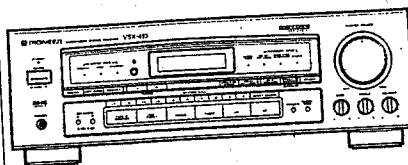


Service Manual



ORDER NO.
ARP2849

AUDIO/VIDEO STEREO RECEIVER

VSX-453

VSX-403

VSX-463S

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

Type	Model			Power Requirement	The voltage can be converted by the following method.
	VSX-453	VSX-403	VSX-463S		
KUXJ	○	○	—	AC120V	_____
KCXJ	○	○	○	AC120V	_____
SDXJ	○	—	—	AC110V/120-127V/220V/240V	With the voltage selector

- The " S " at the end of the model number indicates that a programable remote control unit is supplied.

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 © PIONEER ELECTRONIC CORPORATION 1994

O-DFS MAR. 1994 Printed in Japan

1. SAFETY INFORMATION

This service manual is intended for qualified service technicians; it is not meant for the casual do-it-yourselfer. Qualified technicians have the necessary test equipment and tools, and have been trained to properly and safely repair complex products such as those covered by this manual. Improperly performed repairs can adversely affect the safety and reliability of the product and may void the warranty. If you are not qualified to perform the repair of this product properly and safely, you should not risk trying to do so and refer the repair to a qualified service technician.



WARNING

Lead in solder used in this product is listed by the California Health and Welfare agency as a known reproductive toxicant which may cause birth defects or other reproductive harm (California Health & Safety Code, Section 25249.5).

When servicing or handling circuit boards and other components which contain lead in solder, avoid unprotected skin contact with the solder. Also, when soldering do not inhale any smoke or fumes produced.



NOTICE

(FOR CANADIAN MODEL ONLY)

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

REMARQUE

(POUR MODÈLE CANADIEN SEULEMENT)

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

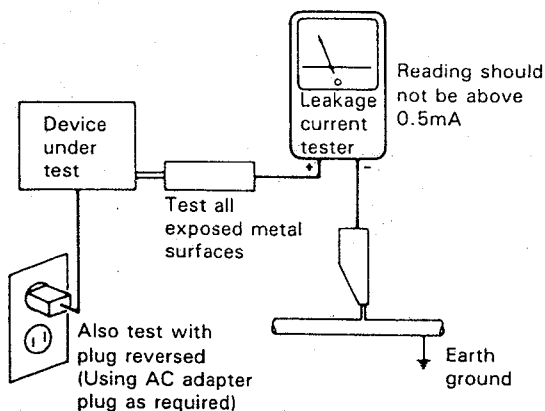
(FOR USA MODEL ONLY)

1. SAFETY PRECAUTIONS

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

LEAKAGE CURRENT CHECK

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



AC Leakage Test

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

2. PRODUCT SAFETY NOTICE

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

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

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

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

2. 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.

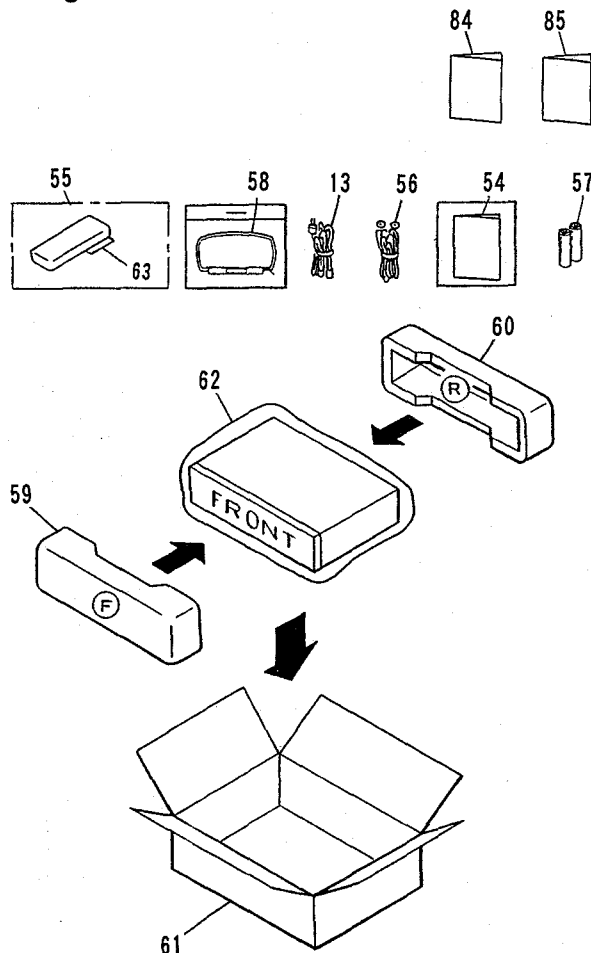
Parts List of Exterior and Packing

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
Δ	1	TRANSISTOR (Q3) (Except VSX-403)	2SA1302		15	REAR PANEL (MTL) (For VSX-453/KUXJ, KCXJ and VSX-463S)	ANC2166
Δ	1	TRANSISTOR (Q3) (For VSX-403)	2SA1804		15	REAR PANEL (MTL) (For VSX-453/SDXJ)	ANC2167
Δ	2	TRANSISTOR (Q4) (Except VSX-403)	2SA1302		15	REAR PANEL (MTL) (For VSX-403)	ANC2168
Δ	2	TRANSISTOR (Q4) (For VSX-403)	2SA1804	NSP	16	HEAT SINK (Except VSX-403)	ANH1472
Δ	3	TRANSISTOR (Q6) (Except VSX-403)	2SA1265N	NSP	16	HEAT SINK (For VSX-403)	ANH1461
Δ	3	TRANSISTOR (Q6) (For VSX-403)	2SA1804		17	INSULATOR (Except VSX-403)	AMR2592
Δ	4	POWER TRANSISTOR (Q8)	2SA1803		18	VOLUME HOLDER (MTL)	ANG1901
Δ	5	TRANSISTOR (Q1) (Except VSX-403)	2SC3281		19	INSULATOR (Except VSX-403)	PNW1912
Δ	5	TRANSISTOR (Q1) (For VSX-403)	2SC4689	NSP	20	PCB SUPPORT	AEC1013
Δ	6	TRANSISTOR (Q2) (Except VSX-403)	2SC3281		21	PCB HOLDER	AEC1583
Δ	6	TRANSISTOR (Q2) (For VSX-403)	2SC4689		22	SHEET (Except VSX-403)	AEE1014
Δ	7	TRANSISTOR (Q5) (Except VSX-403)	2SC3182N		23	
Δ	7	TRANSISTOR (Q5) (For VSX-403)	2SC4689		24	PCB MOLD (PP)	AMR2533
Δ	8	POWER TRANSISTOR (Q7)	2SC4688		25	PCB MOLD (PP)	AMR2534
Δ	9	POWER TRANSFORMER (T1) (For VSX-453/KUXJ, KCXJ and VSX-463S)	ATS1521		26	SPACER (PLS)	AMR2544
Δ	9	POWER TRANSFORMER (T1) (For VSX-453/SDXJ)	ATS1522		27	SCREW	ABA-298
Δ	9	POWER TRANSFORMER (T1) (For VSX-403/KUXJ)	ATS1523		28	SCREW	ABA1018
Δ	9	POWER TRANSFORMER (T1) (For VSX-403/KCXJ)	ATS1549		29	SCREW	ABA1024
Δ	10	FUSE (4A/125V, FU3)	REK1066		30	SCREW (STEEL)	ABA1053
Δ	11	FUSE (4A/125V, FU4)	REK1066		31	SCREW	ABA1147
Δ	12	FUSE (8A/125V, FU1) (For VSX-453/KUXJ, KCXJ and VSX-463S)	AEK1002		32	SCREW	ABA1082
Δ	12	FUSE (4A/125V, FU1) (For VSX-453/SDXJ)	REK1066		33	SCREW	BBZ30P080FZK
Δ	12	FUSE (6.3A/125V, FU1) (For VSX-403)	REK1069		34	SCREW	BCZ30P080FMC
Δ	13	AC POWER CORD (For VSX-453/KUXJ and VSX-403/KUXJ)	ADG1152		35	SCREW	BPZ26P080FMC
Δ	13	AC POWER CORD (For VSX-453/KCXJ, VSX-463S/KCXJ and VSX-403/KCXJ)	ADG1126		36	NUT	NK90FUC
Δ	13	AC POWER CORD (For VSX-453/SDXJ)	ADG1129		37	FRONT PANEL (PLS) (For VSX-453)	AMB2229
NSP	14	CHASSIS (MTL)	ANA1212		37	FRONT PANEL (PLS) (For VSX-463S)	AMB2487
					37	FRONT PANEL (PLS) (For VSX-403)	AMB2230
					38	DISPLAY PANEL (PLS)	AAK2558
					39	SASH (PLS)	AAK2445
					40	INDICATER PANEL A	AAK2450
					41	INDICATER PANEL B	AAK2451
					42	SASH S (PLS)	AAP1368
					43	NAME PLATE	PAM1608
					44	LED LENS	PNW2019
					45	ROUND KNOB L (PLS)	AAB1340
					46	ROUND KNOB M (PLS)	AAB1341
					47	FUNCTION BUTTON (PLS)	AAD2412
					48	HINGE BUTTON A (PLS)	AAD2413
					49	HINGE BUTTON B (PLS)	AAD2414
					50	SPEAKER BUTTON (PLS)	AAD2416

Mark	No.	Description	Parts No.
	51	TACT BUTTON (PLS)	AAD2417
	52	POWER BUTTON (PLS)	AAD2418
	53	BONNET CASE (MTL)	ANE1431
	54	OPERATING INSTRUCTIONS (English)	ARB1466
	54	OPERATING INSTRUCTIONS (For VSX-453/KUXJ and SDXJ)	ARB1467
	55	REMOTE CONTROL UNIT (CU-VSX085)	AXD1386
	55	REMOTE CONTROL UNIT (CU-VSX083) (For VSX-463S)	AXD1387
NSP	56	FM ANTENNA	ADH1017
NSP	57	BATTERY (R6P, AA) (Except VSX-463S)	AEX-010
NSP	57	BATTERY (LR6, AA) (For VSX-463S)	AEX1007
	58	LOOP ANTENNA (L8041)	ATB1009
	59	FRONT PAD (PS)	AHA1665
	60	REAR PAD (PS)	AHA1666
	61	PACKING CASE (For VSX-453/KUXJ and KCXJ)	AHD2678
	61	PACKING CASE (For VSX-453/SDXJ)	AHD2680
	61	PACKING CASE (For VSX-463S)	AHD2679
	61	PACKING CASE (For VSX-403)	AHD2681
	62	PACKING SHEET	AHG1210
	63	BATTERY COVER (except VSX-463S)	AZA7031
	64	MOTHER ASSY (For VSX-453/KUXJ, KCXJ and VSX-463S)	AWZ5376
	64	MOTHER ASSY (For VSX-453/SDXJ)	AWZ5443
	64	MOTHER ASSY (For VSX-403)	AWZ5377
	65	FRONT ASSY (Except VSX-453/SDXJ)	AWZ5375
	65	FRONT ASSY (For VSX-453/SDXJ)	AWZ5442
	66	REG. ASSY	AWZ5373
	67	FUNC ASSY	AWZ5379
	68	POWER. AMP ASSY (Except VSX-403)	AWZ5385
	68	POWER. AMP ASSY (For VSX-403)	AWZ5387
	69	VIDEO ASSY	AWZ5381
	70	VOL ASSY	AWZ5386
	71	TONE ASSY	AWZ5382
	72	R, C. SP ASSY (Except VSX-403)	AWZ5566
	72	R, C. SP ASSY (For VSX-403)	AWZ5567
	73	FM/AM TUNER MODULE	AXQ3112
	74	H. PHNE, SP. SW ASSY	AWZ5384
	75	TRANS ASSY	AWZ5380

Mark	No.	Description	Parts No.
	76	DOL. PRO. MOD. ASSY	AXQ3121
	77	
△	78	VOLTAGE SELECTOR (S1) (VSX-453/SDXJ only)	AKX-507
△	79	VOLTAGE SELECTOR (S2) (VSX-453/SDXJ only)	AKX1004
	80	65 LABEL (KUXJ type only)	ORW1069
△	81	FUSE (4A/125V, FU2) (VSX-453/SDXJ only)	REK1066
NSP	82	FUSE HOLDER (VSX-453/SDXJ only)	AKR1005
	83	SCREW (VSX-453/SDXJ only)	ABA1009
	84	OPERATING INSTRUCTIONS (English and French) (For VSX-453/KCXJ and VSX-463S/KCXJ)	ARE1299
	84	OPERATING INSTRUCTIONS (French) (For VSX-403/KCXJ)	ARC1454
	85	OPERATING INSTRUCTIONS (Chinese and Spanish) (VSX-453/SDXJ only)	ARC1453
	86	FOOT (For VSX-403/KUXJ and KCXJ)	AEC1505
	87	LEAD WIRE (J13)	ADX1915
	88	SCREW	ABA1054

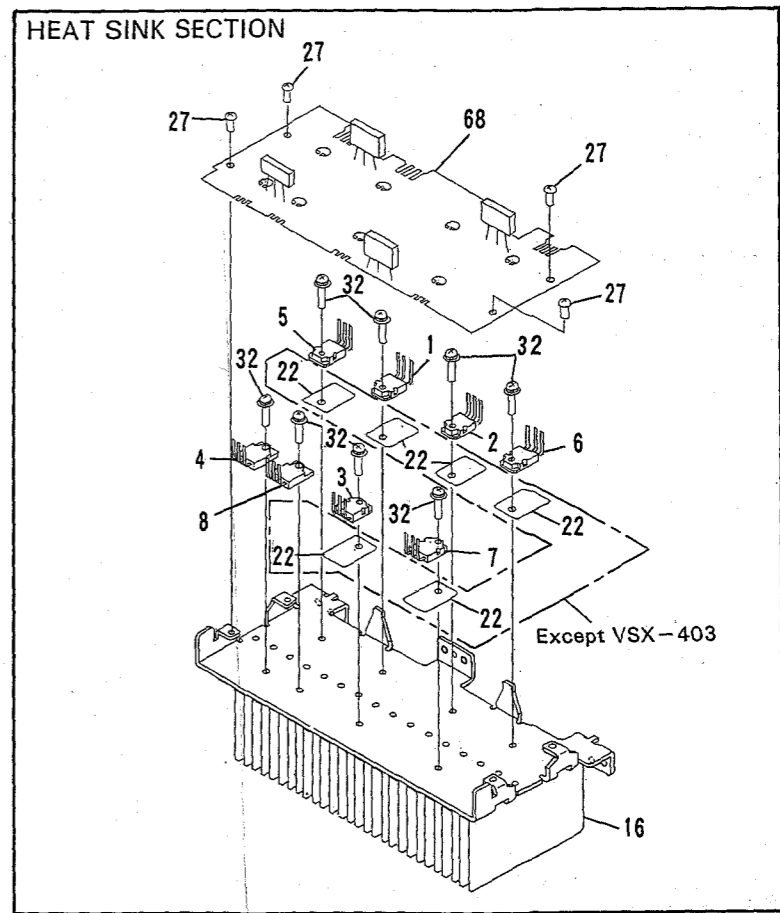
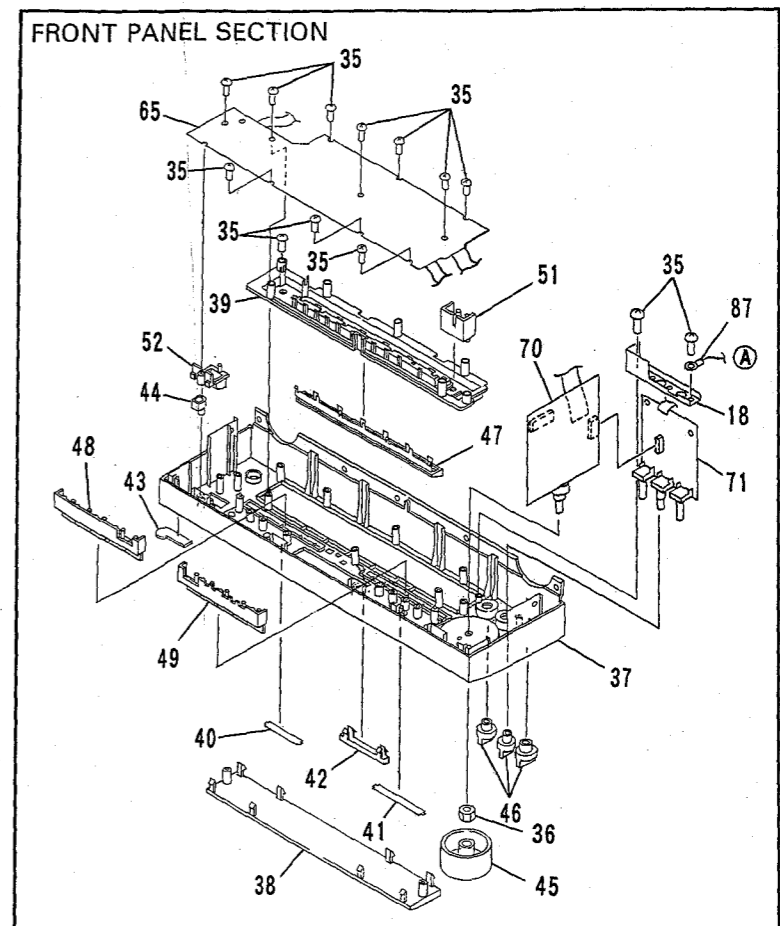
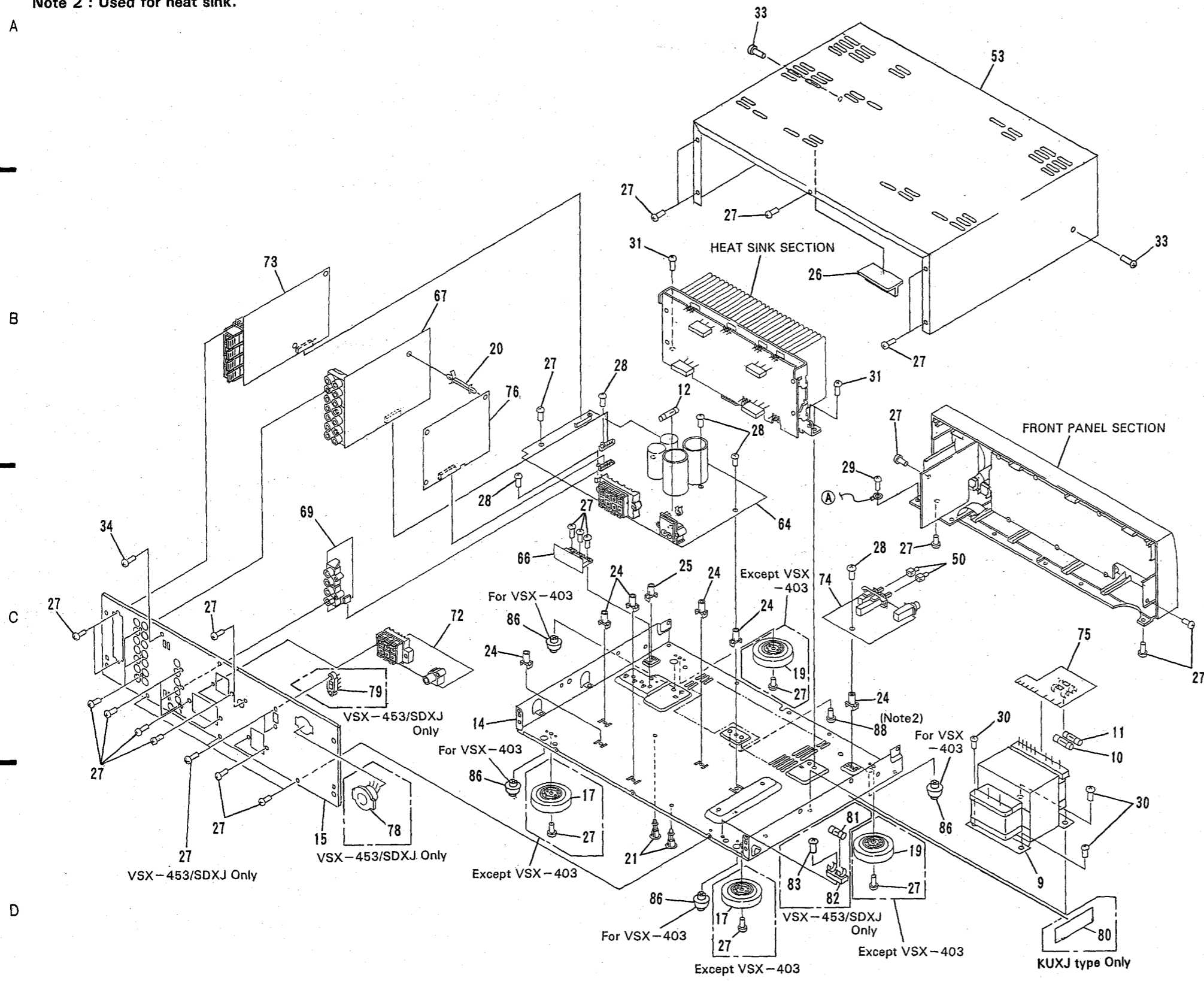
● Packing



● Exterior

Note 1 : Screws adjacent to ▼ mark on the product are used for disassembly.

Note 2 : Used for heat sink.



3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

3.1 OVERALL SCHEMATIC DIAGRAM

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: k Ω , M: M Ω , or Ω 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 $\pm 5\%$ unless otherwise noted.
- CAPACITORS:**
Unit: p: pF or μ F unless otherwise noted.
Ratings: capacitor (μ F)/ voltage (V) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.
- COILS:**
Unit: m: mH or μ H unless otherwise noted.
- VOLTAGE AND CURRENT:**
V: Signal voltage at rated output.
or - V: DC voltage (V) at no input signal unless otherwise noted.
Value in () is DC voltage at rated power.
mA: DC current at no input signal unless otherwise noted.

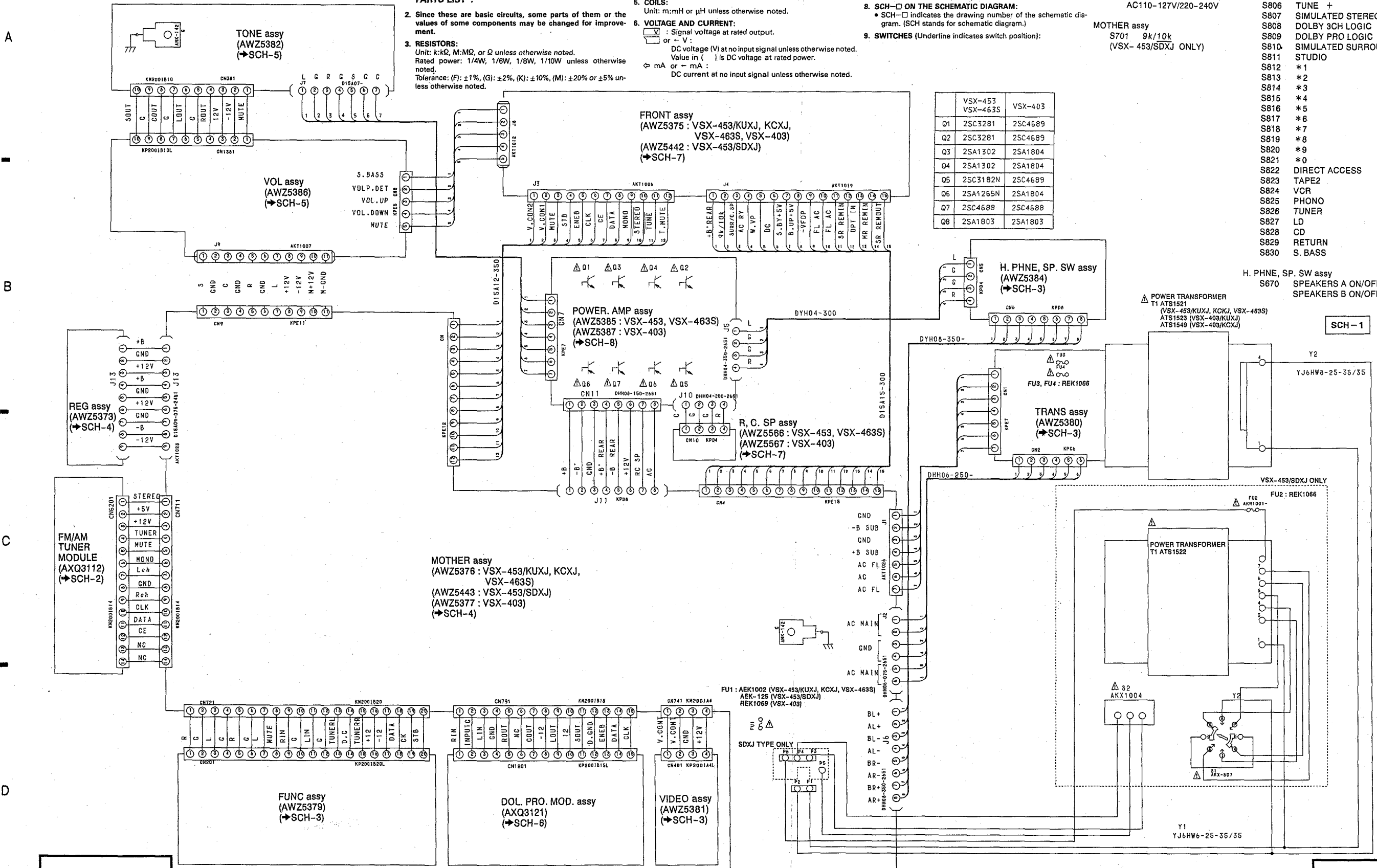
- OTHERS:**
 - ⊙ or ⊛: Adjusting point.
 - ⊙: Measurement point.
 - The Δ mark found on some component parts indicates the importance of the safety factor of the parts. Therefore, when replacing, be sure to use parts of identical designation.
- SCH-□ ON THE SCHEMATIC DIAGRAM:**
 - SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
- SWITCHES** (Underline indicates switch position):

- S1 VOLTAGE SELECTOR (VSX-453/SDXJ ONLY)
AC110V/120-127V/220V/240V
- S2 VOLTAGE SELECTOR (VSX-453/SDXJ ONLY)
AC110-127V/220-240V

- MOTHER assy
S701 9k/10k (VSX-453/SDXJ ONLY)

- FRONT assy
- S801 POWER
 - S802 BAND FM/AM
 - S803 MPX MODE
 - S804 MEMORY
 - S805 TUNE -
 - S806 TUNE +
 - S807 SIMULATED STEREO
 - S808 DOLBY 3CH LOGIC
 - S809 DOLBY PRO LOGIC
 - S810 SIMULATED SURROUND
 - S811 STUDIO
 - S812 *1
 - S813 *2
 - S814 *3
 - S815 *4
 - S816 *5
 - S817 *6
 - S818 *7
 - S819 *8
 - S820 *9
 - S821 *0
 - S822 DIRECT ACCESS
 - S823 TAPE2
 - S824 VCR
 - S825 PHONO
 - S826 TUNER
 - S827 LD
 - S828 CD
 - S829 RETURN
 - S830 S. BASS

