

Service Manual

ORDER NO.
RRZ1340

AUDIO/VIDEO STEREO RECEIVER

VSX-59

VSX-49

CIRCUIT DIAGRAMS &
PATTERN LAYOUTS
WITH MICROFICHE

(MICROFICHE PORTION LOCATED INSIDE BACK COVER)

PCB PARTS LIST

Mark	No.	Description	Parts No.
SP ASSY			
OTHERS			
	CN1701	8P SOCKET SPEAKER TERMINAL 8-P (for VSX-59) SPEAKER TERMINAL 8-P (for VSX-49)	52418-0810 AKE7008 AKE1011
PHOTO DIODE ASSY			
SEMICONDUCTORS			
	IC2602		PD410PI
	IC2601		PFC502
	IC2603		SBX8025-H
	Q2602		2SC2712
	Q2601		2SK302
COILS AND FILTERS			
	L2601		LAU221K
CAPACITORS			
	C2602		CCSQCH181J50
	C2604		CCSQCH820J50
	C2607		CEAL470M6R3
	C2605		CKSQYB103K50
	C2603		CKSQYB473K50
	C2601, C2606		CKSQYF104Z25
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	LED HOLDER (PLS)		AMR7040
RF AMP ASSY			
SEMICONDUCTORS			
	IC2501		CXA1600P
	IC2502, IC2504		TC7SU04F
	D2501-D2503		1SS352
COILS AND FILTERS			
	L2501, L2502		LAU221K
CAPACITORS			
	TC2501		ACM7001
	C2520		CCSQCH150J50
	C2514		CCSQCH681J50
	C2501		CEAL100M6R3
	C2508		CEAL101M6R3
	C2503		CEAL2R2M35
	C2504		CEALR10M50
	C2507		CKSQYB103K50
	C2513		CKSQYB104K25
	C2502, C2506		CKSQYB473K50
RESISTORS			
	All Resistors		RS1/10S□□□J
OTHERS			
	X2501	CERAMIC RESONATOR (2.26MHz)	ASS7005
FRONT AV ASSY			
CAPACITORS			
	C991, C992		CKCYX473M25

Mark	No.	Description	Parts No.
RESISTORS			
	All Resistors		RD1/8PM□□□J
OTHERS			
	CN992	PIN JACK (1P) PLUG 5-P	AKB7011 KM250MA5
GUI AND UCOM ASSY			
SEMICONDUCTORS			
	IC1103		LH5268AN1TLL
	IC1105		MM1067XD
	IC1106		NJM78L05A
	IC1102		PD5320A
	IC1104		PD6157B
	IC1101		TC74HC123AF
	Q1110		2SA1515
	Q1108, Q1109		2SA933S
	Q1101, Q1102, Q1104, Q1107, Q1111		2SC1740S
	Q1106		XDC124ES
	Q1103, Q1105		XDC143ES
	D1101, D1103-D1118		1SS252
	D1102		MTZJ2.7
COILS AND FILTERS			
	L1101, L1102		LAU220J
CAPACITORS			
	C1126		ACH7013
	TC1101		ACM-023
	C1123, C1124		CCCCH150J50
	C1111		CCCCH221J50
	C1125		CCCCH330J50
	C1106, C1108		CEAS010M50
	C1103		CEAS100M50
	C1114, C1118, C1130		CEAS101M10
	C1115, C1116, C1120, C1127		CEAS470M25
	C1113		CEASR47M50
	C1101, C1112		CKCYB102K50
	C1131		CKCYB331K50
	C1109		CKCYB332K50
	C1110		CKCYB471K50
	C1107		CKCYB561K50
	C1104, C1117, C1119, C1121, C1122		CKCYF103Z50
	C1105, C1128, C1129		CKCYF473Z50
	C1132		CKPUYB101K50
RESISTORS			
	R1118		RD1/4PM680J
	Other Resistors		RD1/8PM□□□J
OTHERS			
	CN1184	9P SOCKET	52418-0910
	CN1101	JACK JACK JACK	AKN-209 AKN7002 AKN7003
	X1102	CERAMIC RESONATOR (4.00MHz)	ASS1025
	X1103	CRYSTAL RESONATOR (14.31818MHz)	ASS1056
	X1101	CERAMIC RESONATOR (503kHz) JACK	ASS1112
	CN1196	CONNECTOR (3P)	BKN1005
	CN1194, CN1195	CONNECTOR (8P)	KPE3 KPE8

A

B

C

D

2. SCHEMATIC AND PCB DIAGRAMS

2.1 OVERALL SCHEMATIC DIAGRAM

Parts No.

