

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 ± 0.5 dB

CD

VIDEO

TAPE

10 Hz - 50 kHz ± 0.5 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: ± 8 dB at 100 Hz

TREBLE: ± 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 - 1602 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 μ V (mono) 38.3 dBf, 45 μ V (stereo)	—
Usable sensitivity	11.2 dBf, 2 μ V (IHF)	500 μ 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 ± 0.5 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®



AC outlets Two switched (Total 100 watts)
Dimensions Approx. 430 x 105 x 300 mm (w/h/d)
(17 x 4 1/4 x 11 7/8 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!!

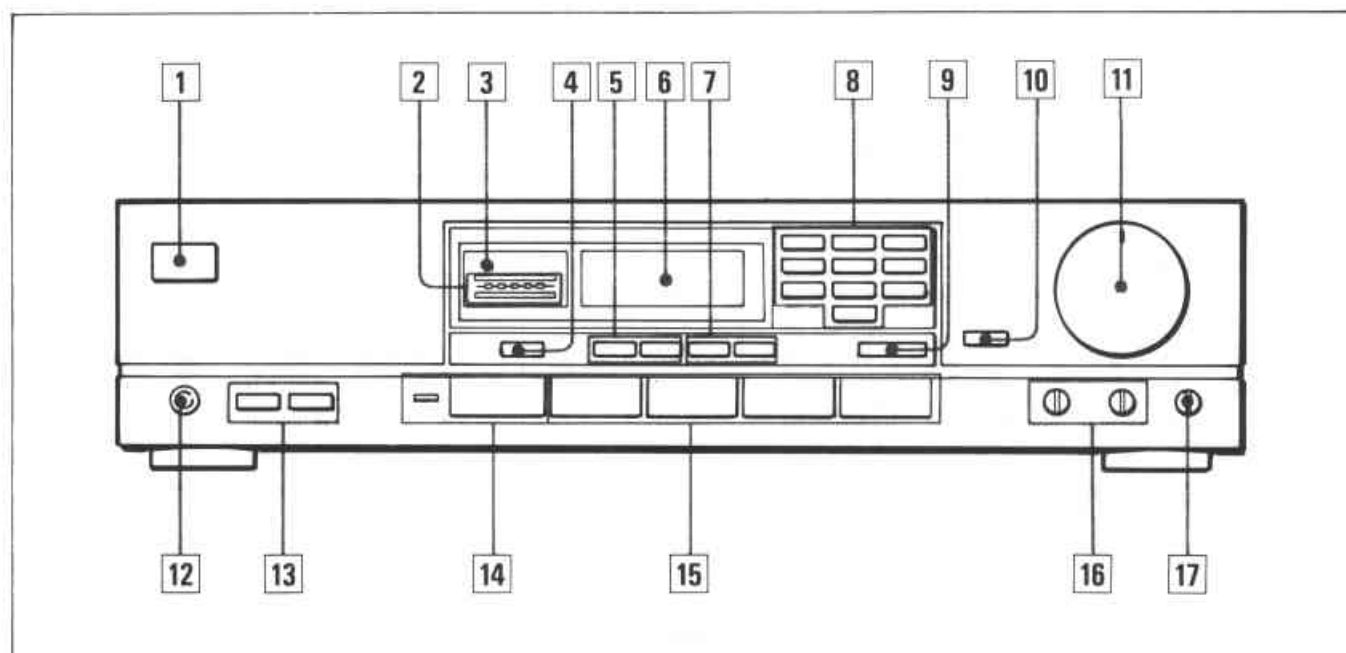
COMPONENTS IDENTIFIED BY MARK OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

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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

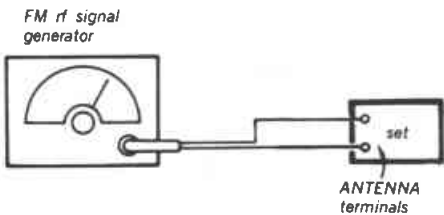
Turn clockwise to decrease the left channel volume, and counterclockwise to decrease the right channel volume.

SECTION 2
ADJUSTMENTS

2-1. FM SECTION ADJUSTMENTS

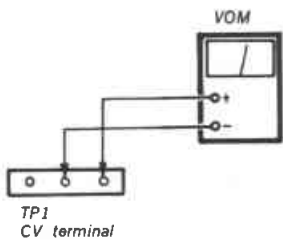
FM FREQUENCY COVERAGE ADJUSTMENT

Setting:



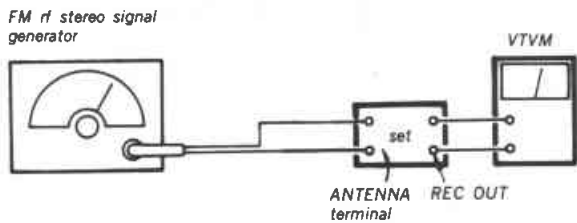
Carrier frequency: 108MHz
Modulation: 400Hz, 75kHz deviation (100%)
Output level: 1mV (60dB)

- 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:

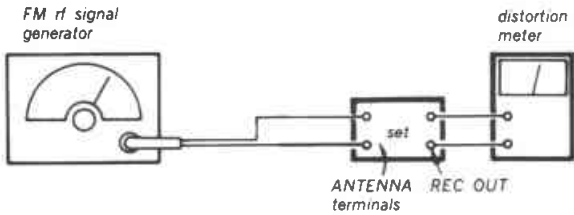


Carrier frequency: 98MHz
Modulation: 400Hz, 75kHz deviation (100%)
Output level: 3.2—5.3μV (10—15dB)

- 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)

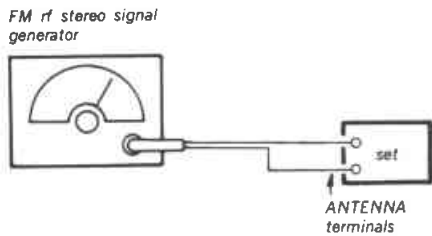


Procedure:

- 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%)

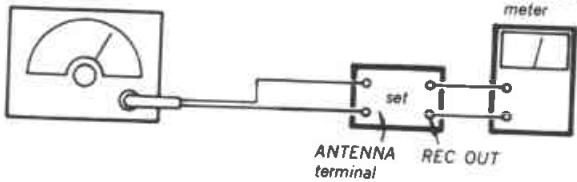
Procedure:

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

FM IF ADJUSTMENT

Setting:

FM rf stereo signal generator



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%)

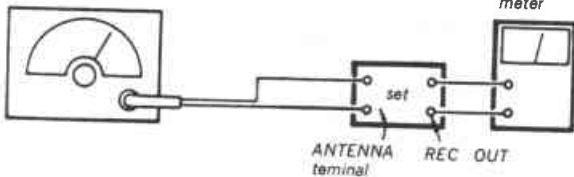
Procedure:

Adjust the black core of T101 for minimum distortion.

FM METER ADJUSTMENT

Setting:

FM RF stereo signal generator



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:

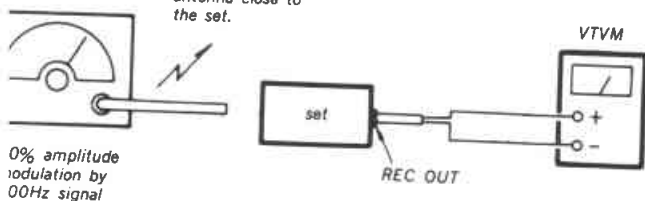
Adjust the RV202 so that the 5 point LED of the signal meter goes on.

2-2. AM SECTION ADJUSTMENTS

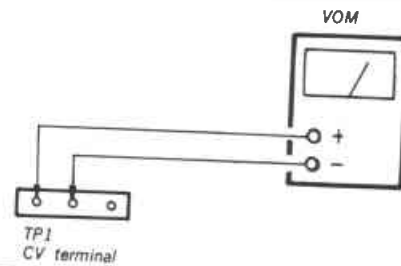
Setting:

M rf signal generator

Put the lead-wire antenna close to the set.



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:

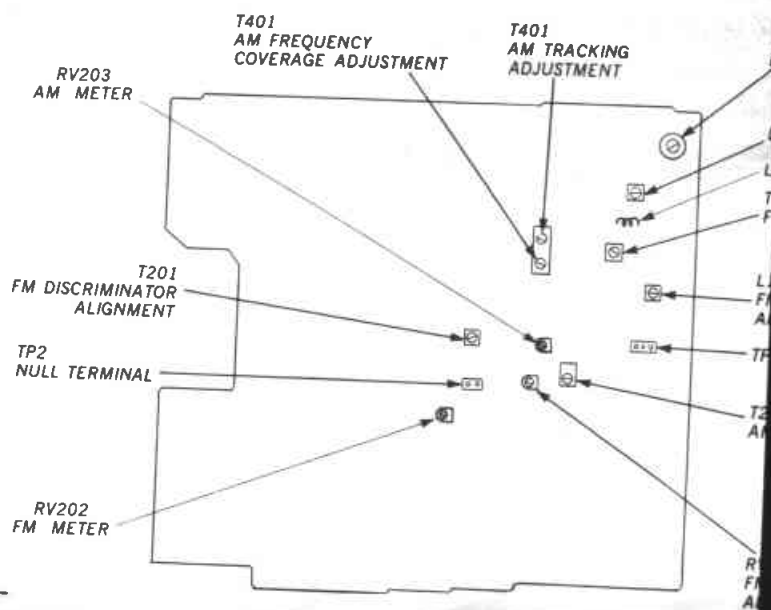
1. Tune the set to the SG signal.
2. Adjust for a maximum reading on VTVM.

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

AM METER ADJUSTMENT

Procedure:

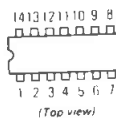
1. Tune the to 999kHz (70dB)
2. Adjust the RV203 so that the 4 point LED of the signal meter goes on.