	VSX-453	VSX-403
Q1	2SC3281	2SC4689
Q2	2SC3281	2SC4689
Q3	2SA1302	2SA1804
Q4	2SA1302	2SA1804
Q5	2SC3182N	2SC4689
Q6	2SA1265N	2SA1804
Q7	2SC4688	2SC4688
Q8	2SA1803	2SA1803



SCH-1

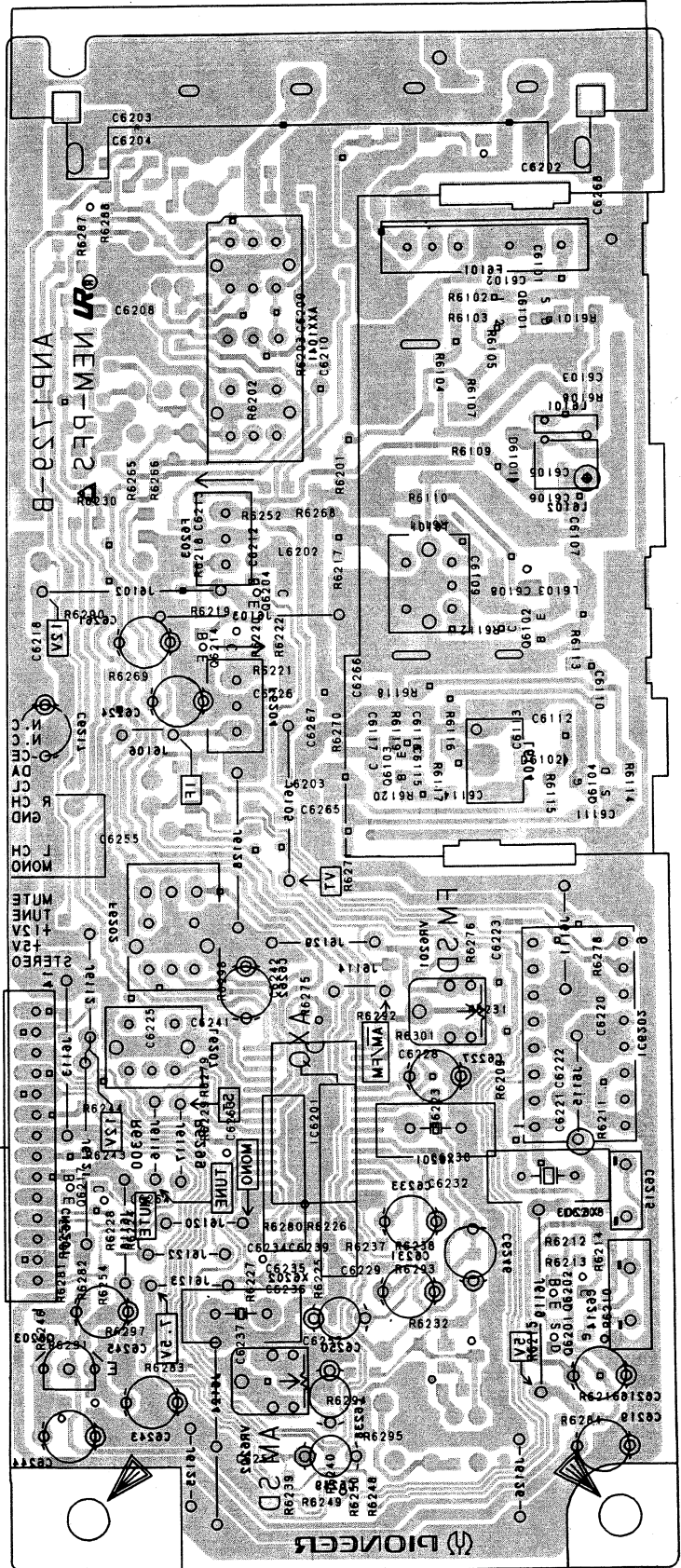
OVERALL SCHEMATIC DIAGRAM

SCH-1

OVERALL SCHEMATIC DIAGRAM

3.5 FM/AM TUNER MODULE

FM ANTENNA TERMINAL
AM ANTENNA TERMINAL



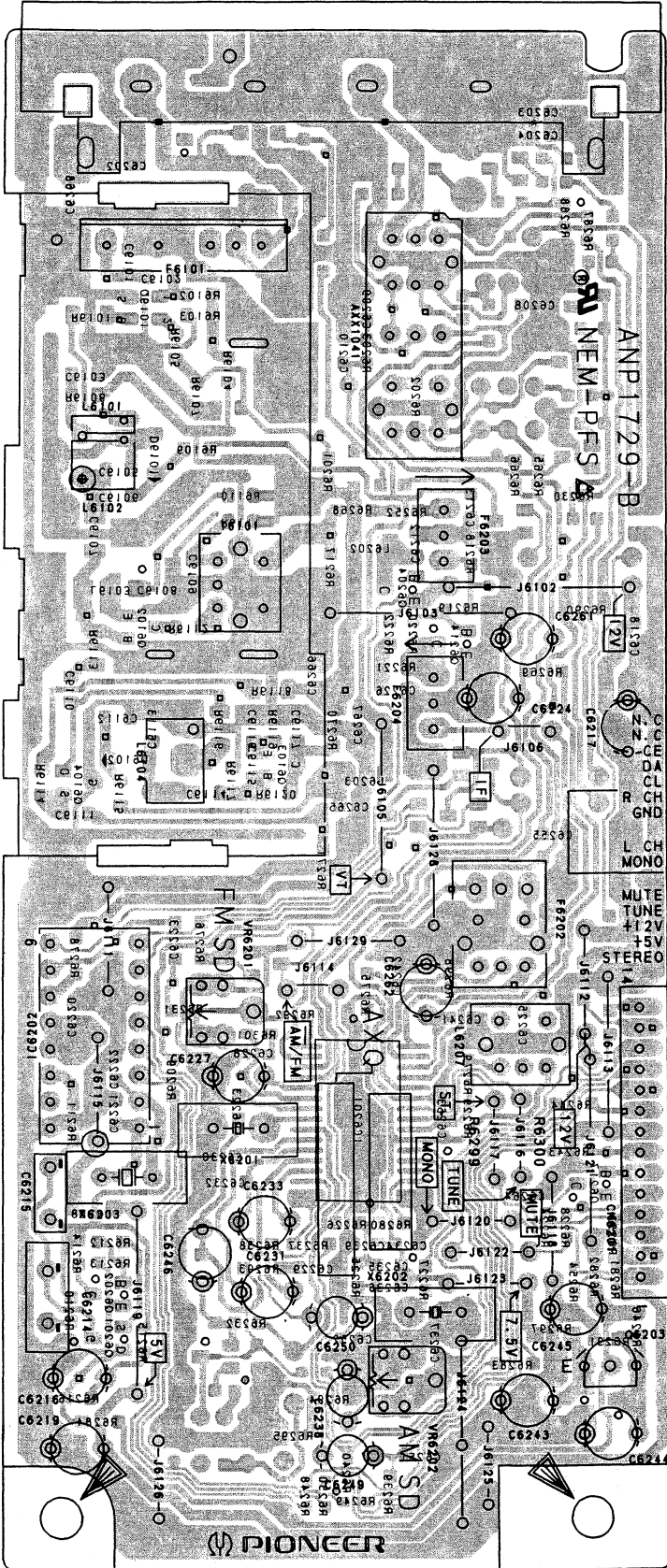
TO MOTHER BOARD CN11

• This diagram is viewed from the foil side.

- S0S8FV
- E0S8O
- C6201
- C6202
- Q6217
- IC6201
- I0S8FV
- S0S8CJ
- C6103
- C6214
- Q6104
- Q6204
- Q6102
- Q6101

3.2 FM/AM TUNER MODULE

AM ANTENNA TERMINAL FM ANTENNA TERMINAL FM/AM TUNER MODULE



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
<p>Q504</p>	<p>Q504 Q504</p>	Transistor
<p>D203</p>	<p>D203</p>	Diode
<p>C513</p>	<p>C513</p>	Capacitor (Polarized)

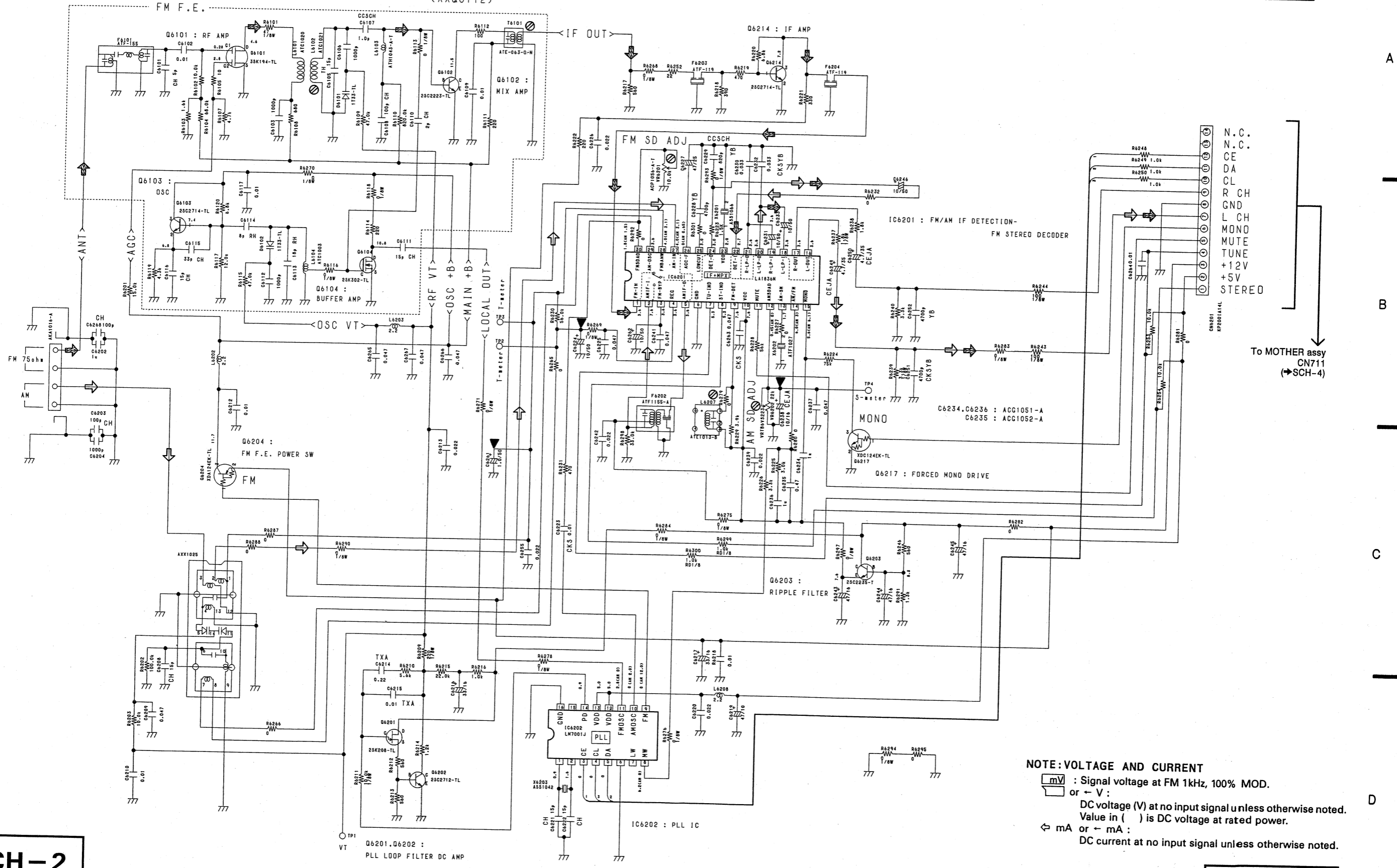
3. The transistor terminal marked with E or □ shows the emitter.
4. The diode terminal marked with ⊙ or ◻ shows cathode side.
5. The capacitor terminal marked with ⊕ or ◻ shows negative terminal.

To MOTHER assy CN711

• This diagram is viewed from the mounted parts side.

⇨: FM signal route
⇨: AM signal route

FM/AM TUNER MODULE
(AXQ3112)



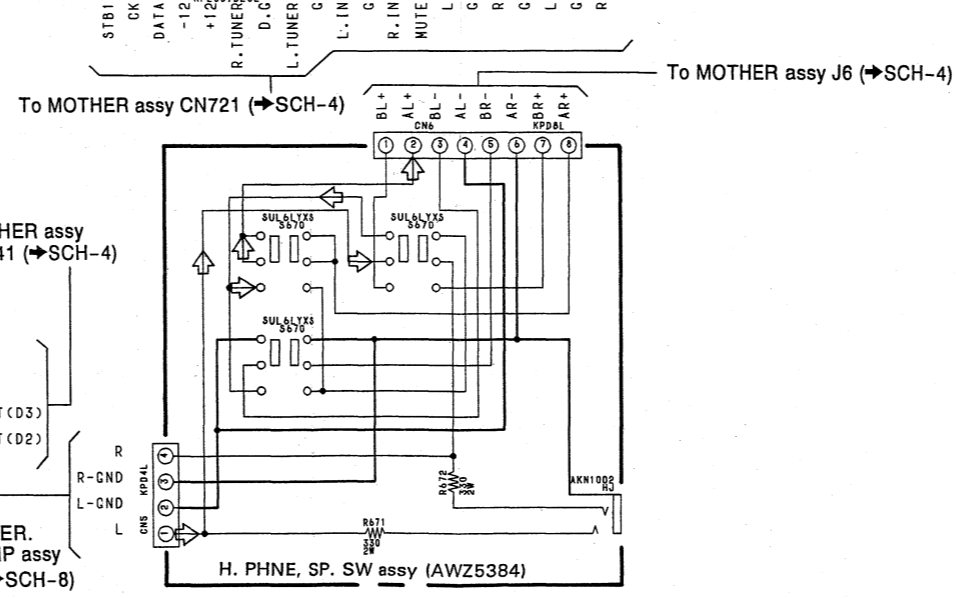
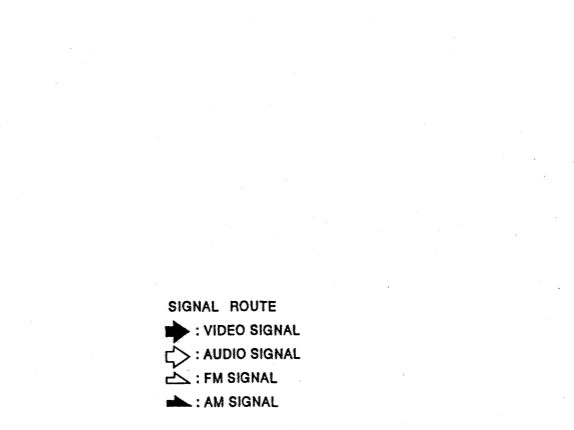
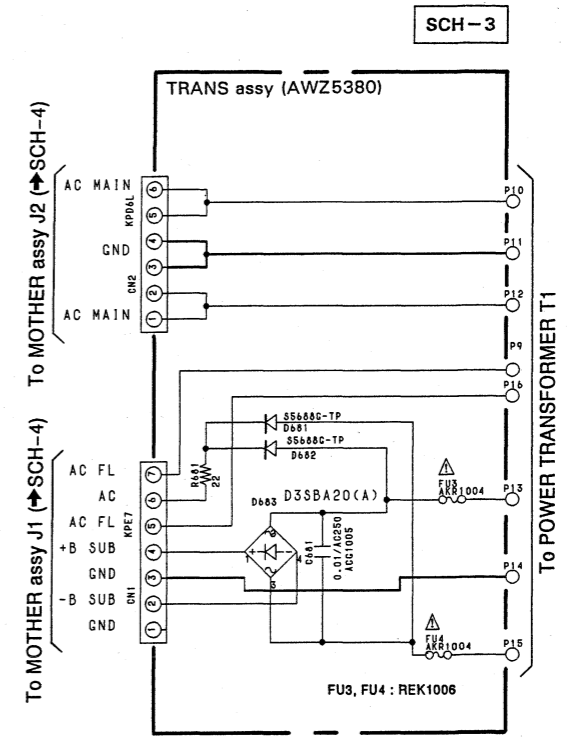
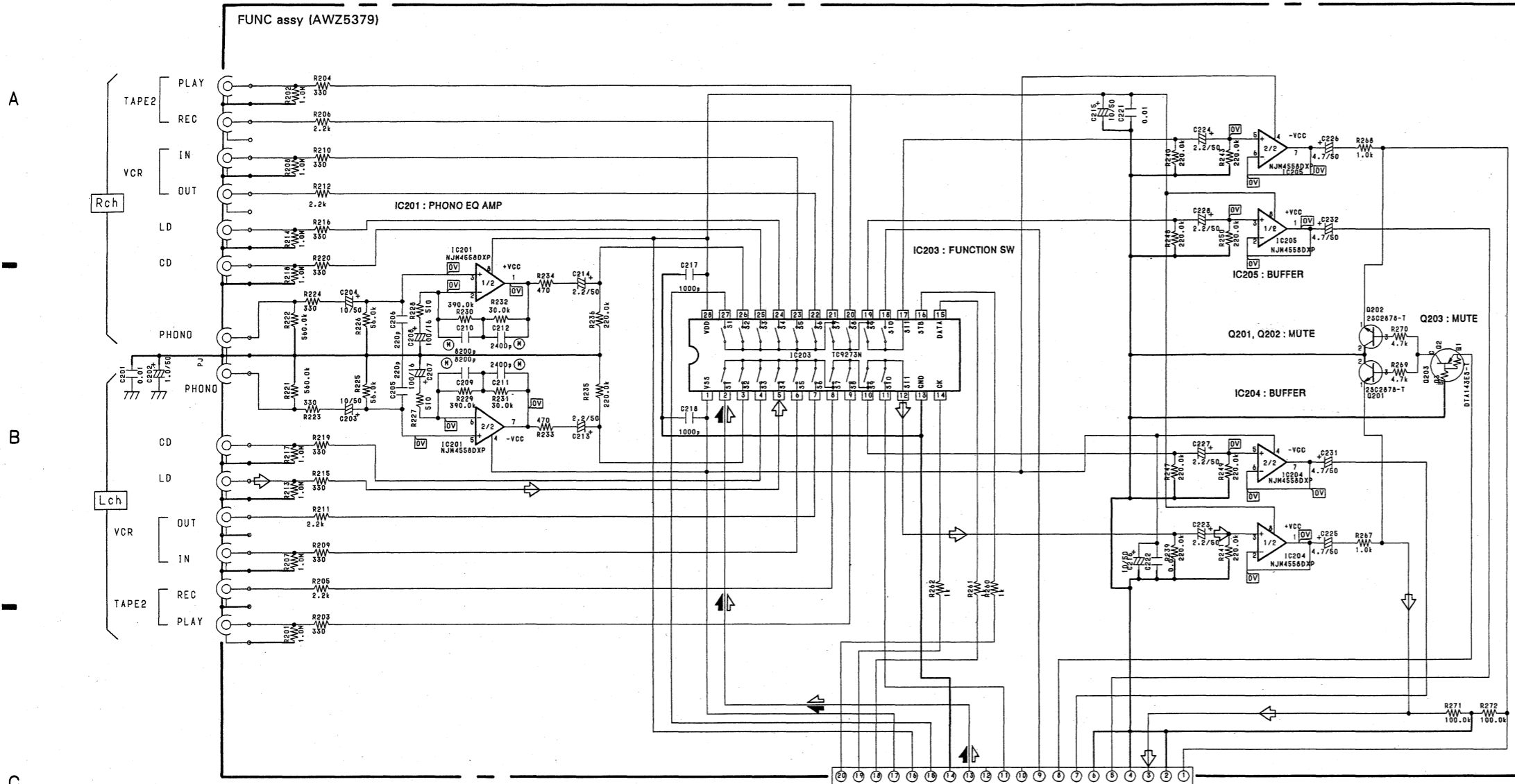
- N.C.
- N.C.
- CE
- DA
- CL
- R CH
- GND
- L CH
- MONO
- MUTE
- TUNE
- +12V
- +5V
- STEREO

To MOTHER assy
CN711
(→SCH-4)

NOTE: VOLTAGE AND CURRENT

mV : 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.

3.3 FUNC ASSY, VIDEO ASSY, H. PHNE, SP. SW ASSY AND TRANS ASSY

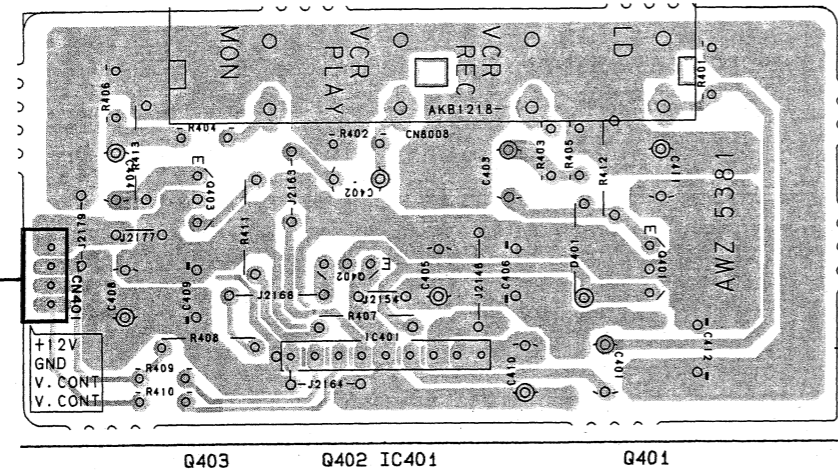


SIGNAL ROUTE
 ▶ : VIDEO SIGNAL
 ◀ : AUDIO SIGNAL
 ◀ : FM SIGNAL
 ▶ : AM SIGNAL

SCH-3 FUNC ASSY, VIDEO ASSY, H. PHNE, SP. SW ASSY, TRANS ASSY

SCH-3 FUNC ASSY, VIDEO ASSY, H. PHNE, SP. SW ASSY, TRANS ASSY

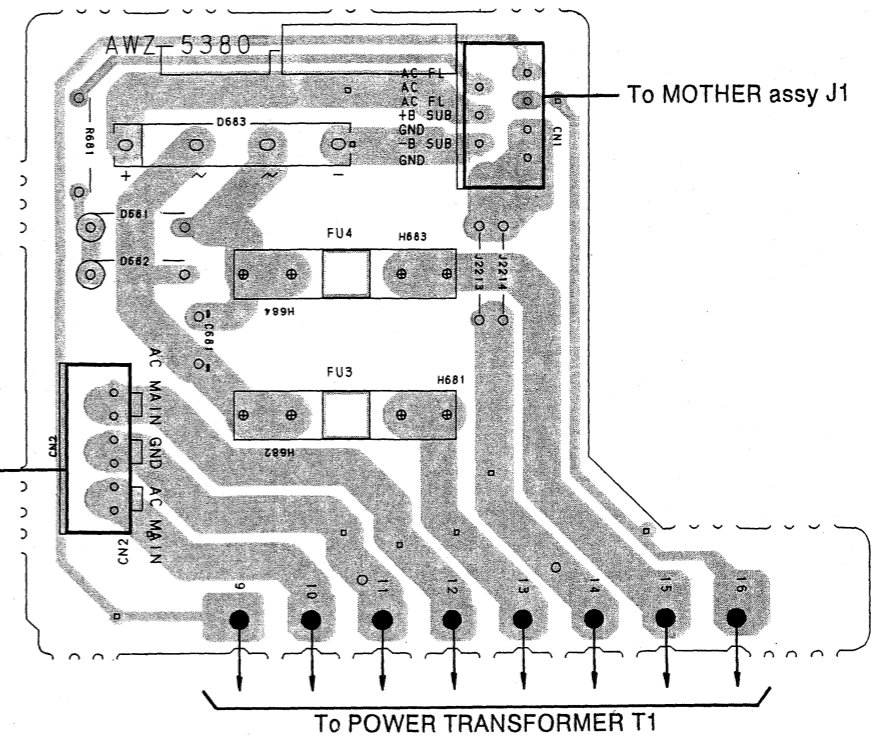
VIDEO assy



To MOTHER assy CN741

• This diagram is viewed from the mounted parts side.