RD1/8PM□□□J

AKB7011
KM250MA5

LH5268AN1TLL
MM1067XD
NJM78L05A
PD5320A
PD6157B

TC74HC123AF
2SA1515
2SA933S
2SC1740S
XDC124ES

XDC143ES
ISS252
MTZJ2.7

LAU220J

ACH7013
ACM-023
CCCCH150J50
CCCCH221J50
CCCCH330J50

CEAS010M50
CEAS100M50
CEAS101M10
CEAS470M25
CEASR47M50

CKCYB102K50
CKCYB331K50
CKCYB332K50
CKCYB471K50
CKCYB561K50

CKCYF103Z50
CKCYF473Z50
CKPUYB101K50

RD1/4PM680J
RD1/8PM□□□J

52418-0910
AKN-209
AKN7002
AKN7003
ASS1025

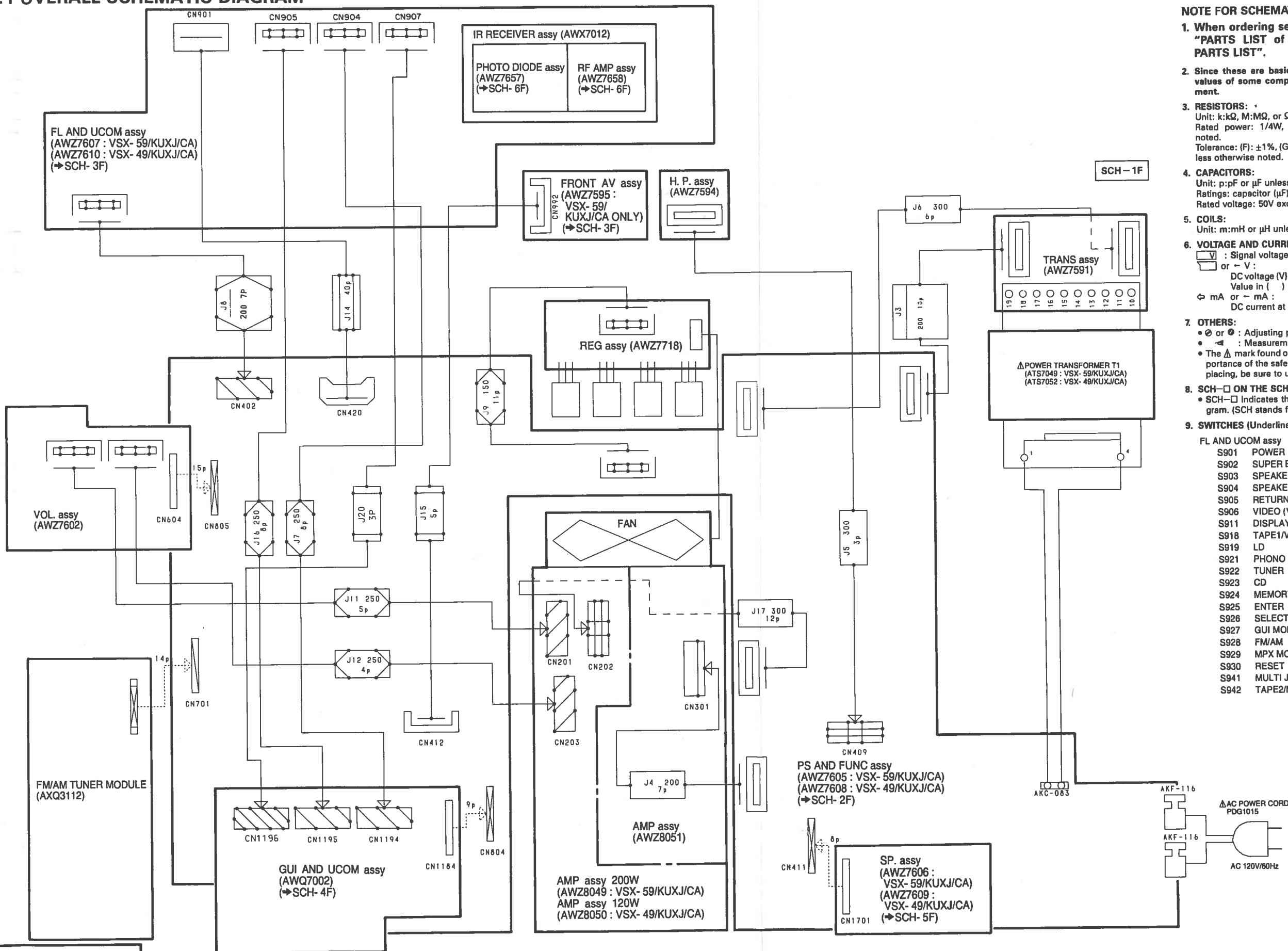
ASS1056

ASS1112

BKN1005
KPE3
KPE8

SCH-1F

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

7. OTHERS:
• \odot or \ominus : Adjusting point.
• \triangle : 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.)

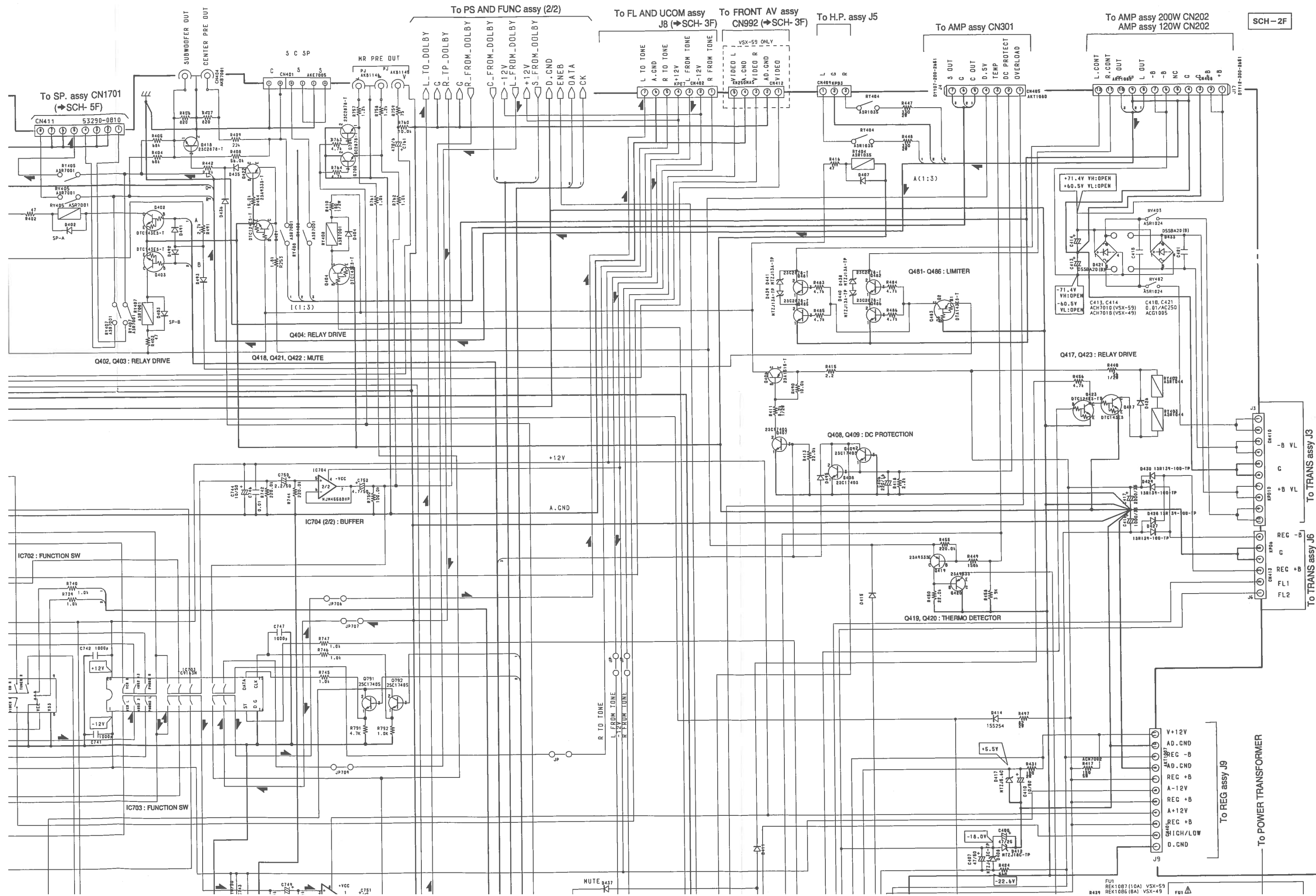
9. SWITCHES (Underline indicates switch position):

