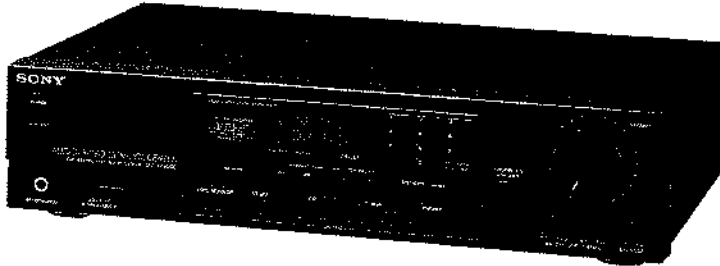


# STR-AV200E

## SERVICE MANUAL

AEP Model



### SPECIFICATIONS

#### Amplifier section

Continuous RMS power output  
30 watts + 30 watts  
(8 ohms, according to DIN 45500)

Harmonic distortion  
Less than 0.8% at rated output

Frequency response  
PHONO: RIAA equalization curve  $\pm 0.5$  dB  
CD  
VIDEO  
TAPE } 10 Hz - 50 kHz  $\begin{matrix} +0 \\ -3 \end{matrix}$  dB

#### Inputs

	Sensitivity	Impedance	S/N (weighting network, input level)
PHONO	2.5 mV	50 kilohms	74 dB 72 dB* (A, 2.5 mV)
CD VIDEO TAPE	150 mV	50 kilohms	95 dB 80 dB* (A, 150 mV)

\* '78 IHF

#### Outputs

REC OUT, VIDEO (AUDIO) OUT	Voltage 150 mV Impedance 10 kilohms
SPEAKER A, B	Accepts speakers of 8-16 ohms
HEADPHONES	Accepts low and high impedance headphones

Tone controls  
BASS:  $\pm 8$  dB at 100 Hz  
TREBLE:  $\pm 8$  dB at 10 kHz  
Loudness  
+8 dB at 100 Hz (att. 30 dB)  
Muting level  
-20 dB (STR-AV300E only)

	FM tuner	AM tuner
Tuning range	87.5 - 108 MHz	531 - 1,602 kHz
Antenna terminals	West Germany model: 75 ohms, unbalanced AEP model: 300 ohms, balanced 75 ohms, unbalanced	External antenna terminal
Sensitivity at 46 dB quieting	18.3 dBf, 4.5 $\mu$ V (mono) 38.3 dBf, 45 $\mu$ V (stereo)	—
Usable sensitivity	11.2 dBf, 2 $\mu$ V (IHF)	500 $\mu$ V (at 1,000 kHz)
Signal-to-noise ratio	70 dB (mono) 64 dB (stereo)	54 dB (at 50 mV/m)
Harmonic distortion	0.2% (mono), 0.4% (stereo) at 1 kHz	0.3% (at 50 mV/m, 400 Hz)
Selectivity	50/60 dB at 300/400 kHz	35 dB at 9 kHz
Separation	45 dB at 1 kHz	
Frequency response	40 Hz - 12.5 kHz $\begin{matrix} +0.5 \\ -1 \end{matrix}$ dB	

#### General

System  
Tuner section: PLL quartz-locked digital synthesizer system  
Preamplifier section: low-noise NF type equalizer amp  
Power amplifier section: quasi-complementary SEPP

Power requirements  
220 V AC, 50/60 Hz

Power consumption  
90 watts

—Continued on next page—

FM STEREO/FM-AM RECEIVER  
**SONY**



# STR-AV200E

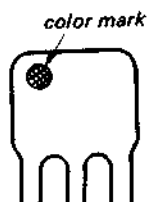
AC outlets Two switched (Total 100 watts)  
 Dimensions Approx. 430 x 105 x 300 mm (w/h/d)  
 (17 x 4<sup>1</sup>/<sub>4</sub> x 11<sup>7</sup>/<sub>8</sub> inches)  
 including projecting parts and controls  
 Weight Approx. 5.4 kg (11 lb 15 oz) net  
 Approx. 6.7 kg (14 lb 13 oz) in  
 shipping carton

Accessories supplied  
 FM ribbon antenna (1, not supplied with the  
 West German model)  
 AM layout-free antenna (1)

## ● IF OFFSET ADJUSTMENT (FM IF)

### Diode Installations Depending on the Ceramic Filters (CF101, 102)

This set employs three ceramic filters (CF101, 102) which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by diodes (D313, 314) installation is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.



Ceramic filter		Diode installation		FM intermediate frequency (MHz)
Color mark	Center frequency (MHz)	* A D313	* B D314	
White	10.750	○	○	10.750
Red	10.700	x	x	10.700
Black	10.650	x	○	10.650
				○ : installed x : not installed

FM intermediate frequency is determined by the three types as shown above. Ceramic filters of same center frequency, i.e., of same color coding should be used for CF101 through CF102.

## WARNING !!

### ADVARSEL!

Lithiumbatteri – Eksplosionsfare  
 Udskiftning må kun foretages  
 af en sagkyndig, og som  
 beskrevet i servicemanualen.

## LITHIUM BATTERY

SHOULD ONLY BE CHANGED BY TECHNICAL PERSONNEL. THERE IS A RISK FOR EXPLOSION AT A WRONG HANDLING.

“Batteriet må kun udskiftes med et batteri af samme fabrikat og type”.

Because of the risk for explosion the battery must be replaced with the same type and manufacture.

## FEATURES

The STR-AV200E is a combined receiver and audio/video control center.

You can listen to various audio/video program sources through the amplifier of the receiver and the speakers connected to it.

In the tuner section, a quartz-locked digital synthesizer system allows precise tuning. A total of 10 FM/AM stations can be preset.

### SAFETY-RELATED COMPONENT WARNING!!

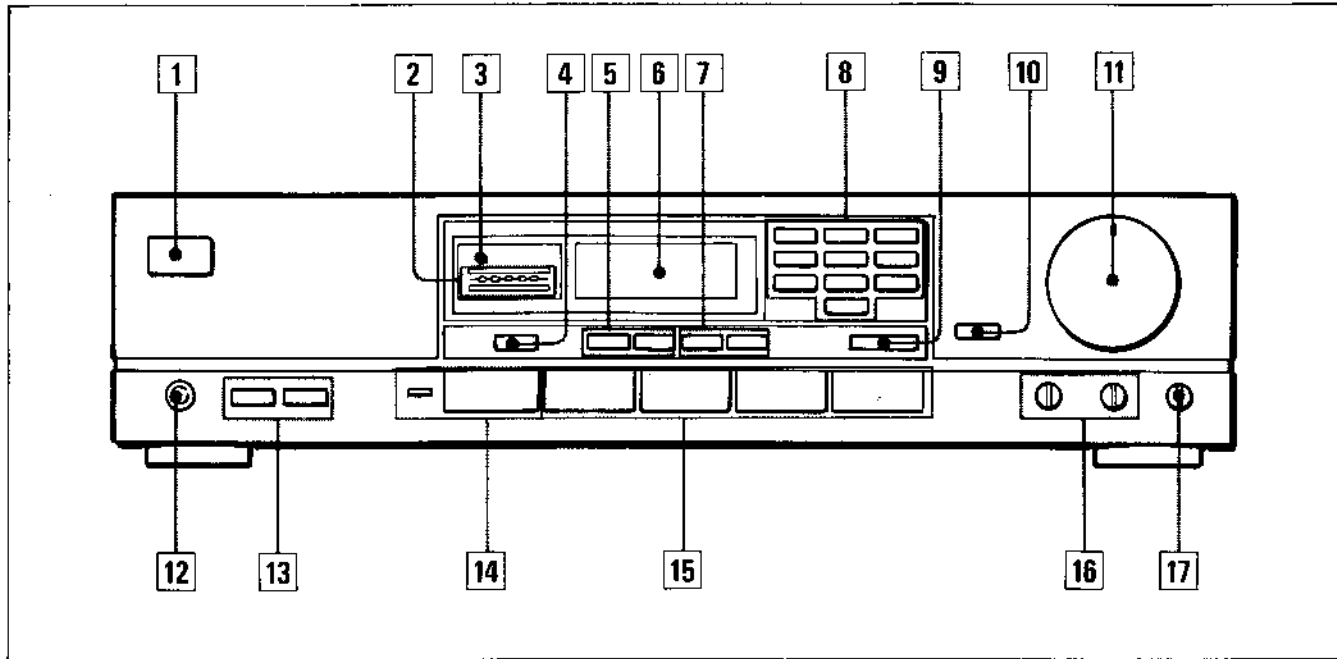
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

## TABLE OF CONTENTS

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**SECTION 1  
GENERAL**

**1-1. LOCATION AND FUNCTION OF CONTROLS**



- 1 POWER switch**
- 2 Signal strength indicator**  
Shows the receiving signal strength.
- 3 FM STEREO indicator**
- 4 FM MODE button**  
When an FM stereo program is noisy or hard to receive, press this button. The FM STEREO indicator goes out (the sound is heard in monaural, but the reception will be improved). To return to the stereo mode, press again or change the frequency.
- 5 BAND selectors**
- 6 Display window**
- 7 TUNING +/- buttons**
- 8 Numeric buttons**  
For presetting a station or for tuning in a preset station.
- 9 MEMORY PRESET button**

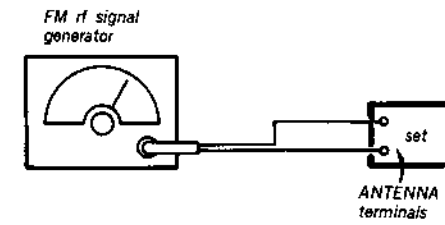
- 10 LOUDNESS switch**  
Press when listening to a program source at a low volume. The low frequency sound is emphasized.
- 11 VOLUME control knob**
- 12 HEADPHONES jack (stereo phone jack)**
- 13 SPEAKERS selectors**  
Depress to select which speaker system to drive. For both speaker systems, depress A and B.
- 14 TAPE MONITOR button and indicator**
- 15 Function selectors**
- 16 TONE controls**
- 17 BALANCE control**  
Turn clockwise to decrease the left channel volume, and counterclockwise to decrease the right channel volume.

**SECTION 2  
ADJUSTMENTS**

**2-1. FM SECTION ADJUSTMENTS**

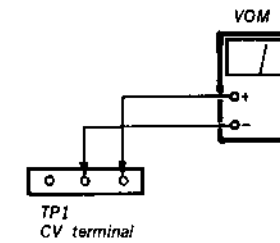
**FM FREQUENCY COVERAGE ADJUSTMENT**

Setting:



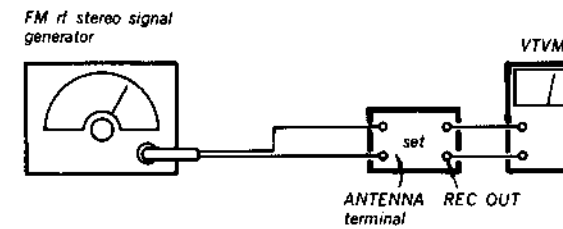
Carrier frequency: 108MHz  
Modulation: 400Hz, 75kHz deviation (100%)  
Output level: 1mV (60dB)

- 1 Adjust L106 so that VOM reads  $8.5 \pm 0.2V$ .
- 2 After the adjustment, set FM rf signal generator frequency to 87.5MHz.  
Confirm that VOM reads  $2.6V \pm 0.5V$ .



**FM TRACKING ADJUSTMENT**

Setting:

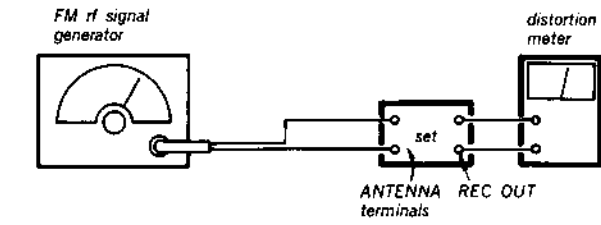


Carrier frequency: 98MHz  
Modulation: 400Hz, 75kHz deviation (100%)  
Output level: 3.2-5.3µV (10-15dB)

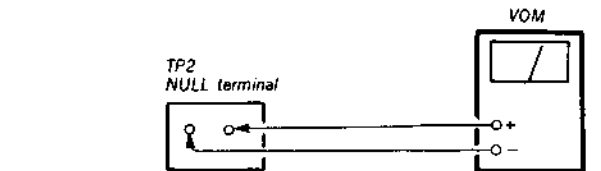
1. Adjust L101, 102: AEP model, L101, L103: West Germany model for maximum reading on VTVM.

