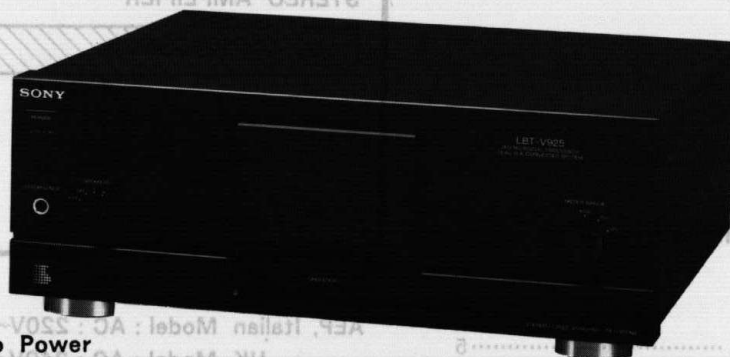


TA-V925NE

SERVICE MANUAL

AEP Model
UK Model



This set is the Stereo Power
amplifier section in
LBT-V925CD

SPECIFICATIONS

Power amplifier

Power output	85 W + 85 W at 5 % distortion
Power consumption	150 W
AC outlets	2 unswitched. 200 W max.
Dimensions	355 × 132 × 335 mm (w/h/d) (14 × 5 1/5 × 13 1/8 inches)
Weight	Approx. 6.7 kg (14 lb 13 oz)

General

Power requirements 240 V AC, 50 Hz

Design and specifications subject to change without notice.



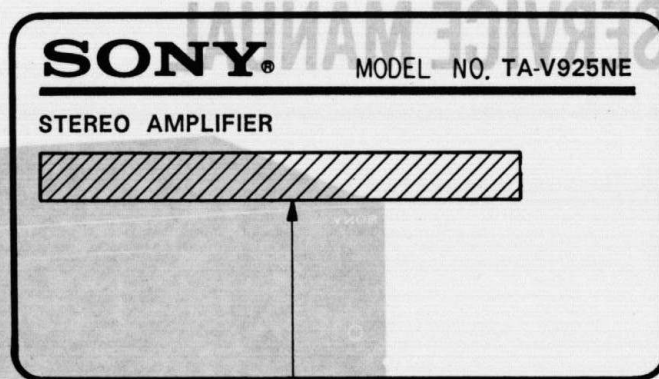
STEREO POWER AMPLIFIER
SONY®

TABLE OF CONTENTS

MODEL IDENTIFICATION

— Specification Label —

Title	Description	Page
Specifications		1
Model Identification		2
1. GENERAL		
1-1. Function of Controls		3
2. DISASSEMBLY		4
3. ELECTRICAL ADJUSTMENTS		4
4. DIAGRAMS		
4-1. Circuit Boards Location		5
4-2. Semiconductors Lead Layout		6
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4-4. Schematic Diagram		11
5. EXPLODED VIEW		15
6. ELECTRICAL PARTS LIST		17



AEP, Italian Model : AC : 220V~50/60Hz 150W
 UK Model : AC : 240V~50/60Hz 150W

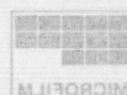
Weight 6.7 kg (14 lb 13 oz)
 Dimensions 385 X 132 X 325 mm (w/h/d)
 2 unswitched, 200 W max.
 Power consumption 150 W
 Power output 85 W + 85 W at 5% distortion

General
 Power requirements 240 V AC, 50 Hz

Design and specifications subject to change without notice.

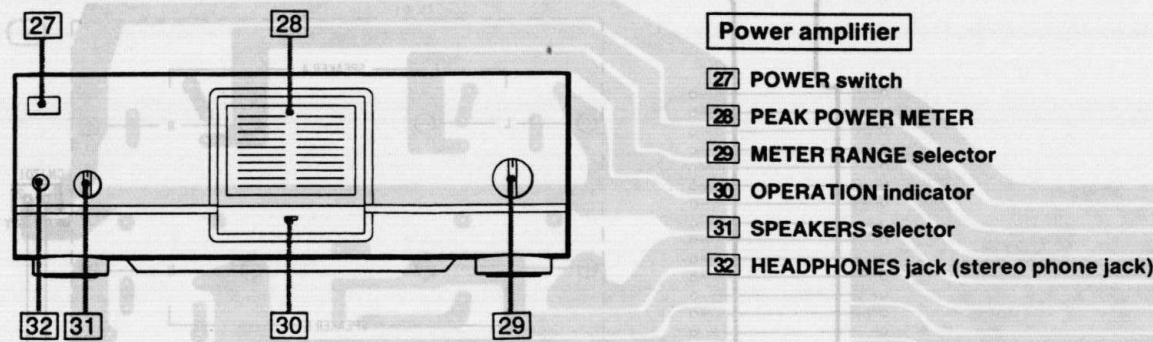
SAFETY-RELATED COMPONENT WARNING!!