FL AND UCOM assy	
S901	POWER
S902	SUPER BASS
S903	SPEAKER A
S904	SPEAKER B
S905	RETURN
S906	VIDEO (VSX- 59 ONLY)
S911	DISPLAY OFF
S918	TAPE1/VCR
S919	LD
S921	PHONO
S922	TUNER
S923	CD
S924	MEMORY
S925	ENTER
S926	SELECT
S927	GUI MODE
S928	FM/AM
S929	MPX MODE
S930	RESET
S941	MULTI JOG
S942	TAPE2/MONITOR

OVERALL SCHEMATIC DIAGRAM

SCH-1F

11



SCH-2F

PS AND FUNC ASSY (1/2)

12P AN57004 (VSK-4B)
GP AN57005 (VSK-4B)
GP AN57006 (VSK-5B)

ANB7003

VCR/TAPE1

REC

P2

CD

P2

LD

CH702

P2

TAPE2

REC

P2

PLAY

P2

PHONO

P2

PHONO

P2

TAPE2

REC

P2

PLAY

P2

VCR/TAPE1

P2

REC

P2

LD

P2

CH703

SIGNAL ROUTE

-  : AUDIO SIGNAL ROUTE
 : TUNER SIGNAL ROUTE
 : VIDEO SIGNAL ROUTE

To FM/AM TUNER MODULE
CN6201

To VOL. assy CN604

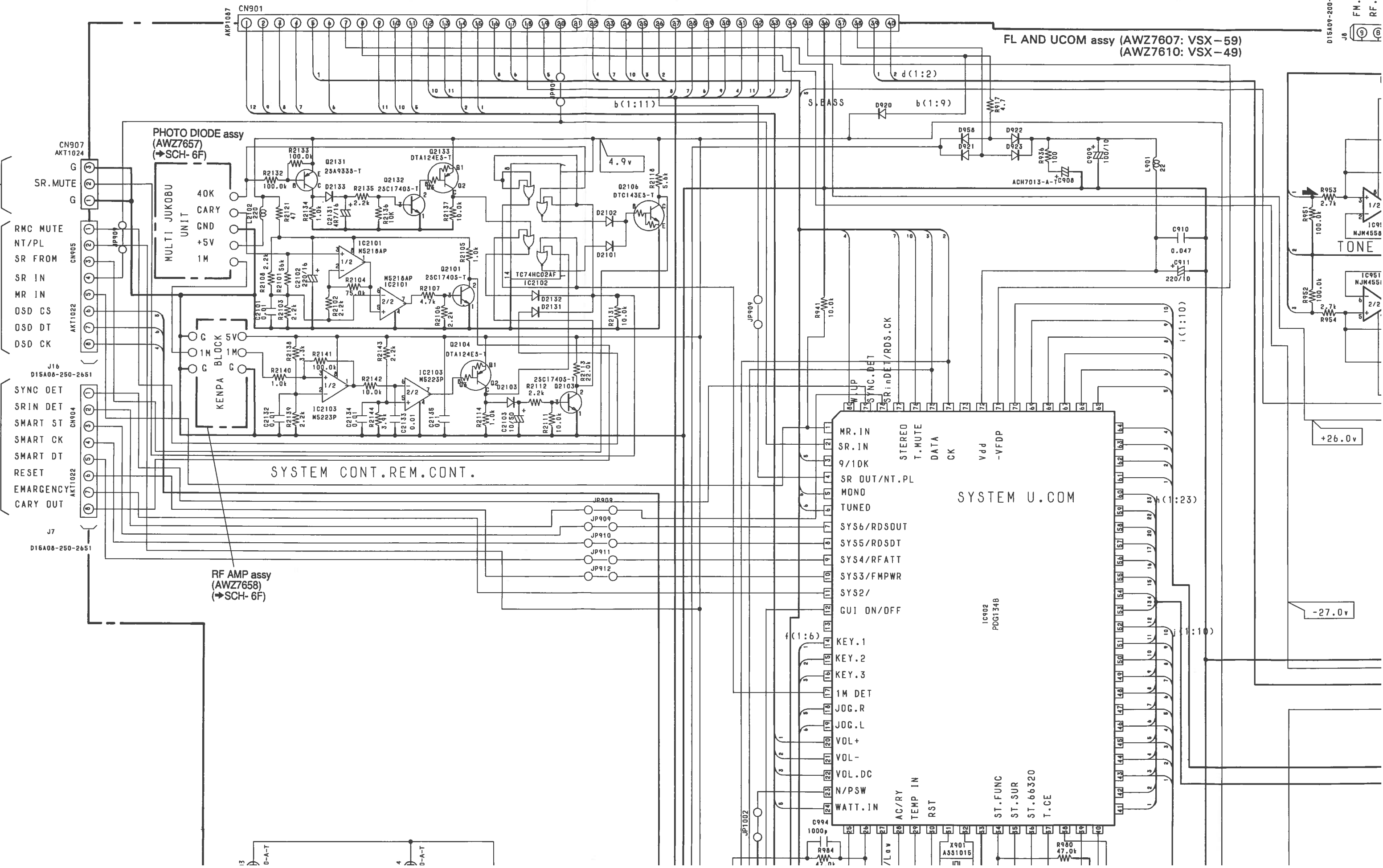
To FL AND UCOM assy CN901 (→SCH-3F)

Q408, Q409 : DC PROTECTION

Q411

P408





To GUI AND UCOM assy
CN1194 (→SCH-4F)

