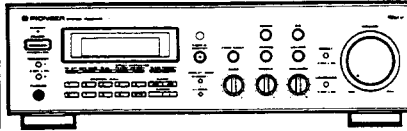


Service Manual



ORDER NO.
ARP2814

STEREO RECEIVER

SX-702RDS

SX-702RDS-G

SX-702RDS AND SX-702RDS-G HAVE THE FOLLOWING :

Type	Model		Power Requirement	Remarks
	SX-702RDS	SX-702RDS-G		
HEWZ	○	—	AC220-230V, 240V (switchable)*	
HE	○	—	AC220-230V, 240V (switchable)*	
HEZ	—	○	AC220-230V, 240V (switchable)*	

* Change the connection of the transformer's primary wiring.

- This manual is applicable to the following : SX-702RDS/HEWZ and HE ; SX-702RDS-G/HEZ.
- For the following : SX-702RDS/HE ; SX-702RDS-G/HEZ, refer to page 36.

CONTENTS

1. EXPLODED VIEWS, PACKING AND PARTS LIST	2	5. ADJUSTMENTS	32
2. BLOCK DIAGRAM	5	6. IC INFORMATION	34
3. SCHEMATIC AND PCB CONNECTION DIAGRAMS	6	7. FOR SX-702RDS/HE AND SX-702RDS-G/HEZ	36
4. PCB PARTS LIST	28	8. PANEL FACILITIES	38
		9. SPECIFICATIONS	42

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DFE JULY 1993 Printed in Japan

1. EXPLODED VIEWS, PACKING AND PARTS LIST

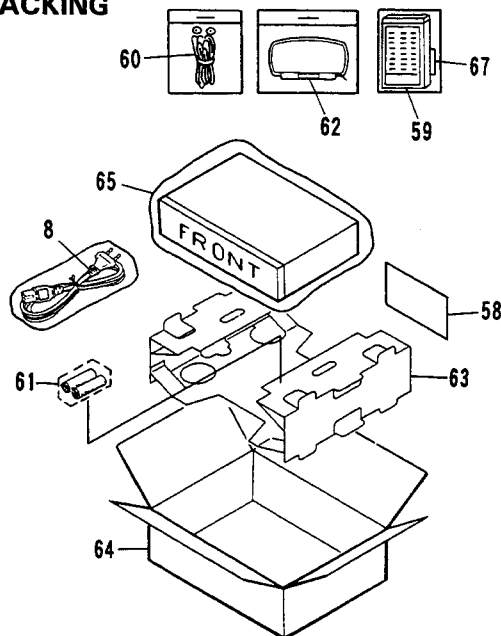
NOTES :

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The 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.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

Parts List of Exterior and Packing

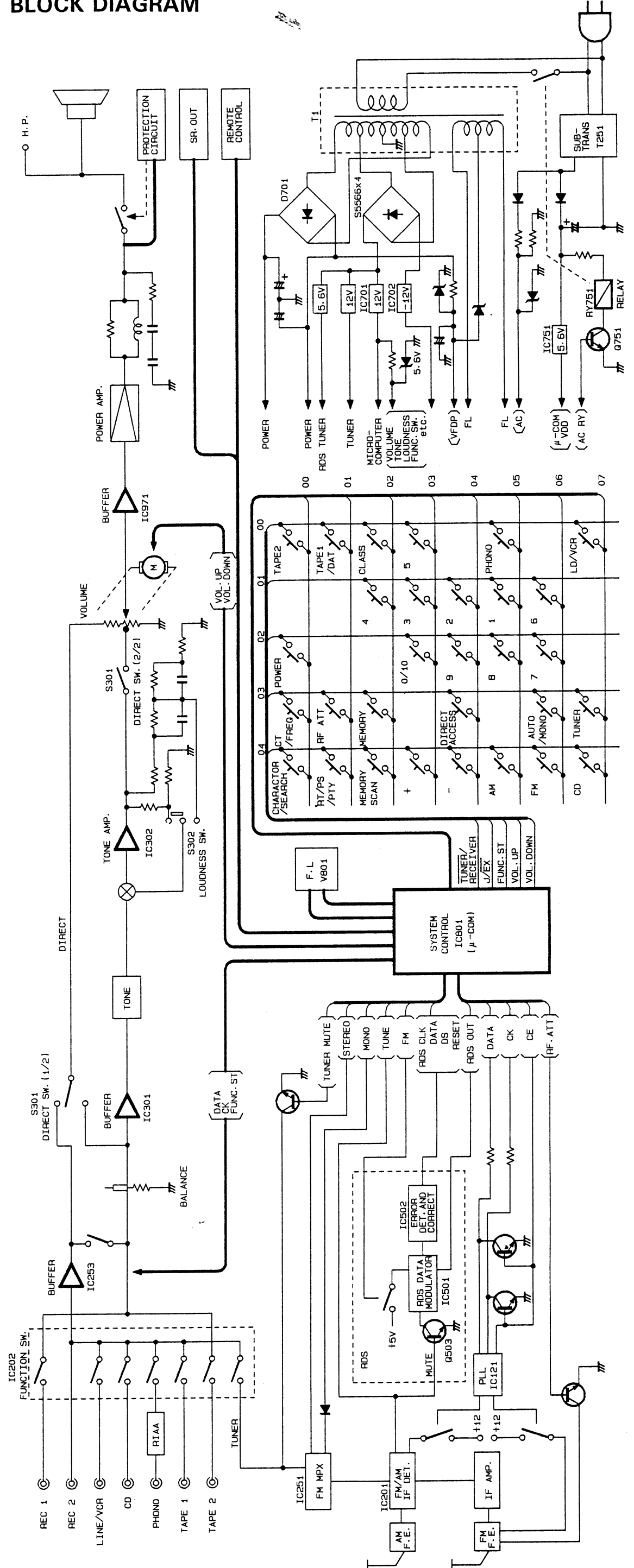
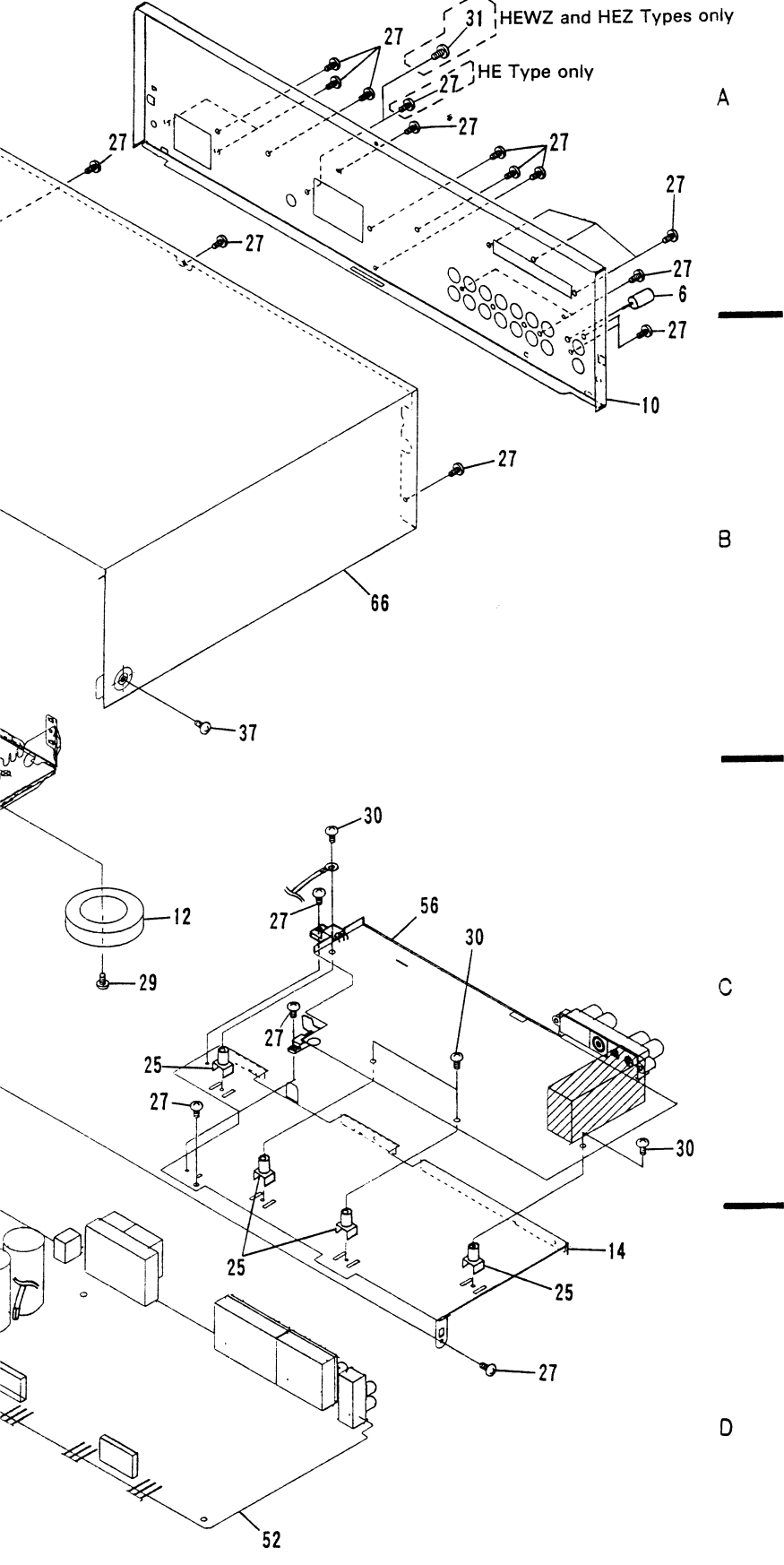
Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
Δ	1	TRANSISTOR (Q3)	2SA1264N		46	ROTARY KNOB L	AAB1347
Δ	2	TRANSISTOR (Q4)	2SA1264N		47	ROTARY KNOB S (PLS)	AAB1353
Δ	3	TRANSISTOR (Q1)	2SC3181N		48	POWER BUTTON (PLS)	AAD2421
Δ	4	TRANSISTOR (Q2)	2SC3181N		49	PUSH BUTTON (PLS)	AAD2423
Δ	5	POWER TRANSFORMER (T1)	ATS1494		50	FUNCTION BUTTON	AAD2448
NSP	6	TERMINAL SCREW	AKE-031		51	FRONT PANEL	ANB1558
Δ	7	FUSE (T2A/250V, FU1)	AEK-511		52	AF ASSY	AWZ4865
Δ	8	AC POWER CORD	ADG1127		53	CONTROL ASSY	AWZ4866
NSP	9	CHASSIS	ANA1110	NSP	54	TRANS ASSY	AWZ4867
	10	REAR PANEL	ANC2090	NSP	55	SP SWITCH ASSY	AWZ4868
NSP	11	HEAT SINK	ANH1266		56	TUNER ASSY	AWZ4872
	12	INSULATOR ASSY	AMR2140	NSP	57	MOTOR VR ASSY	AWZ4873
	13	HOLDER	ANG1839		58	OPERATING INSTRUCTIONS (German)	ARC1427
	14	SHIELD PLATE	ANK1249		59	REMOTE CONTROL UNIT (CU-SX067)	AXD1361
	15	RUBBER	AEB1253		60	FM ANTENNA	ADH1002
NSP	16	NYLON BINDER	AEC-093		61	BATTERY (R03, AAA)	AEX-021
NSP	17	PCB SPACER	AEC1121		62	LOOP ANTENNA	ATB1005
NSP	18	PCB SUPPORT	AEC1215	NSP	63	CARD BOARD PROTECTOR	AHA1601
NSP	19	PCB SUPPORT	AEC1216		64	PACKING CASE	AHD2551
NSP	20	PCB SUPPORT	AEC1232		65	PACKING SHEET	AHG1016
NSP	21	BARRIER	AEC1241		66	BONNET CASE	ANE1438
	22	SHEET	AED1157		67	BATTERY LID	PZN1001
	23	MICA SHEET	AEE1014				
	24	BINDER	AEP-215				
NSP	25	PCB MOULD	AMR1525				
	26	PANEL BASE	AMB2190				
	27	SCREW	ABA-298				
	28	SCREW (STEEL)	ABA1007				
	29	SCREW (STEEL)	ABA1011				
	30	SCREW	ABA1018				
	31	SCREW (STEEL)	ABA1047				
	32	SCREW (STEEL)	ABA1048				
	33	SCREW	ABA1052				
	34	SCREW	ABA1200				
	35	SCREW	ABA1082				
	36	NUT	ABN-065				
	37	SCREW	BBZ30P060FZK				
	38	NUT	NK90FUC				
	39	SCREW	VMZ30P060FMC				
	40	FL FILTER (PLS)	AAK2047				
	41	REMOTE SENSOR WINDOW	AAK2457				
	42	BUTTON LENS (PLS)	AAK2472				
	43	PANEL (DISPLAY)	AAK2473				
	44	NAME PLATE (METAL)	AAM1058				
	45	LED LENS	PNW2019				

● PACKING



2. BLOCK DIAGRAM

cent to ▼ mark on the product disassembly.



H.P.

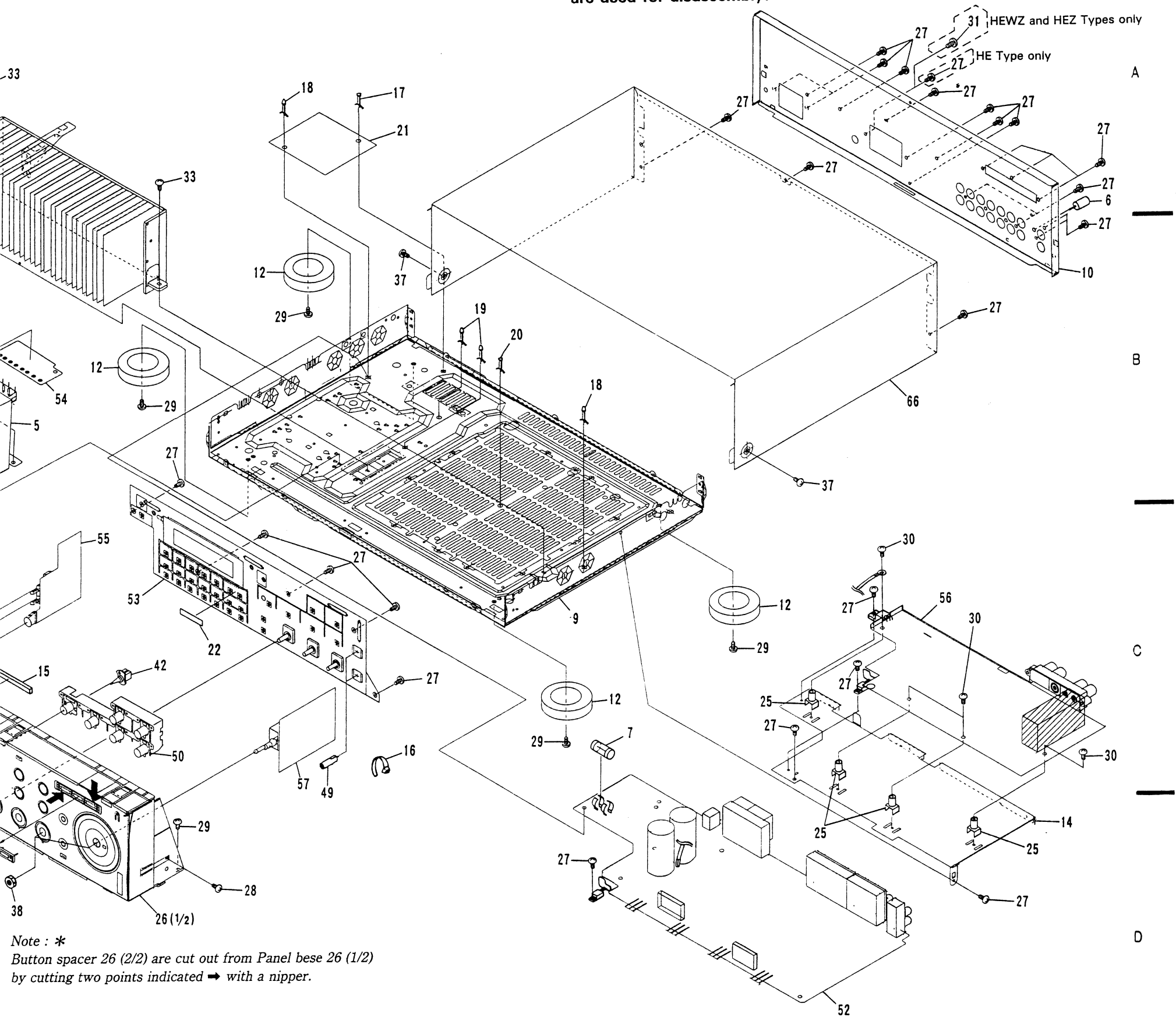
3

4

5

6

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



A

B

C

D

HEWZ and HEZ Types only

HE Type only

Note : *

Button spacer 26 (2/2) are cut out from Panel base 26 (1/2) by cutting two points indicated → with a nipper.

