

ONKYO® SERVICE MANUAL

Ref. No. 4516
032015
042015(WMB)

INTEGRATED AMPLIFIER MODEL A-9010(B)/(S)



Black and Silver models

B WMP	220-240V AC, 50/60Hz
B WMB	
S WMP	
B WDC	120V AC, 60Hz
S WJJ	100V AC, 50/60Hz



RC-902S

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  ON THE SCHEMATIC DIAGRAM AND IN THE PARTS LIST ARE CRITICAL FOR RISK OF FIRE AND ELECTRIC SHOCK. REPLACE THESE COMPONENTS WITH ONKYO PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL.

MAKE LEAKAGE-CURRENT OR RESISTANCE MEASUREMENTS TO DETERMINE THAT EXPOSED PARTS ARE ACCEPTABLY INSULATED FROM THE SUPPLY CIRCUIT BEFORE RETURNING THE APPLIANCE TO THE CUSTOMER.

Onkyo Corporation
Service Department

SERVICE PROCEDURE

INITIAL SETTING FOR SHIPPING

Initialization of memories.

Hold down **[DIRECT]** button and then press **[ON/STANDBY]** button.

Unplug the power cord after it goes standby mode.

ADJUSTMENT PROCEDURE

Idling Current

When

1. Exchange the transistor (Q308-Q310, Q315, Q316, Q408-Q410, Q415, Q416).
2. Exchange the Main PC board.
3. Exchange the Power transformer (main).

Setting position

BASS, TREBLE and BALANCE: Center. VOLUME: Minimum.

Procedure

a. Pre-adjustment

Set the following registers to minimum position before POWER ON.

Set the voltages at the following terminals to the following voltage by adjusting the following registers, under the condition of no input and no load, immediately after POWER ON.

Channel	L	R
Terminals	CN04	CN03
Registers	VR41	VR31
Voltage	8 mV	8 mV

b. Aging

Heat run during the following time.

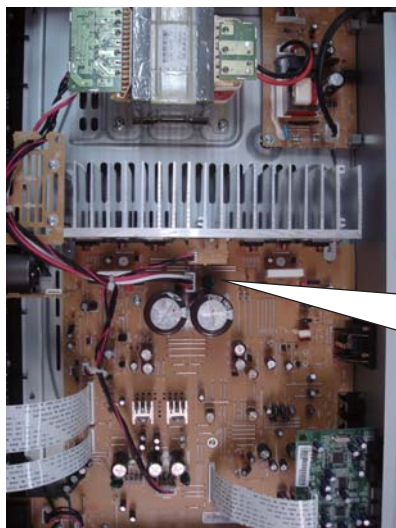
Time	4 - 6 minutes
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c. Final adjustment

Re-adjust by the following procedure after heat running for the above mentioned time.

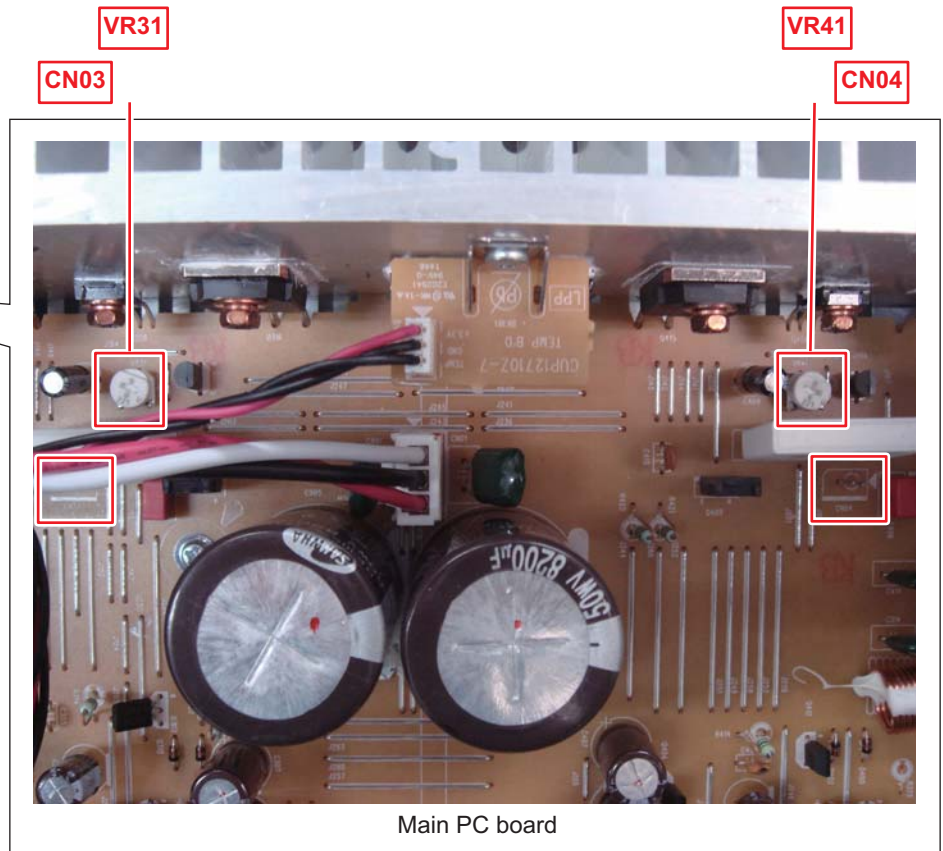
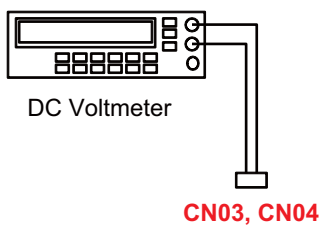
L / R		
Below 7.5 mV		7.5 mV
Between 8 mV(+0.5 / -0.5 mV)		Do not adjust.
Over 8.5 mV		8.5 mV

