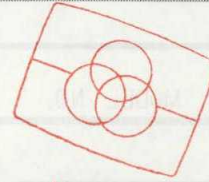


TA-V50

SERVICE MANUAL



AEP Model
UK Model
E Model
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TA-V50 IS AMPLIFIER UNIT OF "LBT-V50W".

SPECIFICATIONS

Continuous RMS power output (AEP, G-AEP, UK model)

50 + 50 watts
(6 ohms, at 1 kHz, 0.5% THD)
40 + 40 watts
(6 ohms, 40 Hz - 20 kHz, 0.5% THD)

Music power output (E model)

160 W (6 ohms, 5% THD)

Peak music power output (E model)

320 W (6 ohms)

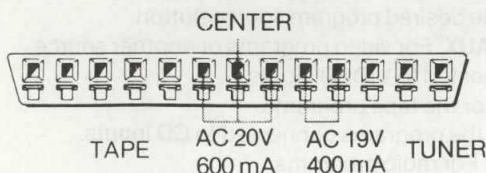
Inputs	Sensitivity	Impedance
PHONO (phono jacks)	2 mV	50 kilohms
CD, VIDEO (AUDIO IN) (phono jacks)	150 mV	50 kilohms
MIC (phone jack)	2 mV	20 kilohms

Outputs

HEADPHONES (stereo phone jack)	Accepts headphones of 8 ohms or more
SPEAKER	Accepts speakers of 6 to 16 ohms

SYSTEM CONTROL 1 terminal (13-pin)

SYSTEM CONTROL 2 terminal (13-pin)



Frequency response

PHONO: RIAA curve ± 0.5 dB

CD, VIDEO (AUDIO IN):

15 Hz - 50 kHz $+0$ dB

MIC: 100 Hz - 10 kHz $+0$ dB

Power requirements: AEP model: 220V ac, 50/60Hz

UK model: 240V ac, 50/60Hz

E model: 120, 220 or 240V ac
adjustable, 50/60Hz

Power consumption: AEP model: 110 watts

UK model: 230 watts

E model: 110 watts

AEP model: 2 unswitched, 100 watts max.

UK model: 2 switched, 100 watts max.

E model: 2 unswitched, 100 watts max.

Dimensions: Approx. 355x98x290 mm (w/h/d)
(14x4 $\frac{1}{8}$ x9 $\frac{7}{8}$ inches)

incl. projecting parts and controls

Weight: Approx. 5.8 kg (11 lb 15 oz) net

Design and specifications subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

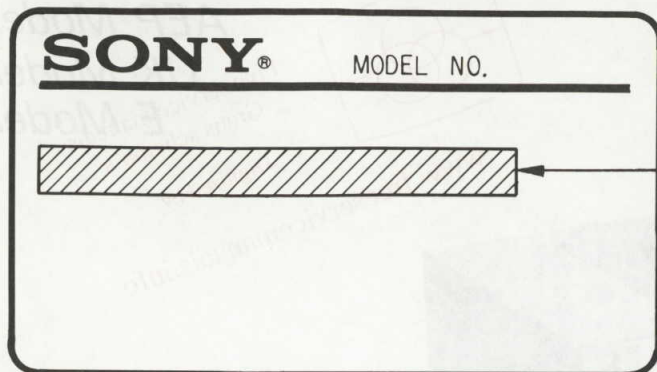
COMPONENTS IDENTIFIED BY SHADING AND MARK \triangle ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

INTEGRATED STEREO AMPLIFIER
SONY



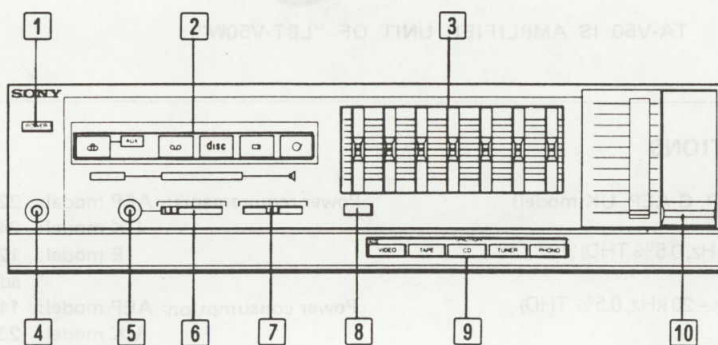
MODEL IDENTIFICATION

— Specification Label —



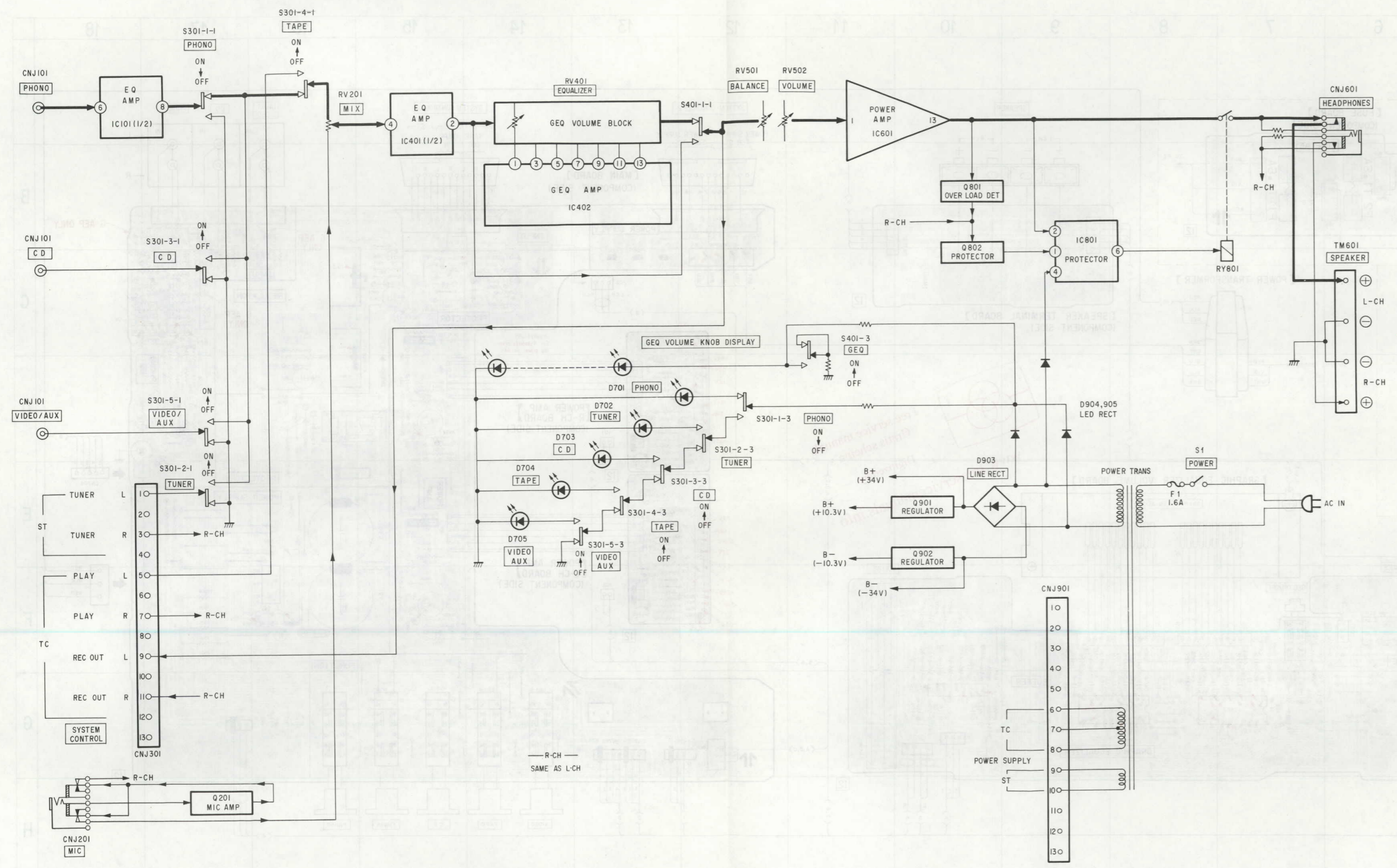
AEP, G-AEP Model: AC220V 50/60Hz 110W
 UK Model: AC240V 50/60Hz 230W
 E Model: AC120/220/240V 50/60Hz
 110W