3

4

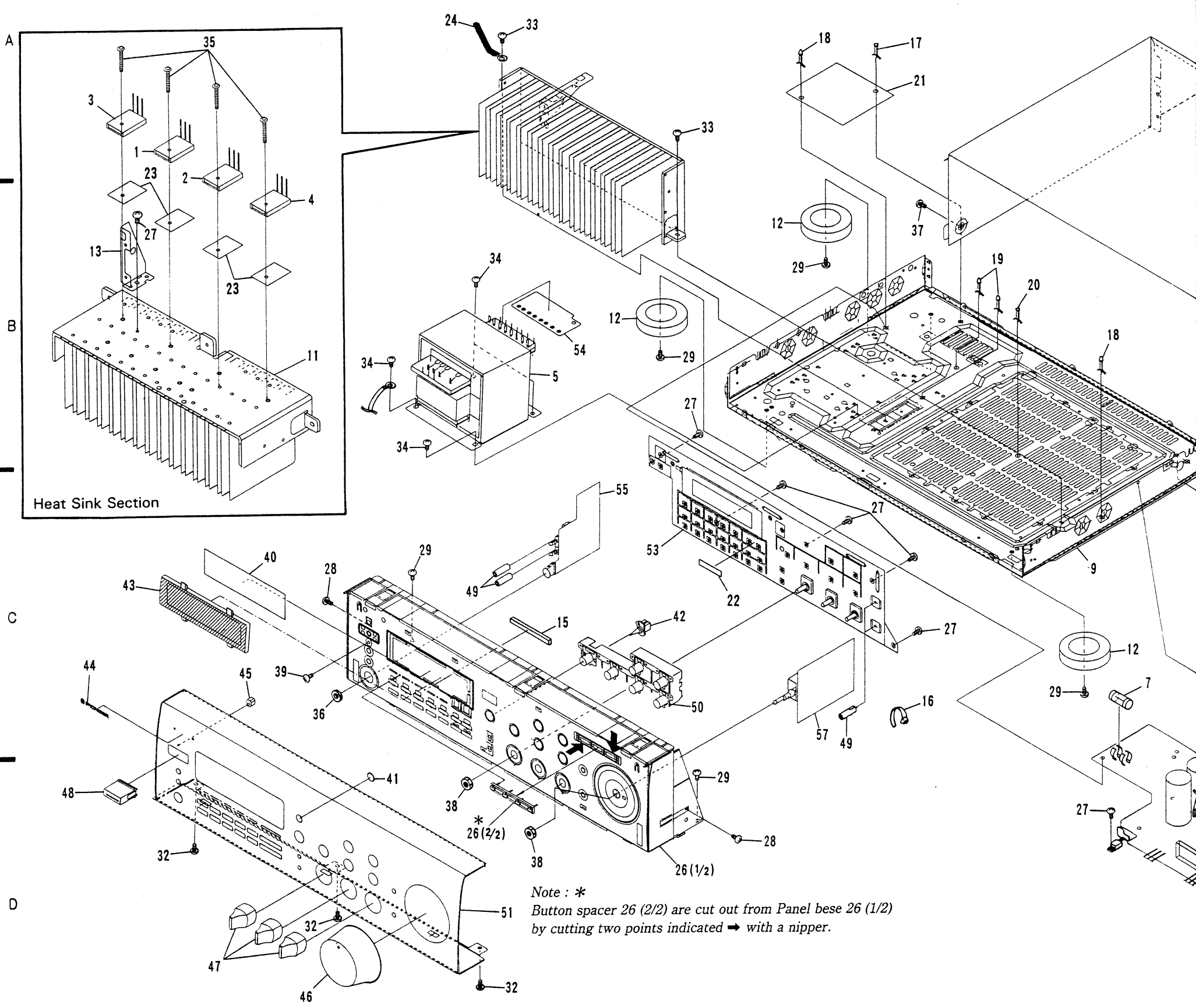
5

6



● EXTERIOR

NOTE : Screws adjacent to the panel are used for d

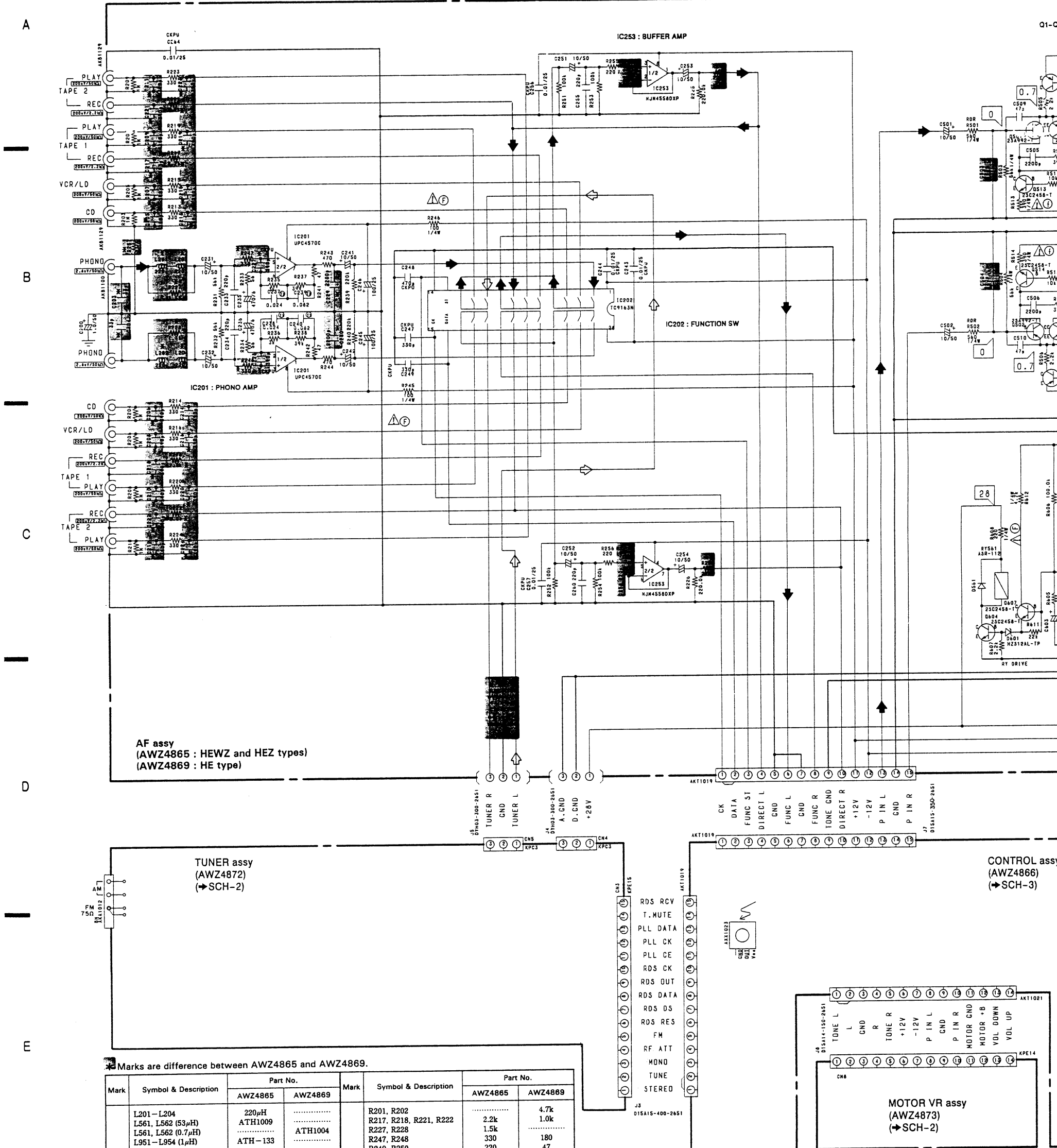


Heat Sink Section

Note : *
 Button spacer 26 (2/2) are cut out from Panel base 26 (1/2)
 by cutting two points indicated → with a nipper.

3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

3.1 AF ASSY, SP SWITCH ASSY AND TRANS ASSY



* Marks are difference between AWZ4865 and AWZ4869.

Mark	Symbol & Description	Part No.		Mark	Symbol & Description	Part No.	
		AWZ4865	AWZ4869			AWZ4865	AWZ4869
	L201 - L204	220µH	.....	R201, R202	.....	4.7k	
	L561, L562 (53µH)	ATH1009	.....	R217, R218, R221, R222	.....	2.2k	1.0k
	L561, L562 (0.7µH)	ATH1004	.....	R227, R228	.....	1.5k	.....
	L951 - L954 (1µH)	ATH - 133	.....	R247, R248	.....	330	180
				R249, R250	.....	220	47
	C201, C202	.....	1800pF	R257	.....	10	.....
	C203, C204	33pF	.....	R568 - R570	.....	10 (1/4W)	.....
	C205 - C224	390pF	.....	R951 - R954	.....	100 (1/2W)	JUMPER
	C227, C228	390pF	220pF	R955 - R958	.....	10 (1/4W)	.....
	C229, C230	2200pF	.....			
	C258, C259	.....	1800pF				
	C503, C504	220pF	2000pF				
	C515, C516, C527, C528	470pF	.....			
	C560, C565, C568, C569	0.01µF	.....			
	C951 - C954	0.022µF	.....			
	C955 - C958	680pF	.....			

NOTE FOR SCHEMATIC DIAGRAMS (Type 1A)

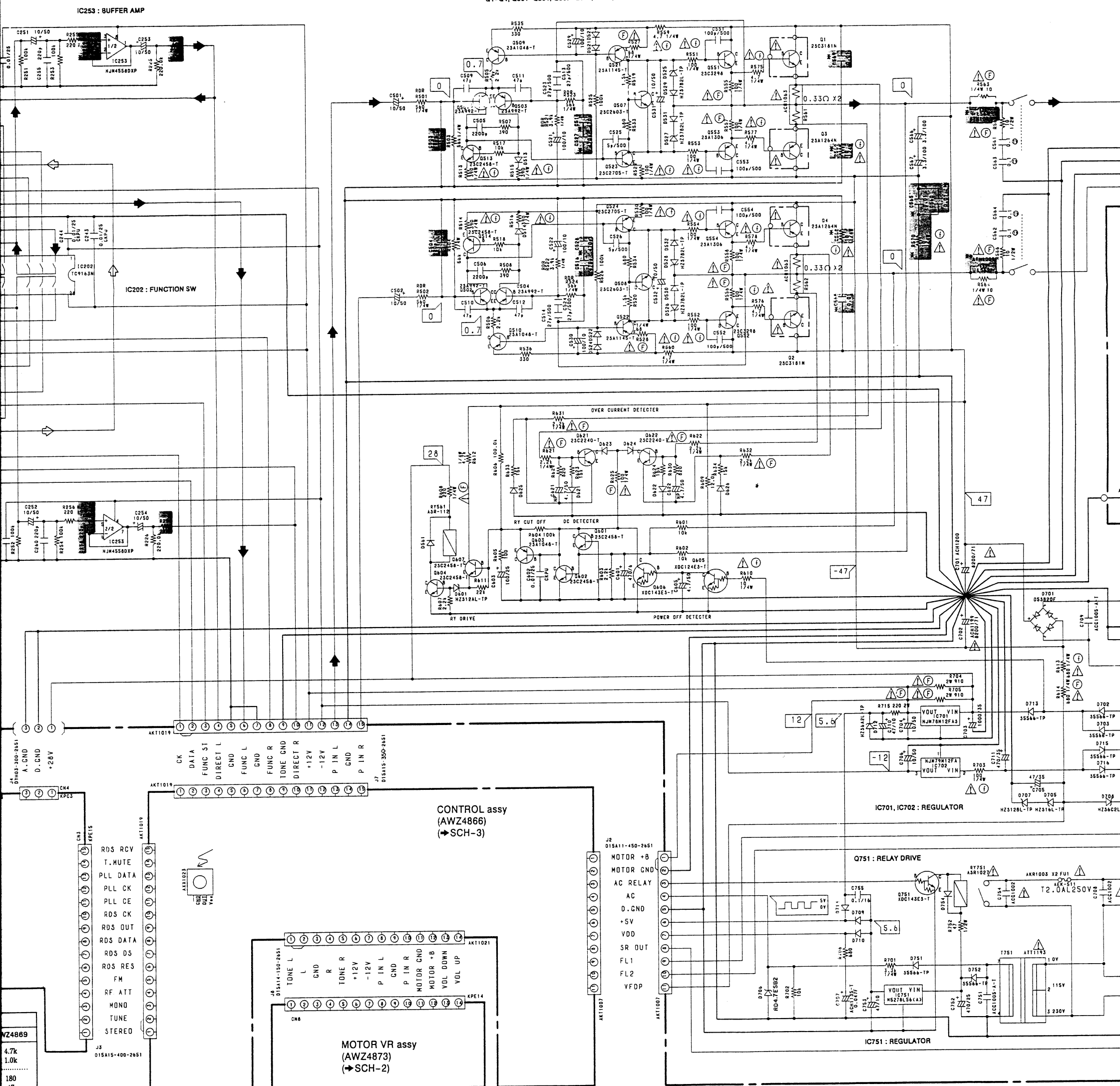
- When for schematic parts, be sure to refer to "PARTS LIST OF EXPLODED VIEWS" or "PCB PARTS LIST".
- Since these are basic circuits, some of them or the values of some components may be changed for improvement.
- RESISTORS: Unit: k: kΩ, M: MΩ, or Ω unless otherwise noted. Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted. Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
- CAPACITORS: Unit: p: pF or µF unless otherwise noted. Ratings: capacitor (µF)/voltage (V) unless otherwise noted. Rated voltage: 50V except for electrolytic capacitors.

- COILS: Unit: m: mH or µH unless otherwise noted.
- VOLTAGE AND CURRENT: : Signal voltage; : DC voltage (V) at no input signal unless otherwise noted. Value in () is DC voltage at rated power or - mA; : DC current at no input signal unless otherwise noted.
- OTHERS: : Adjustment point; : Measurement point; : The Δ mark found on some component parts is the importance of the safety factor of the parts. Their placing, be sure to use parts of identical design.
- SCH-□ ON THE SCHEMATIC DIAGRAM: : SCH-□ indicates the drawing number of the part. (SCH stands for schematic diagram.)

