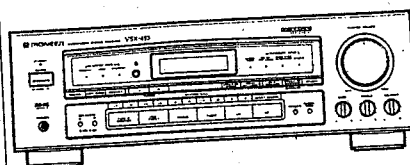


Service Manual



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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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.

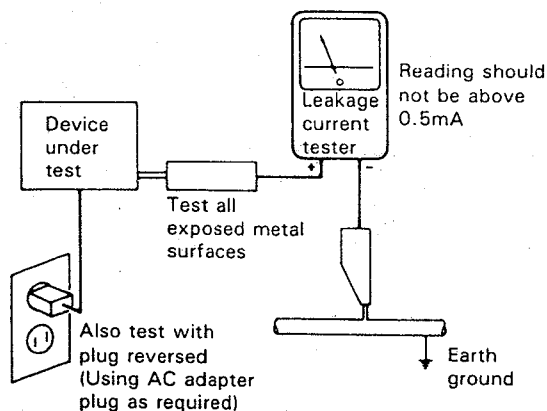
(FOR USA MODEL ONLY)

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.

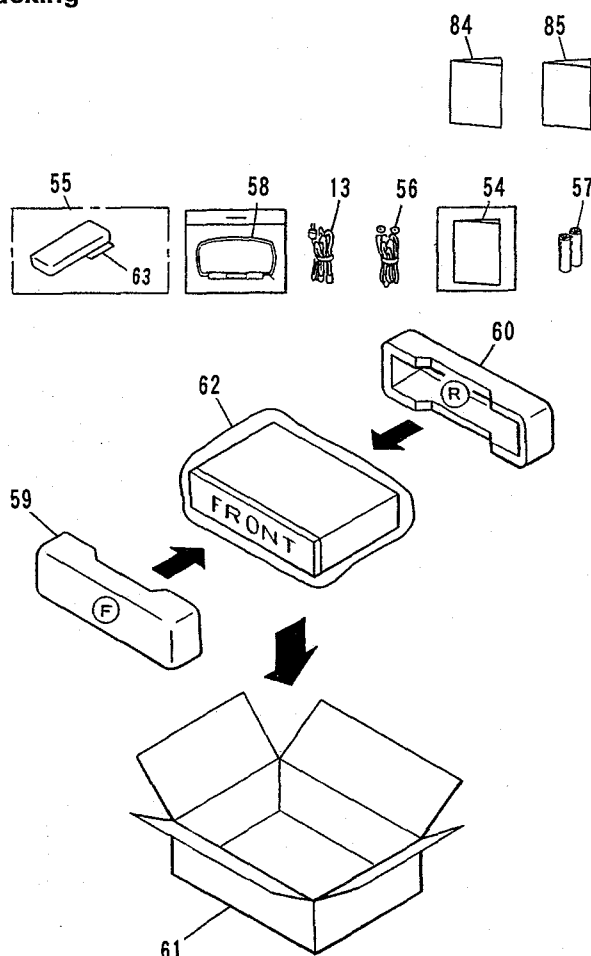
Parts List of Exterior and Packing

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	NSP	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

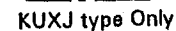
Mark	No.	Description	Parts No.
	51	TACT BUTTON (PLS)	AAD2417
	52	POWER BUTTON (PLS)	AAD2418
	53	BONNET CASE (MTL)	ANE1431
	54	OPERATING INSTRUCTIONS (English)	ARB1466
	54	(For VSX-453/KUXJ and SDXJ)	
	54	OPERATING INSTRUCTIONS (English)	ARB1467
	54	(For VSX-403/KUXJ and KCXJ)	
	55	REMOTE CONTROL UNIT (CU-VSX085)	AXD1386
	55	(Except VSX-463S)	
	55	REMOTE CONTROL UNIT (CU-VSX083) (For VSX-463S)	AXD1387
NSP	56	FM ANTENNA	ADH1017
NSP	57	BATTERY (R6P, AA)	AEX-010
	57	(Except VSX-463S)	
NSP	57	BATTERY (LR6, AA)	AEX1007
	57	(For VSX-463S)	
	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

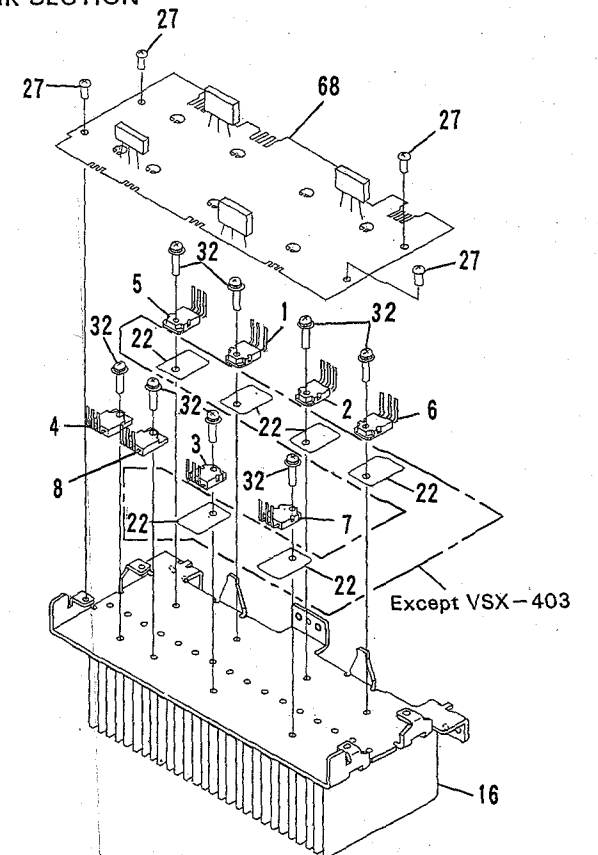
● Packing



D



0



Except VSX-403

3. SCHEMATIC AND PCB CONNECTION DIAGRAMS

3.1 OVERALL SCHEMATIC DIAGRAM

NOTE FOR SCHEMATIC DIAGRAMS

(Type 1A)

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: 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.

4. 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.

5. COILS:

Unit: m: mH or μ H unless otherwise noted.

6. 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.

7. OTHERS:

• $\odot$ or $\bullet$: Adjusting point.
• $\square$: 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- $\square$ ON THE SCHEMATIC DIAGRAM:

• SCH- $\square$ indicates the drawing number of the schematic diagram. (SCH stands for schematic diagram.)

9. 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

H. PHNE, SP. SW assy
S670 SPEAKERS A ON/OFF
SPEAKERS B ON/OFF

POWER TRANSFORMER
T1: ATS1521
(VSX-453/KUXJ, KCXJ, VSX-463S)
ATS1523 (VSX-403/KUXJ)
ATS1549 (VSX-403/KCXJ)

SCH-1

YJ6HW6-25-35/35

TRANS assy
(AWZ5380)
(SCH-3)

VSX-453/SDXJ ONLY

FU2: REK1066

FU2: REK1066

FU2: REK1066

FU2: REK1066

FU2: REK1066

FU2: REK1066

FU2: REK1066

FU2: REK1066

FU2: REK1066

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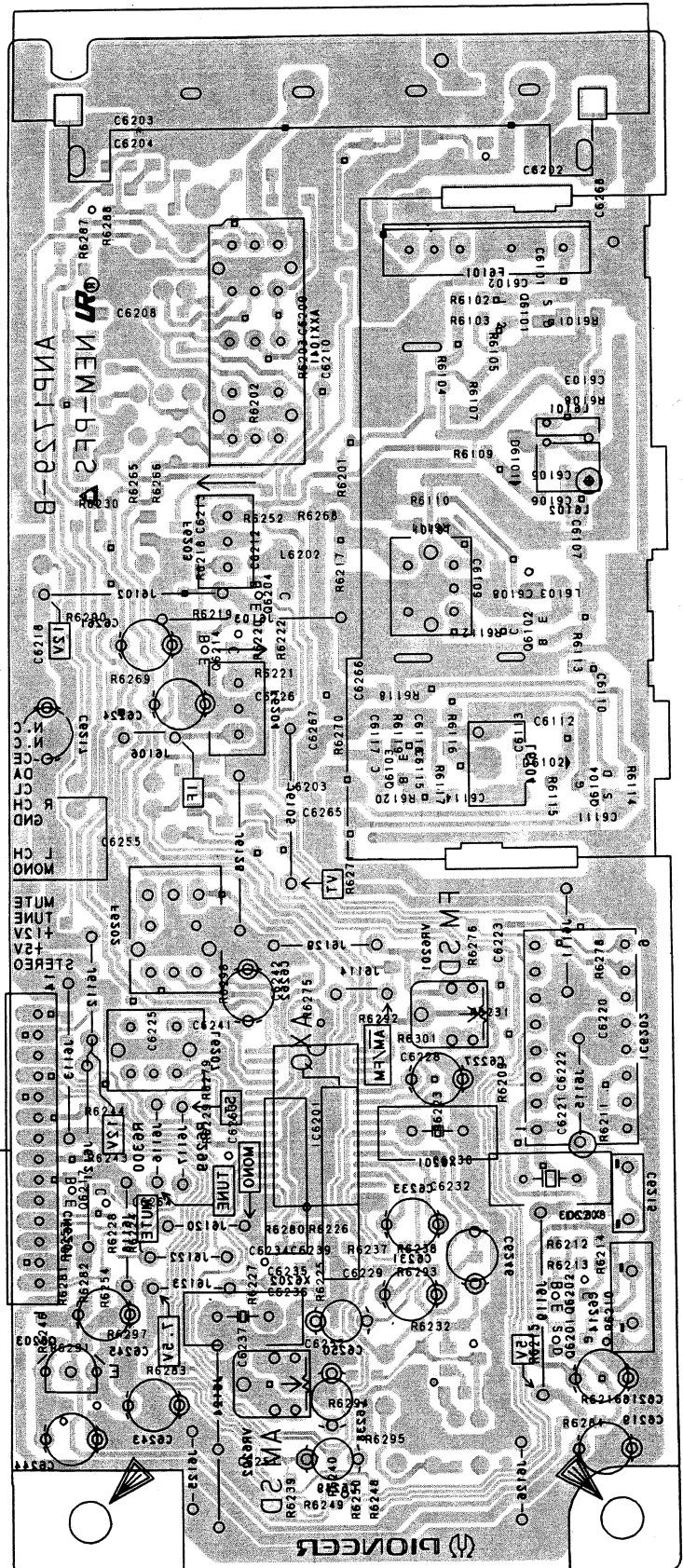
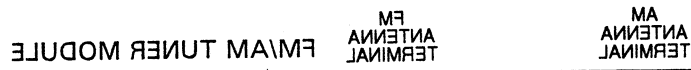
SCH-1

OVERALL SCHEMATIC DIAGRAM

SCH-1

OVERALL SCHEMATIC DIAGRAM

3.2 FM\AM TUNER MODULE



TO MOTHER ASSY CN711

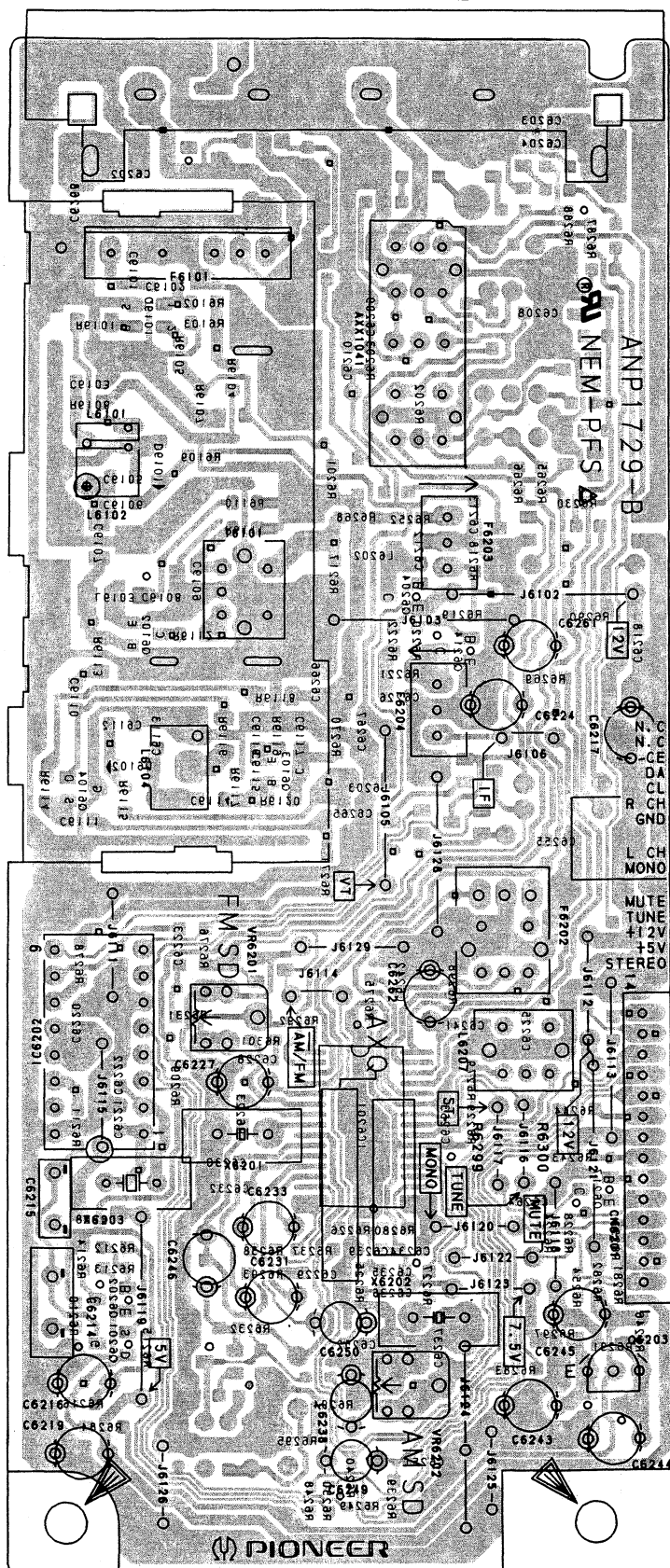
- This diagram is viewed from the foil side.

S058RV		I058RV		Q6101	
E058O		S058O		Q6214	
Q6201	Q6202	Q6217	IC6201	Q6103	Q6204
				Q6104	Q6102

3.2 FM/AM TUNER MODULE

AM
ANTENNA
TERMINALFM
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
		Transistor
		Diode
		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.

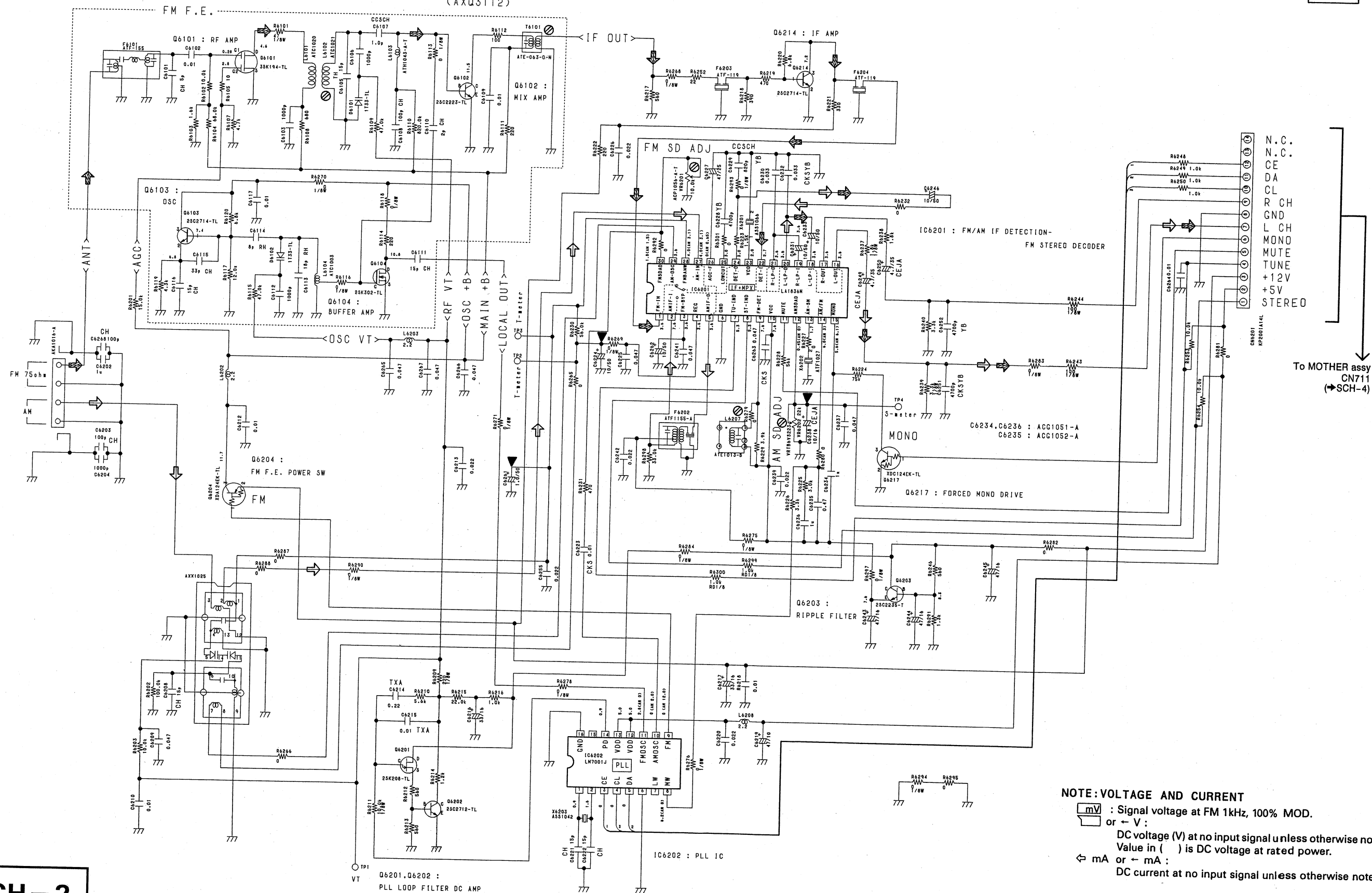
To MOTHER assy CN711

- This diagram is viewed from the mounted parts side.