FUNCTION OF CONTROLS



- 1 POWER switch**
Press the switch (ON) to turn on the power of the stereo system. To turn it off, press the switch again (OFF).
- 2 FUNCTION indicators**
The indicator lights to show the input source in use.
- 3 GRAPHIC EQUALIZER controls**
To equalize the listening or recording sound, slide each control upwards to increase the level of the frequency band, and downwards to decrease the level.
100 Hz: Use to boost or cut the bass.
250 Hz: Use to adjust the middle and low frequency range.
500 Hz: Use to adjust the middle frequency range.
1 kHz: Use to provide more presence of vocals.
3 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.
- 4 HEADPHONES jack (stereo phone jack)**
- 5 MIC (microphone) jack (phone jack)**
Connect a microphone for microphone mixing.
- 6 MIXING control**
Adjusts the balance between the volume of the microphone and the program source. Slide the control towards MIC to increase microphone volume, and towards SOURCE to increase source volume. When not in use for microphone mixing, slide this control fully to SOURCE.
- 7 BALANCE control**
Adjusts the balance of the left and right channel output levels.
- 8 GRAPHIC EQUALIZER switch**
Depress this switch (ON) to activate the graphic equalizer controls. Press it again (OFF) to obtain the original tone quality.
- 9 FUNCTION select buttons**
Press the desired program source button.
VIDEO/AUX: For video programs or another source connected to VIDEO inputs.
TAPE: For the tape programs.
CD: For the programs connected to CD inputs.
TUNER: For radio programs.
PHONO: For disc programs connected to PHONO inputs.
- 10 VOLUME control**

SECTION 1
BLOCK DIAGRAM



SEMICONDUCTORS

BA4561 	2SC2603 DTA124ES'
LA3605 (Top view)	1S953 10E2 HZ11A3L
STK-4028X STK-4034X 	ISS 202
μPC1237H 	RBV602
2SB1094 2SD1585 	
2SC1841 	

Note on Schematic Diagram.

- 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 1/4W or less unless otherwise specified.
- : signal path (FUNCTION PHONO)
- - - : signal path (GEQ ON)

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

- Components for right channel have same values as for left channel. Reference numbers are coded from
- : nonflammable resistor.

Switch

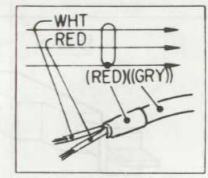
Ref. No.	Switch	Position
S301	FUNCTION	PHONO
S401	EQ	ON

- : B+ bus.
- - - : B- bus.
- Volts are dc with respect to ground unless otherwise noted.
- Readings are taken with a VOM (50 kΩ/V).

Note on Mounting Diagram

Note:

- Color code of sleeving over the end of the jacket.



- : parts extracted from the component side.

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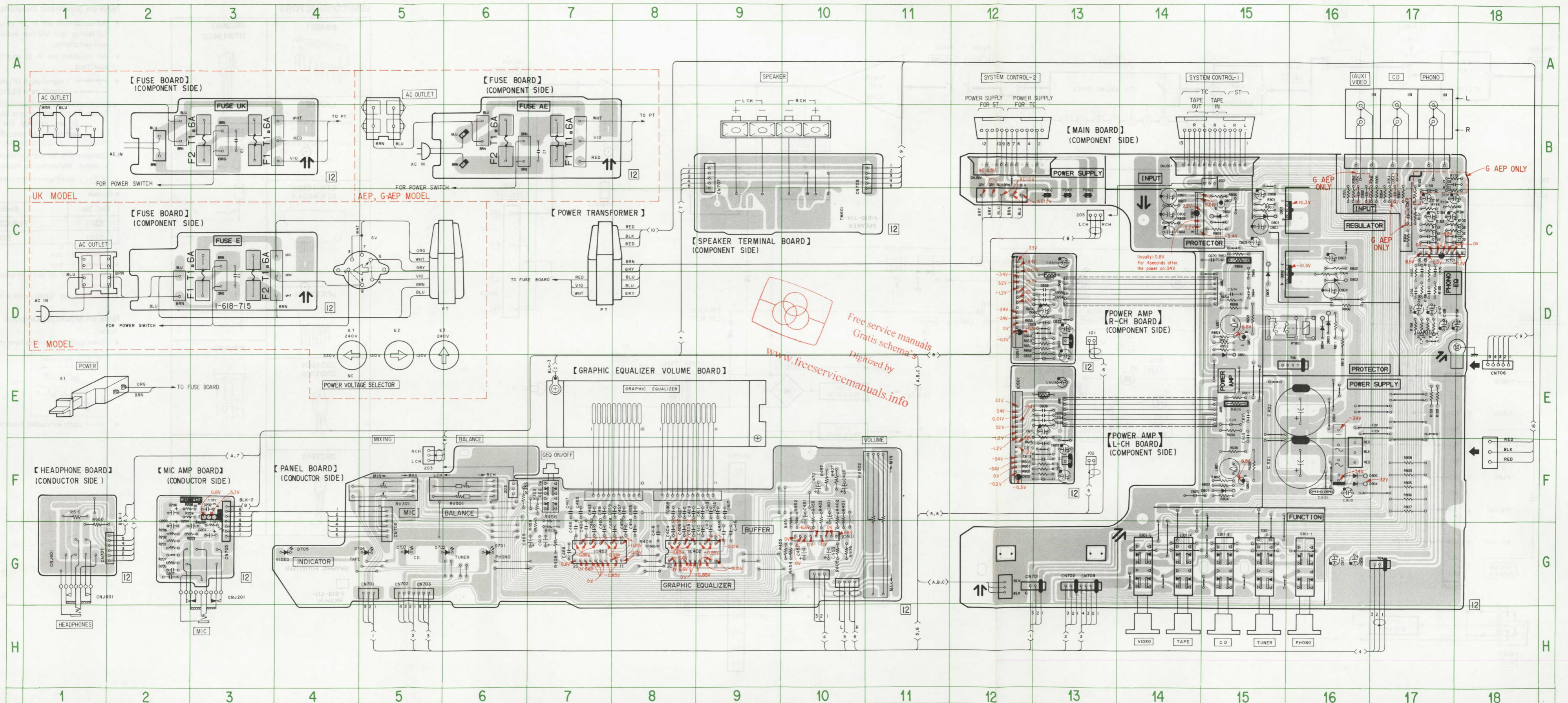
2-1. MOUNTING DIAGRAM - Conductor Side -

SECTION 2 DIAGRAMS

- Refer to page 5 for semiconductor lead layouts.
- Refer to page 5 for notes.

