

# SERVICE MANUAL

## PARTS LIST

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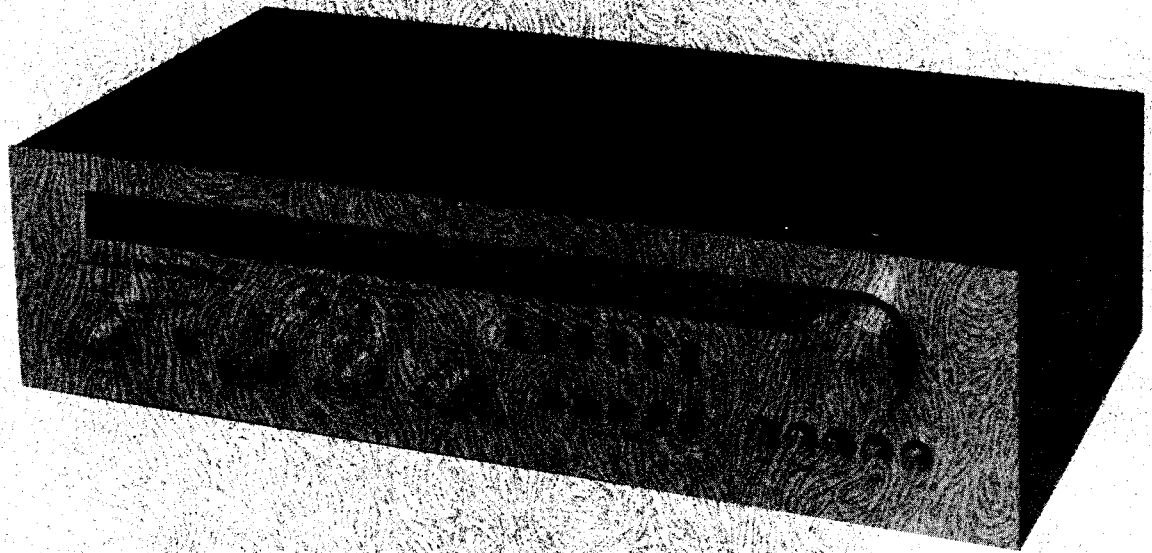
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**MODEL AA-1010L**

**AKATI**



**AKAI STEREO RECEIVER**

**MODEL AA-1010L**

|                  |                                |           |
|------------------|--------------------------------|-----------|
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SECTION 1

**SERVICE MANUAL**

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For basic adjustments, measuring methods, and operating principles, refer to GENERAL OPERATING PRINCIPLES AND ADJUSTMENTS.

# I. TECHNICAL DATA

## POWER AMPLIFIER SECTION

|  |                       |   |
|--|-----------------------|---|
| CONTINUOUS POWER OUTPUT<br>2-CHANNELS DRIVEN |                       | 14 Watts per channel, minimum RMS, at 8 ohms from 40 to 20,000 Hz with no more than 0.8% total harmonic distortion. |
| POWER BANDWIDTH (IHF)                        |                       | 15 Hz to 40 kHz/8 ohms, distortion within 0.8%  |
| SIGNAL TO NOISE RATIO (IHF)                  | PHONO<br>AUX          | Better than 75 dB<br>Better than 90 dB  |
| RESIDUAL NOISE                               |                       | Less than 0.8 mV at 8 ohms  |
| CHANNEL SEPARATION (IHF)                     | PHONO                 | Better than 50 dB at 1,000 Hz   |
| DAMPING FACTOR                               |                       | More than 30 (1 kHz, 8 ohms)  |
| OUTPUT                                       | SPEAKERS<br>HEADPHONE | A, B (4 to 16 ohms)/A+B (8 to 16 ohms)<br>4 to 16 ohms  |

## PRE AMPLIFIER SECTION

|                             |  |  |
|-----------------------------|--|--|
| INPUT SENSITIVITY/IMPEDANCE | PHONO<br>AUX<br>TAPE MONITOR           | 3 mV/47 k ohms<br>150 mV/100 k ohms<br>PIN: 150 mV/100 k ohms<br>DIN: 30 mV/180 k ohms |
| OUTPUT LEVEL/IMPEDANCE      | TAPE REC                               | PIN: 150 mV/100 k ohms<br>DIN: 150 mV/100 k ohms                                       |
| FREQUENCY RESPONSE          | PHONO (RIAA)<br>TUNER/AUX/TAPE MONITOR | 30 Hz to 15 kHz $\pm 1$ dB<br>10 Hz to 70 kHz +0 dB, -2 dB                             |
| TONE CONTROL                | BASS<br>TREBLE                         | $\pm 10$ dB at 100 Hz<br>$\pm 10$ dB at 10 kHz   |
| LOUDNESS CONTROL            |  | +10 dB at 100 Hz, +5 dB at 10 kHz<br>(Volume control set at -30 dB position)           |

## FM TUNER SECTION

|                         |                |  |
|-------------------------|----------------|--|
| FREQUENCY RANGE         |                | 88 MHz to 108 MHz  |
| SENSITIVITY (IHF)       |                | 2.0 $\mu$ V  |
| CAPTURE RATIO           |                | 1.5 dB   |
| SELECTIVITY (IHF)       |                | More than 60 dB  |
| IMAGE REJECTION         |                | More than 55 dB (98 MHz)   |
| IF REJECTION            |                | More than 70 dB (98 MHz)   |
| SPURIOUS REJECTION      |                | More than 70 dB (98 MHz)   |
| AM SUPPRESSION          |                | 50 dB  |
| SIGNAL TO NOISE RATIO   |                | 60 dB  |
| HARMONIC DISTORTION     | MONO<br>STEREO | Less than 0.3% (100% modulation)<br>Less than 0.6% (100% modulation) |
| TUNING INDICATOR        |                | Center Tuning meter and Frequency Indicator meter                    |
| STEREO SEPARATION       |                | More than 40 dB (1 kHz)  |
| SUBCARRIER SUPPRESSION  |                | More than 50 dB  |
| ANTENNA INPUT IMPEDANCE |                | 300 ohms balanced, 75 ohms unbalanced                                |

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## AM TUNER SECTION

|                       |  |
|-----------------------|--|
| FREQUENCY RANGE       | MW: 520 kHz to 1,605 kHz<br>LW: 150 kHz to 350 kHz   |
| SENSITIVITY (IHF)     | MW: 200 $\mu$ V/m (bar antenna) 20 $\mu$ V (ext. antenna)<br>LW: 300 $\mu$ V/m (bar antenna) 30 $\mu$ V (ext. antenna) |
| SELECTIVITY (IHF)     | MW: More than 30 dB<br>LW: More than 30 dB   |
| IMAGE REJECTION       | MW: More than 55 dB (1 MHz)<br>LW: More than 35 dB (240 kHz)   |
| IF REJECTION          | MW: More than 45 dB<br>LW: More than 40 dB   |
| SIGNAL TO NOISE RATIO | MW: More than 45 dB,<br>LW: More than 50 dB  |

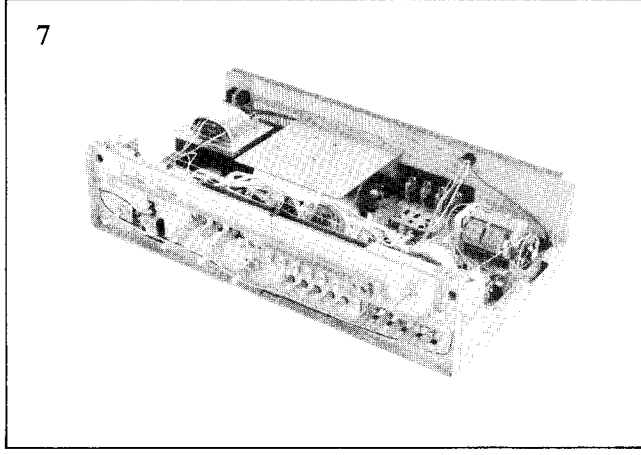
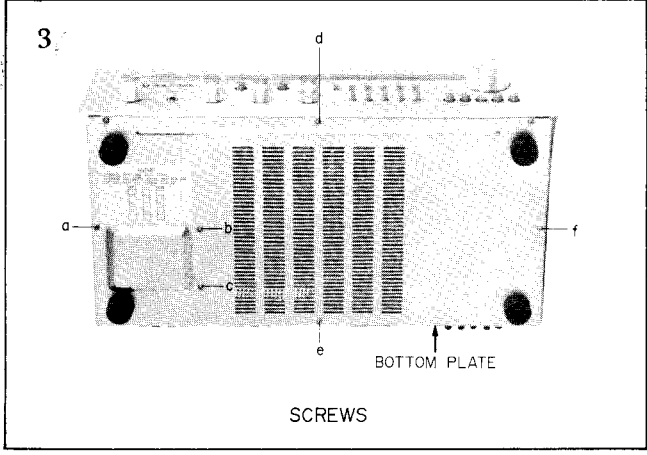
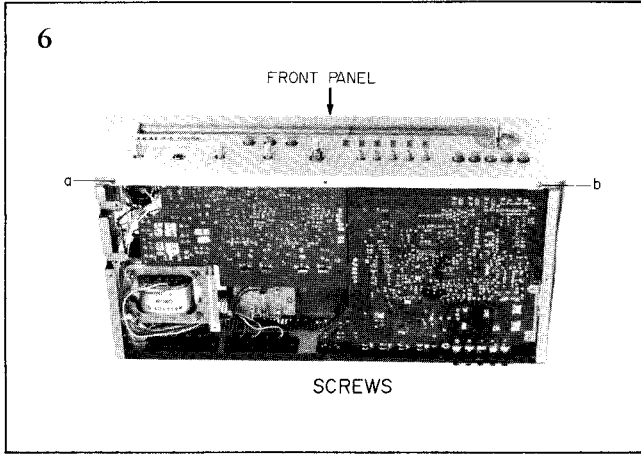
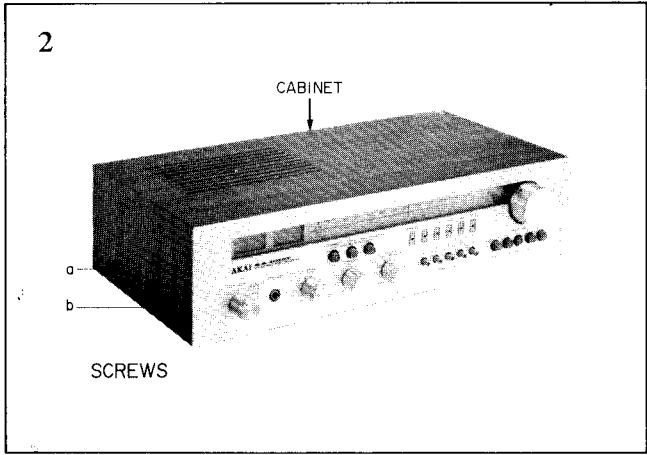
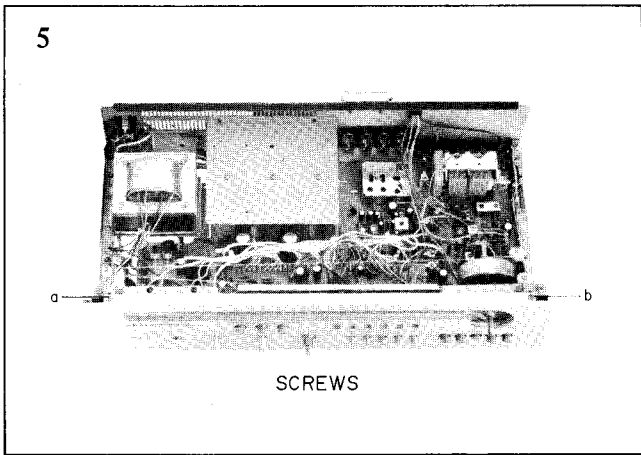
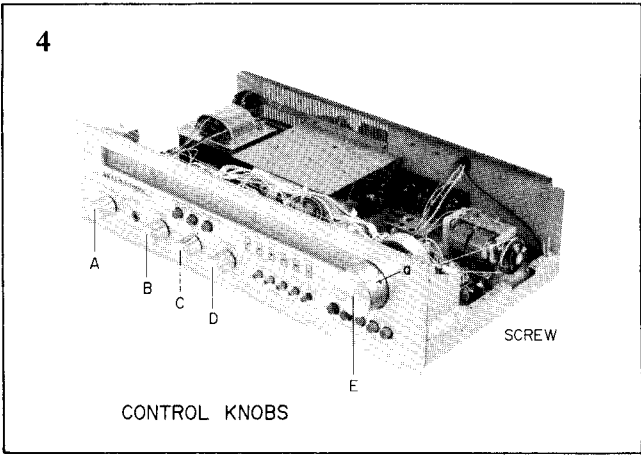
## MISCELLANEOUS

|                    |  |
|--------------------|--|
| SEMI-CONDUCTORS    | Transistors: 27, Diodes: 25, FETs: 2, ICs: 6   |
| POWER REQUIREMENTS | CSA, UL and LA models: 120V, 60 Hz<br>CEE models: 220V, 50 Hz<br>Other models: 110/220/240V, 50/60 Hz switchable |
| DIMENSIONS         | 440(W) x 125(H) x 265(D)mm (17.3 x 4.9 x 10.4")  |
| WEIGHT             | 6.2 kg (13.7 lbs)  |

\* For improvement purposes, specifications and design are subject to change without notice.

## II. DISMANTLING OF UNIT

In case of trouble, etc. necessitating disassembly, please disassemble in the order shown in photographs. Reassemble in reverse order.



### III. CONTROLS

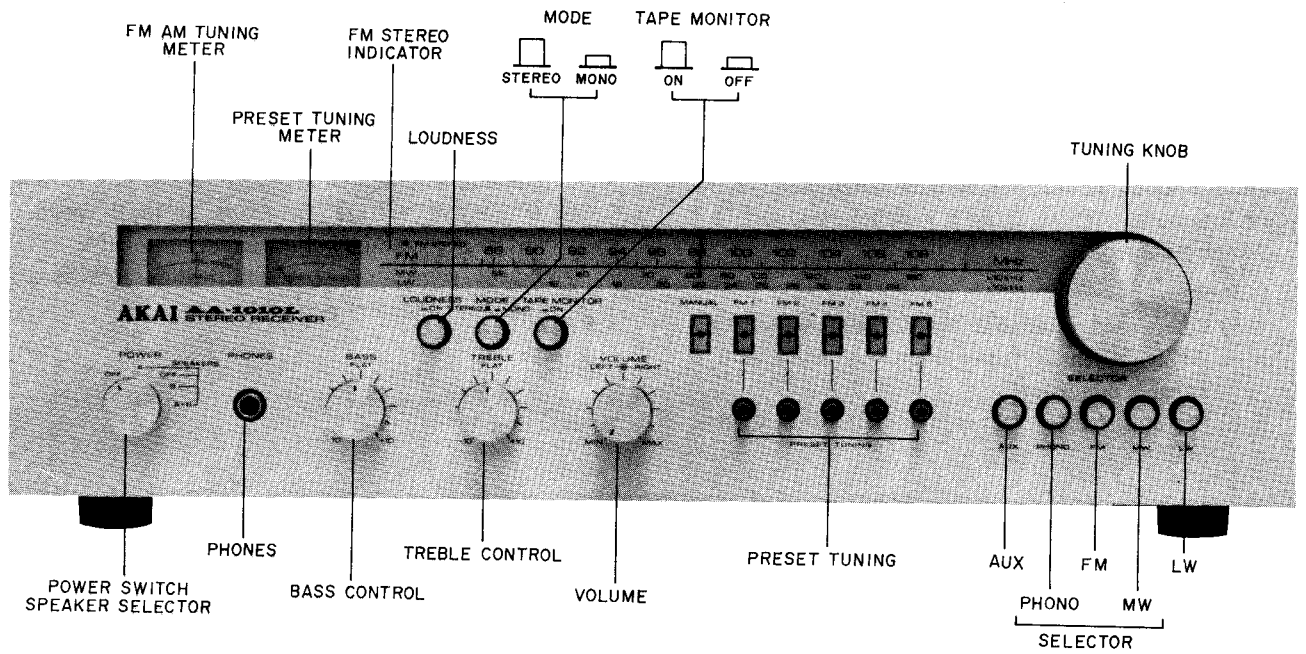


Fig. 1 Controls

### IV. PRINCIPAL PARTS LOCATION

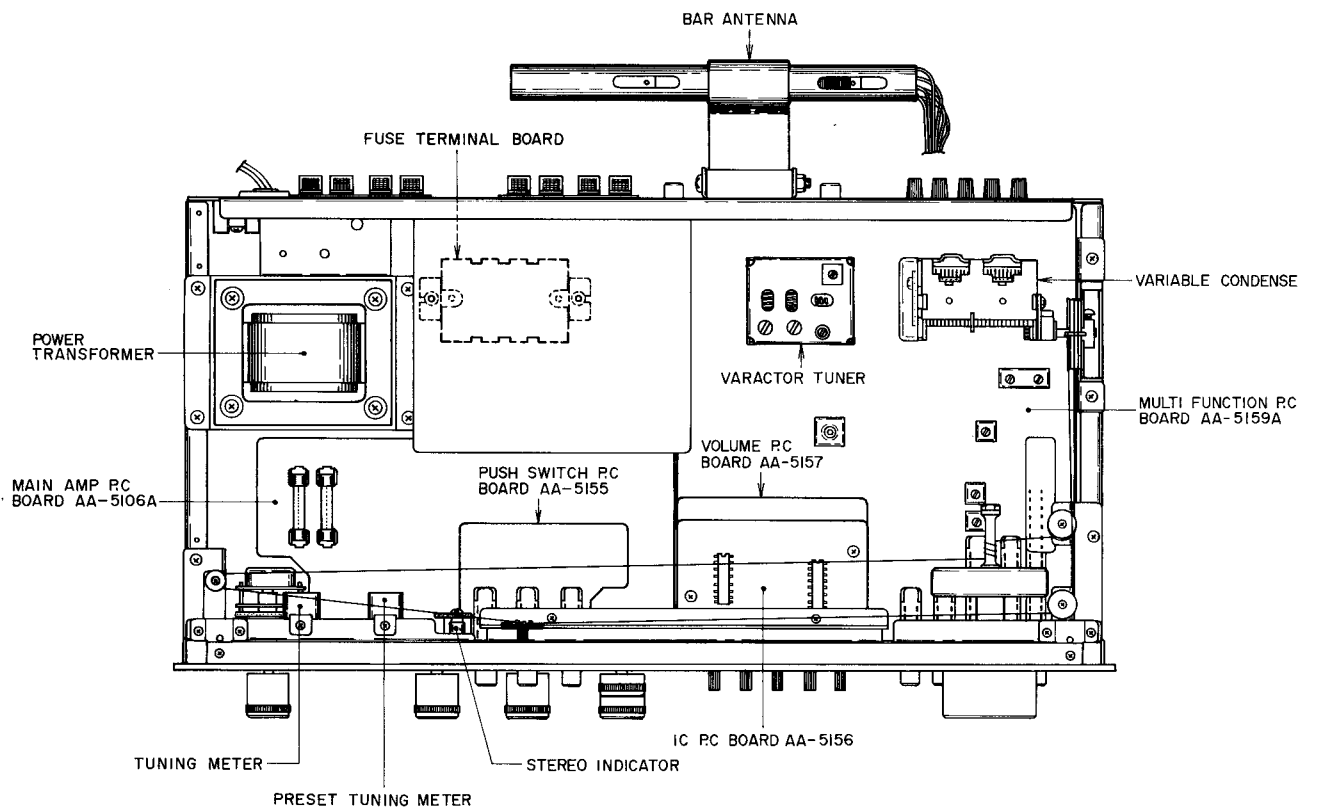


Fig. 2 Top View

# V. VARACTOR TUNER AND PRESET TUNING SYSTEM

## 1. VARACTOR TUNER

A varactor tuner is the tuner system in which varactor diode junction capacitance is varied by means of the inverse bias value applied to the diode for station selection. By employing a varactor diode, tuning which is same as ordinary variable condenser system can be made without using a variable condenser by changing control voltage only.