J16
D15A08-250-2651

SYNC DET
SRIN DET
SMART ST
SMART CK
SMART DT
RESET
EMERGENCY
CARY OUT

CN904
AKT1022

J7
D15A08-250-2651

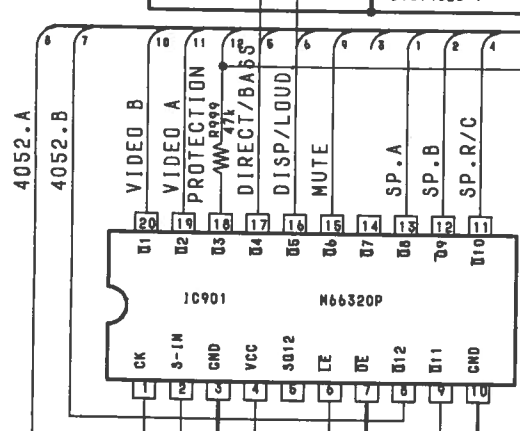
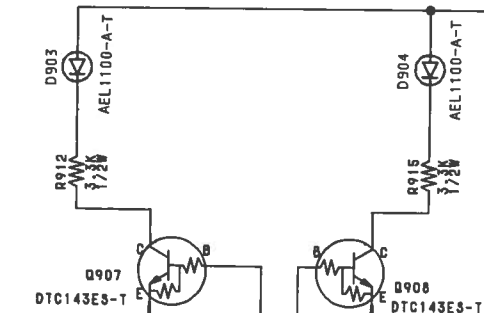
RF AMP assy
(AWZ7658)
(→SCH-6F)

SYSTEM CONT.REM.CONT.

SYSTEM U.COM

+26.0v

-27.0v



f(1:6)

