

SERVICE MANUAL

STEREO RECEIVER



SANYO

JCX2400KU



SPECIFICATIONS

Amplifier Section

| | |
|---------------------------------|--|
| Total music power | 240 watts (at 4 ohms) |
| Continuous power | 75 watts x 2 (at 4 ohms) 55 watts x 2 (at 8 ohms) |
| Total harmonic distortion | less than 0.1% (-3dB power/1kHz) |
| Power band width | 20Hz/30kHz (-3dB power) |
| Frequency response | 7Hz/50kHz (+0.5dB/-3dB) |
| Input sensitivity and impedance | |
| PHONO | 2.5mV/50k ohms |
| AUX | 150mV/50k ohms |
| TAPE 1 PLAY | 150mV/50k ohms |
| TAPE 1 REC/PB | 150mV/50k ohms |
| MIC | 2mV/10k ohms |
| REC/PB (TAPE 2) | 150mV/50k ohms |
| Output | |
| TAPE 1 REC | 150mV |
| TAPE 1 REC/PB | 0.55mV/k ohm |
| REC/PB (TAPE 2) | 0.55mV/k ohm |
| Tone control response | |
| BASS at 100Hz | ±10dB |
| MID at 1kHz | ±6dB |
| TREBLE at 10kHz | ±10dB |
| Loudness control response | |
| at 100Hz | +10dB |
| at 10kHz | +6dB |
| Hum and noise ratio | |
| PHONO | 70dB |
| AUX | 90dB |
| TAPE 1 PLAY | 90dB |
| Damping factor | more than 25 (20Hz/20kHz at 8 ohms) |

FM Tuner Section

| | |
|-------------------------------|------------------------------------|
| Frequency range | 87.5 - 108MHz |
| Usable sensitivity | 1.6μV (DIN) |
| Signal-to-noise ratio | 70dB (at Mono) 65dB (at Stereo) |
| Harmonic distortion | 0.2% (at Mono) 0.3% (at Stereo) |
| AM suppression | more than 60dB |
| Spurious response | more than 70dB |
| Alternate channel selectivity | more than 55dB (±300kHz DIN) |
| Image rejection | more than 50dB |
| Capture ratio | 1.3dB |
| Stereo separation | 40dB (at 1kHz) |
| Antenna input | 300 ohms balanced |

MW Tuner Section

| | |
|-----------------------|------------------------------|
| Frequency range | 510 - 1605kHz |
| Sensitivity | 300μV/m |
| Signal-to-noise ratio | 50dB |
| Image rejection | 48dB |
| Selectivity | 33dB (10kHz) |
| Antenna | External ferrite bar antenna |

General

| | |
|--------------------|--|
| Power requirements | AC: 125/220V, 50Hz |
| Power consumption | 320W |
| Dimensions | 17-3/8"W x 5-7/8"H x 14-9/16"D (440 x 146 x 370 mm) |
| Weight | Approx. 31 lbs. (14 kg) |

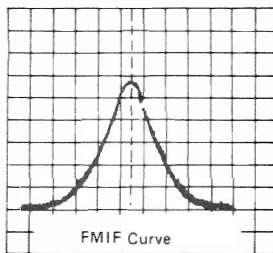
* Specifications subject to change without notice.

FM IF ADJUSTMENT

1. V curve adjustment

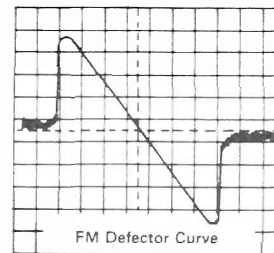
- 1) Connect TP3 (HOT) and TP6 (EARTH) to the output terminal of the sweep generator, and TP4 (H) and TP104 (E) to the input terminal.
- 2) Connect a resistance load of about 10 to 50 K-ohms to the input of the sweep generator and disconnect the tuning meter leadwires from the circuit board.
- 3) Cut off ceramic capacitor C213 (0.022 μ F) at one end.
- 4) Make adjustment while keeping the output from the sweep generator at the low level (where noise appears on the waveform).
- 5) While watching the sweep waveform, adjust the T201 until the sweep waveform presents the pattern as in Fig.1.

* TP6 is a shield plate.



2. S curve adjustment

- 1) Connect TP3 (H) and TP6 (E) to the output the sweep generator. Connect TP201 (H) and TP104 (E) to its input.
NOTE: It is necessary to connect a capacitor (1 μ F/16V) to the input of the sweep generator (H) for cutting DC current.
- 2) Adjust the T202 until the S curve presents the pattern as in Fig. 2. Avoid turning the T203 unless absolutely necessary.



CENTER ADJUSTMENT OF TUNING METER

Set FM SG as follows: modulation frequency 1KHz, frequency deviation 75KHz DIV. (100% modulation).

Connect a balanced dummy of 300 ohms between FM SG and the unit (at the 300 ohm terminal of the external antenna).

- 1) Set the tuning dial of the unit to 98MHz (where no Broadcasting signal is coming in).
- 2) While keeping the FM SG output level to 0 (less than 10dB), adjust the T202 until the tuning meter needle stands at the center point.
- 3) Adjust the frequency output of FM SG so that the tuning meter needle stands at the center point.
- 4) Reduce the distortion factor a minimum by turning the T203. Make this adjustment at the FM SG output level of 60 dB (1mV).

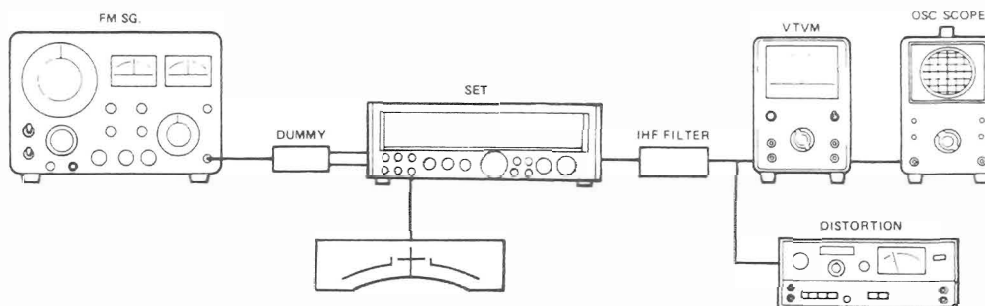
5) Repeat steps 2) and 3) above.

6) Turn the core of T201 only slightly until the distortion factor becomes minimal.

7) Set the FM SG output level to 0. Confirm tuning meter needle stands at the center point. If needle is not at center point, repeat from steps 2).

8) Set the FM SG output level to 60dB. Conform the distortion factor gets minimum when the tuning meter needle is at center point.

NOTE: Use Hum and Sub-carrier Filter to get accurate distortion factor.



FM TRACKING

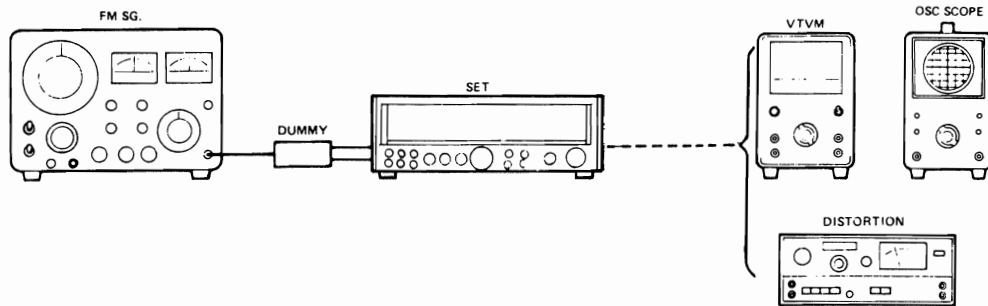
Se: FM SG as follows: modulation frequency 1KHz, frequency diviation 75KHz DIV. (100% modulation).

Flip the MODE switch of the unit to "MONO".

- 1) Make LOW TRACKING adjustment by means of L102 and L101. Use 90MHz FM signal for this purpose.
- 2) Make HIGH TRACKING adjustment by means of CT2 and CT1. Use 106MHz FM signal for this purpose.

3) Make complete TRACKING adjustment by repeating steps (1) and (2).

* When properly adjusted, the distortion factor of the output from the unit is reduced to a minimum, provided that the distortion factor of the SG output is about 3%.



FM VCO ADJUSTMENT

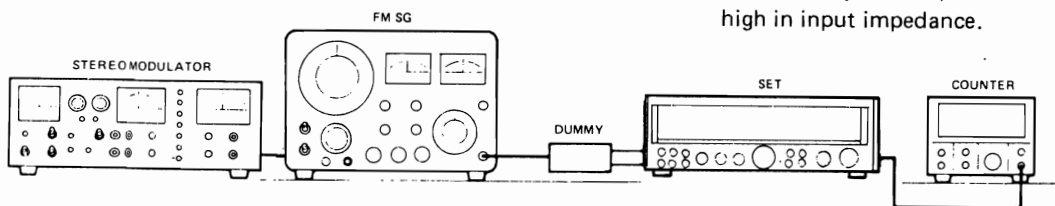
Set the frequency of FM SG to 98MHz (where no broadcasting signal is coming in), the muting switch of the unit to ON and the pilot signal of the stereo modulation to a modulation degree of 9%.

- 1) Increase the output level of FM SG until the stereo pilot lamp of the unit glows. Then, keep the glowing of the stereo pilot lamp for more than 10 seconds).

- 2) Adjust R309(SVR) until the frequency counter reading becomes $19000\text{Hz} \pm 19\text{ Hz}$ immediately after cutting off the SG output (viz. after the stereo pilot lamp has gone out).

* Do not make this adjustment immediately after setting to ON the power switch of the unit.

* For this adjustment, use a frequency counter relatively high in input impedance.



FM MUTING LEVEL ADJUSTMENT

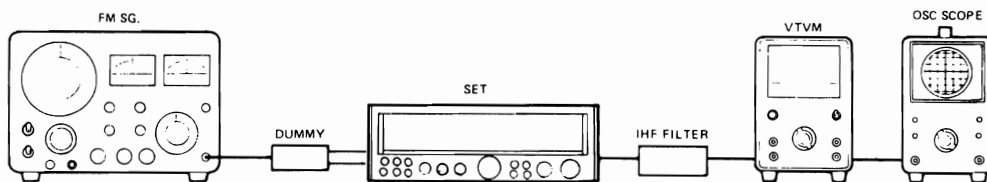
Set FM SG as follows: modulation frequency 1kHz, frequency deviation 75kHz DIV. (100% modulation). Then, set the muting switch of the unit to ON.

- 1) Set FM SG to 98MHz and tune the unit to that frequency level.

- 2) Apply 16dB to the 300 ohm terminal antenna.

