Use of unshielded wire.<br><br>* Loose terminal contact.<br>* Shielded wire too close to line cord, fluorescent lamp or other electrical appliances.<br><br>* Nearby amateur radio station or TV transmission antenna. | * Put a cushion between the player and the speaker box or separate them.<br>* The connecting shield wire should be as short as possible.<br>* Turn the BASS control from midpoint to left.<br>* Consult the nearest Radio Regulatory Bureau. |
|                                 | B. Surface noise  | * Worn or old record<br>* Worn pick-up needle<br>* Dusty needle<br>* Improper needle pressure   | * Recondition the playback head of the tape recorder or the pick-up of the record player.<br>* Turn the TREBLE control properly from midpoint to left.   |
| Overall stereo programs         | The BALANCE control is not at midpoint when equal sound comes from left and right channels. | * It is important to adjust the control for equal sound from both channels. It should not always be set to midpoint.  | * Set the MODE switch to the MONO position and then set the BALANCE control to the position where equal sound comes from both channels.  |

# DISASSEMBLE PROCEDURE/DIAL MECHANISM

## REMOVING THE FRONT PANEL, BONNET AND BOTTOM PLATE

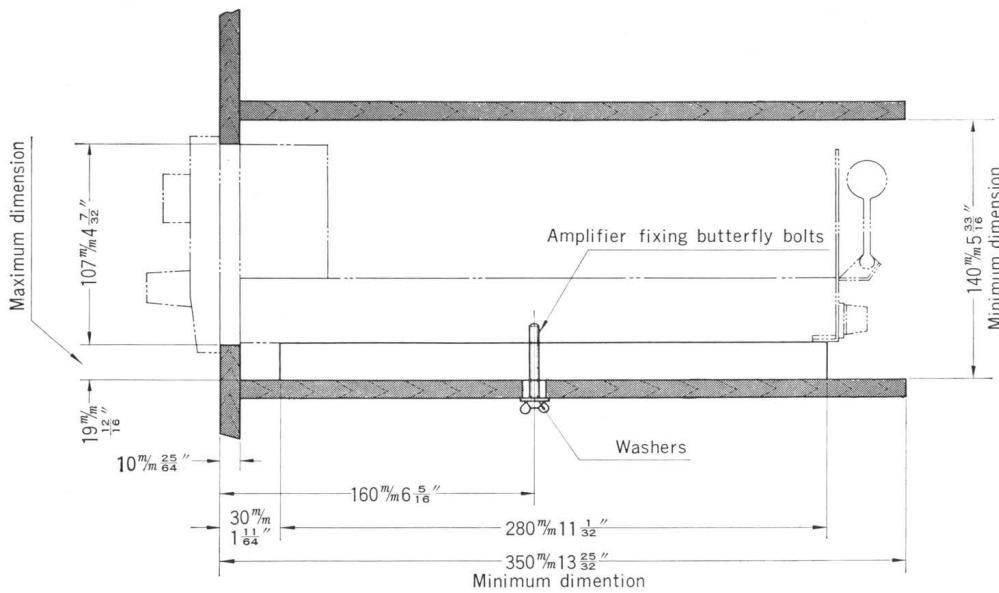
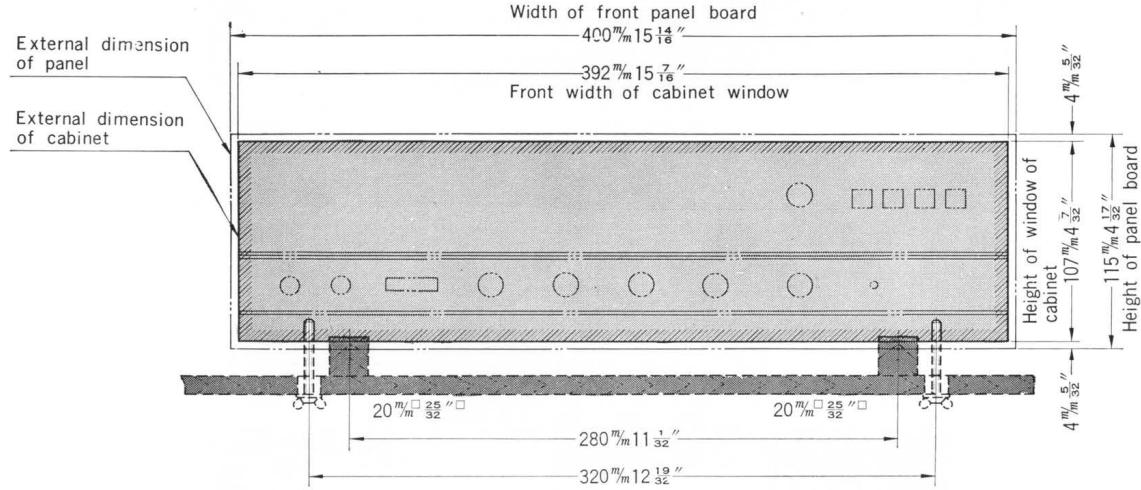
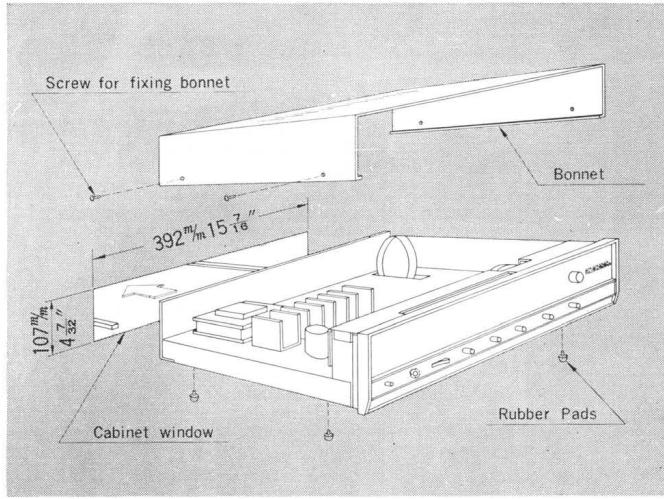