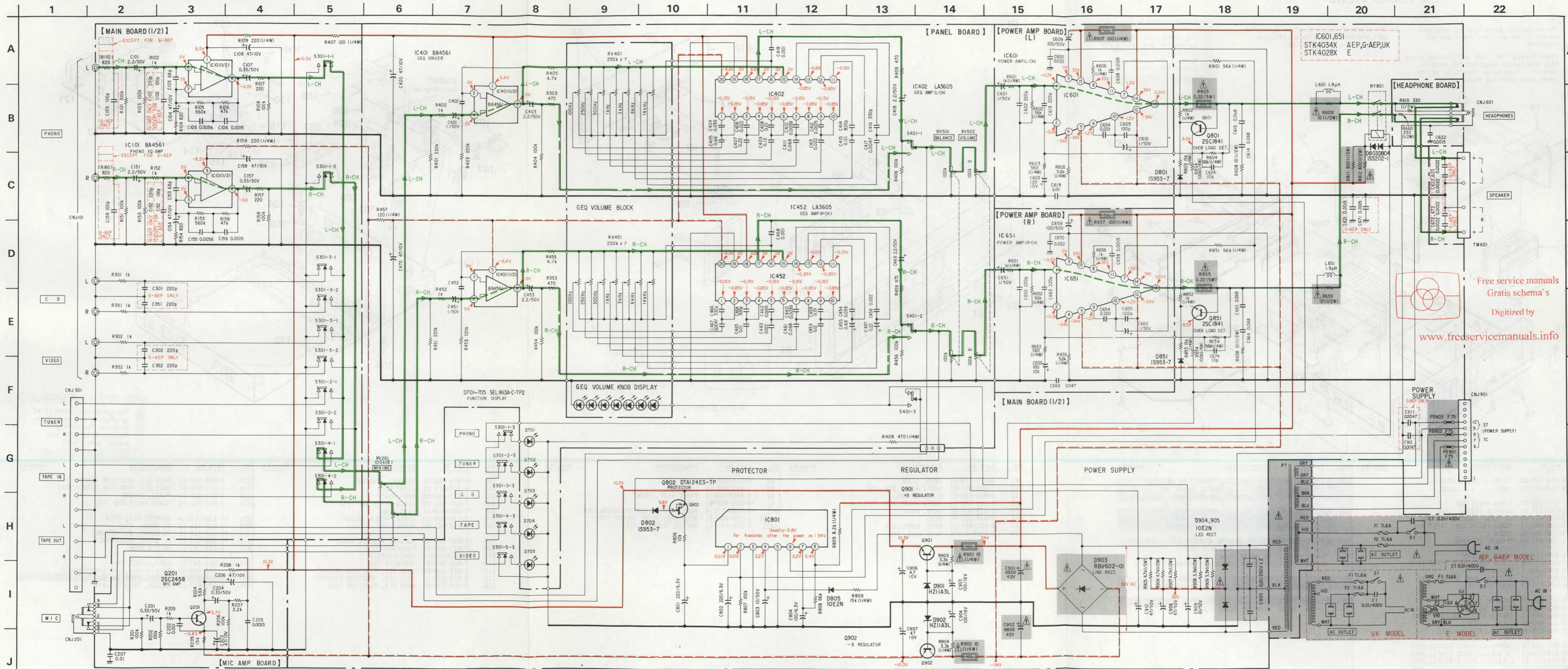
• SEMICONDUCTOR LOCATION

Ref. No.	Location
IC101	C-17
IC401	G-10
IC402	G-8
IC452	G-7
IC601	E-12
IC651	D-12
IC801	C-14
Q201	F-3
Q801	T-15
Q802	C-15
Q851	D-15
Q901	C-15
Q902	D-15
D701	G-6
D702	G-6
D703	G-5
D704	G-5
D705	G-4
D801	F-15
D802	C-15
D803	D-16
D804	D-16
D805	D-15
D851	D-15
D901	C-15
D902	D-16
D903	T-16
D904	T-16
D905	F-16



