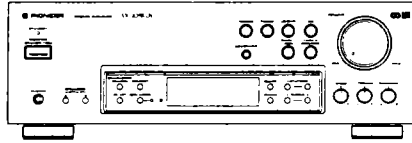


# Service Manual



ORDER NO.  
RRV1539

STEREO RECEIVER

# SX-305RDS

# SX-205RDS

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

Type	Model		Power Requirement	Remarks
	SX-305RDS	SX-205RDS		
HYXK/EW	○	○	AC220-230V	
HYXK/GR	○	○	AC220-230V	
HVXK	-	○	AC230V	

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# SX-305RDS, SX-205RDS

## 1. EXPLODED VIEWS, PACKING AND PARTS LIST

### NOTES:

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The  $\Delta$  mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

### 1.1 PACKING

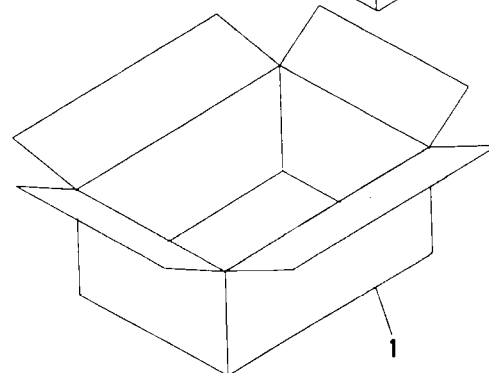
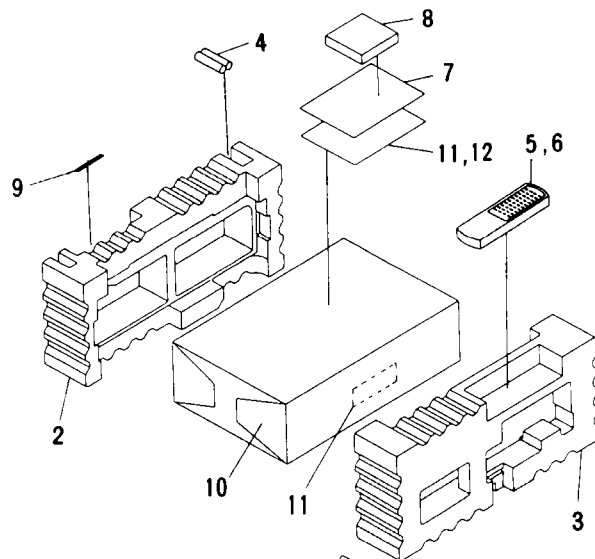
#### ■ CONTRAST OF SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR AND HVXK

SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR and HVXK have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			SX-305RDS		SX-205RDS			
			HYXK/EW	HYXK/GR	HYXK/EW	HYXK/GR	HVXK	
	1	Packing case	AHD7270	AHD7270	AHD7266	AHD7266	AHD7266	
	7	Operating instructions (English/French/German/Italian/Swedish/Spanish/Portuguese)	ARE7062	Not used	ARE7062	Not Used	Not used	
	7	Operating instructions (German)	Not used	ARC7106	Not used	ARC7106	Not used	
	7	Operating instructions (English)	Not used	Not used	Not used	Not used	ARB7068	

#### ■ PARTS LIST FOR SX-305RDS/HYXK/EW

Mark	No.	Description	Parts No.
	1	Packing case	AHD7270
	2	Front pad	AHA7115
	3	Rear pad	AHA7116
NSP	4	Dry cell batteries (R6P, AA)	VEM-013
	5	Remote control unit (CU-SX109)	AXD7086
	6	Battery lid	AZA7123
	7	Operating instructions (English/French/German/Italian/Dutch/Swedish/Spanish/Portuguese)	ARE7062
	8	Loop antenna assy	ATB7006
	9	FM antenna	ADH7002
	10	Packing sheet	AHG1215
	11	Serial sheet (Warranty card and rear panel)	AAX1523
NSP	12	Warranty card	ARY7010



## 1.2 EXPLODED VIEWS (1/3)

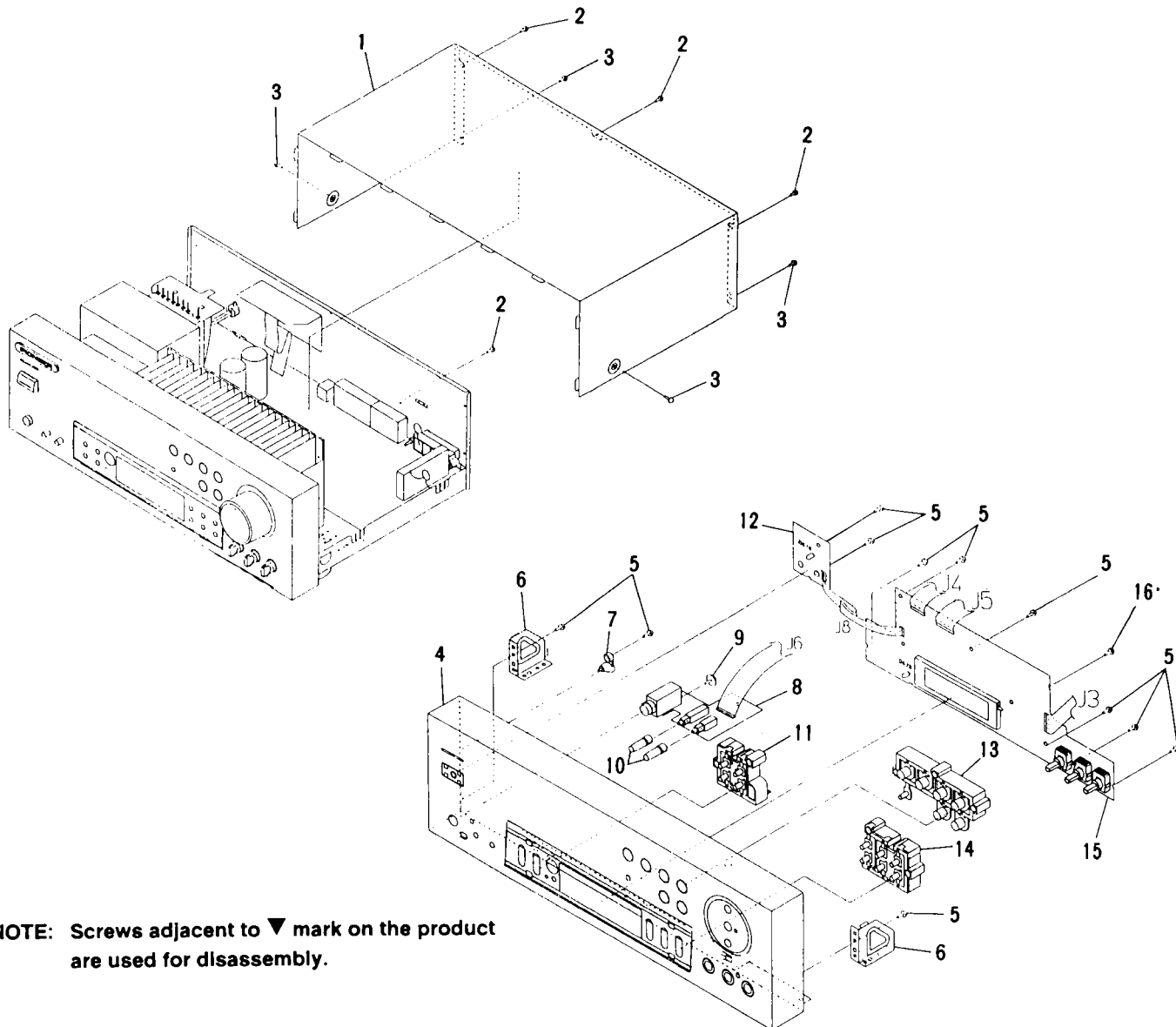
### ■ CONTRAST OF SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR AND HVXK

SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR and HVXK have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			SX-305RDS		SX-205RDS			
			HYXK/EW	HYXK/GR	HYXK/EW	HYXK/GR	HVXK	
NSP	4 8	Front panel SP SW ASSY	AMB7335 AWZ8039	AMB7335 AWZ8039	AMB7332 AWZ8046	AMB7332 AWZ8046	AMB7332 AWZ8046	

### ■ PARTS LIST FOR SX-305RDS

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
	1	Bonnet case	ANE7121		9	Screw	ABA7009
	2	Screw	BCZ30P080FZK		10	Push button	AAD7283
	3	Screw	BBZ30P080FZK		11	Hinge button A	AAD7279
	4	Front panel	AMB7335	NSP	12	POWER SW ASSY	AWZ8038
	5	Screw	BPZ26P080FMC		13	Function button	AAD7281
	6	Panel holder	ANG7087		14	Hinge button B	AAD7280
	7	LED lens	AAK2553		15	FRONT ASSY	AWZ8036
NSP	8	SP SW ASSY	AWZ8039		16	Screw	IPZ26P080FMC



NOTE: Screws adjacent to ▼ mark on the product are used for disassembly.

