

STR-AV20L

SERVICE MANUAL

AEP Model



SPECIFICATIONS

Amplifier section

Continuous RMS power output

According to DIN 45500

35 + 35 watts (8 ohms)

At 1 kHz

38 + 38 watts (1% THD, 8 ohms)

40 + 40 watts (1% THD, 4 ohms)

Harmonic distortion

Less than 0.8% at rated output

Frequency response

PHONO: RIAA equalization curve ± 0.5 dB

CD/AUX

VIDEO

TAPE

10Hz - 50kHz ± 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/AUX 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
SPEAKERS 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)

	FM tuner section	MW/LW tuner section
Tuning range	87.5 - 108 MHz	MW: 531 - 1602 kHz LW: 153 - 344 kHz
Antenna terminals	300 ohms, balanced 75 ohms, unbalanced	External antenna terminal
Intermediate frequency	10.7 MHz	450 kHz
Sensitivity at 50 dB quieting	17.3 dBf, 4 μ V (mono) 38.3 dBf, 45 μ V (stereo)	
Usable sensitivity	11.2 dBf, 2 μ V (IHF)	Layout-free antenna MW: 55 dB/m (at 1000 kHz) LW: 64 dB/m (at 230 kHz) External antenna MW: 100 μ V (at 1000 kHz) LW: 100 μ V (at 230 kHz)
Signal-to-noise ratio	76 dB (mono) 70 dB (stereo)	54 dB (at 50 mV/m)
Harmonic distortion	0.15% (mono), 0.3% (stereo) at 1 kHz	0.3% (at 50 mV/m, 400 Hz)
Selectivity	60 dB at 400 kHz	35 dB at 9 kHz
Separation	45 dB at 1 kHz	
Frequency response	40 Hz - 12.5 kHz ± 0.5 dB	

— Continued on Page 2 —

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY SHADING AND 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.

FM STEREO/FM-AM RECEIVER
SONY[®]

AUD



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 Hz
Power consumption	90 watts
AC outlets	Two switched (total 100 watts)
Dimensions	Approx. 430 × 105 × 295 mm (w/h/d) (17 × 4 ¹ / ₄ × 11 ³ / ₈ inches)
	including projecting parts and controls
Weight	Approx. 6.0 kg (13 lbs 4 oz) net
	Approx. 7.1 kg (15 lbs 11 oz) in shipping carton
Accessories supplied	FM ribbon antenna (1)
	MW/LW layout-free antenna (1)

FEATURES

The STR-AV20L 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.

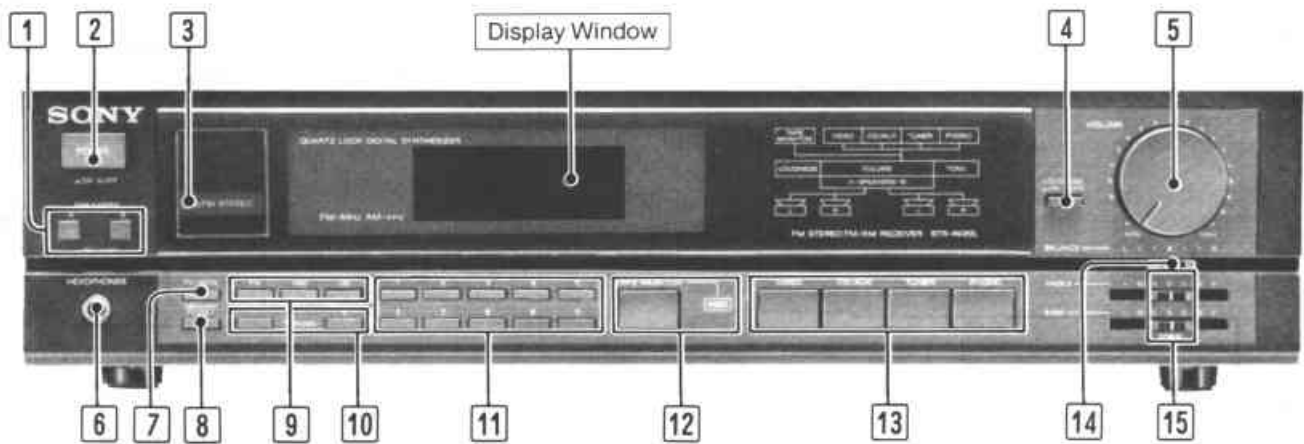
A total of 10 FM/MW/LW stations can be preset.

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SECTION 1 GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS



1 SPEAKERS selectors

Depress to select which speaker system to drive. For both speaker systems, depress A and B.

2 POWER switch

3 FM STEREO indicator

4 LOUDNESS button

Press when listening to a program source at a low volume. The low frequency sound is emphasized.

5 VOLUME control knob

6 HEADPHONES jack (stereo phone jack)

7 FM MODE button

When an FM stereo program is noisy or hard to receive, press this button. The 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.

8 MEMORY PRESET button

9 FM/MW/LW band select buttons

10 TUNING buttons

11 Number buttons

For presetting a station or for tuning in a preset station.

12 TAPE MONITOR and indicator

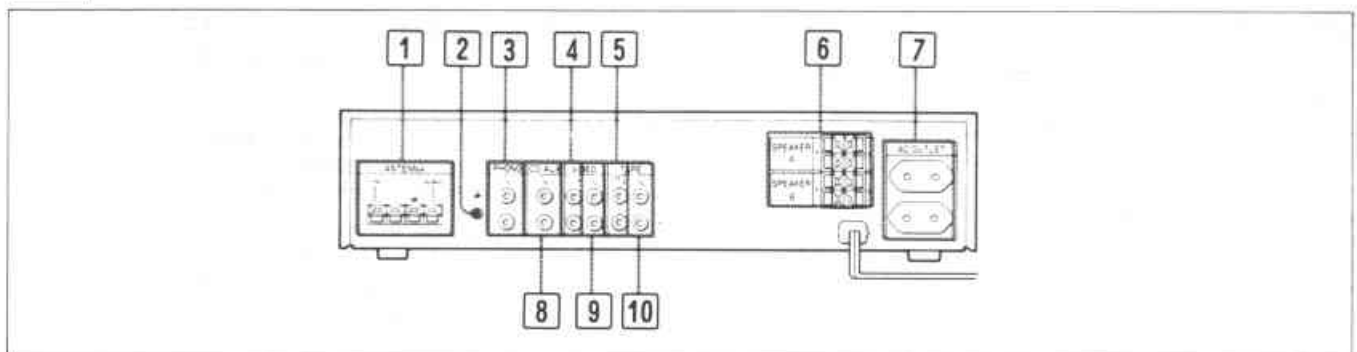
13 Function select buttons

14 BALANCE control

Slide to RIGHT to decrease the left channel volume, and slide to LEFT to decrease the right channel volume.

15 TONE (BASS/TREBLE) controls

Rear



1 FM/MW/LW external antenna terminals

2 (phone ground) terminal

3 PHONO IN jacks (phono jack)

4 VIDEO (AUDIO) OUT jacks (phono jack)

5 TAPE REC OUT (recording output) jacks (phono jack)

6 SPEAKERS A, B connectors

7 AC OUTLETS (SWITCHED)

8 CD/AUX (compact disc/auxiliary) IN jacks (phono jack)

9 VIDEO (AUDIO) IN jacks (phono jack)

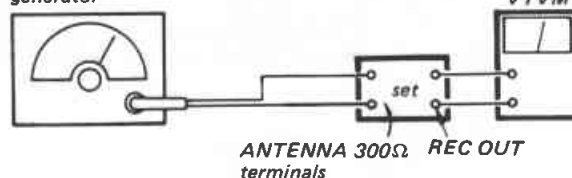
10 TAPE IN jacks (phono jack)

SECTION 2
ADJUSTMENTS

FM SECTION

FM TRACKING ADJUSTMENT

Setting:

FM rf stereo signal
generator

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

1. Adjust L101, 104 for maximum reading on VTVM.

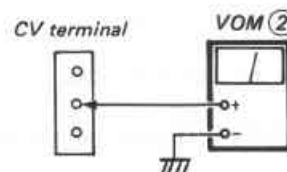
FM FREQUENCY COVERAGE ADJUSTMENT

Setting:

FM rf signal
generator

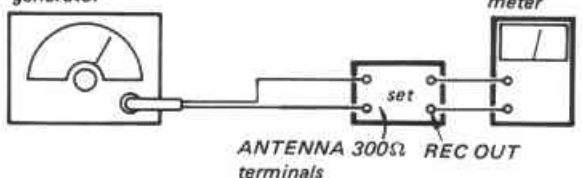
Carrier frequency: 108MHz
 Modulation: 400Hz, 75kHz deviation (100%)
 Output level: 1mV (60dB)

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



FM IF ADJUSTMENT

Setting:

FM rf stereo signal
generator

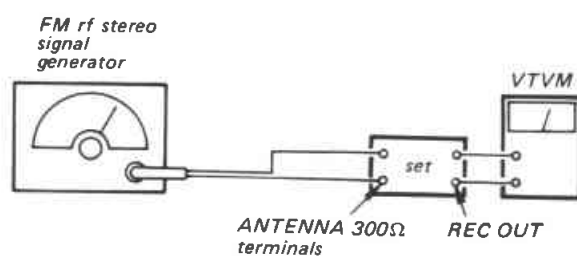
Carrier frequency: 98MHz
 Output level: 1mV (60dB)
 Modulation
 Audio 400Hz: 33.75kHz deviation (45%)
 Sub channel 38kHz: 33.75kHz deviation (45%)
 Pilot signal 19kHz: 7.5kHz deviation (10%)

Procedure:

Adjust the black core of IFT101 for minimum distortion.

FM Stereo Separation Adjustment

Procedure:



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 (10%)

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	(A)
R-CH	L-CH	(B) Adjust RV202 for minimum reading.
R-CH	R-CH	(C)
L-CH	R-CH	(D) Adjust RV202 for minimum reading.

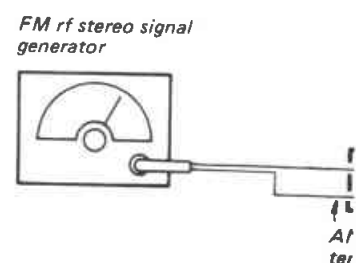
L-CH Stereo separation: (A) - (B)
R-CH Stereo separation: (C) - (D)

The separations of both channels should be equal.

RV202

FM Tuning Stop Adjustment

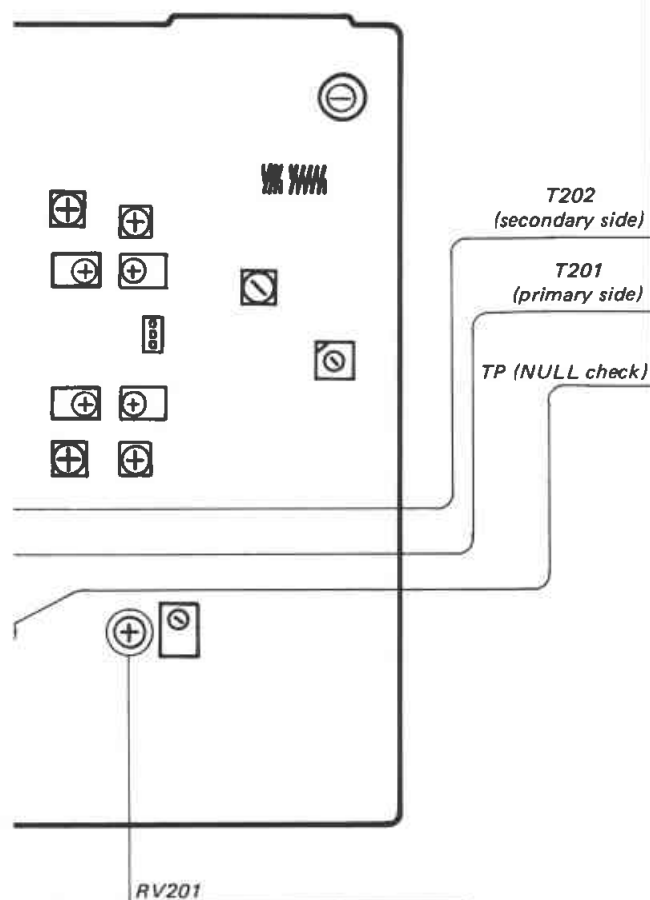
Setting:



Carrier frequency: 98MHz
Output level: 14.3μV (1mV)
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 the tuning buttons.
2. Adjust RV201 so that the S-meter indicates maximum signal.



set

ANTENNA 300Ω terminals

23dB)

deviation (45%)

deviation (45%)

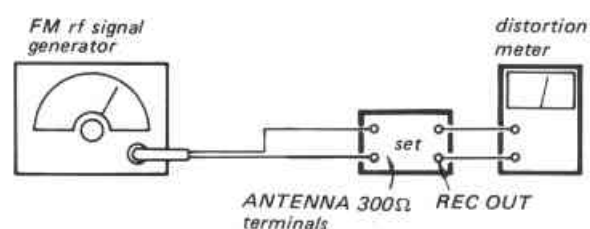
deviation (10%)

pressing the TUNING

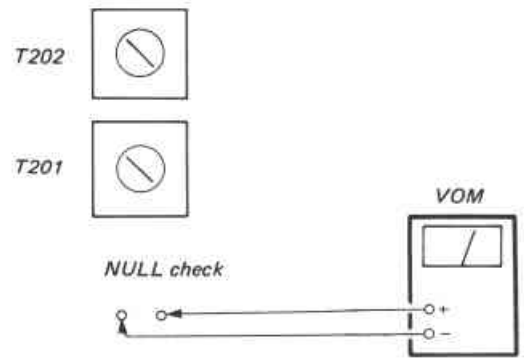
STEREO LED goes on.

