

TA-AX330

SERVICE MANUAL

*AEP Model
UK Model
E Model*



Free service manuals
Gratis schema's

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SPECIFICATIONS

Amplifier section

Continuous RMS power output
(both channels driven)

simultaneously) At 1 kHz, 5% THD
60 + 60 watts (8 ohms)
At 1kHz, 0.08% THD
52 + 52 watts (8 ohms)
At 40 kHz – 20 kHz, 0.08% THD
48 + 48 watts (8 ohms)

Peak music power output (Type 3)
350 W (8 ohms, 5% THD)

Music power output (Type 3)
175 W (8 ohms, 5% THD)

Power bandwidth (IHF)
10 Hz – 30 kHz (8 ohms, 30 W)

Dynamic headroom
1.2 dB ('78 IHF)

Harmonic distortion
Less than 0.08% at rated output distortion

Intermodulation Less than 0.08% at rated output
(IF) (60 Hz: 7 kHz = 4:1)

Frequency response
PHONO: RIAA equalization curve ± 0.5 dB
TUNER/CD/VIDEO/TAPE
10 Hz – 100 kHz ± 3.0 dB

Residual noise Less than 70 μ V (8 ohms, network A)

Damping factor 50 (8 ohms, 1 kHz)

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.

Input

	Sensitivity	Impedance
PHONO	2.0 mV	50 kohms
TUNER CD VIDEO TAPE	150 mV	50 kohms

Outputs

REC OUT

Voltage 150 mV
Impedance 470 ohms

SPEAKER

Accepts speakers of 8 – 16 ohms

HEADPHONES

Accepts low and high impedance
headphones

Graphic equalizer

60 Hz: ± 10 dB
150 Hz: ± 10 dB
400 Hz: ± 10 dB
1 kHz: ± 10 dB
2.4 kHz: ± 10 dB
6 kHz: ± 9 dB
14 kHz: ± 7 dB

— Continued on page 2 —

INTEGRATED STEREO AMPLIFIER

SONY®



AUD

General System

Preamplifier section: low-noise IC NF type equalizer amplifier
Power amplifier section: quasi-complementary SEPP OTL OCL power amplifier with all stages direct coupled

Power requirements

AEP model: 220 V ac (or 240 V ac adjustable by authorized Sony personnel), 50/60 Hz
UK model: 240 V ac (or 220 V ac adjustable by authorized Sony personnel), 50 Hz
E model: 120, 220 or 240 V ac adjustable, 50/60 Hz

Power consumption

AEP, E model: 110 W
UK model: 250 W

AC outlets

AEP, UK model: 3 switched total 100 watts max.
E model: 2 switched total 100 watts max.
1 unswitched 100 watts max.

Dimensions

AEP model:
Approx. 430 x 105 x 255 mm
(17¹/₈ x 4¹/₄ x 10¹/₈ inches)

UK, E model:

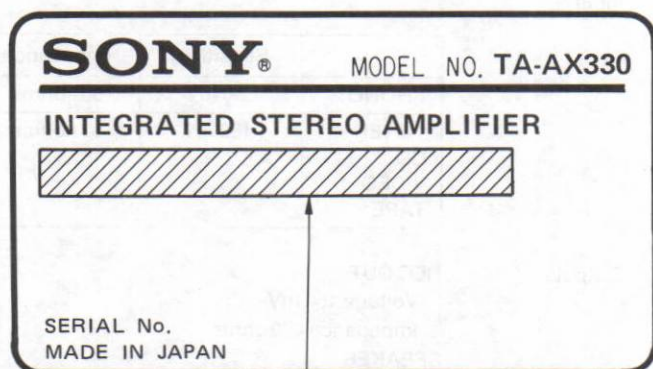
Approx. 430 x 105 x 250 mm
(17¹/₈ x 4¹/₄ x 9⁷/₈ inches)
including projecting parts and controls

Weight

AEP, UK model:
Approx. 5.3 kg (11 lbs 11 oz) net
E model:
Approx. 5.4 kg (11 lbs 15 oz) net

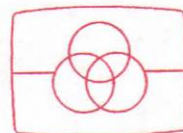
MODEL IDENTIFICATION

— Specification Label —



AEP model: AC: 220 V ~ 50/60 Hz 110 W
UK model: AC: 240 V ~ 50/60 Hz 250 W
E model: AC: 120/220/240 V ~ 50/60 Hz 110 W

FUNCTION OF CONTROLS



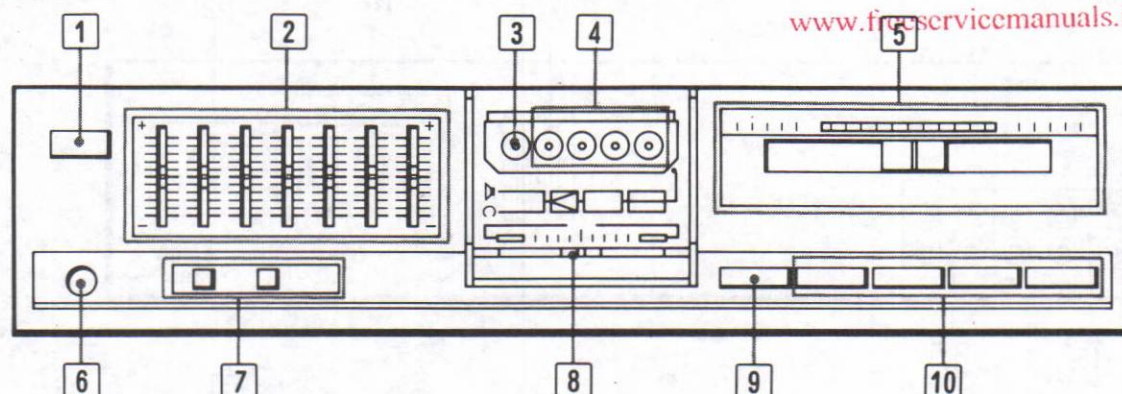
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Front panel



1 POWER switch

Turns the operating power on or off.

2 GRAPHIC EQUALIZER controls

To equalize the listening sound, slide each control upwards to increase the level of the frequency band, and downwards to decrease the level.

60 Hz: Use to boost or cut the bass.

150 Hz: Use to adjust the middle and low frequency range.

400 Hz: Use to adjust the middle frequency range.

1 kHz: Use to provide more presence of vocals.

2.4 kHz: Use to adjust the brightness of sound.

6 kHz: Use to adjust the middle and high frequency range.

14 kHz: This control effects general treble. Slide downwards to reduce high frequency noise, such as tape hiss.

To record or listen to the sound with the original tone quality, set all the controls at their center positions.

3 TAPE indicator

Lights up when the MONITOR TAPE button is depressed.

4 FUNCTION display

Shows the audio input source in use when the appropriate button is depressed.

5 VOLUME control and indicator

Adjusts the sound level.

6 HEADPHONES jack (stereo phone jack)

The headphone volume can be adjusted with the VOLUME control.

For TA-AX230, sound from the speaker will be cut off when a plug is inserted to this jack.

For TA-AX330, release both SPEAKERS select buttons for headphone listening only.

7 SPEAKERS select buttons

Select speaker system A or B, or both.

8 BALANCE control

Adjusts the balance of the left and right channel output level.

9 MONITOR TAPE button

For listening to a taped program.