SCH-2

FM/AM TUNER MODULE
(AXQ3112)

→: FM signal route
⇨: AM signal route



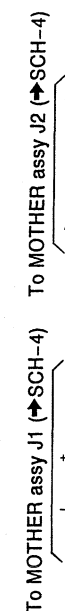
SCH-2

FM/AM TUNER MODULE

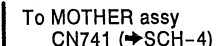
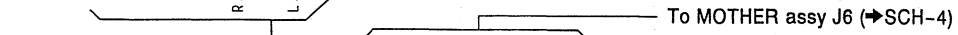
SCH-2

FM/AM TUNER MODULE

D



C



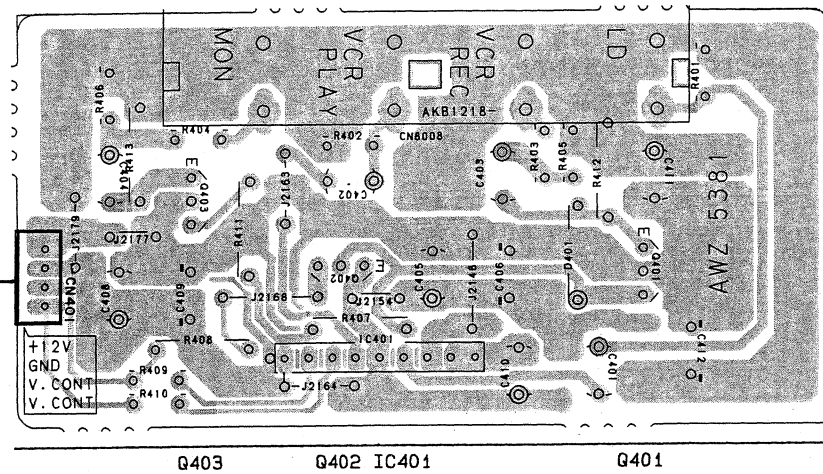
To POWER.
AMP assy
J5 (→SCH-8)

H. PHNE, SP. SW assy (AWZ5384)

SCH-3

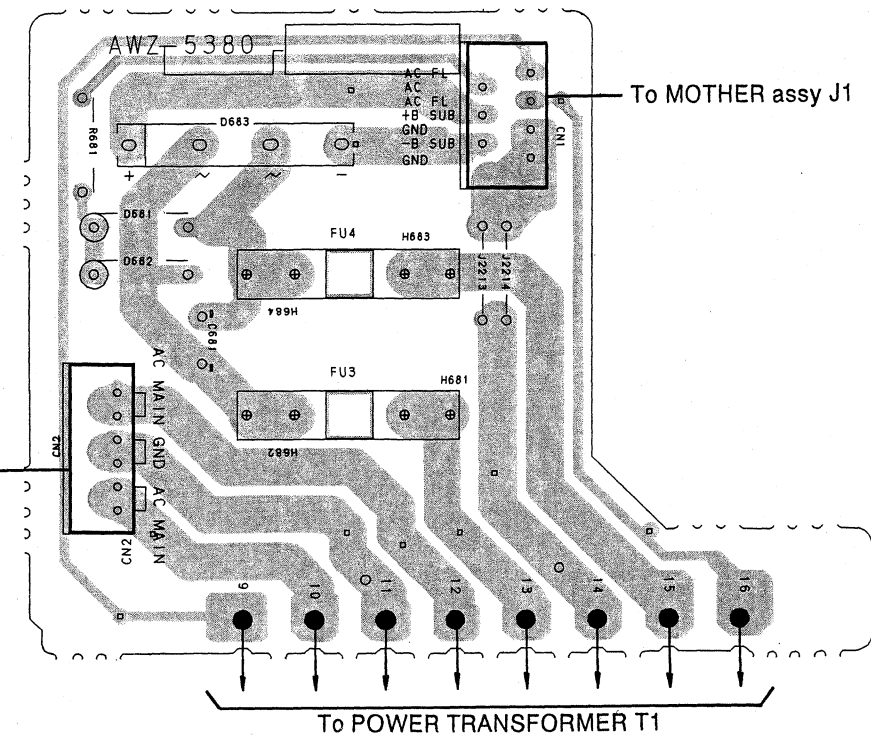
FUNC ASSY, VIDEO ASSY,
H. PHNE, SP. SW ASSY, TRANS ASSY

VIDEO assy

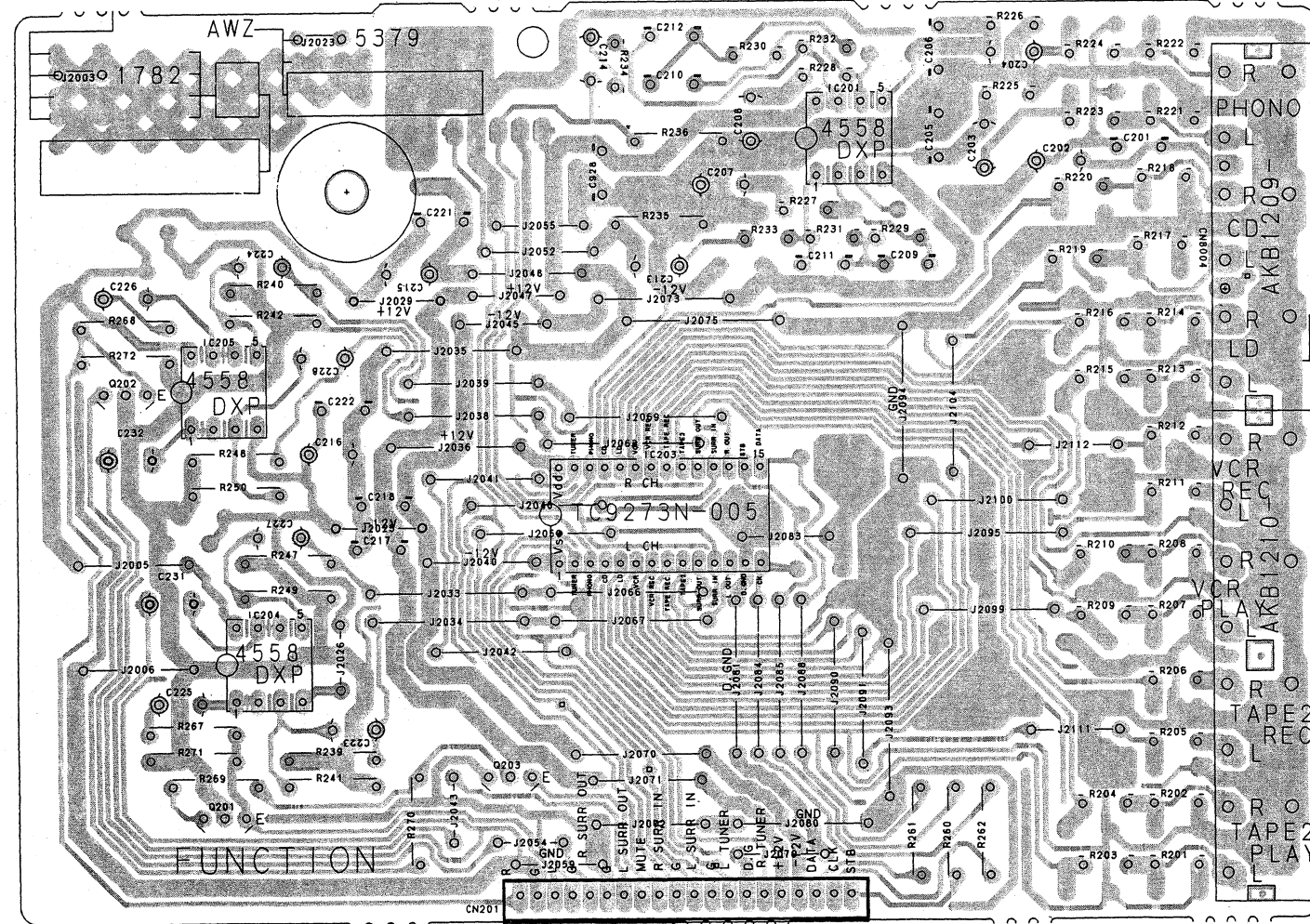


• This diagram is viewed from the mounted parts side.