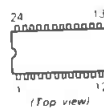
SECTION 3 DIAGRAMS

3-1. SEMICONDUCTOR LEAD LAYOUTS

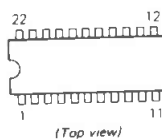
CX7925B



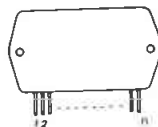
LA1266



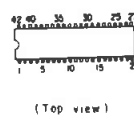
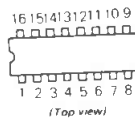
LA3401

LB1403N
 μ PC4570HA-1

STK4182MK2



TMP47C210N-3074

 μ PD4052BCDTA124ES
2SA1048GR
2SC634SP
2SC2724-E

2SA988-F

2SB734
2SD774-3

2SC535



2SD1585L



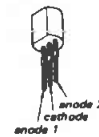
2SK241-Y



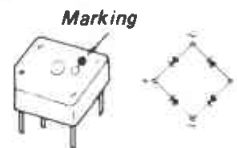
2SK246-GR



KV1310



RB402

RD16E-B2
RD18E-B2
RD20E-B2
RD6.8E-B2

1SS133

SLR-34MC3
SLR-34VC3

101 FM TRACKING
ADJUSTMENT

102

103

101 FM IF ADJUSTMENT

06 FM FREQUENCY COVERAGE
ADJUSTMENT

1 CV TERMINAL

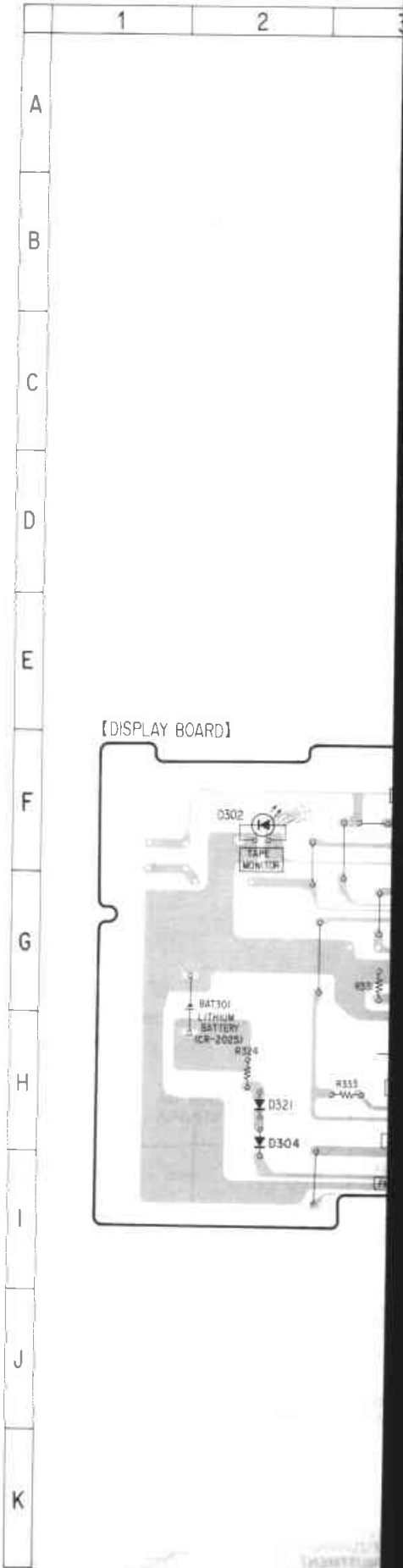
03 FM IF ADJUSTMENT

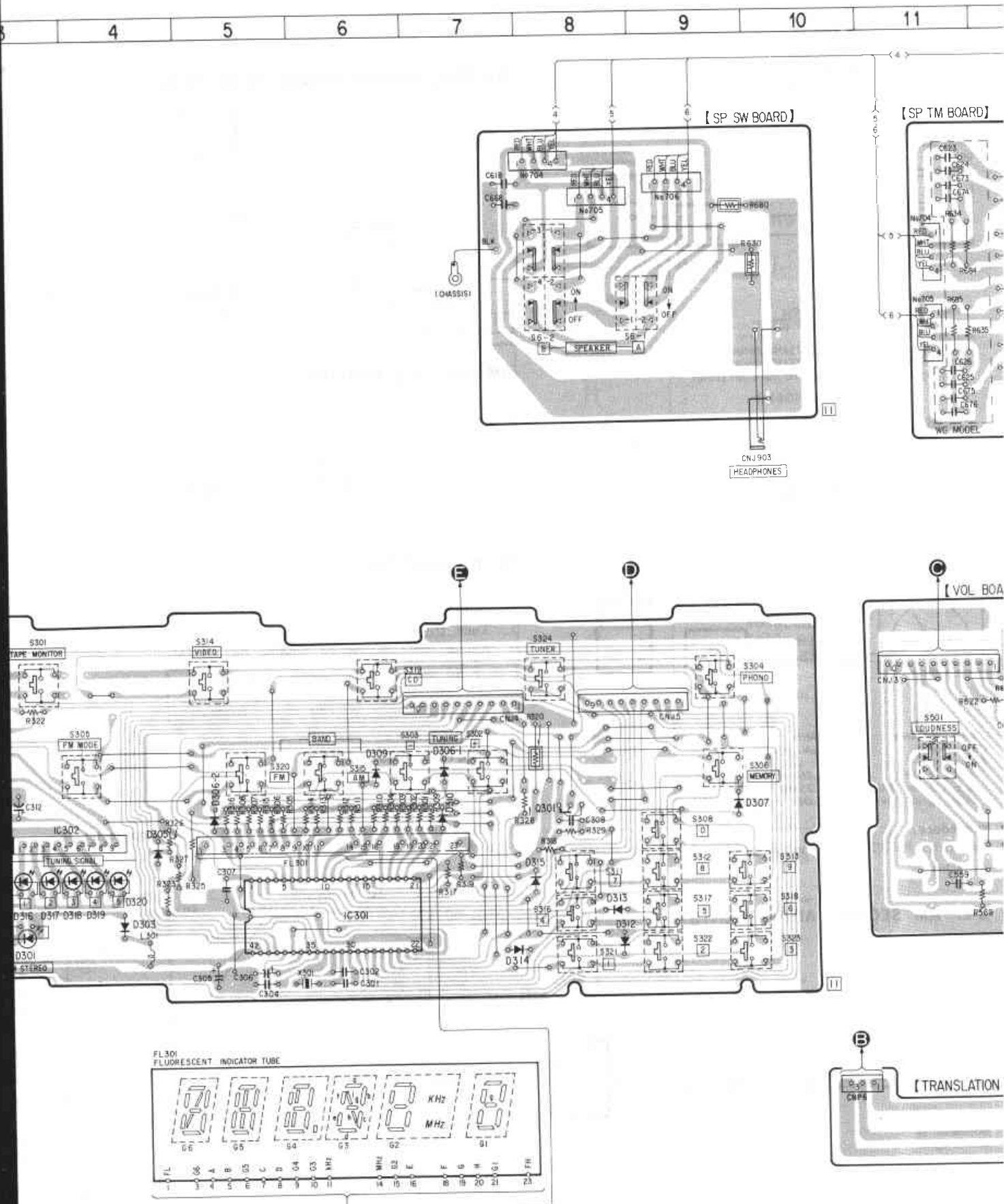
1/201
TUNING STOP
ADJUSTMENT

3-2. PRINTED WIRING BOARDS

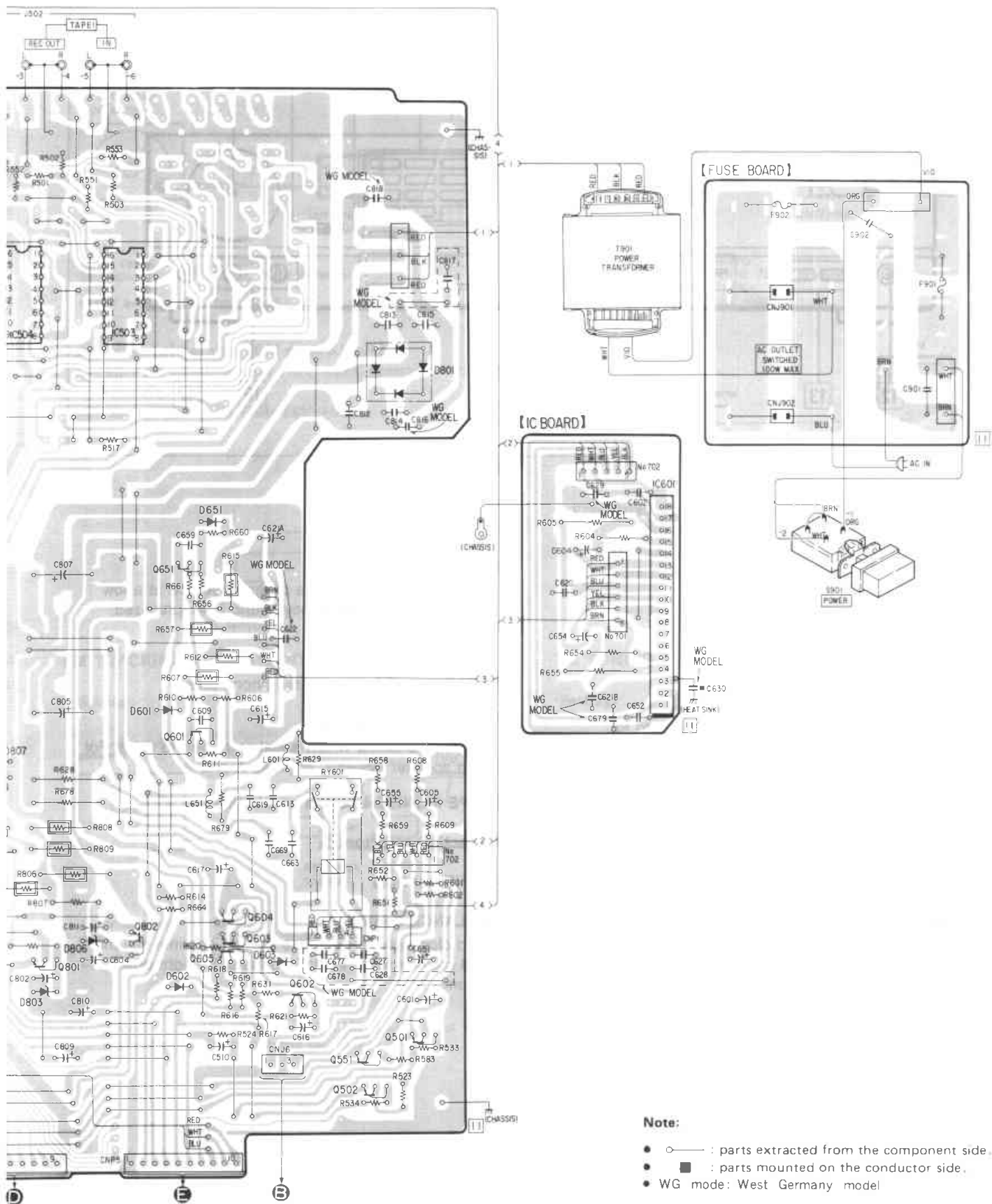
● Semiconductor Location

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		





21	22	23	24	25	26	27	28	29