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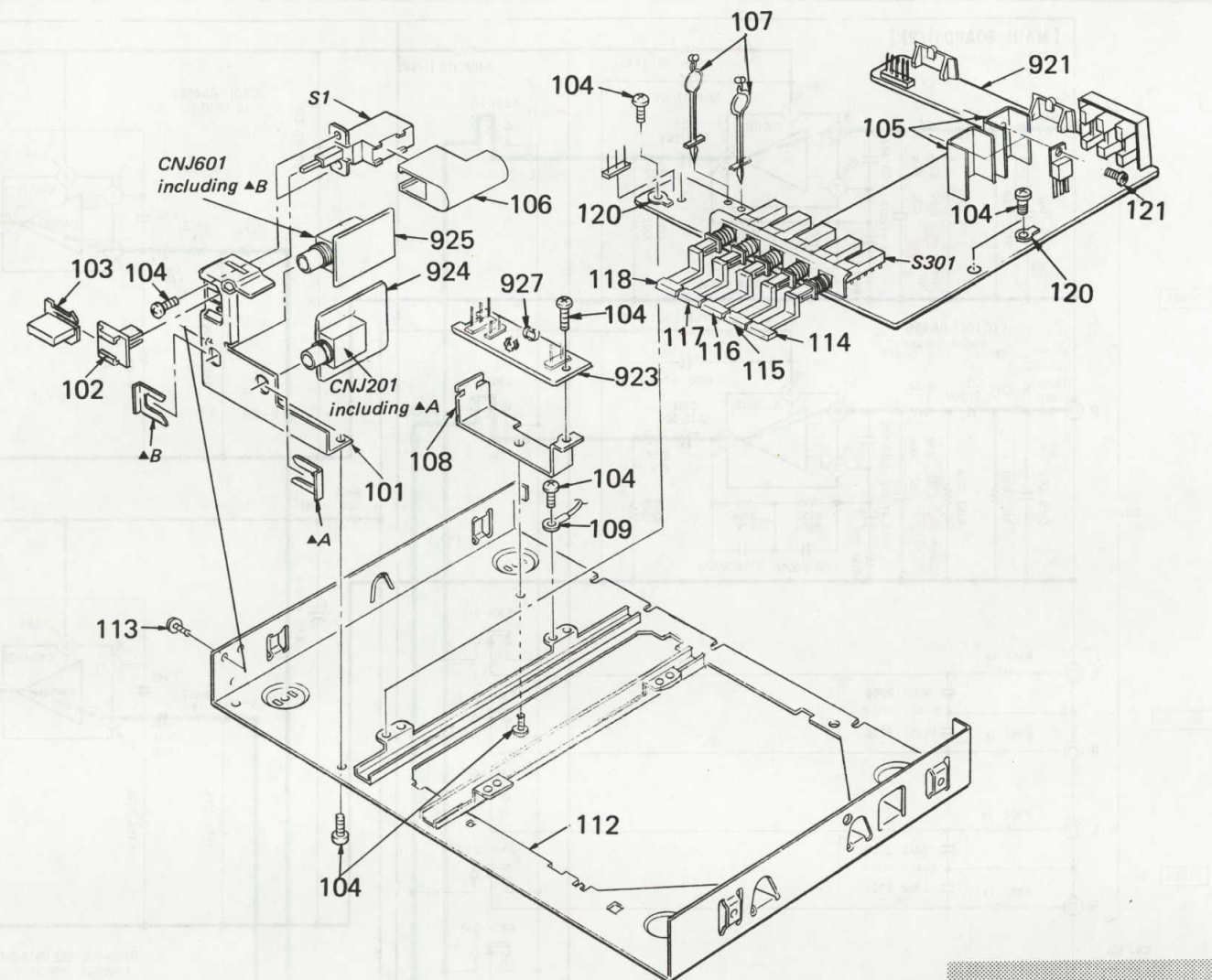
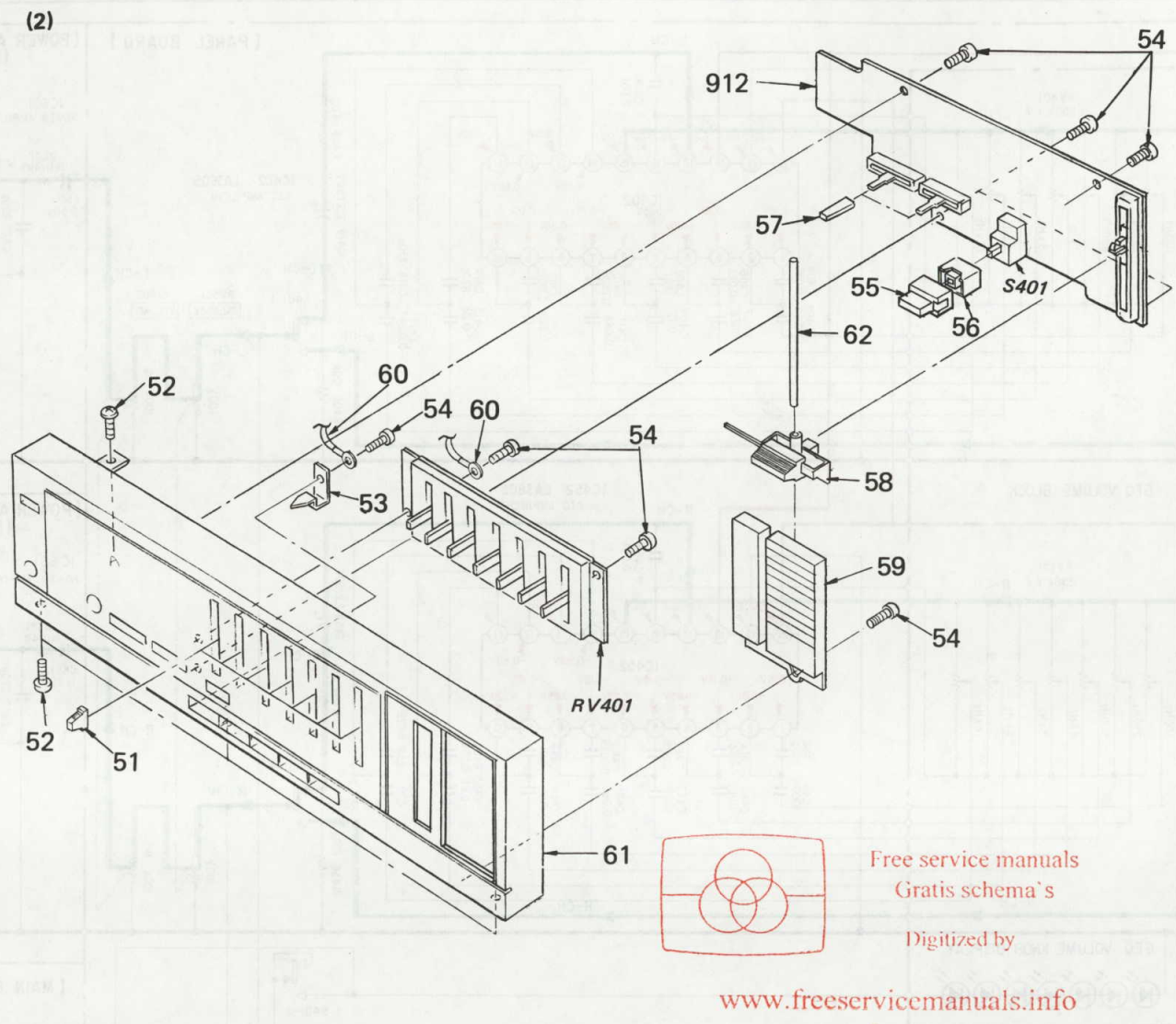
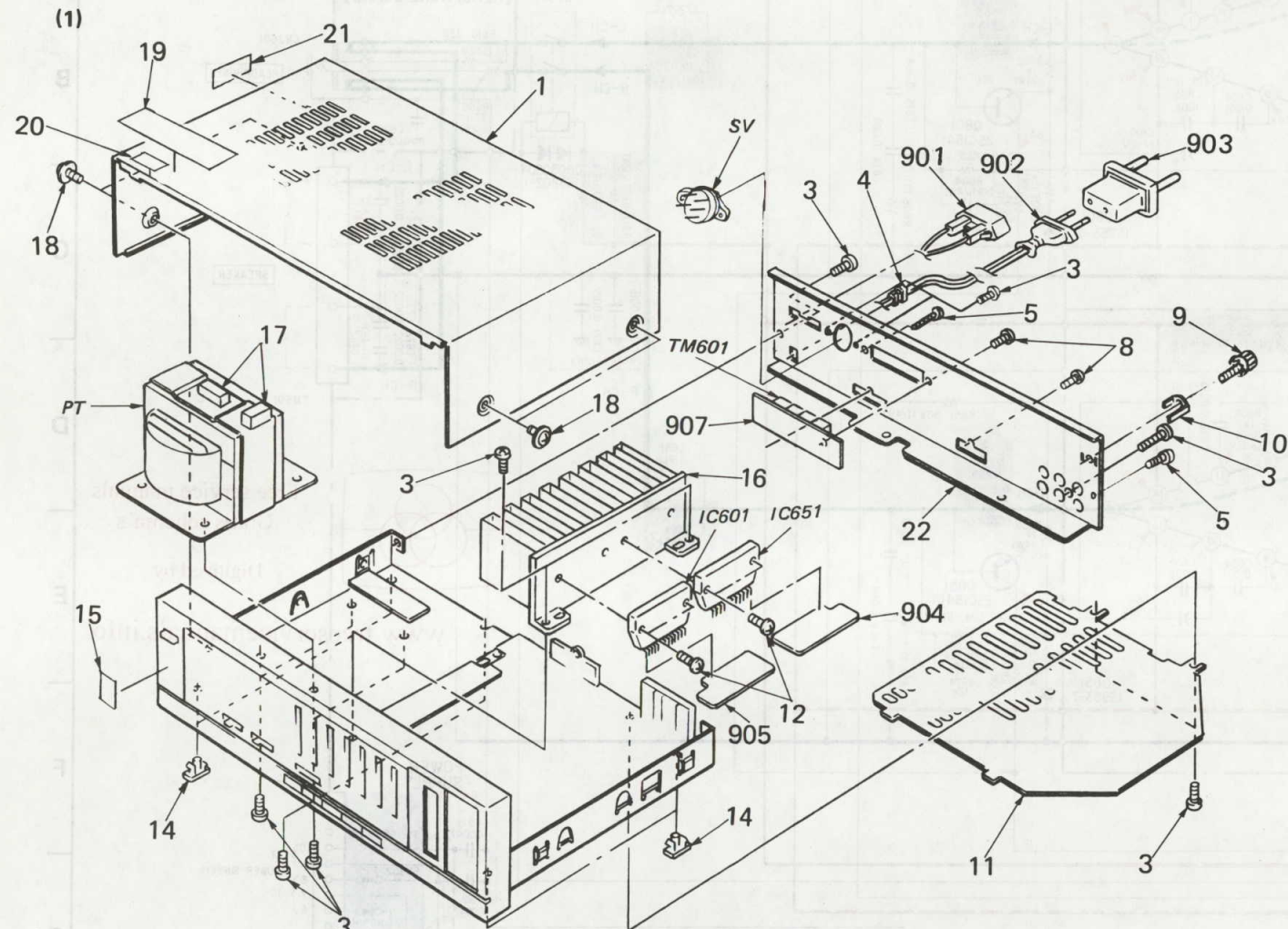
1-2. SCHEMATIC DIAGRAM Refer to page 5 for notes.



