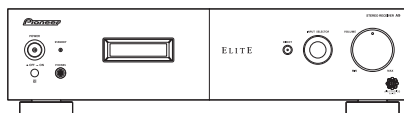


Service Manual



SX-A9-J

ORDER NO.
RRV3539

INTEGRATED AMPLIFIER

SX-A9-J

SX-A6-J

THIS MANUAL IS APPLICABLE TO THE FOLLOWING MODEL(S) AND TYPE(S).

Model	Type	Power Requirement	Remarks
SX-A9-J	KUXCN/CA	AC 120 V	
SX-A6-J	KUXCN/CA	AC 120 V	



For details, refer to "Important Check Points for good servicing".

A



This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual.

Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.

B

WARNING

This product contains lead in solder and certain electrical parts contain chemicals which are known to the state of California to cause cancer, birth defects or other reproductive harm.

Health & Safety Code Section 25249.6 – Proposition 65

C

NOTICE

(FOR CANADIAN MODEL ONLY)

Fuse symbols  (fast operating fuse) and/or  (slow operating fuse) on PCB indicate that replacement parts must be of identical designation.

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

Les symboles de fusible  (fusible de type rapide) et/ou  (fusible de type lent) sur CCI indiquent que les pièces de remplacement doivent avoir la même désignation.

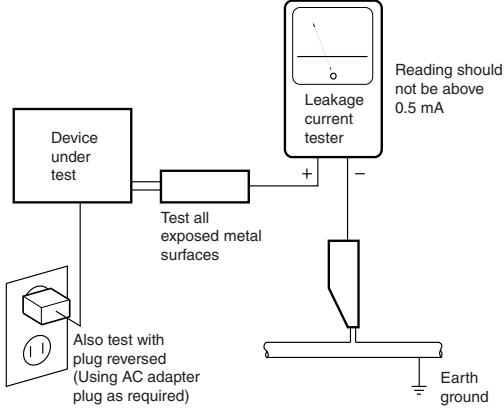
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

The following check should be performed for the continued protection of the customer and service technician.

LEAKAGE CURRENT CHECK

Measure leakage current to a known earth ground (water pipe, conduit, etc.) by connecting a leakage current tester such as Simpson Model 229-2 or equivalent between the earth ground and all exposed metal parts of the appliance (input/output terminals, screwheads, metal overlays, control shaft, etc.). Plug the AC line cord of the appliance directly into a 120V AC 60 Hz outlet and turn the AC power switch on. Any current measured must not exceed 0.5 mA.



AC Leakage Test

ANY MEASUREMENTS NOT WITHIN THE LIMITS OUTLINED ABOVE ARE INDICATIVE OF A POTENTIAL SHOCK HAZARD AND MUST BE CORRECTED BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

2. PRODUCT SAFETY NOTICE

Many electrical and mechanical parts in the appliance have special safety related characteristics. These are often not evident from visual inspection nor the protection afforded by them necessarily can be obtained by using replacement components rated for voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in this Service Manual.

Electrical components having such features are identified by marking with a ⚠ on the schematics and on the parts list in this Service Manual.

The use of a substitute replacement component which does not have the same safety characteristics as the PIONEER recommended replacement one, shown in the parts list in this Service Manual, may create shock, fire, or other hazards.

Product Safety is continuously under review and new instructions are issued from time to time. For the latest information, always consult the current PIONEER Service Manual. A subscription to, or additional copies of, PIONEER Service Manual may be obtained at a nominal charge from PIONEER.

[Important Check Points for Good Servicing]

In this manual, procedures that must be performed during repairs are marked with the below symbol. Please be sure to confirm and follow these procedures.

1. Product safety



Please conform to product regulations (such as safety and radiation regulations), and maintain a safe servicing environment by following the safety instructions described in this manual.

- ① Use specified parts for repair.

Use genuine parts. Be sure to use important parts for safety.

- ② Do not perform modifications without proper instructions.

Please follow the specified safety methods when modification(addition/change of parts) is required due to interferences such as radio/TV interference and foreign noise.

- ③ Make sure the soldering of repaired locations is properly performed.

When you solder while repairing, please be sure that there are no cold solder and other debris. Soldering should be finished with the proper quantity. (Refer to the example)

- ④ Make sure the screws are tightly fastened.

Please be sure that all screws are fastened, and that there are no loose screws.

- ⑤ Make sure each connectors are correctly inserted.

Please be sure that all connectors are inserted, and that there are no imperfect insertion.

- ⑥ Make sure the wiring cables are set to their original state.

Please replace the wiring and cables to the original state after repairs. In addition, be sure that there are no pinched wires, etc.

- ⑦ Make sure screws and soldering scraps do not remain inside the product.

Please check that neither solder debris nor screws remain inside the product.

- ⑧ There should be no semi-broken wires, scratches, melting, etc. on the coating of the power cord.

Damaged power cords may lead to fire accidents, so please be sure that there are no damages. If you find a damaged power cord, please exchange it with a suitable one.

- ⑨ There should be no spark traces or similar marks on the power plug.

When spark traces or similar marks are found on the power supply plug, please check the connection and advise on secure connections and suitable usage. Please exchange the power cord if necessary.

- ⑩ Safe environment should be secured during servicing.

When you perform repairs, please pay attention to static electricity, furniture, household articles, etc. in order to prevent injuries. Please pay attention to your surroundings and repair safely.

2. Adjustments



To keep the original performance of the products, optimum adjustments and confirmation of characteristics within specification. Adjustments should be performed in accordance with the procedures/instructions described in this manual.

3. Lubricants, Glues, and Replacement parts



Use grease and adhesives that are equal to the specified substance. Make sure the proper amount is applied.

4. Cleaning



For parts that require cleaning, such as optical pickups, tape deck heads, lenses and mirrors used in projection monitors, proper cleaning should be performed to restore their performances.

5. Shipping mode and Shipping screws



To protect products from damages or failures during transit, the shipping mode should be set or the shipping screws should be installed before shipment. Please be sure to follow this method especially if it is specified in this manual.

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1. SPECIFICATIONS

Amplifier section

Power output specification is for when power supply is 120 V.

• Continuous power output (both channels driven at 20 Hz to 20 kHz)**

SX-A9-J

THD 0.2 %, 4 Ω 70 W + 70 W

THD 0.2 %, 8 Ω 55 W + 55 W

SX-A6-J

THD 0.2 % 60 W + 60 W

THD 0.2 % 45 W + 45 W

• FTC Continuous power output (both channels driven at 1 kHz)

SX-A9-J

THD 1.0 %, 4 Ω 65 W + 65 W

THD 1.0 %, 8 Ω 55 W + 55 W

SX-A6-J

THD 1.0 %, 4 Ω 53 W + 53 W

THD 1.0 %, 8 Ω 43 W + 43 W

• Total harmonic distortion**

20 Hz to 20 kHz, 25 W, 8 Ω 0.05 %*

* Measured with DIRECT button switched on.

** Measured by Audio Spectrum Analyzer

Audio section

• Input (Sensitivity/Impedance)

CD, TAPE, AUX 200 mV/47 k Ω

PHONO (MM) 2.8 mV/47 k Ω

* PHONO (MC) 0.3 mV/100 Ω

• Frequency response

CD, TAPE, AUX, USB* 5 Hz to 100 kHz ± 0.3 dB

PHONO (MM) 20 Hz to 20 kHz ± 0.2 dB

* PHONO (MC) 20 Hz to 20 kHz ± 0.3 dB

• PHONO (MM) overload level

1 kHz, THD 0.2 % 60 mV

• PHONO (MC) overload level

* 1 kHz, THD 0.2 % 6 mV

• Output (Level/Impedance)

TAPE REC. 200 mV/1 k Ω

• Tone control

Bass ± 10 dB (100 Hz)

Treble ± 10 dB (10 kHz)

• Signal-to-Noise Ratio

CD, TAPE, AUX (200 mV input) 103 dB

PHONO (MM, 2.8 mV input) 80 dB

PHONO (MC, 0.2 mV input) 70 dB

• FM Tuner Section

Frequency Range. 87.5 MHz to 108 MHz

Usable Sensitivity Mono: 13.2 dBf, IHF
(1.3 μ V/ 75 Ω)

50 dB Quieting Sensitivity. Mono: 20.2 dB
Stereo: 38.6 dBf

Signal-to-Noise Ratio. Mono: 73 dB (at 85 dBf)
Stereo: 70 dB (at 85 dBf)

Distortion Stereo: 0.5 % (1 kHz)

Alternate Channel Selectivity. 60 dB (400 kHz)

Stereo Separation 40 dB (1 kHz)

Frequency Response. 30 Hz to 15 kHz
(± 1 dB)

Antenna Input (FTC) 75 Ω unbalanced

• AM Tuner Section

Frequency Range 530 kHz to 1700 kHz

Sensitivity (IHF, Loop antenna) 350 μ V/m

Signal-to-Noise Ratio 50 dB

Antenna Loop antenna

Power consumption

SX-A9-J 200 W

SX-A6-J 170 W

In standby 0.6 W

Dimensions

SX-A9-J 420 mm(W) x 113 mm(H) x 369 mm(D)
(16 $\frac{9}{16}$ in (W) x 4 $\frac{7}{16}$ in (H) x 14 $\frac{17}{32}$ in (D))

SX-A6-J 420 mm(W) x 100 mm(H) x 359 mm(D)
(16 $\frac{9}{16}$ in (W) x 3 $\frac{15}{16}$ in (H) x 14 $\frac{1}{8}$ in (D))

Weight (with out package)

SX-A9-J 10.8 kg (23 lb. 13 oz)

SX-A6-J 10 kg (22 lb)

Accessories

Remote control. 1

Lithium battery (CR2025). 1

AM loop antenna 1

FM wire antenna. 1

Power cable. 1

Warranty card. 1

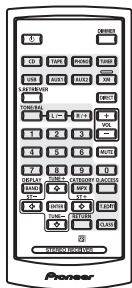
Operating instructions

Specifications and the design are subject to possible modifications without notice, due to improvements.

* : SX-A9-J Only

● Accessories

- Remote Control Unit
(SX-A9-J : 8300747000010-IL)
(SX-A6-J : 8300747300010-IL)



- Lithium Battery
(CR2025)



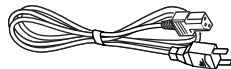
- AM Loop Antenna
(E605010130010-IL)



- FM Wire Antenna
(E605000030050-IL)



- Power Cable
(L068125130010-IL)



- Warranty Card
- Operating Instructions

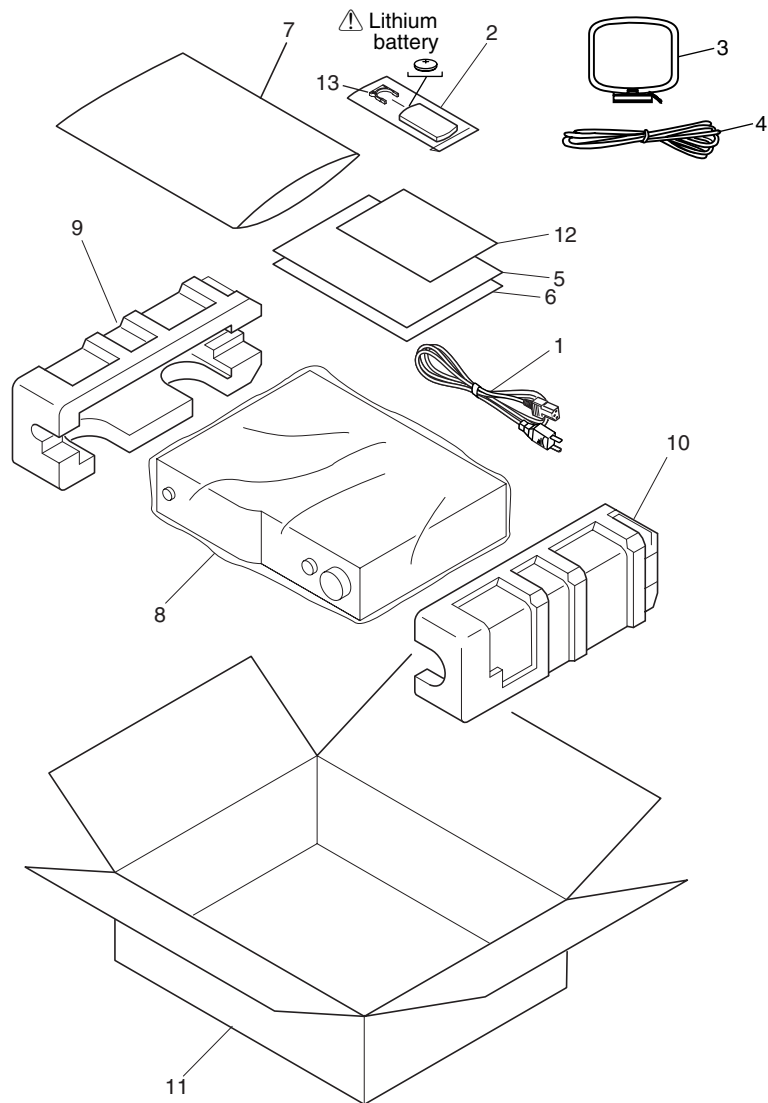
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2. EXPLODED VIEWS AND PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
●The ⚠ mark found on some component parts indicates the importance of the safety factor of the part. Therefore, when replacing, be sure to use parts of identical designation.
●Screws adjacent to ▼ mark on product are used for disassembly.
●For the applying amount of lubricants or glue, follow the instructions in this manual.
(In the case of no amount instructions, apply as you think it appropriate.)

2.1 SX-A9-J model

2.1.1 PACKING (SX-A9-J)



PACKING (SX-A9-J)

Mark No.	Description	Part No.	Mark No.	Description	Part No.
⚠ 1	POWER CABLE	L068125130010-IL	9	CUSHION,SNOW L	6230211534000-IL
2	REMOTE CONTROL	8300747000010-IL	10	CUSHION,SNOW R	6230211544000-IL
3	AM LOOP ANTENNA	E605010130010-IL			
4	FM WIRE ANTENNA	E605000030050-IL	11	BOX,GIFT	6007210940020-IL
5	OPERATING INSTRUCTIONS (English)	5707000000180-IL	NSP 12	WARRANTY CARD	ARY7077
			13	BATTERY COVER B	AZN8024
6	OPERATING INSTRUCTIONS (French)	5707000000490-IL			
NSP 7	POLYETHYLENE BAG	6337000240010-IL			
8	PE,SHEET	6327040022012-IL			

2.1.2 EXTERIOR (SX-A9-J)

• SX-A9-J model

A

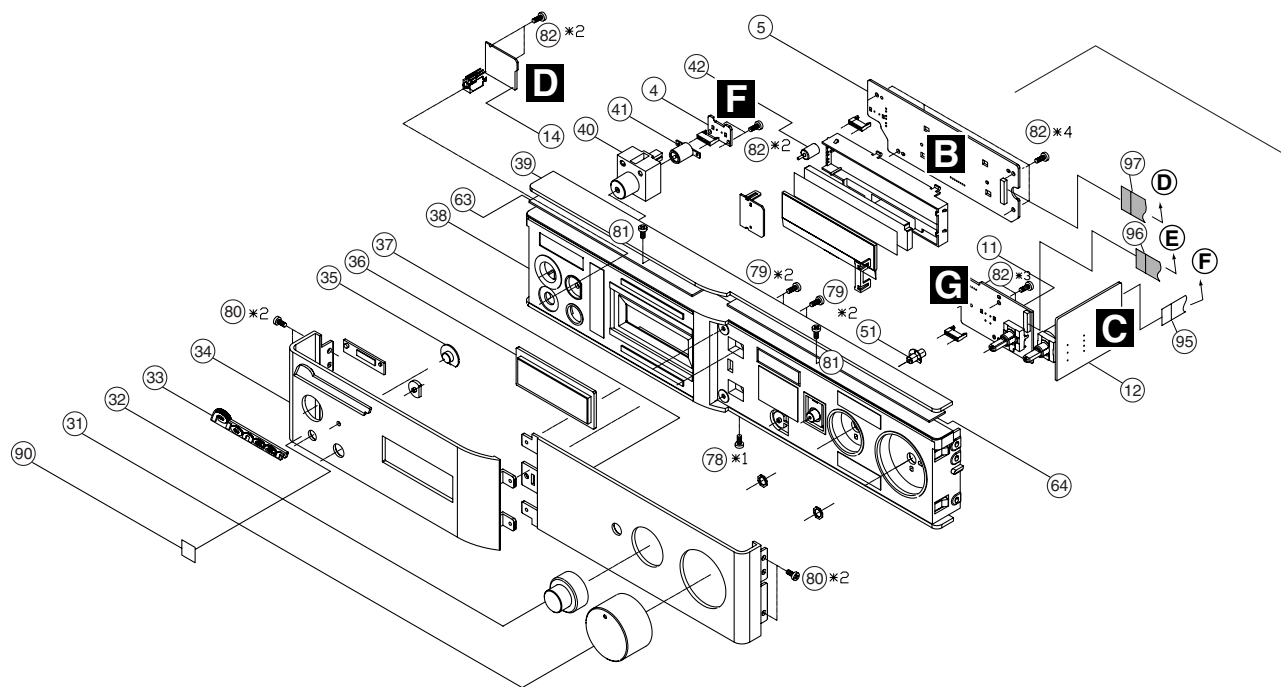
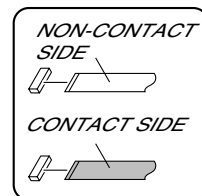
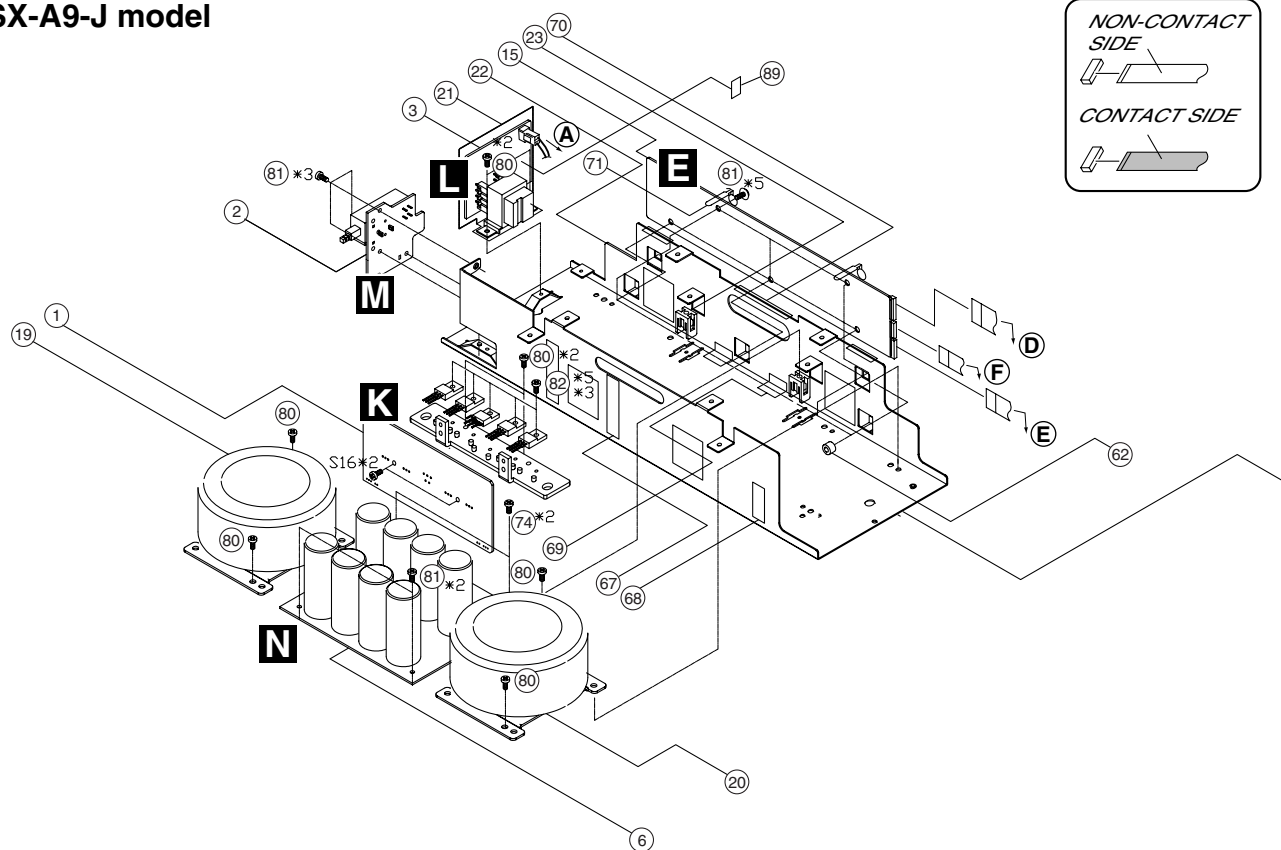
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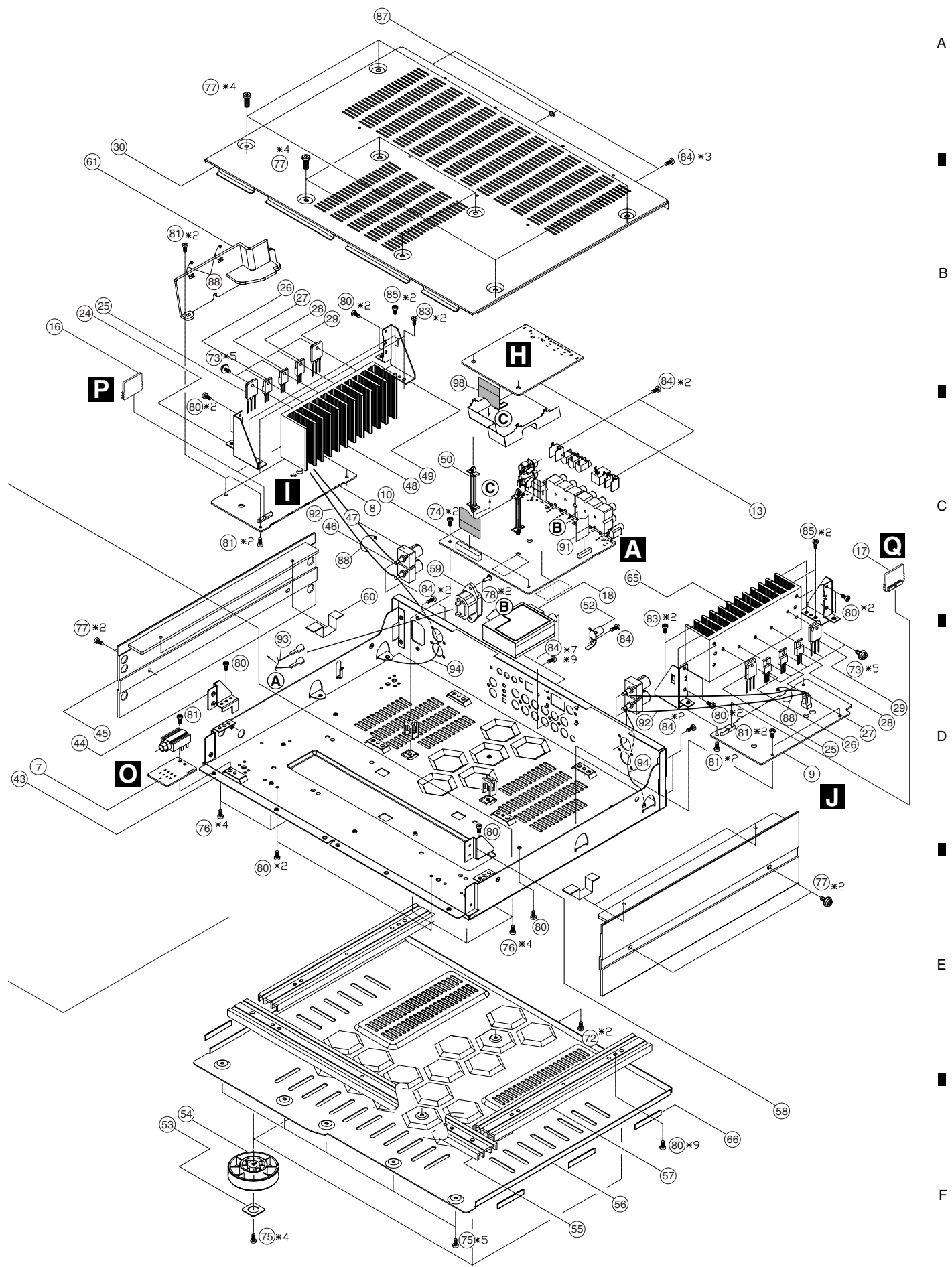
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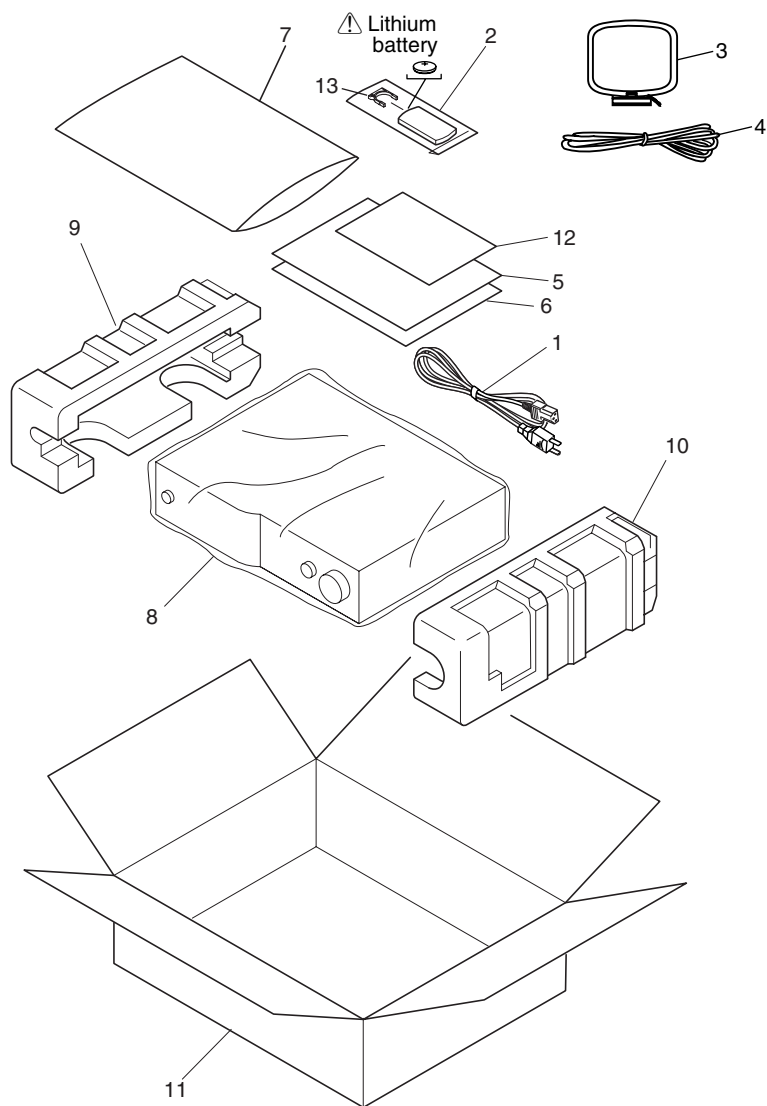