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D

E

F

G

H

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J

K

L

M

N

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P

Q



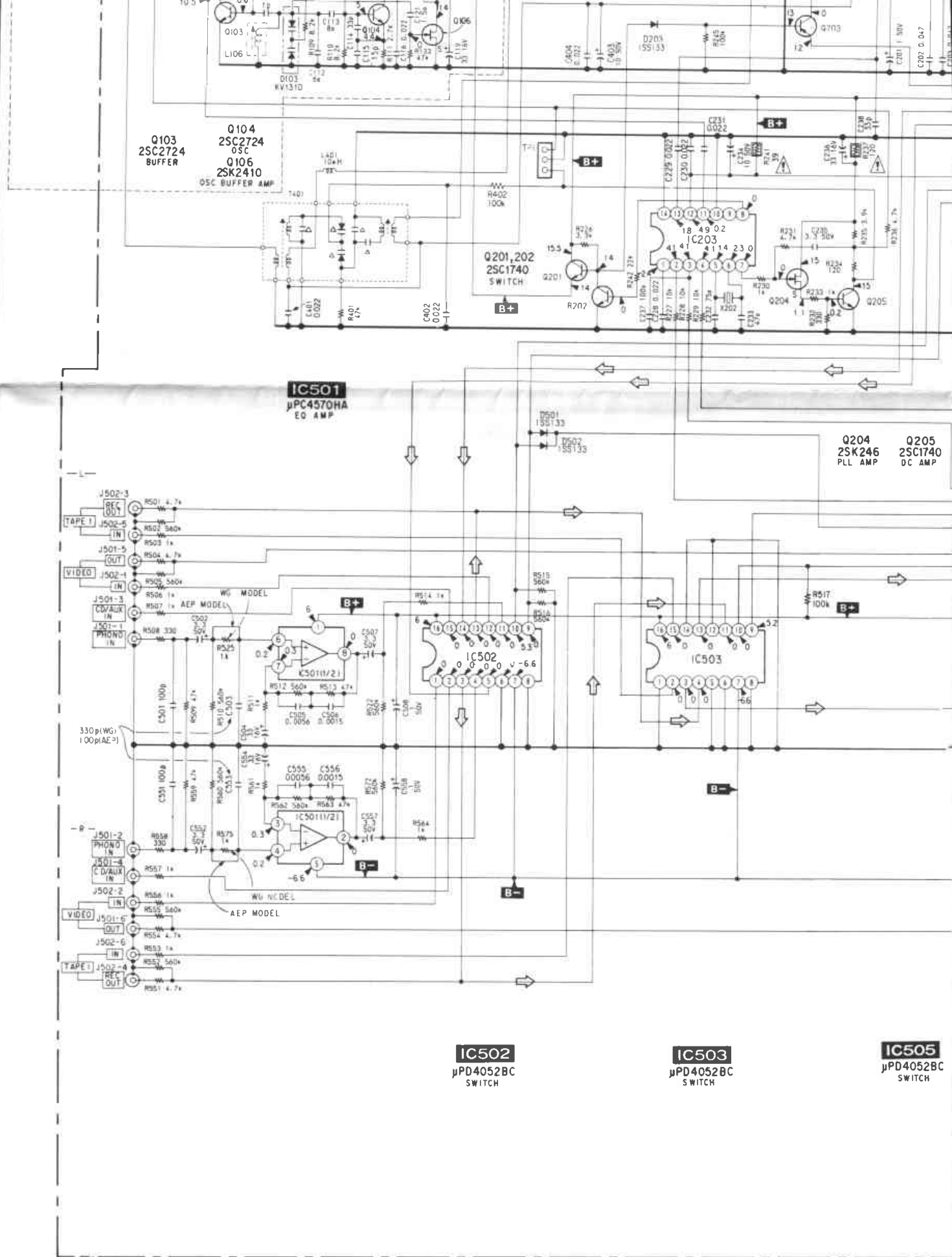
Note:

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

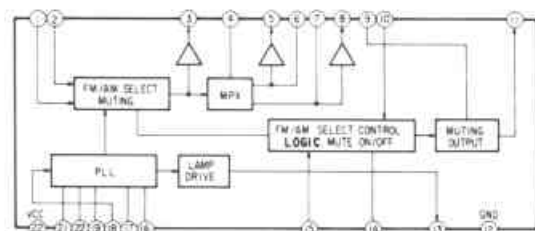
Ref. No.	Switch	Position
S6	SPEAKER	A
S301	TAPE MONITOR	OFF
S302	TUNING +	OFF
S303	TUNING -	OFF
S304	PHONO	OFF
S305	FM MODE	OFF
S306	PRESET	OFF
S308	0	OFF
S311	7	OFF
S312	8	OFF
S313	9	OFF
S314	VIDEO	OFF
S315	AM	OFF
S316	4	OFF
S317	5	OFF
S318	6	OFF
S319	CD	OFF
S320	FM	OFF
S321	1	OFF
S322	2	OFF
S323	3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

- : adjustment for repair.
- *A • B: See Page2'' 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 $\text{k}\Omega/\text{V}$).
Voltage variations may be noted due to normal production tolerances.
- Signal path.
 : FM
- WG mode: West Germany model

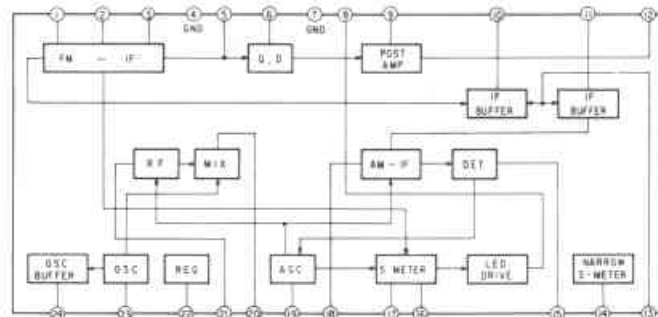
Note: The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