# SX-305RDS, SX-205RDS

## 1.3 EXPLODED VIEWS (2/3)

### ■ CONTRAST OF SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR AND HVXK

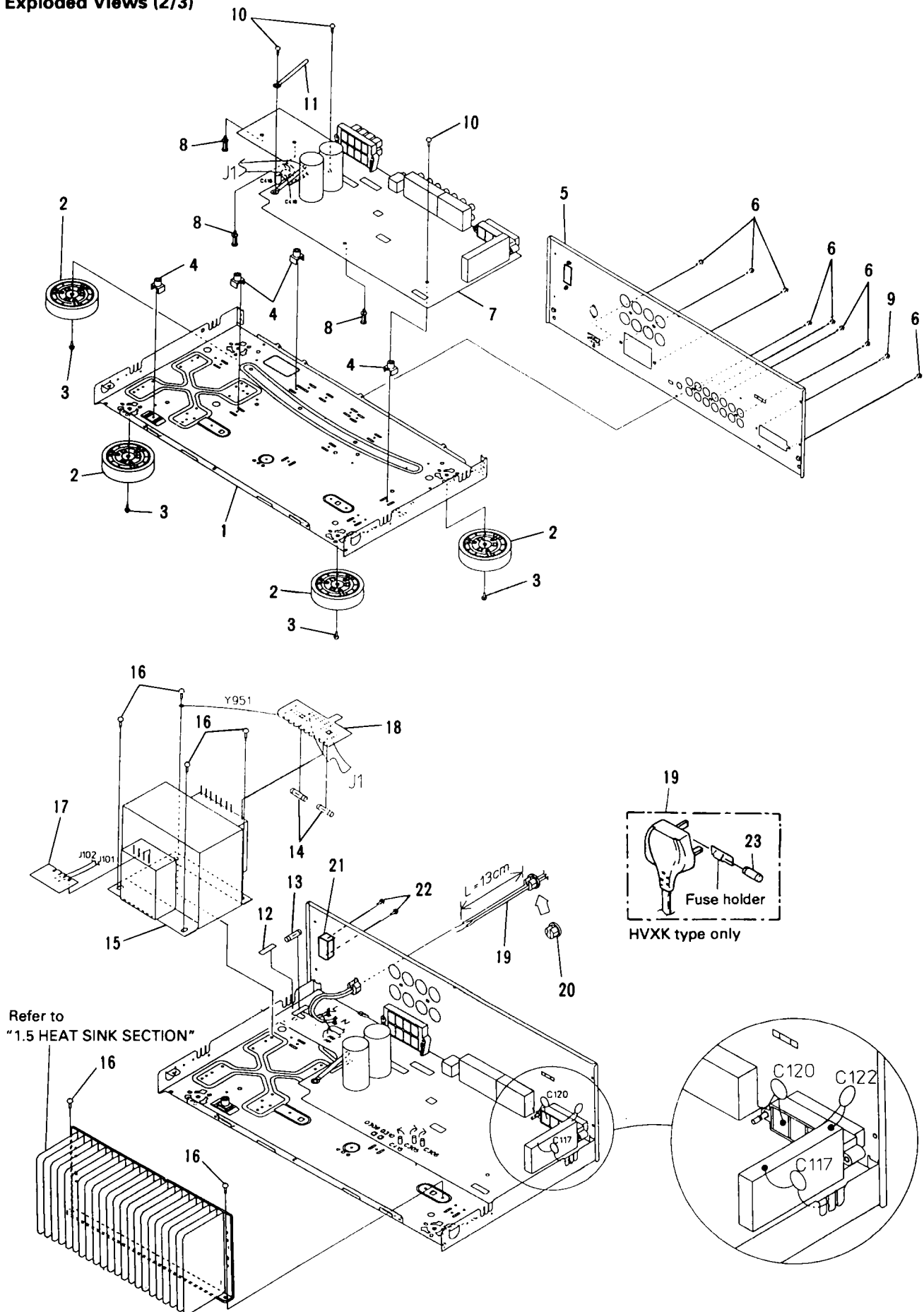
SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR and HVXK have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			SX-305RDS		SX-205RDS			
			HYXK/EW	HYXK/GR	HYXK/EW	HYXK/GR	HVXK	
	5	Rear panel	ANC7343	ANC7343	ANC7345	ANC7345	ANC7357	
	7	MOTHER ASSY	AWZ8035	AWZ8035	AWZ8042	AWZ8042	AWZ8042	
▲	12	Fuse card (T2.5AL250V)	AAX7035	AAX7035	Not used	Not used	Not used	
▲	13	Fuse (FU1, T2.5AL250V)	AEK1058	AEK1058	Not used	Not used	Not used	
▲	13	Fuse (FU1, T1.25AL250V)	Not used	Not used	AEK1055	AEK1055	AEK1055	
▲	15	Power transformer (AC220-230V)	ATS7120	ATS7120	ATS7121	ATS7121	ATS7121	
▲	19	AC power cord	ADG1138	ADG1138	ADG1138	ADG1138	ADG1148	
▲	23	Fuse (T5A/250V)	Not used	Not used	Not used	Not used	AEK1046	For AC power cord

### ■ PARTS LIST FOR SX-305RDS

Mark	No.	Description	Parts No.
NSP	1	Chassis	ANA1481
	2	Insulator	PNW1912
	3	Screw	BBZ30P080FZK
	4	PCB mold	AMR2533
	5	Rear panel	ANC7343
	6	Screw	BBZ30P080FZK
	7	MOTHER ASSY	AWZ8035
	8	PCB support	AEC1581
	9	Screw	ABA1047
	10	Screw	BBZ30P200FMC
NSP	11	Binder	RNE1277
	12	Fuse card	AAX7035
▲	13	Fuse (FU1, T2.5AL250V)	AEK1058
▲	14	Fuse (FU2, FU3, T800mAL250V)	AEK1053
▲	15	Power transformer (T1) (T1 AC220-230V)	ATS7120
	16	Screw	ABA7019
NSP	17	PRIMARY ASSY	AWZ8391
NSP	18	TRANS ASSY	AWZ8040
▲	19	AC power cord	ADG1138
	20	Strain relief	CM-22B
▲	21	Main power switch	ASH-501
	22	Screw	BCZ30P080FZK

## Exploded Views (2/3)



# SX-305RDS, SX-205RDS

## 1.4 EXPLODED VIEWS (3/3)

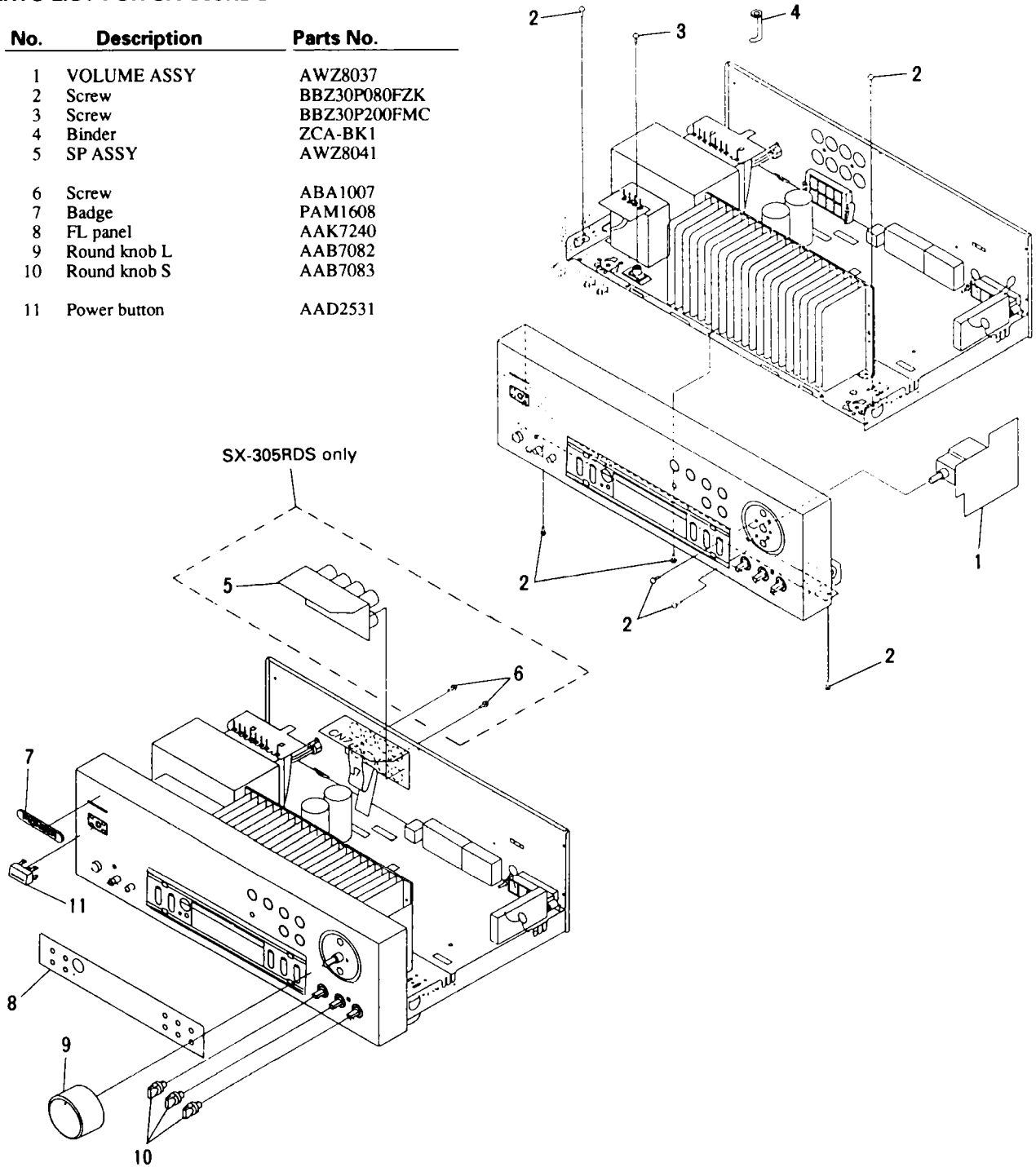
### ■ CONTRAST OF SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR AND HVXK

SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR and HVXK have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			SX-305RDS		SX-205RDS			
			HYXK/EW	HYXK/GR	HYXK/EW	HYXK/GR	HVXK	
NSP	5	SP ASSY	AWZ8041	AWZ8041	Not used	Not used	Not Used	
	6	Screw	ABA1007	ABA1007	Not used	Not used	Not used	

### ■ PARTS LIST FOR SX-305RDS

Mark	No.	Description	Parts No.
	1	VOLUME ASSY	AWZ8037
	2	Screw	BBZ30P080FZK
	3	Screw	BBZ30P200FMC
NSP	4	Binder	ZCA-BK1
NSP	5	SP ASSY	AWZ8041
	6	Screw	ABA1007
	7	Badge	PAM1608
	8	FL panel	AAK7240
	9	Round knob L	AAB7082
	10	Round knob S	AAB7083
	11	Power button	AAD2531



1.5 HEAT SINK SECTION

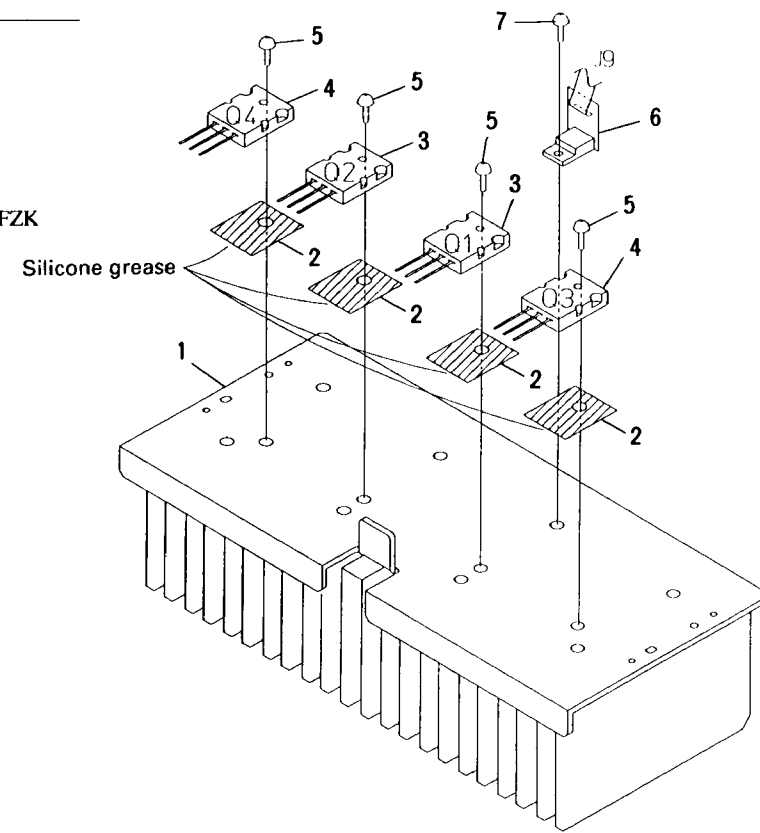
■ CONTRAST OF SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR AND HVXK

SX-305RDS/HYXK/EW, HYXK/GR, SX-205RDS/HYXK/EW, HYXK/GR and HVXK have the same construction except for the following:

Mark	No.	Symbol & Description	Part No.					Remarks
			SX-305RDS		SX-205RDS			
			HYXK/EW	HYXK/GR	HYXK/EW	HYXK/GR	HVXK	
NSP	1	Heat sink	ANH1475	ANH1475	ANH1476	ANH1476	ANH1476	
▲	3	Transistor (Q1, Q2)	2SC5198(P)	2SC5198(P)	2SC5196(P)	2SC5196(P)	2SC5196(P)	
▲	4	Transistor (Q3, Q4)	2SA1941(P)	2SA1941(P)	2SA1939(P)	2SA1939(P)	2SA1939(P)	

■ PARTS LIST FOR SX-305RDS

Mark	No.	Description	Parts No.
NSP	1	Heat sink	ANH1475
	2	Mica wafer	AEE7010
▲	3	Transistor (Q1, Q2)	2SA198
▲	4	Transistor (Q3, Q4)	2SA1941
	5	Screw	ABA1194
NSP	6	REG ASSY	AWZ8389
	7	Screw	BBZ30P080FZK



2. SCHEMATIC AND PCB CONNECTION DIAGRAMS

2.1 OVERALL SCHEMATIC DIAGRAM

NOTE FOR SCHEMATIC DIAGRAMS (Type 2A)

1. When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".

2. Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.

