

STR-A17/D159

SERVICE MANUAL

US Model
Canadian Model
AEP Model
UK Model
 STR-D159
E Model
Australian Model
 PX Model
 STR-A17

STR-A17 and STR-D159 are the tuner and amplifier section in LBT-A17CDM and LBT-159CD/D220CD respectively.



Photo : STR-D159

SPECIFICATIONS

AUDIO POWER SPECIFICATIONS

For US Model :
POWER OUTPUT AND TOTAL HARMONIC DISTORTION:
 with 6 ohm loads both channel driven, from 40 - 20,000 Hz; rated 25 watts per channel minimum RMS power, with no more than 0.5% total harmonic distortion from 250 milliwatts to rated output.

Stereo FM-AM receiver

Tuner System FM stereo
 FM/AM superheterodyne tuner
FM tuner section
 Tuning range 87.5 to 108 MHz
 Antenna 300 ohms balanced
 75 ohms unbalanced
 Intermediate frequency 10.7 MHz
AM tuner section
 MW : 530 to 1710kHz (US, CND model)
 : 522 to 1611kHz (IT, G model)
 : 531 to 1602kHz (9kHz step)
 : 531 to 1710kHz (10kHz step) (E, PX, AUS model)
 : 531 to 1602kHz (Other models)
 LW : 153 to 279kHz
 SW : 5.95 to 17.90MHz (Mideasten model)
Antenna AM loop antenna
 External antenna terminal
 Intermediate frequency 4501kHz

Amplifier

Input	Jack type	Sensitivity	Impedance
VIDEO IN	Phono	300 mV	47 kilohms
PHONO	Phono	3 mV	47 kilohms

Output	Jack type	Impedance
SURROUND SPEAKER	Phono	Accepts speakers of 16 ohms
HEADPHONES	Stereo phone	Accepts headphones of 8 ohms or more

Frequency response VIDEO: 15 Hz to 50 kHz $\pm 0_{-3}$ dB

General

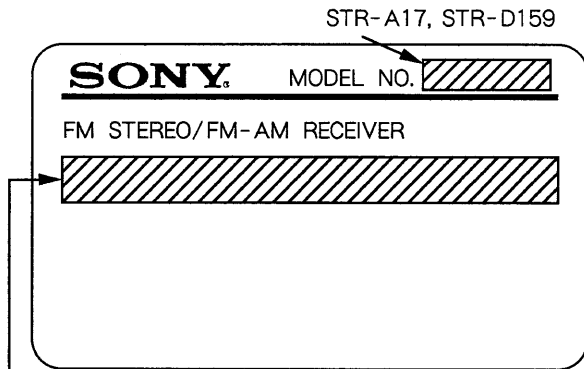
Power requirements 120V AC, 60Hz (US/CND model)
 220-230V, 50/60Hz (AEP/GAT model)
 240V AC, 50Hz (UK model)
 110-120V/220-240V 50/60Hz (E, PX, AUS model)
Power consumption 115W (US/CND model)
 90W (AEP/UK/G/IT model)
 110W (E/AUS/PX model)
Mass Approx. 5.7 kg (12 lb 10 oz)
Dimensions Approx. 355 x 225 x 330 mm
 (14 x 8⁷/₁₆ x 13 inches)
 (w/h/d, including projections)

STEREO FM-AM RECEIVER
SONY®

TABLE OF CONTENTS

— MODEL IDENTIFICATION —

(Specification Label)



- US, CND model : AC : 120V 60Hz 115W
- AEP, IT, G model : AC : 220V-230~50/60Hz
90W
- UK model : AC : 240V~50Hz 90W
- E, AUS, PX model : AC : 110-120V/220-
240V~50/60Hz 110W

Note : CND : Canadian model
IT : Italian model
AUS : Australian model
G : German model

● CAUTION

Be sure to use insulation sheet (▲4-959-364-01) when replacing power transformer because it is safely related part.

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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.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ▲ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1 GENERAL

SAFETY CHECK-OUT

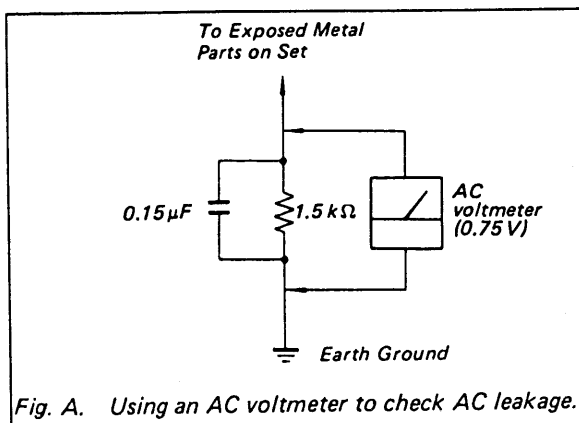
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

LEAKAGE TEST

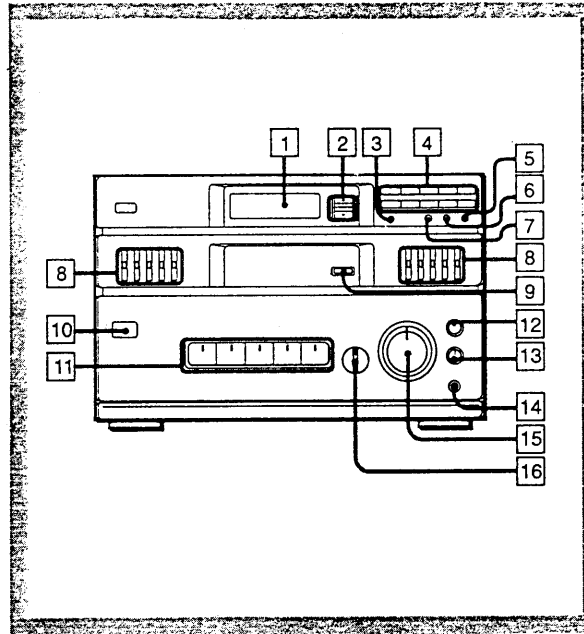
The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



This section is extracted from instruction manual.

Refer to the pages indicated in parentheses for details.



Tuner

- 1 Display window
- 2 DUAL MODE TUNING +/- buttons (pages 8, 9)
- 3 MEMORY button (page 9)
- 4 PRESET STATIONS Numeric buttons (page 9)
- 5 SHIFT button (page 9)
- 6 BAND SELECT button (page 8)
- 7 ST/MUTE button (page 8)

Graphic Equalizer

- 8 5 BAND GRAPHIC EQUALIZER controls (page 6)
- 9 EQUALIZER switch (page 6)

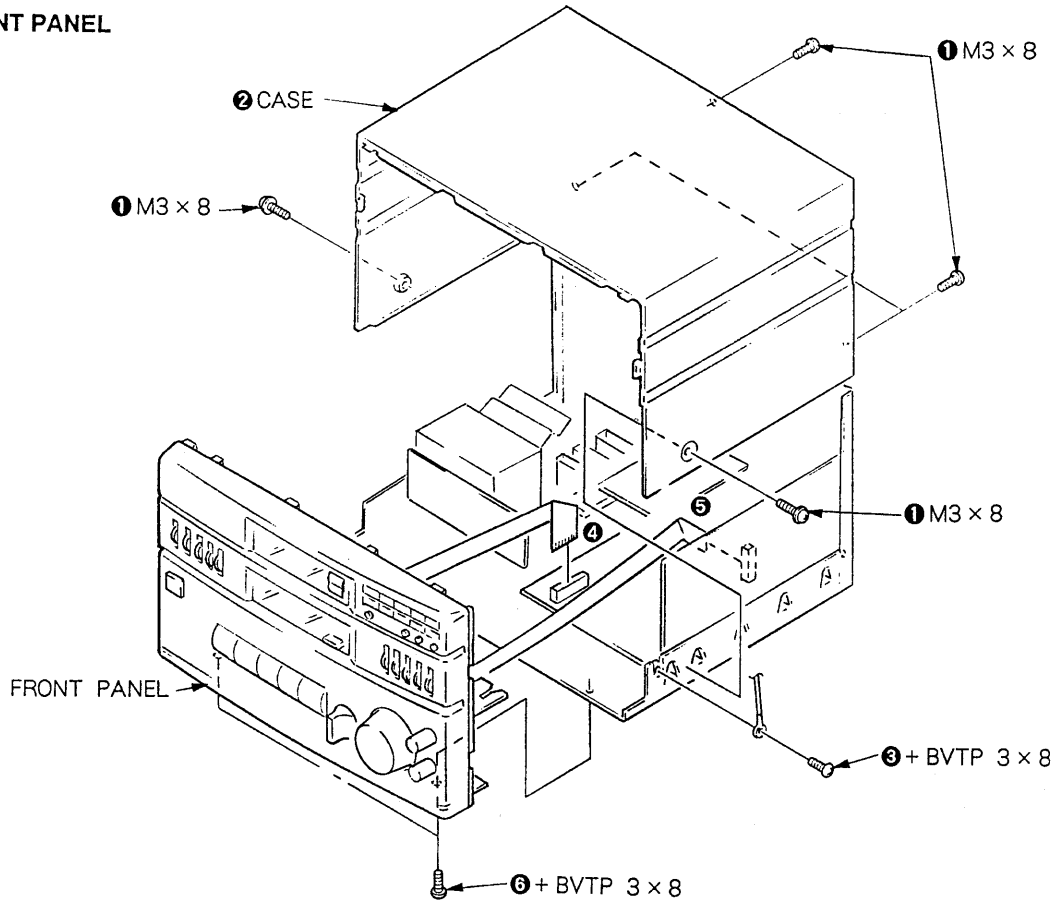
Amplifier

- 10 POWER switch (page 5)
- 11 Function selectors and indicators (VIDEO/TAPE/CD/TUNER/PHONO)
- 12 BALANCE control (page 6)
- 13 SURROUND control (page 6)
- 14 HEADPHONES jack (page 6)
- 15 VOLUME control (page 6)
- 16 DBFB (dynamic bass feedback) control (page 6)

