

TA-F606ES

SERVICE MANUAL

AEP Model



SPECIFICATIONS

Amplifier Section

Continuous RMS power output (both channels driven simultaneously)

4 ohms, 20 Hz - 20 kHz	Countries other than Scandinavian countries, Switzerland, Spain and Portugal	125 W + 125 W (THD 0.04%) (DIN: 145 W + 145 W)
6 ohms, 20 Hz - 20 kHz	Scandinavian countries, Switzerland, Spain and Portugal	100 W + 100 W (THD 0.03%) (DIN: 110 W + 110 W)
8 ohms, 20 Hz - 20 kHz	Countries other than Scandinavian countries, Switzerland, Spain and Portugal	95 W + 95 W (THD 0.02%) (DIN: 105 W + 105 W)
	Scandinavian countries, Switzerland, Spain and Portugal	85 W + 85 W (THD 0.02%) (DIN: 95 W + 95 W)

Power band width (IHF) 8 ohms, THD 0.02%: 10 Hz - 100 kHz at 45 W

Dynamic headroom ('78 IHF)

4 ohms: 2 dB
8 ohms: 1.2 dB

Total harmonic distortion 8 ohms, at 10 watt output: 0.008%

Intermodulation (IM) distortion 60 Hz : 7 kHz = 4 : 1

4 ohms, at rated output: 0.01%
6 ohms, at rated output: 0.008%
8 ohms, at rated output: 0.006%

Damping factor

Residual noise 8 ohms, at 1 kHz: 80

Frequency response network A, 8 ohms: less than 110 μ V
PHONO MM: RIAA equalization curve

± 0.2 dB
TUNER, CD, TAPE 1 2, DIRECT IN:
2 Hz - 200 kHz ± 0 dB

Input sensitivity

PHONO	MC	0.25 mV, 100 ohms
	MM	2.5 mV, 50 kilohms
TUNER, CD, DIRECT IN, TAPE 1 2, ADAPTOR, AUX		150 mV, 20 kilohms

S/N (network) ('78 IHF)

PHONO	MC	76 (0.5 mV)
	MM	93 (5.0 mV)
TUNER, CD, DIRECT IN, TAPE 1 2, ADAPTOR, AUX		105 (150 mV)

Output voltage impedance

REC OUT 1 2, ADAPTOR	150 mV, 1 kilohm
HEADPHONES	25 milliwatts (at 8 ohms) Accepts low and high impedance headphones.

Tone controls

BASS, at 100 Hz	± 7 dB
TREBLE, at 10 kHz	± 6 dB

Subsonic filter

6 dB / octave attenuation below 15 Hz

Muting

$-\infty$ dB

— Continued on next page —

INTEGRATED STEREO AMPLIFIER
SONY®

General

System

Preamplifier section: Low-noise high gain NAB type equalizer amplifier, passive type direct tone control
Power amplifier section: Pure-complementary SEPP power amplifier, MOS FET power transistor for final stage

Power requirements

220 - 230 V AC, 50/60 Hz

Power consumption

Scandinavian countries, Switzerland, Spain and Portugal: 220 W
Other countries: 300 W

Dimensions

Approx. 430 x 150 x 375 mm (w/h/d)
(17 x 5 7/8 x 14 3/4 inches)

Mass

Approx. 12.0 kg (26 lbs 7 oz)

Accessories supplied

Remote Commander RM-S703 (1)
Sony batteries SUM-3 (NS) (2)

Design and specifications are subject to change without notice.

Note

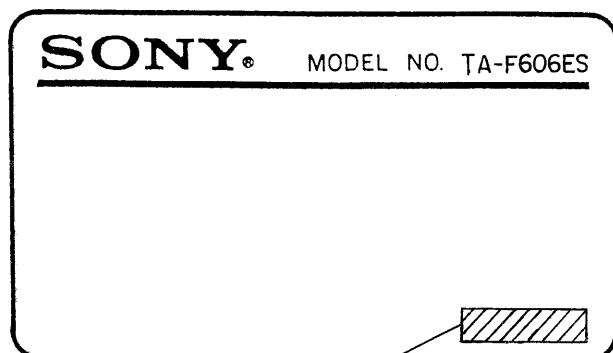
This appliance conforms with EEC directive 87/308/EEC regarding interference suppression.

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MODEL IDENTIFICATION

— Specification Label —



4-966-384-0□ : AEP1 model
4-966-384-1□ : AEP2 model
4-966-385-0□ : German model

Note:

There are two type of AEP models which are depend on countries.

AEP2 : Model for Scandinavian countries, Switzerland, Spain and Portugal.

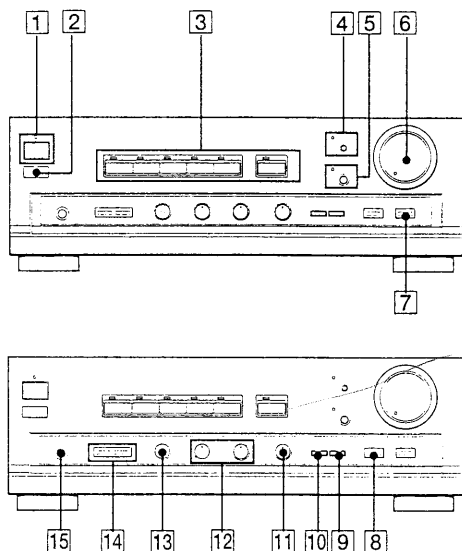
AEP1 : Model for other European countries.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY MARK Δ OR DOTTED LINE WITH MARK Δ 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

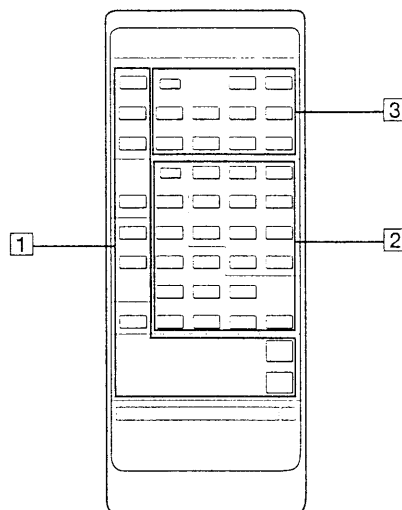
This section is extracted from instruction manual.



Function of Controls

Front panel

- 1 POWER switch and indicator**
Turns the power on and off.
After the power is turned on, the standby indicator lights red as the built-in muting circuit activates. When the amplifier is ready to operate, the indicator lights green. If the unit detects shorting in the speaker output circuits or in the DC component inputs, the indicator lights red. In this case, disconnect the power source and check the connected components and speaker systems.
- 2 Remote control sensor**
- 3 INPUT SELECTOR**
Selects the desired program source for listening.
- 4 MUTING button and indicator**
Mutes the sound. Generally, keep the button released (OFF).
- 5 SOURCE DIRECT button and indicator**
Deactivates the circuits of the TONE control, SUBSONIC filter button, BALANCE control and MODE selector without regard to the setting of the switches. The indicator lights red.
- 6 ATTENUATOR control**
Adjusts the sound level. To increase the sound level, turn the control clockwise. To decrease the level, turn the control counterclockwise.
Caution
Turn down the sound level before switching on the unit. This prevents damage to speakers.
- 7 CARTRIDGE selector**
Selects a position according to your cartridge.
MM: For moving-magnet type cartridges
MC: For moving-coil type cartridges
- 8 DIRECT INPUT selector**
Selects the program source connected to the DIRECT IN jacks or the other input jacks.
DIRECT: For listening to a program source connected to the DIRECT IN jacks.
SOURCE: For listening to a program source connected to the other input jacks or the ADAPTOR jacks, such as a graphic equalizer.
- 9 SUBSONIC filter button**
Reduces the noise components of less than 15 Hz which cause modulation noise.
- 10 MODE selector**
STEREO: For listening to a stereo program.
MONO: For listening to a monaural program.
- 11 BALANCE control**
Adjusts the sound level of the left and right speakers.
- 12 BASS and TREBLE TONE controls**
Adjusts the tone quality.
To increase bass or treble sound, turn the control clockwise. To decrease them, turn the control counterclockwise.
- 13 REC OUT SELECTOR**
Selects the program source for the REC OUT jacks.
- 14 SPEAKERS button**
Select speaker system A or B, or both.
To drive speaker system A: Depress A button.
To drive speaker system B: Depress B button.
To drive speaker system A and B: Depress A and B.
For headphones listening only: Set both to OFF (□).
To use power amplifier or active speaker system connected to the PRE OUT jacks, depress B/PRE OUT.
- 15 HEADPHONES jack**
Accepts headphones with the stereo phone plug.



Remote Commander RM-S703

- 1 Amplifier control section**
Input selectors: Select an input source for the amplifier.
ATTENUATOR +/- buttons: Control the volume of the amplifier.
- 2 Tuner/DAT deck/CD player control section**
DAT/CD selector: Select DAT deck or CD player.
◀◀/▶▶: Locate a desired selection
◀/▶: Manual search
▶: Play
■: Stop
⏸: Pause
○: Record muting
●: Recording
PRESET +/- buttons: Select a preset tuner channel. (for the tuner only)
Program number (1 to 0/10, and >10) button: Select a program or track number. (for the DAT deck and CD player)
ENTER buttons: Program your selection number. (for the DAT deck only)
- 3 Tape deck control section**
DECK A/B selector: Select deck A or B.
◀◀/▶▶: Locate a desired selection
▶/▶: Play
◀◀/▶▶: Fast winding
■: Stop
⏸: Pause
○: Record muting
●: Recording

Note

The TAPE 3 button on the remote commander does not control this amplifier, as it doesn't have TAPE 3 input plugs.

SECTION 2

ELECTRICAL ADJUSTMENTS

Bias Adjustment

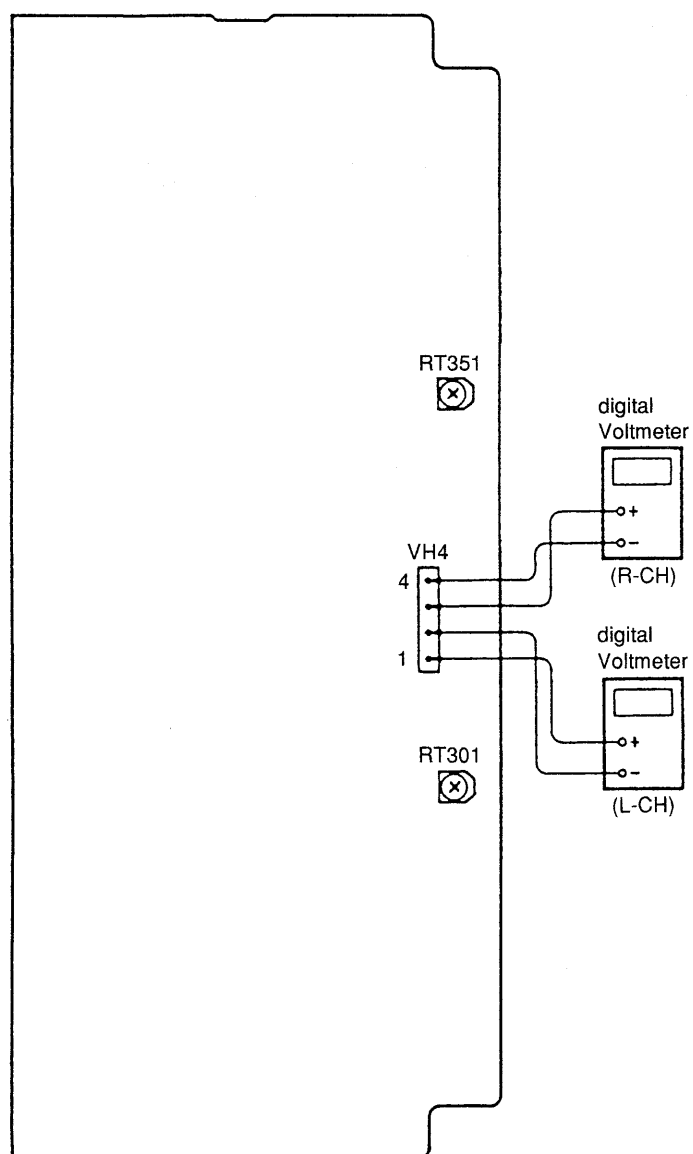
Note : Adjustment the idling after tuning the unit on for about 10 minutes, giving it time to warm up.

Procedure :

1. Connect the digital voltmeter to VH4 on main board as follows.
2. Adjust RT301(L-CH) and RT351(R-CH) so that the digital voltmeter reads 24mV at VH4.

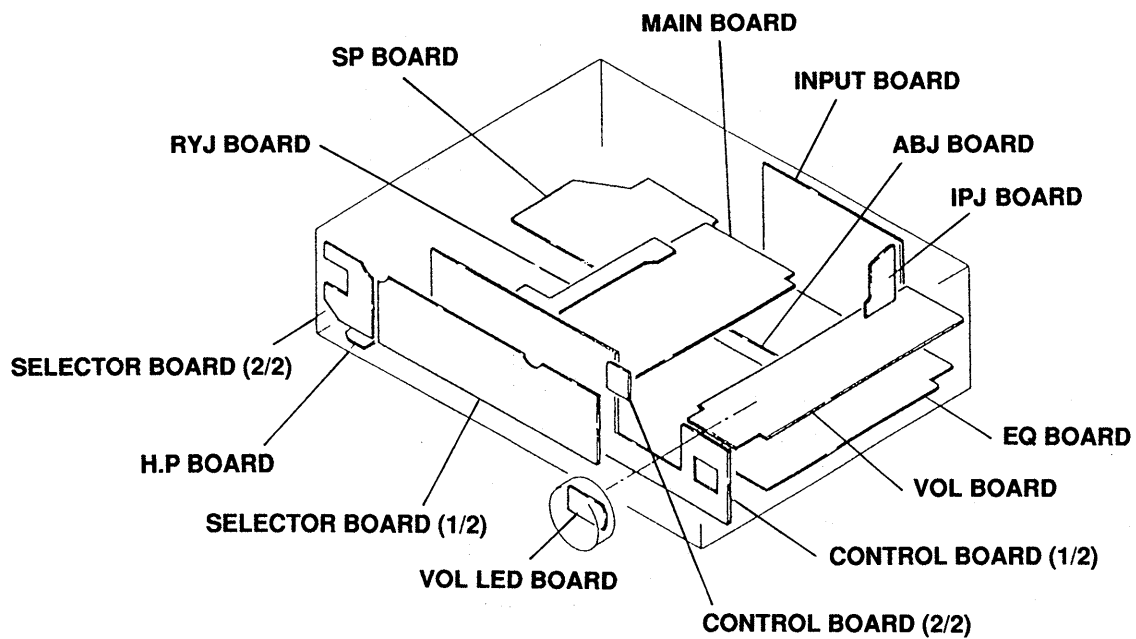
Adjustment Location :

[MAIN BOARD] (Component Side)

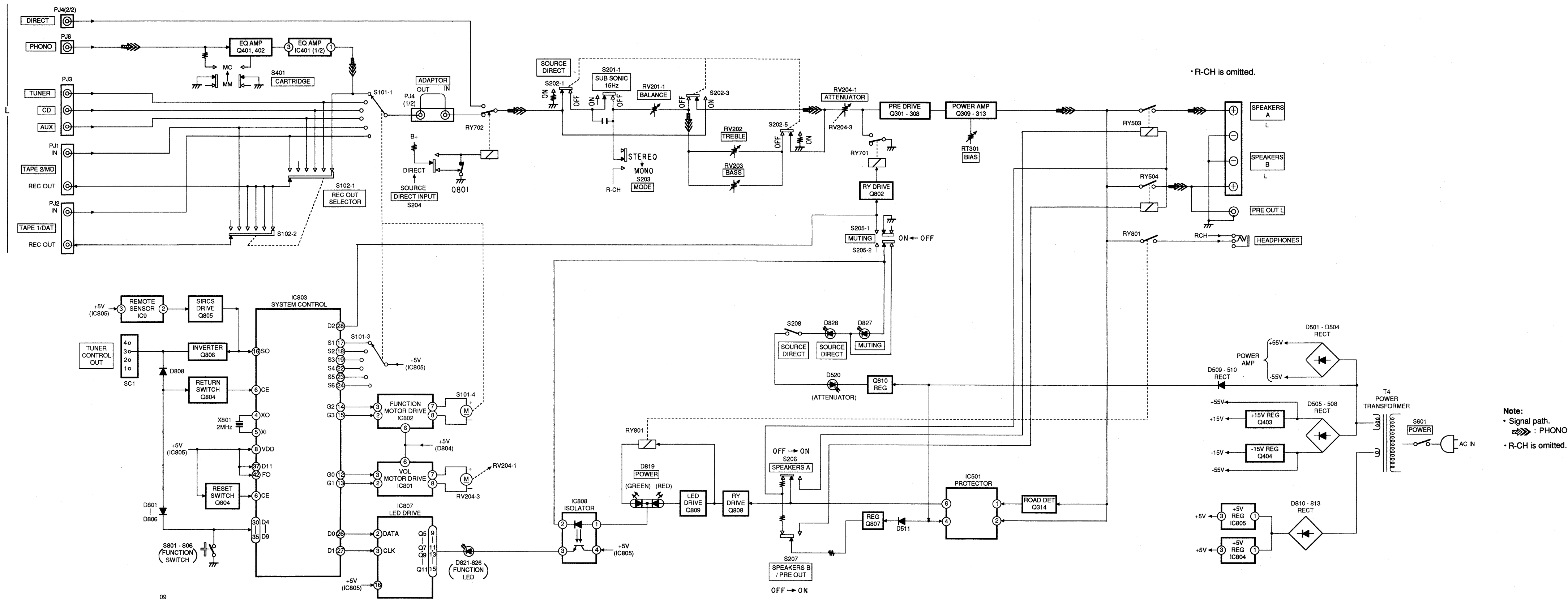


SECTION 3 DIAGRAMS

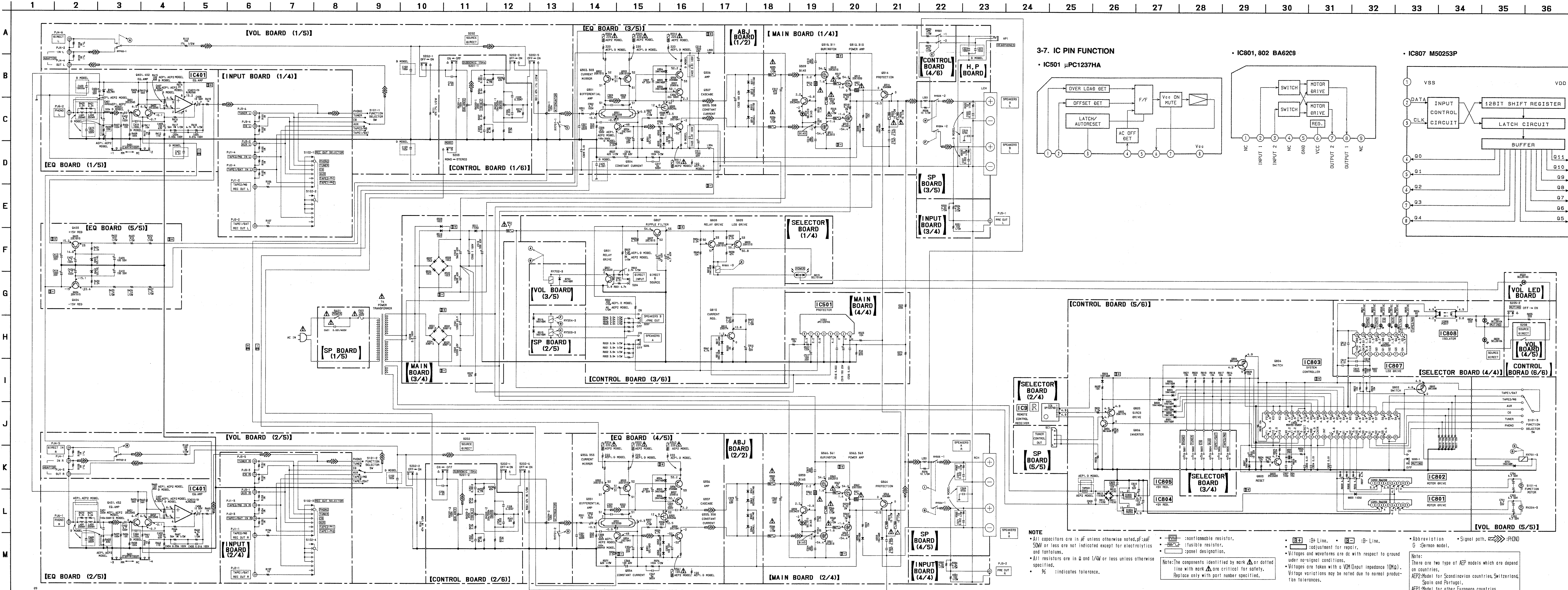
3-1. CIRCUIT BOARDS LOCATION



3-2. BLOCK DIAGRAM



3-3. SCHEMATIC DIAGRAM
• See page 19 for Printed Wiring Boards of Main Block.
• See page 23 for IC Pin Functions. (IC803)





Ref. No.	Location
D520	B-14
D701	I-10
D702	I-4
D801	E-20
D802	E-20
D803	E-20
D804	E-20
D805	E-21
D806	E-21
D807	F-22
D808	F-24
D809	E-24
D810	G-23
D811	G-23
D812	G-24
D813	G-24
D816	F-25
D817	F-25
D818	E-21
D819	C-15
D821	B-25
D822	B-23
D823	B-22
D824	B-21
D825	B-20
D826	B-19
D827	C-27
D828	B-27
D850	E-19
IC9	B-15
IC801	E-18
IC802	F-18
IC803	E-22
IC804	E-24
IC805	E-4
IC807	C-21
IC808	C-20
Q801	G-15
Q802	E-18
Q803	F-22
Q804	F-23
Q805	E-24
Q806	F-24
Q807	E-24
Q808	E-25
Q809	E-25
Q810	E-25

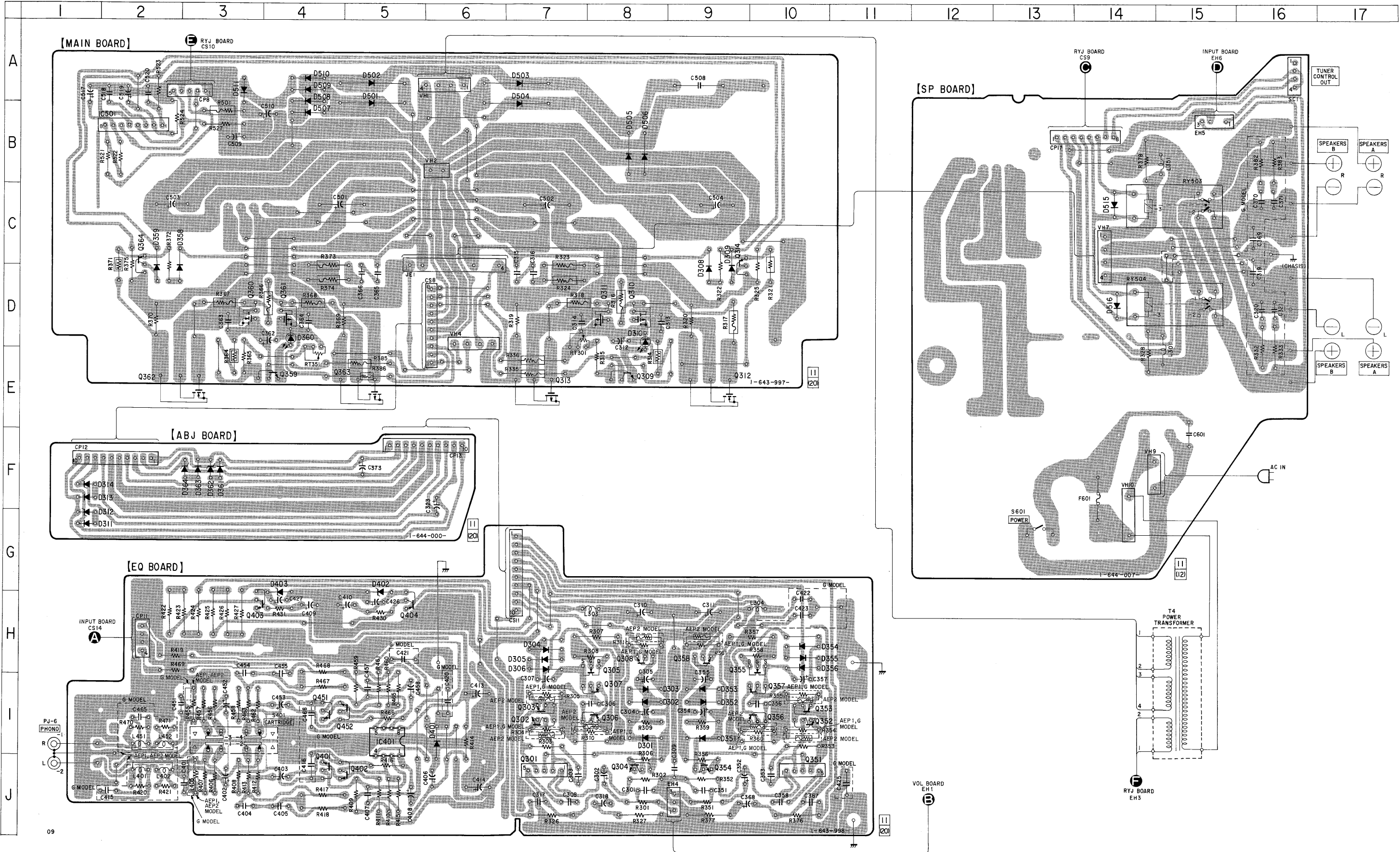
Note:

- — : parts extracted from the component side.
- ▨ : Pattern from the side which enable seeing.
- Abbreviation
G : German model.