**FM DISCRIMINATOR ALIGNMENT**

Setting:



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

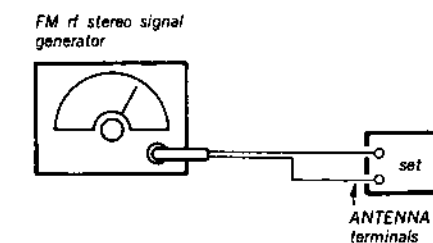


Procedure:

1. Tune the set to 98MHz.
2. Adjust the T201 for 0V reading on VOM.
3. At this time, confirm distortion should be within 0.5%.

**FM TUNING STOP ADJUSTMENT**

Setting:



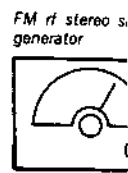
Carrier frequency: 98MHz  
Output level: 14.3µV (23dB)  
Modulation:  
Audio 400Hz: 33.75kHz deviation (45%)  
Sub channel 38kHz: 33.75kHz deviation (45%)  
Pilot signal 19kHz: 7.5kHz deviation (10%)

Procedure:

1. Tune the set to 98MHz by pressing the TUNING buttons.
2. Adjust RV201 so that the STEREO LED goes on.

**FM IF ADJ**

Setting:



Carrier frequency:  
Output level:  
Modulation:  
Audio 400Hz:  
Sub channel  
Pilot signal

Procedure:  
Adjust the

**FM METE**

Setting:

FM RF stereo  
generator



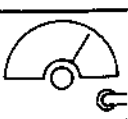
Carrier frequen  
Output level:  
Modulation:  
Audio 400Hz:  
Sub channel  
Pilot signal

procedure:  
Adjust the R  
goes on.

**2-2. AM**

Setting:

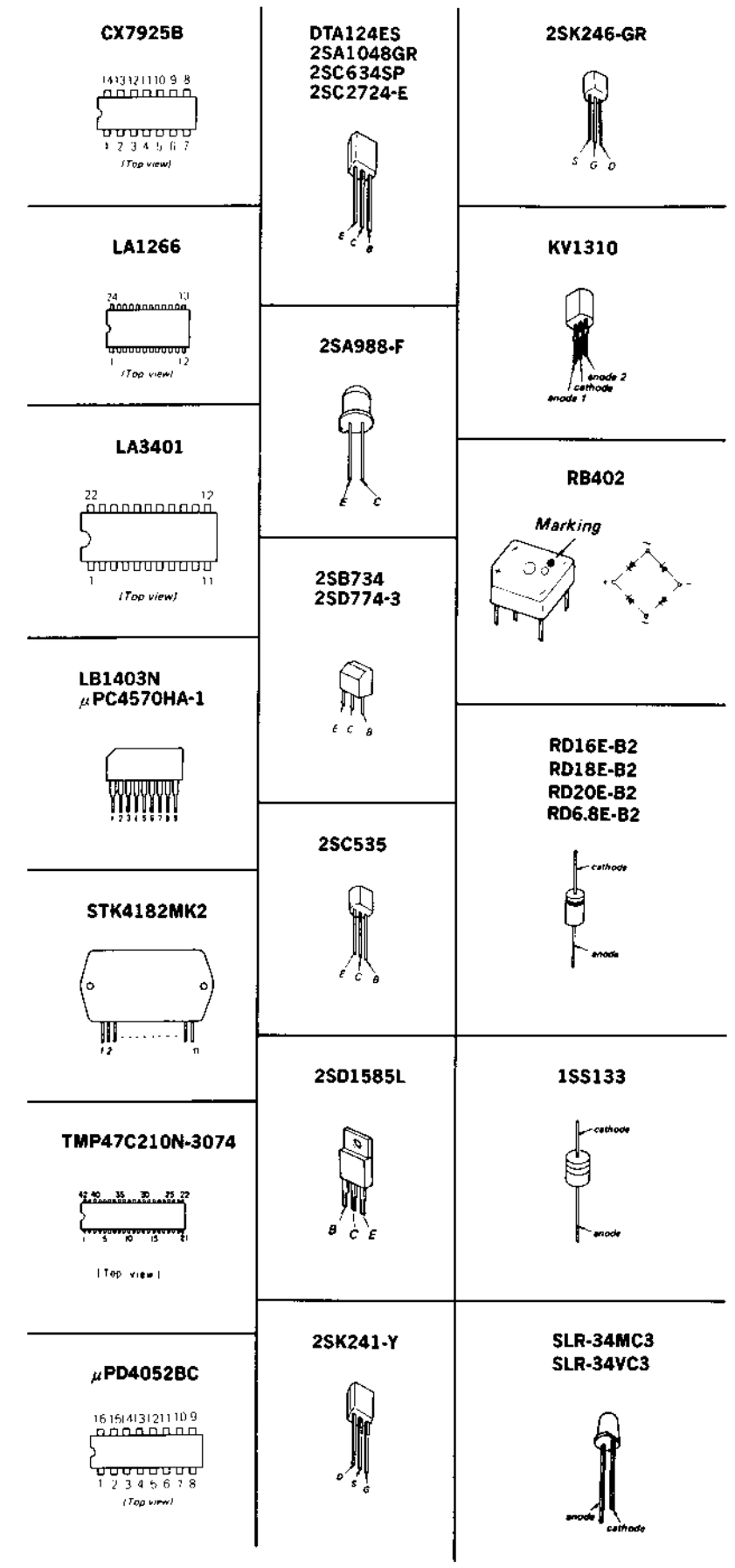
AM rf signal  
generator



30% amplitude  
modulation by  
400Hz signal

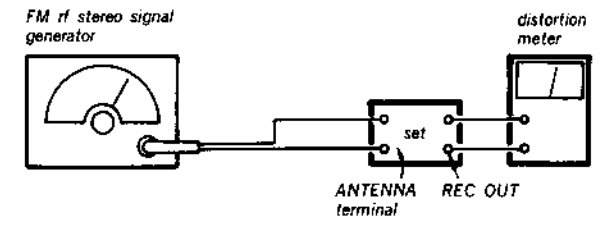
SECTION 3  
DIAGRAMS

3-1. SEMICONDUCTOR LEAD LAYOUTS



FM IF ADJUSTMENT

Setting:



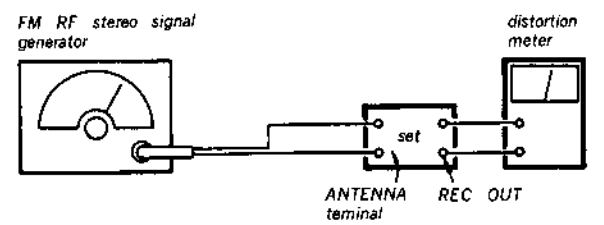
Carrier frequency: 98MHz  
Output level: 1mV (60dB)  
Modulation  
Audio 400Hz: 33.75kHz deviation (45%)  
Sub channel 38kHz: 33.75kHz deviation (45%)  
Pilot signal 19kHz: 7.5kHz deviation (19%)

Procedure:

Adjust the black core of T101 for minimum distortion.

FM METER ADJUSTMENT

Setting:



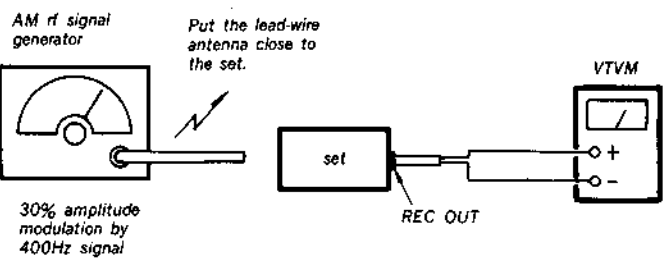
Carrier frequency: 98MHz  
Output level: 50μV (45dB)  
Modulation  
Audio 400Hz: 33.75kHz deviation (45%)  
Sub channel 38kHz: 33.75kHz deviation (45%)  
Pilot signal 19kHz: 7.5kHz deviation (19%)

procedure:

Adjust the RV202 so that the 5 point LED of the signal meter goes on.

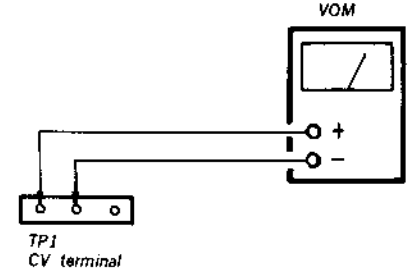
2-2. AM SECTION ADJUSTMENTS

Setting:



30% amplitude modulation by 400Hz signal

AM FREQUENCY COVERAGE ADJUSTMENT



	Frequency display in set	Voltage at TP (CV)	Adjustment part
1.	1602kHz	8.0 ± 0.2V	T401

AM TRACKING ADJUSTMENT

Procedure:

1. Tune the set to the SG signal.
2. Adjust for a maximum reading on VTVM.

	SG and set frequency	Adjustment parts	Reading on VTVM
1.	603kHz	T401	Maximum

AF IF ADJUSTMENT

Procedure:

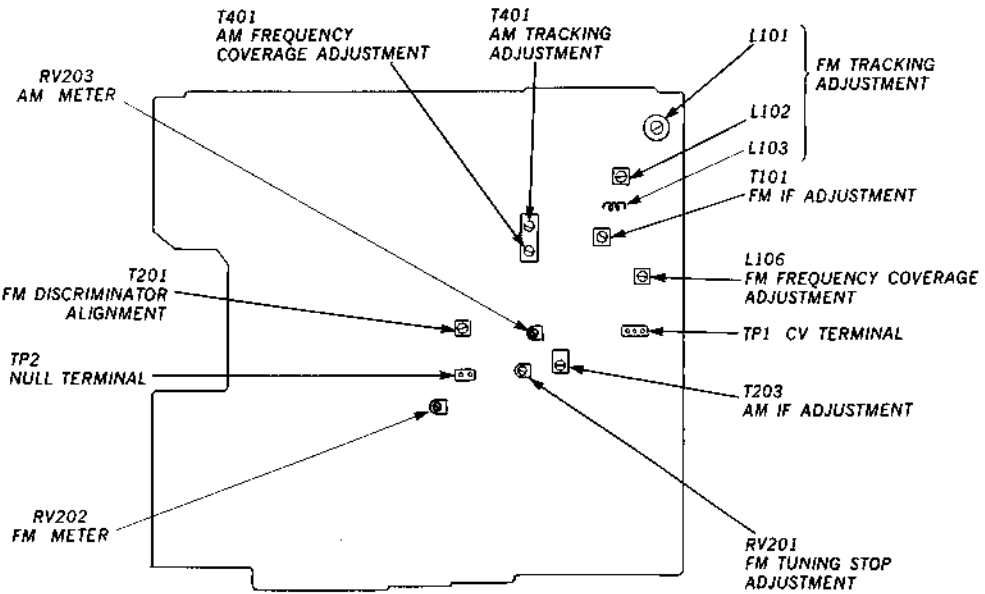
1. Tune the set to the SG signal.
2. Adjust for a maximum reading on VTVM.

