

JVC

SERVICE MANUAL

MODEL
JA-S310
STEREO AMPLIFIER



No. 2355
MARCH 1975

Features

- * All-stage Direct-coupled Pure Complementary OCL Circuit gives undistorted amplification with sufficient negative feedback from direct current up to over 100kHz.
- * Regulated plus-minus dual power supply system and differential equalizer with class A operation to get wide dynamic range and low distortion.
- * Direct phono terminal-to-equalizer circuit connection avoiding shielded wiring in the high impedance Phono input circuit improves high frequency sound quality giving clear and transparent highs.
- * Impact Noise Killer to eliminate impact noise which may damage the speakers when the power switch turns on and off.
- * High Cut Filter to eliminate tape hiss and record scratch noise.
- * Recording & Play-back through Microphone Mixing Circuit.

Specifications

DIMENSIONS

High: 4-3/4 (12.1cm) Width: 15-3/4(40.0cm) Depth: 11-3/8 (28.9cm)

WEIGHT

Net: 14.5 lbs. (6.6 kg) Gross: 16.5 lbs. (7.5 kg)

| | | | |
|---|---|---------------------------------------|---|
| Transistor | : 31 | Damping Factor | : Min. 50 (8 Ω , 1kHz) |
| Diode | : 7 | Load Impedance | : 4~16 Ω |
| Input Terminal | : PHONO, TUNER, AUX, TAPE PLAY, MIC | Frequency Response | : 20Hz~30kHz \pm 0.5dB |
| Output Terminal | : SPEAKER SYSTEM 1 & 2 HEADPHONE JACK TAPE REC | Tone Control Bass | : 100Hz \pm 10dB |
| DIN Terminal | : TAPE | Treble | : 10kHz \pm 10dB |
| Output Power | | Input Sensitivity | : Phono 2.5mV (47k Ω) Mic 5mV (10k Ω) Tuner, Aux 165mV (50k Ω) Tape Play 165mV (50k Ω) |
| Music Power (IHF) | : 100W (50W + 50W) 4 Ω 80W (40W + 40W) 8 Ω | Signal to Noise Ratio | : Phono 63dB (RMS) Aux 80dB (RMS) |
| Continuous Power (one channel driven) | : 70W (35W + 35W) 4 Ω 64W (32W + 32W) 8 Ω 1kHz 0.8% | Phono Over Load Level | : 380mV (P-P) 135mV (RMS, 1kHz) |
| Continuous Power (both channel driven) | : 50W (25W + 25W) 4 Ω 50W (25W + 25W) 8 Ω 1kHz 0.8% | Recording Output Level | : Tape Rec. 160mV DIN 30mV |
| Power Band Width | : 10Hz~40kHz 8 Ω IHF. | Filter | : High 9kHz, -6dB/oct. |
| Total Harmonic Distortion (output power 22W) | : 0.06% 1kHz | Loudness Control | : 50Hz +11.5dB |
| Intermodulation Distortion | : Max. 0.8% at rated output power Max. 0.1% (1W) | Volume at -30dB Position from Max. | : 1kHz +1.5dB 10kHz +4.5dB |

POWER SUPPLY : "U" Type - 100,120,200,240V (Selectable) 50/60Hz
: "E" Type - 220V 50Hz
: "A" Type - 240V 50Hz

POWER CONSUMPTION : 66W

Caution

1. JA-S310 models of intended different areas.
There are four models that have specific voltages to different areas; these are:

| Type | Area | Line Voltage |
|------|--------------------|---------------------------------------|
| E | Sweden | 220V 50Hz only |
| E | Switzerland | 220V 50Hz only |
| A | England, Australia | 240V 50Hz only |
| U | Others | 100/120/220/240V, selectable, 50/60Hz |

This amplifier has been pre-set to the line voltage in the area where it is to be sold. See page 8 to fuse replacement and to voltage selection.

2. Use this amplifier within $\pm 10\%$ of the stated power.
3. Be careful to provide good ventilation while using it, continuously, with a high output power.
4. Turn off the power before connecting any components as the click noise could damage the speakers.
5. Connect the speaker and input terminals, correctly. Wrong polarity or shorting will result in unstable sound because of the phase inversion or cause the protective fuse to be blown. A poor ground connection of the pin plug, in the input jack, may result in a hum so that the saturated output will damage the speaker.
6. Do not operate the switches and controls about 7 or 8 seconds after the power is switched on, for this may produce an unusual impact noise. Wait until after the set becomes stable. This impact noise is not the fault of the machine.
7. When one pair of speaker terminals, SYSTEM-1 or SYSTEM-2, are used, speakers with an impedance of 4 ohms to 16 ohms can be used. When you use the 1 + 2 position of the speaker selector, the speakers must have an impedance of 8 ohms or higher. If the overall impedance is less than 4 ohms, the set is overstrained. Follow the instructions given on the rear panel.
8. The components connected to the AC outlets, should be of less than 300W in total. AC outlets are provided only on the "U" type sets.
9. The TAPE terminals and DIN socket are connected in parallel, so they cannot be used at the same time. Use one or the other, but not both.
10. If you are using a microphone with no components connected to the TUNER, AUX or TAPE PLAY terminals, turn down the MIC MIXING control before operating the SELECT or TAPE MON controls. If you fail to do this, the sudden rise of mike sound will cause damage to the speaker.

Main Parts Arrangement

| Dwg. No. | Parts No. | Parts Name | Description |
|----------|-------------|--------------|----------------|
| 1 | E49645-003 | Knob | BASS |
| 2 | " | " | TREBLE |
| 3 | " | " | SPEAKER |
| 4 | " | " | BALANCE |
| 5 | E49642-003 | Push Knob | HI-FILTER |
| 6 | " | " | MODE |
| 7 | E49643-006 | Knob | VOLUME |
| 8 | E49642-003 | Push Knob | LOUDNESS |
| 9 | " | " | TAPE MONITOR |
| 10 | E49645-003 | Knob | MIC MIXING |
| 11 | " | " | SELECT |
| 12 | QMS6301-001 | Jack Ass'y | PHONES |
| 13 | QMS6313-001 | " | MIC |
| 14 | QSU1120-006 | Lever Switch | POWER "U" Type |
| 14 | QSL2235-101 | " | " "E","A" Type |
| 15 | E03075-28B | Power Trans | |
| 16 | E33912-001 | Heat Sink | |
| 17 | E21666-004 | Front Panel | |

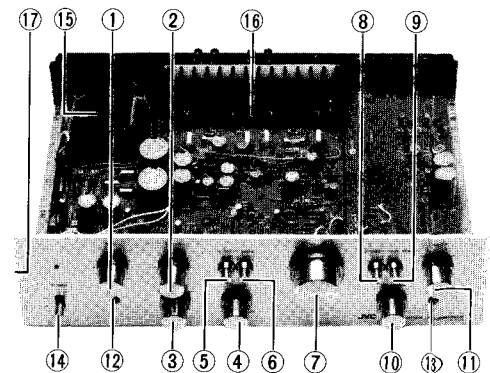


Fig. 1

| Dwg. No. | Parts No. | Parts Name | Description |
|----------|-------------|------------------|---|
| 1 | TAE-108 | EQ. C.B. Ass'y | "U", "A" Type "E" Type |
| 2 | TXX-7 | Main & Tone C.B. | |
| 2 | TXX-7B | " | |
| 3 | E21665-002 | Rear Panel | |
| 4 | E03621-001 | Pin Jack Ass'y | |
| 5 | QMC0589-001 | DIN Socket Ass'y | System 1 System 2 |
| 6 | E47268-001 | Knob Screw | |
| 7 | E03572-101 | Terminal Ass'y | |
| 8 | " | " | |
| 9 | E49877-001 | Label | |
| 10 | E48992-001 | Speaker Label | "U" Type only "E" Type only "A" Type only |
| 11 | E47330-161 | Rating Label | |
| 11 | E47330-162 | " | |
| 11 | E47330-163 | " | |

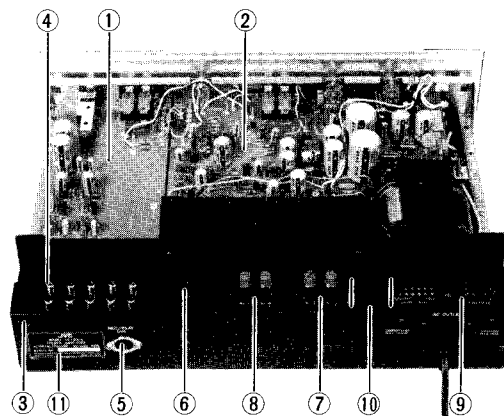


Fig. 2

Disassembly Instructions

TO REMOVE TOP COVER

Remove four screws from both sides of top cover, and remove cover in the direction of top (see Fig. 3).