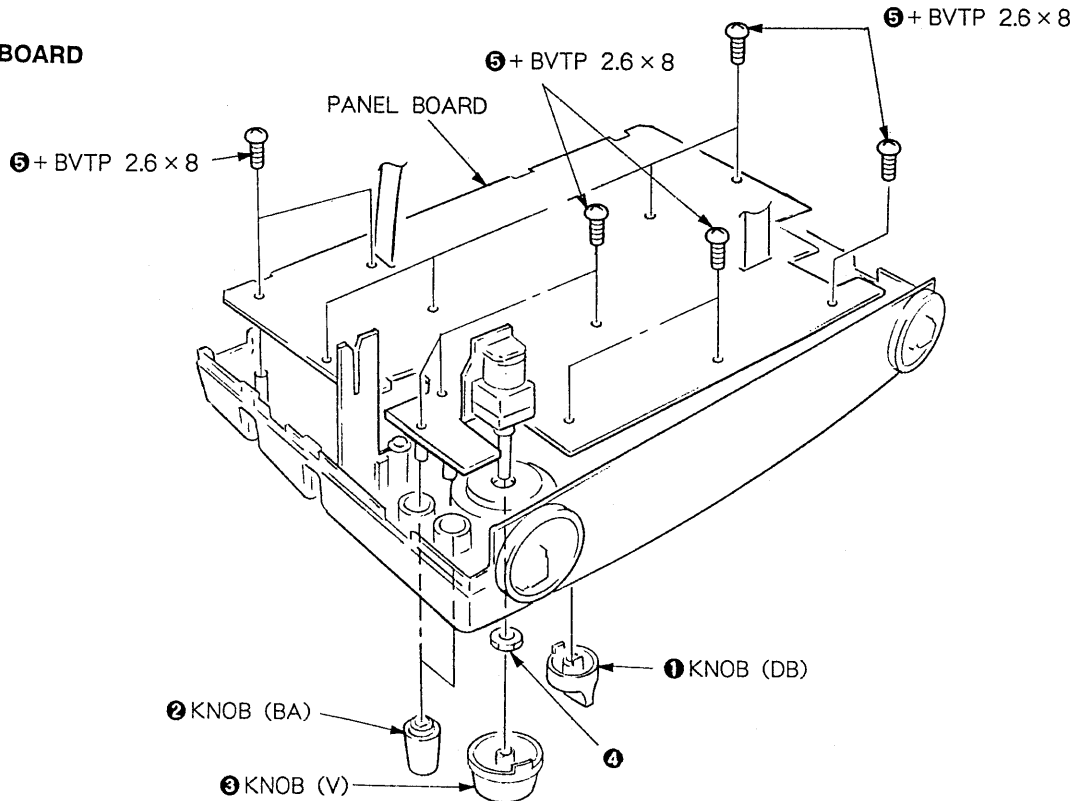
SECTION 2 DISASSEMBLY

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

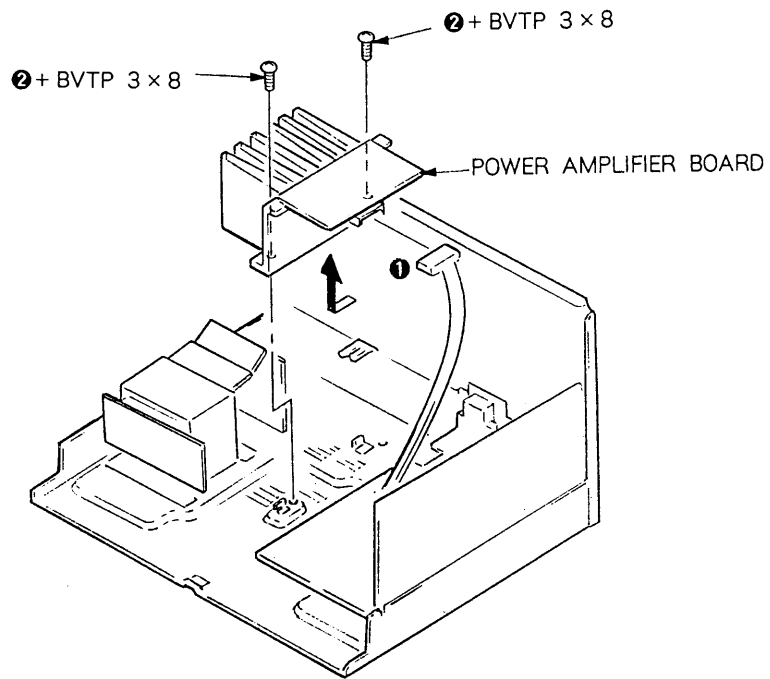
2-1. FRONT PANEL



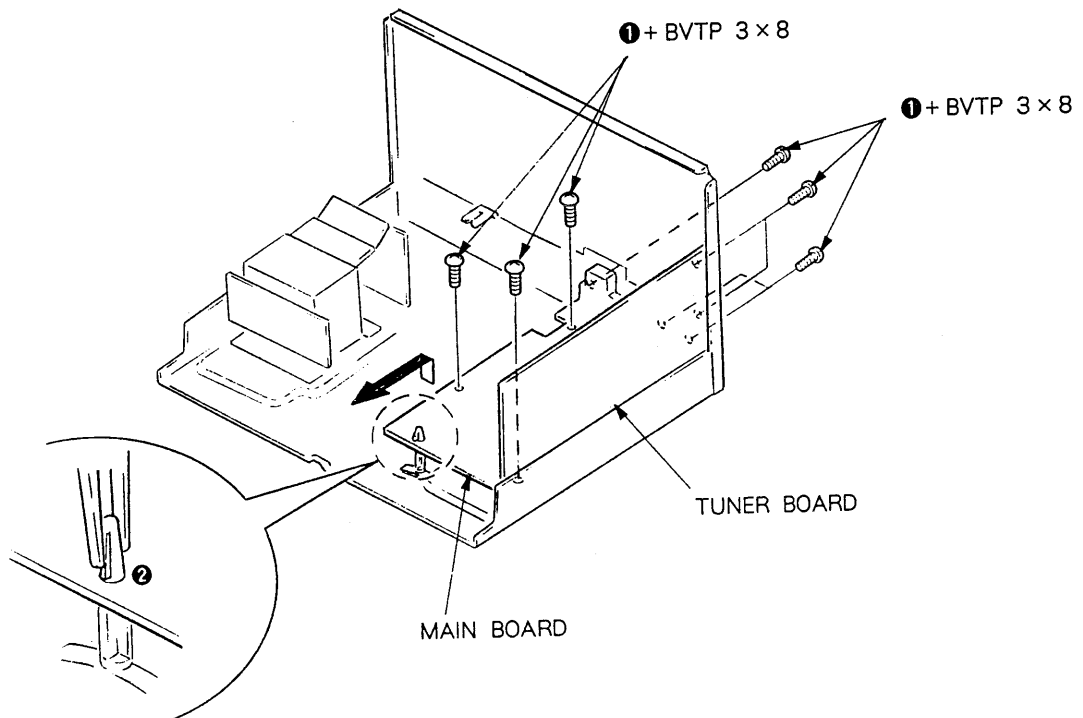
2-2. PANEL BOARD



2-3. POWER AMPLIFIER BOARD



2-4. MAIN /TUNER BOARD



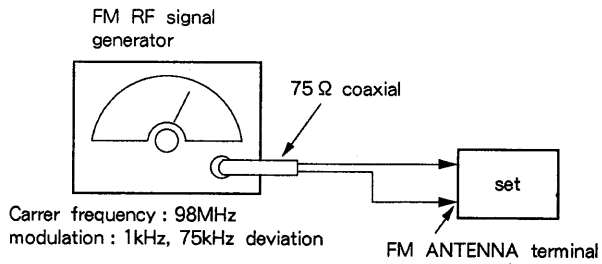
SECTION 3 ADJUSTMENTS

Note: As a front-end (FE301) is difficult to repair if faulty, replace it with new one.

TUNER SECTION

FM SECTION ADJUSTMENTS

Setting :



• TUNER OUT CHECK POINT

Speaker out receive 98MHz 60dB μ (1mV) and set the Speaker out to 10dBs by VOLUME.

Speaker load : 6 Ω both CH

FM NULL Adjustment

Procedure :

1. Supply a 60dB μ (1mV) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust T301 for 0V reading on the measurement point.

FM Tuned Indication Lighting Level Adjustment

Band : FM

ST/MUTE SW : OFF

Procedure :

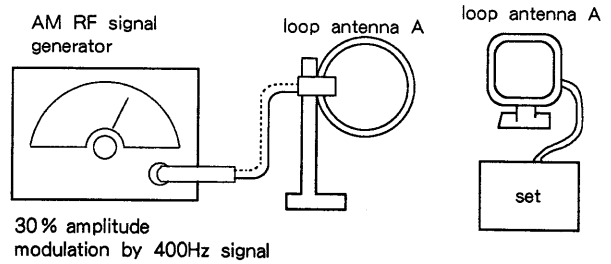
1. Supply a $24 \pm 1 \mu V$ ($25 \pm 4dB\mu$) 98MHz signal from the ANTENNA terminal.
2. Tune the set to 98MHz.
3. Adjust RV302 so that the FL601 **TUNED** light up.

Adjustment Location: tuner board

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

AM SECTION ADJUSTMENT

Setting :



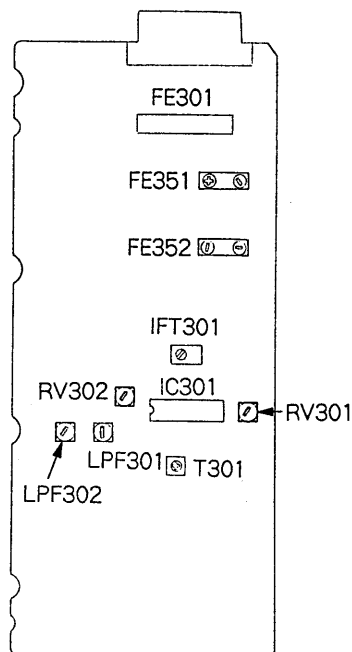
AM Tuned Indication Lighting Level Adjustment

Band : AM

Procedure :

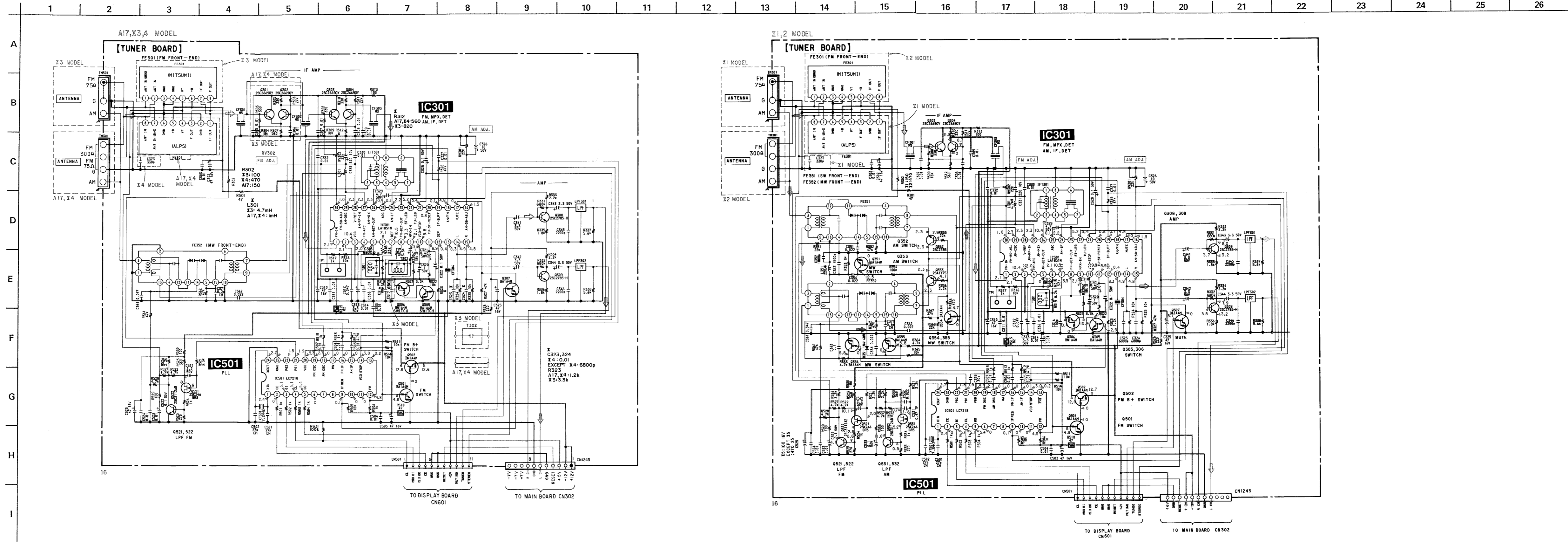
1. Set loop antenna input level to 94dB μ /m, 1050 kHz and no signal tuned light should not on.
2. Tune the set to 1050kHz
3. Adjust RV301 so that the FL601 **TUNED** light up.

Adjustment Location: tuner board (Component side)



SECTION 4
DIAGRAMS

4-1. SCHEMATIC DIAGRAM—TUNER SECTION—



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF : μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{2}$ W or less unless otherwise specified.
- \square : nonflammable resistor.
- \square : fusible resistor.

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

Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

- ◻: adjustment for repair.
- ⊕: B + Line.
- ⊖: B - Line.
- no mark : FM
- ⊕: Voltages are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- ◻: Signal path.
- ◻: FM
- ◻: AM

- ◻: Model name and destination shown by *1 to *4.
- * 1 : D159 : AEP, AE2
- * 2 : D159 : UK
- * 3 : D159 : Italian (IT), German (G)
- * 4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)

4-2. PRINTED WIRING BOARD — MAIN SECTION —

• Semiconductor Location

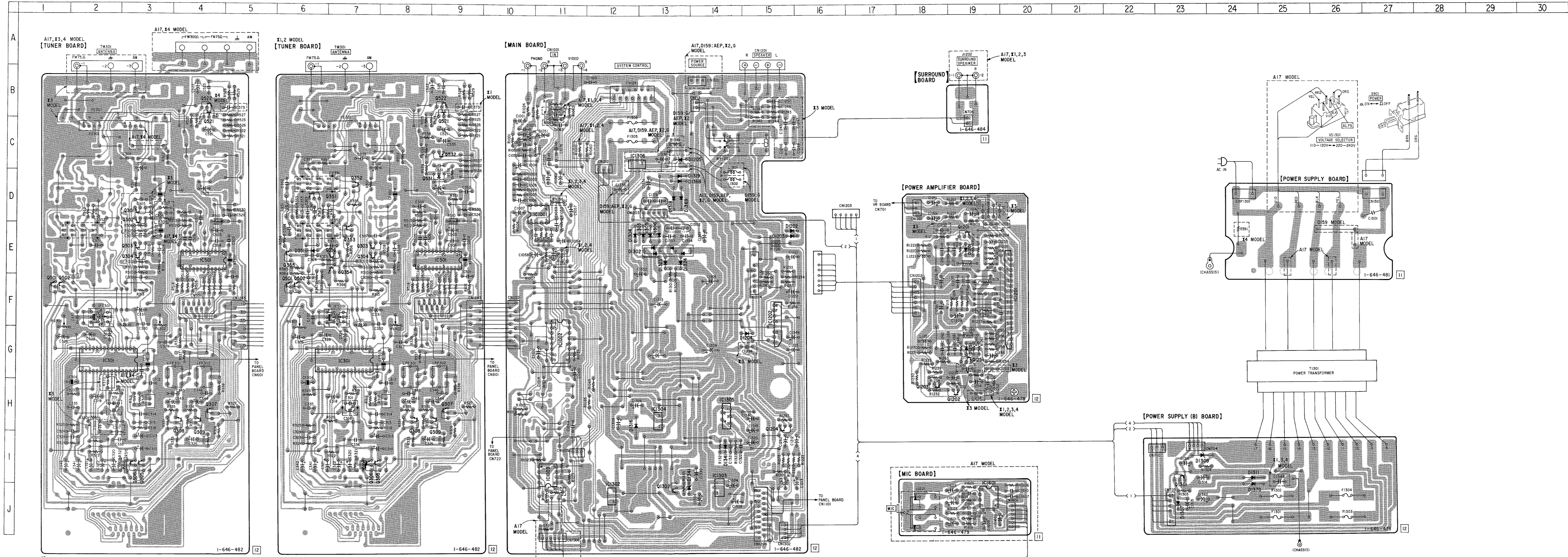
Ref. No.	Location	Ref. No.	Location
D351 (B)	E-6	IC1306	C-12
D1201	E-19	IC1601	J-19
D1202	E-15		
D1203	E-15	Q301 (E)	D-3
D1204	G-15	Q302 (E)	D-3
D1205	C-14	Q303 (E)	E-3
D1251	G-19	Q303 (B)	E-7
D1302	E-12	Q304 (E)	E-3
D1303	E-12	Q304 (B)	E-7
D1304	E-12	Q305 (E)	I-3
D1305	E-13	Q305 (B)	I-7
D1306	E-13	Q306 (E)	I-3
D1307	J-23	Q306 (B)	I-7
D1309	I-23	Q307 (E)	H-4
D1311	I-24	Q307 (B)	H-9
D1316	H-12	Q308 (E)	H-4
D1318	D-13	Q308 (B)	H-8
D1319	D-14	Q309 (E)	H-4
D1321	B-27	Q309 (B)	H-9
D1322	C-27	Q351 (B)	D-7
D1323	E-13	Q352 (B)	D-7
D1324	E-13	Q353 (B)	E-7
D1341	I-14	Q354 (B)	E-7
D1345	I-13	Q355 (B)	E-6
D1354	B-25	Q356 (B)	E-7
D1355	B-25	Q501 (E)	F-1
D1368	D-14	Q501 (B)	F-6
D1369	D-13	Q502 (E)	F-1
D1370	J-24	Q502 (B)	F-6
IC301 (E)	G-2	Q521 (E)	C-4
IC301 (B)	G-7	Q521 (B)	C-9
IC501 (E)	E-4	Q522 (E)	B-4
IC501 (B)	E-9	Q522 (B)	B-9
IC1001	D-11	Q531 (B)	D-8
IC1002	G-11	Q532 (B)	C-9
IC1003	I-11	Q1201	E-19
IC1201	F-20	Q1202	H-18
IC1202	F-15	Q1203	H-15
IC1302	J-12	Q1251	G-19
IC1303	I-14	Q1301	J-23
IC1304	H-13	Q1302	J-13
IC1305	H-14		

(B) : * 1, 2
(E) : A17, * 3, 4

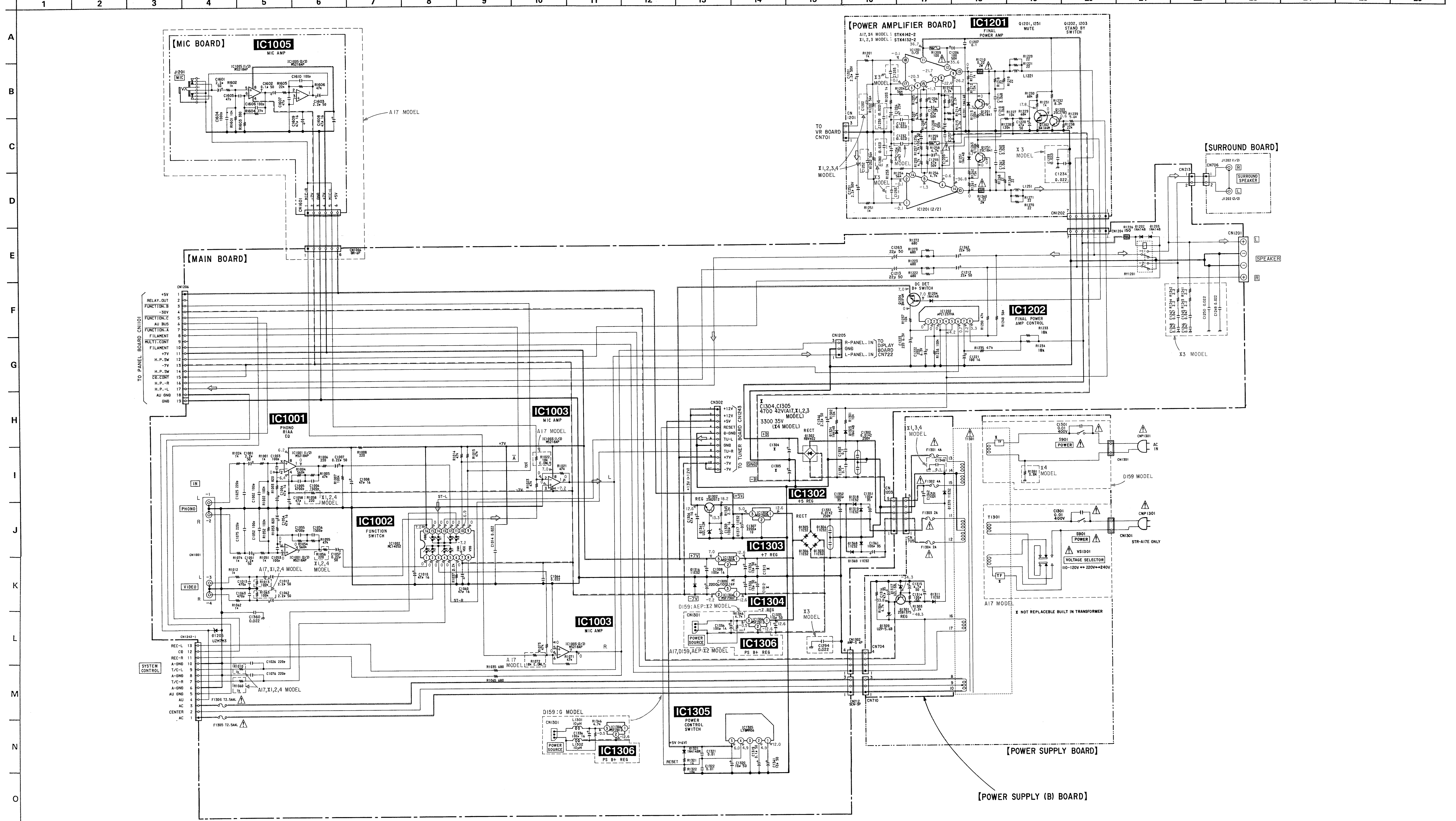
Note on Mounting Diagram :

- : Parts extracted from the component side.
- : Pattern on the side which is seen.
- Model name and destination shown by *1 to *4.
* 1 : D159 : AEP, AE2
* 2 : D159 : UK
* 3 : D159 : Italian (IT), German (G)
* 4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)



4-3. SCHEMATIC DIAGRAM — MAIN SECTION —



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$ 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and W or less unless otherwise specified.
- \square : nonflammable resistor.
- \square : fusible resistor.