SCH-1

AF ASSY, SP SWITCH ASSY, TRANS ASSY

Q1-Q4, Q501-Q504, Q507-Q510, Q513, Q514, Q521-Q524, Q551-Q554 : POWER AMP



NOTE FOR SCHEMATIC DIAGRAMS (Type 1A)

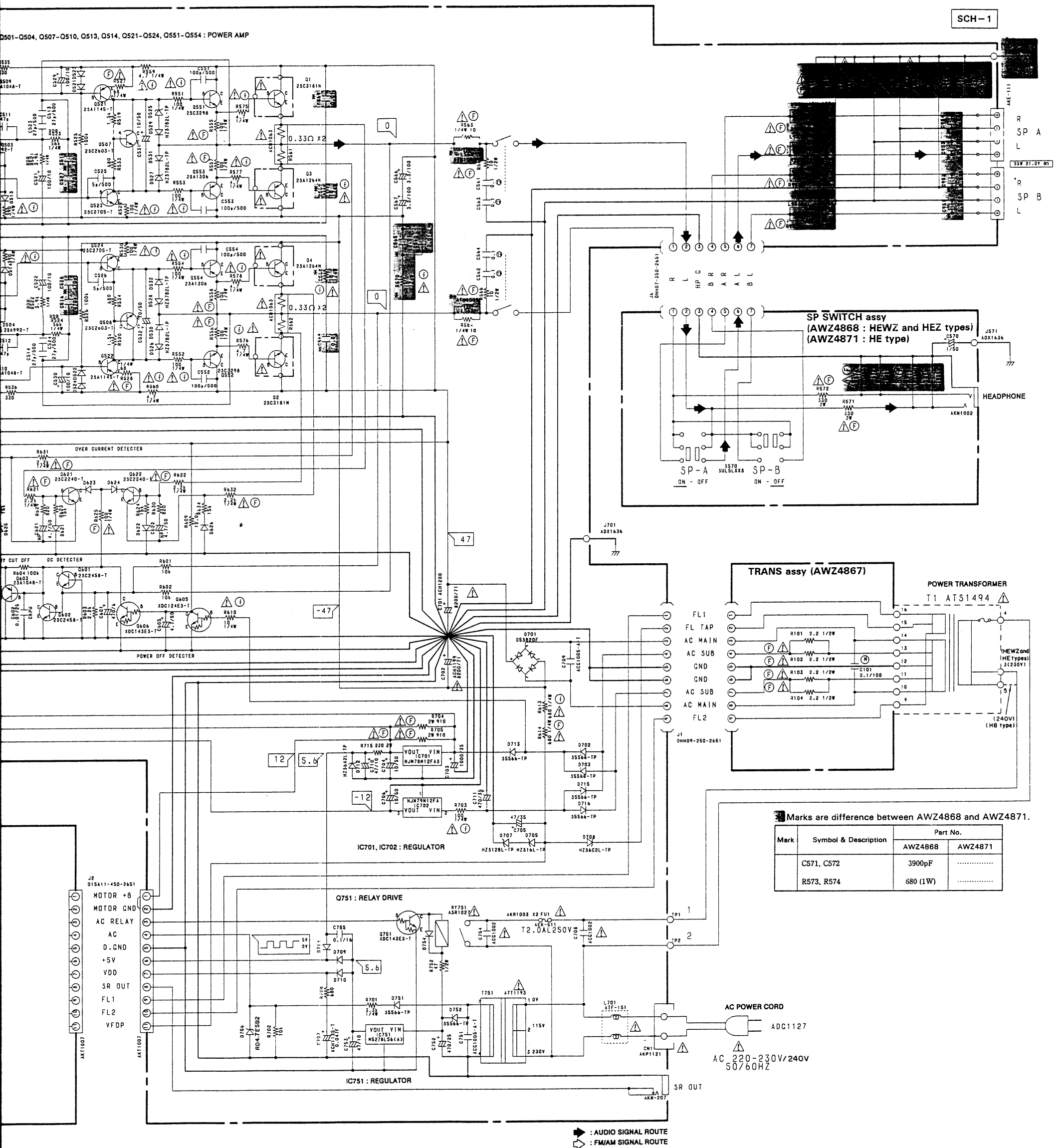
- When ordering service parts, be sure to refer to "PARTS LIST of EXPLODED VIEWS" or "PCB PARTS LIST".
- Since these are basic circuits, some parts of them or the values of some components may be changed for improvement.
- RESISTORS:
Unit: k:Ω, M:MQ, or Ω unless otherwise noted.
Rated power: 1/4W, 1/6W, 1/8W, 1/10W unless otherwise noted.
Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.
- CAPACITORS:
Unit: p:pF or μF unless otherwise noted.
Ratings: capacitor (μF)/voltage (V) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.

- Units: m: mH or μH unless otherwise noted.
- VOLTAGE AND CURRENT:
V: Signal voltage (V) at rated output.
or - V: DC voltage (V) at no input signal unless otherwise noted. Value in () is DC voltage at rated power.
mA or - mA: DC current at no input signal unless otherwise noted.
- OTHERS:
⊙ or ⊖: Adjusting point.
⊙ or ⊖: Measurement point.
The Δ 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.
- SCH-□ ON THE SCHEMATIC DIAGRAM:
□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

9. SWITCHES (Underline indicates switch position):

CONTROL assy	S301 DIRECT ON/OFF	S817 DIRECT ACCESS
S302	LOUDNESS ON/OFF	S818 9
S801	CHARACTER/SEARCH	S819 2
S802	CT/FREQ	S820 AM
S803	POWER	S821 8
S804	TAPE2 MONITOR	S822 1
S805	RT/PS/PTY	S823 PHONO
S806	RF ATT	S824 FM
S807	TAPE1/DAT	S825 MPX MODE
S808	SCAN	S826 7
S809	MEMORY	S827 6
S810	4	S828 CD
S811	CLASS	S829 TUNER
S812	TUNING +	S830 LD/VCR
S813	0/10	
S814	3	
S815	5	
S816	TUNING -	

SP SWITCH assy
S570 SP-A ON/OFF
SP-B ON/OFF



9. SWITCHES (Underline indicates switch position):

CONTROL assy	S301 DIRECT ON/OFF	S817 DIRECT ACCESS
S302 LOUDNESS ON/OFF	S818 9	
S303 CHARACTER/SEARCH	S819 2	
S802 CT/FREQ	S820 A M	
S803 POWER	S821 8	
S804 TAPE2 MONITOR	S822 1	
S805 RT/PS/PTY	S823 PHONO	
S806 RF ATT	S824 FM	
S807 TAPE1/DAT	S825 MPX MODE	
S808 SCAN	S826 7	
S809 MEMORY	S827 6	
S810 4	S828 CD	
S811 CLASS	S829 TUNER	
S812 TUNING +	S830 LD/VCR	
S813 0/10		
S814 3	SP SWITCH assy	
S815 5	S570 SP-A ON/OFF	
S816 TUNING -	SP-B ON/OFF	

Marks are difference between AWZ4868 and AWZ4871.

Mark	Symbol & Description	Part No.	
		AWZ4868	AWZ4871
C571, C572		3900pF	.....
R573, R574		680 (1W)	.....

Line Voltage Selection

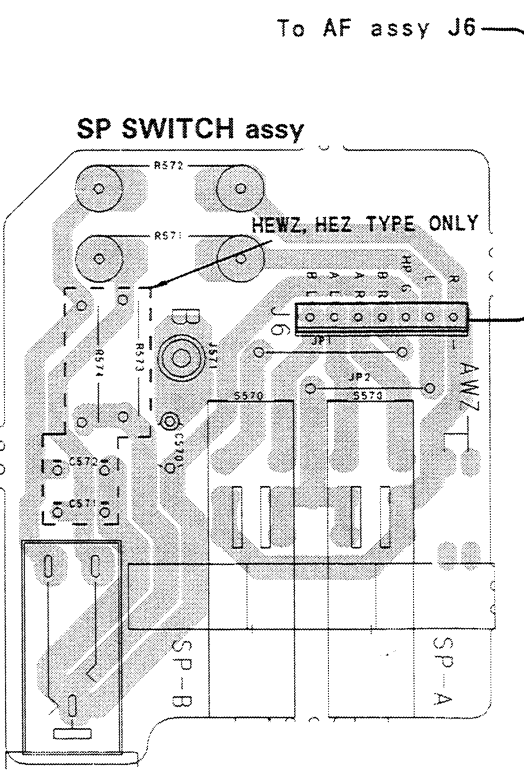
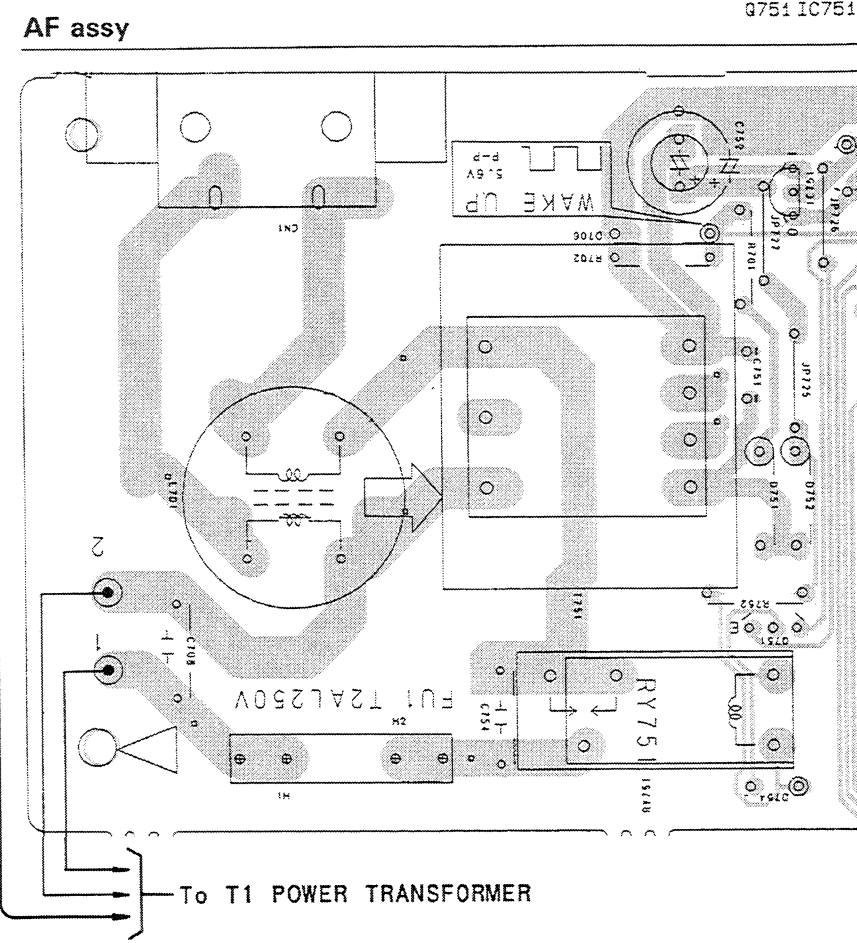
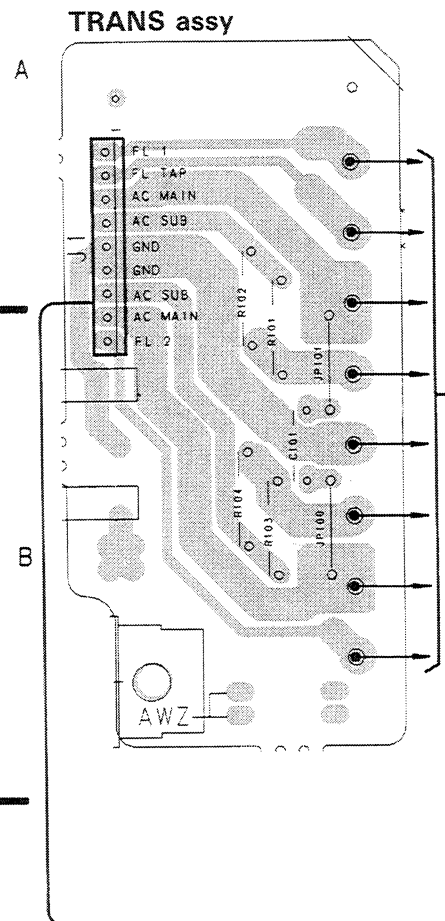
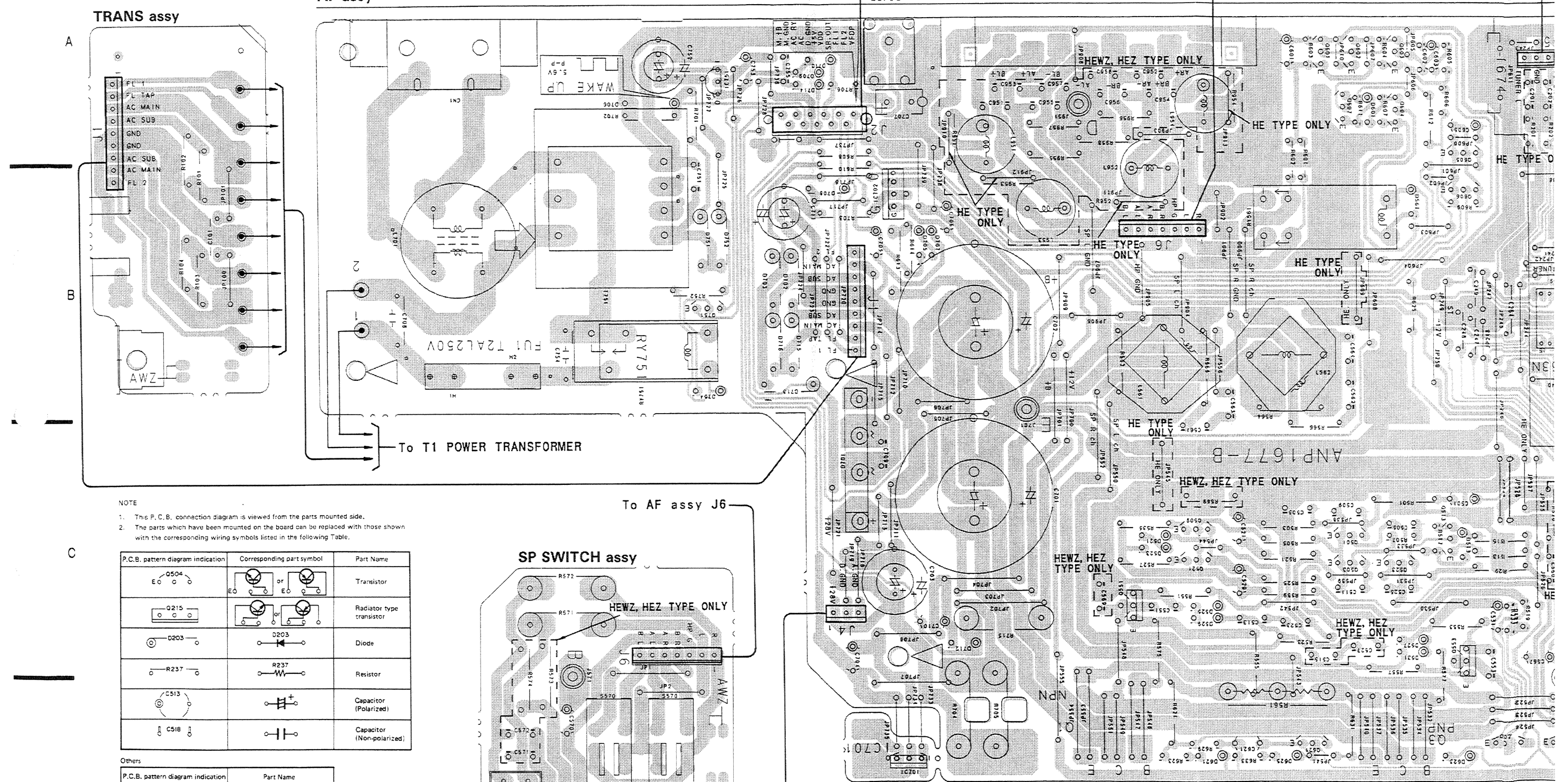
Line voltage can be changed with the following steps.

1. Disconnect the AC power cord.
2. Remove the top cover.
3. Change the connection with the power transformer primary taps (T1).
4. Stick the line voltage label on the rear panel.

Part No.	Description
AAX-193	220V label
AAX-192	240V label

AF ASSY, SP SWITCH ASSY, TRANS ASSY

SCH-1



NOTE
 1. This P.C.B. connection diagram is viewed from the parts mounted side.
 2. The parts which have been mounted on the board can be replaced with those shown with the corresponding wiring symbols listed in the following Table.