FM Discriminator Alignment

Setting:



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



Procedure:

1. Tune the set to 98 MHz.
2. Adjust the green core (primary- side) of T201 for 0V reading on VOM.
3. Adjust the white core (secondary- side) of T202 for minimum distortion.

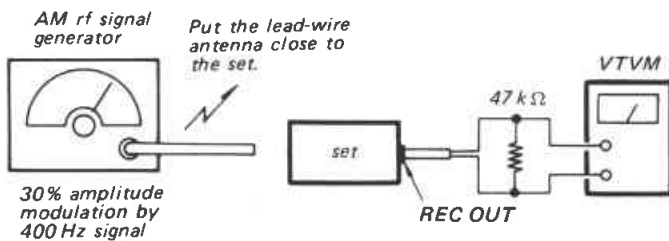
Note: When replacing the ceramic filter, perform this alignment.
Repeat the secondary-side and primary-side alignments several times.

AM SECTION

- Repeat the procedures in each adjustment several times, and the frequency coverage and tracking adjustments should be finally done by the trimmer capacitors.

AM TRACKING ADJUSTMENT

Setting:



Procedure:

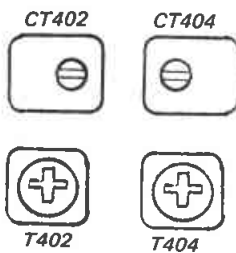
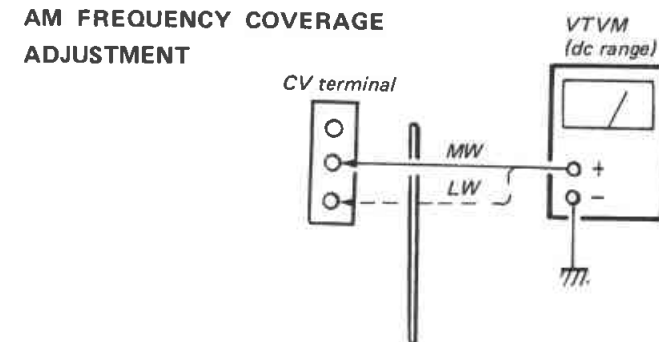
1. Tune the set to the SG signal.
2. Adjust for a maximum reading on VTVM.

	SG and set frequency	Adjustment parts	Reading on VTVM
1.	603kHz	T401	Maximum
2.	1404kHz	CT401	

LW

	SG and set frequency	Adjustment parts	Reading on VTVM
1.	170kHz	T405	Maximum
2.	310kHz	CT403	

AM FREQUENCY COVERAGE ADJUSTMENT

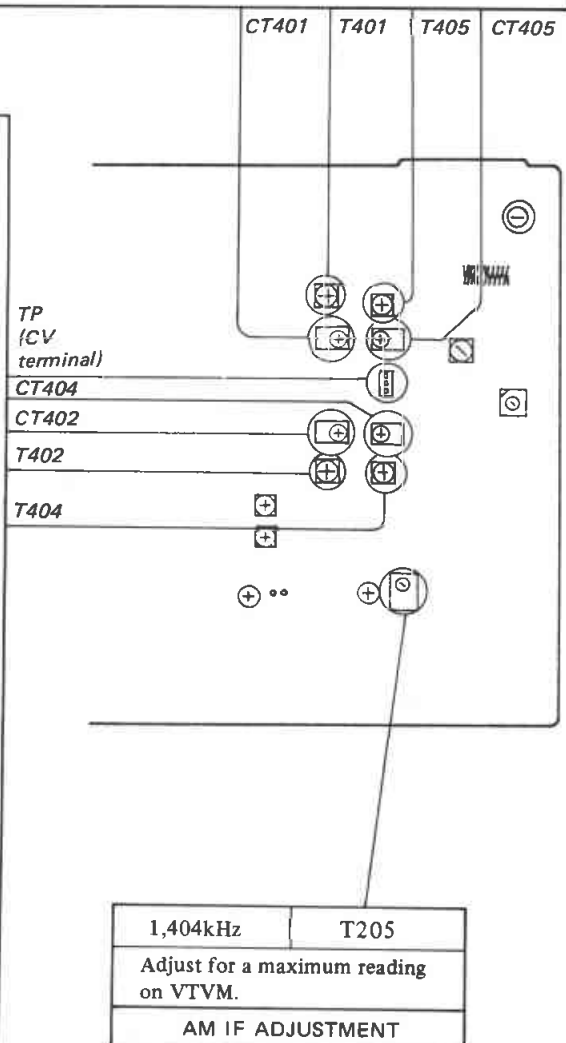


MW

	Frequency display in set	Voltage at TP (CV)	Adjustment parts
1.	531kHz	$1.1V \pm 0.2V$	T402
2.	1,602kHz	$9.0V \pm 0.2V$	CT402

LW

	Frequency display in set	Voltage at TP (CV)	Adjustment parts
1.	153kHz	$1.0V \pm 0.2V$	T404
2.	344kHz	$9.0V \pm 0.2V$	CT404



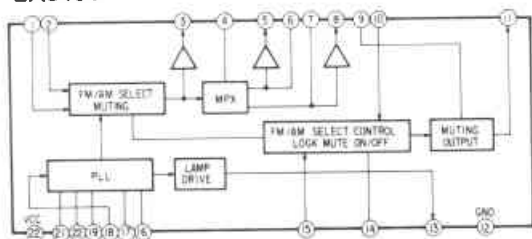
1,404kHz T205

Adjust for a maximum reading on VTVM.

