

TA-FA777ES

SERVICE MANUAL

AEP Model



SPECIFICATIONS

System

Power Amplifier:	Pure-complementary SEPP MOS FET power amplifier with all stages directly coupled
Preamplifier:	Low-noise, high-gain equalizer amplifier
Power section:	Large-capacity power supply advanced STD
Rated output	4 ohms, 150 W + 150 W (DIN 0.7%) 8 ohms, 100 W + 100 W (DIN 0.7%)
Speakers impedance	4 to 16 ohms
Output bandwidth (8 ohms)	10 Hz to 100 kHz (at 40 W output, and high-frequency distortion rate of 0.08%)
Dynamic headroom	at 4 ohms: 2 dB at 8 ohms: 1.2 dB
Total harmonic distortion	0.005% (at 8 ohms, 10 W output)
Damping factor	100 (8 ohms, 1 kHz)
Intermodulation (IM) distortion (60 Hz:7 kHz=4:1)	0.005% (8 ohms)
Throughrate	125 V/ μ sec, 250 V/ μ sec (Inside)
Residual noise	Less than 115 μ V (network A)
Equalizer deviation	PHONO MM: 20 Hz to 20 kHz, ± 0.2 dB
Frequency response	TUNER, SACD/CD, AUX, TAPE 1, 2, 3: 2 Hz to 100 kHz ± 3 dB PHONO MC: 78dB (A Fil, 0.5 mV) MM: 87 dB (A Fil, 5 mV) TUNER, SACD/CD, AUX, TAPE1, 2, 3: 105 dB
S/N	

Inputs

Input sensitivity and impedance

PHONO MC:	0.25 mV, 100 ohms
MM:	2.5 mV, 50 kilohms
TUNER, SACD/CD, AUX, TAPE 1, 3:	150 mV, 30 kilohms

Maximum input capability (1 kHz)

PHONO MC:	9 mV
MM:	150 mV

Outputs

Output level / impedance	REC OUT 1, 2, 3: 150 mV, 1 kilohms PHONES: 10 mW (at 8 ohms)
Tone controls	BASS (100Hz): ± 7 dB TREBLE (10kHz): ± 6 dB

General

Power requirements	230 V AC, 50/60 Hz
Power consumption	330 W
Dimensions (approx.) (w/h/d)	430 \times 175 \times 455 mm (17 \times 7 \times 17 $\frac{15}{16}$ inches) incl. projecting parts and controls
Mass (approx.)	23 kg (50 lb 12 oz)
Supplied accessories	Mains cable (1)

Design and specifications are subject to change without notice.

INTEGRATED STEREO AMPLIFIER



SONY®



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SAFETY-RELATED COMPONENT WARNING!!

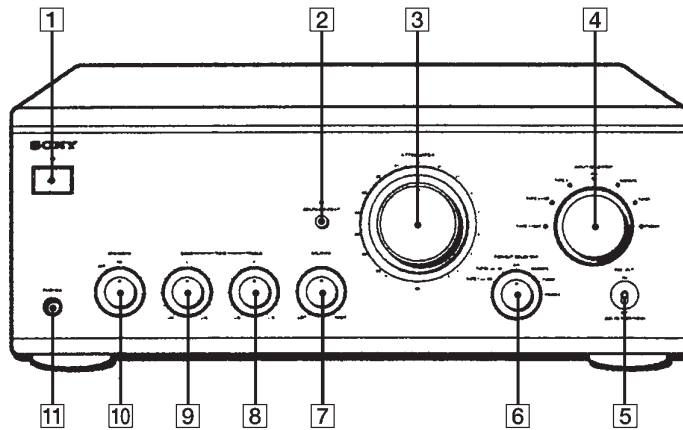
COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 GENERAL

This section is extracted from instruction manual.

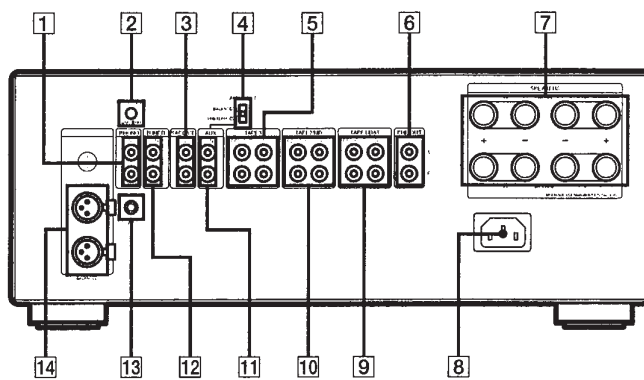
LOCATION OF CONTROLS

Front Panel Descriptions



- 1 ① (Power) switch
- 2 SOURCE DIRECT switch
- 3 ATTENUATOR control
- 4 INPUT SELECTOR switch
- 5 REC OUT switch
- 6 REC OUT SELECTOR switch
- 7 BALANCE control
- 8 TREBLE control
- 9 BASS control
- 10 SPEAKERS switch
- 11 PHONES jack

Rear Panel Descriptions

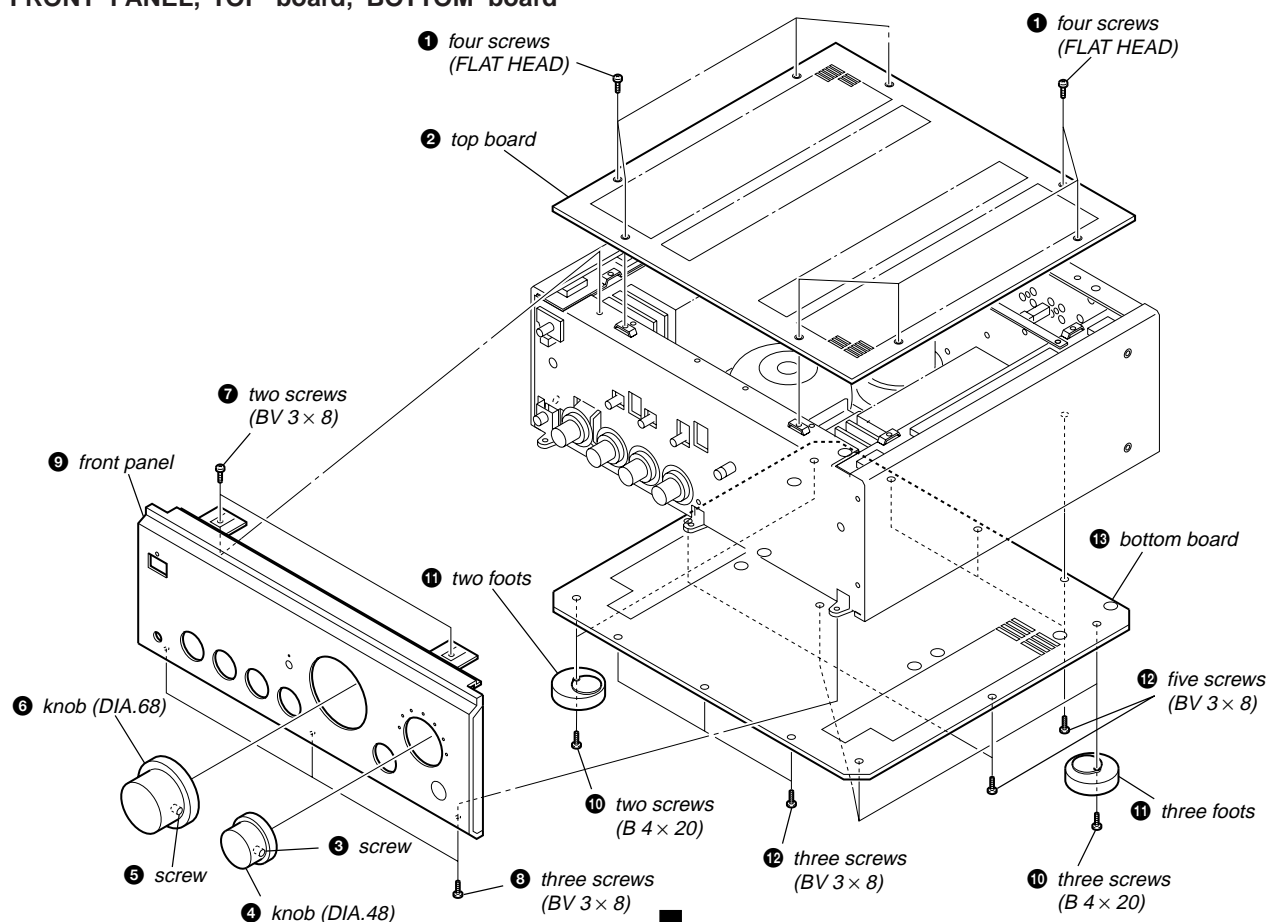


- 1 PHONO
- 2 CARTRIDGE MC/MM
- 3 SACD/CD
- 4 AUX INPUT
- 5 TAPE3
- 6 PRE OUT
- 7 SPEAKERS MAIN/BI-WIRE
- 8 AC IN terminal
- 9 TAPE1/DAT
- 10 TAPE2/MD
- 11 AUX(UNBALANCED)
- 12 TUNER
- 13 h (SIGNAL GND)
- 14 AUX(BALANCED)