TRANS assy

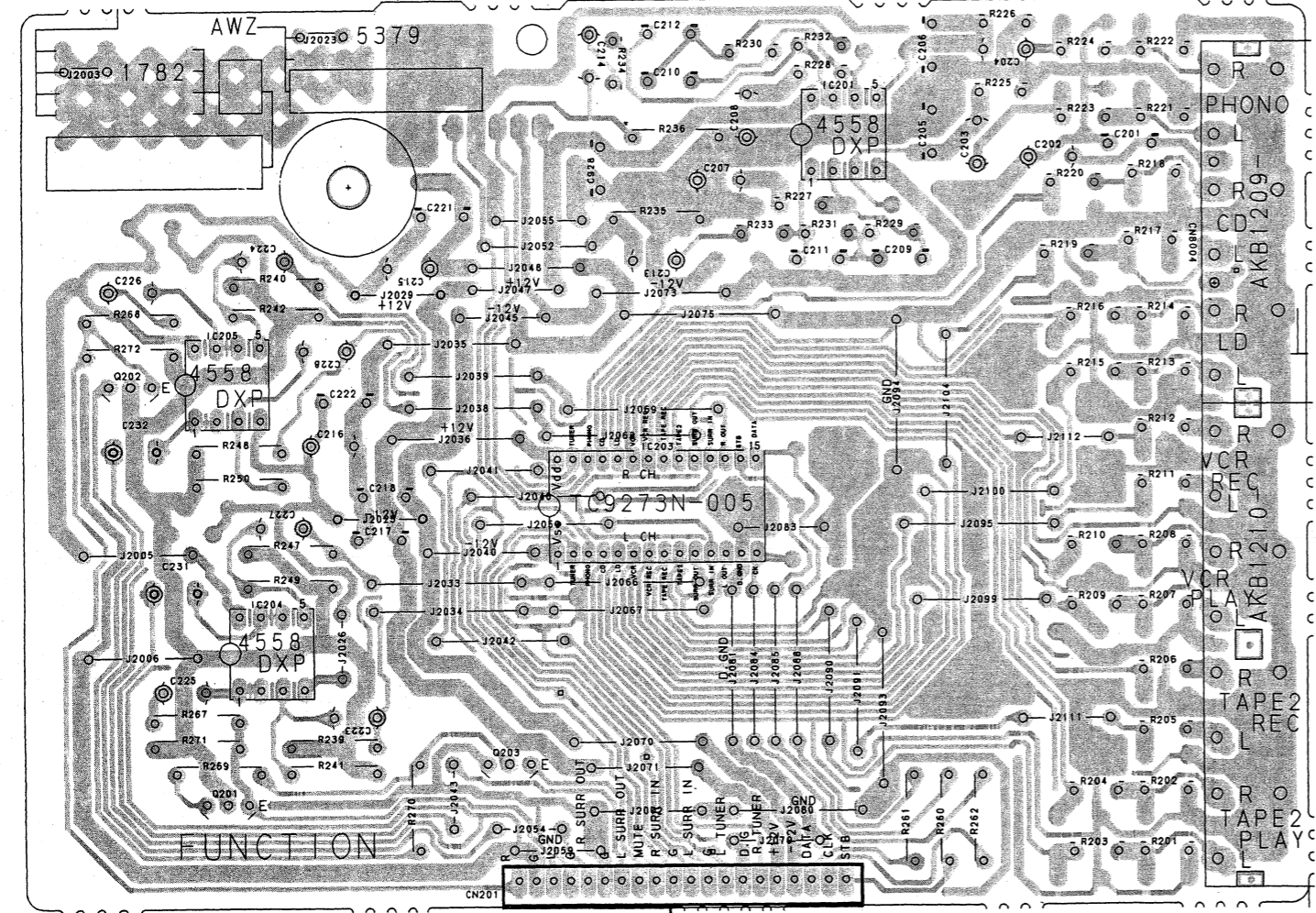


To MOTHER assy J1

To MOTHER assy J2

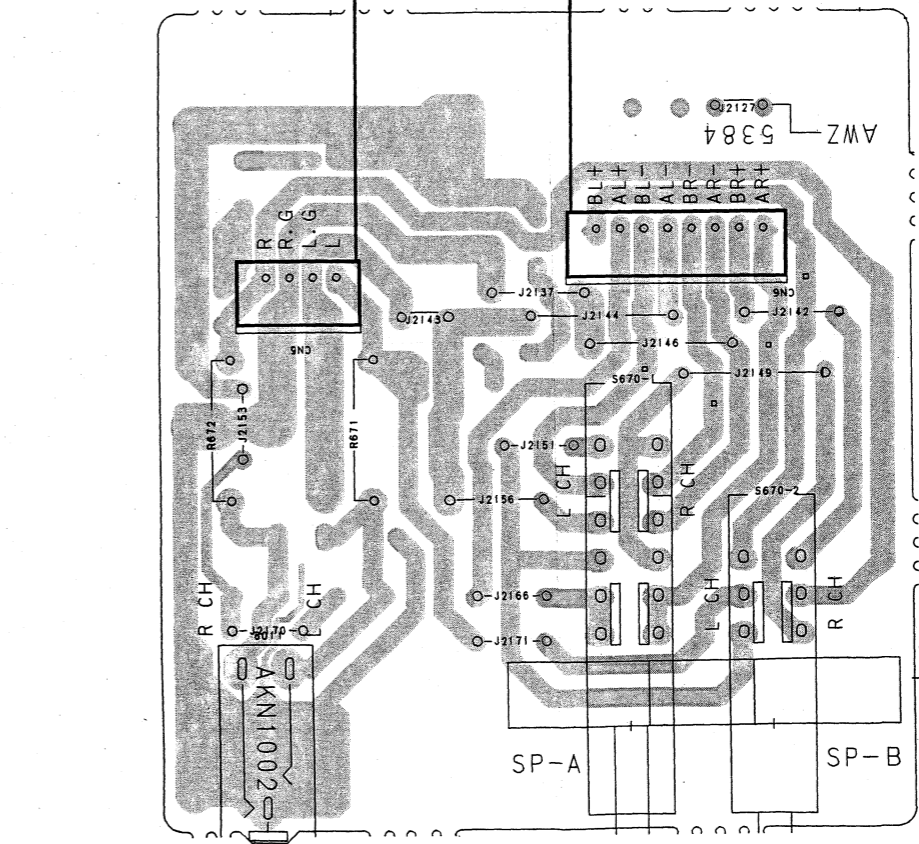
To POWER TRANSFORMER T1

FUNC assy



To MOTHER assy CN721

H. PHNE, SP. SW assy



To POWER. AMP assy J5

To MOTHER assy J6

3.4 MOTHER ASSY AND REG ASSY

A

B

C

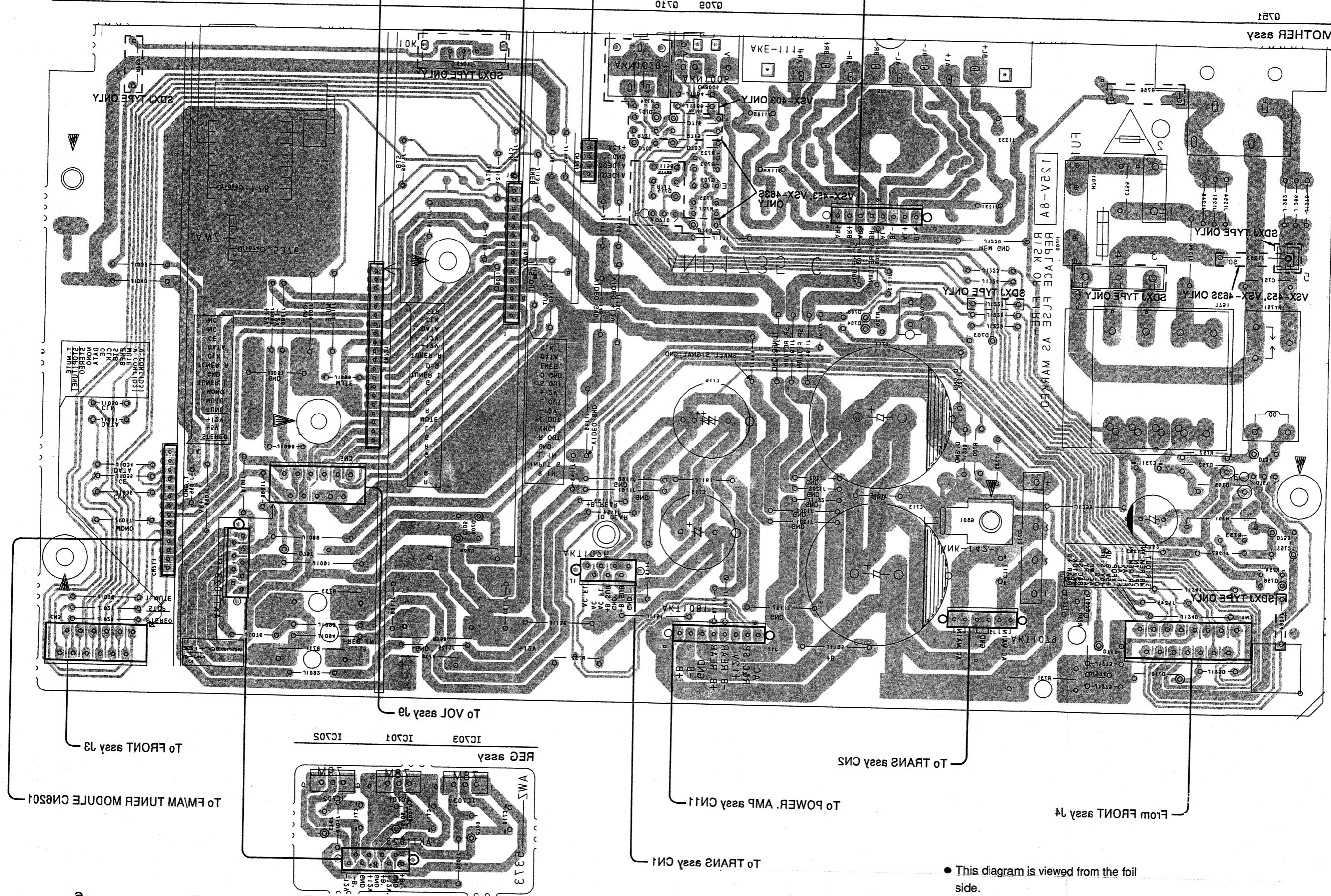
D

A

B

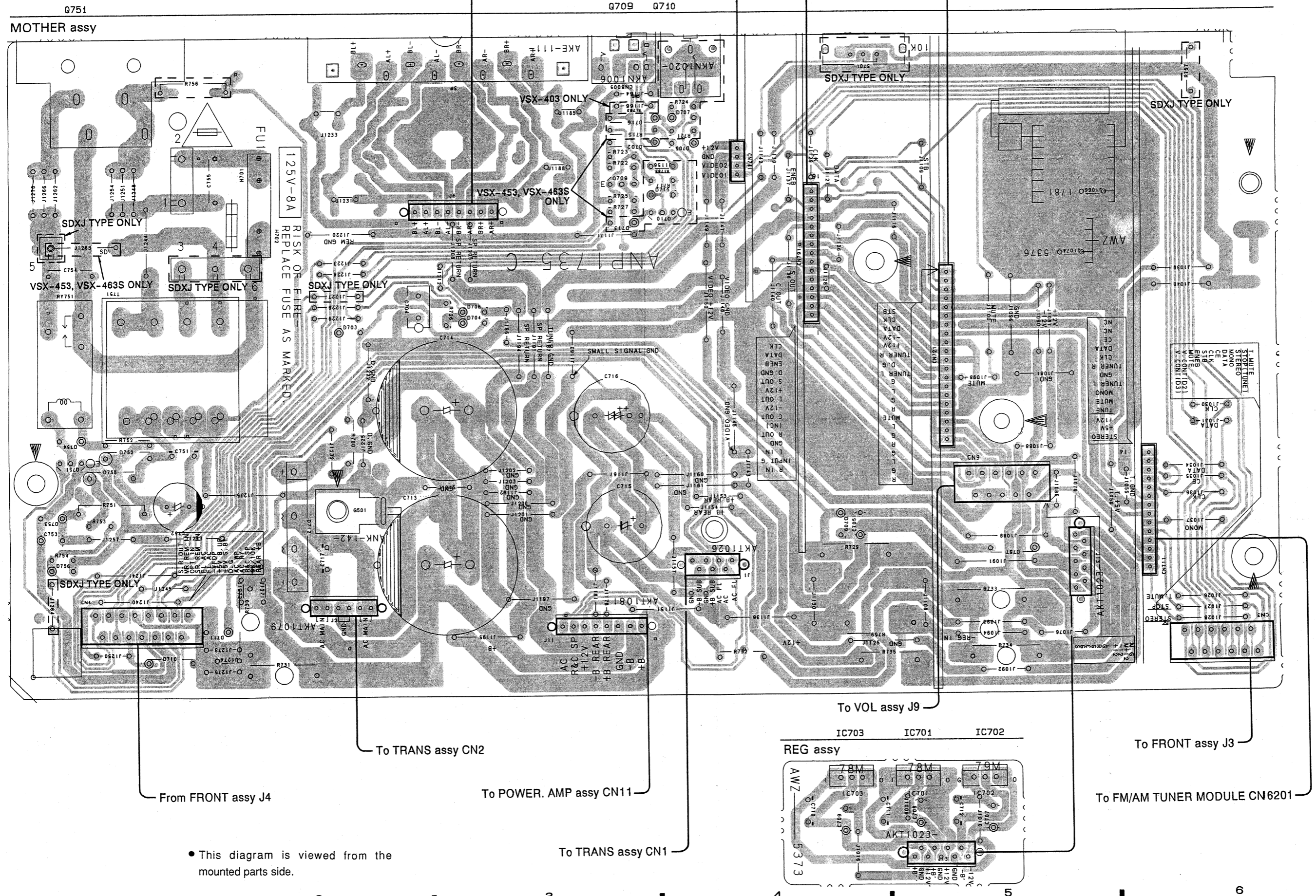
C

D

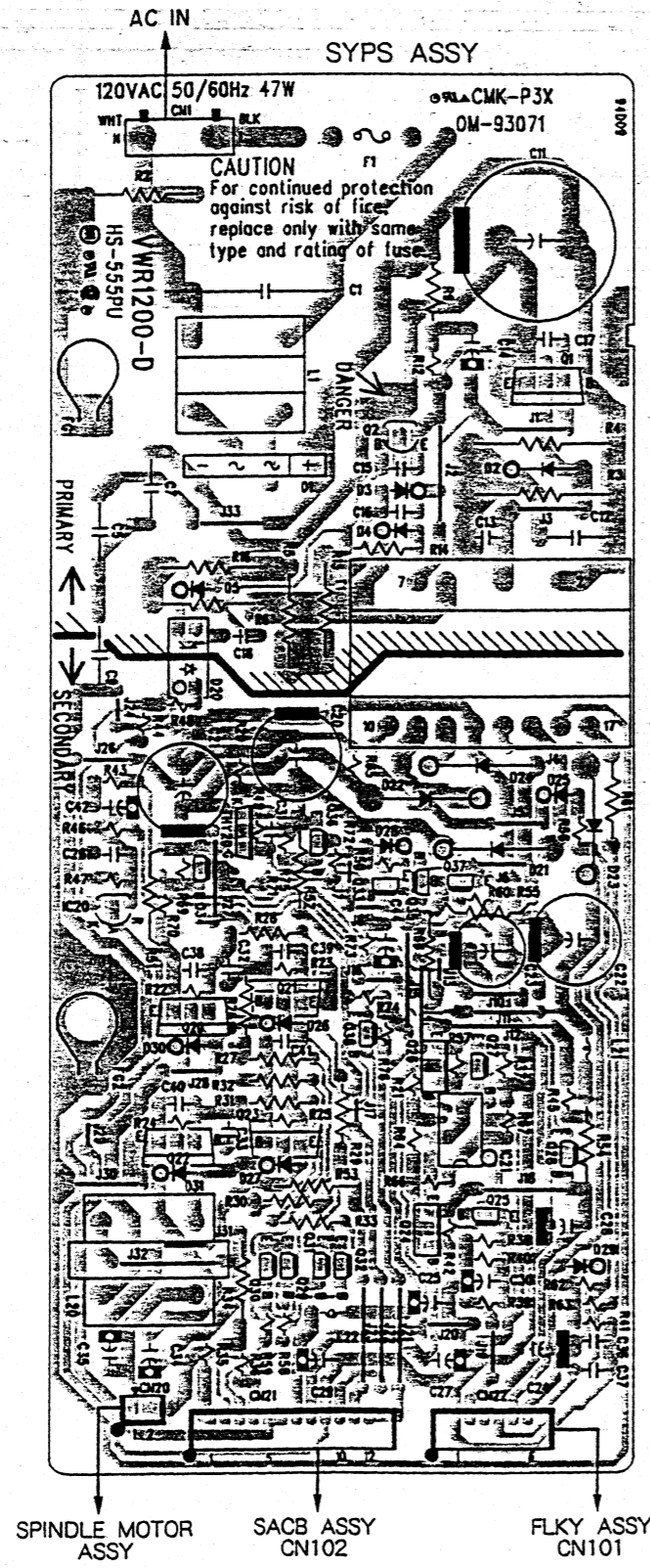


• This diagram is viewed from the foil side.

3.4 MOTHER ASSY AND REG ASSY



• This diagram is viewed from the mounted parts side.



PCB-2

NOTE FOR SCHEMATIC DIAGRAMS (Type 4A)

- 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 Ω , or Ω unless otherwise noted.
Rated power: 1/4W, 1/8W, 1/8W, 1/10W unless otherwise noted.
Tolerance: (F): $\pm 1\%$, (G): $\pm 2\%$, (K): $\pm 10\%$, (M): $\pm 20\%$ or $\pm 5\%$ unless otherwise noted.
- CAPACITORS:**
Unit: p μ F or μ F unless otherwise noted.
Ratings: capacitor (μ F) / voltage (V) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.
- COILS:**
Unit: m μ H or μ H unless otherwise noted.
- VOLTAGE AND CURRENT:**
□ or -V: DC voltage (V) in PLAY mode unless otherwise noted.
mA or -mA: DC current in PLAY mode unless otherwise noted.
Value in () is DC current in STOP mode.
- OTHERS:**
⊙ or ○: Adjusting point.
◀: 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:**
SCH-□ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)
- SWITCHES (Underline indicates switch position):**
FLKY ASSY
S101: DIRECT CD
S102: DISC SIDE A
S103: DISC SIDE B
S104: FILM MODE
S105: FL OFF
S106: OPEN/CLOSE(▲)
S107: PLAY/PAUSE(▶/||)
S108: STOP(■)
- PONS ASSY
S201: POWER(STANDBY/ON)
- LOSB ASSY
S1: SW1
S2: SW2
S3: SW3

NOTE FOR PCB DIAGRAMS:

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

SPINDLE MOTOR ASSY SACB ASSY CN102 FLKY ASSY CN101

• This diagram is viewed from the mounted parts side.

FL IN
VAW
FL TU
ANOD

• PIN

Pin 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
26
27

F1, F2
a-r: A

NOTE FOR SCHEMATIC DIAGRAMS (Type 4A)

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: kΩ, M: MΩ, or Ω unless otherwise noted.
Rated power: 1/4W, 1/5W, 1/8W, 1/10W unless otherwise noted.
Tolerance: (F): ±1%, (G): ±2%, (K): ±10%, (M): ±20% or ±5% unless otherwise noted.

4. **CAPACITORS:**
Unit: p: pF or μ: μF unless otherwise noted.
Ratings: capacitor (μF) / voltage (V) unless otherwise noted.
Rated voltage: 50V except for electrolytic capacitors.

5. **COILS:**
Unit: mmH or μH unless otherwise noted.

6. **VOLTAGE AND CURRENT:**
□ or ←V: DC voltage (V) in PLAY mode unless otherwise noted.
←mA or ←mA: DC current in PLAY mode unless otherwise noted.
Value in () is DC current in STOP mode.

7. **OTHERS:**
⊙ or ⊙: Adjusting point.
◀: 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.

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):
FLKY ASSY
S101: DIRECT CD
S102: DISC SIDE A
S103: DISC SIDE B
S104: FILM MODE
S105: FL OFF
S106: OPEN/CLOSE (▲)
S107: PLAY/PAUSE (▶/||)
S108: STOP (■)

PONS ASSY
S201: POWER(STANDBY/ON)
LOSB ASSY
S1: SW1
S2: SW2
S3: SW3

NOTE FOR PCB DIAGRAMS:

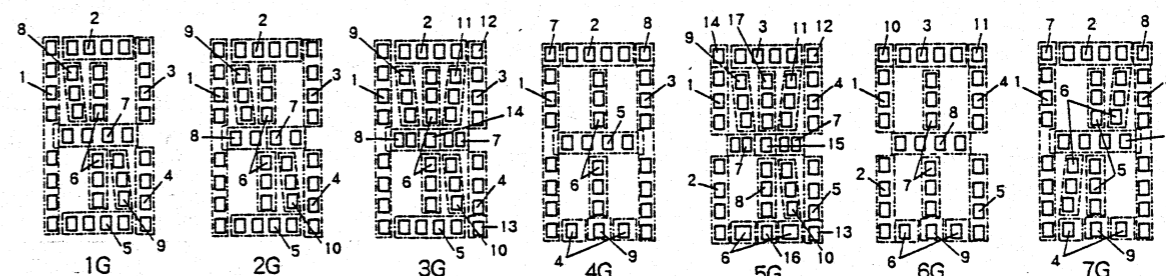
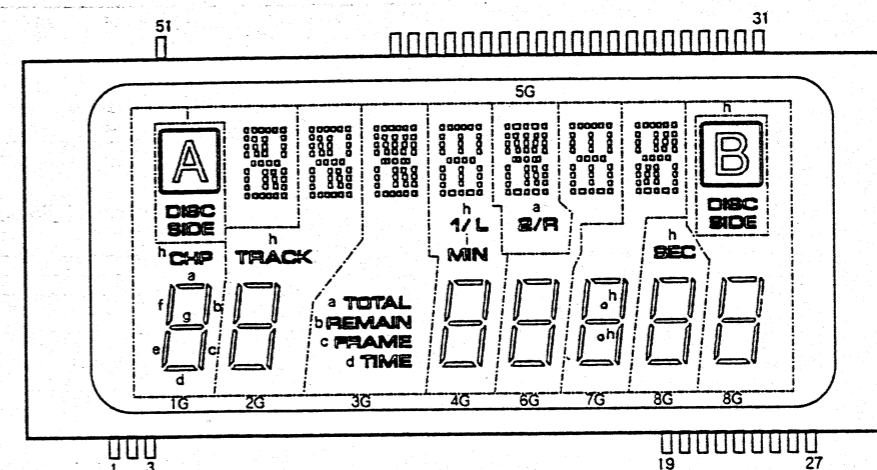
1. Part numbers in PCB diagrams match those in the schematic diagrams.
2. A comparison between the main parts of PCB and schematic diagrams is shown below.

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

FL INFORMATION

■ VAW1037 (V101:FLKY ASSY)
• FL TUBE

• ANODE GRID ASSIGNMENT



• PIN ASSIGNMENT

Pin No.	Assignment	Pin No.	Assignment
1	F1	28	NL
2	F1	29	NL
3	F1	30	NL
4	NL	31	g
5	NL	32	h
6	NL	33	i
7	NL	34	j
8	NL	35	k
9	NL	36	l
10	NL	37	m
11	NL	38	n
12	NL	39	o
13	NL	40	p
14	NL	41	a
15	NL	42	r
16	NL	43	9G
17	NL	44	8G
18	NL	45	7G
19	f	46	6G
20	e	47	5G
21	d	48	4G
22	c	49	3G
23	b	50	2G
24	a	51	1G
25	F2	52	NL
26	F2	53	NL
27	F2	54	NL

F1, F2: Filament
a~r: Anode
1G~9G: Grid
NL: No lead

• ANODE GRID ASSIGNMENT & PIN ASSIGNMENT

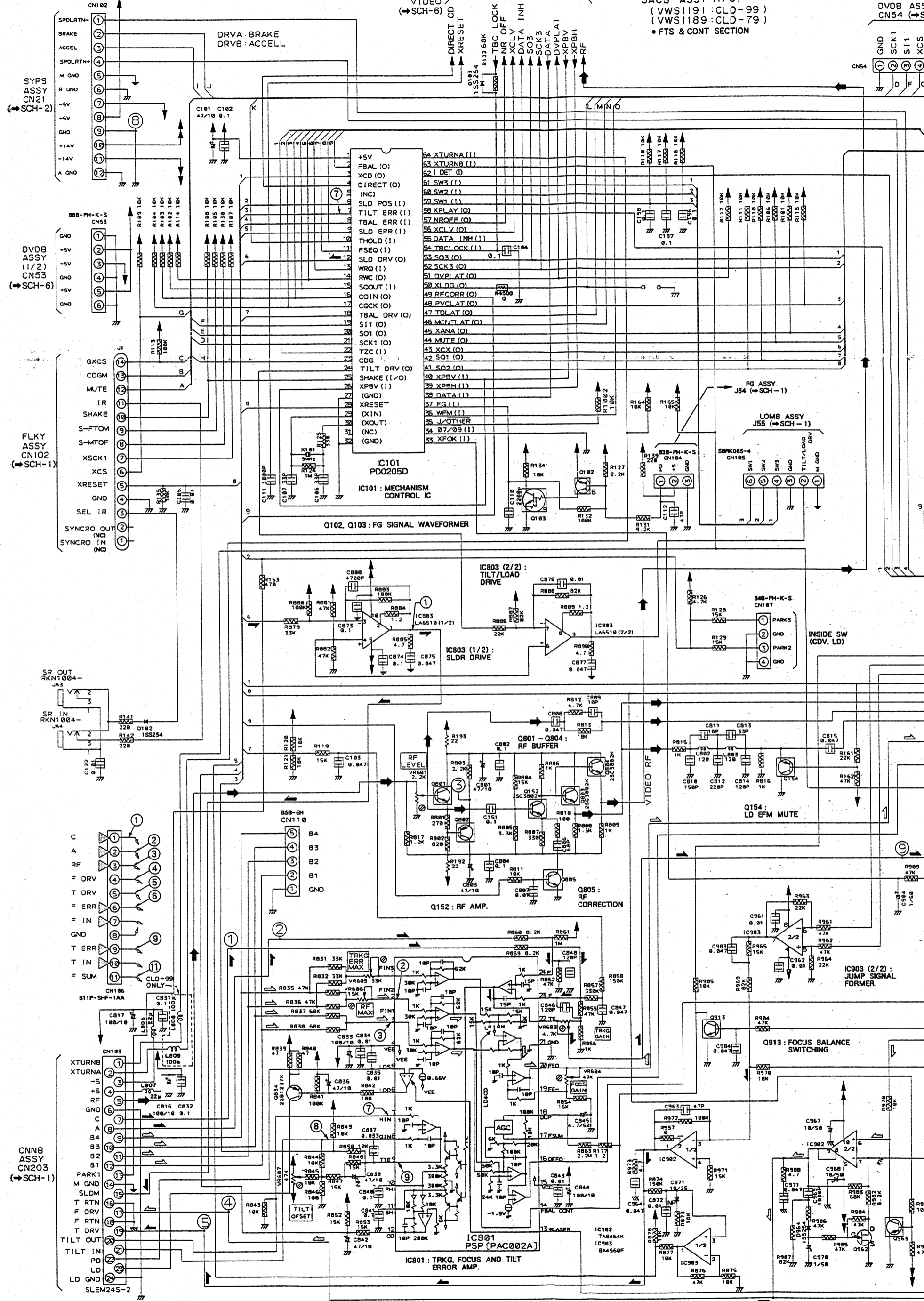
	1G	2G	3G	4G	5G	6G	7G	8G	9G
a	a	a	TOTAL	a	2/R	a	a	a	a
b	b	b	REMAIN	b	17	b	b	b	b
c	c	c	FRAME	c	16	c	c	c	c
d	d	d	TIME	d	15	d	d	d	d
e	e	e	14	e	14	e	e	e	e
f	f	f	13	f	13	f	f	f	f
g	g	g	12	g	12	g	g	g	g
h	CHP TRACK	11	1/L	11	11	11	11	11	DISC SIDE
i	DISC SIDE	10	10	MIN	10	10	10	10	
j	9	9	9	9	9	9	9	9	
k	8	8	8	8	8	8	8	8	
l	7	7	7	7	7	7	7	7	
m	6	6	6	6	6	6	6	6	
n	5	5	5	5	5	5	5	5	
o	4	4	4	4	4	4	4	4	
p	3	3	3	3	3	3	3	3	
q	2	2	2	2	2	2	2	2	
r	1	1	1	1	1	1	1	1	

Y20
3
7
20
1
0
8
6 Q27
2 IC21
3 Q28
4 Q25
9
2

3.3 SACB ASSY(1/3 : FTS & CONT SECTION)

SACB ASSY (1/3)
(VWS1191 : CLD-99)
(VWS1189 : CLD-79)
• FTS & CONT SECTION

DVDB ASSY
CN54 (SCH-6)



SYPS ASSY
CN21 (SCH-2)

DVDB ASSY
(1/2)
CN53 (SCH-6)

FLKY ASSY
CN102 (SCH-1)

SR OUT
RKN1004-JA3

SR IN
RKN1004-JA4

CNNB ASSY
CN203 (SCH-1)

CNNB ASSY
CN203 (SCH-1)

SCH-3

SACB ASSY (1/3)

Q834 : LD POWER SUPPLY

IC902 (1/2) : TRKG DRIVE

IC903 (1/2) : SLIDER ERROR AMP.