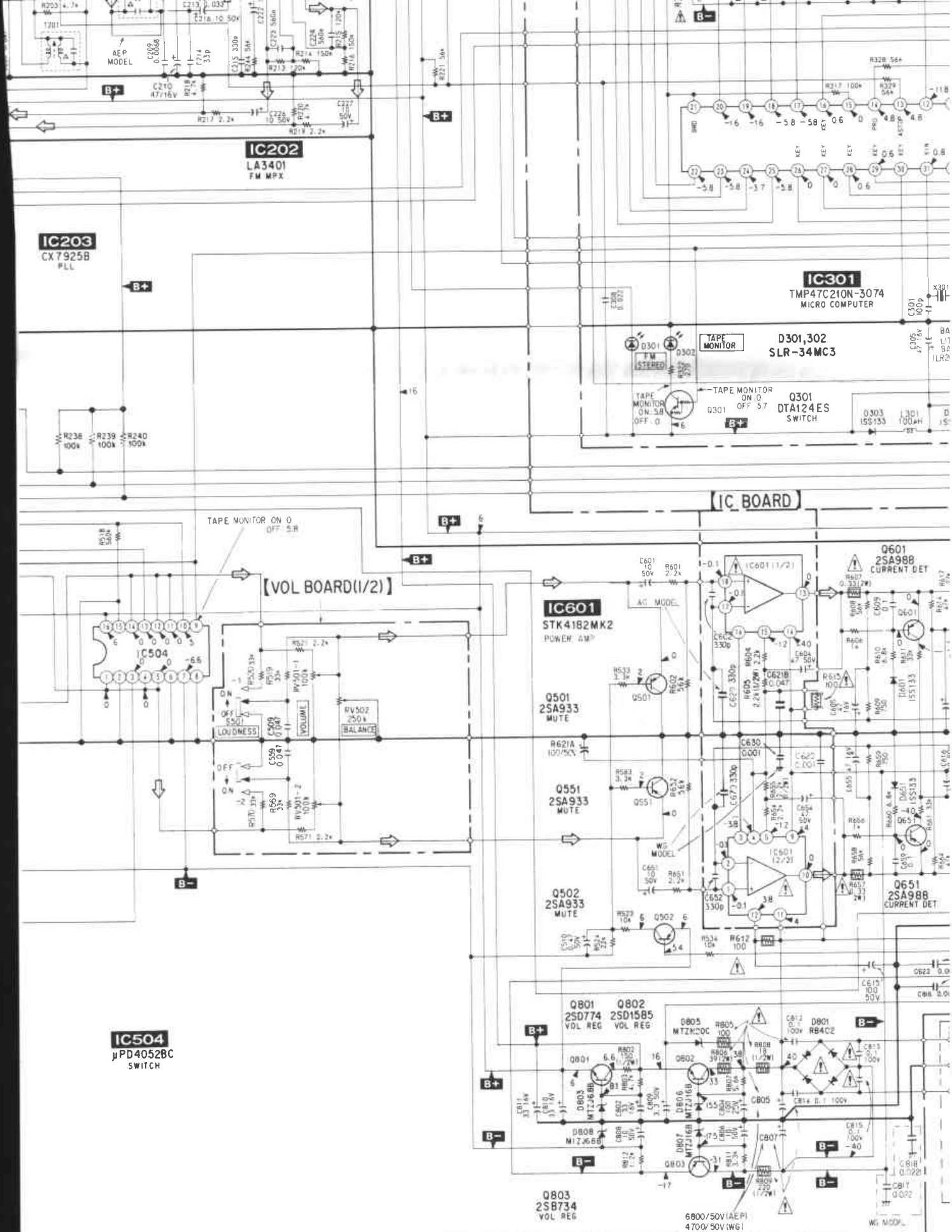


● IC BLOCK DIAGRAMS
IC202 LA3401

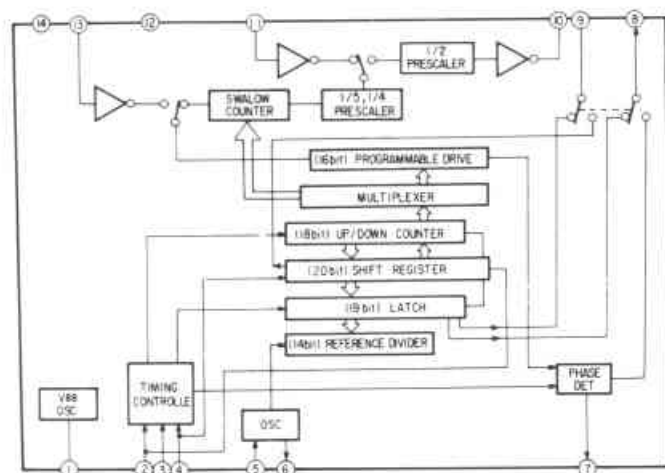


IC201 LA1266

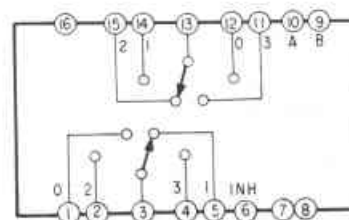




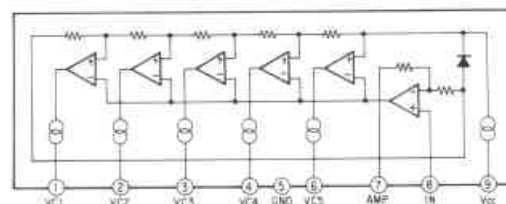
IC203 CX7925B

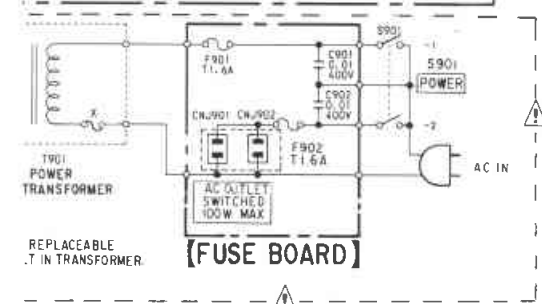
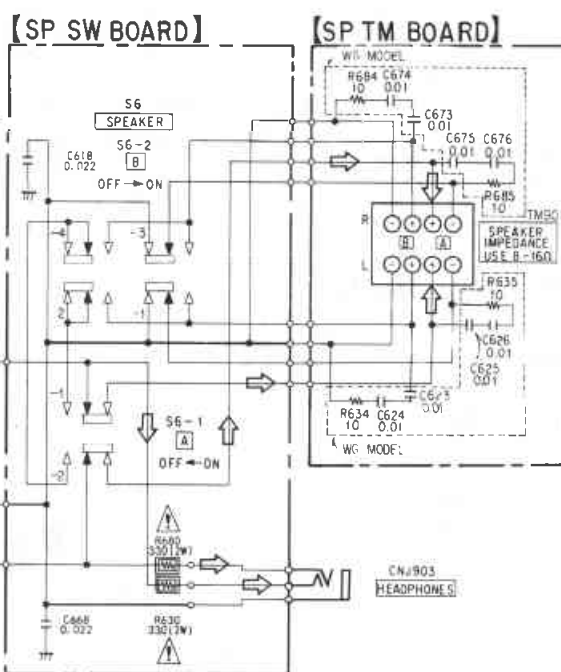
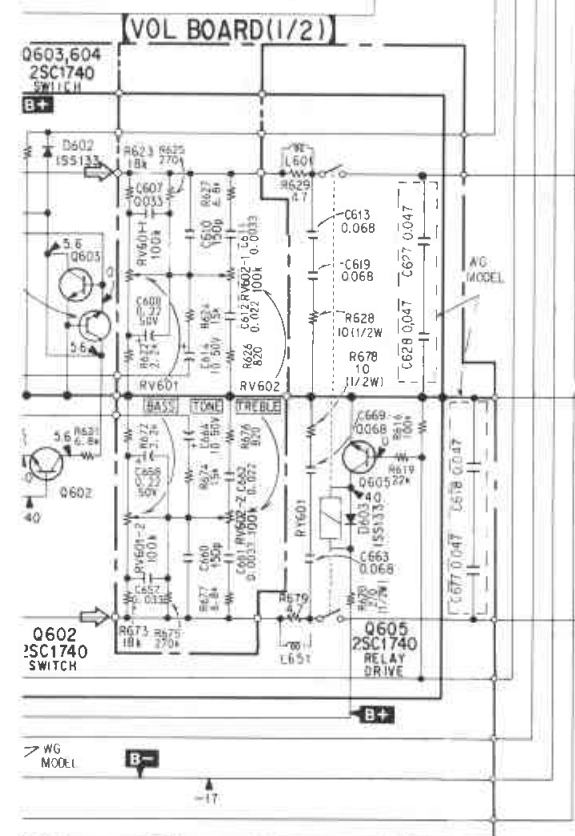
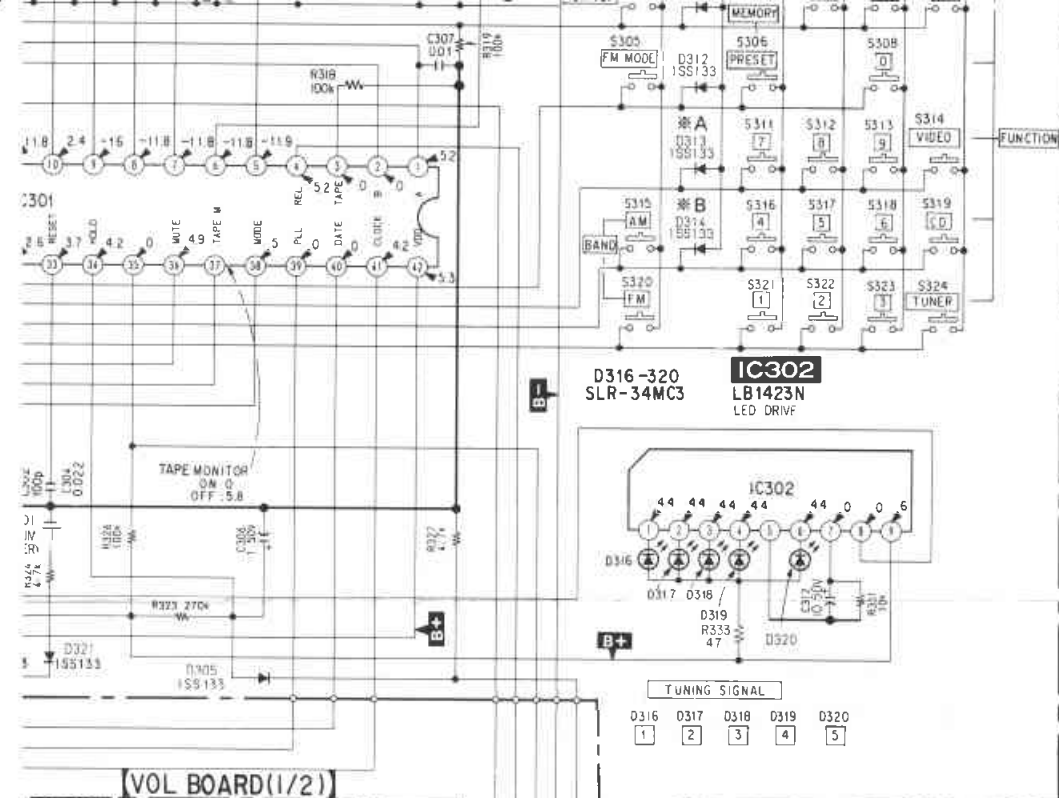


IC502-504 μ PC4052BC



IC302 LB1423N





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.