- 3) Turn R227(SVR) and set it at the position where the VTVM needle stops swinging or the waveform on the oscilloscope becomes very small.

* When the muting function is ON, the waveform decreases in size, and weak signals and noise are cut off.



SEPARATION

Set FM SG as follows: modulation frequency 1KHz, frequency 98MHz. Set the pilot signal of the stereo modulator to a modulation degree of 9%.

$$PL + L + R = 75\text{KHz DIV. (9\% + 91\%)}$$

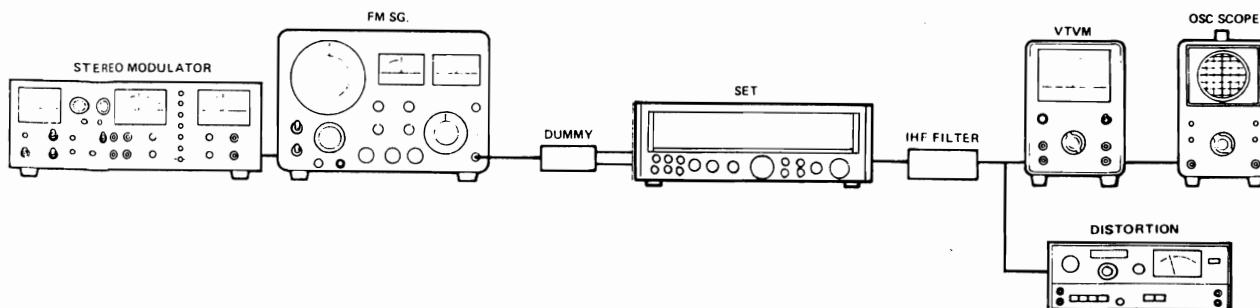
Select the "STEREO" mode by the mode switch of the unit.

- 1) Set the input to the unit (i.e. voltage at the 300 ohm terminal of the external antenna) to 60dB (This corresponds to 66dB—1.995mV in terms of FM SG output).



- 2) Generator L-R signals by the stereo modulator and tune the unit completely to their level. (In this state, the distortion factor is reduced to a minimum.)

- 3) Switch the stereo modulator from R to L channels. Reduce signal output leakage of each channel to a minimum by adjusting R306(SVR).

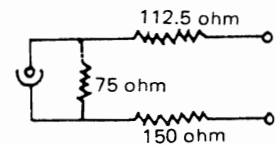
* When making this adjustment, use a lowpass filter and eliminate 19KHz and 38KHz carrier components.



FM ALIGNMENT

| Step | Adjusting Circuit | Connections | | SG frequency | Position of tuning dial | Adjustment | VTVM Oscilloscope |
|------|--------------------|--|--|-----------------------------------|--|------------|---|
| | | Input | Output | | | | |
| 1 | I.F. | Connect sweep generator to FM TP-3 (H) & TP-6 (E) | Connect oscilloscope to test point TP-4 (H), TP104 (E) | 10.7 MHz (0% modulation) | Near max. capacitance of tuning gang with no station signal. | T201 |  |
| 2 | Ratio Det. | | Connect oscilloscope to test point TP-201 (H), TP104 (E) | | | T202 |  |
| 3 | OSC. | Connect FM SG. to FM ANT. Terminals. TP101 (H) & TP102 (E) | Connect VTVM to TP302 (H) & TP104 | 87.4 MHz (400 Hz 30% modulation) | Low end of dial scale | L103 | Max. |
| 4 | | | TP303 (H) & TP104 | 109.0 MHz (400 Hz 30% modulation) | High end of dial scale | CT3 | |
| 5 | ANT. | Connect FM SG. to FM ANT. Terminals. TP101 (H) & TP102 (E) | Connect VTVM to TP302 (H) & Ground | 90.0 MHz (400 Hz 30% modulation) | 90.0 MHz on dial scale | L101, L102 | Max. |
| 6 | | | | 106.0 MHz (400 Hz 30% modulation) | 106.0 MHz on dial scale | CT1, CT2 | |
| 7 | Repeat adjustments | | | | | | |

- PREPARE:**
1. Set the dial pointer to very left line of dial scale.
 2. Connect sweep generator, FM SG, VTVM and oscilloscope. FM ANT input impedance is 300 ohm.
 3. Use a screwdriver with plastic grip for all adjustments.
 4. Use a 300 ohm balanced dummy load.



MW ALIGNMENT

| Step | Adjusting Circuit | Connections | | SG frequency | Position of tuning dial | Adjustment | VTVM Oscilloscope |
|------|---------------------|--------------------------------------|---|----------------------------------|--|------------|-------------------|
| | | Input | Output | | | | |
| 1 | I.F.T. | Connect sweep generator to Test Loop | Connect oscilloscope to TP302 (H) & TP104 | 460 KHz (400 Hz 30% modulation) | Low end of dial scale. With no station signal. | T204 | Max. |
| 2 | OSC. | Connect AM SG to Test Loop. | Connect VTVM to TP302 (H) & TP104 | 505 KHz (400 Hz 30% modulation) | Low end of dial scale | L105 | Max. |
| 3 | | | | 1700 KHz (400 Hz 30% modulation) | High end of dial scale | CT5 | |
| 4 | ANT. | Connect AM SG to Test Loop. | Connect VTVM to TP302 (H) & TP104 | 600 KHz (400 Hz 30% modulation) | 600 KHz on dial scale | L104 | Max. |
| 5 | | | | 1400 KHz (400 Hz 30% modulation) | 1400 KHz on dial scale | CT4 | |
| 6 | Repeat adjustments. | | | | | | |

- PREPARE:**
1. Set the dial pointer to very left line on dial scale.
 2. Use a screwdriver with plastic grip for all adjustments.
 3. Selector switch to "MW".
 4. Connect sweep generator, AM SG, VTVM and oscilloscope.

19KHz TRAP ADJUSTMENT

Set the frequency of FM SG to 98MHz and the pilot signal of the stereo modulator to a modulation degree of 9%.

- 1) Set the tuning dial of the unit to 98MHz.
- 2) Apply 60dB to 300 ohm terminal antenna.
- 3) Turn L301, L302 until the leakage of 19KHz becomes minimum.

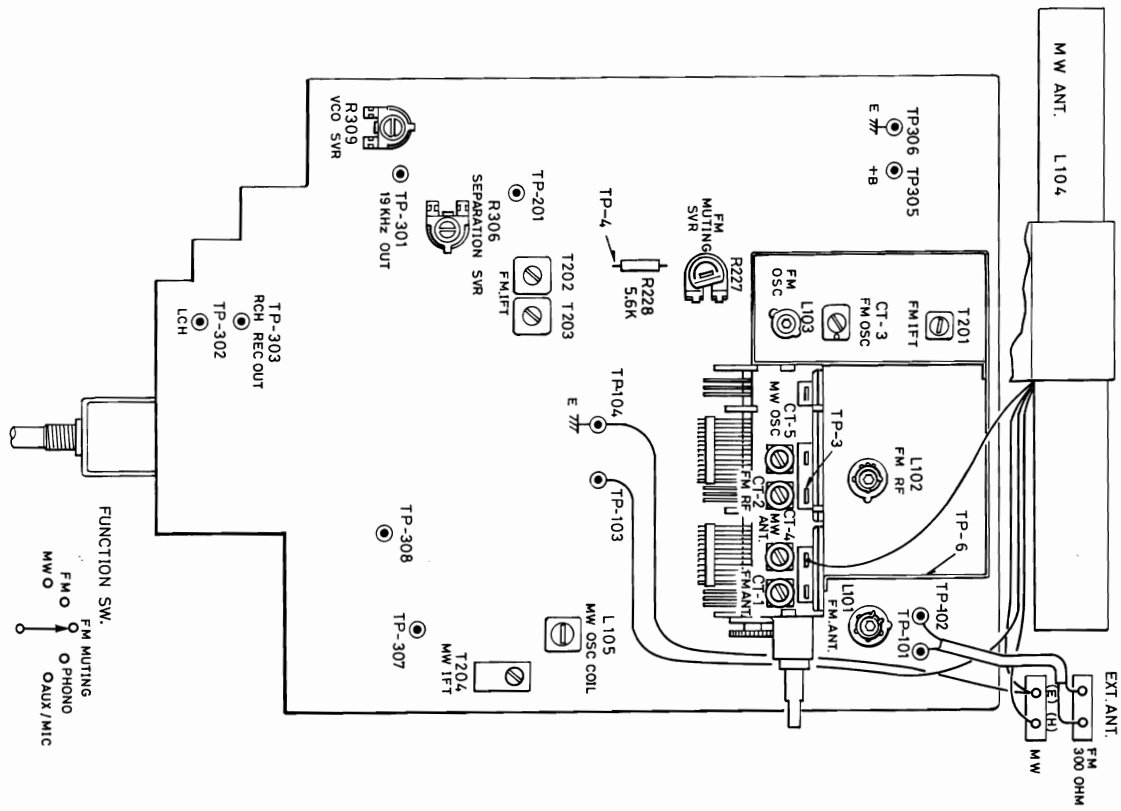
NOTE: Use 200Hz HIGH-PASS FILTER.

MW TRACKING

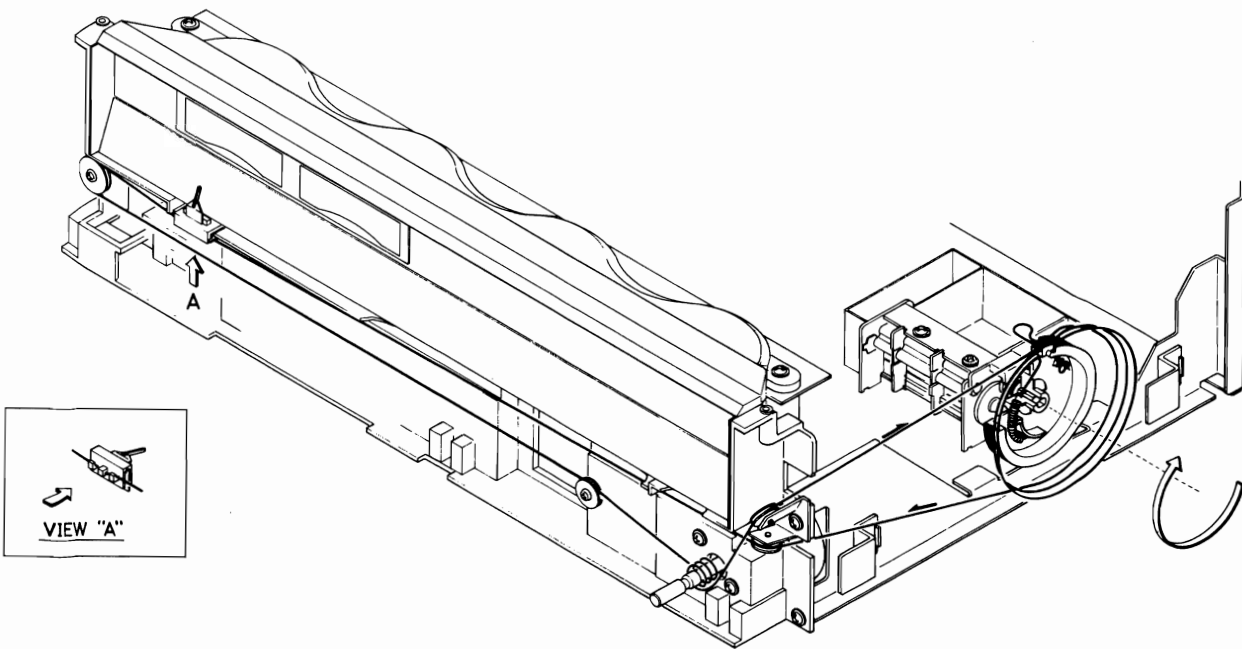
Use same method as usual.