Note:
There are two type of AEP models which are depend on countries.
AEP2 : Model for Scandinavian countries, Switzerland, Spain and Portugal.
AEP1 : Model for other European countries.

3-5. PRINTED WIRING BOARDS — MAIN SECTION —

- See page 10 for Schematic Diagram.
- See page 5 for Circuit Boards Location.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D301	I-8	D515	C-14
D302	I-8	D516	D-14
D303	I-8		
D304	H-7	IC401	I-5
D305	H-7		
D306	H-7	Q301	J-7
D308	D-9	Q302	I-7
D309	D-9	Q303	I-7
D310	D-8	Q304	J-8
D311	G-1	Q305	H-8
D312	G-1	Q306	I-8
D313	F-1	Q307	I-8
D314	F-1	Q308	H-8
D351	I-9	Q309	E-8
D352	I-9	Q310	D-8
D353	I-9	Q311	D-8
D354	H-10	Q312	E-9
D355	H-10	Q313	E-7
D356	H-10	Q314	C-9
D358	C-2	Q351	J-10
D359	C-2	Q352	I-10
D360	D-4	Q353	I-10
D361	F-3	Q354	J-9
D362	F-3	Q355	H-10
D363	F-3	Q356	I-10
D364	F-3	Q357	I-10
D401	I-6	Q358	H-9
D402	H-5	Q359	E-4
D403	H-4	Q360	D-3
D501	A-5	Q361	D-4
D502	A-5	Q362	E-3
D503	A-7	Q363	E-5
D504	A-7	Q364	C-2
D505	B-8	Q401	J-4
D506	B-8	Q402	J-5
D507	B-4	Q403	H-3
D508	A-4	Q404	H-5
D509	A-4	Q451	I-4
D510	A-4	Q452	I-5
D511	A-3		

Note:

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Note:

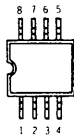
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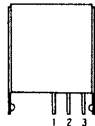
3-6. SEMICONDUCTOR LEAD LAYOUTS

BA6208



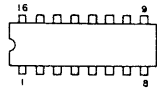
(TOP VIEW)

GP1U57XB



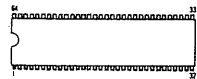
1 Vout
2 Vcc
3 GND

M50253P



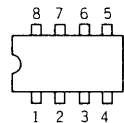
(TOP VIEW)

M50720-358SP



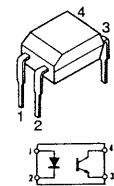
(Top view)

NJM2068D-D

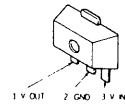


(Top view)

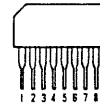
PC817



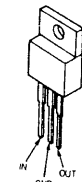
TA7805S



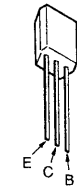
μ PC1237HA



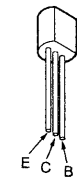
μ PC7805H



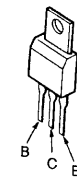
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DTC124ES
2SC2603-EF



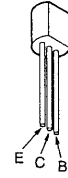
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2SA1175-FEK
2SC1815-8L
2SC2545
2SC945-P



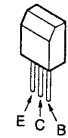
2SA916



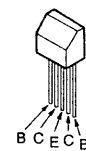
2SA988



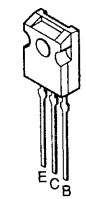
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2SD774-34



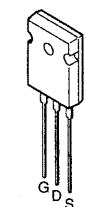
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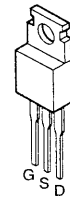
2SC3423



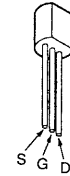
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2SK1530



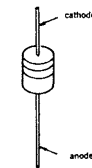
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2SK2013



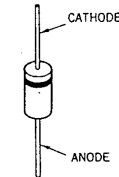
2SK246-GR2



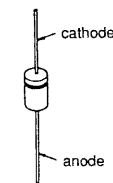
HZS16-2L
HZS4ALL
HZS6C3L
UZL-7MI
11ES2



1N4148M
11E2



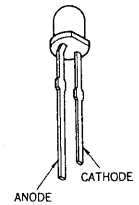
30DF2



SEL1510C



SEL1516W
SEL2510C
SEL2810C



3-7. IC PIN FUNCTION

• IC803 SYSTEM CONTROLLER (M50720-358SP)

Pin No.	Pin Name	I/O	Function
1	F1	I	Power supply (+5V) check.
2	F2	I	+5V power supply.
3	F3	I	Ground.
4	XO	O	Connected oscillator circuit.
5	XI	I	Connected oscillator circuit.
6	CE	I	Signal input for a return to normal position.
7	RESET	I	Reset signal input. ("L": RESET)
8	VDD	I	+5 Volts power supply.
9	CNTR	I	Ground.
10	INT	I	Ground.
11	C	I	Connected 0.01 μ F capacitor.
12	G0	O	Volume control (up) signal output.
13	G1	O	Volume control (down) signal output.
14	G2	O	Motor (normal turn) signal output.
15	G3	O	Motor (reverse turn) signal output.
16	S0	I	Serial data input (SIRCS).
17	S1	I	Function selector positioning detection input (PHONO).
18	S2	I	Function selector positioning detection input (TUNER).
19	S3	I	Function selector positioning detection input (CD).
20		—	Ground.
21		—	Ground.
22	S4	I	Function selector positioning detection input (AUX).
23	S5	I	Function selector positioning detection input (TAPE 1/DAT).
24	S6	I	Function selector positioning detection input (TAPE 2/MD).
25	S7	I	Ground.
26	D0	O	Shift register for LED (CLK).
27	D1	O	Shift register for LED (DATA).
28	D2	O	Line mute signal output.
29	D3	O	Not in used.
30	D4	I	Function control input for Phono mode.
31	D5	I	Function control input for Tuner mode.
32	D6	I	Function control input for CD mode.
33	D7	I	Function control input for AUX mode.
34	D8	I	Function control input for TAPE 1/DAT mode.
35	D9	I	Function control input for TAPE 2/MD mode.
36	D10	—	+5V power supply.
37	D11	I	+5V power supply.
38	K0	I	Ground.
39	K1	I	+5V power supply.
40	K2	I	Ground.
41	K3	I	Ground.
42	F0	I	+5V power supply.

SECTION 4

EXPLODED VIEWS

NOTE:

- Items marked " * " are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)

↑
↑

Parts color Cabinet's color
- -XX, -X mean standardized parts, so they may have some difference from the original one.

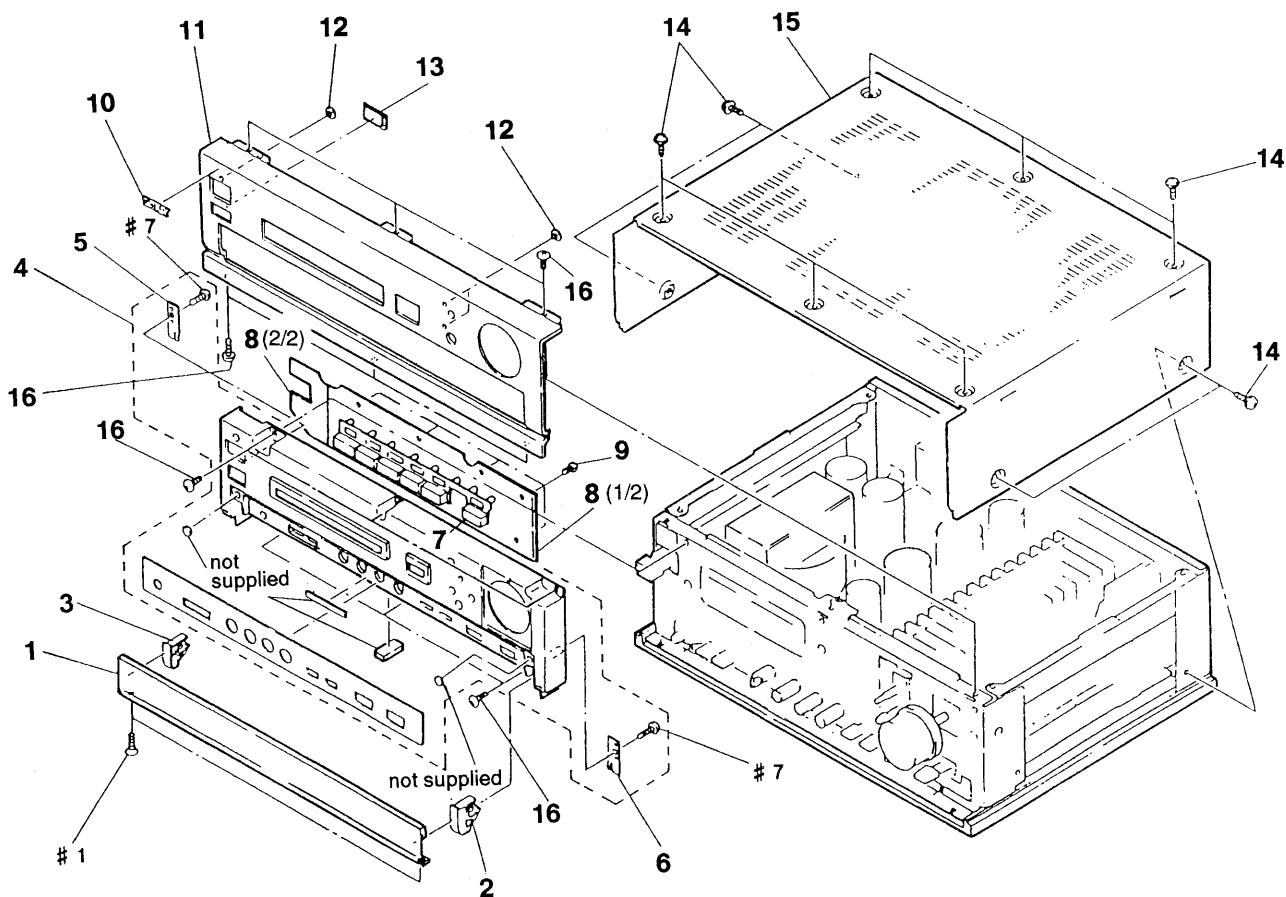
- The mechanical parts with no reference number in the exploded views are not supplied.
- Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
- Abbreviation
G : German model

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

Note:

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 Switzerland, Spain and Portugal
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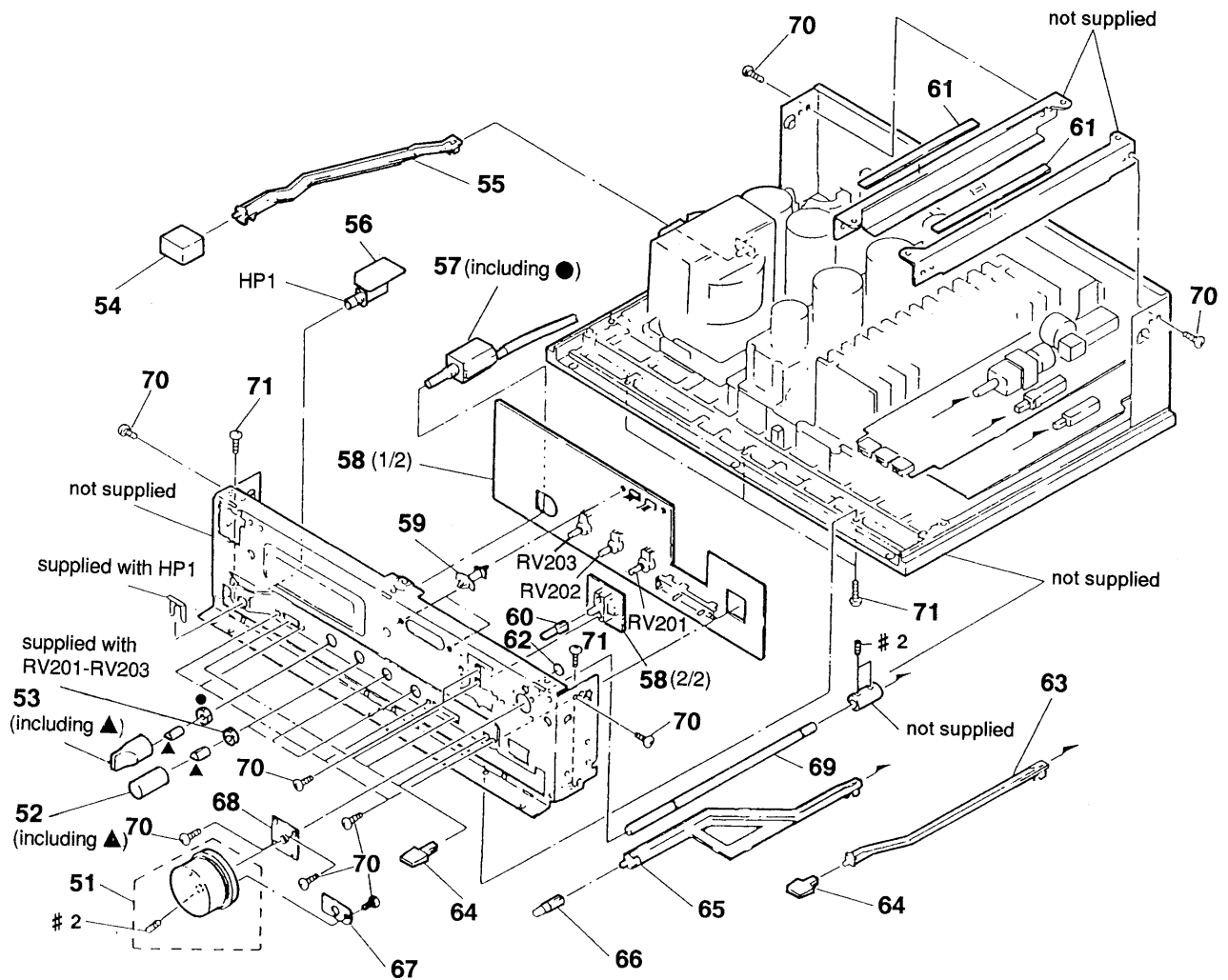
4-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description
1	4-955-303-31	LID
2	4-942-226-01	ARM (R)
3	4-942-225-01	ARM (L)
4	X-4944-908-1	BASE ASSY, PANEL
* 5	4-942-233-01	SPRING (L), PLATE
* 6	4-942-234-01	SPRING (R), PLATE
7	4-951-921-11	BUTTON (F)
* 8	1-644-004-11	SELECTOR BOARD
9	4-951-620-01	SCREW (2.6X8), +BVTP

Remark	Ref. No.	Part No.	Description	Remark
	10	4-942-568-01	EMBLEM (NO. 5), SONY	
	11	4-962-278-11	PANEL, FRONT	
	12	4-931-646-01	LENS, LED	
	13	4-952-206-01	WINDOW, REMOTE CONTROL	
	14	3-704-366-01	SCREW (CASE) (M3X8)	
	* 15	4-946-347-11	CASE	
	16	4-967-959-01	SCREW (3X6)	

4-2. SUB CHASSIS SECTION



Ref. No. Part No. Description

51	X-4944-218-1	KNOB (DIA. 52) ASSY
52	4-952-955-01	KNOB (DIA. 13)
53	4-952-954-01	KNOB (DIA. 13)
54	4-942-032-01	KNOB (POWER)
55	4-946-340-01	ROD (P)
* 56	1-644-006-11	HP BOARD
57	1-692-138-11	SWITCH, ROTARY (REMOTE TYPE)
* 58	A-4347-846-A	CONTROL BOARD, COMPLETE (AEP1, G)
* 58	A-4347-853-A	CONTROL BOARD, COMPLETE (AEP2)
* 59	3-350-846-51	HOLDER, PCB
60	4-931-641-01	BUTTON (DIA. 4)

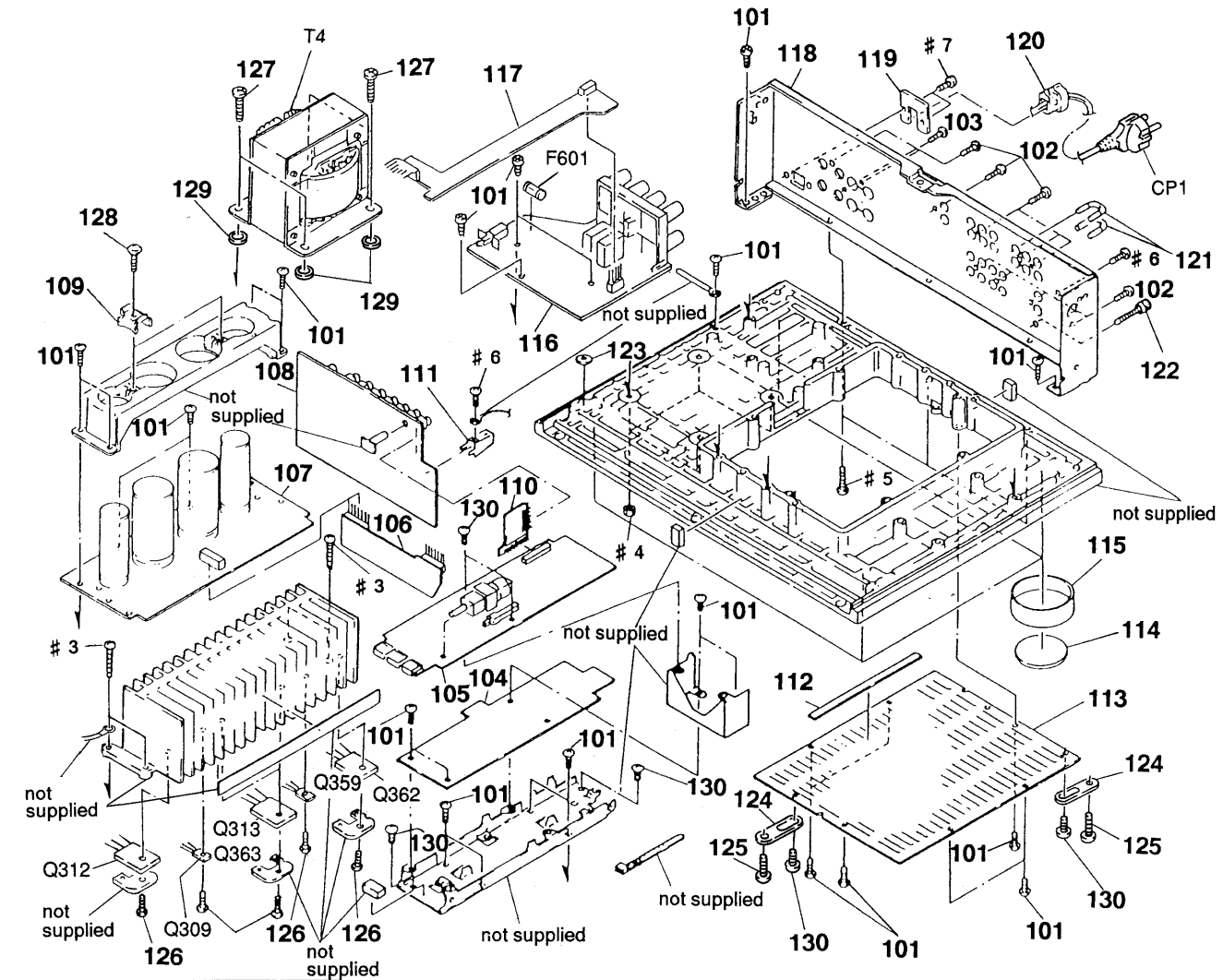
Remark

Ref. No. Part No. Description

* 61	4-916-782-21	DAMPER
* 62	4-908-892-01	SPACER
63	4-946-338-01	ROD (C)
64	4-942-228-01	KNOB (3X13)
65	4-951-922-01	JOINT (SD)
66	4-931-926-01	BUTTON (B)
* 67	1-644-005-11	VOL LED BOARD
68	4-946-335-01	BRACKET (BEARING)
69	4-946-331-23	SHAFT (VOL)
70	4-967-959-01	SCREW (3X6)
71	4-968-977-01	SCREW (3X10), +BVTP