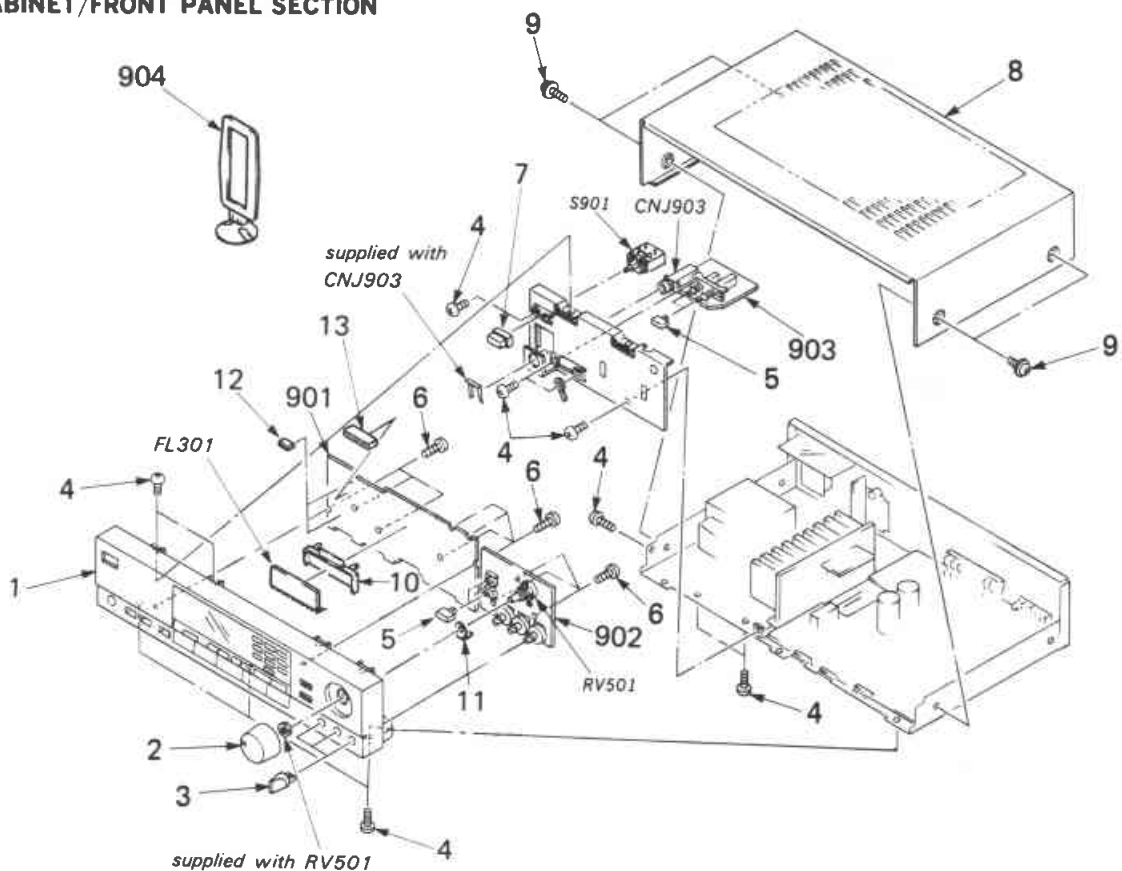
- Color Indication of Appearance Parts
Example:
(RED) ... KNOB, BALANCE (WHITE)

↑
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.

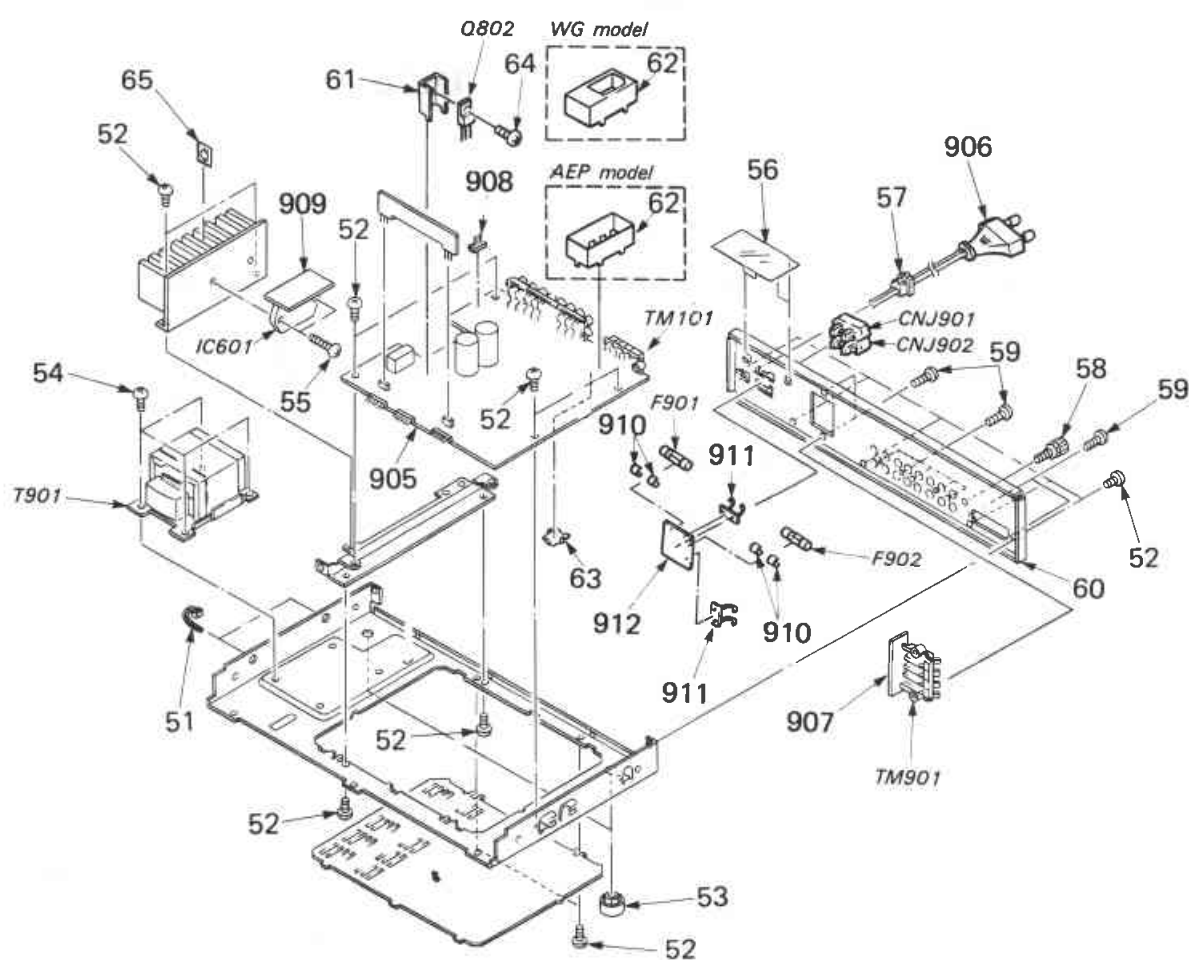
4-1. CABINET/FRONT PANEL SECTION



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 +BVT 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	1-507-863-31	JACK, LARGE TYPE (HEADPHONES)	
FL301	1-519-297-00	INDICATOR TUBE, FLUORESCENT	
S901	★1-554-685-11	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.

<u>Ref No</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
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	△1-526-794-11	OUTLET, AC	
CNJ902	△1-526-794-11	OUTLET, AC	
F901	△1-532-973-11	FUSE (T1.6)	
F902	△1-532-973-11	FUSE (T1.6)	
T901	△1-449-351-11	TRANSFORMER, POWER	
TM101	*1-536-708-00	(AEP)....TERMINAL BOARD, PUSH 4P	
TM101	*1-537-138-21	(WG)....TERMINAL BOARD (ANT)	
TM901	1-536-706-00	TERMINAL BOARD (SP) (SPEAKER)	

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: μ F, PF: μ F.

RESISTORS

- All resistors are in ohms.
- F: nonflammable

COILS

- MMH: mH, UH: μ H

SEMICONDUCTORS

In each case, U: μ , for example:

UA...: μ A..., UPA...: μ PA...,
UPC...: μ PC, UPD...: μ PD...

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
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	 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)

CAPACITOR

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

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	1-124-362-00	(WG)...ELECT	4700MF	20%	42V
C805	1-126-307-11	(AEP)...ELECT	6800MF		50V
C806	1-123-875-11	ELECT	10MF	20%	50V
C807	1-126-307-11	(AEP)...ELECT	6800MF		50V
C807	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	1-130-777-00	FILM	0.1MF	5%	100V
C813	1-130-777-00	FILM	0.1MF	5%	100V
C814	1-130-777-00	FILM	0.1MF	5%	100V
C815	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	1-161-744-00	CERAMIC	0.01MF		400V
C902	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	1-526-794-11	OUTLET, AC			
CNJ902	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 Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description
D501	8-719-901-33	DIODE 1SS133
D502	8-719-901-33	DIODE 1SS133
D601	8-719-901-33	DIODE 1SS133
D602	8-719-901-33	DIODE 1SS133
D603	8-719-901-33	DIODE 1SS133
D651	8-719-901-33	DIODE 1SS133
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 STK4142II
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 22UH
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.