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

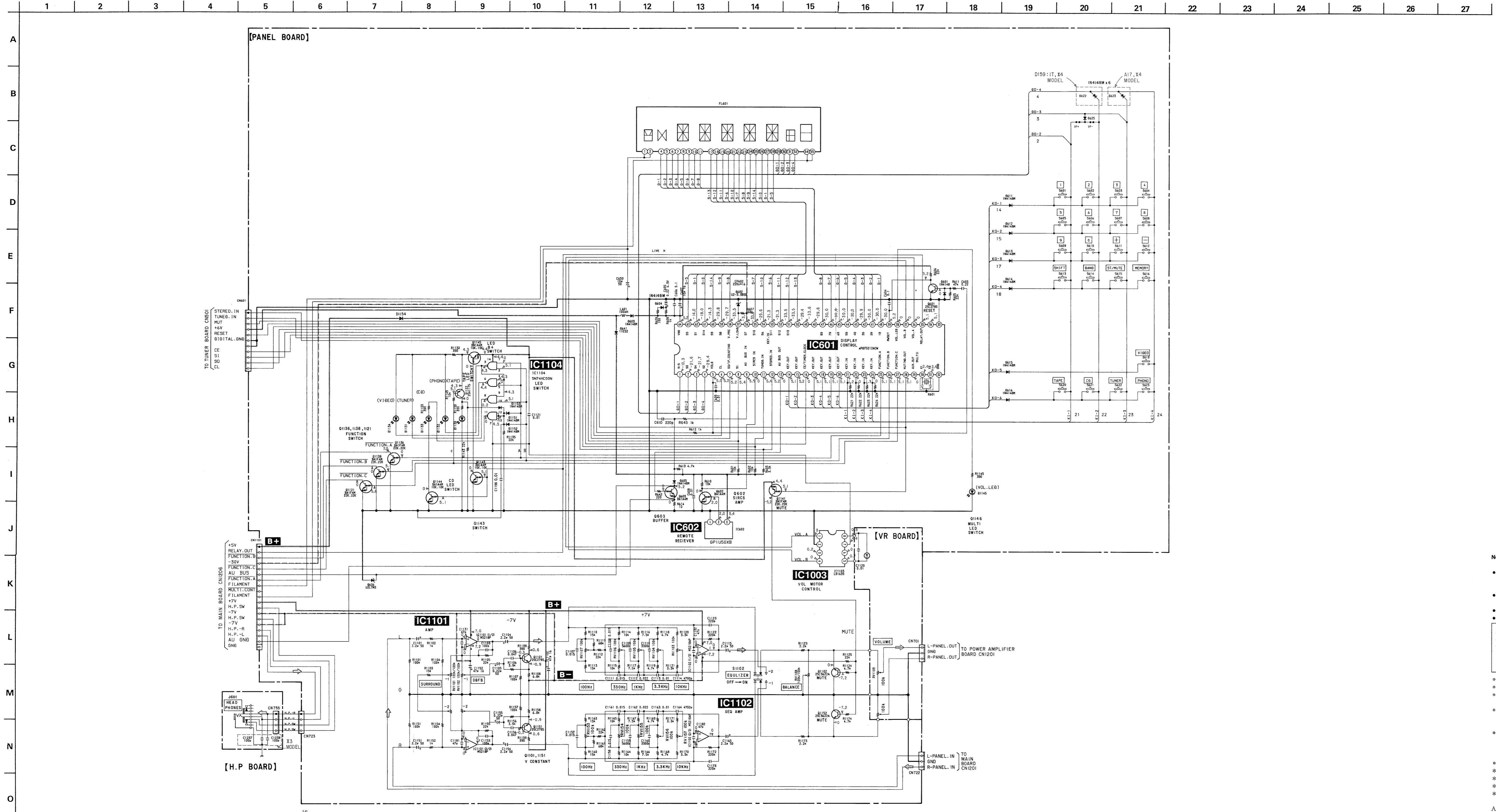
Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifique.

- \square : adjustment for repair.
- \square : B + Line.
- \square : B - Line.
- no mark : FM.
- Voltages are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - \square : FM
 - \square : AM

• Model name and destination shown by *1 to *4.
 * 1 : D159 : AEP, AE2
 * 2 : D159 : UK
 * 3 : D159 : Italian (IT), German (G)
 * 4 : D159 : US, Canadian

AEP : AEP (with in PHONO MODEL)

4-4. SCHEMATIC DIAGRAM — DISPLAY SECTION —



Note on Schematic Diagram :

- All capacitors are in μF unless otherwise noted. pF: μF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{2}$ W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

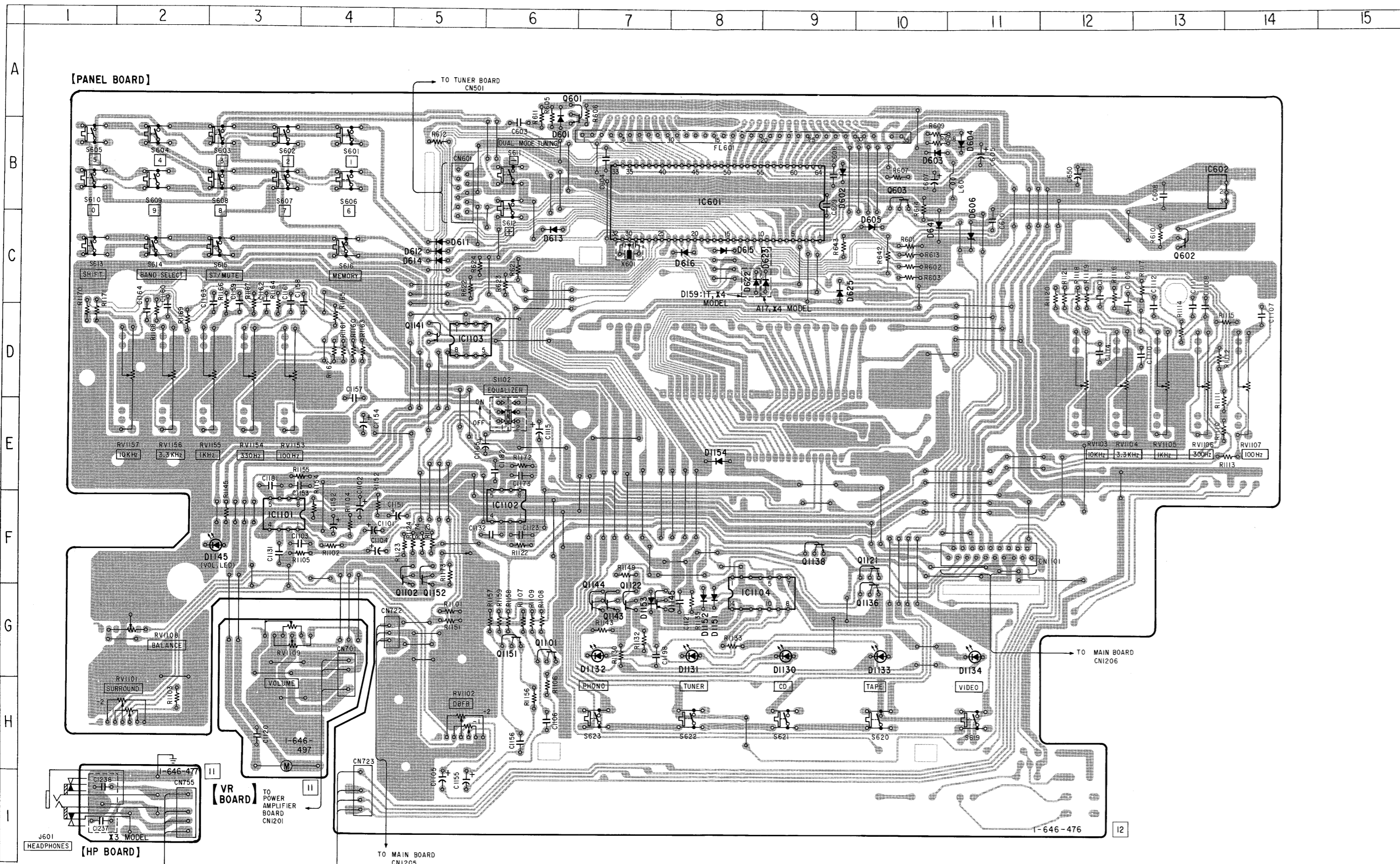
<p>Note: The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
--	--

- : adjustment for repair.
- : B+ Line.
- : B- Line.
- no mark : FM
- Voltages are taken with a VOM (input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - : FM
 - : AM

* Model name and destination shown by * 1 to * 4.
 * 1 : D159 : AEP, AEP
 * 2 : D159 : UK
 * 3 : D159 : Italian (IT), German (G)
 * 4 : D159 : US, Canadian

AEP : AEP (with in PHONO MODEL)

4-5. PRINTED WIRING BOARD — DISPLAY SECTION —



● Semiconductor Location

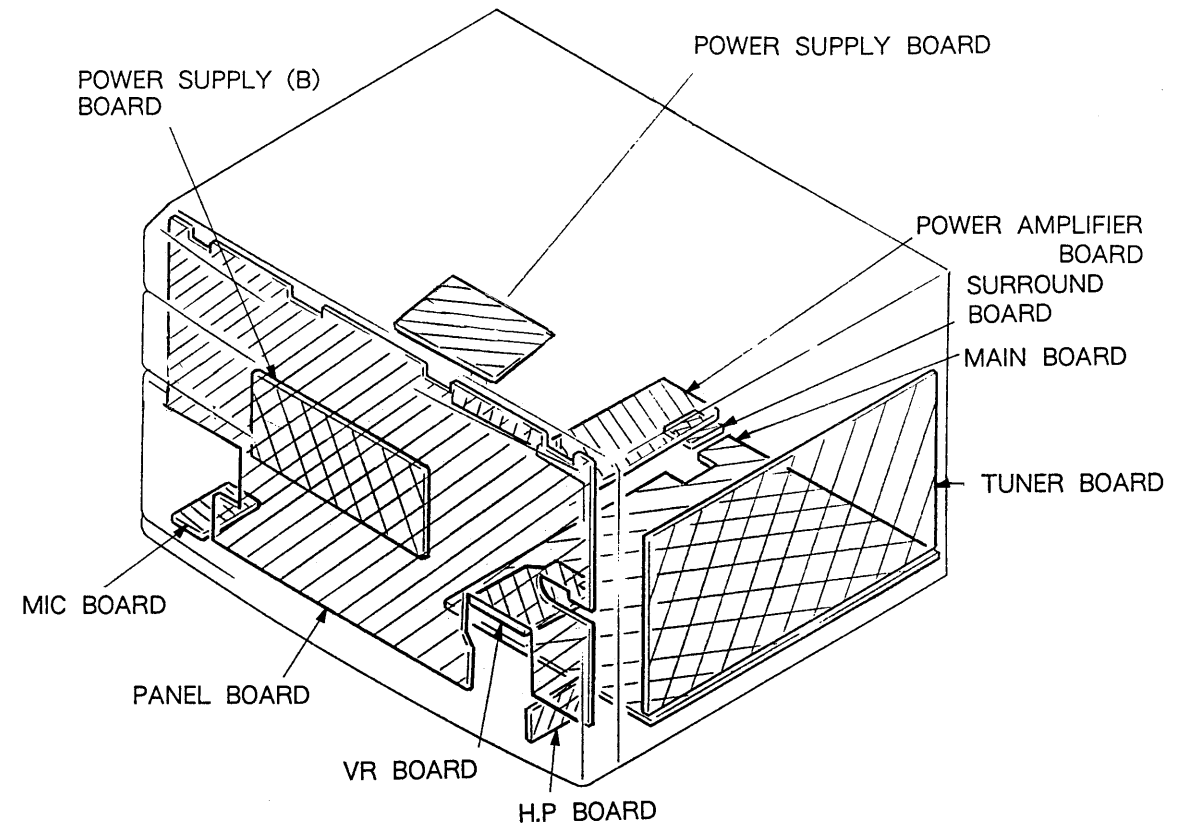
Ref. No.	Location	Ref. No.	Location
D601	B-6	D1154	E-8
D602	B-9		
D603	B-10	IC601	B-8
D604	B-11	IC602	B-13
D605	C-10	IC1101	F-3
D606	B-11	IC1102	F-6
D611	C-5	IC1103	D-5
D612	C-5	IC1104	G-8
D613	C-6		
D614	C-5	Q601	A-6
D615	C-8	Q602	C-13
D616	C-8	Q603	B-10
D622	C-8	Q1101	G-6
D623	C-9	Q1102	G-5
D625	C-9	Q1121	F-10
D641	C-10	Q1122	F-7
D1130	G-9	Q1136	G-10
D1131	G-8	Q1138	F-9
D1132	G-7	Q1141	D-5
D1133	G-10	Q1143	G-7
D1134	G-11	Q1144	F-7
D1145	F-3	Q1145	G-8
D1151	G-8	Q1151	G-6
D1152	G-8	Q1152	G-5
D1153	G-7		

Note on Mounting Diagram :