Remark

4-3. MAIN CHASSIS SECTION



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

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
101	4-968-977-01	SCREW (3X10), +BVTP		* 119	4-923-873-01	BRACKET, CORD STOPPER	
102	4-968-977-11	SCREW (3X10), +BVTP		120	2-352-626-01	BUSHING, CORD	
103	4-968-977-01	SCREW (3X10), +BVTP (EXCEPT G)		121	1-573-905-11	PLUG, JAMPER	
103	7-621-849-00	SCREW, TAPPING (G)		122	4-947-010-01	SCREW, FEEDER FIXED	
* 104	A-4371-239-A	EQ BOARD, COMPLETE (AEP1)		123	3-942-525-01	BLIND (1), KNOB	
* 104	A-4371-242-A	EQ BOARD, COMPLETE (AEP2)		* 124	4-941-988-01	BRACKET (GROUND)	
* 104	A-4371-244-A	EQ BOARD, COMPLETE (G)		125	4-921-437-01	SCREW (M3X20), TAPPING	
* 105	1-644-001-11	VOL BOARD		126	4-969-000-01	SCREW (3X14), +BVTP	
* 106	1-644-000-11	ABJ BOARD		127	4-968-979-01	SCREW (4X20), +B	
* 107	A-4371-238-A	MAIN BOARD, COMPLETE		128	4-968-978-11	SCREW (3X12), +BVTP	
* 108	1-644-008-11	INPUT BOARD		* 129	4-949-933-01	WASHER (K.F)	
109	4-946-329-01	RETAINER, ELECT CAP		130	4-967-959-01	SCREW (3X6)	
* 110	1-644-002-11	IPJ BOARD		Δ CP1	1-575-953-11	CORD, POWER	
111	4-946-336-01	BRACKET (GROUND)		Δ F601	1-532-350-00	FUSE, TIME-LAG (T4AL 250V)	
* 112	4-916-782-21	DAMPER		Q309	8-729-203-45	TRANSISTOR 2SC3423-O	
* 113	4-916-732-01	BOARD, BOTTOM		Q312	8-729-015-30	TRANSISTOR 2SK1530	
114	4-969-463-01	FOOT (DIA. 46)		Q313	8-729-015-31	TRANSISTOR 2SJ201	
115	4-923-882-02	RING (LARGE-16), ORNAMENTAL, FOOT		Q359	8-729-203-45	TRANSISTOR 2SC3423-O	
* 116	1-644-007-11	SP BOARD		Q362	8-729-015-30	TRANSISTOR 2SK1530	
* 117	1-643-999-11	RYJ BOARD		Q363	8-729-015-31	TRANSISTOR 2SJ201	
* 118	4-951-917-51	PANEL, BACK (AEP1,G)		Δ T4	1-450-918-11	TRANSFORMER, POWER (AEP1,G)	
* 118	4-951-917-61	PANEL, BACK (AEP2)		Δ T4	1-450-919-11	TRANSFORMER, POWER (AEP2)	

SECTION 5

ELECTRICAL PARTS LIST

ABJ CONTROL

NOTE:

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

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

Note:

There are two type of AEP models which are depend on countries.
AEP2 model: Model for Scandinavian countries.
Switzerland, Spain and Portugal
AEP1 model: Model for other European countries

- 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.
- -XX, -X mean standardized parts, so they may have some difference from the original one.
 - Hardware (# mark) list and accessories and packing materials are given in the last of this parts list.
 - Abbreviation
G : German model

- Color Indication of Appearance Parts Example:
KNOB, BALANCE (WHITE) . . . (RED)

↑ ↑
Parts color Cabinet's color

- RESISTORS
All resistors are in ohms
METAL: Metal-film resistor
METAL OXIDE: Metal Oxide-film resistor
F : nonflammable
- 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	Remark	Ref.No.	Part No.	Description	Remark
*	1-644-000-11	ABJ BOARD ***** < CAPACITOR >		C803	1-126-059-11	ELECT 10uF 20% 25V	
C323	1-126-365-51	ELECT 100uF 20% 63V		C804	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C373	1-126-365-51	ELECT 100uF 20% 63V		C805	1-161-379-00	CERAMIC 0.01uF 20% 25V	
		< CONNECTOR >		C806	1-162-282-31	CERAMIC 100PF 10% 50V	
* CP12	1-568-202-11	PIN, CONNECTOR (PC BOARD) 10P		C807	1-162-282-31	CERAMIC 100PF 10% 50V	
* CP13	1-568-202-11	PIN, CONNECTOR (PC BOARD) 10P		C808	1-136-165-00	FILM 0.1uF 5% 50V	
		< DIODE >		C809	1-124-999-11	ELECT 2200uF 20% 10V	
D311	8-719-987-63	DIODE 1N4148M		C810	1-126-059-11	ELECT 10uF 20% 25V	
D312	8-719-985-53	DIODE HZS4ALL		C811	1-126-059-11	ELECT 10uF 20% 25V	
D313	8-719-987-63	DIODE 1N4148M		C812	1-126-062-11	ELECT 47uF 20% 63V	
D314	8-719-985-53	DIODE HZS4ALL		C813	1-126-058-11	ELECT 4.7uF 20% 63V	
D361	8-719-987-63	DIODE 1N4148M		C816	1-126-163-11	ELECT 4.7uF 20% 50V	
D362	8-719-985-53	DIODE HZS4ALL				< CONNECTOR >	
D363	8-719-987-63	DIODE 1N4148M		CP6	1-695-015-11	PIN, CONNECTOR (PC BOARD) 8P	
D364	8-719-985-53	DIODE HZS4ALL		CP7	1-695-015-11	PIN, CONNECTOR (PC BOARD) 8P	
*****				CS4	1-568-319-11	SOCKET, CONNECTOR 8P	
				CS5	1-568-319-11	SOCKET, CONNECTOR 8P	
				CS6	1-568-319-11	SOCKET, CONNECTOR 8P	
				CS7	1-568-117-11	SOCKET, CONNECTOR 14P	
						< DIODE >	
* A-4347-846-A	CONTROL BOARD, COMPLETE (AEP1, G)	*****		D801	8-719-987-63	DIODE 1N4148M	
				D802	8-719-987-63	DIODE 1N4148M	
				D803	8-719-987-63	DIODE 1N4148M	
* A-4347-853-A	CONTROL BOARD, COMPLETE (AEP2)	*****		D804	8-719-987-63	DIODE 1N4148M	
				D805	8-719-987-63	DIODE 1N4148M	
		< CAPACITOR >		D806	8-719-987-63	DIODE 1N4148M	
C201	1-130-472-00	MYLAR 0.0012uF 5% 50V		D807	8-719-987-63	DIODE 1N4148M	
C202	1-130-480-00	MYLAR 0.0056uF 5% 50V		D808	8-719-987-63	DIODE 1N4148M	
C203	1-130-479-00	MYLAR 0.0047uF 5% 50V		D809	8-719-987-63	DIODE 1N4148M	
C204	1-136-159-00	FILM 0.033uF 5% 50V		D810	8-719-200-82	DIODE 11ES2	
C206	1-136-169-00	FILM 0.22uF 5% 50V		D811	8-719-200-82	DIODE 11ES2	
C251	1-130-472-00	MYLAR 0.0012uF 5% 50V		D812	8-719-200-82	DIODE 11ES2	
C252	1-130-480-00	MYLAR 0.0056uF 5% 50V		D813	8-719-200-82	DIODE 11ES2	
C253	1-130-479-00	MYLAR 0.0047uF 5% 50V		D816	8-719-987-63	DIODE 1N4148M	
C254	1-136-159-00	FILM 0.033uF 5% 50V		D817	8-719-987-63	DIODE 1N4148M	
C256	1-136-169-00	FILM 0.22uF 5% 50V		D818	8-719-987-63	DIODE 1N4148M	
C801	1-130-483-00	MYLAR 0.01uF 5% 50V		D850	8-719-200-82	DIODE 11ES2	
C802	1-161-379-00	CERAMIC 0.01uF 20% 25V					

CONTROL

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
< CONNECTOR >				R813	1-249-429-11	CARBON 10K 5% 1/4W	
				R814	1-249-429-11	CARBON 10K 5% 1/4W	
EH2	1-564-517-11	PLUG, CONNECTOR 2P		R815	1-249-429-11	CARBON 10K 5% 1/4W	
< IC >				R816	1-249-429-11	CARBON 10K 5% 1/4W	
IC801	8-759-962-08	IC BA6208		R817	1-249-429-11	CARBON 10K 5% 1/4W	
IC802	8-759-962-08	IC BA6208		R818	1-249-429-11	CARBON 10K 5% 1/4W	
IC803	8-759-082-11	IC M50720-358SP		R819	1-249-429-11	CARBON 10K 5% 1/4W	
IC804	8-759-171-05	IC TA7805H		R820	1-249-429-11	CARBON 10K 5% 1/4W	
IC805	8-759-171-05	IC TA7805H		R821	1-249-429-11	CARBON 10K 5% 1/4W	
< TRANSISTOR >				R822	1-249-429-11	CARBON 10K 5% 1/4W	
Q801	8-729-620-05	TRANSISTOR 2SC2603-EF		R823	1-249-429-11	CARBON 10K 5% 1/4W	
Q802	8-729-900-61	TRANSISTOR DTA114ES		R824	1-249-430-11	CARBON 12K 5% 1/4W	
Q803	8-729-620-05	TRANSISTOR 2SC2603-EF		R825	1-247-895-00	CARBON 470K 5% 1/4W	
Q804	8-729-900-61	TRANSISTOR DTA114ES		R826	1-247-807-31	CARBON 100 5% 1/4W	
Q805	8-729-119-77	TRANSISTOR 2SA1175-FEK		R827	1-249-425-11	CARBON 4.7K 5% 1/4W	F
Q806	8-729-900-36	TRANSISTOR DTC124ES		R828	1-249-429-11	CARBON 10K 5% 1/4W	
Q807	8-729-194-57	TRANSISTOR 2SC945-P		R829	1-247-903-00	CARBON 1M 5% 1/4W	
Q808	8-729-141-03	TRANSISTOR 2SA733-QP		R830	1-249-429-11	CARBON 10K 5% 1/4W	
Q809	8-729-141-03	TRANSISTOR 2SA733-QP		R831	1-249-421-11	CARBON 2.2K 5% 1/4W	F
Q810	8-729-140-96	TRANSISTOR 2SD774-34		R832	1-249-429-11	CARBON 10K 5% 1/4W	
< RESISTOR >				R833	1-249-429-11	CARBON 10K 5% 1/4W	
R204	1-247-722-11	CARBON 5.6K 5% 1/4W	F	R834	1-249-393-11	CARBON 10 5% 1/4W	F
R205	1-259-502-11	CARBON 4.7M 5% 1/4W		R835	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R206	1-259-502-11	CARBON 4.7M 5% 1/4W		R836	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R207	1-247-717-11	CARBON 2.2K 5% 1/4W	F	R837	1-249-421-11	CARBON 2.2K 5% 1/4W	F
R208	1-259-467-11	CARBON 43K 5% 1/4W		R838	1-249-437-11	CARBON 47K 5% 1/4W	
R209	1-247-152-00	CARBON 7.5K 5% 1/4W		R839	1-249-399-11	CARBON 33 5% 1/4W	F
R210	1-249-590-11	CARBON 39K 5% 1/4W		R840	1-249-429-11	CARBON 10K 5% 1/4W	
R254	1-247-722-11	CARBON 5.6K 5% 1/4W	F	R841	1-249-425-11	CARBON 4.7K 5% 1/4W	F
R255	1-259-502-11	CARBON 4.7M 5% 1/4W		R842	1-247-249-00	CARBON 2.4K 5% 1/2W	
R256	1-259-502-11	CARBON 4.7M 5% 1/4W		R843	1-247-249-00	CARBON 2.4K 5% 1/2W	
R257	1-247-717-11	CARBON 2.2K 5% 1/4W	F	R846	1-247-759-11	CARBON 3.9K 5% 1/2W	
R258	1-259-467-11	CARBON 43K 5% 1/4W		R847	1-247-759-11	CARBON 3.9K 5% 1/2W	
R259	1-247-152-00	CARBON 7.5K 5% 1/4W		R848	1-247-759-11	CARBON 3.9K 5% 1/2W	
R260	1-249-590-11	CARBON 39K 5% 1/4W		R849	1-247-759-11	CARBON 3.9K 5% 1/2W	
R329	1-247-747-11	CARBON 470 5% 1/2W		R850	1-247-759-11	CARBON 3.9K 5% 1/2W	
R379	1-247-747-11	CARBON 470 5% 1/2W		R851	1-247-759-11	CARBON 3.9K 5% 1/2W	
R801	1-249-425-11	CARBON 4.7K 5% 1/4W	F	R852	1-247-759-11	CARBON 3.9K 5% 1/2W	
R802	1-247-757-11	CARBON 2.7K 5% 1/2W		R853	1-247-759-11	CARBON 3.9K 5% 1/2W	
R803	1-247-251-00	CARBON 3K 5% 1/2W	(AEP2)	R855	1-249-409-11	CARBON 220 5% 1/4W	F
R803	1-247-253-00	CARBON 3.6K 5% 1/2W	(AEP1, G)	R860	1-247-223-00	CARBON 200 5% 1/2W	F (AEP1, G)
R806	1-249-425-11	CARBON 4.7K 5% 1/4W	F	R860	1-247-738-11	CARBON 82 5% 1/2W	(AEP2)
R807	1-249-425-11	CARBON 4.7K 5% 1/4W	F	< VARIABLE RESISTOR >			
R808	1-249-425-11	CARBON 4.7K 5% 1/4W	F	RV201	1-238-448-31	RES, VAR, CARBON 150K/150K (BALANCE)	
R809	1-249-425-11	CARBON 4.7K 5% 1/4W	F	RV202	1-238-446-31	RES, VAR, CARBON 250K/250K (TREBLE)	
R810	1-249-429-11	CARBON 10K 5% 1/4W		RV203	1-238-447-31	RES, VAR, CARBON 25K/500K (BASS)	
R811	1-249-429-11	CARBON 10K 5% 1/4W		< RELAY >			
R812	1-249-429-11	CARBON 10K 5% 1/4W		RY801	1-515-787-11	RELAY	

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
< SWITCH >				C367	1-107-585-11	CERAMIC	5PF 0.25PF 500V
S201	1-692-141-11	SWITCH, PUSH (3 KEY) (SUBSONIC 15Hz)		C368	1-126-365-51	ELECT	100uF 20% 63V
S203	1-692-141-11	SWITCH, PUSH (3 KEY) (MODE)		C401	1-107-612-11	CERAMIC	100PF 5% 500V (G)
S204	1-692-141-11	SWITCH, PUSH (3 KEY) (DIRECT INPUT)		C401	1-110-339-11	MYLAR	220PF 5% 50V
S205	1-572-740-11	SWITCH, PUSH (1 KEY) (MUTING)					(AEP1, AEP2)
S206	1-572-739-11	SWITCH, PUSH (2 KEY) (SPEAKERS A)		C402	1-124-927-11	ELECT	4.7uF 20% 100V
				C403	1-126-365-51	ELECT	100uF 20% 63V
S207	1-572-739-11	SWITCH, PUSH (2 KEY) (SPEAKERS B/PRE OUT)		C404	1-130-341-00	FILM	0.056uF 2% 100V
< THERMISTOR(POSITIVE) >				C405	1-130-971-00	FILM	0.016uF 2% 100V
THP801	1-806-882-11	THERMISTOR, POSITIVE 2.2 (AEP2)		C406	1-124-122-11	ELECT	100uF 20% 50V
< VIBRATOR >				C407	1-130-470-00	MYLAR	820PF 5% 50V
X801	1-567-254-11	OSCILLATOR, CERAMIC (2MHz)					(AEP1, AEP2)
*****				C407	1-130-479-00	MYLAR	0.0047uF 5% 50V (G)
				C408	1-126-059-11	ELECT	10uF 20% 50V
				C409	1-126-052-11	ELECT	100uF 20% 50V
				C410	1-126-052-11	ELECT	100uF 20% 50V
				C413	1-124-557-11	ELECT	1000uF 20% 25V
				C414	1-124-557-11	ELECT	1000uF 20% 25V
				C415	1-107-616-11	CERAMIC	150PF 5% 500V (G)
				C416	1-162-282-31	CERAMIC	100PF 10% 50V (G)
				C420	1-161-379-00	CERAMIC	0.01uF 20% 25V (G)
				C421	1-161-379-00	CERAMIC	0.01uF 20% 25V (G)
				C422	1-106-367-00	MYLAR	0.01uF 5% 200V (G)
				C423	1-106-367-00	MYLAR	0.01uF 5% 200V (G)
< CAPACITOR >				C425	1-162-294-31	CERAMIC	0.001uF 10% 50V (G)
C301	1-107-612-11	CERAMIC	100PF 5% 500V	C426	1-124-927-11	ELECT	4.7uF 20% 100V
C302	1-124-927-11	ELECT	4.7uF 20% 100V	C427	1-124-927-11	ELECT	4.7uF 20% 100V
C303	1-110-339-11	MYLAR	220PF 5% 50V	C451	1-107-612-11	CERAMIC	100PF 5% 500V (G)
C304	1-124-122-11	ELECT	100uF 20% 50V	C451	1-110-339-11	MYLAR	220PF 5% 50V
C305	1-124-122-11	ELECT	100uF 20% 50V				(AEP1, AEP2)
C306	1-107-597-11	CERAMIC	22PF 5% 500V	C452	1-124-927-11	ELECT	4.7uF 20% 100V
C307	1-124-910-11	ELECT	47uF 20% 50V	C453	1-126-365-51	ELECT	100uF 20% 63V
C308	1-107-612-11	CERAMIC	100PF 5% 500V (G)	C454	1-130-341-00	FILM	0.056uF 2% 100V
C308	1-162-815-11	CERAMIC	47PF 5% 500V	C455	1-130-971-00	FILM	0.016uF 2% 100V
			(AEP1, AEP2)	C457	1-130-470-00	MYLAR	820PF 5% 50V
C309	1-130-483-00	MYLAR	0.01uF 5% 50V				(AEP1, AEP2)
C310	1-124-922-11	ELECT	1000uF 20% 63V	C457	1-130-479-00	MYLAR	0.0047uF 5% 50V (G)
C311	1-124-922-11	ELECT	1000uF 20% 63V	C458	1-126-059-11	ELECT	10uF 20% 50V
C317	1-107-585-11	CERAMIC	5PF 0.25PF 500V	C465	1-107-616-11	CERAMIC	150PF 5% 500V (G)
C318	1-126-365-51	ELECT	100uF 20% 63V	C466	1-162-282-31	CERAMIC	100PF 10% 50V (G)
C351	1-107-612-11	CERAMIC	100PF 5% 500V	< CONNECTOR >			
C352	1-124-927-11	ELECT	4.7uF 20% 100V	CP11	1-560-941-00	PIN, CONNECTOR 4P	
C353	1-110-339-11	MYLAR	220PF 5% 50V	* CS11	1-562-334-00	SOCKET, CONNECTOR 10P	
C354	1-124-122-11	ELECT	100uF 20% 50V	< DIODE >			
C355	1-124-122-11	ELECT	100uF 20% 50V	D301	8-719-933-41	DIODE	HZS6C3L
C356	1-107-597-11	CERAMIC	22PF 5% 500V	D302	8-719-987-63	DIODE	1N4148M
C357	1-124-910-11	ELECT	47uF 20% 50V	D303	8-719-987-63	DIODE	1N4148M
C358	1-107-612-11	CERAMIC	100PF 5% 500V (G)	D304	8-719-987-63	DIODE	1N4148M
C358	1-162-815-11	CERAMIC	47PF 5% 500V	D305	8-719-987-63	DIODE	1N4148M
			(AEP1, AEP2)				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
D306	8-719-987-63	DIODE 1N4148M		Q451	8-729-354-52	TRANSISTOR 2SC2545	
D351	8-719-933-41	DIODE HZS6C3L		Q452	8-729-354-52	TRANSISTOR 2SC2545	
D352	8-719-987-63	DIODE 1N4148M		< RESISTOR >			
D353	8-719-987-63	DIODE 1N4148M		R301	1-247-713-11	CARBON 1K 5% 1/4W F	
D354	8-719-987-63	DIODE 1N4148M		R302	1-249-469-11	CARBON 100K 5% 1/4W	
D355	8-719-987-63	DIODE 1N4148M		R303	1-247-704-11	CARBON 220 5% 1/4W F	
D356	8-719-987-63	DIODE 1N4148M		△R304	1-212-889-00	FUSIBLE 220 5% 1/4W F (AEP2)	
D401	8-719-000-84	DIODE UZL-7M1		R304	1-247-704-11	CARBON 220 5% 1/4W F (AEP1, G)	
D402	8-719-933-88	DIODE HZS16-2L		△R305	1-212-889-00	FUSIBLE 220 5% 1/4W F (AEP2)	
D403	8-719-933-88	DIODE HZS16-2L		R305	1-247-704-11	CARBON 220 5% 1/4W F (AEP1, G)	
< CONNECTOR >				R306	1-247-717-11	CARBON 2.2K 5% 1/4W F	
* EH4	1-564-506-11	PLUG, CONNECTOR 3P		R307	1-249-490-11	CARBON 27K 5% 1/2W	
< IC >				R308	1-247-704-11	CARBON 220 5% 1/4W F	
IC401	8-759-701-25	IC NJM2068D-D		R309	1-247-721-11	CARBON 4.7K 5% 1/4W F	
< COIL >				△R310	1-212-889-00	FUSIBLE 220 5% 1/4W F (AEP2)	
* L303	1-428-203-11	COIL, AIR-CORE		R310	1-247-704-11	CARBON 220 5% 1/4W F (AEP1, G)	
* L304	1-428-203-11	COIL, AIR-CORE		△R311	1-212-881-11	FUSIBLE 100 5% 1/4W F (AEP2)	
L401	1-424-397-11	COIL, CHOKE 200uH (G)		R311	1-247-700-11	CARBON 100 5% 1/4W F (AEP1, G)	
L402	1-424-397-11	COIL, CHOKE 200uH (G)		R326	1-249-721-11	CARBON 100K 5% 1/2W	
L451	1-424-397-11	COIL, CHOKE 200uH (G)		R327	1-249-668-11	CARBON 620 5% 1/2W	
L452	1-424-397-11	COIL, CHOKE 200uH (G)		R351	1-247-713-11	CARBON 1K 5% 1/4W F	
< JACK >				R352	1-249-469-11	CARBON 100K 5% 1/4W	
PJ6	1-580-054-11	JACK, PIN 2P (PHONO)		R353	1-247-704-11	CARBON 220 5% 1/4W F	
< TRANSISTOR >				△R354	1-212-889-00	FUSIBLE 220 5% 1/4W F (AEP2)	
Q301	8-729-620-17	TRANSISTOR 2SC2259-FG		R354	1-247-704-11	CARBON 220 5% 1/4W F (AEP1, G)	
Q302	8-729-201-53	TRANSISTOR 2SA1015-GR		△R355	1-212-889-00	FUSIBLE 220 5% 1/4W F (AEP2)	
Q303	8-729-201-53	TRANSISTOR 2SA1015-GR		R355	1-247-704-11	CARBON 220 5% 1/4W F (AEP1, G)	
Q304	8-729-142-01	TRANSISTOR 2SC1941-LK		R356	1-247-717-11	CARBON 2.2K 5% 1/4W F	
Q305	8-729-201-56	TRANSISTOR 2SK246-GR2		R357	1-249-490-11	CARBON 27K 5% 1/2W	
Q306	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R358	1-247-704-11	CARBON 220 5% 1/4W F	
Q307	8-729-803-76	TRANSISTOR 2SA1371		R359	1-247-721-11	CARBON 4.7K 5% 1/4W F	
Q308	8-729-142-01	TRANSISTOR 2SC1941-LK		△R360	1-212-889-00	FUSIBLE 220 5% 1/4W F (AEP2)	
Q351	8-729-620-17	TRANSISTOR 2SC2259-FG		R360	1-247-704-11	CARBON 220 5% 1/4W F (AEP1, G)	
Q352	8-729-201-53	TRANSISTOR 2SA1015-GR		△R361	1-212-881-11	FUSIBLE 100 5% 1/4W F (AEP2)	
Q353	8-729-201-53	TRANSISTOR 2SA1015-GR		R361	1-247-700-11	CARBON 100 5% 1/4W F (AEP1, G)	
Q354	8-729-142-01	TRANSISTOR 2SC1941-LK		R376	1-249-721-11	CARBON 100K 5% 1/2W	
Q355	8-729-201-56	TRANSISTOR 2SK246-GR2		R377	1-249-668-11	CARBON 620 5% 1/2W	
Q356	8-729-140-82	TRANSISTOR 2SA988-PAFAEA		R405	1-247-706-11	CARBON 330 5% 1/4W F	(AEP1, AEP2)
Q357	8-729-803-76	TRANSISTOR 2SA1371		R406	1-247-700-11	CARBON 100 5% 1/4W F	
Q358	8-729-142-01	TRANSISTOR 2SC1941-LK		R407	1-249-469-11	CARBON 100K 5% 1/4W	
Q401	8-729-354-52	TRANSISTOR 2SC2545		R408	1-249-469-11	CARBON 100K 5% 1/4W	
Q402	8-729-354-52	TRANSISTOR 2SC2545		R409	1-247-710-11	CARBON 560 5% 1/4W F	
Q403	8-729-281-54	TRANSISTOR 2SC1815-BL		R410	1-247-710-11	CARBON 560 5% 1/4W F	
Q404	8-729-201-53	TRANSISTOR 2SA1015-GR		R411	1-247-725-11	CARBON 10K 5% 1/4W F	
				R412	1-249-529-11	CARBON 110 5% 1/4W	
				R413	1-249-504-11	CARBON 10 5% 1/4W	
				R414	1-247-138-00	CARBON 2K 5% 1/4W	
				R415	1-247-700-11	CARBON 100 5% 1/4W F	(AEP1, AEP2)