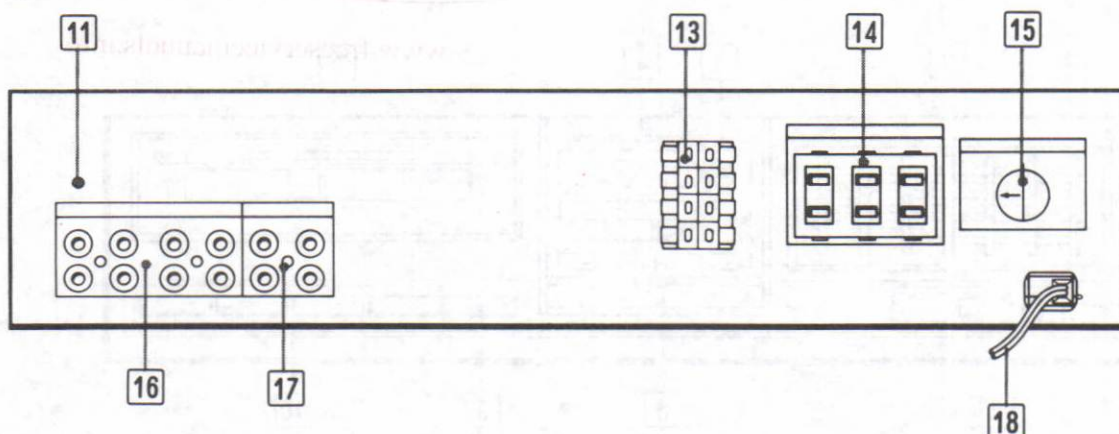
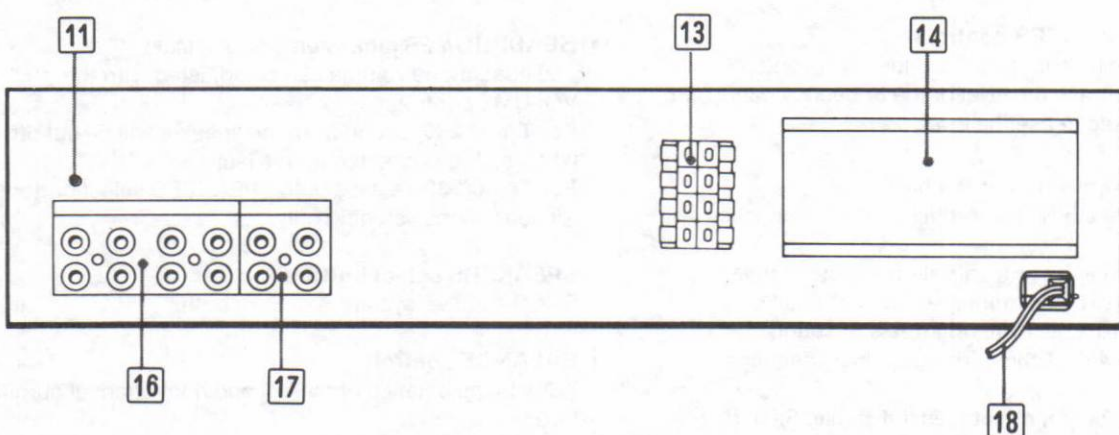
10 FUNCTION buttons

VIDEO: For listening to or recording the sound from the video equipment or an auxiliary programs (connected to VIDEO inputs).

CD: For listening to or recording the compact disc programs.

TUNER: For listening to or recording radio programs.

PHONO: For listening to or recording disc programs.

Rear panel**E Model:****AEP, UK Model:****[11] Ground terminal ($\overline{m}$)**

To prevent hum, be sure to connect the ground wire of the turntable system.

[13] SPEAKERS A, B connector**[14] AC OUTLETS**

These are used to supply power to other audio components whose power consumption is less than the wattage indicated on the ac outlet (See page 9).

[15] Voltage selector (E model only)

See "Operating voltage" on page 5.

[16] INPUT jacks (phono jack)

PHONO: Accept the outputs of a turntable system.

TUNER: Accept the outputs of a tuner.

CD: Accept the outputs of a CD player.

VIDEO: Accept the audio outputs of a video recorder.

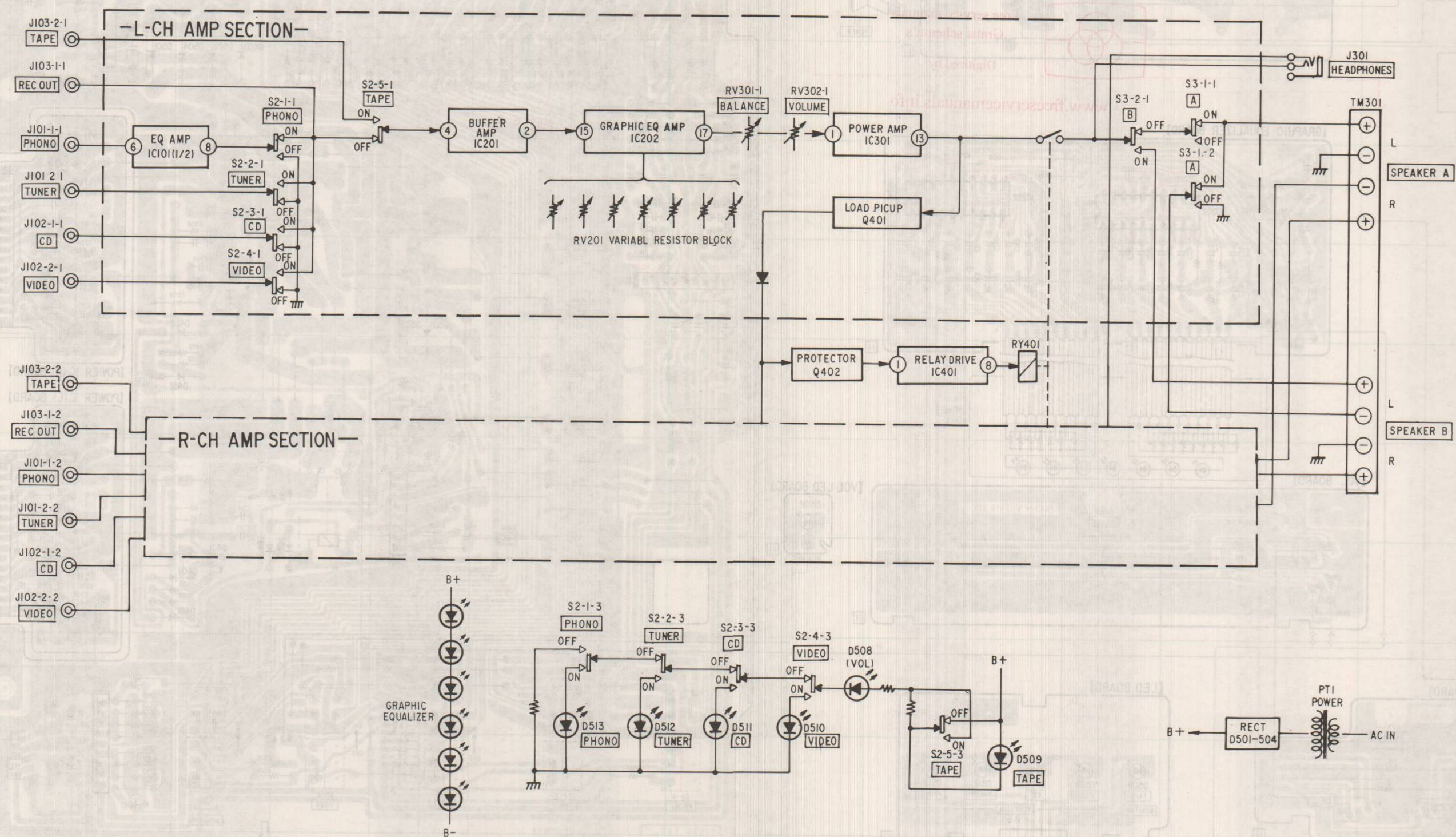
[17] TAPE RECORDER jacks (phono jack)

REC OUT: For recording a program source connected to the amplifier.

TAPE: For monitoring a taped program.