- 1) Set the frequency of AM SG to 600KHz and the tuning dial of the unit to 600KHz.
 - 2) Set the position of BAR ANTENNA as requested and dress the leadwires of BAR ANTENNA before making adjustment.
 - 3) Turn the core of L104 (BAR ANTENNA) until the output of the unit becomes maximum.
 - 4) Set the frequency of AM SG to 1400KHz and the tuning dial of the unit to 1400KHz.
 - 5) Turn CT4 (VC TRIMMER) until the output of the unit becomes maximum.
 - 6) Repeat the above steps from 1). until the output of the unit becomes maximum at both 600KHz and 1400KHz.
- NOTE: Use plastic screw driver for adjustment.

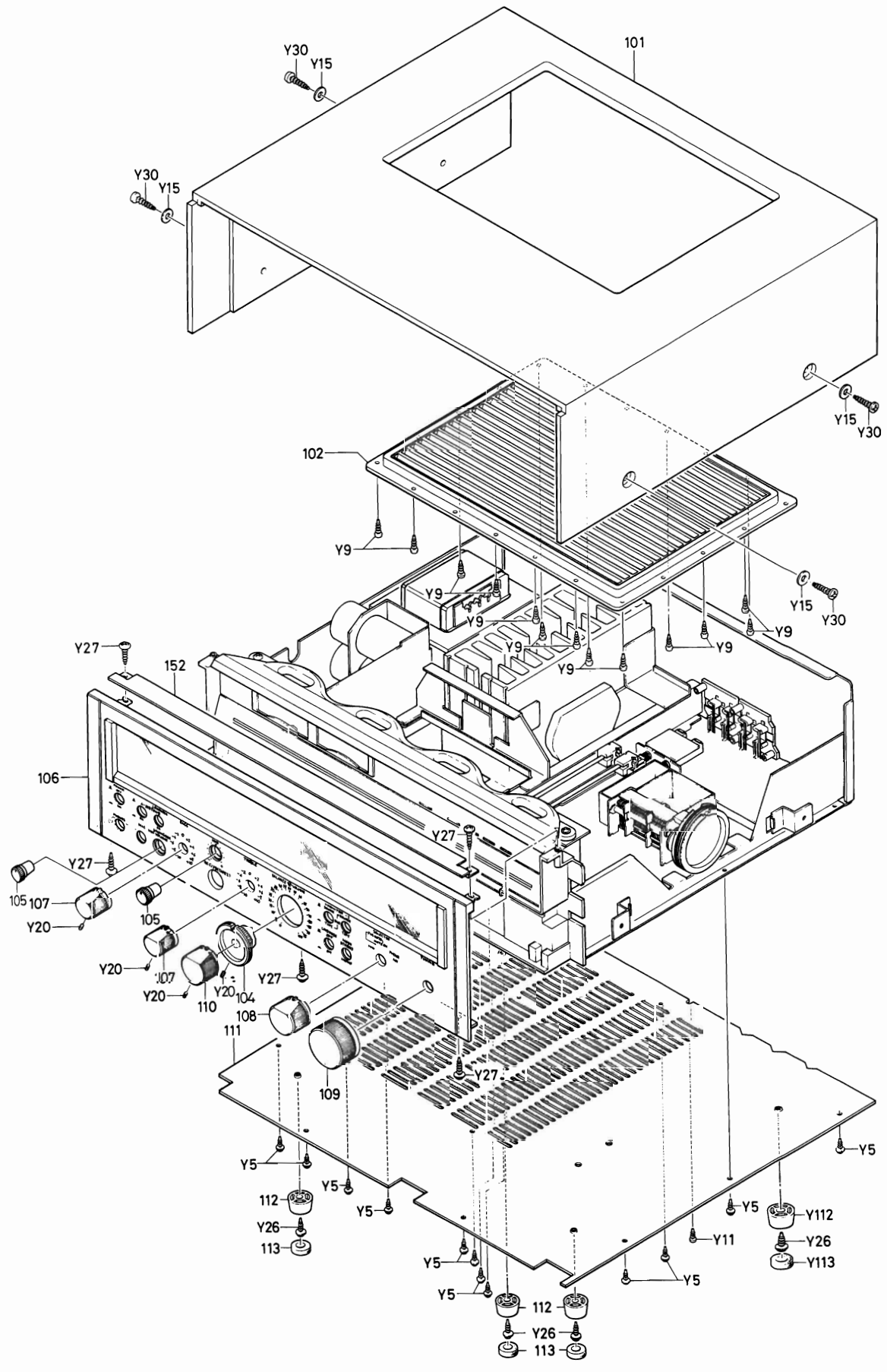
PARTS LOCATION



DIAL CORD STRINGING



CABINET EXPLODED VIEW



PARTS LIST

| Ref. No. | Part No. | Description | Q'ty |
|--------------------|------------------|---|------|
| PACKING | | | |
| | 141-6-132T-82500 | Individual Carton | 1 |
| | 141-6-144T-41600 | Styrol Filler | 2 |
| | 141-6-231T-25450 | Inner Polyethylene Bag, Printed Matter | 1 |
| | 141-6-410T-02500 | Instruction Booklet | 1 |
| | 141-6-231T-60800 | Inner Polyethylene Bag, Set | 1 |
| | 141-6-415T-15600 | Notice, Fuse | 1 |
| | 141-6-231T-06100 | Inner Polyethylene Bag, Fuse Accessories | 1 |
| | 141-6-231T-10250 | Inner Polyethylene Bag, Power Supply Cord | 1 |
| | 123-6-453R-00100 | Inspection Sheet | 1 |
| | 141-6-231T-06100 | Inner Polyethylene Bag, Wrench | 1 |
| | 141-6-421T-32500 | Schematic Diagram | 1 |
| | 141-6-415T-19200 | Notice, SWEDISH | 1 |
| | 141-6-415T-20500 | Notice, HOLLANDER | 1 |
| ACCESSORIES | | | |
| | 4-245T-00100 | Antenna, EXT. FM Antenna | 1 |
| | 4-234T-06371 | Fuse | 2 |
| | 141-2-419T-00200 | Wrench, for Rotary Knob | 1 |
| CABINET | | | |
| 101 | 141-9-111T-12000 | Cabinet Assembly | 1 |
| 102 | 141-9-242T-00100 | Lattice Assembly | 1 |
| 104 | 141-2-163T-44300 | Rotary knob, Balance | 1 |
| 105 | 141-0-163T-14200 | Rotary knob Assembly, Mid Mic. | 2 |
| 106 | 141-9-122T-06400 | Front Panel Assembly | 1 |
| 107 | 141-0-163T-13500 | Rotary Knob Assembly, Bass & Treble | 2 |
| 108 | 141-0-163T-12400 | Rotary Knob Assembly, Selector | 1 |
| 109 | 141-0-163T-12500 | Rotary Knob Assembly, Tuning | 1 |
| 110 | 141-0-163T-13700 | Rotary Knob Assembly, Volume | 1 |
| 111 | 141-2-125T-12400 | Bottom Lid | 1 |
| 112 | 141-2-174T-04700 | Stand | 4 |
| 113 | 141-2-441T-05000 | Cushion | 4 |
| CHASSIS | | | |
| 114 | 141-2-126T-21701 | Back Lid | 1 |
| 115 | 141-2-315T-14300 | Reinforcement, Left Side | 1 |
| 116 | 141-2-315T-14400 | Reinforcement, Right Side | 1 |
| 117 | 141-2-315T-14500 | Reinforcement, Center | 1 |
| 118 | 141-2-310T-05000 | Bracket, Reinforcement (112) Mtg. | 2 |
| 119 | 141-2-310T-06400 | Bracket, PT Mtg. | 1 |
| 120 | 141-2-464T-26000 | Fixer, ANT Lead | 1 |
| 121 | 141-2-315T-15200 | Reinforcement, Center | 1 |
| 122 | 141-2-310T-07200 | Bracket, Bracket (115) Mtg. | 1 |
| 123 | 141-2-214T-02100 | Bracket, Front Frame | 1 |
| 124 | 141-2-421T-20900 | Special Screw, Pulley Mtg. | 4 |
| 125 | 141-2-661T-71200 | Pulley, Large size | 3 |
| 126 | 141-2-661T-71300 | Pulley, Small size | 3 |
| 127 | 141-2-521T-01600 | Flywheel, Tuning | 1 |
| 128 | 141-2-524T-07600 | Bracket, Flywheel Mtg. | 1 |
| 129 | 141-2-210T-05700 | Bracket, Bracket Frame (119) Mtg. | 2 |
| 130 | 141-2-210T-05600 | Bracket, Reinforcement (113) Mtg. | 1 |
| 131 | 141-2-464T-08700 | Fixer, Lead Retainer | 9 |
| 132 | 141-2-464T-20671 | Fixer, Lead Retainer | 8 |
| 133 | 141-2-566T-06600 | Tuning Shaft | 1 |
| 134 | 141-2-310T-04700 | Bracket, Pulley Mtg. | 1 |
| 135 | 141-2-464T-14400 | Fixer, AC Cord | 1 |
| 136 | 141-2-753T-23900 | Shaft, Power Switch Connection Rod | 1 |
| 137 | 141-2-411T-08100 | Plate Nut | 1 |
| 138 | 141-2-453T-30500 | Washer, Graphite Nylon Washer 4.1 x 6.5 x 0.13 mm | 2 |
| 139 | 4-231T-53672 | Switch, Voltage Select | 1 |
| 140 | 141-2-753T-24000 | Shaft, for Tape Monitor Select | 2 |
| 142 | 141-2-753T-31100 | Shaft, Speaker Select | 2 |
| 143 | 141-2-753T-09200 | Joint, Tape Monitor, Speaker Select | 4 |
| 144 | 141-2-852T-43900 | Wire Spring, Joint (137,139) Mtg. | 4 |
| 145 | 141-2-852T-44100 | Wire Spring | 1 |
| 146 | 141-2-472T-01201 | Lug, Reinforcement (117) Mtg. for Lead Retainer | 4 |
| 148 | 123-2-457R-11700 | Special Washer, Selector Switch Mtg. | 1 |