3. RESISTORS:  
Unit: k- $\Omega$ , M- $\Omega$ , or  $\Omega$  unless otherwise noted  
Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted  
Tolerance: (F):  $\pm 1\%$ , (G):  $\pm 2\%$ , (K):  $\pm 10\%$ , (M):  $\pm 20\%$  or  $\pm 15\%$  unless otherwise noted

4. CAPACITORS:  
Unit: p, pF or  $\mu$ F unless otherwise noted  
Ratings: capacitor ( $\mu$ F)/voltage (V) unless otherwise noted  
Rated voltage: 50V except for electrolytic capacitors

5. COILS  
Unit: mH or  $\mu$ H unless otherwise noted

6. VOLTAGE AND CURRENT:  
□ or - V : DC voltage (V) at no input signal unless otherwise noted.  
mA or - mA : DC current at no input signal unless otherwise noted

7. OTHERS:  
● or ○ : Adjusting point.  
◁ : Measurement point.  
▲ : The ▲ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.

8. SCH-□ ON THE SCHEMATIC DIAGRAM:  
• SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

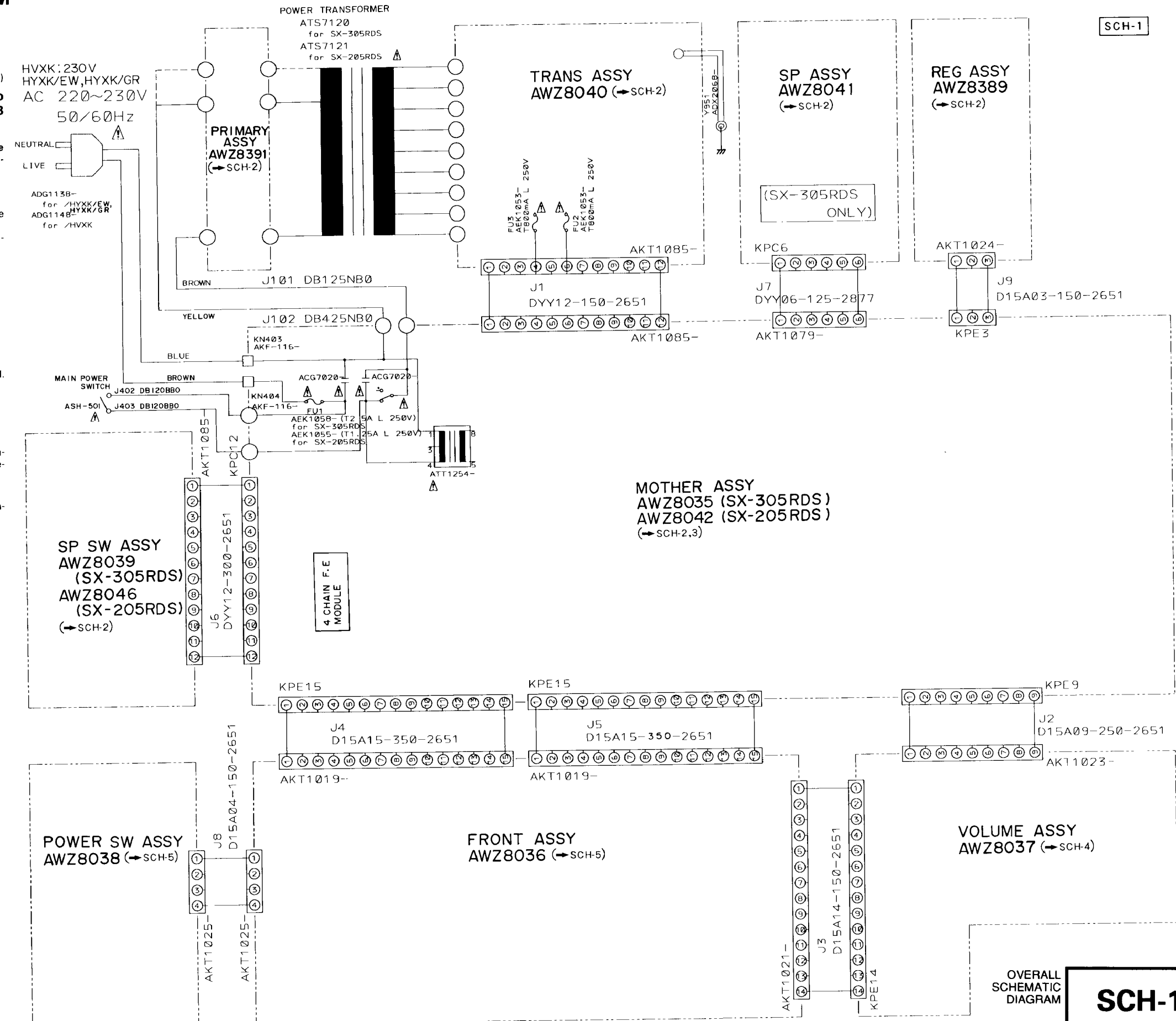
9. SWITCHES (Underline indicates switch position):

- FRONT ASSY  
S826 : STATION +  
S827 : STATION -  
S828 : CLASS  
S829 : EON MODE  
S830 : TUNING +  
S831 : TUNING -  
S832 : FM/AM  
S833 : PHONO  
S834 : TAPE 2 MONITOR  
S835 : TAPE 1/VCR  
S836 : LOUDNESS  
S837 : MEMORY  
S838 : CD  
S839 : LD/DVD  
S840 : TUNER  
S841 : CHARACTER/SEARCH  
S842 : RF ATT

- POWER SW ASSY  
S876 : POWER STANDBY/ON

- SP SW ASSY  
S701 : SPEAKERS B ON-OFF  
S702 : SPEAKERS A ON-OFF

**SCH-1** OVERALL SCHEMATIC DIAGRAM



OVERALL SCHEMATIC DIAGRAM **SCH-1**

2.2 MOTHER (1/2), REG, TRANS, SP AND SP SW ASSY

\*1mark means to use for SX-305RDS.  
\*2mark means to use for SX-205RDS.

SCH-2

A

B

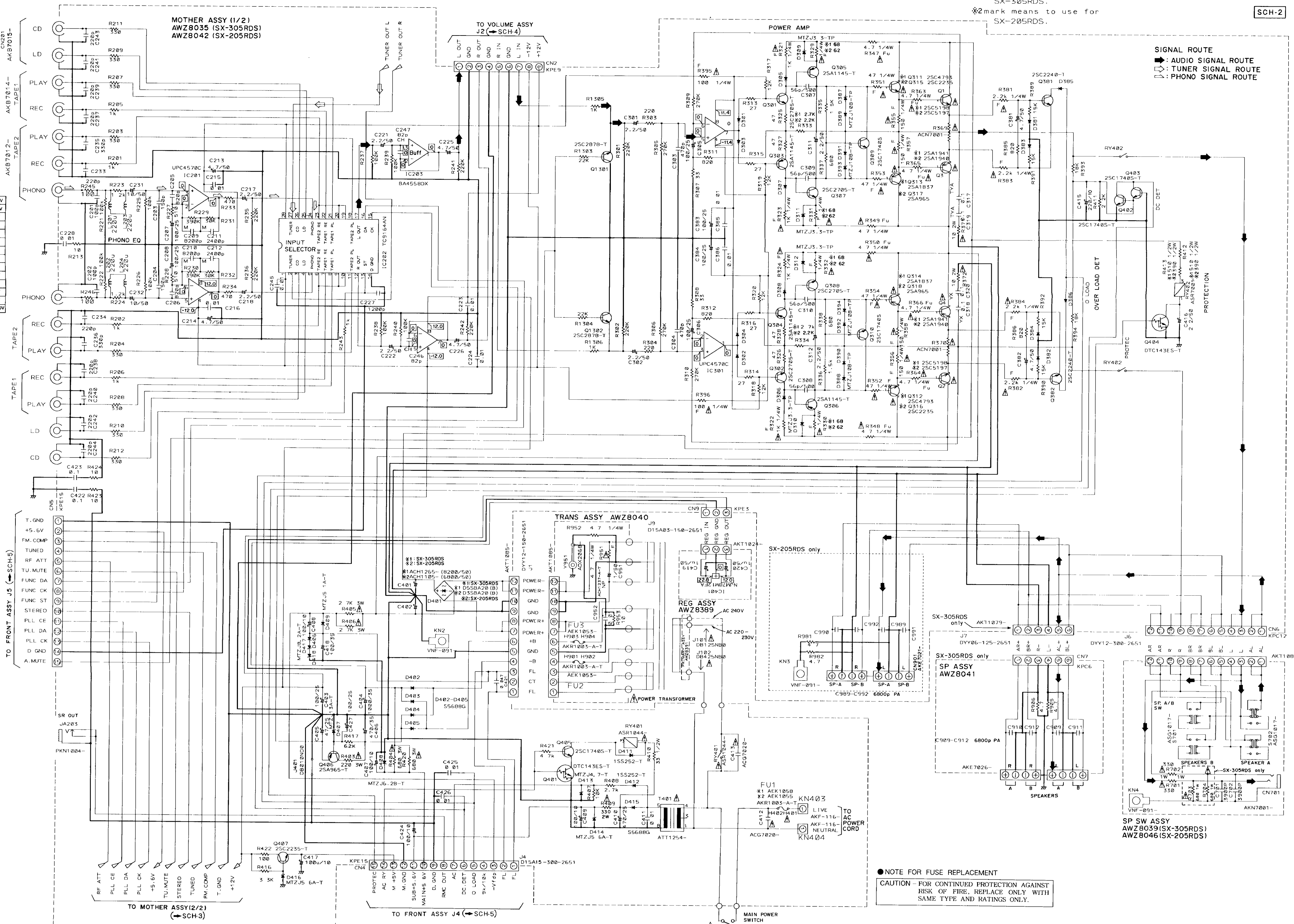
C

D

E

F

IC202	1 Pin	OV	15Pin	Q1V
	2 Pin	OV	16Pin	Q1V
	3 Pin	OV	17Pin	OV
	4 Pin	OV	18Pin	OV
	5 Pin	OV	19Pin	OV
	6 Pin	OV	20Pin	OV
	7 Pin	OV	21Pin	OV
	8 Pin	OV	22Pin	OV
	9 Pin	OV	23Pin	OV
	10 Pin	OV	24Pin	OV
	11 Pin	OV	25Pin	OV
	12 Pin	OV	26Pin	OV
	13 Pin	OV	27Pin	OV
	14 Pin	OV	28Pin	12.OV



**SIGNAL ROUTE**  
 ● AUDIO SIGNAL ROUTE  
 ○ TUNER SIGNAL ROUTE  
 □ PHONO SIGNAL ROUTE

**NOTE FOR FUSE REPLACEMENT**  
 CAUTION - FOR CONTINUED PROTECTION AGAINST RISK OF FIRE, REPLACE ONLY WITH SAME TYPE AND RATINGS ONLY.