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MAIN

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4371-238-A	MAIN BOARD, COMPLETE *****				< IC >	
		< CAPACITOR >		IC501	8-759-111-68	IC uPC1237HA	
						< TRANSISTOR >	
C312	1-126-103-11	ELECT 470uF 20% 16V		Q309	8-729-203-45	TRANSISTOR 2SC3423-0	
C313	1-107-608-11	CERAMIC 68PF 5% 500V		Q310	8-729-018-19	TRANSISTOR 2SK2013-Y	
C314	1-107-608-11	CERAMIC 68PF 5% 500V		Q311	8-729-018-21	TRANSISTOR 2SJ313-Y	
C315	1-136-161-00	FILM 0.047uF 5% 50V		Q312	8-729-015-30	TRANSISTOR 2SK1530	
C316	1-136-161-00	FILM 0.047uF 5% 50V		Q313	8-729-015-31	TRANSISTOR 2SJ201	
C362	1-126-103-11	ELECT 470uF 20% 16V		Q314	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
C363	1-107-608-11	CERAMIC 68PF 5% 500V		Q359	8-729-203-45	TRANSISTOR 2SC3423-0	
C364	1-107-608-11	CERAMIC 68PF 5% 500V		Q360	8-729-018-19	TRANSISTOR 2SK2013-Y	
C365	1-136-161-00	FILM 0.047uF 5% 50V		Q361	8-729-018-21	TRANSISTOR 2SJ313-Y	
C366	1-136-161-00	FILM 0.047uF 5% 50V		Q362	8-729-015-30	TRANSISTOR 2SK1530	
C501	1-109-943-11	ELECT 12000uF 20% 63V		Q363	8-729-015-31	TRANSISTOR 2SJ201	
C502	1-109-943-11	ELECT 12000uF 20% 63V		Q364	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
C503	1-109-944-11	ELECT 5600uF 20% 63V				< RESISTOR >	
C504	1-109-944-11	ELECT 5600uF 20% 63V					
C508	1-136-880-11	FILM 2.2uF 10% 160V		△R314	1-247-721-11	CARBON 4.7K 5% 1/4W F	
C509	1-124-791-11	ELECT 1.0uF 20% 100V		R315	1-249-926-11	CARBON 1.3K 5% 1/4W	
C510	1-124-920-11	ELECT 330uF 20% 63V		△R316	1-219-196-11	FUSIBLE 390 5% 1/2W F	
C517	1-124-478-11	ELECT 100uF 20% 25V		△R317	1-219-185-11	FUSIBLE 47 5% 1/2W F	
C518	1-130-487-00	MYLAR 0.022uF 5% 50V		△R318	1-219-185-11	FUSIBLE 47 5% 1/2W F	
C519	1-124-478-11	ELECT 100uF 20% 25V		R319	1-217-151-00	METAL PLATE 0.22 2W	
C520	1-130-471-00	MYLAR 0.001uF 5% 50V		R320	1-217-151-00	METAL PLATE 0.22 2W	
		< CONNECTOR >		△R321	1-247-721-11	CARBON 4.7K 5% 1/4W F	
* CP8	1-560-531-00	PIN, CONNECTOR 5P		R322	1-249-460-11	CARBON 15K 5% 1/4W	
* CS8	1-562-334-00	SOCKET, CONNECTOR 10P		△R323	1-219-179-11	FUSIBLE 15 5% 1/2W F	
		< DIODE >		△R324	1-219-179-11	FUSIBLE 15 5% 1/2W F	
D308	8-719-987-63	DIODE 1N4148M		R325	1-247-891-00	CARBON 330K 5% 1/4W	
D309	8-719-987-63	DIODE 1N4148M		△R335	1-219-189-11	FUSIBLE 100 5% 1/2W F	
D310	8-719-310-60	SEL1510C-C		△R336	1-219-189-11	FUSIBLE 100 5% 1/2W F	
D358	8-719-987-63	DIODE 1N4148M		△R364	1-247-721-11	CARBON 4.7K 5% 1/4W F	
D359	8-719-987-63	DIODE 1N4148M		R365	1-249-926-11	CARBON 1.3K 5% 1/4W	
D360	8-719-310-60	SEL1510C-C		△R366	1-219-196-11	FUSIBLE 390 5% 1/2W F	
D501	8-719-230-02	DIODE 30DF2		△R367	1-219-185-11	FUSIBLE 47 5% 1/2W F	
D502	8-719-230-02	DIODE 30DF2		△R368	1-219-185-11	FUSIBLE 47 5% 1/2W F	
D503	8-719-230-02	DIODE 30DF2		R369	1-217-151-00	METAL PLATE 0.22 2W	
D504	8-719-230-02	DIODE 30DF2		R370	1-217-151-00	METAL PLATE 0.22 2W	
D505	8-719-200-02	DIODE 11E2		△R371	1-247-721-11	CARBON 4.7K 5% 1/4W F	
D506	8-719-200-02	DIODE 11E2		R372	1-249-460-11	CARBON 15K 5% 1/4W	
D507	8-719-200-02	DIODE 11E2		△R373	1-219-179-11	FUSIBLE 15 5% 1/2W F	
D508	8-719-200-02	DIODE 11E2		△R374	1-219-179-11	FUSIBLE 15 5% 1/2W F	
D509	8-719-200-02	DIODE 11E2		R375	1-247-891-00	CARBON 330K 5% 1/4W	
D510	8-719-200-02	DIODE 11E2		△R385	1-219-189-11	FUSIBLE 100 5% 1/2W F	
D511	8-719-200-82	DIODE 11ES2		△R386	1-219-189-11	FUSIBLE 100 5% 1/2W F	
				△R501	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
				R521	1-249-461-11	CARBON 18K 5% 1/4W	
				R522	1-247-881-00	CARBON 120K 5% 1/4W	

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MAIN	RYJ	SELECTOR	SP
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Ref.No.	Part No.	Description	Remark				Ref.No.	Part No.	Description	Remark			
R523	1-247-725-11	CARBON	10K	5%	1/4W	F	IC807	8-759-635-31	IC	M50253P			
R524	1-247-887-00	CARBON	220K	5%	1/4W		IC808	8-719-902-56	DIODE	PC817			
R527	1-249-462-11	CARBON	22K	5%	1/4W				< RESISTOR >				
		< VARIABLE RESISTOR >											
RT301	1-237-457-21	RES, ADJ, CARBON 2K					R854	1-249-409-11	CARBON	220	5%	1/4W F	
RT351	1-237-457-21	RES, ADJ, CARBON 2K					R856	1-249-404-00	CARBON	82	5%	1/4W F	
		< CONNECTOR >					R857	1-247-807-31	CARBON	100	5%	1/4W	
							R858	1-247-807-31	CARBON	100	5%	1/4W	
									< SWITCH >				
* VH1	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P					S801	1-554-303-21	SWITCH, TACTILE (PHONO)				
* VH2	1-564-320-00	PIN, CONNECTOR (B2P-VH) 2P					S802	1-554-303-21	SWITCH, TACTILE (TUNER)				
* VH4	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P					S803	1-554-303-21	SWITCH, TACTILE (CD)				
							S804	1-554-303-21	SWITCH, TACTILE (AUX)				
							S805	1-554-303-21	SWITCH, TACTILE (TAPE2/MD)				
							S806	1-554-303-21	SWITCH, TACTILE (TAPE1/DAT)				

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SP

VOL

VOL LED

Ref.No.	Part No.	Description	Remark	Ref.No.	Part No.	Description	Remark
		< COIL >					
* L301	1-422-009-13	COIL, AIR-CORE		D702	8-719-987-63	DIODE 1N4148M	
* L351	1-422-009-13	COIL, AIR-CORE				< CONNECTOR >	
		< RESISTOR >		* EH1	1-564-506-11	PLUG, CONNECTOR 3P	
R328	1-247-727-11	CARBON 10 5% 1/2W				< JACK >	
R332	1-247-727-11	CARBON 10 5% 1/2W (G)		* PJ4	1-566-883-51	JACK, PIN 6P (DIRECT IN, ADAPTOR IN/OUT)	
R333	1-247-727-11	CARBON 10 5% 1/2W (G)				< RESISTOR >	
R382	1-247-727-11	CARBON 10 5% 1/2W (G)		R108	1-246-545-00	CARBON 1.0M 5% 1/4W	
R383	1-247-727-11	CARBON 10 5% 1/2W (G)		R109	1-246-545-00	CARBON 1.0M 5% 1/4W	
R378	1-247-727-11	CARBON 10 5% 1/2W		R110	1-259-531-11	CARBON 100 1% 1/2W	
		< RELAY >		R111	1-249-842-11	CARBON 47K 1% 1/2W	
RY503	1-515-676-11	RELAY		R158	1-246-545-00	CARBON 1.0M 5% 1/4W	
RY504	1-515-676-11	RELAY		R159	1-246-545-00	CARBON 1.0M 5% 1/4W	
		< SWITCH >		R160	1-259-531-11	CARBON 100 1% 1/2W	
△S601	1-554-920-11	SWITCH, PUSH (AC POWER) (1 KEY) (POWER)		R161	1-249-842-11	CARBON 47K 1% 1/2W	
		< JACK >		R211	1-249-842-11	CARBON 47K 1% 1/2W	
SC1	1-566-213-11	PIN, CONNECTOR 4P (TUNER CONTROL OUT)		R261	1-249-842-11	CARBON 47K 1% 1/2W	
		< CONNECTOR >				< VARIABLE RESISTOR >	
* VH7	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P		RV204	1-241-908-11	RES, VAR, CARBON 120K/120K (ATTENUATOR)	
VH9	1-564-321-00	PIN, CONNECTOR 2P				< RELAY >	
* VH10	1-565-792-11	PIN, CONNECTOR 2P		RY701	1-515-622-11	RELAY	
		*****		RY702	1-515-804-11	RELAY	
*	1-644-001-11	VOL BOARD				< SWITCH >	
		*****		S101	1-692-142-11	SWITCH, ROTARY (WITH MOTOR)	
		< CAPACITOR >		S202	1-692-140-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)	
C102	1-110-335-11	MYLAR 100PF 5% 50V (G)		S208	1-572-126-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)	
C103	1-110-335-11	MYLAR 100PF 5% 50V (G)				*****	
C152	1-110-335-11	MYLAR 100PF 5% 50V (G)		*	1-644-005-11	VOL LED BOARD	
C701	1-126-163-11	ELECT 4.7uF 20% 50V				*****	
C702	1-126-163-11	ELECT 4.7uF 20% 50V				< DIODE >	
C703	1-126-163-11	ELECT 4.7uF 20% 50V		D520	8-719-303-02	DIODE SEL2510C-D	
C704	1-126-163-11	ELECT 4.7uF 20% 50V				*****	
		< CONNECTOR >					
* CP3	1-568-320-11	PLUG, CONNECTOR 8P					
* CP4	1-568-320-11	PLUG, CONNECTOR 8P					
* CP5	1-568-320-11	PLUG, CONNECTOR 8P					
* CS1	1-565-489-11	CONNECTOR, BOARD TO BOARD 13P					
		< DIODE >					
D701	8-719-987-63	DIODE 1N4148M					

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Ref.No.	Part No.	Description	Remark
		MISCELLANEOUS *****	
57	1-692-138-11	SWITCH, ROTARY (REMOTE TYPE)	
121	1-573-905-11	PLUG, JAMPER	
△CP1	1-575-953-11	CORD, POWER	
△F601	1-532-350-00	FUSE, TIME-LAG (T4AL 250V)	
Q309	8-729-203-45	TRANSISTOR 2SC3423-0	
Q312	8-729-015-30	TRANSISTOR 2SK1530	
Q313	8-729-015-31	TRANSISTOR 2SJ201	
Q359	8-729-203-45	TRANSISTOR 2SC3423-0	
Q362	8-729-015-30	TRANSISTOR 2SK1530	
Q363	8-729-015-31	TRANSISTOR 2SJ201	
△T4	1-450-918-11	TRANSFORMER, POWER (AEP1, G)	
△T4	1-450-919-11	TRANSFORMER, POWER (AEP2)	

		ACCESSORIES & PACKING MATERIALS *****	
	1-465-801-11	REMOTE COMMANDER (RM-S703)	
	3-708-584-01	COVER, BATTERY (RM-S703)	
	3-759-162-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE (AEP))	
	3-759-162-41	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN)	
	3-759-162-51	MANUAL, INSTRUCTION (DANNISH, FINNISH)	
	4-933-001-01	CUSHION	
*	4-962-451-01	INDIVIDUAL CARTON	

		***** HARDWARE LIST *****	
#1	7-685-234-19	SCREW +KTP 2.6X8 TYPE2NON-SLIT	
#2	7-683-255-58	SET SCREW 5X6 HEXAGON SOCKET	
#3	7-685-650-79	SCREW +BVTP 3X16 TYPE2 SLIT	
#4	7-684-024-04	N 4, TYPE 2	
#5	7-685-876-09	SCREW +BVTT 3X16 (S)	
#6	7-682-548-09	SCREW (3X8)	
#7	7-682-547-09	SCREW +BVTT 3X6 (S)	

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Replace only with part number specified.

TA-F606ES

SERVICE MANUAL

*US Model
Canadian Model*



SPECIFICATIONS

Audio Power Specifications

POWER OUTPUT AND TOTAL HARMONIC DISTORTION :

With 8-ohm loads, both channels driven, from 20-20,000 Hz ; rated 80 watts per channel minimum RMS power, with no more than 0.03 % total harmonic distortion from 250 milliwatts to rated output.

With 4-ohm loads, both channels driven, from 20-20,000 Hz ; rated 100 watts per channel minimum RMS power, with no more than 0.05 % total harmonic distortion from 250 milliwatts to rated output.

Amplifier section

Items	Condition	Data
Power band width	8 ohms, THD 0.05 %	10 Hz – 100 kHz at 40 W
Dynamic power	1 ohm	300 W
	2 ohms	260 W
	4 ohms	165 W
	8 ohms	110 W
Total harmonic distortion	8 ohms at 10 w output	0.008 %
Intermodulation (IM) distortion 60 Hz : 7 kHz = 4: 1	4 ohms, at rated output	0.01 %
	6 ohms, at rated, output	0.008 %
	8 ohms, at rated output	0.006 %
Damping	8 ohms, at 1 kHz	80
Residual noise	network A, 8 ohms	less than 110 μ V
Frequency response	PHONO MM (20 Hz – 20 kHz)	RIAA equaliaztion curve $\pm$ 0.2 dB
	TUNER, CD TAPE 1, 2, 3, DIRECT IN	2 Hz – 200kHz $\pm$ 0dB

– Continued on next page –

INTEGRATED STEREO AMPLIFIER
SONY®

Items	Condition		Data
Input sensitivity	PHONO	MC	0.25 mV/100 ohm
		MM	2.5 mV, 50 kilohm
	TUNER, CD, DIRECT IN, TAPE 1, 2, 3, ADAPTOR		150 mV, 20 kilohm
S/N (network)	PHONO	MC	76 dB (0.5 mV)
		MM	93 dB (5.0 mV)
	TUNER, CD, DIRECT IN, TAPE 1, 2, 3, ADAPTOR, AUX		105 dB (150 mV)
Output voltage impedance	REC OUT 1, 2, 3, ADAPTOR		150 mV, 1 kilohm
	HEADPHONES		25 milliwatts (at 8 ohms) Accepts low and high impedance headphones
Tone controls	BASS, at 10 kHz		± 7 dB
	TREBLE, at 10 kHz		± 7 dB
Subsonic filter	_____		6 dB/octave attenuation below 15 Hz
Muting	_____		— ∞ dB

General

System
Preamplifier section: Low-noise high gain NFB type equalizer amplifier, passive type direct tone control
Power amplifier section: Pure-complementary SEPP MOS-FET power amplifier
Power requirement
120 V AC, 60 Hz
Power consumption
U.S.A. model
210 W
Canadian model
300 VA
AC outlets
2 switched, total 120 W/1A max.
1 unswitched, 120 W/1A max.
Dimensions
Approx. 430 x 150 x 375 mm (w/h/d)
(17 x 5 7/8 x 14 3/4 inches)
Mass
Approx. 14.0 kg (30 lb 14 oz)

Design and specifications are subject to change without notice.

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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

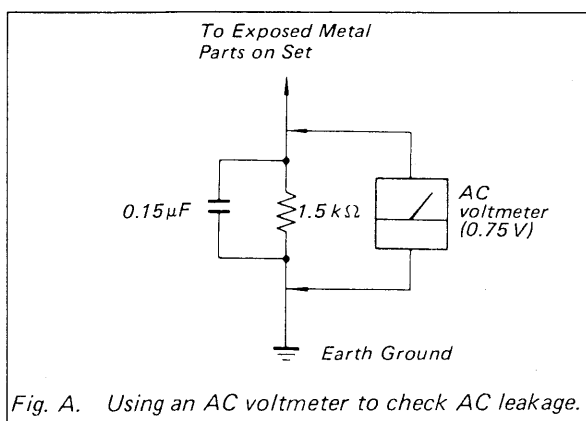
After correcting the original service problem, perform the following safety check before releasing the set to the customer:

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)

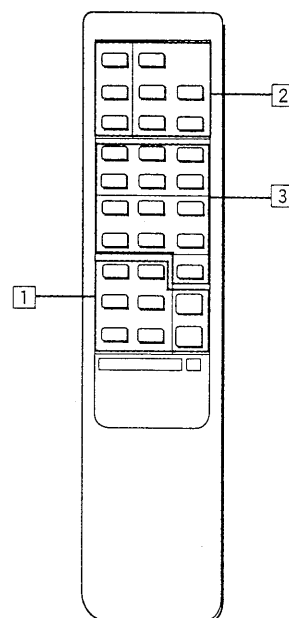


Identifying the Parts and Controls

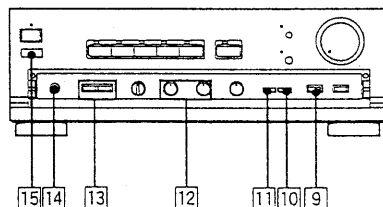
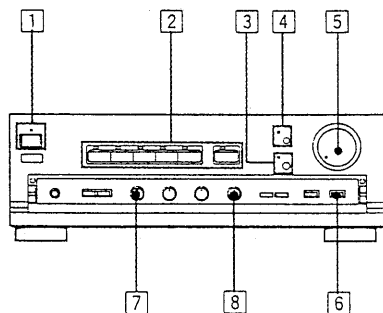
Remote Commander RM-S702

- 1 Amplifier control section
Input selectors: Select an input source of the amplifier.
ATT. +/- buttons: Control the volume of amplifier.
- 2 Tuner/CD player control section
◀◀/▶▶: Locates a desired section.
▶: Play
■: Stop
PRESET +/- buttons: Selects a preset channel of the tuner. (for the tuner only)
SHIFT: Select the preset memory page A, B or C, (for the tuner only)
D.SKIP: Move to the disc tray next to the current one. (for the CD player only)
- 3 Tape deck control section
DECK A/B
◀/▶: Play
◀◀/▶▶: Fast winding
■: Stop
●: Recording
DECK B only
||: Pause

RM-S702



Front Panel



1 POWER switch and indicator

After the power is turned on, the standby indicator lights in red as the built-in muting circuit activates. When the amplifier stays in a stable operating condition, the indicator lights in green. The indicator lights in red if the unit detects shorting of circuit of the speaker outputs or in case of short-circuit of the inputs of DC components. In such a case, disconnect the power source and check the connected components and speaker systems.