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SECTION 3
EXPLODED VIEWS

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.



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

No.	Part No.	Description	Remarks
1	4-914-029-01	(G-AEP,E,UK)...CASE	
	4-914-029-11	(AEP).....CASE	
3	7-685-752-04	SCREW +BVTT 3X8 (S)	
4	3-703-244-00	BUSHING (2104), CORD	
5	3-703-473-00	(G-AEP)...SCREW, TERMINAL	
8	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S	
9	3-706-165-00	SCREW	
10	3-701-993-00	SPACER, TERMINAL	
11	*4-912-117-21	PLATE, BOTTOM	
12	7-685-650-71	SCREW +BVTP 3X16 TYPE2 IT-3	
14	X-4907-603-1	FOOT ASSY	
15	3-703-710-41	STICKER, SONY SYMBOL (12)	
16	*4-914-027-11	HEAT SINK (E)	
17	4-807-369-01	CUSHION (A)	
18	4-886-821-01	SCREW, M3 CASE	
19	4-861-045-01	(AEP,G-AEP)...CAUTION LABEL	
20	3-701-690-01	(UK)...LABEL	
21	3-703-079-21	(UK)...CAUTION LABEL	
22	*4-914-033-01	(AEP)...PLATE (EXP), JACK	
	*4-914-033-11	(G-AEP)...PLATE (EXP), JACK	
	*4-914-033-21	(UK)...PLATE (EXP), JACK	
	*4-914-033-31	(E)...PLATE (EXP), JACK	
901	1-526-752-00	(E).....OUTLET, AC (2 GANG)	
	1-526-751-00	(UK).....OUTLET, AC	
	1-526-794-11	(AEP,G-AEP)...OUTLET, AC	
902	1-551-188-XX	(E).....CORD, POWER	
	1-534-817-XX	(AEP,G-AEP)...CORD, POWER	
	1-551-884-00	(UK).....CORD, POWER	
903	1-526-565-00	(E)....AC PLUG ADAPTOR	
904	*1-618-717-11	PC BOARD, POWER IC (R)	
905	*1-618-716-11	PC BOARD, POWER IC (L)	
907	*1-618-714-11	PC BOARD, SPEAKER TERMINAL	
PT	1-448-483-11	(E).....TRANSFORMER, POWER	
PT	1-448-482-11	(AEP,G-AEP,UK)...TRANSFORMER, POWER	
SV	1-526-576-51	(E).....SELECTOR, POWER VOLTAGE	
TM601	1-536-705-21	TERMINAL BOARD (SP)	

No.	Part No.	Description	Remarks
51	4-912-128-01	KNOB, SLIDE	
52	7-685-871-01	SCREW +BVTT 3X6 (S)	
53	4-914-059-01	PLATE GROUND	
54	7-685-646-71	SCREW +BVTP 3X8 TYPE2 N-S	
55	3-318-909-81	KNOB, PUSH	
56	4-864-307-00	RING	
57	4-902-815-11	KNOB, EQUALIZER	
58	X-4914-008-1	KNOB ASSY, VOL	
59	4-914-026-11	PLATE, VOL	
60	7-623-508-01	LUG ϕ 3MM	
61	X-4914-009-1	PANEL ASSY, FRONT	
62	*4-904-458-61	SHAFT	
912	*A-4358-172-A	MOUNTED PCB, GRAPHIC EQUALIZER	
RV401	1-237-200-11	RES, VAR, SLIDE (BLOCK TYPE)	
S401	1-570-632-11	SWITCH, PUSH (1 KEY)	

No.	Part No.	Description	Remarks
101	*4-914-016-01	BRACKET, SWITCH	
102	4-907-611-01	JOINT KNOB	
103	4-875-466-00	KNOB POWER	
104	7-685-871-01	SCREW +BVTT 3X6 (S)	
105	*4-880-403-21	HEAT SINK	
106	3-575-524-00	COVER, POWER SWITCH	
107	*4-308-851-00	PURSE LOCK	
108	*4-902-812-01	HOLDER, FUSE PC BOARD	
109	7-623-508-01	LUG ϕ 3MM	
112	*X-4914-004-1	CHASSIS ASSY	
113	7-682-545-04	SCREW +P 3X4	
114	4-914-039-01	KNOB (L), FUNCTION (PHONO)	
115	4-914-039-11	KNOB (L), FUNCTION (TUNER)	
116	4-914-039-21	KNOB (L), FUNCTION (CD)	
117	4-914-039-31	KNOB (L), FUNCTION (TAPE)	
118	4-914-039-41	KNOB (L), FUNCTION (VIDEO/AUX)	
120	4-870-539-00	PLATE, GROUND	
121	7-685-752-04	SCREW +BVTT 3X8 (S)	
921	*A-4388-516-A	MOUNTED PCB, MAIN	
923	*1-618-715-11	PC BOARD, FUSE	
924	*1-618-712-11	PC BOARD, MICROPHONE	
925	*1-618-713-11	PC BOARD, HEADPHONE	
927	1-533-183-11	HOLDER FUSE	
CNJ201	1-563-347-11	JACK, LARGE TYPE	
CNJ601	1-507-849-00	JACK, LARGE TYPE (HEADPHONES)	
S1	1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)	
S301	1-570-614-11	SWITCH, PUSH (5 KEY)	

SECTION 4 ELECTRICAL PARTS LIST

NOTE:

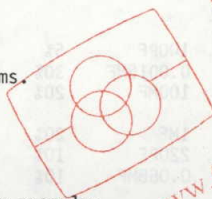
- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors 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...