	SG and set frequency	Adjustment parts	Reading on VTVM
1.	1404kHz	T203	Maximum

AM METER ADJUSTMENT

Procedure:

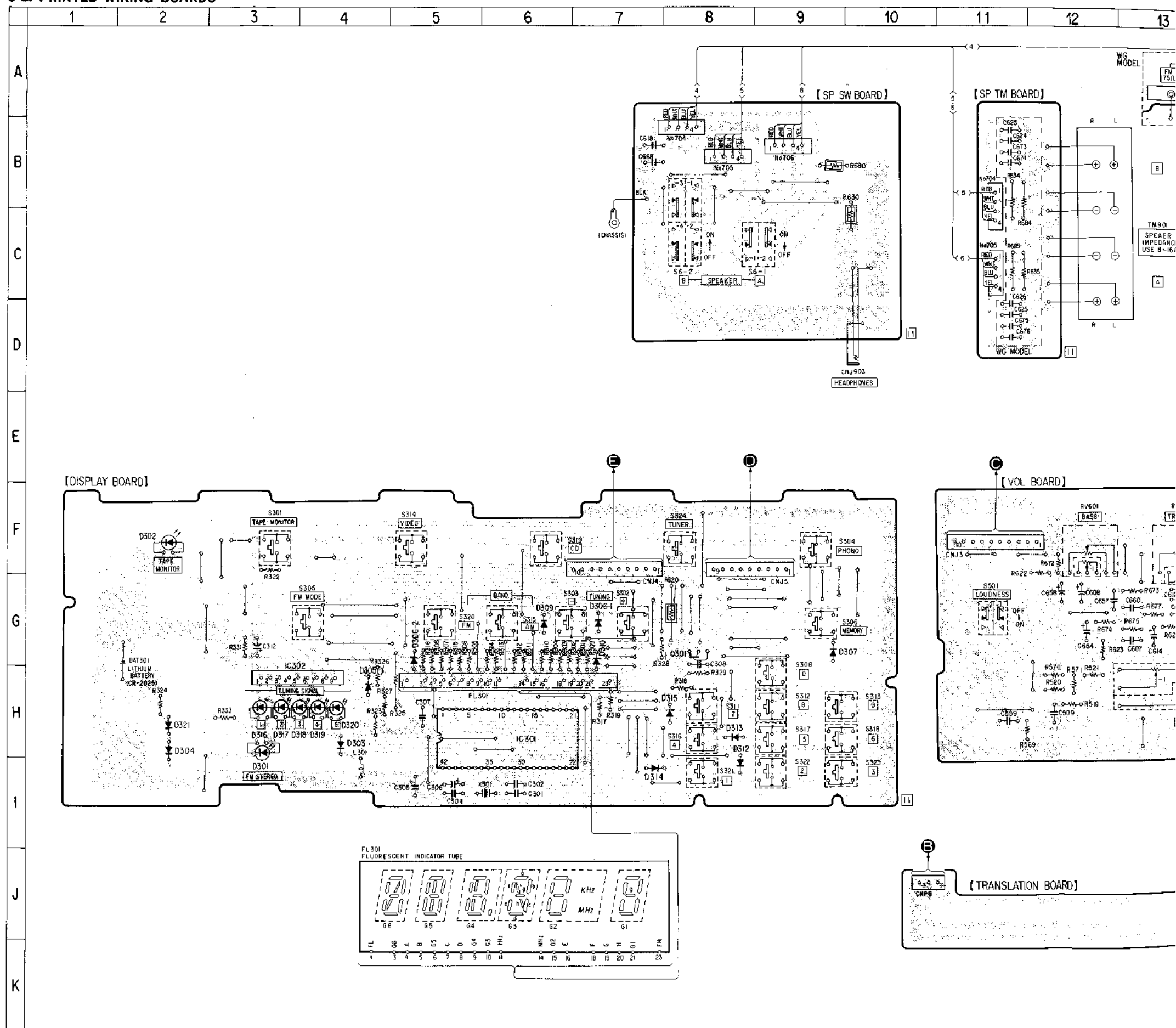
1. Tune the to 999kHz (70dB)
2. Adjust the RV203 so that the 4 point LED of the signal meter goes on.



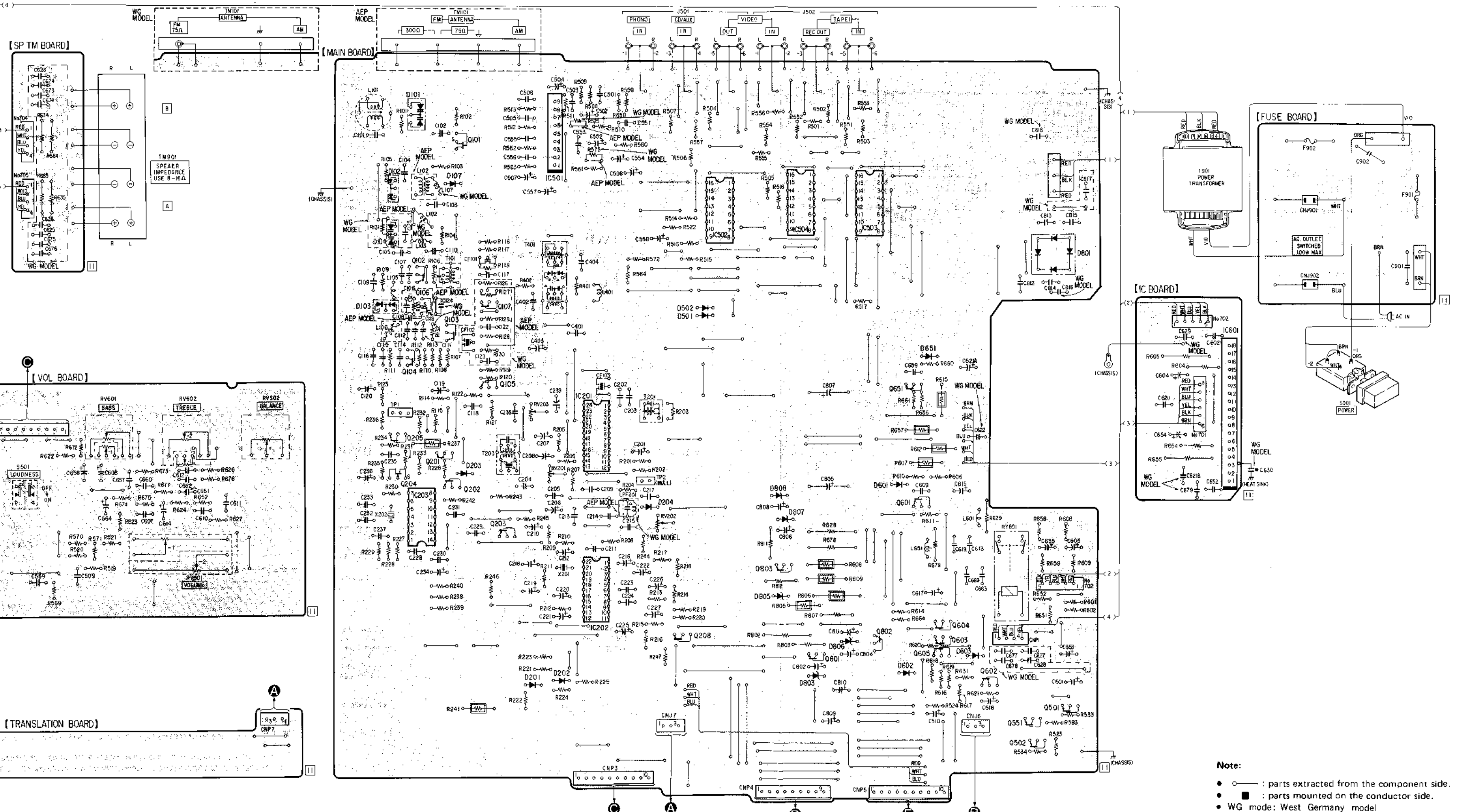
3-2. PRINTED WIRING BOARDS

● Semiconductor Location

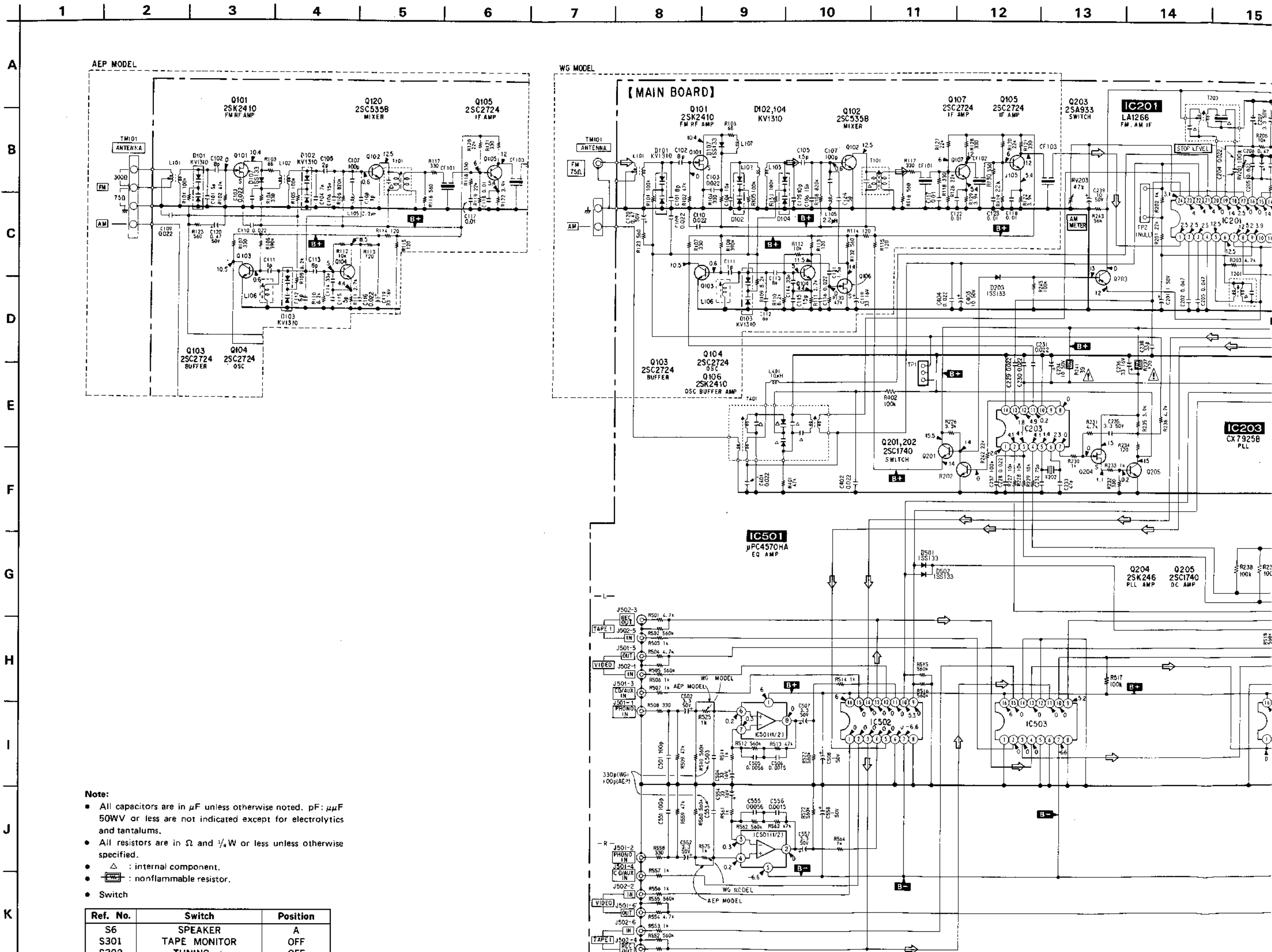
Ref. No.	Location	Ref. No.	Location
D101	B-16	IC501	B-18
D102	C-16	IC502	C-20
D103	E-16	IC503	C-22
D104	D-16	IC504	C-21
D107	C-17	IC601	F-27
D201	I-18		
D202	I-18	Q101	B-17
D203	G-17	Q102	D-16
D204	G-19	Q103	E-17
D301	H-3	Q104	E-16
D302	F-2	Q105	F-17
D303	H-4	Q106	E-16
D304	H-2	Q107	E-17
D305	H-4	Q201	G-16
D306-1	G-7	Q202	G-17
D306-2	G-5	Q203	G-17
D307	G-9	Q204	G-16
D309	G-6	Q205	F-16
D310	G-7	Q208	I-20
D312	I-8	Q301	G-8
D313	H-8	Q501	J-25
D314	I-7	Q502	J-24
D315	H-8	Q551	J-24
D316	H-3	Q601	G-23
D317	H-3	Q602	I-24
D318	H-4	Q603	I-23
D319	H-4	Q604	I-23
D320	H-4	Q605	I-23
D321	H-2	Q651	F-22
D501	E-20	Q801	I-21
D502	E-20	Q802	I-22
D601	G-22	Q803	H-21
D602	I-22		
D603	I-23		
D651	E-23		
D801	D-24		
D803	I-21		
D805	H-21		
D806	I-22		
D807	G-21		
D808	G-21		
IC201	F-18		
IC202	H-18		
IC203	G-16		
IC301	H-6		
IC302	H-3		