JP1002

IC902
PDG134B

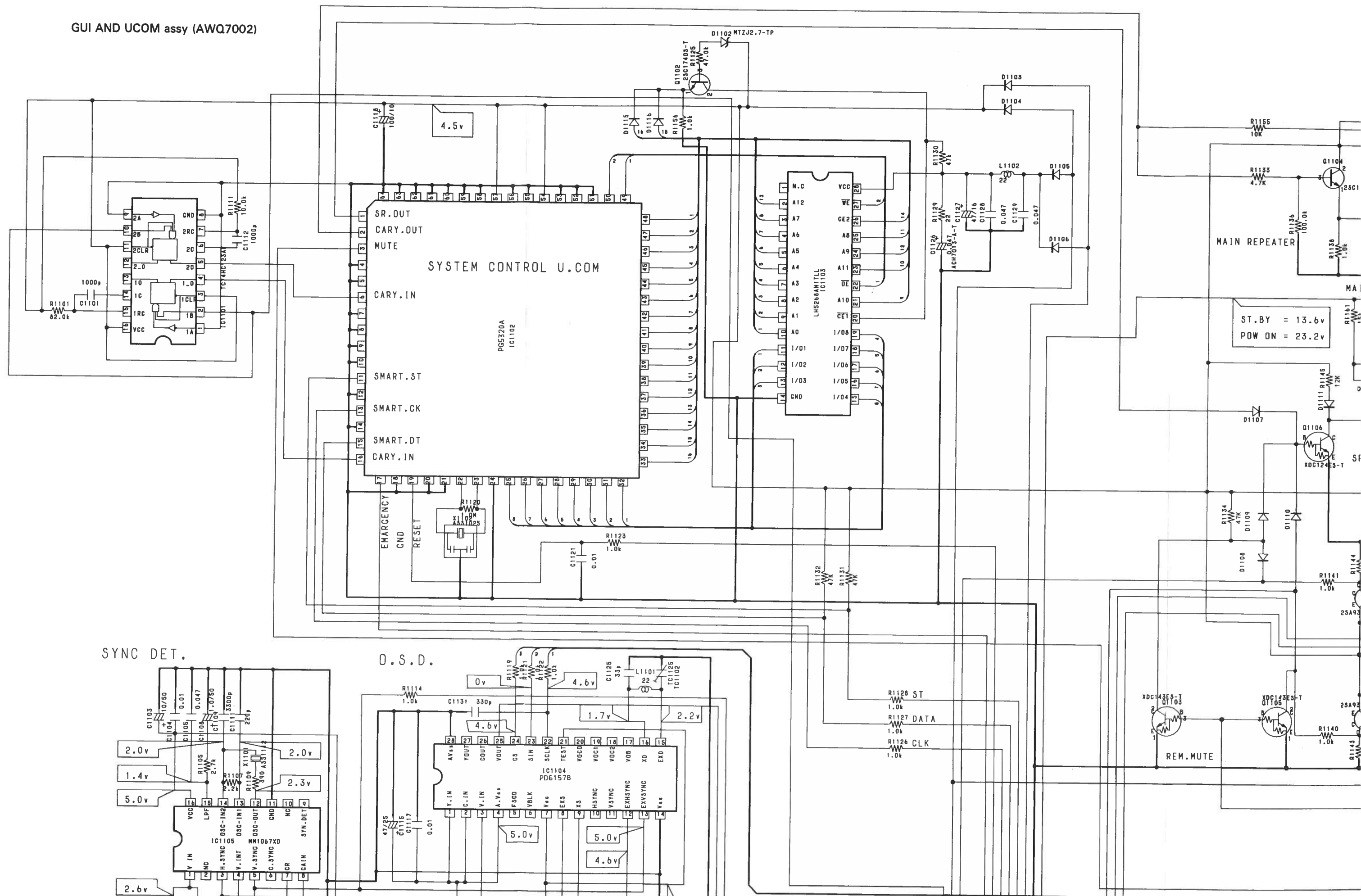
Q909 : RESET

SIGNAL ROUTE
▲ : AUDIO SIGNAL ROUTE

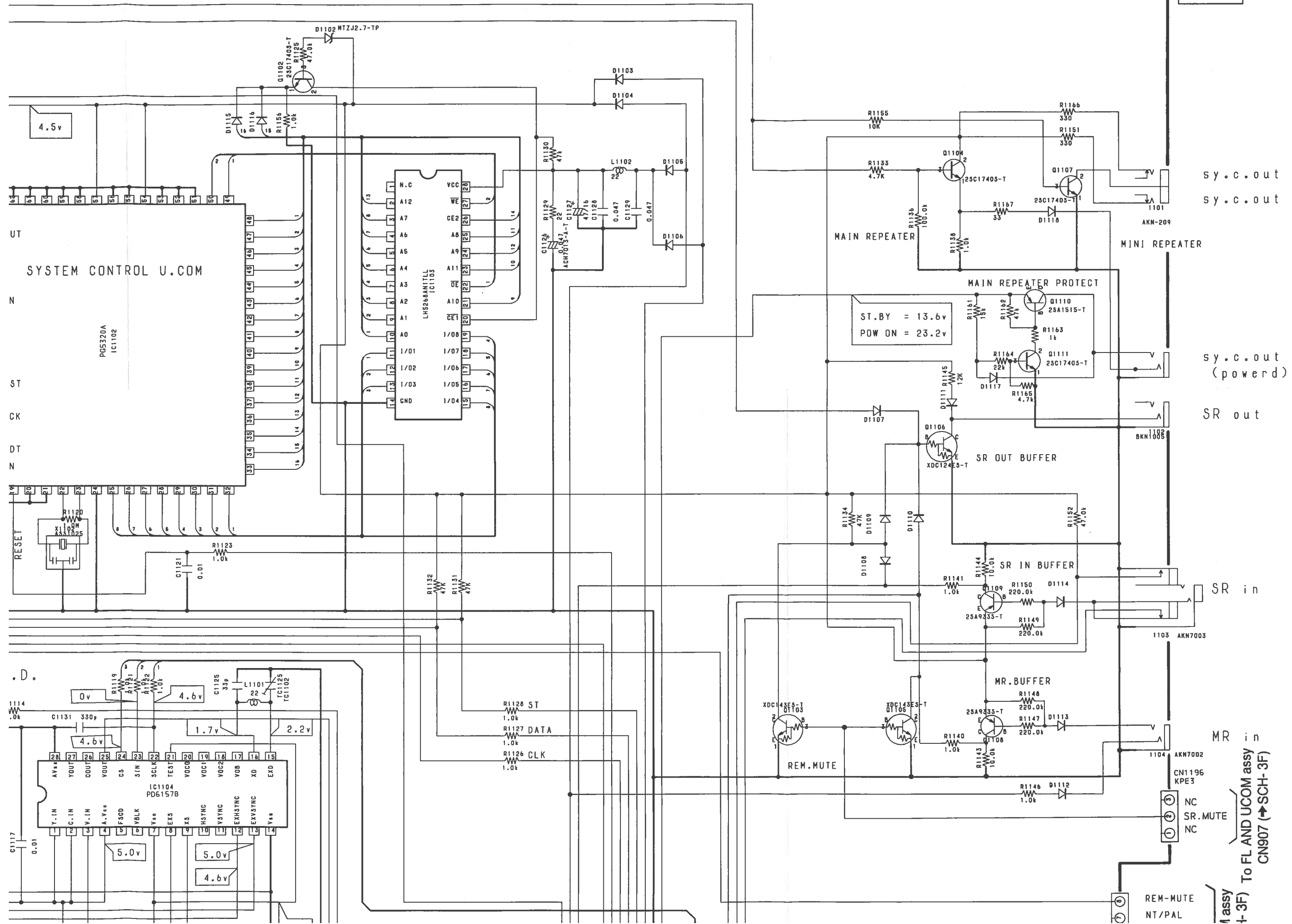
SCH-3F

FL AND UCOM ASSY,
FRONT AV ASSY

GUI AND UCOM assy (AWQ7002)