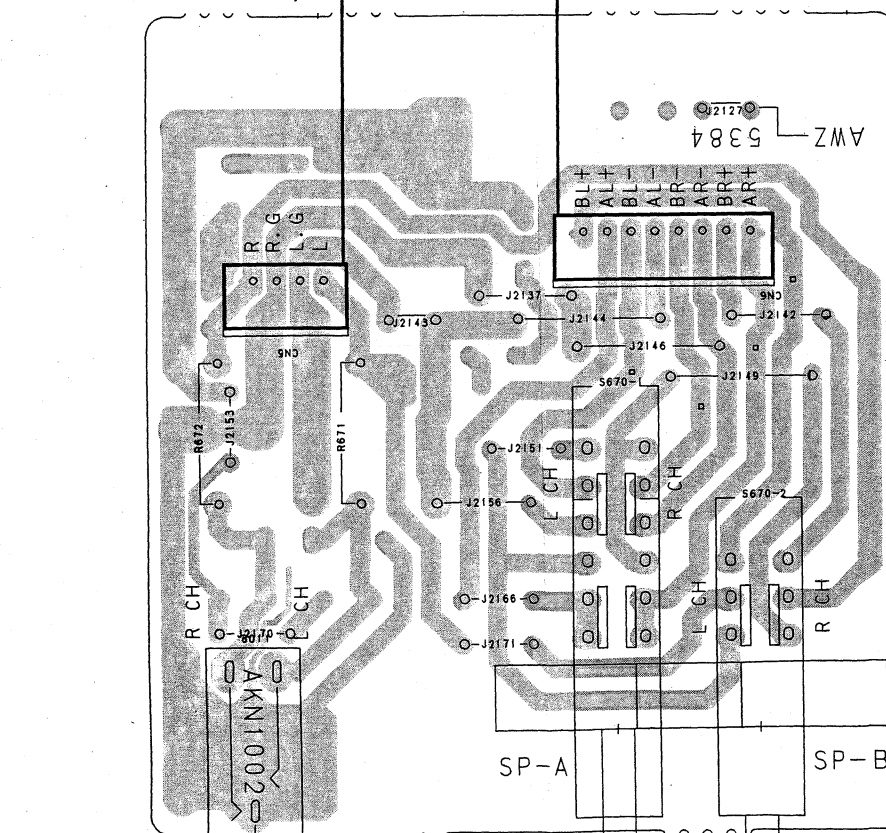
TRANS assy



FUNC assy



H. PHNE, SP. SW assy

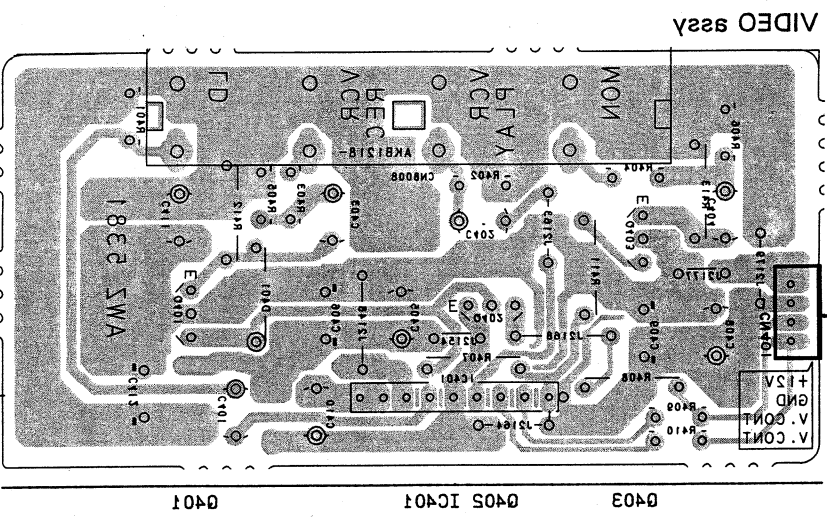


A

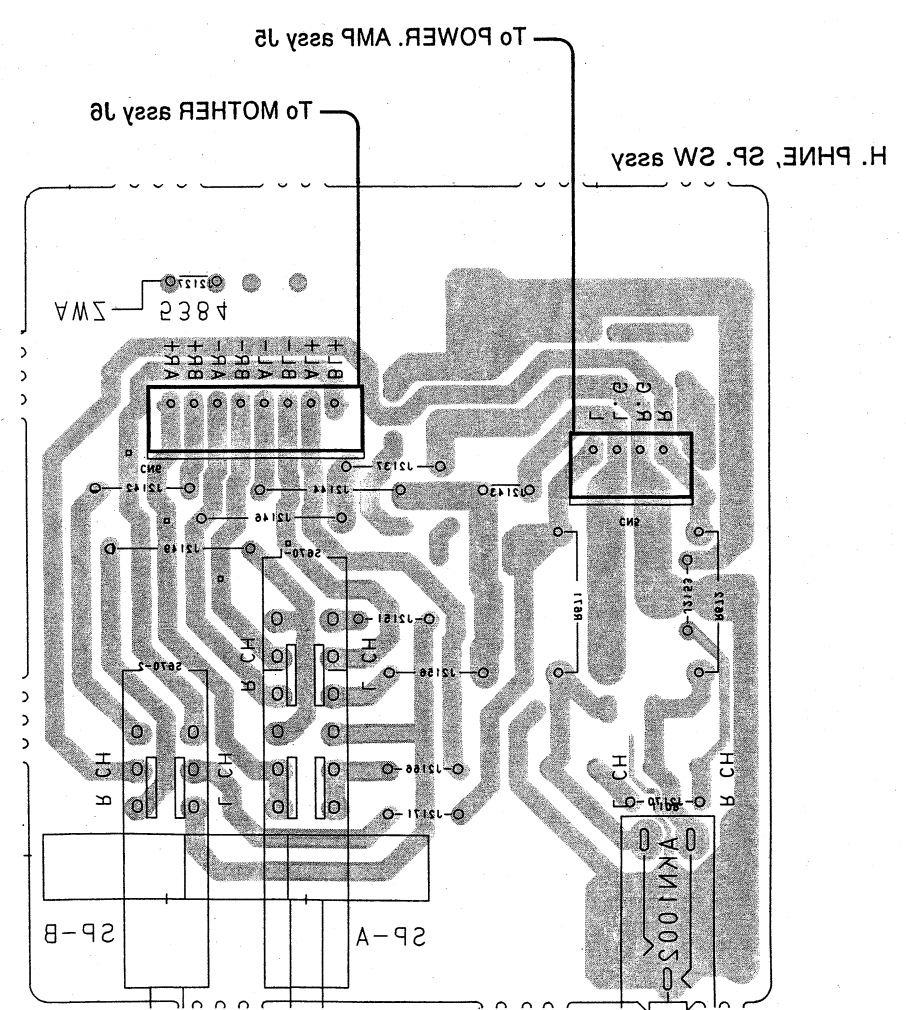
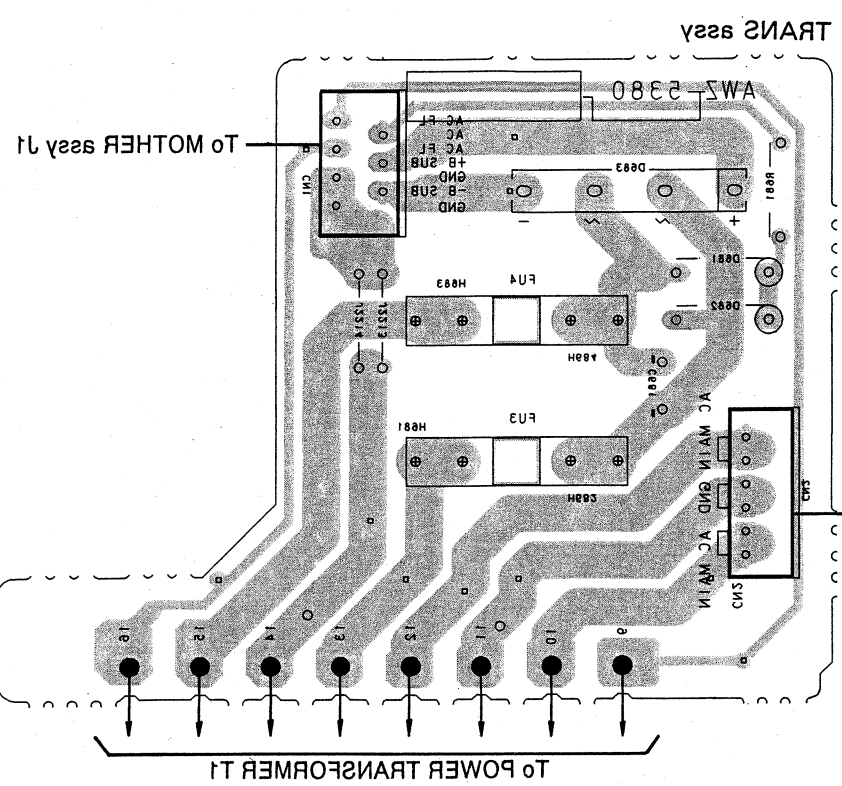
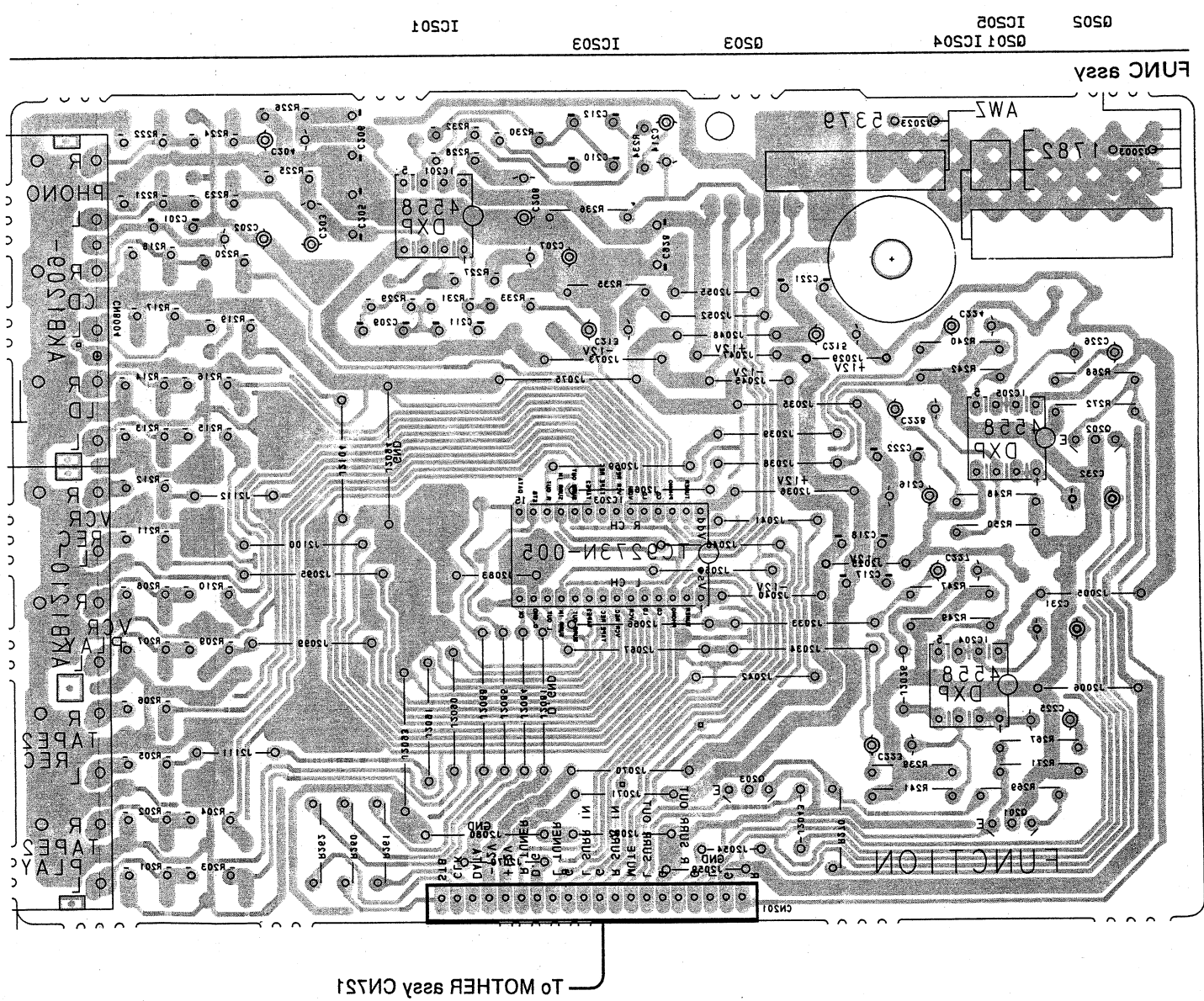
B

C

D



● This diagram is viewed from the foil side.



ASX 453 ASX 403 ASX 4532

A

B

C

D

e

2

4

3

5

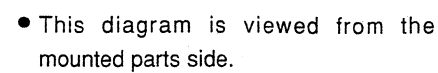
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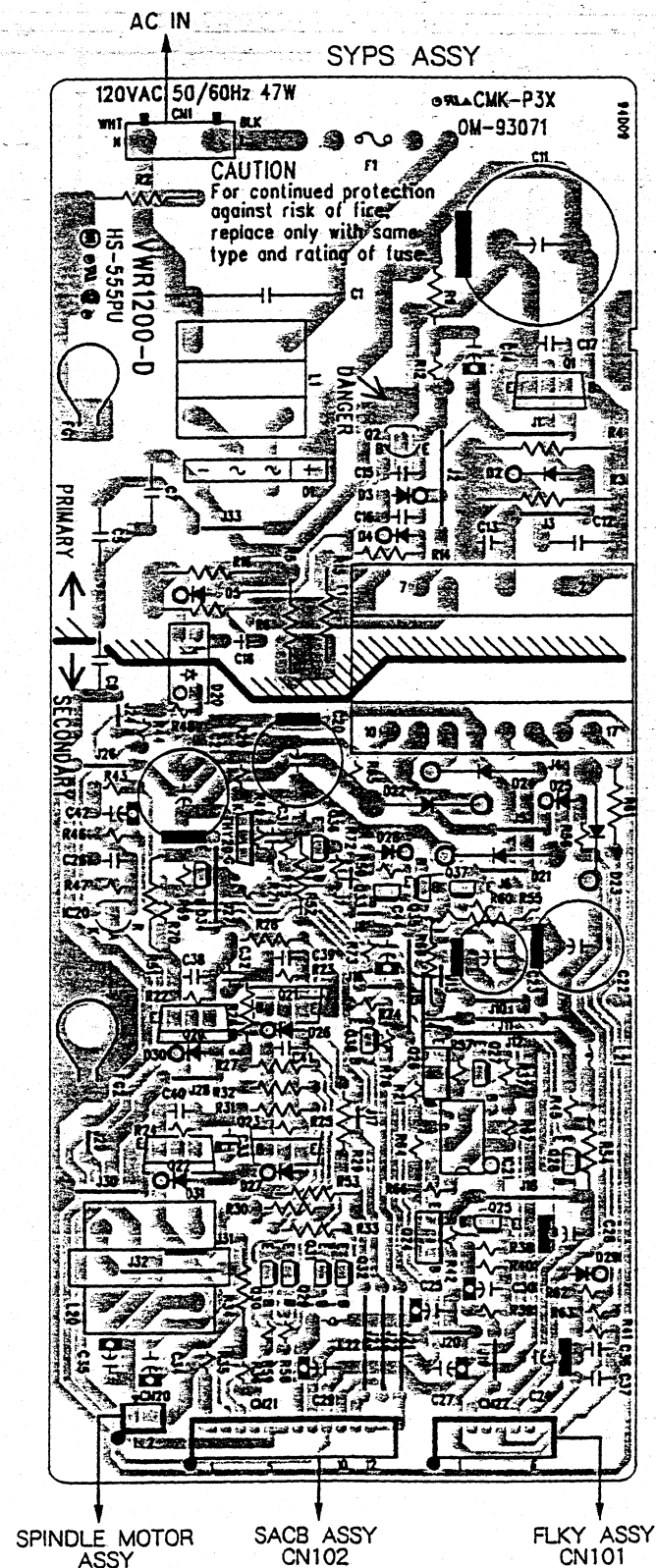
To H. PHNE, SP. SW assy CN6

To DOL. PRO. MOD. assy CN1801

To VIDEO assy CN401

— To FUNC assy CN201





• This diagram is viewed from the mounted parts side.

PCB-2

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 Ω , 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.

4. 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.

5. COILS:
Unit: m μ H or μ H unless otherwise noted.

6. VOLTAGE AND CURRENT:
 $\square$ or $\rightarrow$ V:
DC voltage (V) in PLAY mode unless otherwise noted.
 $\rightarrow$ mA or $\rightarrow$ mA:
DC current in PLAY mode unless otherwise noted.
Value in () is DC current in STOP mode.

7. OTHERS:
• $\odot$ or $\odot$: Adjusting point.
• $\triangleleft$: 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 - $\square$ ON THE SCHEMATIC DIAGRAM:
• SCH - $\square$ 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(Δ)
S107: PLAY/PAUSE($\blacktriangleright$ / $\parallel$)
S108: STOP($\blacksquare$)

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 IN

VAW
FL TUI

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 Ω , M Ω , or Ω unless otherwise noted.
Rated power: 1/4W, 1/5W, 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.

4. 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.

5. COILS:

Unit: m Ω H or μ H unless otherwise noted.

6. VOLTAGE AND CURRENT:

$\square$ or $\leftarrow$ V:
DC voltage (V) in PLAY mode unless otherwise noted.
 $\rightarrow$ mA or $\leftarrow$ mA:
DC current in PLAY mode unless otherwise noted.
Value in () is DC current in STOP mode.

7. OTHERS:

- $\odot$ or $\odot$: Adjusting point.
- $\triangleleft$: 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 - $\square$ ON THE SCHEMATIC DIAGRAM:

- SCH- $\square$ 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 (Δ)
- S107: PLAY/PAUSE ($\blacktriangleright$ / $\blacksquare$)
- S108: STOP ($\blacksquare$)

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.

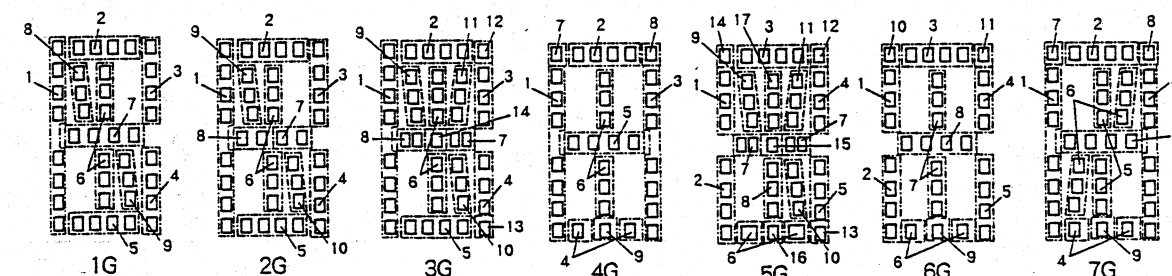
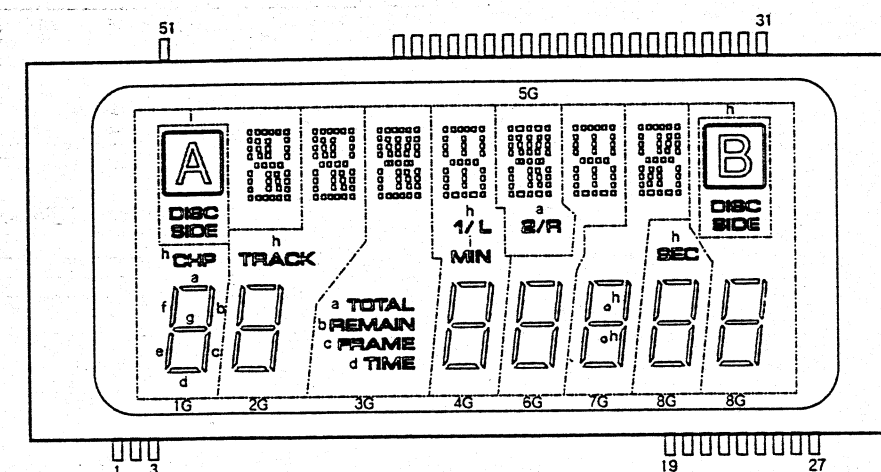
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Transistor with resistor
		Field effect transistor
		Resistor array
		3-terminal regulator

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	q
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

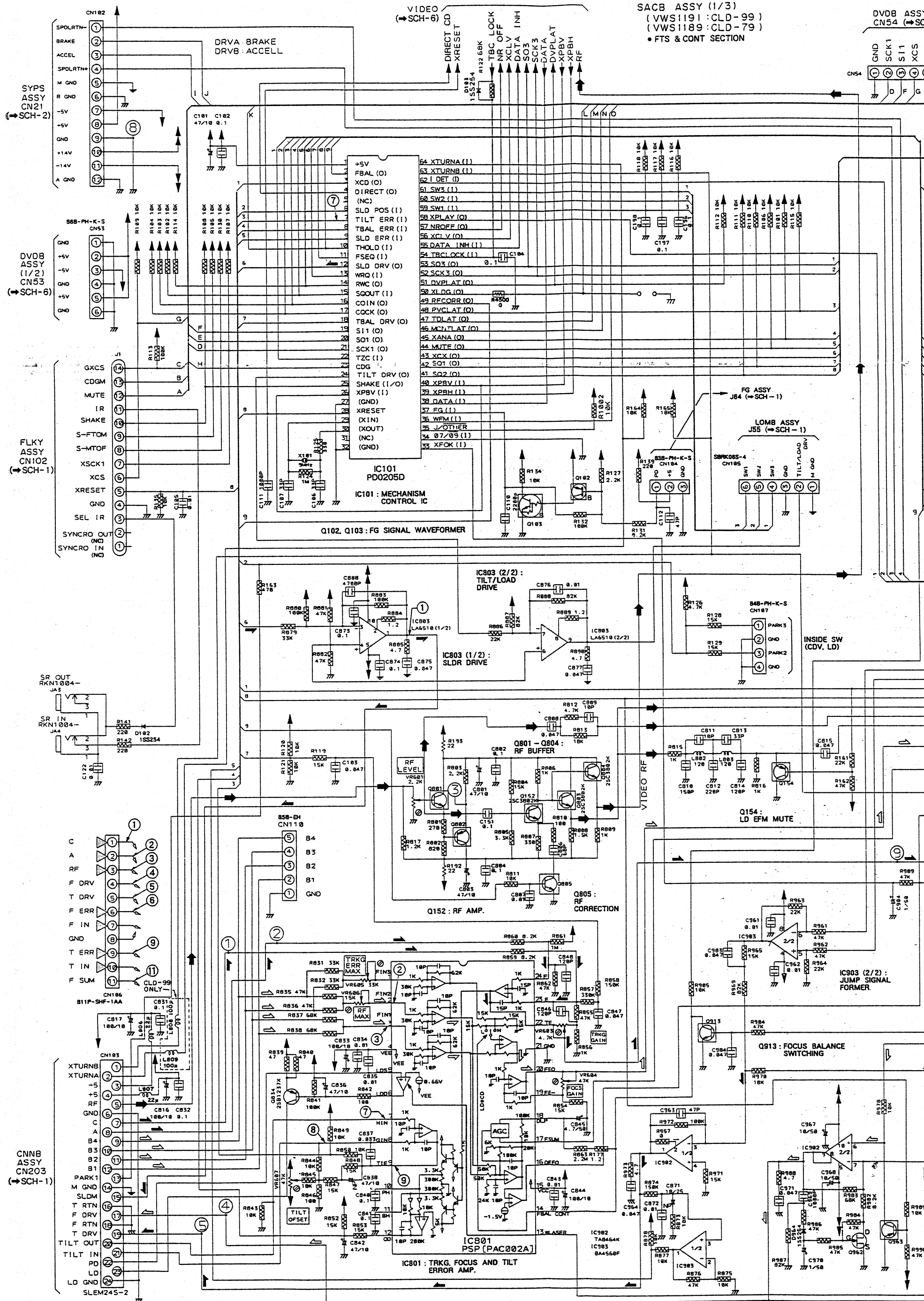
F1, F2: Filament
a~r: Anode

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	SEC	DISC SIDE
i	DISC SIDE	10	10	MIN	10	10	10		
j	9	9	9	9	9	9	9		
k	8	8	8	8	8	8	8		
l	7	7	7	7	7	7	7		
m	6	6	6	6	6	6	6		
n	5	5	5	5	5	5	5		
o	4	4	4	4	4	4	4		
p	3	3	3	3	3	3	3		
q	2	2	2	2	2	2	2		
r	1	1	1	1	1	1	1		

