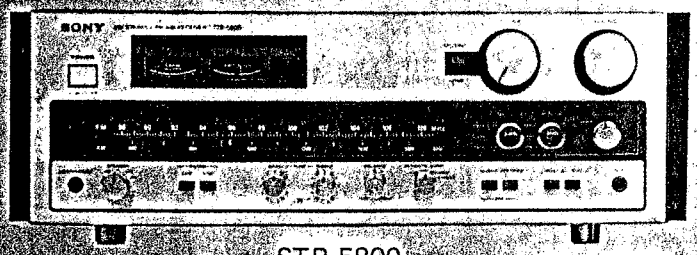
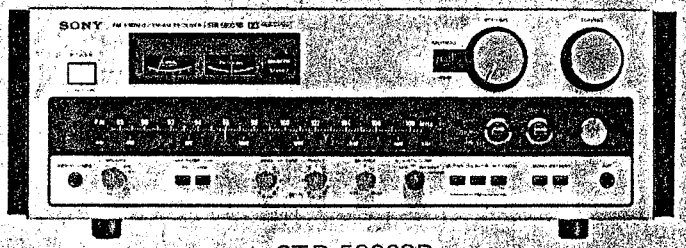
# STR-5800/5800SD

STR-5800SD
*USA Model*
*Canada Model*
STR-5800
*AEP Model*



STR-5800



STR-5800SD

DOLBY FM

**Original**

## FM STEREO/FM-AM RECEIVER

### SPECIFICATIONS

**GENERAL**

| | |
|---|---|
| Power Requirements: | 120 V ac, 60 Hz (USA and Canada Model)<br>110, 127, 220 or 240 V ac adjustable, 50/60 Hz (AEP Model) |
| Power Consumption: | 190 W (USA Model)<br>380 VA (Canada Model)<br>570 W (AEP Model) |
| AC Outlets: | 3 unswitched, total 200 W |
| Dimensions: | Approx.<br>490 (w) x 170 (h) x 415 (d) mm<br>19¼ (w) x 6⁹⁄₁₆ (h) x 16¼ (d) inches<br>Including projecting parts and controls |
| Weight: | Approx.<br>15.4 kg, 34 lb (net)<br>Approx.<br>17.7 kg, 39 lb (with shipping carton) |

**FM SECTION**

| | |
|---|---|
| Tuning Range: | 87.5 MHz – 108 MHz |
| Intermediate Frequency: | 10.7 MHz |
| Sensitivity at 50 dB Quieting: | 3.5 μV (MONO)<br>45 μV (STEREO) |
| Sensitivity at 46 dB Quieting: (40 kHz deviation) | 50 μV (STEREO) (AEP Model) |
| Usable Sensitivity: | IHF 1.7 μV (MONO)<br>1.5 μV, S/N = 26 dB (40 kHz deviation (AEP Model) |
| S/N Ratio: | 73 dB (MONO)<br>68 dB (STEREO) |
| Harmonic Distortion: | at 100 Hz<br>0.2 % (MONO)<br>0.3 % (STEREO)<br>at 1 kHz<br>0.2 % (MONO)<br>0.3 % (STEREO)<br>at 10 kHz<br>0.2 % (MONO)<br>0.6 % (STEREO) |
| IM Distortion: | 0.2 % (MONO)<br>0.3 % (STEREO) |
| Separation: | 35 dB at 100 Hz<br>40 dB at 1 kHz<br>35 dB at 10 kHz |
| Frequency Response: | 30 Hz – 15 kHz $^{+0.2}_{-1.5}$ dB (USA and Canada Model)<br>40 Hz – 12.5 kHz $^{+0.2}_{-1.0}$ dB (AEP Model) |
| Capture Ratio: | 1.0 dB |
| AM Suppression Ratio: | 54 dB |
| Image Response Ratio: | 75 dB |

– Continued on next page –

* STR-5800SD is equipped with DOLBY FM circuit. 'Dolby' and the double-D symbol are the trade marks of Dolby Laboratory Inc. Noise reduction system manufactured under license from Dolby Laboratories Licensing Corporation.

**Original**

SONY®
SERVICE MANUAL

IF Response Ratio: 100 dB

Spurious Response Ratio: 100 dB

RF Intermodulation: 65 dB

Sub-carrier Product Ratio: 60 dB

Muting Threshold: Approx. 5 μV

FM DISCRI Output Level: 250 mV, 2,500 Ω, at 1 kHz, 100 % modulation

AM SECTION

Tuning Range: 530 kHz — 1,605 kHz

Intermediate Frequency: 455 kHz (USA and Canada Model)
468 kHz (AEP Model)

Usable Sensitivity: 250 μV/m, built-in ferrite-rod antenna
100 μV, external antenna at 1,000 kHz

S/N Ratio: 50 dB at 50 mV/m

Harmonic Distortion: 0.5 % at 50 mV/m, 400 Hz

Selectivity: 35 dB

Image Response Ratio: 40 dB at 1,000 kHz

IF Response Ratio: 35 dB at 1,000 kHz

AUDIO AMPLIFIER SECTION

Continuous RMS Power Output: (rated output) (less than 0.2 % THD)
Both channels driven simultaneously
At 20 — 20,000 Hz
55 + 55 W (8 Ω)
At 1 kHz
60 + 60 W (8 Ω) } (AEP Model)
75 + 75 W (4 Ω) }
According to DIN 45500
60 + 60 W (8 Ω) } (AEP Model)
70 + 70 W (4 Ω) }

Dynamic Power Output: (IHF constant power supply method)
200 W (8 Ω) } (AEP Model)
280 W (4 Ω) }

Power Bandwidth: 10 — 35,000 Hz, IHF (AEP Model)

Damping Factor: 40 at 1 kHz (8 Ω)

Harmonic Distortion:
Less than 0.2 % at rated output } (AEP Model)
Less than 0.1 % at 1 W output }

IM Distortion: (60 Hz : 7 kHz = 4 : 1)
Less than 0.2 % at rated output
Less than 0.1 % at 1 W output

Residual Noise: Less than 0.1 μW

Frequency Response:

| | |
|---|---|
| PHONO | RIAA equalization curve ±0.5 dB |
| AUX<br>TAPE 1, 2<br>REC/PB (AEP Model)<br>EXT ADPT | 10 — 30,000 Hz $\pm \frac{0}{2}$ dB |

Input Sensitivity, Impedance and S/N Ratio:

| | Sensitivity | Impedance | S/N | Weighting network |
|---|---|---|---|---|
| PHONO | 2.5 mV | 50 kΩ | 72 dB | A |
| AUX<br>TAPE 1, 2<br>REC/PB<br>(AEP Model)<br>EXT ADPT | 250 mV | 100 kΩ | 90 dB | A |

Note: Measured with rated output into 8 Ω loads (both channels driven simultaneously) at 1 kHz.

Output Level and Impedance:

| | Output level | Impedance | Input level |
|---|---|---|---|
| REC OUT 1, 2 | 250 mV | 4.7 kΩ | PHONO 2.5 mV |
| REC/PB (AEP Model) | 40 mV | 82 kΩ | AUX<br>TAPE 1, 2 250 mV<br>REC/PB (input) |
| EXT ADPT | 250 mV | 4.7 kΩ | EXT ADPT |

HEADPHONES: Accepts 8 — 10,000 Ω headphones. headphones.

SPEAKER: 4 — 16 Ω speakers are suitable.

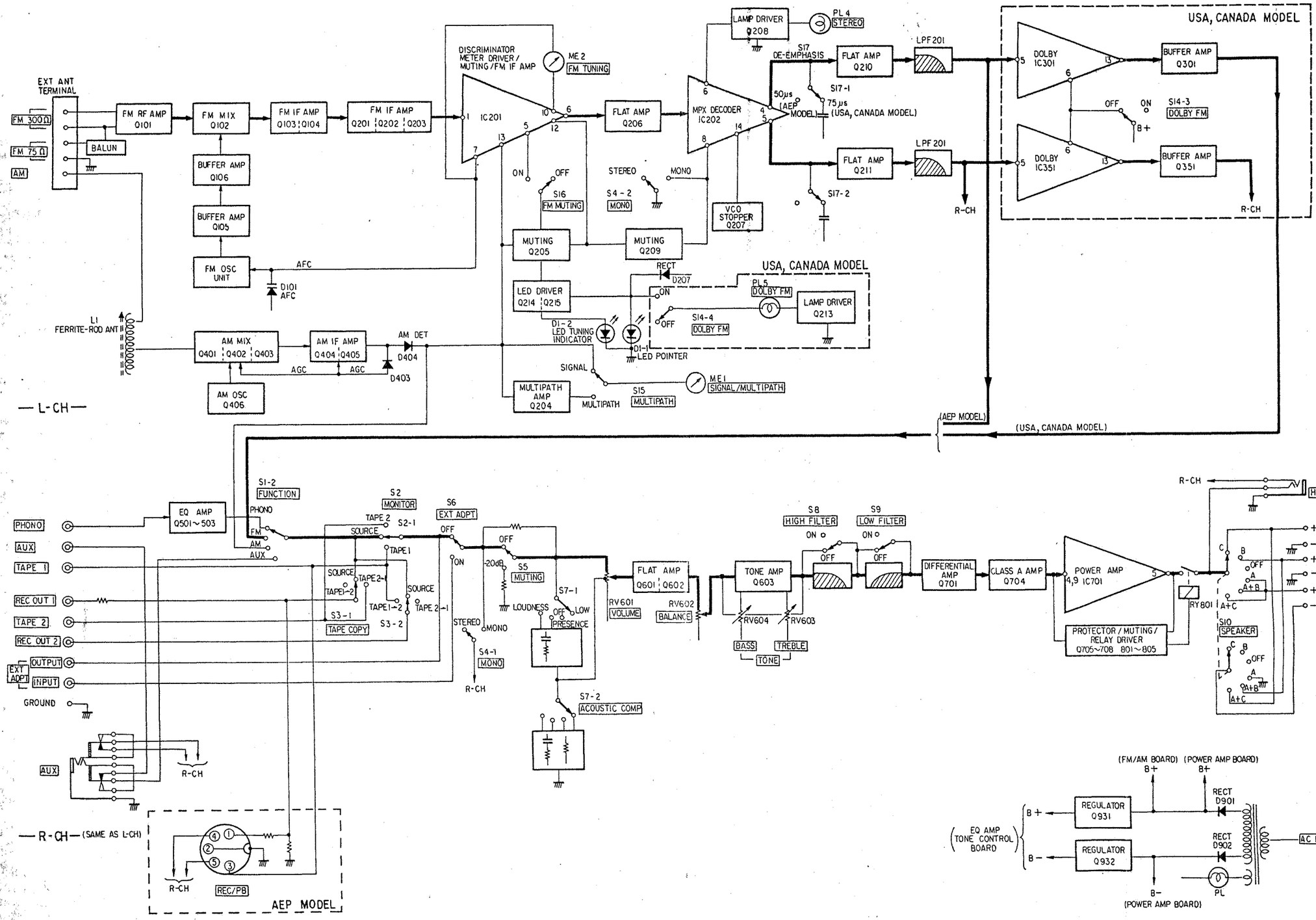
Tone Controls: BASS ±10 dB at 100 Hz
TREBLE ±10 dB at 10 kHz

Filters: HIGH 6 dB/oct. above 6 kHz
LOW 6 dB/oct. below 35 Hz

Acoustic Compensator: (att. 30 dB)
LOW +9 dB at 50 Hz
PRESENCE +3 dB at 1 kHz
LOUDNESS +10 dB at 50 Hz
+3 dB at 10 kHz

SECTION 1

BLOCK DIAGRAM



# SECTION 2

# DISASSEMBLY AND REPLACEMENT

## 2-1. SIDE BOARDS REMOVAL

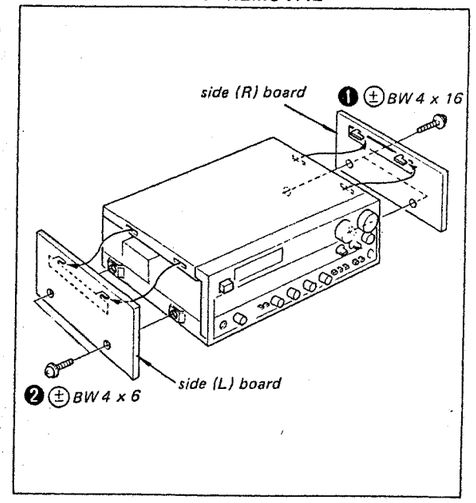



Fig. 2-1.

## 2-2. TOP COVER REMOVAL

Remove the side boards (2-1) first.

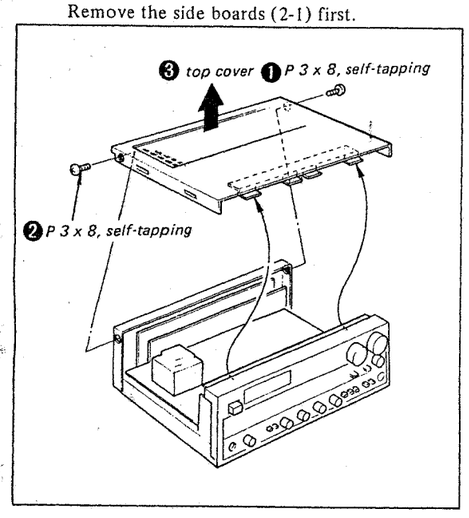



Fig. 2-2.

## 2-3. BOTTOM PLATE REMOVAL

It is possible to check the circuit boards after removing the bottom plate.

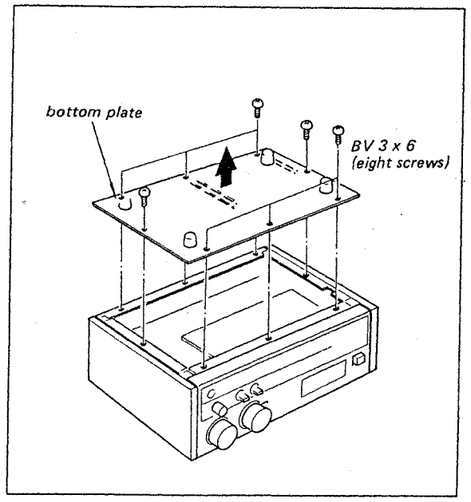



Fig. 2-3.

## 2-4. FRONT PANEL REMOVAL

Remove the side boards (2-1) and top cover (2-2) first.