Adjustment point / Test terminal



Front ←

Connection



A

B

C

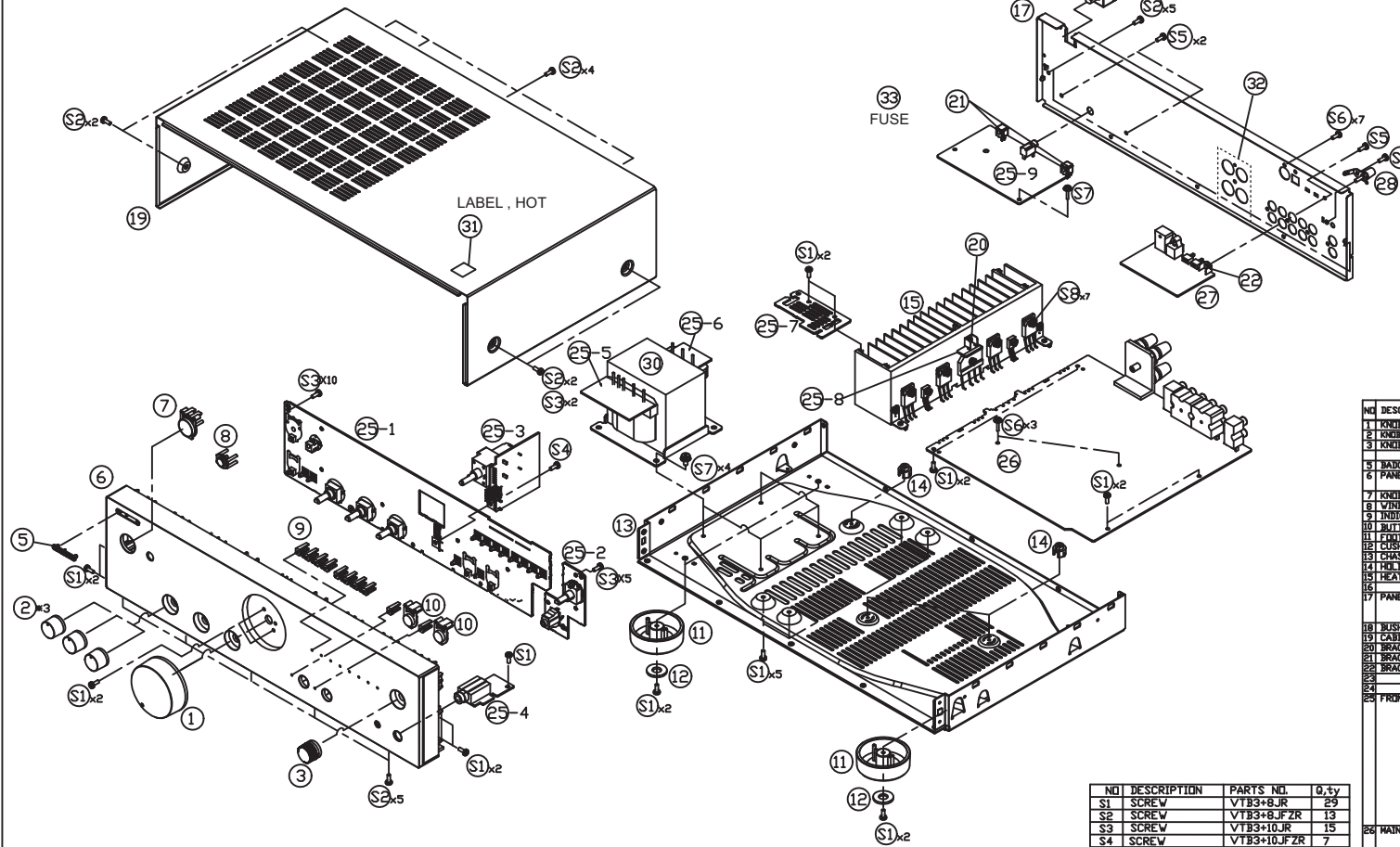
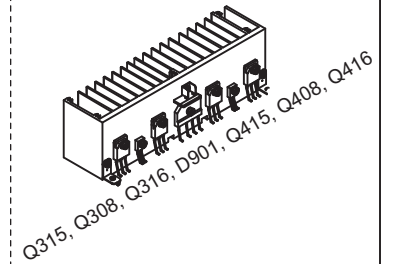
D