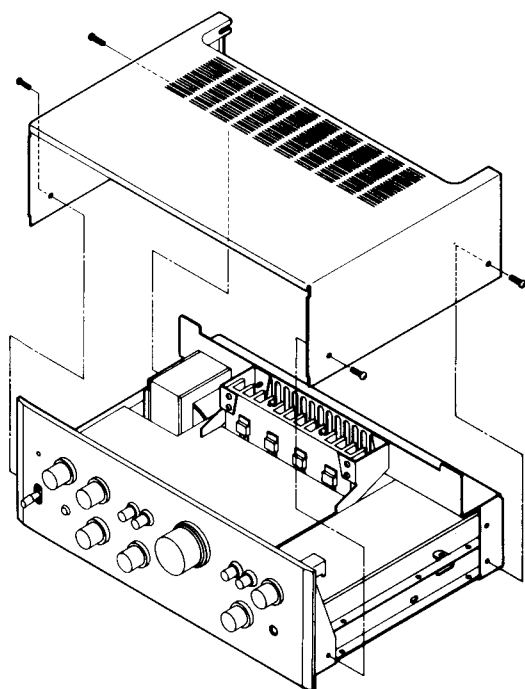


Fig. 3

TO REMOVE BOTTOM BOARD

Remove six screws from bottom board. Remove bottom board from chassis (see Fig. 4).

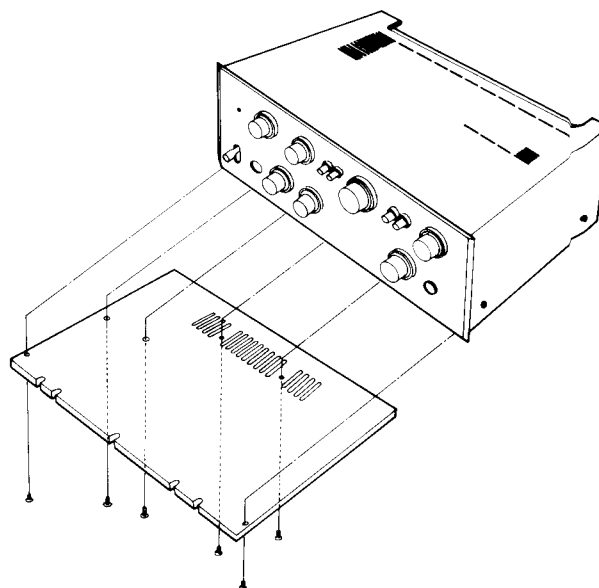


Fig. 4

TO REMOVE FRONT PANEL

1. Remove top cover.
2. Remove following knobs.
(Speaker select, Bass, Treble, Balance, Volume, Select and Mic Mixing)
3. Remove two screws as shown in Fig. 5, and remove front panel from chassis, with care to avoid damage.

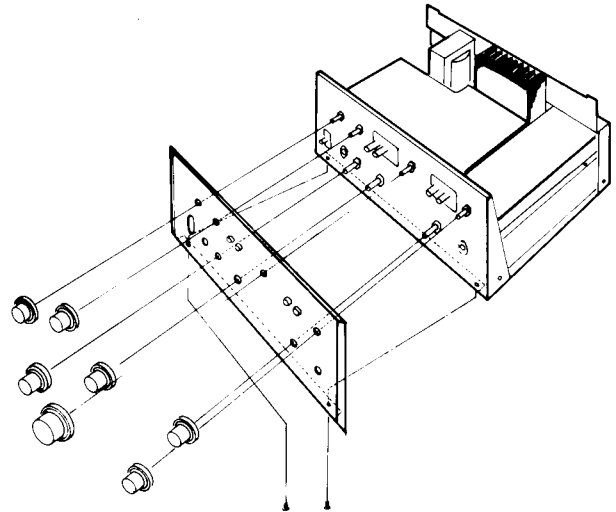


Fig. 5

How to Replace Main Parts (I)

1. Use the provided illustration to remove the front panel, bottom plate and top cover. Then the lever switch, headphone jack, speaker switch, balance control and microphone circuit board assembly, can simply be replaced as shown in Fig. 6.
2. To remove TAE-108 and TAP-245A ("E" type: TAP-245B), loosen the screws A, B and C and nuts (D)

shown in Fig. 6. Remove the bottom plate, too.

3. To replace the power transformer, loosen the screws E and install a new one as shown in Fig. 6.

4. The "U" type:

To replace the selectable voltage socket, first remove the bottom plate and loosen the screws F as shown in Fig. 6.

TXX-7 : TAP-245A + TAC-349
TXX-7B : TAP-245B + TAC-349

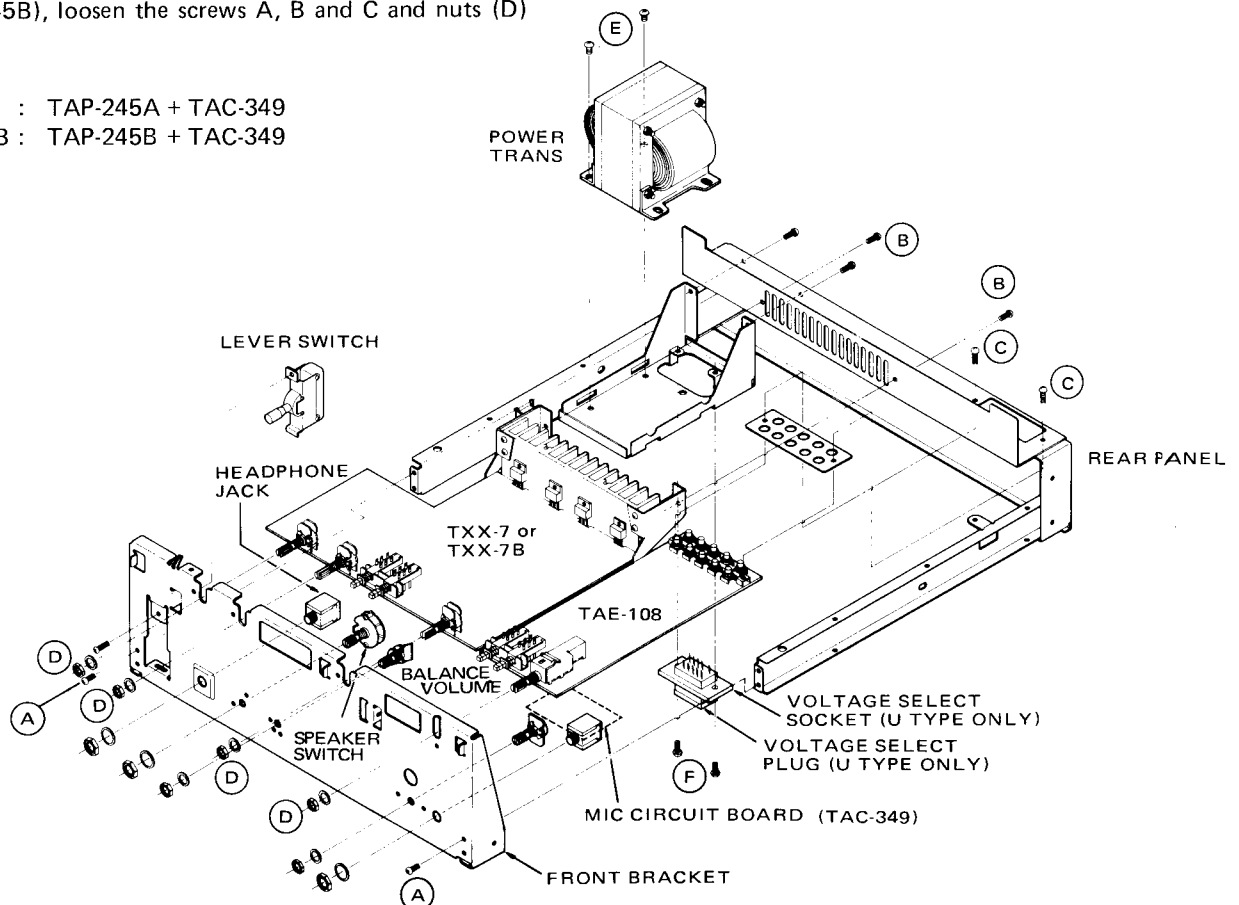


Fig. 6

How to Replace Main Parts (II)

1. First remove the top cover and bottom plate as shown in Fig. 7.
2. To replace the DIN socket and speaker terminals, remove the screws A and the plastic rivets B as shown in Fig. 7.
3. To replace the socket assembly, cord stopper and power

cord, loosen the screws C and remove the transformer bracket. Then, loosen the screws D.

4. To replace the rear panel, remove the screws A,D,E, plastic rivets B and the parts thereto. Then, loosen the screws F and C.