2 INPUT SELECTOR

Selects the desired program source for listening.

3 SOURCE DIRECT button and indicator

When the button is pressed, the indicator lights and the circuits of the TONE control, SUBSONIC filter button, BALANCE control and MODE selector are disengaged regardless of the setting of the switches.

4 MUTING button and indicator

Press the button to reduce the sound level by -20 dB. (Output voltage becomes 1/10.) for TA-F808ES/TA-F707ES. For TA-F606ES the sound level is reduced to ∞ dB by pressing the button. Generally, set the button to off.

5 ATTENUATOR control

Adjusts the sound level. To increase the sound level, turn the control clockwise. To decrease the level, turn the control counterclockwise.

Note

Turn down the sound level before switching on the unit. This prevents damage to speakers.

6 CARTRIDGE LOAD (TA-F808ES/TA-F707ES)/CARTRIDGE (TA-F606ES) selector

Set the selector according to your cartridge.
MM: For moving-magnet type cartridge.
MC: For moving-coil type cartridge.
40 Ω : For a cartridge with an impedance of 40 ohms or more. (TA-F808ES/TA-F707ES)
3 Ω : For a cartridge with an impedance of 3 ohms to 40 ohms. (TA-F808ES/TA-F707ES)

7 REC OUT SELECTOR

Selects the program source sent to the REC OUT jacks for recording.

8 BALANCE control

Adjust BALANCE to correct stereo imaging, when the speaker position is not symmetrical.

9 DIRECT INPUT selector

Set to SOURCE to select program source with the INPUT SELECTOR.
To listen to a program source processed through the equipment, such as graphic equalizer, connected to the ADAPTOR jacks, set it to ADAPTOR (TA-F808ES/TA-F707ES) or SOURCE (TA-F606ES).
To listen to a program source connected to DIRECT IN jacks, set it to DIRECT.

10 SUBSONIC filter button

If subsonic noise components created by warped records, etc. are present, the audible range frequencies may be modulated and cause irritating intermodulation distortion. In this case, press the button to reduce noise components of less than 15 Hz, which cause modulation noise.

11 MODE selector

STEREO: For listening to a stereo program.
MONO: For listening to a monaural program.

12 BASS and TREBLE TONE controls

Adjust the tone quality.
To increase bass or treble sound, turn the control clockwise. To decrease them, turn the control counterclockwise.

13 SPEAKERS selector

(TA-F808ES/TA-F707ES only)
Select speaker system A, B, or A and B.
To drive speaker system A: Set the selector to A.
To drive speaker system B: Set the selector to B.
To drive speaker system A and B: Set the selector to A + B.
For headphones listening only: Set the selector to OFF.
To use a power amplifier or active speaker system connected to the PRE OUT jacks, set the selector to B/PRE OUT.

SPEAKERS buttons (TA-F606ES only)
Select speaker system A, B, or A and B.
To drive speaker system A: Press A button.
To drive speaker system B: Press B button.
To drive speaker system A and B: Press both A and B.
For headphones listening only: Press both A and B to OFF (I).

14 HEADPHONES jack

Connect the stereo phone plug of headphones.

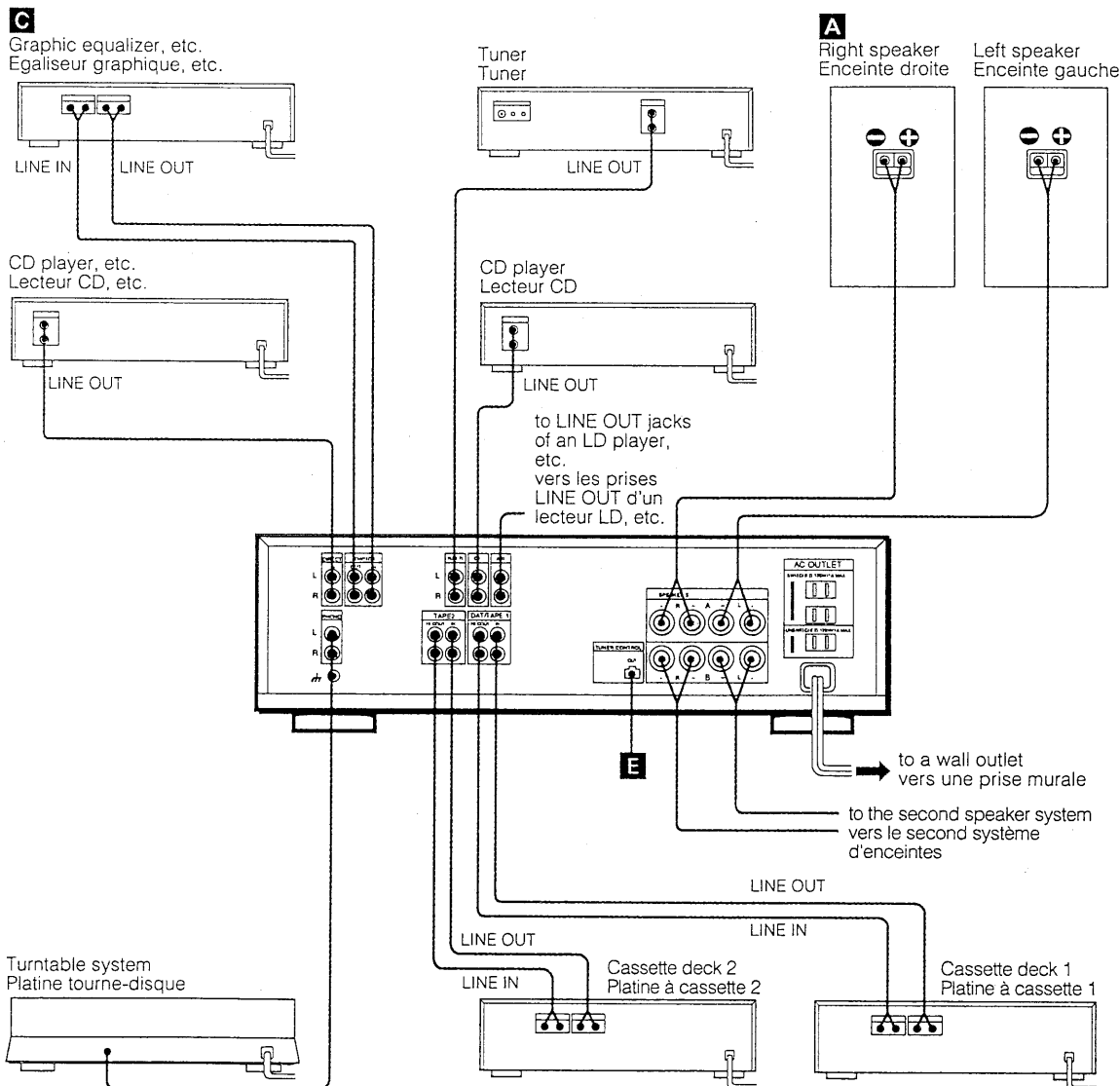
15 Remote sensor

Hooking Up the System

Notes

- Connect the AC power cord last. Make sure power is off.
- Be sure to connect the left (L) and right (R) channels consistently between equipments.
- Fully insert cable connectors into jacks. Loose connections may cause hum or noise.
- Connect the + and - cords of the speaker systems correctly to the + and - terminals of the amplifier respectively.

For the details on **A**, **C** and **E**, see pages 14 and 15.
Pour les détails au sujet de **A**, **C** et **E** voir pages 14 et 15.



SECTION 2

ELECTRICAL ADJUSTMENTS

Bias Adjustment

Note : Adjustment the idling after tuning the unit on for about 10 minutes, giving it time to warm up.

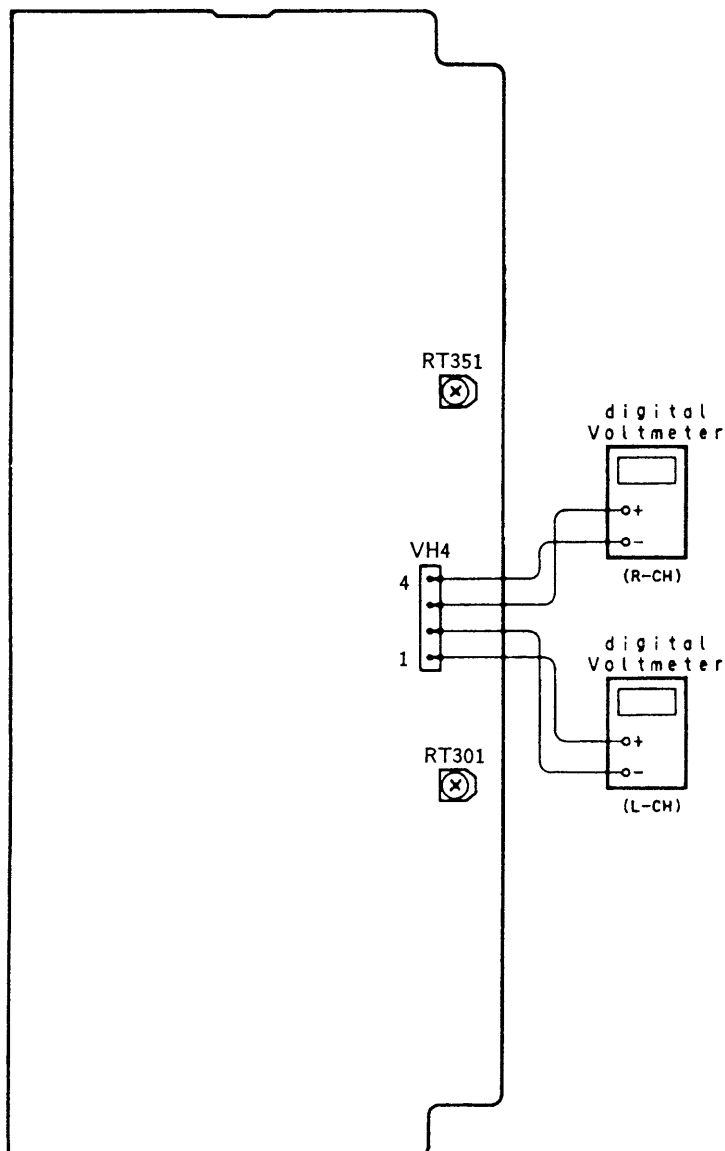
Procedure :

1. Connect the digital voltmeter to VH4 on main board as follows.
2. Adjust RT301(L-CH) and RT351(R-CH) so that the digital voltmeter on signal reads 24mV at VH4.

Adjustment Location :

【MAIN BOARD】

— COMPONENT SIDE —



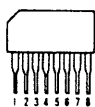
SECTION 3 DIAGRAMS

3-1. IC803 SYSTEM CONTROLLER (M 50720-358SP)

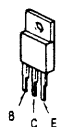
Pin No.	Pin Name	I / O	Description
1	5V CHECK	I	Power supply (+5V) check.
2	S/D ON/OFF	I	+5V power supply.
3	PROTECT	I	Ground.
4	X OUT	O	Connected oscillator circuit.
5	X IN	I	Connected oscillator circuit.
6	CE	I	Signal input for a return to normal position.
7	RESET	I	Reset signal input. ("L" : RESET)
8	VDD	I	+5 Volts power supply.
9	CNTR	I	Ground.
10	AC DET	I	Ground.
11	C	I	Connected 0.01 μ F capacitor.
12	VOL UP	O	Volume control (up) signal output.
13	VOL DOWN	O	Volume control (down) signal output.
14	MOTOR NORM	O	Motor (normal turn) signal output.
15	MOTOR RVS	O	Motor (reverse turn) signal output.
16	SIRCS IN	I	Serial data input (SIRCS).
17	S1	I	Function selector positioning detection input (PHONO).
18	S2	I	Function selector positioning detection input (TUNER).
19	S3	I	Function selector positioning detection input (CD).
20	CNVSS	—	Ground.
21	VSS	—	Ground.
22	S4	I	Function selector positioning detection input (AUX).
23	S5	I	Function selector positioning detection input (TAPE 1).
24	S6	I	Function selector positioning detection input (TAPE 2).
25	S7	I	Ground.
26	CLOCK	O	Shift register for LED (CLK).
27	DATA	O	Shift register for LED (DATA).
28	LINE MUTE	O	Line mute signal output.
29	BRAKE RELEASE	O	Not in used.
30	PHONO	I	Function control input for Phono mode.
31	TUNER	I	Function control input for Tuner mode.
32	CD	I	Function control input for CD mode.
33	AUX	I	Function control input for AUX mode.
34	TAPE1	I	Function control input for Tape 1 mode.
35	TAPE2	I	Function control input for Tape 2 mode.
36	—	—	+5V power supply.
37	POWER ON/OFF	I	+5V power supply.
38	K0	I	Ground.
39	K1	I	+5V power supply.
40	K2	I	Ground.
41	K3	I	Ground.
42	MUTE	I	+5V power supply.