**SCH-2**  
 MOTHER ASSY (1/2),  
 REG ASSY,  
 TRANS ASSY,  
 SP ASSY,  
 SP SW ASSY

**SCH-2**  
 MOTHER ASSY (1/2),  
 REG ASSY,  
 TRANS ASSY,  
 SP ASSY,  
 SP SW ASSY



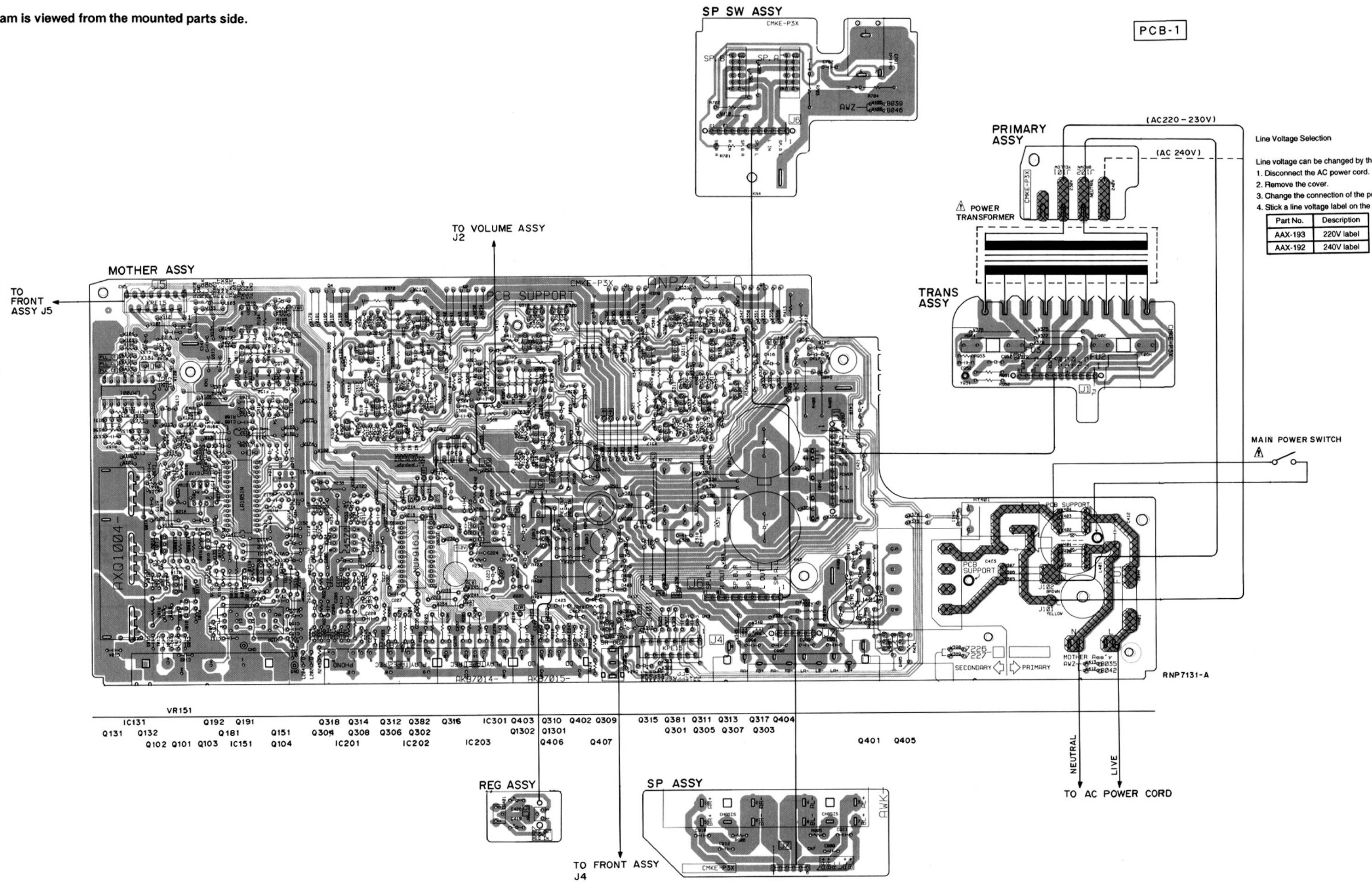
**NOTE FOR PCB DIAGRAMS:**

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

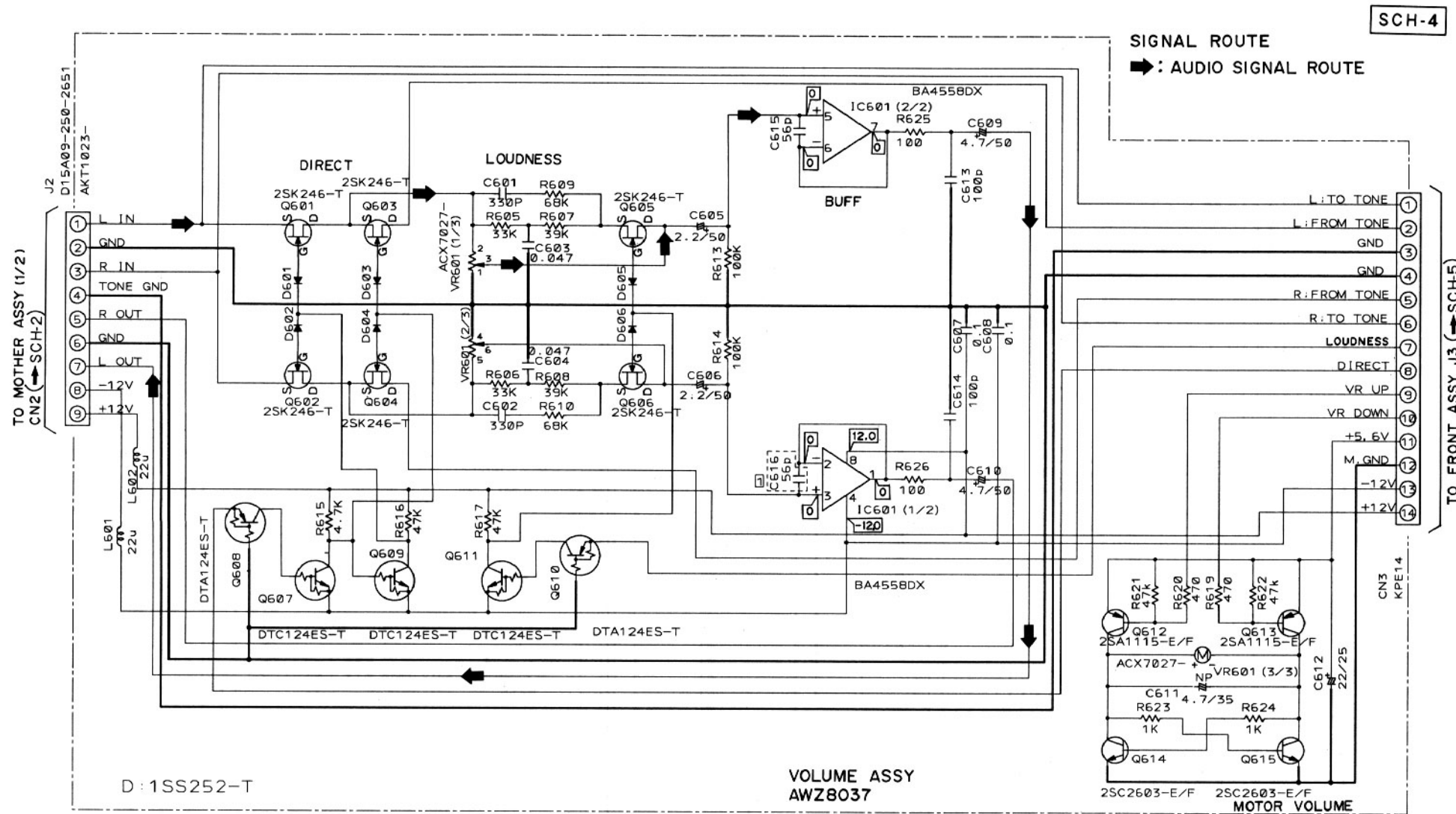
The parts mounted on this PCB include all necessary parts for several destinations. For further information for respective destinations, be sure to check with the schematic diagram.

• This diagram is viewed from the mounted parts side.

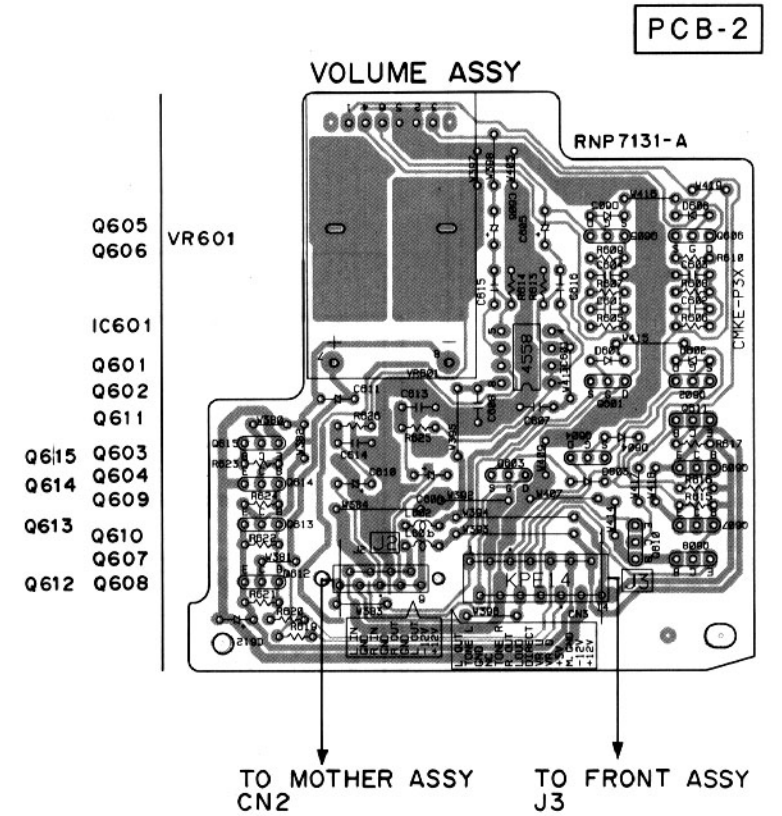




2.4 VOLUME ASSY



- This diagram is viewed from the mounted parts side.
- 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.