IC902 (2/2) : FOCUS DRIVE

Q963 : POWER ON

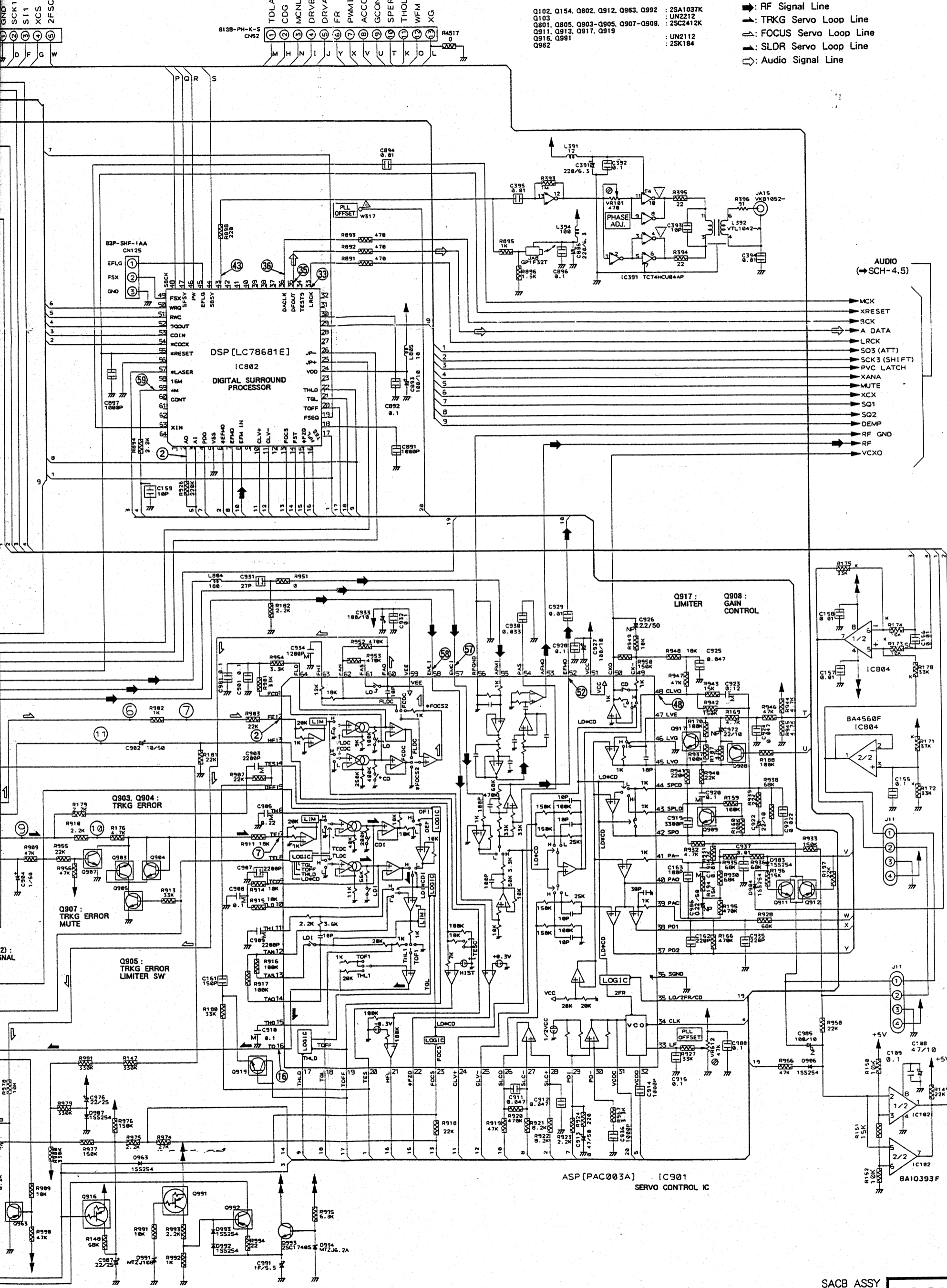
DV08 ASSY (1/2)
CN54 (SCH-6)

DV08 ASSY (1/2)
CN52 (SCH-6)

SCH-3

Q102, Q154, Q802, Q912, Q963, Q992 : 2SA1037K
 Q103 : UN2212
 Q801, Q805, Q903-Q905, Q907-Q909 : 2SC2412K
 Q911, Q913, Q917, Q919 : UN2212
 Q916, Q991 : UN2212
 Q962 : 2SK184

RF Signal Line
 TRKG Servo Loop Line
 FOCUS Servo Loop Line
 SLDR Servo Loop Line
 Audio Signal Line



AUDIO (SCH-4,5)

MCK
 XRESET
 RCK
 A DATA
 LCK
 SO3 (ATT)
 SCK3 (SHIFT)
 PVC LATCH
 XANA
 MUTE
 XCX
 SQ1
 SQ2
 DEMP
 RF GND
 RF
 VCXO

ASP [PAC003A] IC901
SERVO CONTROL IC

SACB ASSY (1/3)

SCH-3

A

B

C

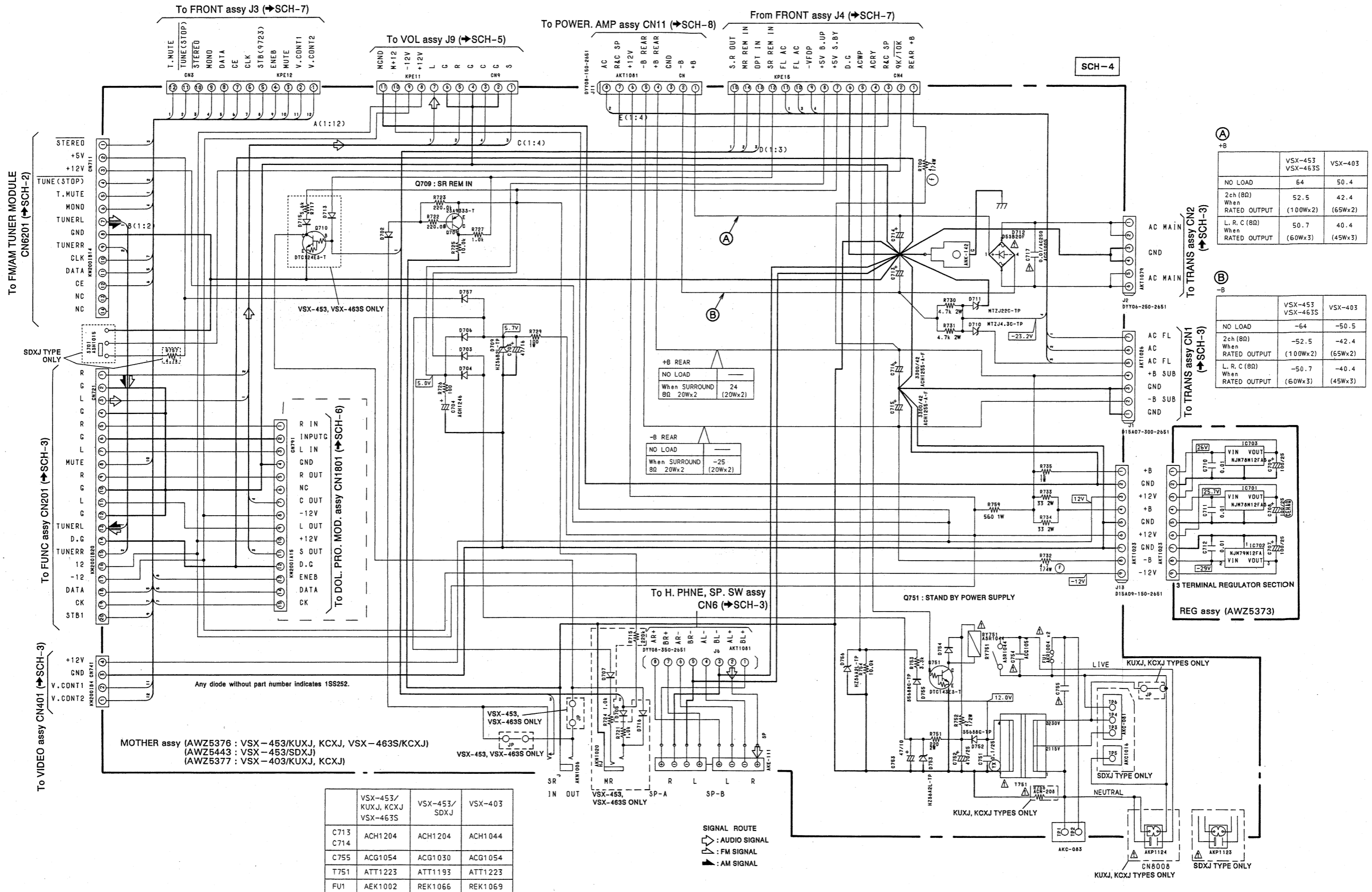
D

A

B

C

D



MOTHER ass'y (AWZ5376 : VSX-453/KUXJ, KCXJ, VSX-463S/KCXJ)
 (AWZ5443 : VSX-453/SDXJ)
 (AWZ5377 : VSX-403/KUXJ, KCXJ)

	VSX-453/ KUXJ, KCXJ VSX-463S	VSX-453/ SDXJ	VSX-403
C713	ACH1204	ACH1204	ACH1044
C714	ACH1204	ACH1204	ACH1044
C755	ACG1054	ACG1030	ACG1054
T751	ATT1223	ATT1193	ATT1223
FU1	AEK1002	REK1066	REK1069

SIGNAL ROUTE
 ◀ : AUDIO SIGNAL
 ◀ : FM SIGNAL
 ◀ : AM SIGNAL

(A) +B

	VSX-453 VSX-463S	VSX-403
NO LOAD	64	50.4
2ch (8Ω) When RATED OUTPUT (100Wx2)	52.5	42.4
L. R. C (8Ω) When RATED OUTPUT (60Wx3)	50.7	40.4

(B) -B

	VSX-453 VSX-463S	VSX-403
NO LOAD	-64	-50.5
2ch (8Ω) When RATED OUTPUT (100Wx2)	-52.5	-42.4
L. R. C (8Ω) When RATED OUTPUT (60Wx3)	-50.7	-40.4

REG ass'y (AWZ5373)

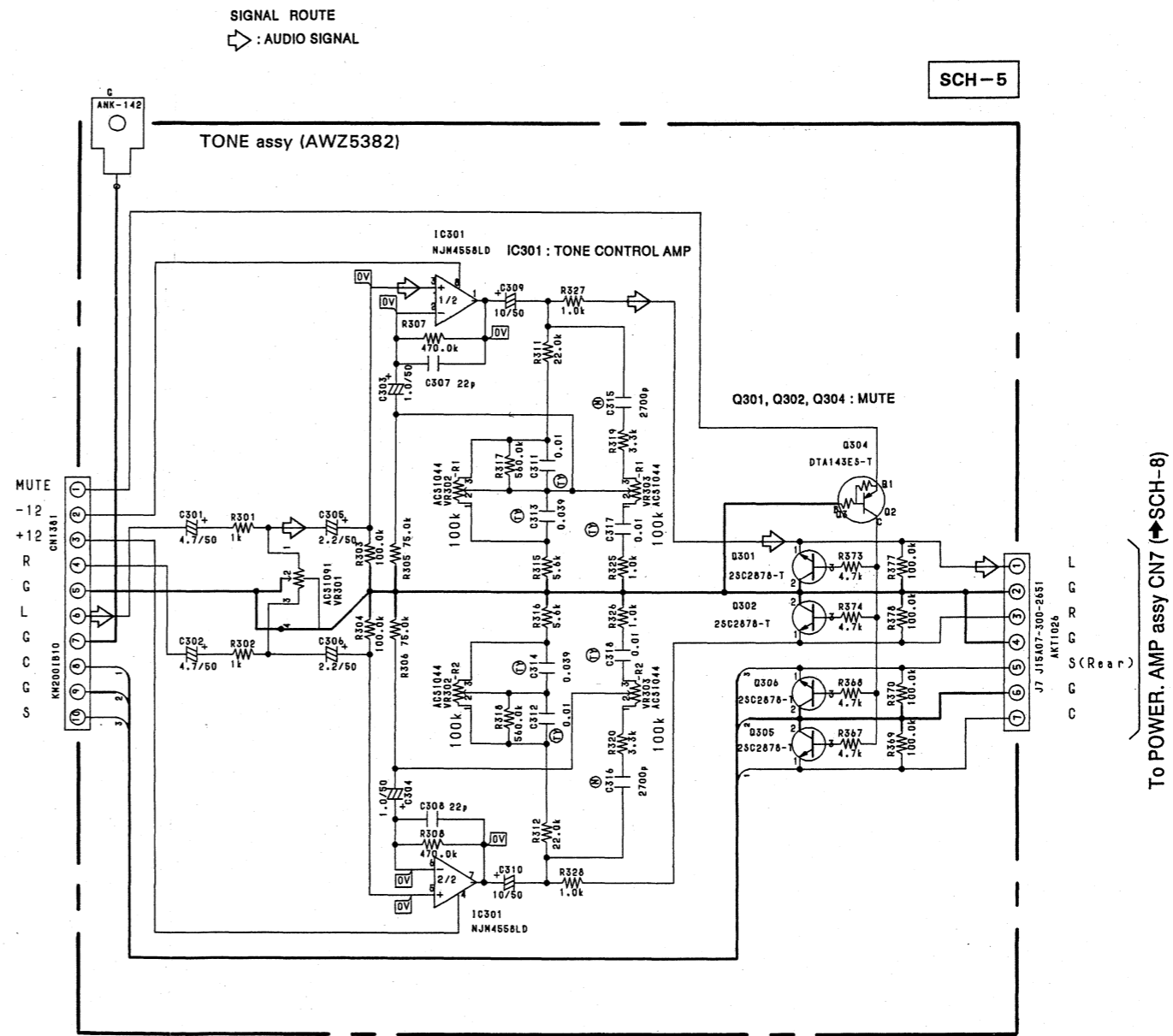
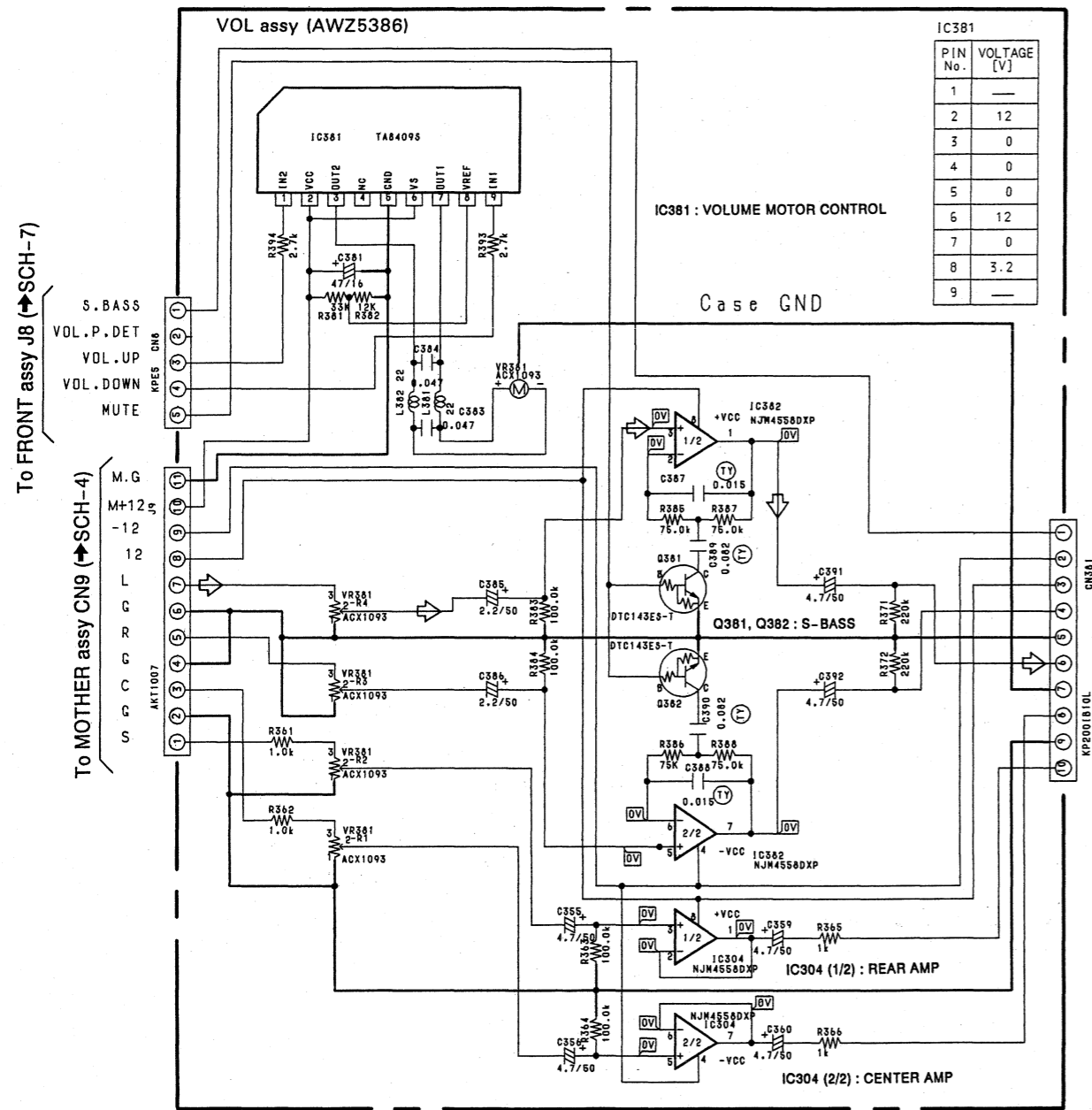
SCH-4

MOTHER ASSY,
REG ASSY

MOTHER ASSY,
REG ASSY

SCH-4

3.5 VOL ASSY AND TONE ASSY



SCH-5

VOL ASSY, TONE ASSY

SCH-5

VOL ASSY, TONE ASSY

• This diagram is viewed from the mounted parts side.

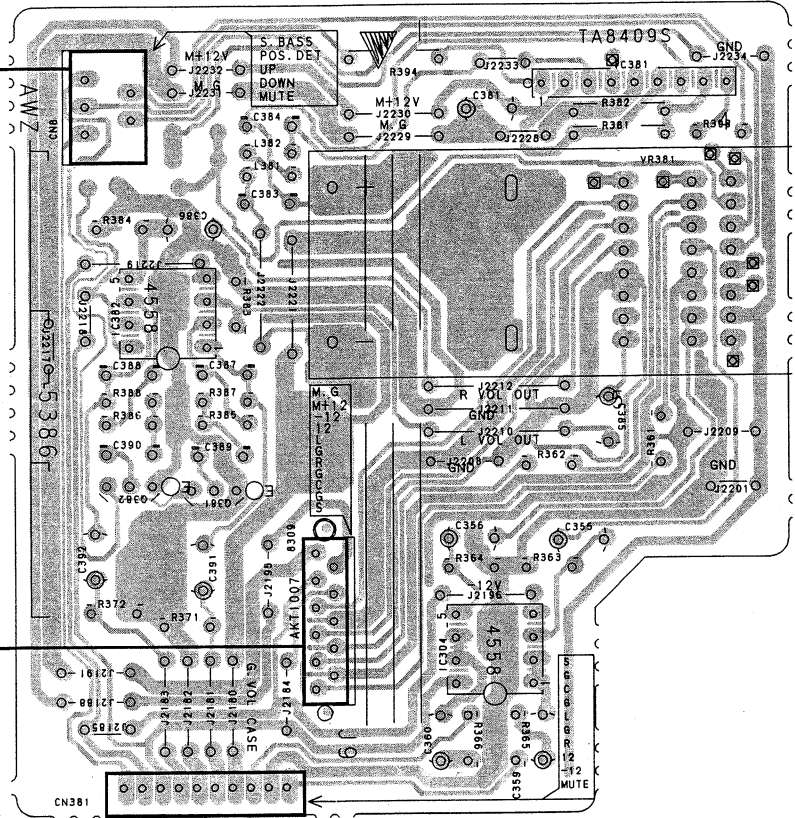
A

B

C

D

VOL assy



To FRONT assy J8

IC381 A

VR381

IC382

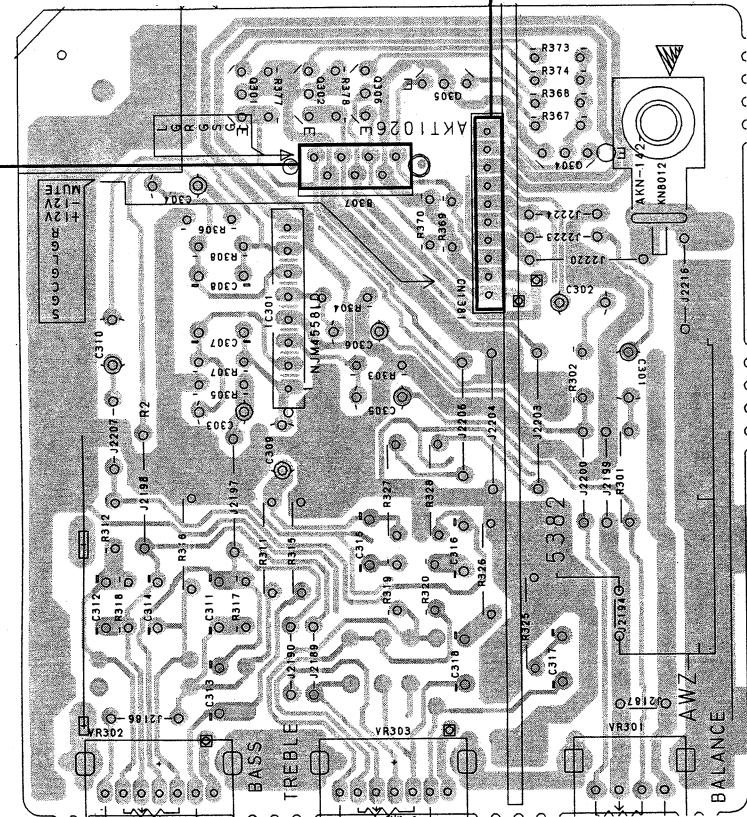
Q381
Q382

B

To MOTHER assy CN9

IC304

TONE assy



To POWER. AMP assy CN7

Q301
Q302
Q305
Q305

C

Q304

IC301

VR302
VR303
VR301

D

3.6 DOL. PRO. MOD. ASSY

- This diagram is viewed from the gray colored foil side.
- This PCB is double side.

A

B

C

D

IC1804

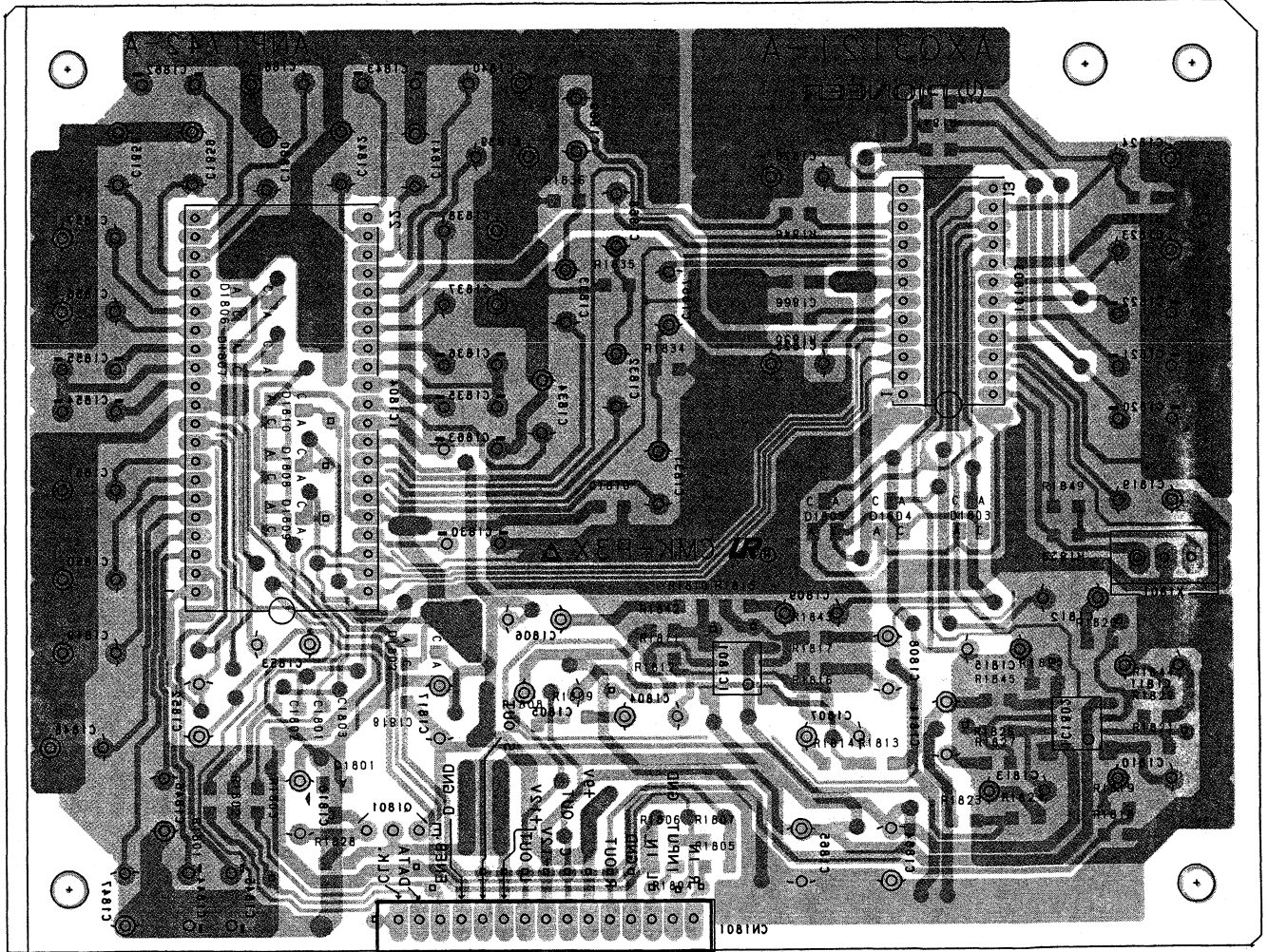
IC1801

IC1801

IC1803

IC1805

DOL. PRO. MOD. assy



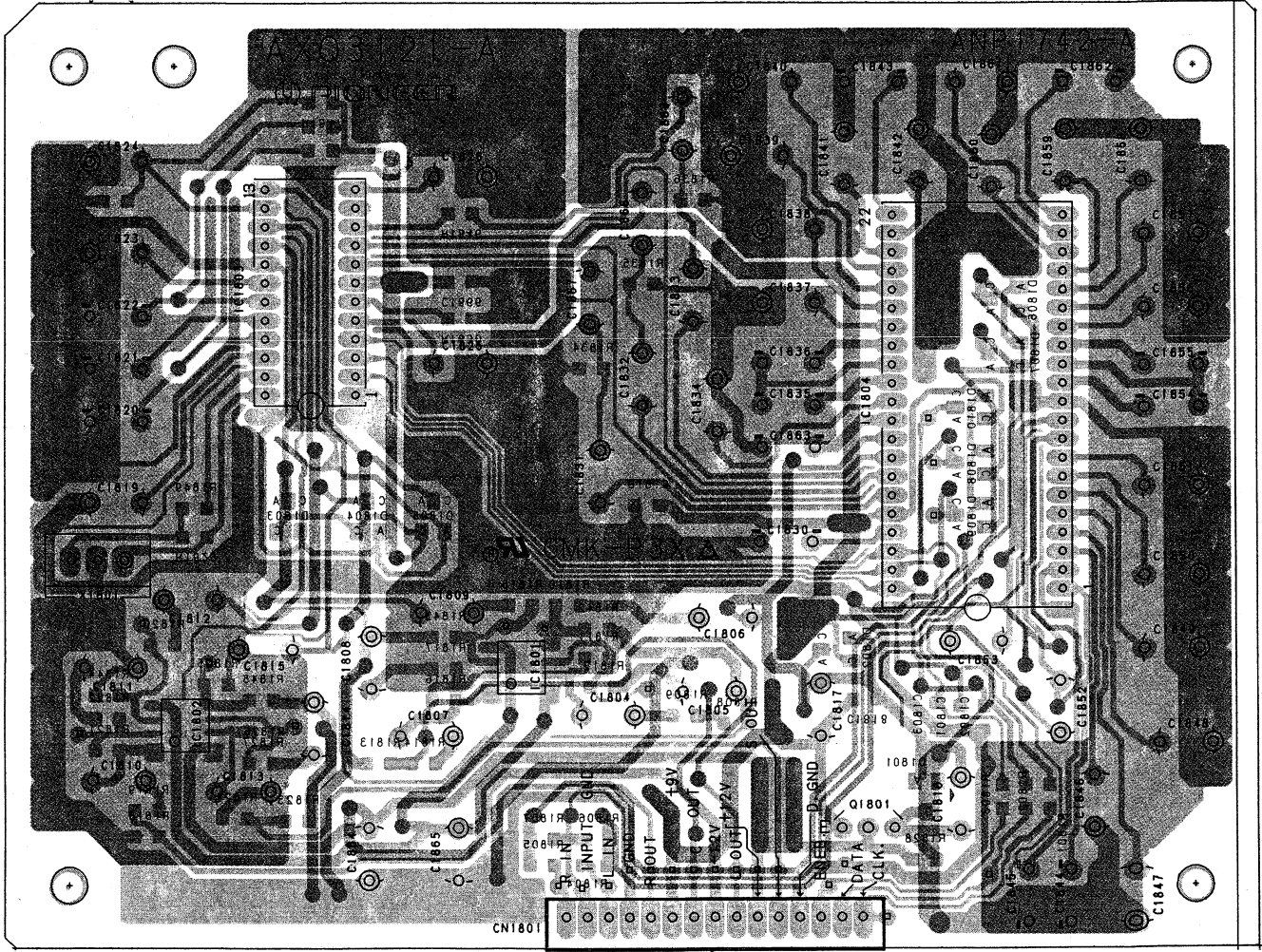
TO MOTHER assy CN1801

3.6 DOL. PRO. MOD. ASSY

- This diagram is viewed from the pink colored foil side.
- This PCB is double sided.