3-2. SEMICONDUCTOR LEAD LAYOUTS

BA6208
μPC1237HA



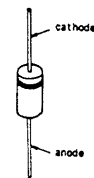
2SA985A-QP
2SC2275A-P



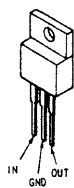
2SC3423-0



IN4148M



TA7805S



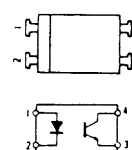
2SA988-PAFAEA
2SA1371-E
2SC2545-E



2SK246-GR2



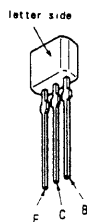
PC817



DTA114ES
DTC124ES
2SC2603-EF



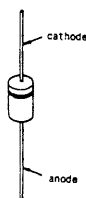
2SA1175-FEK



2SK1530-Y
2SJ201-Y



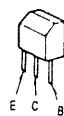
30DF2



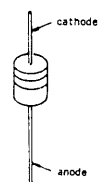
2SA733-QP
2SC945-P



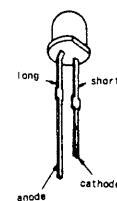
2SC1941-LK
2SD774-34



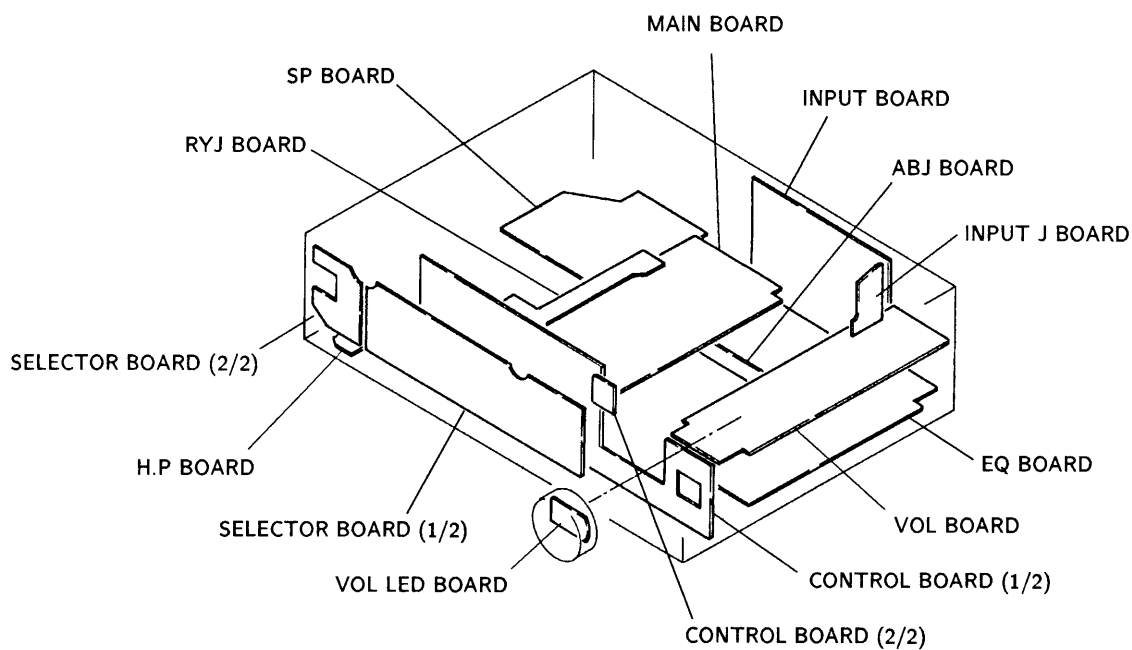
HZS6C3L
HZS16-2L
μZL-7M1
11ES2



SEL1516W
SEL2510C-D
SEL2810A

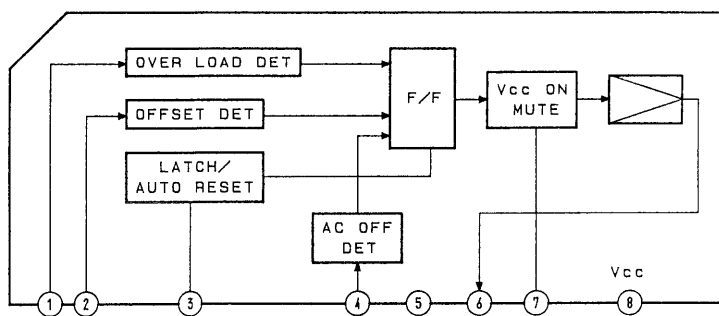


3-3. CIRCUIT BOARDS LOCATION

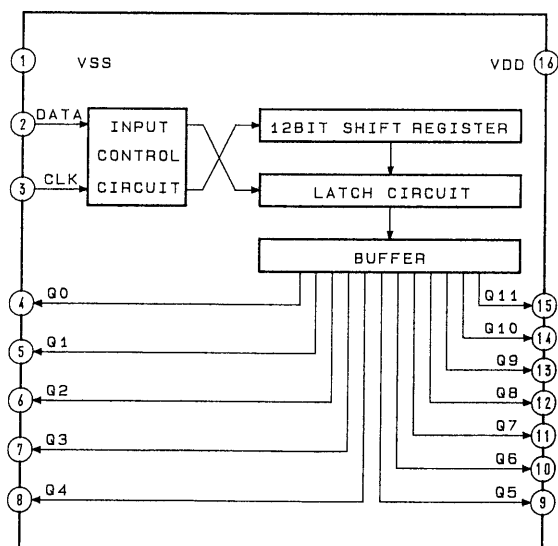


3-4. IC BLOCK DIAGRAMS

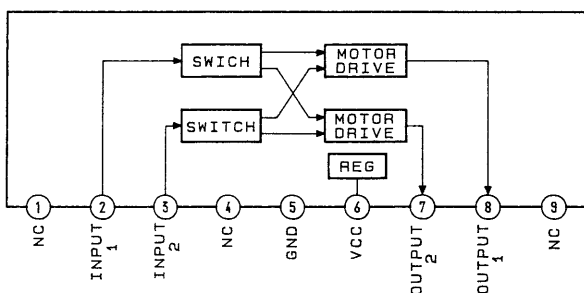
IC501 UPC1237HA



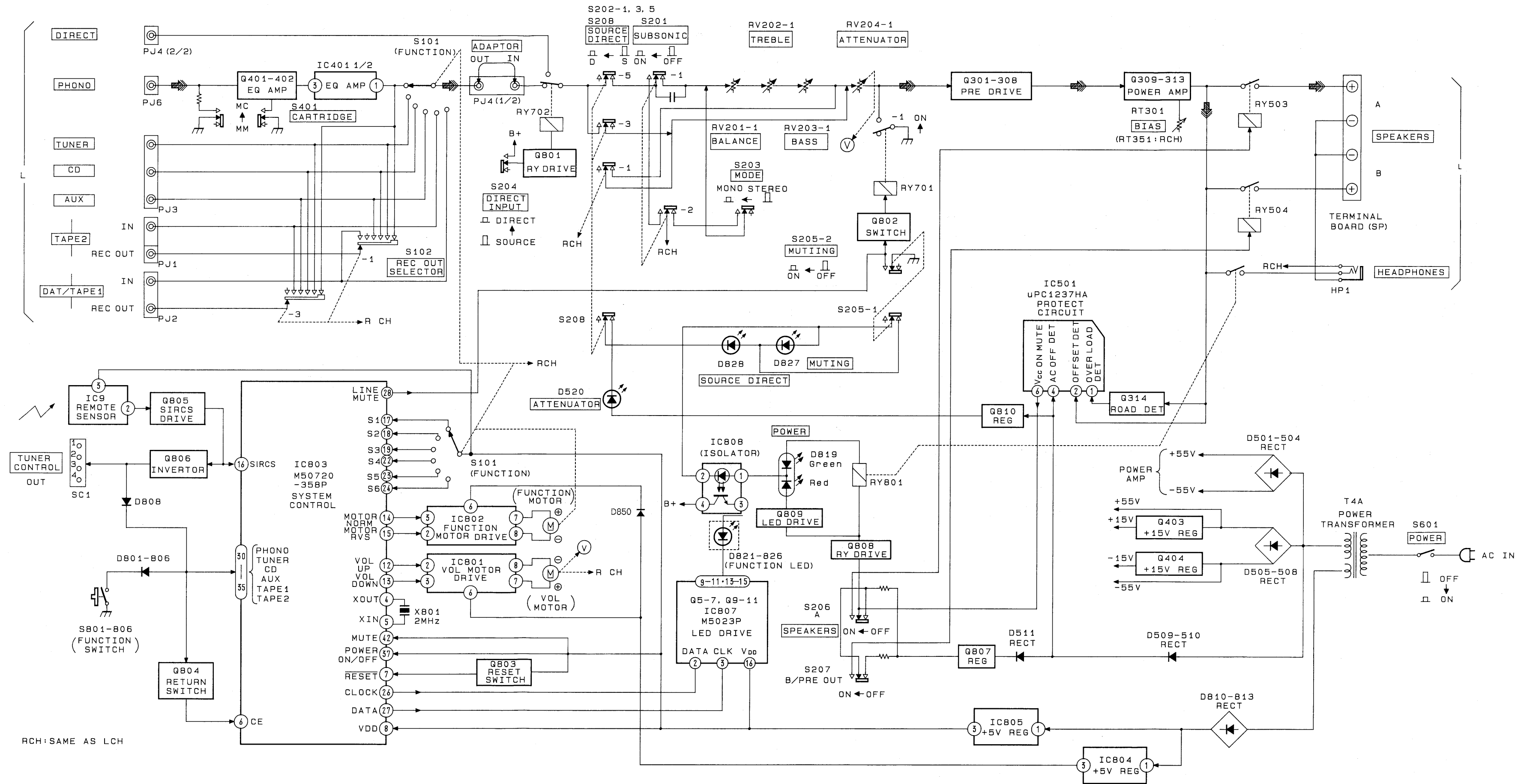
IC807 M50253P



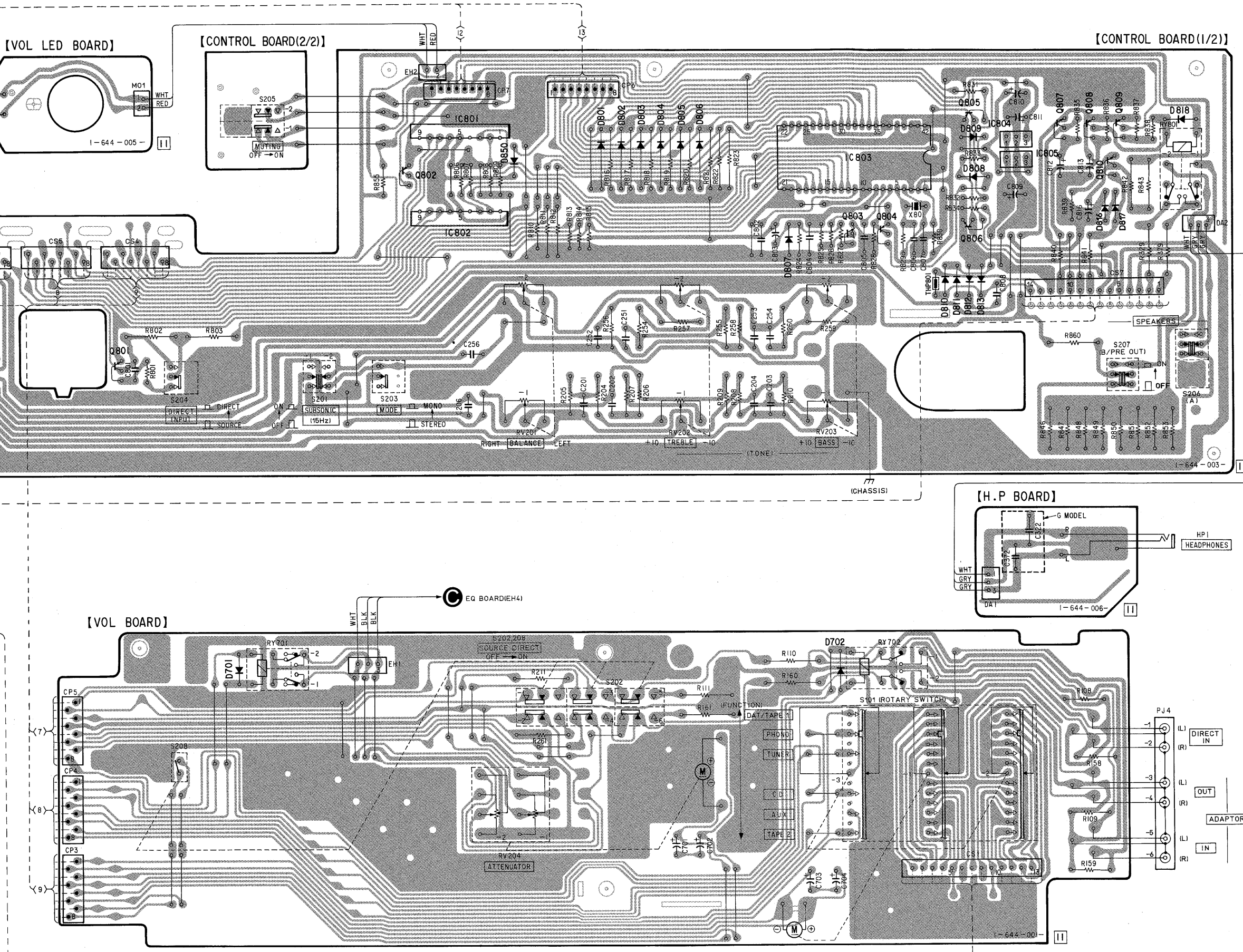
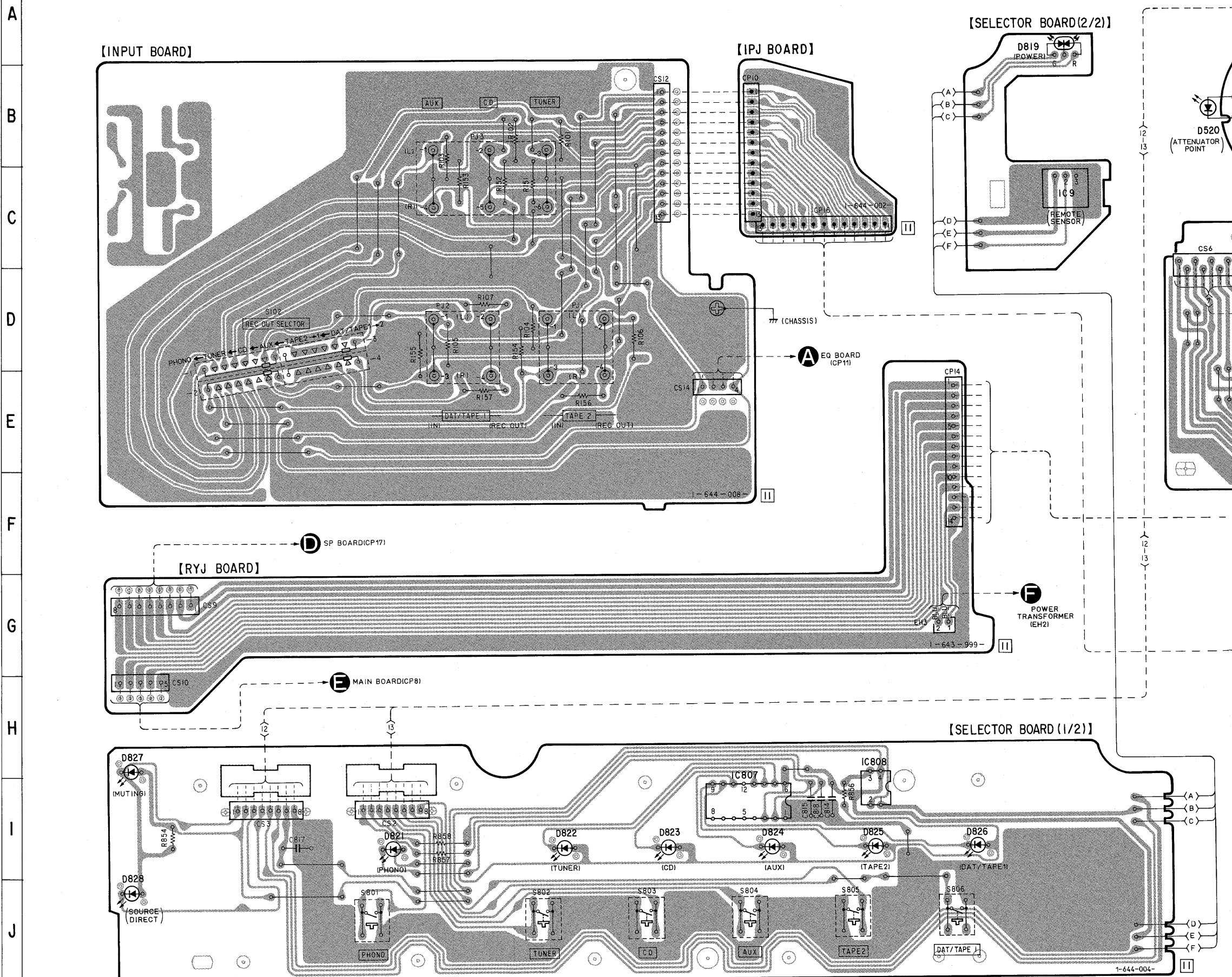
IC801, 802 BA6208



3-5. BLOCK DIAGRAM



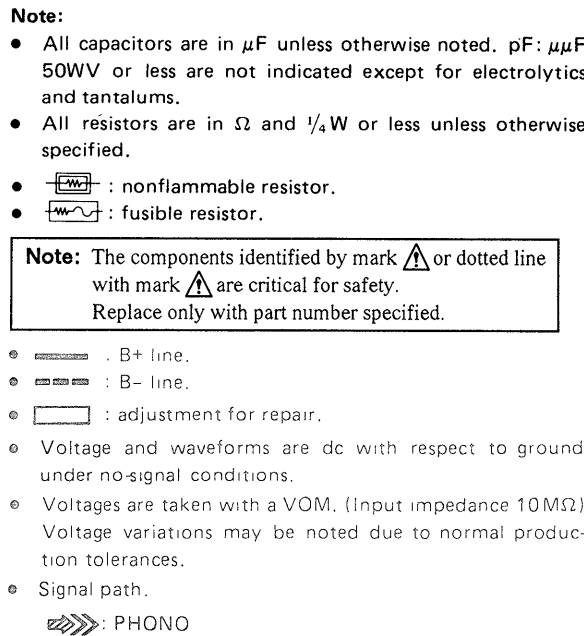
3-6. PRINTED WIRING BOARDS (CONTROL, INPUT, SELECTOR, VOL SECTION) • See page 8 for Semiconductor Lead Layouts.



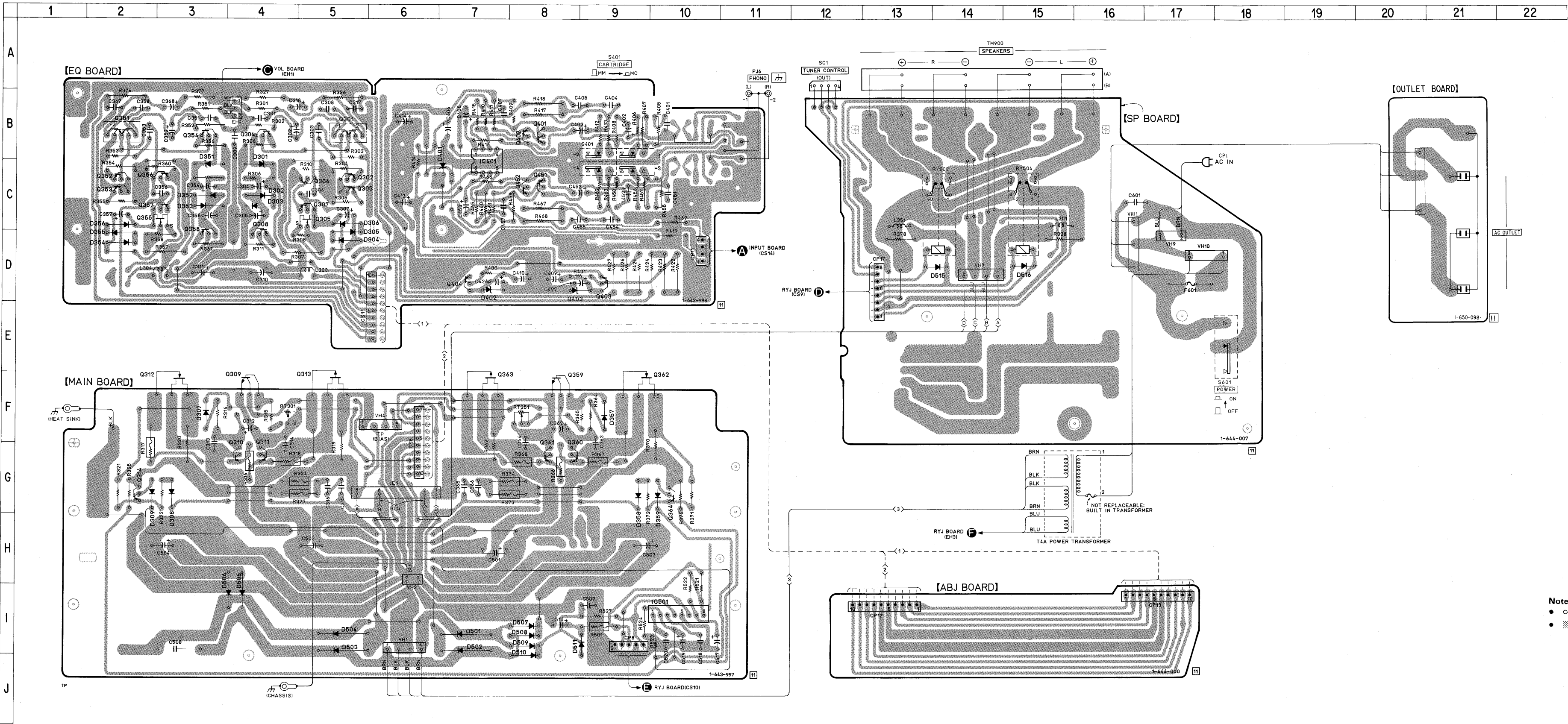
• Semiconductor Location

Ref. No.	Location
D520	B-12
D701	H-15
D702	H-21
D801	B-19
D802	B-19
D803	B-19
D804	B-19
D805	B-19
D806	B-19
D807	C-20
D808	C-22
D809	B-22
D810	D-22
D811	D-22
D812	D-22
D813	D-22
D816	C-24
D817	C-24
D818	B-24
D819	A-11
D821	I-4
D822	I-6
D823	I-7
D824	I-8
D825	I-9
D826	I-10
D827	H-2
D828	J-2
D850	C-18
IC9	C-11
IC801	B-17
IC802	C-17
IC803	B-21
IC804	B-23
IC805	B-23
IC807	I-8
IC808	I-9
Q801	E-14
Q802	C-17
Q803	C-21
Q804	C-21
Q805	B-22
Q806	C-22
Q807	B-23
Q808	B-23
Q809	B-24
Q810	C-24

Note:
• : parts extracted from the component side.
• : Pattern on the side which is seen.



3-9. PRINTED WIRING BOARDS (EQ, MAIN, SP SECTION) • See page 8 for Semiconductor Lead Layouts.



• Semiconductor Location

Ref. No.	Location	Ref. No.	Location
D301	C-4	IC501	I-10
D302	C-4		
D303	C-4	Q301	B-5
D304	D-5	Q302	C-5
D305	C-5	Q303	C-5
D306	C-5	Q304	B-4
D307	F-3	Q305	C-5
D308	G-3	Q306	C-5
D309	G-2	Q307	C-5
D351	C-3	Q308	D-4
D352	C-3	Q309	F-4
D353	C-3	Q310	G-4
D354	D-2	Q311	G-4
D355	D-2	Q312	F-3
D356	C-2	Q313	F-5
D357	F-9	Q314	G-2
D358	G-9	Q351	B-2
D359	G10	Q352	C-2
D401	C-7	Q353	C-2
D402	D-7	Q354	B-3
D403	D-8	Q355	C-3
D501	I-7	Q356	C-3
D502	I-7	Q357	C-3
D503	I-5	Q358	D-3
D504	I-5	Q359	F-8
D505	I-4	Q360	G-8
D506	I-4	Q361	G-8
D507	I-8	Q362	F-9
D508	I-8	Q363	F-7
D509	I-8	Q364	G-10
D510	I-8	Q401	B-8
D511	I-9	Q402	B-8
D515	D-14	Q403	D-9
D516	D-16	Q404	D-7
		Q451	C-8
IC401	B-7	Q452	C-8

Note:
• ○ — : parts extracted from the component side.
• ■ : Pattern on the side which is seen.

SECTION 4 EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference 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.

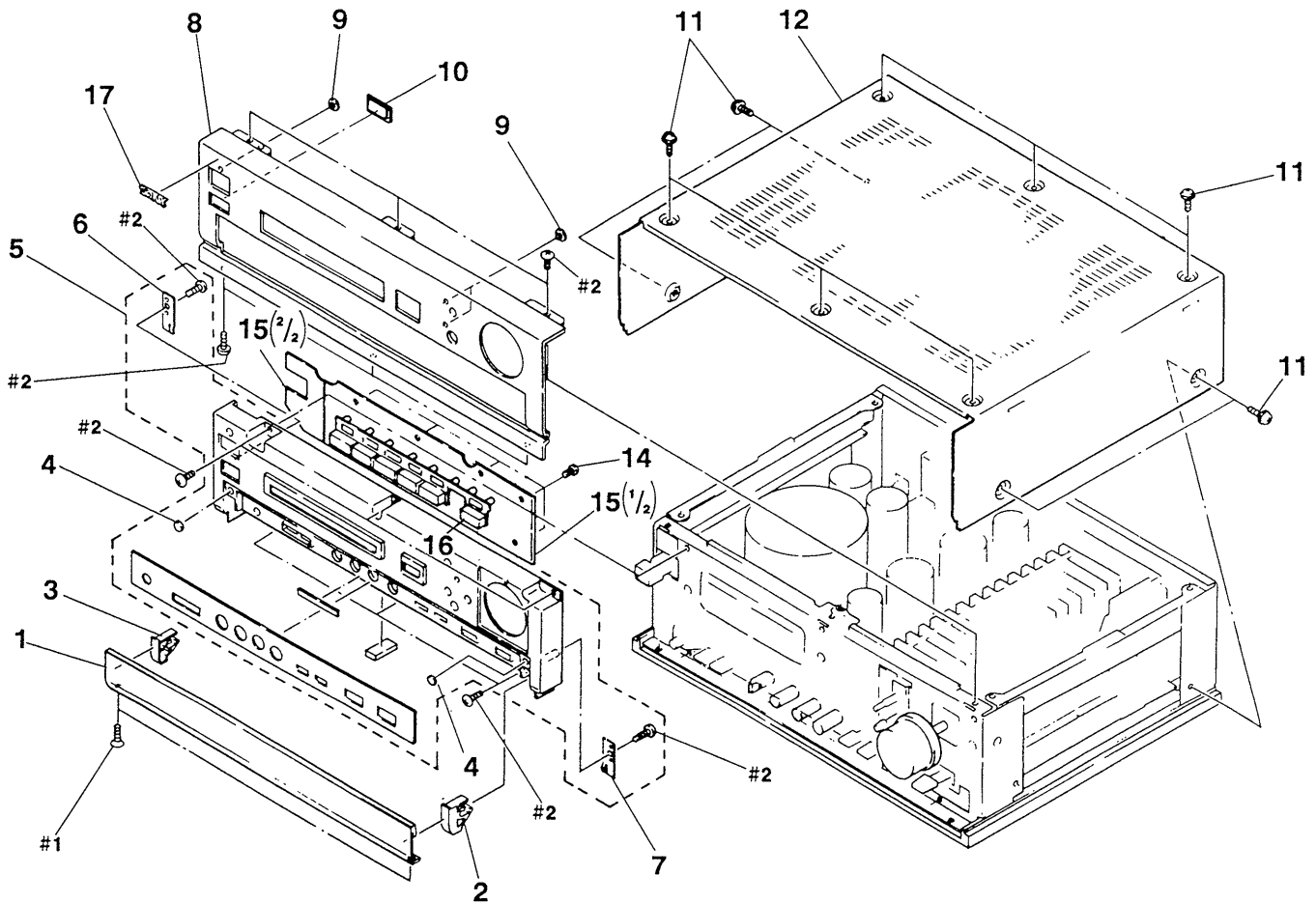
- The mechanical parts with no reference number in the exploded views are not supplied.

- Hardware (# mark) list is given in the last of this parts list.