### 1) Features

- a) When used in an FM tuner, the front end can be made smaller than when compared with a variable condenser.
- b) Station selector button positioning is not limited.

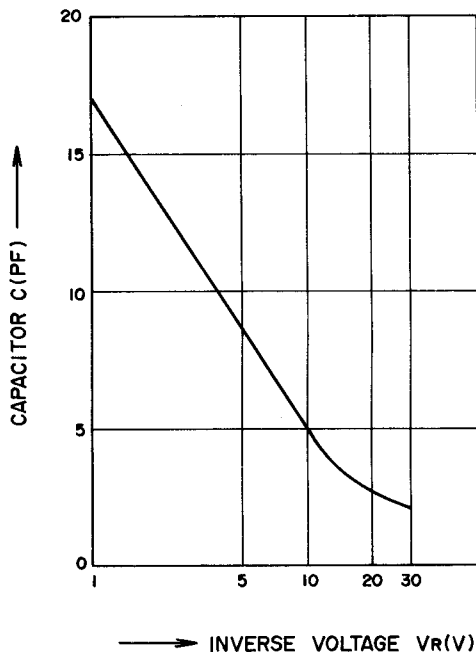


Fig. 3

- c) Station selection by remote control is possible.
- d) Ideal voltage can be set for a certain reception frequency beforehand, and preset tuning can be effected by successively switching the control voltage.
- e) If control voltage sweep is at ideal speed, automatic tuning (search tuning) is possible.
- f) Power consumption is about the same as a variable condenser system.

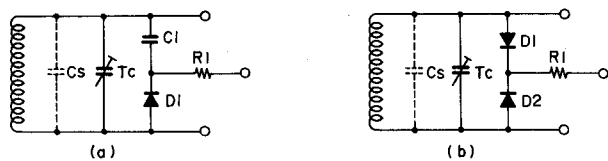


Fig. 4 Tuning circuit employing a varactor diode

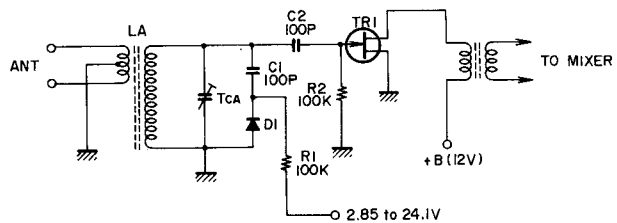


Fig. 5 Example of High Frequency Amplifier Stage Circuit

### 2) Varactor Diode Characteristics

As for varactor diode characteristics, as shown in Fig. 3, capacitance  $C$  is changed by change in inverse voltage  $V_R$ . Further, if this varactor diode is used in a tuning circuit, the following conditions are necessary.

$$\frac{C_{\max} + C_D}{C_{\min} + C_D} = \left( \frac{f_{\max}}{f_{\min}} \right)^2 = K$$

$C_{\max}$ ,  $C_{\min}$  are the maximum and minimum values of varactor diode capacitance change.  $C_D$  is the sum of stray capacitance and trimmer capacitance.  $K$  is over 1.5 because FM broadcast frequency range is 88 to 108 MHz. Figs 4(a) and 4(b) show the actual usage method.



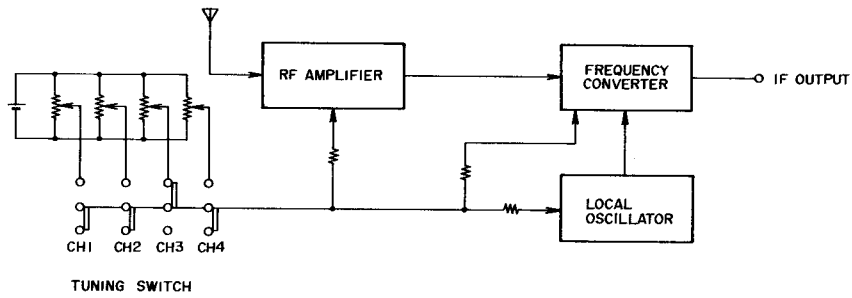


Fig. 6 Block Diagram

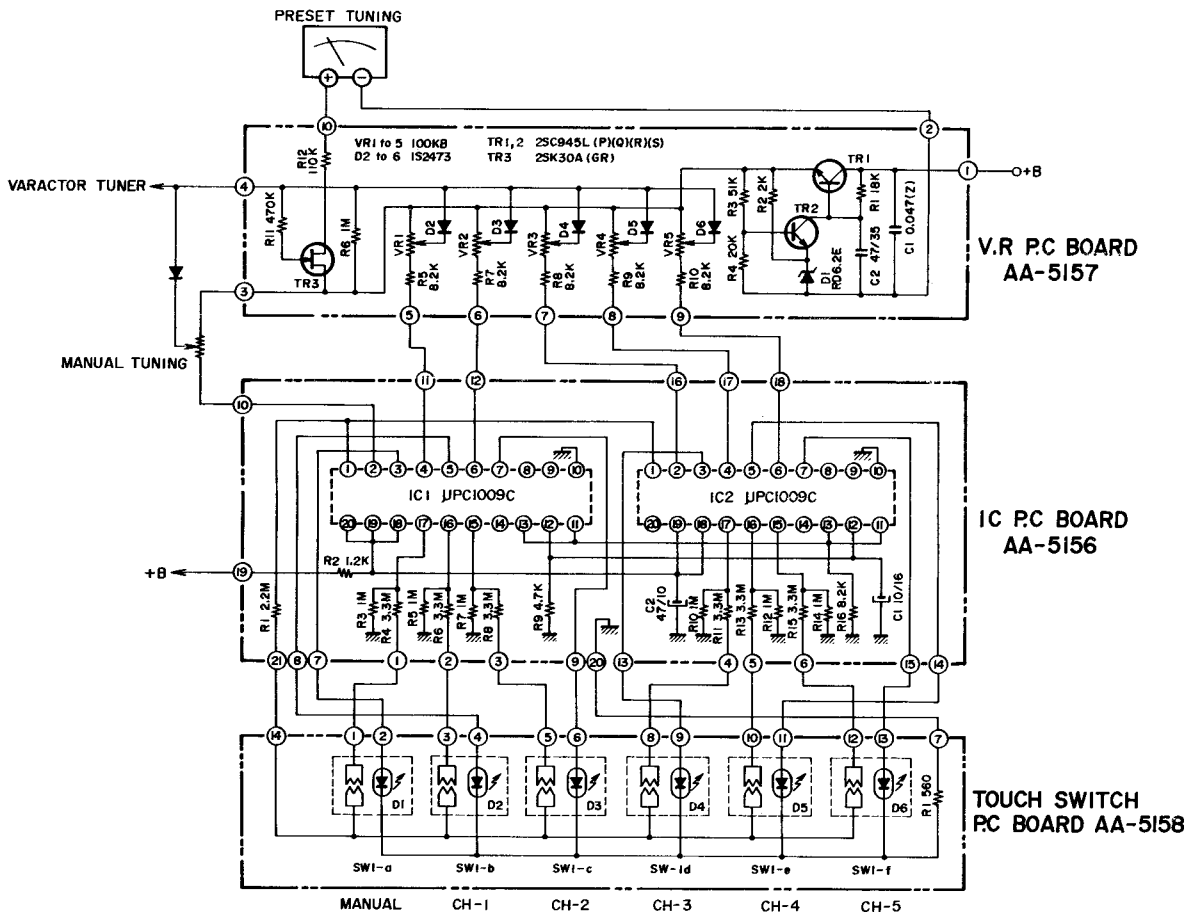


Fig. 7

### 3) Actual Operation

Fig. 5 is a circuit diagram of the high frequency amplifier stage only of a circuit which is actually used. Condenser C1 and varactor diode D1 in the diagram are equivalent to the variable condenser of an ordinary FM front end. As can be understood from Fig. 3, D1 varies the capacitance in a 4 to 16 PF range by means of inverse bias voltage. This capacitance and condenser C1 combined capacitance forms the resonance circuit with coil LA. Consequently, it is satisfactory if at low resonance frequency, the voltage supplied to the varactor diode declines, and at high resonance frequency, the voltage supplied to the varactor diode increases. This voltage variation method with variable resistor, etc., operates in the same way as a regular variable condenser.

This method uses a local oscillator circuit and frequency mixer circuit, and bias voltage is applied to the varactor diode for station selection and is called a varactor tuner. Please refer to the schematic diagram for actual circuit drawing.

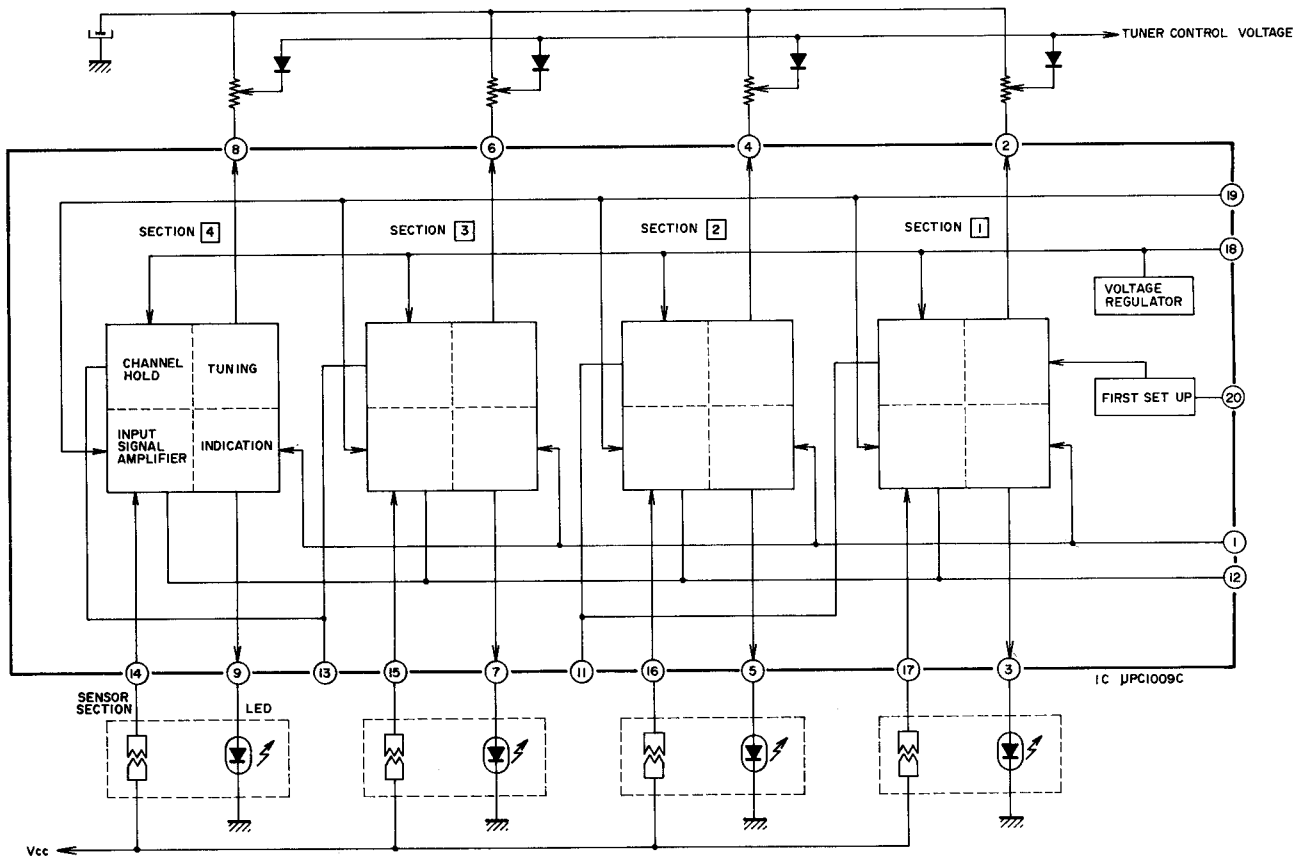


Fig. 8

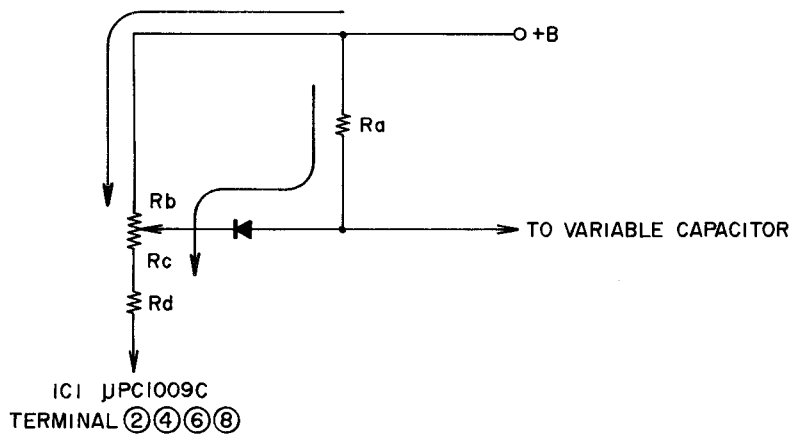


Fig. 9

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## 2. PRESET TUNING SYSTEM

### 1) Preset Station Selection

For preset station selection, there is a mechanical and an electrical method. These are memory equipment and selection equipment enabling desired station selection beforehand and selecting these pre-set stations by simply depressing the respective switches.

An ordinary car radio, etc. utilizes a mechanical station selection system wherein mechanical variation is by means of a variable condenser or positioning of a dust core inside a coil.

Model AA-1010L utilizes an electrical station selection system and employs the varactor tuner explained in a previous item.

- 2) An example of a station selection system employing a varactor tuner is shown in Fig. 6. For station selection, push switches are used for selection of voltage supply to the varactor tuner. However, in the AA-1010L, these station selection push switches are pure electronic system sensi-touch switches.

### 3) Sensi-touch Employed Preset Station Selection System Operation

The circuit shown in Fig. 7 is the control voltage generating preset volume and sensi-touch circuit. Fig. 8 shows the inside of circuit sensi-touch IC  $\mu$ PC1009C which include the 4 channel circuitry. Terminals 14 through 17 are the input terminals; terminals ②, ④, ⑥, and ⑧ are the station selection output terminals; and terminals ③, ⑤, ⑦, and ⑨ are the pilot output terminals. When channel 1 sensor electrode is touched, voltage is supplied to the IC as the input signal through finger (body) resistance at terminal ⑰. Then, the impedance is lowered at IC station selector output terminal ② and current flows as shown by the arrow marks in Fig. 9. Consequently, because the supply voltage to the varactor tuner diode is changed by the dividing ratio of  $R_b$  and  $R_c$ , station selection is possible by means of setting the preset volumes beforehand according to the desired broadcast frequencies.