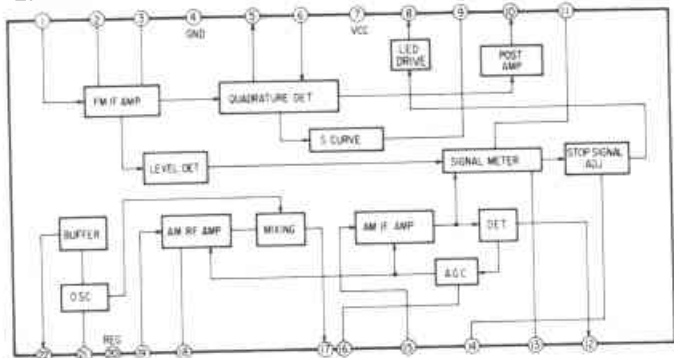
AM IF ADJUSTMENT

• IC BLOCK DIAGRAMS

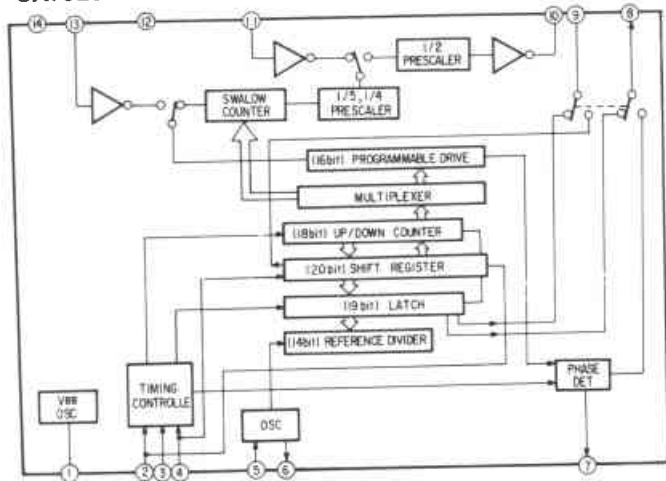
LA3401



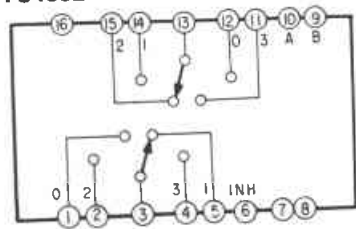
LA1265



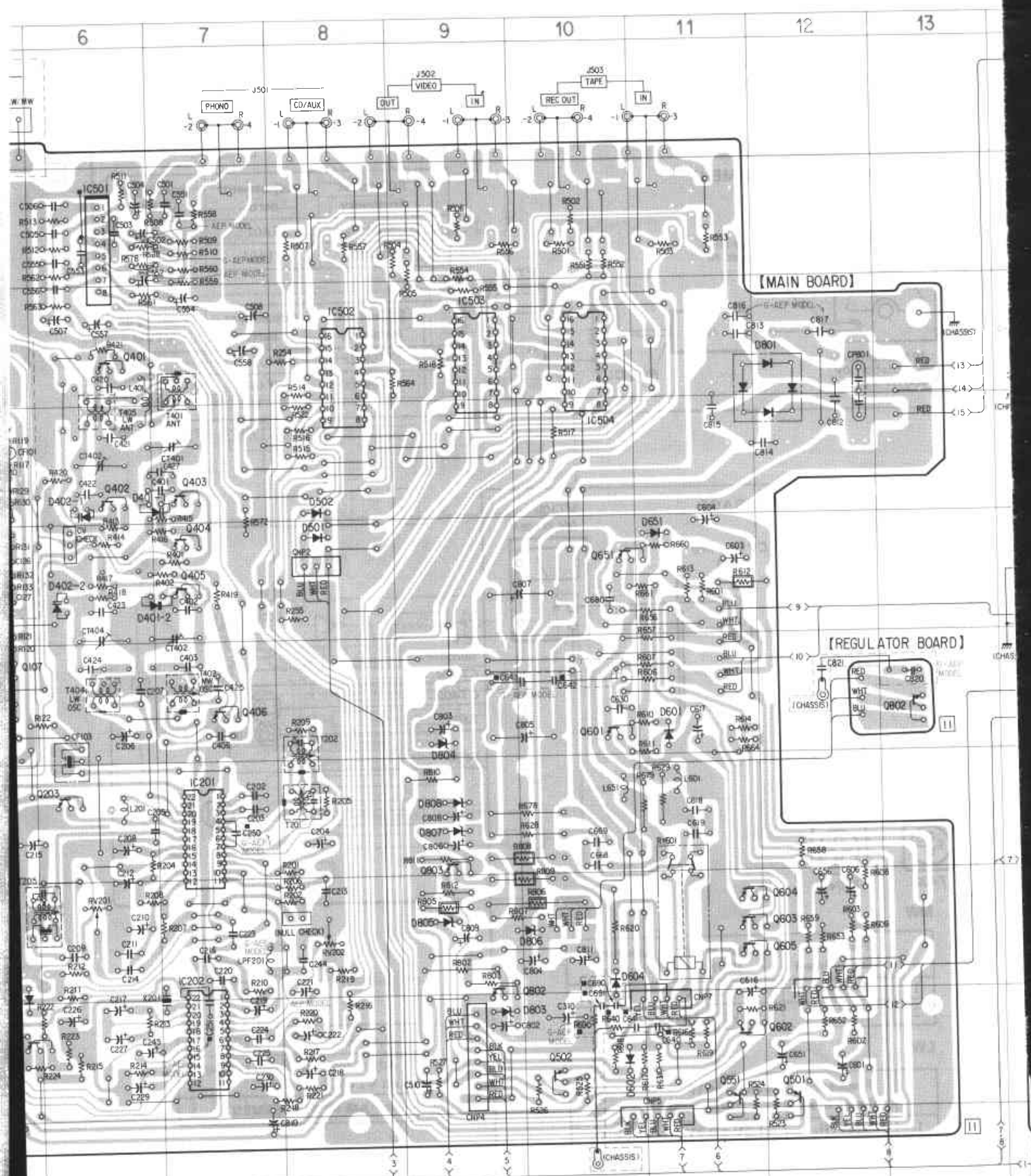
CX7925

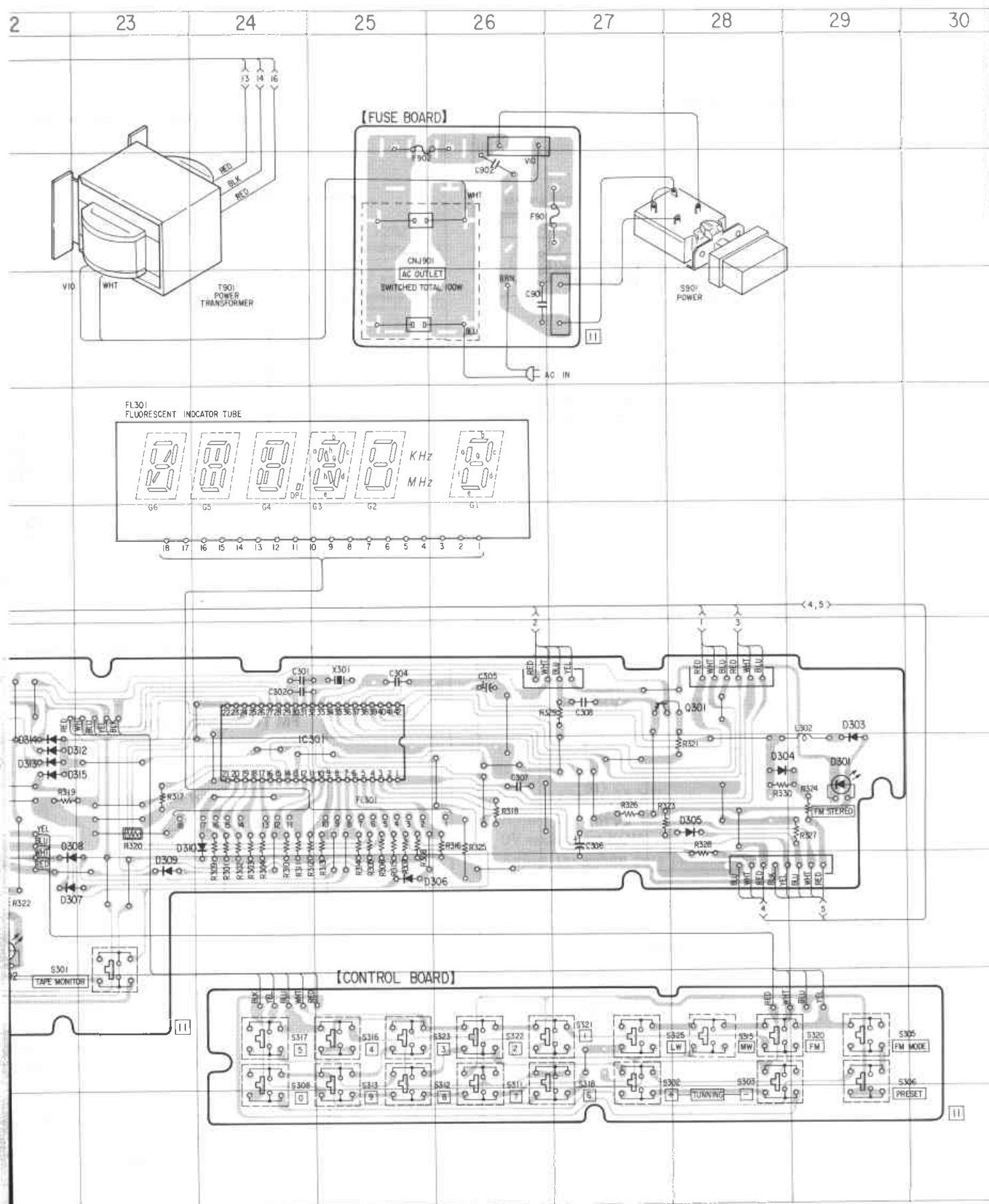


TC4052

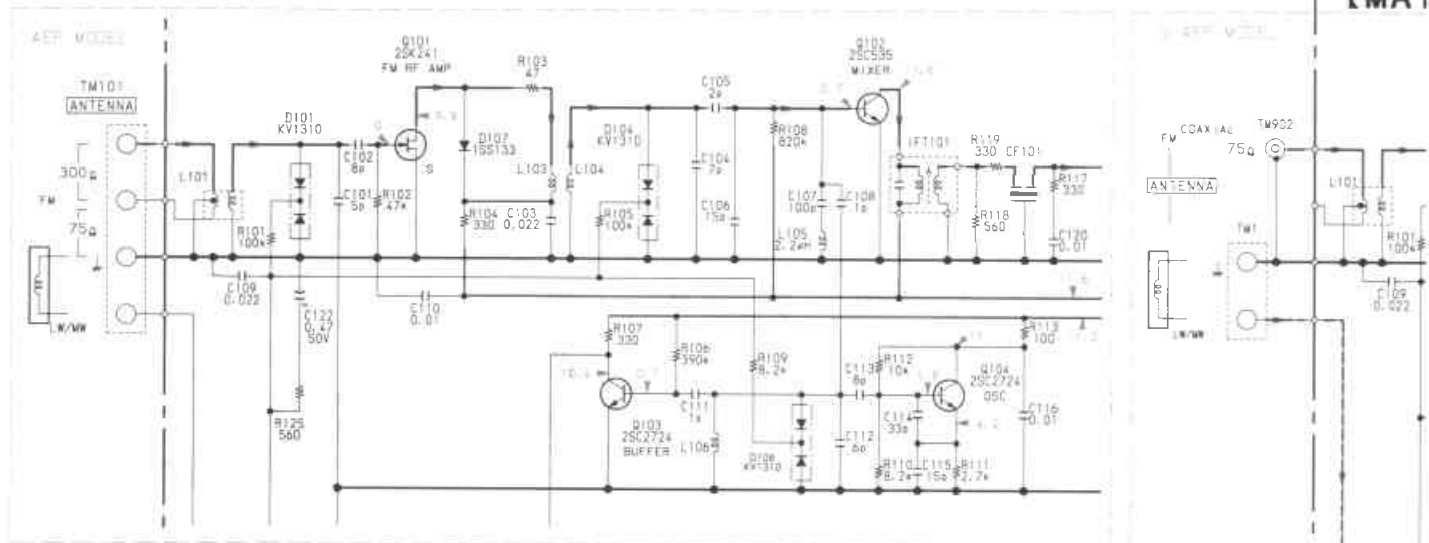


- See page 17 for Semiconductor Lead Layouts and Semiconductor Location.





3-2. SCHEMATIC DIAGRAM • See page 8 for IC BLOCK DIAGRAMS.



Note:

- All capacitors are in μF unless otherwise noted. pF : μF 50 WV 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.
- $\longrightarrow$: FM signal path.
- $\dashrightarrow$: AM signal path.
- Δ : internal component.
- $\square$: nonflammable resistor.
- --- : B+ bus.
- $\square$: adjustment for repair.
- Voltages are dc with respect to ground unless otherwise noted.
- Readings are taken under no-signal (detuned) conditions with a VOM (50k Ω /V).
no mark: FM
() : MW
< > : LW
- Voltage variations may be noted due to normal production tolerances.

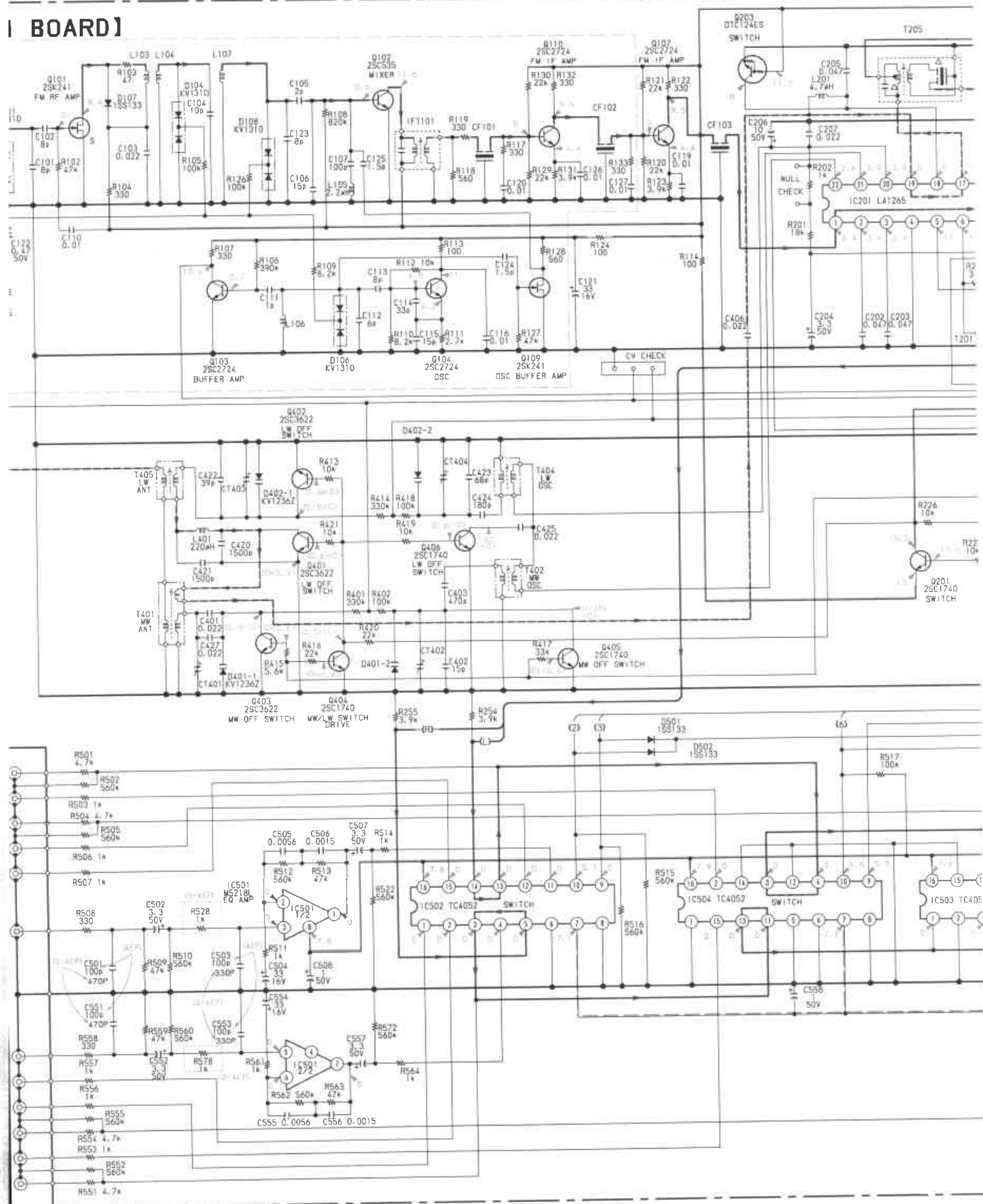
Note: The components identified by shading and mark Δ are critical for safety. Replace only with part number specified.

• Switch

Ref. No.	Switch	Position
S6	SPEAKER	A
S301	TAPE MONITOR	OFF
S302	+	OFF
S303	-	OFF
S304	PHONO	OFF
S305	FM MODE	OFF
S306	PRESTE	OFF
S307	SCAN	OFF
S308	0	OFF
S311	7	OFF
S312	8	OFF
S313	9	OFF
S314	VIDEO	OFF
S315	MW	OFF
S316	4	OFF
S317	5	OFF
S318	6	OFF
S319	CD/AUX	OFF
S320	FM	OFF
S321	1	OFF
S322	2	OFF
S323	3	OFF
S324	TUNER	OFF
S325	LW	OFF
S501	LOUDNESS	OFF



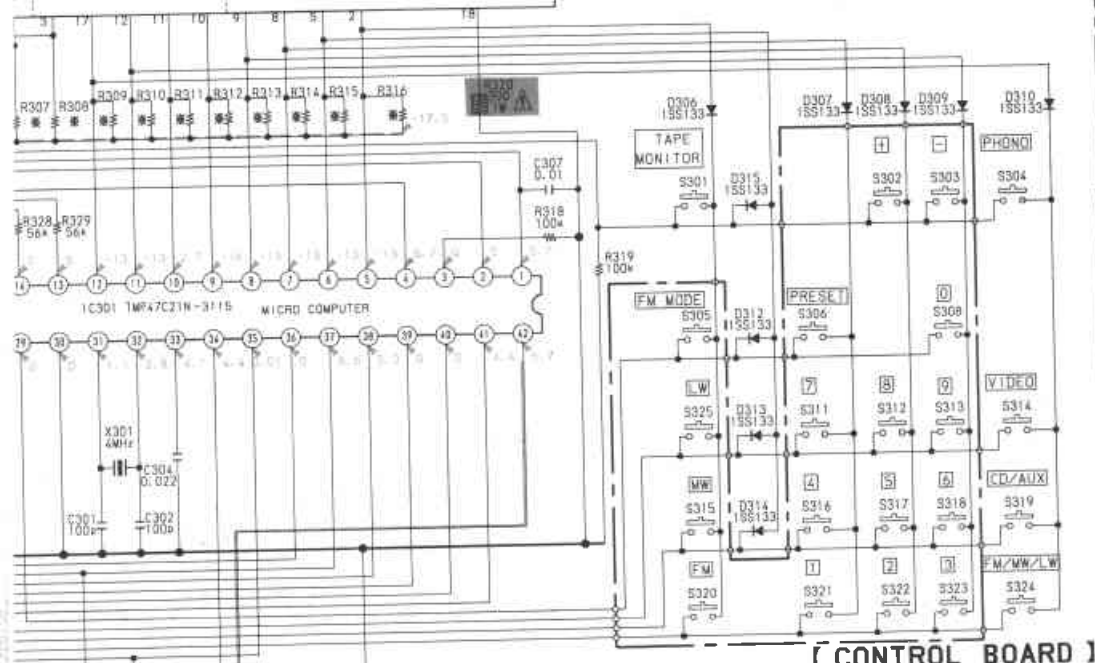
BOARD 1



24 25 26 27 28 29 30 31

[DISPLAY BOARD]