IC1802 IC1803 IC1801 Q1801 IC1804

DOL. PRO. MOD. assy



To MOTHER assy CN791

A

A

B

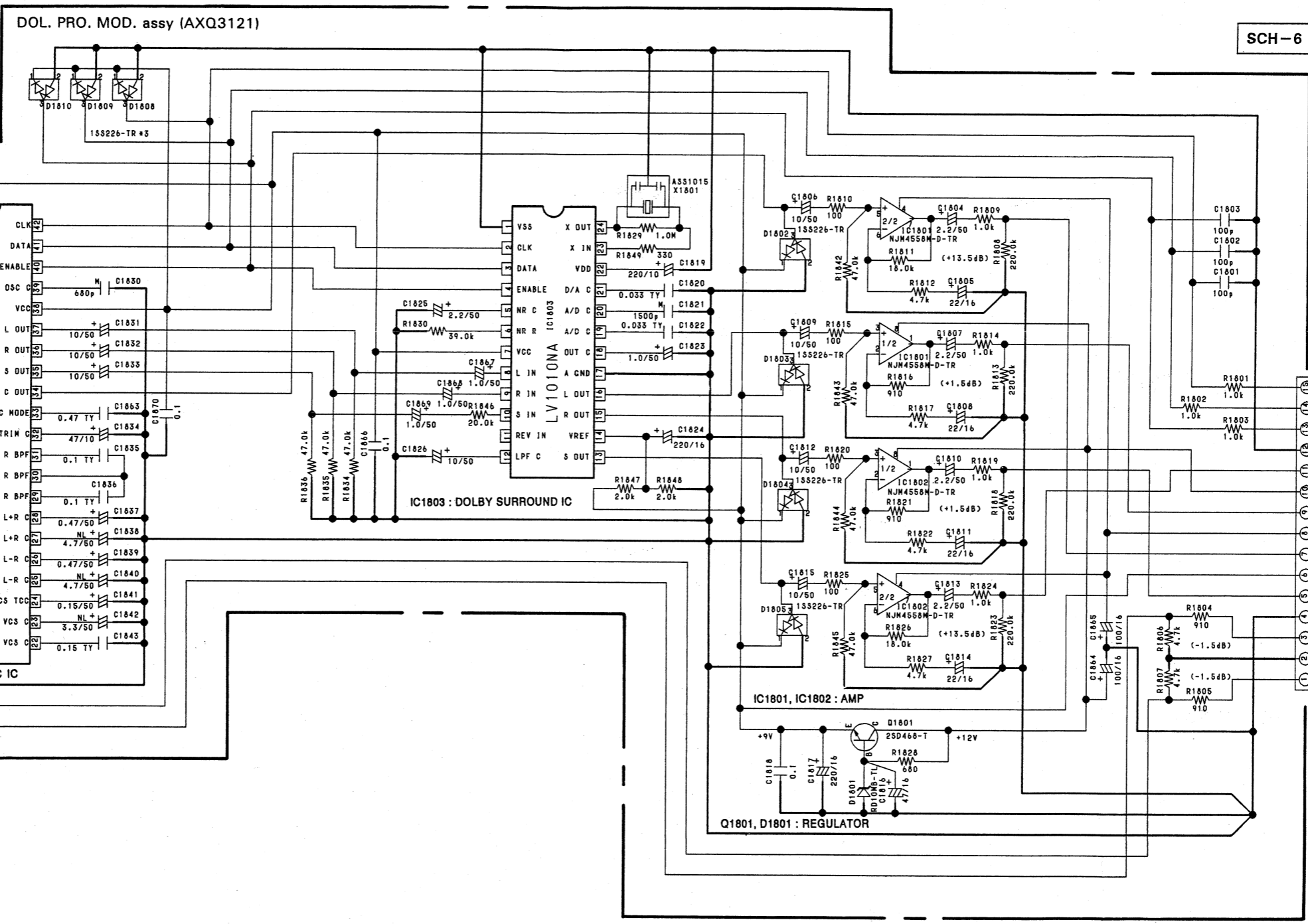
B

C

C

D

D



SCH-6

DOL. PRO. MOD. ASSY

SCH-6

DOL. PRO. MOD. ASSY

3.7 FRONT ASSY AND R, C. SP ASSY

A

B

C

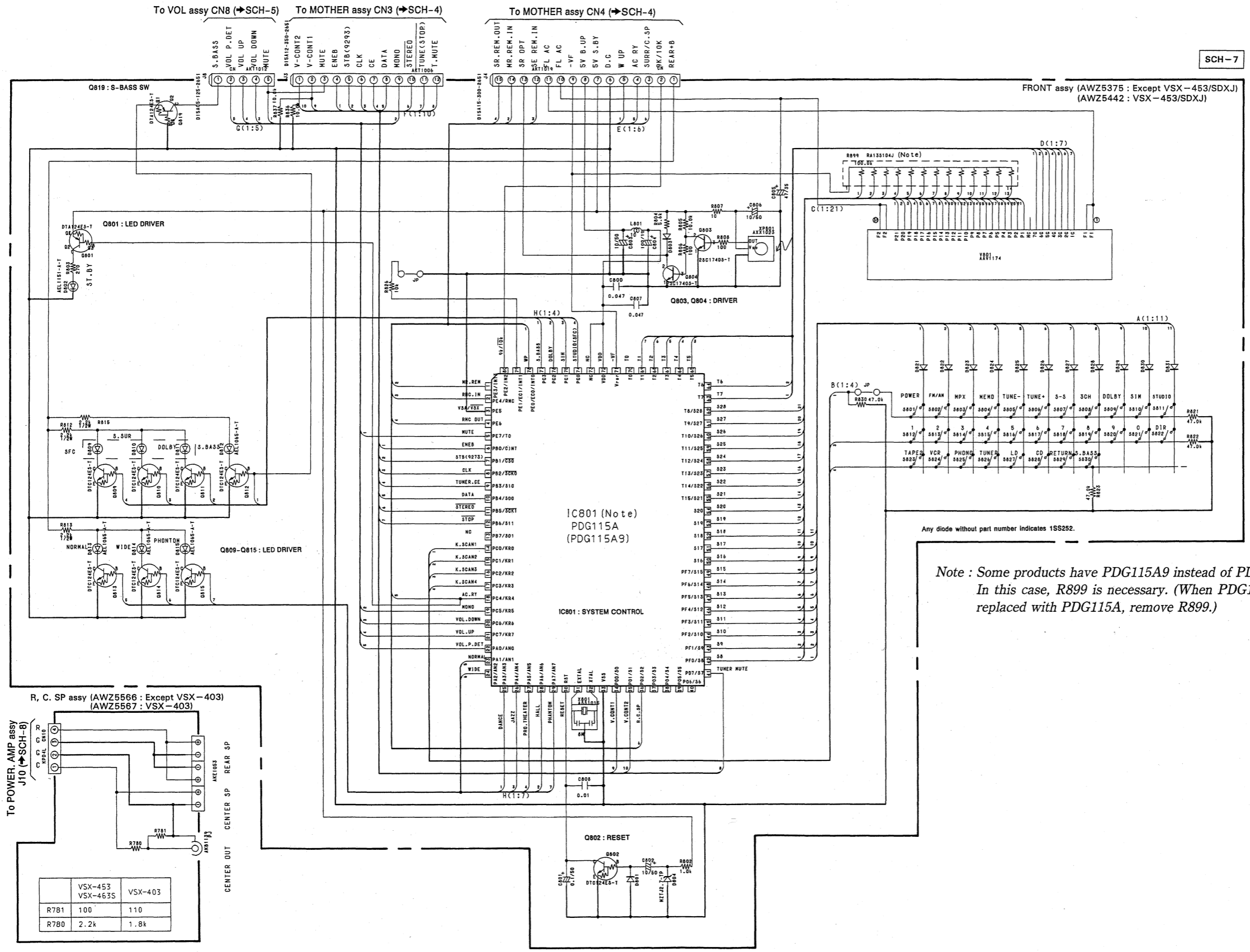
D

A

B

C

D



SCH-7

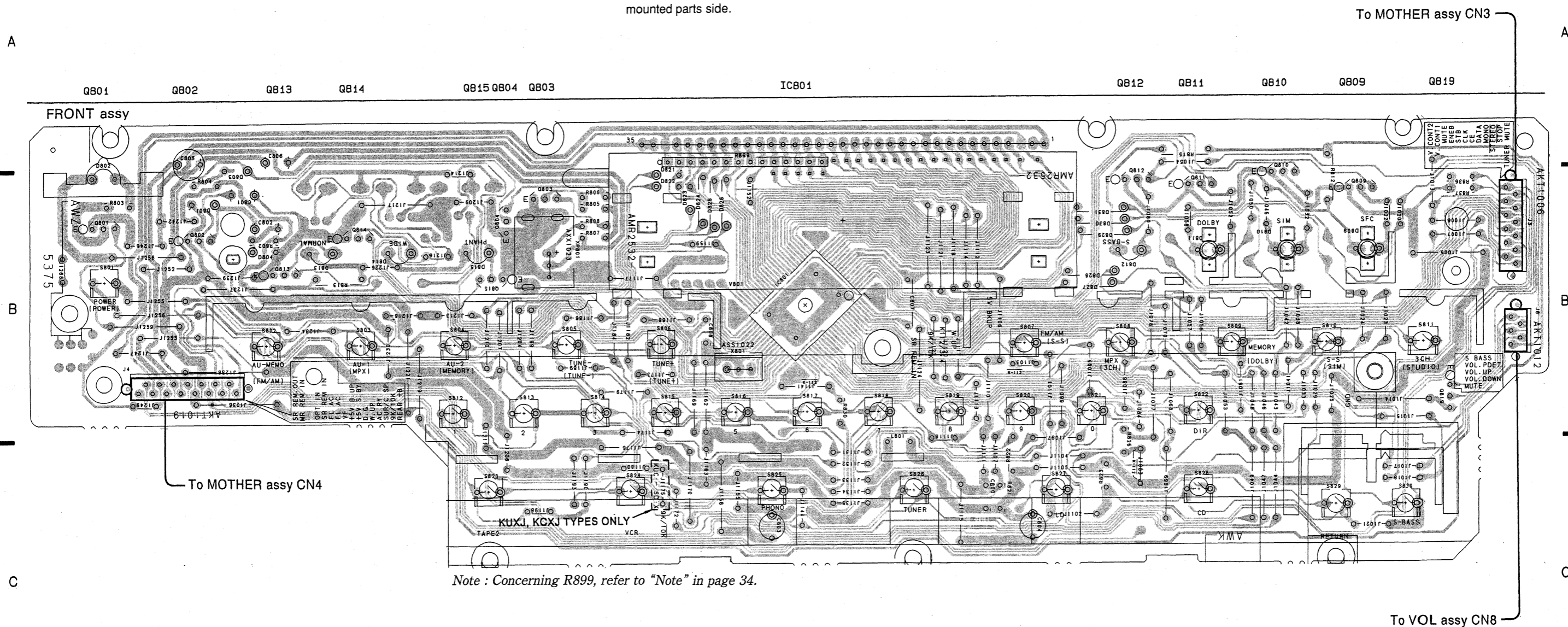
FRONT ASSY,
R, C. SP ASSY

SCH-7

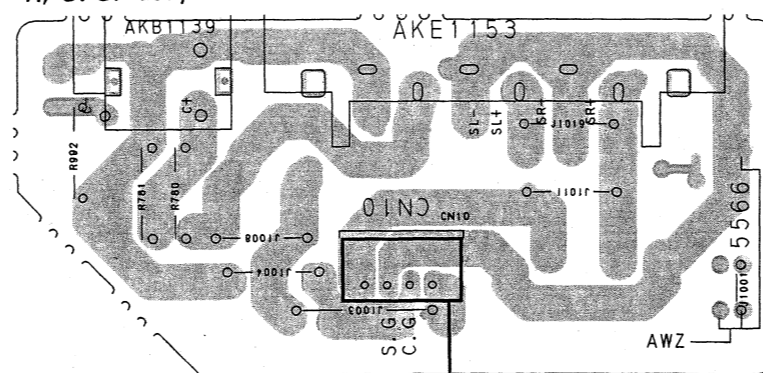
FRONT ASSY,
R, C. SP ASSY

	VSX-453	VSX-403
R781	100	110
R780	2.2k	1.8k

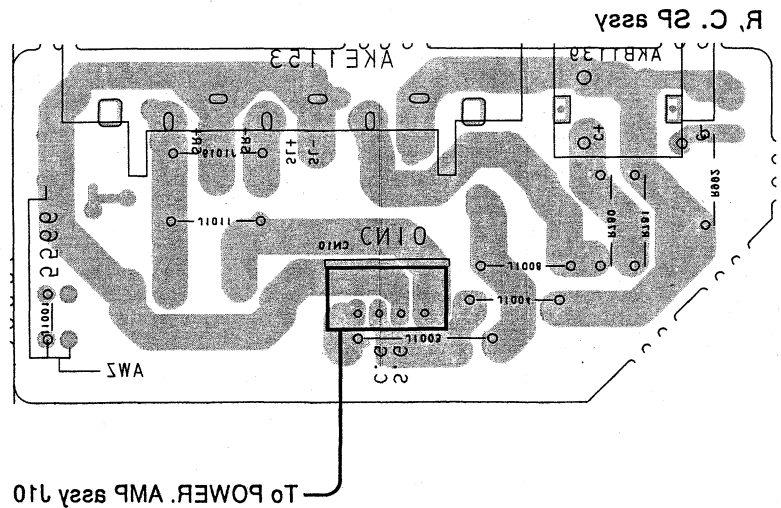
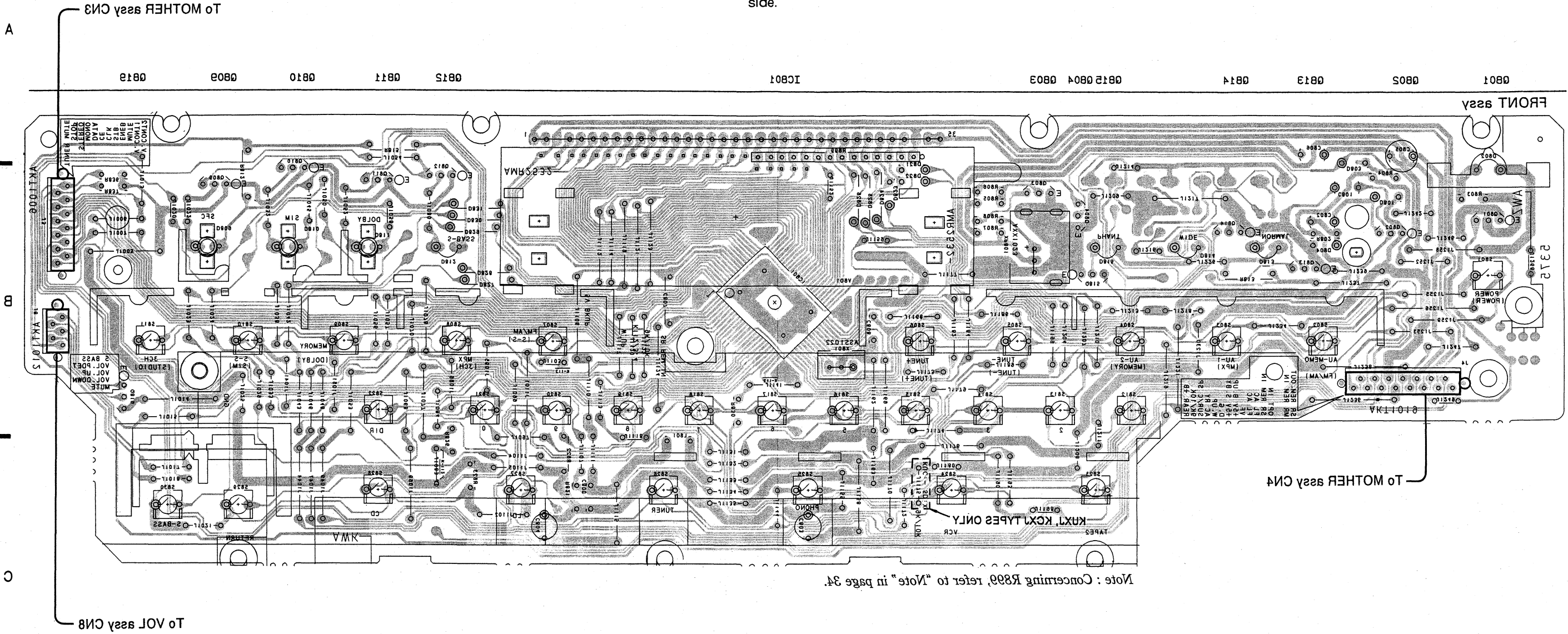
• This diagram is viewed from the mounted parts side.



R, C. SP assy

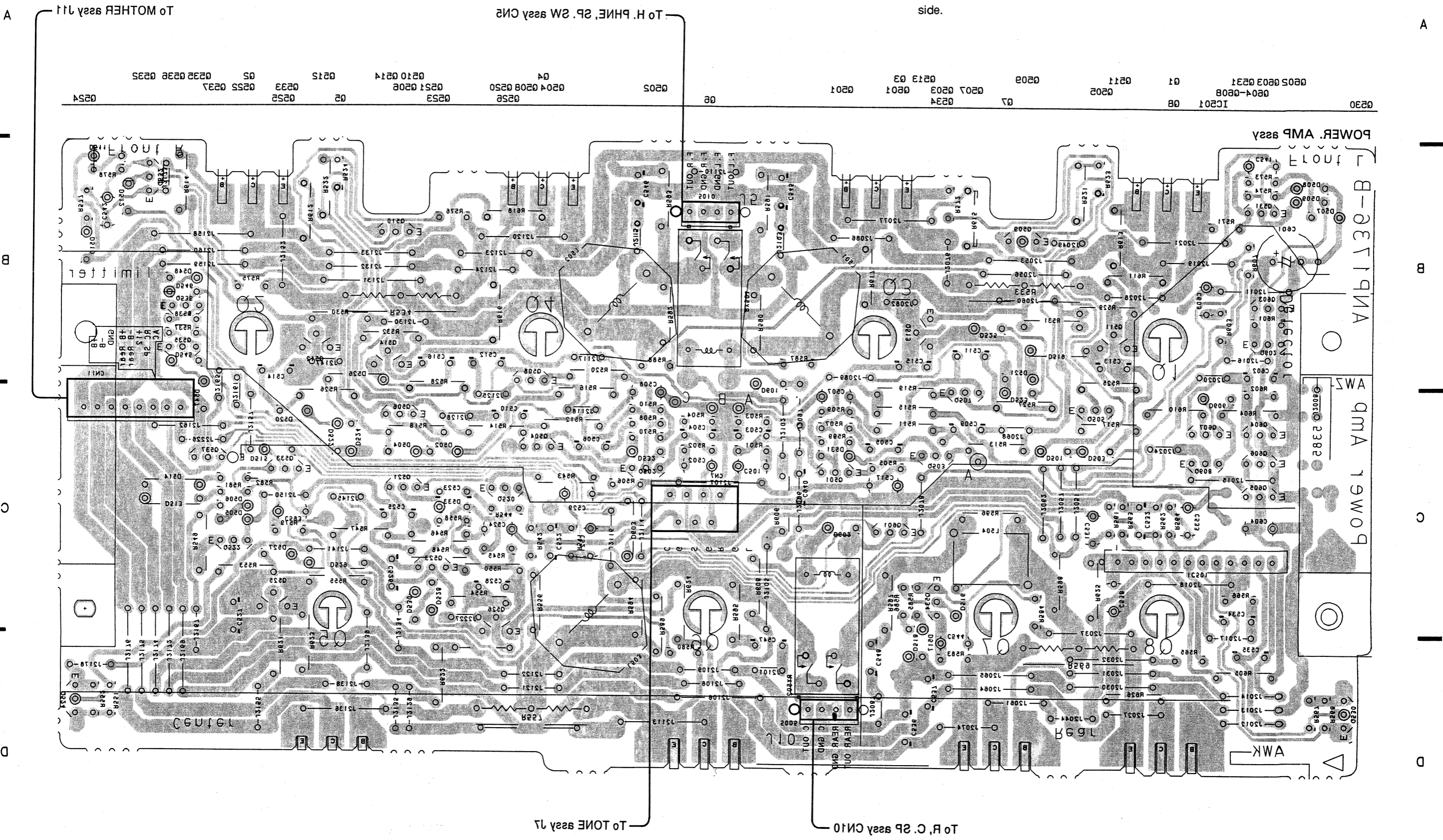


• This diagram is viewed from the foil side.



3.8 POWER AMP ASSY

This diagram is viewed from the foil side.

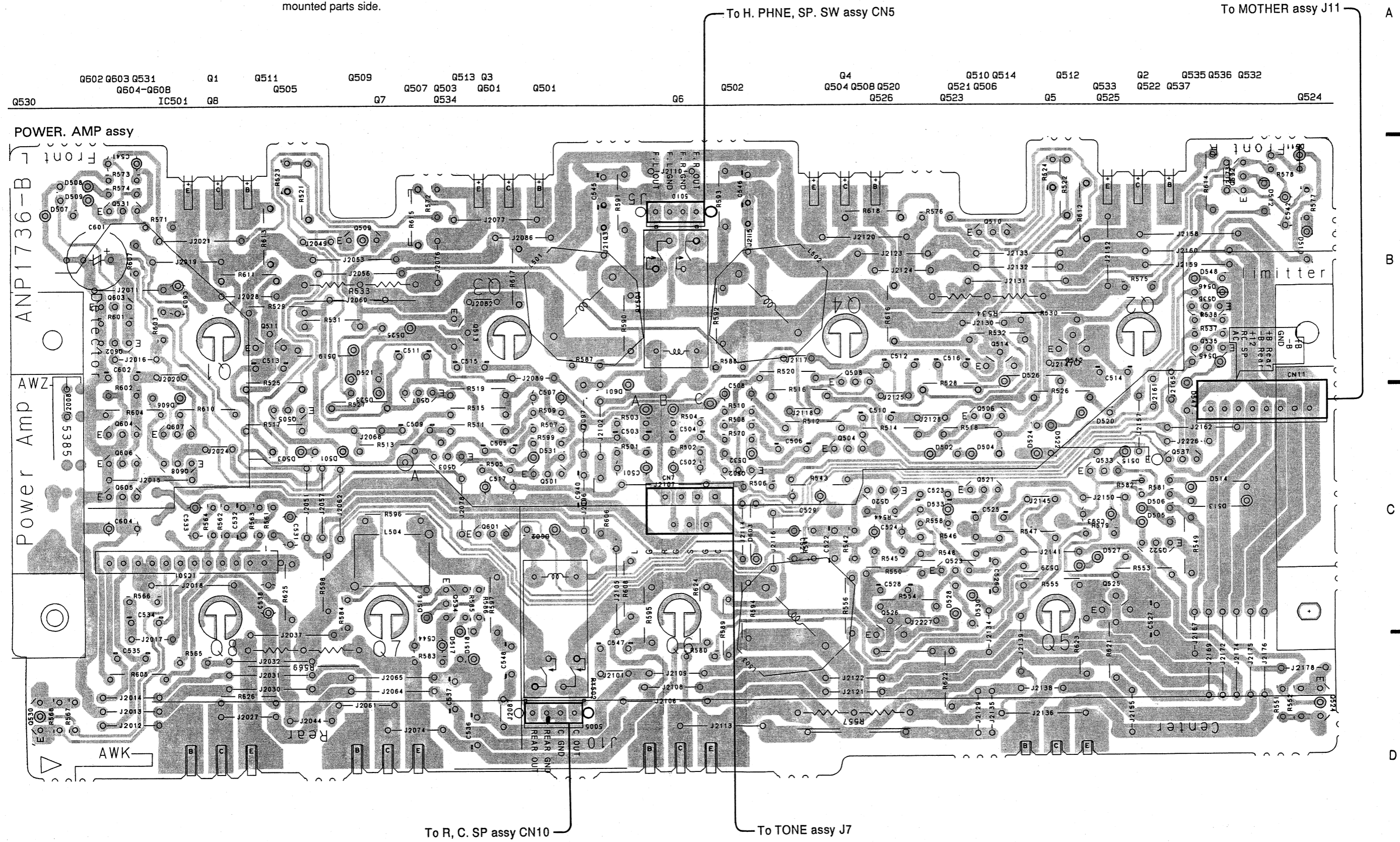


A
B
C
D

A
B
C
D

3.8 POWER. AMP ASSY

This diagram is viewed from the mounted parts side.