11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29



3-3. SCHEMATIC DIAGRAM



Note:

- All capacitors are in  $\mu\text{F}$  unless otherwise noted.  $\text{pF}$ :  $\mu\text{mF}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- $\triangle$ : internal component.
- $\square$ : nonflammable resistor.
- Switch

Ref. No.	Switch	Position
S6	SPEAKER	A
S301	TAPE MONITOR	OFF
C202	TUNING	OFF





F  
G  
H  
I  
J  
K  
L  
M  
N  
O  
P  
Q

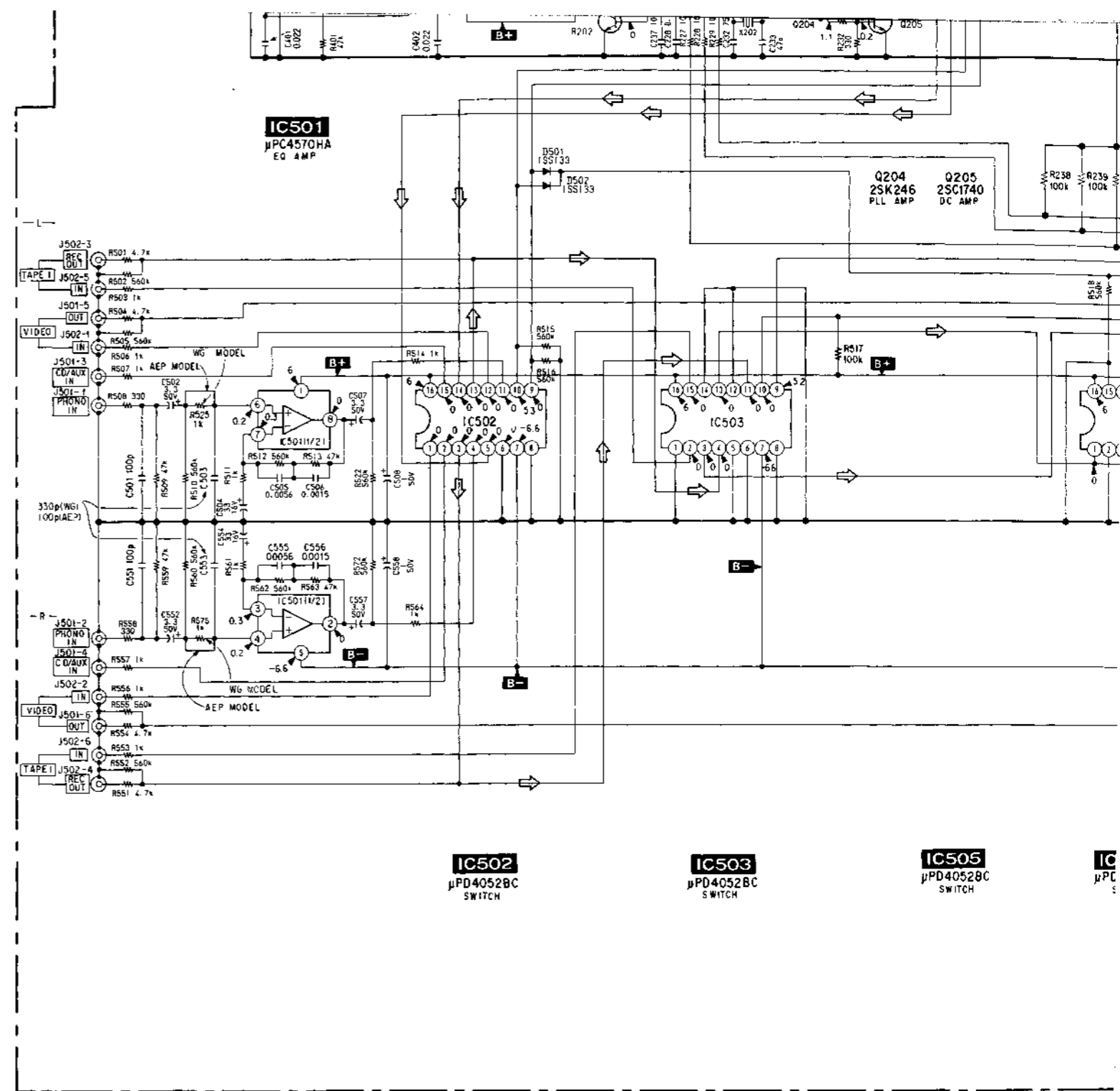
**Note:**

- All capacitors are in  $\mu\text{F}$  unless otherwise noted. pF:  $\mu\text{F}$  50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in  $\Omega$  and  $\frac{1}{4}\text{W}$  or less unless otherwise specified.
- $\Delta$ : internal component.
- $\square$ : nonflammable resistor.
- Switch

Ref. No.	Switch	Position
S6	SPEAKER	A
S301	TAPE MONITOR	OFF
S302	TUNING +	OFF
S303	TUNING -	OFF
S304	PHONO	OFF
S305	FM MODE	OFF
S306	PRESET	OFF
S308	0	OFF
S311	7	OFF
S312	8	OFF
S313	9	OFF
S314	VIDEO	OFF
S315	AM	OFF
S316	4	OFF
S317	5	OFF
S318	6	OFF
S319	CD	OFF
S320	FM	OFF
S321	1	OFF
S322	2	OFF
S323	3	OFF
S324	TUNER	OFF
S501	LOUDNESS	OFF
S901	POWER	OFF

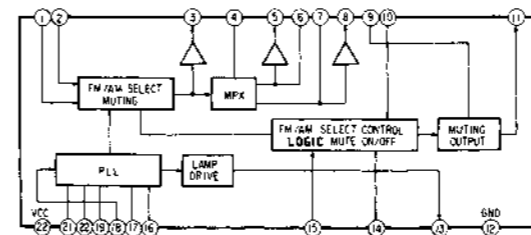
- $\square$ : adjustment for repair.
- \*A - B: See Page 2" Note on ceramic filter replacement and diode connection.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark: FM
- Voltages are taken with a VOM (50  $k\Omega/V$ ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Rightarrow$ : FM
- WG mode: West Germany model

**Note:** The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

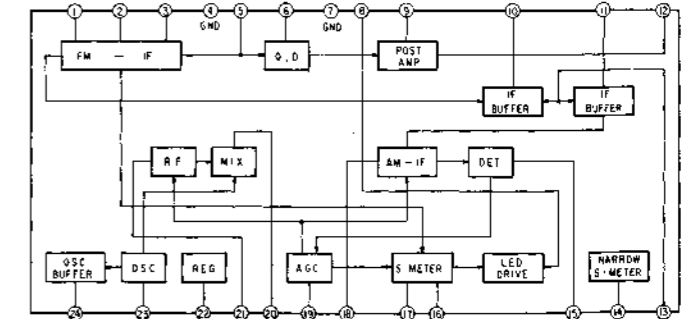


• IC BLOCK DIAGRAMS

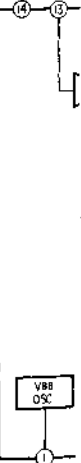
IC202 LA3401



IC201 LA1266



IC203





## SECTION 5 ELECTRICAL PARTS LIST

**NOTE:**

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

**CAPACITORS:**  
MF:  $\mu$ F, PF:  $\mu$ MF.

**RESISTORS**  
• All resistors are in ohms.  
• F: nonflammable

**COILS**  
• MMH: mH, UH:  $\mu$ H

**SEMICONDUCTORS**  
In each case, U:  $\mu$ , for example:  
UA...:  $\mu$ A..., UPA...:  $\mu$ PA...,  
UPC...:  $\mu$ PC, UPD...:  $\mu$ PD...

The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description
901	*A-4472-311-A	MOUNTED PCB, DISPLAY
902	*1-625-788-11	PC BOARD, VOL
903	*1-625-790-11	PC BOARD, SP SW
904	1-501-349-11	ANTENNA, LOOP
905	*A-4410-803-A	(WG)... MOUNTED PCB, MAIN
905	*A-4410-804-A	(AEP)... MOUNTED PCB, MAIN
906	$\Delta$ 1-555-750-00	CORD, POWER
907	*1-625-791-11	PC BOARD, SP TM
908	*1-535-116-00	TERMINAL
909	*1-625-789-11	PC BOARD, IC
910	1-533-183-11	HOLDER, FUSE
911	*1-560-265-00	BASE POST (U-TYPE)
912	*	PC BOARD, FUSE
BAT301	1-528-120-00	BATTERY, LITHIUM (CR-2025)
<b>CAPACITOR</b>		
C101	1-102-942-00	(AEP)... CERAMIC 5PF 1PF 50V
C101	1-102-945-00	(WG)... CERAMIC 8PF 1PF 50V
C102	1-102-945-00	CERAMIC 8PF 1PF 50V
C103	1-161-055-00	CERAMIC 0.022MF 10% 25V
C104	1-102-944-00	(AEP)... CERAMIC 7PF 1PF 50V
C104	1-102-947-00	(WG)... CERAMIC 10PF 0.5PF 50V
C105	1-101-576-00	(WG)... CERAMIC 1.5PF 0.25PF 50V
C105	1-102-953-00	(AEP)... CERAMIC 2PF 0.25PF 50V
C106	1-102-951-00	CERAMIC 15PF 5% 50V
C108	1-102-934-00	(AEP)... CERAMIC 1PF 0.25PF 50V
C107	1-102-106-00	CERAMIC 100PF 10% 50V
C109	1-161-055-00	CERAMIC 0.022MF 10% 25V
C110	1-161-055-00	CERAMIC 0.022MF 10% 25V
C111	1-102-934-00	CERAMIC 1PF 0.25PF 50V
C112	1-102-943-00	CERAMIC 6PF 0.5PF 50V
C113	1-102-945-00	CERAMIC 8PF 0.5PF 50V
C114	1-102-963-00	CERAMIC 33PF 5% 50V
C115	1-102-951-00	CERAMIC 15PF 5% 50V
C116	1-161-055-00	CERAMIC 0.022MF 10% 25V
C117	1-161-051-00	CERAMIC 0.01MF 10% 25V
C118	1-161-051-00	CERAMIC 0.01MF 10% 25V
C119	1-124-963-11	ELECT 33MF 20% 16V
C120	1-124-902-00	ELECT 0.47MF 20% 50V
C121	1-101-576-00	(WG)... CERAMIC 1.5PF 0.25PF 50V
C122	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C123	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C124	1-101-576-00	(WG)... CERAMIC 1.5PF 0.25PF 50V
C125	1-102-947-00	(WG)... CERAMIC 10PF 0.5PF 50V
C201	1-124-499-11	ELECT 1MF 20% 50V
C202	1-161-021-11	CERAMIC 0.047MF 10% 25V
C203	1-161-021-11	CERAMIC 0.047MF 10% 25V
C204	1-161-055-00	CERAMIC 0.022MF 10% 25V
C205	1-161-055-00	CERAMIC 0.022MF 10% 25V
C206	1-124-902-00	ELECT 0.47MF 20% 50V
C207	1-123-382-00	ELECT 3.3MF 20% 50V