E

EXPLODED VIEW - 1/2

(B): Black

A-9010BWMP EXPLODED VIEW
 A-9010BWDC
 A-9010BWMB



NO	DESCRIPTION	PARTS NDL	Q.ty
S1	SCREW	VTB3+8.JR	29
S2	SCREW	VTB3+8.JF.ZR	13
S3	SCREW	VTB3+10.JR	15
S4	SCREW	VTB3+10.JF.ZR	7
S5	SCREW	VTB3+6FF.ZR	4
S6	SCREW	VTW3+12.JR	3
S7	SCREW	VHDRI024R	4
S8	SCREW	CHDIA012F.B	7

NO	DESCRIPTION	PARTS NDL	Q.ty	REMARK
1	KNOB VOLUME	CHNIA289	1	BLACK VERSION
2	KNOB BASS	CHNIA290	3	BLACK VERSION
3	KNOB INPUT	CHNIA291	1	BLACK VERSION
5	BADGE, DARK YL	VGBIA282	1	ALL VERSION
6	PANEL, FRONT	VGVIA567MR2B7E	1	IMPVDC BLACK VERSION
7	KNOB POWER	VGVIA567MR277E	1	IMPVDC BLACK VERSION
8	WINDOW, IR	CEYIA121	1	BLACK VERSION
9	INDICATOR LINE	VGLIA325	23	ALL VERSION
10	BUTTON, SPEAKER	VRTIA1212	2	BLACK VERSION
11	FRONT	VHLIA257	4	ALL VERSION
12	CUSHION RUBBER	VHSA2899	4	ALL VERSION
13	CHASSIS, BOTTOM	VUATA369	1	ALL VERSION
14	HOLDER, PCB	CHC170	3	
15	HEAT SINK	VHTIA425	1	
16				
17	PANEL, REAR	VRFIA495Z	1	VMP
18	BUSHING, AC CHRD	VRFIA495Y	1	VDC
19	CABINET, TOP	VRFIA495Y	1	VMB
20	BRACKET, PCB	CHDIA288	1	BLACK VERSION
21	BRACKET, PCB	VHCA233B25	1	
22	BRACKET, PCB	CHDIA834	2	
23	BRACKET, PCB	CHDIA569	1	
24				
25	FRONT PCB ASS'Y	CDPI2710B	1	VMP
		CDPI2710C	1	VDC
		CDPI2710D	1	VMB
		SS-1 PIP & KEY PCB	1	
		SS-2 POWER LED PCB	1	
		SS-3 VOLUME PCB	1	
		SS-4 PHONE PCB	1	
		SS-5 JACK PCB ASS'Y	1	
		SS-6 PIP & KEY PCB	1	
		SS-7 POWER LED PCB	1	
		SS-8 VOLUME PCB	1	
		SS-9 PHONE PCB	1	
26	MAIN PCB ASS'Y	CDPI2709B	1	VMP
		CDPI2709C	1	VDC
		CDPI2709D	1	VMB
27	DIGITAL PCB ASS'Y	CDPI2711B	1	VMP & VDC
28	TERMINAL GROUND	CHDIA006	1	
29	CORD, POWER	C-ASP0432A	1	VMP
		C-ASP0432A	1	VDC
		C-JAE006Z	1	VMB