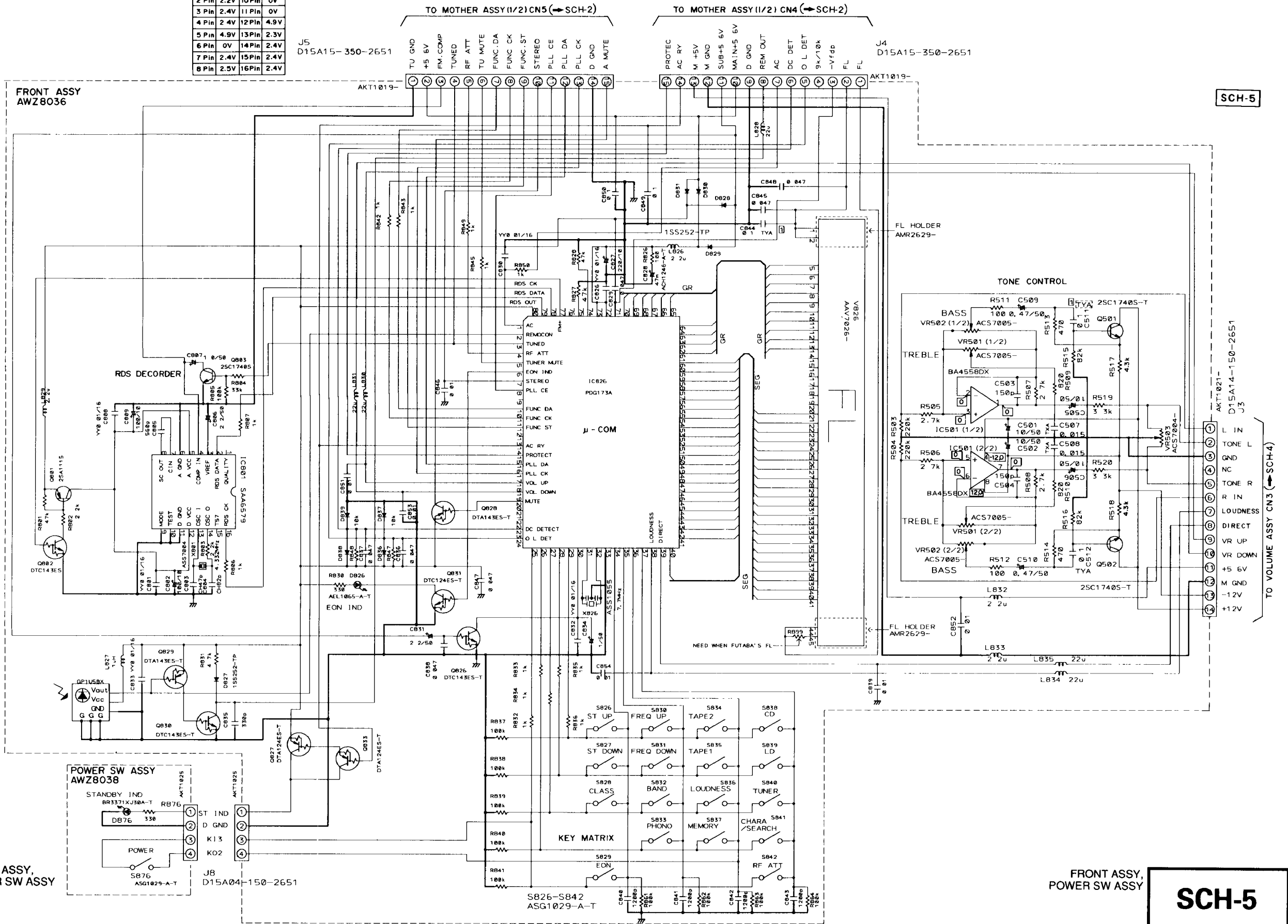


VOLUME ASSY  
**SCH-4**

VOLUME ASSY  
**SCH-4**

2.5 FRONT AND POWER SW ASSY

IC801			
1 Pin	2.2V	9 Pin	0V
2 Pin	2.2V	10 Pin	0V
3 Pin	2.4V	11 Pin	0V
4 Pin	2.4V	12 Pin	4.9V
5 Pin	4.9V	13 Pin	2.3V
6 Pin	0V	14 Pin	2.4V
7 Pin	2.4V	15 Pin	2.4V
8 Pin	2.5V	16 Pin	2.4V



FRONT ASSY  
AWZ8036

POWER SW ASSY  
AWZ8038

FRONT ASSY,  
POWER SW ASSY

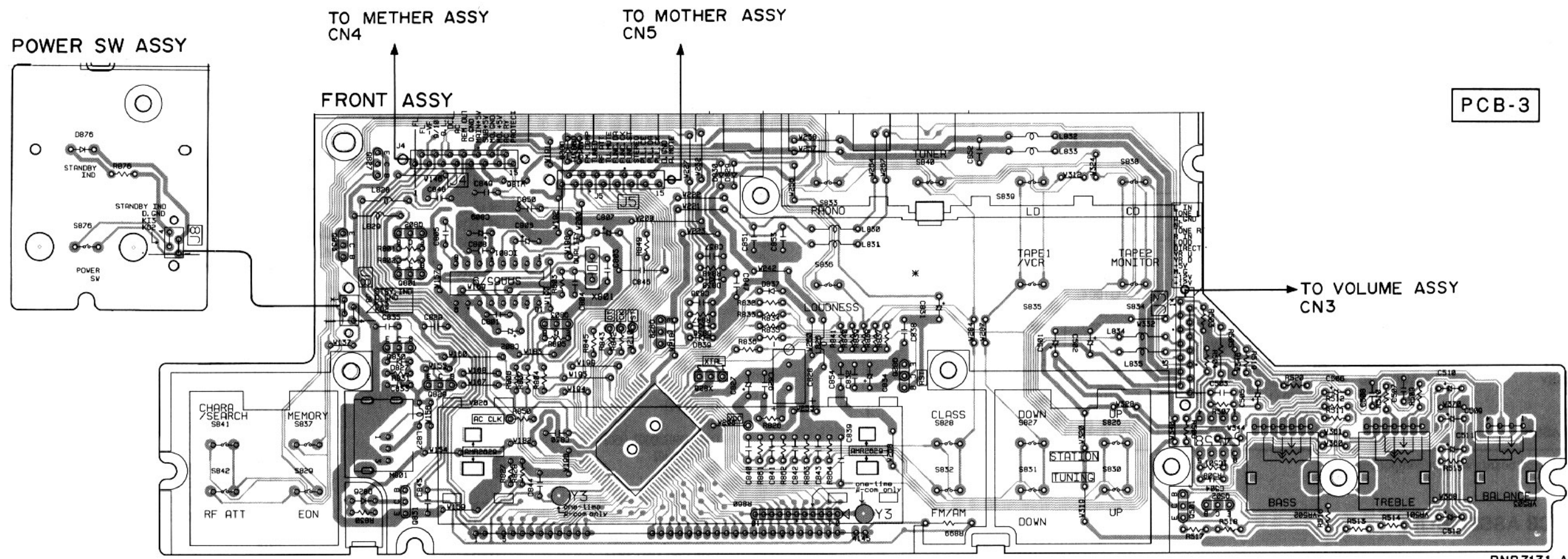
FRONT ASSY,  
POWER SW ASSY

**SCH-5**

**SCH-5**

• This diagram is viewed from the mounted parts side.

- 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.



PCB-3

RNP7131-A

VR502 VR501 VR503

Q827	Q802	IC801	Q803	Q828	Q826	Q501	Q502
Q833	Q801						
	Q830	Q829					
	Q831						



Mark	No.	Description	Parts No.
	C151, C152, C155, C158 C227 C235, C236 C182 C303, C304		CGCYX473M16 CKCYB122K50 CKCYB331K50 CKCYB392K50 CKCYB471K50
	C160 C205, C206 C215, C216, C223, C224, C228 C245, C385, C386, C411 C421		CKCYB561K50 CKCYB821K50 CKCYF103Z50 CKCYF103Z50 CKCYF473Z50
△	C120		CKDYB222K50
△	C117, C122 C157, C172 C142 C105, C106, C108, C113, C134		CKDYX103M16 CKPUYB102K50 CKPUYF473Z16 CKPUYY103M16
	C174, C175 C211, C212 C209, C210 C165, C166		CKPUYY103M16 CQMA242J50 CQMA822J50 CQPA682J100
<b>RESISTORS</b>			
△	R369, R370 (0.33Ω)		ACN7001
△	R410 R412, R413 R417 R102		RD1/2PM330J RD1/2PM511J RD1/2PM622J RD1/2PM751J
△	R395, R396		RD1/4PMF101J
△	R321-R324		RD1/4PMF102J
△	R355-R358		RD1/4PMF151J
△	R381-R384		RD1/4PMF222J
△	R351-R354		RD1/4PMF470J
△	R329-R332 R213 R245, R246, R422 R103, R1305, R1306, R131-R133 R167, R168, R183, R186		RD1/4PMF680J RD1/6PM100J RD1/6PM101J RD1/6PM102J RD1/6PM102J
	R201, R202, R205, R206, R243 R136, R142, R165, R407 R115, R192, R195, R221, R222 R225, R226, R237-R240 R157		RD1/6PM102J RD1/6PM103J RD1/6PM104J RD1/6PM104J RD1/6PM113J
	R223, R224 R317-R320 R110 R111, R113, R156, R335, R336 R104, R389-R392		RD1/6PM122J RD1/6PM123J RD1/6PM151J RD1/6PM152J RD1/6PM153J
	R393, R394 R105, R108, R135, R141, R181 R193, R196, R303, R304 R109, R150, R411 R1303, R1304, R151		RD1/6PM183J RD1/6PM221J RD1/6PM221J RD1/6PM222J RD1/6PM223J
	R235, R236, R241, R242 R301, R302 R313-R316 R191, R194, R333, R334, R408 R305, R306, R309, R310		RD1/6PM224J RD1/6PM224J RD1/6PM270J RD1/6PM272J RD1/6PM274J

Mark	No.	Description	Parts No.
	R231, R232 R101, R307, R308 R112, R203, R204, R207-R212 R154 R152		RD1/6PM303J RD1/6PM330J RD1/6PM331J RD1/6PM332J RD1/6PM333J
	R107 R153, R166 R229, R230 R325-R328 R116, R233, R234		RD1/6PM391J RD1/6PM392J RD1/6PM394J RD1/6PM470J RD1/6PM471J
	R114, R134, R182, R421 R185 R227, R228 R155 R106, R138-R140, R158		RD1/6PM472J RD1/6PM473J RD1/6PM511J RD1/6PM512J RD1/6PM561J
	R137 R337, R338 R311, R312, R385, R386 R159, R160, R163 R164		RD1/6PM562J RD1/6PM681J RD1/6PM821J RD1/6PM912J RD1/6PM913J
△	R347-R350, R363-R366		RFA1/4PS4R7J
△	R371, R372		RS2LMF100J
△	R409		RS2LMF331J
△	R403		RS3LMF221J
△	R405, R406		RS3LMF272J
△	R404, R420 VR151 (10kΩ) Other Resistors		RS3LMF681J ACP1043 RD1/4PU□□□□
<b>OTHERS</b>			
	201	6P PIN JACK	AKB7012
	202	4P PIN JACK	AKB7014
	CN201	4P PIN JACK	AKB7015
	H401, H402	FUSE CLIP	AKR1003
		6P CABLE HOLDER	AKT1079
		12P CABLE HOLDER	AKT1085
△	T401	POWER TRANSFORMER	ATT1254
	CN6	12P JUMPER CONNECTOR	KPC12
	CN4, CN5	15P JUMPER CONNECTOR	KPE15
	CN9	3P JUMPER CONNECTOR	KPE3
	CN2	9P JUMPER CONNECTOR	KPE9
	JA203	REMOTE CONTROL JACK 12V	PKN1004
	102	ANTENNA TERMINAL	RKE1002
	1, 2	EARTH METAL FITTING	VNF-091
	101	AM RF TUNING BLOCK	AXX7024
<b>4 CHAIN F.E MODULE</b>			
4 CHAIN F.E MODULE has no service part.			
<b>FRONT ASSY</b>			
<b>SEMICONDUCTORS</b>			
	IC501		BA4558DX
	IC826		PDG173A
	IC801		SAA6579
	Q801		2SA1115