| Ref. No. | Part No. | Description | Q'ty |
|---------------------------|------------------|---|------|
| CHASSIS | | | |
| 149 | 141-2-246T-12900 | Sheet, Pointer (157) | 1 |
| 150 | 141-2-329T-05000 | Reflector, FM Stereo Lamp Cover | 1 |
| 151 | 141-2-153T-31200 | Escutcheon, Bracket Frame (119) Mtg. | 2 |
| 152 | 141-2-328T-05200 | Shield Light, on the Reflector (150) | 1 |
| 153 | 141-9-146T-01200 | Dial Scale Assembly | 1 |
| 154 | 141-2-329T-04500 | Reflector, Dial Illuminate | 1 |
| 155 | 141-0-161T-02800 | Push Button Assembly, Mode/FM Muting/Hi-Filter/Loudness | 4 |
| 156 | 141-0-161T-02900 | Push Button Assembly, Power/ Speaker/Monitor | 5 |
| 157 | 141-2-340T-00200 | Rope 0.5 x 2000 mm | 1 |
| 158 | 141-2-538T-07300 | Drum, VC | 1 |
| 159 | 141-2-855T-14800 | Coil Spring, Drum Mtg. | 1 |
| 161 | 141-9-511T-00400 | Pointer Assembly | 1 |
| 162 | 141-2-411T-08700 | Plate Nut, DIN socket | 1 |
| 164 | 141-2-310T-08500 | Bracket, Fuse | 1 |
| 166 | 141-2-472T-02000 | Lug, Mic VOL | 1 |
| 167 | 141-2-327T-16900 | Insulator, Fuse Holder | 1 |
| ELECTRICAL PARTS | | | |
| 201 | 4-251T-72200 | Power Transformer | 1 |
| 202 | 141-2-310T-07500 | Bracket, PT Mtg. | 1 |
| 203 | 4-243T-77173 | Power Supply Cord | 1 |
| 205 | 141-2-383T-04800 | Fuse Holder, SP | 1 |
| 206 | 4-234T-06371 | Fuse | 2 |
| 207 | 4-237T-07000 | Terminal Board, SP Terminal | 2 |
| 208 | 141-2-382T-07000 | Terminal, Earth | 2 |
| 209 | 4-511T-08200 | Meter, Signal | 1 |
| 210 | 4-511T-08300 | Meter, Tuning | 1 |
| 211 | 4-235T-43900 | Socket, Meter Connect | 1 |
| 212 | 4-235T-44400 | Socket FM | 1 |
| 213 | 4-235T-44500 | Socket AM | 1 |
| 214 | 141-2-382T-06900 | Terminal, GND. | 1 |
| 215 | 4-257T-24102 | Antenna Coil Assembly, L104 | 1 |
| 216 | 141-2-369T-05400 | Bracket, Antenna Coil (215) Mtg. | 1 |
| 217 | 141-2-243T-02700 | Base, Antenna Coil (215) Mtg. | 2 |
| 220 | 4-231T-37000 | Switch, Power Muting | 1 |
| 221 | 141-2-310T-07600 | Bracket, Power switch PCB (219) Mtg. | 1 |
| 222 | 141-2-253T-07500 | Joint, Shaft (136) Mtg. | 1 |
| 223 | 141-2-464T-08800 | Fixer, Lead Wire Dressing | 4 |
| 225 | 141-2-310T-08300 | Bracket, VR Mtg. | 1 |
| 227 | 141-2-368T-12800 | Heat Sink, IC | 2 |
| 228 | 141-2-310T-07300 | Bracket, Heat Sink & Main AMP P.C.B (226) Mtg. | 1 |
| 229 | 141-2-310T-07400 | Bracket, Heat Sink & Main AMP P.C.B (226) Mtg. | 1 |
| 230 | 141-2-310T-07000 | Bracket, Heat Sink (227) Rear Mtg. | 1 |
| 231 | 141-2-310T-07100 | Bracket, Heat Sink (227) Front Mtg. | 1 |
| 233 | 141-2-310T-06900 | Bracket, Electrolytic (C912, 913) Mtg. | 1 |
| 234 | 141-2-377T-21800 | Bracket, DC Power P.C.B (232) Mtg. | 1 |
| 238 | 4-235T-45900 | Socket, Phone to Tuner | 1 |
| 240 | 4-235T-44000 | Socket 7 Pin, from Indicator PCB (241) | 1 |
| 248 | 141-2-310T-08400 | Bracket | 1 |
| 249 | 4-234T-01101 | Fuse 250V 315mA | 2 |
| 250 | 4-234T-04771 | Fuse 250V 1.4A | 1 |
| 251 | 141-2-246T-19900 | Sheet | 1 |
| 252 | 141-2-327T-16600 | Insulator | 1 |
| 253 | 4-222T-58900 | Variable Resistor 20K-B Mixing (VR721) | 1 |
| HEADPHONE PCB ASSY | | | |
| 218 | 141-9-230T-30503 | Printed Circuit Board Assembly, Headphone | 1 |
| | 4-235T-36771 | Socket, Headphone | 1 |
| | 141-2-382T-07300 | or Terminal, Wire Wrapper Pin | 3 |
| | 4-237T-00100 | | 2 |
| R789, 889 | | Metal Oxide Film Resistor 390 ohm $\pm 5\%$ 2W | 2 |

PARTS LIST

| Ref. No. | Part No. | Description | Q'ty |
|--------------------------|------------------|--|------|
| POWER SW PCB ASSY | | | |
| 219 | 140-9-230T-66900 | Printed Circuit Board Assembly, Power Switch | 1 |
| | 4-231T-60900 | Push Switch, Power | 1 |
| | 4-234T-03671 | Fuse 250V 2A | 1 |
| | 4-234T-06271 | Fuse 250V 3.15A | 1 |
| | 141-2-382T-07300 | or Terminal, Wire Wrapper Pin | 6 |
| | 4-237T-00100 | | |
| C901 | 141-6-476T-10000 | Indication Label | 1 |
| | 4-223T-04700 | Capacitor | 2 |
| | 141-2-381T-01800 | Fuse Bracket | 4 |
| TONE PCB ASSY | | | |
| 224 | 140-9-230T-67000 | PCB assy, TONE AMP | 1 |
| VR751,851 | 4-222T-58700 | Variable resistor, BALANCE, VOL 250K (MN) 100K-B x 2 | 1 |
| 752,852 | | | |
| VR753,853 | 4-222T-57000 | Variable resistor, BASS, TREBLE | 2 |
| 755,855 | | | |
| S5,6 | 4-231T-63900 | Switch, LOUDNESS, MODE | 1 |
| | 4-237T-00100 | or Terminal | 15 |
| | 141-2-382T-07300 | | |
| Q751,851, | | Transistor 2SC1571 | 4 |
| 753,853 | | | |
| Q752,852 | | Transistor 2SA929 | 2 |
| CAPACITORS | | | |
| C751,851 | | Ceramic 680pF ±10% 50V | 2 |
| C762,862 | | Ceramic 22pF ±5% 50V | 2 |
| C754,854 | | Ceramic 220pF ±10% 50V | 2 |
| C765,865 | | Mylar 470pF ±10% 50V | 2 |
| C756,856, | | Mylar 0.027μF ±5% 50V | 4 |
| 757,857 | | | |
| C752,852 | | Mylar 0.033μF ±5% 50V | 2 |
| C758,858, | | Mylar 0.0047μF ±5% 50V | 4 |
| 759,859 | | | |
| C760,860 | | Mylar 0.0018μF ±5% 50V | 2 |
| C766 | | Electrolytic 330μF 35V | 1 |
| C763,863 | | Electrolytic 100μF 6.3V | 2 |
| C761,861, | | Electrolytic 1μF 50V | 6 |
| 764,864, | | | |
| 791,891 | | | |
| C753,853 | | Electrolytic 0.47μF 50V | 2 |
| C755,855 | | Electrolytic 2.2μF 50V | 2 |
| RESISTORS | | | |
| R770,870 | | Carbon 180K ohm ±5% 1/4W | 2 |
| R751,851, | | Carbon 1M ohm ±5% 1/4W | 4 |
| 756,856 | | | |
| R773,873 | | Carbon 470K ohm ±5% 1/4W | 2 |
| R757,857 | | Carbon 330K ohm ±5% 1/4W | 2 |
| R755,855 | | Carbon 82K ohm ±5% 1/4W | 2 |
| R763,864 | | Carbon 27K ohm ±5% 1/4W | 4 |
| 764,864 | | | |
| R759,859 | | Carbon 22K ohm ±5% 1/4W | 2 |
| R761,861, | | Carbon 15K ohm ±5% 1/4W | 4 |
| 762,862 | | | |
| R753,853 | | Carbon 8.2K ohm ±5% 1/4W | 2 |
| R752,852 | | Carbon 6.8K ohm ±5% 1/4W | 6 |
| 765,865, | | | |
| 766,866 | | | |
| R760,860 | | Carbon 4.7K ohm ±5% 1/4W | 2 |
| R769,869 | | Carbon 33K ohm ±5% 1/4W | 2 |
| R754,854, | | Carbon 1K ohm ±5% 1/4W | 6 |
| 774,874, | | | |
| 771,871 | | | |
| R758,858 | | Carbon 560 ohm ±5% 1/4W | 2 |
| R767,867, | | Carbon 6.8K ohm ±5% 1/4W | 4 |
| 768,868 | | | |
| R772,872 | | Carbon 5.6K ohm ±5% 1/4W | 2 |
| R791,891 | | Carbon 100K ohm ±5% 1/4W | 2 |
| R792,892 | | Carbon 1.5K ohm ±5% 1/4W | 2 |