[18] Power cord

SECTION 1 BLOCK DIAGRAM

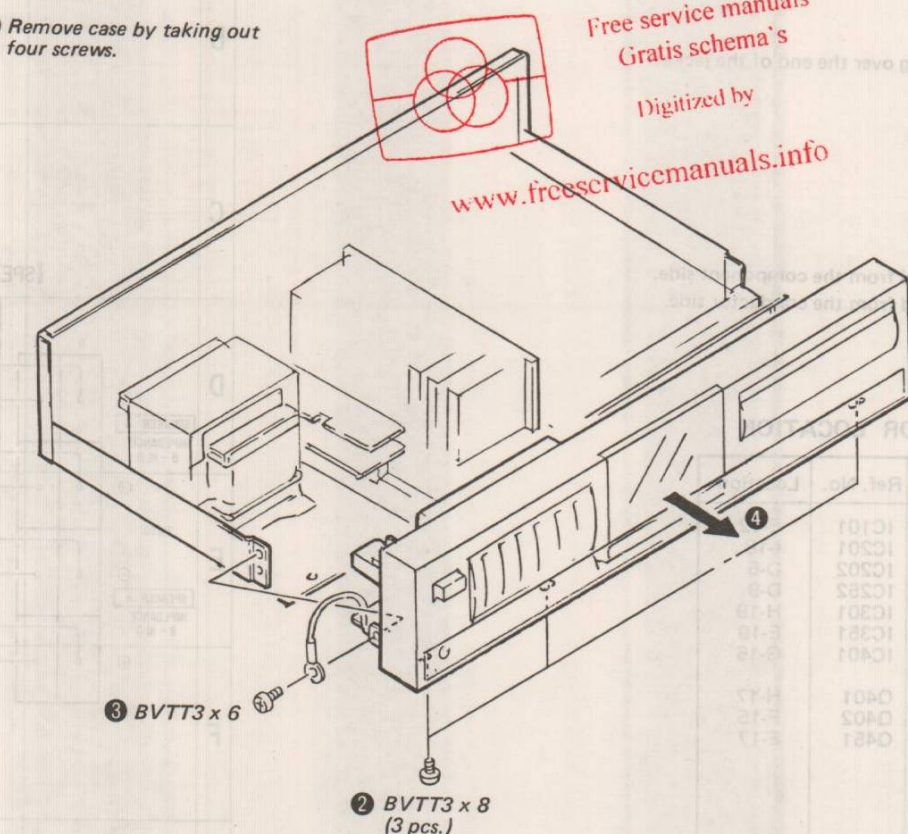


SECTION 2 DISASSEMBLY

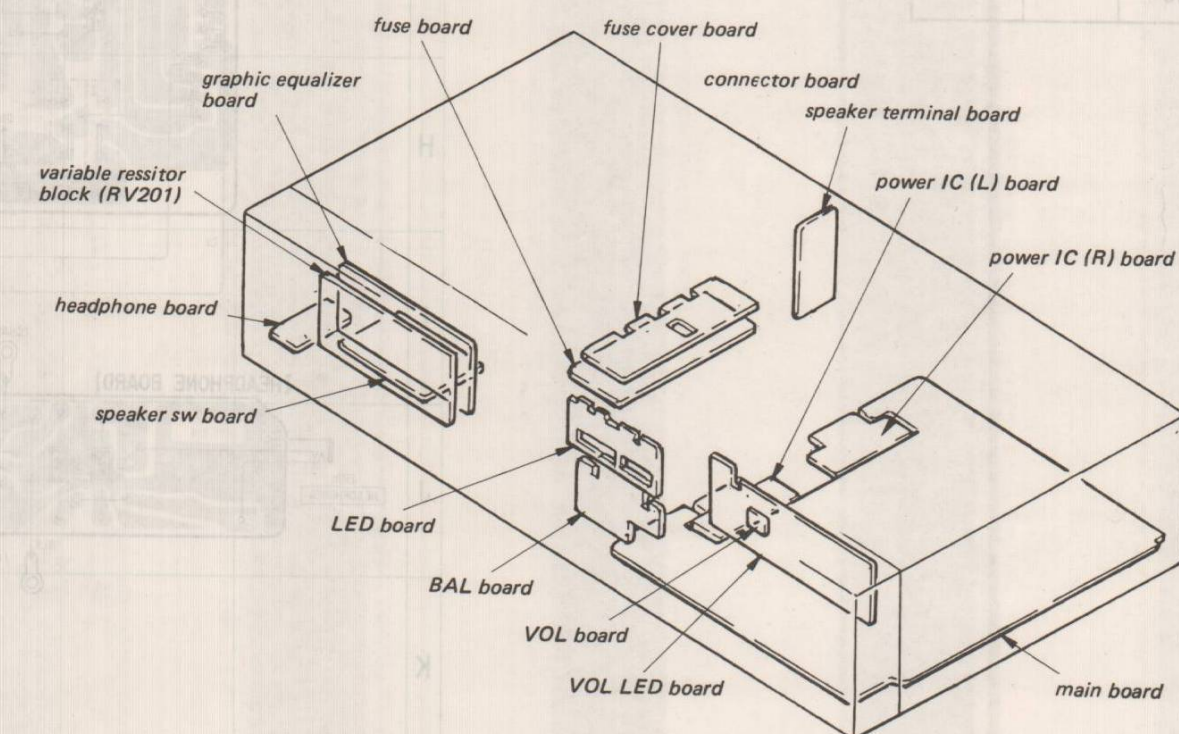
Note: Follow the disassembly procedure in the numerical order given.

FRONT PANEL REMOVAL

- 1 Remove case by taking out four screws.



CIRCUIT BOARD LOCATIONS



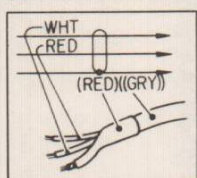
SECTION 3
DIAGRAMS

3-1. MOUNTING DIAGRAM
— Conductor Side —

• See page 14 for Semiconductor Lead Layouts.

Note:

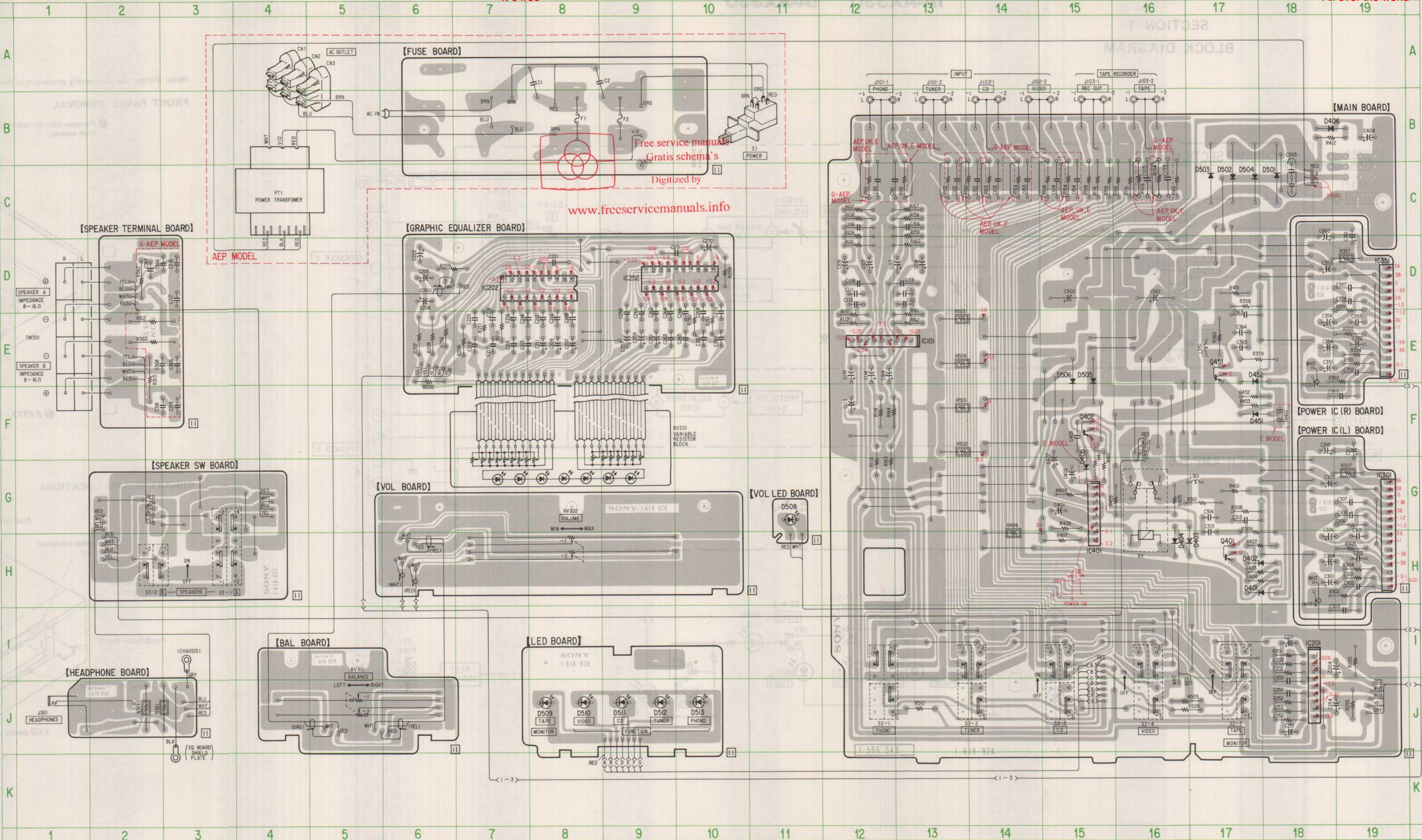
- Color code or sleeving over the end of the jacket