## DIAL MECHANISM

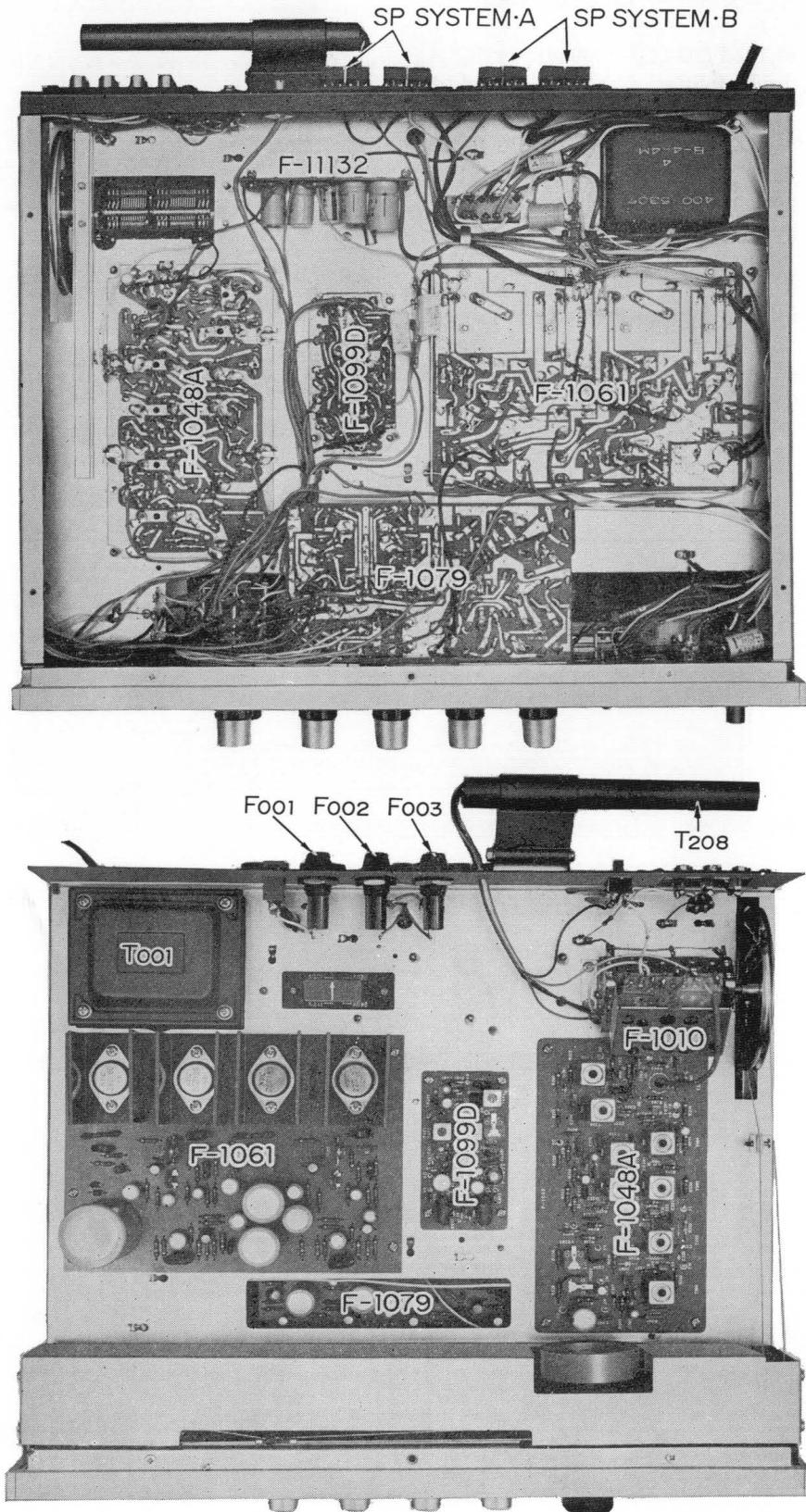


# MOUNTING TEMPLATE

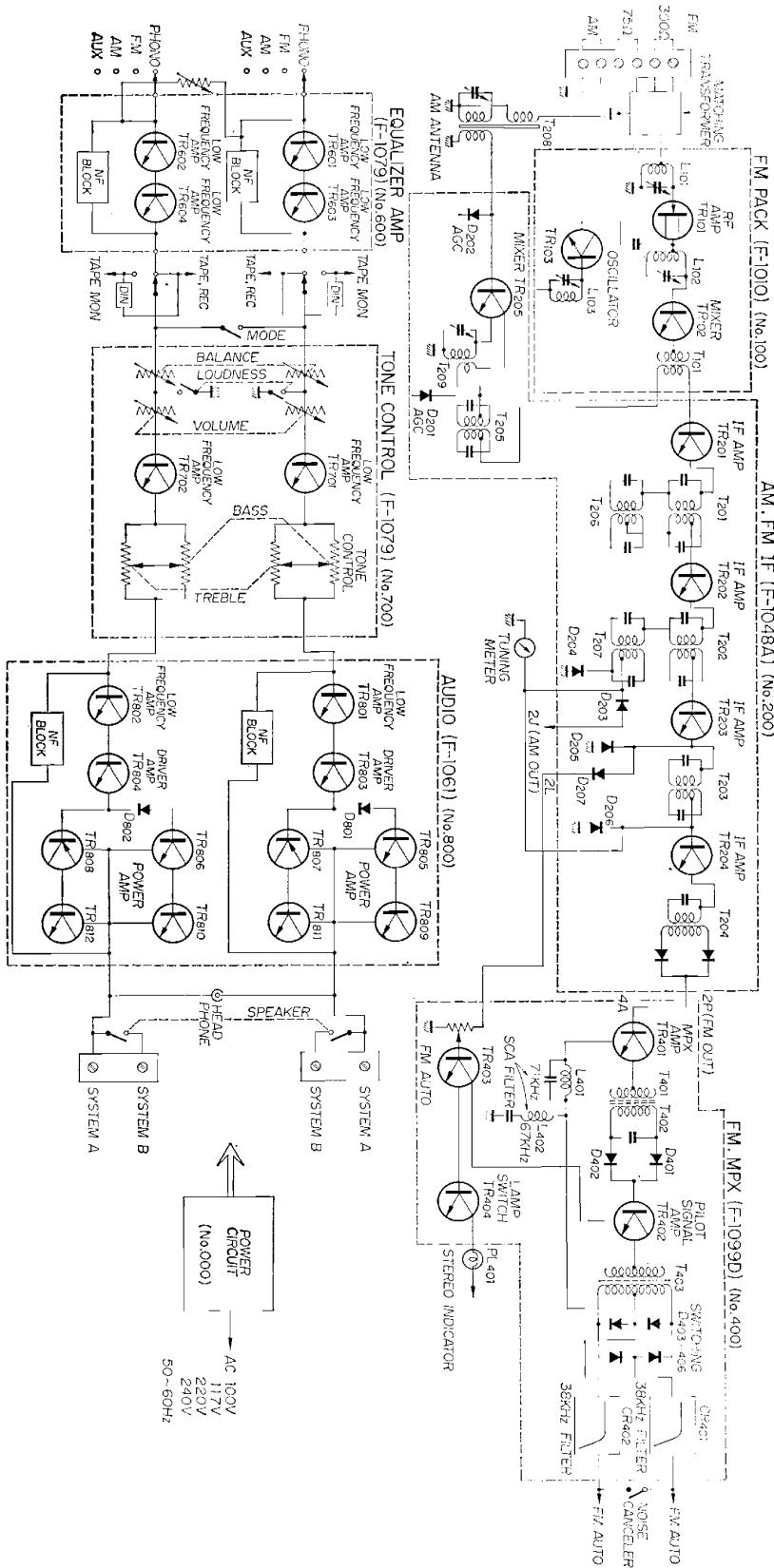
1. Make a cabinet window of 392 mm or  $15\frac{7}{16}$ " in width and 107 mm or  $4\frac{7}{32}$ " in height.
  2. Place two square pieces of wood ( $20 \times 20 \times 280$  mm or  $\frac{25}{32}'' \times \frac{25}{32}'' \times 11\frac{1}{32}''$ ) for supporting the amplifier in bottom board of the cabinet.
  3. Cut two holes for attachment bolts in the bottom board of the cabinet.
  4. Remove the four rubber pads from the amplifier.
  5. Place the amplifier in position through the cabinet window.
  6. Make sure the amplifier is in position, then put the washers in butterfly bolts (supplied) and fix the amplifier to the cabinet with butterfly bolts.
- NOTE: When the amplifier is built into the cabinet, the four rubber pads are not used. Retain them for future use.



# PARTS LAYOUT

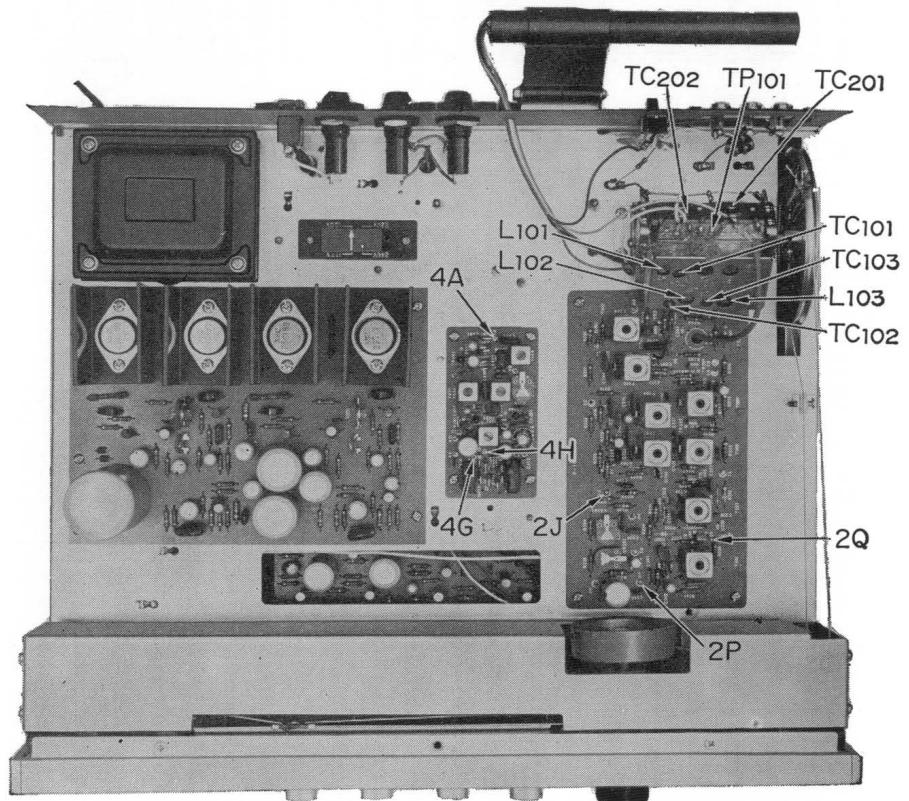
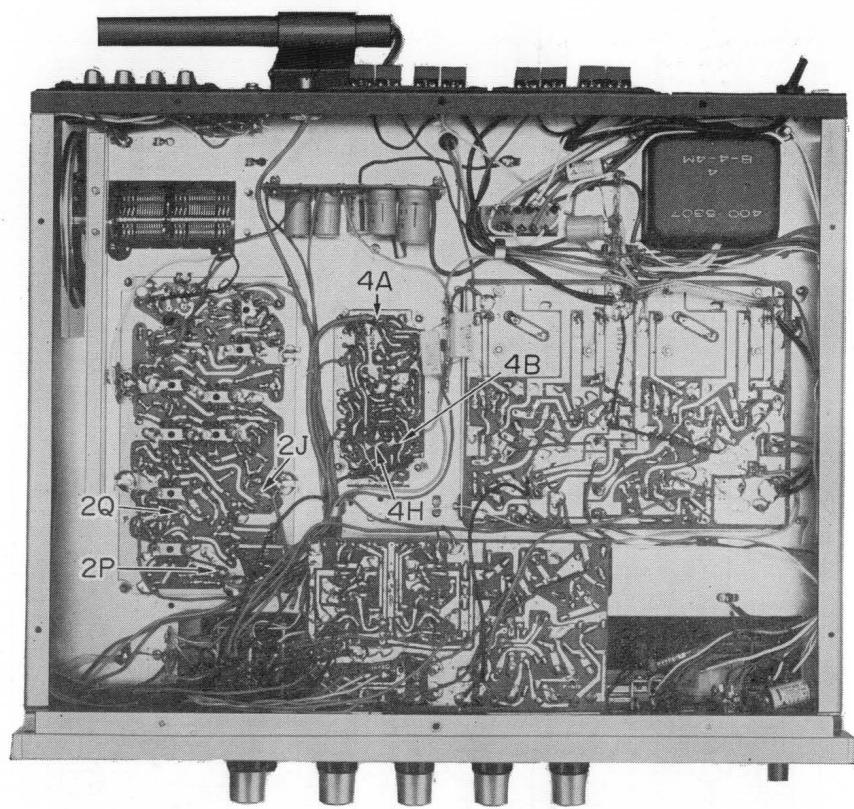


# BLOCK DIAGRAM



# ALIGNMENT

## TEST POINT

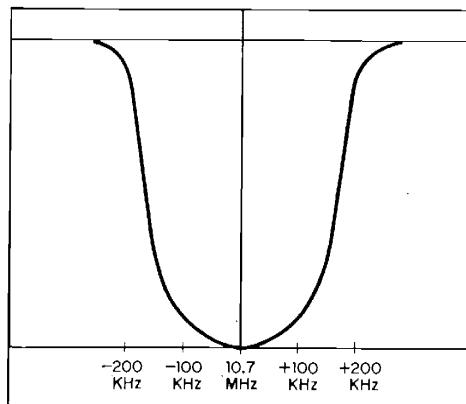


# FM ALIGNMENT PROCEDURE

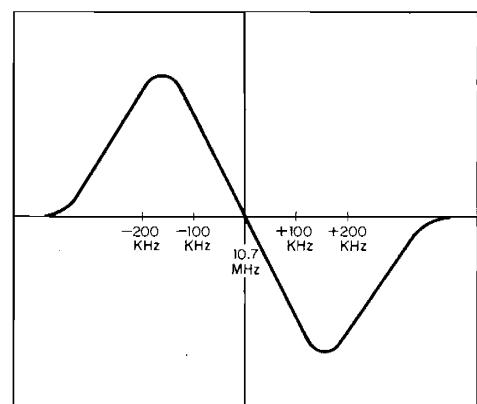
NOTE: To align, set the FM signal generator level to minimum turn tuning gang fully, center carrier wave, and set pointer to reference mark.