5. The plastic rivets can be removed as illustrated in Fig. 8.

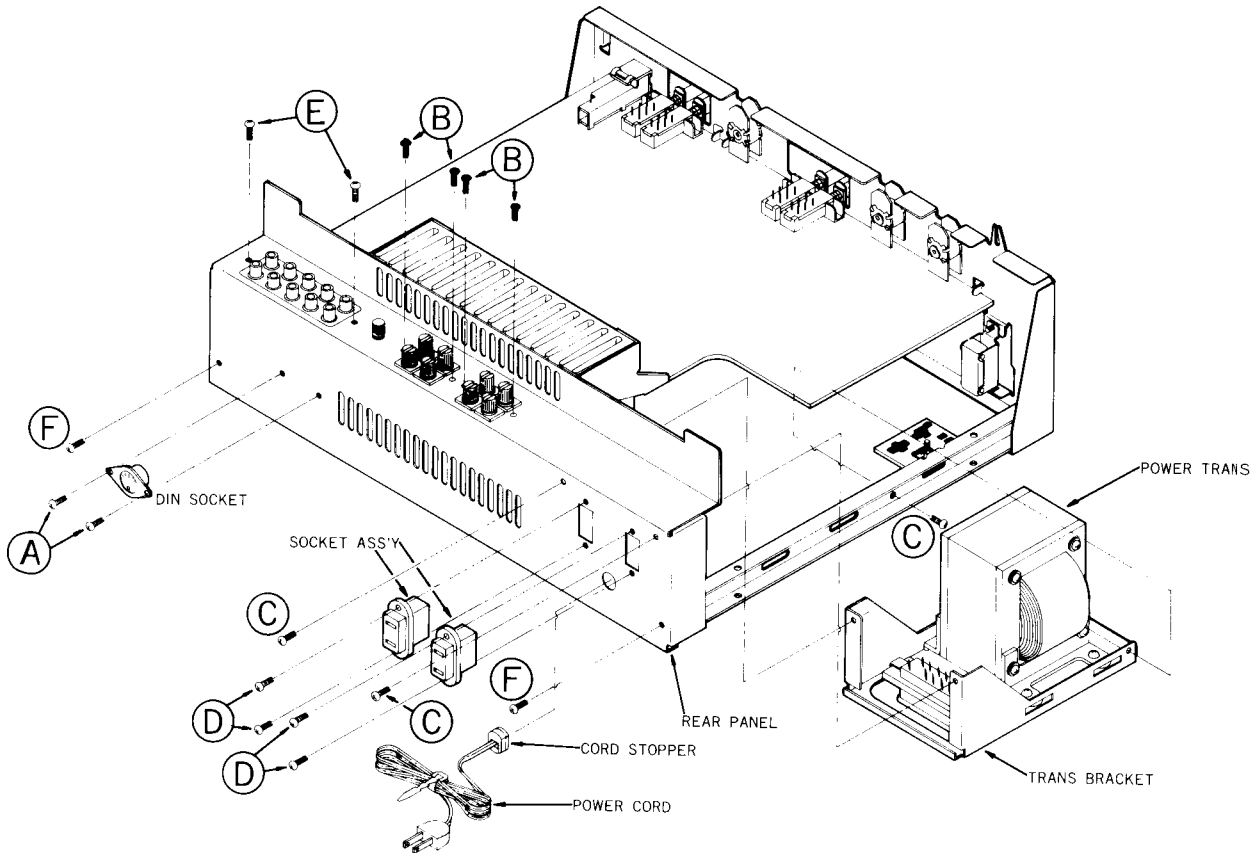


Fig. 7

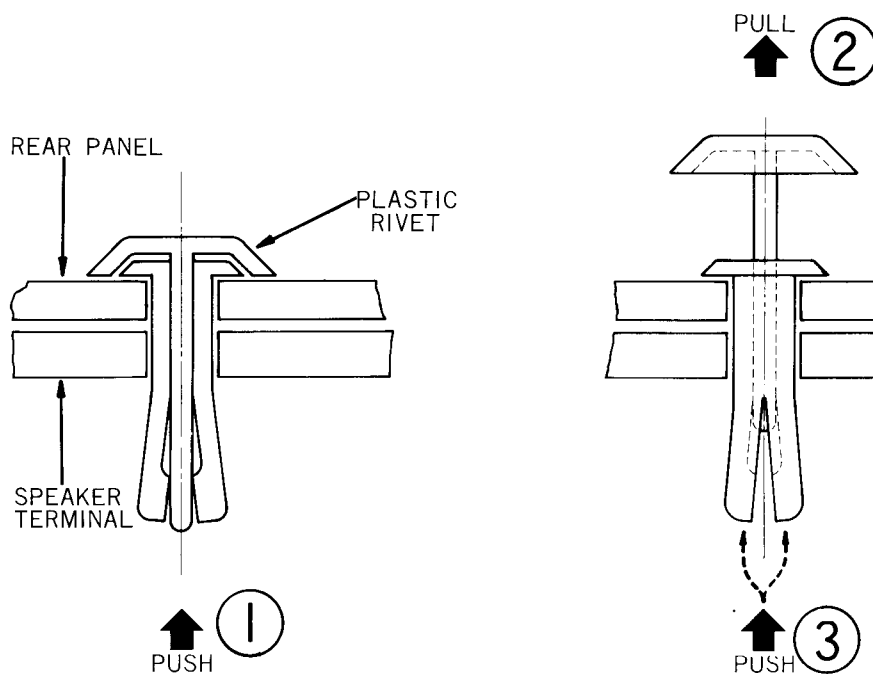


Fig. 8

Alignment

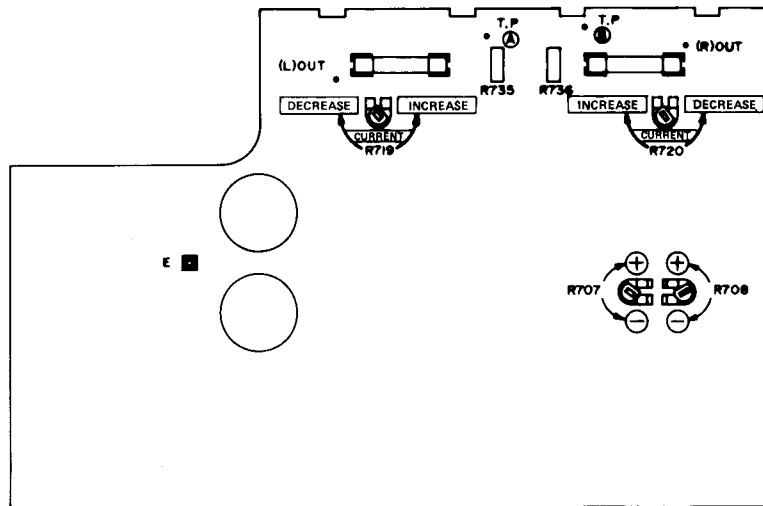


Fig. 9

1. Adjustment of the center voltage of the power amplifier (see Fig. 9).

Adjustment sequence and method:

- * Adjust R707 and R708 to medium before switching the power on.
- * Connect the negative lead of a high sensitivity voltmeter (which can show correct values below 10mV) to E and its positive lead to (L) OUT (of the left channel) or (R) OUT (of the right channel) and switch the power on. Gently turn R707 or R708 little by little until the voltmeter indicates 0V.

Notes:

- * Leave it about 3 to 5 minutes and check it again. If the needle moves from alignment, repeat the same procedural adjustment.
- * If the voltage deviates by more than 100mV, it adversely affects the distortion. Much care as possible should be used to this adjustment.
- * The voltmeter can, also, be connected to the speaker terminals.
- * The voltmeter may deflect in either direction. Be careful, especially, of the deflection toward the minus (-) side.

2. Adjustment of the idling current of the power amplifier (see Fig. 9).

Adjustment sequence and method:

- * Turn R719 and R720 fully, in the direction of DECREASE.
- * Connect the same high sensitivity voltmeter, used in the adjustment of the center voltage, to (L) OUT and TP (A). (When adjusting for the right channel, connect it to (R) OUT and TP (B)).
- * Two or 3 minutes after the power is switched on, turn R719 (R720 for right channel) very slowly in the direction of INCREASE until the voltmeter shows a value of 10mA (approx. 20mA for right channel).
- * After completion of the adjustment to both channels, check, again, the channel which was first adjusted. If the reading is out of alignment, repeat the adjustment. (Two or three times of repeated adjustments will give a correct and reliable result.)

3. Standard Gain

| Input Terminal | 100Hz | 1kHz | 10kHz | Description |
|----------------|----------|----------|----------|--|
| PHONO | 89.2±2dB | 76±2dB | 62.6±2dB | 1kHz: 0dB |
| | +13.2dB | 0 | -13.8dB | |
| MIC | 72±2dB | 70±1.5dB | 67±2dB | MIC MIXING: MAX VOLUME: MAX SELECT SW: PHONO |
| TUNER | 39±2dB | 39±1.5dB | 39±2dB | |
| AUX | 38±2dB | 38±1.5dB | 38±2dB | |

Speaker Terminal: 8Ω Resistor

Voltage Changeover

1. Remove the six screws from the Bottom Board. (see Fig. 10)

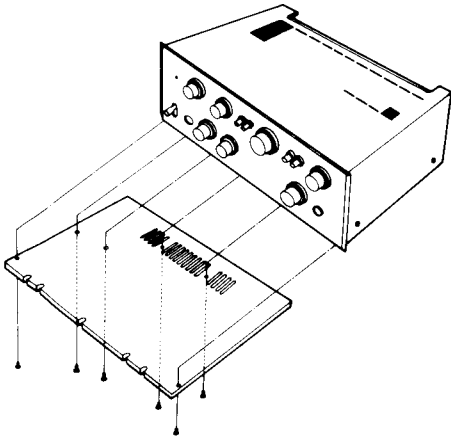


Fig. 10

| AC LINE VOLTAGE | FUSE PARTS NO. | | |
|-----------------|----------------|--------------|-------------|
| | "U" Type | "E" Type | "A" Type |
| 100 – 120V | QMF60R1-2R3 | _____ | _____ |
| 200 – 240V | QMF60R1-1R2 | QMF51A2-1R25 | QMF60R1-1R2 |

2. Remove the Bottom Board from the chassis.
3. The voltage select plug is located at the corner of the chassis. Remove this select plug and change the position of it so that the arrow points to the required voltage. (see Fig. 11)
4. Replace the safety fuse as well as with one of appropriate capacity.

