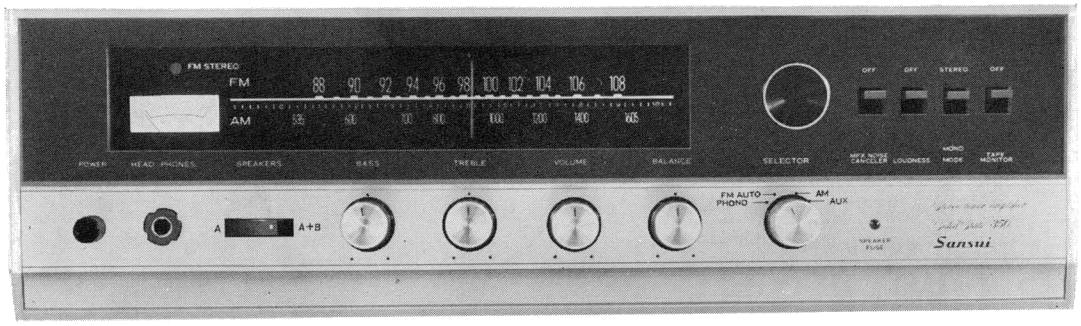
# SERVICE MANUAL

## AM/FM STEREO TUNER AMPLIFIER

## SANSUI 350




Sansui®

SANSUI ELECTRIC COMPANY LIMITED

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SELECTOR
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OFF
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OFF
MPX NOISE CANCELLER
LOUDNESS
MONO MODE
TAPE MONITOR
AUX
SPEAKER FUSE
Sansui

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

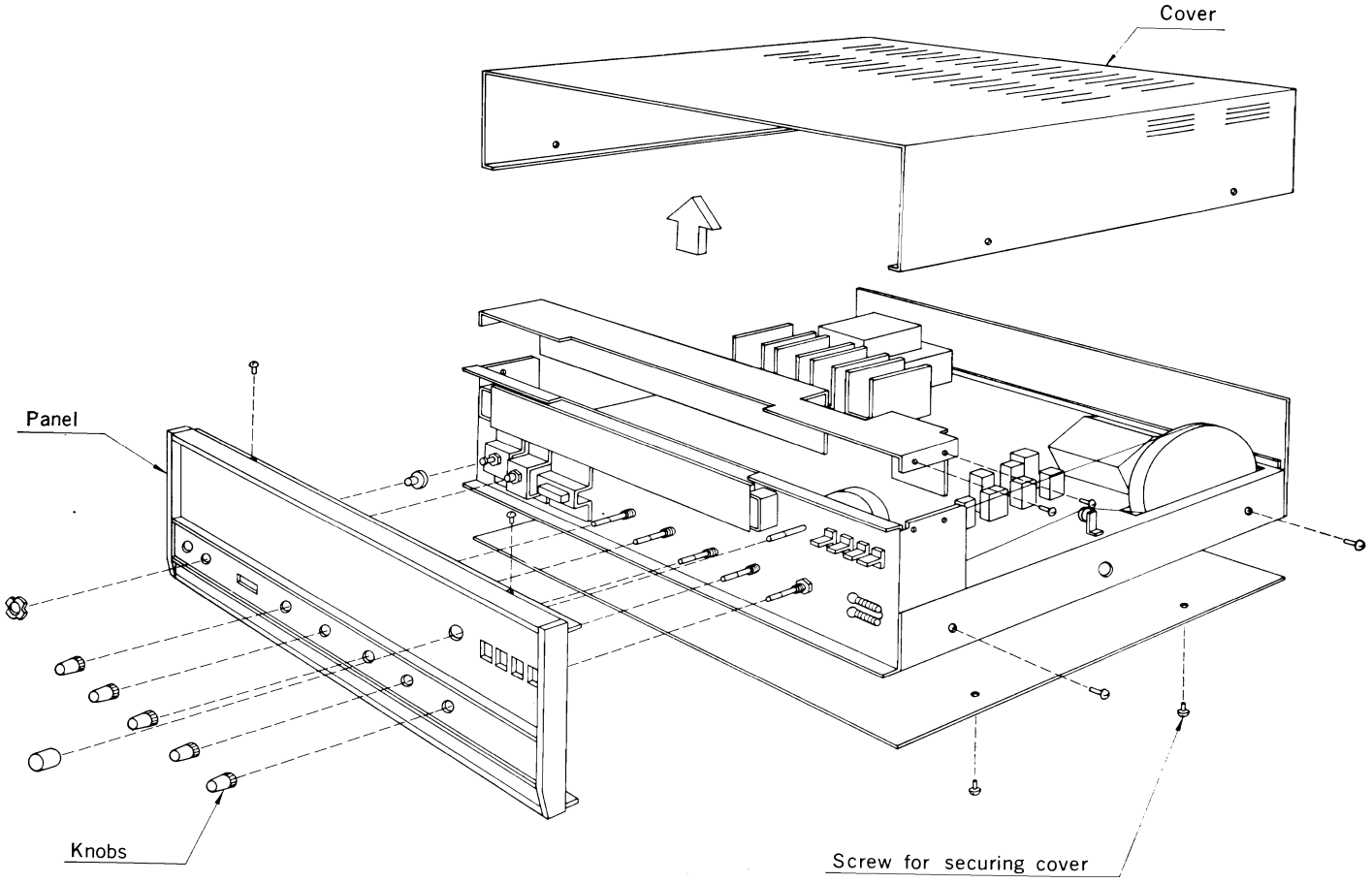
Following are some other common causes of malfunction and what to do about them:

| PROGRAM | SYMPTOM | PROBABLE CAUSE | WHAT TO DO |
|---|---|---|---|
| AM, FM or MPX reception | A. Constant or intermittent noise heard at certain times or in a certain area. | * Discharge or oscillation caused by electrical appliances, such as fluorescent lamps, TV sets, D.C. motors, rectifier and oscillator<br>* Natural phenomena, such as atmospheric static, and thunderstorms.<br>* Insufficient antenna input due to reinforced concrete walls or long distance from the station<br>* Wave interference from other electrical appliances | * Attach a noise limiter to the electrical appliance that causes the noise, or attach it to the power source of the amplifier.<br>* Install an outdoor antenna and ground the amplifier to raise the signal-to-noise ratio.<br>* Reverse the power cord plug-receptacle connections.<br>* If the noise occurs at a certain frequency, attah a wave trap to the ANT. input.<br>* Place the set away from other electrical appliances. |
| | B. Needle of the tuning meter does not move sharply. | * Needle movement is not necessarily related to the sensitivity of the amplifier. | * Tune the set for maximum signal strength. |
| | C. Zero point of the meter moves greatly. | * Regional difference in field intensity. | * 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. | * Natural AM reception phenomenon. | * Install an antenna for maximum antenna efficiency. See "ANTENNA" in the Operating Instructions.<br>* In some cases, the noise can be eliminated by grounding the amplifier or reversing the power cord plug-receptacle connections. |
| | B. High-frequency noise | * Adjacent-channel interference or beat interference. | * Although such noise cannot be eliminated by the amplifier, it is advisable to turn the TREBLE control from midpoint to left. |
| | | * TV set is too close to the audio system. | * Place the TV set away from the audio system. |
| FM reception | A. Noisy | * Poor noise limiter effect or too low S/N ratio due to insufficient antenna input.<br>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. | * Adjust the antenna provided for maximum signal strength.<br>* 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.<br>* An excessively long antenna may cause noise. |

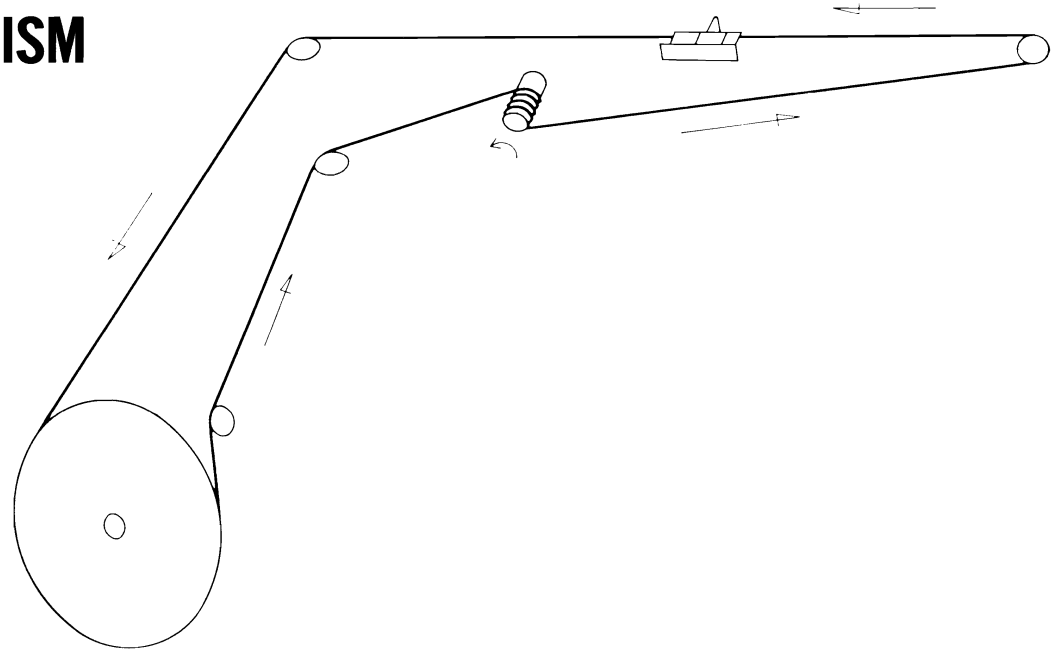
| PROGRAM | SYMPTOM | PROBABLE CAUSE | WHAT TO DO |
|---|---|---|---|
| FM reception (Cont'd) | B. "Scratch-like" noise is heard. | * Ignition noise caused by the starting of an automobile. | * Install the antenna and its lead-in wire away from the road or raise the antenna input as previously described. |
| | 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 $VR_{401}$. |
| | 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 $VR_{401}$. |
| Record playing or tape playback | A. Hum or howling | * Record player placed directly on the speaker box.<br>* Use of unshielded wire.<br>* Loose terminal contact.<br>* Shielded wire too close to line cord, fluorescent lamp or other electrical appliances.<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