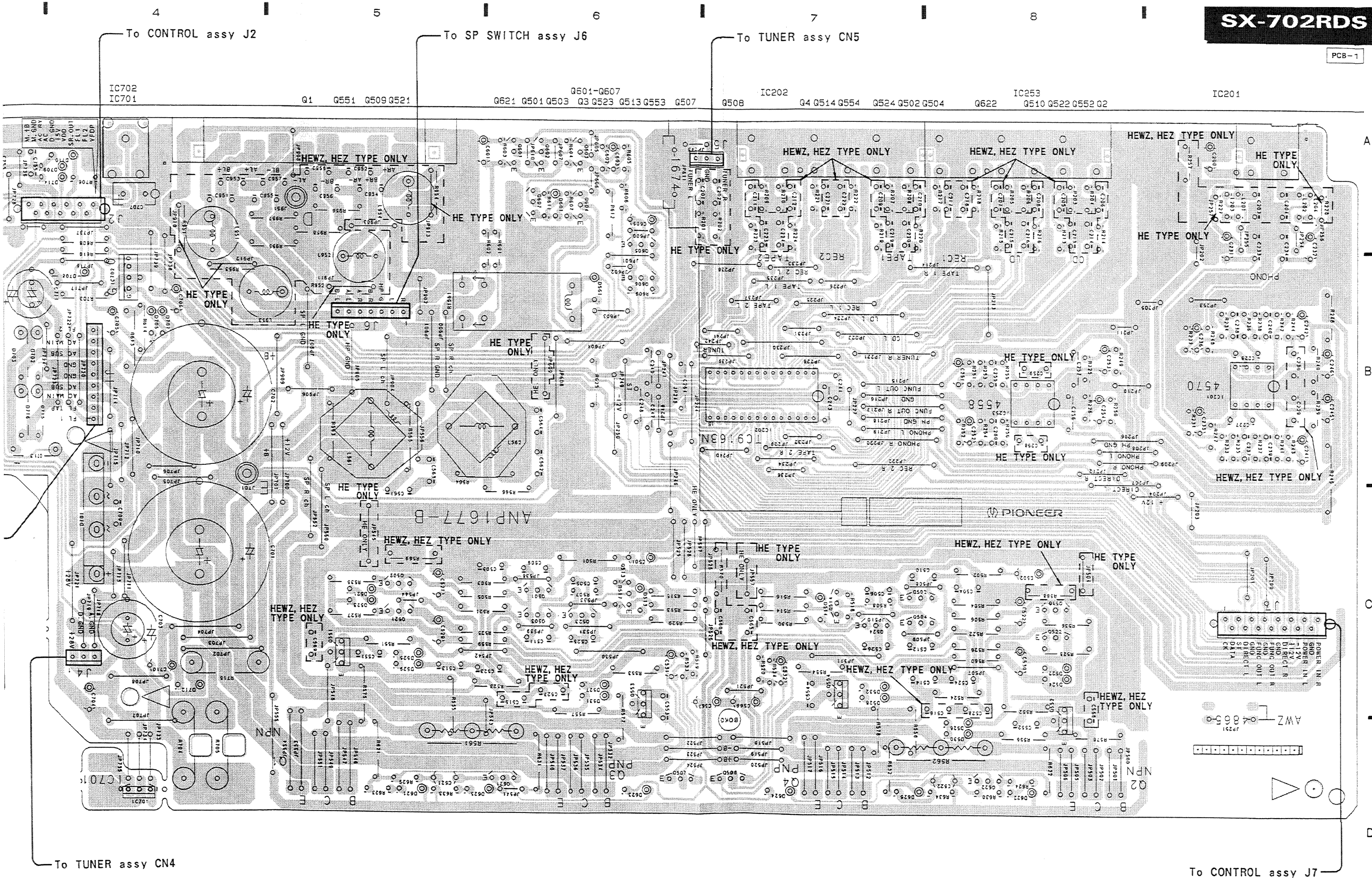
P.C.B. pattern diagram indication	Corresponding part symbol	Part Name
		Transistor
		Radiator type transistor
		Diode
		Resistor
		Capacitor (Polarized)
		Capacitor (Non-polarized)

Others

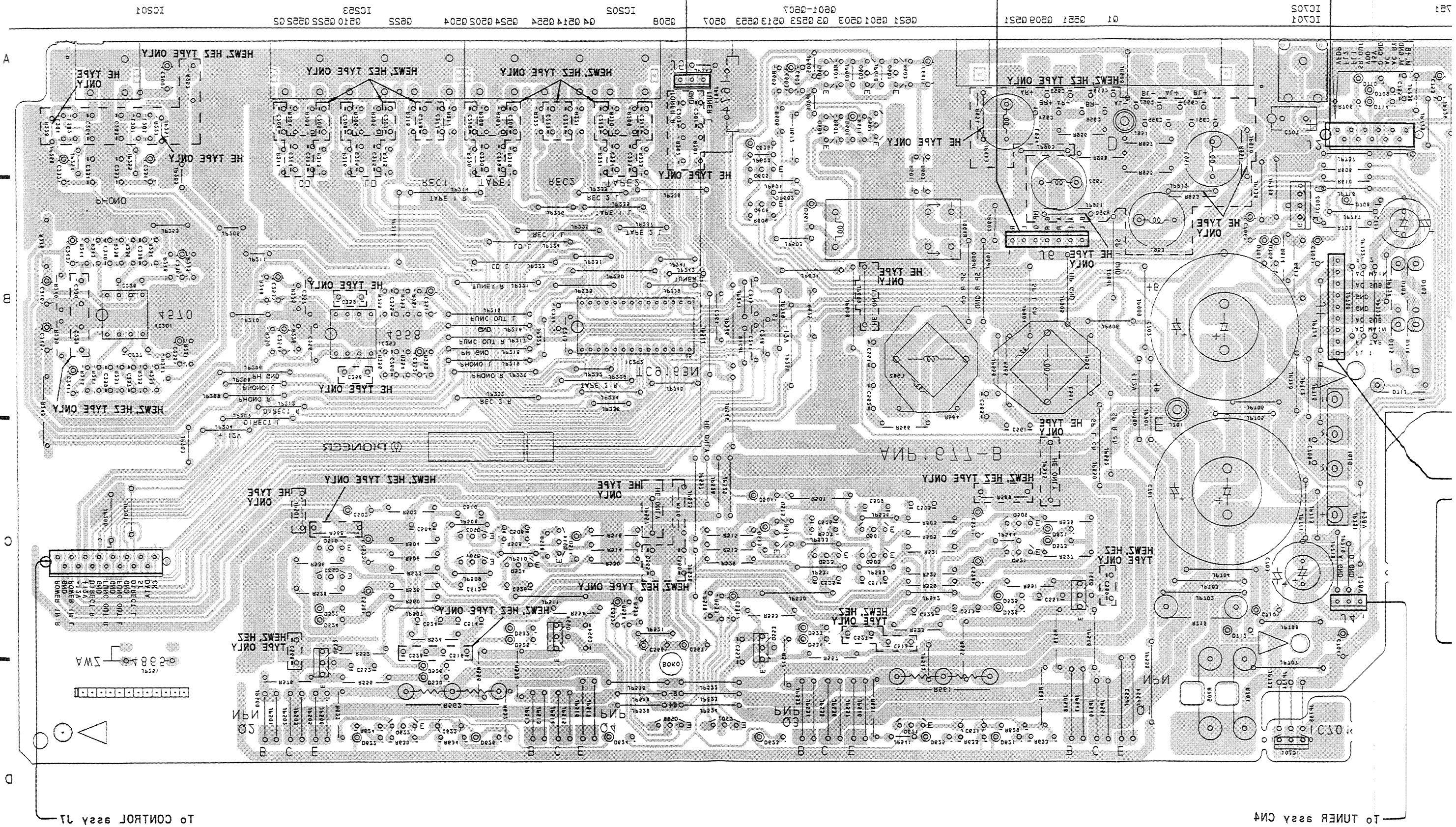
P.C.B. pattern diagram indication	Part Name
IC	IC
S	Switch
RY	Relay
L	Coil
F	Filter
VR	Variable resistor or Semi-fixed resistor

3. The capacitor terminal marked with ⊕ (double circles) shows negative terminal.
 4. The diode terminal marked with ⊕ (double circles) shows cathode side.
 5. The transistor terminal to which E is affixed shows the emitter.

This PCB connection diagram is viewed from the parts mounted side.



This PCB connection diagram is viewed from the parts mounted side.



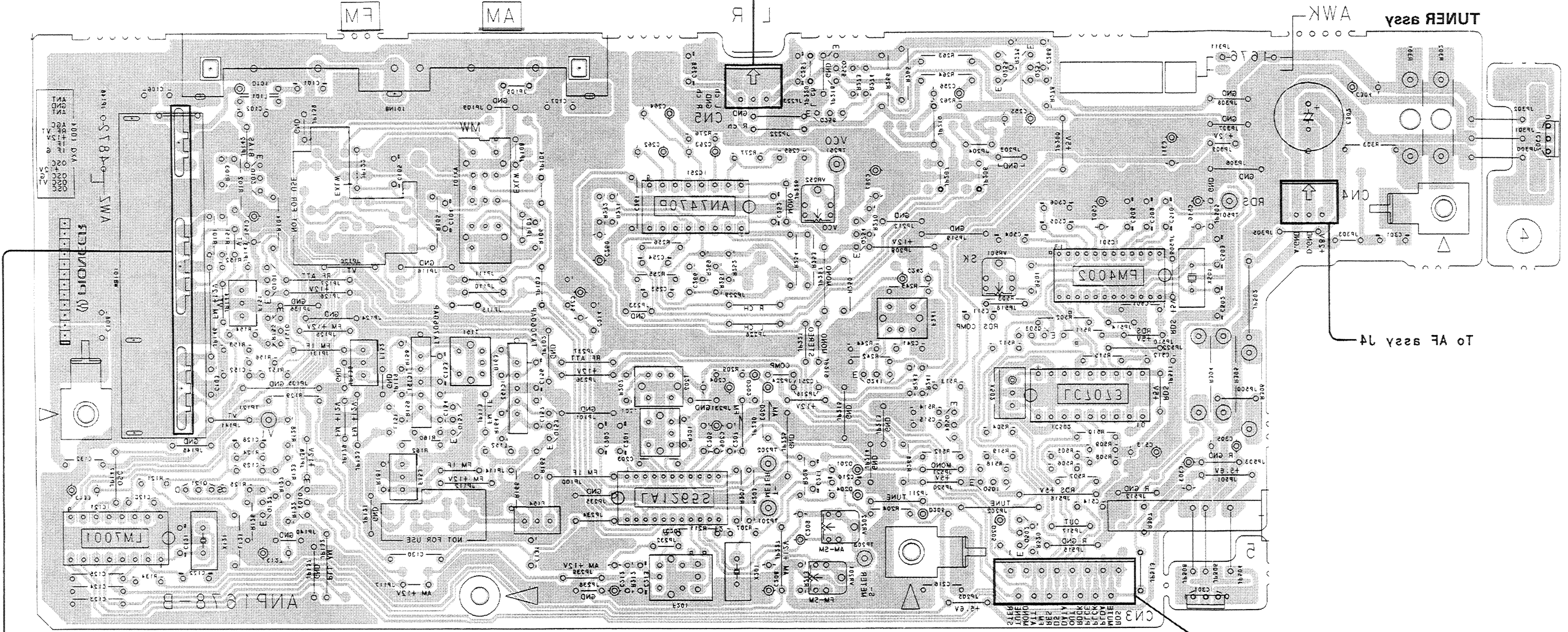
This PCB connection diagram is viewed from the foil side.

3.5 TUNER ASSY AND MOTOR VR ASSY

IC305

IC301 IC205 IC201 IC202 IC204 IC203 IC207 IC208 IC209 IC210 IC211 IC212 IC213 IC214 IC215 IC216 IC217 IC218 IC219 IC220 IC221 IC222 IC223 IC224 IC225 IC226 IC227 IC228 IC229 IC230 IC231 IC232 IC233 IC234 IC235 IC236 IC237 IC238 IC239 IC240 IC241 IC242 IC243 IC244 IC245 IC246 IC247 IC248 IC249 IC250 IC251 IC252 IC253 IC254 IC255 IC256 IC257 IC258 IC259 IC260 IC261 IC262 IC263 IC264 IC265 IC266 IC267 IC268 IC269 IC270 IC271 IC272 IC273 IC274 IC275 IC276 IC277 IC278 IC279 IC280 IC281 IC282 IC283 IC284 IC285 IC286 IC287 IC288 IC289 IC290 IC291 IC292 IC293 IC294 IC295 IC296 IC297 IC298 IC299 IC300

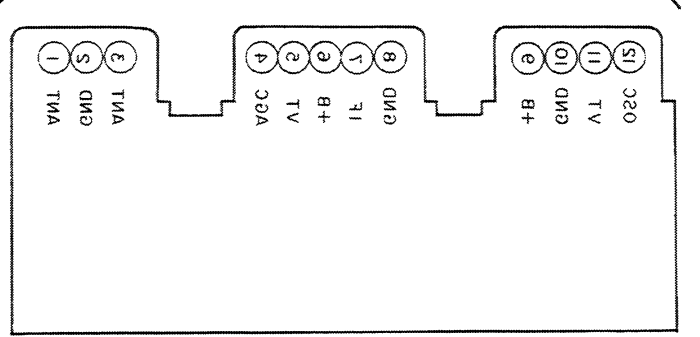
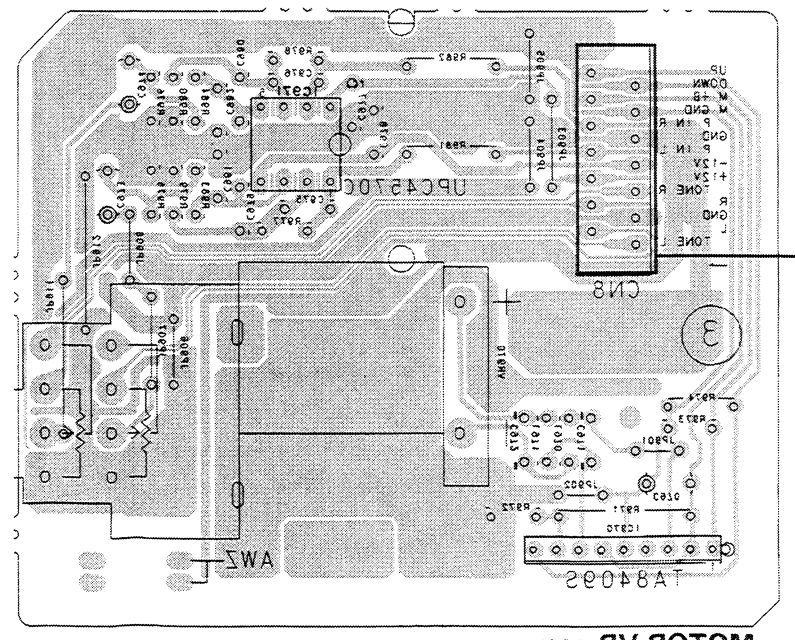
To AF Assy 12