| AC LINE VOLTAGE | FUSE |
|-----------------|------|
| 100 – 120V | 2.3A |
| 200 – 240V | 1.2A |

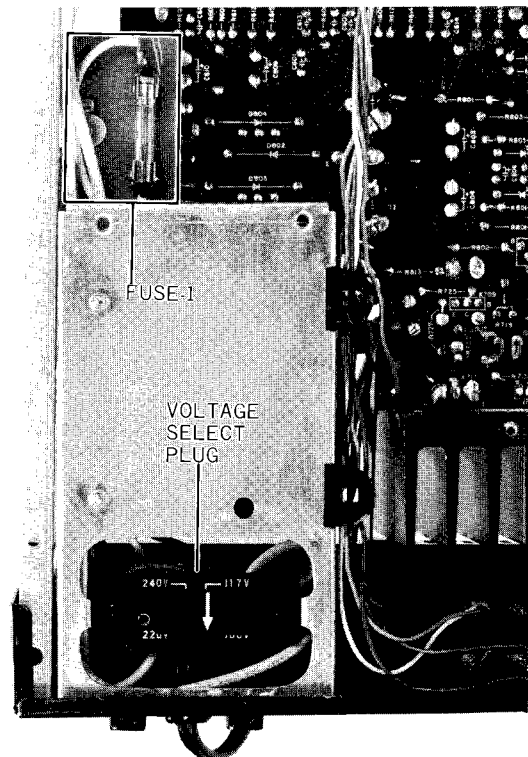


Fig. 11

Exploded View

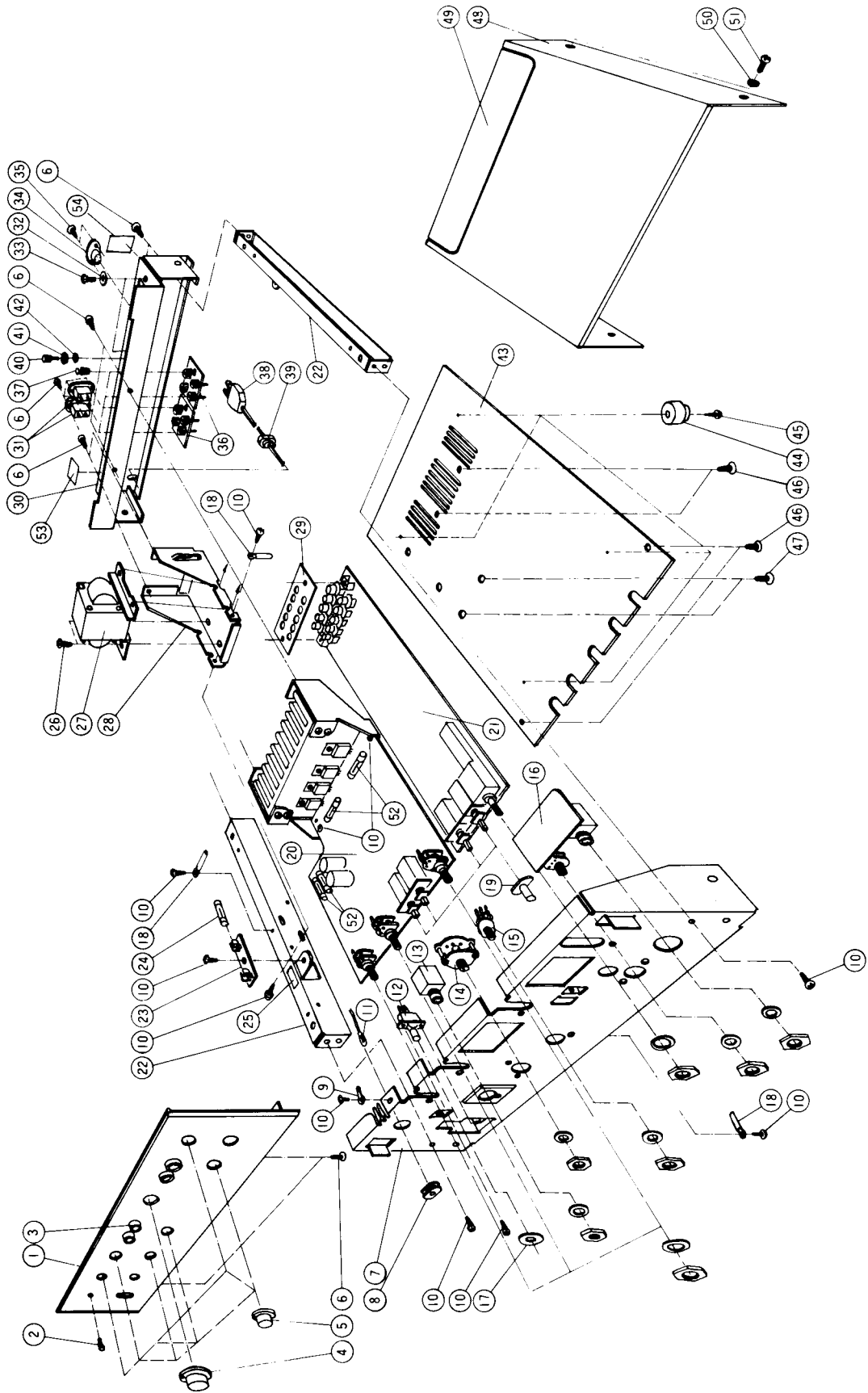


Fig. 12

List of Main Parts

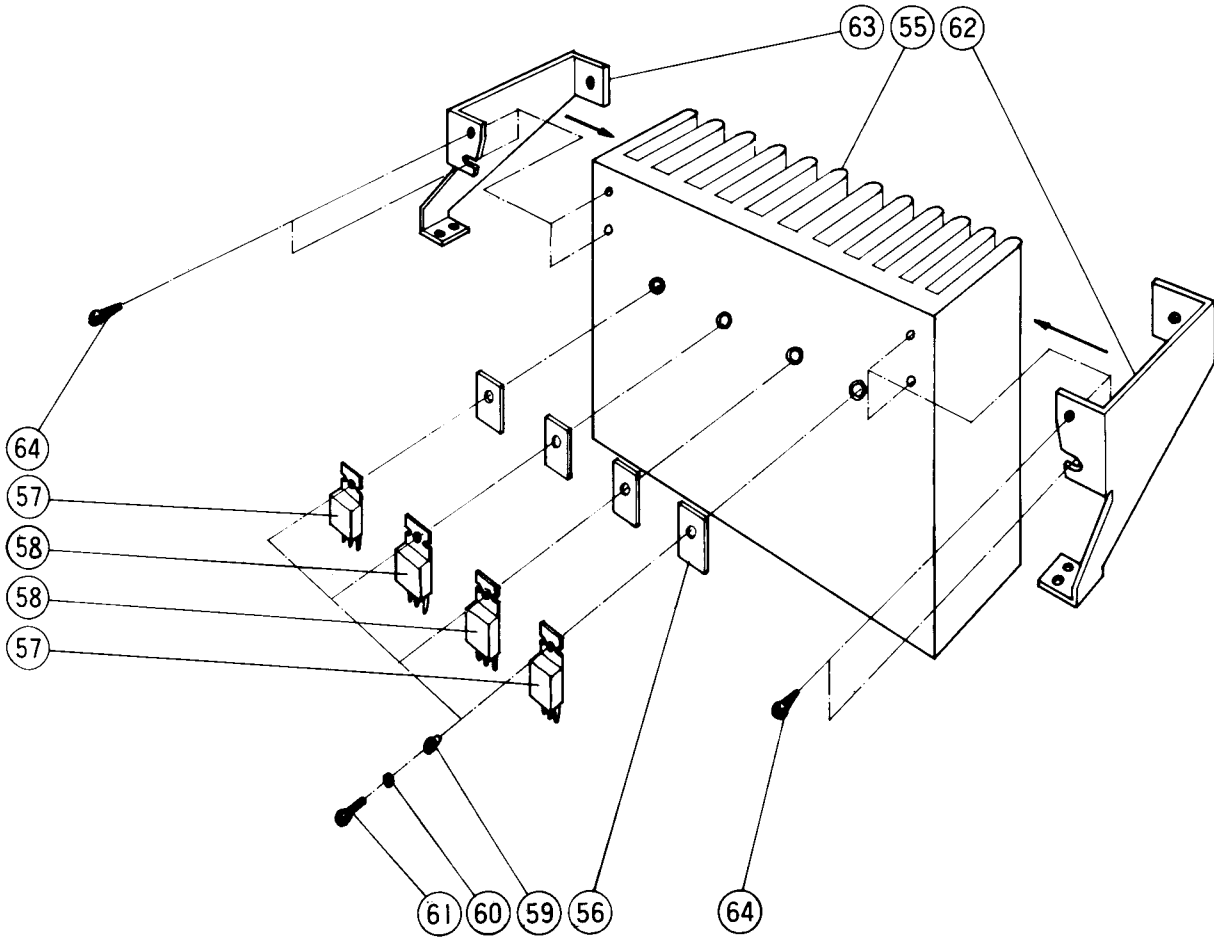


Fig. 13

| Ref. No. | Parts No. | Parts Name | Description |
|----------|-------------|--------------------------------|--|
| 1 | E21666-004 | Front Panel | VOLUME BASS,TREBLE,SPEAKERS,BALANCE, SELECT,MIC MIXING |
| 2 | E46673-003 | Rabbit Eye | |
| 3 | E49640-003 | Escutcheon | |
| 4 | E49643-006 | Knob | |
| 5 | E49645-003 | Knob | |
| 6 | SBSB3008M | Screw | |
| 7 | E21671-001 | Front Bracket | |
| 8 | E43603-004 | R. Bushing | |
| 9 | 52868-3 | Terminal | |
| 10 | SBSB3008Z | Screw | |
| 11 | QLP3104-101 | Lamp Ass'y | "U" Type "E" Type, "A" Type Headphone SPEAKERS |
| 12 | QSU1120-006 | Power Switch | |
| 12 | QSL2235-101 | Lever Switch | |
| 13 | QMS6301-001 | Jack Ass'y | |
| 14 | QSR0060-001 | Rotary Switch | |
| 15 | QVF1A2W-615 | V. Resistor | BALANCE |
| 16 | TXX-7 | Circuit Board Ass'y (Mic. Amp) | "U" Type, "A" Type (TAC-349) |
| 16 | TXX-7B | " | "E" Type (TAC-349) |
| 17 | E45979-012 | Spacer | POWER |
| 18 | E50670-003 | Wire Clamp | |
| 19 | E49642-003 | Push Knob | HI-FILTER, MODE, LOUDNESS, TAPE MONITOR |
| 20 | TXX-7 | Circuit Board Ass'y (Main Amp) | "U" Type, "A" Type (TAP-245A) |
| 20 | TXX-7B | " | "E" Type (TAP-245B) |
| 21 | TAE-108 | Circuit B. Ass'y | |
| 22 | E33910-002 | Support Bracket | |

| Ref. No. | Parts No. | Parts Name | Description |
|----------|--------------|------------------------|-----------------------------|
| 23 | QMG1121-001 | Fuse Board | "U" Type |
| 23 | E34066-001 | Fuse C. Board | "E" Type, "A" Type |
| 24 | QMF60R1-2R3 | Fuse | "U" Type 100V-120V |
| 24 | QMF60R1-1R2 | " | "U" Type 200V-240V |
| 24 | QMF51A2-1R25 | " | "E" Type |
| 24 | QMF60R1-1R2 | " | "A" Type |
| 25 | E45926-006 | Fuse Label | "U" Type (1.2A or 2.3A) |
| 25 | E46264-005 | " | "E" Type (1.25AT) |
| 25 | E43716-004 | " | "A" Type (1.2A) |
| 26 | SBSB4008Z | Screw | |
| 27 | E03075-28B | Power Trans | |
| 28 | E34068-001 | Trans Bracket | |
| 29 | E49689-001 | Pin Jack Cover | |
| 30 | E21665-002 | Rear Panel | |
| 31 | QMC0231-001 | Socket Ass'y | "U" Type only |
| 32 | WNS3000M | Washer | (Black) |
| 33 | LPSP3008MS | Ass'y Screw | (Black) |
| 34 | QMC0589-001 | DIN Socket | |
| 35 | SBSB3008N | Screw | |
| 36 | E03572-101 | Terminal Ass'y | |
| 37 | E48729-001 | Plastic Rivet | |