A

B

C

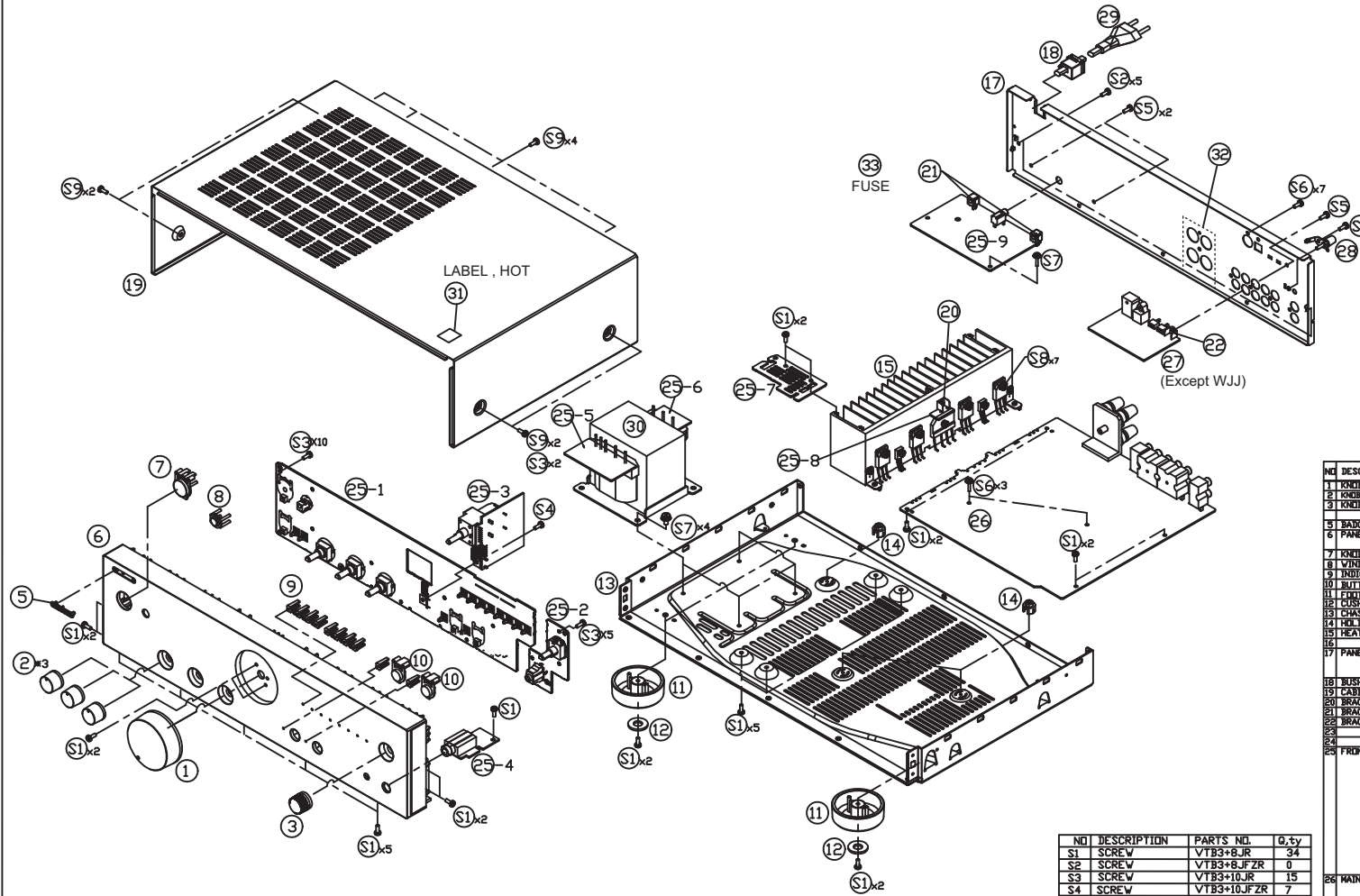
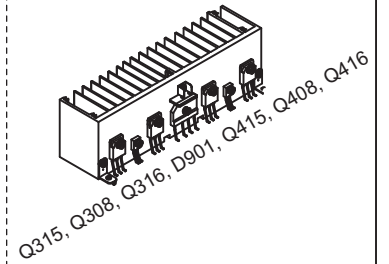
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E

EXPLODED VIEW - 2/2

(S): Silver

A-9010SWMP EXPLODED VIEW
A-9010SWJJ



NO	DESCRIPTION	PARTS NDL	Q.ty
S1	SCREW	VTB3+8JR	34
S2	SCREW	VTB3+8JFZR	0
S3	SCREW	VTB3+10JR	15
S4	SCREW	VTB3+10JFZR	7
S5	SCREW	VTB3+6FFZR	4
S6	SCREW	VTW3+12JR	3
S7	SCREW	VHDRIA024R	4
S8	SCREW	CHDIA012FB	7
S9	SCREW	VTB3+8FC	8

