

# STR-7065A

USA Model

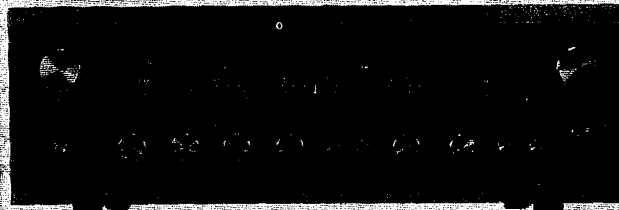
UK Model

AEP Model

GEP Model



(USA Model)



(UK, AEP and GEP Model)

## FM STEREO/FM-AM RECEIVER

### SPECIFICATIONS

#### FM TUNER SECTION

Frequency range:	87.5 – 108 MHz
Antenna:	300 $\Omega$ terminals, balanced 75 $\Omega$ terminals, unbalanced
Intermediate frequency:	10.7 MHz
Sensitivity:	2.0 $\mu$ V (IHF) 1.6 $\mu$ V (S/N = 30 dB)
Image rejection:	70 dB
I-f rejection:	100 dB
Spurious rejection:	90 dB
A-m suppression:	56 dB
Capture ratio:	1.0 dB
Selectivity:	70 dB (IHF)
S/N ratio:	70 dB
Frequency response:	20 – 15,000 Hz $\pm$ 1 dB
Harmonic distortion:	Mono: 0.2% Stereo: 0.4% ) at 400 Hz, 100% modulation (75 kHz deviation)
Stereo separation:	Greater than 43 dB at 400 Hz
SCA suppression:	68 dB
Muting level:	5 $\mu$ V

#### A-M TUNER SECTION

Frequency range:	530 – 1,605 kHz
Antenna:	Built-in bar antenna and external antenna terminal
Intermediate frequency:	455 kHz (USA and GEP Model) 468 kHz (AEP and UK Model)
Sensitivity:	48 dB/m, built-in ferrite-rod antenna at 1,000 kHz 100 $\mu$ V, external antenna

Image rejection:	50 dB at 1,000 kHz
I-f rejection:	40 dB at 1,000 kHz
S/N ratio:	50 dB at 50 mV/m
Harmonic distortion:	0.8% at 50 mV/m

#### POWER AMPLIFIER SECTION

Continuous RMS power output:	at 20 – 20,000 Hz (Less than 0.2% THD) 65 + 65 W (8 $\Omega$ ) (USA and GEP Model) 45 + 45 W (8 $\Omega$ ) (AEP and UK Model) at 1 kHz 70 + 70 W (8 $\Omega$ ) (USA and GEP Model) 50 + 50 W (8 $\Omega$ ) (AEP and UK Model) (both channels driven simultaneously)
Dynamic power output: (IHF constant power supply method)	240 W (8 $\Omega$ ) (USA and GEP Model) 170 W (8 $\Omega$ ) (AEP and UK Model) 380 W (4 $\Omega$ ) (USA and GEP Model) 270 W (4 $\Omega$ ) (AEP and UK Model)
Power bandwidth, IHF:	15 – 35,000 Hz
Damping factor:	50 (8 $\Omega$ )
Harmonic distortion:	Less than 0.2% at continuous RMS power output Less than 0.1% at 1 W output
IM distortion: (60 Hz : 7 kHz = 4 : 1)	Less than 0.2% at continuous RMS power output Less than 0.1% at 1 W output

— continues to page 2 —

# SONY®

## SERVICE MANUAL

**Residual noise:** Less than 0.05  $\mu$ W  
**S/N ratio:** Greater than 110 dB (closed circuit)  
**Frequency response:** 10 – 100,000 Hz  $\pm$  0 dB at 1 W output  
**Input sensitivity and impedance:** 1 V at continuous RMS power output  
 50 k $\Omega$

## PREAMPLIFIER SECTION

**Input sensitivity and impedance:**

	Sensitivity *	Impedance
PHONO	3 mV	47 k $\Omega$
MIC	1.6 mV	47 k $\Omega$
AUX	250 mV	50 k $\Omega$
TAPE 1, 2		
REC/PB(input)		

**Note:** \* Measured with continuous RMS power output into 8  $\Omega$  loads (both channels driven simultaneously) at 1 kHz.

**Maximum input capability:** 100 mV . . . . PHONO

**Output level and impedance:**

	Level	Impedance
REC OUT	250 mV	10 k $\Omega$
REC/PB (output)	30 mV	82 k $\Omega$
PREAMP OUTPUT	1 V	4.7 k $\Omega$

**S/N ratio:**

	S/N	Weighting network	Input level
PHONO	72 dB	A	3 mV
MIC	65 dB	B	1.6 mV
AUX	90 dB	A	250 mV
TAPE 1, 2			
REC/PB(input)			

**Harmonic distortion:** Less than 0.2% at continuous RMS power output

**IM distortion:** Less than 0.2% at continuous RMS power output  
 (60 Hz : 7 kHz = 4 : 1)

**Frequency response:** PHONO RIAA equalization curve  $\pm$  1 dB  
 MIC 100 – 10,000 Hz  $\pm$  0 dB  
 AUX }  
 TAPE 1, 2 } 10 – 70,000 Hz  $\pm$  0 dB  
 REC/PB }  
 (input) }  
**Tone controls:** BASS  $\pm$  10 dB at 100 Hz  
 TREBLE  $\pm$  10 dB at 10 kHz  
**High filter:** 12 dB/oct. above 9 kHz  
**Low filter:** 12 dB/oct. below 50 Hz  
**Loudness control:** + 10 dB at 50 Hz, + 4 dB at 10 kHz  
 (Attenuation : 30 dB)

## GENERAL:

**System:** Superheterodyne fm/a-m tuner  
 Complementary symmetry circuit  
 (SEPP OTL), Direct output coupling

**Power requirements:** 120 Vac, 60 Hz (USA Model)  
 100, 120, 220, 240 Vac, 50/60 Hz  
 (GEP Model)  
 110, 127, 220, 240 Vac, 50/60 Hz  
 (UK and AEP Model)

**Power consumption:** 180 W (USA Model)  
 300 W (GEP Model)  
 370 W (UK and AEP Model)

**AC outlets:** 2 switched, 200 W  
 1 unswitched, 200 W (USA Model only)

**Dimensions:** 471 (w) x 157 (h) x 375 (d) mm  
 18 $\frac{1}{4}$  (w) x 6 $\frac{1}{8}$  (h) x 14 $\frac{3}{4}$  (d) inches  
 (USA Model)  
 440 (w) x 148 (h) x 375 (d) mm  
 17 $\frac{3}{8}$  (w) x 5 $\frac{7}{8}$  (h) x 14 $\frac{3}{4}$  (d) inches  
 (UK, AEP and GEP Model)

**Net weight:** 15.2 kg, 33 lb 10 oz (USA Model)  
 13.2 kg, 29 lb 2 oz (UK, AEP and GEP Model)

**Shipping weight:** 18.9 kg, 44 lb 10 oz (USA Model)  
 16.9 kg, 37 lb 4 oz (UK, AEP and GEP Model)

## SECTION 2

### DISASSEMBLY AND REPLACEMENT

#### 2-1. BOTTOM PLATE REMOVAL

Remove the eight self-tapping screws shown in Fig. 2-1.

#### 2-2. FRONT PANEL REMOVAL

1. Remove all the knobs on the front panel.
2. Remove the three self-tapping screws shown in Fig. 2-1.
3. Remove the three screws shown in Fig. 2-2.

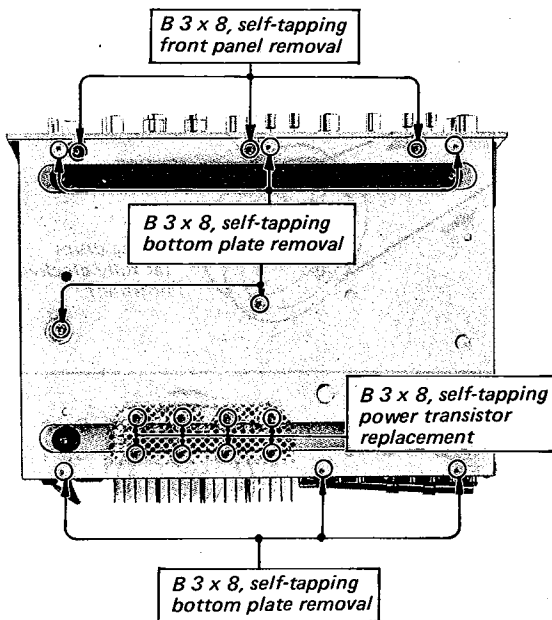


Fig. 2-1. Bottom plate and front panel removal

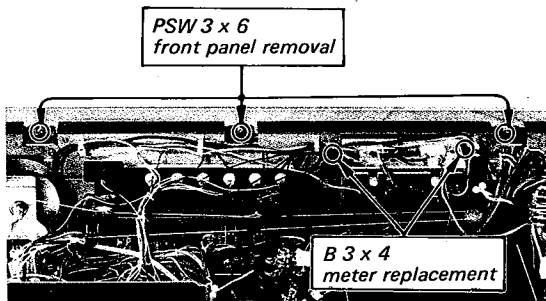


Fig. 2-2. Front panel removal and meter replacement

#### 2-3. POWER TRANSISTOR REPLACEMENT

1. Remove the twelve self-tapping screws shown in Fig. 2-1 and Fig. 2-3.
2. Remove the two screws securing the power transistor to the heat sink.

**Note:** When replacing the power transistor, apply a coating of a heat-transferring grease to both sides of the mica insulator. Any excess grease squeezed out when the mounting bolts are tightened should be wiped off with a clean cloth. This prevents it from accumulating conductive dust particles that might eventually cause a short.

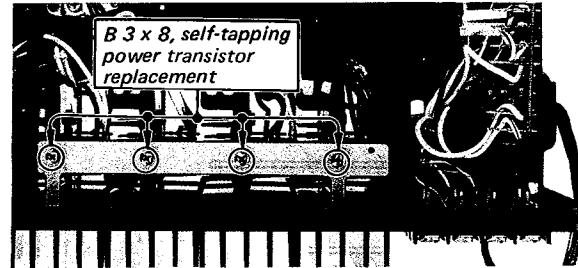


Fig. 2-3. Power transistor replacement

#### 2-4. DIAL GLASS REMOVAL

Remove the five screws shown in Fig. 2-4.

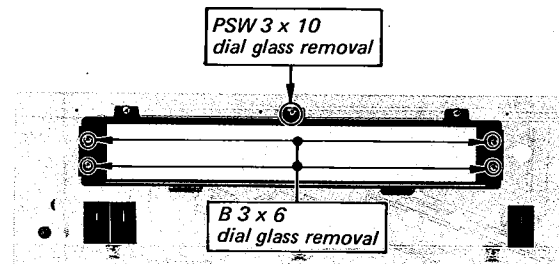


Fig. 2-4. Dial glass removal

#### 2-5. METER REPLACEMENT

1. Remove the meter lamp shade by taking out the two screws shown in Fig. 2-2.
2. Remove the meter.

**2-6. DIAL CORD STRINGING**

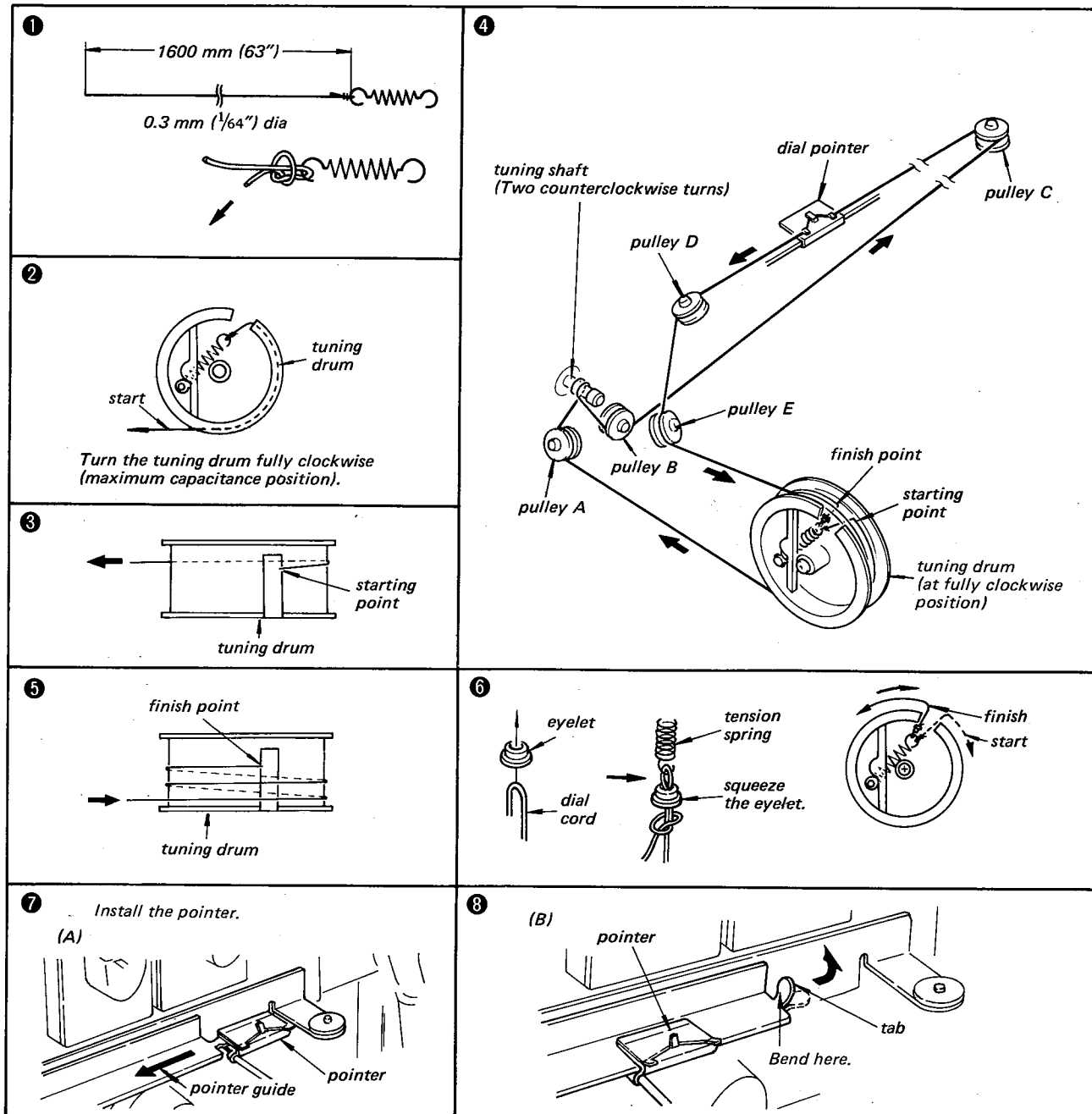


Fig. 2-5 Dial cord stringing

**2-7. DIAL CALIBRATION**

Tune the receiver to the local station. Move the pointer to the position where the dial indication coincides with the local station's carrier frequency. Apply a drop of contact cement to it.