To AF Assy 14

To CONTROL Assy 13

To CONTROL Assy 18

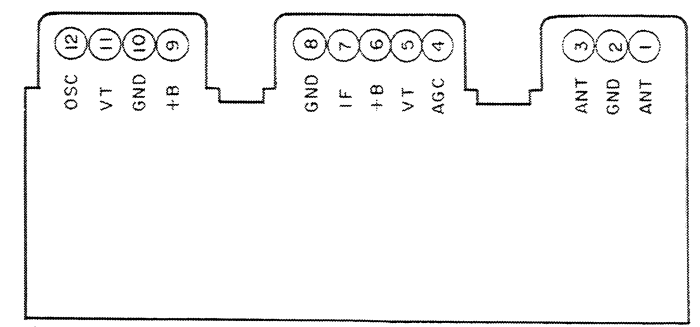
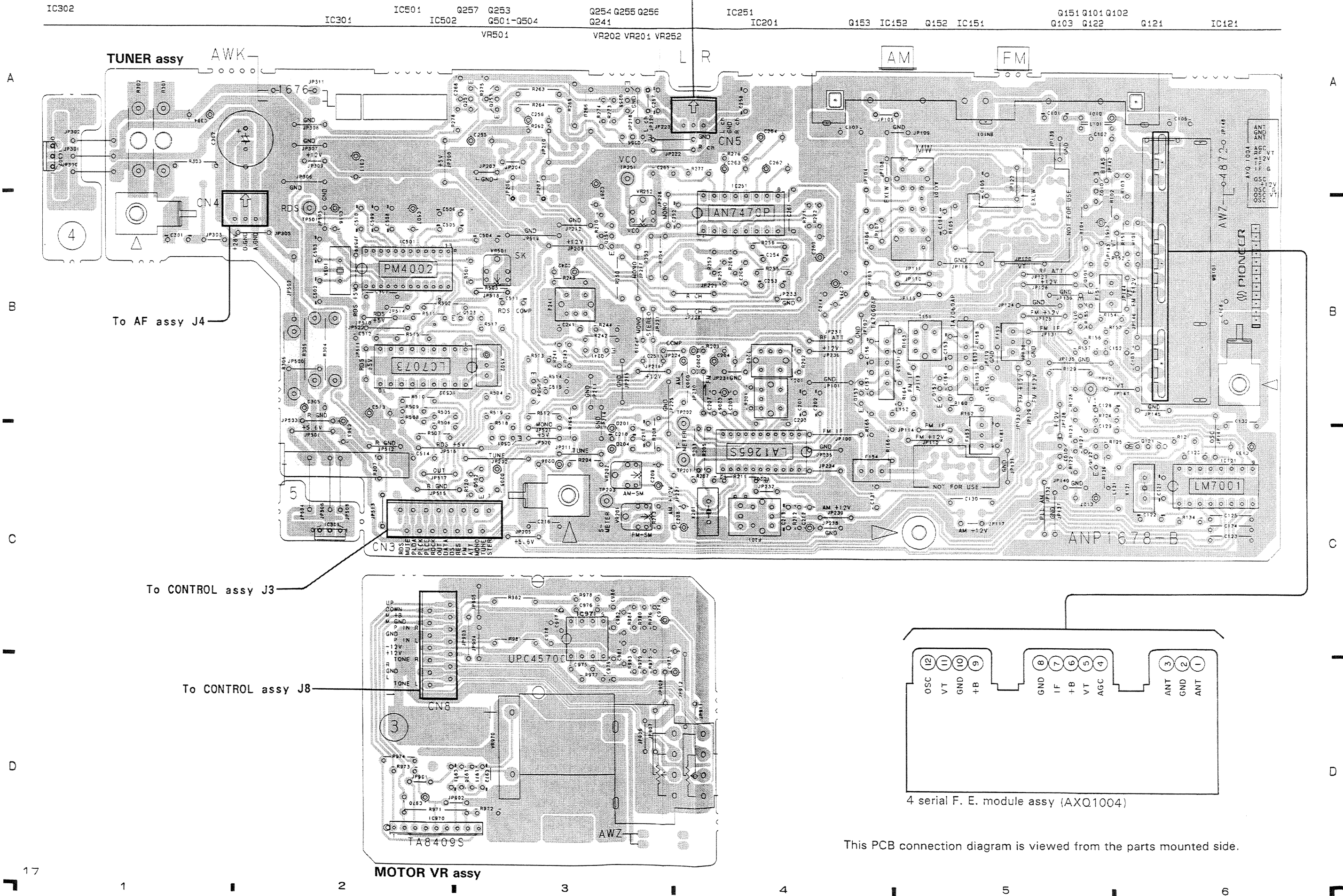


This PCB connection diagram is viewed from the foil side.

SX-702RDS

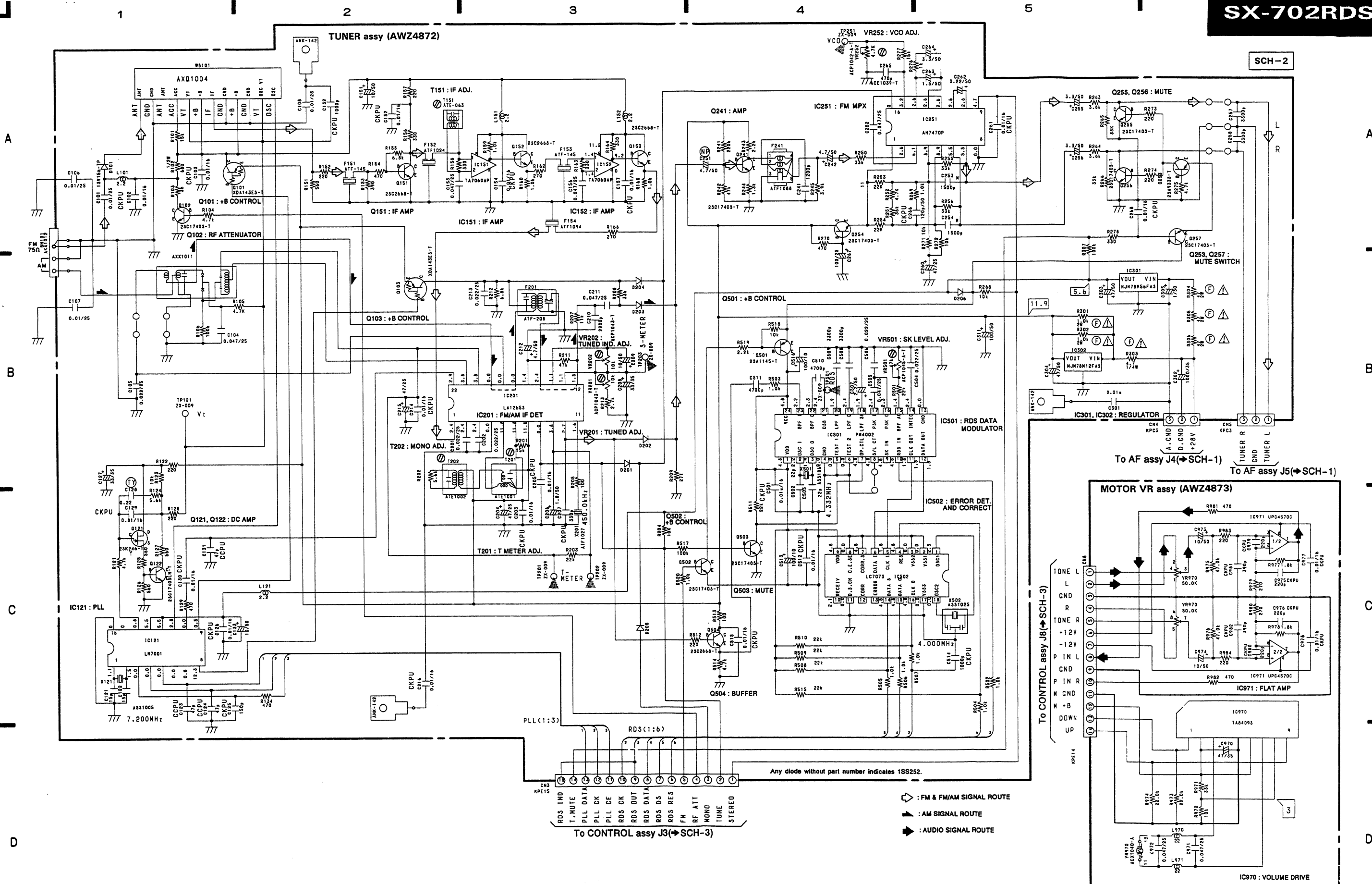
3.2 TUNER ASSY AND MOTOR VR ASSY

PCB-2



4 serial F. E. module assy (AXQ1004)

This PCB connection diagram is viewed from the parts mounted side.



SCH-2

TUNER ASSY, MOTOR VR ASSY

SCH-2

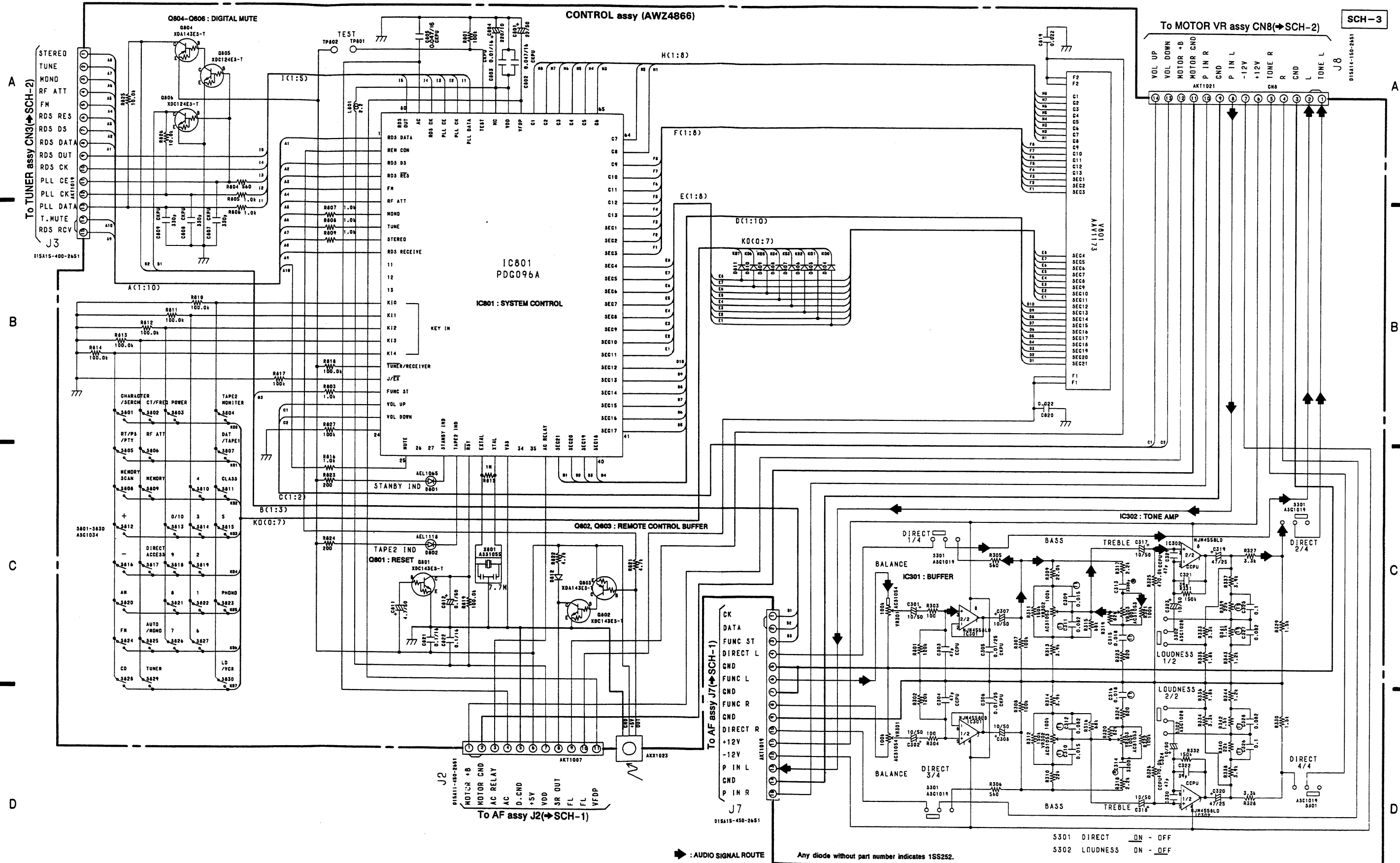
TUNER ASSY, MOTOR VR ASSY

NOTE: VOLTAGE AND CURRENT
 [Symbol] : Signal voltage at FM 1kHz, 100% MOD.
 or = V.
 DC voltage (V) at no input signal unless otherwise noted.
 Value in () is DC voltage at rated power.
 mA or mA :
 DC current at no input signal unless otherwise noted.

Any diode without part number indicates 1SS252.
 ◁ : FM & FM/AM SIGNAL ROUTE
 ▶ : AM SIGNAL ROUTE
 ▶• : AUDIO SIGNAL ROUTE

3.3 CONTROL ASSY

CONTROL assy (AWZ4866)



SCH-3

CONTROL ASSY

SCH-3

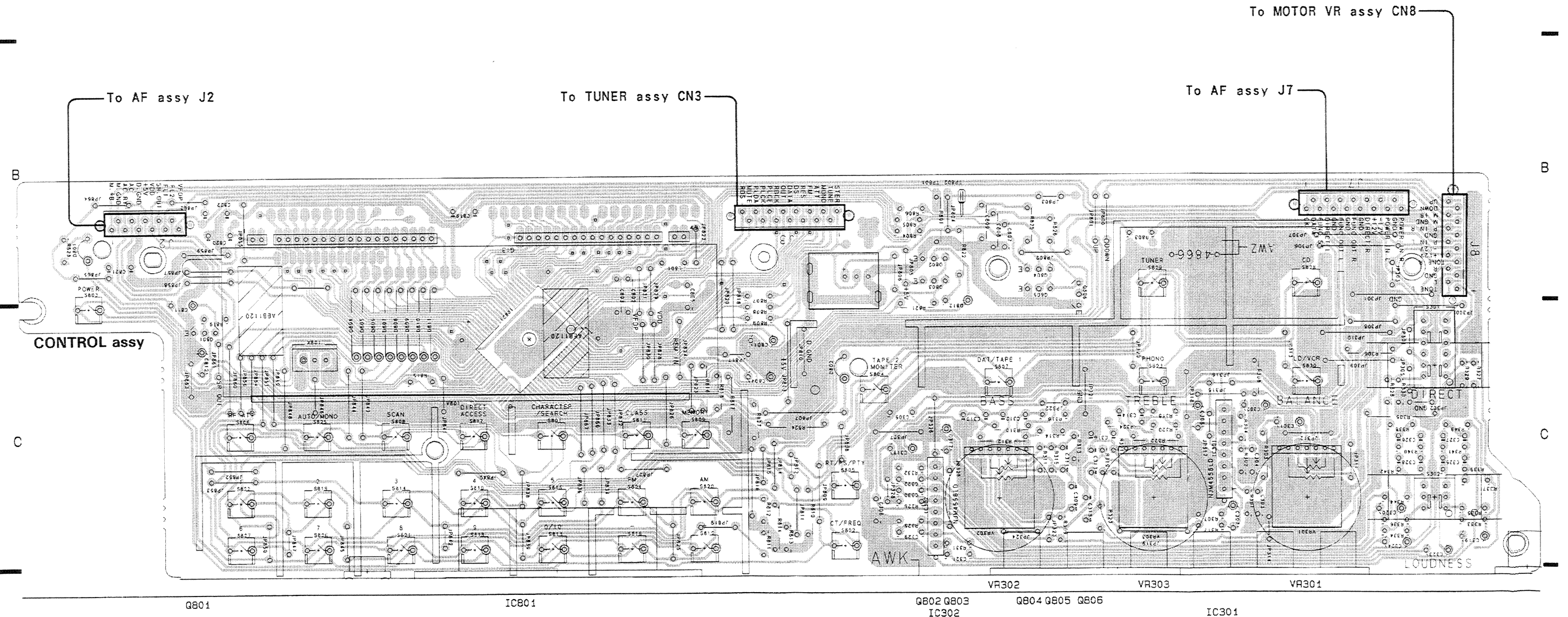
CONTROL ASSY

▶ : AUDIO SIGNAL ROUTE

Any diode without part number indicates 1SS252.