| STEP | ALIGN           | GENERATOR                         | FEED SIGNAL  | OUTPUT INDICATOR   | DIAL SETTING | ADJUST   | ADJUST FOR            |
|------|-----------------|-----------------------------------|--|--|--------------|--|-----------------------|
| 1.   | IF Transformer  | 10.7 MHz<br>±200 kHz              | Sweep signal is sent to $TP_{101}$ via the $0.02\mu F$ ceramic capacitor | Oscilloscope is connected to $TR_{204}$ emitter, and then $TR_{204}$ collector to ground via the $0.05\mu F$ ceramic capacitor |              | Primary and secondary sides of $T_{101}, T_{201}, T_{202}$ and $T_{203}$ | Best I.F.T. wave form |
| 2.   | Discriminator   | 10.7 MHz<br>±200 kHz              | Sweep signal is sent to $2Q$ via the $0.05\mu F$ ceramic capacitor       | Oscilloscope is connected to $2P$ via the $0.05\mu F$ capacitor  |              | FM Discriminator transformer $T_{204}$ primary and secondary             | S curve               |
| 3.   | O.S.C.          | 88 MHz<br>400 Hz 100% Modulation  | To antenna terminals   | Oscilloscope and V.T.V.M. at output load   | 88 MHz       | O.S.C. coil $L_{103}$  | Maximum               |
| 4.   | O.S.C.          | 108 MHz<br>400 Hz 100% Modulation | To antenna terminals   | Oscilloscope and V.T.V.M. at output load   | 108 MHz      | O.S.C. trimmer $TC_{103}$  | Maximum               |
| 5.   | Repeat 3&4      |                                   |  |  |              |  |                       |
| 6.   | RF Amp Circuit  | 90 MHz<br>400 Hz 100% Modulation  | To antenna terminals   | Oscilloscope and V.T.V.M. at output load   | 90 MHz       | Antenna coil $L_{101}, L_{102}$  | Maximum               |
| 7.   | RF Amp. Circuit | 106 MHz<br>400 Hz 100% Modulation | To antenna terminals   | Oscilloscope and V.T.V.M. at output load   | 106 MHz      | Trimmer $TC_{101}, TC_{102}$   | Maximum               |
| 8.   | Repeat 6&7      |                                   |  |  |              |  |                       |

FM IF CHARACTERISTIC



FM DISCRIMINATOR CHARACTERISTIC



# ALIGNMENT

## FM MULTIPLEX ALIGNMENT PROCEDURE

1. Do not attempt to align the Multiplex Circuit unless the following equipment is available:  
a. Multiplex Stereo Generator b. Oscilloscope c. AC. V.T.V.M. d. Audio Oscillator e. FM Signal Generator

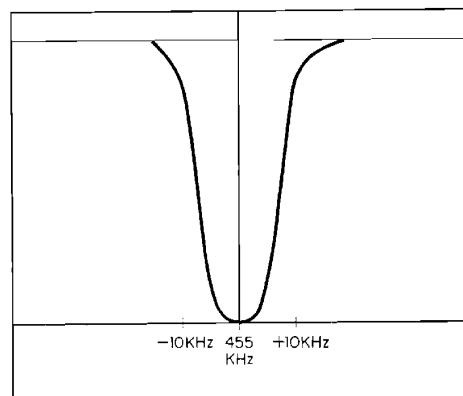
| STEP | ALIGN                            | GENERATOR  | FEED SIGNAL                         | OUTPUT INDICATOR                                   | ADJUST   | ADJUST FOR        |
|------|----------------------------------|--|-------------------------------------|--|--|-------------------|
| 1.   | 67 kHz Trap                      | 67 kHz Audio Signal  | Connect to TP <sub>4A</sub>         | V.T.V.M. at TP <sub>4</sub>                        | T <sub>404</sub>   | Minimum           |
| 2.   | 19 kHz Transformer               | FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel      | Antenna terminals<br>Tune to signal | V.T.V.M. and Oscilloscope at 4I                    | T <sub>401</sub> , T <sub>402</sub>  | Maximum           |
| 3.   | 38 kHz Transformer               | FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel      | Antenna terminals<br>Tune to signal | V.T.V.M. and Oscilloscope at 4G                    | T <sub>403</sub>   | Maximum           |
| 4.   | 38 kHz Transformer Separation VR | FM Signal Gen. Modulated 30% by STEREO Signal Gen. channel-L | Antenna terminals<br>Tune to signal | V.T.V.M. and Oscilloscope at output load channel-R | T <sub>403</sub><br>within $\frac{1}{4}$ turn and Separation VR (VR <sub>601</sub> ) | Channel-R Minimum |

# AM ALIGNMENT PROCEDURE

NOTE: To align, set the AM Signal Generator level to minimum

| STEP | ALIGN            | GENERATOR   | FEED SIGNAL       | OUTPUT INDICATOR                             | DIAL SETTING | ADJUST  | ADJUST FOR            |
|------|------------------|---|-------------------|--|--------------|---|-----------------------|
| 1.   | I.F. Transformer | 455 kHz<br>±30 kHz<br>Sweep-generator             | Antenna terminals | Oscilloscope and V.T.V.M. is connected to 2I |              | Primary and secondary sides from the 1st I.F.T. ( $T_{205}$ ) to the 3rd I.F.T. ( $T_{207}$ ) | Best I.F.T. wave form |
| 2.   | O.S.C.           | AM-generator<br>600 kHz<br>400 Hz 30% Modulation  | Antenna terminals | Oscilloscope and V.T.V.M. at output load     | 600 kHz      | O.S.C. Coil $T_{209}$   | Maximum               |
| 3.   | O.S.C            | AM-generator<br>1400 kHz<br>400 Hz 30% Modulation | Antenna terminals | Oscilloscope and V.T.V.M. at output load     | 1400 kHz     | O.S.C. Trimmer cap $TC_{202}$   | Maximum               |
| 4.   | Repeat 2 and 3   |   |                   |  |              |   |                       |
| 5.   | Antenna circuit  | AM-generator<br>600 kHz<br>400 Hz 30% Modulation  | Antenna terminals | Oscilloscope and V.T.V.M. at output load     | 600 kHz      | Ferrite bar Antenna coil $L_{208}$  | Maximum               |
| 6.   | Antenna circuit  | AM-generator<br>1400 kHz<br>400 Hz 30% Modulation | Antenna terminals | Oscilloscope and V.T.V.M. at output load     | 1400 kHz     | Antenna circuit Trimmer $TC_{201}$  | Maximum               |
| 7.   | Repeat 5 and 6   |   |                   |  |              |   |                       |