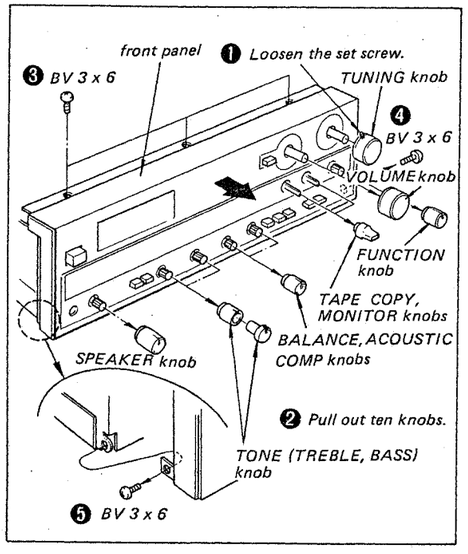



Fig. 2-4.

## 2-5. CIRCUIT BOARDS REMOVAL

**TONE Control, AUX Jack and HEADPHONES Jack Circuit Boards Removal.**

1. Remove the bottom plate (2-3) and front panel (2-4) first.
2. Remove three screws ( ❶ – ❸ ) as shown in Fig. 2-5.
   After removing the circuit boards from the front subchassis, replace the defective switch or jack.

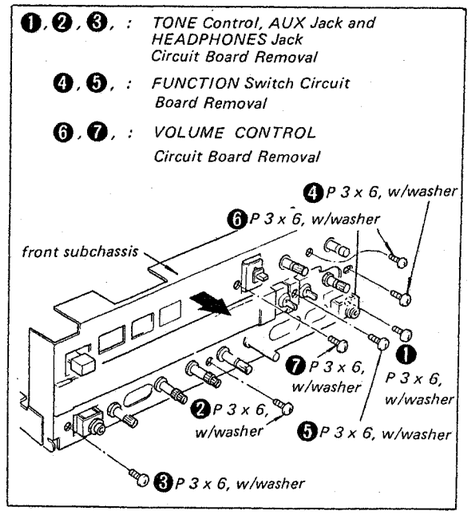



Fig. 2-5.

**FUNCTION Switch Circuit Board Removal**

1. Remove the front panel (2-4) first.
2. Remove two screws (❹, ❺) as shown in Fig. 2-5. After removing the circuit board from the front subchassis, replace the defective switch.

**VOLUME CONTROL Circuit Board Removal**

1. Remove the front panel (2-4) first.
2. Remove two screws (❻, ❼) as shown in Fig. 2-5. After removing the circuit board from the front subchassis, replace the defective control.

**POWER AMP and EQ AMP Circuit Board Removal**

1. Remove the bottom plate ( 2 - 3 ) first.
2. See Fig. 2-6.

❶: POWER AMP Circuit Board Removal
❷: EQ AMP Circuit Board Removal

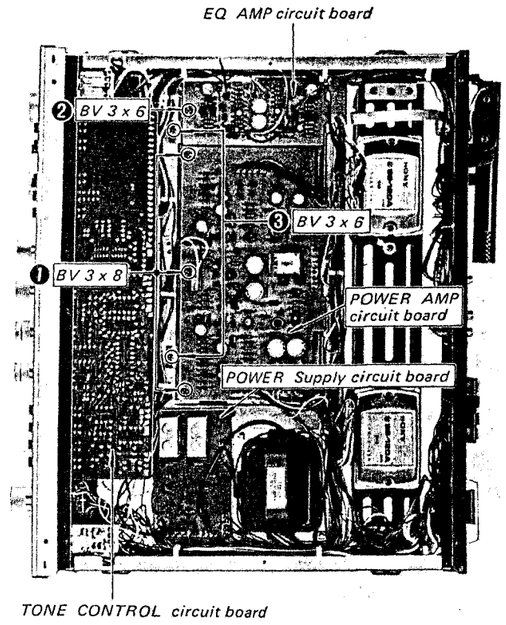


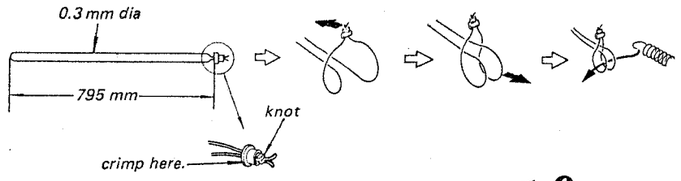

Fig. 2-6.

Replacement of the Components on the Front-End Circuit Board.

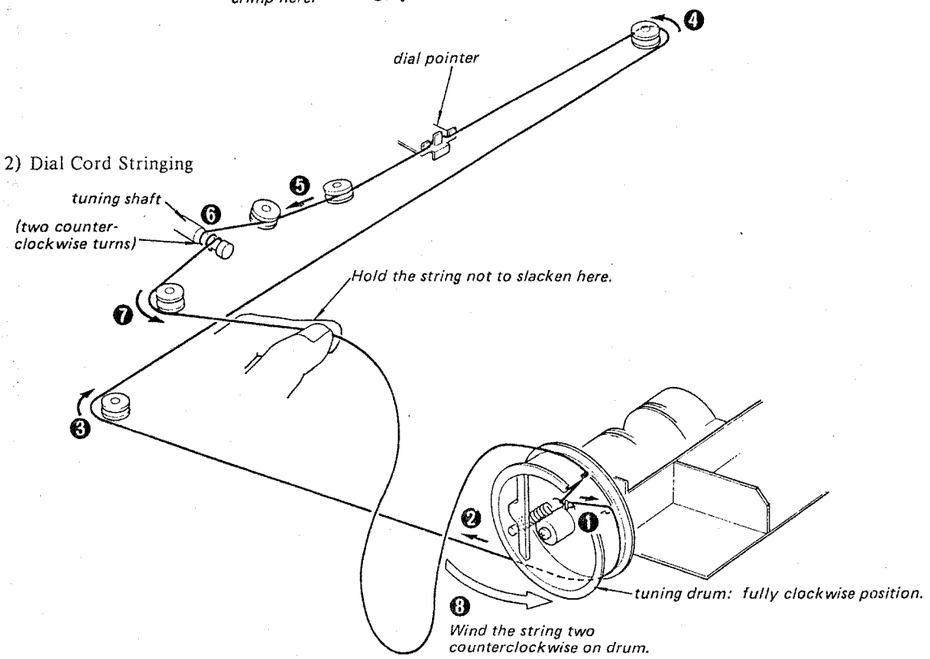
1. Remove the bottom plate ( 2 - 3 ) first.
2. Remove two BV 3 x 6 screws ❸ securing the power amp and EQ amp circuit boards to the shield plate as shown in Fig. 2-6.
3. Remove the shield plate from the chassis.
4. It is possible to unsolder the components on the front-end circuit board.

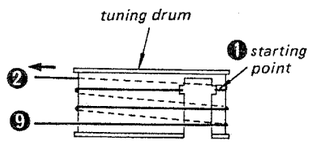
## 2-6. DIAL CORD STRINGING

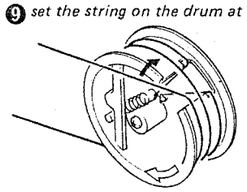
1) Dial Cord Length




2) Dial Cord Stringing






# SECTION 3

# ALIGNMENTS AND ADJUSTMENTS

## FM FREQUENCY COVERAGE AND TRACKING ALIGNMENT

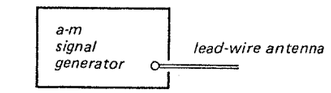
Never attempt alignment of the fm front-end section for the fm frequency coverage and tracking alignment. If the fm frequency coverage alignment is required, replace the fm front-end board.

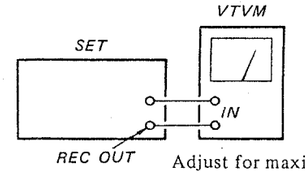
In the case of tracking alignment, ask your nearest SONY Service Station to send your set to the Factory Service Center.

## AM FREQUENCY COVERAGE AND AM TRACKING ALIGNMENT

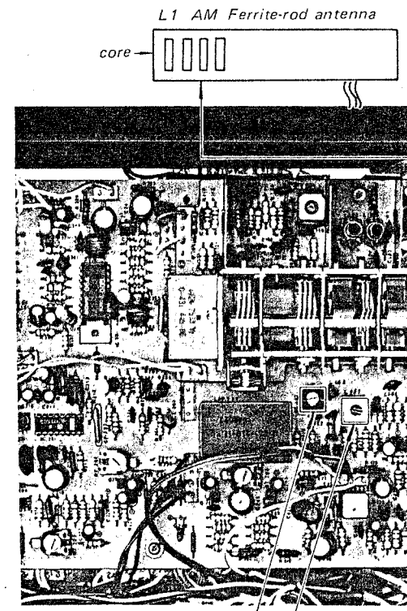
Test setup:

FUNCTION selector: AM




Adjust for maximum reading.




| Step | AM TRACKING ALIGNMENT |
|---|---|
| 1 | L1 (600 kHz) |
| 2 | CT401 (1,400 kHz) |

Note: Repeat step 1 and 2 several times, and finish the alignment at step 2.

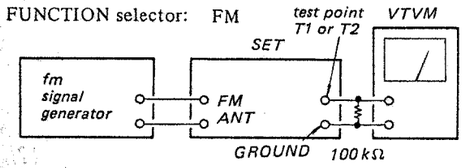
| Step | AM FREQUENCY COVERAGE ALIGNMENT | DIAL INDICATION |
|---|---|---|
| 1 | L402 (520 kHz) | Lower End |
| 2 | CT402 (1,680 kHz) | Upper End |

Note: Repeat step 1 and 2 several times, and finish the alignment at step 2.

## FM OUTPUT LEVEL ADJUSTMENT

**Setup:**

FUNCTION selector: FM




FM Signal Generator Setting:

| | |
|---|---|
| Carrier frequency: | 98 MHz |
| Modulation: | 400 Hz, 75 kHz deviation (100 %) |
| Output level: | 1 mV (60 dB) |

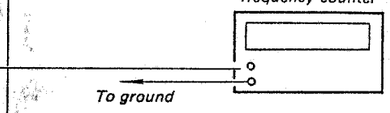
**Procedure:**

Adjust RT201 for 870 mV on the VTVM.

## MPX ADJUSTMENT

**Setup:**

FUNCTION selector: FM




FM Signal Generator Setting:

| | |
|---|---|
| Carrier frequency: | 98 MHz |
| Modulation: | no modulation |
| Output level: | 3.2 mV (70 dB) |

**Procedure:**

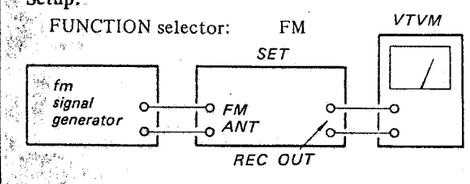
Adjust RT205 for 19 kHz ± 100 Hz on the counter with no input signal.

**Note:** Perform this adjustment after the power switch turned ON and one minute passed.

## SIGNAL METER ADJUSTMENT

**Setup:**

FUNCTION selector: FM

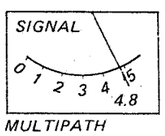



FM Signal Generator Setting:

| | |
|---|---|
| Carrier frequency: | 98 MHz |
| Modulation: | no modulation |
| Output level: | 3.2 mV (70 dB) |

**Procedure:**

Tune the set to 98 MHz and adjust RT204 for specified pointer position (See figure below.) on the SIGNAL meter.

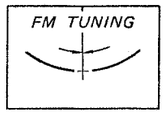


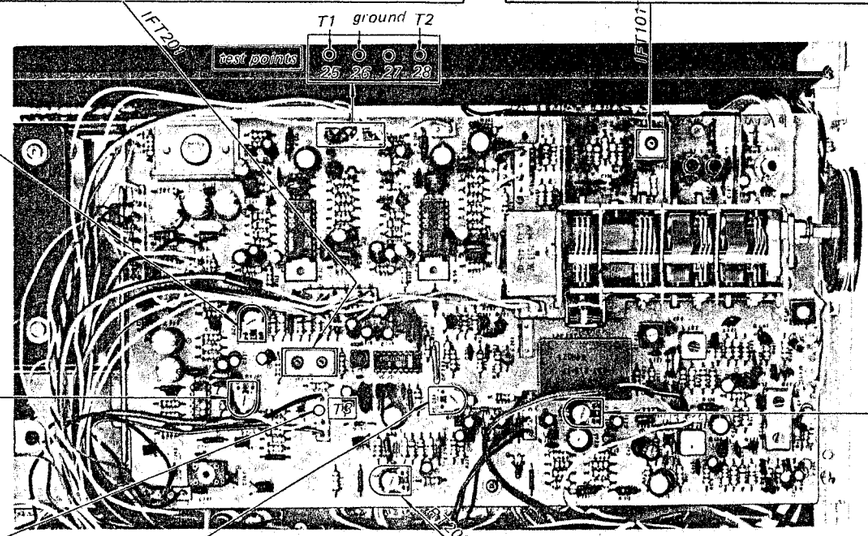

## DISCRIMINATOR ALIGNMENT

**Procedure:**

FUNCTION selector: FM

1. Detune the set.
2. Adjust the secondary side core of IFT201 for zero center on the TUNING meter.

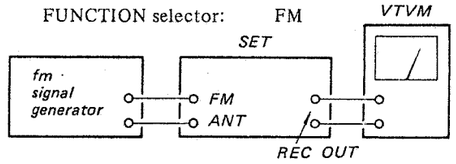



## FM IF ALIGNMENT

**Setup:**

FUNCTION selector: FM




FM Signal Generator Setting:

| | |
|---|---|
| Carrier frequency: | 98 MHz |
| Modulation: | 400 Hz, 75 kHz deviation (100 %) |
| Output level: | 1 mV (60 dB) |

**Procedure:**

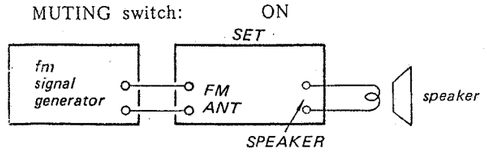
Tune the set to 98 MHz and adjust IFT101 for maximum reading on the VTVM.

## MUTING LEVEL ADJUSTMENT

**Setup:**

FUNCTION selector: FM

MUTING switch: ON




FM Signal Generator Setting:

| | |
|---|---|
| Carrier frequency: | 98 MHz |
| Modulation: | 400 Hz, 75 kHz deviation (100 %) |

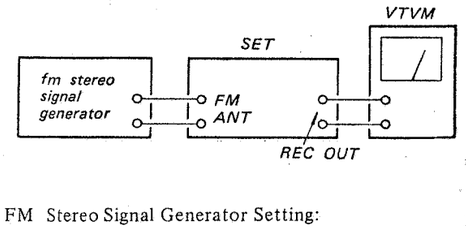
**Procedure:**

1. Set the output level of the fm signal generator to 5.6 μV (15 dB).
2. Adjust R203 for the point that the sound begins to disappear.