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



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

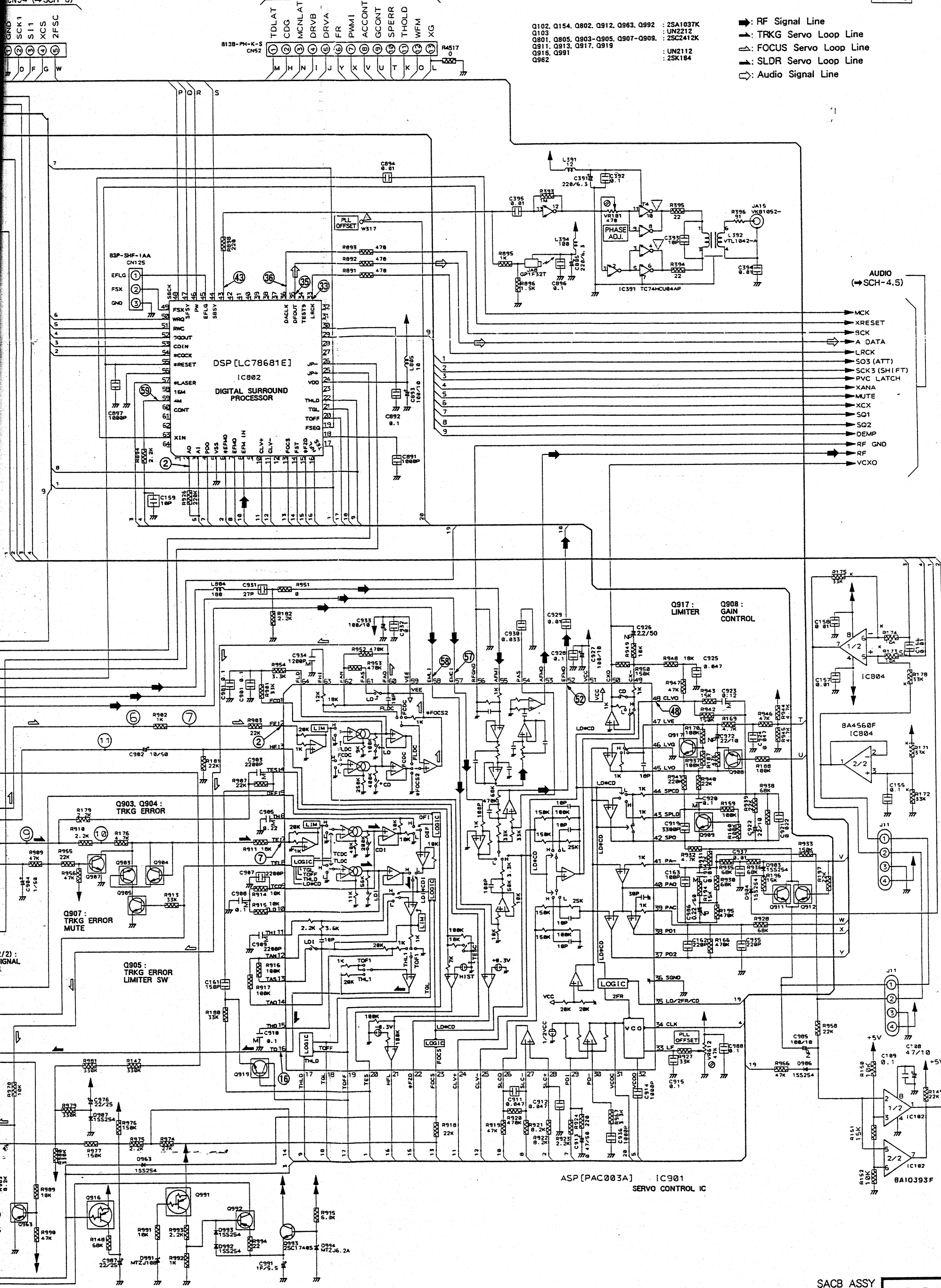
DV08 ASSY (1/2)
CN54 (SCH-6)

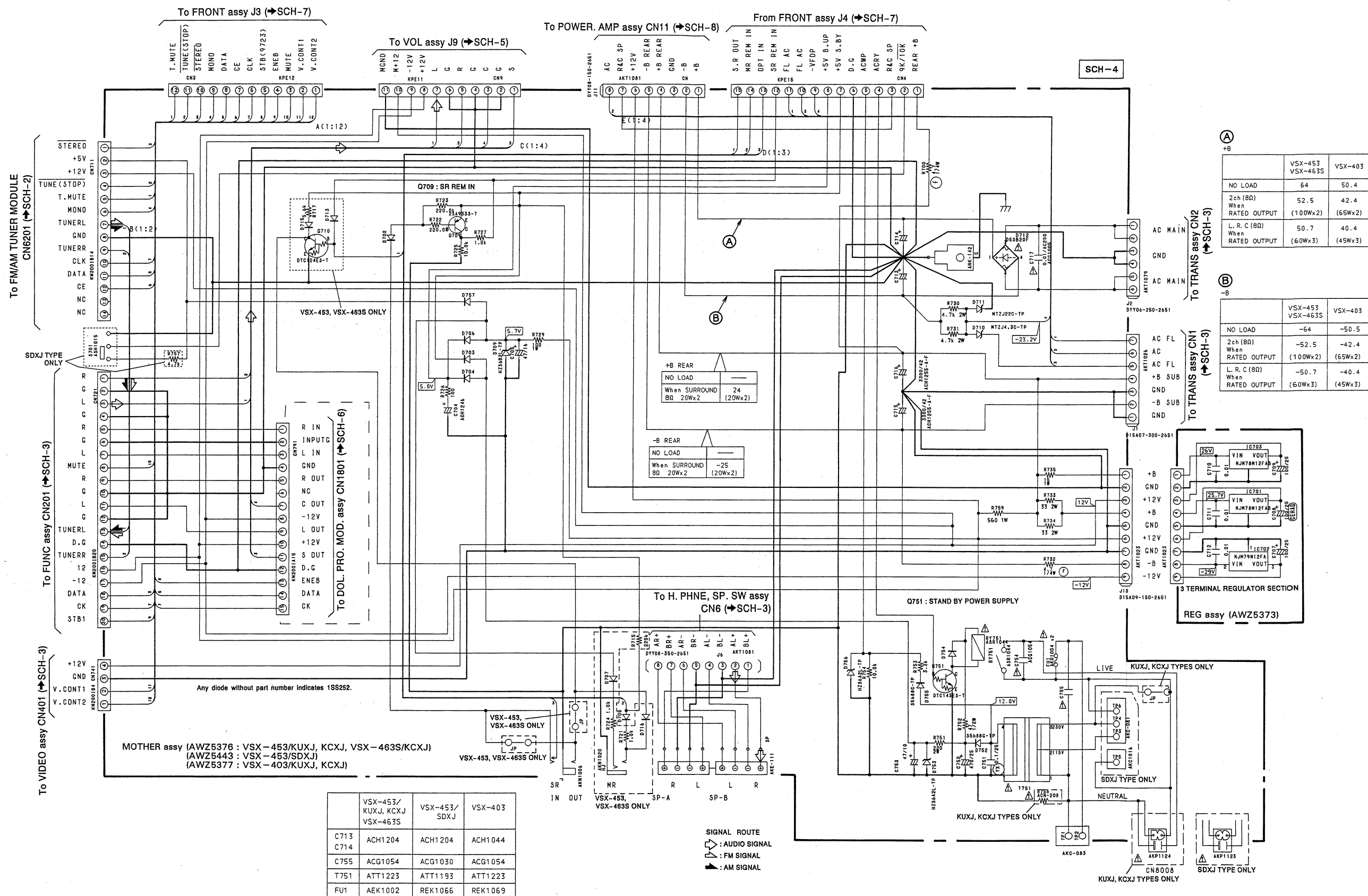
DV08 ASSY (1/2)
CN52 (SCH-6)

SCH-3

Q102, Q154, Q802, Q912, Q963, Q992 : 2SA1037K
Q103 : UN2212
Q801, Q805, Q903-Q905, Q907-Q909 : 2SC2412K
Q911, Q913, Q917, Q919 : UN2112
Q916, Q991 : 2SK184
Q962

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





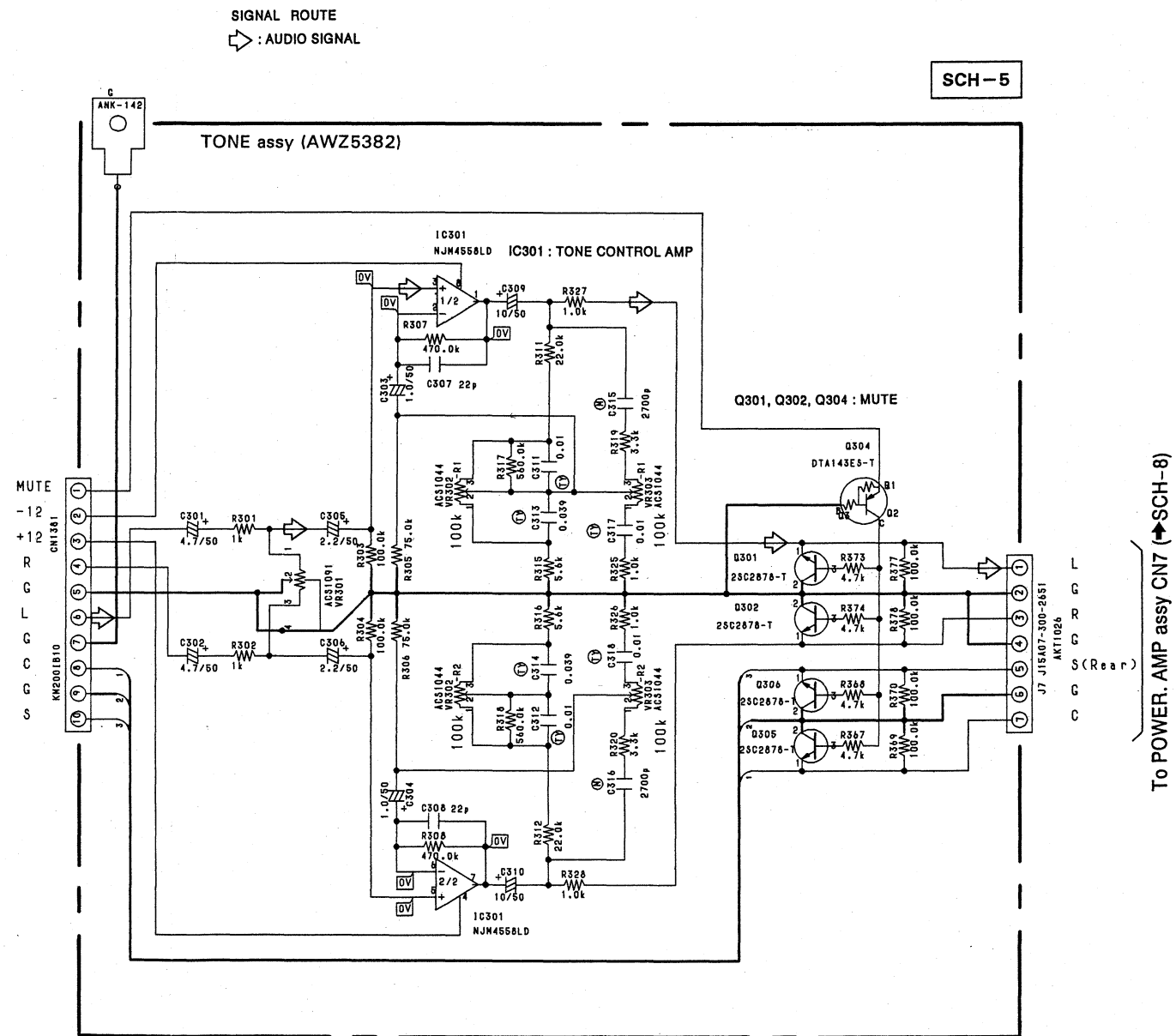
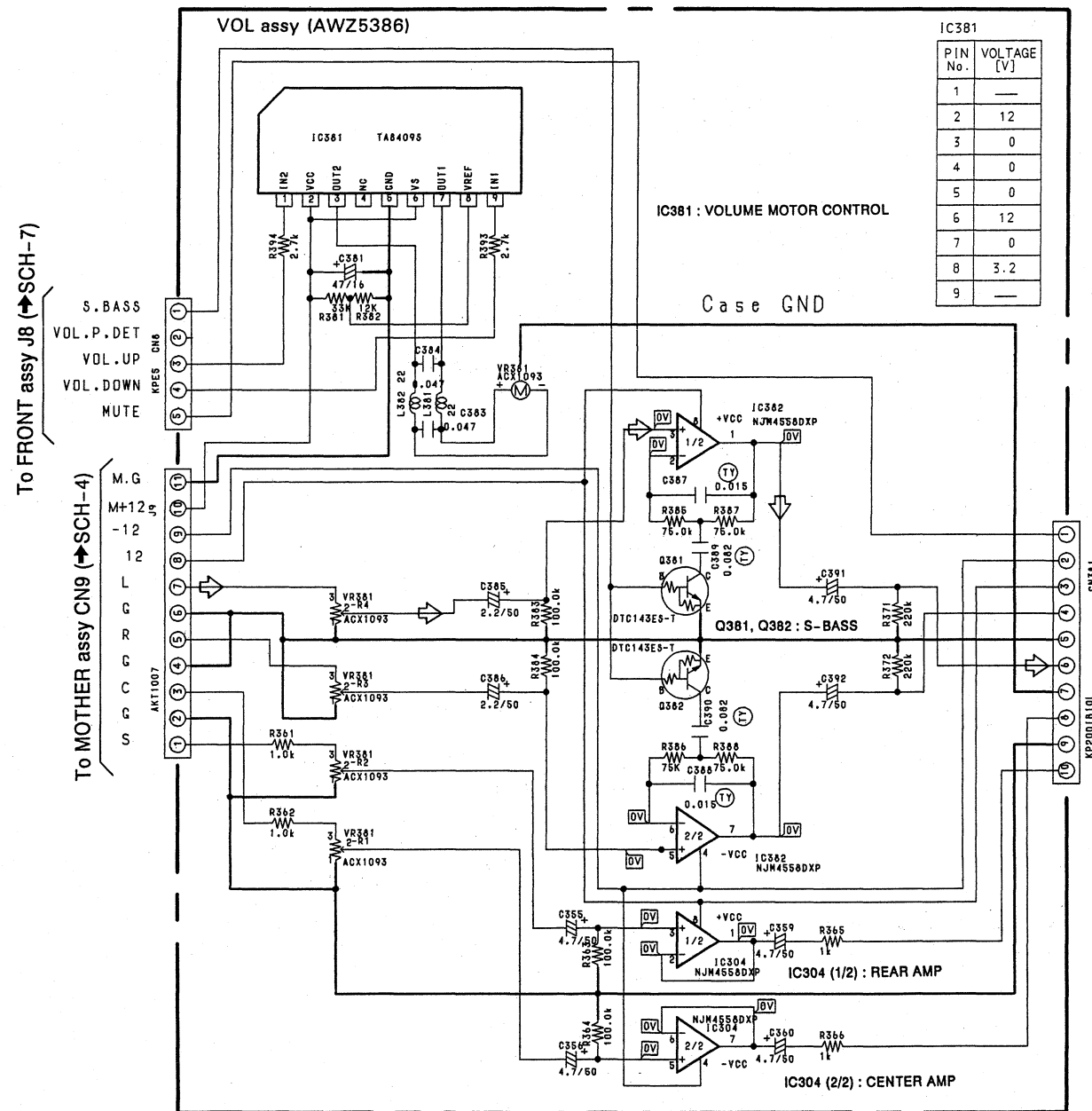
SCH-4