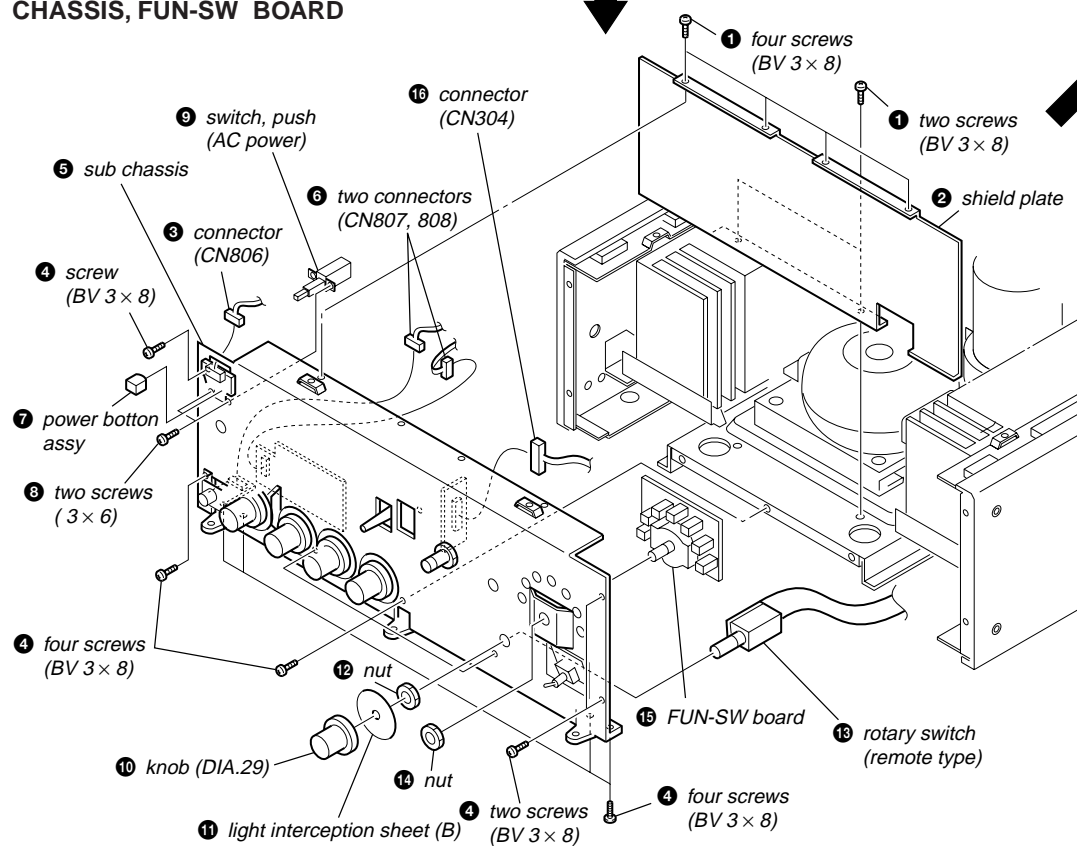
SECTION 2 DISASSEMBLY

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

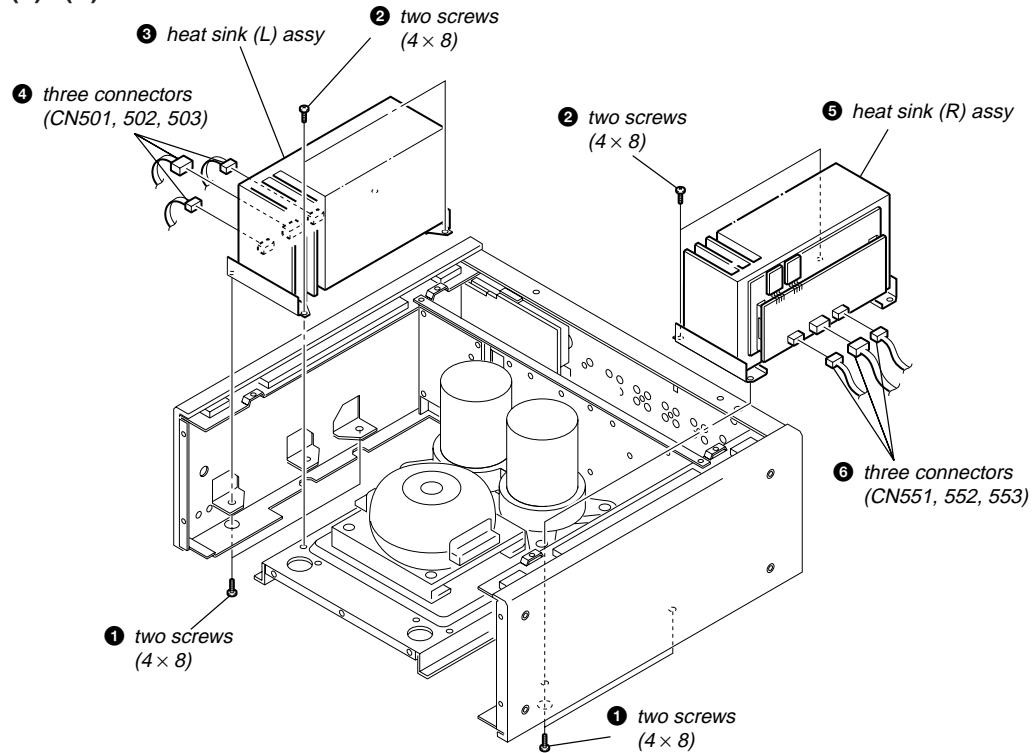
FRONT PANEL, TOP board, BOTTOM board



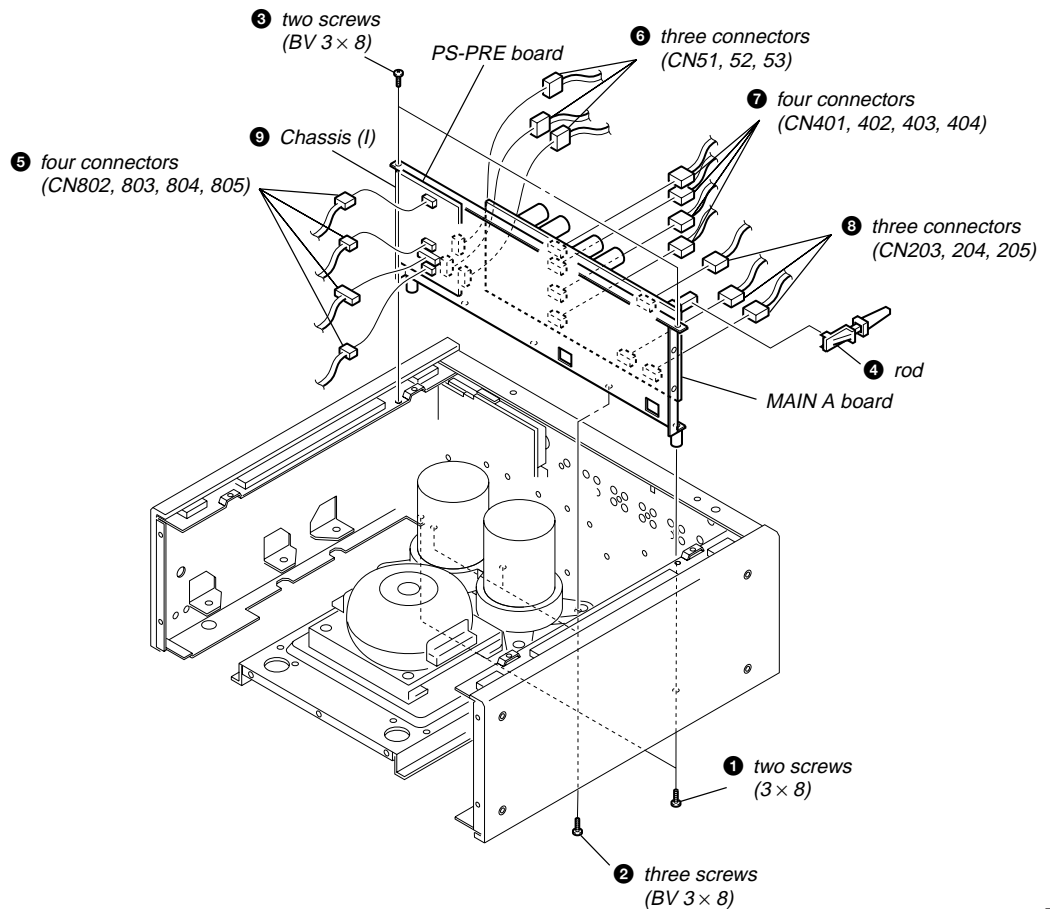
SUB CHASSIS, FUN-SW BOARD



HEAT SINK (L) / (R) ASSY



MAIN A board, PS-PRE board



SECTION 3 ELECTRICAL ADJUSTMENT

Note: Adjustment should be performed 5 minutes later, after the power switch is on.

Bias Adjustment

Setting:

ATTENUATOR (Volume) control: minimum

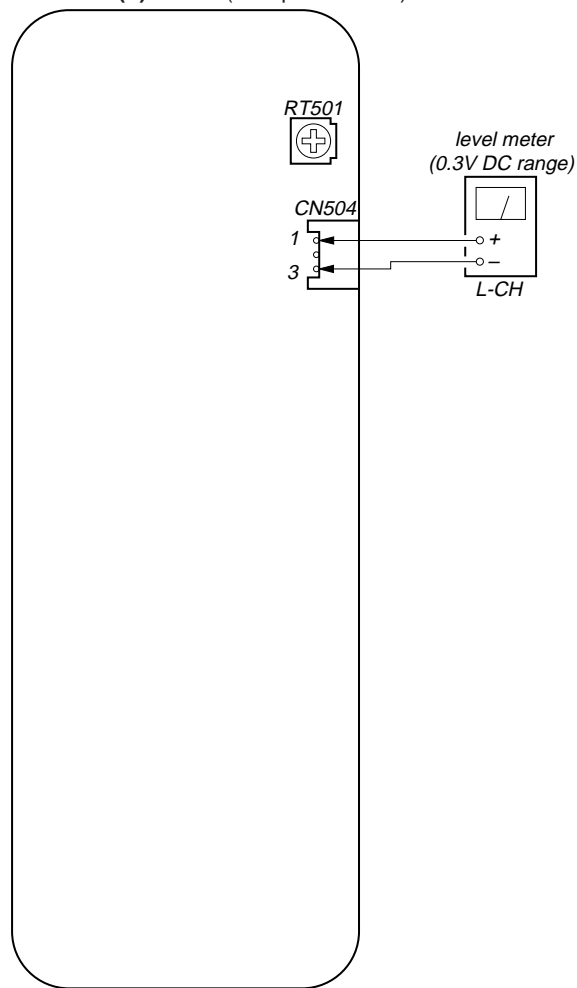
Input signal: No signal input

Procedure:

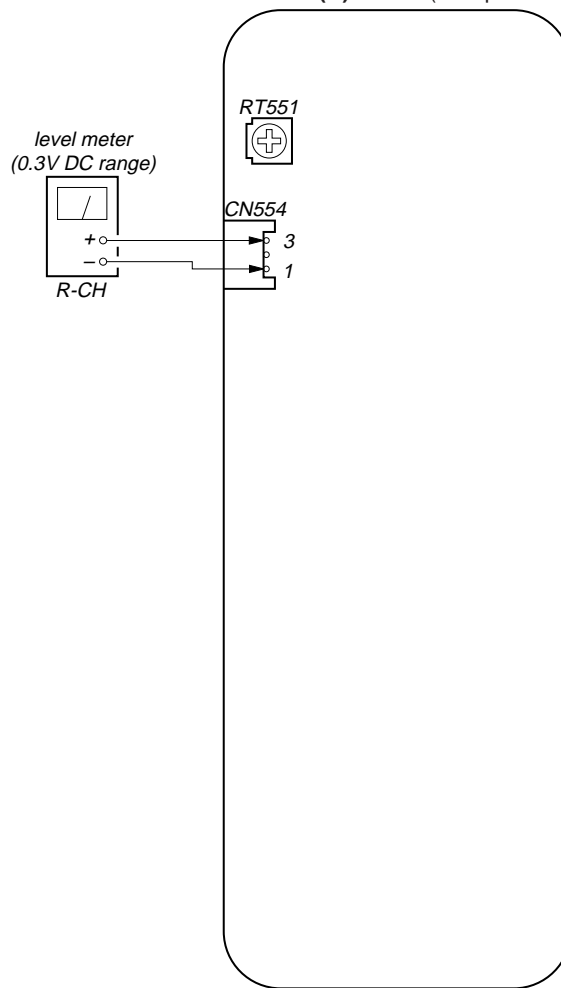
Adjust RT501 (L-CH) and RT551 (R-CH) for 70 mV reading on the VTVM.

Adjustment Location:

– MAIN-B (L) Board (Component side) –














– MAIN-B (R) Board (Component side) –



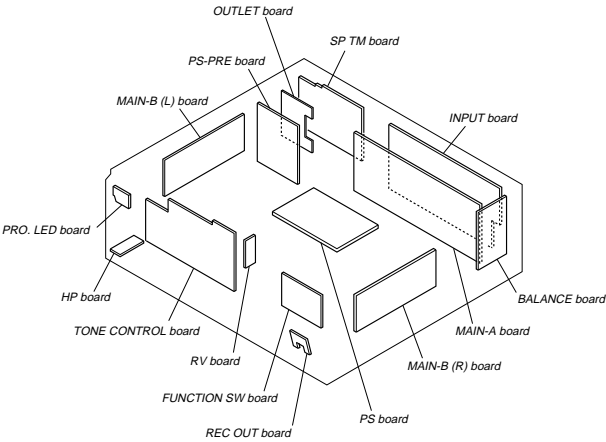
SECTION 4
DIAGRAMS

4-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS
(In addition to this, the necessary note is printed in each block.)

- Note on Schematic Diagram:**
- All capacitors are in μF unless otherwise noted. pF : μpF 50 WV or less are not indicated except for electrolytics and tantalums.
 - All resistors are in Ω and $\frac{1}{4}\text{W}$ or less unless otherwise specified.
 -  : nonflammable resistor.
 -  : fusible resistor.
 -  : panel designation.
- NOTE:** The components identified by mark Δ or dotted line with mark Δ are critical for safety.
Replace only with part number specified.
-  : B+ Line.
 -  : B- Line.
 -  : adjustment for repair.
 - Voltages and waveforms are dc with respect to ground under no-signal conditions.
no mark: POWER ON
 - Voltages are taken with a VOM (Input impedance 10 M Ω).
Voltage variations may be noted due to normal production tolerances.
 - Signal path.
 -  : PHONO

- Note on Printed Wiring Boards:**
-  : parts extracted from the component side.
 -  : Pattern from the side which enables seeing.
 - Indication of transistor.
-  These are omitted.
-  These are omitted.

• Circuit Boards Location



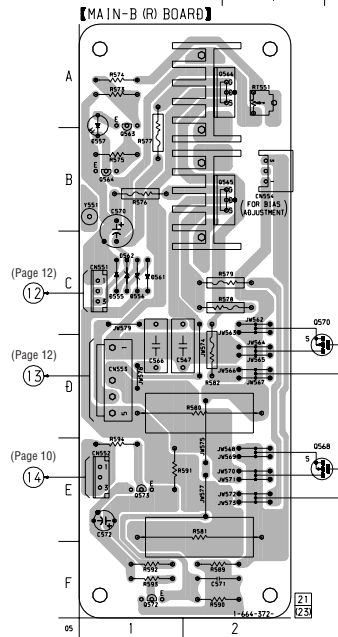
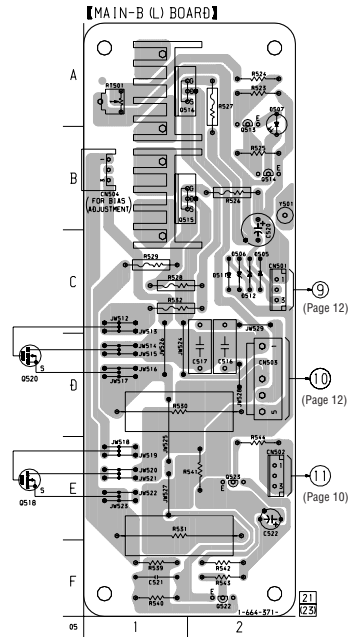
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4-2. PRINTED WIRING BOARDS – INPUT/MAIN-B (L)/MAIN-B (R) Boards –

• See page 7 for Circuit Boards Location.