## FM STEREO SEPARATION ADJUSTMENT

**Setup:**

FUNCTION selector: FM




FM Stereo Signal Generator Setting:

| | |
|---|---|
| Carrier frequency: | 98 MHz |
| Mode: | Stereo |
| Audio (400 Hz) Mode: | 67.5 kHz (90 %) |
| Pilot (19 kHz) Mode: | 7.5 kHz (10 %) |

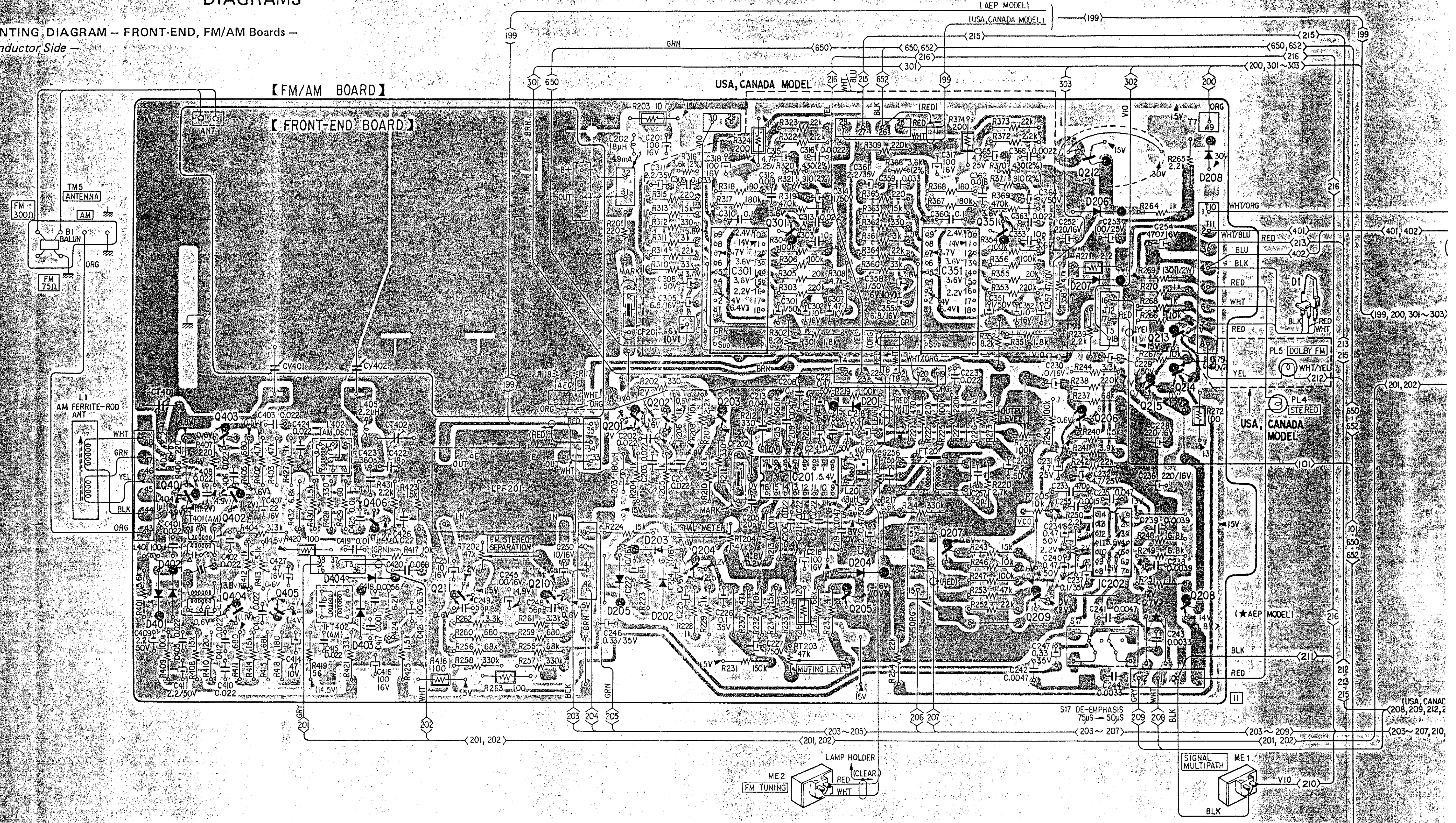
**Procedure:**

1. Tune the set to 98 MHz.
2. Set the signal generator channel selector to L-CH.
3. Connect the VTVM to the REC OUT "L-CH" of the set and read the output level on the VTVM.
4. Turn the stereo signal generator channel selector from L-CH to R-CH and adjust RT202 for minimum output on the VTVM.

   **Note:** The output level difference between step 3 and step 4 represents the separation.
5. Connect the VTVM to the REC OUT "R-CH" of the set and read the output level on the VTVM.
6. Turn the stereo signal generator channel selector from R-CH to L-CH and adjust RT202 for minimum output on the VTVM.
7. If the separation obtained in step 4 and step 6 differs more than 3 dB in value, readjust RT202 to be less than 3 dB.

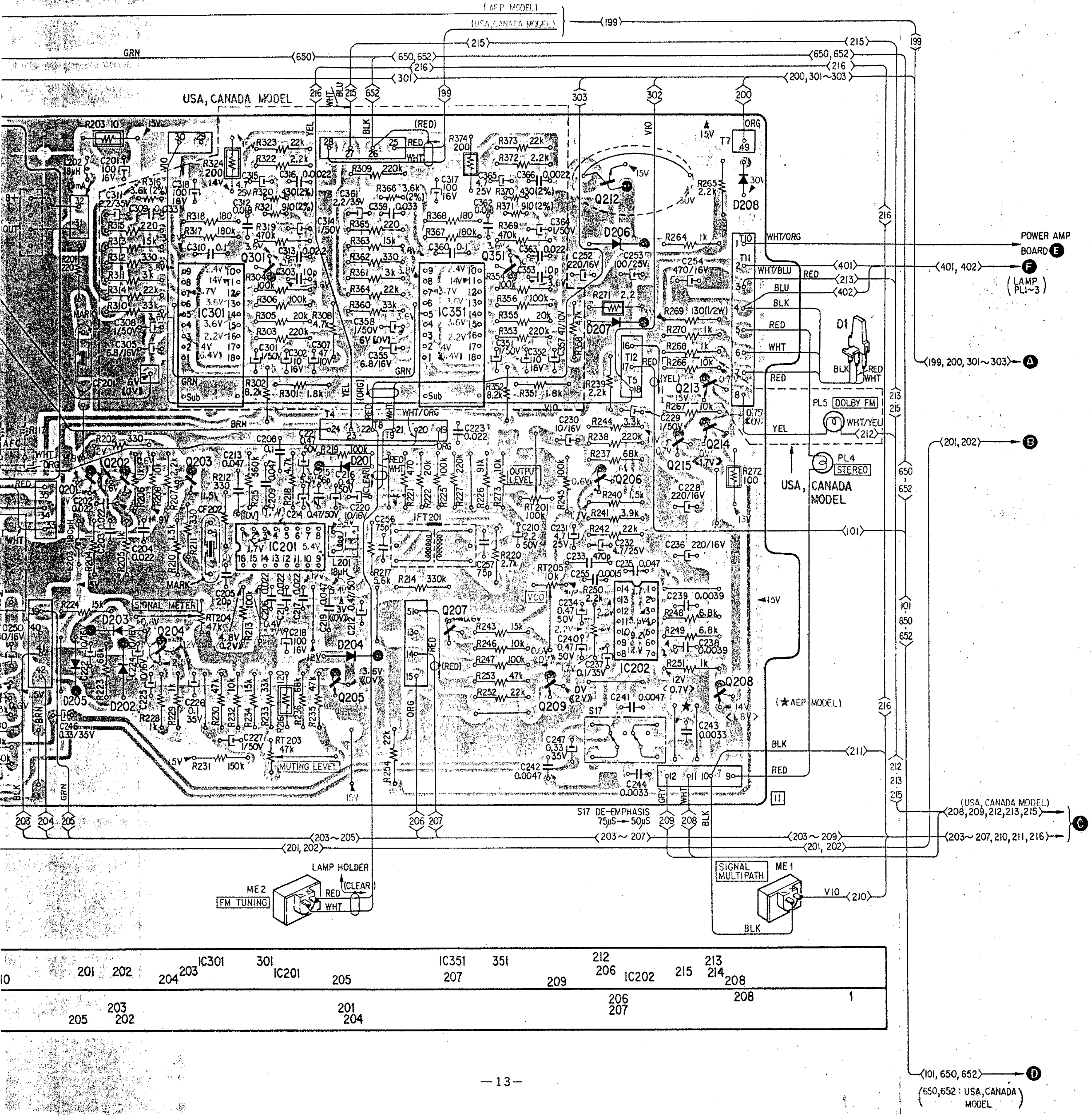
## SECTION 4
## DIAGRAMS

### 4-1. MOUNTING DIAGRAM – FRONT-END, FM/AM Boards –
*– Conductor Side –*

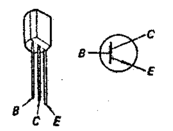


| | |
|---|---|
| Q & IC | 401, 403, 402, 404, 405, 406, 211, 210, 201, 202, 204, 203, IC301, 301, IC201, 205, IC351, 207, 351, 209, 212, 206, IC202, 215, 213, 214, 208 |
| D | 401, 402, 404, 403, 205, 203, 202, 201, 204, 206, 207, 208, 1 |

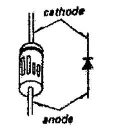
STR-5800/5800SD



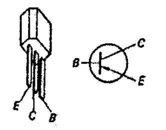
**Q201～203**
**Q405, 406** **: 2SC710**



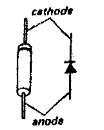
**D206: EQA01-16R**



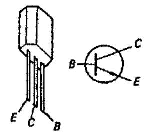
**Q208: 2SA677**



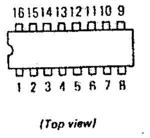
**D207, 208: 10E2**
**D201, 403, 404: 1T22A**
**D202～204**
**D401, 402** **: 1T40**



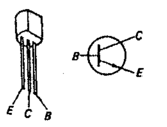
**Q204, 205, 207**
**Q209** **: 2SC634A**
**Q401～404: 2SC403C**
**Q206, 210, 211**
**Q301, 351** **: 2SC632A**