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# VI. TUNER ADJUSTMENT

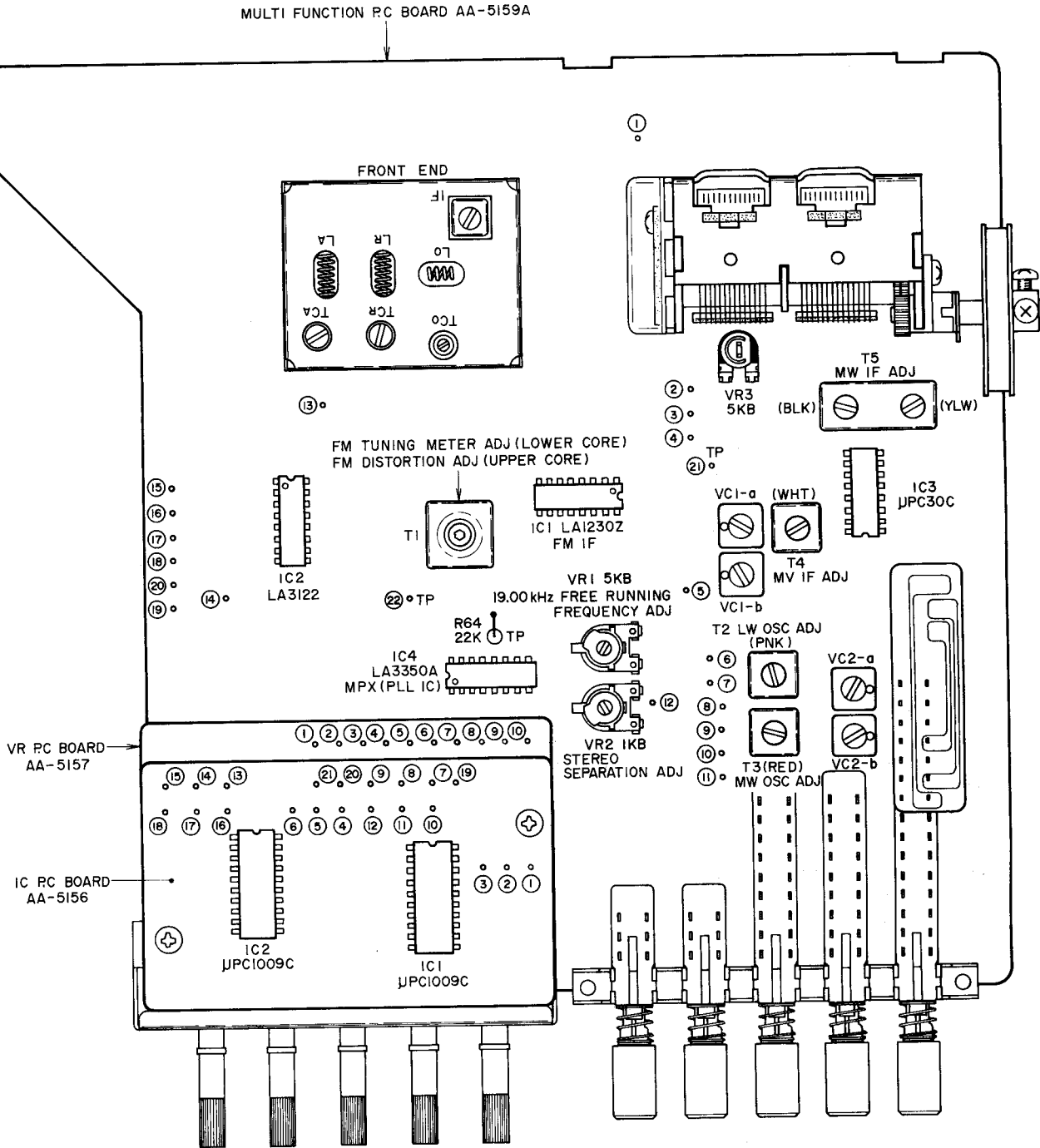


Fig. 10 Multi Function P.C Board AA-5159A

## 1. FM SECTION ADJUSTMENT (Refer to Fig. 10)

| Step | Adjustment Item                         | Adjustment Point   | Result                                  | Remarks   |
|------|---|--|---|---|
| 1    | Front End<br>IF Coil<br>Adjustment      | IF Coil<br>(Front End)                                       | Maximum<br>noise level                  | Depress FM Selector.<br>Tune only noise without<br>interference of broadcasts.      |
| 2    | Tuning Meter<br>Centering<br>Adjustment | T1 lower side core<br>(Multi-Function<br>P.C Board AA-5159A) | Center<br>indication of<br>tuning meter | Same as above   |
| 3    | Distortion<br>Factor<br>Adjustment      | T1 upper side core<br>(Multi-Function<br>P.C Board AA-5159A) | Less than<br>0.3% distortion<br>factor  | 108 MHz, 60 dB (mono) input.<br>Less than 0.3% distortion<br>factor, both channels. |

| Step | Adjustment Item                          | Adjustment Point   | Result                           | Remarks  |
|------|--|--|----------------------------------|--|
| 4    | Confirmation of Tuning Meter Indication  |  |                                  | If Tuning Meter indication is not at center position, repeat steps 2 and 3 above.  |
| 5    | High Range Frequency Coverage Adjustment | TCO trimmer condenser (Front End)                        |                                  | 108 MHz, 60 dB(mono) input. Error: Within $\pm 250$ kHz.   |
| 6    | High Range Sensitivity Adjustment        | TCR, TCA trimmer condensers (Front End)                  | Less than 3.0% distortion factor | 108 MHz, Less than 12 dB (mono) input.   |
| 7    | Low Range Frequency Coverage Adjustment  | VR3, 5 k $\Omega$<br>(Multi-Function P.C Board AA-5159A) |                                  | 88 MHz, 60 dB (mono) input. Error: Within $\pm 250$ kHz.   |
| 8    | Low Range Sensitivity Confirmation       |  | Less than 3.0% distortion factor | 88 MHz, Less than 12 dB (mono) input. Refer to Note 1.   |
| 9    | Mid-Range Sensitivity Confirmation       |  | Less than 3.0% distortion factor | 98 MHz, Less than 12 dB (mono) input. Error: Within $\pm 250$ kHz. Refer to Note 1.  |
| 10   | PLL IC Free Running Frequency Adjustment | VR1, 1 k $\Omega$<br>(Multi-Function P.C Board AA-5159A) | 19.00 kHz                        | Connect Frequency Counter to R64 22 k ohms. Refer to Note 2.   |
| 11   | Stereo Indicator Lighting Confirmation   |  |                                  | 98 MHz, 60 dB (stereo) input. When the stereo indicator fails to light, this means that broadcast is not being received in stereo. |
| 12   | Stereo Separation Adjustment             | VR2, 1 k $\Omega$<br>(Multi-Function P.C Board AA-5159A) | Better than 40 dB                | 98 MHz, 60 dB (stereo) left channel input. Distortion Factor must be less than 0.6%.   |
| 13   | Stereo Separation Adjustment             |  | Better than 40 dB                | 98 MHz, 60 dB (stereo) right channel input. Distortion factor must be less than 0.6%. Refer to Note 3.                             |

Chart 1

NOTE 1. In the event that the distortion factors in Steps 8 and 9 are not less than 3%, re-adjust Front End Trimmer Condensers TCR and TCA to obtain a minimum average distortion factor at 88, 98, and 108 MHz (same distortion factor at all three points).

NOTE 2. PLL IC Free Running Frequency must be an exact 19.00 kHz.

NOTE 3. If the distortion factor is not less than 0.6%, turn IF Coil in Step 1 within 1/2 turn and adjust.

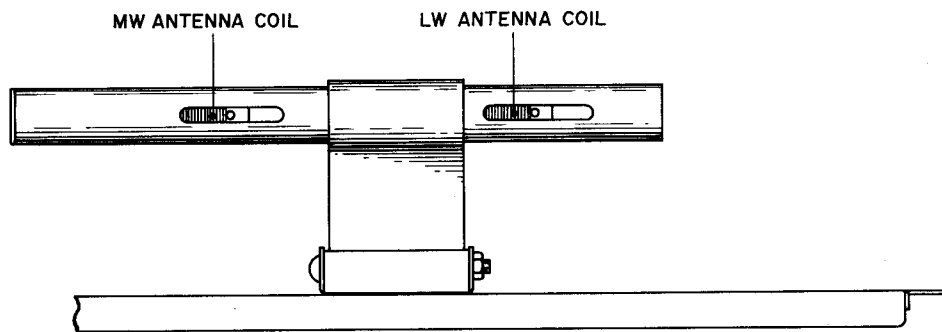


Fig. 11 Bar Antenna

2. LW SECTION ADJUSTMENT (Refer to Figs. 10 and 11)

| Step | Adjustment Item                               | Adjustment Point  | Result                 | Remarks  |
|------|---|---|------------------------|--|
| 1    | Low Range Frequency Coverage Adjustment       | T2 (PNK)<br>(Multi-Function<br>P.C Board AA-5159A)  | Error;<br>Within 2%    | Depress LW Selector.<br>160 kHz, optional input. |
| 2    | Low Range Sensitivity Adjustment              | Bar Antenna<br>LW coil T4<br>(YLW. BLK)<br>T5 (WHT)<br>(Multi-Function<br>P.C Board AA-5159A) | Maximum<br>Sensitivity | 160 kHz, optional input.                         |
| 3    | High Range Frequency Coverage Adjustment      | VC 2a<br>(Multi-Function<br>P.C Board AA-5159A)   | Error;<br>Within 2%    | 340 kHz, optional input.                         |
| 4    | High Range Sensitivity Adjustment             | VC 1a<br>(Multi-Function<br>P.C Board AA-5159A)   | Maximum<br>Sensitivity | 340 kHz, optional input.                         |
| 5    | Frequency Coverage and Sensitivity Adjustment |   |                        | Repeat Steps 1 through 4<br>several times.       |

Chart 2

### 3. MW SECTION ADJUSTMENT (Refer to Figs. 10 and 11)

| Step | Adjustment Item                               | Adjustment Point                                   | Result                 | Remarks  |
|------|---|--|------------------------|--|
| 1    | Low Range Frequency Coverage Adjustment       | T3 (RED)<br>(Multi-Function<br>P.C Board AA-5159A) | Error:<br>With 2%      | Depress MW Selector.<br>520 kHz, optional input. |
| 2    | Low Range Sensitivity Adjustment              | Bar Antenna<br>MW coil                             | Maximum<br>Sensitivity | 520 kHz, optional input.                         |
| 3    | High Range Frequency Coverage Adjustment      | VC 2b<br>(Multi-Function<br>P.C Board AA-5159A)    | Error:<br>Within 2%    | 1,400 kHz, optional input.                       |
| 4    | High Range Sensitivity Adjustment             | VC 1b<br>(Multi-Function<br>P.C Board AA-5159A)    | Maximum<br>Sensitivity | 1,400 kHz, optional input.                       |
| 5    | Frequency Coverage and Sensitivity Adjustment |  |                        | Repeat Steps 1 through 4<br>several times.       |

Chart 3

## VII. MAIN AMP ADJUSTMENT

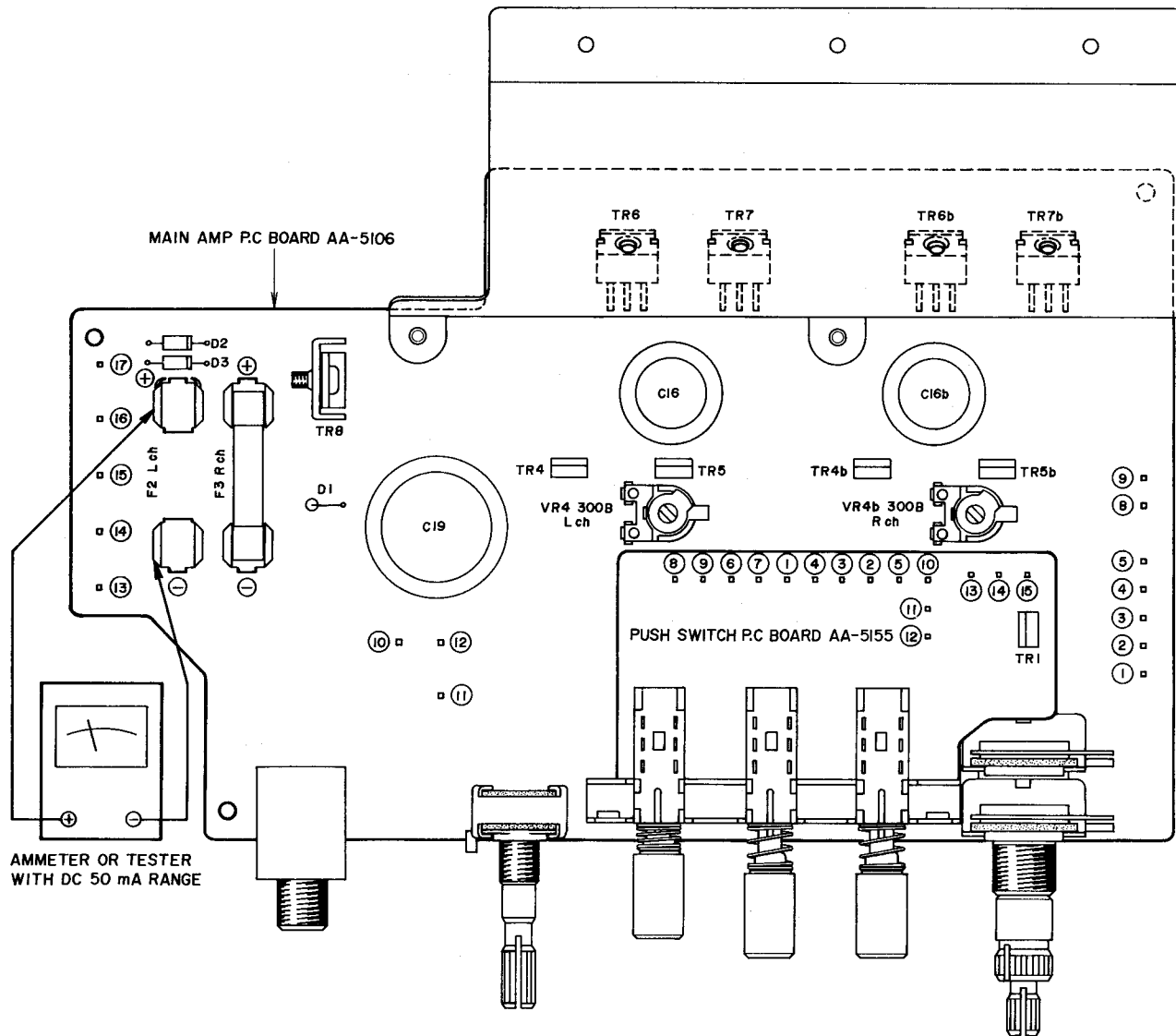


Fig. 12 Main Amp P.C Board AA-5106

### Idling Current Adjustment (Refer to Fig. 12)

1. Remove Power Fuses F2 2A (left channel) and F3 2A (right channel) and connect an ammeter to these terminals.
2. At non-signal input, adjust Semi-fixed Resistors VR4 300B (left channel) and VR4b 300B (right channel) to obtain a 20 mA idling current.



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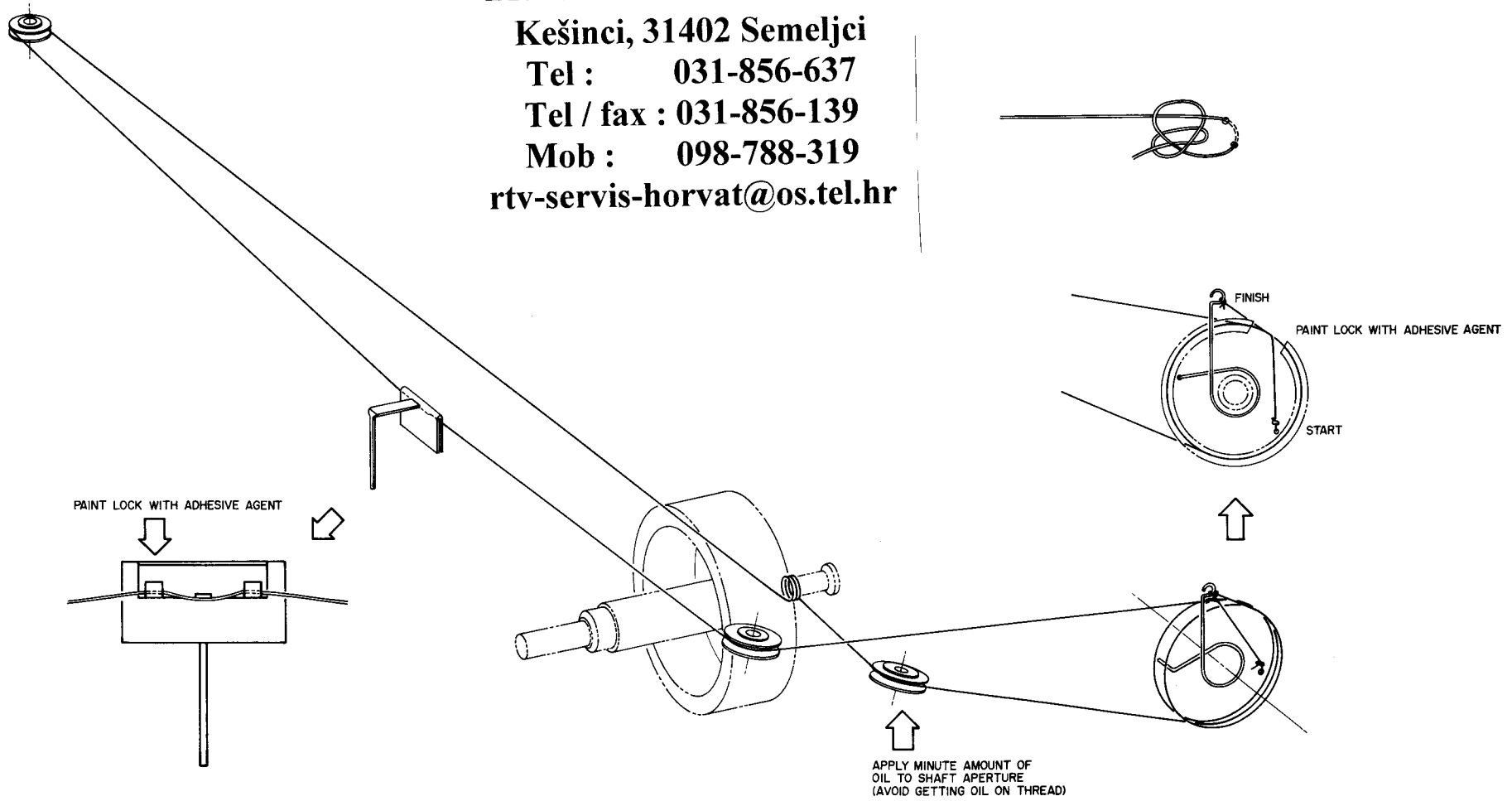