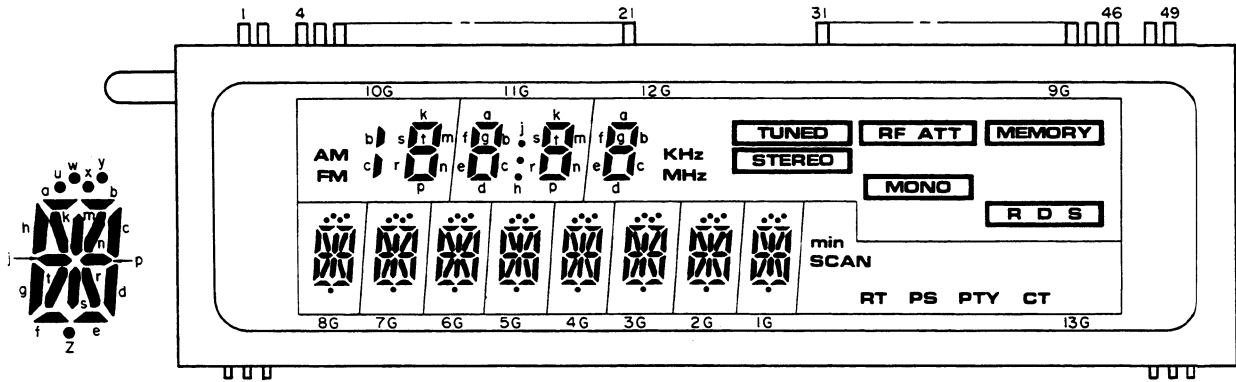
S301 DIRECT ON - OFF
S302 LOUDNESS ON - DEF

This PCB connection diagram is viewed from the parts mounted side.



AAV1173 (CONTROL ASSY : V801)

- FL Tube
- Grid and Segment Assignment



● Pin Connection

Terminal No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Electrode	F1	F1	NP	S17	S18	S20	S19	S1	S2	S10	S11	S3	S12	S9	S8	S13	S4	S15	S16	S14	S6	NP	NP	NP	NP
Terminal No.	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	
Electrode	NP	NP	NP	NP	NP	S7	S5	S21	10G	11G	12G	9G	8G	7G	6G	5G	4G	3G	2G	1G	13G	NP	F2	F2	

Notes) F : Filament G : Grid S : Segment (Anode) NP : No Pin

● Anode Connection

	1G	2G	3G	4G	5G	6G	7G	8G	9G	10G	11G	12G	13G
S1	a	a	a	a	a	a	a	a	TUNED	AM	a	a	min
S2	b	b	b	b	b	b	b	b	STEREO	b	b	b	SCAN
S3	c	c	c	c	c	c	c	c	RF ATT	c	c	c	SIGNAL
S4	d	d	d	d	d	d	d	d	ANT	FM	d	d	d
S5	e	e	e	e	e	e	e	e	A	—	e	e	e
S6	f	f	f	f	f	f	f	f	B	—	f	f	f
S7	g	g	g	g	g	g	g	g	MONO	—	g	g	g
S8	h	h	h	h	h	h	h	h	FINE	—	h	MHz	h
S9	j	j	j	j	j	j	j	j	MEMORY	—	j	kHz	j
S10	k	k	k	k	k	k	k	k	NORMAL	k	k	5	k
S11	m	m	m	m	m	m	m	m	NARROW	m	m	—	RT
S12	n	n	n	n	n	n	n	n	RDS	n	n	—	PS
S13	p	p	p	p	p	p	p	p	—	p	p	—	PTY
S14	r	r	r	r	r	r	r	r	—	r	r	—	CT
S15	s	s	s	s	s	s	s	s	—	s	s	—	ON
S16	t	t	t	t	t	t	t	t	—	t	t	—	—
S17	u	u	u	u	u	u	u	u	—	—	—	—	—
S18	w	w	w	w	w	w	w	w	—	—	—	—	—
S19	x	x	x	x	x	x	x	x	—	—	—	—	—
S20	y	y	y	y	y	y	y	y	—	—	—	—	—
S21	z	z	z	z	z	z	z	z	—	—	—	—	—

4. 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.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.
- 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 \times 10¹ \rightarrow 561 RD1/8PM $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix}$ J
 47k Ω \rightarrow 47 \times 10³ \rightarrow 473 RD1/4PS $\begin{bmatrix} 4 & 7 & 3 \end{bmatrix}$ J
 0.5 Ω \rightarrow 0R5 RN2H $\begin{bmatrix} 0 & R & 5 \end{bmatrix}$ K
 1 Ω \rightarrow 010 RS1P $\begin{bmatrix} 0 & 1 & 0 \end{bmatrix}$ K

Ex. 2 When there are 3 effective digits (such as in high precision metal film resistors).

5.62k Ω \rightarrow 562 \times 10¹ \rightarrow 5621 RM1/4PC $\begin{bmatrix} 5 & 6 & 2 & 1 \end{bmatrix}$ F

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
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LIST OF ASSEMBLIES

Δ NSP	COMPLEX ASSY	AWK1674
	└ AF ASSY	AWZ4865
	└ CONTROL ASSY	AWZ4866
NSP	└ TRANS ASSY	AWZ4867
NSP	└ SP SWITCH ASSY	AWZ4868

Δ NSP	TUNER, VOLUME ASSY	AWK1676
	└ TUNER ASSY	AWZ4872
NSP	└ MOTOR VR ASSY	AWZ4873

AF ASSY

SEMICONDUCTORS

IC751	M5278L56 (A)
IC253	NJM4558DXP
IC701	NJM78M12FAS
IC702	NJM79M12FA
IC202	TC9163N

IC201	UPC4570C
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Q509, Q510, Q603	2SA1048
Q521, Q522	2SA1145
Q553, Q554	2SA1306
Q501-Q504	2SA992
Q621, Q622	2SC2240

Q513, Q514, Q601, Q602, Q604, Q607	2SC2458
Q507, Q508	2SC2603
Q523, Q524	2SC2705
Q551, Q552	2SC3298
Q605	XDC124ES

Q606, Q751	XDC143ES
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D513, D514, D521-D524, D529-D532, D561, D621-D626, D709, D710, D714, D754	1SS252
D701	D5SB20F
D601	HZS12AL

D707	HZS12BL
D705	HZS16L
D712	HZS6A2L
D708	HZS6C2L
D525-D528	HZS7B2L

D706	RD4.7ESB2
D702, D703, D713, D715, D716, D751, D752	S5566

RELAYS

Δ RY561	ASR-112
Δ RY751	ASR1027

COILS & TRANSFORMER

Δ L701	ATF-151
L951-L954	ATH-133
L561, L562	ATH1009
L201-L204	LAU221K

Δ T751	ATT1193
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CAPACITORS

Δ C708, C754 (0.01/400)	ACG1002
C709, C751 (0.01/150)	ACG1005
C707	ACH1135
Δ C702 (8200/71)	ACH1199
Δ C701 (8200/71)	ACH1200

C525, C526	CCCSL050C $\begin{bmatrix} 0 & 0 \end{bmatrix}$
C551-C554	CCCSL101K $\begin{bmatrix} 0 & 0 \end{bmatrix}$
C233, C234, C255, C260, C503, C504	CCCSL221J $\begin{bmatrix} 5 \end{bmatrix}$
C513, C514, C523, C524	CCCSL270K $\begin{bmatrix} 0 & 0 \end{bmatrix}$
C203, C204	CCMSL330J $\begin{bmatrix} 0 \end{bmatrix}$

C509-C512	CCMSL470J $\begin{bmatrix} 0 \end{bmatrix}$
C621, C622	CEANP4R7 $\begin{bmatrix} 5 \end{bmatrix}$
C200	CEAS010M $\begin{bmatrix} 5 \end{bmatrix}$
C231, C232, C241, C242, C251-C254, C501, C502, C531, C532, C704, C706	CEAS100M $\begin{bmatrix} 5 \end{bmatrix}$
C521, C522, C529, C530	CEAS101M $\begin{bmatrix} 1 \end{bmatrix}$

C245, C246, C603 C703	CEAS101M $\begin{bmatrix} 2 \end{bmatrix}$ CEAS102M $\begin{bmatrix} 3 \end{bmatrix}$
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Mark	No.	Description	Parts No.
	C566, C567 C710, C753 C705 C752 C711		CEAS3R3M100 CEAS470M10 CEAS470M35 CEAS471M25 CEAS471M35
	C235, C236, C601 C605 C237, C238 C239, C240 C561-C564		CEAS471M6 CEAS4R7M50 CFTXA243J50 CFTXA823J50 CFTYA104J50
	C229, C230, C505, C506 C515, C516, C527, C528 C955-C958 C951-C954 C755		CKCYB222K50 CKCYB471K50 CKCYB681K50 CKCYF223Z50 CKCYX104M16
	C560, C565, C568, C569 C205-C224 C247, C249 C227, C228 C248		CKDYB103K50 CKMYB391K50 CKPUYB331K50 CKPUYB391K50 CKPUYB471K50
	C243, C244, C256, C257, C264, C602		CKPUYF103Z25

RESISTORS

△	R561, R562 (0.33, 5W) R752	ACN1063 RD1/2PM470J
△	R565, R566	RD1/2PMF100J
△	R951-R954 R701	RD1/2PMF101J RD1/4PM332J
	R612 R503, R504	RD1/4PM472J RD1/4PM563J
△	R563, R564, R955-R958	RD1/4PMF100J
△	R245, R546, R555-R558, R625	RD1/4PMF101J
△	R608	RD1/4PMF221J
△	R621, R622, R631, R632	RD1/4PMF222J
△	R527, R528	RD1/4PMF680J
△	R614 R521, R522 R501, R502	RD1/4PMF681J RDR1/4PM392J RDR1/4PM561J
	R523, R524	RDR1/4PM563J
△	R568-R570, R610	RFA1/4PS100J
△	R529, R530, R551-R554, R703	RFA1/4PS101J
△	R513-R516	RFA1/4PS391J
△	R559, R560, R575-R578	RFA1/4PS4R7J
△	R613	RFA1/4PS681J
△	R715	RS2LMF221J
△	R704, R705	RS2LMF911J

Other Resistors

RD1/8PM□□□J

OTHERS

CN8104	2P PIN JACK (PHONO)	AKB1100
CN8105	6P PIN JACK (VCR/LD/CD/TAPE)	AKB1129

Mark	No.	Description	Parts No.
		8P SPEAKER TERMINAL MINI JACK (SR OUT)	AKE-111 AKN-207
△	CN1	1P AC INLET	AKP1121

CONTROL ASSY

SEMICONDUCTORS

IC301, IC302 IC801	NJM4558LD PDG096A
Q803, Q804 Q805, Q806 Q801, Q802	XDA143ES XDC124ES XDC143ES
D804-D812 D801 D802	ISS252 AEL1065 AEL1118

SWITCHES

S301 S302 S801-S830	ASG1019 ASG1028 ASG1034
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COIL

L801	LAU2R2K
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CAPACITORS

C321, C322 C303, C304, C329, C330 C812 C301, C302, C307, C308, C317, C318, C323, C324 C801	CCPUSL390J50 CCPUSL470J50 CEAS0R1M50 CEAS100M50 CEAS220M50
C804 C319 C320 C811 C325, C326	CEAS221M10 CEAS470M25 CEAS470M25 CEAS4R7M50 CFTYA104J50
C309, C310 C315, C316 C311, C312, C327, C328 C819, C820 C821, C822	CFTYA153J50 CFTYA183J50 CFTYA823J50 CKCYF223Z50 CKCYX104M16
C807-C809 C305, C306 C802, C805 C803	CKPUYB331K50 CKPUYF103Z25 CKPUYF473Z16 CKPUYY103M16
C313, C314	CQMA332J50

RESISTORS

VR302, VR303 (100k) VR301 (100k)	ACS053 ACS054
Other Resistors	RD18PM□□□J

SX-702RDS

Mark	No.	Description	Parts No.
OTHERS			
	X801	(7.70MHz) REMOTE RECEIVER UNIT	ASS1055 AXX1023
	V801	FL TUBE FL SPACER	AAV1173 AEB1120
TRANS ASSY			
CAPACITOR			
	C101		CQMXA104J100
RESISTORS			
△	R101-R104		RD1/2PMF2R2J
SP SWITCH ASSY			
SWITCH			
	S570		SUL5LXXS
CAPACITORS			
	C570		CEAS010M50
	C571, C572		CKCYB392K50
RESISTORS			
△	R573, R574		RS1PMF681J
△	R571, R572		RS2LMF331J
OTHERS			
		HEADPHONE JACK	AKN1002
TUNER ASSY			
SEMICONDUCTORS			
	IC251		AN7470P
	IC201		LA1265S
	IC502		LC7073
	IC121		LM7001
	IC302		NJM78M12FAS
	IC301		NJM78M56FAS
	IC501		PM4002
	IC151, IC152		TA7060AP
	Q501		2SA1145
	Q253		2SA933S
	Q102, Q241, Q254-Q257, Q502, Q503		2SC1740S
	Q122		2SC1740SLN
	Q151-Q153, Q504		2SC2668
	Q121		2SK246
	Q101, Q103		XDA143ES
	D201-D206		1SS252
	D101		1SV156

Mark	No.	Description	Parts No.
COILS			
	T151		ATE-063
	T201		ATE1001
	T202		ATE1002
	F151, F153		ATF-145
	F201		ATF-208
	F152		ATF1024
	F241		ATF1088
	F154		ATF1094
	L101, L121, L151, L152		LAU2R2K
CAPACITORS			
	C265 (470/50)		ACE1039
	C121, C122		CCMCH150J50
	C502, C503		CCMCH220J50
	C123, C124, C131		CCPUSL470J50
	C251		CEANP4R7M50
	C206, C305		CEAS010M50
	C133, C151, C209		CEAS100M50
	C513, C516		CEAS101M10
	C267		CEAS101M25
	C311		CEAS101M50
	C302		CEAS102M35
	C263		CEAS1R5M50
	C507		CEAS2R2M50
	C127, C208		CEAS330M35
	C255, C256, C264		CEAS3R3M50
	C204, C215, C260		CEAS470M25
	C303, C304		CEAS470M50
	C212, C242		CEAS4R7M50
	C262		CEASR22M50
	C128		CFTYA224J50
	C301		CKCYB103K50
	C257, C258, C508, C509		CKCYB332K50
	C510, C511		CKCYB472K50
	C241		CKDYB122K50
	C210		CKDYB222K50
	C101, C106-C108		CKDYX103M25
	C105, C201, C202, C213, C504, C506		CKDYX223M25
	C104, C153, C156, C211, C252, C505		CKDYX473M25
	C132, C514		CKPUYB102K50
	C266		CKPUYB121K50
	C125		CKPUYB151K50
	C207		CKPUYB331K50
	C102, C103, C126, C129, C130, C152, C154, C157, C203, C205, C214, C216, C261, C268, C501, C512, C515		CKPUYY103M16
	C253, C254		CQMA152J50

Mark	No.	Description	Parts No.
RESISTORS			
	VR252	(4.7k)	ACP1042
	VR201, VR202	(10k)	ACP1043
	VR501	(47k)	ACP1045
	R102		RD1/2PM681J
△	R303		RFA1/4PS4R7J
△	R301, R302		RS2LMF102J
△	R304-R306		RS2LMF470J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	X121	AM RF TUNING BLOCK (7.200MHz)	AXX1011 ASS1005
	X502	(4.00MHz)	ASS1025
	X501		ASS1061
	X201		ATF1027
	CN3	2P ANTENNA TERMINAL WITH PAL 15P JUMPER CONNECTER 4 SERIAL F.E.MODULE ASSEMBLY	AKA1012 KPE15 AXQ1004

Note : 4 Serial F.E.module assembly has no service part.

MOTOR VR ASSY

SEMICONDUCTORS

IC970	TA8409S
IC971	UPC4570C

COILS

L970, L971	LAU220K
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CAPACITORS

C973, C974	CEAS100M50
C970	CEAS470M35
C971, C972	CKCYX473M25
C975, C976, C979, C980	CKPUYB221K50
C981, C982	CKPUYB391K50
C977, C978	CKPUYY103M16

RESISTORS

VR970	(50k)	ACX1040
Other Resistors		RD1/8PM□□□J

OTHERS

CN8	14P JUMPER CONNECTER	KPE14
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5. ADJUSTMENTS

5.1 FM TUNER ADJUSTMENTS

● Connect as shown in the Fig. 5-1.