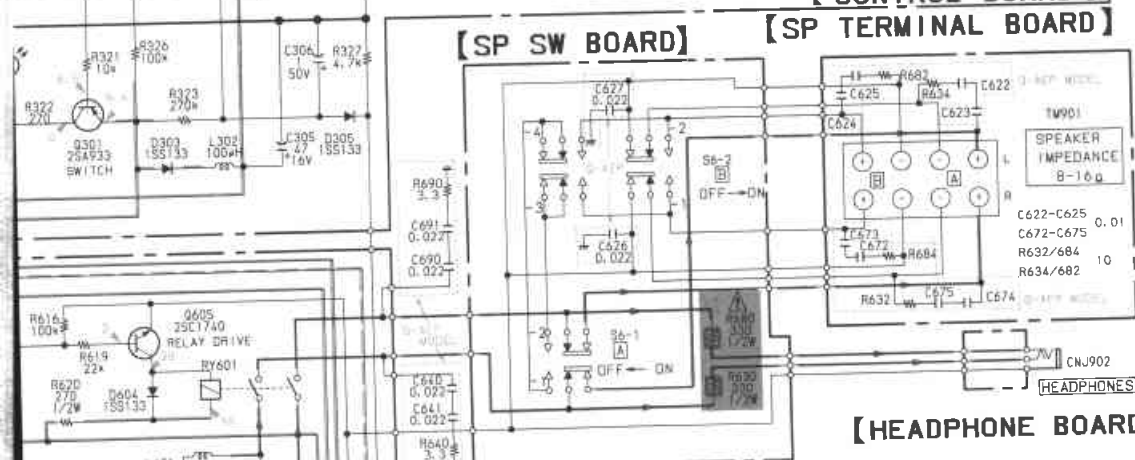
* R301-R317 100K



[CONTROL BOARD]

[SP SW BOARD]

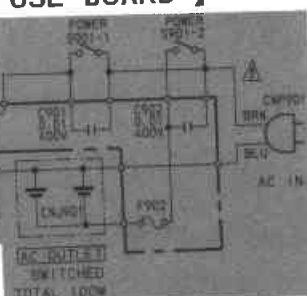
[SP TERMINAL BOARD]



[HEADPHONE BOARD]

[REGULATOR BOARD]

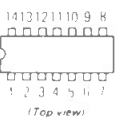
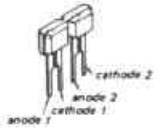
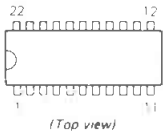
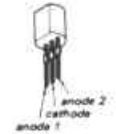
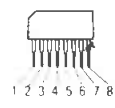
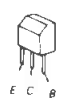
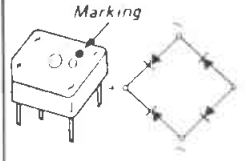
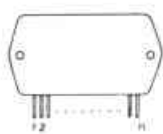
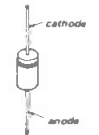
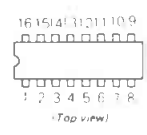
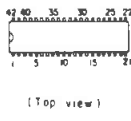
[FUSE BOARD]

[VOL BOARD]
2/2* NOT REPLACEABLE
BUILT IN TRANSFORMER

● Semiconductor Location

Ref No.	Location	Ref No.	Location
D101	B-2 (AEP)	IC203	H-4
D101	B-4 (G-AEP)	IC301	G-25
D104	C-1 (AEP)	IC501	B-6
D104	C-4 (G-AEP)	IC502	C-8
D106	E-1 (AEP)	IC503	C-9
D106	E-4 (G-AEP)	IC504	C-10
D107	C-2 (AEP)	IC601	D-14
D107	C-5 (G-AEP)		
D108	D-4	Q101	B-2 (AEP)
D201	G-5	Q101	B-5 (G-AEP)
D202	I-5	Q102	D-2 (AEP)
D203	H-5	Q102	D-4 (G-AEP)
D204	I-4	Q103	E-2 (AEP)
D301	G-29	Q103	E-5 (G-AEP)
D302	H-22	Q104	E-1 (AEP)
D303	G-29	Q104	E-4 (G-AEP)
D304	G-28	Q107	F-5
D305	G-28	Q109	E-4
D306	H-25	Q110	D-5
D307	H-22	Q201	G-5
D308	H-22	Q202	G-5
D309	H-23	Q203	G-6
D310	G-24	Q204	G-4
D312	G-22	Q205	F-4
D313	G-22	Q206	F-4
D314	G-22	Q207	G-4
D315	G-22	Q208	I-5
D401-1	D-7	Q301	F-28
D401-2	E-7	Q401	C-6
D402-1	D-6	Q402	D-6
D402-2	E-6	Q403	D-7
D501	E-8	Q404	E-7
D502	D-8	Q405	E-7
D601	F-11	Q406	F-7
D602	I-10	Q501	I-12
D604	H-10	Q502	I-10
D651	E-11	Q551	I-11
D801	C-12	Q601	F-10
D803	I-9	Q602	I-11
D804	F-9	Q603	H-11
D805	H-9	Q604	H-11
D806	H-10	Q605	H-11
D807	G-9	Q651	E-10
D808	G-9	Q802	I-9
		Q803	G-9
IC201	G-7		
IC202	I-7		

● Semiconductor Lead Layouts

CX7925B 	2SA988-F 2SC535 2SC3622L 	KV1236Z 
LA1265 LA3401 	2SA1175 2SC2785 	KV1310 
M5218L 	2SB734 2SD774 	RB402 
STK4152-II 	2SD1585-L 	RD16E-B2 RD18E-B2 RD20E-B2 RD75E-B2 
TC4052BP 	2SK241-GR 	1SS133 
TMP47C21N-3115 	2SK246-GR2 	
DTC124ES 2SC634SP 2SC2724-C 	GL-5NG24 SEL1110R 	

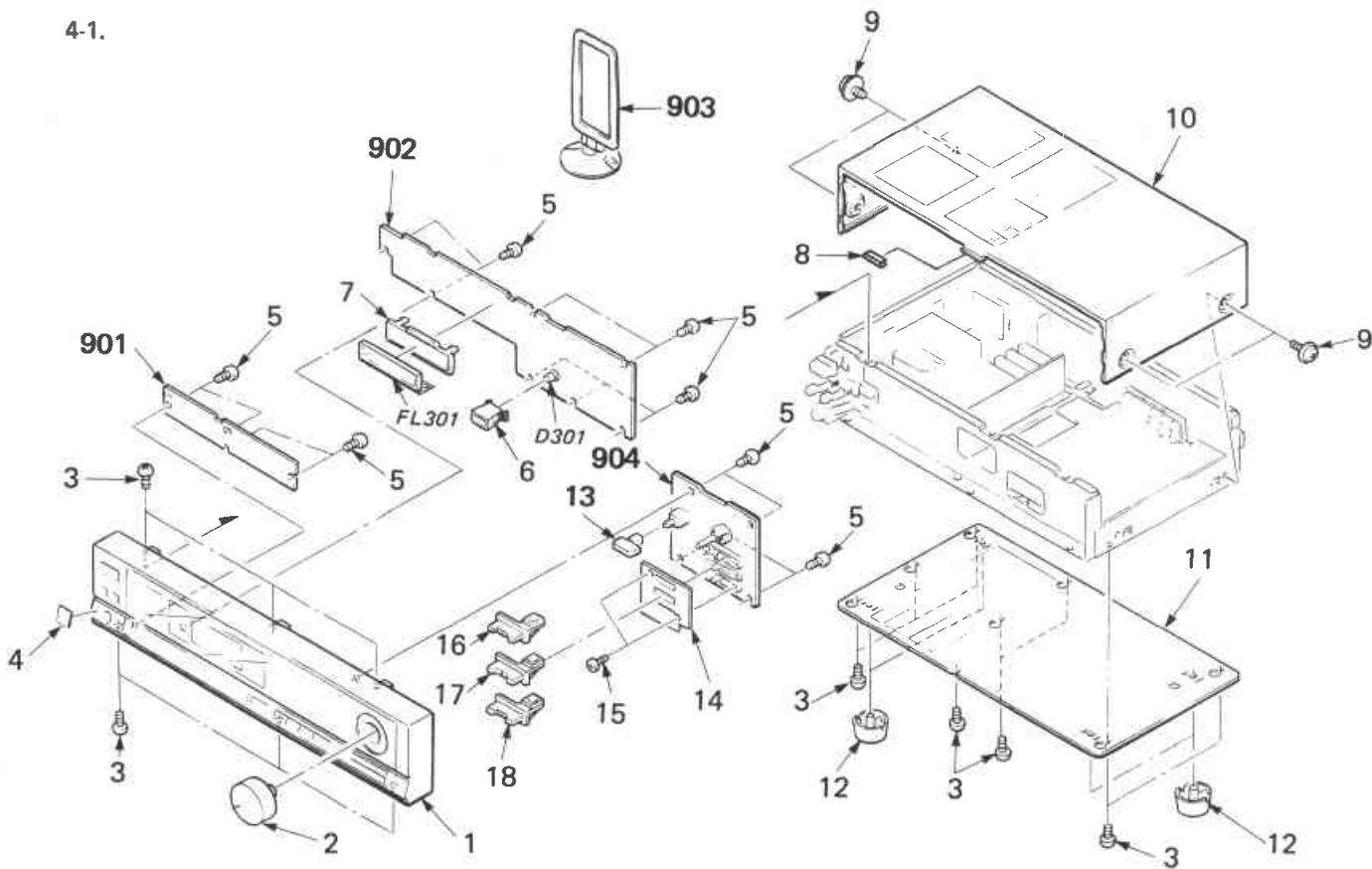
SECTION 4
EXPLODED VIEWS AND PARTS LIST

NOTE:
• The mechanical parts with no reference number in the exploded views are not supplied.
• Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

• The construction parts of an assembled part are indicated with a collation number in the remark column.
• Color Indication of Appearance Parts
Example: (RED) KNOB, BALANCE (WHITE)
Cabinet's Color Parts' Color