A

B

C

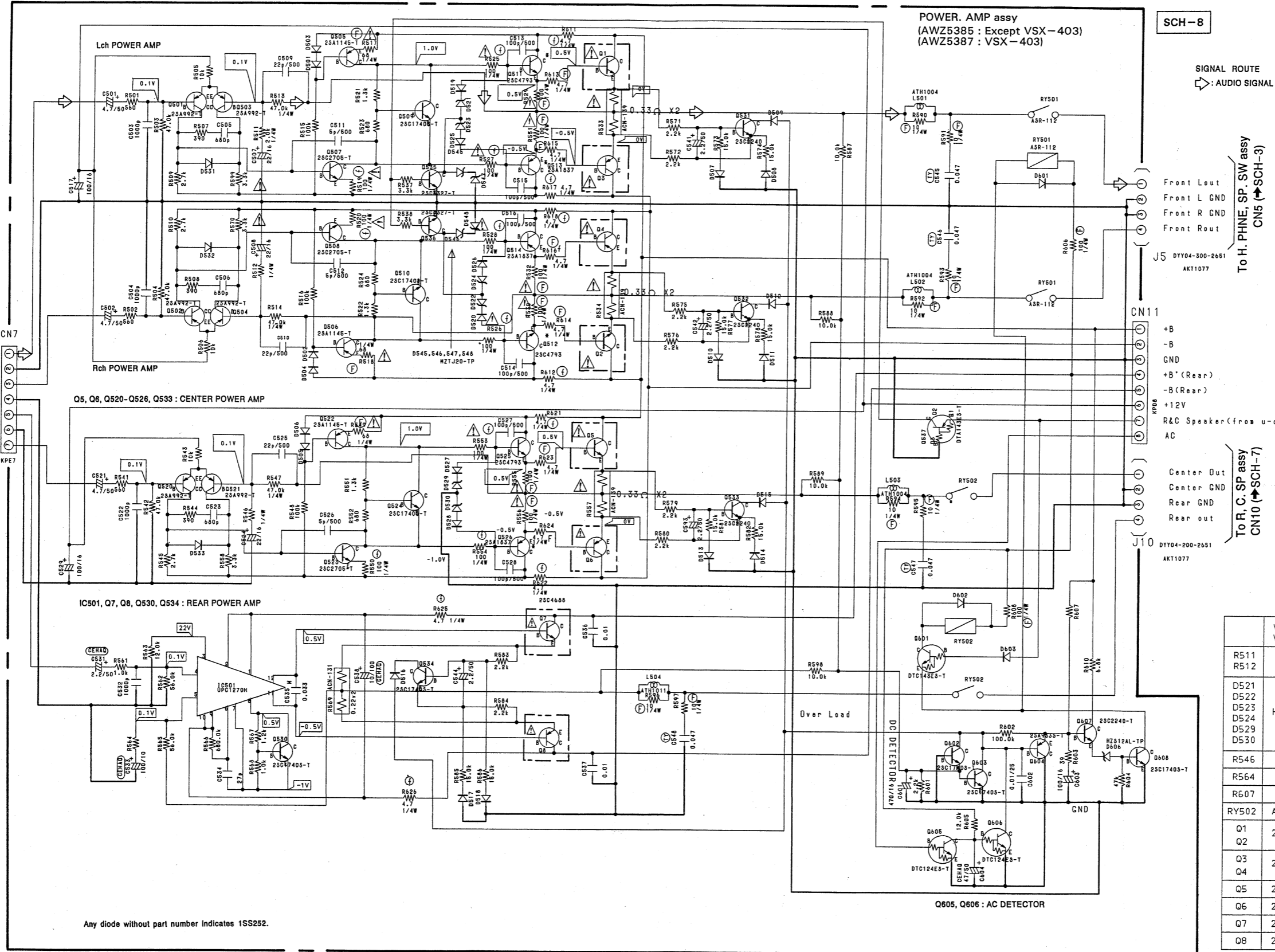
D

A

B

C

D



Any diode without part number indicates 1SS252.

SCH-8

SIGNAL ROUTE
 ◀ AUDIO SIGNAL

Front L out
 Front L GND
 Front R GND
 Front R out
 J5 DTY04-300-2651
 AKT1077
 To H. PHNE, SP. SW assy
 CN5 (SCH-3)

+B
 -B
 GND
 +B*(Rear)
 -B*(Rear)
 +12V
 R&C Speaker (from u-coo)
 AC
 Center Out
 Center GND
 Rear GND
 Rear out
 J10 DTY04-200-2651
 AKT1077
 To R. C. SP assy
 CN10 (SCH-7)

To MOTHER assy
 J11 (SCH-4)

	VSX-453 VSX-463S	VSX-403
R511	1.8k	2.4k
R512		
D521		
D522	HZS33-2L	HZS30-1L
D523		
D524		
D529		
D530		
R546	330	470
R564	560	820
R607	220k	180k
RY502	ASR-112	ASR1035
Q1	2SC3281	2SC4689
Q2		
Q3	2SA1302	2SA1804
Q4		
Q5	2SC3182N	2SC4689
Q6	2SA1265N	2SA1804
Q7	2SC4688	2SC4688
Q8	2SA1803	2SA1803

SCH-8

POWER. AMP ASSY

SCH-8

POWER. AMP ASSY

Mark No.	Description	Parts No.
RESISTORS		
	ALL RESISTORS	RD1/8PM□□□J
OTHERS		
CN201	20P SOCKET	KP200IB20L
CN8004	PIN JACK (6P)	AKB1209
CN8005	PIN JACK (8P)	AKB1210

TRANS ASSY

SEMICONDUCTORS

D681, 682	DIODE	S5688G
D683	DIODE	D3SBA20 (A)

CAPACITORS

C681	CKA (0.01/AC250V)	ACG1005
------	-------------------	---------

RESISTORS

R681	FUSIBLE RESISTOR	RFA1/4PS220J
------	------------------	--------------

OTHERS

CN1	CONNECTOR (7P)	KPE7
-----	----------------	------

VIDEO ASSY

SEMICONDUCTORS

IC401	VIDEO SWITCH	LA7952
Q401	TRANSISTOR	2SC1740S
Q402	TRANSISTOR	2SC2878
Q403	TRANSISTOR	2SC1740S
D401	DIODE	1SS252

CAPACITORS

C401, 402	ELECT. CAPACITOR	CEAS4R7M50
C403, 404	ELECT. CAPACITOR	CEAS471M6
C405	ELECT. CAPACITOR	CEAS101M16
C406	CERAMIC CAPACITOR	CKCYF473Z50
C408	ELECT. CAPACITOR	CEAS101M16
C409	CERAMIC CAPACITOR	CKCYF473Z50
C410	ELECT. CAPACITOR	CEAS470M16
C411	ELECT. CAPACITOR	CEAS101M16
C412	CERAMIC CAPACITOR	CKCYF473Z50

RESISTORS

R407, 411	CARBON FILM RESISTOR	RD1/4PM151J
R412, 413	CARBON FILM RESISTOR	RD1/2PM271J
	OTHER RESISTORS	RD1/8PM□□□J

OTHERS

CN401	4P SOCKET	KP200IB4L
CN8008	PIN JACK (4P)	AKB1218

TOPE ASSY

SEMICONDUCTORS

IC301	OP-AMP IC	NJM4558LD
Q301, 302	TRANSISTOR	2SC2878
Q304	TRANSISTOR	DTA143ES
Q305, 306	TRANSISTOR	2SC2878

CAPACITORS

C301, 302	ELECT. CAPACITOR	CEAS4R7M50
C303, 304	ELECT. CAPACITOR	CEAS010M50
C305, 306	ELECT. CAPACITOR	CEAS2R2M50
C307, 308	CERAMIC CAPACITOR	CCCSL220J50
C309, 310	ELECT. CAPACITOR	CEAS100M50

Mark No.	Description	Parts No.
C311, 312	AUDIO FILM CAPACITOR	CFTYA103J50
C313, 314	AUDIO FILM CAPACITOR	CFTYA393J50
C315, 316	PLASTIC FILM CAPACITOR	CQMA272J50
C317, 318	AUDIO FILM CAPACITOR	CFTYA103J50
RESISTORS		
VR301	VARIABLE RESISTOR (500kΩ)	ACS1091
VR302, 303	VARIABLE RESISTOR (100kΩ)	ACS1044
	OTHER RESISTORS	RD1/8PM□□□J

OTHERS

CN1381	SHIELD CASE (MTL) 10P PLUG	ANK1250 KM200IB10
--------	----------------------------	----------------------

H. PHNE, SP. SW ASSY SWITCH

S670	PUSH SWITCH	SUL6LYXS
------	-------------	----------

RESISTORS

R671, 672	METAL OXIDE RESISTOR	RS2LMF331J
-----------	----------------------	------------

OTHERS

	JACK	AKN1002
--	------	---------

POWER AMP ASSY

SEMICONDUCTORS

IC501	PRE-DRIVER-IC	UPC1270H
Q501-504	TRANSISTOR	2SA992
Q505, 506	TRANSISTOR	2SA1145
Q507, 508	TRANSISTOR	2SC2705
Q509, 510	TRANSISTOR	2SC1740S
Q511, 512	TRANSISTOR	2SC4793
Q513, 514	TRANSISTOR	2SA1837
Q520, 521	TRANSISTOR	2SA992
Q522	TRANSISTOR	2SA1145
Q523	TRANSISTOR	2SC2705
Q524	TRANSISTOR	2SC1740S
Q525	TRANSISTOR	2SC4793
Q526	TRANSISTOR	2SA1837
Q530	TRANSISTOR	2SC1740S
Q531-533	TRANSISTOR	2SC2240
Q534	TRANSISTOR	2SC1740S
Q535, 536	TRANSISTOR	2SC3327
Q537	TRANSISTOR	DTA143ES
Q601	TRANSISTOR	DTC143ES
Q602, 603	TRANSISTOR	2SC1740S
Q604	TRANSISTOR	2SA933S
Q605, 606	TRANSISTOR	DTC124ES
Q607	TRANSISTOR	2SC2240
Q608	TRANSISTOR	2SC1740S
D501-520	DIODE	1SS252
D521-524	ZENER DIODE (Except VSX-403)	HZS33-2L
D521-524	ZENER DIODE (For VSX-403)	HZS33-1L
D525-528	DIODE	1SS252
D529, 530	ZENER DIODE (Except VSX-403)	HZS33-2L
D529, 530	ZENER DIODE (For VSX-403)	HZS33-2L
D531-533	DIODE	1SS252
D545-548	ZENER DIODE	MTZJ20
D601-603	DIODE	1SS252
D606	ZENER DIODE	HZS12AL

Mark No.	Description	Parts No.
RELAYS		
RY501	RELAY	ASR-112
RY502	RELAY (Except VSX-403)	ASR-112
RY502	RELAY (For VSX-403)	ASR1035
COILS		
L501-503	COIL	ATH1004
L504	COIL	ATH1011
CAPACITORS		
C501, 502	ELECT. CAPACITOR	CEAS4R7M50
C503, 504	CERAMIC CAPACITOR	CKCYB102K50
C505, 506	CERAMIC CAPACITOR	CKCYB681K50
C507, 508	ELECT. CAPACITOR	CEAS220M16
C509, 510	CERAMIC CAPACITOR	CCCSL220K500
C511, 512	CERAMIC CAPACITOR	CCCSL050C500
C513-516	CERAMIC CAPACITOR	CCCSL101K500
C517	ELECT. CAPACITOR	CEAS101M16
C521	ELECT. CAPACITOR	CEAS4R7M50
C522	CERAMIC CAPACITOR	CKCYB102K50
C523	CERAMIC CAPACITOR	CKCYB681K50
C524	ELECT. CAPACITOR	CEAS220M16
C525	CERAMIC CAPACITOR	CCCSL220K500
C526	CERAMIC CAPACITOR	CCCSL050C500
C527, 528	CERAMIC CAPACITOR	CCCSL101K500
C529	ELECT. CAPACITOR	CEAS101M16
C531	ELECT. CAPACITOR	CEHAQ2R2M50
C532	CERAMIC CAPACITOR	CKCYB102K50
C533	ELECT. CAPACITOR	CEHAQ101M10
C534	CERAMIC CAPACITOR	CCCSL270J50
C535	PLASTIC FILM CAPACITOR	CQMA333J50
C536, 537	CERAMIC CAPACITOR	CKCYF103Z50
C538	ELECT. CAPACITOR	CEHAQ100M2A
C541, 542	ELECT. CAPACITOR	CEAS2R2M50
C544	ELECT. CAPACITOR	CEAS2R2M50
C545-548	AUDIO FILM CAPACITOR	CFTYA473J50
C593	ELECT. CAPACITOR	CEAS2R2M50
C601	ELECT. CAPACITOR	CEAS471M16
C602	CERAMIC CAPACITOR	CKCYX103M25
C603	ELECT. CAPACITOR	CEAS101M16
C604	ELECT. CAPACITOR	CEHAQ470M50
RESISTORS		
R511, 512	CARBON FILM RESISTOR (Except VSX-403)	RD1/4PM182J
R511, 512	CARBON FILM RESISTOR (For VSX-403)	RD1/4PM242J
R513, 514	CARBON FILM RESISTOR	RD1/4PM473J
R515, 516	CARBON FILM RESISTOR	RD1/4PM104J
R517, 518	CARBON FILM RESISTOR	RD1/4PMF680J
R519, 520	FUSIBLE RESISTOR	RFA1/4PS101J
R525-528	FUSIBLE RESISTOR	RFA1/4PS101J
R529-532	CARBON FILM RESISTOR	RD1/4PMF101J
R533, 534	RESISTOR (0.33, 5W)	ACN-139
R546	CARBON FILM RESISTOR (Except VSX-403)	RD1/4PM331J
R546	CARBON FILM RESISTOR (For VSX-403)	RD1/4PM471J
R547	CARBON FILM RESISTOR	RD1/4PM473J
R548	CARBON FILM RESISTOR	RD1/4PM104J
R549	CARBON FILM RESISTOR	RD1/4PMF680J
R550, 553	FUSIBLE RESISTOR	RFA1/4PS101J
R554	FUSIBLE RESISTOR	RFA1/4PS101J

Mark No.	Description	Parts No.
R555, 556	CARBON FILM RESISTOR	RD1/4PMF101J
R557	RESISTOR (0.33, 5W)	ACN-139
R569	RESISTOR (0.22, 2W)	ACN-131
R590-597	CARBON FILM RESISTOR	RD1/4PMF100J
R606, 608	CARBON FILM RESISTOR	RD1/4PMF101J
R611, 612	FUSIBLE RESISTOR	RFA1/4PS4R7J
R613-616	CARBON FILM RESISTOR	RD1/4PMF4R7J
R617, 618	FUSIBLE RESISTOR	RFA1/4PS4R7J
R621, 622	FUSIBLE RESISTOR	RFA1/4PS4R7J
R623, 624	CARBON FILM RESISTOR	RD1/4PMF4R7J
R625, 626	FUSIBLE RESISTOR	RFA1/4PS4R7J
R564	CARBON FILM RESISTOR (Except VSX-403)	RD1/8PM561J
R564	CARBON FILM RESISTOR (For VSX-403)	RD1/8PM821J
R607	CARBON FILM RESISTOR (Except VSX-403)	RD1/8PM224J
R607	CARBON FILM RESISTOR (For VSX-403)	RD1/8PM184J
	OTHER RESISTORS	RD1/8PM□□□□J
OTHERS		
CN7	CABLE HOLDER (4P) CONNECTOR (7P)	AKT1077 KPE7
VOL ASSY		
SEMICONDUCTORS		
IC304	OP-AMP IC	NJM4558DXP
IC381	MECHANISM DRIVER IC	TA8409S
IC382	OP-AMP IC	NJM4558DXP
Q381, 382	TRANSISTOR	DTC143ES
COILS		
L381, 382	AXIAL INDUCTOR	LAU220K
CAPACITORS		
C355, 356	ELECT. CAPACITOR	CEAS4R7M50
C359, 360	ELECT. CAPACITOR	CEAS4R7M50
C381	ELECT. CAPACITOR	CEAS470M16
C383, 384	CERAMIC CAPACITOR	CKCYF473Z50
C385, 386	ELECT. CAPACITOR	CEAS2R2M50
C387, 388	AUDIO FILM CAPACITOR	CFTYA153J50
C389, 390	AUDIO FILM CAPACITOR	CFTYA823J50
C391, 392	ELECT. CAPACITOR	CEAS4R7M50
RESISTORS		
VR381	VARIABLE RESISTOR (100kΩ)	ACX1093
	OTHER RESISTORS	RD1/8PM□□□□J
OTHERS		
CN381	10P SOCKET	KP200IB10L
CN8	CONNECTOR (5P)	KPE5
R, C, SP ASSY		
RESISTORS		
R780	CARBON FILM RESISTOR (Except VSX-403)	RD1/8PM222J
R780	CARBON FILM RESISTOR (For VSX-403)	RD1/8PM182J
R781	CARBON FILM RESISTOR (except VSX-403)	RD1/8PM101J
R781	CARBON FILM RESISTOR (For VSX-403)	RD1/8PM111J
OTHERS		
CN780	PIN JACK 1-P	AKB1139
CN781	SPEAKER TERMINAL 6-P	AKE1053

Mark No.	Description	Parts No.	Mark No.	Description	Parts No.
FM/AM TUNER MODULE					
SEMICONDUCTORS					
IC6201	AM/FM +MPX IC	LA1836M	C6227	ELECT. CAPACITOR	CEAS470M25
IC6202	PLL IC	LM7001J	C6228	CERAMIC CAPACITOR	CKSQYB472K50
Q6101	DUALGATE-FETA (CHIP)	3SK194	C6229	CERAMIC CHIP C.	CCSCH821J50
Q6102	TRANSISTOR	2SC2223	C6230	CERAMIC CAPACITOR	CKSQYB333K50
Q6103	TRANSISTOR	2SC2714	C6231	ELECT. CAPACITOR	CEAS100M50
Q6104	MOS-FET	2SK302	C6232	CERAMIC CAPACITOR	CKSYB333K50
Q6201	NCH-FET (SMD)	2SK208	C6233	ELECT. CAPACITOR	CEAS100M50
Q6202	TRANSISTOR	2SC2712	C6234	CERAMIC CAPACITOR	ACG1051
Q6203	TRANSISTOR	2SC2235	C6235	CERAMIC CAPACITOR	ACG1052
Q6204	TRANSISTOR	XDA124EK	C6236	CERAMIC CAPACITOR	ACG1051
Q6214	TRANSISTOR	2SC2714	C6237	CERAMIC CAPACITOR	CKSQYB473K50
Q6217	TRANSISTOR	XDC124EK	C6238	ELECT. CAPACITOR	CEJA100M16
D6101, 6102	VARI-CAP DIODE	1T33	C6239	CHIP CAPACITOR	CKSQYF223Z50
			C6241	CERAMIC CAPACITOR	CKSQYF473Z50
			C6242	CHIP CAPACITOR	CKSQYF223Z50
			C6243-6245	ELECT. CAPACITOR	CEAS470M16
			C6246	ELECT. CAPACITOR	CEAS100M50
			C6249, 6250	ELECT. CAPACITOR	CEJA4R7M35
			C6251	CHIP CAPACITOR	CKSYB472K50
			C6252	CERAMIC CAPACITOR	CKSQYB472K50
			C6255	CHIP CAPACITOR	CKSQYF223Z50
			C6261	ELECT. CAPACITOR	CEAS010M50
			C6262	ELECT. CAPACITOR	CEAS100M50
			C6263	CHIP CAPACITOR	CKSYF473Z50
			C6264	CERAMIC CAPACITOR	CKSQYB103K50
			C6265	CERAMIC CAPACITOR	CKSQYF473Z50
			C6266	CERAMIC CAPACITOR	CKSQYB473K50
			C6267	CERAMIC CAPACITOR	CKSQYF473Z50
			C6268	CHIP CAPACITOR	CKSQYB473K50
					CCSQCH101J50
COILS AND TRANSFORMER					
F6101	CERAMIC FILTER	ATF-155			
F6202	AM CERAMIC FILTER	ATF1155			
F6203, 6204	CERAMIC FILTER	ATF-119			
L6101	COIL	ATC1020			
L6102	COIL	ATC1021			
L6103	TIP COIL	ATH1043			
L6104	COIL	ATC1003			
L6202, 6203	CHIP COIL	LCTA2R2J3225			
L6207	FM DETECTION COIL	ATE1013			
L6208	CHIP COIL	LCTA2R2J3225			
T6101	FM IF TRANS.	ATE-063			
CAPACITORS					
C6101	CHIP CAPACITOR	CCSQCH050C50			
C6102	CERAMIC CAPACITOR	CKSQYB103K50			
C6103	CHIP CAPACITOR	CKSQYB102K50			
C6105	CHIP CAPACITOR	CCSQTH150J50			
C6106	CHIP CAPACITOR	CKSQYB102K50			
C6107	CHIP CPAPCITOR	CCSCH010C50			
C6108	CHIP CAPACITOR	CCSQCH101J50			
C6109	CERAMIC CAPACITOR	CKSQYB103K50			
C6110	CHIP CAPACITOR	CCSQCH020C50			
C6111	CHIP CERAMIC C.	CCSQCH150J50			
C6112	CHIP CAPACITOR	CKSQYB102K50			
C6113	CHIP CAPACITOR	CCSQRH180J50			
C6114	CHIP CAPACITOR	CCSQRH080D50			
C6115	CHIP CAPACITOR	CCSQCH330J50			
C6116	CHIP CERAMIC C.	CCSQCH150J50			
C6117	CERAMIC CAPACITOR	CKSQYB103K50			
C6202	CERAMIC CAPACITOR	ACG1051			
C6203	CHIP CAPACITOR	CCSQCH101J50			
C6204	CHIP CAPACITOR	CKSQYB102K50			
C6208	CHIP CERAMIC C.	CCSQCH150J50			
C6209	CERAMIC CAPACITOR	CKSQYB473K50			
C6210	CERAMIC CAPACITOR	CKSQYB103K50			
C6212	CHIP CAPACITOR	CKSQYF103Z50			
C6213	CHIP CAPACITOR	CKSQYB223K50			
C6214	AUDIO FILM CAPACITOR	CFTXA224J50			
C6215	AUDIO FILM CAPACITOR	CFTXA103J50			
C6216, 6217	ELECT. CAPACITOR	CEAS330M16			
C6218	CHIP CAPACITOR	CKSQYF103Z50			
C6219	ELECT. CAPACITOR	CEAS470M10			
C6220	CHIP CAPACITOR	CKSQYF223Z50			
C6221, 6222	CHIP CERAMIC C.	CCSQCH150J50			
C6223	CHIP CAPACITOR	CKSYF103Z50			
C6224	ELECT. CAPACITOR	CEAS100M50			
C6225	CERAMIC CAPACITOR	CKSQYF473Z50			
C6226	CHIP CAPACITOR	CKSQYF223Z50			
RESISTORS					
			VR6201	VARIABLE RESISTOR (10kΩ)	ACP1056
			VR6202	VARIABLE RESISTOR (22kΩ)	VRTB6VS223
			R6101	CHIP RESISTOR	RS1/8S470J
			R6113, 6116	CHIP RESISTOR	RS1/8S000J
			R6118	CHIP RESISTOR	RS1/8S000J
			R6209	CHIP RESISTOR	RS1/8S221J
			R6211	CHIP RESISTOR	RS1/8S103J
			R6237	CHIP RESISTOR	RS1/8S182J
			R6239	CHIP RESISTOR	RS1/8S332J
			R6243, 6244	CHIP RESISTOR	RS1/8S101J
			R6268-6271	CHIP RESISTOR	RS1/8S000J
			R6275, 6276	CHIP RESISTOR	RS1/8S000J
			R6278, 6283	CHIP RESISTOR	RS1/8S000J
			R6284, 6290	CHIP RESISTOR	RS1/8S000J
			R6293, 6294	CHIP RESISTOR	RS1/8S000J
			R6297	CHIP RESISTOR	RS1/8S000J
			R6299, 6300	CARBON FILM RESISTOR	RD1/8P/M102J
				OTHER RESISTORS	RS1/10S□□□J
OTHERS					
			BN6201	AM RF TUNING BLOCK	AXX1025
			X6201	TERMINAL 4-P	AKA1016
			X6202	CRYSTAL RESONATOR	ASS1066
			X6203	CERAMIC RESONATOR	ATF1027
				CRYSTAL RESONATOR	ASS1042
DOL. PRO. MOD. ASSY					
SEMICONDUCTORS					
			IC1801, 1802	OP-AMP IC	NJM4558M-D
			IC1803	IC	LV1010NA
			IC1804	IC	LA2785
			Q1801	TRANSISTOR	2SD468
			D1801	ZENER DIODE	RD10MB
			D1802-1810	DIODE	1SS226

Mark No.	Description	Parts No.
CAPACITORS		
C1801-1803	CHIP CAPACITOR	CCSQCH101J50
C1804	ELECT. CAPACITOR	CEAS2R2M50
C1805	ELECT. CAPACITOR	CEAS220M16
C1806	ELECT. CAPACITOR	CEAS100M50
C1807	ELECT. CAPACITOR	CEAS2R2M50
C1808	ELECT. CAPACITOR	CEAS220M16
C1809	ELECT. CAPACITOR	CEAS100M50
C1810	ELECT. CAPACITOR	CEAS2R2M50
C1811	ELECT. CAPACITOR	CEAS220M16
C1812	ELECT. CAPACITOR	CEAS100M50
C1813	ELECT. CAPACITOR	CEAS2R2M50
C1814	ELECT. CAPACITOR	CEAS220M16
C1815	ELECT. CAPACITOR	CEAS100M50
C1816	ELECT. CAPACITOR	CEAS470M16
C1817	ELECT. CAPACITOR	CEAS221M16
C1818	CERAMIC CAPACITOR	CKSQYF104Z50
C1819	ELECT. CAPACITOR	CEAS221M10
C1820	AUDIO FILM CAPACITOR	CFTYA333J50
C1821	PLASTIC FILM CAPACITOR	CQMA152J50
C1822	AUDIO FILM CAPACITOR	CFTYA333J50
C1823	ELECT. CAPACITOR	CEAS010M50
C1824	ELECT. CAPACITOR	CEAS221M16
C1825	ELECT. CAPACITOR	CEAS2R2M50
C1826	ELECT. CAPACITOR	CEAS100M50
C1830	PLASTIC FILM CAPACITOR	CQMA681J50
C1831-1833	ELECT. CAPACITOR	CEAS100M50
C1834	ELECT. CAPACITOR	CEAS470M10
C1835, 1836	AUDIO FILM CAPACITOR	CFTYA104J50
C1837	ELECT. CAPACITOR	CEASR47M50
C1838	ELECT. CAPACITOR	CEANL4R7M50
C1839	ELECT. CAPACITOR	CEASR47M50
C1840	ELECT. CAPACITOR	CEANL4R7M50
C1841	ELECT. CAPACITOR	CEASR15M50
C1842	ELECT. CAPACITOR	CEANL3R3M50
C1843	AUDIO FILM CAPACITOR	CFTYA154J50
C1844	PLASTIC FILM CAPACITOR	CQMA223J50
C1845	PLASTIC FILM CAPACITOR	CQMA473J50
C1846	ELECT. CAPACITOR	CEAS221M16
C1847-1850	ELECT. CAPACITOR	CEAS100M50
C1851	ELECT. CAPACITOR	CEAS221M16
C1852, 1853	ELECT. CAPACITOR	CEAS100M50
C1854, 1855	AUDIO FILM CAPACITOR	CFTYA104J50
C1856	ELECT. CAPACITOR	CEASR47M50
C1857	ELECT. CAPACITOR	CEANL4R7M50
C1858	ELECT. CAPACITOR	CEASR47M50
C1859	ELECT. CAPACITOR	CEANL4R7M50
C1860	ELECT. CAPACITOR	CEASR15M50
C1861	ELECT. CAPACITOR	CEANL3R3M50
C1862	AUDIO FILM CAPACITOR	CFTYA154J50
C1863	AUDIO FILM CAPACITOR	CFTYA474J50
C1864, 1865	ELECT. CAPACITOR	CEAS101M16
C1866	CERAMIC CAPACITOR	CKSQYF104Z50
C1867-1869	ELECT. CAPACITOR	CEAS010M50
C1870	CERAMIC CAPACITOR	CKSQYF104Z50

RESISTORS

ALL RESISTORS RS1/10S□□□J

OTHERS

CN1801 15P SOCKET KP200IB15L
 X1801 CRYSTAL RESONATOR ASS1015

5. ADJUSTMENTS

ADJUSTMENT OF THE FM TUNER SECTION

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

Step No.	Adjustment Title	FM SG (1kHz, ±75kHz dev.)		Reception Frequency Display	Adjustment	
		Frequency (MHz)	Level (dB μ V)		Adjustment Location	Specifications
1	Center adjustment	98	80	98.0MHz	L6207	Adjust so that DC voltage between the IC6201-pin4 and pin 28(or \oplus leads of C6224 and C6261) becomes 0V \pm 50mV.
2	Front-end sensitivity adjustment	98	Low input (0 to 30)	98.0MHz	L6102 T6101	Adjust so that the DC voltage between the IC6201- pin12 and GND(or \oplus lead of C6238 and GND) becomes maximum level.
3	TUNED IND. Lighting level	98	15 (\pm 2dB)	98.0MHz	VR6201	Adjust so that the indicator of TUNED IND. starts to light up.