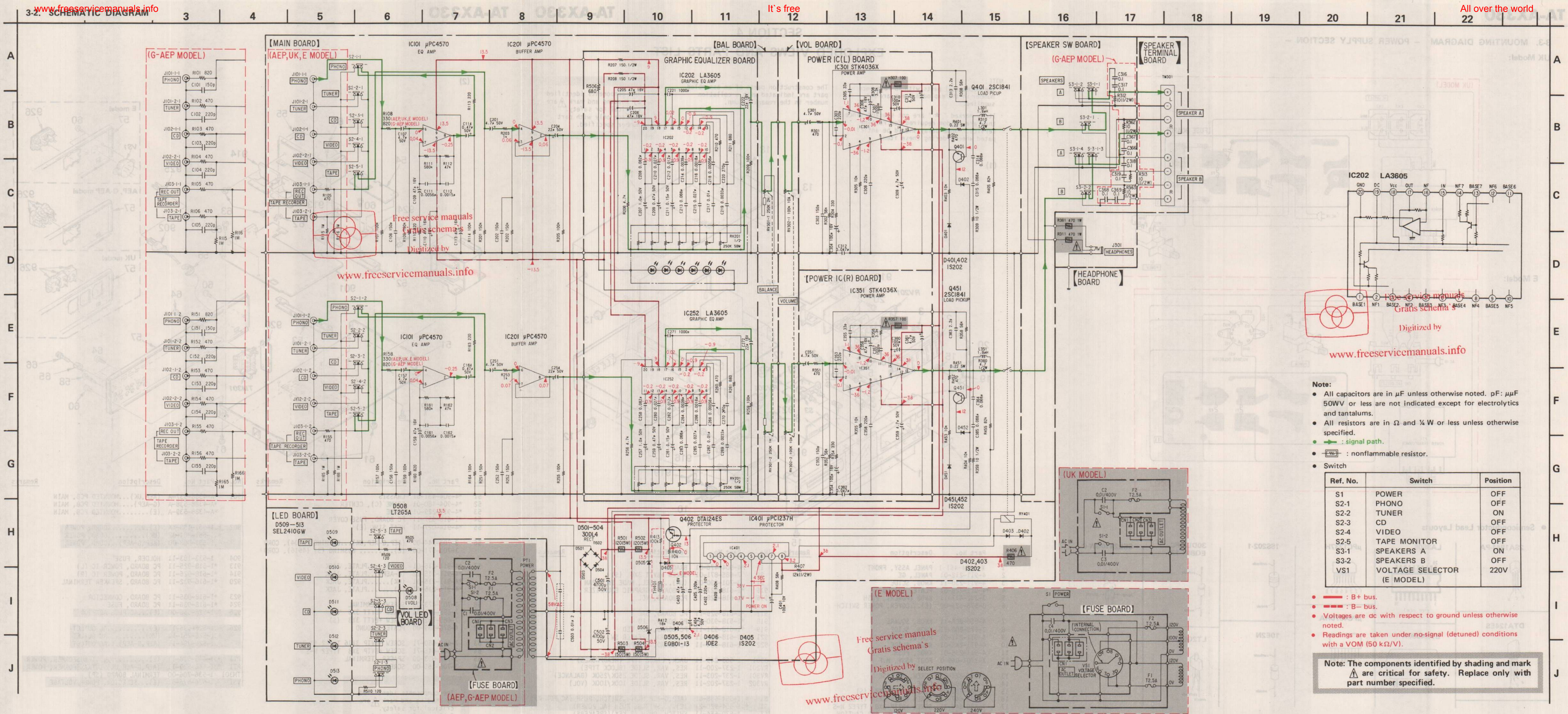


- — : parts extracted from the component side.
- — : parts extracted from the conductor side.

• SEMICONDUCTOR LOCATION

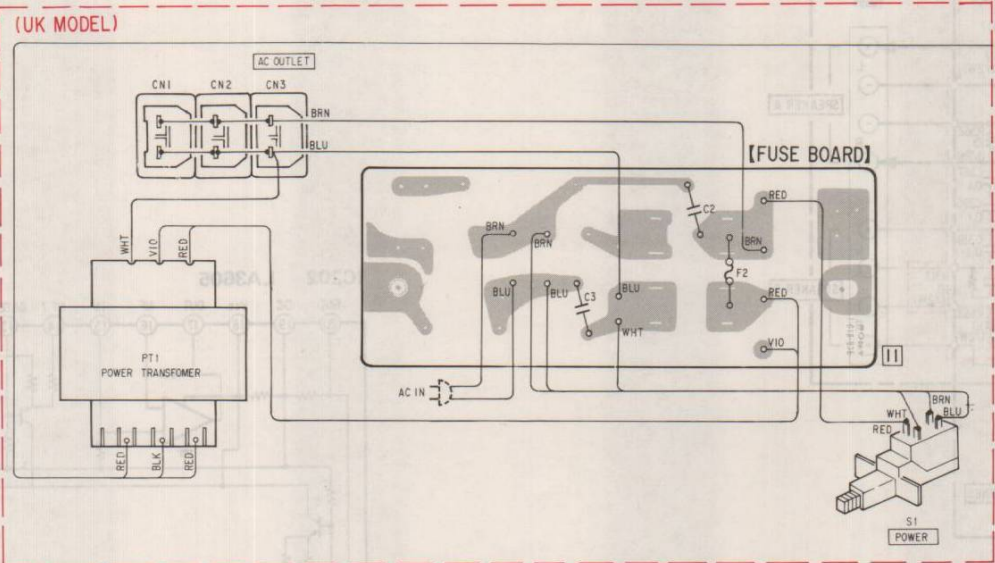
Ref. No.	Location	Ref. No.	Location
D401	H-17	IC101	E-12
D402	H-17	IC201	I-18
D403	H-17	IC202	D-6
D404	H-16	IC252	D-9
D405	G-15	IC301	H-19
D406	B-18	IC351	E-19
D451	F-17	IC401	G-15
D452	E-17		
D501	C-18	Q401	H-17
D502	C-17	Q402	F-15
D503	C-17	Q451	E-17
D504	C-17		
D505	E-15		
D506	E-15		
D508	G-11		
D509	J-8		
D510	J-8		
D511	J-9		
D512	J-9		
D513	J-10		



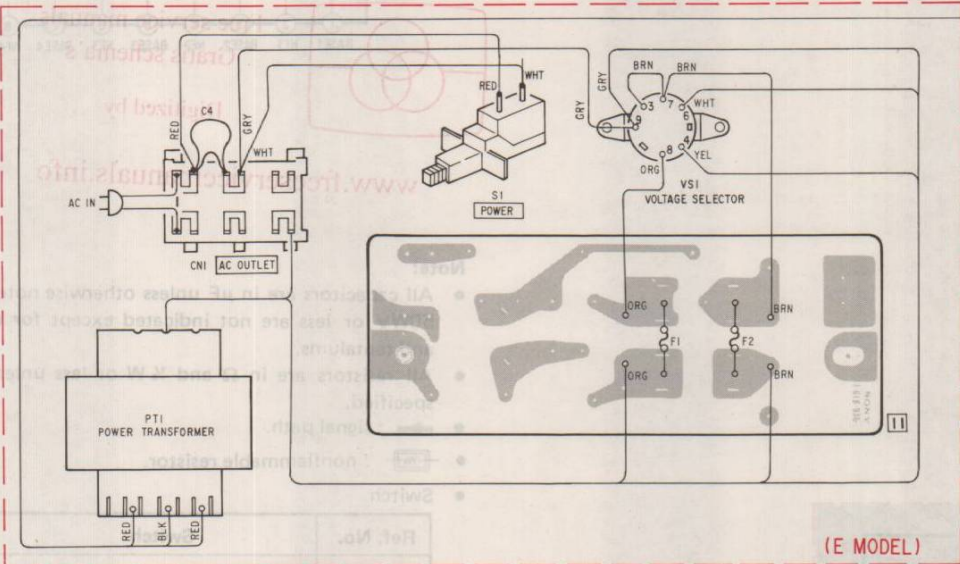


3-3. MOUNTING DIAGRAM – POWER SUPPLY SECTION –

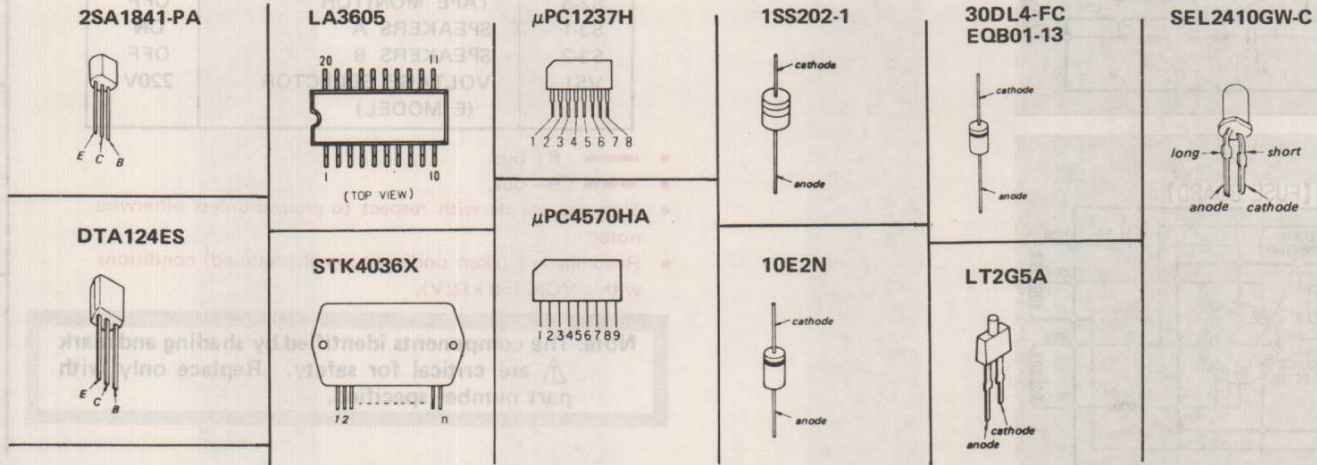
UK Model:



E Model:



• Semiconductor Lead Layouts



SECTION 4
EXPLODED VIEWS AND PARTS LIST

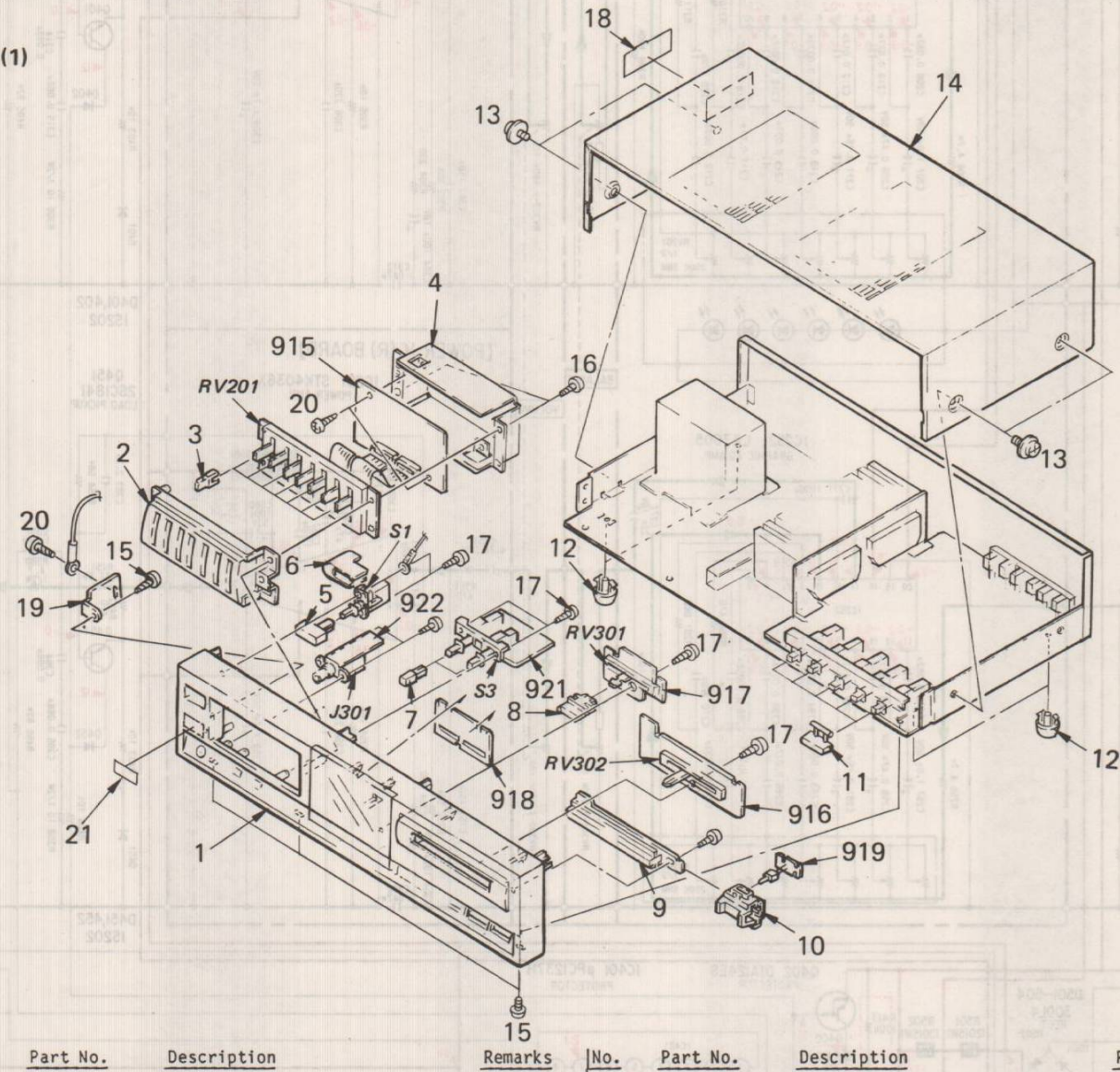
NOTE:

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.

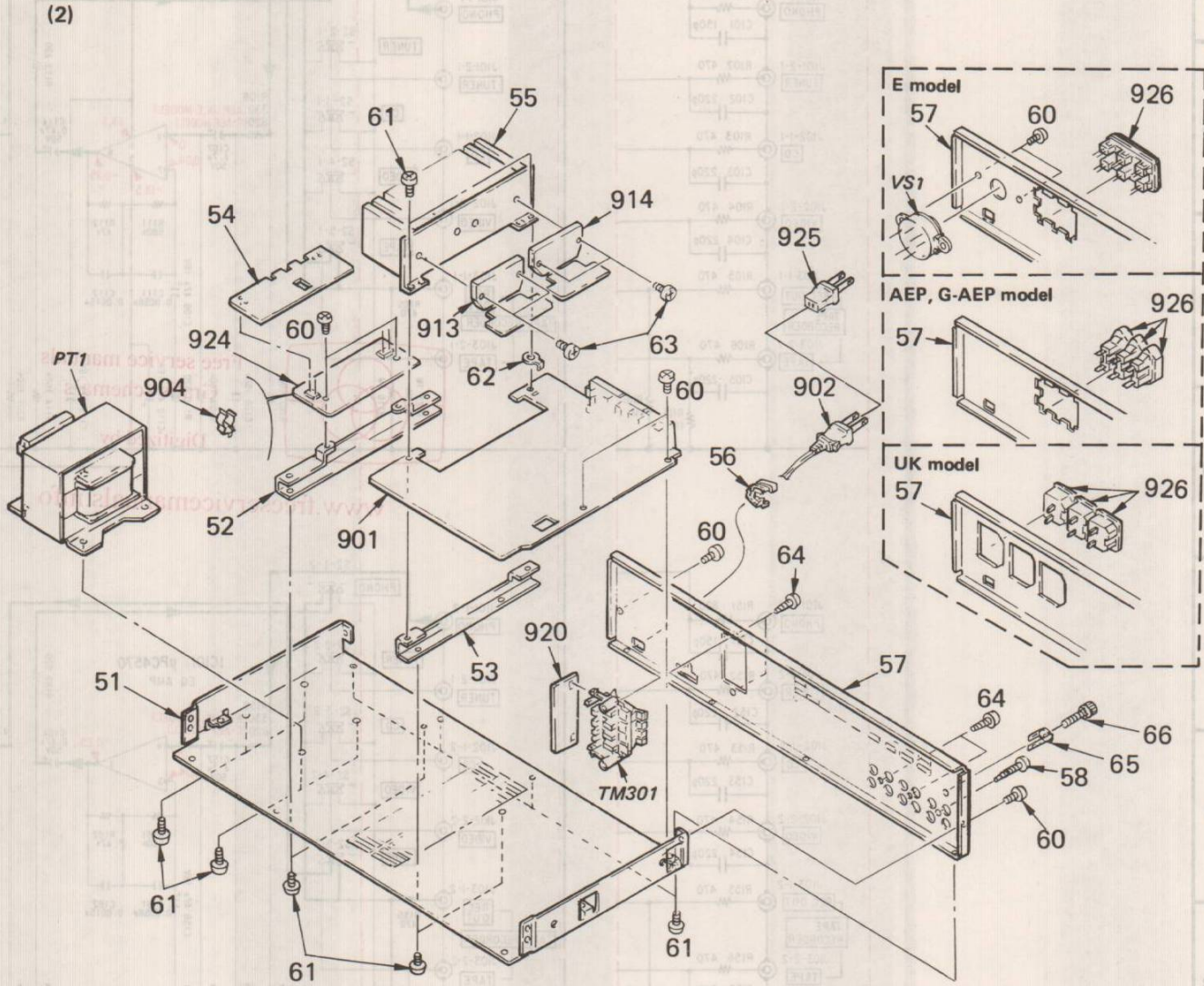
The construction parts of an assembled part are indicated with a collation number in the remark column.