Fig. 13 Tuning Cord Threading

# IX. CLASSIFICATION OF VARIOUS P.C BOARD

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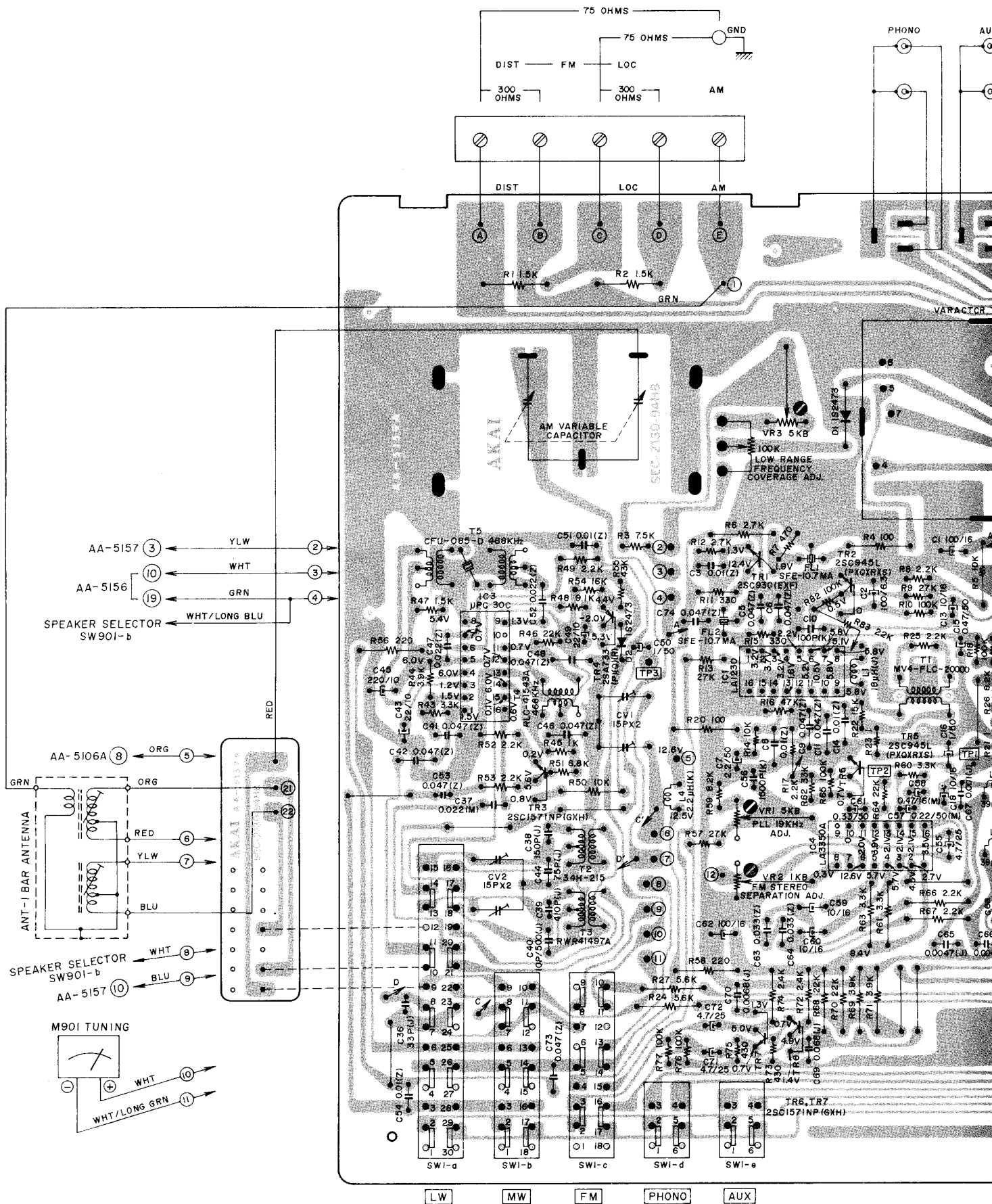
## 1. RELATION OF P.C BOARD TITLE AND IDENTIFICATION NUMBER

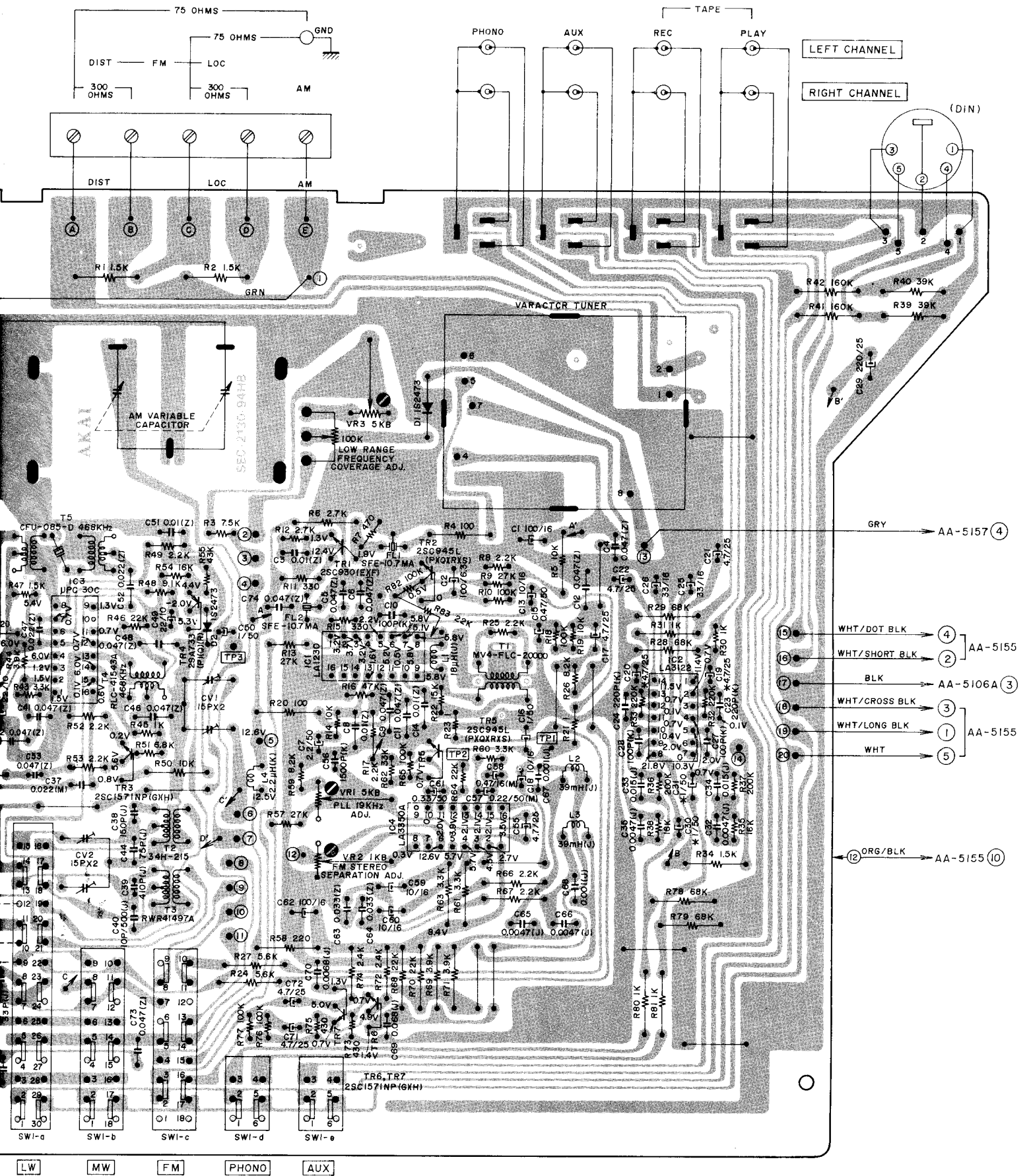
| P.C Board              | Number of P.C Board |
|------------------------|---------------------|
| MFC P.C Board          | AA-5159A            |
| Main Amp P.C Board     | AA-5106             |
| Touch Switch P.C Board | AA-5158             |
| Volume P.C Board       | AA-5157             |
| IC P.C Board           | AA-5156             |
| Push Switch P.C Board  | AA-5155             |
| LED P.C Board          | AA-5159C            |