• EXTERIOR (SX-A9)

	Mark No.	Description	Part No.	Mark No.	Description	Part No.
A	1	REG IC Assy	7028065471020-IL			
	2	POWER SW Assy	7028065357060-IL			
	3	SUB TRANS Assy	702806535A070-IL			
	4	POWER LED Assy	7028065358060-IL			
	5	FRONT Assy	7028065354060-IL			
	6	POWER Assy	7025065353070-IL			
	7	HEADPHONE Assy	702806535B060-IL			
	8	AMP LCH Assy	7028065351010-IL			
	9	AMP RCH ASSY	7028065352010-IL			
	10	FUNCTION Assy	7028065361070-IL			
B	11	VR Assy	7028065359060-IL			
	12	MOTOR VR Assy	7028065355060-IL			
	13	XM-READY/USB Assy	7028065362070-IL			
	14	REMOCON Assy	7028065356060-IL			
	15	STATION Assy	7028065461020-IL			
	16	PROTECTION L-CH ASSY	7028065363010-IL			
	17	PROTECTION R-CH ASSY	7028065364010-IL			
	18	FM/AM TUNER UNIT	AXX7172			
	19	POWER TRANS L	8200900550020-IL			
	20	POWER TRANS R	8200900550070-IL			
C	21	PLATE SUB TRANS	4470211012000-IL			
	22	BRACKER TRANS	4010212736000-IL			
	23	SUPPORT PCB	4070001601010-IL			
	24	BRACKER HEAT SINK L	4010212716000-IL			
	25	SEMI,TR	J5001386A0010-IL			
	26	SEMI,TR	2SA1859A			
	27	SEMI,TR	J5024137V0130-IL			
	28	SEMI,TR	2SC4883A			
	29	SEMI,TR	J5023519A0010-IL			
	30	CABINET TOP COVER	3007210786000-IL			
D	31	KNOB VOLUME	5088211378000-IL			
	32	KNOB INPUT	5088211368000-IL			
	33	BADGE	VAM1124			
	34	PANEL FRONT L	3067212778000-IL			
	35	LENS REMOCON	3710210683000-IL			
	36	WINDOW DISPLAY	5070212303000-IL			
	37	PANEL FRONT R	3067212798010-IL			
	38	FRAME PANEL	3217211301000-IL			
	39	PLATE TOP	4477211028000-IL			
	40	KNOB POWER	5087211391000-IL			
	41	LENS POWER	3710210673000-IL			
	42	LENS STAND BY	3710210693000-IL			
	43	CHASSIS MAIN & BACK	3207212016300-IL			
	44	BRACKET FRAEM L	4010212696000-IL			
	45	PANEL SIDE	3067212818000-IL			
E	46	TER,BOARD SCREW(BK)	G610040300000-IL			
	47	TER,BOARD SCREW(RD)	G610040310000-IL			
	48	HEAT SINK MAIN L	2120210998000-IL			
	49	BRACKER HEAT SINK R	4010212726000-IL			
	50	SPACER SUPPORT	4300210023000-IL			
	51	LENS DIRECT	3710210663000-IL			
	52	TERMINAL GROUND	3790000090000-IL			
	53	CUSHION FOOT	4050211605000-IL			
	54	FOOT	4007210391000-IL			
	55	BAR BOTTOM FRONT	1040000018000-IL			
F	56	COVER BOTTOM	4317212946000-IL			
	57	BAR BOTTOM SIDE	1040000028000-IL			
	58	BRACKET FRAME R	4010212706000-IL			
	59	AC INLET	G430000180010-IL			
	60	HOLDER CHIP	4320210591000-IL			
	61	HOLDER INLET CORD	4320210601000-IL			
	62	CUSHION SCREW	4050211205000-IL			
	63	TAPE PLATE TOP(E)	1220210299000-IL			
	64	TAPE PLATE TOP(F)	1220210309000-IL			
	65	HEAT SINK MAIN R	2120211048000-IL			
	66	CUSHION SIDE PANEL	4050211725000-IL			
	67	ACETAPE(15*80)	1220210059070-IL			
	68	ACETAPE(15*45)	1220210059050-IL			
	69	ACETAPE(33*50)	1220210319000-IL			
	70	ACETAPE(15*110)	1220210059000-IL			
	71	CLAMP RETAINER COIL	4330210062000-IL			
	72	SCREW	B020030083B10-IL			
	73	SCREW	B018230141H11-IL			
	74	SCREW	B020030171B10-IL			
	75	SCREW	B020030173B10-IL			
	76	SCREW (+2S 4*10 ZNY/HH)	B028940101B10-IL			
	77	SCREW	1500040103P41-IL			
	78	SCREW	B020030086F10-IL			
	79	SCREW	B020030106B10-IL			
	80	SCREW	B020030086B11-IL			
	81	SCREW	B028030086B10-IL			
	82	SCREW	B020030086B10-IL			
	83	SCREW	B020030066B10-IL			
	84	SCREW	B020030106B11-IL			
	85	SCREW	B020030066B11-IL			
	86	*****				
	87	WASHER	1530210132000-IL			
	88	CLAMP	4330040343010-IL			
	89	LABEL RATING	5527042410010-IL			
	90	ENERGY STAR LABEL	AAX8022			
	91	CABLE, FLAT CARD	N712110943810-IL			
	92	CN, WIRE 2P	L000121020210-IL			
	93	CN, WIRE 2P	L000201020130-IL			
	94	1P WIRE LUGPIN	N602121010310-IL			
	95	CABLE, FLAT CARD 1.25 7P	N712071343810-IL			
	96	CABLE, FLAT CARD 1.25 10P	N712102633810-IL			
	97	CABLE, FLAT CARD 14P	N712143633810-IL			
	98	CABLE, FLAT CARD 1.25 23P	N712230943810-IL			

2.2 SX-A6-J model

2.2.1 PACKING (SX-A6-J)

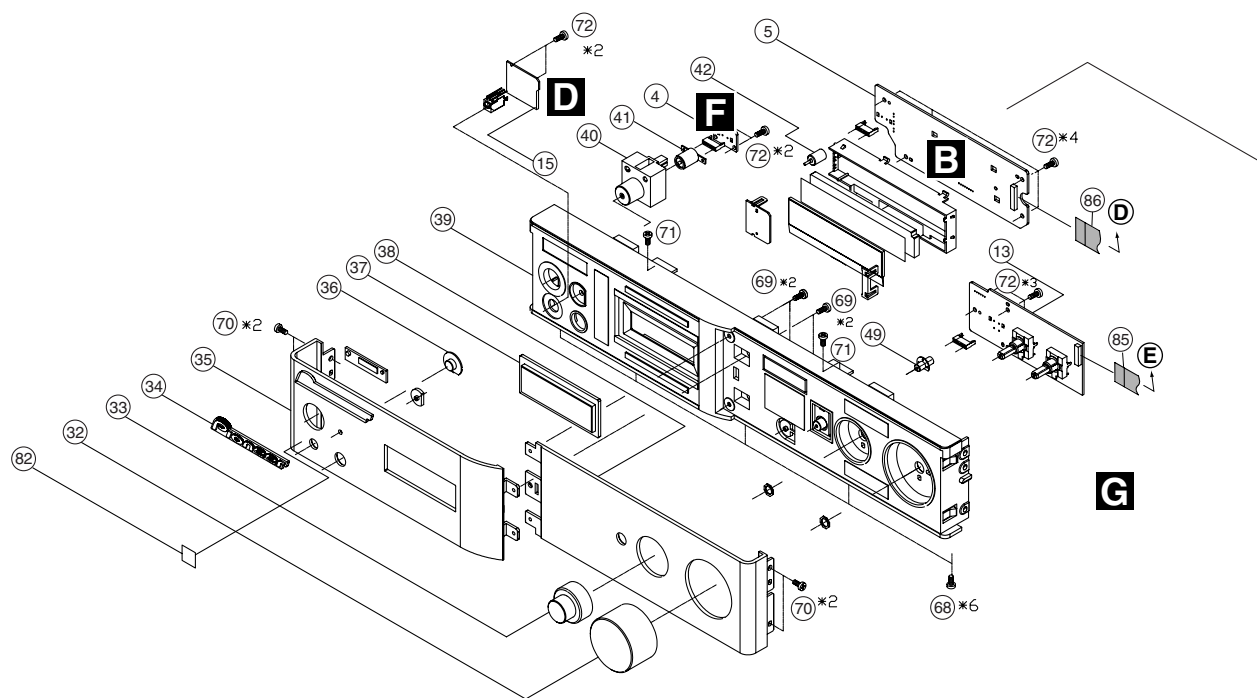
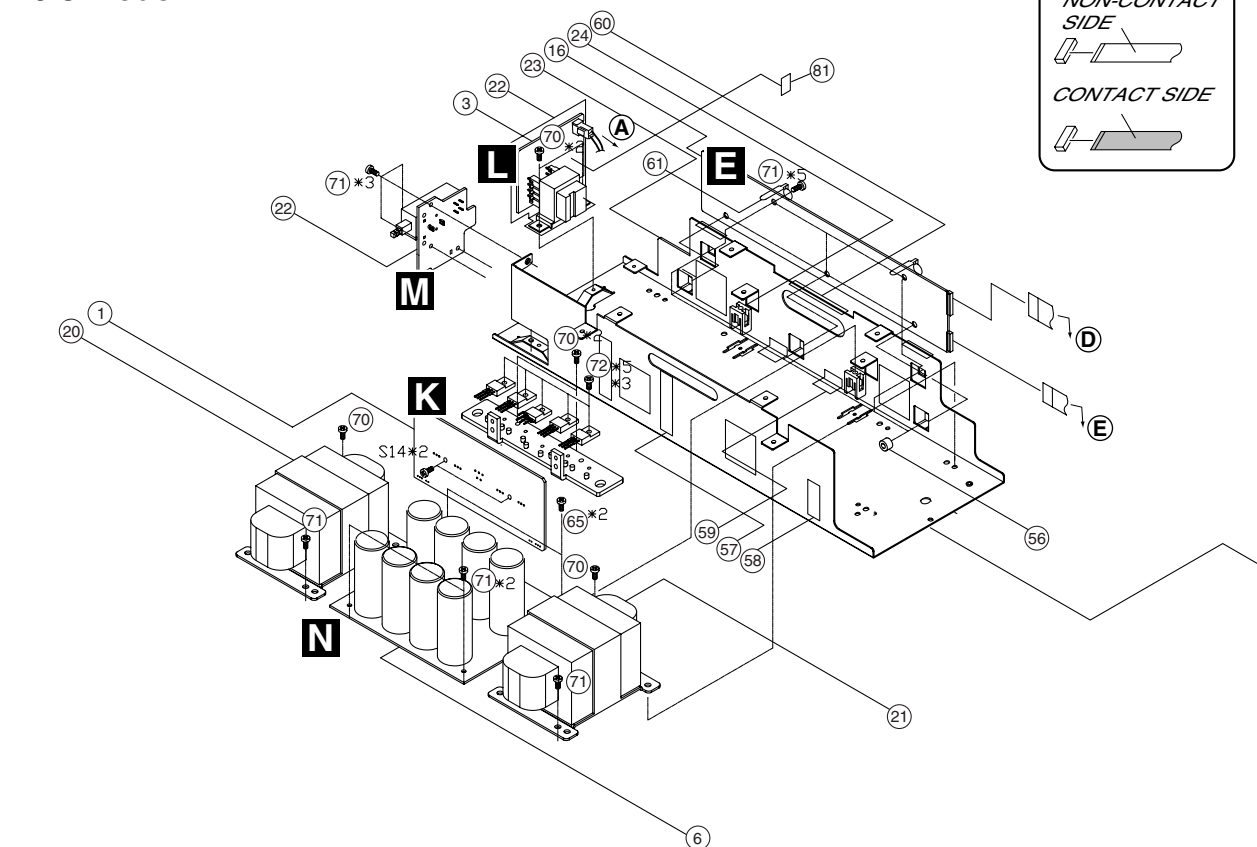


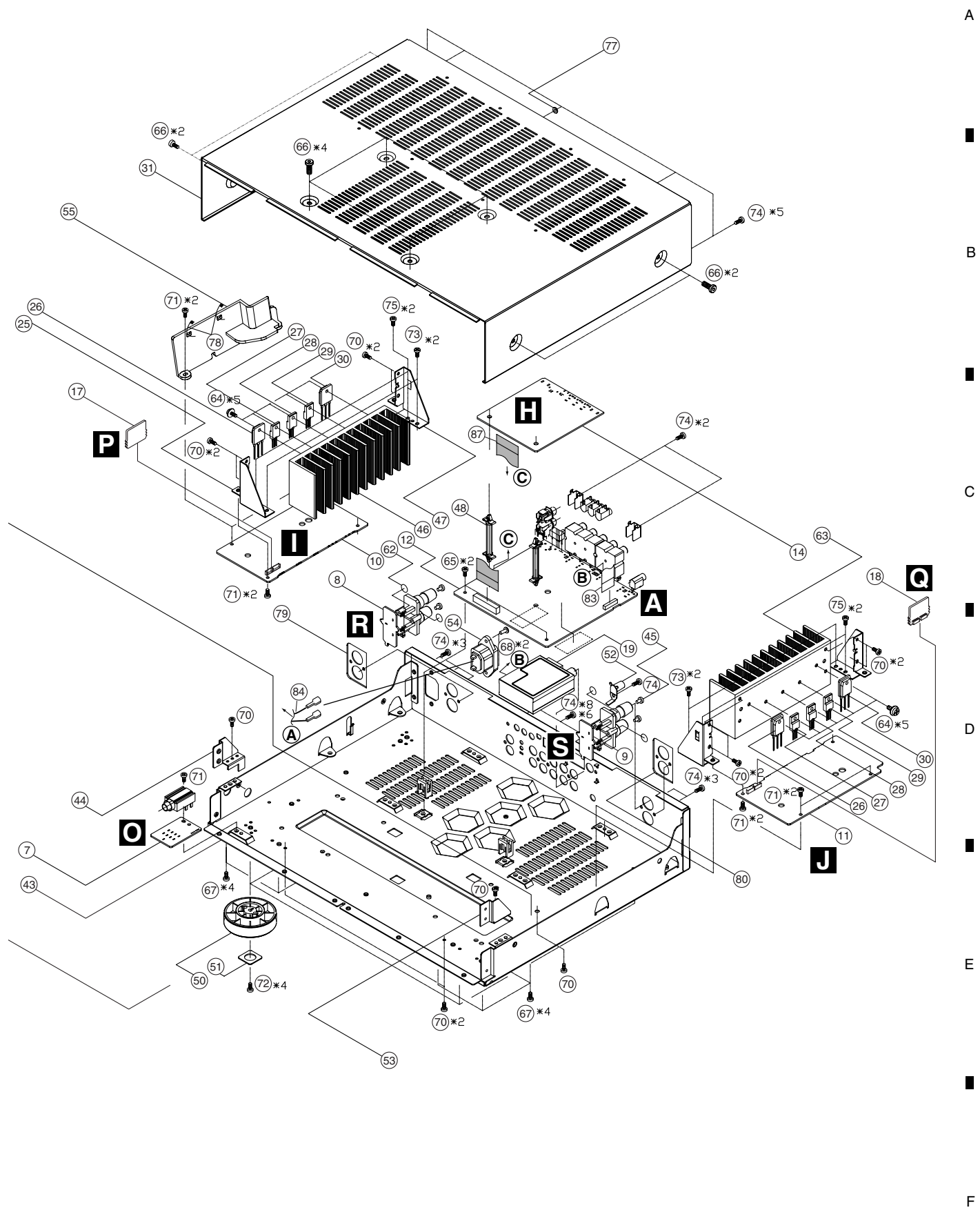
• PACKING (SX-A6-J)

Mark	No.	Description	Part No.	Mark	No.	Description	Part No.
⚠	1	POWER CABLE	L068125130010-IL				
	2	REMOTE CONTROL	8300747300010-IL				
	3	AM LOOP ANTENNA	E605010130010-IL				
	4	FM WIRE ANTENNA	E605000030050-IL				
	5	OPERATING INSTRUCTIONS (English)	5707000000130-IL				
	6	OPERATING INSTRUCTIONS (French)	5707000000480-IL				
NSP	7	POLYETHYLENE BAG	6337000240010-IL				
	8	PE, SHEET	6327040022012-IL				
	9	CUSHION, SNOW L	6230211514000-IL				
	10	CUSHION, SNOW R	6230211524000-IL				
	11	BOX, GIFT	6007210930020-IL				
NSP	12	WARRANTY CARD	ARY7077				
	13	BATTERY COVER B	AZN8024				

2.2.2 EXTERIOR (SX-A6-J)

• SX-A6-J model





• EXTERIOR (SX-A6-J)

	Mark No.	Description	Part No.	Mark No.	Description	Part No.
A	1	REG IC Assy	7028065471020-IL	56	CUSHION SCREW	4050211205000-IL
	2	POWER SW Assy	7028065357010-IL	NSP 57	ACETAPE(15*80)	1220210059070-IL
	3	SUB TRANS Assy	702806535A020-IL	NSP 58	ACETAPE(15*45)	1220210059050-IL
	4	POWER LED Assy	7028065358010-IL	NSP 59	ACETAPE(33*50)	1220210319000-IL
	5	FRONT Assy	7028065354010-IL	NSP 60	ACETAPE(15*110)	1220210059000-IL
B	6	POWER Assy	7025065353020-IL	61	CLAMP RETAINER COIL	4330210062000-IL
	7	HEADPHONE Assy	702806535B060-IL	62	CUSHION CAP SCREW	4050211745000-IL
	8	SPEAKER L-CH Assy	7028065462010-IL	NSP 63	HEAT SINK MAIN R	2120211048000-IL
	9	SPEAKER R-CH Assy	7028065463010-IL	64	SCREW (+2S 3*14 P+S-WASHER ZNY/HH)	B018230141H11-IL
	10	AMP LCH Assy	7028065351010-IL	65	SCREW (+2S 4*10 ZNY/HH)	B020030171B10-IL
C	11	AMP RCH ASSY	7028065352010-IL	66	SCREW	1500040103P41-IL
	12	FUNCTION Assy	7028065361020-IL	67	SCREW (1500040104P41S)	B028940101B10-IL
	13	VR Assy	7028065359010-IL	68	SCREW (+2S 3*8 B-TYPE FH/CU)	B020030086F10-IL
	14	XM-READY/USB Assy	7028065362020-IL	69	SCREW (+2S 3*10 B-TYPE BH/CU)	B020030106B10-IL
	15	REMOCON Assy	7028065356010-IL	70	SCREW (+2S 3*8 B-TYPE(DOT) BH/CU)	B020030086B11-IL
D	16	STATION Assy	7028065461010-IL	71	SCREW (+2S 3*8 B-TYPE WASHER BH/CU)	B028030086B10-IL
	17	PROTECTION L-CH ASSY	7028065363010-IL	72	SCREW (+2S 3*8 B-TYPE BH/CU)	B020030086B10-IL
	18	PROTECTION R-CH ASSY	7028065364010-IL	73	SCREW (+2S 3*6 B-TYPE BH/CU)	B020030066B10-IL
	19	FM/AM TUNER UNIT	AXX7172	74	SCREW (+3S 3*10 B-T(DOT) BH/CU))	B020030106B11-IL
	20	TRANS MAIN L	8200660550350-IL	75	SCREW (+2S 3*6 B-TYPE(DOT) BH/CU)	B020030066B11-IL
E	21	TRANS MAIN R	8200660550400-IL	76	*****	
	22	PLATE SUB TRANS	4470211012000-IL	77	WASHER	1530210132000-IL
	23	BRACKER TRANS	4010212736000-IL	78	CLAMP	4330040343010-IL
	24	SUPPORT PCB	4070001601010-IL	79	SHEET SPEAKER L	1217210482000-IL
	25	BRACKER HEAT SINK L	4010212716000-IL	80	SHEET SPEAKER R	1217210482010-IL
F	26	SEMI,TR	J5001386A0010-IL	81	LABEL RATING	5527042410010-IL
	27	SEMI,TR	2SA1859A	NSP 82	ENERGY STAR LABEL	AAX8022
	28	SEMI,TR	J5024137V0130-IL	83	CABLE, FLAT CARD (TUNER UNIT)	N712110943810-IL
	29	SEMI,TR	2SC4883A	84	CN, WIRE 2P (CN301 SUB TRANS)	L000201020130-IL
	30	SEMI,TR	J5023519A0010-IL	85	CABLE, FLAT CARD 1.25 10P (CN607 VR - CN9915 STATION)	N712102633810-IL
G	31	CABINET TOP COVER	3007210796000-IL	86	CABLE, FLAT CARD 14P (CN608 FRONT - CN9914 STATION)	N712143633810-IL
	32	KNOB VOLUME	5088211388000-IL	87	CABLE, FLAT CARD 1.25 23P (CN102 FUNCTION - CN501 XM READY/USB)	N712230943810-IL
	33	KNOB INPUT	5088211368000-IL			
	34	BADGE	VAM1124			
	35	PANEL FRONT L	3067212788000-IL			
H	36	LENS REMOCON	3710210683000-IL			
	37	WINDOW DISPLAY	5070212303000-IL			
	38	PANEL FRONT R	3067212808010-IL			
	39	FRAME PANEL	3217211311000-IL			
	40	KNOB POWER	5087211391000-IL			
I	41	LENS POWER	3710210673000-IL			
	42	LENS STAND BY	3710210693000-IL			
	43	CHASSIS MAIN & BACK	3207212016100-IL			
	44	BRACKET FRAEM L	4010212696000-IL			
	45	BUSHING TERMINAL	2410040353010-IL			
J	46	HEAT SINK MAIN L Assy	2120210998000-IL			
	47	BRACKER HEAT SINK R	4010212726000-IL			
	48	SPACER SUPPORT	4300210023000-IL			
	49	LENS DIRECT	3710210663000-IL			
	50	FOOT	4007210391000-IL			
K	51	CUSHION FOOT	4050211605000-IL			
	52	TERMINAL GROUND	3790000090000-IL			
	53	BRACKET FRAME R	4010212706000-IL			
	54	AC INLET	G430000180010-IL			
	55	HOLDER INLET CORD	4320210601000-IL			