5.1.1 FM MONO

Step	Adjustment Name	FM SG (1kHz, ± 75 kHz dev.)			FL Display IF BAND etc.	Location	Adjustment
		Frequency	Modulation	Level			
1	IF sensitivity adjustment	98MHz	MONO	Low input level	98MHz	T151	Adjust so that the voltage between TP203 and GND becomes maximum.
2	T meter adjustment	98MHz	MONO	60dB μ V	98MHz	T201	Adjust so that the voltage between TP201 and TP202 becomes 0 ± 50 mV.
3	MONO distortion adjustment	98MHz	MONO	60dB μ V	98MHz	T202	Adjust so that the distortion becomes minimum.

5.1.2 FM STEREO

Step	Adjustment Name	FM SG (1kHz, ± 75 kHz dev.)			FL Display IF BAND etc.	Location	Adjustment
		Frequency	Modulation	Level			
1	VCO adjustment	108MHz	OFF	60dB μ V	108MHz	VR252	Adjust so that the output at TP251 becomes 76kHz ± 0.5 kHz.
2	Stereo distortion adjustment	89MHz	L-ONLY	60dB μ V	89MHz	T151	Minimize the distortion within 1/4 rotation of core.

Stereo modulation : Main 1kHz, L+R, ± 68.25 kHz dev. Pilot 19kHz, ± 6.75 kHz dev.

5.1.3 FM ETC

Step	Adjustment Name	FM SG (1kHz, ± 75 kHz dev.)			FL Display IF BAND etc.	Location	Adjustment
		Frequency	Modulation	Level			
1	TUNED indicator adjustment	98MHz	MONO	12dB μ V ± 3 dB	98MHz	VR201	Adjust so that the indicator lights up.
2	SK level adjustment	88MHz	RF SG (External)	60dB μ V	88MHz NORMAL (ATT ON)	VR501	Adjust so that the voltage between TP501 (57kHz) and GND becomes maximum.

5.2 AM TUNER ADJUSTMENTS

● Connect as shown in the Fig. 5-2.

Step	Adjustment Name	AM SG (400Hz, 30% modulation)			FL Display IF BAND etc.	Location	Adjustment
		Frequency	Modulation	Level			
1	TUNED indicator adjustment	1008kHz	ON	55dB μ V/m ± 10 dB	1008kHz	VR202	Adjust so that the indicator lights up.

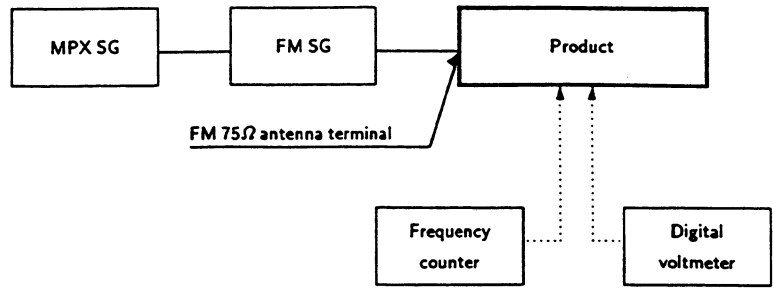


Fig. 5-1 FM Adjustment Connection Diagram

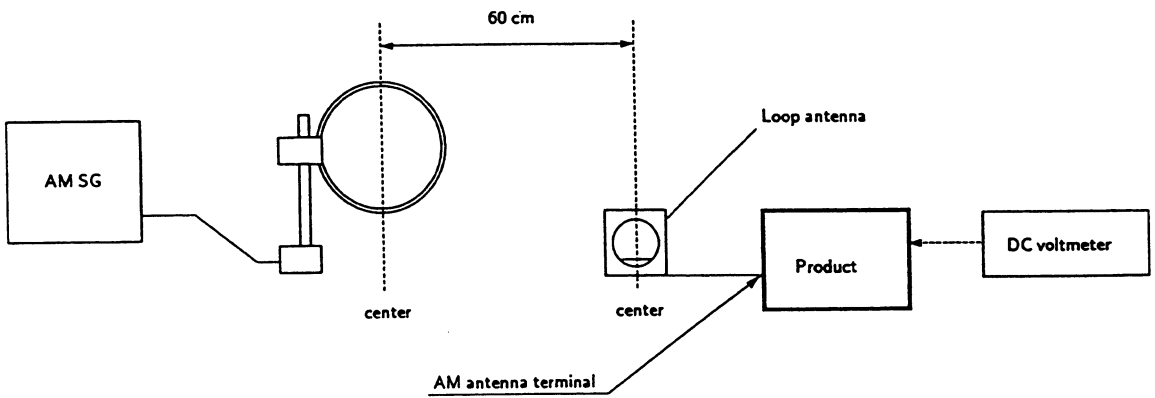


Fig. 5-2 AM Adjustment Connection Diagram

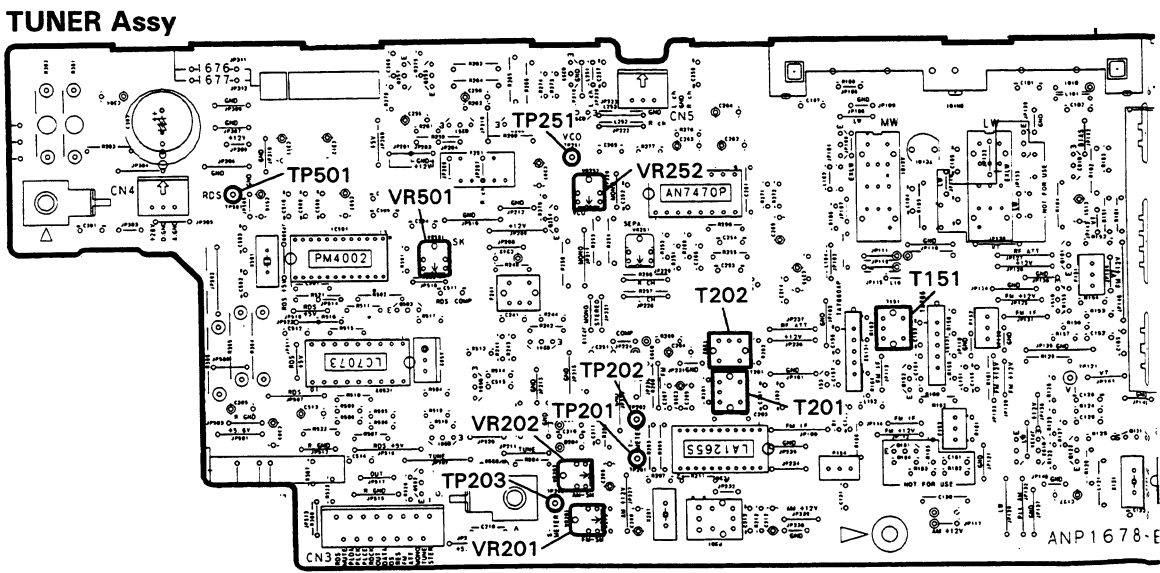


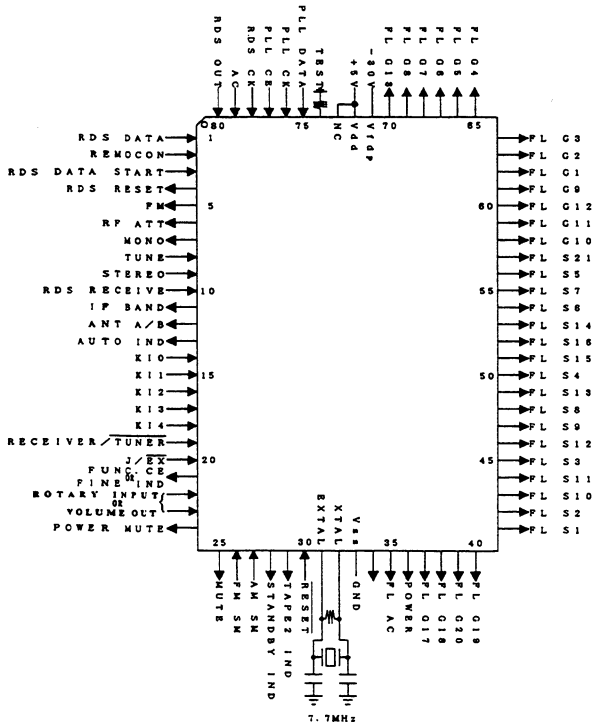
Fig. 5-3 Adjustment Points

6. IC INFORMATION

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

■ PDG096A (IC801 : CONTROL ASSY)

- System Control
- Pin Assignment (Top View)



● Pin Function

No.	Name	I/O	Description	ACT.
1	RDS DATA	I	DATA from LC7073	-
2	REMOCON	I	REMOCON Signal	-
3	RDS DATA START	I	Synchronized Signals of each block from LC7073	-
4	RDS RESET	O	Reset output to LC7073 when reception frequency is altered	-
5	FM	O	FM BAND select	H
6	RF ATT	O	RF ATT ON/OFF	H
7	MONO	O	FM MONO output	H
8	TUNE	I	TUNE signal	L
9	STEREO	I	STEREO signal	L
10	RDS RECEIVE	I	RDS verification indicator signal	L

No.	Name	I/O	Description	ACT.
11	IF BAND	O	Switching IF BAND (TUNER only)	-
12	ANT A/B	O	Switching ANTENNA (TUNER only)	-
13	AUTO IND	O	TUNING MODE AUTO operation MODE LED ON/OFF (TUNER only)	L
14	KI 0	I	KEY SCAN Input 0	H
15	KI 1		KEY SCAN Input 1	
16	KI 2		KEY SCAN Input 2	
17	KI 3		KEY SCAN Input 3	
18	KI 4		KEY SCAN Input 4	
19	RECEIVER/TUNER	I	Switching RECEIVER/TUNER	-
20	J / EX	I	J (H) / EX (L) input	-
21	FUNC.CE	O	Function switching IC (TC9163N) Chip enable (RECEIVER only)	H
	FINE IND	O	TUNING MODE FINE operation MODE LED ON/OFF (TUNER only)	L
22	VOLUME OUTPUT	O	VOLUME control (Pin No. 22 : UP Pin No. 23 : DOWN)	H
23	ROTARY INPUT	I	Rotary Encoder A/B (Pin No. 22 : A, Pin No. 23 : B)	-
24	POWER MUTE	O	MUTE control	H
25	MUTE	O	MUTE control	H
26	FM S METER	I	FM S METER input (TUNER only)	A/D
27	AM S METER	I	AM S METER input (TUNER only)	A/D
28	STANDBY IND	O	LED for STANDBY ON/OFF	L
29	TAPE2 IND	O	LED for TAPE2 ON/OFF (RECEIVER only)	H
30	RESET	I	μ -COM. RESET input	-

No.	Name	I/O	Description	ACT.
31	EXTAL		Connected to Ceramic oscillator (7.7MHz)	-
32	XTAL			
33	V _{ss}		Reference Voltage (GND)	-
34	—	O	Not Used	-
35	FL AC	O	FL AC ON/OFF	L
36	POWER	O	Switching POWER ON/OFF	H
37	FL S17	O	FL control segment output	H
38	FL S18			
39	FL S20			
40	FL S19			
41	FL S1			
42	FL S2			
43	FL S10			
44	FL S11			
45	FL S3			
46	FL S12			
47	FL S9 /KO 0	O	FL control segment output/KEY SCAN output	H
48	FL S8 /KO 1			
49	FL S13 /KO 2			
50	FL S4 /KO 3			
51	FL S15 /KO 4			
52	FL S16 /KO 5			
53	FL S14 /KO 6			
54	FL S6 /KO 7			

No.	Name	I/O	Description	ACT.
55	FL S7	O	FL control segment output	H
56	FL S5			
57	FL S21			
58	FL G10	O	FL control timing output	H
59	FL G11			
60	FL G12			
61	FL G9			
62	FL G1			
63	FL G2			
64	FL G3			
65	FL G4			
66	FL G5			
67	FL G6			
68	FL G7			
69	FL G8			
70	FL G13			
71	V _{fdp}		Negative voltage (-30V) for FDP input	-
72	V _{dd}		+5V Power supply	-
73	—		Connected to V _{dd}	-
74	TEST	I	TEST MODE	H
75	PLL DATE	O	Tuner PLL IC (LM7001) DATA	-
76	PLL CK	O	Tuner PLL IC (LM7001) CLOCK	-
77	PLL CE	O	Tuner PLL IC (LM7001) Chip enable	H
78	RDS CK	I	Synchronized Clock of each bits from LC7073	-
79	AC	I	AC PULS input	-
80	RDS OUT	I	Effective RDS signal verification	L

7. FOR SX-702RDS/HE AND SX-702RDS-G/HEZ

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.
- Parts marked by "⊙" are not always kept in stock. Their delivery time may be longer than usual or they may be unavailable.

SX-702RDS/HE, SX-702RDS-G/HEZ and SX-702RDS/HEWZ have the same construction except for the following :

Mark	Symbol & Description	Part No.			Remarks
		SX-702RDS/ HEWZ	SX-702RDS/ HE	SX-702RDS-G/ HEZ	
NSP	COMPLEX assy	AWK1674	AWK1675	AWK1674	For rear panel For bonnet (side)
	AF assy	AWZ4865	AWZ4869	AWZ4865	
NSP	SP SWITCH assy	AWZ4868	AWZ4871	AWZ4868	
	Front panel	ANB1558	ANB1558	ANB1559	
	Panel base	AMB2190	AMB2190	AMB2155	
	Name plate	AAM1058	AAM1058	AAM1059	
	Rotary knob L	AAB1347	AAB1347	AAB1348	
	Rotary knob S (PLS)	AAB1353	AAB1353	AAB1354	
	Power button (PLS)	AAD2421	AAD2421	AAD2450	
	Push button (PLS)	AAD2423	AAD2423	AAD2452	
	Function button	AAD2448	AAD2448	AAD2449	
	Bonnet	ANE1438	ANE1438	ANE1433	
	Screw	ABA1047	ABA-298	ABA1047	
	Screw	BBZ30P060FZK	BBZ30P060FZK	ABA-274	
	Packing case	AHD2551	AHD2551	AHD2552	
	Operating instructions (German)	ARC1427	.....	.....
	Operating instructions (English, French, German, Italian, Dutch, Swedish, Spanish, Portuguese)	.....	ARE1280	ARE1280
	Remote control unit (CU-SX067)	AXD1361	AXD1361	.....
	Remote control unit (CU-SX071)	.....	.....	AXD1362
	Battery lid	PZN1001	PZN1001	AZA1376	

SP SWITCH ASSY

AWZ4871 and AWZ4868 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4868	AWZ4871	
	C571, C572	CKCYB392K50	.....
	R573, R574	RS1PMF681J	.....