# SX-305RDS, SX-205RDS

Mark	No.	Description	Parts No.
	Q501, Q502, Q803		2SC1740S
	Q827, Q833		DTA124ES
	Q828, Q829		DTA143ES
	Q831		DTC124ES
	Q802, Q826, Q830		DTC143ES
	D827-D831, D836-D839		1SS252
	D826		AEL1065
<b>COILS AND FILTERS</b>			
	X826		ASS1055
	X801		ASS7004
	L827		LAU010J
	L828, L830, L831, L834, L835		LAU220J
	L826, L829, L832, L833		LAU2R2J
<b>SWITCHES AND RELAYS</b>			
	S826-S842		ASG1029
<b>CAPACITORS</b>			
	C828		ACH1246
	C803		CCCCH470J50
	C804		CCCCH820J50
	C503, C504		CCCSL151J50
	C807, C834		CEAS010M50
	C501, C502, C505, C506		CEAS100M50
	C802, C809		CEAS101M10
	C827		CEAS221M10
	C806, C831		CEAS2R2M50
	C509, C510		CEASR47M50
	C507, C508		CFTXA153J50
	C511, C512, C844		CFTYA104J50
	C851-C854		CGCYX103M16
	C849, C850		CGCYX104M16
	C836-C838		CGCYX473M16
	C840-C843		CKCYB122K50
	C835		CKCYB331K50
	C805		CKCYB561K50
	C829, C845, C847, C848		CKCYF473Z50
	C839, C846		CKPUYF103Z25
	C801, C808, C826, C830		CKPUYY103M16
	C832, C833		CKPUYY103M16
<b>RESISTORS</b>			
	VR503 (500k $\Omega$ )		ACS7004
	VR501, VR502 (30k $\Omega$ )		ACS7005
	Other Resistors		RD1/6PM□□□J
<b>OTHERS</b>			
	V826 FL INDICATOR TUBE		AAV7026
<b>VOLUME ASSY</b>			
<b>SEMICONDUCTORS</b>			
	IC601		BA4558DX
	Q612, Q613		2SA1115
	Q614, Q615		2SC2603
	Q601-Q606		2SK246

Mark	No.	Description	Parts No.
	Q608, Q610		DTA124ES
	Q607, Q609, Q611		DTC124ES
	D601-D606		1SS252
<b>COILS AND FILTERS</b>			
	L601, L602		LAU220J
<b>CAPACITORS</b>			
	C613, C614		CCCSL101J50
	C615, C616		CCCSL560K500
	C611		CEANP4R7M35
	C612		CEAS220M25
	C605, C606		CEAS2R2M50
	C609, C610		CEAS4R7M50
	C607, C608		CGCYX104M16
	C601, C602		CKCYB331K50
	C603, C604		CKCYF473Z50
<b>RESISTORS</b>			
	VR601 (100k $\Omega$ )		ACX7027
	Other Resistors		RD1/6PM□□□J
<b>OTHERS</b>			
	CN3 CABLE HOLDER		AKT1023
	14P JUMPER CONNECTOR		KPE14
<b>POWER SW ASSY</b>			
<b>SEMICONDUCTORS</b>			
	D876		BR3371XJ30A
<b>SWITCHES AND RELAYS</b>			
	S876		ASG1029
<b>RESISTORS</b>			
	All Resistors		RD1/6PM□□□J
<b>SP SW ASSY</b>			
<b>SWITCHES AND RELAYS</b>			
	S701, S702		ASG1017
<b>CAPACITORS</b>			
	C701, C702		CKCYB392K50
<b>RESISTORS</b>			
	$\Delta$ R701, R702		RS1LMF331J
	$\Delta$ R703, R704		RS1LMF681J
<b>OTHERS</b>			
	CN701 HEADPHONE JACK		AKN7001
	12P CABLE HOLDER		AKT1085
	4 EARTH METAL FITTING		VNF-091
<b>TRANS ASSY</b>			
<b>CAPACITORS</b>			
	$\Delta$ C951 (1 $\mu$ F/100V)		ACH1237
	C952		CKCYF103Z50



Mark	No.	Description	Parts No.
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## RESISTORS

△	R951		RD1/4PMF4R7J
△	R953		RD1/4PU100J
△	R952		RD1/4PU4R7J

## OTHERS

H901-H904	FUSE CLIP	AKR1003
	12P CABLE HOLDER	AKT1085

## SP ASSY

### CAPACITORS

C909-C912	CQPA682J100
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### RESISTORS

All Resistors	RD1/6PM□□□J
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## OTHERS

	8P SPEAKER TERMINAL	AKE7026
CN7	6P JUMPER CONNECTOR	KPC6

## REG ASSY

### SEMICONDUCTORS

IC401	NJM78M12FA
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### CAPACITORS

C419, C420	CEAS010M50
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## PRIMARY ASSY

PRIMARY ASSY has no service part.

## 4. ADJUSTMENTS

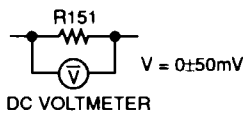
### ADJUSTMENT OF MW TUNER SECTION

- Set the FM/AM selector to AM (MW) BAND.
- Connect the wiring as shown in Fig. 1-1.

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (kHz)	Level (dB $\mu$ V/m)			
1	TUNED IND. Lighting Level Check	999	Less than 65	999 kHz	—	Less than 65 dB $\mu$ V/m. In case out of standard, cut the R164.

### ADJUSTMENT OF FM TUNER SECTION

- Set the FM/AM selector to FM BAND.
- Connect the wiring as shown in Fig. 1-1.

Step No.	Adjustment Title	FM SG (1kHz, $\pm$ 75kHz dev.)		Reception Frequency Display	Adjustment Location	Specifications
		Frequency (MHz)	Level (dB $\mu$ V)			
1	Center Adjustment	98	60	98.0 MHz	L151	Adjust so that the DC voltage of R151's both ends becomes 0V $\pm$ 50mV. 
2	Front-end Sensitivity Check	98	Less than 14	98.0 MHz	—	Less than 14 dB $\mu$ V.
3	Stereo Separation Check	89	60	89.0 MHz	—	Less than 23 dB. In case out of standard, cut the R157.
4	TUNED IND. Lighting Level	98	18 ( $\pm$ 3 dB)	98.0 MHz	VR151	18 dB $\mu$ V $\pm$ 3 dB. Adjust so that the indicator of TUNED IND. starts to light up.

Note:

- Make indicator adjustments in order of AM  $\rightarrow$  FM.