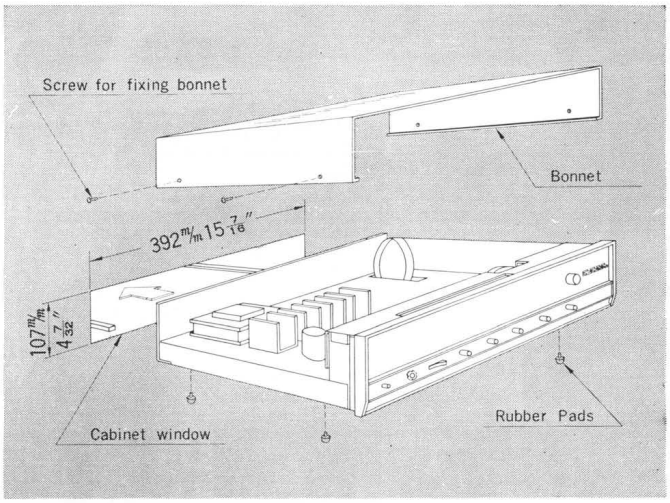

## DIAL MECHANISM

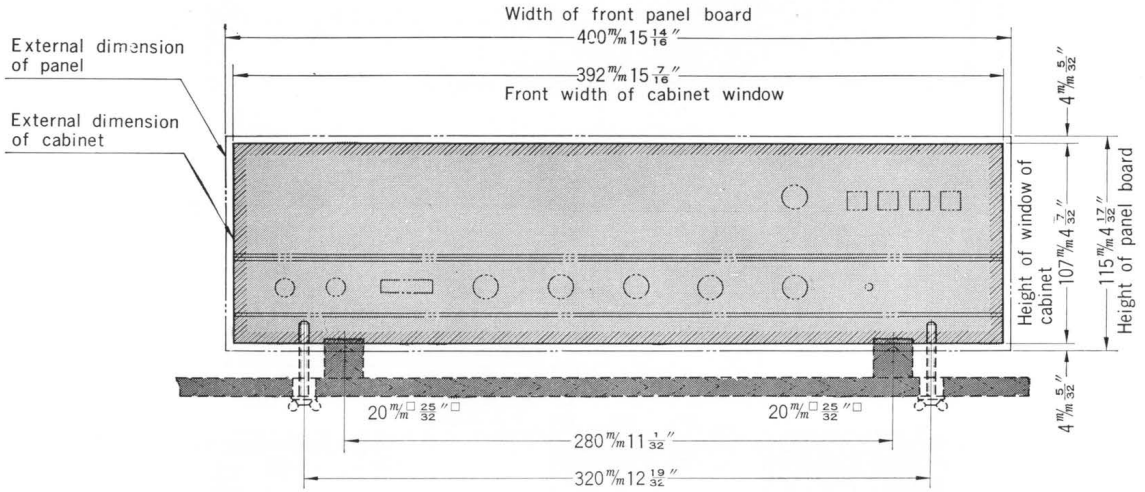


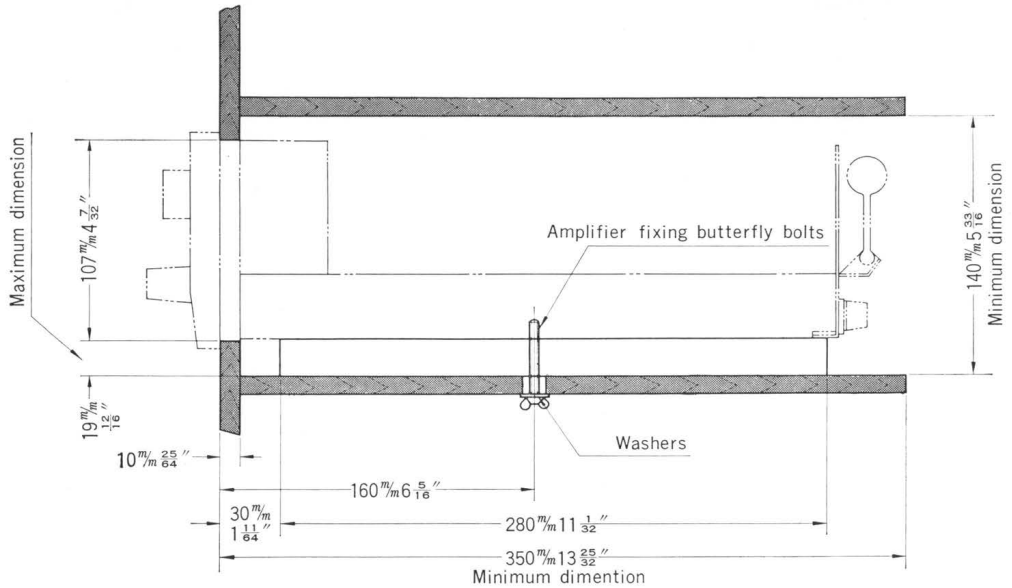
# MOUNTING TEMPLATE

1. Make a cabinet window of 392 mm or 15 7/16″ in width and 107 mm or 4 7/32″ in height.
2. Place two square pieces of food (20 × 20 × 280 mm or 25/32″ × 25/32″ × 11 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 is 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.

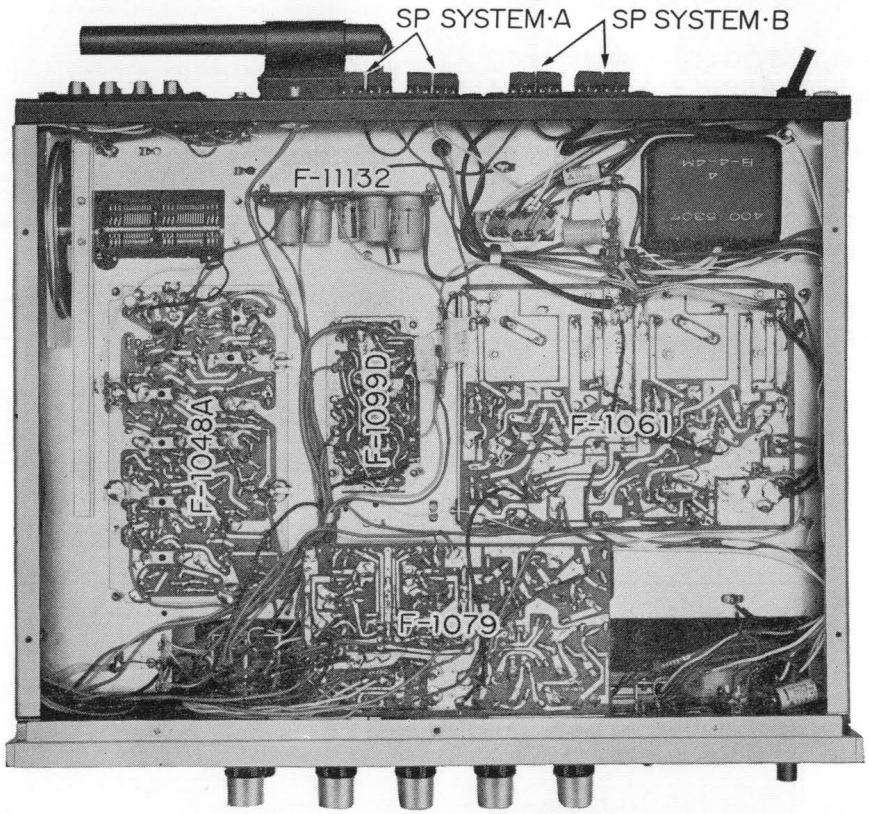
NOTE: When the amplifier is built into the cabinet, the four rubber pads are not used. Retain them for future use.