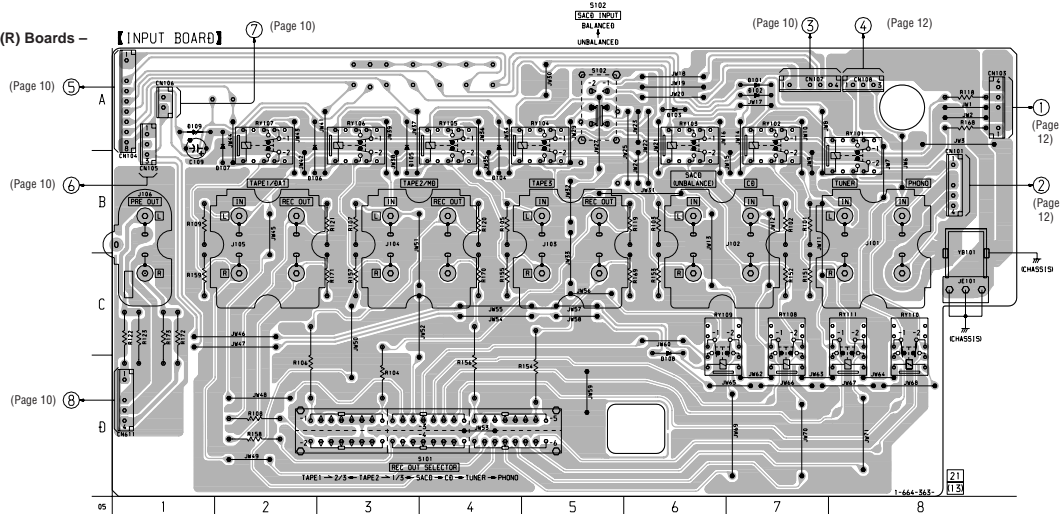
• Semiconductor Location
– MAIN-B (L) Board –

Ref. No.	Location
D505	C-2
D506	C-2
D507	A-2
D511	C-2
D512	C-2
OS19	A-2
OS14	B-2
OS15	B-1
OS16	A-1
OS18	E-1
OS20	D-1
OS22	F-2
OS23	E-2



• Semiconductor Location
– MAIN-B (R) Board –

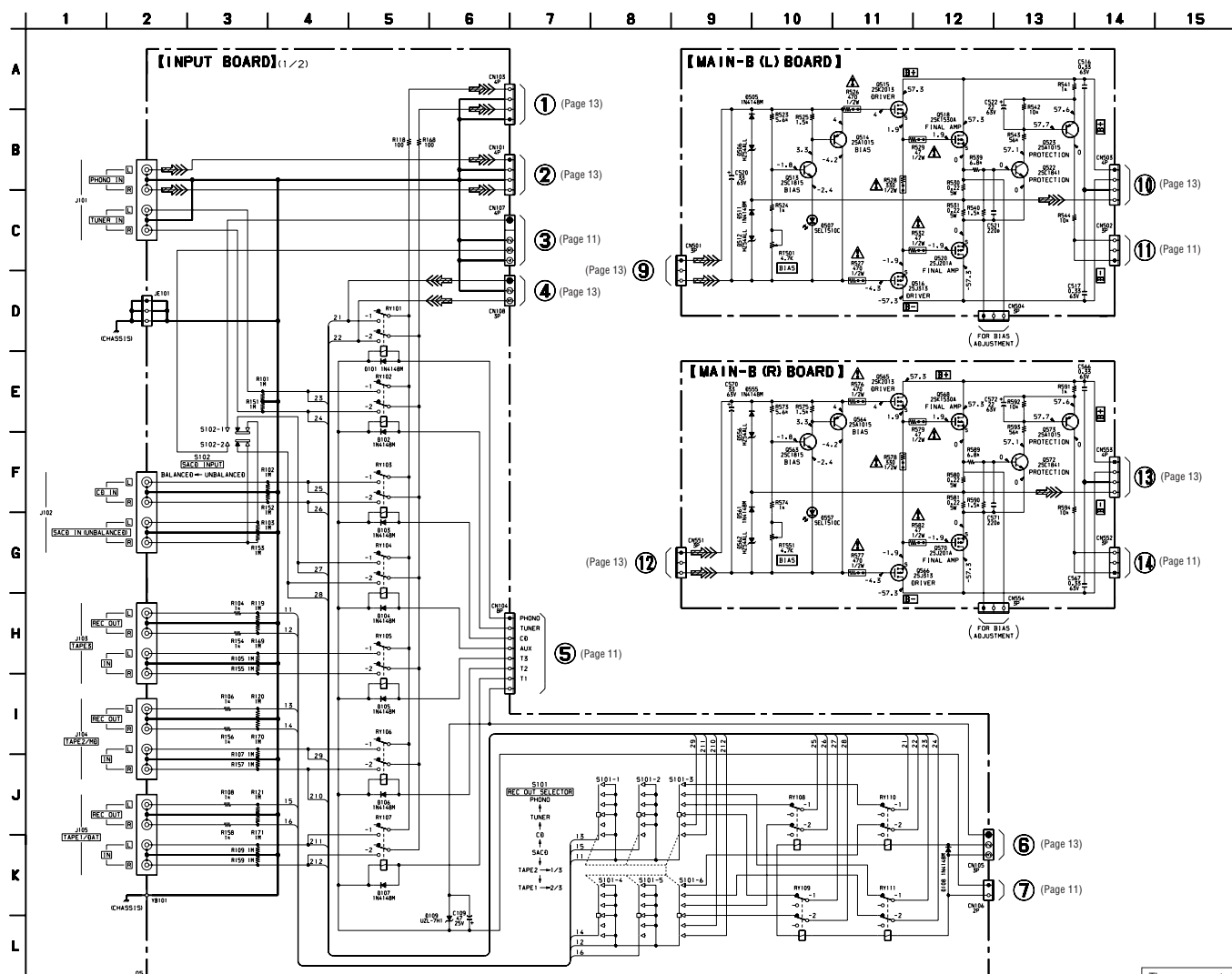
Ref. No.	Location
D555	C-1
D556	C-1
D557	A-1
D561	C-1
D562	C-1
OS63	A-1
OS64	B-1
OS65	B-2
OS66	A-2
OS68	E-2
OS70	D-2
OS72	F-1
OS73	E-1



• Semiconductor Location
– INPUT Board –

Ref. No.	Location
D101	A-7
D102	A-7
D103	A-6
D104	A-4
D105	A-3
D106	A-2
D107	A-2
D108	C-6
D109	A-1

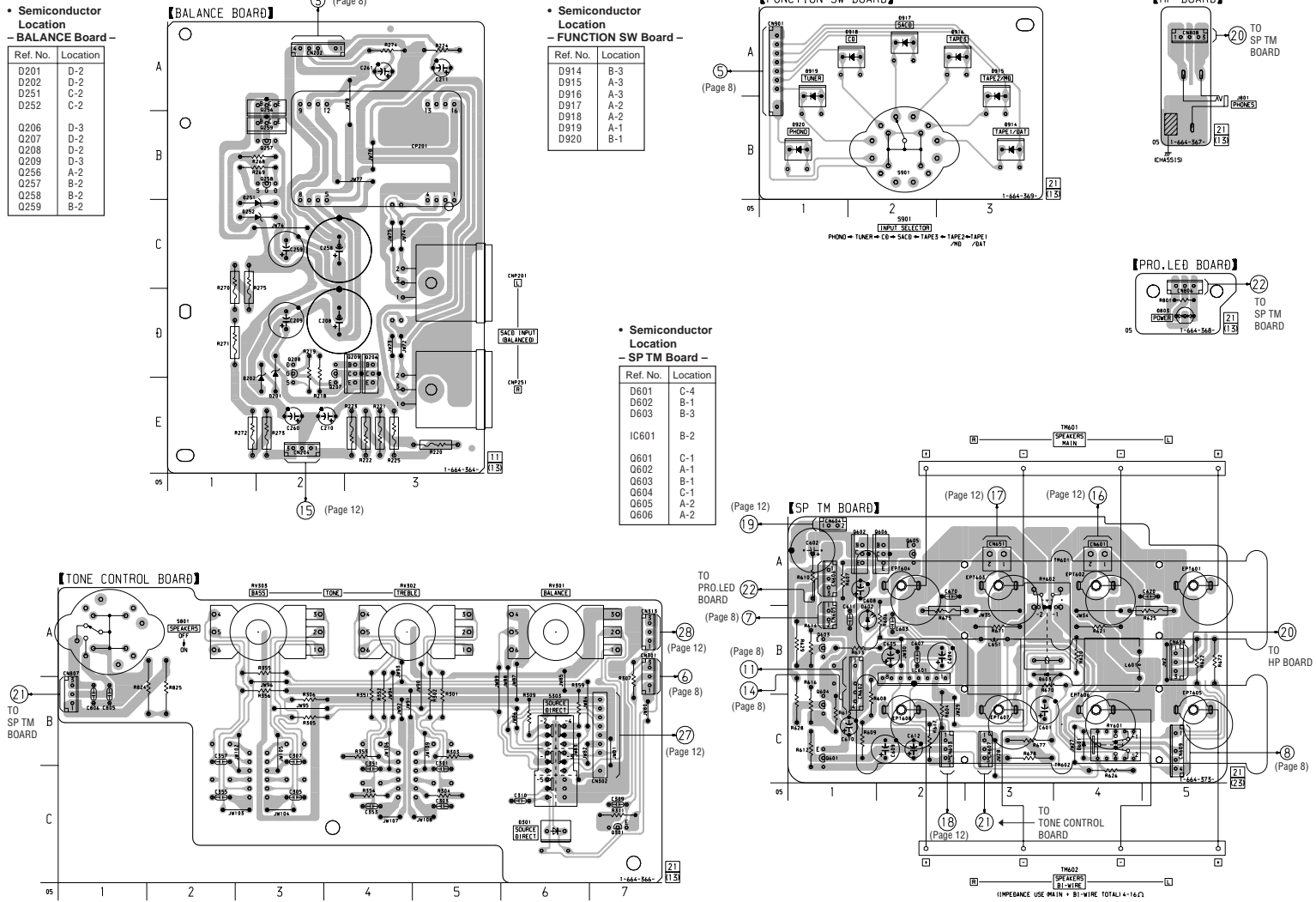
4-3. SCHEMATIC DIAGRAM – INPUT (1/2) /MAIN-B (L) /MAIN-B (R) Boards –



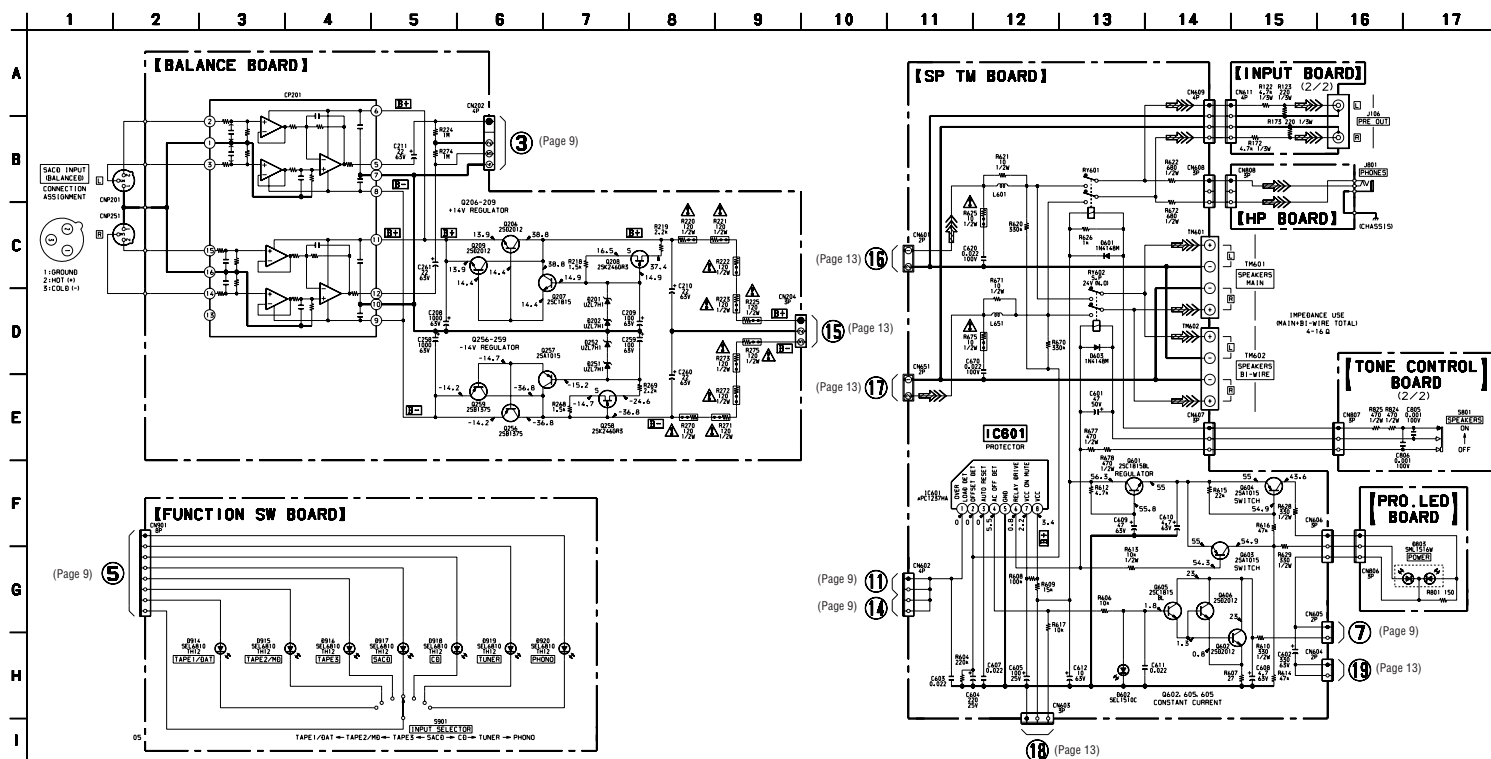
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

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4-4. PRINTED WIRING BOARDS – BALANCE/FUNCTION SW/SP TM/HP/TONE CONTROL/PRO. LED Boards – • See page 7 for Circuit Boards Location.