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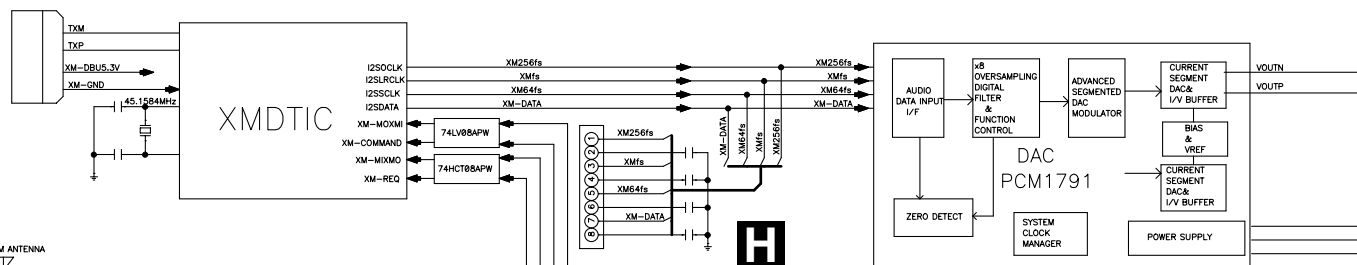
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SX-A9-J

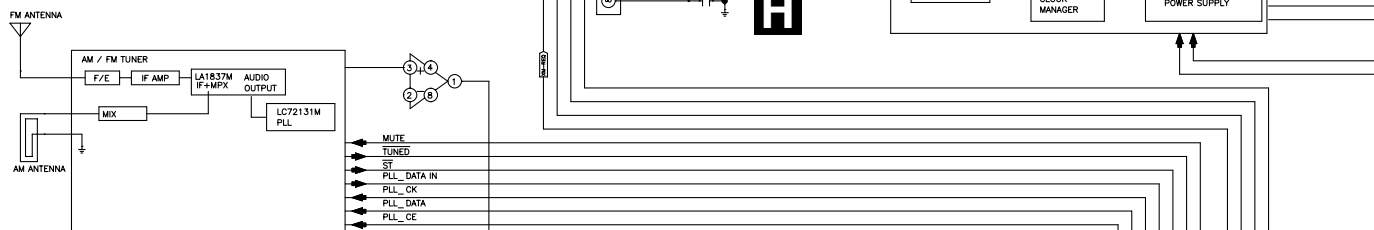
3. BLOCK DIAGRA AND SCHEMATIC DIAGRAM

3.1 OVERALL BLOCK DIAGRAM

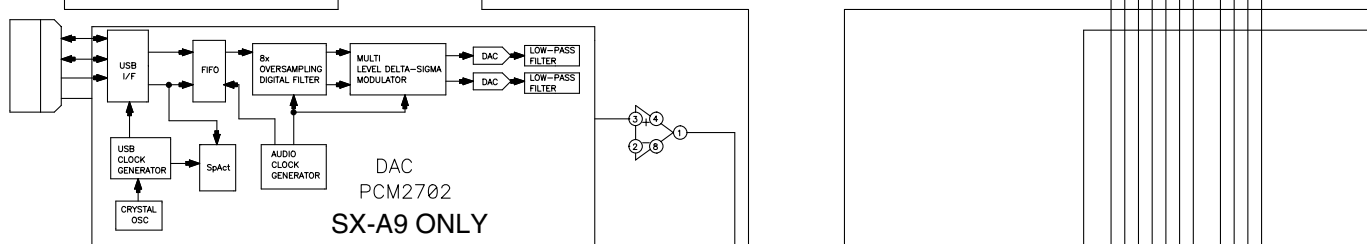
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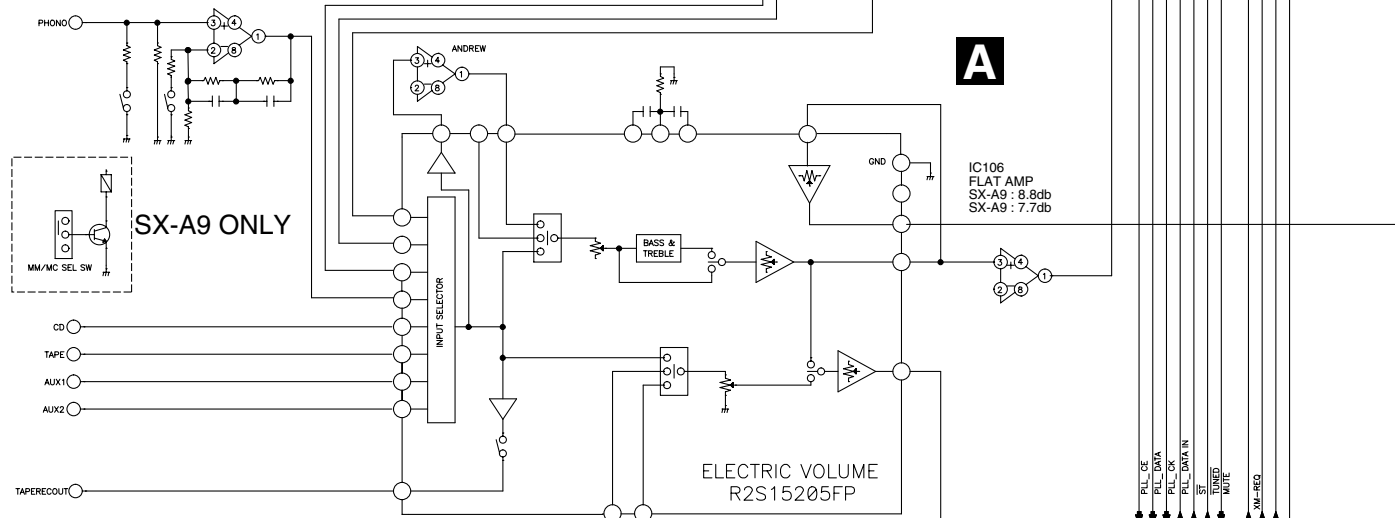
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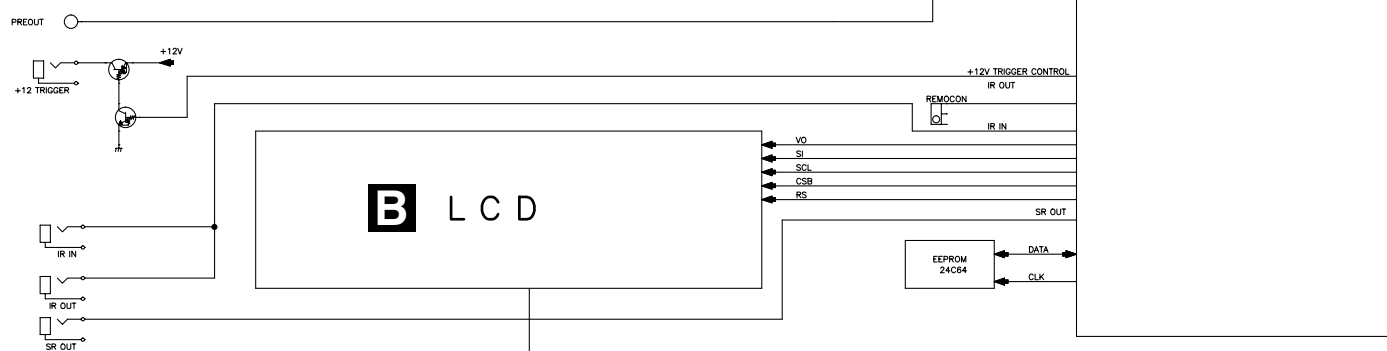
C



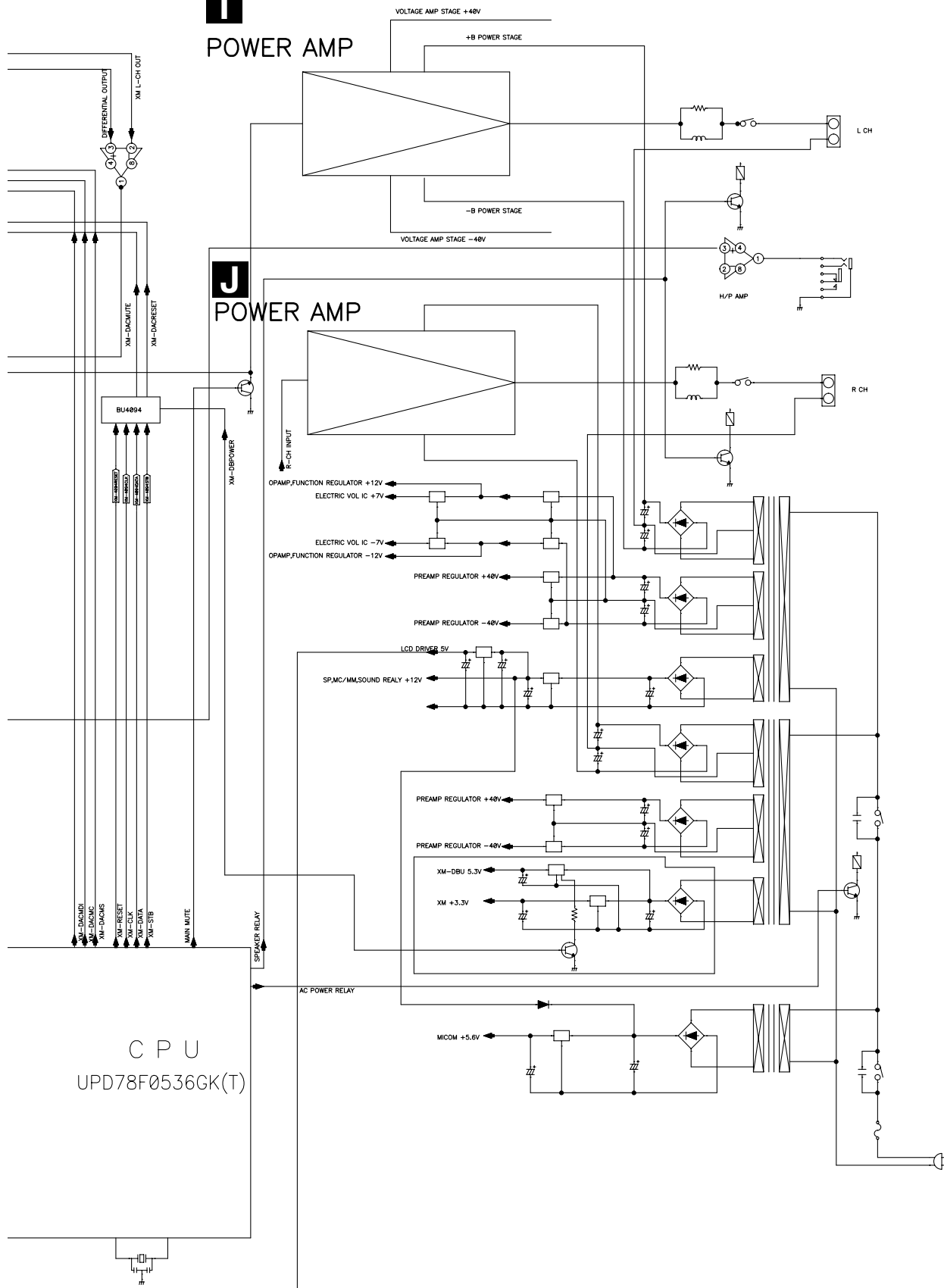
D



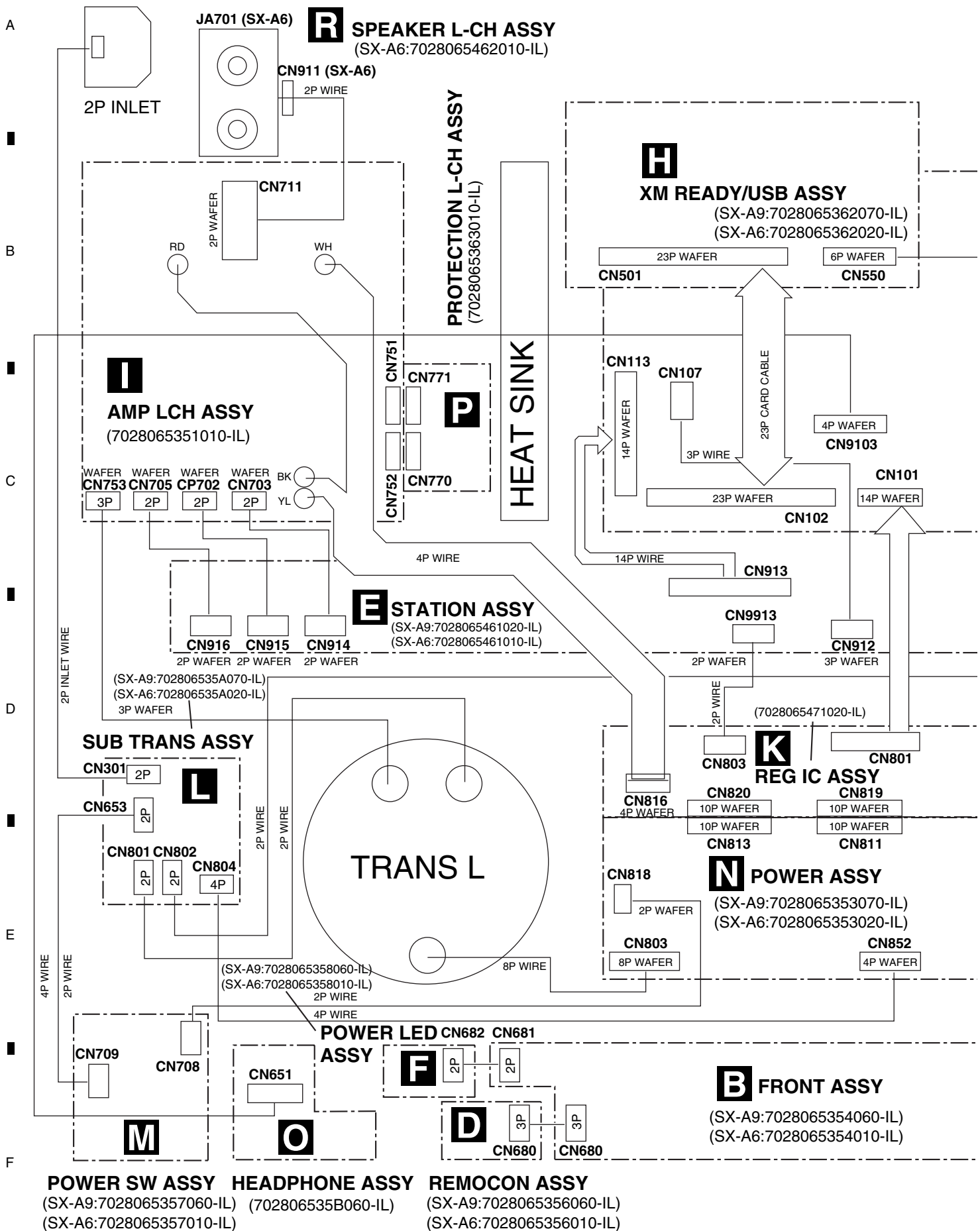
E



F



3.2 OVERALL WIRING DIAGRAM





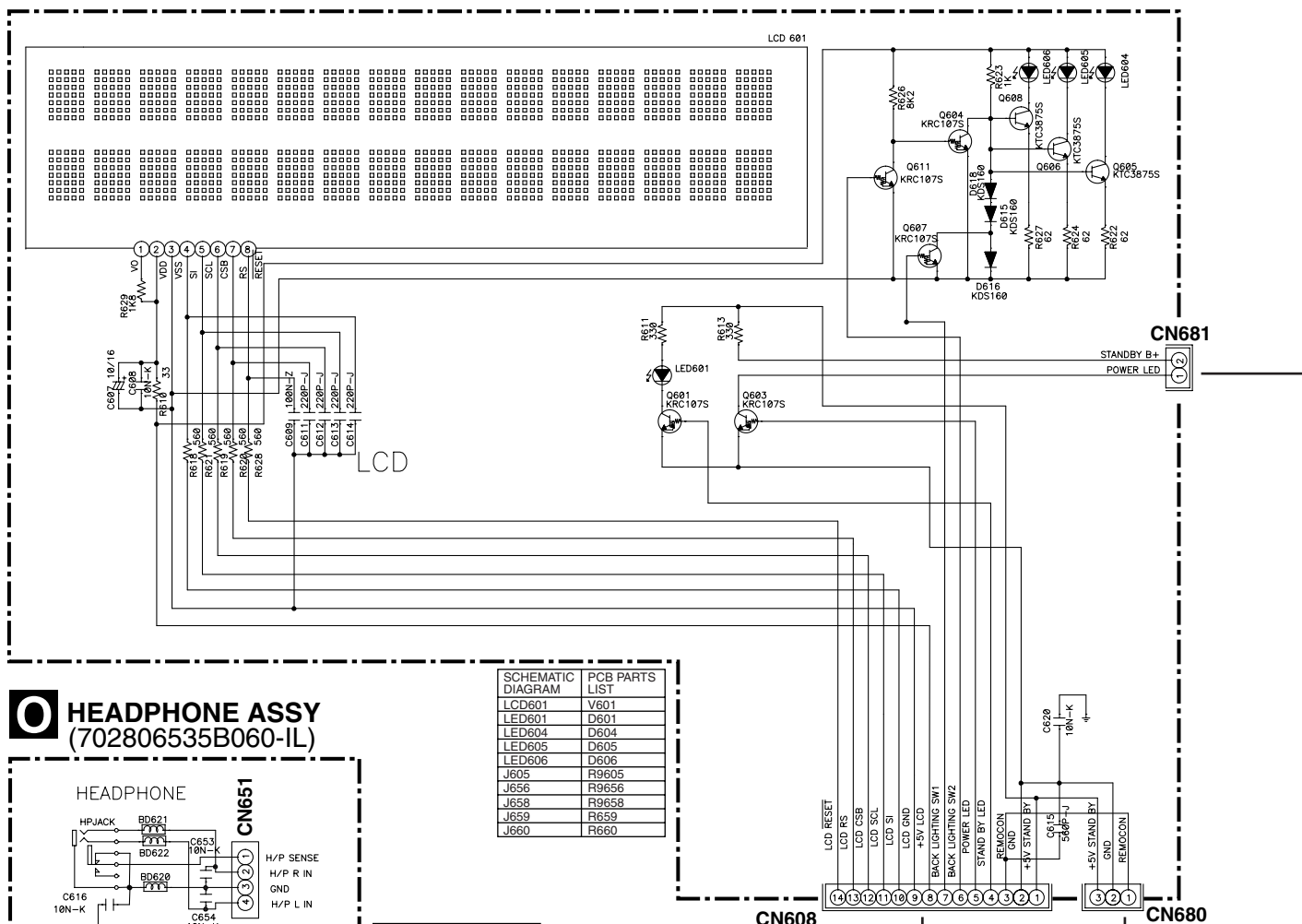
- F

A **FUNCTION ASSY** (SX-A9:7028065361070-IL) (SX-A6:7028065361020-IL)

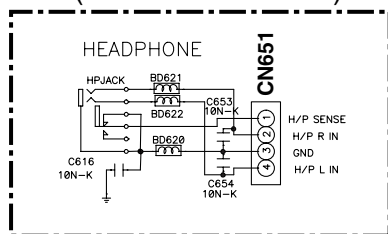


3.4 FRONT, MOTOR VR, REMOCON, STATION, POWER LED and VR ASSYS

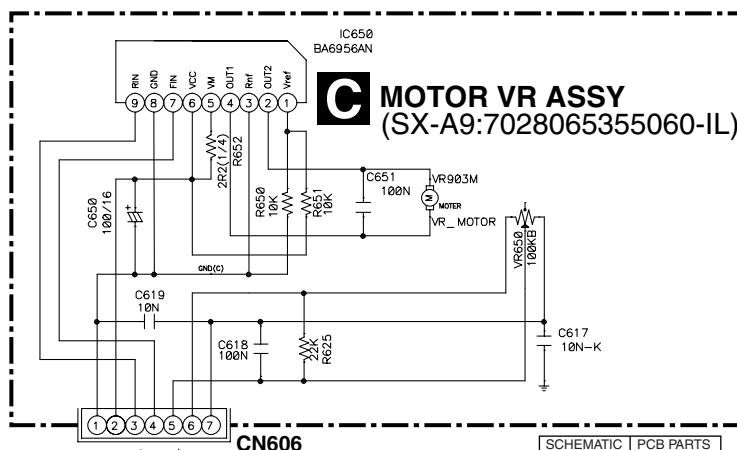
B FRONT ASSY (SX-A9:7028065354060-IL) (SX-A6:7028065354010-IL)



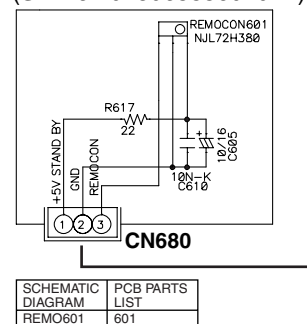
O HEADPHONE ASSY (702806535B060-IL)



C MOTOR VR ASSY (SX-A9:7028065355060-IL)