ADJUSTMENT OF MW TUNER SECTION

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

Step No.	Adjustment Title	AM SG (400Hz, 30% Mod.)		Reception Frequency Display	Adjustment	
		Frequency (kHz)	Level (dB μ V/m)		Adjustment Location	Specifications
1	TUNED IND. Lighting level	999 *1	47(\pm 2dB)	999kHz *1	VR6202	Adjust so that the indicator of TUNED IND. starts to light up.

*1 : For the area using 10kHz step, frequencies should be 1000kHz.

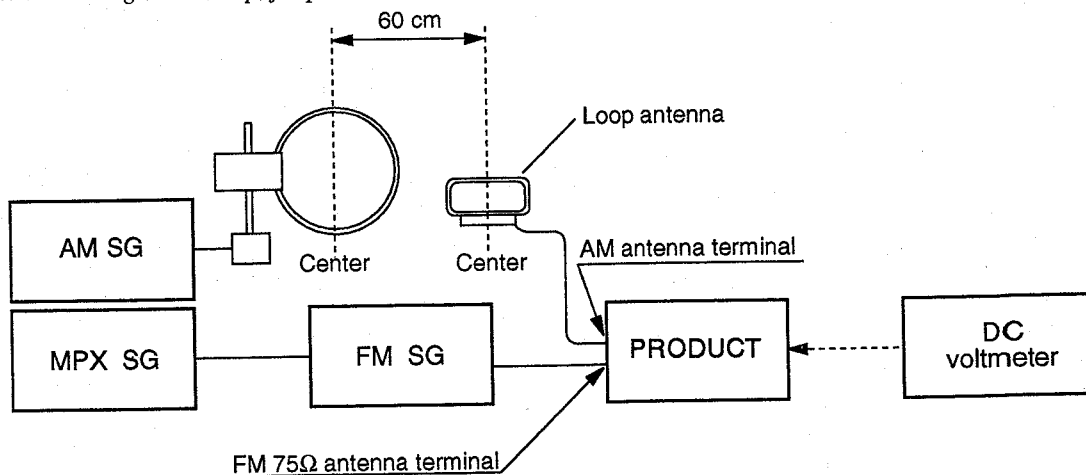


Fig. 1 AM and FM adjustment wiring diagram

FM/AM TUNER MODULE

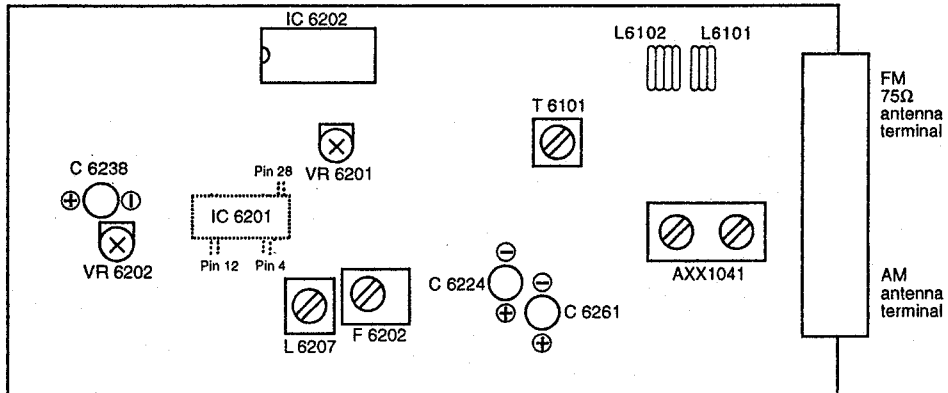


Fig. 2 Adjustment location

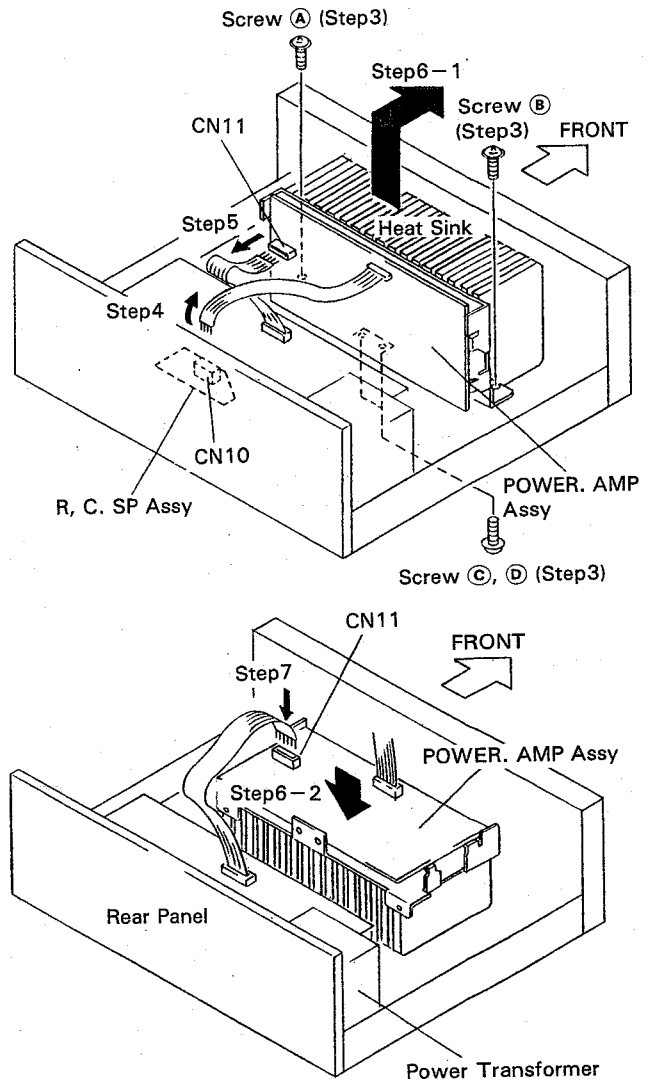
6. DISASSEMBLY

● POWER. AMP ASSY

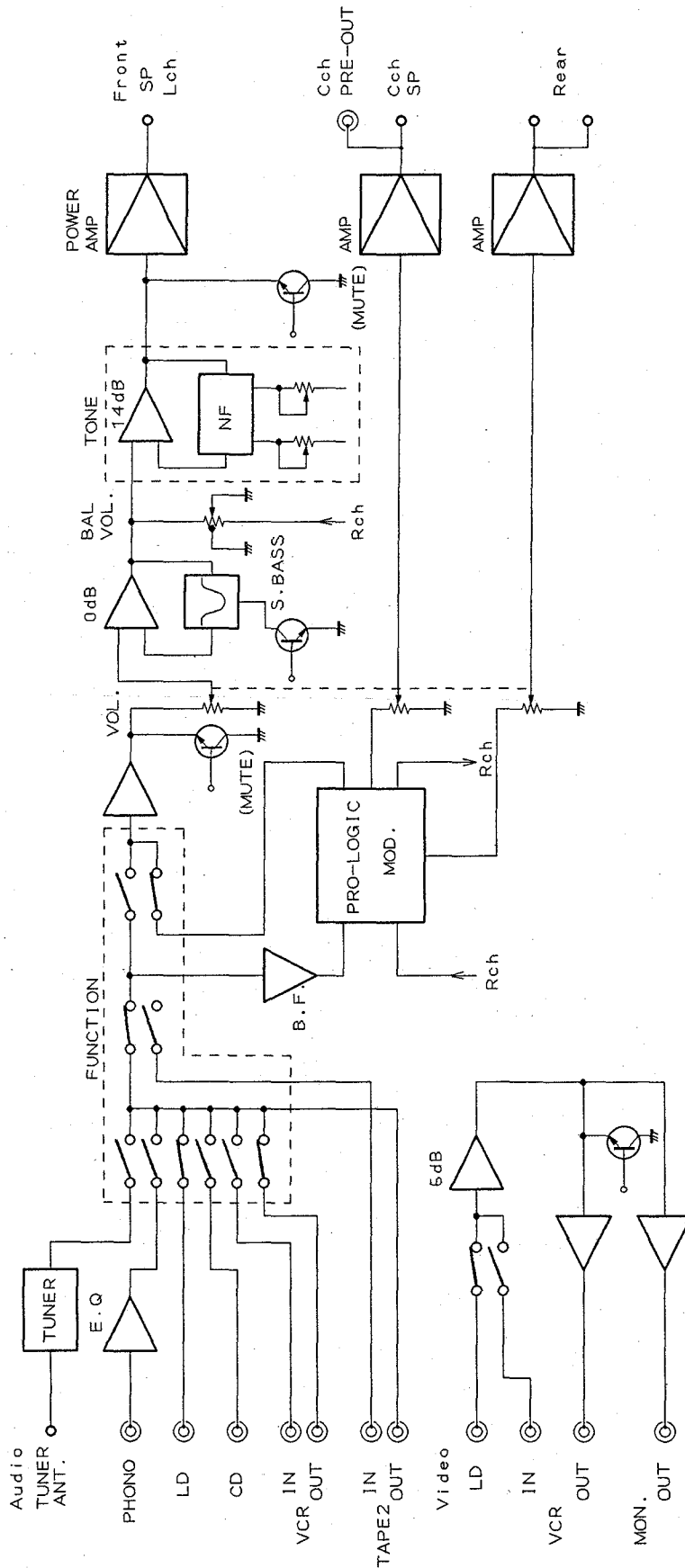
- Step1. Disconnect the AC power cord.
- Step2. Remove the bonnet case.
- Step3. Remove the screws (A) through (D), which fasten the heat sink of the POWER. AMP assembly.
- Step4. Disconnect the cable from CN10 of the R, C. SP assembly.
- Step5. Disconnect the cable from CN11 of the POWER. AMP assembly by raising the assembly slightly.
- Step6. Continue to raise the assembly and rotate it so that the fins of the heat sink face the bottom. Then return the assembly to its original position. (Avoid shorting the assembly by inserting insulation sheets or the like between the assembly and other assemblies.)
- Step7. Re-connect the cable to CN11.

Note :

It is not necessary to re-connect the cable to CN10 of the R, C. SP assembly to check the POWER. AMP assembly.



7. BLOCK DIAGRAM



A

B

C

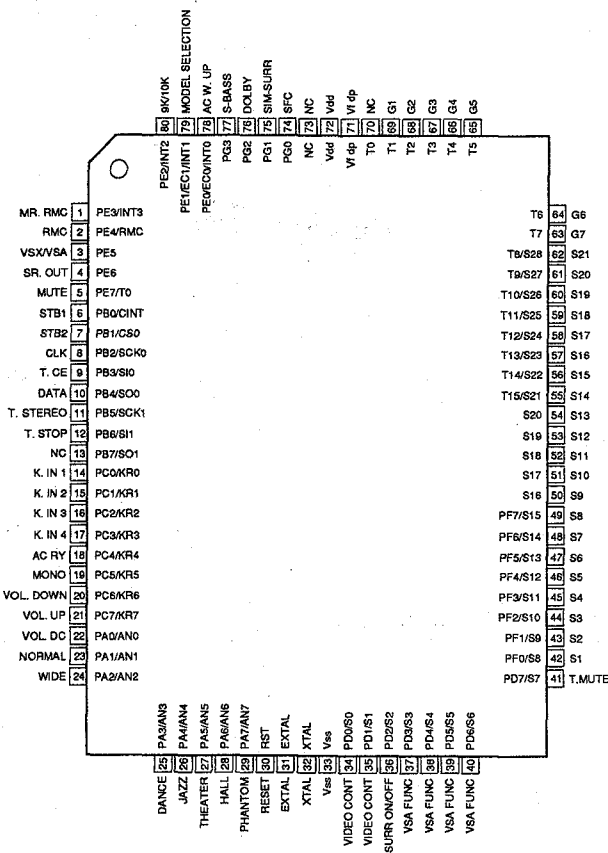
D

8. IC INFORMATION

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


■ PDG115A(IC801) Digital delay

● Block diagram



● Pin Function

No	Pin name	I/O	Function	ACTIVE
1	PE3/INT3 MR. RMC	I	Remote control unit signal input from sub-room	L
2	PE4/RMC RMC	I	Remote control unit signal input	H
3	PE5 VSX/VSA	I	VSX/VSA, VSP select (L/H)	
4	PE6 SR. OUT	O	SR output from Remote control signal	H
5	PE7/T0 MUTE	O	MUTE	H
6	PB0/CINT STB1	O	CE (LA2785, LV1010, LV1020) output for SURROUND IC	L
7	PB1/CS0 STB2	O	STROBE output for function IC	H
8	PB2/SCK0 CLK	O	CLOCK output	
9	PB3/SIO T. CE	O	PLL IC (LLM7001) CE	H
10	PB4/SO0 DATA	O	DATA output	
11	PB5/SCK1 T. STEREO	I	TUNER STEREO ON/OFF	L
12	PB6/SI1 T. STOP	I	TUNED input	L
13	PB7/SO1 NC		NC	
14	PC0/KR0 K. IN 1	I	KEY scan input 1	H
15	PC1/KR1 K. IN 2	I	KEY scan input 2	H
16	PC2/KR2 K. IN 3	I	KEY scan input 3	H
17	PC3/KR3 K. IN 4	I	KEY scan input 4	H
18	PC4/KR4 AC RY	O	AC relay output	H
19	PC5/KR5 MONO	O	FM MONO	H
20	PC6/KR6 VOL. DOWN	O	VOLUME DOWN	H

21	PC7/KR7 VOL. UP	O	VOLUME UP	H
22	PA0/AN0 VOL. DC	I	VOLUME position selection	
23	PA1/AN1 NORMAL	O	CENTER MODE display (NORMAL)	H
24	PA2/AN2 WIDE	O	CENTER MODE display (WIDE)	H
25	PA3/AN3 DANCE	O	VSX : SFC MODE display (DANCE) VSA, VSP : SURR MODE display (3CH LOGIC)	H
26	PA4/AN4 JAZZ	O	SFC MODE display (JAZZ)	H
27	PA5/AN5 THEATER	O	VSX : SFC MODE display (THATER) VSA, VSP : MONO OUT MUTE	H L
28	PA6/AN6 HALL	O	SFC MODE display (HALL)	H
29	PA7/AN7 PHANTOM	O	CENTER MODE display (PHANTOM)	H
30	RST RESET	I	RESET input	
31	EXTAL EXTAL	I	oscillator 8MHz	
32	XTAL XTAL	O		
33	Vss Vss		GND	
34	PD0/S0 VIDEO CONT	O	VIDEO CONTROL	
35	PD1/S1 VIDEO CONT	O	VIDEO CONTROL	
36	PD2/S2 SURR ON/OFF	O	SURROUND ON/OFF	H
37	PD3/S3 VSA FUNC	O	VSA, VSP FUNCTION (INH A)	H
38	PD4/S4 VSA FUNC	O	VSA, VSP FUNCTION (INH V)	H
39	PD5/S5 VSA FUNC	O	VSA, VSP FUNCTION (A)	H
40	PD6/S6 VSA FUNC	O	VSA, VSP FUNCTION (B)	H
41	PD7/S7 T. MUTE	O	VSX : mute for TUNER VSA, VSP : -20dB MUTE	H
42	PF0/S8 S1/K. OUT1	O	FL segment output1/KEY scan output1	H
43	PF1/S9 S2/K. OUT2	O	FL segment output2/KEY scan output2	H
44	PF2/S10 S3/K. OUT3	O	FL segment output3/KEY scan output3	H
45	PF3/S11 S4/K. OUT4	O	FL segment output4/KEY scan output4	H
46	PF4/S12 S5/K. OUT5	O	FL segment output5/KEY scan output5	H
47	PF5/S13 S6/K. OUT6	O	FL segment output6/KEY scan output6	H
48	PF6/S14 S7/K. OUT7	O	FL segment output7/KEY scan output7	H
49	PF7/S15 S8/K. OUT8	O	FL segment output8/KEY scan output8	H
50	S16 S9/K. OUT9	O	FL segment output9/KEY scan output9	H

51	S17 S10/K. OUT10	O	FL segment output10/KEY scan output10	H
52	S18 S11/K. OUT11	O	FL segment output11/KEY scan output11	H
53	S19 S12/K. OUT12	O	FL segment output12/KEY scan output12 (VSA, VSP)	H
54	S20 S13/K. OUT13	O	FL segment output13/KEY scan output13 (VSA, VSP)	H
55	T15/S21 S14	O	FL segment output14	H
56	T14/S22 S15	O	FL segment output15	H
57	T13/S23 S16	O	FL segment output16	H
58	T12/S24 S17	O	FL segment output17	H
59	T11/S25 S18	O	FL segment output18	H
60	T10/S26 S19	O	FL segment output19	H
61	T9/S27 S20	O	FL segment output20	H
62	T8/S28 S21	O	FL segment output21	H
63	T7 G7	O	FL grid output7	H
64	T6 G6	O	FL grid output6	H
65	T5 G5	O	FL grid output5	H
66	T4 G4	O	FL grid output4	H
67	T3 G3	O	FL grid output3	H
68	T2 G2	O	FL grid output2	H
69	T1 G1	O	FL grid output1	H
70	T0 NC		NC	
71	Vf dp Vf dp		Power supply for FL	
72	Vdd Vdd		Power supply +5V	
73	NC NC		+5V	
74	PG0 SFC	O	K-112 : SURR MODE display (SFC) other than K-112 : SURR MODE display (STUDIO)	H
75	PG1 SIM-SURR	O	SURR MODE display (SUMULATED SURROUND)	H
76	PG2 DOLBY	O	SURR MODE display (DOLBY PRO LOGIC)	H
77	PG3 S-BASS	O	VSX : S-BASS ON/OFF VSA, VSP : LOUDNESS ON/OFF	H
78	PE0/EC0/INT0 AC W. UP	I	AC pulse input	
79	PE1/EC1/INT1 MODEL SELECTION	I	VSX : K-112/K-113, K-114 selection (H/L) VSA, VSP : K-119/K-152 selection (L/H)	
80	PE2/INT2 9K/10K	I	VSX : 9K/10K selection (H/L) VSA, VSP : EXJ selection (L/H)	

9. REMOTE CONTROL UNIT [CU-VSX083 (AXD1387)]

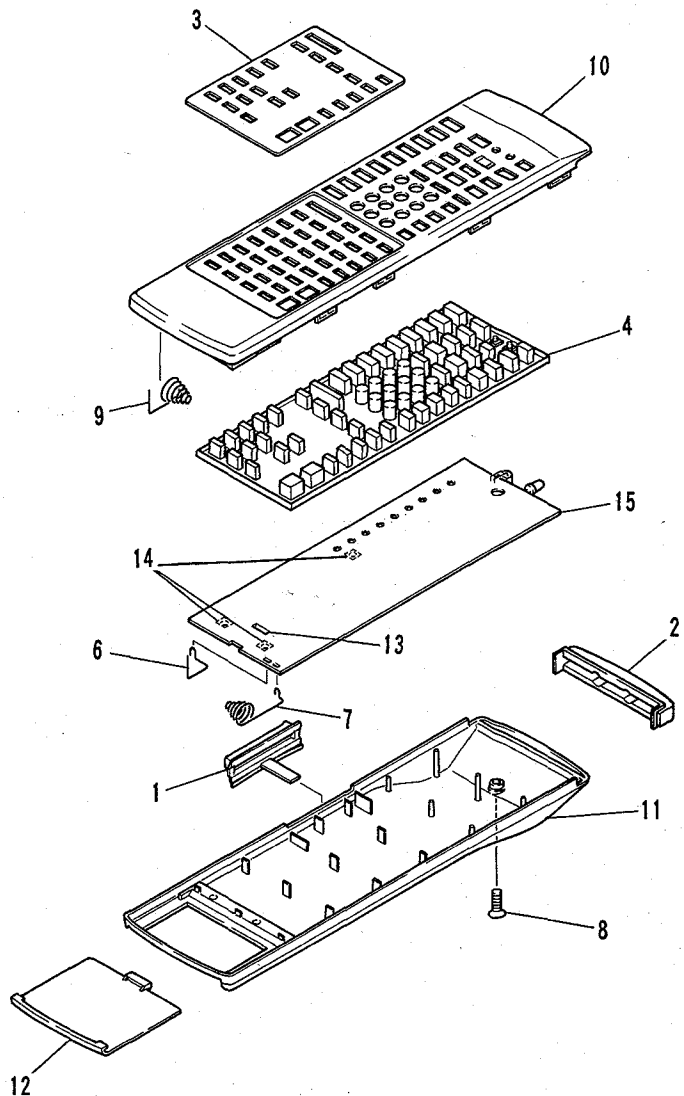
9.1 EXPLODED VIEW AND PARTS LIST

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

Mark	No.	Description	Parts No.
	1	MODE CHECK KEY	AZA1335
	2	FILTER	AZA1336
	3	PLATE	AZA1982
	4	RUBBER SHEET	AZA1983
	5	
	6	TERMINAL (+)	AZB1327
	7	TERMINAL (-)	AZB1328
	8	SCREW	AZB1329
	9	TERMINAL (C)	AZB1330
	10	CASE (A)	AZN2253
	11	CASE (B)	AZN2090
	12	BATTERY COVER	AZN2091
	13	SLIDE SW (S101)	AZS1132
	14	TACT SW (S102, S10, S14)	AZS1133
NSP	15	P. C. BOARD	AZW1130



9.2 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 5 6 1 J
 47k Ω \rightarrow 47 \times 10³ \rightarrow 473 RD1/4PS 4 7 3 J
 0.5 Ω \rightarrow 0R5 RN2H 0 R 5 K
 1 Ω \rightarrow 010 RS1P 0 1 0 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 5 6 2 1 F

Mark No.	Description	Parts No.
----------	-------------	-----------

SEMICONDUCTORS

IC1	μ -COM	ACM001-042
IC2	IC	AZC1564
IC3	LOGIC IC	TC74HC138AF
Q1, 2	CHIP TRANSISTOR	2SC3052E
Q3, 4	TRANSISTOR	2SD1622
D1-6	DIODE	DWA010-TE
D9-17	LED	AZC1573
D7	LED	SLR-938C
D8	DIODE	SPS-503C-3

CAPACITORS

C1, 2	CERAMIC CAPACITOR	CCDSL330J50
C3	CERAMIC CAPACITOR	CCDSL221J50
C4	CERAMIC CAPACITOR	CKDYX104M25
C5	ELECT. CAPACITOR	CEAS470M10
C6	CERAMIC CAPACITOR	CKDYB103K50
C7	ELECT. CAPACITOR	CEAS221M10
C8	ELECT. CAPACITOR	CEAS4R7M50





RESISTORS

R7, 8	CARBON FILM RESISTOR	RD1/4PMFL1R5J
	Other resistors	RD1/8PM J

OTHERS

X1	RESONATOR	AZC1570
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9.3 PCB PATTERN

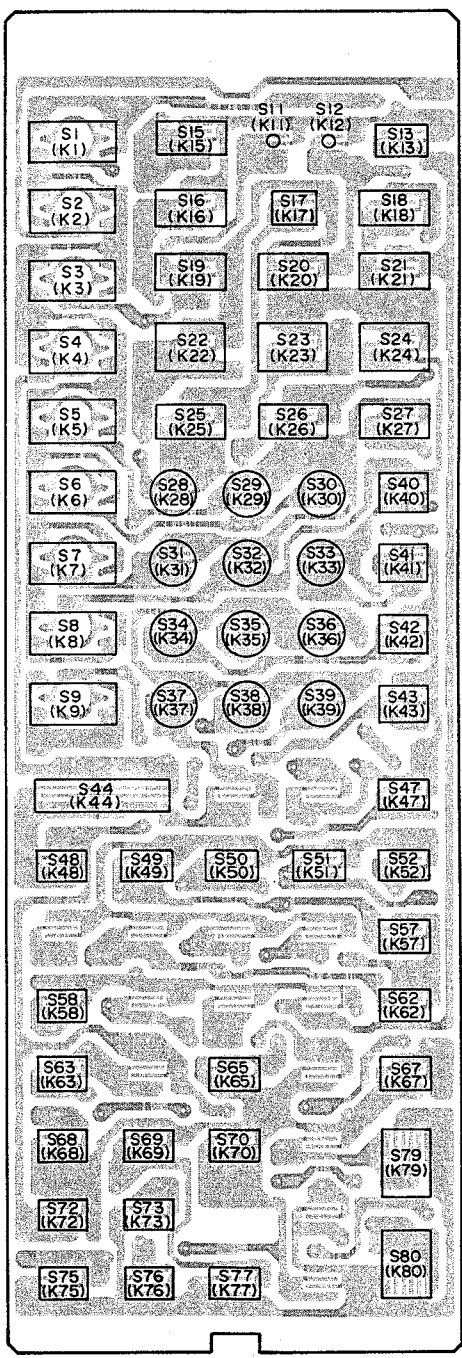
-  : Indicates a chip resistor.
-  : Indicates a chip capacitor.
-  : Indicates a chip transistor.
-  : Indicates a chip diode.