## AM IF CHARACTERISTIC



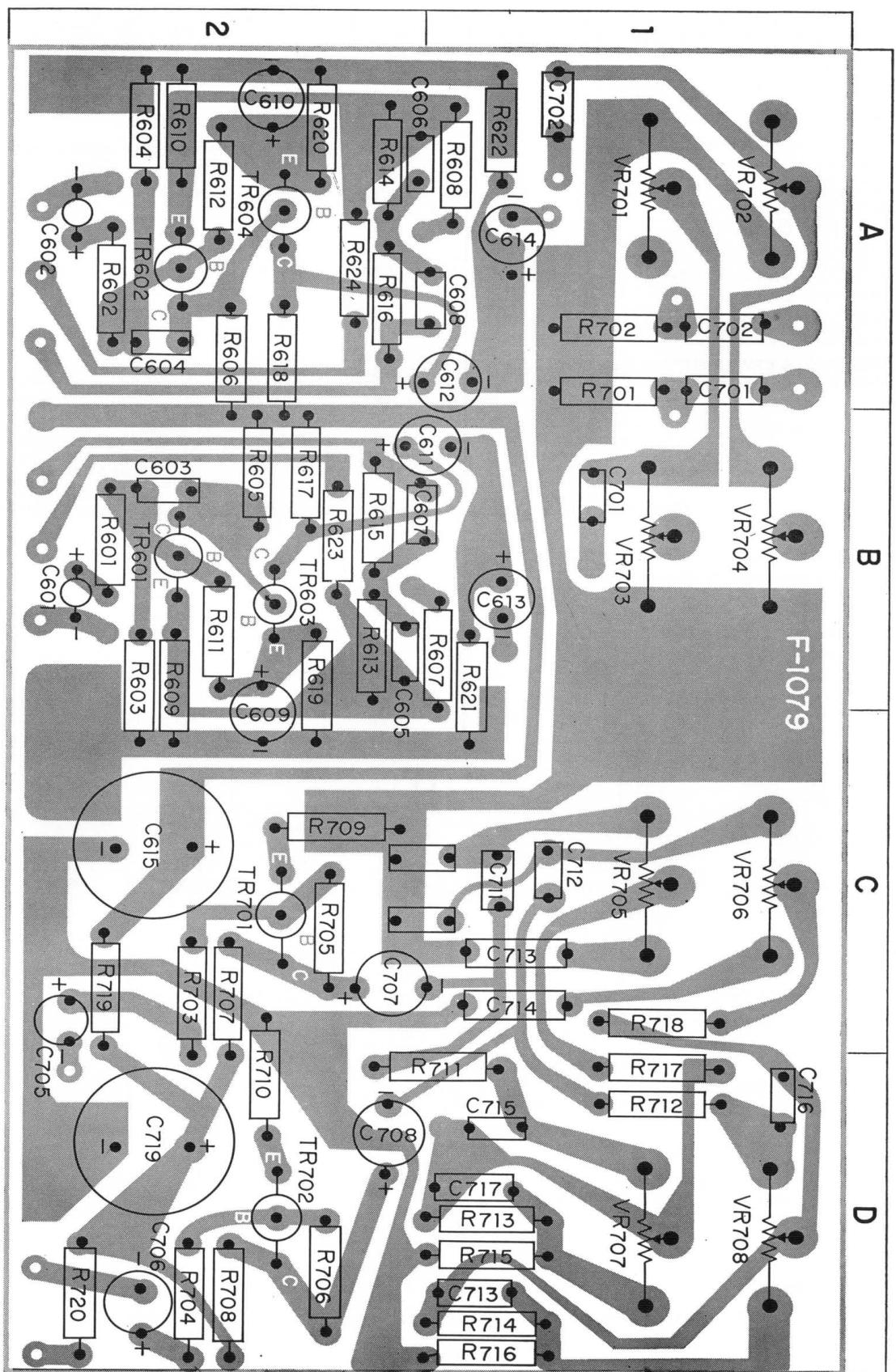
# PRINTED CIRCUIT SHEETS AND PARTS LIST

## EQUALIZER PRE-AMP UNIT <F-1079>

| X    | Y                                  | Z   |
|------|------------------------------------|-----|
| R601 | 1kΩ ±10% 1/4W Carbon Resistor      | 2 B |
| R602 | 1kΩ ±10% 1/4W Carbon Resistor      | 2 A |
| R603 | 220kΩ ±10% 1/4W Carbon Resistor    | 2 B |
| R604 | 220kΩ ±10% 1/4W Carbon Resistor    | 2 A |
| R605 | 180kΩ ±10% 1/4W Carbon Resistor    | 2 B |
| R606 | 180kΩ ±10% 1/4W Carbon Resistor    | 2 A |
| R607 | 270Ω ±10% 1/4W Carbon Resistor     | 1 B |
| R608 | 270Ω ±10% 1/4W Carbon Resistor     | 1 A |
| R609 | 680Ω ±10% 1/4W Carbon Resistor     | 2 B |
| R610 | 680Ω ±10% 1/4W Carbon Resistor     | 2 A |
| R611 | 330kΩ ±10% 1/4W Carbon Resistor    | 2 B |
| R612 | 330kΩ ±10% 1/4W Carbon Resistor    | 2 A |
| R613 | 820kΩ ±10% 1/4W Carbon Resistor    | 2 B |
| R614 | 820kΩ ±10% 1/4W Carbon Resistor    | 2 A |
| R615 | 39kΩ ±10% 1/4W Carbon Resistor     | 2 B |
| R616 | 39kΩ ±10% 1/4W Carbon Resistor     | 2 A |
| R617 | 12kΩ ±10% 1/4W Carbon Resistor     | 2 B |
| R618 | 12kΩ ±10% 1/4W Carbon Resistor     | 2 A |
| R619 | 2.2kΩ ±10% 1/4W Carbon Resistor    | 2 B |
| R620 | 2.2kΩ ±10% 1/4W Carbon Resistor    | 2 A |
| R621 | 1MΩ ±10% 1/4W Carbon Resistor      | 1 B |
| R622 | 1MΩ ±10% 1/4W Carbon Resistor      | 1 A |
| R623 | 3.3kΩ ±10% 1/4W Carbon Resistor    | 2 B |
| R624 | 3.3kΩ ±10% 1/4W Carbon Resistor    | 2 A |
| R701 | 15kΩ ±10% 1/4W Carbon Resistor     | 1 B |
| R702 | 15kΩ ±10% 1/4W Carbon Resistor     | 1 A |
| R703 | 1kΩ ±10% 1/4W Carbon Resistor      | 2 C |
| R704 | 1kΩ ±10% 1/4W Carbon Resistor      | 2 D |
| R705 | 1MΩ ±10% 1/4W Carbon Resistor      | 2 C |
| R706 | 1MΩ ±10% 1/4W Carbon Resistor      | 2 D |
| R707 | 15kΩ ±10% 1/4W Carbon Resistor     | 2 C |
| R708 | 15kΩ ±10% 1/4W Carbon Resistor     | 2 D |
| R709 | 680Ω ±10% 1/4W Carbon Resistor     | 2 C |
| R710 | 680Ω ±10% 1/4W Carbon Resistor     | 2 D |
| R711 | 18kΩ ±10% 1/4W Carbon Resistor     | 2 D |
| R712 | 18kΩ ±10% 1/4W Carbon Resistor     | 1 D |
| R713 | 22kΩ ±10% 1/4W Carbon Resistor     | 1 D |
| R714 | 22kΩ ±10% 1/4W Carbon Resistor     | 1 D |
| R715 | 3.3kΩ ±10% 1/4W Carbon Resistor    | 1 D |
| R716 | 3.3kΩ ±10% 1/4W Carbon Resistor    | 1 D |
| R717 | 12kΩ ±10% 1/4W Carbon Resistor     | 1 D |
| R718 | 12kΩ ±10% 1/4W Carbon Resistor     | 1 C |
| R719 | 2.2kΩ ±10% 1/4W Carbon Resistor    | 2 C |
| R720 | 5.6kΩ ±10% 1/4W Carbon Resistor    | 2 D |
| C601 | 1.5μF 3 WV Tantalum Capacitor      | 2 B |
| C602 | 1.5μF 3 WV Tantalum Capacitor      | 2 A |
| C603 | 4.7 pF ±10% 50WV Ceramic Capacitor | 2 B |
| C604 | 4.7 pF ±10% 50WV Ceramic Capacitor | 2 A |
| C605 | 0.0047μF ±10% 50WV Mylar Capacitor | 2 B |
| C606 | 0.0047μF ±10% 50WV Mylar Capacitor | 2 A |
| C607 | 0.0018μF ±10% 50WV Mylar Capacitor | 2 B |
| C608 | 0.0018μF ±10% 50WV Mylar Capacitor | 2 A |
| C609 | 33μF 6.3WV Electrolytic Capacitor  | 2 B |
| C610 | 33μF 6.3WV Electrolytic Capacitor  | 2 A |
| C611 | 3.3μF 25WV Electrolytic Capacitor  | 1 B |
| C612 | 3.3μF 25WV Electrolytic Capacitor  | 1 B |

X: Parts No Y: Parts Name Z: Position of Parts  
(Co-ordinate number and letter in printed circuit)

| X     | Y                                  | Z   |
|-------|------------------------------------|-----|
| C613  | 3.3μF 25WV Electrolytic Capacitor  | 1 B |
| C614  | 3.3μF 25WV Electrolytic Capacitor  | 1 A |
| C615  | 330μF 25WV Mylar Capacitor         | 2 C |
| C701  | 0.022μF ±10% 50WV Mylar Capacitor  | 1 B |
| C702  | 0.022μF ±10% 50WV Mylar Capacitor  | 1 A |
| C703  | 180 pF ±10% 60WV Ceramic Capacitor | 1 B |
| C704  | 180 pF ±10% 50WV Ceramic Capacitor | 1 A |
| C705  | 1μF 50WV Electrolytic Capacitor    | 2 C |
| C706  | 1μF 50WV Electrolytic Capacitor    | 2 D |
| C707  | 3.3μF 25WV Electrolytic Capacitor  | 2 C |
| C708  | 3.3μF 26WV Electrolytic Capacitor  | 2 D |
| C711  | 0.1μF ±10% 50WV Mylar Capacitor    | 1 C |
| C712  | 0.1μF ±10% 50WV Mylar Capacitor    | 1 C |
| C713  | 0.0068μF ±10% 50WV Mylar Capacitor | 1 C |
| C714  | 0.0068μF ±10% 50WV Mylar Capacitor | 1 C |
| C715  | 0.01μF ±10% 50WV Mylar Capacitor   | 1 D |
| C716  | 0.01μF ±10% 50WV Mylar Capacitor   | 1 D |
| C717  | 0.1μF ±10% 50WV Mylar Capacitor    | 1 D |
| C718  | 0.1μF ±10% 50WV Mylar Capacitor    | 1 D |
| C719  | 220μF 35WV Electrolytic Capacitor  | 2 D |
| TR601 | 2SC-650 (B, C, D) (030510-1, 2, 3) | 2 B |
| TR602 | 2SC-650 (B, C, D) (030510-1, 2, 3) | 2 A |
| TR603 | 2SC-281 (B) (030512-1)             | 2 B |
| TR604 | 2SC-281 (B) (030512-1)             | 2 A |
| TR605 | 2SC-281 (C) (030512-2)             | 2 C |
| TR606 | 2SC-281 (C) (030512-2)             | 2 D |
| VR701 | 150kΩ (BH) × 2 (101032)            | 1 A |
| VR702 | 250kΩ (B) × 2 (101033)             | 1 B |
| VR703 | 100kΩ (A) × 2 (101031)             | 1 C |
| VR704 | 100kΩ (A) × 2 (101031)             | 1 D |
| VR705 | 100kΩ (A) × 2 (101031)             | 1 C |
| VR706 | 100kΩ (A) × 2 (101031)             | 1 D |
| VR707 | 100kΩ (A) × 2 (101031)             | 1 D |