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

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

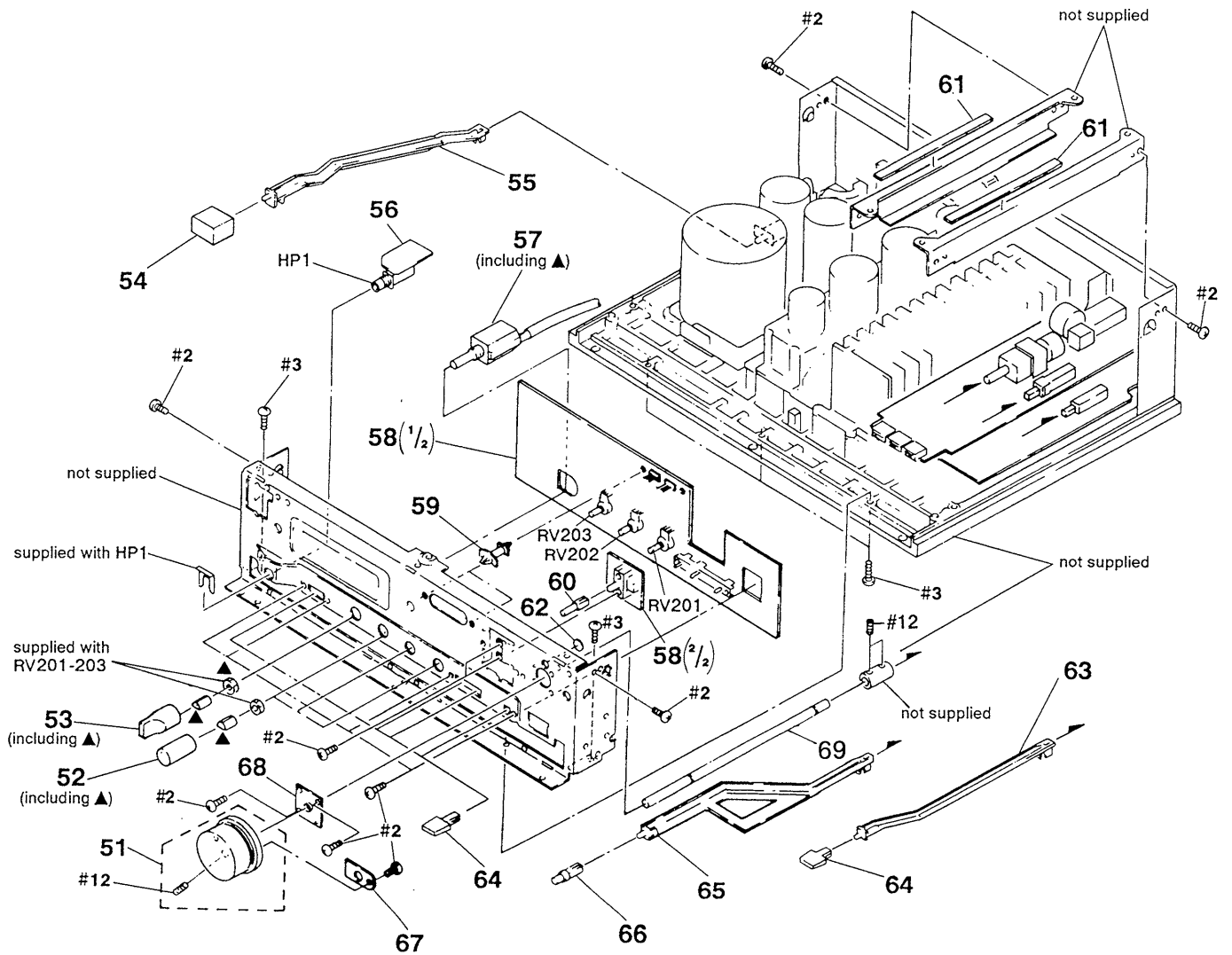
4-1. FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
1	4-955-303-21	LID	
2	4-942-226-01	ARM (R)	
3	4-942-225-01	ARM (L)	
4	4-879-274-01	SPACER	
5	X-4942-633-2	PANEL (BASE) ASSY	
* 6	4-942-233-01	SPRING (L), PLATE	
* 7	4-942-234-01	SPRING (R), PLATE	
8	4-962-278-01	PANEL, FRONT	

Ref. No.	Part No.	Description	Remark
9	4-931-646-01	LENS, LED	
10	4-952-206-01	WINDOW, REMOTE CONTROL	
11	3-704-366-01	SCREW (CASE) (M3X8)	
* 12	4-946-347-01	CASE	
14	4-951-620-01	SCREW (2. 6X8), +BVTP	
15	1-644-004-11	SELECTOR BOARD	
16	4-951-921-01	BUTTON (F)	
17	4-942-568-01	EMBLEM (NO. 5), SONY	

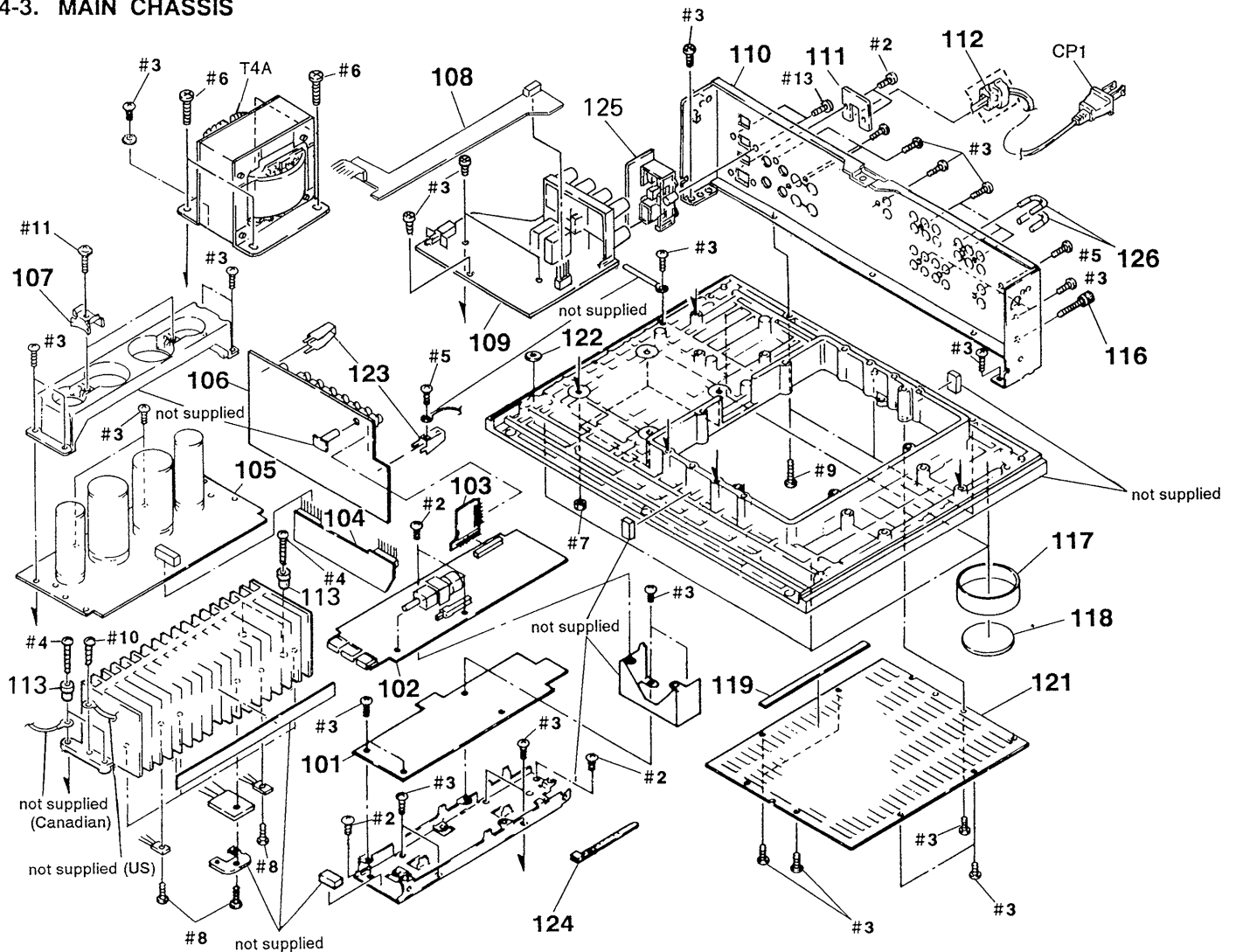
4-2. SUB CHASSIS



Ref. No.	Part No.	Description	Remark
51	X-4944-218-1	Knob (DIA. 52) ASSY	
52	4-952-955-01	Knob (DIA. 13)	
53	4-952-954-01	Knob (DIA. 13)	
54	4-942-032-01	Knob (POWER)	
55	4-946-340-01	Rod (P)	
56	1-644-006-11	HP BOARD	
57	1-692-138-11	SWITCH, ROTARY (REMOTE TYPE)	
* 58	A-4347-853-A	CONTROL BOARD, COMPLETE	
* 59	3-350-846-51	HOLDER, PCB	
60	4-931-641-01	Button (DIA. 4)	

Ref. No.	Part No.	Description	Remark
* 61	4-916-782-21	DAMPER	
* 62	4-908-892-01	SPACER	
63	4-946-338-01	ROD (C)	
64	4-942-228-01	Knob (3X13)	
65	4-951-922-01	JOINT (SD)	
66	4-931-926-01	Button (B)	
67	1-644-005-11	VOL LED BOARD	
68	4-946-335-01	BRACKET (BEARING)	
69	4-946-331-23	SHAFT (VOL)	
70	4-963-475-01	COLLAR	

4-3. MAIN CHASSIS



Ref. No.	Part No.	Description	Remark
* 101	A-4365-596-A	EQ BOARD, COMPLETE	
102	1-644-001-11	VOL BOARD	
103	1-644-002-11	INPUT J BOARD	
104	1-644-000-11	ABJ BOARD	
* 105	A-4365-595-A	MAIN BOARD, COMPLETE	
106	1-644-008-11	INPUT BOARD	
107	4-946-329-01	RETAINER, ELECT CAP	
108	1-643-999-11	RYJ BOARD	
109	1-644-007-11	SP BOARD	
* 110	4-951-917-41	PANEL, BACK	
* 111	4-923-873-01	BRACKET, CORD STOPPER	
* 112	3-703-244-00	BUSHING (2104), CORD	
113	4-963-475-01	COLLAR (US)	

Ref. No.	Part No.	Description	Remark
116	3-706-165-00	SCREW	
117	4-923-882-02	RING (LARGE-16), ORNAMENTAL, FOOT	
* 118	4-923-850-01	FOOT (DIA. 46)	
* 119	4-916-782-21	DAMPER	
* 121	4-916-732-01	BOARD, BOTTOM	
122	3-942-525-01	BLIND (1), KNOB	
123	4-946-336-01	BRACKET (GROUND)	
124	3-655-653-21	BAND (TAITON), BINDING	
* 125	1-650-098-11	OUTLET BOARD	
126	1-573-905-11	PLUG, JAMPER	
△CP1	1-575-975-11	CORD, POWER	
△T4A	1-423-873-11	TRANSFORMER, POWER	

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 5

ELECTRICAL PARTS LIST

ABJ

CONTROL

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.
- -XX and -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

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

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

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	1-644-000-11	ABJ BOARD *****		CS4	1-568-319-11	SOCKET, CONNECTOR 8P	
		< CONNECTOR >		CS5	1-568-319-11	SOCKET, CONNECTOR 8P	
* CP12	1-568-202-11	PIN, CONNECTOR (PC BOARD) 10P		CS6	1-568-319-11	SOCKET, CONNECTOR 8P	
* CP13	1-568-202-11	PIN, CONNECTOR (PC BOARD) 10P					
*****				CS7	1-568-117-11	SOCKET, CONNECTOR 14P	
		< CAPACITOR >		EH2	1-564-517-11	PLUG, CONNECTOR 2P	
*	A-4347-853-A	CONTROL BOARD *****				< DIODE >	
				D801	8-719-987-63	DIODE 1N4148M	
				D802	8-719-987-63	DIODE 1N4148M	
				D803	8-719-987-63	DIODE 1N4148M	
				D804	8-719-987-63	DIODE 1N4148M	
				D805	8-719-987-63	DIODE 1N4148M	
C201	1-130-472-00	MYLAR 0.0012uF 5% 50V		D806	8-719-987-63	DIODE 1N4148M	
C202	1-130-480-00	MYLAR 0.0056uF 5% 50V		D807	8-719-987-63	DIODE 1N4148M	
C203	1-130-479-00	MYLAR 0.0047uF 5% 50V		D808	8-719-987-63	DIODE 1N4148M	
C204	1-136-159-00	FILM 0.033uF 5% 50V		D809	8-719-987-63	DIODE 1N4148M	
C206	1-136-169-00	FILM 0.22uF 5% 50V		D810	8-719-200-82	DIODE 11ES2	
C251	1-130-472-00	MYLAR 0.0012uF 5% 50V		D811	8-719-200-82	DIODE 11ES2	
C252	1-130-480-00	MYLAR 0.0056uF 5% 50V		D812	8-719-200-82	DIODE 11ES2	
C253	1-130-479-00	MYLAR 0.0047uF 5% 50V		D813	8-719-200-82	DIODE 11ES2	
C254	1-136-159-00	FILM 0.033uF 5% 50V		D816	8-719-987-63	DIODE 1N4148M	
C256	1-136-169-00	FILM 0.22uF 5% 50V		D817	8-719-987-63	DIODE 1N4148M	
C801	1-130-483-00	MYLAR 0.01uF 5% 50V				< IC >	
C802	1-161-379-00	CERAMIC 0.01uF 20% 25V		IC801	8-759-962-08	IC BA6208	
C803	1-126-059-11	ELECT 10uF 20% 25V		IC802	8-759-962-08	IC BA6208	
C804	1-161-379-00	CERAMIC 0.01uF 20% 25V		IC803	8-759-082-11	IC M50720-358SP (SYSTEM CONTROLLER)	
C805	1-161-379-00	CERAMIC 0.01uF 20% 25V		IC804	8-759-171-05	IC TA7805S	
				IC805	8-759-171-05	IC TA7805S	
C806	1-162-282-31	CERAMIC 100PF 10% 50V				< TRANSISTOR >	
C807	1-162-282-31	CERAMIC 100PF 10% 50V		Q801	8-729-620-05	TRANSISTOR 2SC2603-EF	
C808	1-136-165-00	FILM 0.1uF 5% 50V		Q802	8-729-900-61	TRANSISTOR DTA114ES	
C809	1-124-999-11	ELECT 2200uF 20% 10V		Q803	8-729-620-05	TRANSISTOR 2SC2603-EF	
C810	1-126-059-11	ELECT 10uF 20% 25V		Q804	8-729-900-61	TRANSISTOR DTA114ES	
				Q805	8-729-119-77	TRANSISTOR 2SA1175-FEK	
		< CONNECTOR >					
CP6	1-695-015-11	PIN, CONNECTOR (PC BOARD) 8P		Q806	8-729-900-36	TRANSISTOR DTC124ES	
CP7	1-695-015-11	PIN, CONNECTOR (PC BOARD) 8P		Q807	8-729-194-57	TRANSISTOR 2SC945-P	

CONTROL

Ref. No.	Part No.	Description	Remark
Q808	8-729-141-03	TRANSISTOR 2SA733-QP	
Q809	8-729-141-03	TRANSISTOR 2SA733-QP	
Q810	8-729-140-96	TRANSISTOR 2SD774-34	
< RESISTOR >			
R204	1-247-722-11	CARBON 5.6K 5% 1/4W	
R205	1-259-502-11	CARBON 4.7M 5% 1/4W	
R206	1-259-502-11	CARBON 4.7M 5% 1/4W	
R207	1-247-717-11	CARBON 2.2K 5% 1/4W F	
R208	1-259-467-11	CARBON 43K 5% 1/4W	
R209	1-247-152-00	CARBON 7.5K 5% 1/4W	
R210	1-249-590-11	CARBON 39K 5% 1/4W	
R254	1-247-722-11	CARBON 5.6K 5% 1/4W	
R255	1-259-502-11	CARBON 4.7M 5% 1/4W	
R256	1-259-502-11	CARBON 4.7M 5% 1/4W	
R257	1-247-717-11	CARBON 2.2K 5% 1/4W F	
R258	1-259-467-11	CARBON 43K 5% 1/4W	
R259	1-247-152-00	CARBON 7.5K 5% 1/4W	
R260	1-249-590-11	CARBON 39K 5% 1/4W	
R329	1-247-747-11	CARBON 470 5% 1/2W	
R379	1-247-747-11	CARBON 470 5% 1/2W	
R801	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R802	1-247-757-11	CARBON 2.7K 5% 1/2W	
R803	1-247-251-00	CARBON 3K 5% 1/2W	
R806	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R807	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R808	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R809	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R810	1-249-429-11	CARBON 10K 5% 1/4W	
R811	1-249-429-11	CARBON 10K 5% 1/4W	
R812	1-249-429-11	CARBON 10K 5% 1/4W	
R813	1-249-429-11	CARBON 10K 5% 1/4W	
R814	1-249-429-11	CARBON 10K 5% 1/4W	
R815	1-249-429-11	CARBON 10K 5% 1/4W	
R816	1-249-429-11	CARBON 10K 5% 1/4W	
R817	1-249-429-11	CARBON 10K 5% 1/4W	
R818	1-249-429-11	CARBON 10K 5% 1/4W	
R819	1-249-429-11	CARBON 10K 5% 1/4W	
R820	1-249-429-11	CARBON 10K 5% 1/4W	
R821	1-249-429-11	CARBON 10K 5% 1/4W	
R822	1-249-429-11	CARBON 10K 5% 1/4W	
R823	1-249-429-11	CARBON 10K 5% 1/4W	
R824	1-249-430-11	CARBON 12K 5% 1/4W	
R825	1-247-895-00	CARBON 470K 5% 1/4W	
R826	1-247-807-31	CARBON 100 5% 1/4W	
R827	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R828	1-249-429-11	CARBON 10K 5% 1/4W	
R829	1-247-903-00	CARBON 1M 5% 1/4W	
R830	1-249-429-11	CARBON 10K 5% 1/4W	

Ref. No.	Part No.	Description	Remark
R831	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R832	1-249-429-11	CARBON 10K 5% 1/4W	
R833	1-249-429-11	CARBON 10K 5% 1/4W	
R834	1-249-393-11	CARBON 10 5% 1/4W F	
R835	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R836	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R837	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R838	1-249-437-11	CARBON 47K 5% 1/4W	
R839	1-249-399-11	CARBON 33 5% 1/4W F	
R840	1-249-429-11	CARBON 10K 5% 1/4W	
R841	1-249-425-11	CARBON 4.7K 5% 1/4W F	
R842	1-247-249-00	CARBON 2.4K 5% 1/2W	
R843	1-247-249-00	CARBON 2.4K 5% 1/2W	
R846	1-247-759-11	CARBON 3.9K 5% 1/2W	
R847	1-247-759-11	CARBON 3.9K 5% 1/2W	
R848	1-247-759-11	CARBON 3.9K 5% 1/2W	
R849	1-247-759-11	CARBON 3.9K 5% 1/2W	
R850	1-247-759-11	CARBON 3.9K 5% 1/2W	
R851	1-247-759-11	CARBON 3.9K 5% 1/2W	
R852	1-247-759-11	CARBON 3.9K 5% 1/2W	
R853	1-247-759-11	CARBON 3.9K 5% 1/2W	
R855	1-249-409-11	CARBON 220 5% 1/4W F	
R860	1-247-738-11	CARBON 82 5% 1/2W	
< VARIABLE RESISTOR >			
RV201	1-238-448-31	RES. VAR. CARBON 150K/150K (BALANCE)	
RV202	1-238-446-31	RES. VAR. CARBON 250K/250K (TREBLE)	
RV203	1-238-447-31	RES. VAR. CARBON 25K/500K (BASS)	
< RELAY >			
RY801	1-515-787-11	RELAY (HP)	
< SWITCH >			
S201	1-692-141-11	SWITCH, PUSH (3 KEY) (SUBSONIC (15Hz))	
S203	1-692-141-11	SWITCH, PUSH (3 KEY) (MODE)	
S204	1-692-141-11	SWITCH, PUSH (3 KEY) (DIRECT INPUT)	
S205	1-572-740-11	SWITCH, PUSH (1 KEY) (MUTING)	
S206	1-572-739-11	SWITCH, PUSH (2 KEY) (SPEAKERS, A)	
S207	1-572-739-11	SWITCH, PUSH (2 KEY) (SPEAKERS, B/PRE OUT)	
< THERMISTOR (POSITIVE) >			
THP801	1-806-882-11	THERMISTOR, POSITIVE 2.2	
< VIBRATOR >			
X801	1-567-254-11	OSCILLATOR, CERAMIC (2MHz)	

Ref. No.	Part No.	Description	Remark
*	A-4365-596-A	EQ BOARD, COMPLETE *****	
		< CAPACITOR >	
C301	1-110-335-11	MYLAR 100PF	5% 50V
C302	1-123-369-00	ELECT 4.7uF	20% 50V
C303	1-110-339-11	MYLAR 220PF	5% 50V
C304	1-124-122-11	ELECT 100uF	20% 50V
C305	1-124-122-11	ELECT 100uF	20% 50V
C306	1-102-959-00	CERAMIC 22PF	5% 50V
C307	1-124-910-11	ELECT 47uF	20% 50V
C308	1-101-880-00	CERAMIC 47PF	5% 50V
C309	1-130-483-00	MYLAR 0.01uF	5% 50V
C310	1-126-066-11	ELECT 470uF	20% 63V
C311	1-126-066-11	ELECT 470uF	20% 63V
C317	1-102-942-00	CERAMIC 5.0PF	+0.5PF 50V
C318	1-126-052-11	ELECT 100uF	20% 50V
C351	1-110-335-11	MYLAR 100PF	5% 50V
C352	1-123-369-00	ELECT 4.7uF	20% 50V
C353	1-110-339-11	MYLAR 220PF	5% 50V
C354	1-124-122-11	ELECT 100uF	20% 50V
C355	1-124-122-11	ELECT 100uF	20% 50V
C356	1-102-959-00	CERAMIC 22PF	5% 50V
C357	1-124-910-11	ELECT 47uF	20% 50V
C358	1-101-880-00	CERAMIC 47PF	5% 50V
C367	1-102-942-00	CERAMIC 5.0PF	+0.5PF 50V
C368	1-126-052-11	ELECT 100uF	20% 50V
C401	1-110-339-11	MYLAR 220PF	5% 50V
C402	1-123-369-00	ELECT 4.7uF	20% 50V
C403	1-126-103-11	ELECT 470uF	20% 16V
C404	1-136-162-00	FILM 0.056uF	5% 50V
C405	1-137-471-11	FILM 0.016uF	5% 50V
C406	1-124-122-11	ELECT 100uF	20% 50V
C407	1-130-470-00	MYLAR 820PF	5% 50V
C408	1-126-059-11	ELECT 10uF	20% 50V
C409	1-124-122-11	ELECT 100uF	20% 50V
C410	1-124-122-11	ELECT 100uF	20% 50V
C413	1-124-913-11	ELECT 470uF	20% 50V
C414	1-124-913-11	ELECT 470uF	20% 50V
C426	1-123-369-00	ELECT 4.7uF	20% 50V
C427	1-123-369-00	ELECT 4.7uF	20% 50V
C451	1-110-339-11	MYLAR 220PF	5% 50V
C452	1-123-369-00	ELECT 4.7uF	20% 50V
C453	1-126-103-11	ELECT 470uF	20% 16V
C454	1-136-162-00	FILM 0.056uF	5% 50V
C455	1-137-471-11	FILM 0.016uF	5% 50V
C457	1-130-470-00	MYLAR 820PF	5% 50V
C458	1-126-059-11	ELECT 10uF	20% 50V

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
CP11	1-560-941-00	PIN, CONNECTOR 4P	
* CS11	1-562-334-00	SOCKET, CONNECTOR 10P	
		< DIODE >	
D301	8-719-933-41	DIODE HZS6C3L	
D302	8-719-987-63	DIODE 1N4148M	
D303	8-719-987-63	DIODE 1N4148M	
D304	8-719-987-63	DIODE 1N4148M	
D305	8-719-987-63	DIODE 1N4148M	
D306	8-719-987-63	DIODE 1N4148M	
D351	8-719-933-41	DIODE HZS6C3L	
D352	8-719-987-63	DIODE 1N4148M	
D353	8-719-987-63	DIODE 1N4148M	
D354	8-719-987-63	DIODE 1N4148M	
D355	8-719-987-63	DIODE 1N4148M	
D356	8-719-987-63	DIODE 1N4148M	
D401	8-719-000-84	DIODE UZL-7M1	
D402	8-719-933-88	DIODE HZS16-2L	
D403	8-719-933-88	DIODE HZS16-2L	
		< CONNECTOR >	
* EH4	1-564-506-11	PLUG, CONNECTOR 3P	
		< IC >	
IC401	8-759-745-61	IC NJM4560D-D	
		< JACK >	
PJ6	1-580-054-11	JACK, PIN 2P (PHONO)	
		< TRANSISTOR >	
Q301	8-729-620-17	TRANSISTOR 2SC2259-FG	
Q302	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q303	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q304	8-729-142-01	TRANSISTOR 2SC1941-LK	
Q305	8-729-201-56	TRANSISTOR 2SK246-GR2	
Q306	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q307	8-729-803-76	TRANSISTOR 2SA1371	
Q308	8-729-142-01	TRANSISTOR 2SC1941-LK	
Q351	8-729-620-17	TRANSISTOR 2SC2259-FG	
Q352	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q353	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q354	8-729-142-01	TRANSISTOR 2SC1941-LK	
Q355	8-729-201-56	TRANSISTOR 2SK246-GR2	
Q356	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
Q357	8-729-803-76	TRANSISTOR 2SA1371	
Q358	8-729-142-01	TRANSISTOR 2SC1941-LK	