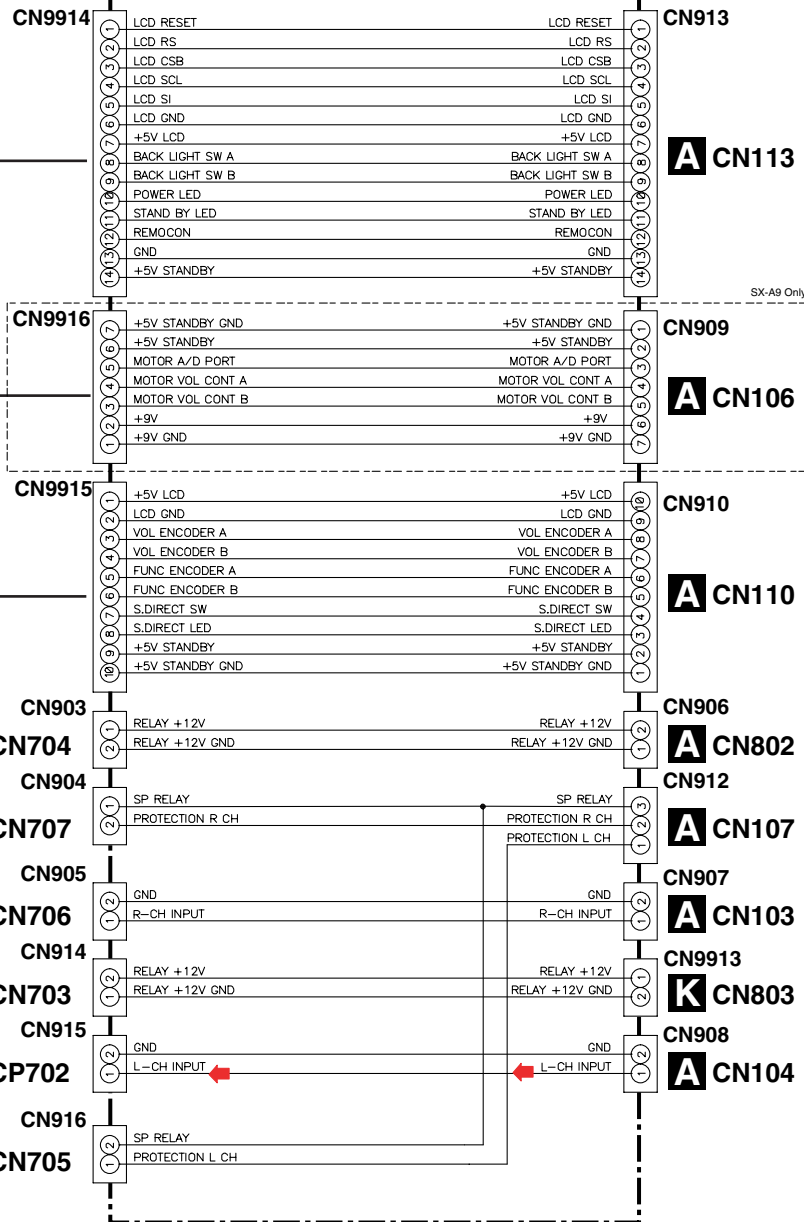
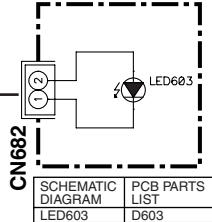
D REMOCON ASSY (SX-A9:7028065356060-IL) (SX-A6:7028065356010-IL)



E STATION ASSY (SX-A9:7028065461020-IL) (SX-A6:7028065461010-IL)

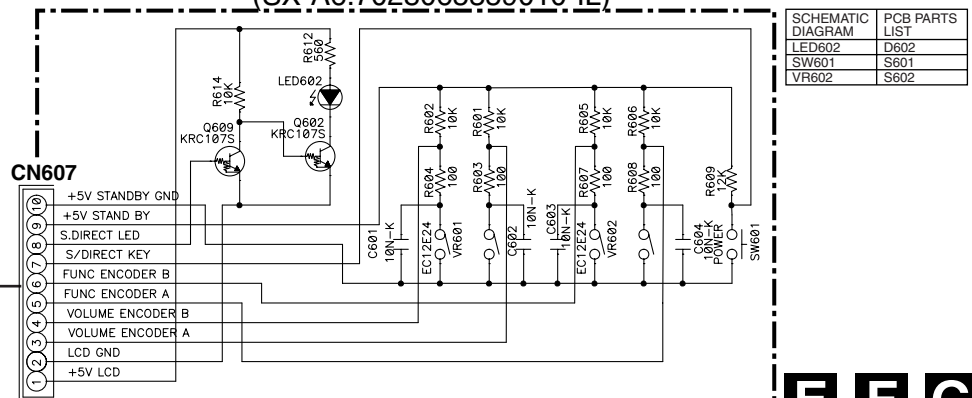
F POWER LED ASSY

(SX-A9:
7028065358060-IL)
 (SX-A6:
7028065358010-IL)



G VR ASSY (SX-A9:7028065359060-IL) (SX-A6:7028065359010-IL)

➔ AUDIO SIGNAL ROUTE (L ch)

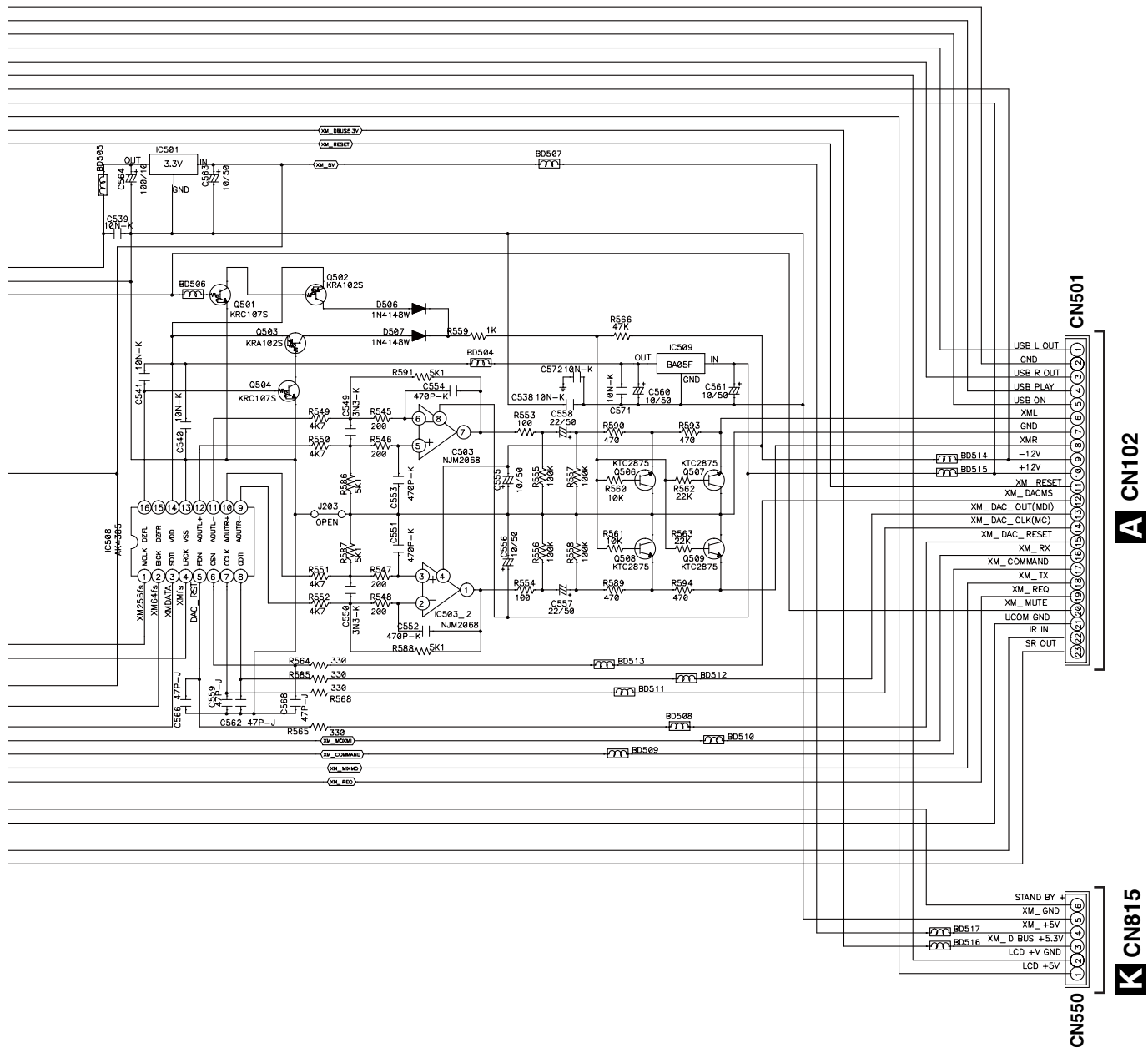


△

F

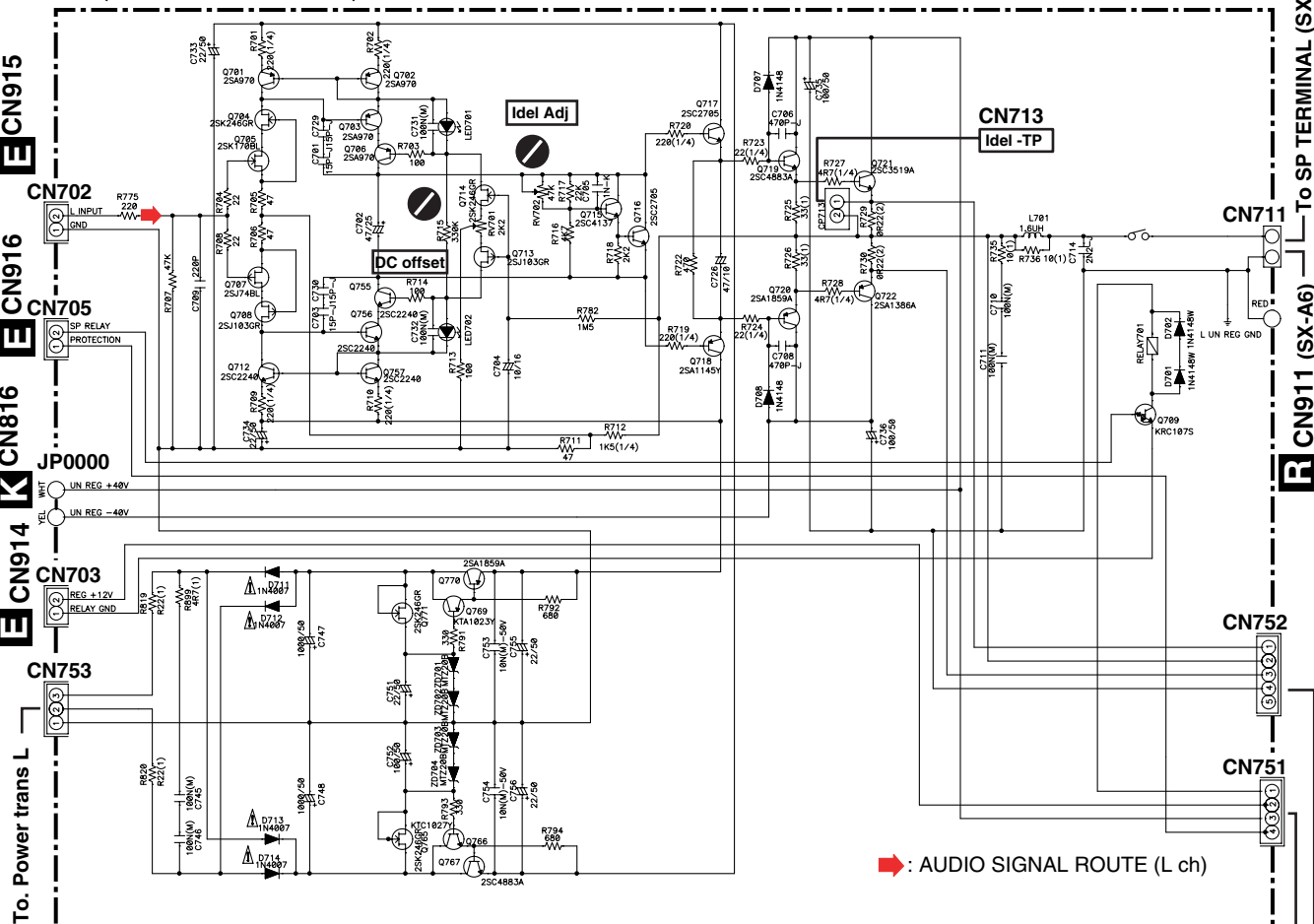


H XM-READY/USB ASSY ASSY (SX-A9:7028065361070-IL) (SX-A6:7028065361020-IL)



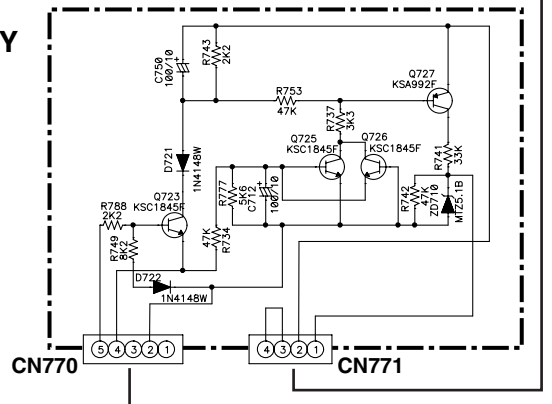
3.6 AMP LCH, AMP RCH, PROTECTION L-CH and PROTECTION R-CH ASSYS

AMP L CH ASSY (7028065351010-IL)

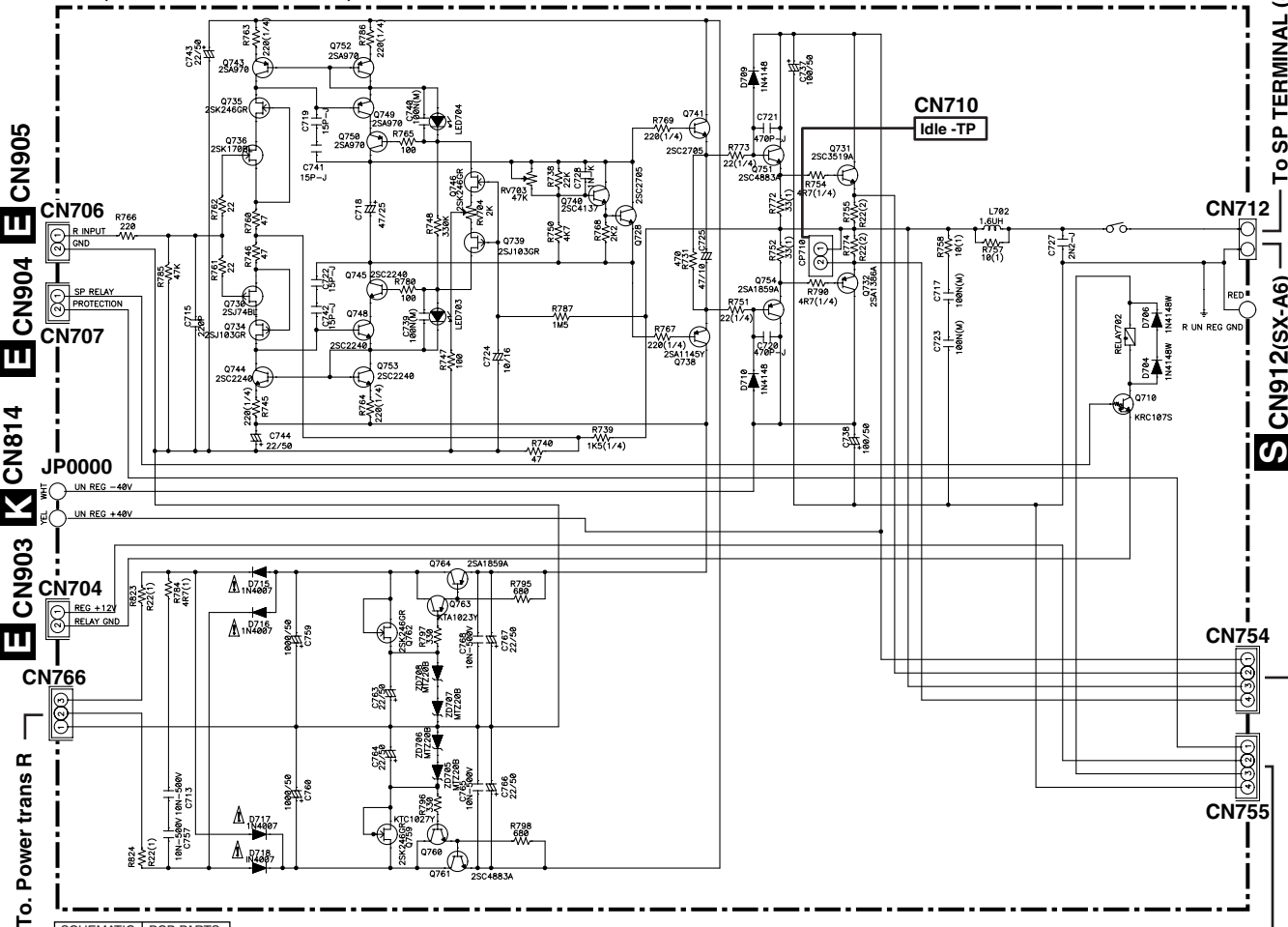


SCHEMATIC DIAGRAM	PCB PARTS LIST
RV701	VR701
RV702	VR702
RELAY701	RY701
ZD701	D9701
ZD702	D9702
ZD703	D9703
ZD704	D9704
LED701	D8701
LED702	D8702
ZD707	D707
ZD708	D708

PROTECTION L-CH ASSY (7028065363010-IL)

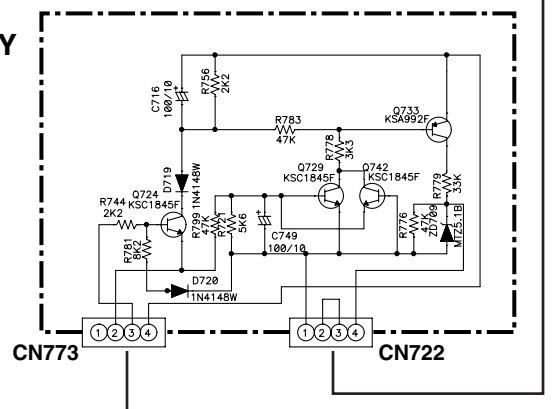


J AMP R CH ASSY (7028065352010-IL)



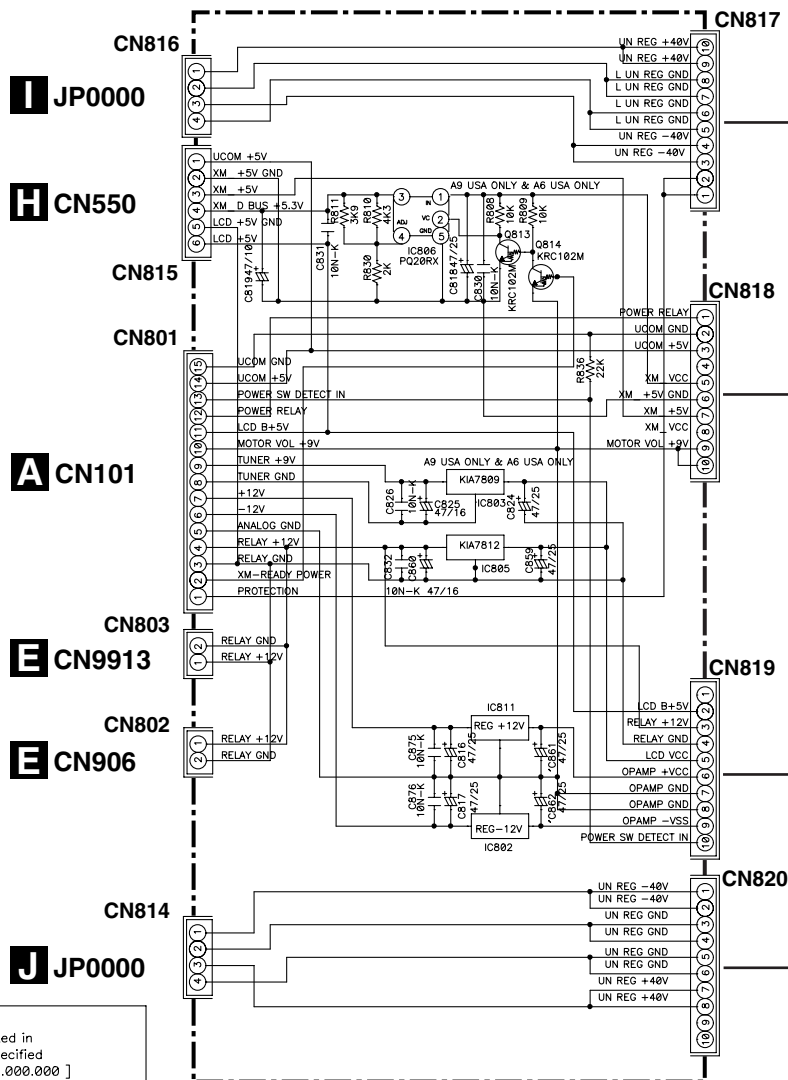
SCHEMATIC DIAGRAM	PCB PARTS LIST
RELAY702	RY702
RV703	VR703
RV704	VR704
ZD706	D706
LED703	D703
ZD705	D705
J716	R9716
J718	R9718
J719	R9719
J720	R9720
J721	R9721
J722	R9722
J729	R9729
J730	R9730
J732	R9732
J735	R9735
J739	R9739
J751	R9751
J752	R9752
J754	R9754
J755	R9755
J756	R9756
J757	R9757
J758	R9758
J759	R9759
J760	R9760

Q PROTECTION R-CH ASSY (7028065364010-IL)

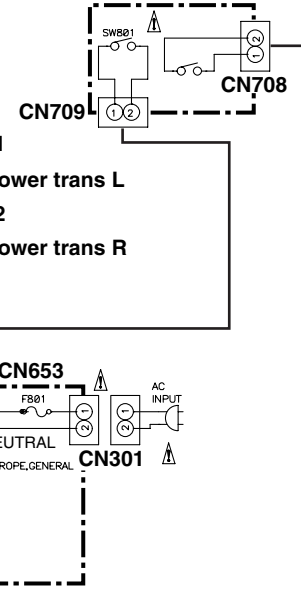


3.7 REG IC, SUB TRANS, POWER SW and POWER ASSYS

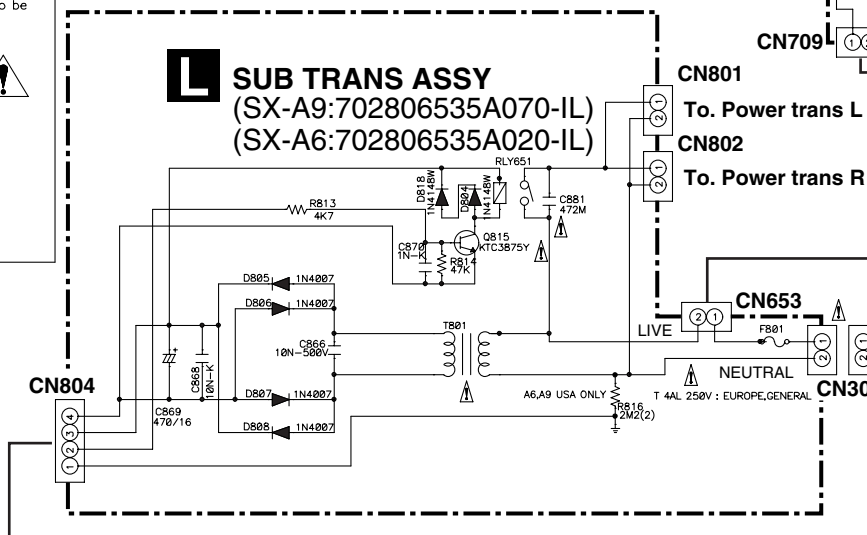
K REG IC ASSY (7028065471020-IL)



M POWER SW ASSY (SX-A9:7028065357060-IL) (SX-A6:7028065357010-IL)



L SUB TRANS ASSY (SX-A9:702806535A070-IL) (SX-A6:702806535A020-IL)

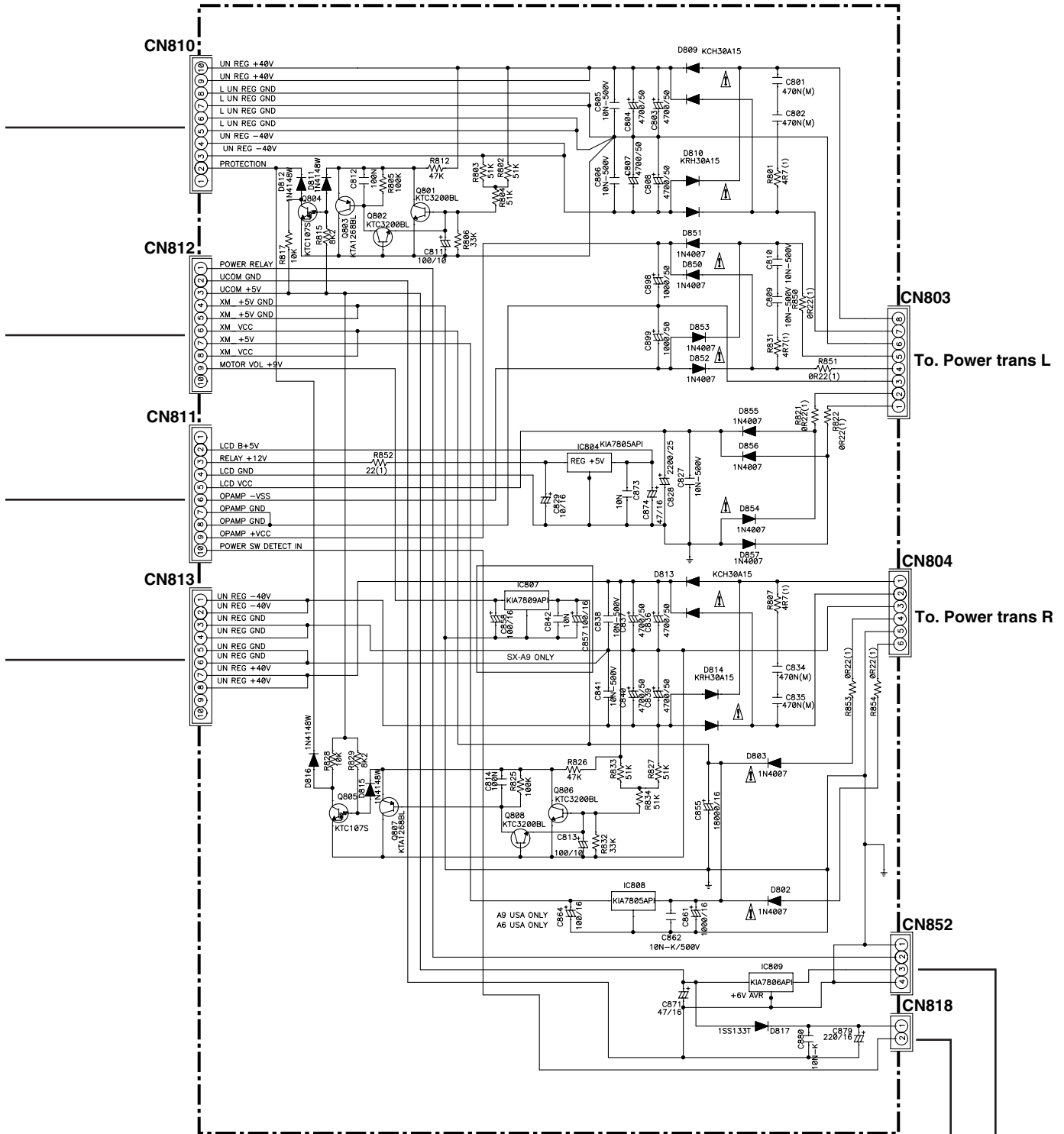


- NOTES
- Resistor values are indicated in ohms unless otherwise specified
[k = 1,000 m = 1,000,000]
 - Capacitor values are indicated in microfarads unless otherwise specified.
[p = micro-microfarads]
 - These resistor are to be segregated from printed wiring board or other accessible parts.
CAUTION
Safety precaution to be followed during servicing
- 1) Since those parts marked with are critical parts for safety, use only the one described in the parts list
- 2) Before returning the set to the customer make appropriate leakage current or resistance measurements to determine the exposed parts are properly insulated from the supply circuit.