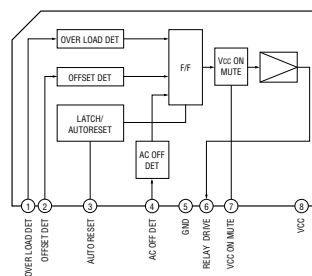


4-5. SCHEMATIC DIAGRAM – BALANCE/FUNCTION SW/SP TM/INPUT (2/2) /HP/TONE CONTROL (2/2) /PRO. LED Boards –



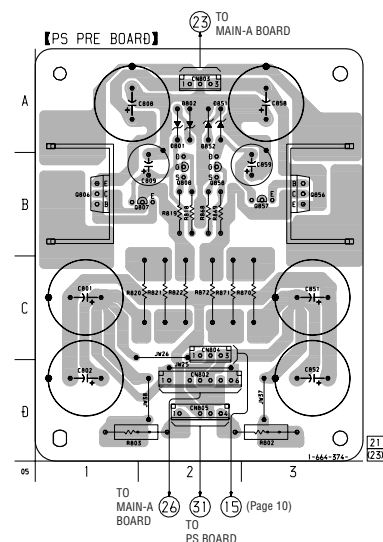
• IC Block Diagram

IC601 μPC1237HA

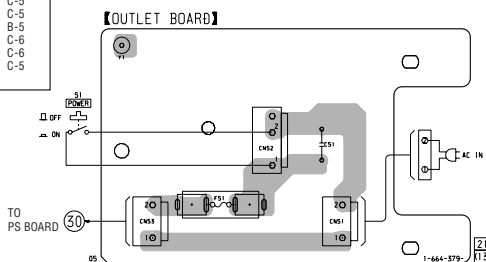
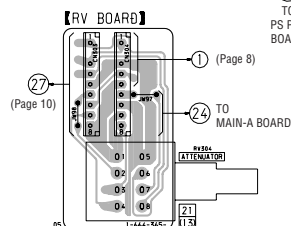
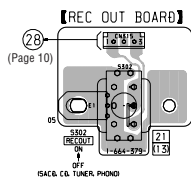


The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

4-6. PRINTED WIRING BOARDS – MAIN-A/RV/REC OUT/PS PRE/PS/OUTLET Boards – • See page 7 for Circuit Boards Location.

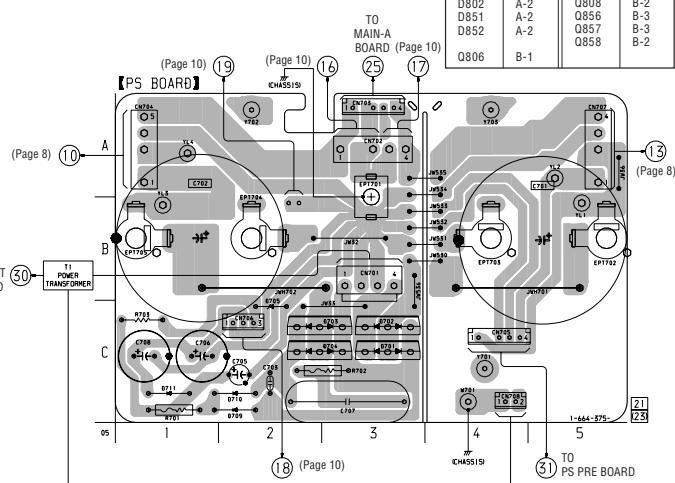


Ref	No	Location	Ref	No	Location
D401	B-3	C402	D-2		
D402	B-3	C403	D-1		
D403	B-3	C404	B-2		
D418	D-3	C405	D-2		
D419	D-3	C406	B-2		
D451	B-4	C407	C-2		
D452	B-4	C408	B-2		
D453	B-4	C409	C-2		
D468	D-5	C410	C-1		
D469	D-5	C411	C-2		
		C412	C-3		
IC201	C-8	C452	D-6		
		C453	D-6		
Q201	B-8	C454	B-6		
Q202	B-8	C455	D-5		
Q203	D-8	C456	D-5		
Q205	B-8	C457	D-5		
Q251	B-9	C458	C-5		
Q252	B-9	C459	B-5		
Q253	C-9	C460	C-6		
Q254	B-9	C461	B-6		
Q255	C-9	C462	C-5		
Q401	D-2				

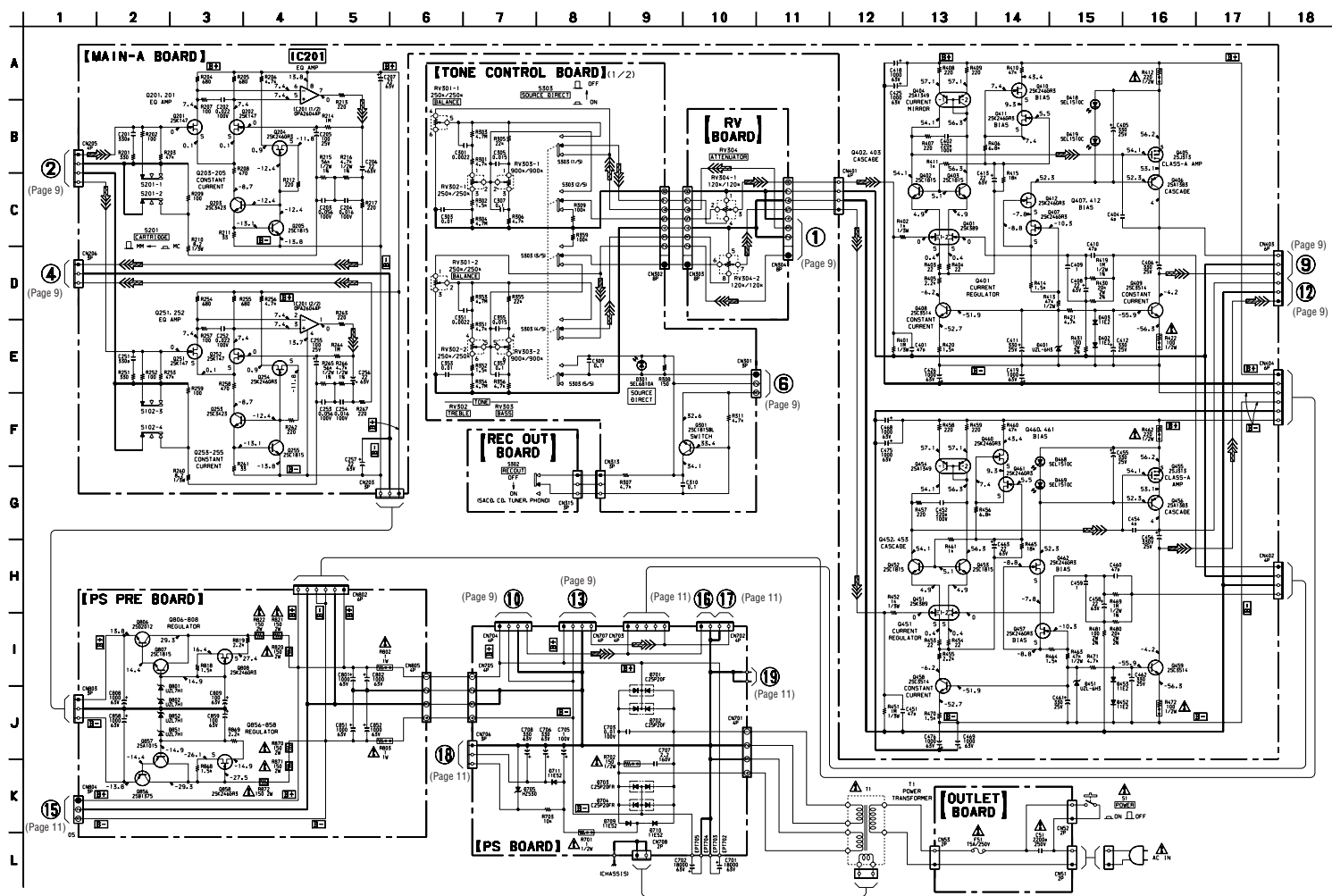


Ref. No.	Location
D701	C-3
D702	C-3
D703	C-2
D704	C-2
D705	B-2
D709	C-2
D710	C-2
D711	C-1

Ref. No.	Location	Ref. No.	Location
D801	A-2	Q807	B-2
D802	A-2	Q808	B-2
D851	A-2	Q856	B-3
D852	A-2	Q857	B-3
		Q858	B-2
Q806	B-1		



4-7. SCHEMATIC DIAGRAM – MAIN-A/TONE CONTROL (1/2)/RV/REC OUT/PS PRE/PS/OUTLET Boards –



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

SECTION 5
EXPLODED VIEWS

NOTE:

- -XX and -X mean standardized parts, so they may have some difference from the original one.

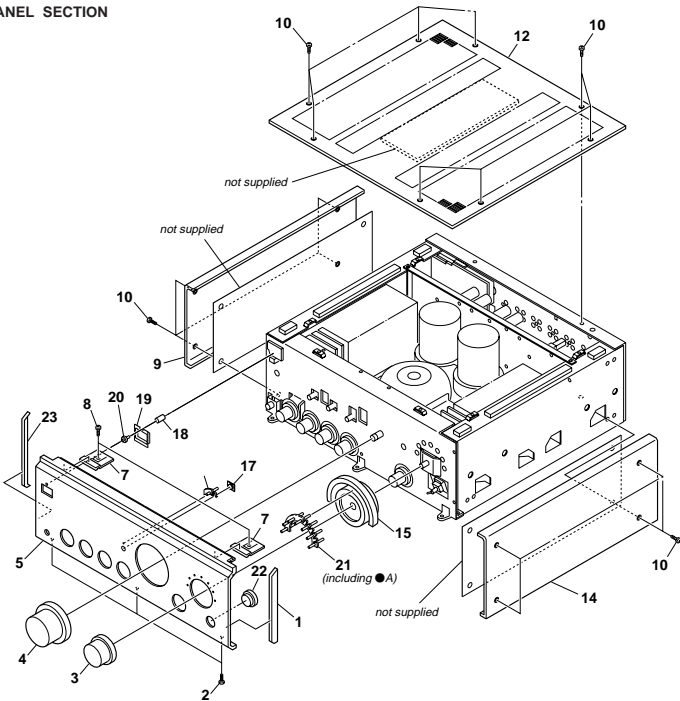
- Color Indication of Appearance Parts

Example:
KNOB, BALANCE (WHITE) . . . (RED)
↑ ↑
Parts Color Cabinet's Color

- Items marked "s" 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 and accessories and packing materials are given in the last of the electrical parts list.

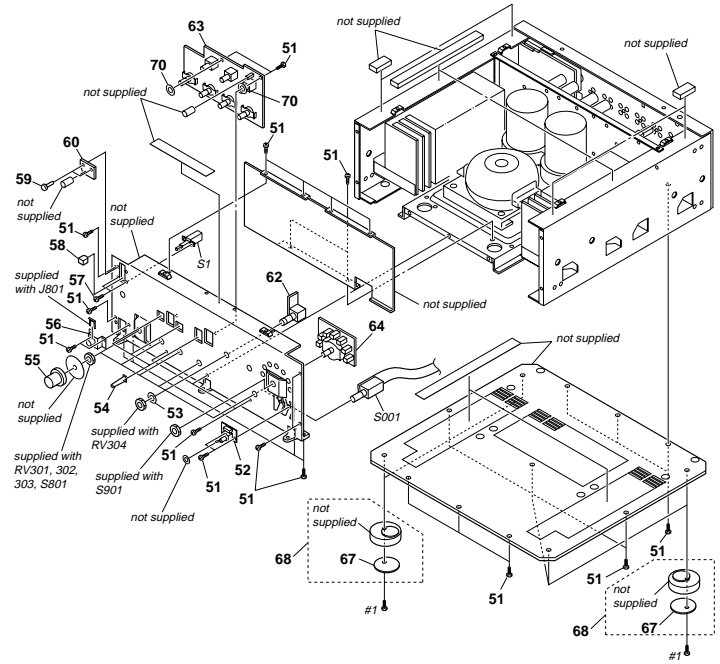
The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

(1) PANEL SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	4-224-463-01	PLATE (R), ORNAMENTAL		14	4-988-323-21	PANEL (R), SIDE	
2	3-703-685-21	SCREW (+BV 3X8)		15	4-988-311-01	ESCUTCHEON (B)	
3	4-224-701-01	KNOB (DIA. 48)		17	4-970-145-11	ESCUTCHEON (P)	
4	4-224-700-01	KNOB (DIA. 68)		* 18	4-971-834-11	TUBE (B), LIGHT INTERCEPTION	
5	4-224-460-01	PANEL, FRONT		19	4-921-415-13	ESCUTCHEON, POWER KNOB	
7	4-224-461-01	BRACKET (F.P)		20	4-931-646-01	LENS, LED	
8	4-974-510-01	SCREW (+BV 3X8 CU)		21	4-988-312-01	LENS, LED	
9	4-988-322-21	PANEL (L), SIDE		22	4-988-321-21	PLATE (L.S), ORNAMENTAL	
10	4-976-827-11	SCREW, FLAT HEAD		23	4-224-462-01	PLATE (L), ORNAMENTAL	
* 12	4-969-333-31	BOARD, TOP					