| Ref. No. | Part No. | Description | Q'ty |
|--------------------------|-------------------|--|------|
| MAIN AMP PCB ASSY | | | |
| 226 | 140-9-230T-66700 | Printed Circuit Board Assembly, Main AMP | 1 |
| IC781,881 | 4-206T-01200 | IC STK-084, Power | 2 |
| | 4-232T-04900 | Relay | 1 |
| | 4-209T-01171 | Resistor | 1 |
| L781,881 | 141-2-382T-07300 | Terminal, Wire Wrapper Pin | 14 |
| Q401,402 | 4-265T-04800 | V.H.F. Coil | 2 |
| Q403 | | Transistor 2SC536G | 2 |
| D401,402 | | Transistor 2SD438F | 1 |
| 403,404 | | Diode 1S2473 | 4 |
| D405,406 | | Diode 1S2472 | 2 |
| D407 | | Diode 1N4002 | 1 |
| CAPACITORS | | | |
| C784,884 | | Ceramic 2pF ±20% 50WV | 2 |
| C781,881 | | Mylar 470pF ±10% 50WV | 2 |
| C789,889 | | Mylar 0.047μF ±20% 50WV | 2 |
| C782,882 | | Electrolytic 1μF 35WV | 2 |
| C403 | | Electrolytic 4.7μF 35WV | 1 |
| C786,788 | | Electrolytic 10μF 50WV | 4 |
| 886,888 | | | |
| C783,883 | | Electrolytic 47μF 16WV | 2 |
| C402 | | Electrolytic 10μF 16WV | 1 |
| C401 | | Electrolytic 100μF 25WV, Non Polar | 1 |
| C785,787 | | Electrolytic 220μF 500WV | 4 |
| 885,887 | | | |
| RESISTORS | | | |
| R786,886 | | Metal Oxide Film 5.6 ohm ±5% 1W | 2 |
| R787,887 | | Metal Oxide Film 10 ohm ±5% 1W | 2 |
| R784,785, | | Metal Oxide Film 100 ohm ±5% 1/2W | 4 |
| 884,885 | | | |
| R411 | | Metal Oxide Film 390 ohm ±5% 2W | 1 |
| R401 | | Carbon Resistor 1k ohm ±5% 1/4W | 1 |
| R410 | | Carbon Resistor 1.2k ohm ±5% 1/4W | 1 |
| R782,882 | | Carbon Resistor 2.7k ohm ±5% 1/4W | 2 |
| R409,412 | | Carbon Resistor 5.6k ohm ±5% 1/4W | 2 |
| R402 | | Carbon Resistor 15k ohm ±5% 1/4W | 1 |
| R406,407 | | Carbon Resistor 18k ohm ±5% 1/4W | 2 |
| R788,888 | | Carbon Resistor 22k ohm ±5% 1/4W | 2 |
| R405,781, | | Carbon Resistor 56k ohm ±5% 1/4W | 5 |
| 783,881, | | | |
| 883 | | | |
| R403,404, | | Carbon Resistor 120k ohm ±5% 1/4W | 3 |
| 408 | | | |
| DC POWER PCB ASSY | | | |
| 232 | 140-9-230T-66800 | Printed Circuit Board Assembly, DC Power | 1 |
| | 4-237T-00100 | or Terminal, Wire Wrapper Pin | 19 |
| | 141-2-382T-07300/ | | |
| | 141-2-368T-11000 | Heat Sink | 1 |
| | | Tapping Screw 3 x 8 mm | 1 |
| Q901 | | Transistor 2SD386E | 1 |
| Q902,903 | | Transistor 2SD438E | 2 |
| D501,502 | | Diode 3DZ61 | 4 |
| 503,504 | | | |
| D505 | | Diode DS131B | 1 |
| D506 | | Diode WZ130 | 1 |
| CAPACITORS | | | |
| C915 | | Ceramic 0.001μF +80 -20 % 50WV | 1 |
| C901,902, | | Ceramic 0.01μF 500WV | 6 |
| 903,904, | | | |
| 905,906 | | Electrolytic 220μF +100 -10 % 16WV | 1 |
| C911 | | Electrolytic 470μF +100 -10 % 50WV | 2 |
| C909,910 | | | |
| C912,913 | 4-163T-00400/ | or Electrolytic 10000μF 50WV | 2 |
| | 4-163T-00471/ | | |

PARTS LIST

| Ref. No. | Part No. | Description | Q'ty | Ref. No. | Part No. | Description | Q'ty |
|--------------------------|------------------|---------------------------------------|------|--|----------|--|------|
| DC POWER PCB ASSY | | | | TUNER PCB ASSY | | | |
| RESISTORS | | | | CAPACITORS | | | |
| R905 | | Metal Oxide Film 5.6 ohm ±5% 1/2W | 1 | C108 | | Ceramic 2pF ±0.25pF 50WV | 1 |
| R903,904 | | Metal Oxide Film 82 ohm ±5% 2W | 2 | C106 | | Ceramic 4pF ±0.25pF 50WV | 1 |
| R911 | | Solid Resistor 100 ohm ±5% 1/2W | 1 | C114 | | Ceramic 6pF ±0.25pF 50WV N.P.O | 1 |
| R910 | | Solid Resistor 220 ohm ±5% 1/2W | 1 | C101 | | Ceramic 12pF ±10% 50WV | 1 |
| R906 | | Carbon Resistor 2.2k ohm ±5% 1/4W | 1 | C105,123 | | Ceramic 12pF ±10% 50WV N750 | 2 |
| R912 | | Solid Resistor 2.7k ohm ±10% 1/2W | 1 | C112 | | Ceramic 15pF ±5% N.P.O | 1 |
| R901,902 | | Metal Oxide Film 5.6k ohm ±5% 1W | 2 | C115 | | Ceramic 20pF ±5% 50WV N330 | 1 |
| R907 | | Carbon Resistor 6.8k ohm ±5% 1/4W | 1 | C113 | | Ceramic 33pF ±5% 50WV N.P.O | 1 |
| R909 | | Carbon Resistor 12k ohm ±5% 1/4W | 1 | C208 | | Ceramic 33pF ±10% 50WV | 1 |
| R908 | | Carbon Resistor 22k ohm ±5% 1/4W | 1 | C216 | | Ceramic 47pF ±10% 50WV | 1 |
| TUNER PCB ASSY | | | | RESISTORS | | | |
| 235 | 140-9-230T-56300 | Printed Circuit Board Assembly, TUNER | 1 | C109 | | Ceramic 100pF ±10% 50WV | 1 |
| | 141-2-322T-35500 | Shield Plate, VC Mtg. | 1 | C222 | | Ceramic 220pF ±20% 50WV | 1 |
| | 141-2-322T-40800 | Shield Plate | 1 | C103,107 | | Ceramic 0.001μF ±20% 50WV | 2 |
| S9 | 4-231T-68600 | Switch, Function | 1 | C102,111,116,119,120,125,201,202,203,218,231 | | Ceramic 0.01μF +80 -20% 50WV | 11 |
| | 4-237T-00100 | Terminal, Wire Wrapper Pin | 13 | | | | |
| P1 | 4-236T-10271 | Plug 4 pin | 1 | C110,124,213,217 | | Ceramic 0.022μF +80 -20% 50WV | 4 |
| P2 | 4-236T-10274 | Plug 7 pin | 1 | C204,205,206,210,211,212,324 | | Ceramic 0.047μF +80 -20% 50WV | 7 |
| P3 | 4-236T-10275 | Plug 8 pin | 1 | | | | |
| L101 | 4-265T-05100 | V.H.F Coil | 1 | C122 | | Styrol 300pF ±5% 125WV | 1 |
| L102 | 4-265T-03800 | V.H.F Coil | 1 | C309 | | Styrol 1500pF ±5% 125WV | 1 |
| L103 | 4-265T-03900 | V.H.F Coil | 1 | C333,343 | | Mylar 0.0012μF ±20% 50W | 2 |
| L105 | 4-258T-15500 | OSC Coil | 1 | C117,121,221 | | Mylar 0.01μF ±20% 50WV | 3 |
| L106,201,203 | 4-253T-08600 | Filter 3μH | 3 | | | | |
| L202 | 4-253T-09900 | Filter | 1 | C243 | | Mylar 0.012μF ±10% 50WV | 1 |
| T201 | 4-256T-05140 | I.F.T | 1 | C240 | | Mylar 0.022μF ±10% 50WV | 1 |
| T202 | 4-256T-10100 | I.F.T | 1 | C316 | | Mylar 0.047μF ±20% 50WV | 1 |
| T203 | 4-256T-10200 | I.F.T | 1 | C242,224 | | Mylar 0.068μF ±20% 20WV | 2 |
| CT-3 | 4-224T-08800 | Trimmer | 1 | C332,347 | | Mylar 0.01μF ±20% 50W | 2 |
| | 4-224T-08300 | Variable Capacitor | 1 | C306,241,331,341,308 | | Aluminum Electrolytic 0.22μF ±20% 10WV | 4 |
| C0102 | 123-2-471T-10900 | Core | 1 | | | | |
| T204 | 4-256T-07871 | I.F.T. | 1 | C307 | | Aluminum Electrolytic 0.33μF ±20% 10WV | 1 |
| LPF301,302 | 4-255T-01300 | MX Coil | 2 | C226 | | Electrolytic 0.47μF +150 -10% 25WV or 50WV | 1 |
| R306 | 4-222T-39472 | Semi Fixed Resistor 1k (B) | 1 | | | | |
| R309 | 4-222T-39474 | Semi Fixed Resistor 5k (B) | 1 | C209,230 | | Electrolytic 1μF +150 -10% 25WV | 2 |
| R227 | 4-222T-39477 | Semi Fixed Resistor 50k (B) | 1 | C207,301 | | Electrolytic 4.7μF +100 -10% 25WV | 2 |
| | 4-256T-80500 | Red 10.7MHz | 1 | C118 | | Electrolytic 10μF +100 -10% 16WV | 1 |
| CF201 | 4-256T-80571 | Blue 10.67MHz | 3 | C351,352 | | Electrolytic 10μF +100 -10% 35WV | 2 |
| 202 | 4-256T-80572 | or I.F. Filter Orange 10.73MHz | 3 | C223 | | Electrolytic 33μF +100 -10% 10WV | 1 |
| 203 | 4-256T-80573 | Black 10.64MHz | 3 | C353 | | Electrolytic 100μF +100 -10% 10WV | 1 |
| | 4-256T-80574 | White 10.76MHz | 3 | C215 | | Electrolytic 100μF +100 -10% 16WV | 1 |
| IC101 | | IC HA-1138 | 1 | C350 | | Electrolytic 100μF +100 -10% 35WV | 1 |
| IC201 | | IC LA1230 | 1 | C317 | | Electrolytic 470μF +100 -10% 16WV | 1 |
| IC301 | | IC LA3350S | 1 | C354 | | Electrolytic 1000μF +100 -10% 16WV | 1 |
| Q101 | | FET 3SK59 | 1 | C330,340 | | Electrolytic 330μF +100 -10% 6.3V | 2 |
| Q102 | | Transistor 2SC535B | 1 | | | | |
| Q103,201 | | Transistor 2SC930E | 2 | R103 | | Carbon Resistor 10 ohm ±5% 1/4W | 1 |
| Q202 | | Transistor 2SC536G | 1 | R110,234,312 | | Solid Resistor 56 ohm ±10% 1/2W | 3 |
| Q301,309 | | Transistor 2SC536F or G | 2 | | | | |
| Q310,312 | | Transistor 2SA702F | 2 | R117,233,237,356 | | Carbon Resistor 100 ohm ±5% 1/4W | 4 |
| Q305,306,303 | | Transistor 2SC945P | 3 | R106,111,206 | | Carbon Resistor 150 ohm ±5% 1/4W | 3 |
| Q307,308 | | Transistor 2SC945P or Q | 2 | R304 | | Carbon Resistor 220 ohm ±5% 1/4W | 1 |
| Q311,313 | | Transistor 2SC1571G | 2 | R321,331 | | Carbon Resistor 270 ohm ±5% 1/4W | 2 |
| Q302 | | Transistor 2SC1571F | 1 | R205,207,220,322,332,362 | | Carbon Resistor 330 ohm ±5% 1/4W | 6 |
| D101,102 | | Diode 1S2473 | 4 | | | | |
| 201,301 | | | 4 | R210 | | Carbon Resistor 470 ohm ±5% 1/4W | 1 |
| D103,202 | | Diode 1S188 FM | 2 | R225 | | Carbon Resistor 560 ohm ±5% 1/4W | 1 |
| D302,303,304,306 | | Diode 1S2472 | 4 | R351 | | Solid Resistor 680 ohm ±5% 1/2W | 1 |
| D305 | | Diode 1S188 AM or 1N60 AM | 1 | R107,305 | | Carbon Resistor 1k ohm ±5% 1/4W | 2 |
| D307 | | Diode WZ-250 | 1 | R230 | | Carbon Resistor 1.2k ohm ±5% 1/4W | 1 |
| D203,204 | | Diode 1S2473 | 2 | R203,244 | | Carbon Resistor 1.8k ohm ±5% 1/4W | 2 |
| | | | | R213,240,219,221 | | Carbon Resistor 2.2k ohm ±5% 1/4W | 4 |