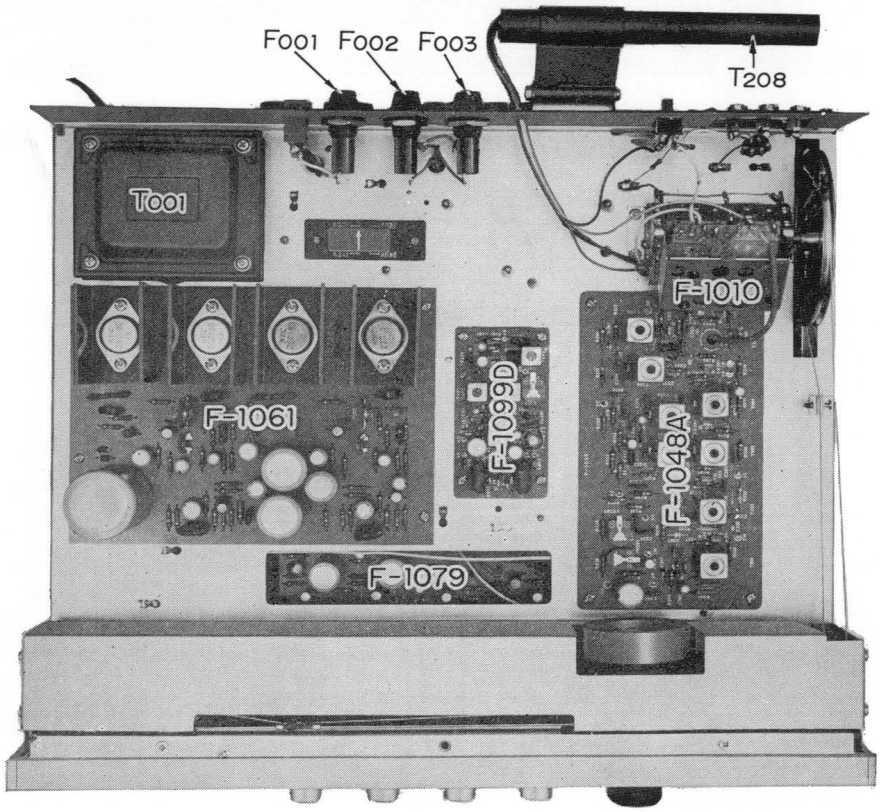


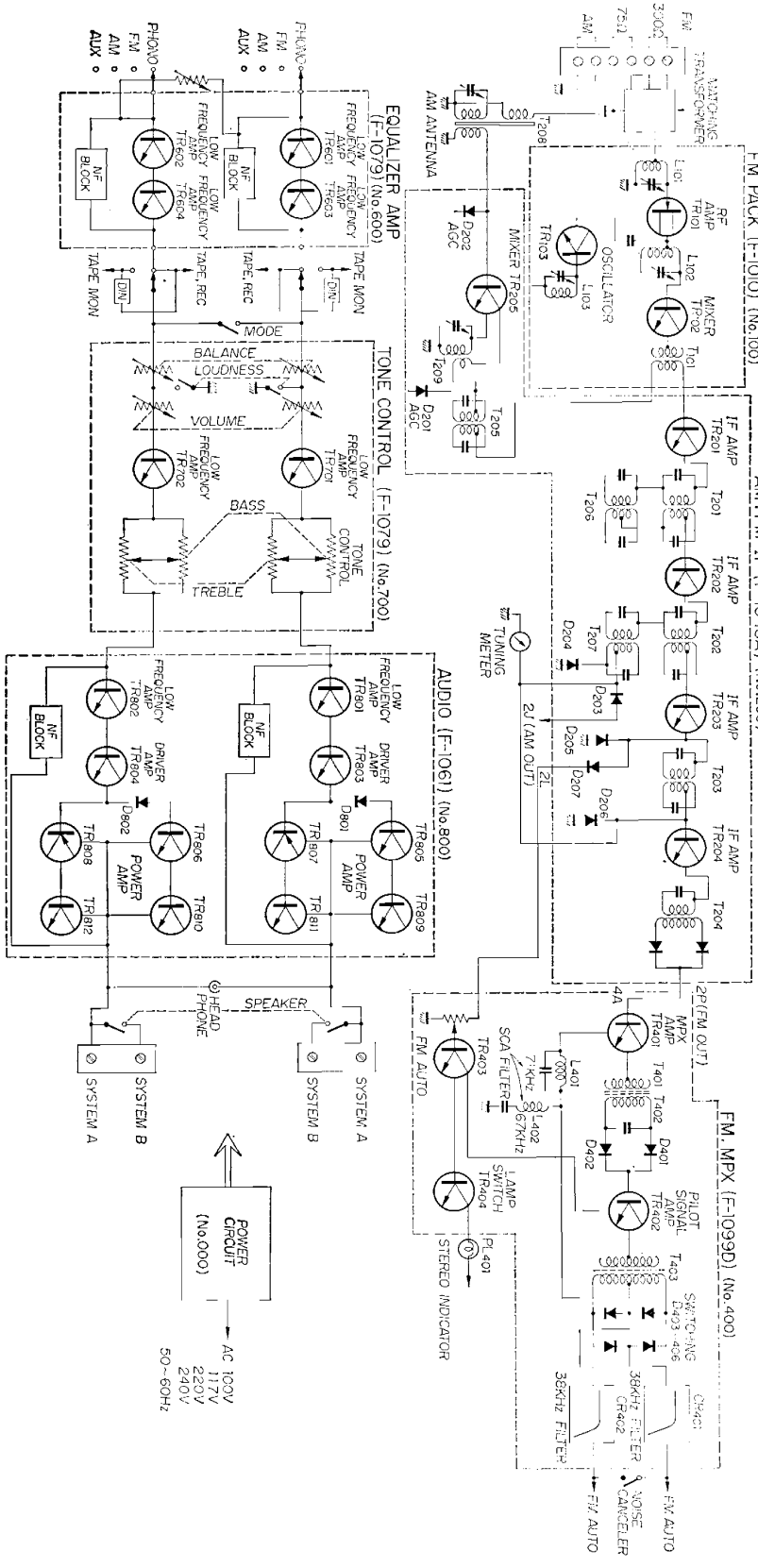



# PARTS LAYOUT



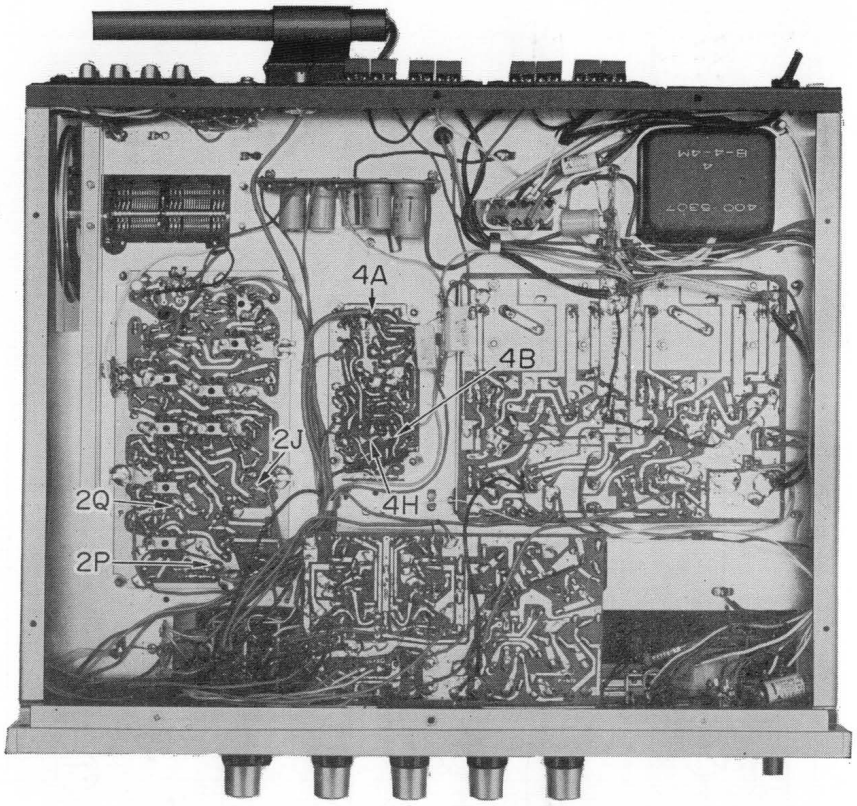



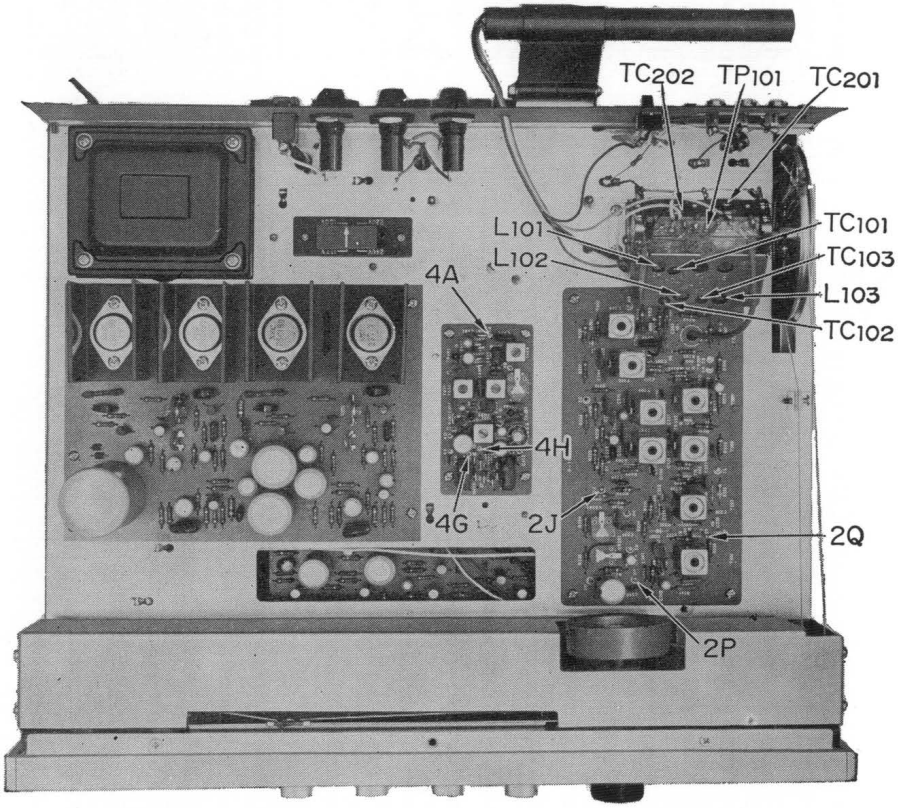
# BLOCK DIAGRAM



# ALIGNMENT

## TEST POINT



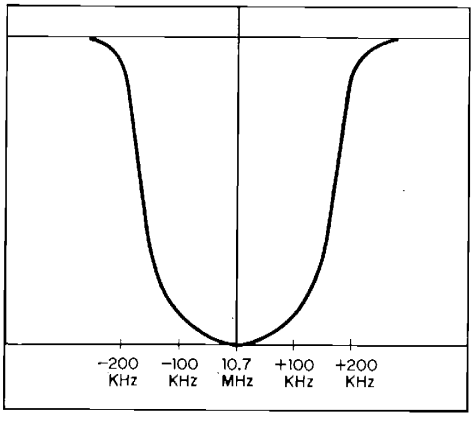



# FM ALIGNMENT PROCEDURE

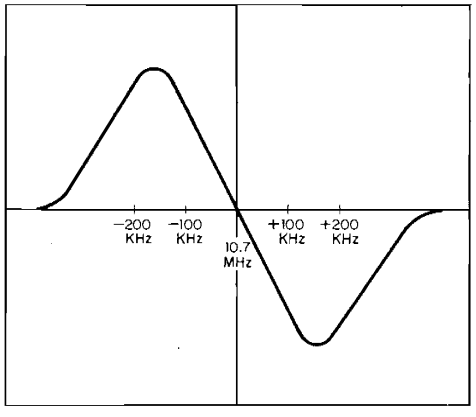
NOTE: To align, set the FM signal generator level to minimum turn tuning gang fully, center carrier wave, and set pointer to reference mark.