A

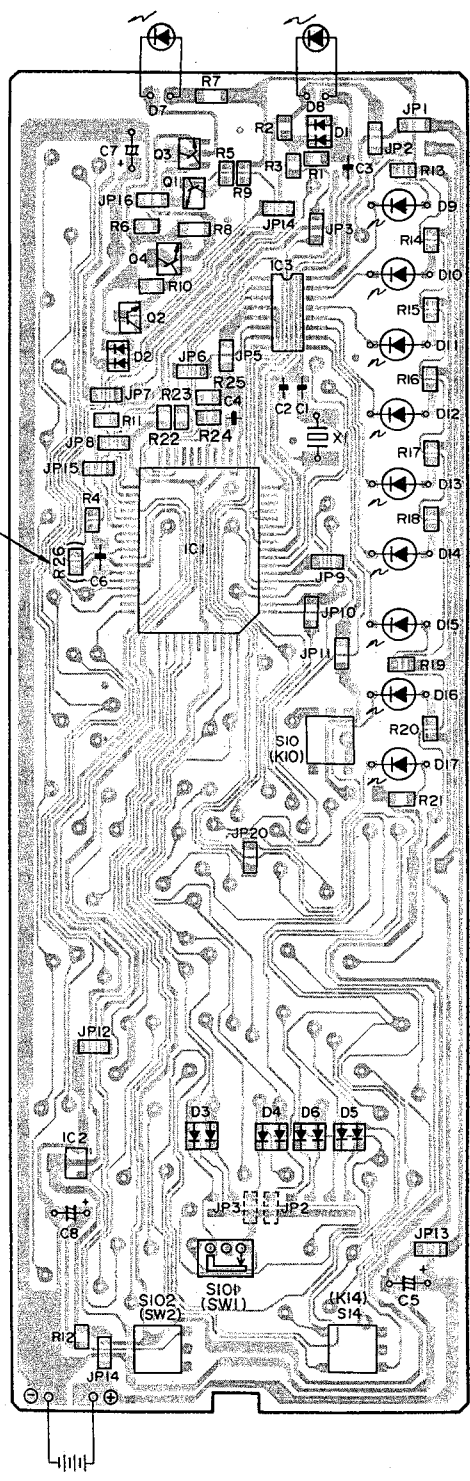
B

C

D



One time version only



9.4 SCHEMATIC DIAGRAM

NOTE)

JP2 : The terminal for switching Fc (carrier frequency of the fixed code). This terminal is set at OPEN (Fc = 40kHz) when delivered. If a product of another manufacturer accidentally receives the PIONEER code, short the terminal so that Fc will be 36.7kHz. (In which case, the learned code and preset code do not change.)

JP3 : This remote control saves the learned data, timing data in ROM and other data (such as code data) in RAM. ROM already contains the timing data for other primary manufacturers. JP3 is a terminal for switching whether or not to use that pre-loaded timing data during learning. This terminal is set at OPEN when delivered. If "data is learned but the product does not operate," there is the rare possibility that learned timing data is affected by the timing data for another primary manufacturer in ROM, causing the receiving product to be deactivated. In such a case, short JP3 to clear all the learned data and restart data learning, so that the data precision is increased. (In which case, the learned data in RAM is shared as is.)

NOTE

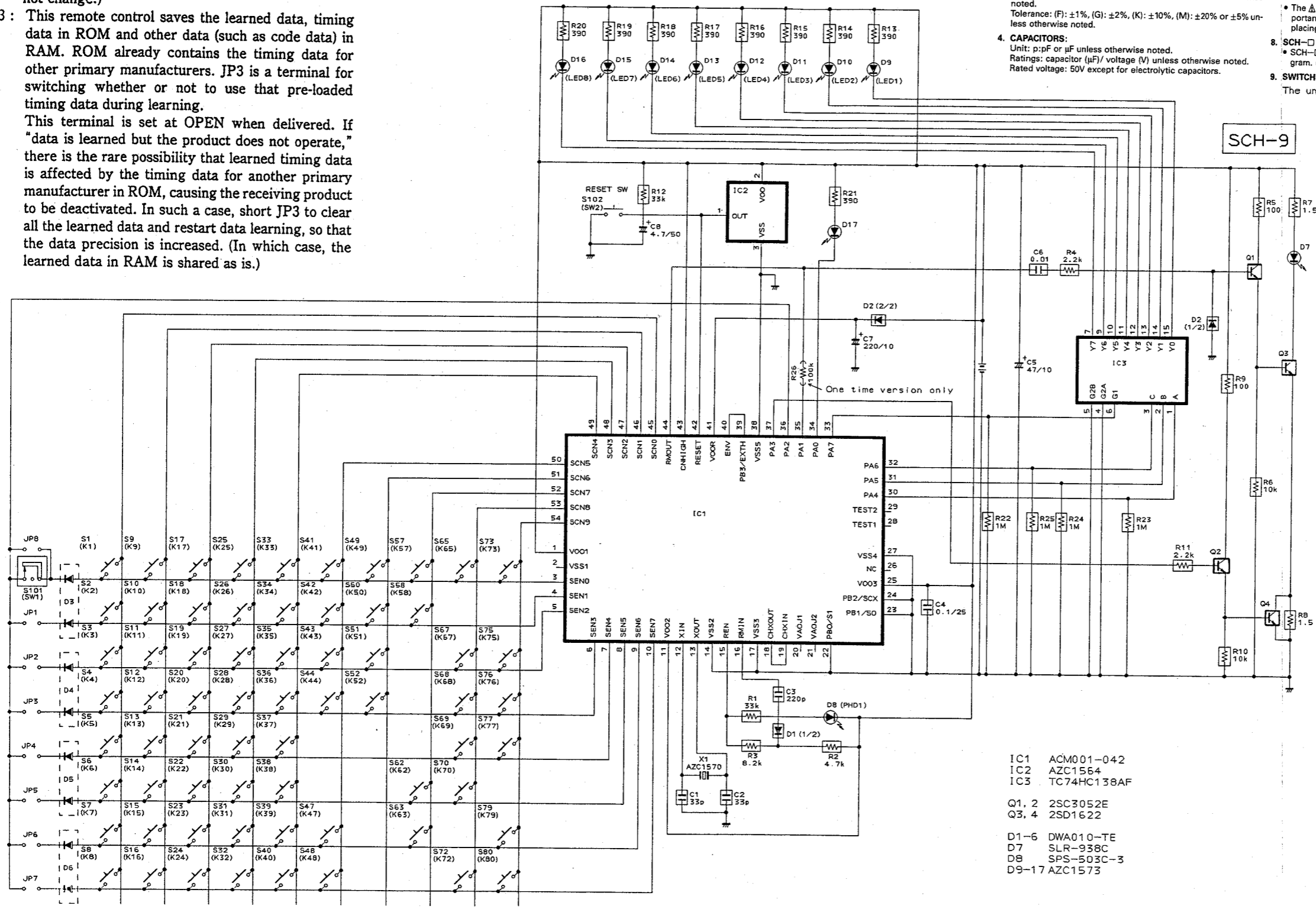
- Indicates a chip resistor.
Indicates a chip capacitor.
Indicates a chip transistor.
Indicates a chip diode.

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:kΩ, M:MΩ, or Ω unless otherwise noted.
4. CAPACITORS: Unit: p:pF or μF unless otherwise noted.

- 5. COILS: Unit: m:mH or μH unless otherwise noted.
6. VOLTAGE AND CURRENT: or - V: DC voltage (V) at no input signal unless otherwise noted.
7. OTHERS:
8. SCH-□ ON THE SCHEMATIC DIAGRAM:
9. SWITCHES (Underline indicates switch position):

- S101: CENT. BAL. / REAR REAR BAL.
S102: RESET
S1: VCR1
S2: VCR2
S3: LD
S4: TV
S5: CD
S6: TUNER
S7: DECK I
S8: DECK II
S9: DAT
S10: MODE CHECK
S11: LEARN
S12: EDIT
S13: MULTI COMMAND
S14: M. CLEAR
S15: POWER
S16:
S17: REC
S18:
S19:
S20: (SEARCH)
S21:
S22:
S23:
S24:
S25: TV/VCR (+10)
S26: SELECT (DISP)
S27: TV FUNC (BAND)
S28: 1
S29: 2
S30: 3
S31: 4
S32: 5
S33: 6
S34: 7
S35: 8
S36: 9
S37: 10/0
S38: 11/PGM
S39: 12/CLEAR
S40: TV VOL/DISC SEL +
S41: TV VOL/DISC SEL -
S42: FREQ/CH (A)
S43: FREQ/CH (V)
S44: RECEIVER POWER
S47: SLEEP
S48: VCR/TAPE1
S49: PHONO
S50: TUNER
S51: LD
S52: CD
S57: TAPE2 MONITOR
S58: RETURN
S62: S. BASS
S63: SIMULATED STEREO
S65: TEST TONE
S67: MUTING
S68: SURR MODE
S69: 3CH LOGIC
S70: CENTER MODE
S72: REAR LEVEL +
S73: CENTER LEVEL +
S75: REAR LEVEL -
S76: CENTER LEVEL -
S77: DELAY TIME
S79: MASTER VOLUME +
S80: MASTER VOLUME -



IC1 ACM001-042
IC2 AZC1564
IC3 TC74HC138AF
Q1, 2 2SC3052E
Q3, 4 2SD1622
D1-6 DWA010-TE
D7 SLR-938C
D8 SPS-503C-3
D9-17 AZC1573

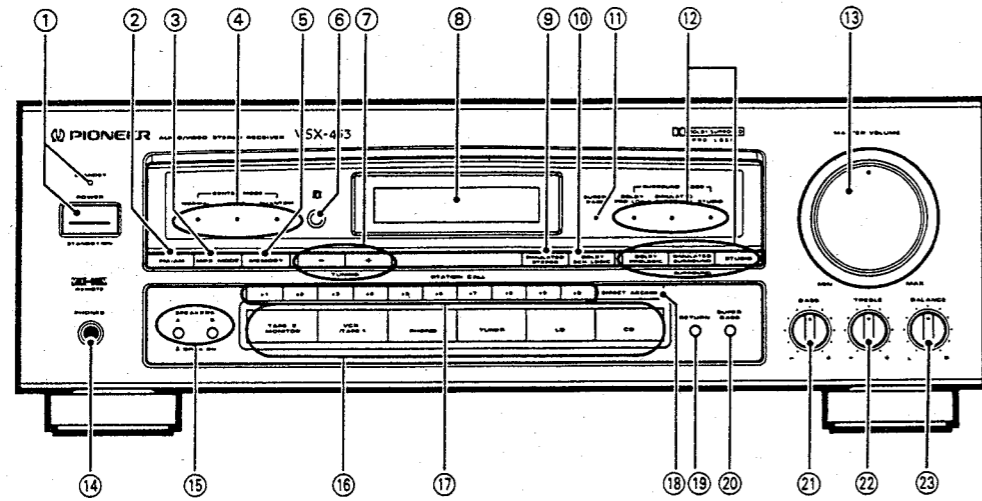
SCH-9

SCHEMATIC DIAGRAM

SCH-9

SCHEMATIC DIAGRAM

10. 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 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. The STANDBY indicator lights when the power is STANDBY, and goes out during ON.

[Timer ON/OFF possible]

When the unit is switched ON, ON/OFF control can be performed by means of the optional timer.

NOTE:

When the power is initially turned ON, muting will be applied to prevent sound from being output for about 6 seconds.

② FM/AM button

Use this to switch between FM and AM frequency band reception.

③ MPX 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 FM MONO indicator in the display section 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.

Monaural mode:

Use if the signal is weak and there is too much noise when receiving an FM stereo broadcast. Reception becomes monaural, but noise is reduced.

NOTE:

This button has no effect on reception of AM broadcasts.

④ CENTER MODE indicators

⑤ MEMORY button

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

⑥ Remote sensor window

⑦ TUNING buttons

+: Performs tuning from the currently displayed station frequency in ascending frequency order.

-: Performs tuning in order of descending frequencies.

⑧ Display section

⑨ SIMULATED STEREO button

Press to produce a simulated stereo effect when listening to monaural sources (for example, AM or TV broadcasts). "SIMULATED STEREO" appears on the display section.

NOTE:

This effect is not produced through the rear speakers.

⑩ DOLBY 3CH LOGIC button

This switches on and off the DOLBY 3CH LOGIC. When it's in the on position, the "3CH LOGIC" indicator lights.

⑪ SUPER BASS indicator

Lights when SUPER BASS is ON.

⑫ SURROUND MODE selector buttons/indicators

⑬ MASTER VOLUME control

Use it to simultaneously adjust the sound volume from the front, center, and rear speakers.

⑭ PHONES jack

Connect the plug on your headphones to this jack. Set all SPEAKERS A and B switches to OFF if you want to cut the sound from speakers and listen to it only through the headphones.

⑮ SPEAKERS buttons (A, B) OFF ON

ON/OFF switches for the A and B speaker systems.

NOTE:

No sound will be heard through the speakers when both A and B buttons are depressed if only one set of speakers has been connected to either A or B SPEAKERS terminals.

⑯ Input selector buttons

TAPE 2 MONITOR

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

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

PHONO : Press when playing records on a turntable.

TUNER : Press when listening to radio broadcasts.

LD : Press when performing playback on an LD player.

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

⑰ STATION CALL buttons

Up to 30 FM or AM stations can be preset at random.

These buttons are used to preset and recall desired broadcasting stations, FM AUTO/MONO mode.

⑱ 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.

⑲ RETURN button

Press this button to return the receiver into the initial state. TUNER is selected at this initial state. Adjust the sound level by using the MASTER VOLUME control.

• TAPE 2 MONITOR Off

• SURROUND MODE Off

• MUTING Off

• FUNCTION TUNER

Returns you to the last station you were receiving. When reception is not possible, auto tuning (UP) starts from that frequency.

NOTE:

If no sound is output after the RETURN button is pressed, make sure that SPEAKERS buttons are turned on.

⑳ SUPER BASS button

Switch ON when you want to boost bass. The SUPER BASS indicator lights.

㉑ BASS control

Use to adjust the low-frequency level.

Turn clockwise to boost bass, and counterclockwise to attenuate bass.

㉒ TREBLE control

Use to adjust the high-frequency level.

Turn clockwise to boost treble, and counterclockwise to attenuate treble.

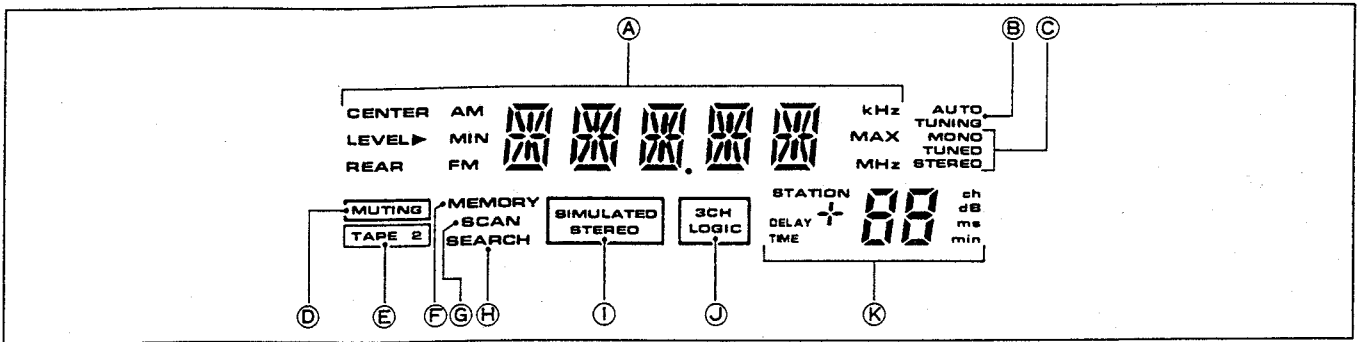
㉓ BALANCE control

Use to adjust the sound volume balance between left and right speakers.

L: Decrease the sound on the right side.

R: Decrease the sound on the left side.

Usually, left and right volume levels should be the same.



A Character/Level display

- Displays function, frequency, and "SLEEP".
- It also displays the level settings during adjustment. During level display, MIN and MAX light.

B AUTO TUNING indicator

Lights up when in the auto tuning mode.

C Tuning indicator

TUNED : Lights up when a station is tuned in during TUNER operation.

MONO : Lights up when the FM MONO mode is selected with the MPX MODE button.

STEREO : Lights up when a stereo FM broadcast is being received.

D MUTING indicator

Flashes when MUTING is ON.

E TAPE 2 indicator

Lights up when the input selector is set to TAPE 2 MONITOR ON.

F MEMORY indicator

When presetting stations, this lights when the MEMORY button is pressed.

G SCAN indicator

Lights up during memory scan operation.

NOTE:

Memory scan can be operated by the VSX-453's remote control unit only.

H SEARCH indicator

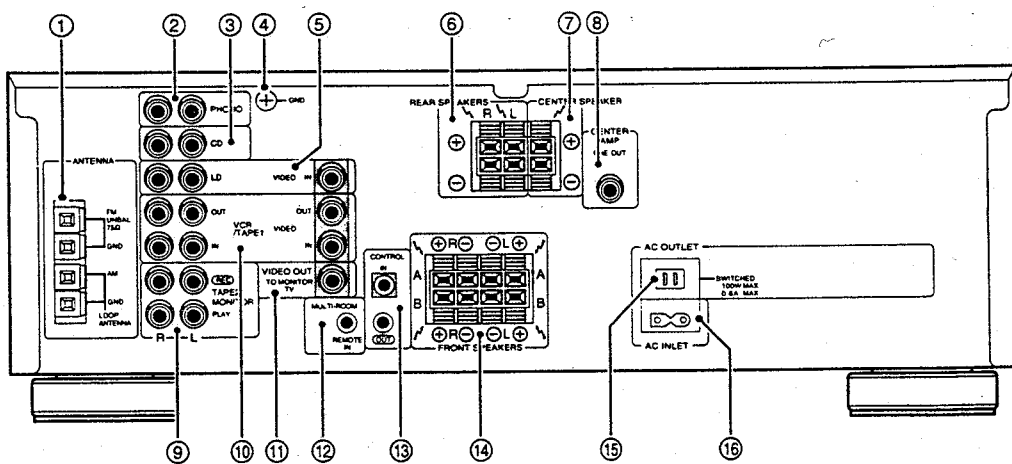
Lights during Return mode operation.

I SIMULATED STEREO indicator

J DOLBY 3CH LOGIC indicator

K STATION/DELAY TIME/LEVEL/SLEEP TIME display

- Indicates the channel (ch) selected with the STATION CALL buttons.
- Indicates delay time (ms) when using SIMULATED SURROUND or DOLBY PRO LOGIC SURROUND.
- Indicates rear level and center level (dB).
- Indicates sleep timer settings (min).



① FM/AM ANTENNA terminals

Connect to FM and AM antennas.

② PHONO input jacks

Connect to the output cables from a turntable.

③ CD input jacks

Connect to the output jacks of a compact disc player.

④ GND terminal

Connect the turntable ground lead to this terminal. Loosen the screw, connect the ground lead, and then tighten the screw.

⑤ LD input jacks

Connect to an LD player's output jacks (audio, video).

⑥ REAR SPEAKERS terminals

Connect the rear speakers to these terminals.

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

Use speakers with impedance of 8 Ω to 16 Ω.

⑦ CENTER SPEAKER terminals

Connect the center speaker to these terminals. Use center speakers with impedance of 8 Ω to 16 Ω.

⑧ CENTER AMP PRE OUT jack

When a separate power amplifier is used to drive the surround center speaker, connect the power amplifier to this jack.

⑨ TAPE 2 MONITOR jacks

Connect to audio components such as a second cassette deck or graphic equalizer.

⑩ VCR/TAPE 1 jacks

Connect to the first cassette deck or to a VCR. With a VCR, also connect the video jacks.

⑪ VIDEO OUT (TO MONITOR TV) jack

Connect to a monitor TV.

⑫ MULTI-ROOM REMOTE IN jack

Connect to the separately sold MR-100 Multi-Room remote control unit.

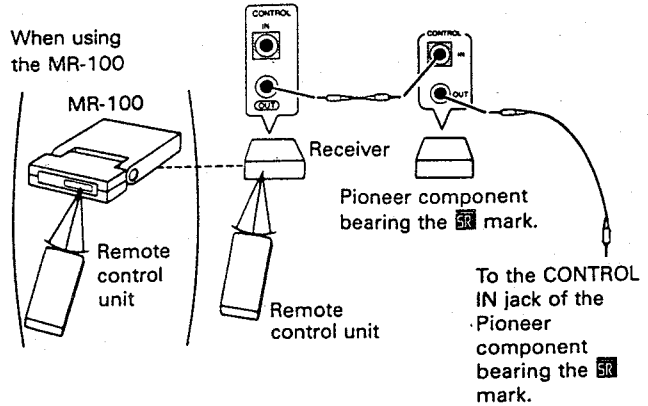
⑬ CONTROL IN/OUT jacks

IN : Connect this jack to other Pioneer components (main unit or remote control unit) when using those components to control this unit.

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

NOTE:

The receiver's remote sensor does not function when a plug is inserted in the IN jack. To operate, point the remote control unit at the remote sensor on the component to which the receiver's IN jack is connected.



⑭ FRONT SPEAKERS terminals

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

NOTE:

Do not allow any of the cord's conductors to protrude from the terminals or touch any other conductors. Malfunctioning or breakdowns may occur when conductors come into contact with each other.

Use speakers with impedance of 8 Ω to 16 Ω.

⑮ AC OUTLET jack

[SWITCHED 100 W (0.8 A) MAX]

Power supplied through this outlet is turned on and off by the receiver's POWER switch. Electrical power consumption of the connected equipment should not exceed 100 W (0.8 A).

NOTE:

- This unit should be disconnected by removing the power plug from the wall socket when not in regular use, e.g. when on vacation.
- Do not connect appliances with high power consumption such as heaters, irons, or television sets to this AC OUTLET in order to avoid overheating and fire risk. This can cause the receiver to malfunction.

CAUTION:
DO NOT CONNECT MONITOR OR TV SET.

⑯ AC INLET jack

Connect the supplied power cord here.

11. SPECIFICATIONS

Amplifier Section

Continuous Power Output (in Stereo Mode)
 Front 100 W + 100 W (20 Hz to 20 kHz, 0.09 %, 8 Ω)

Continuous Power Output (When using SURROUND MODE)
 Rear only driven 20 W + 20 W (1 kHz, 0.8 %, 8 Ω)
 Front and Center driven
 Front 60 W + 60 W (1 kHz, 0.8 %, 8 Ω)
 Center (Only with DOLBY PRO LOGIC SURROUND) 60 W
 (1 kHz, 0.8 %, 8 Ω)

Dynamic Power (2 Ω/4 Ω/8 Ω) 255 W/190 W/145 W

Input (Sensitivity/Impedance)
 PHONO MM 2.8 mV/47 kΩ
 CD, VCR/TAPE 1, TAPE 2, LD 200 mV/47 kΩ

Phono Overload Level (T.H.D. 0.1 %, 1 kHz)*
 PHONO MM 100 mV

Frequency Response
 PHONO MM 20 Hz to 20,000 Hz ±0.5 dB
 CD, VCR/TAPE 1, TAPE 2, LD 10 Hz to 100,000 Hz ±₃ dB

Output (Level/Impedance)
 VCR/TAPE 1 REC, TAPE 2 REC 200 mV/2.2 kΩ

Tone Control
 BASS ±8 dB (100 Hz)
 TREBLE ±8 dB (10 kHz)

Signal-to-Noise Ratio (IHF, short circuited, A network)
 PHONO MM 72 dB
 CD, VCR/TAPE 1, TAPE 2, LD 96 dB

Signal-to-Noise Ratio [EIA at 1 W (1 kHz)]
 PHONO MM 75 dB
 CD, VCR/TAPE 1, TAPE 2, LD 79 dB

* Measured by Audio Spectrum Analyzer.

VIDEO Section

Input (Sensitivity/Impedance)
 VCR/TAPE 1, LD 1 Vp-p/75 Ω

Output (Level/Impedance)
 VCR/TAPE 1, MONITOR 1 Vp-p/75 Ω

Frequency Response
 VCR/TAPE 1, LD → MONITOR 5 Hz to 10 MHz ±₃ dB

Signal-to-Noise Ratio 55 dB

Cross Talk 55 dB

MAINTENANCE OF EXTERNAL SURFACES

- Use a polishing cloth or dry cloth to wipe off dust and dirt.
- When the surfaces are dirty, wipe with a soft cloth dipped in some neutral cleanser diluted five or six times with water, and wrung out well, and then wipe again with a dry cloth. Do not use furniture wax or cleaners.
- Never use thinners, benzine, insecticide sprays or other chemicals on or near this unit, since these will corrode the surfaces.

FM Tuner Section

Frequency Range 87.5 MHz to 108 MHz

Usable Sensitivity Mono: 11.2 dBf, IHF (1.0 μV/75 Ω)
 50 dB Quieting Sensitivity Mono: 16.8 dBf
 Stereo: 38.6 dBf

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

Distortion Stereo: 0.5 % (1 kHz)

Alternate Channel Selectivity 60 dB (400 kHz)

Stereo Separation 40 dB (1 kHz)

Frequency Response 30 Hz to 15 kHz ±1 dB

Antenna Input 75 Ω unbalanced

AM Tuner Section

Frequency Range 530 kHz to 1,700 kHz

Sensitivity (IHF, Loop antenna) 350 μV/m

Selectivity 25 dB

Signal-to-Noise Ratio 50 dB

Antenna Loop antenna

Miscellaneous

Power Requirements AC 120 Volts, 60 Hz

Power Consumption 360 VA

AC outlet (switched) x 1 100 W (0.8 A) MAX

Dimensions 420 (W) x 141 (H) x 349 (D) mm

Weight (without package) 8.4 kg

Furnished Parts

FM Antenna 1

AM Loop Antenna 1

Dry Cell Batteries
 VSX-453: size "AA" (IEC R6/UM-3) 2
 VSX-463S: size "AA" (IEC LR6/AM-3) 2

Remote Control Unit 1

Power Cord 1

Operating Instructions 1

NOTE:

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