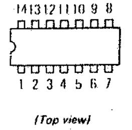
**IC201: HA1137W**



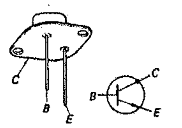
**Q213～215: 2SC945**



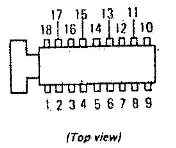
**IC202: HA1156**



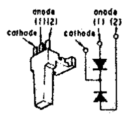
**Q212: 2SD291**



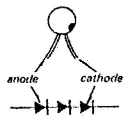
**IC301, 351: CX064**



**D1: TX312**

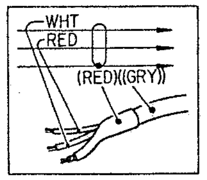


**D205: MV203V**

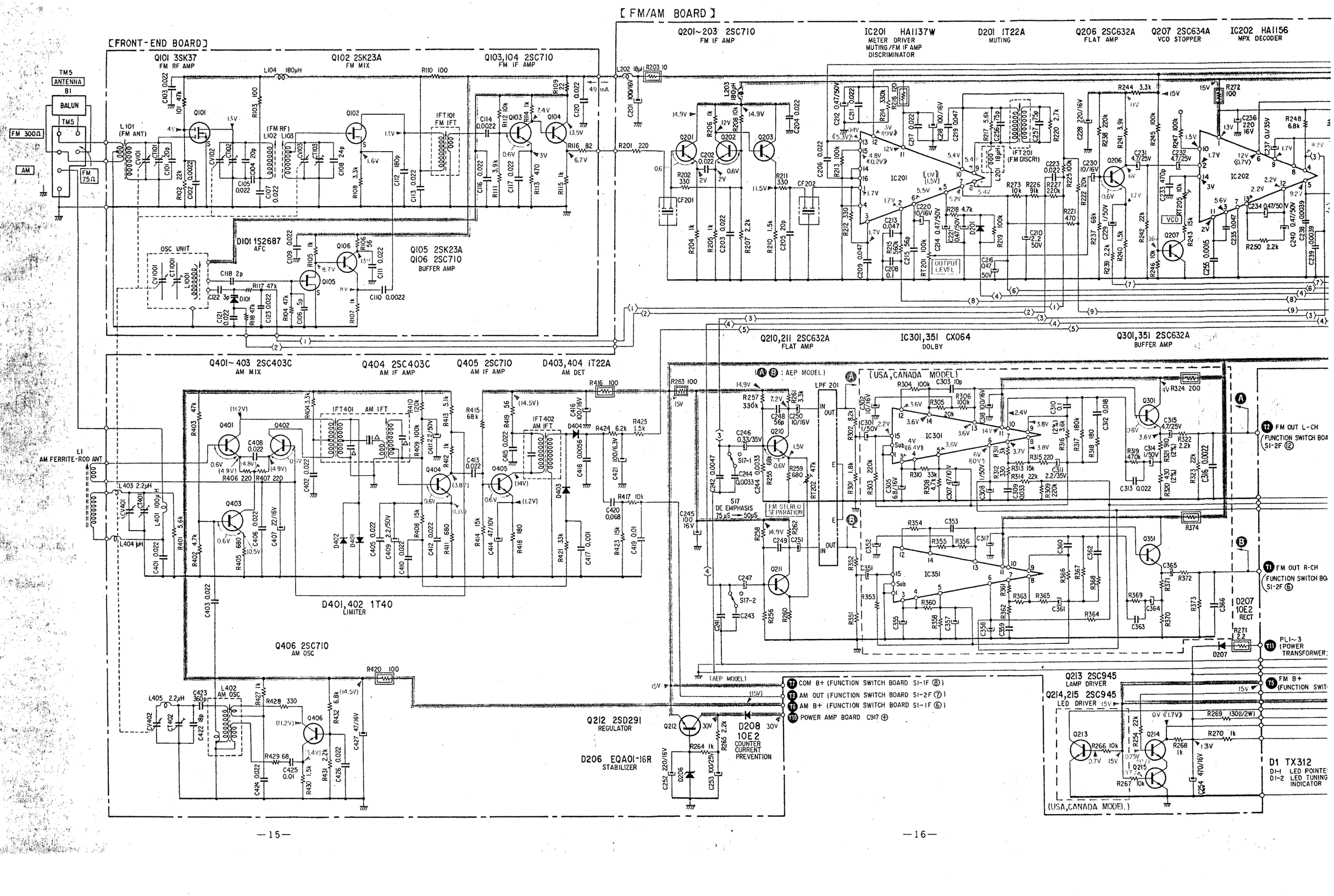


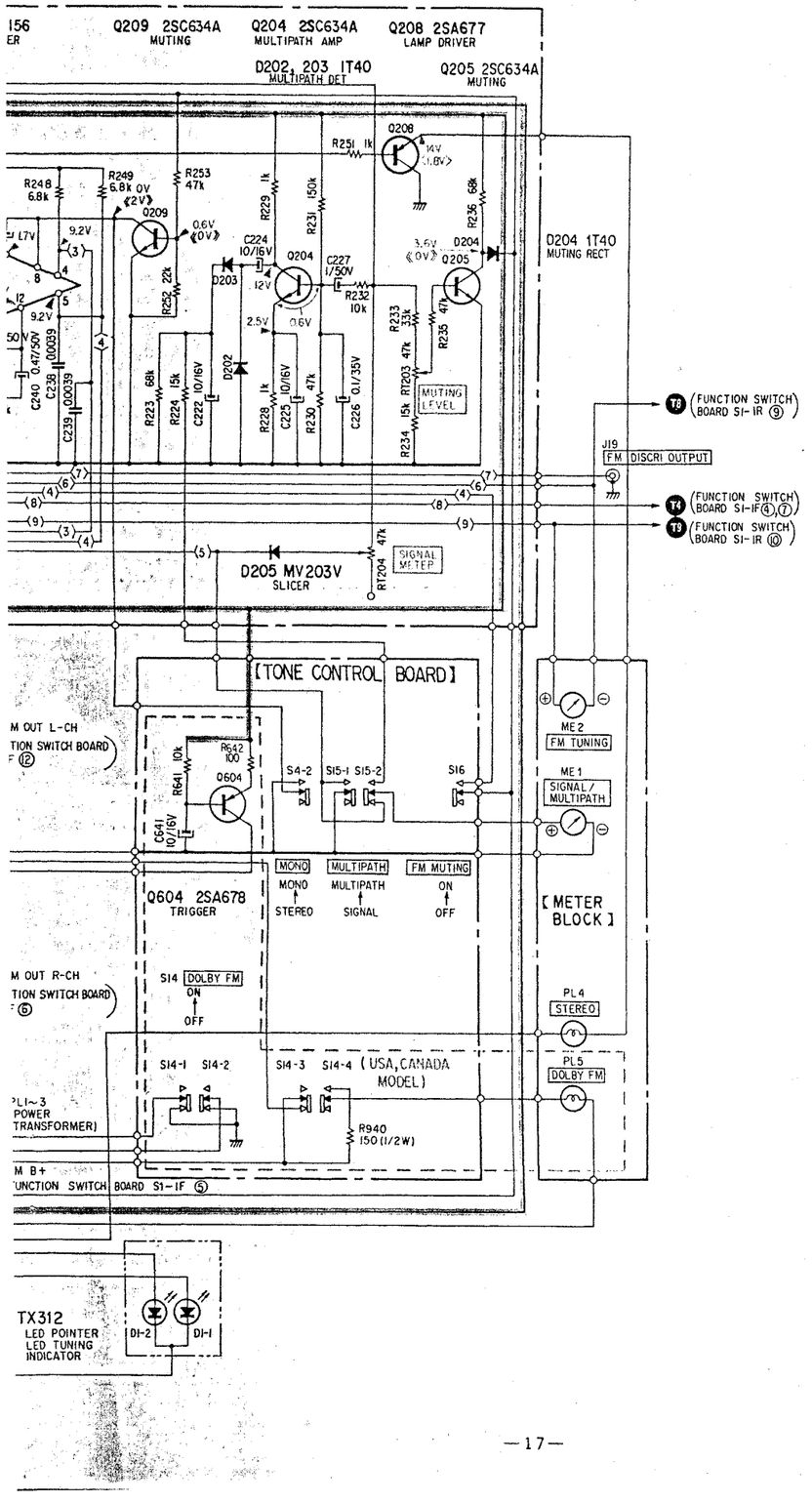
Note:

- ● : B+ pattern
- ● —[▨]— : nonflammable resistor
- ● [- - -]← : part number side



## 4-2. SCHEMATIC DIAGRAM — FRONT-END, FM/AM Section —






Note:

- All capacitors are in μF unless otherwise noted. 50 or less working volts are omitted except for electrolytic type. p = μμF.
- All resistors are in Ω, ¼W, unless otherwise noted. k = 1,000 M = 1,000 k
- ⏦ indicates nonflammable resistor
- △ indicates internal components
- ⏚ indicates chassis ground
- (2%) of resistor indicates the tolerance (±2%).
- ▭ indicates B+ circuit
- Voltages are DC with respect to ground unless otherwise noted. Readings are taken under no-signal conditions with a VOM (20 kΩ/V).

  ⩽ ⩾ : FM (Tuned in FM signal) < > : FM STEREO

  (( )) : DOLBY FM (S14) ——ON

  [[ ]] : MUTING (S16) (Tuned in FM signal) ——ON

  [ ] : MUTING (S16) (no signal input) ——ON

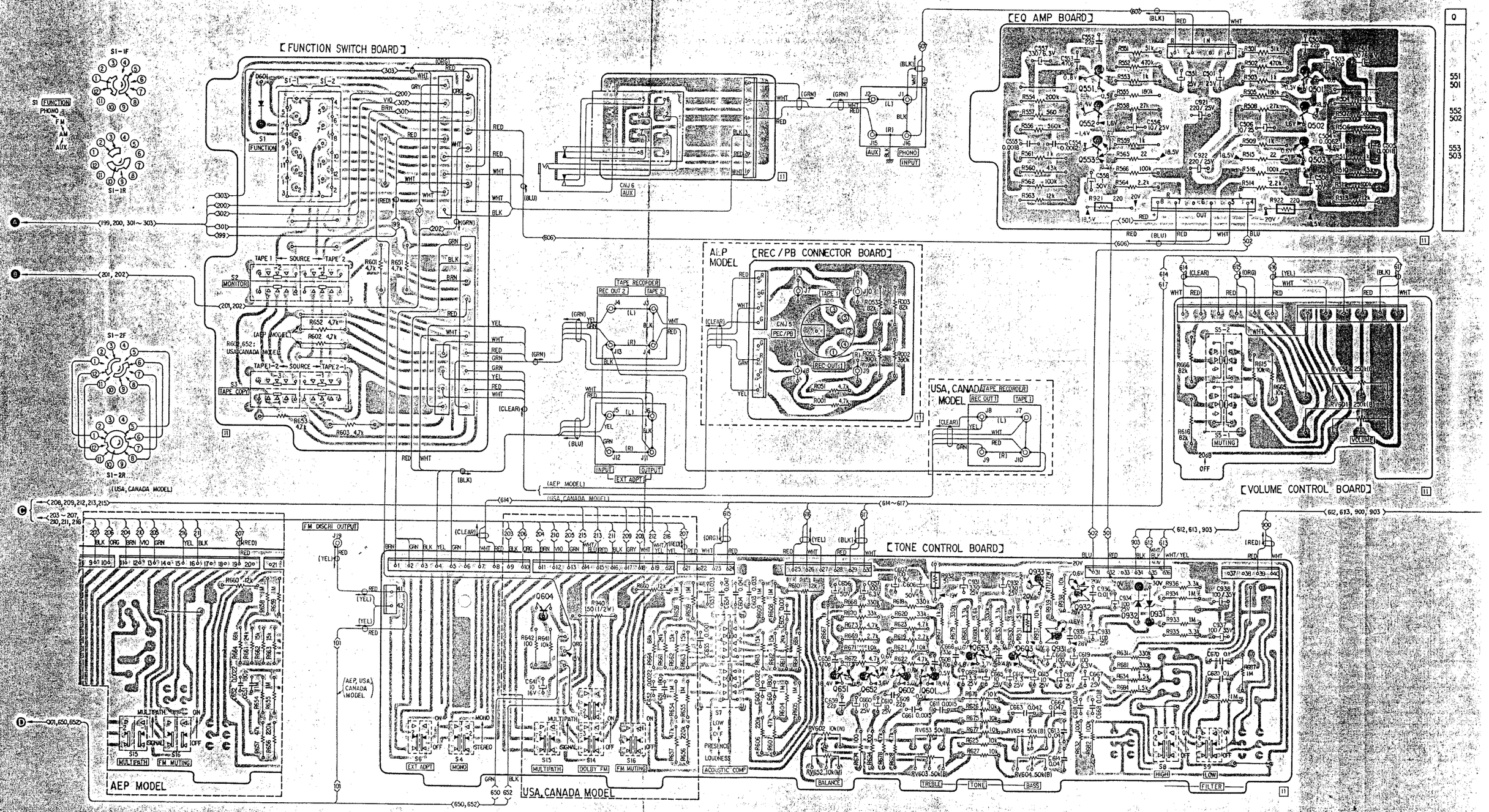
  ( ) : FUNCTION (S1) ——AM

  no mark: FUNCTION (S1) ——FM
- Voltage variations may be noted due to normal production tolerances.
- Voltage between base and emitter are measured with 2.5 V range.
- Switch Mode:

| Ref. No. | Switch | Position |
|---|---|---|
| S4 | MONO | STEREO |
| S14 | DOLBY FM (USA, CANADA MODEL) | OFF |
| S15 | MULTIPATH | SIGNAL |
| S16 | FM MUTING | OFF |
| S17 | DE-EMPHASIS | 75 μs |

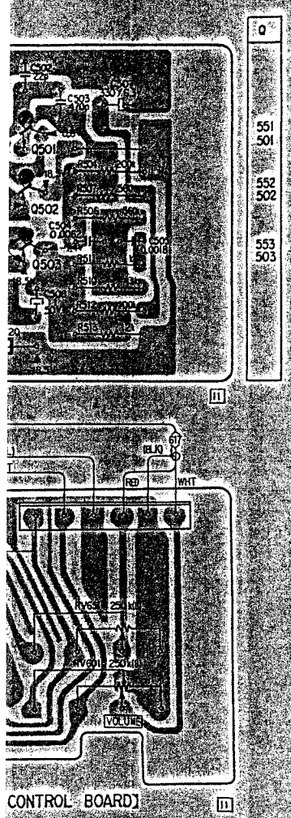
## 4-3. MOUNTING DIAGRAM – AUDIO Amplifier Boards –

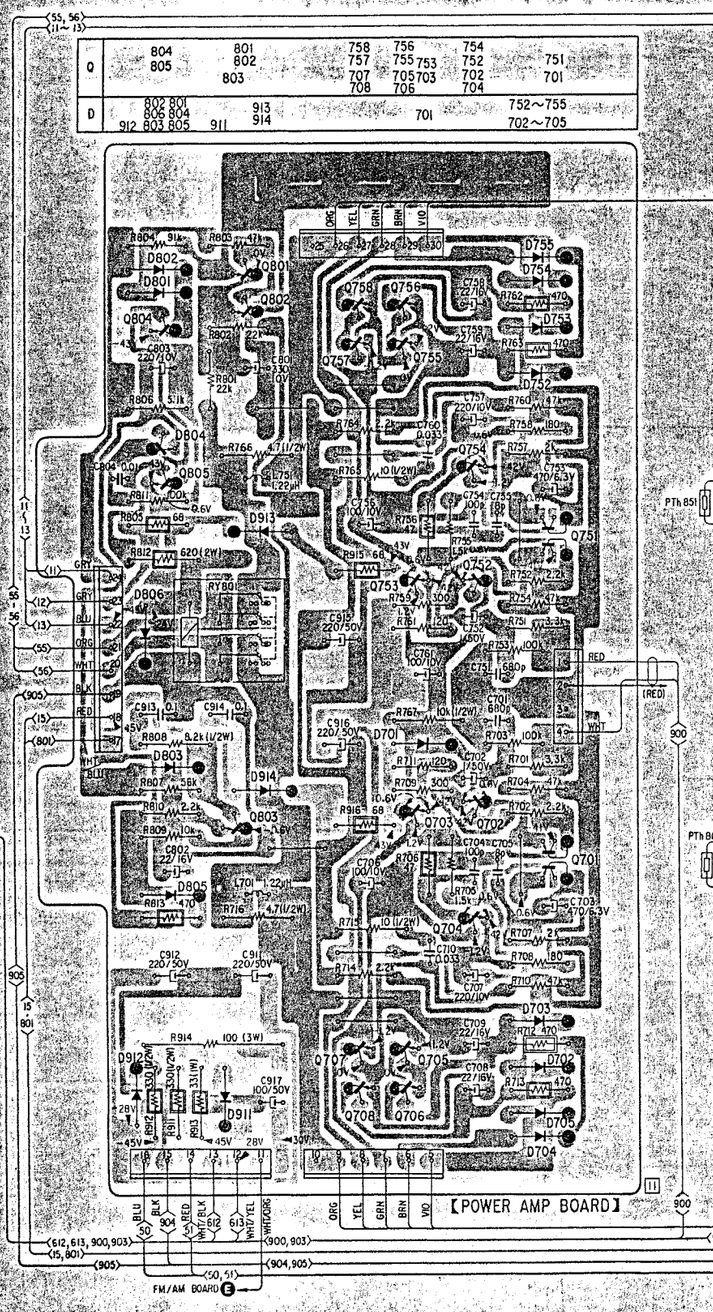
*— Conductor Side —*

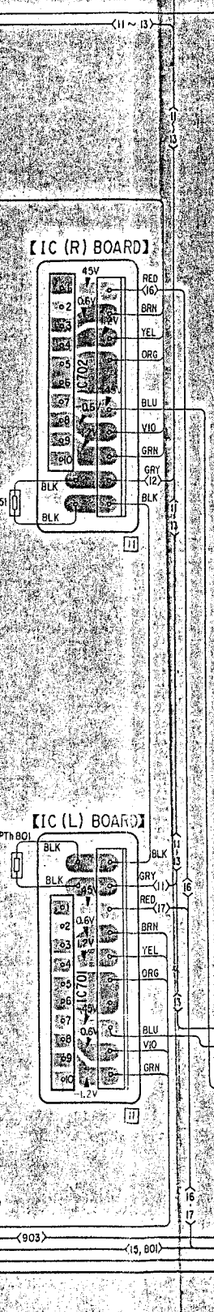


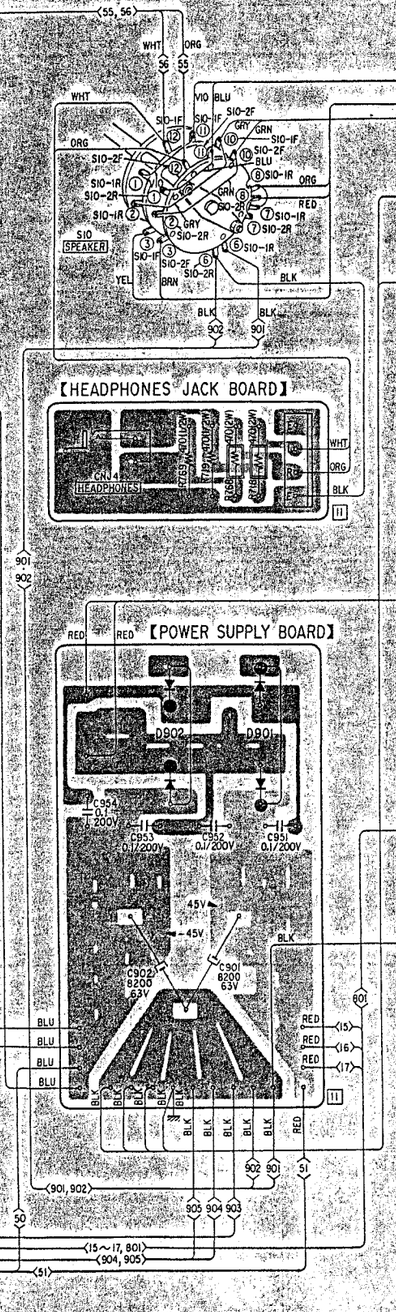
| | |
|---|---|
| Q | 604 651 652 602 601 653 603 933 931 932 |
| D | 932 931 |