| STEP | ALIGN | GENERATOR | FEED SIGNAL | OUTPUT INDICATOR | DIAL SETTING | ADJUST | ADJUST FOR |
|---|---|---|---|---|---|---|---|
| 1. | IF Transfromer | 10.7 MHz ±200 kHz | Sweep signal is sent to $TP_{101}$ via the 0.02pF ceramic capacitor | Oscilloscope is connected to $TR_{204}$ emitter, and then $TR_{204}$ collector to ground via the 0.05μF 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 ±200 kHz | Sweep signal is sent to 2Q via the 0.05μF ceramic capacitor | Oscilloscope is connected to 2P via the 0.05μF capacitor | | FM Discriminator transformer $T_{204}$ primary and secondary | S curve |
| 3. | O.S.C. | 88 MHz 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 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 400 Hz 100% Modulation | To antenna terminnls | Oscilloscope and V.T.V.M. at output load | 90 MHz | Antenna coil $L_{101}$, $L_{102}$ | Maximum |
| 7. | RF Amp. Circuit | 106 MHz 400 Hz 100% Modulation | To antenna terminnls | 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

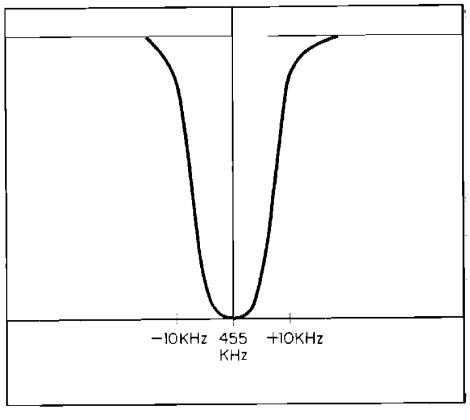
| STEP | ALIGN | GENERATOR | FEED SIGNAL | OUTPUT INDICATOR | ADJUST | ADJUST FOR |
|---|---|---|---|---|---|---|
| 1. | 67 kHz Trap | 67 kHz Audio Signal | Connect to $TP_{4A}$ | V.T.V.M. at $TP_4$ | $T_{404}$ | Minimum |
| 2. | 19 kHz Transformer | FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel | Antenna terminals Tune to signal | V.T.V.M. and Oscilloscope at 4I | $T_{401}$, $T_{402}$ | Maximum |
| 3. | 38 kHz Transformer | FM Signal Gen. Modulated 30% by STEREO Gen. sub-channel | Antenna terminals Tune to signal | V.T.V.M. and Oscilloscope at 4G | $T_{403}$ | Maximum |
| 4. | 38 kHz Transformer Separation VR | FM Signal Gen. Modulated 30% by STEREO Signal Gen. channel-L | Antenna terminals Tune to signal | V.T.V.M. and Oscilloscope at output load channel-R | $T_{403}$ within ¼ turn and Separation VR ($VR_{601}$) | 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 ±30 kHz 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 600 kHz 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 1400 kHz 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 600 kHz 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 1400 kHz 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



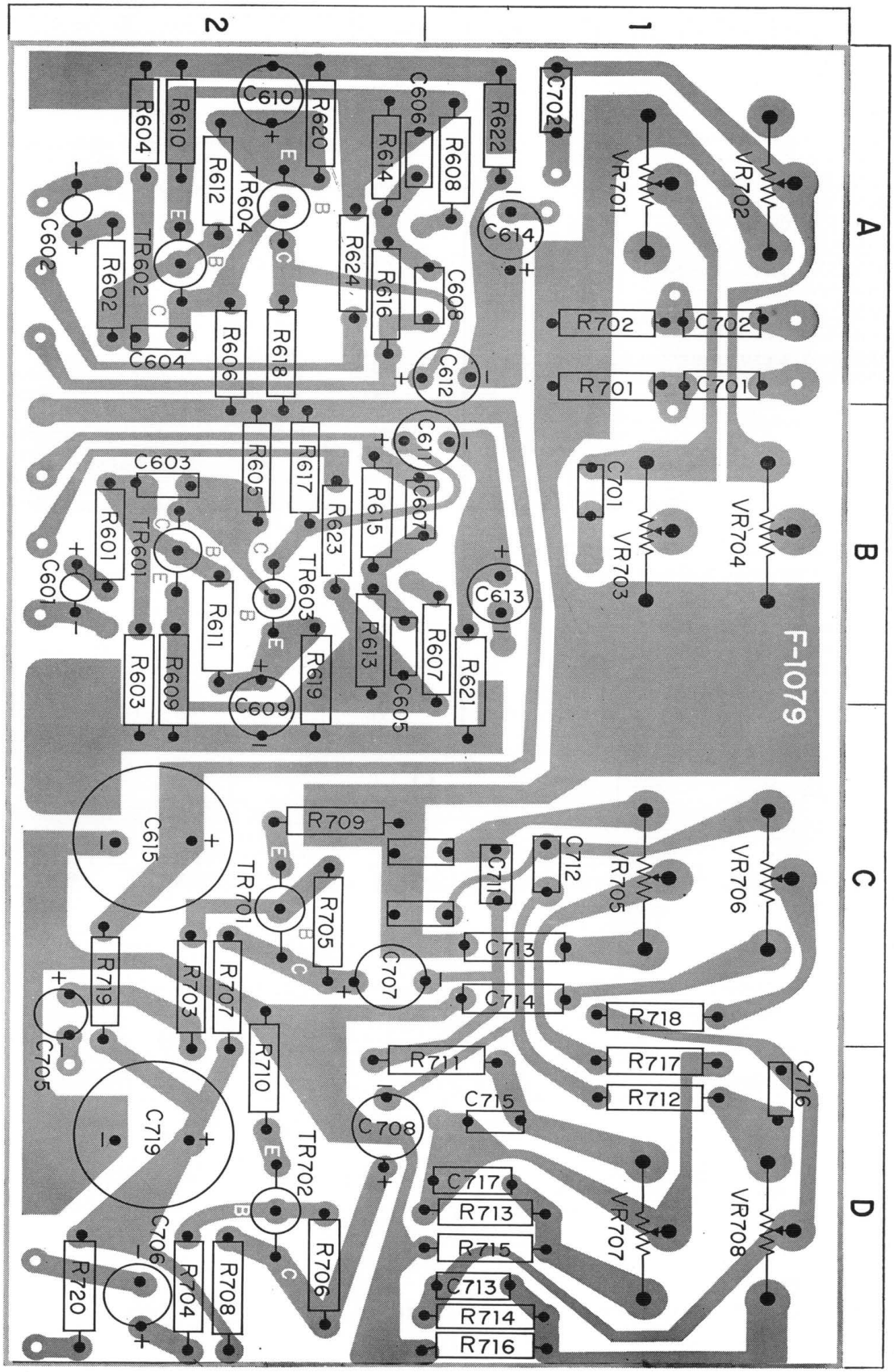
# PRINTED CIRCUIT SHEETS AND PARTS LIST

## EQUALIZER PRE-AMP UNIT ⟨F-1079⟩

| X | Y | Z |
|---|---|---|
| R601 | 1kΩ ±10% ¼W Carbon Resistor | 2 B |
| R602 | 1kΩ ±10% ¼W Carbon Resistor | 2 A |
| R603 | 220kΩ ±10% ¼W Carbon Resistor | 2 B |
| R604 | 220kΩ ±10% ¼W Carbon Resistor | 2 A |
| R605 | 180kΩ ±10% ¼W Carbon Resistor | 2 B |
| R606 | 180kΩ ±10% ¼W Carbon Resistor | 2 A |
| R607 | 270Ω ±10% ¼W Carbon Resistor | 1 B |
| R608 | 270Ω ±10% ¼W Carbon Resistor | 1 A |
| R609 | 680Ω ±10% ¼W Carbon Resistor | 2 B |
| R610 | 680Ω ±10% ¼W Carbon Resistor | 2 A |
| R611 | 330kΩ ±10% ¼W Carbon Resistor | 2 B |
| R612 | 330kΩ ±10% ¼W Carbon Resistor | 2 A |
| R613 | 820kΩ ±10% ¼W Carbon Resistor | 2 B |
| R614 | 820kΩ ±10% ¼W Carbon Resistor | 2 A |
| R615 | 39kΩ ±10% ¼W Carbon Resistor | 2 B |
| R616 | 39kΩ ±10% ¼W Carbon Resistor | 2 A |
| R617 | 12kΩ ±10% ¼W Carbon Resistor | 2 B |
| R618 | 12kΩ ±10% ¼W Carbon Resistor | 2 A |
| R619 | 2.2kΩ ±10% ¼W Carbon Resistor | 2 B |
| R620 | 2.2kΩ ±10% ¼W Carbon Resistor | 2 A |
| R621 | 1MΩ ±10% ¼W Carbon Resistor | 1 B |
| R622 | 1MΩ ±10% ¼W Carbon Resistor | 1 A |
| R623 | 3.3kΩ ±10% ¼W Carbon Resistor | 2 B |
| R624 | 3.3kΩ ±10% ¼W Carbon Resistor | 2 A |
| R701 | 15kΩ ±10% ¼W Carbon ReRistor | 1 B |
| R702 | 15kΩ ±10% ¼W Carbon Resistor | 1 A |
| R703 | 1kΩ ±10% ¼W Carbon Resistor | 2 C |
| R704 | 1kΩ ±10% ¼W Carbon Resistor | 2 D |
| R705 | 1MΩ ±10% ¼W Carbon Resistor | 2 C |
| R706 | 1MΩ ±10% ¼W Carbon Resistor | 2 D |
| R707 | 15kΩ ±10% ¼W Carbon Resistor | 2 C |
| R708 | 15kΩ ±10% ¼W Carbon Resistor | 2 D |
| R709 | 680Ω ±10% ¼W Carbon Resistor | 2 C |
| R710 | 680Ω ±10% ¼W Carbon Resistor | 2 D |
| R711 | 18kΩ ±10% ¼W Carbon Resistor | 2 D |
| R712 | 18kΩ ±10% ¼W Carbon Resistor | 1 D |
| R713 | 22kΩ ±10% ¼W Carbon Resistor | 1 D |
| R714 | 22kΩ ±10% ¼W Carbon Resistor | 1 D |
| R715 | 3.3kΩ ±10% ¼W Carbon Resistor | 1 D |
| R716 | 3.3kΩ ±10% ¼W Carbon Resistor | 1 D |
| R717 | 12kΩ ±10% ¼W Carbon Resistor | 1 D |
| R718 | 12kΩ ±10% ¼W Carbon Resistor | 1 C |
| R719 | 2.2kΩ ±10% ¼W Carbon Resistor | 2 C |
| R720 | 5.6kΩ ±10% ¼W 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 | 2C |
| 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 | | 1 A |
| VR703 | 250kΩ (B)×2 (101033) | 1 B |
| VR704 | | 1 B |
| VR705 | 100kΩ (A)×2 (101031) | 1 C |
| VR706 | | 1 C |
| VR707 | 100kΩ (A)×2 (101031) | 1 D |
| VR708 | | 1 D |