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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	1-526-752-00	(E).....OUTLET, AC (2 GANG)
	1-526-751-00	(UK).....OUTLET, AC
	1-526-794-11	(AEP,G-AEP)...OUTLET, AC
902	1-551-188-XX	(E).....CORD, POWER
	1-534-817-XX	(AEP,G-AEP)...CORD, POWER
	1-551-884-00	(UK).....CORD, POWER
903	1-526-565-00	(E)...AC PLUG ADAPTOR
904	*1-618-717-11	PC BOARD, POWER IC (R)
905	*1-618-716-11	PC BOARD, POWER IC (L)
907	*1-618-714-11	PC BOARD, SPEAKER TERMINAL
912	*A-4358-172-A	MOUNTED PCB, GRAPHIC EQUALIZER
921	*A-4388-516-A	MOUNTED PCB, MAIN
923	*1-618-715-11	PC BOARD, FUSE
924	*1-618-712-11	PC BOARD, MICROPHONE
925	*1-618-713-11	PC BOARD, HEADPHONE
927	1-533-183-11	HOLDER FUSE
C1	1-161-744-00	CERAMIC 0.01MF 400V
C101	1-123-612-00	ELECT 2.2MF 20% 50V
C102	1-162-282-31	(AEP,E,UK)...CERAMIC 100PF 10% 50V
C102	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C103	1-162-219-31	CERAMIC 68PF 5% 50V
C104	1-123-306-00	ELECT 47MF 20% 10V
C105	1-130-480-00	MYLAR 0.0056MF 5% 50V
C106	1-130-473-00	MYLAR 0.0015MF 5% 50V
C107	1-123-609-00	ELECT 0.33MF 20% 50V
C108	1-123-306-00	ELECT 47MF 20% 10V
C109	1-162-282-31	(G-AEP)...CERAMIC 100PF 10% 50V
C151	1-123-612-00	ELECT 2.2MF 20% 50V
C152	1-162-282-31	(AEP,E,UK)...CERAMIC 100PF 10% 50V
C152	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C153	1-162-219-31	CERAMIC 68PF 5% 50V
C154	1-123-306-00	ELECT 47MF 20% 10V
C155	1-130-480-00	MYLAR 0.0056MF 5% 50V
C156	1-130-473-00	MYLAR 0.0015MF 5% 50V
C157	1-123-609-00	ELECT 0.33MF 20% 50V
C158	1-123-306-00	ELECT 47MF 20% 10V
C159	1-162-282-31	(G-AEP)...CERAMIC 100PF 10% 50V
C201	1-123-609-00	ELECT 0.33MF 20% 50V
C202	1-162-294-31	CERAMIC 0.001MF 10% 50V
C203	1-123-822-00	ELECT 47MF 20% 10V
C204	1-123-609-00	ELECT 0.33MF 20% 50V
C205	1-162-303-31	CERAMIC 0.0033MF 30% 16V
C206	1-123-822-00	ELECT 47MF 20% 10V
C207	1-162-306-31	CERAMIC 0.01MF 30% 16V
C301	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V

ELECTRICAL PARTS

Ref.No.	Part No.	Description
C302	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C351	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C352	1-162-286-11	(G-AEP)...CERAMIC 220PF 10% 50V
C401	1-123-611-00	ELECT 1MF 20% 50V
C403	1-123-612-00	ELECT 2.2MF 20% 50V
C404	1-136-160-00	FILM 0.039MF 5% 50V
C405	1-123-902-00	ELECT 0.68MF 20% 50V
C406	1-136-157-00	FILM 0.022MF 5% 50V
C407	1-123-608-00	ELECT 0.22MF 20% 50V
C408	1-136-153-00	FILM 0.01MF 5% 50V
C409	1-136-166-00	FILM 0.12MF 5% 50V
C410	1-130-478-00	MYLAR 0.0039MF 5% 50V
C411	1-136-163-00	FILM 0.068MF 5% 50V
C412	1-130-473-00	MYLAR 0.0015MF 5% 50V
C413	1-136-157-00	FILM 0.022MF 5% 50V
C414	1-162-293-31	CERAMIC 820PF 10% 50V
C415	1-136-153-00	FILM 0.01MF 5% 50V
C416	1-162-288-31	CERAMIC 330PF 10% 50V
C417	1-130-479-00	MYLAR 0.0047MF 5% 50V
C418	1-162-294-31	CERAMIC 0.001MF 10% 50V
C419	1-123-612-00	ELECT 2.2MF 20% 50V
C420	1-123-822-00	ELECT 47MF 20% 10V
C451	1-123-611-00	ELECT 1MF 20% 50V
C453	1-123-612-00	ELECT 2.2MF 20% 50V
C454	1-136-160-00	FILM 0.039MF 5% 50V
C455	1-123-902-00	ELECT 0.68MF 20% 50V
C456	1-136-157-00	FILM 0.022MF 5% 50V
C457	1-123-608-00	ELECT 0.22MF 20% 50V
C458	1-136-153-00	FILM 0.01MF 5% 50V
C459	1-136-166-00	FILM 0.12MF 5% 50V
C460	1-130-478-00	MYLAR 0.0039MF 5% 50V
C461	1-136-163-00	FILM 0.068MF 5% 50V
C462	1-130-473-00	MYLAR 0.0015MF 5% 50V
C463	1-136-157-00	FILM 0.022MF 5% 50V
C464	1-162-293-31	CERAMIC 820PF 10% 50V
C465	1-136-153-00	FILM 0.01MF 5% 50V
C466	1-162-288-31	CERAMIC 330PF 10% 50V
C467	1-130-479-00	MYLAR 0.0047MF 5% 50V
C468	1-162-294-31	CERAMIC 0.001MF 10% 50V
C469	1-123-612-00	ELECT 2.2MF 20% 50V
C470	1-123-822-00	ELECT 47MF 20% 10V
C601	1-123-380-00	ELECT 1MF 20% 50V
C602	1-161-315-00	CERAMIC 220PF 10% 50V
C603	1-124-443-00	ELECT 100MF 20% 10V
C604	1-161-323-00	CERAMIC 0.001MF 10% 50V