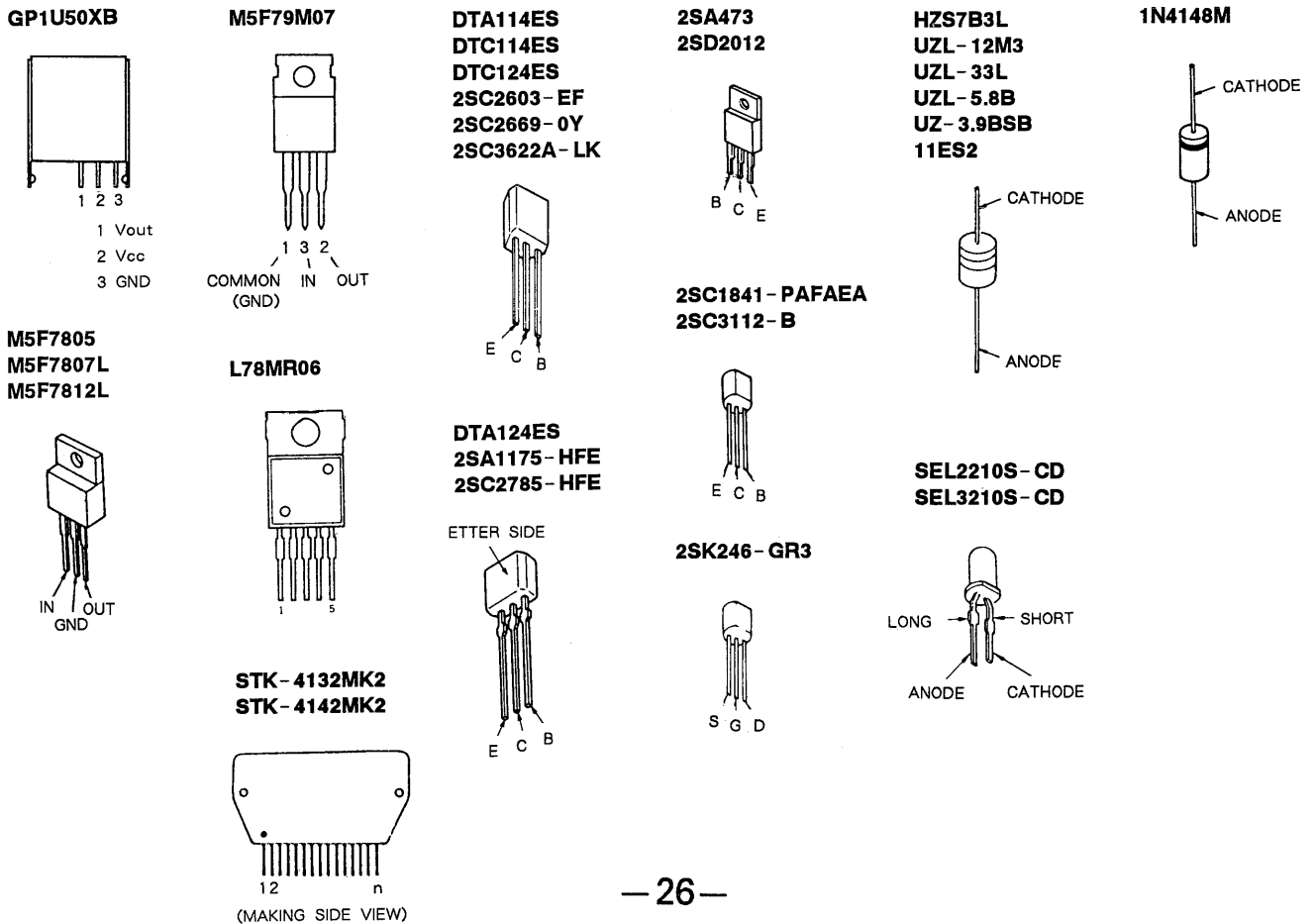
- — : Parts extracted from the component side.
 - — : Pattern on the side which is seen.
- Model name and destination shown by * 1 to * 4.
 * 1 : D159 : AEP, AE2
 * 2 : D159 : UK
 * 3 : D159 : Italian (IT), German (G)
 * 4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)

4-6. CIRCUIT BOARDS LOCATION



4-7. SEMICONDUCTOR LEAD LAYOUTS



SECTION 5 EXPLODED VIEWS

NOTE:

- -XX, -X mean standardized parts, so they may have some differences from the original one.
- Color Indication of Appearance Parts
Example :
KNOB, BALANCE (WHITE)...(RED)
 ↑ ↑
Parts color Cabinet's color

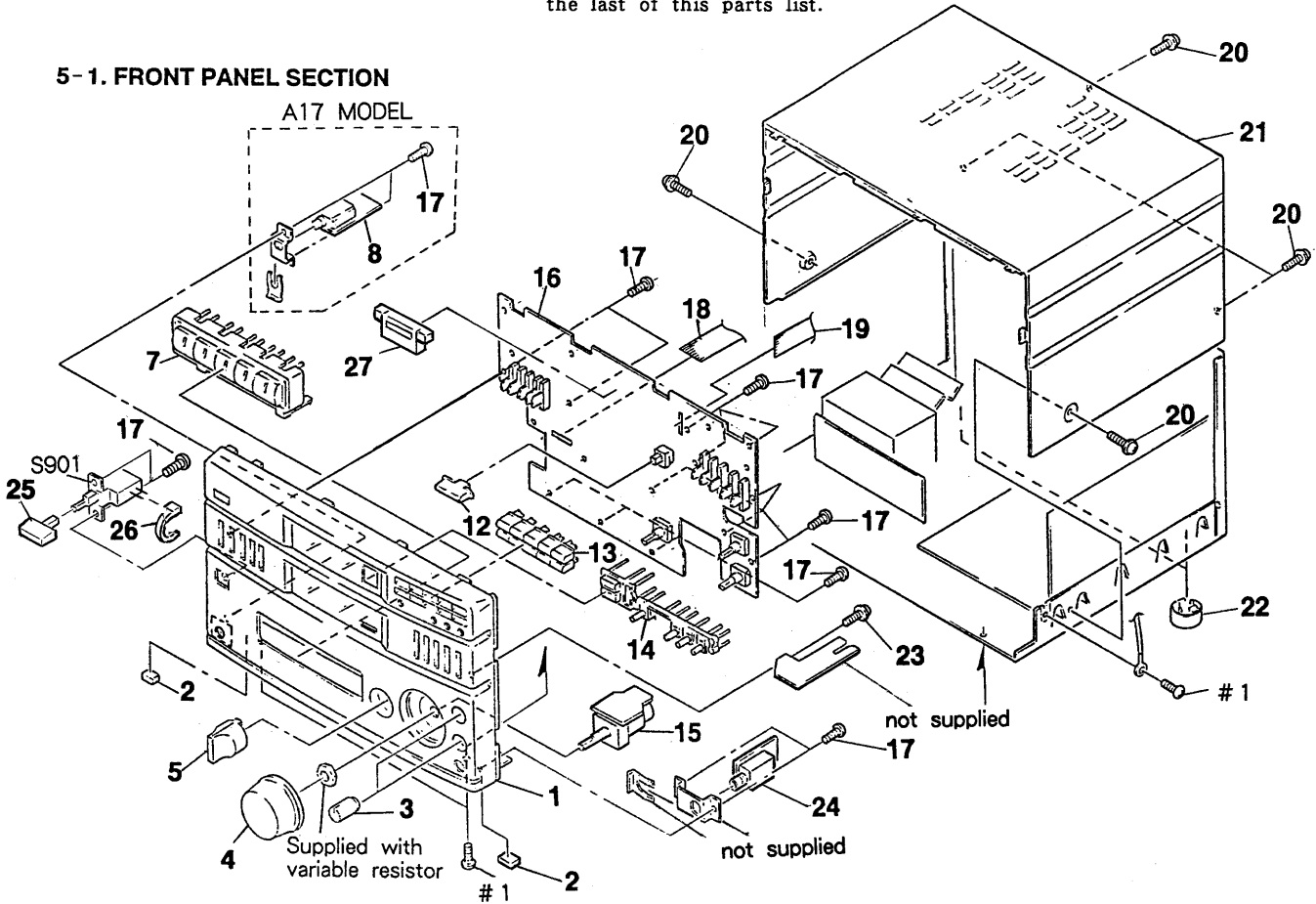
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list is given in the last of this parts list.

- Model name and destination shown by *1 to *4.

- * 1 : A27 : AEP, AE2
- * 2 : A27 : UK
- * 3 : D159 : Italian (IT), German (G)
- * 4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)

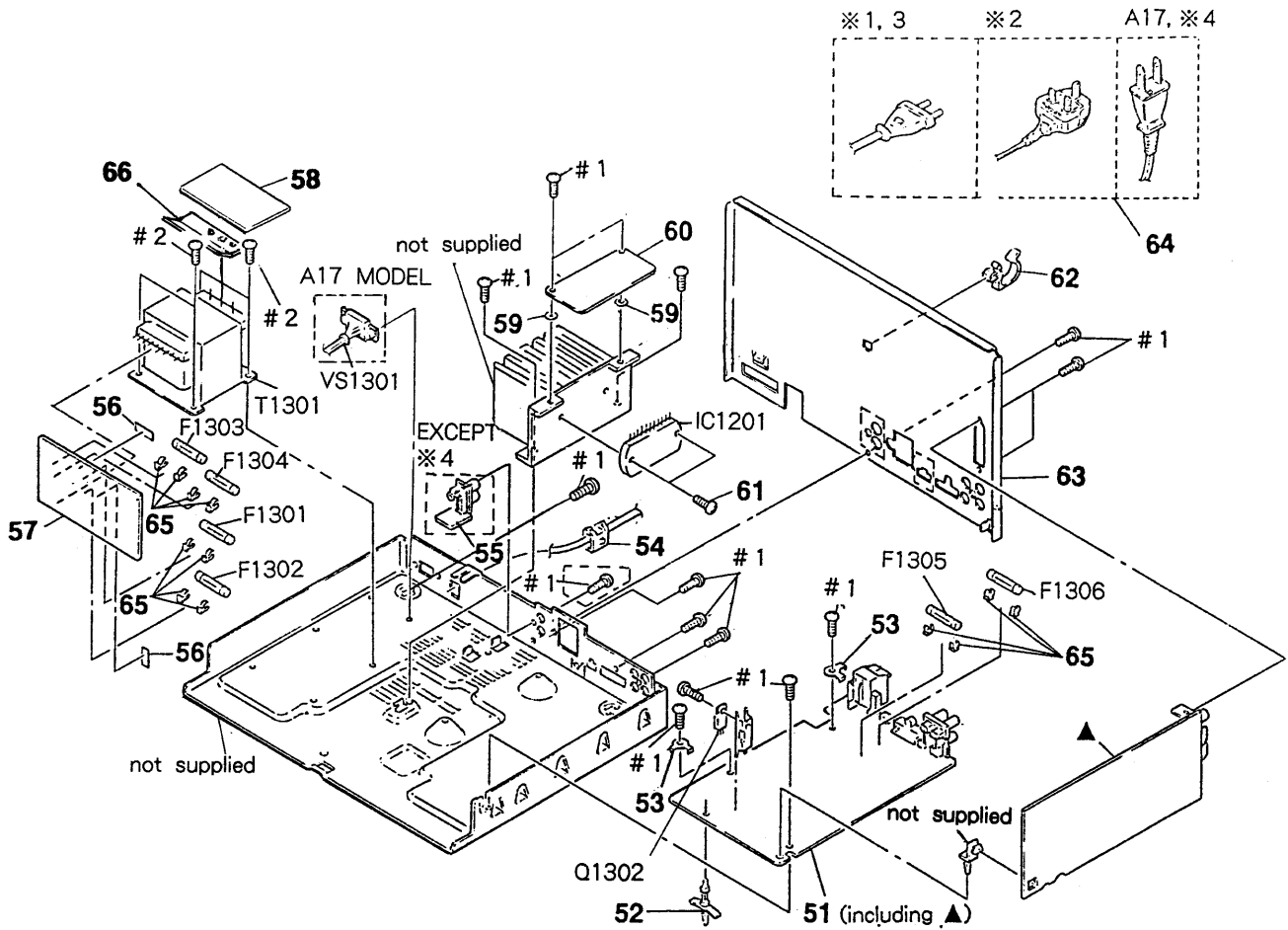
5-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
1	X-4943-178-1	PANEL ASSY, FRONT (D159)		* 16	A-4356-702-A	PANEL BOARD, COMPLETE (A17)	
1	X-4943-188-1	PANEL ASSY, FRONT (A17)		* 16	A-4356-711-A	PANEL BOARD, COMPLETE (D159:IT)	
2	4-948-236-01	CUSHION (107)		* 16	A-4365-503-A	PANEL BOARD, COMPLETE (D159:G)	
3	4-955-744-01	KNOB (BA)		17	4-951-620-01	SCREW (2.6X8), +BVTP	
4	4-955-635-01	KNOB (V)		18	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
5	4-955-636-01	KNOB (DB)		19	1-590-576-11	WIRE, FLAT TYPE (11 CORE)	
7	X-4943-179-1	BUTTON (FU) ASSY		20	3-704-366-01	SCREW (CASE) (M3X8)	
* 8	1-646-479-11	MIC BOARD (A17)		* 21	4-955-759-11	CASE	
12	4-955-755-01	BUTTON (EQ)		22	X-4941-228-1	FOOT ASSY	
13	4-955-741-01	BUTTON (PR)		23	4-957-577-01	SCREW PTP WH (2.6X8) (DIA. 10)	
14	4-955-745-01	BUTTON (ST)		* 24	1-646-477-11	H. P BOARD	
* 15	1-646-497-11	VR BOARD		* 25	4-930-783-11	BUTTON (PO) (POWER)	
* 16	A-4356-667-A	PANEL BOARD, COMPLETE (D159):AEP, AE2)		26	3-701-748-00	CLAMP	
* 16	A-4356-679-A	PANEL BOARD, COMPLETE (D159:UK)		* 27	4-942-301-01	HOLDER, FL TUBE	
* 16	A-4356-691-A	PANEL BOARD, COMPLETE (D159:US, CND)		S901	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	

5-2. BACK PANEL SECTION

▲ : TUNER BOARD



● CAUTION

Be sure to use insulation sheet (▲ 4-959-364-01) when replacing power transformer because it is safely related part.