Ref.No	Part No.	Description				
R223	1-249-429-11	CARBON	10K	5%	1/4W	
R224	1-249-438-11	CARBON	56K	5%	1/4W	
R225	1-249-417-11	CARBON	1K	5%	1/4W	
R226	1-249-423-11	CARBON	3.3K	5%	1/4W	
R227	1-249-429-11	CARBON	10K	5%	1/4W	
R228	1-249-429-11	CARBON	10K	5%	1/4W	
R229	1-249-429-11	CARBON	10K	5%	1/4W	
R230	1-249-417-11	CARBON	1K	5%	1/4W	
R231	1-249-425-11	CARBON	4.7K	5%	1/4W	
R232	1-249-411-11	CARBON	330	5%	1/4W	
R233	1-249-417-11	CARBON	1K	5%	1/4W	
R234	1-249-406-11	CARBON	120	5%	1/4W	
R235	1-249-424-11	CARBON	3.9K	5%	1/4W	
R236	1-249-425-11	CARBON	4.7K	5%	1/4W	
R237	△ 1-247-701-11	CARBON	120	5%	1/4W	F
R238	1-249-441-11	CARBON	100K	5%	1/4W	
R239	1-249-441-11	CARBON	100K	5%	1/4W	
R240	1-249-441-11	CARBON	100K	5%	1/4W	
R241	△ 1-247-695-11	CARBON	39	5%	1/4W	F
R242	1-249-433-11	CARBON	22K	5%	1/4W	
R243	1-249-438-11	CARBON	56K	5%	1/4W	
R244	1-249-438-11	CARBON	56K	5%	1/4W	
R245	1-249-441-11	CARBON	100K	5%	1/4W	
R246	1-249-438-11	CARBON	56K	5%	1/4W	
R247	1-249-437-11	CARBON	47K	5%	1/4W	
R301	1-249-441-11	CARBON	100K	5%	1/4W	
R302	1-249-441-11	CARBON	100K	5%	1/4W	
R303	1-249-441-11	CARBON	100K	5%	1/4W	
R304	1-249-441-11	CARBON	100K	5%	1/4W	
R305	1-249-441-11	CARBON	100K	5%	1/4W	
R306	1-249-441-11	CARBON	100K	5%	1/4W	
R307	1-249-441-11	CARBON	100K	5%	1/4W	
R308	1-249-441-11	CARBON	100K	5%	1/4W	
R309	1-249-441-11	CARBON	100K	5%	1/4W	
R310	1-249-441-11	CARBON	100K	5%	1/4W	
R311	1-249-441-11	CARBON	100K	5%	1/4W	
R312	1-249-441-11	CARBON	100K	5%	1/4W	
R313	1-249-441-11	CARBON	100K	5%	1/4W	
R314	1-249-441-11	CARBON	100K	5%	1/4W	
R315	1-249-441-11	CARBON	100K	5%	1/4W	
R316	1-249-441-11	CARBON	100K	5%	1/4W	
R317	1-249-441-11	CARBON	100K	5%	1/4W	
R318	1-249-441-11	CARBON	100K	5%	1/4W	
R319	1-249-441-11	CARBON	100K	5%	1/4W	
R320	△ 1-216-430-11	METAL OXIDE	390	5%	1W	F
R322	1-249-410-11	CARBON	270	5%	1/4W	
R323	1-247-889-00	CARBON	270K	5%	1/4W	
R324	1-249-425-11	CARBON	4.7K	5%	1/4W	
R325	1-247-742-11	CARBON	180	5%	1/2W	
R326	1-249-441-11	CARBON	100K	5%	1/4W	
R327	1-249-425-11	CARBON	4.7K	5%	1/4W	
R328	1-249-438-11	CARBON	56K	5%	1/4W	
R329	1-249-438-11	CARBON	56K	5%	1/4W	
R331	1-249-429-11	CARBON	10K	5%	1/4W	
R333	1-249-401-11	CARBON	47	5%	1/4W	
R401	1-249-437-11	CARBON	47K	5%	1/4W	
R402	1-249-441-11	CARBON	100K	5%	1/4W	
R501	1-249-425-11	CARBON	4.7K	5%	1/4W	
R502	1-247-897-11	CARBON	560K	5%	1/4W	
R503	1-249-417-11	CARBON	1K	5%	1/4W	
R504	1-249-425-11	CARBON	4.7K	5%	1/4W	
R505	1-247-897-11	CARBON	560K	5%	1/4W	
R506	1-249-417-11	CARBON	1K	5%	1/4W	
R507	1-249-417-11	CARBON	1K	5%	1/4W	
R508	1-249-411-11	CARBON	330	5%	1/4W	

Ref.No	Part No.	Description				
R509	1-249-437-11	CARBON	47K	5%	1/4W	
R510	1-247-897-11	CARBON	560K	5%	1/4W	
R511	1-249-417-11	CARBON	1K	5%	1/4W	
R512	1-247-897-11	CARBON	560K	5%	1/4W	
R513	1-249-437-11	CARBON	47K	5%	1/4W	
R514	1-249-417-11	CARBON	1K	5%	1/4W	
R515	1-247-897-11	CARBON	560K	5%	1/4W	
R516	1-247-897-11	CARBON	560K	5%	1/4W	
R517	1-249-441-11	CARBON	100K	5%	1/4W	
R518	1-247-897-11	CARBON	560K	5%	1/4W	
R519	1-249-435-11	CARBON	33K	5%	1/4W	
R520	1-249-435-11	CARBON	33K	5%	1/4W	
R521	1-249-421-11	CARBON	2.2K	5%	1/4W	
R522	1-247-897-11	CARBON	560K	5%	1/4W	
R523	1-249-429-11	CARBON	10K	5%	1/4W	
R524	1-249-433-11	CARBON	22K	5%	1/4W	
R525	1-249-417-11	(WG) CARBON	1K	5%	1/4W	
R533	1-249-423-11	CARBON	3.3K	5%	1/4W	
R534	1-249-429-11	CARBON	10K	5%	1/4W	
R551	1-249-425-11	CARBON	4.7K	5%	1/4W	
R552	1-247-897-11	CARBON	560K	5%	1/4W	
R553	1-249-417-11	CARBON	1K	5%	1/4W	
R554	1-249-425-11	CARBON	4.7K	5%	1/4W	
R555	1-247-897-11	CARBON	560K	5%	1/4W	
R556	1-249-417-11	CARBON	1K	5%	1/4W	
R557	1-249-417-11	CARBON	1K	5%	1/4W	
R558	1-249-411-11	CARBON	330	5%	1/4W	
R559	1-249-437-11	CARBON	47K	5%	1/4W	
R560	1-247-897-11	CARBON	560K	5%	1/4W	
R561	1-249-417-11	CARBON	1K	5%	1/4W	
R562	1-247-897-11	CARBON	560K	5%	1/4W	
R563	1-249-437-11	CARBON	47K	5%	1/4W	
R564	1-249-417-11	CARBON	1K	5%	1/4W	
R569	1-249-435-11	CARBON	33K	5%	1/4W	
R570	1-249-435-11	CARBON	33K	5%	1/4W	
R571	1-249-421-11	CARBON	2.2K	5%	1/4W	
R572	1-247-897-11	CARBON	560K	5%	1/4W	
R575	1-249-417-11	(WG) CARBON	1K	5%	1/4W	
R583	1-249-423-11	CARBON	3.3K	5%	1/4W	
R601	1-249-421-11	CARBON	2.2K	5%	1/4W	
R602	1-249-438-11	CARBON	56K	5%	1/4W	
R604	1-247-717-11	CARBON	2.2K	5%	1/4W	
R605	1-247-756-11	CARBON	2.2K	5%	1/2W	
R606	1-249-417-11	CARBON	1K	5%	1/4W	
R607	△ 1-217-152-00	METAL PLATE	0.33		2W	F
R608	1-249-438-11	CARBON	56K	5%	1/4W	
R609	1-247-828-11	CARBON	750	5%	1/4W	
R610	1-249-427-11	CARBON	6.8K	5%	1/4W	
R611	1-249-435-11	CARBON	33K	5%	1/4W	
R612	△ 1-247-700-11	CARBON	100	5%	1/4W	F
R614	1-249-437-11	CARBON	47K	5%	1/4W	
R615	△ 1-247-700-11	CARBON	100	5%	1/4W	F
R616	1-249-441-11	CARBON	100K	5%	1/4W	
R617	1-249-433-11	CARBON	22K	5%	1/4W	
R618	1-249-438-11	CARBON	56K	5%	1/4W	
R619	1-249-433-11	CARBON	22K	5%	1/4W	
R620	1-247-744-11	CARBON	270	5%	1/2W	
R621	1-249-435-11	CARBON	33K	5%	1/4W	
R622	1-249-421-11	CARBON	2.2K	5%	1/4W	
R623	1-249-432-11	CARBON	18K	5%	1/4W	
R624	1-249-431-11	CARBON	15K	5%	1/4W	
R625	1-247-889-00	CARBON	270K	5%	1/4W	
R626	1-249-416-11	CARBON	820	5%	1/4W	
R627	1-249-427-11	CARBON	6.8K	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.