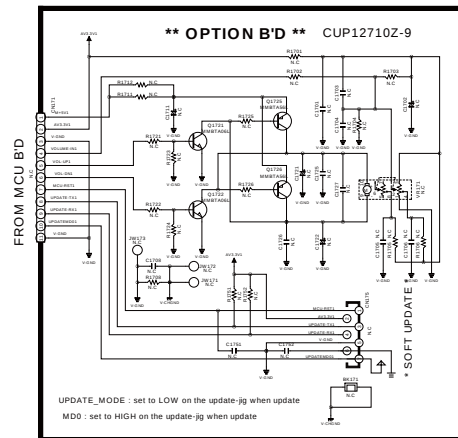
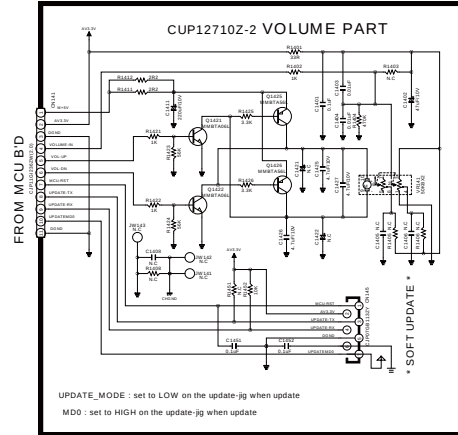
NO	DESCRIPTION	PARTS NDL	Q.ty	REMARK
1	KNOB VOLUME	CHNIA289C90	1	SILVER VERSION
2	KNOB BASS	CHNIA290C90	3	SILVER VERSION
3	KNOB INPUT	CHNIA291C90	1	SILVER VERSION
5	BADGE,INKYD	VGBIA282	1	ALL VERSION
6	PANEL,FRONT	VGVIA367HR2B71	1	SUMP
7	KNOB POWER	VGVIA367HR2Y71	1	SWJJ
8	WINDOW,IR	CHYIA211C90	1	SILVER VERSION
9	INDICATOR LINE	VGLIA325A38	1	SILVER VERSION
10	BUTTON,SPEAKER	VGLIA325A38	2	ALL VERSION
11	FRONT	VHTIA212G87	2	SILVER VERSION
12	CUSHION RUBBER	VHLIA227	4	ALL VERSION
13	CHASSIS,REAR	VHDA2399	4	ALL VERSION
14	CHASSIS,BOTTOM	VUUA369	1	ALL VERSION
15	HOLDER, PCB	CHDIA70	3	ALL VERSION
16	HEAT SINK	VHTIA425	1	ALL VERSION
17	PANEL,REAR	VHFA495Z	1	SWMP
18	BUSHING,AC CORD	VHFA495Z	1	SWJJ
19	CABINET,TOP	CHDIA28	1	ALL VERSION
20	BRACKET,PCB	VHFA495Z	1	SILVER VERSION
21	BRACKET,PCB	CHDIA834	2	ALL VERSION
22	BRACKET,PCB	CHDIA834	2	ALL VERSION
23	BRACKET,PCB	CHDIA834	2	ALL VERSION
24	FRONT PCB ASS'Y	CHDIA834	1	SWMP
25	FRONT PCB ASS'Y	CHDIA834	1	SWJJ
26	MAIN PCB ASS'Y	CHDIA834	1	SWMP
27	DIGITAL PCB ASS'Y	CHDIA834	1	SWJJ
28	TERMINAL GROUND	CHDIA834	1	WMP & VDC
29	CORD,POWER	CHDIA834	1	SWMP
30	CORD,POWER	CHDIA834	1	SWJJ

1



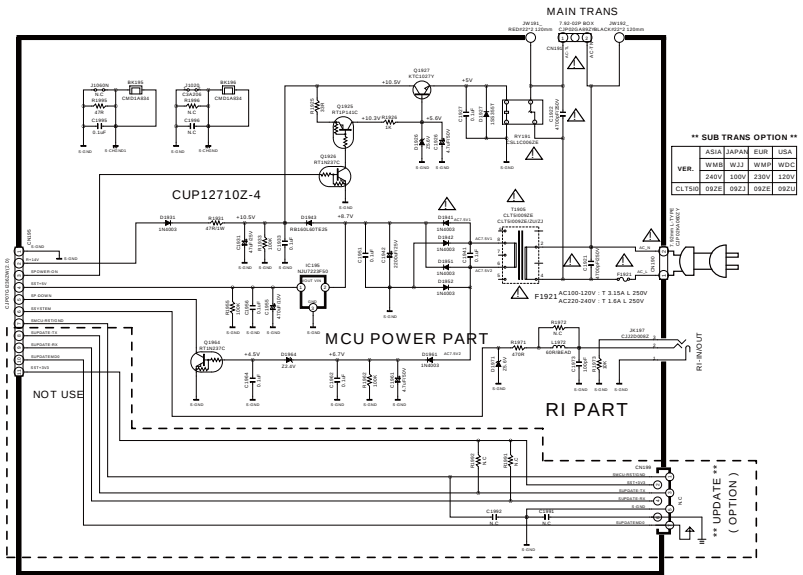
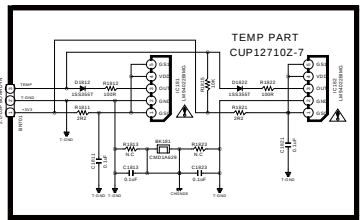
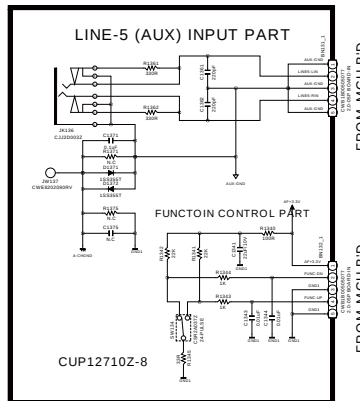
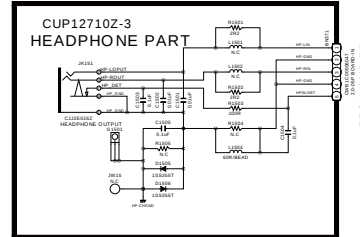
From CUP12710Z-3 'BN371