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>	<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remarks</u>
* 51	A-4356-678-A	MAIN BOARD, COMPLETE (D159:AEP)		* 63	4-955-760-91	PANEL, BACK (A17:E)	
* 51	A-4356-690-A	MAIN BOARD, COMPLETE (D159:UK)		* 63	4-959-298-01	PANEL, BACK (A17:AUS)	
* 51	A-4356-699-A	MAIN BOARD, COMPLETE (D159:US, CND)		* 63	4-959-298-11	PANEL, BACK (A17:PX)	
* 51	A-4356-705-A	MAIN BOARD, COMPLETE (A17)		* 63	4-961-575-01	PANEL, BACK (D159:G)	
* 51	A-4356-715-A	MAIN BOARD, COMPLETE (D159:IT)		△64	1-575-651-11	CORD, POWER (D159:AEP, AE2, IT, G)	
* 51	A-4356-922-A	MAIN BOARD, COMPLETE (D159:AE2)		△64	1-575-653-11	CORD, POWER (A17:E, PX)	
* 51	A-4365-506-A	MAIN BOARD, COMPLETE (D159:G)		△64	1-690-609-11	CORD, POWER (D159:US, CND)	
* 52	4-924-098-31	HOLDER, PC BOARD		△64	1-696-570-21	CORD, POWER (D159:UK)	
* 53	4-942-204-01	PLATE, GROUND		△64	1-696-848-21	CORD, POWER (A17:AUS)	
* 54	3-703-244-00	BUSHING (2104), CORD (A17:AUS, D159)		65	1-533-217-31	HOLDER, FUSE	
54	3-703-571-11	BUSHING (S) (4516), CORD (A17:E, PX)		△66	4-959-364-01	SPACER	
* 55	1-646-484-11	SURROUND BOARD (A17/D159:AEP, AE2, UK, IT)		△F1301	1-532-350-00	FUSE 4A (A17/D159:AEP, AE2, UK, IT, G)	
* 56	3-701-946-26	LABEL (4A125V), FUSE (D159:US, CND)		△F1301	1-576-108-11	FUSE 4A (D159:US, CND)	
* 57	1-646-478-11	POWER SUPPLY (B) BOARD		△F1302	1-576-108-11	FUSE 4A (D159:US, CND)	
* 58	1-646-481-11	POWER SUPPLY BOARD		△F1302	1-532-350-00	FUSE 4A (A17/D159:AEP, AE2, UK, IT, G)	
59	3-564-542-00	WASHER, FIBER		△F1303	1-532-203-00	FUSE 2A (A17/D159:AEP, AE2, UK, IT, G)	
* 60	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE (A17)		△F1303	1-576-104-11	FUSE (D159:US, CND)	
* 60	A-4356-677-A	POWER AMPLIFIER BOARD, COMPLETE (D159:AEP, AE2)		△F1304	1-532-203-00	FUSE 2A (A17/D159:AEP, AE2, UK, IT, G)	
* 60	A-4356-689-A	POWER AMPLIFIER BOARD, COMPLETE (D159:UK)		△F1304	1-576-104-11	FUSE (D159:US, CND)	
* 60	A-4356-698-A	POWER AMPLIFIER BOARD, COMPLETE (D159:US, CND)		△F1305	1-532-286-00	FUSE 2.5A (A17/D159:AEP, AE2, UK, IT, G)	
* 60	A-4356-718-A	POWER AMPLIFIER BOARD, COMPLETE (D159:G, IT)		△F1305	1-576-105-11	FUSE (D159:US, CND)	
61	4-928-635-11	SCREW, +BV (2.6X16) TAPPING		△F1306	1-532-286-00	FUSE 2.5A (A17/D159:AEP, AE2, UK, IT, G)	
* 62	4-949-235-01	HOOK (A17:E, PX/D159:US, CND, AEP, AE2, IT)		△F1306	1-576-105-11	FUSE (D159:US, CND)	
* 63	4-955-760-11	PANEL, BACK (D159:AEP)		IC1201	8-749-900-96	IC STK-4142MK2 (A17, *4)	
* 63	4-955-760-21	PANEL, BACK (D159:UK)		IC1201	8-749-900-13	IC STK-4132MK2 (*1, 2, 3)	
* 63	4-955-760-31	PANEL, BACK (D159:IT)		Q1302	8-729-209-15	TRANSISTOR 2SD2012	
* 63	4-955-760-51	PANEL, BACK (D159:US)		△T1301	1-423-434-11	TRANSFORMER, POWER (D159:AEP, AE2, UK, IT, G)	
* 63	4-955-760-61	PANEL, BACK (D159:CND)		△T1301	1-423-436-11	TRANSFORMER, POWER (A17)	
* 63	4-955-760-71	PANEL, BACK (D159:AE2)		△VS1301	1-570-046-21	SWITCH, VOLTAGE CHANGE (A17)	
* 63	4-955-760-81	PANEL, BACK (D159:AE2)					

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

Note:
Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

**SECTION 6
ELECTRICAL PARTS LIST**

NOTE:

- Model name and destination shown by *1 to *4.
- * 1 : A27 : AEP, AE2
- * 2 : A27 : UK
- * 3 : D159 : Italian (IT), German (G)
- * 4 : D159 : US, Canadian

AE2 : AEP (with in PHONO MODEL)

- 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.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
All resistors are in ohms.
METAL : metal-film resistor
METAL OXIDE : Metal Oxide-film resistor
F : nonflammable

- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
In each case, u : μ , for example :
uA... : μ A..., uPA..., μ PA...,
uPB..., μ PB..., uPC..., μ PC...,
uPD..., μ PD...
- CAPACITORS :
uF : μ F
- COILS
uH : μ H

Ref. No.	Part No.	Description	Remarks	Ref. No.	Part No.	Description	Remarks
*	A-4356-705-A	MAIN BOARD, COMPLETE (A17)	*****	C321	1-124-902-00	ELECT 0.47uF 20% 50V	
*	A-4356-678-A	MAIN BOARD, COMPLETE (D159:AEP)	*****	C322	1-124-463-00	ELECT 0.1uF 20% 50V	
*	A-4356-922-A	MAIN BOARD, COMPLETE (D159:AE2)	*****	C323	1-161-329-00	CERAMIC 0.0068uF 30% 16V	(A17, *1, 2, 3)
*	A-4356-690-A	MAIN BOARD, COMPLETE (*2)	*****	C323	1-161-379-00	CERAMIC 0.01uF 20% 25V (*4)	
*	A-4356-715-A	MAIN BOARD, COMPLETE (*3)	*****	C324	1-161-329-00	CERAMIC 0.0068uF 30% 16V	(A17, *1, 2, 3)
*	A-4356-699-A	MAIN BOARD, COMPLETE (*4)	*****	C324	1-161-379-00	CERAMIC 0.01uF 20% 25V (*4)	
*	A-4365-506-A	MAIN BOARD, COMPLETE (D159:G)	*****	C325	1-124-477-11	ELECT 47uF 20% 25V	
*	1-646-484-11	SURROUND BOARD (A17*1, *2, *3)	*****	C326	1-124-907-11	ELECT 10uF 20% 50V	
	1-533-217-31	HOLDER, FUSE		C327	1-161-379-00	CERAMIC 0.01uF 20% 25V	
*	4-942-204-01	PLATE, GROUND		C328	1-124-463-00	ELECT 0.1uF 20% 50V	
	< CAPACITOR >			C329	1-124-927-11	ELECT 4.7uF 20% 100V	
C302	1-124-477-11	ELECT 47uF 20% 25V		C330	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C303	1-161-379-00	CERAMIC 0.01uF 20% 25V		C331	1-126-176-11	ELECT 220uF 20% 10V	
C305	1-161-379-00	CERAMIC 0.01uF 20% 25V (*3)		C332	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C306	1-161-379-00	CERAMIC 0.01uF 20% 25V (*3)		C335	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C307	1-161-379-00	CERAMIC 0.01uF 20% 25V		C336	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C308	1-161-379-00	CERAMIC 0.01uF 20% 25V		C339	1-162-210-31	CERAMIC 30PF 5% 50V (*1, 2)	
C309	1-161-379-00	CERAMIC 0.01uF 20% 25V		C341	1-123-382-00	ELECT 3.3uF 20% 100V	
C310	1-124-477-11	ELECT 47uF 20% 25V		C342	1-123-382-00	ELECT 3.3uF 20% 100V	
C311	1-161-379-00	CERAMIC 0.01uF 20% 25V		C343	1-123-382-00	ELECT 3.3uF 20% 100V	
C312	1-101-006-00	CERAMIC 0.047uF 50V		C344	1-123-382-00	ELECT 3.3uF 20% 100V	
C313	1-123-382-00	ELECT 3.3uF 20% 100V		C345	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C314	1-161-379-00	CERAMIC 0.01uF 20% 25V		C346	1-161-375-00	CERAMIC 0.0022uF 20% 50V	
C315	1-161-329-00	CERAMIC 0.0068uF 30% 16V		C351	1-161-494-00	CERAMIC 0.022uF 25V (*1, 2)	
C316	1-162-282-31	CERAMIC 100PF 10% 50V		C352	1-102-120-00	CERAMIC 0.0018uF 10% 50V (*1, 2)	
C317	1-162-292-31	CERAMIC 680PF 10% 50V (*3)		C353	1-161-374-11	CERAMIC 0.0015uF 20% 50V (*1, 2)	
C318	1-124-903-11	ELECT 1uF 20% 50V		C354	1-161-494-00	CERAMIC 0.022uF 25V (*1, 2)	
C320	1-124-903-11	ELECT 1uF 20% 50V		C361	1-164-098-11	CERAMIC 0.047uF 12V	
				C362	1-161-494-00	CERAMIC 0.022uF 25V	
				C363	1-164-159-11	CERAMIC 0.1uF 50V (*1, 2)	
				C364	1-161-494-00	CERAMIC 0.022uF 25V (*1, 2)	
				C371	1-162-198-31	CERAMIC 8.2PF 10% 50V (A17, *4, 3)	
				C371	1-162-196-31	CERAMIC 5.6PF 10% 50V (*1, 2)	
				C373	1-162-288-31	CERAMIC 330PF 10% 50V (*4, 1)	
				C501	1-102-961-00	CERAMIC 27PF 5% 50V	

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

Note:
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board name.

MAIN	SURROUND
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Ref. No.	Part No.	Description	Remarks
C507	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C521	1-124-925-11	ELECT 2.2uF 20% 100V	
C522	1-124-463-00	ELECT 0.1uF 20% 50V	
C523	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C524	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C525	1-124-477-11	ELECT 47uF 20% 25V	
C531	1-136-173-00	FILM 0.47uF 5% 50V (*1, 2)	
C532	1-161-494-00	CERAMIC 0.022uF 25V (*1, 2)	
C533	1-124-463-00	ELECT 0.1uF 20% 50V (*1, 2)	
C1001	1-124-925-11	ELECT 2.2uF 20% 100V	
C1002	1-162-282-31	CERAMIC 100PF 10% 50V	
C1003	1-162-282-31	CERAMIC 100PF 10% 50V	
C1004	1-124-477-11	ELECT 47uF 20% 25V	
C1005	1-161-377-00	CERAMIC 0.0047uF 20% 16V	
C1006	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C1007	1-124-464-11	ELECT 0.22uF 20% 50V	
C1008	1-124-477-11	ELECT 47uF 20% 25V	
C1010	1-124-477-11	ELECT 47uF 20% 25V	
C1012	1-124-925-11	ELECT 2.2uF 20% 100V	
C1013	1-162-290-31	CERAMIC 470PF 10% 50V	
C1014	1-161-494-00	CERAMIC 0.022uF 25V	
C1025	1-162-286-31	CERAMIC 220PF 10% 50V	
C1026	1-162-286-31	CERAMIC 220PF 10% 50V	
C1051	1-124-925-11	ELECT 2.2uF 20% 100V	
C1052	1-162-282-31	CERAMIC 100PF 10% 50V	
C1053	1-162-282-31	CERAMIC 100PF 10% 50V	
C1054	1-124-477-11	ELECT 47uF 20% 25V	
C1055	1-161-377-00	CERAMIC 0.0047uF 20% 16V	
C1056	1-161-374-11	CERAMIC 0.0015uF 20% 50V	
C1057	1-124-464-11	ELECT 0.22uF 20% 50V	
C1058	1-124-477-11	ELECT 47uF 20% 25V	
C1060	1-124-477-11	ELECT 47uF 20% 25V	
C1062	1-124-925-11	ELECT 2.2uF 20% 100V	
C1063	1-162-290-31	CERAMIC 470PF 10% 50V	
C1064	1-161-494-00	CERAMIC 0.022uF 25V	
C1075	1-162-286-31	CERAMIC 220PF 10% 50V	
C1076	1-162-286-31	CERAMIC 220PF 10% 50V	
C1212	1-124-916-11	ELECT 22uF 20% 63V	
C1213	1-124-916-11	ELECT 22uF 20% 63V	
C1221	1-126-101-11	ELECT 100uF 20% 16V	
C1222	1-126-176-11	ELECT 220uF 20% 10V	
C1223	1-126-176-11	ELECT 220uF 20% 10V	
C1245	1-101-006-00	CERAMIC 0.047uF 50V (*3)	
C1246	1-101-006-00	CERAMIC 0.047uF 50V (*3)	
C1247	1-101-006-00	CERAMIC 0.047uF 50V (*3)	
C1248	1-101-006-00	CERAMIC 0.047uF 50V (*3)	
C1249	1-161-494-00	CERAMIC 0.022uF 25V (*3)	
C1250	1-161-494-00	CERAMIC 0.022uF 25V (*3)	
C1262	1-124-916-11	ELECT 22uF 20% 63V	
C1263	1-124-916-11	ELECT 22uF 20% 63V	

Ref. No.	Part No.	Description	Remarks
C1302	1-102-394-11	CERAMIC 0.01uF 250V	
C1304	1-126-224-11	ELECT 4700uF 20% 42V (A17*1, 2, 3)	
C1304	1-126-413-11	ELECT 3300uF 20% 35V (*4)	
C1305	1-126-224-11	ELECT 4700uF 20% 42V (A17*1, 2, 3)	
C1305	1-126-413-11	ELECT 3300uF 20% 35V (*4)	
C1306	1-124-477-11	ELECT 47uF 20% 25V	
C1308	1-126-101-11	ELECT 100uF 20% 16V	
C1309	1-126-101-11	ELECT 100uF 20% 16V	
C1312	1-124-563-11	ELECT 2200uF 20% 25V	
C1313	1-124-563-11	ELECT 2200uF 20% 25V	
C1319	1-124-463-00	ELECT 0.1uF 20% 50V	
C1320	1-124-907-11	ELECT 10uF 20% 50V	
C1321	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C1322	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C1324	1-124-907-11	ELECT 10uF 20% 50V	
C1326	1-124-907-11	ELECT 10uF 20% 50V	
C1294	1-161-494-00	CERAMIC 0.022uF 25V (*3)	
C1330	1-126-101-11	ELECT 100uF 20% 16V	
C1331	1-102-394-11	CERAMIC 0.01uF 250V	
C1335	1-124-907-11	ELECT 10uF 20% 50V	(D159:AEP, *2)
C1336	1-126-101-11	ELECT 100uF 20% 16V	(A17, D159:AEP, *2)
C1341	1-124-907-11	ELECT 10uF 20% 50V	
C1346	1-124-925-11	ELECT 2.2uF 20% 100V	
C1351	1-124-122-11	ELECT 100uF 20% 50V	
C1352	1-126-105-11	ELECT 1000uF 20% 35V	
C1353	1-136-165-00	FILM 0.1uF 5% 50V	
C1354	1-136-165-00	FILM 0.1uF 5% 50V	
C1360	1-161-494-00	CERAMIC 0.022uF 25V	
C1361	1-124-122-11	ELECT 100uF 20% 50V	
< FILTER >			
CF301	1-577-070-81	FILTER, CERAMIC (A17*1, 2, 4)	
CF301	1-567-389-11	FILTER, CERAMIC (*3)	
CF303	1-577-070-81	FILTER, CERAMIC (A17*1, 2, 4)	
CF303	1-567-389-11	FILTER, CERAMIC (*3)	
CF304	1-577-075-11	OSCILLATOR, CERAMIC	
< CONNECTOR >			
* CN212	1-564-506-11	PLUG, CONNECTOR 3P	
CN302	1-695-089-11	PIN, CONNECTOR (PC BOARD) 11P	
* CN501	1-568-830-11	SOCKET, CONNECTOR 11P	
* CN1001	1-580-912-11	JACK, PIN 4P	
* CN1006	1-568-955-11	PIN, CONNECTOR 6P (17)	
CN1201	1-537-494-11	TERMINAL BOARD (SPEAKER) (17, *1, 2, 4)	
CN1201	1-537-481-11	TERMINAL BOARD (SPEAKER) (3)	
* CN1203	1-564-508-11	PLUG, CONNECTOR 5P	
* CN1204	1-564-510-11	PLUG, CONNECTOR 7P	
CN1205	1-506-468-11	PIN, CONNECTOR 3P	