MOTHER ASSY,
REG ASSY

SCH-4

MOTHER ASSY,
REG ASSY

3.5 VOL ASSY AND TONE ASSY



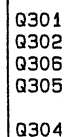
SCH-5

VOL ASSY,
TONE ASSY

VOL ASSY,
TONE ASSY

SCH-5

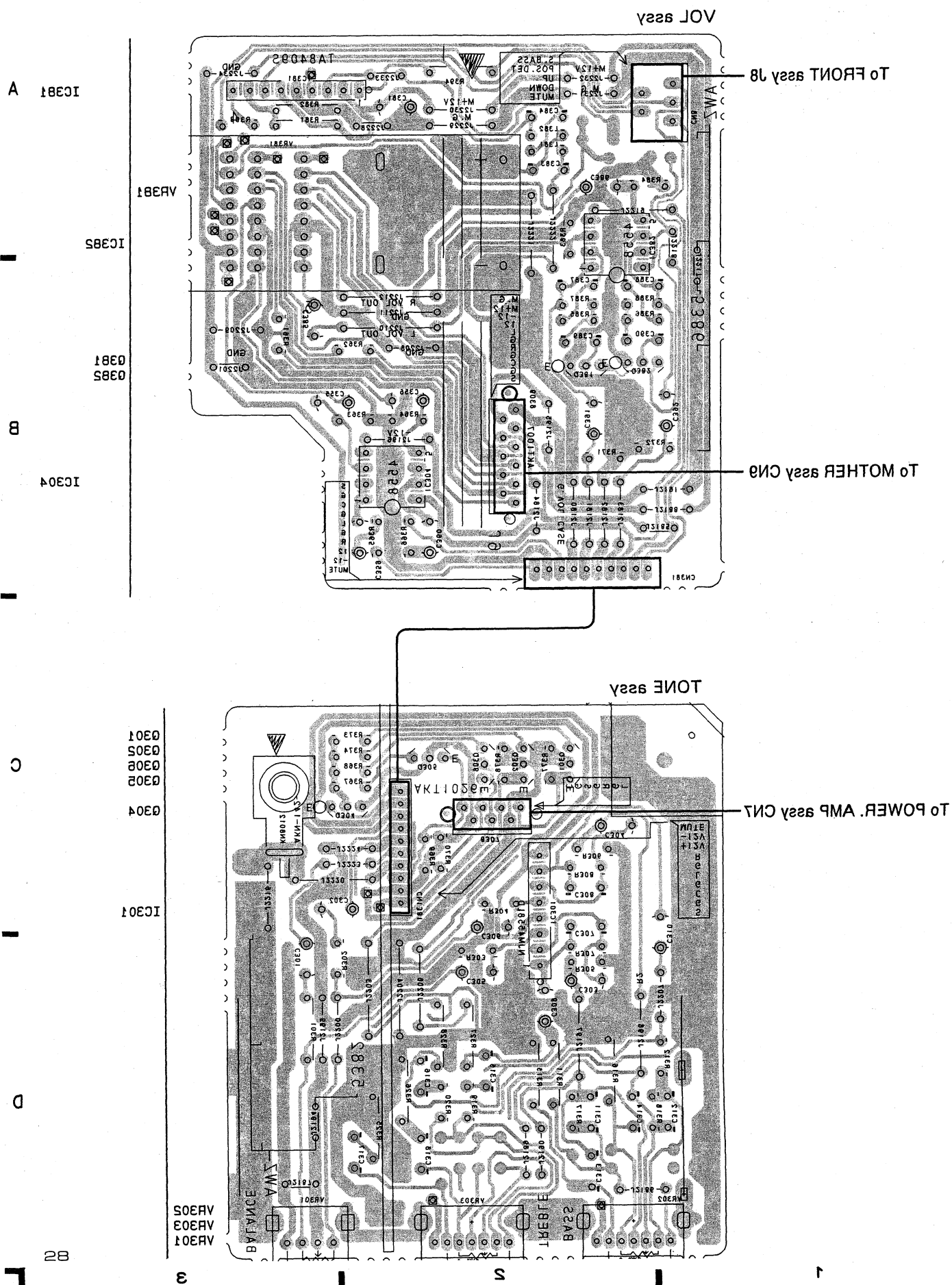
- IC381 A



IC301

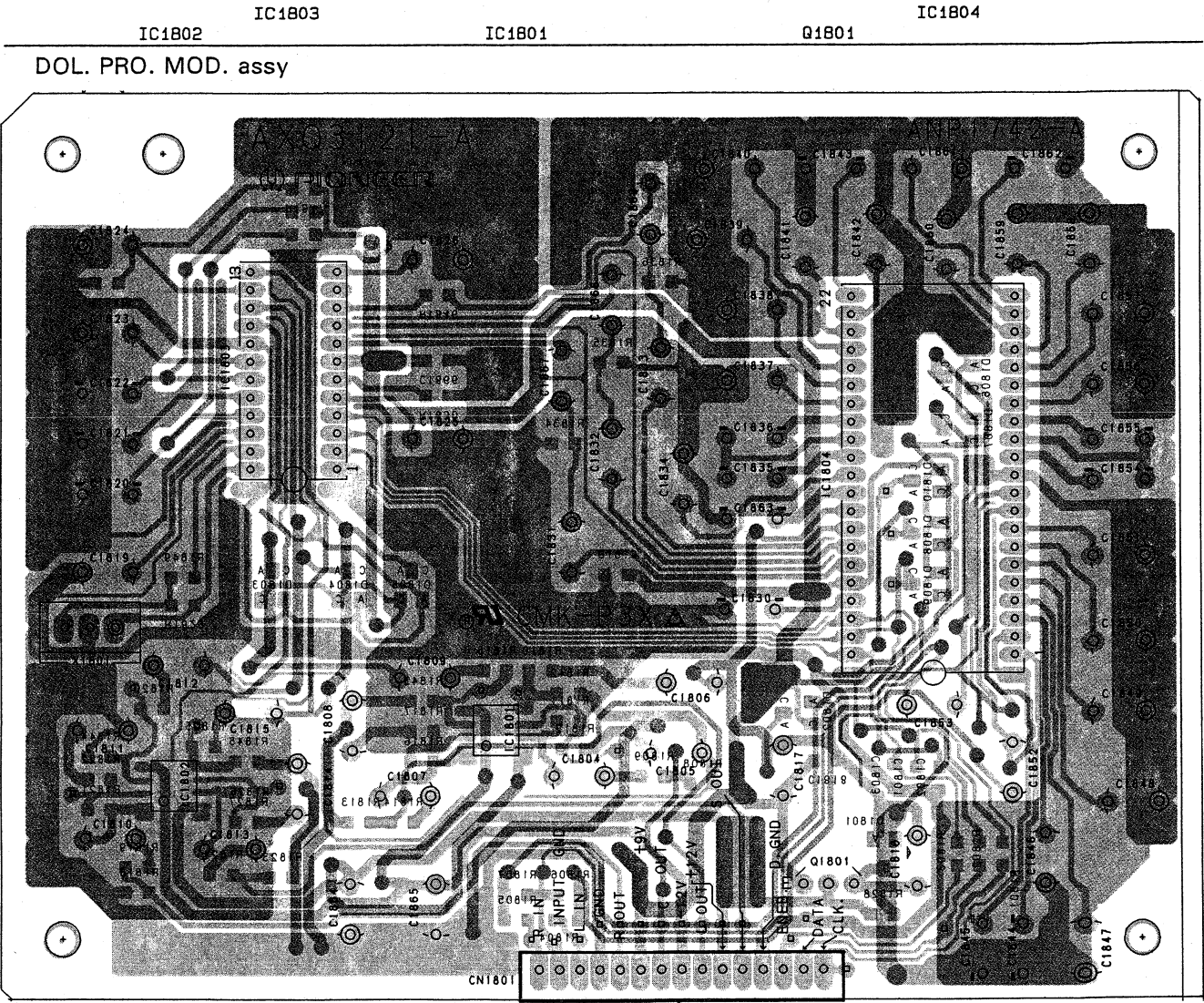
VR302
VR303
VR301

- This diagram is viewed from the foil side.

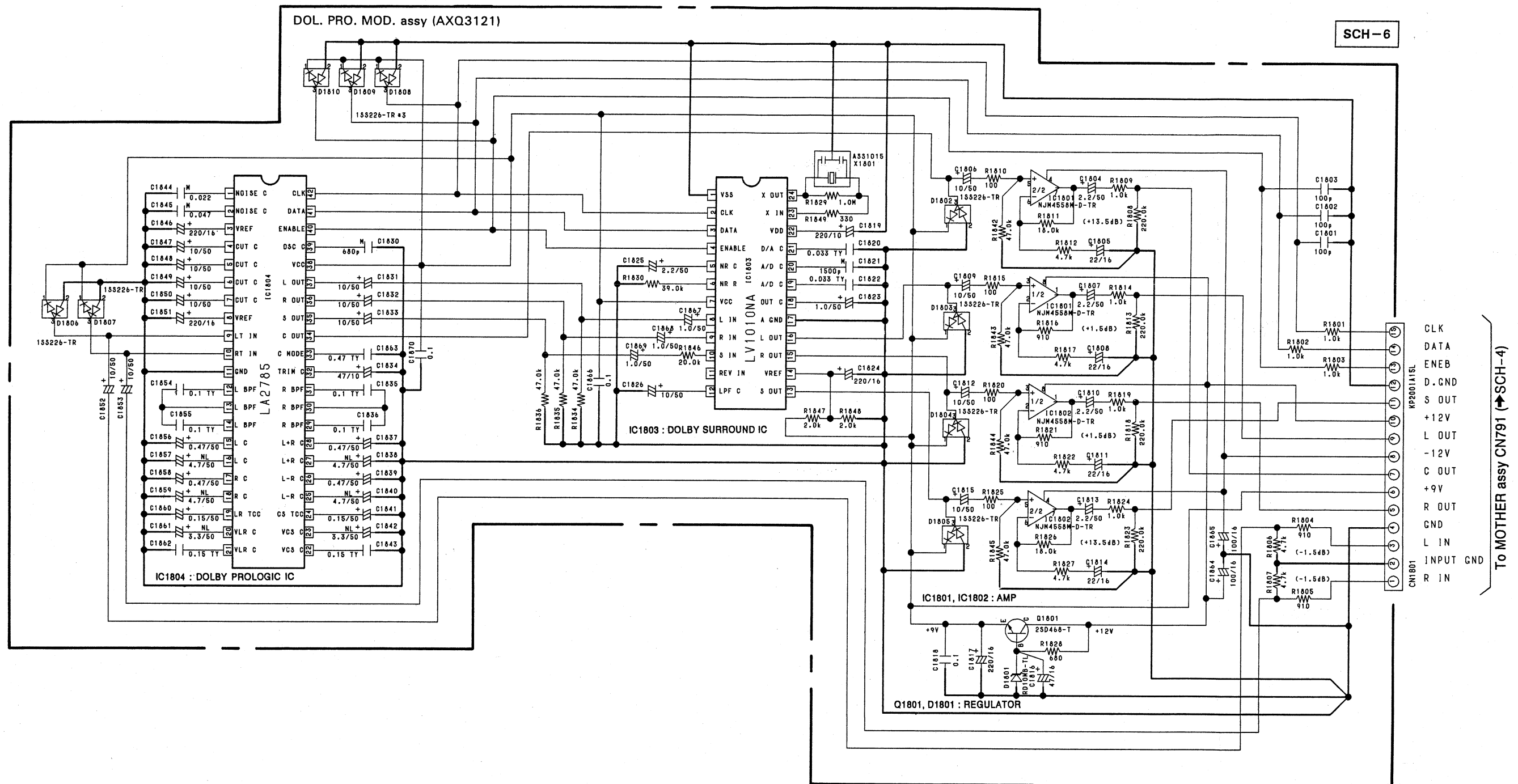


3.6 DOL. PRO. MOD. ASSY

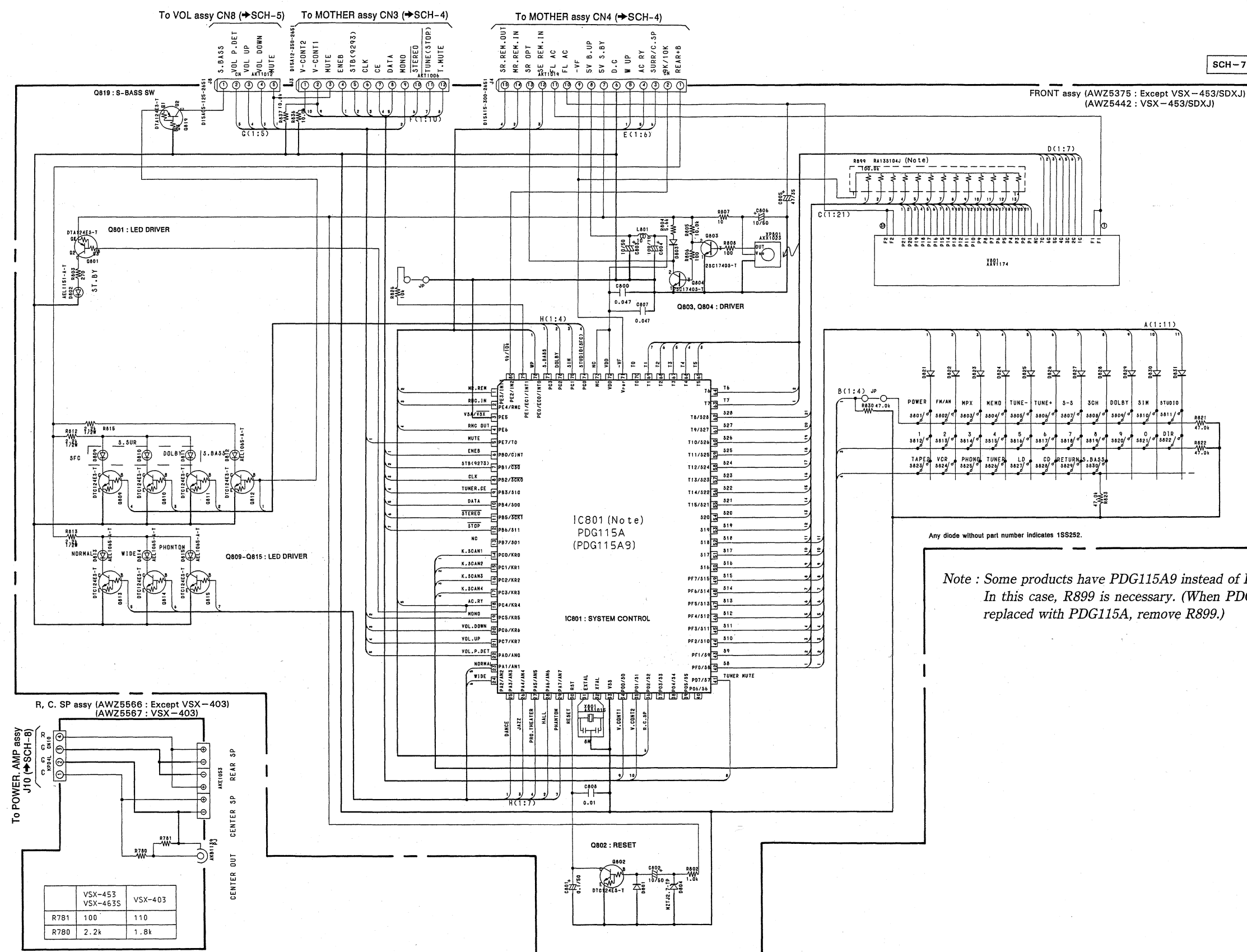
- This diagram is viewed from the pink colored foil side.
- This PCB is double sided.