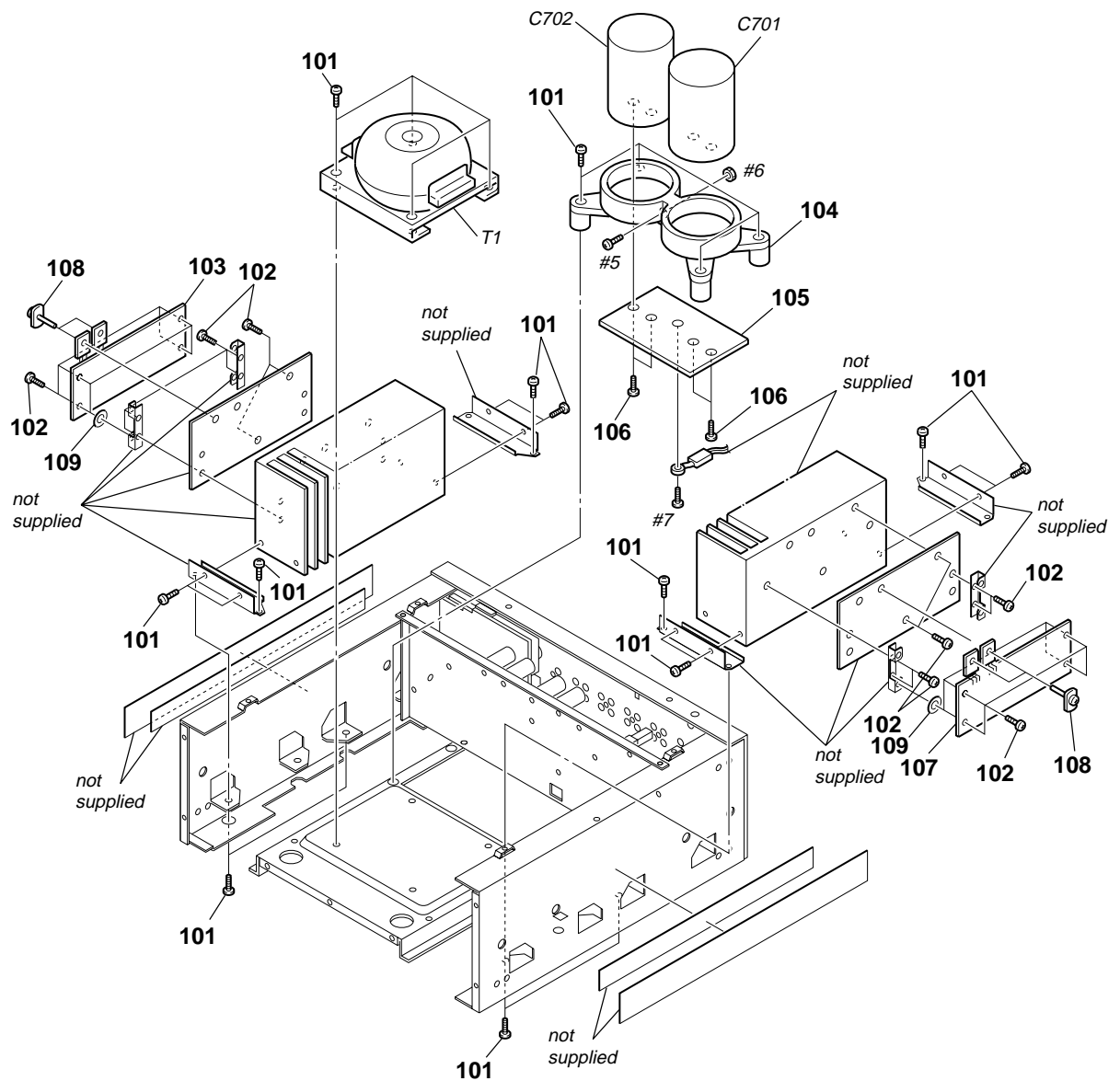
(2) FRONT CHASSIS SECTION



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

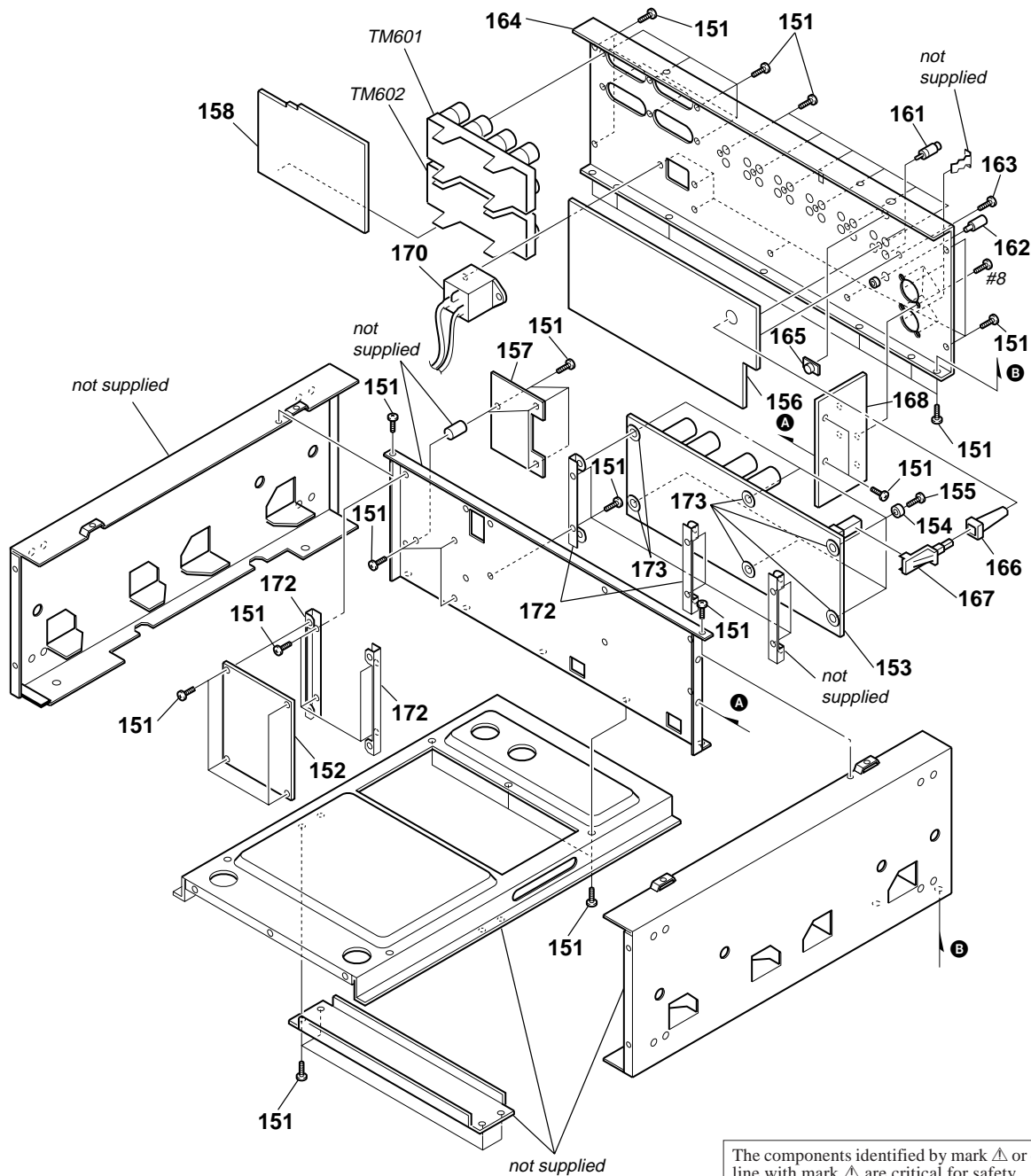
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	4-974-510-01	SCREW (+BV 3X8 CU)		* 62	1-664-365-21	RV BOARD	
* 52	1-664-379-21	REC OUT BOARD		63	A-4426-973-A	TONE CONTROL BOARD, COMPLETE	
53	4-972-113-01	WASHER		* 64	1-664-369-21	FUNCTION SW BOARD	
54	4-970-146-11	BUTTON		67	4-972-889-01	CUSHION	
55	4-988-316-21	KNOB (DIA. 29)		68	X-4950-540-1	FOOT ASSY	
* 56	1-664-367-21	HP BOARD		70	4-971-099-01	WASHER (P)	
57	4-967-959-01	SCREW (3X6)		S001	1-762-921-11	SWITCH, ROTARY (REMOTE TYPE) (REC OUT SELECTOR)	
58	X-4948-011-1	BUTTON ASSY, POWER		Δ S1	1-554-538-00	SWITCH, PUSH (AC POWER) (1KEY) (POWER)	
59	4-812-134-00	RIVET (DIA. 3.5), NYLON					
* 60	1-664-368-21	PRO. LED BOARD					

(3) MAIN CHASSIS SECTION



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	4-967-960-01	SCREW (4X8)		107	A-4426-969-A	MAIN-B (R) BOARD, COMPLETE	
102	4-974-510-01	SCREW (+BV 3X8 CU)		108	X-4943-354-1	SCREW (+B) ASSY, BARREL WASHER	
103	A-4426-968-A	MAIN-B (L) BOARD, COMPLETE		109	4-971-099-01	WASHER (P)	
* 104	4-970-132-01	HOLDER (C)		C701	1-131-864-11	CAP, ELECT	
105	A-4426-972-A	PS BOARD, COMPLETE		C702	1-131-864-11	CAP, ELECT	
* 106	4-931-964-01	SCREW (M4)		Δ T1	1-431-376-11	TRANSFORMER, POWER	

(4) BACK PANEL 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
151	4-974-510-01	SCREW (+BV 3X8 CU)		164	4-975-263-42	PANEL, BACK	
152	A-4426-971-A	PS-PRE BOARD, COMPLETE		165	4-970-145-01	ESCUTCHEON (P)	
153	A-4426-967-A	MAIN-A BOARD, COMPLETE		166	4-970-146-01	BUTTON	
154	4-969-896-01	SPACER		* 167	4-970-147-01	ROD	
155	4-973-106-01	SCREW, COLLAR		* 168	A-4392-510-A	BALANCE BOARD, COMPLETE	
* 156	A-4392-509-A	INPUT BOARD, COMPLETE		Δ 170	1-580-375-41	INLET 3P	
157	1-664-378-21	OUTLET BOARD		* 172	4-969-344-01	HOLDER (P)	
158	A-4426-970-A	SP TM BOARD, COMPLETE		173	4-971-099-01	WASHER (P)	
161	1-506-113-00	SHORT PLUG		TM601	1-694-308-11	TERMINAL BOARD (SP) (SPEAKERS MAIN)	
* 162	1-535-691-31	TERMINAL		TM602	1-694-308-11	TERMINAL BOARD (SP) (SPEAKERS BI-WIRE)	
163	3-703-685-21	SCREW (+BV 3X8)					

SECTION 6 ELECTRICAL PARTS LIST

BALANCE

FUNCTION SW

HP

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.

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

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
*	A-4392-510-A	BALANCE BOARD, COMPLETE *****		Δ R223	1-202-950-31	FUSIBLE 120 5%	1/2W F
		< CAPACITOR >		R224	1-259-239-11	CARBON 1M 5%	1/4W
C208	1-110-397-11	ELECT 1000uF 20% 63V		Δ R225	1-202-950-31	FUSIBLE 120 5%	1/2W F
C209	1-110-393-11	ELECT 100uF 20% 63V		R268	1-259-171-21	CARBON 1.5K 5%	1/4W
C210	1-110-390-11	ELECT 22uF 20% 63V		R269	1-259-175-11	CARBON 2.2K 5%	1/4W
C211	1-110-390-11	ELECT 22uF 20% 63V		Δ R270	1-202-950-31	FUSIBLE 120 5%	1/2W F
C258	1-110-397-11	ELECT 1000uF 20% 63V		Δ R271	1-202-950-31	FUSIBLE 120 5%	1/2W F
C259	1-110-393-11	ELECT 100uF 20% 63V		Δ R272	1-202-950-31	FUSIBLE 120 5%	1/2W F
C260	1-110-390-11	ELECT 22uF 20% 63V		Δ R273	1-202-950-31	FUSIBLE 120 5%	1/2W F
C261	1-110-390-11	ELECT 22uF 20% 63V		R274	1-259-239-11	CARBON 1M 5%	1/4W
		< CONNECTOR >		Δ R275	1-202-950-31	FUSIBLE 120 5%	1/2W F
CN202	1-691-766-31	PLUG (MICRO CONNECTOR) 4P		*****			
* CN204	1-564-506-11	PLUG, CONNECTOR 3P		*	1-664-369-21	FUNCTION SW BOARD *****	
CNP201	1-766-896-11	CONNECTOR (CANON) (SACD INPUT L)				< CONNECTOR >	
CNP251	1-766-896-11	CONNECTOR (CANON) (SACD INPUT R)		CN901	1-691-770-11	PLUG (MICRO CONNECTOR) 8P	
		< COMPOSITION CIRCUIT BLOCK >				< DIODE >	
CP201	1-233-250-11	ENCAPSULATED COMPONENT		D914	8-719-313-50	LED SEL6810A-TH12 (TAPE1/DAT)	
		< DIODE >		D915	8-719-313-50	LED SEL6810A-TH12 (TAPE2/MD)	
D201	8-719-935-52	DIODE UZL-7H1-TP		D916	8-719-313-50	LED SEL6810A-TH12 (TAPE3)	
D202	8-719-935-52	DIODE UZL-7H1-TP		D917	8-719-313-50	LED SEL6810A-TH12 (SACD)	
D251	8-719-935-52	DIODE UZL-7H1-TP		D918	8-719-313-50	LED SEL6810A-TH12 (CD)	
D252	8-719-935-52	DIODE UZL-7H1-TP		D919	8-719-313-50	LED SEL6810A-TH12 (TUNER)	
		< TRANSISTOR >		D920	8-719-313-50	LED SEL6810A-TH12 (PHONO)	
Q206	8-729-018-60	TRANSISTOR 2SD2012-LC				< SWITCH >	
Q207	8-729-281-54	TRANSISTOR 2SC1815BL-TPE2		S901	1-762-920-11	SWITCH, ROTARY (INPUT SELECTOR)	
Q208	8-729-202-67	FET 2SK246GR3-TPE2		*****			
Q209	8-729-018-60	TRANSISTOR 2SD2012-LC		*	1-664-367-21	HP BOARD *****	
Q256	8-729-018-59	TRANSISTOR 2SB1375 (LB-SONY)				< CONNECTOR >	
Q257	8-729-201-53	TRANSISTOR 2SA1015TP-GR		* CN808	1-564-506-11	PLUG, CONNECTOR 3P	
Q258	8-729-202-67	FET 2SK246GR3-TPE2				< JACK >	
Q259	8-729-018-59	TRANSISTOR 2SB1375 (LB-SONY)		J801	1-507-796-71	JACK (PHONES)	
		< RESISTOR >		*****			
R218	1-259-171-21	CARBON 1.5K 5%	1/4W				
R219	1-259-175-11	CARBON 2.2K 5%	1/4W				
Δ R220	1-202-950-31	FUSIBLE 120 5%	1/2W F				
Δ R221	1-202-950-31	FUSIBLE 120 5%	1/2W F				
Δ R222	1-202-950-31	FUSIBLE 120 5%	1/2W F				