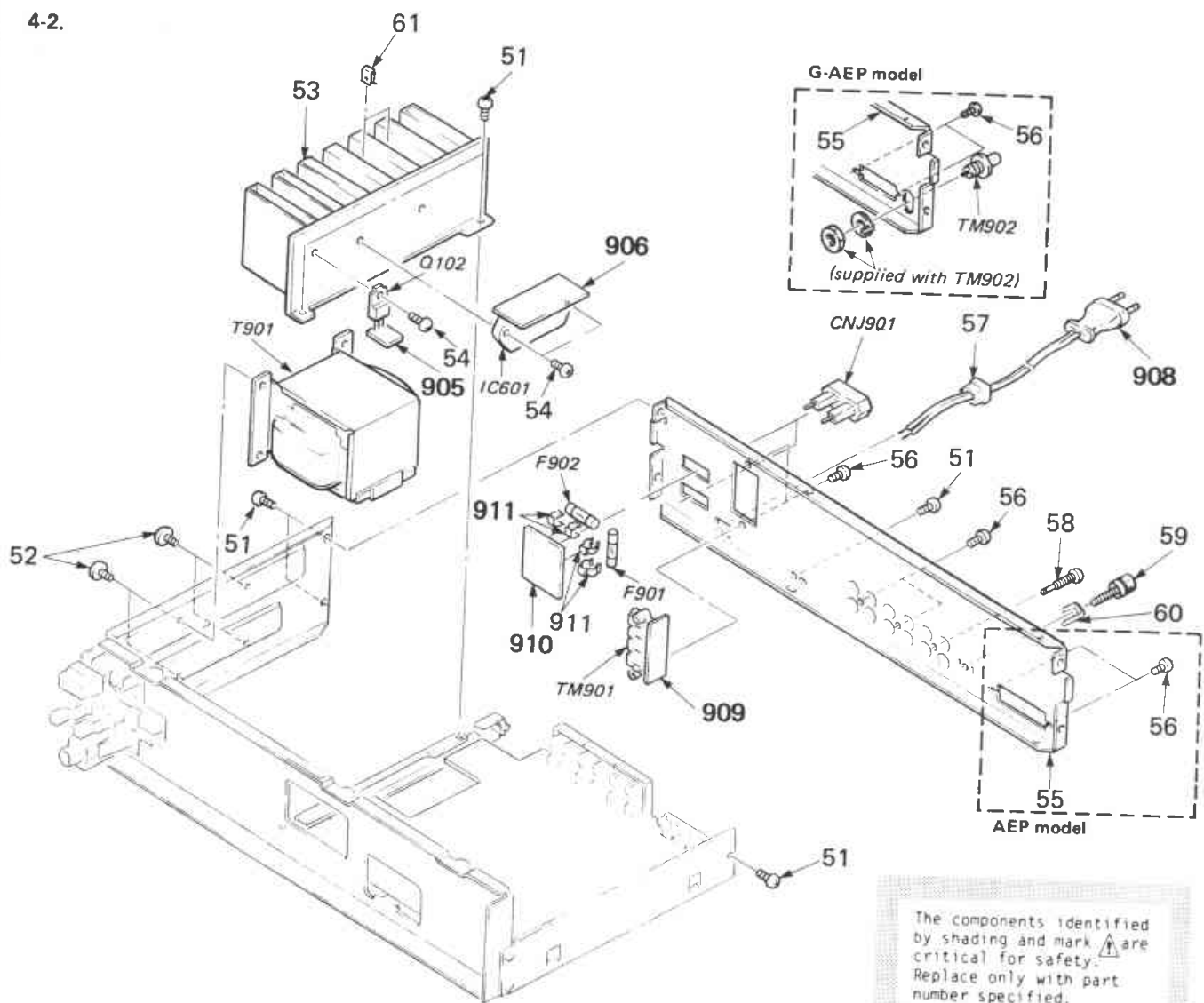
The components identified by shading and mark  are critical for safety. Replace only with part number specified.

4-1.



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	A-4322-915-A	PANEL ASSY		13	4-919-106-01	BUTTON, LOUDNESS	
2	X-4906-786-1	KNOB ASSY, VOL		14	*4-919-107-01	PLATE, BLIND	
3	7-682-147-01	SCREW +BVT 3X6 (S)		15	7-627-553-18	SCREW, PRECISION +P 2X2	
4	3-703-710-41	STICKER, SONY SYMBOL (12)		16	4-919-110-01	KNOB, BALANCE	
5	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S		17	4-919-109-01	KNOB, TREBLE	
6	*4-906-752-01	HOLDER, LED		18	4-919-111-01	KNOB, BASS	
7	*4-884-011-03	HOLDER		901	*1-621-746-11	PC BOARD, CONTROL	
8	*3-561-902-00	CLOTH, RETAINING, CASSETTE		902	*1-621-745-11	PC BOARD, DISPLAY	
9	4-847-802-00	SCREW		903	1-501-349-11	ANTENNA, LOOP	
10	4-881-736-61	CASE		904	*1-621-873-11	PC BOARD, VOL	
11	*4-881-730-31	PLATE, BOTTOM		FL301	1-519-297-00	INDICATOR TUBE, FLUORESCENT	
12	X-4864-303-0	FOOT ASSY					

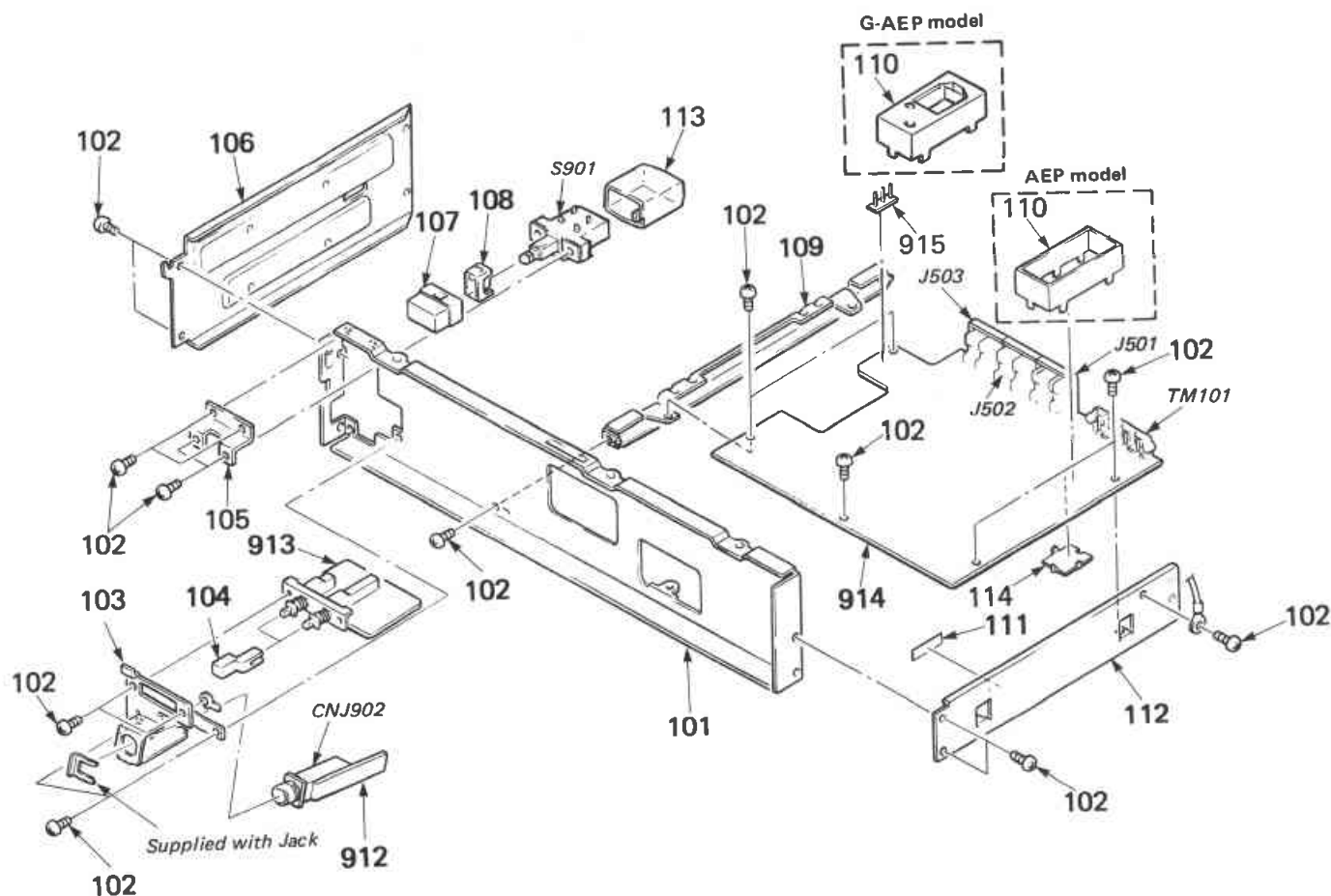
4-2.



No.	Part No.	Description
51	7-682-147-01	SCREW +BVTT 3X6 (S)
52	7-682-161-01	SCREW +BVTT 4X8 (S)
53	*4-915-991-01	HEAT SINK (D)
54	7-685-650-79	SCREW +BVTP 3X16 TYPE2 IT-3
55	*4-919-112-41	(AEP)....PLATE, JACK
	*4-919-112-51	(G-AEP)...PLATE, JACK
56	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
57	*3-703-244-00	BUSHING (2104), CORD
58	3-703-473-00	SCREW, TERMINAL
59	3-706-165-00	SCREW
60	3-701-993-00	SPACER, TERMINAL
61	*4-881-752-00	(G-AEP)...NUT, PLATE, SPECIAL

No.	Part No.	Description	Remarks
905	*1-621-877-11	PC BOARD, REGULATOR	
906	*1-621-875-11	PC BOARD, IC	
908	1-559-124-11	CORD, POWER	
909	*1-621-878-11	PC BOARD, SP TERMINAL	
910	*1-621-876-11	PC BOARD, FUSE	
911	1-533-131-00	HOLDER, FUSE	
CNJ901	⚠1-526-794-11	OUTLET, AC	
F901	⚠1-532-973-11	FUSE (1.6A)	
F902	⚠1-532-967-11	FUSE (1.25A)	
IC601	8-749-941-52	IC STK41521I	
S901	⚠1-554-685-11	SWITCH, PUSH (AC POWER)(1 KEY)	
T901	⚠1-448-849-11	TRANSFORMER, POWER	
TM901	1-536-706-00	TERMINAL BOARD (SPEAKER)	
TM902	1-561-919-00	(G-AEP)...SOCKET, CONNECTER	

4.3.



No.	Part No.	Description
101	*4-919-102-01	PANEL, SUB
102	7-682-147-01	SCREW +BVTT 3X6 (S)
103	*4-915-988-01	BRACKET, HP
104	4-906-872-01	KNOB, SQUARE
105	*4-919-104-01	BRACKET, PW
106	*4-915-997-01	PLATE (LEFT), SIDE
107	4-908-046-01	KNOB, SQUARE
108	*4-864-307-00	RING
109	*4-906-794-01	BRACKET, HEAT SINK
110	*4-906-792-01	(AEP).....CASE, SHIELD
	*4-915-985-01	(G-AEP)...CASE, SHIELD
111	*3-701-030-00	LABEL, SERIAL NUMBER
112	*4-915-990-01	PLATE (RIGHT), SIDE
113	3-559-001-00	COVER, POWER SWITCH
114	*4-919-176-01	(G-AEP)...PLATE, SHIELD

Remarks	No.	Part No.	Description	Remarks
	912	*1-621-872-11	PC BOARD, HEADPHONE	
	913	*1-621-879-11	PC BOARD, SP SW	
	914	*A-4410-416-A	(AEP).....MOUNTED PCB, MAIN	
		*A-4410-431-A	(G-AEP)...MOUNTED PCB, MAIN	
	915	*1-535-116-00	TERMINAL	
	CNJ902	1-507-863-31	JACK, LARGE TYPE (HEADPHONES)	
	J501	1-507-788-00	JACK, PIN 4P	
	J502	1-507-908-11	JACK, PIN 4P	
	J503	1-507-788-00	JACK, PIN 4P	
	TM101	1-536-707-00	(G-AEP)...TERMINAL BOARD, PUSH 2P (ANTENNA)	
	TM101	1-536-708-00	(AEP).....TERMINAL BOARD, PUSH 4P (ANTENNA)	

SECTION 5 ELECTRICAL PARTS LIST

NOTE:

- 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:μF, PF:μμF.

RESISTORS

- All resistors are in ohms.
- F : nonflammable

COILS

MMH : mH, UH : μH

SEMICONDUCTORS

In each case, U : μ, for example:

UA...: μA..., UPA...: μPA..., UPC...: μPC,

UPD...: μPD...