**2-8. VOLUME CONTROL REPLACEMENT**

1. Remove the power amp/power supply board bracket (c) by taking out the screw as shown in Fig. 2-6.
2. Remove the front panel as described in Procedure 2-2.
3. Remove the nut securing the VOLUME control to the front subchassis shown in Fig. 2-7.
4. Remove the loudness control board along with the VOLUME control.

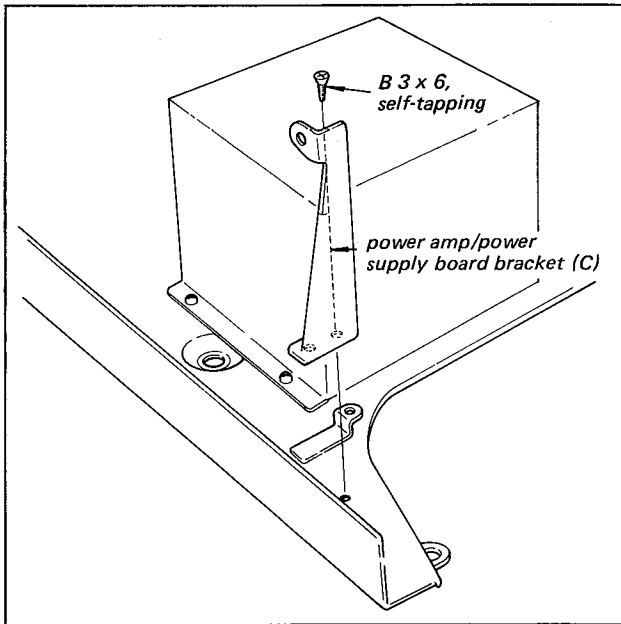


Fig. 2-6. VOLUME control replacement

**2-9. CONTROL, JACK AND SWITCH REPLACEMENT**

Prepare for replacing any of the controls, jacks or switches by removing the front panel described in Procedure 2-2.

**Note:** Before removing the front subchassis, fasten the dial cord to the drum, pulleys with cellophane tape. This helps you to re-string the dial cord.

**POWER, MIC MIXING Switches and HEADPHONE, MIC Jacks**

1. Remove two screws or the nut securing the defective switch or jack to front subchassis as shown in Fig. 2-7.
2. Unsolder the leads of defective switch or jack.
3. Install a new one.

**SPEAKER, FILTER, MODE and FUNCTION Switches**

1. Remove the retaining ring securing the defective switch, located at the back side of control board bracket, as shown in Fig. 2-8.
2. Pull out the shaft of the defective switch with a screwdriver as shown in Fig. 2-9.

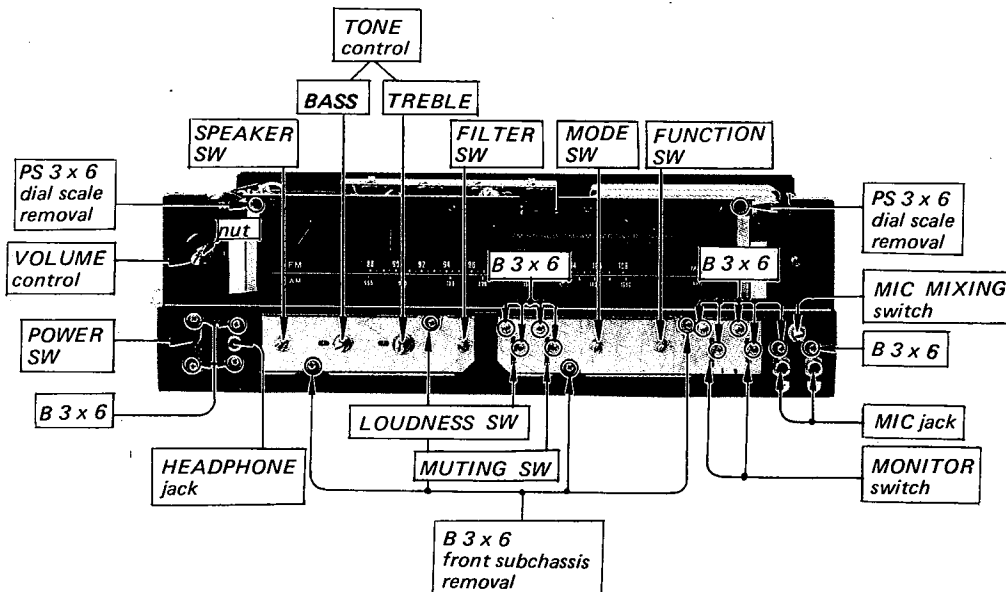
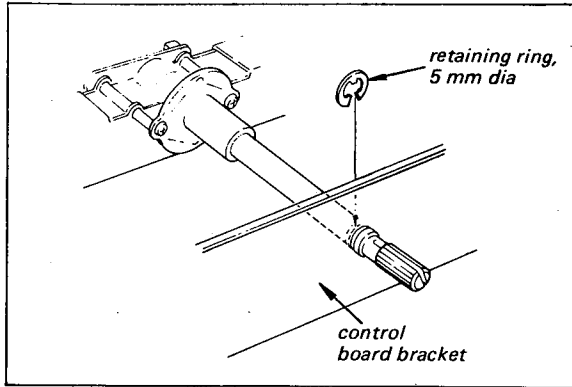
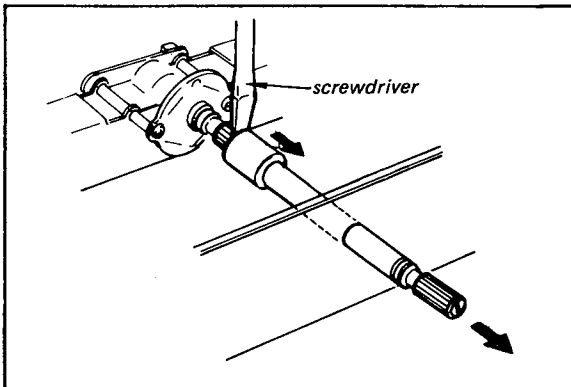


Fig. 2-7. Control, jack and switch replacement (1)



*Fig. 2-8. Control board removal*

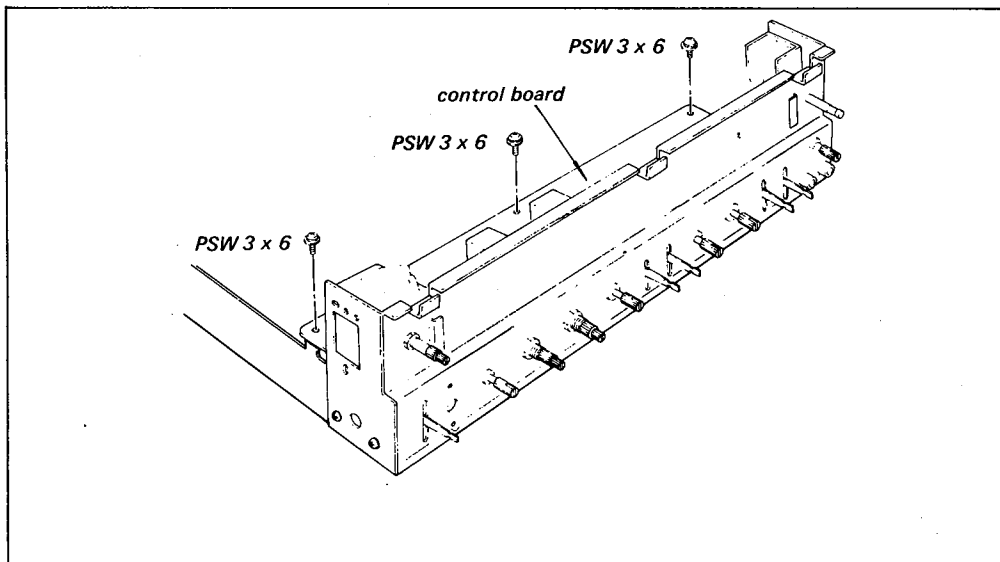
3. Remove the bottom plate as described in Procedure 2-1.
4. With a soldering iron having a solder-sucking tip, clean the solder from each lug of the defective switch and the printed circuit board.
5. Remove the defective switch and install a new one.



*Fig. 2-9. Switch shaft removal*

**LOUDNESS, MUTING, MONITOR Switches and TONE controls**

1. Remove the four screws (B 3 x 6) securing the control board bracket to the front subchassis as shown in Fig. 2-7.
2. Remove the three screws (PSW 3 x 6) securing the control board to the chassis as shown in Fig. 2-10.
3. Remove the nut securing the defective control or two screws (B 3 x 6) securing the defective switch to the control board bracket as shown in Fig. 2-7.
4. Remove the bottom plate as described in Procedure 2-1.
5. Move the control board toward power transformer as far as it goes. This helps in unsoldering the defective part on the board.
6. With a soldering iron having a solder-sucking tip, clean the solder from each lug of the defective part and the printed circuit board.
7. Remove the defective part and install a new one.



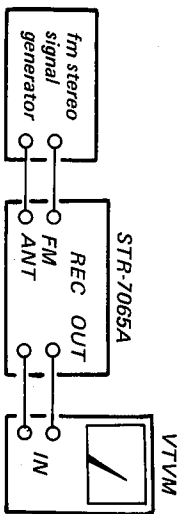
*Fig. 2-10. Control, jack and switch replacement (2)*

3-7. A-M I-F STRIP ALIGNMENT

Note: The i-f transformers [CFX401] in the a-m i-f amplifier circuit are adjusted at the factory, so very little adjustment is necessary in the field even if replacing any of these i-f transformers.

3-5. FM STEREO SEPARATION ADJUSTMENT

Test Setup:



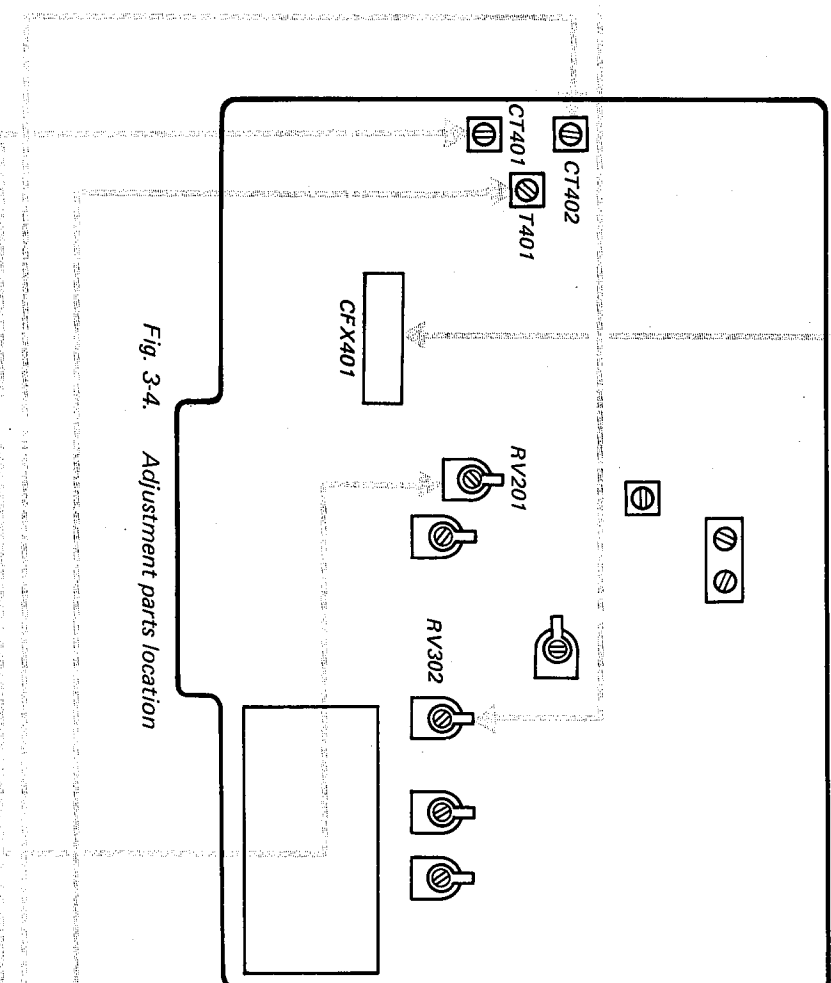
FM Stereo Signal Generator Setting:

Carrier frequency: 98 MHz  
 Output level: 60 dB (1,000  $\mu$ V)  
 Mode: Stereo  
 Audio (400 Hz) Mod: 67.5 kHz (90%)  
 Pilot (19 kHz) Mod: 7.5 kHz (10%)

Procedure:

1. Set the signal generator input selector to the left.
  2. Tune the receiver to 98 MHz.
  3. Adjust [RV302] for maximum output on the VTVM at the left channel, and record the output level.
  4. Record the residual signal level when the stereo signal generator input selector is to the right.
- Note: The output level to residual-level ratio represents the separation.
5. Measure the separation at the right channel.
  6. Readjust RV302 for minimum difference between left and right channel separation.

Fig. 3-4. Adjustment parts location



3-6. FM FREQUENCY COVERAGE ALIGNMENT

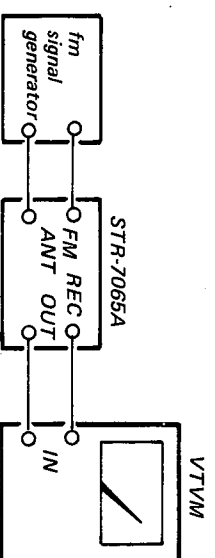
CAUTION

Never attempt alignment of the front-end section except for the frequency-coverage and dial-calibration adjustments. The front-end section of the receiver has been carefully adjusted at the factory. If an rt-stage adjustment is required, ask your nearest SONY Service Station to send your unit to the Factory Service Center for a complete front-end alignment.

Preparation:

1. Short the AFC circuit to ground as shown in Fig. 3-1.
2. Before starting this alignment, the fm discriminator alignment should be performed, and that the dial is mechanically calibrated as described in procedure 2-7 on Page 6.

Test Setup:



Adjust for maximum reading.