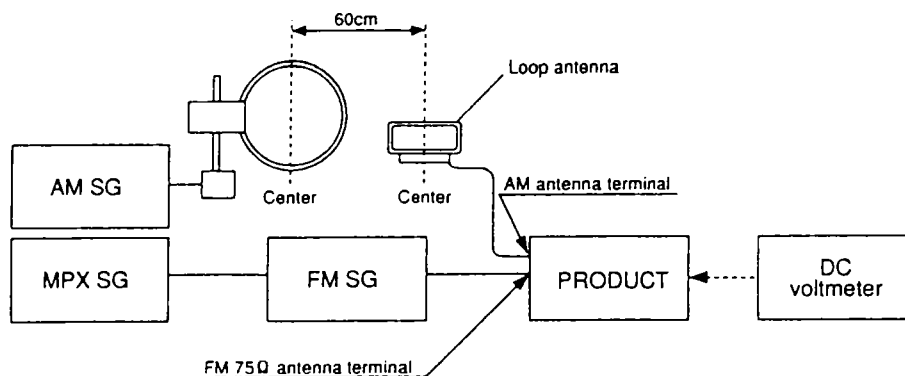


Fig. 1-1. AM and FM Adjustment Wiring Diagram

MOTHER ASSY

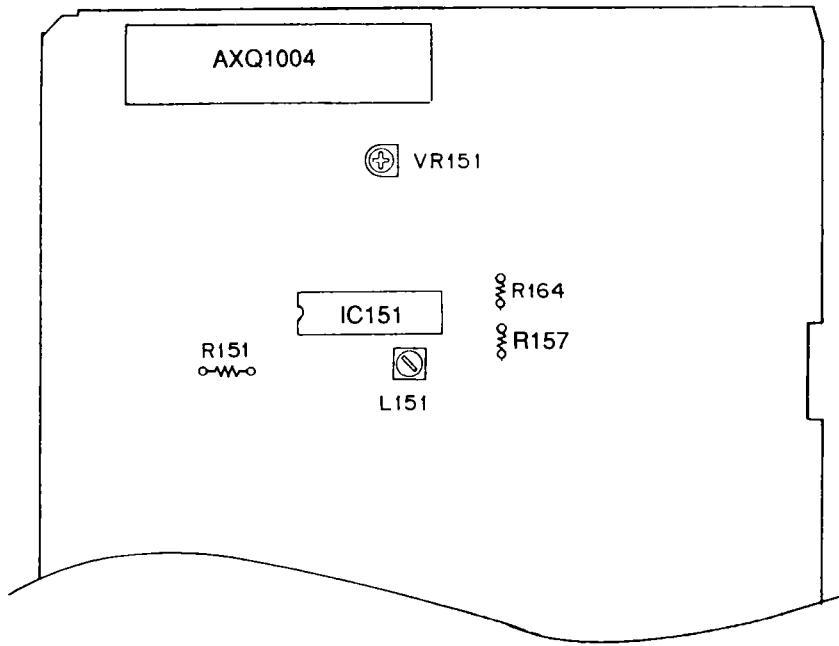


Fig. 1-2. Adjustment Points

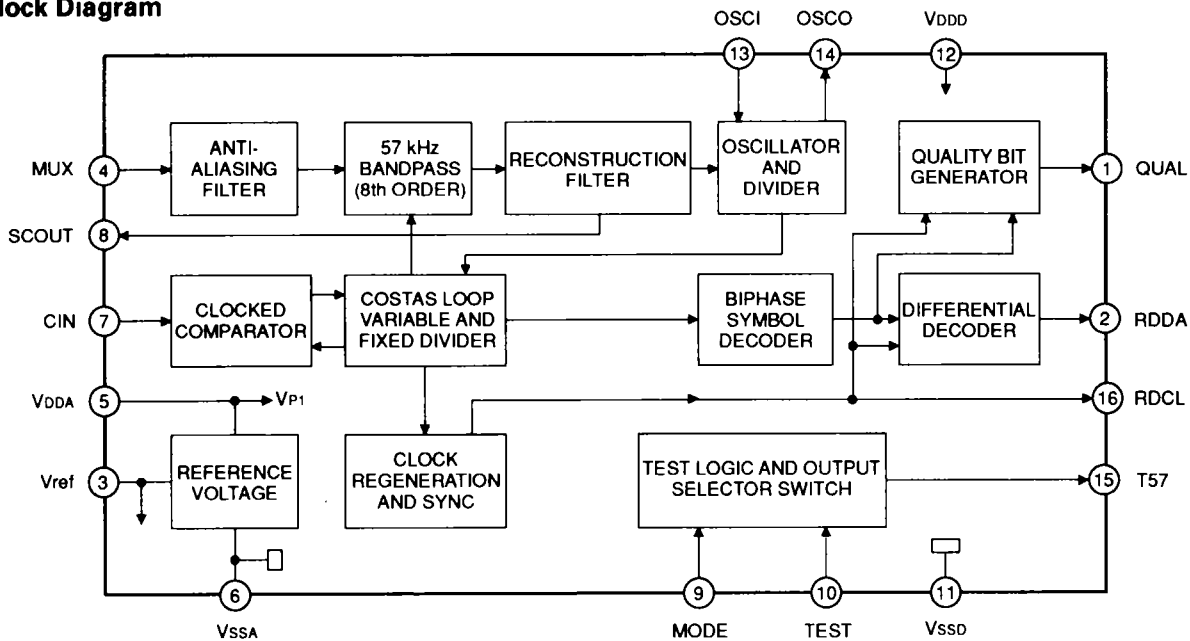
## 5. IC INFORMATION

• The information shown in the list is basic information and may not correspond exactly to that shown in the schematic diagrams.

### ■ SAA6579 (FRONT ASSY: IC801) Radio data system demodulator (RDS), CMOS IC

The SAA6579 is a demodulator circuit for RDS applications. It contains a 57 kHz bandpass filter and a digital demodulator to regenerate the RDS data stream out of the multiplex signal (MPX).

#### ● Block Diagram



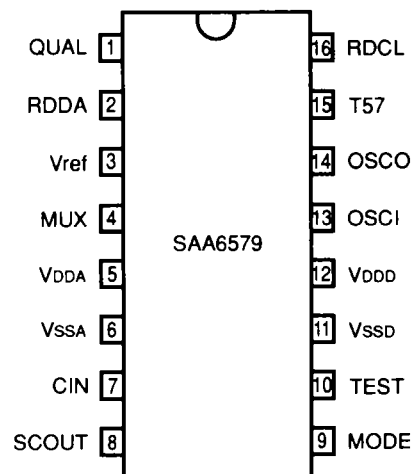
Via the pin MODE two different crystal frequencies can be used

MODE	x-tal clock
LOW	4.332 MHz
HIGH	8.664 MHz

#### ● Pin Function

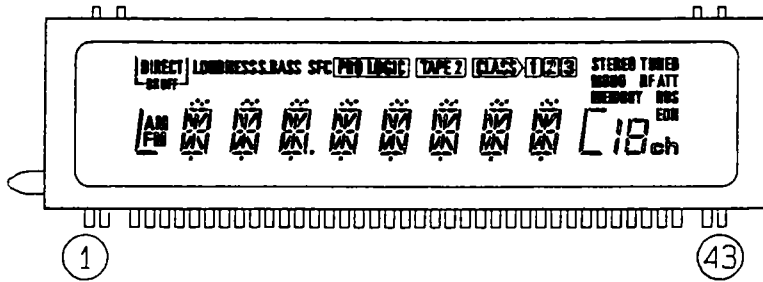
Pin No.	Pin Name.	I/O	Pin Function
1	QUAL	O	Quality indication output
2	RDDA	O	RDS data output
3	Vref	-	Reference voltage output (0.5 VDDA)
4	MUX	I	Multiplex signal input
5	VDDA	-	+5 V supply voltage for analog part
6	VSSA	-	Ground for analog part (0 V)
7	CIN	I	Subcarrier input to comparator
8	SCOUT	O	Subcarrier output of reconstruction filter
9	MODE	-	Oscillator mode/test control input
10	TEST	I	Test enable input
11	VSSD	-	Ground for digital part (0 V)
12	VDDD	-	+5 V supply voltage for digital part
13	OSCI	I	Oscillator input
14	OSCO	O	Oscillator output
15	T57	O	57 kHz clock signal output
16	RDCL	O	RDS clock output

#### ● Pin Arrangement (Top View)



## 6. FL INFORMATION

### ■ AAV7026 (FRONT ASSY: V826)



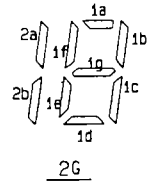
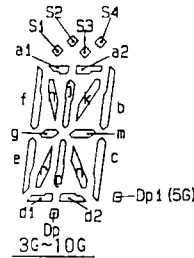
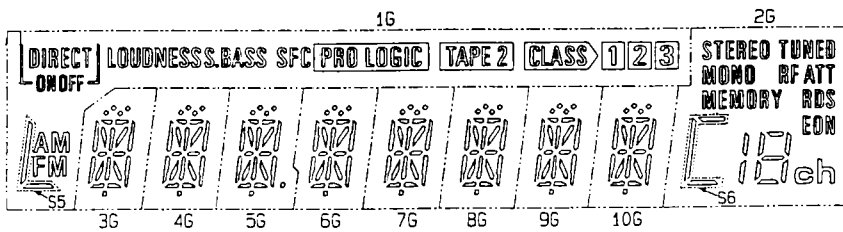
### ● Pin Assignment

Pin No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22
Assignment	F1	F1	NP	G1	G2	G3	G4	G5	G6	G7	G8	G9	G10	NL	NL	NL	NL	NL	NL	S21	S16	S17

Pin No.	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Assignment	S15	S13	S12	S14	S11	S10	S9	S8	S7	S6	S5	S3	S4	S2	S1	S18	S19	S20	NP	F2	NL