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



SECTION 1 GENERAL

Parts Identification



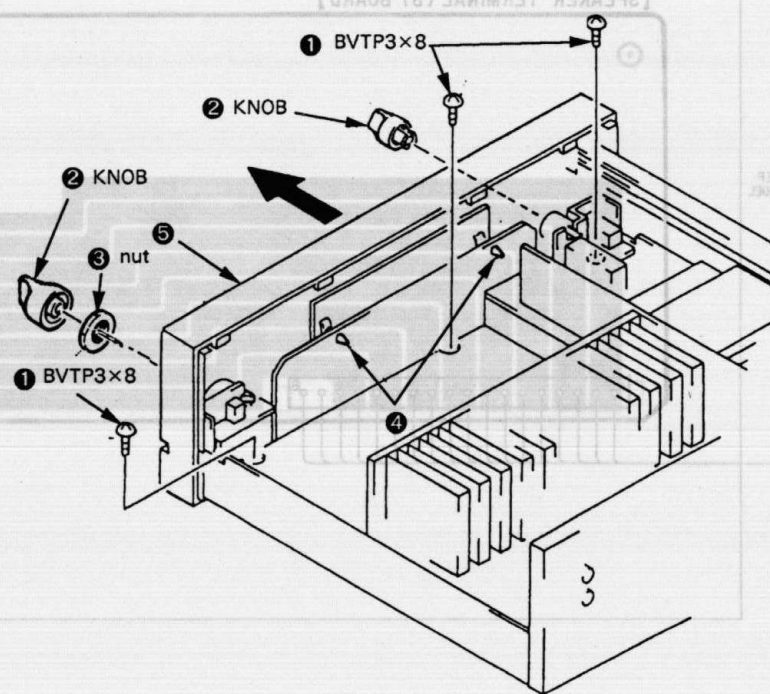
Power amplifier

- 27 POWER switch
- 28 PEAK POWER METER
- 29 METER RANGE selector
- 30 OPERATION indicator
- 31 SPEAKERS selector
- 32 HEADPHONES jack (stereo phone jack)

SECTION 2 DISASSEMBLY

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

[FRONT PANEL]



SECTION 3 ELECTRICAL ADJUSTMENTS

[DC Bias Adjustment]

Perform this adjustment when replacing the transistors or ICs of the power amplifier.

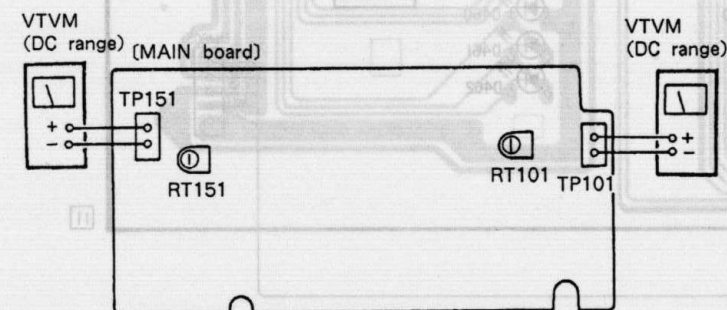
Setup :

- No signal (No load)
- Minimum volume

Procedure :

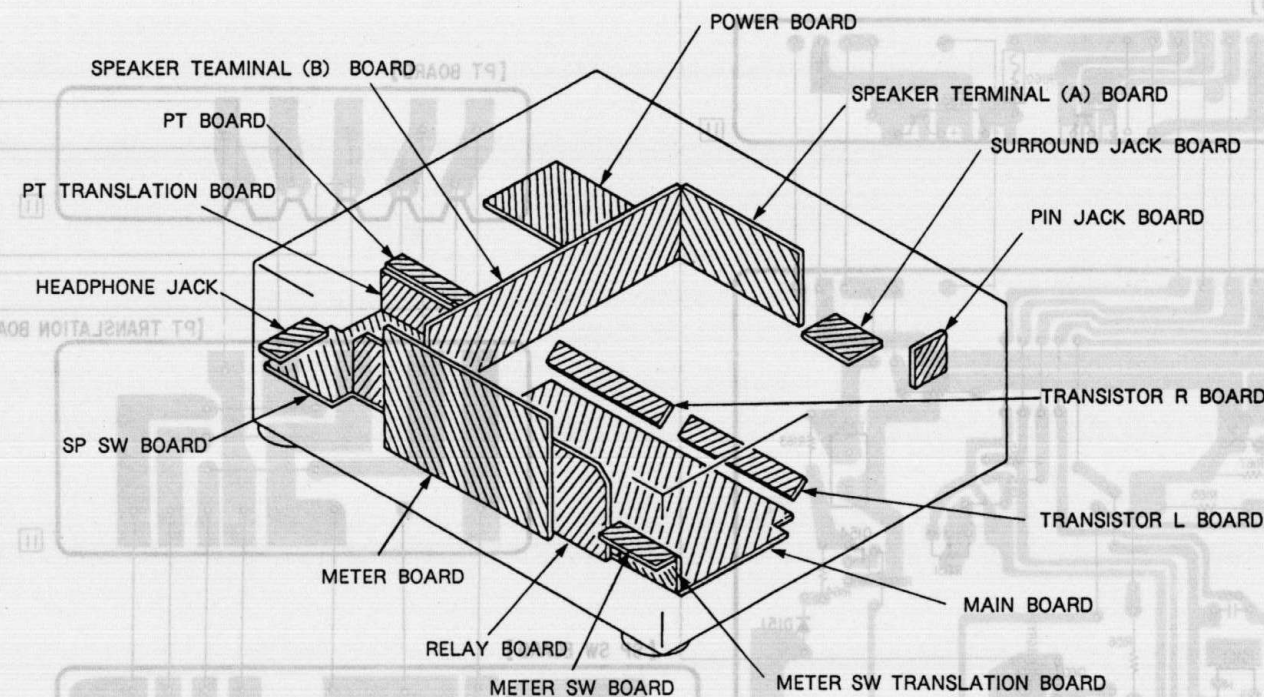
1. Connect DC volt meter to the TP.
2. Turn on the power and wait for 3 minutes, then adjust RT101 (L-CH) and RT151 (R-CH) so that the bias voltage becomes 7mV.