FM FREQUENCY COVERAGE ALIGNMENT

87.5 MHz (modulated)  
 108 MHz (modulated)

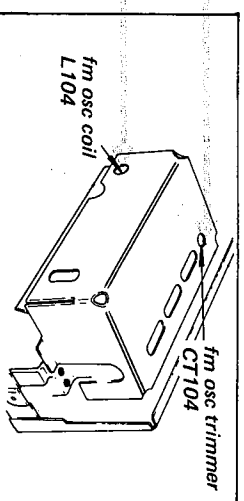
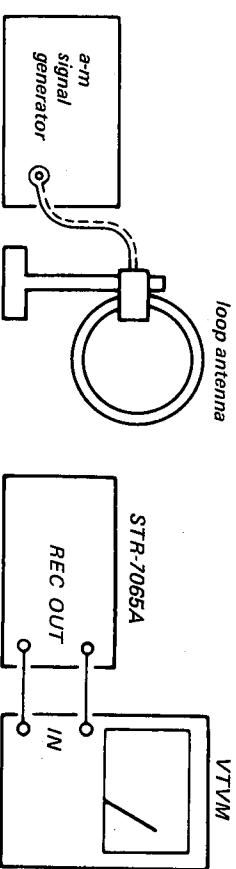


Fig. 3-5. Adjustment parts location

3-8. AM FREQUENCY COVERAGE AND AM TRACKING ALIGNMENT

Test Setup:



Procedure:

Adjust for maximum reading.

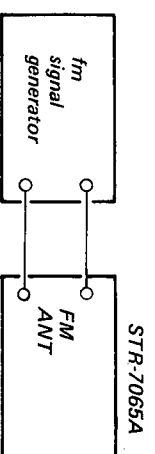
AM FREQUENCY COVERAGE  
 550 kHz (modulated)  
 1,600 kHz (modulated)

AM TRACKING  
 600 kHz (modulated)  
 1,400 kHz (modulated)

L901  
 A-m Ferrite-rod antenna

3-9. TUNER INPUT METER CALIBRATION

Test Setup:

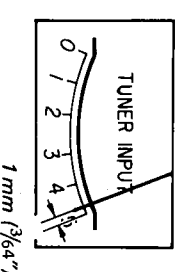


FM Signal Generator Setting:

Carrier frequency: 98 MHz  
 Modulation: 400 Hz, 75 kHz deviation (100%)  
 Output level: 60 dB (1,000  $\mu$ V)

Procedure:

1. Precisely tune the receiver to 98 MHz.
2. Adjust [RV20] for specified position on the SIGNAL meter.



SECTION 3

ALIGNMENTS AND ADJUSTMENTS

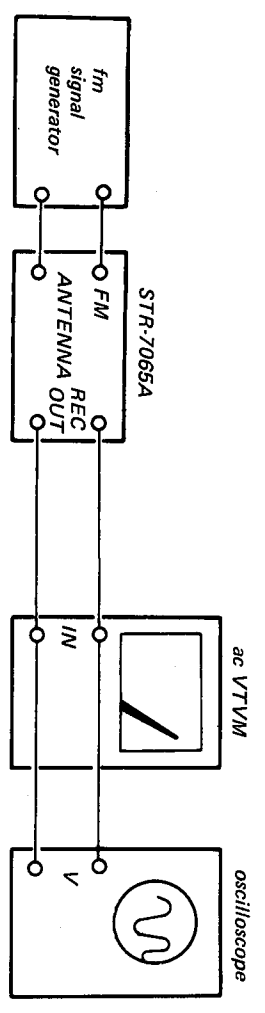
3-1. FM I-F STRIP ALIGNMENT

The center frequency (color code) of CF1 and CF2 should coincide with each other.

Note: It makes no difference, if the center frequency of the new filters is not the same as that of the defective ones.



Test setup:



Carrier frequency . . . . . 98 MHz  
 Modulation . . . . . Fm 400 Hz, 75 kHz deviation (100%)  
 Output level . . . . . 30  $\mu$ V (30 dB) terminated

Preparation:

Short the AFC circuit to ground as shown in Fig. 3-1.

Procedure:

1. Precisely tune the receiver to the SG frequency.
2. Adjust IFT101 (See Fig. 3-2) for maximum deflection on the TUNER INPUT meter.
3. Carefully adjust IFT101 so that maximum reading on the TUNER INPUT meter always coincides with null-point of the TUNING meter.
4. Adjust the core (primary side) of IFT201 for maximum output on the VTVM, and adjust it so that the VTVM indication falls as the receiver is detuned in either direction (maximum output corresponds to null-point on the TUNING meter).

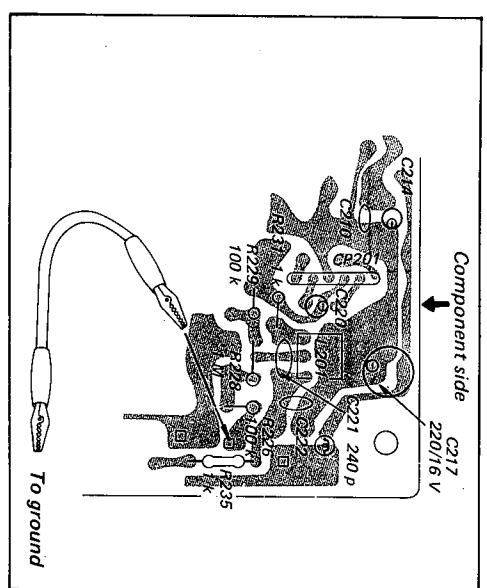


Fig. 3-1. Interruption of AFC circuit.

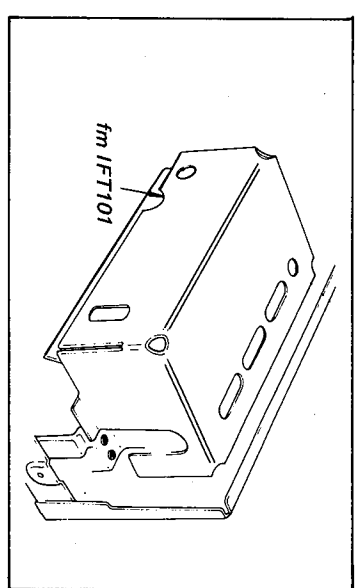


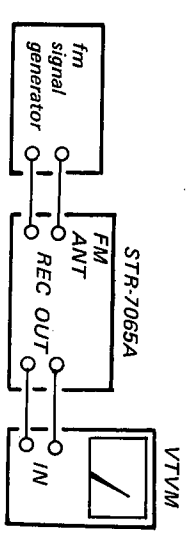
Fig. 3-2. Adjustment parts location

3-2. FM DISCRIMINATOR ALIGNMENT

1. Detune the receiver.
2. Turn the core (secondary side) of IFT201 for null-point reading on the TUNING meter.

3-3. MUTING ADJUSTMENT

Test Setup:



FM Signal Generator Setting:  
 Carrier frequency: 98 MHz  
 Modulation: Fm 400 Hz, 75 kHz deviation (100%)  
 Output level: 60 dB (1,000  $\mu$ V)

Preparation:

Short the AFC circuit to ground as shown in Fig. 3-1 on Page 9.

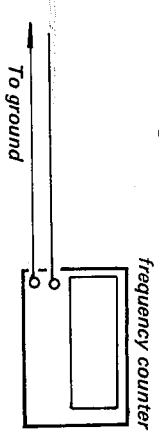
Procedure:

1. Tune the receiver to 98 MHz.
2. Adjust IFT201 for proper muting operation. Muting should begin at point equidistant from zero center.

3-4. 19 KHz ADJUSTMENT

A) With frequency counter

Test setup:



1. Tune the receiver to 98 MHz.
2. Adjust RV301 for 19 kHz  $\pm$  100 Hz on the counter.  
 B) Without frequency counter  
 1. Tune the set to FM stereo signals.  
 2. Turn RV301 clockwise and counterclockwise and secure RV301 to the center in lighting up range of stereo lamp as shown below.

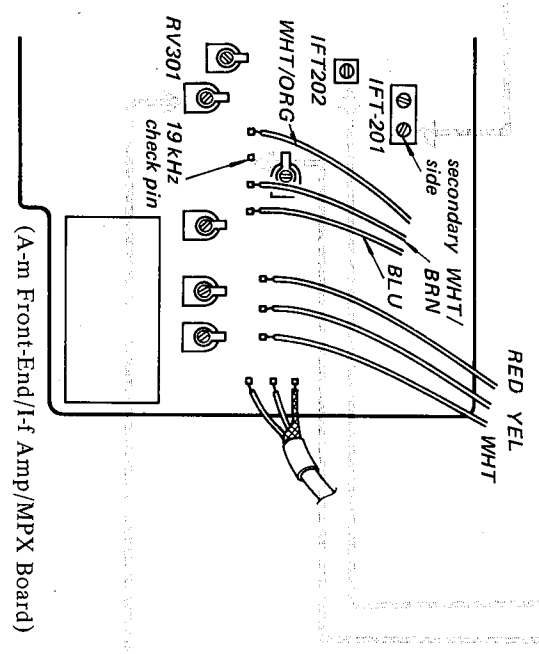
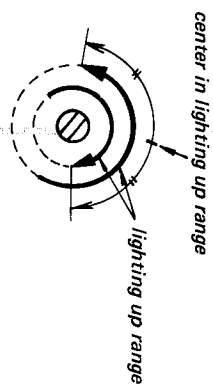


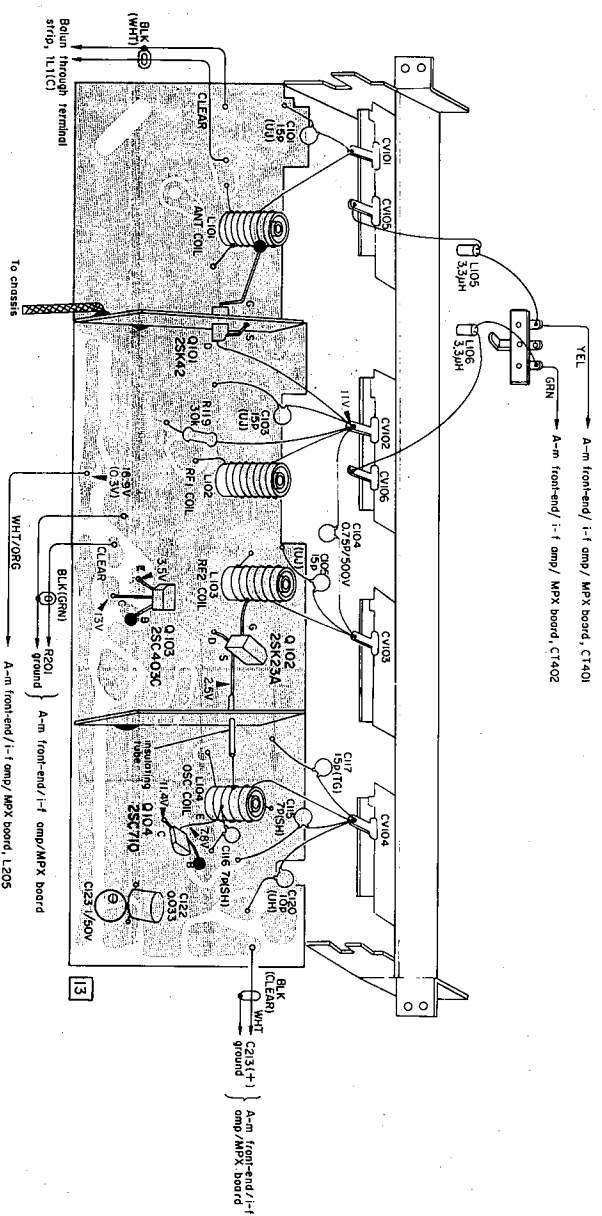
Fig. 3-3. Adjustment parts location



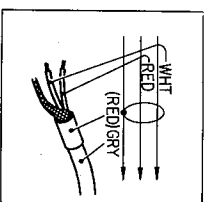
SECTION 4  
DIAGRAMS

4-1. MOUNTING DIAGRAM - Fm Front-End Board -

- Conductor Side -



- Component Side -



DC BIAS ADJUSTMENT

Note: Allow about five minutes for warm-up.

Test Setup:

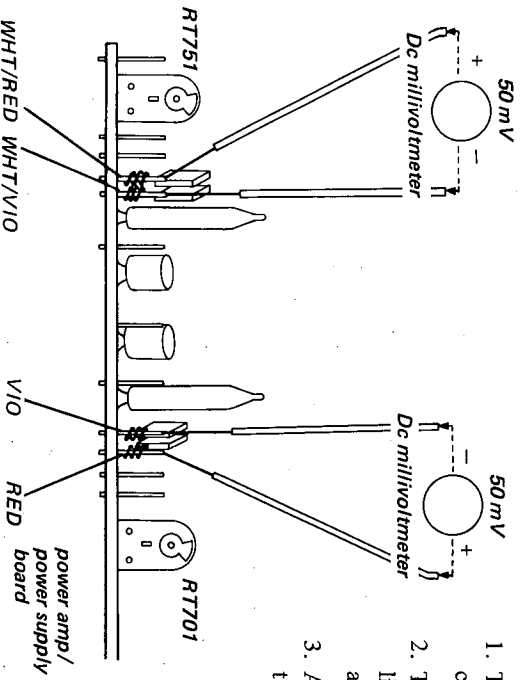
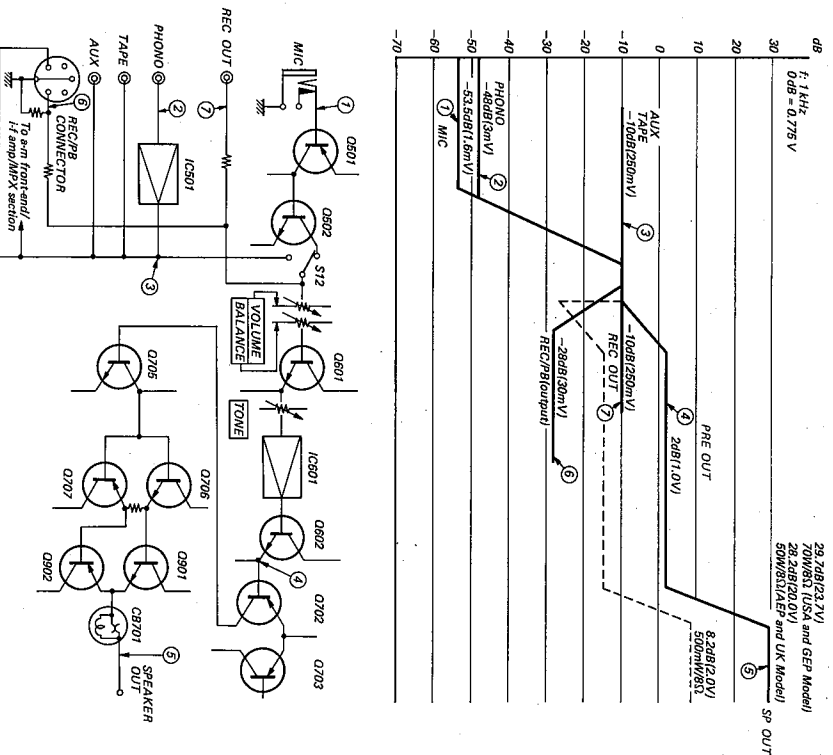