Chart 4

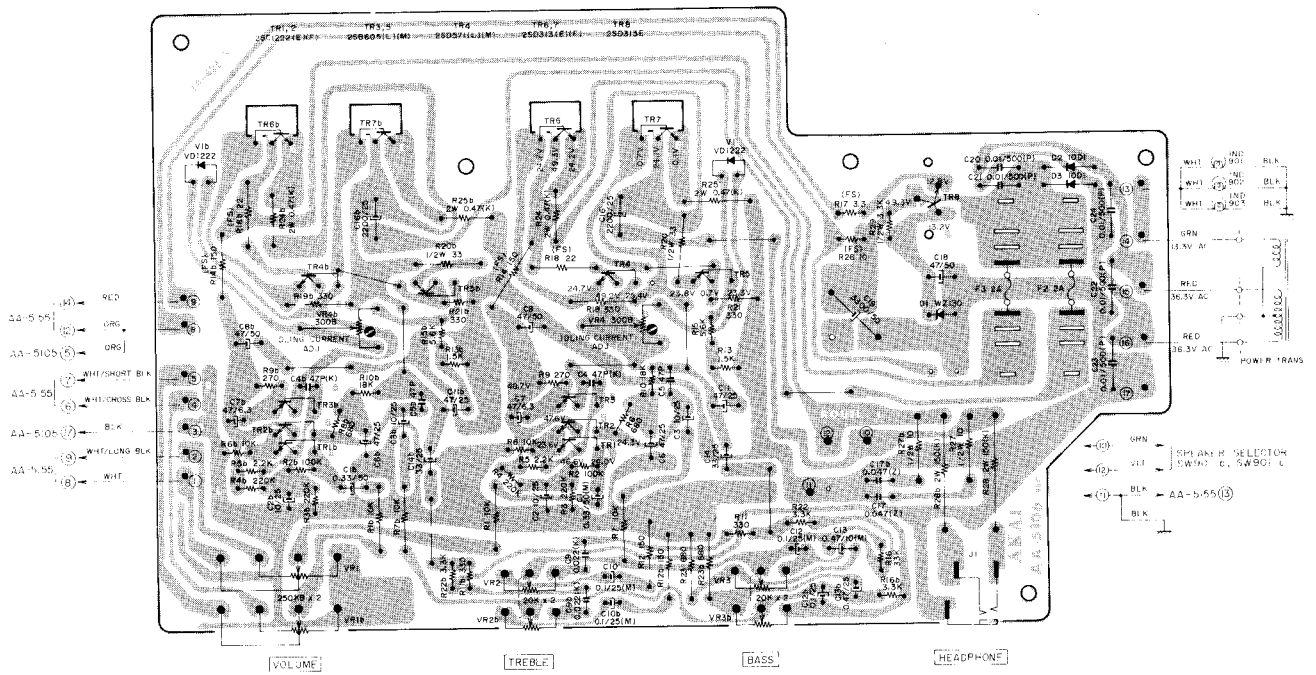
## 2. COMPOSITION OF VARIOUS P.C BOARD

### 1) MFC P.C BOARD AA-5159A & JUMPER P.C BOARD AA-5159B

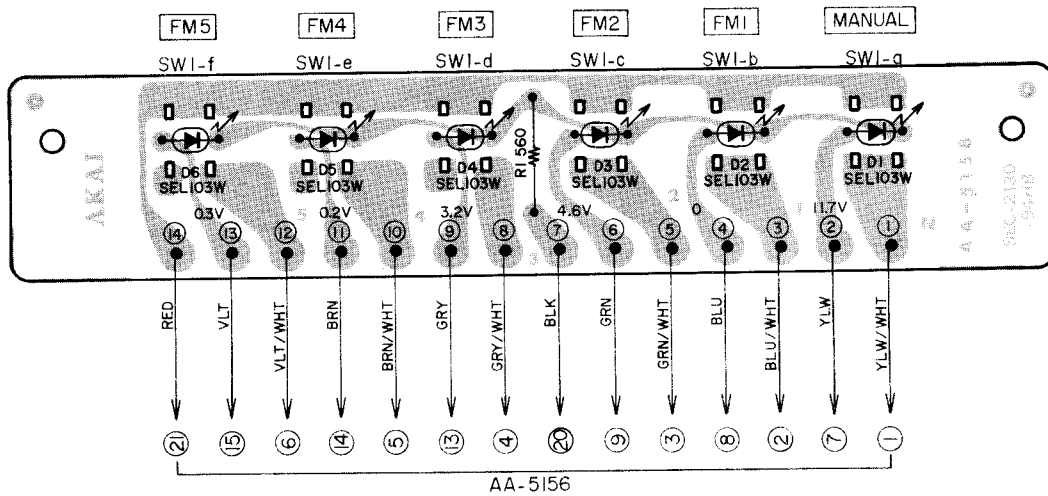




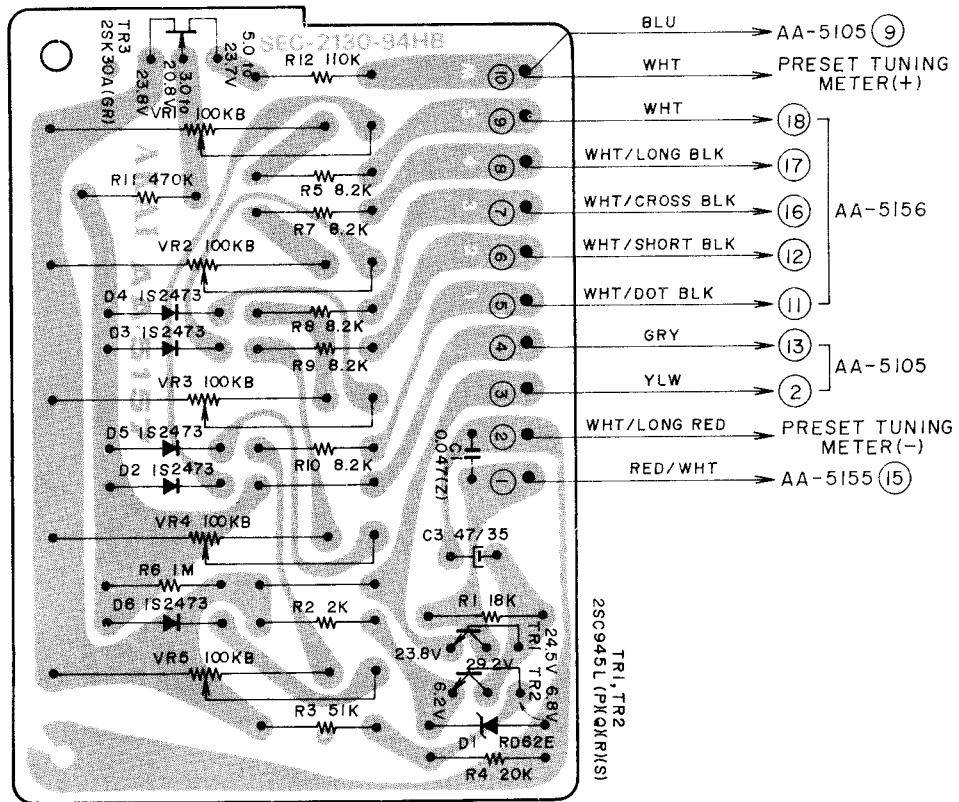
## 2) MAIN AMP P.C BOARD AA-5106



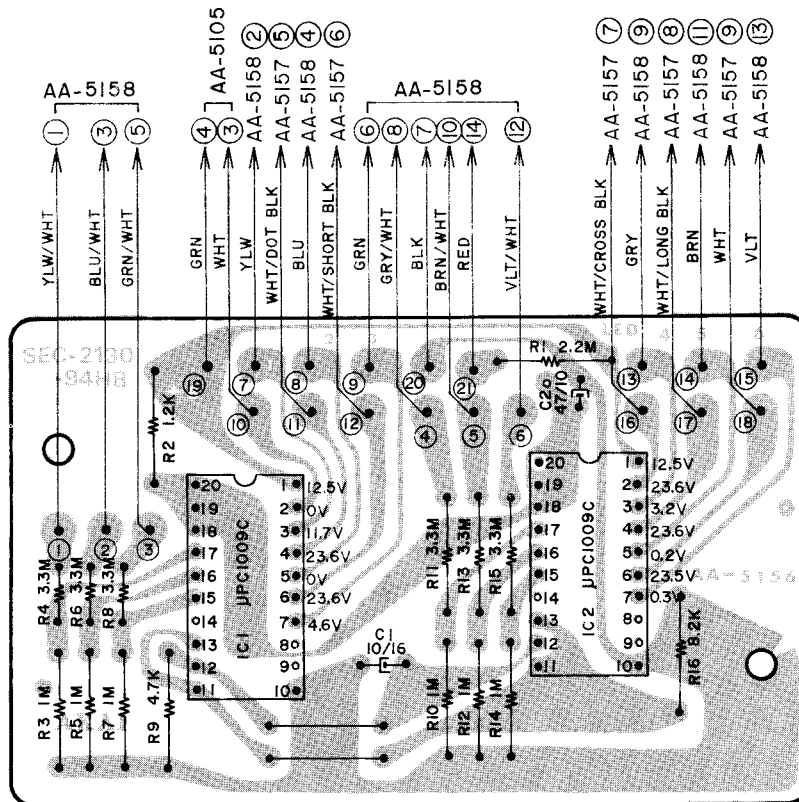
## 3) TOUCH SWITCH P.C BOARD AA-5156



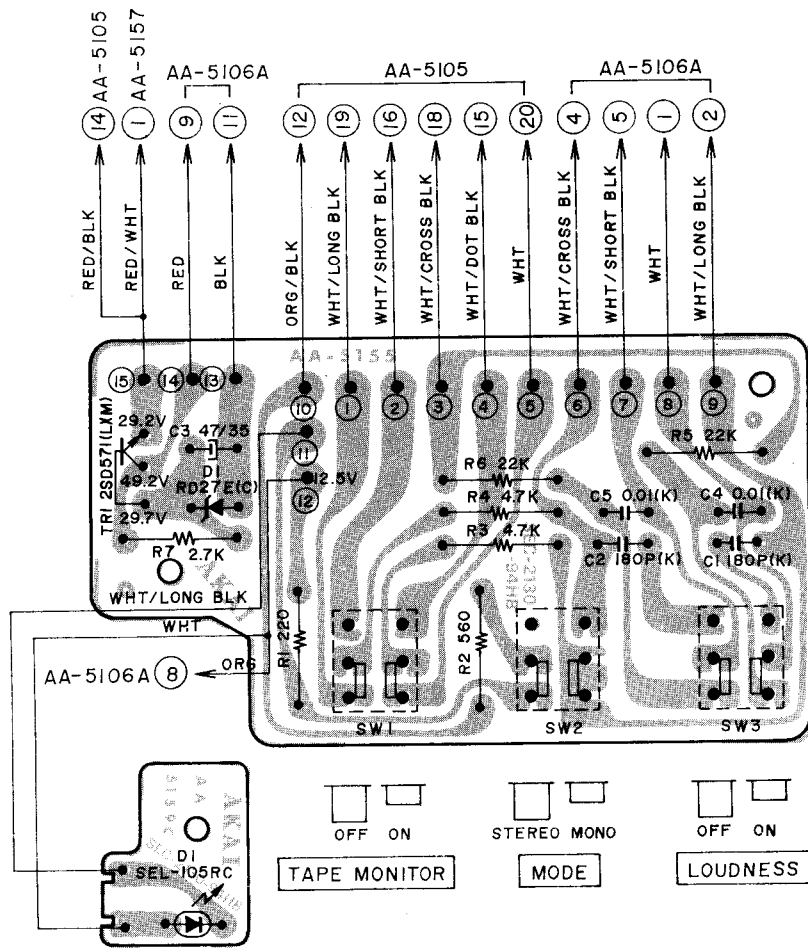
4) VOLUME P.C BOARD AA-5157



5) IC P.C BOARD AA-5156



6) PUSH SWITCH P.C BOARD AA-5155 & LED P.C BOARD AA-5159C



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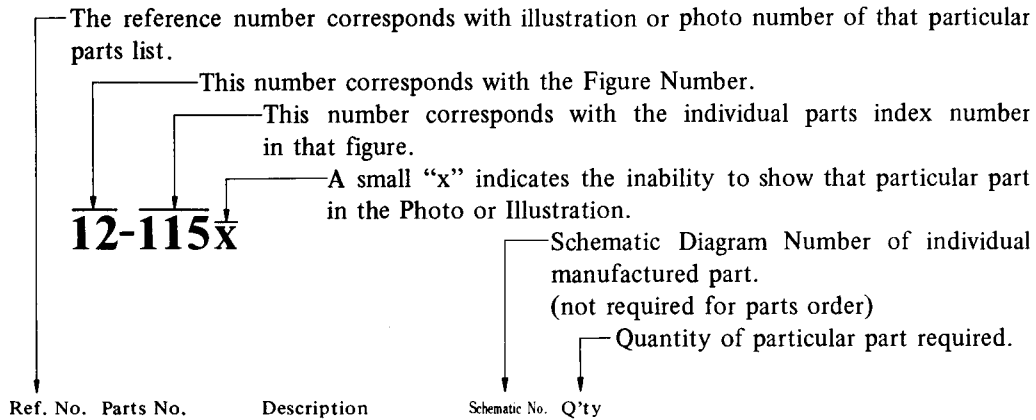
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## HOW TO USE THIS PARTS LIST

1. This parts list is compiled by various individual blocks based on assembly process.
2. When ordering parts, please describe parts number, serial number, and model number in detail.
3. How to read list.



| Ref. No.                  | Parts No. | Description                | Schematic No. | Q'ty |
|---------------------------|-----------|----------------------------|---------------|------|
| <b>FLYWHEEL BLOCK #13</b> |           |                            |               |      |
| 12-115x                   | 800425    | Flywheel Block Assy. Comp. | RDG #13       | 1    |
| 12-116                    | 244506    | Flywheel Only              | RD-233        | 1    |
| 12-117x                   | 244754    | Felt, Flywheel             | RD-275        | 1    |
| 12-118                    | 251324    | Main Metal Case            | RD-236        | 1    |
| 12-119                    | 253080    | Main Metal                 | RD-237        | 1    |

4. The symbol numbers shown on the P.C. Board list can be matched with the Composite Views of components of the Schematic Diagram or Service Manual.
5. Please utilize separate "Common List for Service Parts" for Resistor parts orders.
6. The shape of the parts and parts name, etc. can be confirmed by comparing them with the parts shown on the Electrical Parts Table of P.C. Board.
7. Both the kind of part and installation position can be determined by the Parts Number. To determine where a parts number is listed, utilize Parts Index at end of Parts List.  
It is necessary first of all to find the Parts Number. This can be accomplished by using the Reference Number listed at right of parts number in the Parts Index. (meaning of ref. no. outlined in Item 3 above).
8. Utilize separate "Price List for Parts" to determine unit price. The most simple method of finding parts Price is to utilize the reference number.

- CAUTION:**
1. When placing an order for parts, be sure to list the parts no. model no., and description. There are instances in which if any of this information is omitted, parts cannot be shipped or the wrong parts will be delivered.
  2. Please be careful not to make a mistake in the parts no. If the parts no. is in error, a part different from the one ordered may be delivered.



## 1. RECOMMENDED SPARE PARTS LIST

Because, if the parts listed below are on hand, almost any repair can be accomplished, we suggest that you stock these Recommended Spare Parts Items.

| Parts No. | Parts Nomenclature                      | Note                   |
|-----------|---|------------------------|
| BA235225  | Main Amp P.C Board Comp. AA-5106A       |                        |
| BA235236  | Main Amp P.C Board Comp. AA-5106A       | CEE                    |
| BA235258  | Multi Function P.C Board Comp. AA-5159A |                        |
| BA235247  | LED P.C Board Comp. AA-5106B            |                        |
| BA235146  | Push SW. P.C Board Comp. AA-5155        |                        |
| BA235157  | Vol. P.C Board Comp. AA-5157            |                        |
| BA235203  | IC P.C Board Comp. AA-5156              |                        |
| BA235170  | Touch SW. P.C Board Comp. AA-5158       |                        |
| BC699783  | Cabinet AA-5123                         | Same as AA-1010        |
| BD235078  | Front Panel Block Comp.                 |                        |
| BT699805  | Power Trans. AA-1010T-5                 | Same as AA-1010        |
| BT215133  | Power Trans. AA-1010T-7                 | Same as AA-1010<br>CEE |
| BT633025  | LW OSC. Trans. 34H-215                  |                        |
| EC240298  | Vari. Con C626W                         |                        |
| EC675742  | Trimmer Condenser CTY-21D 15PF          |                        |
| ED240366  | Zener Diode RD27E(C)                    |                        |
| ED229803  | Zener Diode RD6.2E                      |                        |
| ED653624  | Luminous Diode SEL-103W                 |                        |
| EE240041  | Bar Antenna (MW/LW)                     |                        |
| EI229443  | IC $\mu$ PC1009C                        |                        |
| EI669047  | IC LA1230Z                              | Same as AA-1010        |
| EI697871  | IC LA3122                               | "                      |
| EI650362  | IC $\mu$ PC30C                          | "                      |
| EI650597  | IC LA3350A                              | "                      |
| EJ655683  | 4P Speaker Jack                         | "                      |
| EL650193  | Lamp (Cord Type) 14V 100 mA (650m/mx2)  | "                      |
| EM655727  | Tuning Meter KL-218D-94                 |                        |
| EM240311  | Pre-set Tuning Meter                    |                        |
| EO650608  | Discriminator Coil MV4-FLC-20000        | Same as AA-1010        |

| Parts No. | Parts Nomenclature                           | Note            |
|-----------|--|-----------------|
| EO645838  | OSC Coil RWR41497A                           |                 |
| EO650373  | AM-IF Trans. RLC-41543A 468 kHz              | Same as AA-1010 |
| EO650384  | AM-IF Trans. CFU-085-D 468 kHz               |                 |
| ES240355  | Rotary SW. SR26N 1-3-5 30 KC                 |                 |
| ES240287  | Rotary SW. SR26N 30 KC                       |                 |
| ES240096  | Push SW. 3FT-0001FF2120                      |                 |
| ES240276  | Push SW. 5FT-0001DF3620                      |                 |
| EV240434  | Double axial 2 throw Vol (FR) DJ80D 250 kBx2 |                 |
| EV240445  | Single axial 2 throw Vol. GM70R 20 kCx2      |                 |
| EV229915  | Pre-set Vol. (w/knob) LFQDR504 100 kB        |                 |
| EV499364  | Semi-fixed Vol. V10K8-4-2 5 kB               | Same as AA-1010 |
| EV484863  | Semi-fixed Vol. V10K8-4-2 1 kB               | ”               |
| EZ655187  | 5P Antenna Terminal Plate                    | ”               |
| SB607138  | Push Knob C A5-5022                          |                 |
| SK646817  | Single Knob AA-5250                          |                 |
| SK644670  | Double Knob (Upper) AA-5355                  | Same as AA-1010 |
| SK645208  | Double Knob (Lower) AA-5353                  | ”               |
| SK646828  | Tuning Knob (Small ) AA-5252                 | ”               |
| SZ645243  | Circular Foot A CA-6014                      | ”               |
| TA240300  | Varactor Tuner VFT-22MH-21                   |                 |

**2. MULTI FUNCTION P.C BOARD  
(AA-5159A) BLOCK  
(JUMPER P.C BOARD (AA-5159B) BLOCK)**

| Symbol No. | Parts No. | Description                                     | Schematic No. | Q'ty |
|------------|-----------|---|---------------|------|
| 2-1        | BA235258  | Multi Function P.C Board Comp. (AA-5159A)       |               | 1    |
| 2-IC1      | EI669047  | IC LA-2130Z                                     | 45-8-176      | 1    |
| 2-IC2      | EI697871  | IC LA-3122                                      | 45-8-185      | 1    |
| 2-IC3      | EI650362  | IC $\mu$ PC30C                                  | 45-8-151      | 1    |
| 2-IC4      | EI650597  | IC LA-3350S                                     | 45-8-153      | 1    |
| 2-TR1      | ET618873  | Transistor 2SC930(E)(F)                         | 45-1-185      | 1    |
| 2-TR2      | ET515733  | Transistor 2SC945(P)(Q)(R)(S)                   | 45-1-85       | 1    |
| 2-TR3      | ET223446  | Transistor 2SC1571NP (G)(H)                     | 45-1-238      | 1    |
| 2-TR4      | ET539122  | Transistor 2SA733(P)(Q)(R)                      | 45-1-124      | 1    |
| 2-TR5      | ET515733  | Transistor 2SC945(P)(Q)(R)(S)                   | 45-1-85       | 1    |
| 2-TR6,7    | ET223446  | Transistor 2SC1571NP(G)(H)                      | 45-1-238      | 2    |
| 2-D1,2     | ED624903  | Silicon Diode 1S2473                            | 45-3-28       | 2    |
| 2-FL1,2    | ER650430  | Ceramic Filter SFE-10.7 MA-8-Z                  | 53-1-102      | 2    |
| 2-T1       | EO650608  | Discri Coil MV4-FLC-20000                       | 23-1-243      | 1    |
| 2-T2       | BT633025  | LW OSC. Trans. 34H-215                          | 23-1-235      | 1    |
| 2-T3       | EO645838  | OSC. Coil RWR41497A                             | 23-4-35       | 1    |
| 2-T4       | EO650373  | AM-IF Trans. RLC-41543A 468 kHz                 | 23-1-242      | 1    |
| 2-T5       | EO650384  | AM-IF Trans. CFU-085-D 468 kHz                  | 23-1-241      | 1    |
| 2-L1       | EO650610  | Inductor 144LZ 18 $\mu$ H(J)                    | 23-1-240      | 1    |
| 2-L2,3     | EO650428  | Inductor 146LY 39MH(J)                          | 23-1-214      | 2    |
| 2-L4       | EO539820  | Peaking Coil 2.2 $\mu$ H(K)                     | 23-1-187      | 1    |
| 2-VR1      | EV499364  | Semi-fixed/Vol. V10K8-4-2 5 kB                  | 36-10-250     | 1    |
| 2-VR2      | EV484863  | Semi-fixed/Vol. V10K8-4-2 1 kB (Metalized Film) | 36-10-250     | 1    |
| 2-VR3      | EV499364  | Semi-fixed/Vol. V10K8-4-2 5 kB                  | 36-10-250     | 1    |
| 2-J1       | EJ655334  | 8P Pin Jack                                     | 31-1-149      | 1    |
| 2-J2       | EJ698051  | Din Jack  | 31-1-158      | 1    |
| 2-VC1,2    | EC675742  | Trimmer/C. CTY-21D 15PF                         | 24-2-35       | 2    |
| 2-SW1      | ES240276  | Push SW. 5FT-0001DF3620                         | 25-5-235      | 1    |
| 2-C39      | EC658001  | Styrol/C. 410PF(J) 50WV (Vert. Type)            | 24-11-3       | 1    |
| 2-C56      | EC666483  | Styrol/C. 1500PF(K) 50WV (Vert. Type)           | 24-11-11      | 1    |
| 2-C58      | EC215065  | Solid Aluminum/C. 0.47 $\mu$ F(M) 16WV          | 24-19-2       | 1    |
| 2-2        | MZ656807  | Jumper Wire, P.C Board 12.5mm                   | 35-18-1       | 16   |
| 2-3        | BA235271  | Jumper P.C Board Comp. (AA-5159B)               |               | 1    |

**3. MAIN AMP P.C BOARD (AA-5106A) BLOCK**

| Symbol No. | Parts No. | Description                               | Schematic No. | Q'ty |
|------------|-----------|---|---------------|------|
| 3-1        | BA235225  | Main Amp P.C Board Comp. (AA-5106A)       |               | 1    |
| 3-2        | BA235236  | Main Amp P.C Board Comp. (AA-5106A) (CEE) |               | 1    |
| 3-TR1,2    | ET459810  | Transistor 2SC1222(E)(F)                  | 45-1-110      | 4    |
| 3-TR3      | ET655345  | Transistor 2SB605(L)(M)                   | 45-1-225      | 2    |
| 3-TR4      | ET655356  | Transistor 2SD571(L)(M)                   | 45-1-218      | 2    |
| 3-TR5      | ET655345  | Transistor 2SB605(L)(M)                   | 45-1-225      | 2    |
| 3-TR8      | ET452531  | Transistor 2SD313(E)(F)                   | 45-1-105      | 1    |
| 3-D1       | ED539976  | Zener Diode WZ-130                        | 45-6-67       | 1    |
| 3-D2,3     | ED224548  | Silicon Diode 10D2                        | 45-2-14       | 2    |
| 3-V1       | ED490511  | Varistor VD1222                           | 45-10-7       | 2    |
| 3-VR1      | EV240434  | Double/Vol. (FR.) DJ80D 250kBx2           | 36-3-75       | 1    |

| Symbol No. | Parts No. | Description   | Schematic No. | Q'ty |
|------------|-----------|---|---------------|------|
| 3-VR2,3    | EV240445  | Single axial 2 throw Vol. GM70R 20 kCx2             | 36-22-22      | 2    |
| 3-VR4      | EV604484  | Semi-fixed/Vol. V10K8-4-2 300 ohms(B)               | 36-10-250     | 2    |
| 3-J1       | EJ698286  | 3P Jack   | 31-2-72       | 1    |
| 3-FR1      | ER565828  | Fuse/R. FRN70 1/4W 10 ohms (K) 700 mA               | 35-14-11      | 2    |
| 3-R24,25   | ER552712  | Metal Plate/R. MPC70F 2W 0.47 ohms (K)              | 35-16-38      | 4    |
| 3-R28      | ER439132  | Metal Oxide Film/R. 2W 150 ohms (K)                 | 35-15-8       | 2    |
| 3-C10      | EC654153  | Tantalum/C. 0.1 $\mu$ F(M) 25WV (DTS Type)          | 24-15-8       | 2    |
| 3-C12      | EC523282  | Solid Aluminum/C. 0.1 $\mu$ F(M) 25WV (Vert. Type)  | 24-19-2       | 2    |
| 3-C13      | EC538244  | Solid Aluminum/C. 0.47 $\mu$ F(M) 10WV (Vert. Type) | 24-19-2       | 2    |
| 3-3        | MZ656807  | Jumper Wire, P.C Board 12.5mm                       | 35-18-1       | 10   |
| 3-4        | EJ514822  | Fuse Holder, P.C Board S-N5051                      | 40-1-28       | 4    |
| 3-5        | EJ592503  | Fuse Clip, P.C Board H0426 (CEE)                    | 40-1-37       | 4    |

**4. TOUCH SW. P.C BOARD (AA-5158) BLOCK**

| Symbol No. | Parts No.  | Description                         | Schematic No. | Q'ty |
|------------|------------|-------------------------------------|---------------|------|
| 4-1        | BABA235170 | Touch SW. P.C Board Comp. (AA-5158) |               | 1    |