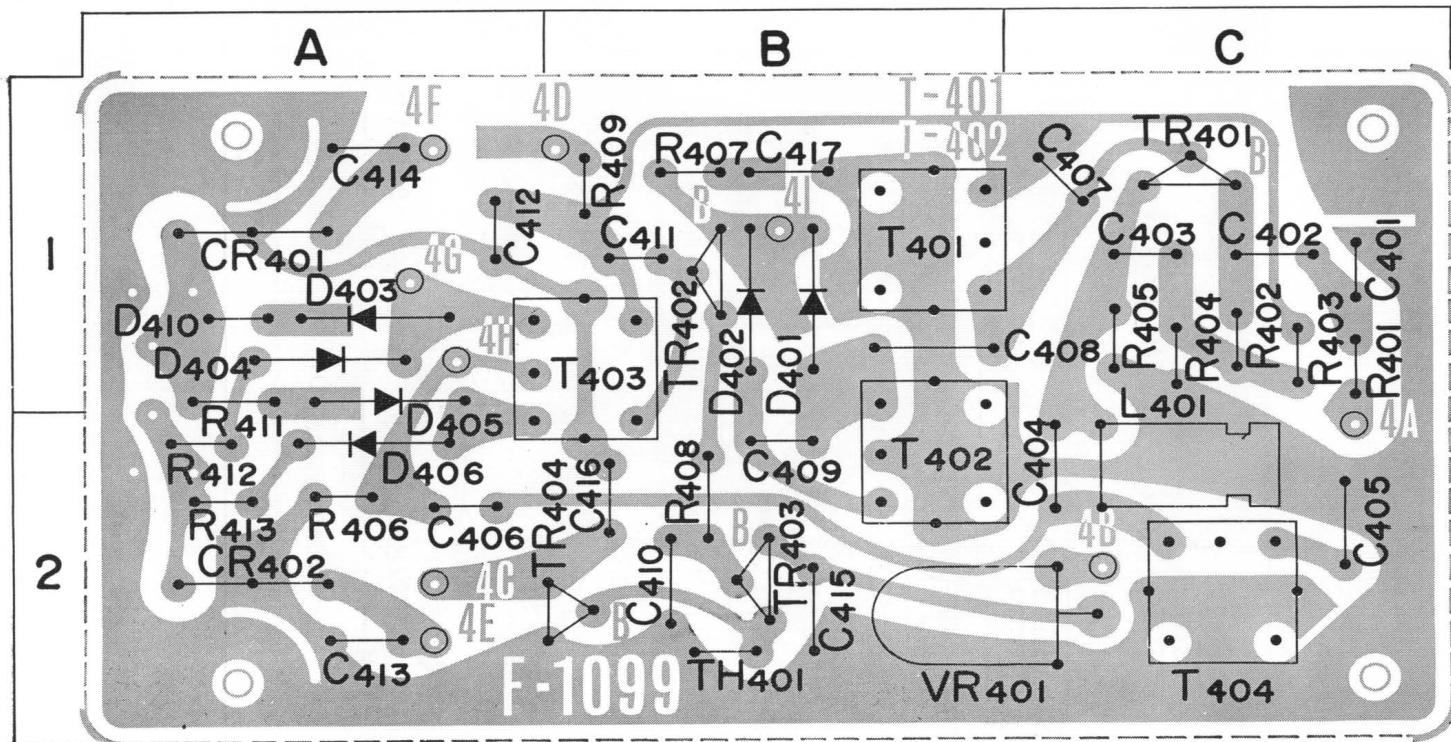
# PRINTED CIRCUIT SHEETS AND PARTS LIST

## FM MULTIPLEX & INDICATOR (F-1099)

| X     | Y  | Z  |
|-------|--|----|
| R401  | 1kΩ ±10% ½W Carbon Resistor                  | 1C |
| R402  | 22kΩ ±10% ½W Carbon Resistor                 | 1C |
| R403  | 22kΩ ±10% ½W Carbon Resistor                 | 1C |
| R404  | 8.2kΩ ±10% ½W Carbon Resistor                | 1C |
| R405  | 270Ω ±10% ½W Carbon Resistor                 | 1C |
| R406  | 3.3kΩ ±10% ½W Carbon Resistor                | 2A |
| R407  | 18kΩ ±10% ½W Carbon Resistor                 | 1B |
| R408  | 1.2kΩ ±10% ½W Carbon Resistor                | 2B |
| R409  | 47Ω ±10% ½W Carbon Resistor                  | 1B |
| R410  | 22kΩ ±10% ½W Carbon Resistor                 | 1A |
| R411  | 22kΩ ±10% ½W Carbon Resistor                 | 2A |
| R412  | 22kΩ ±10% ½W Carbon Resistor                 | 2A |
| R413  | 22kΩ ±10% ½W Carbon Resistor                 | 2A |
| TH401 | 31D27 Thermistor (032003)                    | 2A |
| C401  | 100pF ±20% 50 WV Ceramic Capacitor           | 1C |
| C402  | 10μF 10 WV Electrolytic Capacitor (RB Type)  | 1C |
| C403  | 33μF 6.3 WV Electrolytic Capacitor (RB Type) | 1C |
| C404  | 0.001μF ±5% 50 WV Mica Capacitor             | 2C |
| C405  | 270pF ±10% 50 WV Mica Capacitor              | 2C |
| C406  | 47μF 6.3 WV Electrolytic Capacitor (RB Type) | 2A |
| C407  | 3300pF ±5% 50 WV Styrol Capacitor            | 1C |
| C408  | 330pF ±10% 50 WV Mica Capacitor              | 1B |
| C409  | 3300pF ±5% 50 WV Styrol Capacitor            | 2B |
| C400  | 0.04μF ±10% 50 WV Mylar Capacitor            | 2B |
| C411  | 1500pF ±5% 50 WV Styrol Capacitor            | 1B |

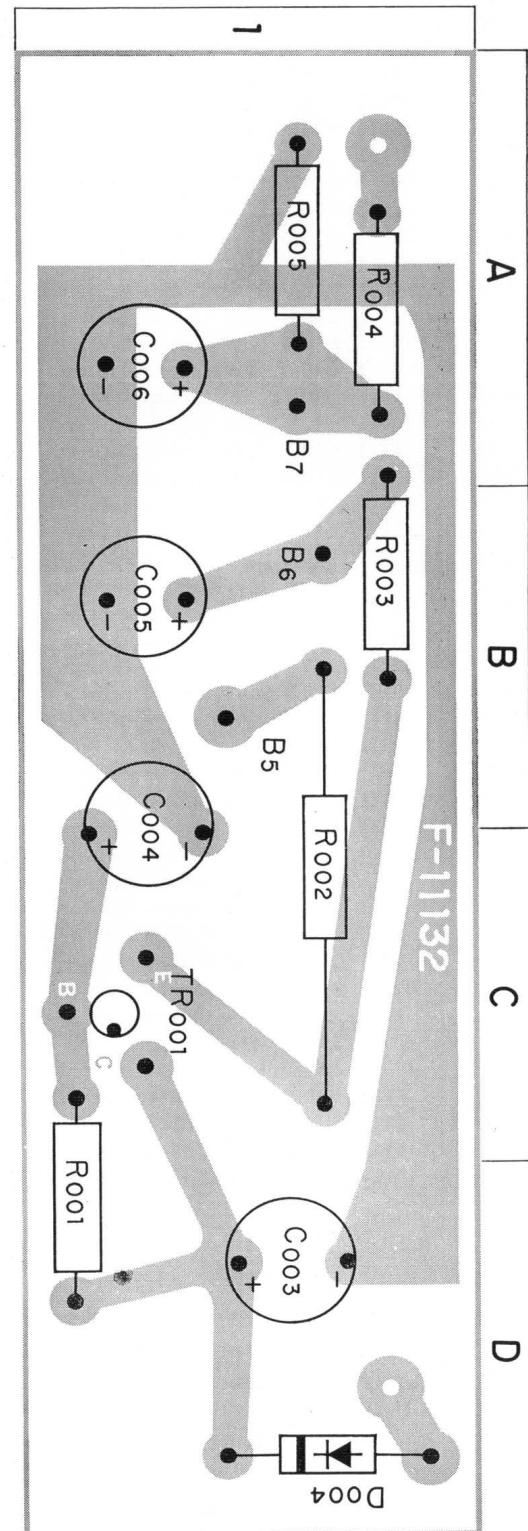
X: Parts No Y: Parts Name Z: Position of Parts  
(Co-ordinate number and letter in printed circuit)

| X     | Y  | Z  |
|-------|--|----|
| C412  | 100μF 16 WV Electrolytic Capacitor (RB Type) | 1A |
| C413  | 0.0012μF ±10% 50 WV Mylar Capacitor          | 2A |
| C414  | 0.0012μF ±10% 50 WV Mylar Capacitor          | 1A |
| C415  | 0.02μF +100% -0% 25 WV Ceramic Capacitor     | 2B |
| C416  | 10μF 10 WV Electrolytic Capacitor (RB Type)  | 2B |
| CR401 | FP38A (080008)                               | 1A |
| CR400 | FP38A (080008)                               | 2A |
| TR401 | 2SC537(G) (030544-2)                         | 1C |
| TR402 | 2SC537(G) (030544-2)                         | 1B |
| TR403 | 2SC537(G) (030544-2)                         | 2B |
| TR404 | 2SD178T (030818-3)                           | 2B |
| D401  | IN34A (031040)                               | 1B |
| D402  | IN34A (031040)                               | 1B |
| D403  | IN34A (031040)                               | 1A |
| D404  | IN34A (031040)                               | 1A |
| D405  | IN34A (031040)                               | 1A |
| D406  | IN34A (031040)                               | 2A |
| T401  | 19kC Tune (424030)                           | 1B |
| T402  | 19kC Tune (424030)                           | 2B |
| T403  | 38kC Tune (424031)                           | 1A |
| T404  | 67kC Tune (424030)                           | 2C |
| L401  | 71kC Tune (490003)                           | 2C |
| VR401 | Indicator Adjust 100kΩ(B) (103034)           | 2B |



## POWER UNIT <F-11132>

| X     | Y                                  | Z   |
|-------|------------------------------------|-----|
| R001  | 10kΩ ±10% 1/4W Carbon Resistor     | 1 D |
| R002  | 390Ω ±10% 2 W Carbon Resistor      | 1 C |
| R003  | 1.8kΩ ±10% 1/4W Carbon Resistor    | 1 B |
| R004  | 220Ω ±10% 1/4W Carbon Resistor     | 1 A |
| R005  | 1.2kΩ ±10% 1/4W Carbon Resistor    | 1 A |
| C003  | 100μF 50 WV Electrolytic Capacitor | 1 D |
| C004  | 100μF 50 WV Electrolytic Capacitor | 1 C |
| C005  | 220μF 16 WV Electrolytic Capacitor | 1 B |
| C006  | 220μF 16 WV Electrolytic Capacitor | 1 A |
| D004  | 10D-1 Diode (031034)               | 1 D |
| TR001 | 2SC-281 Transistor (030512-1, 2)   | 1 C |