Fig. 3-6. Power-amplifier adjustment setup

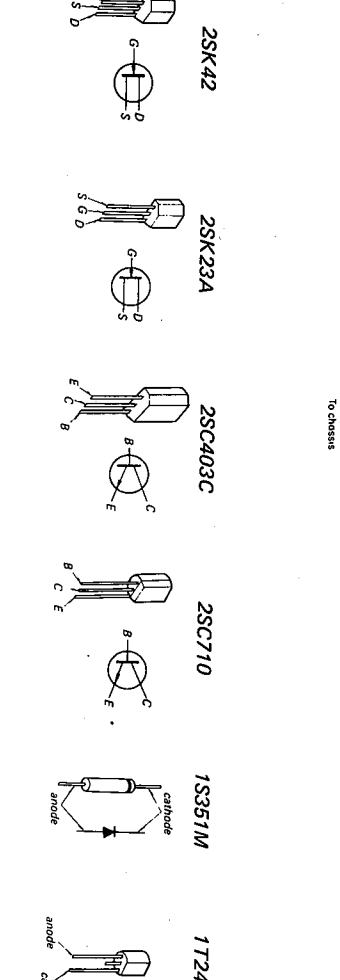
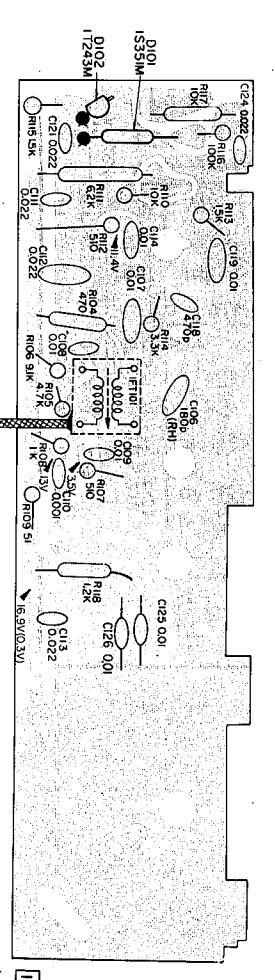
Procedure:

1. Turn RT701 (L-CH) and RT751 (R-CH) fully counterclockwise.
2. Turn on the POWER switch, and increase the ac line voltage up to the rated value by using a variable transformer.
3. Adjust RT701 and RT751 for 50 mV reading on the meter.

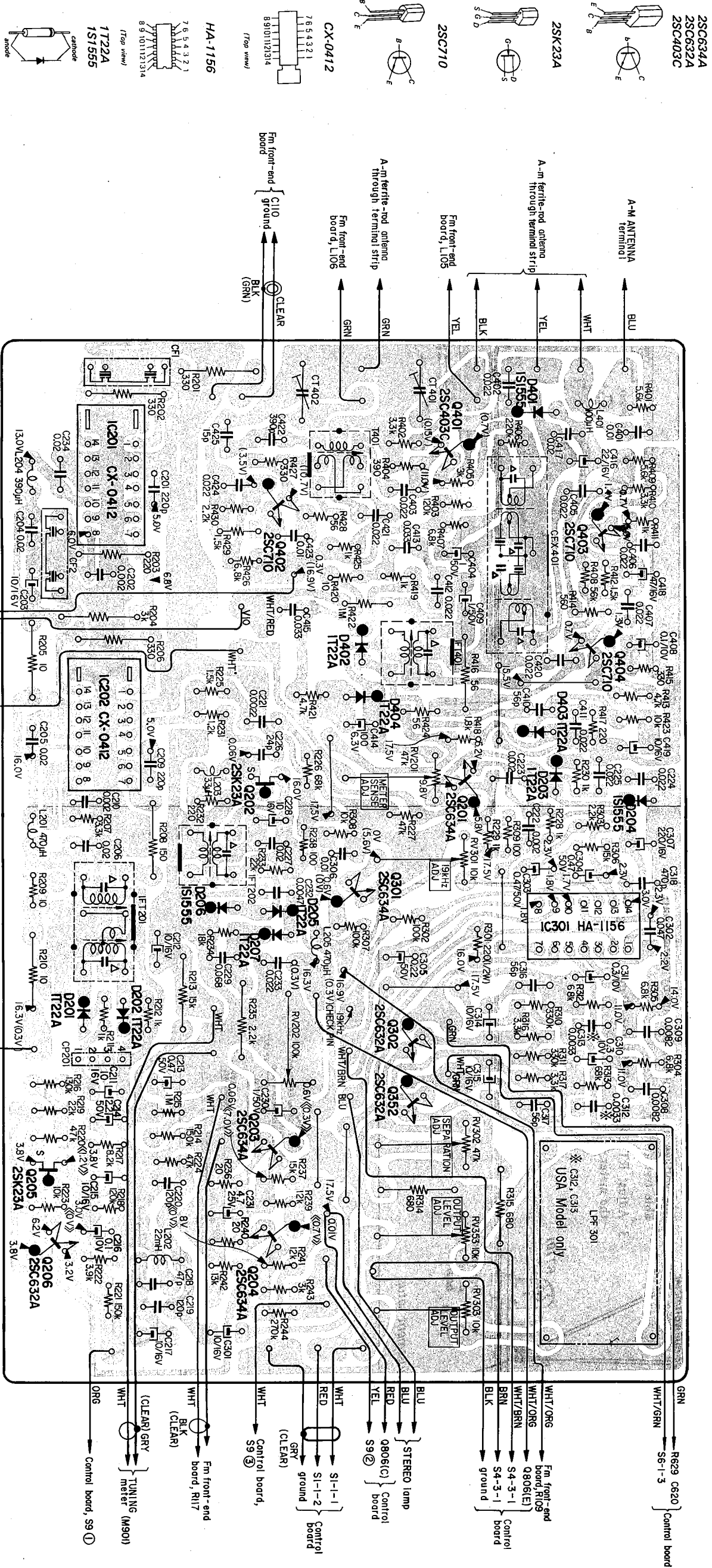
LEVEL DIAGRAM



Note: Signal voltages are measured with ac VTVM and expressed in dB referred to 0.775 V, 1 kHz.



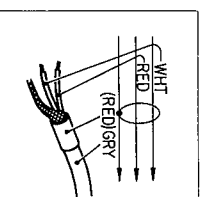
4.2. MOUNTING DIAGRAM — Am Front-End/I-f Amplifier/MPX Board —  
— Conductor Side —

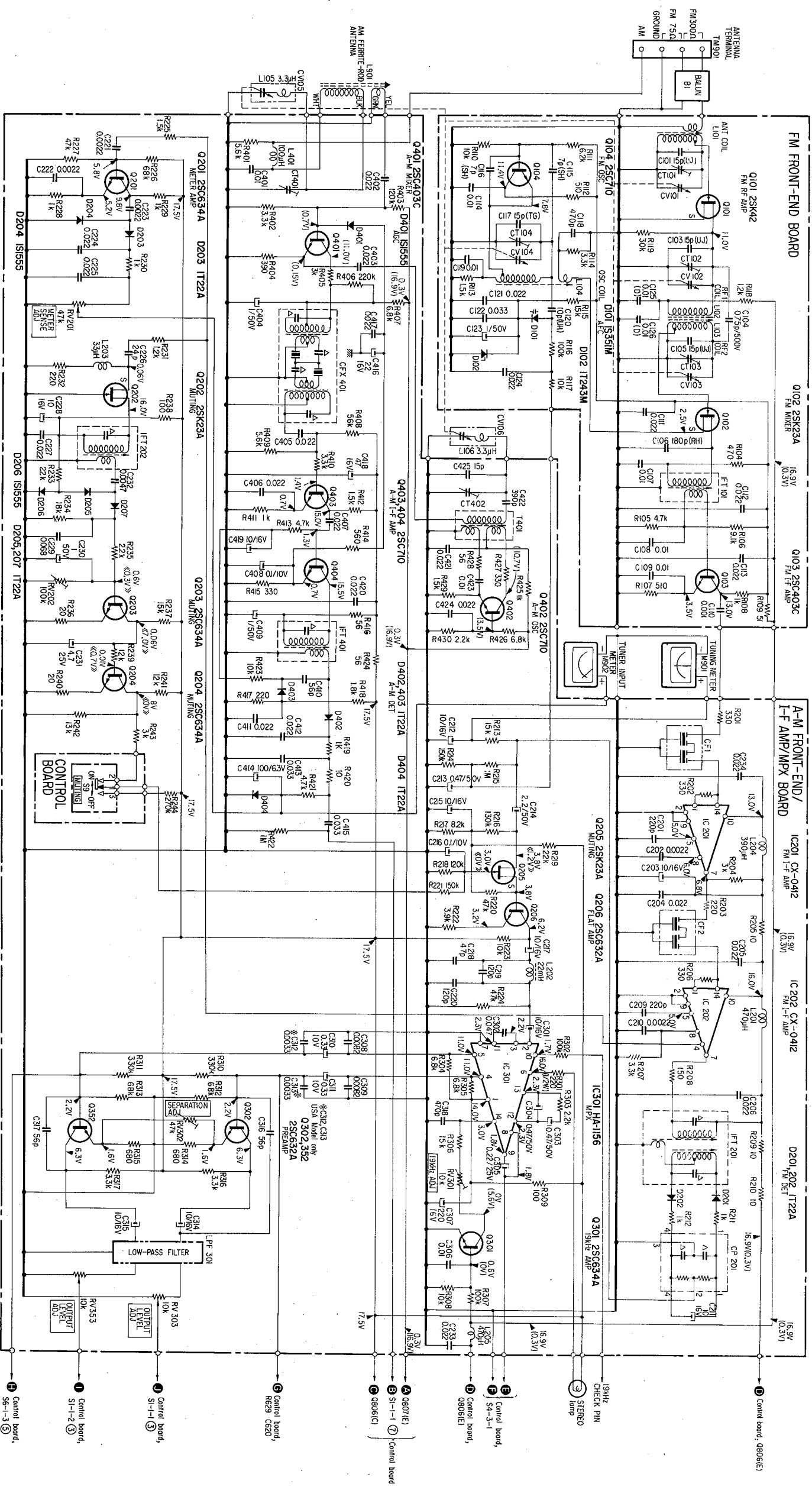


**Note:**  
 A bold line shows the face of the coil  
 (or the transformer) with its stencilled  
 part number.  
 : MUTING ON

Q	D	IC	ADU
D401	D403	D404	D403
D401	D402	D404	D404
IC201	IC201	IC202	IC202
CT401	CT402	CT401	CT402
T401	T401	IFT401	IFT401
RV201	RV201	RV301	RV301
IFT201	IFT201	IFT202	IFT202
RV202	RV202	RV302	RV302
RV302	RV302	RV353	RV353
RV303	RV303	RV303	RV303

**Semiconductor Location**



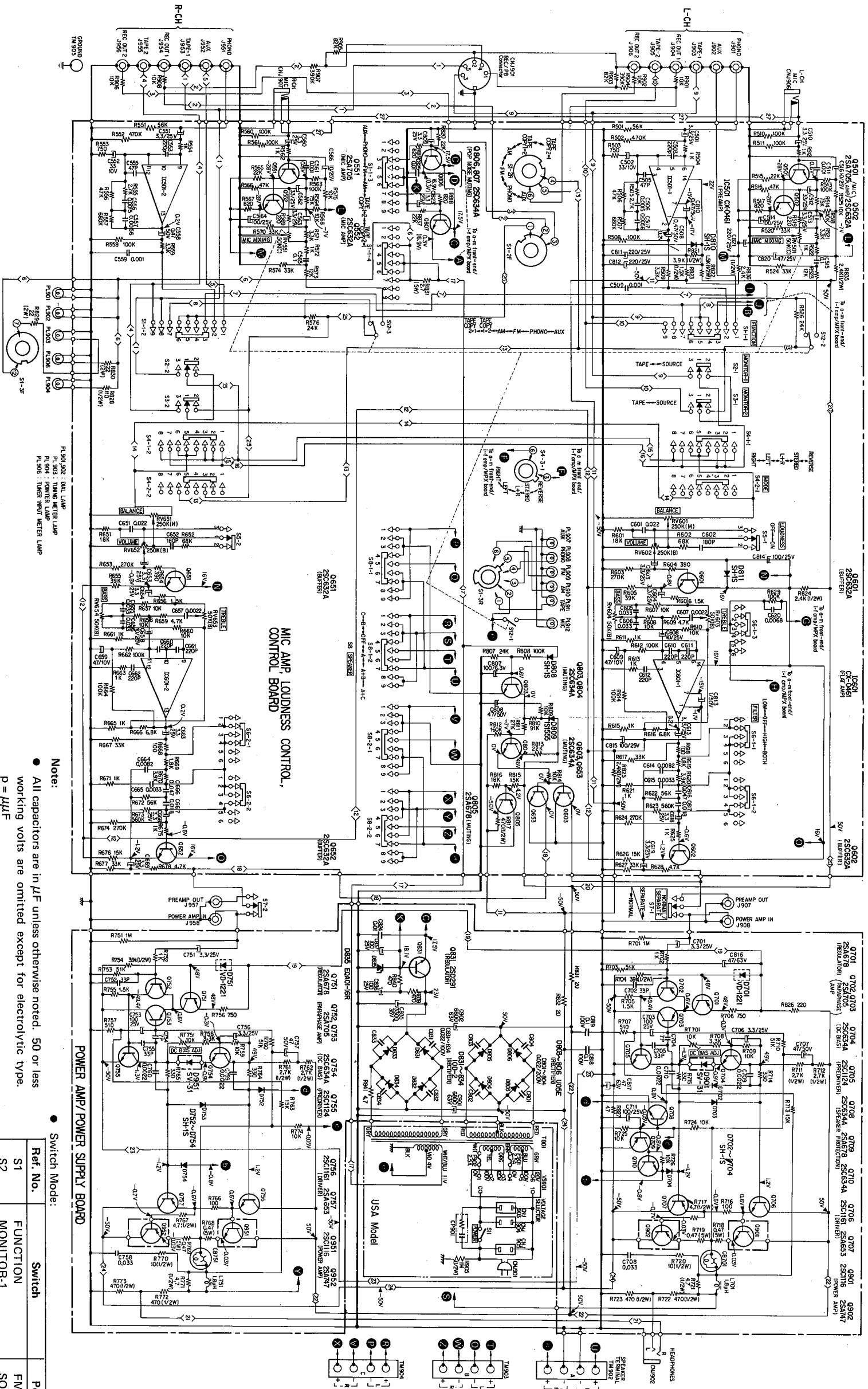


Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. 50 or less working volts are omitted except for electrolytic type.  $\text{p} = \mu\text{M}\text{F}$
- All resistors are in  $\Omega$ ,  $\frac{1}{2}\text{W}$ , unless otherwise noted.  $\text{k} = 1,000$   $\text{M} = 1,000\text{k}$ .
- $\Delta$  indicates internal components.
- Voltages are DC with respect to ground unless otherwise noted. Readings taken under no-signal conditions with a VOM (20  $\text{k}\Omega/\text{V}$ ).
- ( ) : AM,  $\ll$  : MUTING ON
- Voltage variations may be noted due to normal production tolerances.
- Switch Mode:

Ref. No.	Switch	Position
S9	MUTING	ON

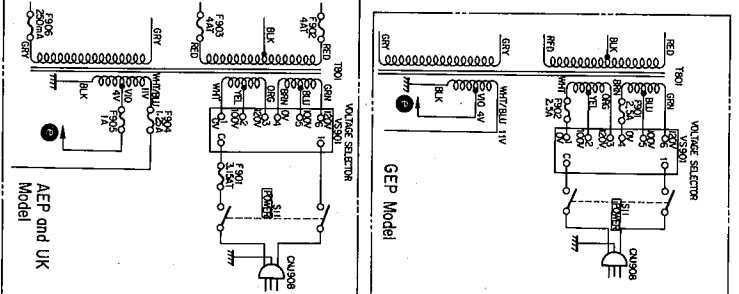
STR-7065A STR-7065A



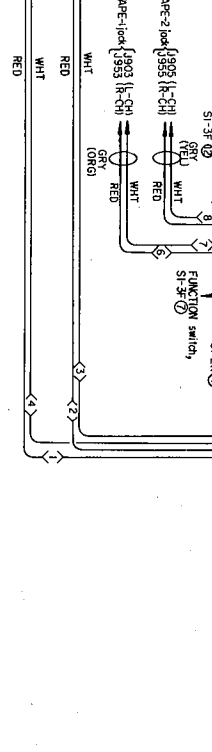
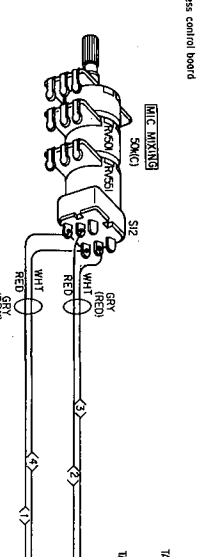
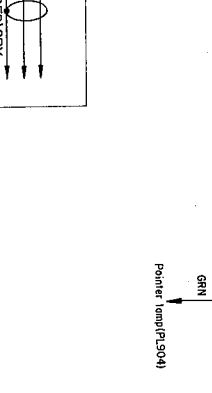
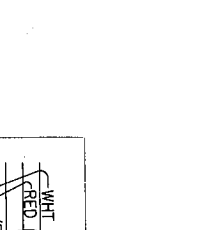
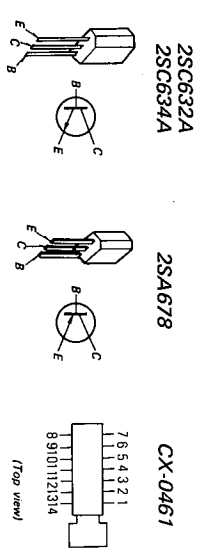
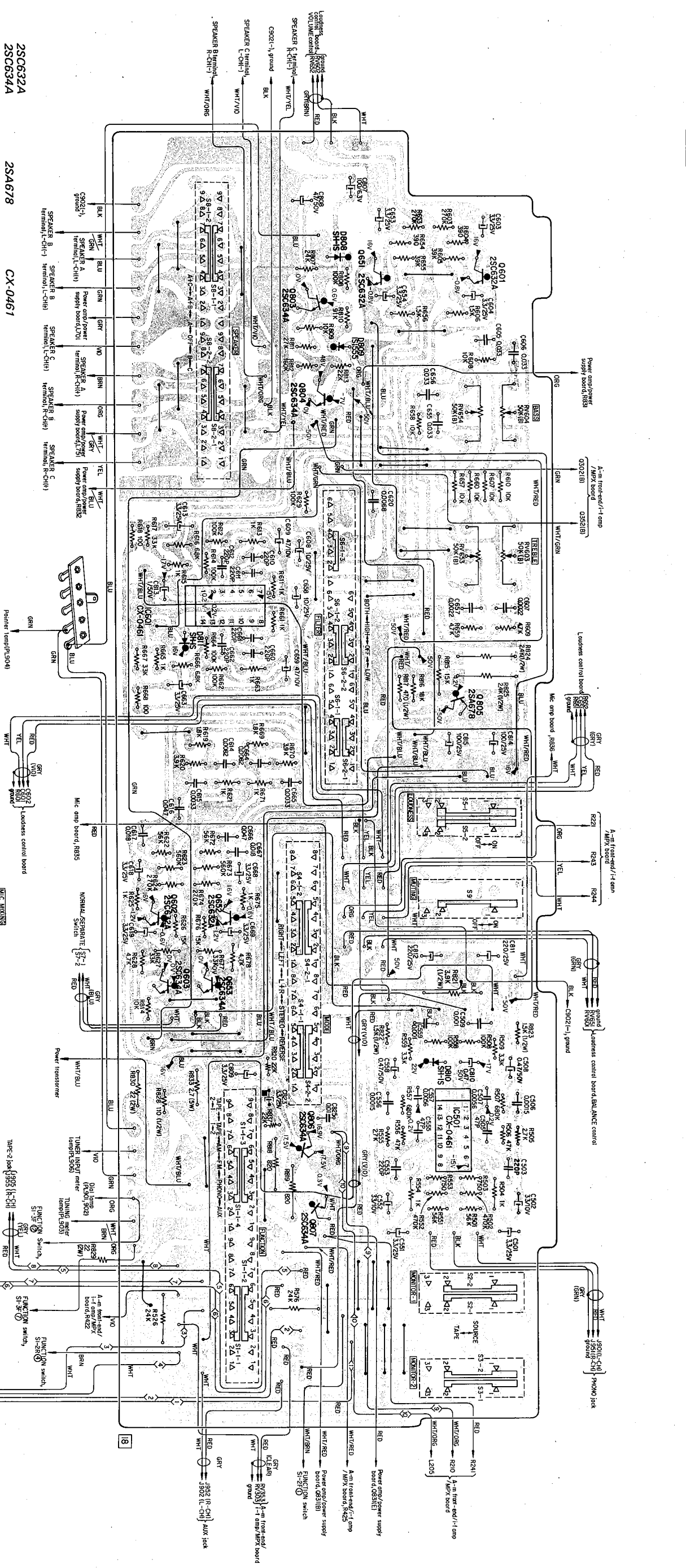
- Note:**
- All capacitors are in  $\mu\text{F}$  unless otherwise noted. 50 or less working volts are omitted except for electrolytic type.
  - All resistors are in  $\Omega$ ,  $\frac{1}{2}$  W, unless otherwise noted.
  - $k = 1,000$  M = 1,000K.
  - $\text{---}$  indicates chassis ground.
  - Voltages are DC with respect to ground unless otherwise noted. Readings taken under no-signal conditions with a VOM (20  $k\Omega/V$ ).
  - ( ) : AM
  - Voltage variations may be noted due to normal production tolerances.

• Switch Mode:

Ref. No.	Switch	Position
S1	FUNCTION	FM
S2	MONITOR-1	SOURCE
S3	MONITOR-2	SOURCE
S4	MODE	STEREO
S5	LOUDNESS	ON
S6	FILTER	OFF
S7	NORMAL/SEPARATE	NORMAL
S8	SPEAKER	A
S11	POWER	OFF
S12	MIC MIXING	OFF



Semiconductor Location									
0601	0605	0609	0611	0805	0810	0801	0804	0807	0811
0808	0803	0809	0804	0805	0810	0801	0804	0807	0811
0651	0652	0653	0652	0652	0653	0652	0653	0653	0653
0801	0811	IC601	0811	0805	0810	IC501	0806	0807	0811

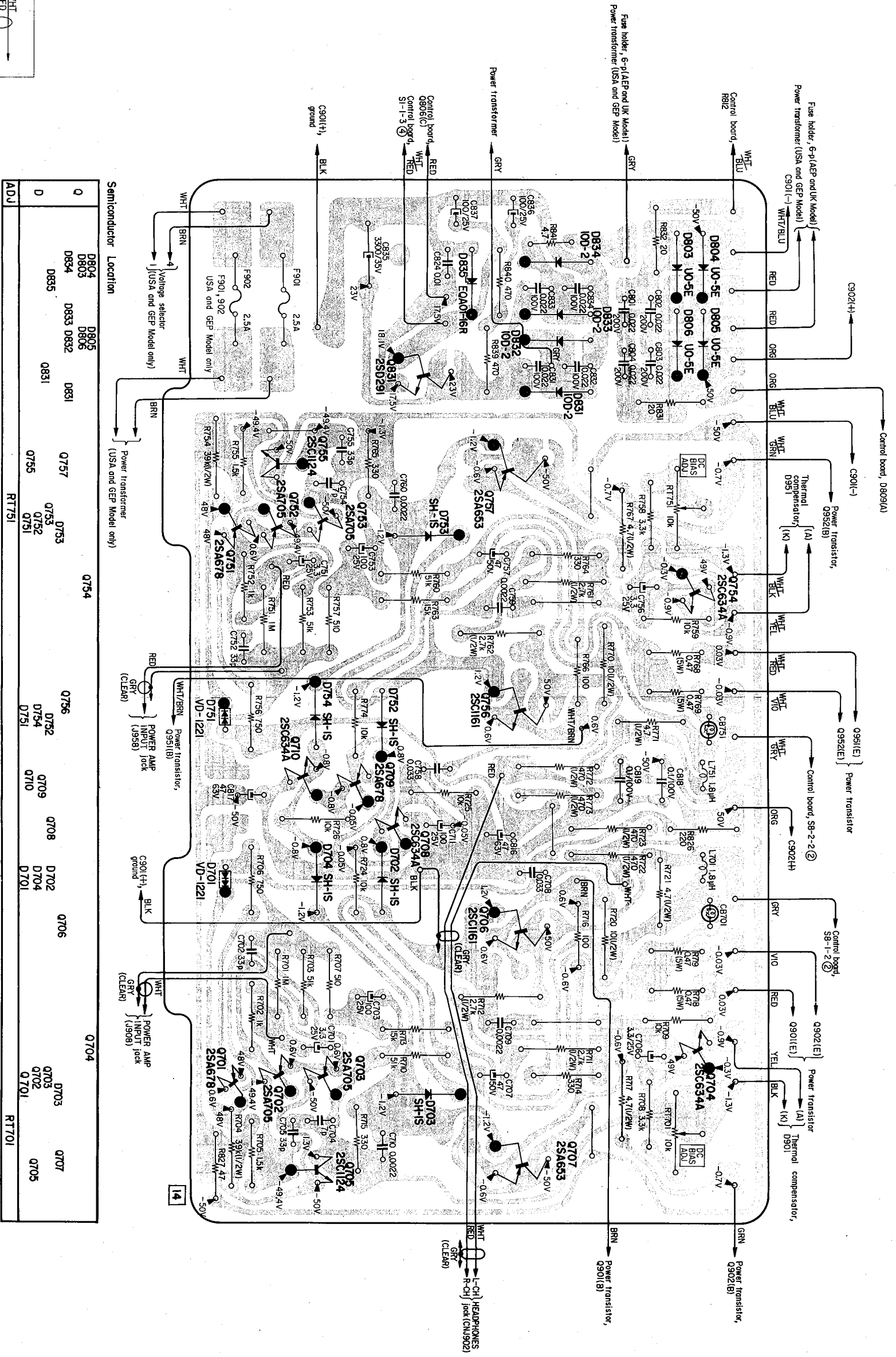


**Note:**

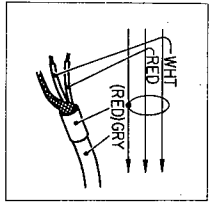
- indicates parts on the conductor side.
- indicates lead wire connection on the conductor side.
- indicates lead wire connection through the component side.