**5. VOL. P.C BOARD (AA-5157) BLOCK**

| Symbol No. | Parts No. | Description                            | Schematic No. | Q'ty |
|------------|-----------|--|---------------|------|
| 5-1        | BA235157  | Vol. P.C Board Comp. (AA-5157)         |               | 1    |
| 5-TR1,2    | ET515733  | Transistor 2SC945(P)(Q)(R)(S)          | 45-1-85       | 2    |
| 5-TR3      | ET491051  | FET 2SK30A(GR)                         | 45-12-4       | 1    |
| 5-D1       | ED229803  | Zener Diode RD6.2E                     | 45-6-74       | 1    |
| 5-D2to6    | ED624903  | Silicon Diode 1S2473                   | 45-3-28       | 5    |
| 5-VR1to5   | EV229915  | Pre-set Vol. LfqDR 504 100 kB (w/knob) | 36-37-1       | 5    |

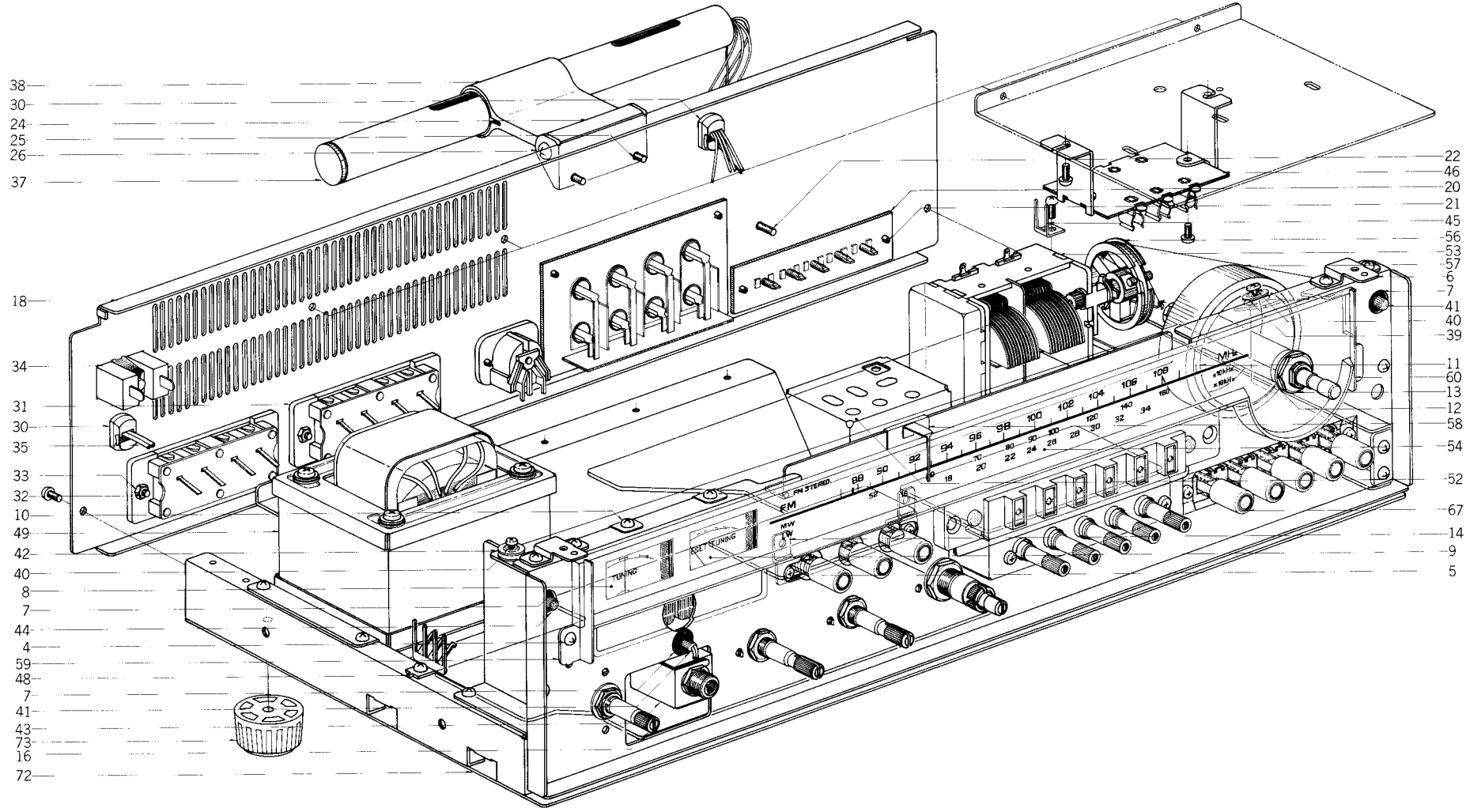
**6. IC P.C BOARD (AA-5156) BLOCK**

| Symbol No. | Parts No. | Description                  | Schematic No. | Q'ty |
|------------|-----------|------------------------------|---------------|------|
| 6-1        | BA235203  | IC P.C Board Comp. (AA-5156) |               | 1    |
| 6-IC1,2    | EI229443  | IC $\mu$ PC1009C             | 45-8-202      | 2    |

**7. PUSH SW. P.C BOARD (AA-5155) BLOCK  
(LED P.C BOARD (AA-5159C) BLOCK)**

| Symbol No. | Parts No. | Description                       | Schematic No. | Q'ty |
|------------|-----------|-----------------------------------|---------------|------|
| 7-1        | BA235146  | Push SW. P.C Board Comp (AA-5155) |               | 1    |
| 7-TR1      | ET655356  | Transistor 2SD571(L)(M)           | 45-1-218      | 1    |
| 7-D1       | ED240366  | Zener Diode RD27E(C)              | 45-6-72       | 1    |
| 7-SW1      | ES240096  | Push SW. 3FT-0001FF2120           | 25-5-234      | 1    |
| 7-2        | EA241154  | LED P.C Board                     | AA-5159C      | 1    |
| 7-D1       | ED694091  | LED SEL-105RC                     | 45-15-12      | 1    |
| 7-3        | TA241064  | Lamp Base A                       | AA-5145       | 1    |
| 7-4        | ZS422076  | Screw, pan head 3x5               |               | 1    |

8. ILLUSTRATION OF ASSEMBLY BLOCK

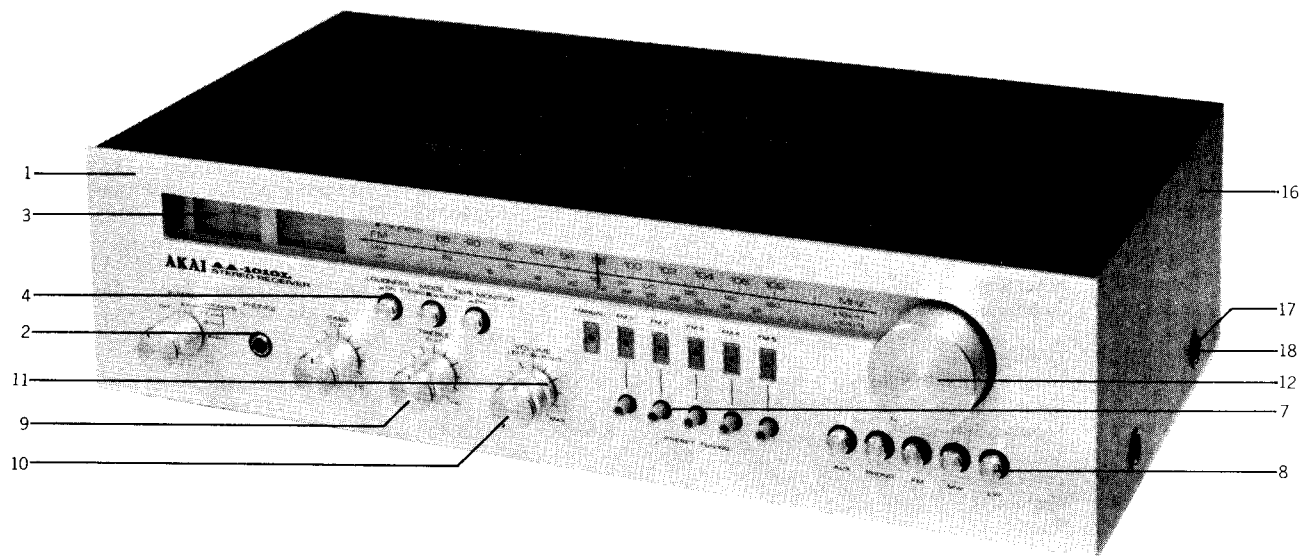


## 8. ASSEMBLY BLOCK

| Ref. No.                   | Parts No. | Description                            | Schematic No. | Q'ty | Ref. No. | Parts No. | Description                         | Schematic No. | Q'ty |
|----------------------------|-----------|--|---------------|------|----------|-----------|-------------------------------------|---------------|------|
| <b>HEAT-SINK BLOCK</b>     |           |  |               |      |          |           |                                     |               |      |
| 8-1x                       | ZW632226  | Insulater Washer Bush M                | 45-16-27      | 4    | 8-51x    | EJ254957  | Lug Plate KP1L                      | 33-3-2        | 1    |
| 8-2x                       | ZS379350  | Screw, pan head 3x6                    |               | 6    | 8-52     | EC240298  | Variable/C. C626W                   | 24-2-40       | 1    |
| 8-3x                       | ET452531  | Transistor 2SD313(E)(F)                | 45-1-105      | 4    | 8-53     | TA240300  | Varactor Tuner                      |               |      |
| 8-4                        | ZS325495  | Tapping Screw #2 3x6 (BR)              |               | 45   |          |           | VFT-22MH-21                         | 57-2-41       | 1    |
| 8-5                        | ZS422076  | Screw, pan head 3x5                    |               | 17   | 8-54     | TA241007  | Scale Plate A                       | AA-5125       | 1    |
| <b>FRONT CHASSIS BLOCK</b> |           |  |               |      |          |           |                                     |               |      |
| 8-6                        | TA646571  | Panel Support                          | AA-5218       | 2    | 8-55x    | ZG241086  | Dial Spring                         | AA-5147       | 1    |
| 8-7                        | MB650147  | Rubber Bushing No. 6552                | 3-13-44       | 3    | 8-56     | MT240388  | Dial Wheel                          | 2-15-14       | 1    |
| 8-8                        | EM655727  | Tuning Meter                           |               |      | 8-57     | TA207347  | Thread D0.5 1.6m                    |               | 1    |
|                            |           | KL-218D-94                             | 46-1-110      | 1    | 8-58     | TA646795  | Pointer                             | AA-5242       | 1    |
| 8-9                        | EM240311  | Pre-set Tunign Meter                   | 46-1-143      | 1    | 8-59     | TA697004  | Scale Plate Retainer A              | AA-5118       | 1    |
| 8-10                       | ZS455207  | Tapping Screw #2 3x5 (BR)              |               | 5    | 8-60     | TA697015  | Scale Plate Retainer B              | AA-5118       | 1    |
| 8-11                       | MI698310  | Tuning Wheel                           | 13-2-4        | 1    | 8-61x    | ZW330412  | Adjust. Washer (U) D4x13x0.13t      |               | 2    |
| 8-12                       | ZW610503  | Washer D11                             | 36-13-2       | 2    | 8-62x    | ZW330423  | Adjust. Washer (U) D4x13x0.25t      |               | 2    |
| 8-13                       | ZW610492  | Nut M11                                | 36-13-3       | 2    | 8-63x    | ZW330434  | Adjust. Washer (U) D4x13x0.5t       |               | 2    |
| 8-14                       | TA241121  | Push SW. Mt. Plate                     | AA-5154       | 1    | 8-64x    | ZW330445  | Adjust. Washer (U) D4x13x0.8t       |               | 2    |
| 8-15x                      | ZS421806  | Screw, pan head 3x8                    |               | 2    | 8-65x    | ZW330456  | Adjust. Washer (U) D4x13x1t         |               | 2    |
| 8-16                       | ES240355  | Rotary SW. SR26N 1-3-5 30kC            | 25-6-102      | 1    | 8-66x    | ZW439547  | Adjust. Washer (U) D4x13x1.5t       |               | 2    |
| 8-17x                      | ES240287  | Rotary SW. SR26N 30 kC (CEE)           | 25-6-103      | 1    | 8-67     | SK634410  | Push Button Knob J                  | 91-5051       | 8    |
| <b>REAR PANEL BLOCK</b>    |           |  |               |      |          |           |                                     |               |      |
| 8-18                       | SP240985  | Rear Panel 6                           | AA-5112       | 1    | 8-68x    | EF563703  | Fuse 2A 250V                        | 39-1-50       | 4    |
| 8-19x                      | SP240996  | Rear Panel 7 (CEE)                     | AA-5112       | 1    | 8-69x    | EF258344  | Fuse (SEMKO T Type) 800 mA T (CEE)  | 39-1-53       | 1    |
| 8-20                       | EZ655187  | 5P Antenna Terminal Plate              | 32-1-69       | 1    | 8-70x    | EF601301  | Fuse (SEMKO T Type) 2AT (CEE)       | 39-1-53       | 1    |
| 8-21                       | ZW698308  | Nylon Rivet (FNPR) 3x5.5 Black         | 2-7-54        | 5    | 8-71x    | EF623103  | Fuse (SEMKO T Type) 1AT (CEE)       | 39-1-53       | 2    |
| 8-22                       | SK652397  | Knob 0512-2                            | 34-1-4        | 1    | 8-72     | SP697116  | Bottom Plate                        | AA-5122       | 1    |
| 8-23x                      | ZW652408  | Washer (SPC) D3.2x10x0.5t              |               | 1    | 8-73     | SZ645243  | Circular Foot A                     | CA-6014       | 4    |
| 8-24                       | TA530910  | Antenna Channel                        | 91-5029       | 1    | 8-74x    | EA642701  | Repeater P.C Board (CEE)            | 33-2-52       | 1    |
| 8-25                       | ZS447761  | Tapping Screw #2 3x6(BR) (Black)       |               | 8    | 8-75x    | TA697026  | Repeater Terminal Plate Parts (CEE) | AA-5111       | 1    |
| 8-26                       | ZS552600  | Screw, pan head 4x50                   |               | 1    |          |           |                                     |               |      |
| 8-27x                      | ZW273914  | Spring Washer M4                       |               | 6    |          |           |                                     |               |      |
| 8-28x                      | ZW420682  | Washer (Nylon) D4.2x9x0.5t             |               | 2    |          |           |                                     |               |      |
| 8-29x                      | ZW413188  | Nut M4, #1                             |               | 5    |          |           |                                     |               |      |
| 8-30                       | EZ631945  | Strain Relief SR-4N-4                  | 2-7-49        | 2    |          |           |                                     |               |      |
| 8-31                       | EJ655683  | 4P Speaker Jack                        | 32-1-68       | 2    |          |           |                                     |               |      |
| 8-32                       | ZS421740  | Screw, pan head 3x8                    |               | 4    |          |           |                                     |               |      |
| 8-33                       | ZW273756  | Nut M3, #1                             |               | 4    |          |           |                                     |               |      |
| 8-34                       | EJ650261  | AC Socket U/L S-16432                  | 31-1-147      | 1    |          |           |                                     |               |      |
| 8-35                       | EW540123  | AC Cord (CUL) 2.5M                     | 26-3-20       | 1    |          |           |                                     |               |      |
| 8-36x                      | EW516600  | AC Cord (CEE) VM-0065                  | 26-3-28       | 1    |          |           |                                     |               |      |
| 8-37                       | EE240041  | Bar Antenna 2 Band                     | 55-1-36       | 1    |          |           |                                     |               |      |
| 8-38                       | TA625847  | Antenna Holder                         | 2-7-46        | 1    |          |           |                                     |               |      |
| <b>ASSEMBLY BLOCK</b>      |           |  |               |      |          |           |                                     |               |      |
| 8-39                       | MR530651  | Roller A                               | 91-5008       | 2    |          |           |                                     |               |      |
| 8-40                       | ZS530673  | Roller Screw A                         | 91-5010       | 3    |          |           |                                     |               |      |
| 8-41                       | EL650193  | Lamp (Cord Type) 14V 100 mA (650m/mx2) | 28-2-47       | 3    |          |           |                                     |               |      |
| 8-42                       | MR530662  | Roller B                               | 91-5009       | 1    |          |           |                                     |               |      |
| 8-43                       | TA697050  | Headphone Jack Parts                   | AA-5109       | 1    |          |           |                                     |               |      |
| 8-44                       | ZW270191  | E Jack Nut                             |               | 1    |          |           |                                     |               |      |
| 8-45                       | EJ539447  | Earth Terminal 2P T4460                | 32-1-32       | 1    |          |           |                                     |               |      |
| 8-46                       | EZ652410  | Fuse Holder 3P Table                   | 40-1-68       | 1    |          |           |                                     |               |      |
| 8-47x                      | EJ215122  | 2P Fuse Hodler (Small) (CEE)           | 40-1-99       | 1    |          |           |                                     |               |      |
| 8-48                       | EJ551035  | Wrapping Terminal, 4P T-5251           | 32-1-36       | 1    |          |           |                                     |               |      |
| 8-49                       | BT699805  | Power Trans. AA-1010T-5                | 38-4-418      | 1    |          |           |                                     |               |      |
| 8-50x                      | BT215133  | Power Trans. AA-1010T-7 (CEE)          | 38-4-420      | 1    |          |           |                                     |               |      |

When ordering parts, Please describe Parts Number, Description, and Model Number in detail.