To MOTHER assy CN791



3.7 FRONT ASSY AND R, C. SP ASSY



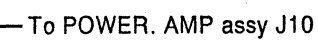
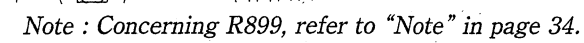
SCH-7

FRONT ASSY,
R, C. SP ASSY

FRONT ASSY,
R, C. SP ASSY

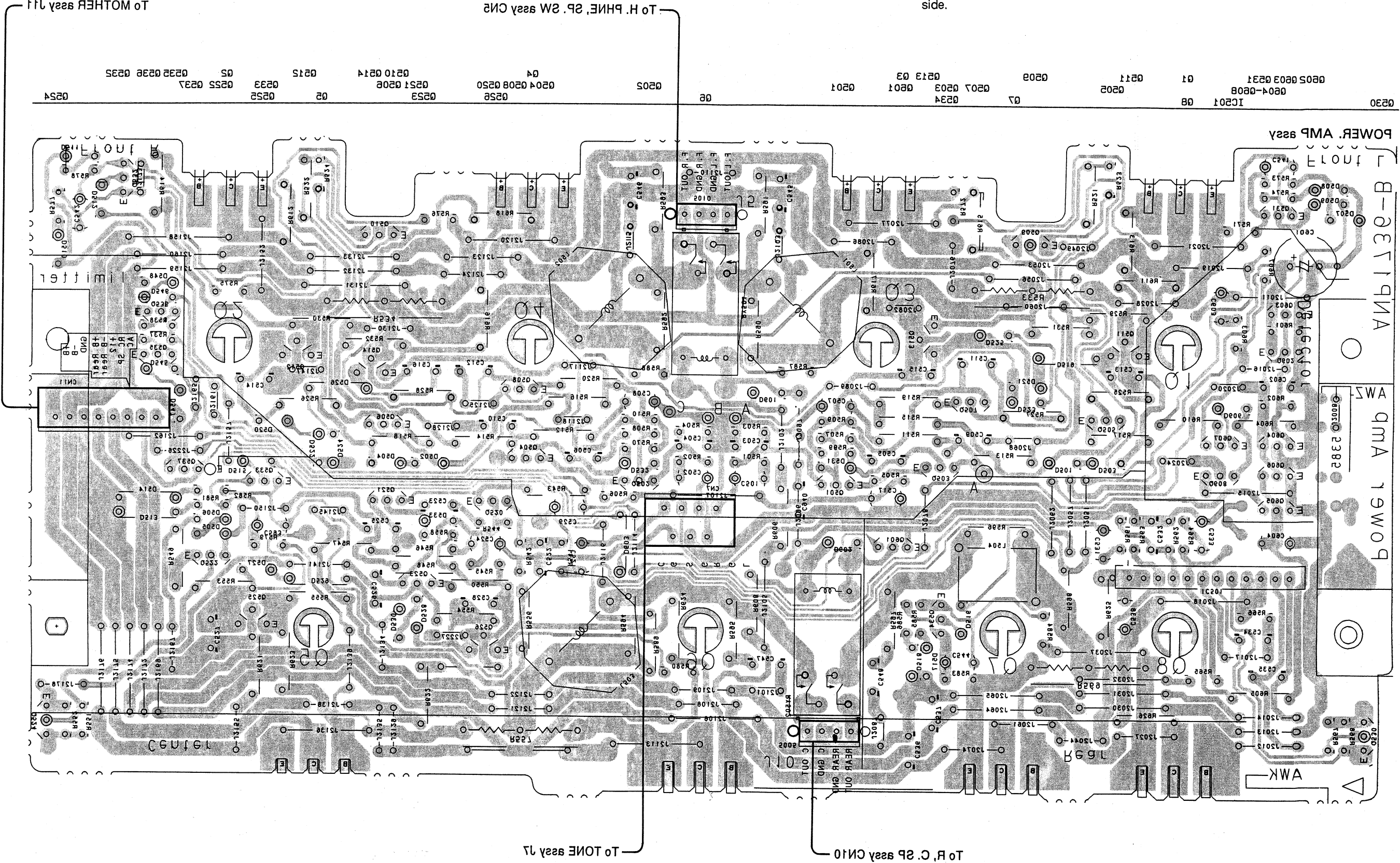
SCH-7

To MOTHER assy CN3 -



-To H. PHINEAS W. SW assy Cns

To MOTHER assy 111 .



- This diagram is viewed from the mounted parts side.



A

B

C

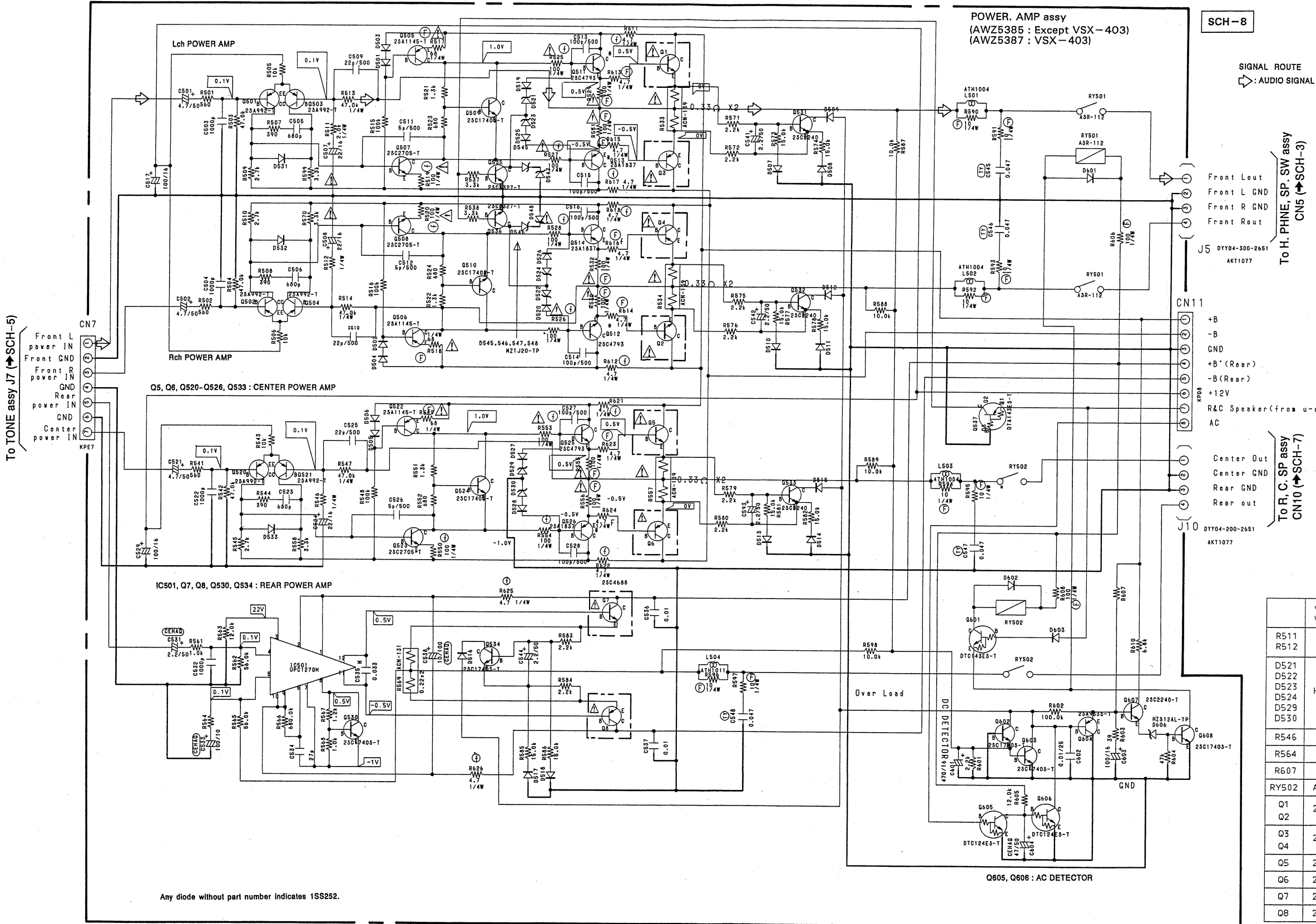
D

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
To H. PHNE, SP. SW ASSY
CN5 (SCH-3)

+B
-B
GND
+B*(Rear)
-B*(Rear)
+12V
R&C Speaker (from u-con)
AC

Center Out
Center GND
Rear GND
Rear out
To R, C. SP. ASSY
CN10 (SCH-7)

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

SCH-8

POWER. AMP ASSY

SCH-8

POWER. AMP ASSY

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 “ $\odot$ ” 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 $\begin{smallmatrix} 5 & 6 & 1 \end{smallmatrix}$ J
47k Ω $\rightarrow$ 47 $\times$ 10³ $\rightarrow$ 473 RD1/4PS $\begin{smallmatrix} 4 & 7 & 3 \end{smallmatrix}$ J
0.5 Ω $\rightarrow$ 0R5 RN2H $\begin{smallmatrix} 0 & R & 5 \end{smallmatrix}$ K
1 Ω $\rightarrow$ 010 RS1P $\begin{smallmatrix} 0 & 1 & 0 \end{smallmatrix}$ 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 $\begin{smallmatrix} 5 & 6 & 2 & 1 \end{smallmatrix}$ F

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
LIST OF ASSEMBLIES							
NSP	MAIN ASSY		AWK1781	REG. ASSY			
	(For VSX-453/KUXJ, KCXJ and VSX-463S/KCXJ)			SEMICONDUCTORS			
NSP	MAIN ASSY		AWK1807	IC701	REGULATOR IC	NJM78M12FAS	
	(For VSX-453/SDXJ)			IC702	REGULATOR IC	NJM79M12FA	
NSP	MAIN ASSY		AWK1783	IC703	REGULATOR IC	NJM78M12FAS	
	(For VSX-403/KUXJ and KCXJ)			CAPACITORS			
	REG. ASSY		AWZ5373	C707	ELECT. CAPACITOR	CEAS101M25	
	FRONT ASSY		AWZ5375	C708	ELECT. CAPACITOR	CEHAQ101M25	
	(Except VSX-453/SDXJ)			C709	ELECT. CAPACITOR	CEAS101M25	
	FRONT ASSY		AWZ5442	C710-712	CERAMIC CAPACITOR	CKCYF103Z50	
	(For VSX-453/SDXJ)			FRONT ASSY			
	MOTHER ASSY		AWZ5376	SEMICONDUCTORS			
	(For VSX-453/KUXJ, KCXJ and VSX-463S/KCXJ)			IC801	CONTROL MCU	PDG115A	
	MOTHER ASSY		AWZ5443			(PDG115A9) Note	
	(For VSX-453/SDXJ)			Q801	TRANSISTOR	DTA124ES	
	MOTHER ASSY		AWZ5377	Q802	TRANSISTOR	DTC124ES	
	(For VSX-403/KUXJ and KCXJ)			Q803, 804	TRANSISTOR	2SC1740S	
	R, C. SP ASSY		AWZ5566	Q809-815	TRANSISTOR	DTC124ES	
	(Except VSX-403/KUXJ and KCXJ)			Q819	TRANSISTOR	DTA124ES	
	R, C. SP ASSY		AWZ5567	D801	DIODE	1SS252	
	(For VSX-403/KUXJ and KCXJ)			D802	LED (RED)	AEL1151	
NSP	AMP/FUNC ASSY		AWK1782	D803	DIODE	1SS252	
	(Except VSX-403/KUXJ and KCXJ)			D804	ZENER DIODE	MTZJ2.7	
NSP	AMP/FUNC ASSY		AWK1784	D809-815	LED (RED)	AEL1065	
	(For VSX-403/KUXJ and KCXJ)			D821-831	DIODE	1SS252	
	FUNC ASSY		AWZ5379	SWITCHES			
	TRANS ASSY		AWZ5380	S801-830	SWITCH	ASG1029	
	VIDEO ASSY		AWZ5381	COILS			
	TONE ASSY		AWZ5382	L801	AXIAL INDUCTOR	LAU100K	
	H. PHNE, SP. SW ASSY		AWZ5384	CAPACITORS			
	POWER. AMP ASSY		AWZ5385	C800	CERAMIC CAPACITOR	CKPUYF473Z16	
	(Except VSX-403/KUXJ and KCXJ)			C801	ELECT. CAPACITOR	CEAS0R1M50	
	POWER. AMP ASSY		AWZ5387	C802, 803	ELECT. CAPACITOR	CEAS100M50	
	(For VSX-403/KUXJ and KCXJ)			C804	ELECT. CAPACITOR	CEAS101M10	
	VOL ASSY		AWZ5386	C805	ELECT. CAPACITOR	CEAS470M35	
				C806	ELECT. CAPACITOR	CEAS100M50	
	FM/AM TUNER MODULE		AXQ3112	C807	CERAMIC CAPACITOR	CKPUYF473Z16	
				C808	CERAMIC CAPACITOR	CKCYF103Z50	
	DOL. PRO. MOD. ASSY		AXQ3121				

For AWZ5375 and AWZ5442:
Although AWZ5375 and AWZ5442 are different in part number, they consist of the same service parts.

Mark	No.	Description	Parts No.	Mark	No.	Description	Parts No.
RESISTORS							
	R812, 813	CARBON FILM RESISTOR	RD1/2PM222J		R700	FUSIBLE RESISTOR	RFA1/4PS4R7J
	R815	CARBON FILM RESISTOR	RD1/2PM222J		R715	CARBON FILM RESISTOR	RD1/8PM224J
	(R899	RESISTOR ARRAY	RA13S104J) Note			(Except VSX-403)	
		OTHER RESISTORS	RD1/8PM $\square\square\square\square$		R717	CARBON FILM RESISTOR	RD1/8PM562J
OTHERS							
	V801	FL TUBE	AAV1174		R721, 724	CARBON FILM RESISTOR	RD1/8PM102J
	X801	CRYSTAL RESONATOR	ASS1015			(Except VSX-403)	
		REMOTE RECEIVER UNIT	AXX1023		R729	METAL OXIDE RESISTOR	RS1LMF101J
MOTHER ASSY							
SEMICONDUCTORS							
	Q709	TRANSISTOR	2SA933S		R730	METAL OXIDE RESISTOR	RS2LMF472J
	Q710	TRANSISTOR	DTC124ES		R731	METAL OXIDE RESISTOR	RS2LMF472J
		(Except VSX-403)			R732	CARBON FILM RESISTOR	RD1/4PMF4R7J
	Q751	TRANSISTOR	DTC143ES		R733, 734	METAL OXIDE RESISTOR	RS2LMF330J
	D702-706	DIODE	1SS252		R735	METAL OXIDE RESISTOR	RS1LMF150J
	D707	DIODE (Except VSX-403)	1SS252				
	D709	ZENER DIODE	HZS6B2L		R751	METAL OXIDE RESISTOR	RS2LMF221J
	D710	ZENER DIODE	MTZJ4.3C		R752	CARBON FILM RESISTOR	RD1/2PM470J
	D711	ZENER DIODE	MTZJ22C		Δ R756	RESISTOR (2.2M, 1/2W)	ACN-208
	Δ D712	DIODE	D5SB20F			(Except VSX-453/SDXJ)	
	D713, 715	DIODE (Except VSX-403)	1SS252		R757	CARBON FILM RESISTOR	RD1/8PM472J
						(VSX-453/SDXJ only)	
	D716	DIODE (Except VSX-403)	1SS252		R759	METAL OXIDE RESISTOR	RS1LMF561J
	D752	DIODE	S5688G			OTHER RESISTORS	RD1/8PM $\square\square\square\square$
	D753	ZENER DIODE	HZS6A2L	OTHERS			
	D754	DIODE	1SS252			CABLE HOLDER (6P)	AKT1079
	D755	DIODE	S5688G			CABLE HOLDER (8P)	AKT1081
						SPEAKER TERMINAL 8-P	AKE-111
	D756	ZENER DIODE	HZS6A2L			JACK	AKN1020
	D757	DIODE	1SS252		CN3	CONNECTOR (12P)	KPE12
SWITCH							
	S701	SWITCH (VSX-453/SDXJ only)	ASR1044		CN4	CONNECTOR (15P)	KPE15
RELAY							
	Δ RY751	RELAY	ASR1044		CN711	14P PLUG	KM200IB14
COILS							
	Δ T751	POWER TRANSFORMER	ATT1223		CN721	20P PLUG	KM200IB20
	Δ T751	POWER TRANSFORMER	ATT1193		CN741	4P PLUG	KM200IB4
		(For VSX-453/SDXJ)			CN791	15P PLUG	KM200IB15
CAPACITORS							
	C704	CAPACITOR	ACH1246		CN8005	JACK	AKN1006
	C705	ELECT. CAPACITOR	CEAS470M16		Δ CN8008	AC INLET (1P)	AKP1124
	C713, 714	ELECT. CAPACITOR (8200/71)	ACH1204			(Except VSX-453/SDXJ)	
		(Except VSX-403)			Δ CN8008	AC INLET (1P) WITH	AKP1123
	C713, 714	ELECT. CAPACITOR (8200/63)	ACH1044			OUTLET	
		(For VSX-403)				(For VSX-453/SDXJ)	
	C715, 716	CEA (3300/42V)	ACH1255		CN9	CONNECTOR (11P)	KPE11
	Δ C717	CKA (0.01/AC250V)	ACG1005	FUNC ASSY			
				SEMICONDUCTORS			
	C751	CERAMIC CAPACITOR	CKCYX104M25		IC201	OP-AMP IC	NJM4558DXP
	C752	ELECT. CAPACITOR	CEAS471M25		IC203	ANALOG SWITCH IC	TC9273N-005
	C753	ELECT. CAPACITOR	CEAS470M10		IC204, 205	OP-AMP IC	NJM4558DXP
	Δ C754	CKA (0.01/AC400V)	ACG1054		Q201, 202	TRANSISTOR	2SC2878
	Δ C755	CKA (0.01/AC400V)	ACG1054		Q203	TRANSISTOR	DTA143ES
		(Except VSX-453/SDXJ)		CAPACITORS			
	Δ C755	CKA (0.022/AC400V)	ACG1030		C201	CERAMIC CAPACITOR	CKCYF103Z50
		(For VSX-453/SDXJ)			C202	ELECT. CAPACITOR	CEAS010M50
					C203, 204	ELECT. CAPACITOR	CEAS100M50
					C205, 206	CERAMIC CAPACITOR	CCCSL221J50
					C207, 208	ELECT. CAPACITOR	CEAS101M16
					C209, 210	PLASTIC FILM CAPACITOR	CQMA822J50
					C211, 212	PLASTIC FILM CAPACITOR	CQMA242J50
					C213, 214	ELECT. CAPACITOR	CEAS2R2M50
					C215, 216	ELECT. CAPACITOR	CEAS100M50
					C217, 218	CERAMIC CAPACITOR	CKCYB102K50
					C221, 222	CERAMIC CAPACITOR	CKCYF103Z50
					C223, 224	ELECT. CAPACITOR	CEAS2R2M50
					C225, 226	ELECT. CAPACITOR	CEAS4R7M50
					C227, 228	ELECT. CAPACITOR	CEAS2R2M50
					C231, 232	ELECT. CAPACITOR	CEAS4R7M50