PARTS LIST

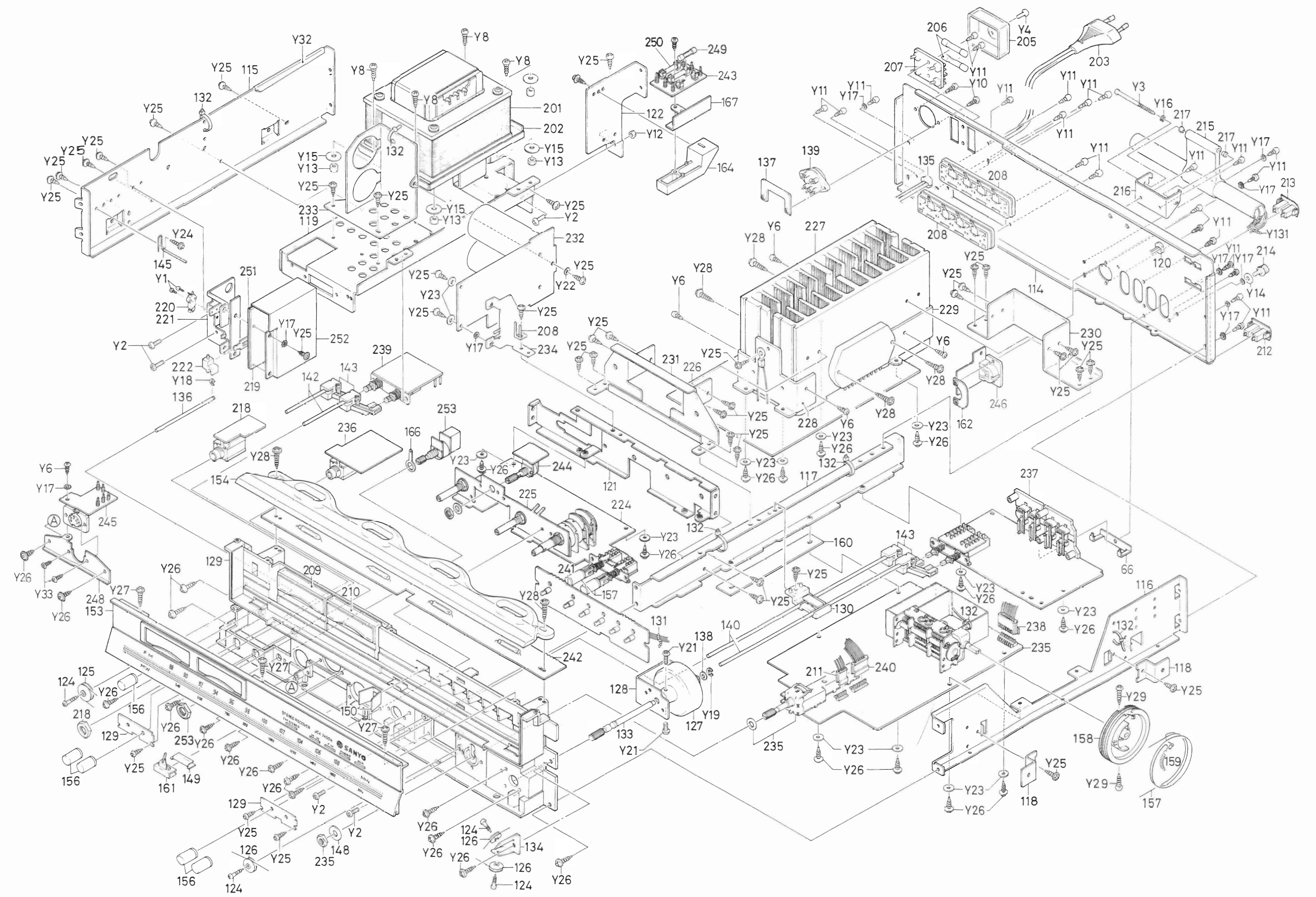
| Ref. No. | Part No. | Description | Q'ty | Ref. No. | Part No. | Description | Q'ty |
|--|------------------|--|------|-----------------------------|------------------|--|------|
| TUNER PCB ASSY | | | | PHONO AMP PCB ASSY | | | |
| R112,115 | | Carbon Resistor 2.7k ohm ±5% 1/4W | 2 | CAPACITORS | | | |
| R217,302,320,324,327,243,330,334,337,303,308 | | Carbon Resistor 3.3k ohm ±5% 1/4W | 11 | C712,713 | | Ceramic 0.01μF +80 -20% 50V | 2 |
| R222 | | Carbon Resistor 3.9k ohm ±5% 1/4W | 1 | C704,804 | | Ceramic 470pF ±10% 50V | 2 |
| R360 | | Carbon Resistor 4.7k ohm ±5% 1/4W | 1 | C701,801 | | Ceramic 47pF ±10% 50V | 4 |
| R109,104,116,228,242 | | Carbon Resistor 5.6k ohm ±5% 1/4W | 5 | 703,803 | | | |
| R211 | | Carbon Resistor 6.8k ohm ±5% 1/4W | 1 | | | Ceramic 0.047μF +80 -20% 50V | 1 |
| R310,328,338,246 | | Carbon Resistor 8.2k ohm ±5% 1/4W | 4 | C708,808 | | Mylar 0.022μF ±5% 50V | 2 |
| R202,352,307,353,359 | | Carbon Resistor 10k ohm ±5% 1/4W | 5 | C706,806 | | Mylar 0.0039μF ±5% 50V | 2 |
| R226,229,113 | | Carbon Resistor 12k ohm ±5% 1/4W | 3 | C707,807,709,809 | | Mylar 0.0033μF ±5% 50V | 4 |
| R114,215,323,333 | | Carbon Resistor 15k ohm ±5% 1/4W | 4 | C711 | | Electrolytic 470μF 50V | 1 |
| R204 | | Carbon Resistor 18k ohm ±5% 1/4W | 1 | C705,805 | | Electrolytic 47μF 6.3V | 2 |
| R209,311 | | Carbon Resistor 22k ohm ±5% 1/4W | 2 | C702,802 | | Electrolytic 4.7μF 25V | 2 |
| R208 | | Carbon Resistor 27k ohm ±5% 1/4W | 1 | C701,810 | | Electrolytic 1μF 50V | 2 |
| R105 | | Carbon Resistor 33k ohm ±5% 1/4W | 1 | RESISTORS | | | |
| R108,218,355 | | Carbon Resistor 39k ohm ±5% 1/4W | 3 | R703,803 | | Carbon 270k ohm ±5% 1/4W | 2 |
| R357,238 | | Carbon Resistor 47k ohm ±5% 1/4W | 2 | R705,805 | | Carbon 180k ohm ±5% 1/4W | 2 |
| R358 | | Carbon Resistor 82k ohm ±5% 1/4W | 1 | R709,809,710,810 | | Carbon 100k ohm ±5% 1/4W | 4 |
| R101,212,245,223,361,326,336 | | Carbon Resistor 100k ohm ±5% 1/4W | 7 | R702,802 | | Carbon 68k ohm ±5% 1/4W | 2 |
| R354 | | Carbon Resistor 330k ohm ±5% 1/4W | 1 | R708,808 | | Carbon 27k ohm ±5% 1/4W | 2 |
| R241 | | Carbon Resistor 150M ohm ±5% 1/4W | 1 | R707,807 | | Carbon 10k ohm ±5% 1/4W | 2 |
| MIC AMP PCB ASSY | | | | SPEAKER PCB ASSY | | | |
| 236 | 140-9-230T-67200 | PCB assy, MIC AMP | 1 | 239 | 140-9-230T-30600 | Printed Circuit Board Assembly, Speaker | 1 |
| | 4-235T-36700 | Socket, MIC | 1 | | 4-231T-63600 | Speaker | 1 |
| | 141-2-322T-41500 | Shield plate, Mic socket | 1 | | 4-237T-00100 | Terminal, Wire Wrapper Pin | 12 |
| Q721,722 | | Transistor 2SC1571 G | 2 | INDICATOR PCB ASSY | | | |
| CAPACITORS | | | | 241 | 140-9-230T-30200 | Printed Circuit Board Assembly, Indicator Lamp | 1 |
| C727 | | Electrolytic 100μF 35V | 1 | | 4-612T-08100 | Lamp, Function 6.3V 65mA | 4 |
| C722,726 | | Electrolytic 4.7μF 25V | 2 | | 4-612T-08200 | Lamp, Stereo 6.0V 30mA | 1 |
| C725 | | Electrolytic 47μF 10V | 1 | | 4-237T-00100 | Terminal, Wire Wrapper Pin | 9 |
| C721 | | Ceramic 680pF ±10% 50V | 1 | DIAL LAMP PCB ASSY | | | |
| C724 | | Ceramic 100pF ±10% 50V | 1 | 242 | 140-9-230T-30300 | Printed Circuit Board Assembly, Dial Lamp | 1 |
| C723 | | Ceramic 220pF ±5% 50V | 1 | | 4-612T-07371 | Lamp | 4 |
| | | | | | 4-237T-00171 | Terminal, Wire Wrapper Pin | 5 |
| RESISTORS | | | | FUSE HOLDER PCB ASSY | | | |
| R726 | | Carbon 330k ohm ±5% 1/4W | 1 | 243 | 140-9-230T-67300 | Printed circuit board assembly, FUSE HOLDER | 1 |
| R725 | | Carbon 220 ohm ±5% 1/4W | 1 | | 4-237T-00171 | Terminal board | 6 |
| R729 | | Carbon 150k ohm ±5% 1/4W | 1 | MID VOLUME PCB ASSY | | | |
| R723 | | Carbon 100k ohm ±5% 1/4W | 1 | 244 | 140-9-230T-65100 | PCB assy, MID VOLUME | 1 |
| R728 | | Carbon 4.7k ohm ±5% 1/4W | 1 | | 4-222T-58800 | Variable resistor 100-B x2 | 1 |
| R727 | | Carbon 820 ohm ±5% 1/4W | 1 | DIN SOCKET PCB ASSY | | | |
| R724 | | Carbon 560 ohm ±5% 1/4W | 1 | 245 | 140-9-230T-74600 | PCB assy, DIN SOCKET | 1 |
| R722 | | Carbon 1K ohm ±5% 1/4W | 1 | | 4-235T-48300 | Socket, DIN | 6 |
| R721 | | Carbon 10k ohm ±5% 1/4W | 1 | | 4-237T-00171 | Terminal board | 2 |
| R731 | | Carbon 560 ohm ±5% 1/4W | 1 | | | Ceramic capacitor 100pF ±10% 50V | 2 |
| | | | | | | Carbon resistor 270k ohm ±5% 1/4W | 2 |
| PHONO AMP PCB ASSY | | | | DIN SOCKET PCB ASSY | | | |
| 237 | 140-9-230T-67100 | PCB assy, PHONO AMP | 1 | 245 | 140-9-230T-74600 | PCB assy, DIN SOCKET | 1 |
| | 4-235T-48400 | Socket RCA type, PHONO, AUX, REC, TAPE | 2 | | 4-235T-48300 | Socket, DIN | 6 |
| | 4-231T-63700 | Switch | 1 | | 4-237T-00171 | Terminal board | 2 |
| | 141-2-310T-08200 | Bracket, Jack | 1 | C742,842 | | Ceramic capacitor 100pF ±10% 50V | 2 |
| | 4-235T-45900 | Socket | 1 | R742,842 | | Carbon resistor 270k ohm ±5% 1/4W | 2 |
| | 4-237T-00100 | Terminal board | 23 | | | | |
| IC701,801 | | Terminal IC TA7129 P | 2 | | | | |