Ref.No	Part No.	Description
C208	1-123-382-00	ELECT 3.3MF 20% 50V
C209	1-130-481-00	MYLAR 0.0068MF 5% 50V
C210	1-124-477-11	ELECT 47MF 20% 16V
C211	1-130-491-00	MYLAR 0.047MF 5% 50V
C212	1-124-477-11	ELECT 47MF 20% 16V
C213	1-130-489-00	MYLAR 0.033MF 5% 50V
C214	1-102-963-00	CERAMIC 33PF 5% 50V
C215	1-102-112-00	CERAMIC 330PF 10% 50V
C216	1-123-875-11	ELECT 10MF 20% 50V
C217	1-161-055-00	CERAMIC 0.022MF 10% 25V
C218	1-124-902-00	ELECT 0.47MF 20% 50V
C219	1-124-499-11	ELECT 1MF 20% 50V
C220	1-124-499-11	ELECT 1MF 20% 50V
C221	1-124-499-11	ELECT 1MF 20% 50V
C222	1-123-875-11	ELECT 10MF 20% 50V
C223	1-102-115-00	CERAMIC 560PF 10% 50V
C224	1-102-115-00	CERAMIC 560PF 10% 50V
C225	1-124-499-11	ELECT 1MF 20% 50V
C226	1-123-875-11	ELECT 10MF 20% 50V
C227	1-123-875-11	ELECT 10MF 20% 50V
C228	1-161-055-00	CERAMIC 0.022MF 10% 25V
C229	1-161-055-00	CERAMIC 0.022MF 10% 25V
C230	1-161-055-00	CERAMIC 0.022MF 10% 25V
C231	1-161-055-00	CERAMIC 0.022MF 10% 25V
C232	1-101-890-00	CERAMIC 75PF 5% 50V
C233	1-101-880-00	CERAMIC 47PF 5% 50V
C234	1-123-875-11	ELECT 10MF 20% 50V
C235	1-123-382-00	ELECT 3.3MF 20% 50V
C236	1-124-963-11	ELECT 33MF 20% 16V
C237	1-102-106-00	CERAMIC 100PF 10% 50V
C238	1-102-963-00	CERAMIC 33PF 5% 50V
C239	1-123-875-11	ELECT 10MF 20% 50V
C301	1-162-282-31	CERAMIC 100PF 10% 50V
C302	1-162-282-31	CERAMIC 100PF 10% 50V
C304	1-161-494-00	CERAMIC 0.022MF 25V
C305	1-124-589-11	ELECT 47MF 20% 16V
C306	1-123-611-00	ELECT 1MF 20% 50V
C307	1-161-379-00	CERAMIC 0.01MF 30% 16V
C308	1-161-494-00	CERAMIC 0.022MF 25V
C312	1-124-261-00	ELECT 10MF 20% 50V
C401	1-161-055-00	CERAMIC 0.022MF 10% 25V
C402	1-161-055-00	CERAMIC 0.022MF 10% 25V
C403	1-123-875-11	ELECT 10MF 20% 50V
C404	1-161-055-00	CERAMIC 0.022MF 10% 25V
C501	1-102-106-00	CERAMIC 100PF 10% 50V
C502	1-123-382-00	ELECT 3.3MF 20% 50V
C503	1-102-106-00	(AEP)... CERAMIC 100PF 10% 50V
C503	1-102-112-00	(WG)... CERAMIC 330PF 10% 50V
C504	1-124-963-11	ELECT 33MF 20% 16V
C505	1-130-480-00	MYLAR 0.0056MF 5% 50V
C506	1-130-473-00	MYLAR 0.0015MF 5% 50V
C507	1-123-382-00	ELECT 3.3MF 20% 50V

Ref.No	Part No.	Description
C508	1-124-499-11	ELECT 1MF 20% 50V
C509	1-130-491-00	MYLAR 0.047MF 5% 50V
C510	1-124-902-00	ELECT 0.47MF 20% 50V
C551	1-102-106-00	CERAMIC 100PF 10% 50V
C552	1-123-382-00	ELECT 3.3MF 20% 50V
C553	1-102-106-00	(AEP)... CERAMIC 100PF 10% 50V
C553	1-102-112-00	(WG)... CERAMIC 330PF 10% 50V
C554	1-124-963-11	ELECT 33MF 20% 16V
C555	1-130-480-00	MYLAR 0.0056MF 5% 50V
C556	1-130-473-00	MYLAR 0.0015MF 5% 50V
C557	1-123-382-00	ELECT 3.3MF 20% 50V
C558	1-124-499-11	ELECT 1MF 20% 50V
C559	1-130-491-00	MYLAR 0.047MF 5% 50V
C601	1-123-875-11	ELECT 10MF 20% 50V
C602	1-102-112-00	CERAMIC 330PF 10% 50V
C604	1-124-910-11	ELECT 47MF 20% 50V
C605	1-124-477-11	ELECT 47MF 20% 16V
C607	1-130-489-00	MYLAR 0.033MF 5% 50V
C608	1-124-464-11	ELECT 0.22MF 20% 50V
C609	1-130-495-00	MYLAR 0.1MF 5% 50V
C610	1-102-108-00	CERAMIC 150PF 10% 50V
C611	1-130-477-00	MYLAR 0.0033MF 5% 50V
C612	1-130-487-00	MYLAR 0.022MF 5% 50V
C613	1-130-493-00	MYLAR 0.068MF 5% 50V
C614	1-123-875-11	ELECT 10MF 20% 50V
C615	1-124-122-11	ELECT 100MF 20% 50V
C616	1-123-875-11	ELECT 10MF 20% 50V
C617	1-126-101-11	ELECT 100MF 20% 16V
C618	1-161-055-00	CERAMIC 0.022MF 10% 25V
C619	1-130-493-00	MYLAR 0.068MF 5% 50V
C620	1-130-471-00	MYLAR 0.001MF 5% 50V
C621A	1-124-122-11	ELECT 100MF 20% 50V
C621B	1-130-491-00	(WG)... MYLAR 0.047MF 5% 50V
C622	1-130-471-00	(WG)... MYLAR 0.001MF 5% 50V
C623	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C624	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C625	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C626	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C627	1-161-021-11	(WG)... CERAMIC 0.047MF 10% 25V
C628	1-161-021-11	(WG)... CERAMIC 0.047MF 10% 25V
C629	1-102-112-00	CERAMIC 330PF 10% 50V
C630	1-102-074-00	(WG)... CERAMIC 0.001MF 10% 50V
C651	1-123-875-11	ELECT 10MF 20% 50V
C652	1-102-112-00	CERAMIC 330PF 10% 50V
C654	1-124-910-11	ELECT 47MF 20% 50V
C655	1-124-477-11	ELECT 47MF 20% 16V
C657	1-130-489-00	MYLAR 0.033MF 5% 50V
C658	1-124-464-11	ELECT 0.22MF 20% 50V
C659	1-130-495-00	MYLAR 0.1MF 5% 50V
C660	1-102-108-00	CERAMIC 150PF 10% 50V
C661	1-130-477-00	MYLAR 0.0033MF 5% 50V
C662	1-130-487-00	MYLAR 0.022MF 5% 50V
C663	1-130-493-00	MYLAR 0.068MF 5% 50V
C664	1-123-875-11	ELECT 10MF 20% 50V
C668	1-161-055-00	CERAMIC 0.022MF 10% 25V
C669	1-130-493-00	MYLAR 0.068MF 5% 50V
C673	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C674	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C675	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C676	1-161-051-00	(WG)... CERAMIC 0.01MF 10% 25V
C677	1-161-021-11	(WG)... CERAMIC 0.047MF 10% 25V
C678	1-161-021-11	(WG)... CERAMIC 0.047MF 10% 25V
C679	1-102-112-00	CERAMIC 330PF 10% 50V
C802	1-124-963-11	ELECT 33MF 20% 16V
C804	1-124-478-11	ELECT 100MF 20% 25V

Ref.No	Part No.	Description
C805	$\Delta$ 1-124-362-00	(WG)... ELECT 4700MF 20% 42V
C805	$\Delta$ 1-126-307-11	(AEP)... ELECT 6800MF 50V
C806	1-123-875-11	ELECT 10MF 20% 50V
C807	$\Delta$ 1-126-307-11	(AEP)... ELECT 6800MF 50V
C807	$\Delta$ 1-124-362-00	(WG)... ELECT 4700MF 20% 42V
C808	1-123-875-11	ELECT 10MF 20% 50V
C809	1-123-382-00	ELECT 3.3MF 20% 50V
C810	1-124-963-11	ELECT 33MF 20% 16V
C811	1-124-963-11	ELECT 33MF 20% 16V
C812	$\Delta$ 1-130-777-00	FILM 0.1MF 5% 100V
C813	$\Delta$ 1-130-777-00	FILM 0.1MF 5% 100V
C814	$\Delta$ 1-130-777-00	FILM 0.1MF 5% 100V
C815	$\Delta$ 1-130-777-00	FILM 0.1MF 5% 100V
C816	1-101-005-00	(WG)... CERAMIC 0.022MF 50V
C817	1-101-005-00	(WG)... CERAMIC 0.022MF 50V
C818	1-101-005-00	(WG)... CERAMIC 0.022MF 50V
C901	$\Delta$ 1-161-744-00	CERAMIC 0.01MF 400V
C902	$\Delta$ 1-161-744-00	CERAMIC 0.01MF 400V
CF101	1-567-389-11	FILTER, CERAMIC
CF102	1-567-389-11	(WG)... FILTER, CERAMIC
CF103	1-567-389-11	FILTER, CERAMIC
CNP1	*1-564-778-11	PLUG, CONNECTOR (2.5MM) 4P
CNP3	1-565-419-11	PIN CONNECTOR 10P
CNP4	1-560-943-00	PIN CONNECTOR 9P
CNP5	1-565-419-11	PIN CONNECTOR 10P
CNP6	1-506-569-11	PIN CONNECTOR 3P
CNP7	1-506-569-11	PIN CONNECTOR 3P
CNJ3	*1-562-334-00	SOCKET, CONNECTOR 10P
CNJ4	1-562-088-00	SOCKET, CONNECTOR 9P
CNJ5	*1-562-334-00	SOCKET, CONNECTOR 10P
CNJ6	*1-562-477-11	CONNECTOR (SOCKET) 3P
CNJ7	*1-562-477-11	CONNECTOR (SOCKET) 3P
CNJ901	$\Delta$ 1-526-794-11	OUTLET, AC
CNJ902	$\Delta$ 1-526-794-11	OUTLET, AC
CNJ903	1-507-863-31	JACK, LARGE TYPE (HEADPHONES)
D101	8-719-918-45	DIODE KV1310
D102	8-719-918-45	DIODE KV1310
D103	8-719-918-45	DIODE KV1310
D104	8-719-918-45	(WG)... DIODE KV1310
D107	8-719-901-33	DIODE 1SS133
D201	8-719-901-33	DIODE 1SS133
D202	8-719-901-33	DIODE 1SS133
D203	8-719-901-33	DIODE 1SS133
D204	8-719-901-33	DIODE 1SS133
D301	8-719-940-99	DIODE SLR-34VC3
D302	8-719-940-82	DIODE SLR-34MC3
D303	8-719-901-33	DIODE 1SS133
D304	8-719-901-33	DIODE 1SS133
D305	8-719-901-33	DIODE 1SS133
D306-1	8-719-901-33	DIODE 1SS133
D306-2	8-719-901-33	DIODE 1SS133
D307	8-719-901-33	DIODE 1SS133
D309	8-719-901-33	DIODE 1SS133
D310	8-719-901-33	DIODE 1SS133
D312	8-719-901-33	DIODE 1SS133
D313	8-719-901-33	DIODE 1SS133
D314	8-719-901-33	DIODE 1SS133
D315	8-719-901-33	DIODE 1SS133
D316	8-719-940-82	DIODE SLR-34MC3
D317	8-719-940-82	DIODE SLR-34MC3
D318	8-719-940-82	DIODE SLR-34MC3
D319	8-719-940-82	DIODE SLR-34MC3
D320	8-719-940-82	DIODE SLR-34MC3
D321	8-719-901-33	DIODE 1SS133

Note: The components identified by mark  $\Delta$  or dotted line with mark  $\Delta$  are critical for safety. Replace only with part number specified.