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
901	*1-621-746-11	PC BOARD, CONTROL
902	*1-621-745-11	PC BOARD, DISPLAY
903	1-501-349-11	ANTENNA, LOOP
904	*1-621-873-11	PC BOARD, VOL
905	*1-621-877-11	PC BOARD, REGULATOR
906	*1-621-875-11	PC BOARD, IC
908	1-559-124-11	CORD, POWER
909	*1-621-878-11	PC BOARD, SP TERMINAL
910	*1-621-876-11	PC BOARD, FUSE
911	1-533-131-00	HOLDER, FUSE
912	*1-621-872-11	PC BOARD, HEADPHONE
913	*1-621-879-11	PC BOARD, SP SW
914	*A-4410-416-A	(AEP)....MOUNTED PCB, MAIN
	*A-4410-431-A	(G-AEP)...MOUNTED PCB, MAIN
915	*1-535-116-00	TERMINAL
916	*1-560-060-00	PIN, CONNECTOR 2P
917	*1-560-061-00	PIN, CONNECTOR 3P
918	*1-562-249-00	SOCKET, CONNECTOR 4P
919	*1-562-250-00	SOCKET, CONNECTOR 5P
920	*1-562-251-00	SOCKET, CONNECTOR 6P
921	*1-562-327-00	SOCKET, CONNECTOR 3P
922	*1-562-564-11	SOCKET, CONNECTOR 8P
923	*1-564-779-11	PLUG, CONNECTOR (2.5MM) 6P
C101	1-102-807-00	(AEP)....CERAMIC 5PF 1PF 50V
C101	1-102-945-00	(G-AEP)...CERAMIC 8PF 0.5PF 50V
C102	1-102-945-00	CERAMIC 8PF 0.5PF 50V
C103	1-161-055-00	CERAMIC 0.022MF 20% 25V
C104	1-102-809-00	(AEP)....CERAMIC 7PF 1PF 50V
C104	1-102-947-00	(G-AEP)...CERAMIC 10PF 0.5PF 50V
C105	1-102-935-00	CERAMIC 2PF 0.25PF 50V
C106	1-102-951-00	CERAMIC 15PF 5% 50V
C107	1-102-106-00	CERAMIC 100PF 10% 50V
C109	1-161-055-00	CERAMIC 0.022MF 20% 25V
C108	1-102-934-00	(AEP)....CERAMIC 1PF 0.25PF 50V
C110	1-161-034-00	(AEP)....CERAMIC 0.022PF 20% 25V
C110	1-161-051-00	(G-AEP)...CERAMIC 0.01MF 20% 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	1-161-051-00	CERAMIC 0.01MF 10% 50V
C119	1-161-051-00	CERAMIC 0.01MF 10% 50V
C120	1-161-051-00	CERAMIC 0.01MF 10% 50V
C121	1-124-963-11	ELECT 33MF 20% 16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C122	1-124-902-00	ELECT 0.47MF 20% 50V
C123	1-102-945-00	(G-AEP)...CERAMIC 8PF 0.5PF 50V
C124	1-101-576-00	(G-AEP)...CERAMIC 1.5PF 0.25PF 50V
C125	1-101-576-00	(G-AEP)...CERAMIC 1.5PF 0.25PF 50V
C126	1-161-051-00	(G-AEP)...CERAMIC 0.01MF 10% 50V
C127	1-161-051-00	(G-AEP)...CERAMIC 0.01MF 10% 50V
C202	1-161-021-11	CERAMIC 0.047MF 10% 25V
C203	1-161-021-11	CERAMIC 0.047MF 10% 25V
C204	1-123-382-00	ELECT 3.3MF 20% 50V
C205	1-161-021-11	CERAMIC 0.047MF 10% 25V
C206	1-123-875-91	ELECT 10MF 20% 50V
C207	1-161-055-00	CERAMIC 0.022MF 20% 25V
C208	1-124-927-11	ELECT 4.7MF 20% 50V
C209	1-161-055-00	CERAMIC 0.022MF 20% 25V
C210	1-124-904-00	ELECT 2.2MF 20% 50V
C211	1-161-055-00	CERAMIC 0.022MF 20% 25V
C212	1-123-382-00	ELECT 3.3MF 20% 50V
C213	1-161-055-00	CERAMIC 0.022MF 20% 25V
C214	1-130-481-00	MYLAR 0.0068MF 10% 50V
C215	1-124-477-11	ELECT 47MF 20% 16V
C216	1-136-161-00	MYLAR 0.047MF 10% 50V
C217	1-124-902-00	ELECT 0.47MF 20% 50V
C218	1-123-875-91	ELECT 10MF 20% 50V
C219	1-123-875-91	ELECT 10MF 20% 50V
C220	1-102-112-00	CERAMIC 330PF 10% 50V
C221	1-123-875-91	ELECT 10MF 20% 50V
C222	1-123-875-91	ELECT 10MF 20% 50V
C223	1-136-159-00	MYLAR 0.033MF 10% 50V
C224	1-102-115-00	CERAMIC 560PF 10% 50V
C225	1-102-115-00	CERAMIC 560PF 10% 50V
C226	1-124-477-11	ELECT 47MF 20% 16V
C227	1-124-791-11	ELECT 1MF 20% 50V
C228	1-161-055-00	CERAMIC 0.022MF 20% 25V
C229	1-124-902-00	ELECT 0.47MF 20% 50V
C230	1-124-791-11	ELECT 1MF 20% 50V
C231	1-161-051-00	CERAMIC 0.01MF 10% 50V
C232	1-102-526-00	CERAMIC 75PF 5% 50V
C233	1-101-880-00	CERAMIC 47PF 5% 50V
C234	1-161-051-00	CERAMIC 0.01MF 10% 50V
C235	1-161-055-00	CERAMIC 0.022MF 20% 25V
C236	1-161-051-00	CERAMIC 0.01MF 10% 50V
C237	1-161-055-00	(G-AEP)...CERAMIC 0.022MF 20% 25V
C238	1-124-184-00	ELECT 3.3MF 20% 50V
C239	1-123-875-91	ELECT 10MF 20% 50V
C240	1-124-963-11	ELECT 33MF 20% 16V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C241	1-124-902-00	ELECT	0.47MF	20%	25V
C242	1-161-055-00	CERAMIC	0.022MF	20%	25V
C243	1-124-182-00	ELECT	1MF	20%	50V
C244	1-102-963-00	CERAMIC	33PF	5%	50V
C245	1-124-791-11	ELECT	1MF	20%	50V
C250	1-161-055-00	(G-AEP)...CERAMIC	0.022MF	20%	25V
C251	1-161-055-00	(G-AEP)...CERAMIC	0.022MF	20%	25V
C252	1-161-049-00	(G-AEP)...CERAMIC	0.0068MF	10%	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	30%	25V
C305	1-124-236-00	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	30%	25V
C310	1-124-958-11	ELECT	39000MF		5.5V
C401	1-161-055-00	CERAMIC	0.022MF	20%	25V
C402	1-102-951-00	CERAMIC	15PF	5%	50V
C403	1-102-824-00	CERAMIC	470PF	5%	50V
C406	1-161-055-00	CERAMIC	0.022MF	20%	25V
C420	1-161-041-00	CERAMIC	0.0015MF	10%	50V
C421	1-161-041-00	CERAMIC	0.0015MF	10%	50V
C422	1-102-965-00	CERAMIC	39PF	5%	50V
C423	1-102-888-00	CERAMIC	150PF	5%	50V
C424	1-102-109-00	CERAMIC	180PF	10%	50V
C425	1-161-055-00	CERAMIC	0.022MF	20%	25V
C427	1-161-055-00	CERAMIC	0.022MF	20%	25V
C501	1-102-106-00	(AEP)....CERAMIC	100PF	10%	50V
C501	1-102-114-00	(G-AEP)...CERAMIC	470PF	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	(G-AEP)...CERAMIC	330PF	10%	50V
C504	1-124-963-11	ELECT	33MF	20%	16V
C505	1-130-480-00	MYLAR	0.0056MF	10%	50V
C506	1-130-506-00	MYLAR	0.0015MF	10%	50V
C507	1-123-382-00	ELECT	3.3MF	20%	50V
C508	1-124-791-11	ELECT	1MF	20%	50V
C509	1-136-161-00	MYLAR	0.047MF	10%	50V
C510	1-124-902-00	ELECT	0.47MF	20%	50V
C551	1-102-106-00	(AEP)....CERAMIC	100PF	10%	50V
C551	1-102-114-00	(G-AEP)...CERAMIC	470PF	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	(G-AEP)...CERAMIC	330PF	10%	50V
C554	1-124-963-11	ELECT	33MF	20%	16V
C555	1-130-480-00	MYLAR	0.0056MF	10%	50V
C556	1-130-506-00	MYLAR	0.0015MF	10%	50V
C557	1-123-382-00	ELECT	3.3MF	20%	50V
C558	1-124-791-11	ELECT	1MF	20%	50V
C559	1-136-161-00	MYLAR	0.047MF	10%	50V
C601	1-123-875-91	ELECT	10MF	20%	50V
C602	1-102-112-00	CERAMIC	330PF	10%	50V
C603	1-123-875-91	ELECT	10MF	20%	50V
C604	1-124-912-11	ELECT	330MF	20%	50V
C605	1-124-908-11	ELECT	22MF	20%	50V
C606	1-124-446-11	ELECT	47MF	20%	10V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C607	1-136-159-00	MYLAR	0.033MF	10%	50V
C608	1-124-464-11	ELECT	0.22MF	20%	50V
C609	1-108-385-00	MYLAR	0.047MF	10%	100V
C610	1-102-108-00	CERAMIC	150PF	10%	50V
C611	1-130-477-00	MYLAR	0.0033MF	10%	50V
C612	1-136-157-00	MYLAR	0.022MF	10%	50V
C614	1-123-816-00	ELECT	10MF	20%	50V
C613	1-136-159-00	(AEP)...MYLAR	0.033MF	10%	50V
C616	1-123-875-91	ELECT	10MF	20%	50V
C617	1-124-443-00	ELECT	100MF	20%	10V
C618	1-136-163-00	MYLAR	0.068MF	10%	50V
C619	1-136-163-00	MYLAR	0.068MF	10%	50V
C621	1-124-908-11	ELECT	22MF	20%	50V
C622	1-161-051-00	(G-AEP)...CERAMIC	0.01MF	20%	25V
C623	1-161-051-00	(G-AEP)...CERAMIC	0.01MF	20%	25V
C624	1-161-051-00	(G-AEP)...CERAMIC	0.01MF	20%	25V
C625	1-161-051-00	(G-AEP)...CERAMIC	0.01MF	20%	25V
C626	1-101-005-00	CERAMIC	0.022MF		50V
C627	1-101-005-00	CERAMIC	0.022MF		50V
C629	1-102-108-00	(G-AEP)...CERAMIC	150PF	10%	50V
C630	1-136-165-00	MYLAR	0.1MF	10%	50V
C634	1-161-051-00	CERAMIC	0.01MF	20%	25V
C640	1-161-055-00	(G-AEP)...CERAMIC	0.022MF	10%	25V
C641	1-161-055-00	(G-AEP)...CERAMIC	0.022MF	10%	25V
C642	1-102-108-00	(G-AEP)...CERAMIC	150PF	10%	50V
C643	1-102-108-00	(G-AEP)...CERAMIC	150PF	10%	50V
C651	1-123-875-91	ELECT	10MF	20%	50V
C652	1-102-112-00	CERAMIC	330PF	10%	50V
C655	1-124-908-11	ELECT	22MF	20%	50V
C656	1-124-446-11	ELECT	47MF	20%	10V
C657	1-136-159-00	MYLAR	0.033MF	10%	50V
C658	1-124-464-11	ELECT	0.22MF	20%	50V
C659	1-108-385-00	MYLAR	0.047MF	10%	100V
C660	1-102-108-00	CERAMIC	150PF	10%	50V
C661	1-130-477-00	MYLAR	0.0033MF	10%	50V
C662	1-136-157-00	MYLAR	0.022MF	10%	50V
C664	1-123-816-00	ELECT	10MF	20%	50V
C668	1-136-163-00	MYLAR	0.068MF	10%	50V
C669	1-136-163-00	MYLAR	0.068MF	10%	50V
C672	1-161-051-00	(G-AEP)...CERAMIC	0.01MF	20%	25V
C673	1-161-051-00	(G-AEP)...CERAMIC	0.01MF	20%	25V
C674	1-161-051-00	(G-AEP)...CERAMIC	0.01MF	20%	25V
C675	1-161-051-00	(G-AEP)...CERAMIC	0.01MF	20%	25V
C679	1-102-108-00	(G-AEP)...CERAMIC	150PF	10%	50V
C680	1-136-165-00	MYLAR	0.1MF	10%	50V
C690	1-161-055-00	(G-AEP)...CERAMIC	0.022MF	10%	25V
C691	1-161-055-00	CERAMIC	0.022MF	10%	25V
C802	1-124-963-11	ELECT	33MF	20%	16V
C803	1-123-875-91	ELECT	10MF	20%	50V
C804	1-124-478-11	ELECT	100MF	20%	25V
C805	1-124-362-00	ELECT	4700MF	20%	42V
C806	1-123-875-91	ELECT	10MF	20%	50V
C807	1-124-362-00	ELECT	4700MF	20%	42V
C808	1-123-875-91	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

The components identified by shading and mark **A** are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
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	1-101-004-00	(G-AEP)...CERAMIC 0.01MF 50V
C817	1-101-004-00	(G-AEP)...CERAMIC 0.01MF 50V
C820	1-161-021-11	CERAMIC 0.047MF 10% 25V
C821	1-161-021-11	CERAMIC 0.047MF 10% 25V
C901	1-161-744-00	CERAMIC 0.01MF 400V
C902	1-161-744-00	CERAMIC 0.01MF 400V
CF101	1-527-968-00	FILTER, CERAMIC
CF102	1-527-968-00	(G-AEP)...FILTER, CERAMIC
CF103	1-527-968-00	FILTER, CERAMIC
CNJ901	1-526-794-11	OUTLET, AC
CNJ902	1-507-863-31	JACK, LARGE TYPE (HEADPHONES)
CNP1	*1-564-778-11	PLUG, CONNECTOR (2.5MM) 4P
CNP2	*1-506-707-21	PLUG, CONNECTOR (2.5MM) 3P
CNP3	*1-506-707-11	PLUG, CONNECTOR (2.5MM) 3P
CNP4	*1-506-710-11	PLUG, CONNECTOR (2.5MM) 8P
CNP6	*1-506-708-41	PLUG, CONNECTOR (2.5MM) 5P
CNP7	*1-564-778-31	PLUG, CONNECTOR (2.5MM) 4P
CT401	1-141-180-00	CAP, TRIMMER 15P
CT402	1-141-180-00	CAP, TRIMMER 15P
CT403	1-141-181-11	CAP, TRIMMER
CT404	1-141-181-11	CAP, TRIMMER
D101	8-719-918-45	DIODE KV1310
D104	8-719-918-45	DIODE KV1310
D106	8-719-918-45	DIODE KV1310
D107	8-719-901-33	(G-AEP)...DIODE 1SS133
D108	8-719-918-45	DIODE KV1310
D201	8-719-901-33	(G-AEP)...DIODE 1SS133
D202	8-719-901-33	DIODE 1SS133
D203	8-719-901-33	DIODE 1SS133
D204	8-719-901-33	DIODE 1SS133
D301	8-719-311-10	DIODE SEL1110R
D302	8-719-906-57	DIODE LG-5NG24
D303	8-719-901-33	DIODE 1SS133
D304	8-719-901-33	DIODE 1SS133
D305	8-719-901-33	DIODE 1SS133
D306	8-719-901-33	DIODE 1SS133
D307	8-719-901-33	DIODE 1SS133
D308	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
D401	8-719-902-79	DIODE KV1236Z
D402	8-719-902-79	DIODE KV1236Z
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
D604	8-719-901-33	DIODE 1SS133
D651	8-719-901-33	DIODE 1SS133
D801	8-719-300-57	DIODE RB402

The components identified by shading and mark  are critical for safety. Replace only with part number specified.