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



No.	Part No.	Description
1	X-4904-461-1	PANEL ASSY, FRONT
2	4-911-212-01	PANEL, GE
3	4-911-230-11	KNOB, SLIDE
4	*4-911-228-01	PLATE, SHIELD
5	3-332-417-11	KNOB (POWER), PUSH
6	3-575-524-00	(E)...COVER, POWER SWITCH
7	4-855-804-11	KNOB, SQUARE
8	3-679-808-21	KNOB, SLIDE
9	4-911-241-01	PLATE, SLIDE
10	4-911-242-01	KNOB, SLIDE
11	4-911-235-01	KNOB, PUSH
12	X-3701-069-0	FOOT ASSY, M.F
13	4-886-821-01	SCREW, M3 CASE
14	3-318-998-51	CASE
15	7-685-752-04	SCREW +BVTT 3X8 (S)
16	7-685-647-14	SCREW +BVTP 3X10 TYPE2 N-S
17	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S
18	3-703-079-21	(UK)...LABEL, SUB CAUTION

No.	Part No.	Description	Remarks
19	*4-904-476-01	BRACKET	
20	7-685-871-01	SCREW +BVTT 3X6 (S)	
21	3-701-690-00	(UK)...LABEL, MADE IN JAPAN	
915	*1-618-927-11	PC BOARD, GRAPHIC EQUALIZER	
916	*1-618-928-11	PC BOARD, VOL	
917	*1-618-929-11	PC BOARD, BAL	
918	*1-618-930-11	PC BOARD, LED	
919	*1-618-931-11	PC BOARD, VOL LED	
921	*1-618-933-11	PC BOARD, SPEAKER SW	
922	*1-618-934-11	PC BOARD, HEADPHONE	
J301	1-563-249-11	JACK, LARGE TYPE (HEADPHONES)	
RV201	1-237-200-11	RES, VAR, SLIDE (BLOCK TYPE)	
RV301	1-237-203-11	RES, VAR, SLIDE 250K/250K (BALANCE)	
RV302	1-237-202-11	RES, VAR, SLIDE 100K/100K (VOL)	
S1	 1-554-685-61	(AEP,G-AEP,UK)...SWITCH, PUSH (AC POWER)	
S1	 1-554-920-21	(E)...SWITCH, PUSH (AC POWER)	
S3	1-570-654-11	SWITCH, PUSH (2 KEY)(SPEAKERS)	



No.	Part No.	Description	Remarks
51	*4-904-481-61	CHASSIS	
52	*4-904-480-01	FRAME (C), CENTER	
53	*4-911-229-01	FRAME	
54	*1-618-937-11	PC BOARD, FUSE COVER	
55	*4-914-027-11	HEAT SINK (E)	
56	3-703-244-00	(AEP,G-AEP,UK)...BUSHING (2104), CORD	
	3-703-571-00	(E)...BUSHING (S) (4516), CORD	
57	*4-911-215-01	(AEP)...PLATE, JACK	
	*4-911-215-22	(G-AEP)...PLATE, JACK	
	*4-911-215-31	(UK)...PLATE, JACK	
	*4-911-215-41	(E)...PLATE, JACK	
58	3-703-473-00	SCREW, TERMINAL	
60	7-685-871-01	SCREW +BVTT 3X6 (S)	
61	7-685-752-04	SCREW +BVTT 3X8 (S)	
62	4-870-539-00	PLATE, GROUND	
63	7-685-650-71	SCREW +BVTP 3X16 TYPE2 IT-3	
64	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S	
65	3-701-993-00	SPACER, TERMINAL	
66	3-706-165-00	SCREW	

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

No.	Part No.	Description	Remarks
901	*A-4388-537-A	(AEP,UK)...MOUNTED PCB, MAIN	
	*A-4388-538-A	(G-AEP)...MOUNTED PCB, MAIN	
	*A-4388-539-A	(E)...MOUNTED PCB, MAIN	
902	 1-551-188-XX	(E)...CORD, POWER	
	 1-551-884-32	(UK)...CORD, POWER	
	 1-551-908-00	(AEP,G-AEP)...CORD, POWER	
904	1-533-183-11	HOLDER, FUSE	
913	*1-618-925-11	PC BOARD, POWER IC (L)	
914	*1-618-926-11	PC BOARD, POWER IC (R)	
920	*1-618-932-11	PC BOARD, SPEAKER TERMINAL	
923	*1-618-935-11	PC BOARD, CONNECTOR	
924	*1-618-936-11	PC BOARD, FUSE	
925	 1-526-565-00	(E)...AC PLUG ADAPTOR	
926	 1-526-696-11	(E)...AC OUTLET	
	 1-526-751-11	(UK)...AC OUTLET	
	 1-526-794-11	(AEP,G-AEP)...AC OUTLET	
PT1	 1-448-528-11	(E)...TRANSFORMER, POWER	
PT1	 1-448-529-11	(AEP,G-AEP,UK)...TRANSFORMER, POWER	
TM301	1-536-706-00	TERMINAL BOARD (SP)	
VS1	 1-526-576-51	(E)...SELECTOR, POWER VOLTAGE	

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:μF.