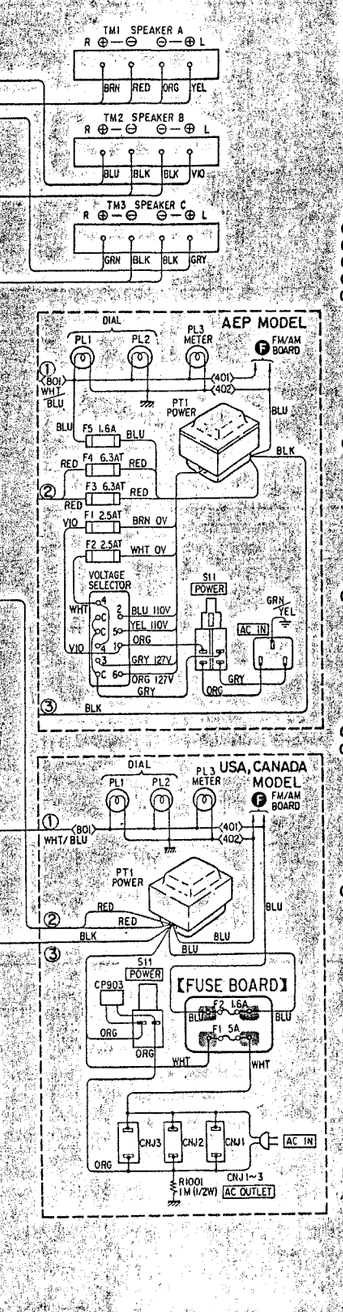
STR-5800/5800SD



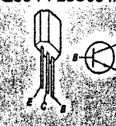



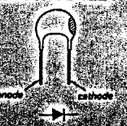




Q501, 551 } 2SC1636
Q601, 651
Q603, 653 } 2SC632A
Q706, 756
Q707, 757
Q804 : 2SC634A

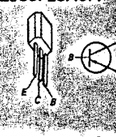


D701: VD1221

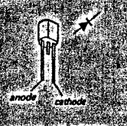



D601
D702~705, 752~755 : 1S1555
D801~803, 805, 806
D911, 912: 10E2

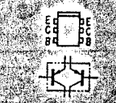

Q502, 503, 602, 652 } 2SA705
Q552, 553, 702, 752 } 2SA678
Q705, 755, 604, 708
Q758, 801~803
Q933: 2SA677



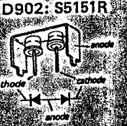
D804: 1T243M



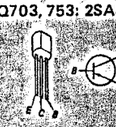

Q701, 751: 2SA884



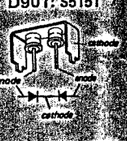
D902: S5151R



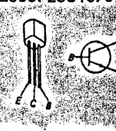

Q703, 753: 2SA896



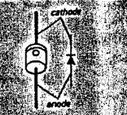
D901: S5151




Q704, 754: 2SC1811
Q805: 2SC1670

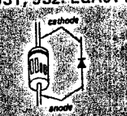


D913, 914: 10D2

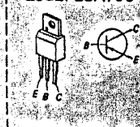



Q931: 2SC1124

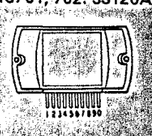
D931, 932: EQA01-21R

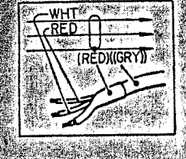



Q932: 2SA706



IC701, 702: SS120A

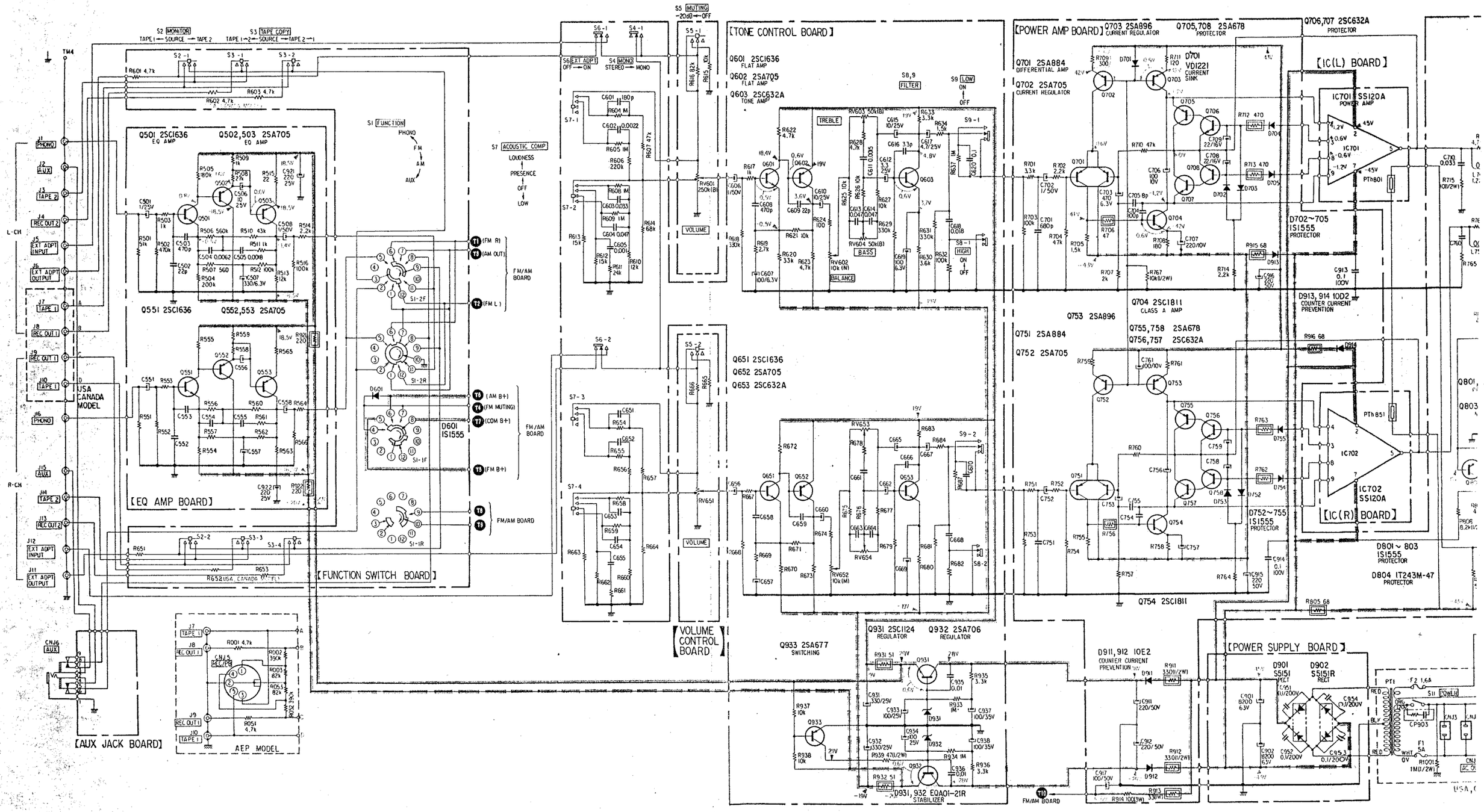


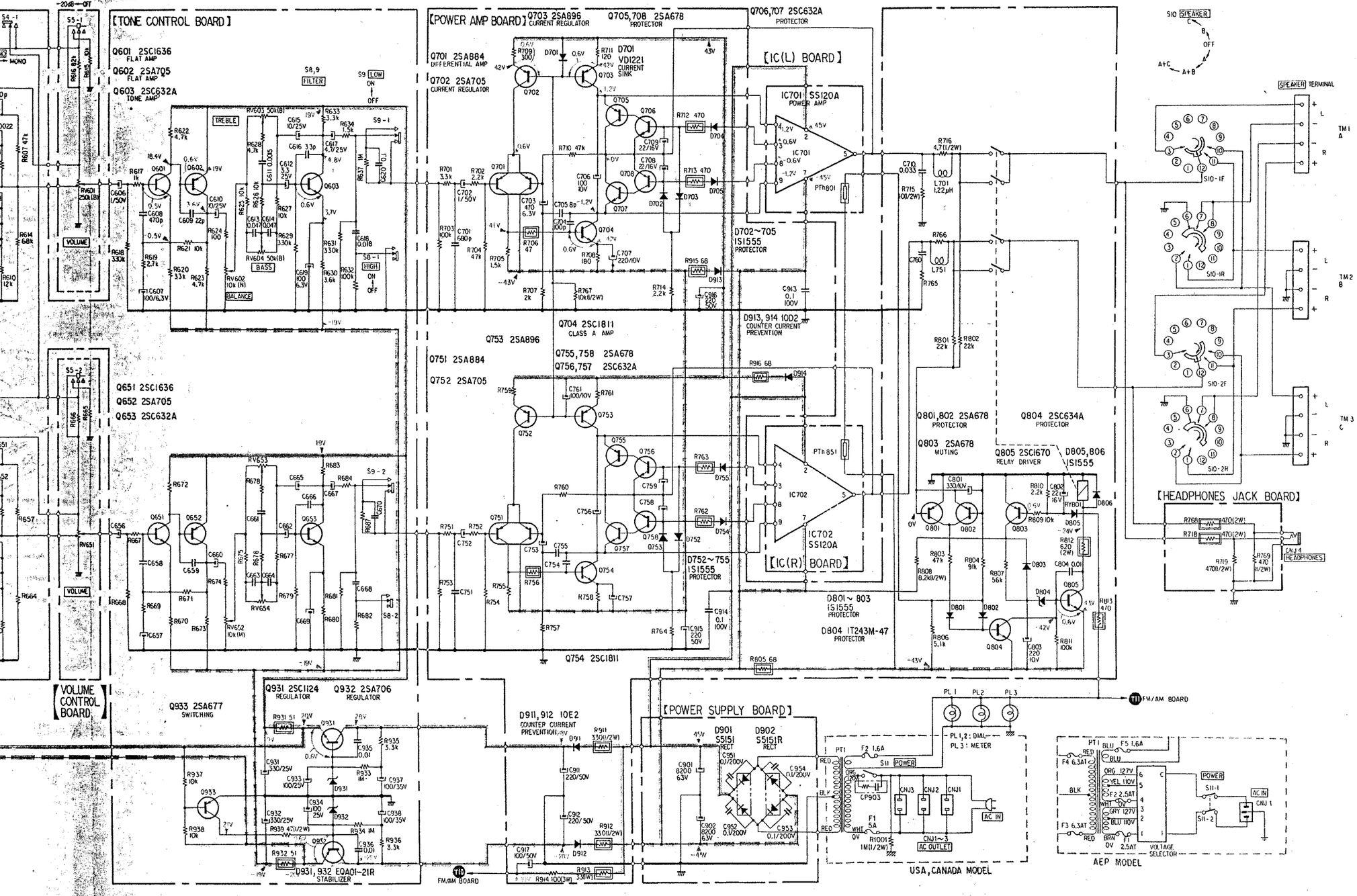




Note:

- : B+ pattern
- : B– pattern
- : nonflammable resistor

## 4-4. SCHEMATIC DIAGRAM – AUDIO Amplifier Section –






**Note:**

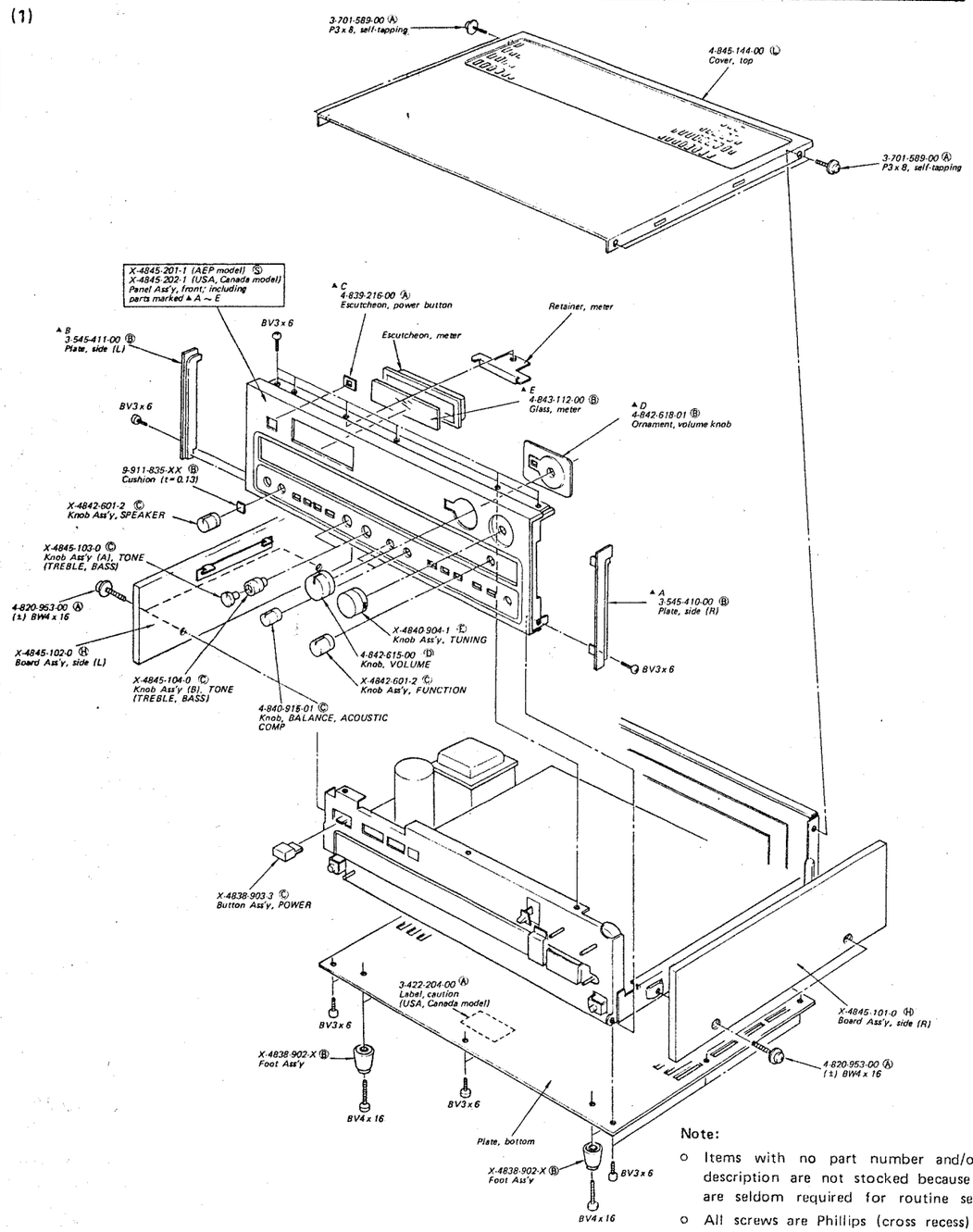
- All capacitors are in μF unless otherwise noted. 50 or le working volts are omitted except for electrolytic typ p = μμF.
- All resistors are in Ω, ¼W, unless otherwise note k = 1,000 M = 1,000k
- indicates chassis ground.
- indicates nonflammable resistor.
- indicates B+ circuit.
- indicates B− circuit.
- Voltages are DC with respect to ground unless otherwi noted. Readings are taken under no-signal conditio with a VOM (20 kΩ/V).
- Voltage variations may be noted due to normal produ tion tolerances.
- Voltage between base and emitter are measured wi 2.5 V range.
- Switch Mode:

| Ref. No. | Switch | Position |
|---|---|---|
| S1 | FUNCTION | FM |
| S2 | MONITOR | SOURCE |
| S3 | TAPE COPY | SOURCE |
| S4 | MONO | STEREO |
| S5 | MUTING | OFF |
| S6 | EXT ADPT | OFF |
| S7 | ACOUSTIC COMP | OFF |
| S8 | HIGH FILTER | OFF |
| S9 | LOW FILTER | OFF |
| S10 | SPEAKER | OFF |
| S11 | POWER | OFF |

SECTION 5

EXPLODED VIEWS

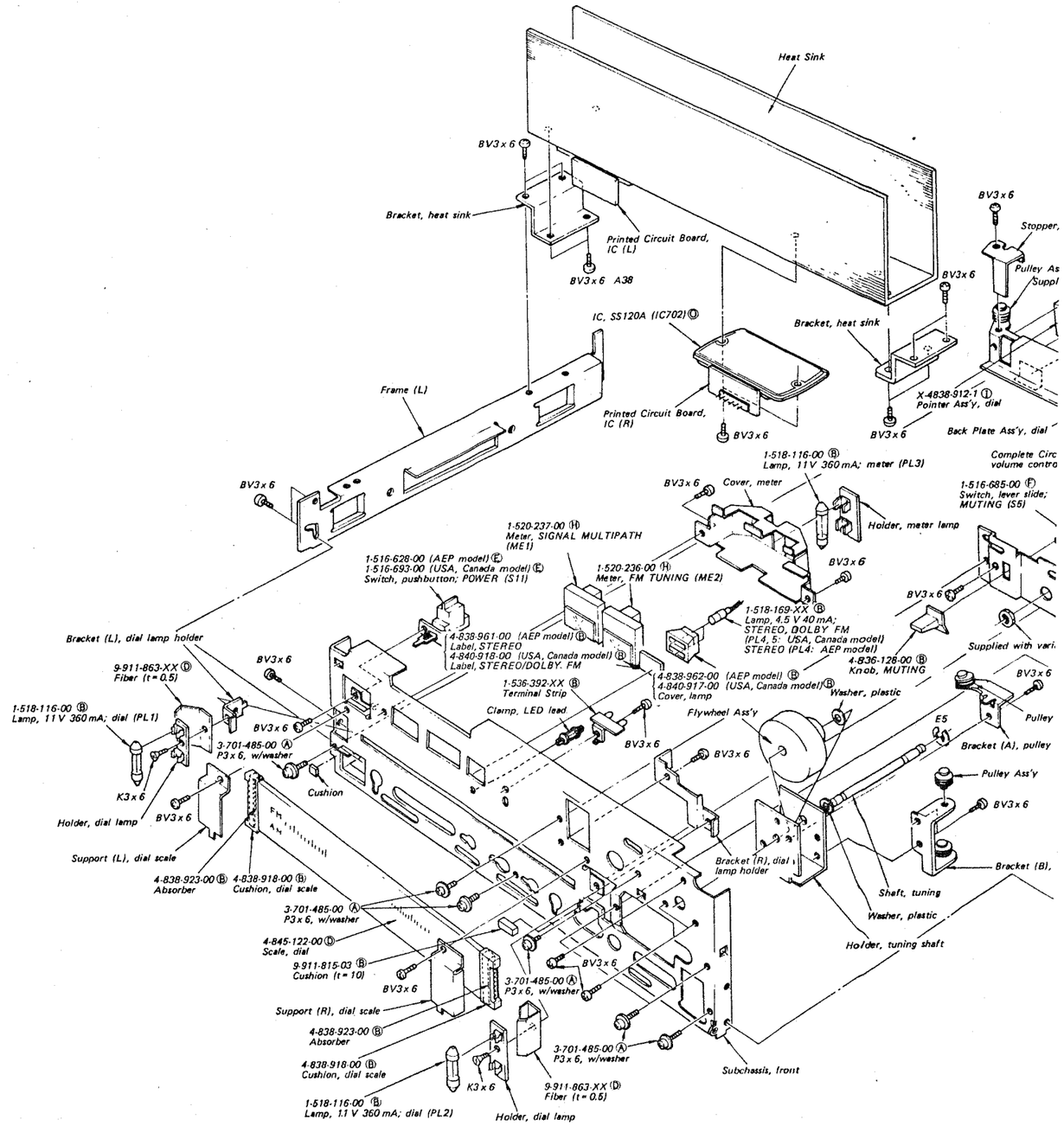
(1)



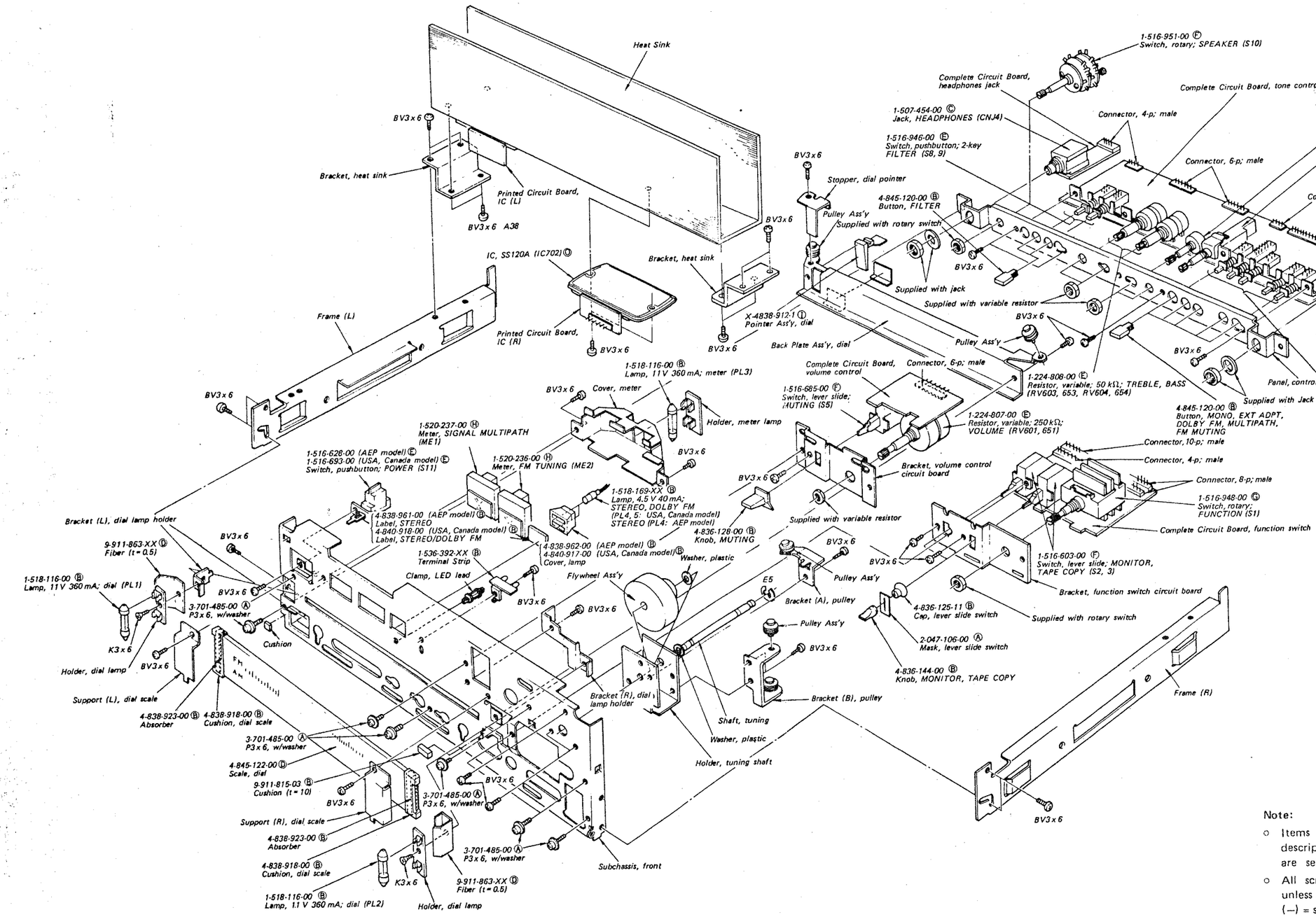

Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (—) = slotted head
  (□□T) shows the number of coils in spring.
- The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

(2)



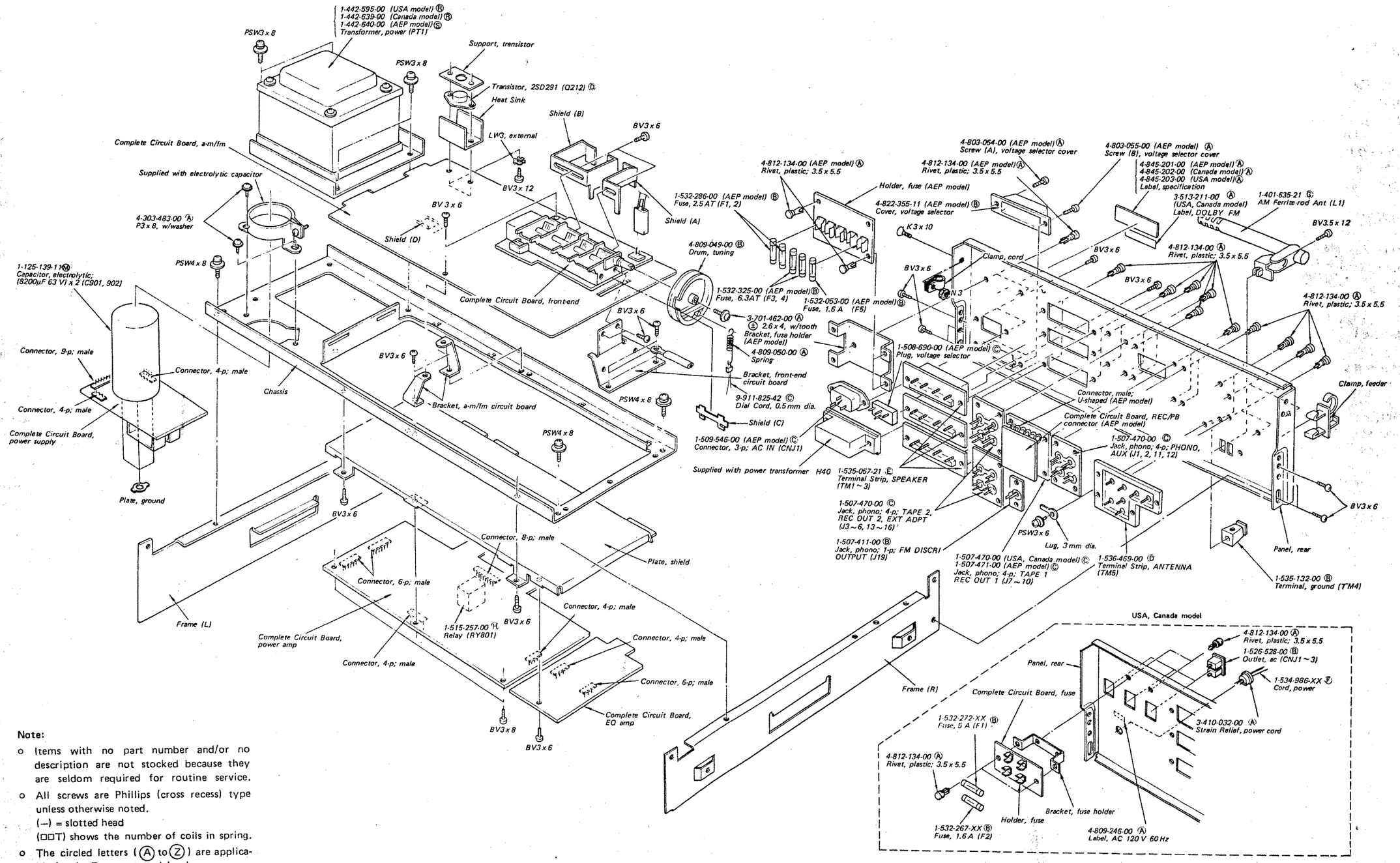
(2)




Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (—) = slotted head
  (□□T) shows the number of coils in spring.
- The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

(3)




Note:

- Items with no part number and/or no description are not stocked because they are seldom required for routine service.
- All screws are Phillips (cross recess) type unless otherwise noted.
  (–) = slotted head
  (□□T) shows the number of coils in spring.
- The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

# SECTION 7
# ELECTRICAL PARTS LIST

Note: The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

| Ref. No. | Part No. | Description |
|---|---|---|
| | | **SEMICONDUCTORS** |
| | | **Transistors** |
| Q101 | | Ⓔ 3SK37 |
| Q102 | | Ⓒ 2SK23A |
| Q103, 104 | | Ⓑ 2SC710 |
| Q105 | | Ⓒ 2SK23A |
| Q106 | | Ⓑ 2SC710 |
| Q201 ~ 203 | | Ⓑ 2SC710 |
| Q204, 205 | | Ⓑ 2SC945 |
| ⇒Q206 | | Ⓑ 2SC632A |
| Q207 | | Ⓑ 2SC945 |
| ⇒Q208 | | Ⓒ 2SA678 |
| Q209 | | Ⓑ 2SC945 |
| ⇒Q210, 211 | | Ⓑ 2SC632A |
| Q212 | | Ⓓ 2SD291 |
| Q213 ~ 215 | | Ⓑ 2SC945 |
| ⇒Q301, 351 | | Ⓑ 2SC632A |
| Q401 ~ 404 | | Ⓑ 2SC403C |
| Q405, 406 | | Ⓑ 2SC710 |
| Q501, 551 | | Ⓑ 2SC1636 |
| Q502, 552<br>Q503, 553 | | Ⓑ 2SA705 |
| Q601, 651 | | Ⓑ 2SC1636 |
| Q602, 652 | | Ⓑ 2SA705 |
| Q603, 653 | | Ⓑ 2SC632A |
| Q604 | | Ⓒ 2SA678 |
| Q701, 751 | | Ⓓ 2SA884 |
| Q702, 752 | | Ⓑ 2SA705 |
| Q703, 753 | | Ⓒ 2SA896 |
| Q704, 754 | | Ⓒ 2SC1811 |
| ⇒Q705, 755 | | Ⓒ 2SA678 |
| ⇒Q706, 756<br>Q707, 757 | | Ⓑ 2SC634A |
| ⇒Q708, 758 | | Ⓒ 2SA678 |
| ⇒Q801~803 | | Ⓒ 2SA678 |
| ⇒Q804 | | Ⓑ 2SC634A |

⇒: Due to replacement parts, the discriptions are different from the diagrams.

| Ref. No. | Part No. | Description |
|---|---|---|
| Q805 | | Ⓒ 2SC1670 |
| Q931 | | Ⓔ 2SC1124 |
| Q932 | | Ⓓ 2SA706 |
| Q933 | | Ⓒ 2SA678 |
| | | **ICs** |
| IC201 | | Ⓗ HA1137W |
| IC202 | | Ⓙ HA1156 |
| IC301, 351 | | Ⓘ CX064 |
| IC701, 702 | | Ⓞ SS120A |
| D1-1, 1-2 | | Ⓗ TX312 |
| D101 | | Ⓑ 1S2687 |
| D201 | | Ⓑ 1T22A |
| ⇒D202 ~ 204 | | Ⓑ 1S1555 |
| D205 | | Ⓑ MV203V |
| D206 | | Ⓑ EQA01-16R |
| D207, 208 | | Ⓑ 10E2 |
| ⇒D401, 402 | | Ⓑ 1S1555 |
| D403, 404 | | Ⓑ 1T22A |
| D601 | | Ⓑ 1S1555 |
| D701 | | Ⓑ VD1221 |
| D702 ~ 705<br>D752 ~ 755 | | Ⓑ 1S1555 |
| D801 ~ 803 | | Ⓑ 1S1555 |
| D804 | | Ⓑ 1T243M |
| D805, 806 | | Ⓑ 1S1555 |
| D901 | | Ⓕ S5151 |
| D902 | | Ⓕ S5151R |
| D911, 912 | | Ⓑ 10E2 |
| D913, 914 | | Ⓑ 10D2 |
| ⇒D931, 932 | | Ⓑ EQB01-21 |
| | | **THERMISTOR** |
| Pth801, 851 | 1-800-427-21 | Ⓑ Positive |



Note: The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

| Ref. No. | Part No. | Description |
|---|---|---|
| | | **COILS** |
| L1 | 1-401-635-21 | Ⓖ AM Ferrite-rod Antenna |
| L101 | 1-401-662-00 | Ⓑ FM Ant |
| L102 | 1-425-925-00 | Ⓑ FM RF |
| L103 | 1-425-926-00 | Ⓑ FM RF |
| L104 | 1-407-172-XX | Ⓐ Microinductor, 180 μH |
| L201 | 1-459-152-00 | Ⓑ 18 μH |
| L202 | 1-407-160-XX | Ⓐ Microinductor, 18 μH |
| L203 | 1-407-172-XX | Ⓐ Microinductor, 180 μH |
| L401 | 1-407-169-XX | Ⓐ Microinductor, 100 μH |
| L402 | 1-405-656-00 | Ⓑ AM Osc |
| L403 | 1-407-182-XX | Ⓐ Microinductor, 2.2 μH |
| L404 | 1-407-178-XX | Ⓐ Microinductor, 1 μH |
| L405 | 1-407-182-XX | Ⓐ Microinductor, 2.2 μH |
| L701, 751 | 1-420-838-00 | Ⓐ 1.2 μH |
| | | **TRANSFORMERS** |
| B1 | 1-417-014-31 | Ⓑ Balun |
| IFT101 | 1-403-295-12 | Ⓑ FM IFT |
| IFT201 | 1-404-029-00 | Ⓒ FM Discriminator |
| IFT401 | 1-404-014-11<br>1-404-014-21 | Ⓓ AM IFT (USA, Canada models)<br>Ⓓ AM IFT (AEP model) |
| IFT402 | 1-403-149-00 | Ⓑ AM IFT |
| PT1 | 1-442-595-00<br>1-442-639-00<br>1-442-640-00 | Ⓡ Power (USA model)<br>Ⓡ Power (Canada model)<br>Ⓢ Power (AEP model) |
| | | **FILTERS** |
| CF201, 202 | 1-527-248-XX | Ⓗ Ceramic |
| LPF201 | 1-231-219-00 | Ⓓ Low-pass |
| | | **CAPACITORS** |

All capacitors are in μF and of electrolytic unless otherwise noted. 50 and/or less working voltages are not indicated except for electrolytic type. (p = μμF)

| Ref. No. | Part No. | Description | | |
|---|---|---|---|---|
| C101 | 1-101-981-11 | Ⓐ 20 p | | ceramic |
| C102 | 1-102-257-11 | Ⓐ 0.0022 | | ceramic |
| C103 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C104 | 1-101-981-11 | Ⓐ 20 p | | ceramic |
| C105 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C106 | 1-102-864-11 | Ⓐ 5 p | | ceramic |
| C107 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C108 | 1-102-642-11 | Ⓐ 24 p | | ceramic |
| C109 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C110 | 1-101-919-11 | Ⓐ 0.0022 | | ceramic |
| C111 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C112 | 1-102-848-11 | Ⓐ 180 p | | ceramic |
| C113 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C114 | 1-101-919-11 | Ⓐ 0.0022 | | ceramic |
| C116, 117 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C118 | 1-102-502-11 | Ⓐ 2 p | | ceramic |
| C119 | | Ⓐ | | |
| C120, 121 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C122 | 1-102-503-11 | Ⓐ 3 p | | ceramic |
| C123 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C201 | 1-121-415-11 | Ⓑ 100 | 16 V | |
| C202 ~ 204 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C205 | 1-101-974-11 | Ⓐ 20 p | | ceramic |
| C206 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C208 | 1-108-251-12 | Ⓑ 0.1 | | mylar |
| C209 | 1-101-925-11 | Ⓐ 0.047 | | ceramic |
| C210 | 1-121-450-11 | Ⓐ 2.2 | 50 V | |
| C211 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C212 | 1-121-726-11 | Ⓐ 0.47 | 50 V | |
| C213 | 1-101-925-11 | Ⓐ 0.047 | | ceramic |
| C214 | 1-121-726-11 | Ⓐ 0.47 | 50 V | |
| C215 | 1-101-884-11 | Ⓐ 56 p | | ceramic |
| C216 | 1-121-726-11 | Ⓐ 0.47 | 50 V | |
| C217 | 1-101-924-11 | Ⓐ 0.022 | | ceramic |
| C218 | 1-121-415-11 | Ⓑ 100 | 16 V | |
| C219 | 1-101-925-11 | Ⓐ 0.047 | | ceramic |
| C220 | 1-121-651-11 | Ⓐ 10 | 16 V | |
| C221 | 1-121-726-11 | Ⓐ 0.47 | 50 V | |
| C222 | 1-121-651-11 | Ⓐ 10 | 16 V | |

**Note:** The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

| Ref. No. | Part No. | Description | | |
|---|---|---|---|---|
| C223 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C224, 225 | 1-121-651-11 Ⓐ | 10 | 16 V | |
| C226 | 1-131-209-11 Ⓑ | 0.1 | 35 V | tantalum |
| C227 | 1-121-391-11 Ⓐ | 1 | 50 V | |
| C228 | 1-123-068-11 Ⓑ | 220 | 16 V | |
| C229 | 1-121-391-11 Ⓐ | 1 | 50 V | |
| C230 | 1-121-651-11 Ⓐ | 10 | 16 V | |
| C231, 232 | 1-121-395-11 Ⓐ | 4.7 | 25 V | |
| C233 | 1-103-717-11 Ⓐ | 470 p | | polystyrol |
| C234 | 1-121-726-11 Ⓐ | 0.47 | 50 V | |
| C235 | 1-108-246-12 Ⓐ | 0.047 | | mylar |
| C236 | 1-123-068-11 Ⓑ | 220 | 16 V | |
| C237 | 1-131-209-11 Ⓑ | 0.1 | 35 V | tantalum |
| C238, 239 | 1-108-569-12 Ⓑ | 0.0039 | | mylar |
| C240 | 1-121-726-11 Ⓐ | 0.47 | 50 V | |
| C241, 242 | 1-108-571-12 Ⓐ | 0.0047 | | mylar |
| C243, 244 | 1-108-567-12 Ⓐ | 0.0033 | | mylar |
| C245 | 1-121-415-11 Ⓑ | 100 | 16 V | |
| C246, 247 | 1-131-212-11 Ⓑ | 0.33 | 35 V | tantalum |
| C248, 249 | 1-101-884-11 Ⓐ | 56 p | | ceramic |
| C250, 251 | 1-121-651-11 Ⓐ | 10 | 16 V | |
| C252 | 1-123-068-11 Ⓑ | 220 | 16 V | |
| C253 | 1-121-935-11 Ⓑ | 100 | 25 V | |
| C254 | 1-121-939-11 Ⓑ | 470 | 16 V | |
| C255 | 1-108-228-12 Ⓐ | 0.0015 | | mylar |
| C256, 257 | 1-102-732-11 Ⓐ | 75 p | | ceramic |
| | USA, Canada models | | | |
| C301, 351 | 1-121-912-11 Ⓐ | 1 | 50 V | |
| C302, 352 | 1-121-651-11 Ⓐ | 10 | 16 V | |
| C303, 353 | 1-102-947-11 Ⓐ | 10 p | | ceramic |
| C305, 355 | 1-131-198-11 Ⓑ | 6.8 | 16 V | tantalum |
| C307, 357 | 1-121-352-11 Ⓐ | 47 | 10 V | |
| C308, 358 | 1-121-912-11 Ⓐ | 1 | 50 V | |
| C309, 359 | 1-108-244-12 Ⓐ | 0.033 | | mylar |
| C310, 360 | 1-108-603-12 Ⓑ | 0.1 | | mylar |
| C311, 361 | 1-131-217-11 Ⓑ | 2.2 | 35 V | tantalum |
| C312, 362 | 1-108-585-12 Ⓑ | 0.018 | | mylar |
| C313, 363 | 1-108-587-12 Ⓐ | 0.022 | | mylar |
| | USA, Canada models | | | |
| C314, 364 | 1-121-912-11 Ⓐ | 1 | 50 V | |
| C315, 365 | 1-121-395-11 Ⓐ | 4.7 | 25 V | |
| C316, 366 | 1-108-230-12 Ⓐ | 0.0022 | | mylar |
| C317, 318 | 1-121-415-11 Ⓑ | 100 | 16 V | |
| C401 ~ 403 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C405, 406 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C407 | 1-121-479-11 Ⓐ | 22 | 16 V | |
| C408 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C409 | 1-121-450-11 Ⓐ | 2.2 | 50 V | |
| C410 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C411 | 1-121-450-11 Ⓐ | 2.2 | 50 V | |
| C412, 413 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C414 | 1-121-352-11 Ⓐ | 47 | 10 V | |
| C415 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C416 | 1-121-415-11 Ⓑ | 100 | 16 V | |
| C417 | 1-108-227-12 Ⓐ | 0.001 | | mylar |
| C418 | 1-108-355-12 Ⓐ | 0.0056 | | mylar |
| C419 | 1-108-239-12 Ⓐ | 0.01 | | mylar |
| C420 | 1-108-249-12 Ⓐ | 0.068 | | mylar |
| C421 | 1-121-413-11 Ⓐ | 100 | 6.3 V | |
| C422 | 1-102-953-11 Ⓐ | 18 p | | ceramic |
| C423 | 1-103-714-11 Ⓐ | 360 p | | polystyrol |
| C424 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C425 | 1-108-239-12 Ⓐ | 0.01 | | mylar |
| C426 | 1-101-924-11 Ⓐ | 0.022 | | ceramic |
| C427 | 1-121-409-11 Ⓐ | 47 | 16 V | |
| C501, 551 | 1-131-236-11 Ⓑ | 1 | 25 V | tantalum |
| C502, 552 | 1-102-959-11 Ⓐ | 22 p | | ceramic |
| C503, 553 | 1-102-114-11 Ⓐ | 470 p | | ceramic |
| C504, 554 | 1-108-574-12 Ⓐ | 0.0062 | | mylar |
| C505, 555 | 1-108-561-12 Ⓑ | 0.0018 | | mylar |
| C506, 556 | 1-121-398-11 Ⓐ | 10 | 25 V | |
| C507, 557 | 1-121-751-11 Ⓑ | 330 | 6.3 V | |
| C508, 558 | 1-121-912-11 Ⓐ | 1 | 50 V | |
| C601, 651 | 1-102-976-11 Ⓐ | 180 p | | ceramic |
| C602, 652 | 1-108-230-12 Ⓐ | 0.0022 | | mylar |
| C603, 653 | 1-108-244-12 Ⓐ | 0.033 | | mylar |
| C604, 654 | 1-108-246-12 Ⓐ | 0.047 | | mylar |