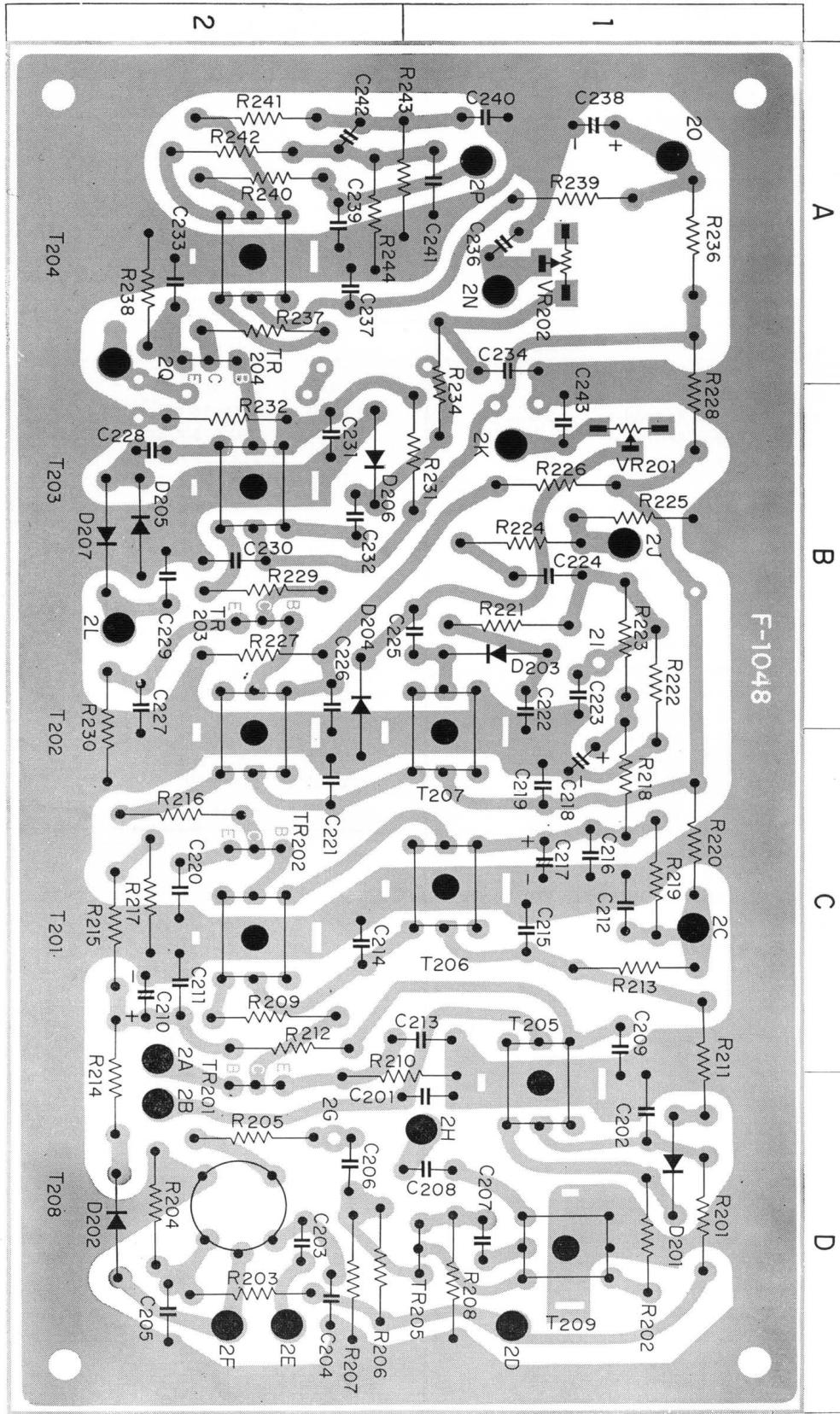
# PRINTED CIRCUIT SHEETS AND PARTS LIST

## AM-FM TUNER UNIT <F-1048A>

| X    | Y                                    | Z   |
|------|--------------------------------------|-----|
| R201 | 1.8 kΩ ±10% 1/4W Carbon Resistor     | 1 D |
| R202 | 100Ω ±10% 1/4W Carbon Resistor       | 1 D |
| R203 | 6.8 kΩ ±10% 1/4W Carbon Resistor     | 2 D |
| R204 | 1 kΩ ±10% 1/4W Carbon Resistor       | 3 D |
| R205 | 100Ω ±10% 1/4W Carbon Resistor       | 2 D |
| R206 | 68 kΩ ±10% 1/4W Carbon Resistor      | 1 D |
| R207 | 10 kΩ ±10% 1/4W Carbon Resistor      | 2 D |
| R208 | 1.2 kΩ ±10% 1/4W Carbon Resistor     | 1 D |
| R209 | 680Ω ±10% 1/4W Carbon Resistor       | 2 C |
| R210 | 560Ω ±10% 1/4W Carbon Resistor       | 2 D |
| R211 | 100Ω ±10% 1/4W Carbon Resistor       | 1 C |
| R212 | 1.5 kΩ ±10% 1/4W Carbon Resistor     | 2 C |
| R213 | 1 kΩ ±10% 1/4W Carbon Resistor       | 1 C |
| R214 | 100Ω ±10% 1/4W Carbon Resistor       | 2 C |
| R215 | 1.5 kΩ ±10% 1/4W Carbon Resistor     | 2 C |
| R216 | 680Ω ±10% 1/4W Carbon Resistor       | 2 C |
| R217 | 560Ω ±10% 1/4W Carbon Resistor       | 2 C |
| R218 | 3.3 kΩ ±10% 1/4W Carbon Resistor     | 1 C |
| R219 | 82 kΩ ±10% 1/4W Carbon Resistor      | 1 C |
| R220 | 22Ω ±10% 1/4W Carbon Resistor        | 1 C |
| R221 | 1 kΩ ±10% 1/4W Carbon Resistor       | 1 B |
| R222 | 22 kΩ ±10% 1/4W Carbon Resistor      | 1 B |
| R223 | 22 kΩ ±10% 1/4W Carbon Resistor      | 1 B |
| R224 | 10 kΩ ±10% 1/4W Carbon Resistor      | 1 B |
| R225 | 56 kΩ ±10% 1/4W Carbon Resistor      | 1 B |
| R226 | 12 kΩ ±10% 1/4W Carbon Resistor      | 1 B |
| R227 | 10 kΩ ±10% 1/4W Carbon Resistor      | 2 B |
| R228 | 22Ω ±10% 1/4W Carbon Resistor        | 1 B |
| R229 | 820Ω ±10% 1/4W Carbon Resistor       | 2 B |
| R230 | 1.2 kΩ ±10% 1/4W Carbon Resistor     | 1 B |
| R231 | 12 kΩ ±10% 1/4W Carbon Resistor      | 1 B |
| R232 | 6.8 kΩ ±10% 1/4W Carbon Resistor     | 2 B |
| R234 | 3.3 kΩ ±10% 1/4W Carbon Resistor     | 1 A |
| R236 | 22Ω ±10% 1/4W Carbon Resistor        | 1 A |
| R237 | 820Ω ±10% 1/4W Carbon Resistor       | 1 A |
| R238 | 1 kΩ ±10% 1/4W Carbon Resistor       | 2 A |
| R239 | 470Ω ±10% 1/4W Carbon Resistor       | 1 A |
| R240 | 100Ω ±10% 1/4W Carbon Resistor       | 2 A |
| R241 | 1 kΩ ±10% 1/4W Carbon Resistor       | 2 A |
| R242 | 1 kΩ ±10% 1/4W Carbon Resistor       | 2 A |
| R243 | 10 kΩ ±10% 1/4W Carbon Resistor      | 1 A |
| R244 | 10 kΩ ±10% 1/4W Carbon Resistor      | 2 A |
| C201 | 0.001μF ±100% 50WV Ceramic Capacitor | 2 D |
| C202 | 0.04μF ±100% 50WV Ceramic Capacitor  | 1 D |
| C205 | 0.04μF ±100% 50WV Ceramic Capacitor  | 2 D |
| C206 | 0.02μF ±100% 50WV Ceramic Capacitor  | 2 D |
| C207 | 0.01μF ±10% Mylar capacitor          | 1 D |
| C208 | 350 pF ±10% 50WV Mica capacitor      | 1 D |
| C210 | 1μF 50WV Electrolytic Capacitor      | 1 C |
| C211 | 0.04μF ±100% 50WV Ceramic Capacitor  | 2 C |
| C212 | 0.04μF ±100% 50WV Ceramic Capacitor  | 1 C |
| C213 | 0.04μF ±100% 50WV Ceramic Capacitor  | 1 C |
| C214 | 330 pF ±10% 50WV Ceramic Capacitor   | 2 C |

**X:** Parts No **Y:** Parts Name **Z:** Position of Parts  
(Co-ordinate number and letter in printed circuit)

| X     | Y  | Z   |
|-------|--|-----|
| C215  | 0.04μF ±100% 50WV Ceramic Capacitor      | 1 C |
| C216  | 0.04μF ±100% 50WV Ceramic Capacitor      | 1 C |
| C217  | 4.7μF 16WV Electrolytic Capacitor        | 1 C |
| C218  | 1μF 50WV Electrolytic Capacitor          | 1 C |
| C219  | 0.04μF ±100% 50WV Ceramic Capacitor      | 1 C |
| C220  | 0.04μF ±100% 50WV Ceramic Capacitor      | 2 C |
| C221  | 330 pF ±10% 50WV Ceramic Capacitor       | 2 C |
| C222  | 0.022μF ±10% 50WV Mylar Capacitor        | 1 B |
| C223  | 0.047μF ±10% 50WV Mylar Capacitor        | 1 B |
| C224  | 0.022μF ±10% 50WV Mylar Capacitor        | 1 B |
| C225  | 0.0022μF ±10% 50WV Mylar Capacitor       | 1 B |
| C226  | 0.02μF ±100% 50WV Ceramic Capacitor      | 2 B |
| C227  | 0.02μF ±100% 50WV Ceramic Capacitor      | 2 B |
| C228  | 4.7 pF ±10% 50WV Ceramic Capacitor       | 2 B |
| C229  | 0.02μF ±100% 50WV Ceramic Capacitor      | 2 B |
| C230  | 0.04μF ±100% 50WV Ceramic Capacitor      | 2 B |
| C231  | 0.02μF ±100% 50WV Ceramic Capacitor      | 2 B |
| C232  | 3.3 pF ±10% 50WV Ceramic Capacitor       | 2 B |
| C233  | 0.02μF ±100% 50WV Electrolytic Capacitor | 2 A |
| C234  | 0.02μF ±100% 50WV Ceramic Capacitor      | 1 A |
| C237  | 0.02μF ±100% 50WV Ceramic Capacitor      | 2 A |
| C238  | 220μF 16WV Ceramic Capacitor             | 1 A |
| C239  | 100 pF ±10% 50WV Ceramic Capacitor       | 1 A |
| C240  | 220 pF ±10% 50WV Ceramic Capacitor       | 1 A |
| C241  | 220 pF ±10% 50WV Ceramic Capacitor       | 1 A |
| C242  | 4.7μF ±10% 16WV Electrolytic Capacitor   | 2 A |
| C243  | 0.04μF ±100% 50WV Ceramic Capacitor      | 1 B |
| TR201 | 2SC-460 (C) (030535-1)                   | 2 D |
| TR202 | 2SC-460 (C) (030535-1)                   | 2 C |
| TR203 | 2SC-460 (B) (030535)                     | 2 B |
| TR204 | 2SC-460 (B) (030535)                     | 2 A |
| TR205 | 2SC-460 (C) (030535-1)                   | 1 D |
| D201  | IN-34A Diode (031040)                    | 1 D |
| D202  | IN-34A Diode (031040)                    | 2 D |
| D203  | IN-34A Diode (031040)                    | 1 B |
| D204  | IN-34A Diode (031040)                    | 2 B |
| D205  | IN-60 Diode (031033)                     | 2 B |
| D206  | IN-60 Diode (031033)                     | 2 B |
| D207  | IN-60 Diode (031033)                     | 2 B |
| T201  | FM 10.7MHz IFT (423531)                  | 2 C |
| T202  | FM 10.7MHz IFT (423528)                  | 2 B |
| T203  | FM 10.7MHz IFT (423528)                  | 2 B |
| T204  | FM Detector Transformer (423518)         | 2 A |
| T205  | AM 455kHz IFT (423021)                   | 1 D |
| T206  | AM 455kHz IFT (423020)                   | 2 C |
| T207  | AM 455kHz IFT (423022)                   | 2 C |
| T209  | AM OSC Coil (422007)                     | 1 D |
| VR201 | 20 kΩ (B) (103046)                       | 1 B |
| VR202 | 20 kΩ (B) (103046)                       | 1 A |