EQ HP INPUT

Ref. No.	Part No.	Description	Remark
Q401	8-729-354-52	TRANSISTOR 2SC2545	
Q402	8-729-354-52	TRANSISTOR 2SC2545	
Q403	8-729-194-57	TRANSISTOR 2SC945-P	
Q404	8-729-141-03	TRANSISTOR 2SA733-QP	
Q451	8-729-354-52	TRANSISTOR 2SC2545	
Q452	8-729-354-52	TRANSISTOR 2SC2545	
< RESISTOR >			
R301	1-247-713-11	CARBON 1K 5% 1/4W F	
R302	1-249-469-11	CARBON 100K 5% 1/4W	
R303	1-247-704-11	CARBON 220 5% 1/4W	
R304	1-212-889-00	FUSIBLE 220 5% 1/4W F	
R305	1-212-889-00	FUSIBLE 220 5% 1/4W F	
R306	1-247-717-11	CARBON 2.2K 5% 1/4W F	
R307	1-249-490-11	CARBON 27K 5% 1/2W	
R308	1-247-704-11	CARBON 220 5% 1/4W	
R309	1-247-721-11	CARBON 4.7K 5% 1/4W	
R310	1-212-881-11	FUSIBLE 100 5% 1/4W F	
R311	1-212-881-11	FUSIBLE 100 5% 1/4W F	
R326	1-249-721-11	CARBON 100K 5% 1/2W	
R327	1-249-668-11	CARBON 620 5% 1/2W	
R351	1-247-713-11	CARBON 1K 5% 1/4W F	
R352	1-249-469-11	CARBON 100K 5% 1/4W	
R353	1-247-704-11	CARBON 220 5% 1/4W	
R354	1-212-889-00	FUSIBLE 220 5% 1/4W F	
R355	1-212-889-00	FUSIBLE 220 5% 1/4W F	
R356	1-247-717-11	CARBON 2.2K 5% 1/4W F	
R357	1-249-490-11	CARBON 27K 5% 1/2W	
R358	1-247-704-11	CARBON 220 5% 1/4W	
R359	1-247-721-11	CARBON 4.7K 5% 1/4W	
R360	1-212-881-11	FUSIBLE 100 5% 1/4W F	
R361	1-212-881-11	FUSIBLE 100 5% 1/4W F	
R376	1-249-721-11	CARBON 100K 5% 1/2W	
R377	1-249-668-11	CARBON 620 5% 1/2W	
R405	1-247-706-11	CARBON 330 5% 1/4W F	
R406	1-247-700-11	CARBON 100 5% 1/4W	
R407	1-249-469-11	CARBON 100K 5% 1/4W	
R408	1-249-469-11	CARBON 100K 5% 1/4W	
R409	1-247-710-11	CARBON 560 5% 1/4W	
R410	1-247-710-11	CARBON 560 5% 1/4W	
R411	1-247-725-11	CARBON 10K 5% 1/4W	
R412	1-247-700-11	CARBON 100 5% 1/4W	
R413	1-260-661-11	CARBON 6.8 5% 1/4W	
R414	1-247-138-00	CARBON 2K 5% 1/4W	
R415	1-247-700-11	CARBON 100 5% 1/4W	
R416	1-246-545-00	CARBON 1.0M 5% 1/4W	
R417	1-249-844-11	CARBON 56K 1% 1/2W	
R418	1-249-818-11	CARBON 4.7K 1% 1/2W	

Ref. No.	Part No.	Description	Remark
R419	1-247-713-11	CARBON 1K 5% 1/4W F	
R422	1-247-750-11	CARBON 680 5% 1/2W	
R423	1-247-750-11	CARBON 680 5% 1/2W	
R424	1-247-750-11	CARBON 680 5% 1/2W	
R425	1-247-751-11	CARBON 820 5% 1/2W	
R426	1-247-751-11	CARBON 820 5% 1/2W	
R427	1-247-751-11	CARBON 820 5% 1/2W	
R430	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R431	1-249-421-11	CARBON 2.2K 5% 1/4W F	
R455	1-247-706-11	CARBON 330 5% 1/4W F	
R456	1-247-700-11	CARBON 100 5% 1/4W	
R457	1-249-469-11	CARBON 100K 5% 1/4W	
R458	1-249-469-11	CARBON 100K 5% 1/4W	
R459	1-247-710-11	CARBON 560 5% 1/4W	
R460	1-247-710-11	CARBON 560 5% 1/4W	
R461	1-247-725-11	CARBON 10K 5% 1/4W	
R462	1-247-700-11	CARBON 100 5% 1/4W	
R463	1-260-661-11	CARBON 6.8 5% 1/4W	
R465	1-247-700-11	CARBON 100 5% 1/4W	
R466	1-246-545-00	CARBON 1.0M 5% 1/4W	
R467	1-249-844-11	CARBON 56K 1% 1/2W	
R468	1-249-818-11	CARBON 4.7K 1% 1/2W	
R469	1-247-713-11	CARBON 1K 5% 1/4W F	
< SWITCH >			
S401	1-571-111-11	SWITCH, PUSH (1 KEY) (CARTRIDGE)	
< THERMISTOR(POSITIVE) >			
THP301	1-806-882-11	THERMISTOR, POSITIVE 2.2	
THP302	1-806-882-11	THERMISTOR, POSITIVE 2.2	

*	1-644-006-11	HP BOARD	

< JACK >			
HP1	1-507-796-71	JACK (HEADPHONES)	

*	1-644-008-11	INPUT BOARD	

< CONNECTOR >			
CS12	1-509-931-11	SOCKET, CONNECTOR	
CS14	1-562-087-00	SOCKET, CONNECTOR 4P	

Ref. No.	Part No.	Description	Remark		
< JACK >					
* PJ1	1-573-142-21	JACK, PIN 4P (TAPE 2)			
* PJ2	1-573-142-21	JACK, PIN 4P (DAT/TAPE 1)			
PJ3	1-568-978-21	JACK 6P (TUNER/CD/AUX)			
< RESISTOR >					
R101	1-246-545-00	CARBON	1.0M	5%	1/4W
R102	1-246-545-00	CARBON	1.0M	5%	1/4W
R103	1-246-545-00	CARBON	1.0M	5%	1/4W
R104	1-246-545-00	CARBON	1.0M	5%	1/4W
R105	1-246-545-00	CARBON	1.0M	5%	1/4W
R106	1-247-713-11	CARBON	1K	5%	1/4W F
R107	1-247-713-11	CARBON	1K	5%	1/4W F
R151	1-246-545-00	CARBON	1.0M	5%	1/4W
R152	1-246-545-00	CARBON	1.0M	5%	1/4W
R153	1-246-545-00	CARBON	1.0M	5%	1/4W
R154	1-246-545-00	CARBON	1.0M	5%	1/4W
R155	1-246-545-00	CARBON	1.0M	5%	1/4W
R156	1-247-713-11	CARBON	1K	5%	1/4W F
R157	1-247-713-11	CARBON	1K	5%	1/4W F
< SWITCH >					
S102	1-571-115-11	SWITCH, SLIDE (REC OUT SELECTOR)			

*	1-644-002-11	IPJ BOARD			

< CONNECTOR >					
* CP10	1-569-418-11	PIN, CONNECTOR 13P			
* CP16	1-508-745-00	CONNECTOR PIN			

*	A-4365-595-A	MAIN BOARD, COMPLETE			

< CAPACITOR >					
C312	1-126-051-11	ELECT	47uF	20%	50V
C313	1-102-233-00	CERAMIC	33PF	10%	500V
C314	1-102-233-00	CERAMIC	33PF	10%	500V
C315	1-136-161-00	FILM	0.047uF	5%	50V
C316	1-136-161-00	FILM	0.047uF	5%	50V
C362	1-126-051-11	ELECT	47uF	20%	50V
C363	1-102-233-00	CERAMIC	33PF	10%	500V
C364	1-102-233-00	CERAMIC	33PF	10%	500V
C365	1-136-161-00	FILM	0.047uF	5%	50V
C366	1-136-161-00	FILM	0.047uF	5%	50V
C501	1-125-695-11	ELECT	12000uF	20%	63V
C502	1-125-695-11	ELECT	12000uF	20%	63V

Ref. No.	Part No.	Description	Remark		
C503	1-125-694-11	ELECT	5600uF	20%	63V
C504	1-125-694-11	ELECT	5600uF	20%	63V
C508	1-136-962-11	FILM	0.47uF	10%	160V
C509	1-126-069-11	ELECT	1uF	20%	100V
C510	1-126-064-11	ELECT	220uF	20%	63V
C517	1-126-023-11	ELECT	100uF	20%	25V
C518	1-130-487-00	MYLAR	0.022uF	5%	50V
C519	1-126-023-11	ELECT	100uF	20%	25V
C520	1-130-471-00	MYLAR	0.001uF	5%	50V
< CONNECTOR >					
* CP8	1-560-531-00	PIN, CONNECTOR 5P			
* CS8	1-562-334-00	SOCKET, CONNECTOR 10P			
< DIODE >					
D307	8-719-987-63	DIODE	1N4148M		
D308	8-719-987-63	DIODE	1N4148M		
D309	8-719-987-63	DIODE	1N4148M		
D357	8-719-987-63	DIODE	1N4148M		
D358	8-719-987-63	DIODE	1N4148M		
D359	8-719-987-63	DIODE	1N4148M		
D501	8-719-230-02	DIODE	30DF2		
D502	8-719-230-02	DIODE	30DF2		
D503	8-719-230-02	DIODE	30DF2		
D504	8-719-230-02	DIODE	30DF2		
D505	8-719-200-82	DIODE	11ES2		
D506	8-719-200-82	DIODE	11ES2		
D507	8-719-200-82	DIODE	11ES2		
D508	8-719-200-82	DIODE	11ES2		
D509	8-719-200-82	DIODE	11ES2		
D510	8-719-200-82	DIODE	11ES2		
D511	8-719-200-82	DIODE	11ES2		
< IC >					
IC501	8-759-111-68	IC	UPC1237HA		
< TRANSISTOR >					
Q309	8-729-203-45	TRANSISTOR	2SC3423-0		
Q310	8-729-107-53	TRANSISTOR	2SC2275A		
Q311	8-729-141-10	TRANSISTOR	2SA985A-QP		
Q312	8-729-015-30	TRANSISTOR	2SK1530-Y		
Q313	8-729-015-31	TRANSISTOR	2SJ201-Y		
Q314	8-729-140-82	TRANSISTOR	2SA988-PAFAEA		
Q359	8-729-203-45	TRANSISTOR	2SC3423-0		
Q360	8-729-107-53	TRANSISTOR	2SC2275A		
Q361	8-729-141-10	TRANSISTOR	2SA985A-QP		
Q362	8-729-015-30	TRANSISTOR	2SK1530-Y		

MEIN	OUTLET	RYJ	SELECTOR
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Ref. No.	Part No.	Description	Remark
Q363	8-729-015-31	TRANSISTOR 2SJ201-Y	
Q364	8-729-140-82	TRANSISTOR 2SA988-PAFAEA	
< RESISTOR >			
R314	1-247-713-11	CARBON 1K 5% 1/4W F	
R315	1-247-696-11	CARBON 47 5% 1/4W	
R316	1-212-990-00	FUSIBLE 220 5% 1/2W F	
R317	1-212-974-00	FUSIBLE 47 5% 1/2W F	
R318	1-212-974-00	FUSIBLE 47 5% 1/2W F	
R319	1-217-151-00	RES, METAL PLATE 0.22	
R320	1-217-151-00	RES, METAL PLATE 0.22	
R321	1-247-721-11	CARBON 4.7K 5% 1/4W	
R322	1-249-460-11	CARBON 15K 5% 1/4W	
R323	1-212-962-00	FUSIBLE 15 5% 1/2W F	
R324	1-212-962-00	FUSIBLE 15 5% 1/2W F	
R325	1-247-891-00	CARBON 330K 5% 1/4W	
R364	1-247-713-11	CARBON 1K 5% 1/4W F	
R365	1-247-696-11	CARBON 47 5% 1/4W	
R366	1-212-990-00	FUSIBLE 220 5% 1/2W F	
R367	1-212-974-00	FUSIBLE 47 5% 1/2W F	
R368	1-212-974-00	FUSIBLE 47 5% 1/2W F	
R369	1-217-151-00	RES, METAL PLATE 0.22	
R370	1-217-151-00	RES, METAL PLATE 0.22	
R371	1-247-721-11	CARBON 4.7K 5% 1/4W	
R372	1-249-460-11	CARBON 15K 5% 1/4W	
R373	1-212-962-00	FUSIBLE 15 5% 1/2W F	
R374	1-212-962-00	FUSIBLE 15 5% 1/2W F	
R375	1-247-891-00	CARBON 330K 5% 1/4W	
R501	1-212-849-00	FUSIBLE 4.7 5% 1/4W F	
R521	1-249-461-11	CARBON 18K 5% 1/4W	
R522	1-247-881-00	CARBON 120K 5% 1/4W	
R523	1-247-725-11	CARBON 10K 5% 1/4W	
R524	1-247-887-00	CARBON 220K 5% 1/4W	
R527	1-249-462-11	CARBON 22K 5% 1/4W	
< VARIABLE RESISTOR >			
RT301	1-237-455-11	RES, ADJ, CARBON 500	
RT351	1-237-455-11	RES, ADJ, CARBON 500	
< CONNECTOR >			
* VH1	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P	
VH2	1-564-320-00	PIN, CONNECTOR (B2P-VH) 2P	
* VH4	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P	

Ref. No.	Part No.	Description	Remark
*	1-650-098-11	OUTLET BOARD *****	
△	1-540-062-31	OUTLET, AC (POLAR)	
	1-751-672-11	CORD (WITH CONNECTOR)	
*	4-942-408-01	SPACER (DIA. 30)	

*	1-643-999-11	RYJ BOARD *****	
< CONNECTOR >			
* CP14	1-565-647-11	PIN, CONNECTOR 14P	
* CS9	1-562-573-11	SOCKET, CONNECTOR 8P	
* CS10	1-561-650-00	SOCKET, CONNECTOR 5P	
EH3	1-564-505-11	PLUG, CONNECTOR 2P	

*	1-644-004-11	SELECTOR BOARD *****	
< CAPACITOR >			
C814	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C815	1-162-294-31	CERAMIC 0.001uF 10% 50V	
C817	1-161-379-00	CERAMIC 0.01uF 20% 25V	
C818	1-162-290-31	CERAMIC 470PF 10% 50V	
< CONNECTOR >			
CS2	1-695-014-11	SOCKET, CONNECTOR 8P	
CS3	1-695-014-11	SOCKET, CONNECTOR 8P	
< DIODE >			
D819	8-719-313-40	SEL1516W	
D821	8-719-303-02	DIODE SEL2510C-D	
D822	8-719-303-02	DIODE SEL2510C-D	
D823	8-719-303-02	DIODE SEL2510C-D	
D824	8-719-303-02	DIODE SEL2510C-D	
D825	8-719-303-02	DIODE SEL2510C-D	
D826	8-719-303-02	DIODE SEL2510C-D	
D827	8-719-301-49	SEL2810A	
D828	8-719-301-49	SEL2810A	
D850	8-719-200-82	DIODE 11ES2	
< IC >			
IC9	8-749-923-43	IC GPIU57XB	
IC807	8-759-635-31	IC M50253P	
IC808	8-719-902-56	DI ODE PC817	
< RESISTOR >			
R854	1-249-409-11	CARBON 220 5% 1/4W F	
R856	1-249-404-00	CARBON 82 5% 1/4W	

The components identified by mark △ or dotted line with mark △ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque △ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.
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Ref. No.	Part No.	Description	Remark		
R857	1-247-807-31	CARBON	100	5%	1/4W
R858	1-247-807-31	CARBON	100	5%	1/4W
< SWITCH >					
S801	1-554-303-21	SWITCH, TACTILE (PHONO)			
S802	1-554-303-21	SWITCH, TACTILE (TUNER)			
S803	1-554-303-21	SWITCH, TACTILE (CD)			
S804	1-554-303-21	SWITCH, TACTILE (AUX)			
S805	1-554-303-21	SWITCH, TACTILE (TAPE 2)			
S806	1-554-303-21	SWITCH, TACTILE (DAT/TAPE 1)			

*	1-644-007-11	SP BOARD			

	1-533-183-11	HOLDER, FUSE			
*	4-946-336-01	BRACKET (GROUND)			
< CAPACITOR >					
C601	1-161-741-00	CERAMIC	0.001uF	10%	400V
< CONNECTOR >					
* CP17	1-566-878-11	PIN, CONNECTOR (PC BOARD) 8P			
SC1	1-566-213-11	PIN, CONNECTOR 4P			
* VH7	1-564-241-00	PIN, CONNECTOR (B4P-VH) 4P			
* VH9	1-564-321-00	PIN, CONNECTOR 2P			
* VH10	1-565-792-11	PIN, CONNECTOR 2P			
* VH11	1-564-687-11	PIN, CONNECTOR 3P			
< DIODE >					
D515	8-719-987-63	DIODE 1N4148M			
D516	8-719-987-63	DIODE 1N4148M			
< FUSE >					
△F601	1-532-748-11	FUSE, GLASS TUBE 6.3A 125V			
< COIL >					
* L301	1-422-009-13	COIL, AIR-CORE			
* L351	1-422-009-13	COIL, AIR-CORE			
< RESISTOR >					
R328	1-247-727-11	CARBON	10	5%	1/2W
R378	1-247-727-11	CARBON	10	5%	1/2W
< RELAY >					
RY503	1-515-676-11	RELAY			
RY504	1-515-676-11	RELAY			

Ref. No.	Part No.	Description	Remark		
< SWITCH >					
△S601	1-554-920-11	SWITCH, PUSH (1 KEY) (AC POWER)			
< TERMINAL >					
TM900	1-537-235-11	TERMINAL BOARD (SP)			

*	1-644-001-11	VOL BOARD			

< CAPACITOR >					
C701	1-126-163-11	ELECT	4.7uF	20%	50V
C702	1-126-163-11	ELECT	4.7uF	20%	50V
C703	1-126-163-11	ELECT	4.7uF	20%	50V
C704	1-126-163-11	ELECT	4.7uF	20%	50V
< CONNECTOR >					
* CP3	1-568-320-11	PLUG, CONNECTOR 8P			
* CP4	1-568-320-11	PLUG, CONNECTOR 8P			
* CP5	1-568-320-11	PLUG, CONNECTOR 8P			
* CS1	1-565-489-11	CONNECTOR, BOARD TO BOARD 13P			
* EH1	1-564-506-11	PLUG, CONNECTOR 3P			
< DIODE >					
D701	8-719-987-63	DIODE 1N4148M			
D702	8-719-987-63	DIODE 1N4148M			
< JACK >					
* PJ4	1-566-883-51	JACK, PIN 6P (DIRECT/ADAPTOR)			
< RESISTOR >					
R108	1-246-545-00	CARBON	1.0M	5%	1/4W
R109	1-246-545-00	CARBON	1.0M	5%	1/4W
R110	1-249-778-91	CARBON	100	1%	1/2W
R111	1-249-842-11	CARBON	47K	1%	1/2W
R158	1-246-545-00	CARBON	1.0M	5%	1/4W
R159	1-246-545-00	CARBON	1.0M	5%	1/4W
R160	1-249-778-91	CARBON	100	1%	1/2W
R161	1-249-842-11	CARBON	47K	1%	1/2W
R211	1-249-842-11	CARBON	47K	1%	1/2W
R261	1-249-842-11	CARBON	47K	1%	1/2W
< VARIABLE RESISTOR >					
RV204	1-241-908-11	RES, VAR, CARBON 120K/120K			
	1-241-908-12	(WITH MOTOR) (ATTENUATOR)			

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VOL	VOL LED
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Ref. No.	Part No.	Description	Remark
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< RELAY >

RY701	1-515-622-11	RELAY (MUTING)	
RY702	1-515-804-11	RELAY (DIRECT/ADAPTOR)	

< SWITCH >

S101	1-692-142-11	SWITCH, ROTARY (WITH MOTOR) (FUNCTION)	
S202	1-692-140-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)	
S208	1-572-126-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)	

*	1-644-005-11	VOL LED BOARD	
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< DIODE >

D520	8-719-303-02	DIODE SEL2510C-D (ATTENUATOR)	
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MISCELLANEOUS

57	1-692-138-11	SWITCH, ROTARY (REMOTE TYPE)	
126	1-573-905-11	PLUG, JAMPER	
△CP1	1-575-975-11	CORD, POWER	
△T4A	1-423-873-11	TRANSFORMER, POWER	

ACCESSORIES & PACKING MATERIALS

1-693-108-11	REMOTE COMMANDER (RM-S702)	
2-181-754-21	COVER, BATTERY	
3-755-923-21	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	
4-933-001-01	CUSHION	
*	4-962-451-01	INDIVIDUAL CARTON

HARDWARE LIST

#1	7-685-234-19	SCREW +KTP 2. 6X8 TYPE2NON-SLIT
#2	7-682-547-09	SCREW +BVTT 3X6 (S)
#3	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S
#4	7-685-152-19	SCREW +P 3X25 TYPE-2 SLIT (US)
#4	7-685-650-79	SCREW +BVTP 3X16 TYPE-2 IT-3 (Canadian)
#5	7-682-548-09	SCREW (3X8)
#6	7-682-565-09	SCREW +B 4X16
#7	7-684-024-04	N 4, TYPE 2
#8	7-685-649-79	SCREW +BVTP 3X14 TYPE2 IT-3
#9	7-685-876-09	SCREW +BVTT 3X16 (S)
#10	7-685-645-79	SCREW +BVTP 3X6 TYPE-2 IT-3 (US)

Ref. No.	Part No.	Description	Remark
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#11	7-685-648-79	SCREW +BVTP 3X12 TYPE2 N-S	
#12	7-683-255-58	SET SCREW 5X6 HEXAGON SOCKET	
#13	7-685-546-19	SCREW +BTP TYPE-2 N-S	

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