F1, F2: Filament G1~G10: Grid S1~S21: Anode NL: No Lead NP: No Pin

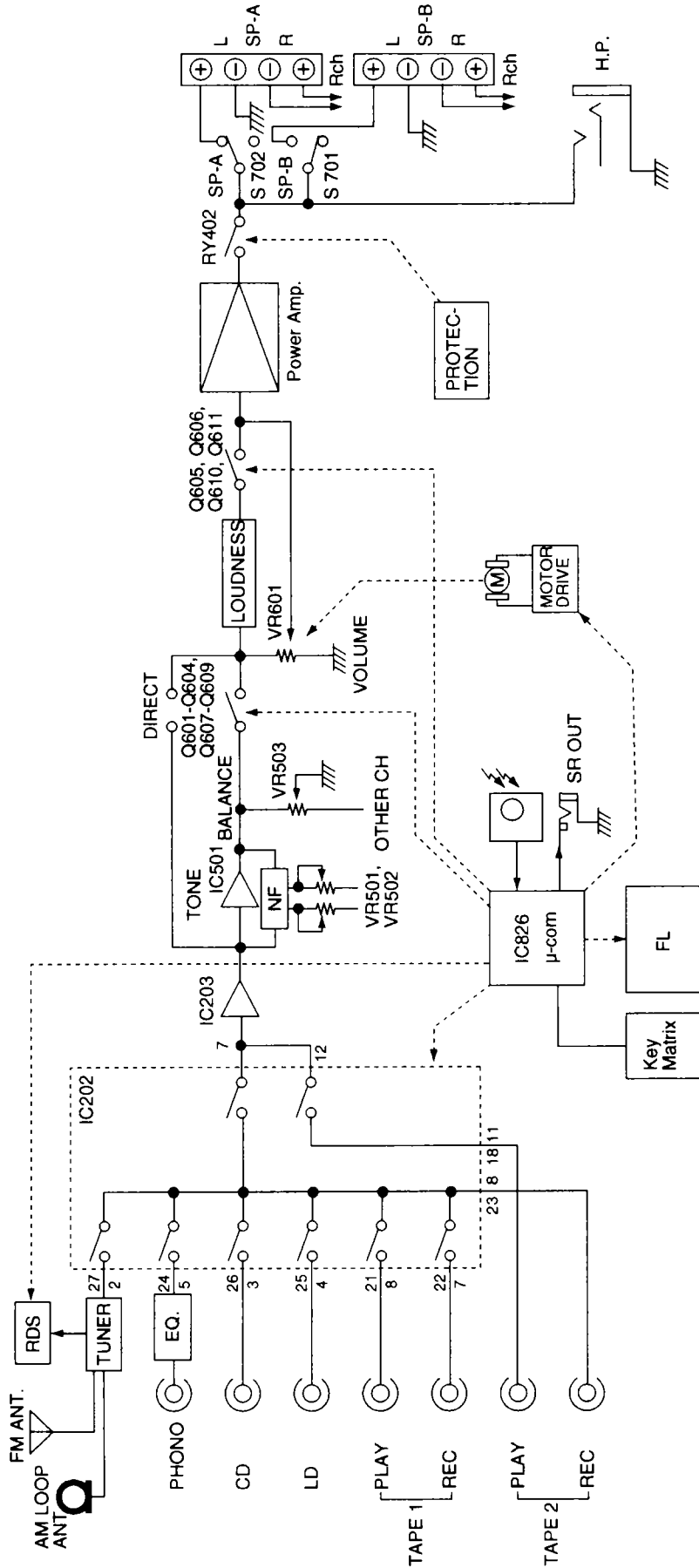
### ● Grid Assignment



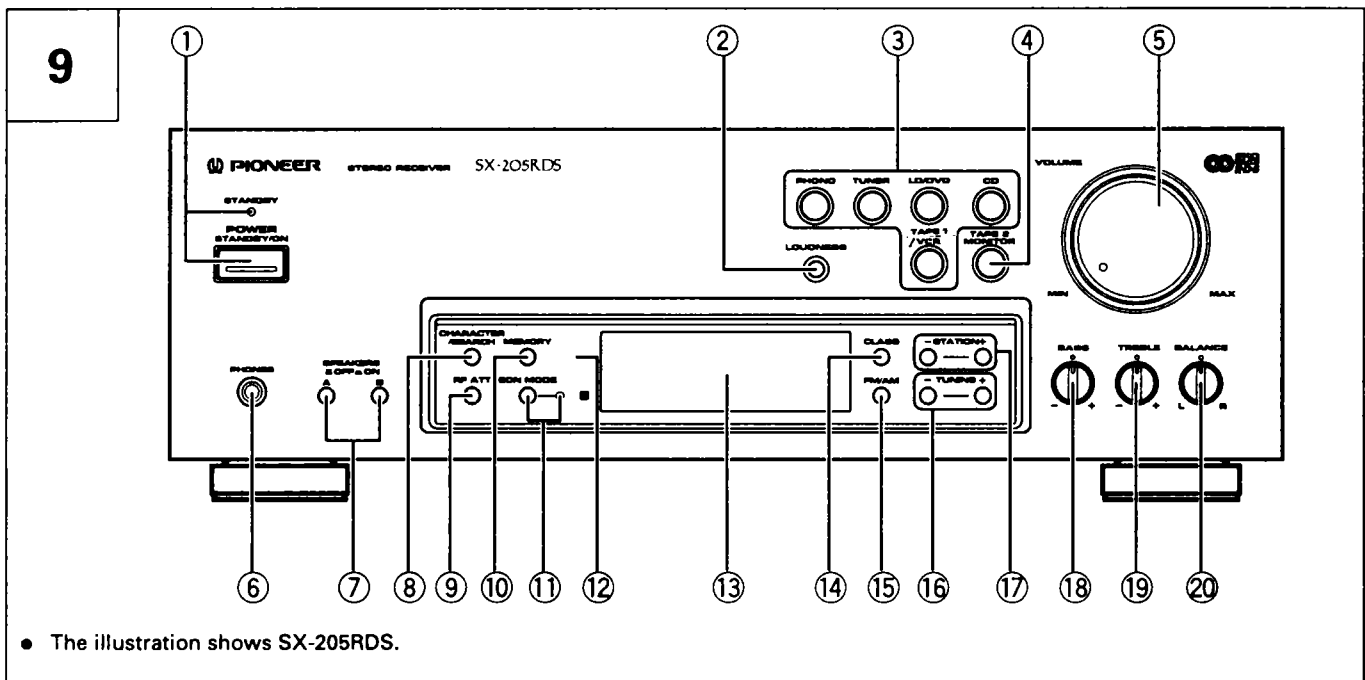
### ● Anode Grid Assignment

	1G	2G	3G, 4G, 6G~10G	5G
S1	S5	S6	a1	a1
S2	FM	2a, 2b	a2	a2
S3	AM	1a	h	h
S4	[DIRECT]	1b	j	j
S5	ON	1c	k	k
S6	OFF	1d	b	b
S7	[PRO LOGIC]	1e	f	f
S8	SFC	1f	m	m
S9	LOUDNESS	1g	g	g
S10	S. BASS	ch	c	c
S11	[TAPE 2]	STEREO	e	e
S12	[CLASS]	TUNED	r	r
S13	[ ]	MONO	p	p
S14	[ ]	RF ATT	n	n
S15	[ ]	MEMORY	d1	d1
S16		RDS	d2	d2
S17		EON	Dp	Dp
S18			S1, S3	S1, S3
S19			S4	S4
S20			S2	S2
S21				Dp1

7. BLOCK DIAGRAM



## 8. PANEL FACILITIES



### ① POWER (STANDBY/ON) switch/STANDBY indicator

This is the switch for electric power.

**ON** : When set to the ON position, power is supplied and the unit becomes operational.

**STANDBY** : When set to the STANDBY position, STANDBY indicator lights and the main power flow is cut so the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

- The accessory remote control unit can also be used to operate STANDBY/ON.

**NOTE:**

When the power is initially turned ON, muting will be applied to prevent sound from being output for approx. 5 seconds.

### ② LOUDNESS button

Use when listening at low volume levels.

**ON** : Boosts low and high frequencies to produce a fuller sense of sound, particularly at low volume levels.

**OFF** : Normal position.

**NOTE:**

Cannot be used when the DIRECT function is ON. The DIRECT function can be turned ON/OFF using the remote control unit.

### ③ Function buttons

Use to select playback source.

**[PHONO]** — Press when listening to record playback on a turn table.

**[TUNER]** — Press when listening to AM or FM broadcasts with a tuner.

**[LD/DVD]** — Press when listening to LaserDiscs played back from a LD player or Digital Video Discs played back from a DVD player.

**[CD]** — Press when listening to compact disc playback with a CD player.

**[TAPE 1 /VCR]** — Press when listening to tape playback with the cassette deck 1 or a video cassette recorder.

### ④ TAPE 2 MONITOR button

Press when listening to tape playback with cassette deck 2.

### ⑤ VOLUME control

Use to adjust the volume level.

### ⑥ PHONES jack

Connect the plug on your headphones to this jack. To listen to a program through the headphones, set both SPEAKERS A and B switches to the OFF position.

# SX-305RDS, SX-205RDS

## ⑦ SPEAKERS (■ OFF, ▬ ON) buttons

These are used to select the speaker through which you wish to listen.

- A** : When the speakers connected to the A terminals are in use.  
**B** : When the speakers connected to the B terminals are in use.
- Turn both A and B speakers to the OFF position when only headphones are in use.

## ⑧ CHARACTER/SEARCH button

When receiving an AM broadcast, or when in the FM RT, FM PS modes:

Press the button, "INPUT" is displayed, and the mode switches to manual station name input.

When in the FM PTY mode:

Press the button, "SEARCH" is displayed, and the mode switches to program type search.

- This button does not function when the frequency is displayed (FM broadcast only).

## ⑨ RF ATT button

Set this button to ON when receiving strong FM signals (near-by stations) to reduce sound distortion. (RF ATT indicator lights.)

Normally, this button should be set to OFF.

This button has no effect on reception of AM broadcasts.

## ⑩ MEMORY button

Pressing this button will result in the memorization of the current broadcast band, reception frequency, RF ATT (FM reception only) and FM AUTO/MONO mode.

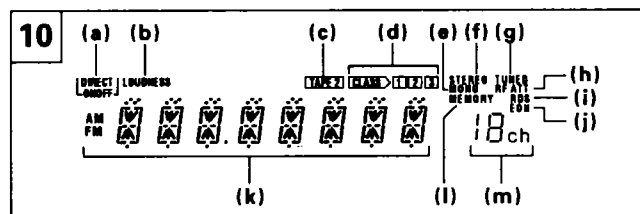
This button is also used to select characters during station name entry and to clear memory during ERASE PI operation.

## ⑪ EON (Enhanced Other network information) MODE button/ indicator

## ⑫ Remote sensor

## ⑬ Operation display panel

- DIRECT ON/OFF indicator
- LOUDNESS indicator
- TAPE 2 monitor indicator.
- CLASS indicator
- MONO indicator
- Lights up when a stereo FM broadcast is being received.
- Lights up when a station is tuned.
- RF ATT indicator
- Lights when an RDS broadcast is received.
- Lights when a station broadcasting EON information is received.
- Frequency, function, character display
- MEMORY indicator
- Channel display



## ⑭ CLASS button

Use to switch between preset memory classes 1 to 3. In each class, one station can be memorized in each of the 1 to 10 STATION CALL buttons, enabling a total of 30 stations to be memorized.

## ⑮ FM/AM selector button

This button is used to select either AM or FM reception.

## ⑯ TUNING buttons (-, +)

Use for tuning frequencies. Press the buttons to change the frequency display (3-speed Accel Tuning) (see page 28).

In the Manual Name input mode and PTY search mode, use to select characters and program types.

## ⑰ STATION buttons (-, +)

+: Stations change in order in the upward direction.

-: Stations change in order in the downward direction.

## ⑱ BASS tone control

Use to adjust low-frequency tones. The center position is the flat (normal) position. When turned to the right, low-frequency tones are emphasized.

**NOTE:**

This control can not be used when the DIRECT function is ON. The DIRECT function can be turned ON/OFF using the remote control unit.

## ⑲ TREBLE tone control

Use to adjust high-frequency tones. The center position is the flat (normal) position. When turned to the right, high-frequency tones are emphasized.

**NOTE:**

This control can not be used when the DIRECT function is ON. The DIRECT function can be turned ON/OFF using the remote control unit.

## ⑳ BALANCE control

Should normally be left in the center position. Adjust balance if the sound is louder from one of the speakers. If the right side is louder, turn toward the L position and if the left side is louder, turn toward the R position.

**NOTE:**

This control can not be used when the DIRECT function is ON. The DIRECT function can be turned ON/OFF using the remote control unit.



## 9. SPECIFICATIONS

### Amplifier Section

Continuous Power Output (DIN)*	
(SX-305RDS) 1 kHz, T.H.D. 1 %, 4 Ω	85 W + 85 W
(SX-205RDS) 1 kHz, T.H.D. 1 %, 4 Ω	50 W + 50 W
Continuous Power Output (both channels driven)* **	
(SX-305RDS) 20 Hz - 20 kHz, T.H.D. 0.09 %, 8 Ω	60 W + 60 W
(SX-205RDS) 20 Hz - 20 kHz, T.H.D. 0.09 %, 8 Ω	40 W + 40 W
Dynamic Power Output (with EIA test signal)	
(SX-305RDS) 4/8 Ω	100 W/80 W
(SX-205RDS) 4/8 Ω	80/50 W

● Above specifications are for when power supply is 230V.

Input (Sensitivity/Impedance)	
PHONO	2.5 mV/47 kΩ
CD, LD/DVD, TAPE 1/VCR, TAPE 2	200 mV/22 kΩ
Phono Overload Level (T.H.D. 0.1 %, 1 kHz)	
PHONO	100 mV
Output (Level/Impedance)	
TAPE 1/VCR REC, TAPE 2 REC MONITOR	200 mV/1 kΩ
Frequency Response	
PHONO (RIAA Equalization)	20 Hz to 20,000 Hz ± 0.5 dB
CD, LD/DVD, TAPE 1/VCR, TAPE 2	5 Hz to 100,000 Hz ± 3 dB
Signal-to-Noise Ratio (DIN, continuous power/50mW)**	
(SX-305RDS)	
PHONO	67 dB/61 dB
CD, LD/DVD, TAPE 1/VCR, TAPE 2	88 dB/63 dB
(SX-205RDS)	
PHONO	67 dB/61 dB
CD, LD/DVD, TAPE 1/VCR, TAPE 2	82 dB/62 dB
Tone Control	
BASS	± 8 dB (100 Hz)
TREBLE	± 8 dB (10 kHz)
LOUDNESS	+6 dB (100 Hz at -40 dB) +4 dB (10 kHz at -40 dB)

### FM Tuner Section

Frequency Range	87.5 MHz to 108 MHz
Usable Sensitivity	14.2 dBf, IHF (1.4 μV/75 Ω)
Sensitivity (DIN)	
MONO	1.0 μV/75 Ω
STEREO	40 μV/75 Ω
Signal-to-Noise Ratio	
MONO	77 dB (at 80 dBf)
STEREO	72 dB (at 80 dBf)
Signal-to-Noise Ratio (DIN)	
MONO	62 dB
STEREO	58 dB
Distortion	
STEREO	0.3 % (1 kHz)
Alternate Channel Selectivity	64 dB (400 kHz)
Stereo Separation	40 dB (1 kHz)
Frequency Response	30 Hz to 15 kHz (±1 dB)
Antenna Input	75 Ω unbalanced

### AM Tuner Section

Frequency Range	531 kHz to 1,602 kHz
Sensitivity	
IHF, Loop Antenna	350 μV/m
Selectivity	20 dB
Signal-to-Noise Ratio	50 dB
Antenna	AM Loop Antenna

### Miscellaneous

Power Requirements	a.c. 220 - 230 Volts, 50/60 Hz
Power Consumption (SX-305RDS)	460 W
(SX-205RDS)	370 W
Dimensions	420 (W) X 140 (H) X 313 (D) mm
Weight (without package)	
(SX-305RDS)	6.5 kg
(SX-205RDS)	5.4 kg

### Furnished Parts

FM Antenna	1
AM Loop Antenna	1
Remote Control Unit	1
Dry Cell Batteries (AA/R6P)	2
Operating Instructions	1

### NOTE:

Specifications and design subject to possible modification without notice due to improvements.

\* Measured by audio spectrum analyzer.

\*\* Direct ON.