A
B
C
D
1
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F-1079
VR701
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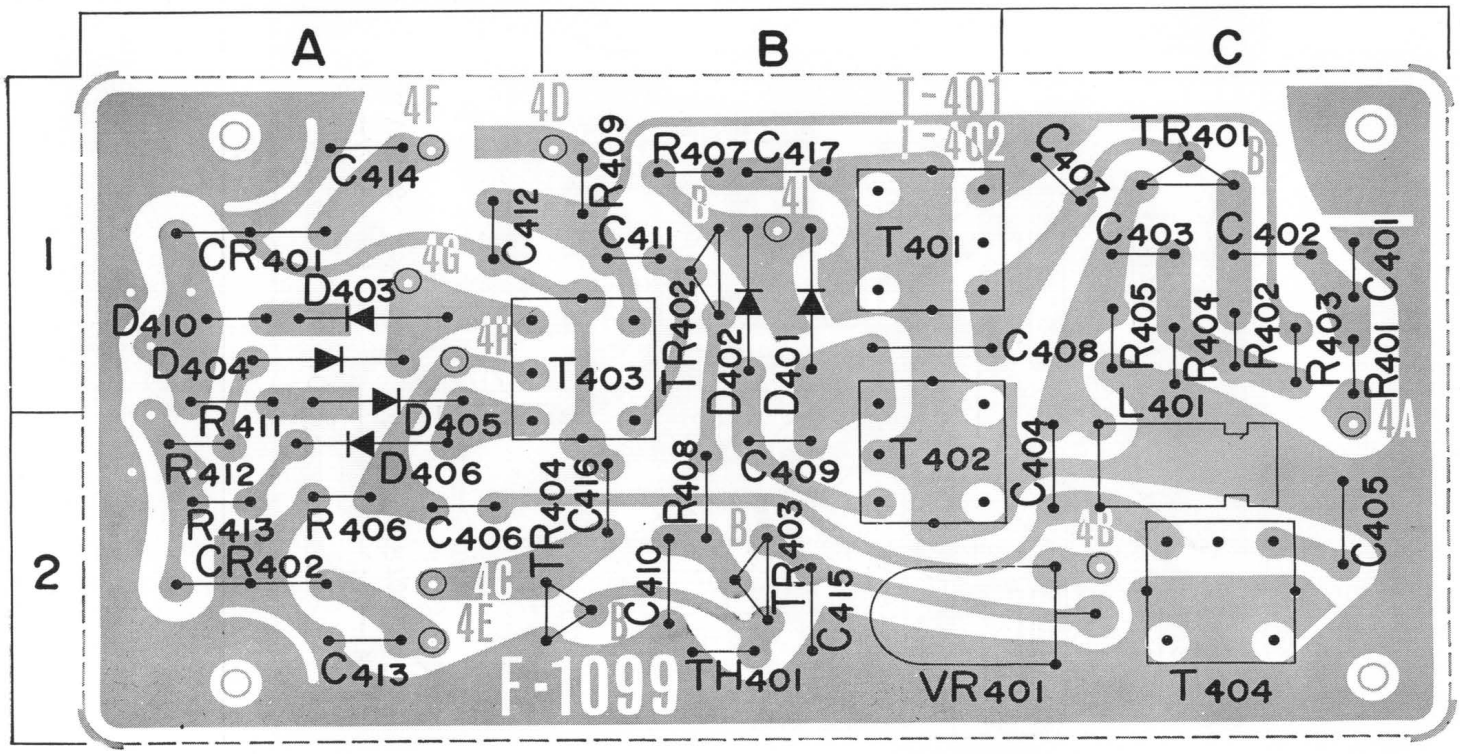
TR602
TR603
TR604

# PRINTED CIRCUIT SHEETS AND PARTS LIST

## FM MULTIPLEX & INDICATOR 〈F-1099〉

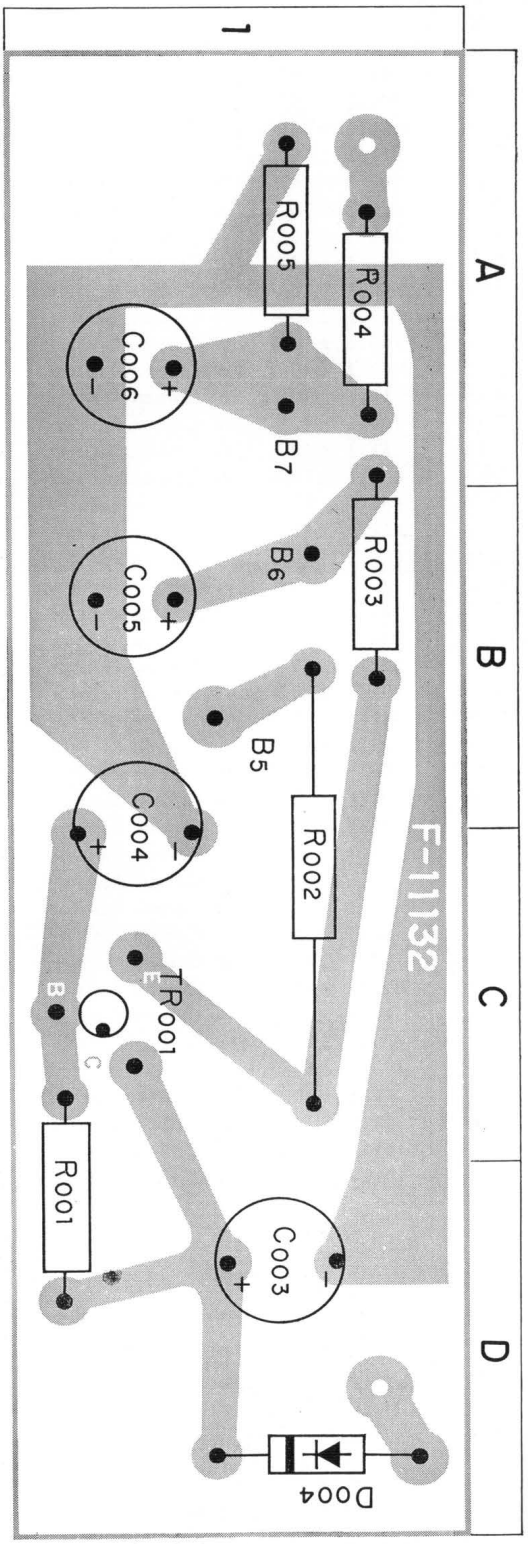
**X:** Parts No **Y:** Parts Name **Z:** Position of Parts
(Co-ordinate number and letter in printed circuit)

| X | Y | Z |
|---|---|---|
| R401 | 1kΩ ±10% ¼W Carbon Resistor | 1 C |
| R402 | 22kΩ ±10% ¼W Carbon Resistor | 1 C |
| R403 | 22kΩ ±10% ¼W Carbon Resistor | 1 C |
| R404 | 8.2kΩ ±10% ¼W Carbon Resistor | 1 C |
| R405 | 270Ω ±10% ¼W Carbon Resistor | 1 C |
| R406 | 3.3kΩ ±10% ¼W Carbon Resistor | 2 A |
| R407 | 18kΩ ±10% ¼W Carbon Resistor | 1 B |
| R408 | 1.2kΩ ±10% ¼W Carbon Resistor | 2 B |
| R409 | 47Ω ±10% ¼W Carbon Resistor | 1 B |
| R410 | 22kΩ ±10% ¼W Carbon Resistor | 1 A |
| R411 | 22kΩ ±10% ¼W Carbon Resistor | 2 A |
| R412 | 22kΩ ±10% ¼W Carbon Resistor | 2 A |
| R413 | 22kΩ ±10% ¼W Carbon Resistor | 2 A |
| TH401 | 31D27 Thermistor (032003) | 2 A |
| C401 | 100 pF ±20% 50 WV Ceramic Capacitor | 1 C |
| C402 | 10μF 10 WV Electrolytic Capacitor (RB Type) | 1 C |
| C403 | 33μF 6.3 WV Electrolytic Capacitor (RB Type) | 1 C |
| C404 | 0.001μF ± 5 % 50 WV Mica Capacitor | 2 C |
| C405 | 270 pF ±10% 50 WV Mica Capacitor | 2 C |
| C406 | 47μF 6.3 WV Electrolytic Capacitor (RB Type) | 2 A |
| C407 | 3300 PF ± 5 % 50 WV Styrol Capacitor | 1 C |
| C408 | 330 pF ±10% 50 WV Mica Capacitor | 1 B |
| C409 | 3300 pF ± 5 % 50 WV Styrol Capacitor | 2 B |
| C400 | 0.04μF ±10% 50 WV Mylar Capacitor | 2 B |
| C411 | 1500 pF ± 5 % 50 WV Styrol Capacitor | 1 B |
| C412 | 100μF 16 WV Electrolytic Capacitor (RB Type) | 1 A |
| C413 | 0.0012μF ±10% 50 WV Mylar Capacitor | 2 A |
| C414 | 0.0012μF ±10% 50 WV Mylar Capacitor | 1 A |
| C415 | 0.02μF $^{+100}_{-0}$% 25 WV Ceramic Capacitor | 2 B |
| C416 | 10μF 10 WV Electrolytic Capacitor (RB Type) | 2 B |
| CR401 | FP38A (080008) | 1 A |
| CR400 | FP38A (080008) | 2 A |
| TR401 | 2SC537(G) (030544-2) | 1 C |
| TR402 | 2SC537(G) (030544-2) | 1 B |
| TR403 | 2SC537(G) (030544-2) | 2 B |
| TR404 | 2SD178T (030818-3) | 2 B |
| D401 | IN34A (031040) | 1 B |
| D402 | IN34A (031040) | 1 B |
| D403 | IN34A (031040) | 1 A |
| D404 | IN34A (031040) | 1 A |
| D405 | IN34A (031040) | 1 A |
| D406 | IN34A (031040) | 2 A |
| T401 | 19kC Tune (424030) | 1 B |
| T402 | 19kC Tune (424030) | 2 B |
| T403 | 38kC Tune (424031) | 1 A |
| T404 | 67kC Tune (424030) | 2 C |
| L401 | 71kC Tune (490003) | 2 C |
| VR401 | Indicator Adjust 100kΩ(B) (103034) | 2 B |