ELECTRICAL PARTS

Ref.No.	Part No.	Description
D803	8-719-100-44	DIODE RD7.5E-B2
D804	8-719-100-44	DIODE RD7.5E-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	8-719-100-44	DIODE RD7.5E-B2
F901	1-532-973-11	FUSE (1.6A)
F902	1-532-967-11	FUSE (1.25A)
FL301	1-519-297-00	INDICATOR TUBE, FLUORESCENT
IC201	8-759-801-81	IC LA1265
IC202	8-759-801-80	IC LA3401
IC203	8-757-925-20	IC CX7925B
IC301	8-759-204-02	IC TMP47C21N-3115
IC501	8-759-600-02	IC M5218L
IC502	8-759-240-52	IC TC4052BP
IC503	8-759-240-52	IC TC4052BP
IC504	8-759-240-52	IC TC4052BP
IC601	8-749-941-52	IC STK4152II
IFT101	1-404-363-00	TRANSFORMER, IF
J501	1-507-788-00	JACK, PIN 4P
J502	1-507-908-11	JACK, PIN 4P
J503	1-507-788-00	JACK, PIN 4P
L101	*1-459-703-11	COIL (WITH CORE)
L103	*1-422-077-00	COIL, AIR-CORE
L104	*1-422-081-00	COIL (WITH CORE)
L105	1-408-555-00	MICRO INDUCTOR 2.2UH
L106	*1-402-258-11	COIL, ANT
L107	*1-422-038-00	(G-AEP)...COIL, AIR-CORE
L201	1-408-920-00	MICRO INDUCTOR 4.7MMH
L302	1-408-575-00	MICRO INDUCTOR 100UH
L401	1-408-579-00	MICRO INDUCTOR 220UH
L601	*1-420-872-00	COIL, AIR CORE
L651	*1-420-872-00	COIL, AIR CORE
LPF201	1-235-983-11	(G-AEP)...FILTER
Q101	8-729-200-56	TRANSISTOR 2SK241-GR
Q102	8-729-353-52	TRANSISTOR 2SC535
Q103	8-729-672-42	TRANSISTOR 2SC2724
Q104	8-729-672-42	TRANSISTOR 2SC2724
Q107	8-729-672-42	TRANSISTOR 2SC2724
Q109	8-729-200-56	(G-AEP)...TRANSISTOR 2SK241-GR
Q110	8-729-672-42	(G-AEP)...TRANSISTOR 2SC2724
Q201	8-729-600-27	TRANSISTOR 2SC634SP
Q202	8-729-600-27	TRANSISTOR 2SC634SP
Q203	8-729-900-36	TRANSISTOR DTC124ES
Q204	8-729-201-56	TRANSISTOR 2SK246-GR2
Q205	8-729-600-27	TRANSISTOR 2SC634SP
Q206	8-729-600-27	TRANSISTOR 2SC634SP
Q207	8-729-201-56	TRANSISTOR 2SK246-GR2
Q208	8-729-117-54	TRANSISTOR 2SA1175
Q301	8-729-117-54	TRANSISTOR 2SA1175
Q401	8-729-107-91	TRANSISTOR 2SC3622-L
Q402	8-729-107-91	TRANSISTOR 2SC3622-L
Q403	8-729-107-91	TRANSISTOR 2SC3622-L
Q404	8-729-600-27	TRANSISTOR 2SC634SP
Q405	8-729-600-27	TRANSISTOR 2SC634SP

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
Q406	8-729-600-27	TRANSISTOR 2SC634SP			
Q501	8-729-117-54	TRANSISTOR 2SA1175			
Q502	8-729-117-54	TRANSISTOR 2SA1175			
Q551	8-729-117-54	TRANSISTOR 2SA1175			
Q601	8-729-108-14	TRANSISTOR 2SA988-F			
Q602	8-729-178-54	TRANSISTOR 2SC2785			
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	8-729-177-43	TRANSISTOR 2SD774			
Q802	8-729-107-25	TRANSISTOR 2SD1585-L			
Q803	8-729-103-43	TRANSISTOR 2SB734			
R101	1-249-441-11	CARBON	100K	5%	1/6W
R102	1-249-437-11	CARBON	47K	5%	1/6W
R103	1-249-401-11	CARBON	47	5%	1/6W
R104	1-249-411-11	CARBON	330	5%	1/6W
R105	1-249-441-11	CARBON	100K	5%	1/6W
R106	1-215-483-00	CARBON	390K	5%	1/6W
R107	1-249-411-11	CARBON	330	5%	1/6W
R108	1-215-491-00	CARBON	820K	5%	1/6W
R109	1-249-428-11	CARBON	8.2K	5%	1/6W
R110	1-249-428-11	CARBON	8.2K	5%	1/6W
R111	1-249-422-11	CARBON	2.7K	5%	1/6W
R112	1-249-429-11	CARBON	10K	5%	1/6W
R113	1-249-405-11	CARBON	100	5%	1/6W
R114	1-249-405-11	CARBON	100	5%	1/6W
R117	1-249-411-11	CARBON	330	5%	1/6W
R118	1-249-414-11	CARBON	560	5%	1/6W
R119	1-249-411-11	CARBON	330	5%	1/6W
R120	1-249-433-11	CARBON	22K	5%	1/6W
R121	1-249-433-11	CARBON	22K	5%	1/6W
R122	1-249-411-11	(G-AEP)...CARBON	330	5%	1/6W
R123	1-249-424-11	CARBON	3.9K	5%	1/6W
R124	1-249-405-11	CARBON	100	5%	1/6W
R125	1-249-414-11	CARBON	560	5%	1/6W
R126	1-249-441-11	(G-AEP)...CARBON	100K	5%	1/6W
R127	1-249-437-11	(G-AEP)...CARBON	47K	5%	1/6W
R128	1-249-414-11	(G-AEP)...CARBON	560	5%	1/6W
R129	1-249-433-11	CARBON	22K	5%	1/6W
R130	1-249-433-11	(G-AEP)...CARBON	22K	5%	1/6W
R131	1-249-424-11	(G-AEP)...CARBON	3.9K	5%	1/6W
R132	1-249-411-11	(G-AEP)...CARBON	330	5%	1/6W
R133	1-249-411-11	(G-AEP)...CARBON	330	5%	1/6W
R201	1-249-432-11	CARBON	18K	5%	1/6W
R202	1-249-417-11	CARBON	1K	5%	1/6W
R204	1-249-429-11	CARBON	10K	5%	1/6W
R205	1-249-435-11	CARBON	33K	5%	1/6W
R206	1-249-405-11	CARBON	100	5%	1/6W
R207	1-249-423-11	CARBON	3.3K	5%	1/6W
R208	1-249-429-11	CARBON	10K	5%	1/6W
R209	1-247-849-00	CARBON	5.6K	5%	1/6W
R210	1-249-425-11	CARBON	4.7K	5%	1/6W
R211	1-249-406-11	CARBON	120	5%	1/6W
R212	1-249-406-11	CARBON	120	5%	1/6W
R213	1-249-417-11	CARBON	1K	5%	1/6W
R214	1-249-441-11	CARBON	100K	5%	1/6W
R215	1-249-437-11	CARBON	47K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R216	1-249-423-11	CARBON	3.3K	5%	1/6W
R217	1-247-883-00	CARBON	150K	5%	1/6W
R218	1-247-883-00	CARBON	150K	5%	1/6W
R219	1-249-423-11	CARBON	3.3K	5%	1/6W
R220	1-247-881-00	CARBON	120K	5%	1/6W
R221	1-247-881-00	CARBON	120K	5%	1/6W
R222	1-249-429-11	CARBON	10K	5%	1/6W
R223	1-249-429-11	CARBON	10K	5%	1/6W
R224	1-249-429-11	CARBON	10K	5%	1/6W
R225	1-249-429-11	CARBON	10K	5%	1/6W
R226	1-249-429-11	CARBON	10K	5%	1/6W
R227	1-249-433-11	CARBON	22K	5%	1/6W
R228	1-249-429-11	CARBON	10K	5%	1/6W
R229	1-249-429-11	CARBON	10K	5%	1/6W
R230	1-249-429-11	CARBON	10K	5%	1/6W
R231	1-249-417-11	CARBON	1K	5%	1/6W
R232	1-249-425-11	CARBON	4.7K	5%	1/6W
R233	1-249-411-11	CARBON	330	5%	1/6W
R234	1-249-417-11	CARBON	1K	5%	1/6W
R235	1-249-424-11	CARBON	3.9K	5%	1/6W
R236	1-249-425-11	CARBON	4.7K	5%	1/6W
R237	1-247-701-11	CARBON	120	5%	1/4W F
R238	1-249-441-11	CARBON	100K	5%	1/6W
R239	1-249-441-11	CARBON	100K	5%	1/6W
R240	1-249-441-11	CARBON	100K	5%	1/6W
R241	1-249-409-11	CARBON	220	5%	1/6W
R242	1-249-438-11	CARBON	56K	5%	1/6W
R243	1-247-695-11	CARBON	39	5%	1/4W F
R245	1-249-425-11	CARBON	4.7K	5%	1/6W
R246	1-249-424-11	CARBON	3.9K	5%	1/6W
R247	1-249-429-11	CARBON	10K	5%	1/6W
R248	1-249-414-11	CARBON	330	5%	1/6W
R249	1-249-417-11	CARBON	1K	5%	1/6W
R250	1-249-417-11	CARBON	1K	5%	1/6W
R251	1-249-438-11	CARBON	56K	5%	1/6W
R252	1-249-423-11	CARBON	3.3K	5%	1/6W
R253	1-249-429-11	CARBON	10K	5%	1/6W
R254	1-249-424-11	CARBON	3.9K	5%	1/6W
R255	1-249-424-11	CARBON	3.9K	5%	1/6W
R301	1-249-441-11	CARBON	100K	5%	1/6W
R302	1-249-441-11	CARBON	100K	5%	1/6W
R303	1-249-441-11	CARBON	100K	5%	1/6W
R304	1-249-441-11	CARBON	100K	5%	1/6W
R305	1-249-441-11	CARBON	100K	5%	1/6W
R306	1-249-441-11	CARBON	100K	5%	1/6W
R307	1-249-441-11	CARBON	100K	5%	1/6W
R308	1-249-441-11	CARBON	100K	5%	1/6W
R309	1-249-441-11	CARBON	100K	5%	1/6W
R310	1-249-441-11	CARBON	100K	5%	1/6W
R311	1-249-441-11	CARBON	100K	5%	1/6W
R312	1-249-441-11	CARBON	100K	5%	1/6W
R313	1-249-441-11	CARBON	100K	5%	1/6W
R314	1-249-441-11	CARBON	100K	5%	1/6W
R315	1-249-441-11	CARBON	100K	5%	1/6W
R316	1-249-441-11	CARBON	100K	5%	1/6W
R317	1-249-441-11	CARBON	100K	5%	1/6W
R318	1-249-441-11	CARBON	100K	5%	1/6W