SX-702RDS, SX-702RDS-G

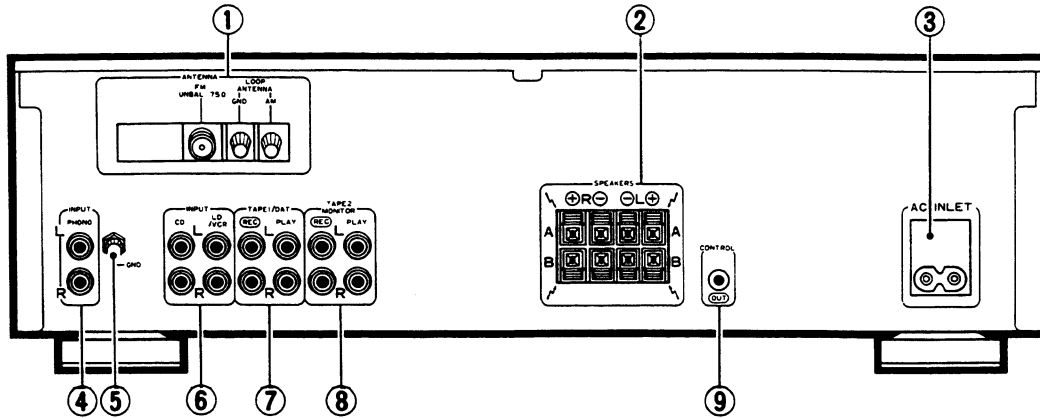
AF ASSY

AWZ4869 and AWZ4865 have the same construction except for the following :

Mark	Symbol & Description	Part No.		Remarks
		AWZ4865	AWZ4869	
	L201 – L204	LAU221K	.....
	L561, L562 (53 μ H)	ATH1009	.....
	L561, L562 (0.7 μ H)	.....	ATH1004	
	L951 – L954 (1 μ H)	ATH – 133	.....
	C201, C202	.....	CKCYB182K50	
	C203, C204	CCMSL330J50	.....
	C205 – C224	CKMYB391K50	.....
	C227, C228	CKPUYB391K50	CKPUYB221K50	
	C229, C230	CKCYB222K50	.....
	C258, C259	.....	CKPUYB221K50	
	C503, C504	CCCSL221J50	CQMA102J50	
	C515, C516, C527, C528	CKCYB471K50	.....
	C560, C565, C568, C569	CKDYB103K50	.....
	C951 – C954	CKCYF223Z50	.....
	C955 – C958	CKCYB681K50	.....
	R201, R202	.....	RD1/8PM472J	
	R217, R218, R221, R222	RD1/8PM222J	RD1/8PM102J	
	R227, R228	RD1/8PM152J	.....
	R247, R248	RD1/8PM331J	RD1/8PM181J	
	R249, R250	RD1/8PM221J	RD1/8PM470J	
	R257	RD1/8PM100J	.....
△	R568 – R570	RFA1/4PS100J	.....
△	R951 – R954	RD1/2PMF101J	.....
△	R955 – R958	RD1/4PMF100J	.....

8. PANEL FACILITIES

REAR PANEL FACILITIES



① FM/AM ANTENNA terminals

Use these antenna terminals for receiving FM and AM broadcasts.

② SPEAKERS terminals

A: Connect to a first set of speakers.
B: Connect to a second set of speakers.

③ AC INLET

Connect the accessory power cord here.

④ PHONO INPUT jacks

Connect to the output cables of a turntable.

⑤ GND terminal

Connect to the ground lead of a turntable.

⑥ INPUT jacks

CD : Connect to the output jacks of a compact disc player.
LD/VCR : Connect to the output jacks of the LD player or video cassette recorder.

⑦ TAPE 1/DAT jacks

Connect these jacks to the cassette deck or digital audio tape deck.

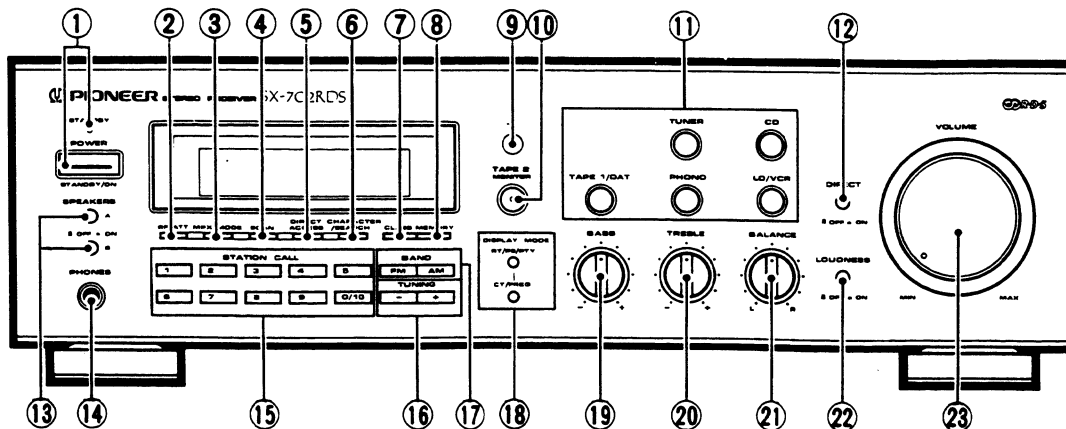
⑧ TAPE 2 MONITOR jacks

Connect these jacks to the cassette deck.

⑨ CONTROL OUT jack

Connect this jack to other Pioneer components when using the remote control of this unit to control the other components.

FRONT 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, the main power flow is cut and the unit is no longer fully operational. A minute flow of power feeds the unit to maintain operation readiness.

When the STANDBY indicator lights, the unit is on STANDBY.

NOTE:

- The memory will be backed up so long as the power cord is not unplugged.
- If the power cord is unplugged, the memory will be retained for several days.
- Disconnect the power cord from the AC wall outlet when not using the unit for a long time. (Do not disconnect the power cord from AC INLET of the unit.)

② 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.

NOTE:

- This button's status is preset for each station in station memory.

③ MPX (multiplex) MODE button

Use to select the auto stereo mode or monaural mode when listening to FM broadcasts. The monaural mode has been selected when the MONO indicator is lit.

Auto stereo mode:

Normally leave in this mode for reception. When a stereo FM broadcast is received, it will be automatically reproduced in stereo sound.

Monaural mode:

When receiving distant stations or stations with weak broadcast signals, the input signal may be weak, thus resulting in increased noise during FM stereo broadcasts. In this event, setting the receiver to the monaural mode will reduce the noise. In this case, however, FM stereo broadcasts will be reproduced in monaural sound.

NOTE:

- This button has no effect on reception of AM broadcasts.
- This button's status is preset for each station in station memory.

④ SCAN button

This button is used for station memory scan.

The system receives in sequence all stations (1 to 10) stored under the currently selected class for several seconds each. (To scan a different class, select a class with the CLASS button, then press the SCAN button.)

- This button does not function when the SLEEP button of the remote control unit is ON.

⑤ DIRECT ACCESS tuning button

When this button is pressed, the STATION CALL buttons function as ten-key number buttons for direct input of the desired reception frequency. Press again to cancel this mode.

- This button does not function when the SLEEP button of the remote control unit is ON.

⑥ CHARACTER/SEARCH button

When receiving an AM broadcast, or when in the FM RT, 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 SLEEP button of the remote control unit is ON.

⑦ CLASS button

Use to switch between preset memory classes 1 to 4. In each class, one station can be memorized in each of the 1 to 10 STATION CALL buttons, enabling a total of 40 stations to be memorized.

⑧ MEMORY button

Use to preset stations.

Also used for FM broadcast manual station name character selection and program type search.

⑨ Remote sensor window

⑩ TAPE 2 MONITOR button/indicator

Press when performing playback on a second cassette deck and monitoring recording.

- This button/indicator does not function when the DIRECT button is ON.

⑪ Input selector buttons

TUNER: Press when listening to radio broadcasts.

CD: Press when playing compact discs on a CD player.

TAPE 1/DAT: Press when performing playback on a cassette deck or DAT.

PHONO: Press when playing records on a turntable.

LD/VCR: Press when listening to programs from a component connected to the LD/VCR terminals.

⑫ DIRECT button (OFF ON)

Use this button when you wish to bypass the various frequency adjusting circuits BASS, TREBLE, BALANCE, LOUDNESS. Also, the TAPE 2 MONITOR button will not function.

ON:

When this button is in this position, the signals input from the input jacks are reproduced without passing through the various frequency-adjusting circuits. This results in flat, pure sound which is a more faithful reproduction of the input source.

OFF:

When the button is in this position the signal passes through the various frequency adjusting circuits.

⑬ SPEAKERS A, B buttons (OFF ON)

Use to select the speaker system that you wish to listen to.

A: When the speakers connected to A terminals are in use.

B: When the speakers connected to B terminals are in use.

- Turn both A and B speakers to the OFF position when only headphones are in use.

⑭ 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 buttons to the OFF position.

⑮ STATION CALL buttons

Use these buttons to preset stations and to receive already preset stations.

They are also used when performing direct access tuning.

⑯ TUNING +/- buttons

Use to receive a broadcast. Press the buttons to change the frequency display. (3-Speed Accel Tuning)

In the Manual Station Name input mode, and PTY Search mode, use to select characters and program type.

⑰ BAND selector buttons

These buttons are used to select either AM or FM reception.

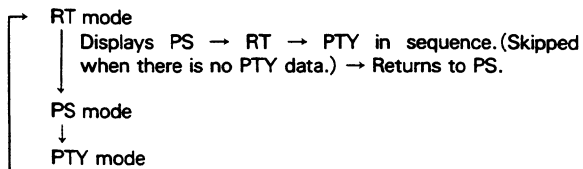
AM: Push this button for AM reception.

FM: Push this button for FM reception.

⑱ DISPLAY MODE buttons

RT/PS/PTY:

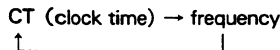
When receiving RDS broadcasts in FM, these buttons switch the display. Each time the buttons are pressed, the following display is switched.



- This button does not function when the SLEEP button of the remote control unit is ON.

CT/FREQ:

When receiving RDS broadcasts in FM, these buttons switch the displayed frequency range and the clock time. Each time the buttons are pressed, the following display is switched.



⑲ BASS tone control

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

NOTE:

- When the volume level is set below the 11 o'clock position, the set tone control effect is obtained.
When the volume level is set above the 11 o'clock position, the effect becomes increasingly weaker.
Near maximum volume, there is no effect.
- This control does not operate when the DIRECT button is in the ON position.

⑳ TREBLE tone control

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

NOTE:

- When the volume level is set below the 11 o'clock position, the set tone control effect is obtained.
When the volume level is set above the 11 o'clock position, the effect becomes increasingly weaker.
Near maximum volume, there is no effect.
- This control does not operate when the DIRECT button is in the ON position.

㉑ 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 does not operate when the DIRECT button is in the ON position.

㉒ 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.

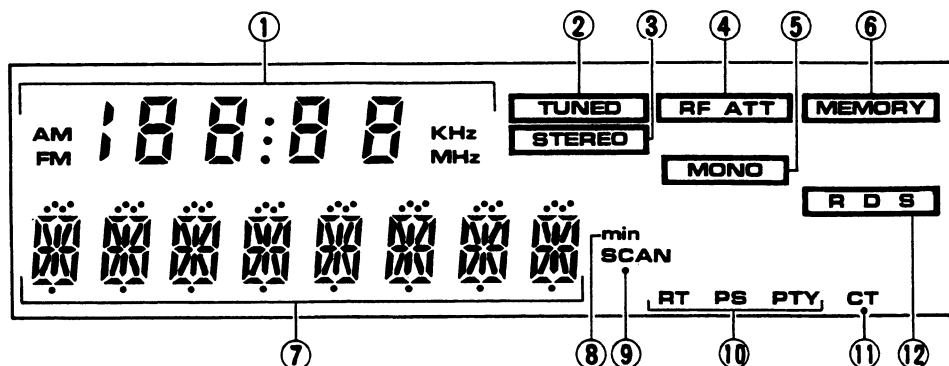
NOTE:

This button does not operate when the DIRECT button is in the ON position.

㉓ VOLUME control

Use to adjust volume level.

OPERATING DISPLAY



① Clock time/frequency indicator

Clock Time (CT) data, and band and frequency data is displayed.

② TUNED indicator

Lights when a broadcast is received.

③ STEREO indicator

Lights up when a stereo broadcast is received.

(The indicator does not light when the MPX MODE button is set to MONO.)

④ RF ATT indicator

Stays lit while RF ATT button is on.

⑤ MONO indicator

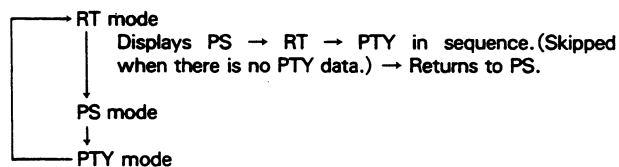
Stays lit while MPX MODE button is set to MONO.

⑥ MEMORY indicator

When presetting a station, press the MEMORY button and it lights for a few seconds.

⑦ Character • Class Display

Displays INPUT SELECTOR, CLASS, STATION No., STATION NAME and the remaining time of the sleep timer. When receiving RDS broadcasts in FM by pressing the DISPLAY MODE RT/PS/PTY button, the following display is switched.



⑧ Min indicator

Lights when the remaining sleep time is displayed.

⑨ SCAN indicator

Lights when the station memory scan is operating.

⑩ RT, PS, PTY indicator

Displays the type of RDS data received, when receiving an FM, RDS broadcast.

⑪ CT indicator

Lights when displaying the CT (Clock Time) in the clock time/frequency display.

⑫ RDS indicator

Lights when an RDS broadcast is received.

9. SPECIFICATIONS

Amplifier Section

Continuous Power Output (both channel driven, DIN)*	
1 kHz, T.H.D. 1 %, 4 Ω	90 W + 90 W
20 Hz - 20 kHz, T.H.D. 0.07%, 8 Ω	60 W + 60 W
Dynamic power output (with EIA test signal)	
2/4/8 Ω	120 W/110 W/85 W
Total Harmonic Distortion*	
1 kHz, 60 W, 8 Ω	0.01 %
20 Hz - 20 kHz, 60 W, 8 Ω	0.07 %
Damping factor 1 kHz, 8 Ω	33
* Above specifications are for when power supply is 230 V.	

Input (Sensitivity/Impedance)

PHONO	2.8 mV/47 kΩ
CD, LD/VCR, TAPE 1/DAT, TAPE 2	200 mV/47 kΩ
Phono Overload Level (T.H.D. 0.08%, 1.000 Hz)	
PHONO	94 mV

Output (Level/Impedance)

TAPE REC	200 mV/2.2 kΩ
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Frequency Response

PHONO (RIAA Equalization)	20 Hz to 20,000 Hz ±0.5 dB
CD, LD/VCR, TAPE 1/DAT, TAPE 2	10 Hz to 90,000 Hz ±0.5 dB

Signal-to-Noise Ratio (IHF, short circuited, A network)

PHONO	78 dB
CD, LD/VCR, TAPE 1/DAT, TAPE 2	102 dB

Signal-to-Noise Ratio (DIN, continuous power/50 mW)

PHONO	70 dB/68 dB
CD, LD/VCR, TAPE 1/DAT, TAPE 2	93 dB/71 dB

Tone control

BASS	±8 dB (100 Hz at -30dB)
TREBLE	±8 dB (10 kHz at -30dB)
LOUDNESS	+6 dB (100 Hz at -30dB) +3 dB (10 kHz at -30dB)

FM Tuner Section

Frequency range	87.5 MHz to 108 MHz
Usable Sensitivity	12.7 dBf, IHF (1.2 μV/75 Ω)
50 dB Quieting Sensitivity	
MONO	18 dBf (2.2 μV/75 Ω)
STEREO	38.3 dBf (22.6 μV/75 Ω)
Sensitivity (DIN)	
MONO	1.0 μV/75 Ω
STEREO	35 μV/75 Ω
Signal-to-Noise Ratio	
MONO	77 dB (at 80 dBf)
STEREO	73 dB (at 80 dBf)
Signal-to-Noise Ratio (DIN)	
MONO	62 dB
STEREO	60 dB
Distortion	
MONO	0.15% (1 kHz)
STEREO	0.2% (1 kHz)
Alternate Channel Selectivity	70 dB (300 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	45 dB
Antenna	AM Loop Antenna

Miscellaneous

Power Requirements	a.c. 220-230 Volts, 50 Hz
Power Consumption	530 W
Dimensions	420 (W) X 125 (H) X 350 (D) mm
Weight (without package)	8.1 kg

Furnished Parts

FM T-type Antenna	1
AM Loop Antenna	1
Operating Instructions	1
Remote control unit	1
Dry cell battery (size "AAA" (R03/UM-4))	2
Power cord	1

NOTE:

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

* Measured By Audio Spectrum Analyzer.