SCHEMATIC DIAGRAM	PCB PARTS LIST
RLY651	RY651
*	FU0
*	0000

K L M

N POWER ASSY
(SX-A9:7028065353070-IL)
(SX-A6:7028065353020-IL)



• NOTE FOR FUSE REPLACEMENT

CAUTION -FOR CONTINUED PROTECTION AGAINST RISK OF FIRE.
REPLACE WITH SAME TYPE AND RATINGS OF FUSE.

SCHEMATIC DIAGRAM	PCB PARTS LIST
J811	R811
J812	R812
J866	R866
J867	R867

1234

4. PCB CONNECTION DIAGRAM

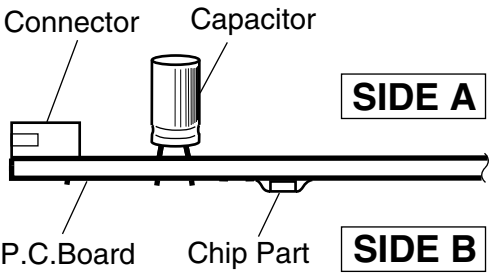
NOTE FOR PCB DIAGRAMS :

- A
1. Part numbers in PCB diagrams match those in the schematic diagrams.

2. A comparison between the main parts of PCB and schematic diagrams is shown below.

Symbol In PCB Diagrams	Symbol In Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

3. The parts mounted on this PCB include all necessary parts for several destinations.
For further information for respective destinations, be sure to check with the schematic diagram.
4. View point of PCB diagrams.

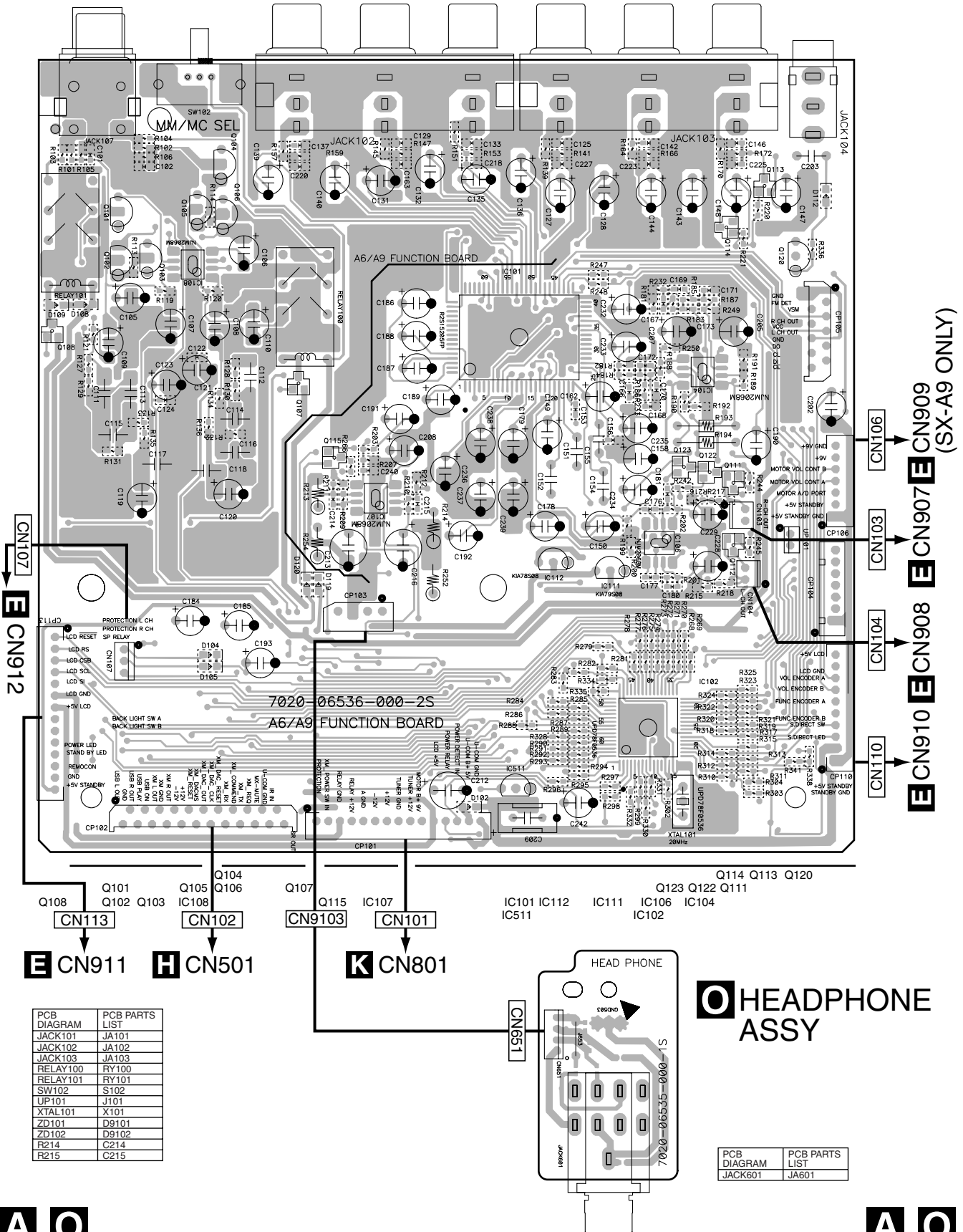


4.2 FUNCTION and HEADPHONE ASSYS

SIDE A

SIDE A

A FUNCTION ASSY



SX-A9-J

4.3 FRONT, REMOCON, POWER LED and VR ASSYS

SIDE A

PCB DIAGRAM	PCB PARTS LIST
LED603	D603

SIDE A

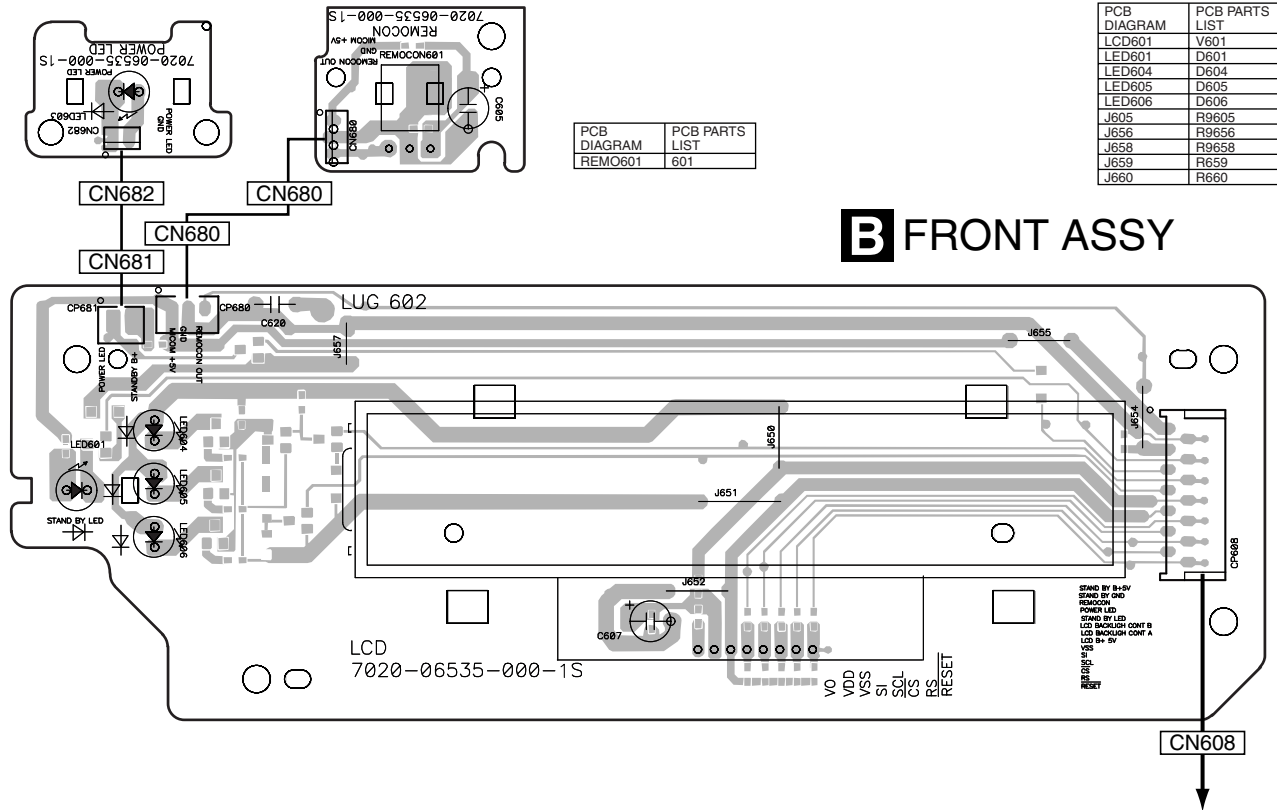
F POWER
LED ASSY

D REMOCON
ASSY

PCB DIAGRAM	PCB PARTS LIST
LCD601	V601
LED601	D601
LED604	D604
LED605	D605
LED606	D606
J605	R9605
J656	R9656
J658	R9658
J659	R659
J660	R660

PCB DIAGRAM	PCB PARTS LIST
REMO601	601

B FRONT ASSY

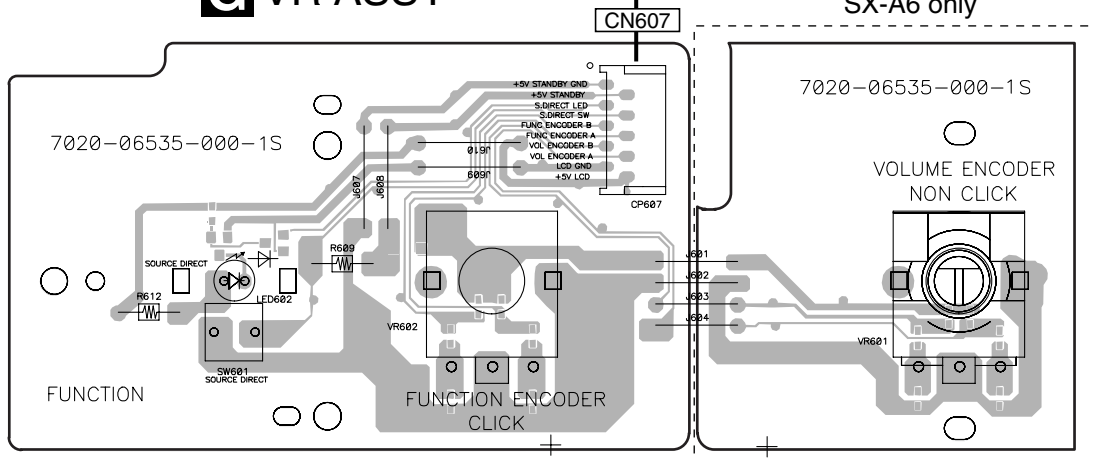


E CN9914

E CN9915

G VR ASSY

SX-A6 only



PCB DIAGRAM	PCB PARTS LIST
LED602	D602
SW601	S601
VR602	S602

B D F G

B D F G

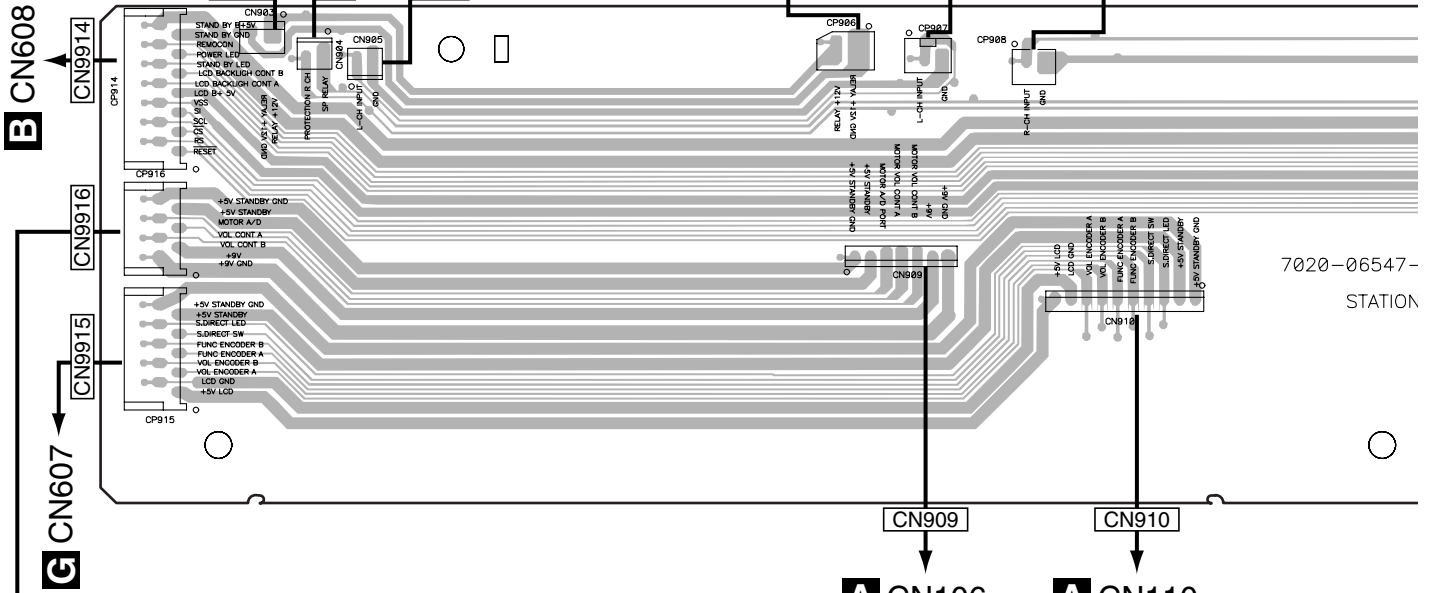
4.4 STATION and MOTOR VR ASSYS

SIDE A

E STATION ASSY

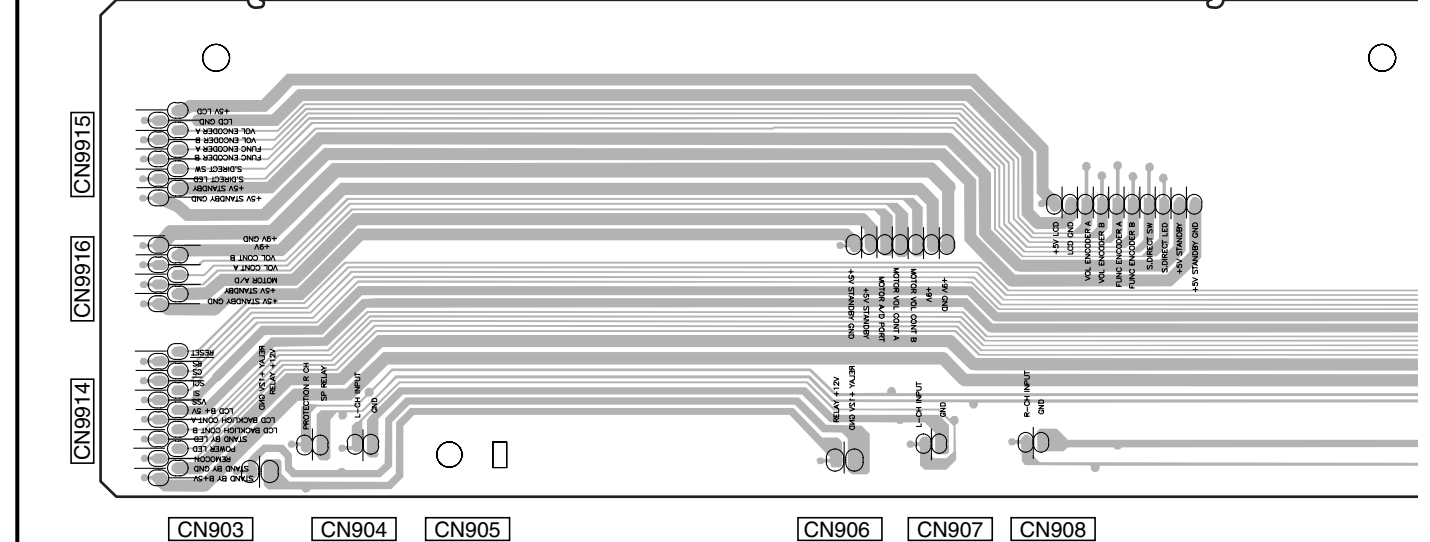
J CN704 **J** CN707 **J** CN706

K CN802 **A** CN103 **A** CN104



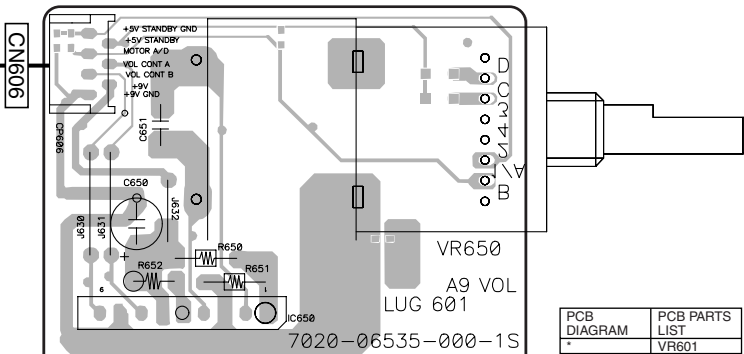
SIDE B

E STATION ASSY



SIDE A

C MOTOR VR ASSY (SX-A9 Only)



PCB DIAGRAM	PCB PARTS LIST
	VR601

SX-A9-J

A



C



E



CE

4

SIDE A

CN501

A CN102

PCB DIAGRAM	PCB PARTS LIST
BKT501	501
BKT502	502
JACK503	JA503
JACK504	JA504
XTAL502	X502
ZD501	D501
GND502	502
GND503	503

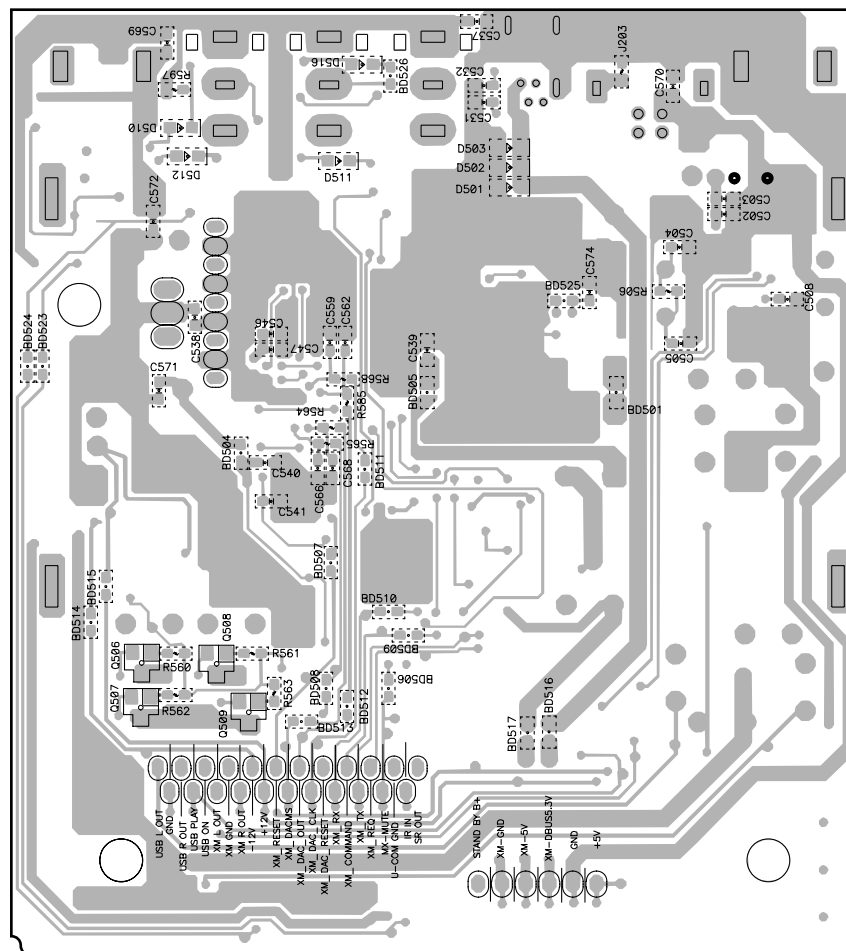
A6/A9 USB BOARD

7020-06536-000-2S

SX-A9-J

SIDE B**SIDE B**

H XM READY/USB ASSY



CN501

CN550

PCB DIAGRAM	PCB PARTS LIST
BKT501	501
BKT502	502
JACK503	JA503
JACK504	JA504
XTAL502	X502
ZD501	D501
GND502	502
GND503	503