PARTS LIST

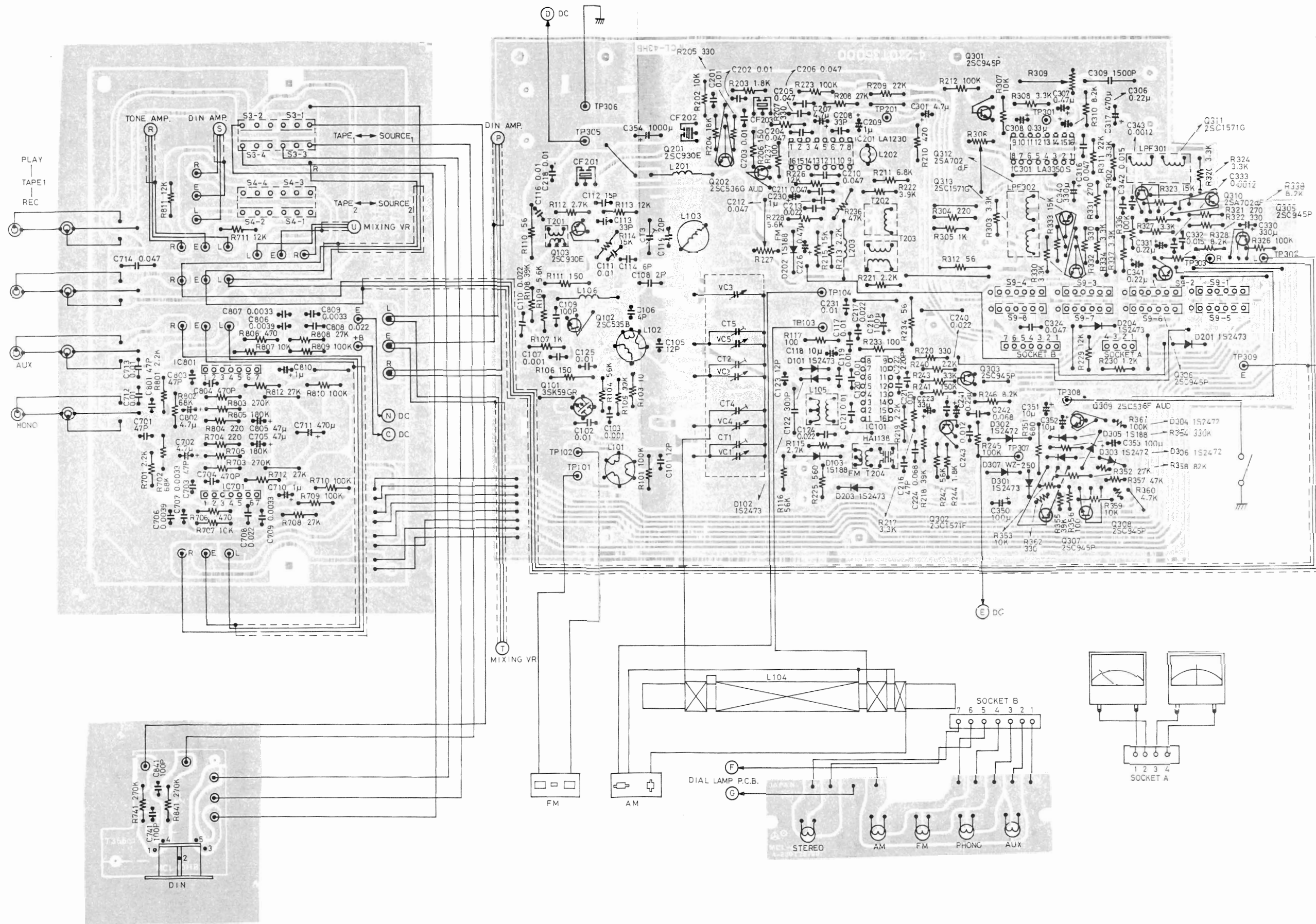
MEMO

| Ref. No. | Part No. | Description | Q'ty |
|---------------------|------------------|--|------|
| DIN SOCKET PCB ASSY | | | |
| 246 | 140-9-230T-74601 | PCB assy, DIN SOCKET | 1 |
| | 4-235T-48300 | Socket, DIN | 1 |
| | 4-237T-00171 | Terminal board | 6 |
| C741,841 | | Ceramic capacitor 100pF 50V ±10% 50V | 2 |
| R741,841 | | Carbon resistor 270k ohm ±5% 1/4W | 2 |
| SCREW MOUNTING | | | |
| Y1 | | Pan Head Screw 2 x 8 mm | 2 |
| Y2 | | Pan Head Screw 3 x 6 mm | 6 |
| Y3 | | Pan Head Screw 3 x 50 mm | 1 |
| Y4 | | Binding Head Pan Head Screw 3 x 8 mm | 2 |
| Y5 | | Tapping Screw 3 x 6 mm | 11 |
| Y6 | | Tapping Screw 3 x 8 mm | 7 |
| Y7 | | Tapping Screw 3 x 12 mm | 1 |
| Y8 | | Tapping Screw 4 x 8 mm | 4 |
| Y9 | | Round Head Wood Screw 3.1 x 10 mm | 12 |
| Y10 | | Binding Head Tapping Screw 3 x 12 mm | 2 |
| Y11 | | Binding Head Tapping Screw 3 x 10 mm | 22 |
| Y12 | | Nut 3 mm | 1 |
| Y13 | | Nut 4 mm | 4 |
| Y14 | | Washer 3.3 x 10 x 1 mm | 1 |
| Y15 | | Washer 4.5 x 13 x 1.2 mm | 8 |
| Y16 | | Spring Washer 3 mm | 1 |
| Y17 | | External Tooth Lock Washer 3 mm | 9 |
| Y18 | | External "E" Ring 2.5 mm | 1 |
| Y19 | | External "E" Ring 3 mm | 1 |
| Y20 | | Headless Screw with Hexagon Hole 3 x 4 mm | 4 |
| Y21 | | Pan Head Screw with Hexagon Hole 3 x 6 mm | 2 |
| Y22 | | Fiber Washer 3 x 10 x 0.8 mm | 1 |
| Y23 | 141-2-435T-01700 | Fiber Washer 3 x 10 x 1 mm | 13 |
| Y24 | | Tapping Screw with Washer 3 x 4 mm | 1 |
| Y25 | | Tapping Screw with Washer 3 x 8 mm | 43 |
| Y26 | | Tapping Screw with Washer 3 x 10 mm | 31 |
| Y27 | | Tapping Screw 3 x 12 mm | 7 |
| Y28 | | Tapping Screw 3 x 16 mm | 6 |
| Y29 | | Thread Rolling Screw 3 x 12 mm | 2 |
| Y30 | | Thread Rolling Screw 4.5 x 16 mm | 4 |
| Y31 | | UL Tape 12 x 40 mm | 1 |
| Y32 | | UL Tape 12 x 70 mm | 1 |
| Y33 | | Tapping Screw 2.3 x 6 mm | 2 |