MAIN	SURROUND
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Ref. No.	Part No.	Description	Remarks
CN1201	1-537-494-11	TERMINAL BOARD (SPEAKER)	(17, *1, 2, 4)
CN1201	1-537-481-11	TERMINAL BOARD (SPEAKER)	(3)
* CN1203	1-564-508-11	PLUG, CONNECTOR	5P
* CN1204	1-564-510-11	PLUG, CONNECTOR	7P
CN1205	1-506-468-11	PIN, CONNECTOR	3P
CN1206	1-568-802-11	SOCKET, CONNECTOR	19P
* CN1241	1-565-291-11	SOCKET, CONNECTOR	13P (SYSTEM CONTROL)
CN1243	1-695-094-11	SOCKET, CONNECTOR	11P
* CN1301	1-566-210-11	PIN, CONNECTOR	3P (POWER SOURCE) (A17, D159:AEP, *2)
CN1302	1-506-469-11	PIN, CONNECTOR	4P
* TP1	1-560-060-00	PIN, CONNECTOR	2P
< DIODE >			
D351	8-719-987-63	DIODE	1N4148M (*1, 2)
D1202	8-719-987-63	DIODE	1N4148M
D1203	8-719-987-63	DIODE	1N4148M
D1204	8-719-987-63	DIODE	1N4148M
D1205	8-719-933-48	DIODE	HZS7B3L
D1302	8-719-312-09	DIODE	RBA-402
D1303	8-719-200-82	DIODE	11ES2
D1304	8-719-200-82	DIODE	11ES2
D1305	8-719-200-82	DIODE	11ES2
D1306	8-719-200-82	DIODE	11ES2
D1316	8-719-200-82	DIODE	11ES2
D1318	8-719-200-82	DIODE	11ES2
D1319	8-719-200-82	DIODE	11ES2
D1321	8-719-987-63	DIODE	1N4148M
D1323	8-719-987-63	DIODE	1N4148M
D1324	8-719-987-63	DIODE	1N4148M
D1341	8-719-001-76	DIODE	UZL-12M3
D1368	8-719-200-82	DIODE	11ES2
D1369	8-719-200-82	DIODE	11ES2
< FRONTEND >			
FE301	1-693-090-21	FRONT END (FM)	(2 GANG) (A17, *1)
FE301	1-465-006-11	FRONT END (FM)	(2 GANG) (*2, 4)
FE301	1-463-857-21	FRONT END (FM)	(*3)
FE351	1-236-463-11	ENCAPSULATED COMPONENT	(*1, 2)
FE352	1-239-260-11	ENCAPSULATED COMPONENT	(A17, *3, 4)
FE352	1-239-261-12	ENCAPSULATED COMPONENT	(*1, 2)
< IC >			
IC301	8-759-821-45	IC	LA1851N
IC501	8-759-820-91	IC	LC7218
IC601	8-759-096-99	IC	uPD75212ACW-A47
IC1001	8-759-634-51	IC	M5218AP
IC1002	8-759-000-48	IC	MC14052BCP
IC1003	8-759-634-51	IC	M5218AP
IC1202	8-759-111-68	IC	uPC1237HA

Ref. No.	Part No.	Description	Remarks
IC1302	8-759-231-53	IC	M5F7805
IC1303	8-759-071-48	IC	M5F7807L
IC1304	8-759-604-95	IC	M5F79M07
IC1305	8-759-820-13	IC	L78MR06
IC1306	8-759-231-58	IC	M5F7812L (A17, D159:AEP, *2) < IFT >
IFT301	1-404-713-11	TRANSFORMER, IF	< JACK >
J1202	1-569-130-11	JACK, PIN 2P (SURROUND SPEAKER)	(17, *1, 2, 3)
< COIL >			
L301	1-410-686-11	INDUCTOR	1mH (A17, *4)
L301	1-407-500-00	INDUCTOR	4.7mH (*1, 2, 3)
L351	1-410-525-11	INDUCTOR	220uH (*1, 2)
L1301	1-408-117-00	INDUCTOR	10uH (D159:G)
L1302	1-408-117-00	INDUCTOR	10uH (D159:G)
< FILTER >			
LPF301	1-235-164-00	FILTER, LOW PASS	
LPF302	1-235-164-00	FILTER, LOW PASS	
< TRANSISTOR >			
Q301	8-729-230-99	TRANSISTOR	2SC2669-OY (*3)
Q302	8-729-230-99	TRANSISTOR	2SC2669-OY (*3)
Q303	8-729-230-99	TRANSISTOR	2SC2669-OY
Q304	8-729-230-99	TRANSISTOR	2SC2669-OY
Q305	8-729-900-80	TRANSISTOR	DTC114ES
Q306	8-729-900-61	TRANSISTOR	DTA114ES
Q307	8-729-900-80	TRANSISTOR	DTC114ES
Q308	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q309	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q351	8-729-900-80	TRANSISTOR	DTC114ES (*1, 2)
Q352	8-729-119-78	TRANSISTOR	2SC2785-HFE (*1, 2)
Q353	8-729-119-76	TRANSISTOR	2SA1175-HFE (*1, 2)
Q354	8-729-900-80	TRANSISTOR	DTC114ES (*1, 2)
Q355	8-729-900-80	TRANSISTOR	DTC114ES (*1, 2)
Q356	8-729-900-80	TRANSISTOR	DTC114ES (*1, 2)
Q501	8-729-900-80	TRANSISTOR	DTC114ES
Q502	8-729-900-61	TRANSISTOR	DTA114ES
Q521	8-729-202-67	TRANSISTOR	2SK246-GR3
Q522	8-729-201-84	TRANSISTOR	2SC3112-B (A17, *4)
Q522	8-729-141-26	TRANSISTOR	2SC3622A-LK (*1, 2, 3)
Q531	8-729-202-67	TRANSISTOR	2SK246-GR3 (*1, 2)
Q532	8-729-141-26	TRANSISTOR	2SC3622A-LK (*1, 2)
Q1204	8-729-900-63	TRANSISTOR	DTA124ES
Q1302	8-729-209-15	TRANSISTOR	2SD2012

MAIN	SURROUND
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Ref. No.	Part No.	Description	Remarks
R304	1-249-432-11	CARBON 18K 5% 1/4W (*3)	
R305	1-249-411-11	CARBON 330 5% 1/4W (*3)	
R306	1-249-434-11	CARBON 27K 5% 1/4W (*3)	
R307	1-249-414-11	CARBON 560 5% 1/4W F (*3)	
R308	1-249-411-11	CARBON 330 5% 1/4W	
R309	1-249-432-11	CARBON 18K 5% 1/4W	
R310	1-249-411-11	CARBON 330 5% 1/4W	
R311	1-249-434-11	CARBON 27K 5% 1/4W	
R312	1-249-414-11	CARBON 560 5% 1/4W F	(A17, *1, 2, 4)
R312	1-249-416-11	CARBON 820 5% 1/4W F (*3)	
R313	1-249-405-11	CARBON 100 5% 1/4W F	
R314	1-249-437-11	CARBON 47K 5% 1/4W (*3)	
R315	1-249-404-00	CARBON 82 5% 1/4W	
R316	1-249-429-11	CARBON 10K 5% 1/4W	
R317	1-249-417-11	CARBON 1K 5% 1/4W F	
R318	1-249-435-11	CARBON 33K 5% 1/4W	
R319	1-249-428-11	CARBON 8.2K 5% 1/4W F	
R320	1-249-432-11	CARBON 18K 5% 1/4W	
R321	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R322	1-249-429-11	CARBON 10K 5% 1/4W	
R323	1-249-418-11	CARBON 1.2K 5% 1/4W F	(A17*1, 2, 4)
R323	1-249-423-11	CARBON 3.3K 5% 1/4W F (*3)	
R324	1-249-429-11	CARBON 10K 5% 1/4W	
R325	1-249-429-11	CARBON 10K 5% 1/4W	
R326	1-249-409-11	CARBON 220 5% 1/4W F	
R327	1-249-437-11	CARBON 47K 5% 1/4W	
R328	1-249-437-11	CARBON 47K 5% 1/4W	
R331	1-247-899-11	CARBON 680K 5% 1/4W	
R332	1-247-899-11	CARBON 680K 5% 1/4W	
R333	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R334	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R335	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R336	1-249-420-11	CARBON 1.8K 5% 1/4W F	
R337	1-249-426-11	CARBON 5.6K 5% 1/4W	
R338	1-249-426-11	CARBON 5.6K 5% 1/4W	
R351	1-249-433-11	CARBON 22K 5% 1/4W (*1, 2)	
R352	1-249-437-11	CARBON 47K 5% 1/4W (*1, 2)	
R353	1-247-903-00	CARBON 1M 5% 1/4W (*1, 2)	
R354	1-249-441-11	CARBON 100K 5% 1/4W (*1, 2)	
R355	1-249-433-11	CARBON 22K 5% 1/4W (*1, 2)	
R356	1-249-421-11	CARBON 2.2K 5% 1/4W F (*1, 2)	
R361	1-249-437-11	CARBON 47K 5% 1/4W	
R362	1-249-437-11	CARBON 47K 5% 1/4W	
R363	1-249-425-11	CARBON 4.7K 5% 1/4W F (*1, 2)	
R364	1-249-425-11	CARBON 4.7K 5% 1/4W F (*1, 2)	
R365	1-249-429-11	CARBON 10K 5% 1/4W (*1, 2, 3)	

Ref. No.	Part No.	Description	Remarks
R366	1-249-413-11	CARBON 470 5% 1/4W F (*1, 2)	
R367	1-249-434-11	CARBON 27K 5% 1/4W (*1, 2)	
R368	1-249-433-11	CARBON 22K 5% 1/4W (*1, 2)	
R370	1-249-423-11	CARBON 3.3K 5% 1/4W F (*3)	
R501	1-249-417-11	CARBON 1K 5% 1/4W F	
R502	1-249-417-11	CARBON 1K 5% 1/4W F	
R503	1-249-417-11	CARBON 1K 5% 1/4W F	
R504	1-249-417-11	CARBON 1K 5% 1/4W F	
R505	1-249-429-11	CARBON 10K 5% 1/4W	
R506	1-249-417-11	CARBON 1K 5% 1/4W F	
R510	1-249-401-11	CARBON 47 5% 1/4W F	
R511	1-249-429-11	CARBON 10K 5% 1/4W	
R512	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R513	1-249-417-11	CARBON 1K 5% 1/4W F	
R514	1-249-429-11	CARBON 10K 5% 1/4W	
R515	1-249-417-11	CARBON 1K 5% 1/4W F	
R521	1-249-423-11	CARBON 3.3K 5% 1/4W F	
R522	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R523	1-249-414-11	CARBON 560 5% 1/4W F	
R524	1-249-417-11	CARBON 1K 5% 1/4W F	
R525	1-249-410-11	CARBON 270 5% 1/4W F	
R526	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R527	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R528	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R529	1-249-405-11	CARBON 100 5% 1/4W F	
R530	1-249-405-11	CARBON 100 5% 1/4W F	
R531	1-249-423-11	CARBON 3.3K 5% 1/4W F (*1, 2)	
R532	1-249-433-11	CARBON 22K 5% 1/4W (*1, 2)	
R533	1-249-414-11	CARBON 560 5% 1/4W F (*1, 2)	
R534	1-249-417-11	CARBON 1K 5% 1/4W F (*1, 2)	
R535	1-249-410-11	CARBON 270 5% 1/4W F (*1, 2)	
R536	1-249-421-11	CARBON 2.2K 5% 1/4W F (*1, 2)	
R537	1-249-425-11	CARBON 4.7K 5% 1/4W F (*1, 2)	
R538	1-249-405-11	CARBON 100 5% 1/4W F (*1, 2)	
R631	1-249-441-11	CARBON 100K 5% 1/4W	
R1001	1-249-417-11	CARBON 1K 5% 1/4W F	
R1002	1-249-441-11	CARBON 100K 5% 1/4W	
R1003	1-249-416-11	CARBON 820 5% 1/4W F	
R1004	1-247-897-11	CARBON 560K 5% 1/4W	
R1005	1-249-437-11	CARBON 47K 5% 1/4W	
R1006	1-249-409-11	CARBON 220 5% 1/4W F	
R1007	1-249-441-11	CARBON 100K 5% 1/4W	
R1008	1-249-409-11	CARBON 220 5% 1/4W F	
R1010	1-249-417-11	CARBON 1K 5% 1/4W F	(A17, *1, 2, 4)
R1012	1-249-417-11	CARBON 1K 5% 1/4W F	
R1013	1-249-441-11	CARBON 100K 5% 1/4W	(A17, *1, 2, 4)

MAIN	SURROUND
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PANEL	H. P	POWER SUPPLY (B)	MIC	POWER SUPPLY	VR
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Ref. No.	Part No.	Description	Remarks			
R1012	1-249-417-11	CARBON	1K	5%	1/4W	F
R1013	1-249-441-11	CARBON	100K	5%	1/4W	
						(A17, *1, 2, 4)
R1014	1-249-437-11	CARBON	47K	5%	1/4W	
R1015	1-249-437-11	CARBON	47K	5%	1/4W	
R1021	1-249-437-11	CARBON	47K	5%	1/4W	
R1022	1-249-432-11	CARBON	18K	5%	1/4W	(17)
R1023	1-249-437-11	CARBON	47K	5%	1/4W	
R1024	1-249-417-11	CARBON	1K	5%	1/4W	F
R1029	1-249-433-11	CARBON	22K	5%	1/4W	
R1035	1-249-415-11	CARBON	680	5%	1/4W	F
R1037	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1051	1-249-417-11	CARBON	1K	5%	1/4W	F
R1052	1-249-441-11	CARBON	100K	5%	1/4W	
R1053	1-249-416-11	CARBON	820	5%	1/4W	F
R1054	1-247-897-11	CARBON	560K	5%	1/4W	
R1055	1-249-437-11	CARBON	47K	5%	1/4W	
R1056	1-249-409-11	CARBON	220	5%	1/4W	F (*1, 2, 4)
R1058	1-249-409-11	CARBON	220	5%	1/4W	F (*1, 2, 4)
R1065	1-249-415-11	CARBON	680	5%	1/4W	F
R1071	1-249-437-11	CARBON	47K	5%	1/4W	
R1072	1-249-432-11	CARBON	18K	5%	1/4W	(A17)
R1073	1-249-437-11	CARBON	47K	5%	1/4W	
R1074	1-249-417-11	CARBON	1K	5%	1/4W	F
R1222	1-249-415-11	CARBON	680	5%	1/4W	F
R1223	1-249-415-11	CARBON	680	5%	1/4W	F
R1226	1-215-890-11	METAL OXIDE	470	5%	2W	F (A17)
R1226	1-215-887-00	METAL OXIDE	150	5%	2W	F
R1233	1-249-432-11	CARBON	18K	5%	1/4W	
R1234	1-249-432-11	CARBON	18K	5%	1/4W	
R1235	1-249-437-11	CARBON	47K	5%	1/4W	
R1236	1-249-441-11	CARBON	100K	5%	1/4W	
R1237	1-249-429-11	CARBON	10K	5%	1/4W	
R1240	1-249-438-11	CARBON	56K	5%	1/4W	
R1241	1-249-385-11	CARBON	2.2	5%	1/6W	F (*3)
R1242	1-249-385-11	CARBON	2.2	5%	1/6W	F (*3)
R1243	1-249-385-11	CARBON	2.2	5%	1/6W	F (*3)
R1244	1-249-385-11	CARBON	2.2	5%	1/6W	F (*3)
R1272	1-249-415-11	CARBON	680	5%	1/4W	F
R1273	1-249-415-11	CARBON	680	5%	1/4W	F
R1290	1-249-437-11	CARBON	47K	5%	1/4W	
R1301	1-249-429-11	CARBON	10K	5%	1/4W	
R1302	1-249-429-11	CARBON	10K	5%	1/4W	
R1321	1-249-417-11	CARBON	1K	5%	1/4W	F
R1322	1-249-429-11	CARBON	10K	5%	1/4W	
R1345	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1346	1-249-425-11	CARBON	4.7K	5%	1/4W	F (AEP, *2)