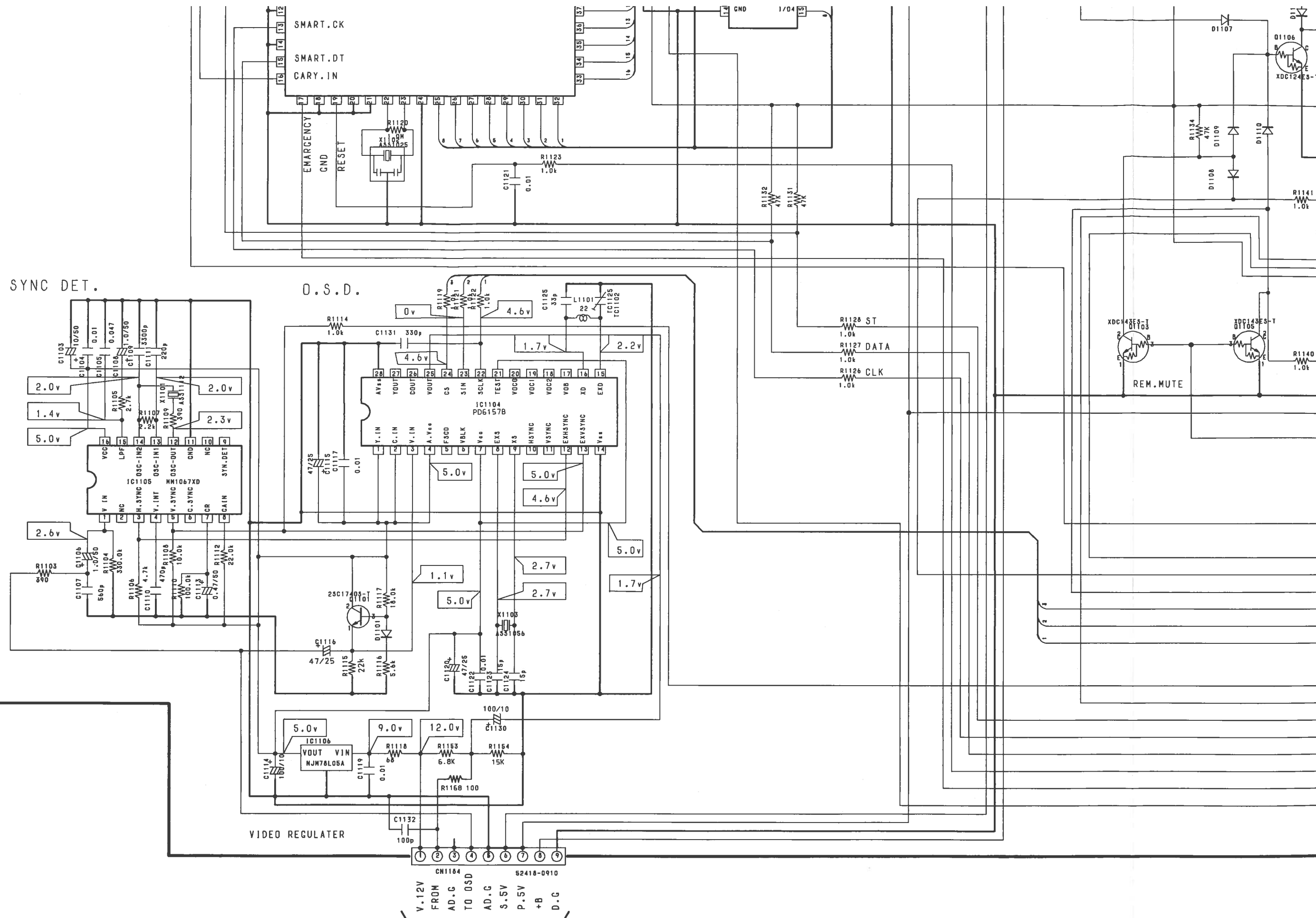


SCH-4F



To FL AND UCOM assy
CN907 (SCH-3F)

1 assy
+ 3F)





3

4

5

6

7

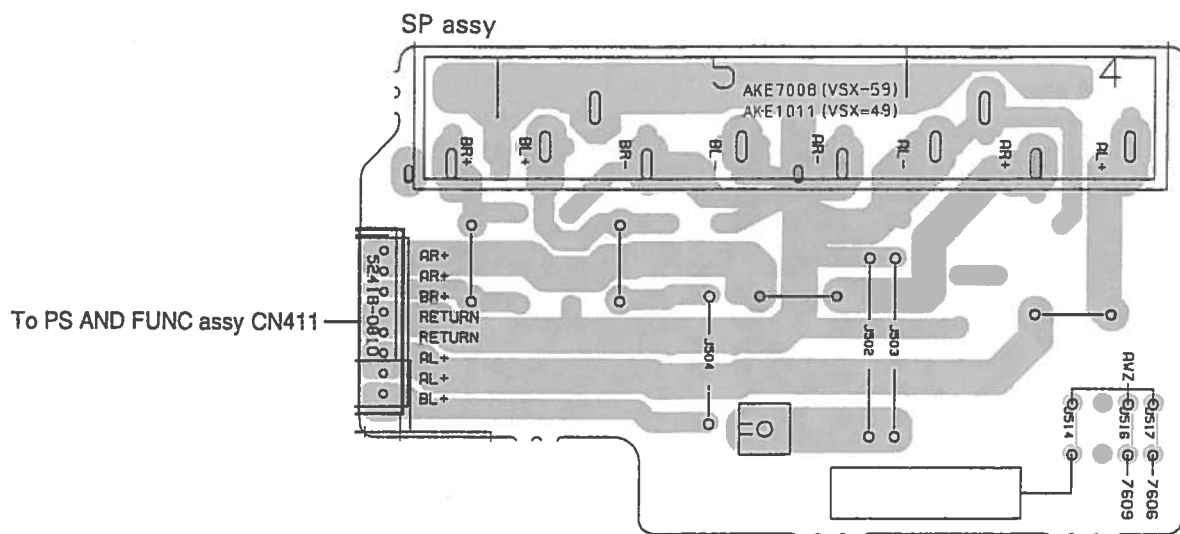
8

9

2.5 SP ASSY

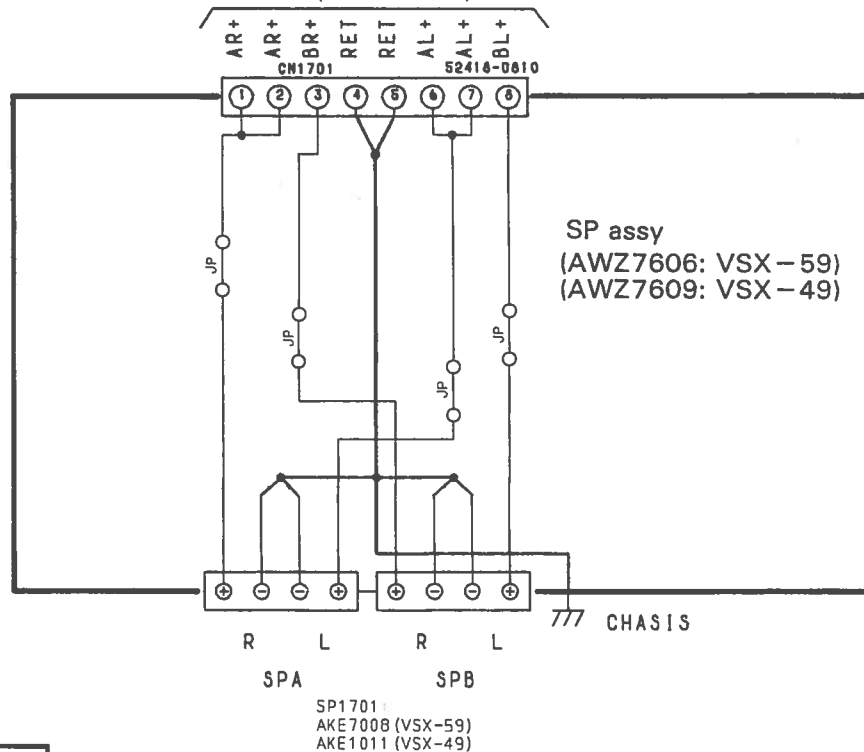
PCB-4F

- This diagram is viewed from the mounted parts side.