| 38 | QMP1200-244 | Power Cord | "U" Type |
| 38 | E03329-001 | P. Cord (Conti) | "U" Type |
| 38 | E03544-001 | P. Cord (SEMKO) | "E" Type |
| 38 | QMP3800-240 | Power Cord Ass'y (SEV) | "E" Type |
| 38 | E03551-002 | P. Cord W/Plug | "A" Type |
| 39 | QHS3876-162 | Cord Stopper | "U" Type, "E" Type |
| 39 | QHS6374-252 | " | "A" Type |
| 40 | E47268-001 | Knob Screw | GND |
| 41 | WBS3000N | Washer | |
| 42 | WNS3000N | " | |
| 43 | E21668-003 | Bottom Board | |
| 44 | QZF2112-001 | Foot | |
| 45 | SBSA3012Z | Screw | |
| 46 | SBSB3012M | Screw | (Black) |
| 47 | SBSB4012M | Screw | (Black) |
| 48 | E21669-002 | Top Cover | |
| 49 | E21670-002 | Terminal Cover | |
| 50 | WAS4000N | Washer | |
| 51 | SDSP4008RS | Screw | |
| 52 | QMF60S1-3R3 | Fuse | Fuse 2~5 "U" Type, "A" Type |
| 52 | QMF51A2-3R15 | " | 2~5 "E" Type |
| 53 | E48992-001 | Speaker Label | |
| 54 | E47330-161 | Rating Label | "U" Type |
| 54 | E47330-162 | " | "E" Type |
| 54 | E47330-163 | " | "A" Type |
| 55 | E33912-001 | Heat Sink | |
| 56 | | Insulator Film | X713~716 Accessory |
| 57 | 2SD313V (E) | Transistor | X713, X714 |
| 58 | 2SB507V (E) | " | X715, X716 |
| 59 | E41541-19 | Bushing | |
| 60 | WSS3000N | Washer | |
| 61 | LPSP3008ZS | Screw | |
| 62 | E33976-001 | Bracket | |
| 63 | E33976-002 | " | |
| 64 | SBSB3008Z | Screw | |

TXX-7 Circuit Board Ass'y

TAP-245

TAC-349

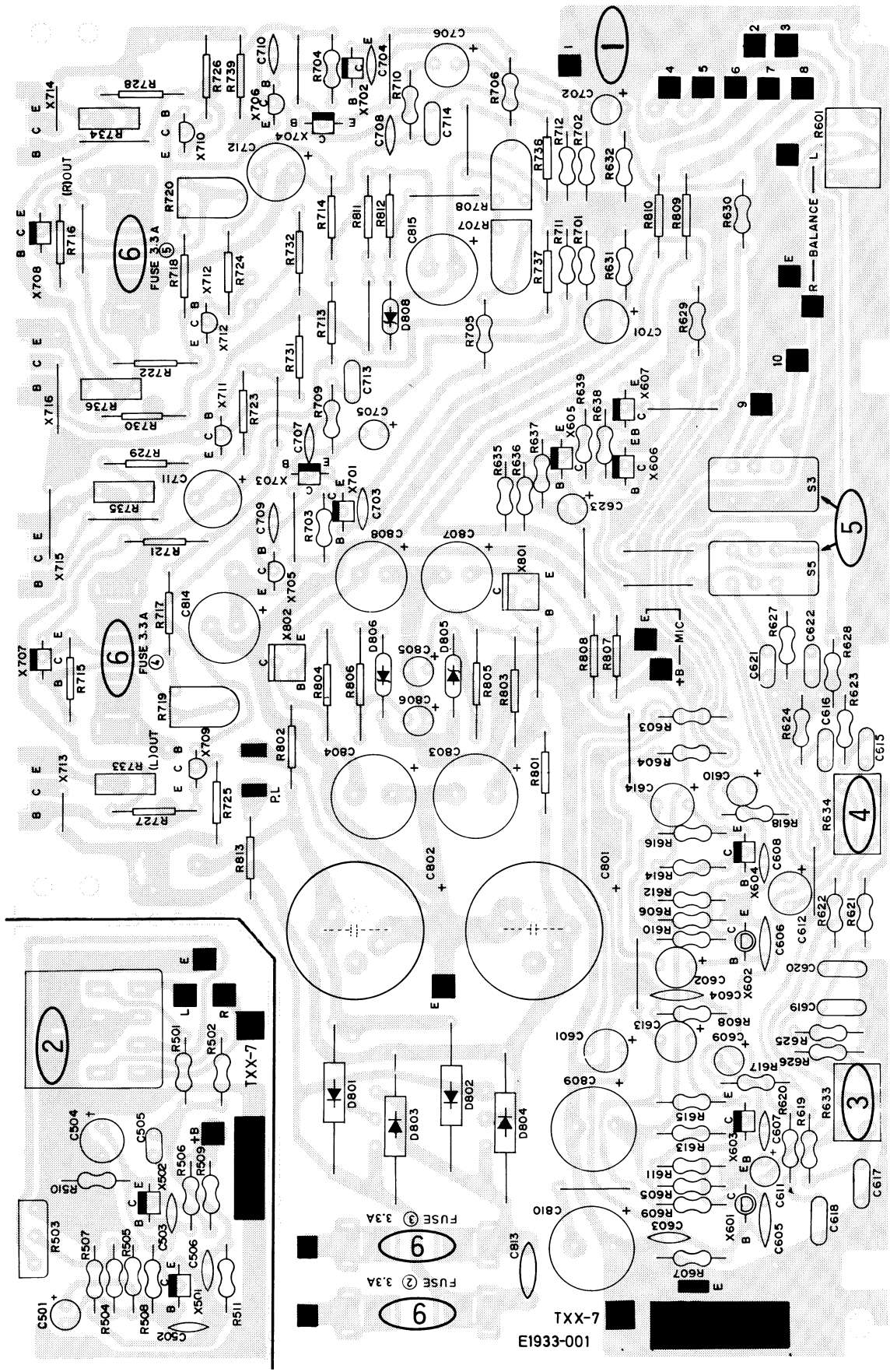


Fig. 14

Transistors

| Ref. No. | Parts No. | Description | Pc | Ft |
|----------|-------------|-----------------|-------|--------|
| X501 | 2SC458LG(C) | Silicon Hitachi | 200mW | 230MHz |
| X502 | " | " " | " | " |
| X601 | 2SA493(GR) | " Toshiba | 200mW | 80MHz |
| X602 | " | " " | " | " |
| X603 | 2SC1345(D)V | " Hitachi | " | 230MHz |
| X604 | " | " " | " | " |
| X605 | 2SC458(C) | " " | " | " |
| X606 | " | " " | " | " |
| X607 | " | " " | " | " |
| X701 | 2SC1345(D)V | " " | " | " |
| X702 | " | " " | " | " |
| X703 | " | " " | " | " |
| X704 | " | " " | " | " |
| X705 | 2SA697(C) | " Mitsubishi | 500mW | 130MHz |
| X706 | " | " " | " | " |
| X707 | 2SC458(C) | " Hitachi | 200mW | 230MHz |
| X708 | " | " " | " | " |
| X709 | 2SC1211(D) | " Mitsubishi | 500mW | 130MHz |
| X710 | " | " " | " | " |
| X711 | 2SA697(D) | " " | " | " |
| X712 | " | " " | " | " |
| X713 | 2SD313V(E) | " Sanyo | 30 W | 8MHz |
| X714 | " | " " | " | " |
| X715 | 2SB507V(E) | " " | " | " |
| X716 | " | " " | " | " |
| X801 | 2SD313V(E) | " " | " | " |
| X802 | 2SB507V(E) | " " | " | " |