## SECTION 4 EXPLODED VIEWS

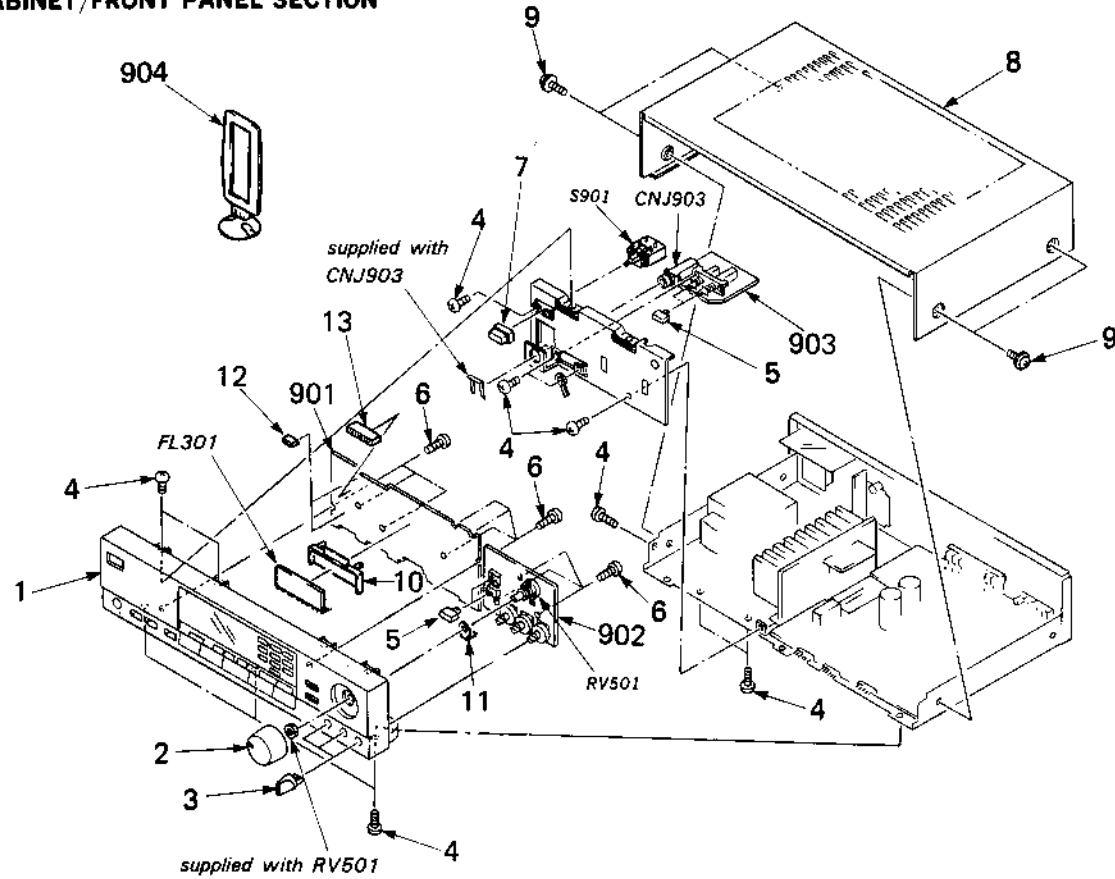
### NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "\*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.
- Color Indication of Appearance Parts Example:  
(RED) ... KNOB, BALANCE (WHITE)  
↑ Cabinet's Color      ↑ Parts Color

The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

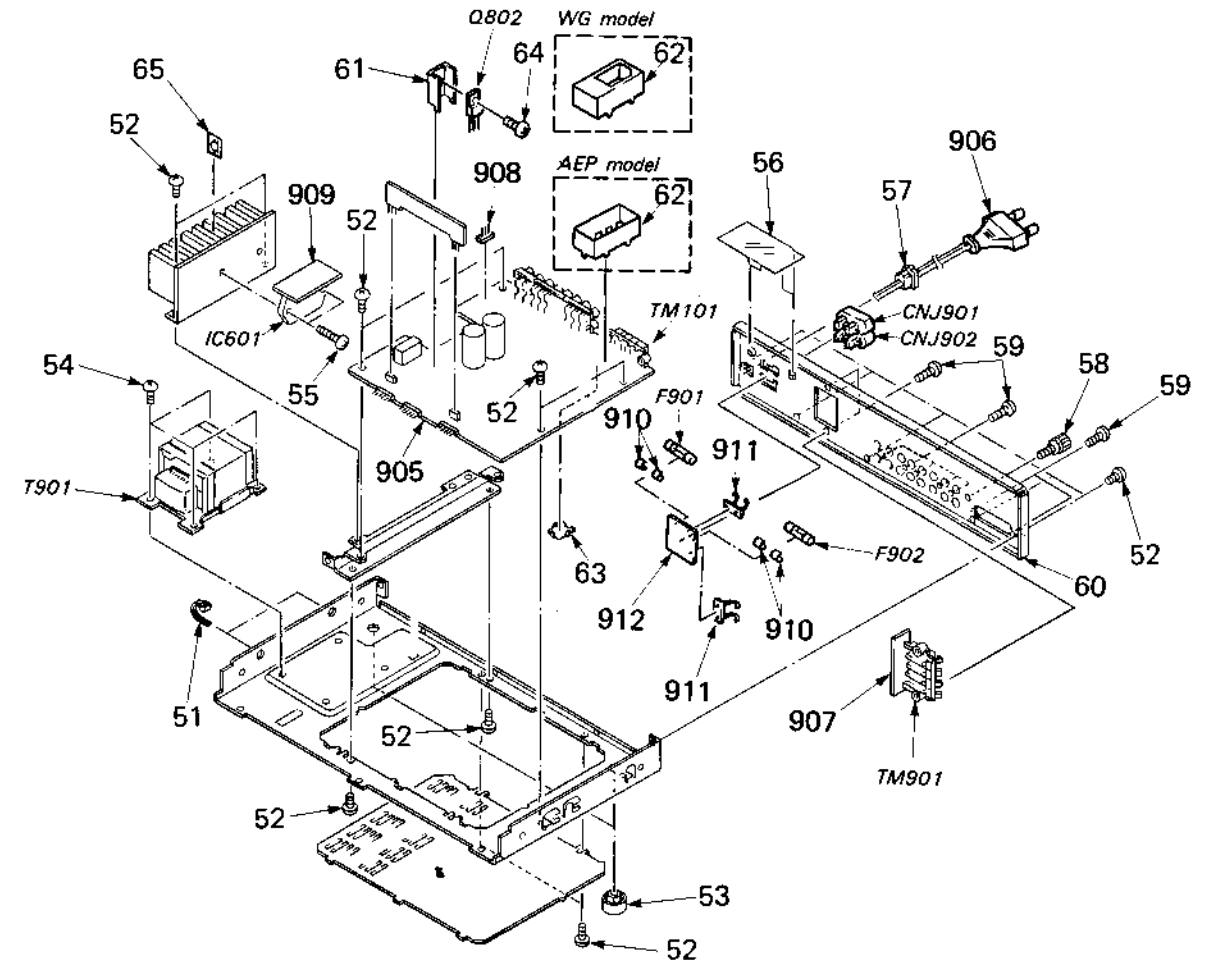
### 4-1. CABINET/FRONT PANEL SECTION



Ref.No	Part No.	Description	Remarks
1	A-4323-014-A	PANEL SUB ASSY	
2	4-925-121-52	KNOB (V2)	
3	4-925-014-01	KNOB (DIA.10)	
4	7-682-548-04	SCREW +BVTT 3X8 (S)	
5	4-924-901-01	BUTTON (M)	
6	7-685-135-19	SCREW +BTP 2.6X10 TYPE2 N-S	
7	4-917-460-01	KNOB, POWER	
8	4-925-066-01	CASE	
9	4-886-821-21	SCREW, M3 CASE STOPPER	
10	*4-884-011-03	HOLDER	

Ref.No	Part No.	Description	Remarks
11	*4-925-044-01	BRACKET (VOL GROUND)	
12	*1-562-327-00	SOCKET, CONNECTOR 3P	
13	*1-565-699-11	SOCKET, CONNECTOR 10P	
901	*A-4472-311-A	MOUNTED PCB, DISPLAY	
902	*1-625-788-11	PC BOARD, VOL	
903	*1-625-790-11	PC BOARD, SP SW	
904	1-501-349-11	ANTENNA, LOOP	
	CNJ903	JACK, LARGE TYPE (HEADPHONES)	
	FL301	INDICATOR TUBE, FLUORESCENT	
	S901	SWITCH, PUSH (AC POWER)(1 KEY)	

### 4-2. CHASSIS SECTION



Note: The components identified by mark or dotted line with mark are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description	Remarks
51	3-701-748-00	CLAMP	
52	7-682-548-04	SCREW +BVTT 3X8 (S)	
53	X-4921-901-1	FOOT ASSY	
54	7-682-560-04	SCREW +BVTT 4X6 (S)	
55	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3	
56	*4-919-186-01	COVER, POWER	
57	*3-703-244-00	BUSHING (2104), CORD	
58	3-706-165-00	SCREW	
59	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S	
60	*4-919-193-31	(AEP)...PLATE, JACK	
60	*4-919-193-51	(WG)...PLATE, JACK	
61	*4-880-403-11	HEAT SINK	
62	*4-906-792-01	(AEP)...PLATE, SHIELD	
62	*4-906-803-01	(WG)...CASE, SHIELD	
63	*4-919-176-01	(WG)...PLATE, SHIELD	
64	4-909-982-01	TAPPING, SCREW	
65	4-881-752-01	NUT, PLATE, SPECIAL	

Ref.No	Part No.	Description	Remarks
905	*A-4410-803-A	(WG)... MOUNTED PCB, MAIN	
905	*A-4410-804-A	(AEP)... MOUNTED PCB, MAIN	
906	*1-555-750-00	CORD, POWER	
907	*1-625-791-11	PC BOARD, SP TM	
908	*1-535-116-00	TERMINAL	
909	*1-625-789-11	PC BOARD, IC	
910	1-533-183-11	HOLDER, FUSE	
911	*1-560-265-00	BASE POST (U-TYPE)	
912	*	PC BOARD, FUSE	
	CNJ901	OUTLET, AC	
	CNJ902	OUTLET, AC	
	F901	FUSE (T1.6)	
	F902	FUSE (T1.6)	
	T901	TRANSFORMER, POWER	
	TM101	TERMINAL BOARD, PUSH 4P	
	TM101	(WG)... TERMINAL BOARD (ANT)	
	TM901	1-536-706-00 TERMINAL BOARD (SP) (SPEAKER)	