# POWER UNIT ⟨F-11132⟩

| X | Y | Z |
|---|---|---|
| R001 | 10kΩ ±10% ¼W Carbon Resistor | 1 D |
| R002 | 390Ω ±10% 2 W Carbon Resistor | 1 C |
| R003 | 1.8kΩ ±10% ¼W Carbon Resistor | 1 B |
| R004 | 220Ω ±10% ¼W Carbon Resistor | 1 A |
| R005 | 1.2kΩ ±10% ¼W 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 |

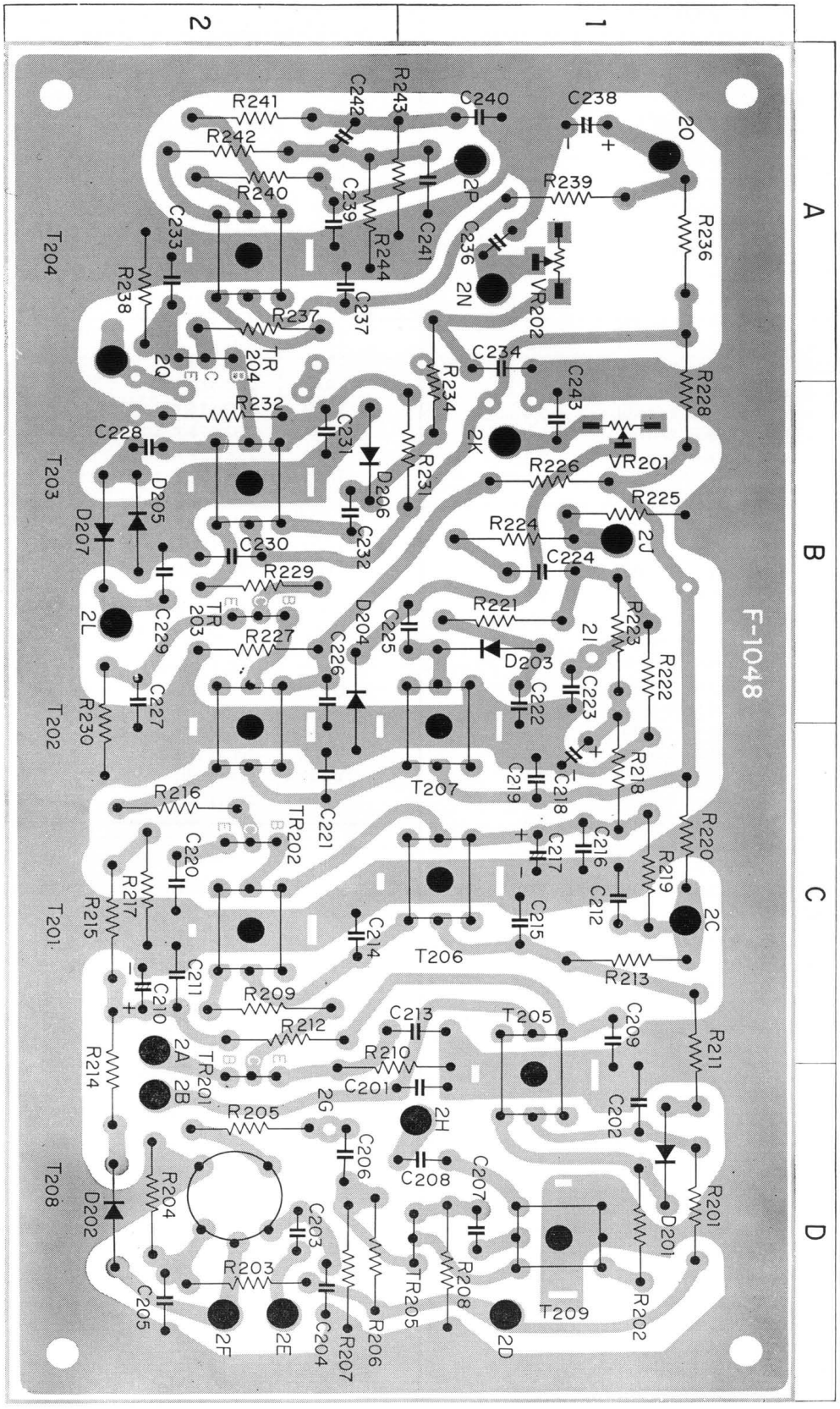


# PRINTED CIRCUIT SHEETS AND PARTS LIST

## AM-FM TUNER UNIT ⟨F-1048A⟩

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

| X | Y | Z |
|---|---|---|
| R201 | 1.8kΩ ±10% ¼W Carbon Resistor | 1 D |
| R202 | 100Ω ±10% ¼W Carbon Resistor | 1 D |
| R203 | 6.8kΩ ±10% ¼W Carbon Resistor | 2 D |
| R204 | 1kΩ ±10% ¼W Carbon Resistor | 3 D |
| R205 | 100Ω ±10% ¼W Carbon Resistor | 2 D |
| R206 | 68kΩ ±10% ¼W Carbon Resistor | 1 D |
| R207 | 10kΩ ±10% ¼W Carbon Resistor | 2 D |
| R208 | 1.2kΩ ±10% ¼W Carbon Resistor | 1 D |
| R209 | 680Ω ±10% ¼W Carbon Resistor | 2 C |
| R210 | 560Ω ±10% ¼W Carbon Resistor | 2 D |
| R211 | 100Ω ±10% ¼W Carbon Resistor | 1 C |
| R212 | 1.5kΩ ±10% ¼W Carbon Resistor | 2 C |
| R213 | 1kΩ ±10% ¼W Carbon Resistor | 1 C |
| R214 | 100Ω ±10% ¼W Carbon Resistor | 2 C |
| R215 | 1.5kΩ ±10% ¼W Carbon Resistor | 2 C |
| R216 | 680Ω ±10% ¼W Carbon Resistor | 2 C |
| R217 | 560Ω ±10% ¼W Carbon Resistor | 2 C |
| R218 | 3.3kΩ ±10% ¼W Carbon Resistor | 1 C |
| R219 | 82kΩ ±10% ¼W Carbon Resistor | 1 C |
| R220 | 22Ω ±10% ¼W Carbon Resistor | 1 C |
| R221 | 1kΩ ±10% ¼W Carbon Resistor | 1 B |
| R222 | 22kΩ ±10% ¼W Carbon Resistor | 1 B |
| R223 | 22kΩ ±10% ¼W Carbon Resistor | 1 B |
| R224 | 10kΩ ±10% ¼W Carbon Resistor | 1 B |
| R225 | 56kΩ ±10% ¼W Carbon Resistor | 1 B |
| R226 | 12kΩ ±10% ¼W Carbon Resistor | 1 B |
| R227 | 10kΩ ±10% ¼W Carbon Resistor | 2 B |
| R228 | 22Ω ±10% ¼W Carbon Resistor | 1 B |
| R229 | 820Ω ±10% ¼W Carbon Resistor | 2 B |
| R230 | 1.2kΩ ±10% ¼W Carbon Resistor | 2 B |
| R231 | 12kΩ ±10% ¼W Carbon Resistor | 1 B |
| R232 | 6.8kΩ ±10% ¼W Carbon Resistor | 2 B |
| R234 | 3.3kΩ ±10% ¼W Carbon Resistor | 1 A |
| R236 | 22Ω ±10% ¼W Carbon Resistor | 1 A |
| R237 | 820Ω ±10% ¼W Carbon Resistor | 2 A |
| R238 | 1kΩ ±10% ¼W Carbon Resistor | 2 A |
| R239 | 470Ω ±10% ¼W Carbon Resistor | 1 A |
| R240 | 100Ω ±10% ¼W Carbon Resistor | 2 A |
| R241 | 1kΩ ±10% ¼W Carbon Resistor | 2 A |
| R242 | 1kΩ ±10% ¼W Carbon Resistor | 2 A |
| R243 | 10kΩ ±10% ¼W Carbon Resistor | 1 A |
| R244 | 10kΩ ±10% ¼W Carbon Resistor | 2 A |
| C201 | 0.001μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 D |
| C202 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 1 D |
| C205 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 D |
| C206 | 0.02μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 D |
| C207 | 0.01μF ±10% 50WV Mylar capacitor | 1 D |
| C208 | 350pF ±10% 50WV Mica capacitor | 1 D |
| C210 | 1μF 50WV Electrolytic Capacitar | 1 C |
| C211 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 C |
| C212 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 1 C |
| C213 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 1 C |
| C214 | 330pF ±10% 50WV Ceramic Capacitor | 2 C |
| C215 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 1 C |
| C216 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 1 C |
| C217 | 4.7μF 16WV Electrolytic Capacitor | 1 C |
| C218 | 1μF 50WV Electrolytic Capacitor | 1 C |
| C219 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 1 C |
| C220 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 C |
| C221 | 330pF ±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 $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 B |
| C227 | 0.02μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 B |
| C228 | 4.7pF ±10% 50WV Ceramic Capacitor | 2 B |
| C229 | 0.02μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 B |
| C230 | 0.04μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 B |
| C231 | 0.02μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 B |
| C232 | 3.3pF ±10% 50WV Ceramic Capacitor | 2 B |
| C233 | 0.02μF $^{+100}_{-0}$% 50WV Electrolytic Capacitor | 2 A |
| C234 | 0.02μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 1 A |
| C237 | 0.02μF $^{+100}_{-0}$% 50WV Ceramic Capacitor | 2 A |
| C238 | 220μF 16WV Ceramic Capacitor | 1 A |
| C239 | 100pF ±10% 50WV Ceramic Capacitor | 1 A |
| C240 | 220pF ±10% 50WV Ceramic Capacitor | 1 A |
| C241 | 220pF ±10% 50WV Ceramic Capacitor | 1 A |
| C242 | 4.7μF ±10% 16WV Electrolytic Capacitor | 2 A |
| C243 | 0.04μF $^{+100}_{-0}$% 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 | 20kΩ (B) (103046) | 1 B |
| VR202 | 20kΩ (B) (103046) | 1 A |