Ref. No.	Part No.	Description	Remarks
		< VARIABLE RESISTOR >	
RV301	1-238-601-11	RES, ADJ, CARBON 22K	
RV302	1-238-601-11	RES, ADJ, CARBON 22K	
		< RELAY >	
RY1201	1-515-533-11	RELAY	
RY1201	1-515-920-11	RELAY (24V)	
		< TRANSFORMER >	
T301	1-404-807-11	TRANSFORMER, DISCRIMINATOR	
		< TERMINAL >	
* TM301	1-537-264-11	TERMINAL BOARD (A17, *2, 4)	
* TM301	1-537-288-11	TERMINAL BOARD, ANTENNA (PAL) (*1, 3)	
		< TRANSFORMER >	
T302	1-235-126-00	ENCAPSULATED COMPONENT (*3)	
		< VIBRATOR >	
XT501	1-577-126-21	VIBRATOR, CRYSTAL 7.2MHz	
XT501	1-579-383-11	VIBRATOR, CRYSTAL 7.2MHz	

*	A-4356-702-A	PANEL BOARD, COMPLETE (A17)	

*	A-4356-667-A	PANEL BOARD, COMPLETE (*1)	

*	A-4356-679-A	PANEL BOARD, COMPLETE (*2)	

*	A-4356-711-A	PANEL BOARD, COMPLETE (*3)	

*	A-4356-691-A	PANEL BOARD, COMPLETE (*4)	

*	A-4365-503-A	PANEL BOARD, COMPLETE (D159:G)	

*	1-646-477-11	H. P BOARD	

*	1-646-478-11	POWER SUPPLY (B) BOARD	

*	1-646-479-11	MIC BOARD (A17)	

*	1-646-481-11	POWER SUPPLY BOARD	

*	1-646-497-11	VR BOARD	

	1-533-217-31	HOLDER, FUSE	
*	1-535-141-00	BASE POST 22MM (10MM P*3CH) 4P (A17)	
*	4-942-301-01	HOLDER, FL TUBE	

PANEL	H. P	POWER SUPPLY (B)	MIC	POWER SUPPLY	VR
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Ref. No.	Part No.	Description	Remarks		
< CAPACITOR >					
C603	1-136-169-00	FILM	0.22uF	5%	50V
C604	1-164-159-11	CERAMIC	0.1uF		50V
C605	1-125-486-11	DOUBLE LAYERS	0.22F		5.5V
C606	1-164-159-11	CERAMIC	0.1uF		50V
C607	1-124-907-11	ELECT	10uF	20%	50V
C608	1-161-379-00	CERAMIC	0.01uF	20%	25V
C609	1-161-379-00	CERAMIC	0.01uF	20%	25V
C610	1-162-286-31	CERAMIC	220PF	10%	50V
C650	1-124-907-11	ELECT	10uF	20%	50V
C1101	1-124-257-00	ELECT	2.2uF	20%	50V
C1102	1-124-589-11	ELECT	47uF	20%	16V
C1103	1-162-282-31	CERAMIC	100PF	10%	50V
C1104	1-124-257-00	ELECT	2.2uF	20%	50V
C1105	1-124-464-11	ELECT	0.22uF	20%	50V
C1106	1-136-161-00	FILM	0.047uF	5%	50V
C1107	1-136-155-00	FILM	0.015uF	5%	50V
C1108	1-136-155-00	FILM	0.015uF	5%	50V
C1109	1-137-437-11	FILM	0.0056uF	5%	50V
C1110	1-161-327-00	CERAMIC	0.0033uF	20%	16V
C1111	1-136-155-00	FILM	0.015uF	5%	50V
C1112	1-136-157-00	FILM	0.022uF	5%	50V
C1113	1-136-153-00	FILM	0.01uF	5%	50V
C1114	1-161-377-00	CERAMIC	0.0047uF	20%	16V
C1115	1-124-257-00	ELECT	2.2uF	20%	50V
C1120	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1121	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1123	1-162-286-31	CERAMIC	220PF	10%	50V
C1131	1-162-215-31	CERAMIC	47PF	5%	50V
C1132	1-162-215-31	CERAMIC	47PF	5%	50V
C1151	1-124-257-00	ELECT	2.2uF	20%	50V
C1152	1-124-589-11	ELECT	47uF	20%	16V
C1153	1-162-282-31	CERAMIC	100PF	10%	50V
C1154	1-124-257-00	ELECT	2.2uF	20%	50V
C1155	1-124-464-11	ELECT	0.22uF	20%	50V
C1156	1-136-161-00	FILM	0.047uF	5%	50V
C1157	1-136-155-00	FILM	0.015uF	5%	50V
C1158	1-136-155-00	FILM	0.015uF	5%	50V
C1159	1-137-437-11	FILM	0.0056uF	5%	50V
C1160	1-161-327-00	CERAMIC	0.0033uF	20%	16V
C1161	1-136-155-00	FILM	0.015uF	5%	50V
C1162	1-136-157-00	FILM	0.022uF	5%	50V
C1163	1-136-153-00	FILM	0.01uF	5%	50V
C1164	1-161-377-00	CERAMIC	0.0047uF	20%	16V
C1165	1-124-257-00	ELECT	2.2uF	20%	50V
C1173	1-162-286-31	CERAMIC	220PF	10%	50V

Ref. No.	Part No.	Description	Remarks		
C1181	1-162-215-31	CERAMIC	47PF	5%	50V
C1182	1-162-215-31	CERAMIC	47PF	5%	50V
C1198	1-161-379-00	CERAMIC	0.01uF	20%	25V
C1237	1-162-282-31	CERAMIC	100PF	10%	50V (*3)
C1238	1-162-282-31	CERAMIC	100PF	10%	50V (*3)
C1301	1-161-744-00	CERAMIC	0.01uF		400V
C1314	1-124-122-11	ELECT	100uF	20%	50V
C1315	1-124-927-11	ELECT	4.7uF	20%	100V
C1316	1-124-910-11	ELECT	47uF	20%	50V
C1348	1-164-159-11	CERAMIC	0.1uF		50V (*1, 3, 4)
C1362	1-124-916-11	ELECT	22uF	20%	63V
C1601	1-124-925-11	ELECT	2.2uF	20%	100V (A17)
C1602	1-124-463-00	ELECT	0.1uF	20%	50V (A17)
C1603	1-124-925-11	ELECT	2.2uF	20%	100V (A17)
C1604	1-162-294-31	CERAMIC	0.001uF	10%	50V (A17)
C1605	1-162-215-31	CERAMIC	47PF	5%	50V (A17)
C1606	1-162-282-31	CERAMIC	100PF	10%	50V (A17)
C1607	1-162-215-31	CERAMIC	47PF	5%	50V (A17)
C1608	1-124-589-11	ELECT	47uF	20%	16V (A17)
C1609	1-124-589-11	ELECT	47uF	20%	16V (A17)
C1610	1-162-282-31	CERAMIC	100PF	10%	50V (A17)

< CONNECTOR >

- * CN601 1-568-830-11 SOCKET, CONNECTOR 11P
- CN1101 1-568-802-11 SOCKET, CONNECTOR 19P
- * CN1301 1-564-321-00 PIN, CONNECTOR 2P
- * CN1350 1-580-230-11 PIN, CONNECTOR (PC BOARD) 3P

< DIODE >

D601	8-719-987-63	DIODE	1N4148M
D602	8-719-010-26	DIODE	UZ-3.9BSB
D603	8-719-987-63	DIODE	1N4148M
D604	8-719-987-63	DIODE	1N4148M
D605	8-719-987-63	DIODE	1N4148M
D606	8-719-933-48	DIODE	HZS7B3L
D611	8-719-987-63	DIODE	1N4148M
D612	8-719-987-63	DIODE	1N4148M
D613	8-719-987-63	DIODE	1N4148M
D614	8-719-987-63	DIODE	1N4148M
D615	8-719-987-63	DIODE	1N4148M
D616	8-719-987-63	DIODE	1N4148M
D622	8-719-987-63	DIODE	1N4148M (D159:IT, *4)
D623	8-719-987-63	DIODE	1N4148M (A17, *4)
D625	8-719-987-63	DIODE	1N4148M

PANEL	H. P	POWER SUPPLY (B)	MIC	POWER SUPPLY	VR
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Ref. No.	Part No.	Description	Remarks
D641	8-719-200-82	DIODE 11ES2	
D1130	8-719-301-37	LED SEL2210S-CD	
D1131	8-719-301-37	LED SEL2210S-CD	
D1132	8-719-301-37	LED SEL2210S-CD	
D1133	8-719-301-37	LED SEL2210S-CD	
D1134	8-719-301-37	LED SEL2210S-CD	
D1145	8-719-313-69	DIODE SEL3210S-CD	
D1151	8-719-987-63	DIODE 1N4148M	
D1152	8-719-987-63	DIODE 1N4148M	
D1153	8-719-987-63	DIODE 1N4148M	
D1154	8-719-987-63	DIODE 1N4148M	
D1307	8-719-002-60	DIODE UZL-33L	
D1309	8-719-014-66	DIODE UZP-5.6B	
D1311	8-719-200-82	DIODE 11ES2	
D1370	8-719-200-82	DIODE 11ES2	
< FLUORESCENT >			
FL601	1-519-732-11	INDICATOR TUBE, FLUORESCENT	
< IC >			
IC602	8-749-922-36	IC GP1U50XB	
IC1101	8-759-634-51	IC M5218AP	
IC1102	8-759-634-51	IC M5218AP	
IC1103	8-759-820-62	IC LB1639	
IC1104	8-759-916-12	IC TC74HC00P	
IC1601	8-759-634-51	IC M5218AP (A17)	
< JACK >			
J601	1-691-002-11	JACK, LARGE TYPE (HEADPHONES) (A17)	
J1201	1-691-003-11	JACK, LARGE TYPE (MIC)	
< COIL >			
L601	1-410-521-11	INDUCTOR 100uH	
< TRANSISTOR >			
Q601	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q602	8-729-900-80	TRANSISTOR DTC114ES	
Q603	8-729-900-80	TRANSISTOR DTC114ES	
Q1101	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1102	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1121	8-729-900-36	TRANSISTOR DTC124ES	
Q1122	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q1136	8-729-900-36	TRANSISTOR DTC124ES	
Q1138	8-729-900-36	TRANSISTOR DTC124ES	
Q1141	8-729-900-63	TRANSISTOR DTA124ES	

Ref. No.	Part No.	Description	Remarks
Q1143	8-729-900-80	TRANSISTOR DTC114ES	
Q1144	8-729-900-80	TRANSISTOR DTC114ES	
Q1145	8-729-900-61	TRANSISTOR DTA114ES	
Q1151	8-729-119-78	TRANSISTOR 2SC2785-HFE	
Q1152	8-729-141-26	TRANSISTOR 2SC3622A-LK	
Q1301	8-729-141-83	TRANSISTOR 2SA473	
< RESISTOR >			
R601	1-249-429-11	CARBON 10K 5% 1/4W	
R602	1-249-429-11	CARBON 10K 5% 1/4W	
R603	1-249-423-11	CARBON 3.3K 5% 1/4W	F
R605	1-249-433-11	CARBON 22K 5% 1/4W	
R606	1-249-433-11	CARBON 22K 5% 1/4W	
R607	1-249-439-11	CARBON 68K 5% 1/4W	
R608	1-249-417-11	CARBON 1K 5% 1/4W	F
R609	1-249-405-11	CARBON 100 5% 1/4W	F
R610	1-249-429-11	CARBON 10K 5% 1/4W	
R611	1-249-437-11	CARBON 47K 5% 1/4W	
R612	1-249-417-11	CARBON 1K 5% 1/4W	F
R613	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R614	1-249-393-11	CARBON 10 5% 1/4W	F
R621	1-249-433-11	CARBON 22K 5% 1/4W	
R622	1-249-433-11	CARBON 22K 5% 1/4W	
R623	1-249-433-11	CARBON 22K 5% 1/4W	
R624	1-249-433-11	CARBON 22K 5% 1/4W	
R642	1-249-409-11	CARBON 220 5% 1/4W	F
R643	1-249-417-11	CARBON 1K 5% 1/4W	F
R1101	1-249-441-11	CARBON 100K 5% 1/4W	
R1102	1-249-417-11	CARBON 1K 5% 1/4W	F
R1103	1-249-431-11	CARBON 15K 5% 1/4W	
R1104	1-249-441-11	CARBON 100K 5% 1/4W	
R1105	1-249-433-11	CARBON 22K 5% 1/4W	
R1106	1-249-424-11	CARBON 3.9K 5% 1/4W	F
R1107	1-249-441-11	CARBON 100K 5% 1/4W	
R1108	1-249-427-11	CARBON 6.8K 5% 1/4W	F
R1109	1-249-412-11	CARBON 390 5% 1/4W	F
R1110	1-249-431-11	CARBON 15K 5% 1/4W	
R1111	1-249-439-11	CARBON 68K 5% 1/4W	
R1112	1-249-433-11	CARBON 22K 5% 1/4W	
R1113	1-249-431-11	CARBON 15K 5% 1/4W	
R1114	1-249-429-11	CARBON 10K 5% 1/4W	
R1115	1-249-429-11	CARBON 10K 5% 1/4W	
R1116	1-247-852-11	CARBON 7.5K 5% 1/4W	
R1117	1-247-852-11	CARBON 7.5K 5% 1/4W	
R1118	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R1119	1-249-425-11	CARBON 4.7K 5% 1/4W	F