INPUT

MAIN-A

Ref. No.	Part No.	Description	Remark			
*	A-4392-509-A	INPUT BOARD, COMPLETE	*****			
*	1-535-730-21	LEAD, JUMPER (OFC)				
*	1-537-738-21	TERMINAL, EARTH				
		<CAPACITOR>				
C109	1-126-967-11	ELECT	47uF	20%	25V	
		< CONNECTOR >				
CN101	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
CN103	1-691-766-21	PLUG (MICRO CONNECTOR) 4P				
CN104	1-691-770-11	PLUG (MICRO CONNECTOR) 8P				
* CN105	1-564-506-11	PLUG, CONNECTOR 3P				
* CN106	1-564-505-11	PLUG, CONNECTOR 2P				
CN107	1-691-766-31	PLUG (MICRO CONNECTOR) 4P				
* CN108	1-564-506-11	PLUG, CONNECTOR 3P				
CN611	1-691-766-11	PLUG (MICRO CONNECTOR) 4P				
		< DIODE >				
D101	8-719-911-19	DIODE 1N4148M-TP				
D102	8-719-911-19	DIODE 1N4148M-TP				
D103	8-719-911-19	DIODE 1N4148M-TP				
D104	8-719-911-19	DIODE 1N4148M-TP				
D105	8-719-911-19	DIODE 1N4148M-TP				
D106	8-719-911-19	DIODE 1N4148M-TP				
D107	8-719-911-19	DIODE 1N4148M-TP				
D108	8-719-911-19	DIODE 1N4148M-TP				
D109	8-719-935-52	DIODE UZL-7H1-TP				
		< JACK >				
J101	1-766-895-21	JACK, PIN 4P (TUNER, PHONO)				
J102	1-766-895-21	JACK, PIN 4P (SACD (UNBALANCED), CD)				
J103	1-766-895-21	JACK, PIN 4P (TAPE3)				
J104	1-766-895-21	JACK, PIN 4P (TAPE2/MD)				
J105	1-766-895-21	JACK, PIN 4P (TAPE1/DAT)				
J106	1-766-894-41	JACK 2P (PRE OUT)				
		< RESISTOR >				
R101	1-259-239-11	CARBON	1M	5%	1/4W	
R102	1-259-239-11	CARBON	1M	5%	1/4W	
R103	1-259-239-11	CARBON	1M	5%	1/4W	
R104	1-249-923-11	CARBON	1K	5%	1/4W	
R105	1-259-239-11	CARBON	1M	5%	1/4W	
R106	1-249-923-11	CARBON	1K	5%	1/4W	
R107	1-259-239-11	CARBON	1M	5%	1/4W	
R108	1-249-923-11	CARBON	1K	5%	1/4W	
R109	1-259-239-11	CARBON	1M	5%	1/4W	
R118	1-259-143-21	CARBON	100	5%	1/4W	
R119	1-259-239-11	CARBON	1M	5%	1/4W	
R120	1-259-239-11	CARBON	1M	5%	1/4W	
R121	1-259-239-11	CARBON	1M	5%	1/4W	
R122	1-249-226-11	CARBON	4.7K	5%	1/3W	
R123	1-249-194-11	CARBON	220	5%	1/3W	
R151	1-259-239-11	CARBON	1M	5%	1/4W	
R152	1-259-239-11	CARBON	1M	5%	1/4W	
R153	1-259-239-11	CARBON	1M	5%	1/4W	
R154	1-249-923-11	CARBON	1K	5%	1/4W	

Ref. No.	Part No.	Description	Remark			
R155	1-259-239-11	CARBON	1M	5%	1/4W	
R156	1-249-923-11	CARBON	1K	5%	1/4W	
R157	1-259-239-11	CARBON	1M	5%	1/4W	
R158	1-249-923-11	CARBON	1K	5%	1/4W	
R159	1-259-239-11	CARBON	1M	5%	1/4W	
R168	1-259-143-21	CARBON	100	5%	1/4W	
R169	1-259-239-11	CARBON	1M	5%	1/4W	
R170	1-259-239-11	CARBON	1M	5%	1/4W	
R171	1-259-239-11	CARBON	1M	5%	1/4W	
R172	1-249-226-11	CARBON	4.7K	5%	1/3W	
R173	1-249-194-11	CARBON	220	5%	1/3W	
		< RELAY >				
RY101	1-755-060-11	RELAY				
RY102	1-755-060-11	RELAY				
RY103	1-755-060-11	RELAY				
RY104	1-755-060-11	RELAY				
RY105	1-755-060-11	RELAY				
RY106	1-755-060-11	RELAY				
RY107	1-755-060-11	RELAY				
RY108	1-755-060-11	RELAY				
RY109	1-755-060-11	RELAY				
RY110	1-755-060-11	RELAY				
RY111	1-755-060-11	RELAY				
		< SWITCH >				
S101	1-570-076-11	SWITCH, SLIDE (REMOTE TYPE)				
		(REC OUT SELECTOR)				
S102	1-762-181-11	SWITCH, SLIDE (SACD INPUT)				
		< BRACKET >				
* YB101	4-946-336-01	BRACKET (GROUND)				

	A-4426-967-A	MAIN-A BOARD, COMPLETE	*****			
		< CAPACITOR >				
C201	1-125-852-11	FILM	330PF	5%	50V	
C202	1-130-973-00	FILM	0.022uF	2%	100V	
C203	1-130-341-00	FILM	0.056uF	2%	100V	
C204	1-137-332-11	FILM	0.016uF	2%	100V	
C205	1-119-800-11	ELECT	100uF	20%	25V	
C206	1-119-834-11	ELECT	22uF	20%	63V	
C207	1-119-834-11	ELECT	22uF	20%	63V	
C251	1-125-852-11	FILM	330PF	5%	50V	
C252	1-130-973-00	FILM	0.022uF	2%	100V	
C253	1-130-341-00	FILM	0.056uF	2%	100V	
C254	1-137-332-11	FILM	0.016uF	2%	100V	
C255	1-119-800-11	ELECT	100uF	20%	25V	
C256	1-119-834-11	ELECT	22uF	20%	63V	
C257	1-119-834-11	ELECT	22uF	20%	63V	
C401	1-125-845-21	FILM	47PF	10%	50V	
C402	1-136-810-11	FILM	220PF	5%	100V	
C404	1-125-842-11	FILM	4PF	10%	50V	
C405	1-119-830-11	ELECT	330uF	20%	25V	
C406	1-119-830-11	ELECT	330uF	20%	25V	
C408	1-128-198-11	ELECT	22uF	20%	63V	

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
							Q253	8-729-203-45	TRANSISTOR	2SC3423-Y			
C409	1-110-512-11	ELECT	1uF	10%	50V		Q254	8-729-202-67	FET	2SK246GR3-TPE2			
C410	1-125-845-21	FILM	47PF	10%	50V		Q255	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2			
C411	1-119-830-11	ELECT	330uF	20%	25V								
C412	1-119-830-11	ELECT	330uF	20%	25V		Q401	8-729-203-21	FET	2SK389-BL			
C413	1-119-834-11	ELECT	22uF	20%	63V		Q402	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2			
							Q403	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2			
C418	1-119-841-11	ELECT	1000uF	20%	63V		Q404	8-729-232-00	TRANSISTOR	2SA1349-GRBL			
C419	1-119-841-11	ELECT	1000uF	20%	63V		Q405	8-729-018-21	FET	2SJ313-LB			
C425	1-119-841-11	ELECT	1000uF	20%	63V								
C426	1-119-841-11	ELECT	1000uF	20%	63V		Q406	8-729-104-91	TRANSISTOR	2SA1383-Q			
C451	1-125-845-21	FILM	47PF	10%	50V		Q407	8-729-202-67	FET	2SK246GR3-TPE2			
							Q408	8-729-104-18	TRANSISTOR	2SC3514-P			
C452	1-136-810-11	FILM	220PF	5%	100V		Q409	8-729-104-18	TRANSISTOR	2SC3514-P			
C454	1-125-842-11	FILM	4PF	10%	50V		Q410	8-729-202-67	FET	2SK246GR3-TPE2			
C455	1-119-830-11	ELECT	330uF	20%	25V								
C456	1-119-830-11	ELECT	330uF	20%	25V		Q411	8-729-202-67	FET	2SK246GR3-TPE2			
C458	1-128-198-11	ELECT	22uF	20%	63V		Q412	8-729-202-67	FET	2SK246GR3-TPE2			
							Q451	8-729-203-21	FET	2SK389-BL			
C459	1-110-512-11	ELECT	1uF	10%	50V		Q452	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2			
C460	1-125-845-21	FILM	47PF	10%	50V		Q453	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2			
C461	1-119-830-11	ELECT	330uF	20%	25V								
C462	1-119-830-11	ELECT	330uF	20%	25V		Q454	8-729-232-00	TRANSISTOR	2SA1349-GRBL			
C463	1-119-834-11	ELECT	22uF	20%	63V		Q455	8-729-018-21	FET	2SJ313-LB			
							Q456	8-729-104-91	TRANSISTOR	2SA1383-Q			
C468	1-119-841-11	ELECT	1000uF	20%	63V		Q457	8-729-202-67	FET	2SK246GR3-TPE2			
C469	1-119-841-11	ELECT	1000uF	20%	63V		Q458	8-729-104-18	TRANSISTOR	2SC3514-P			
C475	1-119-841-11	ELECT	1000uF	20%	63V								
C476	1-119-841-11	ELECT	1000uF	20%	63V		Q459	8-729-104-18	TRANSISTOR	2SC3514-P			
		< CONNECTOR >					Q460	8-729-202-67	FET	2SK246GR3-TPE2			
							Q461	8-729-202-67	FET	2SK246GR3-TPE2			
* CN203	1-564-506-11	PLUG, CONNECTOR 3P					Q462	8-729-202-67	FET	2SK246GR3-TPE2			
CN205	1-691-766-11	PLUG (MICRO CONNECTOR) 4P							< RESISTOR >				
* CN206	1-564-506-11	PLUG, CONNECTOR 3P											
CN401	1-691-766-11	PLUG (MICRO CONNECTOR) 4P					R201	1-249-911-11	CARBON	330	5%	1/4W	
CN402	1-691-766-31	PLUG (MICRO CONNECTOR) 4P					R202	1-259-143-21	CARBON	100	5%	1/4W	
							R203	1-259-207-21	CARBON	47K	5%	1/4W	
* CN403	1-564-509-21	PLUG, CONNECTOR 6P					R204	1-259-163-11	CARBON	680	5%	1/4W	
CN404	1-564-510-11	PLUG (MICRO CONNECTOR) 6P					R205	1-259-163-11	CARBON	680	5%	1/4W	
		< DIODE >					R206	1-259-183-11	CARBON	4.7K	5%	1/4W	
							R207	1-259-143-21	CARBON	100	5%	1/4W	
D401	8-719-933-41	DIODE UZL-6H3-TP					R208	1-249-915-11	CARBON	470	5%	1/4W	
D402	8-719-200-02	DIODE 11E2-TA2B					R209	1-259-143-21	CARBON	100	5%	1/4W	
D403	8-719-200-02	DIODE 11E2-TA2B					R210	1-249-485-11	CARBON	8.2	5%	1/3W	
D418	8-719-310-60	LED SEL1510C-C-TP											
D419	8-719-310-60	LED SEL1510C-C-TP					R211	1-249-887-11	CARBON	33	5%	1/4W	
							R212	1-259-151-21	CARBON	220	5%	1/4W	
D451	8-719-933-41	DIODE UZL-6H3-TP					R213	1-259-151-21	CARBON	220	5%	1/4W	
D452	8-719-200-02	DIODE 11E2-TA2B					R214	1-259-239-11	CARBON	1M	5%	1/4W	
D453	8-719-200-02	DIODE 11E2-TA2B					R215	1-249-844-11	CARBON	56K	1%	1/2W	
D468	8-719-310-60	LED SEL1510C-C-TP											
D469	8-719-310-60	LED SEL1510C-C-TP					R216	1-259-320-11	CARBON	4.7K	1%	1/2W	
							R217	1-259-151-21	CARBON	220	5%	1/4W	
		< IC >					R251	1-249-911-11	CARBON	330	5%	1/4W	
							R252	1-259-143-21	CARBON	100	5%	1/4W	
IC201	8-759-259-12	IC OPA2604AP					R253	1-259-207-21	CARBON	47K	5%	1/4W	
		< TRANSISTOR >					R254	1-259-163-11	CARBON	680	5%	1/4W	
							R255	1-259-163-11	CARBON	680	5%	1/4W	
Q201	8-729-214-71	FET 2SK147-BL					R256	1-259-183-11	CARBON	4.7K	5%	1/4W	
Q202	8-729-214-71	FET 2SK147-BL					R257	1-259-143-21	CARBON	100	5%	1/4W	
Q203	8-729-203-45	TRANSISTOR 2SC3423-Y					R258	1-249-915-11	CARBON	470	5%	1/4W	
Q204	8-729-202-67	FET 2SK246GR3-TPE2											
Q205	8-729-281-54	TRANSISTOR 2SC1815BL-TPE2					R259	1-259-143-21	CARBON	100	5%	1/4W	
							R260	1-249-485-11	CARBON	8.2	5%	1/3W	
Q251	8-729-214-71	FET 2SK147-BL					R261	1-249-887-11	CARBON	33	5%	1/4W	
Q252	8-729-214-71	FET 2SK147-BL					R262	1-259-151-21	CARBON	220	5%	1/4W	