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ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R319	1-249-441-11	CARBON	100K	5%	1/6W
R320	△ 1-213-138-00	METAL OXIDE	390	5%	1W F
R321	1-249-429-11	CARBON	10K	5%	1/6W
R322	1-249-410-11	CARBON	270	5%	1/6W
R323	1-247-889-00	CARBON	270K	5%	1/6W
R324	1-249-401-11	CARBON	47	5%	1/6W
R325	1-247-742-11	CARBON	180	5%	1/2W
R326	1-249-441-11	CARBON	100K	5%	1/6W
R327	1-249-425-11	CARBON	4.7K	5%	1/6W
R328	1-249-438-11	CARBON	56K	5%	1/6W
R329	1-249-438-11	CARBON	56K	5%	1/6W
R330	1-249-417-11	CARBON	1K	5%	1/6W
R401	1-247-891-00	CARBON	330K	5%	1/6W
R402	1-249-441-11	CARBON	100K	5%	1/6W
R413	1-249-429-11	CARBON	10K	5%	1/6W
R414	1-247-891-00	CARBON	330K	5%	1/6W
R415	1-247-849-00	CARBON	5.6K	5%	1/6W
R416	1-249-863-00	CARBON	22K	5%	1/6W
R417	1-249-435-11	CARBON	33K	5%	1/6W
R418	1-249-441-11	CARBON	100K	5%	1/6W
R419	1-249-429-11	CARBON	10K	5%	1/6W
R420	1-249-863-00	CARBON	22K	5%	1/6W
R421	1-249-429-11	CARBON	10K	5%	1/6W
R501	1-249-425-11	CARBON	4.7K	5%	1/6W
R502	1-247-897-00	CARBON	560K	5%	1/6W
R503	1-249-417-11	CARBON	1K	5%	1/6W
R504	1-249-425-11	CARBON	4.7K	5%	1/6W
R505	1-247-897-00	CARBON	560K	5%	1/6W
R506	1-249-417-11	CARBON	1K	5%	1/6W
R507	1-249-417-11	CARBON	1K	5%	1/6W
R508	1-249-411-11	CARBON	330	5%	1/6W
R509	1-249-437-11	CARBON	47K	5%	1/6W
R510	1-247-897-00	CARBON	560K	5%	1/6W
R511	1-249-417-11	CARBON	1K	5%	1/6W
R512	1-247-897-00	CARBON	560K	5%	1/6W
R513	1-249-437-11	CARBON	47K	5%	1/6W
R514	1-249-417-11	CARBON	1K	5%	1/6W
R515	1-247-897-00	CARBON	560K	5%	1/6W
R516	1-247-897-00	CARBON	560K	5%	1/6W
R517	1-249-469-11	CARBON	100K	5%	1/4W
R518	1-247-897-00	CARBON	560K	5%	1/6W
R519	1-249-435-11	CARBON	33K	5%	1/6W
R520	1-249-435-11	CARBON	33K	5%	1/6W
R521	1-249-421-11	CARBON	2.2K	5%	1/6W
R522	1-247-897-00	CARBON	560K	5%	1/6W
R523	1-249-423-11	CARBON	3.3K	5%	1/6W
R524	1-249-423-11	CARBON	3.3K	5%	1/6W
R525	1-249-429-11	CARBON	10K	5%	1/6W
R526	1-249-429-11	CARBON	10K	5%	1/6W
R527	1-249-433-11	CARBON	22K	5%	1/6W
R528	1-249-417-11	(G-AEP)...CARBON	1K	5%	1/6W
R550	1-249-435-11	CARBON	33K	5%	1/6W
R551	1-249-425-11	CARBON	4.7K	5%	1/6W
R552	1-247-897-00	CARBON	560K	5%	1/6W
R553	1-249-417-11	CARBON	1K	5%	1/6W
R554	1-249-425-11	CARBON	4.7K	5%	1/6W
R555	1-247-897-00	CARBON	560K	5%	1/6W

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R556	1-249-417-11	CARBON	1K	5%	1/6W
R557	1-249-417-11	CARBON	1K	5%	1/6W
R558	1-249-411-11	CARBON	330	5%	1/6W
R559	1-249-437-11	CARBON	47K	5%	1/6W
R560	1-247-897-00	CARBON	560K	5%	1/6W
R561	1-249-417-11	CARBON	1K	5%	1/6W
R562	1-247-897-00	CARBON	560K	5%	1/6W
R563	1-249-437-11	CARBON	47K	5%	1/6W
R564	1-249-417-11	(G-AEP)...CARBON	1K	5%	1/6W
R569	1-249-435-11	CARBON	33K	5%	1/6W
R570	1-249-435-11	CARBON	33K	5%	1/6W
R571	1-249-421-11	CARBON	2.2K	5%	1/6W
R572	1-247-897-00	CARBON	560K	5%	1/6W
R578	1-249-417-11	(G-AEP)...CARBON	1K	5%	1/6W
R601	1-249-417-11	CARBON	1K	5%	1/6W
R602	1-249-421-11	CARBON	2.2K	5%	1/6W
R603	1-249-438-11	CARBON	56K	5%	1/6W
R604	1-247-717-11	CARBON	2.2K	5%	1/4W
R605	1-247-756-11	CARBON	2.2K	5%	1/2W
R606	1-247-713-11	CARBON	1K	5%	1/4W
R607	1-217-152-00	RES, METAL PLATE	0.33		
R608	1-249-438-11	CARBON	56K	5%	1/6W
R609	1-247-828-00	CARBON	750	5%	1/6W
R610	1-249-427-11	CARBON	6.8K	5%	1/6W
R611	1-249-435-11	CARBON	33K	5%	1/6W
R612	△ 1-247-694-11	CARBON	33	5%	1/4W F
R613	1-249-428-11	CARBON	8.2K	5%	1/6W
R614	1-249-437-11	CARBON	47K	5%	1/6W
R615	△ 1-247-700-11	CARBON	100	5%	1/4W F
R616	1-249-441-11	CARBON	100K	5%	1/6W
R617	1-249-433-11	CARBON	22K	5%	1/6W
R618	1-247-897-00	CARBON	560K	5%	1/6W
R619	1-249-433-11	CARBON	22K	5%	1/6W
R620	1-247-744-11	CARBON	270	5%	1/2W
R621	1-249-435-11	CARBON	33K	5%	1/6W
R622	1-249-421-11	CARBON	2.2K	5%	1/6W
R623	1-249-432-11	CARBON	18K	5%	1/6W
R624	1-249-431-11	CARBON	15K	5%	1/6W
R625	1-247-889-00	CARBON	270K	5%	1/6W
R626	1-249-416-11	CARBON	820	5%	1/6W
R627	1-249-427-11	CARBON	6.8K	5%	1/6W
R628	1-247-727-11	CARBON	10	5%	1/2W
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	(G-AEP)...CARBON	6.8K	5%	1/6W
R632	1-247-688-11	(G-AEP)...CARBON	10	5%	1/4W
R634	1-247-688-11	(G-AEP)...CARBON	10	5%	1/4W
R640	1-247-771-00	(G-AEP)...CARBON	3.3	5%	1/6W
R652	1-249-421-11	CARBON	2.2K	5%	1/6W
R653	1-249-438-11	CARBON	56K	5%	1/6W
R654	1-247-717-11	CARBON	2.2K	5%	1/4W
R655	1-247-756-11	CARBON	2.2K	5%	1/2W
R656	1-247-713-11	CARBON	1K	5%	1/4W
R657	1-217-152-00	RES, METAL PLATE	0.33		
R658	1-249-438-11	CARBON	56K	5%	1/6W
R659	1-247-828-00	CARBON	750	5%	1/6W
R660	1-249-427-11	CARBON	6.8K	5%	1/6W

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ELECTRICAL PARTS

Ref.No.	Part No.	Description
R661	1-249-435-11	CARBON 33K 5% 1/6W
R664	1-249-437-11	CARBON 47K 5% 1/6W
R672	1-249-421-11	CARBON 2.2K 5% 1/6W
R673	1-249-432-11	CARBON 18K 5% 1/6W
R674	1-249-431-11	CARBON 15K 5% 1/6W
R675	1-247-889-00	CARBON 270K 5% 1/6W
R676	1-249-416-11	CARBON 820 5% 1/6W
R677	1-249-427-11	CARBON 6.8K 5% 1/6W
R678	1-247-727-11	CARBON 10 5% 1/2W
R679	1-249-465-11	CARBON 4.7 5% 1/4W
R680	△ 1-215-914-11	WIREWOUND 330 10% 2W F
R682	1-247-688-11	(G-AEP)...CARBON 10 5% 1/4W
R684	1-247-688-11	(G-AEP)...CARBON 10 5% 1/4W
R690	1-247-771-00	(G-AEP)...CARBON 3.3 5% 1/6W
R802	1-247-741-11	CARBON 150 5% 1/2W
R803	1-247-721-11	CARBON 4.7K 5% 1/4W
R805	△ 1-247-700-11	CARBON 100 5% 1/4W F
R806	△ 1-206-477-00	METAL OXIDE 39 5% 2W F
R807	1-247-722-11	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
R810	1-247-713-11	CARBON 1K 5% 1/4W
R811	1-247-719-11	CARBON 3.3K 5% 1/4W
R812	1-247-714-11	CARBON 1.2K 5% 1/4W
RV201	1-228-995-00	RES. ADJ. METAL GLAZE 22K
RV202	1-228-998-00	RES. ADJ. METAL GLAZE 220K
RV501	1-237-629-11	RES. VAR. CARBON 100K/100K (VOLUME)
RV502	1-230-586-11	RES. VAR. SLIDE 250K (BALANCE)
RV601	1-230-585-11	RES. VAR. SLIDE 100K/100K (BASS)
RV602	1-230-585-11	RES. VAR. SLIDE 100K/100K (TREBLE)
RY601	1-515-533-11	RELAY
S6	1-570-270-11	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 (MW)
S316	1-554-303-21	SWITCH, KEY BOARD (4)

ELECTRICAL PARTS

Ref.No.	Part No.	Description
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/AUX)
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)
S323	1-554-303-21	SWITCH, KEY BOARD (3)
S324	1-554-303-21	SWITCH, KEY BOARD (FM/MW/LW)
S325	1-554-303-21	SWITCH, KEY BOARD (LW)
S501	1-570-584-11	SWITCH, PUSH (1 KEY)(LOUDNESS)
S901	△ 1-554-685-11	SWITCH, PUSH (AC POWER)(1 KEY)
T201	1-404-650-11	COIL, DISCRIMINATOR
T202	1-404-651-11	COIL, DISCRIMINATOR
T205	1-404-713-11	TRANSFORMER, IF
T401	1-402-197-11	COIL (ANTENNA)
T402	1-406-089-11	COIL (OSC)
T404	1-406-090-11	COIL (OSC)
T405	1-402-071-11	COIL (ANT)
T901	△ 1-448-849-11	TRANSFORMER, POWER
TM101	1-536-707-00	(G-AEP)...TERMINAL BOARD, PUSH 2P (ANTENNA)
TM101	1-536-708-00	(AEP).....TERMINAL BOARD, PUSH 4P (ANTENNA)
TM901	1-536-706-00	TERMINAL BOARD (SPEAKER)
TM902	1-561-919-00	(G-AEP)...SOCKET, CONNECTOR
X201	1-567-250-11	OSCILLATOR, CERAMIC
X202	1-567-125-00	VIBRATOR, CRYSTAL
X301	1-527-822-00	OSCILLATOR, CERAMIC

ACCESSORY & PACKING MATERIAL

Part No.	Description
1-501-291-21	(AEP)...ANTENNA, FEEDER
3-701-630-00	BAG, POLYETHYLENE
3-765-953-11	(G-AEP)...MANUAL, INSTRUCTION
3-765-953-41	(AEP).....MANUAL, INSTRUCTION
4-858-078-00	SHEET, PROTECTION
4-906-822-01	FRAME, REINFORCEMENT
4-919-137-71	INDIVIDUAL CARTON
4-919-138-01	CUSHION, LOWER
4-919-139-01	CUSHION, UPPER

The components identified by shading and mark △ are critical for safety. Replace only with part number specified.

TROUBLESHOOTING

PROBLEM	SOLUTION
STEREO indicator flickers or does not light up when FM stereo programs are received.	• Adjust the antenna or check an external FM antenna connection. • Press FM MODE to disengage the stereo mode.
The figures in the display window do not stop at the desired station during sweep tuning.	• Adjust the antenna. • Tune in the station using the direct access tuning.
Stations cannot be tuned in correctly when the number button is pressed.	• Memorize the frequency correctly.
MW/LW stations cannot be tuned in.	• Connect the supplied LW/MW layout-free antenna to the LW/MW external ANTENNA terminals.
Audio is not heard.	• Check the speaker and program source connections. • Check that the appropriate Function or TAPE MONITOR button is pressed. • Check the SPEAKERS selectors.
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 occur 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. • Separate the audio components and the TV. • Connect the ground wire to the ANTENNA ground terminal. • Clean any dirty plugs and jacks with a cloth lightly moistened with alcohol.

Sony Corporation
Audio Group

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English
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