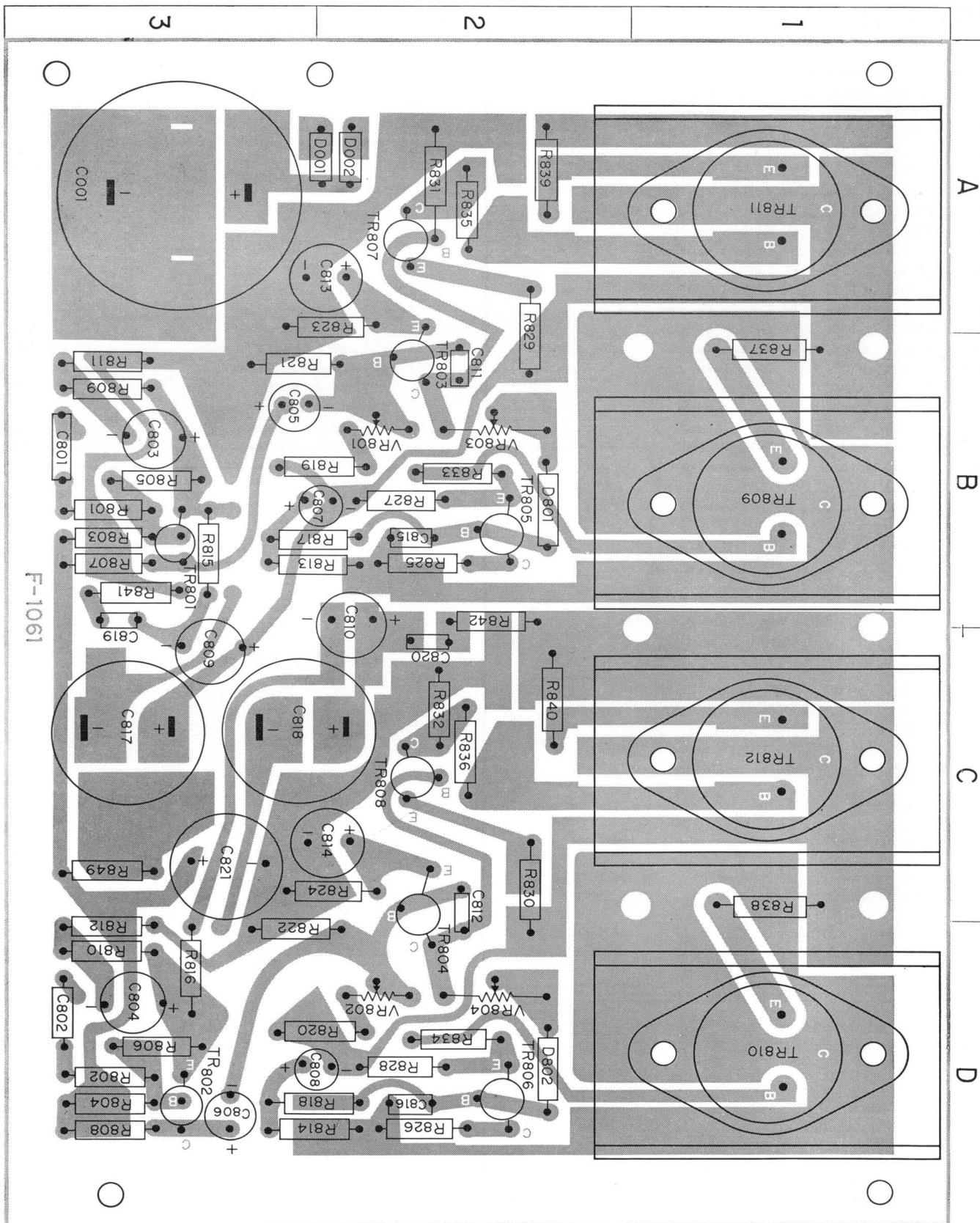
# PRINTED CIRCUIT SHEETS AND PARTS LIST

## MAIN AMP UNIT <F-1061>

| X    | Y                                   | Z   |
|------|-------------------------------------|-----|
| R801 | 4.7 kΩ ±10% 1/4W Carbon Resistor    | 3 B |
| R802 | 4.7 kΩ ±10% 1/4W Carbon Resistor    | 3 D |
| R803 | 680 kΩ ±10% 1/4W Carbon Resistor    | 3 B |
| R804 | 680 kΩ ±10% 1/4W Carbon Resistor    | 3 D |
| R805 | 100 kΩ ±10% 1/4W Carbon Resistor    | 3 B |
| R806 | 100 kΩ ±10% 1/4W Carbon Resistor    | 3 D |
| R807 | 2.2 kΩ ±10% 1/4W Carbon Resistor    | 3 B |
| R808 | 2.2 kΩ ±10% 1/4W Carbon Resistor    | 3 D |
| R809 | 2.7 kΩ ±10% 1/4W Carbon Resistor    | 3 B |
| R810 | 2.7 kΩ ±10% 1/4W Carbon Resistor    | 3 D |
| R811 | 470Ω ±10% 1/4W Carbon Resistor      | 3 B |
| R812 | 470Ω ±10% 1/4W Carbon Resistor      | 3 D |
| R813 | 1 kΩ ±10% 1/4W Carbon Resistor      | 3 B |
| R814 | 1 kΩ ±10% 1/4W Carbon Resistor      | 3 D |
| R815 | 27 kΩ ±10% 1/4W Carbon Resistor     | 3 B |
| R816 | 27 kΩ ±10% 1/4W Carbon Resistor     | 3 D |
| R817 | 3.3 kΩ ±10% 1/4W Carbon Resistor    | 3 B |
| R818 | 3.3 kΩ ±10% 1/4W Carbon Resistor    | 3 D |
| R819 | 100 kΩ ±10% 1/4W Carbon Resistor    | 3 B |
| R820 | 100 kΩ ±10% 1/4W Carbon Resistor    | 3 D |
| R821 | 27 kΩ ±10% 1/4W Carbon Resistor     | 3 B |
| R822 | 27 kΩ ±10% 1/4W Carbon Resistor     | 3 D |
| R823 | 330Ω ±10% 1/4W Carbon Resistor      | 3 A |
| R824 | 330Ω ±10% 1/4W Carbon Resistor      | 2 C |
| R825 | 47Ω ±10% 1/4W Carbon Resistor       | 2 B |
| R826 | 47Ω ±10% 1/4W Carbon Resistor       | 2 D |
| R827 | 270Ω ±10% 1/4W Carbon Resistor      | 2 B |
| R828 | 270Ω ±10% 1/4W Carbon Resistor      | 2 D |
| R829 | 47Ω ±10% 1/4W Carbon Resistor       | 2 A |
| R830 | 47Ω ±10% 1/4W Carbon Resistor       | 2 C |
| R831 | 270Ω ±10% 1/4W Carbon Resistor      | 2 A |
| R832 | 270Ω ±10% 1/4W Carbon Resistor      | 2 C |
| R833 | 10Ω ±10% 1/4W Carbon Resistor       | 2 B |
| R834 | 10Ω ±10% 1/4W Carbon Resistor       | 2 D |
| R835 | 10Ω ±10% 1/4W Carbon Resistor       | 2 A |
| R836 | 10Ω ±10% 1/4W Carbon Resistor       | 2 C |
| R837 | 0.5Ω ±20% 3 W Wire-Wound            | 1 B |
| R838 | 0.5Ω ±20% 3 W Wire-Wound            | 1 C |
| R839 | 0.5Ω ±20% 3 W Wire-Wound            | 2 A |
| R840 | 0.5Ω ±20% 3 W Wire-Wound            | 2 C |
| R841 | 6.8Ω ±10% 1/2W Solid Resistor       | 3 B |
| R842 | 6.8Ω ±10% 1/2W Solid Resistor       | 2 B |
| R849 | 3.9 kΩ ±10% 1/4W Carbon Resistor    | 3 C |
| C801 | 0.22μF ±10% 50 WV Mylar Capacitor   | 3 B |
| C802 | 0.22μF ±10% 50 WV Mylar Capacitor   | 3 D |
| C803 | 100μF 6.3 WV Electrolytic Capacitor | 3 B |
| C804 | 100μF 6.3 WV Electrolytic Capacitor | 3 D |
| C805 | 1μF 50 WV Electrolytic Capacitor    | 3 B |
| C806 | 1μF 50 WV Electrolytic Capacitor    | 3 D |
| C807 | 4.7μF 50 WV Electrolytic Capacitor  | 2 B |
| C808 | 4.7μF 50 WV Electrolytic Capacitor  | 2 D |
| C809 | 1μF 50 WV Electrolytic Capacitor    | 3 C |
| C810 | 1μF 50 WV Electrolytic Capacitor    | 2 B |
| C811 | 100 pF ±10% 50 WV Mica Capacitor    | 2 B |
| C812 | 100 pF ±10% 50 WV Mica Capacitor    | 2 C |
| C813 | 100μF 6.3 WV Electrolytic Capacitor | 2 A |

**X:** Parts No **Y:** Parts Name **Z:** Position of Parts  
(Co-ordinate number and letter in printed circuit)

| X     | Y  | Z   |
|-------|--|-----|
| C814  | 100μF 6.3 WV Electrolytic Capacitor        | 2 C |
| C815  | 150 pF ±10% 50 WV Mica Capacitor           | 2 B |
| C816  | 150 pF ±10% 50 WV Mica Capacitor           | 2 D |
| C817  | 1000μF 35 WV Electrolytic Capacitor        | 3 C |
| C818  | 1000μF 35 WV Electrolytic Capacitor        | 3 C |
| C819  | 0.047μF ±10% 50 WV Mylar Capacitor         | 3 C |
| C820  | 0.047μF ±10% 50. WV Mylar Capacitor        | 2 B |
| C821  | 220μF 50 WV Electrolytic Capacitor         | 3 C |
| C001  | 1500μF 63 WV Electrolytic Capacitor        | 3 A |
| TR801 | 2SC-649 (A, B) (030509,-1)                 | 3 B |
| TR802 | 2SC-649 (A, B) (030509,-1)                 | 3 D |
| TR803 | 2SC-968 (030556)                           | 2 B |
| TR804 | 2SC-968 (030556)                           | 2 C |
| TR805 | 2SC-815(K, L, M) (030543,-1,-2)            | 2 B |
| TR806 | 2SC-815(K, L, M) (030543,-1,-2)            | 2 D |
| TR807 | 2SA-539(K, L, M) (030011,-1,-2)            | 2 A |
| TR808 | 2SA-539(K, L, M) (030011,-1,-2)            | 2 C |
| TR809 | 2SD-180(K, L, M) (2SD247) (030806-1, 2, 3) | 1 B |
| TR810 | 2SD-180(K, L, M) (2SD247) (030806-1, 2, 3) | 1 D |
| TR811 | 2SD-180(K, L, M) (2SD247) (030806-1, 2, 3) | 1 A |
| TR812 | 2SD-180(K, L, M) (2SD247) (030806-1, 2, 3) | 1 C |
| D801  | SV-02 Varistor (031049)                    | 2 B |
| D802  | SV-02 Varistor (031049)                    | 2 D |
| D001  | 10D-1 Diode (031034)                       | 2 A |
| D002  | 10D-1 Diode (031034)                       | 2 A |
| VR801 | 200 kΩ (B) (103045)                        | 2 B |
| VR802 | 200 kΩ (B) (103045)                        | 2 D |
| VR803 | 200Ω (B) (103012)                          | 2 B |
| VR804 | 200Ω (B) (103012)                          | 2 D |