MAIN-A

MAIN-B (L)

MAIN-B (R)

Ref. No.	Part No.	Description			Remark
R263	1-259-151-21	CARBON	220	5%	1/4W
R264	1-259-239-11	CARBON	1M	5%	1/4W
R265	1-249-844-11	CARBON	56K	1%	1/2W
R266	1-259-320-11	CARBON	4.7K	1%	1/2W
R267	1-259-151-21	CARBON	220	5%	1/4W
R401	1-214-937-00	METAL	1M	1%	1/2W
R402	1-249-210-11	CARBON	1K	5%	1/3W
R403	1-249-883-11	CARBON	22	5%	1/4W
R404	1-249-883-11	CARBON	22	5%	1/4W
R405	1-259-175-11	CARBON	2.2K	5%	1/4W
R406	1-249-943-11	CARBON	6.8K	5%	1/4W
R407	1-259-151-21	CARBON	220	5%	1/4W
R408	1-259-151-21	CARBON	220	5%	1/4W
R409	1-259-151-21	CARBON	220	5%	1/4W
R410	1-259-207-21	CARBON	47K	5%	1/4W
R411	1-249-923-11	CARBON	1K	5%	1/4W
△ R412	1-219-193-11	FUSIBLE	220	5%	1/2W F
R413	1-249-842-11	CARBON	47K	5%	1/2W
R414	1-259-171-21	CARBON	1.5K	5%	1/4W
R415	1-249-953-11	CARBON	18K	5%	1/4W
R419	1-214-937-00	METAL	1M	1%	1/2W
R420	1-259-171-21	CARBON	1.5K	5%	1/4W
R421	1-259-183-11	CARBON	4.7K	5%	1/4W
△ R422	1-219-022-11	FUSIBLE	100	5%	1/2W F
R430	1-259-828-11	CARBON	20K	2%	2W
R431	1-259-773-11	CARBON	100	2%	2W
R451	1-214-937-00	METAL	1M	1%	1/2W
R452	1-249-210-11	CARBON	1K	5%	1/3W
R453	1-249-883-11	CARBON	22	5%	1/4W
R454	1-249-883-11	CARBON	22	5%	1/4W
R455	1-259-175-11	CARBON	2.2K	5%	1/4W
R456	1-249-943-11	CARBON	6.8K	5%	1/4W
R457	1-259-151-21	CARBON	220	5%	1/4W
R458	1-259-151-21	CARBON	220	5%	1/4W
R459	1-259-151-21	CARBON	220	5%	1/4W
R460	1-259-207-21	CARBON	47K	5%	1/4W
R461	1-249-923-11	CARBON	1K	5%	1/4W
△ R462	1-219-193-11	FUSIBLE	220	5%	1/2W F
R463	1-249-842-11	CARBON	47K	5%	1/2W
R464	1-259-171-21	CARBON	1.5K	5%	1/4W
R465	1-249-953-11	CARBON	18K	5%	1/4W
R469	1-214-937-00	METAL	1M	1%	1/2W
R470	1-259-171-21	CARBON	1.5K	5%	1/4W
R471	1-259-183-11	CARBON	4.7K	5%	1/4W
△ R472	1-219-022-11	FUSIBLE	100	5%	1/2W F
R480	1-259-828-11	CARBON	20K	2%	2W
R481	1-259-773-11	CARBON	100	2%	2W
< SWITCH >					
S201	1-572-642-11	SWITCH, PUSH (1 KEY) (CARTRIDGE)			

A-4426-968-A MAIN-B (L) BOARD, COMPLETE					

< CAPACITOR >					
C516	1-137-163-11	FILM	0.33uF	10%	63V

Ref. No.	Part No.	Description			Remark
C517	1-137-163-11	FILM	0.33uF	10%	63V
C520	1-119-835-31	ELECT	33uF	20%	63V
C521	1-162-286-31	CERAMIC	220PF	10%	50V
C522	1-119-834-11	ELECT	22uF	20%	63V
< CONNECTOR >					
* CN501	1-564-506-11	PLUG, CONNECTOR 3P			
* CN502	1-564-506-11	PLUG, CONNECTOR 3P			
CN503	1-766-897-11	PIN, CONNECTOR (PC BOARD) 4P			
* CN504	1-564-518-11	PLUG, CONNECTOR 3P			
< DIODE >					
D505	8-719-911-19	DIODE 1N4148M-TP			
D506	8-719-985-53	DIODE HZS4ALL-TA			
D507	8-719-310-60	LED SEL1510C-C-TP			
D511	8-719-911-19	DIODE 1N4148M-TP			
D512	8-719-985-53	DIODE HZS4ALL-TA			
< TRANSISTOR >					
Q513	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2		
Q514	8-729-201-53	TRANSISTOR	2SA1015TP-GR		
Q515	8-729-018-19	FET	2SK2013-Y		
Q516	8-729-018-21	FET	2SJ313-Y		
Q518	8-729-018-11	FET	2SK1530A-Y		
Q520	8-729-018-13	FET	2SJ201A-Y		
Q522	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA		
Q523	8-729-201-53	TRANSISTOR	2SA1015TP-GR		
< RESISTOR >					
R523	1-249-941-11	CARBON	5.6K	5%	1/4W
R524	1-249-923-11	CARBON	1K	5%	1/4W
R525	1-249-556-11	CARBON	1.5K	5%	1/4W
△ R526	1-202-954-11	FUSIBLE	470	5%	1/2W F
△ R527	1-202-954-11	FUSIBLE	470	5%	1/2W F
△ R528	1-202-953-11	FUSIBLE	330	5%	1/2W F
△ R529	1-219-185-11	FUSIBLE	47	5%	1/2W F
R530	1-242-822-31	REGISTER	0.22	5%	5W
R531	1-242-822-31	REGISTER	0.22	5%	5W
△ R532	1-219-185-11	FUSIBLE	47	5%	1/2W F
R539	1-249-943-11	CARBON	6.8K	5%	1/4W
R540	1-249-556-11	CARBON	1.5K	5%	1/4W
R541	1-249-923-11	CARBON	1K	5%	1/4W
R542	1-249-576-11	CARBON	10K	5%	1/4W
R543	1-249-965-11	CARBON	56K	5%	1/4W
R544	1-249-576-11	CARBON	10K	5%	1/4W
< VARIABLE RESISTOR >					
RT501	1-224-490-11	RES, ADJ, METAL FILM 4.7K			

A-4426-969-A MAIN-B (R) BOARD, COMPLETE					

* 1-535-730-21	LEAD, JUMPER (OFC)				
< CAPACITOR >					
C566	1-137-163-11	FILM	0.33uF	10%	63V
C567	1-137-163-11	FILM	0.33uF	10%	63V
C570	1-119-835-31	ELECT	33uF	20%	63V

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

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C571	1-162-286-31	CERAMIC	220PF	10%	50V	CN52	1-580-629-11	PIN, CONNECTOR 2P			
C572	1-119-834-11	ELECT	22uF	20%	63V	* CN53	1-564-321-21	PIN, CONNECTOR 2P			
< CONNECTOR >						< FUSE >					
* CN551	1-564-506-11	PLUG, CONNECTOR 3P				△ F51	1-532-299-00	FUSE, TIME-LAG (T5A/250V)			
* CN552	1-564-506-11	PLUG, CONNECTOR 3P				*****					
CN553	1-766-897-21	PIN, CONNECTOR (PC BOARD) 4P									
* CN554	1-564-518-11	PLUG, CONNECTOR 3P				*	1-664-368-21	PRO.LED BOARD	*****		
< DIODE >						< CONNECTOR >					
D555	8-719-911-19	DIODE 1N4148M-TP				* CN806	1-564-506-11	PLUG, CONNECTOR 3P			
D556	8-719-985-53	DIODE HZS4ALL-TA				< DIODE >					
D557	8-719-310-60	LED SEL1510C-C-TP									
D561	8-719-911-19	DIODE 1N4148M-TP				D803	8-719-313-40	LED SML1516W-TP4 (POWER)			
D562	8-719-985-53	DIODE HZS4ALL-TA				< RESISTOR >					
< TRANSISTOR >						R801	1-249-407-11	CARBON	150	5%	1/4W
Q563	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2			*****					
Q564	8-729-201-53	TRANSISTOR	2SA1015TP-GR			A-4426-972-A PS BOARD, COMPLETE					
Q565	8-729-018-19	FET	2SK2013-Y			*****					
Q566	8-729-018-21	FET	2SJ313-Y								
Q568	8-729-018-11	FET	2SK1530A-Y			*	3-555-872-21	SPACER			
Q570	8-729-018-13	FET	2SJ201A-Y			< CAPACITOR >					
Q572	8-729-140-84	TRANSISTOR	2SC1841TP-PAFAEA			C703	1-130-955-00	FILM	0.01uF	5%	100V
Q573	8-729-201-53	TRANSISTOR	2SA1015TP-GR			C705	1-119-846-11	ELECT	1uF	20%	100V
< RESISTOR >						C706	1-119-839-21	ELECT	330uF	20%	63V
R573	1-249-941-11	CARBON	5.6K	5%	1/4W	C707	1-136-880-11	FILM	2.2uF	10%	160V
R574	1-249-923-11	CARBON	1K	5%	1/4W	C708	1-119-839-21	ELECT	330uF	20%	63V
R575	1-249-556-11	CARBON	1.5K	5%	1/4W	< CONNECTOR >					
△ R576	1-202-954-11	FUSIBLE	470	5%	1/2W F	* CN701	1-564-241-11	PIN, CONNECTOR (B4P-VH) 4P			
△ R577	1-202-954-11	FUSIBLE	470	5%	1/2W F	CN703	1-691-766-31	PLUG (MICRO CONNECTOR) 4P			
△ R578	1-202-953-11	FUSIBLE	330	5%	1/2W F	CN705	1-691-766-11	PLUG (MICRO CONNECTOR) 4P			
△ R579	1-219-185-11	FUSIBLE	47	5%	1/2W F	* CN706	1-564-506-11	PLUG, CONNECTOR 3P			
R580	1-242-822-31	REGISTER	0.22	5%	5W	* CN708	1-564-505-11	PLUG, CONNECTOR 2P			
R581	1-242-822-31	REGISTER	0.22	5%	5W	< DIODE >					
△ R582	1-219-185-11	FUSIBLE	47	5%	1/2W F	D701	8-719-210-25	DIODE C25P20F			
R589	1-249-943-11	CARBON	6.8K	5%	1/4W	D702	8-719-210-25	DIODE C25P20F			
R590	1-249-556-11	CARBON	1.5K	5%	1/4W	D703	8-719-210-26	DIODE C25P20FR			
R591	1-249-923-11	CARBON	1K	5%	1/4W	D704	8-719-210-26	DIODE C25P20FR			
R592	1-249-576-11	CARBON	10K	5%	1/4W	D705	8-719-934-22	DIODE HZS30-2LT2			
R593	1-249-965-11	CARBON	56K	5%	1/4W	D709	8-719-200-02	DIODE 11E2-TA2B			
R594	1-249-576-11	CARBON	10K	5%	1/4W	D710	8-719-200-02	DIODE 11E2-TA2B			
< VARIABLE RESISTOR >						D711	8-719-200-02	DIODE 11E2-TA2B			
RT551	1-224-490-11	RES, ADJ, METAL FILM 4.7K				< MOUNT TERMINAL/GROUND PLATE >					
*****						* EPT701	4-924-264-21	TERMINAL, MOUNT			
	1-664-378-21	OUTLET BOARD	*****			* EPT702	3-346-266-21	PLATE, GROUND			
*	1-533-185-11	HOLDER, FUSE				* EPT703	3-346-266-21	PLATE, GROUND			
< CAPACITOR >						* EPT704	3-346-266-21	PLATE, GROUND			
△ C51	1-113-920-11	CERAMIC	0.0022uF	20%	250V	* EPT705	3-346-266-21	PLATE, GROUND			
< CONNECTOR >						< RESISTOR >					
CN51	1-564-321-00	PIN, CONNECTOR 2P				△ R701	1-219-165-11	FUSIBLE	1	5%	1/2W F
						△ R702	1-202-951-71	FUSIBLE	150	5%	1/2W F