## 9. PHOTO OF FINAL ASSEMBLY BLOCK



## 9. FINAL ASSEMBLY BLOCK

| Ref. No.                 | Parts No. | Description                          | Schematic No. | Q'ty |
|--------------------------|-----------|--------------------------------------|---------------|------|
| <b>FRONT PANEL BLOCK</b> |           |                                      |               |      |
| 9-1                      | BD235078  | Front Panel Block Comp.              |               | 1    |
| 9-2                      | ZW526577  | Collar B, Jack                       | MC-5006       | 1    |
| 9-3                      | SP645715  | Front Plate                          | AA-5245       | 1    |
| 9-4                      | SE613888  | Button Escutcheon A                  | CW-6021       | 3    |
| 9-5                      | SE699761  | Light Mask                           | AA-5119       | 2    |
| 9-6x                     | SE675606  | Button Escutcheon                    | CB-6004       | 1    |
| 9-7                      | SE631585  | Button Escutcheon D                  | CG-6814       | 5    |
| <b>ASSEMBLY BLOCK</b>    |           |                                      |               |      |
| 9-8                      | SK634410  | Push Button Knob J                   | 91-5051       | 8    |
| 9-9                      | SK646817  | Single Knob                          | AA-5250       | 3    |
| 9-10                     | SK644670  | Double Knob (Upper)                  | AA5355        | 1    |
| 9-11                     | SK645208  | Double Knob (Lower)                  | AA-5353       | 1    |
| 9-12                     | SK646828  | Tuning Knob (Small)                  | AA-5252       | 1    |
| 9-13x                    | ZS203343  | Set Screw, hexagon<br>socket 3x18 WP |               | 1    |
| 9-14x                    | ZS447840  | Tapping Screw #2 3x8<br>(BR)         |               | 1    |
| 9-15x                    | ZS565942  | Tapping Screw #2 4x8<br>(PAN)        |               | 4    |
| 9-16                     | BC699783  | Cabinet                              | AA-5123       | 1    |
| 9-17                     | ZW548010  | Spot Facing Washer                   | MU-6028       | 4    |
| 9-18                     | ZS510344  | Screw, binding head<br>4x12          |               | 4    |

## 10. LIST OF INTERCHANGEABLE SEMICONDUCTORS

As far as service is concerned, in case the original parts cannot be obtained, the interchangeable parts listed below can be substituted.

| Original Parts          |           |                     | Interchangeable Parts           |                      |
|-------------------------|-----------|---------------------|---------------------------------|----------------------|
| Description             | Parts No. | Utilizing P.C Board | Description                     | Parts No.            |
| 2SA733(P)(Q)(R)         | ET539122  | AA-5159A            | 2SA628(D)(E)(F)<br>2SA564(Q)(R) | ET515700<br>ET538154 |
| 2SB605(L)(M)            | ET655345  | AA-5106A            | 2SA720(Q)(R)                    | ET554736             |
| 2SC930(E)(F)            | ET618873  | AA-5159A            | 2SC454(B)(C)                    | ET591366             |
| 2SC945L<br>(P)(Q)(R)(S) | ET515733  | AA-5159A<br>AA-5157 | 2SC536(E)(F)(G)(H)<br>2SC711(E) | ET246846<br>ET380834 |
| 2SC1222(E)(F)           | ET459810  | AA-5106A            | 2SC1313(G)(H)                   | ET604124             |
| 2SC1571NP(G)(H)         | ET223446  | AA-5159A            | 2SC1222(E)(F)                   | ET459810             |
| 2SD313(E)(F)            | ET452531  | AA-5106A            | 2SD234(Y)(O)<br>2SC1061(B)(C)   | ET393568<br>ET357603 |
| 2SD571(L)(M)            | ET655356  | AA-5106A<br>AA-5155 | 2SD313(E)(F)                    | ET452531             |
| 2SK30A(GR)              | ET491051  | AA-5157             | 2SK30A(D)                       | ET645917             |
| 1S2473                  | ED624903  | AA-5195A<br>AA-5157 | 1S1588<br>1S2473VE              | ED557447<br>ED560913 |
| IOD2                    | ED224548  | AA-5106A            | GP15D<br>1N4003                 | ED219903<br>ED570295 |

## INDEX

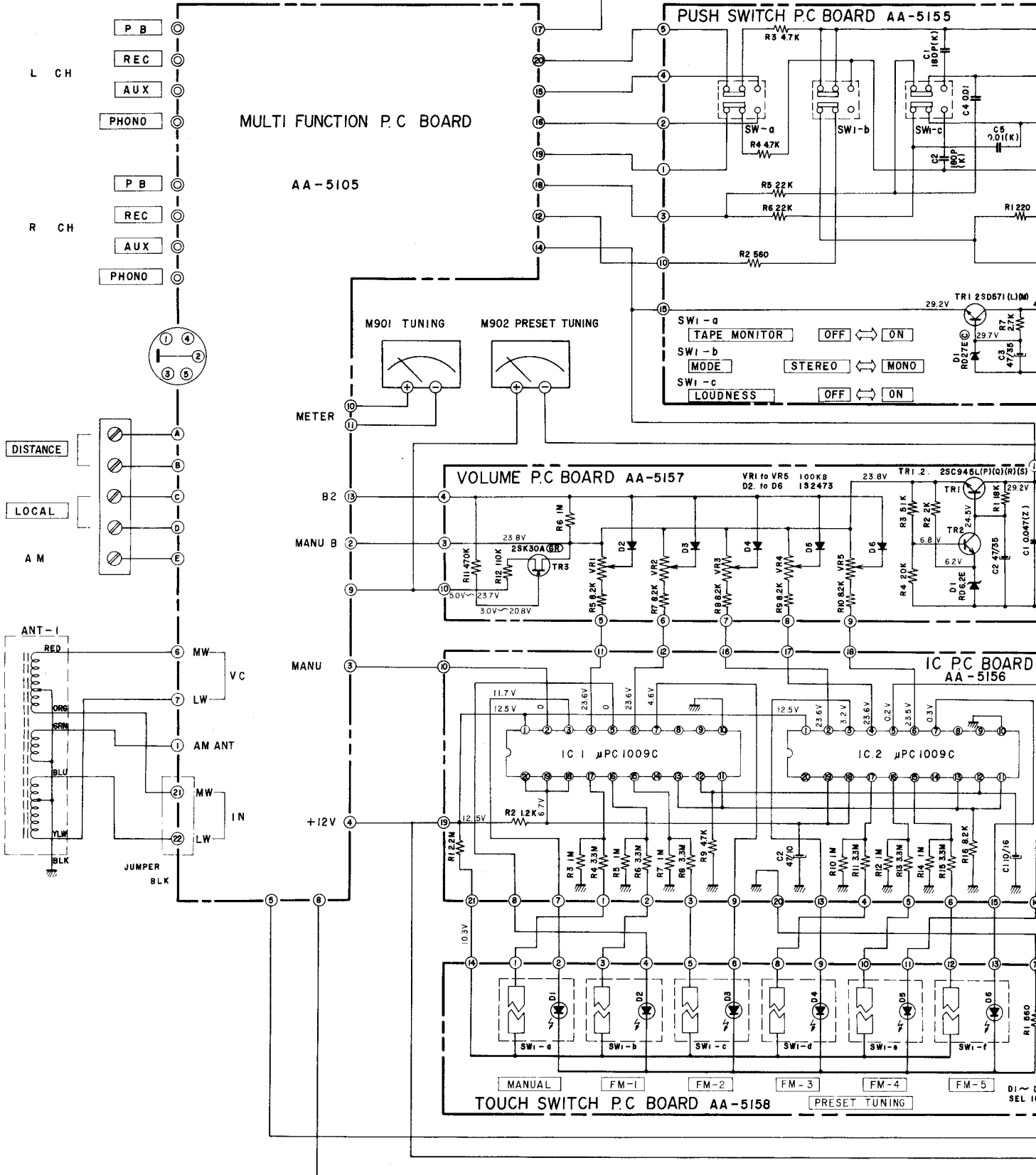
| Parts No. | Ref. No. & Symbol No. | Parts No. | Ref. No. & Symbol No. | Parts No. | Ref. No. & Symbol No. | Parts No. | Ref. No. & Symbol No. | Parts No. | Ref. No. & Symbol No. |
|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|-----------|-----------------------|
| BA235146  | 7-1                   | EI697871  | 2-IC2                 | ET618873  | 2-TR1                 | TA207347  | 8-57                  | ZW548010  | 9-17                  |
| BA235157  | 5-1                   | EJ215122  | 8-47x                 | ET655345  | 3-TR3                 | TA240300  | 8-53                  | ZW610492  | 8-13                  |
| BA235170  | 4-1                   | EJ254957  | 8-51x                 | ET655345  | 3-TR5                 | TA241007  | 8-54                  | ZW610503  | 8-12                  |
| BA235203  | 6-1                   | EJ514822  | 3-4                   | ET655356  | 3-TR4                 | TA241064  | 7-3                   | ZW632226  | 8-1x                  |
| BA235225  | 3-1                   | EJ539447  | 8-45                  | ET655356  | 7-TR1                 | TA241121  | 8-14                  | ZW652408  | 8-23x                 |
| BA235236  | 3-2                   | EJ551035  | 8-48                  | EV229915  | 5-VR1to5              | TA530910  | 8-24                  | ZW698308  | 8-21                  |
| BA235258  | 2-1                   | EJ592503  | 3-5                   | EV240434  | 3-VR1                 | TA625847  | 8-38                  |           |                       |
| BA235271  | 2-3                   | EJ650261  | 8-34                  | EV240445  | 2-VR2,3               | TA646571  | 8-6                   |           |                       |
| BC699783  | 9-16                  | EJ655334  | 2-J1                  | EV484863  | 2-VR2                 | TA646795  | 8-58                  |           |                       |
| BD235078  | 9-1                   | EJ655683  | 8-31                  | EV499364  | 2-VR1                 | TA697004  | 8-59                  |           |                       |
|           |                       |           |                       |           |                       |           |                       |           |                       |
| BT215133  | 8-50x                 | EJ698051  | 2-J2                  | EV499364  | 2-VR3                 | TA697015  | 8-60                  |           |                       |
| BT633025  | 2-T2                  | EJ698286  | 3-J1                  | EV604484  | 3-VR4                 | TA697026  | 8-75x                 |           |                       |
| BT699805  | 8-49                  | EL650193  | 8-41                  | EW516600  | 8-36x                 | TA697050  | 8-43                  |           |                       |
| EA241154  | 7-2                   | EM240311  | 8-9                   | EW540123  | 8-35                  | ZG241086  | 8-55x                 |           |                       |
| EA642701  | 8-74x                 | EM655727  | 8-8                   | EZ631945  | 8-30                  | ZS203343  | 9-13x                 |           |                       |
| EC215065  | 2-C58                 | EO539820  | 2-L4                  | EZ652410  | 8-46                  | ZS325495  | 8-4                   |           |                       |
| EC240298  | 8-52                  | EO645838  | 2-T3                  | EZ655187  | 8-20                  | ZS379350  | 8-2x                  |           |                       |
| EC523282  | 3-C12                 | EO650373  | 2-T4                  | MB650147  | 8-7                   | ZS421740  | 8-32                  |           |                       |
| EC538244  | 3-C13                 | EO650384  | 2-T5                  | M1698310  | 8-11                  | ZS421806  | 8-15x                 |           |                       |
| EC654153  | 3-C10                 | EO650428  | 2-L2,3                | MR530651  | 8-39                  | ZS422076  | 7-4                   |           |                       |
|           |                       |           |                       |           |                       |           |                       |           |                       |
| EC658001  | 2-C39                 | EO650608  | 2-T1                  | MR530662  | 8-42                  | ZS422076  | 8-5                   |           |                       |
| EC666483  | 2-C56                 | EO650610  | 2-L1                  | MT240388  | 8-56                  | ZS447761  | 8-25                  |           |                       |
| EC675742  | 2-VC1,2               | ER439132  | 3-R28                 | MZ656807  | 2-2                   | ZS447840  | 9-14x                 |           |                       |
| ED224548  | 3-D2,3                | ER552712  | 3-R24,25              | MZ656807  | 3-3                   | ZS455207  | 8-10                  |           |                       |
| ED229803  | 5-D1                  | ER565828  | 3-FR1                 | SE613888  | 9-4                   | ZS510344  | 9-18                  |           |                       |
| ED240366  | 7-D1                  | ER650430  | 2-FL1,2               | SE631585  | 9-7                   | ZS530673  | 8-40                  |           |                       |
| ED490511  | 3-V1                  | ES240096  | 7-SW1                 | SE675606  | 9-6x                  | ZS552600  | 8-26                  |           |                       |
| ED539976  | 3-D1                  | ES240276  | 2-SW1                 | SE699761  | 9-5                   | ZS565942  | 9-15x                 |           |                       |
| ED624903  | 2-D1,2                | ES240287  | 8-17x                 | SK634410  | 8-67                  | ZW270191  | 8-44                  |           |                       |
|           |                       | ES240355  | 8-16                  | SK634410  | 9-8                   | ZW273756  | 8-33                  |           |                       |
|           |                       |           |                       |           |                       |           |                       |           |                       |
| ED694091  | 7-D1                  | ET223446  | 2-TR3                 | SK644670  | 9-10                  | ZW273914  | 8-27x                 |           |                       |
| EE240041  | 8-37                  | ET223446  | 2-TR6,7               | SK645208  | 9-11                  | ZW330412  | 8-61x                 |           |                       |
| EF258344  | 8-69x                 | ET452531  | 3-TR8                 | SK646817  | 9-9                   | ZW330423  | 8-62x                 |           |                       |
| EF563703  | 8-68x                 | ET452531  | 8-3x                  | SK646828  | 9-12                  | ZW330434  | 8-63x                 |           |                       |
| EF601301  | 8-70x                 | ET459810  | 3-TR1,2               | SK652397  | 8-22                  | ZW330445  | 8-64x                 |           |                       |
| EF623103  | 8-71x                 | ET491051  | 5-TR3                 | SP240985  | 8-18                  | ZW330456  | 8-65x                 |           |                       |
| EI229443  | 6-IC1,2               | ET515733  | 2-TR2                 | SP240996  | 8-19x                 | ZW413188  | 8-29x                 |           |                       |
| EI650362  | 2-IC3                 | ET515733  | 2-TR5                 | SP645715  | 9-3                   | ZW420682  | 8-28x                 |           |                       |
| EI650597  | 2-IC4                 | ET515733  | 5-TR1,2               | SP697116  | 8-72                  | ZW439547  | 8-66x                 |           |                       |
| EI669047  | 2-IC1                 | ET539122  | 2-TR4                 | SZ645243  | 8-73                  | ZW526577  | 9-2                   |           |                       |

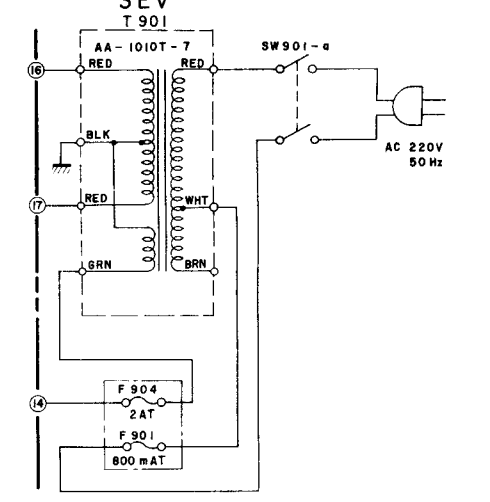
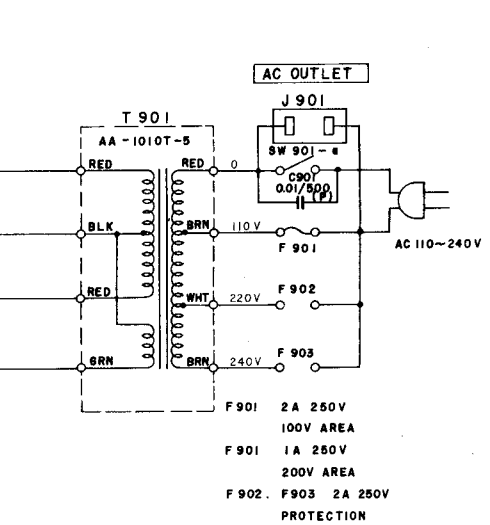
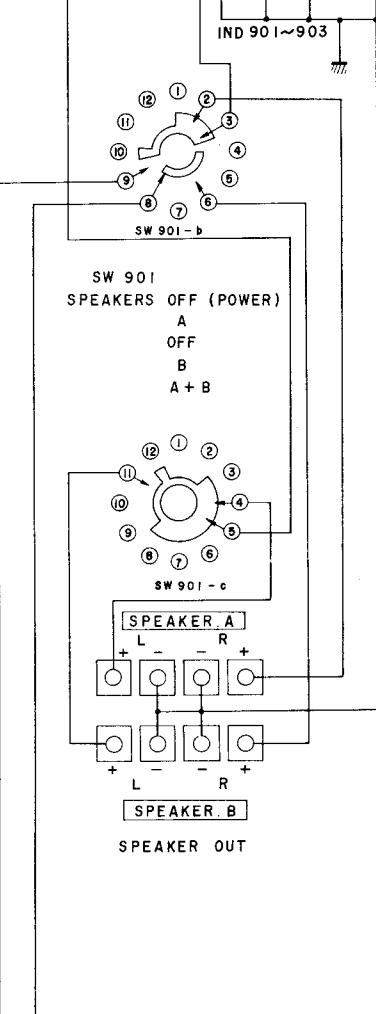
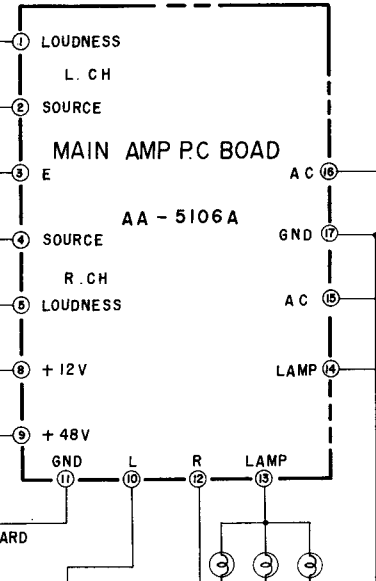
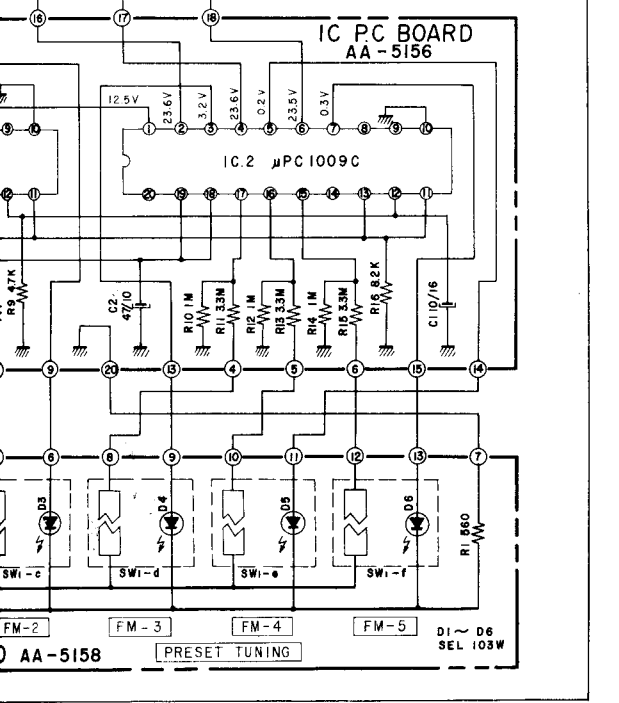
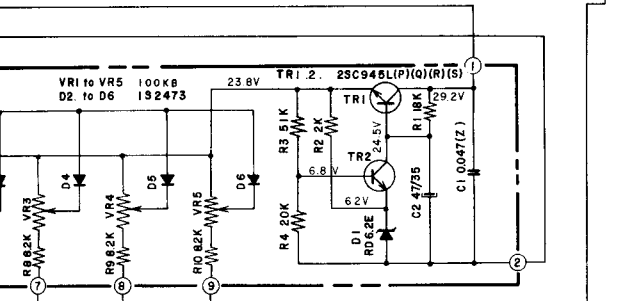
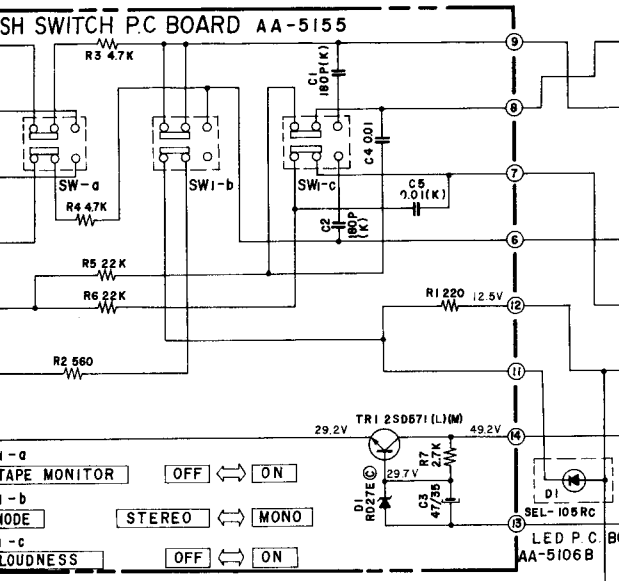
### SECTION 3