SCH-5F

To PS AND FUNC Assy (1/2)
CN411 (→ SCH- 2F)



SCH-5F

SP ASSY

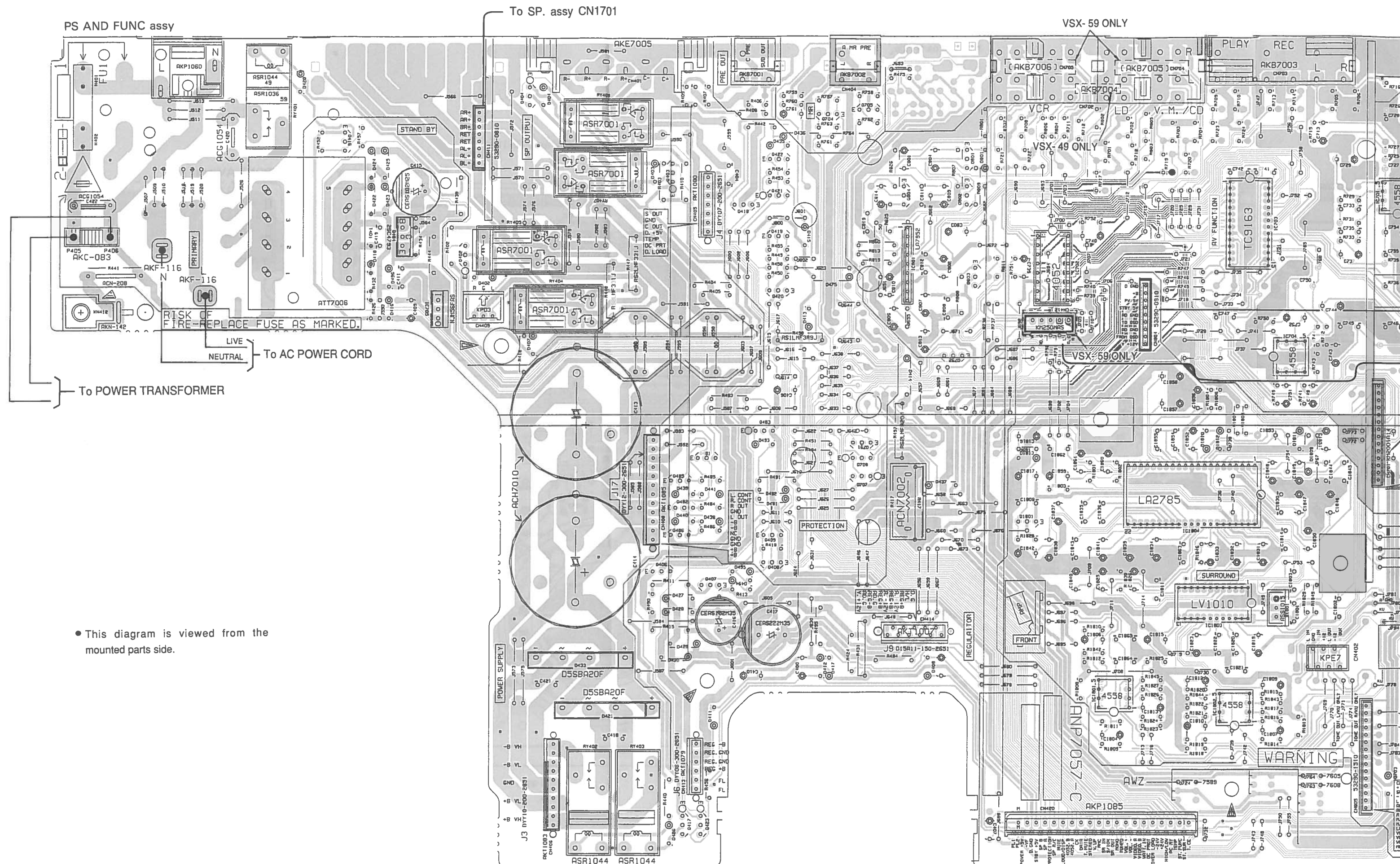
A

Q1102 IC1102

A

D

D



To SP. assy CN1701

VSX-59 ONLY

VSX-49 ONLY

VSX-59 ONLY

ANP7057-C

AKP1085

Q404

Q416

Q422 Q801

Q403

Q421 Q802 IC701

Q418 Q802 IC703

Q484 Q419 IC703

Q402 IC801

IC702

Q803

Q420

IC705

To GUI AND UCOM assy CN1184

IC704

To FRONT AV assy CN992

Q483

Q481 Q708

Q485 Q707

Q482 IC804

Q486 Q1801

Q406

Q409

IC803

IC801

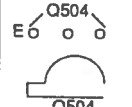

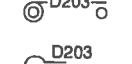
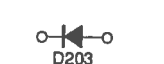

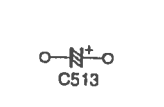
IC802

Q417

Q423

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.