PANEL	H. P	POWER SUPPLY (B)	MIC	POWER SUPPLY	VR
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Ref. No.	Part No.	Description				Remarks
R1120	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R1121	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R1122	1-247-887-00	CARBON	220K	5%	1/4W	
R1123	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1124	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1125	1-249-433-11	CARBON	22K	5%	1/4W	
R1130	1-249-412-11	CARBON	390	5%	1/4W	F
R1132	1-249-412-11	CARBON	390	5%	1/4W	F
R1133	1-249-412-11	CARBON	390	5%	1/4W	F
R1135	1-249-433-11	CARBON	22K	5%	1/4W	
R1143	1-249-433-11	CARBON	22K	5%	1/4W	
R1145	1-249-412-11	CARBON	390	5%	1/4W	F
R1149	1-249-429-11	CARBON	10K	5%	1/4W	
R1151	1-249-441-11	CARBON	100K	5%	1/4W	
R1152	1-249-417-11	CARBON	1K	5%	1/4W	F
R1154	1-249-441-11	CARBON	100K	5%	1/4W	
R1155	1-249-433-11	CARBON	22K	5%	1/4W	
R1156	1-249-424-11	CARBON	3.9K	5%	1/4W	F
R1157	1-249-441-11	CARBON	100K	5%	1/4W	
R1158	1-249-427-11	CARBON	6.8K	5%	1/4W	F
R1159	1-249-412-11	CARBON	390	5%	1/4W	F
R1160	1-249-431-11	CARBON	15K	5%	1/4W	
R1161	1-249-439-11	CARBON	68K	5%	1/4W	
R1162	1-249-433-11	CARBON	22K	5%	1/4W	
R1163	1-249-431-11	CARBON	15K	5%	1/4W	
R1164	1-249-429-11	CARBON	10K	5%	1/4W	
R1165	1-249-429-11	CARBON	10K	5%	1/4W	
R1166	1-247-852-11	CARBON	7.5K	5%	1/4W	
R1167	1-247-852-11	CARBON	7.5K	5%	1/4W	
R1168	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1169	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1170	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R1171	1-249-423-11	CARBON	3.3K	5%	1/4W	F
R1172	1-247-887-00	CARBON	220K	5%	1/4W	
R1173	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1174	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1303	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1304	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1391	1-202-725-00	SOLID	3.3M	10%	1/2W	(*4)
R1601	1-249-429-11	CARBON	10K	5%	1/4W	(A17)
R1602	1-249-417-11	CARBON	1K	5%	1/4W	F (A17)
R1603	1-249-412-11	CARBON	390	5%	1/4W	F (A17)
R1604	1-249-434-11	CARBON	27K	5%	1/4W	(A17)
R1605	1-249-433-11	CARBON	22K	5%	1/4W	(A17)
R1606	1-249-437-11	CARBON	47K	5%	1/4W	(A17)

Ref. No.	Part No.	Description	Remarks
< VARIABLE RESISTOR >			
RV1101	1-223-251-11	RES, VAR, CARBON 100K/100K (SURROUND)	
RV1102	1-223-251-11	RES, VAR, CARBON 100K/100K (DBFB)	
RV1103	1-223-289-11	RES, VAR, SLIDE 100K (100Hz)	
RV1104	1-223-289-11	RES, VAR, SLIDE 100K (330Hz)	
RV1105	1-223-289-11	RES, VAR, SLIDE 100K (1KHz)	
RV1106	1-223-289-11	RES, VAR, SLIDE 100K (3.3KHz)	
RV1107	1-223-289-11	RES, VAR, SLIDE 100K (10KHz)	
RV1108	1-223-253-11	RES, VAR, CARBON 100K/100K (BALANCE)	
RV1109	1-223-291-11	RES, VAR, CARBON 100K/100K (VOLUME)	
RV1153	1-223-289-11	RES, VAR, SLIDE 100K (100Hz)	
RV1154	1-223-289-11	RES, VAR, SLIDE 100K (330Hz)	
RV1155	1-223-289-11	RES, VAR, SLIDE 100K (1KHz)	
RV1156	1-223-289-11	RES, VAR, SLIDE 100K (3.3KHz)	
RV1157	1-223-289-11	RES, VAR, SLIDE 100K (10KHz)	
< SWITCH >			
S601	1-554-303-21	SWITCH, TACTILE (1)	
S602	1-554-303-21	SWITCH, TACTILE (2)	
S603	1-554-303-21	SWITCH, TACTILE (3)	
S604	1-554-303-21	SWITCH, TACTILE (4)	
S605	1-554-303-21	SWITCH, TACTILE (5)	
S606	1-554-303-21	SWITCH, TACTILE (6)	
S607	1-554-303-21	SWITCH, TACTILE (7)	
S608	1-554-303-21	SWITCH, TACTILE (8)	
S609	1-554-303-21	SWITCH, TACTILE (9)	
S610	1-554-303-21	SWITCH, TACTILE (0)	
S611	1-554-303-21	SWITCH, TACTILE (+)	
S612	1-554-303-21	SWITCH, TACTILE (-)	
S613	1-554-303-21	SWITCH, TACTILE (SHIFT)	
S614	1-554-303-21	SWITCH, TACTILE (BAND SELECT)	
S615	1-554-303-21	SWITCH, TACTILE (ST MUTE)	
S616	1-554-303-21	SWITCH, TACTILE (MEMORY)	
S619	1-554-303-21	SWITCH, TACTILE (VIDEO)	
S620	1-554-303-21	SWITCH, TACTILE (TAPE)	
S621	1-554-303-21	SWITCH, TACTILE (CD)	
S622	1-554-303-21	SWITCH, TACTILE (TUNER)	
S623	1-554-303-21	SWITCH, TACTILE (PHONO)	
S1102	1-571-305-11	SWITCH, PUSH (EQUALIZER) (1 KEY)	
< VIBRATOR >			
X601	1-567-775-11	VIBRATOR, CERAMIC (4.19 MHz)	

POWER AMPLIFIER

Ref. No.	Part No.	Description	Remarks
*	A-4356-616-A	POWER AMPLIFIER BOARD, COMPLETE (A17) *****	
*	A-4356-677-A	POWER AMPLIFIER BOARD, COMPLETE (*1) *****	
*	A-4356-689-A	POWER AMPLIFIER BOARD, COMPLETE (*2) *****	
*	A-4356-718-A	POWER AMPLIFIER BOARD, COMPLETE (*3) *****	
*	A-4356-698-A	POWER AMPLIFIER BOARD, COMPLETE (*4) *****	

< CAPACITOR >

C1201	1-124-257-00	ELECT	2.2uF	20%	50V
C1202	1-162-290-31	CERAMIC	470PF	10%	50V (*1, 2, 3, 4)
C1203	1-162-292-31	CERAMIC	680PF	10%	50V (*3)
C1204	1-124-477-11	ELECT	47uF	20%	25V
C1205	1-124-910-11	ELECT	47uF	20%	50V
C1206	1-124-122-11	ELECT	100uF	20%	50V
C1207	1-136-165-00	FILM	0.1uF	5%	50V
C1208	1-124-916-11	ELECT	22uF	20%	63V
C1209	1-164-159-11	CERAMIC	0.1uF		50V
C1210	1-136-163-00	FILM	0.068uF	5%	50V
C1211	1-136-163-00	FILM	0.068uF	5%	50V
C1220	1-124-910-11	ELECT	47uF	20%	50V
C1230	1-161-494-00	CERAMIC	0.022uF		25V (*3)
C1231	1-161-494-00	CERAMIC	0.022uF		25V (*3)
C1232	1-161-494-00	CERAMIC	0.022uF		25V (*3)
C1233	1-161-494-00	CERAMIC	0.022uF		25V (*3)
C1251	1-124-257-00	ELECT	2.2uF	20%	50V (*1, 2, 4)
C1252	1-162-290-31	CERAMIC	470PF	10%	50V (*1, 2, 3, 4)
C1253	1-162-292-31	CERAMIC	680PF	10%	50V (*3)
C1254	1-124-477-11	ELECT	47uF	20%	25V
C1255	1-124-910-11	ELECT	47uF	20%	50V
C1256	1-124-122-11	ELECT	100uF	20%	50V
C1257	1-136-165-00	FILM	0.1uF	5%	50V
C1260	1-136-163-00	FILM	0.068uF	5%	50V
C1261	1-136-163-00	FILM	0.068uF	5%	50V
C1280	1-161-494-00	CERAMIC	0.022uF		25V (*3)

< CONNECTOR >

- * CN1201 1-564-518-11 PLUG, CONNECTOR 3P
- * CN1202 1-564-522-11 PLUG, CONNECTOR 7P

< DIODE >

D1201	8-719-987-63	DIODE	1N4148M
D1251	8-719-987-63	DIODE	1N4148M

Ref. No.	Part No.	Description	Remarks
		< IC >	

IC1201	8-749-900-96	IC	STK-4142MK2 (A17, *4)
IC1201	8-749-920-13	IC	STK-4132MK2 (*1, 2, 3)

< COIL >

L1221	1-420-872-00	COIL, AIR CORE
L1251	1-420-872-00	COIL, AIR CORE

< TRANSISTOR >

Q1201	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA
Q1202	8-729-900-80	TRANSISTOR	DTC114ES
Q1203	8-729-119-78	TRANSISTOR	2SC2785-HFE
Q1251	8-729-140-84	TRANSISTOR	2SC1841-PAFAEA

< RESISTOR >

R1201	1-249-417-11	CARBON	1K	5%	1/4W	F
R1202	1-249-438-11	CARBON	56K	5%	1/4W	F
R1203	1-249-417-11	CARBON	1K	5%	1/4W	F
R1204	1-249-438-11	CARBON	56K	5%	1/4W	F
R1205	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1206	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1207	1-249-425-11	CARBON	4.7K	5%	1/4W	F
R1208	1-249-425-11	CARBON	4.7K	5%	1/4W	F
△R1209	1-212-881-11	FUSIBLE	100	5%	1/4W	F
△R1210	1-217-151-00	RES, METAL PLATE			0.22	
R1211	1-249-417-11	CARBON	1K	5%	1/4W	F
R1212	1-249-431-11	CARBON	15K	5%	1/4W	F
R1213	1-249-441-11	CARBON	100K	5%	1/4W	F
R1214	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1215	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1216	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1217	1-249-421-11	CARBON	2.2K	5%	1/4W	F
R1218	1-249-397-11	CARBON	22	5%	1/4W	F
R1219	1-249-397-11	CARBON	22	5%	1/4W	F
R1220	1-249-397-11	CARBON	22	5%	1/4W	F
R1221	1-249-397-11	CARBON	22	5%	1/4W	F
R1227	1-249-429-11	CARBON	10K	5%	1/4W	F
R1228	1-247-881-00	CARBON	120K	5%	1/4W	F
R1229	1-249-439-11	CARBON	68K	5%	1/4W	F
R1230	1-249-439-11	CARBON	68K	5%	1/4W	F
R1231	1-249-417-11	CARBON	1K	5%	1/4W	F
R1232	1-249-428-11	CARBON	8.2K	5%	1/4W	F
R1238	1-249-433-11	CARBON	22K	5%	1/4W	F
R1239	1-249-426-11	CARBON	5.6K	5%	1/4W	F
R1241	1-249-383-81	CARBON	1.5	5%	1/4W	F (A17, *1, 2)

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

Note:
Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

POWER AMPLIFIER

Ref. No.	Part No.	Description	Remarks
R1251	1-249-417-11	CARBON 1K 5% 1/4W F	
R1252	1-249-438-11	CARBON 56K 5% 1/4W	
R1253	1-249-417-11	CARBON 1K 5% 1/4W F	
R1254	1-249-438-11	CARBON 56K 5% 1/4W	
R1255	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1256	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1257	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R1258	1-249-425-11	CARBON 4.7K 5% 1/4W F	
△R1259	1-212-881-11	FUSIBLE 100 5% 1/4W F	
△R1260	1-217-151-00	RES, METAL PLATE 0.22	
R1261	1-249-417-11	CARBON 1K 5% 1/4W F	
R1262	1-249-431-11	CARBON 15K 5% 1/4W	
R1263	1-249-441-11	CARBON 100K 5% 1/4W	
R1268	1-249-397-11	CARBON 22 5% 1/4W F	
R1269	1-249-397-11	CARBON 22 5% 1/4W F	
R1270	1-249-397-11	CARBON 22 5% 1/4W F	
R1271	1-249-397-11	CARBON 22 5% 1/4W F	

MISCELLANEOUS			

18	1-590-578-11	WIRE, FLAT TYPE (19 CORE)	
19	1-590-576-11	WIRE, FLAT TYPE (11 CORE) (A17)	
19	1-590-576-21	WIRE, FLAT TYPE (11 CORE) (D159)	
△64	1-575-651-11	CORD, POWER (D159:AEP, AE2, IT, G)	
△64	1-575-653-11	CORD, POWER (A17:E, PX)	
△64	1-690-609-11	CORD, POWER (D159:US, CND)	
△64	1-696-570-21	CORD, POWER (D159:UK)	
△64	1-696-848-21	CORD, POWER (A17:AUS)	
△F1301	1-532-350-00	FUSE 4A (A17/D159:AEP, AE2, UK, IT, G)	
△F1301	1-576-108-11	FUSE 4A (D159:US, CND)	
△F1302	1-576-108-11	FUSE 4A (D159:US, CND)	
△F1302	1-532-350-00	FUSE 4A (A17/D159:AEP, AE2, UK, IT, G)	
△F1303	1-532-203-00	FUSE 2A (A17/D159:AEP, AE2, UK, IT, G)	
△F1303	1-576-104-11	FUSE (D159:US, CND)	
△F1304	1-532-203-00	FUSE 2A (A17/D159:AEP, AE2, UK, IT, G)	

Ref. No.	Part No.	Description	Remarks
△F1304	1-576-104-11	FUSE (D159:US, CND)	
△F1305	1-576-105-11	FUSE (D159:US, CND)	
△F1305	1-532-286-00	FUSE 2.5A (A17/D159:AEP, AE2, UK, IT, G)	
△F1306	1-576-105-11	FUSE (D159:US, CND)	
△F1306	1-532-286-00	FUSE 2.5A (A17/D159:AEP, AE2, UK, IT, G)	
S901	1-572-267-61	SWITCH, PUSH (AC POWER) (1 KEY)	
△T1301	1-423-434-11	TRANSFORMER, POWER (D159:AEP, AE2, UK, IT, G)	
△T1301	1-423-435-11	TRANSFORMER, POWER (D159:US, CND)	
△T1301	1-423-436-11	TRANSFORMER, POWER (A17)	
△VS1301	1-570-046-21	SWITCH, VOLTAGE CHANGE (A17)	

ACCESSORIES & PACKING MATERIALS

- 1-466-926-11 COMMANDER, STANDARD (RM-S109)
- 1-501-374-11 ANTENNA, LOOP (D159:AE2, IT/D159:IT)
- 1-501-536-11 ANTENNA (D159:AE2, IT)
- 1-696-860-11 CORD, CONNECTION 13P (D159:AE2, IT)
- 2-181-754-21 COVER (MLY), BATTERY
- * 3-703-713-41 STICKER, SONY SYMBOL (10)
- 3-756-330-41 MANUAL, INSTRUCTION (ENGLISH/FRENCH/SPANISH/PORTUGAL) (D159:AE2)
- 3-756-330-51 MANUAL, INSTRUCTION (GERMAN/DUTCH/SWEDISH/ITALIAN) (D159:AE2, IT)
- 4-957-498-01 INDIVIDUAL CARTON (D159:AE2, IT)
- 4-958-606-01 CUSHION (D159:AE2, IT)

HARDWARE LIST

- #1 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S
- #2 7-682-560-04 SCREW +BVTT 4X6 (S)

<p>Note: The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.</p>	<p>Note: Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.</p>
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