SECTION 4
ELECTRICAL PARTS LIST

ELECTRICAL PARTS

ELECTRICAL PARTS

Ref.No.	Part No.	Description			
C605	1-161-271-00	CERAMIC	100PF	5%	50V
C608	1-161-053-00	CERAMIC	0.0015MF	30%	50V
C609	1-124-122-11	ELECT	100MF	20%	50V
C610	1-123-380-00	ELECT	1MF	20%	50V
C613	1-161-315-00	CERAMIC	220PF	10%	50V
C614	1-136-163-00	MYLAR	0.068MF	10%	50V
C615	1-136-163-00	MYLAR	0.068MF	10%	50V
C616	1-162-301-31	CERAMIC	0.0015MF	30%	50V
C619	1-130-483-00	MYLAR	0.01MF	5%	50V
C620	1-161-494-00	CERAMIC	0.022MF	30%	25V
C621	1-161-325-00	(G-AEP)...CERAMIC	0.0015MF	30%	50V
C622	1-161-494-00	(G-AEP)...CERAMIC	0.022MF	30%	25V
C623	1-161-494-00	(G-AEP)...CERAMIC	0.022MF	30%	25V
C624	1-161-259-00	CERAMIC	10PF	5%	50V
C651	1-123-380-00	ELECT	1MF	20%	50V
C652	1-161-315-00	CERAMIC	220PF	10%	50V
C653	1-124-443-00	ELECT	100MF	20%	10V
C654	1-161-323-00	CERAMIC	0.001MF	10%	50V
C655	1-161-271-00	CERAMIC	100PF	5%	50V
C658	1-161-053-00	CERAMIC	0.0015MF	30%	50V
C659	1-124-122-11	ELECT	100MF	20%	50V
C660	1-123-380-00	ELECT	1MF	20%	50V
C663	1-161-315-00	CERAMIC	220PF	10%	50V
C664	1-136-163-00	MYLAR	0.068MF	10%	50V
C665	1-136-163-00	MYLAR	0.068MF	10%	50V
C669	1-130-483-00	MYLAR	0.01MF	5%	50V
C670	1-161-494-00	CERAMIC	0.022MF	30%	25V
C671	1-161-325-00	(G-AEP)...CERAMIC	0.0015MF	10%	50V
C672	1-161-494-00	(G-AEP)...CERAMIC	0.022MF	30%	25V
C673	1-161-494-00	(G-AEP)...CERAMIC	0.022MF	30%	25V
C674	1-161-259-00	CERAMIC	10PF	5%	50V
C801	1-123-308-00	ELECT	220MF	20%	6.3V
C802	1-123-308-00	ELECT	220MF	20%	6.3V
C803	1-123-356-00	ELECT	10MF	20%	50V
C804	1-123-307-00	ELECT	100MF	20%	6.3V
C901	▲1-124-030-00	ELECT	6800MF	20%	42V
C902	▲1-124-030-00	ELECT	6800MF	20%	42V
C903	1-123-333-00	ELECT	100MF	20%	16V
C904	1-123-333-00	ELECT	100MF	20%	16V
C905	▲1-102-394-00	CERAMIC	0.01MF		250V
C906	1-123-306-00	ELECT	47MF	20%	10V
C907	1-123-306-00	ELECT	47MF	20%	10V
C908	1-123-359-00	ELECT	47MF	20%	50V
C909	1-123-356-00	ELECT	10MF	20%	50V
C910	1-123-359-00	ELECT	47MF	20%	50V
C911	1-161-328-11	(G-AEP)...CERAMIC	0.0047MF	30%	50V
C912	1-161-328-11	(G-AEP)...CERAMIC	0.0047MF	30%	50V
CN401	*1-563-251-11	SOCKET, CONNECTOR	12P		
CN451	*1-563-152-11	SOCKET, CONNECTOR	10P		
CNJ101	1-507-911-11	JACK, PIN	6P		
CNJ201	1-563-347-11	JACK, LARGE TYPE			
CNJ301	1-562-068-13	SOCKET, CONNECTOR	13P		
CNJ601	1-507-849-00	JACK, LARGE TYPE (HEADPHONES)			
CNJ901	1-562-068-13	SOCKET, CONNECTOR	13P		
D701	8-719-302-16	DIODE SEL1813A-C-TP2			
D702	8-719-302-16	DIODE SEL1813A-C-TP2			
D703	8-719-302-16	DIODE SEL1813A-C-TP2			

Ref.No.	Part No.	Description			
D704	8-719-302-16	DIODE SEL1813A-C-TP2			
D705	8-719-302-16	DIODE SEL1813A-C-TP2			
D801	8-719-107-57	DIODE 1S953-7			
D802	8-719-107-57	DIODE 1S953-7			
D803	8-719-107-94	DIODE 1SS202-1			
D804	8-719-107-94	DIODE 1SS202-1			
D805	8-719-200-77	DIODE 10E2-N			
D851	8-719-107-57	DIODE 1S953-7			
D901	7-719-910-13	DIODE HZ11A3L			
D902	7-719-910-13	DIODE HZ11A3L			
D903	▲8-719-302-38	DIODE RBV-602-01			
D904	▲8-719-200-77	DIODE 10E2-N			
D905	▲8-719-200-77	DIODE 10E2-N			
F1	▲1-532-259-00	FUSE, TIME-LAG	T 1.6A		
F2	▲1-532-259-00	FUSE, TIME-LAG	T 1.6A		
IC101	8-759-923-97	IC BA4561			
IC401	8-759-923-97	IC BA4561			
IC402	8-759-802-54	IC LA3605			
IC452	8-759-802-54	IC LA3605			
IC601	8-749-900-12	(AEP,G-AEP,UK)...IC	STK4034MK-10		
IC601	8-749-900-13	(E)...IC	STK4028MK-10		
IC651	8-749-900-12	(AEP,G-AEP,UK)...IC	STK4034MK-10		
IC651	8-749-900-13	(E)...IC	STK4028MK-10		
IC801	8-759-101-23	IC UPC1237H			
J201	*1-562-249-00	SOCKET, CONNECTOR	4P		
J202	*1-562-249-00	SOCKET, CONNECTOR	4P		
J706	*1-562-250-00	SOCKET, CONNECTOR	5P		
J707	*1-562-251-00	SOCKET, CONNECTOR	6P		
J701	*1-562-327-00	SOCKET, CONNECTOR	3P		
J704	*1-562-327-00	SOCKET, CONNECTOR	3P		
J702	*1-562-328-00	SOCKET, CONNECTOR	7P		
J703	*1-562-328-00	SOCKET, CONNECTOR	7P		
J705	*1-562-328-00	SOCKET, CONNECTOR	7P		
L601	*1-420-872-00	COIL, AIR CORE	1.9UH		
L651	*1-420-872-00	COIL, AIR CORE	1.9UH		
PS901	▲1-532-686-00	LINK, IC			
PS902	▲1-532-686-00	LINK, IC			
PS903	▲1-532-686-00	LINK, IC			
PT	▲1-448-483-11	(E).....TRANSFORMER, POWER			
PT	▲1-448-482-11	(AEP,G-AEP,UK)...TRANSFORMER, POWER			
Q201	8-729-606-33	TRANSISTOR 2SC2603F			
Q801	8-729-108-05	TRANSISTOR 2SC1841PA			
Q802	8-729-900-36	TRANSISTOR DTA124ES-DP			
Q851	8-729-108-05	TRANSISTOR 2SC1841PA			
Q901	8-729-107-25	TRANSISTOR 2SD1585-L			
Q902	8-729-111-67	TRANSISTOR 2SB1094-L			
R101	1-249-441-11	CARBON	100K	5%	1/6W
R102	1-249-417-11	CARBON	1K	5%	1/6W
R103	1-249-441-11	CARBON	100K	5%	1/6W
R104	1-247-829-00	CARBON	820	5%	1/6W
R105	1-247-897-00	CARBON	560K	5%	1/6W
R106	1-249-437-11	CARBON	47K	5%	1/6W
R107	1-247-815-00	CARBON	220	5%	1/6W
R108	1-249-441-11	CARBON	100K	5%	1/6W
R109	1-247-704-11	CARBON	220	5%	1/4W
R110	1-247-829-81	(G-AEP)...CARBON	820	5%	1/6W