F-1048
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T209
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2E
2F
2G
2H
2J
2K
2L
2N
2P
2Q

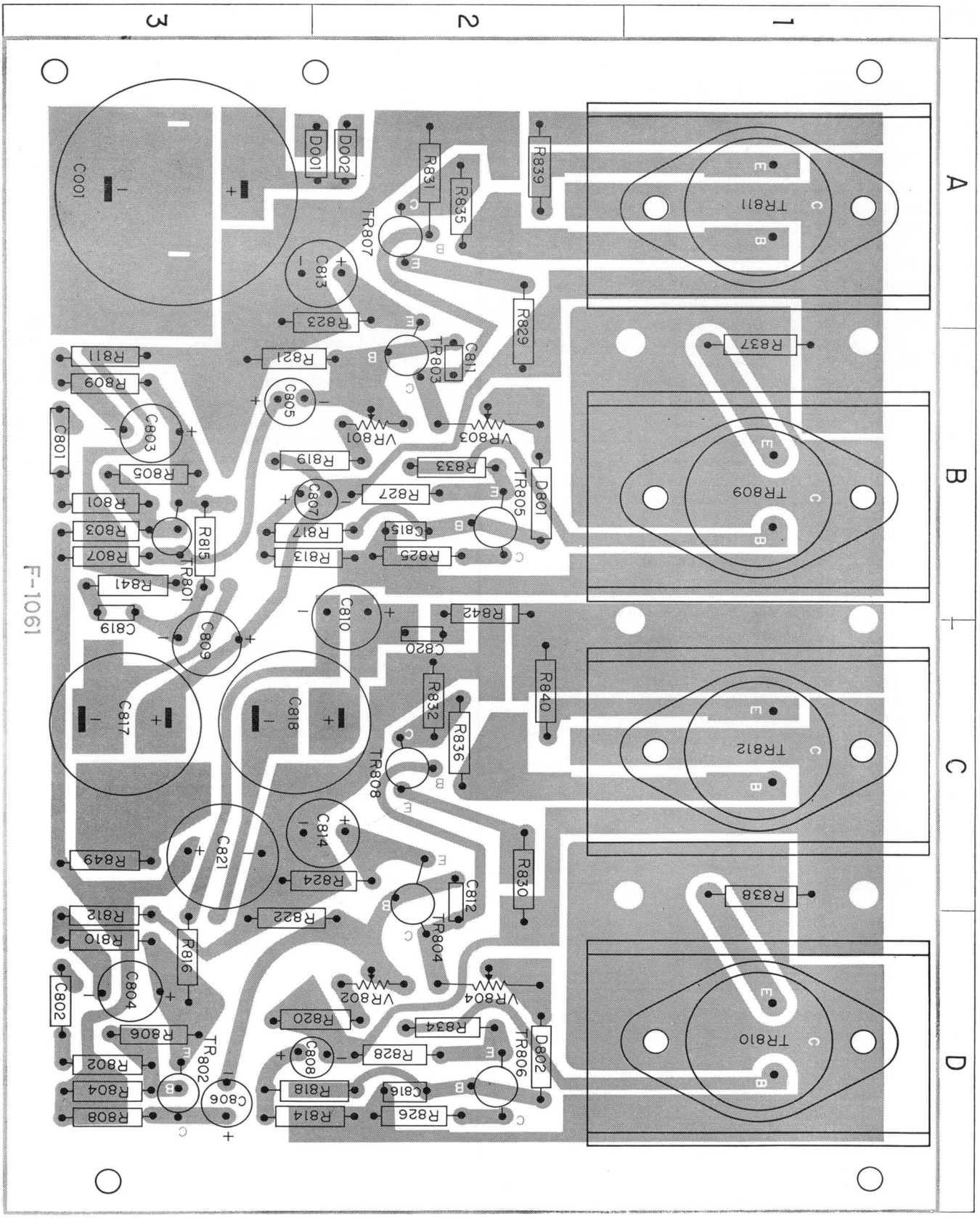
# PRINTED CIRCUIT SHEETS AND PARTS LIST

## MAIN AMP UNIT 〈F-1061〉

| X | Y | Z |
|---|---|---|
| R801 | 4.7kΩ ±10% ¼W Carbon Resistor | 3 B |
| R802 | 4.7kΩ ±10% ¼W Carbon Resistor | 3 D |
| R803 | 680kΩ ±10% ¼W Carbon Resistor | 3 B |
| R804 | 680kΩ ±10% ¼W Carbon Resistor | 3 D |
| R805 | 100kΩ ±10% ¼W Carbon Resistor | 3 B |
| R806 | 100kΩ ±10% ¼W Carbon Resistor | 3 D |
| R807 | 2.2kΩ ±10% ¼W Carbon Resistor | 3 B |
| R808 | 2.2kΩ ±10% ¼W Carbon Resistor | 3 D |
| R809 | 2.7kΩ ±10% ¼W Carbon Resistor | 3 B |
| R810 | 2.7kΩ ±10% ¼W Carbon Resistor | 3 D |
| R811 | 470Ω ±10% ¼W Carbon Resistor | 3 B |
| R812 | 470Ω ±10% ¼W Carbon Resistor | 3 D |
| R813 | 1kΩ ±10% ¼W Carbon Resistor | 3 B |
| R814 | 1kΩ ±10% ¼W Carbon Resistor | 3 D |
| R815 | 27kΩ ±10% ¼W Carbon Resistor | 3 B |
| R816 | 27kΩ ±10% ¼W Carbon Resistor | 3 D |
| R817 | 3.3kΩ ±10% ¼W Carbon Resistor | 3 B |
| R818 | 3.3kΩ ±10% ¼W Carbon Resistor | 3 D |
| R819 | 100kΩ ±10% ¼W Carbon Resistor | 3 B |
| R820 | 100kΩ ±10% ¼W Carbon Resistor | 3 D |
| R821 | 27kΩ ±10% ¼W Carbon Resistor | 3 B |
| R822 | 27kΩ ±10% ¼W Carbon Resistor | 3 D |
| R823 | 330Ω ±10% ¼W Carbon Resistor | 3 A |
| R824 | 330Ω ±10% ¼W Carbon Resistor | 2 C |
| R825 | 47Ω ±10% ¼W Carbon Resistor | 2 B |
| R826 | 47Ω ±10% ¼W Carbon Resistor | 2 D |
| R827 | 270Ω ±10% ¼W Carbon Resistor | 2 B |
| R828 | 270Ω ±10% ¼W Carbon Resistor | 2 D |
| R829 | 47Ω ±10% ¼W Carbon Resistor | 2 A |
| R830 | 47Ω ±10% ¼W Carbon Resistor | 2 C |
| R831 | 270Ω ±10% ¼W Carbon Resistor | 2 A |
| R832 | 270Ω ±10% ¼W Carbon Resistor | 2 C |
| R833 | 10Ω ±10% ¼W Carbon Resistor | 2 B |
| R834 | 10Ω ±10% ¼W Carbon Resistor | 2 D |
| R835 | 10Ω ±10% ¼W Carbon Resistor | 2 A |
| R836 | 10Ω ±10% ¼W 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% ½W Solid Resistor | 3 B |
| R842 | 6.8Ω ±10% ½W Solid Resistor | 2 B |
| R849 | 3.9kΩ ±10% ¼W 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 | 100pF ±10% 50 WV Mica Capacitor | 2 B |
| C812 | 100pF ±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 | 150pF ±10% 50 WV Mica Capacitor | 2 B |
| C816 | 150pF ±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 | 200kΩ (B) (103045) | 2 B |
| VR802 | 200kΩ (B) (103045) | 2 D |
| VR803 | 200Ω (B) (103012) | 2 B |
| VR804 | 200Ω (B) (103012) | 2 D |


1
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A
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C
D
F-1061
C001
D001
D002
R831
R835
R839
TR807
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R823
R829
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C805
VR801
VR803
R811
R809
C801
C803
R805
R819
R833
D801
TR805
R827
R801
R803
R807
R815
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R825
R817
R813
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C804
VR802
VR804
C802
R820
R834
R806
R828
C808
D802
TR806
TR802
R802
R804
C806
R818
C816
R808
R814
R826
TR810