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	*A-4388-537-A	(AEP,UK)...MOUNTED PCB, MAIN
	*A-4388-538-A	(G-AEP)...MOUNTED PCB, MAIN
	*A-4388-539-A	(E).....MOUNTED PCB, MAIN
902	 A.1-551-188-XX	(E).....CORD, POWER
	 A.1-551-908-00	(AEP,G-AEP)...CORD, POWER
	 A.1-551-884-32	(UK).....CORD, POWER
904	1-533-183-11	HOLDER, FUSE
905	*1-535-115-00	TERMINAL
906	*1-535-139-00	BASE POST 19MM (10MM PITCH) 2P
907	*1-562-249-00	SOCKET, CONNECTOR 4P
908	*1-562-250-00	SOCKET, CONNECTOR 5P
909	*1-562-327-00	SOCKET, CONNECTOR 3P
910	*1-562-328-00	SOCKET, CONNECTOR 7P
911	*1-563-152-11	SOCKET, CONNECTOR 10P
912	*1-563-251-11	SOCKET, CONNECTOR 12P
913	*1-618-925-11	PC BOARD, POWER IC (L)
914	*1-618-926-11	PC BOARD, POWER IC (R)
915	*1-618-927-11	PC BOARD, GRAPHIC EQUALIZER
916	*1-618-928-11	PC BOARD, VOL
917	*1-618-929-11	PC BOARD, BAL
918	*1-618-930-11	PC BOARD, LED
919	*1-618-931-11	PC BOARD, VOL LED
920	*1-618-932-11	PC BOARD, SPEAKER TERMINAL
921	*1-618-933-11	PC BOARD, SPEAKER SW
922	*1-618-934-11	PC BOARD, HEADPHONE
923	1-618-935-11	PC BOARD, CONNECTOR
924	*1-618-936-11	PC BOARD, FUSE
925	1-526-565-00	(E3)...AC PLUG ADAPTOR
926	 A.1-526-696-11	(E).....AC OUTLET
	 A.1-526-751-11	(UK).....AC OUTLET
	 A.1-526-794-11	(AEP,G-AEP)...AC OUTLET
C1	 A.1-161-744-00	(AEP,G-AEP)...CERAMIC 0.01MF 400V
C2	 A.1-161-744-00	(AEP,G-AEP,UK).....CERAMIC 0.01MF 400V
C3	 A.1-161-744-00	(UK).....CERAMIC 0.01MF 400V
C4	 A.1-161-744-00	(E).....CERAMIC 0.01MF 400V
C101	1-161-313-00	(G-AEP)...CERAMIC 150PF 10% 50V
C102	1-161-315-00	(G-AEP)...CERAMIC 220PF 10% 50V
C103	1-161-315-00	(G-AEP)...CERAMIC 220PF 10% 50V
C104	1-161-315-00	(G-AEP)...CERAMIC 220PF 10% 50V
C105	1-161-315-00	(G-AEP)...CERAMIC 220PF 10% 50V
C106	1-161-313-00	CERAMIC 150PF 10% 50V
C107	1-123-369-00	ELECT 4.7MF 20% 50V
C109	1-123-332-00	ELECT 47MF 20% 16V
C110	1-123-332-00	ELECT 47MF 20% 16V
C111	1-110-204-00	MYLAR 0.0056MF 5% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C112	1-110-197-00	MYLAR 0.0015MF 5% 50V
C113	1-123-332-00	ELECT 47MF 20% 16V
C114	1-123-379-00	ELECT 0.47MF 20% 50V
C151	1-161-313-00	(G-AEP)...CERAMIC 150PF 10% 50V
C152	1-161-315-00	(G-AEP)...CERAMIC 220PF 10% 50V
C153	1-161-315-00	(G-AEP)...CERAMIC 220PF 10% 50V
C154	1-161-315-00	(G-AEP)...CERAMIC 220PF 10% 50V
C155	1-161-315-00	(G-AEP)...CERAMIC 220PF 10% 50V
C156	1-161-313-00	CERAMIC 150PF 10% 50V
C157	1-123-369-00	ELECT 4.7MF 20% 50V
C159	1-123-332-00	ELECT 47MF 20% 16V
C161	1-110-204-00	MYLAR 0.0056MF 5% 50V
C162	1-110-197-00	MYLAR 0.0015MF 5% 50V
C164	1-123-379-00	ELECT 0.47MF 20% 50V
C201	1-123-369-00	ELECT 4.7MF 20% 50V
C202	1-161-313-00	CERAMIC 150PF 10% 50V
C204	1-123-357-00	ELECT 22MF 20% 50V
C205	1-123-821-00	ELECT 47MF 20% 16V
C206	1-123-821-00	ELECT 47MF 20% 16V
C207	1-123-611-00	ELECT 1MF 20% 50V
C208	1-136-164-00	FILM 0.082MF 5% 50V
C209	1-123-610-00	ELECT 0.47MF 20% 50V
C210	1-136-158-00	FILM 0.027MF 5% 50V
C211	1-124-177-00	ELECT 0.15MF 20% 50V
C212	1-136-154-00	FILM 0.012MF 5% 50V
C213	1-136-163-00	FILM 0.068MF 5% 50V
C214	1-110-202-00	MYLAR 0.0039MF 5% 50V
C215	1-136-158-00	FILM 0.027MF 5% 50V
C216	1-110-198-00	MYLAR 0.0018MF 5% 50V
C217	1-136-153-00	FILM 0.01MF 5% 50V
C218	1-130-468-00	MYLAR 560PF 5% 50V
C219	1-110-201-00	MYLAR 0.0033MF 5% 50V
C220	1-102-111-00	CERAMIC 270PF 10% 50V
C221	1-161-323-00	CERAMIC 0.001MF 10% 50V
C222	1-123-622-00	ELECT 22MF 20% 16V
C251	1-123-369-00	ELECT 4.7MF 20% 50V
C252	1-161-313-00	CERAMIC 150PF 10% 50V
C254	1-123-357-00	ELECT 22MF 20% 50V
C257	1-123-611-00	ELECT 1MF 20% 50V
C258	1-136-164-00	FILM 0.082MF 5% 50V
C259	1-123-610-00	ELECT 0.47MF 20% 50V
C260	1-136-158-00	FILM 0.027MF 5% 50V
C261	1-124-177-00	ELECT 0.15MF 20% 50V
C262	1-136-154-00	FILM 0.012MF 5% 50V
C263	1-136-163-00	FILM 0.068MF 5% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C264	1-110-202-00	MYLAR	0.0039MF	5%	50V
C265	1-136-158-00	FILM	0.027MF	5%	50V
C266	1-110-198-00	MYLAR	0.0018MF	5%	50V
C267	1-136-153-00	FILM	0.01MF	5%	50V
C268	1-130-468-00	MYLAR	560PF	5%	50V
C269	1-110-201-00	MYLAR	0.0033MF	5%	50V
C270	1-102-111-00	CERAMIC	270PF	10%	50V
C271	1-161-323-00	CERAMIC	0.001MF	10%	50V
C272	1-123-622-00	ELECT	22MF	20%	16V
C301	1-123-369-00	ELECT	4.7MF	20%	50V
C302	1-161-313-00	CERAMIC	150PF	10%	50V
C303	1-161-315-00	CERAMIC	220PF	10%	50V
C304	1-123-333-00	ELECT	100MF	20%	16V
C305	1-102-645-00	CERAMIC	33PF	5%	50V
C306	1-123-332-00	ELECT	47MF	20%	16V
C307	1-161-053-00	CERAMIC	0.0015MF	30%	50V
C308	1-161-315-00	CERAMIC	220PF	10%	50V
C309	1-123-369-00	ELECT	4.7MF	20%	50V
C310	1-123-360-00	ELECT	100MF	20%	50V
C311	1-123-369-00	ELECT	4.7MF	20%	50V
C312	1-136-161-00	FILM	0.047MF	5%	50V
C313	1-161-251-00	CERAMIC	2.2PF	10%	50V
C314	1-136-163-00	FILM	0.068MF	5%	50V
C315	1-136-163-00	FILM	0.068MF	5%	50V
C316	1-136-165-00	(G-AEP)...FILM	0.068MF	5%	50V
C317	1-136-165-00	(G-AEP)...FILM	0.068MF	5%	50V
C318	1-136-165-00	(G-AEP)...FILM	0.068MF	5%	50V
C319	1-136-165-00	(G-AEP)...FILM	0.068MF	5%	50V
C351	1-123-369-00	ELECT	4.7MF	20%	50V
C352	1-161-313-00	CERAMIC	150PF	10%	50V
C353	1-161-315-00	CERAMIC	220PF	10%	50V
C354	1-123-333-00	ELECT	100MF	20%	16V
C355	1-102-645-00	CERAMIC	33PF	5%	50V
C356	1-123-332-00	ELECT	47MF	20%	16V
C357	1-161-053-00	CERAMIC	0.0015MF	30%	50V
C358	1-161-315-00	CERAMIC	220PF	10%	50V
C359	1-123-369-00	ELECT	4.7MF	20%	50V
C360	1-123-360-00	ELECT	100MF	20%	50V
C361	1-123-369-00	ELECT	4.7MF	20%	50V
C362	1-136-161-00	FILM	0.047MF	5%	50V
C363	1-161-251-00	CERAMIC	2.2PF	10%	50V
C364	1-136-163-00	FILM	0.068MF	5%	50V
C365	1-136-163-00	FILM	0.068MF	5%	50V
C366	1-136-165-00	(G-AEP)...FILM	0.1MF	5%	50V
C367	1-136-165-00	(G-AEP)...FILM	0.1MF	5%	50V
C368	1-136-165-00	(E)...FILM	0.1MF	5%	50V
C369	1-136-165-00	(E)...FILM	0.1MF	5%	50V
C401	1-123-307-00	ELECT	100MF	20%	10V
C402	1-123-308-00	ELECT	220MF	20%	10V
C403	1-123-332-00	ELECT	47MF	20%	16V
C404	1-123-369-00	ELECT	4.7MF	20%	50V
C405	1-161-271-00	CERAMIC	100PF	5%	50V
C501	1-124-588-00	ELECT	4700MF	20%	50V
C502	1-124-588-00	ELECT	4700MF	20%	50V
C503	1-102-394-00	CERAMIC	0.01MF		250V

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
D401	8-719-107-94	DIODE 1SS202-1			
D402	8-719-107-94	DIODE 1SS202-1			
D403	8-719-107-94	DIODE 1SS202-1			
D404	8-719-107-94	DIODE 1SS202-1			
D405	8-719-107-94	(E)...DIODE 1SS202-1			
D406	8-719-200-77	DIODE 10E2N			
D451	8-719-107-94	DIODE 1SS202-1			
D452	8-719-107-94	DIODE 1SS202-1			
D501	8-719-230-34	DIODE 30DL4-FC			
D502	8-719-230-34	DIODE 30DL4-FC			
D503	8-719-230-34	DIODE 30DL4-FC			
D504	8-719-230-34	DIODE 30DL4-FC			
D505	8-719-931-13	DIODE EQB01-13			
D506	8-719-931-13	DIODE EQB01-13			
D508	8-719-938-03	DIODE LT2G5A			
D509	8-719-302-62	DIODE SEL2410GW-C			
D510	8-719-302-62	DIODE SEL2410GW-C			
D511	8-719-302-62	DIODE SEL2410GW-C			
D512	8-719-302-62	DIODE SEL2410GW-C			
D513	8-719-302-62	DIODE SEL2410GW-C			
F1	△1-532-286-00	(AEP,G-AEP,E)...FUSE, TIME-LAG			
F2	△1-532-286-00	FUSE, TIME-LAG			
IC101	8-759-106-61	IC UPC4570HA			
IC201	8-759-106-61	IC UPC4570HA			
IC202	8-759-802-54	IC LA3605			
IC252	8-759-802-54	IC LA3605			
IC301	8-749-940-36	IC STK4036X			
IC351	8-749-940-36	IC STK4036X			
IC401	8-759-101-23	IC UPC1237H			
J101	1-507-788-00	JACK, PIN 4P (PHON/TUNER)			
J102	1-507-908-11	JACK, PIN 4P (CD/VIDEO)			
J103	1-507-908-11	JACK, PIN 4P (REC OUT/TAPE)			
J301	1-563-249-11	JACK, LARGE TYPE (HEADPHONES)			
L301	*1-420-872-00	COIL, AIR CORE			
L351	*1-420-872-00	COIL, AIR CORE			
PT1	△1-448-528-11	(E).....TRANSFORMER, POWER			
PT1	△1-448-529-11	(AEP,G-AEP,UK)...TRANSFORMER, POWER			
Q401	9-729-108-05	TRANSISTOR 2SC1841PA			
Q451	9-729-108-05	TRANSISTOR 2SC1841PA			
Q402	9-729-900-63	TRANSISTOR DTA124ES			
R101	1-247-712-11	(G-AEP)...CARBON 820		1/4W	
R102	1-247-708-11	(G-AEP)...CARBON 470	5%	1/4W	
R103	1-247-708-11	(G-AEP)...CARBON 470	5%	1/4W	
R104	1-247-708-11	(G-AEP)...CARBON 470	5%	1/4W	
R105	1-247-708-11	CARBON 470	5%	1/4W	
R106	1-247-708-11	(G-AEP)...CARBON 470	5%	1/4W	
R107	1-249-469-11	CARBON 100K	5%	1/4W	
R108	1-247-706-11	(AEP,UK,E)...CARBON 330	5%	1/4W	
R108	1-247-712-11	(G-AEP).....CARBON 820	5%	1/4W	
R109	1-249-469-11	CARBON 100K	5%	1/4W	
R110	1-247-712-11	CARBON 820	5%	1/4W	
R111	1-246-539-00	CARBON 560K	5%	1/4W	
R112	1-249-465-11	CARBON 47K	5%	1/4W	
R113	1-247-704-11	CARBON 220	5%	1/4W	
R114	1-249-469-11	CARBON 100K	5%	1/4W	
R115	1-246-545-00	CARBON 1M	5%	1/4W	