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

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R151	1-249-441-11	CARBON	100K	5%	1/6W	
R152	1-249-417-11	CARBON	1K	5%	1/6W	
R153	1-249-441-11	CARBON	100K	5%	1/6W	
R154	1-247-829-00	CARBON	820	5%	1/6W	
R155	1-247-897-00	CARBON	560K	5%	1/6W	
R156	1-249-437-11	CARBON	47K	5%	1/6W	
R157	1-247-815-00	CARBON	220	5%	1/6W	
R158	1-249-441-11	CARBON	100K	5%	1/6W	
R159	1-247-704-11	CARBON	220	5%	1/4W	
R160	1-247-829-81	(G-AEP)...CARBON	820	5%	1/6W	
R201	1-249-441-11	CARBON	100K	5%	1/6W	
R202	1-249-441-11	CARBON	100K	5%	1/6W	
R203	1-249-417-11	CARBON	1K	5%	1/6W	
R204	1-247-849-00	CARBON	5.6K	5%	1/6W	
R205	1-247-859-00	CARBON	15K	5%	1/6W	
R206	1-249-441-11	CARBON	100K	5%	1/6W	
R207	1-249-421-11	CARBON	2.2K	5%	1/6W	
R208	1-249-417-11	CARBON	1K	5%	1/6W	
R301	1-249-417-11	CARBON	1K	5%	1/6W	
R302	1-249-417-11	CARBON	1K	5%	1/6W	
R303	1-247-823-00	CARBON	470	5%	1/6W	
R351	1-249-417-11	CARBON	1K	5%	1/6W	
R352	1-249-417-11	CARBON	1K	5%	1/6W	
R353	1-247-823-00	CARBON	470	5%	1/6W	
R401	1-247-887-00	CARBON	220K	5%	1/6W	
R402	1-249-417-11	CARBON	1K	5%	1/6W	
R403	1-247-887-00	CARBON	220K	5%	1/6W	
R404	1-249-441-11	CARBON	100K	5%	1/6W	
R405	1-249-425-11	CARBON	4.7K	5%	1/6W	
R406	1-249-441-11	CARBON	100K	5%	1/6W	
R407	1-247-109-00	CARBON	120	5%	1/4W	
R408	1-247-708-11	CARBON	470	5%	1/4W	
R409	1-247-823-00	CARBON	470	5%	1/6W	
R451	1-247-887-00	CARBON	220K	5%	1/6W	
R452	1-249-417-11	CARBON	1K	5%	1/6W	
R453	1-247-887-00	CARBON	220K	5%	1/6W	
R454	1-249-441-11	CARBON	100K	5%	1/6W	
R455	1-249-425-11	CARBON	4.7K	5%	1/6W	
R456	1-249-441-11	CARBON	100K	5%	1/6W	
R457	1-247-109-00	CARBON	120	5%	1/4W	
R459	1-247-823-00	CARBON	470	5%	1/6W	
R601	1-247-713-11	CARBON	1K	5%	1/4W	
R602	1-247-173-00	CARBON	56K	5%	1/4W	
R603	1-247-125-00	CARBON	560	5%	1/4W	
R604	1-247-173-00	CARBON	56K	5%	1/4W	
R605	1-247-149-00	CARBON	5.6K	5%	1/4W	
R606	1-247-713-11	CARBON	1K	5%	1/4W	
R607	△1-247-700-11	CARBON	100	5%	1/4W	F
R608	1-247-192-00	CARBON	10	5%	1/2W	
R609	△1-247-192-00	CARBON	10	5%	1/2W	F
R651	1-247-713-11	CARBON	1K	5%	1/4W	
R652	1-247-173-00	CARBON	56K	5%	1/4W	
R653	1-247-125-00	CARBON	560	5%	1/4W	
R654	1-247-173-00	CARBON	56K	5%	1/4W	
R655	1-247-149-00	CARBON	5.6K	5%	1/4W	
R656	1-247-713-11	CARBON	1K	5%	1/4W	
R657	△1-247-700-11	CARBON	100	5%	1/4W	F
R658	1-247-192-00	CARBON	10	5%	1/2W	

ELECTRICAL PARTS

Ref.No.	Part No.	Description				
R659	△1-247-192-00	CARBON	10	5%	1/2W	F
R801	1-247-173-00	CARBON	56K	5%	1/4W	
R802	1-247-713-11	CARBON	1K	5%	1/4W	
R803	1-249-460-11	CARBON	15K	5%	1/4W	
R804	1-249-469-11	CARBON	100K	5%	1/4W	
R805	△1-217-156-00	RES, METAL PLATE 0.22	5W			F
R806	1-249-429-11	CARBON	10K	5%	1/6W	
R807	1-249-441-11	CARBON	100K	5%	1/6W	
R808	1-247-873-00	CARBON	56K	5%	1/6W	
R809	1-247-153-00	CARBON	8.2K	5%	1/4W	
R810	1-249-460-11	CARBON	15K	5%	1/4W	
R811	△1-247-751-11	CARBON	820	5%	1/2W	
R812	△1-247-751-11	CARBON	820	5%	1/2W	
R851	1-247-173-00	CARBON	56K	5%	1/4W	
R852	1-247-713-11	CARBON	1K	5%	1/4W	
R853	1-249-460-11	CARBON	15K	5%	1/4W	
R854	1-249-469-11	CARBON	100K	5%	1/4W	
R855	△1-217-156-00	RES, METAL PLATE 0.22	5W			F
R901	△1-217-387-00	FUSIBLE	10	5%	1/4W	F
R902	△1-217-387-00	FUSIBLE	10	5%	1/4W	F
R903	1-247-719-11	CARBON	3.3K	5%	1/4W	
R904	1-247-719-11	CARBON	3.3K	5%	1/4W	
R905	1-247-256-00	CARBON	4.7K	5%	1/2W	
R906	1-247-256-00	CARBON	4.7K	5%	1/2W	
R907	1-247-256-00	CARBON	4.7K	5%	1/2W	
R908	1-247-252-00	CARBON	3.3K	5%	1/2W	
R909	1-247-252-00	CARBON	3.3K	5%	1/2W	
RV201	1-230-732-11	RES, VAR, SLIDE 100K/100K (MIC MIXING)				
RV401	1-237-200-11	RES, VAR, SLIDE (BLOCK TYPE)				
RV501	1-237-201-11	RES, VAR, SLIDE 100K/100K (BALANCE)				
RV502	1-237-162-11	RES, VAR, SLIDE 100K/100K (VOLUME)				
RY801	1-515-501-00	RELAY				
S1	△1-554-920-11	SWITCH, PUSH (AC POWER)(1 KEY)				
S301	1-570-614-11	SWITCH, PUSH (5 KEY)				
S401	1-570-632-11	SWITCH, PUSH (1 KEY)				
SV	△1-526-576-51	(E)..... SELECTOR, POWER VOLTAGE				
TM601	1-536-705-21	TERMINAL BOARD (SP)				

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