4.6 AMP LCH, PROTECTION L-CH and SPEAKER L-CH ASSY

SIDE A

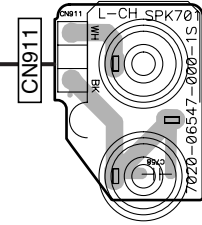
SIDE A

PCB DIAGRAM	PCB PARTS LIST
RV701	VR701
RV702	VR702
RELAY701	RY701
ZD701	D9701
ZD702	D9702
ZD703	D9703
ZD704	D9704
LED701	D8701
LED702	D8702
ZD707	D707
ZD708	D708

AMP LCH ASSY

SPEAKER L-CH ASSY

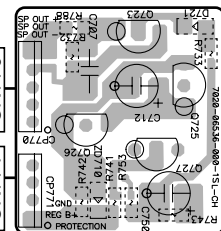
SX -A6 only



SX-A9 only

To.
Speaker terminal
L OUT

PROTECTION L-CH ASSY



To. Power trans L

CN916

CN914

CN915

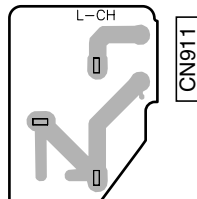
SX-A9-J

SIDE B

SIDE B

R SPEAKER L-CH ASSY

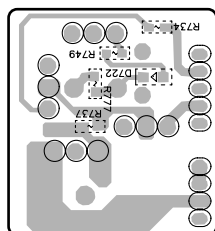
SX-A6 only



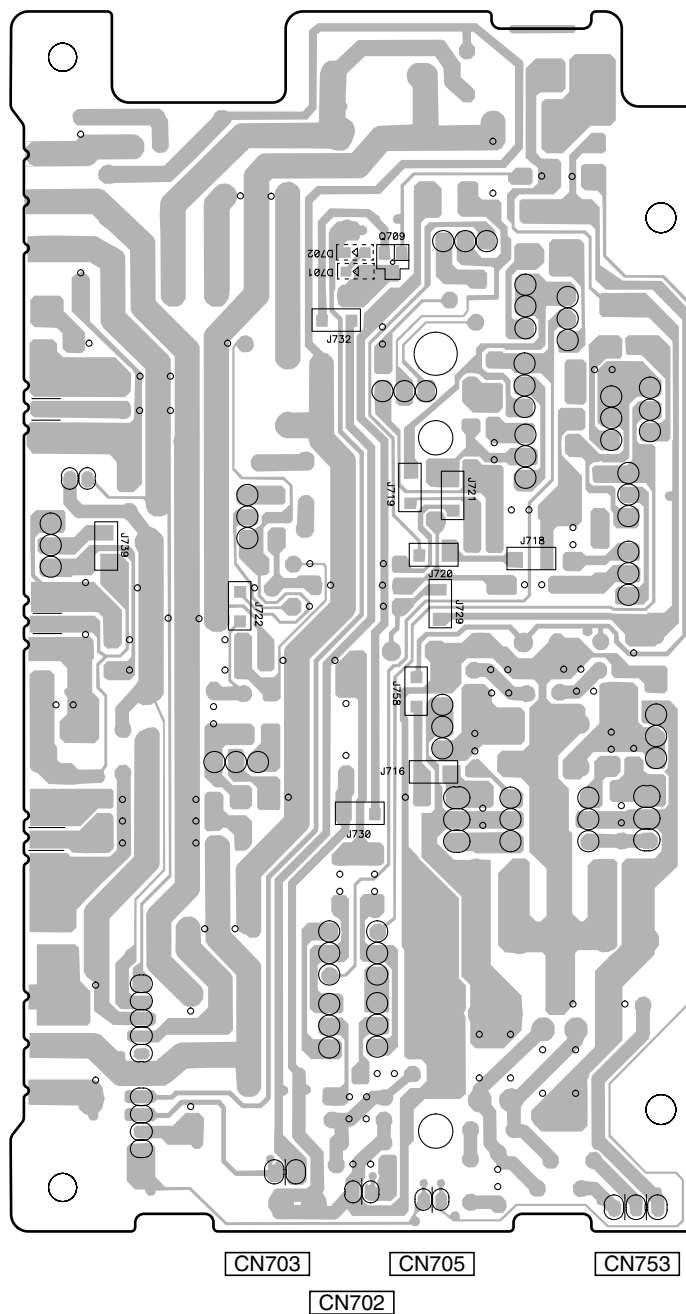
I AMP LCH ASSY

PCB DIAGRAM	PCB PARTS LIST
RV701	VR701
RV702	VR702
RELAY701	RY701
ZD701	D9701
ZD702	D9702
ZD703	D9703
ZD704	D9704
LED701	D8701
LED702	D8702
ZD707	D707
ZD708	D708

P PROTECTION L-CH ASSY



CN770
CN771
CN751
CN752



I P R

I P R

SX-A9-J

4.7 AMP RCH, PROTECTION R-CH and SPEAKER R-CH ASSY

SIDE A

SIDE A

S SPEAKER R-CH ASSY

SX-A6 only

J AMP RCH ASSY

PCB DIAGRAM	PCB PARTS LIST
RELAY702	RY702
RV703	VR703
RV704	VR704
ZD706	D706
LED703	D703
ZD705	D705
J716	R9716
J718	R9718
J719	R9719
J720	R9720
J721	R9721
J722	R9722
J729	R9729
J730	R9730
J732	R9732
J735	R9735
J739	R9739
J751	R9751
J752	R9752
J754	R9754
J755	R9755
J756	R9756
J757	R9757
J758	R9758
J759	R9759
J760	R9760

SX-A9 only

To.
Speaker terminal
R OUT

Q PROTECTION R-CH ASSY

E CN903

E CN904

To. Power trans R

E CN905

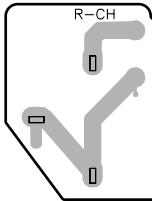
J Q S

SIDE B

SIDE B

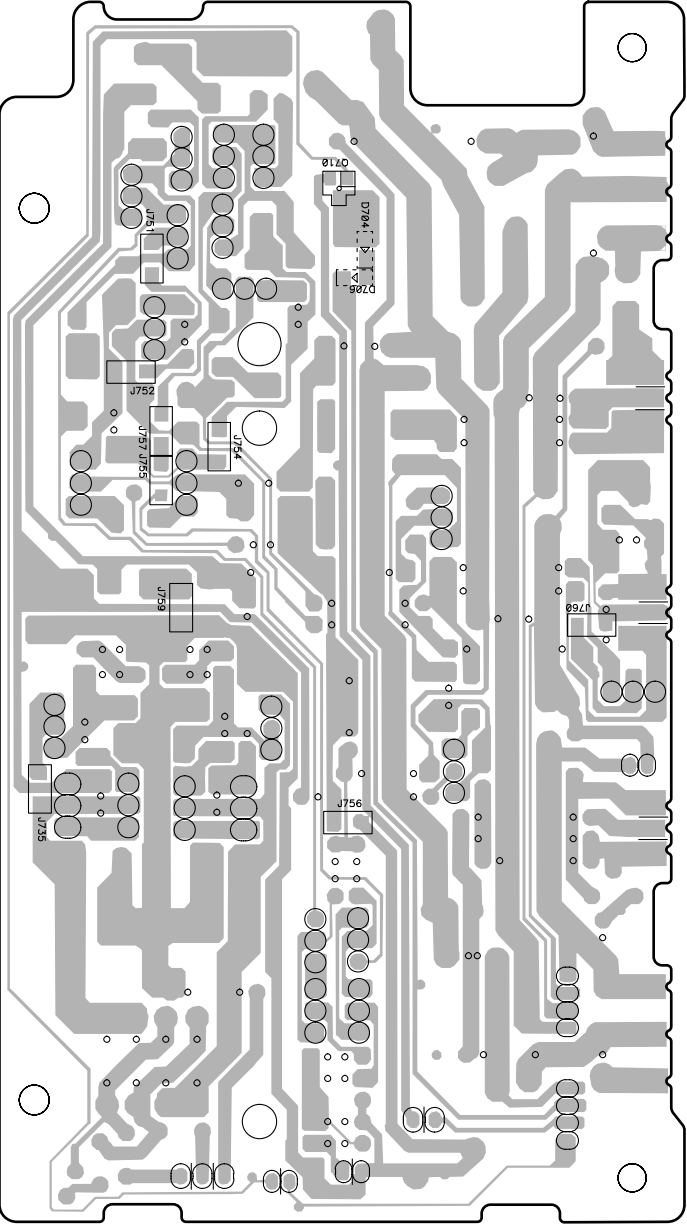
S SPEAKER R-CH ASSY

SX-A6 only



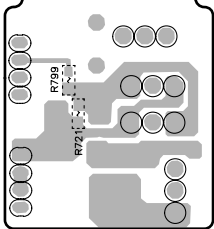
CN912

J AMP RCH ASSY



PCB DIAGRAM	PCB PARTS LIST
RELAY702	RY702
RV703	VR703
RV704	VR704
ZD706	D706
LED703	D703
ZD705	D705
J716	R9716
J718	R9718
J719	R9719
J720	R9720
J721	R9721
J722	R9722
J729	R9729
J730	R9730
J732	R9732
J735	R9735
J739	R9739
J751	R9751
J752	R9752
J754	R9754
J755	R9755
J756	R9756
J757	R9757
J758	R9758
J759	R9759
J760	R9760

Q PROTECTION
R-CH ASSY



CN754
CN755

CN773
CN772

CN766

CN707

CN704

CN706

J **Q** **S**

J **Q** **S**

SX-A9-J

△

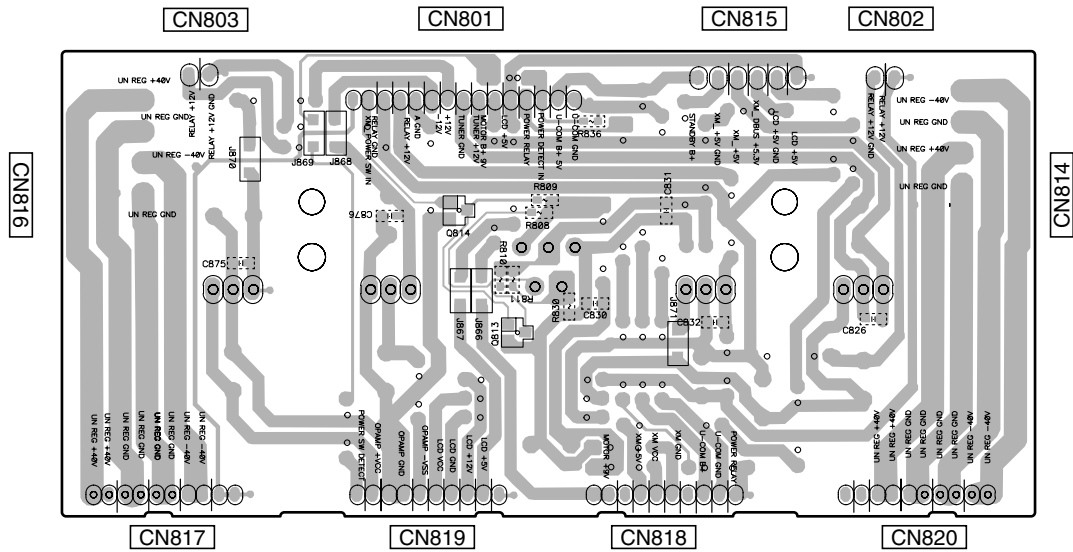
F



SIDE B

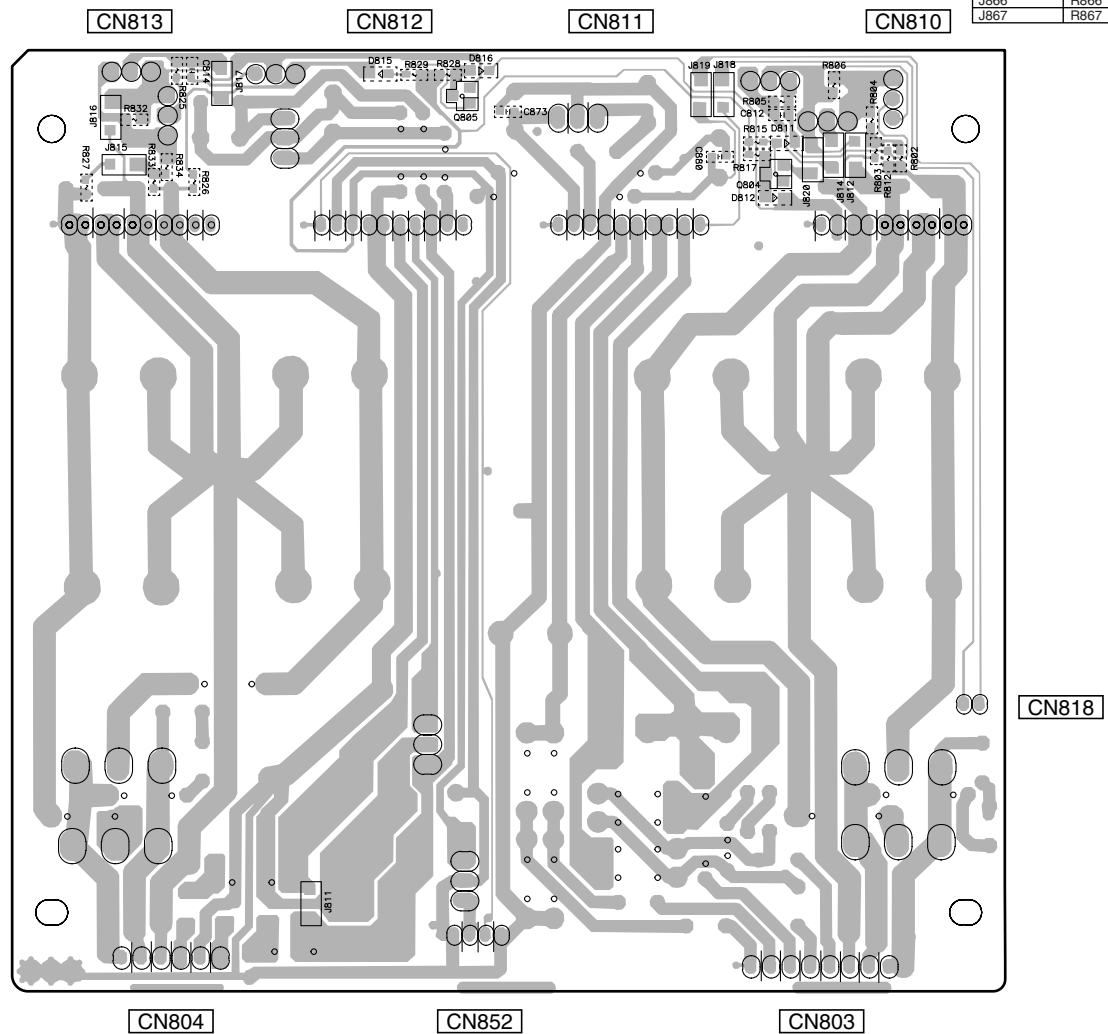
SIDE B

K REG IC ASSY



N POWER ASSY

PCB DIAGRAM	PCB PARTS LIST
J811	R811
J812	R812
J866	R866
J867	R867



K N

K N

1234

5. PCB PARTS LIST

NOTES: ●Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
●The Δ mark found on some component parts indicates the importance of the safety factor of the part.
Therefore, when replacing, be sure to use parts of identical designation.
●When ordering resistors, first convert resistance values into code form as shown in the following examples.
Ex.1 When there are 2 effective digits (any digit apart from 0), such as 560 ohm and 47k ohm (tolerance is shown by J=5%, and K=10%).
560 Ω $\rightarrow$ 56 x 10¹ $\rightarrow$ 561 RD1/4PU561J
47k Ω $\rightarrow$ 47 x 10³ $\rightarrow$ 473 RD1/4PU473J
0.5 Ω $\rightarrow$ R50 RN2H50K
1 Ω $\rightarrow$ 1R0 RS1P1R0K
Ex.2 When there are 3 effective digits (such as in high precision metal film resistors).
5.62k Ω $\rightarrow$ 562 x 10¹ $\rightarrow$ 5621 RN1/4PC5621F

LIST OF ASSEMBLIES

Mark	Symbol and Description	SX-A9-J	SX-A6-J
NSP	1..PCB TOTAL ASSY	7025HA0604020-IL	7025HA0603020-IL
	2.SUB TRANS ASSY	702806535A070-IL	702806535A020-IL
	2.HEADPHONE ASSY	702806535B060-IL	702806535B060-IL
	2.AMP LCH ASSY	7028065351010-IL	7028065351010-IL
	2.AMP RCH ASSY	7028065352010-IL	7028065352010-IL
	2.POWER ASSY	7028065353070-IL	7028065353020-IL
	2.FRONT ASSY	7028065354060-IL	7028065354010-IL
	2.MOTOR VR ASSY	7028065355060-IL	Not used
	2.REMOCON ASSY	7028065356060-IL	7028065356010-IL
	2.POWER SW ASSY	7028065357060-IL	7028065357010-IL
	2.POWER LED ASSY	7028065358060-IL	7028065358010-IL
	2.VR ASSY	7028065359060-IL	7028065359010-IL
NSP	1..PCB TOTAL ASSY	7025HA0604021-IL	7025HA0603021-IL
	2.FUNCTION ASSY	7028065361070-IL	7028065361020-IL
	2.XM-READY/USB ASSY	7028065362070-IL	7028065362020-IL
	2.PROTECTION L-CH ASSY	7028065363010-IL	7028065363010-IL
	2.PROTECTION R-CH ASSY	7028065364010-IL	7028065364010-IL
NSP	1..PCB TOTAL ASSY	7025HA0604022-IL	7025HA0603022-IL
	2.STATION ASSY	7028065461020-IL	7028065461010-IL
	2.SPEAKER L-CH ASSY	Not used	7028065462010-IL
	2.SPEAKER R-CH ASSY	Not used	7028065463010-IL
	2.REG IC ASSY	7028065471020-IL	7028065471020-IL
	1..FM/AM TUNRT UNIT	AXX7172	AXX7172

CONTRAST OF PCB ASSEMBLIES

FRONT ASSY

7028065354060-IL and 7028065354010-IL are constructed the same except for the following:

Mark	Symbol and Description	7028065354060-IL	7028065354010-IL
	Q601, Q603, Q604, Q607, Q611 STOPPER	D010221167160-IL 4380210081000-IL	J522107S00210-IL Not used

REMOCON ASSY

7028065356060-IL and 7028065356010-IL are constructed the same except for the following:

Mark	Symbol and Description	7028065356060-IL	7028065356010-IL
	C116 C605	D040100083130-IL Not used	Not used D040100083130-IL

STATION ASSY

7028065461020-IL and 7028065461010-IL are constructed the same except for the following:

Mark	Symbol and Description	7028065461020-IL	7028065461010-IL
	CN909 CN9916	L000141070010-IL L131100700010-IL	Not used Not used

F POWER LED ASSY

7028065358060-IL and 7028065358010-IL are constructed the same except for the following:

Mark	Symbol and Description	7028065358060-IL	7028065358010-IL
	C653, C654 R610	Not used Not used	D000221167070-IL RS1/16S561J

G VR ASSY

7028065359060-IL and 7028065359010-IL are constructed the same except for the following:

Mark	Symbol and Description	7028065359060-IL	7028065359010-IL
	C601, C602 R601, R602 R603, R604 VR601	Not used Not used Not used Not used	D011103777163-IL RS1/16S103J RS1/16S101J G121162401200-IL

L SUB TRANS ASSY

Although 702806535A070-IL and 702806535A020-IL are different in part number, they have the same components.

N POWER ASSY

7028065353070-IL and 7028065353020-IL are constructed the same except for the following:

Mark	Symbol and Description	7028065353070-IL	7028065353020-IL
	IC807 C829 C842, C862 C857, C858 C861 R811	J126780900020-IL Not used D00410359D050-IL D040101083070-IL Not used RS1/8S0R0J	Not used D040100083050-IL Not used Not used D040102083030-IL Not used

PCB PARTS LIST FOR SX-A9-J UNLESS OTHER WISE NOTED

Mark No.	Description	Part No.	Mark No.	Description	Part No.
A FUNCTION ASSY (SX-A9-J)			X 101		E830200010010-IL
SEMICONDUCTORS			CN0		L000121010100-IL
IC 101		J084152050010-IL	CN0		L000600010010-IL
IC 102		J020780536000-IL	CN101		L101220150000-IL
IC 104-108		J121206800020-IL	CN102		L131112300010-IL
IC 109		J000240640010-IL	CN103		L000161020080-IL
IC 111		J126790800090-IL	CN104		L000161020070-IL
IC 112		J126780800190-IL	CN105		L131111100010-IL
IC 511		J125704200010-IL	CN106		L101220070000-IL
Q 101,102,104,105		J5410369G0010-IL	CN107		L000141030100-IL
Q 103,106		J5021845F0000-IL	CN110		L101220100000-IL
Q 107,108,116,123		J522107S00210-IL	CN113		L101220140000-IL
Q 111,112,124-127		J5222875B0010-IL	CN9101		L101020000010-IL
Q 115		J520010200210-IL	CN9103		L102526700400-IL
Q 120		J5001023Y0050-IL	CN9104		L101530140710-IL
Q 121		J522038750210-IL	0		7020065360001-IL
Q 122		J520010100010-IL	0		1220210059020-IL
Q 128		J520015040150-IL	RESISTORS		
D 101-112,114-120		K005041480020-IL	R 193,194		C00001046P520-IL
D 9101,9102		K06605R14P400-IL	R 213,214,252,254		C060022065050-IL
MISCELLANEOUS			Other Resistors		RS1/16S###J
J 101		L424000040000-IL	CAPACITORS		
JA 102,103		G603617AG04GY-IL	C 101,102		D011182777160-IL
JA 104		G401PJ3080100-IL	C 103,104		D011153777160-IL
JA 107		G601207AEGG02-IL	C 105,106		D040470082060-IL
RY100,101		G680240202030-IL	C 107,108,127,128		D040220083070-IL
S 102		G060112011010-IL	C 109,110		D040101082090-IL
			C 111,112		D020683167060-IL

	<u>Mark No.</u>	<u>Description</u>	<u>Part No.</u>
A	C 113,114		D004122287050-IL
	C 115,116		D020183078060-IL
	C 117,118		D004472277050-IL
	C 119-121,123,150		D040100087070-IL
	C 122,124,157,161		D011103777160-IL
	C 125,126,129,130		D010221167160-IL
	C 131,132,135,136		D040220083070-IL
	C 133,134,137,138		D010221167160-IL
	C 139,140,143,144		D040220083070-IL
B	C 141,142,145,146		D010221167160-IL
	C 147,148		D040220083070-IL
	C 149,158,162,179		D040470083080-IL
	C 151,155		D020473167050-IL
	C 152,154		D020154078050-IL
	C 153,156,198,201		D011223777160-IL
	C 159,160,176,177		D010331167160-IL
	C 163,182,183		D010221167160-IL
	C 164-167,210,211		D011103777160-IL
	C 168,169,199,200		D011104577161-IL
C	C 170,171		D011822777160-IL
	C 172,173		D011472777160-IL
	C 174,175,214,215		D010560167160-IL
	C 178,184-189,191		D040100087070-IL
	C 180,181		D010820167160-IL
	C 190,193		D040010087150-IL
	C 192,205,207,228		D040100087070-IL
	C 203		D000221167070-IL
	C 208		D0400R1087050-IL
	C 209		D090473904010-IL
D	C 212		D040221081060-IL
	C 213,216		D040221082090-IL
	C 217-227,240,241		D010221167160-IL
	C 229,232-235		D040100087070-IL
	C 230		D011103777160-IL
	C 236-239		D040470083080-IL
	C 242		D0402R2087160-IL

Mark No. Description

MISCELLANEOUS

JA 101
JA 102
JA 103
JA 104
JA 107

X 101
CN101
CN102
CN103
CN104

CN107
CN110
CN113
CN9101
CN9103

CN9104
0

RESISTORS

R 213,214,252,254
Other Resistors

CAPACITORS

C 101,102,104,105
C 103,106
C 103
C 107
C 111,112

C 113,114
C 115
C 115,116
C 116
C 117,118

C 119-121,123,150
C 122,124,157,161
C 125,126,129,130
C 127,128,131,132
C 133,134,137,138

C 135,136,139,140
C 141,142,163,182
C 143
C 149,158,162,179
C 151,155

C 152,154
C 153,156,198,201
C 159,160,176,177
C 164-167,210,211
C 174,175,214,215

C 178,184-189,191
C 180,181
C 183,217-221,223
C 190,193
C 192,202,228,229

C 199,200
C 202
C 203
C 208
C 209

C 212
C 213,216

Part No.