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ELECTRICAL PARTS

Ref.No.	Part No.	Description			
R116	1-246-545-00	CARBON	1M	5%	1/4W
R151	1-247-712-11	(G-AEP)...CARBON	820	5%	1/4W
R152	1-247-708-11	(G-AEP)...CARBON	470	5%	1/4W
R153	1-247-708-11	(G-AEP)...CARBON	470	5%	1/4W
R154	1-247-708-11	(G-AEP)...CARBON	470	5%	1/4W
R155	1-247-708-11	CARBON	470	5%	1/4W
R156	1-247-708-11	(G-AEP)...CARBON	470	5%	1/4W
R157	1-249-469-11	CARBON	100K	5%	1/4W
R158	1-247-706-11	(AEP,UK,E)...CARBON	330	5%	1/4W
R158	1-247-712-11	(G-AEP).....CARBON	820	5%	1/4W
R159	1-249-469-11	CARBON	100K	5%	1/4W
R160	1-247-712-11	CARBON	820	5%	1/4W
R161	1-246-539-00	CARBON	560K	5%	1/4W
R162	1-249-465-11	CARBON	47K	5%	1/4W
R163	1-247-704-11	CARBON	220	5%	1/4W
R164	1-249-469-11	CARBON	100K	5%	1/4W
R165	1-246-545-00	CARBON	1M	5%	1/4W
R166	1-246-545-00	CARBON	1M	5%	1/4W
R201	1-246-525-00	CARBON	150K	5%	1/4W
R202	1-246-525-00	CARBON	150K	5%	1/4W
R203	1-247-713-11	CARBON	1K	5%	1/4W
R205	1-249-469-11	CARBON	100K	5%	1/4W
R206	1-247-721-11	CARBON	4.7K	5%	1/4W
R207	1-247-220-00	CARBON	150	5%	1/2W
R208	1-247-220-00	CARBON	150	5%	1/2W
R209	1-249-469-11	CARBON	100K	5%	1/4W
R210	1-247-708-11	CARBON	470	5%	1/4W
R211	1-247-711-11	CARBON	680	5%	1/4W
R251	1-246-525-00	CARBON	150K	5%	1/4W
R252	1-246-525-00	CARBON	150K	5%	1/4W
R253	1-247-713-11	CARBON	1K	5%	1/4W
R255	1-249-469-11	CARBON	100K	5%	1/4W
R256	1-247-721-11	CARBON	4.7K	5%	1/4W
R259	1-249-469-11	CARBON	100K	5%	1/4W
R260	1-247-708-11	CARBON	470	5%	1/4W
R261	1-247-711-11	CARBON	680	5%	1/4W
R301	1-247-708-11	CARBON	470	5%	1/4W
R302	1-247-173-00	CARBON	56K	5%	1/4W
R304	1-247-706-11	CARBON	330	5%	1/4W
R305	1-247-725-11	CARBON	10K	5%	1/4W
R306	1-247-719-11	CARBON	3.3K	5%	1/4W
R307	1-247-700-11	CARBON	100	5%	1/4W F
R308	1-247-173-00	CARBON	56K	5%	1/4W
R309	1-247-192-00	CARBON	10	5%	1/2W
R310	1-249-482-11	CARBON	4.7	5%	1/2W
R311	1-213-139-00	METAL OXIDE	470	5%	1W F
R312	1-247-192-00	(G-AEP)...CARBON	10	5%	1/2W
R313	1-247-192-00	(G-AEP)...CARBON	10	5%	1/2W
R351	1-247-708-11	CARBON	470	5%	1/4W
R352	1-247-173-00	CARBON	56K	5%	1/4W
R354	1-247-706-11	CARBON	330	5%	1/4W
R355	1-247-725-11	CARBON	10K	5%	1/4W
R356	1-247-719-11	CARBON	3.3K	5%	1/4W
R357	1-247-700-11	CARBON	100	5%	1/4W F
R358	1-247-173-00	CARBON	56K	5%	1/4W
R359	1-247-192-00	CARBON	10	5%	1/2W
R360	1-249-482-11	CARBON	4.7	5%	1/2W
R361	1-213-139-00	METAL OXIDE	470	5%	1W F

ELECTRICAL PARTS

R362	1-247-192-00	(G-AEP)...CARBON	10	5%	1/2W
R363	1-247-192-00	(G-AEP)...CARBON	10	5%	1/2W
R401	1-217-156-00	METAL PLATE	0.22		5W
R402	1-247-708-11	CARBON	470	5%	1/4W
R403	1-247-725-11	CARBON	10K	5%	1/4W
R404	1-247-725-11	CARBON	10K	5%	1/4W
R405	1-247-177-00	CARBON	82K	5%	1/4W
R406	1-206-656-00	METAL OXIDE	470	5%	2W F
R407	1-247-266-00	CARBON	12K	5%	1/2W
R408	1-247-173-00	CARBON	56K	5%	1/4W
R409	1-249-469-11	CARBON	100K	5%	1/4W
R410	1-247-725-11	CARBON	10K	5%	1/4W
R412	1-247-161-00	CARBON	18K	5%	1/4W
R413	1-249-469-11	(E)...CARBON	100K	5%	1/4W
R451	1-217-156-00	METAL PLATE	0.22		5W
R452	1-247-708-11	CARBON	470	5%	1/4W
R453	1-247-725-11	CARBON	10K	5%	1/4W
R455	1-247-177-00	CARBON	82K	5%	1/4W
R501	1-207-934-00	WIREWOUND	120	10%	5W F
R502	1-207-934-00	WIREWOUND	120	10%	5W F
R503	1-217-312-00	WIREWOUND	150	10%	5W F
R504	1-217-312-00	WIREWOUND	150	10%	5W F
R505	1-247-708-11	CARBON	470	5%	1/4W
R506	1-247-711-11	CARBON	680	5%	1/4W
R509	1-247-109-00	CARBON	120	5%	1/4W
R510	1-247-109-00	CARBON	120	5%	1/4W
RV201	1-237-200-21	RES. VAR. SLIDE (BLOCK TYPE)			
RV301	1-237-203-11	RES. VAR. SLIDE 250K/250K (BALANCE)			
RV302	1-237-202-11	RES. VAR. SLIDE 100K/100K (VOL)			
RY401	1-515-501-00	RELAY			
S1	1-554-685-61	(AEP,G-AEP,UK)...SWITCH, PUSH(AC POWER)			
S1	1-554-920-21	(E).....SWITCH, PUSH(AC POWER)			
S2	1-570-626-11	SWITCH, PUSH (5 KEY)(FUNCTION)			
S3	1-570-654-11	SWITCH, PUSH (2 KEY)(SPEAKERS)			
TH401	1-800-427-00	(E)...POSISTOR			
TM301	1-536-706-00	TERMINAL BOARD (SP)			
VS1	1-526-576-51	(E)...SELECTOR, POWER VOLTAGE			

ACCESSORY & PACKING MATERIAL

Part No.	Description
3-701-630-00	BAG, POLYETHYLENE
3-765-306-11	(AEP,UK,E)...MANUAL, INSTRUCTION
3-765-306-41	(AEP,G-AEP)...MANUAL, INSTRUCTION
4-876-352-00	SHEET, PROTECTION
4-904-442-01	CUSHION (LEFT), LOWER
4-904-443-01	CUSHION (RIGHT), LOWER
4-904-444-01	CUSHION (LEFT), UPPER
4-904-445-01	CUSHION (RIGHT), UPPER
4-904-465-01	INDIVIDUAL CARTON

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