Ref.No	Part No.	Description
D501	8-719-901-33	DIODE ISS133
D502	8-719-901-33	DIODE ISS133
D601	8-719-901-33	DIODE ISS133
D602	8-719-901-33	DIODE ISS133
D603	8-719-901-33	DIODE ISS133
D651	8-719-901-33	DIODE ISS133
D801	△ 8-719-300-57	DIODE RB402
D803	8-719-100-41	DIODE RD6.8E-B2
D805	8-719-100-80	DIODE RD20E-B2
D806	8-719-100-74	DIODE RD16E-B2
D807	8-719-100-77	DIODE RD18E-B2
D808	8-719-100-41	DIODE RD6.8E-B2
F901	△ 1-532-973-11	FUSE (T1.6A)
F902	△ 1-532-973-11	FUSE (T1.6A)
FL301	1-519-297-00	INDICATOR TUBE, FLUORESCENT
IC201	8-759-804-55	IC LA1266
IC202	8-759-801-80	IC LA3401
IC203	8-757-925-20	IC CX7925B
IC301	8-759-230-18	IC TMP47C210N-3074
IC302	8-759-801-04	IC LB1403N
IC501	8-759-112-93	IC UPC4570HA-1
IC502	8-759-102-37	IC UPD4052BC
IC503	8-759-102-37	IC UPD4052BC
IC504	8-759-102-37	IC UPD4052BC
IC601	8-749-900-96	IC STK4142H
J501	1-565-320-11	JACK, PIN 6P (PHONO, CD/AUX, VIDEO)
J502	1-565-320-11	JACK, PIN 6P (VIDEO, TAPE)
L101	*1-402-258-11	COIL, ANT
L102	*1-422-077-00	(WG)....COIL, AIR-CORE
L102	1-426-304-11	(AEP)....COIL, RF (FM)
L103	*1-422-038-00	(WG)....COIL, AIR-CORE
L105	1-410-320-11	INDUCTOR 2.2UH
L106	*1-459-703-11	COIL (WITH CORE)
L107	*1-422-081-00	(WG)....COIL (WITH CORE)
L301	1-410-334-11	INDUCTOR 100UH
L401	1-410-328-11	INDUCTOR 10UH
L601	*1-420-872-00	COIL, AIR CORE
L651	*1-420-872-00	COIL, AIR CORE
LPF201	1-235-983-11	(WG)....FILTER
NO701	*1-562-251-00	SOCKET, CONNECTOR 6P
NO702	*1-562-250-00	SOCKET, CONNECTOR 5P
NO704	*1-562-249-00	SOCKET, CONNECTOR 4P
NO705	*1-562-249-00	SOCKET, CONNECTOR 4P
NO706	*1-562-249-00	SOCKET, CONNECTOR 4P
Q101	8-729-200-55	TRANSISTOR 2SK241-Y
Q102	8-729-353-52	TRANSISTOR 2SC535
Q103	8-729-672-44	TRANSISTOR 2SC2724-E
Q104	8-729-672-44	TRANSISTOR 2SC2724-E
Q105	8-729-672-44	TRANSISTOR 2SC2724-E
Q106	8-729-200-55	(WG)....TRANSISTOR 2SK241Y
Q107	8-729-672-44	(WG)....TRANSISTOR 2SC2724-E
Q201	8-729-600-27	TRANSISTOR 2SC634SP
Q202	8-729-600-27	TRANSISTOR 2SC634SP
Q203	8-729-204-83	TRANSISTOR 2SA1048GR
Q204	8-729-224-62	TRANSISTOR 2SK246-GR
Q205	8-729-600-27	TRANSISTOR 2SC634SP
Q208	8-729-600-27	TRANSISTOR 2SC634SP
Q301	8-729-900-63	TRANSISTOR DTA124ES
Q501	8-729-204-83	TRANSISTOR 2SA1048GR
Q502	8-729-204-83	TRANSISTOR 2SA1048GR

Ref.No	Part No.	Description
Q551	8-729-204-83	TRANSISTOR 2SA1048GR
Q601	8-729-108-14	TRANSISTOR 2SA988-F
Q602	8-729-600-27	TRANSISTOR 2SC634SP
Q603	8-729-600-27	TRANSISTOR 2SC634SP
Q604	8-729-600-27	TRANSISTOR 2SC634SP
Q605	8-729-600-27	TRANSISTOR 2SC634SP
Q651	8-729-108-14	TRANSISTOR 2SA988-F
Q801	8-729-177-42	TRANSISTOR 2SD774-3
Q802	8-729-107-25	TRANSISTOR 2SD1585
Q803	8-729-103-43	TRANSISTOR 2SB734

## RESISTOR

Ref.No	Part No.	Description			
R101	1-249-441-11	CARBON	100K	5%	1/4W
R102	1-249-437-11	CARBON	47K	5%	1/4W
R103	1-249-403-11	CARBON	68	5%	1/4W
R104	1-249-411-11	CARBON	330	5%	1/4W
R105	1-249-441-11	CARBON	100K	5%	1/4W
R106	1-247-901-11	CARBON	820K	5%	1/4W
R107	1-249-411-11	CARBON	330	5%	1/4W
R108	1-247-893-11	CARBON	390K	5%	1/4W
R109	1-249-428-11	CARBON	8.2K	5%	1/4W
R110	1-249-428-11	CARBON	8.2K	5%	1/4W
R111	1-249-422-11	CARBON	2.7K	5%	1/4W
R112	1-249-429-11	CARBON	10K	5%	1/4W
R113	1-249-406-11	CARBON	120	5%	1/4W
R114	1-249-406-11	CARBON	120	5%	1/4W
R115	1-249-406-11	CARBON	120	5%	1/4W
R116	1-249-414-11	CARBON	560	5%	1/4W
R117	1-249-411-11	CARBON	330	5%	1/4W
R118	1-249-411-11	CARBON	330	5%	1/4W
R119	1-249-433-11	CARBON	22K	5%	1/4W
R120	1-249-433-11	CARBON	22K	5%	1/4W
R121	1-249-411-11	CARBON	330	5%	1/4W
R122	1-249-424-11	CARBON	3.9K	5%	1/4W
R123	1-249-414-11	CARBON	560	5%	1/4W
R126	1-249-433-11	(WG)....CARBON	22K	5%	1/4W
R127	1-249-433-11	(WG)....CARBON	22K	5%	1/4W
R128	1-249-411-11	(WG)....CARBON	330	5%	1/4W
R129	1-249-424-11	(WG)....CARBON	3.9K	5%	1/4W
R130	1-249-411-11	(WG)....CARBON	330	5%	1/4W
R131	1-249-441-11	(WG)....CARBON	100K	5%	1/4W
R132	1-249-414-11	CARBON	560	5%	1/4W
R133	1-249-437-11	(WG)....CARBON	47K	5%	1/4W
R201	1-249-433-11	CARBON	22K	5%	1/4W
R202	1-249-417-11	CARBON	1K	5%	1/4W
R203	1-249-425-11	CARBON	4.7K	5%	1/4W
R204	1-249-406-11	CARBON	120	5%	1/4W
R205	1-249-429-11	CARBON	10K	5%	1/4W
R206	1-249-429-11	CARBON	10K	5%	1/4W
R207	1-249-423-11	CARBON	3.3K	5%	1/4W
R208	1-249-425-11	CARBON	4.7K	5%	1/4W
R209	1-249-406-11	CARBON	120	5%	1/4W
R210	1-249-406-11	CARBON	120	5%	1/4W
R211	1-249-417-11	CARBON	1K	5%	1/4W
R212	1-249-441-11	CARBON	100K	5%	1/4W
R213	1-247-881-00	CARBON	120K	5%	1/4W
R214	1-247-883-00	CARBON	150K	5%	1/4W
R215	1-247-881-00	CARBON	120K	5%	1/4W
R216	1-247-883-00	CARBON	150K	5%	1/4W
R217	1-249-421-11	CARBON	2.2K	5%	1/4W
R218	1-249-425-11	CARBON	4.7K	5%	1/4W
R219	1-249-421-11	CARBON	2.2K	5%	1/4W
R220	1-249-425-11	CARBON	4.7K	5%	1/4W
R221	1-249-438-11	CARBON	56K	5%	1/4W
R222	1-249-423-11	CARBON	3.3K	5%	1/4W

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

# STR-AV200E

Ref.No	Part No.	Description					Ref.No	Part No.	Description				
R223	1-249-429-11	CARBON	10K	5%	1/4W		R509	1-249-437-11	CARBON	47K	5%	1/4W	
R224	1-249-438-11	CARBON	56K	5%	1/4W		R510	1-247-897-11	CARBON	560K	5%	1/4W	
R225	1-249-417-11	CARBON	1K	5%	1/4W		R511	1-249-417-11	CARBON	1K	5%	1/4W	
R226	1-249-423-11	CARBON	3.3K	5%	1/4W		R512	1-247-897-11	CARBON	560K	5%	1/4W	
R227	1-249-429-11	CARBON	10K	5%	1/4W		R513	1-249-437-11	CARBON	47K	5%	1/4W	
R228	1-249-429-11	CARBON	10K	5%	1/4W		R514	1-249-417-11	CARBON	1K	5%	1/4W	
R229	1-249-429-11	CARBON	10K	5%	1/4W		R515	1-247-897-11	CARBON	560K	5%	1/4W	
R230	1-249-417-11	CARBON	1K	5%	1/4W		R516	1-247-897-11	CARBON	560K	5%	1/4W	
R231	1-249-425-11	CARBON	4.7K	5%	1/4W		R517	1-249-441-11	CARBON	100K	5%	1/4W	
R232	1-249-411-11	CARBON	330	5%	1/4W		R518	1-247-897-11	CARBON	560K	5%	1/4W	
R233	1-249-417-11	CARBON	1K	5%	1/4W		R519	1-249-435-11	CARBON	33K	5%	1/4W	
R234	1-249-406-11	CARBON	120	5%	1/4W		R520	1-249-435-11	CARBON	33K	5%	1/4W	
R235	1-249-424-11	CARBON	3.9K	5%	1/4W		R521	1-249-421-11	CARBON	2.2K	5%	1/4W	
R236	1-249-425-11	CARBON	4.7K	5%	1/4W		R522	1-247-897-11	CARBON	560K	5%	1/4W	
R237	△ 1-247-701-11	CARBON	120	5%	1/4W	F	R523	1-249-429-11	CARBON	10K	5%	1/4W	
R238	1-249-441-11	CARBON	100K	5%	1/4W		R524	1-249-433-11	CARBON	22K	5%	1/4W	
R239	1-249-441-11	CARBON	100K	5%	1/4W		R525	1-249-417-11	(WG).....CARBON	1K	5%	1/4W	
R240	1-249-441-11	CARBON	100K	5%	1/4W		R533	1-249-423-11	CARBON	3.3K	5%	1/4W	
R241	△ 1-247-695-11	CARBON	39	5%	1/4W	F	R534	1-249-429-11	CARBON	10K	5%	1/4W	
R242	1-249-433-11	CARBON	22K	5%	1/4W		R551	1-249-425-11	CARBON	4.7K	5%	1/4W	
R243	1-249-438-11	CARBON	56K	5%	1/4W		R552	1-247-897-11	CARBON	560K	5%	1/4W	
R244	1-249-438-11	CARBON	56K	5%	1/4W		R553	1-249-417-11	CARBON	1K	5%	1/4W	
R245	1-249-441-11	CARBON	100K	5%	1/4W		R554	1-249-425-11	CARBON	4.7K	5%	1/4W	
R246	1-249-438-11	CARBON	56K	5%	1/4W		R555	1-247-897-11	CARBON	560K	5%	1/4W	
R247	1-249-437-11	CARBON	47K	5%	1/4W		R556	1-249-417-11	CARBON	1K	5%	1/4W	
R301	1-249-441-11	CARBON	100K	5%	1/4W		R557	1-249-417-11	CARBON	1K	5%	1/4W	
R302	1-249-441-11	CARBON	100K	5%	1/4W		R558	1-249-411-11	CARBON	330	5%	1/4W	
R303	1-249-441-11	CARBON	100K	5%	1/4W		R559	1-249-437-11	CARBON	47K	5%	1/4W	
R304	1-249-441-11	CARBON	100K	5%	1/4W		R560	1-247-897-11	CARBON	560K	5%	1/4W	
R305	1-249-441-11	CARBON	100K	5%	1/4W		R561	1-249-417-11	CARBON	1K	5%	1/4W	
R306	1-249-441-11	CARBON	100K	5%	1/4W		R562	1-247-897-11	CARBON	560K	5%	1/4W	
R307	1-249-441-11	CARBON	100K	5%	1/4W		R563	1-249-437-11	CARBON	47K	5%	1/4W	
R308	1-249-441-11	CARBON	100K	5%	1/4W		R564	1-249-417-11	CARBON	1K	5%	1/4W	
R309	1-249-441-11	CARBON	100K	5%	1/4W		R569	1-249-435-11	CARBON	33K	5%	1/4W	
R310	1-249-441-11	CARBON	100K	5%	1/4W		R570	1-249-435-11	CARBON	33K	5%	1/4W	
R311	1-249-441-11	CARBON	100K	5%	1/4W		R571	1-249-421-11	CARBON	2.2K	5%	1/4W	
R312	1-249-441-11	CARBON	100K	5%	1/4W		R572	1-247-897-11	CARBON	560K	5%	1/4W	
R313	1-249-441-11	CARBON	100K	5%	1/4W		R575	1-249-417-11	(WG).....CARBON	1K	5%	1/4W	
R314	1-249-441-11	CARBON	100K	5%	1/4W		R583	1-249-423-11	CARBON	3.3K	5%	1/4W	
R315	1-249-441-11	CARBON	100K	5%	1/4W		R601	1-249-421-11	CARBON	2.2K	5%	1/4W	
R316	1-249-441-11	CARBON	100K	5%	1/4W		R602	1-249-438-11	CARBON	56K	5%	1/4W	
R317	1-249-441-11	CARBON	100K	5%	1/4W		R604	1-247-717-11	CARBON	2.2K	5%	1/4W	
R318	1-249-441-11	CARBON	100K	5%	1/4W		R605	1-247-756-11	CARBON	2.2K	5%	1/2W	
R319	1-249-441-11	CARBON	100K	5%	1/4W		R606	1-249-417-11	CARBON	1K	5%	1/4W	
R320	△ 1-216-430-11	METAL OXIDE	390	5%	1W	F	R607	△ 1-217-152-00	METAL PLATE	0.33		2W	F
R322	1-249-410-11	CARBON	270	5%	1/4W		R608	1-249-438-11	CARBON	56K	5%	1/4W	
R323	1-247-889-00	CARBON	270K	5%	1/4W		R609	1-247-828-11	CARBON	750	5%	1/4W	
R324	1-249-425-11	CARBON	4.7K	5%	1/4W		R610	1-249-427-11	CARBON	6.8K	5%	1/4W	
R325	1-247-742-11	CARBON	180	5%	1/2W		R611	1-249-435-11	CARBON	33K	5%	1/4W	
R326	1-249-441-11	CARBON	100K	5%	1/4W		R612	△ 1-247-700-11	CARBON	100	5%	1/4W	F
R327	1-249-425-11	CARBON	4.7K	5%	1/4W		R614	1-249-437-11	CARBON	47K	5%	1/4W	
R328	1-249-438-11	CARBON	56K	5%	1/4W		R615	△ 1-247-700-11	CARBON	100	5%	1/4W	F
R329	1-249-438-11	CARBON	56K	5%	1/4W		R616	1-249-441-11	CARBON	100K	5%	1/4W	
R331	1-249-429-11	CARBON	10K	5%	1/4W		R617	1-249-433-11	CARBON	22K	5%	1/4W	
R333	1-249-401-11	CARBON	47	5%	1/4W		R618	1-249-438-11	CARBON	56K	5%	1/4W	
R401	1-249-437-11	CARBON	47K	5%	1/4W		R619	1-249-433-11	CARBON	22K	5%	1/4W	
R402	1-249-441-11	CARBON	100K	5%	1/4W		R620	1-247-744-11	CARBON	270	5%	1/2W	
R501	1-249-425-11	CARBON	4.7K	5%	1/4W		R621	1-249-435-11	CARBON	33K	5%	1/4W	
R502	1-247-897-11	CARBON	560K	5%	1/4W		R622	1-249-421-11	CARBON	2.2K	5%	1/4W	
R503	1-249-417-11	CARBON	1K	5%	1/4W		R623	1-249-432-11	CARBON	18K	5%	1/4W	
R504	1-249-425-11	CARBON	4.7K	5%	1/4W		R624	1-249-431-11	CARBON	15K	5%	1/4W	
R505	1-247-897-11	CARBON	560K	5%	1/4W		R625	1-247-889-00	CARBON	270K	5%	1/4W	
R506	1-249-417-11	CARBON	1K	5%	1/4W		R626	1-249-416-11	CARBON	820	5%	1/4W	
R507	1-249-417-11	CARBON	1K	5%	1/4W		R627	1-249-427-11	CARBON	6.8K	5%	1/4W	
R508	1-249-411-11	CARBON	330	5%	1/4W		R628	1-247-727-11	CARBON	10	5%	1/2W	