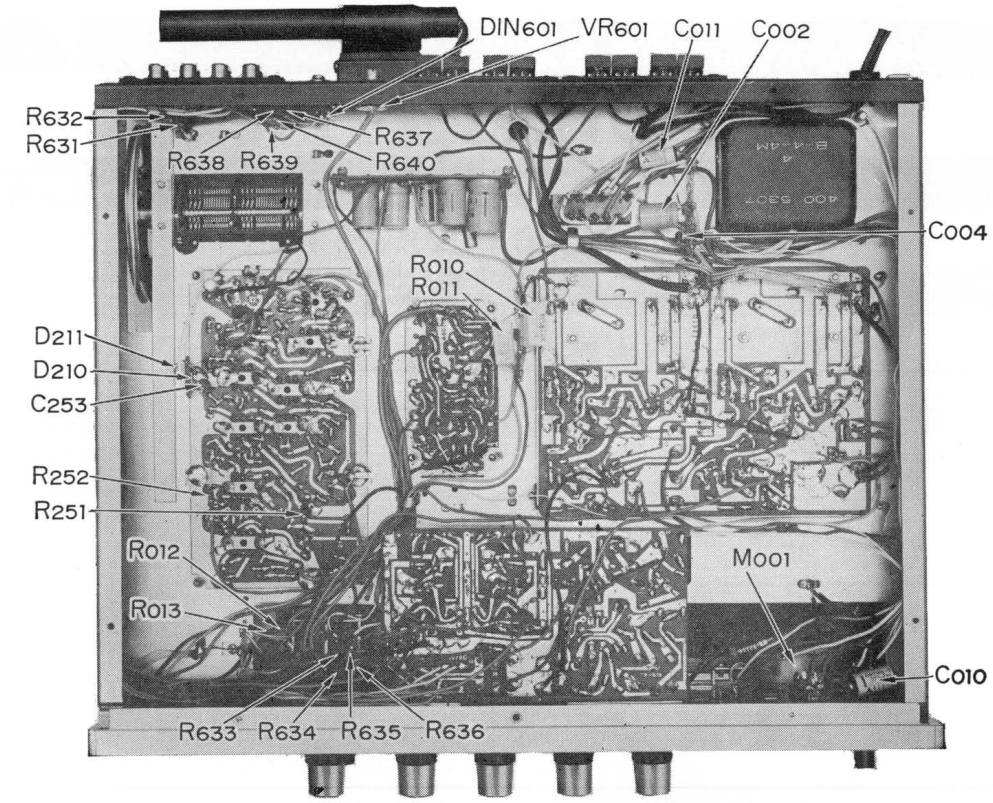
# OTHER PARTS CHART AND LIST

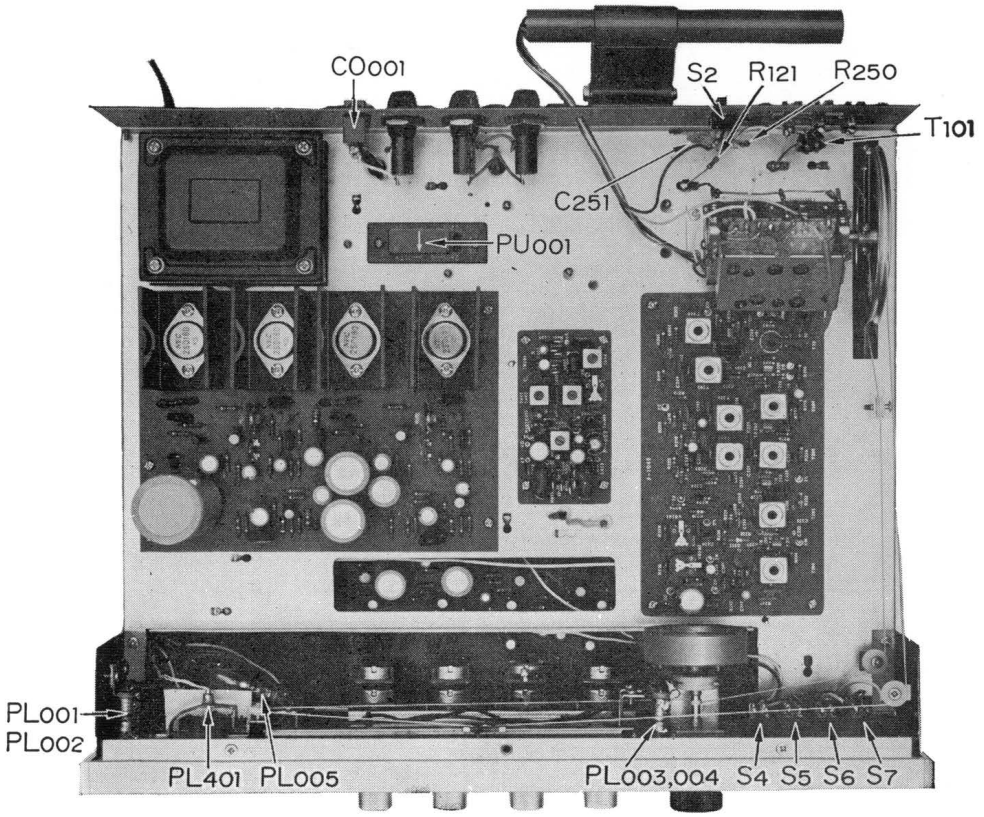
## OTHER PARTS LIST

| X | Y | |
|---|---|---|
| R120 | 820Ω ±10% ¼W Carbon Resistor | |
| R121 | 68Ω ±10% ¼W Carbon Resistor | |
| R251 | 1kΩ ±10% ¼W Carbon Resistor | |
| R252 | 47kΩ ±10% ¼W Carbon Resistor | |
| R631 | 56kΩ ±10% ¼W Carbon Resistor | |
| R632 | 56kΩ ±10% ¼W Carbon Resistor | |
| R633 | 100kΩ ±10% ¼W Carbon Resistor | |
| R634 | 100kΩ ±10% ¼W Carbon Resistor | |
| R635 | 33kΩ ±10% ¼W Carbon Resistor | |
| R636 | 33kΩ ±10% ¼W Carbon Resistor | |
| R637 | 100kΩ ±10% ¼W Carbon Resistor | |
| R638 | 100kΩ ±10% ¼W Carbon Resistor | |
| R639 | 470kΩ ±10% ¼W Carbon Resistor | |
| R640 | 470kΩ ±10% ¼W Carbon Resistor | |
| R641 | 12kΩ ±10% ¼W Carbon Resistor | |
| R642 | 12kΩ ±10% ¼W Carbon Resistor | |
| R851 | 390Ω ±10% ½W Solid Resistor | |
| R852 | 390Ω ±10% ½W Solid Resistor | |
| R010 | 180Ω ±10% 3 W Wire-Wound | |
| R011 | 180Ω ±10% 3 W Wire-Wound | |
| R012 | 1kΩ ±10% ¼W Carbon Resistor | |
| R013 | 1kΩ ±10% ¼W 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 | 4.7 pF $^{+100}_{-0}$% 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®

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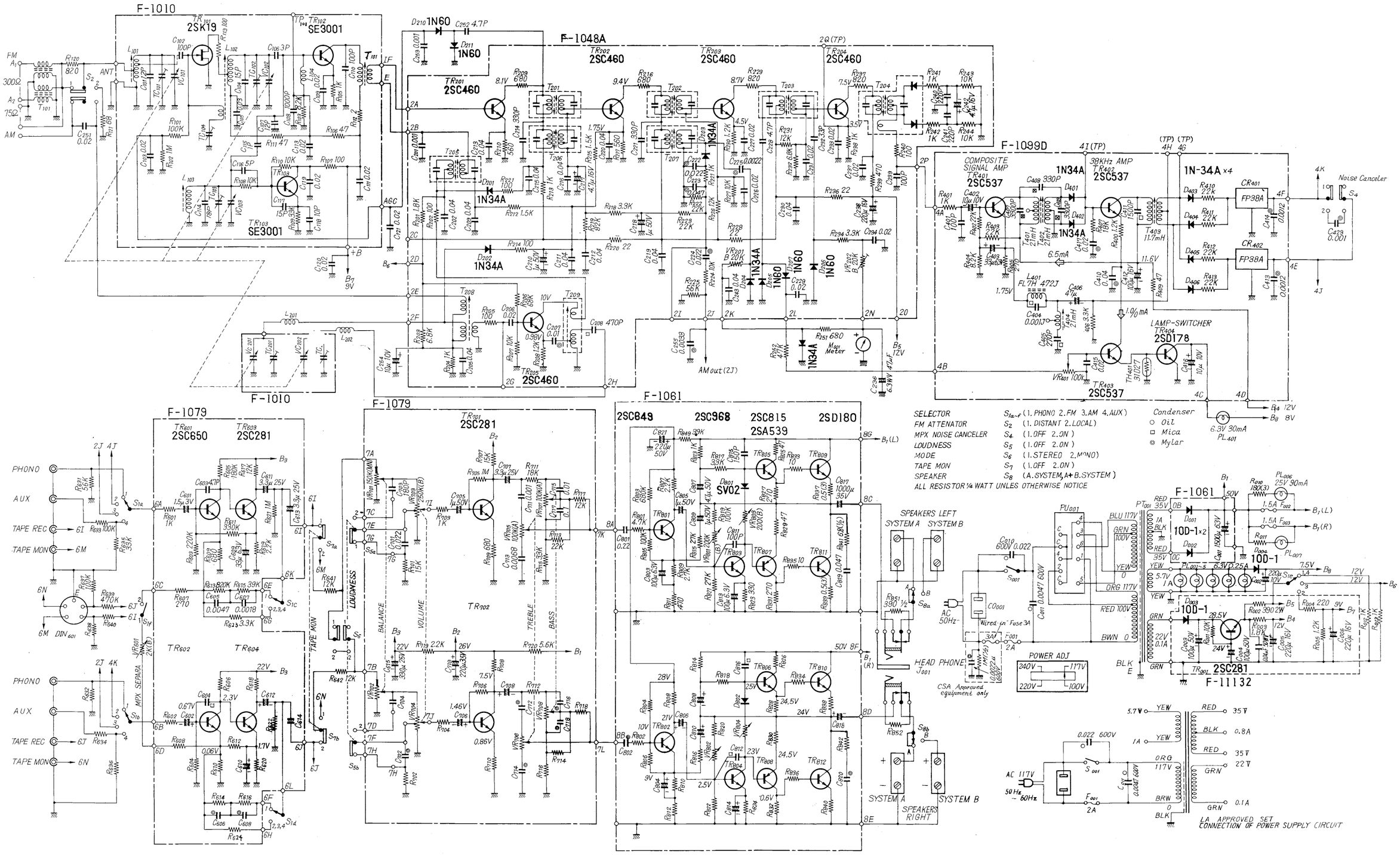
# SANSUI 350 SCHEMATIC DIAGRAM

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