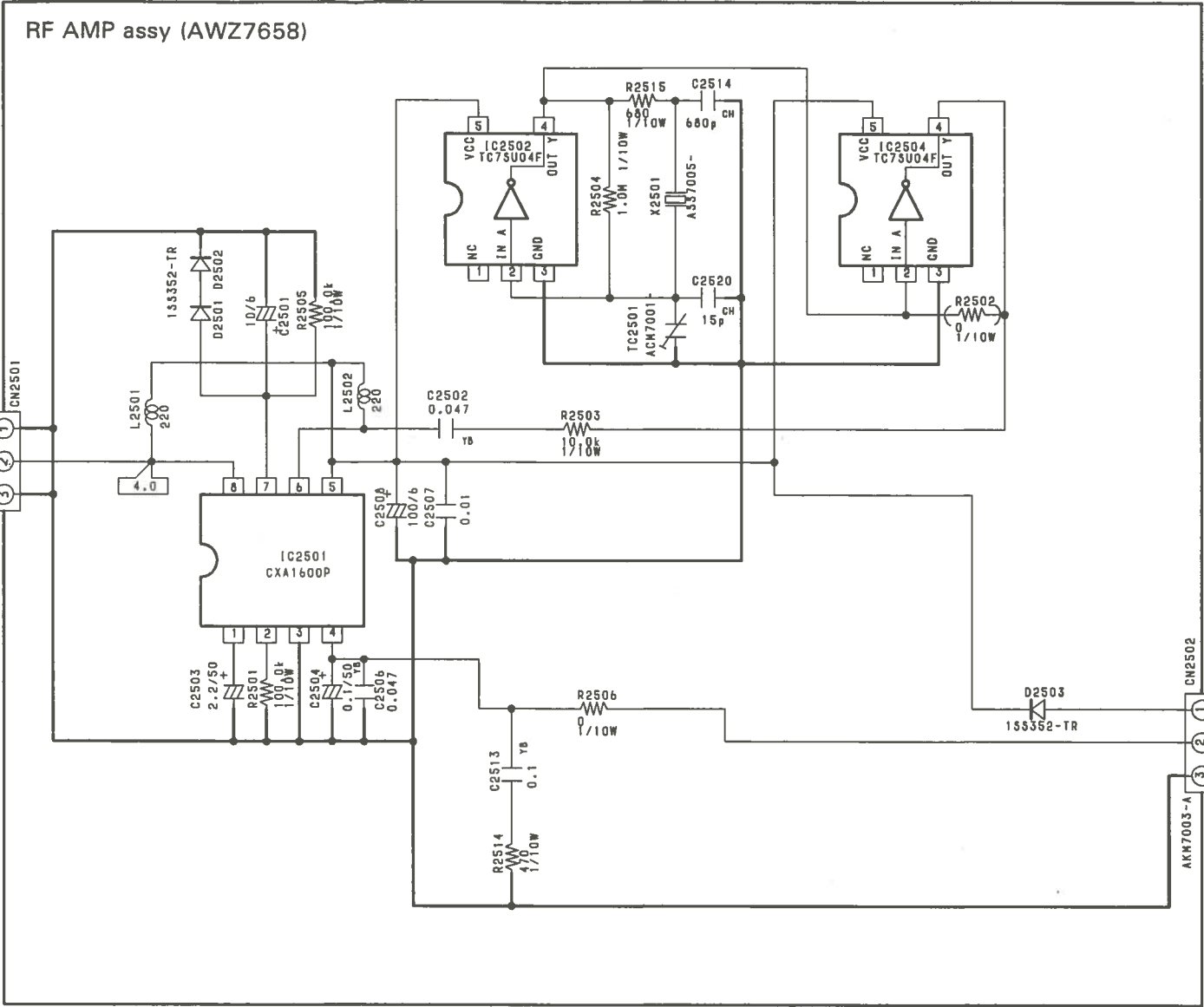
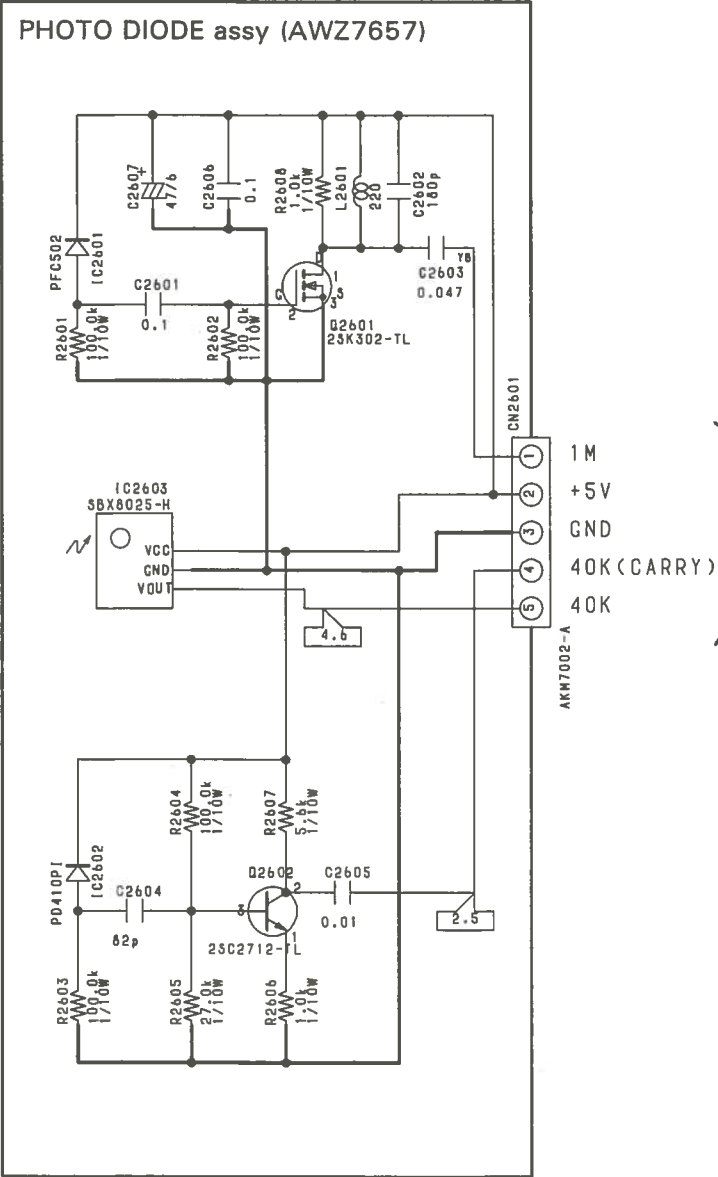
Symbol in PCB Diagrams	Symbol in Schematic Diagrams	Part Name
		Transistor
		Diode
		Capacitor (Polarized)

3. The transistor terminal marked with E or C shows the emitter.
4. The diode terminal marked with C or C shows cathode side.
5. The capacitor terminal marked with C or C shows negative terminal.

A

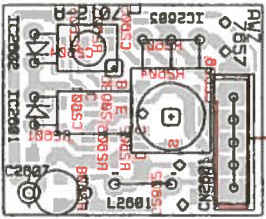


SCH-6F



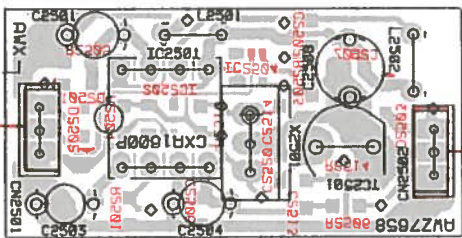
• This diagram is viewed from the mounted parts side.

IC2601 IC2602 Q2602 IC2603
PHOTO DIODE assy



To FL AND UCOM assy

IC2502 IC2501 IC2504
RF AMP assy



To FL AND UCOM assy

SCH-6F

PHOTO DIODE ASSY, RF AMP ASSY

SCH-6F

PHOTO DIODE ASSY, RF AMP ASSY

3. BLOCK DIAGRAM