X501~502 : 2SC458LG(C) or 2SC1344(D)
 X605~607,707~708 : 2SC458(C) or 2SC1344(D)

Diodes

| Ref. No. | Parts No. | Parts Name | Description | Pc |
|----------|-----------|------------|--------------|------|
| D801 | DSIP | S. Diode | Silicon Fuji | 1A |
| D802 | " | " | " " | " |
| D803 | " | " | " " | " |
| D804 | " | " | " " | " |
| D805 | E0771-19 | Z. Diode | Zener JRC | 0.5W |
| D806 | " | " | " " | " |
| D808 | E0771-10 | " | " " | " |

Other Parts

| Ref. No. | Parts No. | Parts Name | Description |
|----------|--------------|---------------|------------------------|
| 1 | E1933-001 | Circuit Board | |
| 2 | QMS6313-001 | Jack Ass'y | Mic. |
| 3 | QVD7A2W-715 | V. Resistor | R633 BASS |
| 4 | " | " | R643 TREBLE |
| 5 | OSP0229-101 | Push Switch | S3, S5 MODE, HI-FILTER |
| 6 | E48965-002 | Fuse Clip | "E" Type |
| 6 | E45524-001 | " | "U" Type, "A" Type |
| 7 | QMF51A2-3R15 | Fuse | "E" Type |
| 7 | QMF60S1-3R3 | " | "U" Type, "A" Type |

Resistors

| Ref. No. | Parts No. | Parts Name | Description |
|----------|-------------|-------------------|-------------------------|
| R501 | QRD141J-473 | Carbon Resistor | 47k Ω ¼W |
| R502 | " -473 | " | " " |
| R503 | QVG4A2W-515 | Variable Resistor | 100k Ω (W) 0.05W |
| R504 | QRD141J-102 | Carbon Resistor | 1k Ω ¼W |
| R505 | " -333 | " | 33k Ω " |
| R506 | QRZ0019-274 | " | 270k Ω " |
| R507 | " -221 | " | 220 Ω " |
| R508 | QRD141J-154 | " | 150k Ω " |
| R509 | " -682 | " | 6.8k Ω " |
| R510 | " -391 | " | 390 Ω " |
| R511 | " -823 | " | 82k Ω " |
| R601 | QVD8A2B-5F5 | Variable Resistor | 250k Ω (B) 0.1W |
| R603 | QRD141J-102 | Carbon Resistor | 1k Ω ¼W |
| R604 | " -102 | " | " " |
| R605 | " -154 | " | 150k Ω " |
| R606 | " -154 | " | " " |
| R607 | " -184 | " | 180k Ω " |
| R608 | " -184 | " | " " |
| R609 | " -473 | " | 47k Ω " |
| R610 | " -473 | " | " " |
| R611 | " -823 | " | 82k Ω " |
| R612 | " -823 | " | " " |
| R613 | " -103 | " | 1k Ω " |
| R614 | " -103 | " | " " |
| R615 | " -152 | " | 1.5k Ω " |
| R616 | " -152 | " | " " |
| R617 | " -223 | " | 22k Ω " |
| R618 | " -223 | " | " " |
| R619 | " -332 | " | 3.3k Ω " |
| R620 | " -332 | " | " " |
| R621 | " -332 | " | " " |
| R622 | " -332 | " | " " |
| R623 | " -821 | " | 820 Ω " |
| R624 | " -821 | " | " " |
| R625 | " -183 | " | 18k Ω " |
| R626 | " -183 | " | " " |
| R627 | " -124 | " | 120k Ω " |
| R628 | " -124 | " | " " |
| R629 | " -222 | " | 2.2k Ω " |
| R630 | " -222 | " | " " |
| R631 | " -124 | " | 120k Ω " |
| R632 | " -124 | " | " " |
| R635 | " -274 | " | 270k Ω " |
| R636 | " -273 | " | 27k Ω " |
| R637 | " -223 | " | 22k Ω " |
| R638 | " -103 | " | 10k Ω " |
| R639 | " -103 | " | " " |
| R701 | " -823 | " | 82k Ω " |
| R702 | " -823 | " | " " |
| R703 | " -152 | " | 1.5k Ω " |
| R704 | " -152 | " | " " |
| R705 | " -562 | " | 5.6k Ω " |
| R706 | " -562 | " | " " |
| R707 | QVP8A0B-014 | Variable Resistor | 10k Ω 0.1W |
| R708 | " -014 | " | " " |

| Ref. No. | Parts No. | Parts Name | Description |
|----------|-------------|----------------------|-------------------|
| R709 | QRD141J-823 | Carbon Resistor | 82k Ω ¼W |
| R710 | " -823 | " | " " |
| R711 | " -182 | " | 1.8k Ω " |
| R712 | " -182 | " | " " |
| R713 | QRC121K-122 | Composition Resistor | 1.2k Ω ½W |
| R714 | " -122 | " | " " |
| R715 | " -222 | " | 2.2k Ω " |
| R716 | " -222 | " | " " |
| R717 | " -681 | " | 680 Ω " |
| R718 | " -681 | " | " " |
| R719 | QVP8A0B-052 | Variable Resistor | 500 Ω 0.1W |
| R720 | " -052 | " | " " |
| R721 | QRC121K-3R3 | Composition Resistor | 3.3 Ω ½W |
| R722 | " -3R3 | " | " " |
| R723 | " -392 | " | 3.9k Ω " |
| R724 | " -392 | " | " " |
| R725 | " -220 | " | 22 Ω " |
| R726 | " -220 | " | " " |
| R727 | " -151 | " | 150 Ω " |
| R728 | " -151 | " | " " |
| R729 | " -151 | " | " " |
| R730 | " -151 | " | " " |
| R731 | " -220 | " | 22 Ω " |
| R732 | " -220 | " | " " |
| R733 | QRM015K-R47 | Metal Plate Resistor | 0.47 Ω 1W |
| R734 | " | " | " " |
| R735 | " | " | " " |
| R736 | " | " | " " |
| R737 | QRC121K-100 | Composition Resistor | 10 Ω ½W |
| R738 | " -100 | " | " " |
| R739 | " -470 | " | 47 Ω " |
| R801 | QRD126J-121 | Unflamable Resistor | 120 Ω ½W |
| R802 | " -121 | " | " " |
| R803 | QRG011K-152 | Oxide Metal Resistor | 1.5k Ω 1W |
| R804 | " -152 | " | " " |
| R805 | " -331 | " | 330 Ω " |
| R806 | " -331 | " | " " |
| R807 | QRC121K-471 | Composition Resistor | 470 Ω ½W |
| R808 | " -681 | " | 680 Ω " |
| R809 | " -391 | " | 390 Ω " |
| R810 | " -391 | " | " " |
| R811 | " -470 | " | 47 Ω " |
| R812 | QRG011K-152 | Oxide Metal Resistor | 1.5k Ω 1W |
| R813 | " -821 | " | 820 Ω " |