# STR-7065A STR-7065A

## 4-5. MOUNTING DIAGRAM — Power Amplifier/Power Supply Board — — Conductor Side —



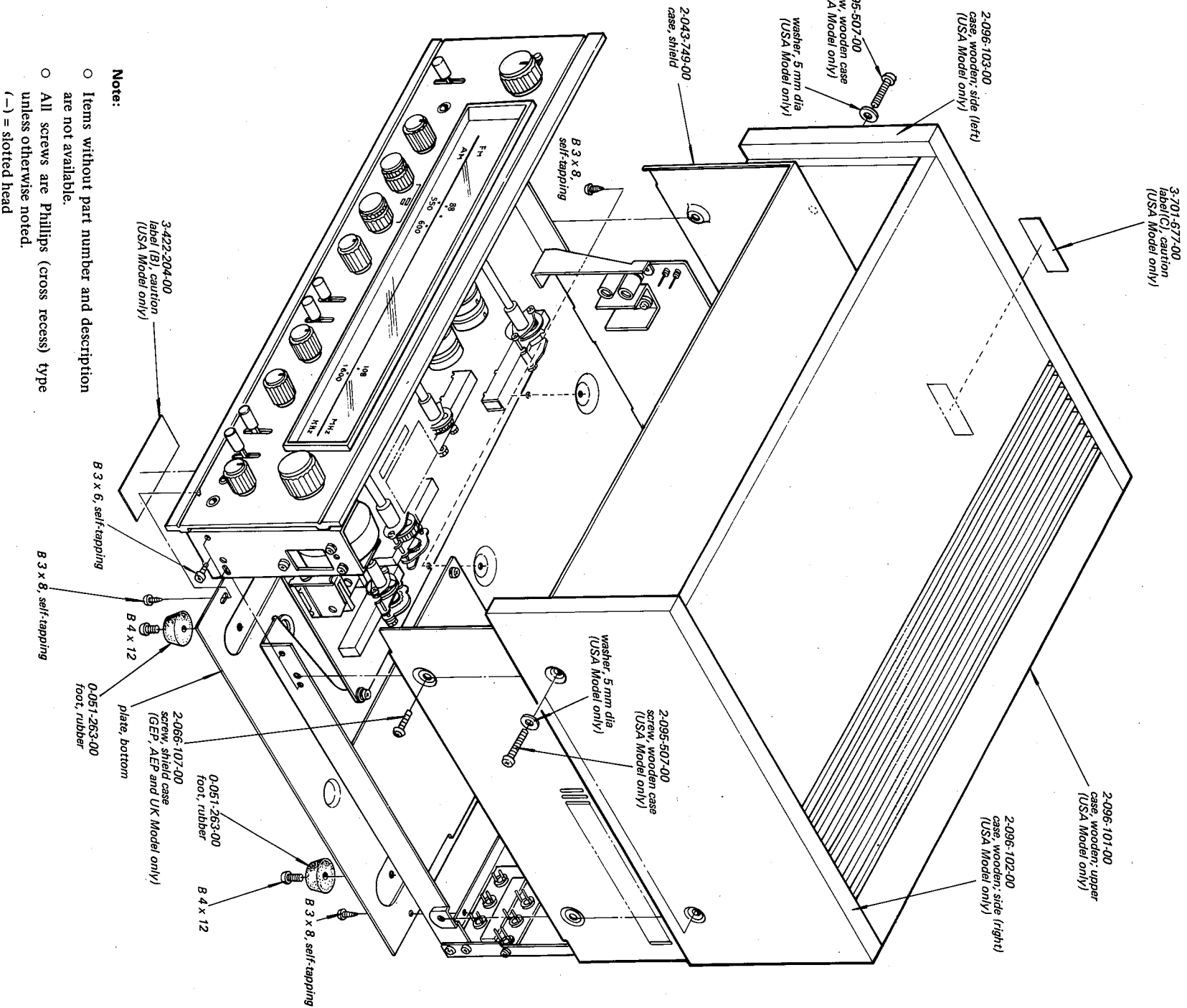
Location	Semiconductor
Q	D804, D805, D806, D834, D835
D	D831, D832, D833, D834, D835
ADJ	RT751, RT752, RT753, RT754, RT755, RT756, RT757, RT758, RT759, RT760, RT761, RT762, RT763, RT764, RT765, RT766, RT767, RT768, RT769, RT770, RT771, RT772, RT773, RT774, RT775, RT776, RT777, RT778, RT779, RT780, RT781, RT782, RT783, RT784, RT785, RT786, RT787, RT788, RT789, RT790, RT791, RT792, RT793, RT794, RT795, RT796, RT797, RT798, RT799, RT800, RT801, RT802, RT803, RT804, RT805, RT806, RT807, RT808, RT809, RT810, RT811, RT812, RT813, RT814, RT815, RT816, RT817, RT818, RT819, RT820, RT821, RT822, RT823, RT824, RT825, RT826, RT827, RT828, RT829, RT830, RT831, RT832, RT833, RT834, RT835, RT836, RT837, RT838, RT839, RT840, RT841, RT842, RT843, RT844, RT845, RT846, RT847, RT848, RT849, RT850, RT851, RT852, RT853, RT854, RT855, RT856, RT857, RT858, RT859, RT860, RT861, RT862, RT863, RT864, RT865, RT866, RT867, RT868, RT869, RT870, RT871, RT872, RT873, RT874, RT875, RT876, RT877, RT878, RT879, RT880, RT881, RT882, RT883, RT884, RT885, RT886, RT887, RT888, RT889, RT890, RT891, RT892, RT893, RT894, RT895, RT896, RT897, RT898, RT899, RT900, RT901, RT902, RT903, RT904, RT905, RT906, RT907, RT908, RT909, RT910, RT911, RT912, RT913, RT914, RT915, RT916, RT917, RT918, RT919, RT920, RT921, RT922, RT923, RT924, RT925, RT926, RT927, RT928, RT929, RT930, RT931, RT932, RT933, RT934, RT935, RT936, RT937, RT938, RT939, RT940, RT941, RT942, RT943, RT944, RT945, RT946, RT947, RT948, RT949, RT950, RT951, RT952, RT953, RT954, RT955, RT956, RT957, RT958, RT959, RT960, RT961, RT962, RT963, RT964, RT965, RT966, RT967, RT968, RT969, RT970, RT971, RT972, RT973, RT974, RT975, RT976, RT977, RT978, RT979, RT980, RT981, RT982, RT983, RT984, RT985, RT986, RT987, RT988, RT989, RT990, RT991, RT992, RT993, RT994, RT995, RT996, RT997, RT998, RT999, RT1000



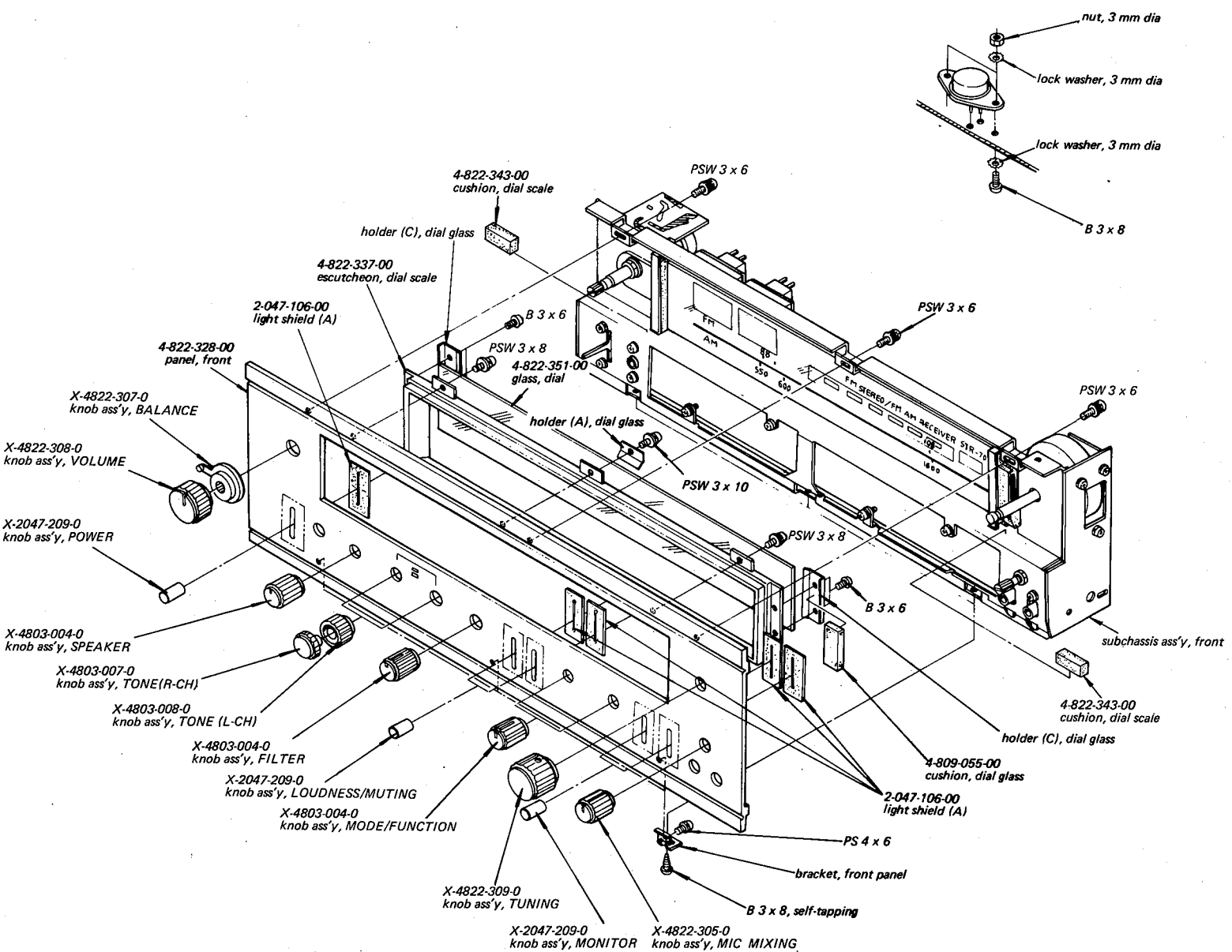
SECTION 5  
EXPLODED VIEWS

STR-7065A STR-7065A

(1)



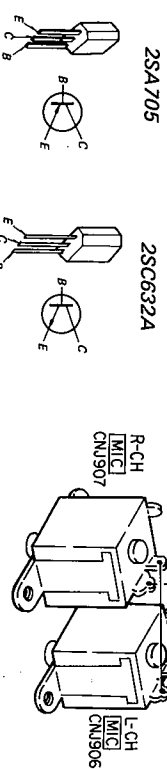
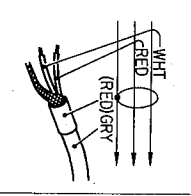
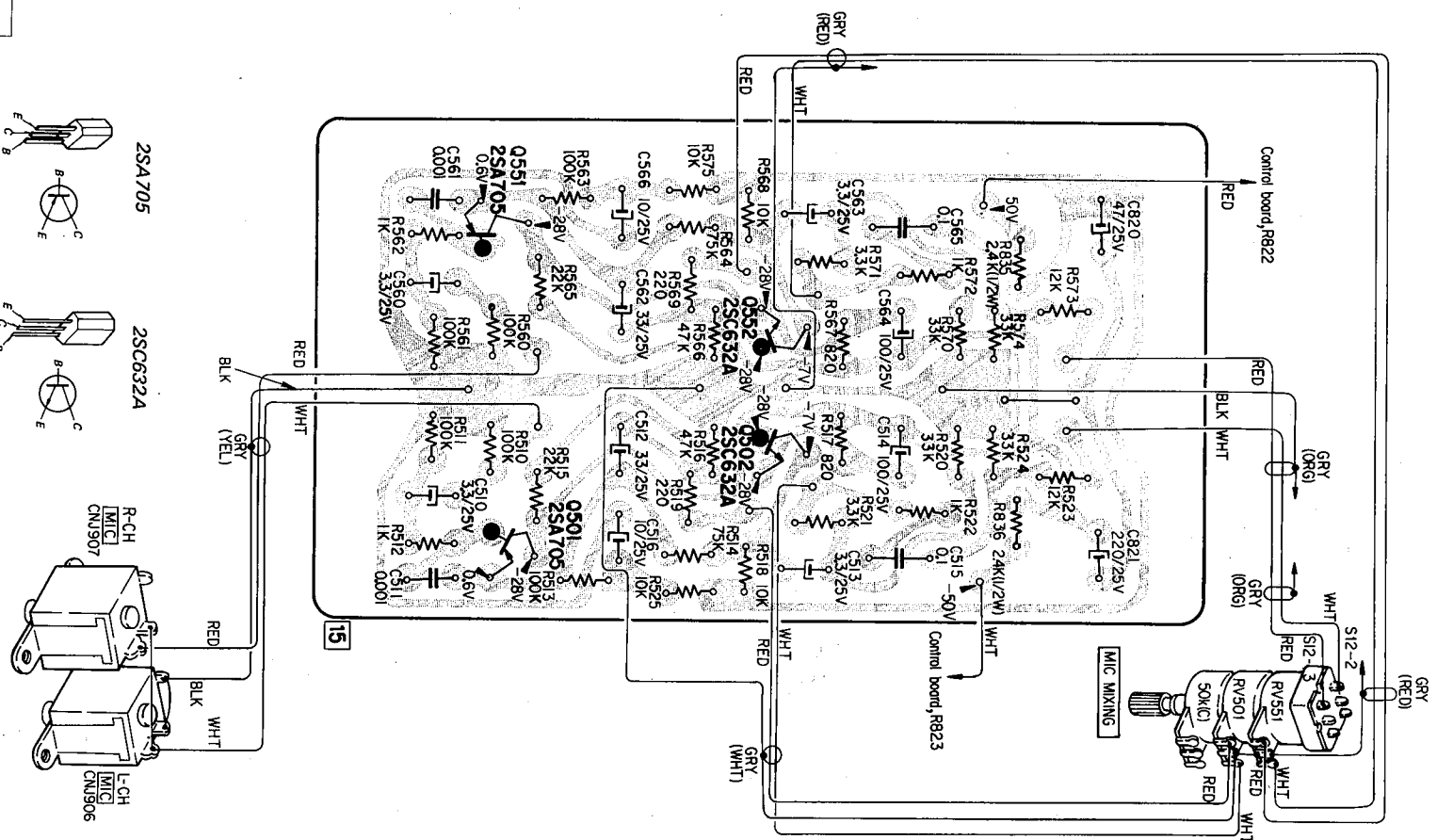
(2)



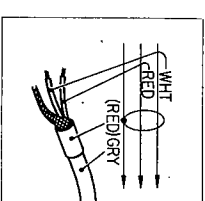
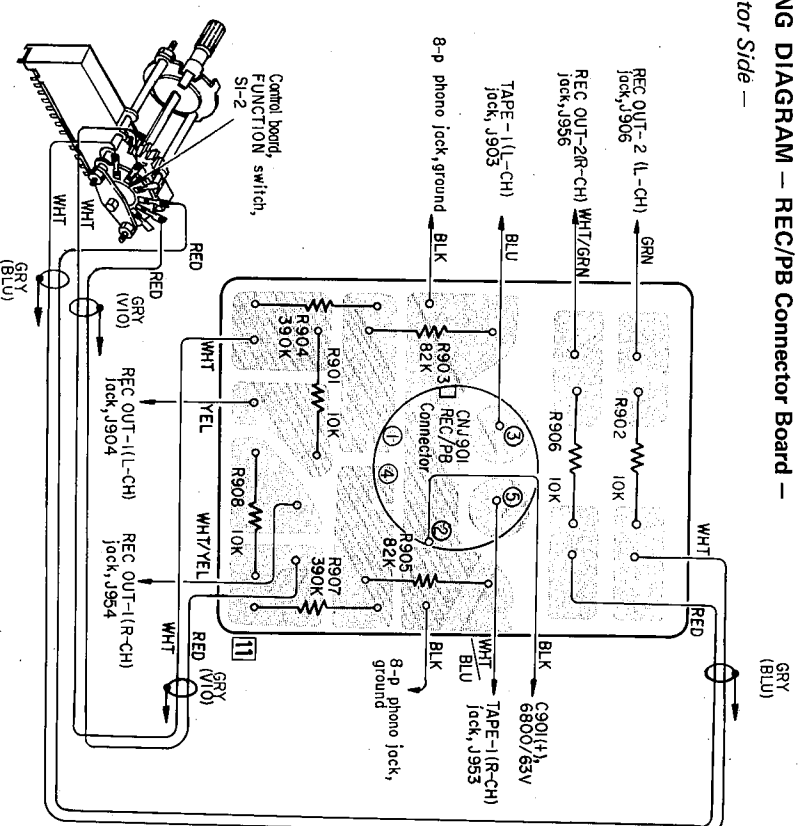
Note:

- Items without part number and description are not available.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head