A

B

C

D

E

F**G**

H

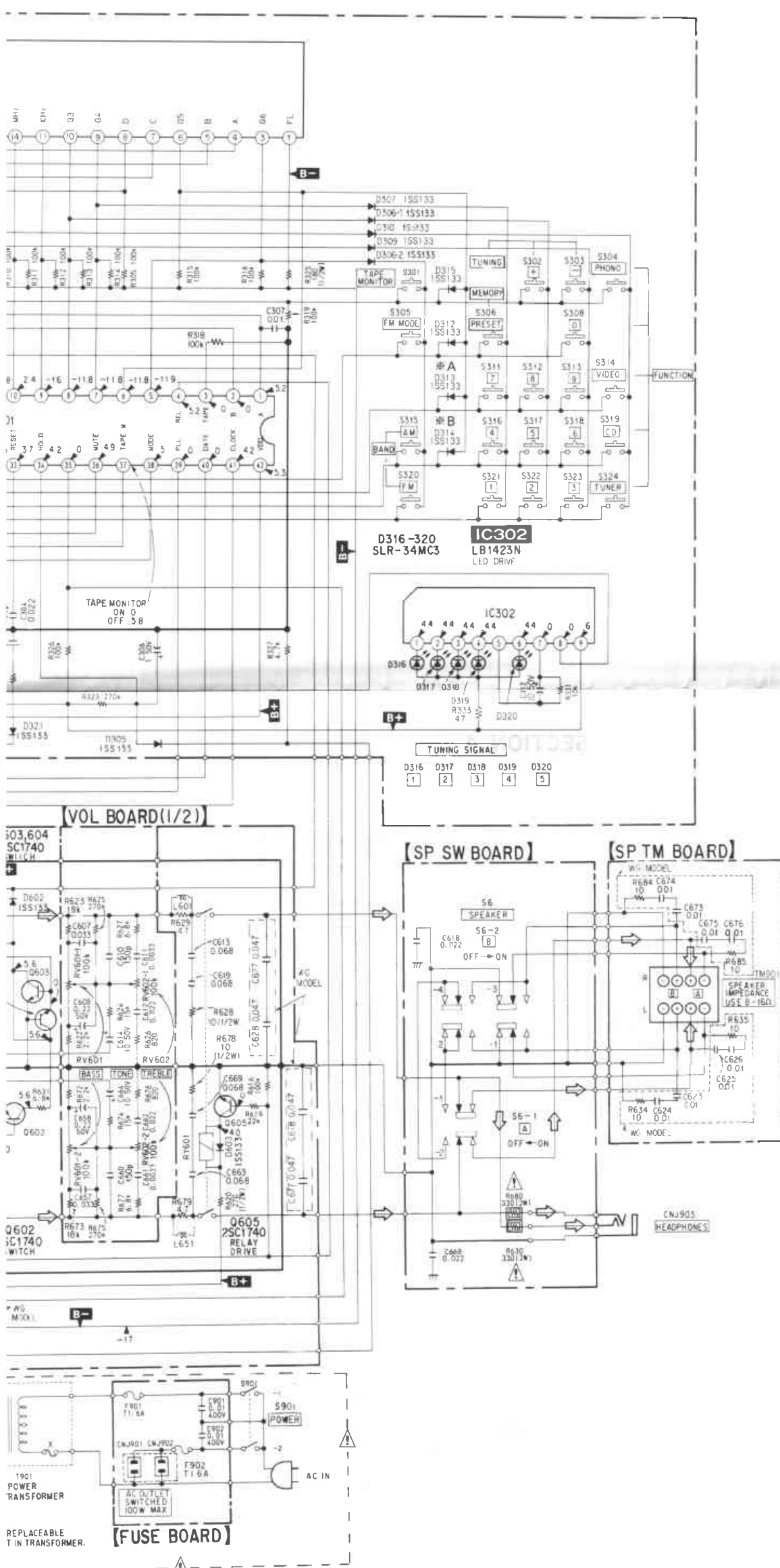
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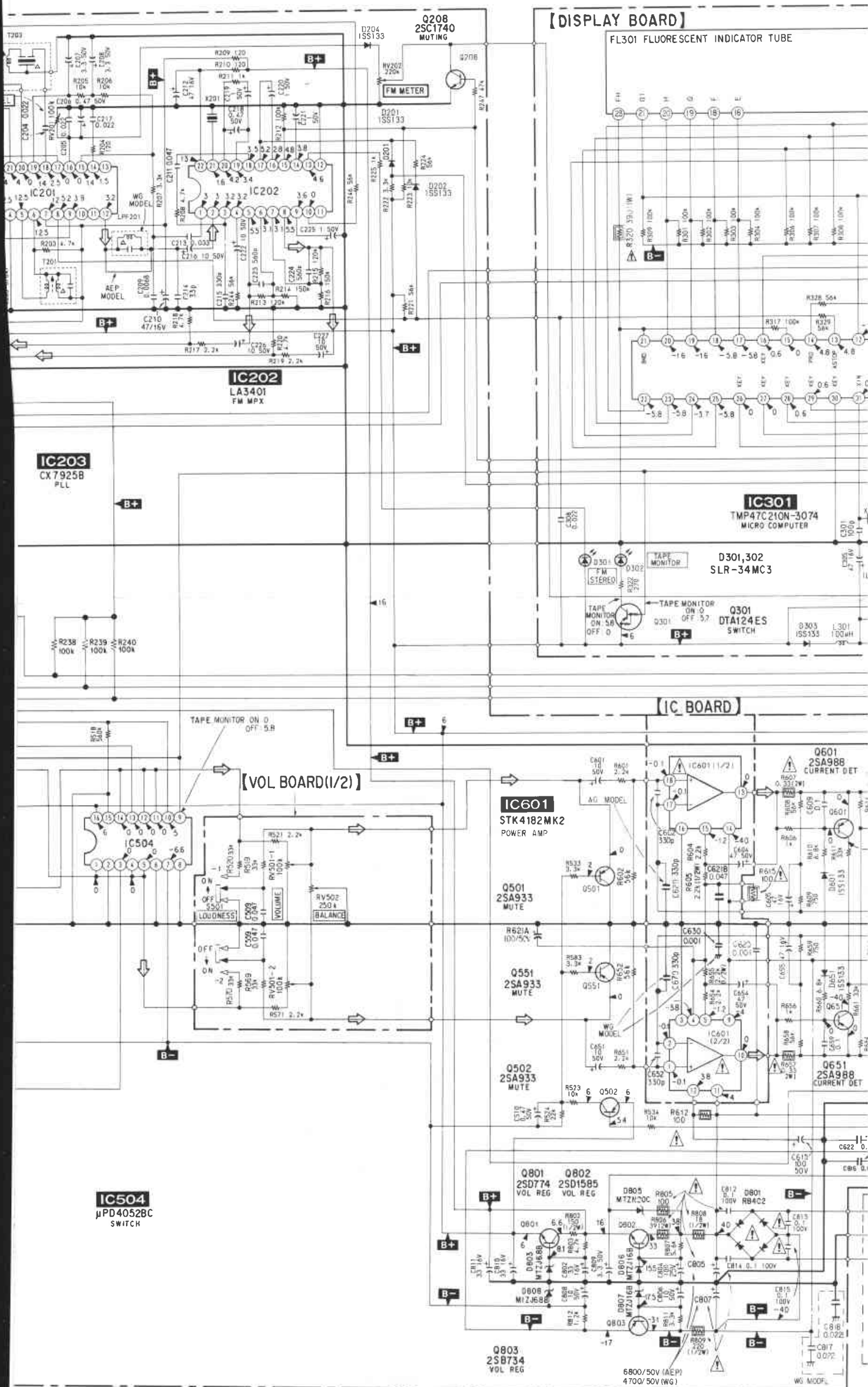
2