Adjustment Location :

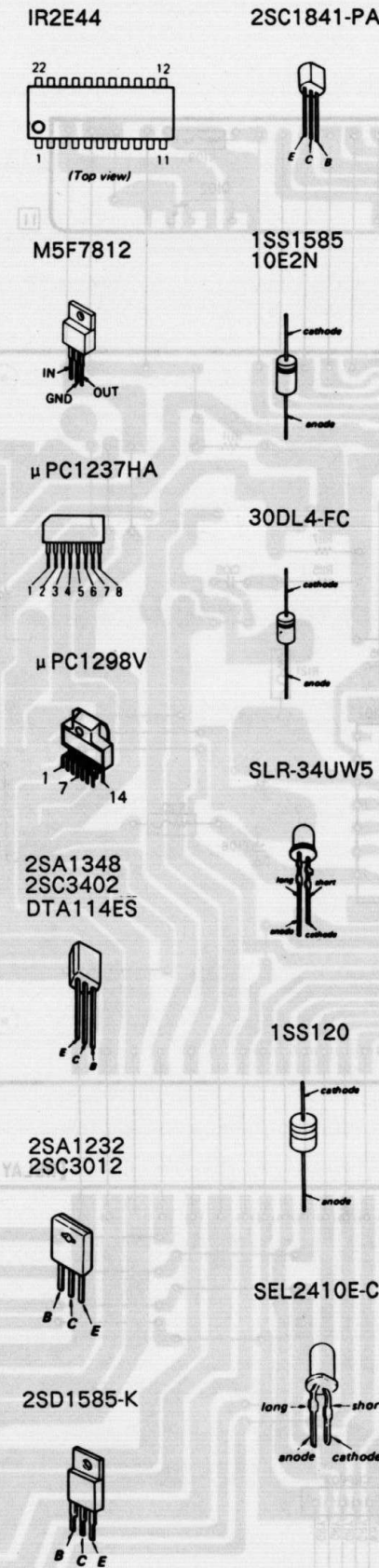


SECTION 4 DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION



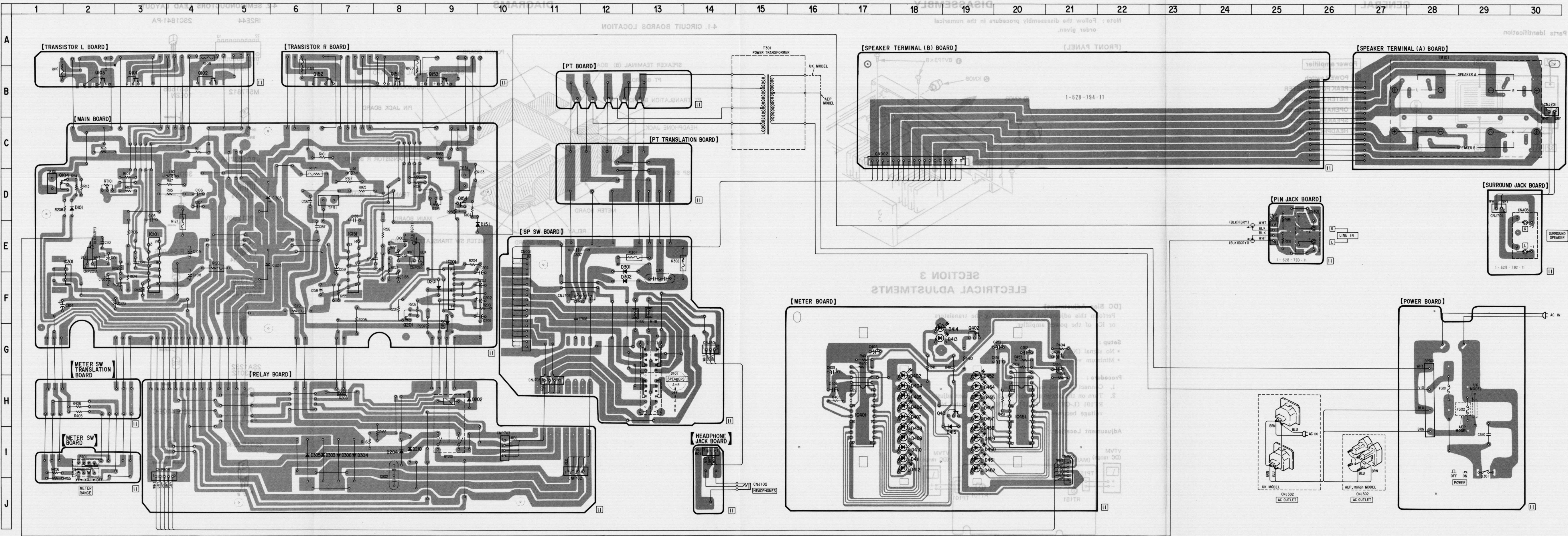
4-2. SEMICONDUCTORS LEAD LAYOUT

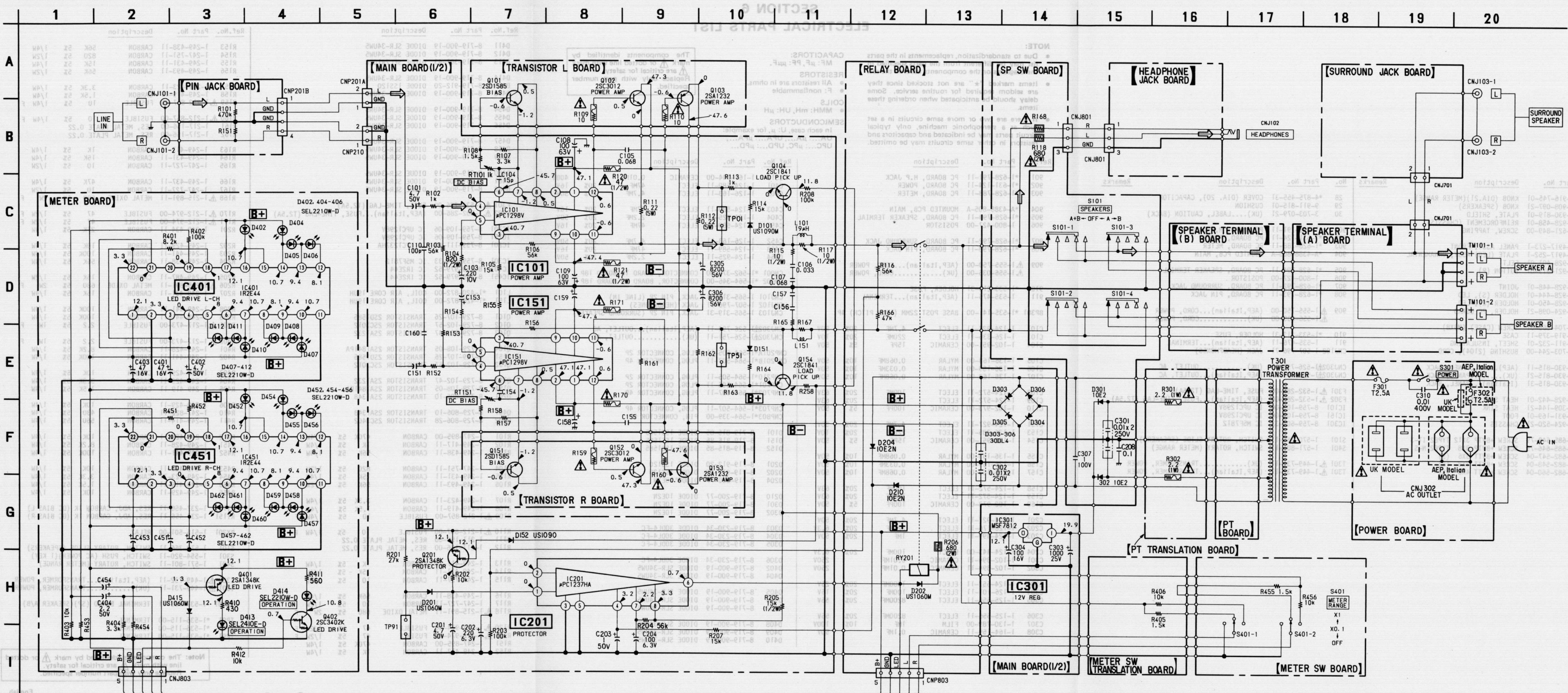


SEMICONDUCTOR LOCATION	
Ref. No.	Location
IC101	E-3
IC151	E-7
IC201	F-9
IC301	E-2
IC401	H-17
IC451	H-20
Q101	B-3
Q102	B-4
Q103	B-2
Q104	D-2
Q151	B-8
Q152	B-6
Q153	B-9
Q154	D-9
Q201	F-8
Q401	H-18
Q402	G-19
D101	D-2
D151	E-9
D152	F-9
D201	F-9
D202	H-9
D204	I-8
D210	I-8
D301	E-12
D302	F-12
D303	I-6
D304	I-7
D305	I-6
D306	I-7
D402	G-18
D404	H-18
D405	H-18
D406	H-18
D407	H-18
D408	H-18
D409	I-18
D410	I-18
D411	I-18
D412	I-18
D413	G-18
D414	G-18
D415	H-19
D452	G-19
D454	H-19
D455	H-19
D456	H-19
D457	H-19
D458	H-19
D459	I-19
D460	I-19
D461	I-19
D462	I-19