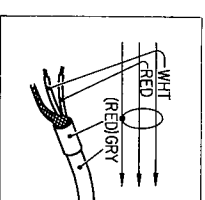
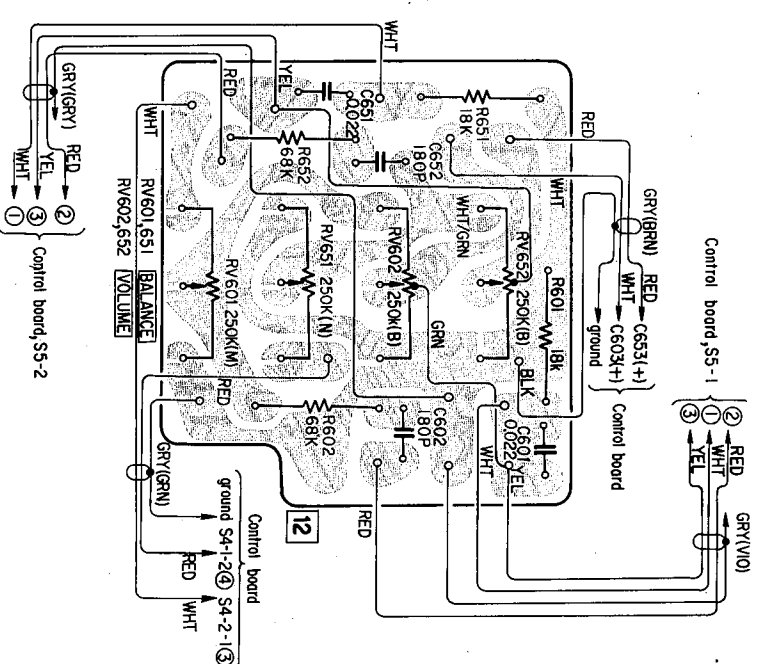
4-7. MOUNTING DIAGRAM — MIC Amp Board —  
— Conductor Side —



4-8. MOUNTING DIAGRAM — REC/PB Connector Board —  
— Conductor Side —



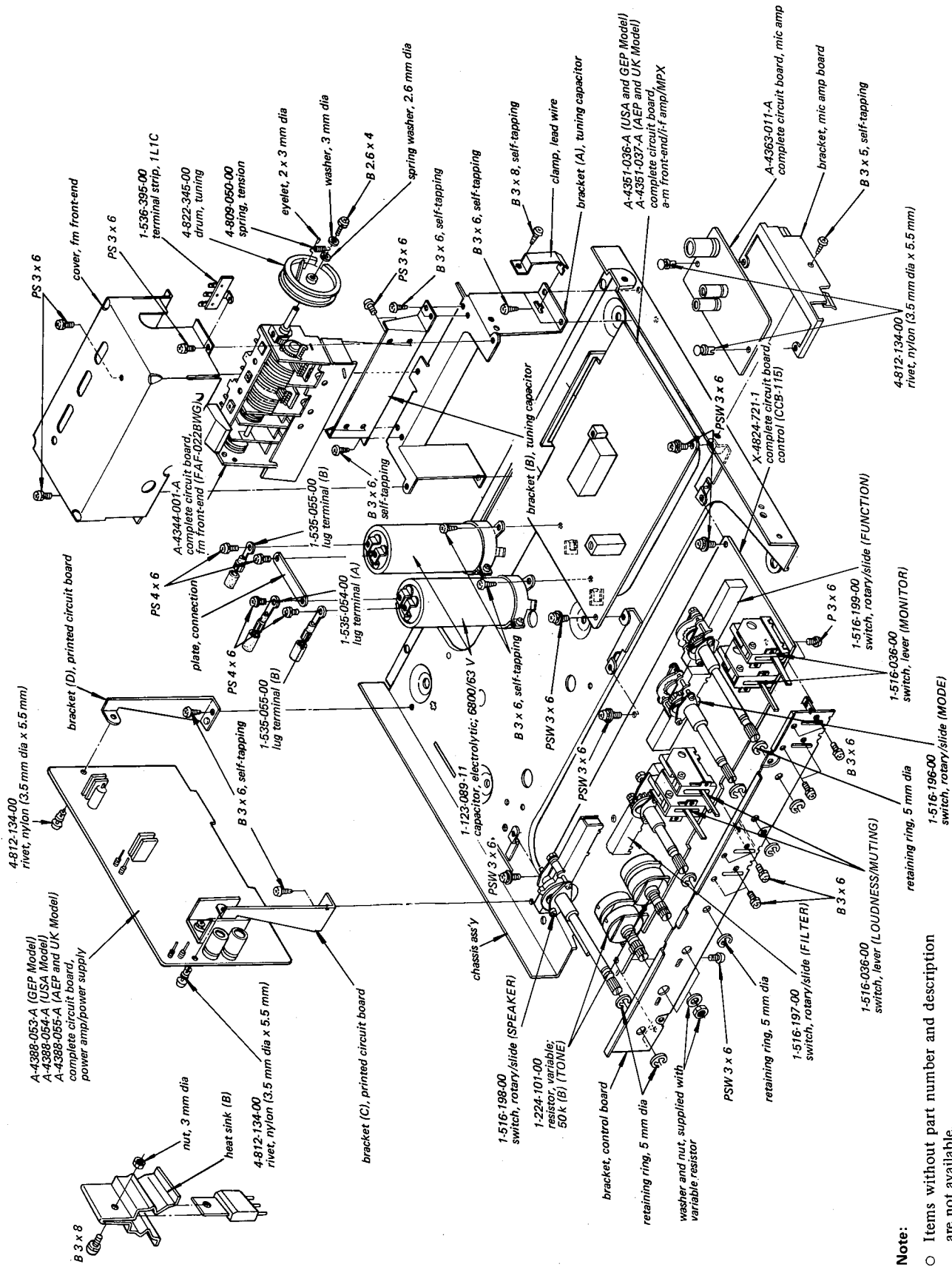
4-9. MOUNTING DIAGRAM — Loudness Control Board —  
— Conductor Side —





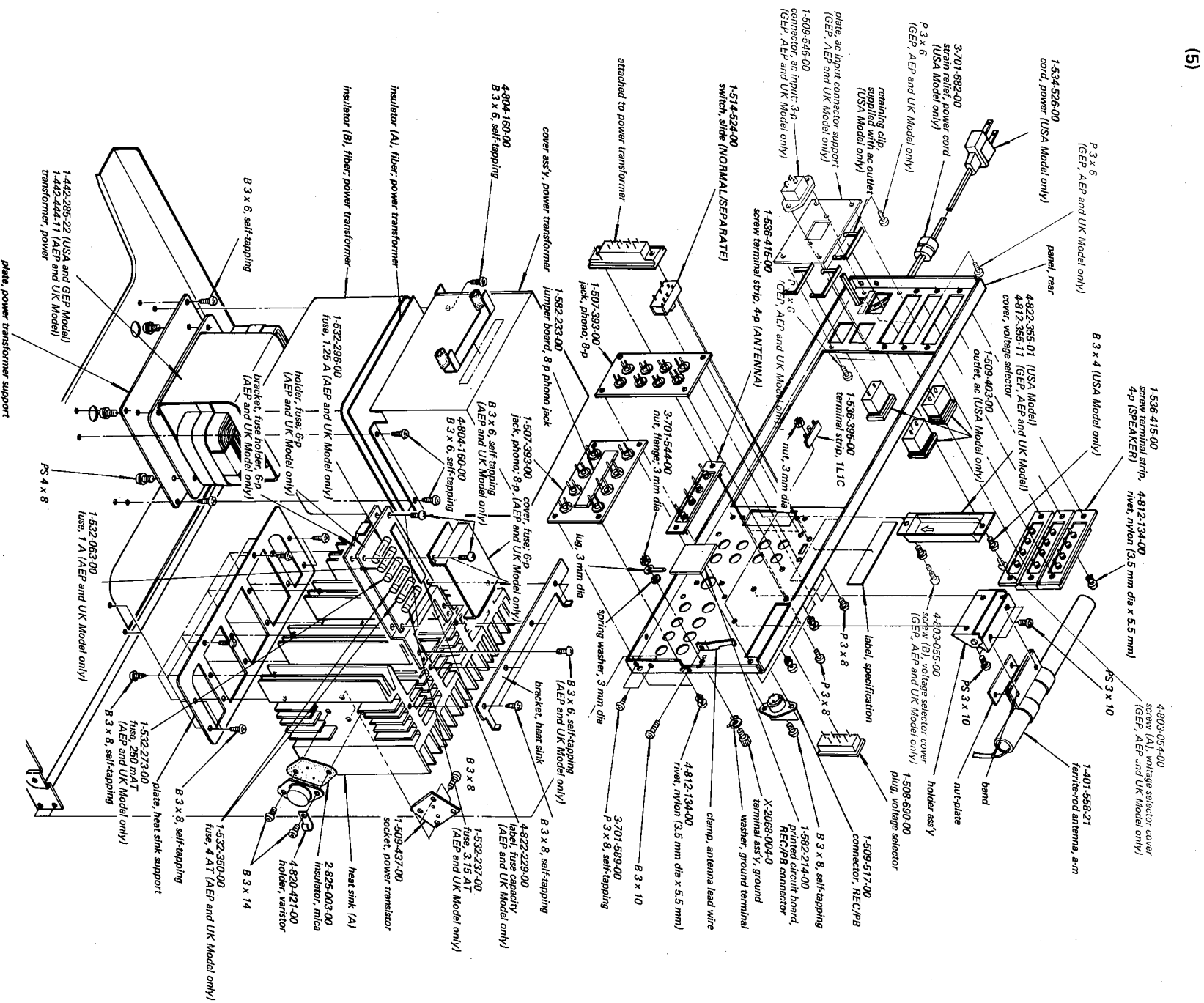


(4)



- Note:**
- Items without part number and description are not available.
  - All screws are Phillips (cross recess) type unless otherwise noted.
  - (-) = slotted head

**ELECTRICAL PARTS LIST**



**Note:**

- Items without part number and description are not available.
- All screws are Phillips (cross recess) type unless otherwise noted.
- (-) = slotted head

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description
	<b>CIRCUIT BOARDS</b>				
	A-4344-001-A	F-m Front-end (FAF-022BWG), complete	Q701 (751)	2SA678	
	A-4351-036-A	A-m Front-end/I-f Amp/MPX, complete (USA, GEP Model)	Q702 (752)	2SA705	
	A-4351-037-A	A-m Front-end/I-f Amp/MPX, complete (AEP, UK Model)	Q703 (753)	2SA705	
	A-4363-011-A	MIC Amp, complete	Q704 (754)	2SC634A	
	A-4368-001-A	Loudness Control, complete	Q705 (755)	2SC1124	
	A-4388-053-A	Power Amp/Power Supply, complete (GEP Model)	Q706 (756)	2SC1161	
	A-4388-054-A	Power Amp/Power Supply, complete (USA Model)	Q707 (757)	2SA653	
	A-4388-055-A	Power Amp/Power Supply, complete (AEP, UK Model)	Q708	2SC634A	
	X-4824-721-1	Control (CCB-115), complete	Q709	2SA678	
	1-582-214-00	REC/PB Connector	Q710	2SC634A	
	<b>SEMICONDUCTORS</b>				
	<b>Transistors</b>				
Q101	2SK42 (FET)		Q901 (951)	2SC1116	
Q102	2SK23A (FET)		Q902 (952)	2SA747	
Q103	2SC403C				
Q104	2SC710				
Q201	2SC634A		IC301	HA-1156	
Q202	2SK23A (FET)		IC301	HA-1156	
Q203, 204	2SC634A		IC501	CX-0461	
Q205	2SK23A (FET)		IC601	CX-0461	
Q206	2SC632A				
Q301	2SC634A				
Q302 (352)	2SC632A		D101	1S351M	
Q401	2SC403C		D102	1T243M	
Q402~404	2SC710		D201~203	1T22A	
Q501 (551)	2SA705		D204	1S1555	
Q502 (552)	2SC632A		D205	1T22A	
Q601 (651)	2SC632A		D206	1S1555	
Q602 (652)	2SC632A		D207	1T22A	
Q603 (653)	2SC634A		D401	1S1555	
			D402~404	1T22A	
			D701 (751)	VD-1221	

Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description	Ref. No.	Part No.	Description			
D702 (752)		SH-1S	CAPACITORS Capacitors here are in $\mu\text{F}$ , ceramic type unless otherwise noted ( $p = \mu\text{F}$ , elect = electrolytic) The working voltages of 50 volts or less are omitted except for electrolytic type.											
D703 (753)		SH-1S												
D704 (754)		SH-1S												
D803~806		UO-5E												
D808		SH-1S	C218	1-101-880-11	47 p	C218	1-101-880-11	47 p	C415	1-105-679-12	0.033	mylar		
D809		1S1555	C219, 220	1-102-816-11	120 p	C219, 220	1-102-816-11	120 p	C416	1-121-479-11	22	16 V elect		
D810, 811		SH-1S	C221~223	1-101-919-11	0.0022	C221~223	1-101-919-11	0.0022	C417	1-101-924-11	0.022			
D831~834		10D-2	C224, 225	1-101-924-11	0.022	C224, 225	1-101-924-11	0.022	C418	1-121-409-11	47	16 V elect		
D835		EQA01-16R	C226	1-102-960-11	24 p	C226	1-102-960-11	24 p	C419	1-121-651-11	10	16 V elect		
D901 (951)		SV-31	C227	1-101-924-11	0.022	C227	1-101-924-11	0.022	C420, 421	1-101-924-11	0.022			
TRANSFORMERS, COILS AND INDUCTORS														
B1	1-417-014-00	Balun	C228	1-121-651-11	10	16 V elect	C228	1-121-651-11	10	16 V elect	C422	1-103-715-11	390 p styrol	
CFX401	( 1-403-963-11	I FT, a-m (USA, GEP Model)	C229	1-105-683-12	0.068	mylar	C229	1-105-683-12	0.068	C423	1-101-923-11	0.01		
	1-403-963-21	I FT, a-m (AEP, UK Model)	C230	1-121-391-11	1	50 V elect	C230	1-121-391-11	1	50 V elect	C424	1-101-924-11	0.022	
I FT101	1-403-295-00	I FT, fm	C231	1-121-395-11	4.7	25 V elect	C231	1-121-395-11	4.7	25 V elect	C425	1-102-951-11	15 p	
I FT201	1-403-964-00	Transformer, discriminator	C232	1-105-509-12	0.0047	mylar	C232	1-105-509-12	0.0047	C501 (551)	1-131-206-11	3.3	25 V tantalum	
I FT202	1-403-299-00	Coil, muting	C233, 234	1-101-924-11	0.022		C233, 234	1-101-924-11	0.022	C502 (552)	1-121-926-11	33	10 V elect	
I FT401	1-403-149-00	I FT, a-m	C301	1-121-651-11	10	16 V elect	C301	1-121-651-11	10	16 V elect	C503 (553)	1-102-978-11	220 p	
L101	1-401-489-00	Coil, antenna	C302	1-105-681-12	0.047	mylar	C302	1-105-681-12	0.047	C504 (554)	1-101-880-11	47 p		
L102	1-425-446-00	Coil, rf1	C303, 304	1-121-726-11	0.47	50 V elect	C303, 304	1-121-726-11	0.47	C505 (555)	1-101-880-11	47 p		
L103	1-425-668-00	Coil, rf2	C305	1-127-091-11	0.22	25 V solid aluminum	C305	1-127-091-11	0.22	C506 (556)	1-106-005-12	0.0015	mylar	
L104	1-405-377-00	Coil, osc	C306	1-101-923-11	0.01		C306	1-101-923-11	0.01	C507 (557)	1-106-019-12	0.0056	mylar	
L105, 106	1-407-184-00	Microinductor, 3.3 $\mu\text{H}$	C307	1-121-421-11	220	16 V elect	C307	1-121-421-11	220	C508 (558)	1-121-911-11	0.47	50 V elect	
L201	1-407-177-00	Microinductor, 470 $\mu\text{H}$	C308, 309	1-105-512-12	0.0082	mylar	C308, 309	1-105-512-12	0.0082	C509 (559)	1-105-661-12	0.001	mylar	
L202	1-407-418-00	Shielded Inductor, 22 mH	C310, 311	1-127-021-11	0.33	10 V solid aluminum	C310, 311	1-127-021-11	0.33	C510 (560)	1-131-206-21	3.3	25 V tantalum	
L203	1-407-163-00	Microinductor, 33 $\mu\text{H}$	C312, 313	1-105-507-12	0.0033	mylar	C312, 313	1-105-507-12	0.0033	C511 (561)	1-105-661-12	0.001	mylar	
L204	1-407-176-00	Microinductor, 390 $\mu\text{H}$	C314, 315	1-121-916-11	10	16 V elect	C314, 315	1-121-916-11	10	C512 (562)	1-123-044-11	33	25 V elect	
L205	1-407-177-00	Microinductor, 470 $\mu\text{H}$	C316, 317	1-101-884-11	56 p		C316, 317	1-101-884-11	56 p	C513 (563)	1-121-913-11	3.3	25 V elect	
L401	1-407-169-00	Microinductor, 100 $\mu\text{H}$	C318	1-103-717-11	470 p	styrol	C318	1-103-717-11	470 p	C514 (564)	1-121-416-11	100	25 V elect	
L701 (751)	1-407-592-00	Microinductor, 1.8 $\mu\text{H}$	C401	1-105-673-12	0.01	mylar	C401	1-105-673-12	0.01	C515 (565)	1-105-685-12	0.1	mylar	
L901	1-401-558-21	Ferrite-rod Antenna, a-m	C402, 403	1-105-677-12	0.022	mylar	C402, 403	1-105-677-12	0.022	C516 (566)	1-121-398-11	10	25 V elect	
T401	1-405-459-00	Coil, a-m osc	C404	1-121-391-11	1	50 V elect	C404	1-121-391-11	1	C601 (651)	1-105-677-12	0.022	mylar	
T801	( 1-442-285-22	Transformer, power (USA, GEP Model)	C405	1-105-677-12	0.022	mylar	C405	1-105-677-12	0.022	C602 (652)	1-107-137-11	180 p	silvered mica	
	1-442-444-11	Transformer, power (AEP, UK Model)	C406	1-101-924-11	0.022		C406	1-101-924-11	0.022	C603 (653)	1-131-206-11	3.3	25 V tantalum	
			C407	1-105-677-12	0.022	mylar	C407	1-105-677-12	0.022	C604 (654)	1-121-392-11	3.3	25 V elect	
			C408	1-127-019-11	0.1	10 V solid aluminum	C408	1-127-019-11	0.1	C605 (655)	1-105-679-12	0.033	mylar	
			C409	1-121-391-11	1	50 V elect	C409	1-121-391-11	1	C606 (656)	1-105-679-12	0.033	mylar	
			C410	1-101-884-11	56 p		C410	1-101-884-11	56 p	C607 (657)	1-105-665-12	0.0022	mylar	
			C411	1-101-924-11	0.022	mylar	C411	1-101-924-11	0.022	C608 (658)	1-121-398-11	10	25 V elect	
			C412	1-105-677-12	0.022	mylar	C412	1-105-677-12	0.022	C609 (659)	1-121-352-11	47	10 V elect	
			C413	1-105-679-12	0.033	mylar	C413	1-105-679-12	0.033	C610 (660)	1-102-978-11	220 p		
			C414	1-121-413-11	100	6.3 V elect	C414	1-121-413-11	100	C611 (661)	1-102-978-11	220 p		
										C612 (662)	1-102-978-11	220 p		
										C613 (663)	1-121-392-11	3.3	25 V elect	

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>		
C614 (664)	1-106-023-11	0.0082		mylar
C615 (665)	1-106-013-12	0.0033		mylar
C616 (666)	1-106-041-12	0.047		mylar
C617 (667)	1-106-031-12	0.018		mylar
C618 (668)	1-121-392-11	3.3	25 V	elect
C619 (669)	1-121-392-11	3.3	25 V	elect
C620	1-105-671-12	0.0068		mylar
C701 (751)	1-121-392-11	3.3	25 V	elect
C702 (752)	1-102-963-11	33 p		
C703 (753)	1-121-935-11	100	25 V	elect
C704 (754)	1-102-944-11	7 p		
C705 (755)	1-102-963-11	33 p		
C706 (756)	1-121-392-11	3.3	25 V	elect
C707 (757)	1-123-058-11	47	50 V	elect
C708 (758)	1-105-679-12	0.033		mylar
C709 (759)	1-105-665-12	0.0022		mylar
C710 (760)	1-105-665-12	0.0022		mylar
C711	1-121-935-11	100	25 V	elect
C801~804	1-105-917-12	0.022	200 V	mylar
C807	1-121-413-11	100	6.3 V	elect
C808	1-121-411-11	47	50 V	elect
C809	1-121-392-11	3.3	25 V	elect
C810	1-121-726-11	0.47	50 V	elect
C811, 812	1-121-936-11	220	25 V	elect
C814, 815	1-121-935-11	100	25 V	elect
C816, 817	1-123-090-11	47	63 V	elect
C818, 819	1-105-725-12	0.1	100 V	mylar
C820	1-121-410-11	47	25 V	elect
C821	1-121-936-11	220	25 V	elect
C823	1-121-392-11	3.3	25 V	elect
C824	1-105-673-12	0.01		mylar
C825	1-101-923-11	0.01		
C831~834	1-105-717-12	0.022	100 V	mylar
C835	1-123-118-11	3300	35 V	elect
C836, 837	1-121-935-11	100	25 V	elect
C901, 902	1-123-089-11	6,800	63 V	elect
CT401, 402	1-141-147-00	trimmer		

Ref. No.    Part No.    Description

### RESISTORS

All resistors are in  $\Omega$ .  $\frac{1}{4}$  W,  $\pm 5\%$ , carbon resistors (except special type) are omitted.

Check schematic diagram for the resistance values.

(k = 1000, M = 1000k)

R301	1-202-557-11	220	$\frac{1}{2}$ W	composition
R704 (754)	1-211-676-11	39 k	$\frac{1}{2}$ W	carbon (nonflammable)
R711 (761)	1-202-583-11	2.7 k	$\frac{1}{2}$ W	composition
R712 (762)	1-202-583-11	2.7 k	$\frac{1}{2}$ W	composition
R714 (764)	1-211-534-11	330	$\frac{1}{4}$ W	carbon (nonflammable)
R715 (765)	1-211-534-11	330	$\frac{1}{4}$ W	carbon (nonflammable)
R716 (766)	1-211-522-11	100	$\frac{1}{4}$ W	carbon (nonflammable)
R717 (767)	1-211-582-11	4.7	$\frac{1}{2}$ W	carbon (nonflammable)
R718 (768)	1-217-158-11	0.47	5 W	metal
R719 (769)	1-217-158-11	0.47	5 W	metal
R720 (770)	1-202-525-11	10	$\frac{1}{2}$ W	composition
R721 (771)	1-202-517-11	4.7	$\frac{1}{2}$ W	composition
R722 (772)	1-202-565-11	470	$\frac{1}{2}$ W	composition
R723 (773)	1-202-565-11	470	$\frac{1}{2}$ W	composition
R817	1-202-565-11	470	$\frac{1}{2}$ W	composition
R821	1-202-587-11	3.9 k	$\frac{1}{2}$ W	composition
R822, 823	1-202-577-11	1.5 k	$\frac{1}{2}$ W	composition
R824, 825	1-202-582-11	2.4 k	$\frac{1}{2}$ W	composition
R826	1-211-530-11	220	$\frac{1}{4}$ W	carbon (nonflammable)
R827	1-211-514-11	47	$\frac{1}{4}$ W	carbon (nonflammable)
R828	1-202-550-11	110	$\frac{1}{2}$ W	composition
R829, 830	1-207-630-11	22	2 W	wirewound
R831, 832	1-211-505-11	20	$\frac{1}{4}$ W	carbon (nonflammable)
R833	1-207-929-11	2.7	5 W	wirewound
R835, 836	1-202-582-11	2.4 k	$\frac{1}{2}$ W	composition
R841	1-211-490-11	4.7	$\frac{1}{4}$ W	carbon (nonflammable)

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
R905	1-202-719-11	1 M $\frac{1}{2}$ W composition (USA Model only)
RT701 (751)	1-221-967-00	10 k, adjustable
RV201	1-222-765-00	47 k, adjustable
RV202	1-222-766-00	100 k, adjustable
RV301	1-222-752-00	10 k, adjustable
RV302	1-222-765-00	47 k, adjustable
RV303 (353)	1-222-752-00	10 k, adjustable
RV501 (551)	1-224-103-00	50 k(C), variable (MIC MIX)
RV601 (651)	1-224-102-00	250 k(M/N), variable (BALANCE)
RV602 (652)	1-224-102-00	250 k(B), variable (VOLUME)
RV603 (653)	1-224-101-00	50 k(B), variable (TRFBI.F)
RV604 (654)	1-224-101-00	50 k(B), variable (BASS)

### SWITCHES

S1	1-516-199-00	Rotary/Slide (FUNCTION)
S2, 3	1-516-036-00	Lever/Slide (MONITOR)
S4	1-516-196-00	Rotary/Slide (MODE)
S5	1-516-036-00	Lever/Slide (LOUDNESS)
S6	1-516-197-00	Rotary/Slide (FILTER)
S7	1-514-524-00	Slide (NORMAL/SEPARATE)
S8	1-516-198-00	Rotary/Slide (SPEAKER)
S9	1-516-036-00	Lever/Slide (FM MUTING)
S11	1-516-007-00	Lever (POWER) (USA Model)
	1-516-315-00	Lever (POWER) (AEP, GEP, UK Model)
S12		- built in RV501 (551) -

### FILTERS

CF1, 2	1-527-240-00	Fm I-f, ceramic
LPF301	1-231-219-00	Low-pass

### LAMPS

PL901, 902	1-518-116-00	Dial, 11 V 360 mA
PL903	1-518-124-00	TUNING Meter, 8 V 250 mA
PL904	1-518-151-00	Pointer (with lamp), 5 V 60 mA
PL905	1-518-169-XX	STEREO, 4.5 V 40 mA
PL906	1-518-124-00	TUNER INPUT Meter, 8 V 250 mA
PL907~912	1-518-169-XX	FUNCTION 4.5 V 40 mA

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>
<b>FUSES</b>		
F901	1-532-237-00	3.15 AT (AEP, UK Model)
	1-532-252-00	2.5 A (GEP Model)
	1-532-269-00	2.5 A (USA Model)
F902	1-532-252-00	2.5 A (GEP Model)
	1-532-269-00	2.5 A (USA Model)
	1-532-350-00	4.0 AT (AEP, UK Model)
F903	1-532-350-00	4.0 AT (AEP, UK Model only)
F904	1-532-296-00	1.25 A (AEP, UK Model only)
F905	1-532-063-00	1.0 A (AEP, UK Model only)
F906	1-532-273-00	0.25 A (AEP, UK Model only)

### MISCELLANEOUS

CB701 (751)	1-515-194-00	Breaker, circuit
CNJ902	1-507-265-00	Jack, HEADPHONE
CNJ903 ~905	1-509-403-00	Outlet, ac (USA Model only)
CNJ906, 907	1-507-394-00	Jack, MIC
CP201	1-231-278-00	Encapsulated Component
CP901	1-231-057-00	Encapsulated Component (USA Model only)
J901~908 (J951~958)	1-507-393-00	Jack, phono; 8-p
M901	1-520-140-00	Meter, TUNING
M902	1-520-141-00	Meter, TUNER INPUT
TM901 ~904	1-536-415-00	Screw Terminal Strip, 4-p (SPEAKER/ANTENNA)
	1-508-690-00	Plug, voltage selector
	1-509-437-00	Socket, power transistor
	1-509-517-00	Connector, REC/PB
	1-509-546-00	Connector, ac input; 3-p (AEP, GEP, UK Model only)
	1-517-057-00	Holder, meter lamp; 2-p
	1-533-090-00	Holder, dial lamp
	1-534-526-00	Cord, power (USA Model only)
	1-535-054-00	Lug Terminal (A)
	1-535-055-00	Lug Terminal (B)
	1-536-395-00	Terminal Strip, 1L1 (C)
	1-536-398-00	Terminal Strip, 2L2 (C)
	1-536-430-00	Terminal Strip
	1-582-233-00	Jumper Board, 8-p phono jack

## ACCESSORIES AND PACKING MATERIALS

<u>Part No.</u>	<u>Description</u>
X-3701-029-0	Card Ass'y, warranty (USA Model only)
X-4490-002-0	Cloth Ass'y, polishing
1-501-083-21	Ribbon Antenna, fm
1-506-138-11	Plug, phono (red)
1-506-138-12	Plug, phono (white)
3-429-126-00	Bag, polyethylene; unit
3-701-020-00	Bag, polyethylene; instruction manual
3-701-622-00	Bag, polyethylene; warranty card (UK Model only)
3-701-730-00	Bag, polyethylene; IBM card (USA Model only)
3-701-742-00	Card, IBM (USA Model only)
3-780-670-11	Manual, instruction (AEP, GEP, UK Model)
3-780-670-21	Manual, instruction (USA Model)
3-793-520-00	Card, warranty (UK Model only)
3-793-831-11	Diagram, schematic (AEP, GEP, UK Model)
3-793-831-21	Diagram, schematic (USA Model)
4-822-390-00	Carton (AEP, GEP, UK Model)
4-822-391-00	Carton (USA Model)
4-822-392-00	Cushion