## SCHEMATIC DIAGRAM

1. AA-1010L CONNECTION DIAGRAM
2. AA-1010L MFC SCHEMATIC DIAGRAM
3. AA-1010L MAIN AMP.  
SCHEMATIC DIAGRAM
4. AA-1010L VARACTOR TUNER  
SCHEMATIC DIAGRAM





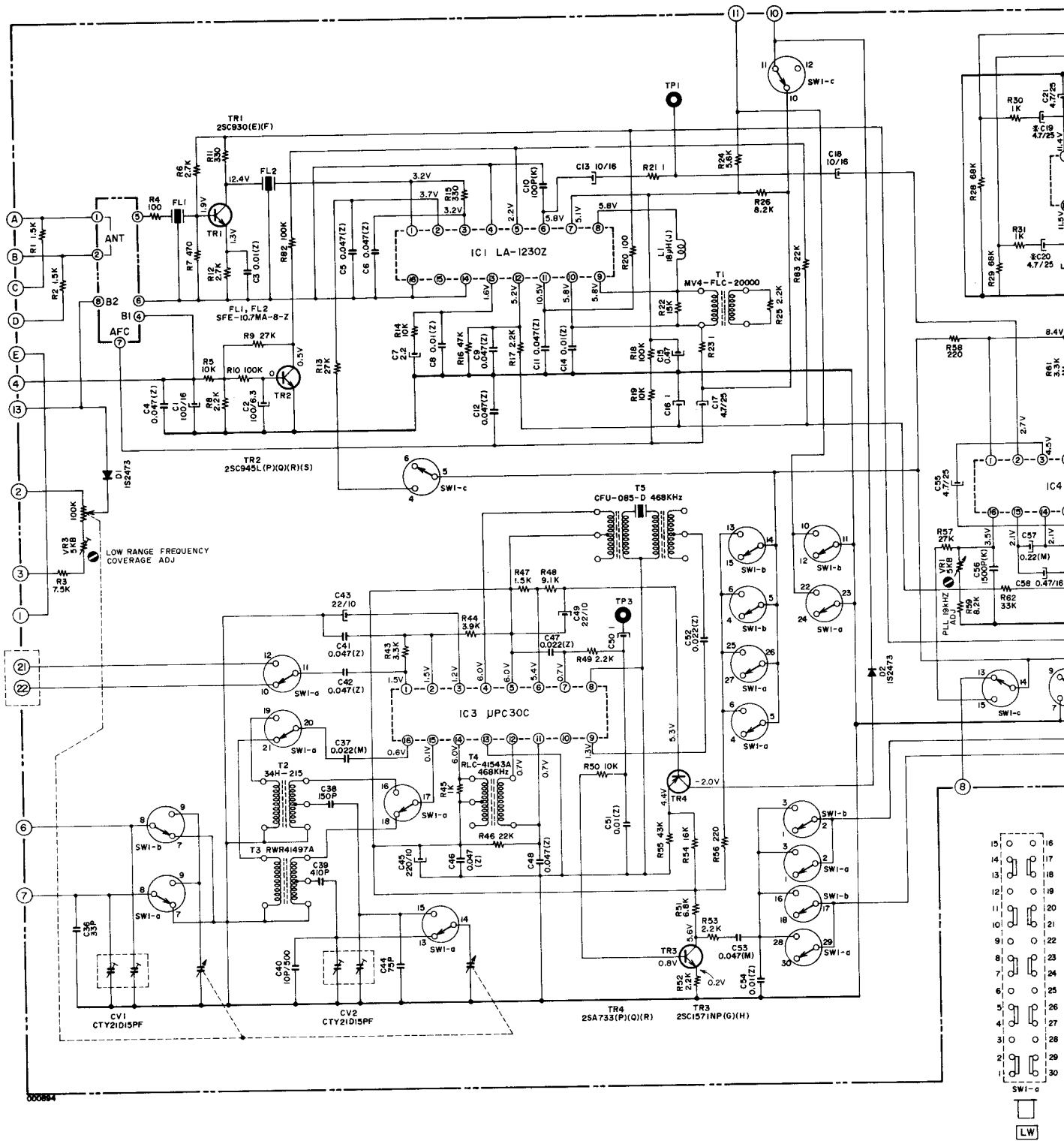


**NOTE**

1 UNLESS OTHERWISE SPECIFIED ALL RESISTORS IN OHMS 1/4W(J) ALL CAPACITORS IN  $\mu$ F 50WV(J)

2 POWER TRANSFORMER IS DIFFERENT ACCORDING TO AREA

**AA-1010L CONNECTION DIAGRAM**  
 No. 4-1 1540214A



**RTV servis Horvat**

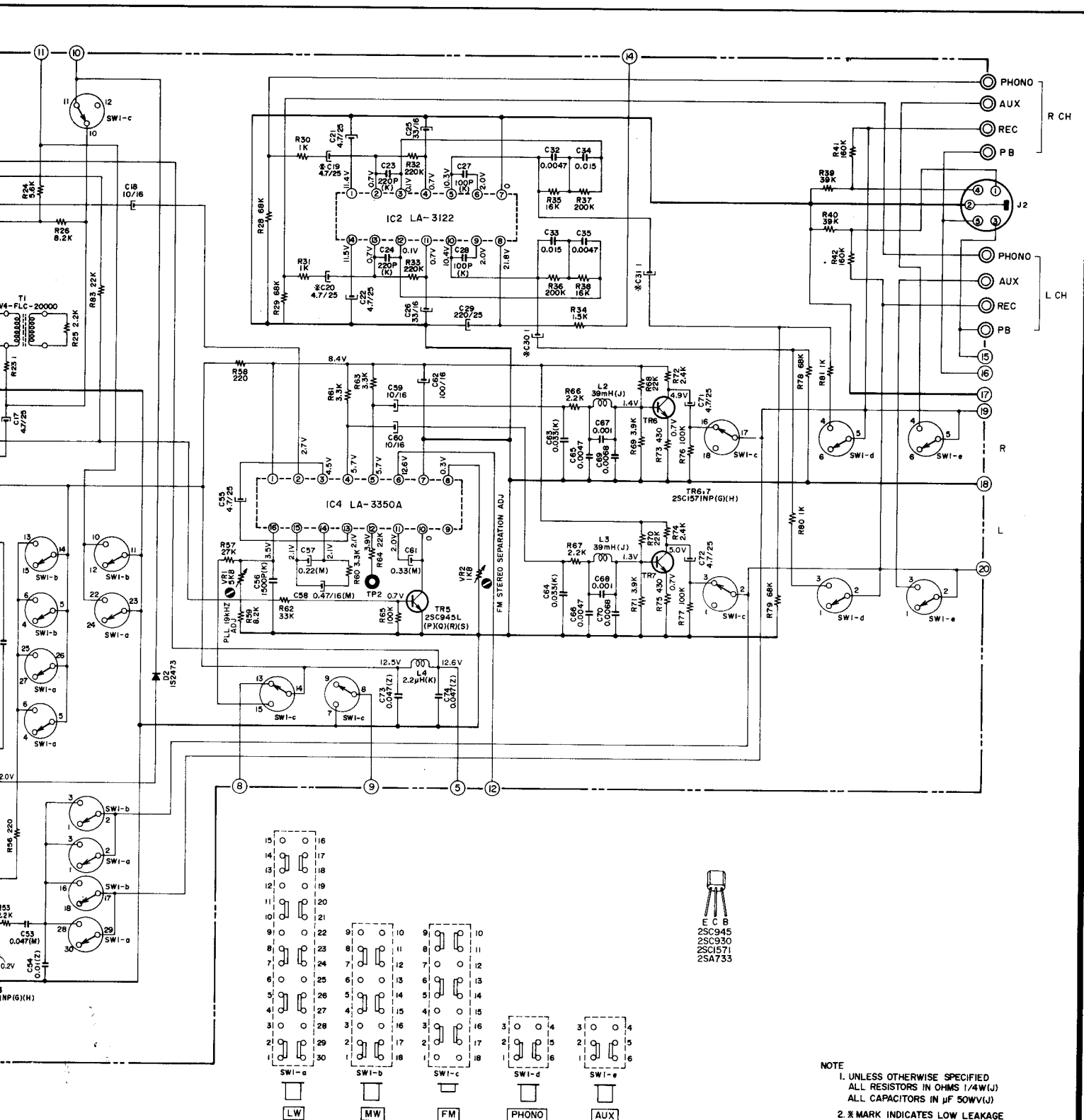
Kešinci, 31402 Semeljci

Tel : 031-856-637

Tel / fax : 031-856-139

Mob : 098-788-319

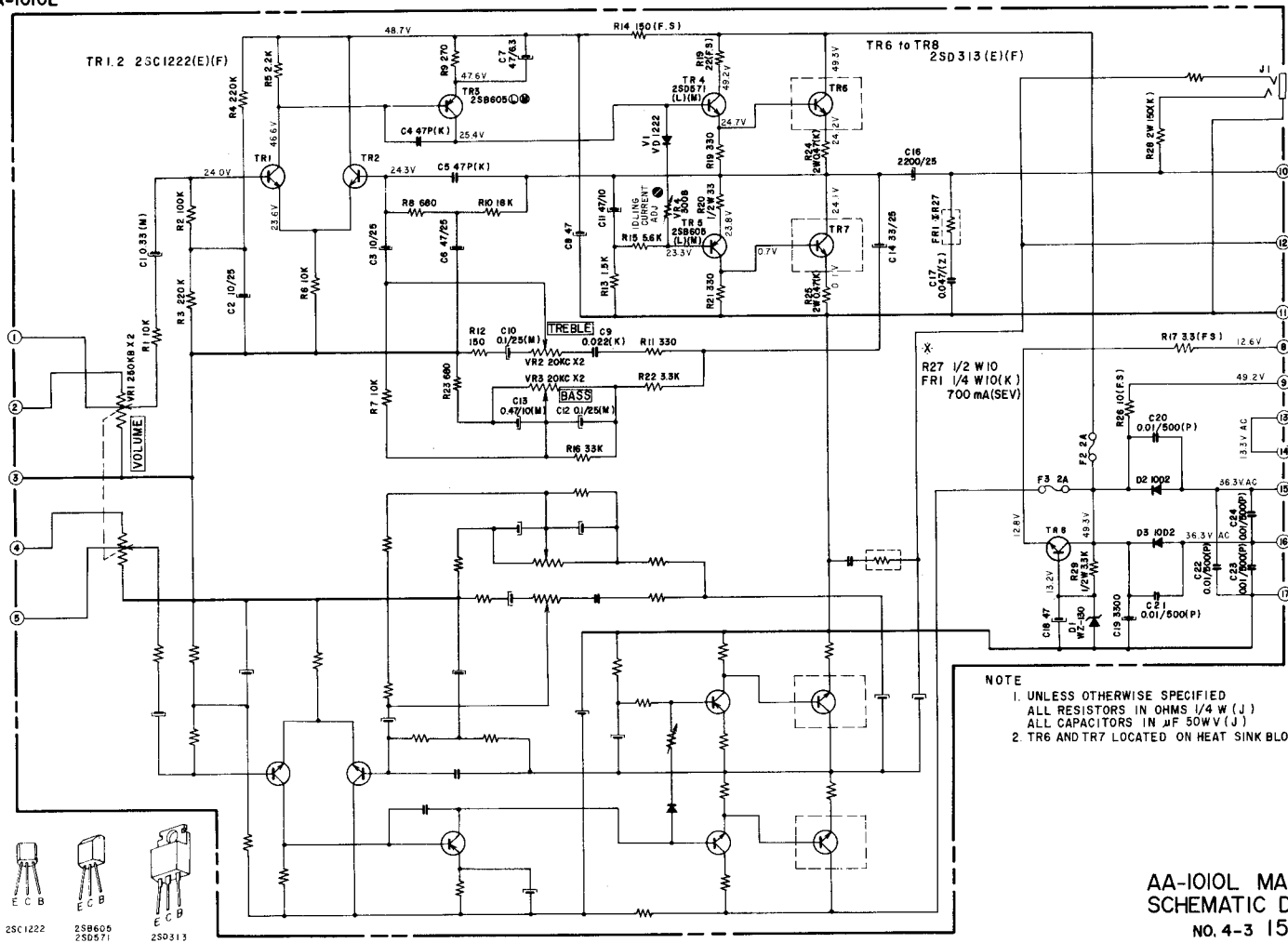
[rtv-servis-horvat@os.tel.hr](mailto:rtv-servis-horvat@os.tel.hr)



NOTE  
 1. UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS (1/4W(J))  
 ALL CAPACITORS IN  $\mu$ F 50WV(J)  
 2. X MARK INDICATES LOW LEAKAGE  
 CAPACITORS

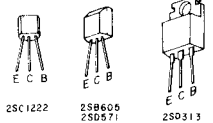
AA-1010L MFC  
 SCHEMATIC DIAGRAM  
 No.4-2 1540215A

AA-1010L

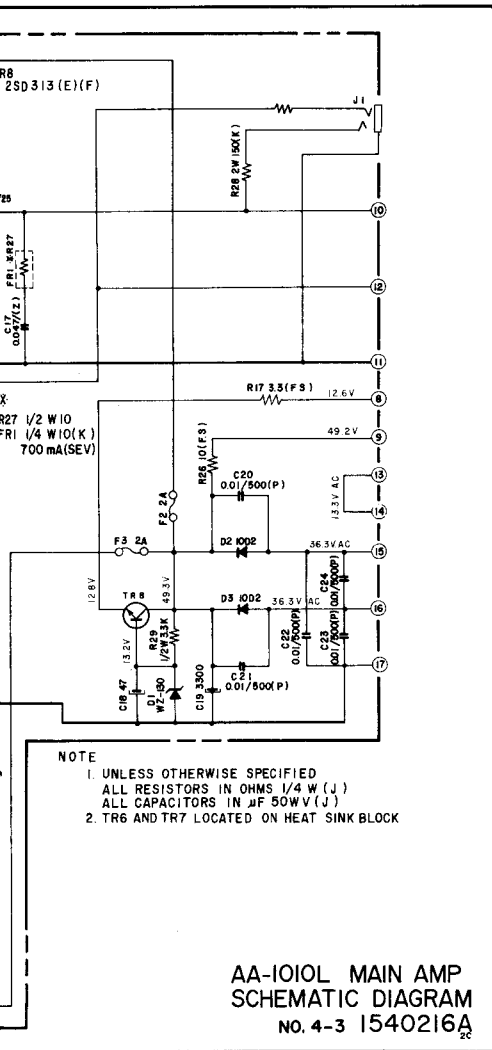


NOTE  
 1. UNLESS OTHERWISE SPECIFIED  
 ALL RESISTORS IN OHMS 1/4 W (J)  
 ALL CAPACITORS IN µF 50WV (J)  
 2. TR6 AND TR7 LOCATED ON HEAT SINK BLOCK

AA-1010L MAIN AMP  
 SCHEMATIC DIAGRAM  
 NO. 4-3 1540216A



000895



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