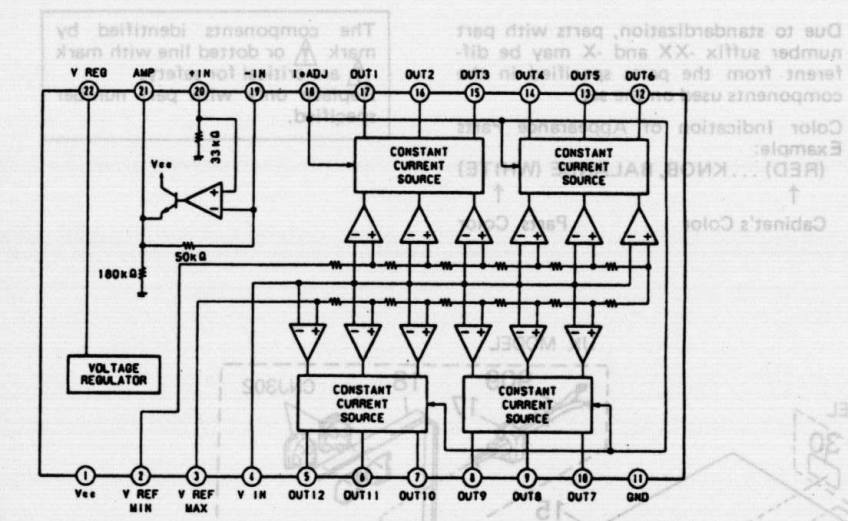
4-3. PRINTED WIRING BOARDS

Refer to page 6 Semiconductor Lead Layouts.





• IC BLOCK DIAGRAM



Note:

- All capacitors are in μF unless otherwise noted. $pF : \mu F$ 50V or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{2}W$ or less unless otherwise specified.
- Components for right channel have same values as for left channel. Reference numbers are coded from:
- $\square$: nonflammable resistor.
- $\square$: fusible resistor.
- $B+$: B+ Line
- $B-$: B- Line
- $\square$: adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (input impedance 10M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
- $\Rightarrow$: LINE

SECTION 5 EXPLODED VIEW

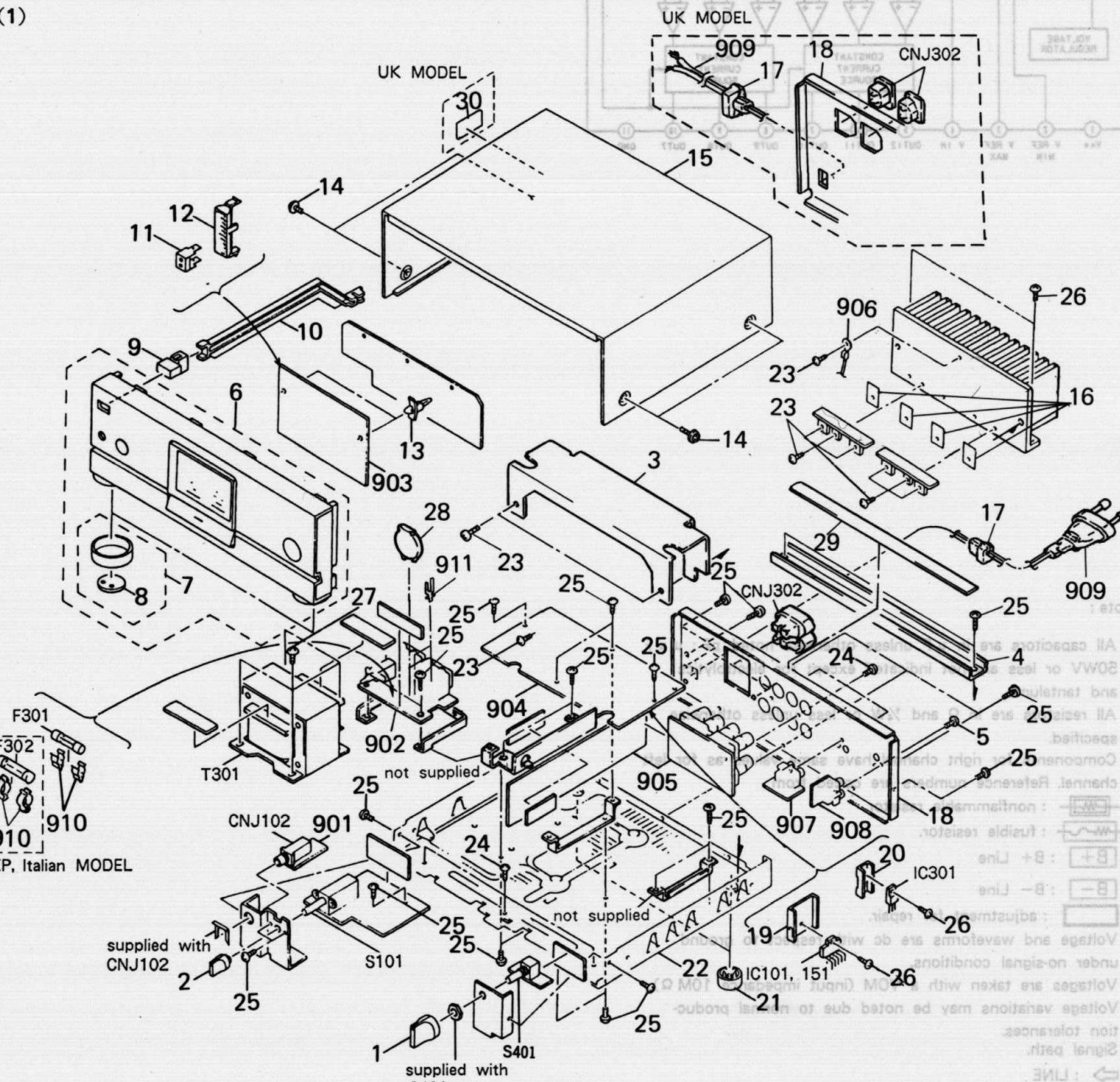
NOTE:

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

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

↑ Cabinet's Color
↑ Parts Color

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



No.	Part No.	Description	Remarks
1	4-916-745-01	KNOB (DIA.21)(METER RANGE)	
2	4-908-097-21	KNOB (SPEAKERS)	
3	*4-930-819-01	PLATE, SHIELD	
4	*4-928-458-01	REINFORCEMENT (CHASSIS)	
5	7-621-849-00	SCREW, TAPPING	
6	X-4917-273-1	PANEL ASSY. FRONT	
7	X-4917-252-1	PLATE (LEG) ASSY. ORNAMENTAL	
8	4-928-401-01	FELT	
9	4-921-919-01	BUTTON (P)	
10	*4-928-448-01	JOINT	
11	*4-928-444-01	HOLDER (S), LED	
12	*4-928-450-01	HOLDER (L), LED	
13	*4-924-098-21	HOLDER, PC BOARD	
14	3-704-366-01	SCREW (CASE) (M3X8)	
15	4-919-379-11	CASE	
16	4-911-232-01	SHEET, INSULATING	
17	*3-703-244-00	BUSHING (2104), CORD	
18	*4-930-815-11	(AEP).....PANEL, BACK	
	*4-930-815-21	(UK).....PANEL, BACK	
	*4-930-815-31	(Italian).....PANEL, BACK	
19	*4-928-442-01	HEAT SINK (S)	
20	*3-309-144-21	HEAT SINK	
21	4-931-169-01	FOOT	
22	*4-924-520-21	CHASSIS	
23	7-685-648-79	SCREW +BVTP 3X12 TYPE2 IT-3	
24	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
25	7-682-547-04	SCREW +BVTT 3X6 (S)	
26	7-682-548-04	SCREW +BVTT 3X8 (S)	
27	7-682-560-04	SCREW +BVTT 4X6 (S)	

No.	Part No.	Description	Remarks
28	*4-875-455-31	COVER (DIA. 20), CAPACITOR	
29	9-911-815-01	CUSHION	
30	3-703-079-21	(UK)....LABEL, CAUTION (BACK)	
901	*1-628-791-11	PC BOARD, H.P JACK	
902	*1-631-124-11	PC BOARD, POWER	
903	*1-628-788-11	PC BOARD, METER	
904	*A-4388-805-A	MOUNTED PCB, MAIN	
905	*1-628-794-11	PC BOARD, SPEAKER TERMIAL	
906	1-800-427-00	POSISTOR	
907	*1-628-792-11	PC BOARD, SURROUND JACK	
908	*1-628-793-11	PC BOARD, PIN JACK	
909	*1-555-750-00	(AEP,Italian)....CORD, POWER	
	*1-556-035-00	(UK).....CORD, POWER	
910	*1-533-213-31	HOLDER, FUSE	
911	1-535-476-11	(AEP,Italian)....TERMINAL	
CNJ102	1-507-796-71	JACK (HEADPHONES)	
CNJ103	1-565-319-31	JACK, PIN 2P (SURROUND SPEAKER)	
CNJ302A	1-526-794-11	(UK).....OUTLET, AC	
CNJ302B	1-526-794-11	(AEP,Italian)....OUTLET, AC	
F301	*1-532-286-00	FUSE, TIME-LAG (T2.5A)	
F302	*1-532-286-00	(AEP,Italian)....FUSE, TIME-LAG (T2.5A)	
IC101	8-759-109-06	IC UPC1298V	
IC151	8-759-109-06	IC UPC1298V	
IC301	8-759-604-33	IC MSF7812	
S101	1-570-366-11	SWITCH, ROTARY SLIDE (SPEAKERS)	
S401	1-571-801-11	SWITCH, ROTARY (METER RANGE)	
T301	*1-449-731-11	(UK).....TRANSFORMER, POWER	
T301	*1-449-732-11	(AEP,Italian)....TRANSFORMER, POWER	

NOTE:

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

Ref.No.	Part No.	Description			
901	*1-628-791-11	PC BOARD, H.P JACK			
902	*1-631-124-11	PC BOARD, POWER			
903	*1-628-788-11	PC BOARD, METER			
904	*A-4388-805-A	MOUNTED PCB, MAIN			
905	*1-628-794-11	PC BOARD, SPEAKER TERMIAL			
906	1-800-427-00	POSISTOR			
907	*1-628-792-11	PC BOARD, SURROUND JACK			
908	*1-628-793-11	PC BOARD, PIN JACK			
909	*1-555-750-00	(AEP,Italian)....CORD, POWER			
	*1-556-035-00	(UK).....CORD, POWER			
910	*1-533-213-31	HOLDER, FUSE			
911	1-535-476-11	(AEP,Italian)....TERMINAL			
BP301	*1-535-141-00	BASE POST 22MM (10MM PITCH) 4P			
C101	1-124-927-11	ELECT 4.7MF	20%	50V	
C103	1-126-335-11	ELECT 220MF	20%	10V	
C104	1-102-951-00	CERAMIC 15PF	5%	50V	
C105	1-136-163-00	MYLAR 0.068MF	10%	50V	
C106	1-136-159-00	MYLAR 0.033MF	10%	50V	
C107	1-136-163-00	MYLAR 0.068MF	10%	50V	
C108	1-124-572-11	ELECT 100MF	20%	63V	
C109	1-124-572-11	ELECT 100MF	20%	63V	
C110	1-102-973-00	CERAMIC 100PF	5%	50V	
C151	1-124-927-11	ELECT 4.7MF	20%	50V	
C153	1-126-335-11	ELECT 220MF	20%	10V	
C154	1-102-951-00	CERAMIC 15PF	5%	50V	
C155	1-136-163-00	MYLAR 0.068MF	10%	50V	
C156	1-136-159-00	MYLAR 0.033MF	10%	50V	
C157	1-136-163-00	MYLAR 0.068MF	10%	50V	
C158	1-124-572-11	ELECT 100MF	20%	63V	
C159	1-124-572-11	ELECT 100MF	20%	63V	
C160	1-102-973-00	CERAMIC 100PF	5%	50V	
C201	1-124-927-11	ELECT 4.7MF	20%	50V	
C202	1-126-176-11	ELECT 220MF	20%	6.3V	
C203	1-124-499-11	ELECT 1MF	20%	50V	
C204	1-124-443-00	ELECT 100MF	20%	6.3V	
C301	1-102-394-11	CERAMIC 0.01MF	250V		
C302	1-102-394-11	CERAMIC 0.01MF	250V		
C303	1-124-557-11	ELECT 1000MF	20%	25V	
C304	1-126-101-11	ELECT 100MF	20%	16V	
C305	1-125-556-11	ELECT 8200MF	20%	56V	
C306	1-125-556-11	ELECT 8200MF	20%	56V	
C307	1-130-789-00	FILM 1MF	10%	100V	
C308	1-164-159-11	CERAMIC 0.1MF		50V	

SECTION 6 ELECTRICAL PARTS LIST

CAPACITORS:
MF: μ F, PF: μ F.

RESISTORS
● All resistors are in ohms.
● F: nonflammable

COILS
● MMH: mH, UH: μ H

SEMICONDUCTORS
In each case, U: μ , for example:
UA.... μ A...., UPA.... μ PA....
UPC.... μ PC, UPD.... μ PD....

Ref.No.	Part No.	Description			
C310	1-161-744-00	CERAMIC 0.01MF		400V	
C401	1-124-589-11	ELECT 47MF	20%	16V	
C402	1-126-163-11	ELECT 4.7MF	20%	50V	
C403	1-124-589-11	ELECT 47MF	20%	16V	
C404	1-124-925-11	ELECT 2.2MF	20%	50V	
C451	1-124-589-11	ELECT 47MF	20%	16V	
C452	1-126-163-11	ELECT 4.7MF	20%	50V	
C453	1-124-589-11	ELECT 47MF	20%	16V	
C454	1-124-925-11	ELECT 2.2MF	20%	50V	
CN001	*1-562-370-00	CONNECTOR, BOARD TO BOARD 18P			
CN002	*1-564-346-00	CONNECTOR, BOARD TO BOARD 18P			
CNJ101	1-565-319-31	JACK, PIN 2P (LINE IN)			
CNJ102	1-507-796-71	JACK (HEADPHONES)			
CNJ103	1-565-319-31	JACK, PIN 2P (SURROUND SPEAKER)			
CNJ302A	1-526-794-11	(AEP,Italian)....OUTLET, AC			
CNJ302B	1-526-751-11	(UK).....OUTLET, AC			
CNP201A	*1-564-505-11	PLUG, CONNECTOR 2P			
CNP201B	*1-564-507-11	PLUG, CONNECTOR 4P			
CNP210	*1-564-505-11	PLUG, CONNECTOR 2P			
CNP701	*1-564-505-11	PLUG, CONNECTOR 2P			
CNP702	*1-564-507-11	PLUG, CONNECTOR 4P			
CNP703	*1-564-507-11	PLUG, CONNECTOR 4P			
CNP803	*1-564-339-00	PIN, CONNECTOR 5P			
D101	8-719-815-85	DIODE 1SS1585			
D151	8-719-815-85	DIODE 1SS1585			
D152	8-719-815-85	DIODE 1SS1585			
D201	8-719-912-20	DIODE 1SS120			
D202	8-719-912-20	DIODE 1SS120			
D204	8-719-200-77	DIODE 10E2N			
D210	8-719-200-77	DIODE 10E2N			
D301	8-719-200-77	DIODE 10E2N			
D302	8-719-200-77	DIODE 10E2N			
D303	8-719-230-34	DIODE 30DL4-FC			
D304	8-719-230-34	DIODE 30DL4-FC			
D305	8-719-230-34	DIODE 30DL4-FC			
D306	8-719-230-34	DIODE 30DL4-FC			
D402	8-719-900-19	DIODE SLR-34UW5			
D404	8-719-900-19	DIODE SLR-34UW5			
D405	8-719-900-19	DIODE SLR-34UW5			
D406	8-719-900-19	DIODE SLR-34UW5			
D407	8-719-900-19	DIODE SLR-34UW5			
D408	8-719-900-19	DIODE SLR-34UW5			
D409	8-719-900-19	DIODE SLR-34UW5			
D410	8-719-900-19	DIODE SLR-34UW5			