Capacitors

| Ref. No. | Parts No. | Parts Name | Description |
|----------|-------------|-----------------------------|--------------------|
| C501 | QEB41EM-105 | L.L.C. Electrolic Capacitor | 1 μ F/25V |
| C502 | QCS11HJ-681 | Ceramic Capacitor | 680pF/50V |
| C503 | " -470 | " | 47pF/50V |
| C504 | QEB41EM-106 | L.L.C. Electrolic Capacitor | 10 μ F/25V |
| C505 | QEB41HM-474 | " | 0.047 μ F/50V |
| C506 | QCS11HJ-101 | Ceramic Capacitor | 100pF/50V |
| C601 | QEB41HM-105 | L.L.C. Electrolic Capacitor | 1 μ F/50V |
| C602 | " -105 | " | " |
| C603 | QCS11HJ-220 | Ceramic Capacitor | 22pF/50V |
| C604 | " -220 | " | " |
| C605 | " -331 | " | 330pF/50V |
| C606 | " -331 | " | " |
| C607 | " -220 | " | 22pF/50V |
| C608 | " -220 | " | " |
| C609 | QEW41HA-475 | Electrolic Capacitor | 0.47 μ F/50V |
| C610 | " -475 | " | " |
| C611 | QEW41CA-106 | " | 10 μ F/16V |
| C612 | " -106 | " | " |
| C613 | QEW41EA-106 | " | 10 μ F/25V |
| C614 | " -106 | " | " |
| C615 | QFM41HK-223 | Mylar Capacitor | 0.022 μ F/50V |
| C616 | " -223 | " | " |
| C617 | " -104 | " | 0.1 μ F/50V |
| C618 | " -104 | " | " |
| C619 | " -104 | " | " |
| C620 | " -104 | " | " |
| C621 | " -682 | " | 0.0068 μ F/50V |
| C622 | " -682 | " | " |
| C623 | QEB41EM-106 | L.L.C. Electrolic Capacitor | 10 μ F/25V |
| C625 | QFM41HK-223 | Mylar Capacitor | 0.022 μ F/50V |
| C626 | " -223 | " | " |
| C701 | QEB41HM-105 | L.L.C. Electrolic Capacitor | 1 μ F/50V |
| C702 | " -105 | " | " |
| C703 | QCS11HJ-471 | Ceramic Capacitor | 470pF/50V |
| C704 | " -471 | " | " |
| C705 | QEW41CA-476 | Electrolic Capacitor | 47 μ F/16V |
| C706 | " -476 | " | " |
| C709 | QCS11HJ-220 | Ceramic Capacitor | 22pF/50V |
| C710 | " -220 | " | " |
| C711 | QEW41HA-476 | Electrolic Capacitor | 47 μ F/50V |
| C712 | " -476 | " | " |
| C713 | QFM41HK-473 | Mylar Capacitor | 0.047 μ F/50V |
| C714 | " -473 | " | " |
| C801 | QEW81VA-338 | Electrolic Capacitor | 3300 μ F/35V |
| C802 | " -338 | " | " |
| C803 | QEW41VA-477 | " | 470 μ F/35V |
| C804 | " -477 | " | " |
| C805 | QEW41EA-476 | " | 47 μ F/25V |
| C806 | QEW41HA-105 | " | 1 μ F/50V |
| C807 | QEW41EA-227 | " | 220 μ F/25V |
| C808 | " -227 | " | " |
| C809 | " -477 | " | 470 μ F/25V |
| C810 | " -477 | " | " |
| C813 | QCF12HP-103 | Ceramic Capacitor | 0.01 μ F/500V |
| C814 | QEW41HA-107 | Electrolic Capacitor | 100 μ F/50V |
| C815 | QEW41VA-227 | " | 220 μ F/35V |

TAE-108 Circuit Board Ass'y

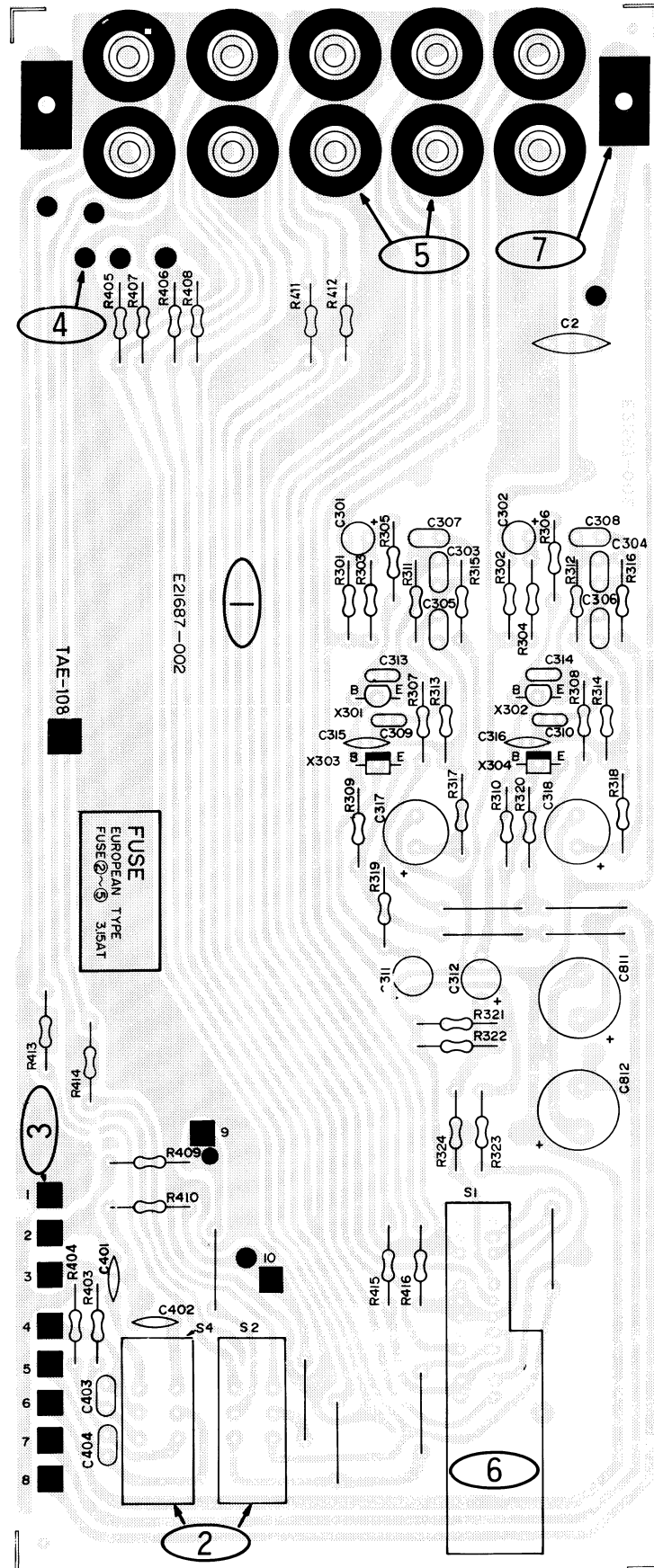


Fig. 15

Transistors

| Ref. No. | Parts No. | Description | Pc | Ft |
|----------|-------------|-----------------|-------|--------|
| X301 | 2SA493(GR) | Silicon Toshiba | 200mW | 80MHz |
| X302 | " | " " | " | " |
| X303 | 2SC1345(D)V | " Hitachi | " | 230MHz |
| X304 | " | " " | " | " |

Resistors

| Ref. No. | Parts No. | Parts Name | Description |
|----------|-------------|-----------------|------------------|
| R301 | QRD141J-104 | Carbon Resistor | 100k Ω ¼W |
| R302 | " -104 | " | " " |
| R303 | " -104 | " | " " |
| R304 | " -104 | " | " " |
| R305 | " -102 | " | 1k Ω " |
| R306 | " -102 | " | " " |
| R307 | QRZ0019-104 | " | 100k Ω " |
| R308 | " -104 | " | " " |
| R309 | " -682 | " | 6.8k Ω " |
| R310 | " -682 | " | " " |
| R311 | QRD141J-824 | " | 820k Ω " |
| R312 | " -824 | " | " " |
| R313 | " -333 | " | 33k Ω " |
| R314 | " -333 | " | " " |
| R315 | " -561 | " | 560 Ω " |
| R316 | " -561 | " | " " |
| R317 | " -683 | " | 68k Ω " |
| R318 | " -683 | " | " " |
| R319 | " -472 | " | 4.7k Ω " |
| R320 | " -472 | " | " " |
| R321 | " -104 | " | 100k Ω " |
| R322 | " -104 | " | " " |
| R323 | " -682 | " | 6.8k Ω " |
| R324 | " -682 | " | " " |
| R403 | " -223 | " | 22k Ω " |
| R404 | " -223 | " | " " |
| R405 | " -334 | " | 330k Ω " |
| R406 | " -334 | " | " " |
| R407 | " -823 | " | 82k Ω " |
| R408 | " -823 | " | " " |
| R409 | " -103 | " | 10k Ω " |
| R410 | " -103 | " | " " |
| R411 | " -472 | " | 4.7k Ω " |
| R412 | " -472 | " | " " |
| R413 | " -472 | " | " " |
| R414 | " -472 | " | " " |
| R415 | " -472 | " | " " |
| R416 | " -472 | " | " " |

Capacitors

| Ref. No. | Parts No. | Parts Name | Description |
|----------|-------------|-----------------------------|--------------------|
| C301 | QEB41HM-105 | L.L.C. Electrolic Capacitor | 1 μ F/50V |
| C302 | " -105 | " | " |
| C303 | QFM41HJ-102 | Mylar Capacitor | 0.001 μ F/50V |
| C304 | " -102 | " | " |
| C305 | " -122 | " | 0.0012 μ F/50V |
| C306 | " -122 | " | " |
| C307 | " -682 | " | 0.0068 μ F/50V |
| C308 | " -682 | " | " |
| C309 | " -122 | " | 0.0012 μ F/50V |
| C310 | " -122 | " | " |
| C311 | QEB41HM-105 | L.L.C. Electrolic Capacitor | 1 μ F/50V |
| C312 | " -105 | " | " |
| C313 | QFM41HK-182 | Mylar Capacitor | 0.0018 μ F/50V |
| C314 | " -182 | " | " |
| C317 | QEW41CA-227 | Electrolic Capacitor | 220 μ F/16V |
| C318 | " -227 | " | " |
| C401 | QCS11HJ-181 | Ceramic Capacitor | 180pF/50V |
| C402 | " -181 | " | " |
| C403 | QFM41HK-103 | Mylar Capacitor | 0.01 μ F/50V |
| C404 | " -103 | " | " |
| C811 | QEW41EA-108 | Electrolic Capacitor | 1000 μ F/25V |
| C812 | " -108 | " | " |