| Ref. No. | Part No. | Description | | |
|---|---|---|---|---|
| C605, 655 | 1-108-227-12 | Ⓐ 0.001 | | mylar |
| C606, 656 | 1-121-912-11 | Ⓐ 1 | 50 V | |
| C607, 657 | 1-121-413-11 | Ⓐ 100 | 6.3 V | |
| C608, 658 | 1-102-114-11 | Ⓐ 470 p | | ceramic |
| C609, 659 | 1-102-959-11 | Ⓐ 22 p | | ceramic |
| C610, 660 | 1-121-748-11 | Ⓐ 10 | 25 V | |
| C611, 661 | 1-108-228-12 | Ⓐ 0.0015 | | mylar |
| C612, 662 | 1-121-913-11 | Ⓐ 3.3 | 25 V | |
| C613, 663<br>C614, 664 ) | 1-108-246-12 | Ⓐ 0.047 | | mylar |
| C615, 665 | 1-121-748-11 | Ⓐ 10 | 25 V | |
| C616, 666 | 1-102-963-11 | Ⓐ 33 p | | ceramic |
| C617, 667 | 1-121-915-11 | Ⓐ 4.7 | 25 V | |
| C618, 668 | 1-108-585-12 | Ⓐ 0.018 | | mylar<br>(USA, Canada models) |
| C619, 669 | 1-121-413-11 | Ⓐ 100 | 6.3 V | |
| C620, 670 | 1-108-603-12 | Ⓑ 0.1 | | mylar |
| C641 | 1-121-651-11 | Ⓐ 10 | 16 V<br>(USA, Canada models) | |
| C641 | 1-121-651-11 | Ⓐ 10 | 16 V | |
| C701, 751 | 1-102-116-11 | Ⓐ 680 p | | ceramic |
| C702, 752 | 1-121-912-11 | Ⓐ 1 | 50 V | |
| C703, 753 | 1-123-077-11 | Ⓑ 470 | 6.3 V | |
| C704, 754 | 1-102-973-11 | Ⓐ 100 p | | ceramic |
| C705, 755 | 1-102-945-11 | Ⓐ 8 p | | ceramic |
| C706, 756 | 1-121-414-11 | Ⓐ 100 | 10 V | |
| C707, 757 | 1-123-072-11 | Ⓑ 220 | 10 V | |
| C708, 758<br>C709, 759 ) | 1-121-479-11 | Ⓐ 22 | 16 V | |
| C710, 760 | 1-108-244-12 | Ⓐ 0.033 | | mylar |
| C761 | 1-121-414-11 | Ⓐ 100 | 10 V | |
| C801 | 1-123-073-11 | Ⓑ 330 | 10 V | |
| C802 | 1-121-479-11 | Ⓐ 22 | 16 V | |
| C803 | 1-123-072-11 | Ⓑ 220 | 10 V | |
| C804 | 1-101-004-11 | Ⓐ 0.01 | | ceramic |
| C901, 902 | 1-125-139-11 | Ⓜ 8,200 | 63 V | |
| C911, 912 | 1-121-937-11 | Ⓑ 220 | 50 V | |
| C913, 914 | 1-108-389-12 | Ⓑ 0.1 | 100 V | mylar |
| C915, 916 | 1-121-937-11 | Ⓑ 220 | 50 V | |

Note: The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

| Ref. No. | Part No. | Description | | |
|---|---|---|---|---|
| C917 | 1-123-059-11 | Ⓑ 100 | 50 V | |
| C921, 922 | 1-121-936-11 | Ⓑ 220 | 25 V | |
| C931, 932 | 1-123-065-11 | Ⓑ 330 | 25 V | |
| C933, 934 | 1-121-935-11 | Ⓑ 100 | 25 V | |
| C935, 936 | 1-102-129-11 | Ⓐ 0.01 | | ceramic |
| C937, 938 | 1-123-062-11 | Ⓑ 100 | 35 V | |
| C951 ~ 954 | 1-106-505-12 | Ⓑ 0.1 | 200 V | mylar |
| CT401, 402 | 1-141-147-XX | Ⓓ Trimmer | | |

## RESISTORS

All resistors are in ohms. Regular-type ¼ W carbon resistors are omitted.
Check the schematic diagram for the resistance values.
(k = 1000, M = 1000 k)

| | | | | |
|---|---|---|---|---|
| R203 | 1-211-498-11 | Ⓐ 10 | | ¼W carbon (nonflammable) |
| R216 | 1-211-524-11 | Ⓐ 120 | | ¼W carbon (nonflammable) |
| R263 | 1-211-522-11 | Ⓐ 100 | | ¼W carbon (nonflammable) |
| R269 | 1-202-552-11 | Ⓐ 330 | | ½W composition |
| R271 | 1-217-379-11 | Ⓑ 2.2 | | ¼W fusible (nonflammable) |
| R272 | 1-211-522-11 | Ⓐ 100 | | ¼W carbon (nonflammable) |
| USA, Canada models | | | | |
| R316, 366 | 1-210-871-11 | Ⓐ 5.6 k | ±2% | ¼W carbon |
| R320, 370 | 1-210-873-11 | Ⓐ 430 | ±2% | ¼W carbon |
| R321, 371 | 1-210-851-11 | Ⓐ 910 | ±2% | ¼W carbon |
| R324, 374 | 1-211-529-11 | Ⓐ 200 | | ¼W carbon (nonflammable) |
| R416, 420 | 1-211-522-11 | Ⓐ 100 | | ¼W carbon (nonflammable) |
| R712, 762<br>R713, 763 ) | 1-211-538-11 | Ⓐ 470 | | ¼W carbon (nonflammable) |
| R706, 756 | 1-211-514-11 | Ⓐ 47 | | ¼W carbon (nonflammable) |
| R715, 765 | 1-202-525-11 | Ⓐ 10 | | ½W composition |
| R716, 766 | 1-202-517-11 | Ⓐ 4.7 | | ½W composition |

| Ref. No. | Part No. | Description | | |
|---|---|---|---|---|
| R718, 768 | 1-206-656-11 | Ⓐ 470 | 2 W | metal-oxide (nonflammable) |
| R719, 769 | 1-202-565-11 | Ⓐ 470 | ½W | composition |
| R767 | 1-202-597-11 | Ⓐ 10 k | ½W | composition |
| R805 | 1-211-518-11 | Ⓐ 68 | ¼W | carbon (nonflammable) |
| R808 | 1-202-595-11 | Ⓐ 8.2 k | ½W | composition |
| R812 | 1-206-659-11 | Ⓐ 620 | 2W | metal-oxide (nonflammable) |
| R813 | 1-211-539-11 | Ⓐ 470 | ¼W | carbon (nonflammable) |
| R911, 912 | 1-212-994-11 | Ⓐ 330 | ½W | carbon (nonflammable) |
| R913 | 1-213-125-11 | Ⓐ 33 | 1W | metal-oxide (nonflammable) |
| R914 | 1-207-665-11 | Ⓑ 100 | 3W | wirewound (nonflammable) |
| R915, 916 | 1-211-518-11 | Ⓐ 68 | ¼W | carbon (nonflammable) |
| R921, 922 | 1-211-530-11 | Ⓐ 220 | ¼W | carbon (nonflammable) |
| R931, 932 | 1-211-515-11 | Ⓐ 51 | ¼W | carbon (nonflammable) |
| R939 | 1-202-541-11 | Ⓐ 47 | ½W | composition |
| R940 | 1-202-553-11 | Ⓐ 150 | ½W | composition (USA, Canada models) |
| R1001 | 1-202-719-11 | Ⓐ 1 M | ½W | composition (USA, Canada models) |
| RT201 | 1-224-648-XX | Ⓑ 100 k | | adjustable |
| RT202~204 | 1-224-647-XX | Ⓑ 47 k | | adjustable |
| RT205 | 1-224-645-XX | Ⓑ 10 k | | adjustable |
| RV601, 651 | 1-224-807-00 | Ⓔ 250 k | | variable, VOLUME |
| RV602, 652 | 1-224-810-00 | Ⓓ 10 k | | variable, BALANCE |
| RV603, 653<br>RV604, 654 | 1-224-808-00 | Ⓔ 50 k | | variable, TONE (TREBLE, BASS) |

### SWITCHES

| Ref. No. | Part No. | Description |
|---|---|---|
| S1 | 1- 516-948-00 | Ⓖ Rotary, FUNCTION |
| S2, 3 | 1-516-603-00 | Ⓕ Lever Slide, MONITOR, TAPE COPY |
| S4, 6<br>S14 ~ 16 | 1-516-949-00 | Ⓖ Pushbutton, 5-key; MONO, EXT ADPT, DOLBY FM, MULTIPATH, FM MUTING (USA, Canada models) |
| S4, 6, 15, 16 | 1-516-947-00 | Ⓕ Pushbutton, 5-key; MONO, EXT ADPT, MULTIPATH, FM MUTING (AEP model) |
| S5 | 1-516-685-00 | Ⓕ Lever Slide, MUTING |
| S7 | 1-516-952-00 | Ⓕ Rotary Slide, ACOUSTIC COMP |
| S8, 9 | 1-516-946-00 | Ⓔ Pushbutton, 2-key; FILTER |
| S10 | 1-516-951-00 | Ⓕ Rotary, SPEAKER |
| S11 | 1-516-628-00<br>1-516-693-00 | Ⓔ Pushbutton, POWER (AEP model)<br>Ⓔ Pushbutton, POWER (USA, Canada models) |
| S17 | 1-516-954-00 | Ⓑ De-emphasis |

### FUSES

| Ref. No. | Part No. | Description |
|---|---|---|
| F1 | 1-532-272-XX | Ⓑ 5 A (USA, Canada models) |
| F2 | 1-532-267-XX | Ⓑ 1.6 A (USA, Canada models) |
| F1, 2 | 1-532-286-00 | Ⓑ 2.5 AT (AEP model) |
| F3, 4 | 1-532-325-00 | Ⓑ 6.3 AT (AEP model) |
| F5 | 1-532-053-00 | Ⓑ 1.6 A (AEP model) |

### JACKS

| Ref. No. | Part No. | Description |
|---|---|---|
| CNJ1 ~ 3 | 1-526-528-00 | Ⓑ Outlet, ac (USA, Canada models) |
| CNJ1 | 1-509-546-00 | Ⓒ Connector, 3-p; AC IN (AEP model) |
| CNJ4 | 1-507-454-00 | Ⓒ HEADPHONES |
| CNJ5 | 1-509-549-00 | Ⓑ Connector, REC/PB (AEP model) |
| CNJ6 | 1-507-453-00 | Ⓒ AUX |
| J1 ~ 6<br>J11 ~ 16 | 1-507-470-00 | Ⓒ Phono, 4-p; PHONO, AUX, TAPE 2 REC OUT2, EXT ADPT |
| J7 ~ 10 | 1-507-471-00 | Ⓒ Phono, 4-p; TAPE 1, REC OUT1 (AEP model) |
| J7 ~ 10 | 1-507-470-00 | Ⓒ Phono, 4-p; TAPE 1, REC OUT1 (USA, Canada models) |
| J19 | 1-507-411-00 | Ⓑ Phono, 1-p; FM DISCRI OUTPUT |

### MISCELLANEOUS

| Ref. No. | Part No. | Description |
|---|---|---|
| CP903 | 1-231-057-31 | Ⓑ Encapsulated Component (USA, Canada models) |
| ME1 | 1-520-237-00 | Ⓗ Meter, SIGNAL MULTIPATH |
| ME2 | 1-520-236-00 | Ⓗ Meter, FM TUNING |
| PL1 ~ 3 | 1-518-116-00 | Ⓑ Lamp, 11 V 360 mA; dial, meter |
| PL4 | 1-518-169-XX | Ⓑ Lamp, 4.5 V 40 mA; STEREO |

**Note:** The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

**Note:** The circled letters (Ⓐ to Ⓩ) are applicable for the European model only.

| *Ref. No.* | *Part No.* | *Description* |
|---|---|---|
| PL5 | 1-518-169-XX | Ⓑ Lamp, 4.5 V 40 mA; DOLBY FM (USA, Canada models) |
| RY801 | 1-515-257-00 | Ⓗ Relay |
| TM1 ~ 3 | 1-535-057-21 | Ⓔ Terminal Strip, SPEAKER |
| TM4 | 1-535-132-00 | Ⓑ Terminal, ground |
| TM5 | 1-536-469-00 | Ⓓ Terminal Strip, ANTENNA |
| | 1-508-690-00 | Ⓒ Plug, voltage selector (AEP model) |
| | 1-536-392-XX | Ⓑ Terminal Strip |
| | 1-534-986-XX | Ⓕ Cord, power (USA, Canada models) |

## ACCESSORIES AND PACKING MATERIALS

| *Part No.* | *Description* |
|---|---|
| X-4490-002-1 | Ⓑ Cloth Ass'y, polishing |
| 1-501-161-00 | Ⓓ Ribbon Antenna, fm |
| 1-506-113-00 | Ⓐ Plug, shorting |
| 3-701-020-00 | Ⓐ Bag, plastic; instruction manual |
| 3-701-356-01 | Ⓐ Label, tack (Canada model) |
| 3-701-360-02 | Ⓐ Label, tack (AEP model) |
| 3-701-657-01 | Ⓐ Label, tack (USA model) |
| 3-780-940-11 | Ⓗ Manual, instruction (AEP model) |
| 3-780-940-21 | Ⓗ Manual, instruction (USA, Canada models) |
| 3-793-990-31 | Ⓐ Manual, instruction; French edition (Canada model) |
| 4-828-909-00 | Ⓑ Bag, plastic; unit |
| 4-845-131-00 | Ⓒ Cushion |
| 4-845-207-00 | Ⓗ Carton (USA, Canada models) |
| 4-845-208-00 | Ⓗ Carton (AEP model) |

9-958-331-01

Sony Corporation

6D0570-1
Printed in Japan