G601207BG020Y-IL
G603617AG04GY-IL
G602617AG020Y-IL
G401PJ3080100-IL
G601207AEGG02-IL

E830200010010-IL
L101020000010-IL
L131112300010-IL
L000161020080-IL
L000161020070-IL

L000141030100-IL
L101220100000-IL
L101220140000-IL
L101220150000-IL
L102526700400-IL

L101530140710-IL
1220210059020-IL

C060022065050-IL
RS1/16S###J

J5410369G0010-IL
J5021845F0000-IL
G602617AG020Y-IL
G601207AEGG02-IL
J5222875B0010-IL

D004122287050-IL
J520010200210-IL
D020183078060-IL
J522107S00210-IL
D004472277050-IL

D040100087070-IL
D011103777160-IL
D010221167160-IL
D040220083070-IL
D010221167160-IL

D040220083070-IL
D010221167160-IL
D040220083070-IL
D040470083080-IL
D020473167050-IL

D020154078050-IL
D011223777160-IL
D010331167160-IL
D011103777160-IL
D010560167160-IL

D040100087070-IL
D010820167160-IL
D010221167160-IL
D040010087150-IL
D040100087070-IL

D011104577161-IL
D004103097060-IL
D000221167070-IL
D0400R1087050-IL
D090473904010-IL

D040221081060-IL
D040221082090-IL

A FUNCTION ASSY (SX-A6-J) SEMICONDUCTORS

E	IC 101	J084152050010-IL
	IC 102	J020780536000-IL
	IC 106-108	J121206800020-IL
	IC 109	J000240640010-IL
	IC 111	J126790800090-IL
	IC 112	J126780800190-IL
	IC 511	J125704200010-IL
	Q 101,102,104,105	J5410369G0010-IL
	Q 103,106	J5021845F0000-IL
	Q 111,112,124-127	J5222875B0010-IL
F	Q 115	J520010200210-IL
	Q 116,123	J522107S00210-IL
	Q 120	J5001023Y0050-IL
	Q 121	J522038750210-IL
	Q 122	J520010100010-IL
	Q 128	J520015040150-IL
	D 101-105,110-112	K005041480020-IL
	D 114-120	K005041480020-IL
	D 9101,9102	K06605R14P400-IL

5	6
Mark No.	Description
C 226,227,240,241	D010221167160-IL
C 230	D011103777160-IL
C 236-239	D040470083080-IL
C 242	D0402R2087160-IL

B FRONT ASSY SEMICONDUCTORS

Q 601,603,604,607	J522107S00210-IL
Q 605,606,608	J522038750210-IL
Q 611	J522107S00210-IL
D 601	K500032101061-IL
D 604-606	K500059000010-IL
D 615,616,618	K005041480020-IL

MISCELLANEOUS

V 601	AAV7111
CN608	L131101400010-IL
CN680	L101220030000-IL
CN681	L101220020000-IL
0	4310212961000-IL
0	4380210081000-IL
0	5070212313000-IL
0	1210210382000-IL
0	3050210051000-IL
0	4310212951000-IL
602	N602121010310-IL

RESISTORS

R 9656,9658,9661	RS1/8S0R0J
Other Resistors	RS1/16S###J

CAPACITORS

C 607	D040100083050-IL
C 608,609	D011103777163-IL
C 611-614	D010221167160-IL
C 615	D010561167160-IL
C 620	D004103277050-IL

C MOTOR VR ASSY (SX-A9-J Only) SEMICONDUCTORS

IC 650	J127695600010-IL
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MISCELLANEOUS

VR650	C495121400360-IL
CN606	L131100700010-IL
0	8410400010040-IL
0	N602121010310-IL

RESISTORS

R 650	C00001036P520-IL
R 652	C0602R2063050-IL
R 659,660	RS1/8S0R0J
Other Resistors	RS1/16S###J

CAPACITORS

C 617-619	D011103777163-IL
C 650	D040101083070-IL
C 651	D006104597050-IL

7	8	
Mark No.	Description	Part No.
D	REMOCON ASSY	
	MISCELLANEOUS	
601		E940633800000-IL
CN680		L000800030110-IL
All Resistors		RS1/16S###J

CAPACITORS

C 605	D040100083130-IL
C 610	D011103777160-IL

E STATION ASSY MISCELLANEOUS

CN903,914	L000800020160-IL	
CN904,916	L000800020170-IL	
CN905	L000800020140-IL	
CN906,9913	L102526700200-IL	
CN907	L101530140210-IL	
CN908	L101220020000-IL	
CN909	L000141070010-IL	
CN910	L000101100080-IL	
CN912	L101220030000-IL	
CN913	L000101140070-IL	
CN915	L000800020150-IL	
CN9914	L131101400010-IL	
CN9915	L131101000020-IL	
CN9916	L131100700010-IL	

F POWER LED ASSY SEMICONDUCTORS

D 603	K500036000080-IL
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MISCELLANEOUS

CN682	L000800020170-IL
0	4380210081000-IL

G VR ASSY SEMICONDUCTORS

Q 602,609	J522010200210-IL
D 602	K500032101061-IL

MISCELLANEOUS

S 601	G180000270010-IL
S 602	G121162400050-IL
CN607	L131101000020-IL
0	4380210081000-IL
0	N602121010310-IL

RESISTORS

R 609	C00001236P520-IL
R 612	C00005616P520-IL
R 9605	RS1/8S0R0J
Other Resistors	RS1/16S###J

CAPACITORS

C 603,604	D011103777163-IL
C 606	D004103097060-IL

Mark No. Description Part No.

H XM-READY/USB ASSY (SX-A9-J) SEMICONDUCTORS

A	IC 501	J126111733020-IL
	IC 503,513	J121206800020-IL
	IC 504	J040740800230-IL
	IC 505,506	J040740800240-IL
	IC 507	J080260200040-IL
	IC 508	J042438500010-IL
	IC 509	J126050000020-IL
	IC 510	J042270200010-IL
	Q 501,504,513,515	J522107S00210-IL
	Q 502,503,510,511	J520010200210-IL
B	Q 506-509	J5222875B0010-IL
	Q 516	J520010400210-IL
	Q 517,518	J522107S00210-IL
	D 501-515	K005041480020-IL
	D 9501	K06003R344520-IL

MISCELLANEOUS

	L 501-515,517-521	D340160800060-IL
	L 523,524	D340160800060-IL
	JA 501	G401PJ3080100-IL
	JA 502,503	G40130802000Y-IL
	JA 504	G480670680010-IL
C	JA 505	L109040000020-IL
	X 501	E855451584020-IL
	X 502	E80012R000080-IL
	CN10	L101530140910-IL
	CN501	L131112300010-IL
	CN550	L102526700600-IL
	0	3070210286000-IL
	501,502	3070045526010-IL

RESISTORS

R 501	C060022063050-IL
Other Resistors	RS1/16S###J

D

CAPACITORS

C 0,511	D040470083080-IL
C 502,503,506,508	D011104577161-IL
C 504,505	D010300167160-IL
C 509,510,512,513	D040100087070-IL
C 514,515,523,524	D010681167160-IL
C 516,518,519,522	D040100087070-IL
C 517,569-571,573	D011103777160-IL
C 529,534-536,543	D011104577161-IL
C 530-533	D010200167160-IL
C 542,544	D011102777160-IL
C 545	D011104577161-IL
C 549,550	D011332777160-IL
C 551-554	D011471767160-IL
C 555,556,560,561	D040100087070-IL
C 557,558	D040220087060-IL
C 559,562,566,568	D010470167160-IL
C 563,565	D040100087070-IL
C 564	D040101082090-IL
C 567	D011153777160-IL

F

H XM-READY/USB ASSY (SX-A6-J) SEMICONDUCTORS

IC 501	J126111733020-IL
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Mark No. Description Part No.

IC 503	J121206800020-IL
IC 504	J040740800230-IL
IC 505,506	J040740800240-IL
IC 507	J080260200040-IL
IC 508	J042438500010-IL
IC 509	J126050000020-IL
Q 501,504,513,515	J522107S00210-IL
Q 502,503,510,511	J520010200210-IL
Q 506-509	J5222875B0010-IL

Q 516	J520010400210-IL
D 501-515	K005041480020-IL

MISCELLANEOUS

L 501-521,523,524	D340160800060-IL
JA 501	G401PJ3080100-IL
JA 502,503	G40130802000Y-IL
JA 505	L109040000020-IL
X 501	E855451584020-IL
CN10	L101530140910-IL
CN501	L131112300010-IL
CN550	L102526700600-IL
501,502	3070045526010-IL

RESISTORS

All Resistors	RS1/16S###J
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CAPACITORS

C 529,534-536,543	D011104577161-IL
C 530-533	D010200167160-IL
C 542,544	D011102777160-IL
C 545	D011104577161-IL
C 549,550	D011332777160-IL
C 551-554	D011471767160-IL
C 555,556,560,561	D040100087070-IL
C 557,558	D040220087060-IL
C 559,562,566,568	D010470167160-IL
C 563,565	D040100087070-IL
C 564	D040101082090-IL
C 567	D011153777160-IL
C 569-571	D011103777160-IL

I AMP LCH ASSY SEMICONDUCTORS

Q 701-703,706	2SA970
Q 704,714,765,771	J5410246G0000-IL
Q 705	2SK170
Q 707	J5400074B0010-IL
Q 708,713	2SJ103
Q 712,755-757	2SC2240
Q 716,717	2SC2705
Q 718	2SA1145
Q 766	J5021027Y0020-IL
Q 769	J5001023Y0050-IL

Q 770	2SA1859A
D 701,702	K005041480020-IL
D 703,704,9701,9702	K06020R044520-IL
D 707,708	1SS133
D 711-714	K000400700520-IL

D 8701,8702	K500036000080-IL
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MISCELLANEOUS

Mark No. Description**Part No.****Mark No. Description****Part No.****MISCELLANEOUS**

CN801 L000101150080-IL
 CN802,803 L000800020180-IL
 CN810-813 L101100031010-IL
 CN814,816 L104359780420-IL
 CN815 L000141060020-IL

0 7020065470001-IL
 0 B020030086B10-IL
 0 B020030081B10-IL

RESISTORS

R 781,866-870 RS1/8S0R0J
 Other Resistors RS1/16S###J

CAPACITORS

C 816-818,824,825 D040470084070-IL
 C 819 D040470082120-IL
 C 826,830-832,875 D011103597160-IL
 C 859-862 D040470084070-IL
 C 876 D011103597160-IL

L SUB TRANS ASSY SEMICONDUCTORS

Q 815 J522038750210-IL
 D 804,818 K005041480020-IL
 D 805-808 K000400700520-IL

MISCELLANEOUS

F 651,801 G645000050010-IL
 RY651 G680090502010-IL
 T 801 8200280150340-IL
 CN301 L108202000220-IL
 CN653 L108353280260-IL

CN801 L108353280290-IL
 CN802 L108353280270-IL
 CN804 L000351040100-IL
 0 5507000000640-IL
 0 N751228001110-IL

RESISTORS

R 813 C00004726P520-IL
 R 816 C060022564520-IL
 Other Resistors RS1/16S###J

CAPACITORS

C 652 D040471083080-IL
 C 866 D00410359D050-IL
 C 868 D004103277050-IL
 C 870 D011102777160-IL
 C 881 D00847208H010-IL

M POWER SW ASSY MISCELLANEOUS

S 801 VSA1005
 CN708 L000301020060-IL
 CN709 L000121020220-IL

N POWER ASSY SEMICONDUCTORS

IC 804,808 J126780500110-IL
 IC 807 J126780900020-IL
 IC 809 J126780600130-IL

Q 801,802,806,808 J5023200B0050-IL
 Q 803,807 J5001268B0050-IL

Q 804,805 J522107S00210-IL
 D 802,803,850-857 K000400700520-IL
 D 809,813 K120301500010-IL
 D 810,814 K120301500020-IL
 D 811,812,815,816 K005041480020-IL

D 817 1SS133

MISCELLANEOUS

CN803 L102526700800-IL
 CN804 L102526700600-IL
 CN810-813 L101100041010-IL
 CN818 L101220020000-IL
 CN852 L101220040000-IL

502 3790040886000-IL

RESISTORS

R 801,807,831 C0004R706P520-IL
 R 811,9812,9814-9820 RS1/8S0R0J
 R 821,822,850,851 C060R22065050-IL
 R 852 C060022065060-IL
 R 853,854 C060R22065050-IL

Other Resistors

RS1/16S###J

CAPACITORS

C 801,802,834,835 D020474069050-IL
 C 803,804,807,808 D046472087000-IL
 C 805,806,809,810 D00410359D050-IL
 C 811,813 D040101082050-IL
 C 812,814 D011104577161-IL

C 827,838,841,842 D00410359D050-IL
 C 828 D040222084030-IL
 C 836,837,839,840 D046472087000-IL
 C 855 D040183083001-IL
 C 857,858,864 D040101083070-IL

C 862 D00410359D050-IL
 C 871,874 D040470083080-IL
 C 873,880 D011103777163-IL
 C 879 D040221083110-IL
 C 898,899 D040102087010-IL

O HEADPHONE ASSY MISCELLANEOUS

503 3790040886000-IL
 L 620-622 D340160800060-IL
 JA601 G402PJ612AG0Y-IL
 CN651 L000501040040-IL

CAPACITORS

C 616,653,654 D011103777163-IL

P PROTECTION L-CH ASSY SEMICONDUCTORS

Q 723,725,726 J5021845F0000-IL
 Q 727 J5000992F0050-IL
 D 710 K06605R14P400-IL
 D 721,722 K005041480020-IL

MISCELLANEOUS

Mark No.	Description	Part No.
CN770		L101100030510-IL
CN771		L101100030410-IL
RESISTORS		
All Resistors		RS1/16S###J
CAPACITORS		
C 712,750		D040101082090-IL
Q PROTECTION R-CH ASSY		
SEMICONDUCTORS		
Q 724,729,742		J5021845F0000-IL
Q 733		J5000992F0050-IL
D 709		K06605R14P400-IL
D 719,720		K005041480020-IL
MISCELLANEOUS		
CN772,773		L101100030410-IL
RESISTORS		
All Resistors		RS1/16S###J
CAPACITORS		
C 716,749		D040101082090-IL
R SPEAKER L-CH ASSY (SX-A6-J Only)		
MISCELLANEOUS		
JA 701		G611202H0100Y-IL
CN911		L000101030230-IL
S SPEAKER R-CH ASSY (SX-A6-J Only)		
MISCELLANEOUS		
JA 0		G611202H0100Y-IL
CN912		L000101030230-IL
FM/AM TUNER UNIT		
FM/AM TUNER UNIT has no service part.		
SX-A9-J		

6. ADJUSTMENT

6.1 Idle Current and DC offset Adjustment



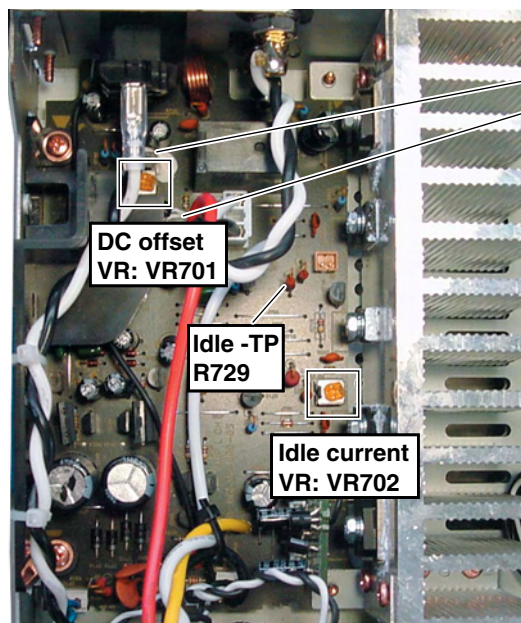
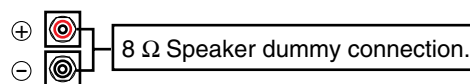
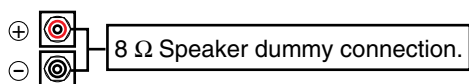
1. Idle Current Adjustment

- **Measurement Points:** AMP Lch Assy : R729
AMP Rch Assy : R774
- **Adjustment Points:** AMP Lch Assy : VR702
AMP Rch Assy : VR703
- **Procedure**
 - ① Turn on the power
 - ② Connect a digital voltmeter to both ends of resistor of the measurement point.
(70 mV of AMP Lch: R729 and AMP Rch: R774).
 - ③ Perform aging for more than five minute.
 - ④ Slowly turn the adjustment VR clockwise so that the voltage becomes in the readjustment of 60 mV

• **Adjustment Point and Measurement Points....** see fig1.

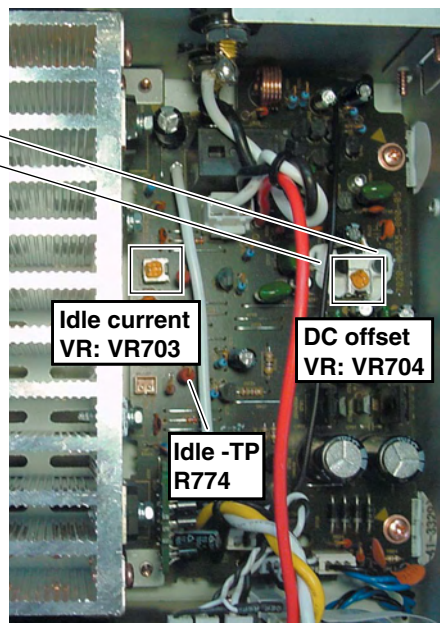
2. DC Offset Adjustment

- **Measurement Points:** AMP Lch Assy : SP terminal
AMP Rch Assy : SP terminal
- **Adjustment Points:** AMP Lch Assy : VR701
AMP Rch Assy : VR704
- **Procedure**
 - ① The voltage of SP terminal is adjusted to 0 ± 10 mV.
(8 Ω Speaker dummy connection)
- **Adjustment Point and Measurement Points....** see fig1.



I AMP Lch Assy

[fig 1.]



J AMP Rch Assy

Caution when transistors (Q713, Q714, Q739 and Q746) are replaced

Please cover the leads of the transistors at Silicon bond for the variation prevention of DC Offset when you have exchanged transistors.

7. GENERAL INFORMATION

7.1 TROUBLE SHOOTIG

FUSE F801 is blown.

N POWER ASSY

→ Check whether D809, D810, D813 or D814 is damaged.

LCD BACK LIGHTING is not lit.

→ Check whether +5V is output at OUT PUT of IC804 REG IC.
Check the voltage drop at resistor R852 22Ω.
Check the voltage drops at resistors R821, R822 0.22Ω.

MICOM is not functioning.

→ Check whether +6V is output at OUT PUT of IC809.

A FUNCTION ASSY

Check whether XTAL101 is oscillating properly.
Check whether RESET IC of IC511 is functioning properly.

When SPEAKER PROTECTION is engaged

I AMP L CH ASSY

J AMP R CH ASSY

Check whether POWER TR is functioning properly.
Check whether R730, R729 /0.22Ω of L-CH and R774, R755 /0.22Ω of R-CH are damaged.
Check whether + power supply and - power supply are supplied.

ELECTRONIC VOLUME is not functioning.

A FUNCTION ASSY

→ Check whether +8V is output at OUT PUT of IC112, and whether -8V is output at OUT PUT of IC111.
Check whether data is input to PIN42, 43 of IC101.

When there is no sound

→ Check the operation status of Q111, Q112 MUTE TR.

HEAT SINK is overheated.

I AMP L CH ASSY

J AMP R CH ASSY

Check whether IDLE is adjusted at 52mv+/-10mV without load.

MOTOR VOLUME is not functioning.

N POWER ASSY

→ Check whether +9V is output at OUT PUT of IC807.

C MOTOR VR ASSY

Check whether MOTOR DRIVE IC of IC650 is functioning properly.

7.2 SPECIFICATION OF PROTECTIVE OPERATION

*When SPEAKER OUT is overloaded, turn off SPEAKER RELAY immediately and turn off power supply RELAY. Then, blinks the STAND BY LED.

*When DC voltage is detected at SPEAKER OUT, turn off SPEAKER RELAY and power supply RELAY. Then, blinks the STAND BY LED.

After that, normal operation MODE will be resumed by turning power supply SW off/on. Similarly, normal operation MODE will be resumed by reconnecting the power cord.

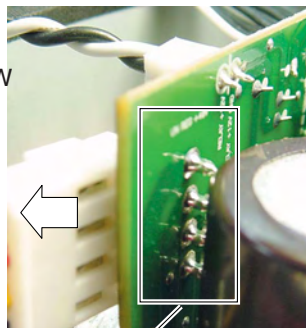
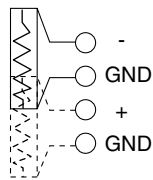


STANDBY LED

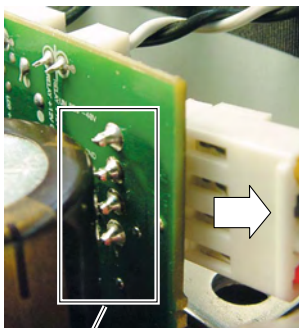
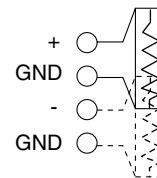
7.3 DISCHARGE OF POWER AMPLIFIER

1. Turn off the power of the product.
2. Discharge both ends of capacitor of Power Assy by short-circuiting (connector GND and +, connector GND and -) using a resistor with $200\Omega/10W$ (and above) for 30 seconds.