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description				
R629	1-249-455-11	CARBON	4.7	5%	1/4W	
R630	△1-215-914-11	WIREWOUND	330	10%	2W	F
R631	1-249-427-11	CARBON	6.8K	5%	1/4W	
R634	1-247-688-11	(WG)....CARBON 10		5%	1/4W	
R635	1-247-688-11	(WG)....CARBON 10		5%	1/4W	
R651	1-249-421-11	CARBON	2.2K	5%	1/4W	
R652	1-249-438-11	CARBON	56K	5%	1/4W	
R654	1-247-717-11	CARBON	2.2K	5%	1/4W	
R655	1-247-756-11	CARBON	2.2K	5%	1/2W	
R656	1-249-417-11	CARBON	1K	5%	1/4W	
R657	△1-217-152-00	METAL PLATE	0.33		2W	F
R658	1-249-438-11	CARBON	56K	5%	1/4W	
R659	1-247-828-11	CARBON	750	5%	1/4W	
R660	1-249-427-11	CARBON	6.8K	5%	1/4W	
R661	1-249-435-11	CARBON	33K	5%	1/4W	
R664	1-249-437-11	CARBON	47K	5%	1/4W	
R672	1-249-421-11	CARBON	2.2K	5%	1/4W	
R673	1-249-432-11	CARBON	18K	5%	1/4W	
R674	1-249-431-11	CARBON	15K	5%	1/4W	
R675	1-247-889-00	CARBON	270K	5%	1/4W	
R676	1-249-416-11	CARBON	820	5%	1/4W	
R677	1-249-427-11	CARBON	6.8K	5%	1/4W	
R678	1-247-727-11	CARBON	10	5%	1/2W	
R679	△1-249-455-11	CARBON	4.7	5%	1/4W	
R680	1-215-914-11	WIREWOUND	330	10%	2W	F
R684	1-247-688-11	(WG)....CARBON 10		5%	1/4W	
R685	1-247-688-11	(WG)....CARBON 10		5%	1/4W	
R802	1-247-741-11	CARBON	150	5%	1/2W	
R803	1-249-425-11	CARBON	4.7K	5%	1/4W	
R805	△1-247-700-11	CARBON	100	5%	1/4W	F
R806	△1-216-448-11	METAL OXIDE	39	5%	2W	F
R807	1-249-426-11	CARBON	5.6K	5%	1/4W	
R808	△1-247-730-11	CARBON	18	5%	1/2W	F
R809	△1-247-743-11	CARBON	220	5%	1/2W	F
R811	1-249-423-11	CARBON	3.3K	5%	1/4W	
R812	1-249-418-11	CARBON	1.2K	5%	1/4W	
RV201	1-228-997-00	RES. ADJ. CARBON 100K				
RV202	1-228-998-00	RES. ADJ. CARBON 220K				
RV203	1-228-996-00	RES. ADJ. CARBON 47K				
RV501	1-238-074-11	RES. VAR. CARBON 100K/100K (VOLUME)				
RV502	1-238-073-11	RES. VAR. CARBON 250K (BALANCE)				
RV601	1-238-075-11	RES. VAR. CARBON 100K/100K				
RV602	1-238-075-11	RES. VAR. CARBON 100K/100K				
RY601	1-515-533-11	RELAY				
S6	1-571-033-11	SWITCH, PUSH (2 KEY) (SPEAKER)				
S301	1-554-303-21	SWITCH, KEY BOARD (TAPE MONITOR)				
S302	1-554-303-21	SWITCH, KEY BOARD (TUNING +)				
S303	1-554-303-21	SWITCH, KEY BOARD (TUNING -)				
S304	1-554-303-21	SWITCH, KEY BOARD (PHONO)				
S305	1-554-303-21	SWITCH, KEY BOARD (FM MODE)				
S306	1-554-303-21	SWITCH, KEY BOARD (PRESET)				
S308	1-554-303-21	SWITCH, KEY BOARD (0)				
S311	1-554-303-21	SWITCH, KEY BOARD (7)				
S312	1-554-303-21	SWITCH, KEY BOARD (8)				
S313	1-554-303-21	SWITCH, KEY BOARD (9)				
S314	1-554-303-21	SWITCH, KEY BOARD (VIDEO)				
S315	1-554-303-21	SWITCH, KEY BOARD (AM)				
S316	1-554-303-21	SWITCH, KEY BOARD (4)				
S317	1-554-303-21	SWITCH, KEY BOARD (5)				
S318	1-554-303-21	SWITCH, KEY BOARD (6)				
S319	1-554-303-21	SWITCH, KEY BOARD (CD)				
S320	1-554-303-21	SWITCH, KEY BOARD (FM)				
S321	1-554-303-21	SWITCH, KEY BOARD (1)				
S322	1-554-303-21	SWITCH, KEY BOARD (2)				

Ref.No	Part No.	Description
S323	1-554-303-21	SWITCH, KEY BOARD (3)
S324	1-554-303-21	SWITCH, KEY BOARD (TUNER)
S501	1-571-445-11	SWITCH, PUSH (1 KEY) (LOUDNESS)
S901	△1-554-685-11	SWITCH, PUSH (AC POWER) (1 KEY)
T101	1-404-363-00	TRANSFORMER, IF
T201	1-404-650-11	COIL, DISCRIMINATOR
T203	1-404-713-11	TRANSFORMER, IF
T401	1-235-936-11	ENCAPSULATED COMPONENT
T901	△1-449-351-11	TRANSFORMER, POWER
TM101	1-536-708-00	TERMINAL BOARD, PUSH 4P
TM101	*1-537-138-21	(WG)....TERMINAL BOARD (ANT)
TM901	1-536-706-00	TERMINAL BOARD (SP) (SPEAKER)
TP2	*1-560-060-00	PIN, CONNECTOR 2P
TP3	*1-560-061-00	PIN, CONNECTOR 3P
X201	1-567-250-11	OSCILLATOR, CERAMIC
X202	1-567-125-21	VIBRATOR, CRYSTAL
X301	1-527-822-00	OSCILLATOR, CERAMIC

## ACCESSORY &amp; PACKING MATERIAL

Part No.	Description
1-501-224-00	(AEP)....ANTENNA, FEEDER
3-769-885-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH : AEP)
3-769-885-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN)
*4-925-021-01	CUSHION, UPPER
*4-925-022-01	CUSHION, LOWER
*4-925-043-21	INDIVIDUAL CARTON

Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.

**TROUBLESHOOTING GUIDE**

<b>Problem</b>	<b>Solution</b>
FM STEREO indicator flickers or does not light up when FM stereo programs are received.	<ul style="list-style-type: none"><li>• Check the FM antenna connection, and adjust the antenna.</li><li>• Press FM MODE to disengage the stereo mode.</li></ul>
The figures in the display window do not stop at the desired station during sweep tuning.	<ul style="list-style-type: none"><li>• Check the antenna connection, and adjust the antenna direction.</li><li>• Tune in the station using the direct access tuning.</li></ul>
Stations cannot be tuned in correctly when the numeric button is pressed.	<ul style="list-style-type: none"><li>• Memorize the frequency correctly.</li></ul>
Audio is not heard.	<ul style="list-style-type: none"><li>• Check the speaker and program source connections.</li><li>• Check that the appropriate FUNCTION selector or TAPE MONITOR button is depressed.</li><li>• Check that the appropriate SPEAKERS selector is depressed. If the A and B selectors are both depressed, check that both speaker systems are properly connected.</li></ul>
One channel does not transmit audio, or the volume from the left and right speakers is unbalanced.	<ul style="list-style-type: none"><li>• Adjust the BALANCE control.</li><li>• Check the speaker connections.</li></ul>
There is an abrupt loss of sound from one or both of the speakers.	<ul style="list-style-type: none"><li>• Turn off the receiver, and check the speaker terminals or speaker cord for a short. (This symptom may be caused when the protection circuit inside the unit activates.)</li></ul>
Sound transmitted from the speaker is reversed.	<ul style="list-style-type: none"><li>• Connect the speaker correctly.</li></ul>
Severe hum or noise is heard.	<ul style="list-style-type: none"><li>• Use shielded connecting cords.</li><li>• Keep the audio components further away from the TV.</li><li>• Connect the ground wire to the ANTENNA ground terminal.</li><li>• Clean any dirty plugs and jacks with a cloth lightly moistened with alcohol.</li></ul>