Mark	No.	Description	Parts No.
RESISTORS			
		ALL RESISTORS	RD1/8PM□□□□
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
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RESISTORS

R681	FUSIBLE RESISTOR	RFA1/4PS220J
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OTHERS

CN1	CONNECTOR (7P)	KPE7
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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□□□□

OTHERS

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

TONE 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□□□□

OTHERS

CN1381	SHIELD CASE (MTL) 10P PLUG	ANK1250
		KM200IB10

H. PHNE, SP. SW ASSY

SWITCH

S670	PUSH SWITCH	SUL6LYXS
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RESISTORS

R671, 672	METAL OXIDE RESISTOR	RS2LMF331J
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OTHERS

JACK	AKN1002
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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.
FM/AM TUNER MODULE			
SEMICONDUCTORS			
IC6201		AM/FM +MPX IC	LA1836M
IC6202		PLL IC	LM7001J
Q6101		DUALGATE—FETA (CHIP)	3SK194
Q6102		TRANSISTOR	2SC2223
Q6103		TRANSISTOR	2SC2714
Q6104		MOS—FET	2SK302
Q6201		NCH—FET (SMD)	2SK208
Q6202		TRANSISTOR	2SC2712
Q6203		TRANSISTOR	2SC2235
Q6204		TRANSISTOR	XDA124EK
Q6214		TRANSISTOR	2SC2714
Q6217		TRANSISTOR	XDC124EK
D6101, 6102		VARI—CAP DIODE	1T33
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

Mark	No.	Description	Parts No.
	C6227	ELECT. CAPACITOR	CEAS470M25
	C6228	CERAMIC CAPACITOR	CKSQYB472K50
	C6229	CERAMIC CHIP C.	CCSCH821J50
	C6230	CERAMIC CAPACITOR	CKSQYB333K50
	C6231	ELECT. CAPACITOR	CEAS100M50
	C6232	CERAMIC CAPACITOR	CKSYB333K50
	C6233	ELECT. CAPACITOR	CEAS100M50
	C6234	CERAMIC CAPACITOR	ACG1051
	C6235	CERAMIC CAPACITOR	ACG1052
	C6236	CERAMIC CAPACITOR	ACG1051
	C6237	CERAMIC CAPACITOR	CKSQYB473K50
	C6238	ELECT. CAPACITOR	CEJA100M16
	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	CKSQYB473K50
	C6266	CERAMIC CAPACITOR	CKSQYF473Z50
	C6267	CERAMIC CAPACITOR	CKSQYB473K50
	C6268	CHIP CAPACITOR	CCSQCH101J50
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	RD1/8PM102J
		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 (dBμ 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⊕ leads of C6224 and C6261) becomes 0V±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⊕ lead of C6238 and GND) becomes maximum level.
3	TUNED IND. Lighting level	98	15 (±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 (dBμ V/m)		Adjustment Location	Specifications
1	TUNED IND. Lighting level	999 *1	47(±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.

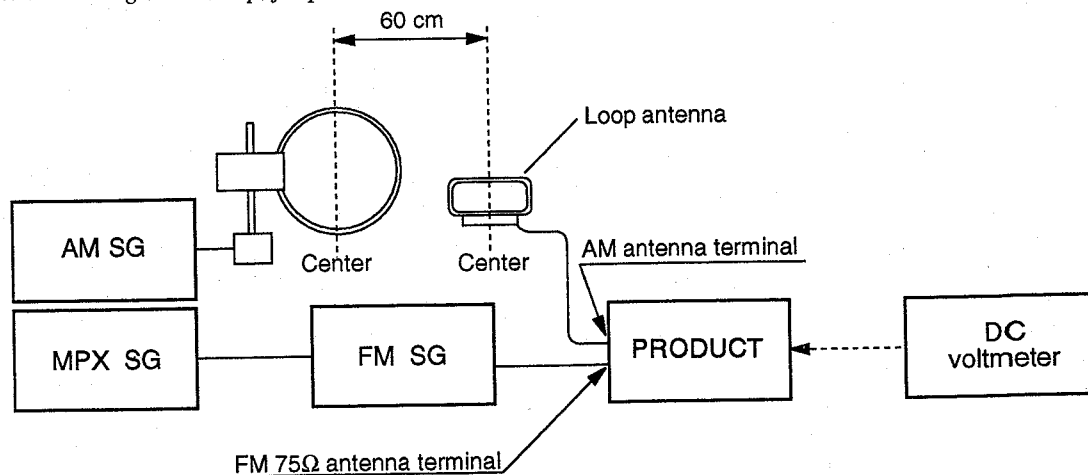


Fig. 1 AM and FM adjustment wiring diagram

FM/AM TUNER MODULE

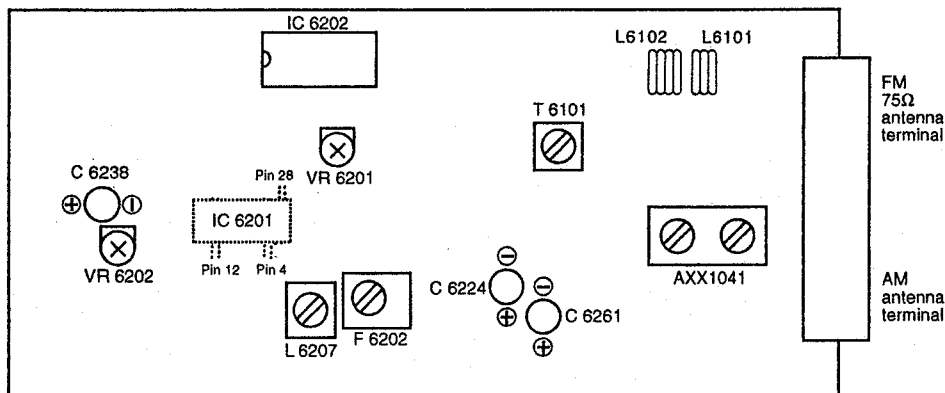


Fig. 2 Adjustment location

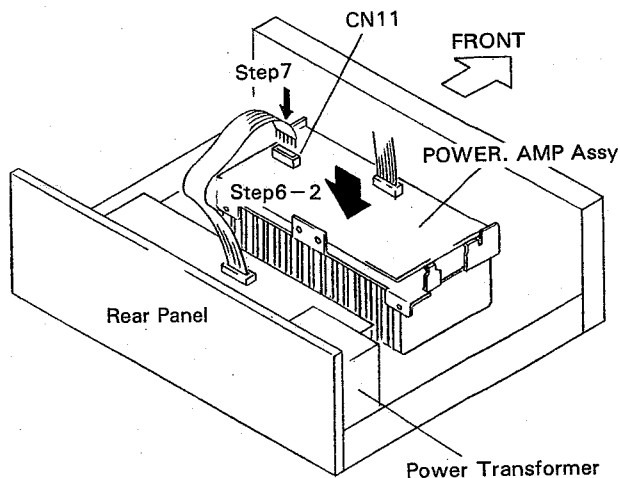
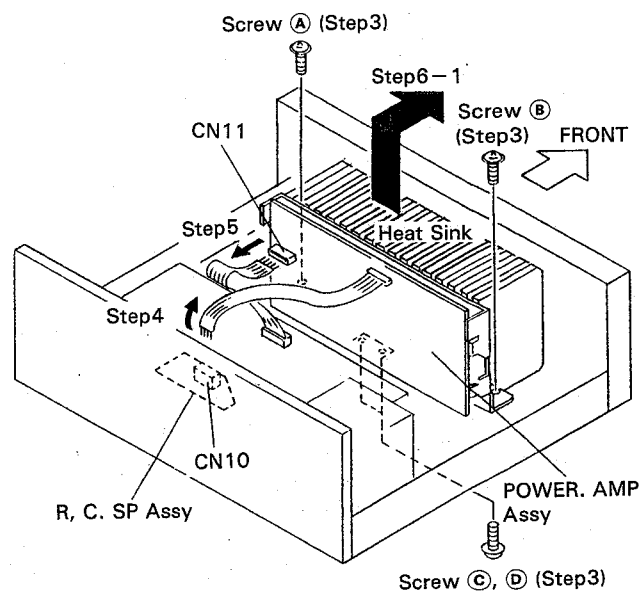
6. DISASSEMBLY

● POWER. AMP ASSY

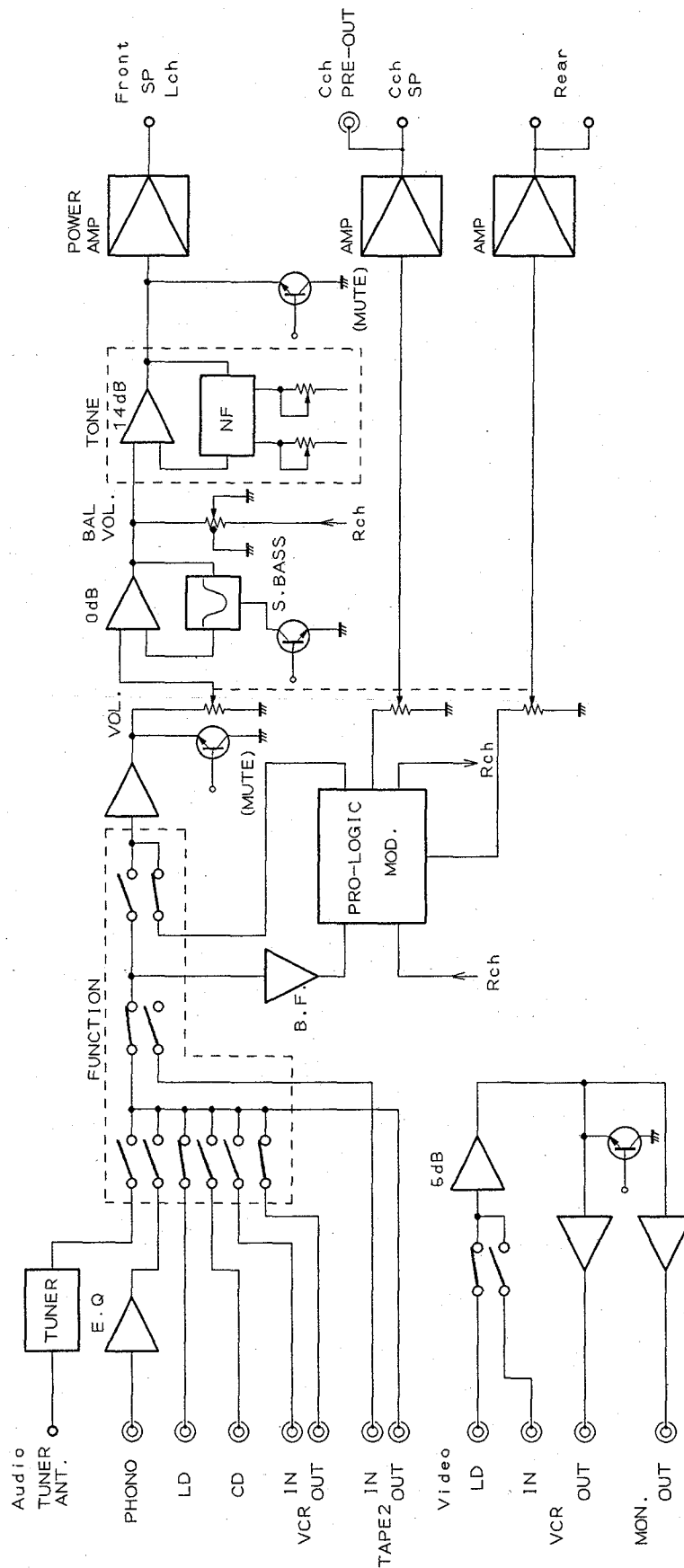
- Step1. Disconnect the AC power cord.
- Step2. Remove the bonnet case.
- Step3. Remove the screws ① through ④, which fasten the heat sink of the POWER. AMP assembly.
- Step4. Disconnect the cable from CN10 of the R, C. SP assembly.
- Step5. Disconnect the cable from CN11 of the POWER. AMP assembly by 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

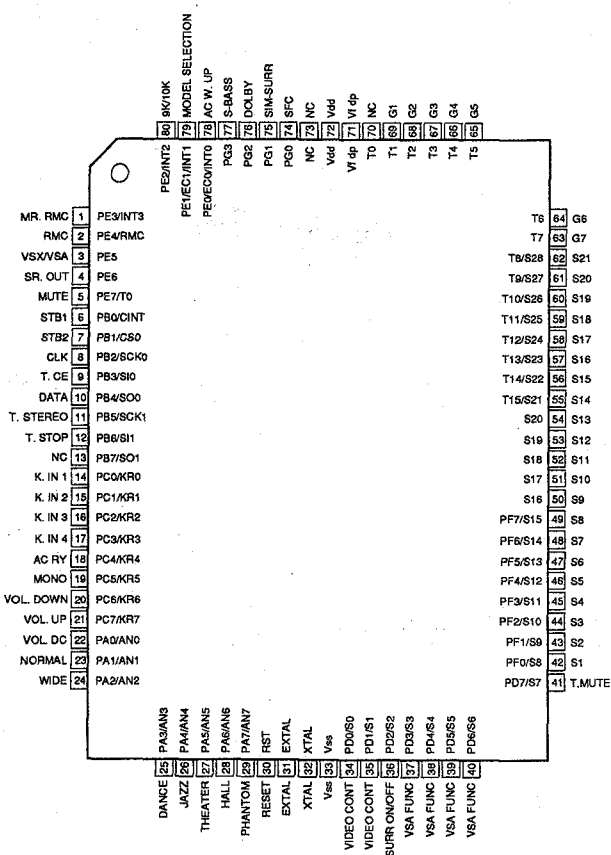


8. IC INFORMATION

- 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)]