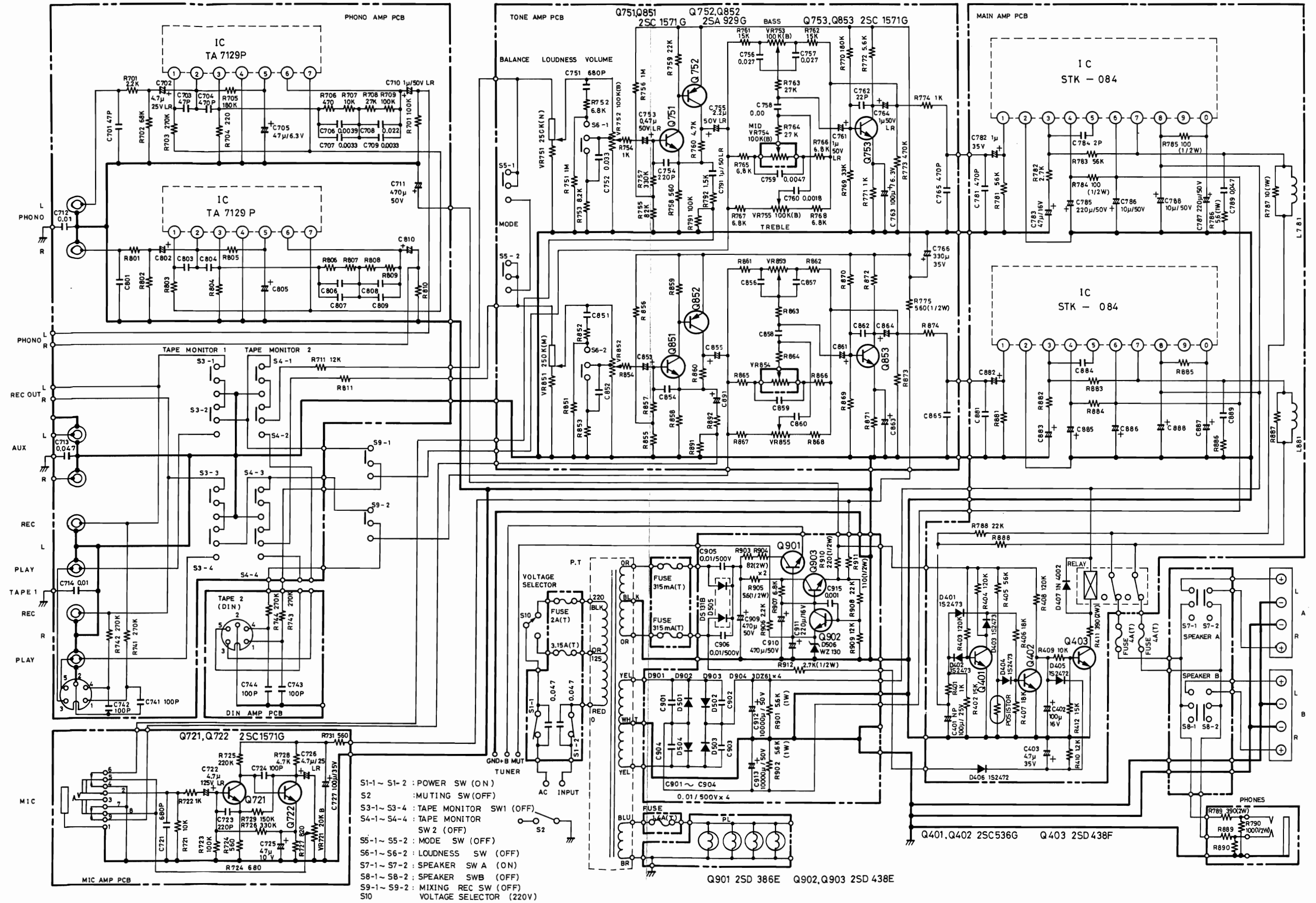
CHASSIS EXPLODED VIEW



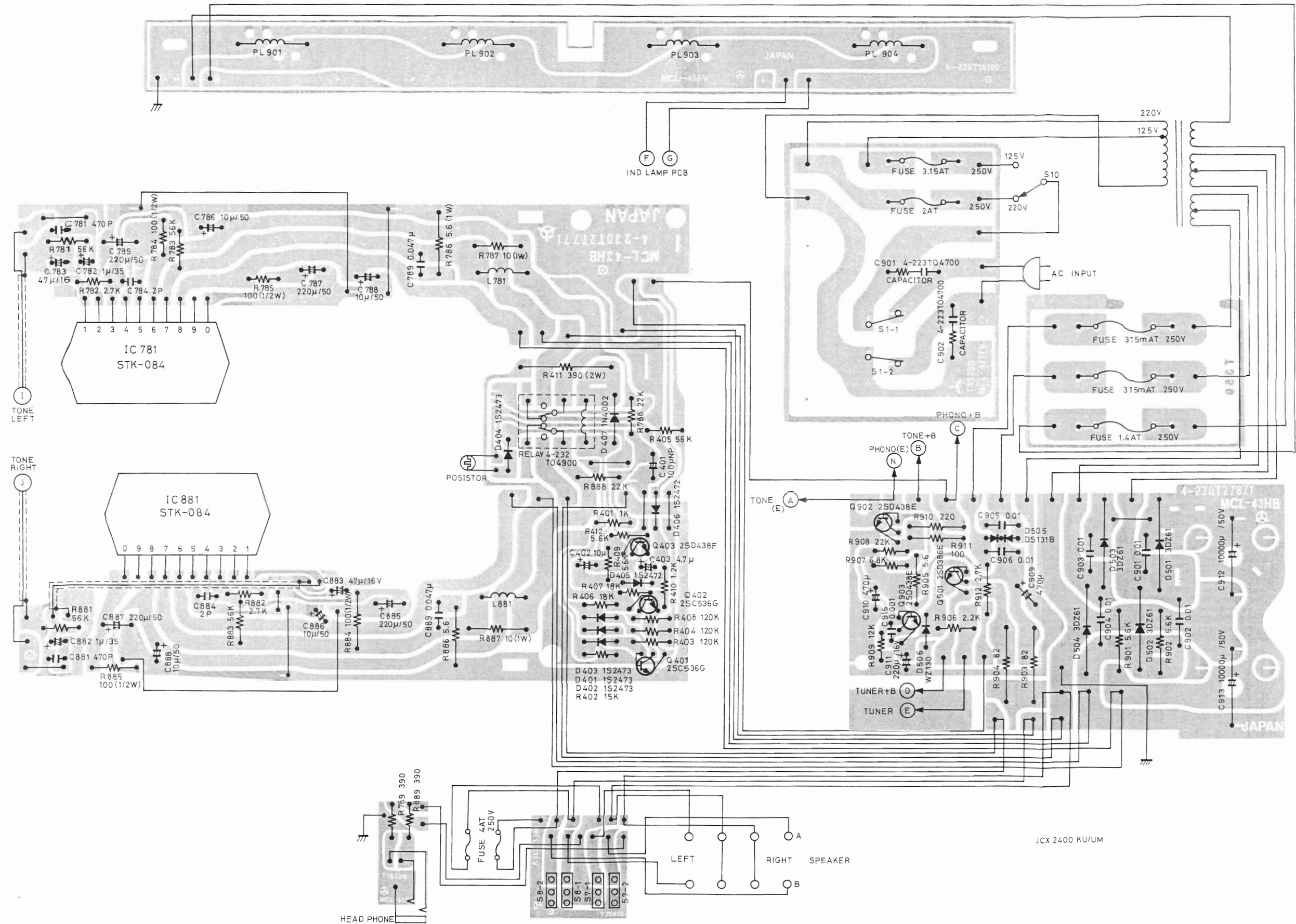
WIRING DIAGRAM (TUNER)



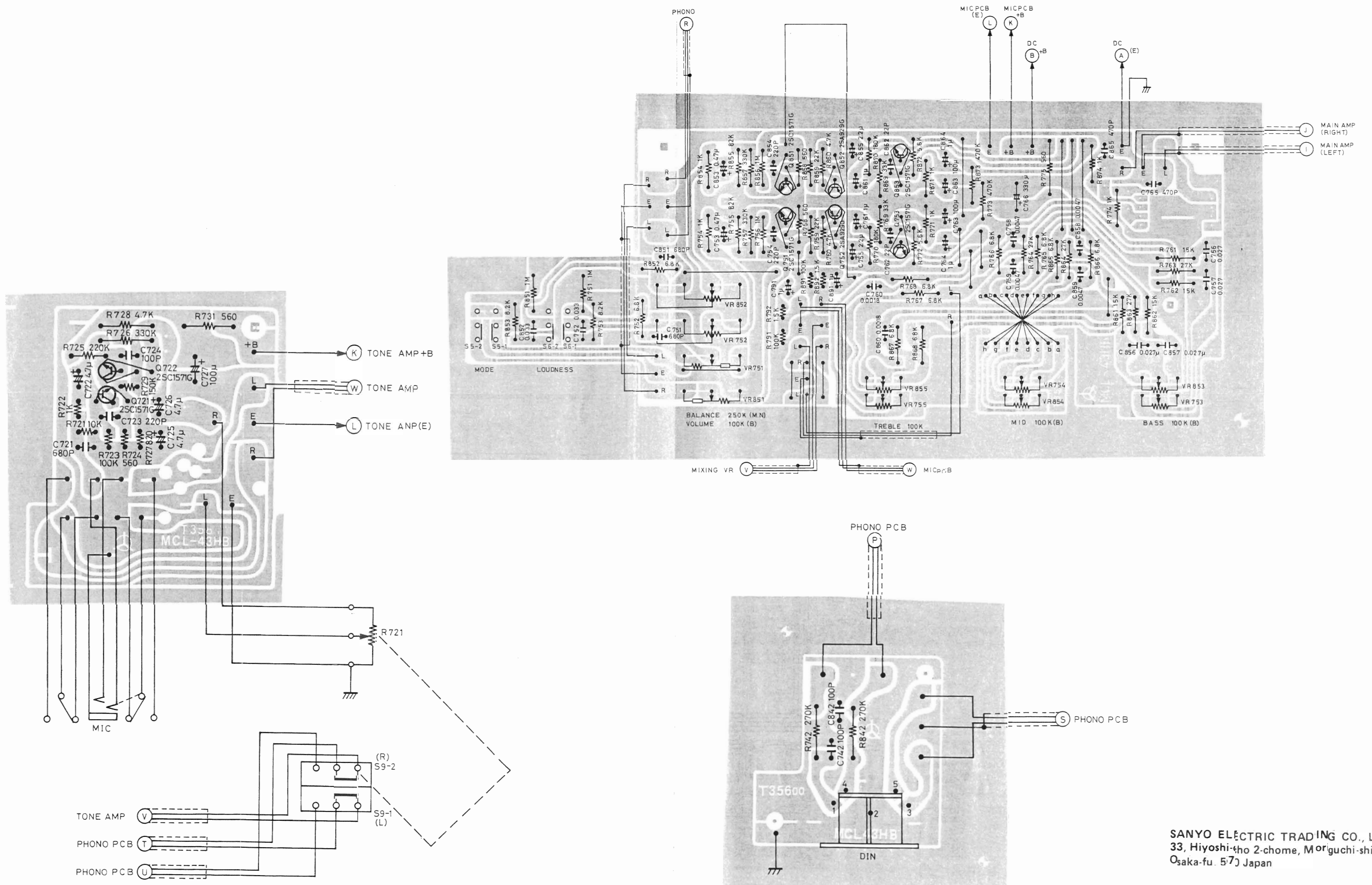
SCHEMATIC DIAGRAM (AMP)



WIRING DIAGRAM (AMP)



WIRING DIAGRAM (PRE AMP.)



SANYO ELECTRIC TRADING CO., LTD.
33, Hiyoshi-cho 2-chome, Moriguchi-shi,
Osaka-fu. 577 Japan