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Ref.No.	Part No.	Description			
D411	8-719-900-19	DIODE SLR-34UW5			
D412	8-719-900-19	DIODE SLR-34UW5			
D413	8-719-301-43	DIODE SEL2410EC			
D414	8-719-900-19	DIODE SLR-34UW5			
D415	8-719-912-20	DIODE 1SS120			
D452	8-719-900-19	DIODE SLR-34UW5			
D454	8-719-900-19	DIODE SLR-34UW5			
D455	8-719-900-19	DIODE SLR-34UW5			
D456	8-719-900-19	DIODE SLR-34UW5			
D457	8-719-900-19	DIODE SLR-34UW5			
D458	8-719-900-19	DIODE SLR-34UW5			
D459	8-719-900-19	DIODE SLR-34UW5			
D460	8-719-900-19	DIODE SLR-34UW5			
D461	8-719-900-19	DIODE SLR-34UW5			
D462	8-719-900-19	DIODE SLR-34UW5			
F301	Δ 1-532-286-00	FUSE, TIME-LAG (T2.5A)			
F302	Δ 1-532-286-00	(AEP,Italian)...FUSE, TIME-LAG (T2.5A)			
IC101	8-759-109-06	IC UPC1298V			
IC151	8-759-109-06	IC UPC1298V			
IC201	8-759-111-68	IC UPC1237HA			
IC301	8-759-604-33	IC M5F7812			
IC401	8-759-979-52	IC IR2E44			
IC451	8-759-979-52	IC IR2E44			
L101	*1-420-872-00	COIL, AIR CORE 19UH			
L151	*1-420-872-00	COIL, AIR CORE 19UH			
Q101	8-729-107-26	TRANSISTOR 2SD1585			
Q102	8-729-102-57	TRANSISTOR 2SC3012			
Q103	8-729-102-47	TRANSISTOR 2SA1232			
Q104	8-729-108-05	TRANSISTOR 2SA1841PA			
Q151	8-729-107-26	TRANSISTOR 2SD1585			
Q152	8-729-102-57	TRANSISTOR 2SC3012			
Q153	8-729-102-47	TRANSISTOR 2SA1232			
Q154	8-729-108-05	TRANSISTOR 2SA1841PA			
Q201	8-729-806-10	TRANSISTOR 2SA1348			
Q401	8-729-806-10	TRANSISTOR 2SA1348			
Q402	8-729-806-28	TRANSISTOR 2SC3402			
R101	1-247-895-00	CARBON 470K 5%	1/4W		
R102	1-249-417-11	CARBON 1K 5%	1/4W		
R103	1-249-438-11	CARBON 56K 5%	1/4W		
R104	1-247-751-11	CARBON 820 5%	1/2W		
R105	1-249-431-11	CARBON 15K 5%	1/4W		
R106	1-249-493-11	CARBON 56K 5%	1/2W		
R107	1-249-423-11	CARBON 3.3K 5%	1/4W		
R108	1-249-419-11	CARBON 1.5K 5%	1/4W		
R109	Δ 1-212-857-00	FUSIBLE 10 5%	1/4W	F	
R110	Δ 1-212-857-00	FUSIBLE 10 5%	1/4W	F	
R111	1-217-156-00	RES, METAL PLATE 0.22			
R112	1-217-156-00	RES, METAL PLATE 0.22			
R113	1-249-417-11	CARBON 1K 5%	1/4W		
R114	1-249-431-11	CARBON 15K 5%	1/4W		
R115	1-247-727-11	CARBON 10 5%	1/2W		
R116	1-249-438-11	CARBON 56K 5%	1/4W		
R117	1-247-727-11	CARBON 10 5%	1/2W		
R118	Δ 1-215-891-11	METAL OXIDE 680 5%	2W	F	
R120	Δ 1-212-974-00	FUSIBLE 47 5%	1/2W	F	
R121	Δ 1-212-974-00	FUSIBLE 47 5%	1/2W	F	
R151	1-247-895-00	CARBON 470K 5%	1/4W		
R152	1-249-417-11	CARBON 1K 5%	1/4W		