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Ref. No.	Part No.	Description	Remark
R703	1-249-576-11	CARBON 10K 5%	1/4W

A-4426-971-A PS PRE BOARD, COMPLETE

*	2-259-121-01	SCREW, TR
	4-880-403-11	HEAT SINK

< CAPACITOR >

C801	1-119-841-11	ELECT	1000uF	20%	63V
C802	1-119-841-11	ELECT	1000uF	20%	63V
C808	1-119-841-11	ELECT	1000uF	20%	63V
C809	1-119-837-11	ELECT	100uF	20%	63V
C851	1-119-841-11	ELECT	1000uF	20%	63V

C852	1-119-841-11	ELECT	1000uF	20%	63V
C858	1-119-841-11	ELECT	1000uF	20%	63V
C859	1-119-837-11	ELECT	100uF	20%	63V

< CONNECTOR >

CN802	1-564-510-11	PLUG (MICRO CONNECTOR) 6P
* CN803	1-564-506-11	PLUG, CONNECTOR 3P
* CN804	1-564-506-11	PLUG, CONNECTOR 3P
CN805	1-691-766-11	PLUG (MICRO CONNECTOR) 4P

< DIODE >

D801	8-719-935-52	DIODE UZL-7H1-TP
D802	8-719-935-52	DIODE UZL-7H1-TP
D851	8-719-935-52	DIODE UZL-7H1-TP
D852	8-719-935-52	DIODE UZL-7H1-TP

< TRANSISTOR >

Q806	8-729-209-15	TRANSISTOR 2SD2012
Q807	8-729-281-54	TRANSISTOR 2SC1815BL-TPE2
Q808	8-729-202-67	FET 2SK246GR3-TPE2
Q856	8-729-141-83	TRANSISTOR 2SB1375
Q857	8-729-201-53	TRANSISTOR 2SA1015TP-GR

Q858	8-729-202-67	FET 2SK246GR3-TPE2
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< RESISTOR >

△ R802	1-217-469-00	FUSIBLE	1	5%	1W	F
△ R803	1-217-469-00	FUSIBLE	1	5%	1W	F
R818	1-249-556-11	CARBON	1.5K	5%	1/4W	
R819	1-249-560-91	CARBON	2.2K	5%	1/4W	
△ R820	1-215-887-00	METAL OXIDE	150	5%	2W	F
△ R821	1-215-887-00	METAL OXIDE	150	5%	2W	F
△ R822	1-215-887-00	METAL OXIDE	150	5%	2W	F
R868	1-249-556-11	CARBON	1.5K	5%	1/4W	
R869	1-249-560-91	CARBON	2.2K	5%	1/4W	
△ R870	1-215-887-00	METAL OXIDE	150	5%	2W	F
△ R871	1-215-887-00	METAL OXIDE	150	5%	2W	F
△ R872	1-215-887-00	METAL OXIDE	150	5%	2W	F

*	1-664-379-21	REC OUT BOARD
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< CONNECTOR >

* CN315	1-564-506-11	PLUG, CONNECTOR 3P
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Ref. No.	Part No.	Description	Remark
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< SWITCH >

S302	1-762-186-11	SWITCH, TOGGLE (RECOUT)
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*	1-664-365-21	RV BOARD
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< CONNECTOR >

CN303	1-691-770-11	PLUG (MICRO CONNECTOR) 8P
CN304	1-691-770-21	PLUG (MICRO CONNECTOR) 8P

< VARIABLE RESISTOR >

RV304	1-225-403-11	RES, VAR, CARBON 120K/120K
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(ATTENUATOR)

A-4426-970-A SP TM BOARD, COMPLETE

< CAPACITOR >

C601	1-126-868-11	ELECT	47uF	20%	50V
C602	1-119-839-11	ELECT	330uF	20%	63V
C603	1-136-157-00	MYLAR	0.022uF	5%	50V
C604	1-126-053-11	ELECT	220uF	20%	25V
C605	1-126-023-11	ELECT	100uF	20%	25V

C607	1-136-157-00	MYLAR	0.022uF	5%	50V
C608	1-126-058-11	ELECT	4.7uF	20%	63V
C609	1-128-552-11	ELECT	47uF	20%	63V
C610	1-126-058-11	ELECT	4.7uF	20%	63V
C611	1-136-157-00	MYLAR	0.022uF	5%	50V

C612	1-126-059-11	ELECT	10uF	20%	63V
C620	1-130-973-00	FILM	0.022uF	2%	100V
C670	1-130-973-00	FILM	0.022uF	2%	100V

< CONNECTOR >

CN601	1-564-320-00	PIN, CONNECTOR 2P
CN602	1-691-766-41	PLUG (MICRO CONNECTOR) 4P
* CN603	1-564-506-11	PLUG, CONNECTOR 3P
* CN604	1-564-505-11	PLUG, CONNECTOR 2P
* CN605	1-564-505-11	PLUG, CONNECTOR 2P

* CN606	1-564-506-11	PLUG, CONNECTOR 3P
* CN607	1-564-506-11	PLUG, CONNECTOR 3P
* CN608	1-564-506-11	PLUG, CONNECTOR 3P
CN609	1-691-766-11	PLUG (MICRO CONNECTOR) 4P
CN651	1-564-320-00	PIN, CONNECTOR 2P

< DIODE >

D601	8-719-911-19	DIODE 1N4148M-TP
D602	8-719-310-60	LED SEL1510C-C-TP
D603	8-719-911-19	DIODE 1N4148M-TP

< FIXED PLATE >

* EPT601	4-843-416-11	PLATE, FIXED, CAP
* EPT602	4-843-416-11	PLATE, FIXED, CAP
* EPT603	4-843-416-11	PLATE, FIXED, CAP
* EPT604	4-843-416-11	PLATE, FIXED, CAP
* EPT605	4-843-416-11	PLATE, FIXED, CAP

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Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
* EPT606	4-843-416-11	PLATE, FIXED, CAP					A-4426-973-A	TONE CONTROL BOARD, COMPLETE					
* EPT607	4-843-416-11	PLATE, FIXED, CAP					*****						
* EPT608	4-843-416-11	PLATE, FIXED, CAP					< CAPACITOR >						
< IC >							C301	1-130-475-00	MYLAR	0.0022uF	5%	50V	
IC601	8-759-111-68	IC	uPC1237HA				C303	1-136-153-00	FILM	0.01uF	5%	50V	
< COIL >							C305	1-136-155-00	FILM	0.015uF	5%	50V	
L601	1-411-766-11	COIL, AIR-CORE					C307	1-136-165-00	MYLAR	0.1uF	5%	50V	
L651	1-411-766-11	COIL, AIR-CORE					C309	1-136-165-00	MYLAR	0.1uF	5%	50V	
< TRANSISTOR >							C310	1-136-165-00	MYLAR	0.1uF	5%	50V	
Q601	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2				C351	1-130-475-00	MYLAR	0.0022uF	5%	50V	
Q602	8-729-018-60	TRANSISTOR	2SD2012-LC				C353	1-136-153-00	FILM	0.01uF	5%	50V	
Q603	8-729-201-53	TRANSISTOR	2SA1015TP-GR				C355	1-136-155-00	FILM	0.015uF	5%	50V	
Q604	8-729-201-53	TRANSISTOR	2SA1015TP-GR				C357	1-136-165-00	MYLAR	0.1uF	5%	50V	
Q605	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2				C805	1-106-343-00	MYLAR	1000PF	5%	200V	
< TRANSISTOR >							C806	1-106-343-00	MYLAR	1000PF	5%	200V	
Q606	8-729-018-60	TRANSISTOR	2SD2012-LC				< CONNECTOR >						
< RESISTOR >							* CN301	1-564-506-11	PLUG, CONNECTOR 3P				
R604	1-259-223-11	CARBON	220K	5%	1/4W		* CN313	1-564-506-11	PLUG, CONNECTOR 3P				
R606	1-259-191-21	CARBON	10K	5%	1/4W		* CN807	1-564-506-11	PLUG, CONNECTOR 3P				
R607	1-259-129-11	CARBON	27	5%	1/4W		< DIODE >						
R608	1-259-215-21	CARBON	100K	5%	1/4W		D301	8-719-313-50	LED	SEL6810A-TH12 (SOURCE DIRECT)			
R609	1-259-195-11	CARBON	15K	5%	1/4W		< TRANSISTOR >						
R610	1-259-292-11	CARBON	330	5%	1/2W		Q301	8-729-281-54	TRANSISTOR	2SC1815BL-TPE2			
R612	1-259-183-11	CARBON	4.7K	5%	1/4W		< RESISTOR >						
R613	1-259-328-11	CARBON	10K	5%	1/2W		R301	1-249-568-11	CARBON	4.7K	5%	1/4W	
R614	1-259-207-21	CARBON	47K	5%	1/4W		R302	1-249-556-11	CARBON	1.5K	5%	1/4W	
R615	1-259-199-11	CARBON	22K	5%	1/4W		R303	1-259-502-11	CARBON	4.7M	5%	1/4W	
R616	1-259-207-21	CARBON	47K	5%	1/4W		R304	1-259-502-11	CARBON	4.7M	5%	1/4W	
R617	1-259-191-21	CARBON	10K	5%	1/4W		R305	1-249-955-11	CARBON	22K	5%	1/4W	
R620	1-259-227-11	CARBON	330K	5%	1/4W		R306	1-249-568-11	CARBON	4.7K	5%	1/4W	
R621	1-259-256-11	CARBON	10	5%	1/2W		R307	1-249-568-11	CARBON	4.7K	5%	1/4W	
R622	1-259-300-11	CARBON	680	5%	1/2W		R309	1-249-469-11	CARBON	100K	5%	1/4W	
△ R625	1-202-937-31	FUSIBLE	10	5%	1/2W	F	R311	1-249-568-11	CARBON	4.7K	5%	1/4W	
R626	1-249-923-11	CARBON	1K	5%	1/4W		R351	1-249-568-11	CARBON	4.7K	5%	1/4W	
R628	1-259-292-11	CARBON	330	5%	1/2W		R352	1-249-556-11	CARBON	1.5K	5%	1/4W	
R629	1-259-292-11	CARBON	330	5%	1/2W		R353	1-259-502-11	CARBON	4.7M	5%	1/4W	
R670	1-259-227-11	CARBON	330K	5%	1/4W		R354	1-259-502-11	CARBON	4.7M	5%	1/4W	
R671	1-259-256-11	CARBON	10	5%	1/2W		R355	1-249-955-11	CARBON	22K	5%	1/4W	
R672	1-259-300-11	CARBON	680	5%	1/2W		R356	1-249-568-11	CARBON	4.7K	5%	1/4W	
△ R675	1-202-937-31	FUSIBLE	10	5%	1/2W	F	R359	1-249-469-11	CARBON	100K	5%	1/4W	
R677	1-259-296-11	CARBON	470	5%	1/2W		R824	1-259-547-11	CARBON	470	5%	1/2W	
R678	1-259-296-11	CARBON	470	5%	1/2W		R825	1-259-547-11	CARBON	470	5%	1/2W	
< RELAY >							< VARIABLE RESISTOR >						
RY601	1-755-061-11	RELAY					RV301	1-223-789-11	RES, VAR, CARBON 250K/250K (BALANCE)				
RY602	1-515-920-11	RELAY (24V)					RV302	1-223-768-12	RES, VAR, CARBON 250K/250K (TONE, TREBLE)				
< TERMINAL >							RV303	1-223-767-12	RES, VAR, CARBON 900K/900K (TONE, BASS)				
TM601	1-694-308-11	TERMINAL BOARD (SP)	(SPEAKERS MAIN)				< SWITCH >						
TM602	1-694-308-11	TERMINAL BOARD (SP)	(SPEAKERS BI-WIRE)				S303	1-571-828-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)				
*****							< SWITCH >						
							S303	1-571-828-11	SWITCH, PUSH (1 KEY) (SOURCE DIRECT)				

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TONE CONTROL

Ref. No.	Part No.	Description	Remark
S801	1-762-184-11	SWITCH, ROTARY (SPEAKERS)	

MISCELLANEOUS

161	1-506-113-00	SHORT PLUG	
* 162	1-535-691-31	TERMINAL	
△ 170	1-580-375-41	INLET 3P	
C701	1-131-864-11	CAP, ELECT	
C702	1-131-864-11	CAP, ELECT	
S001	1-762-921-11	SWITCH, ROTARY (REMOTE TYPE) (REC OUT SELECTOR)	
△ S1	1-554-538-00	SWITCH, PUSH (AC POWER) (1KEY) (POWER)	
△ T1	1-431-376-11	TRANSFORMER, POWER	
TM601	1-694-308-11	TERMINAL BOARD (SP) (SPEAKERS MAIN)	
TM602	1-694-308-11	TERMINAL BOARD (SP) (SPEAKERS BI-WIRE)	

HARDWARE LIST

#1	7-685-886-09	SCREW +BVTT 4X20 (S)	
#3	7-685-883-09	SCREW +BVTT 4X12 (S)	
#4	7-682-548-09	SCREW (3X8)	
#5	7-682-564-09	SCREW +B 4X14	
#6	7-684-024-04	N 4, TYPE 2	
#7	7-682-148-15	SCREW, TR	
* #8	7-682-248-09	SCREW +K 3X8	

ACCESSORIES & PACKING MATERIALS

△	1-551-631-22	CORD, POWER	
	3-867-878-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH, SPANISH, PORTUGUESE)	
	3-867-878-21	MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, ITALIAN)	
*	4-970-079-01	CUSHION	

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