Schematic diagram



**** IMPORTANT SAFETY NOTICE.**
COMPONENTS IDENTIFIED BY MARK HAVE SPECIAL CHARACTERISTICS IMPORTANT FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS, USE ONLY MANUFACTURER'S SPECIFIED PARTS.

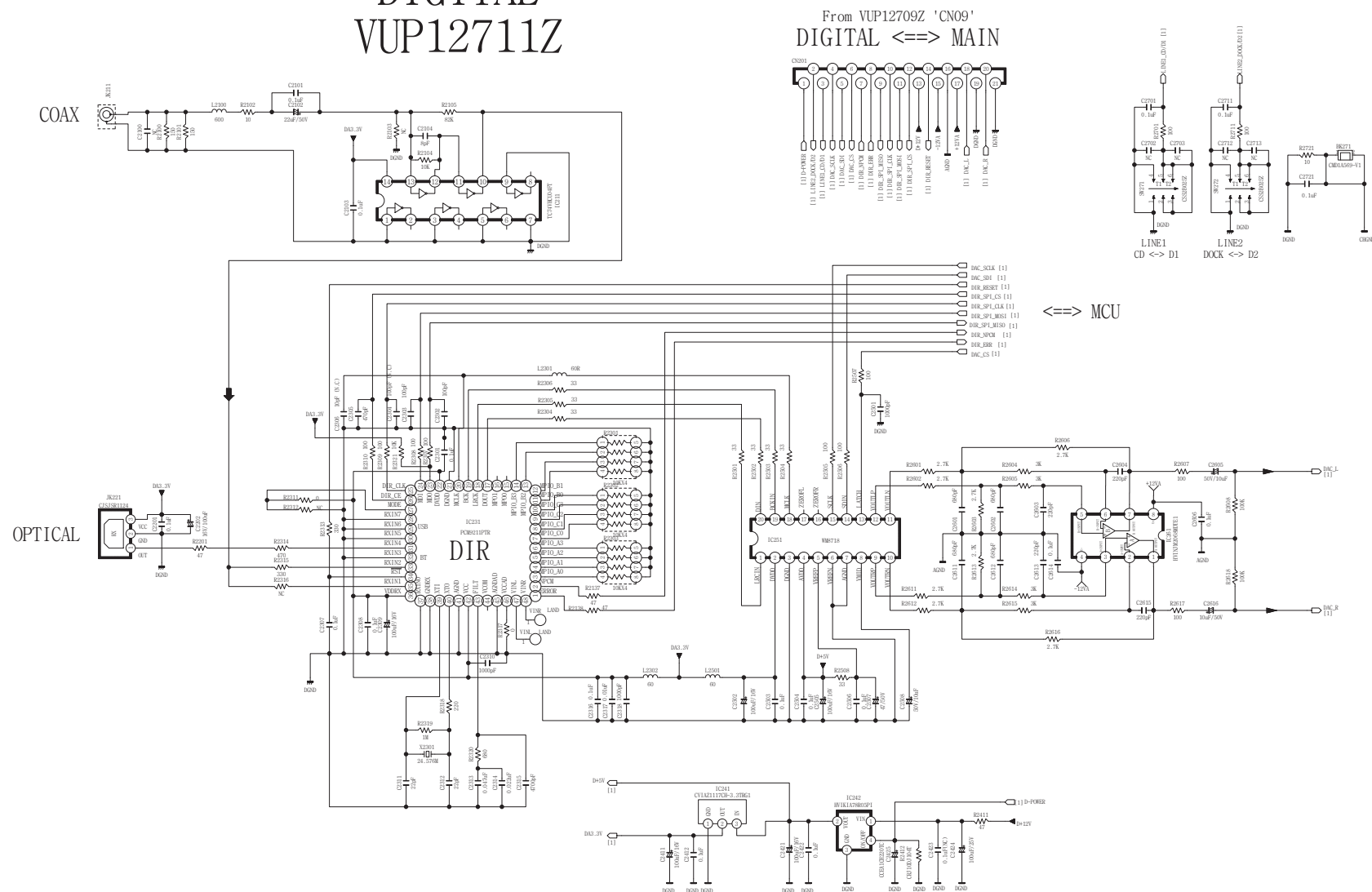
**** THIS SCHEMATIC DIAGRAM MAY BE MODIFIED AT ANYTIME WITH THE IMPROVEMENT OF PERFORMANCE.**



1



DIGITAL
VUP12711Z



A-9010(B)WDC

<Note>

Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.