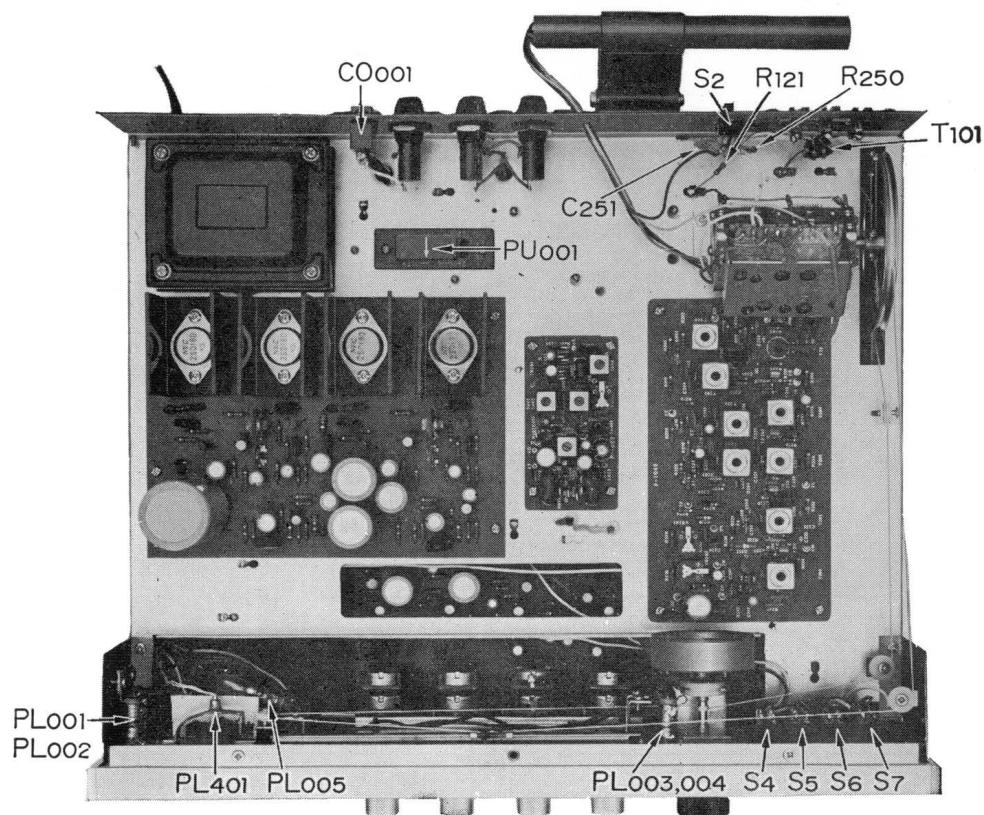
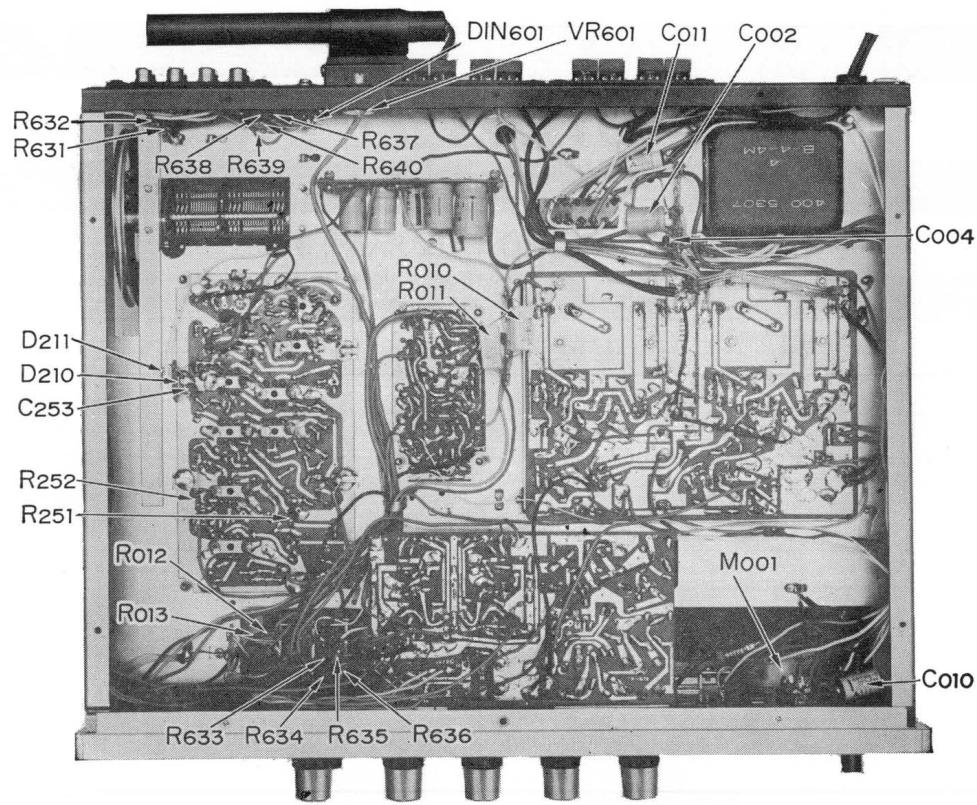
# OTHER PARTS CHART AND LIST

## OTHER PARTS LIST

| X     | Y   |
|-------|---|
| R120  | 820Ω ±10% ½W Carbon Resistor              |
| R121  | 68Ω ±10% ½W Carbon Resistor               |
| R251  | 1kΩ ±10% ½W Carbon Resistor               |
| R252  | 47kΩ ±10% ½W Carbon Resistor              |
| R631  | 56kΩ ±10% ½W Carbon Resistor              |
| R632  | 56kΩ ±10% ½W Carbon Resistor              |
| R633  | 100kΩ ±10% ½W Carbon Resistor             |
| R634  | 100kΩ ±10% ½W Carbon Resistor             |
| R635  | 33kΩ ±10% ½W Carbon Resistor              |
| R636  | 33kΩ ±10% ½W Carbon Resistor              |
| R637  | 100kΩ ±10% ½W Carbon Resistor             |
| R638  | 100kΩ ±10% ½W Carbon Resistor             |
| R639  | 470kΩ ±10% ½W Carbon Resistor             |
| R640  | 470kΩ ±10% ½W Carbon Resistor             |
| R641  | 12kΩ ±10% ½W Carbon Resistor              |
| R642  | 12kΩ ±10% ½W Carbon Resistor              |
| R851  | 390Ω ±10% ½W Solid Resistor               |
| R852  | 390Ω ±10% ½W Solid Resistor               |
| R010  | 180Ω ±10% 3W Wire-Wound                   |
| R011  | 180Ω ±10% 3W Wire-Wound                   |
| R012  | 1kΩ ±10% ½W Carbon Resistor               |
| R013  | 1kΩ ±10% ½W Carbon Resistor               |
| C120  | 0.02μF +100% -0% 50 WV Ceramic Capacitor  |
| C121  | 0.02μF +100% -0% 50 WV Ceramic Capacitor  |
| C251  | 0.02μF +100% -0% 50 WV Ceramic Capacitor  |
| C252  | 4.7pF +100% -0% 50 WV Ceramic Capacitor   |
| C253  | 0.001μF +100% -0% 50 WV Ceramic Capacitor |
| C254  | 10μF 10 WV Electrolytic Capacitor         |
| C255  | 0.0033μF ±10% 50 WV Mylar Capacitor       |
| C423  | 0.001μF ±10% 50 WV Mylar Capacitor        |
| C002  | 220μF 10 WV Electrolytic Capacitor        |
| C010  | 0.022μF ±10% 600WV Oil Capacitor          |
| C011  | 0.0047μF ±10% 600WV Oil Capacitor         |
| VR601 | 2kΩ (B) (100506)                          |
| PT001 | Power Transformer (400041)                |
| T101  | FM Antenna (429002)                       |
| T208  | AM Antenna (429002)                       |
| L201  | RF Choke 3.5μH (429001-1)                 |
| L202  | RF Choke 3.5μH (429001-1)                 |
| PL001 | 6.3V 0.25A (040008)                       |
| PL002 | 6.3V 0.25A (040008)                       |
| PL003 | 6.3V 0.25A (040008)                       |
| PL004 | 6.3V 0.25A (040008)                       |
| PL005 | 6.3V 0.25A (040008)                       |
| PL006 | 25V 90mA (040007)                         |
| PL007 | 25V 90mA (040007)                         |
| PL401 | 6.3V 30mA (040011)                        |
| F001  | 2A (043003)                               |
| F002  | 1.5A AGB (043010)                         |
| F003  | 1.5A AGB (043010)                         |

X: Parts No Y: Parts Name

| X      | Y                                |
|--------|----------------------------------|
| M001   | 100μA Tuning Meter (090015)      |
| PU001  | (241008, 241009)                 |
| CO001  | AC Consent (245001-1)            |
| D210   | IN-60 Diode (031033)             |
| D211   | IN-60 Diode (031033)             |
| D004   | 10D-1 Diode (031034)             |
| DIN601 | Tape Recorder Connector (243004) |
| J001   | Headphone Jack (243006)          |
| S1a~f  | Selector Switch (110316)         |
| S2     | Antenna Switch (111004)          |
| S4     | MPX Noise Canseler (117006)      |
| S5     | Loudness Switch (117006)         |
| S6     | Mode Switch (117006)             |
| S7     | Tape Monitor Switch (117006)     |
| S8     | Speaker Switch (112002)          |
| S001   | Power Switch (113009)            |





*Sansui*®



SANSUI ELECTRIC COMPANY LIMITED



Head Office; 14-1, 2-chome, Izumi, Suginami-ku, Tokyo, Japan. TEL. 323-1111

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Printed in Japan (49020M5)

# SANSUI 350 SCHEMATIC DIAGRAM