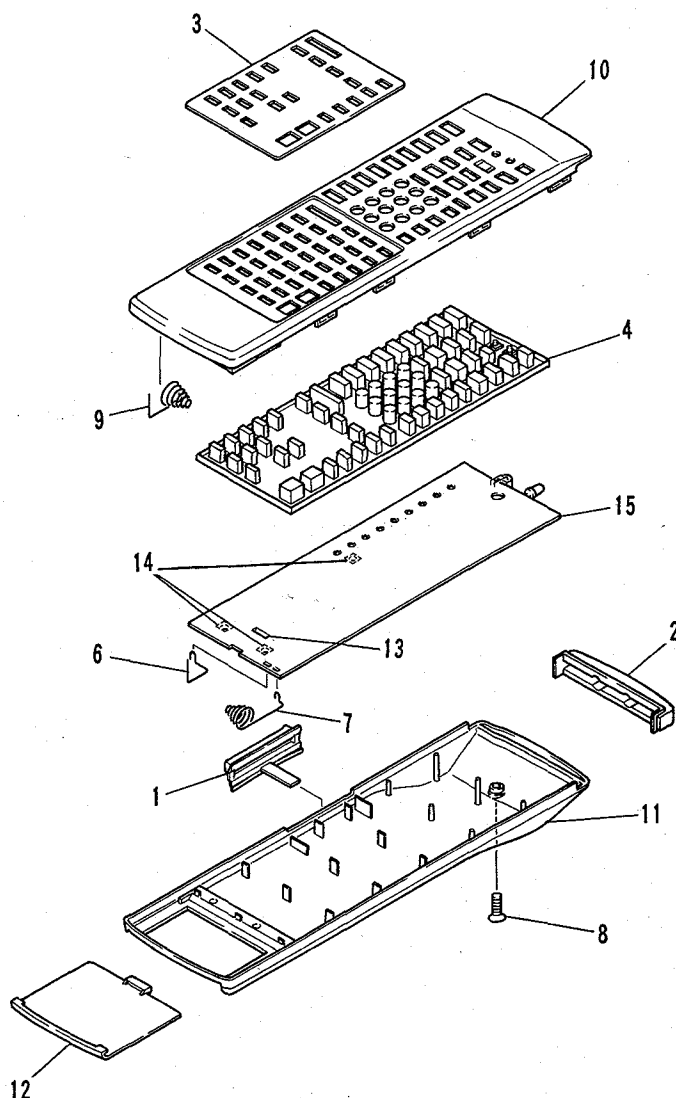
9.1 EXPLODED VIEW AND PARTS LIST

NOTES :

- Parts marked by "NSP" are generally unavailable because they are not in our Master Spare Parts List.
- The $\triangle$ 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 $\begin{bmatrix} 5 & 6 & 1 \end{bmatrix}$ 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

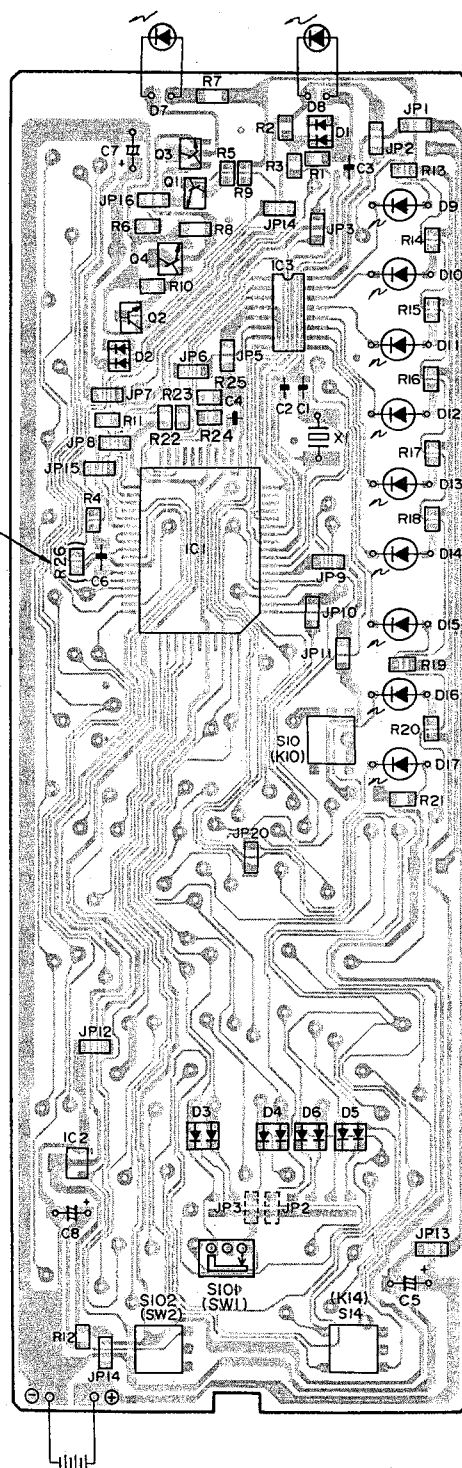
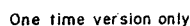
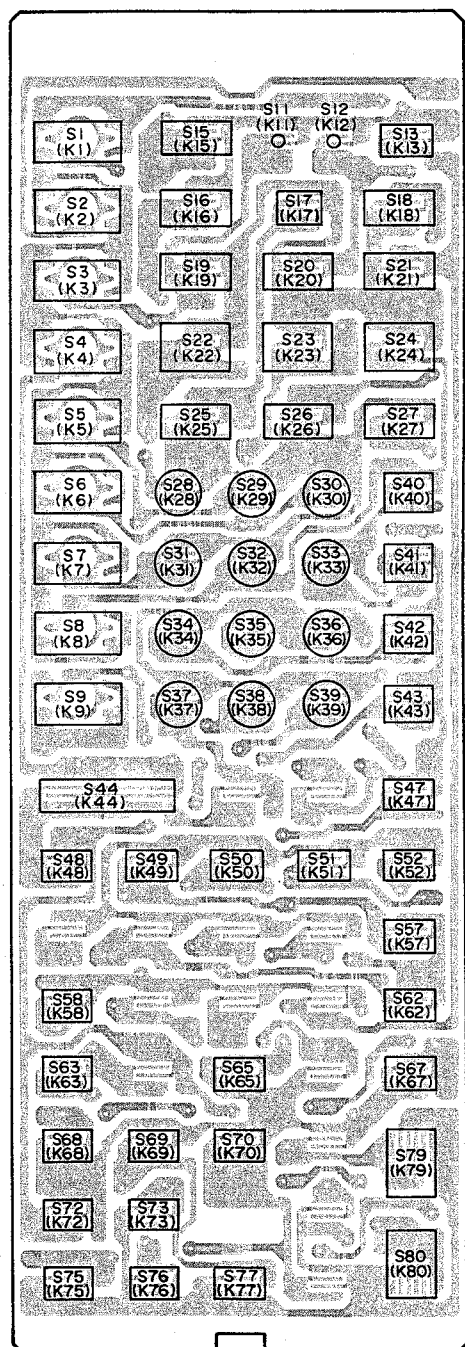
1 Ω $\rightarrow$ 010 RS1P $\begin{bmatrix} 0 & 1 & 0 \end{bmatrix}$ K

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.
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 $\begin{bmatrix} \square & \square & \square \end{bmatrix}$ J
OTHERS		
X1	RESONATOR	AZC1570

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



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

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.
mA or - mA :
DC current at no input signal unless otherwise noted.

7. OTHERS:

- : 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):

The underline indicates the 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: ⏪

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 +

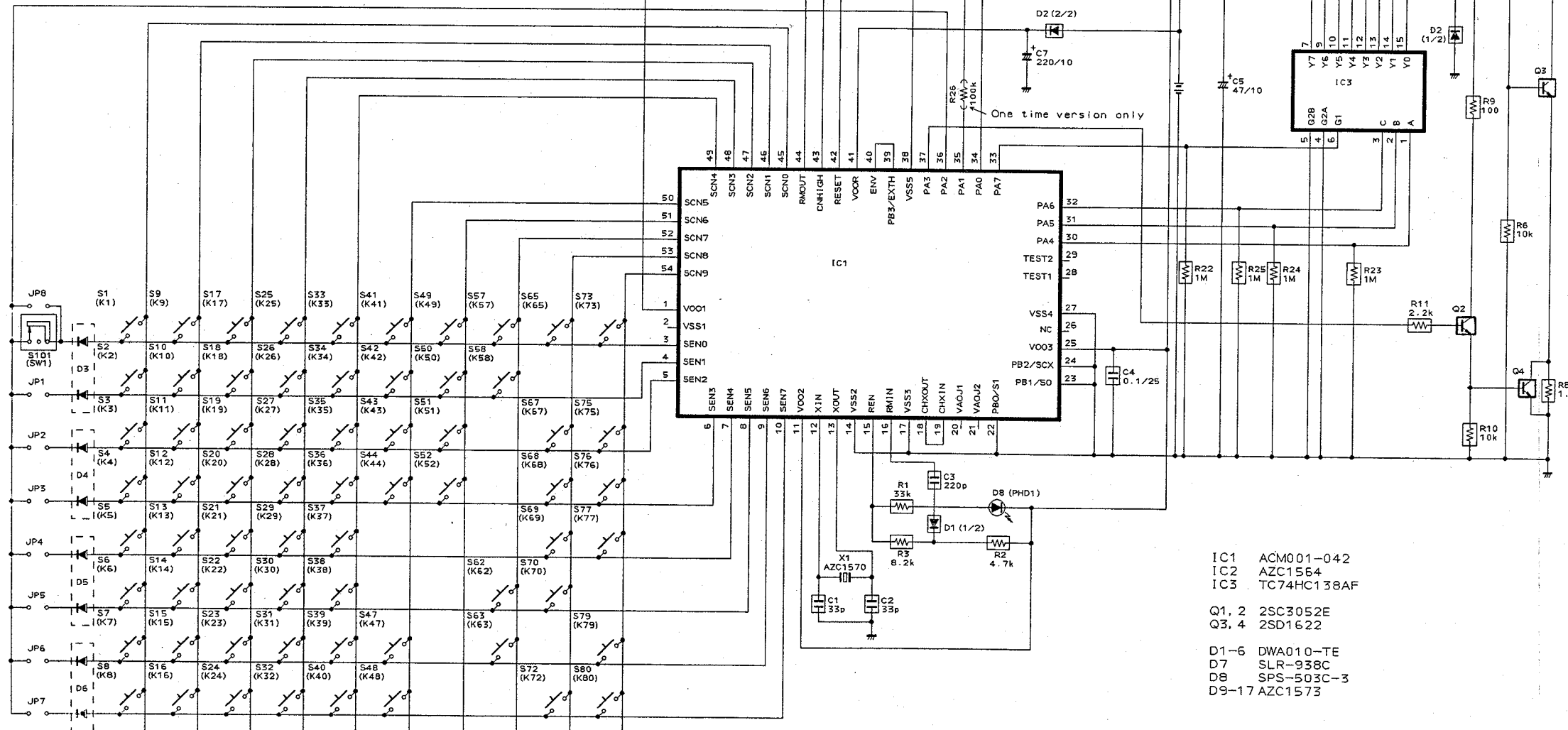
S75: REAR LEVEL -

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

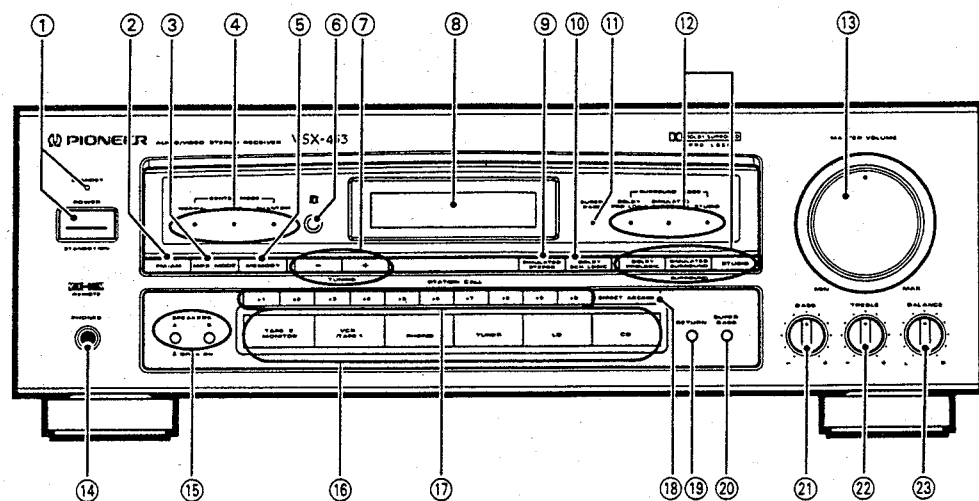
SCH-9

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.

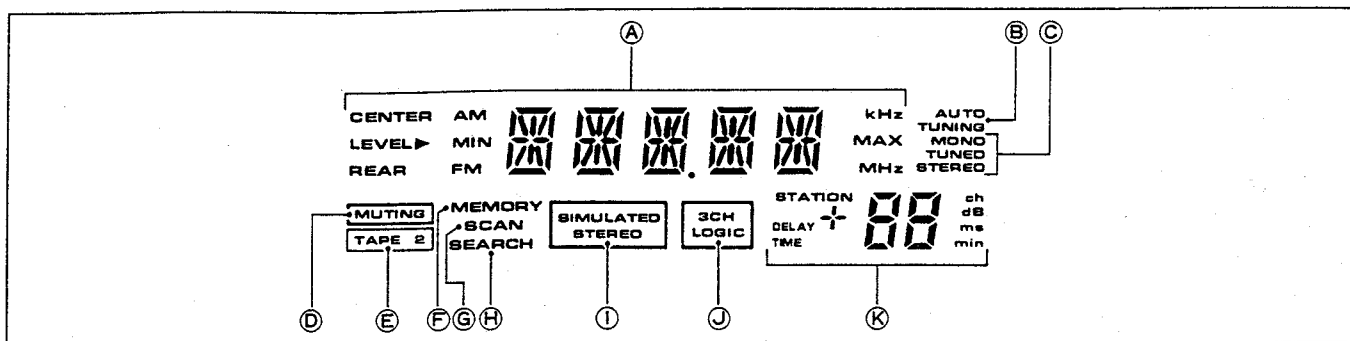
㉓ BALANCE control

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.



Ⓐ Character/Level display

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

Ⓑ AUTO TUNING indicator

Lights up when in the auto tuning mode.

Ⓒ 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.

Ⓓ MUTING indicator

Flashes when MUTING is ON.

Ⓔ TAPE 2 indicator

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

Ⓕ MEMORY indicator

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

Ⓖ SCAN indicator

Lights up during memory scan operation.

NOTE:

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

Ⓗ SEARCH indicator

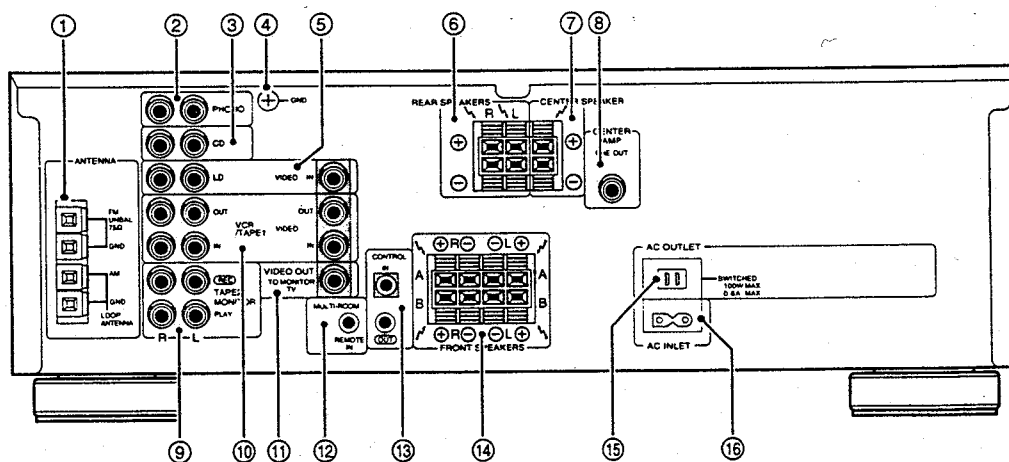
Lights during Return mode operation.

Ⓘ SIMULATED STEREO indicator

Ⓢ DOLBY 3CH LOGIC indicator

Ⓚ 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.

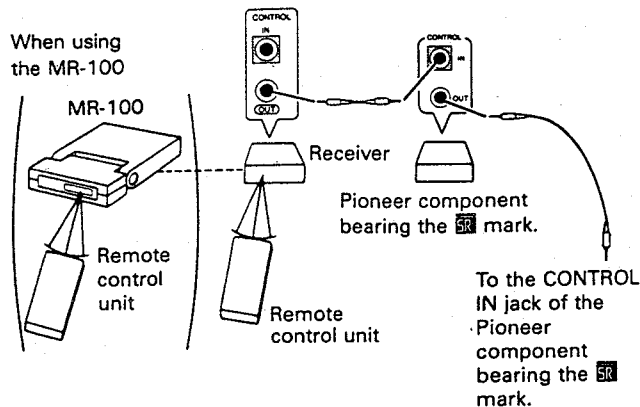
⑬ CONTROL IN/OUT jacks

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 k Ω
CD, VCR/TAPE 1, TAPE 2, LD	200 mV/47 k Ω
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 k Ω
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 $\rightarrow$ MONITOR	5 Hz to 10 MHz ± 0 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, benzene, 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 μ V/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 μ V/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.