NOTE : THE COMPONENTS IDENTIFIED BY THE MARK
! ARE CRITICAL FOR RISK OF FIRE AND
ELECTRIC SHOCK. REPLACE ONLY WITH PART
NUMBER SPECIFIED.

<Notes>

(B) : Black color model

<WDC> : 120V

Canadian/USA/(Mexico) model

: NSP

A-9010(B)WDC

EXPLODED VIEW PARTS LIST

REF. NO.	PART NAME	DESCRIPTION	QTY	PART NO. (SN)	REMARKS
[SEMI CONDUCTOR]					
Q308	T.R , BIAS	KTC3114A	1	HVTKTC3114A	
Q408	T.R , BIAS	KTC3114A	1	HVTKTC3114A	
Q315	T.R , POWER	2SD2390-P	1	HVT2SD2390	!
Q316	T.R , POWER	2SB1560-P	1	HVT2SB1560	!
Q415	T.R , POWER	2SD2390-P	1	HVT2SD2390	!
Q416	T.R , POWER	2SB1560-P	1	HVT2SB1560	!
D901	DIODE , BRIDGE(600V/10A)	D10SB60	1	CVDD10SB60	!
[CABINET]					
1	KNOB , VOLUME		1	VBNI1A289	
2	KNOB , BASS		3	VBNI1A290	
3	KNOB , INPUT		1	VBNI1A291	
5	BADGE , ONKYO		1	2B135317	
6	PANEL , FRONT		1	VGW1A567RHZH72	
7	BUTTON , POWER		1	VBT1A1211	
8	WINDOW , IR		1	VGL1A325	
9	INDICATOR , LINE		1	VGL1A326	
10	BUTTON , SPEAKER		1	VBT1A1212	
11	FOOT		4	VKL1A227	
12	CUSHION , FOOT		4	CHG2A289	
17	PANEL , REAR		1	VKF1A495Y	
19	CABINET , TOP		1	VKC1A233B25	
28	TERMINAL , GROUND		1	CMA1A006	
29	CORD , POWER(UL, CONNECTOR Type)		1	CJA523FBYA	!
31	LABEL , HOT	(CAUTION)	1	29392531	
32	LABEL , SPEAKER A-9010		1	VQB1A1389Z	
33	FUSE(S506 Series, 250V,3.15A)		1	CBA2C3150TLEC	!
[TRANS COIL]					
30	TRANS , POWER, A-9010		1	CLT5R047ZU	!
[TUNER UNIT]					
25	A-9010 WDC FRONT PCB ASSY *	(Parent)	1	COP12710C	
25-1	FRONT PCB	(Child)	1	COP12710C-1	
25-2	INPUT PCB	(Child)	1	COP12710C-2	
25-3	VOLUME PCB	(Child)	1	COP12710C-3	
25-4	HEADPHONE PCB	(Child)	1	COP12710C-4	
25-5	MAIN TRANS 2nd PCB	(Child)	1	COP12710C-5	
25-6	MAIN TRANS 1st PCB	(Child)	1	COP12710C-6	
25-7	ETC PCB	(Child)	1	COP12710C-7	NSP
25-8	TEMP PCB	(Child)	1	COP12710C-8	
25-9	POWER PCB	(Child)	1	COP12710C-9	
26	A-9010 MAIN PCB ASSY *	(Parent)	1	COP12709C	
27	A-9010 DIGITAL PCB ASSY *	(Parent, 8pcs)	1	COP12711B	

A-9010(B)WDC

PACKING PROCEDURES PARTS LIST

REF. NO.	PART NAME	DESCRIPTION	QTY	PART NO. (SN)	REMARKS
[PACKING]					
P1	BOX , OUT CARTON A-9010BWDC		1	VPG1A1043X	
P2	PAD , RIGHT		1	VPS1A1019	
P3	PAD , LEFT		1	VPS1A1020	
P4	BAG , POLY (650*600*0.515)	(650*600*0.515)	1	29100267	
[ACCESSARY]					
P5	REMOCON ASS'Y (RC-902S)	RC-902S	1	CARTA9010-ON	
P6	MANUAL , INSTRUCTION(ENGLISH)		1	VQX1A1897Z	
P7	MANUAL , INSTRUCTION		1	VQX1A1898Z	