Other Parts

| Ref. No. | Parts No. | Parts Name | Description |
|----------|-------------|------------------|---------------------|
| 1 | E21687-002 | Circuit Board | LOUDNESS TAPE, MON. |
| 2 | QSP0229-101 | Push Switch | |
| 3 | E43727-002 | Tab | |
| 4 | E46687-001 | " | |
| 5 | E03621-001 | Pin Jack Ass'y | |
| 6 | QSR6043-200 | Slide Rotary Sw. | SELECT |
| 7 | E49690-001 | Stay Bracket | |

Connections

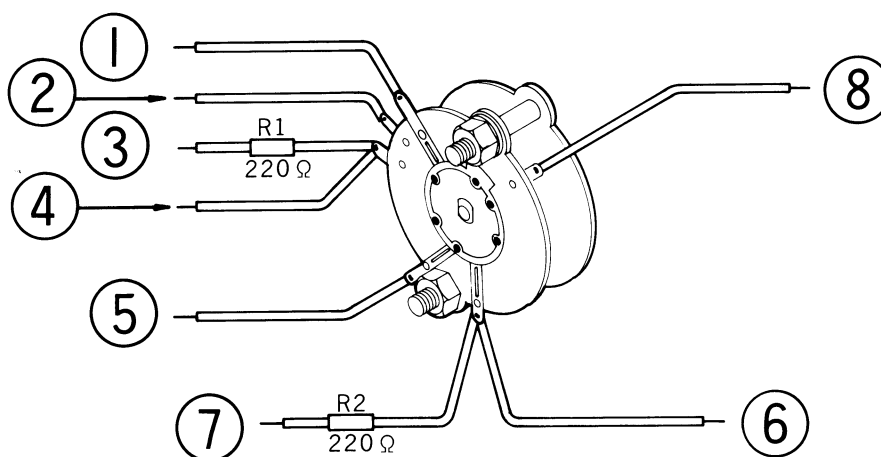


Fig. 16

| Dwg. No. | WIRE'S COLOUR | CONNECTED TO |
|----------|---------------|-----------------------------|
| 1 | BLU | SPEAKER TERMINAL SYSTEM-2 R |
| 2 | WHT | " -1 L |
| 3 | BLK | H.PHONE JACK (Left) |
| 4 | BRW | TAP-245 (L-OUT) |
| 5 | RED | SPEAKER TERMINAL SYSTEM-1 R |
| 6 | GRY | TAP-245 (R-OUT) |
| 7 | | H.PHONE JACK (Right) |
| 8 | GRN | SPEAKER TERMINAL SYSTEM-2 L |

Packing Instructions

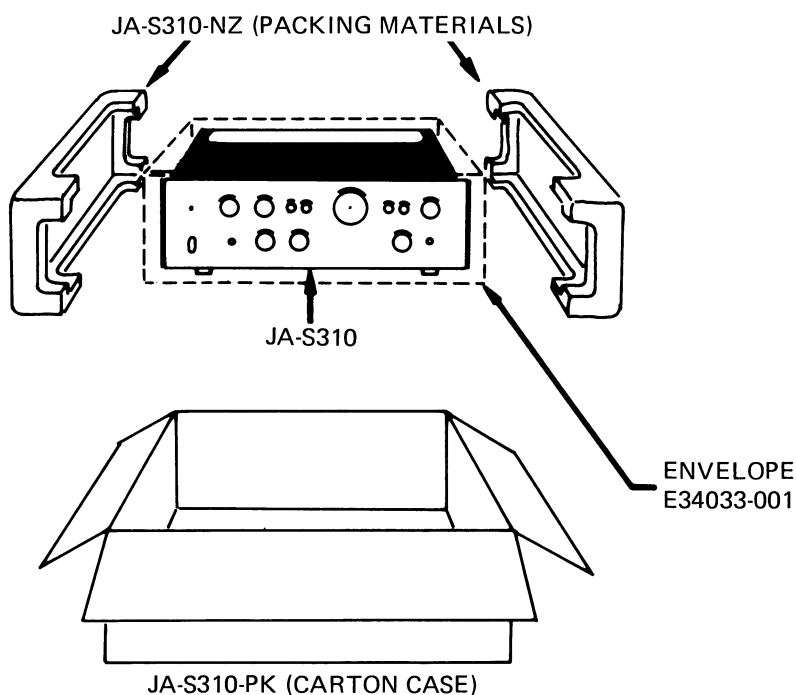
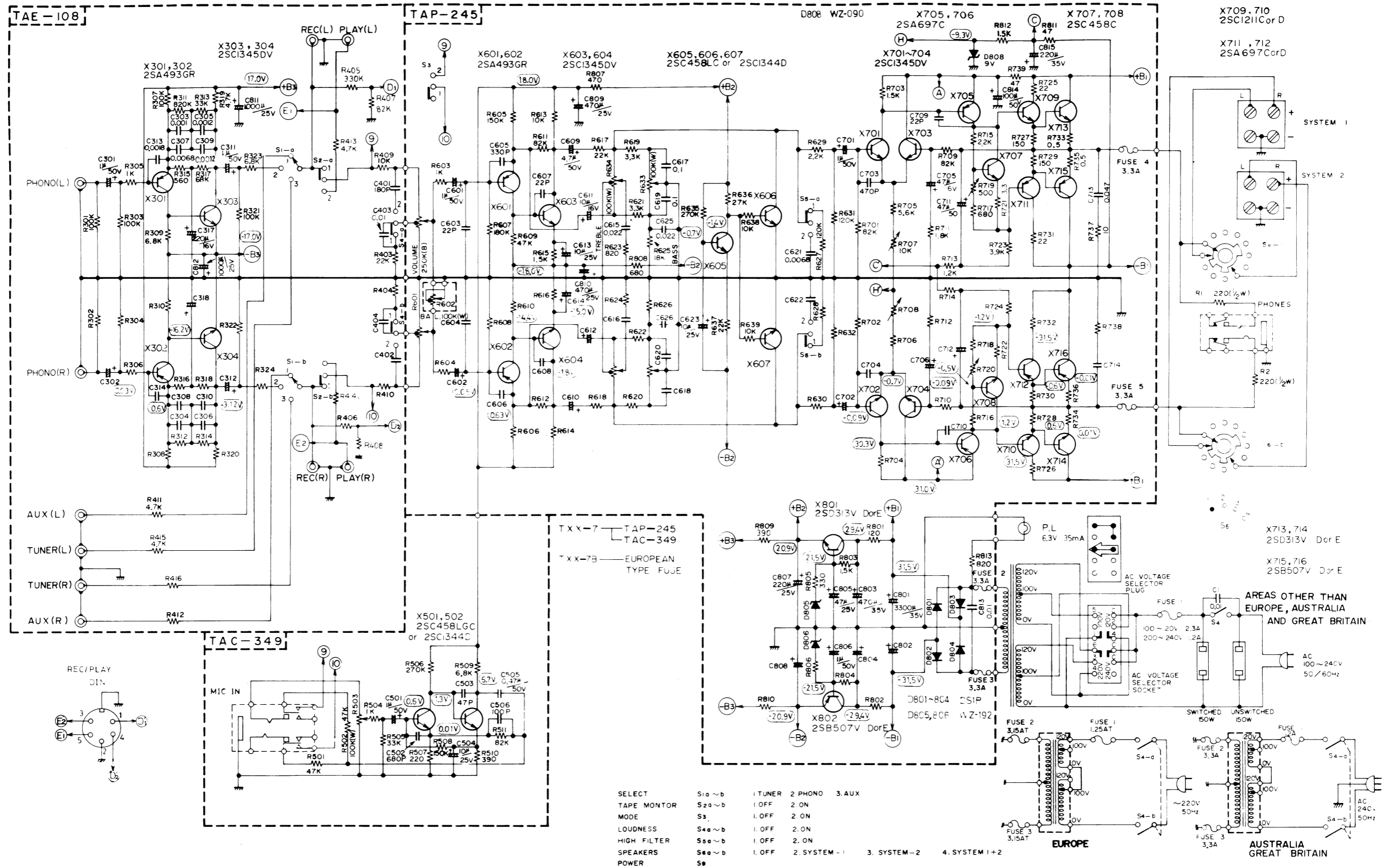


Fig. 17

Schematic Diagram of Model JA-S310



Accessories

| Parts Name | Parts No. | | |
|--------------------------|-------------|-------------|-------------|
| | JA-S310U | JA-S310E | JA-S310A |
| JA-S310 Instruction Book | E30580-487A | E30580-487A | E30580-487A |
| Envelope | E64207-001 | E64207-001 | E64207-001 |
| Fuse | QMF60R1-2R3 | _____ | _____ |
| " | QMF60R1-1R2 | _____ | _____ |
| Label | E7958-A | _____ | _____ |
| Envelope | E64208-001 | _____ | _____ |
| C. Tag | E41457 | _____ | _____ |
| Siemens Plug | E04056 | _____ | _____ |

JVC

VICTOR COMPANY OF JAPAN, LIMITED.
STEREO DIVISION