Resistor with $200\Omega/10W$



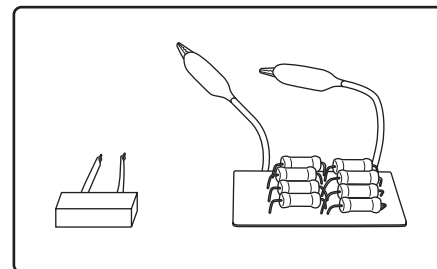
Resistor with $200\Omega/10W$



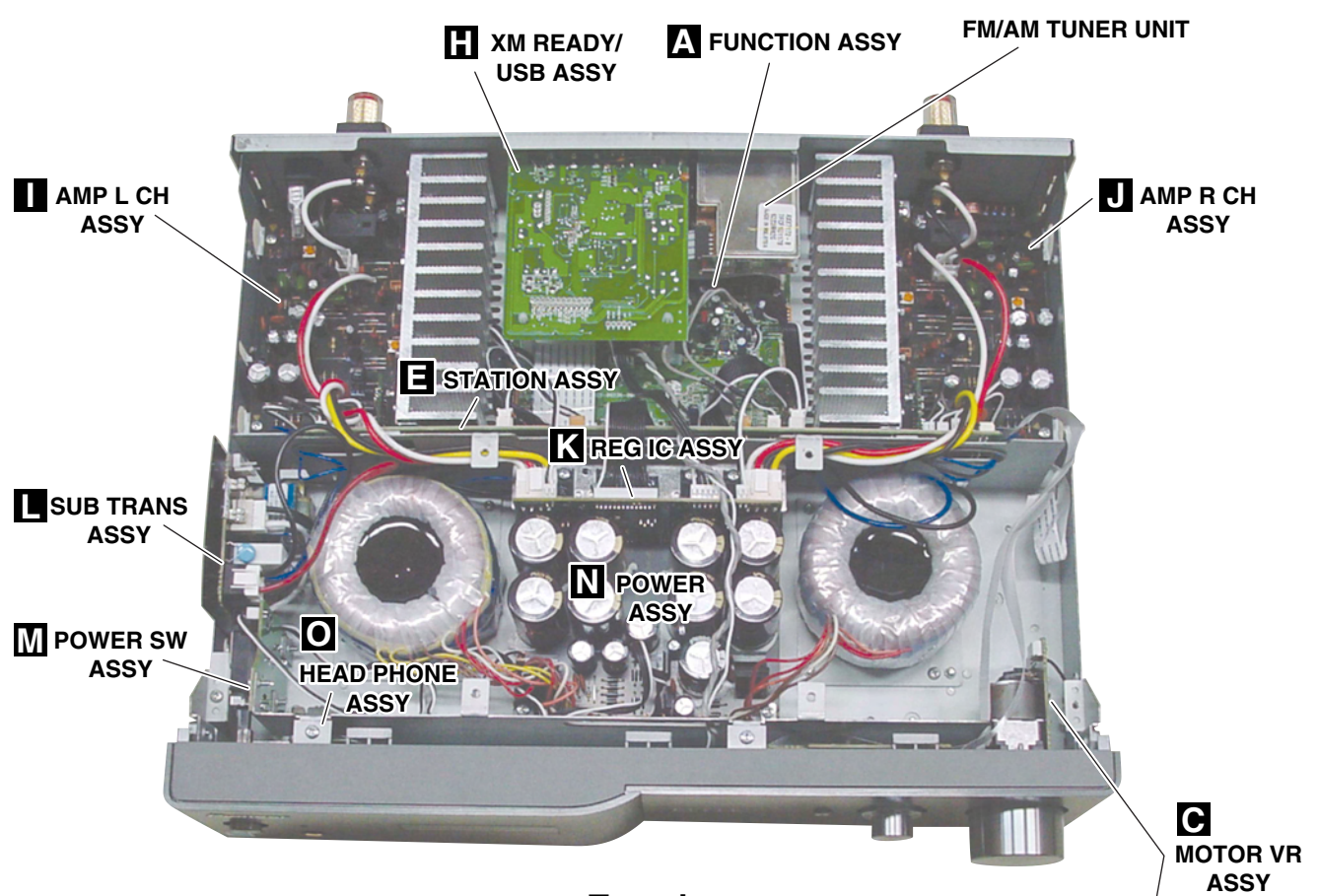
REG IC Assy



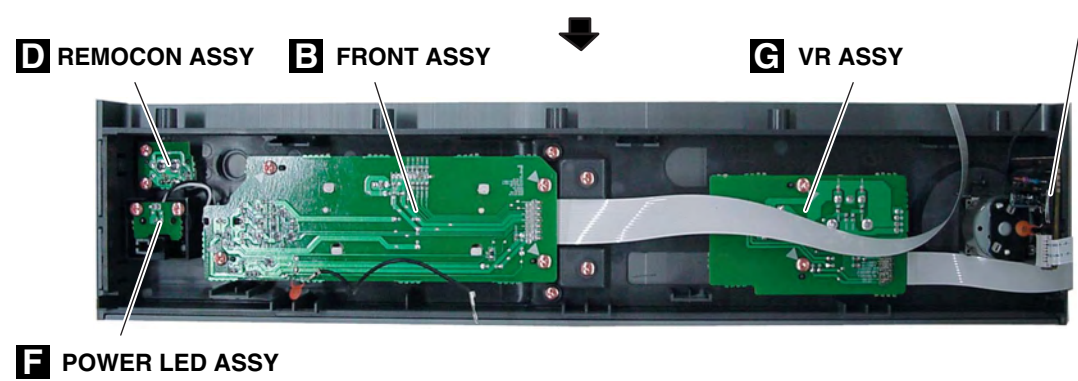
Resistor to be used



• SX-A9 model



• Top view



• Front view

1 2 3 4

7.5 DISASSEMBLY

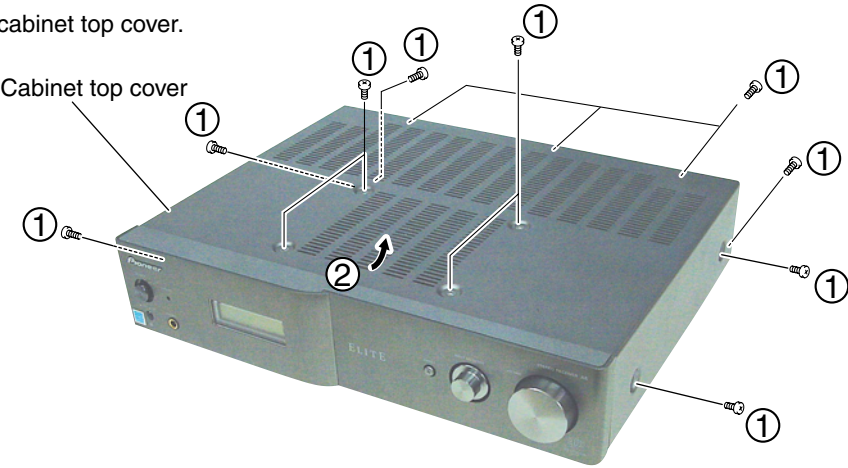
A **Note :** Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

Disassembly

• **SX-A6 model**

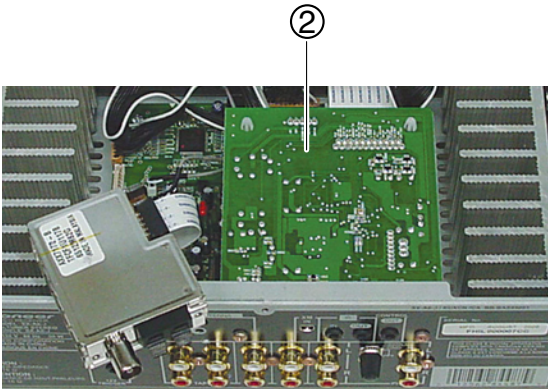
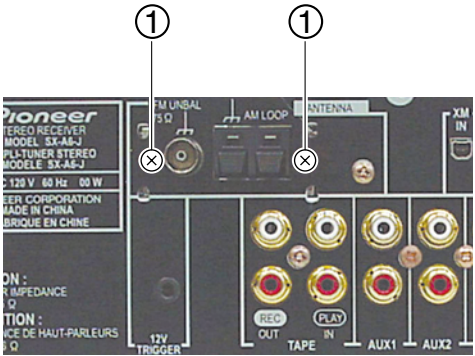
1 Cabinet top cover

- ① Remove 13 screws.
- ② Remove the cabinet top cover.



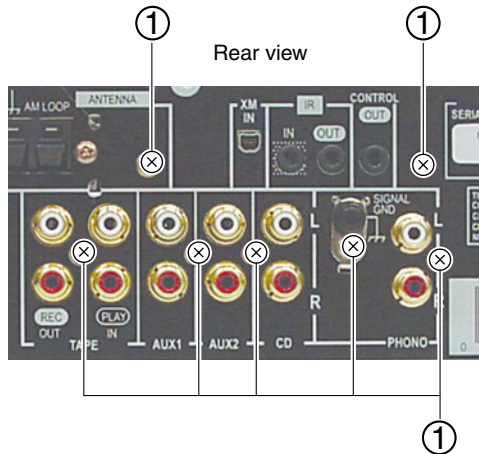
2 FM/AM TUNER UNIT

- ① Remove 2 screws.
- ② Remove FM/AM TUNER UNIT



3 FUNCTION Ass'y

① Remove 7 screws.

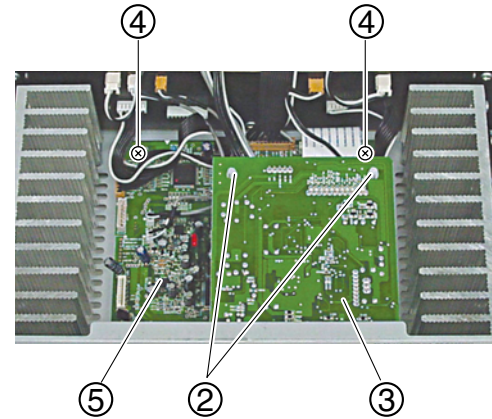


② Remove spacers (2 locations) on the board.

③ Remove XM-READY/USB Assy.

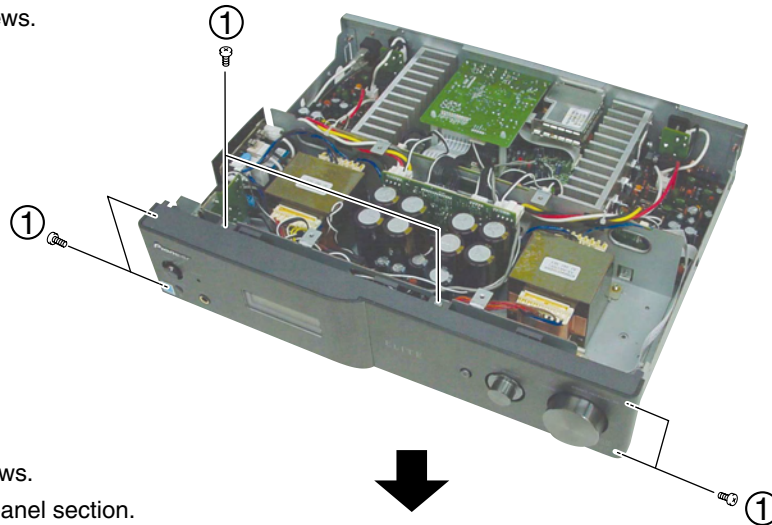
④ Remove 2 screws.

⑤ Remove FUNCTION Ass'y.



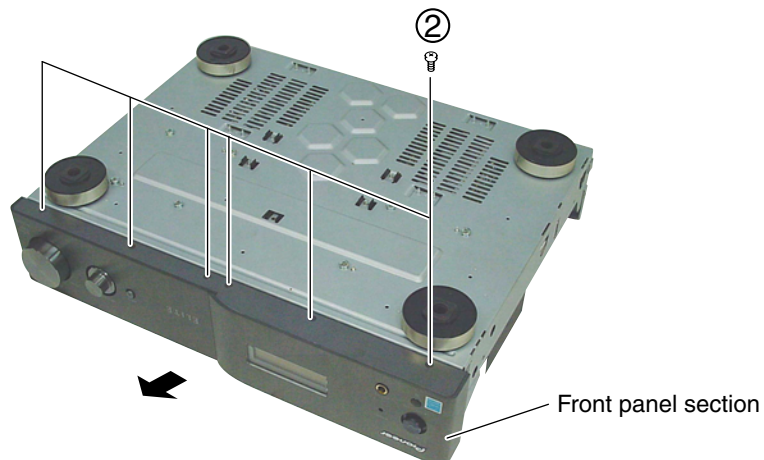
4 Front Panel

① Remove the 6 screws.



② Remove the 6 screws.

③ Remove the front panel section.



Note : Even if the unit shown in the photos and illustrations in this manual may differ from your product, the procedures described here are common.

Disassembly

• SX-A9 model

1 Cabinet top cover

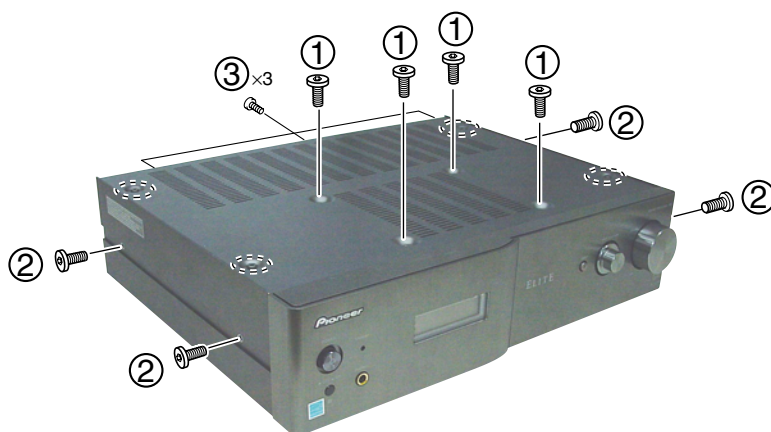
① Remove 4 screws.

② Remove 4 screws. (Left, Right)

③ Remove 4 screws. (Rear section)

Note:

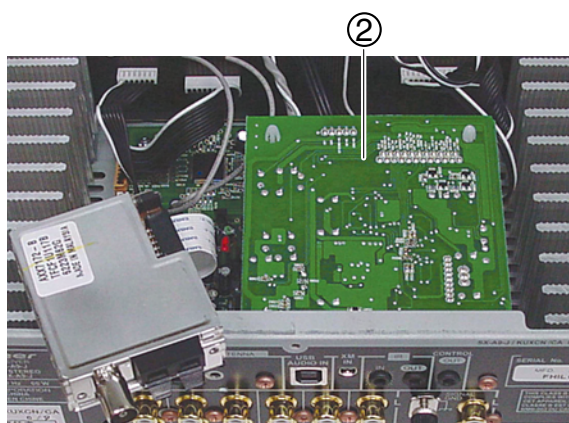
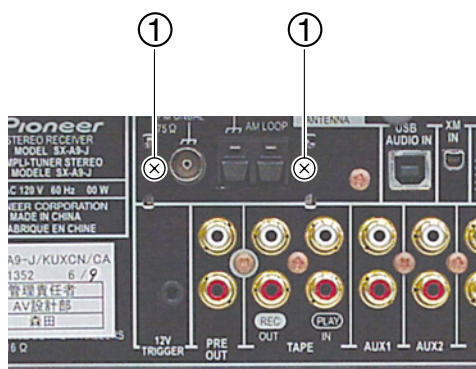
Even if the portion of the round (○) mark does not remove the screw, the cabinet top cover separates.



2 FM/AM TUNER UNIT

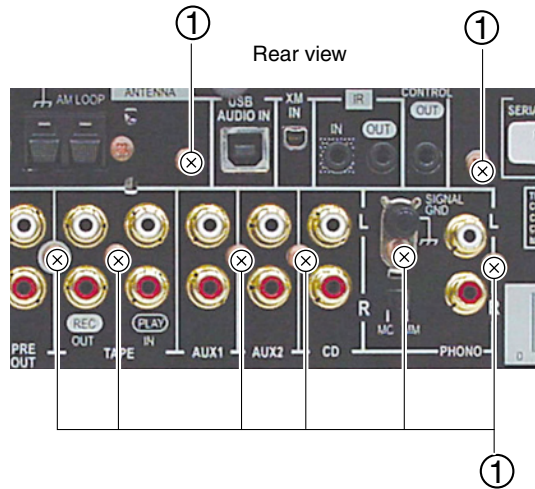
① Remove 2 screws.

② Remove FM/AM TUNER UNIT



3 FUNCTION Ass'y

① Remove 8 screws.

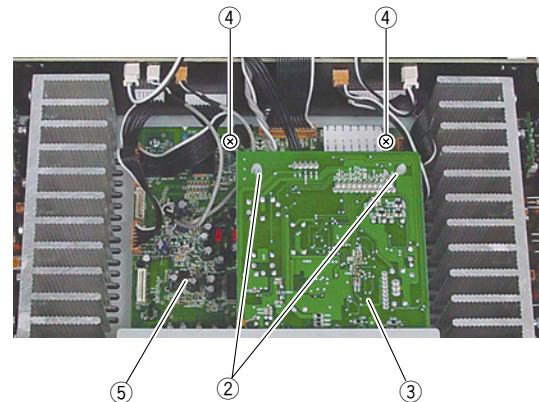


② Remove spacers (2 locations) on the board.

③ Remove XM-READY/USB Assy.

④ Remove 2 screws.

⑤ Remove FUNCTION Assy.



4 Front Panel

① Remove the 2 screws.

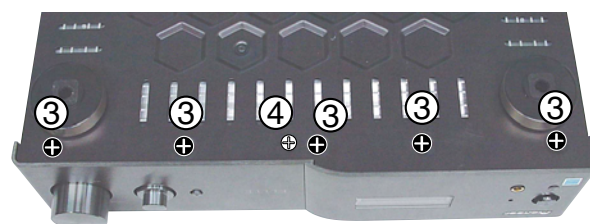
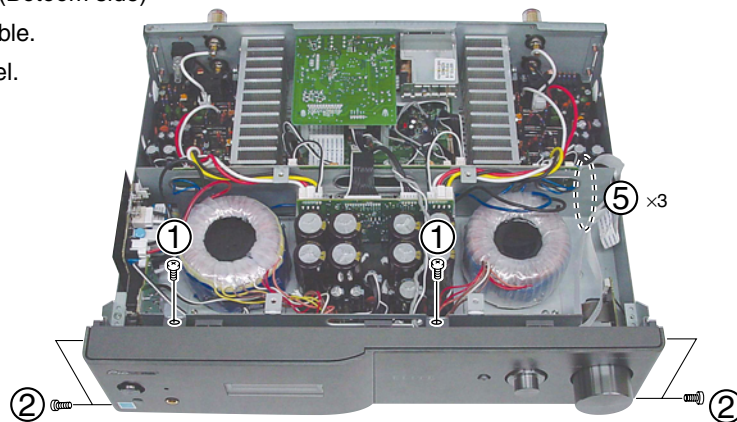
② Remove the 4 screws. (Left, Right)

③ Remove the 5 screws. (Bottom side)

④ Remove the 1 screws. (Bottom side)

⑤ Remove the flexible cable.

⑥ Remove the Front panel.



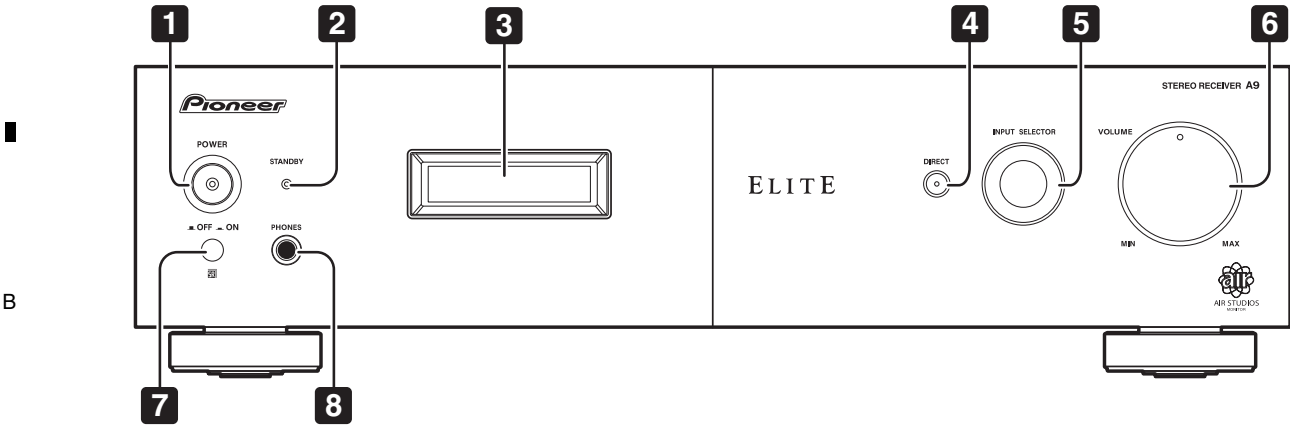
● Bottom view

1 2 3 4

8. PANEL FACILITIES

A

Front panel



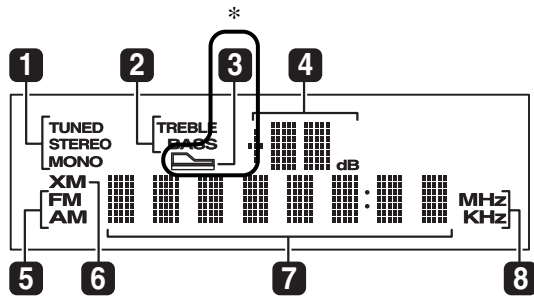
- B
- 1 **POWER** OFF ON
 - 2 **Standby indicator**
 - 3 **Character display**
 - 4 **DIRECT**
Press to switch the Direct listening feature on or off.
 - 5 **INPUT SELECTOR** dial
Selects an input source.
 - 6 **MASTER VOLUME**
 - 7 **Remote sensor**
 - 8 **PHONES** jack
Use to connect headphones (when connected, there is no sound output from speakers).
- C

D

E

F

Display



1 Tuner Indicators

TUNED – Lights when a broadcast is being received.

STEREO – Lights when a stereo FM broadcast is being received in auto stereo mode.

MONO – Lights when the MPX button is used to select mono mode.

2 Tone control indicators

TREBLE – Lights when high-range tone adjustment is applied.

BASS – Lights when low-range tone adjustment is applied.

3 Sound Retriever indicator

Lights when the Sound Retriever function is enabled.

*

4 Master volume level

FM – Lights when FM broadcasts are received.

AM – Lights when AM broadcasts are received.

6 XM – Lights when XM radio broadcasts are received.

7 Character display

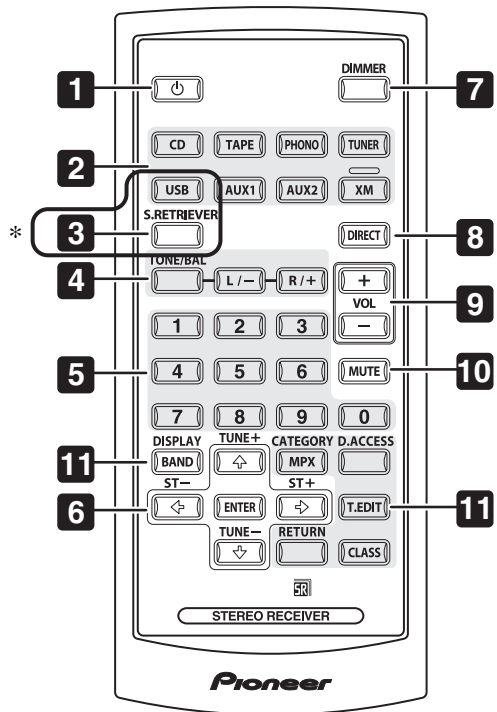
Displays various system information.

8 MHz – Lights when an FM frequency is displayed.

KHz – Lights when an AM frequency is displayed.

* : SX-A9-J Only

Remote control



1

Switches the receiver between standby and on.

2 Input selector buttons

Press to select an input source.

3 S. RETRIEVER

Press to switch the Sound Retriever on/off. *

4 TONE/BAL controls

Use to adjust the tone and balance.

5 Number buttons

Use the number buttons to directly select a radio frequency.

6 (TUNE/ST) /ENTER

Use the **TUNE +/-** buttons to find radio frequencies and use **ST +/-** to find preset stations.

7 DIMMER

Dims or brightens the display (or switches the backlight off).

8 DIRECT

Press to access Direct listening.

9 VOLUME +/-

Use to set the listening volume.

10 MUTE

Mutes/unmutes the sound.

11 Tuner and XM Radio controls

DISPLAY (XM Radio only) – Switches between named station presets and radio frequencies.

BAND (Tuner only) – Switches between the AM and FM bands.

CATEGORY (XM Radio only) – Press to browse digital radio broadcasts.

MPX (Tuner only) – Switches between stereo and mono reception of FM broadcasts.

D.ACCESS – Press to access a radio station directly using the number buttons.

T.EDIT – Memorizes/names stations for recall.

CLASS – Switches between the three banks of radio station presets.

RETURN (XM Radio only) – Press to confirm and exit the current menu.

* : SX-A9-J Only