22

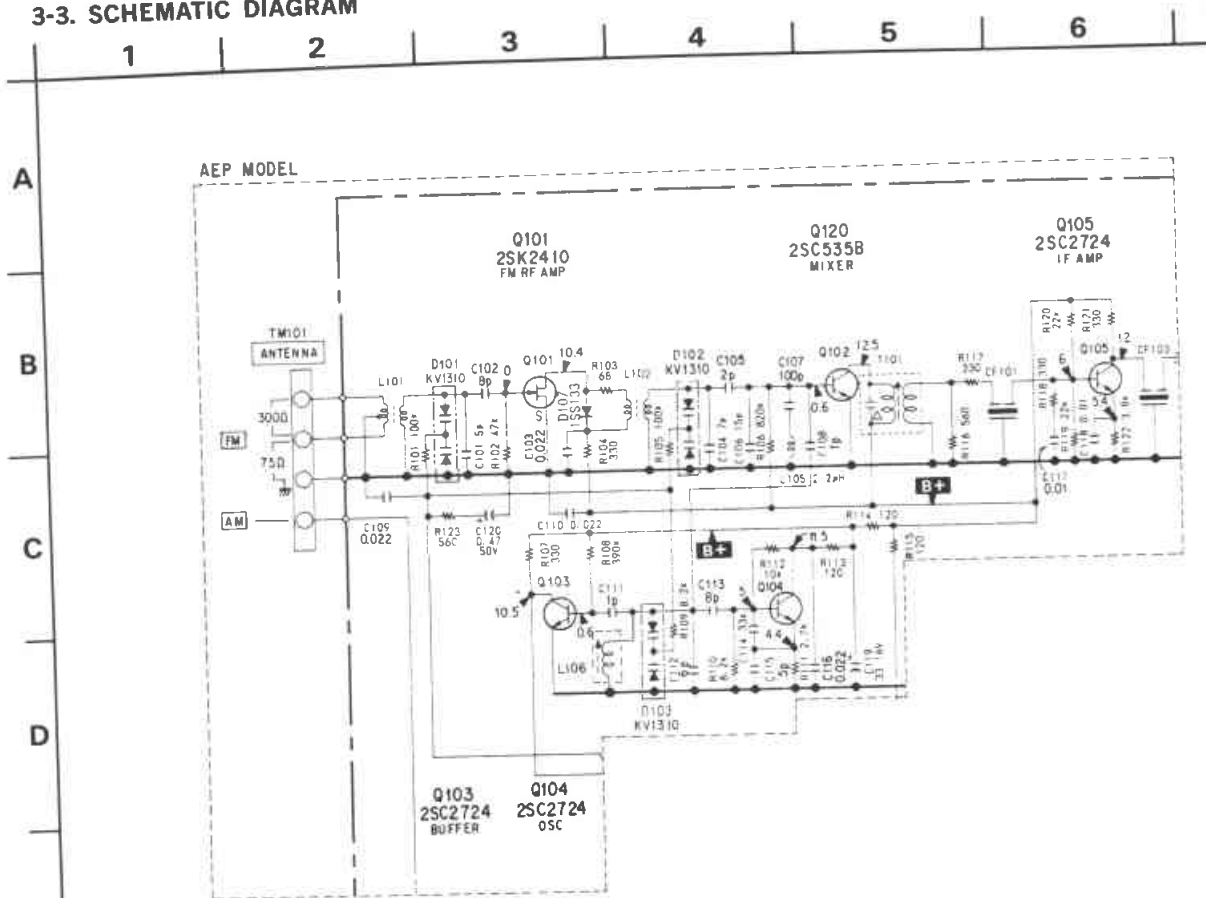
L

M





3-3. SCHEMATIC DIAGRAM



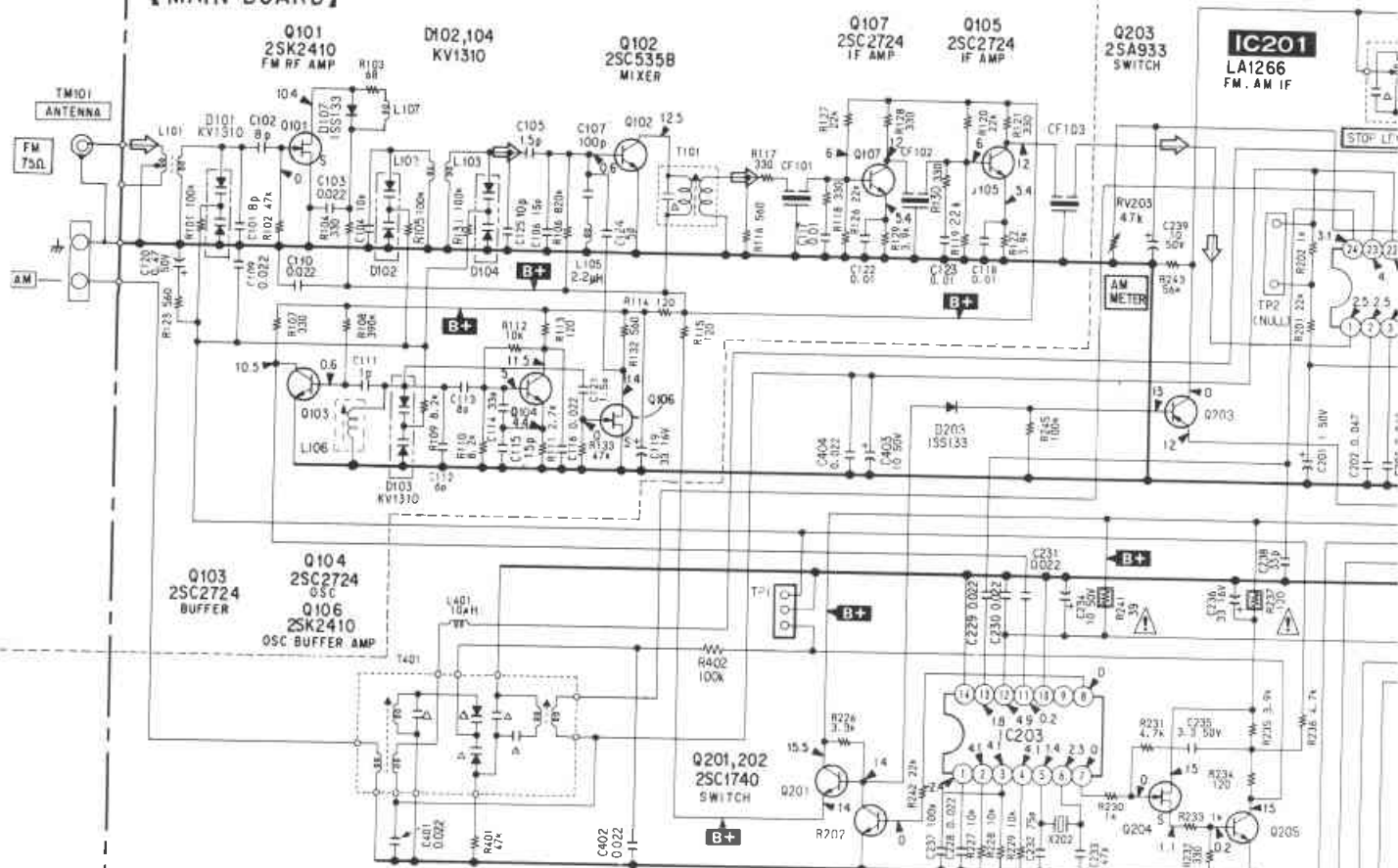
Note:

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

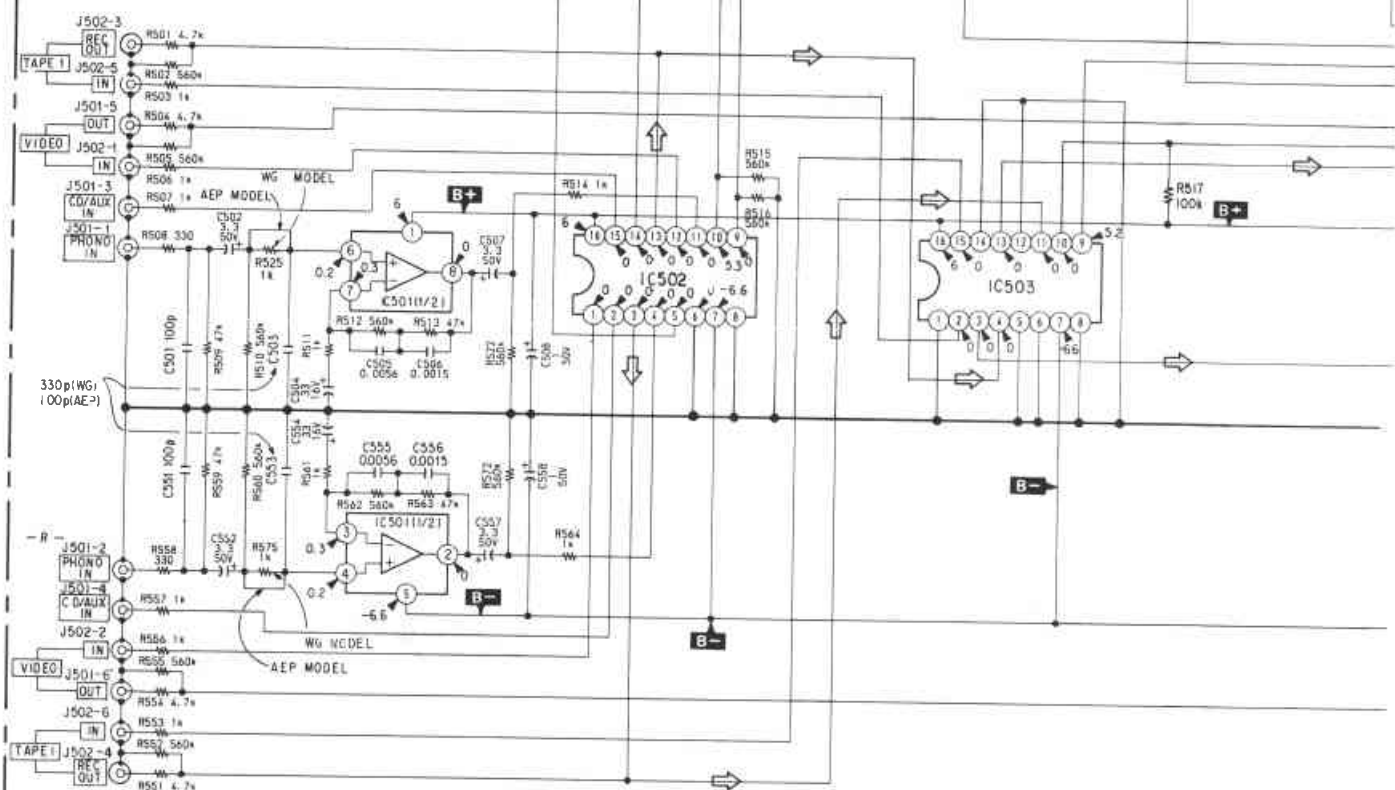
Ref. No.	Switch	Position
S6	SPEAKER	A
S301	TAPE MONITOR	OFF
S302	TUNING +	OFF
S303	TUNING -	OFF
S304	PHONO	OFF
S305	FM MODE	OFF
S306	PRESET	OFF
S308	0	OFF
S311	7	OFF
S312	8	OFF
S313	9	OFF
S314	VIDEO	OFF
S315	AM	OFF
S316	4	OFF
S317	5	OFF
S318	6	OFF
S319	CD	OFF
S320	FM	OFF
S321	1	OFF
S322	2	OFF

WG MODEL

【MAIN BOARD】



IC501
μPC4570HA
EQ AMP



IC502
μPD4052BC
SWITCH

IC503
μPD4052BC
SWITCH

IC505
μPD4052BC
SWITCH

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 & 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

Problem	Solution
FM STEREO indicator flickers or does not light up when FM stereo programs are received.	• Check the FM antenna connection, and adjust the antenna. • Press FM MODE to disengage the stereo mode.
The figures in the display window do not stop at the desired station during sweep tuning.	• Check the antenna connection, and adjust the antenna direction. • Tune in the station using the direct access tuning.
Stations cannot be tuned in correctly when the numeric button is pressed.	• Memorize the frequency correctly.
Audio is not heard.	• Check the speaker and program source connections. • Check that the appropriate FUNCTION selector or TAPE MONITOR button is depressed. • 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.
One channel does not transmit audio, or the volume from the left and right speakers is unbalanced.	• Adjust the BALANCE control. • Check the speaker connections.
There is an abrupt loss of sound from one or both of the speakers.	• 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.)
Sound transmitted from the speaker is reversed.	• Connect the speaker correctly.
Severe hum or noise is heard.	• Use shielded connecting cords. • Keep the audio components further away from the TV. • Connect the ground wire to the ANTENNA ground terminal. • Clean any dirty plugs and jacks with a cloth lightly moistened with alcohol.