PC BOARD PARTS LIST					A-9010(B)WDC
					: NSP
CIRCUIT NO.	PART NAME	DESCRIPTION	QTY	PART NO. (SN)	REMARKS
[SEMI CONDUCTOR]					
C157	CAP, ELECT (47uF/50V, 8X11.5_FG)	(for audio)	1	CCEA1HFG470T	
C257	CAP, ELECT (47uF/50V, 8X11.5_FG)	(for audio)	1	CCEA1HFG470T	
C302	CAP, ELECT (47uF/50V, 8X11.5_FG)	(for audio)	1	CCEA1HFG470T	
C304	CAP, ELECT(25V/220uF,ELNA/RA3)	(for audio)	1	CCEA1ERA38P221T	
C307	CAP, ELECT (330uF/50V, 10X16, RA3)	(for audio)	1	CCEA1HRA38P331E	
C308	CAP, ELECT (330uF/50V, 10X16, RA3)	(for audio)	1	CCEA1HRA38P331E	
C402	CAP, ELECT (47uF/50V, 8X11.5_FG)	(for audio)	1	CCEA1HFG470T	
C404	CAP, ELECT(25V/220uF,ELNA/RA3)	(for audio)	1	CCEA1ERA38P221T	
C407	CAP, ELECT (330uF/50V, 10X16, RA3)	(for audio)	1	CCEA1HRA38P331E	
C408	CAP, ELECT (330uF/50V, 10X16, RA3)	(for audio)	1	CCEA1HRA38P331E	
C905	CAP, ELECT(8200uF/50V, 105°C, 30X4		1	CCET50VHE822NH	
C906	CAP, ELECT(8200uF/50V, 105°C, 30X4		1	CCET50VHE822NH	
D1202	L.E.D , GREEN (5mm Pitch Taping)		1	CVDGY34MU22Y16BJTAA4	
D1204	L.E.D , GREEN (5mm Pitch Taping)		1	CVDGY34MU22Y16BJTAA4	
D1206	L.E.D , GREEN (5mm Pitch Taping)		1	CVDGY34MU22Y16BJTAA4	
D1208	L.E.D , GREEN (5mm Pitch Taping)		1	CVDGY34MU22Y16BJTAA4	
D1210	L.E.D , GREEN (5mm Pitch Taping)		1	CVDGY34MU22Y16BJTAA4	
D1212	L.E.D , GREEN (5mm Pitch Taping)		1	CVDGY34MU22Y16BJTAA4	
D1214	L.E.D , AMBER (5mm Pitch Taping)		1	CVDGY34MU2202JTAAL	
D1222	L.E.D , AMBER (5mm Pitch Taping)		1	CVDGY34MU2202JTAAL	
D1224	L.E.D , AMBER (5mm Pitch Taping)		1	CVDGY34MU2202JTAAL	
IC04	I.C , AUDIO SELECTOR(8-IN 4-OUT,SS	NJW1112V	1	22242597R2	
IC05	I.C , 2CH VOLUME	NJW1194V	1	22242893R2	
JK05	4P SCREW SPK (RR/BB,GOLD,94V-0,Tra		1	CJJ5P035Z	
JK221	MODULE , OPTICAL(RX 16MHz)		1	CJSJSR1124	
Q309	T.R , PRE DRIVE	KTA1360-Y	1	2204250	
Q310	T.R , PRE DRIVE	KTC3423-Y	1	2204240	
Q409	T.R , PRE DRIVE	KTA1360-Y	1	2204250	
Q410	T.R , PRE DRIVE	KTC3423-Y	1	2204240	
RY191	RELAY,HL31-1AT-5H,DC5V,1C1P		1	CSL1C006ZE	!
RC118	SENSOR , REMOTE/U		1	CRVKSM603TH5B	
SW134	ENCODER		1	CSR2A037Z	
T1905	TRANS , SUB C515		1	CLT5I009ZU	!
VR131	RES, VARIABLE(STRAIGHT) B 50K		1	CVV3V03B503Z	
VR132	RES, VARIABLE(STRAIGHT) B 50K		1	CVV3V03B503Z	
VR133	RES, VARIABLE(STRAIGHT) B 50K		1	CVV3V03B503Z	
VR141	VOLUME, MOTOR (B CURVE, 50Kohm)		1	CVV9Y17B503Z	
JK136	JACK , HEADPHONE (SILVER)		1	CJJ2D003Z	
JK197	JACK, STEREO (BLK MOLD)		1	CJJ2D008Z	
JK151	JACK, PHONES(6.35mm,SILVER)		1	CJJ2E026Z	
JK211	JACK , RCA (1P,RCA-115A-04)		1	CJJ4M044X	
JK01	JACK, 2P(W/R),SEPA-GND, SILVER		1	CJJ4N034U	
JK02	JACK, 4P(W/R,W/R),SEPA-GND		1	CJJ4P048U	
JK03	JACK, 4P(W/R,W/R),SEPA-GND		1	CJJ4P048U	
JK04	JACK, 2P(W/R),SEPA-GND, SILVER		1	CJJ4N034U	